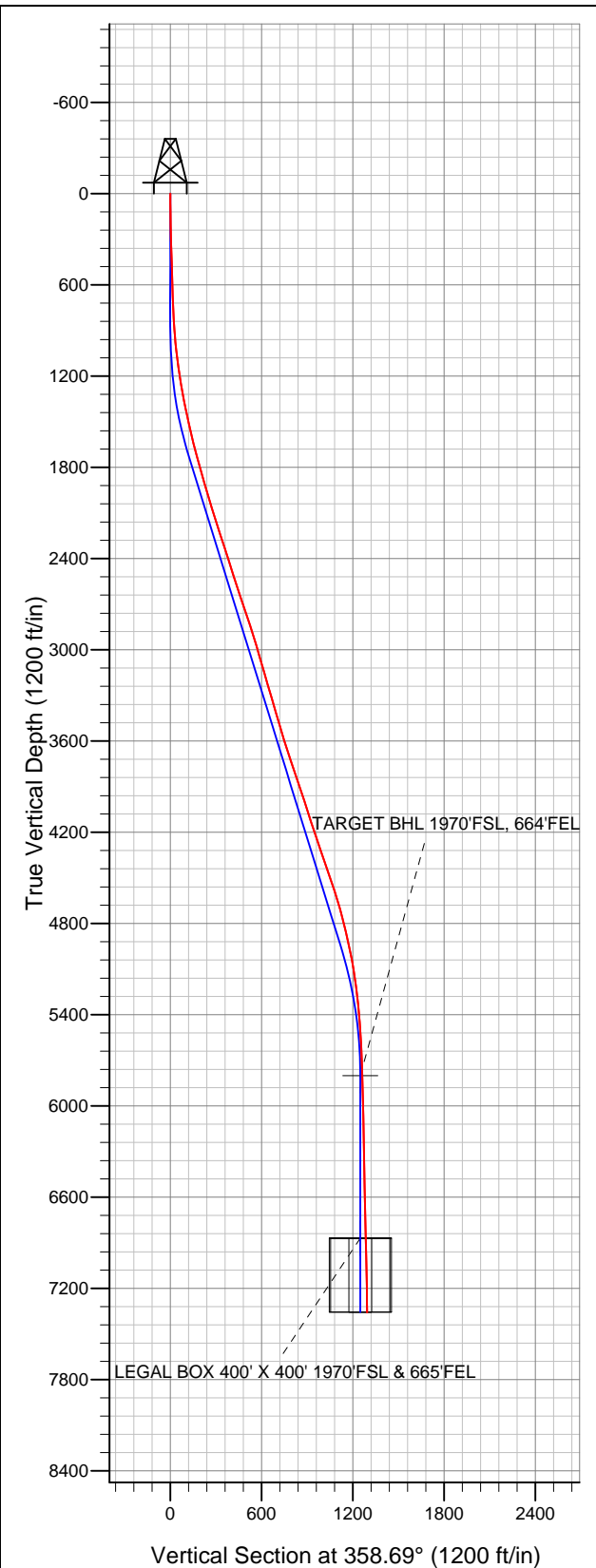


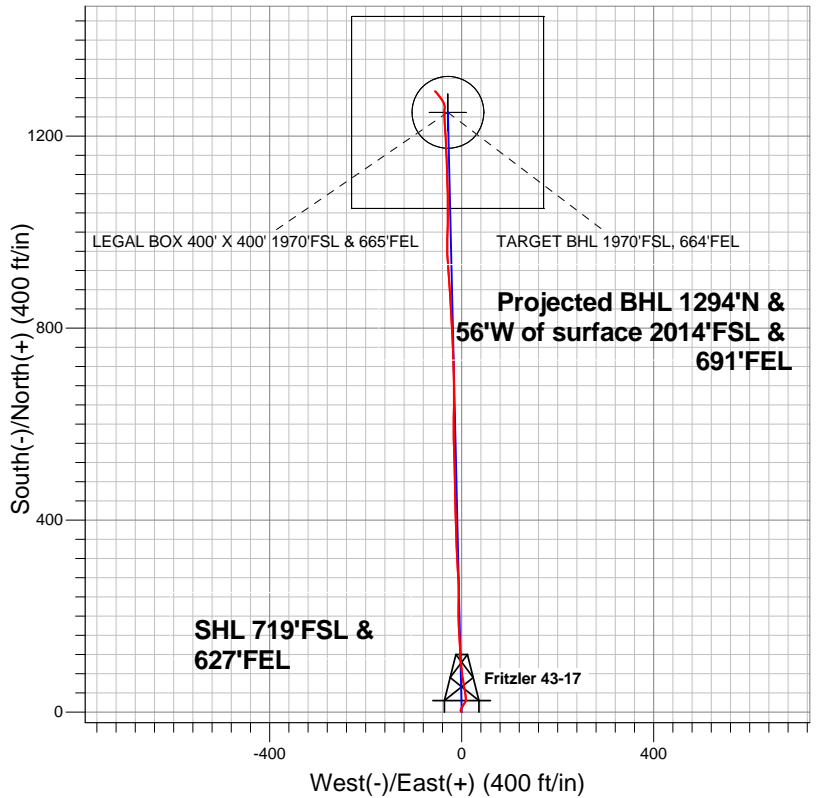
**Well Name: Fritzler 43-17**

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	1419525.12	3196195.93	40.482856	-104.794683	
Original Well Elev			WELL @ 4785.0ft (Original Well Elev)			



**Great Western**



**LEGEND**

- Wellbore #1
- Fritzler 43-17, Wellbore #1, Plan #2 (9-12-12) R V0
- Survey #1

**Final Survey Plot**

Projected Final Survey -  
7532'MD & 7358'TVD @ 1295'VS  
1.10 deg Inc 312.00 deg AZ

Project: SEC.17-T6N-R66W  
Site: Fritzler 17-23-18 Pad Sec.17-T6N-R66W  
Well: Fritzler 43-17  
Plan: Wellbore #1



## **Great Western**

**SEC.17-T6N-R66W**

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

**Fritzler 43-17**

**Wellbore #1**

**Survey: Survey #1**

## **Standard Survey Report**

**18 September, 2012**

<b>Company:</b>	Great Western	<b>Local Co-ordinate Reference:</b>	Well Fritzler 43-17
<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 43-17	<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:		Longitude:	
		3,196,151.19ft		-104.794844	
Position Uncertainty:		Slot Radius:		Grid Convergence:	
0.0 ft		"		0.46 °	

