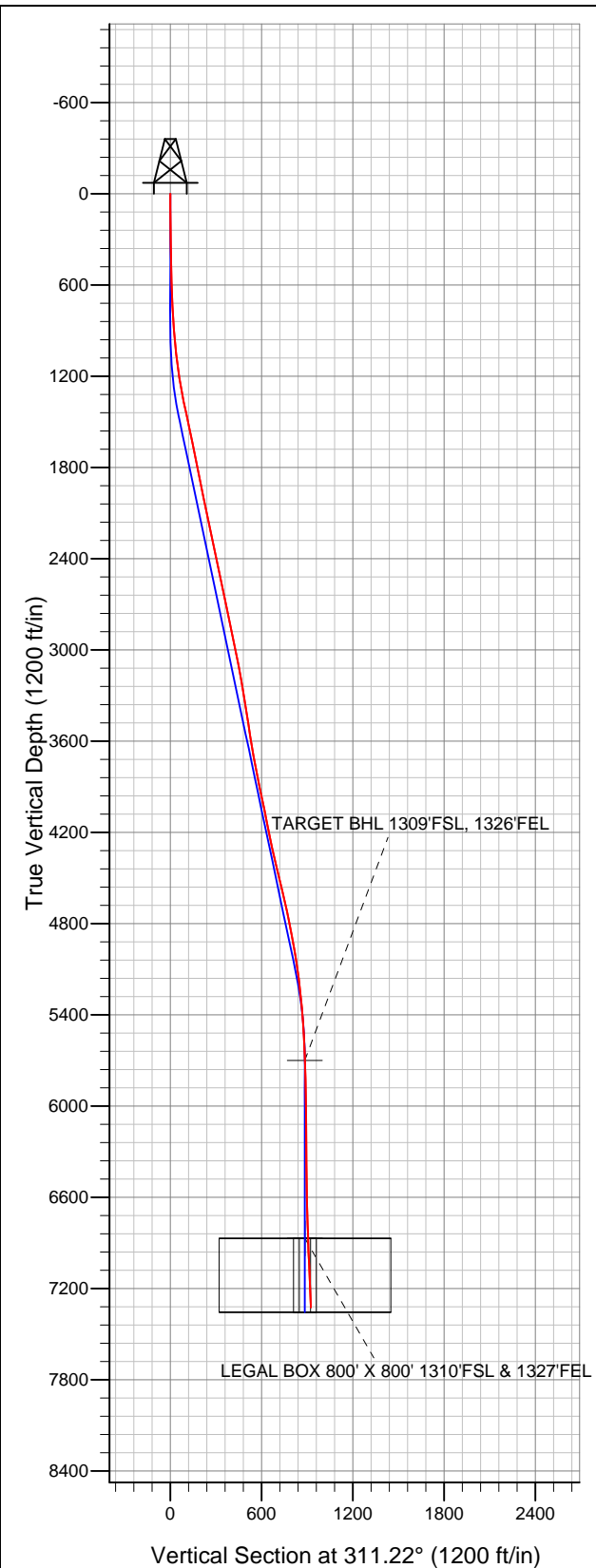


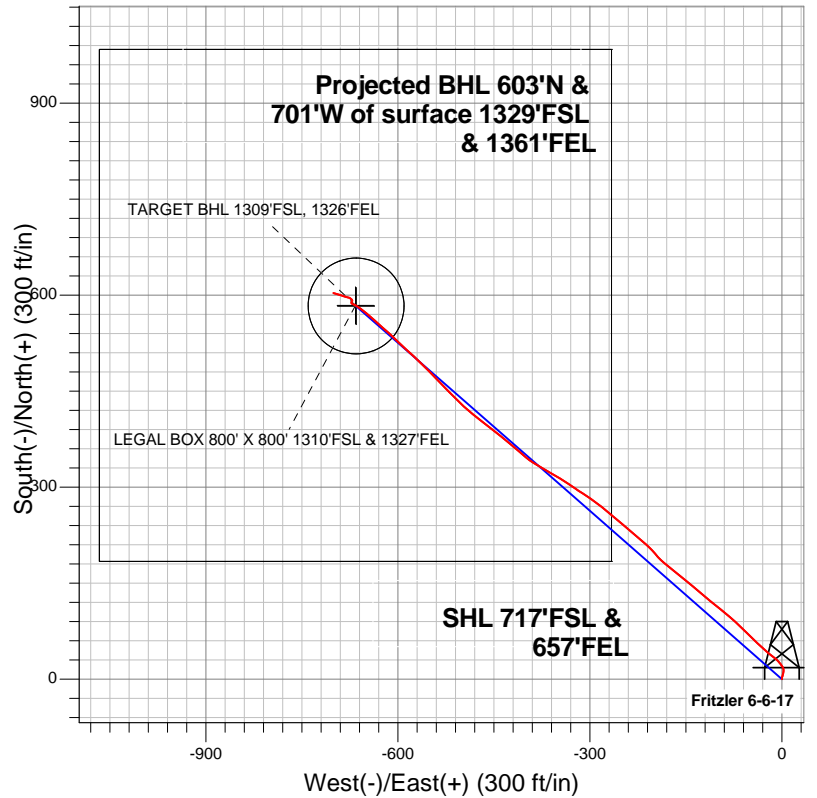
**Well Name: Fritzler 6-6-17**

Surface Location: Fritzler 17-23-18 Pad Sec.17-T6N-R66W  
North American Datum 1983 US State Plane 1983Colorado Northern Zone  
Ground Elevation: 4771.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1419521.61	3196166.48	40.482847	-104.794789	
Original Well Elev			WELL @ 4785.0ft (Original Well Elev)			



**Great Western**



**LEGEND**

- Wellbore #1
- Fritzler 6-6-17, Wellbore #1, Plan #1 (9-4-12) R V0
- Survey #1

**Final Survey Plot**

Projected Final Survey -  
7408'MD & 7324'TVD @ 925'VS  
2.10 deg Inc 288.20 deg AZ

Project: SEC.17-T6N-R66W  
Site: Fritzler 17-23-18 Pad Sec.17-T6N-R66W  
Well: Fritzler 6-6-17  
Plan: Wellbore #1



## **Great Western**

**SEC.17-T6N-R66W**

**Fritzler 17-23-18 Pad Sec.17-T6N-R66W**

**Fritzler 6-6-17**

**Wellbore #1**

**Survey: Survey #1**

## **Standard Survey Report**

**10 September, 2012**

<b>Company:</b>	Great Western	<b>Local Co-ordinate Reference:</b>	Well Fritzler 6-6-17
<b>Project:</b>	SEC.17-T6N-R66W	<b>TVD Reference:</b>	WELL @ 4785.0ft (Original Well Elev)
<b>Site:</b>	Fritzler 17-23-18 Pad Sec.17-T6N-R66W	<b>MD Reference:</b>	WELL @ 4785.0ft (Original Well Elev)
<b>Well:</b>	Fritzler 6-6-17	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	Landmark

<b>Project</b>	SEC.17-T6N-R66W, Weld County, Colorado		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		Using Well Reference Point
<b>Map Zone:</b>	Colorado Northern Zone		Using geodetic scale factor

