

VERDAD RESOURCES

WATTENBERG FIELD

1N-64W-19 BERG 1930 PAD

BERG 1930-05H

Wellbore #1

Plan: Design #1

Standard Planning Report

22 May, 2019

Project: WATTENBERG FIELD
Site: 1N-64W-19 BERG 1930 PAD
Well: BERG 1930-05H
Wellbore: Wellbore #1
Design: Design #1

VERDAD RESOURCES

CASING DETAILS

TVD	MD	Name	Size
1700.00	1728.27	9 5/8"	9-5/8

SHL
1959' FSL
1785' FWL

LP
2180' FSL
2038' FEL

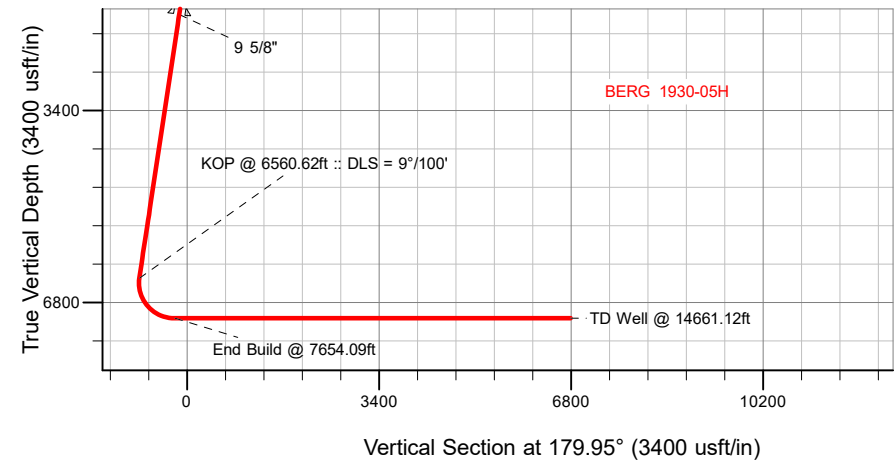
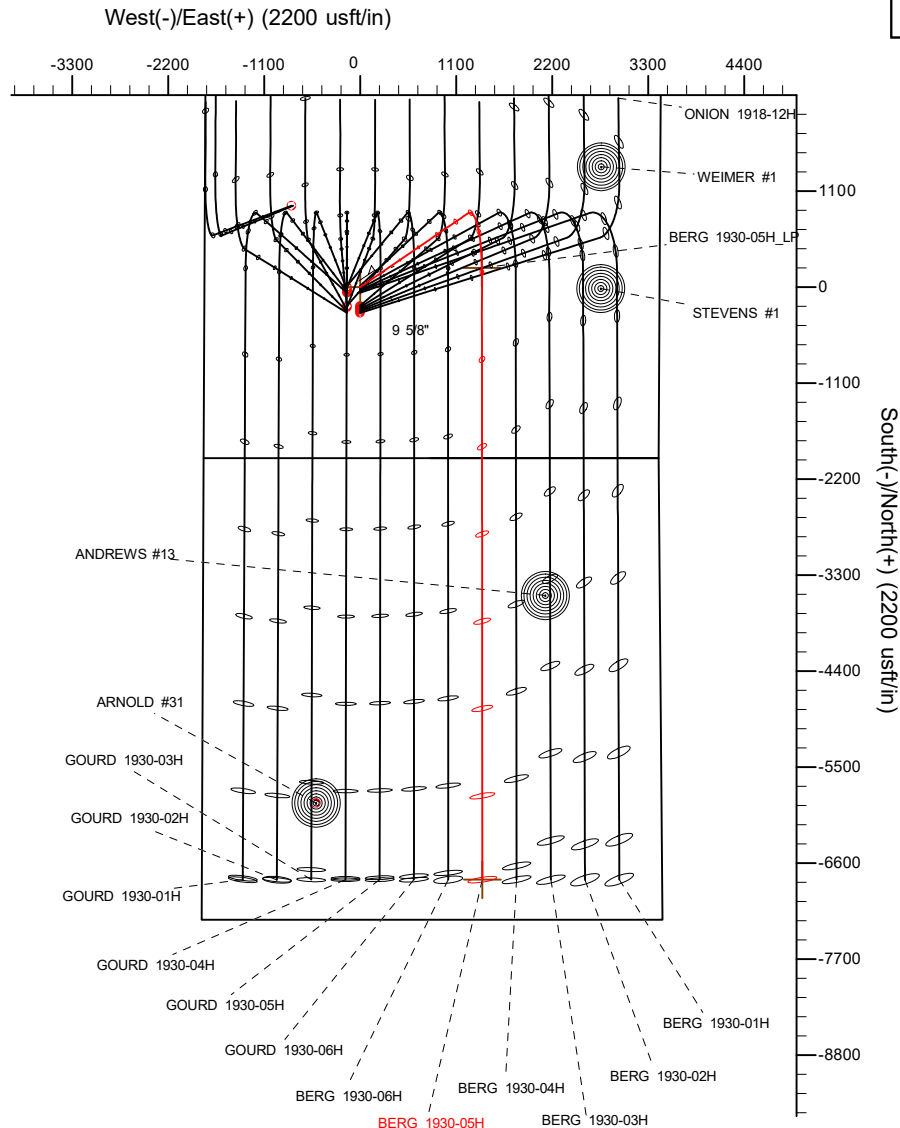
BHL
460' FSL
2060' FEL


