

# Red Hawk Petroleum, LLC.

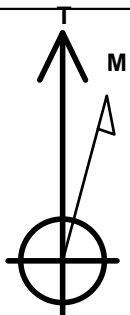
Well Name: **Green 1-6H**

Surface Location: Green 1-4H Pad Sec.1-T7N-R60W  
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone  
Ground Elevation: 4927.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1464001.97	3406475.58	40.597874	-104.036198	
RKB - 20' WELL @ 4947.0ft (RKB - 20')						

## WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape Point
SHL 250'FSL & 1430'FEL	1.0	0.0	0.0	Point
BHL 600'FNL & 888'FEL	6230.0	4399.5	628.6	Point
Landing Pt. 300'FSL & 1061'FEL	6230.0	50.3	369.9	Point



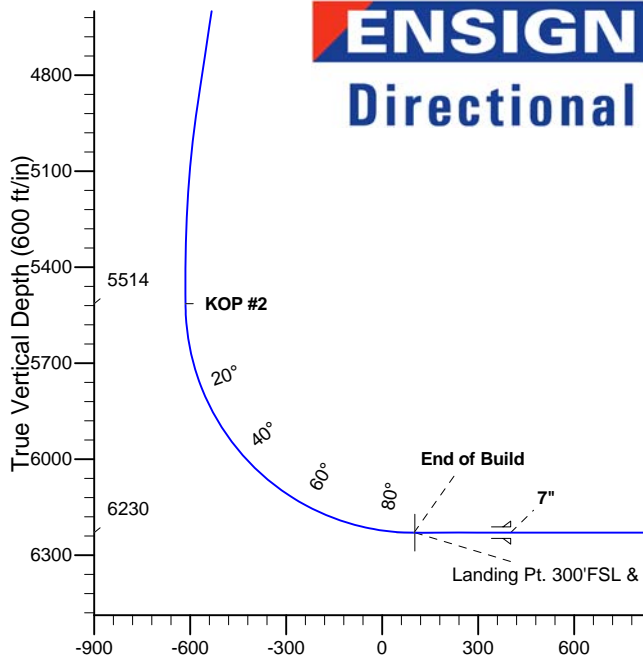
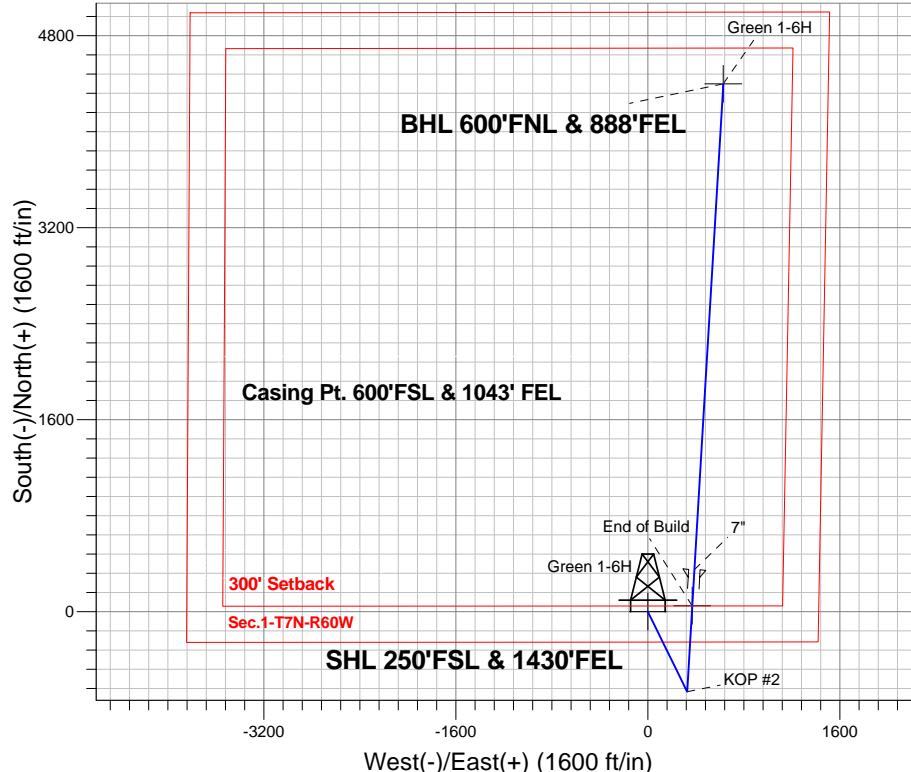
Azimuths to True North  
Magnetic North: 8.09°

