

Whiting Oil & Gas

Well Name: **Twomile #15-1033H**

Surface Location: Twomile #15-1033H Pad Sec.15-T11N-R57W
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone

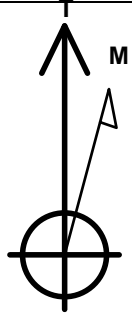
Ground Elevation: 4909.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1583021.23	3487899.78	40.920428	-103.734511	

Original Well Elev WELL @ 4924.0ft (Original Well Elev)

WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
HARDLINE 660'FSL	1.0	238.0	-500.0	1583249.23	3487395.13	40.921081	-103.736320	Polygon
BHL 1991'FSL, 1998'FEL, SEC.10	5688.0	6873.0	218.8	1589897.42	3487981.73	40.939292	-103.733719	Point



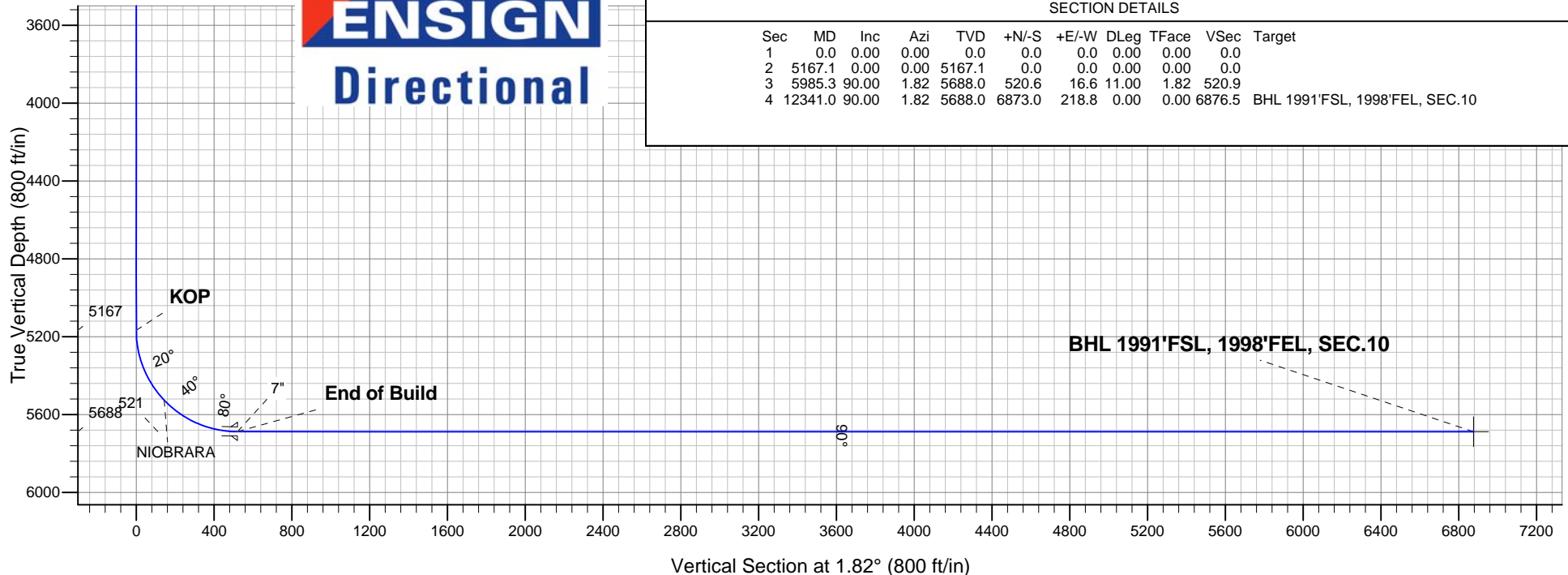
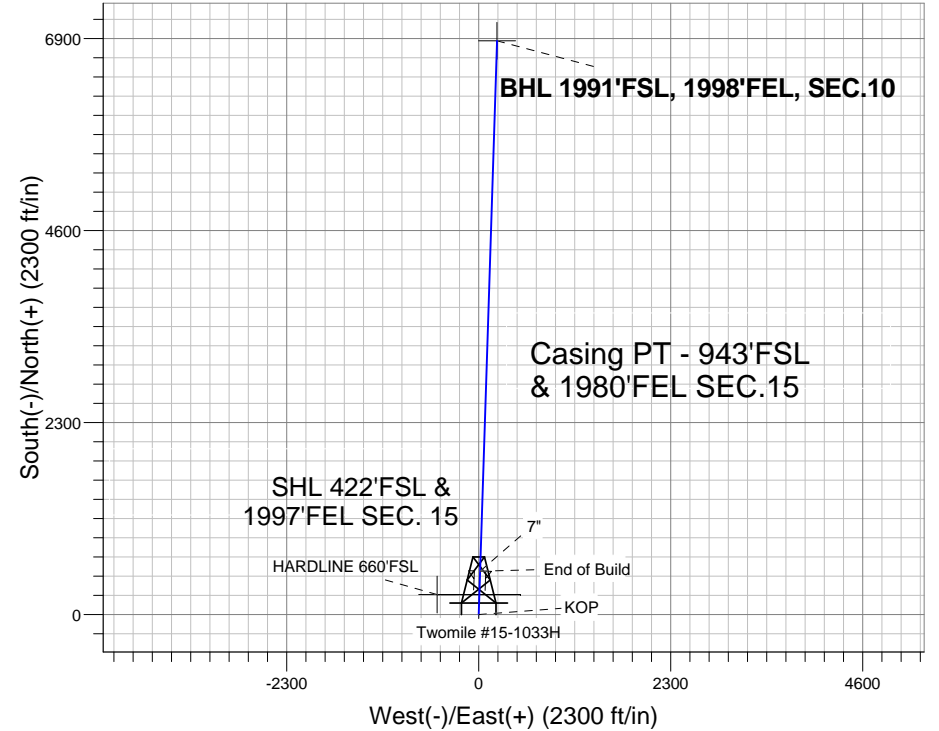
Azimuths to True North
Magnetic North: 8.28°

