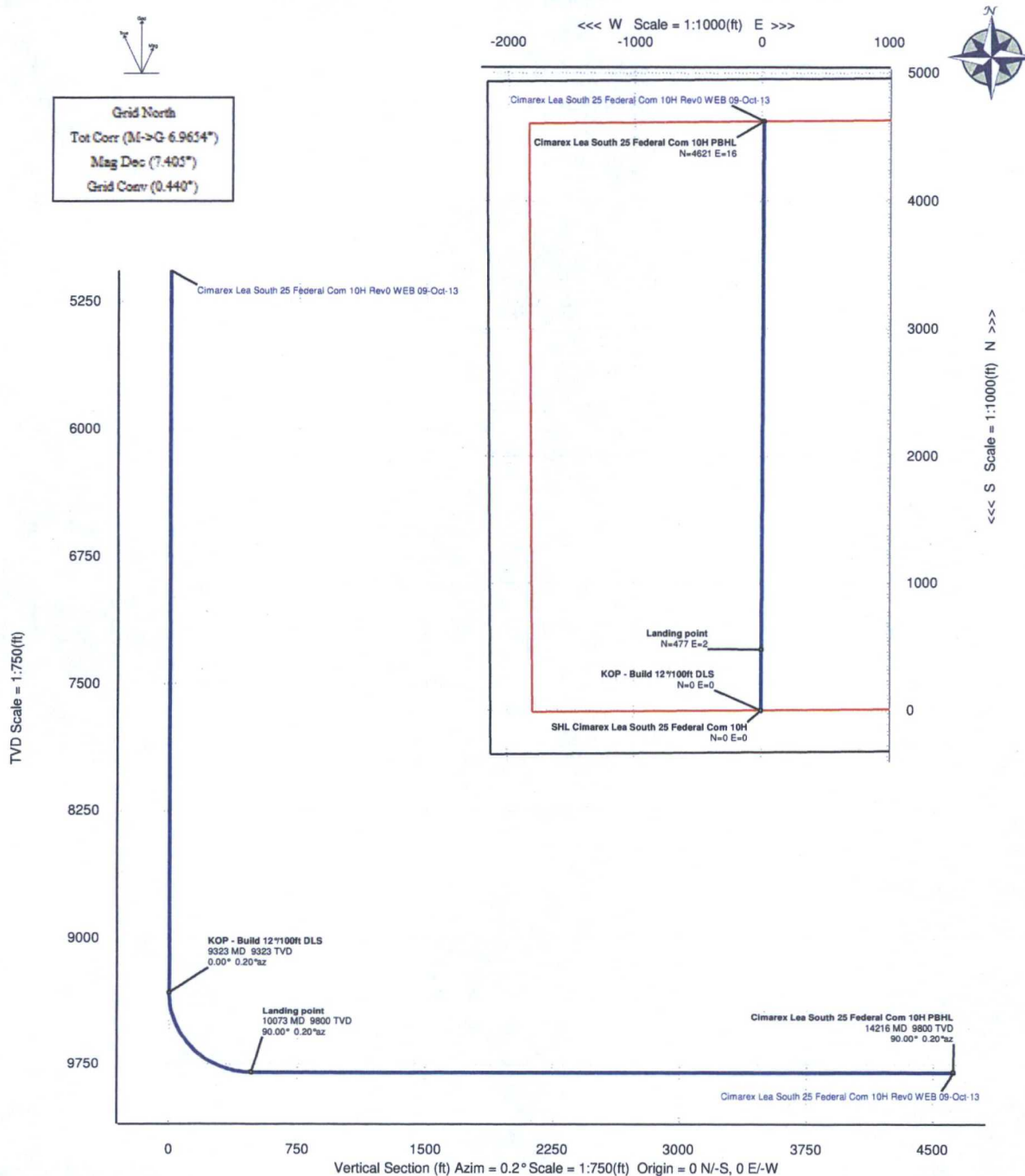




Cimarex

PATHFINDER
 A Schlumberger Company

WELL	Lea South 25 Federal Com 10H			FIELD	NM Lea County			STRUCTURE	TBD
Magnetic Parameters				Surface Location				Miscellaneous	
Model: BOGM 2013	Dip: 60.420°	Date: October 08, 2013	Lat: N 32 32 15.913	Northings: 560233.10 NUS	Grid Conv: 0.440°	Site: Cimarex Lea South 25 Federal Com 10H	Ground level: 3750' above MSL	Plan: Rev0 WEB 08-Oct-13	Entry Date: October 08, 2013
Mag Dec: 7.405°	FB: 48556.207		Lon: W 125 30 35.515	Eastings: 750233.30 NUS	Scale Fact: 0.99998185				



