

# **VERDAD RESOURCES**

**WATTENBERG FIELD  
1N-65W-31 COUNTY LINE 3130 PAD  
COUNTY LINE 3130-06H**

**Wellbore #1**

**Plan: Design #1**

## **Standard Planning Report**

**13 July, 2018**

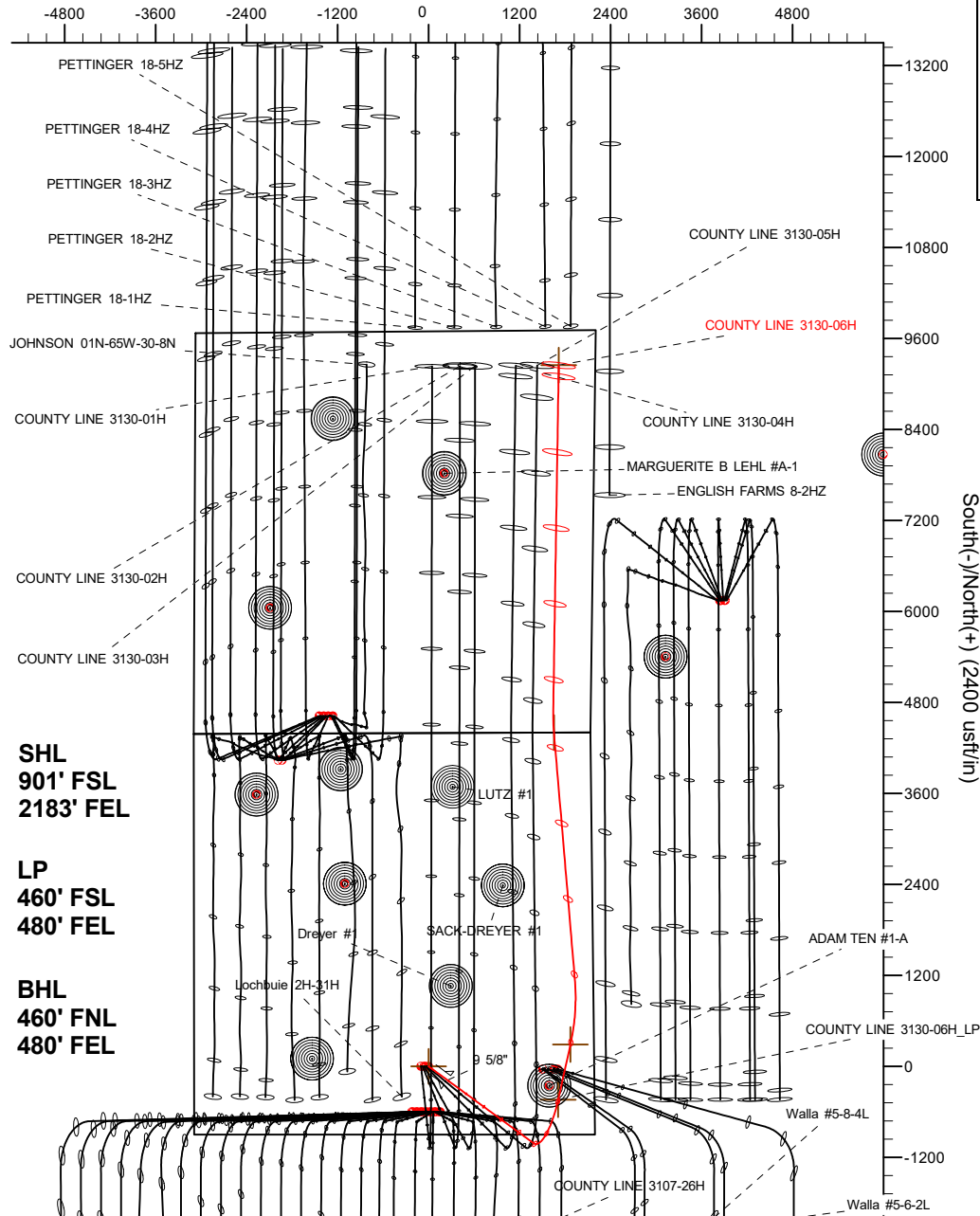
Project: WATTENBERG FIELD  
Site: 1N-65W-31 COUNTY LINE 3130 PAD  
Well: COUNTY LINE 3130-06H  
Wellbore: Wellbore #1  
Design: Design #1

# VERDAD RESOURCES

## CASING DETAILS

TVD	MD	Name	Size
1700.00	1739.37	9 5/8"	9-5/8

West(-)/East(+) (2400 usft/in)

