

VERDAD RESOURCES



Location: COLORADO Slot: SLOT#03 TIMBRO 9-59 8A-9-6(1704'FNL&475'FWL,SEC.08)

Field: WELD COUNTY (NAD83/TN) Well: TIMBRO 9-59 8A-9-6

Facility: SEC.08-T09N-R59W Wellbore: TIMBRO 9-59 8A-9-6 PWB

Plot reference wellpath is TIMBRO 9-59 8A-9-6 (REV-B.0) PWP

True vertical depths are referenced to Big Rig (24KB) (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to Big Rig (24KB) (RKB)	* = Wellpath was transformed from a different geoidic datum
Big Rig (24KB) (RKB) to Mean Sea Level: 5108 feet	North Reference: True north
Mean Sea Level to Ground level (At Slot: SLOT#03 TIMBRO 9-59 8A-9-6(1704'FNL&475'FWL,SEC.08)): 0 feet	Scale: True distance
Coordinates are in feet referenced to Slot	Depths are in feet
	Created by: gunatler on 2019-03-12
	Database: WA_DEN_Demer_Defn

Location Information

Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.08-T09N-R59W	3412704.278	1525987.120	40°46'03.731"N	104°00'36.076"W
Slot	Local N (ft)	Local E (ft)	Latitude	Longitude
SLOT#03 TIMBRO 9-59 8A-9-6(1704'FNL&475'FWL,SEC.08)	-31.66	-0.93	40°46'03.418"N	104°00'36.076"W
Big Rig (24KB) (RKB) to Ground level (At Slot: SLOT#03 TIMBRO 9-59 8A-9-6(1704'FNL&475'FWL,SEC.08))			5108ft	
Mean Sea Level to Ground level (At Slot: SLOT#03 TIMBRO 9-59 8A-9-6(1704'FNL&475'FWL,SEC.08))			OR	
Big Rig (24KB) (RKB) to Mean Sea Level			5108ft	

Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	1846.00	5.830	280.330	1838.19	25.74	-123.66	1.27	-123.14
Tangent/Projection	1923.00	5.830	280.330	1914.80	27.15	-131.35	0.00	-130.81
End of 3D Arc (J)	1991.56	7.201	280.635	1982.91	28.56	-139.00	2.00	-138.43
End of Tangent (J)	4861.58	7.201	280.635	4830.29	94.96	-492.57	0.00	-490.66
End of Drop (XS)	5221.62	0.000	89.517	5189.39	99.13	-514.77	2.00	-512.79
End of Tangent (XS)	5821.62	0.000	89.517	5789.39	99.13	-514.77	0.00	-512.79
Build/Landing Point	6824.48	90.257	89.517	6426.00	104.52	124.68	9.00	126.66
End of Tangent (XS)	16105.76	90.257	89.517	6384.34	182.84	9405.54	0.00	9407.32
3D Arc (J)	16107.06	90.256	89.491	6384.33	182.85	9406.84	2.00	9408.62
Tangent/BHL	16405.76	90.256	89.491	6383.00	185.50	9705.53	0.00	9707.30

Targets

Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
TIMBRO 9-59 8A-9-2 SECTION 08	16.00	31.66	0.03	3412704.28	1525987.12	40°46'03.731"N	104°00'36.076"W	
TIMBRO 9-59 8A-9-2 SECTION 09	16.00	31.66	0.03	3412704.28	1525987.12	40°46'03.731"N	104°00'36.076"W	
TIMBRO 9-59 8A-9 REV-2 TARGET BOTTOM HOLE(1600'FNL&300'FEL,SEC.08)	16405.76	6383.00	185.50	9705.53	3422405.78	1526304.01	40°46'05.232"N	103°58'29.939"W
TIMBRO 9-59 8A-9-6 REV-2 ENDING PROD. INTERVAL(1602'FNL&600'FEL,SEC.08)	16105.76	6384.34	182.84	9405.54	3422105.88	1526296.31	40°46'05.207"N	103°58'33.838"W
TIMBRO 9-59 8A-9-6 REV-2 BEG. PROD. INTERVAL(1600'FNL&600'FEL,SEC.08)	6824.48	6426.00	104.52	124.68	3412827.69	1526062.07	40°46'04.451"N	104°00'34.468"W
TIMBRO 9-59 8A-9 REV-1 TARGET BOTTOM HOLE(1600'FNL&300'FEL,SEC.08)	7016.00	185.50	9705.53	3422405.78	1526304.01	40°46'05.232"N	103°58'29.939"W	
TIMBRO 9-59 8A-9-6 BEG. PROD. INTERVAL(1602'FNL&600'FEL,SEC.08)	7016.00	104.52	124.68	3412827.69	1526062.07	40°46'04.451"N	104°00'34.468"W	
TIMBRO 9-59 8A-9-6 ENDING PROD. INTERVAL(1602'FNL&600'FEL,SEC.08)	7016.00	182.83	9405.54	3422105.88	1526296.31	40°46'05.207"N	103°58'33.838"W	

Bottom Hole Location

MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
16405.76	90.256	89.491	6383.00	185.50	9705.53	3422405.78	1526304.01	40°46'05.232"N	103°58'29.939"W

Survey Program

Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
24.00	1846.00	BHI NaviTrak	BHI NaviTrak (Rotating+Axial Corr)		TIMBRO 9-59 8A-9-6 AWB
1846.00	16994.49	BHI AutoTrak Curve	BHI AutoTrak Curve (Short)		TIMBRO 9-59 8A-9-6 PWB

