

February 2, 2017

Concho Resources, Inc.
One Concho Center
600 W. Illinois Avenue
Midland, Texas 79701

HOBBS OCD
MAY 01 2017
RECEIVED

Attn: Kanicia Castillo

RE: **Red Raider BKS State No. 004H**

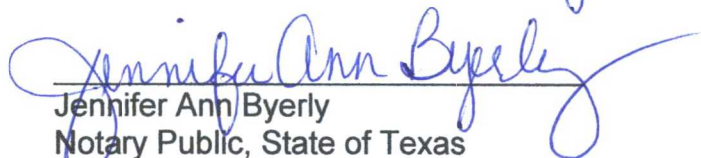
Please find enclosed a copy of the survey from 0' to 8850' ran on the above referenced well.

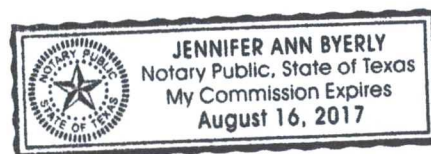
Sincerely,

Keith Havelka
Operations

STATE OF TEXAS §
 §
COUNTY OF NUECES §

This instrument was acknowledged before me on the 2nd day of February,
A.D., 2017, by Keith Havelka.


Jennifer Ann Byerly
Notary Public, State of Texas



Company: COG OPERATING
Lease/Well: RED RAIDER BKS STATE No./004H



Rig Name: NORAM 23
State/County: NEW MEXICO/LEA
VS-Azi: 0.82 Degrees
Latitude: 32.18187, Longitude: -103.52236
Grid North = True North -0.43 degs (NAD 27)
Grid Correction Applied = -0.43 degs



Depth Reference : RKB=28.5 FEET

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: e-line gyro-de_01.ut
Minimum Curvature Method
Report Date/Time: 2/2/2017 / 16:39

VES Survey International
Midland, Texas
432-563-5444
Surveyor: Michael Cook
Red Raider BKS State No. 004H / API 30-025-42992

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	****
25.00	0.22	339.16	25.00	0.04	-0.02	0.04	0.05	339.16	0.86
50.00	0.43	335.00	50.00	0.17	-0.07	0.17	0.19	337.09	0.84
75.00	0.45	350.39	75.00	0.35	-0.13	0.35	0.38	340.04	0.48
100.00	0.36	325.19	100.00	0.51	-0.19	0.51	0.55	339.81	0.80
125.00	0.30	333.37	125.00	0.64	-0.26	0.63	0.69	337.58	0.30
150.00	0.35	347.39	150.00	0.77	-0.31	0.77	0.83	338.16	0.39
175.00	0.49	338.72	175.00	0.95	-0.36	0.94	1.01	338.92	0.60
200.00	0.57	348.26	200.00	1.17	-0.43	1.16	1.24	339.84	0.49
225.00	0.56	339.00	224.99	1.40	-0.50	1.40	1.49	340.48	0.37
250.00	0.55	327.89	249.99	1.62	-0.60	1.61	1.73	339.51	0.43
275.00	0.50	333.48	274.99	1.82	-0.72	1.81	1.95	338.47	0.29
300.00	0.41	331.20	299.99	1.99	-0.81	1.98	2.15	337.91	0.34
325.00	0.40	352.61	324.99	2.16	-0.86	2.14	2.32	338.19	0.61
350.00	0.37	324.99	349.99	2.31	-0.92	2.30	2.49	338.26	0.74
375.00	0.39	333.44	374.99	2.45	-1.01	2.44	2.65	337.70	0.23
400.00	0.49	307.46	399.99	2.59	-1.13	2.58	2.83	336.49	0.88

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
425.00	0.57	313.34	424.99	2.74	-1.30	2.72	3.03	334.60	0.39
450.00	0.62	322.62	449.99	2.93	-1.47	2.91	3.28	333.32	0.45
475.00	0.73	303.50	474.98	3.13	-1.69	3.11	3.56	331.64	0.99
500.00	0.73	304.51	499.98	3.31	-1.95	3.28	3.84	329.45	0.05
525.00	0.80	297.21	524.98	3.48	-2.24	3.45	4.14	327.22	0.50
550.00	0.83	303.88	549.98	3.66	-2.55	3.62	4.46	325.17	0.40
575.00	0.77	295.49	574.98	3.83	-2.85	3.79	4.78	323.38	0.53
600.00	0.74	281.65	599.97	3.94	-3.16	3.89	5.05	321.27	0.74
625.00	0.78	288.68	624.97	4.03	-3.48	3.98	5.32	319.17	0.41
650.00	0.69	286.30	649.97	4.12	-3.79	4.07	5.60	317.44	0.37
675.00	0.51	271.48	674.97	4.17	-4.04	4.11	5.81	315.87	0.95
700.00	0.58	274.82	699.97	4.18	-4.28	4.12	5.98	314.33	0.28
725.00	0.46	274.94	724.97	4.20	-4.51	4.14	6.16	312.99	0.45
750.00	0.43	266.35	749.96	4.20	-4.70	4.14	6.31	311.81	0.30
775.00	0.46	262.78	774.96	4.18	-4.89	4.11	6.44	310.55	0.16
800.00	0.41	263.42	799.96	4.16	-5.08	4.09	6.57	309.34	0.20
825.00	0.39	261.45	824.96	4.14	-5.25	4.06	6.69	308.25	0.08
850.00	0.40	288.49	849.96	4.15	-5.42	4.08	6.83	307.48	0.74
875.00	0.45	288.30	874.96	4.21	-5.59	4.13	7.00	306.99	0.23
900.00	0.48	290.88	899.96	4.28	-5.79	4.20	7.20	306.50	0.12
925.00	0.56	292.17	924.96	4.36	-5.99	4.28	7.41	306.06	0.32
950.00	0.62	283.33	949.96	4.44	-6.24	4.35	7.66	305.45	0.44
975.00	0.69	291.68	974.96	4.53	-6.51	4.43	7.93	304.82	0.48
1000.00	0.61	280.19	999.96	4.61	-6.78	4.51	8.20	304.19	0.61
1025.00	0.68	289.16	1024.95	4.68	-7.05	4.58	8.46	303.56	0.49
1050.00	0.64	269.32	1049.95	4.73	-7.33	4.62	8.72	302.81	0.93
1075.00	0.61	253.30	1074.95	4.69	-7.60	4.58	8.93	301.66	0.70
1100.00	0.52	250.94	1099.95	4.61	-7.84	4.50	9.09	300.47	0.38
1125.00	0.61	256.02	1124.95	4.54	-8.07	4.43	9.26	299.35	0.41
1150.00	0.43	258.60	1149.95	4.49	-8.30	4.37	9.43	298.43	0.75
1175.00	0.62	267.12	1174.95	4.46	-8.52	4.34	9.62	297.65	0.83
1200.00	0.55	264.97	1199.94	4.45	-8.78	4.32	9.84	296.87	0.30
1225.00	0.51	266.51	1224.94	4.43	-9.01	4.30	10.04	296.18	0.17
1250.00	0.66	280.65	1249.94	4.45	-9.26	4.32	10.28	295.66	0.84
1275.00	0.53	294.62	1274.94	4.52	-9.51	4.39	10.53	295.44	0.79
1300.00	0.58	284.94	1299.94	4.60	-9.74	4.47	10.77	295.31	0.43
1325.00	0.72	282.40	1324.94	4.67	-10.01	4.53	11.05	295.01	0.57
1350.00	0.64	291.16	1349.94	4.76	-10.30	4.61	11.34	294.79	0.52
1375.00	0.71	285.34	1374.93	4.85	-10.58	4.70	11.63	294.62	0.39

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
1400.00	0.67	288.36	1399.93	4.93	-10.86	4.78	11.93	294.43	0.23
1425.00	0.79	294.45	1424.93	5.05	-11.16	4.89	12.25	294.35	0.57
1450.00	0.73	287.10	1449.93	5.17	-11.46	5.00	12.58	294.27	0.46
1475.00	0.77	296.06	1474.93	5.29	-11.77	5.12	12.90	294.20	0.50
1500.00	0.71	294.20	1499.92	5.43	-12.06	5.25	13.22	294.22	0.24
1525.00	0.79	288.63	1524.92	5.54	-12.36	5.37	13.55	294.15	0.43
1550.00	0.90	283.53	1549.92	5.65	-12.72	5.46	13.91	293.94	0.52
1575.00	1.04	290.55	1574.92	5.77	-13.12	5.58	14.33	293.74	0.75
1600.00	1.08	294.83	1599.91	5.95	-13.55	5.76	14.80	293.71	0.35
1625.00	1.11	291.00	1624.91	6.14	-13.99	5.94	15.28	293.68	0.32
1650.00	0.93	288.01	1649.90	6.29	-14.41	6.08	15.72	293.57	0.78
1675.00	0.92	288.35	1674.90	6.41	-14.79	6.20	16.12	293.43	0.02
1700.00	0.86	288.71	1699.90	6.54	-15.16	6.32	16.51	293.32	0.28
1725.00	0.89	287.63	1724.89	6.65	-15.52	6.43	16.89	293.20	0.17
1750.00	0.90	279.98	1749.89	6.75	-15.90	6.52	17.27	292.99	0.48
1775.00	0.68	273.84	1774.89	6.79	-16.24	6.56	17.61	292.69	0.94
1800.00	0.54	267.63	1799.89	6.80	-16.51	6.56	17.85	292.37	0.61
1825.00	0.51	241.89	1824.89	6.74	-16.73	6.50	18.03	291.94	0.95
1850.00	0.55	221.60	1849.89	6.60	-16.90	6.35	18.15	291.32	0.77
1875.00	0.49	204.73	1874.88	6.41	-17.03	6.17	18.19	290.63	0.66
1900.00	0.43	214.91	1899.88	6.24	-17.13	5.99	18.23	290.01	0.39
1925.00	0.61	196.14	1924.88	6.03	-17.22	5.78	18.24	289.30	0.99
1950.00	0.61	180.50	1949.88	5.77	-17.26	5.52	18.19	288.49	0.67
1975.00	0.65	199.92	1974.88	5.50	-17.31	5.25	18.16	287.63	0.87
2000.00	0.48	195.84	1999.88	5.27	-17.38	5.02	18.16	286.85	0.70
2025.00	0.62	197.03	2024.88	5.04	-17.45	4.79	18.16	286.10	0.56
2050.00	0.65	182.58	2049.88	4.76	-17.50	4.51	18.13	285.23	0.65
2075.00	0.67	186.39	2074.87	4.48	-17.52	4.23	18.08	284.34	0.19
2100.00	0.50	195.73	2099.87	4.23	-17.57	3.98	18.07	283.54	0.79
2125.00	0.42	187.69	2124.87	4.03	-17.61	3.78	18.06	282.91	0.39
2150.00	0.65	189.69	2149.87	3.80	-17.64	3.55	18.05	282.17	0.92
2175.00	0.69	183.34	2174.87	3.51	-17.68	3.26	18.02	281.25	0.33
2200.00	0.53	177.62	2199.87	3.25	-17.68	3.00	17.98	280.41	0.66
2225.00	0.68	188.11	2224.87	2.99	-17.70	2.73	17.95	279.58	0.74
2250.00	0.54	187.05	2249.86	2.72	-17.73	2.47	17.94	278.73	0.56
2275.00	0.66	196.28	2274.86	2.47	-17.79	2.21	17.96	277.89	0.61
2300.00	0.61	217.51	2299.86	2.22	-17.91	1.97	18.04	277.07	0.96
2325.00	0.75	220.16	2324.86	1.99	-18.09	1.73	18.20	276.28	0.58
2350.00	0.83	221.01	2349.86	1.73	-18.32	1.47	18.40	275.39	0.31

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
2375.00	0.66	211.11	2374.86	1.47	-18.51	1.20	18.57	274.54	0.86
2400.00	0.77	201.73	2399.85	1.19	-18.65	0.92	18.69	273.66	0.65
2425.00	0.77	205.98	2424.85	0.89	-18.78	0.62	18.80	272.70	0.23
2450.00	0.56	208.62	2449.85	0.63	-18.92	0.36	18.93	271.90	0.84
2475.00	0.51	207.02	2474.85	0.42	-19.02	0.15	19.03	271.27	0.21
2500.00	0.44	204.71	2499.85	0.23	-19.11	-0.04	19.12	270.70	0.27
2525.00	0.61	201.64	2524.85	0.02	-19.20	-0.25	19.20	270.07	0.67
2550.00	0.50	206.50	2549.85	-0.20	-19.30	-0.47	19.30	269.41	0.46
2575.00	0.49	221.19	2574.84	-0.38	-19.42	-0.65	19.42	268.89	0.51
2600.00	0.45	212.31	2599.84	-0.54	-19.54	-0.82	19.55	268.42	0.33
2625.00	0.63	230.92	2624.84	-0.71	-19.70	-0.99	19.72	267.94	0.99
2650.00	0.44	232.38	2649.84	-0.85	-19.89	-1.14	19.90	267.54	0.75
2675.00	0.65	234.00	2674.84	-1.00	-20.08	-1.28	20.10	267.16	0.84
2700.00	0.72	238.46	2699.84	-1.16	-20.33	-1.45	20.36	266.73	0.35
2725.00	0.72	237.20	2724.84	-1.33	-20.59	-1.62	20.63	266.30	0.06
2750.00	0.76	231.20	2749.83	-1.52	-20.85	-1.82	20.91	265.83	0.35
2775.00	0.60	240.12	2774.83	-1.69	-21.10	-1.99	21.16	265.42	0.76
2800.00	0.44	246.65	2799.83	-1.79	-21.30	-2.10	21.38	265.19	0.68
2825.00	0.63	251.08	2824.83	-1.88	-21.52	-2.18	21.60	265.02	0.75
2850.00	0.54	251.74	2849.83	-1.96	-21.76	-2.27	21.85	264.86	0.33
2875.00	0.31	254.87	2874.83	-2.01	-21.94	-2.33	22.03	264.76	0.92
2900.00	0.37	250.58	2899.83	-2.06	-22.08	-2.37	22.18	264.68	0.24
2925.00	0.61	243.51	2924.83	-2.14	-22.28	-2.46	22.38	264.50	0.99
2950.00	0.52	246.81	2949.83	-2.25	-22.50	-2.57	22.61	264.30	0.38
2975.00	0.46	257.66	2974.83	-2.31	-22.70	-2.64	22.82	264.18	0.44
3000.00	0.31	236.27	2999.82	-2.37	-22.86	-2.70	22.98	264.08	0.83
3025.00	0.51	220.34	3024.82	-2.49	-22.98	-2.82	23.12	263.81	0.92
3050.00	0.44	214.32	3049.82	-2.66	-23.11	-2.99	23.26	263.44	0.34
3075.00	0.26	213.36	3074.82	-2.78	-23.19	-3.12	23.36	263.15	0.70
3100.00	0.25	234.77	3099.82	-2.86	-23.27	-3.20	23.45	262.98	0.39
3125.00	0.38	252.21	3124.82	-2.92	-23.39	-3.26	23.58	262.88	0.64
3150.00	0.23	275.89	3149.82	-2.94	-23.52	-3.28	23.71	262.87	0.76
3175.00	0.12	281.14	3174.82	-2.93	-23.60	-3.27	23.78	262.92	0.45
3200.00	0.32	292.67	3199.82	-2.90	-23.69	-3.24	23.87	263.02	0.81
3225.00	0.34	294.16	3224.82	-2.84	-23.82	-3.18	23.99	263.20	0.09
3250.00	0.23	321.49	3249.82	-2.77	-23.92	-3.11	24.08	263.39	0.69
3275.00	0.39	297.01	3274.82	-2.70	-24.03	-3.04	24.18	263.60	0.82
3300.00	0.25	274.80	3299.82	-2.65	-24.15	-3.00	24.30	263.73	0.74
3325.00	0.09	270.35	3324.82	-2.65	-24.23	-2.99	24.37	263.76	0.63
3350.00	0.26	251.53	3349.82	-2.67	-24.30	-3.01	24.45	263.74	0.71

