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TALON LPE

Groundwater Monitoring Report
Fourth Quarter 2019
Fort Collins Tank Battery

October 30, 2019

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Prepared For:
Prospect Energy

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1 Introduction

Talon/LPE (Talon) was contracted by Prospect Energy (Prospect) to conduct groundwater monitoring. The Site, known as Fort Collins Tank Battery facility (Site) is located in the northwest quarter of the northwest quarter, Section 30 of Township 8 North and Range 68 West in Larimer County, Colorado.

2 Objective

The primary objective of this document is to report on Site activities which occurred during the Fourth Quarter of 2019, including quarterly groundwater monitoring.

3 Regulatory Framework

The COGCC has regulatory jurisdiction over oil and natural gas industry operations in the State of Colorado. Section 900 of the COGCC Rules is for Exploration and Production Waste Management. More specifically, Section 910 details the Concentrations and Sampling for Soil and Groundwater rules. The regulatory limits for specific analytes in soil and groundwater are detailed in Table 910-1 and are summarized below.

Compound	COGCC Table 910-1 Groundwater Concentrations
Benzene	0.005 mg/L
Toluene	1.0 mg/L
Ethylbenzene	0.7 mg/L
Xylenes (total)	10 mg/L

4 Site Characteristics

4.1 Geography

The Site is located in the Larimer County, which is the north-central part of Colorado. The Site topography is relatively flat.

4.2 Geologic Summary

The Fort Collins area is underlain by Cretaceous Period Pierre Shale. The Pierre Shale is comprised of dark gray muddy marine sediments which tend to be about 700 feet thick. The Pierre Shale is overlain in areas by sandstone of the Fox Hills Formation. Surficial soils in the area are primarily of the Fort Collins series, which is characterized by dark brown to lighter brown subsoils. The Fort Collins loam is a developed soil of the Fort Collins series and is important to local agriculture.

4.3 Groundwater

Based on groundwater elevations measured during this monitoring event, groundwater flow has been measured to flow to the south-southwest at 0.021 feet/foot between monitoring wells MW-

2A and MW-6. Depth to water was observed between 21.14 ft bgs in MW-1 to 25.33 ft bgs in MW-6. Calculated groundwater elevations are detailed in Table 3 and groundwater elevation contours are presented on Figure 3.

5 Field Activities

5.1 Monitoring Well Groundwater Sampling

On October 8, 2019, Talon performed groundwater monitoring and sampling. Prior to sampling, depth to water and total depth were measured in each well (Table 3).

No phase-separated hydrocarbons (PSH) were observed during this monitoring event. Each well was purged of three well casing volumes, or until the well became dry. Purge water from the wells was containerized onsite in 55-gallon drums pending removal via vacuum truck.

Following the purging of the wells, Talon collected groundwater samples from the monitoring wells. The collected samples were analyzed for benzene, toluene, ethylbenzene, and total xylenes (BTEX) via method SW8260 at Summit Scientific Laboratory in Golden, Colorado (Summit). A copy of the laboratory report and chain of custody documentation is included in Attachment 3.

The analytical result for benzene in monitoring well MW-3A was 0.010 mg/L, which is greater than the COGCC Table 910-1 concentration level of 0.005 mg/L and is a decrease in concentration since the previous sampling event (0.0880 mg/L). All remaining laboratory analytical results for were below laboratory detection limits or COGCC Table 910-1 concentration levels (Figure 2.)

6 Summary and Recommendations

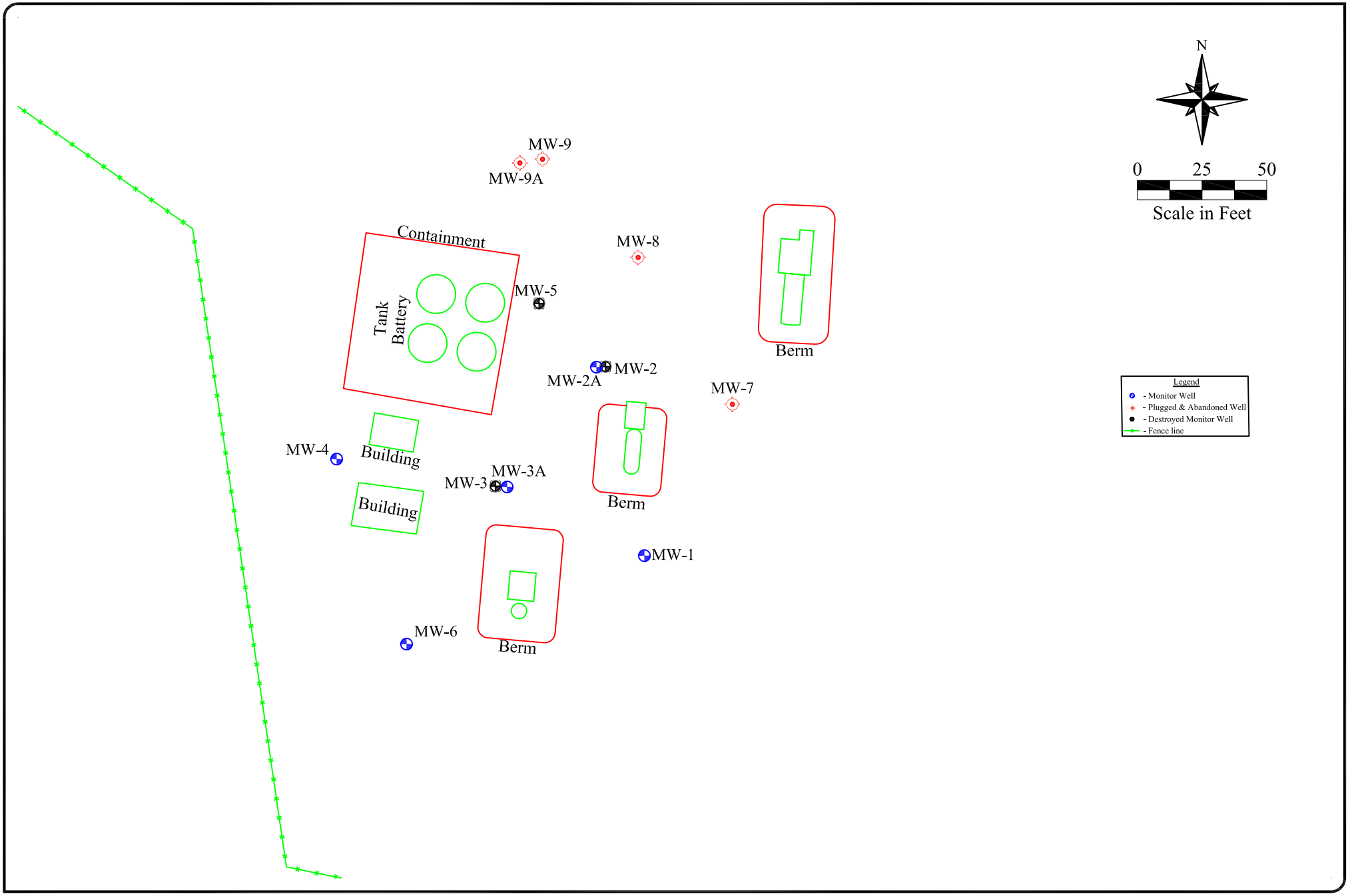
During Fourth Quarter 2019, Talon monitored the groundwater on site, and collected groundwater samples from the Site. Groundwater flow was calculated to be to the south-southwest at 0.021 ft/foot.

