

Cimarex Triste Draw 25 Federal #15H Rev0 RM 22Mar17 Proposal
Geodetic Report
 (Non-Def Plan)



Report Date: March 23, 2017 - 09:08 AM
 Client: Cimarex
 Field: NM Lea County (NAD 83)
 Structure / Slot: Cimarex Triste Draw 25 Federal #15H / Cimarex Triste Draw 25 Federal #15H
 Well: Cimarex Triste Draw 25 Federal #15H
 Borehole: Original Borehole
 UWI / API#: Unknown / Unknown
 Survey Name: Cimarex Triste Draw 25 Federal #15H Rev0 RM 22Mar17
 Survey Date: March 22, 2017
 Tort / AHD / DDI / ERD Ratio: 91.289 ° / 4400.216 ft / 5.758 / 0.448
 Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
 Location Lat / Long: N 32° 16' 11.98578", W 103° 37' 44.68752"
 Location Grid N/E Y/X: N 462671.830 ftUS, E 759007.890 ftUS
 CRS Grid Convergence Angle: 0.3760 °
 Grid Scale Factor: 0.99996336
 Version / Patch: 2.10.254.0

Survey / DLS Computation: Minimum Curvature / Lubinski
 Vertical Section Azimuth: 358.808 ° (Grid North)
 Vertical Section Origin: 0.000 ft, 0.000 ft
 TVD Reference Datum: RKB
 TVD Reference Elevation: 3710.400 ft above MSL
 Seabed / Ground Elevation: 3690.400 ft above MSL
 Magnetic Declination: 6.913 °
 Total Gravity Field Strength: 998.4370mgn (9.80665 Based)
 Gravity Model: GARM
 Total Magnetic Field Strength: 48196.602 nT
 Magnetic Dip Angle: 60.075 °
 Declination Date: March 22, 2017
 Magnetic Declination Model: HDGM 2016
 North Reference: Grid North
 Grid Convergence Used: 0.3760 °
 Total Corr Mag North->Grid North: 6.5373 °
 Local Coord Referenced To: Structure Reference Point

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 ° ' ")
SHL [560' FSL, 2410' FWL]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	462671.83	759007.89	N 32 16 11.99 W 103 37 44.69	
	100.00	0.00	347.35	100.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W 103 37 44.69	
	200.00	0.00	347.35	200.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W 103 37 44.69	
	300.00	0.00	347.35	300.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W 103 37 44.69	
	400.00	0.00	347.35	400.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W 103 37 44.69	
	500.00	0.00	347.35	500.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W 103 37 44.69	
	600.00	0.00	347.35	600.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W 103 37 44.69	
	700.00	0.00	347.35	700.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W 103 37 44.69	
	800.00	0.00	347.35	800.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W 103 37 44.69	
	900.00	0.00	347.35	900.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W 103 37 44.69	
	1000.00	0.00	347.35	1000.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W 103 37 44.69	
	1100.00	0.00	347.35	1100.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W 103 37 44.69	
	1200.00	0.00	347.35	1200.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W 103 37 44.69	
	1300.00	0.00	347.35	1300.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W 103 37 44.69	
	1400.00	0.00	347.35	1400.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W 103 37 44.69	
	1500.00	0.00	347.35	1500.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W 103 37 44.69	
	1600.00	0.00	347.35	1600.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W 103 37 44.69	
	1700.00	0.00	347.35	1700.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W 103 37 44.69	
	1800.00	0.00	347.35	1800.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W 103 37 44.69	
	1900.00	0.00	347.35	1900.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W 103 37 44.69	
	2000.00	0.00	347.35	2000.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W 103 37 44.69	
	2100.00	0.00	347.35	2100.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W 103 37 44.69	
	2200.00	0.00	347.35	2200.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W 103 37 44.69	
	2300.00	0.00	347.35	2300.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W 103 37 44.69	
	2400.00	0.00	347.35	2400.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W 103 37 44.69	
	2500.00	0.00	347.35	2500.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W 103 37 44.69	

