AP-54

Plains
Hobbs Junction Mainline

Quarterly Report
1/31/14

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ENVIRONMENTAL CONSULTING
ENGINEERING
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CONSTRUCTION
SPILL MANAGEMENT
GENERAL CONTRACTING

January 31, 2014

Mr. Jim Griswold
New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: Plains Pipeline, L.P. Hobbs Junction Mainline (Plains SRS#2003-00017)
Fourth Quarter 2013 Summary
NMOCD Reference # AP-054
UL-M (SW¼ of the SW¼) of Section 26, T18S, R37E
Latitude: 32º 42' 40.85"N and Longitude: 103º 13' 42.01"W
Landowners: State of New Mexico and Ms. Faye Klein
Lea County, New Mexico

Dear Mr. Griswold:

Talon/LPE (Talon) is submitting this letter report on behalf of Plains Pipeline, L.P. (Plains), which summarizes the site activities that occurred during the fourth quarter of 2013.

Remediation Activities

During the fourth quarter of 2013, one (1) specific gravity skimmer with bladder pump was operating in monitoring well MW-16. In addition, sixteen (16) total fluids pumps were operating in monitoring wells MW-1 through MW-6, MW-10, MW-11, MW-12, MW-14, MW-15, MW-17, MW-20 and MW-25 through MW-27. The skimmer and total fluids pumps are utilized to recover phase separated hydrocarbons (PSH) and to inhibit the migration of the PSH and dissolved-phase plumes. The PSH recovery system is inspected and maintained a minimum of biweekly to optimize recovery rates.

During the fourth quarter, approximately 4718 barrels of water was recovered by the system and were transferred by pump to Occidental Petroleum's North Hobbs Satellite facility for disposal. In addition, approximately 11.4 barrels of crude oil were recovered by the system during the quarter and approximately 19 barrels of crude oil was removed from the recovery tank via onsite transfer system to Occidental Petroleum's Hobbs Satellite facility. There was approximately 18.5 barrels of crude oil contained in the recovery tank at the end of the quarter.

Quarterly Sampling Event

On December 2, 2013, the fourth quarter groundwater sampling event was conducted at the site. Prior to sample collection, the depths to static water levels and to PSH, if present, were measured in all monitor wells using an interface probe. Following a sufficient purge, groundwater samples from five (5) monitor wells (MW-18, MW-21, MW-22, MW-23, and MW-24) were collected and submitted to the laboratory for quantification of

benzene, toluene, ethylbenzene, and xylene (BTEX) using EPA SW-846 Method 8021B.

Groundwater samples were not collected from nineteen (19) monitor wells that were impacted with PSH (MW-1 through MW-6, MW-8, MW-10, MW-11, MW-12, MW-14, MW-15, MW-16, MW-17, MW-19, MW-20, MW-25, MW-26, and MW-27). Three (3) monitor wells are scheduled to be sampled bi-annually due to up gradient location and continued non-detect lab results (MW-7, MW-9, and MW-13). These wells were not scheduled to be sampled in the fourth quarter.

Groundwater Monitoring Event Results

Data collected from the December groundwater monitoring event exhibited the following results:

- Benzene concentrations ranged from <0.00100 mg/L to 22.0 mg/L. Benzene concentrations exceeded the New Mexico Water Quality Control Commission (NMWQCC) remediation threshold of 0.010 mg/L in groundwater samples collected from monitor wells MW-21 and MW-22.
- Toluene concentrations ranged from <0.00100 mg/L to <0.100 mg/L. Toluene concentrations did not exceed the New Mexico Water Quality Control Commission (NMWQCC) remediation threshold of 0.750 mg/L in any of the groundwater samples collected.
- Ethylbenzene concentrations ranged from <0.00100 mg/L to 1.10 mg/L. The ethylbenzene concentration exceeded the NMWQCC remediation threshold of 0.750 mg/L in the groundwater sample collected from monitor well MW-21.
- Total Xylene concentrations ranged from <0.00100 mg/L to <0.100 mg/L. The total Xylene concentration did not exceed the NMWQCC remediation threshold of 0.620 mg/L in any of the groundwater samples collected.
- Compared to the third quarter of 2013 analytical results, dissolved-phase concentrations remained stable.
- Compared to the third quarter 2013, groundwater gauging data indicated a increase in groundwater levels by an average of 0.04 feet. The groundwater flow direction is to the east-southeast at a gradient of 0.0064 foot per foot and the average depth to groundwater at the site is approximately 40 feet.
- PSH thicknesses have typically fluctuated from quarter to quarter but have declined overall since PSH recovery operations were initiated. Currently, PSH thicknesses range from 0.13 foot to 6.13 feet.
- Based on the data collected during the fourth quarter 2013 groundwater monitoring event, both the PSH and dissolved-phase plumes are not delineated to the north of MW-8. The dissolved phase plume is not delineated to the south of MW-19. See recommendations.

Groundwater elevations and PSH thicknesses are summarized in Table 1, Appendix B, and groundwater analytical results are summarized in Table 2, Appendix B. The fourth quarter laboratory analytical report and chain of custody documentation are provided in Appendix C. The fourth quarter site map, gradient and PSH thickness and groundwater dissolved-phase concentration map are located in Appendix A.

Recommendations

- The recovery system is currently performing its tasks of recovering PSH and impeding movement of the dissolved-phase plume. Talon LPE recommends delineation wells be drilled north of MW-8, to the southeast of MW-19, and to the south of MW-23. A site map with these locations is also located in Appendix A. Plans for these changes are currently underway.

If you have any questions or require further information, please contact me at (940) 329-0691 or Mr. Jeffrey Dann at (713) 646-4657.

Sincerely,

Brad Ivy

Project Manager

Cc: Mr. Jeffrey P. Dann, Plains Pipeline, L.P.

Appendices:

Appendix A

Figures

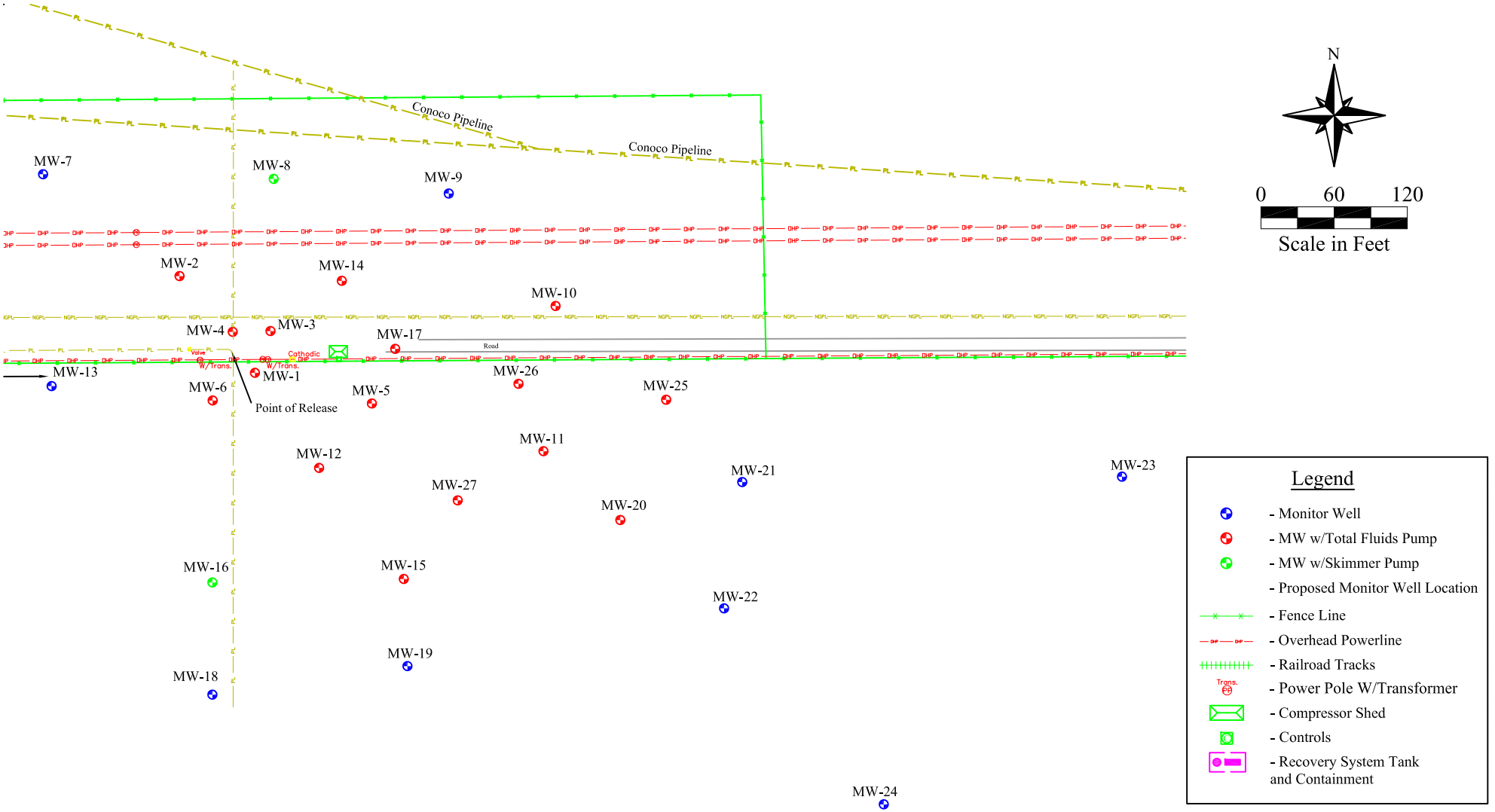
Figure 1 - Site Layout and Monitor Well Location Map

