



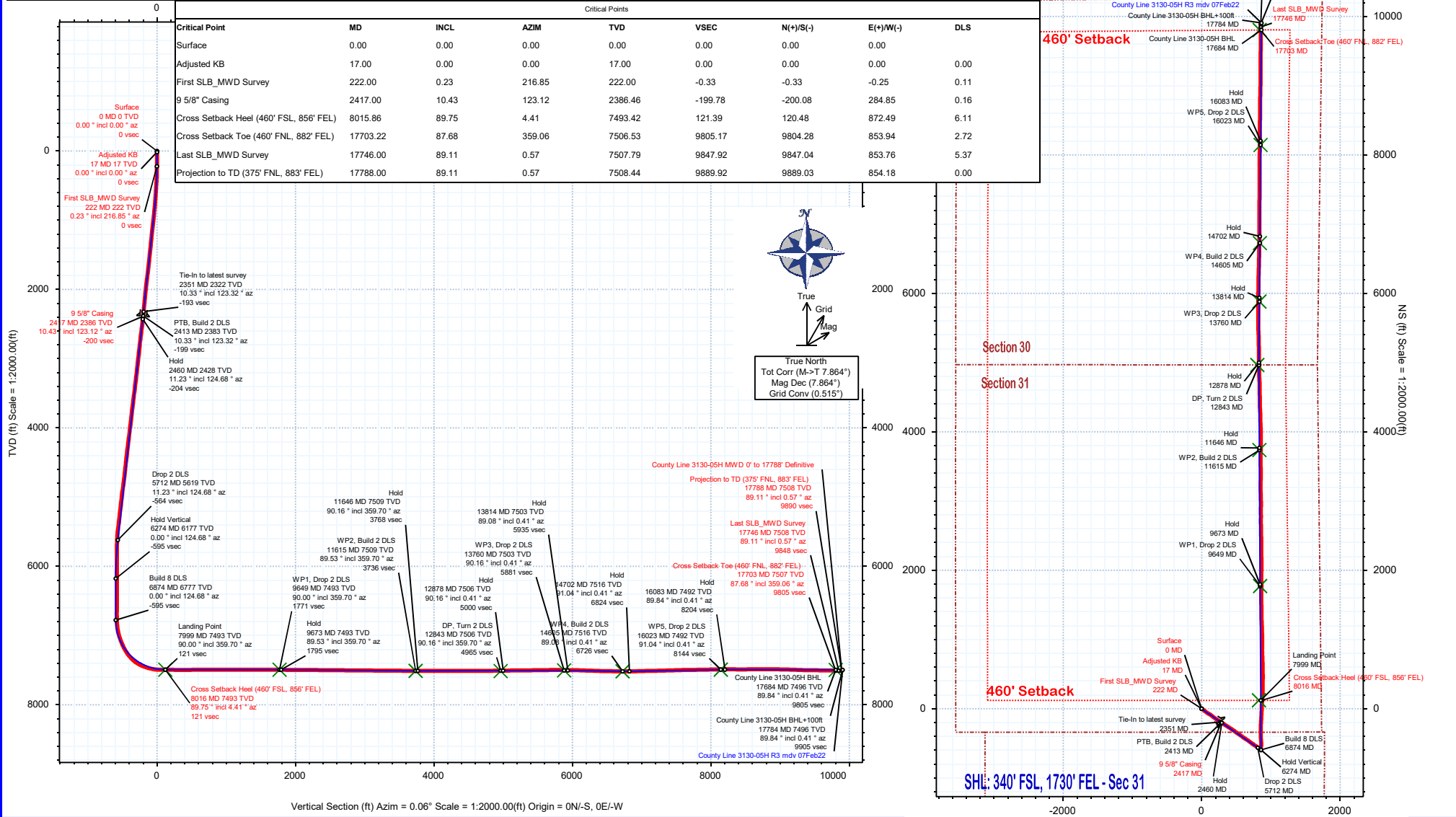
# Verdad Resources LLC



Borehole:	Well:	Field:	Structure:
Original Hole	County Line 3130-05H	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: 07-Feb-2022	Lat: N 40 0 5.25 Northing: 1244379.84ftUS Grid Conv: 0.5147°	Slot: County Line 3130-05H	TVD Ref: KB 21ft(5058ft above MSL)
MagDec: 7.864° FS: 51618.649mT Gravity FS: 998.983mgm (9.80665 Based)	Lon: W 104 42 12.42 Easting: 3223148.63ftUS Scale Fact: 0.99996626	Plan: County Line 3130-05H MWD 0' to 17788' Definitive	

Target Name	Target Description	Northing	Easting	Latitude	Surface Location	Longitude	VSec Azimuth	Local Coord
County Line Pad - Sec 31-30 - CL	N 40 0 5.24 W 104 42 16.28	1244376.89	3222848.38	1244376.89	W 104 42 12.42	3222848.38	0.06	0.06
County Line Pad - Sec 31-30 - 460' SB	N 40 0 5.24 W 104 42 13.00	1244379.39	3223103.61	1244379.39				
County Line Pad - Sec 31-30-06-07	N 40 0 5.24 W 104 42 16.28	1244378.89	3222848.38	1244378.89				
County Line 3130-05H WPS	N 40 0 25.72 W 104 42 1.48	1252350.25	3225926.58	1252350.25				
County Line 3130-05H WP1	N 40 0 22.74 W 104 42 1.56	1246157.68	3223977.89	1246157.68				
County Line 3130-05H BHL	N 40 0 6.43 W 104 42 1.77	1244507.68	3223976.24	1244507.68				
County Line 3130-05H BHL	N 40 1 42.13 W 104 42 1.65	1254190.77	3223899.49	1254190.77				
County Line 3130-05H WP3	N 40 1 3.36 W 104 42 1.69	1250267.28	3223930.81	1250267.28				
County Line 3130-05H WP2	N 40 0 42.16 W 104 42 1.69	1248122.44	3223950.10	1248122.44				
County Line 3130-05H DP	N 40 0 54.30 W 104 42 2.09	1248350.34	3223907.73	1248350.34				
County Line 3130-05H WP4	N 40 1 11.71 W 104 42 1.61	1251112.27	3223929.23	1251112.27				



## County Line 3130-05H MWD 0' to 17788' Definitive Survey Geodetic Report

(Def Survey)

**Report Date:** February 14, 2022 - 01:02 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 3130-05H  
**Well:** County Line 3130-05H  
**Borehole:** Original Hole  
**UWI / API#:** Unknown / 05-123-51177  
**Survey Name:** County Line 3130-05H MWD 0' to 17788' Definitive  
**Survey Date:** February 07, 2022  
**Tort / AHD / DDI / ERD Ratio:** 363.310 ° / 11508.476 ft / 6.995 / 1.531  
**Coordinate Reference System:** NAD83 Colorado State Plane, Northern Zone, US Feet  
**Location Lat / Long:** N 40° 0' 5.24520", W 104° 42' 12.41928"  
**Location Grid N/E Y/X:** N 1244379.836 ftUS, E 3223148.630 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:** 7.864 °  
**Total Gravity Field Strength:** 998.9826mgn (9.80665 Based)  
**Gravity Model:** GARM  
**Total Magnetic Field Strength:** 51618.649 nT  
**Magnetic Dip Angle:** 66.227 °  
**Declination Date:** February 07, 2022  
**Magnetic Declination Model:** HDGM 2021  
**North Reference:** True North  
**Grid Convergence Used:** 0.0000 °  
**Total Corr Mag North→True North:** 7.8643 °  
**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	1244379.84	3223148.63	40.001457	-104.703450
Adjusted KB	17.00	0.00	0.00	17.00	0.00	0.00	0.00	0.00	1244379.84	3223148.63	40.001457	-104.703450
First SLB_MWD Survey	222.00	0.23	216.85	222.00	-0.33	-0.33	-0.25	0.11	1244379.50	3223148.39	40.001456	-104.703451
	252.00	0.70	159.96	252.00	-0.55	-0.55	-0.22	2.02	1244379.28	3223148.41	40.001455	-104.703451
