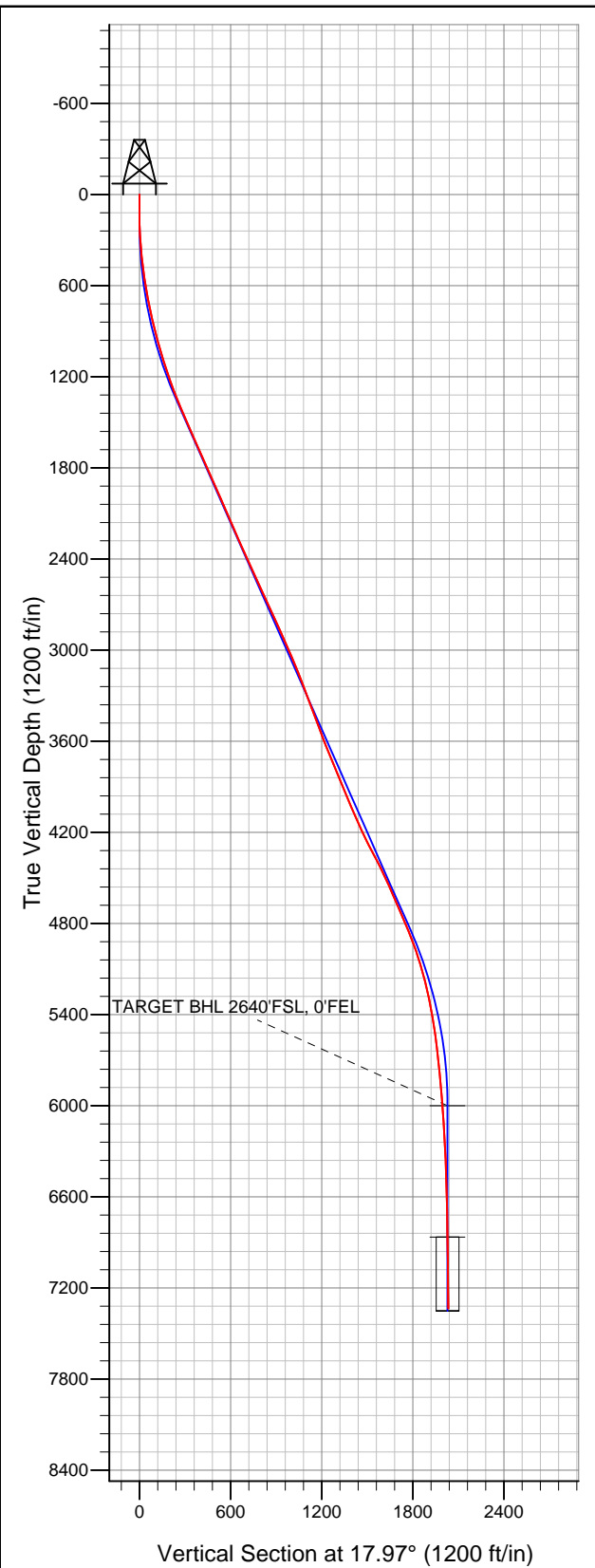


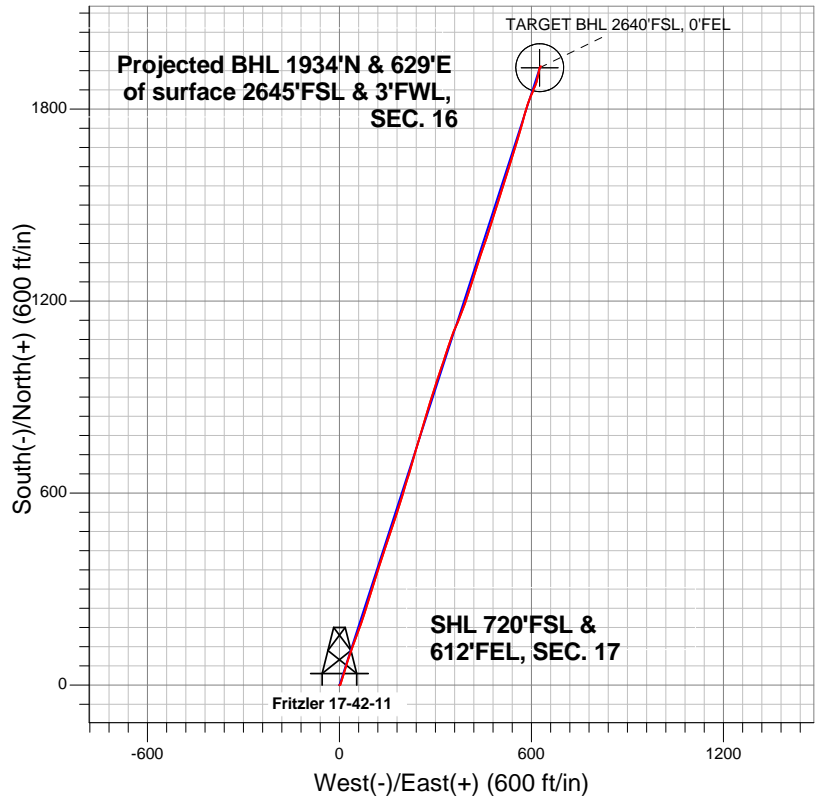
## Well Name: Fritzler 17-42-11

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

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1419525.97	3196210.39	40.482858	-104.794631	
Original Well Elev				WELL @ 4785.0ft (Original Well Elev)		



## Great Western



### LEGEND

- Fritzler 17-42-11, Wellbore #1, Plan #1 (9-17-12) R V0
- Wellbore #1
- Survey #1

## Final Survey Plot

Projected Final Survey -  
7713'MD & 7334'TVD @ 2033'VS  
0.90 deg Inc 29.80 deg AZ

Project: SEC.17-T6N-R66W  
Site: Fritzler 17-23-18 Pad Sec.17-T6N-R66W  
Well: Fritzler 17-42-11  
Plan: Wellbore #1

# **Great Western**

**SEC.17-T6N-R66W**

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

**Fritzler 17-42-11**

**Wellbore #1**

**Survey: Survey #1**

## **Standard Survey Report**

**24 September, 2012**

## Survey Report

<b>Company:</b>	Great Western	<b>Local Co-ordinate Reference:</b>	Well Fritzler 17-42-11
<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 17-42-11	<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	Latitude:	40.482844
From:	Lat/Long	Easting:	3,196,151.19ft	Longitude:	-104.794844
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.46 °

Well	Fritzler 17-42-11					
Well Position	+N/-S	0.0 ft	Northing:	1,419,525.97 ft	Latitude:	40.482858
