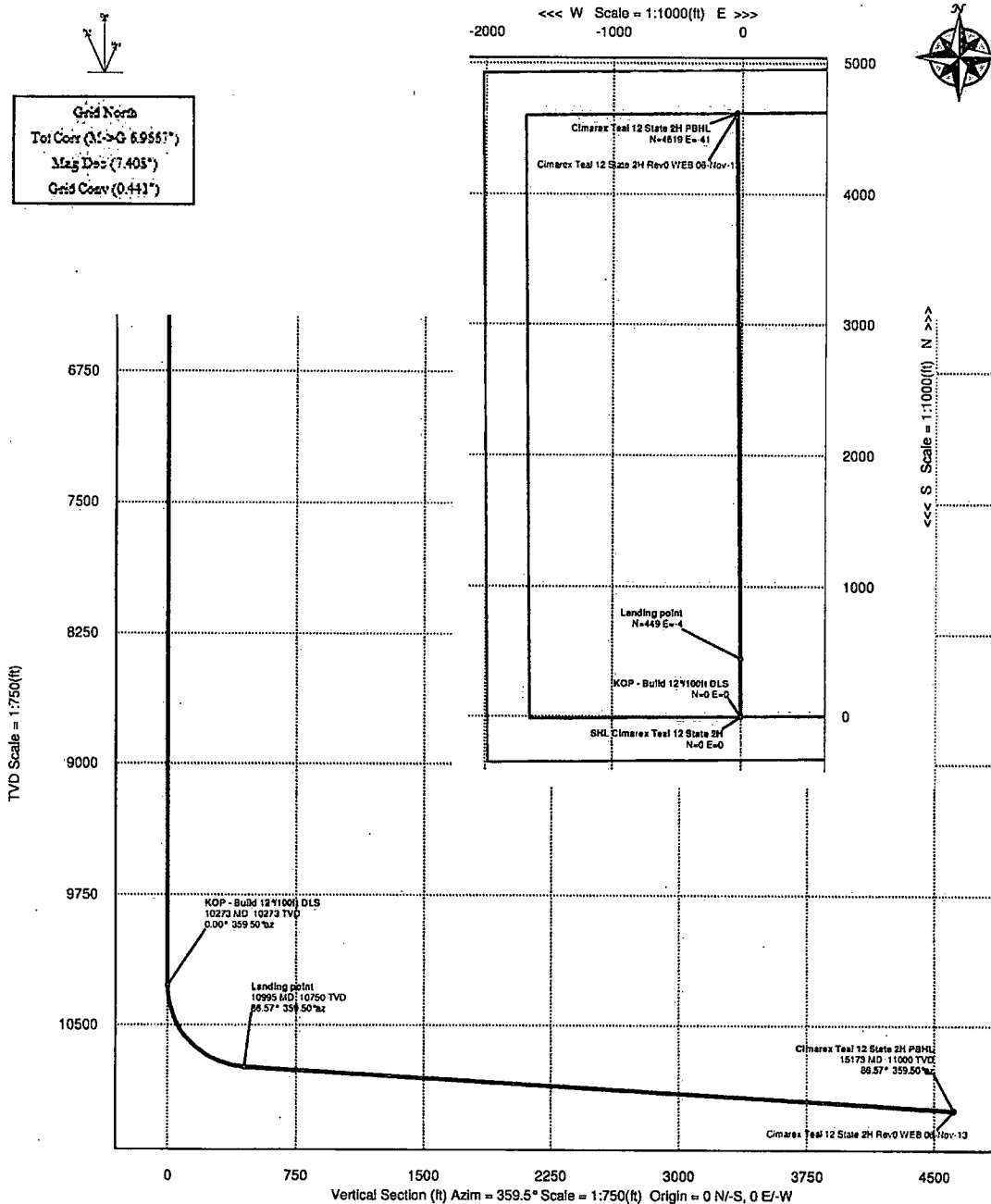




30-025-41838
Cimarex

PATHFINDER
A Schlumberger Company

WELL Teal 12 State 2H			FIELD NM Lea County			STRUCTURE TBD		
Logistics Parameters	Drp	80.531"	Drp	80.531"	Drp	80.531"	Drp	80.531"
Modif	MODU 2012	Map Dec	7.456"	Map Dec	7.456"	Map Dec	7.456"	Map Dec
Surface Location	Lat	34 40 4.879	Long	107 20 31.413	Alt	6070.70 DLS	Grd Elev	6070.70 DLS
Macroframe	Site	Cimarex Teal 12 State 2H	TVD Ref	Ground level (P561) above MSL	Grd Elev	6070.70 DLS	Grd Elev	6070.70 DLS



