

# Whiting Oil & Gas

Well Name: **WILDHORSE 02-0214H**

Surface Location: WILDHORSE 02-0214H  
North American Datum 1983, US State Plane 1983, Colorado Northern Zone  
Ground Elevation: 5003.0

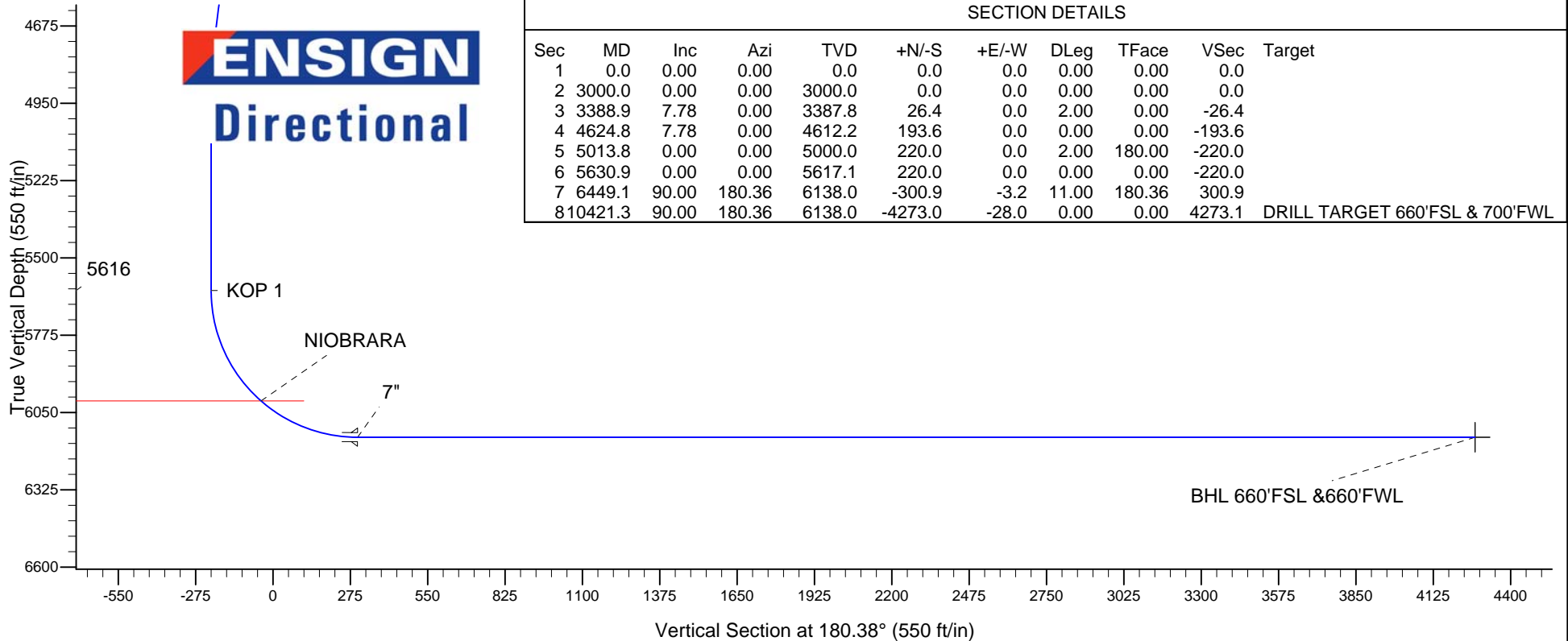
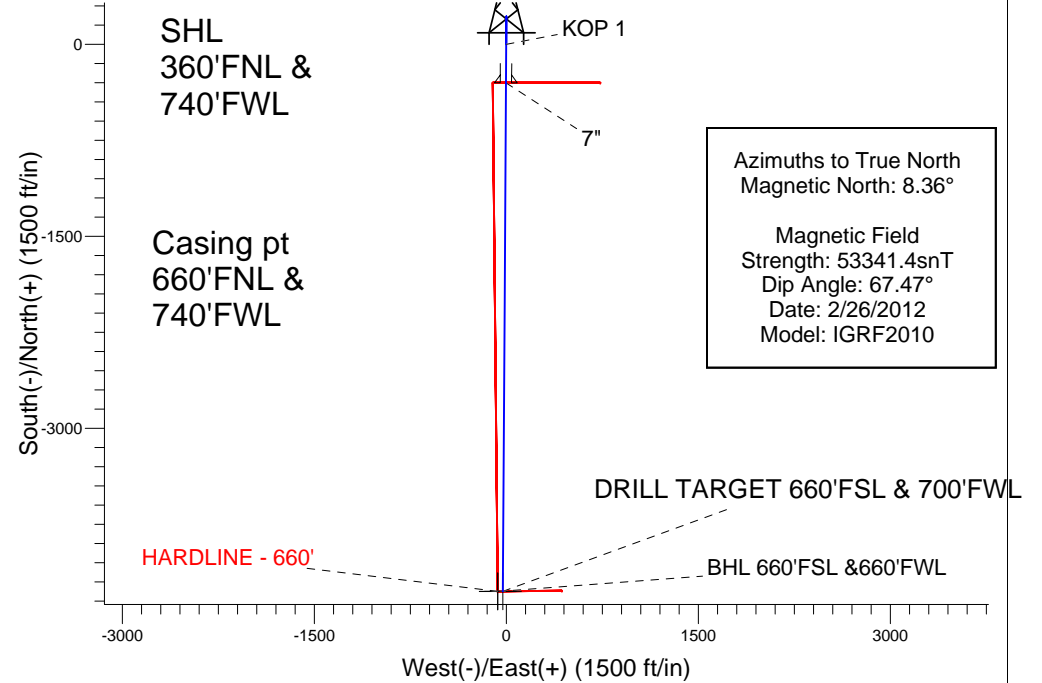
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1533007.03	3428571.21	40.786222	-103.952306	