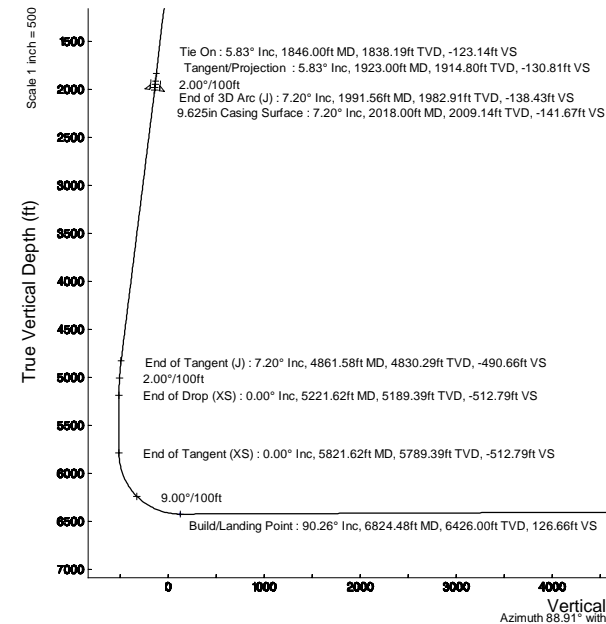
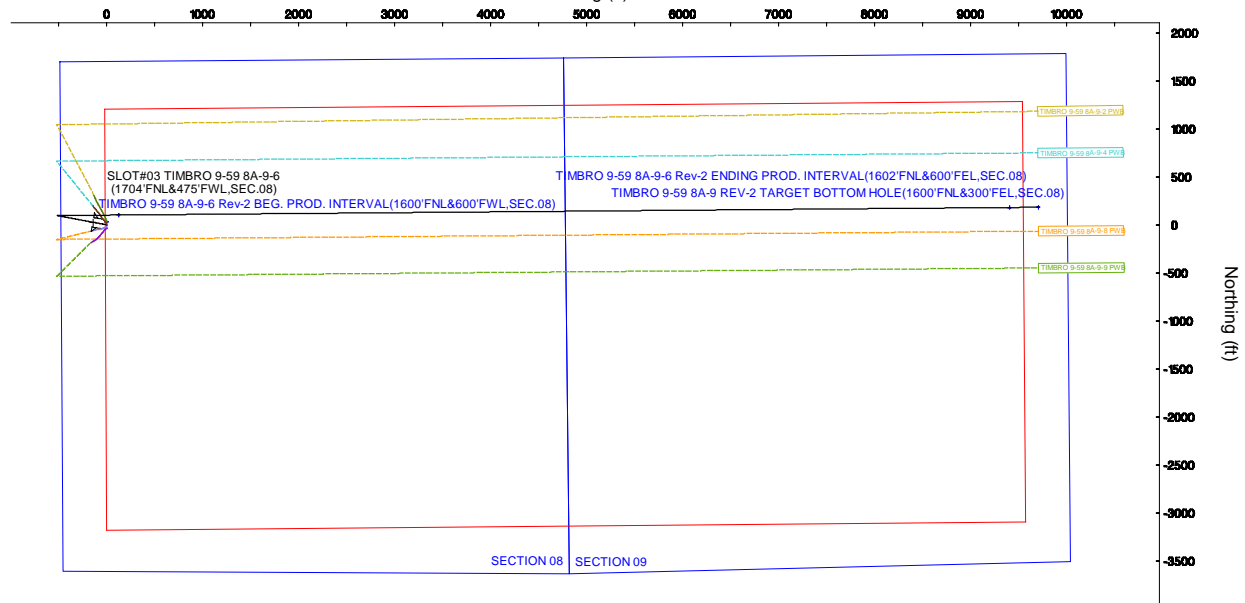


BGGM (1900.0 to 2020.0) Dip: 67.20° Field: 52495.3 nT
Magnetic North is 7.80 degrees East of True North (at 3/6/2019)

To correct azimuth from Magnetic to True add 7.80 degrees

Scale 1 inch = 500

Easting (ft)



Approval

Baker Hughes Representatives		Reviewed by	
Prepared by	Signature	Signature	Position
Date	Position	Date	Position
VERDAD RESOURCES Representative		Position	
Approved by	Signature	Date	Position
Comment			



Planned Wellpath Report

TIMBRO 9-59 8A-9-6 (REV-B.0) PWP

Page 1 of 10



REFERENCE WELLPATH IDENTIFICATION			
Operator	VERDAD RESOURCES	Slot	SLOT#03 TIMBRO 9-59 8A-9-6(1704'FNL&475'FWL,SEC.08)
Area	COLORADO	Well	TIMBRO 9-59 8A-9-6
Field	WELD COUNTY (NAD83/TN)	Wellbore	TIMBRO 9-59 8A-9-6 PWB
Facility	SEC.08-T09N-R59W		

REPORT SETUP INFORMATION			
Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 5.0
North Reference	True	User	Guenaler
Scale	0.999997	Report Generated	3/12/2019 at 3:59:57 PM
Convergence at slot	0.97° East	Database/Source file	WA_DEN_Denver_Defn/TIMBRO_9-59_8A-9-6__REV-B.0__PWP.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-31.66	-0.03	3412704.78	1525955.47	40°46'03.418"N	104°00'36.076"W
Facility Reference Pt			3412704.28	1525987.12	40°46'03.731"N	104°00'36.076"W
Field Reference Pt			3242930.13	1254608.21	40°01'44.490"N	104°37'56.946"W

