

VERDAD RESOURCES

**WATTENBERG FIELD
1N-65W-10 HDI KF PAD
HDI KF 10-11H**

Wellbore #1

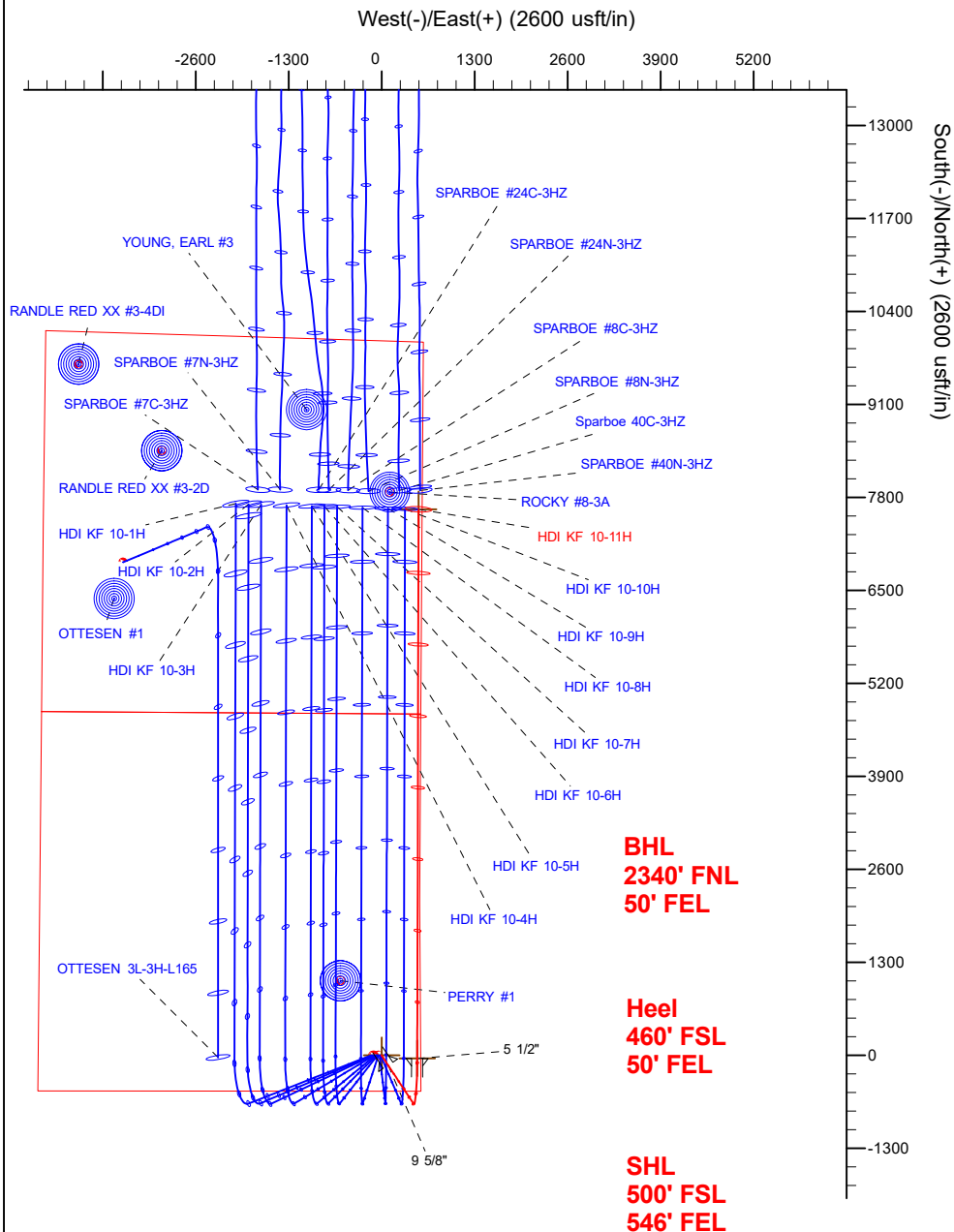
Plan: Design #1

Standard Planning Report

18 January, 2018

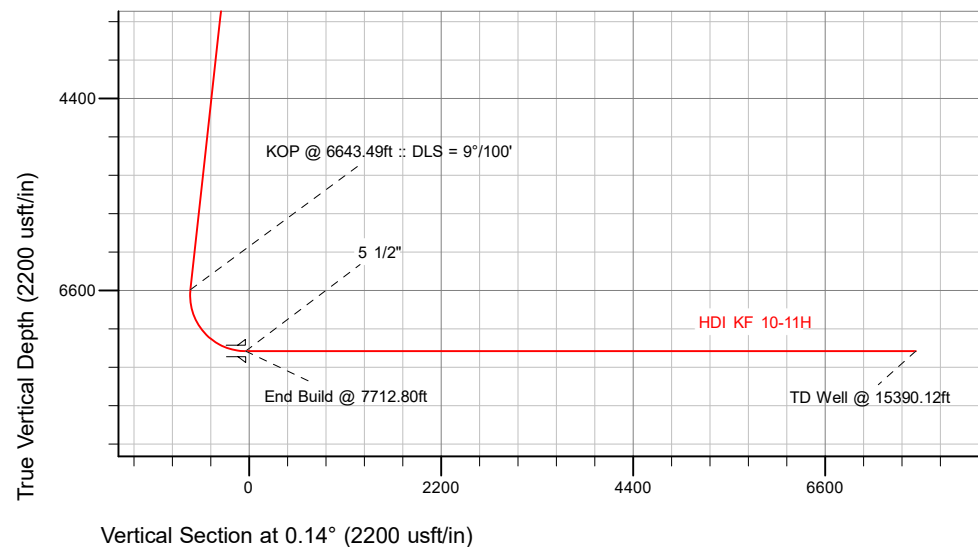
VERDAD RESOURCES


CASING DETAILS			
TVD	MD	Name	Size
1700.00	1710.33	9 5/8"	9-5/8
7295.00	7712.80	5 1/2"	5-1/2



SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	250.00	0.00	0.00	250.00	0.00	0.00	0.00	0.00	0.00	
3	624.50	7.49	146.60	623.43	-20.41	13.46	2.00	146.60	-20.37	
4	6643.49	7.49	146.60	6591.07	-675.42	445.36	0.00	0.00	-674.33	
5	7712.80	90.00	0.14	7295.00	-42.70	498.02	9.00	-146.24	-41.48	
6	15390.12	90.00	0.14	7295.00	7634.61	516.55	0.00	0.00	7635.85	HDI KF 10-11H_BHL

WELLBORE TARGET DETAILS (LAT/LONG)						
Name		TVD	+N/-S	+E/-W	Latitude	
HDI KF	10-11H_SHL	0.00	0.00	0.00	40.060105	-104.642444
HDI KF	10-11H_BHL	7295.00	7634.61	516.55	40.081063	-104.640598



 <p> M Azimuths to True North Magnetic North: 7.88° Magnetic Field Strength: 52270.3snT Dip Angle: 66.57° Date: 1/17/2018 Model: IGRF2010 </p>	WELL DETAILS: HDI KF 10-11H
	GL = 5014'
	RKB = 20' @ 5034.00usft (RIG)
	Plan: Design #1 (HDI KF 10-11H/Wellbore #1)
Created By: _____ Date: 1/18/2018 Reviewed: _____ Date: _____	

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Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well HDI KF 10-11H
Company:	VERDAD RESOURCES	TVD Reference:	RKB = 20' @ 5034.00usft (RIG)
Project:	WATTENBERG FIELD	MD Reference:	RKB = 20' @ 5034.00usft (RIG)
Site:	1N-65W-10 HDI KF PAD	North Reference:	True
Well:	HDI KF 10-11H	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-10 HDI KF PAD			
Site Position:		Northing:	1,265,900.79 usft	Latitude: 40.060105
From:	Lat/Long	Easting:	3,239,881.89 usft	Longitude: -104.642980
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence: 0.55 °

