

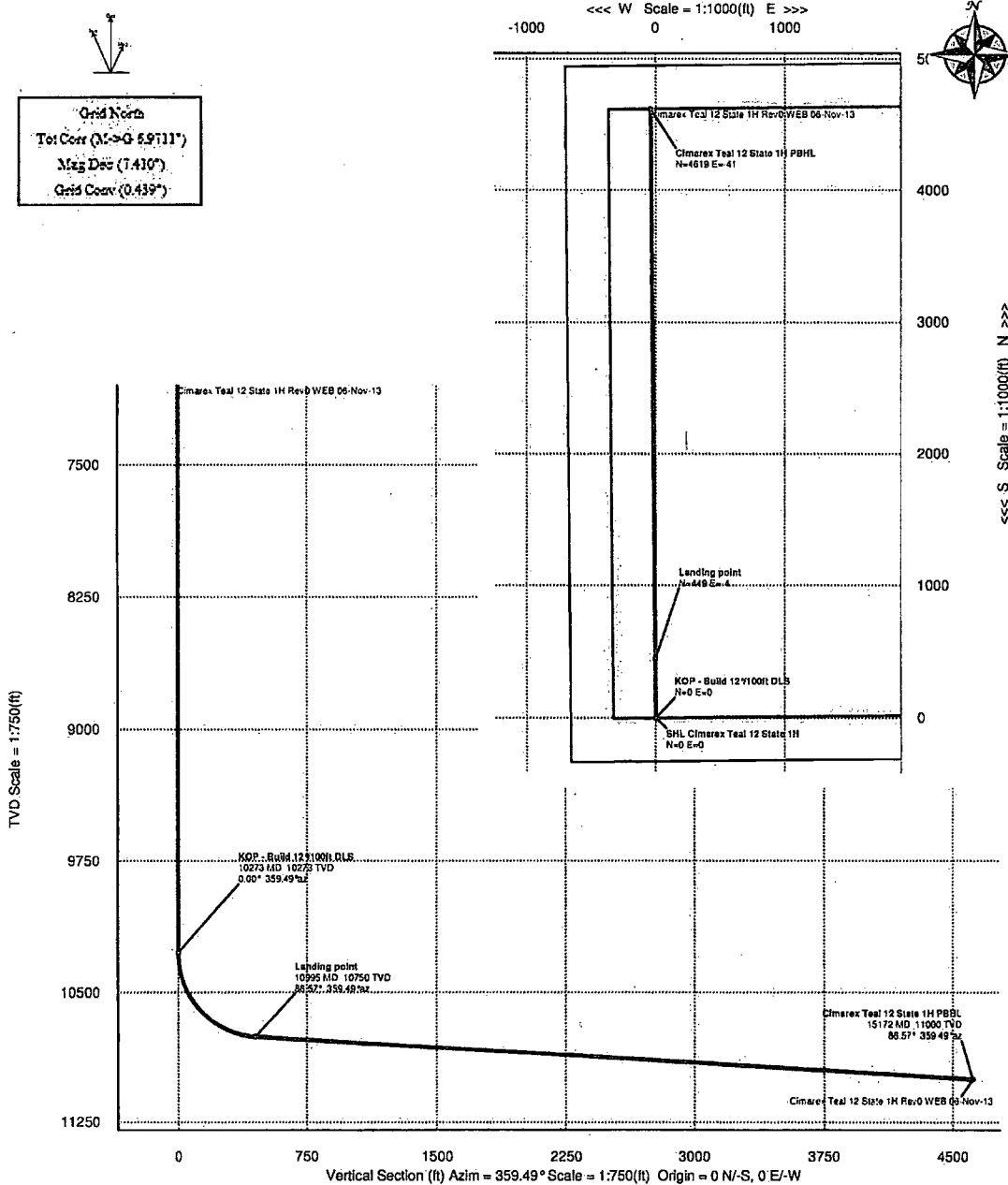


30-025-41857

Cimarex

PATHFINDER
A Schlumberger Company

WELL	Teal 12 State 1H		FIELD	NM Lea County		STRUCTURE	TBD	
Magnetic Parameters Model: BGSV 2013	Dip: 60.53° Mag Dec: 7.110°	Date: November 06, 2013 PS: 42634 DIT	Surface Location Lat: 31 38 43 S 64°45' Lon: W 103 21 12 E 64	Northings 501894.36 (N)	Eastings 791544.00 (E)	Horizontal Datum: NAD83 Scale Factor: 0.99960278	Vertical Datum: NAVD83 Scale Factor: 1.00000000	Grid Zone: 18 S 11 E Grid Easting: 791544.00 Grid Northing: 501894.36



Critical Points

Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+) / S(-)	E(+) / W(-)	DLS
SHL Cimarex Teal 12 State 1H	0.00	0.00	359.49	0.00	0.00	0.00	0.00	
KOP - Build 12°/100ft DLS	10273.39	0.00	359.49	10273.39	0.00	0.00	0.00	0.00
Landing point	10994.80	86.57	359.49	10750.00	448.89	448.88	-3.97	12.00
Cimarex Teal 12 State 1H PBHL	15172.48	86.57	359.49	11000.00	4619.08	4618.90	-40.90	0.00

MAY 29 2014



Cimarex Teal 12 State 1H Rev0 WEB 06-Nov-13 Proposal Report 100'

Interpolated

(Def Plan)



Report Date: November 06, 2013 - 11:39 AM
 Client: Cimarex
 Field: NM Lea County (NAD 83)
 Structure / Slot: TBD / Cimarex Teal 12 State 1H