	283.00	1.02	136.55	283.00	-0.93	-0.93	0.03	1.51	1244378.91	3223148.67	40.001454	-104.703450
	311.00	1.69	140.63	310.99	-1.43	-1.43	0.47	2.42	1244378.41	3223149.11	40.001453	-104.703448
	342.00	2.11	133.67	341.97	-2.17	-2.18	1.17	1.54	1244377.67	3223149.82	40.001451	-104.703446
	372.00	3.11	131.50	371.94	-3.09	-3.10	2.18	3.35	1244376.76	3223150.84	40.001449	-104.703442
	402.00	3.72	131.13	401.89	-4.27	-4.28	3.52	2.03	1244375.59	3223152.19	40.001445	-104.703437
	432.00	4.60	132.25	431.81	-5.72	-5.72	5.15	2.95	1244374.16	3223153.83	40.001441	-104.703431
	462.00	5.41	131.92	461.69	-7.47	-7.48	7.09	2.70	1244372.42	3223155.79	40.001436	-104.703424
	492.00	5.92	129.05	491.54	-9.39	-9.40	9.34	1.94	1244370.52	3223158.06	40.001431	-104.703416
	522.00	6.35	125.79	521.37	-11.33	-11.34	11.89	1.84	1244368.60	3223160.62	40.001426	-104.703407
	552.00	6.48	123.66	551.18	-13.24	-13.25	14.64	0.90	1244366.72	3223163.39	40.001421	-104.703398
	582.00	6.53	123.21	580.99	-15.11	-15.12	17.48	0.24	1244364.87	3223166.24	40.001415	-104.703387
	612.00	6.86	123.37	610.79	-17.02	-17.04	20.40	1.10	1244362.98	3223169.19	40.001410	-104.703377
	642.00	6.97	125.14	640.57	-19.05	-19.08	23.39	0.80	1244360.97	3223172.19	40.001405	-104.703366
	672.00	7.39	124.11	670.33	-21.18	-21.21	26.47	1.46	1244358.87	3223175.29	40.001399	-104.703355
	702.00	7.40	124.91	700.08	-23.36	-23.39	29.66	0.34	1244356.71	3223178.49	40.001393	-104.703344
	732.00	7.48	123.63	729.83	-25.55	-25.58	32.87	0.61	1244354.55	3223181.72	40.001387	-104.703332
	762.00	7.65	124.07	759.57	-27.74	-27.78	36.15	0.60	1244352.38	3223185.02	40.001381	-104.703321
	792.00	8.39	124.90	789.28	-30.11	-30.15	39.60	2.50	1244350.04	3223188.49	40.001374	-104.703308
	822.00	9.17	126.71	818.93	-32.79	-32.83	43.31	2.76	1244347.39	3223192.23	40.001367	-104.703295
	852.00	9.79	127.20	848.52	-35.75	-35.80	47.26	2.08	1244344.46	3223196.20	40.001359	-104.703281
	882.00	9.73	126.80	878.08	-38.81	-38.86	51.32	0.30	1244341.43	3223200.29	40.001350	-104.703267
	912.00	9.67	127.49	907.65	-41.86	-41.92	55.35	0.44	1244338.42	3223204.35	40.001342	-104.703252
	942.00	10.07	128.27	937.21	-45.01	-45.07	59.40	1.41	1244335.30	3223208.43	40.001333	-104.703238
	972.00	10.37	127.22	966.73	-48.27	-48.33	63.61	1.18	1244332.08	3223212.67	40.001324	-104.703223
	1002.00	10.81	125.65	996.22	-51.53	-51.61	68.05	1.75	1244328.85	3223217.14	40.001315	-104.703207
	1032.00	11.06	125.66	1025.68	-54.85	-54.92	72.67	0.83	1244325.57	3223221.79	40.001306	-104.703190
	1062.00	11.26	124.47	1055.11	-58.18	-58.26	77.43	1.02	1244322.28	3223226.57	40.001297	-104.703173
	1092.00	11.38	123.03	1084.53	-61.44	-61.53	82.32	1.02	1244319.05	3223231.50	40.001288	-104.703156
	1122.00	11.50	121.16	1113.93	-64.60	-64.69	87.36	1.30	1244315.94	3223236.57	40.001279	-104.703138
	1152.00	11.72	120.21	1143.32	-67.67	-67.77	92.56	0.97	1244312.90	3223241.79	40.001271	-104.703119
	1182.00	11.79	120.64	1172.69	-70.76	-70.87	97.83	0.37	1244309.85	3223247.08	40.001262	-104.703101
	1212.00	11.97	120.00	1202.04	-73.87	-73.98	103.16	0.74	1244306.79	3223252.44	40.001254	-104.703082
	1242.00	11.58	120.26	1231.41	-76.94	-77.06	108.45	1.31	1244303.76	3223257.77	40.001245	-104.703063
	1272.00	11.27	121.64	1260.82	-79.99	-80.11	113.55	1.38	1244300.75	3223262.89	40.001237	-104.703045
