

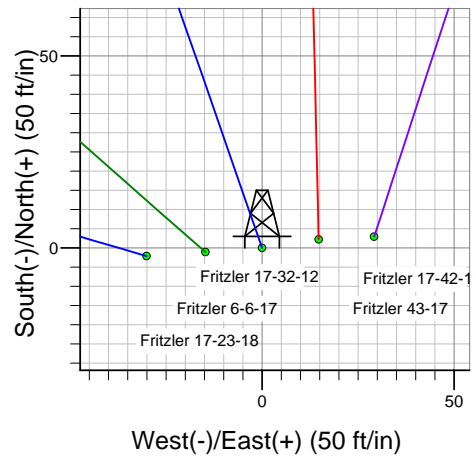
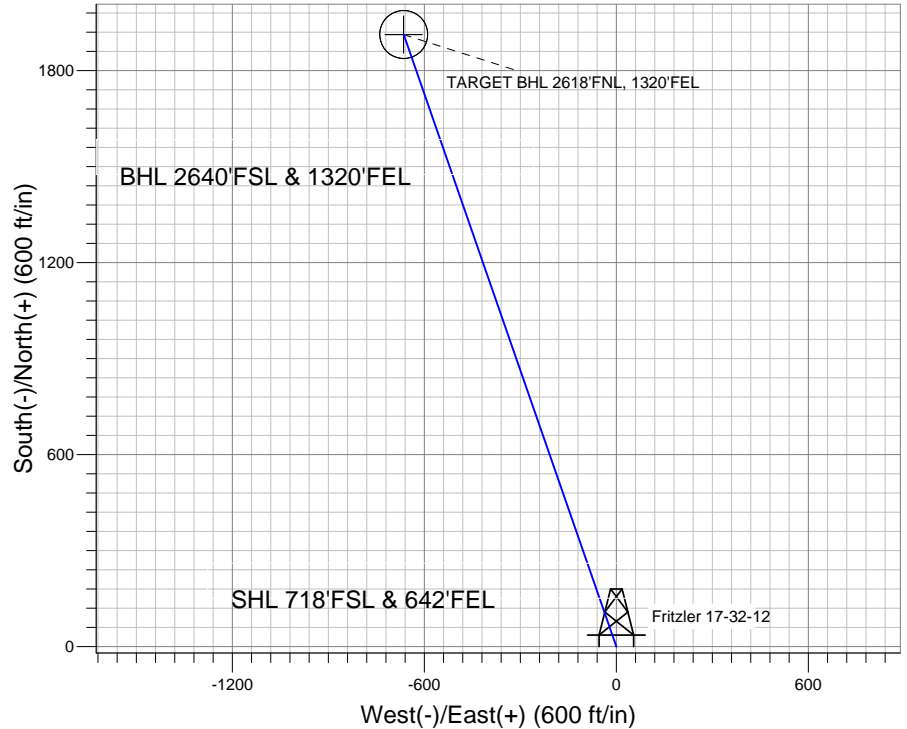
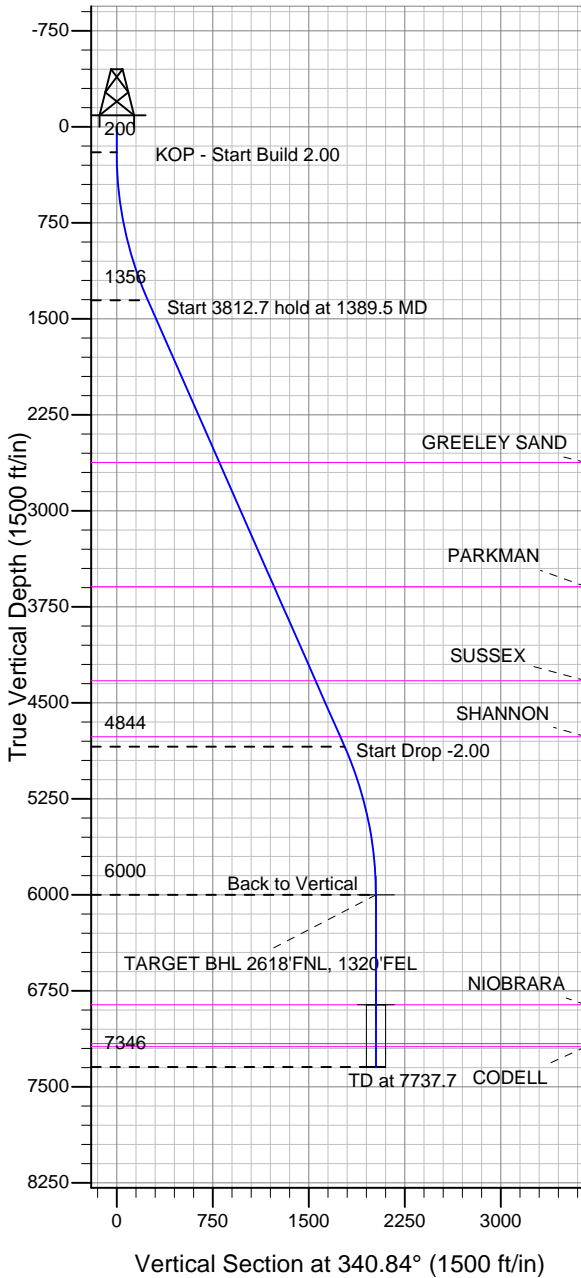
ENSIGN

Directional

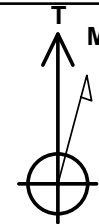
Well Name: Fritzler 17-32-12

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 1419522.82 3196181.21 40.482850 -104.794736
 Original Well Elev WELL @ 4785.0ft (Original Well Elev)

Great Western



Fritzler 17-23-18 Pad Sec.17-T6N-R66W
 Fritzler 17-32-12
 Plan #1 (6-26-12)
 7:10, June 27 2012



Azimuths to True North
 Magnetic North: 8.75°

Magnetic Field
 Strength: 53063.0snT
 Dip Angle: 67.08°
 Date: 6/27/2012
 Model: IGRF2010

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
TARGET BHL 2618'FNL, 1320'FEL	6000.0	1912.7	-664.5	40.488100	-104.797125	Point
TARGET CIRCLE 2640'FSL & 1320'FEL	6860.0	1912.7	-664.5	40.488100	-104.797125	Circle (Radius: 75.0)

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.0	
3	1389.5	23.79	340.84	1355.6	229.9	-79.9	2.00	340.84	243.4	
4	5202.2	23.79	340.84	4844.4	1682.7	-584.6	0.00	0.00	1781.4	
5	6391.7	0.00	0.00	6000.0	1912.7	-664.5	2.00	180.00	2024.8	TARGET BHL 2618'FNL, 1320'FEL
6	7737.7	0.00	0.00	7346.0	1912.7	-664.5	0.00	0.00	2024.8	



Directional

Great Western

SEC.17-T6N-R66W

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

Fritzler 17-32-12

Wellbore #1

Plan: Plan #1 (6-26-12)

Standard Planning Report

27 June, 2012

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,389.5	23.79	340.84	1,355.6	229.9	-79.9	2.00	2.00	0.00	340.84	
5,202.2	23.79	340.84	4,844.4	1,682.7	-584.6	0.00	0.00	0.00	0.00	
6,391.7	0.00	0.00	6,000.0	1,912.7	-664.5	2.00	-2.00	0.00	180.00	TARGET BHL 2618
7,737.7	0.00	0.00	7,346.0	1,912.7	-664.5	0.00	0.00	0.00	0.00	

Database:	Landmark	Local Co-ordinate Reference:	Well Fritzler 17-32-12
Company:	Great Western	TVD Reference:	WELL @ 4785.0ft (Original Well Elev)
Project:	SEC.17-T6N-R66W	MD Reference:	WELL @ 4785.0ft (Original Well Elev)
Site:	Fritzler 17-23-18 Pad Sec.17-T6N-R66W	North Reference:	True
Well:	Fritzler 17-32-12	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (6-26-12)		