The analytical result for benzene in monitoring well MW-3A was 0.010 mg/L, which is greater than the COGCC Table 910-1 concentration level and is a decrease in concentration since the previous sampling event. All remaining laboratory analytical results were below laboratory detection limits or COGCC Table 910-1 concentration levels.

Talon recommends performing remedial activities on monitoring well MW-3A through monitored natural attenuation (MNA) or mobile dual-phase extraction (MDPE).

Talon will continue quarterly monitoring at the Site. The next sampling event is anticipated to occur in January 2020.

Attachment 1
Figures



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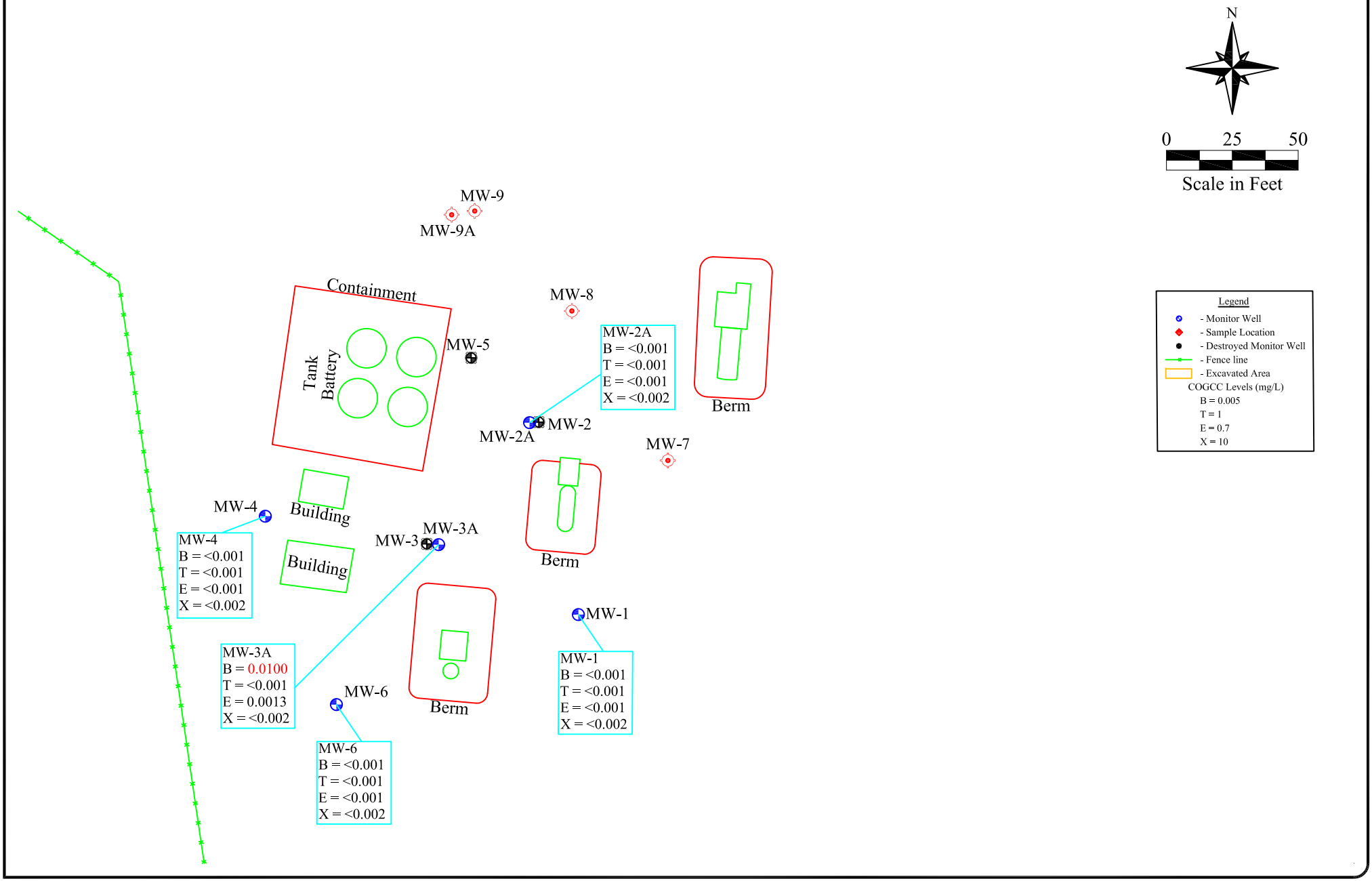
Date:	10/29/2019
Scale:	1" = 50'
Drawn By:	JAI