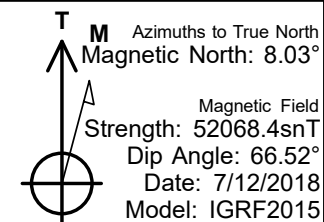
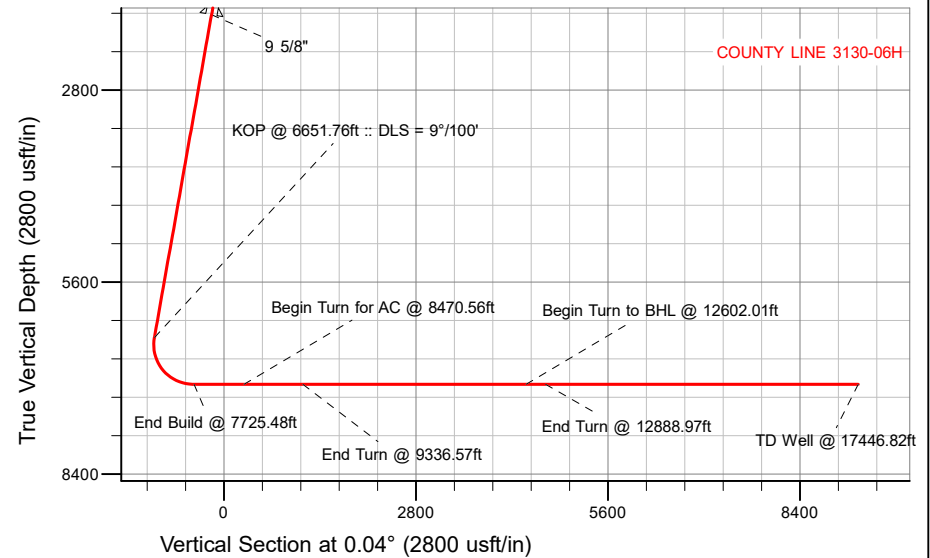


## SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
250.00	0.00	0.00	250.00	0.00	0.00	0.00	0.00	0.00	
1085.00	16.70	126.20	1073.23	-71.36	97.50	2.00	126.20	-71.29	
6651.76	16.70	126.20	6405.20	-1016.14	1388.37	0.00	0.00	-1015.17	
7725.48	90.00	12.49	7090.00	-439.44	1708.82	9.00	-112.81	-438.25	COUNTY LINE 3130-06H_target
8470.56	90.00	12.49	7090.00	288.00	1870.00	0.00	0.00	289.31	COUNTY LINE 3130-06H_Deflection
9336.57	90.00	355.17	7090.00	1148.79	1927.67	2.00	-90.00	1150.13	
12602.01	90.00	355.17	7090.00	4402.64	1652.88	0.00	0.00	4403.79	COUNTY LINE 3130-06H_BHL
12888.97	90.00	0.91	7090.00	4689.31	1643.08	2.00	90.00	4690.46	
17446.82	90.00	0.91	7090.00	9246.59	1715.62	0.00	0.00	9247.78	

## WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
COUNTY LINE 3130-06H_SHL	0.00	0.00	0.00	40.002996	-104.705093
COUNTY LINE 3130-06H_BHL	7090.00	9246.59	1715.62	40.028379	-104.698966



## WELL DETAILS: COUNTY LINE 3130-06H

GROUND LEVEL = 5026'  
RKB = 20' @ 5046.00usft (RIG)

Plan: Design #1 (COUNTY LINE 3130-06H/Wellbore #1)

Date: 7/13/2018

# Hewlett-Packard

## Planning Report

<b>Database:</b>	EDM 5000.14 Single User Db	<b>Local Co-ordinate Reference:</b>	Well COUNTY LINE 3130-06H
<b>Company:</b>	VERDAD RESOURCES	<b>TVD Reference:</b>	RKB = 20' @ 5046.00usft (RIG)
<b>Project:</b>	WATTENBERG FIELD	<b>MD Reference:</b>	RKB = 20' @ 5046.00usft (RIG)
<b>Site:</b>	1N-65W-31 COUNTY LINE 3130 PAD	<b>North Reference:</b>	True
<b>Well:</b>	COUNTY LINE 3130-06H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

<b>Project</b>	WATTENBERG FIELD		
<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>Site</b>	1N-65W-31 COUNTY LINE 3130 PAD			
<b>Site Position:</b>		<b>Northing:</b>	1,244,936.30 usft	<b>Latitude:</b> 40.002996
<b>From:</b>	Lat/Long	<b>Easting:</b>	3,222,683.37 usft	<b>Longitude:</b> -104.705093
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13-3/16 "	<b>Grid Convergence:</b> 0.51 °

<b>Well</b>	COUNTY LINE 3130-06H			
<b>Well Position</b>	<b>+N/-S</b>	0.00 usft	<b>Northing:</b>	1,244,936.30 usft
	<b>+E/-W</b>	0.00 usft	<b>Easting:</b>	3,222,683.37 usft
<b>Position Uncertainty</b>		3.28 usft	<b>Wellhead Elevation:</b>	<b>Latitude:</b> 40.002996
				<b>Longitude:</b> -104.705093
				<b>Ground Level:</b> 5,026.00 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>
	IGRF2015	7/12/2018	8.03	66.52	52,068.42172179

