







## **Terra Energy Partners, LLP**

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

**Sec 3, T6S, R94W**

**NR 33-4 - Slot NR 33-4**

**Wellbore #1**

**Design: Wellbore #1**

## **KLX Survey Certification Report**

**07 July, 2022**



**KLX Directional Drilling, INC.**

11390 FM 830  
Willis, TX 77318  
Phone: (936) 856-4332  
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**Survey Certification Sheet**

Company	Job Number	Date
TEP Rocky Mountain LLC	RM-220591	7/7/2022

Lease	Well Name	County & State
NWSW 3 6S94W 6	Federal #NR 33-4	Garfield, CO

API No.	Survey Depth Range	Survey Type
05-045-24467	296 feet to 11032 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 33-4 - Slot NR 33-4
<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 33-4	<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 33-4 - Slot NR 33-4				
Well Position	+N/-S	0.00 usft	Northing:	1,635,536.00 usft	Latitude:	39.554218
	+E/-W	0.00 usft	Easting:	2,329,243.10 usft	Longitude:	-107.879120
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	6/30/2022	9.10	65.57	51,139.90000000

<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	276.96	

<b>Survey Program</b>	<b>Date</b>	7/7/2022			
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
296.00	11,032.00	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
296.00	2.29	262.66	295.92	-0.76	-5.87	5.91	262.66	
<b>First MWD Survey @ 296.00' MD / 295.92' TVD</b>								
389.00	4.75	277.96	388.74	-0.46	-11.52	11.53	267.72	
483.00	7.87	282.97	482.16	1.52	-21.65	21.71	274.03	
576.00	11.73	286.04	573.79	5.57	-36.95	37.36	278.57	
669.00	15.51	283.49	664.16	11.08	-58.13	59.18	280.79	
763.00	18.72	279.63	753.98	16.54	-85.23	86.82	280.98	
857.00	21.14	274.35	842.35	20.35	-117.01	118.77	279.86	
951.00	23.42	275.76	929.33	23.51	-152.51	154.31	278.76	
1,059.00	27.47	275.76	1,026.84	28.17	-198.67	200.65	278.07	
1,174.00	29.00	275.76	1,128.15	33.63	-252.79	255.02	277.58	

<b>Company:</b>	Terra Energy Partners, LLP	<b>Local Co-ordinate Reference:</b>	Well NR 33-4 - Slot NR 33-4
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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 33-4	<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 (°)	
1,268.00	31.16	273.91	1,209.49	37.57	-299.73	302.08	277.14	
1,362.00	33.97	276.73	1,288.70	42.31	-350.09	352.64	276.89	
1,456.00	37.22	277.52	1,365.13	49.11	-404.37	407.34	276.92	
1,550.00	38.72	278.66	1,439.23	57.26	-461.62	465.16	277.07	
1,644.00	39.02	279.01	1,512.42	66.32	-519.91	524.13	277.27	
1,738.00	38.89	278.92	1,585.52	75.53	-578.29	583.20	277.44	
1,832.00	38.28	278.66	1,659.00	84.49	-636.23	641.81	277.56	
1,926.00	39.33	277.43	1,732.25	92.72	-694.55	700.71	277.60	
2,016.00	39.11	277.17	1,801.97	99.95	-751.00	757.62	277.58	
2,107.00	39.24	277.69	1,872.52	107.39	-808.00	815.10	277.57	
2,197.00	38.54	276.81	1,942.57	114.52	-864.05	871.60	277.55	
2,287.00	37.40	276.02	2,013.52	120.71	-919.07	926.97	277.48	
2,377.00	38.94	275.23	2,084.27	126.16	-974.42	982.55	277.38	
2,467.00	37.84	275.06	2,154.82	131.17	-1,030.09	1,038.40	277.26	
2,558.00	37.13	274.71	2,227.02	135.89	-1,085.26	1,093.74	277.14	
2,649.00	39.16	275.94	2,298.59	141.12	-1,141.22	1,149.91	277.05	
2,739.00	38.14	275.23	2,368.88	146.59	-1,197.16	1,206.10	276.98	
2,830.00	37.57	274.88	2,440.73	151.51	-1,252.79	1,261.92	276.90	
2,921.00	38.72	277.87	2,512.30	157.77	-1,308.63	1,318.11	276.87	
3,011.00	38.28	277.34	2,582.73	165.19	-1,364.16	1,374.13	276.90	
3,102.00	36.95	275.76	2,654.82	171.53	-1,419.34	1,429.66	276.89	
3,194.00	38.19	278.92	2,727.74	178.72	-1,474.95	1,485.74	276.91	
3,286.00	37.27	277.69	2,800.51	186.86	-1,530.66	1,542.02	276.96	
3,376.00	37.70	280.15	2,871.93	195.35	-1,584.75	1,596.75	277.03	
3,467.00	36.78	279.10	2,944.37	204.57	-1,639.04	1,651.76	277.11	
3,557.00	38.54	279.54	3,015.62	213.47	-1,693.30	1,706.71	277.19	
3,648.00	38.63	280.24	3,086.75	223.22	-1,749.21	1,763.40	277.27	
3,738.00	37.44	279.28	3,157.64	232.63	-1,803.86	1,818.80	277.35	
3,830.00	36.96	279.01	3,230.92	241.47	-1,858.77	1,874.39	277.40	
3,921.00	36.12	279.28	3,304.03	250.08	-1,912.27	1,928.55	277.45	
4,013.00	37.35	276.90	3,377.76	257.81	-1,966.74	1,983.56	277.47	
4,105.00	36.21	275.94	3,451.45	263.97	-2,021.47	2,038.64	277.44	
4,197.00	36.85	276.20	3,525.37	269.76	-2,075.93	2,093.38	277.40	
4,288.00	35.33	274.44	3,598.91	274.75	-2,129.29	2,146.95	277.35	
4,380.00	35.77	276.81	3,673.77	279.99	-2,182.52	2,200.40	277.31	
4,472.00	37.92	277.61	3,747.39	286.93	-2,237.24	2,255.57	277.31	
4,563.00	37.40	277.96	3,819.43	294.46	-2,292.33	2,311.16	277.32	
4,655.00	36.87	277.78	3,892.77	302.06	-2,347.34	2,366.70	277.33	
4,746.00	36.25	277.34	3,965.86	309.20	-2,401.08	2,420.90	277.34	
4,838.00	37.22	277.08	4,039.59	316.10	-2,455.67	2,475.93	277.33	
4,930.00	37.00	277.78	4,112.96	323.28	-2,510.71	2,531.44	277.34	
5,022.00	37.13	278.05	4,186.37	330.91	-2,565.63	2,586.88	277.35	
5,113.00	36.87	278.66	4,259.05	338.87	-2,619.82	2,641.64	277.37	
5,204.00	35.82	278.05	4,332.35	346.71	-2,673.17	2,695.56	277.39	

