

# Condor Energy

Well Name: **State 16-7-60-2H**

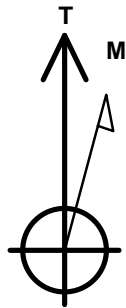
Surface Location: State 16-7-60-2H Pad Sec.16-T7N-R60W  
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone

Ground Elevation: 4887.2

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1453052.29	3388695.22	40.568610	-104.100840	
RKB - 12.5' WELL @ 4899.9ft (RKB - 12.5')						

## WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
HARDLINES 600' SHL	0.0	346.0	-500.0	Polygon
HARDLINES 600' BHL	1.0	4435.5	-500.0	Polygon
SECTION LINE (2H)	1.0	-254.0	-500.0	Polygon
SHL 254'FSL, 1986'FWL	1.0	0.0	0.0	Point
BHL 660'FNL, 1985'FWL	6250.0	4375.5	83.3	Point
LANDING POINT 660'FSL, 1984'FWL	6250.0	408.0	8.3	Point



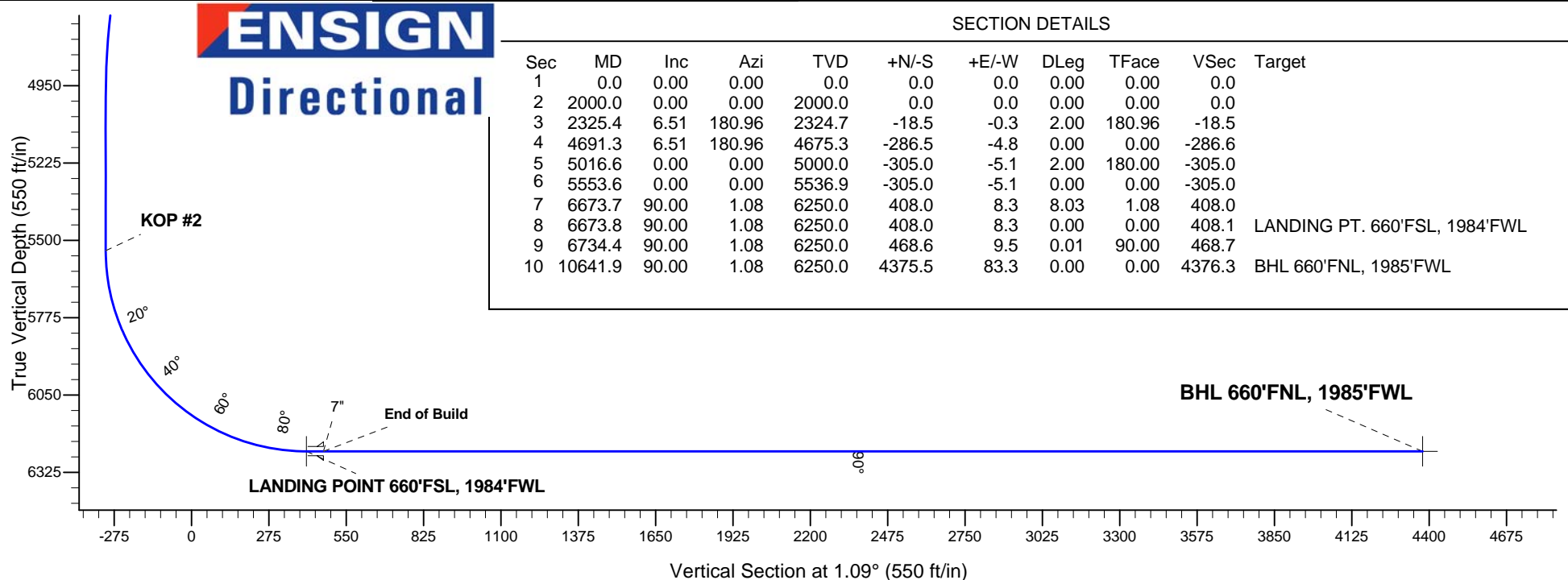
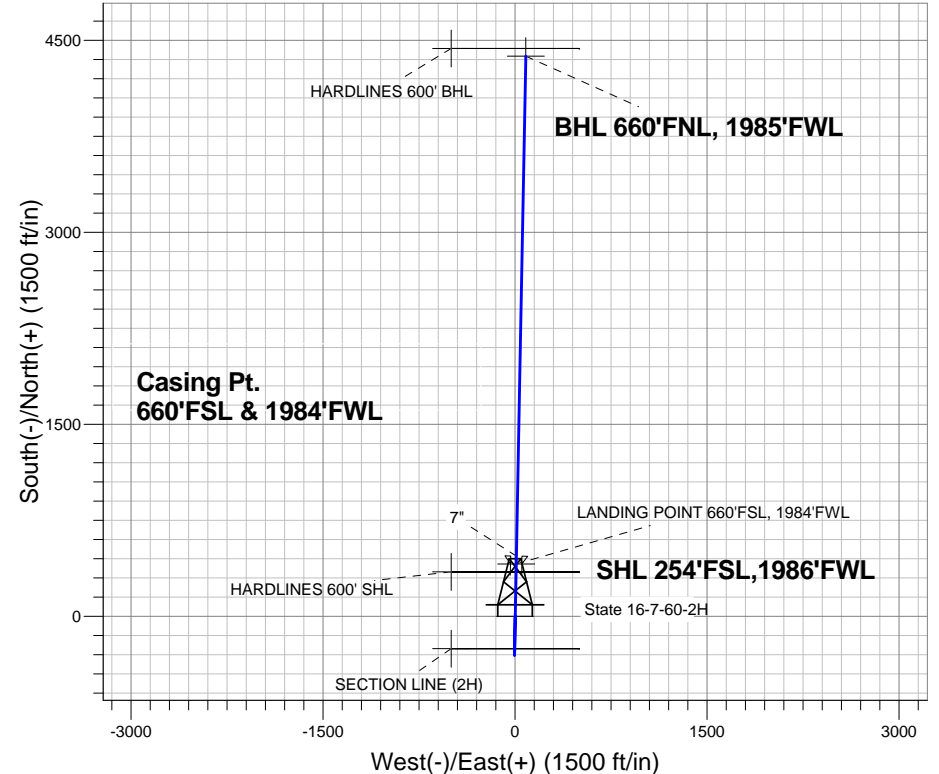
Azimuths to True North  
Magnetic North: 8.21°

