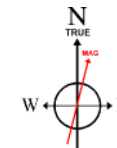


VERDAD OIL & GAS CORPORATION

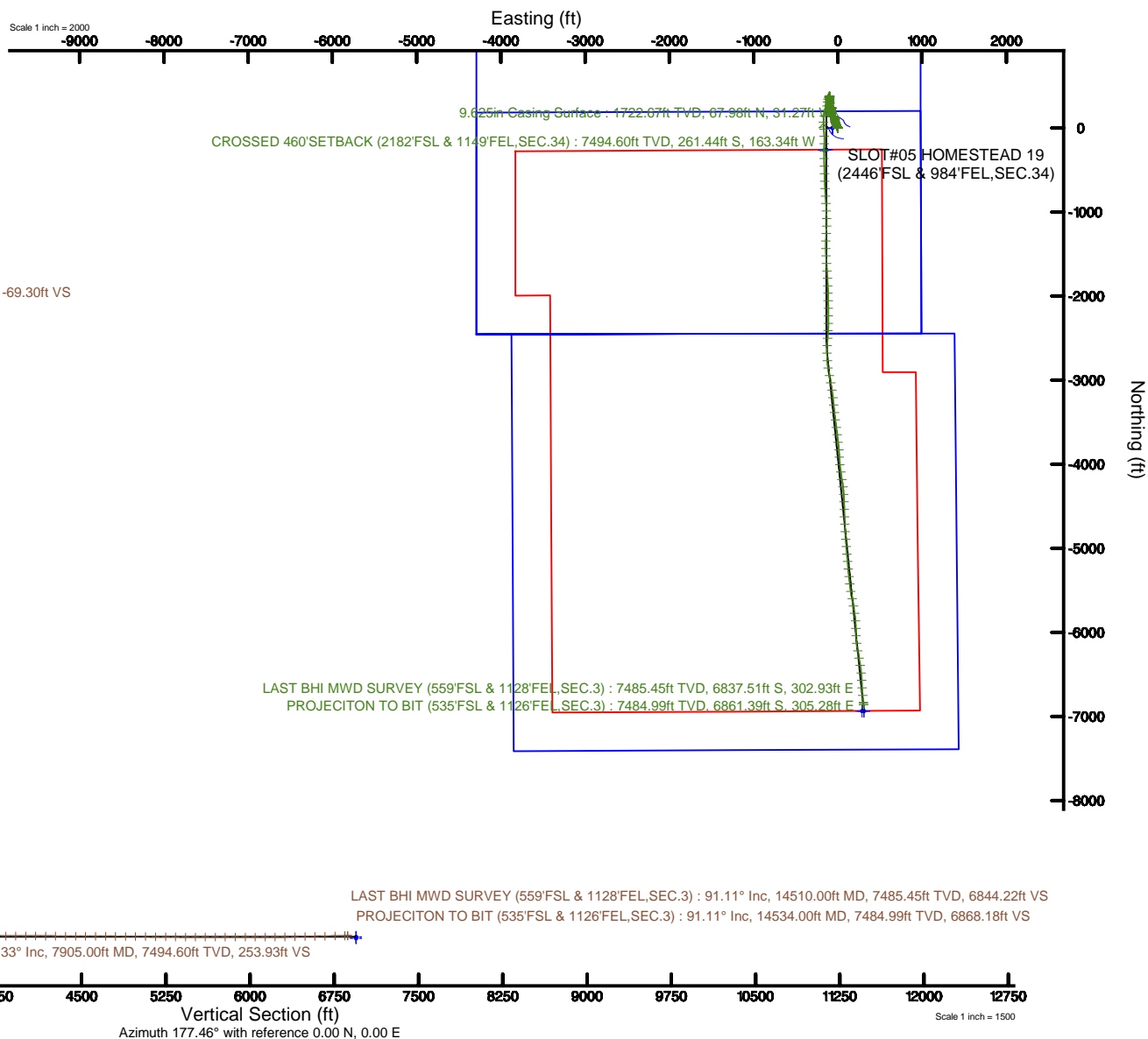
Location: COLORADO Slot: SLOT#05 HOMESTEAD 19 (2446'FSL & 984'FEL,SEC.34)
Field: WELD COUNTY (NAD83/TN) Well: HOMESTEAD 19
Facility: SEC.34-T1N-R66W Wellbore: HOMESTEAD 19 PWB

Plot reference wellpath is HOMESTEAD 19 (REV-C.0, NIO B) PWP	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
True vertical depths are referenced to XTREME 20 (16'RKB+5132'GL) (RKB)	North Reference: True north
Measured depths are referenced to XTREME 20 (16'RKB+5132'GL) (RKB)	Scale: True distance
XTREME 20 (16'RKB+5132'GL) (RKB) to Mean Sea Level: 5148 feet	Depths are in feet
Mean Sea Level to Mud line (At Slot: SLOT#05 HOMESTEAD 19 (2446'FSL & 984'FEL,SEC.34)): 0 feet	Created by: cookdanm on 2017-09-25
Coordinates are in feet referenced to Slot	Database: Denver



BGGM (1900.0 to 2019.0) Dip: 66.56° Field: 52154 nT
Magnetic North is 8.35 degrees East of True North (at 7/21/2017)

To correct azimuth from Magnetic to True add 8.35 degrees



Actual Wellpath Report

HOMESTEAD 19 awb_awp

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REFERENCE WELLPATH IDENTIFICATION

Operator	VERDAD OIL & GAS CORPORATION	Slot	SLOT#05 HOMESTEAD 19 (2446'FSL & 984'FEL,SEC.34)
Area	COLORADO	Well	HOMESTEAD 19
Field	WELD COUNTY (NAD83/TN)	Wellbore	HOMESTEAD 19 awb
Facility	SEC.34-T1N-R66W		

REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 5.1
North Reference	True	User	Cookdanm
Scale	0.999966	Report Generated	9/25/2017 at 1:13:14 PM
Convergence at slot	0.48° East	Database/Source file	Denver/HOMESTEAD_19_awb_awp.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	64.43	3208023.26	1246340.67	40°00'25.920"N	104°45'26.568"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+5132'GL) (RKB) to Facility Vertical Datum	5148.00ft
Horizontal Reference Pt	Slot	XTREME 20 (16'RKB+5132'GL) (RKB) to Mean Sea Level	5148.00ft
Vertical Reference Pt	XTREME 20 (16'RKB+5132'GL) (RKB)	XTREME 20 (16'RKB+5132'GL) (RKB) to Mud Line at Slot (SLOT#05 HOMESTEAD 19 (2446'FSL & 984'FEL,SEC.34))	5148.00ft
MD Reference Pt	XTREME 20 (16'RKB+5132'GL) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	177.46°

Actual Wellpath Report

HOMESTEAD 19 awb_awp

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REFERENCE WELLPATH IDENTIFICATION

Operator	VERDAD OIL & GAS CORPORATION	Slot	SLOT#05 HOMESTEAD 19 (2446'FSL & 984'FEL,SEC.34)
Area	COLORADO	Well	HOMESTEAD 19
Field	WELD COUNTY (NAD83/TN)	Wellbore	HOMESTEAD 19 awb
Facility	SEC.34-T1N-R66W		

WELLPATH DATA (166 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	261.830	0.00	0.00	0.00	0.00	40°00'25.920"N	104°45'26.568"W	0.00	
16.00	0.000	261.830	16.00	0.00	0.00	0.00	40°00'25.920"N	104°45'26.568"W	0.00	
146.00	0.190	261.830	146.00	0.02	-0.03	-0.21	40°00'25.920"N	104°45'26.571"W	0.15	
232.00	0.390	330.310	232.00	-0.23	0.20	-0.50	40°00'25.922"N	104°45'26.574"W	0.43	
320.00	0.250	267.330	320.00	-0.49	0.45	-0.84	40°00'25.924"N	104°45'26.579"W	0.40	
411.00	0.300	271.990	411.00	-0.51	0.45	-1.28	40°00'25.924"N	104°45'26.584"W	0.06	
506.00	0.980	318.570	505.99	-1.16	1.07	-2.06	40°00'25.931"N	104°45'26.595"W	0.85	
602.00	1.740	337.590	601.96	-3.17	3.03	-3.16	40°00'25.950"N	104°45'26.609"W	0.91	
698.00	3.110	327.700	697.88	-6.80	6.58	-5.11	40°00'25.985"N	104°45'26.634"W	1.49	
793.00	3.140	331.930	792.73	-11.39	11.06	-7.71	40°00'26.029"N	104°45'26.667"W	0.24	
888.00	3.230	328.330	887.59	-16.07	15.63	-10.34	40°00'26.074"N	104°45'26.701"W	0.23	
984.00	3.260	334.850	983.43	-20.96	20.40	-12.92	40°00'26.122"N	104°45'26.734"W	0.39	
1080.00	3.630	342.290	1079.26	-26.41	25.77	-15.00	40°00'26.175"N	104°45'26.761"W	0.60	
1174.00	3.910	340.220	1173.06	-32.34	31.62	-16.99	40°00'26.232"N	104°45'26.786"W	0.33	
1270.00	3.580	339.150	1268.85	-38.31	37.50	-19.17	40°00'26.291"N	104°45'26.814"W	0.35	
1366.00	4.200	337.950	1364.63	-44.47	43.56	-21.55	40°00'26.350"N	104°45'26.845"W	0.65	
1461.00	4.180	338.600	1459.38	-51.03	50.01	-24.12	40°00'26.414"N	104°45'26.878"W	0.05	
1557.00	4.240	334.620	1555.12	-57.61	56.47	-26.92	40°00'26.478"N	104°45'26.914"W	0.31	
1653.00	4.190	341.190	1650.86	-64.25	63.00	-29.57	40°00'26.543"N	104°45'26.948"W	0.51	
1740.00	4.190	341.190	1737.63	-70.35	69.02	-31.62	40°00'26.602"N	104°45'26.974"W	0.00	
1778.00	4.580	347.120	1775.52	-73.18	71.81	-32.41	40°00'26.630"N	104°45'26.984"W	1.57	
1866.00	4.440	350.630	1863.24	-80.01	78.59	-33.75	40°00'26.697"N	104°45'27.002"W	0.35	
1955.00	4.970	5.840	1951.95	-87.25	85.83	-33.92	40°00'26.768"N	104°45'27.004"W	1.52	
2044.00	5.650	12.360	2040.56	-95.30	93.94	-32.59	40°00'26.848"N	104°45'26.987"W	1.02	
2133.00	5.190	2.640	2129.17	-103.54	102.24	-31.46	40°00'26.930"N	104°45'26.972"W	1.15	
2222.00	5.350	0.000	2217.79	-111.69	110.41	-31.28	40°00'27.011"N	104°45'26.970"W	0.33	
2311.00	4.570	337.040	2306.47	-119.16	117.83	-32.66	40°00'27.084"N	104°45'26.988"W	2.38	
2400.00	5.640	313.320	2395.12	-125.63	124.10	-37.23	40°00'27.146"N	104°45'27.046"W	2.63	
2489.00	5.470	303.040	2483.71	-131.23	129.41	-43.96	40°00'27.199"N	104°45'27.133"W	1.13	
2578.00	4.440	285.530	2572.38	-134.77	132.64	-50.84	40°00'27.231"N	104°45'27.221"W	2.04	
2668.00	2.890	271.370	2662.19	-136.01	133.63	-56.46	40°00'27.241"N	104°45'27.294"W	1.98	
2756.00	2.910	283.010	2750.08	-136.76	134.19	-60.86	40°00'27.246"N	104°45'27.350"W	0.67	
2845.00	2.740	282.570	2838.97	-137.92	135.16	-65.14	40°00'27.256"N	104°45'27.405"W	0.19	
2934.00	3.020	286.880	2927.86	-139.25	136.30	-69.46	40°00'27.267"N	104°45'27.461"W	0.40	
3023.00	2.900	286.830	3016.74	-140.78	137.64	-73.85	40°00'27.280"N	104°45'27.517"W	0.13	
3112.00	2.840	290.800	3105.63	-142.40	139.07	-78.07	40°00'27.294"N	104°45'27.571"W	0.23	
3201.00	3.290	335.650	3194.51	-145.64	142.18	-81.18	40°00'27.325"N	104°45'27.611"W	2.67	
3290.00	3.910	0.340	3283.34	-151.05	147.54	-82.22	40°00'27.378"N	104°45'27.625"W	1.86	
3379.00	2.520	355.570	3372.20	-156.03	152.53	-82.35	40°00'27.427"N	104°45'27.626"W	1.59	
3468.00	3.770	35.480	3461.08	-160.29	156.86	-80.81	40°00'27.470"N	104°45'27.606"W	2.75	
3557.00	4.330	55.310	3549.86	-164.39	161.16	-76.34	40°00'27.513"N	104°45'27.549"W	1.68	
3646.00	5.040	11.640	3638.59	-169.97	166.90	-72.79	40°00'27.569"N	104°45'27.503"W	3.98	
3735.00	4.010	343.630	3727.32	-176.78	173.71	-72.88	40°00'27.637"N	104°45'27.505"W	2.70	
3824.00	4.030	356.990	3816.10	-182.93	179.82	-73.92	40°00'27.697"N	104°45'27.518"W	1.05	
3913.00	4.060	0.030	3904.88	-189.20	186.10	-74.08	40°00'27.759"N	104°45'27.520"W	0.24	

Actual Wellpath Report

HOMESTEAD 19 awb_awp

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REFERENCE WELLPATH IDENTIFICATION

Operator	VERDAD OIL & GAS CORPORATION	Slot	SLOT#05 HOMESTEAD 19 (2446'FSL & 984'FEL,SEC.34)
Area	COLORADO	Well	HOMESTEAD 19
Field	WELD COUNTY (NAD83/TN)	Wellbore	HOMESTEAD 19 awb
Facility	SEC.34-T1N-R66W		

WELLPATH DATA (166 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4002.00	4.450	354.990	3993.64	-195.80	192.69	-74.38	40°00'27.824"N	104°45'27.524"W	0.61	
4091.00	4.510	331.880	4082.37	-202.41	199.21	-76.33	40°00'27.889"N	104°45'27.549"W	2.02	
4180.00	4.430	319.190	4171.10	-208.26	204.90	-80.23	40°00'27.945"N	104°45'27.599"W	1.11	
4269.00	4.200	347.750	4259.86	-214.17	210.69	-83.17	40°00'28.002"N	104°45'27.637"W	2.40	
4358.00	4.150	14.680	4348.63	-220.46	216.99	-83.04	40°00'28.064"N	104°45'27.635"W	2.18	
4447.00	3.980	29.420	4437.41	-226.16	222.80	-80.71	40°00'28.122"N	104°45'27.605"W	1.19	
4536.00	3.940	54.370	4526.20	-230.45	227.27	-76.71	40°00'28.166"N	104°45'27.554"W	1.92	
4625.00	4.590	49.420	4614.96	-234.31	231.37	-71.52	40°00'28.206"N	104°45'27.487"W	0.84	
4714.00	5.700	355.610	4703.65	-240.93	238.09	-69.15	40°00'28.273"N	104°45'27.457"W	5.34	
4803.00	6.290	278.500	4792.28	-246.29	243.23	-74.32	40°00'28.324"N	104°45'27.523"W	8.40	
4892.00	3.510	222.470	4880.99	-245.29	241.94	-80.98	40°00'28.311"N	104°45'27.609"W	5.86	
4981.00	4.610	267.010	4969.79	-243.34	239.74	-86.40	40°00'28.289"N	104°45'27.678"W	3.64	
5070.00	4.360	297.720	5058.53	-245.02	241.13	-92.96	40°00'28.303"N	104°45'27.763"W	2.68	
5159.00	4.440	336.870	5147.29	-249.95	245.87	-97.31	40°00'28.350"N	104°45'27.819"W	3.31	
5248.00	4.570	349.000	5236.01	-256.68	252.52	-99.34	40°00'28.415"N	104°45'27.845"W	1.08	
5337.00	4.460	350.700	5324.74	-263.62	259.41	-100.58	40°00'28.484"N	104°45'27.861"W	0.19	
5426.00	4.610	356.640	5413.46	-270.64	266.40	-101.35	40°00'28.553"N	104°45'27.870"W	0.55	
5515.00	4.590	3.650	5502.17	-277.75	273.52	-101.33	40°00'28.623"N	104°45'27.870"W	0.63	
5604.00	5.250	30.650	5590.86	-284.70	280.58	-99.03	40°00'28.693"N	104°45'27.841"W	2.68	
5694.00	4.910	25.080	5680.50	-291.56	287.61	-95.30	40°00'28.762"N	104°45'27.793"W	0.67	
5783.00	4.670	347.730	5769.21	-298.51	294.60	-94.45	40°00'28.831"N	104°45'27.782"W	3.45	
5872.00	5.640	348.240	5857.85	-306.40	302.43	-96.11	40°00'28.909"N	104°45'27.803"W	1.09	
5961.00	5.210	359.470	5946.46	-314.75	310.75	-97.04	40°00'28.991"N	104°45'27.815"W	1.28	
6050.00	5.760	11.460	6035.05	-323.12	319.17	-96.19	40°00'29.074"N	104°45'27.804"W	1.42	
6139.00	5.180	354.030	6123.65	-331.47	327.54	-95.72	40°00'29.157"N	104°45'27.798"W	1.97	
6228.00	5.250	345.500	6212.29	-339.46	335.48	-97.16	40°00'29.235"N	104°45'27.817"W	0.87	
6317.00	5.030	21.620	6300.95	-347.01	343.05	-96.74	40°00'29.310"N	104°45'27.811"W	3.58	
6406.00	5.670	351.900	6389.58	-354.94	351.03	-95.92	40°00'29.389"N	104°45'27.801"W	3.16	
6495.00	4.350	340.830	6478.24	-362.55	358.57	-97.65	40°00'29.464"N	104°45'27.823"W	1.83	
6584.00	5.360	17.080	6566.94	-369.71	365.74	-97.54	40°00'29.534"N	104°45'27.821"W	3.56	
6673.00	5.390	25.250	6655.55	-377.32	373.49	-94.53	40°00'29.611"N	104°45'27.783"W	0.86	
6763.00	4.790	309.780	6745.28	-383.60	379.72	-95.62	40°00'29.673"N	104°45'27.797"W	6.94	
6852.00	0.240	4.800	6834.18	-386.28	382.29	-98.46	40°00'29.698"N	104°45'27.833"W	5.23	
6940.00	6.770	226.240	6921.98	-383.05	378.88	-102.20	40°00'29.664"N	104°45'27.881"W	7.90	
7029.00	13.000	216.850	7009.62	-371.84	367.23	-112.00	40°00'29.549"N	104°45'28.007"W	7.21	
7118.00	19.990	182.000	7095.10	-348.86	343.93	-118.56	40°00'29.319"N	104°45'28.092"W	13.29	
7208.00	26.360	186.770	7177.80	-313.77	308.68	-121.45	40°00'28.970"N	104°45'28.129"W	7.37	
7297.00	36.330	194.830	7253.75	-268.98	263.44	-130.56	40°00'28.523"N	104°45'28.246"W	12.13	
7386.00	43.370	197.020	7322.04	-214.95	208.66	-146.27	40°00'27.982"N	104°45'28.448"W	8.06	
7475.00	54.460	192.460	7380.45	-150.96	143.86	-163.08	40°00'27.342"N	104°45'28.664"W	13.04	
7564.00	63.820	180.420	7426.18	-75.73	68.20	-171.23	40°00'26.594"N	104°45'28.768"W	15.64	
7653.00	71.200	174.230	7460.23	6.39	-13.83	-167.28	40°00'25.783"N	104°45'28.718"W	10.49	
7742.00	77.480	177.560	7484.24	92.00	-99.25	-161.19	40°00'24.939"N	104°45'28.639"W	7.92	
7831.00	89.380	182.130	7494.41	180.15	-187.48	-160.99	40°00'24.067"N	104°45'28.637"W	14.31	
7905.00†	90.328	181.515	7494.60	253.93	-261.44	-163.34	40°00'23.336"N	104°45'28.667"W	1.53	CROSSED 460'SETBACK (2182'FSL & 1149'FEL,SEC.34)

Actual Wellpath Report

HOMESTEAD 19 awb_awp

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REFERENCE WELLPATH IDENTIFICATION

Operator	VERDAD OIL & GAS CORPORATION	Slot	SLOT#05 HOMESTEAD 19 (2446'FSL & 984'FEL,SEC.34)
Area	COLORADO	Well	HOMESTEAD 19
Field	WELD COUNTY (NAD83/TN)	Wellbore	HOMESTEAD 19 awb
Facility	SEC.34-T1N-R66W		

WELLPATH DATA (166 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7920.00	90.520	181.390	7494.49	268.90	-276.44	-163.72	40°00'23.188"N	104°45'28.672"W	1.53	
8009.00	90.460	178.250	7493.73	357.81	-365.42	-163.44	40°00'22.309"N	104°45'28.668"W	3.53	
8098.00	90.000	178.270	7493.37	446.80	-454.38	-160.74	40°00'21.430"N	104°45'28.634"W	0.52	
8188.00	90.000	178.350	7493.37	536.79	-544.34	-158.09	40°00'20.541"N	104°45'28.600"W	0.09	
8277.00	90.150	177.930	7493.26	625.78	-633.30	-155.20	40°00'19.662"N	104°45'28.562"W	0.50	
8366.00	89.850	177.300	7493.26	714.78	-722.22	-151.49	40°00'18.783"N	104°45'28.515"W	0.78	
8455.00	89.910	176.100	7493.44	803.77	-811.07	-146.37	40°00'17.905"N	104°45'28.449"W	1.35	
8543.00	89.940	177.130	7493.56	891.76	-898.91	-141.18	40°00'17.037"N	104°45'28.382"W	1.17	
8633.00	89.820	177.250	7493.75	981.76	-988.81	-136.76	40°00'16.148"N	104°45'28.325"W	0.19	
8722.00	89.880	178.050	7493.98	1070.76	-1077.73	-133.11	40°00'15.270"N	104°45'28.279"W	0.90	
8811.00	89.970	182.660	7494.10	1159.62	-1166.70	-133.67	40°00'14.390"N	104°45'28.286"W	5.18	
8900.00	90.650	183.240	7493.61	1248.21	-1255.58	-138.25	40°00'13.512"N	104°45'28.344"W	1.00	
8989.00	91.010	181.440	7492.33	1336.87	-1344.50	-141.88	40°00'12.633"N	104°45'28.391"W	2.06	
9078.00	90.770	179.530	7490.94	1425.73	-1433.48	-142.63	40°00'11.754"N	104°45'28.401"W	2.16	
9167.00	90.710	177.390	7489.79	1514.71	-1522.43	-140.24	40°00'10.875"N	104°45'28.370"W	2.41	
9257.00	90.000	175.640	7489.24	1604.69	-1612.26	-134.77	40°00'09.987"N	104°45'28.300"W	2.10	
9346.00	90.030	176.380	7489.21	1693.66	-1701.04	-128.58	40°00'09.110"N	104°45'28.220"W	0.83	
9434.00	89.780	177.700	7489.36	1781.65	-1788.92	-124.03	40°00'08.241"N	104°45'28.162"W	1.53	
9523.00	89.750	176.200	7489.72	1870.65	-1877.80	-119.30	40°00'07.363"N	104°45'28.101"W	1.69	
9612.00	89.970	179.180	7489.94	1959.64	-1966.71	-115.71	40°00'06.484"N	104°45'28.055"W	3.36	
9702.00	89.910	179.820	7490.03	2049.58	-2056.71	-114.93	40°00'05.595"N	104°45'28.045"W	0.71	
9791.00	89.940	178.870	7490.15	2138.53	-2145.70	-113.91	40°00'04.715"N	104°45'28.032"W	1.07	
9880.00	89.970	179.630	7490.22	2227.49	-2234.69	-112.74	40°00'03.836"N	104°45'28.017"W	0.85	
9969.00	89.970	180.790	7490.27	2316.38	-2323.69	-113.07	40°00'02.957"N	104°45'28.021"W	1.30	
10058.00	90.220	183.320	7490.12	2405.09	-2412.63	-116.26	40°00'02.078"N	104°45'28.062"W	2.86	
10147.00	90.030	183.720	7489.93	2493.59	-2501.46	-121.72	40°00'01.200"N	104°45'28.132"W	0.50	
10236.00	90.120	182.990	7489.81	2582.12	-2590.31	-126.93	40°00'00.322"N	104°45'28.199"W	0.83	
10325.00	90.000	179.040	7489.72	2670.93	-2679.27	-128.51	39°59'59.443"N	104°45'28.219"W	4.44	
10414.00	90.120	176.530	7489.62	2759.92	-2768.20	-125.07	39°59'58.564"N	104°45'28.175"W	2.82	
10503.00	89.970	170.870	7489.55	2848.69	-2856.63	-115.31	39°59'57.690"N	104°45'28.050"W	6.36	
10592.00	90.120	170.020	7489.48	2937.02	-2944.39	-100.53	39°59'56.823"N	104°45'27.860"W	0.97	
10681.00	90.030	169.470	7489.37	3025.22	-3031.97	-84.69	39°59'55.957"N	104°45'27.656"W	0.63	
10770.00	90.060	171.280	7489.30	3113.54	-3119.71	-69.81	39°59'55.090"N	104°45'27.465"W	2.03	
10859.00	90.030	174.070	7489.23	3202.22	-3207.98	-58.46	39°59'54.218"N	104°45'27.319"W	3.14	
10948.00	90.310	174.390	7488.96	3291.08	-3296.53	-49.52	39°59'53.343"N	104°45'27.204"W	0.48	
11037.00	90.060	174.100	7488.68	3379.94	-3385.08	-40.59	39°59'52.468"N	104°45'27.090"W	0.43	
11126.00	90.280	172.970	7488.41	3468.73	-3473.51	-30.57	39°59'51.594"N	104°45'26.961"W	1.29	
11215.00	90.120	171.480	7488.10	3557.35	-3561.69	-18.53	39°59'50.722"N	104°45'26.806"W	1.68	
11304.00	90.280	173.320	7487.79	3646.00	-3649.90	-6.76	39°59'49.851"N	104°45'26.655"W	2.08	
11394.00	90.030	173.070	7487.55	3735.75	-3739.27	3.90	39°59'48.967"N	104°45'26.518"W	0.39	
11483.00	90.090	176.110	7487.45	3824.63	-3827.86	12.29	39°59'48.092"N	104°45'26.410"W	3.42	
11572.00	90.060	176.830	7487.34	3913.62	-3916.69	17.77	39°59'47.214"N	104°45'26.340"W	0.81	
11660.00	90.120	174.310	7487.20	4001.56	-4004.42	24.57	39°59'46.347"N	104°45'26.252"W	2.86	
11749.00	89.940	172.340	7487.15	4090.33	-4092.81	34.91	39°59'45.474"N	104°45'26.119"W	2.22	
11839.00	89.820	170.490	7487.34	4179.82	-4181.80	48.35	39°59'44.594"N	104°45'25.947"W	2.06	

Actual Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION

Operator	VERDAD OIL & GAS CORPORATION	Slot	SLOT#05 HOMESTEAD 19 (2446'FSL & 984'FEL,SEC.34)
Area	COLORADO	Well	HOMESTEAD 19
Field	WELD COUNTY (NAD83/TN)	Wellbore	HOMESTEAD 19 awb
Facility	SEC.34-T1N-R66W		

WELLPATH DATA (166 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11928.00	89.780	172.710	7487.65	4268.35	-4269.84	61.35	39°59'43.724"N	104°45'25.780"W	2.49	
12017.00	89.720	176.450	7488.04	4357.22	-4358.42	69.75	39°59'42.849"N	104°45'25.672"W	4.20	
12106.00	89.880	178.140	7488.35	4446.22	-4447.32	73.95	39°59'41.970"N	104°45'25.618"W	1.91	
12195.00	89.910	178.760	7488.51	4535.21	-4536.29	76.36	39°59'41.091"N	104°45'25.587"W	0.70	
12284.00	89.940	178.520	7488.63	4624.19	-4625.26	78.47	39°59'40.212"N	104°45'25.560"W	0.27	
12373.00	89.420	176.560	7489.13	4713.18	-4714.18	82.29	39°59'39.333"N	104°45'25.511"W	2.28	
12462.00	89.440	176.850	7490.01	4802.17	-4803.02	87.41	39°59'38.455"N	104°45'25.445"W	0.33	
12551.00	89.570	175.510	7490.78	4891.14	-4891.82	93.34	39°59'37.577"N	104°45'25.369"W	1.51	
12640.00	89.660	175.480	7491.38	4980.09	-4980.54	100.33	39°59'36.701"N	104°45'25.279"W	0.11	
12729.00	89.380	174.880	7492.13	5069.01	-5069.23	107.81	39°59'35.824"N	104°45'25.183"W	0.74	
12818.00	89.320	175.280	7493.13	5157.93	-5157.89	115.44	39°59'34.948"N	104°45'25.085"W	0.45	
12908.00	89.570	174.550	7494.01	5247.84	-5247.53	123.42	39°59'34.062"N	104°45'24.982"W	0.86	
12996.00	89.380	174.030	7494.81	5335.70	-5335.09	132.17	39°59'33.197"N	104°45'24.870"W	0.63	
13085.00	89.410	173.610	7495.75	5424.52	-5423.57	141.75	39°59'32.323"N	104°45'24.747"W	0.47	
13174.00	90.000	170.320	7496.21	5513.09	-5511.68	154.19	39°59'31.452"N	104°45'24.587"W	3.76	
13263.00	90.030	169.620	7496.19	5601.33	-5599.32	169.69	39°59'30.586"N	104°45'24.388"W	0.79	
13352.00	89.880	170.900	7496.26	5689.63	-5687.04	184.75	39°59'29.719"N	104°45'24.194"W	1.45	
13441.00	89.910	171.890	7496.42	5778.13	-5775.03	198.06	39°59'28.849"N	104°45'24.023"W	1.11	
13530.00	90.030	174.250	7496.47	5866.87	-5863.38	208.80	39°59'27.976"N	104°45'23.885"W	2.66	
13620.00	90.060	178.110	7496.40	5956.83	-5953.16	214.80	39°59'27.089"N	104°45'23.808"W	4.29	
13708.00	90.090	180.010	7496.28	6044.79	-6041.14	216.24	39°59'26.219"N	104°45'23.790"W	2.16	
13797.00	89.970	172.490	7496.23	6133.70	-6129.89	222.06	39°59'25.342"N	104°45'23.715"W	8.45	
13887.00	89.880	169.310	7496.35	6223.10	-6218.75	236.29	39°59'24.464"N	104°45'23.532"W	3.53	
13975.00	91.660	170.840	7495.17	6310.36	-6305.41	251.45	39°59'23.608"N	104°45'23.337"W	2.67	
14064.00	91.080	171.860	7493.04	6398.83	-6393.38	264.83	39°59'22.739"N	104°45'23.165"W	1.32	
14154.00	90.830	173.520	7491.54	6488.50	-6482.63	276.28	39°59'21.857"N	104°45'23.018"W	1.86	
14243.00	90.950	177.250	7490.16	6577.42	-6571.31	283.44	39°59'20.980"N	104°45'22.926"W	4.19	
14332.00	90.950	176.910	7488.68	6666.40	-6660.19	287.98	39°59'20.102"N	104°45'22.868"W	0.38	
14421.00	91.050	174.720	7487.13	6755.35	-6748.93	294.47	39°59'19.225"N	104°45'22.785"W	2.46	
14510.00	91.110	174.370	7485.45	6844.22	-6837.51	302.93	39°59'18.350"N	104°45'22.676"W	0.40	LAST BHI MWD SURVEY (559'FSL & 1128'FEL,SEC.3)
14534.00	91.110	174.370	7484.99	6868.18	-6861.39	305.28	39°59'18.114"N	104°45'22.646"W	0.00	PROJECITON TO BIT (535'FSL & 1126'FEL,SEC.3)

HOLE & CASING SECTIONS - Ref Wellbore: HOMESTEAD 19 awb Ref Wellpath: HOMESTEAD 19 awb_awp

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing Surface	16.00	1725.00	1709.00	16.00	1722.67	0.00	0.00	67.98	-31.27
8.5in Open Hole	1725.00	14532.00	12807.00	1722.67	7485.03	67.98	-31.27	-6859.40	305.09

Actual Wellpath Report

HOMESTEAD 19 awb_awp

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REFERENCE WELLPATH IDENTIFICATION

Operator	VERDAD OIL & GAS CORPORATION	Slot	SLOT#05 HOMESTEAD 19 (2446'FSL & 984'FEL,SEC.34)
Area	COLORADO	Well	HOMESTEAD 19
Field	WELD COUNTY (NAD83/TN)	Wellbore	HOMESTEAD 19 awb
Facility	SEC.34-T1N-R66W		

TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.3-T1N-R64W	0.00	0.00	-64.43	3207958.84	1246340.13	40°00'25.920"N	104°45'27.396"W	polygon
SEC.3/34-T1N-R64W 460'SETBACK	0.00	0.00	-64.43	3207958.84	1246340.13	40°00'25.920"N	104°45'27.396"W	polygon
SEC.34-T1N-R64W	0.00	0.00	-64.43	3207958.84	1246340.13	40°00'25.920"N	104°45'27.396"W	polygon
SEC.34-T1N-R64W HALF SECTION LINE	0.00	0.00	-64.43	3207958.84	1246340.13	40°00'25.920"N	104°45'27.396"W	polygon
HOMESTEAD 19 BHL (460'FSL & 1123'FEL,SEC.3,REV-3,NIO B)	7495.00	-6936.02	308.23	3208389.56	1239407.72	39°59'17.376"N	104°45'22.608"W	point
HOMESTEAD 19 LP (2185'FSL & 1123'FEL,SEC.34,REV-3,NIO B)	7495.00	-258.64	-137.27	3207888.17	1246080.89	40°00'23.364"N	104°45'28.332"W	point
HOMESTEAD 19 BHL (460'FSL & 1145'FEL,SEC.3,REV-1,NIO B)	7499.00	-6936.02	285.82	3208367.14	1239407.53	39°59'17.376"N	104°45'22.896"W	point
HOMESTEAD 19 BHL (460'FSL & 1123'FEL,SEC.3,REV-2,NIO B)	7508.00	-6936.02	308.23	3208389.56	1239407.72	39°59'17.376"N	104°45'22.608"W	point
HOMESTEAD 19 LP (2180'FSL & 1145'FEL,SEC.34,REV-1,NIO B)	7514.00	-265.93	-159.68	3207865.82	1246073.42	40°00'23.292"N	104°45'28.620"W	point
HOMESTEAD 19 LP (2185'FSL & 1123'FEL,SEC.34,REV-2,NIO B)	7523.00	-258.64	-137.27	3207888.17	1246080.89	40°00'23.364"N	104°45'28.332"W	point

WELLPATH COMPOSITION - Ref Wellbore: HOMESTEAD 19 awb Ref Wellpath: HOMESTEAD 19 awb_awp

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
16.00	1740.00	Custom BHI NaviTrak (Standard Rotating+Axial Corr) (Rockies 0.03Gt model)	BHI/NAVITRAK(AXIAL) MWD 12.25"-<135-1729>	HOMESTEAD 19 awb
1740.00	14510.00	Custom BHI AutoTrak Curve (Axial Corr, Short spacing) (Rockies 0.03Gt model)	BHI/ATC (SS,AXIAL) MWD 8.5"-<1778-14510>	HOMESTEAD 19 awb
14510.00	14534.00	Blind Drilling (std)	Projection to bit	HOMESTEAD 19 awb

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REFERENCE WELLPATH IDENTIFICATION

Operator	VERDAD OIL & GAS CORPORATION	Slot	SLOT#05 HOMESTEAD 19 (2446'FSL & 984'FEL,SEC.34)
Area	COLORADO	Well	HOMESTEAD 19
Field	WELD COUNTY (NAD83/TN)	Wellbore	HOMESTEAD 19 awb
Facility	SEC.34-T1N-R66W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
7905.00	90.328	181.515	7494.60	CROSSED 460'SETBACK (2182'FSL & 1149'FEL,SEC.34)
14510.00	91.110	174.370	7485.45	LAST BHI MWD SURVEY (559'FSL & 1128'FEL,SEC.3)
14534.00	91.110	174.370	7484.99	PROJECITON TO BIT (535'FSL & 1126'FEL,SEC.3)