AP - 52

QUARTERLY MONITORING REPORTS

2013

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August 8, 2013

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

Re: Plains Pipeline, L.P. C.S. Cayler (Plains SRS #2002-10250)
Second Quarter 2013 Summary
NMOCD Reference # AP-052 (Old 1R-0382)
UL-M (NW¼ of the NE¼) of Section 6, T17S, R37E
Latitude: 32° 52' 2.45"N and Longitude: 103° 17' 17.73"W
Landowner: Robert Rice
Lea County, New Mexico

Dear Mr. Hansen:

Talon/LPE (Talon) is submitting this letter report on behalf of Plains Pipeline, L.P. (Plains) that summarizes the second quarter 2013 groundwater monitoring activities.

Remediation Activities

During the second quarter of 2013, one (1) specific gravity skimmer with bladder pump was in operation in monitor well MW-12, and six (6) total fluids pumps were in operation in monitor wells MW-1A, MW-2, MW-2A, MW-4, MW-5 and MW-7A. The skimmer and total fluids pumps are utilized to recover phase separated hydrocarbons (PSH) and to inhibit migration of the PSH and dissolved-phase plumes. The recovery system is inspected and maintained on a weekly basis in order to optimize efficiency and recovery rates.

Attachments to this letter report include a site plan, gradient map, and a PSH thickness isopleth map combined with dissolved-phase distribution located in Appendix A. A synopsis of the historical groundwater gauging data and groundwater analytical results are provided in Appendix B and the laboratory analytical report with chain-of-custody are located in Appendix C.

During the first quarter, the system recovered approximately 5,675 barrels of water, all of which was transferred by pump to the Rocky Smith saltwater disposal facility. Approximately 24.23 barrels of crude oil was recovered by the system and 33 barrels of oil was contained in the recovery tank at the end of the quarter.

Second Quarter Groundwater Monitoring Event

The second quarter 2013 groundwater monitoring event was conducted on June 11, 2013. Prior to the event, the PSH recovery system was shut-down and the recovery pumps were pulled in order to allow the poteniometric surface to stabilize. During the groundwater monitoring event, all monitor wells were measured with an interface probe to determine static water levels and PSH thicknesses if present.

Groundwater samples were collected from eight (8) monitor wells (MW-8A, MW-9A, MW-10A, MW-12A, MW-13A, MW-14A, MW-15 and MW-17). The samples were submitted to the laboratory for quantification of benzene, toluene, ethylbenzene, and total xylenes (BTEX) using EPA SW-846, Method 8021B. Groundwater samples were not collected from MW's 1A, 2, 2A, 3, 4, 5, 7A and 12 due to the presence of PSH. Groundwater samples were not collected from monitor wells MW-6, MW-11, MW-16, and MW-18 because they were dry.

Results of the Groundwater Monitoring Event

Data collected from the June 2013 groundwater monitoring event exhibited the following results.

- Benzene concentrations ranged from <0.00100 mg/L to 10.4 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-8A, MW-10A, and MW-12A.
- Toluene concentrations ranged from <0.00100 mg/L to 0.0621 mg/L. Toluene concentrations did not exceed the NMWQCC remediation threshold of 0.750 mg/L in any of the groundwater samples collected.
- Ethylbenzene concentrations ranged from <0.00100 mg/L to 0.308 mg/L. Ethylbenzene concentrations did not exceed the NMWQCC remediation threshold of 0.750 mg/L in any of the groundwater samples collected.
- Total xylene concentrations ranged from <0.00100 mg/L to 0.368 mg/L. Total xylene concentrations did not exceed the NMWQCC remediation threshold of 0.620 mg/L in any of the groundwater samples collected.
- Dissolved-phase concentrations remained relatively stable in sampled monitor wells. The dissolved-phase plume is not currently delineated in the southeast direction. However, plans to replace MW-11 and MW-18 are underway to restore delineated status.
- PSH thicknesses typically fluctuate from quarter to quarter but have declined overall since PSH recovery operations were initiated. For the second quarter, PSH thicknesses exhibited slight to moderate declines and increases in various impacted monitor wells, as compared to the first quarter. The largest decrease in PSH thicknesses occurred in monitor well MW-7A of 1.83 ft.
- Data collected from groundwater monitoring event indicated an average decrease in groundwater levels of 0.64 feet.

Recommendations

Currently, the system is operating as designed. Talon recommends replacement wells be drilled in place of MW-3, MW-4, and MW-6 for greater PSH recovery and impedance of the dissolved-phase plume, and MW-11, MW-16, and MW-18 to ensure delineation of the dissolved-phase plume. (NOTE: Plans for these site amendments 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

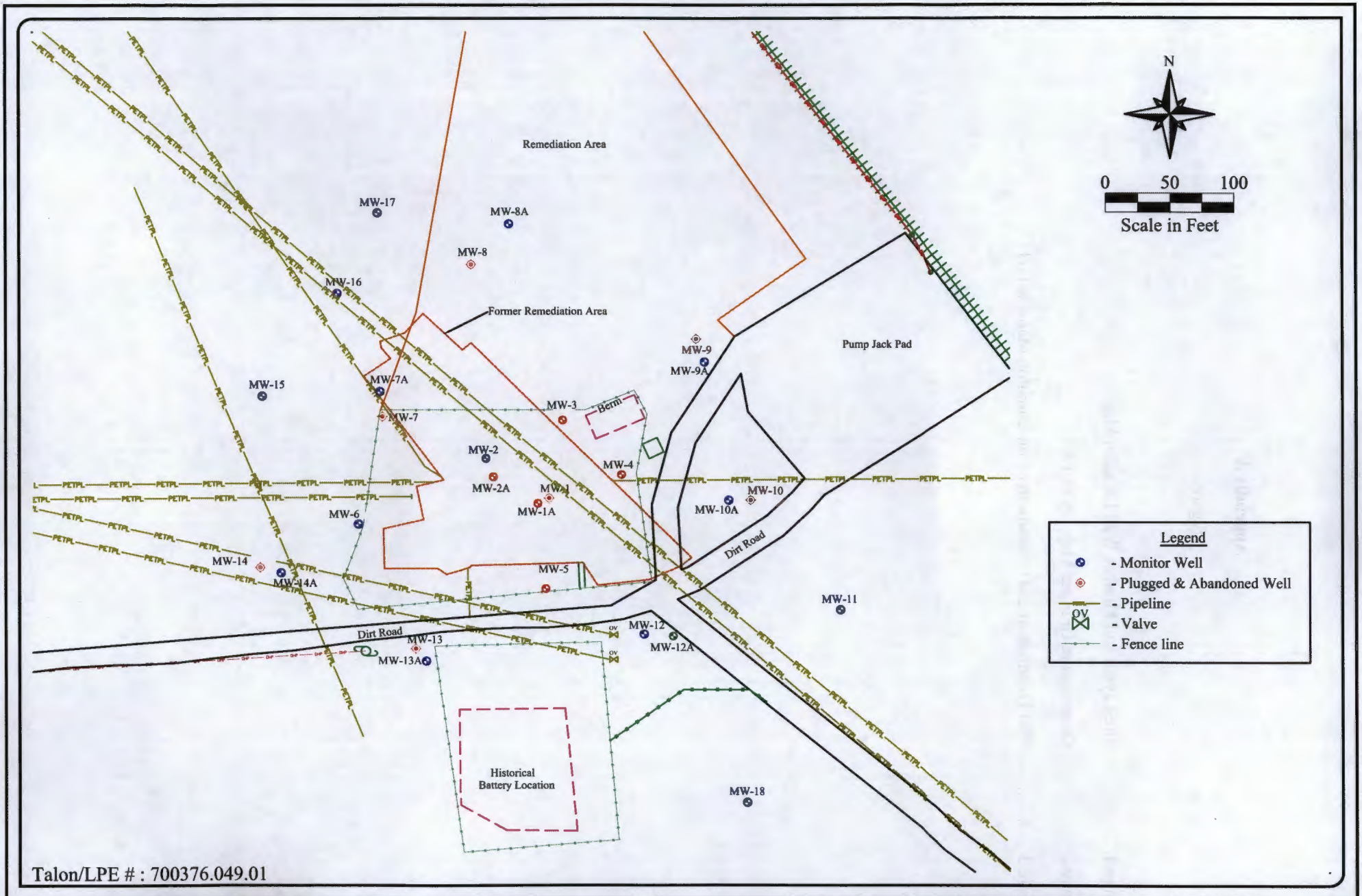
Project Manager

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

Appendices:

Appendix A

Figures



Talon/LPE # : 700376.049.01

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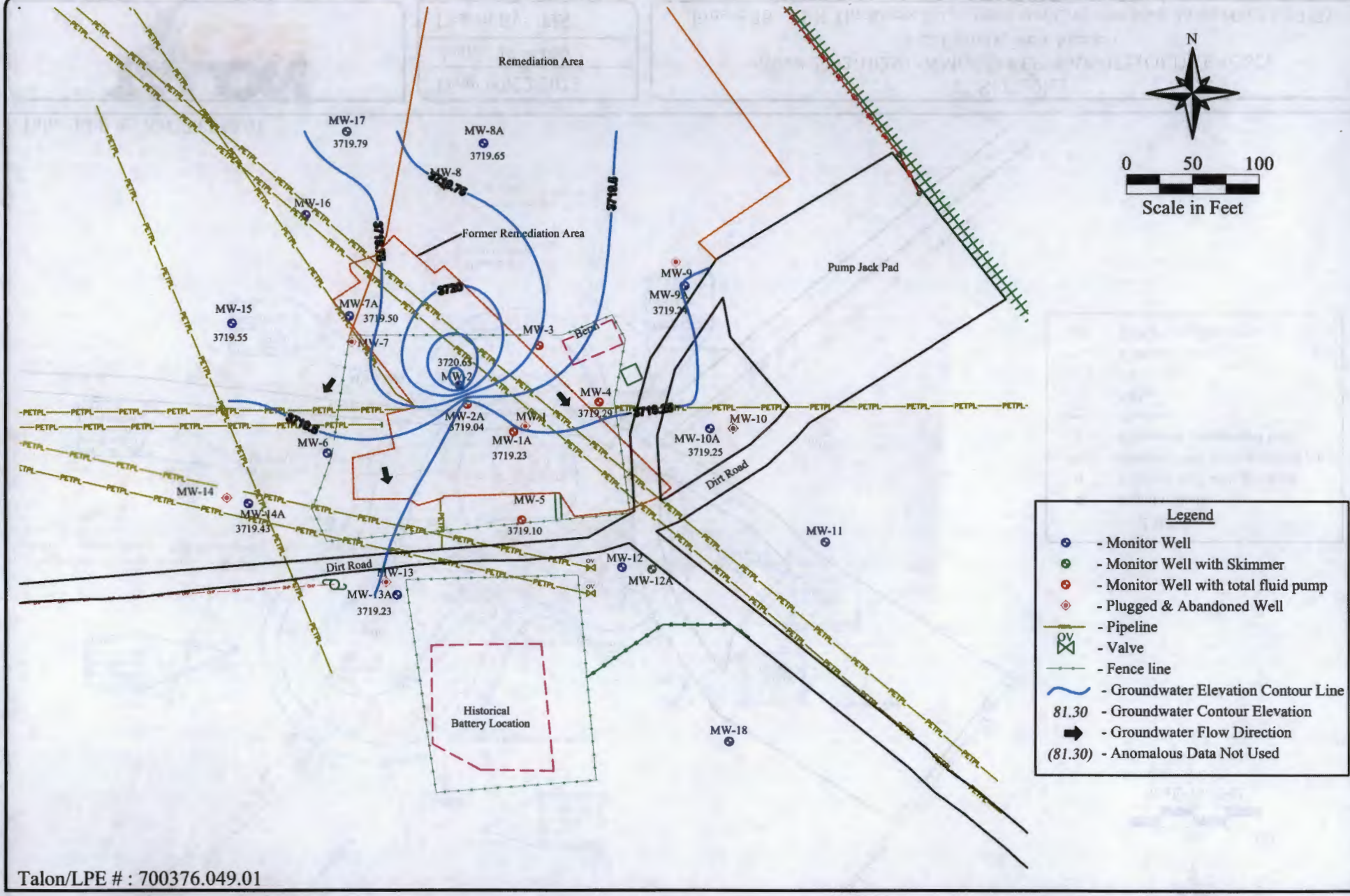
Date:	01/22/2013
Scale:	1" = 100'
Drawn By:	WBS

C.S. Cayler
SRS # 2002-10250, NMOCD REF. # AP-052 (OLD 1R-0382)
Lea County, New Mexico
Figure 1 - Site Plan



