

VERDAD RESOURCES

WATTENBERG FIELD

1N-65W-12 SAFI 1224 PAD

SAFI 1224-06H

Wellbore #1

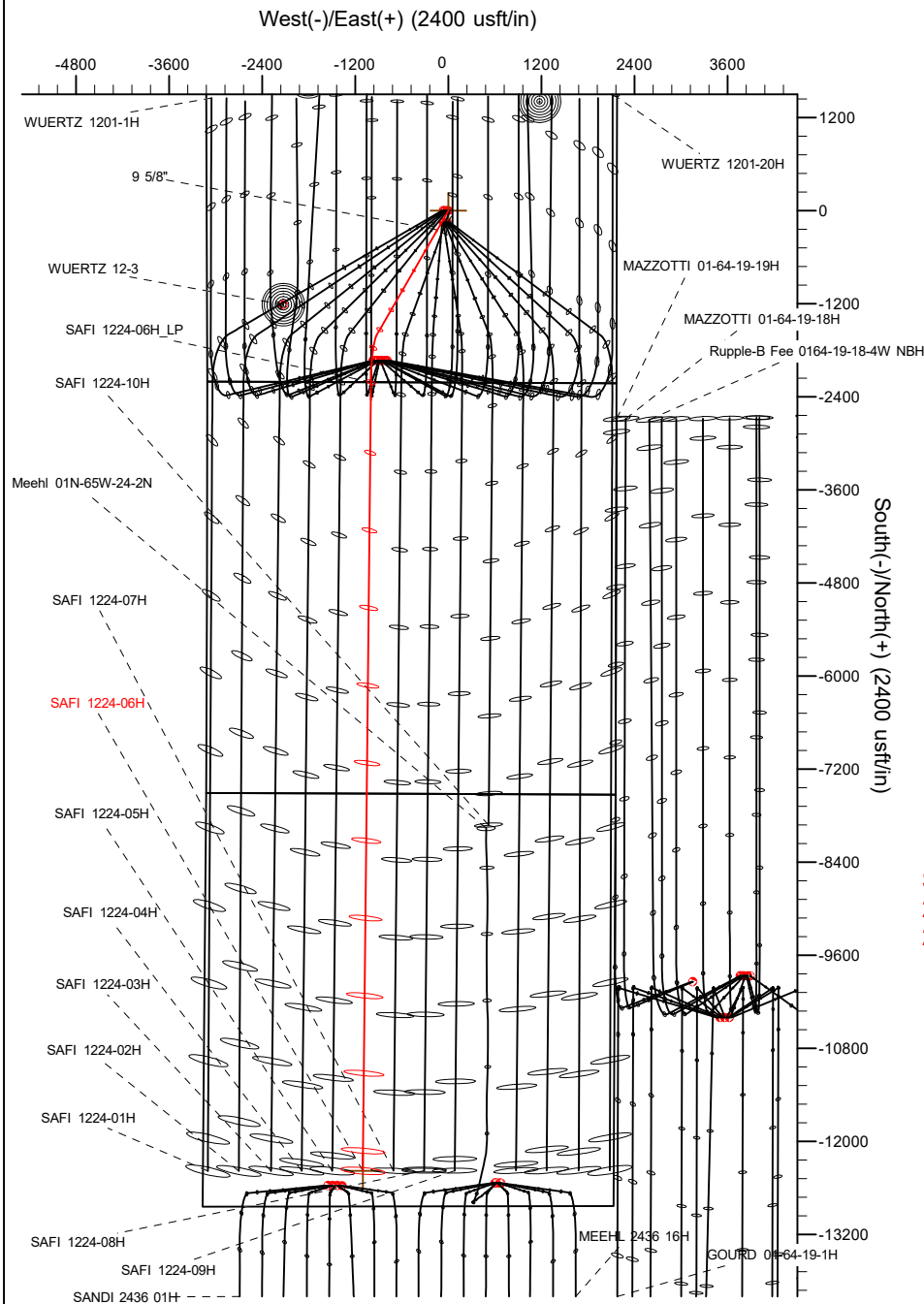
Plan: Design #1

Standard Planning Report

16 May, 2019

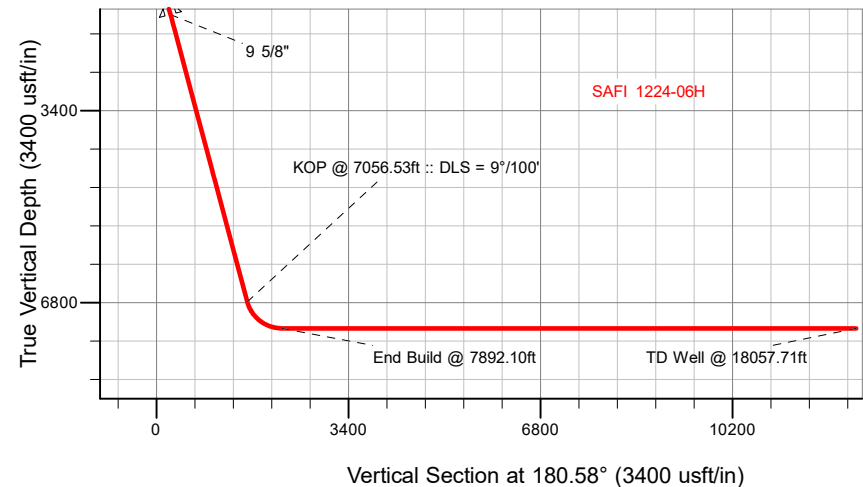
VERDAD RESOURCES

CASING DETAILS			
TVD	MD	Name	Size
1700.00	1736.43	9 5/8"	9-5/8



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	
340.00	0.00	0.00	340.00	0.00	0.00	0.00	0.00	0.00	
1192.50	17.05	209.99	1179.97	-109.05	-62.94	2.00	209.99	109.68	
7056.53	17.05	209.99	6786.28	-1598.22	-922.36	0.00	0.00	1607.47	
7892.10	90.00	180.58	7255.00	-2212.97	-999.20	9.00	-30.52	2222.97	
18057.71	90.00	180.58	7255.00	-12378.06	-1102.63	0.00	0.00	12388.59	SAFI 1224-06H_BHL

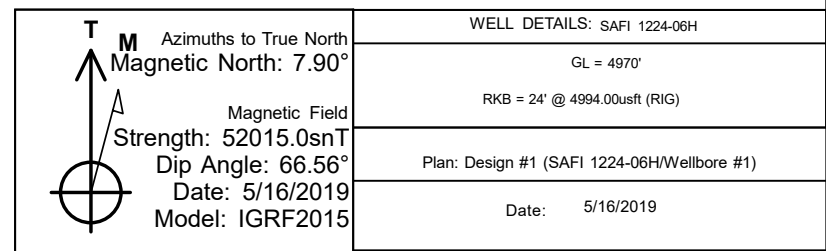
WELLBORE TARGET DETAILS (LAT/LONG)					
Name	TVD	+N/-S	+E/-W	Latitude	Longitude
SAFI 1224-06H_SHL	0.00	0.00	0.00	40.064785	-104.610447
SAFI 1224-06H_BHL	7255.00	-12378.06	-1102.63	40.030805	-104.614385



SHL
2215' FSL
2171' FEL

LP
0' FNL
2110' FWL

BHL
460' FSL
2061' FWL



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Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well SAFI 1224-06H
Company:	VERDAD RESOURCES	TVD Reference:	RKB = 24' @ 4994.00usft (RIG)
Project:	WATTENBERG FIELD	MD Reference:	RKB = 24' @ 4994.00usft (RIG)
Site:	1N-65W-12 SAFI 1224 PAD	North Reference:	True
Well:	SAFI 1224-06H	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-65W-12 SAFI 1224 PAD			
Site Position:		Northing:	1,267,795.88 usft	Latitude:	40.065068
From:	Lat/Long	Easting:	3,248,744.87 usft	Longitude:	-104.611250
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.57 °

Well		SAFI 1224-06H				
Well Position	+N/-S	-102.91 usft	Northing:	1,267,695.22 usft	Latitude:	40.064785
	+E/-W	224.61 usft	Easting:	3,248,970.50 usft	Longitude:	-104.610447
Position Uncertainty		3.28 usft	Wellhead Elevation:		Ground Level:	4,970.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	5/16/2019	7.90	66.56	52,015.04532833