Magnetic Field  
Strength: 53007.0nT  
Dip Angle: 67.23°  
Date: 4/23/2014  
Model: IGRF2010

Green 1-4H Pad Sec.1-T7N-R60W  
Green 1-6H  
Plan #4 (5-14-14)  
13:05, May 15 2014

## ANNOTATIONS

TVD	MD	Annotation
800.0	800.0	KOP #1
5513.8	5578.1	KOP #2
6230.0	6703.1	End of Build



**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	800.0	0.00	0.00	800.0	0.0	0.0	0.00	0.00	0.0	
3	1315.7	10.31	153.86	1312.9	-41.6	20.4	2.00	153.86	-38.3	
4	4948.6	10.31	153.86	4887.1	-625.4	306.9	0.00	0.00	-575.8	
5	5464.3	0.00	0.00	5400.0	-667.0	327.3	2.00	180.00	-614.0	
6	5578.1	0.00	0.00	5513.8	-667.0	327.3	0.00	0.00	-614.0	
7	6703.1	90.00	3.40	6230.0	47.9	369.8	8.00	3.40	99.7	
8	6705.4	90.00	3.40	6230.0	50.3	369.9	0.00	0.00	102.1	Landing Pt. 300'FSL & 1061'FEL
9	11062.3	90.00	3.40	6230.0	4399.6	628.2	0.00	0.00	4444.2	BHL 600'FNL & 888'FEL

Vertical Section at 8.13° (600 ft/in)



## **Red Hawk Petroleum, LLC.**

**Sec.1-T7N-R60W**

**Green 1-4H Pad Sec.1-T7N-R60W**

**Green 1-6H**

**Wellbore #1**

**Plan: Plan #4 (5-14-14)**

## **Standard Planning Report**

**15 May, 2014**

<b>Database:</b>	landmark	<b>Local Co-ordinate Reference:</b>	Well Green 1-6H
<b>Company:</b>	Red Hawk Petroleum, LLC.	<b>TVD Reference:</b>	WELL @ 4947.0ft (RKB - 20')
<b>Project:</b>	Sec.1-T7N-R60W	<b>MD Reference:</b>	WELL @ 4947.0ft (RKB - 20')
<b>Site:</b>	Green 1-4H Pad Sec.1-T7N-R60W	<b>North Reference:</b>	True
<b>Well:</b>	Green 1-6H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #4 (5-14-14)		

<b>Project</b>	Sec.1-T7N-R60W, 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						Green 1-4H Pad Sec.1-T7N-R60W											
Site Position:						Northing:			1,464,001.01 ft			Latitude:			40.597874		
From:			Lat/Long			Easting:			3,406,415.33ft			Longitude:			-104.036415		
Position Uncertainty:			0.0 ft			Slot Radius:			"			Grid Convergence:			0.95 °		

Well	Green 1-6H					
Well Position	+N/-S	0.0 ft	Northing:	1,464,001.97 ft	Latitude:	40.597874
	+E/-W	60.3 ft	Easting:	3,406,475.58 ft	Longitude:	-104.036198
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,927.0 ft

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	4/23/2014	8.10	67.23	53,007

<b>Design</b>	Plan #4 (5-14-14)			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.0	0.0	0.0	8.13

