

MAR 06 2015

30-025-41898

PATHFINDER
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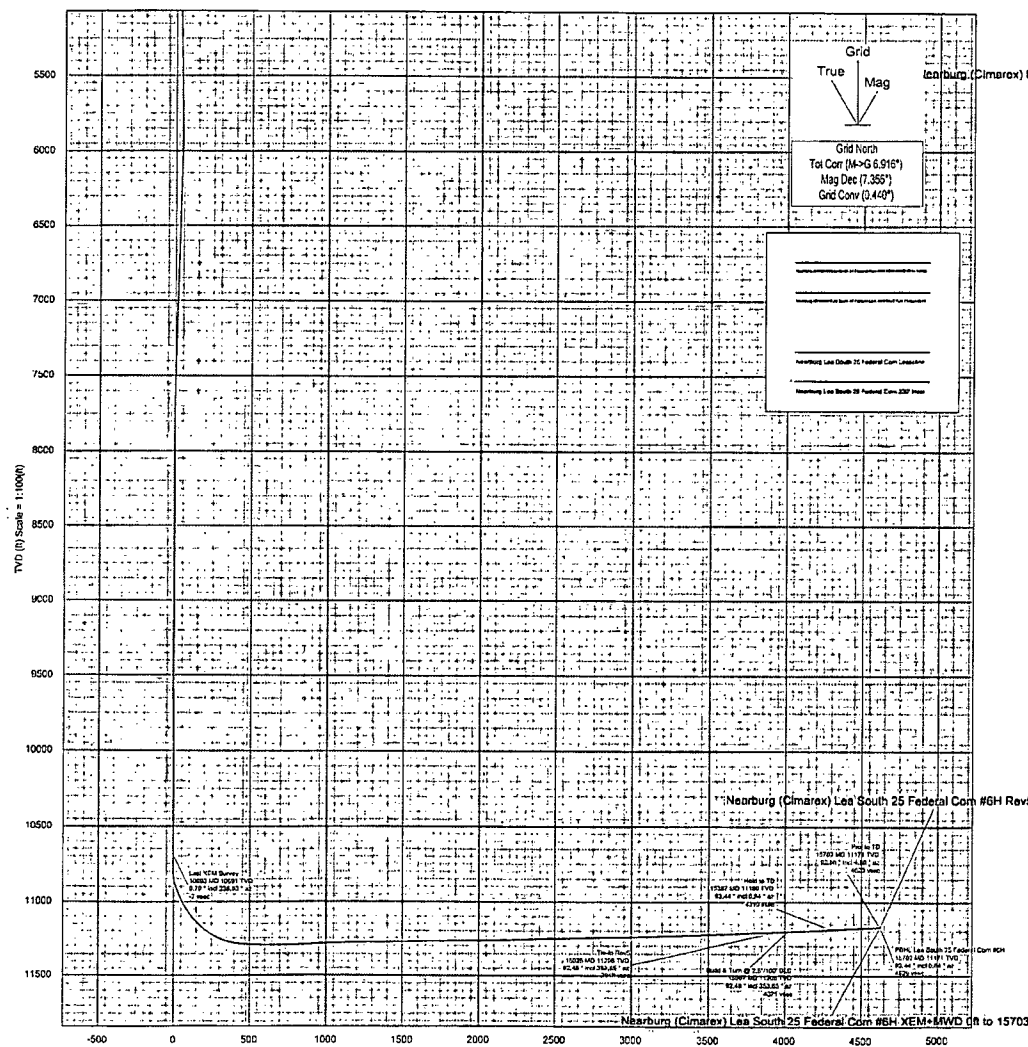
Cactus 137