Figure 2 - Groundwater Gradient Map – 12/2/2013

Figure 3 - Groundwater Concentration and PSH Plume Map – 12/2/2013

Figure 4 – Groundwater Concentration and PSH Plume Map – 09/30/2013

With Proposed Monitor Wells



Project # 700376.052.01

TALON LPE

Date: 08/16/2011

Scale: 1" = 120'

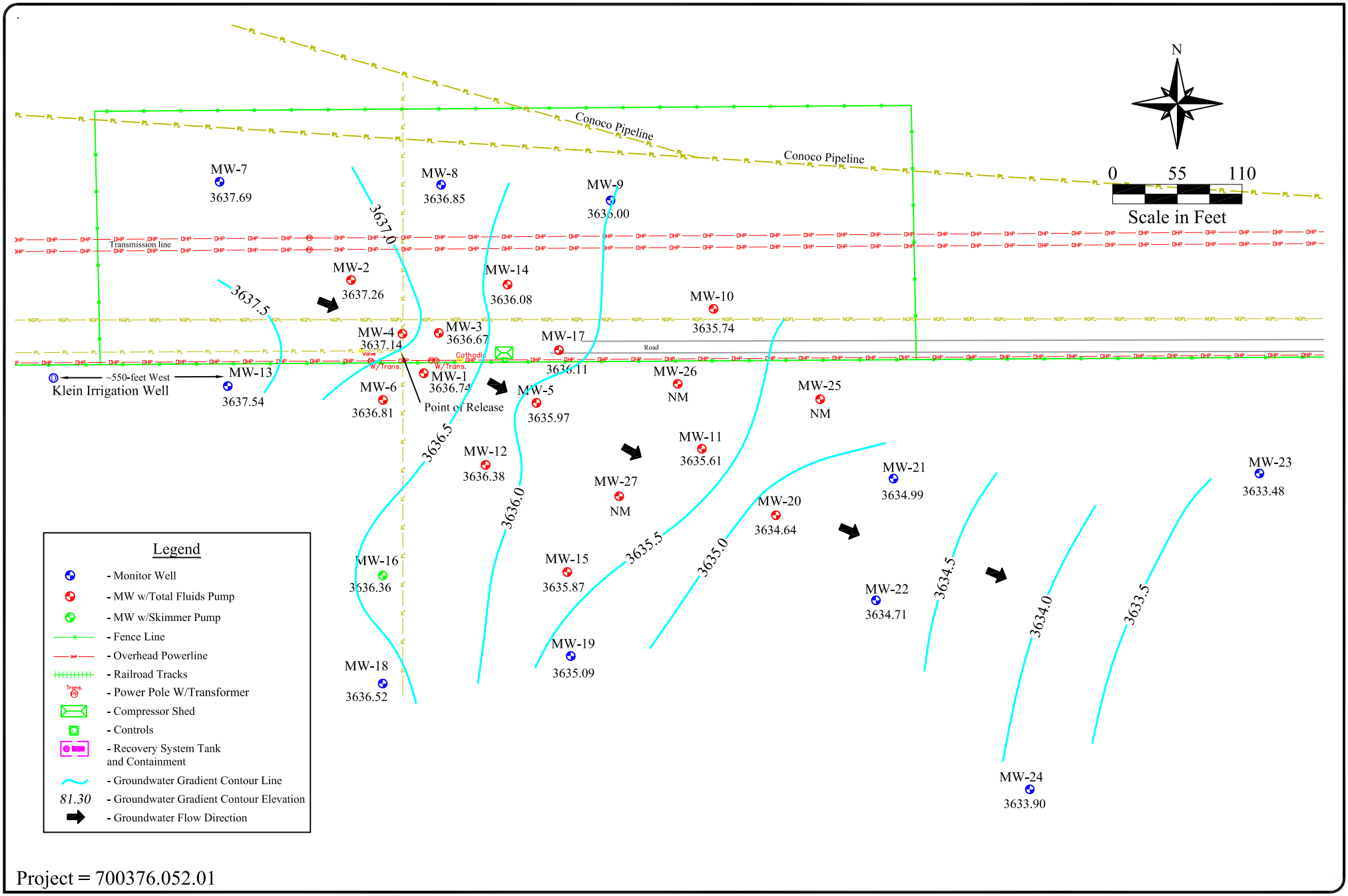
Drawn By: TJS

Hobbs Junction Mainline

SRS # 2003-00017, NMOCD REF. # AP-054

SW 1/4, SW 1/4, of Sec. 26, T18S, R37E, Lea County, New Mexico

Figure 1 - Site Map, (12/14/2011)