<b>Plan Sections</b>										
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	
800.0	0.00	0.00	800.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,315.7	10.31	153.86	1,312.9	-41.6	20.4	2.00	2.00	0.00	153.86	
4,948.6	10.31	153.86	4,887.1	-625.4	306.9	0.00	0.00	0.00	0.00	
5,464.3	0.00	0.00	5,400.0	-667.0	327.3	2.00	-2.00	0.00	180.00	
5,578.1	0.00	0.00	5,513.8	-667.0	327.3	0.00	0.00	0.00	0.00	
6,703.1	90.00	3.40	6,230.0	47.9	369.8	8.00	8.00	0.00	3.40	
6,705.4	90.00	3.40	6,230.0	50.3	369.9	0.00	0.00	0.00	0.00	Landing Pt. 300'FSI
11,062.3	90.00	3.40	6,230.0	4,399.6	628.2	0.00	0.00	0.00	0.00	BHL 600'FNL & 88%

<b>Database:</b>	landmark	<b>Local Co-ordinate Reference:</b>	Well Green 1-6H
<b>Company:</b>	Red Hawk Petroleum, LLC.	<b>TVD Reference:</b>	WELL @ 4947.0ft (RKB - 20')
<b>Project:</b>	Sec.1-T7N-R60W	<b>MD Reference:</b>	WELL @ 4947.0ft (RKB - 20')
<b>Site:</b>	Green 1-4H Pad Sec.1-T7N-R60W	<b>North Reference:</b>	True
<b>Well:</b>	Green 1-6H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #4 (5-14-14)		