Well	HDI KF 10-11H			
Well Position	+N/-S	-0.09 usft	Northing:	1,265,902.14 usft
	+E/-W	150.03 usft	Easting:	3,240,031.92 usft
Position Uncertainty		3.28 usft	Wellhead Elevation:	Ground Level: 5,014.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	1/17/2018	7.88	66.57	52,270.25373296

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	0.14

Plan Survey Tool Program	Date	1/18/2018		
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	15,390.12	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	
250.00	0.00	0.00	250.00	0.00	0.00	0.00	0.00	0.00	0.00	
624.50	7.49	146.60	623.43	-20.41	13.46	2.00	2.00	0.00	146.60	
6,643.49	7.49	146.60	6,591.07	-675.42	445.36	0.00	0.00	0.00	0.00	
7,712.80	90.00	0.14	7,295.00	-42.70	498.02	9.00	7.72	-13.70	-146.24	
15,390.12	90.00	0.14	7,295.00	7,634.61	516.55	0.00	0.00	0.00	0.00	HDI KF 10-11H_BHL

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Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well HDI KF 10-11H
Company:	VERDAD RESOURCES	TVD Reference:	RKB = 20' @ 5034.00usft (RIG)
Project:	WATTENBERG FIELD	MD Reference:	RKB = 20' @ 5034.00usft (RIG)
Site:	1N-65W-10 HDI KF PAD	North Reference:	True
Well:	HDI KF 10-11H	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
250.00	0.00	0.00	250.00	0.00	0.00	0.00	0.00	0.00	0.00
Begin Nudge @ 250.00ft									
300.00	1.00	146.60	300.00	-0.36	0.24	-0.36	2.00	2.00	0.00
400.00	3.00	146.60	399.93	-3.28	2.16	-3.27	2.00	2.00	0.00
500.00	5.00	146.60	499.68	-9.10	6.00	-9.09	2.00	2.00	0.00
600.00	7.00	146.60	599.13	-17.83	11.75	-17.80	2.00	2.00	0.00
624.50	7.49	146.60	623.43	-20.41	13.46	-20.37	2.00	2.00	0.00
End Nudge @ 624.50ft									
700.00	7.49	146.60	698.29	-28.62	18.87	-28.58	0.00	0.00	0.00
800.00	7.49	146.60	797.44	-39.51	26.05	-39.44	0.00	0.00	0.00
900.00	7.49	146.60	896.58	-50.39	33.22	-50.31	0.00	0.00	0.00
1,000.00	7.49	146.60	995.73	-61.27	40.40	-61.17	0.00	0.00	0.00
1,100.00	7.49	146.60	1,094.88	-72.15	47.58	-72.04	0.00	0.00	0.00
1,200.00	7.49	146.60	1,194.02	-83.04	54.75	-82.90	0.00	0.00	0.00
1,300.00	7.49	146.60	1,293.17	-93.92	61.93	-93.77	0.00	0.00	0.00
1,400.00	7.49	146.60	1,392.32	-104.80	69.10	-104.63	0.00	0.00	0.00
1,500.00	7.49	146.60	1,491.46	-115.68	76.28	-115.50	0.00	0.00	0.00