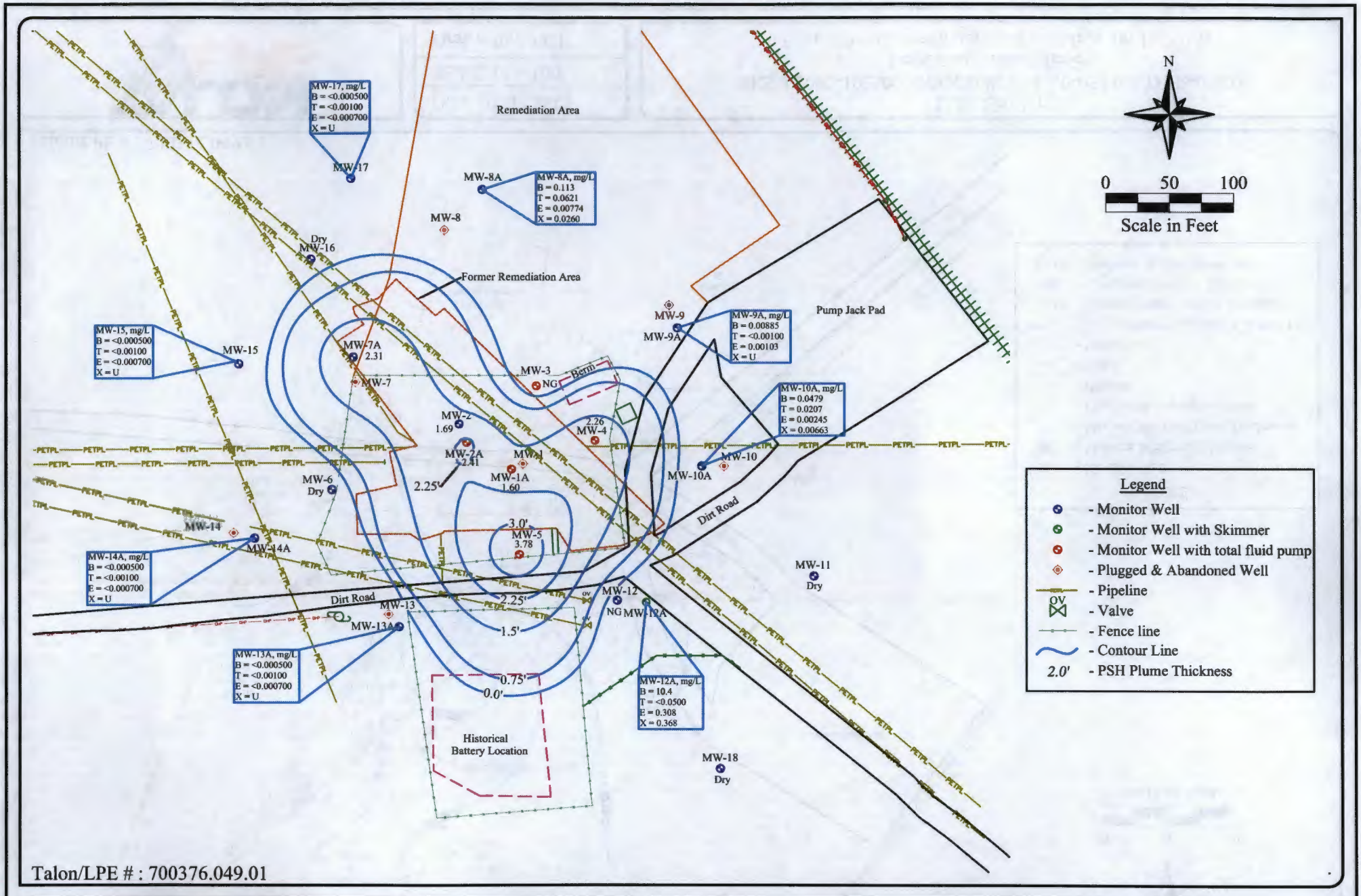
Talon/LPE # : 700376.049.01

TALON LPE

Date: 07/02/2013
Scale: 1" = 100'
Drawn By: BCI

C.S. Cayler

SRS # 2002-10250, NMOCD REF. # AP-052 (OLD 1R-0382)
Lea County, New Mexico
Figure 2b - Groundwater Gradient Map, (06/11/2013)



Talon/LPE # : 700376.049.01

TALON LPE

Date:	07/22/2013
Scale:	1" = 100'
Drawn By:	TJS

C.S. Cayler

SRS # 2002-10250, NMOCD REF. # AP-052 (OLD 1R-0382)
Lea County, New Mexico
Figure 3b - PSH Thickness & Groundwater Concentration Map, (06/11/2013)

Appendix B

Tables

TALON
"All the Pieces"

Summary of Historical Fluid Level Measurements
CS CAYLER
SRS#2002-10250

Well	Date	Top of Casing Elevation (ft)	Depth to Groundwater (ft)	Depth to PSH (ft)	PSH Thickness (ft)	Corrected Groundwater Elevation (ft)
MW-1A			Diameter: ___ in.	Screened Interval: ___ ft. to ___ ft.		TD: 96.2 ft.
	03/25/11	3810.14	92.40	85.85	6.55	3722.65
	06/11/11	3810.14	92.11	90.51	1.60	3719.23
	06/22/11	3810.14	93.64	86.94	6.70	3721.53
	09/28/11	3810.14	94.03	88.03	6.00	3720.61
	01/05/12	3810.14	93.60	87.74	5.86	3720.94
	03/09/12	3810.14	93.82	87.68	6.14	3720.93
	06/21/12	3810.14	96.20	88.65	7.55	3719.60
	09/21/12	3810.14	94.03	90.05	3.98	3719.10
	12/07/12	3810.14	94.14	89.97	4.17	3719.13
	03/14/13	3810.14	92.11	89.68	2.43	3719.85
MW-2			Diameter: ___ in.	Screened Interval: ___ ft. to ___ ft.		TD: 88.1 ft.
	03/25/11	3807.38	88.10	82.45	5.65	3723.52
	06/22/11	3807.38	88.05	83.62	4.43	3722.65
	09/28/11	3807.38	88.08	84.47	3.61	3722.01
	01/05/12	3807.38	88.06	84.47	3.59	3722.01
	03/09/12	3807.38	88.08	84.36	3.72	3722.09
	06/21/12	3807.38	88.13	85.64	2.49	3721.12
	09/21/12	3807.38	88.16	86.37	1.79	3720.56
	12/07/12	3807.38	NG	-	-	NG
	06/11/13	3807.38	88.00	86.31	1.69	3720.65
MW-2A			Diameter: ___ in.	Screened Interval: ___ ft. to ___ ft.		TD: 109.3 ft.
	09/28/11	3810.14	92.84	88.15	4.69	3720.82
	01/05/12	3810.14	93.87	87.64	6.23	3720.94
	03/09/12	3810.14	93.61	87.66	5.95	3720.99
	06/21/12	3810.14	95.66	88.60	7.06	3719.78
	09/21/12	3810.14	93.05	90.10	2.95	3719.30
	12/07/12	3810.14	94.63	89.71	4.92	3719.20
	03/14/13	3810.14	93.07	89.31	3.76	3719.89
	06/11/13	3810.14	92.91	90.50	2.41	3719.04
MW-3			Diameter: ___ in.	Screened Interval: ___ ft. to ___ ft.		TD: 93.5 ft.
	03/25/11	3810.36	89.60	86.55	3.05	3723.05
	06/22/11	3810.36	88.48	88.15	0.33	3722.13
	09/28/11	3810.36	91.37	88.32	3.05	3721.28
	01/05/12	3810.36	93.49	88.73	4.76	3720.44
	03/09/12	3810.36	93.27	88.49	4.78	3720.68
	06/21/12	3810.36	93.53	88.79	4.74	3720.39
	09/21/12	3810.36	93.51	89.57	3.94	3719.81
	12/07/12	3810.36	93.58	89.51	4.07	3719.83
	03/14/13	3810.36	93.33	89.74	3.59	3719.72
	06/11/13	3810.36	NG		-	NG
MW-4			Diameter: ___ in.	Screened Interval: ___ ft. to ___ ft.		TD: 93.2 ft.
	03/25/11	3810.81	92.75	86.40	6.35	3722.82
	06/22/11	3810.81	91.30	88.25	3.05	3721.80
	09/28/11	3810.81	90.48	89.59	0.89	3721.00
	01/05/12	3810.81	93.00	88.92	4.08	3720.87
	03/09/12	3810.81	92.24	89.26	2.98	3720.81
	06/21/12	3810.81	92.10	90.35	1.75	3720.02
	09/21/12	3810.81	92.33	91.24	1.09	3719.30
	12/07/12	3810.81	92.57	91.06	1.51	3719.37
	03/14/13	3810.81	91.71	91.18	0.53	3719.50
	06/11/13	3810.81	93.22	90.96	2.26	3719.29

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Summary of Historical Fluid Level Measurements
CS CAYLER
SRS#2002-10250

Well	Date	Top of Casing Elevation (ft)	Depth to Groundwater (ft)	Depth to PSH (ft)	PSH Thickness (ft)	Corrected Groundwater Elevation (ft)
MW-5			Diameter: ___ in.	Screened Interval: ___ ft. to ___ ft.		TD: 93.4 ft.
	03/25/11	3809.29	92.68	84.70	7.98	3722.60
	06/22/11	3809.29	91.89	86.25	5.64	3721.63
	09/28/11	3809.29	NG	-	-	NG
	01/05/12	3809.29	NG	-	-	NG
	03/09/12	3809.29	NG	-	-	NG
	06/21/12	3809.29	NG	-	-	NG
	09/21/12	3809.29	NG	-	-	NG
	12/07/12	3809.29	Dry	-	-	Dry
	03/14/13	3809.29	92.34	88.58	3.76	3719.77
	06/11/13	3809.29	93.03	89.25	3.78	3719.10
MW-6			Diameter: ___ in.	Screened Interval: ___ ft. to ___ ft.		TD: 88.3 ft.
	03/25/11	3809.33	86.04	-	-	3723.29
	06/22/11	3809.33	87.34	87.22	0.12	3722.08
	09/28/11	3809.33	88.28	88.15	0.13	3721.15
	01/05/12	3809.33	88.04	87.99	0.05	3721.33
	03/09/12	3809.33	88.00	87.94	0.06	3721.38
	06/21/12	3809.33	88.35	88.31	0.04	3721.01
	09/21/12	3809.33	Dry	-	-	Dry
	12/07/12	3809.33	88.41	-	-	3720.92
	03/14/13	3809.33	Dry	-	-	Dry
	06/11/13	3809.33	Dry	-	-	Dry
MW-7A			Diameter: ___ in.	Screened Interval: ___ ft. to ___ ft.		TD: 101.2 ft.
	09/28/11	3810.63	89.60	89.26	0.34	3721.29
	01/05/12	3810.63	89.49	88.99	0.50	3721.52
	03/09/12	3810.63	89.75	88.99	0.76	3721.45
	06/21/12	3810.63	93.81	89.38	4.43	3720.14
	09/21/12	3810.63	95.60	89.91	5.69	3719.30
	12/07/12	3810.63	95.47	90.06	5.41	3719.22
	03/14/13	3810.63	93.76	89.62	4.14	3719.98
	06/11/13	3810.63	92.86	90.55	2.31	3719.50
MW-8A			Diameter: ___ in.	Screened Interval: ___ ft. to ___ ft.		TD: 102.7 ft.
	09/28/11	3810.73	89.34	-	-	3721.39
	01/05/12	3810.73	90.16	-	-	3720.57
	03/09/12	3810.73	89.19	-	-	3721.54
	06/21/12	3810.73	90.16	-	-	3720.57
	09/21/12	3810.73	90.91	-	-	3719.82
	12/07/12	3810.73	91.05	-	-	3719.68
	03/14/13	3810.73	90.38	-	-	3720.35
	06/11/13	3810.73	91.08	-	-	3719.65
MW-9A			Diameter: ___ in.	Screened Interval: ___ ft. to ___ ft.		TD: 106.9 ft.
	06/21/12	3810.73	90.68	-	-	3720.05
	09/21/12	3810.73	91.45	-	-	3719.28
	12/07/12	3810.73	91.50	-	-	3719.23
	03/14/13	3810.73	90.80	-	-	3719.93
	06/11/13	3810.73	91.49	-	-	3719.24
MW-10A			Diameter: ___ in.	Screened Interval: ___ ft. to ___ ft.		TD: 114.3 ft.
	06/21/12	3810.41	90.35	-	-	3720.06
	09/21/12	3810.41	91.15	-	-	3719.26
	12/07/12	3810.41	91.10	-	-	3719.31
	03/14/13	3810.41	90.42	-	-	3719.99
	06/11/13	3810.41	91.16	-	-	3719.25

TALON
"All the Pieces"