Critical Points

Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+)/S(-)	E(+)/W(-)	DLS
SHL Cimarex Lea South 25 Federal Com 10H	0.00	0.00	0.20	0.00	0.00	0.00	0.00	
KOP - Build 12°/100ft DLS	9322.50	0.00	0.20	9322.50	0.00	0.00	0.00	0.00
Landing point	10072.56	90.00	0.20	9800.00	477.50	477.50	1.67	12.00
Cimarex Lea South 25 Federal Com 10H PBHL	14215.98	90.00	0.20	9800.00	4620.92	4620.89	16.10	0.00



Cimarex Lea South 25 Federal Com 10H Rev0 WEB 09-Oct-13 Proposal
Report 100' Interpolated
(Non-Def Plan)



Report Date: October 09, 2013 - 12:26 PM
Client: Cimarex
Field: NM Lea County (NAD 83)
Structure / Slot: TBD/ Cimarex Lea South 25 Federal Com 10H
Well: Cimarex Lea South 25 Federal Com 10H
Borehole: Original Hole
UWI / API#: Unknown / Unknown
Survey Name: Cimarex Lea South 25 Federal Com 10H Rev0 WEB 09-Oct-13
Survey Date: October 09, 2013
Tort / AHD / DDI / ERD Ratio: 90.001 ° / 4620.921 ft / 5.781 / 0.472
Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 32' 15.91265", W 103° 30' 55.51500"
Location Grid N/E Y/X: N 560333.100 ftUS, E 793393.300 ftUS
CRS Grid Convergence Angle: 0.4399 °
Grid Scale Factor: 0.99998185

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 0.200 ° (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: Ground level
TVD Reference Elevation: 3759.000 ft above MSL
Seabed / Ground Elevation: 3759.000 ft above MSL
Magnetic Declination: 7.405 °
Total Gravity Field Strength: 998.4794mgn (9.80665 Based)
Total Magnetic Field Strength: 48566.202 nT
Magnetic Dip Angle: 60.420 °
Declination Date: October 09, 2013
Magnetic Declination Model: BGGM 2013
North Reference: Grid North
Grid Convergence Used: 0.4399 °
Total Corr Mag North->Grid North: 6.9654 °
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 (°/100ft)
SHL Cimarex Lea South 25 Federal Com 10H	0.00	0.00	0.20	0.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52	0.00	0.00	N/A
	100.00	0.00	0.20	100.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52	0.00	0.00	0.00
	200.00	0.00	0.20	200.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52	0.00	0.00	0.00
	300.00	0.00	0.20	300.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52	0.00	0.00	0.00
	400.00	0.00	0.20	400.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52	0.00	0.00	0.00
	500.00	0.00	0.20	500.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52	0.00	0.00	0.00
	600.00	0.00	0.20	600.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52	0.00	0.00	0.00
	700.00	0.00	0.20	700.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52	0.00	0.00	0.00
	800.00	0.00	0.20	800.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52	0.00	0.00	0.00
	900.00	0.00	0.20	900.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52	0.00	0.00	0.00
	1000.00	0.00	0.20	1000.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52	0.00	0.00	0.00
	1100.00	0.00	0.20	1100.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52	0.00	0.00	0.00
	1200.00	0.00	0.20	1200.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52	0.00	0.00	0.00
	1300.00	0.00	0.20	1300.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52	0.00	0.00	0.00
	1400.00	0.00	0.20	1400.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52	0.00	0.00	0.00
	1500.00	0.00	0.20	1500.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52	0.00	0.00	0.00
	1600.00	0.00	0.20	1600.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52	0.00	0.00	0.00
	1700.00	0.00	0.20	1700.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52	0.00	0.00	0.00
	1800.00	0.00	0.20	1800.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52	0.00	0.00	0.00
	1900.00	0.00	0.20	1900.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52	0.00	0.00	0.00
	2000.00	0.00	0.20	2000.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52	0.00	0.00	0.00
	2100.00	0.00	0.20	2100.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52	0.00	0.00	0.00
	2200.00	0.00	0.20	2200.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52	0.00	0.00	0.00
	2300.00	0.00	0.20	2300.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52	0.00	0.00	0.00
	2400.00	0.00	0.20	2400.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52	0.00	0.00	0.00
	2500.00	0.00	0.20	2500.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52	0.00	0.00	0.00
	2600.00	0.00	0.20	2600.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52	0.00	0.00	0.00
	2700.00	0.00	0.20	2700.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52	0.00	0.00	0.00