1,600.00	7.49	146.60	1,590.61	-126.57	83.45	-126.36	0.00	0.00	0.00
1,700.00	7.49	146.60	1,689.76	-137.45	90.63	-137.23	0.00	0.00	0.00
1,710.33	7.49	146.60	1,700.00	-138.57	91.37	-138.35	0.00	0.00	0.00
9 5/8"									
1,800.00	7.49	146.60	1,788.90	-148.33	97.81	-148.09	0.00	0.00	0.00
1,900.00	7.49	146.60	1,888.05	-159.21	104.98	-158.96	0.00	0.00	0.00
2,000.00	7.49	146.60	1,987.20	-170.10	112.16	-169.82	0.00	0.00	0.00
2,100.00	7.49	146.60	2,086.34	-180.98	119.33	-180.69	0.00	0.00	0.00
2,200.00	7.49	146.60	2,185.49	-191.86	126.51	-191.55	0.00	0.00	0.00
2,300.00	7.49	146.60	2,284.64	-202.74	133.68	-202.42	0.00	0.00	0.00
2,400.00	7.49	146.60	2,383.79	-213.63	140.86	-213.28	0.00	0.00	0.00
2,500.00	7.49	146.60	2,482.93	-224.51	148.04	-224.15	0.00	0.00	0.00
2,600.00	7.49	146.60	2,582.08	-235.39	155.21	-235.01	0.00	0.00	0.00
2,700.00	7.49	146.60	2,681.23	-246.27	162.39	-245.88	0.00	0.00	0.00
2,800.00	7.49	146.60	2,780.37	-257.16	169.56	-256.74	0.00	0.00	0.00
2,900.00	7.49	146.60	2,879.52	-268.04	176.74	-267.61	0.00	0.00	0.00
3,000.00	7.49	146.60	2,978.67	-278.92	183.91	-278.47	0.00	0.00	0.00
3,100.00	7.49	146.60	3,077.81	-289.80	191.09	-289.34	0.00	0.00	0.00
3,200.00	7.49	146.60	3,176.96	-300.69	198.27	-300.20	0.00	0.00	0.00
3,300.00	7.49	146.60	3,276.11	-311.57	205.44	-311.07	0.00	0.00	0.00
3,400.00	7.49	146.60	3,375.25	-322.45	212.62	-321.93	0.00	0.00	0.00
3,500.00	7.49	146.60	3,474.40	-333.33	219.79	-332.79	0.00	0.00	0.00
3,600.00	7.49	146.60	3,573.55	-344.22	226.97	-343.66	0.00	0.00	0.00
3,700.00	7.49	146.60	3,672.69	-355.10	234.14	-354.52	0.00	0.00	0.00
3,800.00	7.49	146.60	3,771.84	-365.98	241.32	-365.39	0.00	0.00	0.00
3,900.00	7.49	146.60	3,870.99	-376.86	248.50	-376.25	0.00	0.00	0.00
4,000.00	7.49	146.60	3,970.13	-387.75	255.67	-387.12	0.00	0.00	0.00
4,100.00	7.49	146.60	4,069.28	-398.63	262.85	-397.98	0.00	0.00	0.00
4,200.00	7.49	146.60	4,168.43	-409.51	270.02	-408.85	0.00	0.00	0.00
4,300.00	7.49	146.60	4,267.57	-420.39	277.20	-419.71	0.00	0.00	0.00
4,400.00	7.49	146.60	4,366.72	-431.28	284.37	-430.58	0.00	0.00	0.00
4,500.00	7.49	146.60	4,465.87	-442.16	291.55	-441.44	0.00	0.00	0.00
4,600.00	7.49	146.60	4,565.01	-453.04	298.73	-452.31	0.00	0.00	0.00