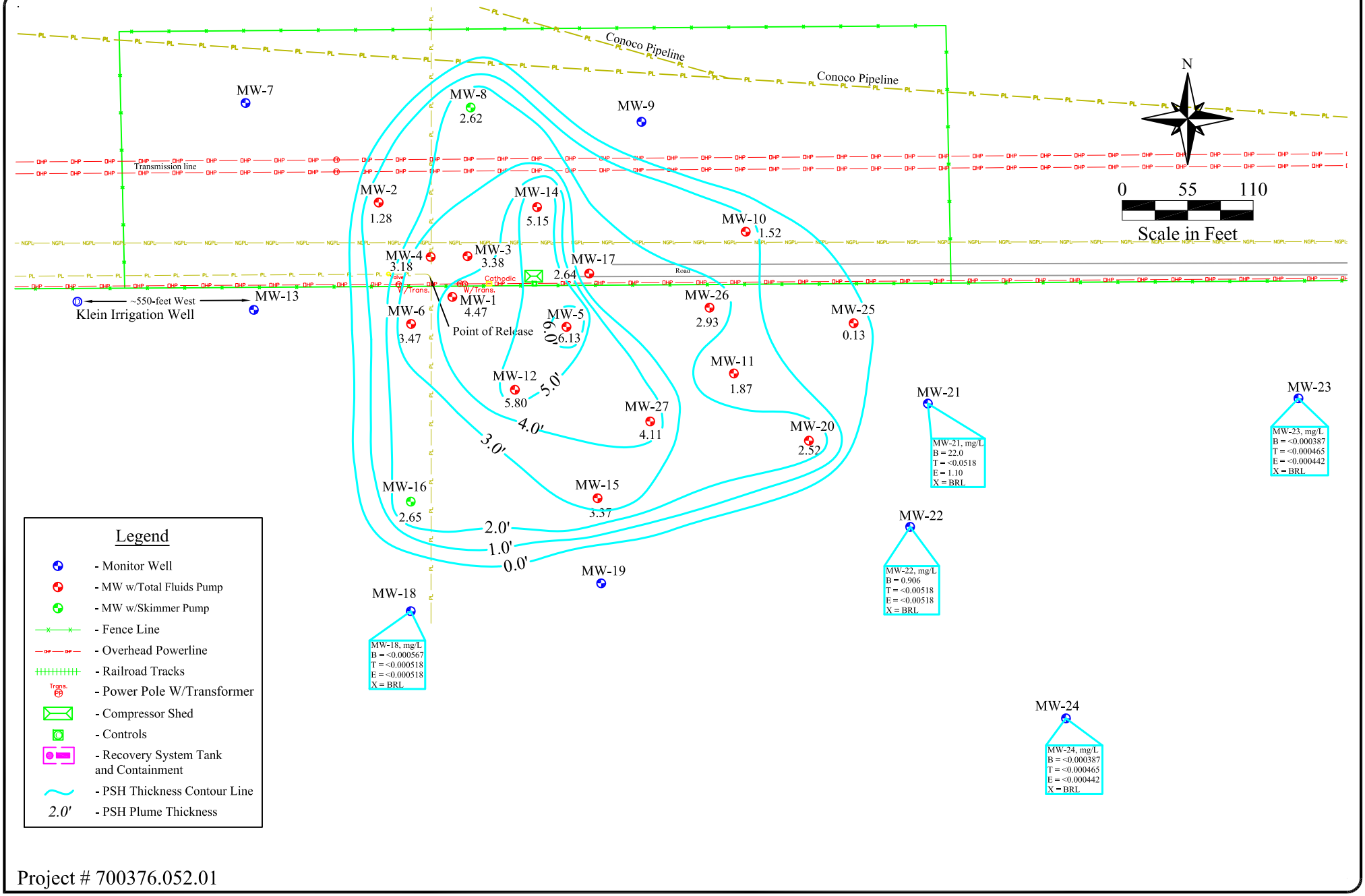
Project = 700376.052.01

TALON LPE

Date: 01/15/2014
Scale: 1" = 110'
Drawn By: TJS

Hobbs Junction Mainline

SRS # 2003-00017, NMOCD REF. # AP-054
SW 1/4, SW 1/4, of Sec. 26, T18S, R37E, Lea County, New Mexico
Figure 2d - Groundwater Gradient Map - (12/02/2013)



Project # 700376.052.01

TALON LPE

Date: 01/15/2014

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Hobbs Junction Mainline

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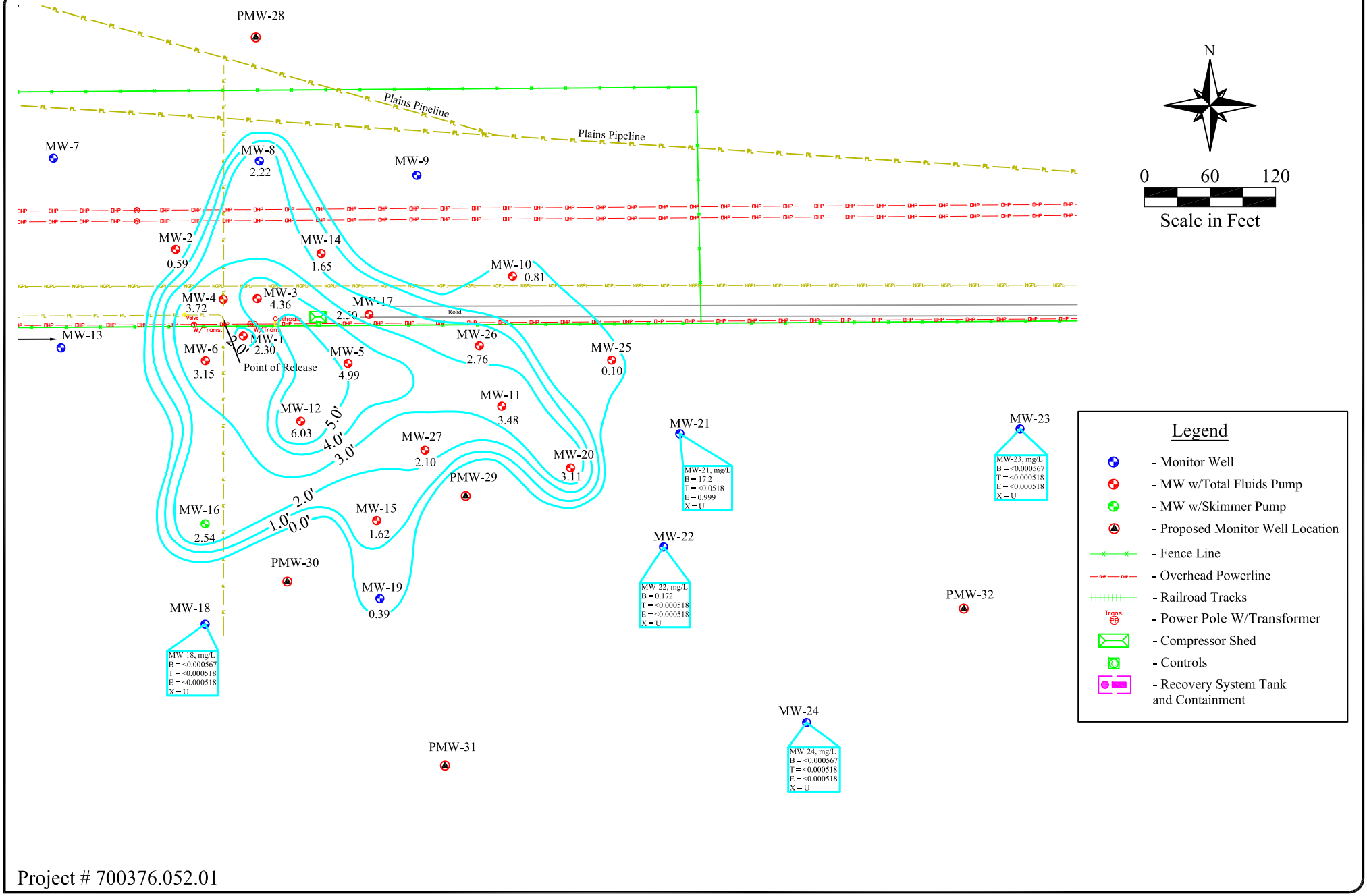
SW 1/4, SW 1/4, of Sec. 26, T18S, R37E, Lea County, New Mexico

Figure 3d - PSH Thickness & Groundwater Concentration Map - (12/02/2013)



Project # 700376.052.01

TALON LPE

Date:	08/16/2011
Scale:	1" = 120'
Drawn By:	TJS

Hobbs Junction Mainline

SRS # 2003-00017, NMOCD REF. # AP-054

SW 1/4, SW 1/4, of Sec. 26, T18S, R37E, Lea County, New Mexico

Site Map With Proposed Monitor Wells (12-6-2013)

Appendix B

Tables

Table 1 - Summary of Historical Fluid Level Measurements

Table 2 - Summary of BTEX Groundwater Analytical Data

Summary of Historical Fluid Level Measurements
Hobbs Junction Main Line
SRS #: 2003-0017

