



# Verdad Resources



Borehole:	Timbro 0101-13H	Well:	Timbro 0101-13H	Field:	CO, Weld County (NAD 83 NZ) - 2019	Structure:	Verdad Resources 01-09N-59W (Timbro 0101 Pad)
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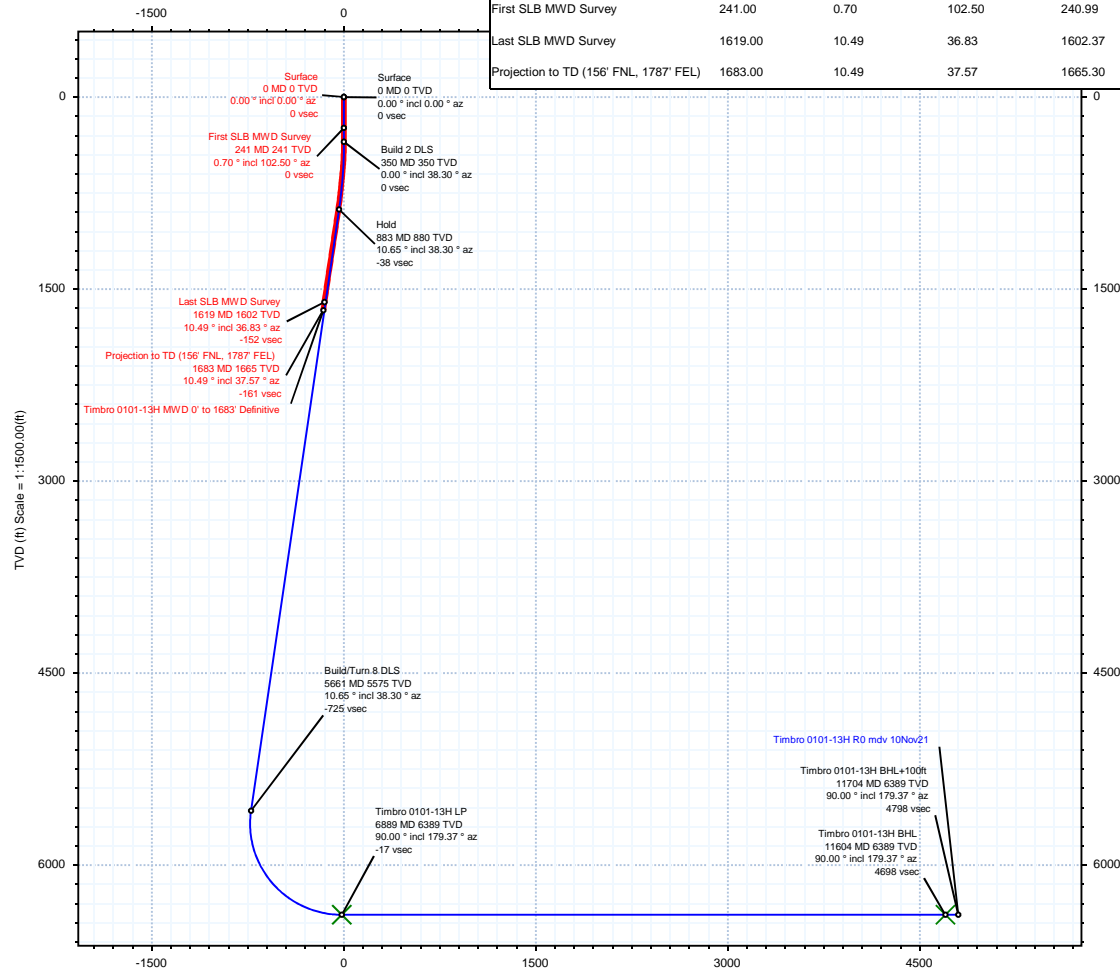
Gravity & Magnetic Parameters				Surface Location				Miscellaneous			
Model:	HDGM 2021	Dip:	66.968°	Date:	29-Nov-2021	Lat:	N 40 47 11.74	Northings:	1533279.43ftUS	Grid Conv:	1.0182°
MagDec:	7.171°	FS:	52273.865nT	Gravity FS:	999.075mgn (9.80665 Based)	Lon:	W 103 55 27.23	Easting:	3436342.65ftUS	Scale Fact:	1.00000053
								Slot: Timbro 0101-13H			
								TVD Ref: RKB = 4ft(4943ft above MSL)			
								Plan: Timbro 0101-13H MWD 0' to 1683' Definitive			

