

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

JAN 27 2016

RECEIVED

1 API Number 30-015-42172		2 Post Code 98018		3 Post Name Wildcat; Bone Spring	
4 Property Code 40451		5 Property Name MEDWICK 32 FEDERAL COM			
6 UGID No. 215099		7 Operator Name CIMAREX ENERGY CO.			
				8 Well Number 711	
				9 Elevation 3192'	

"Bottom Hole Location If Different From Surface"									
UL or lot no. C	Section 29	Township 26S	Range 27E	1 of 10	Feet from the 330	North/South line NORTH	Feet from the 2660	East/West line EAST	County EDDY
"1" Indicated Area 446.36		"2" Joint or Infill		"3" Consolidation Code		"4" Order No.			

2000' 1000' 0' 2000'

SCALE

330'

589°54'09"E 2654.53' (Meas.)

589°55'37"E 2655.53' (Meas.)

2650'

BHL

100°32'06"W 2669.22' (Meas.)

100°31'03"W 6215.60'

100°33'24"E 2665.03' (Meas.)

500°44'26"E 2659.58' (Meas.)

100°31'59"W 2668.04' (Meas.)

500°33'24"E 2665.03' (Meas.)

500°01'23"W - 2100.79' (Meas. To C.C.)

500°01'23"W - 2100.36' (Meas. To True)

500°00'24"W - 2110.14' (Meas. To C.C.)

500°00'24"W - 2110.22' (Meas. To True)

947.27'

2642.93'

1694.20'

951.46'

4332.38'

890'

290'

MP 68

MP 67

MP 66

589°56'15"E - 5284.39' (Meas.)

589°57'17"E - 5283.84' (Meas.)

320°02'97" (32.000825)

104°12'35.70" (104.208917)

320°02'53" (32.000703)

104°12'33.93" (104.209425)

STATE PLANE NAD 83 (N.M. EAST)

N: 364081.93 E: 578594.77

STATE PLANE NAD 27 (N.M. EAST)

N: 364005.38 E: 538410.77

NAD 83 (SURFACE LOCATION)

NAD 27 (SURFACE LOCATION)

NAD 83 (BOTTOM HOLE)

NAD 27 (BOTTOM HOLE)

320°01'10.41" (32.019358)

104°12'43.45" (104.212059)

320°01'09.97" (32.019436)

104°12'41.87" (104.2211979)

STATE PLANE NAD 83 (N.M. EAST)

N: 370875.43 E: 578620.02

STATE PLANE NAD 27 (N.M. EAST)

N: 370818.75 E: 537736.16

▲ = SECTION CORNERS LOCATED REVMED: 09-17-2015 T.E.

LINE TABLE		
LINE	DIRECTION	LENGTH
L1	S45°26'18"E	856.05'

LOT 4

LOT 3

LOT 2

LOT 1

SHL

LEASE BOUNDARY

LEASE BOUNDARY

29

32

260'

2050'

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or undivided mineral interest in the land including the proposed highway right-of-way or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a subsidiary mining operation or a subsidiary processing, order treatment, or other facility.

Michael J. Sullivan 10/1/15
Signature Date

Aricka Easterling

Printed Name _____

Aeasterling@cimarex.com

E-mail Address

thereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

September 4, 2013

Date of Survey _____
Signature and Seal of Professional Surveyor: _____

LINE TABLE		
LINE	DIRECTION	LENGTH
L1	S45°28'18"E	856.05'