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
<b>KOP #1</b>									
900.0	2.00	153.86	900.0	-1.6	0.8	-1.4	2.00	2.00	0.00
1,000.0	4.00	153.86	999.8	-6.3	3.1	-5.8	2.00	2.00	0.00
1,100.0	6.00	153.86	1,099.5	-14.1	6.9	-13.0	2.00	2.00	0.00
1,200.0	8.00	153.86	1,198.7	-25.0	12.3	-23.0	2.00	2.00	0.00
1,300.0	10.00	153.86	1,297.5	-39.1	19.2	-36.0	2.00	2.00	0.00
1,315.7	10.31	153.86	1,312.9	-41.6	20.4	-38.3	2.00	2.00	0.00
1,400.0	10.31	153.86	1,395.9	-55.1	27.0	-50.7	0.00	0.00	0.00
1,500.0	10.31	153.86	1,494.2	-71.2	34.9	-65.5	0.00	0.00	0.00
1,600.0	10.31	153.86	1,592.6	-87.3	42.8	-80.3	0.00	0.00	0.00
1,700.0	10.31	153.86	1,691.0	-103.3	50.7	-95.1	0.00	0.00	0.00
1,800.0	10.31	153.86	1,789.4	-119.4	58.6	-109.9	0.00	0.00	0.00
1,900.0	10.31	153.86	1,887.8	-135.5	66.5	-124.7	0.00	0.00	0.00
2,000.0	10.31	153.86	1,986.2	-151.5	74.4	-139.5	0.00	0.00	0.00
2,100.0	10.31	153.86	2,084.5	-167.6	82.2	-154.3	0.00	0.00	0.00
2,200.0	10.31	153.86	2,182.9	-183.7	90.1	-169.1	0.00	0.00	0.00
2,300.0	10.31	153.86	2,281.3	-199.8	98.0	-183.9	0.00	0.00	0.00
2,400.0	10.31	153.86	2,379.7	-215.8	105.9	-198.7	0.00	0.00	0.00
2,500.0	10.31	153.86	2,478.1	-231.9	113.8	-213.5	0.00	0.00	0.00
2,600.0	10.31	153.86	2,576.5	-248.0	121.7	-228.3	0.00	0.00	0.00
2,700.0	10.31	153.86	2,674.9	-264.0	129.6	-243.1	0.00	0.00	0.00
2,800.0	10.31	153.86	2,773.2	-280.1	137.5	-257.9	0.00	0.00	0.00
2,900.0	10.31	153.86	2,871.6	-296.2	145.3	-272.7	0.00	0.00	0.00
3,000.0	10.31	153.86	2,970.0	-312.3	153.2	-287.5	0.00	0.00	0.00
3,100.0	10.31	153.86	3,068.4	-328.3	161.1	-302.3	0.00	0.00	0.00
3,200.0	10.31	153.86	3,166.8	-344.4	169.0	-317.1	0.00	0.00	0.00
3,300.0	10.31	153.86	3,265.2	-360.5	176.9	-331.9	0.00	0.00	0.00
3,400.0	10.31	153.86	3,363.5	-376.6	184.8	-346.7	0.00	0.00	0.00
3,500.0	10.31	153.86	3,461.9	-392.6	192.7	-361.4	0.00	0.00	0.00
3,600.0	10.31	153.86	3,560.3	-408.7	200.6	-376.2	0.00	0.00	0.00
3,700.0	10.31	153.86	3,658.7	-424.8	208.4	-391.0	0.00	0.00	0.00
3,800.0	10.31	153.86	3,757.1	-440.8	216.3	-405.8	0.00	0.00	0.00
3,900.0	10.31	153.86	3,855.5	-456.9	224.2	-420.6	0.00	0.00	0.00
4,000.0	10.31	153.86	3,953.9	-473.0	232.1	-435.4	0.00	0.00	0.00
4,100.0	10.31	153.86	4,052.2	-489.1	240.0	-450.2	0.00	0.00	0.00
4,200.0	10.31	153.86	4,150.6	-505.1	247.9	-465.0	0.00	0.00	0.00
4,300.0	10.31	153.86	4,249.0	-521.2	255.8	-479.8	0.00	0.00	0.00
4,400.0	10.31	153.86	4,347.4	-537.3	263.6	-494.6	0.00	0.00	0.00
4,500.0	10.31	153.86	4,445.8	-553.3	271.5	-509.4	0.00	0.00	0.00
4,600.0	10.31	153.86	4,544.2	-569.4	279.4	-524.2	0.00	0.00	0.00
4,700.0	10.31	153.86	4,642.5	-585.5	287.3	-539.0	0.00	0.00	0.00
4,800.0	10.31	153.86	4,740.9	-601.6	295.2	-553.8	0.00	0.00	0.00
4,900.0	10.31	153.86	4,839.3	-617.6	303.1	-568.6	0.00	0.00	0.00
4,948.6	10.31	153.86	4,887.1	-625.4	306.9	-575.8	0.00	0.00	0.00
5,000.0	9.29	153.86	4,937.8	-633.3	310.8	-583.0	2.00	-2.00	0.00

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<b>Site:</b>	Green 1-4H Pad Sec.1-T7N-R60W	<b>North Reference:</b>	True
<b>Well:</b>	Green 1-6H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #4 (5-14-14)		

