



Verdad Resources



Borehole:	Timbro 0101-16H	Well:	Timbro 0101-16H	Field:	CO, Weld County (NAD 83 NZ) - 2019	Structure:	Verdad Resources 01-09N-59W (Timbro 0101 Pad)
-----------	-----------------	-------	-----------------	--------	------------------------------------	------------	---

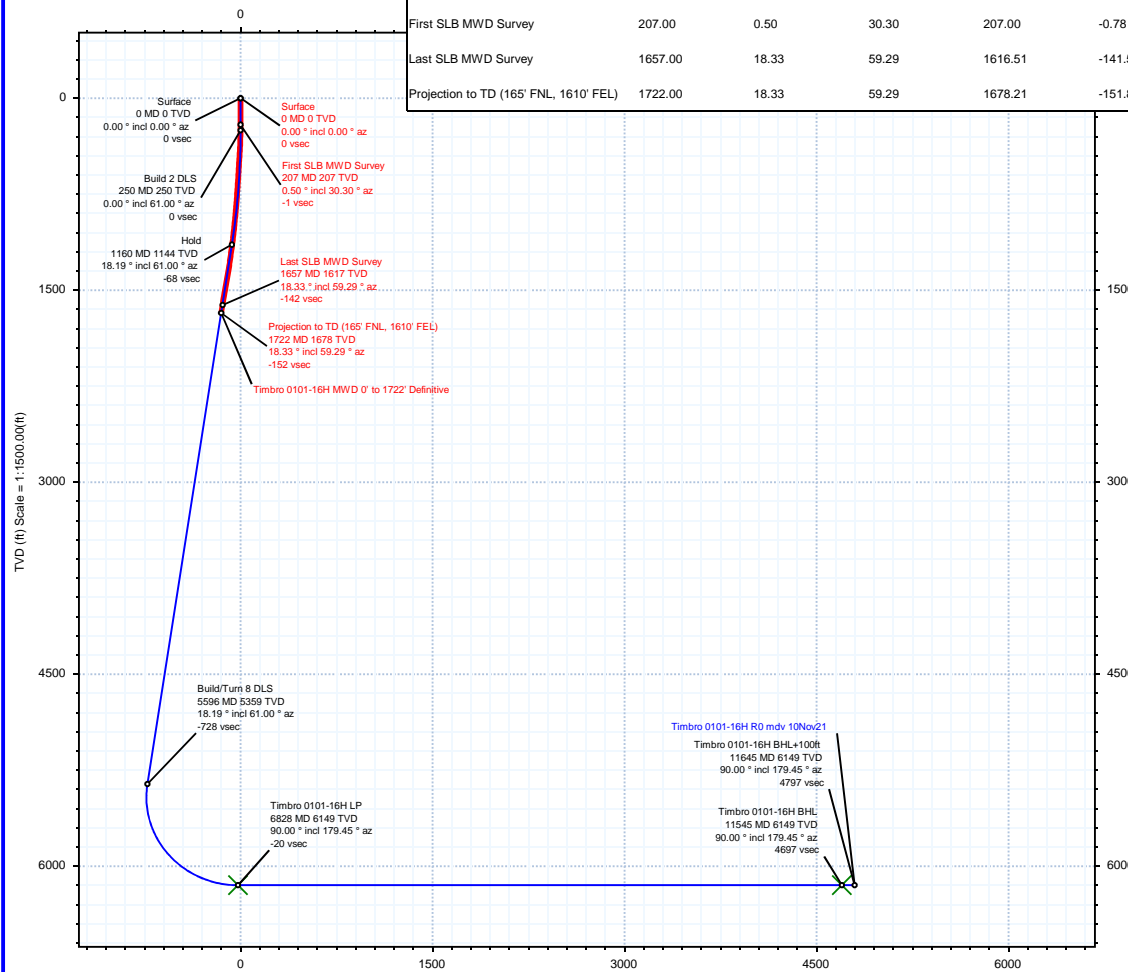
Gravity & Magnetic Parameters						Surface Location						NAD83 Colorado State Plane, Northern Zone, US Feet						Miscellaneous					
Model:	HDGM 2021		Dip:	66.968°		Date:	29-Nov-2021		Lat:	N 40 47 11.74		Northings:	1533279.93ftUS		Grid Conv:	1.0182°		Slot:	Timbro 0101-16H		TVD Ref:	RKB = 4ft(4943ft above MSL)	
MagDec:	7.171°		FS:	52273.821nT		Gravity FS:	999.085mgn (9.80665 Based)		Lon:	W 103 55 27.02		Easting:	3436358.65ftUS		Scale Fact:	1.00000053		Plan:	Timbro 0101-16H MWD 0' to 1722' Definitive				