<b>Design</b>	Design #1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<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	0.04

<b>Plan Survey Tool Program</b>	<b>Date</b>	7/13/2018		
<b>Depth From (usft)</b>	<b>Depth To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>
1	0.00	1,700.00	Design #1 (Wellbore #1)	ISCWSA REV 2 MWD
				Fixed:v2:standard declination
2	1,700.00	17,446.82	Design #1 (Wellbore #1)	ISCWSA REV 2 MWD
				Fixed:v2:standard declination

# Hewlett-Packard

## Planning Report

<b>Database:</b>	EDM 5000.14 Single User Db	<b>Local Co-ordinate Reference:</b>	Well COUNTY LINE 3130-06H
<b>Company:</b>	VERDAD RESOURCES	<b>TVD Reference:</b>	RKB = 20' @ 5046.00usft (RIG)
<b>Project:</b>	WATTENBERG FIELD	<b>MD Reference:</b>	RKB = 20' @ 5046.00usft (RIG)
<b>Site:</b>	1N-65W-31 COUNTY LINE 3130 PAD	<b>North Reference:</b>	True
<b>Well:</b>	COUNTY LINE 3130-06H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
250.00	0.00	0.00	250.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,085.00	16.70	126.20	1,073.23	-71.36	97.50	2.00	2.00	0.00	126.20	
6,651.76	16.70	126.20	6,405.20	-1,016.14	1,388.37	0.00	0.00	0.00	0.00	
7,725.48	90.00	12.49	7,090.00	-439.44	1,708.82	9.00	6.83	-10.59	-112.81	
8,470.56	90.00	12.49	7,090.00	288.00	1,870.00	0.00	0.00	0.00	0.00	COUNTY LINE 3130-
9,336.57	90.00	355.17	7,090.00	1,148.79	1,927.67	2.00	0.00	-2.00	-90.00	
12,602.01	90.00	355.17	7,090.00	4,402.64	1,652.88	0.00	0.00	0.00	0.00	COUNTY LINE 3130-
12,888.97	90.00	0.91	7,090.00	4,689.31	1,643.08	2.00	0.00	2.00	90.00	
17,446.82	90.00	0.91	7,090.00	9,246.59	1,715.62	0.00	0.00	0.00	0.00	COUNTY LINE 3130-

# Hewlett-Packard

## Planning Report

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<b>Company:</b>	VERDAD RESOURCES	<b>TVD Reference:</b>	RKB = 20' @ 5046.00usft (RIG)
<b>Project:</b>	WATTENBERG FIELD	<b>MD Reference:</b>	RKB = 20' @ 5046.00usft (RIG)
<b>Site:</b>	1N-65W-31 COUNTY LINE 3130 PAD	<b>North Reference:</b>	True
<b>Well:</b>	COUNTY LINE 3130-06H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