	+E/-W	0.0 ft	Easting:	3,196,210.39 ft	Longitude:	-104.794631
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,771.0 ft

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	9/17/2012	8.72	67.07	53,039

<b>Design</b>	Wellbore #1				
<b>Audit Notes:</b>					
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>	
	0.0	0.0	0.0	17.97	

<b>Survey Program</b>	<b>Date</b>	9/24/2012			
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
57.0	7,713.0	Survey #1 (Wellbore #1)	MWD	MWD - Standard	

<b>Survey</b>										
<b>Measured Depth (ft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Vertical Section (ft)</b>	<b>Dogleg Rate (°/100ft)</b>	<b>Build Rate (°/100ft)</b>	<b>Turn Rate (°/100ft)</b>	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	
57.0	1.00	148.50	57.0	-0.4	0.3	-0.3	1.75	1.75	0.00	
148.0	0.70	71.70	148.0	-0.9	1.2	-0.5	1.19	-0.33	-84.40	
240.0	2.00	26.70	240.0	0.7	2.5	1.4	1.72	1.41	-48.91	
331.0	4.10	17.20	330.8	5.2	4.1	6.2	2.37	2.31	-10.44	
422.0	6.40	17.50	421.4	13.2	6.6	14.6	2.53	2.53	0.33	
512.0	8.00	17.90	510.7	23.9	10.1	25.8	1.78	1.78	0.44	
603.0	9.80	16.50	600.6	37.4	14.2	39.9	1.99	1.98	-1.54	
696.0	11.30	16.10	692.1	53.7	19.0	56.9	1.61	1.61	-0.43	
746.0	11.80	16.80	741.0	63.3	21.8	66.9	1.04	1.00	1.40	
787.0	11.90	16.60	781.2	71.4	24.2	75.4	0.26	0.24	-0.49	
882.0	13.50	20.70	873.8	91.1	30.9	96.2	1.93	1.68	4.32	
976.0	15.30	19.60	964.9	113.1	39.0	119.6	1.94	1.91	-1.17	