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Planning Report

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Company:	VERDAD RESOURCES	TVD Reference:	RKB = 20' @ 5034.00usft (RIG)
Project:	WATTENBERG FIELD	MD Reference:	RKB = 20' @ 5034.00usft (RIG)
Site:	1N-65W-10 HDI KF PAD	North Reference:	True
Well:	HDI KF 10-11H	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	7.49	146.60	4,664.16	-463.92	305.90	-463.17	0.00	0.00	0.00
4,800.00	7.49	146.60	4,763.31	-474.81	313.08	-474.04	0.00	0.00	0.00
4,900.00	7.49	146.60	4,862.45	-485.69	320.25	-484.90	0.00	0.00	0.00
5,000.00	7.49	146.60	4,961.60	-496.57	327.43	-495.77	0.00	0.00	0.00
5,100.00	7.49	146.60	5,060.75	-507.45	334.60	-506.63	0.00	0.00	0.00
5,200.00	7.49	146.60	5,159.89	-518.34	341.78	-517.50	0.00	0.00	0.00
5,300.00	7.49	146.60	5,259.04	-529.22	348.96	-528.36	0.00	0.00	0.00
5,400.00	7.49	146.60	5,358.19	-540.10	356.13	-539.23	0.00	0.00	0.00
5,500.00	7.49	146.60	5,457.33	-550.98	363.31	-550.09	0.00	0.00	0.00
5,600.00	7.49	146.60	5,556.48	-561.87	370.48	-560.96	0.00	0.00	0.00
5,700.00	7.49	146.60	5,655.63	-572.75	377.66	-571.82	0.00	0.00	0.00
5,800.00	7.49	146.60	5,754.78	-583.63	384.83	-582.69	0.00	0.00	0.00
5,900.00	7.49	146.60	5,853.92	-594.51	392.01	-593.55	0.00	0.00	0.00
6,000.00	7.49	146.60	5,953.07	-605.40	399.18	-604.42	0.00	0.00	0.00
6,100.00	7.49	146.60	6,052.22	-616.28	406.36	-615.28	0.00	0.00	0.00
6,200.00	7.49	146.60	6,151.36	-627.16	413.54	-626.15	0.00	0.00	0.00
6,300.00	7.49	146.60	6,250.51	-638.04	420.71	-637.01	0.00	0.00	0.00
6,400.00	7.49	146.60	6,349.66	-648.93	427.89	-647.88	0.00	0.00	0.00
6,500.00	7.49	146.60	6,448.80	-659.81	435.06	-658.74	0.00	0.00	0.00
6,600.00	7.49	146.60	6,547.95	-670.69	442.24	-669.61	0.00	0.00	0.00
6,643.49	7.49	146.60	6,591.07	-675.42	445.36	-674.33	0.00	0.00	0.00
KOP @ 6643.49ft :: DLS = 9°/100'									
6,650.00	7.01	143.93	6,597.53	-676.10	445.83	-675.01	9.00	-7.37	-41.00
6,700.00	4.31	105.65	6,647.29	-679.07	449.44	-677.97	9.00	-5.40	-76.57
6,750.00	5.33	51.22	6,697.14	-678.12	453.06	-677.02	9.00	2.05	-108.86
6,800.00	8.87	27.86	6,746.76	-673.26	456.67	-672.14	9.00	7.08	-46.70
6,850.00	13.02	18.45	6,795.84	-664.50	460.26	-663.37	9.00	8.29	-18.83
6,900.00	17.34	13.59	6,844.09	-651.91	463.80	-650.77	9.00	8.64	-9.71
6,950.00	21.73	10.64	6,891.20	-635.56	467.26	-634.42	9.00	8.78	-5.91
7,000.00	26.16	8.64	6,936.89	-615.56	470.62	-614.41	9.00	8.85	-3.99
7,050.00	30.60	7.19	6,980.87	-592.02	473.88	-590.87	9.00	8.89	-2.90
7,100.00	35.06	6.08	7,022.87	-565.10	476.99	-563.93	9.00	8.92	-2.23
7,150.00	39.53	5.19	7,062.63	-534.96	479.95	-533.78	9.00	8.94	-1.78
7,200.00	44.00	4.45	7,099.92	-501.78	482.74	-500.60	9.00	8.95	-1.47
7,250.00	48.48	3.83	7,134.49	-465.77	485.34	-464.58	9.00	8.95	-1.25
7,300.00	52.96	3.28	7,166.13	-427.15	487.73	-425.95	9.00	8.96	-1.09
7,350.00	57.44	2.80	7,194.66	-386.16	489.90	-384.96	9.00	8.96	-0.97
7,400.00	61.93	2.36	7,219.89	-343.05	491.84	-341.84	9.00	8.97	-0.88
7,450.00	66.41	1.96	7,241.67	-298.08	493.53	-296.88	9.00	8.97	-0.81
7,500.00	70.90	1.58	7,259.86	-251.55	494.96	-250.34	9.00	8.97	-0.75
7,550.00	75.39	1.22	7,274.36	-203.72	496.13	-202.51	9.00	8.97	-0.71
7,600.00	79.88	0.88	7,285.06	-154.90	497.03	-153.69	9.00	8.98	-0.68
7,650.00	84.36	0.55	7,291.92	-105.39	497.64	-104.18	9.00	8.98	-0.66
7,700.00	88.85	0.22	7,294.87	-55.49	497.98	-54.28	9.00	8.98	-0.65
7,712.80	90.00	0.14	7,295.00	-42.69	498.02	-41.48	9.00	8.97	-0.65
End Build @ 7712.80ft - 5 1/2"									
7,800.00	90.00	0.14	7,295.00	44.51	498.23	45.72	0.00	0.00	0.00
7,900.00	90.00	0.14	7,295.00	144.51	498.47	145.72	0.00	0.00	0.00
8,000.00	90.00	0.14	7,295.00	244.50	498.71	245.72	0.00	0.00	0.00
8,100.00	90.00	0.14	7,295.00	344.50	498.95	345.72	0.00	0.00	0.00
8,200.00	90.00	0.14	7,295.00	444.50	499.20	445.72	0.00	0.00	0.00
8,300.00	90.00	0.14	7,295.00	544.50	499.44	545.72	0.00	0.00	0.00
8,400.00	90.00	0.14	7,295.00	644.50	499.68	645.72	0.00	0.00	0.00
8,500.00	90.00	0.14	7,295.00	744.50	499.92	745.72	0.00	0.00	0.00

