

VERDAD RESOURCES

WATTENBERG FIELD

1N-65W-22 FAWN 2734 & 2833 PAD

FAWN 2734-13H

Plan A

Plan: Design #1

Standard Planning Report

30 July, 2022

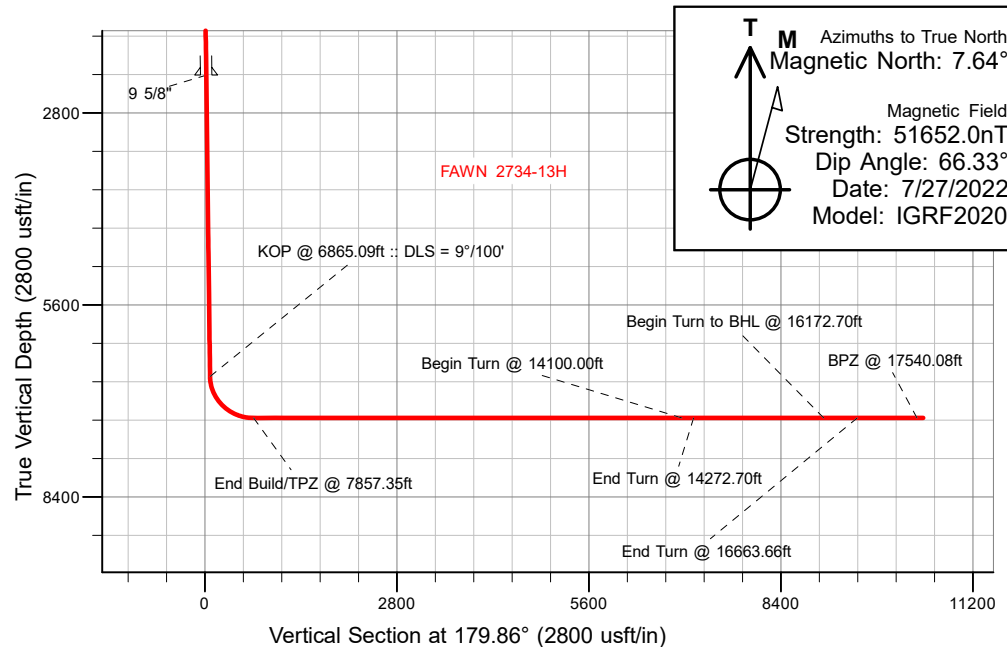
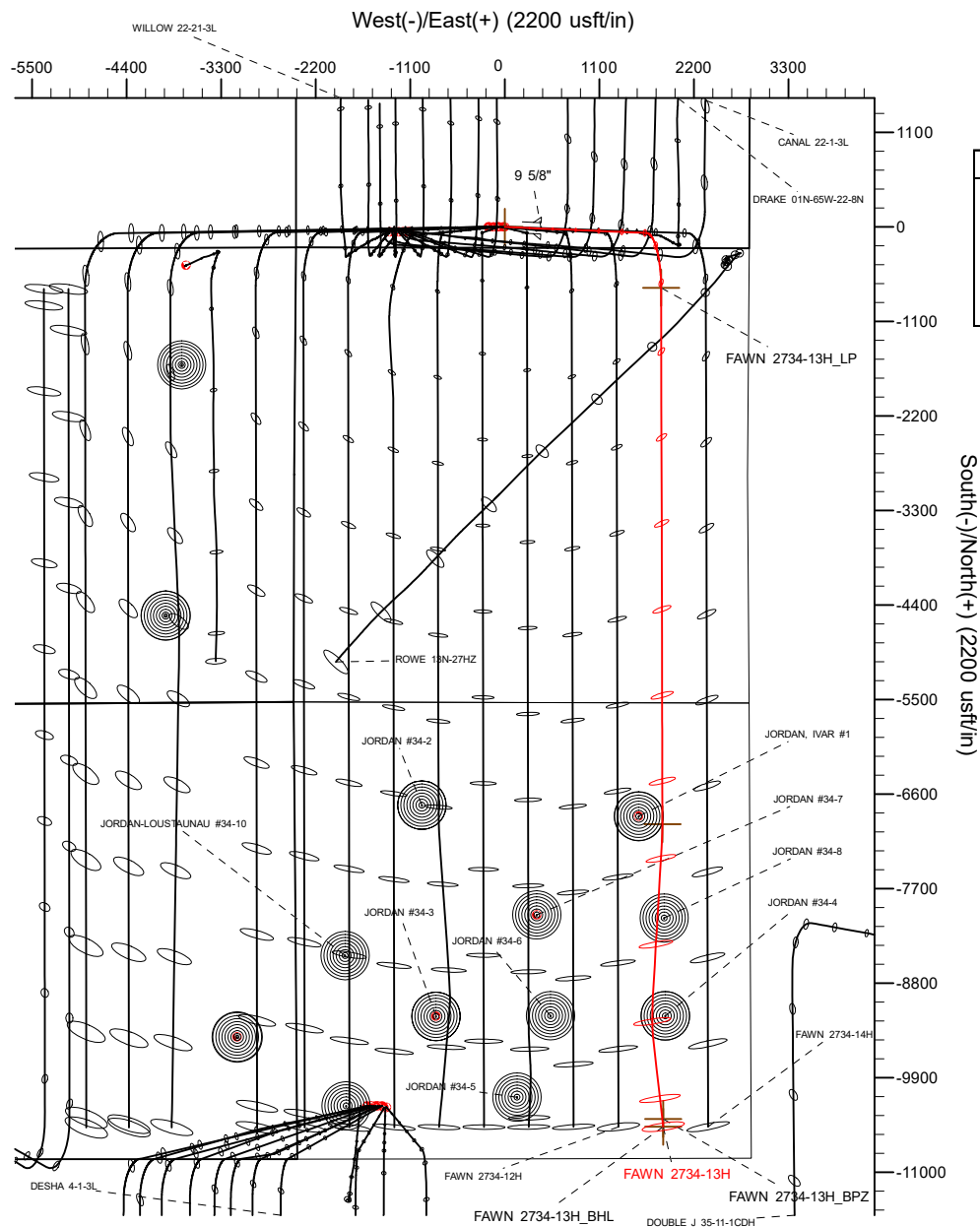
VERDAD RESOURCES