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	180.58

Plan Survey Tool Program	Date	5/16/2019		
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	18,057.71	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	
340.00	0.00	0.00	340.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,192.50	17.05	209.99	1,179.97	-109.05	-62.94	2.00	2.00	0.00	209.99	
7,056.53	17.05	209.99	6,786.28	-1,598.22	-922.36	0.00	0.00	0.00	0.00	
7,892.10	90.00	180.58	7,255.00	-2,212.97	-999.20	9.00	8.73	-3.52	-30.52	
18,057.71	90.00	180.58	7,255.00	-12,378.06	-1,102.63	0.00	0.00	0.00	0.00	SAFI 1224-06H_BHL

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Planning Report

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Company:	VERDAD RESOURCES	TVD Reference:	RKB = 24' @ 4994.00usft (RIG)
Project:	WATTENBERG FIELD	MD Reference:	RKB = 24' @ 4994.00usft (RIG)
Site:	1N-65W-12 SAFI 1224 PAD	North Reference:	True
Well:	SAFI 1224-06H	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
340.00	0.00	0.00	340.00	0.00	0.00	0.00	0.00	0.00	0.00
Begin Nudge @ 340.00ft									
400.00	1.20	209.99	400.00	-0.54	-0.31	0.55	2.00	2.00	0.00
500.00	3.20	209.99	499.92	-3.87	-2.23	3.89	2.00	2.00	0.00
600.00	5.20	209.99	599.64	-10.21	-5.89	10.27	2.00	2.00	0.00
700.00	7.20	209.99	699.05	-19.57	-11.29	19.68	2.00	2.00	0.00
800.00	9.20	209.99	798.03	-31.92	-18.42	32.10	2.00	2.00	0.00
900.00	11.20	209.99	896.44	-47.25	-27.27	47.53	2.00	2.00	0.00
1,000.00	13.20	209.99	994.18	-65.56	-37.83	65.94	2.00	2.00	0.00
1,100.00	15.20	209.99	1,091.12	-86.80	-50.10	87.30	2.00	2.00	0.00
1,192.50	17.05	209.99	1,179.97	-109.05	-62.94	109.68	2.00	2.00	0.00
Hold Tangent @ 1192.50ft									
1,200.00	17.05	209.99	1,187.14	-110.96	-64.03	111.60	0.00	0.00	0.00
1,300.00	17.05	209.99	1,282.75	-136.35	-78.69	137.14	0.00	0.00	0.00
1,400.00	17.05	209.99	1,378.35	-161.75	-93.35	162.68	0.00	0.00	0.00
1,500.00	17.05	209.99	1,473.96	-187.14	-108.00	188.23	0.00	0.00	0.00
1,600.00	17.05	209.99	1,569.56	-212.54	-122.66	213.77	0.00	0.00	0.00
1,700.00	17.05	209.99	1,665.17	-237.93	-137.31	239.31	0.00	0.00	0.00
1,736.43	17.05	209.99	1,700.00	-247.18	-142.65	248.61	0.00	0.00	0.00
9 5/8"									
1,800.00	17.05	209.99	1,760.77	-263.33	-151.97	264.85	0.00	0.00	0.00
1,900.00	17.05	209.99	1,856.38	-288.72	-166.63	290.39	0.00	0.00	0.00
2,000.00	17.05	209.99	1,951.98	-314.12	-181.28	315.94	0.00	0.00	0.00
2,100.00	17.05	209.99	2,047.59	-339.51	-195.94	341.48	0.00	0.00	0.00
2,200.00	17.05	209.99	2,143.19	-364.91	-210.59	367.02	0.00	0.00	0.00
2,300.00	17.05	209.99	2,238.80	-390.30	-225.25	392.56	0.00	0.00	0.00
2,400.00	17.05	209.99	2,334.40	-415.70	-239.91	418.10	0.00	0.00	0.00
2,500.00	17.05	209.99	2,430.01	-441.09	-254.56	443.65	0.00	0.00	0.00
2,600.00	17.05	209.99	2,525.61	-466.49	-269.22	469.19	0.00	0.00	0.00
2,700.00	17.05	209.99	2,621.22	-491.88	-283.87	494.73	0.00	0.00	0.00
2,800.00	17.05	209.99	2,716.82	-517.28	-298.53	520.27	0.00	0.00	0.00
2,900.00	17.05	209.99	2,812.43	-542.67	-313.18	545.81	0.00	0.00	0.00
3,000.00	17.05	209.99	2,908.03	-568.07	-327.84	571.36	0.00	0.00	0.00
3,100.00	17.05	209.99	3,003.64	-593.46	-342.50	596.90	0.00	0.00	0.00
3,200.00	17.05	209.99	3,099.24	-618.86	-357.15	622.44	0.00	0.00	0.00
3,300.00	17.05	209.99	3,194.85	-644.25	-371.81	647.98	0.00	0.00	0.00
3,400.00	17.05	209.99	3,290.45	-669.65	-386.46	673.52	0.00	0.00	0.00
3,500.00	17.05	209.99	3,386.06	-695.04	-401.12	699.07	0.00	0.00	0.00
3,600.00	17.05	209.99	3,481.66	-720.44	-415.78	724.61	0.00	0.00	0.00
3,700.00	17.05	209.99	3,577.27	-745.83	-430.43	750.15	0.00	0.00	0.00
3,800.00	17.05	209.99	3,672.87	-771.23	-445.09	775.69	0.00	0.00	0.00
3,900.00	17.05	209.99	3,768.48	-796.62	-459.74	801.23	0.00	0.00	0.00
4,000.00	17.05	209.99	3,864.08	-822.02	-474.40	826.78	0.00	0.00	0.00
4,100.00	17.05	209.99	3,959.69	-847.41	-489.06	852.32	0.00	0.00	0.00
4,200.00	17.05	209.99	4,055.29	-872.81	-503.71	877.86	0.00	0.00	0.00
4,300.00	17.05	209.99	4,150.90	-898.20	-518.37	903.40	0.00	0.00	0.00
4,400.00	17.05	209.99	4,246.50	-923.60	-533.02	928.94	0.00	0.00	0.00
4,500.00	17.05	209.99	4,342.11	-948.99	-547.68	954.49	0.00	0.00	0.00
4,600.00	17.05	209.99	4,437.71	-974.38	-562.33	980.03	0.00	0.00	0.00