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 ° ' ")
	2600.00	0.00	347.35	2600.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
	2700.00	0.00	347.35	2700.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
	2800.00	0.00	347.35	2800.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
	2900.00	0.00	347.35	2900.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
	3000.00	0.00	347.35	3000.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
	3100.00	0.00	347.35	3100.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
	3200.00	0.00	347.35	3200.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
	3300.00	0.00	347.35	3300.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
	3400.00	0.00	347.35	3400.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
	3500.00	0.00	347.35	3500.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
	3600.00	0.00	347.35	3600.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
	3700.00	0.00	347.35	3700.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
	3800.00	0.00	347.35	3800.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
	3900.00	0.00	347.35	3900.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
	4000.00	0.00	347.35	4000.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
	4100.00	0.00	347.35	4100.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
	4200.00	0.00	347.35	4200.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
	4300.00	0.00	347.35	4300.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
	4400.00	0.00	347.35	4400.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
	4500.00	0.00	347.35	4500.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
	4600.00	0.00	347.35	4600.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
	4700.00	0.00	347.35	4700.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
	4800.00	0.00	347.35	4800.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
	4900.00	0.00	347.35	4900.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
	5000.00	0.00	347.35	5000.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
	5100.00	0.00	347.35	5100.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
	5200.00	0.00	347.35	5200.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
	5300.00	0.00	347.35	5300.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
	5400.00	0.00	347.35	5400.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
	5500.00	0.00	347.35	5500.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
	5600.00	0.00	347.35	5600.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
	5700.00	0.00	347.35	5700.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
	5800.00	0.00	347.35	5800.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
	5900.00	0.00	347.35	5900.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
	6000.00	0.00	347.35	6000.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
	6100.00	0.00	347.35	6100.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
	6200.00	0.00	347.35	6200.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
	6300.00	0.00	347.35	6300.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
	6400.00	0.00	347.35	6400.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
	6500.00	0.00	347.35	6500.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
	6600.00	0.00	347.35	6600.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
	6700.00	0.00	347.35	6700.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
	6800.00	0.00	347.35	6800.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
	6900.00	0.00	347.35	6900.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
	7000.00	0.00	347.35	7000.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
	7100.00	0.00	347.35	7100.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
	7200.00	0.00	347.35	7200.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
	7300.00	0.00	347.35	7300.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
	7400.00	0.00	347.35	7400.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
	7500.00	0.00	347.35	7500.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
	7600.00	0.00	347.35	7600.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
	7700.00	0.00	347.35	7700.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
	7800.00	0.00	347.35	7800.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
	7900.00	0.00	347.35	7900.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
	8000.00	0.00	347.35	8000.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
	8100.00	0.00	347.35	8100.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
	8200.00	0.00	347.35	8200.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
	8300.00	0.00	347.35	8300.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
	8400.00	0.00	347.35	8400.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69