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Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well HDI KF 10-11H
Company:	VERDAD RESOURCES	TVD Reference:	RKB = 20' @ 5034.00usft (RIG)
Project:	WATTENBERG FIELD	MD Reference:	RKB = 20' @ 5034.00usft (RIG)
Site:	1N-65W-10 HDI KF PAD	North Reference:	True
Well:	HDI KF 10-11H	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)	
8,600.00	90.00	0.14	7,295.00	844.50	500.16	845.72	0.00	0.00	0.00	
8,700.00	90.00	0.14	7,295.00	944.50	500.40	945.72	0.00	0.00	0.00	
8,800.00	90.00	0.14	7,295.00	1,044.50	500.64	1,045.72	0.00	0.00	0.00	
8,900.00	90.00	0.14	7,295.00	1,144.50	500.89	1,145.72	0.00	0.00	0.00	
9,000.00	90.00	0.14	7,295.00	1,244.50	501.13	1,245.72	0.00	0.00	0.00	
9,100.00	90.00	0.14	7,295.00	1,344.50	501.37	1,345.72	0.00	0.00	0.00	
9,200.00	90.00	0.14	7,295.00	1,444.50	501.61	1,445.72	0.00	0.00	0.00	
9,300.00	90.00	0.14	7,295.00	1,544.50	501.85	1,545.72	0.00	0.00	0.00	
9,400.00	90.00	0.14	7,295.00	1,644.50	502.09	1,645.72	0.00	0.00	0.00	
9,500.00	90.00	0.14	7,295.00	1,744.50	502.33	1,745.72	0.00	0.00	0.00	
9,600.00	90.00	0.14	7,295.00	1,844.50	502.57	1,845.72	0.00	0.00	0.00	
9,700.00	90.00	0.14	7,295.00	1,944.50	502.82	1,945.72	0.00	0.00	0.00	
9,800.00	90.00	0.14	7,295.00	2,044.50	503.06	2,045.72	0.00	0.00	0.00	
9,900.00	90.00	0.14	7,295.00	2,144.50	503.30	2,145.72	0.00	0.00	0.00	
10,000.00	90.00	0.14	7,295.00	2,244.50	503.54	2,245.72	0.00	0.00	0.00	
10,100.00	90.00	0.14	7,295.00	2,344.50	503.78	2,345.72	0.00	0.00	0.00	
10,200.00	90.00	0.14	7,295.00	2,444.50	504.02	2,445.72	0.00	0.00	0.00	
10,300.00	90.00	0.14	7,295.00	2,544.50	504.26	2,545.72	0.00	0.00	0.00	
10,400.00	90.00	0.14	7,295.00	2,644.50	504.51	2,645.72	0.00	0.00	0.00	
10,500.00	90.00	0.14	7,295.00	2,744.50	504.75	2,745.72	0.00	0.00	0.00	
10,600.00	90.00	0.14	7,295.00	2,844.50	504.99	2,845.72	0.00	0.00	0.00	
10,700.00	90.00	0.14	7,295.00	2,944.50	505.23	2,945.72	0.00	0.00	0.00	
10,800.00	90.00	0.14	7,295.00	3,044.50	505.47	3,045.72	0.00	0.00	0.00	
10,900.00	90.00	0.14	7,295.00	3,144.50	505.71	3,145.72	0.00	0.00	0.00	