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Planning Report

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Company:	VERDAD RESOURCES	TVD Reference:	RKB = 24' @ 4994.00usft (RIG)
Project:	WATTENBERG FIELD	MD Reference:	RKB = 24' @ 4994.00usft (RIG)
Site:	1N-65W-12 SAFI 1224 PAD	North Reference:	True
Well:	SAFI 1224-06H	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)
4,700.00	17.05	209.99	4,533.32	-999.78	-576.99	1,005.57	0.00	0.00	0.00
4,800.00	17.05	209.99	4,628.92	-1,025.17	-591.65	1,031.11	0.00	0.00	0.00
4,900.00	17.05	209.99	4,724.53	-1,050.57	-606.30	1,056.65	0.00	0.00	0.00
5,000.00	17.05	209.99	4,820.13	-1,075.96	-620.96	1,082.20	0.00	0.00	0.00
5,100.00	17.05	209.99	4,915.74	-1,101.36	-635.61	1,107.74	0.00	0.00	0.00
5,200.00	17.05	209.99	5,011.34	-1,126.75	-650.27	1,133.28	0.00	0.00	0.00
5,300.00	17.05	209.99	5,106.95	-1,152.15	-664.93	1,158.82	0.00	0.00	0.00
5,400.00	17.05	209.99	5,202.55	-1,177.54	-679.58	1,184.36	0.00	0.00	0.00
5,500.00	17.05	209.99	5,298.16	-1,202.94	-694.24	1,209.91	0.00	0.00	0.00
5,600.00	17.05	209.99	5,393.76	-1,228.33	-708.89	1,235.45	0.00	0.00	0.00
5,700.00	17.05	209.99	5,489.37	-1,253.73	-723.55	1,260.99	0.00	0.00	0.00
5,800.00	17.05	209.99	5,584.97	-1,279.12	-738.21	1,286.53	0.00	0.00	0.00
5,900.00	17.05	209.99	5,680.58	-1,304.52	-752.86	1,312.07	0.00	0.00	0.00
6,000.00	17.05	209.99	5,776.18	-1,329.91	-767.52	1,337.62	0.00	0.00	0.00
6,100.00	17.05	209.99	5,871.79	-1,355.31	-782.17	1,363.16	0.00	0.00	0.00
6,200.00	17.05	209.99	5,967.39	-1,380.70	-796.83	1,388.70	0.00	0.00	0.00
6,300.00	17.05	209.99	6,063.00	-1,406.10	-811.48	1,414.24	0.00	0.00	0.00
6,400.00	17.05	209.99	6,158.60	-1,431.49	-826.14	1,439.78	0.00	0.00	0.00
6,500.00	17.05	209.99	6,254.21	-1,456.89	-840.80	1,465.33	0.00	0.00	0.00
6,600.00	17.05	209.99	6,349.81	-1,482.28	-855.45	1,490.87	0.00	0.00	0.00
6,700.00	17.05	209.99	6,445.42	-1,507.68	-870.11	1,516.41	0.00	0.00	0.00
6,800.00	17.05	209.99	6,541.02	-1,533.07	-884.76	1,541.95	0.00	0.00	0.00
6,900.00	17.05	209.99	6,636.62	-1,558.47	-899.42	1,567.49	0.00	0.00	0.00
7,000.00	17.05	209.99	6,732.23	-1,583.86	-914.08	1,593.04	0.00	0.00	0.00