CASING DETAILS			
TVD	MD	Name	Size
2250.00	2303.04	9 5/8"	9-5/8

SHL	LP/TPZ	BPZ	BHL
244' FSL	460' FNL	460' FSL	370' FSL
2430' FWL	1023' FEL	1024' FEL	1024' 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	
342.40	0.00	0.00	342.40	0.00	0.00	0.00	0.00	0.00	
1121.90	15.59	92.45	1112.32	-4.51	105.30	2.00	92.45	4.76	
6865.09	15.59	92.45	6644.21	-70.49	1647.38	0.00	0.00	74.51	
7857.35	90.00	179.86	7250.00	-706.63	1817.83	9.00	87.50	711.07	
14100.00	90.00	179.86	7250.00	-6949.27	1833.51	0.00	0.00	6953.73	FAWN 2734-13H_Tg
14272.70	90.00	183.31	7250.00	-7121.87	1828.74	2.00	90.00	7126.32	
16172.70	90.00	183.31	7250.00	-9018.70	1719.04	0.00	0.00	9022.88	
16663.66	90.00	173.49	7250.00	-9508.87	1732.72	2.00	-90.00	9513.07	
17630.66	90.00	173.49	7250.00	-10469.64	1842.35	0.00	0.00	10474.11	FAWN 2734-13H_BHL

WELLBORE TARGET DETAILS (LAT/LONG)					
Name	TVD	Northing	Easting	Latitude	Longitude
FAWN 2734-13H_SHL	0.00	1255031.44	3237765.90	40.030324	-104.650911
FAWN 2734-13H_LP/TPZ	7250.00	1254342.02	3239590.43	40.028383	-104.644420
FAWN 2734-13H_BPZ	7250.00	1244669.91	3239707.32	40.001830	-104.644336
FAWN 2734-13H_BHL	7250.00	1244579.92	3239708.41	40.001583	-104.644335



WELL DETAILS: FAWN 2734-13H
GL = 5107"
RKB = 20 @ 5127.00usft (RIG)
Plan: Design #1 (FAWN 2734-13H/Plan A)
Date: 7/30/2022

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well FAWN 2734-13H
Company:	VERDAD RESOURCES	TVD Reference:	RKB = 20 @ 5127.00usft (RIG)
Project:	WATTENBERG FIELD	MD Reference:	RKB = 20 @ 5127.00usft (RIG)
Site:	1N-65W-22 FAWN 2734 & 2833 PAD	North Reference:	True
Well:	FAWN 2734-13H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
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-22 FAWN 2734 & 2833 PAD				
Site Position:		Northing:	1,255,173.64	usft	Latitude:	40.030719
From:	Lat/Long	Easting:	3,237,589.54	usft	Longitude:	-104.651536
Position Uncertainty:		0.00	usft	Slot Radius:	13-3/16	"

Well		FAWN 2734-13H				
Well Position	+N/-S	0.00 usft	Northing:	1,255,031.44 usft	Latitude:	40.030324
	+E/-W	0.00 usft	Easting:	3,237,765.90 usft	Longitude:	-104.650911
Position Uncertainty		3.28 usft	Wellhead Elevation:	usft	Ground Level:	5,107.00 usft
Grid Convergence:		0.55 °				

Wellbore	Plan A				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF202013	7/27/2022	7.64	66.33	51,651.97440251