Well	Fritzler 43-17					
Well Position	+N-S	0.0 ft	Northing:	1,419,525.12 ft	Latitude:	40.482856
	+E-W	0.0 ft	Easting:	3,196,195.93 ft	Longitude:	-104.794683
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	9/12/2012	8.72	67.07	53,041

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	358.69	

Survey Program		Date	9/18/2012		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
118.0	7,532.0	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)	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	
118.0	1.10	313.70	118.0	0.8	-0.8	0.8	0.93	0.93	0.00	
209.0	1.50	337.80	209.0	2.5	-1.9	2.5	0.74	0.44	26.48	
301.0	1.80	18.90	300.9	5.0	-1.9	5.0	1.30	0.33	44.67	
391.0	2.10	28.40	390.9	7.8	-0.6	7.8	0.49	0.33	10.56	
482.0	1.80	23.10	481.8	10.5	0.7	10.5	0.38	-0.33	-5.82	
573.0	2.00	31.80	572.8	13.2	2.1	13.2	0.39	0.22	9.56	
663.0	2.40	36.00	662.7	16.1	4.0	16.0	0.48	0.44	4.67	
694.0	2.60	37.70	693.7	17.1	4.9	17.0	0.69	0.65	5.48	
755.0	2.80	37.60	754.6	19.4	6.6	19.3	0.33	0.33	-0.16	
850.0	3.60	8.40	849.5	24.2	8.5	24.0	1.88	0.84	-30.74	
945.0	4.80	354.30	944.2	31.1	8.5	30.9	1.66	1.26	-14.84	
1,039.0	6.90	349.70	1,037.7	40.6	7.1	40.4	2.29	2.23	-4.89	

