

Sec 3, T6S, R94W  
NR 543-4  
Q220212 & RM-220203  
Plan 3

Company Name: Terra Energy Partners, LLP  
NR 543-4  
Garfield County, CO (Nad 83)  
Rig: KB=30' @ 6760.00usft (H&P #329)  
Created by: Chase Chambers  
Date: 3:30, March 17 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: NR 543-4							
Ground Elevation: 6730.00							
+N/-S 0.00	+E/-W 0.00	Northing 1635494.60	Easting 2329275.40	Latitude 39.554107	Longitude -107.879002	NR 543-4	

DESIGN TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
NR 543-4 - VP	7140.00	-2236.27	-3219.45	1633343.40	2325998.50	39.547967	-107.890419
NR 543-4 - PBHL	9810.00	-2236.27	-3219.45	1633343.40	2325998.50	39.547967	-107.890419

DESIGN ANNOTATIONS							
MD	Inc	Azi	TVD	+N/-S	+E/-W	VSec	Departure
120.00	0.00	0.00	120.00	0.00	0.00	0.00	0.00
286.67	0.00	0.00	286.67	-6.59	-3.07	6.28	7.27
1410.77	37.94	235.65	1319.62	-253.16	-318.23	405.79	408.85
5813.04	37.94	235.65	4791.36	-1780.65	-2552.90	3112.55	3115.68
8342.55	0.00	0.00	7140.00	-2236.27	-3219.45	3919.92	3923.07
11012.55	0.00	0.00	9810.00	-2236.27	-3219.45	3919.92	3923.07
TD at 11012.55							

SLOTS				
Slot Name	+N/-S	+E/-W	Northing	Easting
NR 32-4	64.27	-40.00	1635559.90	2329237.10
NR 331-3	41.06	-20.98	1635536.20	2329255.50
NR 332-4	57.87	-47.73	1635553.70	2329229.20
NR 333-4	34.76	-28.62	1635530.10	2329247.70
NR 33-4	40.54	-33.37	1635536.00	2329243.10
NR 343-4	11.55	-9.61	1635506.40	2329266.10
NR 344-36	58.50	-35.24	1635554.00	2329241.70
NR 42-3	17.96	-1.87	1635512.60	2329274.00
NR 431-3	35.29	-16.13	1635530.30	2329260.20
NR 432-4	52.09	-42.98	1635547.80	2329233.80
NR 433-4	28.98	-23.87	1635524.20	2329252.30
NR 43-4	17.43	-14.36	1635512.40	2329261.50
NR 441-3	29.51	-11.38	1635524.40	2329264.80
NR 442-3	12.18	2.88	1635506.70	2329278.60
NR 443-4	5.77	-4.85	1635500.50	2329270.70
NR 444-36	52.72	-30.49	1635548.10	2329246.30
NR 532-4	46.31	-38.23	1635541.90	2329238.40
NR 533-4	23.21	-19.11	1635518.30	2329256.90
NR 541-3	23.73	-6.62	1635518.50	2329269.40
NR 542-3	6.40	7.63	1635500.80	2329283.20
NR 543-4	0.00	0.00	1635494.60	2329275.40
NR 544-36	46.94	-25.74	1635542.20	2329250.90