FTC Battery

Prospect Energy

Larimer County, Colorado

Figure 1 - Site Plan



Date:	10/29/2019
Scale:	1" = 50'
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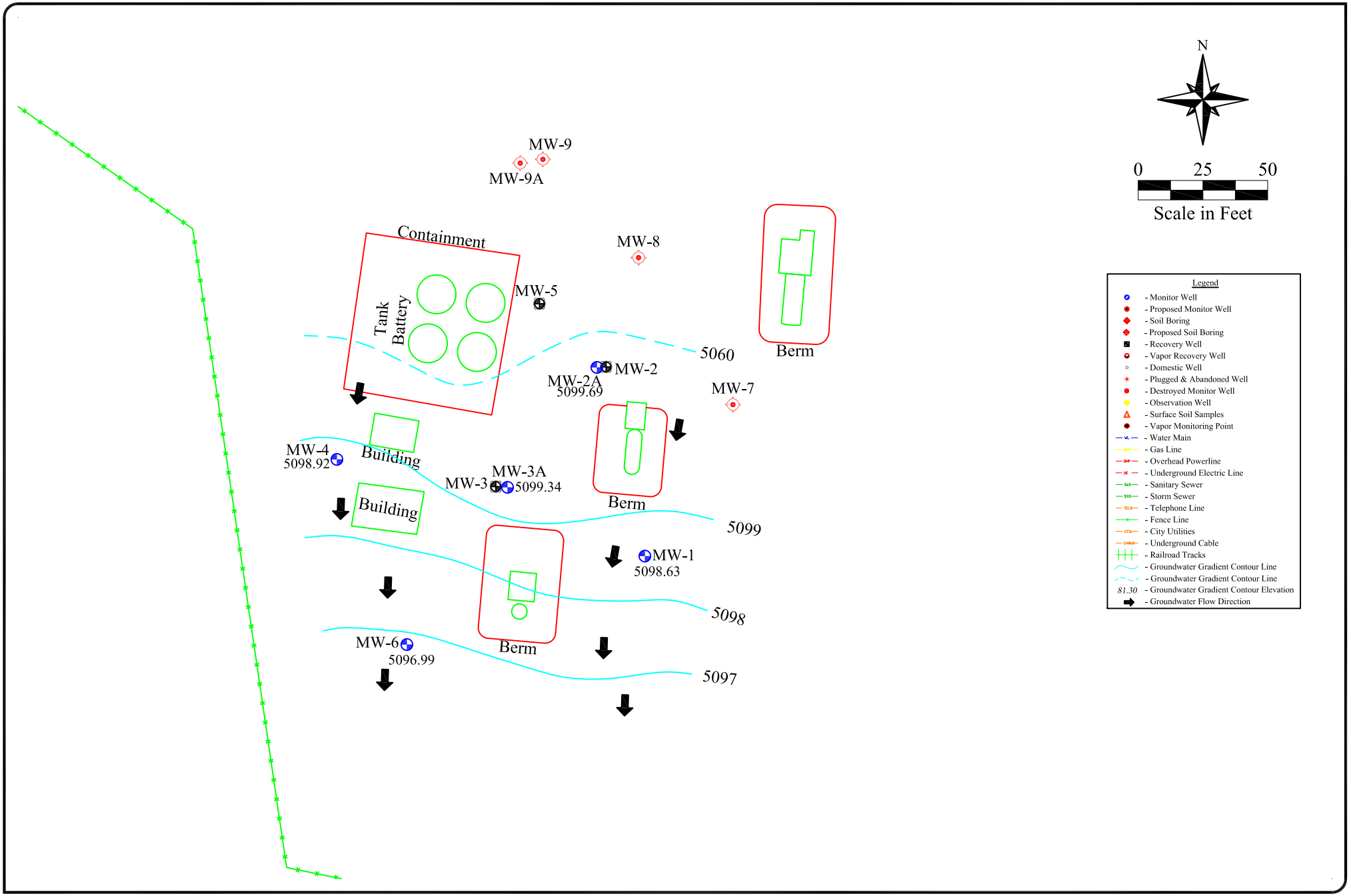
FTC Battery

Prospect Energy

Larimer County, Colorado

Figure 2 - Groundwater Concentration Map (10/08/2019)



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Date: 10/29/2019
Scale: 1" = 50'
Drawn By: JAI

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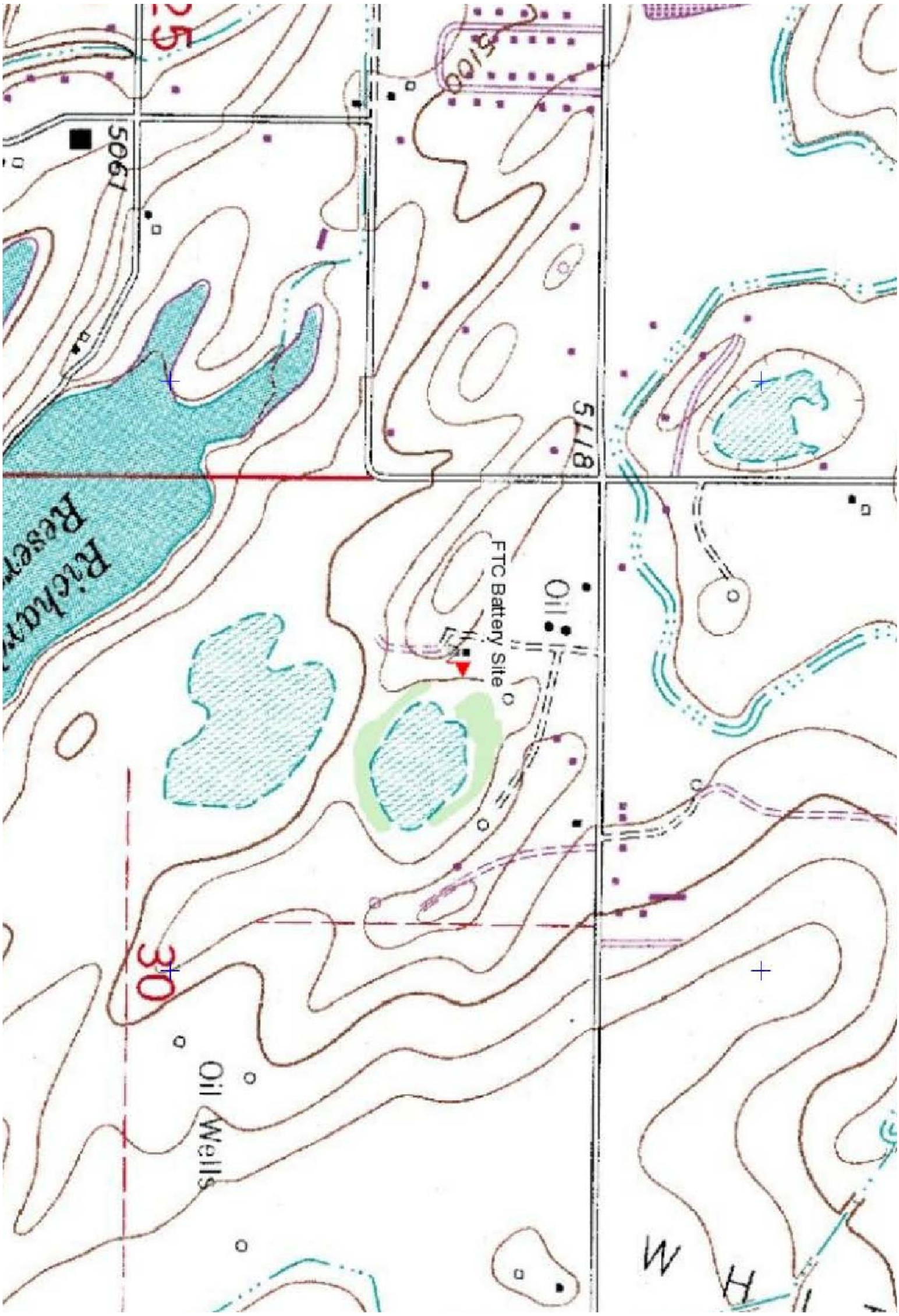
Prospect Energy
Larimer County, Colorado
Figure 3 - Groundwater Gradient Map (10/08/2019)