 Well: Cimarex Teal 12 State 1H
 Borehole: Original Borehole
 UWI / API#: Unknown / Unknown
 Survey Name: Cimarex Teal 12 State 1H Rev0 WEB 06-Nov-13
 Survey Date: November 06, 2013
 Tort / AHD / DDI / ERD Ratio: 86.569 * / 4619.079 ft / 5.742 / 0.420
 Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
 Location Lat / Long: N 32° 40' 6.64553", W 103° 31' 12.86811"
 Location Grid N/E Y/X: N 607894.300 ftUS, E 791544.000 ftUS
 CRS Grid Convergence Angle: 0.4389 *
 Grid Scale Factor: 0.99998078

Survey / DLS Computation: Minimum Curvature / Lubinski
 Vertical Section Azimuth: 359.493 * (Grid North)
 Vertical Section Origin: 0.000 ft, 0.000 ft
 TVD Reference Datum: Ground level
 TVD Reference Elevation: 3958.000 ft above MSL
 Seabed / Ground Elevation: 3958.000 ft above MSL
 Magnetic Declination: 7.410 *
 Total Gravity Field Strength: 998.4712mgn (9.80665 Based)
 Total Magnetic Field Strength: 48633.992 nT
 Magnetic Dip Angle: 60.538 *
 Declination Date: November 06, 2013
 Magnetic Declination Model: BGGM 2013
 North Reference: Grid North
 Grid Convergence Used: 0.4389 *
 Total Corr Mag North->Grid North: 6.9711 *
 Local Coord Referenced To: Structure Reference Point