RIG KB EST 15' RKB @ 5018.0ft (RIG KB EST 15')

WILDHORSE 02-0214H  
WILDHORSE 02-0214H  
PLAN 2 (MAR 21 2012)  
14:15, March 21 2012

## WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
HARDLINE - 660'	2.0	-4273.0	-68.0	40.774494	-103.952552	Polygon
BHL 660'FSL & 660'FWL	6138.0	-4273.7	-68.4	40.774492	-103.952553	Point
DRILL TARGET 660'FSL & 700'FWL	6138.0	-4273.0	-28.0	40.774494	-103.952407	Point





## **Directional**

### **Whiting Oil & Gas**

**SEC.2-T9N-R59W**

**WILDHORSE 02-0214H**

**WILDHORSE 02-0214H**

**Wellbore #1**

**Plan: PLAN 2 (MAR 21 2012)**

### **Standard Planning Report**

**21 March, 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	
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
3,388.9	7.78	0.00	3,387.8	26.4	0.0	2.00	2.00	0.00	0.00	
4,624.8	7.78	0.00	4,612.2	193.6	0.0	0.00	0.00	0.00	0.00	
5,013.8	0.00	0.00	5,000.0	220.0	0.0	2.00	-2.00	0.00	180.00	
5,630.9	0.00	0.00	5,617.1	220.0	0.0	0.00	0.00	0.00	0.00	
6,449.1	90.00	180.36	6,138.0	-300.9	-3.2	11.00	11.00	0.00	180.36	
10,421.3	90.00	180.36	6,138.0	-4,273.0	-28.0	0.00	0.00	0.00	0.00	DRILL TARGET 66

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well WILDHORSE 02-0214H
<b>Company:</b>	Whiting Oil & Gas	<b>TVD Reference:</b>	RKB @ 5018.0ft (RIG KB EST 15')
<b>Project:</b>	SEC.2-T9N-R59W	<b>MD Reference:</b>	RKB @ 5018.0ft (RIG KB EST 15')
<b>Site:</b>	WILDHORSE 02-0214H	<b>North Reference:</b>	True
<b>Well:</b>	WILDHORSE 02-0214H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	PLAN 2 (MAR 21 2012)		

