



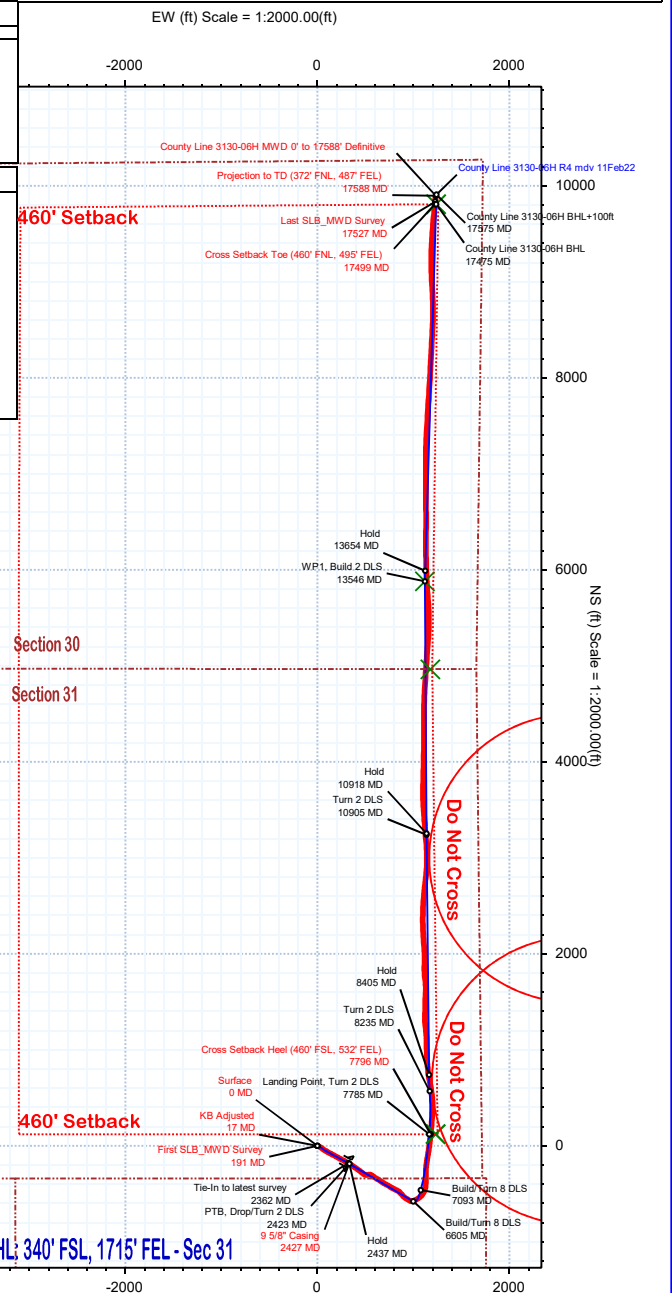
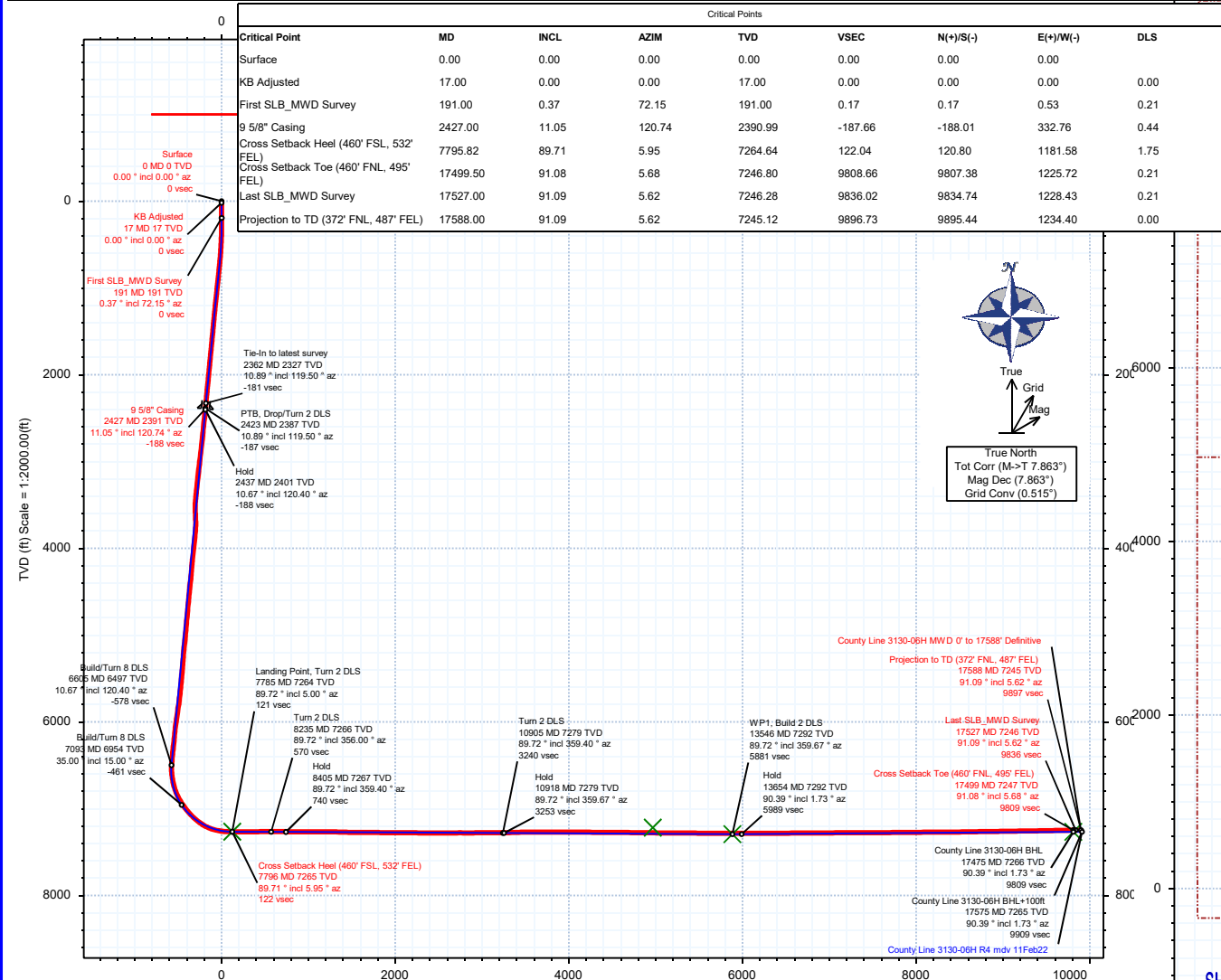
# Verdad Resources LLC