Cimarex/Nearburg

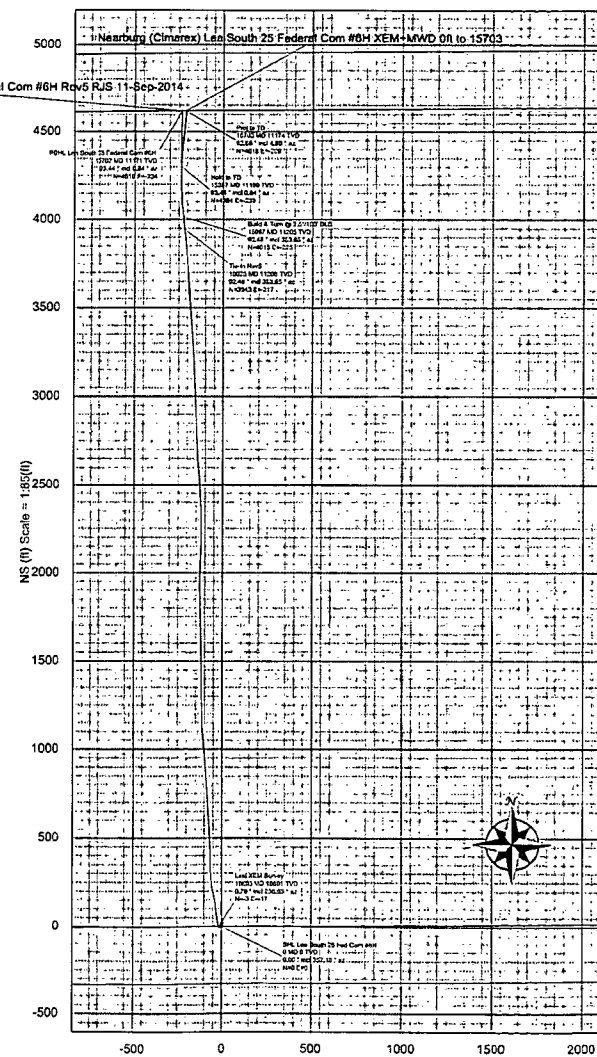
Final PvA

CIMAREX

Borehole:	Well:	Field:	Structure:
Original Borehole	Lea South 25 Federal Com #6H	NM Lea County (NAD 83)	Cactus 137
Gravity & Magnetic Parameters			
Model: BGGM 2014	Dip: 60.454°	Date: 08-Aug-2014	Surface Location
MagDec: 7.355°	FS: 48458.517mT	Gravity FS: 998.489mgm (9.80665 Based)	NAD83 New Mexico State Plane, Eastern Zone, US Feet
			Lat: N 32 32 15.81
			Northings: 560321.87UG
			Eastings: 793243.47US
			Grid Conv: 0.4397°
			Scale Fact: 0.99998176
			(Macintosh)
			Slot: Lea South 25 Federal
			Plan: XEM-MWD DR to 15703
			TVD Ref: RKB(37821 above MSL)



Vertical Section (ft) Azim = 357.1° Scale = 1:1100(ft) Origin = CN=S, OE=W



EW (ft) Scale = 1:85(ft)

MAR 26 2015



**Nearburg (Cimarex) Lea South 25 Federal Com #6H XEM+MWD 0ft to
15703ft Survey Report**
(Def Survey)



Report Date:	September 15, 2014 - 09:47 AM	Survey / DLS Computation:	Minimum Curvature / Lubinski
Client:	Cimarex/Nearburg	Vertical Section Azimuth:	357.101 ° (Grid North)
Field:	NM Lea County (NAD 83)	Vertical Section Origin:	0.000 ft, 0.000 ft
Structure / Slot:	Cactus 137 / Nearburg (Cimarex) Lea South 25 Federal Com #6H	TVD Reference Datum:	RKB
Well:	Lea South 25 Federal Com #6H	TVD Reference Elevation:	3782.000 ft above MSL
Borehole:	Original Borehole	Seabed / Ground Elevation:	3758.000 ft above MSL
UWI / API#:	Cactus 137 / Unknown	Magnetic Declination:	7.356 °
Survey Name:	Nearburg (Cimarex) Lea South 25 Federal Com #6H XEM+MWD 0ft to 15703	Total Gravity Field Strength:	998.4892mgn (9.80665 Based)
Survey Date:	August 08, 2014	Gravity Model:	GARM
Tort / AHD / DDI / ERD Ratio:	170.864 ° / 4786.903 ft / 6.056 / 0.424	Total Magnetic Field Strength:	48458.517 nT
Coordinate Reference System:	NAD83 New Mexico State Plane, Eastern Zone, US Feet	Magnetic Dip Angle:	60.404 °
Location Lat / Long:	N 32° 32' 15.91216", W 103° 30' 57.26607"	Declination Date:	August 08, 2014
Location Grid N/E Y/X:	N 560331.900 ftUS, E 793243.400 ftUS	Magnetic Declination Model:	BGGM 2014
CRS Grid Convergence Angle:	0.4397 °	North Reference:	Grid North
Grid Scale Factor:	0.99998176	Grid Convergence Used:	0.4397 °
Version / Patch:	2.7.1043.0	Total Corr Mag North->Grid North:	6.9159 °
		Local Coord Referenced To:	Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	DLS (°/100ft)	NS (ft)	EW (ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
SHL Lea South 25 Fed Com	0.00	0.00	357.10	0.00	-3782.00	0.00	N/A	0.00	0.00	560331.90	793243.40	N 32 32 15.91	W 103 30 57.27
	17.67	0.31	298.03	17.67	-3764.33	0.02	1.75	0.02	-0.04	560331.92	793243.36	N 32 32 15.91	W 103 30 57.27
	37.39	0.31	178.30	37.39	-3744.61	0.00	2.72	-0.01	-0.09	560331.89	793243.31	N 32 32 15.91	W 103 30 57.27
	68.52	0.40	225.94	68.52	-3713.48	-0.16	0.96	-0.17	-0.16	560331.73	793243.24	N 32 32 15.91	W 103 30 57.27
	163.33	0.22	327.12	163.33	-3618.67	-0.22	0.52	-0.24	-0.50	560331.66	793242.90	N 32 32 15.91	W 103 30 57.27
	226.26	0.09	13.22	226.26	-3555.74	-0.07	0.27	-0.09	-0.55	560331.81	793242.85	N 32 32 15.91	W 103 30 57.27
	287.87	0.09	346.86	287.87	-3494.13	0.03	0.07	0.00	-0.55	560331.90	793242.85	N 32 32 15.91	W 103 30 57.27
	350.38	0.22	300.32	350.38	-3431.62	0.14	0.27	0.11	-0.67	560332.01	793242.73	N 32 32 15.91	W 103 30 57.27
	413.23	0.22	338.84	413.23	-3368.77	0.32	0.23	0.28	-0.82	560332.18	793242.58	N 32 32 15.92	W 103 30 57.28
	476.22	0.09	37.59	476.22	-3305.78	0.48	0.30	0.43	-0.83	560332.33	793242.57	N 32 32 15.92	W 103 30 57.28
	539.40	0.09	323.99	539.40	-3242.60	0.56	0.17	0.51	-0.83	560332.41	793242.57	N 32 32 15.92	W 103 30 57.28
	632.83	0.09	300.01	632.83	-3149.17	0.66	0.04	0.61	-0.94	560332.51	793242.46	N 32 32 15.92	W 103 30 57.28
	733.75	0.22	6.01	733.75	-3048.25	0.89	0.20	0.84	-0.98	560332.74	793242.42	N 32 32 15.92	W 103 30 57.28
	826.74	0.09	255.90	826.74	-2955.26	1.05	0.28	1.00	-1.04	560332.90	793242.36	N 32 32 15.92	W 103 30 57.28
	914.39	0.22	197.12	914.39	-2867.61	0.88	0.22	0.82	-1.15	560332.72	793242.25	N 32 32 15.92	W 103 30 57.28
	1009.74	0.09	262.02	1009.74	-2772.26	0.70	0.21	0.64	-1.28	560332.54	793242.12	N 32 32 15.92	W 103 30 57.28
	1104.00	0.40	247.83	1103.99	-2678.01	0.59	0.33	0.51	-1.66	560332.41	793241.74	N 32 32 15.92	W 103 30 57.29
	1198.19	0.31	235.39	1198.18	-2583.82	0.35	0.13	0.24	-2.17	560332.14	793241.23	N 32 32 15.91	W 103 30 57.29
	1295.60	0.40	246.42	1295.59	-2486.41	0.09	0.12	-0.05	-2.70	560331.85	793240.70	N 32 32 15.91	W 103 30 57.30
	1391.90	0.40	243.39	1391.89	-2390.11	-0.17	0.02	-0.33	-3.31	560331.57	793240.09	N 32 32 15.91	W 103 30 57.30
	1482.76	0.62	246.42	1482.75	-2299.25	-0.47	0.24	-0.67	-4.04	560331.23	793239.36	N 32 32 15.91	W 103 30 57.31

