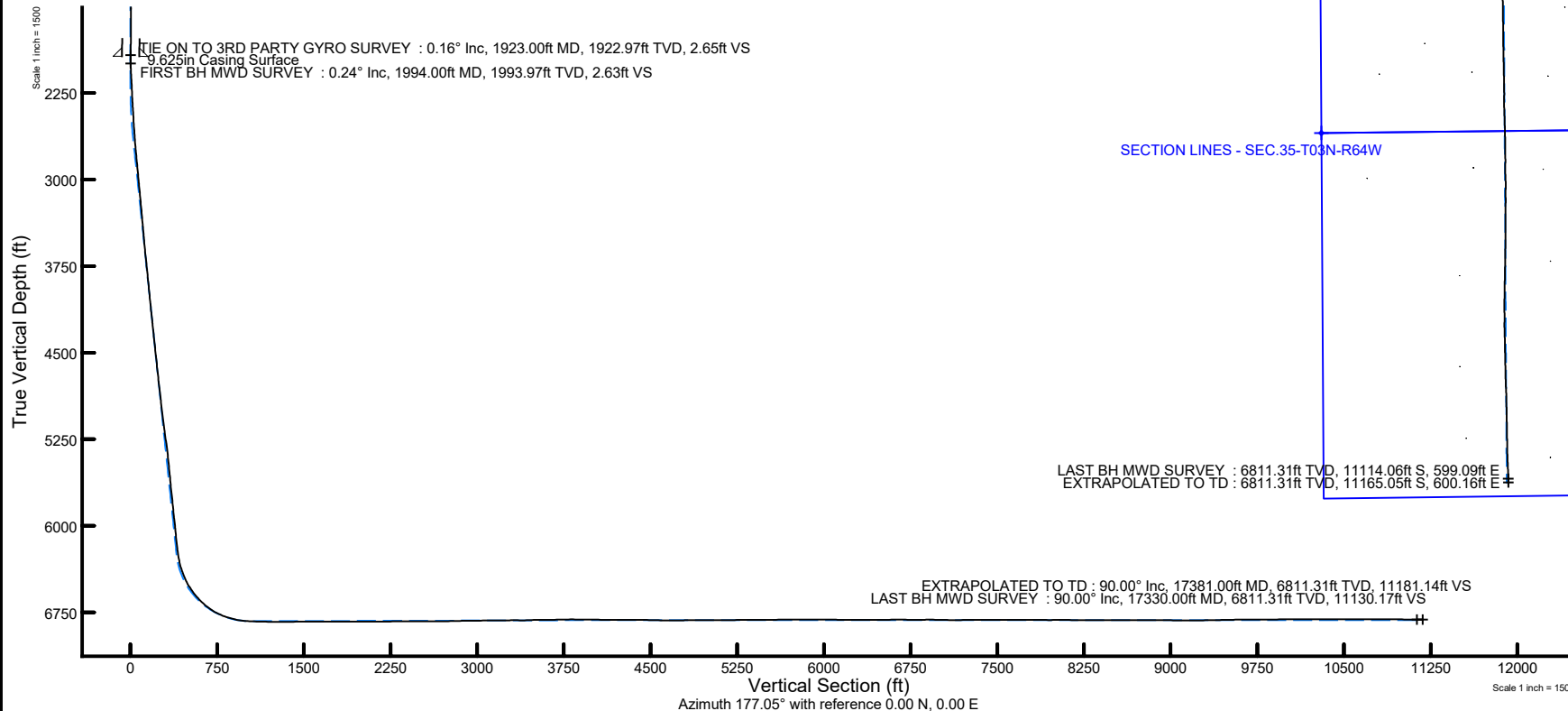


NOBLE ENERGY, INC

Location: COLORADO Slot: SLOT#27 GUTTERSEN D35-750 (2126'FWL & 816'FSL, SEC.23)
Field: WELD COUNTY (NOBLE NAD 83 GRID) Well: GUTTERSEN D35-750
Facility: SEC.23-T03N-R64W Wellbore: GUTTERSEN D35-750 AWB

Plot reference wellpath is GUTTERSEN D35-750 AWP	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
True vertical depths are referenced to H&P 517 (4830'GL+30'KB@4860') (RKB)	North Reference: Grid north
Reference wellpath measured depths are referenced to H&P 517 (4830'GL+30'KB@4860') (RKB)	Scale: True distance
H&P 517 (4830'GL+30'KB@4860') (RKB) to Mean Sea Level: 4860 feet	Coordinates are in feet referenced to Slot
Mean Sea Level to Mud line (At Slot: SLOT#27 GUTTERSEN D35-750 (2126'FWL & 816'FSL, SEC.23)): 0 feet	Depths are in feet
Offset wellpath MDs are referenced to each path's default MD datum	Created by: manajoh on 2020-03-31; Database: WA_NOBLE



REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	GUTTERSEN D35-750
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.23-T03N-R64W	Wellbore	GUTTERSEN D35-750 AWP
Slot	SLOT#27 GUTTERSEN D35-750 (2126'FWL & 816'FSL, SEC.23)		

REPORT SETUP INFORMATION			
Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 6.0
North Reference	Grid	User	Manajohj
Scale	0.999957	Report Generated	3/31/2020 at 8:53:20 PM
Convergence at slot	0.63° East	Database	WA_NOBLE

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	150.52	112.37	3273614.86	1319345.94	40°12'21.0701"N	104°31'13.3064"W
Facility Reference Pt			3273502.50	1319195.42	40°12'19.5950"N	104°31'14.7760"W
Field Reference Pt			3000000.00	4454105.15	48°46'34.3150"N	105°30'0.0000"W

