



Cimarex Triste Draw 25 Federal #5H MWD Survey 0ft 14396ft Survey Report

(Def Survey)

Report Date: February 02, 2017 - 12:47 PM
Client: Cimarex
Field: NM Lea County (NAD 83)
Structure / Slot: Cimarex Triste Draw 25 Federal #5H / Triste Draw 25 Federal #5H
Well: Triste Draw 25 Federal #5H
Borehole: Original Borehole
UWI / API#: Unknown / Unknown
Survey Name: Cimarex Triste Draw 25 Federal #5H MWD Survey 0ft 14396ft
Survey Date: January 11, 2017
Tort / AHD / DDI / ERD Ratio: 246.768 ° / 5501.324 ft / 6.297 / 0.558
Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 16' 9.58349", W 103° 37' 25.88767"
Location Grid N/E Y/X: N 462439.700 ftUS, E 760623.600 ftUS
CRS Grid Convergence Angle: 0.3788 °
Grid Scale Factor: 0.99996416
Version / Patch: 2.10.254.0

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 9.684 ° (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: RKB
TVD Reference Elevation: 3719.000 ft above MSL
Seabed / Ground Elevation: 3694.000 ft above MSL
Magnetic Declination: 6.929 °
Total Gravity Field Strength: 998.4364mgn (9.80665 Based)
Gravity Model: GARM
Total Magnetic Field Strength: 48216.928 nT
Magnetic Dip Angle: 60.077 °
Declination Date: January 11, 2017
Magnetic Declination Model: HDGM 2016
North Reference: Grid North
Grid Convergence Used: 0.3788 °
Total Corr Mag North->Grid North: 6.5504 °
Local Coord Referenced To: Well Head

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
Tie-In SHL [310' FSL, 1270 FEL]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	462439.70	760623.60	N 32 16 9.58	W 103 37 25.89
	199.00	0.31	34.84	199.00	0.49	0.44	0.31	0.16	462440.14	760623.91	N 32 16 9.59	W 103 37 25.88
	303.00	0.40	36.20	303.00	1.07	0.97	0.68	0.09	462440.67	760624.28	N 32 16 9.59	W 103 37 25.88
	394.00	0.49	22.68	393.99	1.73	1.58	1.02	0.15	462441.28	760624.62	N 32 16 9.60	W 103 37 25.88
	484.00	0.49	21.58	483.99	2.48	2.29	1.31	0.01	462441.99	760624.91	N 32 16 9.61	W 103 37 25.87
	576.00	0.40	12.59	575.99	3.19	2.97	1.52	0.12	462442.67	760625.12	N 32 16 9.61	W 103 37 25.87
	668.00	0.31	6.64	667.99	3.76	3.53	1.62	0.11	462443.23	760625.22	N 32 16 9.62	W 103 37 25.87
	758.00	0.40	33.12	757.98	4.29	4.04	1.82	0.21	462443.74	760625.42	N 32 16 9.62	W 103 37 25.87
	848.00	0.40	14.88	847.98	4.89	4.61	2.08	0.14	462444.31	760625.68	N 32 16 9.63	W 103 37 25.86
	943.00	0.31	18.89	942.98	5.47	5.17	2.24	0.10	462444.87	760625.84	N 32 16 9.63	W 103 37 25.86
	1038.00	0.40	10.56	1037.98	6.06	5.74	2.39	0.11	462445.44	760625.99	N 32 16 9.64	W 103 37 25.86
	1133.00	0.31	17.08	1132.98	6.64	6.31	2.52	0.10	462446.01	760626.12	N 32 16 9.65	W 103 37 25.86
	1227.00	0.40	29.91	1226.98	7.20	6.84	2.76	0.13	462446.54	760626.36	N 32 16 9.65	W 103 37 25.85
	1270.00	0.40	3.85	1269.97	7.49	7.12	2.85	0.42	462446.82	760626.45	N 32 16 9.65	W 103 37 25.85