Critical Points								
Critical Point MD	INCL	AZIM	TVD	VSEC	N(+)/S(-)	E(+)/W(-)	DLS	
SHL Cimarex Teal 12 State 2H	0.00	0.00	359.50	0.00	0.00	0.00	0.00	
KOP - Build 12°/100ft DLS	10273.39	0.00	359.50	10273.39	0.00	0.00	0.00	0.00
Landing point	10994.81	86.57	359.50	10750.00	448.90	448.88	-3.95	12.00
Cimarex Teal 12 State 2H PBHL	15173.07	86.57	359.50	11000.00	4619.67	4619.49	-40.70	0.00

MAY 29 2014



Cimarex Teal 12 State 2H Rev0 WEB 06-Nov-13 Proposal Report 100'
Interpolated
(Non-Def Plan)



Report Date: November 06, 2013 - 10:53 AM
Client: Cimarex
Field: NM Lea County (NAD 83)
Structure / Slot: TBD / Cimarex Teal 12 State 2H
Well: Cimarex Teal 12 State 2H
Borehole: Original Borehole
UWI / API#: Unknown / Unknown
Survey Name: Cimarex Teal 12 State 2H Rev0 WEB 06-Nov-13
Survey Date: November 06, 2013
Tort / AHD / DDI / ERD Ratio: 86.570 * / 4619.674 ft / 5.742 / 0.420
Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 40' 6.67289", W 103° 30' 57.43165"
Location Grid N/E Y/X: N 607907.200 ftUS, E 792863.500 ftUS
CRS Grid Convergence Angle: 0.4412 *
Grid Scale Factor: 0.99998154