7,056.53	17.05	209.99	6,786.28	-1,598.22	-922.36	1,607.47	0.00	0.00	0.00
KOP @ 7056.53ft :: DLS = 9°/100'									
7,100.00	20.51	204.32	6,827.43	-1,610.69	-928.68	1,620.00	9.00	7.97	-13.05
7,200.00	28.90	196.41	6,918.22	-1,649.92	-942.76	1,659.37	9.00	8.39	-7.90
7,300.00	37.56	191.88	7,001.80	-1,703.03	-955.88	1,712.62	9.00	8.66	-4.53
7,400.00	46.33	188.85	7,076.11	-1,768.73	-967.74	1,778.44	9.00	8.77	-3.03
7,500.00	55.16	186.60	7,139.33	-1,845.39	-978.04	1,855.20	9.00	8.83	-2.25
7,600.00	64.03	184.79	7,189.89	-1,931.13	-986.53	1,941.02	9.00	8.86	-1.81
7,700.00	72.91	183.24	7,226.56	-2,023.83	-992.99	2,033.78	9.00	8.88	-1.55
7,800.00	81.80	181.83	7,248.42	-2,121.21	-997.28	2,131.20	9.00	8.89	-1.41
7,892.10	90.00	180.58	7,255.00	-2,212.97	-999.20	2,222.97	9.00	8.90	-1.35
End Build @ 7892.10ft									
7,900.00	90.00	180.58	7,255.00	-2,220.87	-999.28	2,230.88	0.00	0.00	0.00
8,000.00	90.00	180.58	7,255.00	-2,320.87	-1,000.30	2,330.88	0.00	0.00	0.00
8,100.00	90.00	180.58	7,255.00	-2,420.86	-1,001.32	2,430.88	0.00	0.00	0.00
8,200.00	90.00	180.58	7,255.00	-2,520.86	-1,002.34	2,530.88	0.00	0.00	0.00
8,300.00	90.00	180.58	7,255.00	-2,620.85	-1,003.35	2,630.88	0.00	0.00	0.00
8,400.00	90.00	180.58	7,255.00	-2,720.85	-1,004.37	2,730.88	0.00	0.00	0.00
8,500.00	90.00	180.58	7,255.00	-2,820.84	-1,005.39	2,830.88	0.00	0.00	0.00
8,600.00	90.00	180.58	7,255.00	-2,920.84	-1,006.41	2,930.88	0.00	0.00	0.00
8,700.00	90.00	180.58	7,255.00	-3,020.83	-1,007.42	3,030.88	0.00	0.00	0.00
8,800.00	90.00	180.58	7,255.00	-3,120.83	-1,008.44	3,130.88	0.00	0.00	0.00
8,900.00	90.00	180.58	7,255.00	-3,220.82	-1,009.46	3,230.88	0.00	0.00	0.00
9,000.00	90.00	180.58	7,255.00	-3,320.82	-1,010.48	3,330.88	0.00	0.00	0.00
9,100.00	90.00	180.58	7,255.00	-3,420.81	-1,011.49	3,430.88	0.00	0.00	0.00
9,200.00	90.00	180.58	7,255.00	-3,520.81	-1,012.51	3,530.88	0.00	0.00	0.00
9,300.00	90.00	180.58	7,255.00	-3,620.80	-1,013.53	3,630.88	0.00	0.00	0.00
9,400.00	90.00	180.58	7,255.00	-3,720.80	-1,014.55	3,730.88	0.00	0.00	0.00
9,500.00	90.00	180.58	7,255.00	-3,820.79	-1,015.56	3,830.88	0.00	0.00	0.00
9,600.00	90.00	180.58	7,255.00	-3,920.79	-1,016.58	3,930.88	0.00	0.00	0.00

