

Borehole:	Well:	Field:	Structure:
Original Borehole	Cimarex Chief 30 State #6	NM Lea County (NAD 83)	Cimarex Chief 30 State #6

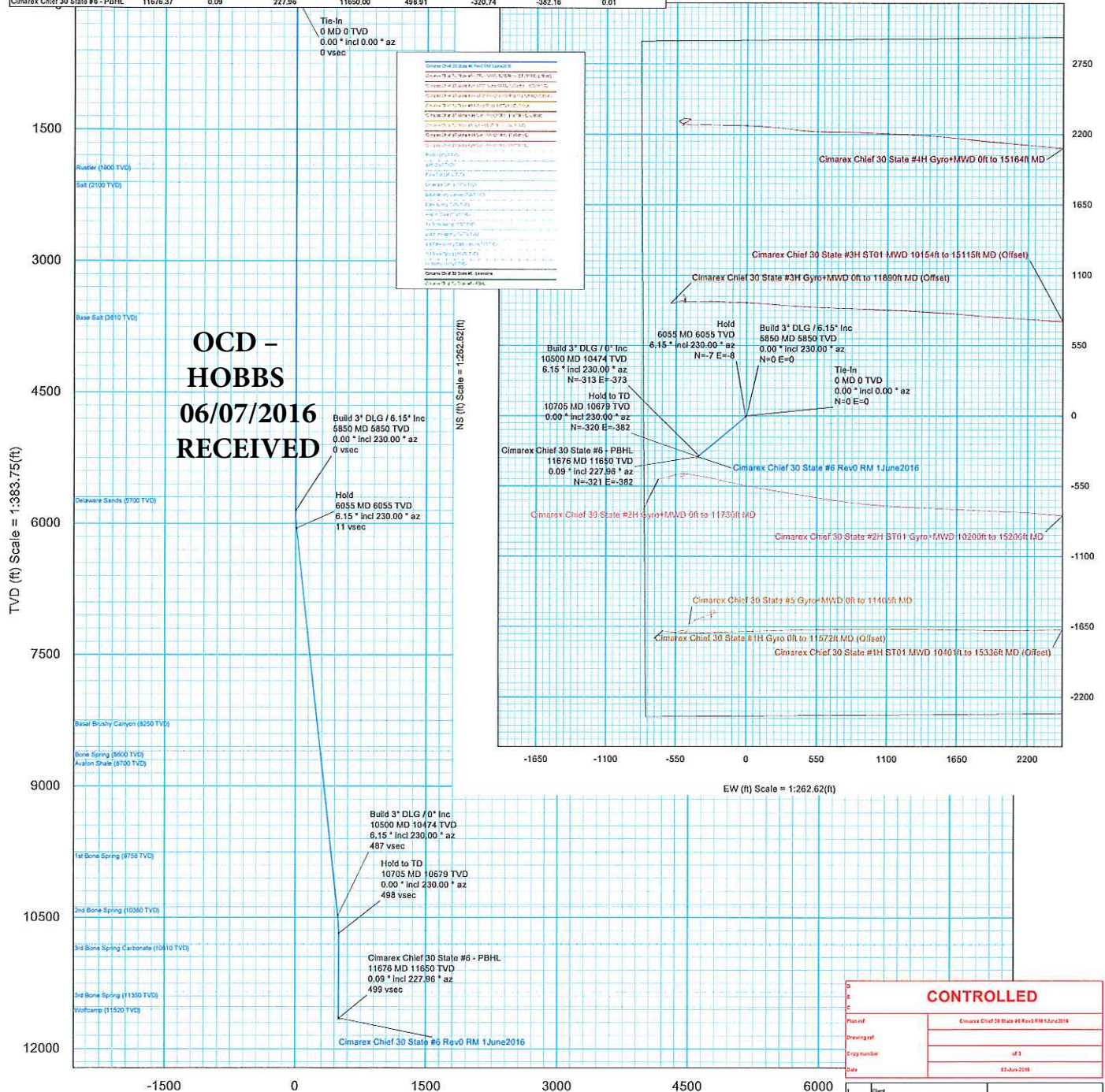
Gravity & Magnetic Parameters	Location	NAD83 New Mexico State Plane, Eastern Zone, US Feet	Miscellaneous
Model: HOGM 2016 Dip: 60.552° Date: 01-Jun-2016	Lat: N 32 32 35.90	Northings: 562383.65RUS	Slot: Cimarex Chief 30
MagDec: 6.85° FS: 48412.772nT Gravity FS: 998.496mg (R.00665 Based)	Lon: W 103 30 9.23	Eastings: 797339.77RUS	State #6
		Scale Fact: 0.99990415	Plan: Cimarex Chief 30 State #6 Rev0 RM 1 June 2016

Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+)/S(-)	E(+)/W(-)	DLS
Tie-In	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rustler	1900.00	0.00	230.00	1900.00	0.00	0.00	0.00	0.00
Salt	2100.00	0.00	230.00	2100.00	0.00	0.00	0.00	0.00
Base Salt	3610.00	0.00	230.00	3610.00	0.00	0.00	0.00	0.00
Delaware Sands	5700.00	0.00	230.00	5700.00	0.00	0.00	0.00	0.00
Build 3" DLG / 6.15" Inc	5850.00	0.00	230.00	5850.00	0.00	0.00	0.00	0.00
Hold	6055.00	6.15	230.00	6054.61	10.99	-7.07	-8.42	3.00
Basal Brushy Canyon	8263.10	6.15	230.00	8250.00	247.55	-159.13	-189.63	0.00
Bone Spring	8615.13	6.15	230.00	8600.00	285.28	-183.37	-218.51	0.00
Avalon Shale	8715.71	6.15	230.00	8700.00	296.04	-190.30	-226.77	0.00
1st Bone Spring	9779.83	6.15	230.00	9758.00	410.04	-263.58	-314.09	0.00
2nd Bone Spring	10405.43	6.15	230.00	10380.00	477.08	-300.67	-365.43	0.00
Build 3" DLG / 0" Inc	10500.00	6.15	230.00	10474.02	487.19	-313.18	-373.19	0.00
Hold to TD	10705.00	0.00	230.00	10678.63	498.18	-320.25	-381.61	3.00
3rd Bone Spring Carbonate	10836.37	0.01	227.96	10810.00	498.20	-320.26	-381.62	0.01
3rd Bone Spring	11376.37	0.06	227.96	11350.00	498.53	-320.48	-381.87	0.01
Wolfcamp	11546.37	0.07	227.96	11520.00	498.73	-320.61	-382.02	0.01
Cimarex Chief 30 State #6 - PBHL	11676.37	0.09	227.96	11650.00	498.91	-320.74	-382.16	0.01



Grid
True
Mag

Grid North
Tot Corr (M->G 6.403°)
Mag Dec (6.850°)
Grid Conv (0.447°)



Vertical Section (ft) Azim = 229.994° Scale = 1:383.75(ft) Origin = 0N/-S, 0E/-W

CONTROLLED	
Plan ref	Cimarex Chief 30 State #6 Rev0 RM 1 June 2016
Drawing ref	
Copy number	of 1
Date	22-Jun-2016
1	Client
2	Client
3	Office
4	Office
Copy number	for

Cimarex Chief 30 State #6 Rev0 RM 1June2016 Proposal Geodetic Report

(Non-Def Plan)

