

Sec 9, T6S, R94W  
RWF 44-9  
Q220080 & RM-220078  
Plan 3

Company Name: Terra Energy Partners, LLP  
RWF 44-9  
Garfield County, CO (Nad 83)  
Rig: KB=30' @ 6399.40usft (H&P #329)  
Created by: Chase Chambers  
Date: 16:31, January 27 2022

PROJECT DETAILS: Garfield County, CO (Nad 83)  
Geodetic System: US State Plane 1983  
Datum: North American Datum 1983  
Ellipsoid: GRS 1980  
Zone: Colorado Central Zone  
System Datum: Mean Sea Level



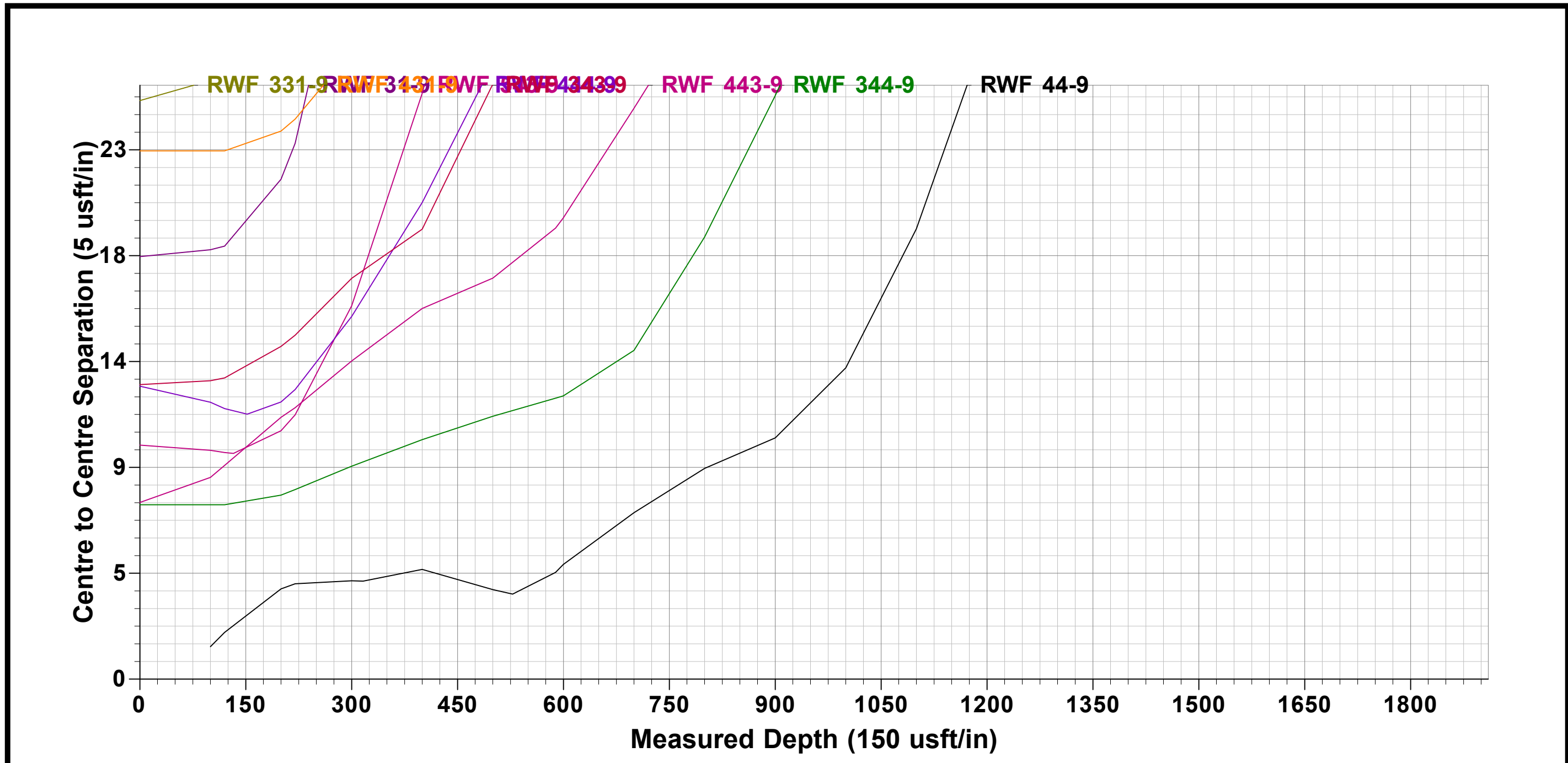
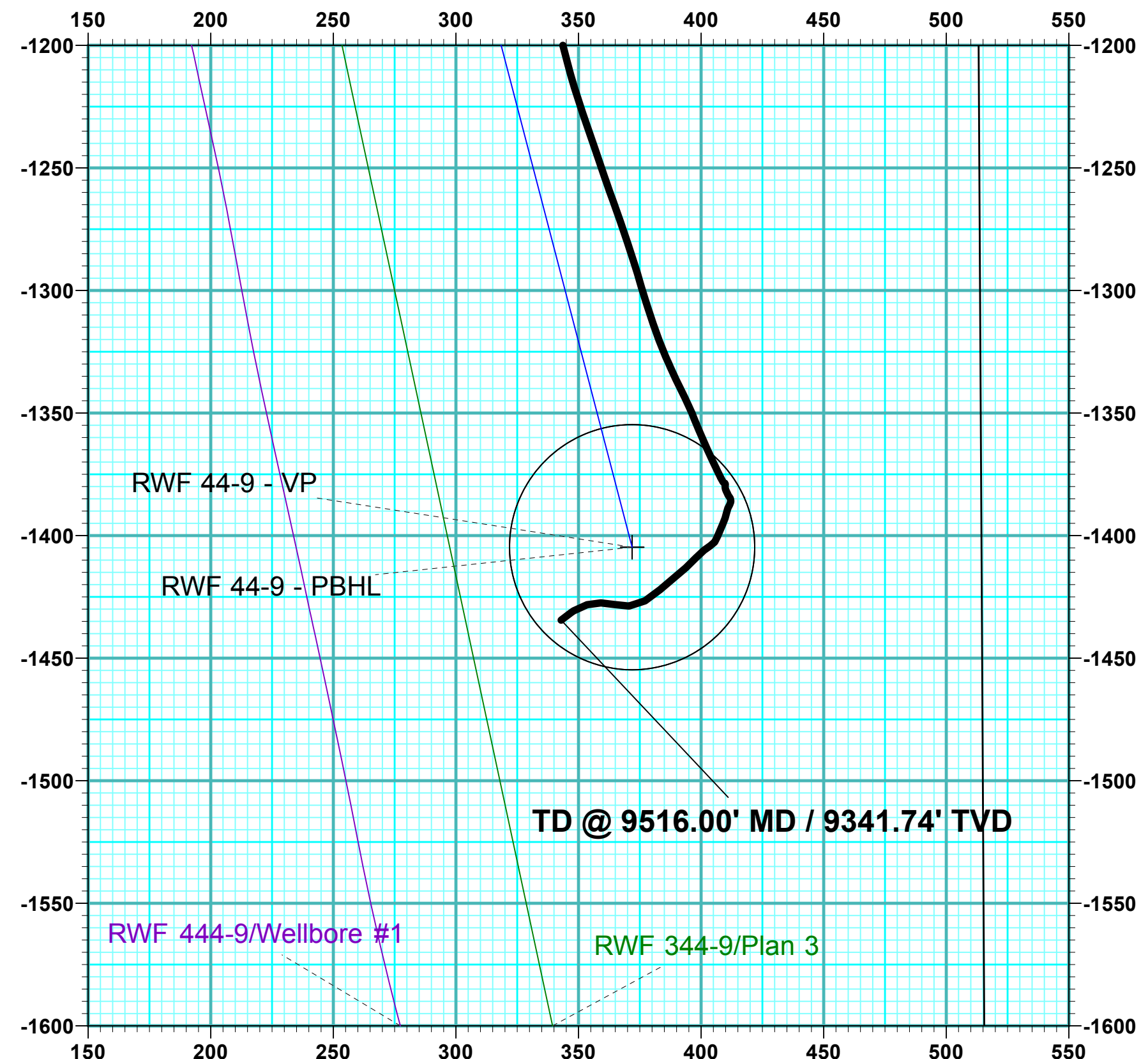
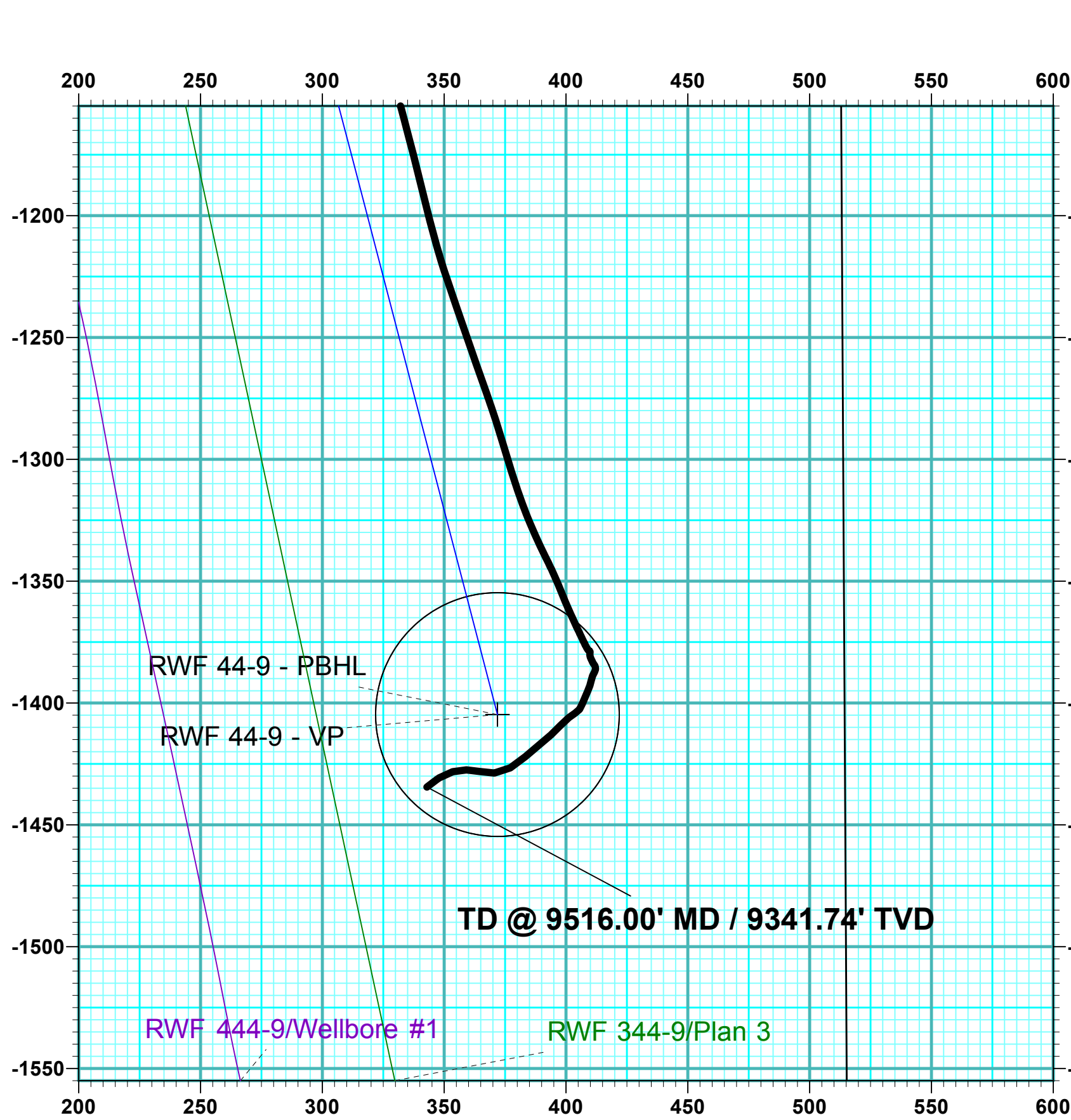
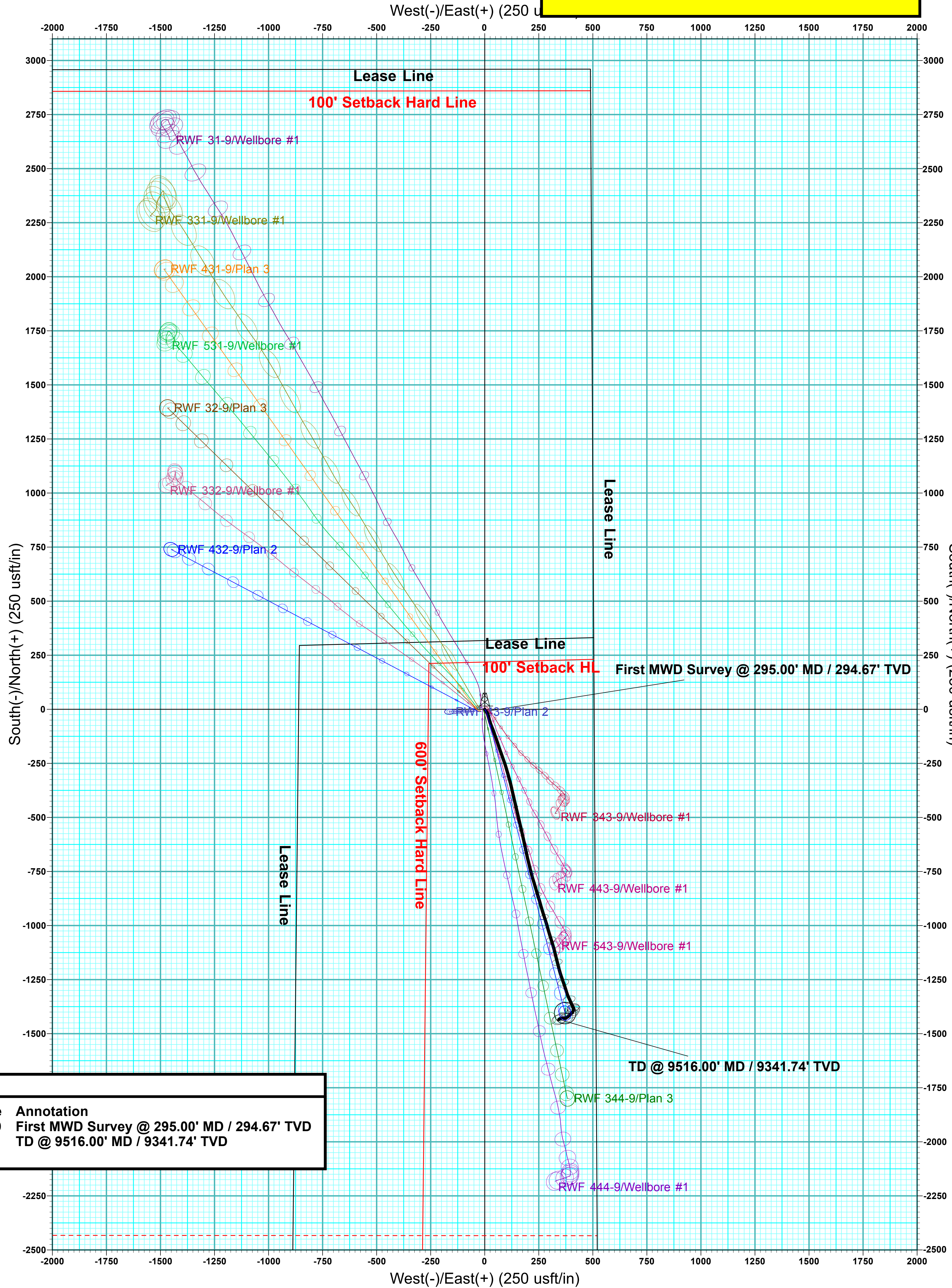
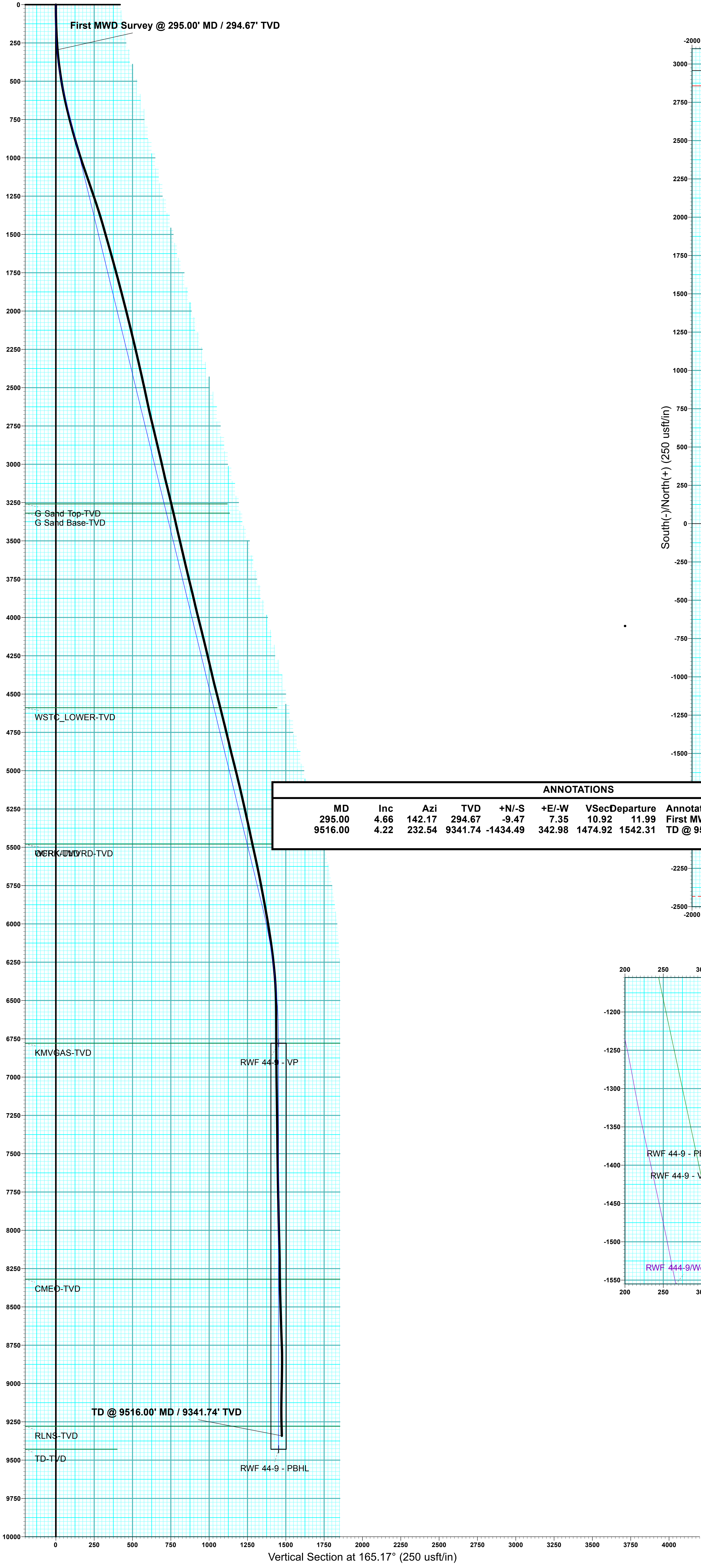