Estimate Number



**Cimarex Medwick 32 Federal #7H Rev2 JLP 30-Sep-15 Proposal Geodetic
Report
(Non-Def Plan)**



Report Date:	September 30, 2015 - 03:12 PM	Survey / DLS Computation:	Minimum Curvature / Lubinski
Client:	Cimarex	Vertical Section Azimuth:	354.344 ° (Grid North)
Field:	NM Eddy County (NAD 83)	Vertical Section Origin:	0.000 ft, 0.000 ft
Structure / Slot:	Cimarex Medwick 32 Federal #7H / Cimarex Medwick 32 Federal #7H	TVD Reference Datum:	Ground Level
Well:	Cimarex Medwick 32 Federal #7H	TVD Reference Elevation:	3192.000 ft above MSL
Borehole:	Original Borehole	Seabed / Ground Elevation:	3192.000 ft above MSL
UWI / API#:	Unknown / Unknown	Magnetic Declination:	7.554 °
Survey Name:	Cimarex Medwick 32 Federal #7H Rev2 JLP 30-Sep-15	Total Gravity Field Strength:	998.6854mgn (9.80665 Based)
Survey Date:	September 25, 2013	Gravity Model:	DOX
Tort / AHD / DDI / ERD Ratio:	145.926 ° / 7243.060 ft / 6.309 / 0.981	Total Magnetic Field Strength:	48138.134 nT
Coordinate Reference System:	NAD83 New Mexico State Plane, Eastern Zone, US Feet	Magnetic Dip Angle:	59.703 °
Location Lat / Long:	N 32° 0' 2.97450", W 104° 12' 35.70109"	Declination Date:	September 30, 2015
Location Grid N/E Y/X:	N 364061.930 ftUS, E 579594.770 ftUS	Magnetic Declination Model:	HDGM 2015
CRS Grid Convergence Angle:	0.0654 °	North Reference:	Grid North
Grid Scale Factor:	0.99991077	Grid Convergence Used:	0.0654 °
Version / Patch:	2.8.572.0	Total Corr Mag North->Grid North:	7.4890 °
		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 (290' FSL, 2050' FEL)	0.00	0.00	268.00	0.00	0.00	0.00	0.00	N/A	364061.93	579594.77	N 32 0 2.97 W 104 12 35.70	
	100.00	0.00	268.00	100.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0 2.97 W 104 12 35.70	
	200.00	0.00	268.00	200.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0 2.97 W 104 12 35.70	
	300.00	0.00	268.00	300.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0 2.97 W 104 12 35.70	
	400.00	0.00	268.00	400.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0 2.97 W 104 12 35.70	
	500.00	0.00	268.00	500.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0 2.97 W 104 12 35.70	
	600.00	0.00	268.00	600.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0 2.97 W 104 12 35.70	
	700.00	0.00	268.00	700.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0 2.97 W 104 12 35.70	
	800.00	0.00	268.00	800.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0 2.97 W 104 12 35.70	
	900.00	0.00	268.00	900.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0 2.97 W 104 12 35.70	
	1000.00	0.00	268.00	1000.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0 2.97 W 104 12 35.70	
	1100.00	0.00	268.00	1100.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0 2.97 W 104 12 35.70	
	1200.00	0.00	268.00	1200.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0 2.97 W 104 12 35.70	
	1300.00	0.00	268.00	1300.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0 2.97 W 104 12 35.70	
	1400.00	0.00	268.00	1400.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0 2.97 W 104 12 35.70	
	1500.00	0.00	268.00	1500.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0 2.97 W 104 12 35.70	
	1600.00	0.00	268.00	1600.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0 2.97 W 104 12 35.70	
	1700.00	0.00	268.00	1700.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0 2.97 W 104 12 35.70	
	1800.00	0.00	268.00	1800.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0 2.97 W 104 12 35.70	
	1900.00	0.00	268.00	1900.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0 2.97 W 104 12 35.70	
	2000.00	0.00	268.00	2000.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0 2.97 W 104 12 35.70	
	2100.00	0.00	268.00	2100.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0 2.97 W 104 12 35.70	

