

VERDAD RESOURCES

WATTENBERG FIELD

9N-60W-25 PEGGY 2501 PAD

PEGGY 2501-16H

Plan B

Plan: Design #1

Standard Planning Report

11 October, 2021

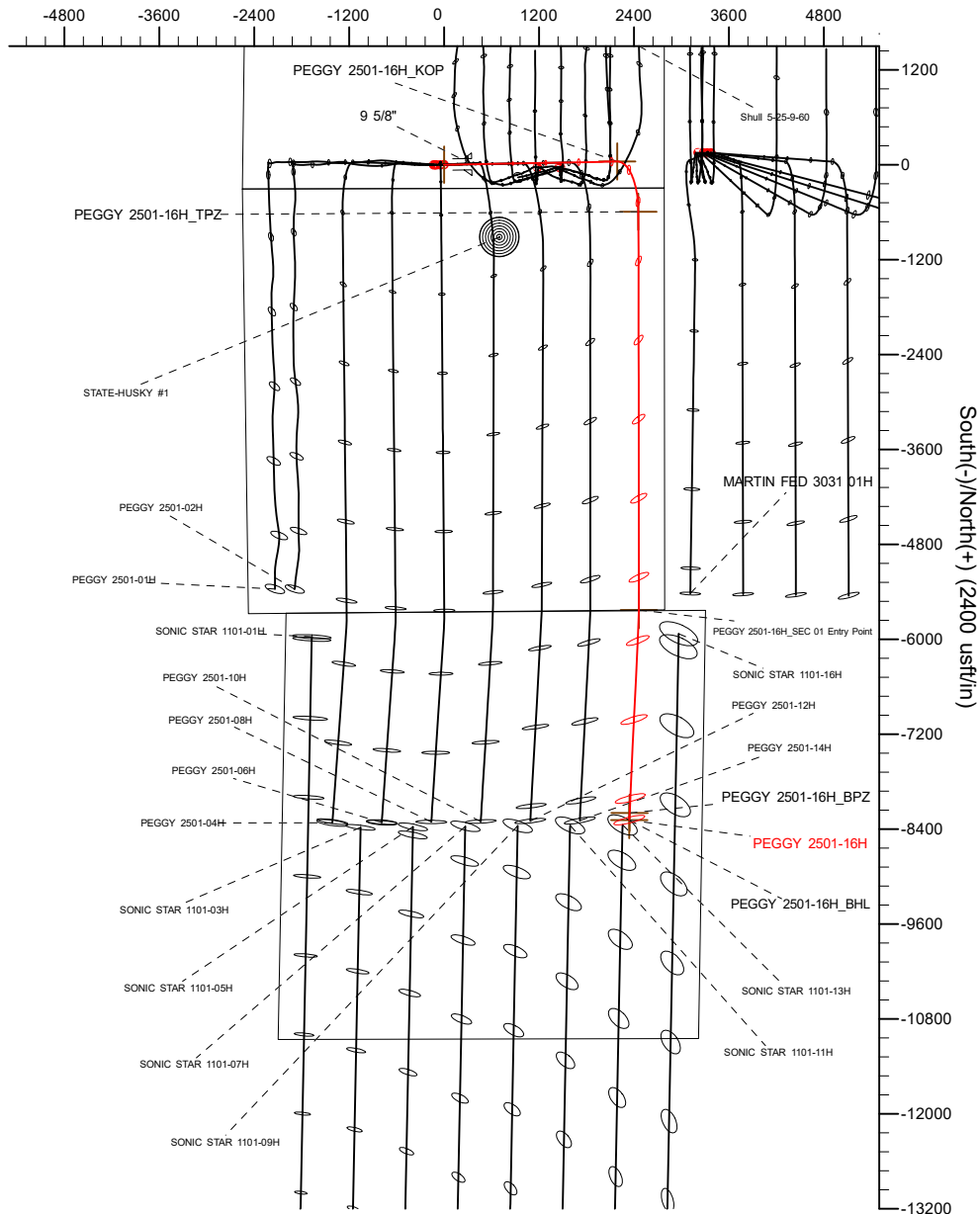
Project: WATTENBERG FIELD
Site: 9N-60W-25 PEGGY 2501 PAD
Well: PEGGY 2501-16H
Wellbore: Plan B
Design: Design #1