Magnetic Field  
Strength: 53052.4snT  
Dip Angle: 67.22°  
Date: 9/6/2013  
Model: IGRF2010

State 16-7-60-2H Pad Sec.16-T7N-R60W  
State 16-7-60-2H  
Plan #1 (9-06-13)  
7:44, September 09 2013

## ANNOTATIONS

TVD	MD	Annotation
2000.0	2000.0	KOP #1
5537.0	5553.6	KOP #2
6250.0	6734.4	End of Build





## **Condor Energy**

**SEC.16-T7N-R60W**

**State 16-7-60-2H Pad Sec.16-T7N-R60W**

**State 16-7-60-2H**

**Wellbore #1**

**Plan: Plan #1 (9-06-13)**

## **Standard Planning Report**

**09 September, 2013**

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Site State 16-7-60-2H Pad Sec.16-T7N-R60W
<b>Company:</b>	Condor Energy	<b>TVD Reference:</b>	WELL @ 4899.9ft (RKB - 12.5')
<b>Project:</b>	SEC.16-T7N-R60W	<b>MD Reference:</b>	WELL @ 4899.9ft (RKB - 12.5')
<b>Site:</b>	State 16-7-60-2H Pad Sec.16-T7N-R60W	<b>North Reference:</b>	True
<b>Well:</b>	State 16-7-60-2H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (9-06-13)		

<b>Project</b>	SEC.16-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	State 16-7-60-2H Pad Sec.16-T7N-R60W				
Site Position:		Northing:	1,453,052.30 ft	Latitude:	40.568610
From:	Lat/Long	Easting:	3,388,695.22 ft	Longitude:	-104.100840
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.90 °

Well	State 16-7-60-2H					
Well Position	+N/-S	0.0 ft	Northing:	1,453,052.29 ft	Latitude:	40.568610
	+E/-W	0.0 ft	Easting:	3,388,695.22 ft	Longitude:	-104.100840
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,887.2 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	9/6/2013	8.21	67.22	53,052

<b>Design</b>	Plan #1 (9-06-13)			
<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	1.09

<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	
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,325.4	6.51	180.96	2,324.7	-18.5	-0.3	2.00	2.00	0.00	180.96	
4,691.3	6.51	180.96	4,675.3	-286.5	-4.8	0.00	0.00	0.00	0.00	
5,016.6	0.00	0.00	5,000.0	-305.0	-5.1	2.00	-2.00	0.00	180.00	
5,553.6	0.00	0.00	5,536.9	-305.0	-5.1	0.00	0.00	0.00	0.00	
6,673.7	90.00	1.08	6,250.0	408.0	8.3	8.03	8.03	0.00	1.08	
6,673.8	90.00	1.08	6,250.0	408.0	8.3	0.00	0.00	0.00	0.00	LANDING POINT 6
6,734.4	90.00	1.08	6,250.0	468.6	9.5	0.01	0.00	0.01	90.00	
10,641.9	90.00	1.08	6,250.0	4,375.5	83.3	0.00	0.00	0.00	0.00	BHL 660'FNL, 1985