10/31/2013 1:12 PM 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 (°/100ft)
	8300.00	0.00	0.20	8300.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52	0.00	0.00	0.00
	8400.00	0.00	0.20	8400.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52	0.00	0.00	0.00
	8500.00	0.00	0.20	8500.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52	0.00	0.00	0.00
	8600.00	0.00	0.20	8600.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52	0.00	0.00	0.00
	8700.00	0.00	0.20	8700.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52	0.00	0.00	0.00
	8800.00	0.00	0.20	8800.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52	0.00	0.00	0.00
	8900.00	0.00	0.20	8900.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52	0.00	0.00	0.00
	9000.00	0.00	0.20	9000.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52	0.00	0.00	0.00
	9100.00	0.00	0.20	9100.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52	0.00	0.00	0.00
	9200.00	0.00	0.20	9200.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52	0.00	0.00	0.00
	9300.00	0.00	0.20	9300.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52	0.00	0.00	0.00
KOP - Build 12"/100ft DLS	9322.50	0.00	0.20	9322.50	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52	0.00	0.00	0.00
	9400.00	9.30	0.20	9399.66	6.28	6.28	0.02	560339.38	793393.32	N 32 32 15.97	W 103 30 55.51	6.28	0.20	12.00
	9500.00	21.30	0.20	9495.94	32.61	32.61	0.11	560365.71	793393.41	N 32 32 16.24	W 103 30 55.51	32.61	0.20	12.00
	9600.00	33.30	0.20	9584.64	78.39	78.39	0.27	560411.49	793393.57	N 32 32 16.69	W 103 30 55.50	78.39	0.20	12.00
	9700.00	45.30	0.20	9661.89	141.61	141.61	0.49	560474.71	793393.79	N 32 32 17.31	W 103 30 55.50	141.61	0.20	12.00
	9800.00	57.30	0.20	9724.30	219.51	219.50	0.77	560552.60	793394.07	N 32 32 18.08	W 103 30 55.49	219.51	0.20	12.00
	9900.00	69.29	0.20	9769.16	308.68	308.67	1.08	560641.77	793394.38	N 32 32 18.97	W 103 30 55.47	308.68	0.20	12.00
	10000.00	81.29	0.20	9794.50	405.22	405.22	1.41	560738.31	793394.71	N 32 32 19.92	W 103 30 55.46	405.22	0.20	12.00
Landing point	10072.56	90.00	0.20	9800.00	477.50	477.50	1.67	560810.59	793394.97	N 32 32 20.64	W 103 30 55.45	477.50	0.20	12.00
	10100.00	90.00	0.20	9800.00	504.94	504.94	1.76	560838.03	793395.06	N 32 32 20.91	W 103 30 55.45	504.94	0.20	0.00
	10200.00	90.00	0.20	9800.00	604.94	604.94	2.11	560938.03	793395.41	N 32 32 21.90	W 103 30 55.44	604.94	0.20	0.00