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	179.86	

Plan Survey Tool Program		Date	7/30/2022		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.00	2,250.00	Design #1 (Plan A)	ISCWSA MWD	
				Fixed:v2:standard declination	
2	2,250.00	17,629.90	Design #1 (Plan A)	ISCWSA MWD	
				Fixed:v2:standard declination	

Planning Report

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Project:	WATTENBERG FIELD	MD Reference:	RKB = 20 @ 5127.00usft (RIG)
Site:	1N-65W-22 FAWN 2734 & 2833 PAD	North Reference:	True
Well:	FAWN 2734-13H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
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	
342.40	0.00	0.00	342.40	0.00	0.00	0.00	0.00	0.00	0.00	
1,121.90	15.59	92.45	1,112.32	-4.51	105.30	2.00	2.00	0.00	92.45	
6,865.09	15.59	92.45	6,644.21	-70.49	1,647.38	0.00	0.00	0.00	0.00	
7,857.35	90.00	179.86	7,250.00	-706.63	1,817.83	9.00	7.50	8.81	87.50	
14,100.00	90.00	179.86	7,250.00	-6,949.27	1,833.51	0.00	0.00	0.00	0.00	FAWN 2734-13H_Tgt
14,272.70	90.00	183.31	7,250.00	-7,121.87	1,828.74	2.00	0.00	2.00	90.00	
16,172.70	90.00	183.31	7,250.00	-9,018.70	1,719.04	0.00	0.00	0.00	0.00	
16,663.66	90.00	173.49	7,250.00	-9,508.87	1,732.72	2.00	0.00	-2.00	-90.00	
17,630.66	90.00	173.49	7,250.00	-10,469.64	1,842.35	0.00	0.00	0.00	0.00	FAWN 2734-13H_BHI

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well FAWN 2734-13H
Company:	VERDAD RESOURCES	TVD Reference:	RKB = 20 @ 5127.00usft (RIG)
Project:	WATTENBERG FIELD	MD Reference:	RKB = 20 @ 5127.00usft (RIG)
Site:	1N-65W-22 FAWN 2734 & 2833 PAD	North Reference:	True
Well:	FAWN 2734-13H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
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
342.40	0.00	0.00	342.40	0.00	0.00	0.00	0.00	0.00	0.00
Begin Nudge @ 342.40ft									
400.00	1.15	92.45	400.00	-0.02	0.58	0.03	2.00	2.00	0.00
500.00	3.15	92.45	499.92	-0.19	4.33	0.20	2.00	2.00	0.00
600.00	5.15	92.45	599.65	-0.49	11.56	0.52	2.00	2.00	0.00
700.00	7.15	92.45	699.07	-0.95	22.27	1.01	2.00	2.00	0.00
800.00	9.15	92.45	798.06	-1.56	36.44	1.65	2.00	2.00	0.00
900.00	11.15	92.45	896.49	-2.31	54.04	2.44	2.00	2.00	0.00
1,000.00	13.15	92.45	994.24	-3.21	75.08	3.40	2.00	2.00	0.00
1,100.00	15.15	92.45	1,091.20	-4.26	99.50	4.50	2.00	2.00	0.00
1,121.90	15.59	92.45	1,112.32	-4.51	105.30	4.76	2.00	2.00	0.00
Hold Tangent @ 1121.90ft									
1,200.00	15.59	92.45	1,187.54	-5.40	126.27	5.71	0.00	0.00	0.00
1,300.00	15.59	92.45	1,283.86	-6.55	153.12	6.93	0.00	0.00	0.00
1,400.00	15.59	92.45	1,380.19	-7.70	179.97	8.14	0.00	0.00	0.00
1,500.00	15.59	92.45	1,476.51	-8.85	206.82	9.35	0.00	0.00	0.00
1,600.00	15.59	92.45	1,572.83	-10.00	233.67	10.57	0.00	0.00	0.00
1,700.00	15.59	92.45	1,669.15	-11.15	260.52	11.78	0.00	0.00	0.00
1,800.00	15.59	92.45	1,765.47	-12.30	287.37	13.00	0.00	0.00	0.00
1,900.00	15.59	92.45	1,861.79	-13.44	314.23	14.21	0.00	0.00	0.00
2,000.00	15.59	92.45	1,958.11	-14.59	341.08	15.43	0.00	0.00	0.00
2,100.00	15.59	92.45	2,054.43	-15.74	367.93	16.64	0.00	0.00	0.00
2,200.00	15.59	92.45	2,150.75	-16.89	394.78	17.86	0.00	0.00	0.00
2,300.00	15.59	92.45	2,247.07	-18.04	421.63	19.07	0.00	0.00	0.00
2,303.04	15.59	92.45	2,250.00	-18.07	422.44	19.11	0.00	0.00	0.00
9 5/8"									
2,400.00	15.59	92.45	2,343.40	-19.19	448.48	20.28	0.00	0.00	0.00
2,500.00	15.59	92.45	2,439.72	-20.34	475.33	21.50	0.00	0.00	0.00
2,600.00	15.59	92.45	2,536.04	-21.49	502.18	22.71	0.00	0.00	0.00
2,700.00	15.59	92.45	2,632.36	-22.64	529.03	23.93	0.00	0.00	0.00
2,800.00	15.59	92.45	2,728.68	-23.78	555.88	25.14	0.00	0.00	0.00
2,900.00	15.59	92.45	2,825.00	-24.93	582.73	26.36	0.00	0.00	0.00
3,000.00	15.59	92.45	2,921.32	-26.08	609.58	27.57	0.00	0.00	0.00
3,100.00	15.59	92.45	3,017.64	-27.23	636.43	28.79	0.00	0.00	0.00
3,200.00	15.59	92.45	3,113.96	-28.38	663.28	30.00	0.00	0.00	0.00
3,300.00	15.59	92.45	3,210.28	-29.53	690.13	31.21	0.00	0.00	0.00
3,400.00	15.59	92.45	3,306.60	-30.68	716.98	32.43	0.00	0.00	0.00
3,500.00	15.59	92.45	3,402.93	-31.83	743.83	33.64	0.00	0.00	0.00
3,600.00	15.59	92.45	3,499.25	-32.98	770.69	34.86	0.00	0.00	0.00
3,700.00	15.59	92.45	3,595.57	-34.12	797.54	36.07	0.00	0.00	0.00
3,800.00	15.59	92.45	3,691.89	-35.27	824.39	37.29	0.00	0.00	0.00
3,900.00	15.59	92.45	3,788.21	-36.42	851.24	38.50	0.00	0.00	0.00
4,000.00	15.59	92.45	3,884.53	-37.57	878.09	39.72	0.00	0.00	0.00
4,100.00	15.59	92.45	3,980.85	-38.72	904.94	40.93	0.00	0.00	0.00
4,200.00	15.59	92.45	4,077.17	-39.87	931.79	42.14	0.00	0.00	0.00
4,300.00	15.59	92.45	4,173.49	-41.02	958.64	43.36	0.00	0.00	0.00
4,400.00	15.59	92.45	4,269.81	-42.17	985.49	44.57	0.00	0.00	0.00
4,500.00	15.59	92.45	4,366.14	-43.31	1,012.34	45.79	0.00	0.00	0.00
4,600.00	15.59	92.45	4,462.46	-44.46	1,039.19	47.00	0.00	0.00	0.00