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	DLS (*/100ft)	NS (ft)	EW (ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	1578.00	0.70	257.01	1577.98	-2204.02	-0.75	0.15	-1.01	-5.08	560330.89	793238.32	N 32 32 15.90	W 103 30 57.33
	1674.29	0.70	243.30	1674.26	-2107.74	-1.09	0.17	-1.41	-6.18	560330.49	793237.22	N 32 32 15.90	W 103 30 57.34
	1768.78	0.70	243.30	1768.74	-2013.26	-1.56	0.00	-1.93	-7.21	560329.97	793236.19	N 32 32 15.89	W 103 30 57.35
	1800.98	0.62	248.93	1800.94	-1981.06	-1.69	0.32	-2.08	-7.55	560329.82	793235.85	N 32 32 15.89	W 103 30 57.35
	1895.09	0.40	268.31	1895.05	-1886.95	-1.84	0.29	-2.27	-9.35	560329.63	793235.05	N 32 32 15.89	W 103 30 57.36
	1990.06	0.40	256.09	1990.02	-1791.98	-1.90	0.09	-2.36	-9.01	560329.54	793234.39	N 32 32 15.89	W 103 30 57.37
	2181.34	0.40	258.51	2181.29	-1600.71	-2.13	0.01	-2.65	-10.31	560329.25	793233.09	N 32 32 15.89	W 103 30 57.39
	2371.87	0.40	262.73	2371.82	-1410.18	-2.28	0.02	-2.87	-11.62	560329.03	793231.78	N 32 32 15.88	W 103 30 57.40
	2463.84	0.48	287.82	2463.78	-1318.22	-2.17	0.22	-2.79	-12.31	560329.11	793231.09	N 32 32 15.89	W 103 30 57.41
	2559.25	0.40	266.59	2559.19	-1222.81	-2.03	0.19	-2.69	-13.02	560329.21	793230.38	N 32 32 15.89	W 103 30 57.42
	2655.53	0.62	264.09	2655.47	-1126.53	-2.06	0.23	-2.76	-13.87	560329.14	793229.53	N 32 32 15.89	W 103 30 57.43
	2753.45	0.48	273.01	2753.38	-1028.62	-2.04	0.17	-2.80	-14.81	560329.10	793228.59	N 32 32 15.89	W 103 30 57.44
	2842.97	0.40	269.10	2842.90	-939.10	-1.99	0.10	-2.78	-15.50	560329.12	793227.90	N 32 32 15.89	W 103 30 57.45
	2938.91	0.09	307.02	2938.84	-843.16	-1.93	0.35	-2.74	-15.89	560329.16	793227.51	N 32 32 15.89	W 103 30 57.45
	3035.21	0.22	12.90	3035.14	-746.86	-1.71	0.21	-2.51	-15.91	560329.39	793227.49	N 32 32 15.89	W 103 30 57.45
	3130.31	0.62	53.81	3130.24	-651.76	-1.25	0.50	-2.03	-15.46	560329.87	793227.95	N 32 32 15.89	W 103 30 57.45
	3226.36	0.70	39.62	3226.28	-555.72	-0.53	0.19	-1.27	-14.66	560330.63	793228.74	N 32 32 15.90	W 103 30 57.44
	3322.91	1.01	51.13	3322.82	-459.18	0.40	0.37	-0.29	-13.62	560331.61	793229.78	N 32 32 15.91	W 103 30 57.43
	3418.44	1.19	41.02	3418.33	-363.67	1.61	0.28	0.99	-12.32	560332.89	793231.08	N 32 32 15.92	W 103 30 57.41
	3515.87	1.32	38.91	3515.74	-266.26	3.18	0.14	2.63	-10.95	560334.53	793232.45	N 32 32 15.94	W 103 30 57.39
	3612.00	1.58	38.83	3611.84	-170.16	4.99	0.27	4.52	-9.42	560336.42	793233.98	N 32 32 15.96	W 103 30 57.38
	3709.54	1.32	36.01	3709.35	-72.65	6.87	0.28	6.48	-7.92	560338.38	793235.48	N 32 32 15.98	W 103 30 57.36
	3792.41	1.41	29.82	3792.19	10.19	8.47	0.21	8.13	-6.85	560340.03	793236.55	N 32 32 15.99	W 103 30 57.35
	3886.99	1.32	27.49	3886.75	104.75	10.39	0.11	10.11	-5.77	560342.01	793237.63	N 32 32 16.01	W 103 30 57.33
	3982.53	1.19	23.40	3982.26	200.26	12.23	0.17	12.00	-4.87	560343.90	793238.53	N 32 32 16.03	W 103 30 57.32
	4079.00	1.10	22.39	4078.71	296.71	13.96	0.10	13.77	-4.12	560345.67	793239.28	N 32 32 16.05	W 103 30 57.31