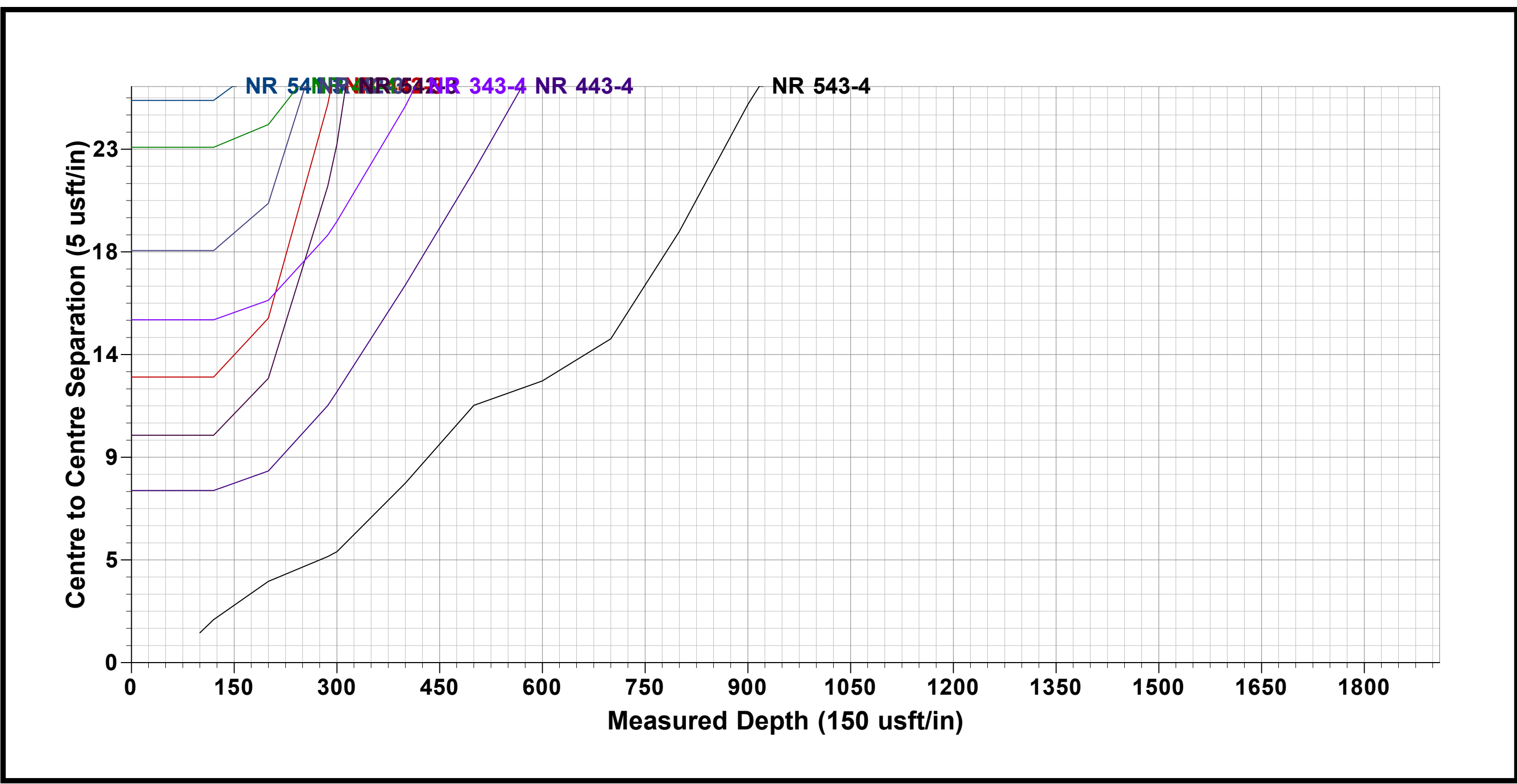