Planned 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
40.0	0.00	0.00	40.0	0.0	0.0	0.0	0.00	0.00	0.00
80.0	0.00	0.00	80.0	0.0	0.0	0.0	0.00	0.00	0.00
120.0	0.00	0.00	120.0	0.0	0.0	0.0	0.00	0.00	0.00
160.0	0.00	0.00	160.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP - Start Build 2.00									
240.0	0.80	340.84	240.0	0.3	-0.1	0.3	2.00	2.00	0.00
280.0	1.60	340.84	280.0	1.1	-0.4	1.1	2.00	2.00	0.00
320.0	2.40	340.84	320.0	2.4	-0.8	2.5	2.00	2.00	0.00
360.0	3.20	340.84	359.9	4.2	-1.5	4.5	2.00	2.00	0.00
400.0	4.00	340.84	399.8	6.6	-2.3	7.0	2.00	2.00	0.00
440.0	4.80	340.84	439.7	9.5	-3.3	10.0	2.00	2.00	0.00
480.0	5.60	340.84	479.6	12.9	-4.5	13.7	2.00	2.00	0.00
520.0	6.40	340.84	519.3	16.9	-5.9	17.9	2.00	2.00	0.00
560.0	7.20	340.84	559.1	21.3	-7.4	22.6	2.00	2.00	0.00
600.0	8.00	340.84	598.7	26.3	-9.1	27.9	2.00	2.00	0.00
640.0	8.80	340.84	638.3	31.9	-11.1	33.7	2.00	2.00	0.00
680.0	9.60	340.84	677.8	37.9	-13.2	40.1	2.00	2.00	0.00
692.4	9.85	340.84	690.0	39.9	-13.9	42.2	2.00	2.00	0.00
8 5/8"									
720.0	10.40	340.84	717.1	44.5	-15.4	47.1	2.00	2.00	0.00
760.0	11.20	340.84	756.4	51.5	-17.9	54.6	2.00	2.00	0.00
800.0	12.00	340.84	795.6	59.1	-20.5	62.6	2.00	2.00	0.00
840.0	12.80	340.84	834.7	67.2	-23.4	71.2	2.00	2.00	0.00
880.0	13.60	340.84	873.6	75.9	-26.4	80.3	2.00	2.00	0.00
920.0	14.40	340.84	912.4	85.0	-29.5	90.0	2.00	2.00	0.00
960.0	15.20	340.84	951.1	94.7	-32.9	100.2	2.00	2.00	0.00
1,000.0	16.00	340.84	989.6	104.8	-36.4	111.0	2.00	2.00	0.00
1,040.0	16.80	340.84	1,028.0	115.5	-40.1	122.3	2.00	2.00	0.00
1,080.0	17.60	340.84	1,066.2	126.7	-44.0	134.1	2.00	2.00	0.00
1,120.0	18.40	340.84	1,104.3	138.3	-48.1	146.5	2.00	2.00	0.00
1,160.0	19.20	340.84	1,142.1	150.5	-52.3	159.3	2.00	2.00	0.00
1,200.0	20.00	340.84	1,179.8	163.2	-56.7	172.8	2.00	2.00	0.00
1,240.0	20.80	340.84	1,217.3	176.4	-61.3	186.7	2.00	2.00	0.00
1,280.0	21.60	340.84	1,254.6	190.0	-66.0	201.2	2.00	2.00	0.00
1,320.0	22.40	340.84	1,291.7	204.2	-70.9	216.2	2.00	2.00	0.00
1,360.0	23.20	340.84	1,328.6	218.8	-76.0	231.7	2.00	2.00	0.00
1,389.5	23.79	340.84	1,355.6	229.9	-79.9	243.4	2.00	2.00	0.00
Start 3812.7 hold at 1389.5 MD									
1,400.0	23.79	340.84	1,365.2	233.9	-81.3	247.7	0.00	0.00	0.00
1,440.0	23.79	340.84	1,401.8	249.2	-86.6	263.8	0.00	0.00	0.00
1,480.0	23.79	340.84	1,438.4	264.4	-91.9	279.9	0.00	0.00	0.00
1,520.0	23.79	340.84	1,475.0	279.7	-97.2	296.1	0.00	0.00	0.00
1,560.0	23.79	340.84	1,511.6	294.9	-102.5	312.2	0.00	0.00	0.00
1,600.0	23.79	340.84	1,548.2	310.1	-107.8	328.3	0.00	0.00	0.00
1,640.0	23.79	340.84	1,584.8	325.4	-113.0	344.5	0.00	0.00	0.00
1,680.0	23.79	340.84	1,621.4	340.6	-118.3	360.6	0.00	0.00	0.00
1,720.0	23.79	340.84	1,658.0	355.9	-123.6	376.7	0.00	0.00	0.00
1,760.0	23.79	340.84	1,694.6	371.1	-128.9	392.9	0.00	0.00	0.00
1,800.0	23.79	340.84	1,731.2	386.4	-134.2	409.0	0.00	0.00	0.00
1,840.0	23.79	340.84	1,767.8	401.6	-139.5	425.1	0.00	0.00	0.00
1,880.0	23.79	340.84	1,804.4	416.8	-144.8	441.3	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Fritzler 17-32-12
Company:	Great Western	TVD Reference:	WELL @ 4785.0ft (Original Well Elev)
Project:	SEC.17-T6N-R66W	MD Reference:	WELL @ 4785.0ft (Original Well Elev)
Site:	Fritzler 17-23-18 Pad Sec.17-T6N-R66W	North Reference:	True
Well:	Fritzler 17-32-12	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (6-26-12)		

Planned 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)
1,920.0	23.79	340.84	1,841.0	432.1	-150.1	457.4	0.00	0.00	0.00
1,960.0	23.79	340.84	1,877.6	447.3	-155.4	473.6	0.00	0.00	0.00
2,000.0	23.79	340.84	1,914.2	462.6	-160.7	489.7	0.00	0.00	0.00
2,040.0	23.79	340.84	1,950.8	477.8	-166.0	505.8	0.00	0.00	0.00
2,080.0	23.79	340.84	1,987.4	493.0	-171.3	522.0	0.00	0.00	0.00
2,120.0	23.79	340.84	2,024.0	508.3	-176.6	538.1	0.00	0.00	0.00
2,160.0	23.79	340.84	2,060.6	523.5	-181.9	554.2	0.00	0.00	0.00
2,200.0	23.79	340.84	2,097.2	538.8	-187.2	570.4	0.00	0.00	0.00
2,240.0	23.79	340.84	2,133.8	554.0	-192.5	586.5	0.00	0.00	0.00
2,280.0	23.79	340.84	2,170.5	569.3	-197.8	602.6	0.00	0.00	0.00
2,320.0	23.79	340.84	2,207.1	584.5	-203.1	618.8	0.00	0.00	0.00
2,360.0	23.79	340.84	2,243.7	599.7	-208.4	634.9	0.00	0.00	0.00
2,400.0	23.79	340.84	2,280.3	615.0	-213.7	651.0	0.00	0.00	0.00
2,440.0	23.79	340.84	2,316.9	630.2	-219.0	667.2	0.00	0.00	0.00
2,480.0	23.79	340.84	2,353.5	645.5	-224.3	683.3	0.00	0.00	0.00
2,520.0	23.79	340.84	2,390.1	660.7	-229.5	699.4	0.00	0.00	0.00
2,560.0	23.79	340.84	2,426.7	675.9	-234.8	715.6	0.00	0.00	0.00
2,600.0	23.79	340.84	2,463.3	691.2	-240.1	731.7	0.00	0.00	0.00
2,640.0	23.79	340.84	2,499.9	706.4	-245.4	747.9	0.00	0.00	0.00
2,680.0	23.79	340.84	2,536.5	721.7	-250.7	764.0	0.00	0.00	0.00
2,720.0	23.79	340.84	2,573.1	736.9	-256.0	780.1	0.00	0.00	0.00
2,760.0	23.79	340.84	2,609.7	752.2	-261.3	796.3	0.00	0.00	0.00
2,775.7	23.79	340.84	2,624.0	758.1	-263.4	802.6	0.00	0.00	0.00
GREELEY SAND									
2,800.0	23.79	340.84	2,646.3	767.4	-266.6	812.4	0.00	0.00	0.00
2,840.0	23.79	340.84	2,682.9	782.6	-271.9	828.5	0.00	0.00	0.00
2,880.0	23.79	340.84	2,719.5	797.9	-277.2	844.7	0.00	0.00	0.00
2,920.0	23.79	340.84	2,756.1	813.1	-282.5	860.8	0.00	0.00	0.00
2,960.0	23.79	340.84	2,792.7	828.4	-287.8	876.9	0.00	0.00	0.00
3,000.0	23.79	340.84	2,829.3	843.6	-293.1	893.1	0.00	0.00	0.00
3,040.0	23.79	340.84	2,865.9	858.8	-298.4	909.2	0.00	0.00	0.00
3,080.0	23.79	340.84	2,902.5	874.1	-303.7	925.3	0.00	0.00	0.00
3,120.0	23.79	340.84	2,939.1	889.3	-309.0	941.5	0.00	0.00	0.00
3,160.0	23.79	340.84	2,975.7	904.6	-314.3	957.6	0.00	0.00	0.00
3,200.0	23.79	340.84	3,012.3	919.8	-319.6	973.7	0.00	0.00	0.00
3,240.0	23.79	340.84	3,048.9	935.1	-324.9	989.9	0.00	0.00	0.00
3,280.0	23.79	340.84	3,085.5	950.3	-330.2	1,006.0	0.00	0.00	0.00
3,320.0	23.79	340.84	3,122.1	965.5	-335.5	1,022.2	0.00	0.00	0.00
3,360.0	23.79	340.84	3,158.7	980.8	-340.8	1,038.3	0.00	0.00	0.00
3,400.0	23.79	340.84	3,195.3	996.0	-346.0	1,054.4	0.00	0.00	0.00
3,440.0	23.79	340.84	3,231.9	1,011.3	-351.3	1,070.6	0.00	0.00	0.00
3,480.0	23.79	340.84	3,268.5	1,026.5	-356.6	1,086.7	0.00	0.00	0.00
3,520.0	23.79	340.84	3,305.1	1,041.7	-361.9	1,102.8	0.00	0.00	0.00
3,560.0	23.79	340.84	3,341.7	1,057.0	-367.2	1,119.0	0.00	0.00	0.00
3,600.0	23.79	340.84	3,378.3	1,072.2	-372.5	1,135.1	0.00	0.00	0.00
3,640.0	23.79	340.84	3,414.9	1,087.5	-377.8	1,151.2	0.00	0.00	0.00
3,680.0	23.79	340.84	3,451.5	1,102.7	-383.1	1,167.4	0.00	0.00	0.00
3,720.0	23.79	340.84	3,488.1	1,118.0	-388.4	1,183.5	0.00	0.00	0.00
3,760.0	23.79	340.84	3,524.7	1,133.2	-393.7	1,199.6	0.00	0.00	0.00
3,800.0	23.79	340.84	3,561.3	1,148.4	-399.0	1,215.8	0.00	0.00	0.00
3,834.6	23.79	340.84	3,593.0	1,161.6	-403.6	1,229.8	0.00	0.00	0.00
PARKMAN									
3,840.0	23.79	340.84	3,597.9	1,163.7	-404.3	1,231.9	0.00	0.00	0.00
3,880.0	23.79	340.84	3,634.5	1,178.9	-409.6	1,248.0	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Fritzler 17-32-12
Company:	Great Western	TVD Reference:	WELL @ 4785.0ft (Original Well Elev)
Project:	SEC.17-T6N-R66W	MD Reference:	WELL @ 4785.0ft (Original Well Elev)
Site:	Fritzler 17-23-18 Pad Sec.17-T6N-R66W	North Reference:	True
Well:	Fritzler 17-32-12	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (6-26-12)		