	4176.58	1.41	23.09	4176.27	394.27	15.89	0.32	15.74	-3.29	560347.64	793240.11	N 32 32 16.07	W 103 30 57.30
	4267.79	1.19	23.62	4267.46	485.46	17.75	0.24	17.64	-2.47	560349.54	793240.93	N 32 32 16.09	W 103 30 57.29
	4362.83	1.32	24.59	4362.47	580.47	19.60	0.14	19.54	-1.62	560351.44	793241.78	N 32 32 16.11	W 103 30 57.28
	4456.61	1.41	17.60	4456.23	674.23	21.64	0.20	21.62	-0.82	560353.52	793242.58	N 32 32 16.13	W 103 30 57.27
	4551.88	1.32	23.01	4551.47	769.47	23.72	0.16	23.75	-0.04	560355.65	793243.36	N 32 32 16.15	W 103 30 57.26
	4647.75	1.32	26.30	4647.32	865.32	25.68	0.08	25.76	0.89	560357.66	793244.29	N 32 32 16.17	W 103 30 57.25
	4744.24	1.41	12.81	4743.78	961.78	27.79	0.34	27.91	1.64	560359.81	793245.04	N 32 32 16.19	W 103 30 57.24
	4834.75	1.41	10.13	4834.26	1052.26	29.95	0.07	30.09	2.08	560361.99	793245.48	N 32 32 16.21	W 103 30 57.24
	4931.05	1.01	12.02	4930.54	1148.54	31.92	0.42	32.09	2.47	560363.99	793245.87	N 32 32 16.23	W 103 30 57.23
	5024.99	0.70	13.82	5024.47	1242.47	33.27	0.33	33.46	2.78	560365.36	793246.18	N 32 32 16.24	W 103 30 57.23
	5120.50	0.79	5.91	5119.97	1337.97	34.48	0.14	34.68	2.99	560366.58	793246.39	N 32 32 16.26	W 103 30 57.23
	5215.21	0.79	8.33	5214.67	1432.67	35.77	0.04	35.97	3.15	560367.87	793246.55	N 32 32 16.27	W 103 30 57.23
	5311.59	0.88	9.91	5311.04	1529.04	37.14	0.10	37.36	3.37	560369.26	793246.77	N 32 32 16.28	W 103 30 57.22
	5408.53	0.88	18.13	5407.97	1625.97	38.56	0.13	38.80	3.73	560370.70	793247.13	N 32 32 16.30	W 103 30 57.22
	5504.16	0.79	18.30	5503.59	1721.59	39.86	0.09	40.13	4.17	560372.03	793247.57	N 32 32 16.31	W 103 30 57.21
	5593.12	0.79	21.82	5592.54	1810.54	40.99	0.05	41.28	4.59	560373.18	793247.99	N 32 32 16.32	W 103 30 57.21
	5636.07	0.40	6.01	5635.49	1853.49	41.41	0.98	41.70	4.71	560373.60	793248.11	N 32 32 16.32	W 103 30 57.21
	5765.64	0.70	29.42	5765.05	1983.05	42.53	0.28	42.84	5.15	560374.74	793248.55	N 32 32 16.34	W 103 30 57.20
	5861.42	0.88	30.21	5860.82	2078.82	43.64	0.19	43.99	5.81	560375.88	793249.21	N 32 32 16.35	W 103 30 57.19
	5957.80	1.01	181.21	5957.20	2175.20	43.41	1.90	43.78	6.16	560375.68	793249.56	N 32 32 16.34	W 103 30 57.19
	6047.00	1.71	184.81	6046.37	2264.37	41.31	0.79	41.66	6.03	560373.56	793249.43	N 32 32 16.32	W 103 30 57.19
	6143.43	1.49	180.51	6142.77	2360.77	38.63	0.26	38.98	5.90	560370.88	793249.30	N 32 32 16.30	W 103 30 57.19
	6234.39	1.41	177.21	6233.70	2451.70	36.33	0.13	36.68	5.94	560368.58	793249.34	N 32 32 16.27	W 103 30 57.19
	6330.44	1.58	181.82	6329.71	2547.71	33.83	0.22	34.17	5.96	560366.07	793249.36	N 32 32 16.25	W 103 30 57.19
	6425.64	1.71	178.70	6424.87	2642.87	31.10	0.17	31.44	5.95	560363.34	793249.35	N 32 32 16.22	W 103 30 57.19
	6521.36	1.71	171.89	6520.55	2738.55	28.25	0.21	28.60	6.18	560360.50	793249.58	N 32 32 16.19	W 103 30 57.19
	6616.67	1.71	169.43	6615.82	2833.82	25.42	0.08	25.79	6.65	560357.69	793250.05	N 32 32 16.17	W 103 30 57.19