Planning Report

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Company:	VERDAD RESOURCES	TVD Reference:	RKB = 20 @ 5127.00usft (RIG)
Project:	WATTENBERG FIELD	MD Reference:	RKB = 20 @ 5127.00usft (RIG)
Site:	1N-65W-22 FAWN 2734 & 2833 PAD	North Reference:	True
Well:	FAWN 2734-13H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
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	15.59	92.45	4,558.78	-45.61	1,066.04	48.22	0.00	0.00	0.00
4,800.00	15.59	92.45	4,655.10	-46.76	1,092.89	49.43	0.00	0.00	0.00
4,900.00	15.59	92.45	4,751.42	-47.91	1,119.74	50.65	0.00	0.00	0.00
5,000.00	15.59	92.45	4,847.74	-49.06	1,146.59	51.86	0.00	0.00	0.00
5,100.00	15.59	92.45	4,944.06	-50.21	1,173.44	53.07	0.00	0.00	0.00
5,200.00	15.59	92.45	5,040.38	-51.36	1,200.30	54.29	0.00	0.00	0.00
5,300.00	15.59	92.45	5,136.70	-52.51	1,227.15	55.50	0.00	0.00	0.00
5,400.00	15.59	92.45	5,233.02	-53.65	1,254.00	56.72	0.00	0.00	0.00
5,500.00	15.59	92.45	5,329.34	-54.80	1,280.85	57.93	0.00	0.00	0.00
5,600.00	15.59	92.45	5,425.67	-55.95	1,307.70	59.15	0.00	0.00	0.00
5,700.00	15.59	92.45	5,521.99	-57.10	1,334.55	60.36	0.00	0.00	0.00
5,800.00	15.59	92.45	5,618.31	-58.25	1,361.40	61.58	0.00	0.00	0.00
5,900.00	15.59	92.45	5,714.63	-59.40	1,388.25	62.79	0.00	0.00	0.00
6,000.00	15.59	92.45	5,810.95	-60.55	1,415.10	64.00	0.00	0.00	0.00
6,100.00	15.59	92.45	5,907.27	-61.70	1,441.95	65.22	0.00	0.00	0.00
6,200.00	15.59	92.45	6,003.59	-62.85	1,468.80	66.43	0.00	0.00	0.00
6,300.00	15.59	92.45	6,099.91	-63.99	1,495.65	67.65	0.00	0.00	0.00
6,400.00	15.59	92.45	6,196.23	-65.14	1,522.50	68.86	0.00	0.00	0.00
6,500.00	15.59	92.45	6,292.55	-66.29	1,549.35	70.08	0.00	0.00	0.00
6,600.00	15.59	92.45	6,388.87	-67.44	1,576.20	71.29	0.00	0.00	0.00
6,700.00	15.59	92.45	6,485.20	-68.59	1,603.05	72.51	0.00	0.00	0.00
6,800.00	15.59	92.45	6,581.52	-69.74	1,629.90	73.72	0.00	0.00	0.00
6,865.09	15.59	92.45	6,644.21	-70.49	1,647.38	74.51	0.00	0.00	0.00
KOP @ 6865.09ft :: DLS = 9°/100'									
6,900.00	16.03	103.89	6,677.81	-71.84	1,656.75	75.89	9.00	1.26	32.76
6,950.00	17.62	118.49	6,725.69	-77.11	1,670.11	81.19	9.00	3.18	29.20
7,000.00	20.08	130.18	6,773.02	-86.26	1,683.32	90.38	9.00	4.93	23.39
7,050.00	23.15	139.16	6,819.51	-99.24	1,696.32	103.39	9.00	6.13	17.96
7,100.00	26.60	146.04	6,864.88	-115.97	1,709.00	120.15	9.00	6.91	13.75
7,150.00	30.31	151.38	6,908.84	-136.34	1,721.31	140.55	9.00	7.43	10.70
7,200.00	34.20	155.64	6,951.12	-160.23	1,733.15	164.47	9.00	7.77	8.52
7,250.00	38.21	159.12	6,991.46	-187.50	1,744.46	191.76	9.00	8.01	6.95
7,300.00	42.30	162.02	7,029.62	-217.96	1,755.18	222.25	9.00	8.18	5.80
7,350.00	46.45	164.49	7,065.35	-251.44	1,765.22	255.75	9.00	8.31	4.95
7,400.00	50.65	166.65	7,098.44	-287.73	1,774.54	292.06	9.00	8.40	4.31
7,450.00	54.89	168.55	7,128.69	-326.60	1,783.06	330.96	9.00	8.47	3.82