Well	Date	Top of Casing Elevation (ft)	Depth to Groundwater (ft)	Depth to PSH (ft)	PSH Thickness (ft)	Corrected Groundwater Elevation (ft)
MW-1			Diameter: 4 in.	Screened Interval: 39 ft. to 54 ft.		TD: 54.2 ft.
	06/27/12	3678.50	45.23	40.64	4.59	3637.10
	09/18/12	3678.50	44.50	40.92	3.58	3636.99
	12/18/12	3678.50	43.02	41.50	1.52	3636.75
	03/15/13	3678.50	42.42	41.44	0.98	3636.90
	06/07/13	3678.50	43.59	41.13	2.46	3636.96
	09/30/13	3678.50	43.56	41.26	2.30	3636.86
	12/02/13	3678.50	45.49	41.02	4.47	3636.74
MW-2			Diameter: 4 in.	Screened Interval: 38 ft. to 53 ft.		TD: 53.4 ft.
	06/27/12	3679.47	43.30	41.76	1.54	3637.46
	09/18/12	3679.47	43.41	41.86	1.55	3637.35
	12/18/12	3679.47	43.90	41.93	1.97	3637.21
	03/15/13	3679.47	42.52	42.07	0.45	3637.33
	06/07/13	3679.47	42.98	42.31	0.67	3637.05
	09/30/13	3679.47	43.00	42.41	0.59	3636.96
	12/02/13	3679.47	43.28	42.00	1.28	3637.26
MW-3			Diameter: 4 in.	Screened Interval: 39 ft. to 54 ft.		TD: 54.7 ft.
	06/27/12	3679.81	46.55	41.94	4.61	3637.11
	09/18/12	3679.81	46.72	42.05	4.67	3636.99
	12/18/12	3679.81	45.96	42.40	3.56	3636.82
	03/15/13	3679.81	43.71	42.78	0.93	3636.88
	06/07/13	3679.81	46.24	42.43	3.81	3636.75
	09/30/13	3679.81	46.82	42.46	4.36	3636.63
	12/02/13	3679.81	45.96	42.58	3.38	3636.67
MW-4			Diameter: 4 in.	Screened Interval: 39 ft. to 54 ft.		TD: 54.6 ft.
	06/27/12	3679.64	45.50	41.80	3.70	3637.23
	09/18/12	3679.64	45.89	41.83	4.06	3637.14
	12/18/12	3679.64	45.54	42.08	3.46	3636.99
	03/15/13	3679.64	44.17	42.24	1.93	3637.08
	06/07/13	3679.64	45.76	41.91	3.85	3637.09
	09/30/13	3679.64	45.79	42.07	3.72	3636.96
	12/02/13	3679.64	45.16	41.98	3.18	3637.14
MW-5			Diameter: 4 in.	Screened Interval: 40 ft. to 55 ft.		TD: 55 ft.
	06/27/12	3679.26	47.13	41.75	5.38	3636.62
	09/18/12	3679.26	46.51	42.00	4.51	3636.52
	12/18/12	3679.26	46.83	42.22	4.61	3636.28
	03/15/13	3679.26	44.65	42.58	2.07	3636.34
	06/07/13	3679.26	47.28	42.07	5.21	3636.33
	09/30/13	3679.26	47.33	42.34	4.99	3636.10
	12/02/13	3679.26	48.41	42.28	6.13	3635.97
MW-6			Diameter: 4 in.	Screened Interval: 40 ft. to 55 ft.		TD: 55 ft.
	06/27/12	3680.63	47.08	42.70	4.38	3637.21
	09/18/12	3680.63	46.57	42.95	3.62	3637.08
	12/18/12	3680.63	44.70	43.65	1.05	3636.81
	03/15/13	3680.63	44.56	43.45	1.11	3637.00
	06/07/13	3680.63	46.29	43.38	2.91	3636.77
	09/30/13	3680.63	46.26	43.11	3.15	3637.00
	12/02/13	3680.63	46.72	43.25	3.47	3636.81
MW-7			Diameter: 2 in.	Screened Interval: 38 ft. to 53 ft.		TD: 53 ft.
	06/27/12	3679.85	41.68	-	-	3638.17
	09/18/12	3679.85	42.00	-	-	3637.85
	12/18/12	3679.85	42.14	-	-	3637.71
	03/15/13	3679.85	41.90	-	-	3637.95
	06/07/13	3679.85	41.99	-	-	3637.86
	09/30/13	3679.85	42.01	-	-	3637.84
	12/02/13	3679.85	42.16	-	-	3637.69

Summary of Historical Fluid Level Measurements
Hobbs Junction Main Line
SRS #: 2003-0017

Well	Date	Top of Casing Elevation (ft)	Depth to Groundwater (ft)	Depth to PSH (ft)	PSH Thickness (ft)	Corrected Groundwater Elevation (ft)
MW-8			Diameter: 2 in.	Screened Interval: 35 ft. to 50 ft.		TD: 50 ft.
	06/27/12	3679.07	43.40	41.68	1.72	3637.11
	09/18/12	3679.07	43.91	41.70	2.21	3637.01
	12/18/12	3679.07	44.02	41.83	2.19	3636.88
	03/15/13	3679.07	44.16	41.62	2.54	3637.03
	06/07/13	3679.07	44.11	41.72	2.39	3636.96
	09/30/13	3679.07	44.14	41.92	2.22	3636.78
	12/02/13	3679.07	44.41	41.79	2.62	3636.85
MW-9			Diameter: 2 in.	Screened Interval: 37 ft. to 52 ft.		TD: 52 ft.
	06/27/12	3678.76	42.33	-	-	3636.43
	09/18/12	3678.76	43.43	-	-	3635.33
	12/18/12	3678.76	42.81	-	-	3635.95
	03/15/13	3678.76	42.51	-	-	3636.25
	06/07/13	3678.76	42.51	-	-	3636.25
	09/30/13	3678.76	42.54	-	-	3636.22
	12/02/13	3678.76	42.76	-	-	3636.00
MW-10			Diameter: 2 in.	Screened Interval: 37 ft. to 52 ft.		TD: 52 ft.
	06/27/12	3678.36	43.00	42.30	0.70	3635.94
	09/18/12	3678.36	44.35	42.19	2.16	3635.81
	12/18/12	3678.36	42.87	42.70	0.17	3635.63
	03/15/13	3678.36	42.74	42.62	0.12	3635.72
	06/07/13	3678.36	43.32	42.44	0.88	3635.77
	09/30/13	3678.36	43.30	42.49	0.81	3635.74
	12/02/13	3678.36	43.89	42.37	1.52	3635.74
MW-11			Diameter: 4 in.	Screened Interval: 36 ft. to 51 ft.		TD: 51 ft.
	06/27/12	3678.03	44.86	41.70	3.16	3635.81
	09/18/12	3678.03	44.40	41.99	2.41	3635.64
	12/18/12	3678.03	45.34	42.05	3.29	3635.44
	03/15/13	3678.03	43.11	42.40	0.71	3635.51
	06/07/13	3678.03	45.45	41.84	3.61	3635.59
	09/30/13	3678.03	45.49	42.01	3.48	3635.45
	12/02/13	3678.03	43.98	42.11	1.87	3635.61
MW-12			Diameter: 4 in.	Screened Interval: 36 ft. to 51 ft.		TD: 51 ft.
	06/27/12	3679.63	47.60	41.95	5.65	3636.75
	09/18/12	3679.63	46.56	42.36	4.20	3636.58
	12/18/12	3679.63	47.52	42.35	5.17	3636.43
	03/15/13	3679.63	47.20	42.45	4.75	3636.40
	06/07/13	3679.63	48.26	42.21	6.05	3636.42
	09/30/13	3679.63	48.27	42.24	6.03	3636.40
	12/02/13	3679.63	48.09	42.29	5.80	3636.38
MW-13			Diameter: 2 in.	Screened Interval: ft. to ft.		TD: 51.3 ft.
	06/27/12	3681.42	43.68	-	-	3637.74
	09/18/12	3681.42	43.75	-	-	3637.67
	12/18/12	3681.42	43.92	-	-	3637.50
	03/15/13	3681.42	43.40	-	-	3638.02
	06/07/13	3681.42	43.77	-	-	3637.65
	09/30/13	3681.42	43.60	-	-	3637.82
	12/02/13	3681.42	43.88	-	-	3637.54
MW-14			Diameter: 4 in.	Screened Interval: 36 ft. to 51 ft.		TD: 51 ft.
	06/27/12	3679.00	46.65	41.53	5.12	3636.63
	09/18/12	3679.00	46.60	41.69	4.91	3636.50
	12/18/12	3679.00	44.80	42.33	2.47	3636.26
	03/15/13	3679.00	43.18	42.58	0.60	3636.32
	06/07/13	3679.00	44.17	42.45	1.72	3636.27
	09/30/13	3679.00	44.26	42.61	1.65	3636.12
	12/02/13	3679.00	47.22	42.07	5.15	3636.08

Summary of Historical Fluid Level Measurements
Hobbs Junction Main Line
SRS #: 2003-0017