Planned 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)
3,920.0	23.79	340.84	3,671.1	1,194.2	-414.9	1,264.2	0.00	0.00	0.00
3,960.0	23.79	340.84	3,707.7	1,209.4	-420.2	1,280.3	0.00	0.00	0.00
4,000.0	23.79	340.84	3,744.3	1,224.6	-425.5	1,296.5	0.00	0.00	0.00
4,040.0	23.79	340.84	3,780.9	1,239.9	-430.8	1,312.6	0.00	0.00	0.00
4,080.0	23.79	340.84	3,817.5	1,255.1	-436.1	1,328.7	0.00	0.00	0.00
4,120.0	23.79	340.84	3,854.1	1,270.4	-441.4	1,344.9	0.00	0.00	0.00
4,160.0	23.79	340.84	3,890.7	1,285.6	-446.7	1,361.0	0.00	0.00	0.00
4,200.0	23.79	340.84	3,927.3	1,300.9	-452.0	1,377.1	0.00	0.00	0.00
4,240.0	23.79	340.84	3,963.9	1,316.1	-457.2	1,393.3	0.00	0.00	0.00
4,280.0	23.79	340.84	4,000.5	1,331.3	-462.5	1,409.4	0.00	0.00	0.00
4,320.0	23.79	340.84	4,037.1	1,346.6	-467.8	1,425.5	0.00	0.00	0.00
4,360.0	23.79	340.84	4,073.7	1,361.8	-473.1	1,441.7	0.00	0.00	0.00
4,400.0	23.79	340.84	4,110.3	1,377.1	-478.4	1,457.8	0.00	0.00	0.00
4,440.0	23.79	340.84	4,146.9	1,392.3	-483.7	1,473.9	0.00	0.00	0.00
4,480.0	23.79	340.84	4,183.5	1,407.5	-489.0	1,490.1	0.00	0.00	0.00
4,520.0	23.79	340.84	4,220.1	1,422.8	-494.3	1,506.2	0.00	0.00	0.00
4,560.0	23.79	340.84	4,256.7	1,438.0	-499.6	1,522.3	0.00	0.00	0.00
4,600.0	23.79	340.84	4,293.3	1,453.3	-504.9	1,538.5	0.00	0.00	0.00
4,636.8	23.79	340.84	4,327.0	1,467.3	-509.8	1,553.3	0.00	0.00	0.00
SUSSEX									
4,640.0	23.79	340.84	4,329.9	1,468.5	-510.2	1,554.6	0.00	0.00	0.00
4,680.0	23.79	340.84	4,366.5	1,483.8	-515.5	1,570.8	0.00	0.00	0.00
4,720.0	23.79	340.84	4,403.1	1,499.0	-520.8	1,586.9	0.00	0.00	0.00
4,760.0	23.79	340.84	4,439.7	1,514.2	-526.1	1,603.0	0.00	0.00	0.00
4,800.0	23.79	340.84	4,476.3	1,529.5	-531.4	1,619.2	0.00	0.00	0.00
4,840.0	23.79	340.84	4,512.9	1,544.7	-536.7	1,635.3	0.00	0.00	0.00
4,880.0	23.79	340.84	4,549.5	1,560.0	-542.0	1,651.4	0.00	0.00	0.00
4,920.0	23.79	340.84	4,586.1	1,575.2	-547.3	1,667.6	0.00	0.00	0.00
4,960.0	23.79	340.84	4,622.7	1,590.4	-552.6	1,683.7	0.00	0.00	0.00
5,000.0	23.79	340.84	4,659.3	1,605.7	-557.9	1,699.8	0.00	0.00	0.00
5,040.0	23.79	340.84	4,695.9	1,620.9	-563.2	1,716.0	0.00	0.00	0.00
5,080.0	23.79	340.84	4,732.5	1,636.2	-568.5	1,732.1	0.00	0.00	0.00
5,115.5	23.79	340.84	4,765.0	1,649.7	-573.1	1,746.4	0.00	0.00	0.00
SHANNON									
5,120.0	23.79	340.84	4,769.1	1,651.4	-573.7	1,748.2	0.00	0.00	0.00
5,160.0	23.79	340.84	4,805.7	1,666.7	-579.0	1,764.4	0.00	0.00	0.00
5,200.0	23.79	340.84	4,842.3	1,681.9	-584.3	1,780.5	0.00	0.00	0.00
5,202.2	23.79	340.84	4,844.4	1,682.7	-584.6	1,781.4	0.00	0.00	0.00
Start Drop -2.00									
5,240.0	23.03	340.84	4,879.0	1,696.9	-589.6	1,796.4	2.00	-2.00	0.00
5,280.0	22.23	340.84	4,916.0	1,711.5	-594.6	1,811.8	2.00	-2.00	0.00
5,320.0	21.43	340.84	4,953.1	1,725.5	-599.5	1,826.7	2.00	-2.00	0.00
5,360.0	20.63	340.84	4,990.4	1,739.1	-604.2	1,841.0	2.00	-2.00	0.00
5,400.0	19.83	340.84	5,028.0	1,752.1	-608.7	1,854.9	2.00	-2.00	0.00
5,440.0	19.03	340.84	5,065.7	1,764.7	-613.1	1,868.2	2.00	-2.00	0.00
5,480.0	18.23	340.84	5,103.6	1,776.8	-617.3	1,881.0	2.00	-2.00	0.00
5,520.0	17.43	340.84	5,141.7	1,788.4	-621.3	1,893.2	2.00	-2.00	0.00
5,560.0	16.63	340.84	5,179.9	1,799.4	-625.2	1,904.9	2.00	-2.00	0.00
5,600.0	15.83	340.84	5,218.3	1,810.0	-628.8	1,916.1	2.00	-2.00	0.00
5,640.0	15.03	340.84	5,256.9	1,820.1	-632.3	1,926.8	2.00	-2.00	0.00
5,680.0	14.23	340.84	5,295.6	1,829.6	-635.7	1,936.9	2.00	-2.00	0.00
5,720.0	13.43	340.84	5,334.4	1,838.6	-638.8	1,946.4	2.00	-2.00	0.00
5,760.0	12.63	340.84	5,373.4	1,847.2	-641.8	1,955.5	2.00	-2.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Fritzler 17-32-12
Company:	Great Western	TVD Reference:	WELL @ 4785.0ft (Original Well Elev)
Project:	SEC.17-T6N-R66W	MD Reference:	WELL @ 4785.0ft (Original Well Elev)
Site:	Fritzler 17-23-18 Pad Sec.17-T6N-R66W	North Reference:	True
Well:	Fritzler 17-32-12	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (6-26-12)		