	1302.00	11.07	121.65	1290.25	-83.04	-83.16	118.50	0.67	1244297.75	3223267.86	40.001229	-104.703027
	1332.00	10.21	121.59	1319.73	-85.93	-86.06	123.21	2.87	1244294.88	3223272.61	40.001221	-104.703010
	1362.00	9.63	124.25	1349.29	-88.74	-88.87	127.55	2.46	1244292.12	3223276.97	40.001213	-104.702995
	1392.00	9.80	125.72	1378.86	-91.63	-91.77	131.70	1.00	1244289.25	3223281.14	40.001205	-104.702980
	1422.00	9.83	126.69	1408.42	-94.65	-94.79	135.82	0.56	1244286.27	3223285.30	40.001197	-104.702965
	1452.00	9.91	126.41	1437.97	-97.71	-97.85	139.96	0.31	1244283.25	3223289.45	40.001188	-104.702950
	1482.00	10.01	127.03	1467.52	-100.81	-100.96	144.11	0.49	1244280.18	3223293.64	40.001180	-104.702935
	1512.00	10.04	128.13	1497.06	-103.99	-104.14	148.25	0.65	1244277.03	3223297.81	40.001171	-104.702921
	1542.00	9.94	127.24	1526.61	-107.16	-107.32	152.37	0.61	1244273.89	3223301.95	40.001162	-104.702906
	1572.00	10.03	127.12	1556.15	-110.30	-110.47	156.52	0.31	1244270.78	3223306.13	40.001154	-104.702891
	1602.00	10.13	126.79	1585.69	-113.46	-113.62	160.71	0.38	1244267.66	3223310.35	40.001145	-104.702876
	1632.00	10.42	127.31	1615.21	-116.68	-116.85	164.98	1.01	1244264.48	3223314.65	40.001136	-104.702861
	1662.00	10.37	126.68	1644.72	-119.93	-120.11	169.31	0.41	1244261.26	3223319.00	40.001127	-104.702846
	1692.00	10.54	127.11	1674.22	-123.19	-123.37	173.66	0.62	1244258.03	3223323.38	40.001118	-104.702830
	1722.00	10.63	126.65	1703.71	-126.49	-126.68	178.07	0.41	1244254.76	3223327.82	40.001109	-104.702814
	1752.00	11.03	127.40	1733.17	-129.88	-130.08	182.57	1.41	1244251.41	3223332.35	40.001100	-104.702798
	1782.00	11.12	126.88	1762.61	-133.36	-133.56	187.16	0.45	1244247.97	3223336.98	40.001090	-104.702782
	1812.00	11.32	126.66	1792.04	-136.85	-137.05	191.84	0.68	1244244.52	3223341.68	40.001081	-104.702765
	1842.00	11.52	126.28	1821.45	-140.37	-140.58	196.61	0.71	1244241.03	3223346.49	40.001071	-104.702748
	1872.00	11.78	126.67	1850.83	-143.97	-144.18	201.49	0.91	1244237.48	3223351.39	40.001061	-104.702731
	1902.00	11.91	125.46	1880.19	-147.59	-147.81	206.46	0.93	1244233.90	3223356.40	40.001051	-104.702713
	1932.00	11.72	124.74	1909.55	-151.12	-151.34	211.49	0.80	1244230.41	3223361.46	40.001042	-104.702695
	1962.00	11.41	124.37	1938.95	-154.52	-154.75	216.44	1.06	1244227.04	3223366.44	40.001032	-104.702677
	1992.00	11.58	124.66	1968.34	-157.91	-158.14	221.37	0.60	1244223.70	3223371.40	40.001023	-104.702660
	2022.00	11.22	123.80	1997.75	-161.24	-161.47	226.27	1.33	1244220.41	3223376.33	40.001014	-104.702642
	2052.00	10.55	122.99	2027.21	-164.35	-164.59	231.00	2.29	1244217.33	3223381.09	40.001005	-104.702625
	2082.00	10.46	123.15	2056.71	-167.33	-167.58	235.58	0.32	1244214.39	3223385.70	40.000997	-104.702609
	2112.00	10.55	121.35	2086.21	-170.24	-170.49	240.21	1.13	1244211.51	3223390.35	40.000989	-104.702592
	2142.00	10.15	122.53	2115.72	-173.09	-173.35	244.78	1.51	1244208.70	3223394.95	40.000981	-104.702576
	2172.00	9.82	124.09	2145.26	-175.94	-176.20	249.13	1.42	1244205.89	3223399.32	40.000973	-104.702561
	2202.00	9.78	123.48	2174.83	-178.77	-179.04	253.37	0.37	1244203.08	3223403.59	40.000966	-104.702545
	2232.00	9.88	124.61	2204.39	-181.64	-181.91	257.62	0.72	1244200.26	3223407.86	40.000958	-104.702530
