



State of New Mexico

County of Lea

I, Paul Miller, certify that I am employed by DrilTech, LLC. I did on the day(s) of 12/3/16 through 12/17/16 conduct or supervise the taking of the 96 survey(s) from a measured depth of 11,894 feet to a measured depth of 19,722 feet. The data is true, correct, complete, and within the limitations of the tool as set forth by DrilTech, LLC. I am authorized and qualified to make this report, and this/these survey(s) was/were conducted at the request of Endurance Resources, LLC. for the Talco 9 26 35 Fed #3H ST1 API No. 30-025-434580100 in Lea County, New Mexico. I have reviewed this report, and find that it conforms to the principles and procedures as set forth by DrilTech, LLC.

SIGNATURE

DATE

2/22/2017



DrilTech, LLC

MWD Survey Report

Job No: DM-2016-063-ENDT-N

Operator: **Endurance Resources, LLC**
Well Name: **Talco 9 26 35 Fed #3H ST1**
Location: **Lea County, New Mexico**
Rig: **NorAm 23**
Directional Drilling Co: **DrilTech, LLC**
Well API #: **30025434580100**
Tie Into: **DrilTech, LLC**
Tie-In Date: **12/3/2016**
Date Completed: **12/17/2016**

Reference Coordinates: LAT:

32	°	3	'	30.1050	"	N
----	---	---	---	---------	---	---

LON:

103	°	22	'	16.5290	"	W
-----	---	----	---	---------	---	---

Reference Grid Coordinates: X: **839386.00 (ft)**
Y: **386298.00 (ft)**
Reference Grid: **NAD 83**
Zone: **New Mexico Eastern Zone**
(UTM or Lambert): **Lambert**

Survey Vertical Reference: **27.70 (ft)** Rotary Table to Ground Level
Elevation: **3174.13 (ft)** Ground Level to Mean Sea Level
Vertical Section Plane: **359.43 (deg)**

North Alignment: **Grid North**

<u>Magnetic Data</u>	<u>Section 1</u>	<u>Section 2</u>	<u>Section 3</u>	<u>Section 4</u>
Magnetic Declination (deg)	6.92			
Grid (deg)	0.51			
TOTAL CORRECTION (deg)	6.41			
Depth Start (MD Ft)	11894.00			
Depth End (MD Ft)	19722.00			

REMARKS:

SIDETRACK

DRILTECH MWD SURVEY REPORT



Company: Endurance Resources, LLC
 Well: Talco 9 26 35 Fed #3H ST1
 Location: Lea County, New Mexico
 Rig: NorAm 23

Job Number: DM-2016-063-ENDT-NM
 Vertical Section Plane: 359.43
 Well API Number: 300254345580100
 Tie Into: DrilTech, LLC