Borehole:	Well:	Field:	Structure:
Original Hole	County Line 3130-06H	CO, Weld County (NAD 83 NZ) - 2019	Verdad Resources 31-01N-65W (County Line Pad)

Gravity & Magnetic Parameters	Surface Location	NAD83 Colorado State Plane, Northern Zone, US Feet	Miscellaneous
Model: HDGM 2021 Dip: 66.227° Date: 11-Feb-2022	Lat: N 40 0 5.25 Northing: 1244379.97RUS Grid Conv: 0.5147°	Slot: County Line 3130-06H	TVD Ref: KB 21ft(5058ft above MSL)
MagDec: 7.863° FS: 51617.532nT Gravity FS: 998.983mgn (9.80665 Based)	Lon: W 104 42 12.23 Easting: 3223163.62RUS Scale Fact: 0.99996626	Plan: County Line 3130-06H MWD 0' to 17588' Definitive	

Target Description	Northing	Easting	Latitude	Longitude	W 104 42 12.23	VSec Azimuth	0.06
Target Name	Latitude	Longitude	Northing	Easting	TVD	VSec	N(+)/S(-)
Sack Hiett 1 - 1500' - DO NOT CROSS	N 40 0 11.95	W 104 41 37.59	1245082.94	3225852.44	-1000.00	681.63	678.81
Dreyer 32-1 - 1500' - DO NOT CROSS	N 40 0 34.84	W 104 41 37.95	1247399.01	3225803.37	-983.00	2998.10	2995.31
County Line Pad - Sec 31-30 - CL	N 40 0 5.24	W 104 42 16.28	1244376.89	3222848.38	5058.00	-0.58	-0.25
County Line Pad - Sec 31-30 - 460' SB	N 40 0 5.24	W 104 42 13.00	1244379.39	3223103.61	5058.00	-0.10	-0.04
County Line Pad - Sec 31-30-06-07	N 40 0 5.24	W 104 42 16.28	1244376.89	3222848.38	5058.00	-0.58	-0.25
County Line 3130-06H DP	N 40 0 54.29	W 104 41 57.09	1249353.58	3224296.71	7217.00	4984.64	4963.40
County Line 3130-06H TPZ	N 40 0 6.44	W 104 41 56.38	1244511.69	3224386.94	7264.00	121.94	120.65
County Line 3130-06H BHL	N 40 1 42.17	W 104 41 56.30	1254197.83	3224314.51	7266.00	9808.77	9807.48
County Line 3130-06H WP1	N 40 1 3.35	W 104 41 57.80	1250269.21	3224232.85	7292.00	5880.78	5879.61



Vertical Section (ft) Azim = 0.06° Scale = 1:2000.00(ft) Origin = 0N/-S, 0E/-W

## County Line 3130-06H MWD 0' to 17588' Definitive Survey Geodetic Report

(Def Survey)

**Report Date:** February 18, 2022 - 12:03 PM  
**Client:** Verdad Resources LLC  
**Field:** CO, Weld County (NAD 83 NZ) - 2019  
**Structure / Slot:** Verdad Resources 31-01N-65W (County Line Pad) / County Line 3130-06H  
**Well:** County Line 3130-06H  
**Borehole:** Original Hole  
**UWI / API#:** Unknown / 05-123-51176  
**Survey Name:** County Line 3130-06H MWD 0' to 17588' Definitive  
**Survey Date:** February 11, 2022  
**Tort / AHD / DDI / ERD Ratio:** 367.987 ° / 11722.341 ft / 7.018 / 1.609  
**Coordinate Reference System:** NAD83 Colorado State Plane, Northern Zone, US Feet  
**Location Lat / Long:** N 40° 0' 5.24520", W 104° 42' 12.22668"  
**Location Grid N/E Y/X:** N 1244379.970 ftUS, E 3223163.617 ftUS  
**CRS Grid Convergence Angle:** 0.5147 °  
**Grid Scale Factor:** 0.99996626  
**Version / Patch:** 2.10.824.0