7,500.00	59.15	170.27	7,155.90	-367.82	1,790.75	372.20	9.00	8.53	3.44
7,550.00	63.44	171.85	7,179.91	-411.14	1,797.55	415.53	9.00	8.57	3.14
7,600.00	67.74	173.30	7,200.57	-456.27	1,803.43	460.68	9.00	8.60	2.92
7,650.00	72.05	174.67	7,217.76	-502.96	1,808.33	507.37	9.00	8.62	2.74
7,700.00	76.37	175.98	7,231.36	-550.90	1,812.25	555.32	9.00	8.64	2.61
7,750.00	80.70	177.24	7,241.30	-599.80	1,815.14	604.23	9.00	8.66	2.52
7,800.00	85.03	178.47	7,247.51	-649.37	1,816.99	653.80	9.00	8.66	2.46
7,850.00	89.36	179.68	7,249.96	-699.29	1,817.80	703.73	9.00	8.67	2.42
7,857.35	90.00	179.86	7,250.00	-706.63	1,817.83	711.07	9.00	8.67	2.42
End Build/TPZ @ 7857.35ft									
7,900.00	90.00	179.86	7,250.00	-749.29	1,817.94	753.73	0.00	0.00	0.00
8,000.00	90.00	179.86	7,250.00	-849.29	1,818.19	853.73	0.00	0.00	0.00
8,100.00	90.00	179.86	7,250.00	-949.29	1,818.44	953.73	0.00	0.00	0.00
8,200.00	90.00	179.86	7,250.00	-1,049.28	1,818.69	1,053.73	0.00	0.00	0.00
8,300.00	90.00	179.86	7,250.00	-1,149.28	1,818.94	1,153.73	0.00	0.00	0.00
8,400.00	90.00	179.86	7,250.00	-1,249.28	1,819.19	1,253.73	0.00	0.00	0.00
8,500.00	90.00	179.86	7,250.00	-1,349.28	1,819.45	1,353.73	0.00	0.00	0.00
8,600.00	90.00	179.86	7,250.00	-1,449.28	1,819.70	1,453.73	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well FAWN 2734-13H
Company:	VERDAD RESOURCES	TVD Reference:	RKB = 20 @ 5127.00usft (RIG)
Project:	WATTENBERG FIELD	MD Reference:	RKB = 20 @ 5127.00usft (RIG)
Site:	1N-65W-22 FAWN 2734 & 2833 PAD	North Reference:	True
Well:	FAWN 2734-13H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
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)	
8,700.00	90.00	179.86	7,250.00	-1,549.28	1,819.95	1,553.73	0.00	0.00	0.00	
8,800.00	90.00	179.86	7,250.00	-1,649.28	1,820.20	1,653.73	0.00	0.00	0.00	
8,900.00	90.00	179.86	7,250.00	-1,749.28	1,820.45	1,753.73	0.00	0.00	0.00	
9,000.00	90.00	179.86	7,250.00	-1,849.28	1,820.70	1,853.73	0.00	0.00	0.00	
9,100.00	90.00	179.86	7,250.00	-1,949.28	1,820.95	1,953.73	0.00	0.00	0.00	
9,200.00	90.00	179.86	7,250.00	-2,049.28	1,821.20	2,053.73	0.00	0.00	0.00	
9,300.00	90.00	179.86	7,250.00	-2,149.28	1,821.45	2,153.73	0.00	0.00	0.00	
9,400.00	90.00	179.86	7,250.00	-2,249.28	1,821.71	2,253.73	0.00	0.00	0.00	
9,500.00	90.00	179.86	7,250.00	-2,349.28	1,821.96	2,353.73	0.00	0.00	0.00	
9,600.00	90.00	179.86	7,250.00	-2,449.28	1,822.21	2,453.73	0.00	0.00	0.00	
9,700.00	90.00	179.86	7,250.00	-2,549.28	1,822.46	2,553.73	0.00	0.00	0.00	
9,800.00	90.00	179.86	7,250.00	-2,649.28	1,822.71	2,653.73	0.00	0.00	0.00	
9,900.00	90.00	179.86	7,250.00	-2,749.28	1,822.96	2,753.73	0.00	0.00	0.00	
10,000.00	90.00	179.86	7,250.00	-2,849.28	1,823.21	2,853.73	0.00	0.00	0.00	
10,100.00	90.00	179.86	7,250.00	-2,949.28	1,823.46	2,953.73	0.00	0.00	0.00	
10,200.00	90.00	179.86	7,250.00	-3,049.28	1,823.71	3,053.73	0.00	0.00	0.00	
10,300.00	90.00	179.86	7,250.00	-3,149.28	1,823.97	3,153.73	0.00	0.00	0.00	