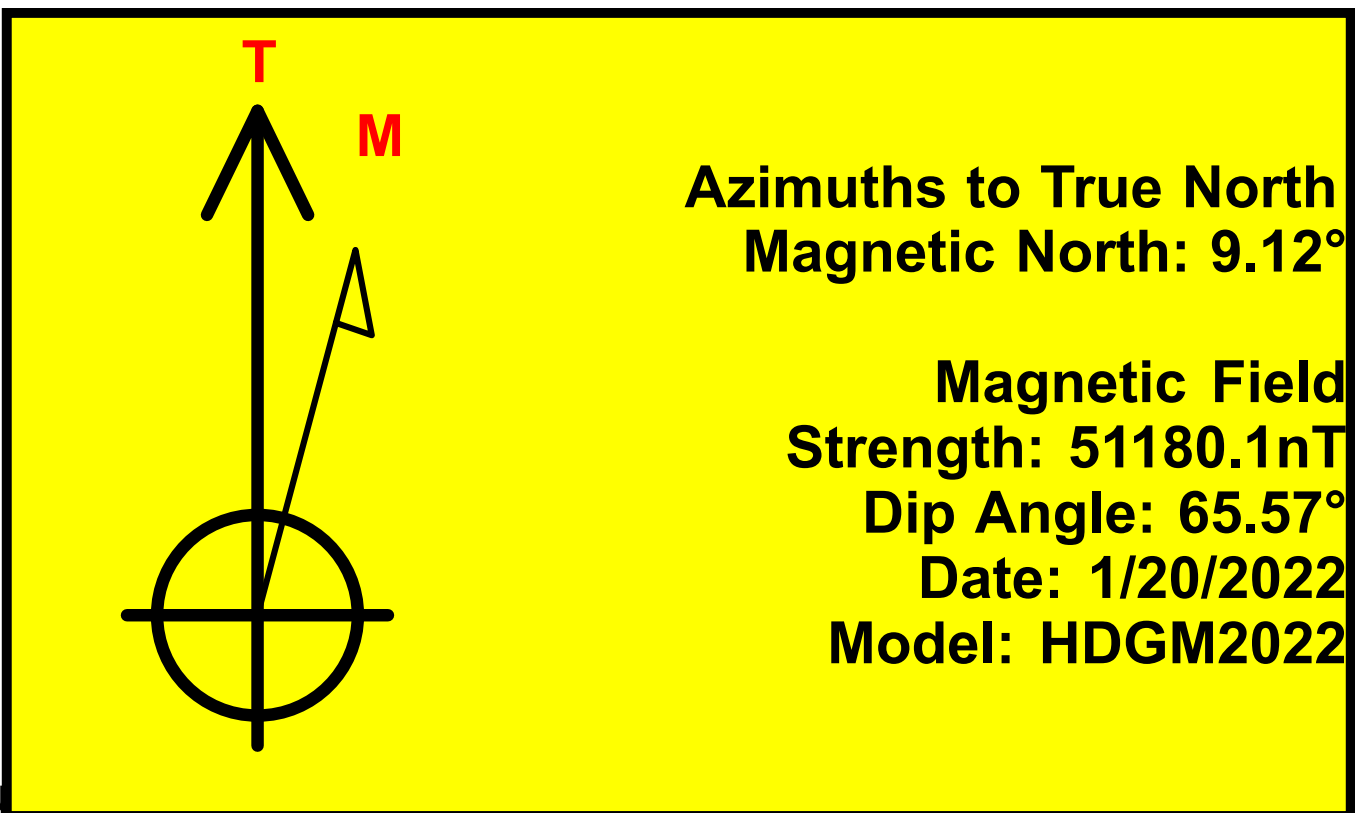
WELL DETAILS: RWF 44-9						
Ground Elevation: 6369.40						
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	RWF 44-9
0.00	0.00	1630184.00	2327375.10	39.539396	-107.885245	