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
100.0	0.00	0.00	100.0	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
300.0	0.00	0.00	300.0	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
500.0	0.00	0.00	500.0	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
700.0	0.00	0.00	700.0	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
900.0	0.00	0.00	900.0	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
1,100.0	0.00	0.00	1,100.0	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
1,300.0	0.00	0.00	1,300.0	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
1,500.0	0.00	0.00	1,500.0	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
1,700.0	0.00	0.00	1,700.0	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
1,900.0	0.00	0.00	1,900.0	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
2,100.0	0.00	0.00	2,100.0	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
2,300.0	0.00	0.00	2,300.0	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
2,500.0	0.00	0.00	2,500.0	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
2,700.0	0.00	0.00	2,700.0	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
2,900.0	0.00	0.00	2,900.0	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
<b>KOP 1</b>									
3,100.0	2.00	0.00	3,100.0	1.7	0.0	-1.7	2.00	2.00	0.00
3,200.0	4.00	0.00	3,199.8	7.0	0.0	-7.0	2.00	2.00	0.00
3,300.0	6.00	0.00	3,299.5	15.7	0.0	-15.7	2.00	2.00	0.00
3,388.9	7.78	0.00	3,387.8	26.4	0.0	-26.4	2.00	2.00	0.00
3,400.0	7.78	0.00	3,398.7	27.9	0.0	-27.9	0.00	0.00	0.00
3,500.0	7.78	0.00	3,497.8	41.4	0.0	-41.4	0.00	0.00	0.00
3,600.0	7.78	0.00	3,596.9	54.9	0.0	-54.9	0.00	0.00	0.00
3,700.0	7.78	0.00	3,695.9	68.5	0.0	-68.5	0.00	0.00	0.00
3,800.0	7.78	0.00	3,795.0	82.0	0.0	-82.0	0.00	0.00	0.00
3,900.0	7.78	0.00	3,894.1	95.5	0.0	-95.5	0.00	0.00	0.00
4,000.0	7.78	0.00	3,993.2	109.1	0.0	-109.1	0.00	0.00	0.00
4,100.0	7.78	0.00	4,092.3	122.6	0.0	-122.6	0.00	0.00	0.00
4,200.0	7.78	0.00	4,191.3	136.1	0.0	-136.1	0.00	0.00	0.00
4,300.0	7.78	0.00	4,290.4	149.7	0.0	-149.7	0.00	0.00	0.00
4,400.0	7.78	0.00	4,389.5	163.2	0.0	-163.2	0.00	0.00	0.00
4,500.0	7.78	0.00	4,488.6	176.7	0.0	-176.7	0.00	0.00	0.00
4,600.0	7.78	0.00	4,587.7	190.3	0.0	-190.3	0.00	0.00	0.00
4,624.8	7.78	0.00	4,612.2	193.6	0.0	-193.6	0.00	0.00	0.00
4,700.0	6.28	0.00	4,686.9	202.8	0.0	-202.8	2.00	-2.00	0.00
4,800.0	4.28	0.00	4,786.4	212.0	0.0	-212.0	2.00	-2.00	0.00
4,900.0	2.28	0.00	4,886.3	217.7	0.0	-217.7	2.00	-2.00	0.00
5,000.0	0.28	0.00	4,986.2	220.0	0.0	-220.0	2.00	-2.00	0.00

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<b>Company:</b>	Whiting Oil & Gas	<b>TVD Reference:</b>	RKB @ 5018.0ft (RIG KB EST 15')
<b>Project:</b>	SEC.2-T9N-R59W	<b>MD Reference:</b>	RKB @ 5018.0ft (RIG KB EST 15')
<b>Site:</b>	WILDHORSE 02-0214H	<b>North Reference:</b>	True
<b>Well:</b>	WILDHORSE 02-0214H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	PLAN 2 (MAR 21 2012)		