	2262.00	9.96	124.44	2233.94	-184.56	-184.84	261.87	0.28	1244197.37	3223412.14	40.000950	-104.702515
	2292.00	10.14	123.77	2263.48	-187.49	-187.77	266.21	0.72	1244194.47	3223416.51	40.000942	-104.702500
	2322.00	10.16	123.77	2293.01	-190.43	-190.71	270.60	0.07	1244191.57	3223420.93	40.000933	-104.702484
	2351.00	10.33	123.32	2321.55	-193.27	-193.56	274.90	0.65	1244188.76	3223425.25	40.000926	-104.702469
9 5/8" Casing	2417.00	10.43	123.12	2386.46	-199.78	-200.08	284.85	0.16	1244182.33	3223435.26	40.000908	-104.702433
	2496.00	10.55</										

Comments	MD (ft)	Incl (°)	Azim True (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)
	2585.00	14.14	122.06	2551.07	-217.78	-218.10	312.98	4.03	1244164.56	3223463.54	40.000858	-104.702333
	2674.00	12.71	124.11	2637.64	-229.02	-229.37	330.30	1.68	1244153.45	3223480.96	40.000827	-104.702271
	2764.00	12.39	124.29	2725.49	-240.00	-240.36	346.48	0.36	1244142.61	3223497.24	40.000797	-104.702213
	2853.00	11.60	121.50	2812.54	-250.04	-250.42	361.99	1.10	1244132.69	3223512.85	40.000770	-104.702158
	2943.00	11.05	122.99	2900.79	-259.84	-259.84	376.94	0.69	1244123.40	3223527.88	40.000744	-104.702104
	3032.00	11.68	120.37	2988.05	-268.63	-269.04	391.87	0.92	1244114.34	3223542.89	40.000718	-104.702051
	3122.00	11.83	122.37	3076.16	-278.16	-278.58	407.52	0.48	1244104.93	3223558.63	40.000692	-104.701995
	3211.00	11.75	124.73	3163.28	-288.19	-288.63	422.68	0.55	1244095.02	3223573.87	40.000665	-104.701941
	3301.00	11.87	126.13	3251.38	-298.85	-299.31	437.69	0.34	1244084.48	3223588.98	40.000635	-104.701888
	3390.00	11.81	123.86	3338.48	-309.31	-309.78	452.65	0.53	1244074.14	3223604.03	40.000607	-104.701834
	3480.00	11.69	124.82	3426.60	-319.63	-320.12	467.79	0.25	1244063.94	3223619.26	40.000578	-104.701780
	3569.00	12.07	126.23	3513.69	-330.27	-330.77	482.70	0.53	1244053.42	3223634.29	40.000549	-104.701727
	3659.00	11.99	125.18	3601.71	-341.20	-341.72	497.92	0.26	1244042.61	3223649.56	40.000519	-104.701673
	3748.00	11.98	125.93	3688.77	-351.93	-352.47	512.96	0.18	1244032.00	3223664.72	40.000489	-104.701619
	3837.00	12.03	124.79	3775.83	-362.63	-363.18	528.06	0.27	1244021.43	3223679.91	40.000460	-104.701565
	3927.00	11.50	122.87	3863.93	-372.83	-373.40	543.30	0.73	1244011.34	3223695.24	40.000432	-104.701511
	4017.00	11.94	125.72	3952.06	-383.12	-383.71	558.40	0.81	1244001.17	3223710.43	40.000404	-104.701457
	4106.00	11.34	125.60	4039.23	-393.58	-394.18	572.99	0.68	1243990.84	3223725.11	40.000375	-104.701405
	4196.00	11.77	124.27	4127.40	-403.88	-404.50	587.77	0.57	1243980.65	3223739.99	40.000347	-104.701352
	4285.00	11.67	123.71	4214.55	-413.98	-414.61	602.76	0.17	1243970.67	3223755.07	40.000319	-104.701298
	4374.00	11.76	125.01	4301.69	-424.16	-424.81	617.68	0.31	1243960.61	3223770.08	40.000291	-104.701245
	4464.00	12.11	124.87	4389.75	-434.80	-435.46	632.94	0.39	1243950.09	3223785.43	40.000262	-104.701191
	4553.00	11.79	125.65	4476.82	-445.42	-446.10	647.99	0.40	1243939.59	3223800.58	40.000232	-104.701137
	4642.00	10.90	120.42	4564.08	-454.97	-455.67	662.64	1.53	1243930.16	3223815.31	40.000206	-104.701085
	4732.00	11.89	125.55	4652.31	-464.66	-465.37	677.52	1.57	1243920.59	3223830.28	40.000179	-104.701031