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 ° ' ")
	8500.00	0.00	347.35	8500.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
	8600.00	0.00	347.35	8600.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
	8700.00	0.00	347.35	8700.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
	8800.00	0.00	347.35	8800.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
Bone Spring	8830.00	0.00	347.35	8830.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
	8900.00	0.00	347.35	8900.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
	9000.00	0.00	347.35	9000.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
	9100.00	0.00	347.35	9100.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
	9200.00	0.00	347.35	9200.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
	9300.00	0.00	347.35	9300.00	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
Build 12°/100' DLS	9348.07	0.00	347.35	9348.07	0.00	0.00	0.00	0.00	462671.83	759007.89	N 32 16 11.99 W	103 37 44.69
	9400.00	6.23	347.35	9399.90	2.76	2.75	-0.62	12.00	462674.58	759007.27	N 32 16 12.01 W	103 37 44.69
	9500.00	18.23	347.35	9497.45	23.49	23.39	-5.25	12.00	462695.22	759002.64	N 32 16 12.22 W	103 37 44.75
	9600.00	30.23	347.35	9588.47	63.64	63.36	-14.22	12.00	462735.19	758993.67	N 32 16 12.61 W	103 37 44.85
	9700.00	42.23	347.35	9668.99	121.46	120.93	-27.14	12.00	462792.75	758980.75	N 32 16 13.18 W	103 37 44.99
Build & Turn 12°/100' DLS	9723.07	45.00	347.35	9685.69	137.06	136.45	-30.63	12.00	462808.28	758977.27	N 32 16 13.34 W	103 37 45.03
	9800.00	53.88	350.69	9735.67	194.60	193.78	-41.63	12.00	462865.60	758966.26	N 32 16 13.91 W	103 37 45.16
	9900.00	65.52	354.05	9786.05	280.25	279.21	-52.92	12.00	462951.03	758954.97	N 32 16 14.75 W	103 37 45.28
	10000.00	77.23	356.84	9817.93	374.68	373.50	-60.35	12.00	463045.32	758947.54	N 32 16 15.69 W	103 37 45.36
	10100.00	88.97	359.37	9829.92	473.76	472.54	-63.60	12.00	463144.36	758944.29	N 32 16 16.67 W	103 37 45.39
Landing Point	10108.81	90.00	359.59	9830.00	482.57	481.35	-63.68	12.00	463153.16	758944.21	N 32 16 16.75 W	103 37 45.39
	10200.00	90.00	359.59	9830.00	573.75	572.54	-64.33	0.00	463244.35	758943.57	N 32 16 17.66 W	103 37 45.39
	10300.00	90.00	359.59	9830.00	673.75	672.54	-65.03	0.00	463344.34	758942.86	N 32 16 18.64 W	103 37 45.39
	10400.00	90.00	359.59	9830.00	773.74	772.54	-65.74	0.00	463444.34	758942.15	N 32 16 19.63 W	103 37 45.39
	10500.00	90.00	359.59	9830.00	873.73	872.53	-66.45	0.00	463544.33	758941.44	N 32 16 20.62 W	103 37 45.39
	10600.00	90.00	359.59	9830.00	973.72	972.53	-67.16	0.00	463644.32	758940.73	N 32 16 21.61 W	103 37 45.40
	10700.00	90.00	359.59	9830.00	1073.71	1072.53	-67.87	0.00	463744.32	758940.02	N 32 16 22.60 W	103 37 45.40
	10800.00	90.00	359.59	9830.00	1173.70	1172.53	-68.58	0.00	463844.31	758939.31	N 32 16 23.59 W	103 37 45.40
	10900.00	90.00	359.59	9830.00	1273.69	1272.52	-69.29	0.00	463944.30	758938.60	N 32 16 24.58 W	103 37 45.40