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
250.00	0.00	0.00	250.00	0.00	0.00	0.00	0.00	0.00	0.00
Begin Tangent @ 250.00ft									
300.00	1.00	126.20	300.00	-0.26	0.35	-0.26	2.00	2.00	0.00
400.00	3.00	126.20	399.93	-2.32	3.17	-2.32	2.00	2.00	0.00
500.00	5.00	126.20	499.68	-6.44	8.80	-6.43	2.00	2.00	0.00
600.00	7.00	126.20	599.13	-12.61	17.23	-12.60	2.00	2.00	0.00
700.00	9.00	126.20	698.15	-20.83	28.46	-20.81	2.00	2.00	0.00
800.00	11.00	126.20	796.63	-31.09	42.47	-31.06	2.00	2.00	0.00
900.00	13.00	126.20	894.44	-43.36	59.25	-43.32	2.00	2.00	0.00
1,000.00	15.00	126.20	991.46	-57.65	78.77	-57.60	2.00	2.00	0.00
1,085.00	16.70	126.20	1,073.23	-71.36	97.50	-71.29	2.00	2.00	0.00
End Tangent @ 1085.00ft									
1,100.00	16.70	126.20	1,087.59	-73.91	100.98	-73.84	0.00	0.00	0.00
1,200.00	16.70	126.20	1,183.38	-90.88	124.17	-90.79	0.00	0.00	0.00
1,300.00	16.70	126.20	1,279.16	-107.85	147.36	-107.75	0.00	0.00	0.00
1,400.00	16.70	126.20	1,374.94	-124.82	170.55	-124.70	0.00	0.00	0.00
1,500.00	16.70	126.20	1,470.72	-141.80	193.74	-141.66	0.00	0.00	0.00
1,600.00	16.70	126.20	1,566.51	-158.77	216.93	-158.62	0.00	0.00	0.00
1,700.00	16.70	126.20	1,662.29	-175.74	240.12	-175.57	0.00	0.00	0.00
1,739.37	16.70	126.20	1,700.00	-182.42	249.25	-182.25	0.00	0.00	0.00
9 5/8"									
1,800.00	16.70	126.20	1,758.07	-192.71	263.31	-192.53	0.00	0.00	0.00
1,900.00	16.70	126.20	1,853.85	-209.68	286.49	-209.48	0.00	0.00	0.00
2,000.00	16.70	126.20	1,949.63	-226.65	309.68	-226.44	0.00	0.00	0.00
2,100.00	16.70	126.20	2,045.42	-243.63	332.87	-243.39	0.00	0.00	0.00
2,200.00	16.70	126.20	2,141.20	-260.60	356.06	-260.35	0.00	0.00	0.00
2,300.00	16.70	126.20	2,236.98	-277.57	379.25	-277.30	0.00	0.00	0.00
2,400.00	16.70	126.20	2,332.76	-294.54	402.44	-294.26	0.00	0.00	0.00
2,500.00	16.70	126.20	2,428.55	-311.51	425.63	-311.21	0.00	0.00	0.00
2,600.00	16.70	126.20	2,524.33	-328.48	448.82	-328.17	0.00	0.00	0.00
2,700.00	16.70	126.20	2,620.11	-345.46	472.00	-345.13	0.00	0.00	0.00
2,800.00	16.70	126.20	2,715.89	-362.43	495.19	-362.08	0.00	0.00	0.00
2,900.00	16.70	126.20	2,811.68	-379.40	518.38	-379.04	0.00	0.00	0.00
3,000.00	16.70	126.20	2,907.46	-396.37	541.57	-395.99	0.00	0.00	0.00
3,100.00	16.70	126.20	3,003.24	-413.34	564.76	-412.95	0.00	0.00	0.00
3,200.00	16.70	126.20	3,099.02	-430.31	587.95	-429.90	0.00	0.00	0.00
3,300.00	16.70	126.20	3,194.80	-447.29	611.14	-446.86	0.00	0.00	0.00
3,400.00	16.70	126.20	3,290.59	-464.26	634.33	-463.81	0.00	0.00	0.00
3,500.00	16.70	126.20	3,386.37	-481.23	657.52	-480.77	0.00	0.00	0.00
3,600.00	16.70	126.20	3,482.15	-498.20	680.70	-497.72	0.00	0.00	0.00
3,700.00	16.70	126.20	3,577.93	-515.17	703.89	-514.68	0.00	0.00	0.00
3,800.00	16.70	126.20	3,673.72	-532.14	727.08	-531.64	0.00	0.00	0.00
3,900.00	16.70	126.20	3,769.50	-549.12	750.27	-548.59	0.00	0.00	0.00
4,000.00	16.70	126.20	3,865.28	-566.09	773.46	-565.55	0.00	0.00	0.00
4,100.00	16.70	126.20	3,961.06	-583.06	796.65	-582.50	0.00	0.00	0.00
4,200.00	16.70	126.20	4,056.84	-600.03	819.84	-599.46	0.00	0.00	0.00
4,300.00	16.70	126.20	4,152.63	-617.00	843.03	-616.41	0.00	0.00	0.00
4,400.00	16.70	126.20	4,248.41	-633.97	866.22	-633.37	0.00	0.00	0.00
4,500.00	16.70	126.20	4,344.19	-650.95	889.40	-650.32	0.00	0.00	0.00
4,600.00	16.70	126.20	4,439.97	-667.92	912.59	-667.28	0.00	0.00	0.00

# Hewlett-Packard

## Planning Report

<b>Database:</b>	EDM 5000.14 Single User Db	<b>Local Co-ordinate Reference:</b>	Well COUNTY LINE 3130-06H
<b>Company:</b>	VERDAD RESOURCES	<b>TVD Reference:</b>	RKB = 20' @ 5046.00usft (RIG)
<b>Project:</b>	WATTENBERG FIELD	<b>MD Reference:</b>	RKB = 20' @ 5046.00usft (RIG)
<b>Site:</b>	1N-65W-31 COUNTY LINE 3130 PAD	<b>North Reference:</b>	True
<b>Well:</b>	COUNTY LINE 3130-06H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