	1417.00	0.62	15.67	1416.97	8.80	8.40	3.10	0.17	462448.09	760626.70	N 32 16 9.67	W 103 37 25.85
	1511.00	0.88	2.75	1510.96	10.02	9.61	3.27	0.33	462449.31	760626.87	N 32 16 9.68	W 103 37 25.85
	1606.00	0.80	358.21	1605.95	11.39	11.00	3.28	0.11	462450.70	760626.88	N 32 16 9.69	W 103 37 25.85
	1701.00	0.80	358.74	1700.94	12.69	12.32	3.25	0.01	462452.02	760626.85	N 32 16 9.71	W 103 37 25.85
	1795.00	1.10	0.15	1794.93	14.23	13.88	3.24	0.32	462453.58	760626.84	N 32 16 9.72	W 103 37 25.85
	1890.00	1.10	355.12	1889.91	16.01	15.70	3.16	0.10	462455.40	760626.76	N 32 16 9.74	W 103 37 25.85
	1984.00	1.19	351.82	1983.89	17.81	17.57	2.95	0.12	462457.27	760626.54	N 32 16 9.76	W 103 37 25.85
	2078.00	1.19	345.38	2077.87	19.63	19.48	2.56	0.14	462459.18	760626.16	N 32 16 9.78	W 103 37 25.86
	2173.00	1.19	343.09	2172.85	21.41	21.38	2.02	0.05	462461.08	760625.62	N 32 16 9.79	W 103 37 25.86
	2268.00	1.33	347.50	2267.83	23.32	23.40	1.50	0.18	462463.10	760625.10	N 32 16 9.81	W 103 37 25.87
	2363.00	1.50	347.19	2362.80	25.49	25.69	0.98	0.18	462465.38	760624.58	N 32 16 9.84	W 103 37 25.87
	2458.00	1.59	350.10	2457.76	27.88	28.20	0.48	0.13	462467.90	760624.08	N 32 16 9.86	W 103 37 25.88
	2553.00	0.71	57.10	2552.75	29.52	29.81	0.75	1.54	462469.51	760624.35	N 32 16 9.88	W 103 37 25.88

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	2648.00	0.80	60.09	2647.74	30.34	30.46	1.82	0.10	462470.16	760625.42	N 32 16 9.88	W 103 37 25.86
	2743.00	1.10	57.10	2742.73	31.38	31.29	3.16	0.32	462470.99	760626.76	N 32 16 9.89	W 103 37 25.85
	2838.00	1.10	58.29	2837.71	32.60	32.27	4.70	0.02	462471.96	760628.30	N 32 16 9.90	W 103 37 25.83
	2932.00	1.33	57.71	2931.69	33.92	33.32	6.39	0.25	462473.02	760629.99	N 32 16 9.91	W 103 37 25.81
	3027.00	1.33	50.49	3026.66	35.49	34.61	8.17	0.18	462474.31	760631.77	N 32 16 9.93	W 103 37 25.79
	3122.00	1.33	49.47	3121.64	37.17	36.03	9.86	0.02	462475.73	760633.46	N 32 16 9.94	W 103 37 25.77
	3217.00	1.50	46.08	3216.61	39.02	37.61	11.59	0.20	462477.31	760635.19	N 32 16 9.95	W 103 37 25.75
	3311.00	1.40	40.30	3310.58	41.00	39.34	13.22	0.19	462479.04	760636.82	N 32 16 9.97	W 103 37 25.73
	3406.00	1.50	38.15	3405.55	43.09	41.20	14.74	0.12	462480.90	760638.34	N 32 16 9.99	W 103 37 25.71
	3501.00	1.72	35.33	3500.51	45.47	43.34	16.34	0.25	462483.04	760639.93	N 32 16 10.01	W 103 37 25.69
	3596.00	1.72	39.16	3595.47	48.00	45.61	18.06	0.12	462485.31	760641.66	N 32 16 10.03	W 103 37 25.67
	3691.00	1.81	37.93	3690.42	50.56	47.90	19.88	0.10	462487.60	760643.48	N 32 16 10.06	W 103 37 25.65
	3785.00	1.81	41.23	3784.37	53.13	50.19	21.77	0.11	462489.89	760645.37	N 32 16 10.08	W 103 37 25.63
	3880.00	1.81	47.36	3879.33	55.60	52.33	23.87	0.20	462492.03	760647.46	N 32 16 10.10	W 103 37 25.61
	3974.00	1.72	48.37	3973.28	57.87	54.27	26.01	0.10	462493.97	760649.61	N 32 16 10.12	W 103 37 25.58