WELLPATH DATUM			
Calculation method	Minimum curvature	H&P 517 (4830'GL+30'KB@4860') (RKB) to Facility Vertical Datum	4860.00ft
Horizontal Reference Pt	Slot	H&P 517 (4830'GL+30'KB@4860') (RKB) to Mean Sea Level	4860.00ft
Vertical Reference Pt	H&P 517 (4830'GL+30'KB@4860') (RKB)	H&P 517 (4830'GL+30'KB@4860') (RKB) to Mud Line at Slot (SLOT#27 GUTTERSEN D35-750 (2126'FWL & 816'FSL, SEC.23))	4860.00ft
MD Reference Pt	H&P 517 (4830'GL+30'KB@4860') (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	177.05°

REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Well	GUTTERSEN D35-750
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.23-T03N-R64W	Wellbore	GUTTERSEN D35-750 AWB
Slot	SLOT#27 GUTTERSEN D35-750 (2126'FWL & 816'FSL, SEC.23)		

WELLPATH DATA (181 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	TVDSS [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Tooface [°]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
0.00	0.000	139.710	0.00	-4860.00	0.00	0.00	0.00	40°12'21.0701"N	104°31'13.3064"W	0.00	0.00	0.00	0.00	
86.00	0.170	139.710	86.00	-4774.00	0.10	-0.10	0.08	40°12'21.0691"N	104°31'13.3054"W	0.20	115.45	0.20	0.00	FIRST 3RD PARTY GYRO SURVEY
181.00	0.210	208.190	181.00	-4679.00	0.36	-0.36	0.09	40°12'21.0665"N	104°31'13.3053"W	0.23	59.43	0.04	72.08	
272.00	0.290	229.050	272.00	-4588.00	0.65	-0.66	-0.16	40°12'21.0636"N	104°31'13.3086"W	0.13	-37.16	0.09	22.92	
367.00	0.680	206.820	367.00	-4493.00	1.28	-1.32	-0.60	40°12'21.0572"N	104°31'13.3143"W	0.45	-141.67	0.41	-23.40	
461.00	0.450	175.560	460.99	-4399.01	2.14	-2.18	-0.82	40°12'21.0486"N	104°31'13.3173"W	0.40	166.22	-0.24	-33.26	
556.00	0.190	196.130	555.99	-4304.01	2.66	-2.71	-0.84	40°12'21.0435"N	104°31'13.3175"W	0.29	122.57	-0.27	21.65	
651.00	0.170	248.320	650.99	-4209.01	2.85	-2.91	-1.01	40°12'21.0415"N	104°31'13.3198"W	0.17	-121.40	-0.02	54.94	
745.00	0.220	168.180	744.99	-4115.01	3.08	-3.14	-1.10	40°12'21.0392"N	104°31'13.3211"W	0.27	102.08	0.05	-85.26	
840.00	0.250	210.890	839.99	-4020.01	3.43	-3.49	-1.17	40°12'21.0357"N	104°31'13.3220"W	0.18	-164.10	0.03	44.96	
934.00	0.070	148.630	933.99	-3926.01	3.65	-3.72	-1.25	40°12'21.0335"N	104°31'13.3230"W	0.24	26.52	-0.19	-66.23	
1029.00	0.650	172.390	1028.98	-3831.02	4.24	-4.30	-1.15	40°12'21.0277"N	104°31'13.3218"W	0.62	-130.97	0.61	25.01	
1124.00	0.520	150.710	1123.98	-3736.02	5.16	-5.21	-0.86	40°12'21.0187"N	104°31'13.3183"W	0.27	-154.48	-0.14	-22.82	
1218.00	0.230	99.320	1217.98	-3642.02	5.58	-5.62	-0.47	40°12'21.0147"N	104°31'13.3132"W	0.44	171.72	-0.31	-54.67	
1313.00	0.100	251.690	1312.98	-3547.02	5.65	-5.67	-0.36	40°12'21.0141"N	104°31'13.3118"W	0.34	115.27	-0.14	160.39	
1408.00	0.150	329.880	1407.98	-3452.02	5.56	-5.59	-0.50	40°12'21.0149"N	104°31'13.3136"W	0.17	11.99	0.05	82.31	
1502.00	0.510	338.370	1501.98	-3358.02	5.05	-5.10	-0.72	40°12'21.0198"N	104°31'13.3164"W	0.39	-175.15	0.38	9.03	
1597.00	0.230	332.420	1596.97	-3263.03	4.48	-4.53	-0.96	40°12'21.0254"N	104°31'13.3194"W	0.30	87.69	-0.29	-6.26	
1692.00	0.420	26.940	1691.97	-3168.03	4.00	-4.05	-0.89	40°12'21.0301"N	104°31'13.3185"W	0.36	-153.09	0.20	57.39	