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	DLS (*100ft)	NS (ft)	EW (ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	6711.29	1.58	179.29	6710.40	2928.40	22.72	0.33	23.10	6.92	560355.00	793250.32	N 32 32 16.14	W 103 30 57.18
	6808.85	1.71	183.32	6805.92	3023.92	19.99	0.18	20.36	6.86	560352.26	793250.25	N 32 32 16.11	W 103 30 57.18
	6900.41	1.49	179.72	6899.44	3117.44	17.38	0.26	17.75	6.78	560349.65	793250.18	N 32 32 16.09	W 103 30 57.19
	6995.89	1.49	181.43	6994.89	3212.89	14.91	0.05	15.27	6.76	560347.17	793250.16	N 32 32 16.06	W 103 30 57.19
	7091.97	1.49	187.49	7090.94	3308.94	12.43	0.16	12.78	6.56	560344.68	793249.96	N 32 32 16.04	W 103 30 57.19
	7189.07	1.49	183.63	7188.01	3406.01	9.94	0.10	10.27	6.32	560342.17	793249.72	N 32 32 16.01	W 103 30 57.19
	7284.62	1.58	188.02	7283.52	3501.52	7.41	0.15	7.72	6.05	560339.62	793249.45	N 32 32 15.99	W 103 30 57.19
	7381.83	1.71	184.02	7380.69	3598.69	4.65	0.18	4.95	5.77	560336.85	793249.17	N 32 32 15.96	W 103 30 57.20
	7471.90	1.58	185.21	7470.73	3688.73	2.09	0.15	2.37	5.56	560334.27	793248.96	N 32 32 15.94	W 103 30 57.20
	7563.50	1.58	182.53	7562.29	3780.29	-0.42	0.08	-0.15	5.39	560331.75	793248.79	N 32 32 15.91	W 103 30 57.20
	7658.37	1.71	184.90	7657.12	3875.12	-3.12	0.15	-2.86	5.21	560329.04	793248.61	N 32 32 15.88	W 103 30 57.21
	7753.12	0.48	186.13	7751.85	3969.85	-4.91	1.30	-4.67	5.05	560327.23	793248.45	N 32 32 15.87	W 103 30 57.21
	7850.08	0.22	266.11	7848.81	4066.81	-5.32	0.51	-5.08	4.82	560326.82	793248.22	N 32 32 15.86	W 103 30 57.21
	7943.24	0.40	303.11	7941.97	4159.97	-5.13	0.28	-4.92	4.37	560326.98	793247.77	N 32 32 15.86	W 103 30 57.22
	8039.13	0.40	303.11	8037.86	4255.86	-4.74	0.00	-4.55	3.81	560327.35	793247.21	N 32 32 15.87	W 103 30 57.22
	8132.64	0.62	281.01	8131.36	4349.36	-4.42	0.31	-4.28	3.04	560327.62	793246.44	N 32 32 15.87	W 103 30 57.23
	8229.87	0.40	273.32	8228.59	4446.59	-4.26	0.24	-4.16	2.18	560327.74	793245.58	N 32 32 15.87	W 103 30 57.24
	8327.36	0.40	272.70	8326.08	4544.08	-4.19	0.00	-4.12	1.50	560327.78	793244.90	N 32 32 15.87	W 103 30 57.25
	8421.62	0.40	246.42	8420.34	4638.34	-4.27	0.19	-4.24	0.87	560327.66	793244.27	N 32 32 15.87	W 103 30 57.26
	8516.73	0.62	248.40	8515.44	4733.44	-4.56	0.23	-4.56	0.09	560327.34	793243.49	N 32 32 15.87	W 103 30 57.27
	8614.83	0.48	243.22	8613.54	4831.54	-4.89	0.15	-4.94	-0.77	560326.96	793242.63	N 32 32 15.86	W 103 30 57.28
	8703.52	0.62	247.61	8702.22	4920.22	-5.20	0.16	-5.29	-1.55	560326.61	793241.85	N 32 32 15.86	W 103 30 57.28
	8797.03	0.31	286.59	8795.73	5013.73	-5.29	0.46	-5.41	-2.26	560326.49	793241.14	N 32 32 15.86	W 103 30 57.29
	8891.83	0.40	276.61	8890.53	5108.53	-5.15	0.11	-5.30	-2.83	560326.60	793240.57	N 32 32 15.86	W 103 30 57.30
	8988.87	0.70	247.39	8987.56	5205.56	-5.29	0.41	-5.49	-3.72	560326.41	793239.68	N 32 32 15.86	W 103 30 57.31
	9082.58	1.01	246.51	9081.26	5299.26	-5.78	0.33	-6.04	-5.00	560325.86	793238.40	N 32 32 15.85	W 103 30 57.33
	9177.50	1.71	230.69	9176.16	5394.16	-6.91	0.83	-7.27	-6.87	560324.63	793236.54	N 32 32 15.84	W 103 30 57.35
	9268.11	1.80	230.43	9266.72	5484.72	-8.56	0.10	-9.03	-9.01	560322.87	793234.39	N 32 32 15.82	W 103 30 57.37
	9364.69	0.40	30.83	9363.29	5581.29	-9.19	2.26	-9.71	-10.00	560322.19	793233.40	N 32 32 15.82	W 103 30 57.38
	9461.15	0.40	83.30	9459.75	5677.75	-8.89	0.37	-9.38	-9.50	560322.52	793233.90	N 32 32 15.82	W 103 30 57.38
	9552.10	0.40	18.39	9550.70	5768.70	-8.57	0.47	-9.04	-9.08	560322.86	793234.32	N 32 32 15.82	W 103 30 57.37
	9628.61	0.70	15.80	9627.20	5845.20	-7.88	0.39	-8.34	-8.87	560323.56	793234.53	N 32 32 15.83	W 103 30 57.37
	9745.97	0.62	13.12	9744.56	5962.56	-6.59	0.07	-7.03	-8.53	560324.87	793234.87	N 32 32 15.84	W 103 30 57.37
	9840.25	0.88	359.41	9838.83	6056.83	-5.37	0.33	-5.81	-6.42	560326.09	793234.98	N 32 32 15.86	W 103 30 57.36
	9936.52	1.01	329.61	9935.08	6153.08	-3.88	0.52	-4.34	-8.86	560327.56	793234.54	N 32 32 15.87	W 103 30 57.37
	10033.43	0.40	317.09	10031.99	6249.99	-2.87	0.65	-3.35	-9.52	560328.55	793233.88	N 32 32 15.88	W 103 30 57.38
	10131.17	0.79	287.60	10129.72	6347.72	-2.37	0.49	-2.90	-10.40	560329.00	793233.00	N 32 32 15.88	W 103 30 57.39
	10227.22	0.88	271.43	10225.76	6443.76	-2.08	0.26	-2.68	-11.77	560329.22	793231.63	N 32 32 15.89	W 103 30 57.40
	10324.37	0.70	250.51	10322.90	6540.90	-2.19	0.35	-2.86	-13.07	560329.04	793230.33	N 32 32 15.88	W 103 30 57.42
	10420.26	0.62	281.72	10418.79	6636.79	-2.23	0.38	-2.95	-14.13	560328.95	793229.27	N 32 32 15.88	W 103 30 57.43
	10503.66	0.62	271.81	10502.18	6720.18	-2.08	0.13	-2.84	-15.02	560329.06	793228.38	N 32 32 15.89	W 103 30 57.44
	10599.03	0.79	261.41	10597.54	6815.54	-2.10	0.22	-2.93	-16.19	560328.97	793227.21	N 32 32 15.88	W 103 30 57.46
Last XEM Survey	10692.92	0.79	236.93	10691.43	6909.43	-2.49	0.36	-3.38	-17.37	560328.52	793226.03	N 32 32 15.88	W 103 30 57.47
	10716.00	0.67	215.53	10714.50	6932.50	-2.68	1.28	-3.57	-17.58	560328.33	793225.82	N 32 32 15.88	W 103 30 57.47
	10748.00	0.79	181.21	10746.50	6964.50	-3.04	1.39	-3.95	-17.70	560327.96	793225.70	N 32 32 15.87	W 103 30 57.47
	10779.00	0.67	278.41	10777.50	6995.50	-3.22	3.54	-4.13	-17.88	560327.77	793225.52	N 32 32 15.87	W 103 30 57.48
	10811.00	3.46	350.32	10809.48	7027.48	-2.23	10.36	-3.15	-18.23	560328.75	793225.17	N 32 32 15.88	W 103 30 57.48
	10842.00	7.99	355.96	10840.32	7058.32	0.86	14.71	-0.08	-18.54	560331.82	793224.86	N 32 32 15.91	W 103 30 57.48
	10874.00	13.61	354.99	10871.74	7089.74	6.85	17.57	5.89	-19.02	560337.79	793224.38	N 32 32 15.97	W 103 30 57.49
	10906.00	19.04	352.96	10902.44	7120.44	15.82	17.06	14.83	-19.99	560346.73	793223.41	N 32 32 16.06	W 103 30 57.50
	10937.00	22.09	351.04	10931.46	7149.46	26.67	10.08	25.61	-21.52	560357.51	793221.88	N 32 32 16.17	W 103 30 57.52