Well	Date	Top of Casing Elevation (ft)	Depth to Groundwater (ft)	Depth to PSH (ft)	PSH Thickness (ft)	Corrected Groundwater Elevation (ft)
MW-15			Diameter: 4 in.	Screened Interval:	34 ft. to 49 ft.	TD: 49.0 ft.
	06/27/12	3674.92	42.20	38.22	3.98	3636.04
	09/18/12	3674.92	41.38	38.49	2.89	3635.95
	12/18/12	3674.92	41.03	38.81	2.22	3635.74
	03/15/13	3674.92	39.88	38.90	0.98	3635.86
	06/07/13	3674.92	40.62	38.70	1.92	3635.90
	09/30/13	3674.92	40.69	39.07	1.62	3635.58
	12/02/13	3674.92	41.86	38.49	3.37	3635.87
MW-16			Diameter: 4 in.	Screened Interval:	33 ft. to 48 ft.	TD: 48 ft.
	06/27/12	3676.86	40.85	40.05	0.80	3636.68
	09/18/12	3676.86	40.90	40.16	0.74	3636.58
	12/18/12	3676.86	41.42	40.26	1.16	3636.41
	03/15/13	3676.86	41.61	40.05	1.56	3636.55
	06/07/13	3676.86	42.60	40.00	2.60	3636.43
	09/30/13	3676.86	42.63	40.09	2.54	3636.35
	12/02/13	3676.86	42.71	40.06	2.65	3636.36
MW-17			Diameter: 4 in.	Screened Interval:	36 ft. to 51 ft.	TD: 51 ft.
	06/27/12	3679.01	46.80	41.84	4.96	3636.35
	09/18/12	3679.01	45.15	42.37	2.78	3636.18
	12/18/12	3679.01	45.95	42.40	3.55	3636.02
	03/15/13	3679.01	43.95	42.81	1.14	3636.01
	06/07/13	3679.01	45.10	42.46	2.64	3636.11
	09/30/13	3679.01	45.11	42.61	2.50	3635.99
	12/02/13	3679.01	45.10	42.46	2.64	3636.11
MW-18			Diameter: 2 in.	Screened Interval:	30 ft. to 45 ft.	TD: 45 ft.
	06/27/12	3675.68	38.91	-	-	3636.77
	09/18/12	3675.68	39.03	-	-	3636.65
	12/18/12	3675.68	39.23	-	-	3636.45
	03/15/13	3675.68	38.97	-	-	3636.71
	06/07/13	3675.68	39.05	-	-	3636.63
	09/30/13	3675.68	39.11	-	-	3636.57
	12/02/13	3675.68	39.16	-	-	3636.52
MW-19			Diameter: 2 in.	Screened Interval:	31 ft. to 46 ft.	TD: 46 ft.
	06/27/12	3674.96	38.48	-	-	3636.48
	09/18/12	3674.96	38.92	-	-	3636.04
	12/18/12	3674.96	39.12	-	-	3635.84
	03/15/13	3674.96	38.94	-	-	3636.02
	06/07/13	3674.96	38.99	-	-	3635.97
	09/30/13	3674.96	39.86	39.47	0.39	3635.43
	12/02/13	3674.96	39.87	-	-	3635.09
MW-20			Diameter: 2 in.	Screened Interval:	31 ft. to 46 ft.	TD: 46 ft.
	06/27/12	3674.38	41.25	38.38	2.87	3635.53
	09/18/12	3674.38	41.00	38.58	2.42	3635.40
	12/18/12	3674.38	40.05	39.02	1.03	3635.19
	03/15/13	3674.38	41.92	38.50	3.42	3635.32
	06/07/13	3674.38	41.95	38.48	3.47	3635.33
	09/30/13	3674.38	42.02	38.91	3.11	3634.96
	12/02/13	3674.38	41.84	39.32	2.52	3634.64
MW-21			Diameter: 2 in.	Screened Interval:	23 ft. to 53 ft.	TD: 53.0 ft.
	06/27/12	3674.38	39.15	-	-	3635.23
	09/18/12	3674.38	39.27	-	-	3635.11
	12/18/12	3674.38	38.64	-	-	3635.74
	03/15/13	3674.38	39.32	-	-	3635.06
	06/07/13	3674.38	39.33	-	-	3635.05
	09/30/13	3674.38	39.41	-	-	3634.97
	12/02/13	3674.38	39.39	-	-	3634.99

Summary of Historical Fluid Level Measurements
Hobbs Junction Main Line
SRS #: 2003-0017

Well	Date	Top of Casing Elevation (ft)	Depth to Groundwater (ft)	Depth to PSH (ft)	PSH Thickness (ft)	Corrected Groundwater Elevation (ft)
MW-22			Diameter: 2 in.	Screened Interval: 20 ft. to 50 ft.		TD: 50 ft.
	06/27/12	3674.07	38.94	-	-	3635.13
	09/18/12	3674.07	39.07	-	-	3635.00
	12/18/12	3674.07	39.28	-	-	3634.79
	03/15/13	3674.07	39.11	-	-	3634.96
	06/07/13	3674.07	39.31	-	-	3634.76
	09/30/13	3674.07	39.34	-	-	3634.73
	12/02/13	3674.07	39.36	-	-	3634.71
MW-23			Diameter: 2 in.	Screened Interval: 29 ft. to 49 ft.		TD: 49 ft.
	06/27/12	3672.39	38.68	-	-	3633.71
	09/18/12	3672.39	38.82	-	-	3633.57
	12/18/12	3672.39	39.02	-	-	3633.37
	03/15/13	3672.39	38.77	-	-	3633.62
	06/07/13	3672.39	38.85	-	-	3633.54
	09/30/13	3672.39	38.89	-	-	3633.50
	12/02/13	3672.39	38.91	-	-	3633.48
MW-24			Diameter: 2 in.	Screened Interval: 30 ft. to 50 ft.		TD: 50 ft.
	06/27/12	3672.79	38.58	-	-	3634.21
	09/18/12	3672.79	38.78	-	-	3634.01
	12/18/12	3672.79	38.93	-	-	3633.86
	03/15/13	3672.79	38.67	-	-	3634.12
	06/07/13	3672.79	38.81	-	-	3633.98
	09/30/13	3672.79	38.76	-	-	3634.03
	12/02/13	3672.79	38.89	-	-	3633.90
MW-25			Diameter: 4 in.	Screened Interval: ft. to ft.		TD: 57.0 ft.
	06/27/12		41.20	41.18	0.02	
	09/18/12		41.33	41.32	0.01	
	12/18/12		41.41	41.40	0.01	
	03/15/13		41.31	-	-	
	06/07/13		41.65	41.50	0.15	
	09/30/13		41.67	41.57	0.10	
	12/02/13		41.65	41.52	0.13	
MW-26			Diameter: 4 in.	Screened Interval: ft. to ft.		TD: 56.5 ft.
	06/27/12		43.90	40.50	3.40	
	09/18/12		44.28	40.55	3.73	
	12/18/12		43.41	41.41	2.00	
	03/15/13		42.98	41.00	1.98	
	06/07/13		43.54	40.77	2.77	
	09/30/13		43.59	40.83	2.76	
	12/02/13		43.91	40.98	2.93	
MW-27			Diameter: in.	Screened Interval: ft. to ft.		TD: 54.5 ft.
	06/27/12		41.97	38.15	3.82	
	09/18/12		41.44	38.41	3.03	
	12/18/12		41.37	38.71	2.66	
	03/15/13		40.21	38.80	1.41	
	06/07/13		40.77	38.62	2.15	
	09/30/13		40.79	38.69	2.10	
	12/02/13		42.41	38.30	4.11	

Summary of Historical Fluid Level Measurements
Hobbs Junction Main Line
SRS #: 2003-0017

Well	Date	Top of Casing Elevation (ft)	Depth to Groundwater (ft)	Depth to PSH (ft)	PSH Thickness (ft)	Corrected Groundwater Elevation (ft)

Specific Gravity: 0.835

NG - Not Gauged
NSch - Not scheduled to be gauged
Block - Well blocked/obstructed
Locate - Can not locate/find well
Dry - Well is dry
P&A - Plug and Abandon
WD - Well Destroyed

Summary of Historical Groundwater Analytical Data
Hobbs Junction Main Line
SRS #: 2003-0017