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 ° ' ")
	2200.00	0.00	268.00	2200.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0	2 97 W 104 12 35.70
	2300.00	0.00	268.00	2300.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0	2 97 W 104 12 35.70
	2400.00	0.00	268.00	2400.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0	2 97 W 104 12 35.70
	2500.00	0.00	268.00	2500.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0	2 97 W 104 12 35.70
	2600.00	0.00	268.00	2600.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0	2 97 W 104 12 35.70
	2700.00	0.00	268.00	2700.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0	2 97 W 104 12 35.70
	2800.00	0.00	268.00	2800.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0	2 97 W 104 12 35.70
	2900.00	0.00	268.00	2900.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0	2 97 W 104 12 35.70
	3000.00	0.00	268.00	3000.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0	2 97 W 104 12 35.70
	3100.00	0.00	268.00	3100.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0	2 97 W 104 12 35.70
	3200.00	0.00	268.00	3200.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0	2 97 W 104 12 35.70
	3300.00	0.00	268.00	3300.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0	2 97 W 104 12 35.70
	3400.00	0.00	268.00	3400.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0	2 97 W 104 12 35.70
	3500.00	0.00	268.00	3500.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0	2 97 W 104 12 35.70
	3600.00	0.00	268.00	3600.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0	2 97 W 104 12 35.70
	3700.00	0.00	268.00	3700.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0	2 97 W 104 12 35.70
	3800.00	0.00	268.00	3800.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0	2 97 W 104 12 35.70
	3900.00	0.00	268.00	3900.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0	2 97 W 104 12 35.70
	4000.00	0.00	268.00	4000.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0	2 97 W 104 12 35.70
	4100.00	0.00	268.00	4100.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0	2 97 W 104 12 35.70
	4200.00	0.00	268.00	4200.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0	2 97 W 104 12 35.70
	4300.00	0.00	268.00	4300.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0	2 97 W 104 12 35.70
	4400.00	0.00	268.00	4400.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0	2 97 W 104 12 35.70
	4500.00	0.00	268.00	4500.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0	2 97 W 104 12 35.70
	4600.00	0.00	268.00	4600.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0	2 97 W 104 12 35.70
	4700.00	0.00	268.00	4700.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0	2 97 W 104 12 35.70
	4800.00	0.00	268.00	4800.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0	2 97 W 104 12 35.70
	4900.00	0.00	268.00	4900.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0	2 97 W 104 12 35.70
	5000.00	0.00	268.00	5000.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0	2 97 W 104 12 35.70
	5100.00	0.00	268.00	5100.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0	2 97 W 104 12 35.70
	5200.00	0.00	268.00	5200.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0	2 97 W 104 12 35.70
	5300.00	0.00	268.00	5300.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0	2 97 W 104 12 35.70
	5400.00	0.00	268.00	5400.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0	2 97 W 104 12 35.70
	5500.00	0.00	268.00	5500.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0	2 97 W 104 12 35.70
	5600.00	0.00	268.00	5600.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0	2 97 W 104 12 35.70
	5700.00	0.00	268.00	5700.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0	2 97 W 104 12 35.70
	5800.00	0.00	268.00	5800.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0	2 97 W 104 12 35.70
	5900.00	0.00	268.00	5900.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0	2 97 W 104 12 35.70
	6000.00	0.00	268.00	6000.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0	2 97 W 104 12 35.70
	6100.00	0.00	268.00	6100.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0	2 97 W 104 12 35.70
	6200.00	0.00	268.00	6200.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0	2 97 W 104 12 35.70
	6300.00	0.00	268.00	6300.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0	2 97 W 104 12 35.70
	6400.00	0.00	268.00	6400.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0	2 97 W 104 12 35.70
	6500.00	0.00	268.00	6500.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0	2 97 W 104 12 35.70
	6600.00	0.00	268.00	6600.00	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0	2 97 W 104 12 35.70
Build @ 12"/100' DLS	6667.52	0.00	268.00	6667.52	0.00	0.00	0.00	0.00	364061.93	579594.77	N 32 0	2 97 W 104 12 35.70
	6700.00	3.90	268.00	6699.97	0.07	-0.04	-1.10	12.00	364061.89	579593.67	N 32 0	2 97 W 104 12 35.71
	6800.00	15.90	268.00	6798.31	1.16	-0.64	-18.25	12.00	364061.29	579576.52	N 32 0	2 97 W 104 12 35.91