WELLPATH DATUM			
Calculation method	Minimum curvature	Big Rig (24'KB (RKB) to Facility Vertical Datum	5108.00ft
Horizontal Reference Pt	Slot	Big Rig (24'KB (RKB) to Mean Sea Level	5108.00ft
Vertical Reference Pt	Big Rig (24'KB (RKB)	Big Rig (24'KB (RKB) to Ground Level at Slot (SLOT#03 TIMBRO 9-59 8A-9-6(1704'FNL&475'FWL,SEC.08))	5108.00ft
MD Reference Pt	Big Rig (24'KB (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	88.91°



Planned Wellpath Report
TIMBRO 9-59 8A-9-6 (REV-B.0) PWP
Page 2 of 10



REFERENCE WELLPATH IDENTIFICATION			
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Area	COLORADO	Well	TIMBRO 9-59 8A-9-6
Field	WELD COUNTY (NAD83/TN)	Wellbore	TIMBRO 9-59 8A-9-6 PWB
Facility	SEC.08-T09N-R59W		

WELLPATH DATA (177 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00†	0.000	57.180	0.00	0.00	0.00	0.00	40°46'03.418"N	104°00'36.076"W	0.00	
24.00	0.000	57.180	24.00	0.00	0.00	0.00	40°46'03.418"N	104°00'36.076"W	0.00	
107.00	0.590	57.180	107.00	0.36	0.23	0.36	40°46'03.420"N	104°00'36.071"W	0.71	
197.00	0.680	66.420	196.99	1.25	0.70	1.24	40°46'03.425"N	104°00'36.060"W	0.15	
284.00	0.330	69.790	283.99	1.96	0.99	1.95	40°46'03.428"N	104°00'36.051"W	0.40	
376.00	0.390	95.620	375.99	2.53	1.05	2.51	40°46'03.428"N	104°00'36.043"W	0.19	
466.00	0.370	111.210	465.99	3.10	0.92	3.08	40°46'03.427"N	104°00'36.036"W	0.12	
556.00	0.490	89.800	555.98	3.75	0.81	3.74	40°46'03.426"N	104°00'36.027"W	0.22	
646.00	0.550	291.890	645.98	3.74	0.97	3.72	40°46'03.428"N	104°00'36.028"W	1.13	
736.00	1.580	271.270	735.97	2.10	1.16	2.08	40°46'03.429"N	104°00'36.049"W	1.20	
826.00	3.770	284.170	825.86	-1.99	1.91	-2.03	40°46'03.437"N	104°00'36.102"W	2.51	
916.00	7.100	283.960	915.45	-10.22	3.98	-10.30	40°46'03.457"N	104°00'36.210"W	3.70	
1006.00	8.270	281.740	1004.64	-21.90	6.64	-22.03	40°46'03.484"N	104°00'36.362"W	1.34	
1096.00	8.100	281.630	1093.72	-34.40	9.24	-34.58	40°46'03.509"N	104°00'36.525"W	0.19	
1186.00	7.760	279.910	1182.86	-46.55	11.56	-46.78	40°46'03.532"N	104°00'36.684"W	0.46	
1276.00	7.340	281.670	1272.08	-58.12	13.77	-58.39	40°46'03.554"N	104°00'36.835"W	0.53	
1366.00	7.070	280.430	1361.37	-69.15	15.93	-69.47	40°46'03.575"N	104°00'36.979"W	0.35	
1456.00	6.700	278.980	1450.72	-79.75	17.76	-80.10	40°46'03.593"N	104°00'37.117"W	0.45	
1546.00	6.720	281.270	1540.10	-90.06	19.60	-90.45	40°46'03.612"N	104°00'37.252"W	0.30	
1636.00	6.620	280.120	1629.49	-100.29	21.54	-100.72	40°46'03.631"N	104°00'37.385"W	0.19	
1726.00	6.450	280.470	1718.91	-110.34	23.37	-110.80	40°46'03.649"N	104°00'37.516"W	0.19	
1816.00	6.210	280.450	1808.36	-120.06	25.18	-120.56	40°46'03.667"N	104°00'37.643"W	0.27	
1846.00	5.830	280.330	1838.19	-123.14	25.74	-123.66	40°46'03.672"N	104°00'37.683"W	1.27	Tie On
1923.00	5.830	280.330	1914.80	-130.81	27.15	-131.35	40°46'03.686"N	104°00'37.783"W	0.00	Tangent/Projection
1946.00†	6.290	280.447	1937.67	-133.19	27.58	-133.74	40°46'03.691"N	104°00'37.814"W	2.00	
1991.56	7.201	280.635	1982.91	-138.43	28.56	-139.00	40°46'03.700"N	104°00'37.882"W	2.00	End of 3D Arc (J)
2046.00†	7.201	280.635	2036.92	-145.11	29.82	-145.71	40°46'03.713"N	104°00'37.970"W	0.00	
2146.00†	7.201	280.635	2136.13	-157.38	32.14	-158.03	40°46'03.736"N	104°00'38.130"W	0.00	
2246.00†	7.201	280.635	2235.34	-169.66	34.45	-170.34	40°46'03.758"N	104°00'38.290"W	0.00	
2346.00†	7.201	280.635	2334.56	-181.93	36.76	-182.66	40°46'03.781"N	104°00'38.450"W	0.00	