**Survey / DLS Computation:** Minimum Curvature / Lubinski  
**Vertical Section Azimuth:** 0.060 ° (True North)  
**Vertical Section Origin:** 0.000 ft, 0.000 ft  
**TVD Reference Datum:** KB 21ft  
**TVD Reference Elevation:** 5058.000 ft above MSL  
**Seabed / Ground Elevation:** 5037.000 ft above MSL  
**Magnetic Declination:** 7.863 °  
**Total Gravity Field Strength:** 998.9826mgn (9.80665 Based)  
**Gravity Model:** GARM  
**Total Magnetic Field Strength:** 51617.532 nT  
**Magnetic Dip Angle:** 66.227 °  
**Declination Date:** February 11, 2022  
**Magnetic Declination Model:** HDGM 2021  
**North Reference:** True North  
**Grid Convergence Used:** 0.0000 °  
**Total Corr Mag North→True North:** 7.8633 °  
**Local Coord Referenced To:** Well Head

Comments	MD (ft)	Incl (°)	Azim True (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)
Surface	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	1244379.97	3223163.62	40.001457	-104.703396
KB Adjusted	17.00	0.00	0.00	17.00	0.00	0.00	0.00	0.00	1244379.97	3223163.62	40.001457	-104.703396
First SLB_MWD Survey	191.00	0.37	72.15	191.00	0.17	0.17	0.53	0.21	1244380.15	3223164.15	40.001457	-104.703394
222.00	0.68	94.76	222.00	0.19	0.19	0.81	1.18	1244380.17	3223164.43	40.001458	-104.703393	
252.00	0.99	106.06	251.99	0.10	0.10	1.24	1.17	1244380.08	3223164.86	40.001457	-104.703392	
283.00	1.75	114.36	282.99	-0.17	-0.17	1.93	2.53	1244379.82	3223165.55	40.001457	-104.703389	
311.00	2.34	111.67	310.97	-0.55	-0.56	2.85	2.13	1244379.44	3223166.47	40.001455	-104.703386	
342.00	3.09	117.82	341.93	-1.17	-1.18	4.18	2.59	1244378.83	3223167.80	40.001454	-104.703381	
372.00	3.73	114.93	371.88	-1.96	-1.97	5.78	2.21	1244378.05	3223169.41	40.001452	-104.703376	
402.00	4.12	115.00	401.81	-2.83	-2.83	7.64	1.30	1244377.20	3223171.28	40.001449	-104.703369	
432.00	4.94	116.99	431.71	-3.87	-3.88	9.77	2.78	1244376.18	3223173.42	40.001446	-104.703361	
462.00	5.51	119.27	461.59	-5.15	-5.17	12.17	2.02	1244374.91	3223175.84	40.001443	-104.703353	
492.00	6.35	115.87	491.43	-6.58	-6.59	14.92	3.03	1244373.51	3223178.60	40.001439	-104.703343	
522.00	6.85	118.85	521.23	-8.16	-8.18	17.98	2.02	1244371.95	3223181.67	40.001435	-104.703332	
552.00	7.47	119.78	551.00	-9.99	-10.01	21.24	2.10	1244370.15	3223184.95	40.001430	-104.703320	
582.00	7.81	117.74	580.73	-11.91	-11.93	24.74	1.45	1244368.26	3223188.46	40.001424	-104.703308	
612.00	7.95	119.36	610.45	-13.87	-13.90	28.35	0.88	1244366.33	3223192.09	40.001419	-104.703295	
642.00	8.13	123.81	640.15	-16.06	-16.09	31.92	2.16	1244364.16	3223195.68	40.001413	-104.703282	
672.00	8.62	125.53	669.83	-18.54	-18.58	35.51	1.83	1244361.71	3223199.29	40.001406	-104.703270	
702.00	9.13	125.06	699.47	-21.21	-21.26	39.29	1.72	1244359.07	3223203.10	40.001399	-104.703256	
732.00	9.75	122.84	729.07	-23.95	-24.00	43.37	2.40	1244356.36	3223207.20	40.001391	-104.703241	
762.00	10.26	124.81	758.61	-26.85	-26.90	47.70	2.05	1244353.50	3223211.56	40.001383	-104.703226	
792.00	10.70	125.41	788.11	-29.99	-30.04	52.17	1.51	1244350.40	3223216.05	40.001375	-104.703210	
822.00	10.70	124.55	817.59	-33.18	-33.23	56.73	0.53	1244347.25	3223220.64	40.001366	-104.703194	
852.00	10.63	124.55	847.07	-36.32	-36.38	61.30	0.23	1244344.14	3223225.24	40.001357	-104.703177	
882.00	10.52	124.92	876.56	-39.45	-39.52	65.83	0.43	1244341.04	3223229.79	40.001349	-104.703161	
912.00	10.69	124.38	906.05	-42.59	-42.66	70.37	0.66	1244337.95	3223234.36	40.001340	-104.703145	
942.00	10.75	123.05	935.52	-45.68	-45.76	75.01	0.85	1244334.89	3223239.03	40.001331	-104.703129	
972.00	11.01	121.32	964.99	-48.69	-48.77	79.80	1.39	1244331.92	3223243.85	40.001323	-104.703111	
1002.00	11.36	120.35	994.42	-51.66	-51.75	84.80	1.32	1244328.98	3223248.87	40.001315	-104.703094	
1032.00	11.64	120.82	1023.81	-54.70	-54.80	89.95	0.98	1244325.99	3223254.05	40.001307	-104.703075	
1062.00	12.07	119.50	1053.17	-57.79	-57.89	95.28	1.69	1244322.94	3223259.41	40.001298	-104.703056	
1092.00	12.29	120.16	1082.50	-60.94	-61.04	100.77	0.87	1244319.84	3223264.93	40.001289	-104.703037	
1122.00	12.26	120.28	1111.81	-64.14	-64.25	106.28	0.13	1244316.68	3223270.47	40.001281	-104.703017	
1152.00	12.14	119.25	1141.13	-67.28	-67.40	111.78	0.83	1244313.58	3223276.00	40.001272	-104.702997	
