



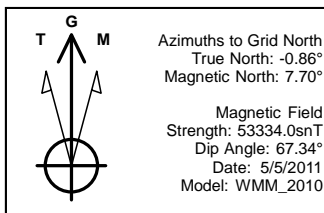
Company: Carrizo Oil & Gas  
 Site: Orlando Hill  
 Well: 26-44-8-61  
 Project: Weld County, Colorado (NAD83)  
 Rig Name: Cade 22



Planning: 936.442.2510 Fax: 936.442.2515  
 Operations: 936.442.2500 Fax: 936.442.2599

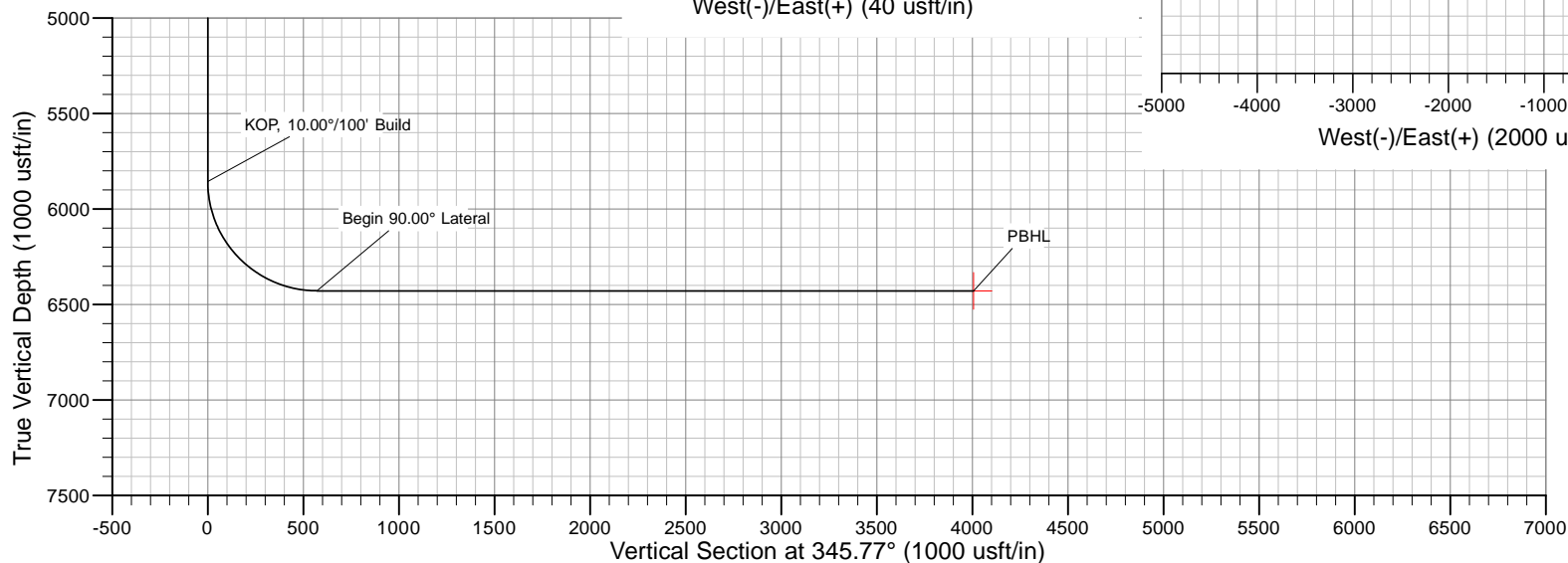
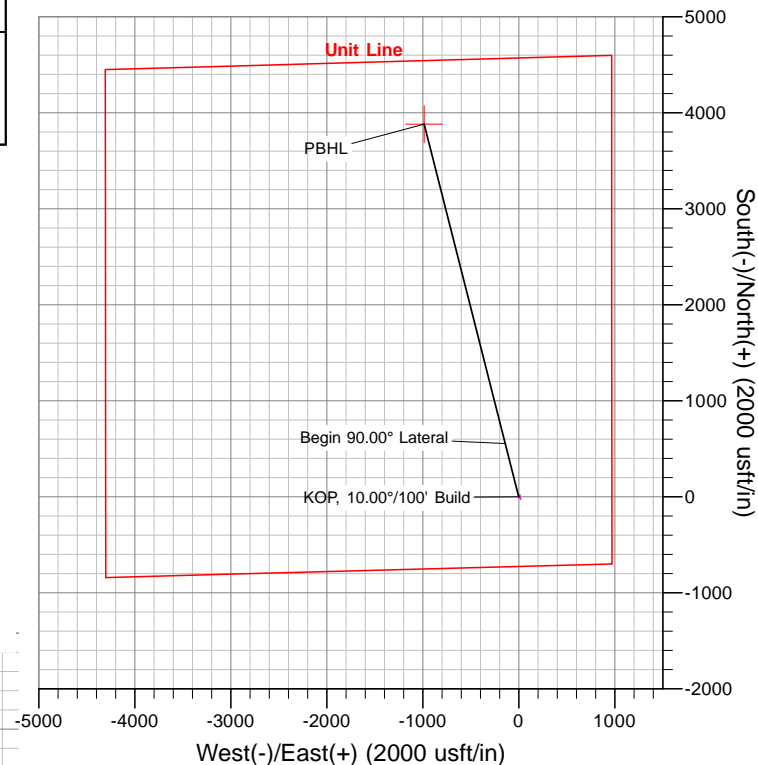
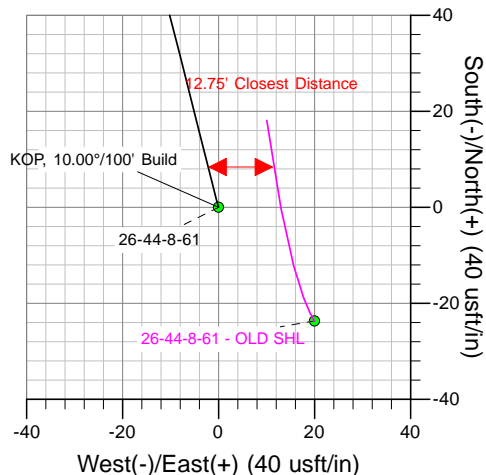
#### ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSect	Departure	Annotation
5856.04	0.00	0.00	5856.04	0.00	0.00	0.00	0.00	KOP, 10.00°/100' Build
6756.04	90.00	345.77	6429.00	555.38	-140.82	572.96	572.96	Begin 90.00° Lateral
10189.38	90.00	345.77	6429.00	3883.41	-984.66	4006.30	4006.30	PBHL