Calculation Method: Minimum Curvature

Survey #	Survey Tool Type	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates		Closure		Dogleg Severity (d/100')	Build Rate (d/100')	Walk Rate (d/100')
								N/S (ft)	E/W (ft)	Distance (ft)	Angle (deg)			
Tie In	MWD	11894.00	2.80	344.80	94	11891.27	11.99	11.83	N 15.41 W	19.43	307.52	0.34	0.21	-5.74
1	MWD	11983.00	7.70	358.10	89	11979.87	20.05	19.89	N 16.18 W	25.64	320.88	5.64	5.51	14.94
2	MWD	12030.00	10.70	2.40	47	12026.26	27.56	27.40	N 16.10 W	31.78	329.56	6.54	6.38	-756.81
3	MWD	12077.00	13.20	3.70	47	12072.24	37.27	37.12	N 15.57 W	40.25	337.24	5.35	5.32	2.77
4	MWD	12124.00	16.10	1.70	47	12117.71	49.13	48.99	N 15.03 W	51.24	342.94	6.26	6.17	-4.26
5	MWD	12172.00	19.90	359.30	48	12163.35	63.96	63.81	N 14.93 W	65.54	346.83	8.06	7.92	745.00
6	MWD	12219.00	24.10	359.60	47	12206.92	81.56	81.42	N 15.10 W	82.80	349.49	8.94	8.94	0.64
7	MWD	12266.00	27.10	0.40	47	12249.30	101.87	101.72	N 15.09 W	102.83	351.56	6.43	6.38	-764.26
8	MWD	12313.00	30.60	1.80	47	12290.46	124.53	124.39	N 14.64 W	125.25	353.29	7.58	7.45	2.98
9	MWD	12361.00	34.30	1.20	48	12330.96	150.26	150.13	N 13.97 W	150.78	354.68	7.74	7.71	-1.25
10	MWD	12408.00	39.50	359.90	47	12368.53	178.47	178.34	N 13.72 W	178.87	355.60	11.19	11.06	763.19
11	MWD	12455.00	42.30	358.90	47	12404.05	209.24	209.11	N 14.05 W	209.58	356.16	6.12	5.96	-2.13
12	MWD	12502.00	44.60	359.50	47	12438.17	241.56	241.42	N 14.50 W	241.86	356.56	4.97	4.89	1.28
13	MWD	12550.00	49.40	1.30	48	12470.90	276.64	276.52	N 14.23 W	276.88	357.05	10.37	10.00	-746.25
14	MWD	12597.00	53.50	1.50	47	12500.18	313.37	313.25	N 13.33 W	313.54	357.56	8.73	8.72	0.43
15	MWD	12644.00	56.40	0.30	47	12527.17	351.83	351.72	N 12.74 W	351.95	357.93	6.51	6.17	-2.55
16	MWD	12691.00	59.70	0.70	47	12552.04	391.70	391.59	N 12.38 W	391.79	358.19	7.06	7.02	0.85
17	MWD	12738.00	63.80	1.00	47	12574.28	433.08	432.98	N 11.77 W	433.14	358.44	8.74	8.72	0.64
18	MWD	12785.00	69.20	0.40	47	12593.02	476.15	476.06	N 11.25 W	476.20	358.65	11.55	11.49	-1.28
19	MWD	12832.00	72.40	359.70	47	12608.47	520.53	520.44	N 11.21 W	520.56	358.77	6.95	6.81	764.47
20	MWD	12879.00	74.60	358.60	47	12621.82	565.59	565.50	N 11.88 W	565.62	358.80	5.19	4.68	-2.34
21	MWD	12927.00	77.60	357.70	48	12633.35	612.17	612.06	N 13.39 W	612.21	358.75	6.51	6.25	-1.88
22	MWD	12974.00	77.90	357.40	47	12643.32	658.07	657.95	N 15.35 W	658.13	358.66	0.89	0.64	-0.64
23	MWD	13021.00	82.30	358.50	47	12651.40	704.34	704.21	N 17.00 W	704.41	358.62	9.64	9.36	2.34
24	MWD	13068.00	87.00	360.00	47	12655.78	751.12	750.99	N 17.61 W	751.19	358.66	10.49	10.00	3.19
25	MWD	13115.00	89.60	360.00	47	12657.18	798.10	797.96	N 17.61 W	798.16	358.74	5.53	5.53	0.00
26	MWD	13210.00	91.30	358.00	95	12656.43	893.08	892.94	N 19.27 W	893.14	358.76	2.76	1.79	-2.11
27	MWD	13304.00	86.40	351.30	94	12658.32	986.66	986.43	N 28.02 W	986.82	358.37	8.83	-5.21	-7.13
28	MWD	13398.00	90.60	354.60	94	12660.78	1079.99	1079.65	N 39.55 W	1080.37	357.90	5.68	4.47	3.51
29	MWD	13493.00	90.10	357.80	95	12660.20	1174.82	1174.43	N 45.84 W	1175.32	357.76	3.41	-0.53	3.37
30	MWD	13588.00	89.20	0.80	95	12660.78	1269.81	1269.41	N 47.00 W	1270.28	357.88	3.30	-0.95	-375.79
31	MWD	13682.00	91.50	357.60	94	12660.21	1363.79	1363.38	N 48.32 W	1364.23	357.97	4.19	2.45	379.57
32	MWD	13776.00	87.60	356.60	94	12660.94	1457.69	1457.23	N 53.07 W	1458.20	357.91	4.28	-4.15	-1.06
33	MWD	13871.00	86.60	358.60	95	12665.75	1552.51	1552.02	N 57.04 W	1553.07	357.90	2.35	-1.05	2.11