Site		Fritzler 17-23-18 Pad Sec.17-T6N-R66W			
Site Position:		Northing:		1,419,520.40ft	
From:	Lat/Long	Easting:		3,196,151.19ft	
Position Uncertainty:		Slot Radius:		Grid Convergence:	
0.0 ft		"		40.482844 -104.794844 0.46 °	

Well	Fritzler 6-6-17					
Well Position	+N/-S	0.0 ft	Northing:	1,419,521.61 ft	Latitude:	40.482847
	+E/-W	0.0 ft	Easting:	3,196,166.48 ft	Longitude:	-104.794789
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,771.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	9/26/2012	8.75	67.08	53,063

Design	Wellbore #1				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.0	0.0	0.0	311.22	

Survey Program		Date	9/10/2012		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
89.0	7,408.0	Survey #1 (Wellbore #1)	MWD	MWD - Standard	

Survey										
	Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
Survey Data	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
	89.0	1.10	2.40	89.0	0.9	0.0	0.5	1.24	1.24	0.00
	179.0	1.40	12.60	179.0	2.8	0.3	1.6	0.41	0.33	11.33
	270.0	1.40	22.40	269.9	4.9	1.0	2.5	0.26	0.00	10.77
	361.0	1.80	10.50	360.9	7.3	1.7	3.6	0.57	0.44	-13.08
	451.0	2.10	9.60	450.9	10.4	2.2	5.2	0.34	0.33	-1.00
	542.0	2.60	357.50	541.8	14.1	2.4	7.5	0.77	0.55	-13.30
	648.0	2.80	334.30	647.7	18.8	1.2	11.5	1.04	0.19	-21.89
	695.0	2.70	324.10	694.6	20.7	0.0	13.6	1.06	-0.21	-21.70
	790.0	2.60	321.60	789.5	24.2	-2.6	18.0	0.16	-0.11	-2.63
	884.0	4.10	317.80	883.3	28.4	-6.2	23.4	1.61	1.60	-4.04
	979.0	5.30	304.90	978.0	33.4	-12.1	31.1	1.68	1.26	-13.58
1,074.0	6.80	308.80	1,072.5	39.4	-20.1	41.1	1.64	1.58	4.11	