US State Plane 1983  
 Colorado Northern Zone

Created By: Vanessa Thom  
 Date: 11:14, May 05 2011  
 Plan: Design #3



The customer should only rely on this document after independently verifying all paths, targets, coordinates, lease and hard lines represented. Any decisions made or wells drilled utilizing this or any other information supplied by MS Energy are at the sole risk and responsibility of the customer. MS Energy is not responsible for the accuracy of this schematic or the information contained herein.



## **Carrizo Oil & Gas**

**Weld County, Colorado (NAD83)**

**Orlando Hill**

**26-44-8-61**

**Wellbore #1**

**Plan: Design #3**

## **Standard Planning Report**

**05 May, 2011**

<b>Database:</b>	Southern Region	<b>Local Co-ordinate Reference:</b>	Well 26-44-8-61
<b>Company:</b>	Carrizo Oil & Gas	<b>TVD Reference:</b>	WELL @ 4998.50usft (Cade 22)
<b>Project:</b>	Weld County, Colorado (NAD83)	<b>MD Reference:</b>	WELL @ 4998.50usft (Cade 22)
<b>Site:</b>	Orlando Hill	<b>North Reference:</b>	Grid
<b>Well:</b>	26-44-8-61	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #3		

<b>Project</b>	Weld County, Colorado (NAD83)		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Colorado Northern Zone		

<b>Well</b>	26-44-8-61			
<b>Well Position</b>	<b>+N/-S</b>	1,474,295.76 usft	<b>Northing:</b>	1,474,295.76 usft
	<b>+E/-W</b>	3,369,954.62 usft	<b>Easting:</b>	3,369,954.62 usft
<b>Position Uncertainty</b>		0.00 usft	<b>Wellhead Elevation:</b>	<b>Latitude:</b> 40° 37' 39.7423 N
				<b>Longitude:</b> 104° 10' 1.702 W
				<b>Ground Level:</b> 4,982.50 usft

<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>
	WMM_2010	5/5/2011	8.57	67.34	53,334

<b>Design</b>	Design #3				
<b>Audit Notes:</b>					
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b>	0.00	
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>	
	0.00	0.00	0.00	345.77	

<b>Plan Sections</b>										
<b>Measured Depth (usft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Dogleg Rate (°/100usft)</b>	<b>Build Rate (°/100usft)</b>	<b>Turn Rate (°/100usft)</b>	<b>TFO (°)</b>	<b>Target</b>
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
5,856.04	0.00	0.00	5,856.04	0.00	0.00	0.00	0.00	0.00	0.00	
6,756.04	90.00	345.77	6,429.00	555.38	-140.82	10.00	10.00	0.00	345.77	
10,189.38	90.00	345.77	6,429.00	3,883.41	-984.66	0.00	0.00	0.00	0.00	PBHL v3 - Orlando Hi