DRILTECH MWD SURVEY REPORT

Company: Endurance Resources, LLC
 Well: Talco 9 26 35 Fed #3H ST1
 Location: Lea County, New Mexico
 Rig: NorAm 23

Job Number: DM-2016-063-ENDT-NM
 Vertical Section Plane: 359.43
 Well API Number: 300254345580100
 Tie Into: DrilTech, LLC

Calculation Method: Minimum Curvature

Survey #	Survey Tool Type	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates		Closure		Dogleg Severity (d/100')	Build Rate (d/100')	Walk Rate (d/100')
								N/S (ft)	E/W (ft)	Distance (ft)	Angle (deg)			
34	MWD	13965.00	88.60	1.30	94	12669.69	1646.41	1645.93 N	57.12 W	1646.92	358.01	3.57	2.13	-380.11
35	MWD	14060.00	91.50	2.10	95	12669.61	1741.33	1740.87 N	54.31 W	1741.72	358.21	3.17	3.05	0.84
36	MWD	14154.00	92.20	1.80	94	12666.57	1835.19	1834.77 N	51.11 W	1835.48	358.40	0.81	0.74	-0.32
37	MWD	14249.00	91.70	1.00	95	12663.34	1930.08	1929.69 N	48.79 W	1930.30	358.55	0.99	-0.53	-0.84
38	MWD	14343.00	89.60	1.30	94	12662.27	2024.02	2023.66 N	46.90 W	2024.20	358.67	2.26	-2.23	0.32
39	MWD	14437.00	90.00	1.70	94	12662.60	2117.96	2117.62 N	44.44 W	2118.09	358.80	0.60	0.43	0.43
40	MWD	14532.00	91.30	2.30	95	12661.52	2212.86	2212.56 N	41.13 W	2212.94	358.94	1.51	1.37	0.63
41	MWD	14626.00	90.40	1.80	94	12660.13	2306.75	2306.48 N	37.77 W	2306.79	359.06	1.10	-0.96	-0.53
42	MWD	14720.00	89.20	1.00	94	12660.46	2400.69	2400.45 N	35.47 W	2400.72	359.15	1.53	-1.28	-0.85
43	MWD	14815.00	92.00	1.40	95	12659.46	2495.63	2495.42 N	33.48 W	2495.64	359.23	2.98	2.95	0.42
44	MWD	14909.00	91.50	0.90	94	12656.59	2589.54	2589.35 N	31.59 W	2589.55	359.30	0.75	-0.53	-0.53
45	MWD	15003.00	90.20	358.30	94	12655.20	2683.52	2683.33 N	32.25 W	2683.53	359.31	3.09	-1.38	380.21
46	MWD	15098.00	90.70	356.60	95	12654.45	2778.46	2778.23 N	36.48 W	2778.47	359.25	1.87	0.53	-1.79
47	MWD	15192.00	93.80	358.90	94	12650.76	2872.33	2872.07 N	40.17 W	2872.35	359.20	4.11	3.30	2.45
48	MWD	15286.00	91.50	357.40	94	12646.41	2966.19	2965.91 N	43.20 W	2966.22	359.17	2.92	-2.45	-1.60
49	MWD	15381.00	92.60	0.20	95	12643.01	3061.11	3060.82 N	45.19 W	3061.15	359.15	3.16	1.16	-376.00