Report Date:	June 02, 2016 - 03:10 PM	Survey / DLS Computation:	Minimum Curvature / Lubinski
Client:	Cimarex	Vertical Section Azimuth:	229.994 ° (Grid North)
Field:	NM Lea County (NAD 83)	Vertical Section Origin:	0.000 ft, 0.000 ft
Structure / Slot:	Cimarex Chief 30 State #6 / Cimarex Chief 30 State #6	TVD Reference Datum:	Unknown
Well:	Cimarex Chief 30 State #6	TVD Reference Elevation:	3724.800 ft above MSL
Borehole:	Original Borehole	Seabed / Ground Elevation:	3724.800 ft above MSL
UWI / API#:	Unknown / Unknown	Magnetic Declination:	6.850 °
Survey Name:	Cimarex Chief 30 State #6 Rev0 RM 1June2016	Total Gravity Field Strength:	998.4964mgm (9.80665 Based)
Survey Date:	June 01, 2016	Gravity Model:	GARM
Tort / AHD / DDI / ERD Ratio:	12.386 ° / 498.915 ft / 3.792 / 0.043	Total Magnetic Field Strength:	48412.772 nT
Coordinate Reference System:	NAD83 New Mexico State Plane, Eastern Zone, US Feet	Magnetic Dip Angle:	60.552 °
Location Lat / Long:	N 32° 32' 35.89968", W 103° 30' 9.23014"	Declination Date:	June 01, 2016
Location Grid N/E Y/X:	N 562383.650 RUS, E 797339.770 RUS	Magnetic Declination Model:	HDGM 2016
CRS Grid Convergence Angle:	0.4469 °	North Reference:	Grid North
Grid Scale Factor:	0.99998415	Grid Convergence Used:	0.4469 °
Version / Patch:	2.9.370.0	Total Corr Mag North->Grid North:	6.4030 °
		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 ° ' ")
Tie-In	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	562383.65	797339.77	N 32 32 35.90	W 103 30 9.23
Build 3° DLG / 6.15° Inc	5850.00	0.00	230.00	5850.00	0.00	0.00	0.00	0.00	562383.65	797339.77	N 32 32 35.90	W 103 30 9.23
Hold	6055.00	6.15	230.00	6054.61	10.99	-7.07	-8.42	3.00	562376.58	797331.35	N 32 32 35.83	W 103 30 9.33
Build 3° DLG / 0° Inc	10500.00	6.15	230.00	10474.02	487.19	-313.18	-373.19	0.00	562070.47	796966.58	N 32 32 32.83	W 103 30 13.62
Hold to TD	10705.00	0.00	230.00	10678.63	498.18	-320.25	-381.61	3.00	562063.41	796958.16	N 32 32 32.76	W 103 30 13.72
Cimarex Chief 30 State #6 - PBHL	11676.37	0.09	227.96	11650.00	498.91	-320.74	-382.16	0.01	562062.92	796957.62	N 32 32 32.76	W 103 30 13.72

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	11676.369	1/100.000	30.000	30.000		NAL_MWD_PLUS_0.5_DEG	Original Borehole / Cimarex Chief 30 State #6 Rev0 RM 1June2016

Cimarex Chief 30 State #6 Rev0 RM 1June2016 Proposal Geodetic Report

(Non-Def Plan)

Report Date: June 02, 2016 - 03:10 PM
 Client: Cimarex
 Field: NM Lea County (NAD 83)
 Structure / Slot: Cimarex Chief 30 State #6 / Cimarex Chief 30 State #6
 Well: Cimarex Chief 30 State #6
 Borehole: Original Borehole
 UWI / API#: Unknown / Unknown
 Survey Name: Cimarex Chief 30 State #6 Rev0 RM 1June2016
 Survey Date: June 01, 2016
 Tort / AHD / DDI / ERD Ratio: 12.386 * / 498.915 ft / 3.792 / 0.043
 Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
 Location Lat / Long: N 32° 32' 35.89968", W 103° 30' 9.23014"
 Location Grid N/E Y/X: N 562383.650 ftUS, E 797339.770 ftUS
 CRS Grid Convergence Angle: 0.4469 °
 Grid Scale Factor: 0.99998415
 Version / Patch: 2.9.370.0