<b>Company:</b>	Great Western	<b>Local Co-ordinate Reference:</b>	Well Fritzler 6-6-17
<b>Project:</b>	SEC.17-T6N-R66W	<b>TVD Reference:</b>	WELL @ 4785.0ft (Original Well Elev)
<b>Site:</b>	Fritzler 17-23-18 Pad Sec.17-T6N-R66W	<b>MD Reference:</b>	WELL @ 4785.0ft (Original Well Elev)
<b>Well:</b>	Fritzler 6-6-17	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	Landmark

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
1,168.0	8.10	314.40	1,165.7	47.6	-29.2	53.3	1.58	1.38	5.96	
1,263.0	9.90	313.70	1,259.5	57.9	-39.8	68.1	1.90	1.89	-0.74	
1,358.0	12.10	313.40	1,352.8	70.4	-53.0	86.2	2.32	2.32	-0.32	
1,452.0	12.00	313.20	1,444.7	83.8	-67.3	105.8	0.12	-0.11	-0.21	
1,547.0	11.20	311.20	1,537.8	96.7	-81.4	124.9	0.94	-0.84	-2.11	
1,642.0	11.90	309.50	1,630.8	109.0	-95.9	144.0	0.82	0.74	-1.79	
1,736.0	11.30	307.70	1,722.9	120.8	-110.7	162.8	0.75	-0.64	-1.91	
1,831.0	11.50	312.10	1,816.1	132.8	-125.1	181.6	0.94	0.21	4.63	
1,926.0	12.10	309.30	1,909.0	145.5	-139.8	201.0	0.87	0.63	-2.95	
2,022.0	11.00	309.30	2,003.1	157.6	-154.7	220.2	1.15	-1.15	0.00	
2,117.0	11.70	308.10	2,096.2	169.3	-169.3	238.9	0.78	0.74	-1.26	
2,211.0	11.90	310.90	2,188.3	181.6	-184.1	258.1	0.65	0.21	2.98	
2,306.0	12.70	320.30	2,281.1	196.0	-198.2	278.2	2.27	0.84	9.89	
2,401.0	11.10	310.00	2,374.0	209.9	-211.8	297.7	2.79	-1.68	-10.84	
2,495.0	11.60	310.90	2,466.2	221.9	-225.9	316.2	0.56	0.53	0.96	
2,590.0	12.40	310.20	2,559.1	234.8	-240.9	335.9	0.86	0.84	-0.74	
2,685.0	12.20	310.70	2,652.0	247.9	-256.3	356.2	0.24	-0.21	0.53	
2,779.0	12.30	309.80	2,743.8	260.8	-271.5	376.1	0.23	0.11	-0.96	
2,874.0	11.10	308.40	2,836.8	272.9	-286.5	395.3	1.30	-1.26	-1.47	
2,969.0	11.40	301.80	2,930.0	283.6	-301.6	413.7	1.39	0.32	-6.95	
3,063.0	12.20	305.30	3,022.0	294.2	-317.6	432.8	1.14	0.85	3.72	
3,158.0	10.20	303.90	3,115.2	304.7	-332.8	451.1	2.12	-2.11	-1.47	
3,253.0	10.30	299.80	3,208.7	313.6	-347.2	467.8	0.77	0.11	-4.32	
3,351.0	9.70	300.40	3,305.2	322.1	-361.9	484.5	0.62	-0.61	0.61	
3,445.0	9.30	301.10	3,397.9	330.1	-375.2	499.7	0.44	-0.43	0.74	
3,540.0	8.90	301.80	3,491.7	337.9	-388.0	514.5	0.44	-0.42	0.74	
3,635.0	9.10	310.00	3,585.6	346.6	-400.0	529.3	1.37	0.21	8.63	
3,729.0	9.20	310.20	3,678.4	356.2	-411.5	544.3	0.11	0.11	0.21	
3,824.0	11.10	310.40	3,771.9	367.1	-424.2	561.0	2.00	2.00	0.21	
3,916.0	12.00	308.80	3,862.0	378.8	-438.4	579.4	1.04	0.98	-1.74	
4,010.0	12.00	307.70	3,954.0	390.9	-453.8	598.9	0.24	0.00	-1.17	
4,106.0	10.70	308.30	4,048.1	402.5	-468.7	617.8	1.36	-1.35	0.63	
4,201.0	11.30	308.80	4,141.3	413.8	-482.9	635.9	0.64	0.63	0.53	
4,295.0	12.00	312.00	4,233.4	426.1	-497.3	654.9	1.01	0.74	3.40	
4,390.0	12.70	315.30	4,326.2	440.2	-512.0	675.2	1.05	0.74	3.47	
4,485.0	13.70	317.10	4,418.7	455.8	-527.0	696.8	1.14	1.05	1.89	
4,580.0	14.20	316.00	4,510.9	472.5	-542.7	719.6	0.60	0.53	-1.16	
4,674.0	12.20	314.10	4,602.4	487.7	-557.9	741.0	2.18	-2.13	-2.02	
4,769.0	12.40	313.00	4,695.2	501.6	-572.5	761.2	0.32	0.21	-1.16	
4,864.0	11.50	313.20	4,788.2	515.0	-586.9	780.9	0.95	-0.95	0.21	
4,958.0	10.80	312.70	4,880.4	527.4	-600.2	799.0	0.75	-0.74	-0.53	
5,053.0	10.20	312.70	4,973.8	539.2	-612.9	816.3	0.63	-0.63	0.00	
5,148.0	8.50	312.00	5,067.5	549.6	-624.3	831.8	1.79	-1.79	-0.74	
5,242.0	7.30	311.00	5,160.6	558.1	-634.0	844.7	1.28	-1.28	-1.06	
5,337.0	6.10	312.30	5,255.0	565.5	-642.3	855.8	1.27	-1.26	1.37	
5,432.0	5.00	309.50	5,349.5	571.5	-649.2	864.9	1.19	-1.16	-2.95	
5,526.0	3.90	308.60	5,443.2	576.1	-654.9	872.2	1.17	-1.17	-0.96	
5,621.0	3.70	302.10	5,538.0	579.8	-660.0	878.5	0.50	-0.21	-6.84	
5,716.0	2.70	307.40	5,632.9	582.8	-664.4	883.7	1.10	-1.05	5.58	
5,783.1	1.96	295.34	5,699.9	584.2	-666.7	886.4	1.32	-1.11	-17.97	
TARGET BHL 1309°FSL, 1326°FEL										
5,810.0	1.70	287.70	5,726.8	584.5	-667.5	887.2	1.32	-0.96	-28.41	
5,999.0	0.90	301.10	5,915.8	586.1	-671.4	891.3	0.45	-0.42	7.09	
6,187.0	0.50	336.60	6,103.8	587.7	-673.0	893.5	0.30	-0.21	18.88	