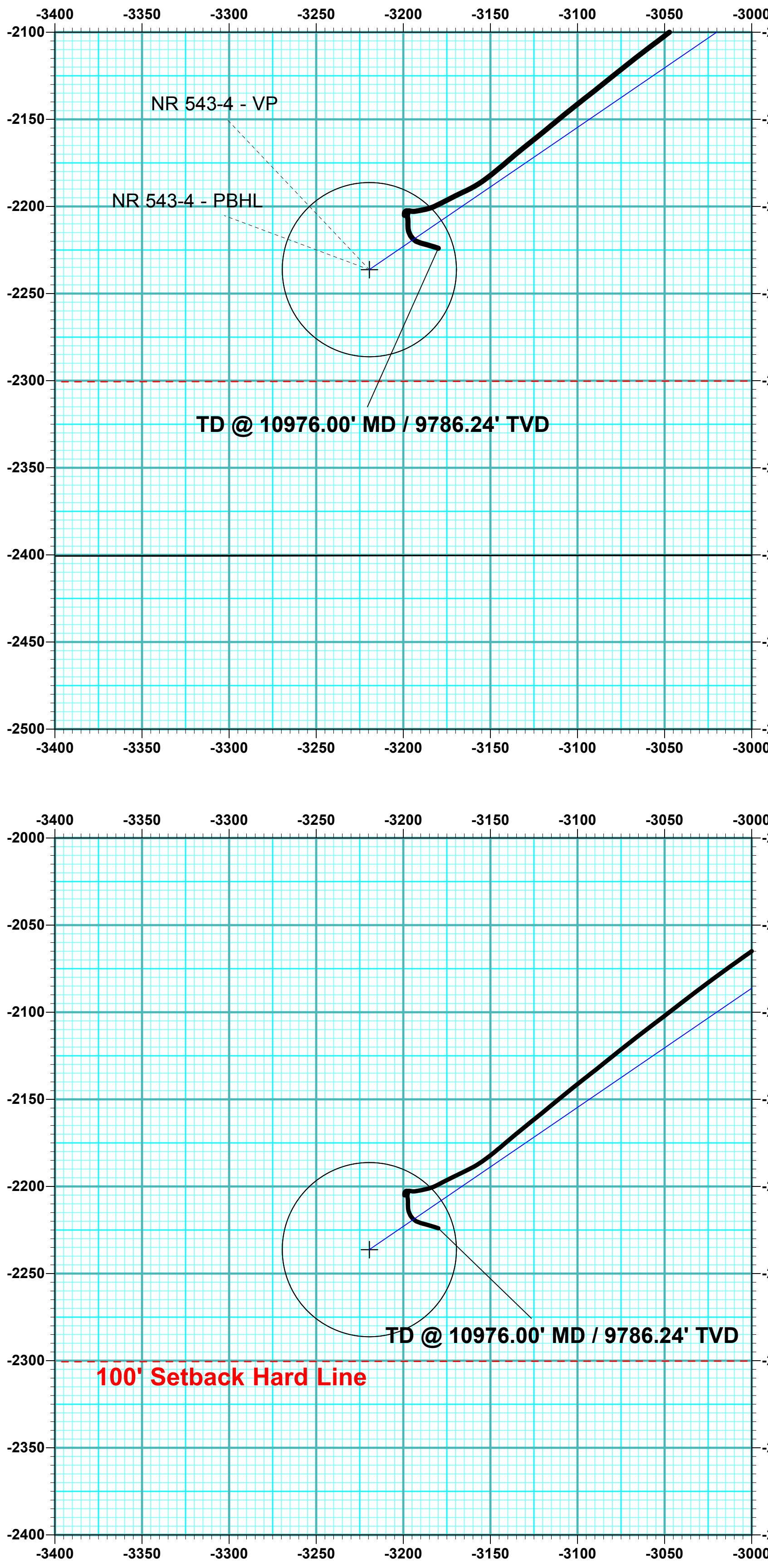
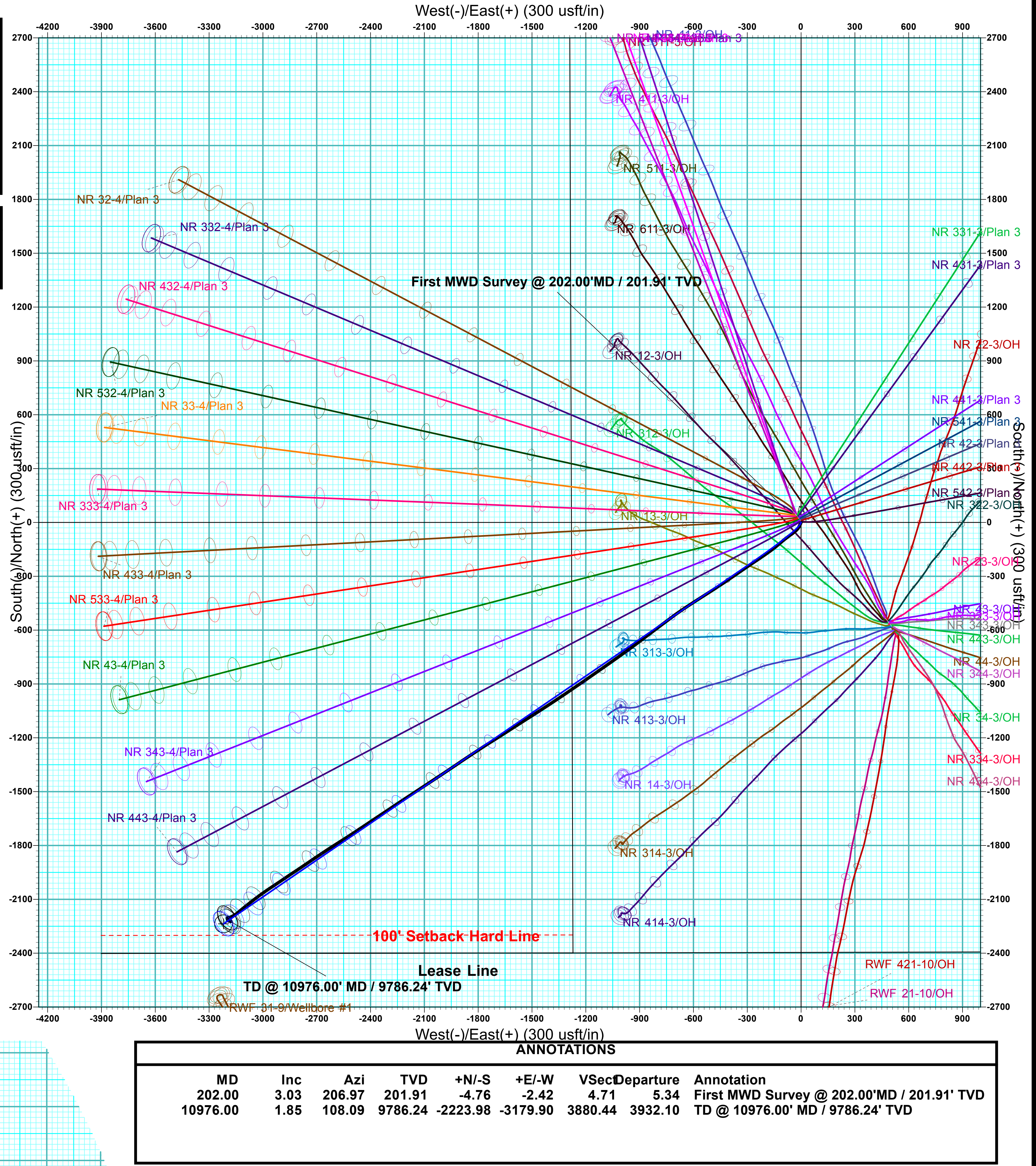