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 ° ' '')
Build & Turn 12"/100" DLS	6900.00	27.90	268.00	6890.92	3.54	-1.94	-55.46	12.00	364059.99	579539.32	N 32 0	2.96 W 104 12 36.35
	7000.00	39.90	268.00	6973.77	7.09	-3.88	-111.09	12.00	364058.05	579483.69	N 32 0	2.94 W 104 12 36.99
	7100.00	51.90	268.00	7043.24	11.66	-6.38	-182.73	12.00	364055.55	579412.06	N 32 0	2.91 W 104 12 37.82
	7125.85	55.00	268.00	7058.63	12.98	-7.11	-203.48	12.00	364054.83	579391.31	N 32 0	2.91 W 104 12 38.06
	7200.00	55.31	278.84	7101.08	22.57	-3.47	-264.08	12.00	364058.46	579330.72	N 32 0	2.94 W 104 12 38.77
	7300.00	57.22	293.10	7156.81	53.20	19.42	-343.66	12.00	364081.35	579251.14	N 32 0	3.17 W 104 12 39.89
	7400.00	60.66	306.53	7208.57	102.87	62.02	-417.62	12.00	364123.94	579177.19	N 32 0	3.59 W 104 12 40.55
	7500.00	65.34	318.95	7254.10	169.43	122.45	-482.72	12.00	364184.37	579112.09	N 32 0	4.19 W 104 12 41.31
	7600.00	70.96	330.38	7291.41	249.95	198.08	-536.12	12.00	364259.99	579058.70	N 32 0	4.94 W 104 12 41.92
	7700.00	77.23	341.02	7318.88	340.92	285.60	-575.48	12.00	364347.50	579019.34	N 32 0	5.81 W 104 12 42.38
Landing Point	7800.00	83.91	351.14	7335.29	438.37	381.19	-599.09	12.00	364443.08	578995.74	N 32 0	6.75 W 104 12 42.65
	7863.54	89.64	359.38	7340.00	521.68	464.21	-605.96	12.00	364526.09	578986.87	N 32 0	7.57 W 104 12 42.73
	7900.00	89.64	359.38	7340.10	538.06	480.65	-606.14	0.00	364542.55	578988.89	N 32 0	7.74 W 104 12 42.73
	8000.00	89.64	359.38	7340.73	637.67	580.65	-607.22	0.00	364642.53	578987.61	N 32 0	8.73 W 104 12 42.74
	8100.00	89.64	359.38	7341.35	737.28	680.65	-608.30	0.00	364742.51	578986.53	N 32 0	9.72 W 104 12 42.76
	8200.00	89.64	359.38	7341.99	836.89	780.64	-609.38	0.00	364842.50	578985.44	N 32 0	10.71 W 104 12 42.77
	8300.00	89.64	359.38	7342.62	936.51	880.63	-610.46	0.00	364942.48	578984.36	N 32 0	11.70 W 104 12 42.78
	8400.00	89.64	359.38	7343.25	1036.12	980.62	-611.55	0.00	365042.46	578983.28	N 32 0	12.69 W 104 12 42.79
	8500.00	89.64	359.38	7343.88	1135.73	1080.62	-612.63	0.00	365142.45	578982.20	N 32 0	13.67 W 104 12 42.80
	8600.00	89.64	359.38	7344.51	1235.34	1180.61	-613.71	0.00	365242.43	578981.11	N 32 0	14.66 W 104 12 42.81
	8700.00	89.64	359.38	7345.14	1334.95	1280.60	-614.79	0.00	365342.41	578980.03	N 32 0	15.65 W 104 12 42.82
	8800.00	89.64	359.38	7345.77	1434.57	1380.59	-615.88	0.00	365442.40	578978.95	N 32 0	16.64 W 104 12 42.83
	8900.00	89.64	359.38	7346.40	1534.18	1480.58	-616.96	0.00	365542.38	578977.87	N 32 0	17.63 W 104 12 42.85