## Survey Report

<b>Company:</b>	Great Western	<b>Local Co-ordinate Reference:</b>	Well Fritzler 17-42-11
<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 17-42-11	<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)
1,071.0	16.70	19.80	1,056.2	137.7	47.8	145.8	1.47	1.47	0.21
1,166.0	17.60	19.50	1,147.0	164.1	57.2	173.8	0.95	0.95	-0.32
1,260.0	19.90	20.70	1,236.0	192.5	67.6	203.9	2.48	2.45	1.28
1,355.0	22.20	16.60	1,324.6	224.8	78.5	238.0	2.87	2.42	-4.32
1,450.0	23.40	17.50	1,412.2	260.0	89.3	274.9	1.32	1.26	0.95
1,544.0	23.90	17.90	1,498.3	295.9	100.7	312.6	0.56	0.53	0.43
1,639.0	23.00	17.00	1,585.5	332.0	112.1	350.4	1.02	-0.95	-0.95
1,734.0	23.10	16.80	1,672.9	367.6	122.9	387.6	0.13	0.11	-0.21
1,828.0	24.60	18.60	1,758.9	403.8	134.5	425.6	1.77	1.60	1.91
1,923.0	24.70	19.60	1,845.2	441.2	147.4	465.2	0.45	0.11	1.05
2,018.0	23.20	17.50	1,932.0	477.8	159.7	503.7	1.82	-1.58	-2.21
2,112.0	24.10	18.70	2,018.1	513.6	171.4	541.4	1.09	0.96	1.28
2,207.0	24.00	18.20	2,104.9	550.3	183.7	580.1	0.24	-0.11	-0.53
2,302.0	23.40	16.50	2,191.9	586.8	195.1	618.3	0.96	-0.63	-1.79
2,396.0	23.20	16.80	2,278.2	622.4	205.7	655.5	0.25	-0.21	0.32
2,491.0	24.10	18.20	2,365.2	658.7	217.2	693.6	1.12	0.95	1.47
2,585.0	24.60	15.40	2,450.9	695.8	228.4	732.3	1.34	0.53	-2.98
2,680.0	24.50	15.40	2,537.3	733.9	238.9	771.8	0.11	-0.11	0.00
2,775.0	25.00	15.90	2,623.6	772.2	249.6	811.5	0.57	0.53	0.53
2,869.0	25.50	16.50	2,708.6	810.7	260.8	851.6	0.60	0.53	0.64
2,964.0	24.50	16.80	2,794.7	849.1	272.3	891.7	1.06	-1.05	0.32
3,059.0	23.10	18.70	2,881.6	885.6	284.0	930.1	1.68	-1.47	2.00
3,153.0	23.70	17.70	2,967.9	921.1	295.6	967.4	0.77	0.64	-1.06
3,248.0	23.70	17.90	3,054.9	957.5	307.3	1,005.6	0.08	0.00	0.21
3,346.0	21.90	18.90	3,145.2	993.5	319.3	1,043.5	1.88	-1.84	1.02
3,440.0	21.00	17.50	3,232.7	1,026.2	330.0	1,077.9	1.10	-0.96	-1.49
3,535.0	20.50	19.50	3,321.5	1,058.1	340.7	1,111.6	0.91	-0.53	2.11
3,633.0	20.10	18.20	3,413.4	1,090.2	351.7	1,145.6	0.62	-0.41	-1.33
3,730.0	20.80	23.50	3,504.3	1,121.9	363.8	1,179.4	2.04	0.72	5.46
3,824.0	20.80	22.30	3,592.2	1,152.6	376.7	1,212.6	0.45	0.00	-1.28
3,919.0	22.20	20.90	3,680.6	1,185.0	389.5	1,247.4	1.57	1.47	-1.47
4,015.0	22.70	18.00	3,769.3	1,219.6	401.7	1,284.0	1.27	0.52	-3.02
4,110.0	23.00	17.30	3,856.9	1,254.7	412.9	1,320.9	0.43	0.32	-0.74
4,204.0	22.70	17.00	3,943.5	1,289.6	423.7	1,357.4	0.34	-0.32	-0.32
4,299.0	22.60	17.50	4,031.2	1,324.5	434.5	1,394.0	0.23	-0.11	0.53
4,394.0	23.20	19.80	4,118.7	1,359.5	446.4	1,430.9	1.13	0.63	2.42
4,489.0	25.60	18.90	4,205.2	1,396.6	459.4	1,470.2	2.56	2.53	-0.95
4,583.0	27.70	17.30	4,289.2	1,436.7	472.4	1,512.3	2.36	2.23	-1.70
4,679.0	27.30	18.00	4,374.3	1,478.9	485.9	1,556.6	0.54	-0.42	0.73
4,774.0	26.20	17.00	4,459.2	1,519.7	498.7	1,599.4	1.25	-1.16	-1.05
4,869.0	24.10	17.00	4,545.2	1,558.3	510.5	1,639.8	2.21	-2.21	0.00
4,963.0	23.00	18.20	4,631.3	1,594.1	521.9	1,677.3	1.28	-1.17	1.28
5,057.0	24.00	17.50	4,717.5	1,629.8	533.4	1,714.8	1.10	1.06	-0.74
5,152.0	22.70	17.00	4,804.8	1,665.7	544.5	1,752.5	1.38	-1.37	-0.53
5,247.0	21.20	16.60	4,892.9	1,699.7	554.8	1,788.0	1.59	-1.58	-0.42
5,342.0	19.50	16.30	4,981.9	1,731.4	564.2	1,821.0	1.79	-1.79	-0.32
5,437.0	16.60	15.40	5,072.2	1,759.7	572.2	1,850.4	3.07	-3.05	-0.95
5,531.0	14.20	14.90	5,162.9	1,783.8	578.7	1,875.3	2.56	-2.55	-0.53
5,626.0	12.80	17.70	5,255.2	1,805.1	584.9	1,897.5	1.63	-1.47	2.95
5,720.0	10.50	20.00	5,347.3	1,823.0	591.0	1,916.5	2.50	-2.45	2.45
5,814.0	9.90	23.80	5,439.8	1,838.5	597.2	1,933.1	0.96	-0.64	4.04
5,909.0	7.50	21.90	5,533.7	1,851.7	602.8	1,947.4	2.54	-2.53	-2.00
6,003.0	6.80	23.10	5,627.0	1,862.5	607.3	1,959.0	0.76	-0.74	1.28
6,097.0	5.80	23.10	5,720.4	1,872.0	611.4	1,969.3	1.06	-1.06	0.00