VERDAD RESOURCES

CASING DETAILS

TVD	MD	Name	Size
1560.00	1613.92	9 5/8"	9-5/8

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



SHL
300' FSL
2544' FWL

KOP
337' FSL
592' FEL

TPZ
300' FNL
325' FEL

SEC 01 Entry
0' FSL
325' FEL

BPZ
2565' FNL
918' FEL

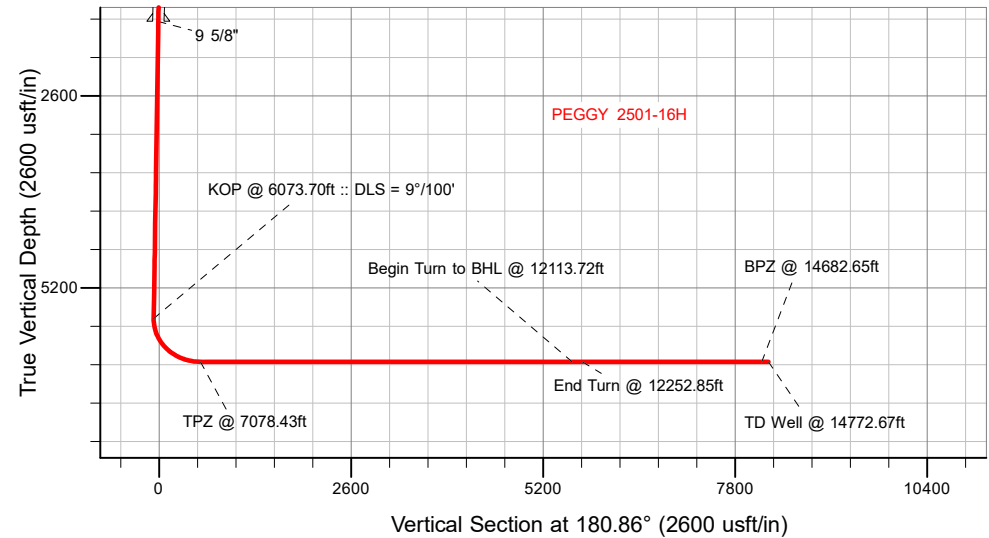
BHL
2655' FNL
921' FEL

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	201.70	0.00	0.00	201.70	0.00	0.00	0.00	0.00	0.00	
3	1429.20	24.55	88.90	1391.98	4.97	258.93	2.00	88.90	-8.86	
4	6073.70	24.55	88.90	5616.62	42.02	2188.31	0.00	0.00	-74.86	
5	7078.43	90.00	179.92	6200.00	-594.23	2455.59	9.00	90.93	557.30	
6	12113.72	90.00	179.92	6200.00	-5629.52	2462.31	0.00	0.00	5591.92	PEGGY 2501-16H_SEC 01 Entry Point
7	12252.85	90.00	182.71	6200.00	-5768.60	2459.11	2.00	90.00	5731.04	
8	14772.67	90.00	182.71	6200.00	-8285.61	2340.14	0.00	0.00	8249.55	PEGGY 2501-16H_BHL

WELLBORE TARGET DETAILS (LAT/LONG)

Name	MD	TVD	+N/-S	+E/-W	Latitude	Longitude
PEGGY 2501-16H_SHL	0.00	0.00	0.00	0.00	40.714775	-104.040365
PEGGY 2501-16H_KOP	6073.70	5616.62	42.02	2188.31	40.714891	-104.032471
PEGGY 2501-16H_TPZ	7078.43	6200.00	-594.23	2455.59	40.713144	-104.031507
PEGGY 2501-16H_SEC 01 Entry Point	12113.72	6200.00	-5629.52	2462.31	40.699323	-104.031485
PEGGY 2501-16H_BPZ	14682.65	6200.00	-8195.69	2344.26	40.692280	-104.031912
PEGGY 2501-16H_BHL	14772.67	6200.00	-8285.61	2340.14	40.692033	-104.031927



Azimuths to True North
Magnetic North: 7.46°
Magnetic Field
Strength: 52156.9nT
Dip Angle: 66.99°
Date: 10/7/2021
Model: IGRF2020

WELL DETAILS: PEGGY 2501-16H

GL = 4892'