Survey / DLS Computation: Minimum Curvature / Lubinski
 Vertical Section Azimuth: 229.994 ° (Grid North)
 Vertical Section Origin: 0.000 ft, 0.000 ft
 TVD Reference Datum: Unknown
 TVD Reference Elevation: 3724.800 ft above MSL
 Seabed / Ground Elevation: 3724.800 ft above MSL
 Magnetic Declination: 6.850 °
 Total Gravity Field Strength: 998.4964mgm (9.80665 Based)
 Gravity Model: GARM
 Total Magnetic Field Strength: 48412.772 nT
 Magnetic Dip Angle: 60.552 °
 Declination Date: June 01, 2016
 Magnetic Declination Model: HDGM 2016
 North Reference: Grid North
 Grid Convergence Used: 0.4469 °
 Total Corr Mag North->Grid North: 6.4030 °
 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 ° ' ")
Tie-In	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	562383.65	797339.77	N 32 32 35.90	W 103 30 9.23
	100.00	0.00	230.00	100.00	0.00	0.00	0.00	0.00	562383.65	797339.77	N 32 32 35.90	W 103 30 9.23
	200.00	0.00	230.00	200.00	0.00	0.00	0.00	0.00	562383.65	797339.77	N 32 32 35.90	W 103 30 9.23
	300.00	0.00	230.00	300.00	0.00	0.00	0.00	0.00	562383.65	797339.77	N 32 32 35.90	W 103 30 9.23
	400.00	0.00	230.00	400.00	0.00	0.00	0.00	0.00	562383.65	797339.77	N 32 32 35.90	W 103 30 9.23
	500.00	0.00	230.00	500.00	0.00	0.00	0.00	0.00	562383.65	797339.77	N 32 32 35.90	W 103 30 9.23
	600.00	0.00	230.00	600.00	0.00	0.00	0.00	0.00	562383.65	797339.77	N 32 32 35.90	W 103 30 9.23
	700.00	0.00	230.00	700.00	0.00	0.00	0.00	0.00	562383.65	797339.77	N 32 32 35.90	W 103 30 9.23
	800.00	0.00	230.00	800.00	0.00	0.00	0.00	0.00	562383.65	797339.77	N 32 32 35.90	W 103 30 9.23
	900.00	0.00	230.00	900.00	0.00	0.00	0.00	0.00	562383.65	797339.77	N 32 32 35.90	W 103 30 9.23
	1000.00	0.00	230.00	1000.00	0.00	0.00	0.00	0.00	562383.65	797339.77	N 32 32 35.90	W 103 30 9.23
	1100.00	0.00	230.00	1100.00	0.00	0.00	0.00	0.00	562383.65	797339.77	N 32 32 35.90	W 103 30 9.23
	1200.00	0.00	230.00	1200.00	0.00	0.00	0.00	0.00	562383.65	797339.77	N 32 32 35.90	W 103 30 9.23
	1300.00	0.00	230.00	1300.00	0.00	0.00	0.00	0.00	562383.65	797339.77	N 32 32 35.90	W 103 30 9.23
	1400.00	0.00	230.00	1400.00	0.00	0.00	0.00	0.00	562383.65	797339.77	N 32 32 35.90	W 103 30 9.23
	1500.00	0.00	230.00	1500.00	0.00	0.00	0.00	0.00	562383.65	797339.77	N 32 32 35.90	W 103 30 9.23
	1600.00	0.00	230.00	1600.00	0.00	0.00	0.00	0.00	562383.65	797339.77	N 32 32 35.90	W 103 30 9.23
	1700.00	0.00	230.00	1700.00	0.00	0.00	0.00	0.00	562383.65	797339.77	N 32 32 35.90	W 103 30 9.23
	1800.00	0.00	230.00	1800.00	0.00	0.00	0.00	0.00	562383.65	797339.77	N 32 32 35.90	W 103 30 9.23
	1900.00	0.00	230.00	1900.00	0.00	0.00	0.00	0.00	562383.65	797339.77	N 32 32 35.90	W 103 30 9.23