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	
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	
1150.50	15.01	55.56	1141.94	55.28	80.61	2.00	55.56	-55.21	
6560.62	15.01	55.56	6367.48	847.69	1236.17	0.00	0.00	-846.61	
7654.09	90.00	179.95	7080.00	218.05	1394.32	9.00	123.47	-216.83	
14661.12	90.00	179.95	7080.00	-6788.98	1399.87	0.00	0.00	6790.20	BERG 1930-05H_BHL

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
BERG 1930-05H_SHL	0.00	0.00	0.00	40.034933	-104.596436
BERG 1930-05H_BHL	7080.00	-6788.98	1399.87	40.016296	-104.591438



 <p>Azimuths to True North Magnetic North: 7.89° Magnetic Field Strength: 51998.7snT Dip Angle: 66.54° Date: 5/22/2019 Model: IGRF2015</p>	WELL DETAILS: BERG 1930-05H		
	GL = 5011'		
	RKB = 24' @ 5035.00usft (RIG)		
	Plan: Design #1 (BERG 1930-05H/Wellbore #1)		
		Date:	5/22/2019

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Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well BERG 1930-05H
Company:	VERDAD RESOURCES	TVD Reference:	RKB = 24' @ 5035.00usft (RIG)
Project:	WATTENBERG FIELD	MD Reference:	RKB = 24' @ 5035.00usft (RIG)
Site:	1N-64W-19 BERG 1930 PAD	North Reference:	True
Well:	BERG 1930-05H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
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-19 BERG 1930 PAD			
Site Position:		Northing:	1,256,877.00 usft	Latitude:	40.034977
From:	Lat/Long	Easting:	3,253,002.47 usft	Longitude:	-104.596436
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.58 °

Well	BERG 1930-05H					
Well Position	+N/-S	-16.00 usft	Northing:	1,256,861.00 usft	Latitude:	40.034933
	+E/-W	-0.08 usft	Easting:	3,253,002.55 usft	Longitude:	-104.596437
Position Uncertainty		3.28 usft	Wellhead Elevation:		Ground Level:	5,011.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	5/22/2019	7.89	66.54	51,998.74881383

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	179.95

Plan Survey Tool Program	Date	5/22/2019		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	1,700.00	Design #1 (Wellbore #1)	ISCWSA REV 2 MWD Fixed:v2:standard declination
2	1,700.00	14,661.12	Design #1 (Wellbore #1)	ISCWSA REV 2 MWD Fixed:v2:standard declination