	4821.00	11.73	125.62	4739.42	-475.24	-475.97	692.33	0.18	1243910.12	3223845.19	40.000150	-104.700979
	4911.00	12.02	128.61	4827.50	-486.40	-487.14	707.09	0.75	1243899.08	3223860.05	40.000120	-104.700926
	5000.00	11.33	126.95	4914.66	-497.43	-498.18	721.32	0.87	1243888.17	3223874.37	40.000089	-104.700875
	5090.00	11.92	124.76	5002.81	-508.02	-508.79	736.02	0.82	1243877.69	3223889.16	40.000060	-104.700823
	5180.00	11.31	126.63	5090.97	-518.57	-519.36	750.74	0.79	1243867.26	3223903.97	40.000031	-104.700770
	5269.00	11.95	124.81	5178.14	-529.02	-529.82	765.30	0.83	1243856.93	3223918.64	40.000003	-104.700718
	5359.00	11.66	124.17	5266.24	-539.43	-540.25	780.48	0.35	1243846.64	3223933.90	39.999974	-104.700664
	5448.00	12.13	124.67	5353.32	-549.79	-550.62	795.61	0.54	1243836.40	3223949.13	39.999945	-104.700610
	5538.00	11.83	123.45	5441.36	-560.24	-561.08	811.09	0.44	1243826.08	3223964.69	39.999917	-104.700555
	5627.00	10.29	119.98	5528.71	-569.22	-570.09	825.58	1.88	1243817.21	3223979.27	39.999892	-104.700503
	5716.00	7.03	110.74	5616.69	-575.11	-575.99	837.57	3.97	1243811.41	3223991.31	39.999876	-104.700460
	5806.00	4.17	105.38	5706.25	-577.92	-578.81	845.87	3.23	1243808.67	3223999.64	39.999868	-104.700431
	5895.00	1.40	91.44	5795.14	-578.80	-579.69	850.08	3.18	1243807.82	3224003.85	39.999866	-104.700416
	5985.00	0.25	183.46	5885.13	-579.02	-579.92	851.17	1.59	1243807.61	3224004.94	39.999865	-104.700412
	6074.00	0.18	200.90	5974.13	-579.35	-580.24	851.11	0.10	1243807.28	3224004.88	39.999864	-104.700412
	6164.00	0.11	111.54	6064.13	-579.52	-580.41	851.13	0.23	1243807.12	3224004.91	39.999864	-104.700412
	6253.00	0.09	142.51	6153.13	-579.60	-580.49	851.25	0.06	1243807.03	3224005.03	39.999863	-104.700411
	6343.00	0.07	146.67	6243.13	-579.70	-580.59	851.32	0.03	1243806.93	3224005.10	39.999863	-104.700411
	6432.00	0.20	214.46	6332.13	-579.87	-580.76	851.26	0.21	1243806.76	3224005.05	39.999863	-104.700411
	6522.00	0.05	272.88	6422.13	-580.00	-580.89	851.14	0.20	1243806.64	3224004.92	39.999862	-104.700412
	6611.00	0.25	238.17	6511.13	-580.10	-580.99	850.93	0.24	1243806.53	3224004.72	39.999862	-104.700413
	6701.00	0.19	111.19	6601.13	-580.26	-581.15	850.90	0.44	1243806.38	3224004.69	39.999862	-104.700413
	6790.00	0.12	137.89	6690.12	-580.38	-581.27	851.11	0.11	1243806.25	3224004.89	39.999861	-104.700412
	6880.00	0.98	6.57	6780.12	-579.69	-580.58	851.26	1.18	1243806.94	3224005.04	39.999863	-104.700411
	6970.00	7.50	15.44	6869.83	-573.26	-574.15	852.91	7.26	1243813.39	3224006.64	39.999881	-104.700405
	7059.00	12.77	13.53	6957.41	-558.08	-558.98	856.77	5.93	1243828.60	3224010.35	39.999923	-104.700392
	7149.00	19.43	5.61	7043.84	-533.47	-534.38	860.56	7.78	1243853.23	3224013.92	39.999990	-104.700378
	7238.00	24.10	357.65	7126.49	-500.56	-501.46	861.26	6.20	1243886.15	3224014.33	40.000080	-104.700376
	7328.00	28.76	354.66	7207.06	-460.62	-461.52	858.49	5.38	1243926.07	3224011.20	40.000190	-104.700386
	7417.00	37.73	357.79	7281.42	-411.99	-412.88	855.44	10.26	1243974.67	3224007.71	40.000324	-104.700396
	7507.00	46.44	359.01	7348.15	-351.75	-352.64	853.81	9.72	1244034.89	3224005.54	40.000489	-104.700402
	7596.00	57.96	1.49	7402.62	-281.56	-282.45	854.24	13.12	1244105.08	3224005.34	40.000682	-104.700401