1182.00	12.10	117.89	1170.47	-70.29	-70.41	117.31	0.96	1244310.62	3223281.55	40.001264	-104.702978	
1212.00	12.39	118.34	1199.78	-73.28	-73.41	122.93	1.02	1244307.67	3223287.19	40.001255	-104.702958	
1242.00	12.58	117.99	1229.07	-76.34	-76.47	128.64	0.68	1244304.66	3223292.94	40.001247	-104.702937	
1272.00	12.04	118.06	1258.38	-79.33	-79.48	134.29	1.80	1244301.71	3223298.61	40.001239	-104.702917	
1302.00	11.63	117.52	1287.75	-82.20	-82.34	139.73	1.42	1244298.89	3223304.08	40.001231	-104.702898	
1332.00	11.43	117.49	1317.14	-84.96	-85.11	145.05	0.67	1244296.17	3223309.42	40.001223	-104.702879	
1362.00	11.32	118.03	1346.55	-87.71	-87.87	150.29	0.51	1244293.46	3223314.68	40.001216	-104.702860	
1392.00	11.24	118.37	1375.97	-90.48	-90.64	155.46	0.35	1244290.73	3223319.88	40.001208	-104.702841	
1422.00	11.21	118.24	1405.40	-93.24	-93.41	160.60	0.13	1244288.01	3223325.04	40.001201	-104.702823	
1452.00	11.28	117.83	1434.82	-95.99	-96.16	165.76	0.35	1244285.31	3223330.23	40.001193	-104.702805	
1482.00	11.16	117.21	1464.25	-98.68	-98.86	170.94	0.57	1244282.65	3223335.43	40.001186	-104.702786	
1512.00	11.36	117.49	1493.67	-101.37	-101.55	176.14	0.69	1244280.01	3223340.66	40.001178	-104.702767	
1542.00	11.49	118.13	1523.08	-104.13	-104.32	181.40	0.61	1244277.29	3223345.94	40.001171	-104.702749	
1572.00	11.46	118.79	1552.48	-106.97	-107.17	186.65	0.45	1244274.49	3223351.21	40.001163	-104.702730	
1602.00	11.38	118.77	1581.88	-109.83	-110.03	191.85	0.27	1244271.68	3223356.44	40.001155	-104.702712	
1632.00	11.51	119.30	1611.29	-112.71	-112.92	197.06	0.56	1244268.83	3223361.67	40.001147	-104.702693	
1662.00	11.11	118.81	1640.70	-115.56	-115.77	202.20	1.37	1244266.02	3223366.84	40.001139	-104.702675	
1692.00	11.12	118.28	1670.14	-118.32	-118.54	207.28	0.34	1244263.30	3223371.95	40.001132	-104.702656	
1722.00	10.98	118.88	1699.59	-121.06	-121.29	212.33	0.60	1244260.60	3223377.02	40.001124	-104.702638	
1752.00	11.28	119.54	1729.02	-123.89	-124.11	217.38	1.09	1244257.82	3223382.10	40.001116	-104.702620	
1782.00	11.45	118.83	1758.43	-126.76	-127.00	222.54	0.73	1244254.98	3223387.29	40.001108	-104.702602	
1812.00	11.58	118.57	1787.83	-129.63	-129.87	227.80	0.47	1244252.15	3223392.56	40.001100	-104.702583	
1842.00	11.73	117.57	1817.21	-132.48	-132.72	233.15	0.84	1244249.35	3223397.94	40.001093	-104.702564	
1872.00	12.01	117.09	1846.57	-135.31	-135.56	238.63	0.99	1244246.57	3223403.44	40.001085	-104.702545	
1902.00	11.58	117.29	1875.94	-138.10	-138.36	244.08	1.44	1244243.82	3223408.92	40.001077	-104.702525	
1932.00	11.37	117.44	1905.34	-140.84	-141.10	249.38	0.71	1244241.12	3223414.25	40.001070	-104.702506	
1962.00	11.53	117.02	1934.74	-143.56	-143.83	254.68	0.60	1244238.44	3223419.57	40.001062	-104.702487	
1992.00	11.63	117.20	1964.13	-146.30	-146.57	260.04	0.35	1244235.75	3223424.95	40.001055	-104.702468	
2022.00	11.02	118.75	1993.54	-149.05	-149.33	265.24	2.27	1244233.03	3223430.18	40.001047	-104.702450	
2052.00	10.92	119.68	2023.00	-151.83	-152.12	270.22	0.68	1244230.29	3223435.19	40.001039	-104.702432	
2082.00	11.08	119.75	2052.44	-154.67	-154.96	275.20	0.54	1244227.50	3223440.18	40.001032	-104.702414	
2112.00	11.22	120.65	2081.88	-157.58	-157.87	280.21	0.74	1244224.63	3223445.22	40.001024	-104.702396	
2142.00	11.37	120.26	2111.30	-160.55	-160.85	285.27	0.56	1244221.69	3223450.31	40.001015	-104.702378	
2172.00	11.55	119.81	2140.70	-163.53	-163.84	290.43	0.67	1244218.76	3223455.50	40.001007	-104.702360	
2202.00	11.68	119.61	2170.08	-166.52	-166.83	295.68	0.45	1244215.81	3223460.77	40.000999	-104.702341	
2232.00	11.24	119.19	2199.49	-169.44	-169.75	300.87	1.49	1244212.93	3223465.99	40.000991	-104.702322	
2262.00	10.83	119.68	2228.93	-172.26	-172.58	305.87	1.40	1244210.15	3223471.02	40.000983	-104.702303	
2292.00	10.56	119.79	2258.41	-175.01	-175.34	310.71	0.90	1244207.44	3223476.88	40.000976	-104.702284	
2322.00	10.68	119.51	2287.90	-177.74	-178.07	315.51	0.44	1244204.75	3223482.01	40.000968	-104.702270	
2352.00	11.00	119.77	2317.36	-180.53	-180.86	320.42	1.08	1244202.00	3223485.64	40.000961	-104.702253	
2362.00	10.89	119.50	2327.18	-181.46	-181.80	322.07	1.21	1244201.07	3223487.29	40.000958	-104.702245	