Planned 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)
5,800.0	11.83	340.84	5,412.5	1,855.2	-644.5	1,963.9	2.00	-2.00	0.00
5,840.0	11.03	340.84	5,451.7	1,862.7	-647.1	1,971.9	2.00	-2.00	0.00
5,880.0	10.23	340.84	5,491.0	1,869.6	-649.6	1,979.2	2.00	-2.00	0.00
5,920.0	9.43	340.84	5,530.4	1,876.1	-651.8	1,986.1	2.00	-2.00	0.00
5,960.0	8.63	340.84	5,569.9	1,882.0	-653.9	1,992.4	2.00	-2.00	0.00
6,000.0	7.83	340.84	5,609.5	1,887.4	-655.7	1,998.1	2.00	-2.00	0.00
6,040.0	7.03	340.84	5,649.1	1,892.3	-657.4	2,003.3	2.00	-2.00	0.00
6,080.0	6.23	340.84	5,688.9	1,896.7	-659.0	2,007.9	2.00	-2.00	0.00
6,120.0	5.43	340.84	5,728.7	1,900.5	-660.3	2,012.0	2.00	-2.00	0.00
6,160.0	4.63	340.84	5,768.5	1,903.8	-661.4	2,015.5	2.00	-2.00	0.00
6,200.0	3.83	340.84	5,808.4	1,906.6	-662.4	2,018.4	2.00	-2.00	0.00
6,240.0	3.03	340.84	5,848.3	1,908.9	-663.2	2,020.8	2.00	-2.00	0.00
6,280.0	2.23	340.84	5,888.3	1,910.6	-663.8	2,022.7	2.00	-2.00	0.00
6,320.0	1.43	340.84	5,928.3	1,911.8	-664.2	2,023.9	2.00	-2.00	0.00
6,360.0	0.63	340.84	5,968.3	1,912.5	-664.5	2,024.7	2.00	-2.00	0.00
6,391.7	0.00	0.00	6,000.0	1,912.7	-664.5	2,024.8	2.00	-2.00	0.00
Back to Vertical - Start 1346.0 hold at 6391.7 MD									
6,400.0	0.00	0.00	6,008.3	1,912.7	-664.5	2,024.8	0.00	0.00	0.00
6,440.0	0.00	0.00	6,048.3	1,912.7	-664.5	2,024.8	0.00	0.00	0.00
6,480.0	0.00	0.00	6,088.3	1,912.7	-664.5	2,024.8	0.00	0.00	0.00
6,520.0	0.00	0.00	6,128.3	1,912.7	-664.5	2,024.8	0.00	0.00	0.00
6,560.0	0.00	0.00	6,168.3	1,912.7	-664.5	2,024.8	0.00	0.00	0.00
6,600.0	0.00	0.00	6,208.3	1,912.7	-664.5	2,024.8	0.00	0.00	0.00
6,640.0	0.00	0.00	6,248.3	1,912.7	-664.5	2,024.8	0.00	0.00	0.00
6,680.0	0.00	0.00	6,288.3	1,912.7	-664.5	2,024.8	0.00	0.00	0.00
6,720.0	0.00	0.00	6,328.3	1,912.7	-664.5	2,024.8	0.00	0.00	0.00
6,760.0	0.00	0.00	6,368.3	1,912.7	-664.5	2,024.8	0.00	0.00	0.00
6,800.0	0.00	0.00	6,408.3	1,912.7	-664.5	2,024.8	0.00	0.00	0.00
6,840.0	0.00	0.00	6,448.3	1,912.7	-664.5	2,024.8	0.00	0.00	0.00
6,880.0	0.00	0.00	6,488.3	1,912.7	-664.5	2,024.8	0.00	0.00	0.00
6,920.0	0.00	0.00	6,528.3	1,912.7	-664.5	2,024.8	0.00	0.00	0.00
6,960.0	0.00	0.00	6,568.3	1,912.7	-664.5	2,024.8	0.00	0.00	0.00
7,000.0	0.00	0.00	6,608.3	1,912.7	-664.5	2,024.8	0.00	0.00	0.00
7,040.0	0.00	0.00	6,648.3	1,912.7	-664.5	2,024.8	0.00	0.00	0.00
7,080.0	0.00	0.00	6,688.3	1,912.7	-664.5	2,024.8	0.00	0.00	0.00
7,120.0	0.00	0.00	6,728.3	1,912.7	-664.5	2,024.8	0.00	0.00	0.00
7,160.0	0.00	0.00	6,768.3	1,912.7	-664.5	2,024.8	0.00	0.00	0.00
7,200.0	0.00	0.00	6,808.3	1,912.7	-664.5	2,024.8	0.00	0.00	0.00
7,240.0	0.00	0.00	6,848.3	1,912.7	-664.5	2,024.8	0.00	0.00	0.00
7,251.7	0.00	0.00	6,860.0	1,912.7	-664.5	2,024.8	0.00	0.00	0.00
NIOBRARA									
7,280.0	0.00	0.00	6,888.3	1,912.7	-664.5	2,024.8	0.00	0.00	0.00
7,320.0	0.00	0.00	6,928.3	1,912.7	-664.5	2,024.8	0.00	0.00	0.00
7,360.0	0.00	0.00	6,968.3	1,912.7	-664.5	2,024.8	0.00	0.00	0.00
7,400.0	0.00	0.00	7,008.3	1,912.7	-664.5	2,024.8	0.00	0.00	0.00
7,440.0	0.00	0.00	7,048.3	1,912.7	-664.5	2,024.8	0.00	0.00	0.00
7,480.0	0.00	0.00	7,088.3	1,912.7	-664.5	2,024.8	0.00	0.00	0.00
7,520.0	0.00	0.00	7,128.3	1,912.7	-664.5	2,024.8	0.00	0.00	0.00
7,553.7	0.00	0.00	7,162.0	1,912.7	-664.5	2,024.8	0.00	0.00	0.00
FORT HAYS									
7,560.0	0.00	0.00	7,168.3	1,912.7	-664.5	2,024.8	0.00	0.00	0.00
7,577.7	0.00	0.00	7,186.0	1,912.7	-664.5	2,024.8	0.00	0.00	0.00
CODELL									

Database:	Landmark	Local Co-ordinate Reference:	Well Fritzler 17-32-12
Company:	Great Western	TVD Reference:	WELL @ 4785.0ft (Original Well Elev)
Project:	SEC.17-T6N-R66W	MD Reference:	WELL @ 4785.0ft (Original Well Elev)
Site:	Fritzler 17-23-18 Pad Sec.17-T6N-R66W	North Reference:	True
Well:	Fritzler 17-32-12	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (6-26-12)		

Planned 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)
7,600.0	0.00	0.00	7,208.3	1,912.7	-664.5	2,024.8	0.00	0.00	0.00
7,640.0	0.00	0.00	7,248.3	1,912.7	-664.5	2,024.8	0.00	0.00	0.00
7,680.0	0.00	0.00	7,288.3	1,912.7	-664.5	2,024.8	0.00	0.00	0.00
7,720.0	0.00	0.00	7,328.3	1,912.7	-664.5	2,024.8	0.00	0.00	0.00
7,737.7	0.00	0.00	7,346.0	1,912.7	-664.5	2,024.8	0.00	0.00	0.00
TD at 7737.7									

Casing Points				
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
692.4	690.0	8 5/8"	8-5/8	12-1/4

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
2,775.7	2,624.0	GREELEY SAND		0.00	
3,834.6	3,593.0	PARKMAN		0.00	
4,636.8	4,327.0	SUSSEX		0.00	
5,115.5	4,765.0	SHANNON		0.00	
7,251.7	6,860.0	NIOBRARA		0.00	
7,553.7	7,162.0	FORT HAYS		0.00	
7,577.7	7,186.0	CODELL		0.00	

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Comment
200.0	200.0	0.0	0.0	KOP - Start Build 2.00
1,389.5	1,355.6	229.9	-79.9	Start 3812.7 hold at 1389.5 MD
5,202.2	4,844.4	1,682.7	-584.6	Start Drop -2.00
6,391.7	6,000.0	1,912.7	-664.5	Back to Vertical
6,391.7	6,000.0	1,912.7	-664.5	Start 1346.0 hold at 6391.7 MD
7,737.7	7,346.0	1,912.7	-664.5	TD at 7737.7



Great Western

SEC.17-T6N-R66W

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

Fritzler 17-32-12

Wellbore #1

Plan #1 (6-26-12)