	10300.00	90.00	0.20	9800.00	704.94	704.94	2.46	561038.03	793395.76	N 32 32 22.89	W 103 30 55.42	704.94	0.20	0.00
	10400.00	90.00	0.20	9800.00	804.94	804.94	2.81	561138.02	793396.11	N 32 32 23.88	W 103 30 55.41	804.94	0.20	0.00
	10500.00	90.00	0.20	9800.00	904.94	904.94	3.16	561238.02	793396.46	N 32 32 24.87	W 103 30 55.40	904.94	0.20	0.00
	10600.00	90.00	0.20	9800.00	1004.94	1004.94	3.50	561338.02	793396.80	N 32 32 25.86	W 103 30 55.38	1004.94	0.20	0.00
	10700.00	90.00	0.20	9800.00	1104.94	1104.94	3.85	561438.02	793397.15	N 32 32 26.85	W 103 30 55.37	1104.94	0.20	0.00
	10800.00	90.00	0.20	9800.00	1204.94	1204.94	4.20	561538.01	793397.50	N 32 32 27.83	W 103 30 55.36	1204.94	0.20	0.00
	10900.00	90.00	0.20	9800.00	1304.94	1304.94	4.55	561638.01	793397.85	N 32 32 28.82	W 103 30 55.34	1304.94	0.20	0.00
	11000.00	90.00	0.20	9800.00	1404.94	1404.94	4.90	561738.01	793398.20	N 32 32 29.81	W 103 30 55.33	1404.94	0.20	0.00
	11100.00	90.00	0.20	9800.00	1504.94	1504.94	5.25	561838.01	793398.55	N 32 32 30.80	W 103 30 55.32	1504.94	0.20	0.00
	11200.00	90.00	0.20	9800.00	1604.94	1604.94	5.59	561938.00	793398.89	N 32 32 31.79	W 103 30 55.31	1604.94	0.20	0.00
	11300.00	90.00	0.20	9800.00	1704.94	1704.93	5.94	562038.00	793399.24	N 32 32 32.78	W 103 30 55.29	1704.94	0.20	0.00
	11400.00	90.00	0.20	9800.00	1804.94	1804.93	6.29	562138.00	793399.59	N 32 32 33.77	W 103 30 55.28	1804.94	0.20	0.00
	11500.00	90.00	0.20	9800.00	1904.94	1904.93	6.64	562237.99	793399.94	N 32 32 34.76	W 103 30 55.27	1904.94	0.20	0.00
	11600.00	90.00	0.20	9800.00	2004.94	2004.93	6.99	562337.99	793400.29	N 32 32 35.75	W 103 30 55.25	2004.94	0.20	0.00
	11700.00	90.00	0.20	9800.00	2104.94	2104.93	7.34	562437.99	793400.64	N 32 32 36.74	W 103 30 55.24	2104.94	0.20	0.00
	11800.00	90.00	0.20	9800.00	2204.94	2204.93	7.68	562537.99	793400.98	N 32 32 37.73	W 103 30 55.23	2204.94	0.20	0.00
	11900.00	90.00	0.20	9800.00	2304.94	2304.93	8.03	562637.98	793401.33	N 32 32 38.72	W 103 30 55.21	2304.94	0.20	0.00
	12000.00	90.00	0.20	9800.00	2404.94	2404.93	8.38	562737.98	793401.68	N 32 32 39.71	W 103 30 55.20	2404.94	0.20	0.00
	12100.00	90.00	0.20	9800.00	2504.94	2504.93	8.73	562837.98	793402.03	N 32 32 40.70	W 103 30 55.19	2504.94	0.20	0.00
	12200.00	90.00	0.20	9800.00	2604.94	2604.93	9.08	562937.98	793402.38	N 32 32 41.69	W 103 30 55.18	2604.94	0.20	0.00
	12300.00	90.00	0.20	9800.00	2704.94	2704.93	9.43	563037.97	793402.73	N 32 32 42.68	W 103 30 55.16	2704.94	0.20	0.00