Summary of Historical Fluid Level Measurements
CS CAYLER
SRS#2002-10250

Well	Date	Top of Casing Elevation (ft)	Depth to Groundwater (ft)	Depth to PSH (ft)	PSH Thickness (ft)	Corrected Groundwater Elevation (ft)
MW-11			Diameter: ____ in.	Screened Interval: _____ ft. to _____ ft.		TD: 89.1 ft.
	03/25/11	3809.12	86.19	-	-	3722.93
	06/22/11	3809.12	87.50	-	-	3721.62
	09/28/11	3809.12	88.36	-	-	3720.76
	01/05/12	3809.12	87.99	-	-	3721.13
	03/09/12	3809.12	87.97	-	-	3721.15
	06/21/12	3809.12	89.20	-	-	3719.92
	06/21/12	3809.12	Dry	-	-	Dry
	12/07/12	3809.12	Dry	-	-	Dry
	03/14/13	3809.12	Dry	-	-	Dry
	06/11/13	3809.12	Dry	-	-	Dry
MW-12			Diameter: ____ in.	Screened Interval: _____ ft. to _____ ft.		TD: 90.8 ft.
	03/25/11	3809.81	90.70	85.86	4.84	3722.74
	06/22/11	3809.81	90.59	87.73	2.86	3721.37
	09/28/11	3809.81	90.85	88.00	2.85	3721.10
	01/05/12	3809.81	90.91	87.61	3.30	3721.38
	03/09/12	3809.81	90.91	88.56	2.35	3720.66
	06/21/12	3809.81	90.90	88.57	2.33	3720.66
	09/21/12	3809.81	90.98	89.48	1.50	3719.96
	12/07/12	3809.81	NG	-	-	NG
	03/14/13	3809.81	90.73	88.62	2.11	3720.66
	06/11/13	3809.81	NG	-	-	NG
MW-12A			Diameter: ____ in.	Screened Interval: _____ ft. to _____ ft.		TD: 108.6 ft.
	09/28/11	3808.98	88.18	-	-	3720.80
	01/05/12	3808.98	87.81	-	-	3721.17
	03/09/12	3808.98	87.83	-	-	3721.15
	06/21/12	3808.98	89.07	-	-	3719.91
	09/21/12	3808.98	89.92	-	-	3719.06
	12/07/12	3808.98	89.83	-	-	3719.15
	03/14/13	3808.98	89.12	-	-	3719.86
	06/11/13	3808.98	NG	-	-	NG
MW-13			Diameter: ____ in.	Screened Interval: _____ ft. to _____ ft.		TD: 88.9 ft.
	06/22/11	3809.59	87.68	-	-	3721.91
	09/28/11	3809.59	88.59	-	-	3721.00
	01/05/12	3809.59	88.34	-	-	3721.25
	03/09/12	3809.59	88.34	-	-	3721.25
	06/20/12	3809.59	P&A	-	-	P&A
MW-13A			Diameter: ____ in.	Screened Interval: _____ ft. to _____ ft.		TD: 108.1 ft.
	06/21/12	3809.49	89.07	-	-	3720.42
	09/21/12	3809.49	90.15	-	-	3719.34
	12/07/12	3809.49	90.20	-	-	3719.29
	03/14/13	3809.49	89.50	-	-	3719.99
	06/11/13	3809.49	90.26	-	-	3719.23
MW-14			Diameter: ____ in.	Screened Interval: _____ ft. to _____ ft.		TD: 87.9 ft.
	06/22/11	3809.63	87.45	-	-	3722.18
	09/28/11	3809.63	88.43	-	-	3721.20
	01/05/12	3809.63	88.21	-	-	3721.42
	03/09/12	3809.63	88.23	-	-	3721.40
	06/20/12	3809.63	P&A	-	-	P&A
MW-14A			Diameter: ____ in.	Screened Interval: _____ ft. to _____ ft.		TD: 113.5 ft.
	06/21/12	3809.93	NG	-	-	NG
	09/21/12	3809.93	90.31	-	-	3719.62
	12/07/12	3809.93	90.43	-	-	3719.50
	03/14/13	3809.93	89.88	-	-	3720.05
	06/11/13	3809.93	90.50	-	-	3719.43

TALON LPE "All the Pieces"

Summary of Historical Fluid Level Measurements
CS CAYLER
SRS#2002-10250

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:____ in.	Screened Interval:_____ft. to _____ft.		TD: 92.2 ft.
	03/25/11	3810.93	87.42	-	-	3723.51
	06/22/11	3810.93	88.57	-	-	3722.36
	09/28/11	3810.93	89.55	-	-	3721.38
	01/05/12	3810.93	89.37	-	-	3721.56
	03/09/12	3810.93	89.40	-	-	3721.53
	06/21/12	3810.93	90.42	-	-	3720.51
	09/21/12	3810.93	91.15	-	-	3719.78
	12/07/12	3810.93	91.28	-	-	3719.65
	03/14/13	3810.93	90.65	-	-	3720.28
	06/11/13	3810.93	91.38	-	-	3719.55
MW-16			Diameter:____ in.	Screened Interval:_____ft. to _____ft.		TD: 91.2 ft.
	03/25/11	3812.23	88.75	-	-	3723.48
	06/22/11	3812.23	89.72	-	-	3722.51
	09/28/11	3812.23	90.71	-	-	3721.52
	01/05/12	3812.23	90.60	-	-	3721.63
	03/09/12	3812.23	90.58	-	-	3721.65
	06/21/12	3812.23	91.57	-	-	3720.66
	09/21/12	3812.23	Dry	-	-	Dry
	12/07/12	3812.23	91.80	-	-	3720.43
	03/14/13	3812.23	Dry	-	-	Dry
	06/11/13	3812.23	Dry	-	-	Dry
MW-17			Diameter:____ in.	Screened Interval:_____ft. to _____ft.		TD: 91.0 ft.
	03/25/11	3810.57	87.05	-	-	3723.52
	06/22/11	3810.57	88.00	-	-	3722.57
	09/28/11	3810.57	88.98	-	-	3721.59
	01/05/12	3810.57	88.88	-	-	3721.69
	03/09/12	3810.57	88.89	-	-	3721.68
	06/21/12	3810.57	89.83	-	-	3720.74
	09/21/12	3810.57	90.56	-	-	3720.01
	12/07/12	3810.57	90.72	-	-	3719.85
	03/14/13	3810.57	90.11	-	-	3720.46
	06/11/13	3810.57	90.78	-	-	3719.79
MW-18			Diameter:____ in.	Screened Interval:_____ft. to _____ft.		TD: 90.1 ft.
	03/25/11	3809.28	86.53	-	-	3722.75
	06/22/11	3809.28	87.89	-	-	3721.39
	09/28/11	3809.28	88.71	-	-	3720.57
	01/05/12	3809.28	88.28	-	-	3721.00
	03/09/12	3809.28	88.28	-	-	3721.00
	06/21/12	3809.28	89.94	-	-	3719.34
	09/21/12	3809.28	93.05	90.10	2.95	3718.44
	12/07/12	3809.28	Dry	-	-	Dry
	03/14/13	3809.28	89.59	-	-	3719.69
	06/11/13	3809.28	Dry	-	-	Dry

Specific Gravity: 0.75

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

TALON LPE
"All the Pieces"

Summary of Historical Groundwater Analytical Data
CS CAYLER
SRS#2002-10250

Sample Designation	Date Sampled	Concentration (mg/L)				
		Benzene	Toluene	Ethylbenzene	Total Xylenes	BTEX
MW-8A	03/14/12	0.235	0.0674	0.00650	0.0531	-
	06/27/12	0.159	0.0985	0.00930	0.0424	-
	09/21/12	0.130	0.0737	0.00710	0.0336	0.244
	12/07/12	0.344	0.175	0.0219	0.0561	-
	03/20/13	1.20	0.617	0.0535	0.290	-
	06/11/13	0.113	0.0621	0.00774	0.0260	0.209
MW-9A	06/27/12	<0.000371	<0.000347	<0.000326	BRL	-
	09/21/12	0.00778	<0.00100	<0.000700	U	0.00778
	12/07/12	0.0532	<0.000347	0.00230	0.00200	-
	03/20/13	<0.000567	<0.000518	<0.000518	BRL	-
	06/11/13	0.00885	<0.00100	0.00103	U	0.00988
MW-10A	06/27/12	0.0429	0.00840	<0.000326	0.00330	-
	09/21/12	0.00219	<0.00100	<0.000700	0.00200	0.00419
	12/07/12	0.0700	0.0226	0.00360	0.00740	-
	03/20/13	0.0254	0.00530	<0.000442	0.00250	-
	06/11/13	0.0479	0.0207	0.00245	0.00663	0.0777
MW-11	03/14/12	<0.000371	<0.000347	<0.000326	BRL	-
MW-12A	03/14/12	28.7	5.14	1.29	2.57	-
	06/27/12	17.5	1.56	0.707	1.15	-
	09/21/12	13.7	1.04	0.402	0.534	15.7
	12/07/12	16.6	1.15	0.758	0.996	-
	03/20/13	13.6	2.97	0.720	1.48	-
	06/11/13	10.4	<0.0500	0.308	0.368	11.1
MW-13	03/14/12	0.0874	<0.000347	0.00110	0.0147	-
MW-13A	06/27/12	0.00360	0.00160	<0.000326	BRL	-
	09/21/12	<0.000500	<0.00100	<0.000700	U	U
	12/07/12	0.00170	0.00110	<0.000326	BRL	-
	03/20/13	<0.000387	<0.000465	<0.000442	BRL	-
	06/11/13	<0.000500	<0.00100	<0.000700	U	U
MW-14	03/14/12	<0.000371	<0.000347	<0.000326	BRL	-

TALON
"All the Pieces"

Summary of Historical Groundwater Analytical Data
CS CAYLER
SRS#2002-10250

Sample Designation	Date Sampled	Concentration (mg/L)				
		Benzene	Toluene	Ethylbenzene	Total Xylenes	BTEX
MW-14A	06/26/12	<0.000371	<0.000347	<0.000326	BRL	-
	09/21/12	0.00351	<0.00100	<0.000700	U	0.00351
	12/07/12	0.00810	<0.000347	<0.000326	BRL	-
	03/20/13	<0.000387	<0.000465	<0.000442	BRL	-
	06/11/13	<0.000500	<0.00100	<0.000700	U	U
MW-15	03/14/12	<0.000371	<0.000347	<0.000326	BRL	-
	06/26/12	<0.000371	<0.000347	<0.000326	BRL	-
	09/21/12	<0.000500	<0.00100	<0.000700	U	U
	12/07/12	<0.000371	<0.000347	<0.000326	BRL	-
	03/20/13	<0.000387	<0.000465	<0.000442	BRL	-
	06/11/13	<0.000500	<0.00100	<0.000700	U	U
MW-16	03/14/12	<0.00186	<0.00174	<0.00163	BRL	-
MW-17	03/14/12	<0.000371	<0.000347	<0.000326	BRL	-
	06/26/12	<0.000371	<0.000347	<0.000326	BRL	-
	09/21/12	0.00112	<0.00100	<0.000700	U	0.00112
	12/07/12	<0.000371	<0.000347	<0.000326	BRL	-
	03/20/13	<0.000387	<0.000465	<0.000442	BRL	-
	06/11/13	<0.000500	<0.00100	<0.000700	U	U
MW-18	03/14/12	<0.000371	<0.000347	<0.000326	BRL	-

Appendix C

Laboratory Analytical Data Report and Chain of Custody Documentation

Analytical Report 464886

for

PLAINS ALL AMERICAN EH&S

Project Manager: Brad Ivy

C.S. Cayler

700376.049.01

14-JUN-13

Collected By: Client

12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-10-6-TX), Arizona (AZ0765), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102), DoD (L11-54)

Xenco-Atlanta (EPA Lab Code: GA00046):
Florida (E87429), North Carolina (483), South Carolina (98015), Kentucky (85), DoD (L10-135)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)
Xenco-Lakeland: Florida (E84098)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)
Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)
Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)

XENCO Laboratories

14-JUN-13

Project Manager: **Brad Ivy**
PLAINS ALL AMERICAN EH&S
1301 S. COUNTY ROAD 1150
Midland, TX 79706

Reference: XENCO Report No(s): **464886**
C.S. Cayler
Project Address: Lea County, NM

Brad Ivy:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 464886. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 464886 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Kelsey Brooks
Project Manager

Sample Cross Reference 464886

PLAINS ALL AMERICAN EH&S, Midland, TX

C.S. Cayler

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-8A	W	06-11-13 12:45		464886-001
MW-9A	W	06-11-13 13:00		464886-002
MW-10A	W	06-11-13 12:15		464886-003
MW-12A	W	06-11-13 13:30		464886-004
MW-13A	W	06-11-13 12:00		464886-005
MW-14A	W	06-11-13 13:45		464886-006
MW-15	W	06-11-13 14:30		464886-007
MW-17	W	06-11-13 12:30		464886-008

CASE NARRATIVE

Client Name: PLAINS ALL AMERICAN EH&S
Project Name: C.S. Cayler

Project ID: *700376.049.01*
Work Order Number(s): *464886*

Report Date: *14-JUN-13*
Date Received: *06/11/2013*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:
Batch: LBA-916172 BTEX by EPA 8021B
SW8021BM

Batch 916172, Toluene recovered below QC limits in the Matrix Spike.
Samples affected are: 464886-006, -004, -003, -001, -002, -007, -005, -008.
The Laboratory Control Sample for Toluene is within laboratory Control Limits