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<b>Well:</b>	NR 33-4	<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 (°)	
5,296.00	36.21	275.76	4,406.76	353.21	-2,726.87	2,749.65	277.38	
5,388.00	35.77	275.94	4,481.20	358.72	-2,780.65	2,803.69	277.35	
5,478.00	34.76	275.41	4,554.69	363.86	-2,832.36	2,855.63	277.32	
5,569.00	36.39	277.34	4,628.70	369.75	-2,884.96	2,908.56	277.30	
5,661.00	37.09	278.57	4,702.43	377.37	-2,939.46	2,963.58	277.32	
5,752.00	36.47	278.84	4,775.31	385.62	-2,993.32	3,018.05	277.34	
5,843.00	35.29	277.52	4,849.04	393.22	-3,046.10	3,071.38	277.36	
5,935.00	34.58	277.52	4,924.47	400.11	-3,098.33	3,124.06	277.36	
6,026.00	33.53	279.28	4,999.86	407.54	-3,148.74	3,175.01	277.37	
6,118.00	31.33	279.72	5,077.51	415.68	-3,197.40	3,224.31	277.41	
6,208.00	30.67	279.72	5,154.65	423.51	-3,243.09	3,270.62	277.44	
6,298.00	28.83	280.68	5,232.79	431.40	-3,287.04	3,315.23	277.48	
6,390.00	28.04	278.75	5,313.69	438.81	-3,330.21	3,359.00	277.51	
6,481.00	26.06	280.15	5,394.73	445.58	-3,371.03	3,400.35	277.53	
6,572.00	25.36	279.54	5,476.72	452.33	-3,409.93	3,439.80	277.56	
6,663.00	23.07	279.98	5,559.71	458.66	-3,446.71	3,477.09	277.58	
6,754.00	22.85	279.86	5,643.50	464.77	-3,481.68	3,512.56	277.60	
6,846.00	21.36	281.03	5,728.74	471.04	-3,515.72	3,547.14	277.63	
6,936.00	20.00	279.54	5,812.94	476.72	-3,546.99	3,578.88	277.65	
7,027.00	19.29	280.07	5,898.64	481.93	-3,577.14	3,609.46	277.67	
7,117.00	18.28	278.13	5,983.84	486.53	-3,605.75	3,638.42	277.68	
7,208.00	17.62	276.29	6,070.42	490.05	-3,633.57	3,666.46	277.68	
7,300.00	16.48	277.61	6,158.37	493.31	-3,660.34	3,693.43	277.68	
7,391.00	14.98	279.89	6,245.96	497.04	-3,684.72	3,718.10	277.68	
7,481.00	13.93	277.87	6,333.11	500.52	-3,706.91	3,740.55	277.69	
7,572.00	13.45	278.66	6,421.53	503.61	-3,728.23	3,762.09	277.69	
7,663.00	11.56	282.26	6,510.36	507.14	-3,747.60	3,781.76	277.71	
7,755.00	10.59	281.12	6,600.65	510.73	-3,764.91	3,799.39	277.73	
7,845.00	9.71	278.31	6,689.24	513.42	-3,780.53	3,815.23	277.73	
7,937.00	8.79	274.97	6,780.04	515.15	-3,795.21	3,830.01	277.73	
8,027.00	7.21	278.22	6,869.17	516.55	-3,807.65	3,842.53	277.73	
8,119.00	6.81	275.94	6,960.48	517.94	-3,818.79	3,853.76	277.72	
8,211.00	5.71	290.61	7,051.93	520.12	-3,828.50	3,863.67	277.74	
8,302.00	3.74	298.79	7,142.62	523.14	-3,835.34	3,870.85	277.77	
8,393.00	3.43	299.67	7,233.44	525.92	-3,840.31	3,876.15	277.80	
8,485.00	1.67	284.64	7,325.35	527.62	-3,844.00	3,880.04	277.82	
8,576.00	1.80	248.60	7,416.31	527.44	-3,846.61	3,882.60	277.81	
8,666.00	1.01	274.62	7,506.28	526.98	-3,848.72	3,884.63	277.80	
8,757.00	1.14	238.41	7,597.27	526.57	-3,850.29	3,886.13	277.79	
8,849.00	1.05	236.03	7,689.25	525.62	-3,851.77	3,887.46	277.77	
8,940.00	1.14	265.21	7,780.24	525.08	-3,853.36	3,888.97	277.76	
9,032.00	0.17	224.17	7,872.23	524.91	-3,854.37	3,889.94	277.76	
9,124.00	0.83	182.86	7,964.23	524.14	-3,854.49	3,889.97	277.74	
9,216.00	1.19	188.13	8,056.21	522.53	-3,854.66	3,889.92	277.72	
9,307.00	1.32	196.92	8,147.19	520.59	-3,855.10	3,890.09	277.69	