Surface Location		Surface Location		Surface Location		Surface Location		Surface Location	
Northings:	1533279.929	Easting:	3436358.646	Latitude:	N 40 47 11.74	Longitude:	W 103 55 27.02	VSec Azimuth:	179.45
Target Description		Grid Coord		Local Coord					
Target Name	Latitude	Longitude	Northings	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	-308.39	276.57	-3315.92	
Timbro 0101 Pad - Sec 01 - 300' SB	N 40 47 11.54	W 103 56 6.11	1533206.69	3433352.05	4943.00	-9.06	-19.81	-3007.42	
Timbro 0101-16H BHL	N 40 46 25.48	W 103 55 6.00	1528627.42	3438058.51	6149.00	4697.29	-4681.99	1616.93	
Timbro 0101-16H LP	N 40 47 12.08	W 103 55 6.58	1533342.77	3437929.58	6149.00	-19.83	34.92	1571.81	

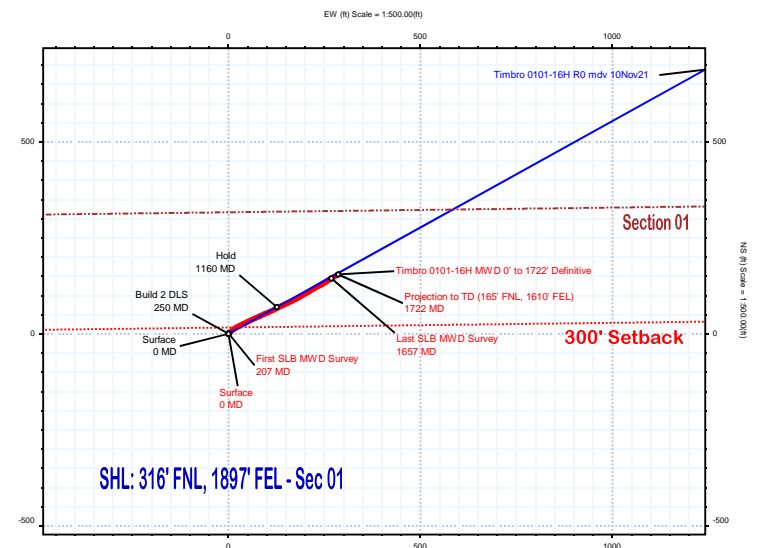


True North
Tot Corr (M→T 7.171°)
Mag Dec (7.171°)
Grid Conv (1.018°)

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	207.00	0.50	30.30	207.00	-0.78	0.78	0.46	0.24
Last SLB MWD Survey	1657.00	18.33	59.29	1616.51	-141.56	144.13	267.74	2.10
Projection to TD (165' FNL, 1610' FEL)	1722.00	18.33	59.29	1678.21	-151.83	154.57	285.32	0.00



Vertical Section (ft) Azim = 179.45° Scale = 1:1500.00(ft) Origin = 0N/-S, 0E/-W



SHL: 316' FNL, 1897' FEL - Sec 01

Section 01
300' Setback

Timbro 0101-16H MWD 0' to 1722' Definitive Survey Geodetic Report

(Def Survey)

Report Date: January 18, 2023 - 02:47 PM
Client: Verdad Resources
Field: CO, Weld County (NAD 83 NZ) - 2019

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 179.450 ° (True North)
Vertical Section Origin: 0.000 ft, 0.000 ft

Structure / Slot: Verdad Resources 01-09N-59W (Timbro 0101 Pad) / Timbro 0101-16H

TVD Reference Datum: RKB = 4ft

Well: Timbro 0101-16H
Borehole: Timbro 0101-16H
UWI / API#: Unknown / 05-123-51086
Survey Name: Timbro 0101-16H MWD 0' to 1722' Definitive
Survey Date: November 29, 2021
Tort / AHD / DDI / ERD Ratio: 25.403 ° / 325.429 ft / 3.929 / 0.194
Coordinate Reference System: NAD83 Colorado State Plane, Northern Zone, US Feet
Location Lat / Long: N 40° 47' 11.74020", W 103° 55' 27.01811"
Location Grid N/E Y/X: N 1533279.929 ftUS, E 3436358.646 ftUS
CRS Grid Convergence Angle: 1.0182 °
Grid Scale Factor: 1.00000053
Version / Patch: 2.10.834.0