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 359.495 * (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: Ground level
TVD Reference Elevation: 3955.000 ft above MSL
Seabed / Ground Elevation: 3955.000 ft above MSL
Magnetic Declination: 7.408 *
Total Gravity Field Strength: 998.4715mgn (9.80665 Based)
Total Magnetic Field Strength: 48634.538 nT
Magnetic Dip Angle: 60.539 *
Declination Date: November 06, 2013
Magnetic Declination Model: BGGM 2013
North Reference: Grid North
Grid Convergence Used: 0.4412 *
Total Corr Mag North->Grid North: 6.9667 *
Local Coord Referenced To: Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")	Closure (ft)	Closure Azimuth (°)	DLS (ft/100ft)
SHL Cimarex Teal 12 State 2H	0.00	0.00	359.50	0.00	0.00	0.00	0.00	607907.20	792863.50	N 32 40 6.67	W 103 30 57.43	0.00	0.00	N/A
	100.00	0.00	359.50	100.00	0.00	0.00	0.00	607907.20	792863.50	N 32 40 6.67	W 103 30 57.43	0.00	0.00	0.00
	200.00	0.00	359.50	200.00	0.00	0.00	0.00	607907.20	792863.50	N 32 40 6.67	W 103 30 57.43	0.00	0.00	0.00
	300.00	0.00	359.50	300.00	0.00	0.00	0.00	607907.20	792863.50	N 32 40 6.67	W 103 30 57.43	0.00	0.00	0.00
	400.00	0.00	359.50	400.00	0.00	0.00	0.00	607907.20	792863.50	N 32 40 6.67	W 103 30 57.43	0.00	0.00	0.00
	500.00	0.00	359.50	500.00	0.00	0.00	0.00	607907.20	792863.50	N 32 40 6.67	W 103 30 57.43	0.00	0.00	0.00
	600.00	0.00	359.50	600.00	0.00	0.00	0.00	607907.20	792863.50	N 32 40 6.67	W 103 30 57.43	0.00	0.00	0.00
	700.00	0.00	359.50	700.00	0.00	0.00	0.00	607907.20	792863.50	N 32 40 6.67	W 103 30 57.43	0.00	0.00	0.00
	800.00	0.00	359.50	800.00	0.00	0.00	0.00	607907.20	792863.50	N 32 40 6.67	W 103 30 57.43	0.00	0.00	0.00
	900.00	0.00	359.50	900.00	0.00	0.00	0.00	607907.20	792863.50	N 32 40 6.67	W 103 30 57.43	0.00	0.00	0.00
	1000.00	0.00	359.50	1000.00	0.00	0.00	0.00	607907.20	792863.50	N 32 40 6.67	W 103 30 57.43	0.00	0.00	0.00
	1100.00	0.00	359.50	1100.00	0.00	0.00	0.00	607907.20	792863.50	N 32 40 6.67	W 103 30 57.43	0.00	0.00	0.00
	1200.00	0.00	359.50	1200.00	0.00	0.00	0.00	607907.20	792863.50	N 32 40 6.67	W 103 30 57.43	0.00	0.00	0.00
	1300.00	0.00	359.50	1300.00	0.00	0.00	0.00	607907.20	792863.50	N 32 40 6.67	W 103 30 57.43	0.00	0.00	0.00
	1400.00	0.00	359.50	1400.00	0.00	0.00	0.00	607907.20	792863.50	N 32 40 6.67	W 103 30 57.43	0.00	0.00	0.00
	1500.00	0.00	359.50	1500.00	0.00	0.00	0.00	607907.20	792863.50	N 32 40 6.67	W 103 30 57.43	0.00	0.00	0.00
	1600.00	0.00	359.50	1600.00	0.00	0.00	0.00	607907.20	792863.50	N 32 40 6.67	W 103 30 57.43	0.00	0.00	0.00
	1700.00	0.00	359.50	1700.00	0.00	0.00	0.00	607907.20	792863.50	N 32 40 6.67	W 103 30 57.43	0.00	0.00	0.00
	1800.00	0.00	359.50	1800.00	0.00	0.00	0.00	607907.20	792863.50	N 32 40 6.67	W 103 30 57.43	0.00	0.00	0.00
	1900.00	0.00	359.50	1900.00	0.00	0.00	0.00	607907.20	792863.50	N 32 40 6.67	W 103 30 57.43	0.00	0.00	0.00
	2000.00	0.00	359.50	2000.00	0.00	0.00	0.00	607907.20	792863.50	N 32 40 6.67	W 103 30 57.43	0.00	0.00	0.00
	2100.00	0.00	359.50	2100.00	0.00	0.00	0.00	607907.20	792863.50	N 32 40 6.67	W 103 30 57.43	0.00	0.00	0.00
	2200.00	0.00	359.50	2200.00	0.00	0.00	0.00	607907.20	792863.50	N 32 40 6.67	W 103 30 57.43	0.00	0.00	0.00
	2300.00	0.00	359.50	2300.00	0.00	0.00	0.00	607907.20	792863.50	N 32 40 6.67	W 103 30 57.43	0.00	0.00	0.00
	2400.00	0.00	359.50	2400.00	0.00	0.00	0.00	607907.20	792863.50	N 32 40 6.67	W 103 30 57.43	0.00	0.00	0.00
	2500.00	0.00	359.50	2500.00	0.00	0.00	0.00	607907.20	792863.50	N 32 40 6.67	W 103 30 57.43	0.00	0.00	0.00
	2600.00	0.00	359.50	2600.00	0.00	0.00	0.00	607907.20	792863.50	N 32 40 6.67	W 103 30 57.43	0.00	0.00	0.00
	2700.00	0.00	359.50	2700.00	0.00	0.00	0.00	607907.20	792863.50	N 32 40 6.67	W 103 30 57.43	0.00	0.00	0.00
	2800.00	0.00	359.50	2800.00	0.00	0.00	0.00	607907.20	792863.50	N 32 40 6.67	W 103 30 57.43	0.00	0.00	0.00
	2900.00	0.00	359.50	2900.00	0.00	0.00	0.00	607907.20	792863.50	N 32 40 6.67	W 103 30 57.43	0.00	0.00	0.00