10,400.00	90.00	179.86	7,250.00	-3,249.28	1,824.22	3,253.73	0.00	0.00	0.00	
10,500.00	90.00	179.86	7,250.00	-3,349.28	1,824.47	3,353.73	0.00	0.00	0.00	
10,600.00	90.00	179.86	7,250.00	-3,449.28	1,824.72	3,453.73	0.00	0.00	0.00	
10,700.00	90.00	179.86	7,250.00	-3,549.28	1,824.97	3,553.73	0.00	0.00	0.00	
10,800.00	90.00	179.86	7,250.00	-3,649.28	1,825.22	3,653.73	0.00	0.00	0.00	
10,900.00	90.00	179.86	7,250.00	-3,749.28	1,825.47	3,753.73	0.00	0.00	0.00	
11,000.00	90.00	179.86	7,250.00	-3,849.28	1,825.72	3,853.73	0.00	0.00	0.00	
11,100.00	90.00	179.86	7,250.00	-3,949.28	1,825.98	3,953.73	0.00	0.00	0.00	
11,200.00	90.00	179.86	7,250.00	-4,049.28	1,826.23	4,053.73	0.00	0.00	0.00	
11,300.00	90.00	179.86	7,250.00	-4,149.28	1,826.48	4,153.73	0.00	0.00	0.00	
11,400.00	90.00	179.86	7,250.00	-4,249.27	1,826.73	4,253.73	0.00	0.00	0.00	
11,500.00	90.00	179.86	7,250.00	-4,349.27	1,826.98	4,353.73	0.00	0.00	0.00	
11,600.00	90.00	179.86	7,250.00	-4,449.27	1,827.23	4,453.73	0.00	0.00	0.00	
11,700.00	90.00	179.86	7,250.00	-4,549.27	1,827.48	4,553.73	0.00	0.00	0.00	
11,800.00	90.00	179.86	7,250.00	-4,649.27	1,827.73	4,653.73	0.00	0.00	0.00	
11,900.00	90.00	179.86	7,250.00	-4,749.27	1,827.98	4,753.73	0.00	0.00	0.00	
12,000.00	90.00	179.86	7,250.00	-4,849.27	1,828.24	4,853.73	0.00	0.00	0.00	
12,100.00	90.00	179.86	7,250.00	-4,949.27	1,828.49	4,953.73	0.00	0.00	0.00	
12,200.00	90.00	179.86	7,250.00	-5,049.27	1,828.74	5,053.73	0.00	0.00	0.00	
12,300.00	90.00	179.86	7,250.00	-5,149.27	1,828.99	5,153.73	0.00	0.00	0.00	
12,400.00	90.00	179.86	7,250.00	-5,249.27	1,829.24	5,253.73	0.00	0.00	0.00	
12,500.00	90.00	179.86	7,250.00	-5,349.27	1,829.49	5,353.73	0.00	0.00	0.00	
12,600.00	90.00	179.86	7,250.00	-5,449.27	1,829.74	5,453.73	0.00	0.00	0.00	
12,700.00	90.00	179.86	7,250.00	-5,549.27	1,829.99	5,553.73	0.00	0.00	0.00	
12,800.00	90.00	179.86	7,250.00	-5,649.27	1,830.24	5,653.73	0.00	0.00	0.00	
12,900.00	90.00	179.86	7,250.00	-5,749.27	1,830.50	5,753.73	0.00	0.00	0.00	
13,000.00	90.00	179.86	7,250.00	-5,849.27	1,830.75	5,853.73	0.00	0.00	0.00	
13,100.00	90.00	179.86	7,250.00	-5,949.27	1,831.00	5,953.73	0.00	0.00	0.00	
13,200.00	90.00	179.86	7,250.00	-6,049.27	1,831.25	6,053.73	0.00	0.00	0.00	
13,300.00	90.00	179.86	7,250.00	-6,149.27	1,831.50	6,153.73	0.00	0.00	0.00	
13,400.00	90.00	179.86	7,250.00	-6,249.27	1,831.75	6,253.73	0.00	0.00	0.00	
13,500.00	90.00	179.86	7,250.00	-6,349.27	1,832.00	6,353.73	0.00	0.00	0.00	
13,600.00	90.00	179.86	7,250.00	-6,449.27	1,832.25	6,453.73	0.00	0.00	0.00	
13,700.00	90.00	179.86	7,250.00	-6,549.27	1,832.51	6,553.73	0.00	0.00	0.00	
13,800.00	90.00	179.86	7,250.00	-6,649.27	1,832.76	6,653.73	0.00	0.00	0.00	
13,900.00	90.00	179.86	7,250.00	-6,749.27	1,833.01	6,753.73	0.00	0.00	0.00	
14,000.00	90.00	179.86	7,250.00	-6,849.27	1,833.26	6,853.73	0.00	0.00	0.00	