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	
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,150.50	15.01	55.56	1,141.94	55.28	80.61	2.00	2.00	0.00	55.56	
6,560.62	15.01	55.56	6,367.48	847.69	1,236.17	0.00	0.00	0.00	0.00	
7,654.09	90.00	179.95	7,080.00	218.05	1,394.32	9.00	6.86	11.38	123.47	
14,661.12	90.00	179.95	7,080.00	-6,788.98	1,399.87	0.00	0.00	0.00	0.00	BERG 1930-05H_BHI

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Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well BERG 1930-05H
Company:	VERDAD RESOURCES	TVD Reference:	RKB = 24' @ 5035.00usft (RIG)
Project:	WATTENBERG FIELD	MD Reference:	RKB = 24' @ 5035.00usft (RIG)
Site:	1N-64W-19 BERG 1930 PAD	North Reference:	True
Well:	BERG 1930-05H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
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
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
Begin Nudge @ 400.00ft									
500.00	2.00	55.56	499.98	0.99	1.44	-0.99	2.00	2.00	0.00
600.00	4.00	55.56	599.84	3.95	5.76	-3.94	2.00	2.00	0.00
700.00	6.00	55.56	699.45	8.88	12.94	-8.86	2.00	2.00	0.00
800.00	8.00	55.56	798.70	15.77	22.99	-15.75	2.00	2.00	0.00
900.00	10.00	55.56	897.47	24.61	35.89	-24.58	2.00	2.00	0.00
1,000.00	12.00	55.56	995.62	35.40	51.63	-35.36	2.00	2.00	0.00
1,100.00	14.00	55.56	1,093.06	48.13	70.18	-48.06	2.00	2.00	0.00
1,150.50	15.01	55.56	1,141.94	55.28	80.61	-55.21	2.00	2.00	0.00
Hold Tangent @ 1150.50ft									
1,200.00	15.01	55.56	1,189.76	62.53	91.18	-62.45	0.00	0.00	0.00
1,300.00	15.01	55.56	1,286.34	77.18	112.54	-77.08	0.00	0.00	0.00
1,400.00	15.01	55.56	1,382.93	91.82	133.90	-91.71	0.00	0.00	0.00
1,500.00	15.01	55.56	1,479.52	106.47	155.26	-106.33	0.00	0.00	0.00
1,600.00	15.01	55.56	1,576.11	121.12	176.62	-120.96	0.00	0.00	0.00
1,700.00	15.01	55.56	1,672.70	135.76	197.98	-135.59	0.00	0.00	0.00
1,728.27	15.01	55.56	1,700.00	139.90	204.02	-139.73	0.00	0.00	0.00
9 5/8"									
1,800.00	15.01	55.56	1,769.28	150.41	219.34	-150.22	0.00	0.00	0.00
1,900.00	15.01	55.56	1,865.87	165.06	240.70	-164.85	0.00	0.00	0.00
2,000.00	15.01	55.56	1,962.46	179.70	262.06	-179.48	0.00	0.00	0.00
2,100.00	15.01	55.56	2,059.05	194.35	283.42	-194.10	0.00	0.00	0.00
2,200.00	15.01	55.56	2,155.64	209.00	304.78	-208.73	0.00	0.00	0.00
2,300.00	15.01	55.56	2,252.22	223.64	326.14	-223.36	0.00	0.00	0.00
2,400.00	15.01	55.56	2,348.81	238.29	347.50	-237.99	0.00	0.00	0.00
2,500.00	15.01	55.56	2,445.40	252.94	368.85	-252.62	0.00	0.00	0.00
2,600.00	15.01	55.56	2,541.99	267.59	390.21	-267.24	0.00	0.00	0.00
2,700.00	15.01	55.56	2,638.58	282.23	411.57	-281.87	0.00	0.00	0.00
2,800.00	15.01	55.56	2,735.17	296.88	432.93	-296.50	0.00	0.00	0.00
2,900.00	15.01	55.56	2,831.75	311.53	454.29	-311.13	0.00	0.00	0.00
3,000.00	15.01	55.56	2,928.34	326.17	475.65	-325.76	0.00	0.00	0.00
3,100.00	15.01	55.56	3,024.93	340.82	497.01	-340.39	0.00	0.00	0.00
3,200.00	15.01	55.56	3,121.52	355.47	518.37	-355.01	0.00	0.00	0.00
3,300.00	15.01	55.56	3,218.11	370.11	539.73	-369.64	0.00	0.00	0.00
3,400.00	15.01	55.56	3,314.69	384.76	561.09	-384.27	0.00	0.00	0.00
3,500.00	15.01	55.56	3,411.28	399.41	582.45	-398.90	0.00	0.00	0.00
3,600.00	15.01	55.56	3,507.87	414.05	603.81	-413.53	0.00	0.00	0.00
3,700.00	15.01	55.56	3,604.46	428.70	625.16	-428.15	0.00	0.00	0.00
3,800.00	15.01	55.56	3,701.05	443.35	646.52	-442.78	0.00	0.00	0.00
3,900.00	15.01	55.56	3,797.63	457.99	667.88	-457.41	0.00	0.00	0.00
4,000.00	15.01	55.56	3,894.22	472.64	689.24	-472.04	0.00	0.00	0.00
4,100.00	15.01	55.56	3,990.81	487.29	710.60	-486.67	0.00	0.00	0.00
4,200.00	15.01	55.56	4,087.40	501.93	731.96	-501.30	0.00	0.00	0.00
4,300.00	15.01	55.56	4,183.99	516.58	753.32	-515.92	0.00	0.00	0.00
4,400.00	15.01	55.56	4,280.57	531.23	774.68	-530.55	0.00	0.00	0.00
4,500.00	15.01	55.56	4,377.16	545.88	796.04	-545.18	0.00	0.00	0.00
4,600.00	15.01	55.56	4,473.75	560.52	817.40	-559.81	0.00	0.00	0.00
4,700.00	15.01	55.56	4,570.34	575.17	838.76	-574.44	0.00	0.00	0.00