	12400.00	90.00	0.20	9800.00	2804.94	2804.93	9.77	563137.97	793403.07	N 32 32 43.66	W 103 30 55.15	2804.94	0.20	0.00
	12500.00	90.00	0.20	9800.00	2904.94	2904.93	10.12	563237.97	793403.42	N 32 32 44.65	W 103 30 55.14	2904.94	0.20	0.00
	12600.00	90.00	0.20	9800.00	3004.94	3004.93	10.47	563337.97	793403.77	N 32 32 45.64	W 103 30 55.12	3004.94	0.20	0.00
	12700.00	90.00	0.20	9800.00	3104.94	3104.93	10.82	563437.96	793404.12	N 32 32 46.63	W 103 30 55.11	3104.94	0.20	0.00
	12800.00	90.00	0.20	9800.00	3204.94	3204.93	11.17	563537.96	793404.47	N 32 32 47.62	W 103 30 55.10	3204.94	0.20	0.00
	12900.00	90.00	0.20	9800.00	3304.94	3304.92	11.52	563637.96	793404.82	N 32 32 48.61	W 103 30 55.08	3304.94	0.20	0.00
	13000.00	90.00	0.20	9800.00	3404.94	3404.92	11.86	563737.96	793405.16	N 32 32 49.60	W 103 30 55.07	3404.94	0.20	0.00
	13100.00	90.00	0.20	9800.00	3504.94	3504.92	12.21	563837.95	793405.51	N 32 32 50.59	W 103 30 55.06	3504.94	0.20	0.00
	13200.00	90.00	0.20	9800.00	3604.94	3604.92	12.56	563937.95	793405.86	N 32 32 51.58	W 103 30 55.04	3604.94	0.20	0.00
	13300.00	90.00	0.20	9800.00	3704.94	3704.92	12.91	564037.95	793406.21	N 32 32 52.57	W 103 30 55.03	3704.94	0.20	0.00
	13400.00	90.00	0.20	9800.00	3804.94	3804.92	13.26	564137.94	793406.56	N 32 32 53.56	W 103 30 55.02	3804.94	0.20	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)
	13500.00	90.00	0.20	9800.00	3904.94	3904.92	13.61	564237.94	793406.91	N 32 32 54.55	W 103 30 55.01	3904.94	0.20	0.00
	13600.00	90.00	0.20	9800.00	4004.94	4004.92	13.95	564337.94	793407.25	N 32 32 55.54	W 103 30 54.99	4004.94	0.20	0.00
	13700.00	90.00	0.20	9800.00	4104.94	4104.92	14.30	564437.94	793407.60	N 32 32 56.53	W 103 30 54.98	4104.94	0.20	0.00
	13800.00	90.00	0.20	9800.00	4204.94	4204.92	14.65	564537.93	793407.95	N 32 32 57.52	W 103 30 54.97	4204.94	0.20	0.00
	13900.00	90.00	0.20	9800.00	4304.94	4304.92	15.00	564637.93	793408.30	N 32 32 58.51	W 103 30 54.95	4304.94	0.20	0.00
	14000.00	90.00	0.20	9800.00	4404.94	4404.92	15.35	564737.93	793408.65	N 32 32 59.50	W 103 30 54.94	4404.94	0.20	0.00
	14100.00	90.00	0.20	9800.00	4504.94	4504.92	15.70	564837.93	793409.00	N 32 33 0.48	W 103 30 54.93	4504.94	0.20	0.00
	14200.00	90.00	0.20	9800.00	4604.94	4604.92	16.04	564937.92	793409.34	N 32 33 1.47	W 103 30 54.91	4604.94	0.20	0.00
Cimarex Lea South 25 Federal Com 10H PBHL	14215.98	90.00	0.20	9800.00	4620.92	4620.89	16.10	564953.90	793409.40	N 32 33 1.63	W 103 30 54.91	4620.92	0.20	0.00