TVD Reference Elevation: 4943.000 ft above MSL
Seabed / Ground Elevation: 4939.000 ft above MSL
Magnetic Declination: 7.171 °
Total Gravity Field Strength: 999.0845mgn (9.80665 Based)
Gravity Model: GARM
Total Magnetic Field Strength: 52273.821 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	1533279.93	3436358.65	40.786594	-103.924172
First SLB MWD Survey	207.00	0.50	30.30	207.00	-0.78	0.78	0.46	0.24	1533280.72	3436359.09	40.786597	-103.924170
	237.00	0.74	41.52	237.00	-1.03	1.04	0.65	0.89	1533280.98	3436359.28	40.786597	-103.924169
	266.00	1.29	48.54	265.99	-1.38	1.39	1.02	1.94	1533281.34	3436359.64	40.786598	-103.924168
	294.00	1.92	55.36	293.98	-1.85	1.87	1.64	2.35	1533281.83	3436360.25	40.786600	-103.924166
	325.00	2.52	47.77	324.96	-2.60	2.62	2.57	2.15	1533282.60	3436361.17	40.786602	-103.924162
	355.00	3.40	52.22	354.92	-3.57	3.61	3.76	3.03	1533283.61	3436362.35	40.786604	-103.924158
	385.00	4.33	48.17	384.85	-4.86	4.91	5.31	3.23	1533284.93	3436363.87	40.786608	-103.924153
	415.00	4.79	46.33	414.75	-6.46	6.53	7.06	1.61	1533286.59	3436365.59	40.786612	-103.924146
	445.00	5.05	48.30	444.64	-8.19	8.27	8.95	1.03	1533288.36	3436367.45	40.786617	-103.924139
	475.00	5.76	50.07	474.51	-10.01	10.12	11.09	2.43	1533290.24	3436369.56	40.786622	-103.924132
	505.00	6.13	51.68	504.35	-11.95	12.08	13.50	1.35	1533292.25	3436371.93	40.786628	-103.924123
	535.00	6.49	56.05	534.17	-13.86	14.02	16.17	2.00	1533294.23	3436374.55	40.786633	-103.924113
	565.00	7.14	59.99	563.95	-15.71	15.90	19.19	2.67	1533296.17	3436377.55	40.786638	-103.924102
	595.00	7.48	64.23	593.71	-17.46	17.68	22.56	2.12	1533298.01	3436380.89	40.786643	-103.924090
	625.00	8.15	64.29	623.43	-19.20	19.45	26.24	2.23	1533299.84	3436384.53	40.786648	-103.924077
	655.00	8.44	63.00	653.12	-21.08	21.37	30.11	1.15	1533301.83	3436388.38	40.786653	-103.924063
	685.00	8.43	61.44	682.79	-23.10	23.42	34.01	0.76	1533303.95	3436392.23	40.786659	-103.924049
	715.00	8.53	64.26	712.47	-25.08	25.44	37.94	1.43	1533306.04	3436396.13	40.786664	-103.924035
	745.00	9.11	63.56	742.11	-27.06	27.47	42.07	1.97	1533308.14	3436400.22	40.786670	-103.924020
	775.00	9.85	62.91	771.70	-29.24	29.69	46.48	2.49	1533310.44	3436404.00	40.786676	-103.924004
	805.00	10.40	65.15	801.23	-31.50	32.00	51.23	2.25	1533312.83	3436409.30	40.786682	-103.923987
	835.00	11.07	64.98	830.71	-33.81	34.35	56.29	2.24	1533315.28	3436414.32	40.786689	-103.923968
	865.00	11.66	65.20	860.12	-36.25	36.84	61.65	1.97	1533317.86	3436419.64	40.786696	-103.923949
	895.00	12.60	64.98	889.45	-38.85	39.50	67.37	3.14	1533320.62	3436425.31	40.786703	-103.923928
	925.00	13.17	66.09	918.69	-41.56	42.27	73.46	2.07	1533323.50	3436431.34	40.786711	-103.923906
	955.00	13.44	65.38	947.89	-44.34	45.11	79.76	1.05	1533326.45	3436437.59	40.786718	-103.923884
	985.00	13.61	65.86	977.06	-47.17	48.00	86.15	0.68	1533329.45	3436443.92	40.786726	-103.923861