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well FAWN 2734-13H
Company:	VERDAD RESOURCES	TVD Reference:	RKB = 20 @ 5127.00usft (RIG)
Project:	WATTENBERG FIELD	MD Reference:	RKB = 20 @ 5127.00usft (RIG)
Site:	1N-65W-22 FAWN 2734 & 2833 PAD	North Reference:	True
Well:	FAWN 2734-13H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
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)
14,100.00	90.00	179.86	7,250.00	-6,949.27	1,833.51	6,953.73	0.00	0.00	0.00
Begin Turn @ 14100.00ft									
14,200.00	90.00	181.86	7,250.00	-7,049.25	1,832.02	7,053.71	2.00	0.00	2.00
14,272.70	90.00	183.31	7,250.00	-7,121.87	1,828.74	7,126.32	2.00	0.00	2.00
End Turn @ 14272.70ft									
14,300.00	90.00	183.31	7,250.00	-7,149.13	1,827.16	7,153.57	0.00	0.00	0.00
14,400.00	90.00	183.31	7,250.00	-7,248.96	1,821.39	7,253.39	0.00	0.00	0.00
14,500.00	90.00	183.31	7,250.00	-7,348.80	1,815.62	7,353.21	0.00	0.00	0.00
14,600.00	90.00	183.31	7,250.00	-7,448.63	1,809.84	7,453.03	0.00	0.00	0.00
14,700.00	90.00	183.31	7,250.00	-7,548.46	1,804.07	7,552.85	0.00	0.00	0.00
14,800.00	90.00	183.31	7,250.00	-7,648.29	1,798.29	7,652.67	0.00	0.00	0.00
14,900.00	90.00	183.31	7,250.00	-7,748.13	1,792.52	7,752.48	0.00	0.00	0.00
15,000.00	90.00	183.31	7,250.00	-7,847.96	1,786.75	7,852.30	0.00	0.00	0.00
15,100.00	90.00	183.31	7,250.00	-7,947.79	1,780.97	7,952.12	0.00	0.00	0.00
15,200.00	90.00	183.31	7,250.00	-8,047.63	1,775.20	8,051.94	0.00	0.00	0.00
15,300.00	90.00	183.31	7,250.00	-8,147.46	1,769.43	8,151.76	0.00	0.00	0.00
15,400.00	90.00	183.31	7,250.00	-8,247.29	1,763.65	8,251.58	0.00	0.00	0.00
15,500.00	90.00	183.31	7,250.00	-8,347.13	1,757.88	8,351.40	0.00	0.00	0.00
15,600.00	90.00	183.31	7,250.00	-8,446.96	1,752.10	8,451.22	0.00	0.00	0.00
15,700.00	90.00	183.31	7,250.00	-8,546.79	1,746.33	8,551.03	0.00	0.00	0.00
15,800.00	90.00	183.31	7,250.00	-8,646.63	1,740.56	8,650.85	0.00	0.00	0.00
15,900.00	90.00	183.31	7,250.00	-8,746.46	1,734.78	8,750.67	0.00	0.00	0.00
16,000.00	90.00	183.31	7,250.00	-8,846.29	1,729.01	8,850.49	0.00	0.00	0.00
16,100.00	90.00	183.31	7,250.00	-8,946.13	1,723.23	8,950.31	0.00	0.00	0.00
16,172.70	90.00	183.31	7,250.00	-9,018.70	1,719.04	9,022.88	0.00	0.00	0.00
Begin Turn to BHL @ 16172.70ft									
16,200.00	90.00	182.76	7,250.00	-9,045.97	1,717.59	9,050.14	2.00	0.00	-2.00
16,300.00	90.00	180.76	7,250.00	-9,145.91	1,714.51	9,150.08	2.00	0.00	-2.00
16,400.00	90.00	178.76	7,250.00	-9,245.91	1,714.92	9,250.07	2.00	0.00	-2.00
16,500.00	90.00	176.76	7,250.00	-9,345.83	1,718.83	9,350.00	2.00	0.00	-2.00
16,600.00	90.00	174.76	7,250.00	-9,445.55	1,726.21	9,449.74	2.00	0.00	-2.00
16,663.66	90.00	173.49	7,250.00	-9,508.87	1,732.72	9,513.07	2.00	0.00	-2.00
End Turn @ 16663.66ft									
16,700.00	90.00	173.49	7,250.00	-9,544.98	1,736.84	9,549.19	0.00	0.00	0.00
16,800.00	90.00	173.49	7,250.00	-9,644.33	1,748.18	9,648.58	0.00	0.00	0.00
16,900.00	90.00	173.49	7,250.00	-9,743.69	1,759.52	9,747.96	0.00	0.00	0.00
17,000.00	90.00	173.49	7,250.00	-9,843.04	1,770.85	9,847.34	0.00	0.00	0.00
17,100.00	90.00	173.49	7,250.00	-9,942.40	1,782.19	9,946.73	0.00	0.00	0.00
17,200.00	90.00	173.49	7,250.00	-10,041.76	1,793.53	10,046.11	0.00	0.00	0.00
17,300.00	90.00	173.49	7,250.00	-10,141.11	1,804.86	10,145.49	0.00	0.00	0.00
17,400.00	90.00	173.49	7,250.00	-10,240.47	1,816.20	10,244.87	0.00	0.00	0.00
17,500.00	90.00	173.49	7,250.00	-10,339.82	1,827.53	10,344.26	0.00	0.00	0.00
17,540.08	90.00	173.49	7,250.00	-10,379.64	1,832.08	10,384.09	0.00	0.00	0.00
BPZ @ 17540.08ft									
17,600.00	90.00	173.49	7,250.00	-10,439.18	1,838.87	10,443.64	0.00	0.00	0.00
17,630.66	90.00	173.49	7,250.00	-10,469.64	1,842.35	10,474.11	0.00	0.00	0.00
TD Well @ 17630.66ft									