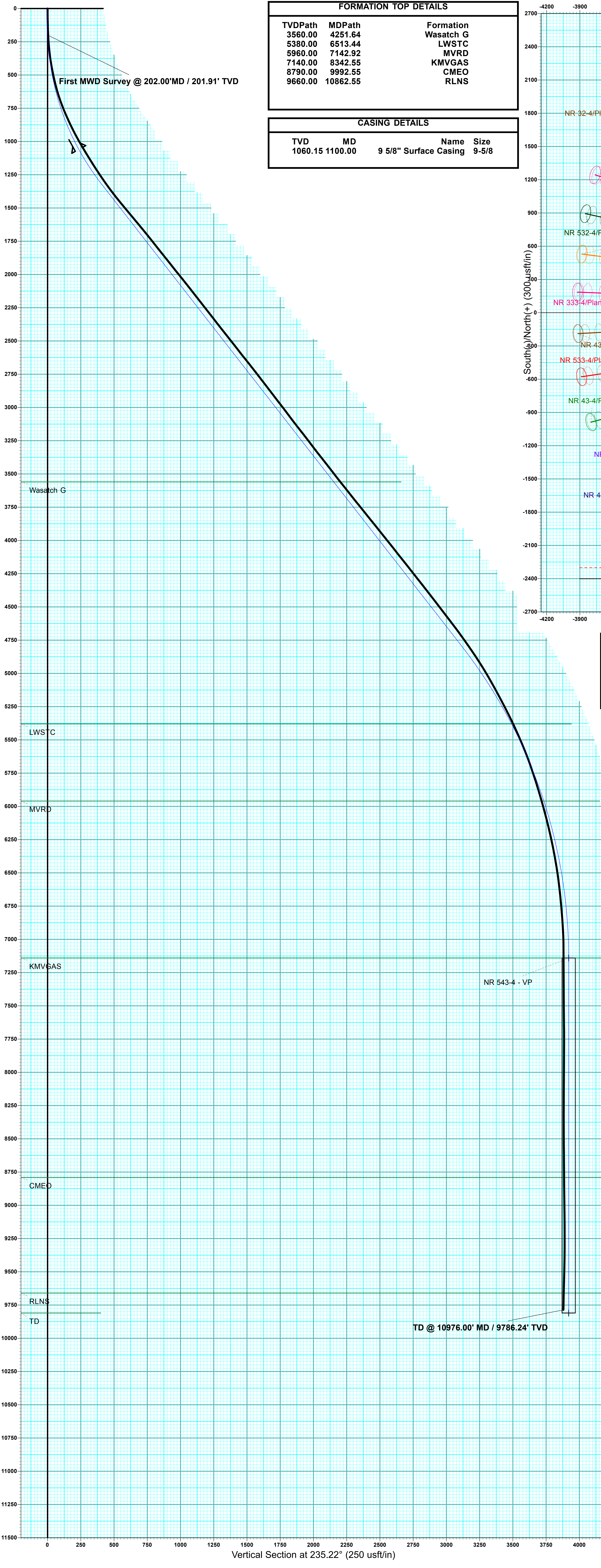