	1015.00	14.15	65.87	1006.18	-50.05	50.94	92.71	1.80	1533332.51	3436450.44	40.786734	-103.923837
	1045.00	14.68	66.51	1035.24	-53.00	53.96	99.55	1.84	1533335.65	3436457.43	40.786743	-103.923812
	1075.00	15.40	64.72	1064.21	-56.15	57.18	106.63	2.86	1533338.99	3436464.25	40.786751	-103.923787
	1105.00	15.87	64.82	1093.10	-59.52	60.62	113.95	1.57	1533342.57	3436471.50	40.786761	-103.923760
	1135.00	16.80	63.62	1121.90	-63.10	64.27	121.50	2.68	1533346.35	3436478.98	40.786771	-103.923733
	1165.00	16.99	62.93	1150.62	-66.93	68.17	129.24	1.46	1533350.38	3436486.66	40.786782	-103.923705
	1195.00	17.71	63.45	1179.26	-70.88	72.20	137.23	2.46	1533354.56	3436494.57	40.786793	-103.923676
	1225.00	18.24	65.04	1207.79	-74.82	76.22	145.56	2.41	1533358.73	3436502.83	40.786804	-103.923646
	1255.00	18.36	65.81	1236.28	-78.66	80.14	154.13	0.90	1533362.80	3436511.33	40.786814	-103.923615
	1285.00	18.72	64.82	1264.72	-82.56	84.13	162.80	1.59	1533366.93	3436519.92	40.786825	-103.923584
	1315.00	18.74	62.72	1293.13	-86.73	88.38	171.44	2.25	1533371.34	3436528.49	40.786837	-103.923553
	1345.00	19.03	61.38	1321.52	-91.20	92.93	180.01	1.74	1533376.05	3436536.98	40.786850	-103.923522
	1375.00	19.14	60.95	1349.87	-95.85	97.67	188.61	0.60	1533380.93	3436545.49	40.786863	-103.923491
	1405.00	19.24	59.20	1378.20	-100.69	102.58	197.15	1.95	1533386.00	3436553.94	40.786876	-103.923460
	1435.00	19.15	60.01	1406.53	-105.60	107.58	205.66	0.94	1533391.14	3436562.36	40.786890	-103.923429
	1465.00	19.21	59.42	1434.87	-110.48	112.55	214.17	0.68	1533396.26	3436570.78	40.786903	-103.923398
	1495.00	19.15	60.22	1463.20	-115.36	117.50	222.69	0.90	1533401.37	3436579.21	40.786917	-103.923368
	1525.00	19.10	60.41	1491.55	-120.14	122.37	231.23	0.27	1533406.39	3436587.66	40.786930	-103.923337
	1555.00	18.99	59.40	1519.90	-124.97	127.28	239.70	1.16	1533411.44	3436596.05	40.786944	-103.923306
	1585.00	18.88	59.18	1548.28	-129.86	132.25	248.07	0.44	1533416.56	3436604.33	40.786957	-103.923276
	1615.00	18.67	58.82	1576.68	-134.75	137.22	256.35	0.80	1533421.68	3436612.51	40.786971	-103.923246
	1645.00	18.44	58.57	1605.12	-139.64	142.18	264.50	0.81	1533426.79	3436620.58	40.786985	-103.923217
Last SLB MWD Survey Projection to TD (165' FNL, 1610' FEL)	1657.00	18.33	59.29	1616.51	-141.56	144.13	267.74	2.10	1533428.80	3436623.79	40.786990	-103.923205
	1722.00	18.33	59.29	1678.21	-151.83	154.57	285.32	0.00	1533439.55	3436641.17	40.787019	-103.923141

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 0101-16H / Timbro 0101-16H MWD 0' to 1722' Definitive
	1	4.000	4.000	Act Stns	13.500	9.625	B001Mb_MWD+HRGM-Depth Only	Timbro 0101-16H / Timbro 0101-16H MWD 0' to 1722' Definitive
	1	4.000	1722.000	Act Stns	13.500	9.625	B001Mb_MWD+HRGM	Timbro 0101-16H / Timbro 0101-16H MWD 0' to 1722' Definitive

...Timbro 0101-16H\Timbro 0101-16H\Timbro 0101-16H MWD 0' to 1722' Definitive