

# **VERDAD RESOURCES**

**WATTENBERG FIELD**

**1N-65W-31 COUNTY LINE 3107 PAD**

**COUNTY LINE 3107-09H**

**Wellbore #1**

**Plan: Design #3**

## **Standard Planning Report**

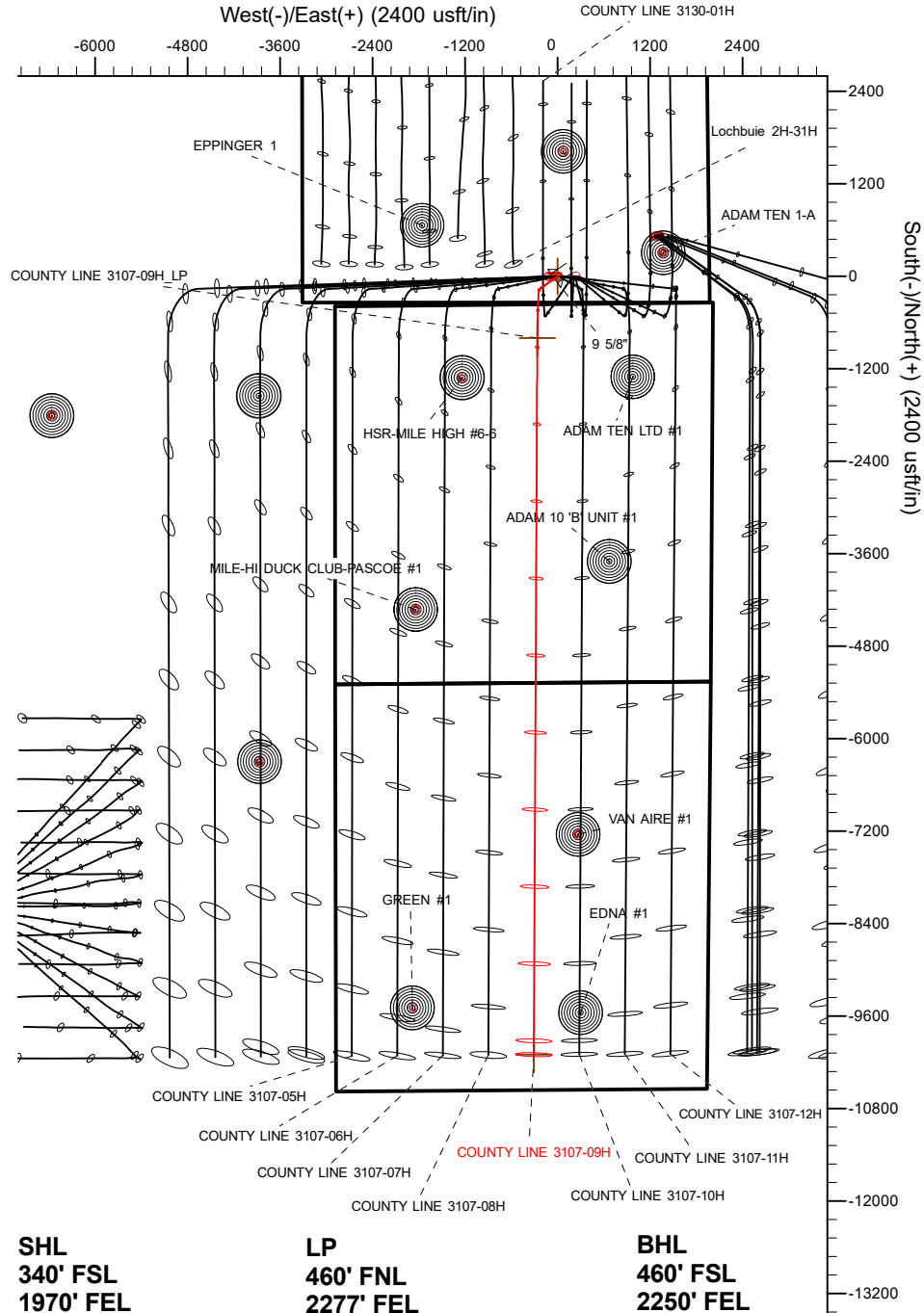
**02 June, 2020**

Project: WATTENBERG FIELD  
Site: 1N-65W-31 COUNTY LINE 3107 PAD  
Well: COUNTY LINE 3107-09H  
Wellbore: Wellbore #1  
Design: Design #3