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Azimuths to True North  
Magnetic North: 9.13'

Magnetic Field  
Strength: 51172.0nT  
Dip Angle: 65.57'  
Date: 3/2/2022  
Model: HDGM2022







## **Terra Energy Partners, LLP**

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

**Sec 3, T6S, R94W**

**NR 543-4 - Slot NR 543-4**

**Wellbore #1**

**Design: Wellbore #1**

## **KLX Survey Certification Report**

**17 March, 2022**



**KLX Directional Drilling, INC.**

11390 FM 830  
Willis, TX 77318  
Phone: (936) 856-4332  
Fax: (936) 856-8678

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**Survey Certification Sheet**

Company	Job Number	Date
TEP Rocky Mountain LLC	RM-220203	03/17/2022

Lease	Well Name	County & State
NWSW 3 6S94W 6	Federal #NR 543-4	Garfield, CO

API No.	Survey Depth Range	Survey Type
05-045-24469	202 feet to 10976 feet MD	MWD

Sidetrack Information	Directional Supervisor/Surveyor
<a href="#">Click here to enter text.</a>	Robert Cuevas

**Certification Statement**

The data and calculations for this survey have been checked by me and conform to the standards and procedures set forth by KLX Directional Drilling. This report represents a true and correct directional survey of this well based on the original data obtained at the well site. Wellbore coordinates are calculated using minimum curvature.

Kristopher Ray  
Regulatory Compliance Manager  
KLX Directional Drilling, Inc.

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well NR 543-4 - Slot NR 543-4
<b>Project:</b>	Garfield County, CO (Nad 83)	<b>TVD Reference:</b>	KB=30' @ 6760.00usft (H&P #329)
<b>Site:</b>	Sec 3, T6S, R94W	<b>MD Reference:</b>	KB=30' @ 6760.00usft (H&P #329)
<b>Well:</b>	NR 543-4	<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 3, T6S, R94W			
Site Position:		Northing:	1,635,500.80 usft	Latitude:	39.554125
From:	Map	Easting:	2,329,283.20 usft	Longitude:	-107.878975
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-1.50 °

Well	NR 543-4 - Slot NR 543-4					
Well Position	+N/-S	0.00 usft	Northing:	1,635,494.60 usft	Latitude:	39.554107
	+E/-W	0.00 usft	Easting:	2,329,275.40 usft	Longitude:	-107.879002
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	6,730.00 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	3/2/2022	9.13	65.57	51,172.00000000

<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	235.03	

<b>Survey Program</b>	<b>Date</b>	3/17/2022			
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
202.00	10,976.00	KLX MWD Surveys (Wellbore #1)	OWSG (REV5) MWD HDGM	OWSG MWD - Standard	

<b>Survey</b>								
<b>MD (usft)</b>	<b>Inc (°)</b>	<b>Azi (azimuth) (°)</b>	<b>TVD (usft)</b>	<b>N/S (usft)</b>	<b>E/W (usft)</b>	<b>Closure Distance (usft)</b>	<b>Closure Azimuth (°)</b>	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
202.00	3.03	206.97	201.91	-4.76	-2.42	5.34	206.97	
<b>First MWD Survey @ 202.00'MD / 201.91' TVD</b>								
298.00	6.28	202.84	297.58	-11.86	-5.61	13.12	205.32	
392.00	9.80	207.50	390.64	-23.70	-11.30	26.26	205.50	
486.00	12.08	220.59	482.94	-38.27	-21.40	43.85	209.21	
579.00	13.97	231.67	573.56	-52.62	-36.54	64.07	214.78	
672.00	18.11	234.31	662.92	-68.03	-57.10	88.81	220.01	
766.00	22.02	232.46	751.20	-87.29	-82.94	120.42	223.54	
861.00	24.79	229.12	838.37	-111.19	-112.13	157.91	225.24	
955.00	26.98	230.88	922.94	-137.54	-143.58	198.83	226.23	
1,049.00	29.88	234.75	1,005.60	-164.52	-179.25	243.30	227.45	