	MD	Incl	Azim True	TVD	VSEC	NS	EW	DLS	Northing	Easting	Latitude	Longitude
	(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	(ftUS)	(ftUS)	(°)	(°)
9 5/8" Casing	2427.00	11.05	120.74	2390.99	-187.66	-188.01	332.76	0.44	1244194.96	3223498.05	40.000941	-104.702209
	2496.00	11.22	122.02	2458.69	-194.59	-194.95	344.14	0.44	1244188.13	3223509.48	40.000922	-104.702168
	2585.00	11.03	122.24	2546.02	-203.70	-204.08	358.68	0.22	1244179.13	3223524.11	40.000897	-104.702116
	2675.00	10.73	123.03	2634.40	-212.85	-213.24	372.99	0.37	1244170.10	3223538.49	40.000872	-104.702065
	2764.00	10.23	123.84	2721.92	-221.75	-222.16	386.50	0.59	1244161.30	3223552.08	40.000847	-104.702017
	2854.00	11.03	125.62	2810.37	-231.20	-231.62	400.13	0.96	1244151.96	3223565.80	40.000821	-104.701968
	2943.00	11.03	126.37	2897.73	-241.19	-241.62	413.90	0.16	1244142.08	3223579.66	40.000794	-104.701919
	3032.00	10.84	126.73	2985.12	-251.23	-251.68	427.46	0.23	1244132.15	3223593.31	40.000766	-104.701871
	3122.00	10.43	127.16	3073.57	-261.19	-261.65	440.73	0.46	1244122.29	3223606.66	40.000739	-104.701823
	3212.00	10.06	128.07	3162.14	-270.95	-271.42	453.41	0.44	1244112.64	3223619.43	40.000712	-104.701778
	3301.00	9.74	128.93	3249.81	-280.46	-280.95	465.39	0.40	1244103.22	3223631.49	40.000686	-104.701735
	3390.00	9.45	129.88	3337.57	-289.86	-290.36	476.85	0.38	1244093.91	3223643.04	40.000660	-104.701694
	3480.00	11.42	121.66	3426.08	-299.26	-299.78	490.10	2.74	1244084.62	3223656.38	40.000634	-104.701647
	3569.00	9.46	93.73	3513.66	-304.35	-304.88	504.91	6.02	1244079.65	3223671.23	40.000620	-104.701594
	3659.00	13.45	77.47	3601.87	-302.54	-303.09	522.53	5.66	1244081.60	3223688.83	40.000625	-104.701531
	3748.00	10.32	83.59	3688.95	-299.38	-299.95	540.56	3.79	1244084.90	3223706.83	40.000634	-104.701467
	3838.00	10.09	110.07	3777.58	-301.17	-301.76	555.98	5.17	1244083.23	3223722.27	40.000629	-104.701412
	3927.00	10.26	126.81	3865.20	-308.58	-309.18	569.65	3.32	1244075.93	3223736.00	40.000608	-104.701363
	4017.00	9.67	123.93	3953.84	-317.59	-318.20	582.33	0.85	1244067.03	3223748.76	40.000584	-104.701318
	4106.00	10.62	125.41	4041.45	-326.50	-327.12	595.22	1.10	1244058.22	3223761.73	40.000559	-104.701272
	4196.00	11.92	125.57	4129.71	-336.69	-337.33	609.54	1.45	1244048.14	3223776.14	40.000531	-104.701221
	4285.00	8.15	116.51	4217.34	-344.84	-345.49	622.66	4.58	1244040.10	3223789.34	40.000509	-104.701174
	4374.00	10.70	117.71	4305.13	-351.49	-352.15	635.63	2.88	1244033.55	3223802.36	40.000490	-104.701128
	4464.00	11.25	125.05	4393.49	-360.40	-361.08	650.21	1.66	1244024.76	3223817.02	40.000466	-104.701075
	4553.00	10.39	127.38	4480.91	-370.24	-370.93	663.69	1.08	1244015.03	3223830.59	40.000439	-104.701027
	4642.00	9.35	121.82	4568.59	-378.91	-379.62	676.21	1.58	1244006.46	3223843.19	40.000415	-104.700983
	4732.00	10.74	120.39	4657.21	-386.99	-387.71	689.66	1.57	1243998.48	3223856.70	40.000393	-104.700935
	4821.00	10.88	118.58	4744.63	-395.19	-395.93	704.19	0.41	1243990.40	3223871.31	40.000370	-104.700883
	4911.00	10.73	119.49	4833.04	-403.36	-404.12	718.94	0.25	1243982.34	3223886.14	40.000348	-104.700830
	5000.00	9.47	117.58	4920.65	-410.82	-411.59	732.65	1.47	1243975.00	3223899.91	40.000327	-104.700781
	5090.00	11.06	120.51	5009.21	-418.62	-419.40	746.65	1.86	1243967.31	3223913.98	40.000306	-104.700731
	5180.00	11.29	122.97	5097.50	-427.78	-428.58	761.48	0.59	1243958.26	3223928.89	40.000280	-104.700678
	5269.00	10.99	121.08	5184.83	-436.89	-437.70	776.06	0.54	1243949.27	3223943.55	40.000255	-104.700626