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Site:	1N-64W-19 BERG 1930 PAD	North Reference:	True
Well:	BERG 1930-05H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
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	15.01	55.56	4,666.93	589.82	860.12	-589.07	0.00	0.00	0.00	
4,900.00	15.01	55.56	4,763.51	604.46	881.48	-603.69	0.00	0.00	0.00	
5,000.00	15.01	55.56	4,860.10	619.11	902.83	-618.32	0.00	0.00	0.00	
5,100.00	15.01	55.56	4,956.69	633.76	924.19	-632.95	0.00	0.00	0.00	
5,200.00	15.01	55.56	5,053.28	648.40	945.55	-647.58	0.00	0.00	0.00	
5,300.00	15.01	55.56	5,149.87	663.05	966.91	-662.21	0.00	0.00	0.00	
5,400.00	15.01	55.56	5,246.45	677.70	988.27	-676.83	0.00	0.00	0.00	
5,500.00	15.01	55.56	5,343.04	692.34	1,009.63	-691.46	0.00	0.00	0.00	
5,600.00	15.01	55.56	5,439.63	706.99	1,030.99	-706.09	0.00	0.00	0.00	
5,700.00	15.01	55.56	5,536.22	721.64	1,052.35	-720.72	0.00	0.00	0.00	
5,800.00	15.01	55.56	5,632.81	736.28	1,073.71	-735.35	0.00	0.00	0.00	
5,900.00	15.01	55.56	5,729.40	750.93	1,095.07	-749.98	0.00	0.00	0.00	
6,000.00	15.01	55.56	5,825.98	765.58	1,116.43	-764.60	0.00	0.00	0.00	
6,100.00	15.01	55.56	5,922.57	780.23	1,137.79	-779.23	0.00	0.00	0.00	
6,200.00	15.01	55.56	6,019.16	794.87	1,159.14	-793.86	0.00	0.00	0.00	
6,300.00	15.01	55.56	6,115.75	809.52	1,180.50	-808.49	0.00	0.00	0.00	
6,400.00	15.01	55.56	6,212.34	824.17	1,201.86	-823.12	0.00	0.00	0.00	
6,500.00	15.01	55.56	6,308.92	838.81	1,223.22	-837.74	0.00	0.00	0.00	
6,560.62	15.01	55.56	6,367.48	847.69	1,236.17	-846.61	0.00	0.00	0.00	
KOP @ 6560.62ft :: DLS = 9°/100'										
6,600.00	13.38	68.44	6,405.66	852.25	1,244.62	-851.16	9.00	-4.14	32.70	
6,700.00	13.13	108.44	6,503.20	852.91	1,266.20	-851.81	9.00	-0.25	40.01	
6,800.00	18.04	137.15	6,599.63	837.93	1,287.54	-836.81	9.00	4.91	28.71	
6,900.00	25.25	151.98	6,692.59	807.69	1,308.14	-806.55	9.00	7.21	14.82	
7,000.00	33.30	160.27	6,779.78	762.93	1,327.46	-761.77	9.00	8.05	8.30	
7,100.00	41.71	165.58	6,859.05	704.75	1,345.05	-703.57	9.00	8.41	5.31	