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well NR 543-4 - Slot NR 543-4
<b>Project:</b>	Garfield County, CO (Nad 83)	<b>TVD Reference:</b>	KB=30' @ 6760.00usft (H&P #329)
<b>Site:</b>	Sec 3, T6S, R94W	<b>MD Reference:</b>	KB=30' @ 6760.00usft (H&P #329)
<b>Well:</b>	NR 543-4	<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								
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	
1,176.00	31.64	235.71	1,114.73	-201.54	-232.61	307.78	229.09	
1,270.00	32.78	236.15	1,194.26	-229.61	-274.12	357.58	230.05	
1,364.00	34.32	236.15	1,272.60	-258.55	-317.26	409.27	230.82	
1,458.00	36.25	234.92	1,349.33	-289.28	-362.02	463.40	231.37	
1,552.00	38.63	235.98	1,423.96	-321.68	-409.09	520.41	231.82	
1,646.00	39.90	236.59	1,496.74	-354.69	-458.58	579.74	232.28	
1,740.00	39.95	237.56	1,568.82	-387.48	-509.21	639.88	232.73	
1,834.00	39.51	237.82	1,641.12	-419.60	-559.99	699.75	233.16	
1,928.00	38.94	236.33	1,713.94	-451.90	-609.89	759.06	233.46	
2,020.00	38.14	236.85	1,785.90	-483.46	-657.73	816.30	233.68	
2,111.00	38.98	233.25	1,857.06	-515.96	-704.20	872.99	233.77	
2,203.00	38.06	233.34	1,929.04	-550.21	-750.13	930.28	233.74	
2,293.00	39.07	232.99	1,999.41	-583.84	-795.04	986.39	233.71	
2,385.00	38.54	233.34	2,071.11	-618.41	-841.18	1,044.04	233.68	
2,475.00	38.23	232.90	2,141.65	-651.95	-885.88	1,099.92	233.65	
2,566.00	37.53	232.99	2,213.48	-685.62	-930.47	1,155.79	233.62	
2,657.00	38.58	234.13	2,285.13	-718.93	-975.60	1,211.88	233.61	
2,748.00	37.40	234.83	2,356.85	-751.47	-1,021.19	1,267.89	233.65	
2,838.00	38.72	234.66	2,427.71	-783.50	-1,066.49	1,323.36	233.70	
2,930.00	38.28	235.10	2,499.71	-816.45	-1,113.34	1,380.62	233.75	
3,020.00	37.57	235.10	2,570.71	-848.10	-1,158.71	1,435.92	233.80	
3,111.00	38.94	235.54	2,642.16	-880.15	-1,205.04	1,492.24	233.86	
3,203.00	38.06	235.54	2,714.16	-912.56	-1,252.26	1,549.49	233.92	
3,294.00	37.75	235.45	2,785.96	-944.23	-1,298.33	1,605.38	233.97	
3,386.00	37.05	236.42	2,859.05	-975.53	-1,344.62	1,661.22	234.04	
3,478.00	37.92	236.85	2,932.05	-1,006.32	-1,391.38	1,717.15	234.12	
3,569.00	37.40	236.94	3,004.09	-1,036.68	-1,437.95	1,772.69	234.21	
3,661.00	36.69	237.21	3,077.52	-1,066.81	-1,484.47	1,828.04	234.30	
3,753.00	38.41	237.47	3,150.46	-1,097.07	-1,531.68	1,884.03	234.39	
3,845.00	37.79	237.21	3,222.86	-1,127.70	-1,579.47	1,940.73	234.47	
3,936.00	36.91	237.38	3,295.20	-1,157.53	-1,625.92	1,995.87	234.55	
4,028.00	38.76	237.29	3,367.85	-1,187.99	-1,673.43	2,052.24	234.63	
4,119.00	37.70	237.91	3,439.34	-1,218.16	-1,720.97	2,108.47	234.71	
4,211.00	37.79	237.12	3,512.09	-1,248.41	-1,768.47	2,164.72	234.78	
4,303.00	38.80	236.59	3,584.29	-1,279.58	-1,816.21	2,221.70	234.83	
4,396.00	37.97	236.50	3,657.19	-1,311.42	-1,864.39	2,279.42	234.88	
4,486.00	39.42	235.54	3,727.43	-1,342.87	-1,911.04	2,335.67	234.90	
4,578.00	38.36	236.15	3,799.04	-1,375.30	-1,958.83	2,393.42	234.93	
4,669.00	39.20	236.94	3,869.98	-1,406.72	-2,006.39	2,450.40	234.96	
4,760.00	38.36	236.42	3,940.92	-1,438.02	-2,054.02	2,507.37	235.00	
4,851.00	39.02	236.50	4,011.94	-1,469.45	-2,101.43	2,564.23	235.04	
4,943.00	37.66	236.94	4,084.10	-1,500.77	-2,149.14	2,621.28	235.07	
5,034.00	39.24	236.50	4,155.37	-1,531.82	-2,196.44	2,677.84	235.11	
5,126.00	37.62	236.85	4,227.43	-1,563.24	-2,244.22	2,735.00	235.14	