RKB = 16' @ 4908.00usft (RIG)

Plan: Design #1 (PEGGY 2501-16H/Plan B)

Date: 10/11/2021

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well PEGGY 2501-16H
Company:	VERDAD RESOURCES	TVD Reference:	RKB = 16' @ 4908.00usft (RIG)
Project:	WATTENBERG FIELD	MD Reference:	RKB = 16' @ 4908.00usft (RIG)
Site:	9N-60W-25 PEGGY 2501 PAD	North Reference:	True
Well:	PEGGY 2501-16H	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		9N-60W-25 PEGGY 2501 PAD			
Site Position:		Northing:	1,506,564.37 usft	Latitude:	40.714775
From:	Lat/Long	Easting:	3,404,485.26 usft	Longitude:	-104.040843
Position Uncertainty:		0.00 usft	Slot Radius:	13-3/16 "	

Well		PEGGY 2501-16H				
Well Position	+N-S	0.00 usft	Northing:	1,506,566.83 usft	Latitude:	40.714776
	+E-W	0.00 usft	Easting:	3,404,617.50 usft	Longitude:	-104.040365
Position Uncertainty		3.28 usft	Wellhead Elevation:	usft	Ground Level:	4,892.00 usft
Grid Convergence:		0.94 °				

Wellbore	Plan B				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF202013	10/7/2021	7.46	66.99	52,156.94641587

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	180.86	

Plan Survey Tool Program	Date	10/11/2021			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.00	1,560.00	Design #1 (Plan B)	ISCWSA MWD	
				Fixed:v2:standard declination	
2	1,560.00	14,772.67	Design #1 (Plan B)	ISCWSA MWD	
				Fixed:v2:standard declination	

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Project:	WATTENBERG FIELD	MD Reference:	RKB = 16' @ 4908.00usft (RIG)
Site:	9N-60W-25 PEGGY 2501 PAD	North Reference:	True
Well:	PEGGY 2501-16H	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	
201.70	0.00	0.00	201.70	0.00	0.00	0.00	0.00	0.00	0.00	
1,429.20	24.55	88.90	1,391.98	4.97	258.93	2.00	2.00	0.00	88.90	
6,073.70	24.55	88.90	5,616.62	42.02	2,188.31	0.00	0.00	0.00	0.00	
7,078.43	90.00	179.92	6,200.00	-594.23	2,455.59	9.00	6.51	9.06	90.93	
12,113.72	90.00	179.92	6,200.00	-5,629.52	2,462.31	0.00	0.00	0.00	0.00	PEGGY 2501-16H_SI
12,252.85	90.00	182.71	6,200.00	-5,768.60	2,459.11	2.00	0.00	2.00	90.00	
14,772.67	90.00	182.71	6,200.00	-8,285.61	2,340.14	0.00	0.00	0.00	0.00	PEGGY 2501-16H_BI