11,000.00	90.00	0.14	7,295.00	3,244.50	505.95	3,245.72	0.00	0.00	0.00	
11,100.00	90.00	0.14	7,295.00	3,344.50	506.19	3,345.72	0.00	0.00	0.00	
11,200.00	90.00	0.14	7,295.00	3,444.50	506.44	3,445.72	0.00	0.00	0.00	
11,300.00	90.00	0.14	7,295.00	3,544.50	506.68	3,545.72	0.00	0.00	0.00	
11,400.00	90.00	0.14	7,295.00	3,644.50	506.92	3,645.72	0.00	0.00	0.00	
11,500.00	90.00	0.14	7,295.00	3,744.49	507.16	3,745.72	0.00	0.00	0.00	
11,600.00	90.00	0.14	7,295.00	3,844.49	507.40	3,845.72	0.00	0.00	0.00	
11,700.00	90.00	0.14	7,295.00	3,944.49	507.64	3,945.72	0.00	0.00	0.00	
11,800.00	90.00	0.14	7,295.00	4,044.49	507.88	4,045.72	0.00	0.00	0.00	
11,900.00	90.00	0.14	7,295.00	4,144.49	508.13	4,145.72	0.00	0.00	0.00	
12,000.00	90.00	0.14	7,295.00	4,244.49	508.37	4,245.72	0.00	0.00	0.00	
12,100.00	90.00	0.14	7,295.00	4,344.49	508.61	4,345.72	0.00	0.00	0.00	
12,200.00	90.00	0.14	7,295.00	4,444.49	508.85	4,445.72	0.00	0.00	0.00	
12,300.00	90.00	0.14	7,295.00	4,544.49	509.09	4,545.72	0.00	0.00	0.00	
12,400.00	90.00	0.14	7,295.00	4,644.49	509.33	4,645.72	0.00	0.00	0.00	
12,500.00	90.00	0.14	7,295.00	4,744.49	509.57	4,745.72	0.00	0.00	0.00	
12,600.00	90.00	0.14	7,295.00	4,844.49	509.82	4,845.72	0.00	0.00	0.00	
12,700.00	90.00	0.14	7,295.00	4,944.49	510.06	4,945.72	0.00	0.00	0.00	
12,800.00	90.00	0.14	7,295.00	5,044.49	510.30	5,045.72	0.00	0.00	0.00	
12,900.00	90.00	0.14	7,295.00	5,144.49	510.54	5,145.72	0.00	0.00	0.00	
13,000.00	90.00	0.14	7,295.00	5,244.49	510.78	5,245.72	0.00	0.00	0.00	
13,100.00	90.00	0.14	7,295.00	5,344.49	511.02	5,345.72	0.00	0.00	0.00	
13,200.00	90.00	0.14	7,295.00	5,444.49	511.26	5,445.72	0.00	0.00	0.00	
13,300.00	90.00	0.14	7,295.00	5,544.49	511.50	5,545.72	0.00	0.00	0.00	
13,400.00	90.00	0.14	7,295.00	5,644.49	511.75	5,645.72	0.00	0.00	0.00	
13,500.00	90.00	0.14	7,295.00	5,744.49	511.99	5,745.72	0.00	0.00	0.00	
13,600.00	90.00	0.14	7,295.00	5,844.49	512.23	5,845.72	0.00	0.00	0.00	
13,700.00	90.00	0.14	7,295.00	5,944.49	512.47	5,945.72	0.00	0.00	0.00	
13,800.00	90.00	0.14	7,295.00	6,044.49	512.71	6,045.72	0.00	0.00	0.00	
13,900.00	90.00	0.14	7,295.00	6,144.49	512.95	6,145.72	0.00	0.00	0.00	