	4069.00	1.59	48.06	4068.24	60.02	56.10	28.06	0.14	462495.80	760651.66	N 32 16 10.14	W 103 37 25.56
	4163.00	1.59	45.77	4162.21	62.09	57.88	29.96	0.07	462497.58	760653.56	N 32 16 10.15	W 103 37 25.53
	4257.00	1.90	58.68	4256.16	64.17	59.60	32.23	0.53	462499.30	760655.83	N 32 16 10.17	W 103 37 25.51
	4351.00	2.43	75.56	4350.10	66.00	60.91	35.49	0.88	462500.61	760659.09	N 32 16 10.18	W 103 37 25.47
	4446.00	2.12	117.86	4445.03	66.28	60.59	38.99	1.75	462500.29	760662.59	N 32 16 10.18	W 103 37 25.43
	4540.00	2.52	118.66	4538.95	65.06	58.79	42.34	0.43	462498.49	760665.94	N 32 16 10.16	W 103 37 25.39
	4635.00	2.12	142.15	4633.88	63.20	56.40	45.25	1.08	462496.10	760668.85	N 32 16 10.14	W 103 37 25.36
	4730.00	2.61	137.61	4728.79	60.68	53.41	47.79	0.55	462493.11	760671.39	N 32 16 10.11	W 103 37 25.33
	4824.00	2.21	138.93	4822.71	58.22	50.47	50.43	0.43	462490.17	760674.02	N 32 16 10.08	W 103 37 25.30
	4931.00	1.90	142.32	4929.64	55.71	47.51	52.86	0.31	462487.21	760676.46	N 32 16 10.05	W 103 37 25.27
	5102.00	1.50	135.31	5100.57	52.48	43.67	56.17	0.26	462483.37	760679.77	N 32 16 10.01	W 103 37 25.23
	5197.00	2.03	131.79	5195.52	50.86	41.67	58.30	0.57	462481.37	760681.37	N 32 16 9.99	W 103 37 25.21
	5292.00	2.83	130.69	5290.44	48.76	39.02	61.33	0.84	462478.72	760684.93	N 32 16 9.97	W 103 37 25.17
	5387.00	4.11	132.71	5385.26	45.69	35.18	65.61	1.35	462474.88	760689.21	N 32 16 9.93	W 103 37 25.12
	5482.00	4.73	128.31	5479.98	41.96	30.44	71.19	0.74	462470.14	760694.79	N 32 16 9.88	W 103 37 25.06
	5577.00	6.14	122.05	5574.55	38.15	25.32	78.57	1.61	462465.02	760702.17	N 32 16 9.83	W 103 37 24.97
	5672.00	5.52	116.15	5669.06	34.92	20.61	86.98	0.91	462460.31	760710.57	N 32 16 9.78	W 103 37 24.87
	5767.00	6.63	110.86	5763.52	32.55	16.64	96.20	1.31	462456.34	760719.80	N 32 16 9.74	W 103 37 24.77
	5861.00	7.16	107.64	5856.84	30.69	12.93	106.86	0.70	462452.63	760730.45	N 32 16 9.70	W 103 37 24.64
	5956.00	7.95	105.61	5951.02	29.19	9.37	118.83	0.88	462449.07	760742.42	N 32 16 9.67	W 103 37 24.50
	6050.00	9.15	104.12	6043.97	27.93	5.80	132.34	1.30	462445.50	760755.93	N 32 16 9.63	W 103 37 24.35
	6145.00	10.34	103.41	6137.60	26.79	1.98	147.95	1.26	462441.68	760771.55	N 32 16 9.59	W 103 37 24.16
	6240.00	10.08	102.13	6231.09	25.87	-1.75	164.38	0.36	462437.95	760787.97	N 32 16 9.56	W 103 37 23.97
	6334.00	10.25	101.91	6323.62	25.19	-5.20	180.60	0.19	462434.50	760804.19	N 32 16 9.52	W 103 37 23.78
	6429.00	11.36	101.91	6416.93	24.49	-8.88	198.03	1.17	462430.82	760821.62	N 32 16 9.48	W 103 37 23.58
	6524.00	11.05	102.13	6510.12	23.74	-12.72	216.08	0.33	462426.98	760839.67	N 32 16 9.44	W 103 37 23.37
	6618.00	10.25	96.89	6602.50	23.75	-15.62	233.19	1.34	462424.08	760856.78	N 32 16 9.41	W 103 37 23.17
	6712.00	9.46	95.70	6695.12	24.69	-17.39	249.18	0.87	462422.31	760872.77	N 32 16 9.40	W 103 37 22.99