5/21/2014 7:54 AM Page 2 of 4

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")	Closure (ft)	Closure Azimuth (°)	DLS (ft/100ft)
	8500.00	0.00	359.50	8500.00	0.00	0.00	0.00	607907.20	792863.50	N 32 40 6.67	W 103 30 57.43	0.00	0.00	0.00
	8600.00	0.00	359.50	8600.00	0.00	0.00	0.00	607907.20	792863.50	N 32 40 6.67	W 103 30 57.43	0.00	0.00	0.00
	8700.00	0.00	359.50	8700.00	0.00	0.00	0.00	607907.20	792863.50	N 32 40 6.67	W 103 30 57.43	0.00	0.00	0.00
	8800.00	0.00	359.50	8800.00	0.00	0.00	0.00	607907.20	792863.50	N 32 40 6.67	W 103 30 57.43	0.00	0.00	0.00
	8900.00	0.00	359.50	8900.00	0.00	0.00	0.00	607907.20	792863.50	N 32 40 6.67	W 103 30 57.43	0.00	0.00	0.00
	9000.00	0.00	359.50	9000.00	0.00	0.00	0.00	607907.20	792863.50	N 32 40 6.67	W 103 30 57.43	0.00	0.00	0.00
	9100.00	0.00	359.50	9100.00	0.00	0.00	0.00	607907.20	792863.50	N 32 40 6.67	W 103 30 57.43	0.00	0.00	0.00
	9200.00	0.00	359.50	9200.00	0.00	0.00	0.00	607907.20	792863.50	N 32 40 6.67	W 103 30 57.43	0.00	0.00	0.00
	9300.00	0.00	359.50	9300.00	0.00	0.00	0.00	607907.20	792863.50	N 32 40 6.67	W 103 30 57.43	0.00	0.00	0.00
	9400.00	0.00	359.50	9400.00	0.00	0.00	0.00	607907.20	792863.50	N 32 40 6.67	W 103 30 57.43	0.00	0.00	0.00
	9500.00	0.00	359.50	9500.00	0.00	0.00	0.00	607907.20	792863.50	N 32 40 6.67	W 103 30 57.43	0.00	0.00	0.00
	9600.00	0.00	359.50	9600.00	0.00	0.00	0.00	607907.20	792863.50	N 32 40 6.67	W 103 30 57.43	0.00	0.00	0.00
	9700.00	0.00	359.50	9700.00	0.00	0.00	0.00	607907.20	792863.50	N 32 40 6.67	W 103 30 57.43	0.00	0.00	0.00
	9800.00	0.00	359.50	9800.00	0.00	0.00	0.00	607907.20	792863.50	N 32 40 6.67	W 103 30 57.43	0.00	0.00	0.00
	9900.00	0.00	359.50	9900.00	0.00	0.00	0.00	607907.20	792863.50	N 32 40 6.67	W 103 30 57.43	0.00	0.00	0.00
	10000.00	0.00	359.50	10000.00	0.00	0.00	0.00	607907.20	792863.50	N 32 40 6.67	W 103 30 57.43	0.00	0.00	0.00
	10100.00	0.00	359.50	10100.00	0.00	0.00	0.00	607907.20	792863.50	N 32 40 6.67	W 103 30 57.43	0.00	0.00	0.00
	10200.00	0.00	359.50	10200.00	0.00	0.00	0.00	607907.20	792863.50	N 32 40 6.67	W 103 30 57.43	0.00	0.00	0.00
KOP - Build 12"/100ft DLS	10273.39	0.00	359.50	10273.39	0.00	0.00	0.00	607907.20	792863.50	N 32 40 6.67	W 103 30 57.43	0.00	0.00	0.00
	10300.00	3.19	359.50	10299.99	0.74	0.74	-0.01	607907.94	792863.49	N 32 40 6.68	W 103 30 57.43	0.74	359.50	12.00
	10400.00	15.19	359.50	10398.52	16.69	16.69	-0.15	607923.89	792863.35	N 32 40 6.84	W 103 30 57.43	16.69	359.50	12.00
	10500.00	27.19	359.50	10491.59	52.77	52.77	-0.46	607959.97	792863.04	N 32 40 7.20	W 103 30 57.43	52.77	359.50	12.00
	10600.00	39.19	359.50	10575.12	107.42	107.41	-0.95	608014.61	792862.55	N 32 40 7.74	W 103 30 57.43	107.42	359.50	12.00
	10700.00	51.19	359.50	10645.46	178.24	178.23	-1.57	608085.43	792861.93	N 32 40 8.44	W 103 30 57.43	178.24	359.50	12.00
	10800.00	63.19	359.50	10699.55	262.13	262.12	-2.31	608169.32	792861.19	N 32 40 9.27	W 103 30 57.44	262.13	359.50	12.00
	10900.00	75.19	359.50	10735.00	355.44	355.43	-3.13	608262.62	792860.37	N 32 40 10.19	W 103 30 57.44	355.44	359.50	12.00
Landing point	10994.81	86.57	359.50	10750.00	448.90	448.88	-3.95	608356.07	792859.55	N 32 40 11.11	W 103 30 57.44	448.90	359.50	12.00
	11000.00	86.57	359.50	10750.31	454.08	454.06	-4.00	608361.25	792859.50	N 32 40 11.17	W 103 30 57.44	454.08	359.50	0.00