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)
4,700.00	16.70	126.20	4,535.76	-684.89	935.78	-684.24	0.00	0.00	0.00
4,800.00	16.70	126.20	4,631.54	-701.86	958.97	-701.19	0.00	0.00	0.00
4,900.00	16.70	126.20	4,727.32	-718.83	982.16	-718.15	0.00	0.00	0.00
5,000.00	16.70	126.20	4,823.10	-735.80	1,005.35	-735.10	0.00	0.00	0.00
5,100.00	16.70	126.20	4,918.88	-752.78	1,028.54	-752.06	0.00	0.00	0.00
5,200.00	16.70	126.20	5,014.67	-769.75	1,051.73	-769.01	0.00	0.00	0.00
5,300.00	16.70	126.20	5,110.45	-786.72	1,074.91	-785.97	0.00	0.00	0.00
5,400.00	16.70	126.20	5,206.23	-803.69	1,098.10	-802.92	0.00	0.00	0.00
5,500.00	16.70	126.20	5,302.01	-820.66	1,121.29	-819.88	0.00	0.00	0.00
5,600.00	16.70	126.20	5,397.80	-837.63	1,144.48	-836.83	0.00	0.00	0.00
5,700.00	16.70	126.20	5,493.58	-854.61	1,167.67	-853.79	0.00	0.00	0.00
5,800.00	16.70	126.20	5,589.36	-871.58	1,190.86	-870.75	0.00	0.00	0.00
5,900.00	16.70	126.20	5,685.14	-888.55	1,214.05	-887.70	0.00	0.00	0.00
6,000.00	16.70	126.20	5,780.92	-905.52	1,237.24	-904.66	0.00	0.00	0.00
6,100.00	16.70	126.20	5,876.71	-922.49	1,260.43	-921.61	0.00	0.00	0.00
6,200.00	16.70	126.20	5,972.49	-939.46	1,283.61	-938.57	0.00	0.00	0.00
6,300.00	16.70	126.20	6,068.27	-956.44	1,306.80	-955.52	0.00	0.00	0.00
6,400.00	16.70	126.20	6,164.05	-973.41	1,329.99	-972.48	0.00	0.00	0.00
6,500.00	16.70	126.20	6,259.84	-990.38	1,353.18	-989.43	0.00	0.00	0.00
6,600.00	16.70	126.20	6,355.62	-1,007.35	1,376.37	-1,006.39	0.00	0.00	0.00
6,651.76	16.70	126.20	6,405.20	-1,016.14	1,388.37	-1,015.17	0.00	0.00	0.00
<b>KOP @ 6651.76ft :: DLS = 9°/100'</b>									
6,700.00	15.53	111.09	6,451.56	-1,022.55	1,400.00	-1,021.58	9.00	-2.43	-31.32
6,800.00	16.73	78.55	6,547.82	-1,024.52	1,426.64	-1,023.52	9.00	1.20	-32.54
6,900.00	21.83	55.78	6,642.31	-1,011.18	1,456.19	-1,010.16	9.00	5.10	-22.77
7,000.00	28.84	42.42	6,732.71	-982.86	1,487.89	-981.82	9.00	7.00	-13.36
7,100.00	36.66	34.15	6,816.79	-940.26	1,520.99	-939.20	9.00	7.83	-8.27
7,200.00	44.88	28.51	6,892.48	-884.44	1,554.66	-883.35	9.00	8.22	-5.64
7,300.00	53.31	24.31	6,957.93	-816.76	1,588.06	-815.65	9.00	8.43	-4.20
7,400.00	61.85	20.95	7,011.50	-738.89	1,620.39	-737.76	9.00	8.54	-3.36
7,500.00	70.46	18.09	7,051.90	-652.74	1,650.84	-651.59	9.00	8.61	-2.86
7,600.00	79.12	15.52	7,078.11	-560.45	1,678.67	-559.28	9.00	8.65	-2.57
7,700.00	87.79	13.10	7,089.51	-464.28	1,703.18	-463.09	9.00	8.67	-2.42
7,725.48	90.00	12.49	7,090.00	-439.44	1,708.82	-438.25	9.00	8.68	-2.39
<b>End Build @ 7725.48ft</b>									
7,800.00	90.00	12.49	7,090.00	-366.69	1,724.94	-365.48	0.00	0.00	0.00
7,900.00	90.00	12.49	7,090.00	-269.05	1,746.58	-267.83	0.00	0.00	0.00
8,000.00	90.00	12.49	7,090.00	-171.42	1,768.21	-170.19	0.00	0.00	0.00
8,100.00	90.00	12.49	7,090.00	-73.79	1,789.84	-72.54	0.00	0.00	0.00
8,200.00	90.00	12.49	7,090.00	23.84	1,811.47	25.11	0.00	0.00	0.00
8,300.00	90.00	12.49	7,090.00	121.48	1,833.10	122.76	0.00	0.00	0.00
8,400.00	90.00	12.49	7,090.00	219.11	1,854.74	220.40	0.00	0.00	0.00
8,470.56	90.00	12.49	7,090.00	288.00	1,870.00	289.31	0.00	0.00	0.00
<b>Begin Turn for AC @ 8470.56ft</b>									
8,500.00	90.00	11.90	7,090.00	316.77	1,876.22	318.08	2.00	0.00	-2.00
8,600.00	90.00	9.90	7,090.00	414.96	1,895.14	416.28	2.00	0.00	-2.00
8,700.00	90.00	7.90	7,090.00	513.75	1,910.61	515.09	2.00	0.00	-2.00
8,800.00	90.00	5.90	7,090.00	613.02	1,922.63	614.36	2.00	0.00	-2.00
8,900.00	90.00	3.90	7,090.00	712.65	1,931.18	714.00	2.00	0.00	-2.00
9,000.00	90.00	1.90	7,090.00	812.52	1,936.25	813.87	2.00	0.00	-2.00
9,100.00	90.00	359.90	7,090.00	912.50	1,937.83	913.85	2.00	0.00	-2.00
9,200.00	90.00	357.90	7,090.00	1,012.48	1,935.91	1,013.83	2.00	0.00	-2.00
9,300.00	90.00	355.90	7,090.00	1,112.32	1,930.51	1,113.67	2.00	0.00	-2.00