Planning Report

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Project:	WATTENBERG FIELD	MD Reference:	RKB = 16' @ 4908.00usft (RIG)
Site:	9N-60W-25 PEGGY 2501 PAD	North Reference:	True
Well:	PEGGY 2501-16H	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
201.70	0.00	0.00	201.70	0.00	0.00	0.00	0.00	0.00	0.00
Begin Nudge @ 201.70ft									
300.00	1.97	88.90	299.98	0.03	1.69	-0.06	2.00	2.00	0.00
400.00	3.97	88.90	399.84	0.13	6.86	-0.23	2.00	2.00	0.00
500.00	5.97	88.90	499.46	0.30	15.51	-0.53	2.00	2.00	0.00
600.00	7.97	88.90	598.72	0.53	27.64	-0.95	2.00	2.00	0.00
700.00	9.97	88.90	697.49	0.83	43.22	-1.48	2.00	2.00	0.00
800.00	11.97	88.90	795.66	1.20	62.24	-2.13	2.00	2.00	0.00
900.00	13.97	88.90	893.11	1.63	84.67	-2.90	2.00	2.00	0.00
1,000.00	15.97	88.90	989.71	2.12	110.49	-3.78	2.00	2.00	0.00
1,100.00	17.97	88.90	1,085.35	2.68	139.66	-4.78	2.00	2.00	0.00
1,200.00	19.97	88.90	1,179.92	3.31	172.16	-5.89	2.00	2.00	0.00
1,300.00	21.97	88.90	1,273.29	3.99	207.93	-7.11	2.00	2.00	0.00
1,400.00	23.97	88.90	1,365.36	4.74	246.94	-8.45	2.00	2.00	0.00
1,429.20	24.55	88.90	1,391.98	4.97	258.93	-8.86	2.00	2.00	0.00
Hold Tangent @ 1429.20ft									
1,500.00	24.55	88.90	1,456.38	5.54	288.34	-9.86	0.00	0.00	0.00
1,600.00	24.55	88.90	1,547.34	6.33	329.88	-11.28	0.00	0.00	0.00
1,613.92	24.55	88.90	1,560.00	6.45	335.66	-11.48	0.00	0.00	0.00
9 5/8"									
1,700.00	24.55	88.90	1,638.30	7.13	371.43	-12.71	0.00	0.00	0.00
1,800.00	24.55	88.90	1,729.26	7.93	412.97	-14.13	0.00	0.00	0.00
1,900.00	24.55	88.90	1,820.22	8.73	454.51	-15.55	0.00	0.00	0.00
2,000.00	24.55	88.90	1,911.18	9.52	496.05	-16.97	0.00	0.00	0.00
2,100.00	24.55	88.90	2,002.14	10.32	537.59	-18.39	0.00	0.00	0.00
2,200.00	24.55	88.90	2,093.10	11.12	579.13	-19.81	0.00	0.00	0.00
2,300.00	24.55	88.90	2,184.06	11.92	620.67	-21.23	0.00	0.00	0.00
2,400.00	24.55	88.90	2,275.02	12.72	662.21	-22.65	0.00	0.00	0.00
2,500.00	24.55	88.90	2,365.98	13.51	703.75	-24.07	0.00	0.00	0.00
2,600.00	24.55	88.90	2,456.94	14.31	745.29	-25.50	0.00	0.00	0.00
2,700.00	24.55	88.90	2,547.90	15.11	786.84	-26.92	0.00	0.00	0.00
2,800.00	24.55	88.90	2,638.86	15.91	828.38	-28.34	0.00	0.00	0.00
2,900.00	24.55	88.90	2,729.82	16.70	869.92	-29.76	0.00	0.00	0.00
3,000.00	24.55	88.90	2,820.78	17.50	911.46	-31.18	0.00	0.00	0.00
3,100.00	24.55	88.90	2,911.74	18.30	953.00	-32.60	0.00	0.00	0.00
3,200.00	24.55	88.90	3,002.70	19.10	994.54	-34.02	0.00	0.00	0.00
3,300.00	24.55	88.90	3,093.66	19.89	1,036.08	-35.44	0.00	0.00	0.00
3,400.00	24.55	88.90	3,184.62	20.69	1,077.62	-36.86	0.00	0.00	0.00
3,500.00	24.55	88.90	3,275.58	21.49	1,119.16	-38.28	0.00	0.00	0.00
3,600.00	24.55	88.90	3,366.54	22.29	1,160.71	-39.71	0.00	0.00	0.00
3,700.00	24.55	88.90	3,457.50	23.08	1,202.25	-41.13	0.00	0.00	0.00
3,800.00	24.55	88.90	3,548.46	23.88	1,243.79	-42.55	0.00	0.00	0.00
3,900.00	24.55	88.90	3,639.42	24.68	1,285.33	-43.97	0.00	0.00	0.00
4,000.00	24.55	88.90	3,730.38	25.48	1,326.87	-45.39	0.00	0.00	0.00
4,100.00	24.55	88.90	3,821.34	26.27	1,368.41	-46.81	0.00	0.00	0.00
4,200.00	24.55	88.90	3,912.30	27.07	1,409.95	-48.23	0.00	0.00	0.00
4,300.00	24.55	88.90	4,003.26	27.87	1,451.49	-49.65	0.00	0.00	0.00
4,400.00	24.55	88.90	4,094.22	28.67	1,493.03	-51.07	0.00	0.00	0.00
4,500.00	24.55	88.90	4,185.18	29.47	1,534.57	-52.49	0.00	0.00	0.00
4,600.00	24.55	88.90	4,276.14	30.26	1,576.12	-53.92	0.00	0.00	0.00
4,700.00	24.55	88.90	4,367.10	31.06	1,617.66	-55.34	0.00	0.00	0.00