	11100.00	86.57	359.50	10756.30	553.90	553.88	-4.88	608461.07	792858.62	N 32 40 12.15	W 103 30 57.44	553.90	359.50	0.00
	11200.00	86.57	359.50	10762.28	653.72	653.69	-5.76	608560.88	792857.74	N 32 40 13.14	W 103 30 57.44	653.72	359.50	0.00
	11300.00	86.57	359.50	10768.26	753.54	753.51	-6.64	608660.70	792856.86	N 32 40 14.13	W 103 30 57.44	753.54	359.50	0.00
	11400.00	86.57	359.50	10774.25	853.36	853.33	-7.52	608760.51	792855.98	N 32 40 15.12	W 103 30 57.44	853.36	359.50	0.00
	11500.00	86.57	359.50	10780.23	953.18	953.15	-8.40	608860.33	792855.10	N 32 40 16.10	W 103 30 57.44	953.18	359.50	0.00
	11600.00	86.57	359.50	10786.21	1053.00	1052.96	-9.28	608960.14	792854.22	N 32 40 17.09	W 103 30 57.45	1053.00	359.50	0.00
	11700.00	86.57	359.50	10792.20	1152.82	1152.78	-10.16	609059.96	792853.34	N 32 40 18.08	W 103 30 57.45	1152.82	359.50	0.00
	11800.00	86.57	359.50	10798.18	1252.64	1252.60	-11.04	609159.77	792852.46	N 32 40 19.07	W 103 30 57.45	1252.64	359.50	0.00
	11900.00	86.57	359.50	10804.16	1352.47	1352.41	-11.92	609259.59	792851.58	N 32 40 20.05	W 103 30 57.45	1352.47	359.50	0.00
	12000.00	86.57	359.50	10810.15	1452.29	1452.23	-12.80	609359.40	792850.71	N 32 40 21.04	W 103 30 57.45	1452.29	359.50	0.00
	12100.00	86.57	359.50	10816.13	1552.11	1552.05	-13.67	609459.22	792849.83	N 32 40 22.03	W 103 30 57.45	1552.11	359.50	0.00
	12200.00	86.57	359.50	10822.11	1651.93	1651.86	-14.55	609559.03	792848.95	N 32 40 23.02	W 103 30 57.45	1651.93	359.50	0.00
	12300.00	86.57	359.50	10828.10	1751.75	1751.68	-15.43	609658.85	792848.07	N 32 40 24.01	W 103 30 57.45	1751.75	359.50	0.00
	12400.00	86.57	359.50	10834.08	1851.57	1851.50	-16.31	609758.66	792847.19	N 32 40 24.99	W 103 30 57.46	1851.57	359.50	0.00
	12500.00	86.57	359.50	10840.06	1951.39	1951.31	-17.19	609858.48	792846.31	N 32 40 25.98	W 103 30 57.46	1951.39	359.50	0.00
	12600.00	86.57	359.50	10846.05	2051.21	2051.13	-18.07	609958.29	792845.43	N 32 40 26.97	W 103 30 57.46	2051.21	359.50	0.00
	12700.00	86.57	359.50	10852.03	2151.03	2150.95	-18.95	610058.10	792844.55	N 32 40 27.96	W 103 30 57.46	2151.03	359.50	0.00
	12800.00	86.57	359.50	10858.01	2250.85	2250.77	-19.83	610157.92	792843.67	N 32 40 28.94	W 103 30 57.46	2250.85	359.50	0.00
	12900.00	86.57	359.50	10864.00	2350.67	2350.58	-20.71	610257.73	792842.79	N 32 40 29.93	W 103 30 57.46	2350.67	359.50	0.00
	13000.00	86.57	359.50	10869.98	2450.49	2450.40	-21.59	610357.55	792841.91	N 32 40 30.92	W 103 30 57.46	2450.49	359.50	0.00
	13100.00	86.57	359.50	10875.96	2550.32	2550.22	-22.47	610457.36	792841.03	N 32 40 31.91	W 103 30 57.46	2550.32	359.50	0.00
	13200.00	86.57	359.50	10881.95	2650.14	2650.03	-23.35	610557.18	792840.15	N 32 40 32.89	W 103 30 57.47	2650.14	359.50	0.00
	13300.00	86.57	359.50	10887.93	2749.96	2749.85	-24.23	610656.99	792839.27	N 32 40 33.88	W 103 30 57.47	2749.96	359.50	0.00
	13400.00	86.57	359.50	10893.91	2849.78	2849.67	-25.11	610756.81	792838.39	N 32 40 34.87	W 103 30 57.47	2849.78	359.50	0.00
	13500.00	86.57	359.50	10899.90	2949.60	2949.48	-25.99	610856.62	792837.51	N 32 40 35.86	W 103 30 57.47	2949.60	359.50	0.00
	13600.00	86.57	359.50	10905.88	3049.42	3049.30	-26.87	610956.44	792836.63	N 32 40 36.85	W 103 30 57.47	3049.42	359.50	0.00