Planned Wellpath Report
TIMBRO 9-59 8A-9-6 (REV-B.0) PWP
Page 3 of 10



REFERENCE WELLPATH IDENTIFICATION			
Operator	VERDAD RESOURCES	Slot	SLOT#03 TIMBRO 9-59 8A-9-6(1704'FNL&475'FWL,SEC.08)
Area	COLORADO	Well	TIMBRO 9-59 8A-9-6
Field	WELD COUNTY (NAD83/TN)	Wellbore	TIMBRO 9-59 8A-9-6 PWB
Facility	SEC.08-T09N-R59W		

WELLPATH DATA (177 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
2446.00†	7.201	280.635	2433.77	-194.20	39.08	-194.98	40°46'03.804"N	104°00'38.610"W	0.00	
2546.00†	7.201	280.635	2532.98	-206.47	41.39	-207.30	40°46'03.827"N	104°00'38.770"W	0.00	
2646.00†	7.201	280.635	2632.19	-218.75	43.70	-219.62	40°46'03.850"N	104°00'38.930"W	0.00	
2746.00†	7.201	280.635	2731.40	-231.02	46.02	-231.94	40°46'03.873"N	104°00'39.090"W	0.00	
2846.00†	7.201	280.635	2830.61	-243.29	48.33	-244.26	40°46'03.896"N	104°00'39.250"W	0.00	
2946.00†	7.201	280.635	2929.82	-255.57	50.64	-256.58	40°46'03.918"N	104°00'39.411"W	0.00	
3046.00†	7.201	280.635	3029.03	-267.84	52.96	-268.90	40°46'03.941"N	104°00'39.571"W	0.00	
3146.00†	7.201	280.635	3128.25	-280.11	55.27	-281.22	40°46'03.964"N	104°00'39.731"W	0.00	
3246.00†	7.201	280.635	3227.46	-292.38	57.58	-293.54	40°46'03.987"N	104°00'39.891"W	0.00	
3346.00†	7.201	280.635	3326.67	-304.66	59.90	-305.86	40°46'04.010"N	104°00'40.051"W	0.00	
3446.00†	7.201	280.635	3425.88	-316.93	62.21	-318.18	40°46'04.033"N	104°00'40.211"W	0.00	
3546.00†	7.201	280.635	3525.09	-329.20	64.52	-330.50	40°46'04.056"N	104°00'40.371"W	0.00	
3646.00†	7.201	280.635	3624.30	-341.48	66.84	-342.82	40°46'04.078"N	104°00'40.531"W	0.00	
3746.00†	7.201	280.635	3723.51	-353.75	69.15	-355.13	40°46'04.101"N	104°00'40.691"W	0.00	
3846.00†	7.201	280.635	3822.72	-366.02	71.46	-367.45	40°46'04.124"N	104°00'40.852"W	0.00	
3946.00†	7.201	280.635	3921.94	-378.29	73.78	-379.77	40°46'04.147"N	104°00'41.012"W	0.00	
4046.00†	7.201	280.635	4021.15	-390.57	76.09	-392.09	40°46'04.170"N	104°00'41.172"W	0.00	
4146.00†	7.201	280.635	4120.36	-402.84	78.40	-404.41	40°46'04.193"N	104°00'41.332"W	0.00	
4246.00†	7.201	280.635	4219.57	-415.11	80.72	-416.73	40°46'04.216"N	104°00'41.492"W	0.00	
4346.00†	7.201	280.635	4318.78	-427.39	83.03	-429.05	40°46'04.238"N	104°00'41.652"W	0.00	
4446.00†	7.201	280.635	4417.99	-439.66	85.34	-441.37	40°46'04.261"N	104°00'41.812"W	0.00	
4546.00†	7.201	280.635	4517.20	-451.93	87.66	-453.69	40°46'04.284"N	104°00'41.972"W	0.00	
4646.00†	7.201	280.635	4616.42	-464.20	89.97	-466.01	40°46'04.307"N	104°00'42.132"W	0.00	
4746.00†	7.201	280.635	4715.63	-476.48	92.28	-478.33	40°46'04.330"N	104°00'42.293"W	0.00	
4846.00†	7.201	280.635	4814.84	-488.75	94.60	-490.65	40°46'04.353"N	104°00'42.453"W	0.00	
4861.58	7.201	280.635	4830.29	-490.66	94.96	-492.57	40°46'04.356"N	104°00'42.478"W	0.00	End of Tangent (J)
4946.00†	5.512	280.635	4914.19	-499.81	96.68	-501.75	40°46'04.373"N	104°00'42.597"W	2.00	
5046.00†	3.512	280.635	5013.88	-507.52	98.14	-509.48	40°46'04.388"N	104°00'42.697"W	2.00	
5146.00†	1.512	280.635	5113.78	-511.81	98.94	-513.79	40°46'04.396"N	104°00'42.753"W	2.00	
5221.62	0.000	89.517	5189.39	-512.79	99.13	-514.77	40°46'04.397"N	104°00'42.766"W	2.00	End of Drop (XS)



Planned Wellpath Report

TIMBRO 9-59 8A-9-6 (REV-B.0) PWP

Page 4 of 10



REFERENCE WELLPATH IDENTIFICATION			
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Area	COLORADO	Well	TIMBRO 9-59 8A-9-6
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Facility	SEC.08-T09N-R59W		