## Survey Report

<b>Company:</b>	Great Western	<b>Local Co-ordinate Reference:</b>	Well Fritzler 17-42-11
<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 17-42-11	<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)
6,192.0	5.10	17.90	5,815.0	1,880.4	614.5	1,978.3	0.90	-0.74	-5.47
6,286.0	5.30	13.10	5,908.6	1,888.6	616.8	1,986.8	0.51	0.21	-5.11
6,381.0	4.50	13.70	6,003.2	1,896.5	618.7	1,994.9	0.84	-0.84	0.63
6,475.0	3.90	14.00	6,097.0	1,903.2	620.3	2,001.8	0.64	-0.64	0.32
6,570.0	3.30	14.90	6,191.8	1,909.0	621.8	2,007.7	0.63	-0.63	0.95
6,665.0	2.60	6.10	6,286.7	1,913.8	622.7	2,012.6	0.88	-0.74	-9.26
6,759.0	2.00	5.00	6,380.6	1,917.5	623.1	2,016.2	0.64	-0.64	-1.17
6,854.0	1.50	11.70	6,475.6	1,920.4	623.5	2,019.1	0.57	-0.53	7.05
7,043.0	1.30	14.00	6,664.5	1,924.9	624.5	2,023.7	0.11	-0.11	1.22
7,232.0	0.90	21.00	6,853.5	1,928.4	625.6	2,027.3	0.22	-0.21	3.70
7,422.0	0.60	29.60	7,043.5	1,930.6	626.6	2,029.8	0.17	-0.16	4.53
7,580.0	0.80	45.30	7,201.4	1,932.1	627.8	2,031.6	0.17	0.13	9.94
7,663.0	0.90	29.80	7,284.4	1,933.1	628.5	2,032.7	0.30	0.12	-18.67
7,713.0	0.90	29.80	7,334.4	1,933.8	628.9	2,033.5	0.00	0.00	0.00

Checked By: _____	Approved By: _____	Date: _____
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