DESIGN TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
RWF 44-9 - VP	6779.00	-1404.72	371.91	1628770.00	2327710.00	39.535539	-107.883926
RWF 44-9 - PBHL	9429.00	-1404.72	371.91	1628770.00	2327710.00	39.535539	-107.883926

DESIGN ANNOTATIONS								
MD	Inc	Azi	TVD	+N/-S	+E/-W	VSec	Departure	Annotation
120.00	0.00	0.00	120.00	0.00	0.00	0.00	0.00	Start Build 3.00
220.00	3.00	140.00	219.95	-2.01	1.68	2.37	2.62	Start DLS 3.00 TFO 31.94
588.75	13.70	165.38	584.34	-51.80	18.96	54.93	55.58	Start 5444.93 hold at 588.75 MD
6033.69	13.70	165.38	5874.37	-1299.57	344.48	1344.45	1345.11	Start Drop -1.50
6946.99	0.00	0.00	6779.00	-1404.72	371.91	1453.12	1453.77	Start 2650.00 hold at 6946.99 MD
9596.99	0.00	0.00	9429.00	-1404.72	371.91	1453.12	1453.77	TD at 9596.99

SLOTS				
Slot Name	+N/-S	+E/-W	Northing	Easting
RWF 31-9	6.66	-16.68	1630191.10	2327358.60
RWF 32-9	-6.17	-29.35	1630178.60	2327345.60
RWF 331-9	5.17	-24.04	1630189.80	2327351.20
RWF 332-9	2.09	-38.67	1630187.10	2327336.50
RWF 343-9	11.34	5.30	1630195.20	2327380.70
RWF 344-9	-1.49	-7.26	1630182.70	2327367.80
RWF 431-9	-4.58	-21.99	1630180.00	2327353.00
RWF 432-9	-7.66	-36.61	1630177.30	2327338.30
RWF 43-9	-9.26	-43.97	1630175.90	2327330.90
RWF 443-9	1.49	7.36	1630185.30	2327382.50
RWF 444-9	8.26	-9.32	1630192.50	2327366.00
RWF 44-9	0.00	0.00	1630184.00	2327375.10
RWF 531-9	3.68	-31.41	1630188.50	2327343.80
RWF 543-9	9.75	-1.96	1630193.80	2327373.40