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Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well SAFI 1224-06H
Company:	VERDAD RESOURCES	TVD Reference:	RKB = 24' @ 4994.00usft (RIG)
Project:	WATTENBERG FIELD	MD Reference:	RKB = 24' @ 4994.00usft (RIG)
Site:	1N-65W-12 SAFI 1224 PAD	North Reference:	True
Well:	SAFI 1224-06H	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)
9,700.00	90.00	180.58	7,255.00	-4,020.78	-1,017.60	4,030.88	0.00	0.00	0.00
9,800.00	90.00	180.58	7,255.00	-4,120.78	-1,018.62	4,130.88	0.00	0.00	0.00
9,900.00	90.00	180.58	7,255.00	-4,220.77	-1,019.63	4,230.88	0.00	0.00	0.00
10,000.00	90.00	180.58	7,255.00	-4,320.77	-1,020.65	4,330.88	0.00	0.00	0.00
10,100.00	90.00	180.58	7,255.00	-4,420.76	-1,021.67	4,430.88	0.00	0.00	0.00
10,200.00	90.00	180.58	7,255.00	-4,520.75	-1,022.68	4,530.88	0.00	0.00	0.00
10,300.00	90.00	180.58	7,255.00	-4,620.75	-1,023.70	4,630.88	0.00	0.00	0.00
10,400.00	90.00	180.58	7,255.00	-4,720.74	-1,024.72	4,730.88	0.00	0.00	0.00
10,500.00	90.00	180.58	7,255.00	-4,820.74	-1,025.74	4,830.88	0.00	0.00	0.00
10,600.00	90.00	180.58	7,255.00	-4,920.73	-1,026.75	4,930.88	0.00	0.00	0.00
10,700.00	90.00	180.58	7,255.00	-5,020.73	-1,027.77	5,030.88	0.00	0.00	0.00
10,800.00	90.00	180.58	7,255.00	-5,120.72	-1,028.79	5,130.88	0.00	0.00	0.00
10,900.00	90.00	180.58	7,255.00	-5,220.72	-1,029.81	5,230.88	0.00	0.00	0.00
11,000.00	90.00	180.58	7,255.00	-5,320.71	-1,030.82	5,330.88	0.00	0.00	0.00
11,100.00	90.00	180.58	7,255.00	-5,420.71	-1,031.84	5,430.88	0.00	0.00	0.00
11,200.00	90.00	180.58	7,255.00	-5,520.70	-1,032.86	5,530.88	0.00	0.00	0.00
11,300.00	90.00	180.58	7,255.00	-5,620.70	-1,033.88	5,630.88	0.00	0.00	0.00
11,400.00	90.00	180.58	7,255.00	-5,720.69	-1,034.89	5,730.88	0.00	0.00	0.00
11,500.00	90.00	180.58	7,255.00	-5,820.69	-1,035.91	5,830.88	0.00	0.00	0.00
11,600.00	90.00	180.58	7,255.00	-5,920.68	-1,036.93	5,930.88	0.00	0.00	0.00
11,700.00	90.00	180.58	7,255.00	-6,020.68	-1,037.95	6,030.88	0.00	0.00	0.00
11,800.00	90.00	180.58	7,255.00	-6,120.67	-1,038.96	6,130.88	0.00	0.00	0.00
11,900.00	90.00	180.58	7,255.00	-6,220.67	-1,039.98	6,230.88	0.00	0.00	0.00
12,000.00	90.00	180.58	7,255.00	-6,320.66	-1,041.00	6,330.88	0.00	0.00	0.00
12,100.00	90.00	180.58	7,255.00	-6,420.66	-1,042.02	6,430.88	0.00	0.00	0.00
12,200.00	90.00	180.58	7,255.00	-6,520.65	-1,043.03	6,530.88	0.00	0.00	0.00
12,300.00	90.00	180.58	7,255.00	-6,620.65	-1,044.05	6,630.88	0.00	0.00	0.00
12,400.00	90.00	180.58	7,255.00	-6,720.64	-1,045.07	6,730.88	0.00	0.00	0.00
12,500.00	90.00	180.58	7,255.00	-6,820.64	-1,046.09	6,830.88	0.00	0.00	0.00
12,600.00	90.00	180.58	7,255.00	-6,920.63	-1,047.10	6,930.88	0.00	0.00	0.00
12,700.00	90.00	180.58	7,255.00	-7,020.63	-1,048.12	7,030.88	0.00	0.00	0.00
12,800.00	90.00	180.58	7,255.00	-7,120.62	-1,049.14	7,130.88	0.00	0.00	0.00
12,900.00	90.00	180.58	7,255.00	-7,220.61	-1,050.16	7,230.88	0.00	0.00	0.00
13,000.00	90.00	180.58	7,255.00	-7,320.61	-1,051.17	7,330.88	0.00	0.00	0.00
13,100.00	90.00	180.58	7,255.00	-7,420.60	-1,052.19	7,430.88	0.00	0.00	0.00
13,200.00	90.00	180.58	7,255.00	-7,520.60	-1,053.21	7,530.88	0.00	0.00	0.00
13,300.00	90.00	180.58	7,255.00	-7,620.59	-1,054.23	7,630.88	0.00	0.00	0.00
13,400.00	90.00	180.58	7,255.00	-7,720.59	-1,055.24	7,730.88	0.00	0.00	0.00
13,500.00	90.00	180.58	7,255.00	-7,820.58	-1,056.26	7,830.88	0.00	0.00	0.00
13,600.00	90.00	180.58	7,255.00	-7,920.58	-1,057.28	7,930.88	0.00	0.00	0.00
13,700.00	90.00	180.58	7,255.00	-8,020.57	-1,058.30	8,030.88	0.00	0.00	0.00
13,800.00	90.00	180.58	7,255.00	-8,120.57	-1,059.31	8,130.88	0.00	0.00	0.00
13,900.00	90.00	180.58	7,255.00	-8,220.56	-1,060.33	8,230.88	0.00	0.00	0.00
14,000.00	90.00	180.58	7,255.00	-8,320.56	-1,061.35	8,330.88	0.00	0.00	0.00
14,100.00	90.00	180.58	7,255.00	-8,420.55	-1,062.37	8,430.88	0.00	0.00	0.00
14,200.00	90.00	180.58	7,255.00	-8,520.55	-1,063.38	8,530.88	0.00	0.00	0.00
14,300.00	90.00	180.58	7,255.00	-8,620.54	-1,064.40	8,630.88	0.00	0.00	0.00
14,400.00	90.00	180.58	7,255.00	-8,720.54	-1,065.42	8,730.88	0.00	0.00	0.00
14,500.00	90.00	180.58	7,255.00	-8,820.53	-1,066.44	8,830.88	0.00	0.00	0.00
14,600.00	90.00	180.58	7,255.00	-8,920.53	-1,067.45	8,930.88	0.00	0.00	0.00
14,700.00	90.00	180.58	7,255.00	-9,020.52	-1,068.47	9,030.88	0.00	0.00	0.00
14,800.00	90.00	180.58	7,255.00	-9,120.52	-1,069.49	9,130.88	0.00	0.00	0.00
14,900.00	90.00	180.58	7,255.00	-9,220.51	-1,070.51	9,230.88	0.00	0.00	0.00