Comments	MD (ft)	Incl (°)	Azim (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	DLS (°/100ft)	NS (ft)	EW (ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	10969.00	24.79	350.22	10960.81	7178.81	39.31	8.50	38.17	-23.60	560370.07	793219.80	N 32 32 16.29	W 103 30 57.54
	11000.00	26.89	351.17	10988.71	7206.71	52.74	6.90	51.50	-25.78	560383.40	793217.62	N 32 32 16.42	W 103 30 57.56
	11032.00	28.43	351.24	11017.05	7235.05	67.52	4.81	66.18	-28.05	560398.08	793215.35	N 32 32 16.57	W 103 30 57.59
	11063.00	30.92	350.31	11043.99	7261.99	82.77	8.17	81.33	-30.51	560413.23	793212.89	N 32 32 16.72	W 103 30 57.62
	11094.00	33.62	352.14	11070.20	7288.20	99.23	9.26	97.68	-33.03	560429.58	793210.37	N 32 32 16.88	W 103 30 57.64
	11125.00	36.67	352.45	11095.54	7313.54	117.01	9.86	115.37	-35.42	560447.26	793207.98	N 32 32 17.06	W 103 30 57.67
	11157.00	40.49	352.10	11120.55	7338.55	136.89	11.96	135.14	-38.10	560467.03	793205.30	N 32 32 17.25	W 103 30 57.70
	11190.00	43.22	348.99	11145.13	7363.13	158.76	10.39	156.85	-41.74	560488.74	793201.67	N 32 32 17.47	W 103 30 57.74
	11222.00	47.10	348.29	11167.69	7385.69	181.19	12.22	179.09	-46.21	560510.98	793197.19	N 32 32 17.69	W 103 30 57.79
	11253.00	50.53	348.31	11188.10	7406.10	204.25	11.06	201.93	-50.94	560533.82	793192.46	N 32 32 17.91	W 103 30 57.84
	11284.00	54.02	350.72	11207.07	7425.07	228.55	12.83	226.03	-55.39	560557.93	793188.01	N 32 32 18.15	W 103 30 57.89
	11315.00	58.00	352.93	11224.40	7442.40	254.13	14.13	251.47	-59.03	560583.36	793184.37	N 32 32 18.40	W 103 30 57.93
	11347.00	62.92	355.55	11240.17	7458.17	281.93	16.94	279.16	-61.81	560611.05	793181.59	N 32 32 18.68	W 103 30 57.96
	11379.00	67.33	357.79	11253.63	7471.63	310.95	15.17	308.13	-63.48	560640.03	793179.92	N 32 32 18.97	W 103 30 57.98
	11410.00	71.67	358.72	11264.49	7482.49	339.97	14.28	337.15	-64.36	560669.04	793179.04	N 32 32 19.25	W 103 30 57.99
	11442.00	76.41	359.20	11273.28	7491.28	370.71	14.88	367.90	-64.92	560699.79	793178.48	N 32 32 19.56	W 103 30 57.99
	11473.00	79.81	358.64	11279.67	7497.67	401.03	11.11	398.23	-65.49	560730.12	793177.91	N 32 32 19.86	W 103 30 58.00
	11505.00	83.91	357.52	11284.20	7502.20	432.69	13.27	429.88	-66.56	560761.77	793176.85	N 32 32 20.17	W 103 30 58.00
	11537.00	85.84	357.53	11287.06	7505.06	464.56	6.03	461.72	-67.93	560793.61	793175.47	N 32 32 20.49	W 103 30 58.02
	11569.00	86.93	357.31	11289.07	7507.07	496.50	3.47	493.62	-69.37	560825.51	793174.03	N 32 32 20.80	W 103 30 58.03
	11621.00	87.35	357.03	11291.67	7509.67	548.43	0.97	545.49	-71.93	560877.38	793171.47	N 32 32 21.31	W 103 30 58.06
	11716.00	88.86	356.56	11294.81	7512.81	643.38	1.66	640.29	-77.24	560972.18	793166.16	N 32 32 22.25	W 103 30 58.11
	11811.00	90.83	355.97	11295.07	7513.07	738.36	2.16	735.08	-83.43	561066.97	793159.97	N 32 32 23.19	W 103 30 58.17
	11904.00	92.44	356.40	11292.41	7510.41	831.31	1.79	827.84	-89.62	561159.72	793153.79	N 32 32 24.11	W 103 30 58.24
	11998.00	92.55	355.34	11288.32	7506.32	925.20	1.13	921.50	-96.38	561253.38	793147.02	N 32 32 25.04	W 103 30 58.31
	12093.00	92.44	355.17	11284.19	7502.19	1020.06	0.21	1016.09	-104.23	561347.97	793139.17	N 32 32 25.97	W 103 30 58.39
