

# Whiting Oil & Gas

Well Name: **Wolf #35-2623H**

Surface Location: Wolf Pad Sec.35-T10N-R59W  
North American Datum 1983 , US State Plane 1983Colorado Northern Zone

Ground Elevation: 5006.3

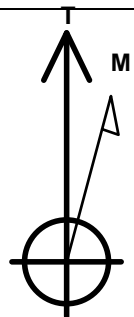
+N/-S +E/-W Northing Easting Latitude Longitude Slot

0.0 0.0 1533723.34 3429755.17 40.788131 -103.947986

RKB Ensign 14 - 15' WELL @ 5021.3ft (RKB Ensign 14 - 15')

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

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
HARDLINES SHL 660'FSL	1.0	340.0	-500.0	1534054.54	3429249.30	40.789064	-103.949792	Polygon
TARGET BHL 1994'FSL & 1991'FWL Sec.26	6146.0	6947.6	-124.6	1540667.65	3429509.02	40.807200	-103.948436	Point



Azimuths to True North  
Magnetic North: 8.42°

Magnetic Field  
Strength: 53394.8snT  
Dip Angle: 67.49°  
Date: 9/1/2011  
Model: IGRF2010

## ANNOTATIONS

TVD MD Annotation  
5625.1 5625.1 KOP  
6146.0 6443.3 End of Build

Wolf Pad Sec.35-T10N-R59W  
Wolf #35-2623H  
Plan #1 (9-1-11)  
14:48, September 01 2011

South(-)/North(+) (2300 ft/in)

TARGET BHL 1994'FSL & 1991'FWL Sec.26

SHL 320'FSL & 1945'FWL  
Sec. 35

HARDLINES SHL 660'FSL

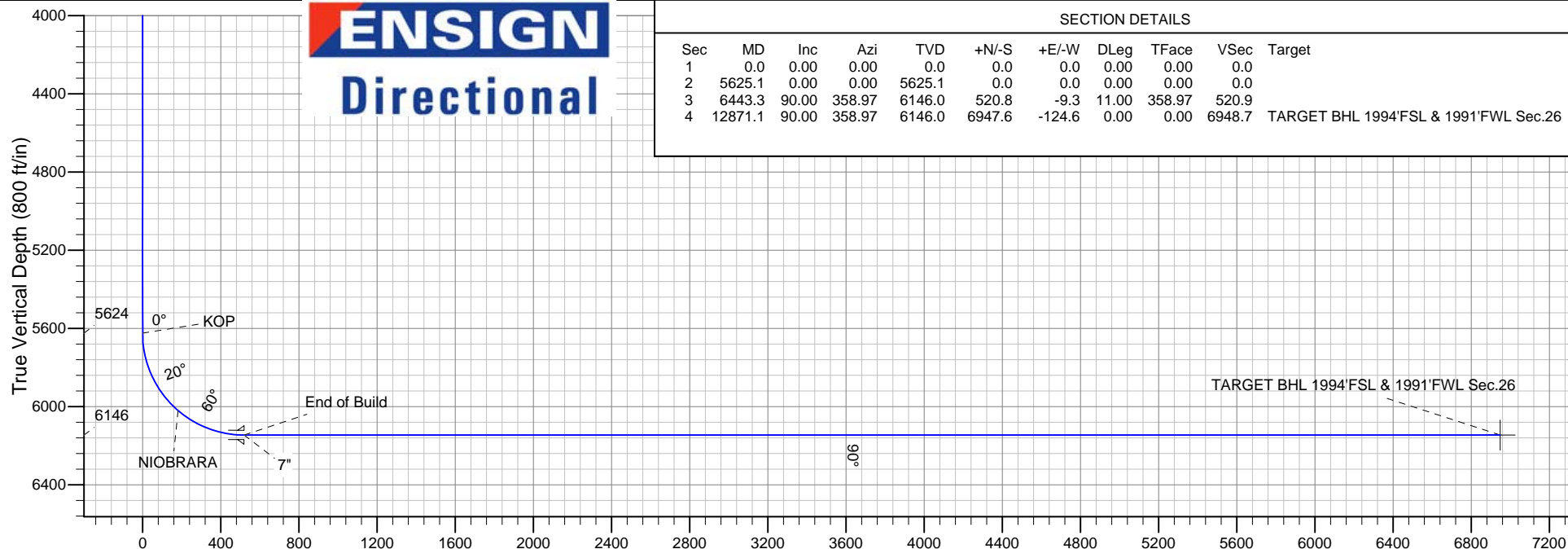
Wolf #35-2623H

West(-)/East(+) (2300 ft/in)