Comments	MD (ft)	Incl (°)	Azlm Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	Northing (ftUS)	Eastings (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")	Closure (ft)	Closure Azimuth (°)	DLS (ft/100ft)
SHL Cimarex Teal 12 State 1H	0.00	0.00	359.49	0.00	0.00	0.00	0.00	607894.30	791544.00	N 32 40 6.65	W 103 31 12.87	0.00	0.00	N/A
	100.00	0.00	359.49	100.00	0.00	0.00	0.00	607894.30	791544.00	N 32 40 6.65	W 103 31 12.87	0.00	0.00	0.00
	200.00	0.00	359.49	200.00	0.00	0.00	0.00	607894.30	791544.00	N 32 40 6.65	W 103 31 12.87	0.00	0.00	0.00
	300.00	0.00	359.49	300.00	0.00	0.00	0.00	607894.30	791544.00	N 32 40 6.65	W 103 31 12.87	0.00	0.00	0.00
	400.00	0.00	359.49	400.00	0.00	0.00	0.00	607894.30	791544.00	N 32 40 6.65	W 103 31 12.87	0.00	0.00	0.00
	500.00	0.00	359.49	500.00	0.00	0.00	0.00	607894.30	791544.00	N 32 40 6.65	W 103 31 12.87	0.00	0.00	0.00
	600.00	0.00	359.49	600.00	0.00	0.00	0.00	607894.30	791544.00	N 32 40 6.65	W 103 31 12.87	0.00	0.00	0.00
	700.00	0.00	359.49	700.00	0.00	0.00	0.00	607894.30	791544.00	N 32 40 6.65	W 103 31 12.87	0.00	0.00	0.00
	800.00	0.00	359.49	800.00	0.00	0.00	0.00	607894.30	791544.00	N 32 40 6.65	W 103 31 12.87	0.00	0.00	0.00
	900.00	0.00	359.49	900.00	0.00	0.00	0.00	607894.30	791544.00	N 32 40 6.65	W 103 31 12.87	0.00	0.00	0.00
	1000.00	0.00	359.49	1000.00	0.00	0.00	0.00	607894.30	791544.00	N 32 40 6.65	W 103 31 12.87	0.00	0.00	0.00
	1100.00	0.00	359.49	1100.00	0.00	0.00	0.00	607894.30	791544.00	N 32 40 6.65	W 103 31 12.87	0.00	0.00	0.00
	1200.00	0.00	359.49	1200.00	0.00	0.00	0.00	607894.30	791544.00	N 32 40 6.65	W 103 31 12.87	0.00	0.00	0.00
	1300.00	0.00	359.49	1300.00	0.00	0.00	0.00	607894.30	791544.00	N 32 40 6.65	W 103 31 12.87	0.00	0.00	0.00
	1400.00	0.00	359.49	1400.00	0.00	0.00	0.00	607894.30	791544.00	N 32 40 6.65	W 103 31 12.87	0.00	0.00	0.00
	1500.00	0.00	359.49	1500.00	0.00	0.00	0.00	607894.30	791544.00	N 32 40 6.65	W 103 31 12.87	0.00	0.00	0.00
	1600.00	0.00	359.49	1600.00	0.00	0.00	0.00	607894.30	791544.00	N 32 40 6.65	W 103 31 12.87	0.00	0.00	0.00
	1700.00	0.00	359.49	1700.00	0.00	0.00	0.00	607894.30	791544.00	N 32 40 6.65	W 103 31 12.87	0.00	0.00	0.00
	1800.00	0.00	359.49	1800.00	0.00	0.00	0.00	607894.30	791544.00	N 32 40 6.65	W 103 31 12.87	0.00	0.00	0.00
	1900.00	0.00	359.49	1900.00	0.00	0.00	0.00	607894.30	791544.00	N 32 40 6.65	W 103 31 12.87	0.00	0.00	0.00
	2000.00	0.00	359.49	2000.00	0.00	0.00	0.00	607894.30	791544.00	N 32 40 6.65	W 103 31 12.87	0.00	0.00	0.00
	2100.00	0.00	359.49	2100.00	0.00	0.00	0.00	607894.30	791544.00	N 32 40 6.65	W 103 31 12.87	0.00	0.00	0.00
	2200.00	0.00	359.49	2200.00	0.00	0.00	0.00	607894.30	791544.00	N 32 40 6.65	W 103 31 12.87	0.00	0.00	0.00
	2300.00	0.00	359.49	2300.00	0.00	0.00	0.00	607894.30	791544.00	N 32 40 6.65	W 103 31 12.87	0.00	0.00	0.00
	2400.00	0.00	359.49	2400.00	0.00	0.00	0.00	607894.30	791544.00	N 32 40 6.65	W 103 31 12.87	0.00	0.00	0.00
	2500.00	0.00	359.49	2500.00	0.00	0.00	0.00	607894.30	791544.00	N 32 40 6.65	W 103 31 12.87	0.00	0.00	0.00
	2600.00	0.00	359.49	2600.00	0.00	0.00	0.00	607894.30	791544.00	N 32 40 6.65	W 103 31 12.87	0.00	0.00	0.00
	2700.00	0.00	359.49	2700.00	0.00	0.00	0.00	607894.30	791544.00	N 32 40 6.65	W 103 31 12.87	0.00	0.00	0.00
	2800.00	0.00	359.49	2800.00	0.00	0.00	0.00	607894.30	791544.00	N 32 40 6.65	W 103 31 12.87	0.00	0.00	0.00
	2900.00	0.00	359.49	2900.00	0.00	0.00	0.00	607894.30	791544.00	N 32 40 6.65	W 103 31 12.87	0.00	0.00	0.00