<b>Company:</b>	Great Western	<b>Local Co-ordinate Reference:</b>	Well Fritzler 43-17
<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 43-17	<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)	
1,134.0	8.00	351.50	1,131.9	52.7	5.1	52.6	1.18	1.16	1.89	
1,229.0	9.00	349.20	1,225.9	66.6	2.7	66.5	1.11	1.05	-2.42	
1,323.0	10.60	353.60	1,318.5	82.4	0.4	82.4	1.88	1.70	4.68	
1,418.0	11.50	355.20	1,411.7	100.5	-1.4	100.5	1.00	0.95	1.68	
1,513.0	12.50	356.80	1,504.7	120.2	-2.7	120.2	1.11	1.05	1.68	
1,607.0	13.50	355.90	1,596.3	141.3	-4.1	141.4	1.09	1.06	-0.96	
1,702.0	14.90	357.10	1,688.3	164.6	-5.5	164.7	1.51	1.47	1.26	
1,797.0	15.80	359.60	1,780.0	189.7	-6.2	189.8	1.18	0.95	2.63	
1,891.0	15.90	359.00	1,870.4	215.4	-6.5	215.5	0.20	0.11	-0.64	
1,986.0	16.60	1.50	1,961.6	242.0	-6.4	242.0	1.04	0.74	2.63	
2,081.0	16.70	358.40	2,052.6	269.2	-6.4	269.2	0.94	0.11	-3.26	
2,175.0	17.50	355.50	2,142.5	296.8	-7.9	296.9	1.24	0.85	-3.09	
2,270.0	18.00	357.00	2,232.9	325.7	-9.8	325.8	0.71	0.53	1.58	
2,365.0	17.90	358.20	2,323.3	354.9	-11.0	355.1	0.40	-0.11	1.26	
2,459.0	18.20	357.80	2,412.7	384.0	-12.0	384.2	0.35	0.32	-0.43	
2,554.0	17.40	359.20	2,503.1	413.0	-12.8	413.2	0.95	-0.84	1.47	
2,649.0	18.00	358.50	2,593.6	441.9	-13.4	442.1	0.67	0.63	-0.74	
2,743.0	19.30	358.90	2,682.7	472.0	-14.1	472.2	1.39	1.38	0.43	
2,838.0	19.10	358.40	2,772.4	503.2	-14.8	503.4	0.27	-0.21	-0.53	
2,933.0	16.30	359.10	2,862.9	532.1	-15.5	532.3	2.96	-2.95	0.74	
3,027.0	17.10	357.50	2,952.9	559.1	-16.3	559.3	0.98	0.85	-1.70	
3,122.0	16.40	0.50	3,043.9	586.4	-16.8	586.7	1.17	-0.74	3.16	
3,216.0	16.00	0.30	3,134.2	612.7	-16.6	612.9	0.43	-0.43	-0.21	
3,311.0	16.30	1.70	3,225.4	639.1	-16.1	639.3	0.52	0.32	1.47	
3,409.0	16.70	358.70	3,319.4	666.9	-16.0	667.1	0.96	0.41	-3.06	
3,504.0	16.20	359.40	3,410.5	693.8	-16.5	694.0	0.57	-0.53	0.74	
3,598.0	16.80	358.40	3,500.6	720.5	-17.0	720.7	0.71	0.64	-1.06	
3,693.0	17.00	357.70	3,591.5	748.1	-17.9	748.3	0.30	0.21	-0.74	
3,788.0	18.40	357.10	3,682.0	776.9	-19.2	777.2	1.49	1.47	-0.63	
3,882.0	18.70	357.00	3,771.2	806.8	-20.8	807.1	0.32	0.32	-0.11	
3,977.0	18.70	357.30	3,861.1	837.2	-22.3	837.5	0.10	0.00	0.32	
4,071.0	18.20	356.80	3,950.3	866.9	-23.8	867.3	0.56	-0.53	-0.53	
4,166.0	17.40	355.20	4,040.8	895.9	-25.8	896.3	0.99	-0.84	-1.68	
4,261.0	18.40	355.90	4,131.2	925.0	-28.1	925.4	1.08	1.05	0.74	
4,355.0	18.80	357.80	4,220.3	955.0	-29.7	955.4	0.77	0.43	2.02	
4,450.0	18.40	1.30	4,310.3	985.2	-30.0	985.7	1.25	-0.42	3.68	
4,545.0	20.00	1.30	4,400.0	1,016.5	-29.3	1,016.9	1.68	1.68	0.00	
4,639.0	19.20	359.80	4,488.6	1,048.0	-29.0	1,048.4	1.01	-0.85	-1.60	
4,736.0	17.30	359.10	4,580.7	1,078.4	-29.3	1,078.8	1.97	-1.96	-0.72	
4,830.0	16.60	357.70	4,670.6	1,105.8	-30.0	1,106.2	0.86	-0.74	-1.49	
4,925.0	14.20	358.50	4,762.2	1,131.0	-30.9	1,131.4	2.54	-2.53	0.84	
5,020.0	13.40	357.70	4,854.4	1,153.6	-31.6	1,154.0	0.87	-0.84	-0.84	
5,114.0	12.40	357.10	4,946.1	1,174.6	-32.6	1,175.0	1.07	-1.06	-0.64	
5,209.0	10.60	357.30	5,039.1	1,193.5	-33.5	1,194.0	1.90	-1.89	0.21	
5,304.0	8.70	357.50	5,132.8	1,209.4	-34.2	1,209.9	2.00	-2.00	0.21	
5,398.0	7.80	356.60	5,225.8	1,222.9	-34.9	1,223.4	0.97	-0.96	-0.96	
5,493.0	5.50	356.40	5,320.2	1,233.9	-35.6	1,234.4	2.42	-2.42	-0.21	
5,588.0	4.70	354.00	5,414.8	1,242.3	-36.3	1,242.8	0.87	-0.84	-2.53	
5,682.0	4.10	0.60	5,508.5	1,249.5	-36.6	1,250.0	0.83	-0.64	7.02	
5,777.0	3.00	13.10	5,603.3	1,255.3	-36.0	1,255.8	1.41	-1.16	13.16	
5,872.0	2.30	2.60	5,698.2	1,259.6	-35.4	1,260.1	0.89	-0.74	-11.05	
5,966.0	1.40	347.10	5,792.2	1,262.6	-35.5	1,263.1	1.09	-0.96	-16.49	
5,973.5	1.39	346.65	5,799.7	1,262.8	-35.6	1,263.3	0.18	-0.11	-5.99	
TARGET BHL 1970'FSL, 664'FEL										