	6807.00	9.24	96.09	6788.85	25.71	-18.97	264.54	0.24	462420.73	760888.13	N 32 16 9.38	W 103 37 22.81
	6902.00	8.75	97.59	6882.69	26.44	-20.73	279.28	0.57	462418.97	760902.87	N 32 16 9.36	W 103 37 22.64
	6997.00	9.85	97.02	6976.44	27.08	-22.68	294.51	1.16	462417.02	760918.10	N 32 16 9.34	W 103 37 22.46
	7093.00	9.85	97.20	7071.02	27.81	-24.71	310.81	0.03	462414.99	760934.40	N 32 16 9.32	W 103 37 22.27
	7188.00	9.54	97.59	7164.66	28.45	-26.77	326.67	0.33	462412.93	760950.26	N 32 16 9.30	W 103 37 22.09
	7283.00	9.85	92.88	7258.31	29.69	-28.22	342.59	0.90	462411.48	760966.18	N 32 16 9.28	W 103 37 21.90
	7377.00	8.75	95.21	7351.07	31.20	-29.27	357.74	1.24	462410.43	760981.33	N 32 16 9.27	W 103 37 21.72
	7472.00	9.63	92.48	7444.85	32.75	-30.27	372.88	1.03	462409.43	760996.46	N 32 16 9.26	W 103 37 21.55
	7567.00	10.96	92.08	7538.32	34.94	-30.95	389.84	1.40	462408.75	761013.43	N 32 16 9.25	W 103 37 21.35
	7663.00	10.96	93.01	7632.57	37.20	-31.76	408.08	0.18	462407.94	761031.66	N 32 16 9.24	W 103 37 21.14
	7759.00	10.47	93.58	7726.90	39.18	-32.78	425.89	0.52	462406.92	761049.48	N 32 16 9.23	W 103 37 20.93
	7855.00	9.94	95.30	7821.38	40.74	-34.09	442.85	0.64	462405.61	761066.43	N 32 16 9.22	W 103 37 20.73
	7949.00	10.56	92.79	7913.88	42.39	-35.26	459.53	0.81	462404.44	761083.11	N 32 16 9.20	W 103 37 20.54
	8044.00	9.94	94.11	8007.36	44.22	-36.27	476.40	0.70	462403.43	761099.99	N 32 16 9.19	W 103 37 20.34
	8139.00	11.05	93.19	8100.77	46.04	-37.36	493.67	1.18	462402.34	761117.26	N 32 16 9.18	W 103 37 20.14

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	8234.00	10.34	94.99	8194.12	47.76	-38.61	511.26	0.83	462401.09	761134.84	N 32 16 9.17	W 103 37 19.94
	8328.00	9.46	96.71	8286.72	48.85	-40.25	527.33	0.99	462399.45	761150.91	N 32 16 9.15	W 103 37 19.75
	8424.00	10.47	98.52	8381.27	49.43	-42.46	543.80	1.10	462397.24	761167.38	N 32 16 9.13	W 103 37 19.56
	8519.00	9.63	100.19	8474.81	49.53	-45.15	560.15	0.94	462394.55	761183.73	N 32 16 9.10	W 103 37 19.37
	8614.00	10.65	98.92	8568.33	49.57	-47.92	576.65	1.10	462391.79	761200.22	N 32 16 9.07	W 103 37 19.18
	8709.00	9.63	99.93	8661.84	49.65	-50.65	593.15	1.09	462389.06	761216.72	N 32 16 9.04	W 103 37 18.98
	8803.00	10.34	98.92	8754.42	49.72	-53.31	609.23	0.78	462386.39	761232.80	N 32 16 9.02	W 103 37 18.80
	8897.00	9.46	100.02	8847.02	49.78	-55.96	625.17	0.96	462383.74	761248.74	N 32 16 8.99	W 103 37 18.61
	8992.00	9.37	96.18	8940.74	50.20	-58.15	640.54	0.67	462381.55	761264.12	N 32 16 8.97	W 103 37 18.43
	9086.00	9.54	92.17	9033.46	51.68	-59.27	655.93	0.72	462380.43	761279.51	N 32 16 8.95	W 103 37 18.25
	9182.00	9.54	91.86	9128.13	53.80	-59.83	671.84	0.05	462379.87	761295.41	N 32 16 8.95	W 103 37 18.07
	9277.00	7.64	93.01	9222.06	55.60	-60.42	686.01	2.01	462379.28	761309.59	N 32 16 8.94	W 103 37 17.90