	12187.00	91.86	355.82	11280.66	7498.66	1113.95	0.93	1109.73	-111.61	561441.61	793131.79	N 32 32 26.90	W 103 30 58.47
	12281.00	91.20	358.40	11278.15	7496.15	1207.91	2.83	1203.57	-116.34	561535.44	793127.06	N 32 32 27.83	W 103 30 58.52
	12375.00	90.72	359.70	11276.57	7494.57	1301.84	1.47	1297.54	-117.90	561629.41	793125.50	N 32 32 28.76	W 103 30 58.53
	12470.00	90.86	359.65	11275.26	7493.26	1396.74	0.16	1392.53	-118.44	561724.40	793124.96	N 32 32 29.70	W 103 30 58.52
	12564.00	91.10	358.58	11273.66	7491.66	1490.66	1.17	1486.50	-119.89	561818.37	793123.51	N 32 32 30.63	W 103 30 58.53
	12659.00	90.79	358.94	11272.09	7490.09	1585.61	0.50	1581.47	-121.95	561913.34	793121.45	N 32 32 31.57	W 103 30 58.55
	12754.00	90.86	358.61	11270.72	7488.72	1680.56	0.36	1676.44	-123.98	562008.30	793119.42	N 32 32 32.51	W 103 30 58.56
	12847.00	90.89	358.95	11269.30	7487.30	1773.51	0.37	1769.40	-125.96	562101.27	793117.44	N 32 32 33.43	W 103 30 58.58
	12942.00	90.69	358.88	11267.99	7485.99	1868.45	0.22	1864.38	-127.76	562196.24	793115.64	N 32 32 34.37	W 103 30 58.59
	13037.00	91.03	0.21	11266.57	7484.57	1963.35	1.44	1959.36	-128.51	562291.22	793114.89	N 32 32 35.31	W 103 30 58.59
	13131.00	91.13	2.03	11264.79	7482.79	2057.10	1.94	2053.32	-126.68	562385.18	793116.73	N 32 32 36.24	W 103 30 58.56
	13226.00	91.07	2.41	11262.97	7480.97	2151.71	0.40	2148.23	-123.00	562480.09	793120.41	N 32 32 37.18	W 103 30 58.51
	13320.00	91.48	359.64	11260.88	7478.88	2245.45	2.98	2242.19	-121.31	562574.04	793122.09	N 32 32 38.11	W 103 30 58.48
	13415.00	91.72	358.25	11258.23	7476.23	2340.36	1.48	2337.13	-123.06	562668.98	793120.34	N 32 32 39.05	W 103 30 58.49
	13509.00	91.79	357.31	11255.35	7473.35	2434.31	1.00	2431.02	-126.70	562762.87	793116.70	N 32 32 39.98	W 103 30 58.53
	13604.00	91.38	355.75	11252.72	7470.72	2529.27	1.70	2525.80	-132.45	562857.65	793110.95	N 32 32 40.91	W 103 30 58.59
	13699.00	91.41	355.67	11250.41	7468.41	2624.21	0.09	2620.51	-139.55	562952.35	793103.85	N 32 32 41.85	W 103 30 58.66
	13794.00	91.37	357.18	11248.10	7466.10	2719.17	1.59	2715.29	-145.48	563047.14	793097.93	N 32 32 42.79	W 103 30 58.72
	13888.00	91.03	358.23	11246.13	7464.13	2813.15	1.17	2809.19	-149.24	563141.04	793094.16	N 32 32 43.72	W 103 30 58.76
	13983.00	90.96	357.60	11244.48	7462.48	2908.12	0.67	2904.12	-152.70	563235.96	793090.71	N 32 32 44.66	W 103 30 58.79
	14078.00	91.75	357.78	11242.24	7460.24	3003.09	0.85	2999.01	-156.52	563330.85	793086.88	N 32 32 45.60	W 103 30 58.83
	14173.00	92.06	357.60	11239.08	7457.08	3098.03	0.38	3093.88	-160.35	563425.72	793083.05	N 32 32 46.54	W 103 30 58.86
	14268.00	91.96	357.31	11235.75	7453.75	3192.97	0.32	3188.73	-164.57	563520.57	793078.84	N 32 32 47.48	W 103 30 58.90
	14362.00	91.75	356.63	11232.70	7450.70	3286.92	0.76	3282.55	-169.53	563614.38	793073.87	N 32 32 48.40	W 103 30 58.95
	14457.00	92.06	356.24	11229.55	7447.55	3381.86	0.52	3377.31	-175.44	563709.14	793067.97	N 32 32 49.34	W 103 30 59.01
	14551.00	92.10	356.38	11226.13	7444.13	3475.79	0.15	3471.06	-181.48	563802.89	793061.92	N 32 32 50.27	W 103 30 59.07
	14646.00	91.79	356.95	11222.91	7440.91	3570.73	0.68	3565.84	-187.01	563897.67	793056.40	N 32 32 51.21	W 103 30 59.13