1786.00	0.330	18.680	1785.97	-3074.03	3.45	-3.49	-0.65	40°12'21.0357"N	104°31'13.3152"W	0.11	-63.82	-0.10	-8.79	
1881.00	0.420	359.700	1880.97	-2979.03	2.85	-2.88	-0.56	40°12'21.0417"N	104°31'13.3141"W	0.16	164.90	0.09	-19.98	
1923.00	0.160	27.750	1922.97	-2937.03	2.65	-2.68	-0.54	40°12'21.0437"N	104°31'13.3137"W	0.69	122.10	-0.62	66.79	TIE ON TO 3RD PARTY GYRO SURVEY
1994.00	0.240	115.470	1993.97	-2866.03	2.63	-2.65	-0.36	40°12'21.0439"N	104°31'13.3114"W	0.40	84.60	0.11	123.55	FIRST BH MWD SURVEY
2089.00	4.180	196.800	2088.88	-2771.12	5.99	-6.05	-1.18	40°12'21.0104"N	104°31'13.3224"W	4.37	-172.20	4.15	85.61	
2184.00	2.400	190.930	2183.72	-2676.28	11.18	-11.32	-2.55	40°12'20.9585"N	104°31'13.3409"W	1.90	-94.77	-1.87	-6.18	
2278.00	2.890	151.980	2277.63	-2582.37	15.23	-15.35	-1.81	40°12'20.9186"N	104°31'13.3320"W	1.94	-42.58	0.52	-41.44	
2373.00	4.950	132.650	2372.41	-2487.59	20.33	-20.24	2.33	40°12'20.8699"N	104°31'13.2793"W	2.55	-48.21	2.17	-20.35	
2468.00	6.370	119.820	2466.94	-2393.06	26.11	-25.64	9.91	40°12'20.8157"N	104°31'13.1823"W	1.99	-22.29	1.49	-13.51	
2562.00	7.780	115.610	2560.23	-2299.77	31.98	-30.98	20.18	40°12'20.7618"N	104°31'13.0508"W	1.60	77.03	1.50	-4.48	
2657.00	7.880	118.470	2654.34	-2205.66	38.45	-36.86	31.70	40°12'20.7024"N	104°31'12.9031"W	0.42	90.32	0.11	3.01	
2752.00	8.040	130.320	2748.43	-2111.57	46.40	-44.27	42.49	40°12'20.6280"N	104°31'12.7651"W	1.73	-108.48	0.17	12.47	
2846.00	7.980	128.980	2841.52	-2018.48	55.27	-52.63	52.57	40°12'20.5443"N	104°31'12.6363"W	0.21	163.23	-0.06	-1.43	
2941.00	7.880	129.200	2935.61	-1924.39	64.04	-60.89	62.75	40°12'20.4616"N	104°31'12.5064"W	0.11	-23.96	-0.11	0.23	
3035.00	8.070	128.600	3028.70	-1831.30	72.74	-69.08	72.90	40°12'20.3795"N	104°31'12.3768"W	0.22	112.02	0.20	-0.64	
3130.00	8.010	129.690	3122.76	-1737.24	81.65	-77.47	83.20	40°12'20.2955"N	104°31'12.2452"W	0.17	167.23	-0.06	1.15	
3224.00	7.760	130.110	3215.88	-1644.12	90.42	-85.74	93.09	40°12'20.2127"N	104°31'12.1188"W	0.27	155.57	-0.27	0.45	
3319.00	7.530	130.910	3310.03	-1549.97	99.11	-93.95	102.70	40°12'20.1306"N	104°31'11.9962"W	0.27	-57.26	-0.24	0.84	
3413.00	7.820	127.730	3403.19	-1456.81	107.55	-101.89	112.42	40°12'20.0510"N	104°31'11.8721"W	0.55	-109.34	0.31	-3.38	
3508.00	7.780	126.870	3497.31	-1362.69	115.88	-109.71	122.67	40°12'19.9727"N	104°31'11.7411"W	0.13	1.51	-0.04	-0.91	
3603.00	8.100	126.930	3591.40	-1268.60	124.29	-117.58	133.17	40°12'19.8937"N	104°31'11.6070"W	0.34	75.50	0.34	0.06	
3697.00	8.440	134.160	3684.42	-1175.58	133.59	-126.37	143.41	40°12'19.8057"N	104°31'11.4762"W	1.16	-74.52	0.36	7.69	
3792.00	8.870	126.090	3778.35	-1081.65	143.31	-135.54	154.33	40°12'19.7139"N	104°31'11.3368"W	1.35	84.70	0.45	-8.49	
3887.00	8.890	127.340	3872.21	-987.79	152.68	-144.31	166.08	40°12'19.6260"N	104°31'11.1865"W	0.20	-102.48	0.02	1.32	
3982.00	8.870	126.740	3966.07	-893.93	162.10	-153.14	177.79	40°12'19.5374"N	104°31'11.0369"W	0.10	109.05	-0.02	-0.63	
4076.00	8.850	127.120	4058.95	-801.05	171.38	-161.84	189.36	40°12'19.4502"N	104°31'10.8890"W	0.07	123.08	-0.02	0.40	

REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Well	GUTTERSEN D35-750
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.23-T03N-R64W	Wellbore	GUTTERSEN D35-750 AWB
Slot	SLOT#27 GUTTERSEN D35-750 (2126'FWL & 816'FSL, SEC.23)		

WELLPATH DATA (181 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	TVDSS [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Tooface [°]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
4171.00	8.650	129.220	4152.84	-707.16	180.89	-170.77	200.72	40°12'19.3608"N	104°31'10.7439"W	0.40	80.83	-0.21	2.21	
4265.00	8.680	130.380	4245.77	-614.23	190.50	-179.83	211.60	40°12'19.2700"N	104°31'10.6050"W	0.19	1.96	0.03	1.23	
4455.00	8.860	130.420	4433.55	-426.45	210.39	-198.61	233.66	40°12'19.0821"N	104°31'10.3233"W	0.09	-28.59	0.09	0.02	
4550.00	9.060	129.730	4527.39	-332.61	220.48	-208.13	244.99	40°12'18.9867"N	104°31'10.1788"W	0.24	171.43	0.21	-0.73	
4644.00	8.520	130.280	4620.28	-239.72	230.27	-217.37	255.99	40°12'18.8943"N	104°31'10.0383"W	0.58	28.61	-0.57	0.59	
4739.00	9.040	132.070	4714.17	-145.83	240.37	-226.92	266.90	40°12'18.7987"N	104°31'9.8990"W	0.62	-31.30	0.55	1.88	
4834.00	9.500	130.390	4807.93	-52.07	251.03	-237.00	278.41	40°12'18.6978"N	104°31'9.7521"W	0.56	164.64	0.48	-1.77	
4928.00	9.260	130.800	4900.67	40.67	261.58	-246.97	290.05	40°12'18.5981"N	104°31'9.6036"W	0.27	166.71	-0.26	0.44	
5023.00	8.650	131.760	4994.51	134.51	271.90	-256.72	301.16	40°12'18.5005"N	104°31'9.4617"W	0.66	26.41	-0.64	1.01	
5118.00	10.100	135.000	5088.24	228.24	283.19	-267.45	312.30	40°12'18.3932"N	104°31'9.3198"W	1.68	118.47	1.53	4.25	
5212.00	9.520	143.140	5180.87	320.87	295.84	-279.58	322.71	40°12'18.2722"N	104°31'9.1873"W	1.47	-67.04	-0.62	7.81	
5307.00	9.800	139.520	5274.53	414.53	308.77	-292.01	332.67	40°12'18.1483"N	104°31'9.0607"W	0.70	-108.58	0.29	-3.81	
5497.00	9.300	124.000	5461.92	601.92	330.83	-312.90	355.90	40°12'17.9393"N	104°31'8.7643"W	1.38	118.46	-0.26	-8.17	
5591.00	9.180	125.420	5554.70	694.70	340.05	-321.49	368.30	40°12'17.8531"N	104°31'8.6057"W	0.27	-156.76	-0.13	1.51	
5686.00	8.410	123.140	5648.59	788.59	348.84	-329.68	380.30	40°12'17.7708"N	104°31'8.4523"W	0.89	85.54	-0.81	-2.40	
5781.00	8.850	137.440	5742.52	882.52	358.57	-338.87	391.06	40°12'17.6789"N	104°31'8.3149"W	2.30	-133.70	0.46	15.05	
5875.00	7.610	126.500	5835.56	975.56	368.10	-347.89	400.95	40°12'17.5886"N	104°31'8.1887"W	2.12	51.66	-1.32	-11.64	
5970.00	8.840	135.730	5929.58	1069.58	377.58	-356.86	411.11	40°12'17.4989"N	104°31'8.0591"W	1.90	-131.28	1.29	9.72	
6065.00	8.180	130.130	6023.54	1163.54	387.68	-366.45	421.37	40°12'17.4031"N	104°31'7.9282"W	1.11	120.00	-0.69	-5.89	
6159.00	7.900	133.870	6116.61	1256.61	396.95	-375.23	431.14	40°12'17.3152"N	104°31'7.8035"W	0.63	45.57	-0.30	3.98	
6254.00	8.820	139.700	6210.61	1350.61	407.51	-385.31	440.56	40°12'17.2145"N	104°31'7.6836"W	1.32	23.43	0.97	6.14	
6349.00	13.080	147.640	6303.86	1443.86	422.67	-399.96	451.03	40°12'17.0687"N	104°31'7.5508"W	4.75	58.98	4.48	8.36	
6444.00	19.420	171.840	6395.12	1535.12	447.81	-424.72	459.04	40°12'16.8231"N	104°31'7.4510"W	9.63	28.20	6.67	25.47	
6538.00	26.730	180.250	6481.56	1621.56	484.54	-461.39	461.17	40°12'16.4605"N	104°31'7.4288"W	8.51	-21.33	7.78	8.95	
6633.00	35.220	174.610	6562.96	1702.96	533.34	-510.13	463.65	40°12'15.9787"N	104°31'7.4038"W	9.44	-7.14	8.94	-5.94	
6728.00	43.180	173.160	6636.52	1776.52	593.24	-569.77	470.11	40°12'15.3886"N	104°31'7.3291"W	8.43	-15.88	8.38	-1.53	
6822.00	52.110	169.970	6699.79	1839.79	662.29	-638.38	480.42	40°12'14.7096"N	104°31'7.2060"W	9.82	2.91	9.50	-3.39	
6917.00	61.490	170.510	6751.76	1891.76	741.13	-716.63	493.86	40°12'13.9348"N	104°31'7.0439"W	9.89	22.39	9.87	0.57	
7011.00	71.480	174.800	6789.23	1929.23	826.95	-802.00	504.74	40°12'13.0901"N	104°31'6.9159"W	11.42	28.08	10.63	4.56	
7106.00	78.590	178.640	6813.75	1953.75	918.65	-893.55	509.94	40°12'12.1848"N	104°31'6.8620"W	8.44	16.55	7.48	4.04	
7201.00	87.100	181.160	6825.58	1965.58	1012.70	-987.72	510.08	40°12'11.2543"N	104°31'6.8735"W	9.34	-45.38	8.96	2.65	
7296.00	88.640	179.600	6829.11	1969.11	1107.46	-1082.65	509.45	40°12'10.3164"N	104°31'6.8952"W	2.31	63.43	1.62	-1.64	
7390.00	88.650	179.620	6831.33	1971.33	1201.34	-1176.62	510.09	40°12'9.3878"N	104°31'6.9003"W	0.02	19.01	0.01	0.02	
7485.00	90.740	180.340	6831.84	1971.84	1296.21	-1271.61	510.13	40°12'8.4491"N	104°31'6.9135"W	2.33	-107.75	2.20	0.76	
7579.00	90.250	178.810	6831.02	1971.02	1390.11	-1365.60	510.82	40°12'7.5203"N	104°31'6.9179"W	1.71	147.72	-0.52	-1.63	
7674.00	90.060	178.930	6830.77	1970.77	1485.06	-1460.58	512.70	40°12'6.5815"N	104°31'6.9073"W	0.24	-8.97	-0.20	0.13	
7769.00	90.250	178.900	6830.51	1970.51	1580.01	-1555.57	514.50	40°12'5.6428"N	104°31'6.8976"W	0.20	94.61	0.20	-0.03	
7863.00	90.120	180.510	6830.21	1970.21	1673.91	-1649.56	514.98	40°12'4.7139"N	104°31'6.9048"W	1.72	-110.56	-0.14	1.71	
7958.00	90.030	180.270	6830.08	1970.08	1768.75	-1744.56	514.33	40°12'3.7753"N	104°31'6.9267"W	0.27	66.99	-0.09	-0.25	
8053.00	90.340	181.000	6829.77	1969.77	1863.56	-1839.55	513.28	40°12'2.8367"N	104°31'6.9538"W	0.83	137.89	0.33	0.77	
8148.00	89.820	181.470	6829.64	1969.64	1958.30	-1934.53	511.23	40°12'1.8984"N	104°31'6.9937"W	0.74	-54.74	-0.55	0.49	
8242.00	90.520	180.480	6829.36	1969.36	2052.08	-2028.51	509.63	40°12'0.9699"N	104°31'7.0278"W	1.29	-118.26	0.74	-1.05	
8337.00	90.090	179.680	6828.86	1968.86	2146.95	-2123.51	509.50	40°12'0.0312"N	104°31'7.0430"W	0.96	70.75	-0.45	-0.84	
8432.00	90.310	180.310	6828.53	1968.53	2241.82	-2218.51	509.51	40°11'59.0925"N	104°31'7.0565"W	0.70	-109.25	0.23	0.66	
8526.00	90.090	179.680	6828.20	1968.20	2335.69	-2312.51	509.52	40°11'58.1637"N	104°31'7.0698"W	0.71	-85.49	-0.23	-0.67	

REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Well	GUTTERSEN D35-750
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.23-T03N-R64W	Wellbore	GUTTERSEN D35-750 AWP
Slot	SLOT#27 GUTTERSEN D35-750 (2126'FWL & 816'FSL, SEC.23)		

WELLPATH DATA (181 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	TVDSS [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Toothface [°]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
8621.00	90.120	179.300	6828.02	1968.02	2430.61	-2407.50	510.36	40°11'57.2249"N	104°31'7.0724"W	0.40	118.39	0.03	-0.40	
8716.00	89.720	180.040	6828.16	1968.16	2525.51	-2502.50	510.91	40°11'56.2861"N	104°31'7.0789"W	0.89	-67.33	-0.42	0.78	
8810.00	90.430	178.340	6828.03	1968.03	2619.44	-2596.49	512.24	40°11'55.3573"N	104°31'7.0752"W	1.96	57.81	0.76	-1.81	
8905.00	90.990	179.230	6826.86	1966.86	2714.38	-2691.46	514.25	40°11'54.4186"N	104°31'7.0628"W	1.11	-8.27	0.59	0.94	
9000.00	91.540	179.150	6824.76	1964.76	2809.29	-2786.43	515.60	40°11'53.4801"N	104°31'7.0590"W	0.59	93.17	0.58	-0.08	
9094.00	91.510	179.690	6822.26	1962.26	2903.18	-2880.39	516.55	40°11'52.5515"N	104°31'7.0602"W	0.58	164.00	-0.03	0.57	
9189.00	89.940	180.140	6821.05	1961.05	2998.05	-2975.38	516.69	40°11'51.6128"N	104°31'7.0719"W	1.72	34.72	-1.65	0.47	
9283.00	90.950	180.840	6820.32	1960.32	3091.88	-3069.37	515.88	40°11'50.6842"N	104°31'7.0957"W	1.31	-100.58	1.07	0.74	
9378.00	90.310	177.420	6819.28	1959.28	3186.79	-3164.34	517.33	40°11'49.7456"N	104°31'7.0906"W	3.66	82.66	-0.67	-3.60	
9473.00	90.710	180.530	6818.43	1958.43	3281.72	-3259.31	519.03	40°11'48.8070"N	104°31'7.0823"W	3.30	-133.92	0.42	3.27	
9567.00	89.140	178.900	6818.56	1958.56	3375.61	-3353.30	519.49	40°11'47.8781"N	104°31'7.0896"W	2.41	17.07	-1.67	-1.73	
9662.00	93.110	180.120	6816.69	1956.69	3470.49	-3448.26	520.31	40°11'46.9397"N	104°31'7.0927"W	4.37	171.62	4.18	1.28	
9757.00	89.780	180.610	6814.30	1954.30	3565.28	-3543.21	519.70	40°11'46.0015"N	104°31'7.1141"W	3.54	1.47	-3.51	0.52	
9852.00	90.950	180.640	6813.69	1953.69	3660.10	-3638.20	518.67	40°11'45.0630"N	104°31'7.1410"W	1.23	-16.29	1.23	0.03	
9946.00	91.600	180.450	6811.60	1951.60	3753.90	-3732.17	517.77	40°11'44.1345"N	104°31'7.1659"W	0.72	-166.33	0.69	-0.20	
10041.00	89.050	179.830	6811.06	1951.06	3848.75	-3827.16	517.54	40°11'43.1959"N	104°31'7.1824"W	2.76	12.34	-2.68	-0.65	
10136.00	89.690	179.970	6812.11	1952.11	3943.62	-3922.16	517.71	40°11'42.2572"N	104°31'7.1938"W	0.69	114.01	0.67	0.15	
10230.00	89.080	181.340	6813.11	1953.11	4037.43	-4016.14	516.63	40°11'41.3286"N	104°31'7.2211"W	1.60	-90.69	-0.65	1.46	
10325.00	89.050	178.780	6814.67	1954.67	4132.28	-4111.12	516.53	40°11'40.3901"N	104°31'7.2359"W	2.69	-27.94	-0.03	-2.69	
10420.00	90.370	178.080	6815.15	1955.15	4227.25	-4206.08	519.13	40°11'39.4515"N	104°31'7.2159"W	1.57	57.16	1.39	-0.74	
10515.00	91.170	179.320	6813.87	1953.87	4322.20	-4301.05	521.29	40°11'38.5129"N	104°31'7.2017"W	1.55	178.41	0.84	1.31	
10609.00	88.280	179.400	6814.32	1954.32	4416.11	-4395.03	522.34	40°11'37.5841"N	104°31'7.2015"W	3.08	-51.70	-3.07	0.09	