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
3375.00	0.18	236.60	3374.82	-2.71	-24.39	-3.05	24.53	263.67	0.39
3400.00	0.04	359.00	3399.82	-2.72	-24.42	-3.07	24.57	263.65	0.81
3425.00	0.16	242.04	3424.82	-2.72	-24.45	-3.07	24.60	263.64	0.72
3450.00	0.08	199.77	3449.82	-2.76	-24.48	-3.11	24.64	263.58	0.45
3475.00	0.07	163.44	3474.82	-2.79	-24.49	-3.14	24.64	263.51	0.19
3500.00	0.13	102.89	3499.82	-2.81	-24.45	-3.16	24.61	263.45	0.46
3525.00	0.20	34.06	3524.82	-2.78	-24.40	-3.13	24.56	263.50	0.79
3550.00	0.12	104.39	3549.82	-2.75	-24.35	-3.10	24.51	263.56	0.79
3575.00	0.21	53.78	3574.82	-2.73	-24.29	-3.07	24.44	263.59	0.65
3600.00	0.19	46.24	3599.82	-2.67	-24.22	-3.02	24.37	263.71	0.12
3625.00	0.23	80.61	3624.82	-2.63	-24.14	-2.98	24.29	263.77	0.51
3650.00	0.23	81.47	3649.82	-2.62	-24.05	-2.96	24.19	263.78	0.01
3675.00	0.20	44.12	3674.82	-2.58	-23.97	-2.92	24.11	263.85	0.56
3700.00	0.21	30.78	3699.82	-2.51	-23.91	-2.85	24.05	264.01	0.20
3725.00	0.22	58.36	3724.82	-2.45	-23.85	-2.79	23.97	264.14	0.41
3750.00	0.15	19.54	3749.82	-2.39	-23.80	-2.73	23.92	264.27	0.56
3775.00	0.25	64.23	3774.82	-2.33	-23.74	-2.67	23.85	264.38	0.72
3800.00	0.30	52.09	3799.82	-2.27	-23.63	-2.61	23.74	264.52	0.30
3825.00	0.18	9.37	3824.82	-2.19	-23.58	-2.53	23.68	264.69	0.83
3850.00	0.28	37.07	3849.82	-2.10	-23.53	-2.44	23.63	264.89	0.60
3875.00	0.28	35.32	3874.82	-2.00	-23.46	-2.34	23.55	265.12	0.03
3900.00	0.09	59.09	3899.82	-1.94	-23.41	-2.28	23.49	265.25	0.80
3925.00	0.13	47.41	3924.82	-1.91	-23.37	-2.25	23.45	265.32	0.19
3950.00	0.20	16.60	3949.82	-1.85	-23.34	-2.19	23.41	265.46	0.45
3975.00	0.23	49.53	3974.82	-1.78	-23.28	-2.11	23.35	265.64	0.49
4000.00	0.25	53.14	3999.82	-1.71	-23.20	-2.04	23.27	265.78	0.10
4025.00	0.17	33.53	4024.82	-1.65	-23.14	-1.98	23.20	265.92	0.41
4050.00	0.15	327.37	4049.82	-1.59	-23.14	-1.92	23.19	266.07	0.71
4075.00	0.24	6.00	4074.82	-1.51	-23.15	-1.84	23.20	266.27	0.63
4100.00	0.09	16.66	4099.82	-1.44	-23.14	-1.77	23.18	266.44	0.64
4125.00	0.22	6.28	4124.82	-1.37	-23.13	-1.70	23.17	266.60	0.55
4150.00	0.42	27.98	4149.81	-1.24	-23.08	-1.57	23.11	266.92	0.91
4175.00	0.40	32.23	4174.81	-1.09	-22.99	-1.42	23.02	267.29	0.14
4200.00	0.28	46.37	4199.81	-0.97	-22.90	-1.30	22.92	267.57	0.60
4225.00	0.32	13.41	4224.81	-0.86	-22.84	-1.19	22.86	267.84	0.69
4250.00	0.09	37.76	4249.81	-0.78	-22.81	-1.11	22.82	268.04	0.96
4275.00	0.25	64.36	4274.81	-0.74	-22.75	-1.07	22.76	268.13	0.69
4300.00	0.27	34.66	4299.81	-0.67	-22.67	-0.99	22.68	268.31	0.54
4325.00	0.26	33.83	4324.81	-0.57	-22.60	-0.90	22.61	268.55	0.06
4350.00	0.11	29.94	4349.81	-0.50	-22.56	-0.83	22.56	268.72	0.58

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
4375.00	0.09	32.34	4374.81	-0.47	-22.54	-0.79	22.54	268.81	0.09
4400.00	0.21	47.56	4399.81	-0.42	-22.49	-0.74	22.50	268.93	0.50
4425.00	0.25	66.19	4424.81	-0.37	-22.41	-0.69	22.41	269.06	0.33
4450.00	0.23	38.22	4449.81	-0.31	-22.33	-0.63	22.33	269.22	0.46
4475.00	0.01	96.00	4474.81	-0.27	-22.30	-0.59	22.30	269.31	0.87
4500.00	0.12	74.85	4499.81	-0.26	-22.27	-0.58	22.27	269.33	0.44
4525.00	0.28	94.75	4524.81	-0.26	-22.18	-0.58	22.18	269.33	0.70
4550.00	0.46	84.15	4549.81	-0.25	-22.02	-0.57	22.02	269.34	0.73
4575.00	0.64	87.12	4574.81	-0.24	-21.78	-0.55	21.78	269.38	0.73
4600.00	0.68	98.03	4599.81	-0.25	-21.49	-0.56	21.50	269.33	0.54
4625.00	0.80	93.03	4624.81	-0.28	-21.17	-0.58	21.17	269.24	0.54
4650.00	0.97	89.92	4649.80	-0.29	-20.79	-0.59	20.79	269.20	0.71
4675.00	0.82	94.52	4674.80	-0.30	-20.39	-0.60	20.40	269.15	0.67
4700.00	1.00	91.29	4699.80	-0.32	-20.00	-0.61	20.00	269.08	0.75
4725.00	0.81	90.13	4724.79	-0.33	-19.60	-0.61	19.61	269.04	0.77
4750.00	1.02	96.68	4749.79	-0.35	-19.20	-0.63	19.21	268.94	0.96
4775.00	1.27	95.98	4774.79	-0.41	-18.71	-0.68	18.71	268.75	0.99
4800.00	1.03	94.67	4799.78	-0.46	-18.21	-0.72	18.21	268.56	0.98
4825.00	1.17	98.67	4824.78	-0.51	-17.73	-0.77	17.74	268.34	0.63
4850.00	1.33	93.69	4849.77	-0.57	-17.19	-0.82	17.20	268.10	0.79
4875.00	1.42	100.18	4874.76	-0.64	-16.60	-0.88	16.61	267.78	0.72
4900.00	1.46	102.91	4899.76	-0.77	-15.98	-1.00	16.00	267.25	0.31
4925.00	1.33	111.40	4924.75	-0.95	-15.40	-1.17	15.43	266.48	0.96
4950.00	1.21	119.71	4949.74	-1.18	-14.90	-1.40	14.95	265.46	0.88
4975.00	1.04	124.91	4974.74	-1.45	-14.48	-1.65	14.55	264.30	0.79
5000.00	1.03	117.66	4999.73	-1.68	-14.10	-1.88	14.20	263.20	0.53
5025.00	1.15	117.48	5024.73	-1.90	-13.67	-2.10	13.81	262.09	0.44
5050.00	1.24	119.37	5049.72	-2.15	-13.22	-2.34	13.39	260.77	0.40
5075.00	1.10	121.41	5074.72	-2.41	-12.78	-2.59	13.00	259.34	0.58
5100.00	1.25	118.28	5099.71	-2.66	-12.33	-2.84	12.62	257.83	0.65
5125.00	1.30	120.61	5124.71	-2.93	-11.85	-3.10	12.21	256.09	0.29
5150.00	1.10	125.85	5149.70	-3.22	-11.41	-3.38	11.85	254.25	0.91
5175.00	1.20	127.27	5174.70	-3.52	-11.01	-3.68	11.55	252.27	0.43
5200.00	0.96	126.27	5199.69	-3.80	-10.63	-3.95	11.29	250.32	0.97
5225.00	0.99	123.22	5224.69	-4.04	-10.28	-4.19	11.04	248.52	0.24
5250.00	1.11	127.88	5249.68	-4.31	-9.91	-4.45	10.80	246.48	0.57
5275.00	1.33	128.30	5274.68	-4.64	-9.49	-4.77	10.56	243.94	0.92
5300.00	1.32	127.95	5299.67	-5.00	-9.03	-5.13	10.32	241.05	0.07
5325.00	1.54	131.95	5324.66	-5.40	-8.55	-5.52	10.12	237.75	0.95
5350.00	1.39	134.40	5349.65	-5.83	-8.09	-5.95	9.97	234.20	0.64

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
5375.00	1.51	128.71	5374.65	-6.25	-7.62	-6.36	9.85	230.62	0.74
5400.00	1.50	128.09	5399.64	-6.66	-7.10	-6.76	9.74	226.85	0.07
5425.00	1.58	134.60	5424.63	-7.10	-6.60	-7.20	9.70	222.91	0.77
5450.00	1.60	130.08	5449.62	-7.57	-6.09	-7.65	9.71	218.82	0.51
5475.00	1.43	132.10	5474.61	-8.00	-5.59	-8.08	9.76	214.95	0.70
5500.00	1.49	139.82	5499.60	-8.46	-5.15	-8.53	9.90	211.34	0.82
5525.00	1.57	142.12	5524.59	-8.98	-4.73	-9.04	10.15	207.78	0.41
5550.00	1.64	136.74	5549.58	-9.51	-4.27	-9.57	10.42	204.21	0.66
5575.00	1.63	132.42	5574.57	-10.01	-3.77	-10.06	10.69	200.63	0.49
5600.00	1.54	127.92	5599.56	-10.45	-3.24	-10.50	10.94	197.22	0.60
5625.00	1.39	132.84	5624.56	-10.87	-2.75	-10.90	11.21	194.22	0.80
5650.00	1.36	139.24	5649.55	-11.30	-2.34	-11.33	11.54	191.69	0.63
5675.00	1.22	144.08	5674.54	-11.73	-1.99	-11.76	11.90	189.62	0.71
5700.00	1.36	151.74	5699.54	-12.21	-1.69	-12.23	12.33	187.90	0.88
5725.00	1.50	144.80	5724.53	-12.74	-1.37	-12.76	12.81	186.12	0.90
5750.00	1.51	141.94	5749.52	-13.26	-0.97	-13.28	13.30	184.20	0.30
5775.00	1.35	139.42	5774.51	-13.75	-0.58	-13.75	13.76	182.41	0.66
5800.00	1.27	141.91	5799.51	-14.19	-0.22	-14.19	14.19	180.88	0.42
5825.00	1.42	148.56	5824.50	-14.67	0.11	-14.67	14.67	179.55	0.88
5850.00	1.60	147.96	5849.49	-15.23	0.46	-15.22	15.24	178.26	0.73
5875.00	1.48	152.93	5874.48	-15.82	0.80	-15.80	15.84	177.12	0.72
5900.00	1.43	146.91	5899.47	-16.37	1.11	-16.35	16.40	176.11	0.65
5925.00	1.27	146.44	5924.47	-16.86	1.44	-16.83	16.92	175.13	0.65
5950.00	1.16	156.44	5949.46	-17.32	1.69	-17.29	17.40	174.43	0.95
5975.00	0.96	159.04	5974.46	-17.75	1.87	-17.72	17.84	174.00	0.84
6000.00	0.77	167.41	5999.45	-18.11	1.98	-18.08	18.21	173.77	0.89
6025.00	0.61	181.48	6024.45	-18.40	2.01	-18.37	18.51	173.77	0.93
6050.00	0.51	186.05	6049.45	-18.65	2.00	-18.62	18.75	173.89	0.43
6075.00	0.48	174.97	6074.45	-18.86	1.99	-18.83	18.97	173.97	0.40
6100.00	0.56	183.46	6099.45	-19.09	1.99	-19.06	19.19	174.04	0.44
6125.00	0.44	198.09	6124.45	-19.30	1.96	-19.27	19.40	174.21	0.69
6150.00	0.54	189.26	6149.45	-19.51	1.91	-19.48	19.60	174.41	0.50
6175.00	0.43	207.79	6174.45	-19.71	1.85	-19.68	19.80	174.65	0.76
6200.00	0.36	195.98	6199.45	-19.87	1.78	-19.84	19.95	174.88	0.44
6225.00	0.56	191.85	6224.44	-20.06	1.73	-20.04	20.14	175.06	0.81
6250.00	0.38	194.00	6249.44	-20.26	1.69	-20.24	20.33	175.24	0.72
6275.00	0.47	218.21	6274.44	-20.42	1.60	-20.40	20.49	175.51	0.80
6300.00	0.56	202.80	6299.44	-20.62	1.49	-20.59	20.67	175.86	0.66
6325.00	0.55	227.06	6324.44	-20.81	1.36	-20.79	20.86	176.27	0.94
6350.00	0.49	211.46	6349.44	-20.99	1.21	-20.97	21.02	176.69	0.63