	9000.00	89.64	359.38	7347.03	1633.79	1580.58	-618.04	0.00	365642.36	578976.78	N 32 0	18.62 W 104 12 42.86
	9100.00	89.64	359.38	7347.66	1733.40	1680.57	-619.12	0.00	365742.35	578975.70	N 32 0	19.61 W 104 12 42.87
	9200.00	89.64	359.38	7348.29	1833.01	1780.56	-620.21	0.00	365842.33	578974.62	N 32 0	20.60 W 104 12 42.88
	9300.00	89.64	359.38	7348.92	1932.63	1880.55	-621.29	0.00	365942.31	578973.54	N 32 0	21.59 W 104 12 42.89
	9400.00	89.64	359.38	7349.55	2032.24	1980.55	-622.37	0.00	366042.29	578972.45	N 32 0	22.58 W 104 12 42.90
	9500.00	89.64	359.38	7350.18	2131.85	2080.54	-623.46	0.00	366142.28	578971.37	N 32 0	23.57 W 104 12 42.91
	9600.00	89.64	359.38	7350.81	2231.46	2180.53	-624.54	0.00	366242.26	578970.29	N 32 0	24.56 W 104 12 42.93
	9700.00	89.64	359.38	7351.44	2331.08	2280.52	-625.62	0.00	366342.24	578969.20	N 32 0	25.55 W 104 12 42.94
	9800.00	89.64	359.38	7352.07	2430.69	2380.51	-626.71	0.00	366442.23	578968.12	N 32 0	26.54 W 104 12 42.95
	9900.00	89.64	359.38	7352.70	2530.30	2480.51	-627.79	0.00	366542.21	578967.04	N 32 0	27.53 W 104 12 42.96
	10000.00	89.64	359.38	7353.33	2629.91	2580.50	-628.87	0.00	366642.19	578965.95	N 32 0	28.52 W 104 12 42.97
	10100.00	89.64	359.38	7353.96	2729.52	2680.49	-629.96	0.00	366742.18	578964.87	N 32 0	29.51 W 104 12 42.98
	10200.00	89.64	359.38	7354.59	2829.14	2780.48	-631.04	0.00	366842.16	578963.79	N 32 0	30.50 W 104 12 42.99
	10300.00	89.64	359.38	7355.22	2928.75	2880.47	-632.12	0.00	366942.14	578962.70	N 32 0	31.49 W 104 12 43.00
	10400.00	89.64	359.38	7355.85	3028.36	2980.47	-633.21	0.00	367042.12	578961.62	N 32 0	32.47 W 104 12 43.02
	10500.00	89.64	359.38	7356.48	3127.97	3080.46	-634.29	0.00	367142.11	578960.54	N 32 0	33.46 W 104 12 43.03
	10600.00	89.64	359.38	7357.11	3227.58	3180.45	-635.38	0.00	367242.09	578959.45	N 32 0	34.45 W 104 12 43.04
	10700.00	89.64	359.38	7357.74	3327.20	3280.44	-636.46	0.00	367342.07	578958.37	N 32 0	35.44 W 104 12 43.05
	10800.00	89.64	359.38	7358.37	3426.81	3380.44	-637.54	0.00	367442.06	578957.28	N 32 0	36.43 W 104 12 43.06
	10900.00	89.64	359.38	7359.00	3526.42	3480.43	-638.63	0.00	367542.04	578956.20	N 32 0	37.42 W 104 12 43.07
	11000.00	89.64	359.38	7359.63	3626.03	3580.42	-639.71	0.00	367642.02	578955.12	N 32 0	38.41 W 104 12 43.08
	11100.00	89.64	359.38	7360.26	3725.65	3680.41	-640.80	0.00	367742.01	578954.03	N 32 0	39.40 W 104 12 43.09
	11200.00	89.64	359.38	7360.89	3825.26	3780.40	-641.88	0.00	367841.99	578952.95	N 32 0	40.39 W 104 12 43.11
	11300.00	89.64	359.38	7361.52	3924.87	3880.40	-642.97	0.00	367941.97	578951.86	N 32 0	41.38 W 104 12 43.12