# Hewlett-Packard

## Planning Report

<b>Database:</b>	EDM 5000.14 Single User Db	<b>Local Co-ordinate Reference:</b>	Well COUNTY LINE 3130-06H
<b>Company:</b>	VERDAD RESOURCES	<b>TVD Reference:</b>	RKB = 20' @ 5046.00usft (RIG)
<b>Project:</b>	WATTENBERG FIELD	<b>MD Reference:</b>	RKB = 20' @ 5046.00usft (RIG)
<b>Site:</b>	1N-65W-31 COUNTY LINE 3130 PAD	<b>North Reference:</b>	True
<b>Well:</b>	COUNTY LINE 3130-06H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

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)
9,336.57	90.00	355.17	7,090.00	1,148.79	1,927.67	1,150.13	2.00	0.00	-2.00
End Turn @ 9336.57ft									
9,400.00	90.00	355.17	7,090.00	1,211.99	1,922.33	1,213.33	0.00	0.00	0.00
9,500.00	90.00	355.17	7,090.00	1,311.63	1,913.92	1,312.97	0.00	0.00	0.00
9,600.00	90.00	355.17	7,090.00	1,411.28	1,905.50	1,412.61	0.00	0.00	0.00
9,700.00	90.00	355.17	7,090.00	1,510.92	1,897.09	1,512.25	0.00	0.00	0.00
9,800.00	90.00	355.17	7,090.00	1,610.57	1,888.67	1,611.89	0.00	0.00	0.00
9,900.00	90.00	355.17	7,090.00	1,710.22	1,880.26	1,711.53	0.00	0.00	0.00
10,000.00	90.00	355.17	7,090.00	1,809.86	1,871.84	1,811.17	0.00	0.00	0.00
10,100.00	90.00	355.17	7,090.00	1,909.51	1,863.43	1,910.81	0.00	0.00	0.00
10,200.00	90.00	355.17	7,090.00	2,009.15	1,855.01	2,010.45	0.00	0.00	0.00
10,300.00	90.00	355.17	7,090.00	2,108.80	1,846.59	2,110.09	0.00	0.00	0.00
10,400.00	90.00	355.17	7,090.00	2,208.44	1,838.18	2,209.72	0.00	0.00	0.00
10,500.00	90.00	355.17	7,090.00	2,308.09	1,829.76	2,309.36	0.00	0.00	0.00
10,600.00	90.00	355.17	7,090.00	2,407.73	1,821.35	2,409.00	0.00	0.00	0.00
10,700.00	90.00	355.17	7,090.00	2,507.38	1,812.93	2,508.64	0.00	0.00	0.00
10,800.00	90.00	355.17	7,090.00	2,607.02	1,804.52	2,608.28	0.00	0.00	0.00
10,900.00	90.00	355.17	7,090.00	2,706.67	1,796.10	2,707.92	0.00	0.00	0.00
11,000.00	90.00	355.17	7,090.00	2,806.31	1,787.69	2,807.56	0.00	0.00	0.00
11,100.00	90.00	355.17	7,090.00	2,905.96	1,779.27	2,907.20	0.00	0.00	0.00
11,200.00	90.00	355.17	7,090.00	3,005.60	1,770.86	3,006.84	0.00	0.00	0.00
11,300.00	90.00	355.17	7,090.00	3,105.25	1,762.44	3,106.48	0.00	0.00	0.00
11,400.00	90.00	355.17	7,090.00	3,204.89	1,754.03	3,206.12	0.00	0.00	0.00