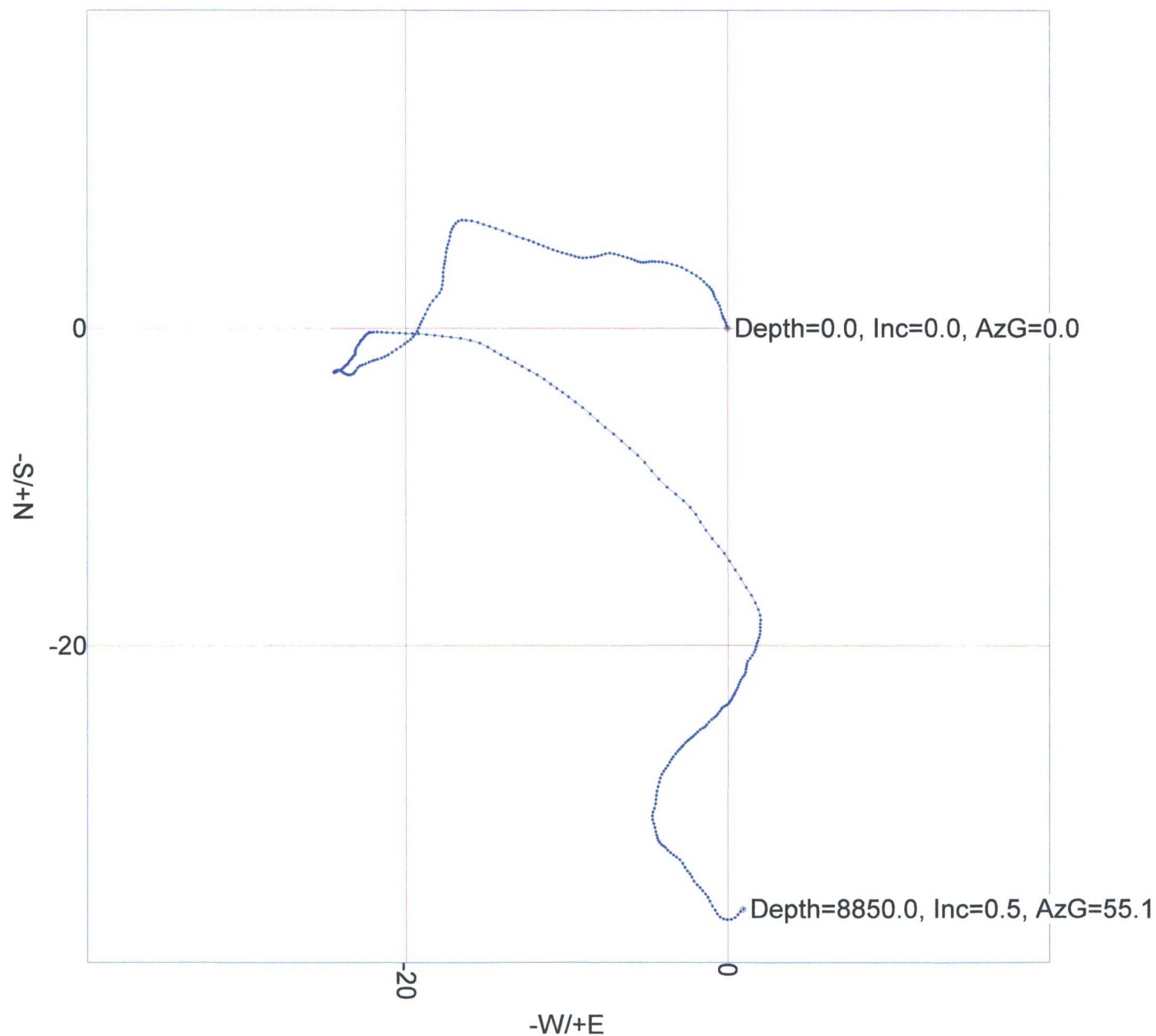
Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
6375.00	0.42	183.90	6374.44	-21.17	1.15	-21.15	21.20	176.88	0.90
6400.00	0.35	187.48	6399.44	-21.33	1.14	-21.31	21.36	176.95	0.28
6425.00	0.42	192.34	6424.44	-21.50	1.11	-21.48	21.53	177.05	0.30
6450.00	0.48	189.08	6449.44	-21.69	1.07	-21.67	21.72	177.17	0.26
6475.00	0.35	211.48	6474.44	-21.86	1.01	-21.84	21.88	177.34	0.81
6500.00	0.46	223.72	6499.44	-22.00	0.90	-21.98	22.01	177.65	0.56
6525.00	0.35	204.84	6524.44	-22.14	0.80	-22.12	22.15	177.92	0.70
6550.00	0.43	206.42	6549.43	-22.29	0.73	-22.28	22.30	178.13	0.34
6575.00	0.42	199.59	6574.43	-22.46	0.66	-22.45	22.47	178.32	0.21
6600.00	0.48	201.66	6599.43	-22.64	0.59	-22.63	22.65	178.51	0.24
6625.00	0.41	212.51	6624.43	-22.81	0.50	-22.81	22.82	178.74	0.42
6650.00	0.37	201.43	6649.43	-22.97	0.42	-22.96	22.97	178.94	0.34
6675.00	0.21	208.92	6674.43	-23.08	0.37	-23.08	23.09	179.08	0.66
6700.00	0.36	207.96	6699.43	-23.19	0.31	-23.19	23.20	179.23	0.58
6725.00	0.33	205.18	6724.43	-23.33	0.24	-23.32	23.33	179.40	0.13
6750.00	0.27	217.48	6749.43	-23.44	0.18	-23.44	23.44	179.57	0.36
6775.00	0.26	211.44	6774.43	-23.54	0.11	-23.53	23.54	179.73	0.11
6800.00	0.39	219.30	6799.43	-23.65	0.03	-23.65	23.65	179.93	0.54
6825.00	0.34	241.25	6824.43	-23.75	-0.09	-23.75	23.75	180.22	0.59
6850.00	0.38	239.69	6849.43	-23.83	-0.23	-23.83	23.83	180.55	0.17
6875.00	0.27	239.54	6874.43	-23.90	-0.35	-23.90	23.90	180.84	0.45
6900.00	0.37	198.31	6899.43	-24.01	-0.43	-24.01	24.01	181.02	0.98
6925.00	0.42	224.61	6924.43	-24.15	-0.52	-24.16	24.16	181.23	0.74
6950.00	0.43	209.73	6949.43	-24.30	-0.63	-24.30	24.31	181.48	0.45
6975.00	0.40	226.43	6974.43	-24.44	-0.74	-24.45	24.45	181.73	0.50
7000.00	0.34	237.09	6999.43	-24.54	-0.86	-24.55	24.56	182.02	0.38
7025.00	0.56	229.85	7024.42	-24.66	-1.02	-24.67	24.68	182.37	0.92
7050.00	0.53	220.19	7049.42	-24.83	-1.19	-24.84	24.85	182.74	0.39
7075.00	0.45	216.99	7074.42	-24.99	-1.32	-25.01	25.03	183.02	0.33
7100.00	0.33	228.51	7099.42	-25.12	-1.43	-25.14	25.16	183.26	0.56
7125.00	0.37	242.31	7124.42	-25.20	-1.56	-25.22	25.25	183.53	0.37
7150.00	0.53	238.17	7149.42	-25.30	-1.72	-25.32	25.36	183.90	0.67
7175.00	0.49	216.83	7174.42	-25.45	-1.89	-25.47	25.52	184.24	0.77
7200.00	0.36	231.56	7199.42	-25.58	-2.01	-25.61	25.66	184.50	0.68
7225.00	0.41	227.30	7224.42	-25.69	-2.14	-25.72	25.78	184.76	0.23
7250.00	0.32	231.36	7249.42	-25.80	-2.26	-25.83	25.89	185.01	0.36
7275.00	0.42	230.02	7274.42	-25.90	-2.39	-25.93	26.01	185.27	0.37
7300.00	0.32	231.38	7299.42	-26.00	-2.51	-26.03	26.12	185.52	0.39
7325.00	0.50	221.35	7324.42	-26.13	-2.64	-26.16	26.26	185.76	0.76
7350.00	0.42	220.22	7349.42	-26.28	-2.77	-26.31	26.42	186.01	0.31

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
7375.00	0.31	220.34	7374.42	-26.40	-2.87	-26.44	26.55	186.21	0.44
7400.00	0.50	222.61	7399.41	-26.53	-2.99	-26.57	26.70	186.43	0.74
7425.00	0.34	222.97	7424.41	-26.66	-3.11	-26.71	26.84	186.66	0.62
7450.00	0.57	217.98	7449.41	-26.82	-3.24	-26.86	27.01	186.89	0.91
7475.00	0.54	219.00	7474.41	-27.00	-3.39	-27.05	27.22	187.15	0.10
7500.00	0.37	210.50	7499.41	-27.17	-3.50	-27.21	27.39	187.35	0.75
7525.00	0.59	206.25	7524.41	-27.35	-3.60	-27.40	27.59	187.50	0.89
7550.00	0.49	214.36	7549.41	-27.55	-3.72	-27.60	27.80	187.69	0.48
7575.00	0.52	215.91	7574.41	-27.73	-3.85	-27.79	28.00	187.90	0.14
7600.00	0.46	210.79	7599.41	-27.91	-3.96	-27.97	28.19	188.08	0.31
7625.00	0.58	210.86	7624.41	-28.11	-4.08	-28.16	28.40	188.26	0.46
7650.00	0.56	193.67	7649.41	-28.33	-4.17	-28.39	28.64	188.38	0.68
7675.00	0.68	195.34	7674.40	-28.60	-4.24	-28.65	28.91	188.44	0.49
7700.00	0.68	196.63	7699.40	-28.88	-4.32	-28.94	29.21	188.52	0.06
7725.00	0.68	195.18	7724.40	-29.17	-4.41	-29.23	29.50	188.59	0.07
7750.00	0.62	184.87	7749.40	-29.45	-4.46	-29.51	29.78	188.61	0.52
7775.00	0.54	182.08	7774.40	-29.70	-4.47	-29.76	30.04	188.56	0.33
7800.00	0.70	187.98	7799.40	-29.97	-4.50	-30.03	30.31	188.53	0.66
7825.00	0.70	201.11	7824.39	-30.26	-4.57	-30.33	30.61	188.59	0.64
7850.00	0.47	196.68	7849.39	-30.50	-4.66	-30.57	30.86	188.68	0.93
7875.00	0.61	186.15	7874.39	-30.73	-4.70	-30.80	31.09	188.70	0.69
7900.00	0.60	165.15	7899.39	-30.99	-4.68	-31.05	31.34	188.59	0.88
7925.00	0.60	160.15	7924.39	-31.24	-4.60	-31.30	31.58	188.38	0.21
7950.00	0.57	173.83	7949.39	-31.49	-4.55	-31.55	31.81	188.22	0.57
7975.00	0.61	161.93	7974.39	-31.74	-4.49	-31.80	32.05	188.06	0.52
8000.00	0.49	167.85	7999.38	-31.97	-4.43	-32.03	32.27	187.89	0.51
8025.00	0.36	164.56	8024.38	-32.15	-4.38	-32.21	32.45	187.77	0.54
8050.00	0.31	155.65	8049.38	-32.29	-4.33	-32.35	32.58	187.65	0.28
8075.00	0.41	146.86	8074.38	-32.42	-4.26	-32.48	32.70	187.48	0.45
8100.00	0.45	131.39	8099.38	-32.56	-4.14	-32.62	32.82	187.24	0.49
8125.00	0.28	120.00	8124.38	-32.66	-4.01	-32.71	32.90	187.00	0.72
8150.00	0.39	134.19	8149.38	-32.75	-3.89	-32.80	32.98	186.78	0.55
8175.00	0.57	142.13	8174.38	-32.91	-3.75	-32.96	33.12	186.51	0.76
8200.00	0.59	126.59	8199.38	-33.08	-3.57	-33.13	33.28	186.17	0.63
8225.00	0.46	128.71	8224.38	-33.22	-3.39	-33.27	33.40	185.83	0.52
8250.00	0.55	122.86	8249.38	-33.35	-3.21	-33.39	33.51	185.50	0.41
8275.00	0.68	134.26	8274.38	-33.52	-3.00	-33.56	33.66	185.12	0.70
8300.00	0.70	151.66	8299.37	-33.76	-2.83	-33.79	33.88	184.79	0.83
8325.00	0.63	148.08	8324.37	-34.01	-2.68	-34.04	34.11	184.51	0.32
8350.00	0.67	141.60	8349.37	-34.24	-2.52	-34.27	34.33	184.21	0.34

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
8375.00	0.43	138.56	8374.37	-34.42	-2.37	-34.45	34.50	183.93	0.96
8400.00	0.61	157.36	8399.37	-34.62	-2.25	-34.64	34.69	183.72	0.98
8425.00	0.77	146.91	8424.37	-34.88	-2.11	-34.91	34.94	183.46	0.80
8450.00	0.64	132.29	8449.37	-35.11	-1.92	-35.14	35.17	183.12	0.86
8475.00	0.49	139.79	8474.36	-35.29	-1.74	-35.31	35.33	182.83	0.68
8500.00	0.63	141.93	8499.36	-35.48	-1.59	-35.50	35.52	182.56	0.54
8525.00	0.67	135.94	8524.36	-35.69	-1.40	-35.71	35.72	182.25	0.31
8550.00	0.56	152.19	8549.36	-35.90	-1.25	-35.92	35.93	181.99	0.81
8575.00	0.71	156.35	8574.36	-36.15	-1.13	-36.17	36.17	181.79	0.63
8600.00	0.82	145.74	8599.36	-36.44	-0.96	-36.45	36.46	181.51	0.73
8625.00	0.61	153.49	8624.35	-36.71	-0.80	-36.72	36.72	181.25	0.94
8650.00	0.65	146.75	8649.35	-36.95	-0.67	-36.95	36.95	181.03	0.34
8675.00	0.57	125.36	8674.35	-37.14	-0.49	-37.14	37.14	180.75	0.95
8700.00	0.53	113.26	8699.35	-37.25	-0.28	-37.25	37.26	180.43	0.49
8725.00	0.59	93.93	8724.35	-37.31	-0.05	-37.31	37.31	180.07	0.79
8750.00	0.60	75.16	8749.35	-37.28	0.21	-37.28	37.28	179.68	0.78
8775.00	0.62	52.73	8774.35	-37.17	0.44	-37.16	37.17	179.32	0.96
8800.00	0.58	33.96	8799.34	-36.98	0.62	-36.97	36.99	179.04	0.80
8825.00	0.56	44.36	8824.34	-36.79	0.78	-36.77	36.80	178.79	0.42
8850.00	0.52	55.06	8849.34	-36.64	0.95	-36.62	36.65	178.51	0.44



VES Survey International
Midland, Texas
432-563-5444
Surveyor: Michael Cook
Red Raider BKS State No. 004H / API 30-025-42992



V.E.S. Survey Date: 1/29/2017



I Michael Cook certify that I am employed by VES Survey International. That I did on the day(s) of 01/29/17 through 01/29/17 conduct or supervise the taking of a Rate Gyro survey from a depth of 0.00 feet to a depth of 8,850.00 feet; that the data is true, correct, complete and within the limitations of the tool as set forth by Vaughn Energy Services, that I am authorized and qualified to make this report; that this survey was conducted at the request of Cog Operating for the Red Raider BKS State Well # 004H API # 30-025-42-758 in Lea County / Parish New Mexico; and that I have reviewed this report and find that it conforms to the principles and procedures as set forth by VES Survey International.