[illegible]

Comments	MD (ft)	Incl (°)	Adm Grd (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	Northg (NUS)	Easting (NUS)	Latitude (NUS...)	Longitude (E/W...)	Closure (ft)	Closure Azimuth (°)	DLS (°/100ft)
KOP - Build 127100ft DLS	8500.00	0.00	359.49	8500.00	0.00	0.00	0.00	607894.30	791544.00	N 32.40 6.65	W 103.31 12.87	0.00	0.00	0.00
	8600.00	0.00	359.49	8600.00	0.00	0.00	0.00	607894.30	791544.00	N 32.40 6.65	W 103.31 12.87	0.00	0.00	0.00
	8700.00	0.00	359.49	8700.00	0.00	0.00	0.00	607894.30	791544.00	N 32.40 6.65	W 103.31 12.87	0.00	0.00	0.00
	8800.00	0.00	359.49	8800.00	0.00	0.00	0.00	607894.30	791544.00	N 32.40 6.65	W 103.31 12.87	0.00	0.00	0.00
	8900.00	0.00	359.49	8900.00	0.00	0.00	0.00	607894.30	791544.00	N 32.40 6.65	W 103.31 12.87	0.00	0.00	0.00
	9000.00	0.00	359.49	9000.00	0.00	0.00	0.00	607894.30	791544.00	N 32.40 6.65	W 103.31 12.87	0.00	0.00	0.00
	9100.00	0.00	359.49	9100.00	0.00	0.00	0.00	607894.30	791544.00	N 32.40 6.65	W 103.31 12.87	0.00	0.00	0.00
	9200.00	0.00	359.49	9200.00	0.00	0.00	0.00	607894.30	791544.00	N 32.40 6.65	W 103.31 12.87	0.00	0.00	0.00
	9300.00	0.00	359.49	9300.00	0.00	0.00	0.00	607894.30	791544.00	N 32.40 6.65	W 103.31 12.87	0.00	0.00	0.00
	9400.00	0.00	359.49	9400.00	0.00	0.00	0.00	607894.30	791544.00	N 32.40 6.65	W 103.31 12.87	0.00	0.00	0.00
Landing point	9500.00	0.00	359.49	9500.00	0.00	0.00	0.00	607894.30	791544.00	N 32.40 6.65	W 103.31 12.87	0.00	0.00	0.00
	9600.00	0.00	359.49	9600.00	0.00	0.00	0.00	607894.30	791544.00	N 32.40 6.65	W 103.31 12.87	0.00	0.00	0.00
	9700.00	0.00	359.49	9700.00	0.00	0.00	0.00	607894.30	791544.00	N 32.40 6.65	W 103.31 12.87	0.00	0.00	0.00
	9800.00	0.00	359.49	9800.00	0.00	0.00	0.00	607894.30	791544.00	N 32.40 6.65	W 103.31 12.87	0.00	0.00	0.00
	9900.00	0.00	359.49	9900.00	0.00	0.00	0.00	607894.30	791544.00	N 32.40 6.65	W 103.31 12.87	0.00	0.00	0.00
	10000.00	0.00	359.49	10000.00	0.00	0.00	0.00	607894.30	791544.00	N 32.40 6.65	W 103.31 12.87	0.00	0.00	0.00
	10100.00	0.00	359.49	10100.00	0.00	0.00	0.00	607894.30	791544.00	N 32.40 6.65	W 103.31 12.87	0.00	0.00	0.00
	10200.00	0.00	359.49	10200.00	0.00	0.00	0.00	607894.30	791544.00	N 32.40 6.65	W 103.31 12.87	0.00	0.00	0.00