<b>Database:</b>	Southern Region	<b>Local Co-ordinate Reference:</b>	Well 26-44-8-61
<b>Company:</b>	Carrizo Oil & Gas	<b>TVD Reference:</b>	WELL @ 4998.50usft (Cade 22)
<b>Project:</b>	Weld County, Colorado (NAD83)	<b>MD Reference:</b>	WELL @ 4998.50usft (Cade 22)
<b>Site:</b>	Orlando Hill	<b>North Reference:</b>	Grid
<b>Well:</b>	26-44-8-61	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #3		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	0.00	0.00
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.00	0.00	0.00

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<b>Project:</b>	Weld County, Colorado (NAD83)	<b>MD Reference:</b>	WELL @ 4998.50usft (Cade 22)
<b>Site:</b>	Orlando Hill	<b>North Reference:</b>	Grid
<b>Well:</b>	26-44-8-61	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #3		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,400.00	0.00	0.00	5,400.00	0.00	0.00	0.00	0.00	0.00	0.00
5,500.00	0.00	0.00	5,500.00	0.00	0.00	0.00	0.00	0.00	0.00
5,600.00	0.00	0.00	5,600.00	0.00	0.00	0.00	0.00	0.00	0.00
5,700.00	0.00	0.00	5,700.00	0.00	0.00	0.00	0.00	0.00	0.00
5,800.00	0.00	0.00	5,800.00	0.00	0.00	0.00	0.00	0.00	0.00
5,856.04	0.00	0.00	5,856.04	0.00	0.00	0.00	0.00	0.00	0.00
<b>KOP, 10.00°/100' Build</b>									
5,900.00	4.40	345.77	5,899.96	1.63	-0.41	1.69	10.00	10.00	0.00
5,950.00	9.40	345.77	5,949.58	7.45	-1.89	7.69	10.00	10.00	0.00
6,000.00	14.40	345.77	5,998.49	17.44	-4.42	17.99	10.00	10.00	0.00
6,050.00	19.40	345.77	6,046.32	31.52	-7.99	32.52	10.00	10.00	0.00
6,100.00	24.40	345.77	6,092.70	49.59	-12.57	51.16	10.00	10.00	0.00
6,150.00	29.40	345.77	6,137.27	71.51	-18.13	73.77	10.00	10.00	0.00
6,200.00	34.40	345.77	6,179.71	97.11	-24.62	100.18	10.00	10.00	0.00
6,250.00	39.40	345.77	6,219.68	126.19	-32.00	130.19	10.00	10.00	0.00
6,300.00	44.40	345.77	6,256.89	158.55	-40.20	163.57	10.00	10.00	0.00
6,350.00	49.40	345.77	6,291.05	193.92	-49.17	200.06	10.00	10.00	0.00
6,400.00	54.40	345.77	6,321.89	232.05	-58.84	239.39	10.00	10.00	0.00
6,450.00	59.40	345.77	6,349.19	272.63	-69.13	281.26	10.00	10.00	0.00
6,500.00	64.40	345.77	6,372.74	315.37	-79.96	325.35	10.00	10.00	0.00
6,550.00	69.40	345.77	6,392.35	359.94	-91.26	371.33	10.00	10.00	0.00
6,600.00	74.40	345.77	6,407.88	405.99	-102.94	418.84	10.00	10.00	0.00
6,650.00	79.40	345.77	6,419.22	453.18	-114.91	467.52	10.00	10.00	0.00
6,700.00	84.40	345.77	6,426.26	501.15	-127.07	517.00	10.00	10.00	0.00
6,750.00	89.40	345.77	6,428.97	549.53	-139.34	566.92	10.00	10.00	0.00
6,756.04	90.00	345.77	6,429.00	555.38	-140.82	572.96	10.00	10.00	0.00
<b>Begin 90.00° Lateral</b>									
6,800.00	90.00	345.77	6,429.00	597.99	-151.62	616.92	0.00	0.00	0.00
6,900.00	90.00	345.77	6,429.00	694.93	-176.20	716.92	0.00	0.00	0.00
7,000.00	90.00	345.77	6,429.00	791.86	-200.78	816.92	0.00	0.00	0.00
7,100.00	90.00	345.77	6,429.00	888.79	-225.36	916.92	0.00	0.00	0.00
7,200.00	90.00	345.77	6,429.00	985.72	-249.94	1,016.92	0.00	0.00	0.00
7,300.00	90.00	345.77	6,429.00	1,082.66	-274.51	1,116.92	0.00	0.00	0.00
7,400.00	90.00	345.77	6,429.00	1,179.59	-299.09	1,216.92	0.00	0.00	0.00
7,500.00	90.00	345.77	6,429.00	1,276.52	-323.67	1,316.92	0.00	0.00	0.00
7,600.00	90.00	345.77	6,429.00	1,373.45	-348.25	1,416.92	0.00	0.00	0.00
7,700.00	90.00	345.77	6,429.00	1,470.39	-372.82	1,516.92	0.00	0.00	0.00
7,800.00	90.00	345.77	6,429.00	1,567.32	-397.40	1,616.92	0.00	0.00	0.00
7,900.00	90.00	345.77	6,429.00	1,664.25	-421.98	1,716.92	0.00	0.00	0.00
8,000.00	90.00	345.77	6,429.00	1,761.18	-446.56	1,816.92	0.00	0.00	0.00
8,100.00	90.00	345.77	6,429.00	1,858.12	-471.14	1,916.92	0.00	0.00	0.00
8,200.00	90.00	345.77	6,429.00	1,955.05	-495.71	2,016.92	0.00	0.00	0.00
8,300.00	90.00	345.77	6,429.00	2,051.98	-520.29	2,116.92	0.00	0.00	0.00
8,400.00	90.00	345.77	6,429.00	2,148.91	-544.87	2,216.92	0.00	0.00	0.00
8,500.00	90.00	345.77	6,429.00	2,245.85	-569.45	2,316.92	0.00	0.00	0.00
8,600.00	90.00	345.77	6,429.00	2,342.78	-594.02	2,416.92	0.00	0.00	0.00
8,700.00	90.00	345.77	6,429.00	2,439.71	-618.60	2,516.92	0.00	0.00	0.00
8,800.00	90.00	345.77	6,429.00	2,536.64	-643.18	2,616.92	0.00	0.00	0.00
8,900.00	90.00	345.77	6,429.00	2,633.58	-667.76	2,716.92	0.00	0.00	0.00
9,000.00	90.00	345.77	6,429.00	2,730.51	-692.34	2,816.92	0.00	0.00	0.00
9,100.00	90.00	345.77	6,429.00	2,827.44	-716.91	2,916.92	0.00	0.00	0.00
9,200.00	90.00	345.77	6,429.00	2,924.38	-741.49	3,016.92	0.00	0.00	0.00
9,300.00	90.00	345.77	6,429.00	3,021.31	-766.07	3,116.92	0.00	0.00	0.00