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Date: 10/29/2019
Scale: 1" = 500'
Drawn By: JAI

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Prospect Energy
Larimer County, Colorado
Figure 4 - Topographic Map

Attachment 2
Tables

Table 1 - Well Information

Prospect Energy
Fort Collins Tank Battery
Fort Collins, Colorado

Well ID	Latitude	Longitude	Ground Surface Elevation (ft amsl)	TOC Elevation (ft amsl)	Screen Interval (ft bgs)
MW-1	40.63705045	-105.0534241	5120.067	5119.772	19.5-34.5
MW-2	40.63724527	-105.0534773	5122.973	5122.606	19.5-34.5
MW-2A	40.63724403	-105.0534801	5122.403	5121.988	19-34
MW-3	40.63712825	-105.0536249	5123.213	5122.846	14.5-29.5
MW-3A	40.63712398	-105.0536166	5123.004	5122.375	19-34
MW-4	40.63714891	-105.0538370	5123.485	5123.166	14.5-29.5
MW-5	40.63731007	-105.0535692	5123.095	5122.812	14.5-29.5
MW-6	40.63696229	-105.0537450	5122.668	5122.315	14.5-29.5
MW-7	40.63720573	-105.0533057	5119.228	5118.879	14.5-29.5
MW-8	40.63735590	-105.0534332	5121.080	5120.612	14.5-29.5
MW-9	40.63745316	-105.0535617	5121.236	5120.816	14.5-29.5
MW-9A	40.63745297	-105.0535865	5121.568	5120.691	15-30

TOC - Top of Casing
DTW - Depth to Water
ft bgs - Feet Below Ground Surface
ft amsl - Feet Above Mean Sea Level

Table 2 - Groundwater Analytical Data

Prospect Energy
Fort Collins Tank Battery
Fort Collins, Colorado

Sample ID	Lab ID	Date	Concentration (mg/L)			
			Benzene	Toluene	Ethyl-Benzene	Xylenes
COGCC Table 910-1 Concentration Levels			**0.005**	**1**	**0.7**	**10**
MW-1	1508286-1	8/18/2015	<0.001	<0.001	<0.001	<0.001
	1512034-02	12/4/2015	<0.001	<0.001	<0.001	<0.001
	1602209-01	2/25/2016	<0.001	<0.001	<0.001	<0.001
	1610145-01	10/18/2016	<0.001	<0.001	<0.001	<0.001
	1701103-01	1/17/2017	<0.001	<0.001	<0.001	<0.001
	1704106-01	4/7/2017	<0.001	<0.001	<0.001	<0.002
	1707039-01	7/7/2017	<0.001	<0.001	<0.001	<0.002
	1710187-01	10/17/2017	<0.001	<0.001	<0.001	<0.002
	1801203-01	1/18/2018	<0.001	<0.001	<0.001	<0.002
	1804022-01	4/3/2018	<0.001	<0.001	<0.001	<0.002
	1807264-01	7/19/2018	<0.001	<0.001	<0.001	<0.002
	1810122-01	10/9/2018	<0.001	<0.001	<0.001	<0.002
	1901145-01	1/10/2019	<0.001	<0.001	<0.001	<0.002
	1907369-01	7/30/2019	<0.001	<0.001	<0.001	<0.002
	1910085-01	10/8/2019	<0.001	<0.001	<0.001	<0.002
MW-2	NA	8/18/2015	Not Analyzed Due to PSH			
	NA	12/4/2015	Not Analyzed Due to PSH			
	NA	2/25/2016	Not Analyzed Due to PSH			
	Destroyed					
MW-2A	1610145-02	10/18/2016	<0.001	<0.001	<0.001	<0.001
	1701103-02	1/17/2017	<0.001	<0.001	<0.001	<0.001
	1704106-02	4/7/2017	<0.001	<0.001	<0.001	<0.002
	1707039-02	7/7/2017	<0.001	<0.001	<0.001	0.0055
	1710187-02	10/17/2017	<0.001	<0.001	<0.001	0.0055
	1801203-02	1/18/2018	<0.001	<0.001	<0.001	<0.002
	1804022-02	4/3/2018	<0.001	<0.001	<0.001	<0.002
	1807264-02	7/19/2018	<0.001	<0.001	<0.001	<0.002
	1810122-02	10/9/2018	<0.001	<0.001	<0.001	<0.002
	1901145-02	1/10/2019	<0.001	<0.001	<0.001	<0.002
	1907369-02	7/30/2019	<0.001	<0.001	<0.001	<0.002
	1910085-02	10/8/2019	<0.001	<0.001	<0.001	<0.002
MW-3	NA	8/18/2015	Not Analyzed Due to PSH			
	NA	12/4/2015	Not Analyzed Due to PSH			
	NA	2/25/2016	Not Analyzed Due to PSH			
	Destroyed					
MW-3A	1610145-03	10/18/2016	0.038	0.0086	0.038	0.16
	1701103-03	1/17/2017	0.0042	<0.001	<0.001	<0.001
	1704106-03	4/7/2017	0.0079	<0.001	<0.001	<0.002
	1707039-03	7/7/2017	0.0038	<0.001	0.014	0.0036
	1710187-03	10/17/2017	0.0170	<0.001	0.010	0.0200
	1801203-03	1/18/2018	0.0150	<0.001	0.008	0.0120
	1804022-03	4/3/2018	0.0110	<0.001	0.003	0.0032
	1807264-03	7/19/2018	0.0062	<0.001	0.002	0.0020
	1810122-03	10/9/2018	0.0320	<0.001	0.0068	0.0080
	1901145-03	1/10/2019	0.0130	<0.001	0.0022	0.0029
	1907369-03	7/30/2019	0.0880	<0.001	0.0072	0.0056
	1910085-03	10/8/2019	0.0100	<0.001	0.0013	<0.002
DUP	1807264-06	7/19/2018	0.0210	<0.001	0.006	0.0064
	1810122-06	10/9/2018	0.0330	<0.001	0.007	0.0079
	1901145-06	1/10/2019	0.0130	<0.001	0.002	0.0030