WELLPATH DATA (177 stations) † = interpolated/extrapolated station											
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments	
5246.00†	0.000	89.517	5213.77	-512.79	99.13	-514.77	40°46'04.397"N	104°00'42.766"W	0.00		
5346.00†	0.000	89.517	5313.77	-512.79	99.13	-514.77	40°46'04.397"N	104°00'42.766"W	0.00		
5446.00†	0.000	89.517	5413.77	-512.79	99.13	-514.77	40°46'04.397"N	104°00'42.766"W	0.00		
5546.00†	0.000	89.517	5513.77	-512.79	99.13	-514.77	40°46'04.397"N	104°00'42.766"W	0.00		
5646.00†	0.000	89.517	5613.77	-512.79	99.13	-514.77	40°46'04.397"N	104°00'42.766"W	0.00		
5746.00†	0.000	89.517	5713.77	-512.79	99.13	-514.77	40°46'04.397"N	104°00'42.766"W	0.00		
5821.62	0.000	89.517	5789.39	-512.79	99.13	-514.77	40°46'04.397"N	104°00'42.766"W	0.00	End of Tangent (XS)	
5846.00†	2.194	89.517	5813.76	-512.32	99.13	-514.31	40°46'04.397"N	104°00'42.760"W	9.00		
5946.00†	11.194	89.517	5912.98	-500.67	99.23	-502.66	40°46'04.398"N	104°00'42.609"W	9.00		
6046.00†	20.194	89.517	6009.15	-473.65	99.46	-475.64	40°46'04.401"N	104°00'42.258"W	9.00		
6146.00†	29.194	89.517	6099.91	-431.92	99.81	-433.91	40°46'04.404"N	104°00'41.715"W	9.00		
6246.00†	38.194	89.517	6183.03	-376.50	100.28	-378.49	40°46'04.409"N	104°00'40.995"W	9.00		
6346.00†	47.194	89.517	6256.45	-308.77	100.85	-310.75	40°46'04.414"N	104°00'40.115"W	9.00		
6446.00†	56.194	89.517	6318.37	-230.38	101.51	-232.37	40°46'04.421"N	104°00'39.096"W	9.00		
6546.00†	65.194	89.517	6367.27	-143.28	102.25	-145.26	40°46'04.428"N	104°00'37.964"W	9.00		
6646.00†	74.194	89.517	6401.94	-49.59	103.04	-51.57	40°46'04.436"N	104°00'36.746"W	9.00		
6746.00†	83.194	89.517	6421.52	48.36	103.86	46.39	40°46'04.444"N	104°00'35.473"W	9.00		
6824.48	90.257	89.517	6426.00 ¹	126.66	104.52	124.68	40°46'04.451"N	104°00'34.456"W	9.00	Build/Landing Point	
6846.00†	90.257	89.517	6425.90	148.18	104.71	146.20	40°46'04.453"N	104°00'34.176"W	0.00		
6946.00†	90.257	89.517	6425.45	248.17	105.55	246.20	40°46'04.461"N	104°00'32.876"W	0.00		
7046.00†	90.257	89.517	6425.01	348.16	106.39	346.19	40°46'04.469"N	104°00'31.577"W	0.00		
7146.00†	90.257	89.517	6424.56	448.16	107.24	446.19	40°46'04.478"N	104°00'30.277"W	0.00		
7246.00†	90.257	89.517	6424.11	548.15	108.08	546.19	40°46'04.486"N	104°00'28.978"W	0.00		
7346.00†	90.257	89.517	6423.66	648.14	108.92	646.18	40°46'04.494"N	104°00'27.678"W	0.00		
7446.00†	90.257	89.517	6423.21	748.14	109.77	746.18	40°46'04.503"N	104°00'26.378"W	0.00		
7546.00†	90.257	89.517	6422.76	848.13	110.61	846.17	40°46'04.511"N	104°00'25.079"W	0.00		
7646.00†	90.257	89.517	6422.31	948.12	111.46	946.17	40°46'04.519"N	104°00'23.779"W	0.00		
7746.00†	90.257	89.517	6421.86	1048.12	112.30	1046.16	40°46'04.527"N	104°00'22.480"W	0.00		
7846.00†	90.257	89.517	6421.41	1148.11	113.14	1146.16	40°46'04.536"N	104°00'21.180"W	0.00		
7946.00†	90.257	89.517	6420.97	1248.10	113.99	1246.15	40°46'04.544"N	104°00'19.881"W	0.00		



Planned Wellpath Report
TIMBRO 9-59 8A-9-6 (REV-B.0) PWP
Page 5 of 10



REFERENCE WELLPATH IDENTIFICATION			
Operator	VERDAD RESOURCES	Slot	SLOT#03 TIMBRO 9-59 8A-9-6(1704'FNL&475'FWL,SEC.08)
Area	COLORADO	Well	TIMBRO 9-59 8A-9-6
Field	WELD COUNTY (NAD83/TN)	Wellbore	TIMBRO 9-59 8A-9-6 PWB
Facility	SEC.08-T09N-R59W		