	9300.00	7.30	91.64	9244.87	55.98	-60.54	689.00	1.67	462379.16	761312.57	N 32 16 8.94	W 103 37 17.87
	9348.00	9.95	77.26	9292.33	57.99	-59.71	696.09	7.08	462379.99	761319.67	N 32 16 8.95	W 103 37 17.79
	9395.00	13.31	55.11	9338.38	63.34	-55.72	704.50	11.77	462383.98	761328.07	N 32 16 8.99	W 103 37 17.69
	9443.00	13.93	45.45	9385.03	71.90	-48.51	713.15	4.91	462391.20	761336.72	N 32 16 9.06	W 103 37 17.59
	9490.00	15.83	29.35	9430.48	82.53	-38.94	720.33	9.64	462400.76	761343.90	N 32 16 9.15	W 103 37 17.50
	9538.00	20.24	13.04	9476.13	97.00	-25.13	725.42	13.89	462414.57	761348.99	N 32 16 9.29	W 103 37 17.44
	9584.00	25.05	2.55	9518.59	114.63	-7.64	727.65	13.62	462432.06	761351.22	N 32 16 9.46	W 103 37 17.41
	9632.00	30.67	358.22	9561.02	136.73	14.77	727.72	12.44	462454.47	761351.29	N 32 16 9.68	W 103 37 17.41
First Legal Take Point	9658.00	30.92	358.24	9583.35	149.78	28.08	727.31	0.96	462467.78	761350.88	N 32 16 9.81	W 103 37 17.42
	9679.00	31.12	358.26	9601.35	160.38	38.89	726.98	0.96	462478.59	761350.55	N 32 16 9.92	W 103 37 17.42
	9710.00	34.60	0.48	9627.38	176.93	55.71	726.81	11.88	462495.41	761350.38	N 32 16 10.09	W 103 37 17.42
	9741.00	38.32	0.74	9652.31	195.12	74.13	727.01	12.01	462513.82	761350.58	N 32 16 10.27	W 103 37 17.42
	9773.00	42.66	1.64	9676.64	215.67	94.89	727.44	13.68	462534.59	761351.02	N 32 16 10.47	W 103 37 17.41
	9804.00	47.49	4.40	9698.53	237.46	116.80	728.62	16.80	462556.50	761352.19	N 32 16 10.69	W 103 37 17.39
	9836.00	52.19	5.92	9719.16	261.83	141.15	730.83	15.13	462580.84	761354.40	N 32 16 10.93	W 103 37 17.37
	9867.00	55.46	9.91	9737.46	286.84	165.92	734.29	14.80	462605.61	761357.87	N 32 16 11.18	W 103 37 17.32
	9898.00	55.23	15.66	9755.10	312.28	190.77	739.93	15.27	462630.46	761363.50	N 32 16 11.42	W 103 37 17.26
	9930.00	56.94	18.83	9772.96	338.60	216.12	747.81	9.80	462655.82	761371.38	N 32 16 11.67	W 103 37 17.16
	9960.00	59.04	19.60	9788.86	363.68	240.14	756.18	7.33	462679.83	761379.75	N 32 16 11.91	W 103 37 17.06
	9991.00	62.29	19.92	9804.05	390.28	265.57	765.32	10.52	462705.26	761388.89	N 32 16 12.16	W 103 37 16.95
	10022.00	67.88	19.57	9817.10	417.95	292.03	774.81	18.06	462731.71	761398.38	N 32 16 12.42	W 103 37 16.84
	10054.00	72.25	17.90	9828.01	447.65	320.51	784.47	14.51	462760.20	761408.04	N 32 16 12.70	W 103 37 16.73
	10085.00	76.92	15.13	9836.25	477.31	349.15	792.95	17.35	462788.84	761416.52	N 32 16 12.99	W 103 37 16.63
	10117.00	82.31	13.47	9842.01	508.67	379.64	800.72	17.60	462819.33	761424.29	N 32 16 13.29	W 103 37 16.53
	10149.00	87.66	12.19	9844.81	540.49	410.71	807.79	17.19	462850.39	761431.36	N 32 16 13.59	W 103 37 16.45
	10181.00	93.34	10.06	9844.53	572.46	442.09	813.96	18.96	462881.78	761437.53	N 32 16 13.90	W 103 37 16.37
	10212.00	95.27	6.88	9842.20	603.36	472.66	818.52	11.97	462912.34	761442.09	N 32 16 14.21	W 103 37 16.32