Planning Report

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Company:	VERDAD RESOURCES	TVD Reference:	RKB = 16' @ 4908.00usft (RIG)
Project:	WATTENBERG FIELD	MD Reference:	RKB = 16' @ 4908.00usft (RIG)
Site:	9N-60W-25 PEGGY 2501 PAD	North Reference:	True
Well:	PEGGY 2501-16H	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)
4,800.00	24.55	88.90	4,458.06	31.86	1,659.20	-56.76	0.00	0.00	0.00
4,900.00	24.55	88.90	4,549.02	32.66	1,700.74	-58.18	0.00	0.00	0.00
5,000.00	24.55	88.90	4,639.98	33.45	1,742.28	-59.60	0.00	0.00	0.00
5,100.00	24.55	88.90	4,730.94	34.25	1,783.82	-61.02	0.00	0.00	0.00
5,200.00	24.55	88.90	4,821.90	35.05	1,825.36	-62.44	0.00	0.00	0.00
5,300.00	24.55	88.90	4,912.86	35.85	1,866.90	-63.86	0.00	0.00	0.00
5,400.00	24.55	88.90	5,003.82	36.64	1,908.44	-65.28	0.00	0.00	0.00
5,500.00	24.55	88.90	5,094.78	37.44	1,949.99	-66.71	0.00	0.00	0.00
5,600.00	24.55	88.90	5,185.74	38.24	1,991.53	-68.13	0.00	0.00	0.00
5,700.00	24.55	88.90	5,276.70	39.04	2,033.07	-69.55	0.00	0.00	0.00
5,800.00	24.55	88.90	5,367.66	39.83	2,074.61	-70.97	0.00	0.00	0.00
5,900.00	24.55	88.90	5,458.62	40.63	2,116.15	-72.39	0.00	0.00	0.00
6,000.00	24.55	88.90	5,549.58	41.43	2,157.69	-73.81	0.00	0.00	0.00
6,073.70	24.55	88.90	5,616.62	42.02	2,188.31	-74.86	0.00	0.00	0.00
KOP @ 6073.70ft :: DLS = 9°/100'									
6,100.00	24.62	94.59	5,640.54	41.68	2,199.23	-74.69	9.00	0.26	21.63
6,150.00	25.33	105.13	5,685.88	38.06	2,219.95	-71.37	9.00	1.42	21.08
6,200.00	26.74	114.88	5,730.83	30.53	2,240.48	-64.16	9.00	2.82	19.50
6,250.00	28.74	123.54	5,775.10	19.15	2,260.72	-53.08	9.00	4.01	17.33
6,300.00	31.23	131.06	5,818.42	3.99	2,280.52	-38.21	9.00	4.98	15.02
6,350.00	34.10	137.49	5,860.52	-14.87	2,299.78	-19.65	9.00	5.73	12.88
6,400.00	37.25	143.01	5,901.14	-37.30	2,318.36	2.50	9.00	6.31	11.03
6,450.00	40.62	147.75	5,940.04	-63.16	2,336.16	28.09	9.00	6.75	9.49
6,500.00	44.16	151.87	5,976.97	-92.30	2,353.06	56.98	9.00	7.08	8.24
6,550.00	47.83	155.49	6,011.70	-124.54	2,368.97	88.97	9.00	7.34	7.24
6,600.00	51.61	158.71	6,044.03	-159.68	2,383.78	123.88	9.00	7.55	6.43
6,650.00	55.46	161.60	6,073.74	-197.49	2,397.40	161.49	9.00	7.70	5.79
6,700.00	59.37	164.24	6,100.67	-237.76	2,409.75	201.56	9.00	7.83	5.27
6,750.00	63.34	166.67	6,124.63	-280.22	2,420.75	243.86	9.00	7.93	4.86
6,800.00	67.34	168.93	6,145.49	-324.63	2,430.34	288.11	9.00	8.00	4.53
6,850.00	71.37	171.07	6,163.12	-370.70	2,438.45	334.05	9.00	8.06	4.27
6,900.00	75.43	173.10	6,177.40	-418.14	2,445.04	381.40	9.00	8.11	4.07
6,950.00	79.50	175.07	6,188.26	-466.68	2,450.06	429.85	9.00	8.14	3.93
7,000.00	83.58	176.98	6,195.61	-516.00	2,453.48	479.12	9.00	8.17	3.82
7,050.00	87.67	178.86	6,199.42	-565.81	2,455.29	528.90	9.00	8.18	3.76
7,078.43	90.00	179.92	6,200.00	-594.23	2,455.59	557.30	9.00	8.19	3.74
TPZ @ 7078.43ft									