	10273.39	0.00	359.49	10273.39	0.00	0.00	0.00	607894.30	791544.00	N 32.40 6.65	W 103.31 12.87	0.00	0.00	0.00
	10300.00	3.19	359.49	10299.99	0.74	0.74	-0.01	607895.04	791543.99	N 32.40 6.65	W 103.31 12.87	0.74	359.49	12.00
Landing point	10400.00	15.19	359.49	10398.52	16.69	16.69	-0.15	607910.99	791543.95	N 32.40 6.81	W 103.31 12.87	16.69	359.49	12.00
	10500.00	27.19	359.49	10491.59	52.77	52.77	-0.47	607947.07	791543.53	N 32.40 7.17	W 103.31 12.87	52.77	359.49	12.00
	10600.00	39.19	359.49	10575.12	107.42	107.42	-0.95	608017.71	791543.05	N 32.40 7.71	W 103.31 12.87	107.42	359.49	12.00
	10700.00	51.19	359.49	10645.46	178.24	178.23	-1.58	608072.53	791542.42	N 32.40 8.41	W 103.31 12.87	178.24	359.49	12.00
	10800.00	63.19	359.49	10699.54	262.13	262.12	-2.32	608156.42	791541.88	N 32.40 9.24	W 103.31 12.87	262.13	359.49	12.00
	10900.00	75.19	359.49	10735.00	355.44	355.43	-3.15	608249.72	791540.85	N 32.40 10.16	W 103.31 12.87	355.44	359.49	12.00
	10994.89	86.57	359.49	10750.00	448.89	448.88	-3.97	608343.17	791540.03	N 32.40 11.09	W 103.31 12.87	448.89	359.49	12.00
	11000.00	86.57	359.49	10750.31	454.08	454.06	-4.02	608348.35	791539.98	N 32.40 11.14	W 103.31 12.87	454.08	359.49	0.00
	11100.00	86.57	359.49	10756.30	553.90	553.88	-4.90	608448.17	791539.10	N 32.40 12.13	W 103.31 12.88	553.90	359.49	0.00
	11200.00	86.57	359.49	10762.28	653.72	653.69	-5.79	608479.98	791538.21	N 32.40 13.11	W 103.31 12.88	653.72	359.49	0.00
Landing point	11300.00	86.57	359.49	10768.27	753.54	753.51	-6.67	608647.80	791537.33	N 32.40 14.10	W 103.31 12.88	753.54	359.49	0.00
	11400.00	86.57	359.49	10774.25	853.36	853.33	-7.56	608747.61	791536.44	N 32.40 15.09	W 103.31 12.88	853.36	359.49	0.00
	11500.00	86.57	359.49	10780.23	953.18	953.15	-8.44	608847.43	791535.56	N 32.40 16.08	W 103.31 12.88	953.18	359.49	0.00
	11600.00	86.57	359.49	10786.22	1053.00	1052.96	-9.32	608947.24	791534.68	N 32.40 17.06	W 103.31 12.88	1053.00	359.49	0.00
	11700.00	86.57	359.49	10792.20	1152.82	1152.78	-10.21	609047.05	791533.79	N 32.40 18.05	W 103.31 12.88	1152.82	359.49	0.00
	11800.00	86.57	359.49	10798.19	1252.65	1252.60	-11.09	609146.87	791532.91	N 32.40 19.04	W 103.31 12.89	1252.65	359.49	0.00