# VERDAD RESOURCES

## CASING DETAILS

TVD	MD	Name	Size
1700.00	1701.18	9 5/8"	9-5/8

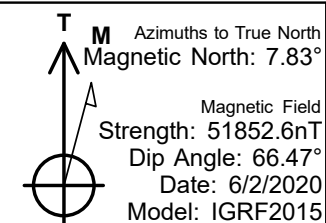
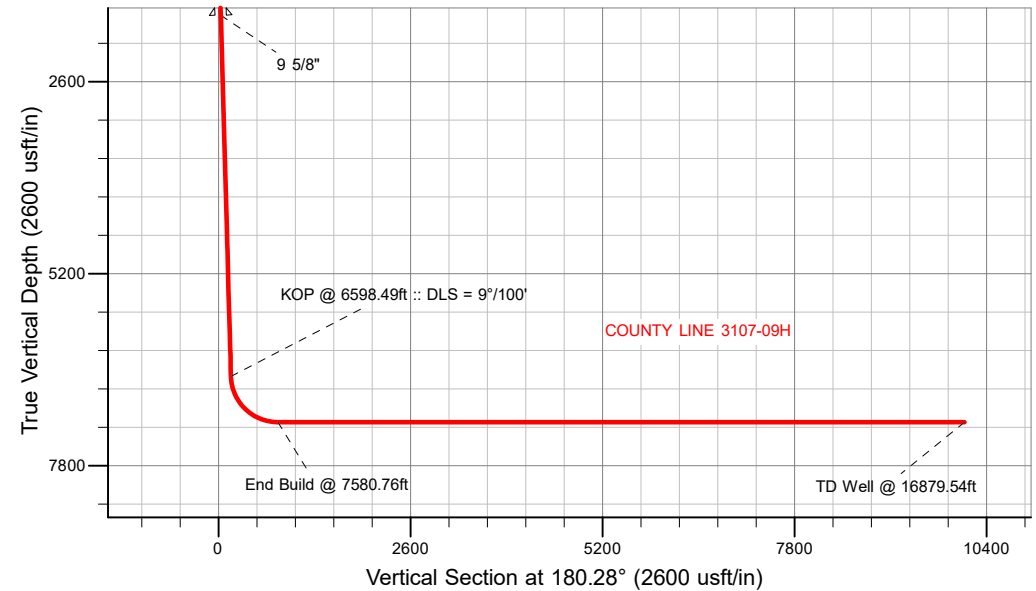


## SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	
3	738.50	2.77	235.10	738.45	-1.92	-2.75	2.00	235.10	1.93	
4	6598.49	2.77	235.10	6591.59	-163.94	-235.01	0.00	0.00	165.09	
5	7580.76	90.00	180.28	7210.00	-800.19	-262.59	9.00	-54.85	801.46	
6	16879.54	90.00	180.28	7210.00	-10098.85	-308.29	0.00	0.00	10100.24	COUNTY LINE 3107-09H_BHL

## WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
COUNTY LINE 3107-09H_SHL	0.00	0.00	0.00	40.001456	-104.704308
COUNTY LINE 3107-09H_BHL	7210.00	-10098.85	-308.29	39.973733	-104.705408



## WELL DETAILS: COUNTY LINE 3107-09H

GL = 5042'
RKB = 24' @ 5066.00usft (RIG)
Plan: Design #3 (COUNTY LINE 3107-09H/Wellbore #1)
Created By: Clinton Eshelman Date: 6/03/2020

# HP

## Planning Report

<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well COUNTY LINE 3107-09H
<b>Company:</b>	VERDAD RESOURCES	<b>TVD Reference:</b>	RKB = 24' @ 5066.00usft (RIG)
<b>Project:</b>	WATTENBERG FIELD	<b>MD Reference:</b>	RKB = 24' @ 5066.00usft (RIG)
<b>Site:</b>	1N-65W-31 COUNTY LINE 3107 PAD	<b>North Reference:</b>	True
<b>Well:</b>	COUNTY LINE 3107-09H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #3		