Magnetic Field
Strength: 53464.9nT
Dip Angle: 67.62°
Date: 11/9/2011
Model: IGRF2010

ANNOTATIONS

TVD	MD	Annotation
5167.1	5167.1	KOP
5688.0	5985.3	End of Build

Twomile #15-1033H Pad Sec.15-T11N-R57W
Twomile #15-1033H
Plan #1 (11-09-11)
16:33, November 11 2011



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	5167.1	0.00	0.00	5167.1	0.0	0.0	0.00	0.00	0.0	
3	5985.3	90.00	1.82	5688.0	520.6	16.6	11.00	1.82	520.9	
4	12341.0	90.00	1.82	5688.0	6873.0	218.8	0.00	0.00	6876.5	BHL 1991'FSL, 1998'FEL, SEC.10



Whiting Oil & Gas

SEC.15-T11N-R57W

Twomile #15-1033H Pad Sec.15-T11N-R57W

Twomile #15-1033H

Wellbore #1

Plan: Plan #1 (11-09-11)

Standard Planning Report

11 November, 2011

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	
5,167.1	0.00	0.00	5,167.1	0.0	0.0	0.00	0.00	0.00	0.00	
5,985.3	90.00	1.82	5,688.0	520.6	16.6	11.00	11.00	0.00	1.82	
12,341.0	90.00	1.82	5,688.0	6,873.0	218.8	0.00	0.00	0.00	0.00	BHL 1991'FSL, 199

Database:	Landmark	Local Co-ordinate Reference:	Well Twomile #15-1033H
Company:	Whiting Oil & Gas	TVD Reference:	WELL @ 4924.0ft (Original Well Elev)
Project:	SEC.15-T11N-R57W	MD Reference:	WELL @ 4924.0ft (Original Well Elev)
Site:	Twomile #15-1033H Pad Sec.15-T11N-R57W	North Reference:	True
Well:	Twomile #15-1033H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (11-09-11)		

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
1.0	0.00	0.00	1.0	0.0	0.0	0.0	0.00	0.00	0.00
HARDLINE 660'FSL									
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
240.0	0.00	0.00	240.0	0.0	0.0	0.0	0.00	0.00	0.00
280.0	0.00	0.00	280.0	0.0	0.0	0.0	0.00	0.00	0.00
320.0	0.00	0.00	320.0	0.0	0.0	0.0	0.00	0.00	0.00
360.0	0.00	0.00	360.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
440.0	0.00	0.00	440.0	0.0	0.0	0.0	0.00	0.00	0.00
480.0	0.00	0.00	480.0	0.0	0.0	0.0	0.00	0.00	0.00
520.0	0.00	0.00	520.0	0.0	0.0	0.0	0.00	0.00	0.00
560.0	0.00	0.00	560.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
640.0	0.00	0.00	640.0	0.0	0.0	0.0	0.00	0.00	0.00
680.0	0.00	0.00	680.0	0.0	0.0	0.0	0.00	0.00	0.00
720.0	0.00	0.00	720.0	0.0	0.0	0.0	0.00	0.00	0.00
760.0	0.00	0.00	760.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
840.0	0.00	0.00	840.0	0.0	0.0	0.0	0.00	0.00	0.00
880.0	0.00	0.00	880.0	0.0	0.0	0.0	0.00	0.00	0.00
920.0	0.00	0.00	920.0	0.0	0.0	0.0	0.00	0.00	0.00
960.0	0.00	0.00	960.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,040.0	0.00	0.00	1,040.0	0.0	0.0	0.0	0.00	0.00	0.00
1,080.0	0.00	0.00	1,080.0	0.0	0.0	0.0	0.00	0.00	0.00
1,120.0	0.00	0.00	1,120.0	0.0	0.0	0.0	0.00	0.00	0.00
1,160.0	0.00	0.00	1,160.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,240.0	0.00	0.00	1,240.0	0.0	0.0	0.0	0.00	0.00	0.00
1,280.0	0.00	0.00	1,280.0	0.0	0.0	0.0	0.00	0.00	0.00
1,320.0	0.00	0.00	1,320.0	0.0	0.0	0.0	0.00	0.00	0.00
1,360.0	0.00	0.00	1,360.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,440.0	0.00	0.00	1,440.0	0.0	0.0	0.0	0.00	0.00	0.00
1,480.0	0.00	0.00	1,480.0	0.0	0.0	0.0	0.00	0.00	0.00
1,520.0	0.00	0.00	1,520.0	0.0	0.0	0.0	0.00	0.00	0.00
1,560.0	0.00	0.00	1,560.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,640.0	0.00	0.00	1,640.0	0.0	0.0	0.0	0.00	0.00	0.00
1,680.0	0.00	0.00	1,680.0	0.0	0.0	0.0	0.00	0.00	0.00
1,720.0	0.00	0.00	1,720.0	0.0	0.0	0.0	0.00	0.00	0.00
1,760.0	0.00	0.00	1,760.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,840.0	0.00	0.00	1,840.0	0.0	0.0	0.0	0.00	0.00	0.00
1,880.0	0.00	0.00	1,880.0	0.0	0.0	0.0	0.00	0.00	0.00
1,920.0	0.00	0.00	1,920.0	0.0	0.0	0.0	0.00	0.00	0.00
1,960.0	0.00	0.00	1,960.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,040.0	0.00	0.00	2,040.0	0.0	0.0	0.0	0.00	0.00	0.00