50	MWD	15475.00	86.80	1.00	94	12643.51	3155.05	3154.77 N	44.20 W	3155.08	359.20	6.23	-6.17	0.85
51	MWD	15570.00	86.70	0.70	95	12648.89	3249.87	3249.61 N	42.80 W	3249.89	359.25	0.33	-0.11	-0.32
52	MWD	15664.00	91.50	2.30	94	12650.37	3343.77	3343.53 N	40.34 W	3343.77	359.31	5.38	5.11	1.70
53	MWD	15758.00	90.90	1.10	94	12648.40	3437.67	3437.47 N	37.55 W	3437.67	359.37	1.43	-0.64	-1.28
54	MWD	15853.00	91.50	1.00	95	12646.41	3532.61	3532.43 N	35.81 W	3532.61	359.42	0.64	0.63	-0.11
55	MWD	15947.00	91.50	0.20	94	12643.95	3626.56	3626.39 N	34.82 W	3626.56	359.45	0.85	0.00	-0.85
56	MWD	16041.00	93.70	3.60	94	12639.68	3720.36	3720.22 N	31.71 W	3720.36	359.51	4.30	2.34	3.62
57	MWD	16136.00	90.70	3.40	95	12636.04	3815.04	3814.97 N	25.92 W	3815.05	359.61	3.16	-3.16	-0.21
58	MWD	16230.00	88.50	357.70	94	12636.69	3908.97	3908.92 N	25.02 W	3909.00	359.63	6.50	-2.34	376.91
59	MWD	16324.00	88.50	358.20	94	12639.15	4002.91	4002.82 N	28.38 W	4002.92	359.59	0.53	0.00	0.53
60	MWD	16419.00	88.60	358.40	95	12641.56	4097.86	4097.75 N	31.20 W	4097.87	359.56	0.24	0.11	0.21
61	MWD	16513.00	88.80	357.20	94	12643.69	4191.79	4191.65 N	34.80 W	4191.80	359.52	1.29	0.21	-1.28
62	MWD	16607.00	91.10	355.70	94	12643.77	4285.66	4285.47 N	40.62 W	4285.66	359.46	2.92	2.45	-1.60
63	MWD	16702.00	93.60	357.30	95	12639.88	4380.44	4380.20 N	46.42 W	4380.44	359.39	3.12	2.63	1.68
64	MWD	16796.00	91.90	359.00	94	12635.37	4474.30	4474.03 N	49.45 W	4474.31	359.37	2.56	-1.81	1.81
65	MWD	16890.00	90.30	358.90	94	12633.56	4568.28	4568.00 N	51.17 W	4568.28	359.36	1.71	-1.70	-0.11
66	MWD	16984.00	91.00	4.80	94	12632.50	4662.15	4661.90 N	48.14 W	4662.15	359.41	6.32	0.74	-376.70
67	MWD	17079.00	90.40	7.20	95	12631.34	4756.51	4756.37 N	38.21 W	4756.52	359.54	2.60	-0.63	2.53
68	MWD	17173.00	90.50	11.20	94	12630.60	4849.13	4849.13 N	23.18 W	4849.19	359.73	4.26	0.11	4.26
69	MWD	17268.00	89.70	8.10	95	12630.43	4942.61	4942.78 N	7.26 W	4942.78	359.92	3.37	-0.84	-3.26
70	MWD	17362.00	89.10	359.70	94	12631.42	5036.23	5036.47 N	0.87 W	5036.47	359.99	8.96	-0.64	374.04

Job Number:	DM-2016-063-ENDT-NM
Vertical Section Plane:	359.43
Well API Number:	300254345580100
Tie Into:	DrilTech, LLC