<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 3107 PAD			
<b>Site Position:</b>		<b>Northing:</b>	1,244,335.38 usft	<b>Latitude:</b> 40.001349
<b>From:</b>	Lat/Long	<b>Easting:</b>	3,222,602.81 usft	<b>Longitude:</b> -104.705400
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13-3/16 "	

<b>Well</b>	COUNTY LINE 3107-09H			
<b>Well Position</b>	<b>+N/-S</b>	0.00 usft	<b>Northing:</b>	1,244,377.45 usft
	<b>+E/-W</b>	0.00 usft	<b>Easting:</b>	3,222,908.36 usft
<b>Position Uncertainty</b>		3.28 usft	<b>Wellhead Elevation:</b>	usft
<b>Grid Convergence:</b>		0.51 °	<b>Ground Level:</b>	5,042.00 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	6/2/2020	7.83	66.47	51,852.58602014

<b>Design</b>	Design #3				
<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	180.28	

<b>Plan Survey Tool Program</b>		<b>Date</b>	6/2/2020		
<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 #3 (Wellbore #1)	ISCWSA REV 2 MWD	
				Fixed:v2:standard declination	
2	1,700.00	16,879.54	Design #3 (Wellbore #1)	ISCWSA REV 2 MWD	
				Fixed:v2:standard declination	

# HP

## Planning Report

<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well COUNTY LINE 3107-09H
<b>Company:</b>	VERDAD RESOURCES	<b>TVD Reference:</b>	RKB = 24' @ 5066.00usft (RIG)
<b>Project:</b>	WATTENBERG FIELD	<b>MD Reference:</b>	RKB = 24' @ 5066.00usft (RIG)
<b>Site:</b>	1N-65W-31 COUNTY LINE 3107 PAD	<b>North Reference:</b>	True
<b>Well:</b>	COUNTY LINE 3107-09H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #3		

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	
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00	
738.50	2.77	235.10	738.45	-1.92	-2.75	2.00	2.00	0.00	235.10	
6,598.49	2.77	235.10	6,591.59	-163.94	-235.01	0.00	0.00	0.00	0.00	
7,580.76	90.00	180.28	7,210.00	-800.19	-262.59	9.00	8.88	-5.58	-54.85	
16,879.54	90.00	180.28	7,210.00	-10,098.85	-308.29	0.00	0.00	0.00	0.00	COUNTY LINE 3107-