	7686.00	68.73	3.13	7442.94	-201.31	-202.21	857.53	12.08	1244185.35	3224007.91	40.000902	-104.700389
	7775.00	74.56	3.34	7470.95	-117.00	-117.91	862.29	6.56	1244269.68	3224011.92	40.001133	-104.700372
	7865.00	81.73	2.28	7489.43	-29.08	-29.99	866.59	8.05	1244357.63	3224015.43	40.001375	-104.700357
	7954.00	91.94	1.33	7494.33	59.62	58.71	869.39	11.52	1244446.35	3224017.43	40.001618	-104.700347
Cross Setback Heel (460' FSL, 856' FEL)	8015.86	89.75	4.41	7493.42	121.39	120.48	872.49	6.11	1244508.14	3224019.97	40.001788	-104.700336
	8043.00	88.78	5.76	7493.77	148.42	147.51	874.89	6.11	1244535.19	3224022.13	40.001862	-104.700327
	8133.00	89.63	2.30	7495.02	238.18	237.26	881.22	3.95	1244625.00	3224027.65	40.002108	-104.700304
	8222.00	89.73	358.99	7495.51	327.17	326.24	882.22	3.73	1244713.98	3224027.86	40.002353	-104.700301
	8312.00	90.08	2.14	7495.66	417.15	416.23	883.10	3.52	1244803.96	3224027.93	40.002600	-104.700298
	8401.00	90.70	357.32	7495.06	506.12	505.20	882.68	5.45	1244892.92	3224026.71	40.002844	-104.700299
	8490.00	90.51	0.23	7494.12	595.08	594.16	880.78	3.27	1244981.86	3224024.01	40.003088	-104.700306
	8580.00	90.04	358.35	7493.68	685.07	684.15	879.66	2.15	1245071.83	3224022.08	40.003335	-104.700310
	8670.00	89.85	356.15	7493.77	774.96	774.04	875.34	2.45	1245161.68	3224016.95	40.003582	-104.700325
	8759.00	90.54	1.17	7493.46	863.90	862.99	873.26	5.69	1245250.60	3224014.07	40.003826	-104.700333
	8849.00	90.45	1.62	7492.68	953.87	952.96	875.45	0.52	1245340.58	3224015.45	40.004073	-104.700325
	8939.00	90.12	358.17	7492.23	1043.86	1042.94	875.28	3.86	1245430.56	3224014.48	40.004320	-104.700325
	9028.00	89.96	357.39	7492.17	1132.79	1131.87	871.83	0.89	1245519.45	3224010.23	40.004564	-104.700338
	9117.00	90.06	357.71	7492.15	1221.70	1220.79	868.02	0.37	1245608.33	3224005.62	40.004808	-104.700351
	9207.00	90.20	0.04	7491.94	1311.67	1310.77	866.25	2.60	1245698.29	3224003.04	40.005055	-104.700358
	9296.00	89.51	359.38	7492.16	1400.67	1399.77	865.80	1.08	1245787.27	3224001.79	40.005299	-104.700359
	9386.00	89.19	357.75	7493.18	1490.63	1489.73	863.55	1.84	1245877.21	3223998.73	40.005546	-104.700367
	9475.00	89.93	359.08	7493.87	1579.59	1578.69	861.09	1.71	1245966.14	3223995.47	40.005791	

Comments	MD (ft)	Incl (°)	Azim True (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)
	12071.00	90.32	0.59	7510.12	4174.91	4174.03	849.07	5.48	1248561.17	3223960.15	40.012915	-104.700419
	12161.00	89.72	356.30	7510.09	4264.85	4263.97	846.63	4.82	1248651.09	3223956.90	40.013162	-104.700427
	12250.00	89.38	357.48	7510.79	4352.71	4352.83	841.81	1.39	1248739.90	3223951.27	40.013406	-104.700445
	12340.00	90.16	0.97	7511.15	4443.69	4442.81	840.59	3.97	1248829.86	3223949.25	40.013653	-104.700449
	12429.00	90.15	357.60	7510.91	4532.67	4531.79	839.48	3.79	1248918.82	3223947.34	40.013897	-104.700453
	12519.00	90.23	1.30	7510.61	4622.65	4621.77	838.61	4.12	1249008.79	3223945.66	40.014144	-104.700456
	12608.00	90.42	356.74	7510.11	4711.61	4710.73	837.09	5.13	1249097.73	3223943.35	40.014388	-104.700461
	12698.00	90.81	357.96	7509.14	4801.50	4800.63	832.93	1.42	1249187.58	3223938.38	40.014635	-104.700476
	12787.00	90.84	0.23	7507.86	4890.47	4889.60	831.52	2.56	1249276.54	3223936.17	40.014879	-104.700481