**ENSIGN**  
**Directional**

## 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	5625.1	0.00	0.00	5625.1	0.0	0.0	0.00	0.00	0.0	
3	6443.3	90.00	358.97	6146.0	520.8	-9.3	11.00	358.97	520.9	
4	12871.1	90.00	358.97	6146.0	6947.6	-124.6	0.00	0.00	6948.7	TARGET BHL 1994'FSL & 1991'FWL Sec.26



Vertical Section at 358.97° (800 ft/in)



## **Whiting Oil & Gas**

**SEC.35-T10N-R59W**

**Wolf Pad Sec.35-T10N-R59W**

**Wolf #35-2623H**

**Wellbore #1**

**Plan: Plan #1 (9-1-11)**

## **Standard Planning Report**

**01 September, 2011**

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Wolf #35-2623H
<b>Company:</b>	Whiting Oil & Gas	<b>TVD Reference:</b>	WELL @ 5021.3ft (RKB Ensign 14 - 15')
<b>Project:</b>	SEC.35-T10N-R59W	<b>MD Reference:</b>	WELL @ 5021.3ft (RKB Ensign 14 - 15')
<b>Site:</b>	Wolf Pad Sec.35-T10N-R59W	<b>North Reference:</b>	True
<b>Well:</b>	Wolf #35-2623H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (9-1-11)		

<b>Project</b>	SEC.35-T10N-R59W, Weld County, CO		
<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										Wolf Pad Sec.35-T10N-R59W																			
Site Position:					Northing:					1,533,723.35 ft					Latitude:					40.788131									
From:					Lat/Long					Easting:					3,429,755.17 ft					Longitude:					-103.947986				
Position Uncertainty:					0.0 ft					Slot Radius:					"					Grid Convergence:					1.00 °				

Well	Wolf #35-2623H					
Well Position	+N-S	0.0 ft	Northing:	1,533,723.34 ft	Latitude:	40.788131
	+E-W	0.0 ft	Easting:	3,429,755.17 ft	Longitude:	-103.947986
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	5,006.3 ft

Wellbore #1					
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	9/1/2011	8.42	67.49	53,395

Design	Plan #1 (9-1-11)			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	358.97

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	
5,625.1	0.00	0.00	5,625.1	0.0	0.0	0.00	0.00	0.00	0.00	
6,443.3	90.00	358.97	6,146.0	520.8	-9.3	11.00	11.00	0.00	358.97	
12,871.1	90.00	358.97	6,146.0	6,947.6	-124.6	0.00	0.00	0.00	0.00	TARGET BHL 1994

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Wolf #35-2623H
<b>Company:</b>	Whiting Oil & Gas	<b>TVD Reference:</b>	WELL @ 5021.3ft (RKB Ensign 14 - 15')
<b>Project:</b>	SEC.35-T10N-R59W	<b>MD Reference:</b>	WELL @ 5021.3ft (RKB Ensign 14 - 15')
<b>Site:</b>	Wolf Pad Sec.35-T10N-R59W	<b>North Reference:</b>	True
<b>Well:</b>	Wolf #35-2623H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (9-1-11)		

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
<b>HARDLINES SHL 660'FSL</b>									
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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<b>Site:</b>	Wolf Pad Sec.35-T10N-R59W	<b>North Reference:</b>	True
<b>Well:</b>	Wolf #35-2623H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (9-1-11)		

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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<b>Site:</b>	Wolf Pad Sec.35-T10N-R59W	<b>North Reference:</b>	True
<b>Well:</b>	Wolf #35-2623H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (9-1-11)		