A handwritten signature in blue ink, appearing to read "M Cook", is written over a horizontal line.

Michael Cook
Service Technician
VES Survey International



NEW MEXICO BASIN

LEA COUNTY, NM

BULLDOG

RED RAIDER BKS STATE #4H

OWB

Design: ACTUAL WELLPATH

Survey Report -

, 21 March, 2017

HOBBS OCD
MAY 01 2017
RECEIVED

Company:	NEW MEXICO BASIN	Local Co-ordinate	Well RED RAIDER BKS STATE #4H
Project:	LEA COUNTY, NM	TVD Reference:	RKB=3508.5+29 @ 3537.5usft (NORAM)
Site:	BULLDOG	MD Reference:	RKB=3508.5+29 @ 3537.5usft (NORAM)
Well:	RED RAIDER BKS STATE #4H	North Reference:	Grid
Wellbore:	OWB	Survey	Minimum Curvature
Design:	ACTUAL WELLPATH	Database:	EDM_Users

Project LEA COUNTY, NM

Map US State Plane 1927 (Exact solution) **System Datum:** Mean Sea Level

Geo Datum: NAD 1927 (NADCON CONUS)

Map Zone: New Mexico East 3001

Site BULLDOG

Site		Northing:	398,637.10 usft	Latitude:	32° 5' 36.820 N
From:	Map	Easting:	741,887.40 usft	Longitude:	103° 33' 8.116 W
Position		Slot	13-3/16 "	Grid Convergence:	0.42 °

Well RED RAIDER BKS STATE #4H

Well	+N/-	0.0 usft	Northing:	430,831.60 usft	Latitude:	32° 10' 54.743 N
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	+E/-	0.0 usft	Easting:	750,902.52 usft	Longitude:	103° 31' 20.508 W
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Position	3.0 usft	Wellhead Eleva	usft	Ground L	3,508.5 usft
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Wellbore OWB

Magnetics	Model	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	WMM2015	1/16/2017	6.99	60.03	47,950.39229582

Design ACTUAL WELLPATH

Audit Notes:

Version:	1.0	Phase:	ACTUAL	Tie On	0.0
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Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	1.04

Survey Program **Date** 2/8/2017

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
25.0	8,850.0	GYRO (OWB)	VES GyroFlex	
8,967.0	14,073.0	MWD 2 (OWB)	MWD	OWSG MWD - Standard

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.0	0.00	0.00	0.0	0.0	0.0	430,831.60	750,902.52	32° 10' 54.743 N	103° 31' 20.508 W
25.0	0.22	339.16	25.0	0.0	0.0	430,831.64	750,902.50	32° 10' 54.744 N	103° 31' 20.509 W
50.0	0.43	335.00	50.0	0.2	-0.1	430,831.77	750,902.44	32° 10' 54.745 N	103° 31' 20.509 W
75.0	0.45	350.39	75.0	0.4	-0.1	430,831.96	750,902.39	32° 10' 54.747 N	103° 31' 20.510 W
100.0	0.36	325.19	100.0	0.5	-0.2	430,832.12	750,902.33	32° 10' 54.749 N	103° 31' 20.511 W
125.0	0.30	333.37	125.0	0.6	-0.3	430,832.24	750,902.25	32° 10' 54.750 N	103° 31' 20.511 W
150.0	0.35	347.39	150.0	0.8	-0.3	430,832.37	750,902.21	32° 10' 54.751 N	103° 31' 20.512 W
175.0	0.49	338.72	175.0	0.9	-0.4	430,832.55	750,902.15	32° 10' 54.753 N	103° 31' 20.513 W

200.0	0.57	348.26	200.0	1.2	-0.4	430,832.77	750,902.09	32° 10' 54.755 N	103° 31' 20.513 W
225.0	0.56	339.00	225.0	1.4	-0.5	430,833.00	750,902.02	32° 10' 54.757 N	103° 31' 20.514 W
250.0	0.55	327.89	250.0	1.6	-0.6	430,833.22	750,901.91	32° 10' 54.760 N	103° 31' 20.515 W

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
275.0	0.50	333.48	275.0	1.8	-0.7	430,833.42	750,901.80	32° 10' 54.762 N	103° 31' 20.517 W
300.0	0.41	331.20	300.0	2.0	-0.8	430,833.60	750,901.71	32° 10' 54.763 N	103° 31' 20.518 W
325.0	0.40	352.61	325.0	2.2	-0.9	430,833.76	750,901.65	32° 10' 54.765 N	103° 31' 20.518 W
350.0	0.37	324.99	350.0	2.3	-0.9	430,833.91	750,901.59	32° 10' 54.766 N	103° 31' 20.519 W
375.0	0.39	333.44	375.0	2.5	-1.0	430,834.06	750,901.51	32° 10' 54.768 N	103° 31' 20.520 W
400.0	0.49	307.46	400.0	2.6	-1.1	430,834.20	750,901.39	32° 10' 54.769 N	103° 31' 20.521 W
425.0	0.57	313.34	425.0	2.7	-1.3	430,834.35	750,901.21	32° 10' 54.771 N	103° 31' 20.523 W
450.0	0.62	322.62	450.0	2.9	-1.5	430,834.54	750,901.04	32° 10' 54.773 N	103° 31' 20.525 W
475.0	0.73	303.50	475.0	3.1	-1.7	430,834.74	750,900.82	32° 10' 54.775 N	103° 31' 20.528 W
500.0	0.73	304.51	500.0	3.3	-2.0	430,834.91	750,900.56	32° 10' 54.776 N	103° 31' 20.531 W
525.0	0.80	297.21	525.0	3.5	-2.2	430,835.08	750,900.27	32° 10' 54.778 N	103° 31' 20.534 W
550.0	0.83	303.88	550.0	3.7	-2.5	430,835.26	750,899.97	32° 10' 54.780 N	103° 31' 20.538 W
575.0	0.77	295.49	575.0	3.8	-2.9	430,835.44	750,899.67	32° 10' 54.782 N	103° 31' 20.541 W
600.0	0.74	281.65	600.0	3.9	-3.2	430,835.54	750,899.36	32° 10' 54.783 N	103° 31' 20.545 W
625.0	0.78	288.68	625.0	4.0	-3.5	430,835.63	750,899.04	32° 10' 54.784 N	103° 31' 20.549 W
650.0	0.69	286.30	650.0	4.1	-3.8	430,835.73	750,898.73	32° 10' 54.785 N	103° 31' 20.552 W
675.0	0.51	271.48	675.0	4.2	-4.0	430,835.77	750,898.47	32° 10' 54.785 N	103° 31' 20.555 W
700.0	0.58	274.82	700.0	4.2	-4.3	430,835.78	750,898.24	32° 10' 54.785 N	103° 31' 20.558 W
725.0	0.46	274.94	725.0	4.2	-4.5	430,835.80	750,898.01	32° 10' 54.785 N	103° 31' 20.560 W
750.0	0.43	266.35	750.0	4.2	-4.7	430,835.81	750,897.82	32° 10' 54.785 N	103° 31' 20.563 W
775.0	0.46	262.78	775.0	4.2	-4.9	430,835.79	750,897.62	32° 10' 54.785 N	103° 31' 20.565 W
800.0	0.41	263.42	800.0	4.2	-5.1	430,835.77	750,897.44	32° 10' 54.785 N	103° 31' 20.567 W
825.0	0.39	261.45	825.0	4.1	-5.3	430,835.74	750,897.26	32° 10' 54.785 N	103° 31' 20.569 W
850.0	0.40	288.49	850.0	4.2	-5.4	430,835.76	750,897.10	32° 10' 54.785 N	103° 31' 20.571 W
875.0	0.45	288.30	875.0	4.2	-5.6	430,835.82	750,896.92	32° 10' 54.786 N	103° 31' 20.573 W
900.0	0.48	290.88	900.0	4.3	-5.8	430,835.88	750,896.73	32° 10' 54.786 N	103° 31' 20.575 W
925.0	0.56	292.17	925.0	4.4	-6.0	430,835.97	750,896.52	32° 10' 54.787 N	103° 31' 20.578 W
950.0	0.62	283.33	950.0	4.4	-6.2	430,836.04	750,896.27	32° 10' 54.788 N	103° 31' 20.581 W
975.0	0.69	291.68	975.0	4.5	-6.5	430,836.13	750,896.00	32° 10' 54.789 N	103° 31' 20.584 W
1,000.0	0.61	280.19	1,000.0	4.6	-6.8	430,836.21	750,895.73	32° 10' 54.790 N	103° 31' 20.587 W
1,025.0	0.68	289.16	1,025.0	4.7	-7.1	430,836.28	750,895.46	32° 10' 54.790 N	103° 31' 20.590 W
1,050.0	0.64	269.32	1,050.0	4.7	-7.3	430,836.33	750,895.18	32° 10' 54.791 N	103° 31' 20.593 W
1,075.0	0.61	253.30	1,075.0	4.7	-7.6	430,836.29	750,894.91	32° 10' 54.790 N	103° 31' 20.596 W
1,100.0	0.52	250.94	1,099.9	4.6	-7.8	430,836.21	750,894.68	32° 10' 54.790 N	103° 31' 20.599 W
1,125.0	0.61	256.02	1,124.9	4.5	-8.1	430,836.15	750,894.44	32° 10' 54.789 N	103° 31' 20.602 W
1,150.0	0.43	258.60	1,149.9	4.5	-8.3	430,836.09	750,894.22	32° 10' 54.789 N	103° 31' 20.605 W
1,175.0	0.62	267.12	1,174.9	4.5	-8.5	430,836.07	750,893.99	32° 10' 54.788 N	103° 31' 20.607 W
1,200.0	0.55	264.97	1,199.9	4.5	-8.8	430,836.05	750,893.74	32° 10' 54.788 N	103° 31' 20.610 W
1,225.0	0.51	266.51	1,224.9	4.4	-9.0	430,836.03	750,893.51	32° 10' 54.788 N	103° 31' 20.613 W
1,250.0	0.66	280.65	1,249.9	4.5	-9.3	430,836.05	750,893.26	32° 10' 54.788 N	103° 31' 20.616 W
1,275.0	0.53	294.62	1,274.9	4.5	-9.5	430,836.13	750,893.01	32° 10' 54.789 N	103° 31' 20.619 W
1,300.0	0.58	284.94	1,299.9	4.6	-9.7	430,836.21	750,892.78	32° 10' 54.790 N	103° 31' 20.621 W
1,325.0	0.72	282.40	1,324.9	4.7	-10.0	430,836.28	750,892.51	32° 10' 54.790 N	103° 31' 20.624 W
1,350.0	0.64	291.16	1,349.9	4.8	-10.3	430,836.36	750,892.22	32° 10' 54.791 N	103° 31' 20.628 W
1,375.0	0.71	285.34	1,374.9	4.9	-10.6	430,836.45	750,891.94	32° 10' 54.792 N	103° 31' 20.631 W
1,400.0	0.67	288.36	1,399.9	4.9	-10.9	430,836.54	750,891.66	32° 10' 54.793 N	103° 31' 20.634 W
1,425.0	0.79	294.45	1,424.9	5.1	-11.2	430,836.66	750,891.36	32° 10' 54.794 N	103° 31' 20.638 W
1,450.0	0.73	287.10	1,449.9	5.2	-11.5	430,836.77	750,891.05	32° 10' 54.796 N	103° 31' 20.641 W
1,475.0	0.77	296.06	1,474.9	5.3	-11.8	430,836.90	750,890.75	32° 10' 54.797 N	103° 31' 20.645 W
1,500.0	0.71	294.20	1,499.9	5.4	-12.1	430,837.03	750,890.46	32° 10' 54.798 N	103° 31' 20.648 W
1,525.0	0.79	288.63	1,524.9	5.6	-12.4	430,837.15	750,890.15	32° 10' 54.799 N	103° 31' 20.652 W
1,550.0	0.90	283.53	1,549.9	5.7	-12.7	430,837.25	750,889.80	32° 10' 54.800 N	103° 31' 20.656 W
1,575.0	1.04	290.55	1,574.9	5.8	-13.1	430,837.38	750,889.39	32° 10' 54.802 N	103° 31' 20.661 W
1,600.0	1.08	294.83	1,599.9	6.0	-13.5	430,837.56	750,888.97	32° 10' 54.803 N	103° 31' 20.666 W
1,625.0	1.11	291.00	1,624.9	6.1	-14.0	430,837.74	750,888.53	32° 10' 54.805 N	103° 31' 20.671 W