	2000.00	0.00	230.00	2000.00	0.00	0.00	0.00	0.00	562383.65	797339.77	N 32 32 35.90	W 103 30 9.23
	2100.00	0.00	230.00	2100.00	0.00	0.00	0.00	0.00	562383.65	797339.77	N 32 32 35.90	W 103 30 9.23
	2200.00	0.00	230.00	2200.00	0.00	0.00	0.00	0.00	562383.65	797339.77	N 32 32 35.90	W 103 30 9.23
	2300.00	0.00	230.00	2300.00	0.00	0.00	0.00	0.00	562383.65	797339.77	N 32 32 35.90	W 103 30 9.23
	2400.00	0.00	230.00	2400.00	0.00	0.00	0.00	0.00	562383.65	797339.77	N 32 32 35.90	W 103 30 9.23
	2500.00	0.00	230.00	2500.00	0.00	0.00	0.00	0.00	562383.65	797339.77	N 32 32 35.90	W 103 30 9.23
	2600.00	0.00	230.00	2600.00	0.00	0.00	0.00	0.00	562383.65	797339.77	N 32 32 35.90	W 103 30 9.23
	2700.00	0.00	230.00	2700.00	0.00	0.00	0.00	0.00	562383.65	797339.77	N 32 32 35.90	W 103 30 9.23
	2800.00	0.00	230.00	2800.00	0.00	0.00	0.00	0.00	562383.65	797339.77	N 32 32 35.90	W 103 30 9.23
	2900.00	0.00	230.00	2900.00	0.00	0.00	0.00	0.00	562383.65	797339.77	N 32 32 35.90	W 103 30 9.23
	3000.00	0.00	230.00	3000.00	0.00	0.00	0.00	0.00	562383.65	797339.77	N 32 32 35.90	W 103 30 9.23
	3100.00	0.00	230.00	3100.00	0.00	0.00	0.00	0.00	562383.65	797339.77	N 32 32 35.90	W 103 30 9.23
	3200.00	0.00	230.00	3200.00	0.00	0.00	0.00	0.00	562383.65	797339.77	N 32 32 35.90	W 103 30 9.23
	3300.00	0.00	230.00	3300.00	0.00	0.00	0.00	0.00	562383.65	797339.77	N 32 32 35.90	W 103 30 9.23
	3400.00	0.00	230.00	3400.00	0.00	0.00	0.00	0.00	562383.65	797339.77	N 32 32 35.90	W 103 30 9.23
	3500.00	0.00	230.00	3500.00	0.00	0.00	0.00	0.00	562383.65	797339.77	N 32 32 35.90	W 103 30 9.23
	3600.00	0.00	230.00	3600.00	0.00	0.00	0.00	0.00	562383.65	797339.77	N 32 32 35.90	W 103 30 9.23
	3700.00	0.00	230.00	3700.00	0.00	0.00	0.00	0.00	562383.65	797339.77	N 32 32 35.90	W 103 30 9.23
	3800.00	0.00	230.00	3800.00	0.00	0.00	0.00	0.00	562383.65	797339.77	N 32 32 35.90	W 103 30 9.23
	3900.00	0.00	230.00	3900.00	0.00	0.00	0.00	0.00	562383.65	797339.77	N 32 32 35.90	W 103 30 9.23
	4000.00	0.00	230.00	4000.00	0.00	0.00	0.00	0.00	562383.65	797339.77	N 32 32 35.90	W 103 30 9.23
	4100.00	0.00	230.00	4100.00	0.00	0.00	0.00	0.00	562383.65	797339.77	N 32 32 35.90	W 103 30 9.23
	4200.00	0.00	230.00	4200.00	0.00	0.00	0.00	0.00	562383.65	797339.77	N 32 32 35.90	W 103 30 9.23
	4300.00	0.00	230.00	4300.00	0.00	0.00	0.00	0.00	562383.65	797339.77	N 32 32 35.90	W 103 30 9.23
	4400.00	0.00	230.00	4400.00	0.00	0.00	0.00	0.00	562383.65	797339.77	N 32 32 35.90	W 103 30 9.23
	4500.00	0.00	230.00	4500.00	0.00	0.00	0.00	0.00	562383.65	797339.77	N 32 32 35.90	W 103 30 9.23
	4600.00	0.00	230.00	4600.00	0.00	0.00	0.00	0.00	562383.65	797339.77	N 32 32 35.90	W 103 30 9.23
	4700.00	0.00	230.00	4700.00	0.00	0.00	0.00	0.00	562383.65	797339.77	N 32 32 35.90	W 103 30 9.23