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
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00
5,240.0	0.00	0.00	5,240.0	0.0	0.0	0.0	0.00	0.00	0.00
5,280.0	0.00	0.00	5,280.0	0.0	0.0	0.0	0.00	0.00	0.00
5,320.0	0.00	0.00	5,320.0	0.0	0.0	0.0	0.00	0.00	0.00
5,360.0	0.00	0.00	5,360.0	0.0	0.0	0.0	0.00	0.00	0.00
5,400.0	0.00	0.00	5,400.0	0.0	0.0	0.0	0.00	0.00	0.00
5,440.0	0.00	0.00	5,440.0	0.0	0.0	0.0	0.00	0.00	0.00
5,480.0	0.00	0.00	5,480.0	0.0	0.0	0.0	0.00	0.00	0.00
5,520.0	0.00	0.00	5,520.0	0.0	0.0	0.0	0.00	0.00	0.00
5,560.0	0.00	0.00	5,560.0	0.0	0.0	0.0	0.00	0.00	0.00
5,600.0	0.00	0.00	5,600.0	0.0	0.0	0.0	0.00	0.00	0.00
5,625.1	0.00	0.00	5,625.1	0.0	0.0	0.0	0.00	0.00	0.00
<b>KOP</b>									
5,640.0	1.64	358.97	5,640.0	0.2	0.0	0.2	10.98	10.98	0.00
5,680.0	6.04	358.97	5,679.9	2.9	-0.1	2.9	11.00	11.00	0.00
5,720.0	10.44	358.97	5,719.5	8.6	-0.2	8.6	11.00	11.00	0.00
5,760.0	14.84	358.97	5,758.5	17.4	-0.3	17.4	11.00	11.00	0.00
5,800.0	19.24	358.97	5,796.7	29.1	-0.5	29.1	11.00	11.00	0.00
5,840.0	23.64	358.97	5,834.0	43.7	-0.8	43.7	11.00	11.00	0.00
5,880.0	28.04	358.97	5,870.0	61.1	-1.1	61.1	11.00	11.00	0.00
5,920.0	32.44	358.97	5,904.5	81.2	-1.5	81.3	11.00	11.00	0.00
5,960.0	36.84	358.97	5,937.4	104.0	-1.9	104.0	11.00	11.00	0.00
6,000.0	41.24	358.97	5,968.5	129.2	-2.3	129.2	11.00	11.00	0.00
6,040.0	45.64	358.97	5,997.5	156.6	-2.8	156.7	11.00	11.00	0.00
6,074.8	49.47	358.97	6,021.0	182.3	-3.3	182.4	11.00	11.00	0.00
<b>NIOBRARA</b>									
6,080.0	50.04	358.97	6,024.3	186.3	-3.3	186.3	11.00	11.00	0.00
6,120.0	54.44	358.97	6,048.8	217.9	-3.9	217.9	11.00	11.00	0.00
6,160.0	58.84	358.97	6,070.8	251.3	-4.5	251.3	11.00	11.00	0.00
6,200.0	63.24	358.97	6,090.2	286.3	-5.1	286.3	11.00	11.00	0.00

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Wolf #35-2623H
<b>Company:</b>	Whiting Oil & Gas	<b>TVD Reference:</b>	WELL @ 5021.3ft (RKB Ensign 14 - 15')
<b>Project:</b>	SEC.35-T10N-R59W	<b>MD Reference:</b>	WELL @ 5021.3ft (RKB Ensign 14 - 15')
<b>Site:</b>	Wolf Pad Sec.35-T10N-R59W	<b>North Reference:</b>	True
<b>Well:</b>	Wolf #35-2623H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (9-1-11)		