7,200.00	50.29	169.37	6,928.47	634.58	1,360.46	-633.39	9.00	8.58	3.79	
7,300.00	58.97	172.31	6,986.30	554.15	1,373.32	-552.95	9.00	8.68	2.94	
7,400.00	67.70	174.75	7,031.14	465.44	1,383.31	-464.23	9.00	8.73	2.44	
7,500.00	76.47	176.90	7,061.88	370.64	1,390.19	-369.42	9.00	8.76	2.15	
7,600.00	85.25	178.90	7,077.76	272.07	1,393.78	-270.86	9.00	8.78	2.00	
7,654.09	90.00	179.95	7,080.00	218.05	1,394.32	-216.83	9.00	8.79	1.95	
End Build @ 7654.09ft										
7,700.00	90.00	179.95	7,080.00	172.14	1,394.36	-170.92	0.00	0.00	0.00	
7,800.00	90.00	179.95	7,080.00	72.14	1,394.44	-70.92	0.00	0.00	0.00	
7,900.00	90.00	179.95	7,080.00	-27.86	1,394.52	29.08	0.00	0.00	0.00	
8,000.00	90.00	179.95	7,080.00	-127.86	1,394.59	129.08	0.00	0.00	0.00	
8,100.00	90.00	179.95	7,080.00	-227.86	1,394.67	229.08	0.00	0.00	0.00	
8,200.00	90.00	179.95	7,080.00	-327.86	1,394.75	329.08	0.00	0.00	0.00	
8,300.00	90.00	179.95	7,080.00	-427.86	1,394.83	429.08	0.00	0.00	0.00	
8,400.00	90.00	179.95	7,080.00	-527.86	1,394.91	529.08	0.00	0.00	0.00	
8,500.00	90.00	179.95	7,080.00	-627.86	1,394.99	629.08	0.00	0.00	0.00	
8,600.00	90.00	179.95	7,080.00	-727.86	1,395.07	729.08	0.00	0.00	0.00	
8,700.00	90.00	179.95	7,080.00	-827.86	1,395.15	829.08	0.00	0.00	0.00	
8,800.00	90.00	179.95	7,080.00	-927.86	1,395.23	929.08	0.00	0.00	0.00	
8,900.00	90.00	179.95	7,080.00	-1,027.86	1,395.31	1,029.08	0.00	0.00	0.00	
9,000.00	90.00	179.95	7,080.00	-1,127.86	1,395.39	1,129.08	0.00	0.00	0.00	
9,100.00	90.00	179.95	7,080.00	-1,227.86	1,395.47	1,229.08	0.00	0.00	0.00	
9,200.00	90.00	179.95	7,080.00	-1,327.86	1,395.55	1,329.08	0.00	0.00	0.00	
9,300.00	90.00	179.95	7,080.00	-1,427.86	1,395.62	1,429.08	0.00	0.00	0.00	
9,400.00	90.00	179.95	7,080.00	-1,527.86	1,395.70	1,529.08	0.00	0.00	0.00	
9,500.00	90.00	179.95	7,080.00	-1,627.86	1,395.78	1,629.08	0.00	0.00	0.00	
9,600.00	90.00	179.95	7,080.00	-1,727.86	1,395.86	1,729.08	0.00	0.00	0.00	
9,700.00	90.00	179.95	7,080.00	-1,827.86	1,395.94	1,829.08	0.00	0.00	0.00	