XENCO Laboratories

Certificate of Analytical Results 464886

PLAINS ALL AMERICAN EH&S, Midland, TX

C.S. Cayler

Sample Id: **MW-8A** Matrix: Water Date Received:06.11.13 15.05

Lab Sample Id: 464886-001 Date Collected: 06.11.13 12.45

Analytical Method: BTEX by EPA 8021B Prep Method: SW5030B

Tech: DYV % Moisture:

Analyst: DYV Date Prep: 06.13.13 14.00

Seq Number: 916172

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**0.113**	0.00100	mg/L	06.13.13 20.16		1
Toluene	108-88-3	**0.0621**	0.00200	mg/L	06.13.13 20.16		1
Ethylbenzene	100-41-4	**0.00774**	0.00100	mg/L	06.13.13 20.16		1
m,p-Xylenes	179601-23-1	**0.0190**	0.00200	mg/L	06.13.13 20.16		1
o-Xylene	95-47-6	**0.00695**	0.00100	mg/L	06.13.13 20.16		1
Total Xylenes	1330-20-7	**0.0260**	0.00100	mg/L	06.13.13 20.16		1
Total BTEX		**0.209**	0.00100	mg/L	06.13.13 20.16		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	93	%	80-120	06.13.13 20.16	
4-Bromofluorobenzene	460-00-4	85	%	80-120	06.13.13 20.16	

Certificate of Analytical Results 464886

PLAINS ALL AMERICAN EH&S, Midland, TX

C.S. Cayler

Sample Id: **MW-9A**	Matrix: Water	Date Received:06.11.13 15.05	
Lab Sample Id: 464886-002	Date Collected: 06.11.13 13.00		
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B	
Tech: DYV		% Moisture:	
Analyst: DYV	Date Prep: 06.13.13 14.00		
Seq Number: 916172			

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**0.00885**	0.00100	mg/L	06.13.13 20.32		1
Toluene	108-88-3	ND	0.00200	mg/L	06.13.13 20.32	U	1
Ethylbenzene	100-41-4	**0.00103**	0.00100	mg/L	06.13.13 20.32		1
m,p-Xylenes	179601-23-1	ND	0.00200	mg/L	06.13.13 20.32	U	1
o-Xylene	95-47-6	ND	0.00100	mg/L	06.13.13 20.32	U	1
Total Xylenes	1330-20-7	ND	0.00100	mg/L	06.13.13 20.32	U	1
Total BTEX		**0.00988**	0.00100	mg/L	06.13.13 20.32		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	96	%	80-120	06.13.13 20.32	
4-Bromofluorobenzene	460-00-4	82	%	80-120	06.13.13 20.32	

XENCO Laboratories

Certificate of Analytical Results 464886

PLAINS ALL AMERICAN EH&S, Midland, TX

C.S. Cayler

Sample Id: **MW-10A** Matrix: Water Date Received:06.11.13 15.05

Lab Sample Id: 464886-003 Date Collected: 06.11.13 12.15

Analytical Method: BTEX by EPA 8021B Prep Method: SW5030B

Tech: DYV % Moisture:

Analyst: DYV Date Prep: 06.13.13 14.00

Seq Number: 916172

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**0.0479**	0.00100	mg/L	06.13.13 20.48		1
Toluene	108-88-3	**0.0207**	0.00200	mg/L	06.13.13 20.48		1
Ethylbenzene	100-41-4	**0.00245**	0.00100	mg/L	06.13.13 20.48		1
m,p-Xylenes	179601-23-1	**0.00465**	0.00200	mg/L	06.13.13 20.48		1
o-Xylene	95-47-6	**0.00198**	0.00100	mg/L	06.13.13 20.48		1
Total Xylenes	1330-20-7	**0.00663**	0.00100	mg/L	06.13.13 20.48		1
Total BTEX		**0.0777**	0.00100	mg/L	06.13.13 20.48		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	90	%	80-120	06.13.13 20.48	
4-Bromofluorobenzene	460-00-4	80	%	80-120	06.13.13 20.48	

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Certificate of Analytical Results 464886

PLAINS ALL AMERICAN EH&S, Midland, TX

C.S. Cayler

Sample Id: **MW-12A** Matrix: Water Date Received:06.11.13 15.05

Lab Sample Id: 464886-004 Date Collected: 06.11.13 13.30

Analytical Method: BTEX by EPA 8021B Prep Method: SW5030B

Tech: DYV % Moisture:

Analyst: DYV Date Prep: 06.13.13 14.00

Seq Number: 916172

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**10.4**	0.0500	mg/L	06.14.13 09.00		50
Toluene	108-88-3	ND	0.100	mg/L	06.14.13 09.00	U	50
Ethylbenzene	100-41-4	**0.308**	0.0500	mg/L	06.14.13 09.00		50
m,p-Xylenes	179601-23-1	**0.368**	0.100	mg/L	06.14.13 09.00		50
o-Xylene	95-47-6	ND	0.0500	mg/L	06.14.13 09.00	U	50
Total Xylenes	1330-20-7	**0.368**	0.0500	mg/L	06.14.13 09.00		50
Total BTEX		**11.1**	0.0500	mg/L	06.14.13 09.00		50

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	92	%	80-120	06.14.13 09.00	
4-Bromofluorobenzene	460-00-4	82	%	80-120	06.14.13 09.00	

XENCO Laboratories

Certificate of Analytical Results 464886

PLAINS ALL AMERICAN EH&S, Midland, TX

C.S. Cayler

Sample Id: **MW-13A** Matrix: Water Date Received:06.11.13 15.05

Lab Sample Id: 464886-005 Date Collected: 06.11.13 12.00

Analytical Method: BTEX by EPA 8021B Prep Method: SW5030B

Tech: DYV % Moisture:

Analyst: DYV Date Prep: 06.13.13 14.00

Seq Number: 916172

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	ND	0.00100	mg/L	06.14.13 08.12	U	1
Toluene	108-88-3	ND	0.00200	mg/L	06.14.13 08.12	U	1
Ethylbenzene	100-41-4	ND	0.00100	mg/L	06.14.13 08.12	U	1
m,p-Xylenes	179601-23-1	ND	0.00200	mg/L	06.14.13 08.12	U	1
o-Xylene	95-47-6	ND	0.00100	mg/L	06.14.13 08.12	U	1
Total Xylenes	1330-20-7	ND	0.00100	mg/L	06.14.13 08.12	U	1
Total BTEX		ND	0.00100	mg/L	06.14.13 08.12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	103	%	80-120	06.14.13 08.12	
4-Bromofluorobenzene	460-00-4	87	%	80-120	06.14.13 08.12	

XENCO Laboratories

Certificate of Analytical Results 464886

PLAINS ALL AMERICAN EH&S, Midland, TX

C.S. Cayler

Sample Id: **MW-14A** Matrix: Water Date Received:06.11.13 15.05

Lab Sample Id: 464886-006 Date Collected: 06.11.13 13.45

Analytical Method: BTEX by EPA 8021B Prep Method: SW5030B

Tech: DYV % Moisture:

Analyst: DYV Date Prep: 06.13.13 14.00

Seq Number: 916172

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	ND	0.00100	mg/L	06.14.13 08.28	U	1
Toluene	108-88-3	ND	0.00200	mg/L	06.14.13 08.28	U	1
Ethylbenzene	100-41-4	ND	0.00100	mg/L	06.14.13 08.28	U	1
m,p-Xylenes	179601-23-1	ND	0.00200	mg/L	06.14.13 08.28	U	1
o-Xylene	95-47-6	ND	0.00100	mg/L	06.14.13 08.28	U	1
Total Xylenes	1330-20-7	ND	0.00100	mg/L	06.14.13 08.28	U	1
Total BTEX		ND	0.00100	mg/L	06.14.13 08.28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	100	%	80-120	06.14.13 08.28	
4-Bromofluorobenzene	460-00-4	85	%	80-120	06.14.13 08.28	

Certificate of Analytical Results 464886

PLAINS ALL AMERICAN EH&S, Midland, TX

C.S. Cayler

Sample Id: **MW-15** Matrix: Water Date Received:06.11.13 15.05

Lab Sample Id: 464886-007 Date Collected: 06.11.13 14.30

Analytical Method: BTEX by EPA 8021B Prep Method: SW5030B

Tech: DYV % Moisture:

Analyst: DYV Date Prep: 06.13.13 14.00

Seq Number: 916172

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	ND	0.00100	mg/L	06.14.13 08.44	U	1
Toluene	108-88-3	ND	0.00200	mg/L	06.14.13 08.44	U	1
Ethylbenzene	100-41-4	ND	0.00100	mg/L	06.14.13 08.44	U	1
m,p-Xylenes	179601-23-1	ND	0.00200	mg/L	06.14.13 08.44	U	1
o-Xylene	95-47-6	ND	0.00100	mg/L	06.14.13 08.44	U	1
Total Xylenes	1330-20-7	ND	0.00100	mg/L	06.14.13 08.44	U	1
Total BTEX		ND	0.00100	mg/L	06.14.13 08.44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	93	%	80-120	06.14.13 08.44	
4-Bromofluorobenzene	460-00-4	81	%	80-120	06.14.13 08.44	

XENCO Laboratories

Certificate of Analytical Results 464886

PLAINS ALL AMERICAN EH&S, Midland, TX

C.S. Cayler

Sample Id: **MW-17** Matrix: Water Date Received:06.11.13 15.05

Lab Sample Id: 464886-008 Date Collected: 06.11.13 12.30

Analytical Method: BTEX by EPA 8021B Prep Method: SW5030B

Tech: DYV % Moisture:

Analyst: DYV Date Prep: 06.13.13 14.00

Seq Number: 916172

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	ND	0.00100	mg/L	06.13.13 23.13	U	1
Toluene	108-88-3	ND	0.00200	mg/L	06.13.13 23.13	U	1
Ethylbenzene	100-41-4	ND	0.00100	mg/L	06.13.13 23.13	U	1
m,p-Xylenes	179601-23-1	ND	0.00200	mg/L	06.13.13 23.13	U	1
o-Xylene	95-47-6	ND	0.00100	mg/L	06.13.13 23.13	U	1
Total Xylenes	1330-20-7	ND	0.00100	mg/L	06.13.13 23.13	U	1
Total BTEX		ND	0.00100	mg/L	06.13.13 23.13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	80-120	06.13.13 23.13	
4-Bromofluorobenzene	460-00-4	81	%	80-120	06.13.13 23.13	

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

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

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

* Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

\+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

QC Summary 464886

PLAINS ALL AMERICAN EH&S

C.S. Cayler

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 916172 — Matrix: Water — Date Prep: 06.13.13
MB Sample Id: 639656-1-BLK — LCS Sample Id: 639656-1-BKS — LCSD Sample Id: 639656-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.100	0.0815	82	0.0801	80	70-125	2	25	mg/L	06.13.13 17:51	
Toluene	<0.00200	0.100	0.0812	81	0.0804	80	70-125	1	25	mg/L	06.13.13 17:51	
Ethylbenzene	<0.00100	0.100	0.0893	89	0.0884	88	71-129	1	25	mg/L	06.13.13 17:51	
m,p-Xylenes	<0.00200	0.200	0.179	90	0.178	89	70-131	1	25	mg/L	06.13.13 17:51	
o-Xylene	<0.00100	0.100	0.0930	93	0.0926	93	71-133	0	25	mg/L	06.13.13 17:51	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		105		104		80-120	%	06.13.13 17:51
4-Bromofluorobenzene	83		101		106		80-120	%	06.13.13 17:51

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 916172 — Matrix: Water — Date Prep: 06.13.13
Parent Sample Id: 464886-001 — MS Sample Id: 464886-001 S — MSD Sample Id: 464886-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	0.113	0.100	0.202	89	0.203	90	70-125	0	25	mg/L	06.13.13 21:37	
Toluene	0.0621	0.100	0.128	66	0.140	78	70-125	9	25	mg/L	06.13.13 21:37	X
Ethylbenzene	0.00774	0.100	0.0860	78	0.0927	85	71-129	7	25	mg/L	06.13.13 21:37	
m,p-Xylenes	0.0190	0.200	0.174	78	0.189	85	70-131	8	25	mg/L	06.13.13 21:37	
o-Xylene	0.00695	0.100	0.0872	80	0.0952	88	71-133	9	25	mg/L	06.13.13 21:37	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	93		98		80-120	%	06.13.13 21:37
4-Bromofluorobenzene	89		90		80-120	%	06.13.13 21:37

Xenco Laboratories

a Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765

Phone: 432-563-1800
Fax: 432-563-1713

Project Manager: Fred Ivy
Company Name: Talon/LPE
Company Address: 921 N Bivins St.
City/State/Zip: Amarillo, Tx 79107
Telephone No: (432) 378-5414 Fax No: 806-467-0622
Sampler Signature: e-mail: ivy@talonlpe.com

Project Name: C.S Cayler
Project #: 700376.049.01
Project Loc: Lea Co, NM
PO #: Pipins
Report Format: ☐ Standard ☐ TRRP ☐ UPDES