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Well:	Twomile #15-1033H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (11-09-11)		

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)
2,080.0	0.00	0.00	2,080.0	0.0	0.0	0.0	0.00	0.00	0.00
2,120.0	0.00	0.00	2,120.0	0.0	0.0	0.0	0.00	0.00	0.00
2,160.0	0.00	0.00	2,160.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,240.0	0.00	0.00	2,240.0	0.0	0.0	0.0	0.00	0.00	0.00
2,280.0	0.00	0.00	2,280.0	0.0	0.0	0.0	0.00	0.00	0.00
2,320.0	0.00	0.00	2,320.0	0.0	0.0	0.0	0.00	0.00	0.00
2,360.0	0.00	0.00	2,360.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,440.0	0.00	0.00	2,440.0	0.0	0.0	0.0	0.00	0.00	0.00
2,480.0	0.00	0.00	2,480.0	0.0	0.0	0.0	0.00	0.00	0.00
2,520.0	0.00	0.00	2,520.0	0.0	0.0	0.0	0.00	0.00	0.00
2,560.0	0.00	0.00	2,560.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,640.0	0.00	0.00	2,640.0	0.0	0.0	0.0	0.00	0.00	0.00
2,680.0	0.00	0.00	2,680.0	0.0	0.0	0.0	0.00	0.00	0.00
2,720.0	0.00	0.00	2,720.0	0.0	0.0	0.0	0.00	0.00	0.00
2,760.0	0.00	0.00	2,760.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,840.0	0.00	0.00	2,840.0	0.0	0.0	0.0	0.00	0.00	0.00
2,880.0	0.00	0.00	2,880.0	0.0	0.0	0.0	0.00	0.00	0.00
2,920.0	0.00	0.00	2,920.0	0.0	0.0	0.0	0.00	0.00	0.00
2,960.0	0.00	0.00	2,960.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,040.0	0.00	0.00	3,040.0	0.0	0.0	0.0	0.00	0.00	0.00
3,080.0	0.00	0.00	3,080.0	0.0	0.0	0.0	0.00	0.00	0.00
3,120.0	0.00	0.00	3,120.0	0.0	0.0	0.0	0.00	0.00	0.00
3,160.0	0.00	0.00	3,160.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,240.0	0.00	0.00	3,240.0	0.0	0.0	0.0	0.00	0.00	0.00
3,280.0	0.00	0.00	3,280.0	0.0	0.0	0.0	0.00	0.00	0.00
3,320.0	0.00	0.00	3,320.0	0.0	0.0	0.0	0.00	0.00	0.00
3,360.0	0.00	0.00	3,360.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,440.0	0.00	0.00	3,440.0	0.0	0.0	0.0	0.00	0.00	0.00
3,480.0	0.00	0.00	3,480.0	0.0	0.0	0.0	0.00	0.00	0.00
3,520.0	0.00	0.00	3,520.0	0.0	0.0	0.0	0.00	0.00	0.00
3,560.0	0.00	0.00	3,560.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,640.0	0.00	0.00	3,640.0	0.0	0.0	0.0	0.00	0.00	0.00
3,680.0	0.00	0.00	3,680.0	0.0	0.0	0.0	0.00	0.00	0.00
3,720.0	0.00	0.00	3,720.0	0.0	0.0	0.0	0.00	0.00	0.00
3,760.0	0.00	0.00	3,760.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,840.0	0.00	0.00	3,840.0	0.0	0.0	0.0	0.00	0.00	0.00
3,880.0	0.00	0.00	3,880.0	0.0	0.0	0.0	0.00	0.00	0.00
3,920.0	0.00	0.00	3,920.0	0.0	0.0	0.0	0.00	0.00	0.00
3,960.0	0.00	0.00	3,960.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,040.0	0.00	0.00	4,040.0	0.0	0.0	0.0	0.00	0.00	0.00
4,080.0	0.00	0.00	4,080.0	0.0	0.0	0.0	0.00	0.00	0.00
4,120.0	0.00	0.00	4,120.0	0.0	0.0	0.0	0.00	0.00	0.00
4,160.0	0.00	0.00	4,160.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00

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Wellbore:	Wellbore #1		
Design:	Plan #1 (11-09-11)		