Surface Location												
Northing:		1533279.426	Easting:		3436342.646	Latitude:		N 40 47 11.74	Longitude:	W 103 55 27.23	VSec Azimuth:	179.37
Target Description			Grid Coord								Local Coord	
Target Name			Latitude	Longitude	Northing	Easting	TVD	VSec	N(+)/S(-)	E(+)/W(-)		
Timbro 0101 Pad - Sec 01			N 40 47 14.47	W 103 56 10.13	1533497.54	3433038.34	4943.00	-313.06	276.79	-3299.91		
Timbro 0101 Pad - Sec 01 - 300' SB			N 40 47 11.54	W 103 56 6.11	1533206.69	3433352.05	4943.00	-13.30	-19.59	-2991.42		
Timbro 0101-13H LP			N 40 47 11.98	W 103 55 18.36	1533315.78	3437024.00	6389.00	-16.74	24.24	681.89		
Timbro 0101-13H BHL			N 40 46 25.39	W 103 55 17.69	1528602.55	3437159.73	6389.00	4698.45	-4690.67	733.85		

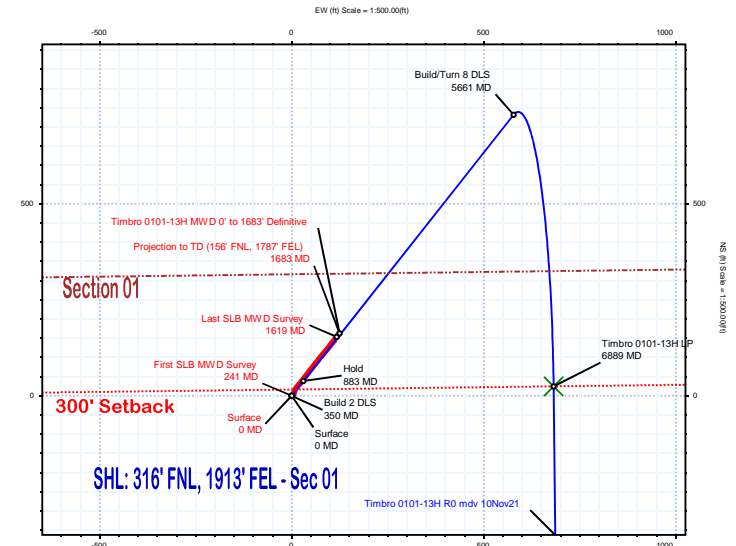


True  
Grid  
Mag  
True North  
Tot Corr (M->T 7.171°)  
Mag Dec (7.171°)  
Grid Conv (1.018°)

Critical Points								
Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+)/S(-)	E(+)/W(-)	DLS
Surface	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
First SLB MWD Survey	241.00	0.70	102.50	240.99	0.33	-0.32	1.44	0.29
Last SLB MWD Survey	1619.00	10.49	36.83	1602.37	-152.14	153.44	117.31	0.77
Projection to TD (156° FNL, 1787° FEL)	1683.00	10.49	37.57	1665.30	-161.35	162.72	124.36	0.21



Vertical Section (ft) Azim = 179.37° Scale = 1:1500.00(ft) Origin = 0N-S, 0E-W



## Timbro 0101-13H MWD 0' to 1683' Definitive Survey Geodetic Report

(Def Survey)

**Report Date:** January 18, 2023 - 02:28 PM  
**Client:** Verdad Resources  
**Field:** CO, Weld County (NAD 83 NZ) - 2019  
**Structure / Slot:** Verdad Resources 01-09N-59W (Timbro 0101 Pad) / Timbro 0101-13H  
**Well:** Timbro 0101-13H  
**Borehole:** Timbro 0101-13H  
**UWI / API#:** Unknown / 05-123-51088  
**Survey Name:** Timbro 0101-13H MWD 0' to 1683' Definitive  
**Survey Date:** November 29, 2021  
**Tort / AHD / DDI / ERD Ratio:** 20.455 ° / 206.711 ft / 3.631 / 0.124  
**Coordinate Reference System:** NAD83 Colorado State Plane, Northern Zone, US Feet  
**Location Lat / Long:** N 40° 47' 11.73804", W 103° 55' 27.22619"  
**Location Grid N/E Y/X:** N 1533279.426 ftUS, E 3436342.646 ftUS  
**CRS Grid Convergence Angle:** 1.0182 °  
**Grid Scale Factor:** 1.00000053  
**Version / Patch:** 2.10.834.0