10704.00	88.430	179.210	6817.05	1957.05	4510.99	-4489.98	523.49	40°11'36.6457"N	104°31'7.2002"W	0.25	14.68	0.16	-0.20	
10799.00	89.690	179.540	6818.61	1958.61	4605.90	-4584.96	524.53	40°11'35.7071"N	104°31'7.2004"W	1.37	34.38	1.33	0.35	
10893.00	89.880	179.670	6818.96	1958.96	4699.81	-4678.96	525.17	40°11'34.7782"N	104°31'7.2055"W	0.24	-29.94	0.20	0.14	
10988.00	90.800	179.140	6818.40	1958.40	4794.72	-4773.95	526.16	40°11'33.8394"N	104°31'7.2063"W	1.12	-140.41	0.97	-0.56	
11083.00	90.280	178.710	6817.50	1957.50	4889.67	-4868.93	527.94	40°11'32.9007"N	104°31'7.1969"W	0.71	61.07	-0.55	-0.45	
11177.00	90.490	179.090	6816.87	1956.87	4983.62	-4962.91	529.75	40°11'31.9718"N	104°31'7.1871"W	0.46	-135.00	0.22	0.40	
11272.00	90.340	178.940	6816.18	1956.18	5078.56	-5057.89	531.38	40°11'31.0331"N	104°31'7.1796"W	0.22	-152.90	-0.16	-0.16	
11366.00	89.910	178.720	6815.97	1955.97	5172.51	-5151.87	533.30	40°11'30.1042"N	104°31'7.1682"W	0.51	12.99	-0.46	-0.23	
11461.00	90.430	178.840	6815.69	1955.69	5267.47	-5246.85	535.32	40°11'29.1655"N	104°31'7.1557"W	0.56	-164.06	0.55	0.13	
11556.00	90.220	178.780	6815.15	1955.15	5362.42	-5341.83	537.30	40°11'28.2268"N	104°31'7.1438"W	0.23	125.84	-0.22	-0.06	
11651.00	90.090	178.960	6814.90	1954.90	5457.37	-5436.81	539.17	40°11'27.2880"N	104°31'7.1332"W	0.23	29.17	-0.14	0.19	
11745.00	90.950	179.440	6814.04	1954.04	5551.30	-5530.80	540.48	40°11'26.3592"N	104°31'7.1297"W	1.05	112.19	0.91	0.51	
11840.00	90.150	181.400	6813.13	1953.13	5646.13	-5625.78	539.79	40°11'25.4206"N	104°31'7.1523"W	2.23	-92.61	-0.84	2.06	
11934.00	90.030	178.770	6812.98	1952.98	5739.99	-5719.78	539.65	40°11'24.4919"N	104°31'7.1675"W	2.80	-81.30	-0.13	-2.80	
12029.00	90.180	177.790	6812.81	1952.81	5834.96	-5814.73	542.50	40°11'23.5533"N	104°31'7.1443"W	1.04	136.08	0.16	-1.03	
12124.00	89.910	178.050	6812.74	1952.74	5929.95	-5909.67	545.95	40°11'22.6148"N	104°31'7.1134"W	0.39	78.11	-0.28	0.27	
12219.00	90.030	178.620	6812.79	1952.79	6024.93	-6004.63	548.71	40°11'21.6761"N	104°31'7.0913"W	0.61	176.55	0.13	0.60	
12313.00	89.200	178.670	6813.42	1953.42	6118.89	-6098.60	550.93	40°11'20.7473"N	104°31'7.0761"W	0.88	-21.91	-0.88	0.05	
12408.00	90.120	178.300	6813.98	1953.98	6213.85	-6193.56	553.44	40°11'19.8087"N	104°31'7.0573"W	1.04	109.35	0.97	-0.39	
12502.00	89.260	180.750	6814.49	1954.49	6307.76	-6287.55	554.22	40°11'18.8799"N	104°31'7.0606"W	2.76	-35.58	-0.91	2.61	
12597.00	90.490	179.870	6814.70	1954.70	6402.60	-6382.55	553.71	40°11'17.9412"N	104°31'7.0808"W	1.59	-90.63	1.29	-0.93	
12691.00	90.460	177.170	6813.92	1953.92	6496.56	-6476.50	556.13	40°11'17.0126"N	104°31'7.0629"W	2.87	92.73	-0.03	-2.87	
12786.00	90.220	182.170	6813.35	1953.35	6591.42	-6571.47	556.68	40°11'16.0741"N	104°31'7.0694"W	5.27	-97.01	-0.25	5.26	

REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Well	GUTTERSEN D35-750
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.23-T03N-R64W	Wellbore	GUTTERSEN D35-750 AWB
Slot	SLOT#27 GUTTERSEN D35-750 (2126'FWL & 816'FSL, SEC.23)		