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)
4,240.0	0.00	0.00	4,240.0	0.0	0.0	0.0	0.00	0.00	0.00
4,280.0	0.00	0.00	4,280.0	0.0	0.0	0.0	0.00	0.00	0.00
4,320.0	0.00	0.00	4,320.0	0.0	0.0	0.0	0.00	0.00	0.00
4,360.0	0.00	0.00	4,360.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,440.0	0.00	0.00	4,440.0	0.0	0.0	0.0	0.00	0.00	0.00
4,480.0	0.00	0.00	4,480.0	0.0	0.0	0.0	0.00	0.00	0.00
4,520.0	0.00	0.00	4,520.0	0.0	0.0	0.0	0.00	0.00	0.00
4,560.0	0.00	0.00	4,560.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00
4,640.0	0.00	0.00	4,640.0	0.0	0.0	0.0	0.00	0.00	0.00
4,680.0	0.00	0.00	4,680.0	0.0	0.0	0.0	0.00	0.00	0.00
4,720.0	0.00	0.00	4,720.0	0.0	0.0	0.0	0.00	0.00	0.00
4,760.0	0.00	0.00	4,760.0	0.0	0.0	0.0	0.00	0.00	0.00
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,840.0	0.00	0.00	4,840.0	0.0	0.0	0.0	0.00	0.00	0.00
4,880.0	0.00	0.00	4,880.0	0.0	0.0	0.0	0.00	0.00	0.00
4,920.0	0.00	0.00	4,920.0	0.0	0.0	0.0	0.00	0.00	0.00
4,960.0	0.00	0.00	4,960.0	0.0	0.0	0.0	0.00	0.00	0.00
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
5,040.0	0.00	0.00	5,040.0	0.0	0.0	0.0	0.00	0.00	0.00
5,080.0	0.00	0.00	5,080.0	0.0	0.0	0.0	0.00	0.00	0.00
5,120.0	0.00	0.00	5,120.0	0.0	0.0	0.0	0.00	0.00	0.00
5,160.0	0.00	0.00	5,160.0	0.0	0.0	0.0	0.00	0.00	0.00
5,167.1	0.00	0.00	5,167.1	0.0	0.0	0.0	0.00	0.00	0.00
KOP									
5,200.0	3.62	1.82	5,200.0	1.0	0.0	1.0	10.99	10.99	0.00
5,240.0	8.02	1.82	5,239.8	5.1	0.2	5.1	11.00	11.00	0.00
5,280.0	12.42	1.82	5,279.1	12.2	0.4	12.2	11.00	11.00	0.00
5,320.0	16.82	1.82	5,317.8	22.3	0.7	22.3	11.00	11.00	0.00
5,360.0	21.22	1.82	5,355.6	35.3	1.1	35.3	11.00	11.00	0.00
5,400.0	25.62	1.82	5,392.3	51.2	1.6	51.2	11.00	11.00	0.00
5,440.0	30.02	1.82	5,427.7	69.8	2.2	69.9	11.00	11.00	0.00
5,480.0	34.42	1.82	5,461.5	91.1	2.9	91.2	11.00	11.00	0.00
5,520.0	38.82	1.82	5,493.6	115.0	3.7	115.0	11.00	11.00	0.00
5,560.0	43.22	1.82	5,523.8	141.2	4.5	141.3	11.00	11.00	0.00
5,563.0	43.55	1.82	5,526.0	143.3	4.6	143.3	11.00	11.00	0.00
NIOBRARA									
5,600.0	47.62	1.82	5,551.9	169.7	5.4	169.8	11.00	11.00	0.00
5,640.0	52.02	1.82	5,577.7	200.2	6.4	200.3	11.00	11.00	0.00
5,680.0	56.42	1.82	5,601.1	232.6	7.4	232.7	11.00	11.00	0.00
5,720.0	60.82	1.82	5,621.9	266.7	8.5	266.9	11.00	11.00	0.00
5,760.0	65.22	1.82	5,640.0	302.4	9.6	302.5	11.00	11.00	0.00
5,800.0	69.62	1.82	5,655.4	339.3	10.8	339.4	11.00	11.00	0.00
5,840.0	74.02	1.82	5,667.9	377.2	12.0	377.4	11.00	11.00	0.00
5,880.0	78.42	1.82	5,677.4	416.1	13.2	416.3	11.00	11.00	0.00
5,920.0	82.82	1.82	5,683.9	455.5	14.5	455.7	11.00	11.00	0.00
5,960.0	87.22	1.82	5,687.4	495.3	15.8	495.6	11.00	11.00	0.00
5,985.3	90.00	1.82	5,688.0	520.6	16.6	520.9	11.00	11.00	0.00
End of Build - 7"									
6,000.0	90.00	1.82	5,688.0	535.3	17.0	535.6	0.01	0.01	0.00
6,040.0	90.00	1.82	5,688.0	575.3	18.3	575.6	0.00	0.00	0.00
6,080.0	90.00	1.82	5,688.0	615.2	19.6	615.6	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Twomile #15-1033H
Company:	Whiting Oil & Gas	TVD Reference:	WELL @ 4924.0ft (Original Well Elev)
Project:	SEC.15-T11N-R57W	MD Reference:	WELL @ 4924.0ft (Original Well Elev)
Site:	Twomile #15-1033H Pad Sec.15-T11N-R57W	North Reference:	True
Well:	Twomile #15-1033H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (11-09-11)		