Table 2 - Groundwater Analytical Data

Prospect Energy
Fort Collins Tank Battery
Fort Collins, Colorado

Sample ID	Lab ID	Date	Concentration (mg/L)			
			Benzene	Toluene	Ethyl-Benzene	Xylenes
COGCC Table 910-1 Concentration Levels			**0.005**	**1**	**0.7**	**10**
MW-4	1508286-2	8/18/2015	<0.001	<0.001	<0.001	<0.001
	1512034-04	12/4/2015	<0.001	<0.001	<0.001	<0.001
	1602209-06	2/25/2016	<0.001	<0.001	<0.001	<0.001
	1610145-04	10/18/2016	<0.001	<0.001	<0.001	<0.001
	NS	1/17/2017	Not Sampled - Well Inaccessible			
	1704106-04	4/7/2017	<0.001	<0.001	<0.001	<0.002
	1707039-04	7/7/2017	<0.001	<0.001	<0.001	<0.002
	1710187-04	10/17/2017	<0.001	<0.001	<0.001	<0.002
	1801203-04	1/18/2018	<0.001	<0.001	<0.001	<0.002
	1804022-04	4/3/2018	<0.001	<0.001	<0.001	<0.002
	1807264-04	7/19/2018	<0.001	<0.001	<0.001	<0.002
	1810122-04	10/9/2018	<0.001	<0.001	<0.001	<0.002
	1901145-04	1/10/2019	<0.001	<0.001	<0.001	<0.002
	1907369-04	7/30/2019	<0.001	<0.001	<0.001	<0.002
	1910085-04	10/8/2019	<0.001	<0.001	<0.001	<0.002
MW-5	1508286-3	8/18/2015	<0.001	<0.001	<0.001	<0.001
	1512034-07	12/4/2015	<0.001	<0.001	<0.001	<0.001
	1602209-07	2/25/2016	<0.001	<0.001	<0.001	<0.001
	Destroyed					
MW-6	1508286-4	8/18/2015	<0.001	<0.001	<0.001	<0.001
	1512034-06	12/4/2015	<0.001	<0.001	<0.001	<0.001
	1602209-05	2/25/2016	<0.001	<0.001	<0.001	<0.001
	1610145-05	10/18/2016	<0.001	<0.001	<0.001	<0.001
	1701103-04	1/17/2017	<0.001	<0.001	<0.001	<0.001
	1704106-05	4/7/2017	<0.001	<0.001	<0.001	<0.002
	1707039-05	7/7/2017	<0.001	<0.001	<0.001	<0.002
	1710187-05	10/17/2017	<0.001	<0.001	<0.001	<0.002
	1801203-05	1/18/2018	<0.001	<0.001	<0.001	<0.002
	1804022-05	4/3/2018	<0.001	<0.001	<0.001	<0.002
	1807264-05	7/19/2018	<0.001	<0.001	<0.001	<0.002
	1810122-05	10/9/2018	<0.001	<0.001	<0.001	<0.002
	1901145-05	1/10/2019	<0.001	<0.001	<0.001	<0.002
	1907369-05	7/30/2019	<0.001	<0.001	<0.001	<0.002
	1910085-05	10/8/2019	<0.001	<0.001	<0.001	<0.002
MW-7	1508286-5	8/18/2015	<0.001	<0.001	<0.001	<0.001
	1512034-01	12/4/2015	<0.001	<0.001	<0.001	<0.001
	1602209-03	2/25/2016	<0.001	<0.001	<0.001	<0.001
	1610145-06	10/18/2016	<0.001	<0.001	<0.001	<0.001
	1701103-05	1/17/2017	<0.001	<0.001	<0.001	<0.001
	1704106-06	4/7/2017	<0.001	<0.001	<0.001	<0.002
	1707039-06	7/7/2017	<0.001	<0.001	<0.001	<0.002
	Abandoned 09/2017					

Table 2 - Groundwater Analytical Data

Prospect Energy
Fort Collins Tank Battery
Fort Collins, Colorado

Sample ID	Lab ID	Date	Concentration (mg/L)			
			Benzene	Toluene	Ethyl-Benzene	Xylenes
COGCC Table 910-1 Concentration Levels			**0.005**	**1**	**0.7**	**10**
MW-8	1508286-6	8/18/2015	<0.001	<0.001	<0.001	<0.001
	1512034-03	12/4/2015	<0.001	<0.001	<0.001	<0.001
	1602209-02	2/25/2016	<0.001	<0.001	<0.001	<0.001
	1610145-07	10/18/2016	<0.001	<0.001	<0.001	<0.001
	1701103-06	1/17/2017	<0.001	<0.001	<0.001	<0.001
	1704106-07	4/7/2017	<0.001	<0.001	<0.001	<0.002
	1707039-07	7/7/2017	<0.001	<0.001	<0.001	<0.002
	Abandoned 09/2017					
MW-9	1508286-7	8/18/2015	<0.001	<0.001	<0.001	<0.001
	1512034-05	12/4/2015	<0.001	<0.001	<0.001	<0.001
	1602209-01	2/25/2016	<0.001	<0.001	<0.001	<0.001
	1611015-01	11/2/2016	0.31	0.86	0.22	1.1
	Abandoned 11/2/2016					
MW-9A	1612018-01	12/2/2016	<0.001	0.0011	<0.001	<0.001
	1701103-07	1/17/2017	<0.001	<0.001	<0.001	<0.001
	1704106-08	4/7/2017	<0.001	<0.001	<0.001	<0.002
	1707039-08	7/7/2017	<0.001	<0.001	<0.001	<0.002
	1710187-05	10/17/2017	<0.001	<0.001	<0.001	<0.002
	1801203-06	1/18/2018	<0.001	<0.001	<0.001	<0.002
	Abandoned 3/7/2018					

mg/L - milligrams per liter
< - Analytical result is less than the reporting limit
COGCC - Colorado Oil and Gas Conservation Commission
NA - Not applicable
PSH - Phase-Separated Hydrocarbons