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well NR 543-4 - Slot NR 543-4
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<b>Site:</b>	Sec 3, T6S, R94W	<b>MD Reference:</b>	KB=30' @ 6760.00usft (H&P #329)
<b>Well:</b>	NR 543-4	<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								
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	
5,217.00	38.63	236.15	4,299.02	-1,594.25	-2,291.06	2,791.16	235.17	
5,308.00	37.70	235.98	4,370.57	-1,625.64	-2,337.71	2,847.39	235.19	
5,400.00	38.01	236.50	4,443.21	-1,657.02	-2,384.65	2,903.84	235.21	
5,490.00	37.00	236.42	4,514.60	-1,687.29	-2,430.32	2,958.62	235.23	
5,580.00	37.92	236.24	4,586.04	-1,717.64	-2,475.88	3,013.35	235.25	
5,672.00	36.83	237.03	4,659.15	-1,748.36	-2,522.52	3,069.17	235.27	
5,763.00	35.60	237.73	4,732.57	-1,777.34	-2,567.80	3,122.90	235.31	
5,853.00	34.72	237.56	4,806.15	-1,805.08	-2,611.58	3,174.69	235.35	
5,945.00	33.44	236.33	4,882.35	-1,833.19	-2,654.79	3,226.21	235.37	
6,038.00	31.68	236.59	4,960.73	-1,860.84	-2,696.50	3,276.26	235.39	
6,129.00	29.79	235.18	5,038.94	-1,886.91	-2,735.01	3,322.76	235.40	
6,221.00	28.70	236.42	5,119.22	-1,912.18	-2,772.18	3,367.70	235.40	
6,313.00	27.91	236.15	5,200.22	-1,936.39	-2,808.46	3,411.32	235.41	
6,405.00	26.98	236.85	5,281.86	-1,959.80	-2,843.82	3,453.71	235.43	
6,496.00	25.93	235.45	5,363.33	-1,982.37	-2,877.49	3,494.24	235.44	
6,587.00	23.73	236.42	5,445.92	-2,003.78	-2,909.14	3,532.45	235.44	
6,678.00	23.12	236.24	5,529.41	-2,023.84	-2,939.24	3,568.62	235.45	
6,770.00	21.31	236.42	5,614.58	-2,043.12	-2,968.19	3,603.40	235.46	
6,860.00	18.98	234.92	5,699.07	-2,060.58	-2,993.80	3,634.39	235.46	
6,951.00	18.06	234.04	5,785.36	-2,077.37	-3,017.32	3,663.29	235.45	
7,042.00	16.88	232.20	5,872.16	-2,093.75	-3,039.18	3,690.59	235.44	
7,133.00	15.82	232.90	5,959.48	-2,109.33	-3,059.51	3,716.17	235.42	
7,225.00	15.25	230.97	6,048.12	-2,124.52	-3,078.92	3,740.76	235.39	
7,317.00	13.67	232.02	6,137.20	-2,138.83	-3,096.88	3,763.68	235.37	
7,406.00	12.70	230.17	6,223.85	-2,151.56	-3,112.69	3,783.92	235.35	
7,498.00	10.94	231.67	6,313.90	-2,163.46	-3,127.30	3,802.71	235.32	
7,589.00	10.28	229.21	6,403.34	-2,174.12	-3,140.22	3,819.40	235.30	
7,681.00	8.61	232.81	6,494.09	-2,183.64	-3,151.93	3,834.44	235.29	
7,772.00	6.90	244.24	6,584.26	-2,190.14	-3,162.28	3,846.65	235.29	
7,864.00	5.71	243.80	6,675.71	-2,194.56	-3,171.36	3,856.63	235.32	
7,955.00	5.41	241.95	6,766.28	-2,198.58	-3,179.21	3,865.37	235.33	
8,047.00	3.91	256.45	6,857.97	-2,201.35	-3,186.09	3,872.61	235.36	
8,137.00	3.47	260.58	6,947.79	-2,202.52	-3,191.76	3,877.94	235.39	
8,227.00	0.88	281.24	7,037.72	-2,202.83	-3,195.12	3,880.88	235.42	
8,319.00	0.26	297.32	7,129.71	-2,202.59	-3,196.00	3,881.47	235.43	
8,411.00	0.44	271.57	7,221.71	-2,202.49	-3,196.54	3,881.86	235.43	
8,501.00	0.31	233.78	7,311.71	-2,202.62	-3,197.08	3,882.38	235.44	
8,592.00	0.40	228.07	7,402.71	-2,202.98	-3,197.52	3,882.94	235.43	
8,684.00	0.31	203.02	7,494.70	-2,203.42	-3,197.85	3,883.47	235.43	
8,775.00	0.48	216.73	7,585.70	-2,203.96	-3,198.18	3,884.04	235.43	
8,867.00	1.01	214.53	7,677.69	-2,204.93	-3,198.87	3,885.16	235.42	
8,958.00	0.66	358.50	7,768.69	-2,205.07	-3,199.34	3,885.62	235.42	
9,049.00	0.70	3.42	7,859.68	-2,203.99	-3,199.32	3,885.00	235.44	
9,141.00	0.40	32.07	7,951.68	-2,203.16	-3,199.11	3,884.36	235.45	
9,232.00	0.31	62.66	8,042.68	-2,202.78	-3,198.72	3,883.82	235.45	