11,500.00	90.00	355.17	7,090.00	3,304.54	1,745.61	3,305.76	0.00	0.00	0.00
11,600.00	90.00	355.17	7,090.00	3,404.19	1,737.20	3,405.40	0.00	0.00	0.00
11,700.00	90.00	355.17	7,090.00	3,503.83	1,728.78	3,505.04	0.00	0.00	0.00
11,800.00	90.00	355.17	7,090.00	3,603.48	1,720.37	3,604.68	0.00	0.00	0.00
11,900.00	90.00	355.17	7,090.00	3,703.12	1,711.95	3,704.32	0.00	0.00	0.00
12,000.00	90.00	355.17	7,090.00	3,802.77	1,703.54	3,803.96	0.00	0.00	0.00
12,100.00	90.00	355.17	7,090.00	3,902.41	1,695.12	3,903.59	0.00	0.00	0.00
12,200.00	90.00	355.17	7,090.00	4,002.06	1,686.71	4,003.23	0.00	0.00	0.00
12,300.00	90.00	355.17	7,090.00	4,101.70	1,678.29	4,102.87	0.00	0.00	0.00
12,400.00	90.00	355.17	7,090.00	4,201.35	1,669.88	4,202.51	0.00	0.00	0.00
12,500.00	90.00	355.17	7,090.00	4,300.99	1,661.46	4,302.15	0.00	0.00	0.00
12,600.00	90.00	355.17	7,090.00	4,400.64	1,653.05	4,401.79	0.00	0.00	0.00
12,602.01	90.00	355.17	7,090.00	4,402.64	1,652.88	4,403.79	0.00	0.00	0.00
Begin Turn to BHL @ 12602.01ft									
12,700.00	90.00	357.13	7,090.00	4,500.41	1,646.30	4,501.55	2.00	0.00	2.00
12,800.00	90.00	359.13	7,090.00	4,600.35	1,643.04	4,601.49	2.00	0.00	2.00
12,888.97	90.00	0.91	7,090.00	4,689.31	1,643.08	4,690.46	2.00	0.00	2.00
End Turn @ 12888.97ft									
12,900.00	90.00	0.91	7,090.00	4,700.34	1,643.25	4,701.49	0.00	0.00	0.00
13,000.00	90.00	0.91	7,090.00	4,800.33	1,644.85	4,801.48	0.00	0.00	0.00
13,100.00	90.00	0.91	7,090.00	4,900.32	1,646.44	4,901.47	0.00	0.00	0.00
13,200.00	90.00	0.91	7,090.00	5,000.30	1,648.03	5,001.45	0.00	0.00	0.00
13,300.00	90.00	0.91	7,090.00	5,100.29	1,649.62	5,101.44	0.00	0.00	0.00
13,400.00	90.00	0.91	7,090.00	5,200.28	1,651.21	5,201.43	0.00	0.00	0.00
13,500.00	90.00	0.91	7,090.00	5,300.27	1,652.80	5,301.42	0.00	0.00	0.00
13,600.00	90.00	0.91	7,090.00	5,400.25	1,654.39	5,401.41	0.00	0.00	0.00
13,700.00	90.00	0.91	7,090.00	5,500.24	1,655.99	5,501.40	0.00	0.00	0.00
13,800.00	90.00	0.91	7,090.00	5,600.23	1,657.58	5,601.38	0.00	0.00	0.00
13,900.00	90.00	0.91	7,090.00	5,700.22	1,659.17	5,701.37	0.00	0.00	0.00
14,000.00	90.00	0.91	7,090.00	5,800.20	1,660.76	5,801.36	0.00	0.00	0.00