Survey #	Survey Tool Type	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates		Closure		Dogleg Severity (d/100')	Build Rate (d/100')	Walk Rate (d/100')
								N/S (ft)	E/W (ft)	Distance (ft)	Angle (deg)			
71	MWD	17456.00	91.20	359.60	94	12631.17	5130.22	5130.46 N	1.45 W	5130.46	359.98	2.24	2.23	-0.11
72	MWD	17551.00	87.80	352.90	95	12632.00	5225.01	5225.19 N	7.65 W	5225.19	359.92	7.91	-3.58	-7.05
73	MWD	17645.00	92.50	357.60	94	12631.75	5318.70	5318.81 N	15.43 W	5318.84	359.83	7.07	5.00	5.00
74	MWD	17740.00	91.80	355.70	95	12628.19	5413.52	5413.58 N	20.98 W	5413.62	359.78	2.13	-0.74	-2.00
75	MWD	17834.00	86.70	349.10	94	12629.42	5506.72	5506.66 N	33.40 W	5506.76	359.65	8.87	-5.43	-7.02
76	MWD	17929.00	89.70	352.30	95	12632.41	5600.55	5600.35 N	48.74 W	5600.56	359.50	4.62	3.16	3.37
77	MWD	18023.00	92.90	357.50	94	12630.27	5694.19	5693.91 N	57.09 W	5694.19	359.43	6.49	3.40	5.53
78	MWD	18117.00	92.70	358.50	94	12625.68	5788.05	5787.73 N	60.37 W	5788.05	359.40	1.08	-0.21	1.06
79	MWD	18212.00	90.60	356.00	95	12622.94	5882.93	5882.57 N	64.92 W	5882.93	359.37	3.44	-2.21	-2.63
80	MWD	18307.00	90.40	356.80	95	12622.12	5977.79	5977.38 N	70.89 W	5977.80	359.32	0.87	-0.21	0.84
81	MWD	18401.00	93.60	0.30	94	12618.83	6071.70	6071.27 N	73.27 W	6071.71	359.31	5.04	3.40	-379.26
82	MWD	18495.00	90.70	358.50	94	12615.31	6165.62	6165.18 N	74.25 W	6165.63	359.31	3.63	-3.09	381.06
83	MWD	18590.00	89.20	357.40	95	12615.39	6260.58	6260.12 N	77.65 W	6260.60	359.29	1.96	-1.58	-1.16
84	MWD	18684.00	87.80	356.80	94	12617.85	6354.47	6353.96 N	82.40 W	6354.50	359.26	1.62	-1.49	-0.64
85	MWD	18779.00	88.40	357.70	95	12621.00	6449.34	6448.80 N	86.96 W	6449.38	359.23	1.14	0.63	0.95
86	MWD	18873.00	89.50	359.10	94	12622.72	6543.31	6542.74 N	89.58 W	6543.36	359.22	1.89	1.17	1.49
87	MWD	18968.00	89.30	356.30	95	12623.72	6638.25	6637.65 N	93.39 W	6638.31	359.19	2.95	-0.21	-2.95
88	MWD	19062.00	89.10	353.50	94	12625.03	6731.94	6731.26 N	101.75 W	6732.03	359.13	2.99	-0.21	-2.98
89	MWD	19156.00	91.70	357.30	94	12624.38	6825.68	6824.93 N	109.29 W	6825.80	359.08	4.90	2.77	4.04
90	MWD	19250.00	91.20	359.60	94	12622.00	6919.63	6918.86 N	111.83 W	6919.76	359.07	2.50	-0.53	2.45
91	MWD	19344.00	91.20	2.10	94	12620.03	7013.57	7012.82 N	110.43 W	7013.69	359.10	2.66	0.00	-380.32
92	MWD	19439.00	90.90	355.20	95	12618.28	7108.49	7107.72 N	112.67 W	7108.61	359.09	7.27	-0.32	371.68
93	MWD	19533.00	92.50	1.90	94	12615.49	7202.38	7201.59 N	115.05 W	7202.51	359.08	7.32	1.70	-375.85
94	MWD	19628.00	90.90	2.50	95	12612.67	7297.22	7296.48 N	111.40 W	7297.33	359.13	1.80	-1.68	0.63
95	MWD	19667.00	93.70	6.50	39									