	11000.00	90.00	359.59	9830.00	1373.68	1372.52	-70.00	0.00	464044.30	758937.89	N 32 16 25.57 W	103 37 45.40
	11100.00	90.00	359.59	9830.00	1473.67	1472.52	-70.71	0.00	464144.29	758937.18	N 32 16 26.56 W	103 37 45.40
	11200.00	90.00	359.59	9830.00	1573.66	1572.52	-71.42	0.00	464244.28	758936.47	N 32 16 27.55 W	103 37 45.40
	11300.00	90.00	359.59	9830.00	1673.65	1672.51	-72.13	0.00	464344.28	758935.76	N 32 16 28.54 W	103 37 45.40
	11400.00	90.00	359.59	9830.00	1773.64	1772.51	-72.84	0.00	464444.27	758935.05	N 32 16 29.53 W	103 37 45.40
	11500.00	90.00	359.59	9830.00	1873.63	1872.51	-73.55	0.00	464544.27	758934.34	N 32 16 30.52 W	103 37 45.40
	11600.00	90.00	359.59	9830.00	1973.62	1972.51	-74.26	0.00	464644.26	758933.63	N 32 16 31.51 W	103 37 45.40
	11700.00	90.00	359.59	9830.00	2073.61	2072.50	-74.97	0.00	464744.25	758932.93	N 32 16 32.50 W	103 37 45.40
	11800.00	90.00	359.59	9830.00	2173.60	2172.50	-75.68	0.00	464844.25	758932.22	N 32 16 33.49 W	103 37 45.40
	11900.00	90.00	359.59	9830.00	2273.59	2272.50	-76.39	0.00	464944.24	758931.51	N 32 16 34.48 W	103 37 45.40
	12000.00	90.00	359.59	9830.00	2373.59	2372.50	-77.10	0.00	465044.23	758930.80	N 32 16 35.47 W	103 37 45.40
	12100.00	90.00	359.59	9830.00	2473.58	2472.49	-77.81	0.00	465144.23	758930.09	N 32 16 36.46 W	103 37 45.40
	12200.00	90.00	359.59	9830.00	2573.57	2572.49	-78.52	0.00	465244.22	758929.38	N 32 16 37.45 W	103 37 45.41
	12300.00	90.00	359.59	9830.00	2673.56	2672.49	-79.22	0.00	465344.21	758928.67	N 32 16 38.43 W	103 37 45.41
	12400.00	90.00	359.59	9830.00	2773.55	2772.49	-79.93	0.00	465444.21	758927.96	N 32 16 39.42 W	103 37 45.41
	12500.00	90.00	359.59	9830.00	2873.54	2872.48	-80.64	0.00	465544.20	758927.25	N 32 16 40.41 W	103 37 45.41
	12600.00	90.00	359.59	9830.00	2973.53	2972.48	-81.35	0.00	465644.20	758926.54	N 32 16 41.40 W	103 37 45.41
	12700.00	90.00	359.59	9830.00	3073.52	3072.48	-82.06	0.00	465744.19	758925.83	N 32 16 42.39 W	103 37 45.41
	12800.00	90.00	359.59	9830.00	3173.51	3172.47	-82.77	0.00	465844.18	758925.12	N 32 16 43.38 W	103 37 45.41
	12900.00	90.00	359.59	9830.00	3273.50	3272.47	-83.48	0.00	465944.18	758924.41	N 32 16 44.37 W	103 37 45.41
	13000.00	90.00	359.59	9830.00	3373.49	3372.47	-84.19	0.00	466044.17	758923.70	N 32 16 45.36 W	103 37 45.41
	13100.00	90.00	359.59	9830.00	3473.48	3472.47	-84.90	0.00	466144.16	758922.99	N 32 16 46.35 W	103 37 45.41
	13200.00	90.00	359.59	9830.00	3573.47	3572.46	-85.61	0.00	466244.16	758922.28	N 32 16 47.34 W	103 37 45.41
	13300.00	90.00	359.59	9830.00	3673.46	3672.46	-86.32	0.00	466344.15	758921.57	N 32 16 48.33 W	103 37 45.41
	13400.00	90.00	359.59	9830.00	3773.45	3772.46	-87.03	0.00	466444.14	758920.86	N 32 16 49.32 W	103 37 45.41
	13500.00	90.00	359.59	9830.00	3873.44	3872.46	-87.74	0.00	466544.14	758920.15	N 32 16 50.31 W	103 37 45.41
	13600.00	90.00	359.59	9830.00	3973.44	3972.45	-88.45	0.00	466644.13	758919.44	N 32 16 51.30 W	103 37 45.41
	13700.00	90.00	359.59	9830.00	4073.43	4072.45	-89.16	0.00	466744.12	758918.74	N 32 16 52.29 W	103 37 45.41

