

VERDAD RESOURCES

WATTENBERG FIELD

1N-65W-31 COUNTY LINE 3229 PAD

COUNTY LINE 3229-20H

Plan A

Plan: Design #2

Standard Planning Report

24 May, 2022

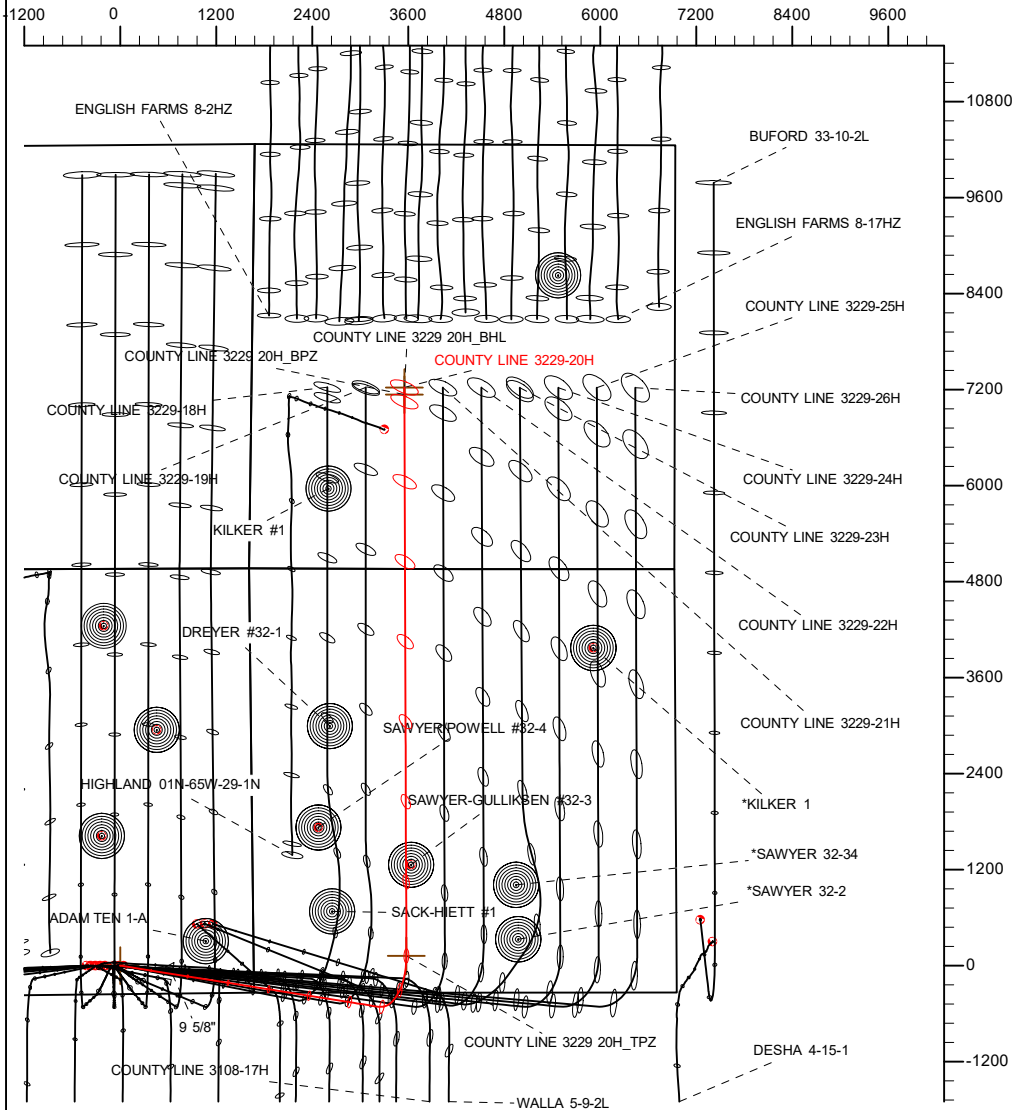
Project: WATTENBERG FIELD
Site: 1N-65W-31 COUNTY LINE 3229 PAD
Well: COUNTY LINE 3229-20H
Wellbore: Plan A
Design: Design #2

VERDAD RESOURCES

CASING DETAILS

TVD	MD	Name	Size
2275.00	2418.31	9 5/8"	9-5/8

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



SHL
340' FSL
1670' FEL

TPZ
460' FSL
1910' FWL

BPZ
2180' FSL
1912' FWL

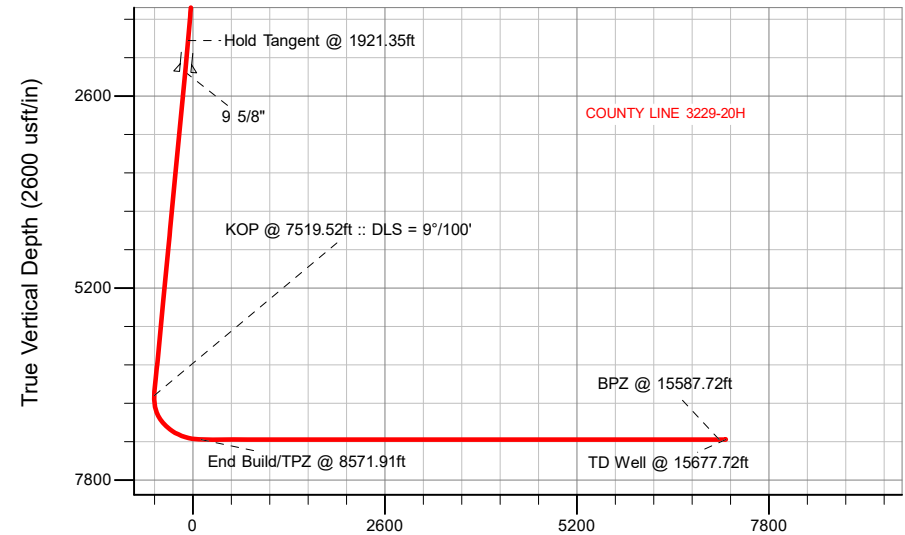
BHL
2270' FSL
1910' FWL

SECTION DETAILS

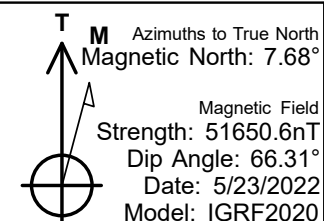
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSeet	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
380.85	0.00	0.00	380.85	0.00	0.00	0.00	0.00	0.00	
1921.35	30.81	99.03	1848.17	-63.46	399.30	2.00	99.03	-64.92	
7519.52	30.81	99.03	6656.28	-513.49	3231.10	0.00	0.00	-525.33	
8571.91	90.00	359.79	7250.00	122.22	3578.31	9.00	-97.95	109.11	
15677.72	90.00	359.79	7250.00	7227.99	3552.88	0.00	0.00	7214.92	COUNTY LINE 3229 20H_BHL

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
COUNTY LINE 3229 20H_SHL	0.00	0.00	0.00	40.001457	-104.703236
COUNTY LINE 3229 20H_TPZ	7250.00	122.22	3578.31	40.001792	-104.690463
COUNTY LINE 3229 20H_BPZ	7250.00	7137.99	3553.20	40.021051	-104.690549
COUNTY LINE 3229 20H_BHL	7250.00	7227.99	3552.88	40.021299	-104.690550



Vertical Section at 359.79° (2600 usft/in)



WELL DETAILS: COUNTY LINE 3229-20H

GL = 5046'

RKB = 24' @ 5070.00usft (RIG)

Plan: Design #2 (COUNTY LINE 3229-20H/Plan A)

Date: 5/24/2022

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well COUNTY LINE 3229-20H
Company:	VERDAD RESOURCES	TVD Reference:	RKB = 24' @ 5070.00usft (RIG)
Project:	WATTENBERG FIELD	MD Reference:	RKB = 24' @ 5070.00usft (RIG)
Site:	1N-65W-31 COUNTY LINE 3229 PAD	North Reference:	True
Well:	COUNTY LINE 3229-20H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	Design #2		

Project	WATTENBERG FIELD		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site	1N-65W-31 COUNTY LINE 3229 PAD			
Site Position:		Northing:	1,244,380.12 usft	Latitude: 40.001457
From:	Map	Easting:	3,223,178.62 usft	Longitude: -104.703343
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	

Well	COUNTY LINE 3229-20H			
Well Position	+N/-S	0.00 usft	Northing:	1,244,380.41 usft
	+E/-W	0.00 usft	Easting:	3,223,208.61 usft
Position Uncertainty		3.28 usft	Wellhead Elevation:	usft
Grid Convergence:		0.51 °	Ground Level:	5,046.00 usft

Wellbore	Plan A				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF202013	5/23/2022	7.68	66.31	51,650.60428554

Design	Design #2			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	359.79

Plan Survey Tool Program	Date	5/23/2022		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	2,275.00	Design #2 (Plan A)	ISCWSA MWD Fixed:v2:standard declination
2	2,275.00	15,677.72	Design #2 (Plan A)	ISCWSA MWD Fixed:v2:standard declination

Planning Report

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Project:	WATTENBERG FIELD	MD Reference:	RKB = 24' @ 5070.00usft (RIG)
Site:	1N-65W-31 COUNTY LINE 3229 PAD	North Reference:	True
Well:	COUNTY LINE 3229-20H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	Design #2		

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	
380.85	0.00	0.00	380.85	0.00	0.00	0.00	0.00	0.00	0.00	
1,921.35	30.81	99.03	1,848.17	-63.46	399.30	2.00	2.00	0.00	99.03	
7,519.52	30.81	99.03	6,656.28	-513.49	3,231.10	0.00	0.00	0.00	0.00	
8,571.91	90.00	359.79	7,250.01	122.22	3,578.31	9.00	5.62	-9.43	-97.95	
15,677.72	90.00	359.79	7,250.00	7,227.99	3,552.88	0.00	0.00	0.00	0.00	COUNTY LINE 3229 :

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well COUNTY LINE 3229-20H
Company:	VERDAD RESOURCES	TVD Reference:	RKB = 24' @ 5070.00usft (RIG)
Project:	WATTENBERG FIELD	MD Reference:	RKB = 24' @ 5070.00usft (RIG)
Site:	1N-65W-31 COUNTY LINE 3229 PAD	North Reference:	True
Well:	COUNTY LINE 3229-20H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	Design #2		

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
380.85	0.00	0.00	380.85	0.00	0.00	0.00	0.00	0.00	0.00
Begin Nudge @ 380.85ft									
400.00	0.38	99.03	400.00	-0.01	0.06	-0.01	2.00	2.00	0.00
500.00	2.38	99.03	499.97	-0.39	2.45	-0.40	2.00	2.00	0.00
600.00	4.38	99.03	599.79	-1.31	8.27	-1.35	2.00	2.00	0.00
700.00	6.38	99.03	699.34	-2.79	17.54	-2.85	2.00	2.00	0.00
800.00	8.38	99.03	798.51	-4.80	30.23	-4.91	2.00	2.00	0.00
900.00	10.38	99.03	897.16	-7.36	46.33	-7.53	2.00	2.00	0.00
1,000.00	12.38	99.03	995.19	-10.46	65.82	-10.70	2.00	2.00	0.00
1,100.00	14.38	99.03	1,092.47	-14.09	88.68	-14.42	2.00	2.00	0.00
1,200.00	16.38	99.03	1,188.88	-18.26	114.88	-18.68	2.00	2.00	0.00
1,300.00	18.38	99.03	1,284.31	-22.94	144.38	-23.47	2.00	2.00	0.00
1,400.00	20.38	99.03	1,378.64	-28.15	177.15	-28.80	2.00	2.00	0.00
1,500.00	22.38	99.03	1,471.75	-33.88	213.16	-34.66	2.00	2.00	0.00
1,600.00	24.38	99.03	1,563.53	-40.10	252.35	-41.03	2.00	2.00	0.00
1,700.00	26.38	99.03	1,653.87	-46.83	294.69	-47.91	2.00	2.00	0.00
1,800.00	28.38	99.03	1,742.67	-54.05	340.11	-55.30	2.00	2.00	0.00
1,900.00	30.38	99.03	1,829.80	-61.75	388.56	-63.17	2.00	2.00	0.00
1,921.35	30.81	99.03	1,848.17	-63.46	399.30	-64.92	2.00	2.00	0.00
Hold Tangent @ 1921.35ft									
2,000.00	30.81	99.03	1,915.72	-69.78	439.08	-71.39	0.00	0.00	0.00
2,100.00	30.81	99.03	2,001.61	-77.82	489.66	-79.61	0.00	0.00	0.00
2,200.00	30.81	99.03	2,087.50	-85.86	540.25	-87.84	0.00	0.00	0.00
2,300.00	30.81	99.03	2,173.39	-93.90	590.83	-96.06	0.00	0.00	0.00
2,400.00	30.81	99.03	2,259.27	-101.93	641.42	-104.29	0.00	0.00	0.00
2,418.31	30.81	99.03	2,275.00	-103.41	650.68	-105.79	0.00	0.00	0.00
9 5/8"									
2,500.00	30.81	99.03	2,345.16	-109.97	692.00	-112.51	0.00	0.00	0.00
2,600.00	30.81	99.03	2,431.05	-118.01	742.59	-120.73	0.00	0.00	0.00
2,700.00	30.81	99.03	2,516.93	-126.05	793.17	-128.96	0.00	0.00	0.00
2,800.00	30.81	99.03	2,602.82	-134.09	843.76	-137.18	0.00	0.00	0.00
2,900.00	30.81	99.03	2,688.71	-142.13	894.34	-145.41	0.00	0.00	0.00
3,000.00	30.81	99.03	2,774.59	-150.17	944.92	-153.63	0.00	0.00	0.00
3,100.00	30.81	99.03	2,860.48	-158.21	995.51	-161.86	0.00	0.00	0.00
3,200.00	30.81	99.03	2,946.37	-166.25	1,046.09	-170.08	0.00	0.00	0.00
3,300.00	30.81	99.03	3,032.26	-174.29	1,096.68	-178.30	0.00	0.00	0.00
3,400.00	30.81	99.03	3,118.14	-182.32	1,147.26	-186.53	0.00	0.00	0.00
3,500.00	30.81	99.03	3,204.03	-190.36	1,197.85	-194.75	0.00	0.00	0.00
3,600.00	30.81	99.03	3,289.92	-198.40	1,248.43	-202.98	0.00	0.00	0.00
3,700.00	30.81	99.03	3,375.80	-206.44	1,299.02	-211.20	0.00	0.00	0.00
3,800.00	30.81	99.03	3,461.69	-214.48	1,349.60	-219.43	0.00	0.00	0.00
3,900.00	30.81	99.03	3,547.58	-222.52	1,400.19	-227.65	0.00	0.00	0.00
4,000.00	30.81	99.03	3,633.47	-230.56	1,450.77	-235.87	0.00	0.00	0.00
4,100.00	30.81	99.03	3,719.35	-238.60	1,501.35	-244.10	0.00	0.00	0.00
4,200.00	30.81	99.03	3,805.24	-246.64	1,551.94	-252.32	0.00	0.00	0.00
4,300.00	30.81	99.03	3,891.13	-254.67	1,602.52	-260.55	0.00	0.00	0.00
4,400.00	30.81	99.03	3,977.01	-262.71	1,653.11	-268.77	0.00	0.00	0.00
4,500.00	30.81	99.03	4,062.90	-270.75	1,703.69	-277.00	0.00	0.00	0.00
4,600.00	30.81	99.03	4,148.79	-278.79	1,754.28	-285.22	0.00	0.00	0.00

Planning Report

Database: Company: Project: Site: Well: Wellbore: Design:	EDM 5000.16 Single User Db VERDAD RESOURCES WATTENBERG FIELD 1N-65W-31 COUNTY LINE 3229 PAD COUNTY LINE 3229-20H Plan A Design #2	Local Co-ordinate Reference: TVD Reference: MD Reference: North Reference: Survey Calculation Method:	Well COUNTY LINE 3229-20H RKB = 24' @ 5070.00usft (RIG) RKB = 24' @ 5070.00usft (RIG) True Minimum Curvature
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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	30.81	99.03	4,234.67	-286.83	1,804.86	-293.44	0.00	0.00	0.00
4,800.00	30.81	99.03	4,320.56	-294.87	1,855.45	-301.67	0.00	0.00	0.00
4,900.00	30.81	99.03	4,406.45	-302.91	1,906.03	-309.89	0.00	0.00	0.00
5,000.00	30.81	99.03	4,492.34	-310.95	1,956.61	-318.12	0.00	0.00	0.00
5,100.00	30.81	99.03	4,578.22	-318.99	2,007.20	-326.34	0.00	0.00	0.00
5,200.00	30.81	99.03	4,664.11	-327.03	2,057.78	-334.57	0.00	0.00	0.00
5,300.00	30.81	99.03	4,750.00	-335.06	2,108.37	-342.79	0.00	0.00	0.00
5,400.00	30.81	99.03	4,835.88	-343.10	2,158.95	-351.01	0.00	0.00	0.00
5,500.00	30.81	99.03	4,921.77	-351.14	2,209.54	-359.24	0.00	0.00	0.00
5,600.00	30.81	99.03	5,007.66	-359.18	2,260.12	-367.46	0.00	0.00	0.00
5,700.00	30.81	99.03	5,093.55	-367.22	2,310.71	-375.69	0.00	0.00	0.00
5,800.00	30.81	99.03	5,179.43	-375.26	2,361.29	-383.91	0.00	0.00	0.00
5,900.00	30.81	99.03	5,265.32	-383.30	2,411.87	-392.14	0.00	0.00	0.00
6,000.00	30.81	99.03	5,351.21	-391.34	2,462.46	-400.36	0.00	0.00	0.00
6,100.00	30.81	99.03	5,437.09	-399.38	2,513.04	-408.58	0.00	0.00	0.00
6,200.00	30.81	99.03	5,522.98	-407.41	2,563.63	-416.81	0.00	0.00	0.00
6,300.00	30.81	99.03	5,608.87	-415.45	2,614.21	-425.03	0.00	0.00	0.00
6,400.00	30.81	99.03	5,694.75	-423.49	2,664.80	-433.26	0.00	0.00	0.00
6,500.00	30.81	99.03	5,780.64	-431.53	2,715.38	-441.48	0.00	0.00	0.00
6,600.00	30.81	99.03	5,866.53	-439.57	2,765.97	-449.71	0.00	0.00	0.00
6,700.00	30.81	99.03	5,952.42	-447.61	2,816.55	-457.93	0.00	0.00	0.00
6,800.00	30.81	99.03	6,038.30	-455.65	2,867.14	-466.15	0.00	0.00	0.00
6,900.00	30.81	99.03	6,124.19	-463.69	2,917.72	-474.38	0.00	0.00	0.00
7,000.00	30.81	99.03	6,210.08	-471.73	2,968.30	-482.60	0.00	0.00	0.00
7,100.00	30.81	99.03	6,295.96	-479.77	3,018.89	-490.83	0.00	0.00	0.00
7,200.00	30.81	99.03	6,381.85	-487.80	3,069.47	-499.05	0.00	0.00	0.00
7,300.00	30.81	99.03	6,467.74	-495.84	3,120.06	-507.28	0.00	0.00	0.00
7,400.00	30.81	99.03	6,553.63	-503.88	3,170.64	-515.50	0.00	0.00	0.00
7,500.00	30.81	99.03	6,639.51	-511.92	3,221.23	-523.72	0.00	0.00	0.00
7,519.52	30.81	99.03	6,656.28	-513.49	3,231.10	-525.33	0.00	0.00	0.00
KOP @ 7519.52ft :: DLS = 9°/100'									
7,550.00	30.54	93.68	6,682.50	-515.21	3,246.54	-527.11	9.00	-0.89	-17.56
7,600.00	30.58	84.82	6,725.58	-514.88	3,271.90	-526.87	9.00	0.07	-17.71
7,650.00	31.21	76.13	6,768.50	-510.62	3,297.15	-522.71	9.00	1.26	-17.37
7,700.00	32.39	67.89	6,811.02	-502.48	3,322.15	-514.65	9.00	2.37	-16.49
7,750.00	34.08	60.27	6,852.86	-490.48	3,346.73	-502.75	9.00	3.37	-15.24
7,800.00	36.19	53.36	6,893.76	-474.72	3,370.75	-487.07	9.00	4.23	-13.82
7,850.00	38.66	47.17	6,933.48	-455.28	3,394.06	-467.72	9.00	4.94	-12.39
7,900.00	41.42	41.64	6,971.77	-432.29	3,416.52	-444.81	9.00	5.52	-11.05
7,950.00	44.42	36.71	7,008.39	-405.89	3,437.98	-418.49	9.00	6.00	-9.86
8,000.00	47.61	32.30	7,043.12	-376.24	3,458.31	-388.91	9.00	6.38	-8.83
8,050.00	50.95	28.32	7,075.74	-343.52	3,477.40	-356.27	9.00	6.68	-7.96
8,100.00	54.42	24.70	7,106.05	-307.94	3,495.11	-320.75	9.00	6.93	-7.23
8,150.00	57.98	21.39	7,133.87	-269.72	3,511.35	-282.58	9.00	7.13	-6.62
8,200.00	61.62	18.34	7,159.02	-229.08	3,526.01	-242.00	9.00	7.29	-6.12
8,250.00	65.33	15.48	7,181.35	-186.29	3,539.00	-199.26	9.00	7.41	-5.71
8,300.00	69.08	12.80	7,200.72	-141.60	3,550.24	-154.61	9.00	7.51	-5.37
8,350.00	72.88	10.24	7,217.01	-95.29	3,559.67	-108.33	9.00	7.59	-5.11
8,400.00	76.71	7.79	7,230.12	-47.65	3,567.22	-60.72	9.00	7.66	-4.90
8,450.00	80.56	5.41	7,239.98	1.04	3,572.84	-12.06	9.00	7.70	-4.75
8,500.00	84.43	3.09	7,246.51	50.46	3,576.51	37.35	9.00	7.73	-4.65
8,550.00	88.30	0.80	7,249.68	100.32	3,578.20	87.20	9.00	7.75	-4.59
8,571.91	90.00	359.79	7,250.01	122.22	3,578.31	109.11	9.00	7.76	-4.57
End Build/TPZ @ 8571.91ft									

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well COUNTY LINE 3229-20H
Company:	VERDAD RESOURCES	TVD Reference:	RKB = 24' @ 5070.00usft (RIG)
Project:	WATTENBERG FIELD	MD Reference:	RKB = 24' @ 5070.00usft (RIG)
Site:	1N-65W-31 COUNTY LINE 3229 PAD	North Reference:	True
Well:	COUNTY LINE 3229-20H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	Design #2		

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)	
8,600.00	90.00	359.79	7,250.01	150.31	3,578.21	137.20	0.00	0.00	0.00	
8,700.00	90.00	359.79	7,250.01	250.31	3,577.85	237.20	0.00	0.00	0.00	
8,800.00	90.00	359.79	7,250.00	350.31	3,577.50	337.20	0.00	0.00	0.00	
8,900.00	90.00	359.79	7,250.00	450.31	3,577.14	437.20	0.00	0.00	0.00	
9,000.00	90.00	359.79	7,250.00	550.31	3,576.78	537.20	0.00	0.00	0.00	
9,100.00	90.00	359.79	7,250.00	650.31	3,576.42	637.20	0.00	0.00	0.00	
9,200.00	90.00	359.79	7,250.00	750.31	3,576.06	737.20	0.00	0.00	0.00	
9,300.00	90.00	359.79	7,250.00	850.31	3,575.71	837.20	0.00	0.00	0.00	
9,400.00	90.00	359.79	7,250.00	950.31	3,575.35	937.20	0.00	0.00	0.00	
9,500.00	90.00	359.79	7,250.00	1,050.31	3,574.99	1,037.20	0.00	0.00	0.00	
9,600.00	90.00	359.79	7,250.00	1,150.31	3,574.63	1,137.20	0.00	0.00	0.00	
9,700.00	90.00	359.79	7,250.00	1,250.31	3,574.27	1,237.20	0.00	0.00	0.00	
9,800.00	90.00	359.79	7,250.00	1,350.30	3,573.92	1,337.20	0.00	0.00	0.00	
9,900.00	90.00	359.79	7,250.00	1,450.30	3,573.56	1,437.20	0.00	0.00	0.00	
10,000.00	90.00	359.79	7,250.00	1,550.30	3,573.20	1,537.20	0.00	0.00	0.00	
10,100.00	90.00	359.79	7,250.00	1,650.30	3,572.84	1,637.20	0.00	0.00	0.00	
10,200.00	90.00	359.79	7,250.00	1,750.30	3,572.48	1,737.20	0.00	0.00	0.00	
10,300.00	90.00	359.79	7,250.00	1,850.30	3,572.13	1,837.20	0.00	0.00	0.00	
10,400.00	90.00	359.79	7,250.00	1,950.30	3,571.77	1,937.20	0.00	0.00	0.00	
10,500.00	90.00	359.79	7,250.00	2,050.30	3,571.41	2,037.20	0.00	0.00	0.00	
10,600.00	90.00	359.79	7,250.00	2,150.30	3,571.05	2,137.20	0.00	0.00	0.00	
10,700.00	90.00	359.79	7,250.00	2,250.30	3,570.69	2,237.20	0.00	0.00	0.00	
10,800.00	90.00	359.79	7,250.00	2,350.30	3,570.34	2,337.20	0.00	0.00	0.00	
10,900.00	90.00	359.79	7,250.00	2,450.30	3,569.98	2,437.20	0.00	0.00	0.00	
11,000.00	90.00	359.79	7,250.00	2,550.30	3,569.62	2,537.20	0.00	0.00	0.00	
11,100.00	90.00	359.79	7,250.00	2,650.30	3,569.26	2,637.20	0.00	0.00	0.00	
11,200.00	90.00	359.79	7,250.00	2,750.30	3,568.90	2,737.20	0.00	0.00	0.00	
11,300.00	90.00	359.79	7,250.00	2,850.30	3,568.55	2,837.20	0.00	0.00	0.00	
11,400.00	90.00	359.79	7,250.00	2,950.29	3,568.19	2,937.20	0.00	0.00	0.00	
11,500.00	90.00	359.79	7,250.00	3,050.29	3,567.83	3,037.20	0.00	0.00	0.00	
11,600.00	90.00	359.79	7,250.00	3,150.29	3,567.47	3,137.20	0.00	0.00	0.00	
11,700.00	90.00	359.79	7,250.00	3,250.29	3,567.12	3,237.20	0.00	0.00	0.00	
11,800.00	90.00	359.79	7,250.00	3,350.29	3,566.76	3,337.20	0.00	0.00	0.00	
11,900.00	90.00	359.79	7,250.00	3,450.29	3,566.40	3,437.20	0.00	0.00	0.00	
12,000.00	90.00	359.79	7,250.00	3,550.29	3,566.04	3,537.20	0.00	0.00	0.00	
12,100.00	90.00	359.79	7,250.00	3,650.29	3,565.68	3,637.20	0.00	0.00	0.00	
12,200.00	90.00	359.79	7,250.00	3,750.29	3,565.33	3,737.20	0.00	0.00	0.00	
12,300.00	90.00	359.79	7,250.00	3,850.29	3,564.97	3,837.20	0.00	0.00	0.00	
12,400.00	90.00	359.79	7,250.00	3,950.29	3,564.61	3,937.20	0.00	0.00	0.00	
12,500.00	90.00	359.79	7,250.00	4,050.29	3,564.25	4,037.20	0.00	0.00	0.00	
12,600.00	90.00	359.79	7,250.00	4,150.29	3,563.89	4,137.20	0.00	0.00	0.00	
12,700.00	90.00	359.79	7,250.00	4,250.29	3,563.54	4,237.20	0.00	0.00	0.00	
12,800.00	90.00	359.79	7,250.00	4,350.29	3,563.18	4,337.20	0.00	0.00	0.00	
12,900.00	90.00	359.79	7,250.00	4,450.29	3,562.82	4,437.20	0.00	0.00	0.00	
13,000.00	90.00	359.79	7,250.00	4,550.28	3,562.46	4,537.20	0.00	0.00	0.00	
13,100.00	90.00	359.79	7,250.00	4,650.28	3,562.10	4,637.20	0.00	0.00	0.00	
13,200.00	90.00	359.79	7,250.00	4,750.28	3,561.75	4,737.20	0.00	0.00	0.00	
13,300.00	90.00	359.79	7,250.00	4,850.28	3,561.39	4,837.20	0.00	0.00	0.00	
13,400.00	90.00	359.79	7,250.00	4,950.28	3,561.03	4,937.20	0.00	0.00	0.00	
13,500.00	90.00	359.79	7,250.00	5,050.28	3,560.67	5,037.20	0.00	0.00	0.00	
13,600.00	90.00	359.79	7,250.00	5,150.28	3,560.31	5,137.20	0.00	0.00	0.00	
13,700.00	90.00	359.79	7,250.00	5,250.28	3,559.96	5,237.20	0.00	0.00	0.00	
13,800.00	90.00	359.79	7,250.00	5,350.28	3,559.60	5,337.20	0.00	0.00	0.00	
13,900.00	90.00	359.79	7,250.00	5,450.28	3,559.24	5,437.20	0.00	0.00	0.00	

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well COUNTY LINE 3229-20H
Company:	VERDAD RESOURCES	TVD Reference:	RKB = 24' @ 5070.00usft (RIG)
Project:	WATTENBERG FIELD	MD Reference:	RKB = 24' @ 5070.00usft (RIG)
Site:	1N-65W-31 COUNTY LINE 3229 PAD	North Reference:	True
Well:	COUNTY LINE 3229-20H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	Design #2		

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)
14,000.00	90.00	359.79	7,250.00	5,550.28	3,558.88	5,537.20	0.00	0.00	0.00
14,100.00	90.00	359.79	7,250.00	5,650.28	3,558.52	5,637.20	0.00	0.00	0.00
14,200.00	90.00	359.79	7,250.00	5,750.28	3,558.17	5,737.20	0.00	0.00	0.00
14,300.00	90.00	359.79	7,250.00	5,850.28	3,557.81	5,837.20	0.00	0.00	0.00
14,400.00	90.00	359.79	7,250.00	5,950.28	3,557.45	5,937.20	0.00	0.00	0.00
14,500.00	90.00	359.79	7,250.00	6,050.27	3,557.09	6,037.20	0.00	0.00	0.00
14,600.00	90.00	359.79	7,250.00	6,150.27	3,556.74	6,137.20	0.00	0.00	0.00
14,700.00	90.00	359.79	7,250.00	6,250.27	3,556.38	6,237.20	0.00	0.00	0.00
14,800.00	90.00	359.79	7,250.00	6,350.27	3,556.02	6,337.20	0.00	0.00	0.00
14,900.00	90.00	359.79	7,250.00	6,450.27	3,555.66	6,437.20	0.00	0.00	0.00
15,000.00	90.00	359.79	7,250.00	6,550.27	3,555.30	6,537.20	0.00	0.00	0.00
15,100.00	90.00	359.79	7,250.00	6,650.27	3,554.95	6,637.20	0.00	0.00	0.00
15,200.00	90.00	359.79	7,250.00	6,750.27	3,554.59	6,737.20	0.00	0.00	0.00
15,300.00	90.00	359.79	7,250.00	6,850.27	3,554.23	6,837.20	0.00	0.00	0.00
15,400.00	90.00	359.79	7,250.00	6,950.27	3,553.87	6,937.20	0.00	0.00	0.00
15,500.00	90.00	359.79	7,250.00	7,050.27	3,553.51	7,037.20	0.00	0.00	0.00
15,587.72	90.00	359.79	7,250.00	7,137.99	3,553.20	7,124.92	0.00	0.00	0.00
BPZ @ 15587.72ft									
15,600.00	90.00	359.79	7,250.00	7,150.27	3,553.16	7,137.20	0.00	0.00	0.00
15,677.72	90.00	359.79	7,250.00	7,227.99	3,552.88	7,214.92	0.00	0.00	0.00
TD Well @ 15677.72ft									

Casing Points				
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
2,418.31	2,275.00	9 5/8"	9-5/8	13-1/2

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
380.85	380.85	0.00	0.00	Begin Nudge @ 380.85ft
1,921.35	1,848.17	-63.46	399.30	Hold Tangent @ 1921.35ft
7,519.52	6,656.28	-513.49	3,231.10	KOP @ 7519.52ft :: DLS = 9°/100'
8,571.91	7,250.01	122.22	3,578.31	End Build/TPZ @ 8571.91ft
15,587.72	7,250.00	7,137.99	3,553.20	BPZ @ 15587.72ft
15,677.72	7,250.00	7,227.99	3,552.88	TD Well @ 15677.72ft