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)
6,120.0	90.00	1.82	5,688.0	655.2	20.9	655.6	0.00	0.00	0.00
6,160.0	90.00	1.82	5,688.0	695.2	22.1	695.6	0.00	0.00	0.00
6,200.0	90.00	1.82	5,688.0	735.2	23.4	735.6	0.00	0.00	0.00
6,240.0	90.00	1.82	5,688.0	775.2	24.7	775.6	0.00	0.00	0.00
6,280.0	90.00	1.82	5,688.0	815.1	26.0	815.6	0.00	0.00	0.00
6,320.0	90.00	1.82	5,688.0	855.1	27.2	855.6	0.00	0.00	0.00
6,360.0	90.00	1.82	5,688.0	895.1	28.5	895.6	0.00	0.00	0.00
6,400.0	90.00	1.82	5,688.0	935.1	29.8	935.6	0.00	0.00	0.00
6,440.0	90.00	1.82	5,688.0	975.1	31.0	975.6	0.00	0.00	0.00
6,480.0	90.00	1.82	5,688.0	1,015.0	32.3	1,015.6	0.00	0.00	0.00
6,520.0	90.00	1.82	5,688.0	1,055.0	33.6	1,055.6	0.00	0.00	0.00
6,560.0	90.00	1.82	5,688.0	1,095.0	34.9	1,095.6	0.00	0.00	0.00
6,600.0	90.00	1.82	5,688.0	1,135.0	36.1	1,135.6	0.00	0.00	0.00
6,640.0	90.00	1.82	5,688.0	1,175.0	37.4	1,175.6	0.00	0.00	0.00
6,680.0	90.00	1.82	5,688.0	1,214.9	38.7	1,215.6	0.00	0.00	0.00
6,720.0	90.00	1.82	5,688.0	1,254.9	40.0	1,255.6	0.00	0.00	0.00
6,760.0	90.00	1.82	5,688.0	1,294.9	41.2	1,295.6	0.00	0.00	0.00
6,800.0	90.00	1.82	5,688.0	1,334.9	42.5	1,335.6	0.00	0.00	0.00
6,840.0	90.00	1.82	5,688.0	1,374.9	43.8	1,375.6	0.00	0.00	0.00
6,880.0	90.00	1.82	5,688.0	1,414.8	45.0	1,415.6	0.00	0.00	0.00
6,920.0	90.00	1.82	5,688.0	1,454.8	46.3	1,455.6	0.00	0.00	0.00
6,960.0	90.00	1.82	5,688.0	1,494.8	47.6	1,495.6	0.00	0.00	0.00
7,000.0	90.00	1.82	5,688.0	1,534.8	48.9	1,535.6	0.00	0.00	0.00
7,040.0	90.00	1.82	5,688.0	1,574.8	50.1	1,575.6	0.00	0.00	0.00
7,080.0	90.00	1.82	5,688.0	1,614.7	51.4	1,615.6	0.00	0.00	0.00
7,120.0	90.00	1.82	5,688.0	1,654.7	52.7	1,655.6	0.00	0.00	0.00
7,160.0	90.00	1.82	5,688.0	1,694.7	54.0	1,695.6	0.00	0.00	0.00
7,200.0	90.00	1.82	5,688.0	1,734.7	55.2	1,735.6	0.00	0.00	0.00
7,240.0	90.00	1.82	5,688.0	1,774.7	56.5	1,775.6	0.00	0.00	0.00
7,280.0	90.00	1.82	5,688.0	1,814.6	57.8	1,815.6	0.00	0.00	0.00
7,320.0	90.00	1.82	5,688.0	1,854.6	59.0	1,855.6	0.00	0.00	0.00
7,360.0	90.00	1.82	5,688.0	1,894.6	60.3	1,895.6	0.00	0.00	0.00
7,400.0	90.00	1.82	5,688.0	1,934.6	61.6	1,935.6	0.00	0.00	0.00
7,440.0	90.00	1.82	5,688.0	1,974.6	62.9	1,975.6	0.00	0.00	0.00
7,480.0	90.00	1.82	5,688.0	2,014.5	64.1	2,015.6	0.00	0.00	0.00
7,520.0	90.00	1.82	5,688.0	2,054.5	65.4	2,055.6	0.00	0.00	0.00
7,560.0	90.00	1.82	5,688.0	2,094.5	66.7	2,095.6	0.00	0.00	0.00
7,600.0	90.00	1.82	5,688.0	2,134.5	68.0	2,135.6	0.00	0.00	0.00
7,640.0	90.00	1.82	5,688.0	2,174.5	69.2	2,175.6	0.00	0.00	0.00
7,680.0	90.00	1.82	5,688.0	2,214.4	70.5	2,215.6	0.00	0.00	0.00
7,720.0	90.00	1.82	5,688.0	2,254.4	71.8	2,255.6	0.00	0.00	0.00
7,760.0	90.00	1.82	5,688.0	2,294.4	73.0	2,295.6	0.00	0.00	0.00
7,800.0	90.00	1.82	5,688.0	2,334.4	74.3	2,335.6	0.00	0.00	0.00
7,840.0	90.00	1.82	5,688.0	2,374.4	75.6	2,375.6	0.00	0.00	0.00
7,880.0	90.00	1.82	5,688.0	2,414.3	76.9	2,415.6	0.00	0.00	0.00
7,920.0	90.00	1.82	5,688.0	2,454.3	78.1	2,455.6	0.00	0.00	0.00
7,960.0	90.00	1.82	5,688.0	2,494.3	79.4	2,495.6	0.00	0.00	0.00
8,000.0	90.00	1.82	5,688.0	2,534.3	80.7	2,535.6	0.00	0.00	0.00
8,040.0	90.00	1.82	5,688.0	2,574.3	82.0	2,575.6	0.00	0.00	0.00
8,080.0	90.00	1.82	5,688.0	2,614.2	83.2	2,615.6	0.00	0.00	0.00
8,120.0	90.00	1.82	5,688.0	2,654.2	84.5	2,655.6	0.00	0.00	0.00
8,160.0	90.00	1.82	5,688.0	2,694.2	85.8	2,695.6	0.00	0.00	0.00
8,200.0	90.00	1.82	5,688.0	2,734.2	87.0	2,735.6	0.00	0.00	0.00
8,240.0	90.00	1.82	5,688.0	2,774.2	88.3	2,775.6	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Twomile #15-1033H
Company:	Whiting Oil & Gas	TVD Reference:	WELL @ 4924.0ft (Original Well Elev)
Project:	SEC.15-T11N-R57W	MD Reference:	WELL @ 4924.0ft (Original Well Elev)
Site:	Twomile #15-1033H Pad Sec.15-T11N-R57W	North Reference:	True
Well:	Twomile #15-1033H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (11-09-11)		