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
1,650.0	0.93	288.01	1,649.9	6.3	-14.4	430,837.89	750,888.11	32° 10' 54.807 N	103° 31' 20.676 W
1,675.0	0.92	288.35	1,674.9	6.4	-14.8	430,838.02	750,887.72	32° 10' 54.808 N	103° 31' 20.680 W
1,700.0	0.86	288.71	1,699.9	6.5	-15.2	430,838.14	750,887.36	32° 10' 54.809 N	103° 31' 20.684 W
1,725.0	0.89	287.63	1,724.9	6.7	-15.5	430,838.26	750,886.99	32° 10' 54.811 N	103° 31' 20.688 W
1,750.0	0.90	279.98	1,749.9	6.8	-15.9	430,838.35	750,886.62	32° 10' 54.811 N	103° 31' 20.693 W
1,775.0	0.68	273.84	1,774.9	6.8	-16.2	430,838.40	750,886.27	32° 10' 54.812 N	103° 31' 20.697 W
1,800.0	0.54	267.63	1,799.9	6.8	-16.5	430,838.40	750,886.01	32° 10' 54.812 N	103° 31' 20.700 W
1,825.0	0.51	241.89	1,824.9	6.7	-16.7	430,838.34	750,885.79	32° 10' 54.811 N	103° 31' 20.702 W
1,850.0	0.55	221.60	1,849.9	6.6	-16.9	430,838.20	750,885.61	32° 10' 54.810 N	103° 31' 20.704 W
1,875.0	0.49	204.73	1,874.9	6.4	-17.0	430,838.02	750,885.49	32° 10' 54.808 N	103° 31' 20.706 W
1,900.0	0.43	214.91	1,899.9	6.2	-17.1	430,837.84	750,885.39	32° 10' 54.806 N	103° 31' 20.707 W
1,925.0	0.61	196.14	1,924.9	6.0	-17.2	430,837.64	750,885.30	32° 10' 54.804 N	103° 31' 20.708 W
1,950.0	0.61	180.50	1,949.9	5.8	-17.3	430,837.38	750,885.26	32° 10' 54.802 N	103° 31' 20.709 W
1,975.0	0.65	199.92	1,974.9	5.5	-17.3	430,837.11	750,885.21	32° 10' 54.799 N	103° 31' 20.709 W
2,000.0	0.48	195.84	1,999.9	5.3	-17.4	430,836.88	750,885.14	32° 10' 54.797 N	103° 31' 20.710 W
2,025.0	0.62	197.03	2,024.9	5.0	-17.4	430,836.65	750,885.07	32° 10' 54.795 N	103° 31' 20.711 W
2,050.0	0.65	182.58	2,049.9	4.8	-17.5	430,836.37	750,885.02	32° 10' 54.792 N	103° 31' 20.712 W
2,075.0	0.67	186.39	2,074.9	4.5	-17.5	430,836.09	750,885.00	32° 10' 54.789 N	103° 31' 20.712 W
2,100.0	0.50	195.73	2,099.9	4.2	-17.6	430,835.84	750,884.95	32° 10' 54.787 N	103° 31' 20.712 W
2,125.0	0.42	187.69	2,124.9	4.0	-17.6	430,835.64	750,884.91	32° 10' 54.785 N	103° 31' 20.713 W
2,150.0	0.65	189.69	2,149.9	3.8	-17.6	430,835.41	750,884.88	32° 10' 54.782 N	103° 31' 20.713 W
2,175.0	0.69	183.34	2,174.9	3.5	-17.7	430,835.12	750,884.84	32° 10' 54.780 N	103° 31' 20.714 W
2,200.0	0.53	177.62	2,199.9	3.3	-17.7	430,834.85	750,884.84	32° 10' 54.777 N	103° 31' 20.714 W
2,225.0	0.68	188.11	2,224.9	3.0	-17.7	430,834.59	750,884.82	32° 10' 54.774 N	103° 31' 20.714 W
2,250.0	0.54	187.05	2,249.9	2.7	-17.7	430,834.33	750,884.79	32° 10' 54.772 N	103° 31' 20.714 W
2,275.0	0.66	196.28	2,274.9	2.5	-17.8	430,834.07	750,884.73	32° 10' 54.769 N	103° 31' 20.715 W
2,300.0	0.61	217.51	2,299.9	2.2	-17.9	430,833.83	750,884.61	32° 10' 54.767 N	103° 31' 20.717 W
2,325.0	0.75	220.16	2,324.9	2.0	-18.1	430,833.60	750,884.42	32° 10' 54.765 N	103° 31' 20.719 W
2,350.0	0.83	221.01	2,349.9	1.7	-18.3	430,833.34	750,884.20	32° 10' 54.762 N	103° 31' 20.721 W
2,375.0	0.66	211.11	2,374.9	1.5	-18.5	430,833.08	750,884.01	32° 10' 54.759 N	103° 31' 20.724 W
2,400.0	0.77	201.73	2,399.9	1.2	-18.6	430,832.80	750,883.87	32° 10' 54.757 N	103° 31' 20.725 W
2,425.0	0.77	205.98	2,424.9	0.9	-18.8	430,832.49	750,883.73	32° 10' 54.754 N	103° 31' 20.727 W
2,450.0	0.56	208.62	2,449.8	0.6	-18.9	430,832.23	750,883.60	32° 10' 54.751 N	103° 31' 20.728 W
2,475.0	0.51	207.02	2,474.8	0.4	-19.0	430,832.03	750,883.49	32° 10' 54.749 N	103° 31' 20.730 W
2,500.0	0.44	204.71	2,499.8	0.2	-19.1	430,831.84	750,883.40	32° 10' 54.747 N	103° 31' 20.731 W
2,525.0	0.61	201.64	2,524.8	0.0	-19.2	430,831.63	750,883.31	32° 10' 54.745 N	103° 31' 20.732 W
2,550.0	0.50	206.50	2,549.8	-0.2	-19.3	430,831.41	750,883.22	32° 10' 54.743 N	103° 31' 20.733 W
2,575.0	0.49	221.19	2,574.8	-0.4	-19.4	430,831.23	750,883.10	32° 10' 54.741 N	103° 31' 20.734 W
2,600.0	0.45	212.31	2,599.8	-0.5	-19.5	430,831.07	750,882.97	32° 10' 54.740 N	103° 31' 20.736 W
2,625.0	0.63	230.92	2,624.8	-0.7	-19.7	430,830.90	750,882.82	32° 10' 54.738 N	103° 31' 20.738 W
2,650.0	0.44	232.38	2,649.8	-0.8	-19.9	430,830.75	750,882.63	32° 10' 54.737 N	103° 31' 20.740 W
2,675.0	0.65	234.00	2,674.8	-1.0	-20.1	430,830.61	750,882.44	32° 10' 54.735 N	103° 31' 20.742 W
2,700.0	0.72	238.46	2,699.8	-1.2	-20.3	430,830.44	750,882.19	32° 10' 54.734 N	103° 31' 20.745 W
2,725.0	0.72	237.20	2,724.8	-1.3	-20.6	430,830.28	750,881.93	32° 10' 54.732 N	103° 31' 20.748 W
2,750.0	0.76	231.20	2,749.8	-1.5	-20.9	430,830.09	750,881.67	32° 10' 54.730 N	103° 31' 20.751 W
2,775.0	0.60	240.12	2,774.8	-1.7	-21.1	430,829.92	750,881.42	32° 10' 54.728 N	103° 31' 20.754 W
2,800.0	0.44	246.65	2,799.8	-1.8	-21.3	430,829.82	750,881.22	32° 10' 54.727 N	103° 31' 20.756 W
2,825.0	0.63	251.08	2,824.8	-1.9	-21.5	430,829.73	750,881.00	32° 10' 54.727 N	103° 31' 20.759 W
2,850.0	0.54	251.74	2,849.8	-1.9	-21.8	430,829.65	750,880.76	32° 10' 54.726 N	103° 31' 20.762 W
2,875.0	0.31	254.87	2,874.8	-2.0	-21.9	430,829.60	750,880.58	32° 10' 54.725 N	103° 31' 20.764 W
2,900.0	0.37	250.58	2,899.8	-2.0	-22.1	430,829.55	750,880.44	32° 10' 54.725 N	103° 31' 20.765 W
2,925.0	0.61	243.51	2,924.8	-2.1	-22.3	430,829.47	750,880.25	32° 10' 54.724 N	103° 31' 20.768 W
2,950.0	0.52	246.81	2,949.8	-2.2	-22.5	430,829.36	750,880.02	32° 10' 54.723 N	103° 31' 20.770 W
2,975.0	0.46	257.66	2,974.8	-2.3	-22.7	430,829.30	750,879.82	32° 10' 54.722 N	103° 31' 20.773 W
3,000.0	0.31	236.27	2,999.8	-2.4	-22.8	430,829.24	750,879.67	32° 10' 54.722 N	103° 31' 20.774 W

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
3,025.0	0.51	220.34	3,024.8	-2.5	-23.0	430,829.11	750,879.54	32° 10' 54.721 N	103° 31' 20.776 W
3,050.0	0.44	214.32	3,049.8	-2.6	-23.1	430,828.95	750,879.41	32° 10' 54.719 N	103° 31' 20.777 W
3,075.0	0.26	213.36	3,074.8	-2.8	-23.2	430,828.82	750,879.33	32° 10' 54.718 N	103° 31' 20.778 W

3,100.0	0.25	234.77	3,099.8	-2.9	-23.3	430,828.75	750,879.25	32° 10' 54.717 N	103° 31' 20.779 W
3,125.0	0.38	252.21	3,124.8	-2.9	-23.4	430,828.69	750,879.13	32° 10' 54.716 N	103° 31' 20.781 W
3,150.0	0.23	275.89	3,149.8	-2.9	-23.5	430,828.67	750,879.00	32° 10' 54.716 N	103° 31' 20.782 W
3,175.0	0.12	281.14	3,174.8	-2.9	-23.6	430,828.68	750,878.92	32° 10' 54.716 N	103° 31' 20.783 W
3,200.0	0.32	292.67	3,199.8	-2.9	-23.7	430,828.71	750,878.83	32° 10' 54.717 N	103° 31' 20.784 W
3,225.0	0.34	294.16	3,224.8	-2.8	-23.8	430,828.77	750,878.70	32° 10' 54.717 N	103° 31' 20.786 W
3,250.0	0.23	321.49	3,249.8	-2.8	-23.9	430,828.84	750,878.60	32° 10' 54.718 N	103° 31' 20.787 W
3,275.0	0.39	297.01	3,274.8	-2.7	-24.0	430,828.92	750,878.50	32° 10' 54.719 N	103° 31' 20.788 W
3,300.0	0.25	274.80	3,299.8	-2.6	-24.2	430,828.96	750,878.37	32° 10' 54.719 N	103° 31' 20.790 W
3,325.0	0.09	270.35	3,324.8	-2.6	-24.2	430,828.96	750,878.29	32° 10' 54.719 N	103° 31' 20.790 W
3,350.0	0.26	251.53	3,349.8	-2.7	-24.3	430,828.95	750,878.22	32° 10' 54.719 N	103° 31' 20.791 W
3,375.0	0.18	236.60	3,374.8	-2.7	-24.4	430,828.91	750,878.13	32° 10' 54.719 N	103° 31' 20.792 W
3,400.0	0.04	359.00	3,399.8	-2.7	-24.4	430,828.89	750,878.10	32° 10' 54.718 N	103° 31' 20.793 W
3,425.0	0.16	242.04	3,424.8	-2.7	-24.4	430,828.88	750,878.07	32° 10' 54.718 N	103° 31' 20.793 W
3,450.0	0.08	199.77	3,449.8	-2.7	-24.5	430,828.85	750,878.03	32° 10' 54.718 N	103° 31' 20.794 W
3,475.0	0.07	163.44	3,474.8	-2.8	-24.5	430,828.82	750,878.03	32° 10' 54.718 N	103° 31' 20.794 W
3,500.0	0.13	102.89	3,499.8	-2.8	-24.5	430,828.80	750,878.06	32° 10' 54.718 N	103° 31' 20.793 W
3,525.0	0.20	34.06	3,524.8	-2.8	-24.4	430,828.83	750,878.11	32° 10' 54.718 N	103° 31' 20.793 W
3,550.0	0.12	104.39	3,549.8	-2.7	-24.4	430,828.86	750,878.16	32° 10' 54.718 N	103° 31' 20.792 W
3,575.0	0.21	53.78	3,574.8	-2.7	-24.3	430,828.88	750,878.23	32° 10' 54.718 N	103° 31' 20.791 W
3,600.0	0.19	46.24	3,599.8	-2.7	-24.2	430,828.94	750,878.29	32° 10' 54.719 N	103° 31' 20.790 W
3,625.0	0.23	80.61	3,624.8	-2.6	-24.1	430,828.97	750,878.37	32° 10' 54.719 N	103° 31' 20.790 W
3,650.0	0.23	81.47	3,649.8	-2.6	-24.0	430,828.99	750,878.47	32° 10' 54.719 N	103° 31' 20.788 W
3,675.0	0.20	44.12	3,674.8	-2.6	-24.0	430,829.03	750,878.55	32° 10' 54.720 N	103° 31' 20.787 W
3,700.0	0.21	30.78	3,699.8	-2.5	-23.9	430,829.10	750,878.61	32° 10' 54.720 N	103° 31' 20.787 W
3,725.0	0.22	58.36	3,724.8	-2.4	-23.8	430,829.16	750,878.67	32° 10' 54.721 N	103° 31' 20.786 W
3,750.0	0.15	19.54	3,749.8	-2.4	-23.8	430,829.22	750,878.72	32° 10' 54.722 N	103° 31' 20.785 W
3,775.0	0.25	64.23	3,774.8	-2.3	-23.7	430,829.27	750,878.78	32° 10' 54.722 N	103° 31' 20.785 W
3,800.0	0.30	52.09	3,799.8	-2.3	-23.6	430,829.34	750,878.88	32° 10' 54.723 N	103° 31' 20.784 W
3,825.0	0.18	9.37	3,824.8	-2.2	-23.6	430,829.42	750,878.94	32° 10' 54.724 N	103° 31' 20.783 W
3,850.0	0.28	37.07	3,849.8	-2.1	-23.5	430,829.50	750,878.98	32° 10' 54.724 N	103° 31' 20.782 W
3,875.0	0.28	35.32	3,874.8	-2.0	-23.5	430,829.60	750,879.06	32° 10' 54.725 N	103° 31' 20.782 W
3,900.0	0.09	59.09	3,899.8	-1.9	-23.4	430,829.66	750,879.11	32° 10' 54.726 N	103° 31' 20.781 W
3,925.0	0.13	47.41	3,924.8	-1.9	-23.4	430,829.69	750,879.15	32° 10' 54.726 N	103° 31' 20.780 W
3,950.0	0.20	16.60	3,949.8	-1.8	-23.3	430,829.75	750,879.18	32° 10' 54.727 N	103° 31' 20.780 W
3,975.0	0.23	49.53	3,974.8	-1.8	-23.3	430,829.83	750,879.23	32° 10' 54.728 N	103° 31' 20.780 W
4,000.0	0.25	53.14	3,999.8	-1.7	-23.2	430,829.89	750,879.31	32° 10' 54.728 N	103° 31' 20.779 W
4,025.0	0.17	33.53	4,024.8	-1.6	-23.1	430,829.96	750,879.38	32° 10' 54.729 N	103° 31' 20.778 W
4,050.0	0.15	327.37	4,049.8	-1.6	-23.1	430,830.01	750,879.38	32° 10' 54.729 N	103° 31' 20.778 W
4,075.0	0.24	6.00	4,074.8	-1.5	-23.2	430,830.09	750,879.37	32° 10' 54.730 N	103° 31' 20.778 W
4,100.0	0.09	16.66	4,099.8	-1.4	-23.1	430,830.16	750,879.38	32° 10' 54.731 N	103° 31' 20.778 W
4,125.0	0.22	6.28	4,124.8	-1.4	-23.1	430,830.23	750,879.39	32° 10' 54.732 N	103° 31' 20.778 W
4,150.0	0.42	27.98	4,149.8	-1.2	-23.1	430,830.36	750,879.44	32° 10' 54.733 N	103° 31' 20.777 W
4,175.0	0.40	32.23	4,174.8	-1.1	-23.0	430,830.51	750,879.53	32° 10' 54.734 N	103° 31' 20.776 W
4,200.0	0.28	46.37	4,199.8	-1.0	-22.9	430,830.63	750,879.62	32° 10' 54.736 N	103° 31' 20.775 W
4,225.0	0.32	13.41	4,224.8	-0.9	-22.8	430,830.74	750,879.68	32° 10' 54.737 N	103° 31' 20.774 W
4,250.0	0.09	37.76	4,249.8	-0.8	-22.8	430,830.82	750,879.71	32° 10' 54.737 N	103° 31' 20.774 W
4,275.0	0.25	64.36	4,274.8	-0.7	-22.8	430,830.86	750,879.77	32° 10' 54.738 N	103° 31' 20.773 W
4,300.0	0.27	34.66	4,299.8	-0.7	-22.7	430,830.93	750,879.85	32° 10' 54.739 N	103° 31' 20.772 W
4,325.0	0.26	33.83	4,324.8	-0.6	-22.6	430,831.03	750,879.91	32° 10' 54.739 N	103° 31' 20.771 W
4,350.0	0.11	29.94	4,349.8	-0.5	-22.6	430,831.10	750,879.96	32° 10' 54.740 N	103° 31' 20.771 W
4,375.0	0.09	32.34	4,374.8	-0.5	-22.5	430,831.14	750,879.98	32° 10' 54.741 N	103° 31' 20.771 W