# Hewlett-Packard

## Planning Report

<b>Database:</b>	EDM 5000.14 Single User Db	<b>Local Co-ordinate Reference:</b>	Well COUNTY LINE 3130-06H
<b>Company:</b>	VERDAD RESOURCES	<b>TVD Reference:</b>	RKB = 20' @ 5046.00usft (RIG)
<b>Project:</b>	WATTENBERG FIELD	<b>MD Reference:</b>	RKB = 20' @ 5046.00usft (RIG)
<b>Site:</b>	1N-65W-31 COUNTY LINE 3130 PAD	<b>North Reference:</b>	True
<b>Well:</b>	COUNTY LINE 3130-06H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

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)
14,100.00	90.00	0.91	7,090.00	5,900.19	1,662.35	5,901.35	0.00	0.00	0.00
14,200.00	90.00	0.91	7,090.00	6,000.18	1,663.94	6,001.34	0.00	0.00	0.00
14,300.00	90.00	0.91	7,090.00	6,100.17	1,665.54	6,101.33	0.00	0.00	0.00
14,400.00	90.00	0.91	7,090.00	6,200.15	1,667.13	6,201.31	0.00	0.00	0.00
14,500.00	90.00	0.91	7,090.00	6,300.14	1,668.72	6,301.30	0.00	0.00	0.00
14,600.00	90.00	0.91	7,090.00	6,400.13	1,670.31	6,401.29	0.00	0.00	0.00
14,700.00	90.00	0.91	7,090.00	6,500.11	1,671.90	6,501.28	0.00	0.00	0.00
14,800.00	90.00	0.91	7,090.00	6,600.10	1,673.49	6,601.27	0.00	0.00	0.00
14,900.00	90.00	0.91	7,090.00	6,700.09	1,675.08	6,701.26	0.00	0.00	0.00
15,000.00	90.00	0.91	7,090.00	6,800.08	1,676.68	6,801.25	0.00	0.00	0.00
15,100.00	90.00	0.91	7,090.00	6,900.06	1,678.27	6,901.23	0.00	0.00	0.00
15,200.00	90.00	0.91	7,090.00	7,000.05	1,679.86	7,001.22	0.00	0.00	0.00
15,300.00	90.00	0.91	7,090.00	7,100.04	1,681.45	7,101.21	0.00	0.00	0.00
15,400.00	90.00	0.91	7,090.00	7,200.03	1,683.04	7,201.20	0.00	0.00	0.00
15,500.00	90.00	0.91	7,090.00	7,300.01	1,684.63	7,301.19	0.00	0.00	0.00
15,600.00	90.00	0.91	7,090.00	7,400.00	1,686.23	7,401.18	0.00	0.00	0.00
15,700.00	90.00	0.91	7,090.00	7,499.99	1,687.82	7,501.16	0.00	0.00	0.00
15,800.00	90.00	0.91	7,090.00	7,599.98	1,689.41	7,601.15	0.00	0.00	0.00
15,900.00	90.00	0.91	7,090.00	7,699.96	1,691.00	7,701.14	0.00	0.00	0.00
16,000.00	90.00	0.91	7,090.00	7,799.95	1,692.59	7,801.13	0.00	0.00	0.00
16,100.00	90.00	0.91	7,090.00	7,899.94	1,694.18	7,901.12	0.00	0.00	0.00
16,200.00	90.00	0.91	7,090.00	7,999.92	1,695.77	8,001.11	0.00	0.00	0.00
16,300.00	90.00	0.91	7,090.00	8,099.91	1,697.37	8,101.10	0.00	0.00	0.00
16,400.00	90.00	0.91	7,090.00	8,199.90	1,698.96	8,201.08	0.00	0.00	0.00
16,500.00	90.00	0.91	7,090.00	8,299.89	1,700.55	8,301.07	0.00	0.00	0.00
16,600.00	90.00	0.91	7,090.00	8,399.87	1,702.14	8,401.06	0.00	0.00	0.00
16,700.00	90.00	0.91	7,090.00	8,499.86	1,703.73	8,501.05	0.00	0.00	0.00
16,800.00	90.00	0.91	7,090.00	8,599.85	1,705.32	8,601.04	0.00	0.00	0.00
16,900.00	90.00	0.91	7,090.00	8,699.84	1,706.92	8,701.03	0.00	0.00	0.00
17,000.00	90.00	0.91	7,090.00	8,799.82	1,708.51	8,801.01	0.00	0.00	0.00
17,100.00	90.00	0.91	7,090.00	8,899.81	1,710.10	8,901.00	0.00	0.00	0.00
17,200.00	90.00	0.91	7,090.00	8,999.80	1,711.69	9,000.99	0.00	0.00	0.00
17,300.00	90.00	0.91	7,090.00	9,099.79	1,713.28	9,100.98	0.00	0.00	0.00
17,400.00	90.00	0.91	7,090.00	9,199.77	1,714.87	9,200.97	0.00	0.00	0.00
17,446.82	90.00	0.91	7,090.00	9,246.59	1,715.62	9,247.78	0.00	0.00	0.00
TD Well @ 17446.82ft									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name		Casing Diameter (")	Hole Diameter (")
1,739.37	1,700.00	9 5/8"		9-5/8	13-1/2



# Hewlett-Packard

## Planning Report

<b>Database:</b>	EDM 5000.14 Single User Db	<b>Local Co-ordinate Reference:</b>	Well COUNTY LINE 3130-06H
<b>Company:</b>	VERDAD RESOURCES	<b>TVD Reference:</b>	RKB = 20' @ 5046.00usft (RIG)
<b>Project:</b>	WATTENBERG FIELD	<b>MD Reference:</b>	RKB = 20' @ 5046.00usft (RIG)
<b>Site:</b>	1N-65W-31 COUNTY LINE 3130 PAD	<b>North Reference:</b>	True
<b>Well:</b>	COUNTY LINE 3130-06H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
250.00	250.00	0.00	0.00	Begin Tangent @ 250.00ft
1,085.00	1,073.23	-71.36	97.50	End Tangent @ 1085.00ft
6,651.76	6,405.20	-1,016.14	1,388.37	KOP @ 6651.76ft :: DLS = 9°/100'
7,725.48	7,090.00	-439.44	1,708.82	End Build @ 7725.48ft
8,470.56	7,090.00	288.00	1,870.00	Begin Turn for AC @ 8470.56ft
9,336.57	7,090.00	1,148.79	1,927.67	End Turn @ 9336.57ft
12,602.01	7,090.00	4,402.64	1,652.88	Begin Turn to BHL @ 12602.01ft
12,888.97	7,090.00	4,689.31	1,643.08	End Turn @ 12888.97ft
17,446.82	7,090.00	9,246.59	1,715.62	TD Well @ 17446.82ft