Sample Designation	Date Sampled	Concentration (mg/L)				
		Benzene	Toluene	Ethylbenzene	Total Xylenes	BTEX
MW-7	06/28/12	<0.000371	<0.000347	<0.000326	BRL	-
	09/18/12	<0.000371	<0.000347	<0.000326	BRL	-
	12/18/12	<0.000371	<0.000347	<0.000326	BRL	-
	03/18/13	<0.000567	<0.000518	<0.000518	BRL	-
	06/07/13	<0.000500	<0.00100	<0.000700	U	U
MW-9	06/28/12	<0.000371	<0.000347	<0.000326	BRL	-
	09/18/12	<0.000371	<0.000347	<0.000326	BRL	-
	12/18/12	<0.000371	<0.000347	<0.000326	BRL	-
	03/18/13	<0.000567	<0.000518	<0.000518	BRL	-
	06/07/13	<0.000500	<0.00100	<0.000700	U	U
MW-13	06/28/12	<0.000371	<0.000347	<0.000326	BRL	-
	09/18/12	<0.000371	<0.000347	<0.000326	BRL	-
	12/18/12	<0.000371	<0.000347	<0.000326	BRL	-
	03/18/13	<0.000567	<0.000518	<0.000518	BRL	-
	06/07/13	0.00224	0.00357	0.00116	U	0.00697
MW-18	06/28/12	<0.000371	<0.000347	<0.000326	BRL	-
	09/18/12	<0.000371	<0.000347	<0.000326	BRL	-
	12/18/12	<0.000371	<0.000347	<0.000326	BRL	-
	03/18/13	<0.000567	<0.000518	<0.000518	BRL	-
	06/07/13	0.00718	0.0122	0.00372	0.00596	0.0291
	09/30/13	<0.000567	<0.000518	<0.000518	BRL	-
	12/03/13	<0.000567	<0.000518	<0.000518	BRL	-
MW-19	06/28/12	0.491	<0.0174	0.250	BRL	-
	09/18/12	0.204	0.0607	0.0989	0.0427	-
	12/18/12	0.146	0.0720	0.0716	0.0363	-
	03/18/13	0.783	0.351	0.232	0.206	-
	06/07/13	1.33	0.762	0.343	0.407	2.84

Summary of Historical Groundwater Analytical Data
Hobbs Junction Main Line
SRS #: 2003-0017

Sample Designation	Date Sampled	Concentration (mg/L)				
		Benzene	Toluene	Ethylbenzene	Total Xylenes	BTEX
MW-21	06/28/12	4.84	<0.0347	0.257	BRL	-
	09/18/12	9.17	<0.0174	0.694	0.298	-
	12/18/12	7.82	<0.0174	0.563	0.247	-
	03/18/13	13.7	<0.0259	0.969	0.448	-
	06/07/13	14.0	<0.0500	1.05	0.461	15.5
	09/30/13	17.2	<0.0518	0.999	BRL	-
	12/03/13	22.0	<0.0518	1.10	BRL	-
MW-22	06/28/12	2.27	<0.0347	<0.0326	BRL	-
	09/18/12	0.972	<0.00130	0.0442	BRL	-
	12/18/12	1.76	<0.00347	0.0278	BRL	-
	03/18/13	1.04	<0.00518	<0.00518	BRL	-
	06/07/13	1.30	<0.00500	0.00660	U	1.31
	09/30/13	0.172	<0.000518	<0.000518	BRL	-
	12/03/13	0.906	<0.00518	<0.00518	BRL	-
MW-23	06/28/12	<0.000371	<0.000347	<0.000326	BRL	-
	09/18/12	<0.000310	<0.000259	<0.000291	BRL	-
	12/18/12	<0.000371	<0.000347	<0.000326	BRL	-
	03/18/13	<0.000567	<0.000518	<0.000518	BRL	-
	06/07/13	<0.000500	<0.00100	<0.000700	U	U
	09/30/13	<0.000567	<0.000518	<0.000518	BRL	-
	12/02/13	<0.000387	<0.000465	<0.000442	BRL	-
MW-24	06/28/12	<0.000371	<0.000347	<0.000326	BRL	-
	09/18/12	<0.000371	<0.000347	<0.000326	BRL	-
	12/18/12	<0.000371	<0.000347	<0.000326	BRL	-
	03/18/13	<0.000567	<0.000518	<0.000518	BRL	-
	06/07/13	<0.000500	<0.00100	<0.000700	U	U
	09/30/13	<0.000567	<0.000518	<0.000518	BRL	-
	12/02/13	<0.000387	<0.000465	<0.000442	BRL	-
MW-25	03/18/13	2.18	0.582	0.182	0.228	-

Appendix C

Laboratory Analytical Data Reports and Chain of Custody Documentation

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
200 East Sunset Road, Suite E El Paso, Texas 79922 915•585•3443 FAX 915•585•4944
5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313
(BioAquatic) 2501 Mayes Rd., Suite 100 Carrollton, Texas 75006 972•242•7750
E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

Brad Ivy
Talon LPE-Amarillo
921 North Bivins
Amarillo, TX, 79107

Report Date: December 17, 2013

Work Order: 13121112

Project Location: Lea Co. New Mexico
Project Name: Hobbs Jct. Mainline
Project Number: 700376.052.01
SRS #: 2003-00017

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
348435	MW-18	water	2013-12-03	09:45	2013-12-10
348436	MW-21	water	2013-12-03	09:00	2013-12-10
348437	MW-22	water	2013-12-03	09:30	2013-12-10
348438	MW-23	water	2013-12-02	16:45	2013-12-10
348439	MW-24	water	2013-12-02	16:50	2013-12-10

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

Dr. Blair Leftwich, Director
Dr. Michael Abel, Project Manager

Report Contents

Case Narrative

Samples for project Hobbs Jct. Mainline were received by TraceAnalysis, Inc. on 2013-12-10 and assigned to work order 13121112. Samples for work order 13121112 were received intact without headspace and at a temperature of 1.4 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	91013	2013-12-11 at 16:13	107491	2013-12-11 at 16:13
BTEX	S 8021B	91050	2013-12-12 at 15:22	107543	2013-12-12 at 15:22
BTEX	S 8021B	91109	2013-12-16 at 14:09	107626	2013-12-16 at 14:09

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 13121112 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 348435 - MW-18

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	107626	Date Analyzed:	2013-12-16	Analyzed By:	MT
Prep Batch:	91109	Sample Preparation:	2013-12-16	Prepared By:	MT

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene	U	1	<0.00100	mg/L	1	0.00100
Toluene	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	1	<0.00100	mg/L	1	0.00100
Xylene	U	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.108	mg/L	1	0.100	108	75.4 - 120
4-Bromofluorobenzene (4-BFB)			0.0941	mg/L	1	0.100	94	74.6 - 120

Sample: 348436 - MW-21

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	107543	Date Analyzed:	2013-12-12	Analyzed By:	JS
Prep Batch:	91050	Sample Preparation:	2013-12-12	Prepared By:	JS

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene		1	**22.0**	mg/L	100	0.00100
Toluene	Qc,Qs,U	1	<0.100	mg/L	100	0.00100
Ethylbenzene		1	**1.10**	mg/L	100	0.00100
Xylene	Qc,Qs	1	<0.100	mg/L	100	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			10.5	mg/L	100	10.0	105	75.4 - 120
4-Bromofluorobenzene (4-BFB)			10.4	mg/L	100	10.0	104	74.6 - 120

Sample: 348437 - MW-22

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	107543	Date Analyzed:	2013-12-12	Analyzed By:	JS
Prep Batch:	91050	Sample Preparation:	2013-12-12	Prepared By:	JS

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
Benzene		1	**0.906**		mg/L	10	0.00100
Toluene	Qc,Qs,U	1	<0.0100		mg/L	10	0.00100
Ethylbenzene	U	1	<0.0100		mg/L	10	0.00100
Xylene	Qc,Qs,U	1	<0.0100		mg/L	10	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.12	mg/L	10	1.00	112	75.4 - 120
4-Bromofluorobenzene (4-BFB)			1.04	mg/L	10	1.00	104	74.6 - 120

Sample: 348438 - MW-23

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	107491	Date Analyzed:	2013-12-11	Analyzed By:	JS
Prep Batch:	91013	Sample Preparation:	2013-12-11	Prepared By:	JS

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
Benzene	U	1	<0.00100		mg/L	1	0.00100
Toluene	U	1	<0.00100		mg/L	1	0.00100
Ethylbenzene	U	1	<0.00100		mg/L	1	0.00100
Xylene	U	1	<0.00100		mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.102	mg/L	1	0.100	102	68.8 - 120
4-Bromofluorobenzene (4-BFB)			0.0995	mg/L	1	0.100	100	67.5 - 120

Sample: 348439 - MW-24

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	107491	Date Analyzed:	2013-12-11	Analyzed By:	JS
Prep Batch:	91013	Sample Preparation:	2013-12-11	Prepared By:	JS