(lab use only)
ORDER #: 464886

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO3	HCl	H2SO4	NaOH	Na2S2O3	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge	GW = Groundwater S=Soil/Solid	NP=Non-Potable Specify Other	Analyze For: TCLP: TPH: 418.1 8015M 8015B	TOTAL: TPH: TX 1005 TX 1005	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	PUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
	MW-8A			6-11-13	12:45		3	X		X						GW										X				X
	MW-9A			6-11-13	13:00		3	X		X						GW										X				X
	MW-10A			6-11-13	12:15		3	X		X						GW										X				X
	MW-12A			6-11-13	13:30		3	X		X						GW										X				X
	MW-13A			6-11-13	12:00		3	X		X						GW										X				X
	PW-14A			6-11-13	13:45		3	X		X						GW										X				X
	MW-15			6-11-13	14:30		3	X		X						GW										X				X
	MW-17			6-11-13	12:30		3	X		X						GW										X				X

Special Instructions:

Relinquished by	Date	Time	Received by	Date	Time
	6-11-13	15:25		6-11-13	15:25
Relinquished by	Date	Time	Received by:	Date	Time
Relinquished by	Date	Time	Received by ELOT	Date	Time
				6-12-13	11:07

Laboratory Comments: 2.0

Sample Containers Intact?	Y	N
VOCs Free of Headspace?	Y	N
Labels on container(s)	Y	N
Custody seals on container(s)	Y	N
Custody seals on cooler(s)	Y	N
Sample Hand Delivered	Y	N
by Sampler/Client Rep ?	Y	N

by Courier? UPS DHL FedEx Lone Star

Temperature Upon Receipt:	As Read	Corrected
	8 °C	8 °C

Final 1.000

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: PLAINS ALL AMERICAN EH&S

Date/ Time Received: 06/11/2013 03:05:00 PM

Work Order #: 464886

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used :

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	2
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**
#5 Custody Seals intact on sample bottles?	**Yes**
#6 *Custody Seals Signed and dated?	**Yes**
#7 *Chain of Custody present?	**Yes**
#8 Sample instructions complete on Chain of Custody?	**Yes**
#9 Any missing/extra samples?	**No**
#10 Chain of Custody signed when relinquished/ received?	**Yes**
#11 Chain of Custody agrees with sample label(s)?	**Yes**
#12 Container label(s) legible and intact?	**Yes**
#13 Sample matrix/ properties agree with Chain of Custody?	**Yes**
#14 Samples in proper container/ bottle?	**Yes**
#15 Samples properly preserved?	**Yes**
#16 Sample container(s) intact?	**Yes**
#17 Sufficient sample amount for indicated test(s)?	**Yes**
#18 All samples received within hold time?	**Yes**
#19 Subcontract of sample(s)?	**Yes**
#20 VOC samples have zero headspace (less than 1/4 inch bubble)?	**Yes**
#21 <2 for all samples preserved with HNO3,HCL, H2SO4?	**Yes**
#22 >10 for all samples preserved with NaAsO2+NaOH, ZnAc+NaOH?	**Yes**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst:	PH Device/Lot#:

Checklist completed by: Kelsey Brooks Date: 06/12/2013

Checklist reviewed by: Kelsey Brooks Date: 06/12/2013

PLAINS
PIPELINE, L.P.

RECEIVED
MAY - 3 2013
Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, NM 87505

April 24, 2013

Mr. Edward Hansen
New Mexico Oil Conservation Division
Environmental Bureau
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

RE: Plains Pipeline, L.P. C. S. Cayler Release Site
NMOCD Reference # AP-052
Unit Letter B of Section 6, Township 17 South, Range 37 East
Lea County, New Mexico

Dear Mr. Hansen:

Plains Pipeline, L.P. is pleased to submit the attached Quarterly Report, dated April 19, 2013, for the C.S. Cayler release site located in Section 6 of Township 17 South, and Range 37 East of Lea County, New Mexico. This document summarizes the status of recent activities performed at the site during the first quarter of 2013.

Should you have any questions or comments, please contact me at (575) 441-1099.

Sincerely,

Jason Henry

Jason Henry
Remediation Coordinator
Plains Pipeline, L.P.

CC: Geoffrey R. Leking, NMOCD, Hobbs Office

Enclosure

AMARILLO
921 North Bivins
Amarillo, Texas 79107
Phone 806.467.0607
Fax 806.467.0622

AUSTIN
911 West Anderson Lane
Suite 202
Austin, Texas 78757
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MIDLAND
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Midland, Texas 79706
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Fax 432.522.2180

SAN ANTONIO
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Fax 210.568.2191

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Tulsa, Oklahoma 74103
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HOBBS
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ARTESIA
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Artesia, New Mexico 88210
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ENVIRONMENTAL CONSULTING
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Toll Free: 866.742.0742
www.talonlpe.com

April 19, 2013

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

Re: Plains Pipeline, L.P. C.S. Cayler (Plains SRS #2002-10250)
First Quarter 2013 Summary
NMOCD Reference # AP-052 (Old 1R-0382)
UL-M (NW¼ of the NE¼) of Section 6, T17S, R37E
Latitude: 32° 52' 2.45"N and Longitude: 103° 17' 17.73"W
Landowner: Robert Rice
Lea County, New Mexico

Dear Mr. Hansen:

Talon/LPE (Talon) is submitting this letter report on behalf of Plains Pipeline, L.P. (Plains) that summarizes the first quarter 2013 groundwater monitoring activities.

Remediation Activities

During the first quarter of 2013, two (2) specific gravity skimmers with bladder pumps were in operation in monitor wells MW-2 and MW-12 and five (5) total fluids pumps were in operation in monitor wells MW-1A, MW-2A, MW-3, MW-4 and MW-5. The skimmers and total fluids pumps are utilized to recover phase separated hydrocarbons (PSH) and to inhibit migration of the PSH and dissolved-phase plumes. The recovery system is inspected and maintained on a weekly basis in order to optimize efficiency and recovery rates.

Attachments to this letter report include a site plan, gradient map, and a PSH thickness isopleth map combined with dissolved-phase distribution located in Appendix A. A synopsis of the historical groundwater gauging data and groundwater analytical results are provided in Appendix B and the laboratory analytical report with chain-of-custody are located in Appendix C.

During the first quarter, the system recovered approximately 2,112 barrels of water, of which, 2,112 barrels of water was transferred by pump to the Rocky Smith saltwater disposal facility. Approximately 17.5 barrels of crude oil was recovered by the system and 9 barrels of oil was contained in the recovery tank at the end of the quarter. Approximately 10 bbls of crude oil was inadvertently removed from the recovery tank via the automated waste water transfer system to the Three Forks SWD during the first quarter.

First Quarter Groundwater Monitoring Event

The first quarter 2013 groundwater monitoring event was conducted on March 14, 2013. Prior to the event, the PSH recovery system was shut-down and the recovery pumps were pulled in order to allow the poteniometric surface to stabilize. During the groundwater monitoring event, all monitor wells were measured with an interface probe to determine static water levels and PSH thicknesses if present.

Groundwater samples were collected from eight (8) monitor wells (MW-8A, MW-9A, MW-10A, MW-12A, MW-13A, MW-14A, MW-15 and MW-17). The samples were submitted to the laboratory for quantification of benzene, toluene, ethylbenzene, and total xylenes (BTEX) using EPA SW-846, Method 8021B. Groundwater samples were not collected from MW's 1A, 2, 2A, 3, 4, 5, 7A and 12 due to the presence of PSH. Groundwater samples were not collected from monitor wells MW-6, MW-11, MW-16, and MW-18 because they were dry.

Results of the Groundwater Monitoring Event

Data collected from the March 2013 groundwater monitoring event exhibited the following results.

- Benzene concentrations ranged from <0.00100 mg/L to 13.6 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-8A, MW-12A, and MW-16.
- Toluene concentrations ranged from <0.00100 mg/L to 02.97 mg/L. Toluene concentrations exceeded the New Mexico Water Quality Control Commission (NMWQCC) remediation threshold of 0.750 mg/L in groundwater samples collected from monitor well MW12A.
- Ethylbenzene concentrations ranged from <0.00100 mg/L to 0.720 mg/L. Ethylbenzene concentrations did not exceed the NMWQCC remediation threshold of 0.750 mg/L in any of the groundwater samples collected.
- Total xylene concentrations ranged from <0.00100 mg/L to 1.48 mg/L. Total xylene concentrations exceeded the New Mexico Water Quality Control Commission (NMWQCC) remediation threshold of 0.620 mg/L in groundwater samples collected from monitor well MW12A.
- Dissolved-phase concentrations remained relatively stable in sampled monitor wells. The dissolved-phase plume is not currently delineated in the southeast direction. However, plans to replace MW-11 and MW-18 are underway to restore delineated status.
- PSH thicknesses typically fluctuate from quarter to quarter but have declined overall since PSH recovery operations were initiated. For the first quarter, PSH thicknesses exhibited slight to moderate declines and increases in various impacted monitor wells. The largest decrease in PSH thicknesses occurred in monitor well MW-1A of 6.74ft.
- Data collected from groundwater monitoring event indicated an average increase in groundwater levels of 0.89 feet.

Recommendations

Currently, the system is operating as designed. Talon recommends replacement wells be drilled in place of MW-3, MW-4, and MW-6 for greater PSH recovery and impedance of the dissolved-phase plume, and MW-11, MW-16, and MW-18 to ensure delineation of the dissolved-phase plume. (NOTE: Plans for these site amendments 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:

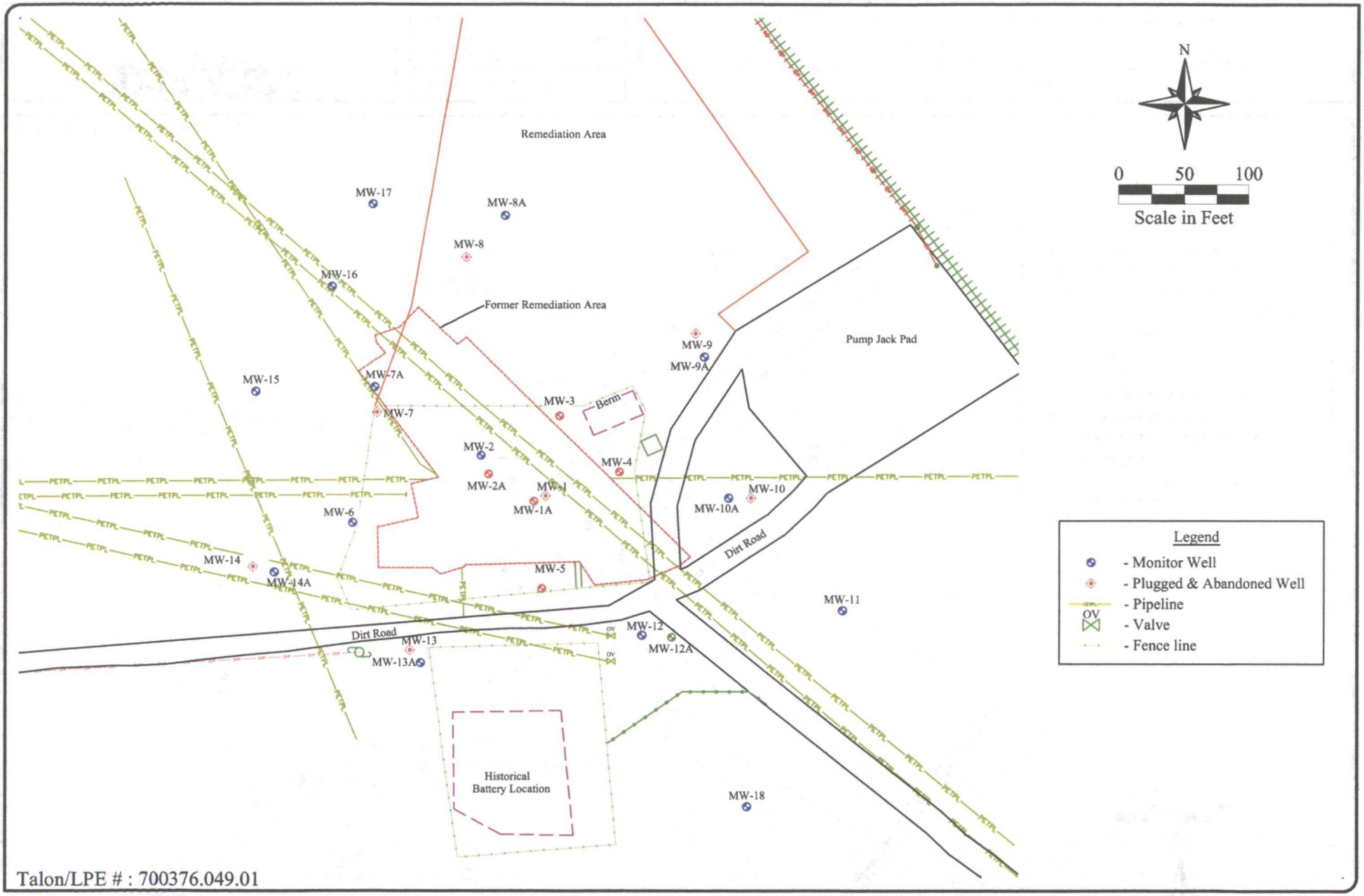
Appendix A ..... Figures

Appendix B ..... Tables

Appendix C ..... Laboratory Analytical Report and Chain of Custody Documentation

Appendix A

Figures



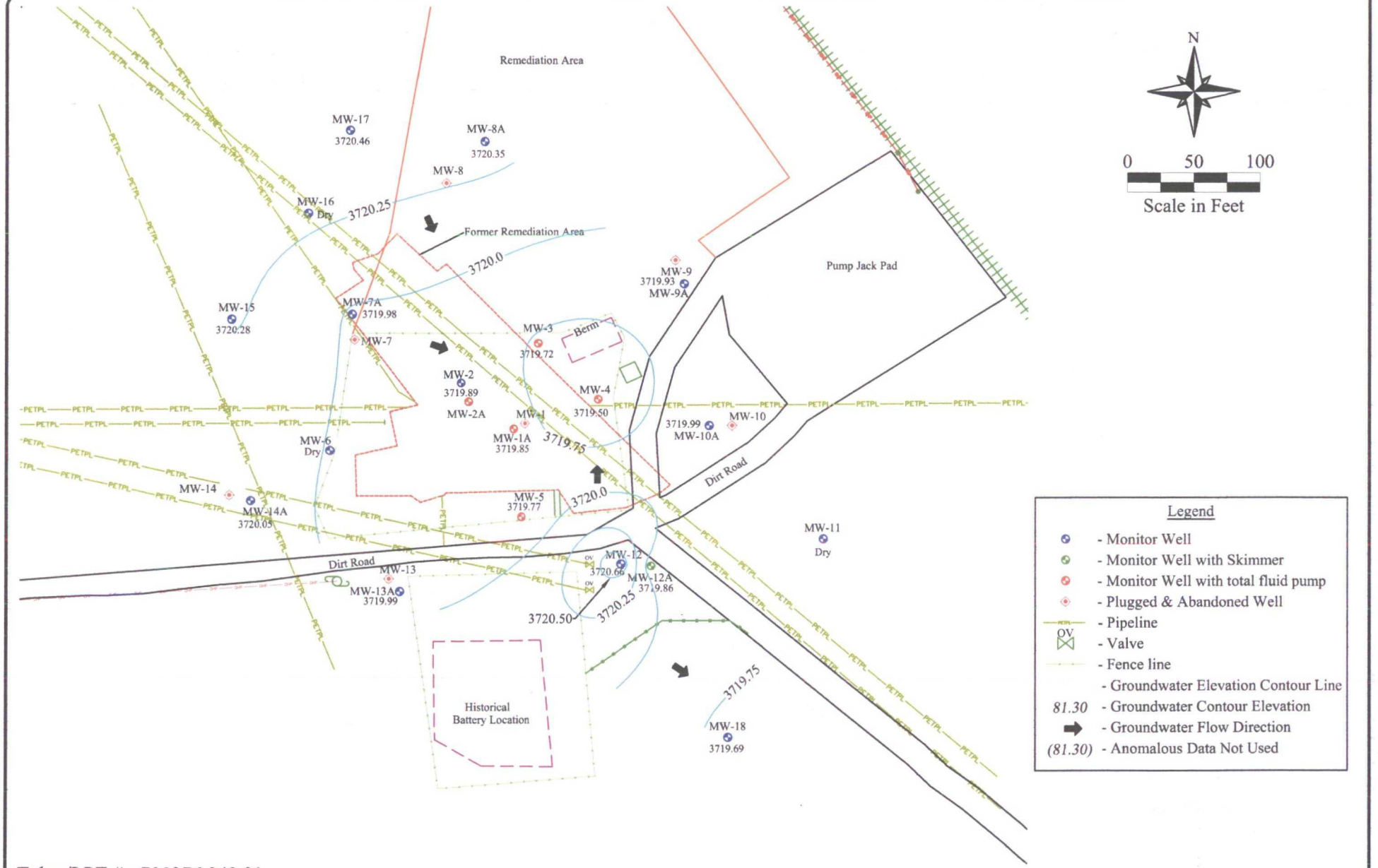
Talon/LPE # : 700376.049.01

TALON LPE

Date:	01/22/2013
Scale:	1" = 100'
Drawn By:	WBS

C.S. Cayler

SRS # 2002-10250, NMOCD REF. # AP-052 (OLD 1R-0382)
Lea County, New Mexico
Figure 1 - Site Plan



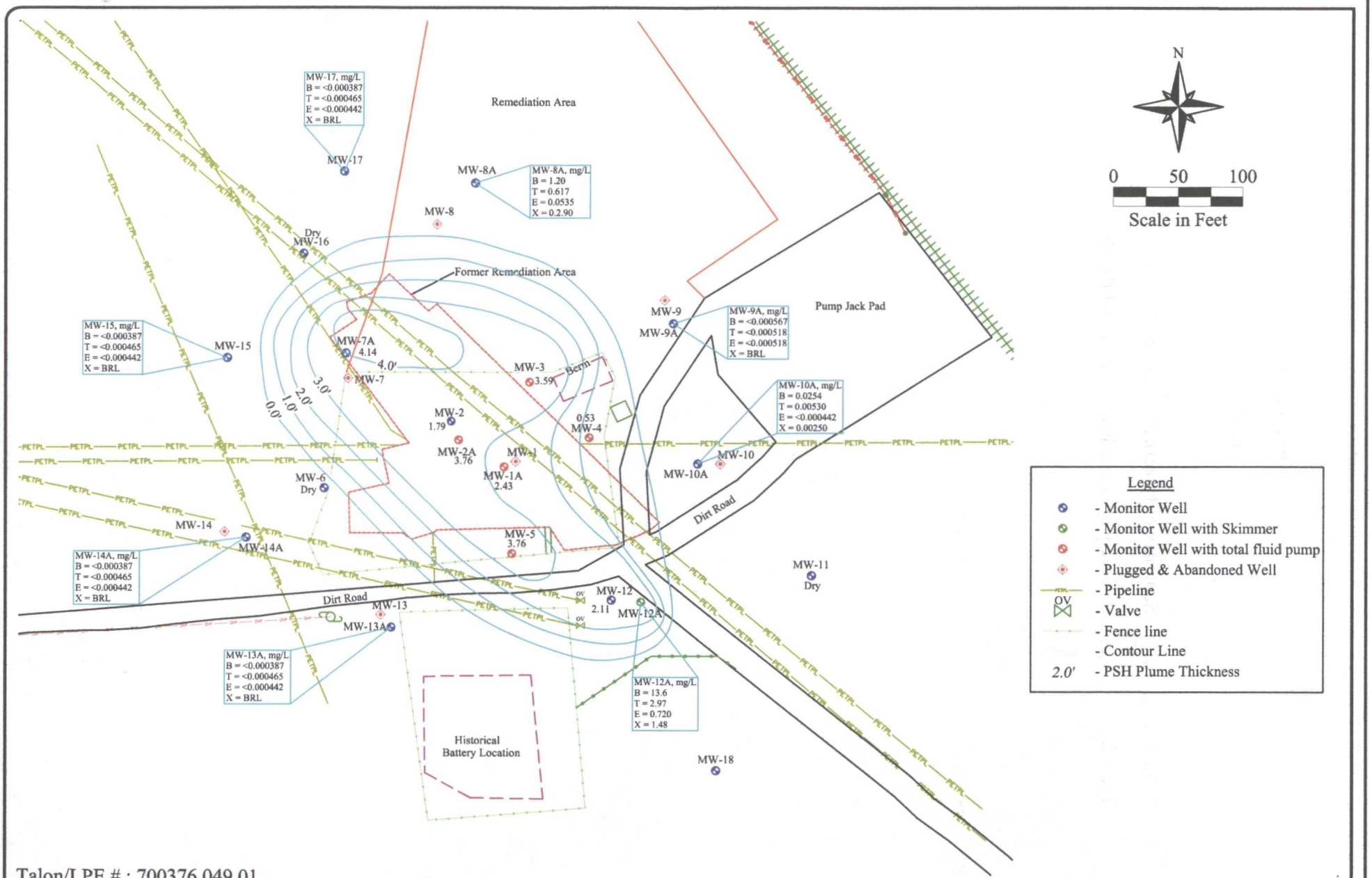
Talon/LPE # : 700376.049.01

TALON LPE

Date: 04/16/2013
Scale: 1" = 100'
Drawn By: TJS

C.S. Cayler

SRS # 2002-10250, NMOCD REF. # AP-052 (OLD 1R-0382)
Lea County, New Mexico
Figure 2a - Groundwater Gradient Map, (03/14/2013)



Talon/LPE # : 700376.049.01

TALON LPE

Date: 04/16/2013
Scale: 1" = 100'
Drawn By: TJS

C.S. Cayler

SRS # 2002-10250, NMOCD REF. # AP-052 (OLD 1R-0382)
Lea County, New Mexico
Figure 3a - PSH Thickness & Groundwater Concentration Map, (03/20/2013)

Appendix B

Tables

TALON LPE
"All the Pieces"

Summary of Historical Fluid Level Measurements
CS CAYLER
SRS#2002-10250

Well	Date	Top of Casing Elevation (ft)	Depth to Groundwater (ft)	Depth to PSH (ft)	PSH Thickness (ft)	Corrected Groundwater Elevation (ft)
MW-1A			Diameter: ___ in.	Screened Interval: ___ ft. to ___ ft.		TD: 96.2 ft.
	01/05/12	3810.14	93.60	87.74	5.86	3720.94
	03/09/12	3810.14	93.82	87.68	6.14	3720.93
	06/21/12	3810.14	96.20	88.65	7.55	3719.60
	09/21/12	3810.14	94.03	90.05	3.98	3719.10
	12/07/12	3810.14	94.14	89.97	4.17	3719.13
	03/14/13	3810.14	92.11	89.68	2.43	3719.85
MW-2			Diameter: ___ in.	Screened Interval: ___ ft. to ___ ft.		TD: 88.1 ft.
	01/05/12	3807.38	88.06	84.47	3.59	3722.01
	03/09/12	3807.38	88.08	84.36	3.72	3722.09
	06/21/12	3807.38	88.13	85.64	2.49	3721.12
	09/21/12	3807.38	88.16	86.37	1.79	3720.56
	12/07/12	3807.38	NG	-	-	NG
MW-2A			Diameter: ___ in.	Screened Interval: ___ ft. to ___ ft.		TD: 109 ft.
	01/05/12	3810.14	93.87	87.64	6.23	3720.94
	03/09/12	3810.14	93.61	87.66	5.95	3720.99
	06/21/12	3810.14	95.66	88.60	7.06	3719.78
	09/21/12	3810.14	93.05	90.10	2.95	3719.30
	12/07/12	3810.14	94.63	89.71	4.92	3719.20
	03/14/13	3810.14	93.07	89.31	3.76	3719.89
MW-3			Diameter: ___ in.	Screened Interval: ___ ft. to ___ ft.		TD: 93.5 ft.
	01/05/12	3810.36	93.49	88.73	4.76	3720.44
	03/09/12	3810.36	93.27	88.49	4.78	3720.68
	06/21/12	3810.36	93.53	88.79	4.74	3720.39
	09/21/12	3810.36	93.51	89.57	3.94	3719.81
	12/07/12	3810.36	93.58	89.51	4.07	3719.83
	03/14/13	3810.36	93.33	89.74	3.59	3719.72
MW-4			Diameter: ___ in.	Screened Interval: ___ ft. to ___ ft.		TD: 93.2 ft.
	01/05/12	3810.81	93.00	88.92	4.08	3720.87
	03/09/12	3810.81	92.24	89.26	2.98	3720.81
	06/21/12	3810.81	92.10	90.35	1.75	3720.02
	09/21/12	3810.81	92.33	91.24	1.09	3719.30
	12/07/12	3810.81	92.57	91.06	1.51	3719.37
	03/14/13	3810.81	91.71	91.18	0.53	3719.50
MW-5			Diameter: ___ in.	Screened Interval: ___ ft. to ___ ft.		TD: 93.4 ft.
	01/05/12	3809.29	NG	-	-	NG
	03/09/12	3809.29	NG	-	-	NG
	06/21/12	3809.29	NG	-	-	NG
	09/21/12	3809.29	NG	-	-	NG
	12/07/12	3809.29	Dry	-	-	Dry
	03/14/13	3809.29	92.34	88.58	3.76	3719.77
MW-6			Diameter: ___ in.	Screened Interval: ___ ft. to ___ ft.		TD: 88.3 ft.
	01/05/12	3809.33	88.04	87.99	0.05	3721.33
	03/09/12	3809.33	88.00	87.94	0.06	3721.38
	06/21/12	3809.33	88.35	88.31	0.04	3721.01
	09/21/12	3809.33	Dry	-	-	Dry
	12/07/12	3809.33	88.41	-	-	3720.92
	03/14/13	3809.33	Dry	-	-	Dry
MW-7A			Diameter: ___ in.	Screened Interval: ___ ft. to ___ ft.		TD: 101 ft.
	01/05/12	3810.63	89.49	88.99	0.50	3721.52
	03/09/12	3810.63	89.75	88.99	0.76	3721.45
	06/21/12	3810.63	93.81	89.38	4.43	3720.14
	09/21/12	3810.63	95.60	89.91	5.69	3719.30
	12/07/12	3810.63	95.47	90.06	5.41	3719.22
	03/14/13	3810.63	93.76	89.62	4.14	3719.98