WELLPATH DATA (177 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8046.00†	90.257	89.517	6420.52	1348.10	114.83	1346.15	40°46'04.552"N	104°00'18.581"W	0.00	
8146.00†	90.257	89.517	6420.07	1448.09	115.67	1446.14	40°46'04.561"N	104°00'17.281"W	0.00	
8246.00†	90.257	89.517	6419.62	1548.08	116.52	1546.14	40°46'04.569"N	104°00'15.982"W	0.00	
8346.00†	90.257	89.517	6419.17	1648.08	117.36	1646.14	40°46'04.577"N	104°00'14.682"W	0.00	
8446.00†	90.257	89.517	6418.72	1748.07	118.21	1746.13	40°46'04.585"N	104°00'13.383"W	0.00	
8546.00†	90.257	89.517	6418.27	1848.06	119.05	1846.13	40°46'04.594"N	104°00'12.083"W	0.00	
8646.00†	90.257	89.517	6417.82	1948.06	119.89	1946.12	40°46'04.602"N	104°00'10.783"W	0.00	
8746.00†	90.257	89.517	6417.38	2048.05	120.74	2046.12	40°46'04.610"N	104°00'09.484"W	0.00	
8846.00†	90.257	89.517	6416.93	2148.04	121.58	2146.11	40°46'04.618"N	104°00'08.184"W	0.00	
8946.00†	90.257	89.517	6416.48	2248.04	122.42	2246.11	40°46'04.627"N	104°00'06.885"W	0.00	
9046.00†	90.257	89.517	6416.03	2348.03	123.27	2346.10	40°46'04.635"N	104°00'05.585"W	0.00	
9146.00†	90.257	89.517	6415.58	2448.02	124.11	2446.10	40°46'04.643"N	104°00'04.286"W	0.00	
9246.00†	90.257	89.517	6415.13	2548.02	124.96	2546.09	40°46'04.651"N	104°00'02.986"W	0.00	
9346.00†	90.257	89.517	6414.68	2648.01	125.80	2646.09	40°46'04.660"N	104°00'01.686"W	0.00	
9446.00†	90.257	89.517	6414.23	2748.00	126.64	2746.09	40°46'04.668"N	104°00'00.387"W	0.00	
9546.00†	90.257	89.517	6413.78	2848.00	127.49	2846.08	40°46'04.676"N	103°59'59.087"W	0.00	
9646.00†	90.257	89.517	6413.34	2947.99	128.33	2946.08	40°46'04.684"N	103°59'57.788"W	0.00	
9746.00†	90.257	89.517	6412.89	3047.98	129.17	3046.07	40°46'04.693"N	103°59'56.488"W	0.00	
9846.00†	90.257	89.517	6412.44	3147.98	130.02	3146.07	40°46'04.701"N	103°59'55.188"W	0.00	
9946.00†	90.257	89.517	6411.99	3247.97	130.86	3246.06	40°46'04.709"N	103°59'53.889"W	0.00	
10046.00†	90.257	89.517	6411.54	3347.96	131.71	3346.06	40°46'04.717"N	103°59'52.589"W	0.00	
10146.00†	90.257	89.517	6411.09	3447.96	132.55	3446.05	40°46'04.725"N	103°59'51.290"W	0.00	
10246.00†	90.257	89.517	6410.64	3547.95	133.39	3546.05	40°46'04.734"N	103°59'49.990"W	0.00	
10346.00†	90.257	89.517	6410.19	3647.94	134.24	3646.04	40°46'04.742"N	103°59'48.691"W	0.00	
10446.00†	90.257	89.517	6409.74	3747.94	135.08	3746.04	40°46'04.750"N	103°59'47.391"W	0.00	
10546.00†	90.257	89.517	6409.30	3847.93	135.92	3846.03	40°46'04.758"N	103°59'46.091"W	0.00	
10646.00†	90.257	89.517	6408.85	3947.92	136.77	3946.03	40°46'04.766"N	103°59'44.792"W	0.00	
10746.00†	90.257	89.517	6408.40	4047.92	137.61	4046.03	40°46'04.774"N	103°59'43.492"W	0.00	
10846.00†	90.257	89.517	6407.95	4147.91	138.46	4146.02	40°46'04.783"N	103°59'42.193"W	0.00	
10946.00†	90.257	89.517	6407.50	4247.90	139.30	4246.02	40°46'04.791"N	103°59'40.893"W	0.00	



Planned Wellpath Report
TIMBRO 9-59 8A-9-6 (REV-B.0) PWP
Page 6 of 10



REFERENCE WELLPATH IDENTIFICATION			
Operator	VERDAD RESOURCES	Slot	SLOT#03 TIMBRO 9-59 8A-9-6(1704'FNL&475'FWL,SEC.08)
Area	COLORADO	Well	TIMBRO 9-59 8A-9-6
Field	WELD COUNTY (NAD83/TN)	Wellbore	TIMBRO 9-59 8A-9-6 PWB
Facility	SEC.08-T09N-R59W		