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)
5,100.0	7.29	153.86	5,036.7	-646.2	317.1	-594.9	2.00	-2.00	0.00
5,200.0	5.29	153.86	5,136.1	-656.1	321.9	-604.0	2.00	-2.00	0.00
5,300.0	3.29	153.86	5,235.8	-662.8	325.2	-610.1	2.00	-2.00	0.00
5,400.0	1.29	153.86	5,335.7	-666.4	327.0	-613.4	2.00	-2.00	0.00
5,464.3	0.00	0.00	5,400.0	-667.0	327.3	-614.0	2.00	-2.00	0.00
5,500.0	0.00	0.00	5,435.7	-667.0	327.3	-614.0	0.00	0.00	0.00
5,578.1	0.00	0.00	5,513.8	-667.0	327.3	-614.0	0.00	0.00	0.00
<b>KOP #2</b>									
5,600.0	1.76	3.40	5,535.7	-666.7	327.3	-613.7	8.02	8.02	0.00
5,700.0	9.76	3.40	5,635.2	-656.7	327.9	-603.7	8.00	8.00	0.00
5,800.0	17.76	3.40	5,732.2	-632.9	329.3	-580.0	8.00	8.00	0.00
5,900.0	25.76	3.40	5,825.0	-596.0	331.5	-543.1	8.00	8.00	0.00
6,000.0	33.76	3.40	5,911.8	-546.5	334.5	-493.7	8.00	8.00	0.00
6,100.0	41.76	3.40	5,990.8	-485.4	338.1	-432.7	8.00	8.00	0.00
6,200.0	49.76	3.40	6,060.5	-413.9	342.3	-361.4	8.00	8.00	0.00
6,300.0	57.76	3.40	6,119.5	-333.5	347.1	-281.1	8.00	8.00	0.00
6,400.0	65.76	3.40	6,166.8	-245.6	352.3	-193.4	8.00	8.00	0.00
6,500.0	73.76	3.40	6,201.4	-152.1	357.9	-99.9	8.00	8.00	0.00
6,600.0	81.76	3.40	6,222.6	-54.6	363.7	-2.6	8.00	8.00	0.00
6,700.0	89.76	3.40	6,230.0	44.9	369.6	96.7	8.00	8.00	0.00
6,703.1	90.00	3.40	6,230.0	48.0	369.8	99.8	7.90	7.90	0.00
<b>End of Build</b>									
6,705.4	90.00	3.40	6,230.0	50.3	369.9	102.1	0.00	0.00	0.00
6,800.0	90.00	3.40	6,230.0	144.7	375.5	196.3	0.00	0.00	0.00
6,900.0	90.00	3.40	6,230.0	244.5	381.4	296.0	0.00	0.00	0.00
7,000.0	90.00	3.40	6,230.0	344.4	387.4	395.7	0.00	0.00	0.00
7,006.0	90.00	3.40	6,230.0	350.3	387.7	401.6	0.00	0.00	0.00
<b>7"</b>									
7,100.0	90.00	3.40	6,230.0	444.2	393.3	495.3	0.00	0.00	0.00
7,200.0	90.00	3.40	6,230.0	544.0	399.2	595.0	0.00	0.00	0.00
7,300.0	90.00	3.40	6,230.0	643.8	405.2	694.6	0.00	0.00	0.00
7,400.0	90.00	3.40	6,230.0	743.7	411.1	794.3	0.00	0.00	0.00
7,500.0	90.00	3.40	6,230.0	843.5	417.0	894.0	0.00	0.00	0.00
7,600.0	90.00	3.40	6,230.0	943.3	422.9	993.6	0.00	0.00	0.00
7,700.0	90.00	3.40	6,230.0	1,043.1	428.9	1,093.3	0.00	0.00	0.00
7,800.0	90.00	3.40	6,230.0	1,142.9	434.8	1,192.9	0.00	0.00	0.00
7,900.0	90.00	3.40	6,230.0	1,242.8	440.7	1,292.6	0.00	0.00	0.00
8,000.0	90.00	3.40	6,230.0	1,342.6	446.7	1,392.3	0.00	0.00	0.00
8,100.0	90.00	3.40	6,230.0	1,442.4	452.6	1,491.9	0.00	0.00	0.00
8,200.0	90.00	3.40	6,230.0	1,542.2	458.5	1,591.6	0.00	0.00	0.00
8,300.0	90.00	3.40	6,230.0	1,642.1	464.4	1,691.2	0.00	0.00	0.00
8,400.0	90.00	3.40	6,230.0	1,741.9	470.4	1,790.9	0.00	0.00	0.00
8,500.0	90.00	3.40	6,230.0	1,841.7	476.3	1,890.6	0.00	0.00	0.00
8,600.0	90.00	3.40	6,230.0	1,941.5	482.2	1,990.2	0.00	0.00	0.00
8,700.0	90.00	3.40	6,230.0	2,041.4	488.2	2,089.9	0.00	0.00	0.00
8,800.0	90.00	3.40	6,230.0	2,141.2	494.1	2,189.5	0.00	0.00	0.00
8,900.0	90.00	3.40	6,230.0	2,241.0	500.0	2,289.2	0.00	0.00	0.00
9,000.0	90.00	3.40	6,230.0	2,340.8	505.9	2,388.9	0.00	0.00	0.00
9,100.0	90.00	3.40	6,230.0	2,440.7	511.9	2,488.5	0.00	0.00	0.00
9,200.0	90.00	3.40	6,230.0	2,540.5	517.8	2,588.2	0.00	0.00	0.00
9,300.0	90.00	3.40	6,230.0	2,640.3	523.7	2,687.8	0.00	0.00	0.00
9,400.0	90.00	3.40	6,230.0	2,740.1	529.7	2,787.5	0.00	0.00	0.00
9,500.0	90.00	3.40	6,230.0	2,840.0	535.6	2,887.2	0.00	0.00	0.00