**Survey / DLS Computation:** Minimum Curvature / Lubinski  
**Vertical Section Azimuth:** 179.370 ° (True North)  
**Vertical Section Origin:** 0.000 ft, 0.000 ft  
**TVD Reference Datum:** RKB = 4ft  
**TVD Reference Elevation:** 4943.000 ft above MSL  
**Seabed / Ground Elevation:** 4939.000 ft above MSL  
**Magnetic Declination:** 7.171 °  
**Total Gravity Field Strength:** 999.0752mgn (9.80665 Based)  
**Gravity Model:** GARM  
**Total Magnetic Field Strength:** 52273.865 nT  
**Magnetic Dip Angle:** 66.968 °  
**Declination Date:** November 29, 2021  
**Magnetic Declination Model:** HDGM 2021  
**North Reference:** True North  
**Grid Convergence Used:** 0.0000 °  
**Total Corr Mag North→True North:** 7.1706 °  
**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	1533279.43	3436342.65	40.786594	-103.924229
First SLB MWD Survey	241.00	0.70	102.50	240.99	0.33	-0.32	1.44	0.29	1533279.13	3436344.09	40.786593	-103.924224
	270.00	0.72	91.81	269.99	0.38	-0.36	1.79	0.46	1533279.10	3436344.44	40.786593	-103.924223
	299.00	0.66	64.67	298.99	0.33	-0.31	2.10	1.16	1533279.16	3436344.75	40.786593	-103.924222
	329.00	0.58	34.76	328.99	0.15	-0.12	2.32	0.98	1533279.35	3436344.97	40.786594	-103.924221
	359.00	0.94	27.53	358.99	-0.19	0.22	2.52	1.24	1533279.69	3436345.16	40.786595	-103.924220
	389.00	1.21	42.66	388.98	-0.64	0.67	2.85	1.30	1533280.15	3436345.48	40.786596	-103.924219
	419.00	1.94	29.23	418.97	-1.31	1.35	3.31	2.71	1533280.83	3436345.93	40.786598	-103.924218
	449.00	2.15	30.42	448.95	-2.23	2.27	3.84	0.71	1533281.77	3436346.45	40.786600	-103.924216
	479.00	2.99	22.57	478.92	-3.43	3.48	4.43	3.04	1533282.99	3436347.01	40.786603	-103.924214
	509.00	3.75	17.39	508.87	-5.09	5.14	5.02	2.72	1533284.66	3436347.57	40.786608	-103.924211
	539.00	4.38	15.95	538.79	-7.12	7.18	5.63	2.14	1533286.70	3436348.14	40.786614	-103.924209
	569.00	5.17	18.67	568.69	-9.49	9.56	6.38	2.71	1533289.10	3436348.80	40.786620	-103.924206
	599.00	5.89	21.44	598.55	-12.19	12.28	7.37	2.58	1533291.83	3436349.80	40.786628	-103.924203
	629.00	6.38	23.93	628.38	-15.14	15.23	8.61	1.84	1533294.81	3436350.98	40.786636	-103.924198
	659.00	6.99	31.72	658.17	-18.19	18.31	10.24	3.64	1533297.91	3436352.56	40.786644	-103.924193
	689.00	7.03	37.93	687.95	-21.17	21.31	12.33	2.53	1533300.95	3436354.00	40.786652	-103.924185
	719.00	7.60	41.85	717.71	-24.07	24.23	14.78	2.53	1533303.92	3436357.00	40.786660	-103.924176
	749.00	8.44	42.75	747.41	-27.13	27.33	17.60	2.83	1533307.06	3436359.76	40.786669	-103.924166
	779.00	8.86	40.31	777.07	-30.48	30.71	20.59	1.86	1533310.49	3436362.69	40.786678	-103.924155
	809.00	9.45	38.44	806.69	-34.14	34.40	23.62	2.20	1533314.24	3436365.65	40.786688	-103.924144
	839.00	9.88	36.16	836.26	-38.11	38.41	26.67	1.91	1533318.30	3436368.63	40.786699	-103.924133
	869.00	10.30	36.16	865.80	-42.32	42.65	29.77	1.40	1533322.60	3436371.65	40.786711	-103.924122
	899.00	10.16	37.53	895.32	-46.55	46.91	32.96	0.93	1533326.92	3436374.77	40.786723	-103.924110