Anticollision Report

29 June, 2012

Company:	Great Western	Local Co-ordinate Reference:	Well Fritzler 17-32-12
Project:	SEC.17-T6N-R66W	TVD Reference:	WELL @ 4785.0ft (Original Well Elev)
Reference Site:	Fritzler 17-23-18 Pad Sec.17-T6N-R66W	MD Reference:	WELL @ 4785.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Fritzler 17-32-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (6-26-12)	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 ft
Survey Program: 168-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
1,900.0	1,822.7	1,841.7	1,828.0	9.4	5.2	-169.47	-69.5	-65.1	500.8	490.5	10.23	48.970	
2,000.0	1,914.2	1,931.8	1,915.6	10.2	5.6	-167.81	-72.2	-85.9	540.0	528.9	11.07	48.781	
2,100.0	2,005.7	2,023.4	2,004.5	11.0	6.1	-166.28	-74.9	-107.6	579.4	567.5	11.95	48.489	
2,200.0	2,097.2	2,121.3	2,099.0	11.8	6.6	-164.62	-77.6	-133.1	618.7	605.8	12.93	47.845	
2,300.0	2,188.8	2,211.4	2,185.1	12.6	7.1	-162.99	-79.6	-159.6	657.7	643.8	13.90	47.310	
2,400.0	2,280.3	2,304.0	2,274.1	13.4	7.5	-161.67	-81.6	-185.0	697.2	682.4	14.84	46.969	
2,500.0	2,371.8	2,408.4	2,375.1	14.2	8.0	-160.54	-82.8	-211.4	736.0	720.2	15.81	46.550	
2,600.0	2,463.3	2,513.0	2,476.3	15.0	8.5	-159.53	-81.8	-237.9	773.1	756.3	16.82	45.955	
2,700.0	2,554.8	2,601.4	2,561.1	15.8	9.0	-158.56	-80.4	-262.8	809.8	792.0	17.83	45.408	
2,800.0	2,646.3	2,681.5	2,637.5	16.6	9.5	-157.65	-80.1	-286.8	847.7	828.9	18.84	44.991	
2,900.0	2,737.8	2,773.5	2,724.3	17.4	10.1	-156.48	-80.4	-317.2	886.7	866.7	20.01	44.314	
3,000.0	2,829.3	2,889.9	2,834.0	18.2	10.8	-155.08	-79.0	-356.3	924.7	903.4	21.35	43.306	
3,100.0	2,920.8	2,984.0	2,923.6	19.0	11.4	-154.25	-76.3	-384.9	961.2	938.8	22.43	42.844	
3,200.0	3,012.3	3,070.4	3,006.1	19.8	11.8	-153.58	-74.0	-410.4	998.0	974.5	23.46	42.532	
3,300.0	3,103.8	3,149.0	3,081.5	20.6	12.3	-153.09	-73.0	-432.4	1,035.9	1,011.5	24.41	42.433	
3,400.0	3,195.3	3,221.8	3,151.8	21.4	12.6	-152.76	-73.3	-451.4	1,075.4	1,050.0	25.31	42.494	
3,500.0	3,286.8	3,293.2	3,220.5	22.2	13.0	-152.44	-74.9	-470.4	1,116.5	1,090.3	26.20	42.617	
3,600.0	3,378.3	3,365.5	3,290.2	23.0	13.4	-152.12	-77.6	-490.0	1,159.2	1,132.1	27.11	42.764	
3,700.0	3,469.8	3,453.0	3,374.2	23.9	13.9	-151.75	-82.5	-513.9	1,203.5	1,175.4	28.10	42.827	
3,800.0	3,561.3	3,534.2	3,452.1	24.7	14.3	-151.44	-87.3	-536.1	1,248.1	1,219.1	29.05	42.970	
3,900.0	3,652.8	3,667.3	3,580.1	25.5	15.0	-150.96	-92.2	-572.1	1,290.8	1,260.5	30.26	42.654	
4,000.0	3,744.3	3,762.3	3,671.9	26.3	15.5	-150.69	-94.2	-596.9	1,331.9	1,300.6	31.27	42.598	
4,100.0	3,835.8	3,854.2	3,760.2	27.1	16.0	-150.37	-95.7	-622.1	1,372.9	1,340.6	32.30	42.509	
4,200.0	3,927.3	3,942.9	3,845.2	27.9	16.5	-150.05	-97.1	-647.3	1,413.9	1,380.6	33.34	42.411	
4,300.0	4,018.8	4,035.0	3,933.6	28.7	17.0	-149.75	-98.7	-673.2	1,455.1	1,420.7	34.38	42.327	
4,400.0	4,110.3	4,132.2	4,027.6	29.5	17.5	-149.55	-100.5	-698.0	1,496.1	1,460.7	35.38	42.287	
4,500.0	4,201.8	4,233.5	4,125.9	30.3	18.0	-149.42	-102.0	-722.4	1,536.5	1,500.1	36.37	42.245	
4,600.0	4,293.3	4,333.1	4,222.1	31.1	18.5	-149.23	-102.7	-747.8	1,576.4	1,539.0	37.40	42.150	
4,700.0	4,384.8	4,435.5	4,320.8	31.9	19.1	-149.00	-102.6	-775.3	1,615.9	1,577.4	38.48	41.992	
4,800.0	4,476.3	4,526.0	4,408.3	32.7	19.6	-148.83	-102.2	-798.7	1,654.8	1,615.3	39.48	41.916	
4,900.0	4,567.8	4,605.5	4,485.0	33.5	20.0	-148.68	-102.4	-819.4	1,694.4	1,654.0	40.42	41.925	
5,000.0	4,659.3	4,699.4	4,575.7	34.3	20.5	-148.53	-102.8	-843.6	1,734.3	1,692.8	41.42	41.869	
5,100.0	4,750.8	4,794.9	4,668.1	35.1	20.9	-148.40	-103.3	-867.7	1,774.0	1,731.6	42.42	41.820	
5,202.2	4,844.4	4,892.0	4,761.9	35.9	21.4	-148.25	-103.2	-892.8	1,814.3	1,770.8	43.46	41.742	
5,300.0	4,934.5	4,971.8	4,838.7	36.6	21.9	-148.50	-103.3	-914.5	1,851.7	1,807.3	44.48	41.632	
5,400.0	5,028.0	5,057.0	4,920.7	37.2	22.4	-148.67	-103.9	-937.7	1,888.0	1,842.6	45.46	41.533	
5,500.0	5,122.6	5,130.5	4,991.5	37.7	22.7	-148.83	-105.1	-957.3	1,922.2	1,875.9	46.32	41.500	
5,600.0	5,218.3	5,288.1	5,144.0	38.2	23.5	-148.68	-106.8	-997.1	1,953.3	1,905.7	47.60	41.037	
5,700.0	5,315.0	5,422.2	5,274.8	38.6	24.1	-148.61	-104.2	-1,026.0	1,977.4	1,928.8	48.62	40.670	
5,800.0	5,412.5	5,521.1	5,372.4	39.0	24.5	-148.69	-103.0	-1,042.2	1,998.5	1,949.2	49.32	40.525	
5,900.0	5,510.7	5,634.3	5,484.7	39.3	24.8	-148.79	-102.0	-1,056.4	2,016.3	1,966.4	49.93	40.384	
6,000.0	5,609.5	5,747.0	5,596.8	39.6	25.1	-148.87	-100.7	-1,067.8	2,030.4	1,979.9	50.44	40.252	
6,100.0	5,708.8	5,847.9	5,697.4	39.8	25.3	-148.93	-99.5	-1,075.9	2,041.1	1,990.3	50.84	40.149	
6,200.0	5,808.4	5,941.9	5,791.2	40.0	25.5	-148.96	-98.9	-1,081.8	2,049.0	1,997.9	51.14	40.063	
6,300.0	5,908.3	6,030.8	5,880.0	40.1	25.6	-148.94	-98.9	-1,086.6	2,054.3	2,003.0	51.38	39.985	
6,391.7	6,000.0	6,111.9	5,961.0	40.2	25.8	-168.04	-99.5	-1,090.6	2,057.2	2,005.6	51.54	39.912	
6,400.0	6,008.3	6,120.8	5,969.9	40.2	25.8	-168.03	-99.6	-1,091.0	2,057.3	2,005.7	51.57	39.895	
6,500.0	6,108.3	6,227.1	6,076.1	40.3	26.0	-167.92	-100.5	-1,095.4	2,059.0	2,007.1	51.88	39.689	
6,600.0	6,208.3	6,334.3	6,183.2	40.3	26.1	-167.82	-101.2	-1,099.4	2,060.4	2,008.3	52.18	39.485	
6,700.0	6,308.3	6,437.0	6,285.8	40.4	26.3	-167.74	-101.7	-1,102.4	2,061.5	2,009.1	52.47	39.292	
6,800.0	6,408.3	6,539.9	6,388.7	40.5	26.4	-167.66	-102.2	-1,105.1	2,062.6	2,009.8	52.74	39.106	
6,900.0	6,508.3	6,637.0	6,485.8	40.5	26.6	-167.61	-102.7	-1,107.2	2,063.5	2,010.5	53.00	38.934	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	Great Western	Local Co-ordinate Reference:	Well Fritzler 17-32-12
Project:	SEC.17-T6N-R66W	TVD Reference:	WELL @ 4785.0ft (Original Well Elev)
Reference Site:	Fritzler 17-23-18 Pad Sec.17-T6N-R66W	MD Reference:	WELL @ 4785.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Fritzler 17-32-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (6-26-12)	Offset TVD Reference:	Offset Datum

Offset Design Fritzler 17-23-18 Pad Sec.17-T6N-R66W - Fritzler 34-17 (Exist.) - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 ft
Survey Program: 168-MWD												Offset Well Error:	0.0 ft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
7,000.0	6,608.3	6,740.8	6,589.6	40.6	26.7	-167.57	-103.5	-1,108.9	2,064.6	2,011.4	53.26	38.764	
7,100.0	6,708.3	6,833.0	6,681.8	40.7	26.8	-167.54	-104.2	-1,110.1	2,065.6	2,012.1	53.50	38.609	
7,200.0	6,808.3	6,922.6	6,771.3	40.8	26.9	-167.51	-105.3	-1,111.5	2,067.2	2,013.4	53.74	38.467	
7,300.0	6,908.3	7,008.2	6,856.9	40.8	27.0	-167.48	-106.8	-1,112.9	2,069.3	2,015.3	53.97	38.338	
7,400.0	7,008.3	7,088.5	6,937.2	40.9	27.2	-167.46	-108.9	-1,114.2	2,072.2	2,018.0	54.20	38.233	
7,500.0	7,108.3	7,168.7	7,017.3	41.0	27.3	-167.44	-111.8	-1,115.4	2,076.1	2,021.7	54.42	38.147	
7,600.0	7,208.3	7,280.4	7,128.9	41.1	27.4	-167.43	-116.4	-1,117.0	2,080.5	2,025.8	54.69	38.040	
7,700.0	7,308.3	7,407.5	7,256.0	41.1	27.6	-167.40	-120.1	-1,118.9	2,083.6	2,028.7	54.98	37.897	
7,737.7	7,346.0	7,446.6	7,295.1	41.2	27.6	-167.39	-121.0	-1,119.4	2,084.6	2,029.5	55.08	37.845 SF	

Company:	Great Western	Local Co-ordinate Reference:	Well Fritzler 17-32-12
Project:	SEC.17-T6N-R66W	TVD Reference:	WELL @ 4785.0ft (Original Well Elev)
Reference Site:	Fritzler 17-23-18 Pad Sec.17-T6N-R66W	MD Reference:	WELL @ 4785.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Fritzler 17-32-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (6-26-12)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	81.57	2.2	14.7	14.9	14.9	0.00	N/A		
100.0	100.0	100.0	100.0	0.1	0.1	81.57	2.2	14.7	14.9	14.7	0.22	66.312		
200.0	200.0	200.0	200.0	0.3	0.3	81.57	2.2	14.7	14.9	14.2	0.67	22.104 CC		
300.0	300.0	300.0	300.0	0.6	0.6	107.14	2.2	14.7	15.3	14.2	1.12	13.640 ES		
400.0	399.8	399.8	399.8	0.8	0.8	123.60	2.2	14.7	17.6	16.0	1.58	11.126 SF		
500.0	499.5	499.5	499.5	1.0	1.0	141.43	2.2	14.7	23.6	21.5	2.05	11.495		
600.0	598.7	598.7	598.7	1.3	1.2	154.25	2.2	14.7	34.0	31.5	2.52	13.485		
700.0	697.5	697.5	697.5	1.7	1.5	162.19	2.2	14.7	48.6	45.6	2.99	16.267		
800.0	795.6	795.6	795.6	2.0	1.7	167.10	2.2	14.7	67.0	63.5	3.45	19.421		
900.0	893.1	893.1	893.1	2.5	1.9	170.25	2.2	14.7	89.1	85.2	3.91	22.754		
1,000.0	989.6	993.0	993.0	2.9	2.1	172.10	3.7	14.7	113.4	109.0	4.38	25.875		
1,100.0	1,085.3	1,093.9	1,093.7	3.5	2.4	172.84	8.7	14.6	138.0	133.2	4.85	28.463		
1,200.0	1,179.8	1,195.6	1,195.1	4.1	2.6	172.97	17.4	14.4	162.9	157.6	5.33	30.571		
1,300.0	1,273.2	1,298.1	1,296.8	4.8	2.8	172.70	29.8	14.1	188.0	182.2	5.83	32.269		
1,389.5	1,355.6	1,390.5	1,388.1	5.4	3.1	172.25	44.1	13.8	210.7	204.4	6.29	33.479		
1,400.0	1,365.2	1,401.4	1,398.8	5.5	3.1	172.19	45.9	13.7	213.3	207.0	6.35	33.581		
1,500.0	1,456.7	1,506.0	1,501.5	6.3	3.4	171.48	66.0	13.3	236.8	229.8	6.95	34.077		
1,600.0	1,548.2	1,612.0	1,604.7	7.1	3.8	170.51	90.2	12.7	257.1	249.5	7.59	33.874		
1,700.0	1,639.7	1,719.3	1,708.2	7.9	4.3	169.30	118.5	12.1	274.2	265.9	8.28	33.102		
1,800.0	1,731.2	1,821.6	1,806.0	8.6	4.7	167.98	148.5	11.4	288.7	279.7	9.02	32.010		
1,900.0	1,822.7	1,920.4	1,900.3	9.4	5.2	166.81	177.7	10.7	303.2	293.4	9.78	31.002		
2,000.0	1,914.2	2,019.1	1,994.7	10.2	5.7	165.74	207.0	10.0	317.7	307.2	10.57	30.058		
2,100.0	2,005.7	2,117.9	2,089.0	11.0	6.3	164.77	236.2	9.4	332.4	321.0	11.39	29.190		
2,200.0	2,097.2	2,216.7	2,183.3	11.8	6.8	163.88	265.4	8.7	347.1	334.9	12.23	28.393		
2,300.0	2,188.8	2,315.4	2,277.7	12.6	7.3	163.06	294.7	8.0	361.9	348.9	13.08	27.664		
2,400.0	2,280.3	2,414.2	2,372.0	13.4	7.9	162.30	323.9	7.4	376.8	362.9	13.96	26.996		
2,500.0	2,371.8	2,513.0	2,466.4	14.2	8.4	161.61	353.2	6.7	391.8	376.9	14.85	26.384		
2,600.0	2,463.3	2,611.8	2,560.7	15.0	9.0	160.96	382.4	6.0	406.8	391.0	15.75	25.823		
2,700.0	2,554.8	2,710.5	2,655.0	15.8	9.6	160.36	411.6	5.4	421.8	405.1	16.67	25.308		
2,800.0	2,646.3	2,809.3	2,749.4	16.6	10.1	159.80	440.9	4.7	436.9	419.3	17.59	24.834		
2,900.0	2,737.8	2,908.1	2,843.7	17.4	10.7	159.28	470.1	4.0	452.0	433.5	18.53	24.397		
3,000.0	2,829.3	3,006.8	2,938.1	18.2	11.3	158.79	499.3	3.3	467.2	447.7	19.47	23.994		
3,100.0	2,920.8	3,105.6	3,032.4	19.0	11.8	158.34	528.6	2.7	482.3	461.9	20.42	23.621		
3,200.0	3,012.3	3,204.4	3,126.7	19.8	12.4	157.91	557.8	2.0	497.6	476.2	21.38	23.275		
3,300.0	3,103.8	3,303.1	3,221.1	20.6	13.0	157.50	587.0	1.3	512.8	490.5	22.34	22.954		
3,400.0	3,195.3	3,401.9	3,315.4	21.4	13.6	157.12	616.3	0.7	528.1	504.7	23.31	22.655		
3,500.0	3,286.8	3,500.7	3,409.8	22.2	14.1	156.76	645.5	0.0	543.3	519.1	24.28	22.376		
3,600.0	3,378.3	3,599.4	3,504.1	23.0	14.7	156.42	674.8	-0.7	558.6	533.4	25.26	22.115		
3,700.0	3,469.8	3,698.2	3,598.5	23.9	15.3	156.10	704.0	-1.3	574.0	547.7	26.24	21.872		
3,800.0	3,561.3	3,797.0	3,692.8	24.7	15.9	155.80	733.2	-2.0	589.3	562.1	27.23	21.643		
3,900.0	3,652.8	3,895.8	3,787.1	25.5	16.4	155.51	762.5	-2.7	604.7	576.4	28.22	21.428		
4,000.0	3,744.3	3,994.5	3,881.5	26.3	17.0	155.23	791.7	-3.4	620.0	590.8	29.21	21.227		
4,100.0	3,835.8	4,093.3	3,975.8	27.1	17.6	154.97	820.9	-4.0	635.4	605.2	30.21	21.037		
4,200.0	3,927.3	4,192.1	4,070.2	27.9	18.2	154.72	850.2	-4.7	650.8	619.6	31.20	20.857		
4,300.0	4,018.8	4,290.8	4,164.5	28.7	18.8	154.49	879.4	-5.4	666.2	634.0	32.20	20.688		
4,400.0	4,110.3	4,389.6	4,258.8	29.5	19.3	154.26	908.6	-6.0	681.6	648.4	33.21	20.527		
4,500.0	4,201.8	4,488.4	4,353.2	30.3	19.9	154.04	937.9	-6.7	697.1	662.9	34.21	20.376		
4,600.0	4,293.3	4,587.1	4,447.5	31.1	20.5	153.83	967.1	-7.4	712.5	677.3	35.22	20.231		
4,700.0	4,384.8	4,685.9	4,541.9	31.9	21.1	153.64	996.4	-8.1	727.9	691.7	36.23	20.095		
4,800.0	4,476.3	4,784.7	4,636.2	32.7	21.7	153.45	1,025.6	-8.7	743.4	706.2	37.24	19.965		
4,900.0	4,567.8	4,883.4	4,730.5	33.5	22.3	153.26	1,054.8	-9.4	758.9	720.6	38.25	19.841		
5,000.0	4,659.3	4,982.2	4,824.9	34.3	22.8	153.09	1,084.1	-10.1	774.3	735.1	39.26	19.723		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	Great Western	Local Co-ordinate Reference:	Well Fritzler 17-32-12
Project:	SEC.17-T6N-R66W	TVD Reference:	WELL @ 4785.0ft (Original Well Elev)
Reference Site:	Fritzler 17-23-18 Pad Sec.17-T6N-R66W	MD Reference:	WELL @ 4785.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Fritzler 17-32-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (6-26-12)	Offset TVD Reference:	Offset Datum