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)
6,240.0	67.64	358.97	6,106.8	322.6	-5.8	322.7	11.00	11.00	0.00
6,280.0	72.04	358.97	6,120.6	360.2	-6.5	360.2	11.00	11.00	0.00
6,320.0	76.44	358.97	6,131.5	398.6	-7.1	398.7	11.00	11.00	0.00
6,360.0	80.84	358.97	6,139.4	437.8	-7.9	437.9	11.00	11.00	0.00
6,400.0	85.24	358.97	6,144.2	477.5	-8.6	477.6	11.00	11.00	0.00
6,440.0	89.64	358.97	6,146.0	517.5	-9.3	517.6	11.00	11.00	0.00
6,442.6	89.92	358.97	6,146.0	520.1	-9.3	520.2	11.00	11.00	0.00
7"									
6,443.3	90.00	358.97	6,146.0	520.8	-9.3	520.9	11.00	11.00	0.00
End of Build									
6,480.0	90.00	358.97	6,146.0	557.5	-10.0	557.6	0.00	0.00	0.00
6,520.0	90.00	358.97	6,146.0	597.5	-10.7	597.6	0.00	0.00	0.00
6,560.0	90.00	358.97	6,146.0	637.5	-11.4	637.6	0.00	0.00	0.00
6,600.0	90.00	358.97	6,146.0	677.5	-12.1	677.6	0.00	0.00	0.00
6,640.0	90.00	358.97	6,146.0	717.4	-12.9	717.6	0.00	0.00	0.00
6,680.0	90.00	358.97	6,146.0	757.4	-13.6	757.6	0.00	0.00	0.00
6,720.0	90.00	358.97	6,146.0	797.4	-14.3	797.6	0.00	0.00	0.00
6,760.0	90.00	358.97	6,146.0	837.4	-15.0	837.6	0.00	0.00	0.00
6,800.0	90.00	358.97	6,146.0	877.4	-15.7	877.6	0.00	0.00	0.00
6,840.0	90.00	358.97	6,146.0	917.4	-16.5	917.6	0.00	0.00	0.00
6,880.0	90.00	358.97	6,146.0	957.4	-17.2	957.6	0.00	0.00	0.00
6,920.0	90.00	358.97	6,146.0	997.4	-17.9	997.6	0.00	0.00	0.00
6,960.0	90.00	358.97	6,146.0	1,037.4	-18.6	1,037.6	0.00	0.00	0.00
7,000.0	90.00	358.97	6,146.0	1,077.4	-19.3	1,077.6	0.00	0.00	0.00
7,040.0	90.00	358.97	6,146.0	1,117.4	-20.0	1,117.6	0.00	0.00	0.00
7,080.0	90.00	358.97	6,146.0	1,157.4	-20.8	1,157.6	0.00	0.00	0.00
7,120.0	90.00	358.97	6,146.0	1,197.4	-21.5	1,197.6	0.00	0.00	0.00
7,160.0	90.00	358.97	6,146.0	1,237.4	-22.2	1,237.6	0.00	0.00	0.00
7,200.0	90.00	358.97	6,146.0	1,277.4	-22.9	1,277.6	0.00	0.00	0.00
7,240.0	90.00	358.97	6,146.0	1,317.3	-23.6	1,317.6	0.00	0.00	0.00
7,280.0	90.00	358.97	6,146.0	1,357.3	-24.3	1,357.6	0.00	0.00	0.00
7,320.0	90.00	358.97	6,146.0	1,397.3	-25.1	1,397.6	0.00	0.00	0.00
7,360.0	90.00	358.97	6,146.0	1,437.3	-25.8	1,437.6	0.00	0.00	0.00
7,400.0	90.00	358.97	6,146.0	1,477.3	-26.5	1,477.6	0.00	0.00	0.00
7,440.0	90.00	358.97	6,146.0	1,517.3	-27.2	1,517.6	0.00	0.00	0.00
7,480.0	90.00	358.97	6,146.0	1,557.3	-27.9	1,557.6	0.00	0.00	0.00
7,520.0	90.00	358.97	6,146.0	1,597.3	-28.6	1,597.6	0.00	0.00	0.00
7,560.0	90.00	358.97	6,146.0	1,637.3	-29.4	1,637.6	0.00	0.00	0.00
7,600.0	90.00	358.97	6,146.0	1,677.3	-30.1	1,677.6	0.00	0.00	0.00
7,640.0	90.00	358.97	6,146.0	1,717.3	-30.8	1,717.6	0.00	0.00	0.00
7,680.0	90.00	358.97	6,146.0	1,757.3	-31.5	1,757.6	0.00	0.00	0.00
7,720.0	90.00	358.97	6,146.0	1,797.3	-32.2	1,797.6	0.00	0.00	0.00
7,760.0	90.00	358.97	6,146.0	1,837.3	-32.9	1,837.6	0.00	0.00	0.00
7,800.0	90.00	358.97	6,146.0	1,877.3	-33.7	1,877.6	0.00	0.00	0.00
7,840.0	90.00	358.97	6,146.0	1,917.3	-34.4	1,917.6	0.00	0.00	0.00
7,880.0	90.00	358.97	6,146.0	1,957.2	-35.1	1,957.6	0.00	0.00	0.00
7,920.0	90.00	358.97	6,146.0	1,997.2	-35.8	1,997.6	0.00	0.00	0.00
7,960.0	90.00	358.97	6,146.0	2,037.2	-36.5	2,037.6	0.00	0.00	0.00
8,000.0	90.00	358.97	6,146.0	2,077.2	-37.2	2,077.6	0.00	0.00	0.00
8,040.0	90.00	358.97	6,146.0	2,117.2	-38.0	2,117.6	0.00	0.00	0.00
8,080.0	90.00	358.97	6,146.0	2,157.2	-38.7	2,157.6	0.00	0.00	0.00
8,120.0	90.00	358.97	6,146.0	2,197.2	-39.4	2,197.6	0.00	0.00	0.00
8,160.0	90.00	358.97	6,146.0	2,237.2	-40.1	2,237.6	0.00	0.00	0.00