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 ° ' '')
	11400.00	89.64	359.38	7362.15	4024.48	3980.39	-644.05	0.00	368041.95	578950.78	N 32 0 42.37 W	104 12 43.13
	11500.00	89.64	359.38	7362.78	4124.09	4080.38	-645.13	0.00	368141.94	578949.69	N 32 0 43.36 W	104 12 43.14
	11600.00	89.64	359.38	7363.41	4223.71	4180.37	-646.22	0.00	368241.92	578948.61	N 32 0 44.35 W	104 12 43.15
	11700.00	89.64	359.38	7364.04	4323.32	4280.36	-647.30	0.00	368341.90	578947.53	N 32 0 45.34 W	104 12 43.16
	11800.00	89.64	359.38	7364.67	4422.93	4380.36	-648.39	0.00	368441.89	578946.44	N 32 0 46.33 W	104 12 43.17
	11900.00	89.64	359.38	7365.30	4522.54	4480.35	-649.47	0.00	368541.87	578945.36	N 32 0 47.32 W	104 12 43.18
	12000.00	89.64	359.38	7365.93	4622.16	4580.34	-650.56	0.00	368641.85	578944.27	N 32 0 48.31 W	104 12 43.20
	12100.00	89.64	359.38	7366.56	4721.77	4680.33	-651.64	0.00	368741.84	578943.19	N 32 0 49.30 W	104 12 43.21
	12200.00	89.64	359.38	7367.19	4821.38	4780.32	-652.73	0.00	368841.82	578942.10	N 32 0 50.29 W	104 12 43.22
	12300.00	89.64	359.38	7367.82	4920.99	4880.32	-653.81	0.00	368941.80	578941.02	N 32 0 51.27 W	104 12 43.23
	12400.00	89.64	359.38	7368.45	5020.61	4980.31	-654.90	0.00	369041.78	578939.93	N 32 0 52.26 W	104 12 43.24
	12500.00	89.64	359.38	7369.08	5120.22	5080.30	-655.98	0.00	369141.77	578938.85	N 32 0 53.25 W	104 12 43.25
	12600.00	89.64	359.38	7369.71	5219.83	5180.29	-657.07	0.00	369241.75	578937.76	N 32 0 54.24 W	104 12 43.26
	12700.00	89.64	359.38	7370.34	5319.44	5280.29	-658.15	0.00	369341.73	578936.68	N 32 0 55.23 W	104 12 43.28
	12800.00	89.64	359.38	7370.97	5419.06	5380.28	-659.24	0.00	369441.72	578935.59	N 32 0 56.22 W	104 12 43.29
	12900.00	89.64	359.38	7371.60	5518.67	5480.27	-660.33	0.00	369541.70	578934.51	N 32 0 57.21 W	104 12 43.30
	13000.00	89.64	359.38	7372.23	5618.28	5580.26	-661.41	0.00	369641.68	578933.42	N 32 0 58.20 W	104 12 43.31
	13100.00	89.64	359.38	7372.86	5717.89	5680.25	-662.50	0.00	369741.67	578932.33	N 32 0 59.19 W	104 12 43.32
	13200.00	89.64	359.38	7373.49	5817.50	5780.25	-663.58	0.00	369841.65	578931.25	N 32 1 0 18 W	104 12 43.33
	13300.00	89.64	359.38	7374.12	5917.12	5880.24	-664.67	0.00	369941.63	578930.16	N 32 1 1 17 W	104 12 43.34
	13400.00	89.64	359.38	7374.75	6016.73	5980.23	-665.75	0.00	370041.61	578929.08	N 32 1 2 16 W	104 12 43.35
	13500.00	89.64	359.38	7375.38	6116.34	6080.22	-666.84	0.00	370141.60	578927.99	N 32 1 3 15 W	104 12 43.37
	13600.00	89.64	359.38	7376.01	6215.95	6180.21	-667.93	0.00	370241.58	578926.91	N 32 1 4 14 W	104 12 43.38
	13700.00	89.64	359.38	7376.64	6315.57	6280.21	-669.01	0.00	370341.56	578925.82	N 32 1 5 13 W	104 12 43.39
	13800.00	89.64	359.38	7377.27	6415.18	6380.20	-670.10	0.00	370441.55	578924.73	N 32 1 6 12 W	104 12 43.40
	13900.00	89.64	359.38	7377.90	6514.79	6480.19	-671.18	0.00	370541.53	578923.65	N 32 1 7 11 W	104 12 43.41
	14000.00	89.64	359.38	7378.53	6614.40	6580.18	-672.27	0.00	370641.51	578922.56	N 32 1 8 10 W	104 12 43.42
	14100.00	89.64	359.38	7379.16	6714.02	6680.18	-673.36	0.00	370741.50	578921.48	N 32 1 9 09 W	104 12 43.43
	14200.00	89.64	359.38	7379.79	6813.63	6780.17	-674.44	0.00	370841.48	578920.39	N 32 1 10 08 W	104 12 43.44
Cimarex Medwick 32 Federal #7H - PBHL (330' FNL, 2660' FEL)	14233.96	89.64	359.38	7380.00	6847.45	6814.12	-674.81	0.00	370875.43	578920.02	N 32 1 10 41 W	104 12 43.45