Hewlett-Packard

Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well HDI KF 10-11H
Company:	VERDAD RESOURCES	TVD Reference:	RKB = 20' @ 5034.00usft (RIG)
Project:	WATTENBERG FIELD	MD Reference:	RKB = 20' @ 5034.00usft (RIG)
Site:	1N-65W-10 HDI KF PAD	North Reference:	True
Well:	HDI KF 10-11H	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)
14,000.00	90.00	0.14	7,295.00	6,244.49	513.19	6,245.72	0.00	0.00	0.00
14,100.00	90.00	0.14	7,295.00	6,344.49	513.44	6,345.72	0.00	0.00	0.00
14,200.00	90.00	0.14	7,295.00	6,444.49	513.68	6,445.72	0.00	0.00	0.00
14,300.00	90.00	0.14	7,295.00	6,544.49	513.92	6,545.72	0.00	0.00	0.00
14,400.00	90.00	0.14	7,295.00	6,644.49	514.16	6,645.72	0.00	0.00	0.00
14,500.00	90.00	0.14	7,295.00	6,744.49	514.40	6,745.72	0.00	0.00	0.00
14,600.00	90.00	0.14	7,295.00	6,844.49	514.64	6,845.72	0.00	0.00	0.00
14,700.00	90.00	0.14	7,295.00	6,944.49	514.88	6,945.72	0.00	0.00	0.00
14,800.00	90.00	0.14	7,295.00	7,044.49	515.12	7,045.72	0.00	0.00	0.00
14,900.00	90.00	0.14	7,295.00	7,144.48	515.37	7,145.72	0.00	0.00	0.00
15,000.00	90.00	0.14	7,295.00	7,244.48	515.61	7,245.72	0.00	0.00	0.00
15,100.00	90.00	0.14	7,295.00	7,344.48	515.85	7,345.72	0.00	0.00	0.00
15,200.00	90.00	0.14	7,295.00	7,444.48	516.09	7,445.72	0.00	0.00	0.00
15,300.00	90.00	0.14	7,295.00	7,544.48	516.33	7,545.72	0.00	0.00	0.00
15,390.12	90.00	0.14	7,295.00	7,634.61	516.55	7,635.85	0.00	0.00	0.00
TD Well @ 15390.12ft									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
1,710.33	1,700.00	9 5/8"	9-5/8	13-1/2	
7,712.80	7,295.00	5 1/2"	5-1/2	8-1/2	

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
250.00	250.00	0.00	0.00	Begin Nudge @ 250.00ft
624.50	623.43	-20.41	13.46	End Nudge @ 624.50ft
6,643.49	6,591.07	-675.42	445.36	KOP @ 6643.49ft :: DLS = 9°/100'
7,712.80	7,295.00	-42.70	498.02	End Build @ 7712.80ft
15,390.12	7,295.00	7,634.61	516.55	TD Well @ 15390.12ft