Parameter	Flag	Cert	Result	RL	Units	Dilution	RL
Benzene	U	1	<0.00100		mg/L	1	0.00100
Toluene	U	1	<0.00100		mg/L	1	0.00100
Ethylbenzene	U	1	<0.00100		mg/L	1	0.00100
Xylene	U	1	<0.00100		mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0988	mg/L	1	0.100	99	68.8 - 120
4-Bromofluorobenzene (4-BFB)			0.0889	mg/L	1	0.100	89	67.5 - 120

Method Blanks

Method Blank (1) QC Batch: 107491

QC Batch: 107491 | Date Analyzed: 2013-12-11 | Analyzed By: JS
Prep Batch: 91013 | QC Preparation: 2013-12-11 | Prepared By: JS

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000387	mg/L	0.001
Toluene		1	<0.000465	mg/L	0.001
Ethylbenzene		1	<0.000442	mg/L	0.001
Xylene		1	<0.000413	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.106	mg/L	1	0.100	106	68.8 - 120
4-Bromofluorobenzene (4-BFB)			0.0952	mg/L	1	0.100	95	67.5 - 120

Method Blank (1) QC Batch: 107543

QC Batch: 107543 | Date Analyzed: 2013-12-12 | Analyzed By: JS
Prep Batch: 91050 | QC Preparation: 2013-12-12 | Prepared By: JS

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000567	mg/L	0.001
Toluene		1	<0.000518	mg/L	0.001
Ethylbenzene		1	<0.000518	mg/L	0.001
Xylene		1	<0.000548	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.110	mg/L	1	0.100	110	75.4 - 120
4-Bromofluorobenzene (4-BFB)			0.102	mg/L	1	0.100	102	74.6 - 120

Method Blank (1) QC Batch: 107626

QC Batch: 107626 | Date Analyzed: 2013-12-16 | Analyzed By: MT
Prep Batch: 91109 | QC Preparation: 2013-12-16 | Prepared By: MT

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000567	mg/L	0.001
Toluene		1	<0.000518	mg/L	0.001
Ethylbenzene		1	<0.000518	mg/L	0.001
Xylene		1	<0.000548	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.110	mg/L	1	0.100	110	75.4 - 120
4-Bromofluorobenzene (4-BFB)			0.0981	mg/L	1	0.100	98	74.6 - 120

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 107491 | Date Analyzed: 2013-12-11 | Analyzed By: JS
Prep Batch: 91013 | QC Preparation: 2013-12-11 | Prepared By: JS

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.101	mg/L	1	0.100	<0.000387	101	71.6 - 120
Toluene		1	0.102	mg/L	1	0.100	<0.000465	102	71.6 - 120
Ethylbenzene		1	0.100	mg/L	1	0.100	<0.000442	100	71.1 - 120
Xylene		1	0.304	mg/L	1	0.300	<0.000413	101	72.5 - 120

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.0968	mg/L	1	0.100	<0.000387	97	71.6 - 120	4	20
Toluene		1	0.102	mg/L	1	0.100	<0.000465	102	71.6 - 120	0	20
Ethylbenzene		1	0.0987	mg/L	1	0.100	<0.000442	99	71.1 - 120	1	20
Xylene		1	0.300	mg/L	1	0.300	<0.000413	100	72.5 - 120	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0888	0.0929	mg/L	1	0.100	89	93	68.8 - 120
4-Bromofluorobenzene (4-BFB)	0.0850	0.0900	mg/L	1	0.100	85	90	67.5 - 120

Laboratory Control Spike (LCS-1)

QC Batch: 107543 | Date Analyzed: 2013-12-12 | Analyzed By: JS
Prep Batch: 91050 | QC Preparation: 2013-12-12 | Prepared By: JS

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.119	mg/L	1	0.100	<0.000567	119	74.3 - 120
Toluene	Qs Qs	1	0.121	mg/L	1	0.100	<0.000518	121	77.6 - 120
Ethylbenzene		1	0.120	mg/L	1	0.100	<0.000518	120	78.5 - 120
Xylene	Qs Qs	1	0.365	mg/L	1	0.300	<0.000548	122	77.6 - 120

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.115	mg/L	1	0.100	<0.000567	115	74.3 - 120	3	20
Toluene		1	0.117	mg/L	1	0.100	<0.000518	117	77.6 - 120	3	20
Ethylbenzene		1	0.116	mg/L	1	0.100	<0.000518	116	78.5 - 120	3	20
Xylene		1	0.353	mg/L	1	0.300	<0.000548	118	77.6 - 120	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate			LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)			0.115	0.108	mg/L	1	0.100	115	108	75.4 - 120
4-Bromofluorobenzene (4-BFB)	Qsr	Qsr	0.121	0.115	mg/L	1	0.100	121	115	74.6 - 120

Laboratory Control Spike (LCS-1)

QC Batch: 107626 | Date Analyzed: 2013-12-16 | Analyzed By: MT
Prep Batch: 91109 | QC Preparation: 2013-12-16 | Prepared By: MT

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.113	mg/L	1	0.100	<0.000567	113	74.3 - 120
Toluene		1	0.114	mg/L	1	0.100	<0.000518	114	77.6 - 120
Ethylbenzene		1	0.111	mg/L	1	0.100	<0.000518	111	78.5 - 120
Xylene		1	0.336	mg/L	1	0.300	<0.000548	112	77.6 - 120

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.112	mg/L	1	0.100	<0.000567	112	74.3 - 120	1	20
Toluene		1	0.114	mg/L	1	0.100	<0.000518	114	77.6 - 120	0	20
Ethylbenzene		1	0.110	mg/L	1	0.100	<0.000518	110	78.5 - 120	1	20
Xylene		1	0.332	mg/L	1	0.300	<0.000548	111	77.6 - 120	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.111	0.110	mg/L	1	0.100	111	110	75.4 - 120
4-Bromofluorobenzene (4-BFB)	0.113	0.111	mg/L	1	0.100	113	111	74.6 - 120

Matrix Spike (MS-1) Spiked Sample: 348469

QC Batch: 107491 | Date Analyzed: 2013-12-11 | Analyzed By: JS
Prep Batch: 91013 | QC Preparation: 2013-12-11 | Prepared By: JS

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0954	mg/L	1	0.100	<0.000387	95	54.2 - 120
Toluene		1	0.101	mg/L	1	0.100	<0.000465	101	55.6 - 120
Ethylbenzene		1	0.0976	mg/L	1	0.100	<0.000442	98	59.6 - 120
Xylene		1	0.294	mg/L	1	0.300	<0.000413	98	61.4 - 120

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.0952	mg/L	1	0.100	<0.000387	95	54.2 - 120	0	20
Toluene		1	0.0975	mg/L	1	0.100	<0.000465	98	55.6 - 120	4	20
Ethylbenzene		1	0.0954	mg/L	1	0.100	<0.000442	95	59.6 - 120	2	20
Xylene		1	0.289	mg/L	1	0.300	<0.000413	96	61.4 - 120	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0852	0.0820	mg/L	1	0.1	85	82	68.8 - 120
4-Bromofluorobenzene (4-BFB)	0.0916	0.0821	mg/L	1	0.1	92	82	67.5 - 120

Matrix Spike (MS-1) Spiked Sample: 348609

QC Batch: 107543 | Date Analyzed: 2013-12-12 | Analyzed By: JS
Prep Batch: 91050 | QC Preparation: 2013-12-12 | Prepared By: JS

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.111	mg/L	1	0.100	<0.000567	111	50.2 - 129
Toluene		1	0.113	mg/L	1	0.100	<0.000518	113	58.1 - 129
Ethylbenzene		1	0.112	mg/L	1	0.100	<0.000518	112	58.1 - 127
Xylene		1	0.339	mg/L	1	0.300	<0.000548	113	53.1 - 128

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.0961	mg/L	1	0.100	<0.000567	96	50.2 - 129	14	20
Toluene		1	0.0970	mg/L	1	0.100	<0.000518	97	58.1 - 129	15	20

continued ...

matrix spikes continued ...