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)
5,013.8	0.00	0.00	5,000.0	220.0	0.0	-220.0	2.00	-2.00	0.00
5,100.0	0.00	0.00	5,086.2	220.0	0.0	-220.0	0.00	0.00	0.00
5,200.0	0.00	0.00	5,186.2	220.0	0.0	-220.0	0.00	0.00	0.00
5,300.0	0.00	0.00	5,286.2	220.0	0.0	-220.0	0.00	0.00	0.00
5,400.0	0.00	0.00	5,386.2	220.0	0.0	-220.0	0.00	0.00	0.00
5,500.0	0.00	0.00	5,486.2	220.0	0.0	-220.0	0.00	0.00	0.00
5,600.0	0.00	0.00	5,586.2	220.0	0.0	-220.0	0.00	0.00	0.00
5,630.0	0.00	0.00	5,616.2	220.0	0.0	-220.0	0.00	0.00	0.00
<b>KOP 1</b>									
5,630.9	0.00	0.00	5,617.1	220.0	0.0	-220.0	0.00	0.00	0.00
5,700.0	7.60	180.36	5,686.0	215.4	0.0	-215.4	11.00	11.00	0.00
5,800.0	18.60	180.36	5,783.3	192.8	-0.2	-192.8	11.00	11.00	0.00
5,900.0	29.60	180.36	5,874.4	152.0	-0.4	-152.0	11.00	11.00	0.00
6,000.0	40.60	180.36	5,956.1	94.6	-0.8	-94.6	11.00	11.00	0.00
6,074.5	48.79	180.36	6,009.0	42.3	-1.1	-42.3	11.00	11.00	0.00
<b>NI0BRARA</b>									
6,100.0	51.60	180.36	6,025.3	22.7	-1.2	-22.6	11.00	11.00	0.00
6,200.0	62.60	180.36	6,079.6	-61.2	-1.8	61.2	11.00	11.00	0.00
6,300.0	73.60	180.36	6,116.8	-153.8	-2.3	153.8	11.00	11.00	0.00
6,400.0	84.60	180.36	6,135.7	-251.9	-2.9	251.9	11.00	11.00	0.00
6,449.0	89.99	180.36	6,138.0	-300.8	-3.2	300.8	11.00	11.00	0.00
<b>7"</b>									
6,449.1	90.00	180.36	6,138.0	-300.9	-3.2	300.9	11.00	11.00	0.00
6,500.0	90.00	180.36	6,138.0	-351.8	-3.6	351.8	0.00	0.00	0.00
6,600.0	90.00	180.36	6,138.0	-451.8	-4.2	451.8	0.00	0.00	0.00
6,700.0	90.00	180.36	6,138.0	-551.8	-4.8	551.8	0.00	0.00	0.00
6,800.0	90.00	180.36	6,138.0	-651.8	-5.4	651.8	0.00	0.00	0.00
6,900.0	90.00	180.36	6,138.0	-751.8	-6.1	751.8	0.00	0.00	0.00
7,000.0	90.00	180.36	6,138.0	-851.8	-6.7	851.8	0.00	0.00	0.00
7,100.0	90.00	180.36	6,138.0	-951.8	-7.3	951.8	0.00	0.00	0.00
7,200.0	90.00	180.36	6,138.0	-1,051.8	-7.9	1,051.8	0.00	0.00	0.00
7,300.0	90.00	180.36	6,138.0	-1,151.8	-8.5	1,151.8	0.00	0.00	0.00
7,400.0	90.00	180.36	6,138.0	-1,251.8	-9.2	1,251.8	0.00	0.00	0.00
7,500.0	90.00	180.36	6,138.0	-1,351.8	-9.8	1,351.8	0.00	0.00	0.00
7,600.0	90.00	180.36	6,138.0	-1,451.8	-10.4	1,451.8	0.00	0.00	0.00
7,700.0	90.00	180.36	6,138.0	-1,551.8	-11.0	1,551.8	0.00	0.00	0.00
7,800.0	90.00	180.36	6,138.0	-1,651.8	-11.7	1,651.8	0.00	0.00	0.00
7,900.0	90.00	180.36	6,138.0	-1,751.8	-12.3	1,751.8	0.00	0.00	0.00
8,000.0	90.00	180.36	6,138.0	-1,851.8	-12.9	1,851.8	0.00	0.00	0.00
8,100.0	90.00	180.36	6,138.0	-1,951.8	-13.5	1,951.8	0.00	0.00	0.00
8,200.0	90.00	180.36	6,138.0	-2,051.8	-14.2	2,051.8	0.00	0.00	0.00
8,300.0	90.00	180.36	6,138.0	-2,151.8	-14.8	2,151.8	0.00	0.00	0.00
8,400.0	90.00	180.36	6,138.0	-2,251.8	-15.4	2,251.8	0.00	0.00	0.00
8,500.0	90.00	180.36	6,138.0	-2,351.7	-16.0	2,351.8	0.00	0.00	0.00
8,600.0	90.00	180.36	6,138.0	-2,451.7	-16.7	2,451.8	0.00	0.00	0.00
8,700.0	90.00	180.36	6,138.0	-2,551.7	-17.3	2,551.8	0.00	0.00	0.00
8,800.0	90.00	180.36	6,138.0	-2,651.7	-17.9	2,651.8	0.00	0.00	0.00
8,900.0	90.00	180.36	6,138.0	-2,751.7	-18.5	2,751.8	0.00	0.00	0.00
9,000.0	90.00	180.36	6,138.0	-2,851.7	-19.1	2,851.8	0.00	0.00	0.00
9,100.0	90.00	180.36	6,138.0	-2,951.7	-19.8	2,951.8	0.00	0.00	0.00
9,200.0	90.00	180.36	6,138.0	-3,051.7	-20.4	3,051.8	0.00	0.00	0.00
9,300.0	90.00	180.36	6,138.0	-3,151.7	-21.0	3,151.8	0.00	0.00	0.00
9,400.0	90.00	180.36	6,138.0	-3,251.7	-21.6	3,251.8	0.00	0.00	0.00