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)
8,280.0	90.00	1.82	5,688.0	2,814.1	89.6	2,815.6	0.00	0.00	0.00
8,320.0	90.00	1.82	5,688.0	2,854.1	90.9	2,855.6	0.00	0.00	0.00
8,360.0	90.00	1.82	5,688.0	2,894.1	92.1	2,895.6	0.00	0.00	0.00
8,400.0	90.00	1.82	5,688.0	2,934.1	93.4	2,935.6	0.00	0.00	0.00
8,440.0	90.00	1.82	5,688.0	2,974.1	94.7	2,975.6	0.00	0.00	0.00
8,480.0	90.00	1.82	5,688.0	3,014.0	96.0	3,015.6	0.00	0.00	0.00
8,520.0	90.00	1.82	5,688.0	3,054.0	97.2	3,055.6	0.00	0.00	0.00
8,560.0	90.00	1.82	5,688.0	3,094.0	98.5	3,095.6	0.00	0.00	0.00
8,600.0	90.00	1.82	5,688.0	3,134.0	99.8	3,135.6	0.00	0.00	0.00
8,640.0	90.00	1.82	5,688.0	3,174.0	101.1	3,175.6	0.00	0.00	0.00
8,680.0	90.00	1.82	5,688.0	3,213.9	102.3	3,215.6	0.00	0.00	0.00
8,720.0	90.00	1.82	5,688.0	3,253.9	103.6	3,255.6	0.00	0.00	0.00
8,760.0	90.00	1.82	5,688.0	3,293.9	104.9	3,295.6	0.00	0.00	0.00
8,800.0	90.00	1.82	5,688.0	3,333.9	106.1	3,335.6	0.00	0.00	0.00
8,840.0	90.00	1.82	5,688.0	3,373.9	107.4	3,375.6	0.00	0.00	0.00
8,880.0	90.00	1.82	5,688.0	3,413.8	108.7	3,415.6	0.00	0.00	0.00
8,920.0	90.00	1.82	5,688.0	3,453.8	110.0	3,455.6	0.00	0.00	0.00
8,960.0	90.00	1.82	5,688.0	3,493.8	111.2	3,495.6	0.00	0.00	0.00
9,000.0	90.00	1.82	5,688.0	3,533.8	112.5	3,535.6	0.00	0.00	0.00
9,040.0	90.00	1.82	5,688.0	3,573.7	113.8	3,575.6	0.00	0.00	0.00
9,080.0	90.00	1.82	5,688.0	3,613.7	115.1	3,615.6	0.00	0.00	0.00
9,120.0	90.00	1.82	5,688.0	3,653.7	116.3	3,655.6	0.00	0.00	0.00
9,160.0	90.00	1.82	5,688.0	3,693.7	117.6	3,695.6	0.00	0.00	0.00
9,200.0	90.00	1.82	5,688.0	3,733.7	118.9	3,735.6	0.00	0.00	0.00
9,240.0	90.00	1.82	5,688.0	3,773.6	120.1	3,775.6	0.00	0.00	0.00
9,280.0	90.00	1.82	5,688.0	3,813.6	121.4	3,815.6	0.00	0.00	0.00
9,320.0	90.00	1.82	5,688.0	3,853.6	122.7	3,855.6	0.00	0.00	0.00
9,360.0	90.00	1.82	5,688.0	3,893.6	124.0	3,895.6	0.00	0.00	0.00
9,400.0	90.00	1.82	5,688.0	3,933.6	125.2	3,935.6	0.00	0.00	0.00
9,440.0	90.00	1.82	5,688.0	3,973.5	126.5	3,975.6	0.00	0.00	0.00
9,480.0	90.00	1.82	5,688.0	4,013.5	127.8	4,015.6	0.00	0.00	0.00
9,520.0	90.00	1.82	5,688.0	4,053.5	129.1	4,055.6	0.00	0.00	0.00
9,560.0	90.00	1.82	5,688.0	4,093.5	130.3	4,095.6	0.00	0.00	0.00
9,600.0	90.00	1.82	5,688.0	4,133.5	131.6	4,135.6	0.00	0.00	0.00
9,640.0	90.00	1.82	5,688.0	4,173.4	132.9	4,175.6	0.00	0.00	0.00
9,680.0	90.00	1.82	5,688.0	4,213.4	134.1	4,215.6	0.00	0.00	0.00
9,720.0	90.00	1.82	5,688.0	4,253.4	135.4	4,255.6	0.00	0.00	0.00
9,760.0	90.00	1.82	5,688.0	4,293.4	136.7	4,295.6	0.00	0.00	0.00
9,800.0	90.00	1.82	5,688.0	4,333.4	138.0	4,335.6	0.00	0.00	0.00
9,840.0	90.00	1.82	5,688.0	4,373.3	139.2	4,375.6	0.00	0.00	0.00
9,880.0	90.00	1.82	5,688.0	4,413.3	140.5	4,415.6	0.00	0.00	0.00
9,920.0	90.00	1.82	5,688.0	4,453.3	141.8	4,455.6	0.00	0.00	0.00
9,960.0	90.00	1.82	5,688.0	4,493.3	143.1	4,495.6	0.00	0.00	0.00
10,000.0	90.00	1.82	5,688.0	4,533.3	144.3	4,535.6	0.00	0.00	0.00
10,040.0	90.00	1.82	5,688.0	4,573.2	145.6	4,575.6	0.00	0.00	0.00
10,080.0	90.00	1.82	5,688.0	4,613.2	146.9	4,615.6	0.00	0.00	0.00
10,120.0	90.00	1.82	5,688.0	4,653.2	148.1	4,655.6	0.00	0.00	0.00
10,160.0	90.00	1.82	5,688.0	4,693.2	149.4	4,695.6	0.00	0.00	0.00
10,200.0	90.00	1.82	5,688.0	4,733.2	150.7	4,735.6	0.00	0.00	0.00
10,240.0	90.00	1.82	5,688.0	4,773.1	152.0	4,775.6	0.00	0.00	0.00
10,280.0	90.00	1.82	5,688.0	4,813.1	153.2	4,815.6	0.00	0.00	0.00
10,320.0	90.00	1.82	5,688.0	4,853.1	154.5	4,855.6	0.00	0.00	0.00
10,360.0	90.00	1.82	5,688.0	4,893.1	155.8	4,895.6	0.00	0.00	0.00
10,400.0	90.00	1.82	5,688.0	4,933.1	157.1	4,935.6	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Twomile #15-1033H
Company:	Whiting Oil & Gas	TVD Reference:	WELL @ 4924.0ft (Original Well Elev)
Project:	SEC.15-T11N-R57W	MD Reference:	WELL @ 4924.0ft (Original Well Elev)
Site:	Twomile #15-1033H Pad Sec.15-T11N-R57W	North Reference:	True
Well:	Twomile #15-1033H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (11-09-11)		