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well NR 543-4 - Slot NR 543-4
<b>Project:</b>	Garfield County, CO (Nad 83)	<b>TVD Reference:</b>	KB=30' @ 6760.00usft (H&P #329)
<b>Site:</b>	Sec 3, T6S, R94W	<b>MD Reference:</b>	KB=30' @ 6760.00usft (H&P #329)
<b>Well:</b>	NR 543-4	<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								
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	
9,324.00	0.35	54.31	8,134.68	-2,202.50	-3,198.28	3,883.29	235.45	
9,416.00	0.26	141.93	8,226.67	-2,202.50	-3,197.92	3,883.00	235.44	
9,507.00	0.48	139.03	8,317.67	-2,202.95	-3,197.54	3,882.94	235.44	
9,599.00	0.22	167.95	8,409.67	-2,203.41	-3,197.25	3,882.97	235.43	
9,690.00	0.40	198.45	8,500.67	-2,203.88	-3,197.32	3,883.29	235.42	
9,781.00	0.66	199.94	8,591.67	-2,204.68	-3,197.59	3,883.97	235.41	
9,873.00	0.83	167.25	8,683.66	-2,205.83	-3,197.63	3,884.65	235.40	
9,964.00	1.01	172.96	8,774.65	-2,207.26	-3,197.38	3,885.27	235.38	
10,055.00	1.05	180.34	8,865.63	-2,208.89	-3,197.29	3,886.11	235.36	
10,146.00	1.27	180.52	8,956.61	-2,210.74	-3,197.31	3,887.17	235.34	
10,235.00	1.32	174.45	9,045.59	-2,212.74	-3,197.22	3,888.24	235.31	
10,327.00	1.36	160.39	9,137.57	-2,214.83	-3,196.75	3,889.04	235.28	
10,419.00	1.32	149.84	9,229.54	-2,216.77	-3,195.85	3,889.41	235.25	
10,508.00	1.49	135.87	9,318.51	-2,218.49	-3,194.53	3,889.30	235.22	
10,597.00	1.54	119.52	9,407.48	-2,219.91	-3,192.68	3,888.60	235.19	
10,689.00	2.33	105.37	9,499.43	-2,221.01	-3,189.80	3,886.87	235.15	
10,779.00	2.33	105.37	9,589.36	-2,221.98	-3,186.27	3,884.53	235.11	
10,870.00	1.80	108.18	9,680.30	-2,222.92	-3,183.13	3,882.49	235.07	
10,913.00	1.85	108.09	9,723.27	-2,223.34	-3,181.83	3,881.66	235.06	
10,976.00	1.85	108.09	9,786.24	-2,223.98	-3,179.90	3,880.44	235.03	
TD @ 10976.00' MD / 9786.24' TVD								

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
202.00	201.91	-4.76	-2.42	First MWD Survey @ 202.00'MD / 201.91' TVD	
10,976.00	9,786.24	-2,223.98	-3,179.90	TD @ 10976.00' MD / 9786.24' TVD	

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_