TALON LPE "All the Pieces"

Summary of Historical Fluid Level Measurements
CS CAYLER
SRS#2002-10250

Well	Date	Top of Casing Elevation (ft)	Depth to Groundwater (ft)	Depth to PSH (ft)	PSH Thickness (ft)	Corrected Groundwater Elevation (ft)
MW-8A			Diameter: ___ in.	Screened Interval: ___ ft. to ___ ft.		TD: 103 ft.
	01/05/12	3810.73	90.16	-	-	3720.57
	03/09/12	3810.73	89.19	-	-	3721.54
	06/21/12	3810.73	90.16	-	-	3720.57
	09/21/12	3810.73	90.91	-	-	3719.82
	12/07/12	3810.73	91.05	-	-	3719.68
	03/14/13	3810.73	90.38	-	-	3720.35
MW-9A			Diameter: ___ in.	Screened Interval: ___ ft. to ___ ft.		TD: 107 ft.
	06/21/12	3810.73	90.68	-	-	3720.05
	09/21/12	3810.73	91.45	-	-	3719.28
	12/07/12	3810.73	91.50	-	-	3719.23
	03/14/13	3810.73	90.80	-	-	3719.93
MW-10A			Diameter: ___ in.	Screened Interval: ___ ft. to ___ ft.		TD: 114 ft.
	06/21/12	3810.41	90.35	-	-	3720.06
	09/21/12	3810.41	91.15	-	-	3719.26
	12/07/12	3810.41	91.10	-	-	3719.31
	03/14/13	3810.41	90.42	-	-	3719.99
MW-11			Diameter: ___ in.	Screened Interval: ___ ft. to ___ ft.		TD: 89.1 ft.
	01/05/12	3809.12	87.99	-	-	3721.13
	03/09/12	3809.12	87.97	-	-	3721.15
	06/21/12	3809.12	89.20	-	-	3719.92
	06/21/12	3809.12	Dry	-	-	Dry
	12/07/12	3809.12	Dry	-	-	Dry
	03/14/13	3809.12	Dry	-	-	Dry
MW-12			Diameter: ___ in.	Screened Interval: ___ ft. to ___ ft.		TD: 90.8 ft.
	01/05/12	3809.81	90.91	87.61	3.30	3721.38
	03/09/12	3809.81	90.91	88.56	2.35	3720.66
	06/21/12	3809.81	90.90	88.57	2.33	3720.66
	09/21/12	3809.81	90.98	89.48	1.50	3719.96
	12/07/12	3809.81	NG	-	-	NG
	03/14/13	3809.81	90.73	88.62	2.11	3720.66
MW-12A			Diameter: ___ in.	Screened Interval: ___ ft. to ___ ft.		TD: 109 ft.
	01/05/12	3808.98	87.81	-	-	3721.17
	03/09/12	3808.98	87.83	-	-	3721.15
	06/21/12	3808.98	89.07	-	-	3719.91
	09/21/12	3808.98	89.92	-	-	3719.06
	12/07/12	3808.98	89.83	-	-	3719.15
	03/14/13	3808.98	89.12	-	-	3719.86
MW-13			Diameter: ___ in.	Screened Interval: ___ ft. to ___ ft.		TD: 88.9 ft.
	01/05/12	3809.59	88.34	-	-	3721.25
	03/09/12	3809.59	88.34	-	-	3721.25
	06/20/12	3809.59	P&A	-	-	P&A
MW-13A			Diameter: ___ in.	Screened Interval: ___ ft. to ___ ft.		TD: 108 ft.
	06/21/12	3809.49	89.07	-	-	3720.42
	09/21/12	3809.49	90.15	-	-	3719.34
	12/07/12	3809.49	90.20	-	-	3719.29
	03/14/13	3809.49	89.50	-	-	3719.99
MW-14			Diameter: ___ in.	Screened Interval: ___ ft. to ___ ft.		TD: 88 ft.
	01/05/12	3809.63	88.21	-	-	3721.42
	03/09/12	3809.63	88.23	-	-	3721.40
	06/20/12	3809.63	P&A	-	-	P&A

TALON LPE
"All the Pieces"

Summary of Historical Fluid Level Measurements
CS CAYLER
SRS#2002-10250

Well	Date	Top of Casing Elevation (ft)	Depth to Groundwater (ft)	Depth to PSH (ft)	PSH Thickness (ft)	Corrected Groundwater Elevation (ft)
MW-14A			Diameter: ___ in.	Screened Interval: ___ ft. to ___ ft.		TD: 114 ft.
	06/21/12	3809.93	NG	-	-	NG
	09/21/12	3809.93	90.31	-	-	3719.62
	12/07/12	3809.93	90.43	-	-	3719.50
	03/14/13	3809.93	89.88	-	-	3720.05
MW-15			Diameter: ___ in.	Screened Interval: ___ ft. to ___ ft.		TD: 92.2 ft.
	01/05/12	3810.93	89.37	-	-	3721.56
	03/09/12	3810.93	89.40	-	-	3721.53
	06/21/12	3810.93	90.42	-	-	3720.51
	09/21/12	3810.93	91.15	-	-	3719.78
	12/07/12	3810.93	91.28	-	-	3719.65
	03/14/13	3810.93	90.65	-	-	3720.28
MW-16			Diameter: ___ in.	Screened Interval: ___ ft. to ___ ft.		TD: 91.2 ft.
	01/05/12	3812.23	90.60	-	-	3721.63
	03/09/12	3812.23	90.58	-	-	3721.65
	06/21/12	3812.23	91.57	-	-	3720.66
	09/21/12	3812.23	Dry	-	-	Dry
	12/07/12	3812.23	91.80	-	-	3720.43
	03/14/13	3812.23	Dry	-	-	Dry
MW-17			Diameter: ___ in.	Screened Interval: ___ ft. to ___ ft.		TD: 91 ft.
	01/05/12	3810.57	88.88	-	-	3721.69
	03/09/12	3810.57	88.89	-	-	3721.68
	06/21/12	3810.57	89.83	-	-	3720.74
	09/21/12	3810.57	90.56	-	-	3720.01
	12/07/12	3810.57	90.72	-	-	3719.85
	03/14/13	3810.57	90.11	-	-	3720.46
MW-18			Diameter: ___ in.	Screened Interval: ___ ft. to ___ ft.		TD: 90.1 ft.
	01/05/12	3809.28	88.28	-	-	3721.00
	03/09/12	3809.28	88.28	-	-	3721.00
	06/21/12	3809.28	89.94	-	-	3719.34
	09/21/12	3809.28	93.05	90.10	2.95	3718.44
	12/07/12	3809.28	Dry	-	-	Dry
	03/14/13	3809.28	89.59	-	-	3719.69

Specific Gravity: 0.75

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

TALON LPE
"All the Pieces"

Summary of Historical Groundwater Analytical Data
CS CAYLER
SRS#2002-10250

Sample Designation	Date Sampled	Concentration (mg/L)				
		Benzene	Toluene	Ethylbenzene	Total Xylenes	BTEX
MW-8A	01/05/12	0.101	0.0639	0.00860	0.0251	-
	03/14/12	0.235	0.0674	0.00650	0.0531	-
	06/27/12	0.159	0.0985	0.00930	0.0424	-
	09/21/12	0.130	0.0737	0.00710	0.0336	0.244
	12/07/12	0.344	0.175	0.0219	0.0561	-
	03/20/13	1.20	0.617	0.0535	0.290	-
MW-9A	06/27/12	<0.000371	<0.000347	<0.000326	BRL	-
	09/21/12	0.00778	<0.00100	<0.000700	U	0.00778
	12/07/12	0.0532	<0.000347	0.00230	0.00200	-
	03/20/13	<0.000567	<0.000518	<0.000518	BRL	-
MW-10A	06/27/12	0.0429	0.00840	<0.000326	0.00330	-
	09/21/12	0.00219	<0.00100	<0.000700	0.00200	0.00419
	12/07/12	0.0700	0.0226	0.00360	0.00740	-
	03/20/13	0.0254	0.00530	<0.000442	0.00250	-
MW-11	01/05/12	<0.000765	<0.000719	<0.000860	BRL	-
	03/14/12	<0.000371	<0.000347	<0.000326	BRL	-
MW-12A	01/05/12	18.0	0.807	0.522	0.752	-
	03/14/12	28.7	5.14	1.29	2.57	-
	06/27/12	17.5	1.56	0.707	1.15	-
	09/21/12	13.7	1.04	0.402	0.534	15.7
	12/07/12	16.6	1.15	0.758	0.996	-
	03/20/13	13.6	2.97	0.720	1.48	-
MW-13	03/14/12	0.0874	<0.000347	0.00110	0.0147	-
MW-13A	06/27/12	0.00360	0.00160	<0.000326	BRL	-
	09/21/12	<0.000500	<0.00100	<0.000700	U	U
	12/07/12	0.00170	0.00110	<0.000326	BRL	-
	03/20/13	<0.000387	<0.000465	<0.000442	BRL	-
MW-14	01/05/12	<0.000765	<0.000719	<0.000860	BRL	-
	03/14/12	<0.000371	<0.000347	<0.000326	BRL	-
MW-14A	06/26/12	<0.000371	<0.000347	<0.000326	BRL	-
	09/21/12	0.00351	<0.00100	<0.000700	U	0.00351
	12/07/12	0.00810	<0.000347	<0.000326	BRL	-
	03/20/13	<0.000387	<0.000465	<0.000442	BRL	-

TALON LPE
"All the Pieces"

Summary of Historical Groundwater Analytical Data
CS CAYLER
SRS#2002-10250

Sample Designation	Date Sampled	Concentration (mg/L)				
		Benzene	Toluene	Ethylbenzene	Total Xylenes	BTEX
MW-15	01/05/12	<0.000765	<0.000719	<0.000860	BRL	-
	03/14/12	<0.000371	<0.000347	<0.000326	BRL	-
	06/26/12	<0.000371	<0.000347	<0.000326	BRL	-
	09/21/12	<0.000500	<0.00100	<0.000700	U	U
	12/07/12	<0.000371	<0.000347	<0.000326	BRL	-
	03/20/13	<0.000387	<0.000465	<0.000442	BRL	-
MW-16	01/05/12	0.255	0.00490	0.00350	0.0221	-
	03/14/12	<0.00186	<0.00174	<0.00163	BRL	-
MW-17	01/05/12	<0.000765	<0.000719	<0.000860	BRL	-
	03/14/12	<0.000371	<0.000347	<0.000326	BRL	-
	06/26/12	<0.000371	<0.000347	<0.000326	BRL	-
	09/21/12	0.00112	<0.00100	<0.000700	U	0.00112
	12/07/12	<0.000371	<0.000347	<0.000326	BRL	-
	03/20/13	<0.000387	<0.000465	<0.000442	BRL	-
MW-18	01/05/12	<0.000765	<0.000719	<0.000860	BRL	-
	03/14/12	<0.000371	<0.000347	<0.000326	BRL	-

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-Midland
2901 State Highway 349
Midland, TX, 79706

Report Date: March 26, 2013

Work Order: 13032203

Project Location: Cayler, NM
Project Name: C. S. Cayler
Project Number: 700376.049.01
SRS #: 2002-10250

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
324288	MW-8A	water	2013-03-20	11:15	2013-03-21
324289	MW-9A	water	2013-03-20	09:30	2013-03-21
324290	MW-10A	water	2013-03-20	11:55	2013-03-21
324291	MW-12A	water	2013-03-20	11:30	2013-03-21
324292	MW-13A	water	2013-03-20	11:45	2013-03-21
324293	MW-14A	water	2013-03-20	09:45	2013-03-21
324294	MW-15	water	2013-03-20	09:10	2013-03-21
324295	MW-17	water	2013-03-20	08:45	2013-03-21

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.