7,100.00	90.00	179.92	6,200.00	-615.80	2,455.62	578.88	0.00	0.00	0.00
7,200.00	90.00	179.92	6,200.00	-715.80	2,455.75	678.86	0.00	0.00	0.00
7,300.00	90.00	179.92	6,200.00	-815.80	2,455.89	778.85	0.00	0.00	0.00
7,400.00	90.00	179.92	6,200.00	-915.80	2,456.02	878.84	0.00	0.00	0.00
7,500.00	90.00	179.92	6,200.00	-1,015.80	2,456.15	978.82	0.00	0.00	0.00
7,600.00	90.00	179.92	6,200.00	-1,115.80	2,456.29	1,078.81	0.00	0.00	0.00
7,700.00	90.00	179.92	6,200.00	-1,215.80	2,456.42	1,178.80	0.00	0.00	0.00
7,800.00	90.00	179.92	6,200.00	-1,315.80	2,456.55	1,278.78	0.00	0.00	0.00
7,900.00	90.00	179.92	6,200.00	-1,415.80	2,456.69	1,378.77	0.00	0.00	0.00
8,000.00	90.00	179.92	6,200.00	-1,515.80	2,456.82	1,478.76	0.00	0.00	0.00
8,100.00	90.00	179.92	6,200.00	-1,615.80	2,456.95	1,578.74	0.00	0.00	0.00
8,200.00	90.00	179.92	6,200.00	-1,715.80	2,457.09	1,678.73	0.00	0.00	0.00
8,300.00	90.00	179.92	6,200.00	-1,815.80	2,457.22	1,778.72	0.00	0.00	0.00
8,400.00	90.00	179.92	6,200.00	-1,915.80	2,457.35	1,878.70	0.00	0.00	0.00
8,500.00	90.00	179.92	6,200.00	-2,015.80	2,457.49	1,978.69	0.00	0.00	0.00
8,600.00	90.00	179.92	6,200.00	-2,115.80	2,457.62	2,078.68	0.00	0.00	0.00
8,700.00	90.00	179.92	6,200.00	-2,215.80	2,457.75	2,178.66	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well PEGGY 2501-16H
Company:	VERDAD RESOURCES	TVD Reference:	RKB = 16' @ 4908.00usft (RIG)
Project:	WATTENBERG FIELD	MD Reference:	RKB = 16' @ 4908.00usft (RIG)
Site:	9N-60W-25 PEGGY 2501 PAD	North Reference:	True
Well:	PEGGY 2501-16H	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)	
8,800.00	90.00	179.92	6,200.00	-2,315.80	2,457.89	2,278.65	0.00	0.00	0.00	
8,900.00	90.00	179.92	6,200.00	-2,415.80	2,458.02	2,378.64	0.00	0.00	0.00	
9,000.00	90.00	179.92	6,200.00	-2,515.80	2,458.15	2,478.62	0.00	0.00	0.00	
9,100.00	90.00	179.92	6,200.00	-2,615.80	2,458.29	2,578.61	0.00	0.00	0.00	
9,200.00	90.00	179.92	6,200.00	-2,715.80	2,458.42	2,678.60	0.00	0.00	0.00	
9,300.00	90.00	179.92	6,200.00	-2,815.80	2,458.55	2,778.58	0.00	0.00	0.00	
9,400.00	90.00	179.92	6,200.00	-2,915.80	2,458.69	2,878.57	0.00	0.00	0.00	
9,500.00	90.00	179.92	6,200.00	-3,015.80	2,458.82	2,978.56	0.00	0.00	0.00	
9,600.00	90.00	179.92	6,200.00	-3,115.80	2,458.95	3,078.54	0.00	0.00	0.00	
9,700.00	90.00	179.92	6,200.00	-3,215.80	2,459.09	3,178.53	0.00	0.00	0.00	
9,800.00	90.00	179.92	6,200.00	-3,315.80	2,459.22	3,278.52	0.00	0.00	0.00	
9,900.00	90.00	179.92	6,200.00	-3,415.80	2,459.35	3,378.50	0.00	0.00	0.00	
10,000.00	90.00	179.92	6,200.00	-3,515.80	2,459.49	3,478.49	0.00	0.00	0.00	
10,100.00	90.00	179.92	6,200.00	-3,615.80	2,459.62	3,578.48	0.00	0.00	0.00	
10,200.00	90.00	179.92	6,200.00	-3,715.80	2,459.75	3,678.46	0.00	0.00	0.00	
10,300.00	90.00	179.92	6,200.00	-3,815.80	2,459.89	3,778.45	0.00	0.00	0.00	