	11900.00	86.57	359.49	10804.17	1352.47	1352.41	-11.98	609246.68	791532.02	N 32.40 20.03	W 103.31 12.89	1352.47	359.49	0.00
	12000.00	86.57	359.49	10810.16	1452.29	1452.23	-12.86	609346.50	791531.14	N 32.40 21.02	W 103.31 12.89	1452.29	359.49	0.00
	12100.00	86.57	359.49	10816.14	1552.11	1552.05	-13.74	609446.31	791530.26	N 32.40 22.00	W 103.31 12.89	1552.11	359.49	0.00
	12200.00	86.57	359.49	10822.12	1651.93	1651.86	-14.63	609546.13	791529.37	N 32.40 22.99	W 103.31 12.89	1651.93	359.49	0.00
Landing point	12300.00	86.57	359.49	10828.11	1751.75	1751.68	-15.51	609645.94	791528.49	N 32.40 23.98	W 103.31 12.89	1751.75	359.49	0.00
	12400.00	86.57	359.49	10834.09	1851.57	1851.50	-16.40	609745.76	791527.61	N 32.40 24.97	W 103.31 12.89	1851.57	359.49	0.00
	12500.00	86.57	359.49	10840.08	1951.39	1951.31	-17.28	609845.57	791526.72	N 32.40 25.95	W 103.31 12.90	1951.39	359.49	0.00
	12600.00	86.57	359.49	10846.06	2051.21	2051.13	-18.16	609945.39	791525.84	N 32.40 26.94	W 103.31 12.90	2051.21	359.49	0.00
	12700.00	86.57	359.49	10852.04	2151.03	2150.95	-19.05	610045.20	791524.95	N 32.40 27.93	W 103.31 12.90	2151.03	359.49	0.00
	12800.00	86.57	359.49	10858.03	2250.85	2250.76	-19.93	610145.02	791524.07	N 32.40 28.92	W 103.31 12.90	2250.85	359.49	0.00
	12900.00	86.57	359.49	10864.01	2350.67	2350.58	-20.81	610244.83	791523.19	N 32.40 29.90	W 103.31 12.90	2350.67	359.49	0.00
	13000.00	86.57	359.49	10870.00	2450.49	2450.40	-21.70	610344.65	791522.30	N 32.40 30.88	W 103.31 12.90	2450.49	359.49	0.00
	13100.00	86.57	359.49	10875.98	2550.32	2550.22	-22.58	610444.46	791521.42	N 32.40 31.86	W 103.31 12.90	2550.32	359.49	0.00
	13200.00	86.57	359.49	10881.96	2650.14	2650.03	-23.47	610544.28	791520.53	N 32.40 32.87	W 103.31 12.91	2650.14	359.49	0.00
Landing point	13300.00	86.57	359.49	10887.95	2749.96	2749.85	-24.35	610644.09	791519.65	N 32.40 33.85	W 103.31 12.91	2749.96	359.49	0.00
	13400.00	86.57	359.49	10893.93	2849.78	2849.67	-25.23	610743.91	791518.77	N 32.40 34.84	W 103.31 12.91	2849.78	359.49	0.00
	13500.00	86.57	359.49	10899.92	2949.60	2949.48	-26.12	610843.72	791517.88	N 32.40 35.83	W 103.31 12.91	2949.60	359.49	0.00
	13600.00	86.57	359.49	10905.90	3049.42	3049.30	-27.00	610943.54	791517.00	N 32.40 36.82	W 103.31 12.91	3049.42	359.49	0.00