	929.00	10.16	36.44	924.85	-50.74	51.14	36.15	0.64	1533331.20	3436377.88	40.786734	-103.924099
	959.00	10.65	36.64	954.36	-55.06	55.49	39.37	1.62	1533335.61	3436381.03	40.786746	-103.924087
	989.00	11.02	37.51	983.82	-59.52	59.99	42.77	1.36	1533340.17	3436384.34	40.786759	-103.924075
	1019.00	11.10	39.80	1013.27	-63.97	64.48	46.37	1.49	1533344.72	3436387.86	40.786771	-103.924062
	1049.00	11.03	38.23	1042.71	-68.40	68.96	49.99	1.03	1533349.26	3436391.41	40.786783	-103.924049
	1079.00	11.05	38.94	1072.15	-72.86	73.45	53.58	0.46	1533353.82	3436394.91	40.786795	-103.924036
	1109.00	11.11	37.70	1101.59	-77.34	77.97	57.15	0.83	1533358.40	3436398.40	40.786808	-103.924023
	1139.00	10.92	37.84	1131.04	-81.83	82.50	60.66	0.64	1533362.99	3436401.89	40.786820	-103.924010
	1169.00	11.03	38.72	1160.49	-86.28	86.99	64.20	0.66	1533367.54	3436405.23	40.786833	-103.923998
	1199.00	11.06	37.82	1189.94	-90.75	91.50	67.76	0.59	1533372.11	3436408.77	40.786845	-103.923985
	1229.00	10.87	38.83	1219.39	-95.19	95.98	71.30	0.91	1533376.65	3436412.23	40.786857	-103.923972
	1259.00	10.94	39.19	1248.85	-99.56	100.39	74.87	0.34	1533381.13	3436415.72	40.786869	-103.923959
	1289.00	11.21	38.41	1278.29	-104.01	104.88	78.48	1.03	1533385.68	3436419.25	40.786882	-103.923946
	1319.00	11.30	40.51	1307.71	-108.49	109.40	82.20	1.39	1533390.27	3436422.82	40.786894	-103.923933
	1349.00	11.44	40.63	1337.12	-112.94	113.89	86.05	0.48	1533394.83	3436426.66	40.786907	-103.923919
	1379.00	11.33	39.99	1366.53	-117.41	118.41	89.88	0.57	1533399.41	3436430.41	40.786919	-103.923905
	1409.00	11.35	38.09	1395.95	-121.95	122.99	93.59	1.25	1533404.06	3436434.04	40.786931	-103.923892
	1439.00	10.76	39.21	1425.39	-126.40	127.48	97.18	2.10	1533408.61	3436437.55	40.786944	-103.923879
	1469.00	10.54	38.02	1454.87	-130.70	131.81	100.64	1.02	1533413.01	3436440.93	40.786956	-103.923866
	1499.00	10.42	38.80	1484.37	-134.94	136.09	104.03	0.62	1533417.34	3436444.25	40.786967	-103.923854
	1529.00	10.56	37.12	1513.87	-139.21	140.39	107.39	1.11	1533421.71	3436447.53	40.786979	-103.923842
	1559.00	10.55	36.76	1543.36	-143.56	144.79	110.70	0.22	1533426.16	3436450.75	40.786991	-103.923830
	1589.00	10.40	37.99	1572.86	-147.86	149.12	114.01	0.91	1533430.55	3436453.98	40.787003	-103.923818
Last SLB MWD Survey	1619.00	10.49	36.83	1602.37	-152.14	153.44	117.31	0.77	1533434.93	3436457.21	40.787015	-103.923806
Projection to TD (156' FNL, 1787' FEL)	1683.00	10.49	37.57	1665.30	-161.35	162.72	124.36	0.21	1533444.33	3436464.09	40.787041	-103.923780

**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	4.000	1/98.425	13.500	9.625	B001Mb_MWD+HRGM-Depth Only	Timbro 0101-13H / Timbro 0101-13H MWD 0' to 1683' Definitive
	1	4.000	4.000	Act Stns	13.500	9.625	B001Mb_MWD+HRGM-Depth Only	Timbro 0101-13H / Timbro 0101-13H MWD 0' to 1683' Definitive
	1	4.000	1683.000	Act Stns	13.500	9.625	B001Mb_MWD+HRGM	Timbro 0101-13H / Timbro 0101-13H MWD 0' to 1683' Definitive

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