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<b>Project:</b>	Weld County, Colorado (NAD83)	<b>MD Reference:</b>	WELL @ 4998.50usft (Cade 22)
<b>Site:</b>	Orlando Hill	<b>North Reference:</b>	Grid
<b>Well:</b>	26-44-8-61	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #3		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
9,400.00	90.00	345.77	6,429.00	3,118.24	-790.65	3,216.92	0.00	0.00	0.00	
9,500.00	90.00	345.77	6,429.00	3,215.17	-815.22	3,316.92	0.00	0.00	0.00	
9,600.00	90.00	345.77	6,429.00	3,312.11	-839.80	3,416.92	0.00	0.00	0.00	
9,700.00	90.00	345.77	6,429.00	3,409.04	-864.38	3,516.92	0.00	0.00	0.00	
9,800.00	90.00	345.77	6,429.00	3,505.97	-888.96	3,616.92	0.00	0.00	0.00	
9,900.00	90.00	345.77	6,429.00	3,602.90	-913.54	3,716.92	0.00	0.00	0.00	
10,000.00	90.00	345.77	6,429.00	3,699.84	-938.11	3,816.92	0.00	0.00	0.00	
10,100.00	90.00	345.77	6,429.00	3,796.77	-962.69	3,916.92	0.00	0.00	0.00	
10,189.38	90.00	345.77	6,429.00	3,883.41	-984.66	4,006.30	0.00	0.00	0.00	
PBHL										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude		Longitude
- hit/miss target										
- Shape										
PBHL v3 - Orlando Hill 2	0.00	0.00	6,429.00	3,883.41	-984.66	1,478,179.17	3,368,969.96	40° 38' 18.2578 N		104° 10' 13.716 W
- plan hits target center										
- Point										

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
5,856.04	5,856.04	0.00	0.00	KOP, 10.00°/100' Build	
6,756.04	6,429.00	555.38	-140.82	Begin 90.00° Lateral	
10,189.38	6,429.00	3,883.41	-984.66	PBHL	