	4800.00	0.00	230.00	4800.00	0.00	0.00	0.00	0.00	562383.65	797339.77	N 32 32 35.90	W 103 30 9.23
	4900.00	0.00	230.00	4900.00	0.00	0.00	0.00	0.00	562383.65	797339.77	N 32 32 35.90	W 103 30 9.23
	5000.00	0.00	230.00	5000.00	0.00	0.00	0.00	0.00	562383.65	797339.77	N 32 32 35.90	W 103 30 9.23
	5100.00	0.00	230.00	5100.00	0.00	0.00	0.00	0.00	562383.65	797339.77	N 32 32 35.90	W 103 30 9.23
	5200.00	0.00	230.00	5200.00	0.00	0.00	0.00	0.00	562383.65	797339.77	N 32 32 35.90	W 103 30 9.23
	5300.00	0.00	230.00	5300.00	0.00	0.00	0.00	0.00	562383.65	797339.77	N 32 32 35.90	W 103 30 9.23
	5400.00	0.00	230.00	5400.00	0.00	0.00	0.00	0.00	562383.65	797339.77	N 32 32 35.90	W 103 30 9.23
	5500.00	0.00	230.00	5500.00	0.00	0.00	0.00	0.00	562383.65	797339.77	N 32 32 35.90	W 103 30 9.23
	5600.00	0.00	230.00	5600.00	0.00	0.00	0.00	0.00	562383.65	797339.77	N 32 32 35.90	W 103 30 9.23
	5700.00	0.00	230.00	5700.00	0.00	0.00	0.00	0.00	562383.65	797339.77	N 32 32 35.90	W 103 30 9.23
	5800.00	0.00	230.00	5800.00	0.00	0.00	0.00	0.00	562383.65	797339.77	N 32 32 35.90	W 103 30 9.23
Build 3" DLG / 6.15" Inc	5850.00	0.00	230.00	5850.00	0.00	0.00	0.00	0.00	562383.65	797339.77	N 32 32 35.90	W 103 30 9.23
	5900.00	1.50	230.00	5899.99	0.65	-0.42	-0.50	3.00	562383.23	797339.27	N 32 32 35.90	W 103 30 9.24
	6000.00	4.50	230.00	5899.85	5.89	-3.78	-4.51	3.00	562379.87	797335.26	N 32 32 35.86	W 103 30 9.28
Hold	6055.00	6.15	230.00	6054.61	10.99	-7.07	-8.42	3.00	562376.58	797331.35	N 32 32 35.83	W 103 30 9.33
	6100.00	6.15	230.00	6099.35	15.81	-10.16	-12.11	0.00	562373.49	797327.66	N 32 32 35.80	W 103 30 9.37
	6200.00	6.15	230.00	6198.77	26.53	-17.05	-20.32	0.00	562366.60	797319.45	N 32 32 35.73	W 103 30 9.47
	6300.00	6.15	230.00	6298.20	37.24	-23.94	-28.53	0.00	562359.71	797311.25	N 32 32 35.67	W 103 30 9.57
	6400.00	6.15	230.00	6397.62	47.95	-30.82	-36.73	0.00	562352.83	797303.04	N 32 32 35.60	W 103 30 9.66
	6500.00	6.15	230.00	6497.05	58.67	-37.71	-44.94	0.00	562345.94	797294.83	N 32 32 35.53	W 103 30 9.76
	6600.00	6.15	230.00	6596.47	69.38	-44.60	-53.14	0.00	562339.05	797286.63	N 32 32 35.46	W 103 30 9.86
	6700.00	6.15	230.00	6695.89	80.09	-51.49	-61.35	0.00	562332.17	797278.42	N 32 32 35.40	W 103 30 9.95
	6800.00	6.15	230.00	6795.32	90.80	-58.37	-69.56	0.00	562325.28	797270.21	N 32 32 35.33	W 103 30 10.05
	6900.00	6.15	230.00	6894.74	101.52	-65.26	-77.76	0.00	562318.39	797262.01	N 32 32 35.26	W 103 30 10.14
	7000.00	6.15	230.00	6994.17	112.23	-72.15	-85.97	0.00	562311.51	797253.80	N 32 32 35.19	W 103 30 10.24
	7100.00	6.15	230.00	7093.59	122.94	-79.03	-94.18	0.00	562304.62	797245.60	N 32 32 35.12	W 103 30 10.34
	7200.00	6.15	230.00	7193								