<b>Company:</b>	Great Western	<b>Local Co-ordinate Reference:</b>	Well Fritzler 43-17
<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 43-17	<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)	
6,061.0	1.30	341.00	5,887.2	1,264.8	-36.2	1,265.3	0.18	-0.10	-6.46	
6,222.0	1.10	345.50	6,048.1	1,268.0	-37.1	1,268.5	0.14	-0.12	2.80	
6,379.0	1.40	334.80	6,205.1	1,271.2	-38.3	1,271.7	0.24	0.19	-6.82	
6,537.0	1.40	324.60	6,363.0	1,274.5	-40.3	1,275.1	0.16	0.00	-6.46	
6,695.0	1.30	327.20	6,521.0	1,277.6	-42.4	1,278.2	0.07	-0.06	1.65	
6,852.0	1.40	317.10	6,678.0	1,280.5	-44.6	1,281.2	0.16	0.06	-6.43	
7,010.0	1.80	325.10	6,835.9	1,283.9	-47.4	1,284.7	0.29	0.25	5.06	
7,042.9	1.76	325.65	6,868.8	1,284.8	-47.9	1,285.5	0.14	-0.13	1.67	
<b>TARGET CIRCLE 1970'FSL &amp; 664'FEL</b>										
7,042.9	1.76	325.65	6,868.8	1,284.8	-47.9	1,285.5	0.14	-0.13	1.71	
<b>LEGAL BOX 400' X 400' 1970'FSL &amp; 665'FEL</b>										
7,168.0	1.60	328.00	6,993.8	1,287.8	-50.0	1,288.6	0.14	-0.13	1.88	
7,357.0	1.30	311.00	7,182.8	1,291.5	-53.0	1,292.4	0.28	-0.16	-8.99	
7,482.0	1.10	312.00	7,307.7	1,293.2	-54.9	1,294.1	0.16	-0.16	0.80	
7,532.0	1.10	312.00	7,357.7	1,293.9	-55.6	1,294.8	0.00	0.00	0.00	

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_