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
4,400.0	0.21	47.56	4,399.8	-0.4	-22.5	430,831.18	750,880.02	32° 10' 54.741 N	103° 31' 20.770 W
4,425.0	0.25	66.19	4,424.8	-0.4	-22.4	430,831.24	750,880.11	32° 10' 54.742 N	103° 31' 20.769 W
4,450.0	0.23	38.22	4,449.8	-0.3	-22.3	430,831.30	750,880.19	32° 10' 54.742 N	103° 31' 20.768 W
4,475.0	0.01	96.00	4,474.8	-0.3	-22.3	430,831.34	750,880.22	32° 10' 54.743 N	103° 31' 20.768 W
4,500.0	0.12	74.85	4,499.8	-0.3	-22.3	430,831.34	750,880.25	32° 10' 54.743 N	103° 31' 20.768 W
4,525.0	0.28	94.75	4,524.8	-0.3	-22.2	430,831.35	750,880.34	32° 10' 54.743 N	103° 31' 20.767 W
4,550.0	0.46	84.15	4,549.8	-0.2	-22.0	430,831.35	750,880.50	32° 10' 54.743 N	103° 31' 20.765 W
4,575.0	0.64	87.12	4,574.8	-0.2	-21.8	430,831.37	750,880.74	32° 10' 54.743 N	103° 31' 20.762 W
4,600.0	0.68	98.03	4,599.8	-0.2	-21.5	430,831.35	750,881.02	32° 10' 54.743 N	103° 31' 20.759 W

4,625.0	0.80	93.03	4,624.8	-0.3	-21.2	430,831.32	750,881.34	32° 10' 54.742 N	103° 31' 20.755 W
4,650.0	0.97	89.92	4,649.8	-0.3	-20.8	430,831.32	750,881.73	32° 10' 54.742 N	103° 31' 20.750 W
4,675.0	0.82	94.52	4,674.8	-0.3	-20.4	430,831.30	750,882.12	32° 10' 54.742 N	103° 31' 20.746 W
4,700.0	1.00	91.29	4,699.8	-0.3	-20.0	430,831.28	750,882.52	32° 10' 54.742 N	103° 31' 20.741 W
4,725.0	0.81	90.13	4,724.8	-0.3	-19.6	430,831.28	750,882.91	32° 10' 54.742 N	103° 31' 20.737 W
4,750.0	1.02	96.68	4,749.8	-0.3	-19.2	430,831.25	750,883.31	32° 10' 54.741 N	103° 31' 20.732 W
4,775.0	1.27	95.98	4,774.8	-0.4	-18.7	430,831.20	750,883.80	32° 10' 54.741 N	103° 31' 20.726 W
4,800.0	1.03	94.67	4,799.8	-0.5	-18.2	430,831.15	750,884.30	32° 10' 54.740 N	103° 31' 20.720 W
4,825.0	1.17	98.67	4,824.8	-0.5	-17.7	430,831.09	750,884.78	32° 10' 54.740 N	103° 31' 20.715 W
4,850.0	1.33	93.69	4,849.8	-0.6	-17.2	430,831.03	750,885.32	32° 10' 54.739 N	103° 31' 20.709 W
4,875.0	1.42	100.18	4,874.8	-0.6	-16.6	430,830.96	750,885.92	32° 10' 54.738 N	103° 31' 20.702 W
4,900.0	1.46	102.91	4,899.8	-0.8	-16.0	430,830.84	750,886.53	32° 10' 54.737 N	103° 31' 20.694 W
4,925.0	1.33	111.40	4,924.7	-0.9	-15.4	430,830.66	750,887.11	32° 10' 54.735 N	103° 31' 20.688 W
4,950.0	1.21	119.71	4,949.7	-1.2	-14.9	430,830.42	750,887.61	32° 10' 54.733 N	103° 31' 20.682 W
4,975.0	1.04	124.91	4,974.7	-1.4	-14.5	430,830.16	750,888.03	32° 10' 54.730 N	103° 31' 20.677 W
5,000.0	1.03	117.66	4,999.7	-1.7	-14.1	430,829.93	750,888.41	32° 10' 54.728 N	103° 31' 20.673 W
5,025.0	1.15	117.48	5,024.7	-1.9	-13.7	430,829.71	750,888.83	32° 10' 54.726 N	103° 31' 20.668 W
5,050.0	1.24	119.37	5,049.7	-2.1	-13.2	430,829.46	750,889.29	32° 10' 54.723 N	103° 31' 20.662 W
5,075.0	1.10	121.41	5,074.7	-2.4	-12.8	430,829.20	750,889.73	32° 10' 54.721 N	103° 31' 20.657 W
5,100.0	1.25	118.28	5,099.7	-2.7	-12.3	430,828.95	750,890.18	32° 10' 54.718 N	103° 31' 20.652 W
5,125.0	1.30	120.61	5,124.7	-2.9	-11.9	430,828.67	750,890.66	32° 10' 54.715 N	103° 31' 20.647 W
5,150.0	1.10	125.85	5,149.7	-3.2	-11.4	430,828.39	750,891.10	32° 10' 54.713 N	103° 31' 20.642 W
5,175.0	1.20	127.27	5,174.7	-3.5	-11.0	430,828.09	750,891.50	32° 10' 54.710 N	103° 31' 20.637 W
5,200.0	0.96	126.27	5,199.7	-3.8	-10.6	430,827.81	750,891.88	32° 10' 54.707 N	103° 31' 20.632 W
5,225.0	0.99	123.22	5,224.7	-4.0	-10.3	430,827.56	750,892.23	32° 10' 54.704 N	103° 31' 20.628 W
5,250.0	1.11	127.88	5,249.7	-4.3	-9.9	430,827.30	750,892.60	32° 10' 54.702 N	103° 31' 20.624 W
5,275.0	1.33	128.30	5,274.7	-4.6	-9.5	430,826.97	750,893.02	32° 10' 54.698 N	103° 31' 20.619 W
5,300.0	1.32	127.95	5,299.7	-5.0	-9.0	430,826.61	750,893.48	32° 10' 54.695 N	103° 31' 20.614 W
5,325.0	1.54	131.95	5,324.7	-5.4	-8.6	430,826.21	750,893.95	32° 10' 54.691 N	103° 31' 20.609 W
5,350.0	1.39	134.40	5,349.7	-5.8	-8.1	430,825.77	750,894.42	32° 10' 54.686 N	103° 31' 20.603 W
5,375.0	1.51	128.71	5,374.6	-6.2	-7.6	430,825.36	750,894.89	32° 10' 54.682 N	103° 31' 20.598 W
5,400.0	1.50	128.09	5,399.6	-6.7	-7.1	430,824.95	750,895.41	32° 10' 54.678 N	103° 31' 20.592 W
5,425.0	1.58	134.60	5,424.6	-7.1	-6.6	430,824.50	750,895.91	32° 10' 54.674 N	103° 31' 20.586 W
5,450.0	1.60	130.08	5,449.6	-7.6	-6.1	430,824.04	750,896.42	32° 10' 54.669 N	103° 31' 20.580 W
5,475.0	1.43	132.10	5,474.6	-8.0	-5.6	430,823.60	750,896.92	32° 10' 54.665 N	103° 31' 20.574 W
5,500.0	1.49	139.82	5,499.6	-8.5	-5.2	430,823.15	750,897.36	32° 10' 54.660 N	103° 31' 20.569 W
5,525.0	1.57	142.12	5,524.6	-9.0	-4.7	430,822.63	750,897.78	32° 10' 54.655 N	103° 31' 20.564 W
5,550.0	1.64	136.74	5,549.6	-9.5	-4.3	430,822.10	750,898.24	32° 10' 54.650 N	103° 31' 20.559 W
5,575.0	1.63	132.42	5,574.6	-10.0	-3.8	430,821.60	750,898.75	32° 10' 54.645 N	103° 31' 20.553 W
5,600.0	1.54	127.92	5,599.6	-10.5	-3.2	430,821.15	750,899.27	32° 10' 54.640 N	103° 31' 20.547 W
5,625.0	1.39	132.84	5,624.6	-10.9	-2.8	430,820.74	750,899.76	32° 10' 54.636 N	103° 31' 20.541 W
5,650.0	1.36	139.24	5,649.5	-11.3	-2.3	430,820.31	750,900.18	32° 10' 54.632 N	103° 31' 20.537 W
5,675.0	1.22	144.08	5,674.5	-11.7	-2.0	430,819.87	750,900.53	32° 10' 54.627 N	103° 31' 20.533 W
5,700.0	1.36	151.74	5,699.5	-12.2	-1.7	430,819.39	750,900.82	32° 10' 54.623 N	103° 31' 20.529 W
5,725.0	1.50	144.80	5,724.5	-12.7	-1.4	430,818.86	750,901.15	32° 10' 54.617 N	103° 31' 20.525 W
5,750.0	1.51	141.94	5,749.5	-13.3	-1.0	430,818.33	750,901.54	32° 10' 54.612 N	103° 31' 20.521 W

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
5,775.0	1.35	139.42	5,774.5	-13.7	-0.6	430,817.85	750,901.94	32° 10' 54.607 N	103° 31' 20.516 W
5,800.0	1.27	141.91	5,799.5	-14.2	-0.2	430,817.41	750,902.30	32° 10' 54.603 N	103° 31' 20.512 W
5,825.0	1.42	148.56	5,824.5	-14.7	0.1	430,816.93	750,902.63	32° 10' 54.598 N	103° 31' 20.508 W
5,850.0	1.60	147.96	5,849.5	-15.2	0.5	430,816.37	750,902.98	32° 10' 54.593 N	103° 31' 20.504 W
5,875.0	1.48	152.93	5,874.5	-15.8	0.8	430,815.78	750,903.31	32° 10' 54.587 N	103° 31' 20.501 W
5,900.0	1.43	146.91	5,899.5	-16.4	1.1	430,815.23	750,903.63	32° 10' 54.581 N	103° 31' 20.497 W
5,925.0	1.27	146.44	5,924.5	-16.9	1.4	430,814.74	750,903.95	32° 10' 54.577 N	103° 31' 20.493 W
5,950.0	1.16	156.44	5,949.5	-17.3	1.7	430,814.28	750,904.21	32° 10' 54.572 N	103° 31' 20.490 W
5,975.0	0.96	159.04	5,974.5	-17.7	1.9	430,813.85	750,904.38	32° 10' 54.568 N	103° 31' 20.488 W
6,000.0	0.77	167.41	5,999.5	-18.1	2.0	430,813.49	750,904.49	32° 10' 54.564 N	103° 31' 20.487 W
6,025.0	0.61	181.48	6,024.5	-18.4	2.0	430,813.19	750,904.53	32° 10' 54.561 N	103° 31' 20.487 W
6,050.0	0.51	186.05	6,049.5	-18.6	2.0	430,812.95	750,904.51	32° 10' 54.559 N	103° 31' 20.487 W
6,075.0	0.48	174.97	6,074.4	-18.9	2.0	430,812.74	750,904.51	32° 10' 54.557 N	103° 31' 20.487 W
6,100.0	0.56	183.46	6,099.4	-19.1	2.0	430,812.51	750,904.51	32° 10' 54.554 N	103° 31' 20.487 W
6,125.0	0.44	198.09	6,124.4	-19.3	2.0	430,812.30	750,904.47	32° 10' 54.552 N	103° 31' 20.487 W