Table 3 - Groundwater Gauging Data

Prospect Energy
Fort Collins Tank Battery
Fort Collins, Colorado

Well ID	Date	Depth to Product (ft)	Depth to Water (ft)	Groundwater Elevation (ft amsl)	Corrected Groundwater Elevation (ft amsl)	Total Depth (ft)
MW-1	8/18/2015	NA	20.41	5099.36		33.21
	12/4/2015	NA	20.42	5099.35		32.8
	2/25/2016	NA	21.09	5098.68		33.55
	10/17/2016	NA	21.99	5097.78		33.43
	1/17/2017	NA	21.47	5098.30		33.5
	4/7/2017	NA	20.82	5098.95		33.45
	7/7/2017	NA	21.25	5098.52		33.27
	10/17/2017	NA	20.06	5099.71		33.21
	1/18/2018	NA	19.81	5099.96		32.93
	4/3/2018	NA	19.97	5099.80		33.00
	7/19/2018	NA	20.82	5098.95		33.10
	10/9/2018	NA	21.6	5098.17		33.00
	1/10/2019	NA	21.1	5098.67		33.10
	4/2/2019	NA	20.6	5099.17		33.10
MW-2	8/18/2015	22.58	22.98	5099.63	5099.95	NM
	12/4/2015	22.42	23.68	5098.93	5099.93	NM
	2/25/2016	23.25	23.40	5099.21	5099.33	NM
	Destroyed					
MW-2A	10/17/2016	NA	24.61	5097.38		34.42
	1/17/2017	NA	22.64	5099.35		33.40
	4/7/2017	NA	22.41	5099.58		33.40
	7/7/2017	NA	23.11	5098.88		33.42
	10/17/2017	NA	21.23	5100.76		33.10
	1/18/2018	NA	21.17	5100.82		33.27
	4/3/2018	NA	21.30	5100.69		33.34
	7/19/2018	NA	22.35	5099.64		30.51
	10/9/2018	NA	23.02	5098.97		33.34
	1/10/2019	NA	22.28	5099.71		30.51
	4/2/2019	NA	21.84	5100.15		30.51
MW-3	8/18/2015	22.89	25.00	5097.85	5099.53	NM
	12/4/2015	23.00	25.20	5097.65	5099.41	NM
	2/25/2016	22.75	24.94	5097.91	5099.66	NM
	Destroyed					
MW-3A	10/17/2016	NA	24.17	5098.21		32.10
	1/17/2017	NA	23.30	5099.08		32.11
	4/7/2017	NA	23.13	5099.25		31.70
	7/7/2017	NA	23.69	5098.69		34.95
	10/17/2017	NA	29.90	5092.48		32.68
	1/18/2018	NA	22.01	5100.37		32.31
	7/19/2018	NA	22.96	5099.42		32.82
	10/9/2018	NA	23.23	5099.15		32.70
	1/10/2019	NA	22.98	5099.40		32.82
	4/2/2019	NA	22.63	5099.75		32.82

Table 3 - Groundwater Gauging Data

Prospect Energy
Fort Collins Tank Battery
Fort Collins, Colorado

Well ID	Date	Depth to Product (ft)	Depth to Water (ft)	Groundwater Elevation (ft amsl)	Corrected Groundwater Elevation (ft amsl)	Total Depth (ft)
MW-4	8/18/2015	NA	23.58	5099.59		29.34
	12/4/2015	NA	23.78	5099.39		29.3
	2/25/2016	NA	23.60	5099.57		29.31
	10/17/2016	NA	25.20	5097.97		29.26
	1/17/2017	NA	NM	NM		NM
	4/7/2017	NA	24.45	5098.72		29.31
	7/7/2017	NA	24.80	5098.37		29.21
	10/17/2017	NA	23.29	5099.88		29.32
	1/18/2018	NA	23.33	5099.84		29.02
	4/3/2018	NA	23.47	5099.70		29.20
	7/19/2018	NA	24.09	5099.08		29.29
	10/9/2018	NA	24.85	5098.32		29.2
	1/10/2019	NA	24.31	5098.86		29.29
	4/2/2019	NA	24.06	5099.11		29.29
MW-5	8/18/2015	NA	22.53	5100.28		29.30
	12/4/2015	NA	22.59	5100.22		29.26
	2/25/2016	NA	22.30	5100.51		28.98
	Destroyed					
MW-6	8/18/2015	NA	24.50	5097.82		29.34
	12/4/2015	NA	24.68	5097.64		29.32
	2/25/2016	NA	24.44	5097.88		29.13
	10/17/2016	NA	26.18	5096.14		29.04
	1/17/2017	NA	25.57	5096.75		29.24
	4/7/2017	NA	25.35	5096.97		29.25
	7/7/2017	NA	25.68	5096.64		29.18
	10/17/2017	NA	24.30	5098.02		29.20
	1/18/2018	NA	24.22	5098.10		29.01
	4/3/2018	NA	24.30	5098.02		29.24
	7/19/2018	NA	25.02	5097.30		29.22
	10/9/2018	NA	25.85	5096.47		29.24
	1/10/2019	NA	25.25	5097.07		29.22
	4/2/2019	NA	24.89	5097.43		29.22
MW-7	8/18/2015	NA	19.00	5099.88		28.00
	12/4/2015	NA	18.90	5099.98		27.46
	2/25/2016	NA	18.56	5100.32		27.38
	10/17/2016	NA	20.62	5098.26		26.89
	1/17/2017	NA	19.72	5099.16		26.90
	4/7/2017	NA	19.51	5099.37		26.85
	7/7/2017	NA	20.30	5098.58		26.69
	Abandoned					

Table 3 - Groundwater Gauging Data

Prospect Energy
Fort Collins Tank Battery
Fort Collins, Colorado

Well ID	Date	Depth to Product (ft)	Depth to Water (ft)	Groundwater Elevation (ft amsl)	Corrected Groundwater Elevation (ft amsl)	Total Depth (ft)
MW-8	8/18/2015	NA	20.35	5100.26		28.83
	12/4/2015	NA	20.43	5100.18		28.55
	2/25/2016	NA	19.99	5100.62		28.75
	10/17/2016	NA	22.04	5098.57		28.69
	1/17/2017	NA	21.20	5099.41		28.63
	4/7/2017	NA	21.01	5099.60		28.65
	7/7/2017	NA	21.73	5098.88		28.56
	Abandoned					
MW-9	8/18/2015	NA	20.18	5100.64		29.20
	12/4/2015	NA	20.22	5100.60		28.48
	2/25/2016	NA	19.95	5100.87		29.68
	Abandoned					
MW-9A	12/2/2016	NA	21.05	5099.64		28.84
	1/17/2017	NA	20.72	5099.97		28.65
	4/7/2017	NA	20.60	5100.09		28.72
	7/7/2017	NA	21.17	5099.52		28.58
	10/17/2017	NA	19.23	5101.46		28.79
	1/18/2018	NA	19.41	5101.28		28.05
	Abandoned					

NA - Not Applicable
NM - Not Measured
ft - feet
Corrected groundwater elevation levels are based on a correction factor of 0.8