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Site State 16-7-60-2H Pad Sec.16-T7N-R60W
<b>Company:</b>	Condor Energy	<b>TVD Reference:</b>	WELL @ 4899.9ft (RKB - 12.5')
<b>Project:</b>	SEC.16-T7N-R60W	<b>MD Reference:</b>	WELL @ 4899.9ft (RKB - 12.5')
<b>Site:</b>	State 16-7-60-2H Pad Sec.16-T7N-R60W	<b>North Reference:</b>	True
<b>Well:</b>	State 16-7-60-2H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (9-06-13)		

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
KOP #1									
2,100.0	2.00	180.96	2,100.0	-1.7	0.0	-1.7	2.00	2.00	0.00
2,200.0	4.00	180.96	2,199.8	-7.0	-0.1	-7.0	2.00	2.00	0.00
2,300.0	6.00	180.96	2,299.5	-15.7	-0.3	-15.7	2.00	2.00	0.00
2,325.4	6.51	180.96	2,324.7	-18.5	-0.3	-18.5	2.00	2.00	0.00
2,400.0	6.51	180.96	2,398.8	-26.9	-0.4	-26.9	0.00	0.00	0.00
2,500.0	6.51	180.96	2,498.2	-38.2	-0.6	-38.2	0.00	0.00	0.00
2,600.0	6.51	180.96	2,597.5	-49.6	-0.8	-49.6	0.00	0.00	0.00
2,700.0	6.51	180.96	2,696.9	-60.9	-1.0	-60.9	0.00	0.00	0.00
2,800.0	6.51	180.96	2,796.2	-72.2	-1.2	-72.2	0.00	0.00	0.00
2,900.0	6.51	180.96	2,895.6	-83.6	-1.4	-83.6	0.00	0.00	0.00
3,000.0	6.51	180.96	2,995.0	-94.9	-1.6	-94.9	0.00	0.00	0.00
3,100.0	6.51	180.96	3,094.3	-106.2	-1.8	-106.2	0.00	0.00	0.00
3,200.0	6.51	180.96	3,193.7	-117.6	-2.0	-117.6	0.00	0.00	0.00
3,300.0	6.51	180.96	3,293.0	-128.9	-2.2	-128.9	0.00	0.00	0.00
3,400.0	6.51	180.96	3,392.4	-140.2	-2.3	-140.2	0.00	0.00	0.00
3,500.0	6.51	180.96	3,491.7	-151.6	-2.5	-151.6	0.00	0.00	0.00
3,600.0	6.51	180.96	3,591.1	-162.9	-2.7	-162.9	0.00	0.00	0.00
3,700.0	6.51	180.96	3,690.4	-174.2	-2.9	-174.2	0.00	0.00	0.00
3,800.0	6.51	180.96	3,789.8	-185.6	-3.1	-185.6	0.00	0.00	0.00
3,900.0	6.51	180.96	3,889.2	-196.9	-3.3	-196.9	0.00	0.00	0.00
4,000.0	6.51	180.96	3,988.5	-208.2	-3.5	-208.2	0.00	0.00	0.00
4,100.0	6.51	180.96	4,087.9	-219.5	-3.7	-219.6	0.00	0.00	0.00
4,200.0	6.51	180.96	4,187.2	-230.9	-3.9	-230.9	0.00	0.00	0.00
4,300.0	6.51	180.96	4,286.6	-242.2	-4.1	-242.2	0.00	0.00	0.00
4,400.0	6.51	180.96	4,385.9	-253.5	-4.2	-253.6	0.00	0.00	0.00
4,500.0	6.51	180.96	4,485.3	-264.9	-4.4	-264.9	0.00	0.00	0.00
4,600.0	6.51	180.96	4,584.6	-276.2	-4.6	-276.2	0.00	0.00	0.00
4,691.3	6.51	180.96	4,675.3	-286.5	-4.8	-286.6	0.00	0.00	0.00
4,700.0	6.33	180.96	4,684.0	-287.5	-4.8	-287.6	2.00	-2.00	0.00
4,800.0	4.33	180.96	4,783.6	-296.8	-5.0	-296.9	2.00	-2.00	0.00
4,900.0	2.33	180.96	4,883.4	-302.6	-5.1	-302.7	2.00	-2.00	0.00