	5359.00	7.56	115.56	5273.64	-443.86	-444.68	788.75	3.93	1243942.41	3223956.30	40.000236	-104.700581
	5448.00	10.60	116.29	5361.51	-449.99	-450.83	801.37	3.41	1243936.37	3223968.97	40.000219	-104.700536
	5538.00	12.06	116.10	5449.76	-457.78	-458.64	817.23	1.63	1243928.71	3223984.91	40.000198	-104.700479
	5627.00	11.00	118.48	5536.96	-465.90	-466.78	833.05	1.31	1243920.71	3224000.79	40.000176	-104.700423
	5716.00	10.06	124.71	5624.46	-474.36	-475.25	846.90	1.65	1243912.36	3224014.72	40.000152	-104.700373
	5806.00	10.41	133.85	5713.04	-484.46	-485.36	859.23	1.85	1243902.36	3224027.14	40.000125	-104.700329
	5895.00	10.53	137.04	5800.56	-495.97	-496.89	870.57	0.66	1243890.94	3224038.59	40.000093	-104.700289
	5985.00	10.32	139.94	5889.07	-508.15	-509.07	881.36	0.63	1243878.85	3224049.48	40.000060	-104.700250
	6074.00	11.86	139.17	5976.41	-521.16	-522.09	892.47	1.74	1243865.94	3224060.71	40.000024	-104.700211
	6164.00	11.11	129.15	6064.61	-533.62	-534.56	905.24	2.36	1243853.58	3224073.75	39.999990	-104.700165
	6253.00	9.72	121.26	6152.15	-542.92	-543.88	918.32	2.23	1243844.38	3224086.75	39.999964	-104.700119
	6343.00	11.50	123.99	6240.61	-551.86	-552.84	932.25	2.05	1243835.55	3224100.76	39.999939	-104.700069
	6432.00	10.96	124.21	6327.90	-561.56	-562.56	946.60	0.61	1243825.96	3224115.20	39.999913	-104.700018
	6522.00	8.74	119.65	6416.57	-569.74	-570.75	959.62	2.60	1243817.88	3224128.29	39.999890	-104.699971
	6611.00	11.19	108.79	6504.23	-575.86	-576.88	973.68	3.46	1243811.88	3224142.41	39.999873	-104.699921
	6701.00	18.25	73.73	6591.38	-574.70	-575.74	995.55	12.30	1243813.22	3224164.26	39.999876	-104.699843
	6790.00	22.32	63.21	6674.87	-563.14	-564.21	1024.03	6.12	1243825.00	3224192.64	39.999908	-104.699741
	6880.00	27.04	55.92	6756.65	-543.93	-545.03	1056.25	6.23	1243844.47	3224224.69	39.999961	-104.699626
	6970.00	30.71	40.56	6835.56	-514.92	-516.06	1088.19	9.17	1243873.73	3224256.36	40.000040	-104.699512
	7059.00	33.52	24.05	6911.08	-475.10	-476.27	1113.04	10.32	1243913.74	3224280.85	40.000150	-104.699423
	7149.00	36.69	8.63	6984.84	-425.70	-426.88	1127.24	10.44	1243963.25	3224294.60	40.000285	-104.699373
	7238.00	42.33	0.66	7053.52	-369.36	-370.54	1131.58	8.51	1244019.62	3224298.44	40.000440	-104.699357
	7328.00	47.86	358.72	7117.03	-306.83	-306.83	1131.18	6.33	1244083.33	3224297.47	40.000615	-104.699359
	7417.00	56.26	3.92	7171.73	-235.58	-236.77	1132.98	10.50	1244153.40	3224298.64	40.000807	-104.699352
7507.00	65.83	9.14	7215.27	-157.48	-158.68	1142.09	11.78	1244231.56	3224307.04	40.010121	-104.699320	
7596.00	76.31	9.54	7244.11	-74.52	-75.73	1155.74	11.78	1244314.63	3224319.95	40.010249	-104.699271	
7686.00	84.00	7.42	7259.49	13.13	11.91	1168.78	8.86	1244402.38	3224332.21	40.010490	-104.699224	
7775.00	89.54	6.27	7264.50	101.33	100.10	1179.37	6.36	1244490.66	3224341.99	40.010732	-104.699187	
Cross Setback Heel (460' FSL, 532' FEL)	7795.82	89.71	5.95	7264.64	122.04	120.80	1181.58	1.75	1244511.38	3224344.02	40.010789	-104.699179
	7865.00	90.26	4.87	7264.66	190.92	189.67	1188.10	1.75	1244580.30	3224349.92	40.010978	-104.699155
	7954.00	90.27	3.81	7264.25	279.67	278.41	1194.83	1.19	1244669.10	3224355.86	40.002221	-104.699131
	8043.00	90.07	2.65	7263.98	368.53	367.27	1199.85	1.32	1244757.99	3224360.07	40.002465	-104.699113
	8133.00	90.23	358.14	7263.74	458.50	457.25	1200.47	5.02	1244847.96	3224359.88	40.002712	-104.699111
	8222.00	90.12	351.52	7263.47	547.08	545.83	1192.44	7.44	1244936.47	322435		