<b>Database:</b>	landmark	<b>Local Co-ordinate Reference:</b>	Well Green 1-6H
<b>Company:</b>	Red Hawk Petroleum, LLC.	<b>TVD Reference:</b>	WELL @ 4947.0ft (RKB - 20')
<b>Project:</b>	Sec.1-T7N-R60W	<b>MD Reference:</b>	WELL @ 4947.0ft (RKB - 20')
<b>Site:</b>	Green 1-4H Pad Sec.1-T7N-R60W	<b>North Reference:</b>	True
<b>Well:</b>	Green 1-6H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #4 (5-14-14)		

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)	
9,600.0	90.00	3.40	6,230.0	2,939.8	541.5	2,986.8	0.00	0.00	0.00	
9,700.0	90.00	3.40	6,230.0	3,039.6	547.4	3,086.5	0.00	0.00	0.00	
9,800.0	90.00	3.40	6,230.0	3,139.4	553.4	3,186.1	0.00	0.00	0.00	
9,900.0	90.00	3.40	6,230.0	3,239.3	559.3	3,285.8	0.00	0.00	0.00	
10,000.0	90.00	3.40	6,230.0	3,339.1	565.2	3,385.4	0.00	0.00	0.00	
10,100.0	90.00	3.40	6,230.0	3,438.9	571.2	3,485.1	0.00	0.00	0.00	
10,200.0	90.00	3.40	6,230.0	3,538.7	577.1	3,584.8	0.00	0.00	0.00	
10,300.0	90.00	3.40	6,230.0	3,638.6	583.0	3,684.4	0.00	0.00	0.00	
10,400.0	90.00	3.40	6,230.0	3,738.4	588.9	3,784.1	0.00	0.00	0.00	
10,500.0	90.00	3.40	6,230.0	3,838.2	594.9	3,883.7	0.00	0.00	0.00	
10,600.0	90.00	3.40	6,230.0	3,938.0	600.8	3,983.4	0.00	0.00	0.00	
10,700.0	90.00	3.40	6,230.0	4,037.8	606.7	4,083.1	0.00	0.00	0.00	
10,800.0	90.00	3.40	6,230.0	4,137.7	612.7	4,182.7	0.00	0.00	0.00	
10,900.0	90.00	3.40	6,230.0	4,237.5	618.6	4,282.4	0.00	0.00	0.00	
11,000.0	90.00	3.40	6,230.0	4,337.3	624.5	4,382.0	0.00	0.00	0.00	
11,062.3	90.00	3.40	6,230.0	4,399.6	628.2	4,444.2	0.00	0.00	0.00	

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
7,006.0	6,230.0	7"	7	7-1/2	

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
800.0	800.0	0.0	0.0	KOP #1	
5,578.1	5,513.8	-667.0	327.3	KOP #2	
6,703.1	6,230.0	48.0	369.8	End of Build	