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 ° ' ")
	13800.00	90.00	359.59	9830.00	4173.42	4172.45	-89.87	0.00	466844.12	758918.03	N 32 16 53.28 W 103 37 45.42	
	13900.00	90.00	359.59	9830.00	4273.41	4272.45	-90.58	0.00	466944.11	758917.32	N 32 16 54.27 W 103 37 45.42	
	14000.00	90.00	359.59	9830.00	4373.40	4372.44	-91.29	0.00	467044.11	758916.61	N 32 16 55.26 W 103 37 45.42	
Cimarex Triste Draw 25 Federal #15H - PBHL [330' FNL, 2350' FWL]	14022.11	90.00	359.59	9830.00	4395.50	4394.55	-91.44	0.00	467066.21	758916.45	N 32 16 55.48 W 103 37 45.42	

Survey Type: Non-Def Plan

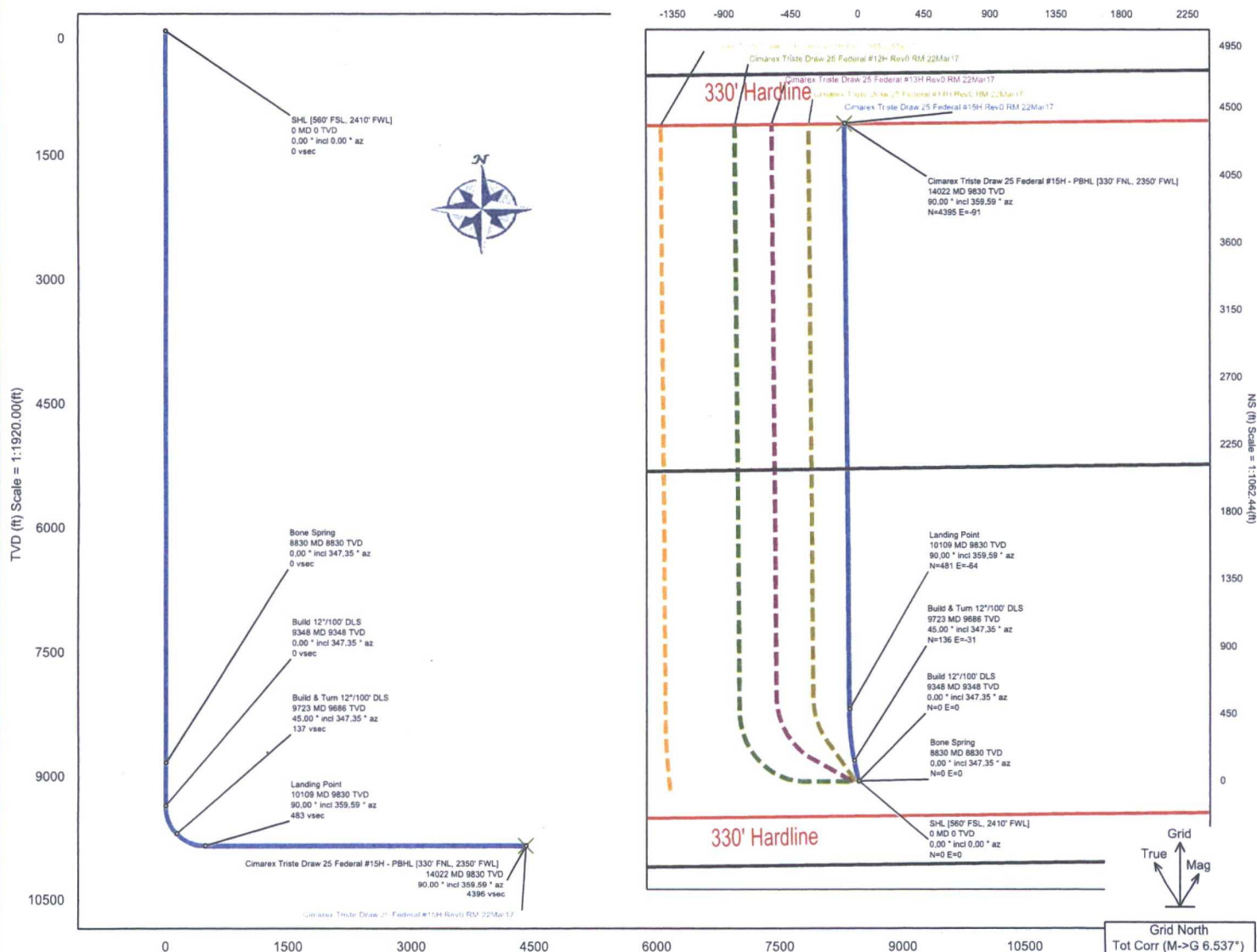
Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7955 sigma
Survey Program:

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Expected Max Inclination (deg)	Survey Tool Type	Borehole / Survey
	1	0.000	20.000	1/100.000	30.000	30.000		NAL_MWD_PLUS_0.5_DEG- Depth Only	Original Borehole / Cimarex Triste Draw 25 Federal #15H Rev0 RM 22Mar17
	1	20.000	14022.106	1/100.000	30.000	30.000		NAL_MWD_PLUS_0.5_DEG	Original Borehole / Cimarex Triste Draw 25 Federal #15H

Borehole:	Well:	Field:	Structure:
Original Borehole	Cimarex Triste Draw 25 Federal #15H	NM Lea County (NAD 83)	Cimarex Triste Draw 25 Federal #15H

Gravity & Magnetic Parameters				Surface Location NAD83 New Mexico State Plane, Eastern Zone, US Feet				Miscellaneous			
Model:	HDGM 2016	Dip:	60.075°	Date:	22-Mar-2017	Lat:	N 32 16 11.99	Northing:	482671.83NUS	Grid Conv:	0.376°
MagDec:	6.913°	FS:	48196.802nT	Gravity FS:	998.437mgm (9.80665 Based)	Lon:	W 103 37 44.69	Eastings:	759007.89NUS	Scale Fact:	0.99996336
								Cimarex Triste Draw 25 Federal #15H Rev0 RM 22Mar17			

EW (ft) Scale = 1:1062.44(R)



Vertical Section (ft) Azim = 358.808° Scale = 1:1920.00(ft) Origin = 0N/-S, 0E/-W

Critical Points

Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+)/S(-)	E(+)/W(-)	DLS
SHL [560' FSL, 2410' FWL]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Bone Spring	8830.00	0.00	347.35	8830.00	0.00	0.00	0.00	0.00
Build 12°/100' DLS	9348.07	0.00	347.35	9348.07	0.00	0.00	0.00	0.00
Build & Turn 12°/100' DLS	9723.07	45.00	347.35	9685.69	137.06	136.45	-30.63	12.00
Landing Point	10108.81	90.00	359.59	9830.00	482.57	481.35	-63.68	12.00
Cimarex Triste Draw 25 Federal #15H - PBHL [330' FNL, 2350' FWL]	14022.11	90.00	359.59	9830.00	4395.50	4394.55	-91.44	0.00