# HP

## Planning Report

<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well COUNTY LINE 3107-09H
<b>Company:</b>	VERDAD RESOURCES	<b>TVD Reference:</b>	RKB = 24' @ 5066.00usft (RIG)
<b>Project:</b>	WATTENBERG FIELD	<b>MD Reference:</b>	RKB = 24' @ 5066.00usft (RIG)
<b>Site:</b>	1N-65W-31 COUNTY LINE 3107 PAD	<b>North Reference:</b>	True
<b>Well:</b>	COUNTY LINE 3107-09H	<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
Begin Nudge @ 600.00ft									
700.00	2.00	235.10	699.98	-1.00	-1.43	1.01	2.00	2.00	0.00
738.50	2.77	235.10	738.45	-1.92	-2.75	1.93	2.00	2.00	0.00
Hold Tangent @ 738.50ft									
800.00	2.77	235.10	799.87	-3.62	-5.18	3.64	0.00	0.00	0.00
900.00	2.77	235.10	899.76	-6.38	-9.15	6.43	0.00	0.00	0.00
1,000.00	2.77	235.10	999.64	-9.15	-13.11	9.21	0.00	0.00	0.00
1,100.00	2.77	235.10	1,099.52	-11.91	-17.07	11.99	0.00	0.00	0.00
1,200.00	2.77	235.10	1,199.41	-14.68	-21.04	14.78	0.00	0.00	0.00
1,300.00	2.77	235.10	1,299.29	-17.44	-25.00	17.56	0.00	0.00	0.00
1,400.00	2.77	235.10	1,399.17	-20.21	-28.96	20.35	0.00	0.00	0.00
1,500.00	2.77	235.10	1,499.06	-22.97	-32.93	23.13	0.00	0.00	0.00
1,600.00	2.77	235.10	1,598.94	-25.74	-36.89	25.92	0.00	0.00	0.00
1,700.00	2.77	235.10	1,698.82	-28.50	-40.85	28.70	0.00	0.00	0.00
1,701.18	2.77	235.10	1,700.00	-28.53	-40.90	28.73	0.00	0.00	0.00
9 5/8"									
1,800.00	2.77	235.10	1,798.71	-31.27	-44.82	31.48	0.00	0.00	0.00
1,900.00	2.77	235.10	1,898.59	-34.03	-48.78	34.27	0.00	0.00	0.00
2,000.00	2.77	235.10	1,998.47	-36.80	-52.75	37.05	0.00	0.00	0.00
2,100.00	2.77	235.10	2,098.36	-39.56	-56.71	39.84	0.00	0.00	0.00
2,200.00	2.77	235.10	2,198.24	-42.33	-60.67	42.62	0.00	0.00	0.00
2,300.00	2.77	235.10	2,298.12	-45.09	-64.64	45.41	0.00	0.00	0.00
2,400.00	2.77	235.10	2,398.00	-47.86	-68.60	48.19	0.00	0.00	0.00
2,500.00	2.77	235.10	2,497.89	-50.62	-72.56	50.97	0.00	0.00	0.00
2,600.00	2.77	235.10	2,597.77	-53.39	-76.53	53.76	0.00	0.00	0.00
2,700.00	2.77	235.10	2,697.65	-56.15	-80.49	56.54	0.00	0.00	0.00
2,800.00	2.77	235.10	2,797.54	-58.92	-84.45	59.33	0.00	0.00	0.00
2,900.00	2.77	235.10	2,897.42	-61.68	-88.42	62.11	0.00	0.00	0.00
3,000.00	2.77	235.10	2,997.30	-64.45	-92.38	64.90	0.00	0.00	0.00
3,100.00	2.77	235.10	3,097.19	-67.21	-96.34	67.68	0.00	0.00	0.00
3,200.00	2.77	235.10	3,197.07	-69.98	-100.31	70.46	0.00	0.00	0.00
3,300.00	2.77	235.10	3,296.95	-72.74	-104.27	73.25	0.00	0.00	0.00
3,400.00	2.77	235.10	3,396.84	-75.51	-108.23	76.03	0.00	0.00	0.00
3,500.00	2.77	235.10	3,496.72	-78.27	-112.20	78.82	0.00	0.00	0.00
3,600.00	2.77	235.10	3,596.60	-81.04	-116.16	81.60	0.00	0.00	0.00
3,700.00	2.77	235.10	3,696.49	-83.80	-120.13	84.39	0.00	0.00	0.00
3,800.00	2.77	235.10	3,796.37	-86.57	-124.09	87.17	0.00	0.00	0.00
3,900.00	2.77	235.10	3,896.25	-89.33	-128.05	89.96	0.00	0.00	0.00
4,000.00	2.77	235.10	3,996.14	-92.10	-132.02	92.74	0.00	0.00	0.00
4,100.00	2.77	235.10	4,096.02	-94.86	-135.98	95.52	0.00	0.00	0.00
4,200.00	2.77	235.10	4,195.90	-97.63	-139.94	98.31	0.00	0.00	0.00
4,300.00	2.77	235.10	4,295.78	-100.39	-143.91	101.09	0.00	0.00	0.00
4,400.00	2.77	235.10	4,395.67	-103.16	-147.87	103.88	0.00	0.00	0.00
4,500.00	2.77	235.10	4,495.55	-105.92	-151.83	106.66	0.00	0.00	0.00
4,600.00	2.77	235.10	4,595.43	-108.69	-155.80	109.45	0.00	0.00	0.00
4,700.00	2.77	235.10	4,695.32	-111.45	-159.76	112.23	0.00	0.00	0.00