Comments	MD (ft)	Incl (°)	Azim Grid (°)	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	359.50	10911.86	3149.24	3149.12	-27.75	611056.25	792835.75	N 32 40 37.83	W 103 30 57.47	3149.24	359.50	0.00
	13800.00	86.57	359.50	10917.85	3249.06	3248.94	-28.63	611156.07	792834.88	N 32 40 38.82	W 103 30 57.47	3249.06	359.50	0.00
	13900.00	86.57	359.50	10923.83	3348.88	3348.75	-29.50	611255.88	792834.00	N 32 40 39.81	W 103 30 57.48	3348.88	359.50	0.00
	14000.00	86.57	359.50	10929.81	3448.70	3448.57	-30.38	611355.70	792833.12	N 32 40 40.80	W 103 30 57.48	3448.70	359.50	0.00
	14100.00	86.57	359.50	10935.80	3548.52	3548.39	-31.26	611455.51	792832.24	N 32 40 41.78	W 103 30 57.48	3548.52	359.50	0.00
	14200.00	86.57	359.50	10941.78	3648.35	3648.20	-32.14	611555.33	792831.36	N 32 40 42.77	W 103 30 57.48	3648.35	359.50	0.00
	14300.00	86.57	359.50	10947.76	3748.17	3748.02	-33.02	611655.14	792830.48	N 32 40 43.76	W 103 30 57.48	3748.17	359.50	0.00
	14400.00	86.57	359.50	10953.75	3847.99	3847.84	-33.90	611754.96	792829.60	N 32 40 44.75	W 103 30 57.48	3847.99	359.50	0.00
	14500.00	86.57	359.50	10959.73	3947.81	3947.65	-34.78	611854.77	792828.72	N 32 40 45.73	W 103 30 57.48	3947.81	359.50	0.00
	14600.00	86.57	359.50	10965.71	4047.63	4047.47	-35.66	611954.59	792827.84	N 32 40 46.72	W 103 30 57.48	4047.63	359.50	0.00
	14700.00	86.57	359.50	10971.69	4147.45	4147.29	-36.54	612054.40	792826.96	N 32 40 47.71	W 103 30 57.49	4147.45	359.50	0.00
	14800.00	86.57	359.50	10977.68	4247.27	4247.11	-37.42	612154.22	792826.08	N 32 40 48.70	W 103 30 57.49	4247.27	359.50	0.00
	14900.00	86.57	359.50	10983.66	4347.09	4346.92	-38.30	612254.03	792825.20	N 32 40 49.68	W 103 30 57.49	4347.09	359.50	0.00
	15000.00	86.57	359.50	10989.64	4446.91	4446.74	-39.18	612353.85	792824.32	N 32 40 50.67	W 103 30 57.49	4446.91	359.50	0.00
	15100.00	86.57	359.50	10995.63	4546.73	4546.56	-40.06	612453.66	792823.44	N 32 40 51.66	W 103 30 57.49	4546.73	359.50	0.00
Cimarex Teal 12 State 2H PBHL	15173.07	86.57	359.50	11000.00	4619.67	4619.49	-40.70	612526.60	792822.80	N 32 40 52.38	W 103 30 57.49	4619.67	359.50	0.00

Survey Type: Non-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	10273.000	1/100.000	30.000	30.000	SLB_MWD-POOR	Original Borehole / Cimarex Teal 12 State 2H Rev0 WEB 06-Nov-
	10273.000	15173.072	1/100.000	30.000	30.000	SLB_MWD-STD	Original Borehole / Cimarex Teal 12 State 2H Rev0 WEB 06-Nov-