10,400.00	90.00	179.92	6,200.00	-3,915.80	2,460.02	3,878.44	0.00	0.00	0.00	
10,500.00	90.00	179.92	6,200.00	-4,015.80	2,460.15	3,978.42	0.00	0.00	0.00	
10,600.00	90.00	179.92	6,200.00	-4,115.80	2,460.29	4,078.41	0.00	0.00	0.00	
10,700.00	90.00	179.92	6,200.00	-4,215.80	2,460.42	4,178.40	0.00	0.00	0.00	
10,800.00	90.00	179.92	6,200.00	-4,315.80	2,460.56	4,278.38	0.00	0.00	0.00	
10,900.00	90.00	179.92	6,200.00	-4,415.80	2,460.69	4,378.37	0.00	0.00	0.00	
11,000.00	90.00	179.92	6,200.00	-4,515.80	2,460.82	4,478.36	0.00	0.00	0.00	
11,100.00	90.00	179.92	6,200.00	-4,615.80	2,460.96	4,578.34	0.00	0.00	0.00	
11,200.00	90.00	179.92	6,200.00	-4,715.80	2,461.09	4,678.33	0.00	0.00	0.00	
11,300.00	90.00	179.92	6,200.00	-4,815.80	2,461.22	4,778.32	0.00	0.00	0.00	
11,400.00	90.00	179.92	6,200.00	-4,915.80	2,461.36	4,878.30	0.00	0.00	0.00	
11,500.00	90.00	179.92	6,200.00	-5,015.80	2,461.49	4,978.29	0.00	0.00	0.00	
11,600.00	90.00	179.92	6,200.00	-5,115.80	2,461.62	5,078.28	0.00	0.00	0.00	
11,700.00	90.00	179.92	6,200.00	-5,215.80	2,461.76	5,178.26	0.00	0.00	0.00	
11,800.00	90.00	179.92	6,200.00	-5,315.80	2,461.89	5,278.25	0.00	0.00	0.00	
11,900.00	90.00	179.92	6,200.00	-5,415.80	2,462.02	5,378.24	0.00	0.00	0.00	
12,000.00	90.00	179.92	6,200.00	-5,515.80	2,462.16	5,478.22	0.00	0.00	0.00	
12,100.00	90.00	179.92	6,200.00	-5,615.80	2,462.29	5,578.21	0.00	0.00	0.00	
12,113.72	90.00	179.92	6,200.00	-5,629.52	2,462.31	5,591.93	0.00	0.00	0.00	
Begin Turn to BHL @ 12113.72ft										
12,200.00	90.00	181.65	6,200.00	-5,715.79	2,461.12	5,678.20	2.00	0.00	2.00	
12,252.85	90.00	182.71	6,200.00	-5,768.60	2,459.11	5,731.04	2.00	0.00	2.00	
End Turn @ 12252.85ft										
12,300.00	90.00	182.71	6,200.00	-5,815.70	2,456.89	5,778.17	0.00	0.00	0.00	
12,400.00	90.00	182.71	6,200.00	-5,915.58	2,452.17	5,878.11	0.00	0.00	0.00	
12,500.00	90.00	182.71	6,200.00	-6,015.47	2,447.45	5,978.06	0.00	0.00	0.00	
12,600.00	90.00	182.71	6,200.00	-6,115.36	2,442.72	6,078.01	0.00	0.00	0.00	
12,700.00	90.00	182.71	6,200.00	-6,215.25	2,438.00	6,177.96	0.00	0.00	0.00	
12,800.00	90.00	182.71	6,200.00	-6,315.14	2,433.28	6,277.91	0.00	0.00	0.00	
12,900.00	90.00	182.71	6,200.00	-6,415.03	2,428.56	6,377.85	0.00	0.00	0.00	
13,000.00	90.00	182.71	6,200.00	-6,514.92	2,423.84	6,477.80	0.00	0.00	0.00	
13,100.00	90.00	182.71	6,200.00	-6,614.80	2,419.12	6,577.75	0.00	0.00	0.00	
13,200.00	90.00	182.71	6,200.00	-6,714.69	2,414.39	6,677.70	0.00	0.00	0.00	
13,300.00	90.00	182.71	6,200.00	-6,814.58	2,409.67	6,777.65	0.00	0.00	0.00	
13,400.00	90.00	182.71	6,200.00	-6,914.47	2,404.95	6,877.59	0.00	0.00	0.00	
13,500.00	90.00	182.71	6,200.00	-7,014.36	2,400.23	6,977.54	0.00	0.00	0.00	
13,600.00	90.00	182.71	6,200.00	-7,114.25	2,395.51	7,077.49	0.00	0.00	0.00	
13,700.00	90.00	182.71	6,200.00	-7,214.13	2,390.79	7,177.44	0.00	0.00	0.00	