# HP

## Planning Report

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<b>Company:</b>	VERDAD RESOURCES	<b>TVD Reference:</b>	RKB = 24' @ 5066.00usft (RIG)
<b>Project:</b>	WATTENBERG FIELD	<b>MD Reference:</b>	RKB = 24' @ 5066.00usft (RIG)
<b>Site:</b>	1N-65W-31 COUNTY LINE 3107 PAD	<b>North Reference:</b>	True
<b>Well:</b>	COUNTY LINE 3107-09H	<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)
4,800.00	2.77	235.10	4,795.20	-114.22	-163.72	115.01	0.00	0.00	0.00
4,900.00	2.77	235.10	4,895.08	-116.98	-167.69	117.80	0.00	0.00	0.00
5,000.00	2.77	235.10	4,994.97	-119.75	-171.65	120.58	0.00	0.00	0.00
5,100.00	2.77	235.10	5,094.85	-122.51	-175.61	123.37	0.00	0.00	0.00
5,200.00	2.77	235.10	5,194.73	-125.28	-179.58	126.15	0.00	0.00	0.00
5,300.00	2.77	235.10	5,294.62	-128.04	-183.54	128.94	0.00	0.00	0.00
5,400.00	2.77	235.10	5,394.50	-130.81	-187.51	131.72	0.00	0.00	0.00
5,500.00	2.77	235.10	5,494.38	-133.57	-191.47	134.50	0.00	0.00	0.00
5,600.00	2.77	235.10	5,594.27	-136.34	-195.43	137.29	0.00	0.00	0.00
5,700.00	2.77	235.10	5,694.15	-139.10	-199.40	140.07	0.00	0.00	0.00
5,800.00	2.77	235.10	5,794.03	-141.87	-203.36	142.86	0.00	0.00	0.00
5,900.00	2.77	235.10	5,893.92	-144.63	-207.32	145.64	0.00	0.00	0.00
6,000.00	2.77	235.10	5,993.80	-147.40	-211.29	148.43	0.00	0.00	0.00
6,100.00	2.77	235.10	6,093.68	-150.16	-215.25	151.21	0.00	0.00	0.00
6,200.00	2.77	235.10	6,193.56	-152.93	-219.21	153.99	0.00	0.00	0.00
6,300.00	2.77	235.10	6,293.45	-155.69	-223.18	156.78	0.00	0.00	0.00
6,400.00	2.77	235.10	6,393.33	-158.46	-227.14	159.56	0.00	0.00	0.00
6,500.00	2.77	235.10	6,493.21	-161.22	-231.10	162.35	0.00	0.00	0.00
6,598.49	2.77	235.10	6,591.59	-163.94	-235.01	165.09	0.00	0.00	0.00
<b>KOP @ 6598.49ft :: DLS = 9°/100'</b>									
6,600.00	2.85	232.86	6,593.10	-163.99	-235.07	165.13	9.00	5.32	-148.02
6,700.00	10.97	192.06	6,692.33	-174.81	-239.04	175.98	9.00	8.11	-40.81
6,800.00	19.86	186.57	6,788.64	-201.04	-242.98	202.22	9.00	8.89	-5.49
6,900.00	28.81	184.40	6,879.66	-242.02	-246.78	243.22	9.00	8.96	-2.16
7,000.00	37.79	183.20	6,963.16	-296.75	-250.35	297.97	9.00	8.98	-1.20
7,100.00	46.77	182.41	7,037.07	-363.88	-253.61	365.11	9.00	8.98	-0.79
7,200.00	55.76	181.82	7,099.57	-441.75	-256.46	443.00	9.00	8.99	-0.59
7,300.00	64.75	181.35	7,149.13	-528.46	-258.85	529.71	9.00	8.99	-0.47
7,400.00	73.74	180.94	7,184.53	-621.85	-260.71	623.12	9.00	8.99	-0.41
7,500.00	82.74	180.57	7,204.89	-719.65	-261.99	720.92	9.00	8.99	-0.37
7,580.76	90.00	180.28	7,210.00	-800.19	-262.59	801.46	9.00	8.99	-0.36
<b>End Build @ 7580.76ft</b>									
7,600.00	90.00	180.28	7,210.00	-819.43	-262.68	820.70	0.00	0.00	0.00
7,700.00	90.00	180.28	7,210.00	-919.43	-263.18	920.70	0.00	0.00	0.00
7,800.00	90.00	180.28	7,210.00	-1,019.42	-263.67	1,020.70	0.00	0.00	0.00
7,900.00	90.00	180.28	7,210.00	-1,119.42	-264.16	1,120.70	0.00	0.00	0.00
8,000.00	90.00	180.28	7,210.00	-1,219.42	-264.65	1,220.70	0.00	0.00	0.00
8,100.00	90.00	180.28	7,210.00	-1,319.42	-265.14	1,320.70	0.00	0.00	0.00
8,200.00	90.00	180.28	7,210.00	-1,419.42	-265.63	1,420.70	0.00	0.00	0.00
8,300.00	90.00	180.28	7,210.00	-1,519.42	-266.12	1,520.70	0.00	0.00	0.00
8,400.00	90.00	180.28	7,210.00	-1,619.42	-266.62	1,620.70	0.00	0.00	0.00
8,500.00	90.00	180.28	7,210.00	-1,719.42	-267.11	1,720.70	0.00	0.00	0.00
8,600.00	90.00	180.28	7,210.00	-1,819.42	-267.60	1,820.70	0.00	0.00	0.00
8,700.00	90.00	180.28	7,210.00	-1,919.41	-268.09	1,920.70	0.00	0.00	0.00
8,800.00	90.00	180.28	7,210.00	-2,019.41	-268.58	2,020.70	0.00	0.00	0.00
8,900.00	90.00	180.28	7,210.00	-2,119.41	-269.07	2,120.70	0.00	0.00	0.00
9,000.00	90.00	180.28	7,210.00	-2,219.41	-269.56	2,220.70	0.00	0.00	0.00
9,100.00	90.00	180.28	7,210.00	-2,319.41	-270.06	2,320.70	0.00	0.00	0.00
9,200.00	90.00	180.28	7,210.00	-2,419.41	-270.55	2,420.70	0.00	0.00	0.00
9,300.00	90.00	180.28	7,210.00	-2,519.41	-271.04	2,520.70	0.00	0.00	0.00
9,400.00	90.00	180.28	7,210.00	-2,619.41	-271.53	2,620.70	0.00	0.00	0.00
9,500.00	90.00	180.28	7,210.00	-2,719.40	-272.02	2,720.70	0.00	0.00	0.00
9,600.00	90.00	180.28	7,210.00	-2,819.40	-272.51	2,820.70	0.00	0.00	0.00
9,700.00	90.00	180.28	7,210.00	-2,919.40	-273.00	2,920.70	0.00	0.00	0.00

# HP

## Planning Report

<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well COUNTY LINE 3107-09H
<b>Company:</b>	VERDAD RESOURCES	<b>TVD Reference:</b>	RKB = 24' @ 5066.00usft (RIG)
<b>Project:</b>	WATTENBERG FIELD	<b>MD Reference:</b>	RKB = 24' @ 5066.00usft (RIG)
<b>Site:</b>	1N-65W-31 COUNTY LINE 3107 PAD	<b>North Reference:</b>	True
<b>Well:</b>	COUNTY LINE 3107-09H	<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)
9,800.00	90.00	180.28	7,210.00	-3,019.40	-273.50	3,020.70	0.00	0.00	0.00
9,900.00	90.00	180.28	7,210.00	-3,119.40	-273.99	3,120.70	0.00	0.00	0.00
10,000.00	90.00	180.28	7,210.00	-3,219.40	-274.48	3,220.70	0.00	0.00	0.00
10,100.00	90.00	180.28	7,210.00	-3,319.40	-274.97	3,320.70	0.00	0.00	0.00
10,200.00	90.00	180.28	7,210.00	-3,419.40	-275.46	3,420.70	0.00	0.00	0.00
10,300.00	90.00	180.28	7,210.00	-3,519.39	-275.95	3,520.70	0.00	0.00	0.00
10,400.00	90.00	180.28	7,210.00	-3,619.39	-276.44	3,620.70	0.00	0.00	0.00
10,500.00	90.00	180.28	7,210.00	-3,719.39	-276.94	3,720.70	0.00	0.00	0.00
10,600.00	90.00	180.28	7,210.00	-3,819.39	-277.43	3,820.70	0.00	0.00	0.00
10,700.00	90.00	180.28	7,210.00	-3,919.39	-277.92	3,920.70	0.00	0.00	0.00
10,800.00	90.00	180.28	7,210.00	-4,019.39	-278.41	4,020.70	0.00	0.00	0.00
10,900.00	90.00	180.28	7,210.00	-4,119.39	-278.90	4,120.70	0.00	0.00	0.00
11,000.00	90.00	180.28	7,210.00	-4,219.39	-279.39	4,220.70	0.00	0.00	0.00
11,100.00	90.00	180.28	7,210.00	-4,319.38	-279.88	4,320.70	0.00	0.00	0.00
11,200.00	90.00	180.28	7,210.00	-4,419.38	-280.38	4,420.70	0.00	0.00	0.00
11,300.00	90.00	180.28	7,210.00	-4,519.38	-280.87	4,520.70	0.00	0.00	0.00
11,400.00	90.00	180.28	7,210.00	-4,619.38	-281.36	4,620.70	0.00	0.00	0.00
11,500.00	90.00	180.28	7,210.00	-4,719.38	-281.85	4,720.70	0.00	0.00	0.00
11,600.00	90.00	180.28	7,210.00	-4,819.38	-282.34	4,820.70	0.00	0.00	0.00
11,700.00	90.00	180.28	7,210.00	-4,919.38	-282.83	4,920.70	0.00	0.00	0.00
11,800.00	90.00	180.28	7,210.00	-5,019.38	-283.32	5,020.70	0.00	0.00	0.00
11,900.00	90.00	180.28	7,210.00	-5,119.38	-283.82	5,120.70	0.00	0.00	0.00
12,000.00	90.00	180.28	7,210.00	-5,219.37	-284.31	5,220.70	0.00	0.00	0.00
12,100.00	90.00	180.28	7,210.00	-5,319.37	-284.80	5,320.70	0.00	0.00	0.00
12,200.00	90.00	180.28	7,210.00	-5,419.37	-285.29	5,420.70	0.00	0.00	0.00
12,300.00	90.00	180.28	7,210.00	-5,519.37	-285.78	5,520.70	0.00	0.00	0.00
12,400.00	90.00	180.28	7,210.00	-5,619.37	-286.27	5,620.70	0.00	0.00	0.00
12,500.00	90.00	180.28	7,210.00	-5,719.37	-286.76	5,720.70	0.00	0.00	0.00
12,600.00	90.00	180.28	7,210.00	-5,819.37	-287.26	5,820.70	0.00	0.00	0.00
12,700.00	90.00	180.28	7,210.00	-5,919.37	-287.75	5,920.70	0.00	0.00	0.00
12,800.00	90.00	180.28	7,210.00	-6,019.36	-288.24	6,020.70	0.00	0.00	0.00
12,900.00	90.00	180.28	7,210.00	-6,119.36	-288.73	6,120.70	0.00	0.00	0.00
13,000.00	90.00	180.28	7,210.00	-6,219.36	-289.22	6,220.70	0.00	0.00	0.00
13,100.00	90.00	180.28	7,210.00	-6,319.36	-289.71	6,320.70	0.00	0.00	0.00
13,200.00	90.00	180.28	7,210.00	-6,419.36	-290.21	6,420.70	0.00	0.00	0.00
13,300.00	90.00	180.28	7,210.00	-6,519.36	-290.70	6,520.70	0.00	0.00	0.00
13,400.00	90.00	180.28	7,210.00	-6,619.36	-291.19	6,620.70	0.00	0.00	0.00
13,500.00	90.00	180.28	7,210.00	-6,719.36	-291.68	6,720.70	0.00	0.00	0.00
13,600.00	90.00	180.28	7,210.00	-6,819.35	-292.17	6,820.70	0.00	0.00	0.00
13,700.00	90.00	180.28	7,210.00	-6,919.35	-292.66	6,920.70	0.00	0.00	0.00
13,800.00	90.00	180.28	7,210.00	-7,019.35	-293.15	7,020.70	0.00	0.00	0.00
13,900.00	90.00	180.28	7,210.00	-7,119.35	-293.65	7,120.70	0.00	0.00	0.00
14,000.00	90.00	180.28	7,210.00	-7,219.35	-294.14	7,220.70	0.00	0.00	0.00
14,100.00	90.00	180.28	7,210.00	-7,319.35	-294.63	7,320.70	0.00	0.00	0.00
14,200.00	90.00	180.28	7,210.00	-7,419.35	-295.12	7,420.70	0.00	0.00	0.00
14,300.00	90.00	180.28	7,210.00	-7,519.35	-295.61	7,520.70	0.00	0.00	0.00
14,400.00	90.00	180.28	7,210.00	-7,619.35	-296.10	7,620.70	0.00	0.00	0.00
14,500.00	90.00	180.28	7,210.00	-7,719.34	-296.59	7,720.70	0.00	0.00	0.00
14,600.00	90.00	180.28	7,210.00	-7,819.34	-297.09	7,820.70	0.00	0.00	0.00
14,700.00	90.00	180.28	7,210.00	-7,919.34	-297.58	7,920.70	0.00	0.00	0.00
14,800.00	90.00	180.28	7,210.00	-8,019.34	-298.07	8,020.70	0.00	0.00	0.00
14,900.00	90.00	180.28	7,210.00	-8,119.34	-298.56	8,120.70	0.00	0.00	0.00
15,000.00	90.00	180.28	7,210.00	-8,219.34	-299.05	8,220.70	0.00	0.00	0.00
15,100.00	90.00	180.28	7,210.00	-8,319.34	-299.54	8,320.70	0.00	0.00	0.00

# HP

## Planning Report

<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well COUNTY LINE 3107-09H
<b>Company:</b>	VERDAD RESOURCES	<b>TVD Reference:</b>	RKB = 24' @ 5066.00usft (RIG)
<b>Project:</b>	WATTENBERG FIELD	<b>MD Reference:</b>	RKB = 24' @ 5066.00usft (RIG)
<b>Site:</b>	1N-65W-31 COUNTY LINE 3107 PAD	<b>North Reference:</b>	True
<b>Well:</b>	COUNTY LINE 3107-09H	<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)	
15,200.00	90.00	180.28	7,210.00	-8,419.34	-300.03	8,420.70	0.00	0.00	0.00	
15,300.00	90.00	180.28	7,210.00	-8,519.33	-300.53	8,520.70	0.00	0.00	0.00	
15,400.00	90.00	180.28	7,210.00	-8,619.33	-301.02	8,620.70	0.00	0.00	0.00	
15,500.00	90.00	180.28	7,210.00	-8,719.33	-301.51	8,720.70	0.00	0.00	0.00	
15,600.00	90.00	180.28	7,210.00	-8,819.33	-302.00	8,820.70	0.00	0.00	0.00	
15,700.00	90.00	180.28	7,210.00	-8,919.33	-302.49	8,920.70	0.00	0.00	0.00	
15,800.00	90.00	180.28	7,210.00	-9,019.33	-302.98	9,020.70	0.00	0.00	0.00	
15,900.00	90.00	180.28	7,210.00	-9,119.33	-303.47	9,120.70	0.00	0.00	0.00	
16,000.00	90.00	180.28	7,210.00	-9,219.33	-303.97	9,220.70	0.00	0.00	0.00	
16,100.00	90.00	180.28	7,210.00	-9,319.32	-304.46	9,320.70	0.00	0.00	0.00	
16,200.00	90.00	180.28	7,210.00	-9,419.32	-304.95	9,420.70	0.00	0.00	0.00	
16,300.00	90.00	180.28	7,210.00	-9,519.32	-305.44	9,520.70	0.00	0.00	0.00	
16,400.00	90.00	180.28	7,210.00	-9,619.32	-305.93	9,620.70	0.00	0.00	0.00	
16,500.00	90.00	180.28	7,210.00	-9,719.32	-306.42	9,720.70	0.00	0.00	0.00	
16,600.00	90.00	180.28	7,210.00	-9,819.32	-306.91	9,820.70	0.00	0.00	0.00	
16,700.00	90.00	180.28	7,210.00	-9,919.32	-307.41	9,920.70	0.00	0.00	0.00	
16,800.00	90.00	180.28	7,210.00	-10,019.32	-307.90	10,020.70	0.00	0.00	0.00	
16,879.54	90.00	180.28	7,210.00	-10,098.85	-308.29	10,100.24	0.00	0.00	0.00	
TD Well @ 16879.54ft										

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
1,701.18	1,700.00	9 5/8"	9-5/8	13-1/2	

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
600.00	600.00	0.00	0.00	Begin Nudge @ 600.00ft	
738.50	738.45	-1.92	-2.75	Hold Tangent @ 738.50ft	
6,598.49	6,591.59	-163.94	-235.01	KOP @ 6598.49ft :: DLS = 9°/100'	
7,580.76	7,210.00	-800.19	-262.59	End Build @ 7580.76ft	
16,879.54	7,210.00	-10,098.85	-308.29	TD Well @ 16879.54ft	