Comments	MD (ft)	Incl (°)	Azim True (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)
	11892.00	89.69	0.70	7270.21	4207.58	4206.42	1111.41	0.57	1248596.05	3224237.15	40.013004	-104.699429
	11982.00	89.67	359.99	7270.70	4297.58	4296.42	1111.95	0.78	1248686.05	3224236.89	40.013251	-104.699427
	12072.00	90.08	359.56	7270.89	4387.58	4386.41	1111.59	0.67	1248776.04	3224235.72	40.013498	-104.699428
	12161.00	89.70	359.90	7271.06	4476.57	4475.41	1111.17	0.58	1248865.02	3224234.50	40.013742	-104.699429
	12250.00	88.89	1.10	7272.16	4565.56	4564.40	1111.95	1.62	1248954.01	3224234.48	40.013987	-104.699427
	12340.00	89.55	2.20	7273.39	4655.52	4654.35	1114.55	1.42	1249043.98	3224236.27	40.014234	-104.699417
	12429.00	89.34	3.18	7274.25	4744.42	4743.25	1118.72	1.13	1249132.91	3224239.65	40.014478	-104.699402
	12519.00	89.33	3.51	7275.30	4834.26	4833.09	1123.98	0.37	1249222.79	3224244.09	40.014724	-104.699384
	12608.00	89.31	3.77	7276.35	4923.08	4921.90	1129.63	0.29	1249311.65	3224248.94	40.014968	-104.699363
	12698.00	89.62	4.27	7277.18	5012.87	5011.68	1135.93	0.65	1249401.47	3224254.44	40.015214	-104.699341
	12787.00	89.49	3.91	7277.87	5101.64	5100.45	1142.28	0.43	1249490.29	3224259.99	40.015458	-104.699318
	12877.00	89.33	4.18	7278.79	5191.42	5190.22	1148.62	0.35	1249580.11	3224265.53	40.015705	-104.699296
	12966.00	89.77	4.27	7279.49	5280.18	5278.98	1155.17	0.50	1249668.92	3224271.28	40.015948	-104.699272
	13056.00	89.82	2.41	7279.82	5370.03	5368.82	1160.42	2.06	1249758.80	3224275.72	40.016195	-104.699253
	13145.00	89.30	0.19	7280.50	5459.00	5457.79	1162.44	2.57	1249847.78	3224276.94	40.016439	-104.699246
	13235.00	89.32	358.19	7281.58	5548.98	5547.77	1161.16	2.22	1249937.75	3224274.85	40.016686	-104.699251
	13325.00	89.65	356.44	7282.39	5638.87	5637.66	1156.95	1.98	1250027.60	3224269.84	40.016933	-104.699266
	13414.00	89.72	355.47	7282.88	5727.64	5726.44	1150.67	1.10	1250116.31	3224262.76	40.017176	-104.699288
	13504.00	90.17	356.44	7282.97	5817.41	5816.21	1144.32	1.19	1250206.02	3224255.60	40.017423	-104.699311
	13594.00	90.04	357.34	7282.80	5907.27	5906.08	1139.44	1.01	1250295.83	3224249.91	40.017670	-104.699328
	13683.00	89.72	358.09	7282.99	5996.19	5995.01	1135.89	0.92	1250384.72	3224245.57	40.017914	-104.699341
	13773.00	89.83	358.99	7283.34	6086.16	6084.98	1133.60	1.00	1250474.67	3224242.47	40.018161	-104.699349
	13862.00	89.82	359.85	7283.61	6175.15	6173.97	1132.70	0.97	1250563.64	3224240.77	40.018405	-104.699352
	13951.00	90.78	0.12	7283.14	6264.15	6262.97	1132.67	1.11	1250652.64	3224239.95	40.018649	-104.699352
	14041.00	90.59	0.17	7282.07	6354.14	6352.96	1132.91	0.22	1250742.62	3224239.37	40.018896	-104.699351
	14130.00	90.36	0.20	7281.34	6443.14	6441.96	1133.20	0.26	1250831.62	3224238.86	40.019141	-104.699350
	14220.00	90.50	359.95	7280.67	6533.14	6531.95	1133.32	0.32	1250921.61	3224238.17	40.019388	-104.699350
	14309.00	90.27	359.60	7280.07	6622.13	6620.95	1132.97	0.47	1251010.60	3224237.02	40.019632	-104.699351
	14398.00	90.41	359.27	7279.53	6711.13	6709.95	1132.09	0.40	1251099.57	3224235.34	40.019876	-104.699354
	14488.00	90.33	359.54	7278.95	6801.12	6799.94	1131.16	0.32	1251189.55	3224233.60	40.020123	-104.699358
	14578.00	90.30	359.52	7278.46	6891.11	6889.93	1130.42	0.05	1251279.53	3224232.06	40.020370	-104.699360
	14667.00	90.35	359.92	7277.96	6980.11	6978.93	1129.98	0.45	1251368.52	3224230.82	40.020615	-104.699362
	14756.00	90.75	359.88	7277.10	7069.11	7067.93	1129.83	0.46	1251457.51	3224229.87	40.020859	-104.699362
	14845.00	90.10	0.50	7276.44	7158.10	7156.92	1130.12	1.00	1251546.50	3224229.37	40.021103	-104.699361
	14935.00	90.45	1.28	7276.00	7248.09	7246.91	1131.52	0.95	1251636.49	3224229.95	40.021350	-104.699356
	15024.00	90.26	2.58	7275.45	7337.04	7335.86	1134.52	1.48	1251725.46	3224232.15	40.021594	-104.699346