Survey Type: Non-Def Plan

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

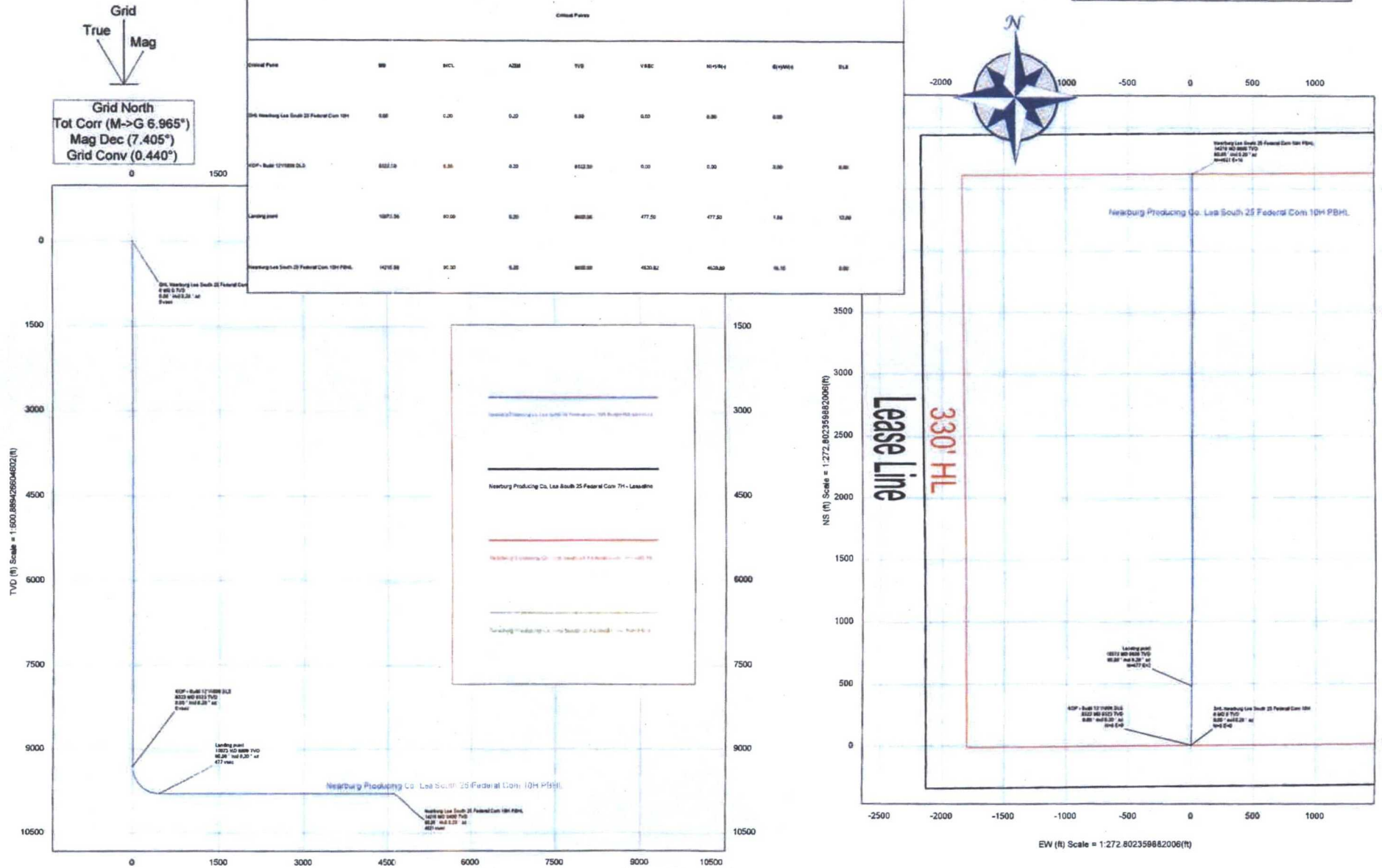
Description	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	0.000	9325.000	1/100.000	30.000	30.000	SLB_MWD-POOR	Original Hole / Cimarex Lea South 25 Federal Com 10H Rev0 WEB
	9325.000	14215.976	1/100.000	30.000	30.000	SLB_MWD-STD	Original Hole / Cimarex Lea South 25 Federal Com 10H Rev0 WEB

Plan - Rev0

Nearburg Producing Co.

Borehole: Original Hole		Well: Nearburg Producing Co. Lea South 25 Federal Com 10H		Field: NM Lea County (NAD 83)		Structure: Nearburg Producing Co. Lea South 25 Federal Com 10H	
Gravity & Magnetic Parameters		Surface Location		Nearburg Producing Co. Lea South 25 Federal Com 10H		TVD Ref: Ground level (1768ft above MSL)	
Model: BOOM 2013	Dip: 50.42°	Date: 09-Oct-2013	Latitude: N 32 32 15.81	Longitude: 106 53 33.1165	Grid Conv: 0.4299°	Plan: Nearburg Producing Co. Lea South 25 Federal Com 10H Rev0 WBS 09-Oct-13	
MagDec: 7.405°	FS: 48668.282mT	Gravity FS: 980.711m/s² (9.80665 Based)	Lat: W 103 30 55.52	East: 793393.3705	Scale Fact: 0.99996185		

CONTROLLED	
Project:	Nearburg Producing Co. Lea South 25 Federal Com 10H Rev0 WBS 09-Oct-13
Drawn by:	
Checked by:	
Date:	09/10/2013
Sheet:	1 of 1
1	Draw
2	Check
3	Office
4	Office
Draw number:	10



Nearburg Producing Co. Lea South 25 Federal Com 10H Rev0 WEB 09-Oct-13 13 Proposal Geodetic Report (Non-Def Plan)