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)
10,440.0	90.00	1.82	5,688.0	4,973.0	158.3	4,975.6	0.00	0.00	0.00
10,480.0	90.00	1.82	5,688.0	5,013.0	159.6	5,015.6	0.00	0.00	0.00
10,520.0	90.00	1.82	5,688.0	5,053.0	160.9	5,055.6	0.00	0.00	0.00
10,560.0	90.00	1.82	5,688.0	5,093.0	162.1	5,095.6	0.00	0.00	0.00
10,600.0	90.00	1.82	5,688.0	5,133.0	163.4	5,135.6	0.00	0.00	0.00
10,640.0	90.00	1.82	5,688.0	5,172.9	164.7	5,175.6	0.00	0.00	0.00
10,680.0	90.00	1.82	5,688.0	5,212.9	166.0	5,215.6	0.00	0.00	0.00
10,720.0	90.00	1.82	5,688.0	5,252.9	167.2	5,255.6	0.00	0.00	0.00
10,760.0	90.00	1.82	5,688.0	5,292.9	168.5	5,295.6	0.00	0.00	0.00
10,800.0	90.00	1.82	5,688.0	5,332.9	169.8	5,335.6	0.00	0.00	0.00
10,840.0	90.00	1.82	5,688.0	5,372.8	171.1	5,375.6	0.00	0.00	0.00
10,880.0	90.00	1.82	5,688.0	5,412.8	172.3	5,415.6	0.00	0.00	0.00
10,920.0	90.00	1.82	5,688.0	5,452.8	173.6	5,455.6	0.00	0.00	0.00
10,960.0	90.00	1.82	5,688.0	5,492.8	174.9	5,495.6	0.00	0.00	0.00
11,000.0	90.00	1.82	5,688.0	5,532.8	176.1	5,535.6	0.00	0.00	0.00
11,040.0	90.00	1.82	5,688.0	5,572.7	177.4	5,575.6	0.00	0.00	0.00
11,080.0	90.00	1.82	5,688.0	5,612.7	178.7	5,615.6	0.00	0.00	0.00
11,120.0	90.00	1.82	5,688.0	5,652.7	180.0	5,655.6	0.00	0.00	0.00
11,160.0	90.00	1.82	5,688.0	5,692.7	181.2	5,695.6	0.00	0.00	0.00
11,200.0	90.00	1.82	5,688.0	5,732.7	182.5	5,735.6	0.00	0.00	0.00
11,240.0	90.00	1.82	5,688.0	5,772.6	183.8	5,775.6	0.00	0.00	0.00
11,280.0	90.00	1.82	5,688.0	5,812.6	185.1	5,815.6	0.00	0.00	0.00
11,320.0	90.00	1.82	5,688.0	5,852.6	186.3	5,855.6	0.00	0.00	0.00
11,360.0	90.00	1.82	5,688.0	5,892.6	187.6	5,895.6	0.00	0.00	0.00
11,400.0	90.00	1.82	5,688.0	5,932.6	188.9	5,935.6	0.00	0.00	0.00
11,440.0	90.00	1.82	5,688.0	5,972.5	190.2	5,975.6	0.00	0.00	0.00
11,480.0	90.00	1.82	5,688.0	6,012.5	191.4	6,015.6	0.00	0.00	0.00
11,520.0	90.00	1.82	5,688.0	6,052.5	192.7	6,055.6	0.00	0.00	0.00
11,560.0	90.00	1.82	5,688.0	6,092.5	194.0	6,095.6	0.00	0.00	0.00
11,600.0	90.00	1.82	5,688.0	6,132.5	195.2	6,135.6	0.00	0.00	0.00
11,640.0	90.00	1.82	5,688.0	6,172.4	196.5	6,175.6	0.00	0.00	0.00
11,680.0	90.00	1.82	5,688.0	6,212.4	197.8	6,215.6	0.00	0.00	0.00
11,720.0	90.00	1.82	5,688.0	6,252.4	199.1	6,255.6	0.00	0.00	0.00
11,760.0	90.00	1.82	5,688.0	6,292.4	200.3	6,295.6	0.00	0.00	0.00
11,800.0	90.00	1.82	5,688.0	6,332.4	201.6	6,335.6	0.00	0.00	0.00
11,840.0	90.00	1.82	5,688.0	6,372.3	202.9	6,375.6	0.00	0.00	0.00
11,880.0	90.00	1.82	5,688.0	6,412.3	204.2	6,415.6	0.00	0.00	0.00
11,920.0	90.00	1.82	5,688.0	6,452.3	205.4	6,455.6	0.00	0.00	0.00
11,960.0	90.00	1.82	5,688.0	6,492.3	206.7	6,495.6	0.00	0.00	0.00
12,000.0	90.00	1.82	5,688.0	6,532.3	208.0	6,535.6	0.00	0.00	0.00
12,040.0	90.00	1.82	5,688.0	6,572.2	209.2	6,575.6	0.00	0.00	0.00
12,080.0	90.00	1.82	5,688.0	6,612.2	210.5	6,615.6	0.00	0.00	0.00
12,120.0	90.00	1.82	5,688.0	6,652.2	211.8	6,655.6	0.00	0.00	0.00
12,160.0	90.00	1.82	5,688.0	6,692.2	213.1	6,695.6	0.00	0.00	0.00
12,200.0	90.00	1.82	5,688.0	6,732.1	214.3	6,735.6	0.00	0.00	0.00
12,240.0	90.00	1.82	5,688.0	6,772.1	215.6	6,775.6	0.00	0.00	0.00
12,280.0	90.00	1.82	5,688.0	6,812.1	216.9	6,815.6	0.00	0.00	0.00
12,320.0	90.00	1.82	5,688.0	6,852.1	218.2	6,855.6	0.00	0.00	0.00
12,341.0	90.00	1.82	5,688.0	6,873.0	218.8	6,876.5	0.00	0.00	0.00
BHL 1991'FSL, 1998'FEL, SEC.10									