<b>Company:</b>	Great Western	<b>Local Co-ordinate Reference:</b>	Well Fritzler 6-6-17
<b>Project:</b>	SEC.17-T6N-R66W	<b>TVD Reference:</b>	WELL @ 4785.0ft (Original Well Elev)
<b>Site:</b>	Fritzler 17-23-18 Pad Sec.17-T6N-R66W	<b>MD Reference:</b>	WELL @ 4785.0ft (Original Well Elev)
<b>Well:</b>	Fritzler 6-6-17	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	Landmark

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
6,376.0	1.10	43.50	6,292.7	589.7	-672.1	894.1	0.54	0.32	35.40	
6,566.0	1.30	326.70	6,482.7	592.9	-672.0	896.1	0.79	0.11	-40.42	
6,755.0	1.60	291.90	6,671.7	595.6	-675.6	900.7	0.48	0.16	-18.41	
6,944.0	1.90	283.10	6,860.6	597.3	-681.1	905.9	0.21	0.16	-4.66	
6,952.7	1.95	283.39	6,869.2	597.4	-681.4	906.2	0.59	0.58	3.33	
<b>LEGAL BOX 800' X 800' 1310'FSL &amp; 1327'FEL - TARGET CIRCLE 1309'FSL &amp; 1326'FEL</b>										
7,133.0	3.00	287.20	7,049.4	599.5	-688.9	913.2	0.59	0.58	2.11	
7,358.0	2.30	288.00	7,274.1	602.6	-698.8	922.8	0.31	-0.31	0.36	
7,408.0	2.10	288.20	7,324.1	603.2	-700.6	924.5	0.40	-0.40	0.40	

Checked By: _____	Approved By: _____	Date: _____
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