	12877.00	90.70	358.88	7506.65	4980.46	4979.59	830.83	1.51	1249366.51	3223934.66	40.015126	-104.700484
	12966.00	90.71	358.10	7505.55	5069.42	5068.55	828.48	0.87	1249455.44	3223931.52	40.015371	-104.700492
	13056.00	90.88	0.47	7504.30	5159.39	5158.53	827.35	2.63	1249545.40	3223929.58	40.015618	-104.700496
	13145.00	90.33	358.06	7503.35	5248.37	5247.51	826.20	2.78	1249634.37	3223927.64	40.015862	-104.700500
	13235.00	90.65	359.86	7502.59	5338.35	5337.49	824.57	2.04	1249724.32	3223925.19	40.016109	-104.700506
	13325.00	90.57	356.76	7501.64	5428.29	5427.43	821.92	3.45	1249814.24	3223921.73	40.016356	-104.700515
	13414.00	90.72	358.51	7500.63	5517.20	5516.35	818.24	1.98	1249903.11	3223917.26	40.016600	-104.700529
	13504.00	91.11	1.12	7499.19	5607.18	5606.33	817.95	2.93	1249993.08	3223916.16	40.016847	-104.700530
	13594.00	90.07	359.32	7498.26	5697.17	5696.32	818.30	2.32	1250083.07	3223915.70	40.017094	-104.700528
	13683.00	89.81	0.97	7498.36	5786.17	5785.31	818.52	1.87	1250172.06	3223915.12	40.017338	-104.700527
	13773.00	90.04	359.87	7498.48	5876.17	5875.31	819.17	1.25	1250262.06	3223914.96	40.017585	-104.700525
	13862.00	89.52	0.28	7498.82	5965.16	5964.31	819.28	0.75	1250351.05	3223914.28	40.017830	-104.700525
	13951.00	88.09	1.48	7500.69	6054.13	6053.28	820.65	2.10	1250440.02	3223914.84	40.018074	-104.700520
	14041.00	88.04	0.21	7503.73	6144.07	6143.21	821.98	1.41	1250529.96	3223915.36	40.018321	-104.700515
	14130.00	88.09	1.12	7506.73	6233.01	6232.15	823.01	1.02	1250618.91	3223915.60	40.018565	-104.700511
	14220.00	88.14	1.41	7509.70	6322.94	6322.08	824.99	0.33	1250708.85	3223916.77	40.018812	-104.700504
	14309.00	88.82	1.46	7512.05	6411.89	6411.02	827.22	0.77	1250797.80	3223918.20	40.019056	-104.700496
	14398.00	88.98	1.41	7513.76	6500.84	6499.98	829.46	0.18	1250886.77	3223919.64	40.019300	-104.700488
	14488.00	89.06	0.82	7515.30	6589.82	6589.95	831.21	0.67	1250976.75	3223920.58	40.019547	-104.700482
	14578.00	88.79	0.83	7517.00	6680.79	6679.92	832.51	0.31	1251066.73	3223921.07	40.019794	-104.700477
	14667.00	90.10	0.34	7517.86	6769.78	6768.91	833.42	1.58	1251155.72	3223921.18	40.020038	-104.700474
	14756.00	91.12	0.65	7516.91	6858.77	6857.90	834.19	1.19	1251244.71	3223921.15	40.020282	-104.700471
	14845.00	91.92	0.14	7514.55	6947.74	6946.87	834.80	1.07	1251333.67	3223920.97	40.020527	-104.700469
	14934.00	91.12	359.95	7512.18	7036.71	7035.84	834.87	0.93	1251422.64	3223920.24	40.020771	-104.700469
	15024.00	91.22	0.62	7510.35	7126.69	7125.82	835.32	0.75	1251512.61	3223919.88	40.021018	-104.700467
	15113.00	91.07	359.05	7508.57	7215.67	7214.80	835.07	1.77	1251601.58	3223918.83	40.021262	-104.700468
	15203.00	91.53	1.67	7506.53	7305.63	7304.76	835.63	2.95	1251691.55	3223918.58	40.021509	-104.700466
	15292.00	91.29	0.73	7504.34	7394.59	7393.71	837.49	1.08	1251780.51	3223919.65	40.021753	-104.700460
	15382.00	92.14	359.28	7501.65	7484.54	7483.67	837.50	1.87	1251870.46	3223918.85	40.022000	-104.700459
	15471.00	91.50	1.50	7498.82	7573.49	7572.62	838.11	2.60	1251959.41	3223918.65	40.022244	-104.700457
	15560.00	90.65	358.28	7497.15	7662.46	7661.59	837.94	3.73	1252048.37	3223917.69	40.022489	-104.700458
	15650.00	90.91	0.03	7495.92	7752.44	7751.57	836.61	1.95	1252138.33	3223915.55	40.022736	-104.700463