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Site State 16-7-60-2H Pad Sec.16-T7N-R60W
<b>Company:</b>	Condor Energy	<b>TVD Reference:</b>	WELL @ 4899.9ft (RKB - 12.5')
<b>Project:</b>	SEC.16-T7N-R60W	<b>MD Reference:</b>	WELL @ 4899.9ft (RKB - 12.5')
<b>Site:</b>	State 16-7-60-2H Pad Sec.16-T7N-R60W	<b>North Reference:</b>	True
<b>Well:</b>	State 16-7-60-2H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (9-06-13)		

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)
5,000.0	0.33	180.96	4,983.4	-305.0	-5.1	-305.0	2.00	-2.00	0.00
5,016.6	0.00	0.00	5,000.0	-305.0	-5.1	-305.0	2.00	-2.00	0.00
5,100.0	0.00	0.00	5,083.4	-305.0	-5.1	-305.0	0.00	0.00	0.00
5,200.0	0.00	0.00	5,183.4	-305.0	-5.1	-305.0	0.00	0.00	0.00
5,300.0	0.00	0.00	5,283.4	-305.0	-5.1	-305.0	0.00	0.00	0.00
5,400.0	0.00	0.00	5,383.4	-305.0	-5.1	-305.0	0.00	0.00	0.00
5,500.0	0.00	0.00	5,483.4	-305.0	-5.1	-305.0	0.00	0.00	0.00
5,553.6	0.00	0.00	5,537.0	-305.0	-5.1	-305.0	0.00	0.00	0.00
<b>KOP #2</b>									
5,600.0	3.73	1.08	5,583.3	-303.5	-5.1	-303.5	8.04	8.04	0.00
5,700.0	11.77	1.08	5,682.3	-290.0	-4.8	-290.1	8.03	8.03	0.00
5,800.0	19.80	1.08	5,778.5	-262.8	-4.3	-262.9	8.03	8.03	0.00
5,900.0	27.84	1.08	5,869.9	-222.5	-3.5	-222.5	8.03	8.03	0.00
6,000.0	35.87	1.08	5,954.8	-169.8	-2.6	-169.8	8.03	8.03	0.00
6,100.0	43.91	1.08	6,031.4	-105.7	-1.3	-105.7	8.03	8.03	0.00
6,200.0	51.94	1.08	6,098.4	-31.6	0.1	-31.6	8.03	8.03	0.00
6,300.0	59.98	1.08	6,154.3	51.2	1.6	51.2	8.03	8.03	0.00
6,400.0	68.01	1.08	6,198.1	141.0	3.3	141.0	8.03	8.03	0.00
6,500.0	76.05	1.08	6,229.0	236.0	5.1	236.1	8.03	8.03	0.00
6,600.0	84.08	1.08	6,246.2	334.4	6.9	334.5	8.03	8.03	0.00
6,673.7	90.00	1.08	6,250.0	408.0	8.3	408.0	8.03	8.03	0.00
6,673.8	90.00	1.08	6,250.0	408.0	8.3	408.1	0.00	0.00	0.00
6,700.0	90.00	1.08	6,250.0	434.3	8.8	434.4	0.01	0.00	0.01
6,734.4	90.00	1.08	6,250.0	468.7	9.5	468.8	0.01	0.00	0.01
<b>End of Build - 7"</b>									
6,800.0	90.00	1.08	6,250.0	534.3	10.7	534.4	0.00	0.00	0.00
6,900.0	90.00	1.08	6,250.0	634.2	12.6	634.4	0.00	0.00	0.00
7,000.0	90.00	1.08	6,250.0	734.2	14.5	734.4	0.00	0.00	0.00
7,100.0	90.00	1.08	6,250.0	834.2	16.4	834.4	0.00	0.00	0.00
7,200.0	90.00	1.08	6,250.0	934.2	18.3	934.4	0.00	0.00	0.00
7,300.0	90.00	1.08	6,250.0	1,034.2	20.2	1,034.4	0.00	0.00	0.00
7,400.0	90.00	1.08	6,250.0	1,134.2	22.1	1,134.4	0.00	0.00	0.00
7,500.0	90.00	1.08	6,250.0	1,234.1	23.9	1,234.4	0.00	0.00	0.00
7,600.0	90.00	1.08	6,250.0	1,334.1	25.8	1,334.4	0.00	0.00	0.00
7,700.0	90.00	1.08	6,250.0	1,434.1	27.7	1,434.4	0.00	0.00	0.00
7,800.0	90.00	1.08	6,250.0	1,534.1	29.6	1,534.4	0.00	0.00	0.00
7,900.0	90.00	1.08	6,250.0	1,634.1	31.5	1,634.4	0.00	0.00	0.00
8,000.0	90.00	1.08	6,250.0	1,734.0	33.4	1,734.4	0.00	0.00	0.00
8,100.0	90.00	1.08	6,250.0	1,834.0	35.3	1,834.4	0.00	0.00	0.00
8,200.0	90.00	1.08	6,250.0	1,934.0	37.2	1,934.4	0.00	0.00	0.00
8,300.0	90.00	1.08	6,250.0	2,034.0	39.1	2,034.4	0.00	0.00	0.00
8,400.0	90.00	1.08	6,250.0	2,134.0	41.0	2,134.4	0.00	0.00	0.00
8,500.0	90.00	1.08	6,250.0	2,234.0	42.8	2,234.4	0.00	0.00	0.00
8,600.0	90.00	1.08	6,250.0	2,333.9	44.7	2,334.4	0.00	0.00	0.00
8,700.0	90.00	1.08	6,250.0	2,433.9	46.6	2,434.4	0.00	0.00	0.00
8,800.0	90.00	1.08	6,250.0	2,533.9	48.5	2,534.4	0.00	0.00	0.00
8,900.0	90.00	1.08	6,250.0	2,633.9	50.4	2,634.4	0.00	0.00	0.00
9,000.0	90.00	1.08	6,250.0	2,733.9	52.3	2,734.4	0.00	0.00	0.00
9,100.0	90.00	1.08	6,250.0	2,833.9	54.2	2,834.4	0.00	0.00	0.00
9,200.0	90.00	1.08	6,250.0	2,933.8	56.1	2,934.4	0.00	0.00	0.00
9,300.0	90.00	1.08	6,250.0	3,033.8	58.0	3,034.4	0.00	0.00	0.00
9,400.0	90.00	1.08	6,250.0	3,133.8	59.9	3,134.4	0.00	0.00	0.00
9,500.0	90.00	1.08	6,250.0	3,233.8	61.7	3,234.4	0.00	0.00	0.00