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Wolf #35-2623H
<b>Company:</b>	Whiting Oil & Gas	<b>TVD Reference:</b>	WELL @ 5021.3ft (RKB Ensign 14 - 15')
<b>Project:</b>	SEC.35-T10N-R59W	<b>MD Reference:</b>	WELL @ 5021.3ft (RKB Ensign 14 - 15')
<b>Site:</b>	Wolf Pad Sec.35-T10N-R59W	<b>North Reference:</b>	True
<b>Well:</b>	Wolf #35-2623H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (9-1-11)		

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)
8,200.0	90.00	358.97	6,146.0	2,277.2	-40.8	2,277.6	0.00	0.00	0.00
8,240.0	90.00	358.97	6,146.0	2,317.2	-41.5	2,317.6	0.00	0.00	0.00
8,280.0	90.00	358.97	6,146.0	2,357.2	-42.3	2,357.6	0.00	0.00	0.00
8,320.0	90.00	358.97	6,146.0	2,397.2	-43.0	2,397.6	0.00	0.00	0.00
8,360.0	90.00	358.97	6,146.0	2,437.2	-43.7	2,437.6	0.00	0.00	0.00
8,400.0	90.00	358.97	6,146.0	2,477.2	-44.4	2,477.6	0.00	0.00	0.00
8,440.0	90.00	358.97	6,146.0	2,517.2	-45.1	2,517.6	0.00	0.00	0.00
8,480.0	90.00	358.97	6,146.0	2,557.1	-45.9	2,557.6	0.00	0.00	0.00
8,520.0	90.00	358.97	6,146.0	2,597.1	-46.6	2,597.6	0.00	0.00	0.00
8,560.0	90.00	358.97	6,146.0	2,637.1	-47.3	2,637.6	0.00	0.00	0.00
8,600.0	90.00	358.97	6,146.0	2,677.1	-48.0	2,677.6	0.00	0.00	0.00
8,640.0	90.00	358.97	6,146.0	2,717.1	-48.7	2,717.6	0.00	0.00	0.00
8,680.0	90.00	358.97	6,146.0	2,757.1	-49.4	2,757.6	0.00	0.00	0.00
8,720.0	90.00	358.97	6,146.0	2,797.1	-50.2	2,797.6	0.00	0.00	0.00
8,760.0	90.00	358.97	6,146.0	2,837.1	-50.9	2,837.6	0.00	0.00	0.00
8,800.0	90.00	358.97	6,146.0	2,877.1	-51.6	2,877.6	0.00	0.00	0.00
8,840.0	90.00	358.97	6,146.0	2,917.1	-52.3	2,917.6	0.00	0.00	0.00
8,880.0	90.00	358.97	6,146.0	2,957.1	-53.0	2,957.6	0.00	0.00	0.00
8,920.0	90.00	358.97	6,146.0	2,997.1	-53.7	2,997.6	0.00	0.00	0.00
8,960.0	90.00	358.97	6,146.0	3,037.1	-54.5	3,037.6	0.00	0.00	0.00
9,000.0	90.00	358.97	6,146.0	3,077.1	-55.2	3,077.6	0.00	0.00	0.00
9,040.0	90.00	358.97	6,146.0	3,117.1	-55.9	3,117.6	0.00	0.00	0.00
9,080.0	90.00	358.97	6,146.0	3,157.1	-56.6	3,157.6	0.00	0.00	0.00
9,120.0	90.00	358.97	6,146.0	3,197.0	-57.3	3,197.6	0.00	0.00	0.00
9,160.0	90.00	358.97	6,146.0	3,237.0	-58.0	3,237.6	0.00	0.00	0.00
9,200.0	90.00	358.97	6,146.0	3,277.0	-58.8	3,277.6	0.00	0.00	0.00
9,240.0	90.00	358.97	6,146.0	3,317.0	-59.5	3,317.6	0.00	0.00	0.00
9,280.0	90.00	358.97	6,146.0	3,357.0	-60.2	3,357.6	0.00	0.00	0.00
9,320.0	90.00	358.97	6,146.0	3,397.0	-60.9	3,397.6	0.00	0.00	0.00
9,360.0	90.00	358.97	6,146.0	3,437.0	-61.6	3,437.6	0.00	0.00	0.00
9,400.0	90.00	358.97	6,146.0	3,477.0	-62.3	3,477.6	0.00	0.00	0.00
9,440.0	90.00	358.97	6,146.0	3,517.0	-63.1	3,517.6	0.00	0.00	0.00
9,480.0	90.00	358.97	6,146.0	3,557.0	-63.8	3,557.6	0.00	0.00	0.00
9,520.0	90.00	358.97	6,146.0	3,597.0	-64.5	3,597.6	0.00	0.00	0.00
9,560.0	90.00	358.97	6,146.0	3,637.0	-65.2	3,637.6	0.00	0.00	0.00
9,600.0	90.00	358.97	6,146.0	3,677.0	-65.9	3,677.6	0.00	0.00	0.00
9,640.0	90.00	358.97	6,146.0	3,717.0	-66.6	3,717.6	0.00	0.00	0.00
9,680.0	90.00	358.97	6,146.0	3,757.0	-67.4	3,757.6	0.00	0.00	0.00
9,720.0	90.00	358.97	6,146.0	3,796.9	-68.1	3,797.6	0.00	0.00	0.00
9,760.0	90.00	358.97	6,146.0	3,836.9	-68.8	3,837.6	0.00	0.00	0.00
9,800.0	90.00	358.97	6,146.0	3,876.9	-69.5	3,877.6	0.00	0.00	0.00
9,840.0	90.00	358.97	6,146.0	3,916.9	-70.2	3,917.6	0.00	0.00	0.00
9,880.0	90.00	358.97	6,146.0	3,956.9	-71.0	3,957.6	0.00	0.00	0.00
9,920.0	90.00	358.97	6,146.0	3,996.9	-71.7	3,997.6	0.00	0.00	0.00
9,960.0	90.00	358.97	6,146.0	4,036.9	-72.4	4,037.6	0.00	0.00	0.00
10,000.0	90.00	358.97	6,146.0	4,076.9	-73.1	4,077.6	0.00	0.00	0.00
10,040.0	90.00	358.97	6,146.0	4,116.9	-73.8	4,117.6	0.00	0.00	0.00
10,080.0	90.00	358.97	6,146.0	4,156.9	-74.5	4,157.6	0.00	0.00	0.00
10,120.0	90.00	358.97	6,146.0	4,196.9	-75.3	4,197.6	0.00	0.00	0.00
10,160.0	90.00	358.97	6,146.0	4,236.9	-76.0	4,237.6	0.00	0.00	0.00
10,200.0	90.00	358.97	6,146.0	4,276.9	-76.7	4,277.6	0.00	0.00	0.00
10,240.0	90.00	358.97	6,146.0	4,316.9	-77.4	4,317.6	0.00	0.00	0.00
10,280.0	90.00	358.97	6,146.0	4,356.9	-78.1	4,357.6	0.00	0.00	0.00
10,320.0	90.00	358.97	6,146.0	4,396.9	-78.8	4,397.6	0.00	0.00	0.00



<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Wolf #35-2623H
<b>Company:</b>	Whiting Oil & Gas	<b>TVD Reference:</b>	WELL @ 5021.3ft (RKB Ensign 14 - 15')
<b>Project:</b>	SEC.35-T10N-R59W	<b>MD Reference:</b>	WELL @ 5021.3ft (RKB Ensign 14 - 15')
<b>Site:</b>	Wolf Pad Sec.35-T10N-R59W	<b>North Reference:</b>	True
<b>Well:</b>	Wolf #35-2623H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (9-1-11)		

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)
10,360.0	90.00	358.97	6,146.0	4,436.8	-79.6	4,437.6	0.00	0.00	0.00
10,400.0	90.00	358.97	6,146.0	4,476.8	-80.3	4,477.6	0.00	0.00	0.00
10,440.0	90.00	358.97	6,146.0	4,516.8	-81.0	4,517.6	0.00	0.00	0.00
10,480.0	90.00	358.97	6,146.0	4,556.8	-81.7	4,557.6	0.00	0.00	0.00
10,520.0	90.00	358.97	6,146.0	4,596.8	-82.4	4,597.6	0.00	0.00	0.00
10,560.0	90.00	358.97	6,146.0	4,636.8	-83.1	4,637.6	0.00	0.00	0.00
10,600.0	90.00	358.97	6,146.0	4,676.8	-83.9	4,677.6	0.00	0.00	0.00
10,640.0	90.00	358.97	6,146.0	4,716.8	-84.6	4,717.6	0.00	0.00	0.00
10,680.0	90.00	358.97	6,146.0	4,756.8	-85.3	4,757.6	0.00	0.00	0.00
10,720.0	90.00	358.97	6,146.0	4,796.8	-86.0	4,797.6	0.00	0.00	0.00
10,760.0	90.00	358.97	6,146.0	4,836.8	-86.7	4,837.6	0.00	0.00	0.00
10,800.0	90.00	358.97	6,146.0	4,876.8	-87.4	4,877.6	0.00	0.00	0.00
10,840.0	90.00	358.97	6,146.0	4,916.8	-88.2	4,917.6	0.00	0.00	0.00
10,880.0	90.00	358.97	6,146.0	4,956.8	-88.9	4,957.6	0.00	0.00	0.00
10,920.0	90.00	358.97	6,146.0	4,996.8	-89.6	4,997.6	0.00	0.00	0.00
10,960.0	90.00	358.97	6,146.0	5,036.8	-90.3	5,037.6	0.00	0.00	0.00
11,000.0	90.00	358.97	6,146.0	5,076.7	-91.0	5,077.6	0.00	0.00	0.00
11,040.0	90.00	358.97	6,146.0	5,116.7	-91.7	5,117.6	0.00	0.00	0.00
11,080.0	90.00	358.97	6,146.0	5,156.7	-92.5	5,157.6	0.00	0.00	0.00
11,120.0	90.00	358.97	6,146.0	5,196.7	-93.2	5,197.6	0.00	0.00	0.00
11,160.0	90.00	358.97	6,146.0	5,236.7	-93.9	5,237.6	0.00	0.00	0.00
11,200.0	90.00	358.97	6,146.0	5,276.7	-94.6	5,277.6	0.00	0.00	0.00
11,240.0	90.00	358.97	6,146.0	5,316.7	-95.3	5,317.6	0.00	0.00	0.00
11,280.0	90.00	358.97	6,146.0	5,356.7	-96.1	5,357.6	0.00	0.00	0.00
11,320.0	90.00	358.97	6,146.0	5,396.7	-96.8	5,397.6	0.00	0.00	0.00
11,360.0	90.00	358.97	6,146.0	5,436.7	-97.5	5,437.6	0.00	0.00	0.00
11,400.0	90.00	358.97	6,146.0	5,476.7	-98.2	5,477.6	0.00	0.00	0.00
11,440.0	90.00	358.97	6,146.0	5,516.7	-98.9	5,517.6	0.00	0.00	0.00
11,480.0	90.00	358.97	6,146.0	5,556.7	-99.6	5,557.6	0.00	0.00	0.00
11,520.0	90.00	358.97	6,146.0	5,596.7	-100.4	5,597.6	0.00	0.00	0.00
11,560.0	90.00	358.97	6,146.0	5,636.7	-101.1	5,637.6	0.00	0.00	0.00
11,600.0	90.00	358.97	6,146.0	5,676.6	-101.8	5,677.6	0.00	0.00	0.00
11,640.0	90.00	358.97	6,146.0	5,716.6	-102.5	5,717.6	0.00	0.00	0.00
11,680.0	90.00	358.97	6,146.0	5,756.6	-103.2	5,757.6	0.00	0.00	0.00
11,720.0	90.00	358.97	6,146.0	5,796.6	-103.9	5,797.6	0.00	0.00	0.00
11,760.0	90.00	358.97	6,146.0	5,836.6	-104.7	5,837.6	0.00	0.00	0.00
11,800.0	90.00	358.97	6,146.0	5,876.6	-105.4	5,877.6	0.00	0.00	0.00
11,840.0	90.00	358.97	6,146.0	5,916.6	-106.1	5,917.6	0.00	0.00	0.00
11,880.0	90.00	358.97	6,146.0	5,956.6	-106.8	5,957.6	0.00	0.00	0.00
11,920.0	90.00	358.97	6,146.0	5,996.6	-107.5	5,997.6	0.00	0.00	0.00
11,960.0	90.00	358.97	6,146.0	6,036.6	-108.2	6,037.6	0.00	0.00	0.00
12,000.0	90.00	358.97	6,146.0	6,076.6	-109.0	6,077.6	0.00	0.00	0.00
12,040.0	90.00	358.97	6,146.0	6,116.6	-109.7	6,117.6	0.00	0.00	0.00
12,080.0	90.00	358.97	6,146.0	6,156.6	-110.4	6,157.6	0.00	0.00	0.00
12,120.0	90.00	358.97	6,146.0	6,196.6	-111.1	6,197.6	0.00	0.00	0.00
12,160.0	90.00	358.97	6,146.0	6,236.6	-111.8	6,237.6	0.00	0.00	0.00
12,200.0	90.00	358.97	6,146.0	6,276.6	-112.5	6,277.6	0.00	0.00	0.00
12,240.0	90.00	358.97	6,146.0	6,316.5	-113.3	6,317.6	0.00	0.00	0.00
12,280.0	90.00	358.97	6,146.0	6,356.5	-114.0	6,357.6	0.00	0.00	0.00
12,320.0	90.00	358.97	6,146.0	6,396.5	-114.7	6,397.6	0.00	0.00	0.00
12,360.0	90.00	358.97	6,146.0	6,436.5	-115.4	6,437.6	0.00	0.00	0.00
12,400.0	90.00	358.97	6,146.0	6,476.5	-116.1	6,477.6	0.00	0.00	0.00
12,440.0	90.00	358.97	6,146.0	6,516.5	-116.8	6,517.6	0.00	0.00	0.00
12,480.0	90.00	358.97	6,146.0	6,556.5	-117.6	6,557.6	0.00	0.00	0.00

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Wolf #35-2623H
<b>Company:</b>	Whiting Oil & Gas	<b>TVD Reference:</b>	WELL @ 5021.3ft (RKB Ensign 14 - 15')
<b>Project:</b>	SEC.35-T10N-R59W	<b>MD Reference:</b>	WELL @ 5021.3ft (RKB Ensign 14 - 15')
<b>Site:</b>	Wolf Pad Sec.35-T10N-R59W	<b>North Reference:</b>	True
<b>Well:</b>	Wolf #35-2623H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (9-1-11)		

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)	
12,520.0	90.00	358.97	6,146.0	6,596.5	-118.3	6,597.6	0.00	0.00	0.00	
12,560.0	90.00	358.97	6,146.0	6,636.5	-119.0	6,637.6	0.00	0.00	0.00	
12,600.0	90.00	358.97	6,146.0	6,676.5	-119.7	6,677.6	0.00	0.00	0.00	
12,640.0	90.00	358.97	6,146.0	6,716.5	-120.4	6,717.6	0.00	0.00	0.00	
12,680.0	90.00	358.97	6,146.0	6,756.5	-121.2	6,757.6	0.00	0.00	0.00	
12,720.0	90.00	358.97	6,146.0	6,796.5	-121.9	6,797.6	0.00	0.00	0.00	
12,760.0	90.00	358.97	6,146.0	6,836.5	-122.6	6,837.6	0.00	0.00	0.00	
12,800.0	90.00	358.97	6,146.0	6,876.5	-123.3	6,877.6	0.00	0.00	0.00	
12,840.0	90.00	358.97	6,146.0	6,916.4	-124.0	6,917.6	0.00	0.00	0.00	
12,871.1	90.00	358.97	6,146.0	6,947.6	-124.6	6,948.7	0.00	0.00	0.00	
TARGET BHL 1994'FSL & 1991'FWL Sec.26										

Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude	
- hit/miss target										
- Shape										
TARGET BHL 1994'F:	0.00	0.00	6,146.0	6,947.6	-124.6	1,540,667.65	3,429,509.02	40.807200	-103.948436	
- plan hits target center										
- Point										
HARDLINES SHL 66C	0.00	0.00	1.0	340.0	-500.0	1,534,054.54	3,429,249.30	40.789064	-103.949792	
- plan misses target center by 604.7ft at 1.0ft MD (1.0 TVD, 0.0 N, 0.0 E)										
- Polygon										
Point 1			1.0	0.0	0.0	1,534,054.54	3,429,249.30			
Point 2			1.0	0.0	1,000.0	1,534,072.04	3,430,249.14			

Casing Points						
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")		
6,442.6	6,146.0	7"	7	7-1/2		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
6,074.8	6,021.0	NIOBRARA		0.00		

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Comment	
5,625.1	5,625.1	0.0	0.0	KOP	
6,443.3	6,146.0	520.8	-9.3	End of Build	