	15739.00	91.11	1.35	7494.36	7841.42	7840.55	837.68	1.50	1252227.31	3223915.82	40.022980	-104.700459
	15828.00	91.30	0.02	7492.49	7930.39	7929.52	838.75	1.51	1252316.28	3223916.09	40.023224	-104.700455
	15918.00	90.91	0.84	7490.75	8020.37	8019.50	839.42	1.00	1252406.26	3223915.95	40.023471	-104.700453
	16007.00	90.86	0.44	7489.37	8109.36	8108.48	840.41	0.45	1252495.25	3223916.14	40.023715	-104.700449
	16097.00	90.39	0.83	7488.39	8199.35	8198.47	841.40	0.68	1252585.24	3223916.33	40.023962	-104.700445
	16186.00	89.99	0.02	7488.10	8288.34	8287.47	842.06	1.01	1252674.23	3223916.18	40.024207	-104.700443
	16276.00	89.47	359.68	7488.52	8378.34	8377.46	841.83	0.68	1252764.22	3223915.14	40.024454	-104.700444
	16365.00	89.98	1.24	7488.94	8467.34	8466.46	842.55	1.84	1252853.22	3223915.07	40.024698	-104.700441
	16454.00	91.16	0.35	7488.06	8556.32	8555.44	843.79	1.66	1252942.21	3223915.51	40.024942	-104.700437
	16544.00	90.61	0.20	7486.67	8646.31	8645.43	844.23	0.63	1253032.19	3223915.14	40.025189	-104.700435
	16633.00	89.18	0.44	7486.83	8735.31	8734.43	844.73	1.63	1253121.18	3223914.84	40.025434	-104.700434
	16722.00	90.14	1.30	7487.36	8824.29	8823.41	846.08	1.45	1253210.18	3223915.39	40.025678	-104.700429
	16812.00	90.18	1.69	7487.10	8914.26	8913.38	848.43	0.44	1253300.16	3223916.93	40.025925	-104.700420
	16901.00	88.04	0.21	7488.48	9003.24	9002.35	849.91	2.92	1253389.14	3223917.61	40.026169	-104.700415
	16990.00	88.95	1.01	7490.82	9092.20	9091.31	850.85	1.35	1253478.10	3223917.76	40.026413	-104.700412
	17080.00	88.03	1.09	7493.19	9182.15	9181.27	852.50	1.03	1253568.06	3223918.60	40.026660	-104.700406
	17169.00	87.75	358.77	7496.46	9271.09	9270.20	852.40	2.62	1253656.99	3223917.70	40.026904	-104.700406
	17259.00	88.67	0.52	7499.27	9361.04	9360.15	851.84	2.19	1253746.92	3223916.33	40.027151	-104.700408
	17348.00	89.71	0.60	7500.52	9450.02	9449.14	852.71	1.17	1253835.91	3223916.40	40.027396	-104.700405
	17438.00	89.21	0.62	7501.37	9540.01	9539.13	853.67	0.56	1253925.90	3223916.55	40.027643	-104.700402
	17527.00	88.33	0.38	7503.28	9628.99	9628.10	854.44	1.02	1254014.88	3223916.52	40.027887	-104.700399
	17616.00	89.88	359.95	7504.67	9717.98	9717.09	854.70	1.81	1254103.86	3223915.98	40.028131	-104.700398
Cross Setback Toe (460' FNL, 882' FEL)	17703.22	87.68	359.06	7506.53	9805.17	9804.28	853.94	2.72	1254191.04	3223914.44	40.028371	-104.700401
	17706.00	87.61	359.03	7506.64	9807.94	9807.05	853.90	2.72	1254193.81	3223914.37	40.028378	-104.700401
Last SLB_MWD Survey	17746.00	89.11	0.57	7507.79	9847.92	9847.04	853.76	5.37	1254233.79	3223913.87	40.028488	-104.700401
Projection to TD (375' FNL, 883' FEL)	17788.00	89.11	0.57	7508.44	9889.92	9889.03	854.18	0.00	1254275.78	3223913.91	40.028603	-104.700400

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- 05H MWD 0' to 17788' Definitive
	1	17.000	21.000	Act Stns	13.500	9.625	B001Mb_MWD+HRGM-Depth Only	Original Hole / County Line 3130- 05H MWD 0' to 17788' Definitive
	1	21.000	2351.000	Act Stns	13.500	9.625	B001Mb_MWD+HRGM	Original Hole / County Line 3130- 05H MWD 0' to 17788' Definitive
	1	2351.000	17788.000	Act Stns	8.500	5.500	B001Mb_MWD+HRGM	Original Hole / County Line 3130- 05H MWD 0' to 17788' Definitive