Comments	MD (ft)	Incl (°)	Azim Grd (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")	Closure (ft)	Closure Azimuth (°)	DLS (*/100ft)
	13700.00	86.57	359.49	10911.89	3149.24	3149.12	-27.89	611043.35	791516.11	N 32 40 37.81	W 103 31 12.91	3149.24	359.49	0.00
	13800.00	86.57	359.49	10917.87	3249.06	3248.93	-28.77	611143.16	791515.23	N 32 40 38.79	W 103 31 12.91	3249.06	359.49	0.00
	13900.00	86.57	359.49	10923.85	3348.88	3348.75	-29.65	611242.98	791514.35	N 32 40 39.78	W 103 31 12.91	3348.88	359.49	0.00
	14000.00	86.57	359.49	10929.84	3448.70	3448.57	-30.54	611342.79	791513.46	N 32 40 40.77	W 103 31 12.92	3448.70	359.49	0.00
	14100.00	86.57	359.49	10935.82	3548.52	3548.38	-31.42	611442.61	791512.58	N 32 40 41.76	W 103 31 12.92	3548.52	359.49	0.00
	14200.00	86.57	359.49	10941.81	3648.34	3648.20	-32.31	611542.42	791511.70	N 32 40 42.74	W 103 31 12.92	3648.34	359.49	0.00
	14300.00	86.57	359.49	10947.79	3748.16	3748.02	-33.19	611642.24	791510.81	N 32 40 43.73	W 103 31 12.92	3748.16	359.49	0.00
	14400.00	86.57	359.49	10953.77	3847.99	3847.83	-34.07	611742.05	791509.93	N 32 40 44.72	W 103 31 12.92	3847.99	359.49	0.00
	14500.00	86.57	359.49	10959.76	3947.81	3947.65	-34.96	611841.87	791509.04	N 32 40 45.71	W 103 31 12.92	3947.81	359.49	0.00
	14600.00	86.57	359.49	10965.74	4047.63	4047.47	-35.84	611941.68	791508.16	N 32 40 46.69	W 103 31 12.92	4047.63	359.49	0.00
	14700.00	86.57	359.49	10971.73	4147.45	4147.29	-36.72	612041.50	791507.28	N 32 40 47.68	W 103 31 12.93	4147.45	359.49	0.00
	14800.00	86.57	359.49	10977.71	4247.27	4247.10	-37.61	612141.31	791506.39	N 32 40 48.67	W 103 31 12.93	4247.27	359.49	0.00
	14900.00	86.57	359.49	10983.69	4347.09	4346.92	-38.49	612241.13	791505.51	N 32 40 49.66	W 103 31 12.93	4347.09	359.49	0.00
	15000.00	86.57	359.49	10989.68	4446.91	4446.74	-39.38	612340.94	791504.62	N 32 40 50.65	W 103 31 12.93	4446.91	359.49	0.00
	15100.00	86.57	359.49	10995.66	4546.73	4546.55	-40.26	612440.76	791503.74	N 32 40 51.63	W 103 31 12.93	4546.73	359.49	0.00
Cimarex Teal 12 State 1H PBHL	15172.48	86.57	359.49	11000.00	4619.08	4618.90	-40.90	612513.10	791503.10	N 32 40 52.35	W 103 31 12.93	4619.08	359.49	0.00

Survey Type: Def Plan

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

Description	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	0.000	10273.390	1/100.000	30.000	30.000	SLB_MWD-POOR	Original Borehole / Cimarex Teal 12 State 1H Rev0 WEB 06-Nov-
	10273.390	15172.478	1/100.000	30.000	30.000	SLB_MWD-STD	Original Borehole / Cimarex Teal 12 State 1H Rev0 WEB 06-Nov-