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
3259.00	3341.73	G Sand Top-TVD
3319.00	3403.49	G Sand Base-TVD
4589.00	4710.68	WSTC_LOWER-TVD
5479.00	5626.74	CGRK-TVD
5479.00	5626.74	WFRK/UMVRD-TVD
6779.00	6946.99	KMV GAS-TVD
8319.00	8486.99	CMEQ-TVD
9279.00	9446.99	RLNS-TVD







## **Terra Energy Partners, LLP**

**Garfield County, CO (Nad 83)**

**Sec 9, T6S, R94W**

**RWF 44-9 - Slot RWF 44-9**

**Wellbore #1**

**Design: Wellbore #1**

## **KLX Survey Report**

**27 January, 2022**



<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 44-9 - Slot RWF 44-9
<b>Project:</b>	Garfield County, CO (Nad 83)	<b>TVD Reference:</b>	KB=30' @ 6399.40usft (H&P #329)
<b>Site:</b>	Sec 9, T6S, R94W	<b>MD Reference:</b>	KB=30' @ 6399.40usft (H&P #329)
<b>Well:</b>	RWF 44-9	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db

<b>Project</b>	Garfield County, CO (Nad 83)		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Colorado Central Zone		

Site	Sec 9, T6S, R94W				
Site Position:		Northing:	1,630,177.30 usft	Latitude:	39.539375
From:	Map	Easting:	2,327,338.30 usft	Longitude:	-107.885375
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-1.50 °

Well	RWF 44-9 - Slot RWF 44-9					
Well Position	+N/-S	0.00 usft	Northing:	1,630,184.00 usft	Latitude:	39.539396
	+E/-W	0.00 usft	Easting:	2,327,375.10 usft	Longitude:	-107.885245
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	6,369.40 usft

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	HDGM2022	1/20/2022	9.12	65.57	51,180.10000000

<b>Design</b>	Wellbore #1				
<b>Audit Notes:</b>					
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>	
	0.00	0.00	0.00	166.55	

<b>Survey Program</b>	<b>Date</b>	1/27/2022			
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
295.00	9,516.00	KLX MWD Surveys (Wellbore #1)	MWD	MWD	

<b>Survey</b>									
<b>Measured Depth (usft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Vertical Section (usft)</b>	<b>Dogleg Rate (°/100usft)</b>	<b>Build Rate (°/100usft)</b>	<b>Turn Rate (°/100usft)</b>
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>First MWD Survey @ 295.00' MD / 294.67' TVD</b>									
295.00	4.66	142.17	294.67	-9.47	7.35	10.92	1.58	1.58	0.00
389.00	7.56	151.66	388.13	-17.93	12.63	20.38	3.26	3.09	10.10
483.00	8.70	167.48	481.20	-30.31	17.11	33.46	2.66	1.21	16.83
576.00	10.99	165.46	572.82	-45.76	20.86	49.36	2.49	2.46	-2.17
670.00	13.27	161.06	664.72	-64.64	26.61	69.06	2.62	2.43	-4.68
764.00	14.50	157.20	755.97	-85.70	34.67	91.41	1.64	1.31	-4.11
859.00	15.64	161.06	847.71	-108.78	43.44	115.90	1.60	1.20	4.06
953.00	16.83	160.36	937.96	-133.58	52.13	142.04	1.28	1.27	-0.74
1,047.00	18.50	161.68	1,027.52	-160.55	61.39	170.43	1.83	1.78	1.40

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 44-9 - Slot RWF 44-9
<b>Project:</b>	Garfield County, CO (Nad 83)	<b>TVD Reference:</b>	KB=30' @ 6399.40usft (H&P #329)
<b>Site:</b>	Sec 9, T6S, R94W	<b>MD Reference:</b>	KB=30' @ 6399.40usft (H&P #329)
<b>Well:</b>	RWF 44-9	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db