6,150.0	0.54	189.26	6,149.4	-19.5	1.9	430,812.09	750,904.43	32° 10' 54.550 N	103° 31' 20.488 W
6,175.0	0.43	207.79	6,174.4	-19.7	1.8	430,811.89	750,904.36	32° 10' 54.548 N	103° 31' 20.489 W
6,200.0	0.36	195.98	6,199.4	-19.9	1.8	430,811.73	750,904.30	32° 10' 54.547 N	103° 31' 20.489 W
6,225.0	0.56	191.85	6,224.4	-20.1	1.7	430,811.54	750,904.25	32° 10' 54.545 N	103° 31' 20.490 W
6,250.0	0.38	194.00	6,249.4	-20.3	1.7	430,811.34	750,904.21	32° 10' 54.543 N	103° 31' 20.491 W
6,275.0	0.47	218.21	6,274.4	-20.4	1.6	430,811.18	750,904.12	32° 10' 54.541 N	103° 31' 20.492 W
6,300.0	0.56	202.80	6,299.4	-20.6	1.5	430,810.98	750,904.01	32° 10' 54.539 N	103° 31' 20.493 W
6,325.0	0.55	227.06	6,324.4	-20.8	1.4	430,810.79	750,903.88	32° 10' 54.537 N	103° 31' 20.494 W
6,350.0	0.49	211.46	6,349.4	-21.0	1.2	430,810.61	750,903.73	32° 10' 54.536 N	103° 31' 20.496 W
6,375.0	0.42	183.90	6,374.4	-21.2	1.2	430,810.43	750,903.67	32° 10' 54.534 N	103° 31' 20.497 W
6,400.0	0.35	187.48	6,399.4	-21.3	1.1	430,810.27	750,903.65	32° 10' 54.532 N	103° 31' 20.497 W
6,425.0	0.42	192.34	6,424.4	-21.5	1.1	430,810.10	750,903.63	32° 10' 54.531 N	103° 31' 20.497 W
6,450.0	0.48	189.08	6,449.4	-21.7	1.1	430,809.91	750,903.59	32° 10' 54.529 N	103° 31' 20.498 W
6,475.0	0.35	211.48	6,474.4	-21.9	1.0	430,809.74	750,903.53	32° 10' 54.527 N	103° 31' 20.499 W
6,500.0	0.46	223.72	6,499.4	-22.0	0.9	430,809.60	750,903.42	32° 10' 54.526 N	103° 31' 20.500 W
6,525.0	0.35	204.84	6,524.4	-22.1	0.8	430,809.46	750,903.32	32° 10' 54.524 N	103° 31' 20.501 W
6,550.0	0.43	206.42	6,549.4	-22.3	0.7	430,809.31	750,903.25	32° 10' 54.523 N	103° 31' 20.502 W
6,575.0	0.42	199.59	6,574.4	-22.5	0.7	430,809.14	750,903.18	32° 10' 54.521 N	103° 31' 20.503 W
6,600.0	0.48	201.66	6,599.4	-22.6	0.6	430,808.95	750,903.11	32° 10' 54.519 N	103° 31' 20.504 W
6,625.0	0.41	212.51	6,624.4	-22.8	0.5	430,808.78	750,903.02	32° 10' 54.518 N	103° 31' 20.505 W
6,650.0	0.37	201.43	6,649.4	-23.0	0.4	430,808.63	750,902.94	32° 10' 54.516 N	103° 31' 20.505 W
6,675.0	0.21	208.92	6,674.4	-23.1	0.4	430,808.51	750,902.89	32° 10' 54.515 N	103° 31' 20.506 W
6,700.0	0.36	207.96	6,699.4	-23.2	0.3	430,808.40	750,902.83	32° 10' 54.514 N	103° 31' 20.507 W
6,725.0	0.33	205.18	6,724.4	-23.3	0.2	430,808.27	750,902.76	32° 10' 54.513 N	103° 31' 20.508 W
6,750.0	0.27	217.48	6,749.4	-23.4	0.2	430,808.16	750,902.70	32° 10' 54.511 N	103° 31' 20.508 W
6,775.0	0.26	211.44	6,774.4	-23.5	0.1	430,808.06	750,902.63	32° 10' 54.511 N	103° 31' 20.509 W
6,800.0	0.39	219.30	6,799.4	-23.7	0.0	430,807.95	750,902.55	32° 10' 54.509 N	103° 31' 20.510 W
6,825.0	0.34	241.25	6,824.4	-23.8	-0.1	430,807.85	750,902.43	32° 10' 54.508 N	103° 31' 20.512 W
6,850.0	0.38	239.69	6,849.4	-23.8	-0.2	430,807.77	750,902.29	32° 10' 54.508 N	103° 31' 20.513 W
6,875.0	0.27	239.54	6,874.4	-23.9	-0.3	430,807.70	750,902.17	32° 10' 54.507 N	103° 31' 20.515 W
6,900.0	0.37	198.31	6,899.4	-24.0	-0.4	430,807.59	750,902.09	32° 10' 54.506 N	103° 31' 20.515 W
6,925.0	0.42	224.61	6,924.4	-24.2	-0.5	430,807.45	750,902.00	32° 10' 54.504 N	103° 31' 20.516 W
6,950.0	0.43	209.73	6,949.4	-24.3	-0.6	430,807.30	750,901.89	32° 10' 54.503 N	103° 31' 20.518 W
6,975.0	0.40	226.43	6,974.4	-24.4	-0.7	430,807.16	750,901.78	32° 10' 54.502 N	103° 31' 20.519 W
7,000.0	0.34	237.09	6,999.4	-24.5	-0.9	430,807.06	750,901.66	32° 10' 54.501 N	103° 31' 20.521 W
7,025.0	0.56	229.85	7,024.4	-24.7	-1.0	430,806.94	750,901.50	32° 10' 54.500 N	103° 31' 20.522 W
7,050.0	0.53	220.19	7,049.4	-24.8	-1.2	430,806.77	750,901.33	32° 10' 54.498 N	103° 31' 20.524 W
7,075.0	0.45	216.99	7,074.4	-25.0	-1.3	430,806.61	750,901.20	32° 10' 54.496 N	103° 31' 20.526 W
7,100.0	0.33	228.51	7,099.4	-25.1	-1.4	430,806.48	750,901.09	32° 10' 54.495 N	103° 31' 20.527 W
7,125.0	0.37	242.31	7,124.4	-25.2	-1.6	430,806.40	750,900.96	32° 10' 54.494 N	103° 31' 20.529 W

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
7,150.0	0.53	238.17	7,149.4	-25.3	-1.7	430,806.30	750,900.79	32° 10' 54.493 N	103° 31' 20.531 W
7,175.0	0.49	216.83	7,174.4	-25.4	-1.9	430,806.15	750,900.63	32° 10' 54.492 N	103° 31' 20.533 W
7,200.0	0.36	231.56	7,199.4	-25.6	-2.0	430,806.02	750,900.51	32° 10' 54.490 N	103° 31' 20.534 W
7,225.0	0.41	227.30	7,224.4	-25.7	-2.1	430,805.91	750,900.38	32° 10' 54.489 N	103° 31' 20.536 W
7,250.0	0.32	231.36	7,249.4	-25.8	-2.3	430,805.80	750,900.26	32° 10' 54.488 N	103° 31' 20.537 W
7,275.0	0.42	230.02	7,274.4	-25.9	-2.4	430,805.70	750,900.13	32° 10' 54.487 N	103° 31' 20.538 W
7,300.0	0.32	231.38	7,299.4	-26.0	-2.5	430,805.60	750,900.01	32° 10' 54.486 N	103° 31' 20.540 W
7,325.0	0.50	221.35	7,324.4	-26.1	-2.6	430,805.47	750,899.88	32° 10' 54.485 N	103° 31' 20.541 W
7,350.0	0.42	220.22	7,349.4	-26.3	-2.8	430,805.32	750,899.75	32° 10' 54.484 N	103° 31' 20.543 W
7,375.0	0.31	220.34	7,374.4	-26.4	-2.9	430,805.20	750,899.65	32° 10' 54.482 N	103° 31' 20.544 W
7,400.0	0.50	222.61	7,399.4	-26.5	-3.0	430,805.07	750,899.53	32° 10' 54.481 N	103° 31' 20.545 W
7,425.0	0.34	222.97	7,424.4	-26.7	-3.1	430,804.93	750,899.41	32° 10' 54.480 N	103° 31' 20.547 W
7,450.0	0.57	217.98	7,449.4	-26.8	-3.2	430,804.78	750,899.28	32° 10' 54.478 N	103° 31' 20.548 W
7,475.0	0.54	219.00	7,474.4	-27.0	-3.4	430,804.59	750,899.13	32° 10' 54.476 N	103° 31' 20.550 W
7,500.0	0.37	210.50	7,499.4	-27.2	-3.5	430,804.43	750,899.01	32° 10' 54.475 N	103° 31' 20.552 W
7,525.0	0.59	206.25	7,524.4	-27.4	-3.6	430,804.24	750,898.91	32° 10' 54.473 N	103° 31' 20.553 W
7,550.0	0.49	214.36	7,549.4	-27.6	-3.7	430,804.04	750,898.80	32° 10' 54.471 N	103° 31' 20.554 W
7,575.0	0.52	215.91	7,574.4	-27.7	-3.8	430,803.86	750,898.67	32° 10' 54.469 N	103° 31' 20.556 W
7,600.0	0.46	210.79	7,599.4	-27.9	-4.0	430,803.68	750,898.55	32° 10' 54.467 N	103° 31' 20.557 W
7,625.0	0.58	210.86	7,624.4	-28.1	-4.1	430,803.49	750,898.44	32° 10' 54.466 N	103° 31' 20.558 W
7,650.0	0.56	193.67	7,649.4	-28.3	-4.2	430,803.26	750,898.34	32° 10' 54.463 N	103° 31' 20.559 W

7,675.0	0.68	195.34	7,674.4	-28.6	-4.2	430,803.00	750,898.27	32° 10' 54.461 N	103° 31' 20.560 W
7,700.0	0.68	196.63	7,699.4	-28.9	-4.3	430,802.71	750,898.19	32° 10' 54.458 N	103° 31' 20.561 W
7,725.0	0.68	195.18	7,724.4	-29.2	-4.4	430,802.43	750,898.11	32° 10' 54.455 N	103° 31' 20.562 W
7,750.0	0.62	184.87	7,749.4	-29.4	-4.5	430,802.15	750,898.06	32° 10' 54.452 N	103° 31' 20.563 W
7,775.0	0.54	182.08	7,774.4	-29.7	-4.5	430,801.90	750,898.05	32° 10' 54.450 N	103° 31' 20.563 W
7,800.0	0.70	187.98	7,799.4	-30.0	-4.5	430,801.63	750,898.02	32° 10' 54.447 N	103° 31' 20.563 W
7,825.0	0.70	201.11	7,824.4	-30.3	-4.6	430,801.34	750,897.94	32° 10' 54.444 N	103° 31' 20.564 W
7,850.0	0.47	196.68	7,849.4	-30.5	-4.7	430,801.09	750,897.86	32° 10' 54.442 N	103° 31' 20.565 W
7,875.0	0.61	186.15	7,874.4	-30.7	-4.7	430,800.86	750,897.82	32° 10' 54.440 N	103° 31' 20.566 W
7,900.0	0.60	165.15	7,899.4	-31.0	-4.7	430,800.61	750,897.83	32° 10' 54.437 N	103° 31' 20.566 W
7,925.0	0.60	160.15	7,924.4	-31.2	-4.6	430,800.36	750,897.91	32° 10' 54.435 N	103° 31' 20.565 W
7,950.0	0.57	173.83	7,949.4	-31.5	-4.5	430,800.11	750,897.97	32° 10' 54.432 N	103° 31' 20.564 W
7,975.0	0.61	161.93	7,974.4	-31.7	-4.5	430,799.86	750,898.03	32° 10' 54.430 N	103° 31' 20.563 W
8,000.0	0.49	167.85	7,999.4	-32.0	-4.4	430,799.63	750,898.09	32° 10' 54.427 N	103° 31' 20.563 W
8,025.0	0.36	164.56	8,024.4	-32.2	-4.4	430,799.45	750,898.13	32° 10' 54.426 N	103° 31' 20.562 W
8,050.0	0.31	155.65	8,049.4	-32.3	-4.3	430,799.31	750,898.18	32° 10' 54.424 N	103° 31' 20.562 W
8,075.0	0.41	146.86	8,074.4	-32.4	-4.3	430,799.17	750,898.26	32° 10' 54.423 N	103° 31' 20.561 W
8,100.0	0.45	131.39	8,099.4	-32.6	-4.1	430,799.03	750,898.38	32° 10' 54.421 N	103° 31' 20.559 W
8,125.0	0.28	120.00	8,124.4	-32.7	-4.0	430,798.94	750,898.51	32° 10' 54.421 N	103° 31' 20.558 W
8,150.0	0.39	134.19	8,149.4	-32.8	-3.9	430,798.85	750,898.62	32° 10' 54.420 N	103° 31' 20.557 W
8,175.0	0.57	142.13	8,174.4	-32.9	-3.8	430,798.69	750,898.76	32° 10' 54.418 N	103° 31' 20.555 W
8,200.0	0.59	126.59	8,199.4	-33.1	-3.6	430,798.52	750,898.94	32° 10' 54.416 N	103° 31' 20.553 W
8,225.0	0.46	128.71	8,224.4	-33.2	-3.4	430,798.38	750,899.12	32° 10' 54.415 N	103° 31' 20.551 W
8,250.0	0.55	122.86	8,249.4	-33.4	-3.2	430,798.25	750,899.30	32° 10' 54.414 N	103° 31' 20.549 W
8,275.0	0.68	134.26	8,274.4	-33.5	-3.0	430,798.08	750,899.51	32° 10' 54.412 N	103° 31' 20.546 W
8,300.0	0.70	151.66	8,299.4	-33.8	-2.8	430,797.84	750,899.68	32° 10' 54.410 N	103° 31' 20.544 W
8,325.0	0.63	148.08	8,324.4	-34.0	-2.7	430,797.59	750,899.83	32° 10' 54.407 N	103° 31' 20.543 W
8,350.0	0.67	141.60	8,349.4	-34.2	-2.5	430,797.36	750,899.99	32° 10' 54.405 N	103° 31' 20.541 W
8,375.0	0.43	138.56	8,374.4	-34.4	-2.4	430,797.17	750,900.15	32° 10' 54.403 N	103° 31' 20.539 W
8,400.0	0.61	157.36	8,399.4	-34.6	-2.3	430,796.98	750,900.26	32° 10' 54.401 N	103° 31' 20.538 W
8,425.0	0.77	146.91	8,424.4	-34.9	-2.1	430,796.72	750,900.40	32° 10' 54.398 N	103° 31' 20.536 W
8,450.0	0.64	132.29	8,449.4	-35.1	-1.9	430,796.48	750,900.60	32° 10' 54.396 N	103° 31' 20.534 W
8,475.0	0.49	139.79	8,474.4	-35.3	-1.7	430,796.31	750,900.77	32° 10' 54.394 N	103° 31' 20.532 W
8,500.0	0.63	141.93	8,499.4	-35.5	-1.6	430,796.12	750,900.92	32° 10' 54.392 N	103° 31' 20.530 W