Planning Report

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	179.95	7,080.00	-1,927.86	1,396.02	1,929.08	0.00	0.00	0.00
9,900.00	90.00	179.95	7,080.00	-2,027.86	1,396.10	2,029.08	0.00	0.00	0.00
10,000.00	90.00	179.95	7,080.00	-2,127.86	1,396.18	2,129.08	0.00	0.00	0.00
10,100.00	90.00	179.95	7,080.00	-2,227.86	1,396.26	2,229.08	0.00	0.00	0.00
10,200.00	90.00	179.95	7,080.00	-2,327.86	1,396.34	2,329.08	0.00	0.00	0.00
10,300.00	90.00	179.95	7,080.00	-2,427.86	1,396.42	2,429.08	0.00	0.00	0.00
10,400.00	90.00	179.95	7,080.00	-2,527.86	1,396.50	2,529.08	0.00	0.00	0.00
10,500.00	90.00	179.95	7,080.00	-2,627.86	1,396.58	2,629.08	0.00	0.00	0.00
10,600.00	90.00	179.95	7,080.00	-2,727.86	1,396.65	2,729.08	0.00	0.00	0.00
10,700.00	90.00	179.95	7,080.00	-2,827.86	1,396.73	2,829.08	0.00	0.00	0.00
10,800.00	90.00	179.95	7,080.00	-2,927.86	1,396.81	2,929.08	0.00	0.00	0.00
10,900.00	90.00	179.95	7,080.00	-3,027.86	1,396.89	3,029.08	0.00	0.00	0.00
11,000.00	90.00	179.95	7,080.00	-3,127.86	1,396.97	3,129.08	0.00	0.00	0.00
11,100.00	90.00	179.95	7,080.00	-3,227.86	1,397.05	3,229.08	0.00	0.00	0.00
11,200.00	90.00	179.95	7,080.00	-3,327.86	1,397.13	3,329.08	0.00	0.00	0.00
11,300.00	90.00	179.95	7,080.00	-3,427.86	1,397.21	3,429.08	0.00	0.00	0.00
11,400.00	90.00	179.95	7,080.00	-3,527.86	1,397.29	3,529.08	0.00	0.00	0.00
11,500.00	90.00	179.95	7,080.00	-3,627.86	1,397.37	3,629.08	0.00	0.00	0.00
11,600.00	90.00	179.95	7,080.00	-3,727.86	1,397.45	3,729.08	0.00	0.00	0.00
11,700.00	90.00	179.95	7,080.00	-3,827.86	1,397.53	3,829.08	0.00	0.00	0.00
11,800.00	90.00	179.95	7,080.00	-3,927.86	1,397.61	3,929.08	0.00	0.00	0.00
11,900.00	90.00	179.95	7,080.00	-4,027.86	1,397.69	4,029.08	0.00	0.00	0.00
12,000.00	90.00	179.95	7,080.00	-4,127.86	1,397.76	4,129.08	0.00	0.00	0.00
12,100.00	90.00	179.95	7,080.00	-4,227.86	1,397.84	4,229.08	0.00	0.00	0.00
12,200.00	90.00	179.95	7,080.00	-4,327.86	1,397.92	4,329.08	0.00	0.00	0.00
12,300.00	90.00	179.95	7,080.00	-4,427.86	1,398.00	4,429.08	0.00	0.00	0.00
12,400.00	90.00	179.95	7,080.00	-4,527.86	1,398.08	4,529.08	0.00	0.00	0.00
12,500.00	90.00	179.95	7,080.00	-4,627.86	1,398.16	4,629.08	0.00	0.00	0.00
12,600.00	90.00	179.95	7,080.00	-4,727.86	1,398.24	4,729.08	0.00	0.00	0.00
12,700.00	90.00	179.95	7,080.00	-4,827.86	1,398.32	4,829.08	0.00	0.00	0.00