Offset Design Fritzler 17-23-18 Pad Sec.17-T6N-R66W - Fritzler 43-17 - Wellbore #1 - Plan #1 (6-26-12)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.0	4,750.8	5,081.0	4,919.2	35.1	23.4	152.92	1,113.3	-10.7	789.8	749.5	40.28	19.610		
5,202.2	4,844.4	5,170.7	5,005.1	35.9	23.9	152.80	1,139.3	-11.3	806.1	764.9	41.21	19.562		
5,300.0	4,934.5	5,250.8	5,082.3	36.6	24.3	152.91	1,160.5	-11.8	822.1	780.1	41.97	19.587		
5,400.0	5,028.0	5,332.6	5,161.8	37.2	24.6	153.03	1,179.8	-12.3	837.4	794.8	42.63	19.644		
5,500.0	5,122.6	5,414.3	5,241.7	37.7	24.9	153.16	1,196.9	-12.6	851.7	808.5	43.21	19.709		
5,600.0	5,218.3	5,500.0	5,326.0	38.2	25.2	153.31	1,212.3	-13.0	864.9	821.2	43.73	19.778		
5,700.0	5,315.0	5,577.4	5,402.4	38.6	25.4	153.46	1,224.1	-13.3	877.0	832.9	44.15	19.867		
5,800.0	5,412.5	5,658.7	5,483.2	39.0	25.6	153.63	1,234.2	-13.5	888.1	843.6	44.49	19.961		
5,900.0	5,510.7	5,739.9	5,564.0	39.3	25.8	153.80	1,242.1	-13.7	898.1	853.4	44.76	20.066		
6,000.0	5,609.5	5,821.1	5,645.0	39.6	25.9	153.99	1,247.6	-13.8	907.0	862.1	44.95	20.180		
6,100.0	5,708.8	5,900.0	5,723.8	39.8	26.0	154.18	1,250.8	-13.9	914.9	869.8	45.05	20.306		
6,200.0	5,808.4	5,984.6	5,808.4	40.0	26.1	154.39	1,251.8	-13.9	921.6	876.5	45.08	20.444		
6,300.0	5,908.3	6,084.5	5,908.3	40.1	26.2	154.56	1,251.8	-13.9	926.1	881.0	45.10	20.535		
6,391.7	6,000.0	6,176.2	6,000.0	40.2	26.3	135.45	1,251.8	-13.9	927.4	882.3	45.13	20.551		
6,400.0	6,008.3	6,184.5	6,008.3	40.2	26.3	135.45	1,251.8	-13.9	927.4	882.2	45.15	20.542		
6,500.0	6,108.3	6,284.5	6,108.3	40.3	26.4	135.45	1,251.8	-13.9	927.4	882.0	45.39	20.433		
6,600.0	6,208.3	6,384.5	6,208.3	40.3	26.5	135.45	1,251.8	-13.9	927.4	881.8	45.63	20.324		
6,700.0	6,308.3	6,484.5	6,308.3	40.4	26.6	135.45	1,251.8	-13.9	927.4	881.5	45.88	20.214		
6,800.0	6,408.3	6,584.5	6,408.3	40.5	26.7	135.45	1,251.8	-13.9	927.4	881.3	46.13	20.105		
6,900.0	6,508.3	6,684.5	6,508.3	40.5	26.9	135.45	1,251.8	-13.9	927.4	881.0	46.38	19.995		
7,000.0	6,608.3	6,784.5	6,608.3	40.6	27.0	135.45	1,251.8	-13.9	927.4	880.8	46.64	19.885		
7,100.0	6,708.3	6,884.5	6,708.3	40.7	27.1	135.45	1,251.8	-13.9	927.4	880.5	46.90	19.775		
7,200.0	6,808.3	6,984.5	6,808.3	40.8	27.2	135.45	1,251.8	-13.9	927.4	880.2	47.16	19.665		
7,300.0	6,908.3	7,084.5	6,908.3	40.8	27.3	135.45	1,251.8	-13.9	927.4	880.0	47.42	19.556		
7,400.0	7,008.3	7,184.5	7,008.3	40.9	27.4	135.45	1,251.8	-13.9	927.4	879.7	47.69	19.446		
7,500.0	7,108.3	7,284.5	7,108.3	41.0	27.5	135.45	1,251.8	-13.9	927.4	879.4	47.96	19.336		
7,600.0	7,208.3	7,384.5	7,208.3	41.1	27.7	135.45	1,251.8	-13.9	927.4	879.2	48.23	19.227		
7,700.0	7,308.3	7,484.5	7,308.3	41.1	27.8	135.45	1,251.8	-13.9	927.4	878.9	48.51	19.118		
7,737.7	7,346.0	7,522.2	7,346.0	41.2	27.8	135.45	1,251.8	-13.9	927.4	878.8	48.61	19.077		

Company:	Great Western	Local Co-ordinate Reference:	Well Fritzler 17-32-12
Project:	SEC.17-T6N-R66W	TVD Reference:	WELL @ 4785.0ft (Original Well Elev)
Reference Site:	Fritzler 17-23-18 Pad Sec.17-T6N-R66W	MD Reference:	WELL @ 4785.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Fritzler 17-32-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (6-26-12)	Offset TVD Reference:	Offset Datum