WELLPATH DATA (177 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11046.00†	90.257	89.517	6407.05	4347.90	140.14	4346.01	40°46'04.799"N	103°59'39.593"W	0.00	
11146.00†	90.257	89.517	6406.60	4447.89	140.99	4446.01	40°46'04.807"N	103°59'38.294"W	0.00	
11246.00†	90.257	89.517	6406.15	4547.88	141.83	4546.00	40°46'04.815"N	103°59'36.994"W	0.00	
11346.00†	90.257	89.517	6405.70	4647.88	142.67	4646.00	40°46'04.823"N	103°59'35.695"W	0.00	
11446.00†	90.257	89.517	6405.26	4747.87	143.52	4745.99	40°46'04.832"N	103°59'34.395"W	0.00	
11546.00†	90.257	89.517	6404.81	4847.86	144.36	4845.99	40°46'04.840"N	103°59'33.096"W	0.00	
11646.00†	90.257	89.517	6404.36	4947.86	145.21	4945.98	40°46'04.848"N	103°59'31.796"W	0.00	
11746.00†	90.257	89.517	6403.91	5047.85	146.05	5045.98	40°46'04.856"N	103°59'30.496"W	0.00	
11846.00†	90.257	89.517	6403.46	5147.84	146.89	5145.98	40°46'04.864"N	103°59'29.197"W	0.00	
11946.00†	90.257	89.517	6403.01	5247.84	147.74	5245.97	40°46'04.872"N	103°59'27.897"W	0.00	
12046.00†	90.257	89.517	6402.56	5347.83	148.58	5345.97	40°46'04.880"N	103°59'26.598"W	0.00	
12146.00†	90.257	89.517	6402.11	5447.82	149.42	5445.96	40°46'04.888"N	103°59'25.298"W	0.00	
12246.00†	90.257	89.517	6401.66	5547.82	150.27	5545.96	40°46'04.897"N	103°59'23.998"W	0.00	
12346.00†	90.257	89.517	6401.22	5647.81	151.11	5645.95	40°46'04.905"N	103°59'22.699"W	0.00	
12446.00†	90.257	89.517	6400.77	5747.80	151.96	5745.95	40°46'04.913"N	103°59'21.399"W	0.00	
12546.00†	90.257	89.517	6400.32	5847.80	152.80	5845.94	40°46'04.921"N	103°59'20.100"W	0.00	
12646.00†	90.257	89.517	6399.87	5947.79	153.64	5945.94	40°46'04.929"N	103°59'18.800"W	0.00	
12746.00†	90.257	89.517	6399.42	6047.78	154.49	6045.93	40°46'04.937"N	103°59'17.501"W	0.00	
12846.00†	90.257	89.517	6398.97	6147.78	155.33	6145.93	40°46'04.945"N	103°59'16.201"W	0.00	
12946.00†	90.257	89.517	6398.52	6247.77	156.17	6245.93	40°46'04.953"N	103°59'14.901"W	0.00	
13046.00†	90.257	89.517	6398.07	6347.76	157.02	6345.92	40°46'04.961"N	103°59'13.602"W	0.00	
13146.00†	90.257	89.517	6397.63	6447.76	157.86	6445.92	40°46'04.969"N	103°59'12.302"W	0.00	
13246.00†	90.257	89.517	6397.18	6547.75	158.71	6545.91	40°46'04.978"N	103°59'11.003"W	0.00	
13346.00†	90.257	89.517	6396.73	6647.74	159.55	6645.91	40°46'04.986"N	103°59'09.703"W	0.00	
13446.00†	90.257	89.517	6396.28	6747.74	160.39	6745.90	40°46'04.994"N	103°59'08.403"W	0.00	
13546.00†	90.257	89.517	6395.83	6847.73	161.24	6845.90	40°46'05.002"N	103°59'07.104"W	0.00	
13646.00†	90.257	89.517	6395.38	6947.72	162.08	6945.89	40°46'05.010"N	103°59'05.804"W	0.00	
13746.00†	90.257	89.517	6394.93	7047.72	162.92	7045.89	40°46'05.018"N	103°59'04.505"W	0.00	
13846.00†	90.257	89.517	6394.48	7147.71	163.77	7145.88	40°46'05.026"N	103°59'03.205"W	0.00	
13946.00†	90.257	89.517	6394.03	7247.70	164.61	7245.88	40°46'05.034"N	103°59'01.906"W	0.00	



Planned Wellpath Report
TIMBRO 9-59 8A-9-6 (REV-B.0) PWP
Page 7 of 10



REFERENCE WELLPATH IDENTIFICATION			
Operator	VERDAD RESOURCES	Slot	SLOT#03 TIMBRO 9-59 8A-9-6(1704'FNL&475'FWL,SEC.08)
Area	COLORADO	Well	TIMBRO 9-59 8A-9-6
Field	WELD COUNTY (NAD83/TN)	Wellbore	TIMBRO 9-59 8A-9-6 PWB
Facility	SEC.08-T09N-R59W		