Survey Type: Non-Def Plan

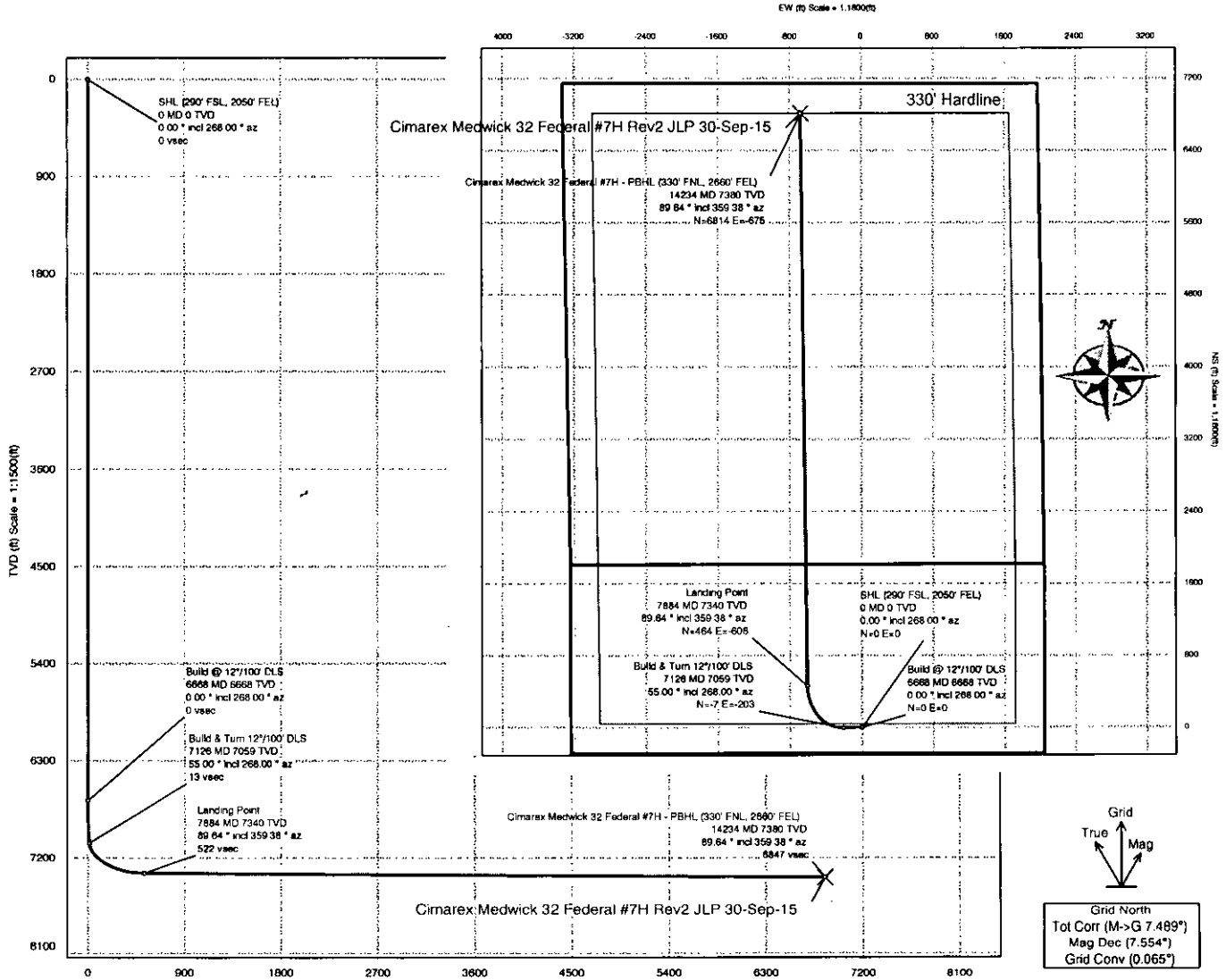
Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7955 sigma
Survey Program:

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	1	0.000	14233.957	1/100.000	30.000	30.000	SLB_MWD-STD	Original Borehole / Cimarex Medwick 32 Federal #7H Rev2

Schlumberger**Cimarex****CIMAREX**

Borehole: Original Borehole	Well: Medwick 32 Federal #7H	Field: NM Eddy County (NAD 83)	Structure: TBD
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Gravity & Magnetic Parameters Model: HDGM Dip: 59.703° Date: 30-Sep-2015 Mag Dec: 7.554° FS: 48138.134n Gravity FS: 998.685mgm (9.80665 Based)	Surface Location: NAD83 New Mexico State Plane, Eastern Zone, US Feet Lat: N 32 0 2.97 Northing: 354061.93RU Grid Conv: 0.0654° Lon: W 104 12 35.70 Easting: 579594.77RU Scale Fact: 0.99991077	Miscellaneous Slot: #7H TVD Ref: Ground Level(31921 above MSL) Plan: Rev2 JLP 30-Sep-15
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**Critical Points**

Critical Point	MD	INCL	AZIM	TVD	VSEC	N(°)E(°)	E(°)W(°)	DLS
SHL (290' FSL, 2050' FEL)	0.00	0.00	268.00	0.00	0.00	0.00	0.00	
Build @ 12°/100' DLS	6667.52	0.00	268.00	6667.52	0.00	0.00	0.00	0.00
Build & Turn 12°/100' DLS	7125.85	55.00	268.00	7058.63	12.98	-7.11	-203.48	12.00
Landing Point	7883.54	89.64	359.38	7340.00	521.66	464.21	-605.96	12.00
Cimarex Medwick 32 Federal #7H - PBHL (330' FNL, 2660' FEL)	14233.96	89.64	359.38	7380.00	6847.45	6814.12	-674.81	0.00

CONTROLLED	
Plan ref	Cimarex Medwick 32 Federal #7H Rev2 JLP 30-Sep-15
Drawing ref	
Copy number	of 3
Date	01-Oct-2015
1	Client
2	Client
3	Office
4	Office
Copy number	for