	10244.00	96.58	5.89	9838.90	635.14	504.29	822.06	5.12	462943.97	761445.63	N 32 16 14.52	W 103 37 16.27
	10275.00	94.03	6.13	9838.03	665.94	534.99	825.29	8.26	462974.67	761448.86	N 32 16 14.82	W 103 37 16.23
	10372.00	92.79	3.40	9830.26	762.40	631.47	833.33	3.09	463071.15	761456.90	N 32 16 15.78	W 103 37 16.13
	10467.00	92.31	359.76	9826.04	856.35	726.32	835.95	3.86	463166.00	761459.51	N 32 16 16.72	W 103 37 16.10
	10562.00	91.24	358.18	9823.09	949.65	821.26	834.24	2.01	463260.93	761457.81	N 32 16 17.66	W 103 37 16.11
	10657.00	91.00	357.97	9821.24	1042.70	916.19	831.05	0.34	463355.85	761454.62	N 32 16 18.59	W 103 37 16.14
	10752.00	90.58	357.20	9819.93	1135.58	1011.09	827.04	0.92	463450.75	761450.61	N 32 16 19.53	W 103 37 16.18
	10846.00	90.00	356.77	9819.45	1227.29	1104.96	822.10	0.77	463544.62	761445.67	N 32 16 20.46	W 103 37 16.23
	10941.00	89.45	356.57	9819.91	1319.86	1199.80	816.58	0.62	463639.45	761440.15	N 32 16 21.40	W 103 37 16.28
	11036.00	89.66	356.27	9820.64	1412.33	1294.61	810.65	0.39	463734.26	761434.22	N 32 16 22.34	W 103 37 16.35
	11131.00	89.89	357.51	9821.18	1504.97	1389.47	805.50	1.31	463829.11	761429.07	N 32 16 23.28	W 103 37 16.40
	11226.00	88.66	359.20	9822.55	1598.11	1484.41	802.77	2.08	463924.06	761426.34	N 32 16 24.22	W 103 37 16.42
	11321.00	87.39	0.93	9825.83	1691.72	1579.35	802.88	2.26	464018.99	761426.45	N 32 16 25.16	W 103 37 16.42
	11415.00	88.73	1.93	9829.01	1784.70	1673.26	805.22	1.78	464112.90	761428.79	N 32 16 26.09	W 103 37 16.38
	11510.00	89.69	1.85	9830.32	1878.81	1768.20	808.35	1.01	464207.84	761431.92	N 32 16 27.03	W 103 37 16.34
	11605.00	87.90	0.64	9832.32	1972.76	1863.15	810.42	2.27	464302.78	761433.99	N 32 16 27.97	W 103 37 16.31
	11699.00	87.73	358.55	9835.90	2065.24	1957.08	809.75	2.23	464396.70	761433.32	N 32 16 28.90	W 103 37 16.31
	11794.00	86.25	357.90	9840.89	2158.22	2051.90	806.82	1.70	464491.52	761430.39	N 32 16 29.83	W 103 37 16.33

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	11888.00	89.28	359.19	9844.55	2250.38	2145.78	804.43	3.50	464585.40	761428.00	N 32 16 30.76	W 103 37 16.35
	11983.00	88.32	0.06	9846.54	2343.90	2240.76	803.81	1.36	464680.37	761427.38	N 32 16 31.70	W 103 37 16.35
	12077.00	85.97	359.95	9851.22	2436.44	2334.64	803.82	2.50	464774.25	761427.39	N 32 16 32.63	W 103 37 16.35
	12173.00	88.11	359.32	9856.18	2530.85	2430.50	803.21	2.32	464870.11	761426.78	N 32 16 33.58	W 103 37 16.35
	12268.00	93.30	358.63	9855.01	2624.16	2525.44	801.51	5.51	464965.05	761425.08	N 32 16 34.52	W 103 37 16.36
	12363.00	91.79	358.04	9850.80	2717.21	2620.31	798.75	1.71	465059.91	761422.32	N 32 16 35.46	W 103 37 16.38
	12458.00	91.82	359.00	9847.80	2810.37	2715.23	796.30	1.01	465154.82	761419.87	N 32 16 36.40	W 103 37 16.40