Survey

Measured			Vertical			Map	Map		
Depth	Inclination	Azimuth	Depth	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
(usft)	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
8,525.0	0.67	135.94	8,524.4	-35.7	-1.4	430,795.90	750,901.11	32° 10' 54.390 N	103° 31' 20.528 W
8,550.0	0.56	152.19	8,549.4	-35.9	-1.2	430,795.69	750,901.27	32° 10' 54.388 N	103° 31' 20.526 W
8,575.0	0.71	156.35	8,574.4	-36.2	-1.1	430,795.44	750,901.39	32° 10' 54.386 N	103° 31' 20.525 W
8,600.0	0.82	145.74	8,599.4	-36.4	-1.0	430,795.15	750,901.55	32° 10' 54.383 N	103° 31' 20.523 W
8,625.0	0.61	153.49	8,624.4	-36.7	-0.8	430,794.89	750,901.71	32° 10' 54.380 N	103° 31' 20.521 W
8,650.0	0.65	146.75	8,649.4	-37.0	-0.7	430,794.65	750,901.85	32° 10' 54.378 N	103° 31' 20.519 W
8,675.0	0.57	125.36	8,674.4	-37.1	-0.5	430,794.46	750,902.03	32° 10' 54.376 N	103° 31' 20.517 W
8,700.0	0.53	113.26	8,699.3	-37.3	-0.3	430,794.34	750,902.23	32° 10' 54.375 N	103° 31' 20.515 W
8,725.0	0.59	93.93	8,724.3	-37.3	0.0	430,794.28	750,902.47	32° 10' 54.374 N	103° 31' 20.512 W
8,750.0	0.60	75.16	8,749.3	-37.3	0.2	430,794.31	750,902.72	32° 10' 54.374 N	103° 31' 20.509 W
8,775.0	0.62	52.73	8,774.3	-37.2	0.4	430,794.42	750,902.96	32° 10' 54.376 N	103° 31' 20.507 W
8,800.0	0.58	33.96	8,799.3	-37.0	0.6	430,794.61	750,903.14	32° 10' 54.377 N	103° 31' 20.504 W
8,825.0	0.56	44.36	8,824.3	-36.8	0.8	430,794.80	750,903.29	32° 10' 54.379 N	103° 31' 20.503 W
8,850.0	0.52	55.06	8,849.3	-36.6	1.0	430,794.96	750,903.47	32° 10' 54.381 N	103° 31' 20.501 W
8,967.0	2.73	9.09	8,966.3	-33.6	1.8	430,798.01	750,904.35	32° 10' 54.411 N	103° 31' 20.490 W
9,014.0	9.50	355.29	9,013.0	-28.6	1.7	430,802.99	750,904.20	32° 10' 54.460 N	103° 31' 20.491 W
9,061.0	15.65	346.15	9,058.9	-18.6	-0.1	430,813.02	750,902.37	32° 10' 54.560 N	103° 31' 20.512 W
9,108.0	18.20	345.53	9,103.8	-5.3	-3.5	430,826.28	750,899.01	32° 10' 54.691 N	103° 31' 20.550 W
9,155.0	21.72	354.06	9,148.0	10.5	-6.2	430,842.05	750,896.28	32° 10' 54.847 N	103° 31' 20.580 W
9,202.0	26.20	2.50	9,190.9	29.5	-6.7	430,861.08	750,895.83	32° 10' 55.036 N	103° 31' 20.584 W
9,249.0	31.39	4.78	9,232.1	52.1	-5.2	430,883.66	750,897.31	32° 10' 55.259 N	103° 31' 20.564 W
9,296.0	37.64	2.85	9,270.8	78.6	-3.5	430,910.22	750,899.04	32° 10' 55.522 N	103° 31' 20.542 W
9,343.0	44.76	1.27	9,306.2	109.5	-2.4	430,941.14	750,900.12	32° 10' 55.828 N	103° 31' 20.527 W
9,390.0	50.47	1.79	9,337.8	144.2	-1.5	430,975.82	750,901.06	32° 10' 56.171 N	103° 31' 20.513 W
9,438.0	55.66	1.88	9,366.7	182.6	-0.2	431,014.16	750,902.29	32° 10' 56.550 N	103° 31' 20.495 W
9,485.0	62.87	1.88	9,390.7	222.9	1.1	431,054.51	750,903.61	32° 10' 56.949 N	103° 31' 20.476 W
9,532.0	69.56	2.06	9,409.6	265.9	2.6	431,097.47	750,905.09	32° 10' 57.374 N	103° 31' 20.455 W

9,579.0	73.51	2.15	9,424.5	310.4	4.2	431,142.01	750,906.73	32° 10' 57.815 N	103° 31' 20.432 W
9,626.0	78.44	1.27	9,435.9	356.0	5.6	431,187.57	750,908.08	32° 10' 58.266 N	103° 31' 20.412 W
9,673.0	82.31	358.01	9,443.8	402.3	5.3	431,233.89	750,907.78	32° 10' 58.724 N	103° 31' 20.412 W
9,720.0	87.14	358.63	9,448.1	449.1	3.9	431,280.66	750,906.41	32° 10' 59.187 N	103° 31' 20.424 W
9,767.0	89.34	358.89	9,449.5	496.0	2.9	431,327.63	750,905.40	32° 10' 59.652 N	103° 31' 20.431 W
9,865.0	90.40	358.28	9,449.7	594.0	0.5	431,425.59	750,902.98	32° 11' 0.621 N	103° 31' 20.451 W
9,959.0	92.68	359.95	9,447.2	687.9	-1.0	431,519.54	750,901.53	32° 11' 1.551 N	103° 31' 20.460 W
10,053.0	93.56	358.54	9,442.1	781.8	-2.2	431,613.39	750,900.29	32° 11' 2.480 N	103° 31' 20.466 W
10,147.0	93.65	359.86	9,436.2	875.6	-3.5	431,707.19	750,898.98	32° 11' 3.408 N	103° 31' 20.473 W
10,242.0	93.21	2.06	9,430.5	970.4	-1.9	431,802.00	750,900.57	32° 11' 4.346 N	103° 31' 20.446 W
10,337.0	91.71	2.76	9,426.4	1,065.2	2.0	431,896.83	750,904.56	32° 11' 5.284 N	103° 31' 20.391 W
10,431.0	91.28	3.02	9,424.0	1,159.1	6.8	431,990.67	750,909.30	32° 11' 6.213 N	103° 31' 20.328 W
10,526.0	89.52	1.88	9,423.3	1,254.0	10.8	432,085.58	750,913.36	32° 11' 7.151 N	103° 31' 20.272 W
10,620.0	89.69	1.44	9,424.0	1,347.9	13.6	432,179.54	750,916.08	32° 11' 8.081 N	103° 31' 20.232 W
10,714.0	90.04	1.44	9,424.2	1,441.9	15.9	432,273.51	750,918.44	32° 11' 9.011 N	103° 31' 20.197 W
10,809.0	90.40	1.18	9,423.8	1,536.9	18.1	432,368.48	750,920.61	32° 11' 9.950 N	103° 31' 20.163 W
10,904.0	90.75	1.62	9,422.9	1,631.8	20.4	432,463.45	750,922.94	32° 11' 10.890 N	103° 31' 20.128 W
10,998.0	90.84	0.48	9,421.6	1,725.8	22.1	432,557.42	750,924.66	32° 11' 11.820 N	103° 31' 20.099 W
11,092.0	92.33	0.65	9,419.0	1,819.8	23.1	432,651.38	750,925.58	32° 11' 12.749 N	103° 31' 20.080 W
11,186.0	93.39	0.65	9,414.3	1,913.7	24.1	432,745.25	750,926.65	32° 11' 13.678 N	103° 31' 20.060 W
11,281.0	94.35	1.71	9,407.9	2,008.4	26.1	432,840.02	750,928.60	32° 11' 14.616 N	103° 31' 20.029 W
11,375.0	93.39	1.00	9,401.5	2,102.2	28.3	432,933.77	750,930.82	32° 11' 15.543 N	103° 31' 19.995 W
11,469.0	92.95	359.95	9,396.3	2,196.0	29.1	433,027.62	750,931.60	32° 11' 16.472 N	103° 31' 19.977 W
11,564.0	93.30	0.30	9,391.1	2,290.9	29.3	433,122.48	750,931.80	32° 11' 17.411 N	103° 31' 19.967 W
11,658.0	93.03	359.42	9,385.9	2,384.7	29.1	433,216.34	750,931.57	32° 11' 18.339 N	103° 31' 19.961 W
11,752.0	93.21	358.72	9,380.8	2,478.6	27.5	433,310.19	750,930.05	32° 11' 19.268 N	103° 31' 19.971 W
11,846.0	91.80	359.95	9,376.7	2,572.5	26.4	433,404.09	750,928.96	32° 11' 20.197 N	103° 31' 19.975 W
11,940.0	92.33	359.51	9,373.3	2,666.4	26.0	433,498.02	750,928.52	32° 11' 21.127 N	103° 31' 19.972 W

Survey

Measured			Vertical			Map		Map	
Depth (usft)	Inclination (°)	Azimuth (°)	Depth (usft)	+N/-S (usft)	+E/-W (usft)	North (usft)	Easting (usft)	Latitude	Longitude
12,035.0	91.98	0.12	9,369.8	2,761.4	25.7	433,592.95	750,928.21	32° 11' 22.066 N	103° 31' 19.967 W
12,129.0	91.19	0.21	9,367.2	2,855.3	26.0	433,686.92	750,928.48	32° 11' 22.996 N	103° 31' 19.956 W
12,223.0	91.01	1.53	9,365.4	2,949.3	27.4	433,780.89	750,929.91	32° 11' 23.926 N	103° 31' 19.931 W
12,317.0	91.19	2.50	9,363.5	3,043.2	30.7	433,874.81	750,933.21	32° 11' 24.855 N	103° 31' 19.884 W
12,411.0	91.98	0.83	9,360.9	3,137.1	33.4	433,968.73	750,935.94	32° 11' 25.784 N	103° 31' 19.844 W
12,505.0	91.36	0.48	9,358.2	3,231.1	34.5	434,062.68	750,937.02	32° 11' 26.714 N	103° 31' 19.823 W
12,599.0	92.07	0.12	9,355.4	3,325.0	35.0	434,156.64	750,937.51	32° 11' 27.644 N	103° 31' 19.809 W
12,693.0	91.63	1.44	9,352.4	3,419.0	36.3	434,250.58	750,938.79	32° 11' 28.573 N	103° 31' 19.786 W
12,787.0	89.69	1.62	9,351.3	3,512.9	38.8	434,344.54	750,941.30	32° 11' 29.503 N	103° 31' 19.749 W
12,882.0	89.60	2.85	9,351.9	3,607.9	42.5	434,439.46	750,945.00	32° 11' 30.442 N	103° 31' 19.697 W
12,976.0	89.96	2.06	9,352.2	3,701.8	46.5	434,533.37	750,949.03	32° 11' 31.371 N	103° 31' 19.642 W
13,070.0	90.04	1.97	9,352.2	3,795.7	49.8	434,627.31	750,952.34	32° 11' 32.300 N	103° 31' 19.596 W
13,165.0	90.84	2.23	9,351.5	3,890.6	53.3	434,722.25	750,955.82	32° 11' 33.239 N	103° 31' 19.547 W
13,259.0	91.10	1.79	9,349.9	3,984.6	56.6	434,816.17	750,959.11	32° 11' 34.168 N	103° 31' 19.500 W
13,353.0	91.98	1.18	9,347.4	4,078.5	59.0	434,910.11	750,961.55	32° 11' 35.098 N	103° 31' 19.464 W
13,448.0	89.78	2.94	9,345.9	4,173.4	62.4	435,005.03	750,964.96	32° 11' 36.037 N	103° 31' 19.416 W
13,542.0	89.43	1.79	9,346.6	4,267.3	66.3	435,098.94	750,968.84	32° 11' 36.966 N	103° 31' 19.362 W
13,636.0	89.69	1.27	9,347.3	4,361.3	68.8	435,192.90	750,971.35	32° 11' 37.895 N	103° 31' 19.325 W
13,730.0	89.87	1.97	9,347.7	4,455.3	71.5	435,286.87	750,974.01	32° 11' 38.825 N	103° 31' 19.286 W
13,824.0	90.48	2.06	9,347.4	4,549.2	74.8	435,380.81	750,977.31	32° 11' 39.754 N	103° 31' 19.239 W
13,919.0	92.33	2.85	9,345.0	4,644.1	78.9	435,475.69	750,981.38	32° 11' 40.693 N	103° 31' 19.183 W
14,013.0	90.40	3.20	9,342.8	4,737.9	83.8	435,569.52	750,986.34	32° 11' 41.621 N	103° 31' 19.117 W
14,073.0	90.40	3.20	9,342.4	4,797.8	87.2	435,629.43	750,989.69	32° 11' 42.214 N	103° 31' 19.073 W