Attachment 3
Analytical Report

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

October 14, 2019

Jennifer Galles

Talon/LPE

1811 East Mulberry

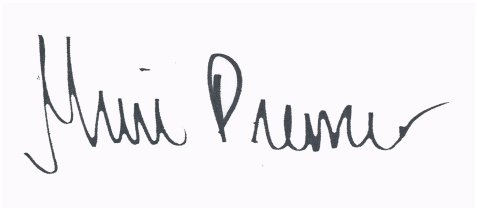
Fort Collins, CO 80525

RE: Prospect Quarterly 4QGWM

Work Order # 1910085

Enclosed are the results of analyses for samples received by Summit Scientific on 10/08/19 15:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Muri Premer For Ben Shrewsbury

Laboratory Manager

S2

Talon/LPE	Project: Prospect Quarterly 4QGWM	
1811 East Mulberry	Project Number: 702108.001.14	**Reported:**
Fort Collins CO, 80525	Project Manager: Jennifer Galles	10/14/19 16:32

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	1910085-01	Water	10/08/19 10:35	10/08/19 15:00
MW-2A	1910085-02	Water	10/08/19 10:30	10/08/19 15:00
MW-3A	1910085-03	Water	10/08/19 10:50	10/08/19 15:00
MW-4	1910085-04	Water	10/08/19 10:40	10/08/19 15:00
MW-6	1910085-05	Water	10/08/19 10:45	10/08/19 15:00

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

1910085

Summit Scientific

741 Corporate Circle Suite I ♦ Golden, Colorado 80401
303-277-9310 ♦ 303-374-5933 Fax

Client:	Talon/LPE	Project Manager:	Jennifer Galles
Address:	1811 East Mulberry	E-Mail:	jgalles@talonlpe.com and jleverton@talonlpe.com
City/State/Zip:	Fort Collins, CO 80524	Project Name:	Prospect Quarterly 4QGWM
Phone:	970-818-5330 Fax:	Project Number:	702108.001.14
Sampler Name:	Lkirk, Alae		

				Preservative				Matrix				Analyze For:								
Sample Description	Date Sampled	Time Sampled	Number of Containers	HCl	HNO_3	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	BTEX								Special Instructions
MW-1	10/8/2019	10:35:00	3	x				x				x								
MW-2A	10/8/2019	10:30:00	3	x				x				x								
MW-3A	10/8/2019	10:50:00	3	x				x				x								
MW-4	10/8/2019	10:40:00	3	x				x				x								
MW-6	10/8/2019	10:45:00	3	x				x				x								

Relinquished by: Levi Kirk	Date/Time: 10-8-19 15:00	Received by:	Date/Time: 10/08/19 1500
Relinquished by:	Date/Time:	Received by:	Date/Time:
Relinquished by:	Date/Time:	Received in Lab by:	Date/Time:

Turn Around Time (Check)

Same Day		72 Hours	
24 Hours		Standard	x
48 Hours			

Sample Integrity:
Temperature Upon Receipt: 3.8
Intact: Yes x No

Sample Receipt Checklist

S2 Work Order 1910095

Client: TALON/LPE Client Project ID: PROJECT QUARTERLY 4QGWM

Shipped Via: H.D./P.D./FedEx/UPS/USPS/Other_____ Airbill #: _____

Matrix (check all that apply): _____Air _____Soil/Solid __X__Water ____Other:_____ (Describe)

Temp (°C)	3.8

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C [1]? NOTE: If samples are delivered the same day of sampling, this requirement is met provided that there is evidence that cooling has begun.	X			
Were all samples received intact [1]?	X			
Was adequate sample volume provided [1]?	X			
If custody seals are present, are they intact [1]?			X	
Are samples with holding times due within 48 hours sample due within 48 hours present?		X		
Is a chain-of-custody (COC) form present and filled out completely [1]?	X			
Does the COC agree with the number and type of sample bottles received [1]?	X			
Do the sample IDs on the bottle labels match the COC [1]?	X			
Is the COC properly relinquished by the client w/ date and time recorded [1]?	X			
For volatiles in water – is there headspace present? **If yes, contact client and note in narrative.**		X		
Are samples preserved that require preservation **(excluding cooling)** [1]? Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect	X			HCl
If samples are acid preserved for metals, is the pH ≤ 2[1]? Record the pH in Comments.			X	
If dissolved metals are requested, were samples field filtered?			X	
Additional Comments (if any):				

[1] **If NO, then contact the client before proceeding with analysis and note in case narrative.**

RE
Custodian Printed Name or Initials

Signature of Custodian

10/08/19 1532
Date/Time

S2

Talon/LPE	Project: Prospect Quarterly 4QGWM	
1811 East Mulberry	Project Number: 702108.001.14	**Reported:**
Fort Collins CO, 80525	Project Manager: Jennifer Galles	10/14/19 16:32

MW-1

1910085-01 (Water)

Summit Scientific

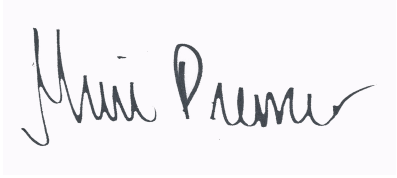
Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/08/19 10:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1910129	10/09/19	10/10/19	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	

Date Sampled: **10/08/19 10:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		*112 %*	*23-173*		"	"	"	"	
Surrogate: Toluene-d8		*91.6 %*	*20-170*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*95.6 %*	*21-167*		"	"	"	"	



S2

Talon/LPE	Project: Prospect Quarterly 4QGWM	
1811 East Mulberry	Project Number: 702108.001.14	**Reported:**
Fort Collins CO, 80525	Project Manager: Jennifer Galles	10/14/19 16:32

MW-2A

1910085-02 (Water)

Summit Scientific

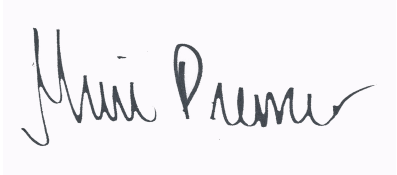
Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/08/19 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1910129	10/09/19	10/10/19	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	

Date Sampled: **10/08/19 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		*112 %*	*23-173*		"	"	"	"	
Surrogate: Toluene-d8		*93.3 %*	*20-170*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*94.7 %*	*21-167*		"	"	"	"	



S2

Talon/LPE	Project: Prospect Quarterly 4QGWM	
1811 East Mulberry	Project Number: 702108.001.14	**Reported:**
Fort Collins CO, 80525	Project Manager: Jennifer Galles	10/14/19 16:32

MW-3A

1910085-03 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/08/19 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	**10**	1.0	ug/l	1	1910129	10/09/19	10/10/19	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	**1.3**	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	