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well PEGGY 2501-16H
Company:	VERDAD RESOURCES	TVD Reference:	RKB = 16' @ 4908.00usft (RIG)
Project:	WATTENBERG FIELD	MD Reference:	RKB = 16' @ 4908.00usft (RIG)
Site:	9N-60W-25 PEGGY 2501 PAD	North Reference:	True
Well:	PEGGY 2501-16H	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)	
13,800.00	90.00	182.71	6,200.00	-7,314.02	2,386.07	7,277.39	0.00	0.00	0.00	
13,900.00	90.00	182.71	6,200.00	-7,413.91	2,381.34	7,377.33	0.00	0.00	0.00	
14,000.00	90.00	182.71	6,200.00	-7,513.80	2,376.62	7,477.28	0.00	0.00	0.00	
14,100.00	90.00	182.71	6,200.00	-7,613.69	2,371.90	7,577.23	0.00	0.00	0.00	
14,200.00	90.00	182.71	6,200.00	-7,713.58	2,367.18	7,677.18	0.00	0.00	0.00	
14,300.00	90.00	182.71	6,200.00	-7,813.47	2,362.46	7,777.13	0.00	0.00	0.00	
14,400.00	90.00	182.71	6,200.00	-7,913.35	2,357.74	7,877.07	0.00	0.00	0.00	
14,500.00	90.00	182.71	6,200.00	-8,013.24	2,353.01	7,977.02	0.00	0.00	0.00	
14,600.00	90.00	182.71	6,200.00	-8,113.13	2,348.29	8,076.97	0.00	0.00	0.00	
14,682.65	90.00	182.71	6,200.00	-8,195.69	2,344.39	8,159.58	0.00	0.00	0.00	
BPZ @ 14682.65ft										
14,700.00	90.00	182.71	6,200.00	-8,213.02	2,343.57	8,176.92	0.00	0.00	0.00	
14,772.67	90.00	182.71	6,200.00	-8,285.61	2,340.14	8,249.55	0.00	0.00	0.00	
TD Well @ 14772.67ft										

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name		Casing Diameter (")	Hole Diameter (")
1,613.92	1,560.00	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)		
201.70	201.70	0.00	0.00	Begin Nudge @ 201.70ft	
1,429.20	1,391.98	4.97	258.93	Hold Tangent @ 1429.20ft	
6,073.70	5,616.62	42.02	2,188.31	KOP @ 6073.70ft :: DLS = 9°/100'	
7,078.43	6,200.00	-594.23	2,455.59	TPZ @ 7078.43ft	
12,113.72	6,200.00	-5,629.52	2,462.31	Begin Turn to BHL @ 12113.72ft	
12,252.85	6,200.00	-5,768.60	2,459.11	End Turn @ 12252.85ft	
14,682.65	6,200.00	-8,195.69	2,344.39	BPZ @ 14682.65ft	
14,772.67	6,200.00	-8,285.61	2,340.14	TD Well @ 14772.67ft	