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 ° ' ")
	7500.00	6.15	230.00	7491.29	165.80	-106.58	-127.00	0.00	562277.07	79712.77	N 32 32 34.85	W 103 30 10.72
	7600.00	6.15	230.00	7590.71	176.51	-113.47	-135.21	0.00	562270.19	797204.56	N 32 32 34.79	W 103 30 10.82
	7700.00	6.15	230.00	7690.14	187.22	-120.35	-143.42	0.00	562263.30	797196.36	N 32 32 34.72	W 103 30 10.92
	7800.00	6.15	230.00	7789.56	197.94	-127.24	-151.62	0.00	562256.41	797188.15	N 32 32 34.65	W 103 30 11.01
	7900.00	6.15	230.00	7888.99	208.65	-134.13	-159.83	0.00	562249.53	797179.94	N 32 32 34.58	W 103 30 11.11
	8000.00	6.15	230.00	7988.41	219.36	-141.01	-168.03	0.00	562242.64	797171.74	N 32 32 34.52	W 103 30 11.21
	8100.00	6.15	230.00	8087.84	230.08	-147.90	-176.24	0.00	562235.75	797163.53	N 32 32 34.45	W 103 30 11.30
	8200.00	6.15	230.00	8187.26	240.79	-154.79	-184.45	0.00	562228.87	797155.33	N 32 32 34.38	W 103 30 11.40
	8300.00	6.15	230.00	8286.69	251.50	-161.67	-192.65	0.00	562221.98	797147.12	N 32 32 34.31	W 103 30 11.50
	8400.00	6.15	230.00	8386.11	262.22	-168.56	-200.86	0.00	562215.09	797138.91	N 32 32 34.25	W 103 30 11.59
	8500.00	6.15	230.00	8485.54	272.93	-175.45	-209.07	0.00	562208.21	797130.71	N 32 32 34.18	W 103 30 11.69
	8600.00	6.15	230.00	8584.96	283.64	-182.33	-217.27	0.00	562201.32	797122.50	N 32 32 34.11	W 103 30 11.78
	8700.00	6.15	230.00	8684.38	294.36	-189.22	-225.48	0.00	562194.43	797114.29	N 32 32 34.04	W 103 30 11.88
	8800.00	6.15	230.00	8783.81	305.07	-196.11	-233.69	0.00	562187.55	797106.09	N 32 32 33.98	W 103 30 11.98
	8900.00	6.15	230.00	8883.23	315.78	-202.99	-241.89	0.00	562180.66	797097.88	N 32 32 33.91	W 103 30 12.07
	9000.00	6.15	230.00	8982.66	326.49	-209.88	-250.10	0.00	562173.77	797089.68	N 32 32 33.84	W 103 30 12.17
	9100.00	6.15	230.00	9082.08	337.21	-216.77	-258.30	0.00	562166.89	797081.47	N 32 32 33.77	W 103 30 12.27
	9200.00	6.15	230.00	9181.51	347.92	-223.65	-266.51	0.00	562160.00	797073.26	N 32 32 33.71	W 103 30 12.36
	9300.00	6.15	230.00	9280.93	358.63	-230.54	-274.72	0.00	562153.11	797065.06	N 32 32 33.64	W 103 30 12.46
	9400.00	6.15	230.00	9380.36	369.35	-237.43	-282.92	0.00	562146.23	797056.85	N 32 32 33.57	W 103 30 12.56
	9500.00	6.15	230.00	9479.78	380.06	-244.31	-291.13	0.00	562139.34	797048.64	N 32 32 33.50	W 103 30 12.65
	9600.00	6.15	230.00	9579.20	390.77	-251.20	-299.34	0.00	562132.45	797040.44	N 32 32 33.44	W 103 30 12.75
	9700.00	6.15	230.00	9678.63	401.49	-258.09	-307.54	0.00	562125.57	797032.23	N 32 32 33.37	W 103 30 12.85
	9800.00	6.15	230.00	9778.05	412.20	-264.97	-315.75	0.00	562118.68	797024.03	N 32 32 33.30	W 103 30 12.94
	9900.00	6.15	230.00	9877.48	422.91	-271.86	-323.96	0.00	562111.79	797015.82	N 32 32 33.23	W 103 30 13.04
	10000.00	6.15	230.00	9976.90	433.63	-278.75	-332.16	0.00	562104.91	797007.61	N 32 32 33.17	W 103 30 13.14
	10100.00	6.15	230.00	10076.33	444.34	-285.63	-340.37	0.00	562098.02	796999.41	N 32 32 33.10	W 103 30 13.23
	10200.00	6.15	230.00	10175.75	455.05	-292.52	-348.58	0.00	562091.13	796991.20	N 32 32 33.03	W 103 30 13.33
	10300.00	6.15	230.00	10275.18	465.77	-299.41	-356.78	0.00	562084.25	796982.99	N 32 32 32.96	W 103 30 13.43
	10400.00	6.15	230.00	10374.60	476.48	-306.29	-364.99	0.00	562077.36	796974.79	N 32 32 32.90	W 103 30 13.52
Build 3° DLG / 0° Inc	10500.00	6.15	230.00	10474.02	487.19	-313.18	-373.19	0.00	562070.47	796966.58	N 32 32 32.83	W 103 30 13.62
	10600.00	3.15	238.00	10573.68	495.30	-318.39	-379.40	3.00	562065.26	796960.37	N 32 32 32.78	W 103 30 13.69
	10700.00	0.15	230.00	10673.63	498.18	-320.24	-381.61	3.00	562063.41	796958.17	N 32 32 32.76	W 103 30 13.72
Hold to TD	10705.00	0.00	230.00	10678.63	498.18	-320.25	-381.61	3.00	562063.41	796958.19	N 32 32 32.76	W 103 30 13.72
	10800.00	0.01	227.96	10773.63	498.19	-320.25	-381.62	0.01	562063.40	796958.18	N 32 32 32.76	W 103 30 13.72
	10900.00	0.02	227.96	10873.63	498.21	-320.27	-381.64	0.01	562063.39	796958.14	N 32 32 32.76	W 103 30 13.72
	11000.00	0.03	227.96	10973.63	498.25	-320.29	-381.66	0.01	562063.36	796958.11	N 32 32 32.76	W 103 30 13.72
	11100.00	0.04	227.96	11073.63	498.30	-320.33	-381.70	0.01	562063.33	796958.07	N 32 32 32.76	W 103 30 13.72
	11200.00	0.04	227.96	11173.63	498.37	-320.37	-381.76	0.01	562063.28	796958.02	N 32 32 32.76	W 103 30 13.72
	11300.00	0.05	227.96	11273.63	498.46	-320.43	-381.82	0.01	562063.23	796957.98	N 32 32 32.76	W 103 30 13.72
	11400.00	0.06	227.96	11373.63	498.56	-320.50	-381.89	0.01	562063.18	796957.88	N 32 32 32.76	W 103 30 13.72
	11500.00	0.07	227.96	11473.63	498.67	-320.57	-381.98	0.01	562063.08	796957.80	N 32 32 32.76	W 103 30 13.72
	11600.00	0.08	227.96	11573.63	498.80	-320.66	-382.07	0.01	562062.99	796957.70	N 32 32 32.76	W 103 30 13.72
Cimarex Chief 30 State #6 - PBHL	11676.37	0.09	227.96	11650.00	498.91	-320.74	-382.16	0.01	562062.92	796957.62	N 32 32 32.76	W 103 30 13.72

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	11676.369	1/100.000	30.000	30.000		NAL_MWD_PLUS_0.5_DEG	Original Borehole / Cimarex Chief 30 State #6 Rev0 RM 1June2016