WELLPATH DATA (177 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
14046.00†	90.257	89.517	6393.59	7347.70	165.46	7345.87	40°46'05.042"N	103°59'00.606"W	0.00	
14146.00†	90.257	89.517	6393.14	7447.69	166.30	7445.87	40°46'05.050"N	103°58'59.306"W	0.00	
14246.00†	90.257	89.517	6392.69	7547.68	167.14	7545.87	40°46'05.058"N	103°58'58.007"W	0.00	
14346.00†	90.257	89.517	6392.24	7647.68	167.99	7645.86	40°46'05.066"N	103°58'56.707"W	0.00	
14446.00†	90.257	89.517	6391.79	7747.67	168.83	7745.86	40°46'05.074"N	103°58'55.408"W	0.00	
14546.00†	90.257	89.517	6391.34	7847.66	169.67	7845.85	40°46'05.082"N	103°58'54.108"W	0.00	
14646.00†	90.257	89.517	6390.89	7947.66	170.52	7945.85	40°46'05.090"N	103°58'52.808"W	0.00	
14746.00†	90.257	89.517	6390.44	8047.65	171.36	8045.84	40°46'05.098"N	103°58'51.509"W	0.00	
14846.00†	90.257	89.517	6389.99	8147.64	172.21	8145.84	40°46'05.106"N	103°58'50.209"W	0.00	
14946.00†	90.257	89.517	6389.55	8247.64	173.05	8245.83	40°46'05.114"N	103°58'48.910"W	0.00	
15046.00†	90.257	89.517	6389.10	8347.63	173.89	8345.83	40°46'05.122"N	103°58'47.610"W	0.00	
15146.00†	90.257	89.517	6388.65	8447.62	174.74	8445.82	40°46'05.130"N	103°58'46.310"W	0.00	
15246.00†	90.257	89.517	6388.20	8547.61	175.58	8545.82	40°46'05.138"N	103°58'45.011"W	0.00	
15346.00†	90.257	89.517	6387.75	8647.61	176.42	8645.82	40°46'05.146"N	103°58'43.711"W	0.00	
15446.00†	90.257	89.517	6387.30	8747.60	177.27	8745.81	40°46'05.154"N	103°58'42.412"W	0.00	
15546.00†	90.257	89.517	6386.85	8847.59	178.11	8845.81	40°46'05.162"N	103°58'41.112"W	0.00	
15646.00†	90.257	89.517	6386.40	8947.59	178.96	8945.80	40°46'05.170"N	103°58'39.813"W	0.00	
15746.00†	90.257	89.517	6385.95	9047.58	179.80	9045.80	40°46'05.178"N	103°58'38.513"W	0.00	
15846.00†	90.257	89.517	6385.51	9147.57	180.64	9145.79	40°46'05.186"N	103°58'37.213"W	0.00	
15946.00†	90.257	89.517	6385.06	9247.57	181.49	9245.79	40°46'05.194"N	103°58'35.914"W	0.00	
16046.00†	90.257	89.517	6384.61	9347.56	182.33	9345.78	40°46'05.202"N	103°58'34.614"W	0.00	
16105.76	90.257	89.517	6384.34 ²	9407.32	182.84	9405.54	40°46'05.207"N	103°58'33.838"W	0.00	End of Tangent (XS)
16107.06	90.256	89.491	6384.33	9408.62	182.85	9406.84	40°46'05.207"N	103°58'33.821"W	2.00	3D Arc (J)
16146.00†	90.256	89.491	6384.16	9447.55	183.19	9445.78	40°46'05.210"N	103°58'33.315"W	0.00	
16246.00†	90.256	89.491	6383.71	9547.55	184.08	9545.77	40°46'05.219"N	103°58'32.015"W	0.00	
16346.00†	90.256	89.491	6383.27	9647.54	184.97	9645.77	40°46'05.227"N	103°58'30.715"W	0.00	
16405.76	90.256	89.491	6383.00 ³	9707.30	185.50	9705.53	40°46'05.232"N	103°58'29.939"W	0.00	Tangent/BHL





Planned Wellpath Report

TIMBRO 9-59 8A-9-6 (REV-B.0) PWP

Page 9 of 10



REFERENCE WELLPATH IDENTIFICATION			
Operator	VERDAD RESOURCES	Slot	SLOT#03 TIMBRO 9-59 8A-9-6(1704'FNL&475'FWL,SEC.08)
Area	COLORADO	Well	TIMBRO 9-59 8A-9-6
Field	WELD COUNTY (NAD83/TN)	Wellbore	TIMBRO 9-59 8A-9-6 PWB
Facility	SEC.08-T09N-R59W		

SURVEY PROGRAM - Ref Wellbore: TIMBRO 9-59 8A-9-6 PWB Ref Wellpath: TIMBRO 9-59 8A-9-6 (REV-B.0) PWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
24.00	1846.00	BHI NaviTrak (Rotating+Axial Corr)		TIMBRO 9-59 8A-9-6 AWB
1846.00	16994.49	BHI AutoTrak Curve (Short)		TIMBRO 9-59 8A-9-6 PWB



Planned Wellpath Report
TIMBRO 9-59 8A-9-6 (REV-B.0) PWP
Page 10 of 10



REFERENCE WELLPATH IDENTIFICATION			
Operator	VERDAD RESOURCES	Slot	SLOT#03 TIMBRO 9-59 8A-9-6(1704'FNL&475'FWL,SEC.08)
Area	COLORADO	Well	TIMBRO 9-59 8A-9-6
Field	WELD COUNTY (NAD83/TN)	Wellbore	TIMBRO 9-59 8A-9-6 PWB
Facility	SEC.08-T09N-R59W		

DESIGN COMMENTS					
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment	
1846.00	5.830	280.330	1838.19	Tie On	
1923.00	5.830	280.330	1914.80	Tangent/Projection	
1991.56	7.201	280.635	1982.91	End of 3D Arc (J)	
4861.58	7.201	280.635	4830.29	End of Tangent (J)	
5221.62	0.000	89.517	5189.39	End of Drop (XS)	
5821.62	0.000	89.517	5789.39	End of Tangent (XS)	
6824.48	90.257	89.517	6426.00	Build/Landing Point	
16105.76	90.257	89.517	6384.34	End of Tangent (XS)	
16107.06	90.256	89.491	6384.33	3D Arc (J)	
16405.76	90.256	89.491	6383.00	Tangent/BHL	