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<b>Company:</b>	Condor Energy	<b>TVD Reference:</b>	WELL @ 4899.9ft (RKB - 12.5')
<b>Project:</b>	SEC.16-T7N-R60W	<b>MD Reference:</b>	WELL @ 4899.9ft (RKB - 12.5')
<b>Site:</b>	State 16-7-60-2H Pad Sec.16-T7N-R60W	<b>North Reference:</b>	True
<b>Well:</b>	State 16-7-60-2H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (9-06-13)		

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	1.08	6,250.0	3,333.8	63.6	3,334.4	0.00	0.00	0.00	
9,700.0	90.00	1.08	6,250.0	3,433.7	65.5	3,434.4	0.00	0.00	0.00	
9,800.0	90.00	1.08	6,250.0	3,533.7	67.4	3,534.4	0.00	0.00	0.00	
9,900.0	90.00	1.08	6,250.0	3,633.7	69.3	3,634.4	0.00	0.00	0.00	
10,000.0	90.00	1.08	6,250.0	3,733.7	71.2	3,734.4	0.00	0.00	0.00	
10,100.0	90.00	1.08	6,250.0	3,833.7	73.1	3,834.4	0.00	0.00	0.00	
10,200.0	90.00	1.08	6,250.0	3,933.7	75.0	3,934.4	0.00	0.00	0.00	
10,300.0	90.00	1.08	6,250.0	4,033.6	76.9	4,034.4	0.00	0.00	0.00	
10,400.0	90.00	1.08	6,250.0	4,133.6	78.8	4,134.4	0.00	0.00	0.00	
10,500.0	90.00	1.08	6,250.0	4,233.6	80.7	4,234.4	0.00	0.00	0.00	
10,600.0	90.00	1.08	6,250.0	4,333.6	82.5	4,334.4	0.00	0.00	0.00	
10,641.9	90.00	1.08	6,250.0	4,375.5	83.3	4,376.3	0.00	0.00	0.00	

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name		Casing Diameter (")	Hole Diameter (")
6,734.4	6,250.0	7"		7	7-1/2

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
2,000.0	2,000.0	0.0	0.0	KOP #1	
5,553.6	5,537.0	-305.0	-5.1	KOP #2	
6,734.4	6,250.0	468.7	9.5	End of Build	