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<b>Site:</b>	Sec 3, T6S, R94W	<b>MD Reference:</b>	KB=30' @ 6760.00usft (H&P #329)
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<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 (°)	
9,398.00	1.36	192.62	8,238.16	518.54	-3,855.64	3,890.35	277.66	
9,489.00	1.76	181.01	8,329.13	516.09	-3,855.90	3,890.29	277.62	
9,581.00	0.35	202.64	8,421.11	514.42	-3,856.04	3,890.20	277.60	
9,670.00	0.62	169.32	8,510.11	513.69	-3,856.05	3,890.12	277.59	
9,761.00	1.23	192.09	8,601.10	512.25	-3,856.16	3,890.04	277.57	
9,853.00	1.32	178.64	8,693.08	510.23	-3,856.35	3,889.95	277.54	
9,944.00	1.54	189.54	8,784.05	507.97	-3,856.52	3,889.84	277.50	
10,036.00	1.45	155.44	8,876.02	505.70	-3,856.25	3,889.26	277.47	
10,128.00	1.23	183.74	8,967.99	503.65	-3,855.83	3,888.58	277.44	
10,219.00	1.14	190.68	9,058.97	501.79	-3,856.06	3,888.57	277.41	
10,309.00	1.63	175.83	9,148.95	499.63	-3,856.13	3,888.36	277.38	
10,400.00	2.07	165.02	9,239.90	496.75	-3,855.61	3,887.48	277.34	
10,491.00	2.33	175.21	9,330.83	493.32	-3,855.03	3,886.47	277.29	
10,582.00	2.11	170.20	9,421.77	489.83	-3,854.59	3,885.59	277.24	
10,675.00	2.46	175.48	9,514.69	486.15	-3,854.14	3,884.68	277.19	
10,766.00	2.42	174.42	9,605.61	482.29	-3,853.80	3,883.86	277.13	
10,858.00	2.59	169.41	9,697.52	478.32	-3,853.23	3,882.81	277.08	
10,950.00	2.55	185.85	9,789.43	474.24	-3,853.06	3,882.13	277.02	
10,970.00	2.94	173.81	9,809.41	473.28	-3,853.05	3,882.01	277.00	
11,032.00	2.94	173.81	9,871.33	470.12	-3,852.71	3,881.28	276.96	
TD @ 11032.00' MD / 9871.33' TVD								

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
296.00	295.92	-0.76	-5.87	First MWD Survey @ 296.00' MD / 295.92' TVD	
11,032.00	9,871.33	470.12	-3,852.71	TD @ 11032.00' MD / 9871.33' TVD	