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	DLS (°/100ft)	NS (ft)	EW (ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	14740.00	92.34	356.38	11219.52	7437.52	3664.67	0.84	3659.62	-192.47	563991.44	793050.93	N 32 32 52.14	W 103 30 59.19
	14835.00	92.34	355.41	11215.64	7433.64	3759.57	1.02	3754.29	-199.26	564086.12	793044.14	N 32 32 53.07	W 103 30 59.26
	14930.00	92.20	354.96	11211.88	7429.88	3854.44	0.50	3848.89	-207.23	564180.71	793036.17	N 32 32 54.01	W 103 30 59.34
	15025.00	92.48	353.65	11208.00	7426.00	3949.25	1.41	3943.34	-216.65	564275.16	793026.75	N 32 32 54.95	W 103 30 59.44
	15120.00	92.65	353.97	11203.75	7421.75	4043.99	0.38	4037.69	-226.88	564369.50	793016.52	N 32 32 55.88	W 103 30 59.55
	15213.00	93.13	356.68	11199.06	7417.06	4136.82	2.96	4130.25	-234.45	564462.07	793008.95	N 32 32 56.80	W 103 30 59.63
	15308.00	92.99	359.64	11193.99	7411.99	4231.66	3.11	4225.06	-237.50	564556.87	793005.90	N 32 32 57.73	W 103 30 59.66
	15402.00	93.02	2.74	11189.06	7407.06	4325.28	3.29	4318.89	-235.55	564650.71	793007.85	N 32 32 58.66	W 103 30 59.63
	15497.00	92.61	5.92	11184.39	7402.39	4419.40	3.37	4413.50	-228.39	564745.31	793015.02	N 32 32 59.60	W 103 30 59.54
	15590.00	92.75	5.98	11180.04	7398.04	4511.19	0.16	4505.89	-218.76	564837.70	793024.65	N 32 33 0.51	W 103 30 59.42
	15631.00	92.86	4.88	11178.04	7396.04	4551.71	2.69	4546.66	-214.88	564878.47	793028.52	N 32 33 0.91	W 103 30 59.37
Proj to TD	15703.00	92.86	4.88	11174.45	7392.45	4622.96	0.00	4618.31	-208.77	564950.12	793034.64	N 32 33 1.62	W 103 30 59.29

Survey Type: Def Survey

Survey Error Model: ISCVSA 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	24.000	Act Stns	30.000	30.000	SLB_MWD-POOR-Depth Only	Original Borehole / Nearburg (Cimarex) Lea South 25 Federal Com #6H XEM+MWD 0ft to 15703
	1	24.000	10692.920	Act Stns	30.000	30.000	SLB_MWD-POOR	Original Borehole / Nearburg (Cimarex) Lea South 25 Federal
	1	10692.920	15631.000	Act Stns	30.000	30.000	SLB_MWD-STD	Original Borehole / Nearburg (Cimarex) Lea South 25 Federal
	1	15631.000	15703.000	Act Stns	30.000	30.000	SLB_BLIND+TREND	Original Borehole / Nearburg (Cimarex) Lea South 25 Federal