	15113.00	90.18	3.34	7275.10	7425.92	7424.74	1139.12	0.85	1251814.37	3224235.95	40.021838	-104.699329
	15203.00	90.28	3.28	7274.74	7515.78	7514.59	1144.31	0.12	1251904.26	3224240.34	40.022085	-104.699311
	15292.00	90.31	3.24	7274.28	7604.64	7603.44	1149.37	0.05	1251993.16	3224244.60	40.022329	-104.699292
	15382.00	90.20	3.42	7273.88	7694.49	7693.29	1154.60	0.23	1252083.04	3224249.02	40.022576	-104.699274
	15471.00	90.52	3.76	7273.31	7783.32	7782.11	1160.18	0.52	1252171.91	3224253.80	40.022819	-104.699254
	15560.00	90.48	3.68	7272.54	7872.14	7870.92	1165.95	0.10	1252260.76	3224258.78	40.023063	-104.699233
	15650.00	90.65	3.44	7271.65	7961.96	7960.74	1171.54	0.33	1252350.63	3224263.56	40.023310	-104.699213
	15739.00	90.59	2.94	7270.68	8050.83	8049.60	1176.49	0.57	1252439.52	3224267.71	40.023554	-104.699196
	15829.00	90.03	3.00	7270.19	8140.71	8139.48	1181.15	0.62	1252529.44	3224271.56	40.023800	-104.699179
	15918.00	90.36	2.56	7269.88	8229.61	8228.37	1185.47	0.61	1252618.36	3224275.08	40.024045	-104.699163
	16007.00	90.63	3.14	7269.11	8318.50	8317.26	1189.89	0.72	1252707.28	3224278.71	40.024289	-104.699148
	16097.00	90.44	3.34	7268.27	8408.35	8407.11	1194.98	0.30	1252797.17	3224282.99	40.024535	-104.699129
	16186.00	90.55	2.74	7267.50	8497.23	8495.98	1199.70	0.69	1252886.08	3224286.91	40.024779	-104.699113
	16276.00	91.06	1.83	7266.23	8587.15	8585.90	1203.29	1.15	1252976.02	3224289.69	40.025026	-104.699100
	16365.00	91.16	0.17	7264.50	8676.12	8674.86	1204.85	1.87	1253065.00	3224290.45	40.025270	-104.699094
	16455.00	90.62	358.81	7263.10	8766.10	8764.85	1204.05	1.63	1253154.97	3224288.84	40.025517	-104.699097
	16544.00	90.79	357.56	7262.00	8855.05	8853.79	1201.23	1.41	1253243.88	3224285.22	40.025761	-104.699107
	16633.00	90.93	356.26	7260.67	8943.90	8942.65	1196.43	1.47	1253332.69	3224279.62	40.026005	-104.699124
	16722.00	90.88	357.64	7259.26	9032.75	9031.51	1191.69	1.56	1253421.50	3224274.09	40.026249	-104.699141
	16812.00	90.80	359.10	7257.94	9122.70	9121.46	1189.14	1.63	1253511.42	3224270.72	40.026496	-104.699150
	16901.00	90.78	359.67	7256.72	9211.69	9210.45	1188.18	0.63	1253600.39	3224268.97	40.026740	-104.699154
	16991.00	90.80	1.26	7255.48	9301.68	9300.44	1188.91	1.76	1253690.38	3224268.89	40.026987	-104.699151
	17080.00	90.95	2.52	7254.13	9390.62	9389.38	1191.84	1.43	1253779.34	3224271.02	40.027232	-104.699141
	17169.00	91.20	3.80	7252.46	9479.47	9478.22	1196.74	1.47	1253868.22	3224275.12	40.027475	-104.699123
	17259.00	90.94	4.74	7250.77	9569.21	9567.96	1203.43	1.08	1253958.01	3224281.01	40.027722	-104.699099
	17348.00	90.79	5.07	7249.43	9657.88	9656.62	1211.04	0.41	1254046.73	3224287.82	40.027965	-104.699072
	17438.00	91.07	5.81	7247.96	9747.47	9746.20	1219.57	0.87	1254136.39	3224295.55	40.028211	-104.699041
Cross Setback Toe (460' FNL, 495' FEL)	17499.50	91.08	5.68	7246.80	9808.66	9807.38	1225.72	0.21	1254197.61	3224301.15	40.028379	-104.699019
Last SLB_MWD Survey	17527.00	91.09	5.62	7246.28	9836.02	9834.74	1228.43	0.21	1254225.00	3224303.61	40.028454	-104.699010
Projection to TD (372' FNL, 487' FEL)	17588.00	91.09	5.62	7245.12	9896.73	9895.44	1234.40	0.00	1254285.75	3224309.04	40.028621	-104.698988

Survey Type: Def Survey

Survey Error Model: ISCWSA Rev 3 \*\*\* 3-D 97.071% Confidence 3.0000 sigma  
Survey Program:

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	1	0.000	17.000	1/98.425	13.500	9.625	B001Mb_MWD+HRGM-Depth Only	Original Hole / County Line 3130-06H MWD 0' to 17588' Definitive
	1	17.000	21.000	Act Stns	13.500	9.625	B001Mb_MWD+HRGM-Depth Only	Original Hole / County Line 3130-06H MWD 0' to 17588' Definitive
	1	21.000	2362.000	Act Stns	13.500	9.625	B001Mb_MWD+HRGM	Original Hole / County Line 3130-06H MWD 0' to 17588' Definitive
	1	2362.000	17588.000	Act Stns	8.500	5.500	B001Mb_MWD+HRGM	Original Hole / County Line 3130-06H MWD 0' to 17588' Definitive