	12552.00	91.82	0.79	9844.82	2902.96	2809.18	796.13	1.90	465248.77	761419.70	N 32 16 37.33	W 103 37 16.40
	12648.00	90.52	3.79	9842.86	2998.13	2905.07	799.96	3.41	465344.66	761423.53	N 32 16 38.28	W 103 37 16.35
	12742.00	90.79	3.82	9841.78	3091.63	2998.85	806.20	0.29	465438.44	761429.77	N 32 16 39.20	W 103 37 16.27
	12837.00	90.69	2.24	9840.55	3185.99	3093.71	811.22	1.67	465533.29	761434.79	N 32 16 40.14	W 103 37 16.20
	12932.00	90.83	2.18	9839.29	3280.18	3188.63	814.88	0.16	465628.21	761438.45	N 32 16 41.08	W 103 37 16.15
	13028.00	90.41	358.34	9838.26	3374.86	3284.60	815.32	4.02	465724.18	761438.89	N 32 16 42.03	W 103 37 16.14
	13122.00	90.10	357.28	9837.84	3466.86	3378.53	811.73	1.17	465818.11	761435.30	N 32 16 42.96	W 103 37 16.17
	13217.00	89.86	358.24	9837.87	3559.81	3473.46	808.01	1.04	465913.03	761431.58	N 32 16 43.90	W 103 37 16.21
	13312.00	89.45	358.46	9838.44	3652.96	3568.42	805.28	0.49	466007.98	761428.85	N 32 16 44.84	W 103 37 16.23
	13407.00	89.72	0.85	9839.13	3746.51	3663.41	804.71	2.53	466102.97	761428.28	N 32 16 45.78	W 103 37 16.23
	13502.00	89.62	359.58	9839.68	3840.22	3758.40	805.06	1.34	466197.96	761428.63	N 32 16 46.72	W 103 37 16.22
	13596.00	89.73	356.87	9840.21	3932.34	3852.35	802.15	2.89	466291.90	761425.72	N 32 16 47.65	W 103 37 16.25
	13691.00	89.69	357.82	9840.69	4025.15	3947.24	797.75	1.00	466386.79	761421.32	N 32 16 48.59	W 103 37 16.29
	13785.00	89.69	0.54	9841.20	4117.57	4041.22	796.41	2.89	466480.77	761419.98	N 32 16 49.52	W 103 37 16.30
	13879.00	88.14	2.84	9842.98	4210.63	4135.16	799.18	2.95	466574.70	761422.75	N 32 16 50.45	W 103 37 16.26
	13975.00	88.97	5.89	9845.40	4306.18	4230.84	806.48	3.29	466670.38	761430.05	N 32 16 51.39	W 103 37 16.17
	14070.00	88.87	4.58	9847.19	4400.88	4325.42	815.15	1.38	466764.96	761438.72	N 32 16 52.33	W 103 37 16.06
	14165.00	89.24	358.69	9848.76	4494.89	4420.33	817.86	6.21	466859.86	761441.43	N 32 16 53.27	W 103 37 16.02
	14259.00	89.35	357.60	9849.92	4586.99	4514.27	814.81	1.17	466953.80	761438.38	N 32 16 54.20	W 103 37 16.05
Final Survey	14327.00	90.45	356.91	9850.04	4653.40	4582.19	811.56	1.91	467021.72	761435.13	N 32 16 54.87	W 103 37 16.08
Proj to TD	14396.00	90.45	356.91	9849.49	4720.70	4651.09	807.84	0.00	467090.61	761431.41	N 32 16 55.55	W 103 37 16.12

Survey Type: Def Survey

Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7955 sigma
Survey Program:

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	1	0.000	25.000	1/98.425	30.000	30.000	NAL_MWD_PLUS_0.5_DEG- Depth Only	Original Borehole / Cimarex Triste Draw 25 Federal #5H MWD Survey 0ft 14396ft
	1	25.000	25.000	Act Stns	30.000	30.000	NAL_MWD_PLUS_0.5_DEG- Depth Only	Original Borehole / Cimarex Triste Draw 25 Federal #5H MWD Survey 0ft 14396ft
	1	25.000	14396.000	Act Stns	30.000	30.000	NAL_MWD_PLUS_0.5_DEG	Original Borehole / Cimarex Triste Draw 25 Federal #5H MWD