Hewlett-Packard

Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well SAFI 1224-06H
Company:	VERDAD RESOURCES	TVD Reference:	RKB = 24' @ 4994.00usft (RIG)
Project:	WATTENBERG FIELD	MD Reference:	RKB = 24' @ 4994.00usft (RIG)
Site:	1N-65W-12 SAFI 1224 PAD	North Reference:	True
Well:	SAFI 1224-06H	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)	
15,000.00	90.00	180.58	7,255.00	-9,320.51	-1,071.52	9,330.88	0.00	0.00	0.00	
15,100.00	90.00	180.58	7,255.00	-9,420.50	-1,072.54	9,430.88	0.00	0.00	0.00	
15,200.00	90.00	180.58	7,255.00	-9,520.50	-1,073.56	9,530.88	0.00	0.00	0.00	
15,300.00	90.00	180.58	7,255.00	-9,620.49	-1,074.58	9,630.88	0.00	0.00	0.00	
15,400.00	90.00	180.58	7,255.00	-9,720.49	-1,075.59	9,730.88	0.00	0.00	0.00	
15,500.00	90.00	180.58	7,255.00	-9,820.48	-1,076.61	9,830.88	0.00	0.00	0.00	
15,600.00	90.00	180.58	7,255.00	-9,920.48	-1,077.63	9,930.88	0.00	0.00	0.00	
15,700.00	90.00	180.58	7,255.00	-10,020.47	-1,078.65	10,030.88	0.00	0.00	0.00	
15,800.00	90.00	180.58	7,255.00	-10,120.46	-1,079.66	10,130.88	0.00	0.00	0.00	
15,900.00	90.00	180.58	7,255.00	-10,220.46	-1,080.68	10,230.88	0.00	0.00	0.00	
16,000.00	90.00	180.58	7,255.00	-10,320.45	-1,081.70	10,330.88	0.00	0.00	0.00	
16,100.00	90.00	180.58	7,255.00	-10,420.45	-1,082.72	10,430.88	0.00	0.00	0.00	
16,200.00	90.00	180.58	7,255.00	-10,520.44	-1,083.73	10,530.88	0.00	0.00	0.00	
16,300.00	90.00	180.58	7,255.00	-10,620.44	-1,084.75	10,630.88	0.00	0.00	0.00	
16,400.00	90.00	180.58	7,255.00	-10,720.43	-1,085.77	10,730.88	0.00	0.00	0.00	
16,500.00	90.00	180.58	7,255.00	-10,820.43	-1,086.79	10,830.88	0.00	0.00	0.00	
16,600.00	90.00	180.58	7,255.00	-10,920.42	-1,087.80	10,930.88	0.00	0.00	0.00	
16,700.00	90.00	180.58	7,255.00	-11,020.42	-1,088.82	11,030.88	0.00	0.00	0.00	
16,800.00	90.00	180.58	7,255.00	-11,120.41	-1,089.84	11,130.88	0.00	0.00	0.00	
16,900.00	90.00	180.58	7,255.00	-11,220.41	-1,090.86	11,230.88	0.00	0.00	0.00	
17,000.00	90.00	180.58	7,255.00	-11,320.40	-1,091.87	11,330.88	0.00	0.00	0.00	
17,100.00	90.00	180.58	7,255.00	-11,420.40	-1,092.89	11,430.88	0.00	0.00	0.00	
17,200.00	90.00	180.58	7,255.00	-11,520.39	-1,093.91	11,530.88	0.00	0.00	0.00	
17,300.00	90.00	180.58	7,255.00	-11,620.39	-1,094.93	11,630.88	0.00	0.00	0.00	
17,400.00	90.00	180.58	7,255.00	-11,720.38	-1,095.94	11,730.88	0.00	0.00	0.00	
17,500.00	90.00	180.58	7,255.00	-11,820.38	-1,096.96	11,830.88	0.00	0.00	0.00	
17,600.00	90.00	180.58	7,255.00	-11,920.37	-1,097.98	11,930.88	0.00	0.00	0.00	
17,700.00	90.00	180.58	7,255.00	-12,020.37	-1,098.99	12,030.88	0.00	0.00	0.00	
17,800.00	90.00	180.58	7,255.00	-12,120.36	-1,100.01	12,130.88	0.00	0.00	0.00	
17,900.00	90.00	180.58	7,255.00	-12,220.36	-1,101.03	12,230.88	0.00	0.00	0.00	
18,000.00	90.00	180.58	7,255.00	-12,320.35	-1,102.05	12,330.88	0.00	0.00	0.00	
18,057.71	90.00	180.58	7,255.00	-12,378.06	-1,102.63	12,388.59	0.00	0.00	0.00	
TD Well @ 18057.71ft										

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name		Casing Diameter (")	Hole Diameter (")
1,736.43	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)		
340.00	340.00	0.00	0.00	Begin Nudge @ 340.00ft	
1,192.50	1,179.97	-109.05	-62.94	Hold Tangent @ 1192.50ft	
7,056.53	6,786.28	-1,598.22	-922.36	KOP @ 7056.53ft :: DLS = 9°/100'	
7,892.10	7,255.00	-2,212.97	-999.20	End Build @ 7892.10ft	
18,057.71	7,255.00	-12,378.06	-1,102.63	TD Well @ 18057.71ft	