Offset Design Fritzler 17-23-18 Pad Sec.17-T6N-R66W - Fritzler 6-6-17 - Wellbore #1 - Plan #1 (6-26-12)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-94.26	-1.1	-14.7	14.8	14.8	0.00	N/A		
100.0	100.0	100.0	100.0	0.1	0.1	-94.26	-1.1	-14.7	14.8	14.6	0.22	65.776		
200.0	200.0	200.0	200.0	0.3	0.3	-94.26	-1.1	-14.7	14.8	14.1	0.67	21.925		
300.0	300.0	300.0	300.0	0.6	0.6	-81.81	-1.1	-14.7	14.4	13.3	1.12	12.851		
347.6	347.6	347.6	347.6	0.7	0.7	-90.00	-1.1	-14.7	14.3	12.9	1.34	10.661 CC, ES		
400.0	399.8	399.8	399.8	0.8	0.8	-102.50	-1.1	-14.7	14.6	13.1	1.58	9.264		
500.0	499.5	499.5	499.5	1.0	1.0	-129.62	-1.1	-14.7	18.6	16.5	2.06	9.038 SF		
600.0	598.7	598.7	598.7	1.3	1.2	-149.07	-1.1	-14.7	28.0	25.5	2.53	11.058		
700.0	697.5	697.5	697.5	1.7	1.5	-159.94	-1.1	-14.7	42.2	39.2	3.00	14.078		
800.0	795.6	795.6	795.6	2.0	1.7	-166.05	-1.1	-14.7	60.5	57.0	3.46	17.476		
900.0	893.1	893.1	893.1	2.5	1.9	-169.73	-1.1	-14.7	82.5	78.6	3.93	21.018		
1,000.0	989.6	992.4	992.4	2.9	2.1	-171.66	-0.1	-15.9	107.0	102.6	4.39	24.361		
1,100.0	1,085.3	1,092.5	1,092.3	3.5	2.3	-172.14	3.2	-19.6	132.1	127.3	4.86	27.201		
1,200.0	1,179.8	1,193.1	1,192.6	4.1	2.6	-171.82	8.8	-26.0	158.0	152.6	5.35	29.553		
1,300.0	1,273.2	1,294.3	1,293.1	4.8	2.8	-171.04	16.8	-35.1	184.4	178.6	5.86	31.468		
1,389.5	1,355.6	1,385.3	1,383.0	5.4	3.1	-170.08	25.9	-45.6	208.7	202.3	6.36	32.836		
1,400.0	1,365.2	1,396.0	1,393.6	5.5	3.1	-169.97	27.1	-47.0	211.5	205.1	6.42	32.958		
1,500.0	1,456.7	1,498.5	1,494.1	6.3	3.4	-168.70	39.9	-61.6	237.4	230.3	7.06	33.627		
1,600.0	1,548.2	1,595.2	1,588.8	7.1	3.8	-167.51	53.1	-76.6	262.1	254.4	7.74	33.863		
1,700.0	1,639.7	1,692.0	1,683.5	7.9	4.1	-166.52	66.2	-91.6	286.9	278.5	8.45	33.968		
1,800.0	1,731.2	1,788.8	1,778.2	8.6	4.5	-165.70	79.3	-106.6	311.8	302.6	9.17	33.998		
1,900.0	1,822.7	1,885.5	1,872.9	9.4	4.9	-164.99	92.5	-121.5	336.8	326.8	9.91	33.966		
2,000.0	1,914.2	1,982.3	1,967.6	10.2	5.3	-164.38	105.6	-136.5	361.7	351.1	10.67	33.902		
2,100.0	2,005.7	2,079.0	2,062.3	11.0	5.7	-163.85	118.7	-151.5	386.7	375.3	11.44	33.817		
2,200.0	2,097.2	2,175.8	2,156.9	11.8	6.1	-163.38	131.9	-166.5	411.8	399.6	12.21	33.721		
2,300.0	2,188.8	2,272.6	2,251.6	12.6	6.5	-162.97	145.0	-181.5	436.9	423.9	12.99	33.619		
2,400.0	2,280.3	2,369.3	2,346.3	13.4	6.9	-162.60	158.1	-196.5	461.9	448.1	13.78	33.514		
2,500.0	2,371.8	2,466.1	2,441.0	14.2	7.3	-162.27	171.3	-211.5	487.0	472.5	14.58	33.408		
2,600.0	2,463.3	2,562.9	2,535.7	15.0	7.7	-161.97	184.4	-226.5	512.1	496.8	15.38	33.305		
2,700.0	2,554.8	2,659.6	2,630.4	15.8	8.2	-161.70	197.5	-241.4	537.3	521.1	16.18	33.204		
2,800.0	2,646.3	2,756.4	2,725.1	16.6	8.6	-161.46	210.6	-256.4	562.4	545.4	16.99	33.107		
2,900.0	2,737.8	2,853.2	2,819.8	17.4	9.0	-161.23	223.8	-271.4	587.5	569.7	17.80	33.013		
3,000.0	2,829.3	2,949.9	2,914.5	18.2	9.4	-161.03	236.9	-286.4	612.7	594.1	18.61	32.923		
3,100.0	2,920.8	3,046.7	3,009.2	19.0	9.8	-160.84	250.0	-301.4	637.8	618.4	19.42	32.837		
3,200.0	3,012.3	3,143.4	3,103.8	19.8	10.3	-160.66	263.2	-316.4	663.0	642.8	20.24	32.755		
3,300.0	3,103.8	3,240.2	3,198.5	20.6	10.7	-160.50	276.3	-331.4	688.2	667.1	21.06	32.677		
3,400.0	3,195.3	3,337.0	3,293.2	21.4	11.1	-160.35	289.4	-346.4	713.3	691.5	21.88	32.602		
3,500.0	3,286.8	3,433.7	3,387.9	22.2	11.6	-160.21	302.6	-361.4	738.5	715.8	22.70	32.530		
3,600.0	3,378.3	3,530.5	3,482.6	23.0	12.0	-160.07	315.7	-376.3	763.7	740.2	23.53	32.462		
3,700.0	3,469.8	3,627.3	3,577.3	23.9	12.4	-159.95	328.8	-391.3	788.9	764.5	24.35	32.397		
3,800.0	3,561.3	3,724.0	3,672.0	24.7	12.8	-159.83	342.0	-406.3	814.1	788.9	25.18	32.335		
3,900.0	3,652.8	3,820.8	3,766.7	25.5	13.3	-159.73	355.1	-421.3	839.3	813.3	26.00	32.276		
4,000.0	3,744.3	3,917.5	3,861.4	26.3	13.7	-159.62	368.2	-436.3	864.5	837.6	26.83	32.219		
4,100.0	3,835.8	4,014.3	3,956.0	27.1	14.1	-159.53	381.3	-451.3	889.7	862.0	27.66	32.165		
4,200.0	3,927.3	4,111.1	4,050.7	27.9	14.6	-159.44	394.5	-466.3	914.9	886.4	28.49	32.113		
4,300.0	4,018.8	4,207.8	4,145.4	28.7	15.0	-159.35	407.6	-481.3	940.1	910.7	29.32	32.064		
4,400.0	4,110.3	4,304.6	4,240.1	29.5	15.4	-159.27	420.7	-496.2	965.3	935.1	30.15	32.016		
4,500.0	4,201.8	4,401.4	4,334.8	30.3	15.9	-159.19	433.9	-511.2	990.5	959.5	30.98	31.971		
4,600.0	4,293.3	4,498.1	4,429.5	31.1	16.3	-159.12	447.0	-526.2	1,015.7	983.9	31.81	31.927		
4,700.0	4,384.8	4,594.9	4,524.2	31.9	16.7	-159.05	460.1	-541.2	1,040.9	1,008.2	32.64	31.885		
4,800.0	4,476.3	4,691.7	4,618.9	32.7	17.2	-158.98	473.3	-556.2	1,066.1	1,032.6	33.48	31.845		
4,900.0	4,567.8	4,788.4	4,713.6	33.5	17.6	-158.91	486.4	-571.2	1,091.3	1,057.0	34.31	31.806		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Offset Design Fritzier 17-23-18 Pad Sec.17-T6N-R66W - Fritzier 6-6-17 - Wellbore #1 - Plan #1 (6-26-12)													Offset Site Error: 0.0 ft	
Survey Program: 0-MWD													Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance							
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning	
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
5,000.0	4,659.3	4,885.2	4,808.2	34.3	18.0	-158.85	499.5	-586.2	1,116.5	1,081.4	35.14	31.769		
5,100.0	4,750.8	4,981.9	4,902.9	35.1	18.5	-158.79	512.6	-601.2	1,141.7	1,105.7	35.98	31.733		
5,202.2	4,844.4	5,080.9	4,999.7	35.9	18.9	-158.74	526.1	-616.5	1,167.5	1,130.7	36.83	31.697		
5,300.0	4,934.5	5,175.8	5,092.7	36.6	19.4	-158.83	539.0	-631.2	1,190.6	1,153.0	37.68	31.598		
5,400.0	5,028.0	5,256.5	5,171.8	37.2	19.6	-158.89	549.5	-643.2	1,211.7	1,173.4	38.35	31.595		
5,500.0	5,122.6	5,333.5	5,247.6	37.7	19.9	-158.98	558.1	-653.1	1,231.3	1,192.4	38.92	31.636		
5,600.0	5,218.3	5,400.0	5,313.4	38.2	20.1	-159.09	564.6	-660.4	1,249.5	1,210.1	39.40	31.716		
5,700.0	5,315.0	5,487.3	5,400.1	38.6	20.3	-159.21	571.5	-668.3	1,266.0	1,226.1	39.84	31.779		
5,800.0	5,412.5	5,564.2	5,476.7	39.0	20.4	-159.35	576.1	-673.6	1,281.0	1,240.8	40.18	31.885		
5,900.0	5,510.7	5,641.1	5,553.3	39.3	20.6	-159.50	579.4	-677.3	1,294.5	1,254.1	40.44	32.012		
6,000.0	5,609.5	5,717.9	5,630.1	39.6	20.7	-159.67	581.3	-679.5	1,306.5	1,265.9	40.63	32.159		
6,100.0	5,708.8	5,796.6	5,708.8	39.8	20.8	-159.85	581.8	-680.1	1,317.0	1,276.3	40.74	32.328		
6,200.0	5,808.4	5,896.2	5,808.4	40.0	20.9	-160.03	581.8	-680.1	1,324.9	1,284.1	40.84	32.438		
6,300.0	5,908.3	5,996.1	5,908.3	40.1	21.1	-160.14	581.8	-680.1	1,329.6	1,288.6	40.93	32.484		
6,391.7	6,000.0	6,087.8	6,000.0	40.2	21.2	-179.33	581.8	-680.1	1,330.9	1,290.0	40.99	32.469		
6,400.0	6,008.3	6,096.1	6,008.3	40.2	21.2	-179.33	581.8	-680.1	1,330.9	1,289.9	41.01	32.452		
6,500.0	6,108.3	6,196.1	6,108.3	40.3	21.3	-179.33	581.8	-680.1	1,330.9	1,289.7	41.29	32.233		
6,600.0	6,208.3	6,296.1	6,208.3	40.3	21.5	-179.33	581.8	-680.1	1,330.9	1,289.4	41.57	32.014		
6,700.0	6,308.3	6,396.1	6,308.3	40.4	21.6	-179.33	581.8	-680.1	1,330.9	1,289.1	41.86	31.796		
6,800.0	6,408.3	6,496.1	6,408.3	40.5	21.8	-179.33	581.8	-680.1	1,330.9	1,288.8	42.15	31.580		
6,900.0	6,508.3	6,596.1	6,508.3	40.5	21.9	-179.33	581.8	-680.1	1,330.9	1,288.5	42.44	31.364		
7,000.0	6,608.3	6,696.1	6,608.3	40.6	22.0	-179.33	581.8	-680.1	1,330.9	1,288.2	42.73	31.149		
7,100.0	6,708.3	6,796.1	6,708.3	40.7	22.2	-179.33	581.8	-680.1	1,330.9	1,287.9	43.02	30.935		
7,200.0	6,808.3	6,896.1	6,808.3	40.8	22.3	-179.33	581.8	-680.1	1,330.9	1,287.6	43.32	30.722		
7,300.0	6,908.3	6,996.1	6,908.3	40.8	22.5	-179.33	581.8	-680.1	1,330.9	1,287.3	43.62	30.510		
7,400.0	7,008.3	7,096.1	7,008.3	40.9	22.6	-179.33	581.8	-680.1	1,330.9	1,287.0	43.93	30.299		
7,500.0	7,108.3	7,196.1	7,108.3	41.0	22.8	-179.33	581.8	-680.1	1,330.9	1,286.7	44.23	30.090		
7,600.0	7,208.3	7,296.1	7,208.3	41.1	22.9	-179.33	581.8	-680.1	1,330.9	1,286.4	44.54	29.882		
7,700.0	7,308.3	7,396.1	7,308.3	41.1	23.1	-179.33	581.8	-680.1	1,330.9	1,286.1	44.85	29.675		
7,737.7	7,346.0	7,433.8	7,346.0	41.2	23.1	-179.33	581.8	-680.1	1,330.9	1,286.0	44.97	29.597		

Company:	Great Western	Local Co-ordinate Reference:	Well Fritzler 17-32-12
Project:	SEC.17-T6N-R66W	TVD Reference:	WELL @ 4785.0ft (Original Well Elev)
Reference Site:	Fritzler 17-23-18 Pad Sec.17-T6N-R66W	MD Reference:	WELL @ 4785.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Fritzler 17-32-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (6-26-12)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4785.0ft (Original Well Elev) Coordinates are relative to: Fritzler 17-32-12
 Offset Depths are relative to Offset Datum
 Central Meridian is -105.500000 °
 Coordinate System is US State Plane 1983, Colorado Northern Zone
 Grid Convergence at Surface is: 0.46°



Company:	Great Western	Local Co-ordinate Reference:	Well Fritzler 17-32-12
Project:	SEC.17-T6N-R66W	TVD Reference:	WELL @ 4785.0ft (Original Well Elev)
Reference Site:	Fritzler 17-23-18 Pad Sec.17-T6N-R66W	MD Reference:	WELL @ 4785.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Fritzler 17-32-12	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (6-26-12)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4785.0ft (Original Well Elev) Coordinates are relative to: Fritzler 17-32-12
 Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1983, Colorado Northern Zone
 Central Meridian is -105.500000 ° Grid Convergence at Surface is: 0.46°