Date Sampled: **10/08/19 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		*112 %*	*23-173*		"	"	"	"	
Surrogate: Toluene-d8		*92.7 %*	*20-170*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*97.7 %*	*21-167*		"	"	"	"	

S2

Talon/LPE	Project: Prospect Quarterly 4QGWM	
1811 East Mulberry	Project Number: 702108.001.14	**Reported:**
Fort Collins CO, 80525	Project Manager: Jennifer Galles	10/14/19 16:32

MW-4
1910085-04 (Water)

Summit Scientific

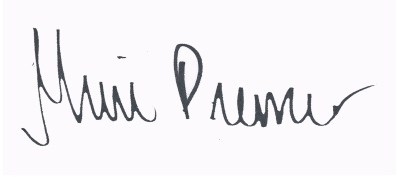
Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/08/19 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1910129	10/09/19	10/10/19	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	

Date Sampled: **10/08/19 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		*110 %*	*23-173*		"	"	"	"	
Surrogate: Toluene-d8		*93.3 %*	*20-170*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*93.8 %*	*21-167*		"	"	"	"	



S2

Talon/LPE	Project: Prospect Quarterly 4QGWM	
1811 East Mulberry	Project Number: 702108.001.14	**Reported:**
Fort Collins CO, 80525	Project Manager: Jennifer Galles	10/14/19 16:32

MW-6

1910085-05 (Water)

Summit Scientific

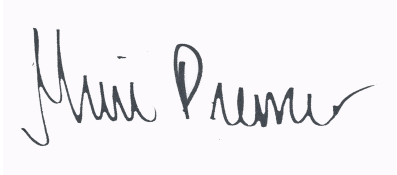
Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/08/19 10:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1910129	10/09/19	10/10/19	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	

Date Sampled: **10/08/19 10:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		*107 %*	*23-173*		"	"	"	"	
Surrogate: Toluene-d8		*93.2 %*	*20-170*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*93.9 %*	*21-167*		"	"	"	"	



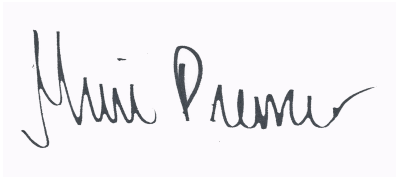
S2

Talon/LPE	Project: Prospect Quarterly 4QGWM	
1811 East Mulberry	Project Number: 702108.001.14	**Reported:**
Fort Collins CO, 80525	Project Manager: Jennifer Galles	10/14/19 16:32

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1910129 - EPA 5030 Water MS										
Blank (1910129-BLK1)				Prepared: 10/09/19 Analyzed: 10/10/19						
Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	2.0	"							
Surrogate: 1,2-Dichloroethane-d4	*12.2*		*"*	*13.3*		*91.9*	*23-173*			
Surrogate: Toluene-d8	*12.1*		*"*	*13.3*		*90.8*	*20-170*			
Surrogate: 4-Bromofluorobenzene	*10.9*		*"*	*13.3*		*81.9*	*21-167*			
LCS (1910129-BS1)				Prepared: 10/09/19 Analyzed: 10/10/19						
Benzene	21.4	1.0	ug/l	25.0		85.8	51-132			
Toluene	22.5	1.0	"	25.0		89.8	51-138			
Ethylbenzene	23.5	1.0	"	25.0		93.8	58-146			
m,p-Xylene	46.6	2.0	"	50.0		93.2	57-144			
o-Xylene	22.8	1.0	"	25.0		91.4	53-146			
Surrogate: 1,2-Dichloroethane-d4	*12.7*		*"*	*13.3*		*95.3*	*23-173*			
Surrogate: Toluene-d8	*12.3*		*"*	*13.3*		*92.1*	*20-170*			
Surrogate: 4-Bromofluorobenzene	*11.3*		*"*	*13.3*		*84.5*	*21-167*			
Matrix Spike (1910129-MS1)		**Source: 1910072-01**		Prepared: 10/09/19 Analyzed: 10/10/19						
Benzene	21.6	1.0	ug/l	25.0	ND	86.3	34-141			
Toluene	22.6	1.0	"	25.0	ND	90.6	27-151			
Ethylbenzene	23.4	1.0	"	25.0	ND	93.6	29-160			
m,p-Xylene	45.7	2.0	"	50.0	ND	91.4	20-166			
o-Xylene	22.4	1.0	"	25.0	ND	89.4	33-159			
Surrogate: 1,2-Dichloroethane-d4	*12.5*		*"*	*13.3*		*94.0*	*23-173*			
Surrogate: Toluene-d8	*11.7*		*"*	*13.3*		*87.8*	*20-170*			
Surrogate: 4-Bromofluorobenzene	*11.0*		*"*	*13.3*		*82.9*	*21-167*			



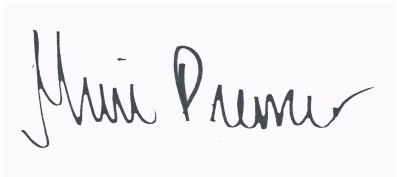
S2

Talon/LPE	Project: Prospect Quarterly 4QGWM	
1811 East Mulberry	Project Number: 702108.001.14	**Reported:**
Fort Collins CO, 80525	Project Manager: Jennifer Galles	10/14/19 16:32

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1910129 - EPA 5030 Water MS										
Matrix Spike Dup (1910129-MSD1)	**Source: 1910072-01**			Prepared: 10/09/19 Analyzed: 10/10/19						
Benzene	21.9	1.0	ug/l	25.0	ND	87.6	34-141	1.56	30	
Toluene	23.1	1.0	"	25.0	ND	92.4	27-151	1.97	30	
Ethylbenzene	23.7	1.0	"	25.0	ND	94.7	29-160	1.15	30	
m,p-Xylene	46.4	2.0	"	50.0	ND	92.8	20-166	1.54	30	
o-Xylene	23.3	1.0	"	25.0	ND	93.2	33-159	4.12	30	
Surrogate: 1,2-Dichloroethane-d4	*13.4*		*"*	*13.3*		*100*	*23-173*			
Surrogate: Toluene-d8	*12.5*		*"*	*13.3*		*93.7*	*20-170*			
Surrogate: 4-Bromofluorobenzene	*10.8*		*"*	*13.3*		*81.2*	*21-167*			



S2

Talon/LPE	Project:	Prospect Quarterly 4QGWM	
1811 East Mulberry	Project Number:	702108.001.14	**Reported:**
Fort Collins CO, 80525	Project Manager:	Jennifer Galles	10/14/19 16:32

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference