

# VERDAD OIL & GAS CORPORATION

Location: COLORADO Slot: SLOT#10 HOMESTEAD 10 (2444'FSL & 1374'FEL, SEC.34)  
Field: WELD COUNTY (NAD83/TN) Well: HOMESTEAD 10  
Facility: SEC.34-T1N-R66W Wellbore: HOMESTEAD 10 PWB

Plot reference wellpath is HOMESTEAD 10 (REV-A.0) PWP  
Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet  
True vertical depths are referenced to XTREME 20 (16RXB+5137'GL) (RKB) \* - Wellpath was transformed from a different geodetic datum  
Measured depths are referenced to XTREME 20 (16RXB+5137'GL) (RKB) North Reference: True north  
XTREME 20 (16RXB+5137'GL) (RKB) to Mean Sea Level: 5153 feet Scale: True distance  
Mean Sea Level to Mud line (At Slot: SLOT#10 HOMESTEAD 10 (2444'FSL & 1374'FEL, SEC.34)): 0 feet Depths are in feet  
Coordinates are in feet referenced to Slot Created by: gualtner on 2018-02-01  
Database: WA\_DEN\_Denver\_Deth

## Location Information

Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.34-T1N-R66W	3207958.837	1246340.128	40°00'25.920"N	104°45'27.396"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)
SLOT#10 HOMESTEAD 10 (2444'FSL & 1374'FEL, SEC.34)	0.00	-324.96	3207633.904	1246337.410
XTREME 20 (16RXB+5137'GL) (RKB) to Mud line (At Slot: SLOT#10 HOMESTEAD 10 (2444'FSL & 1374'FEL, SEC.34))				5153ft
Mean Sea Level to Mud line (At Slot: SLOT#10 HOMESTEAD 10 (2444'FSL & 1374'FEL, SEC.34))				0ft
XTREME 20 (16RXB+5137'GL) (RKB) to Mean Sea Level				5153ft

## 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
19957.48	90.024	179.265	7482.00	-12221.79	-1247.21	3206488.94	1234106.07	39°58'25.140"N	104°45'47.592"W

## Well Profile Data

Design Comment	MD (ft)	Inc. (°)	Az. (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (ft/100ft)	VS (ft)
Tie On	16.00	0.000	283.800	16.00	0.00	0.00	0.00	0.00
End of Tangent	1725.00	0.000	283.800	1725.00	0.00	0.00	0.00	0.00
End of Build	2478.98	15.080	283.800	2470.31	23.53	-95.80	2.00	-13.68
End of Tangent	7062.92	15.080	283.800	6896.40	308.01	-1253.94	0.00	-179.12
End of 3D Arc	8000.60	90.024	179.265	7482.00	-265.89	-1400.69	10.00	406.72
End of Tangent	19957.48	90.024	179.265	7482.00	-12221.79	-1247.21	0.00	12285.26

## Targets

Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (ft)	Grid North (ft)	Latitude	Longitude
HOMESTEAD 1 SEC.34-T1N-R66W	-230	-584	-1637	320761.08	1246333.07	40°00'25.920"N	104°45'27.396"W	
HOMESTEAD 1 SEC.10-T1S-R66W	-230	-584	-1637	320761.08	1246333.07	40°00'25.920"N	104°45'27.396"W	
HOMESTEAD 1 SEC.3-T1S-R66W	-230	-584	-1637	320761.08	1246333.07	40°00'25.920"N	104°45'27.396"W	
HOMESTEAD 10BHL ON PLAT, REV-1 (460'FSL & 2180'FWL, SEC.10)	19957.48	90.024	-1221.79	-1247.21	3206488.94	1234106.07	39°58'25.140"N	104°45'47.592"W
HOMESTEAD 10EP, REV-1 (2181'FSL & 2501'FWL, SEC.34)	7062.92	15.080	283.800	6896.40	308.01	-1253.94	0.00	-179.12
HOMESTEAD 10 SEC.34-T1N-R66W (460'FSL & 2180'FWL, SEC.34)	7062.92	15.080	283.800	6896.40	308.01	-1253.94	0.00	-179.12
HOMESTEAD 10 SEC.3-T1S-R66W (460'FSL & 2180'FWL, SEC.3)	7062.92	15.080	283.800	6896.40	308.01	-1253.94	0.00	-179.12
HOMESTEAD 10 SEC.10-T1S-R66W (460'FSL & 2180'FWL, SEC.10)	7062.92	15.080	283.800	6896.40	308.01	-1253.94	0.00	-179.12
HOMESTEAD 10 SEC.3-T1S-R66W (460'FSL & 2180'FWL, SEC.3)	7062.92	15.080	283.800	6896.40	308.01	-1253.94	0.00	-179.12

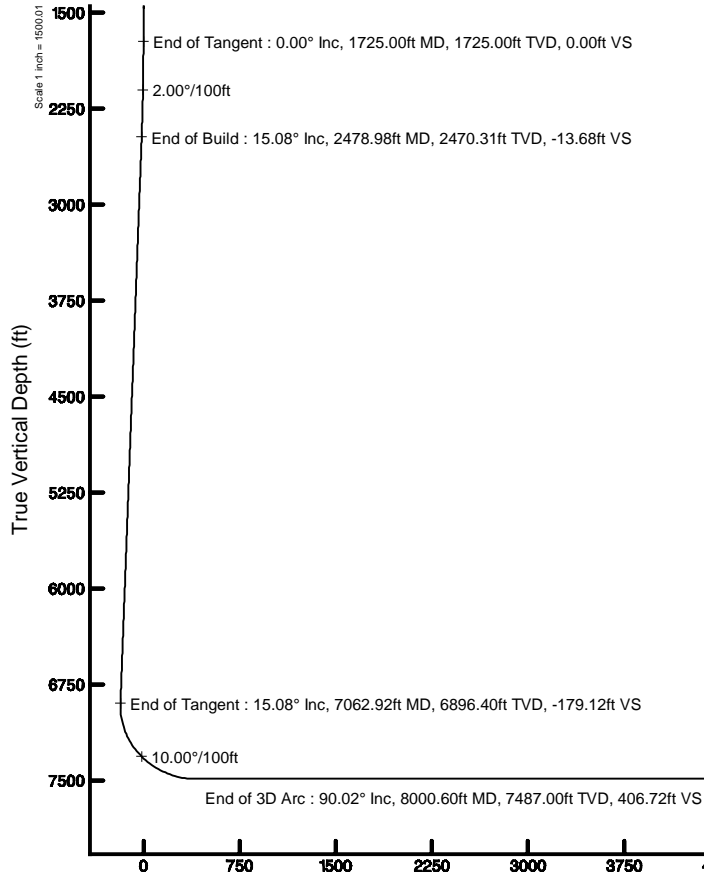
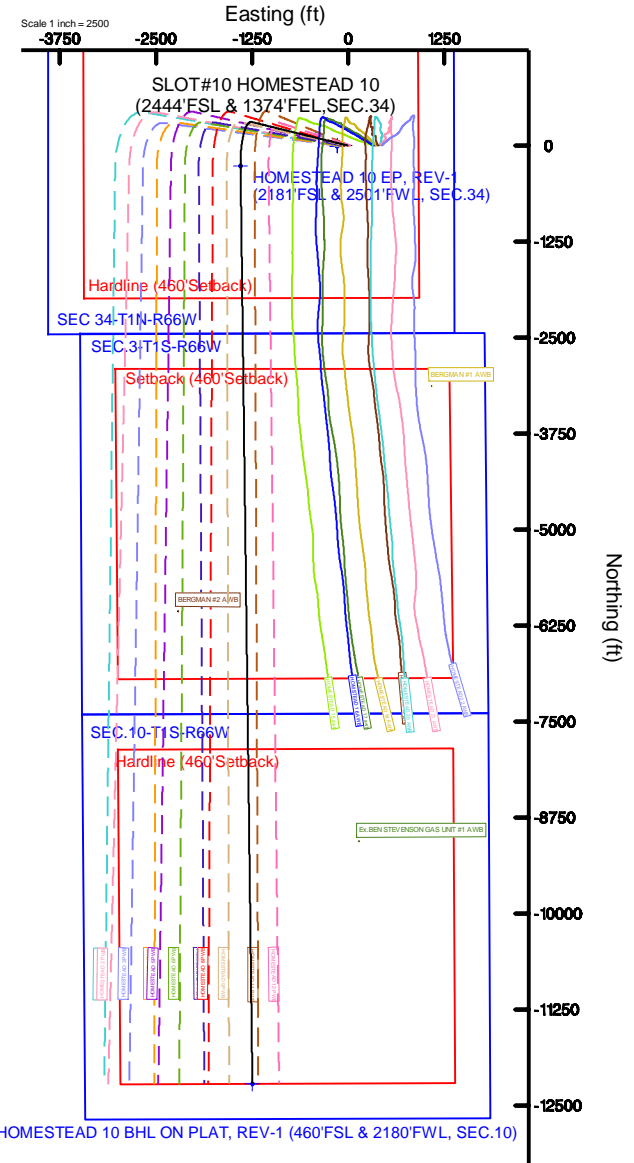


BGGM (1900.0 to 2019.0) Dip: 66.54° Field: 52093.4 nT  
Magnetic North is 8.30 degrees East of True North (at 1/25/2018)

To correct azimuth from Magnetic to True add 8.30 degrees

## Survey Program

Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
16.00	19957.48	BHI NavTrak	BHI NavTrak (Rotating+Axial Corr)		HOMESTEAD 10 PWB



Azimuth 185.83° with reference 0.00 N, 0.00 E



# Planned Wellpath Report

HOMESTEAD 10 (REV-A.0) PWP

Page 1 of 10



REFERENCE WELLPATH IDENTIFICATION			
Operator	VERDAD OIL & GAS CORPORATION	Slot	SLOT#10 HOMESTEAD 10 (2444'FSL & 1374'FEL,SEC.34)
Area	COLORADO	Well	HOMESTEAD 10
Field	WELD COUNTY (NAD83/TN)	Wellbore	HOMESTEAD 10 PWB
Facility	SEC.34-T1N-R66W		

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	0.999966	Report Generated	1/31/2018 at 5:22:09 PM
Convergence at slot	0.48° East	Database/Source file	WA_DEN_Denver_Defn/HOMESTEAD_10__REV-A.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	0.00	-324.96	3207633.90	1246337.41	40°00'25.920"N	104°45'31.572"W
Facility Reference Pt			3207958.84	1246340.13	40°00'25.920"N	104°45'27.396"W
Field Reference Pt			3242930.13	1254608.21	40°01'44.490"N	104°37'56.946"W

WELLPATH DATUM			
Calculation method	Minimum curvature	XTREME 20 (16'RKB+5137'GL) (RKB) to Facility Vertical Datum	5153.00ft
Horizontal Reference Pt	Slot	XTREME 20 (16'RKB+5137'GL) (RKB) to Mean Sea Level	5153.00ft
Vertical Reference Pt	XTREME 20 (16'RKB+5137'GL) (RKB)	XTREME 20 (16'RKB+5137'GL) (RKB) to Mud Line at Slot (SLOT#10 HOMESTEAD 10 (2444'FSL & 1374'FEL,SEC.34))	5153.00ft
MD Reference Pt	XTREME 20 (16'RKB+5137'GL) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	185.83°



Planned Wellpath Report

HOMESTEAD 10 (REV-A.0) PWP



REFERENCE WELLPATH IDENTIFICATION			
Operator	VERDAD OIL & GAS CORPORATION	Slot	SLOT#10 HOMESTEAD 10 (2444'FSL & 1374'FEL,SEC.34)
Area	COLORADO	Well	HOMESTEAD 10
Field	WELD COUNTY (NAD83/TN)	Wellbore	HOMESTEAD 10 PWB
Facility	SEC.34-T1N-R66W		

WELLPATH DATA (206 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	283.800	0.00	0.00	0.00	0.00	40°00'25.920"N	104°45'31.572"W	0.00	
16.00	0.000	283.800	16.00	0.00	0.00	0.00	40°00'25.920"N	104°45'31.572"W	0.00	Tie On
116.00†	0.000	283.800	116.00	0.00	0.00	0.00	40°00'25.920"N	104°45'31.572"W	0.00	
216.00†	0.000	283.800	216.00	0.00	0.00	0.00	40°00'25.920"N	104°45'31.572"W	0.00	
316.00†	0.000	283.800	316.00	0.00	0.00	0.00	40°00'25.920"N	104°45'31.572"W	0.00	
416.00†	0.000	283.800	416.00	0.00	0.00	0.00	40°00'25.920"N	104°45'31.572"W	0.00	
516.00†	0.000	283.800	516.00	0.00	0.00	0.00	40°00'25.920"N	104°45'31.572"W	0.00	
616.00†	0.000	283.800	616.00	0.00	0.00	0.00	40°00'25.920"N	104°45'31.572"W	0.00	
716.00†	0.000	283.800	716.00	0.00	0.00	0.00	40°00'25.920"N	104°45'31.572"W	0.00	
816.00†	0.000	283.800	816.00	0.00	0.00	0.00	40°00'25.920"N	104°45'31.572"W	0.00	
916.00†	0.000	283.800	916.00	0.00	0.00	0.00	40°00'25.920"N	104°45'31.572"W	0.00	
1016.00†	0.000	283.800	1016.00	0.00	0.00	0.00	40°00'25.920"N	104°45'31.572"W	0.00	
1116.00†	0.000	283.800	1116.00	0.00	0.00	0.00	40°00'25.920"N	104°45'31.572"W	0.00	
1216.00†	0.000	283.800	1216.00	0.00	0.00	0.00	40°00'25.920"N	104°45'31.572"W	0.00	
1316.00†	0.000	283.800	1316.00	0.00	0.00	0.00	40°00'25.920"N	104°45'31.572"W	0.00	
1416.00†	0.000	283.800	1416.00	0.00	0.00	0.00	40°00'25.920"N	104°45'31.572"W	0.00	
1516.00†	0.000	283.800	1516.00	0.00	0.00	0.00	40°00'25.920"N	104°45'31.572"W	0.00	
1616.00†	0.000	283.800	1616.00	0.00	0.00	0.00	40°00'25.920"N	104°45'31.572"W	0.00	
1716.00†	0.000	283.800	1716.00	0.00	0.00	0.00	40°00'25.920"N	104°45'31.572"W	0.00	
1725.00	0.000	283.800	1725.00	0.00	0.00	0.00	40°00'25.920"N	104°45'31.572"W	0.00	End of Tangent
1816.00†	1.820	283.800	1815.98	-0.20	0.34	-1.40	40°00'25.923"N	104°45'31.590"W	2.00	
1916.00†	3.820	283.800	1915.86	-0.88	1.52	-6.18	40°00'25.935"N	104°45'31.651"W	2.00	
2016.00†	5.820	283.800	2015.50	-2.05	3.52	-14.34	40°00'25.955"N	104°45'31.756"W	2.00	
2116.00†	7.820	283.800	2114.79	-3.70	6.36	-25.87	40°00'25.983"N	104°45'31.904"W	2.00	
2216.00†	9.820	283.800	2213.60	-5.82	10.01	-40.76	40°00'26.019"N	104°45'32.096"W	2.00	
2316.00†	11.820	283.800	2311.82	-8.43	14.49	-58.99	40°00'26.063"N	104°45'32.330"W	2.00	
2416.00†	13.820	283.800	2409.32	-11.50	19.78	-80.54	40°00'26.115"N	104°45'32.607"W	2.00	
2478.98	15.080	283.800	2470.31	-13.68	23.53	-95.80	40°00'26.153"N	104°45'32.803"W	2.00	End of Build
2516.00†	15.080	283.800	2506.05	-15.02	25.83	-105.15	40°00'26.175"N	104°45'32.923"W	0.00	
2616.00†	15.080	283.800	2602.61	-18.63	32.04	-130.42	40°00'26.237"N	104°45'33.248"W	0.00	



# Planned Wellpath Report

HOMESTEAD 10 (REV-A.0) PWP

Page 3 of 10



REFERENCE WELLPATH IDENTIFICATION			
Operator	VERDAD OIL & GAS CORPORATION	Slot	SLOT#10 HOMESTEAD 10 (2444'FSL & 1374'FEL,SEC.34)
Area	COLORADO	Well	HOMESTEAD 10
Field	WELD COUNTY (NAD83/TN)	Wellbore	HOMESTEAD 10 PWB
Facility	SEC.34-T1N-R66W		

WELLPATH DATA (206 stations) † = interpolated/extrapolated station											
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments	
2716.00†	15.080	283.800	2699.16	-22.24	38.24	-155.68	40°00'26.298"N	104°45'33.573"W	0.00		
2816.00†	15.080	283.800	2795.72	-25.85	44.45	-180.95	40°00'26.359"N	104°45'33.897"W	0.00		
2916.00†	15.080	283.800	2892.28	-29.46	50.65	-206.21	40°00'26.421"N	104°45'34.222"W	0.00		
3016.00†	15.080	283.800	2988.83	-33.06	56.86	-231.48	40°00'26.482"N	104°45'34.547"W	0.00		
3116.00†	15.080	283.800	3085.39	-36.67	63.06	-256.74	40°00'26.543"N	104°45'34.871"W	0.00		
3216.00†	15.080	283.800	3181.95	-40.28	69.27	-282.01	40°00'26.605"N	104°45'35.196"W	0.00		
3316.00†	15.080	283.800	3278.50	-43.89	75.48	-307.27	40°00'26.666"N	104°45'35.521"W	0.00		
3416.00†	15.080	283.800	3375.06	-47.50	81.68	-332.54	40°00'26.727"N	104°45'35.845"W	0.00		
3516.00†	15.080	283.800	3471.62	-51.11	87.89	-357.80	40°00'26.789"N	104°45'36.170"W	0.00		
3616.00†	15.080	283.800	3568.17	-54.72	94.09	-383.07	40°00'26.850"N	104°45'36.495"W	0.00		
3716.00†	15.080	283.800	3664.73	-58.33	100.30	-408.33	40°00'26.911"N	104°45'36.820"W	0.00		
3816.00†	15.080	283.800	3761.29	-61.94	106.51	-433.60	40°00'26.972"N	104°45'37.144"W	0.00		
3916.00†	15.080	283.800	3857.84	-65.55	112.71	-458.86	40°00'27.034"N	104°45'37.469"W	0.00		
4016.00†	15.080	283.800	3954.40	-69.15	118.92	-484.13	40°00'27.095"N	104°45'37.794"W	0.00		
4116.00†	15.080	283.800	4050.96	-72.76	125.12	-509.39	40°00'27.156"N	104°45'38.118"W	0.00		
4216.00†	15.080	283.800	4147.51	-76.37	131.33	-534.66	40°00'27.218"N	104°45'38.443"W	0.00		
4316.00†	15.080	283.800	4244.07	-79.98	137.54	-559.92	40°00'27.279"N	104°45'38.768"W	0.00		
4416.00†	15.080	283.800	4340.62	-83.59	143.74	-585.19	40°00'27.340"N	104°45'39.092"W	0.00		
4516.00†	15.080	283.800	4437.18	-87.20	149.95	-610.45	40°00'27.402"N	104°45'39.417"W	0.00		
4616.00†	15.080	283.800	4533.74	-90.81	156.15	-635.72	40°00'27.463"N	104°45'39.742"W	0.00		
4716.00†	15.080	283.800	4630.29	-94.42	162.36	-660.99	40°00'27.524"N	104°45'40.066"W	0.00		
4816.00†	15.080	283.800	4726.85	-98.03	168.57	-686.25	40°00'27.586"N	104°45'40.391"W	0.00		
4916.00†	15.080	283.800	4823.41	-101.63	174.77	-711.52	40°00'27.647"N	104°45'40.716"W	0.00		
5016.00†	15.080	283.800	4919.96	-105.24	180.98	-736.78	40°00'27.708"N	104°45'41.040"W	0.00		
5116.00†	15.080	283.800	5016.52	-108.85	187.18	-762.05	40°00'27.770"N	104°45'41.365"W	0.00		
5216.00†	15.080	283.800	5113.08	-112.46	193.39	-787.31	40°00'27.831"N	104°45'41.690"W	0.00		
5316.00†	15.080	283.800	5209.63	-116.07	199.59	-812.58	40°00'27.892"N	104°45'42.014"W	0.00		
5416.00†	15.080	283.800	5306.19	-119.68	205.80	-837.84	40°00'27.954"N	104°45'42.339"W	0.00		
5516.00†	15.080	283.800	5402.75	-123.29	212.01	-863.11	40°00'28.015"N	104°45'42.664"W	0.00		
5616.00†	15.080	283.800	5499.30	-126.90	218.21	-888.37	40°00'28.076"N	104°45'42.989"W	0.00		



# Planned Wellpath Report

HOMESTEAD 10 (REV-A.0) PWP

Page 4 of 10



REFERENCE WELLPATH IDENTIFICATION			
Operator	VERDAD OIL & GAS CORPORATION	Slot	SLOT#10 HOMESTEAD 10 (2444'FSL & 1374'FEL,SEC.34)
Area	COLORADO	Well	HOMESTEAD 10
Field	WELD COUNTY (NAD83/TN)	Wellbore	HOMESTEAD 10 PWB
Facility	SEC.34-T1N-R66W		

WELLPATH DATA (206 stations) † = interpolated/extrapolated station											
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments	
5716.00†	15.080	283.800	5595.86	-130.51	224.42	-913.64	40°00'28.138"N	104°45'43.313"W	0.00		
5816.00†	15.080	283.800	5692.42	-134.11	230.62	-938.90	40°00'28.199"N	104°45'43.638"W	0.00		
5916.00†	15.080	283.800	5788.97	-137.72	236.83	-964.17	40°00'28.260"N	104°45'43.963"W	0.00		
6016.00†	15.080	283.800	5885.53	-141.33	243.04	-989.43	40°00'28.322"N	104°45'44.287"W	0.00		
6116.00†	15.080	283.800	5982.09	-144.94	249.24	-1014.70	40°00'28.383"N	104°45'44.612"W	0.00		
6216.00†	15.080	283.800	6078.64	-148.55	255.45	-1039.96	40°00'28.444"N	104°45'44.937"W	0.00		
6316.00†	15.080	283.800	6175.20	-152.16	261.65	-1065.23	40°00'28.506"N	104°45'45.261"W	0.00		
6416.00†	15.080	283.800	6271.76	-155.77	267.86	-1090.49	40°00'28.567"N	104°45'45.586"W	0.00		
6516.00†	15.080	283.800	6368.31	-159.38	274.07	-1115.76	40°00'28.628"N	104°45'45.911"W	0.00		
6616.00†	15.080	283.800	6464.87	-162.99	280.27	-1141.02	40°00'28.689"N	104°45'46.235"W	0.00		
6716.00†	15.080	283.800	6561.42	-166.60	286.48	-1166.29	40°00'28.751"N	104°45'46.560"W	0.00		
6816.00†	15.080	283.800	6657.98	-170.20	292.68	-1191.55	40°00'28.812"N	104°45'46.885"W	0.00		
6916.00†	15.080	283.800	6754.54	-173.81	298.89	-1216.82	40°00'28.873"N	104°45'47.209"W	0.00		
7016.00†	15.080	283.800	6851.09	-177.42	305.10	-1242.08	40°00'28.935"N	104°45'47.534"W	0.00		
7062.92	15.080	283.800	6896.40	-179.12	308.01	-1253.94	40°00'28.964"N	104°45'47.687"W	0.00	End of Tangent	
7116.00†	14.700	263.092	6947.73	-178.59	308.85	-1267.34	40°00'28.972"N	104°45'47.859"W	10.00		
7216.00†	18.561	230.234	7043.74	-164.39	297.11	-1292.23	40°00'28.856"N	104°45'48.179"W	10.00		
7316.00†	25.856	211.832	7136.37	-133.34	268.33	-1316.03	40°00'28.571"N	104°45'48.484"W	10.00		
7416.00†	34.466	201.603	7222.81	-86.39	223.38	-1338.00	40°00'28.127"N	104°45'48.767"W	10.00		
7516.00†	43.616	195.158	7300.43	-24.97	163.63	-1357.49	40°00'27.537"N	104°45'49.017"W	10.00		
7616.00†	53.023	190.596	7366.87	49.06	90.89	-1373.89	40°00'26.818"N	104°45'49.228"W	10.00		
7716.00†	62.565	187.053	7420.12	133.44	7.38	-1386.72	40°00'25.993"N	104°45'49.393"W	10.00		
7816.00†	72.182	184.080	7458.55	225.62	-84.38	-1395.57	40°00'25.086"N	104°45'49.506"W	10.00		
7916.00†	81.840	181.414	7481.00	322.80	-181.59	-1400.19	40°00'24.125"N	104°45'49.566"W	10.00		
8000.60	90.024	179.265	7487.00 <sup>1</sup>	406.72	-265.89	-1400.69	40°00'23.292"N	104°45'49.572"W	10.00	End of 3D Arc	
8016.00†	90.024	179.265	7486.99	422.02	-281.29	-1400.49	40°00'23.140"N	104°45'49.569"W	0.00		
8116.00†	90.024	179.265	7486.95	521.36	-381.28	-1399.20	40°00'22.152"N	104°45'49.553"W	0.00		
8216.00†	90.024	179.265	7486.91	620.71	-481.28	-1397.92	40°00'21.163"N	104°45'49.536"W	0.00		
8316.00†	90.024	179.265	7486.87	720.05	-581.27	-1396.64	40°00'20.175"N	104°45'49.520"W	0.00		
8416.00†	90.024	179.265	7486.83	819.40	-681.26	-1395.35	40°00'19.187"N	104°45'49.503"W	0.00		





# Planned Wellpath Report

HOMESTEAD 10 (REV-A.0) PWP

Page 5 of 10



REFERENCE WELLPATH IDENTIFICATION			
Operator	VERDAD OIL & GAS CORPORATION	Slot	SLOT#10 HOMESTEAD 10 (2444'FSL & 1374'FEL,SEC.34)
Area	COLORADO	Well	HOMESTEAD 10
Field	WELD COUNTY (NAD83/TN)	Wellbore	HOMESTEAD 10 PWB
Facility	SEC.34-T1N-R66W		

WELLPATH DATA (206 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8516.00†	90.024	179.265	7486.78	918.74	-781.25	-1394.07	40°00'18.199"N	104°45'49.487"W	0.00	
8616.00†	90.024	179.265	7486.74	1018.09	-881.24	-1392.79	40°00'17.211"N	104°45'49.470"W	0.00	
8716.00†	90.024	179.265	7486.70	1117.43	-981.24	-1391.50	40°00'16.223"N	104°45'49.453"W	0.00	
8816.00†	90.024	179.265	7486.66	1216.78	-1081.23	-1390.22	40°00'15.235"N	104°45'49.437"W	0.00	
8916.00†	90.024	179.265	7486.62	1316.12	-1181.22	-1388.94	40°00'14.246"N	104°45'49.420"W	0.00	
9016.00†	90.024	179.265	7486.58	1415.47	-1281.21	-1387.65	40°00'13.258"N	104°45'49.404"W	0.00	
9116.00†	90.024	179.265	7486.53	1514.81	-1381.20	-1386.37	40°00'12.270"N	104°45'49.387"W	0.00	
9216.00†	90.024	179.265	7486.49	1614.16	-1481.19	-1385.09	40°00'11.282"N	104°45'49.371"W	0.00	
9316.00†	90.024	179.265	7486.45	1713.50	-1581.19	-1383.80	40°00'10.294"N	104°45'49.354"W	0.00	
9416.00†	90.024	179.265	7486.41	1812.85	-1681.18	-1382.52	40°00'09.306"N	104°45'49.338"W	0.00	
9516.00†	90.024	179.265	7486.37	1912.19	-1781.17	-1381.23	40°00'08.318"N	104°45'49.321"W	0.00	
9616.00†	90.024	179.265	7486.32	2011.54	-1881.16	-1379.95	40°00'07.329"N	104°45'49.304"W	0.00	
9716.00†	90.024	179.265	7486.28	2110.88	-1981.15	-1378.67	40°00'06.341"N	104°45'49.288"W	0.00	
9816.00†	90.024	179.265	7486.24	2210.23	-2081.14	-1377.38	40°00'05.353"N	104°45'49.271"W	0.00	
9916.00†	90.024	179.265	7486.20	2309.57	-2181.14	-1376.10	40°00'04.365"N	104°45'49.255"W	0.00	
10016.00†	90.024	179.265	7486.16	2408.92	-2281.13	-1374.82	40°00'03.377"N	104°45'49.238"W	0.00	
10116.00†	90.024	179.265	7486.12	2508.26	-2381.12	-1373.53	40°00'02.389"N	104°45'49.222"W	0.00	
10216.00†	90.024	179.265	7486.07	2607.60	-2481.11	-1372.25	40°00'01.401"N	104°45'49.205"W	0.00	
10316.00†	90.024	179.265	7486.03	2706.95	-2581.10	-1370.97	40°00'00.412"N	104°45'49.188"W	0.00	
10416.00†	90.024	179.265	7485.99	2806.29	-2681.10	-1369.68	39°59'59.424"N	104°45'49.172"W	0.00	
10516.00†	90.024	179.265	7485.95	2905.64	-2781.09	-1368.40	39°59'58.436"N	104°45'49.155"W	0.00	
10616.00†	90.024	179.265	7485.91	3004.98	-2881.08	-1367.12	39°59'57.448"N	104°45'49.139"W	0.00	
10716.00†	90.024	179.265	7485.86	3104.33	-2981.07	-1365.83	39°59'56.460"N	104°45'49.122"W	0.00	
10816.00†	90.024	179.265	7485.82	3203.67	-3081.06	-1364.55	39°59'55.472"N	104°45'49.106"W	0.00	
10916.00†	90.024	179.265	7485.78	3303.02	-3181.05	-1363.26	39°59'54.483"N	104°45'49.089"W	0.00	
11016.00†	90.024	179.265	7485.74	3402.36	-3281.05	-1361.98	39°59'53.495"N	104°45'49.072"W	0.00	
11116.00†	90.024	179.265	7485.70	3501.71	-3381.04	-1360.70	39°59'52.507"N	104°45'49.056"W	0.00	
11216.00†	90.024	179.265	7485.66	3601.05	-3481.03	-1359.41	39°59'51.519"N	104°45'49.039"W	0.00	
11316.00†	90.024	179.265	7485.61	3700.40	-3581.02	-1358.13	39°59'50.531"N	104°45'49.023"W	0.00	
11416.00†	90.024	179.265	7485.57	3799.74	-3681.01	-1356.85	39°59'49.543"N	104°45'49.006"W	0.00	



# Planned Wellpath Report

HOMESTEAD 10 (REV-A.0) PWP

Page 6 of 10



REFERENCE WELLPATH IDENTIFICATION			
Operator	VERDAD OIL & GAS CORPORATION	Slot	SLOT#10 HOMESTEAD 10 (2444'FSL & 1374'FEL,SEC.34)
Area	COLORADO	Well	HOMESTEAD 10
Field	WELD COUNTY (NAD83/TN)	Wellbore	HOMESTEAD 10 PWB
Facility	SEC.34-T1N-R66W		

WELLPATH DATA (206 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11516.00†	90.024	179.265	7485.53	3899.09	-3781.00	-1355.56	39°59'48.555"N	104°45'48.990"W	0.00	
11616.00†	90.024	179.265	7485.49	3998.43	-3881.00	-1354.28	39°59'47.566"N	104°45'48.973"W	0.00	
11716.00†	90.024	179.265	7485.45	4097.78	-3980.99	-1353.00	39°59'46.578"N	104°45'48.957"W	0.00	
11816.00†	90.024	179.265	7485.40	4197.12	-4080.98	-1351.71	39°59'45.590"N	104°45'48.940"W	0.00	
11916.00†	90.024	179.265	7485.36	4296.47	-4180.97	-1350.43	39°59'44.602"N	104°45'48.923"W	0.00	
12016.00†	90.024	179.265	7485.32	4395.81	-4280.96	-1349.15	39°59'43.614"N	104°45'48.907"W	0.00	
12116.00†	90.024	179.265	7485.28	4495.16	-4380.96	-1347.86	39°59'42.626"N	104°45'48.890"W	0.00	
12216.00†	90.024	179.265	7485.24	4594.50	-4480.95	-1346.58	39°59'41.638"N	104°45'48.874"W	0.00	
12316.00†	90.024	179.265	7485.20	4693.85	-4580.94	-1345.29	39°59'40.649"N	104°45'48.857"W	0.00	
12416.00†	90.024	179.265	7485.15	4793.19	-4680.93	-1344.01	39°59'39.661"N	104°45'48.841"W	0.00	
12516.00†	90.024	179.265	7485.11	4892.54	-4780.92	-1342.73	39°59'38.673"N	104°45'48.824"W	0.00	
12616.00†	90.024	179.265	7485.07	4991.88	-4880.91	-1341.44	39°59'37.685"N	104°45'48.807"W	0.00	
12716.00†	90.024	179.265	7485.03	5091.23	-4980.91	-1340.16	39°59'36.697"N	104°45'48.791"W	0.00	
12816.00†	90.024	179.265	7484.99	5190.57	-5080.90	-1338.88	39°59'35.709"N	104°45'48.774"W	0.00	
12916.00†	90.024	179.265	7484.94	5289.92	-5180.89	-1337.59	39°59'34.720"N	104°45'48.758"W	0.00	
13016.00†	90.024	179.265	7484.90	5389.26	-5280.88	-1336.31	39°59'33.732"N	104°45'48.741"W	0.00	
13116.00†	90.024	179.265	7484.86	5488.60	-5380.87	-1335.03	39°59'32.744"N	104°45'48.725"W	0.00	
13216.00†	90.024	179.265	7484.82	5587.95	-5480.86	-1333.74	39°59'31.756"N	104°45'48.708"W	0.00	
13316.00†	90.024	179.265	7484.78	5687.29	-5580.86	-1332.46	39°59'30.768"N	104°45'48.692"W	0.00	
13416.00†	90.024	179.265	7484.74	5786.64	-5680.85	-1331.18	39°59'29.780"N	104°45'48.675"W	0.00	
13516.00†	90.024	179.265	7484.69	5885.98	-5780.84	-1329.89	39°59'28.792"N	104°45'48.658"W	0.00	
13616.00†	90.024	179.265	7484.65	5985.33	-5880.83	-1328.61	39°59'27.803"N	104°45'48.642"W	0.00	
13716.00†	90.024	179.265	7484.61	6084.67	-5980.82	-1327.32	39°59'26.815"N	104°45'48.625"W	0.00	
13816.00†	90.024	179.265	7484.57	6184.02	-6080.81	-1326.04	39°59'25.827"N	104°45'48.609"W	0.00	
13916.00†	90.024	179.265	7484.53	6283.36	-6180.81	-1324.76	39°59'24.839"N	104°45'48.592"W	0.00	
14016.00†	90.024	179.265	7484.48	6382.71	-6280.80	-1323.47	39°59'23.851"N	104°45'48.576"W	0.00	
14116.00†	90.024	179.265	7484.44	6482.05	-6380.79	-1322.19	39°59'22.863"N	104°45'48.559"W	0.00	
14216.00†	90.024	179.265	7484.40	6581.40	-6480.78	-1320.91	39°59'21.875"N	104°45'48.543"W	0.00	
14316.00†	90.024	179.265	7484.36	6680.74	-6580.77	-1319.62	39°59'20.886"N	104°45'48.526"W	0.00	
14416.00†	90.024	179.265	7484.32	6780.09	-6680.77	-1318.34	39°59'19.898"N	104°45'48.509"W	0.00	



Planned Wellpath Report

HOMESTEAD 10 (REV-A.0) PWP



REFERENCE WELLPATH IDENTIFICATION			
Operator	VERDAD OIL & GAS CORPORATION	Slot	SLOT#10 HOMESTEAD 10 (2444'FSL & 1374'FEL,SEC.34)
Area	COLORADO	Well	HOMESTEAD 10
Field	WELD COUNTY (NAD83/TN)	Wellbore	HOMESTEAD 10 PWB
Facility	SEC.34-T1N-R66W		

WELLPATH DATA (206 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
14516.00†	90.024	179.265	7484.28	6879.43	-6780.76	-1317.06	39°59'18.910"N	104°45'48.493"W	0.00	
14616.00†	90.024	179.265	7484.23	6978.78	-6880.75	-1315.77	39°59'17.922"N	104°45'48.476"W	0.00	
14716.00†	90.024	179.265	7484.19	7078.12	-6980.74	-1314.49	39°59'16.934"N	104°45'48.460"W	0.00	
14816.00†	90.024	179.265	7484.15	7177.47	-7080.73	-1313.20	39°59'15.946"N	104°45'48.443"W	0.00	
14916.00†	90.024	179.265	7484.11	7276.81	-7180.72	-1311.92	39°59'14.957"N	104°45'48.427"W	0.00	
15016.00†	90.024	179.265	7484.07	7376.16	-7280.72	-1310.64	39°59'13.969"N	104°45'48.410"W	0.00	
15116.00†	90.024	179.265	7484.02	7475.50	-7380.71	-1309.35	39°59'12.981"N	104°45'48.393"W	0.00	
15216.00†	90.024	179.265	7483.98	7574.85	-7480.70	-1308.07	39°59'11.993"N	104°45'48.377"W	0.00	
15316.00†	90.024	179.265	7483.94	7674.19	-7580.69	-1306.79	39°59'11.005"N	104°45'48.360"W	0.00	
15416.00†	90.024	179.265	7483.90	7773.54	-7680.68	-1305.50	39°59'10.017"N	104°45'48.344"W	0.00	
15516.00†	90.024	179.265	7483.86	7872.88	-7780.67	-1304.22	39°59'09.029"N	104°45'48.327"W	0.00	
15616.00†	90.024	179.265	7483.82	7972.23	-7880.67	-1302.94	39°59'08.040"N	104°45'48.311"W	0.00	
15716.00†	90.024	179.265	7483.77	8071.57	-7980.66	-1301.65	39°59'07.052"N	104°45'48.294"W	0.00	
15816.00†	90.024	179.265	7483.73	8170.92	-8080.65	-1300.37	39°59'06.064"N	104°45'48.278"W	0.00	
15916.00†	90.024	179.265	7483.69	8270.26	-8180.64	-1299.09	39°59'05.076"N	104°45'48.261"W	0.00	
16016.00†	90.024	179.265	7483.65	8369.60	-8280.63	-1297.80	39°59'04.088"N	104°45'48.244"W	0.00	
16116.00†	90.024	179.265	7483.61	8468.95	-8380.63	-1296.52	39°59'03.100"N	104°45'48.228"W	0.00	
16216.00†	90.024	179.265	7483.56	8568.29	-8480.62	-1295.23	39°59'02.111"N	104°45'48.211"W	0.00	
16316.00†	90.024	179.265	7483.52	8667.64	-8580.61	-1293.95	39°59'01.123"N	104°45'48.195"W	0.00	
16416.00†	90.024	179.265	7483.48	8766.98	-8680.60	-1292.67	39°59'00.135"N	104°45'48.178"W	0.00	
16516.00†	90.024	179.265	7483.44	8866.33	-8780.59	-1291.38	39°58'59.147"N	104°45'48.162"W	0.00	
16616.00†	90.024	179.265	7483.40	8965.67	-8880.58	-1290.10	39°58'58.159"N	104°45'48.145"W	0.00	
16716.00†	90.024	179.265	7483.36	9065.02	-8980.58	-1288.82	39°58'57.171"N	104°45'48.129"W	0.00	
16816.00†	90.024	179.265	7483.31	9164.36	-9080.57	-1287.53	39°58'56.183"N	104°45'48.112"W	0.00	
16916.00†	90.024	179.265	7483.27	9263.71	-9180.56	-1286.25	39°58'55.194"N	104°45'48.095"W	0.00	
17016.00†	90.024	179.265	7483.23	9363.05	-9280.55	-1284.97	39°58'54.206"N	104°45'48.079"W	0.00	
17116.00†	90.024	179.265	7483.19	9462.40	-9380.54	-1283.68	39°58'53.218"N	104°45'48.062"W	0.00	
17216.00†	90.024	179.265	7483.15	9561.74	-9480.53	-1282.40	39°58'52.230"N	104°45'48.046"W	0.00	
17316.00†	90.024	179.265	7483.10	9661.09	-9580.53	-1281.12	39°58'51.242"N	104°45'48.029"W	0.00	
17416.00†	90.024	179.265	7483.06	9760.43	-9680.52	-1279.83	39°58'50.254"N	104°45'48.013"W	0.00	





Planned Wellpath Report

HOMESTEAD 10 (REV-A.0) PWP



REFERENCE WELLPATH IDENTIFICATION			
Operator	VERDAD OIL & GAS CORPORATION	Slot	SLOT#10 HOMESTEAD 10 (2444'FSL & 1374'FEL,SEC.34)
Area	COLORADO	Well	HOMESTEAD 10
Field	WELD COUNTY (NAD83/TN)	Wellbore	HOMESTEAD 10 PWB
Facility	SEC.34-T1N-R66W		

WELLPATH DATA (206 stations) † = interpolated/extrapolated station											
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments	
17516.00†	90.024	179.265	7483.02	9859.78	-9780.51	-1278.55	39°58'49.266"N	104°45'47.996"W	0.00		
17616.00†	90.024	179.265	7482.98	9959.12	-9880.50	-1277.26	39°58'48.277"N	104°45'47.980"W	0.00		
17716.00†	90.024	179.265	7482.94	10058.47	-9980.49	-1275.98	39°58'47.289"N	104°45'47.963"W	0.00		
17816.00†	90.024	179.265	7482.90	10157.81	-10080.48	-1274.70	39°58'46.301"N	104°45'47.946"W	0.00		
17916.00†	90.024	179.265	7482.85	10257.16	-10180.48	-1273.41	39°58'45.313"N	104°45'47.930"W	0.00		
18016.00†	90.024	179.265	7482.81	10356.50	-10280.47	-1272.13	39°58'44.325"N	104°45'47.913"W	0.00		
18116.00†	90.024	179.265	7482.77	10455.85	-10380.46	-1270.85	39°58'43.337"N	104°45'47.897"W	0.00		
18216.00†	90.024	179.265	7482.73	10555.19	-10480.45	-1269.56	39°58'42.348"N	104°45'47.880"W	0.00		
18316.00†	90.024	179.265	7482.69	10654.54	-10580.44	-1268.28	39°58'41.360"N	104°45'47.864"W	0.00		
18416.00†	90.024	179.265	7482.64	10753.88	-10680.44	-1267.00	39°58'40.372"N	104°45'47.847"W	0.00		
18516.00†	90.024	179.265	7482.60	10853.23	-10780.43	-1265.71	39°58'39.384"N	104°45'47.831"W	0.00		
18616.00†	90.024	179.265	7482.56	10952.57	-10880.42	-1264.43	39°58'38.396"N	104°45'47.814"W	0.00		
18716.00†	90.024	179.265	7482.52	11051.92	-10980.41	-1263.15	39°58'37.408"N	104°45'47.797"W	0.00		
18816.00†	90.024	179.265	7482.48	11151.26	-11080.40	-1261.86	39°58'36.420"N	104°45'47.781"W	0.00		
18916.00†	90.024	179.265	7482.44	11250.60	-11180.39	-1260.58	39°58'35.431"N	104°45'47.764"W	0.00		
19016.00†	90.024	179.265	7482.39	11349.95	-11280.39	-1259.29	39°58'34.443"N	104°45'47.748"W	0.00		
19116.00†	90.024	179.265	7482.35	11449.29	-11380.38	-1258.01	39°58'33.455"N	104°45'47.731"W	0.00		
19216.00†	90.024	179.265	7482.31	11548.64	-11480.37	-1256.73	39°58'32.467"N	104°45'47.715"W	0.00		
19316.00†	90.024	179.265	7482.27	11647.98	-11580.36	-1255.44	39°58'31.479"N	104°45'47.698"W	0.00		
19416.00†	90.024	179.265	7482.23	11747.33	-11680.35	-1254.16	39°58'30.491"N	104°45'47.682"W	0.00		
19516.00†	90.024	179.265	7482.18	11846.67	-11780.34	-1252.88	39°58'29.502"N	104°45'47.665"W	0.00		
19616.00†	90.024	179.265	7482.14	11946.02	-11880.34	-1251.59	39°58'28.514"N	104°45'47.649"W	0.00		
19716.00†	90.024	179.265	7482.10	12045.36	-11980.33	-1250.31	39°58'27.526"N	104°45'47.632"W	0.00		
19816.00†	90.024	179.265	7482.06	12144.71	-12080.32	-1249.03	39°58'26.538"N	104°45'47.615"W	0.00		
19916.00†	90.024	179.265	7482.02	12244.05	-12180.31	-1247.74	39°58'25.550"N	104°45'47.599"W	0.00		
19957.48	90.024	179.265	7482.00 <sup>2</sup>	12285.26	-12221.79	-1247.21	39°58'25.140"N	104°45'47.592"W	0.00	End of Tangent	



# Planned Wellpath Report

HOMESTEAD 10 (REV-A.0) PWP

Page 9 of 10



REFERENCE WELLPATH IDENTIFICATION

Operator	VERDAD OIL & GAS CORPORATION	Slot	SLOT#10 HOMESTEAD 10 (2444'FSL & 1374'FEL,SEC.34)
Area	COLORADO	Well	HOMESTEAD 10
Field	WELD COUNTY (NAD83/TN)	Wellbore	HOMESTEAD 10 PWB
Facility	SEC.34-T1N-R66W		

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
HOMESTEAD 1 SEC 34-T1N-R66W		-2.00	-3.64	-142.87	3207491.08	1246332.57	40°00'25.884"N	104°45'33.408"W	polygon
HOMESTEAD 1 SEC.10-T1S-R66W		-2.00	-3.64	-142.87	3207491.08	1246332.57	40°00'25.884"N	104°45'33.408"W	polygon
HOMESTEAD 1 SEC.3-T1S-R66W		-2.00	-3.64	-142.87	3207491.08	1246332.57	40°00'25.884"N	104°45'33.408"W	polygon
2) HOMESTEAD 10 BHL ON PLAT, REV-1 (460'FSL & 2180'FWL, SEC.10)	19957.48	7482.00	-12221.79	-1247.21	3206488.94	1234106.07	39°58'25.140"N	104°45'47.592"W	point
1) HOMESTEAD 10 EP, REV-1 (2181'FSL & 2501'FWL, SEC.34)	8000.60	7487.00	-265.89	-1400.69	3206235.54	1246059.83	40°00'23.292"N	104°45'49.572"W	point
HOMESTEAD 1 SEC 34-T1N-R66W Hardline (460'Setback)		7598.00	-3.64	-142.87	3207491.08	1246332.57	40°00'25.884"N	104°45'33.408"W	polygon
HOMESTEAD 1 SEC.10-T1S-R66W Hardline (460'Setback)		7598.00	-3.64	-142.87	3207491.08	1246332.57	40°00'25.884"N	104°45'33.408"W	polygon
HOMESTEAD 1 SEC.3-T1S-R66W Setback (460'Setback)		7598.00	-3.64	-142.87	3207491.08	1246332.57	40°00'25.884"N	104°45'33.408"W	polygon

SURVEY PROGRAM - Ref Wellbore: HOMESTEAD 10 PWB    Ref Wellpath: HOMESTEAD 10 (REV-A.0) PWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
16.00	19957.48	BHI NaviTrak (Rotating+Axial Corr)		HOMESTEAD 10 PWB



# Planned Wellpath Report

HOMESTEAD 10 (REV-A.0) PWP



REFERENCE WELLPATH IDENTIFICATION			
Operator	VERDAD OIL & GAS CORPORATION	Slot	SLOT#10 HOMESTEAD 10 (2444'FSL & 1374'FEL,SEC.34)
Area	COLORADO	Well	HOMESTEAD 10
Field	WELD COUNTY (NAD83/TN)	Wellbore	HOMESTEAD 10 PWB
Facility	SEC.34-T1N-R66W		

DESIGN COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
16.00	0.000	283.800	16.00	Tie On
1725.00	0.000	283.800	1725.00	End of Tangent
2478.98	15.080	283.800	2470.31	End of Build
7062.92	15.080	283.800	6896.40	End of Tangent
8000.60	90.024	179.265	7487.00	End of 3D Arc
19957.48	90.024	179.265	7482.00	End of Tangent