Report Date:	November 12, 2015 - 11:09 AM	Survey / DLS Computation:	Minimum Curvature / Lubinski
Client:	Nearburg Producing Co.	Vertical Section Azimuth:	0.200 ° (Grid North)
Field:	NM Lea County (NAD 83)	Vertical Section Origin:	0.000 ft, 0.000 ft
Structure / Slot:	Nearburg Producing Co. Lea South 25 Federal Com 10H / Nearburg Producing Co. Lea South 25 Federal Com 10H	TVD Reference Datum:	Ground level
Well:	Nearburg Producing Co. Lea South 25 Federal Com 10H	TVD Reference Elevation:	3759.000 ft above MSL
Borehole:	Original Hole	Seabed / Ground Elevation:	3759.000 ft above MSL
UWI / API#:	Unknown / Unknown	Magnetic Declination:	7.405 °
Survey Name:	Nearburg Producing Co. Lea South 25 Federal Com 10H Rev0 WEB 09-Oct-13	Total Gravity Field Strength:	998.7105mgn (9.80665 Based)
Survey Date:	October 09, 2013	Gravity Model:	DOX
Tort / AHD / DDI / ERD Ratio:	90.000 ° / 4620.921 ft / 5.781 / 0.472	Total Magnetic Field Strength:	48566.202 nT
Coordinate Reference System:	NAD83 New Mexico State Plane, Eastern Zone, US Feet	Magnetic Dip Angle:	80.420 °
Location Lat / Long:	N 32° 32' 15.91285", W 103° 30' 55.51500"	Declination Date:	October 09, 2013
Location Grid N/E Y/X:	N 580333.100 RUS, E 793393.300 RUS	Magnetic Declination Model:	BGGM 2013
CRS Grid Convergence Angle:	0.4399 °	North Reference:	Grid North
Grid Scale Factor:	0.99998185	Grid Convergence Used:	0.4399 °
Version / Patch:	2.8.572.0	Total Corr Mag North->Grid North:	6.9654 °
		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 Nearburg Lea South 25 Federal Com 10H	0.00	0.00	0.20	0.00	0.00	0.00	0.00	N/A	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52
KOP - Build 12"/100ft DLS	9322.50	0.00	0.20	9322.50	0.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52
Landing point Nearburg Lea South 25 Federal Com 10H PBHL	10072.56	90.00	0.20	9800.00	477.50	477.50	1.86	12.00	560810.59	793394.96	N 32 32 20.84	W 103 30 55.45
	14215.98	90.00	0.20	9800.00	4620.92	4620.89	16.10	0.00	564953.90	793409.40	N 32 33 1.63	W 103 30 54.91

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	9325.000	1/100.000	30.000	30.000	SLB_MWD-POOR	Original Hole / Nearburg Producing Co. Lea South 25 Federal Com
	1	9325.000	14215.976	1/100.000	30.000	30.000	SLB_MWD-STD	Original Hole / Nearburg Producing Co. Lea South 25 Federal Com

Nearburg Producing Co. Lea South 25 Federal Com 10H Rev0 WEB 09-Oct-13 Proposal Geodetic Report (Non-Def Plan)

Report Date: November 12, 2015 - 11:08 AM
 Client: Nearburg Producing Co.
 Field: NM Lea County (NAD 83)
 Structure / Slot: Nearburg Producing Co. Lea South 25 Federal Com 10H / Nearburg Producing Co. Lea South 25 Federal Com 10H
 Well: Nearburg Producing Co. Lea South 25 Federal Com 10H
 Borehole: Original Hole
 UWI / API#: Unknown / Unknown
 Survey Name: Nearburg Producing Co. Lea South 25 Federal Com 10H Rev0 WEB 09-Oct-13
 Survey Date: October 09, 2013
 Tort / AHD / DDI / ERD Ratio: 90.000 * / 4820.921 ft / 5.781 / 0.472
 Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
 Location Lat / Long: N 32° 32' 15.91265", W 103° 30' 55.51500"
 Location Grid N/E Y/X: N 560333.100 RUS, E 793393.300 RUS
 CRS Grid Convergence Angle: 0.4399 *
 Grid Scale Factor: 0.99998185
 Version / Patch: 2.8.572.0

