

VERDAD RESOURCES

**WATTENBERG FIELD
1N-64W-17 WARNER PAD
WARNER 1708-03H**

Plan B

Plan: Design #1

Standard Planning Report

24 May, 2023

Project: WATTENBERG FIELD
Site: 1N-64W-17 WARNER PAD
Well: WARNER 1708-03H
Wellbore: Plan B
Design: Design #1

VERDAD RESOURCES

CASING DETAILS

TVD	MD	Name	Size
2120.00	2139.09	9 5/8"	9-5/8

SHL 185' FSL 2376' FWL	LP/TPZ 460' FSL 1443' FWL	BPZ 460' FNL 1443' FWL	BHL 370' FNL 1443' FWL
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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	
298.00	0.00	0.00	298.00	0.00	0.00	0.00	0.00	0.00	
749.50	9.03	242.86	747.63	-16.20	-31.60	2.00	242.86	-16.15	
6462.93	9.03	242.86	6390.25	-425.26	-829.59	0.00	0.00	-423.95	
7639.10	90.00	359.91	7150.00	288.95	-938.22	8.00	116.76	290.42	
17401.29	90.00	359.91	7150.00	10051.13	-953.19	0.00	0.00	10052.62	WARNER 1708-03H_BHL

DESIGN TARGET DETAILS

Name	TVD	Northing	Easting	Latitude	Longitude
WARNER 1708-03H_SHL	0.00	1260455.44	3258789.99	40.044636	-104.575635
WARNER 1708-03H_LP	7150.00	1260734.54	3257848.86	40.045429	-104.578986
WARNER 1708-03H_BPZ	7150.00	1270406.10	3257731.89	40.071981	-104.579045
WARNER 1708-03H_BHL	7150.00	1270496.09	3257732.08	40.072228	-104.579041

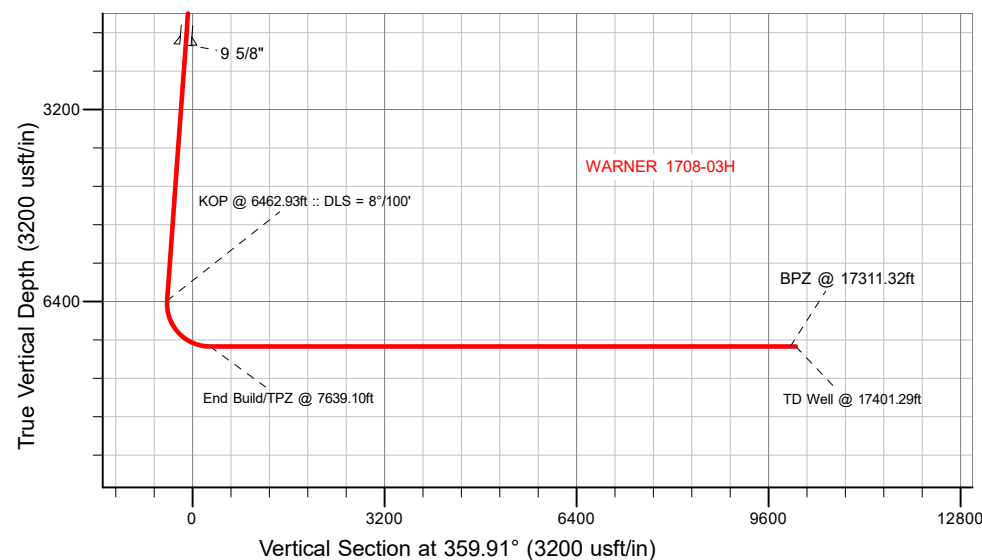
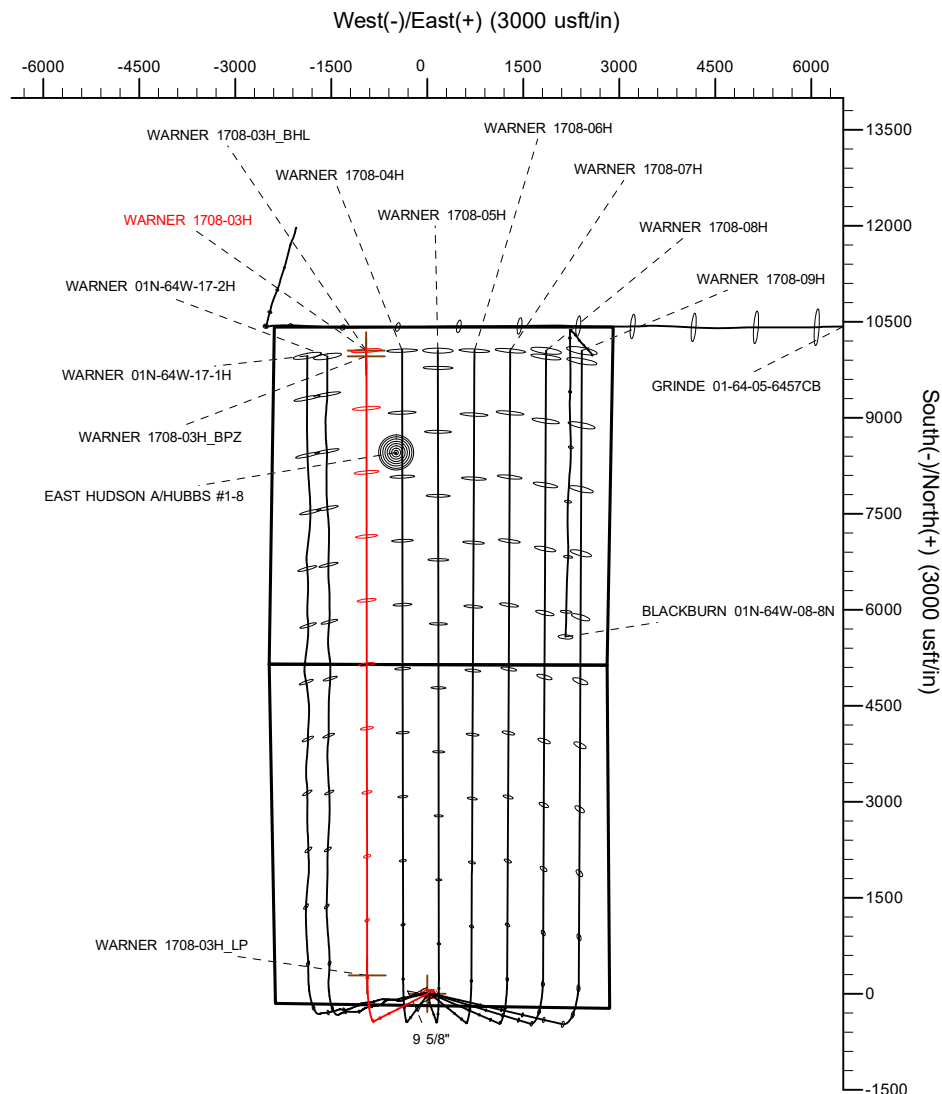
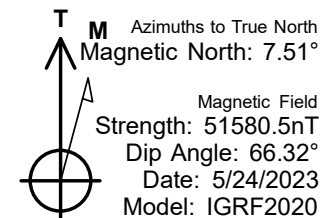
WELL DETAILS: WARNER 1708-03H

GL = 5068'

RKB = 20' @ 5088.00usft (RIG)

Plan: Design #1 (WARNER 1708-03H/Plan B)

Date: 5/25/2023



Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well WARNER 1708-03H
Company:	VERDAD RESOURCES	TVD Reference:	RKB = 20' @ 5088.00usft (RIG)
Project:	WATTENBERG FIELD	MD Reference:	RKB = 20' @ 5088.00usft (RIG)
Site:	1N-64W-17 WARNER PAD	North Reference:	True
Well:	WARNER 1708-03H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan B		
Design:	Design #1		

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-64W-17 WARNER PAD			
Site Position:		Northing:	1,260,479.85 usft	Latitude:	40.044700
From:	Lat/Long	Easting:	3,258,893.90 usft	Longitude:	-104.575263
Position Uncertainty:		0.00 usft	Slot Radius:	13-3/16 "	

Well		WARNER 1708-03H				
Well Position	+N/-S	0.00 usft	Northing:	1,260,455.43 usft	Latitude:	40.044636
	+E/-W	0.00 usft	Easting:	3,258,790.00 usft	Longitude:	-104.575635
Position Uncertainty		3.28 usft	Wellhead Elevation:	usft	Ground Level:	5,068.00 usft
Grid Convergence:		0.60 °				

Wellbore	Plan B				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF202013	5/24/2023	7.51	66.32	51,580.51658493

Design	Design #1				
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	359.91	

Plan Survey Tool Program	Date	5/24/2023			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.00	2,120.00	Design #1 (Plan B)	ISCWSA MWD	
				Fixed:v2:standard declination	
2	2,120.00	17,401.29	Design #1 (Plan B)	ISCWSA MWD	
				Fixed:v2:standard declination	

Planning Report

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Company:	VERDAD RESOURCES	TVD Reference:	RKB = 20' @ 5088.00usft (RIG)
Project:	WATTENBERG FIELD	MD Reference:	RKB = 20' @ 5088.00usft (RIG)
Site:	1N-64W-17 WARNER PAD	North Reference:	True
Well:	WARNER 1708-03H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan B		
Design:	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	
298.00	0.00	0.00	298.00	0.00	0.00	0.00	0.00	0.00	0.00	
749.50	9.03	242.86	747.63	-16.20	-31.60	2.00	2.00	0.00	242.86	
6,462.93	9.03	242.86	6,390.25	-425.26	-829.59	0.00	0.00	0.00	0.00	
7,639.10	90.00	359.91	7,150.00	288.95	-938.22	8.00	6.88	9.95	116.76	
17,401.29	90.00	359.91	7,150.00	10,051.13	-953.19	0.00	0.00	0.00	0.00	WARNER 1708-03H_

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well WARNER 1708-03H
Company:	VERDAD RESOURCES	TVD Reference:	RKB = 20' @ 5088.00usft (RIG)
Project:	WATTENBERG FIELD	MD Reference:	RKB = 20' @ 5088.00usft (RIG)
Site:	1N-64W-17 WARNER PAD	North Reference:	True
Well:	WARNER 1708-03H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan B		
Design:	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
298.00	0.00	0.00	298.00	0.00	0.00	0.00	0.00	0.00	0.00
Begin Nudge @ 298.00ft									
300.00	0.04	242.86	300.00	0.00	0.00	0.00	2.00	2.00	0.00
400.00	2.04	242.86	399.98	-0.83	-1.62	-0.83	2.00	2.00	0.00
500.00	4.04	242.86	499.83	-3.25	-6.33	-3.24	2.00	2.00	0.00
600.00	6.04	242.86	599.44	-7.25	-14.15	-7.23	2.00	2.00	0.00
700.00	8.04	242.86	698.68	-12.85	-25.06	-12.81	2.00	2.00	0.00
749.50	9.03	242.86	747.63	-16.20	-31.60	-16.15	2.00	2.00	0.00
Hold Tangent @ 749.50ft									
800.00	9.03	242.86	797.51	-19.81	-38.65	-19.75	0.00	0.00	0.00
900.00	9.03	242.86	896.27	-26.97	-52.62	-26.89	0.00	0.00	0.00
1,000.00	9.03	242.86	995.03	-34.13	-66.58	-34.03	0.00	0.00	0.00
1,100.00	9.03	242.86	1,093.79	-41.29	-80.55	-41.16	0.00	0.00	0.00
1,200.00	9.03	242.86	1,192.55	-48.45	-94.52	-48.30	0.00	0.00	0.00
1,300.00	9.03	242.86	1,291.31	-55.61	-108.48	-55.44	0.00	0.00	0.00
1,400.00	9.03	242.86	1,390.07	-62.77	-122.45	-62.58	0.00	0.00	0.00
1,500.00	9.03	242.86	1,488.83	-69.93	-136.42	-69.71	0.00	0.00	0.00
1,600.00	9.03	242.86	1,587.59	-77.09	-150.39	-76.85	0.00	0.00	0.00
1,700.00	9.03	242.86	1,686.35	-84.25	-164.35	-83.99	0.00	0.00	0.00
1,800.00	9.03	242.86	1,785.11	-91.41	-178.32	-91.13	0.00	0.00	0.00
1,900.00	9.03	242.86	1,883.87	-98.57	-192.29	-98.27	0.00	0.00	0.00
2,000.00	9.03	242.86	1,982.63	-105.73	-206.25	-105.40	0.00	0.00	0.00
2,100.00	9.03	242.86	2,081.40	-112.89	-220.22	-112.54	0.00	0.00	0.00
2,139.09	9.03	242.86	2,120.00	-115.69	-225.68	-115.33	0.00	0.00	0.00
9 5/8"									
2,200.00	9.03	242.86	2,180.16	-120.05	-234.19	-119.68	0.00	0.00	0.00
2,300.00	9.03	242.86	2,278.92	-127.21	-248.15	-126.82	0.00	0.00	0.00
2,400.00	9.03	242.86	2,377.68	-134.37	-262.12	-133.95	0.00	0.00	0.00
2,500.00	9.03	242.86	2,476.44	-141.53	-276.09	-141.09	0.00	0.00	0.00
2,600.00	9.03	242.86	2,575.20	-148.68	-290.06	-148.23	0.00	0.00	0.00
2,700.00	9.03	242.86	2,673.96	-155.84	-304.02	-155.37	0.00	0.00	0.00
2,800.00	9.03	242.86	2,772.72	-163.00	-317.99	-162.50	0.00	0.00	0.00
2,900.00	9.03	242.86	2,871.48	-170.16	-331.96	-169.64	0.00	0.00	0.00
3,000.00	9.03	242.86	2,970.24	-177.32	-345.92	-176.78	0.00	0.00	0.00
3,100.00	9.03	242.86	3,069.00	-184.48	-359.89	-183.92	0.00	0.00	0.00
3,200.00	9.03	242.86	3,167.76	-191.64	-373.86	-191.05	0.00	0.00	0.00
3,300.00	9.03	242.86	3,266.52	-198.80	-387.83	-198.19	0.00	0.00	0.00
3,400.00	9.03	242.86	3,365.28	-205.96	-401.79	-205.33	0.00	0.00	0.00
3,500.00	9.03	242.86	3,464.04	-213.12	-415.76	-212.47	0.00	0.00	0.00
3,600.00	9.03	242.86	3,562.81	-220.28	-429.73	-219.61	0.00	0.00	0.00
3,700.00	9.03	242.86	3,661.57	-227.44	-443.69	-226.74	0.00	0.00	0.00
3,800.00	9.03	242.86	3,760.33	-234.60	-457.66	-233.88	0.00	0.00	0.00
3,900.00	9.03	242.86	3,859.09	-241.76	-471.63	-241.02	0.00	0.00	0.00
4,000.00	9.03	242.86	3,957.85	-248.92	-485.59	-248.16	0.00	0.00	0.00
4,100.00	9.03	242.86	4,056.61	-256.08	-499.56	-255.29	0.00	0.00	0.00
4,200.00	9.03	242.86	4,155.37	-263.24	-513.53	-262.43	0.00	0.00	0.00
4,300.00	9.03	242.86	4,254.13	-270.40	-527.50	-269.57	0.00	0.00	0.00
4,400.00	9.03	242.86	4,352.89	-277.56	-541.46	-276.71	0.00	0.00	0.00
4,500.00	9.03	242.86	4,451.65	-284.72	-555.43	-283.84	0.00	0.00	0.00
4,600.00	9.03	242.86	4,550.41	-291.88	-569.40	-290.98	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well WARNER 1708-03H
Company:	VERDAD RESOURCES	TVD Reference:	RKB = 20' @ 5088.00usft (RIG)
Project:	WATTENBERG FIELD	MD Reference:	RKB = 20' @ 5088.00usft (RIG)
Site:	1N-64W-17 WARNER PAD	North Reference:	True
Well:	WARNER 1708-03H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan B		
Design:	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	9.03	242.86	4,649.17	-299.04	-583.36	-298.12	0.00	0.00	0.00
4,800.00	9.03	242.86	4,747.93	-306.20	-597.33	-305.26	0.00	0.00	0.00
4,900.00	9.03	242.86	4,846.69	-313.36	-611.30	-312.40	0.00	0.00	0.00
5,000.00	9.03	242.86	4,945.45	-320.52	-625.26	-319.53	0.00	0.00	0.00
5,100.00	9.03	242.86	5,044.21	-327.67	-639.23	-326.67	0.00	0.00	0.00
5,200.00	9.03	242.86	5,142.98	-334.83	-653.20	-333.81	0.00	0.00	0.00
5,300.00	9.03	242.86	5,241.74	-341.99	-667.17	-340.95	0.00	0.00	0.00
5,400.00	9.03	242.86	5,340.50	-349.15	-681.13	-348.08	0.00	0.00	0.00
5,500.00	9.03	242.86	5,439.26	-356.31	-695.10	-355.22	0.00	0.00	0.00
5,600.00	9.03	242.86	5,538.02	-363.47	-709.07	-362.36	0.00	0.00	0.00
5,700.00	9.03	242.86	5,636.78	-370.63	-723.03	-369.50	0.00	0.00	0.00
5,800.00	9.03	242.86	5,735.54	-377.79	-737.00	-376.63	0.00	0.00	0.00
5,900.00	9.03	242.86	5,834.30	-384.95	-750.97	-383.77	0.00	0.00	0.00
6,000.00	9.03	242.86	5,933.06	-392.11	-764.94	-390.91	0.00	0.00	0.00
6,100.00	9.03	242.86	6,031.82	-399.27	-778.90	-398.05	0.00	0.00	0.00
6,200.00	9.03	242.86	6,130.58	-406.43	-792.87	-405.18	0.00	0.00	0.00
6,300.00	9.03	242.86	6,229.34	-413.59	-806.84	-412.32	0.00	0.00	0.00
6,400.00	9.03	242.86	6,328.10	-420.75	-820.80	-419.46	0.00	0.00	0.00
6,462.93	9.03	242.86	6,390.25	-425.26	-829.59	-423.95	0.00	0.00	0.00
KOP @ 6462.93ft :: DLS = 8°/100'									
6,500.00	8.13	261.92	6,426.91	-426.95	-834.78	-425.64	8.00	-2.42	51.41
6,550.00	8.55	289.61	6,476.41	-426.20	-841.79	-424.88	8.00	0.83	55.39
6,600.00	10.57	310.61	6,525.72	-421.97	-848.77	-420.63	8.00	4.05	42.00
6,650.00	13.50	323.80	6,574.63	-414.27	-855.71	-412.92	8.00	5.86	26.38
6,700.00	16.87	332.09	6,622.88	-403.14	-862.55	-401.79	8.00	6.74	16.59
6,750.00	20.46	337.62	6,670.25	-388.64	-869.28	-387.28	8.00	7.18	11.06
6,800.00	24.18	341.54	6,716.49	-370.84	-875.85	-369.46	8.00	7.43	7.83
6,850.00	27.97	344.45	6,761.40	-349.83	-882.24	-348.44	8.00	7.58	5.83
6,900.00	31.81	346.72	6,804.74	-325.70	-888.41	-324.30	8.00	7.68	4.53
6,950.00	35.68	348.54	6,846.32	-298.57	-894.34	-297.17	8.00	7.74	3.65
7,000.00	39.57	350.05	6,885.91	-268.59	-899.99	-267.17	8.00	7.79	3.02
7,050.00	43.48	351.33	6,923.34	-235.88	-905.33	-234.46	8.00	7.82	2.56
7,100.00	47.40	352.43	6,958.42	-200.62	-910.35	-199.19	8.00	7.84	2.21
7,150.00	51.33	353.41	6,990.97	-162.97	-915.02	-161.54	8.00	7.86	1.95
7,200.00	55.27	354.28	7,020.85	-123.12	-919.31	-121.68	8.00	7.88	1.75
7,250.00	59.21	355.07	7,047.90	-81.26	-923.20	-79.81	8.00	7.89	1.59
7,300.00	63.16	355.81	7,071.99	-37.60	-926.68	-36.15	8.00	7.90	1.46
7,350.00	67.11	356.49	7,093.01	7.65	-929.72	9.11	8.00	7.90	1.36
7,400.00	71.07	357.13	7,110.85	54.28	-932.32	55.74	8.00	7.91	1.29
7,450.00	75.03	357.74	7,125.43	102.05	-934.45	103.52	8.00	7.91	1.23
7,500.00	78.98	358.33	7,136.67	150.73	-936.12	152.20	8.00	7.92	1.18
7,550.00	82.94	358.91	7,144.52	200.08	-937.31	201.56	8.00	7.92	1.15
7,600.00	86.90	359.47	7,148.95	249.87	-938.01	251.35	8.00	7.92	1.13
7,639.10	90.00	359.91	7,150.00	288.95	-938.22	290.42	8.00	7.92	1.12
End Build/TPZ @ 7639.10ft									
7,700.00	90.00	359.91	7,150.00	349.85	-938.31	351.33	0.00	0.00	0.00
7,800.00	90.00	359.91	7,150.00	449.85	-938.47	451.33	0.00	0.00	0.00
7,900.00	90.00	359.91	7,150.00	549.85	-938.62	551.33	0.00	0.00	0.00
8,000.00	90.00	359.91	7,150.00	649.85	-938.77	651.33	0.00	0.00	0.00
8,100.00	90.00	359.91	7,150.00	749.85	-938.93	751.33	0.00	0.00	0.00
8,200.00	90.00	359.91	7,150.00	849.85	-939.08	851.33	0.00	0.00	0.00
8,300.00	90.00	359.91	7,150.00	949.85	-939.23	951.33	0.00	0.00	0.00
8,400.00	90.00	359.91	7,150.00	1,049.85	-939.39	1,051.33	0.00	0.00	0.00
8,500.00	90.00	359.91	7,150.00	1,149.85	-939.54	1,151.33	0.00	0.00	0.00

Planning Report

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Company:	VERDAD RESOURCES	TVD Reference:	RKB = 20' @ 5088.00usft (RIG)
Project:	WATTENBERG FIELD	MD Reference:	RKB = 20' @ 5088.00usft (RIG)
Site:	1N-64W-17 WARNER PAD	North Reference:	True
Well:	WARNER 1708-03H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan B		
Design:	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)	
8,600.00	90.00	359.91	7,150.00	1,249.85	-939.69	1,251.33	0.00	0.00	0.00	
8,700.00	90.00	359.91	7,150.00	1,349.85	-939.85	1,351.33	0.00	0.00	0.00	
8,800.00	90.00	359.91	7,150.00	1,449.85	-940.00	1,451.33	0.00	0.00	0.00	
8,900.00	90.00	359.91	7,150.00	1,549.85	-940.15	1,551.33	0.00	0.00	0.00	
9,000.00	90.00	359.91	7,150.00	1,649.85	-940.31	1,651.33	0.00	0.00	0.00	
9,100.00	90.00	359.91	7,150.00	1,749.85	-940.46	1,751.33	0.00	0.00	0.00	
9,200.00	90.00	359.91	7,150.00	1,849.85	-940.61	1,851.33	0.00	0.00	0.00	
9,300.00	90.00	359.91	7,150.00	1,949.85	-940.77	1,951.33	0.00	0.00	0.00	
9,400.00	90.00	359.91	7,150.00	2,049.85	-940.92	2,051.33	0.00	0.00	0.00	
9,500.00	90.00	359.91	7,150.00	2,149.85	-941.07	2,151.33	0.00	0.00	0.00	
9,600.00	90.00	359.91	7,150.00	2,249.85	-941.23	2,251.33	0.00	0.00	0.00	
9,700.00	90.00	359.91	7,150.00	2,349.85	-941.38	2,351.33	0.00	0.00	0.00	
9,800.00	90.00	359.91	7,150.00	2,449.85	-941.53	2,451.33	0.00	0.00	0.00	
9,900.00	90.00	359.91	7,150.00	2,549.85	-941.69	2,551.33	0.00	0.00	0.00	
10,000.00	90.00	359.91	7,150.00	2,649.85	-941.84	2,651.33	0.00	0.00	0.00	
10,100.00	90.00	359.91	7,150.00	2,749.85	-941.99	2,751.33	0.00	0.00	0.00	
10,200.00	90.00	359.91	7,150.00	2,849.85	-942.15	2,851.33	0.00	0.00	0.00	
10,300.00	90.00	359.91	7,150.00	2,949.85	-942.30	2,951.33	0.00	0.00	0.00	
10,400.00	90.00	359.91	7,150.00	3,049.85	-942.45	3,051.33	0.00	0.00	0.00	
10,500.00	90.00	359.91	7,150.00	3,149.85	-942.61	3,151.33	0.00	0.00	0.00	
10,600.00	90.00	359.91	7,150.00	3,249.85	-942.76	3,251.33	0.00	0.00	0.00	
10,700.00	90.00	359.91	7,150.00	3,349.85	-942.91	3,351.33	0.00	0.00	0.00	
10,800.00	90.00	359.91	7,150.00	3,449.85	-943.07	3,451.33	0.00	0.00	0.00	
10,900.00	90.00	359.91	7,150.00	3,549.85	-943.22	3,551.33	0.00	0.00	0.00	
11,000.00	90.00	359.91	7,150.00	3,649.85	-943.37	3,651.33	0.00	0.00	0.00	
11,100.00	90.00	359.91	7,150.00	3,749.85	-943.53	3,751.33	0.00	0.00	0.00	
11,200.00	90.00	359.91	7,150.00	3,849.85	-943.68	3,851.33	0.00	0.00	0.00	
11,300.00	90.00	359.91	7,150.00	3,949.85	-943.83	3,951.33	0.00	0.00	0.00	
11,400.00	90.00	359.91	7,150.00	4,049.85	-943.99	4,051.33	0.00	0.00	0.00	
11,500.00	90.00	359.91	7,150.00	4,149.85	-944.14	4,151.33	0.00	0.00	0.00	
11,600.00	90.00	359.91	7,150.00	4,249.85	-944.29	4,251.33	0.00	0.00	0.00	
11,700.00	90.00	359.91	7,150.00	4,349.85	-944.45	4,351.33	0.00	0.00	0.00	
11,800.00	90.00	359.91	7,150.00	4,449.85	-944.60	4,451.33	0.00	0.00	0.00	
11,900.00	90.00	359.91	7,150.00	4,549.85	-944.75	4,551.33	0.00	0.00	0.00	
12,000.00	90.00	359.91	7,150.00	4,649.85	-944.91	4,651.33	0.00	0.00	0.00	
12,100.00	90.00	359.91	7,150.00	4,749.85	-945.06	4,751.33	0.00	0.00	0.00	
12,200.00	90.00	359.91	7,150.00	4,849.85	-945.21	4,851.33	0.00	0.00	0.00	
12,300.00	90.00	359.91	7,150.00	4,949.85	-945.37	4,951.33	0.00	0.00	0.00	
12,400.00	90.00	359.91	7,150.00	5,049.85	-945.52	5,051.33	0.00	0.00	0.00	
12,500.00	90.00	359.91	7,150.00	5,149.85	-945.67	5,151.33	0.00	0.00	0.00	
12,600.00	90.00	359.91	7,150.00	5,249.85	-945.83	5,251.33	0.00	0.00	0.00	
12,700.00	90.00	359.91	7,150.00	5,349.85	-945.98	5,351.33	0.00	0.00	0.00	
12,800.00	90.00	359.91	7,150.00	5,449.85	-946.13	5,451.33	0.00	0.00	0.00	
12,900.00	90.00	359.91	7,150.00	5,549.85	-946.29	5,551.33	0.00	0.00	0.00	
13,000.00	90.00	359.91	7,150.00	5,649.85	-946.44	5,651.33	0.00	0.00	0.00	
13,100.00	90.00	359.91	7,150.00	5,749.85	-946.60	5,751.33	0.00	0.00	0.00	
13,200.00	90.00	359.91	7,150.00	5,849.85	-946.75	5,851.33	0.00	0.00	0.00	
13,300.00	90.00	359.91	7,150.00	5,949.85	-946.90	5,951.33	0.00	0.00	0.00	
13,400.00	90.00	359.91	7,150.00	6,049.85	-947.06	6,051.33	0.00	0.00	0.00	
13,500.00	90.00	359.91	7,150.00	6,149.85	-947.21	6,151.33	0.00	0.00	0.00	
13,600.00	90.00	359.91	7,150.00	6,249.85	-947.36	6,251.33	0.00	0.00	0.00	
13,700.00	90.00	359.91	7,150.00	6,349.85	-947.52	6,351.33	0.00	0.00	0.00	
13,800.00	90.00	359.91	7,150.00	6,449.85	-947.67	6,451.33	0.00	0.00	0.00	
13,900.00	90.00	359.91	7,150.00	6,549.85	-947.82	6,551.33	0.00	0.00	0.00	

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well WARNER 1708-03H
Company:	VERDAD RESOURCES	TVD Reference:	RKB = 20' @ 5088.00usft (RIG)
Project:	WATTENBERG FIELD	MD Reference:	RKB = 20' @ 5088.00usft (RIG)
Site:	1N-64W-17 WARNER PAD	North Reference:	True
Well:	WARNER 1708-03H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan B		
Design:	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)	
14,000.00	90.00	359.91	7,150.00	6,649.85	-947.98	6,651.33	0.00	0.00	0.00	
14,100.00	90.00	359.91	7,150.00	6,749.84	-948.13	6,751.33	0.00	0.00	0.00	
14,200.00	90.00	359.91	7,150.00	6,849.84	-948.28	6,851.33	0.00	0.00	0.00	
14,300.00	90.00	359.91	7,150.00	6,949.84	-948.44	6,951.33	0.00	0.00	0.00	
14,400.00	90.00	359.91	7,150.00	7,049.84	-948.59	7,051.33	0.00	0.00	0.00	
14,500.00	90.00	359.91	7,150.00	7,149.84	-948.74	7,151.33	0.00	0.00	0.00	
14,600.00	90.00	359.91	7,150.00	7,249.84	-948.90	7,251.33	0.00	0.00	0.00	
14,700.00	90.00	359.91	7,150.00	7,349.84	-949.05	7,351.33	0.00	0.00	0.00	
14,800.00	90.00	359.91	7,150.00	7,449.84	-949.20	7,451.33	0.00	0.00	0.00	
14,900.00	90.00	359.91	7,150.00	7,549.84	-949.36	7,551.33	0.00	0.00	0.00	
15,000.00	90.00	359.91	7,150.00	7,649.84	-949.51	7,651.33	0.00	0.00	0.00	
15,100.00	90.00	359.91	7,150.00	7,749.84	-949.66	7,751.33	0.00	0.00	0.00	
15,200.00	90.00	359.91	7,150.00	7,849.84	-949.82	7,851.33	0.00	0.00	0.00	
15,300.00	90.00	359.91	7,150.00	7,949.84	-949.97	7,951.33	0.00	0.00	0.00	
15,400.00	90.00	359.91	7,150.00	8,049.84	-950.12	8,051.33	0.00	0.00	0.00	
15,500.00	90.00	359.91	7,150.00	8,149.84	-950.28	8,151.33	0.00	0.00	0.00	
15,600.00	90.00	359.91	7,150.00	8,249.84	-950.43	8,251.33	0.00	0.00	0.00	
15,700.00	90.00	359.91	7,150.00	8,349.84	-950.58	8,351.33	0.00	0.00	0.00	
15,800.00	90.00	359.91	7,150.00	8,449.84	-950.74	8,451.33	0.00	0.00	0.00	
15,900.00	90.00	359.91	7,150.00	8,549.84	-950.89	8,551.33	0.00	0.00	0.00	
16,000.00	90.00	359.91	7,150.00	8,649.84	-951.04	8,651.33	0.00	0.00	0.00	
16,100.00	90.00	359.91	7,150.00	8,749.84	-951.20	8,751.33	0.00	0.00	0.00	
16,200.00	90.00	359.91	7,150.00	8,849.84	-951.35	8,851.33	0.00	0.00	0.00	
16,300.00	90.00	359.91	7,150.00	8,949.84	-951.50	8,951.33	0.00	0.00	0.00	
16,400.00	90.00	359.91	7,150.00	9,049.84	-951.66	9,051.33	0.00	0.00	0.00	
16,500.00	90.00	359.91	7,150.00	9,149.84	-951.81	9,151.33	0.00	0.00	0.00	
16,600.00	90.00	359.91	7,150.00	9,249.84	-951.96	9,251.33	0.00	0.00	0.00	
16,700.00	90.00	359.91	7,150.00	9,349.84	-952.12	9,351.33	0.00	0.00	0.00	
16,800.00	90.00	359.91	7,150.00	9,449.84	-952.27	9,451.33	0.00	0.00	0.00	
16,900.00	90.00	359.91	7,150.00	9,549.84	-952.42	9,551.33	0.00	0.00	0.00	
17,000.00	90.00	359.91	7,150.00	9,649.84	-952.58	9,651.33	0.00	0.00	0.00	
17,100.00	90.00	359.91	7,150.00	9,749.84	-952.73	9,751.33	0.00	0.00	0.00	
17,200.00	90.00	359.91	7,150.00	9,849.84	-952.88	9,851.33	0.00	0.00	0.00	
17,300.00	90.00	359.91	7,150.00	9,949.84	-953.04	9,951.33	0.00	0.00	0.00	
17,311.32	90.00	359.91	7,150.00	9,961.16	-953.05	9,962.65	0.00	0.00	0.00	
BPZ @ 17311.32ft										
17,401.29	90.00	359.91	7,150.00	10,051.13	-953.19	10,052.62	0.00	0.00	0.00	
TD Well @ 17401.29ft										

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name		Casing Diameter (")	Hole Diameter (")
2,139.09	2,120.00	9 5/8"		9-5/8	13-1/2

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well WARNER 1708-03H
Company:	VERDAD RESOURCES	TVD Reference:	RKB = 20' @ 5088.00usft (RIG)
Project:	WATTENBERG FIELD	MD Reference:	RKB = 20' @ 5088.00usft (RIG)
Site:	1N-64W-17 WARNER PAD	North Reference:	True
Well:	WARNER 1708-03H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan B		
Design:	Design #1		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
298.00	298.00	0.00	0.00	Begin Nudge @ 298.00ft
749.50	747.63	-16.20	-31.60	Hold Tangent @ 749.50ft
6,462.93	6,390.25	-425.26	-829.59	KOP @ 6462.93ft :: DLS = 8"/100'
7,639.10	7,150.00	288.95	-938.22	End Build/TPZ @ 7639.10ft
17,311.32	7,150.00	9,961.16	-953.05	BPZ @ 17311.32ft
17,401.29	7,150.00	10,051.13	-953.19	TD Well @ 17401.29ft