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)
1,180.00	19.34	160.73	1,153.34	-201.37	75.29	213.36	0.67	0.63	-0.71
1,274.00	18.90	159.94	1,242.15	-230.37	85.65	243.97	0.54	-0.47	-0.84
1,369.00	17.84	162.31	1,332.31	-258.69	95.35	273.77	1.36	-1.12	2.49
1,463.00	16.17	164.77	1,422.20	-285.04	103.16	301.21	1.93	-1.78	2.62
1,558.00	15.86	162.23	1,513.51	-310.16	110.60	327.38	0.81	-0.33	-2.67
1,651.00	15.55	167.24	1,603.04	-334.42	117.23	352.52	1.50	-0.33	5.39
1,745.00	15.42	166.44	1,693.63	-358.86	122.94	377.61	0.27	-0.14	-0.85
1,839.00	15.12	166.97	1,784.31	-382.95	128.64	402.37	0.35	-0.32	0.56
1,933.00	14.68	167.06	1,875.15	-406.50	134.07	426.54	0.47	-0.47	0.10
2,027.00	14.19	166.88	1,966.18	-429.33	139.35	449.97	0.52	-0.52	-0.19
2,121.00	13.80	166.27	2,057.39	-451.45	144.63	472.70	0.44	-0.41	-0.65
2,215.00	13.71	167.15	2,148.70	-473.20	149.77	495.05	0.24	-0.10	0.94
2,309.00	13.27	166.80	2,240.10	-494.56	154.71	516.98	0.48	-0.47	-0.37
2,403.00	12.96	166.44	2,331.65	-515.31	159.64	538.31	0.34	-0.33	-0.38
2,498.00	12.66	167.32	2,424.29	-535.82	164.43	559.37	0.38	-0.32	0.93
2,592.00	12.26	167.32	2,516.07	-555.61	168.88	579.65	0.43	-0.43	0.00
2,686.00	11.82	165.92	2,608.01	-574.68	173.41	599.26	0.56	-0.47	-1.49
2,780.00	13.57	168.29	2,699.71	-594.82	177.99	619.91	1.94	1.86	2.52
2,870.00	13.32	168.64	2,787.24	-615.33	182.18	640.82	0.29	-0.28	0.39
2,958.00	13.54	166.97	2,872.83	-635.30	186.50	661.25	0.51	0.25	-1.90
3,050.00	13.05	168.20	2,962.37	-655.96	191.05	682.41	0.61	-0.53	1.34
3,141.00	12.74	167.76	3,051.07	-675.82	195.28	702.71	0.36	-0.34	-0.48
3,231.00	14.02	166.36	3,138.63	-696.12	199.95	723.53	1.47	1.42	-1.56
3,321.00	13.54	166.18	3,226.04	-716.94	205.04	744.97	0.54	-0.53	-0.20
3,411.00	13.05	165.92	3,313.62	-737.03	210.03	765.66	0.55	-0.54	-0.29
3,501.00	12.61	166.36	3,401.38	-756.43	214.82	785.65	0.50	-0.49	0.49
3,591.00	13.58	163.10	3,489.04	-776.09	220.20	806.02	1.35	1.08	-3.62
3,682.00	13.14	163.38	3,577.57	-796.22	226.27	827.01	0.49	-0.48	0.31
3,774.00	13.05	162.93	3,667.18	-816.17	232.31	847.82	0.15	-0.10	-0.49
3,865.00	13.93	164.16	3,755.67	-836.53	238.31	869.02	1.02	0.97	1.35
3,957.00	13.58	162.66	3,845.03	-857.50	244.56	890.86	0.54	-0.38	-1.63
4,048.00	13.05	162.66	3,933.59	-877.50	250.80	911.77	0.58	-0.58	0.00
4,139.00	14.37	164.25	4,021.99	-898.18	256.93	933.30	1.51	1.45	1.75
4,230.00	13.84	163.90	4,110.25	-919.50	263.01	955.46	0.59	-0.58	-0.38
4,321.00	13.62	162.75	4,198.65	-940.19	269.21	977.02	0.39	-0.24	-1.26
4,412.00	13.40	161.96	4,287.13	-960.45	275.65	998.22	0.32	-0.24	-0.87
4,504.00	12.83	161.26	4,376.73	-980.26	282.24	1,019.02	0.64	-0.62	-0.76
4,595.00	14.50	164.33	4,465.15	-1,000.80	288.56	1,040.47	2.00	1.84	3.37
4,686.00	14.11	164.86	4,553.33	-1,022.48	294.53	1,062.94	0.45	-0.43	0.58
4,778.00	13.93	162.31	4,642.59	-1,043.85	300.83	1,085.19	0.70	-0.20	-2.77
4,870.00	13.80	162.93	4,731.91	-1,064.89	307.41	1,107.18	0.21	-0.14	0.67
4,961.00	13.14	163.02	4,820.41	-1,085.16	313.62	1,128.34	0.73	-0.73	0.10
5,052.00	14.37	164.69	4,908.79	-1,105.94	319.62	1,149.95	1.42	1.35	1.84

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<b>Design:</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db

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)
5,142.00	13.84	166.71	4,996.08	-1,127.19	325.05	1,171.88	0.80	-0.59	2.24
5,234.00	13.45	164.95	5,085.48	-1,148.23	330.35	1,193.58	0.62	-0.42	-1.91
5,326.00	13.01	165.48	5,175.04	-1,168.59	335.73	1,214.63	0.50	-0.48	0.58
5,417.00	12.39	165.83	5,263.82	-1,187.97	340.69	1,234.63	0.69	-0.68	0.38
5,508.00	12.35	165.74	5,352.70	-1,206.87	345.47	1,254.12	0.05	-0.04	-0.10
5,600.00	12.04	161.00	5,442.63	-1,225.48	351.02	1,273.51	1.14	-0.34	-5.15
5,692.00	12.52	161.35	5,532.52	-1,244.00	357.33	1,292.99	0.53	0.52	0.38
5,784.00	12.08	160.20	5,622.41	-1,262.51	363.78	1,312.49	0.55	-0.48	-1.25
5,876.00	10.99	161.52	5,712.55	-1,279.88	369.82	1,330.79	1.22	-1.18	1.43
5,968.00	10.72	163.46	5,802.91	-1,296.40	375.04	1,348.07	0.49	-0.29	2.11
6,060.00	10.15	161.61	5,893.39	-1,312.30	380.03	1,364.69	0.72	-0.62	-2.01
6,151.00	9.98	156.78	5,982.99	-1,327.15	385.67	1,380.45	0.95	-0.19	-5.31
6,243.00	8.70	153.35	6,073.77	-1,340.70	391.94	1,395.09	1.52	-1.39	-3.73
6,335.00	7.56	158.09	6,164.84	-1,352.53	397.32	1,407.85	1.44	-1.24	5.15
6,427.00	6.37	155.81	6,256.16	-1,362.80	401.67	1,418.85	1.33	-1.29	-2.48
6,519.00	4.66	154.40	6,347.73	-1,370.83	405.37	1,427.51	1.86	-1.86	-1.53
6,611.00	2.37	154.14	6,439.55	-1,375.91	407.82	1,433.03	2.49	-2.49	-0.28
6,703.00	0.79	141.66	6,531.51	-1,378.12	409.04	1,435.46	1.75	-1.72	-13.57
6,795.00	0.26	107.82	6,623.51	-1,378.68	409.63	1,436.14	0.64	-0.58	-36.78
6,887.00	0.35	161.79	6,715.51	-1,379.01	409.92	1,436.53	0.31	0.10	58.66
6,978.00	0.26	205.73	6,806.51	-1,379.46	409.92	1,436.97	0.27	-0.10	48.29
7,070.00	0.22	178.92	6,898.51	-1,379.83	409.83	1,437.30	0.13	-0.04	-29.14
7,162.00	0.66	175.15	6,990.50	-1,380.53	409.88	1,438.00	0.48	0.48	-4.10
7,254.00	1.05	154.49	7,082.49	-1,381.82	410.28	1,439.35	0.53	0.42	-22.46
7,345.00	0.75	156.69	7,173.48	-1,383.12	410.88	1,440.75	0.33	-0.33	2.42
7,436.00	0.83	140.87	7,264.47	-1,384.18	411.53	1,441.93	0.25	0.09	-17.38
7,527.00	0.62	168.03	7,355.47	-1,385.17	412.05	1,443.02	0.44	-0.23	29.85
7,618.00	0.70	183.32	7,446.46	-1,386.21	412.12	1,444.04	0.21	0.09	16.80
7,708.00	0.88	209.77	7,536.45	-1,387.36	411.74	1,445.07	0.45	0.20	29.39
7,799.00	1.23	204.76	7,627.44	-1,388.85	410.99	1,446.35	0.40	0.38	-5.51
7,890.00	1.18	188.15	7,718.42	-1,390.66	410.45	1,447.99	0.39	-0.05	-18.25
7,981.00	1.71	201.25	7,809.39	-1,392.86	409.82	1,449.97	0.68	0.58	14.40
8,072.00	1.41	200.81	7,900.35	-1,395.17	408.93	1,452.02	0.33	-0.33	-0.48
8,162.00	1.67	204.24	7,990.32	-1,397.40	408.00	1,453.97	0.31	0.29	3.81
8,252.00	2.20	202.74	8,080.27	-1,400.19	406.79	1,456.40	0.59	0.59	-1.67
8,342.00	1.32	213.64	8,170.23	-1,402.65	405.55	1,458.50	1.04	-0.98	12.11
8,433.00	1.63	241.15	8,261.20	-1,404.14	403.84	1,459.56	0.84	0.34	30.23
8,523.00	2.46	231.13	8,351.14	-1,405.97	401.21	1,460.73	1.00	0.92	-11.13
8,613.00	3.38	223.31	8,441.02	-1,409.11	397.89	1,463.01	1.11	1.02	-8.69
8,703.00	3.87	226.91	8,530.84	-1,413.12	393.85	1,465.97	0.60	0.54	4.00
8,794.00	4.31	232.45	8,621.61	-1,417.30	388.90	1,468.88	0.65	0.48	6.09
8,886.00	4.79	227.00	8,713.32	-1,422.03	383.35	1,472.19	0.70	0.52	-5.92
8,977.00	4.97	239.31	8,803.99	-1,426.63	377.18	1,475.23	1.17	0.20	13.53

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well RWF 44-9 - Slot RWF 44-9
<b>Project:</b>	Garfield County, CO (Nad 83)	<b>TVD Reference:</b>	KB=30' @ 6399.40usft (H&P #329)
<b>Site:</b>	Sec 9, T6S, R94W	<b>MD Reference:</b>	KB=30' @ 6399.40usft (H&P #329)
<b>Well:</b>	RWF 44-9	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	EDM 5000.1 Single User Db

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)
9,069.00	3.87	268.49	8,895.73	-1,428.75	370.65	1,475.77	2.68	-1.20	31.72
9,159.00	3.82	283.60	8,985.53	-1,428.12	364.70	1,473.78	1.12	-0.06	16.79
9,248.00	3.43	270.51	9,074.35	-1,427.40	359.15	1,471.79	1.02	-0.44	-14.71
9,340.00	3.74	254.25	9,166.18	-1,428.19	353.51	1,471.25	1.15	0.34	-17.67
9,430.00	4.04	237.37	9,255.97	-1,430.70	348.02	1,472.41	1.31	0.33	-18.76
9,448.00	4.22	232.54	9,273.92	-1,431.44	346.96	1,472.88	2.18	1.00	-26.83
<b>TD @ 9516.00' MD / 9341.74' TVD</b>									
9,516.00	4.22	232.54	9,341.74	-1,434.49	342.98	1,474.92	0.00	0.00	0.00

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
295.00	294.67	-9.47	7.35	First MWD Survey @ 295.00' MD / 294.67' TVD
9,516.00	9,341.74	-1,434.49	342.98	TD @ 9516.00' MD / 9341.74' TVD