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well WILDHORSE 02-0214H
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<b>Project:</b>	SEC.2-T9N-R59W	<b>MD Reference:</b>	RKB @ 5018.0ft (RIG KB EST 15')
<b>Site:</b>	WILDHORSE 02-0214H	<b>North Reference:</b>	True
<b>Well:</b>	WILDHORSE 02-0214H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	PLAN 2 (MAR 21 2012)		

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)	
9,500.0	90.00	180.36	6,138.0	-3,351.7	-22.3	3,351.8	0.00	0.00	0.00	
9,600.0	90.00	180.36	6,138.0	-3,451.7	-22.9	3,451.8	0.00	0.00	0.00	
9,700.0	90.00	180.36	6,138.0	-3,551.7	-23.5	3,551.8	0.00	0.00	0.00	
9,800.0	90.00	180.36	6,138.0	-3,651.7	-24.1	3,651.8	0.00	0.00	0.00	
9,900.0	90.00	180.36	6,138.0	-3,751.7	-24.8	3,751.8	0.00	0.00	0.00	
10,000.0	90.00	180.36	6,138.0	-3,851.7	-25.4	3,851.8	0.00	0.00	0.00	
10,100.0	90.00	180.36	6,138.0	-3,951.7	-26.0	3,951.8	0.00	0.00	0.00	
10,200.0	90.00	180.36	6,138.0	-4,051.7	-26.6	4,051.8	0.00	0.00	0.00	
10,300.0	90.00	180.36	6,138.0	-4,151.7	-27.2	4,151.8	0.00	0.00	0.00	
10,400.0	90.00	180.36	6,138.0	-4,251.7	-27.9	4,251.8	0.00	0.00	0.00	
10,421.3	90.00	180.36	6,138.0	-4,273.0	-28.0	4,273.1	0.00	0.00	0.00	

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name		Casing Diameter (")	Hole Diameter (")
6,449.0	6,138.0	7"		7	8-3/4

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
3,000.0	3,000.0	0.0	0.0	KOP 1	
5,630.0	5,616.2	220.0	0.0	KOP 1	