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Ethylbenzene		1	0.0949	mg/L	1	0.100	<0.000518	95	58.1 - 127	16	20
Xylene		1	0.290	mg/L	1	0.300	<0.000548	97	53.1 - 128	16	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.110	0.109	mg/L	1	0.1	110	109	75.4 - 120
4-Bromofluorobenzene (4-BFB)	0.115	0.112	mg/L	1	0.1	115	112	74.6 - 120

Matrix Spike (MS-1) Spiked Sample: 348302

QC Batch: 107626 | Date Analyzed: 2013-12-16 | Analyzed By: MT
Prep Batch: 91109 | QC Preparation: 2013-12-16 | Prepared By: MT

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	1.89	mg/L	10	1.00	0.736	115	50.2 - 129
Toluene		1	1.15	mg/L	10	1.00	<0.00518	115	58.1 - 129
Ethylbenzene		1	1.23	mg/L	10	1.00	0.0622	117	58.1 - 127
Xylene		1	3.45	mg/L	10	3.00	0.0268	114	53.1 - 128

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	1.86	mg/L	10	1.00	0.736	112	50.2 - 129	2	20
Toluene		1	1.13	mg/L	10	1.00	<0.00518	113	58.1 - 129	2	20
Ethylbenzene		1	1.20	mg/L	10	1.00	0.0622	114	58.1 - 127	2	20
Xylene		1	3.38	mg/L	10	3.00	0.0268	112	53.1 - 128	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.17	1.16	mg/L	10	1	117	116	75.4 - 120
4-Bromofluorobenzene (4-BFB)	1.13	1.12	mg/L	10	1	113	112	74.6 - 120

Calibration Standards

Standard (CCV-1)

QC Batch: 107491 | Date Analyzed: 2013-12-11 | Analyzed By: JS

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0980	98	80 - 120	2013-12-11
Toluene		1	mg/L	0.100	0.0996	100	80 - 120	2013-12-11
Ethylbenzene		1	mg/L	0.100	0.0984	98	80 - 120	2013-12-11
Xylene		1	mg/L	0.300	0.299	100	80 - 120	2013-12-11

Standard (CCV-2)

QC Batch: 107491 | Date Analyzed: 2013-12-11 | Analyzed By: JS

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0967	97	80 - 120	2013-12-11
Toluene		1	mg/L	0.100	0.102	102	80 - 120	2013-12-11
Ethylbenzene		1	mg/L	0.100	0.0979	98	80 - 120	2013-12-11
Xylene		1	mg/L	0.300	0.297	99	80 - 120	2013-12-11

Standard (CCV-3)

QC Batch: 107491 | Date Analyzed: 2013-12-11 | Analyzed By: JS

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0963	96	80 - 120	2013-12-11
Toluene		1	mg/L	0.100	0.101	101	80 - 120	2013-12-11
Ethylbenzene		1	mg/L	0.100	0.0973	97	80 - 120	2013-12-11
Xylene		1	mg/L	0.300	0.296	99	80 - 120	2013-12-11

Standard (CCV-1)

QC Batch: 107543 Date Analyzed: 2013-12-12 Analyzed By: JS

Param		Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene			1	mg/L	0.100	0.119	119	80 - 120	2013-12-12
Toluene	Qc	Qc	1	mg/L	0.100	0.122	122	80 - 120	2013-12-12
Ethylbenzene			1	mg/L	0.100	0.120	120	80 - 120	2013-12-12
Xylene	Qc	Qc	1	mg/L	0.300	0.368	123	80 - 120	2013-12-12

Standard (CCV-2)

QC Batch: 107543 Date Analyzed: 2013-12-12 Analyzed By: JS

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.113	113	80 - 120	2013-12-12
Toluene		1	mg/L	0.100	0.113	113	80 - 120	2013-12-12
Ethylbenzene		1	mg/L	0.100	0.110	110	80 - 120	2013-12-12
Xylene		1	mg/L	0.300	0.334	111	80 - 120	2013-12-12

Standard (CCV-3)

QC Batch: 107543 Date Analyzed: 2013-12-12 Analyzed By: JS

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.113	113	80 - 120	2013-12-12
Toluene		1	mg/L	0.100	0.113	113	80 - 120	2013-12-12
Ethylbenzene		1	mg/L	0.100	0.110	110	80 - 120	2013-12-12
Xylene		1	mg/L	0.300	0.334	111	80 - 120	2013-12-12

Standard (CCV-1)

QC Batch: 107626 Date Analyzed: 2013-12-16 Analyzed By: MT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.113	113	80 - 120	2013-12-16
Toluene		1	mg/L	0.100	0.114	114	80 - 120	2013-12-16
Ethylbenzene		1	mg/L	0.100	0.112	112	80 - 120	2013-12-16
Xylene		1	mg/L	0.300	0.339	113	80 - 120	2013-12-16

Standard (CCV-2)

QC Batch: 107626 Date Analyzed: 2013-12-16 Analyzed By: MT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.116	116	80 - 120	2013-12-16
Toluene		1	mg/L	0.100	0.117	117	80 - 120	2013-12-16
Ethylbenzene		1	mg/L	0.100	0.114	114	80 - 120	2013-12-16
Xylene		1	mg/L	0.300	0.345	115	80 - 120	2013-12-16

Standard (CCV-3)

QC Batch: 107626 Date Analyzed: 2013-12-16 Analyzed By: MT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.118	118	80 - 120	2013-12-16
Toluene		1	mg/L	0.100	0.118	118	80 - 120	2013-12-16
Ethylbenzene		1	mg/L	0.100	0.114	114	80 - 120	2013-12-16
Xylene		1	mg/L	0.300	0.344	115	80 - 120	2013-12-16

Appendix

Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704219-13-9	Lubbock

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less then ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

Attachments

The scanned attachments will follow this page.
Please note, each attachment may consist of more than one page.

LAB Order ID # 13121112

Page _____ of _____

TraceAnalysis, Inc.

email: lab@traceanalysis.com

6701 Aberdeen Avenue, Suite 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

5002 Basin Street, Suite A1
Midland, Texas 79703
Tel (432) 689-6301
Fax (432) 689-6313

200 East Sunset Rd., Suite E
El Paso, Texas 79922
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

BioAquatic Testing
2501 Mayes Rd., Ste 100
Carrollton, Texas 75006
Tel (972) 242-7750

Brandon & Clark
3403 Industrial Blvd.
Hobbs, NM 88240
Tel (575) 392-7561
Fax (575) 392-4508

Company Name: Talon/LPE
Phone #: 806-467-0607
Address: (Street, City, Zip) 921 N. Bivins
Fax #: 806-467-0622
Contact Person: Brad Ivy
E-mail: Bivy@talonlpe.com
Invoice to: (If different from above) Plains: (GRS#2003-00017)
Project #: 700376.052.01
Project Name: Hobbs Junction Mainline
Project Location (including state): Lea Co., NM
Sampler Signature:

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME	MTBE 8021 / 602 / 8260 / 624	BTEX 8021 / 602 / 8260 / 624	TPH 418.1 / TX1005 / TX1005 Ext(C35)	TPH 8015 GRO / DRO / TVHC	PAH 8270 / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260 / 624	GC/MS Semi. Vol. 8270 / 625	PCB's 8082 / 608	Pesticides 8081 / 608	BOD, TSS, pH	Moisture Content	Cl, F, SO_4, NO_3-N, NO_2-N, PO_4-P, Alkalinity	Na, Ca, Mg, K, TDS, EC							Turn Around Time if different from standard	Hold
348/435	MW-18	3		X				X				X		12.3.13	9:45		X																									
436	MW-21	3		X				X				X		12.3.13	9:00		X																									
437	MW-22	3		X				X				X		12.3.13	9:30		X																									
438	MW-23	3		X				X				X		12.2.13	16:45		X																									
439	MW-24	3		X				X				X		12.2.13	16:50		X																									

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	
	Talon	12.10.13		BCJ	BTC	12-10-13		INST ____ °C OBS ____ °C COR ____ °C
								INST ____ °C OBS ____ °C COR ____ °C
					TA	12/11/13	9:25	INST 0.2 °C OBS 2.7 °C COR 1.4 °C

LAB USE ONLY
Intact Y / N
Headspace Y / N / NA
Log-in-Review MA

REMARKS:

- ☐ Dry Weight Basis Required
- ☐ TRRP Report Required
- ☐ Check If Special Reporting Limits Are Needed

Carrier # 25 421874

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

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