12,800.00	90.00	179.95	7,080.00	-4,927.86	1,398.40	4,929.08	0.00	0.00	0.00
12,900.00	90.00	179.95	7,080.00	-5,027.86	1,398.48	5,029.08	0.00	0.00	0.00
13,000.00	90.00	179.95	7,080.00	-5,127.86	1,398.56	5,129.08	0.00	0.00	0.00
13,100.00	90.00	179.95	7,080.00	-5,227.86	1,398.64	5,229.08	0.00	0.00	0.00
13,200.00	90.00	179.95	7,080.00	-5,327.86	1,398.72	5,329.08	0.00	0.00	0.00
13,300.00	90.00	179.95	7,080.00	-5,427.86	1,398.79	5,429.08	0.00	0.00	0.00
13,400.00	90.00	179.95	7,080.00	-5,527.86	1,398.87	5,529.08	0.00	0.00	0.00
13,500.00	90.00	179.95	7,080.00	-5,627.86	1,398.95	5,629.08	0.00	0.00	0.00
13,600.00	90.00	179.95	7,080.00	-5,727.86	1,399.03	5,729.08	0.00	0.00	0.00
13,700.00	90.00	179.95	7,080.00	-5,827.86	1,399.11	5,829.08	0.00	0.00	0.00
13,800.00	90.00	179.95	7,080.00	-5,927.86	1,399.19	5,929.08	0.00	0.00	0.00
13,900.00	90.00	179.95	7,080.00	-6,027.86	1,399.27	6,029.08	0.00	0.00	0.00
14,000.00	90.00	179.95	7,080.00	-6,127.86	1,399.35	6,129.08	0.00	0.00	0.00
14,100.00	90.00	179.95	7,080.00	-6,227.86	1,399.43	6,229.08	0.00	0.00	0.00
14,200.00	90.00	179.95	7,080.00	-6,327.86	1,399.51	6,329.08	0.00	0.00	0.00
14,300.00	90.00	179.95	7,080.00	-6,427.86	1,399.59	6,429.08	0.00	0.00	0.00
14,400.00	90.00	179.95	7,080.00	-6,527.86	1,399.67	6,529.08	0.00	0.00	0.00
14,500.00	90.00	179.95	7,080.00	-6,627.86	1,399.75	6,629.08	0.00	0.00	0.00
14,600.00	90.00	179.95	7,080.00	-6,727.86	1,399.82	6,729.08	0.00	0.00	0.00
14,661.12	90.00	179.95	7,080.00	-6,788.98	1,399.87	6,790.20	0.00	0.00	0.00
TD Well @ 14661.12ft									

Hewlett-Packard

Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well BERG 1930-05H
Company:	VERDAD RESOURCES	TVD Reference:	RKB = 24' @ 5035.00usft (RIG)
Project:	WATTENBERG FIELD	MD Reference:	RKB = 24' @ 5035.00usft (RIG)
Site:	1N-64W-19 BERG 1930 PAD	North Reference:	True
Well:	BERG 1930-05H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name		Casing Diameter (")	Hole Diameter (")
1,728.27	1,700.00	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)	
400.00	400.00	0.00	0.00	Begin Nudge @ 400.00ft
1,150.50	1,141.94	55.28	80.61	Hold Tangent @ 1150.50ft
6,560.62	6,367.48	847.69	1,236.17	KOP @ 6560.62ft :: DLS = 9°/100'
7,654.09	7,080.00	218.05	1,394.32	End Build @ 7654.09ft
14,661.12	7,080.00	-6,788.98	1,399.87	TD Well @ 14661.12ft