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well FAWN 2734-13H
Company:	VERDAD RESOURCES	TVD Reference:	RKB = 20 @ 5127.00usft (RIG)
Project:	WATTENBERG FIELD	MD Reference:	RKB = 20 @ 5127.00usft (RIG)
Site:	1N-65W-22 FAWN 2734 & 2833 PAD	North Reference:	True
Well:	FAWN 2734-13H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	Design #1		

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name		Casing Diameter (")	Hole Diameter (")
2,303.04	2,250.00	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)		
342.40	342.40	0.00	0.00	Begin Nudge @ 342.40ft	
1,121.90	1,112.32	-4.51	105.30	Hold Tangent @ 1121.90ft	
6,865.09	6,644.21	-70.49	1,647.38	KOP @ 6865.09ft :: DLS = 9°/100'	
7,857.35	7,250.00	-706.63	1,817.83	End Build/TPZ @ 7857.35ft	
14,100.00	7,250.00	-6,949.27	1,833.51	Begin Turn @ 14100.00ft	
14,272.70	7,250.00	-7,121.87	1,828.74	End Turn @ 14272.70ft	
16,172.70	7,250.00	-9,018.70	1,719.04	Begin Turn to BHL @ 16172.70ft	
16,663.66	7,250.00	-9,508.87	1,732.72	End Turn @ 16663.66ft	
17,540.08	7,250.00	-10,379.64	1,832.08	BPZ @ 17540.08ft	
17,630.66	7,250.00	-10,469.64	1,842.35	TD Well @ 17630.66ft	