Michael Abel

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

Report Contents

Case Narrative

Samples for project C. S. Cayler were received by TraceAnalysis, Inc. on 2013-03-21 and assigned to work order 13032203. Samples for work order 13032203 were received intact without headspace and at a temperature of 2.6 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	84685	2013-03-22 at 10:05	99972	2013-03-22 at 10:05
BTEX	S 8021B	84710	2013-03-25 at 13:47	99998	2013-03-25 at 13:47

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 13032203 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: 324288 - MW-8A

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	99998	Date Analyzed:	2013-03-25	Analyzed By:	MT
Prep Batch:	84710	Sample Preparation:	2013-03-25	Prepared By:	MT

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene		1	**1.20**	mg/L	10	0.00100
Toluene		1	**0.617**	mg/L	10	0.00100
Ethylbenzene		1	**0.0535**	mg/L	10	0.00100
Xylene		1	**0.290**	mg/L	10	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.959	mg/L	10	1.00	96	80 - 120
4-Bromofluorobenzene (4-BFB)			0.900	mg/L	10	1.00	90	80 - 120

Sample: 324289 - MW-9A

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	99998	Date Analyzed:	2013-03-25	Analyzed By:	MT
Prep Batch:	84710	Sample Preparation:	2013-03-25	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)			0.0924	mg/L	1	0.100	92	80 - 120
4-Bromofluorobenzene (4-BFB)			0.0931	mg/L	1	0.100	93	80 - 120

Sample: 324290 - MW-10A

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	99972	Date Analyzed:	2013-03-22	Analyzed By:	MT
Prep Batch:	84685	Sample Preparation:	2013-03-22	Prepared By:	MT

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene		1	**0.0254**	mg/L	1	0.00100
Toluene		1	**0.00530**	mg/L	1	0.00100
Ethylbenzene		1	<0.00100	mg/L	1	0.00100
Xylene		1	**0.00250**	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0832	mg/L	1	0.100	83	69.8 - 120
4-Bromofluorobenzene (4-BFB)			0.0741	mg/L	1	0.100	74	67.3 - 120

Sample: 324291 - MW-12A

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	99972	Date Analyzed:	2013-03-22	Analyzed By:	MT
Prep Batch:	84685	Sample Preparation:	2013-03-22	Prepared By:	MT

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene		1	**13.6**	mg/L	50	0.00100
Toluene		1	**2.97**	mg/L	50	0.00100
Ethylbenzene		1	**0.720**	mg/L	50	0.00100
Xylene		1	**1.48**	mg/L	50	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			4.35	mg/L	50	5.00	87	69.8 - 120
4-Bromofluorobenzene (4-BFB)			3.96	mg/L	50	5.00	79	67.3 - 120

Sample: 324292 - MW-13A

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	99972	Date Analyzed:	2013-03-22	Analyzed By:	MT
Prep Batch:	84685	Sample Preparation:	2013-03-22	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)			0.0780	mg/L	1	0.100	78	69.8 - 120
4-Bromofluorobenzene (4-BFB)			0.0774	mg/L	1	0.100	77	67.3 - 120

Sample: 324293 - MW-14A

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	99972	Date Analyzed:	2013-03-22	Analyzed By:	MT
Prep Batch:	84685	Sample Preparation:	2013-03-22	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)			0.0813	mg/L	1	0.100	81	69.8 - 120
4-Bromofluorobenzene (4-BFB)			0.0755	mg/L	1	0.100	76	67.3 - 120

Sample: 324294 - MW-15

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	99972	Date Analyzed:	2013-03-22	Analyzed By:	MT
Prep Batch:	84685	Sample Preparation:	2013-03-22	Prepared By:	MT

Parameter	Flag	Cert	RL Result	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)			0.0815	mg/L	1	0.100	82	69.8 - 120
4-Bromofluorobenzene (4-BFB)			0.0812	mg/L	1	0.100	81	67.3 - 120

Sample: 324295 - MW-17

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	99972	Date Analyzed:	2013-03-22	Analyzed By:	MT
Prep Batch:	84685	Sample Preparation:	2013-03-22	Prepared By:	MT

Parameter	Flag	Cert	RL Result	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)			0.0753	mg/L	1	0.100	75	69.8 - 120
4-Bromofluorobenzene (4-BFB)			0.0731	mg/L	1	0.100	73	67.3 - 120

Method Blanks

Method Blank (1) QC Batch: 99972

QC Batch: 99972 | Date Analyzed: 2013-03-22 | Analyzed By: MT
Prep Batch: 84685 | QC Preparation: 2013-03-22 | Prepared By: MT

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)			0.0879	mg/L	1	0.100	88	69.8 - 120
4-Bromofluorobenzene (4-BFB)			0.0789	mg/L	1	0.100	79	67.3 - 120

Method Blank (1) QC Batch: 99998

QC Batch: 99998 | Date Analyzed: 2013-03-25 | Analyzed By: MT
Prep Batch: 84710 | QC Preparation: 2013-03-25 | 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)			0.0908	mg/L	1	0.100	91	80 - 120
4-Bromofluorobenzene (4-BFB)			0.0901	mg/L	1	0.100	90	80 - 120

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 99972 | Date Analyzed: 2013-03-22 | Analyzed By: MT
Prep Batch: 84685 | QC Preparation: 2013-03-22 | Prepared By: MT

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0847	mg/L	1	0.100	<0.000387	85	74.4 - 120
Toluene		1	0.0833	mg/L	1	0.100	<0.000465	83	75 - 120
Ethylbenzene		1	0.0839	mg/L	1	0.100	<0.000442	84	74.7 - 120
Xylene		1	0.253	mg/L	1	0.300	<0.000413	84	75.9 - 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	0.0812	mg/L	1	0.100	<0.000387	81	74.4 - 120	4	20
Toluene		1	0.0796	mg/L	1	0.100	<0.000465	80	75 - 120	4	20
Ethylbenzene		1	0.0803	mg/L	1	0.100	<0.000442	80	74.7 - 120	4	20
Xylene		1	0.241	mg/L	1	0.300	<0.000413	80	75.9 - 120	5	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)	0.0813	0.0875	mg/L	1	0.100	81	88	69.8 - 120
4-Bromofluorobenzene (4-BFB)	0.0807	0.0827	mg/L	1	0.100	81	83	67.3 - 120

Laboratory Control Spike (LCS-1)

QC Batch: 99998 | Date Analyzed: 2013-03-25 | Analyzed By: MT
Prep Batch: 84710 | QC Preparation: 2013-03-25 | Prepared By: MT

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0911	mg/L	1	0.100	<0.000567	91	80 - 120
Toluene		1	0.0964	mg/L	1	0.100	<0.000518	96	80 - 120
Ethylbenzene		1	0.0961	mg/L	1	0.100	<0.000518	96	80 - 120
Xylene		1	0.283	mg/L	1	0.300	<0.000548	94	80 - 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	0.0878	mg/L	1	0.100	<0.000567	88	80 - 120	4	20
Toluene		1	0.0934	mg/L	1	0.100	<0.000518	93	80 - 120	3	20
Ethylbenzene		1	0.0923	mg/L	1	0.100	<0.000518	92	80 - 120	4	20
Xylene		1	0.274	mg/L	1	0.300	<0.000548	91	80 - 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)	0.0930	0.0895	mg/L	1	0.100	93	90	80 - 120
4-Bromofluorobenzene (4-BFB)	0.0901	0.0868	mg/L	1	0.100	90	87	80 - 120

Matrix Spike (MS-1) Spiked Sample: 324294

QC Batch: 99972 Date Analyzed: 2013-03-22 Analyzed By: MT
Prep Batch: 84685 QC Preparation: 2013-03-22 Prepared By: MT

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0767	mg/L	1	0.100	<0.000387	77	57.7 - 120
Toluene		1	0.0745	mg/L	1	0.100	<0.000465	74	56.9 - 120
Ethylbenzene		1	0.0746	mg/L	1	0.100	<0.000442	75	62.9 - 120
Xylene		1	0.223	mg/L	1	0.300	<0.000413	74	63.2 - 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	0.0879	mg/L	1	0.100	<0.000387	88	57.7 - 120	14	20
Toluene		1	0.0859	mg/L	1	0.100	<0.000465	86	56.9 - 120	14	20
Ethylbenzene		1	0.0866	mg/L	1	0.100	<0.000442	87	62.9 - 120	15	20
Xylene		1	0.260	mg/L	1	0.300	<0.000413	87	63.2 - 120	15	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)	0.0811	0.0873	mg/L	1	0.1	81	87	69.8 - 120
4-Bromofluorobenzene (4-BFB)	0.0771	0.0802	mg/L	1	0.1	77	80	67.3 - 120

Matrix Spike (MS-1) Spiked Sample: 324288

QC Batch: 99998 | Date Analyzed: 2013-03-25 | Analyzed By: MT
Prep Batch: 84710 | QC Preparation: 2013-03-25 | Prepared By: MT

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	2.07	mg/L	10	1.00	1.2	87	64.6 - 120
Toluene		1	1.58	mg/L	10	1.00	0.617	96	62.9 - 123
Ethylbenzene		1	0.974	mg/L	10	1.00	0.0535	92	64.2 - 123
Xylene		1	3.02	mg/L	10	3.00	0.29	91	63.1 - 121

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	1.98	mg/L	10	1.00	1.2	78	64.6 - 120	4	20
Toluene		1	1.51	mg/L	10	1.00	0.617	89	62.9 - 123	4	20
Ethylbenzene		1	0.934	mg/L	10	1.00	0.0535	88	64.2 - 123	4	20
Xylene		1	2.88	mg/L	10	3.00	0.29	86	63.1 - 121	5	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)	0.973	0.946	mg/L	10	1	97	95	80 - 120
4-Bromofluorobenzene (4-BFB)	0.895	0.869	mg/L	10	1	90	87	80 - 120

Calibration Standards

Standard (CCV-1)

QC Batch: 99972 | Date Analyzed: 2013-03-22 | 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	0.0831	83	80 - 120	2013-03-22
Toluene		1	mg/L	0.100	0.0817	82	80 - 120	2013-03-22
Ethylbenzene		1	mg/L	0.100	0.0826	83	80 - 120	2013-03-22
Xylene		1	mg/L	0.300	0.248	83	80 - 120	2013-03-22

Standard (CCV-2)

QC Batch: 99972 | Date Analyzed: 2013-03-22 | 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	0.0826	83	80 - 120	2013-03-22
Toluene		1	mg/L	0.100	0.0808	81	80 - 120	2013-03-22
Ethylbenzene		1	mg/L	0.100	0.0810	81	80 - 120	2013-03-22
Xylene		1	mg/L	0.300	0.243	81	80 - 120	2013-03-22

Standard (CCV-3)

QC Batch: 99972 | Date Analyzed: 2013-03-22 | 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	0.0861	86	80 - 120	2013-03-22
Toluene		1	mg/L	0.100	0.0851	85	80 - 120	2013-03-22
Ethylbenzene		1	mg/L	0.100	0.0850	85	80 - 120	2013-03-22
Xylene		1	mg/L	0.300	0.256	85	80 - 120	2013-03-22

Standard (CCV-1)

QC Batch: 99998 | Date Analyzed: 2013-03-25 | 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	0.0943	94	80 - 120	2013-03-25
Toluene		1	mg/L	0.100	0.0991	99	80 - 120	2013-03-25
Ethylbenzene		1	mg/L	0.100	0.0982	98	80 - 120	2013-03-25
Xylene		1	mg/L	0.300	0.290	97	80 - 120	2013-03-25

Standard (CCV-2)

QC Batch: 99998 | Date Analyzed: 2013-03-25 | 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	0.0865	86	80 - 120	2013-03-25
Toluene		1	mg/L	0.100	0.0921	92	80 - 120	2013-03-25
Ethylbenzene		1	mg/L	0.100	0.0940	94	80 - 120	2013-03-25
Xylene		1	mg/L	0.300	0.270	90	80 - 120	2013-03-25

Standard (CCV-3)

QC Batch: 99998 | Date Analyzed: 2013-03-25 | 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	0.0894	89	80 - 120	2013-03-25
Toluene		1	mg/L	0.100	0.0957	96	80 - 120	2013-03-25
Ethylbenzene		1	mg/L	0.100	0.0952	95	80 - 120	2013-03-25
Xylene		1	mg/L	0.300	0.281	94	80 - 120	2013-03-25

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	T104704219-12-8	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 # 13032203

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

Company Name: TOLW LPC
Phone #: 432-522-2133

Address: (Street, City, Zip) 2901 Hwy 349, Midland, TX
Fax #: 432-522-2183

Contact Person: BRAD IVY
E-mail: BIvy@tolwlpc.com

Invoice to: (If different from above) Plains SRS# 2002-10250

Project #: 700376.049.01
Project Name: CAYLER

Project Location (including state): HOBBS, NM
Sampler Signature: [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
324288	MW-8A	3	VOA	X					X				X			3/21/13	1115		X																								
289	MW-9A	3	VOA	X					X				X			↓	0930		X																								
290	MW-10A	3	VOA	X					X				X				1155		X																								
291	MW-12A	3	VOA	X					X				X				1130		X																								
292	MW-13A	3	VOA	X					X				X				1145		X																								
293	MW-14A	3	VOA	X					X				X				0945		X																								
294	MW-15	3	VOA	X					X				X				0910		X																								
295	MW-17	3	VOA	X					X				X			↓	0845		X																								

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	Temp
[signature]	TOLW	3/21/13	1630					INST ___ °C OBS ___ °C COR ___ °C
								INST ___ °C OBS ___ °C COR ___ °C
				[signature]	TA Lubbock	3/21/13	16:30	INST P-2 °C OBS 3.2 °C COR 2.6 °C

LAB USE ONLY
Intact: (Y) N
Headspace Y (N) NA
Log-in-Review [initials]

REMARKS:

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

Carrier # Courier

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