Survey / DLS Computation: Minimum Curvature / Lubinski
 Vertical Section Azimuth: 0.200 * (Grid North)
 Vertical Section Origin: 0.000 ft, 0.000 ft
 TVD Reference Datum: Ground level
 TVD Reference Elevation: 3759.000 ft above MSL
 Seabed / Ground Elevation: 3759.000 ft above MSL
 Magnetic Declination: 7.405 *
 Total Gravity Field Strength: 998.7105mgm (9.80665 Based)
 Gravity Model: DOX
 Total Magnetic Field Strength: 48566.202 nT
 Magnetic Dip Angle: 60.420 *
 Declination Date: October 09, 2013
 Magnetic Declination Model: BGGM 2013
 North Reference: Grid North
 Grid Convergence Used: 0.4399 *
 Total Corr Mag North->Grid North: 6.9654 *
 Local Coord Referenced To: Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (ft/100ft)	Northing (RUS)	Easting (RUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
SHL Nearburg Lea South 25 Federal Com 10H	0.00	0.00	0.20	0.00	0.00	0.00	0.00	N/A	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52
	100.00	0.00	0.20	100.00	0.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52
	200.00	0.00	0.20	200.00	0.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52
	300.00	0.00	0.20	300.00	0.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52
	400.00	0.00	0.20	400.00	0.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52
	500.00	0.00	0.20	500.00	0.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52
	600.00	0.00	0.20	600.00	0.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52
	700.00	0.00	0.20	700.00	0.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52
	800.00	0.00	0.20	800.00	0.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52
	900.00	0.00	0.20	900.00	0.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52
	1000.00	0.00	0.20	1000.00	0.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52
	1100.00	0.00	0.20	1100.00	0.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52
	1200.00	0.00	0.20	1200.00	0.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52
	1300.00	0.00	0.20	1300.00	0.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52
	1400.00	0.00	0.20	1400.00	0.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52
	1500.00	0.00	0.20	1500.00	0.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52
	1600.00	0.00	0.20	1600.00	0.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52
	1700.00	0.00	0.20	1700.00	0.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52
	1800.00	0.00	0.20	1800.00	0.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52
	1900.00	0.00	0.20	1900.00	0.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52
	2000.00	0.00	0.20	2000.00	0.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52
	2100.00	0.00	0.20	2100.00	0.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52
	2200.00	0.00	0.20	2200.00	0.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52
	2300.00	0.00	0.20	2300.00	0.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52
	2400.00	0.00	0.20	2400.00	0.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52
	2500.00	0.00	0.20	2500.00	0.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52
	2600.00	0.00	0.20	2600.00	0.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52
	2700.00	0.00	0.20	2700.00	0.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52
	2800.00	0.00	0.20	2800.00	0.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52
	2900.00	0.00	0.20	2900.00	0.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52
	3000.00	0.00	0.20	3000.00	0.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52
	3100.00	0.00	0.20	3100.00	0.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52
	3200.00	0.00	0.20	3200.00	0.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52
	3300.00	0.00	0.20	3300.00	0.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52
	3400.00	0.00	0.20	3400.00	0.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52
	3500.00	0.00	0.20	3500.00	0.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52
	3600.00	0.00	0.20	3600.00	0.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52
	3700.00	0.00	0.20	3700.00	0.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52
	3800.00	0.00	0.20	3800.00	0.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52
	3900.00	0.00	0.20	3900.00	0.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52
	4000.00	0.00	0.20	4000.00	0.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52
	4100.00	0.00	0.20	4100.00	0.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52
	4200.00	0.00	0.20	4200.00	0.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52
	4300.00	0.00	0.20	4300.00	0.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52
	4400.00	0.00	0.20	4400.00	0.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52
	4500.00	0.00	0.20	4500.00	0.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52
	4600.00	0.00	0.20	4600.00	0.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52
	4700.00	0.00	0.20	4700.00	0.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52
	4800.00	0.00	0.20	4800.00	0.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52
	4900.00	0.00	0.20	4900.00	0.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52
	5000.00	0.00	0.20	5000.00	0.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52
	5100.00	0.00	0.20	5100.00	0.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52
	5200.00	0.00	0.20	5200.00	0.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52
	5300.00	0.00	0.20	5300.00	0.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52
	5400.00	0.00	0.20	5400.00	0.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52
	5500.00	0.00	0.20	5500.00	0.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52
	5600.00	0.00	0.20	5600.00	0.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52
	5700.00	0.00	0.20	5700.00	0.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52
	5800.00	0.00	0.20	5800.00	0.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52
	5900.00	0.00	0.20	5900.00	0.00	0.00	0.00	0.00	560333.10	793393.30	N 32 32 15.91	W 103 30 55.52

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 ° ' ")
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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	9325.000	1/100.000	30.000	30.000	SLB_MWD-POOR	Original Hole / Nearburg Producing Co. Lea South 25 Federal Com
	1	9325.000	14215.976	1/100.000	30.000	30.000	SLB_MWD-STD	Original Hole / Nearburg Producing Co. Lea South 25 Federal Com