Database:	Landmark	Local Co-ordinate Reference:	Well Twomile #15-1033H
Company:	Whiting Oil & Gas	TVD Reference:	WELL @ 4924.0ft (Original Well Elev)
Project:	SEC.15-T11N-R57W	MD Reference:	WELL @ 4924.0ft (Original Well Elev)
Site:	Twomile #15-1033H Pad Sec.15-T11N-R57W	North Reference:	True
Well:	Twomile #15-1033H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (11-09-11)		

Targets									
Target Name									
- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- Shape									
HARDLINE 660'FSL	0.00	0.00	1.0	238.0	-500.0	1,583,249.23	3,487,395.13	40.921081	-103.736320
- plan misses target center by 553.8ft at 1.0ft MD (1.0 TVD, 0.0 N, 0.0 E)									
- Polygon									
Point 1			1.0	0.0	0.0	1,583,249.23	3,487,395.13		
Point 2			1.0	0.0	1,000.0	1,583,269.14	3,488,394.96		
BHL 1991'FSL, 1998'f	0.00	0.00	5,688.0	6,873.0	218.8	1,589,897.42	3,487,981.73	40.939292	-103.733719
- plan hits target center									
- Point									

Casing Points				
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
5,985.3	5,688.0	7"	7	8-3/4

Formations				
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)
5,563.0	5,526.0	NIOBRARA		0.00

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	+E/-W (ft)	Comment
5,167.1	5,167.1	0.0	0.0	KOP
5,985.3	5,688.0	520.6	16.6	End of Build