WELLPATH DATA (181 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	TVDSS [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Toolface [°]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
12881.00	89.820	178.920	6813.32	1953.32	6686.23	-6666.45	555.78	40°11'15.1356"N	104°31'7.0946"W	3.45	-104.46	-0.42	-3.42	
12975.00	89.320	176.980	6814.03	1954.03	6780.22	-6760.38	559.14	40°11'14.2071"N	104°31'7.0647"W	2.13	52.33	-0.53	-2.06	
13070.00	91.420	179.700	6813.41	1953.41	6875.18	-6855.33	561.89	40°11'13.2686"N	104°31'7.0428"W	3.62	156.44	2.21	2.86	
13165.00	88.210	181.100	6813.72	1953.72	6970.00	-6950.31	561.23	40°11'12.3301"N	104°31'7.0649"W	3.69	-62.93	-3.38	1.47	
13260.00	89.320	178.930	6815.77	1955.77	7064.84	-7045.28	561.20	40°11'11.3917"N	104°31'7.0787"W	2.57	65.13	1.17	-2.28	
13354.00	90.280	180.920	6816.09	1956.09	7158.71	-7139.27	561.26	40°11'10.4629"N	104°31'7.0914"W	2.43	-48.81	1.02	2.20	
13449.00	90.490	180.760	6815.46	1955.46	7253.50	-7234.26	559.80	40°11'9.5244"N	104°31'7.1237"W	0.34	-127.37	0.22	-0.25	
13544.00	89.940	180.040	6815.10	1955.10	7348.33	-7329.26	559.14	40°11'8.5858"N	104°31'7.1458"W	0.95	-38.85	-0.58	-0.76	
13638.00	91.020	179.170	6814.31	1954.31	7442.23	-7423.25	559.79	40°11'7.6570"N	104°31'7.1509"W	1.48	134.16	1.15	-0.93	
13733.00	89.320	178.930	6815.77	1955.77	7537.10	-7518.24	559.71	40°11'6.7183"N	104°31'7.1654"W	2.57	-88.60	-1.79	1.84	
13827.00	89.350	179.700	6815.12	1955.12	7630.94	-7612.23	559.20	40°11'5.7896"N	104°31'7.1853"W	1.30	31.91	0.03	-1.30	
13922.00	91.630	181.120	6814.31	1954.31	7725.76	-7707.22	558.52	40°11'4.8511"N	104°31'7.2076"W	2.83	-169.36	2.40	1.49	
14017.00	88.650	180.560	6814.08	1954.08	7820.54	-7802.20	557.13	40°11'3.9127"N	104°31'7.2391"W	3.19	-47.36	-3.14	-0.59	
14111.00	89.350	179.800	6815.72	1955.72	7914.38	-7896.18	556.84	40°11'2.9841"N	104°31'7.2563"W	1.10	53.90	0.74	-0.81	
14206.00	91.020	182.090	6815.41	1955.41	8009.15	-7991.16	555.27	40°11'2.0458"N	104°31'7.2900"W	2.98	178.66	1.76	2.41	
14300.00	88.890	182.140	6815.48	1955.48	8102.78	-8085.09	551.80	40°11'1.1180"N	104°31'7.3481"W	2.27	-71.08	-2.27	0.05	
14395.00	89.480	180.420	6816.84	1956.84	8197.51	-8180.05	549.68	40°11'0.1798"N	104°31'7.3890"W	1.91	48.37	0.62	-1.81	
14490.00	89.880	180.870	6817.37	1957.37	8292.32	-8275.04	548.61	40°10'59.2413"N	104°31'7.4163"W	0.63	-39.81	0.42	0.47	
14584.00	89.940	180.820	6817.51	1957.51	8386.11	-8369.03	547.22	40°10'58.3127"N	104°31'7.4476"W	0.08	113.20	0.06	-0.05	
14679.00	89.820	181.100	6817.71	1957.71	8480.89	-8464.02	545.63	40°10'57.3743"N	104°31'7.4816"W	0.32	-37.78	-0.13	0.29	
14774.00	90.220	180.790	6817.68	1957.68	8575.67	-8559.00	544.06	40°10'56.4358"N	104°31'7.5154"W	0.53	-93.05	0.42	-0.33	
14963.00	90.090	178.350	6817.17	1957.17	8764.47	-8747.98	545.48	40°10'54.5683"N	104°31'7.5240"W	1.29	82.79	-0.07	-1.29	
15058.00	90.550	181.990	6816.64	1956.64	8859.31	-8842.97	545.20	40°10'53.6298"N	104°31'7.5412"W	3.86	-117.13	0.48	3.83	
15153.00	88.680	178.340	6817.28	1957.28	8954.15	-8937.94	544.93	40°10'52.6913"N	104°31'7.5583"W	4.32	5.36	-1.97	-3.84	
15247.00	89.320	178.400	6818.92	1958.92	9048.11	-9031.89	547.60	40°10'51.7627"N	104°31'7.5372"W	0.68	38.46	0.68	0.06	
15342.00	90.000	178.940	6819.48	1959.48	9143.07	-9126.86	549.81	40°10'50.8240"N	104°31'7.5223"W	0.91	-15.42	0.72	0.57	
15437.00	90.580	178.780	6819.00	1959.00	9238.02	-9221.84	551.70	40°10'49.8852"N	104°31'7.5115"W	0.63	48.81	0.61	-0.17	
15531.00	90.650	178.860	6817.99	1957.99	9331.97	-9315.82	553.63	40°10'48.9564"N	104°31'7.5000"W	0.11	-10.97	0.07	0.09	
15626.00	91.630	178.670	6816.10	1956.10	9426.91	-9410.77	555.68	40°10'48.0179"N	104°31'7.4872"W	1.05	180.00	1.03	-0.20	
15721.00	90.920	178.670	6813.99	1953.99	9521.84	-9505.72	557.88	40°10'47.0794"N	104°31'7.4723"W	0.75	105.95	-0.75	0.00	
15815.00	90.860	178.880	6812.53	1952.53	9615.79	-9599.69	559.89	40°10'46.1507"N	104°31'7.4598"W	0.23	-177.06	-0.06	0.22	
15910.00	89.690	178.820	6812.07	1952.07	9710.74	-9694.67	561.80	40°10'45.2119"N	104°31'7.4488"W	1.23	-82.23	-1.23	-0.06	
16005.00	90.000	176.550	6812.33	1952.33	9805.73	-9789.59	565.64	40°10'44.2736"N	104°31'7.4129"W	2.41	60.25	0.33	-2.39	
16099.00	91.080	178.440	6811.44	1951.44	9899.71	-9883.49	569.74	40°10'43.3453"N	104°31'7.3734"W	2.32	119.10	1.15	2.01	
16194.00	90.490	179.500	6810.14	1950.14	9994.65	-9978.46	571.45	40°10'42.4066"N	104°31'7.3649"W	1.28	-125.87	-0.62	1.12	
16289.00	89.420	178.020	6810.21	1950.21	10089.60	-10073.43	573.51	40°10'41.4679"N	104°31'7.3520"W	1.92	56.96	-1.13	-1.56	
16383.00	90.220	179.250	6810.51	1950.51	10183.56	-10167.40	575.75	40°10'40.5391"N	104°31'7.3365"W	1.56	-118.22	0.85	1.31	
16478.00	90.000	178.840	6810.33	1950.33	10278.51	-10262.39	577.33	40°10'39.6004"N	104°31'7.3296"W	0.49	82.73	-0.23	-0.43	
16573.00	90.060	179.310	6810.28	1950.28	10373.45	-10357.38	578.86	40°10'38.6616"N	104°31'7.3234"W	0.50	-83.88	0.06	0.49	
16667.00	90.090	179.030	6810.16	1950.16	10467.38	-10451.37	580.22	40°10'37.7327"N	104°31'7.3193"W	0.30	-57.53	0.03	-0.30	
16762.00	90.370	178.590	6809.77	1949.77	10562.34	-10546.35	582.20	40°10'36.7939"N	104°31'7.3074"W	0.55	129.47	0.29	-0.46	
16857.00	90.090	178.930	6809.39	1949.39	10657.29	-10641.32	584.25	40°10'35.8552"N	104°31'7.2945"W	0.46	170.54	-0.29	0.36	
16951.00	89.970	178.950	6809.34	1949.34	10751.24	-10735.31	585.99	40°10'34.9263"N	104°31'7.2855"W	0.13	-107.17	-0.13	0.02	
17141.00	89.420	177.170	6810.35	1950.35	10941.20	-10925.19	592.42	40°10'33.0494"N	104°31'7.2297"W	0.98	70.31	-0.29	-0.94	
17330.00	90.000	178.790	6811.31	1951.31	11130.17	-11114.06	599.09	40°10'31.1823"N	104°31'7.1708"W	0.91	0.00	0.31	0.86	LAST BH MWD SURVEY

REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Well	GUTTERSEN D35-750
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.23-T03N-R64W	Wellbore	GUTTERSEN D35-750 AWB
Slot	SLOT#27 GUTTERSEN D35-750 (2126'FWL & 816'FSL, SEC.23)		

WELLPATH DATA (181 stations) † = interpolated, ‡ = extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	TVDSS [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Toolface [°]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
17381.00‡	90.000	178.790	6811.31	1951.31	11181.14	-11165.05	600.16	40°10'30.6783"N	104°31'7.1642"W	0.00		0.00	0.00	EXTRAPOLATED TO TD

HOLE & CASING SECTIONS - Ref Wellbore: GUTTERSEN D35-750 AWB Ref Wellpath: GUTTERSEN D35-750 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]
13.5in Open Hole	30.00	1933.00	1903.00	30.00	1932.97	-0.01	0.01	-2.66	-0.52
9.625in Casing Surface	30.00	1933.00	1903.00	30.00	1932.97	-0.01	0.01	-2.66	-0.52
8.5in Open Hole	1933.00	17381.00	15448.00	1932.97	6811.31	-2.66	-0.52	-11165.05	600.16

TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
GUTTERSEN D35-750 BHL REV-1 (200' FSL & 2640'FWL, SEC.35)	6816.00	-11165.97	576.20	3274191.04	1308180.46	40°10'30.6718"N	104°31'7.4730"W	point
GUTTERSEN D35-750 TPZ REV-1 (200'FNL & 2640'FWL, SEC.26)	6826.00	-1012.41	518.42	3274133.26	1318333.58	40°12'11.0095"N	104°31'6.7696"W	point
SECTION LINES - SEC.23-T03N-R64W	8000.00	4458.09	-2146.83	3271468.13	1323803.83	40°13'5.3556"N	104°31'40.3441"W	polygon
2D Polygon: dimensions not calculated								
SECTION LINES - SEC.26-T03N-R64W	8000.00	-833.56	-2122.54	3271492.42	1318512.41	40°12'13.0642"N	104°31'40.7786"W	polygon
2D Polygon: dimensions not calculated								
SECTION LINES - SEC.35-T03N-R64W	8000.00	-6121.17	-2095.62	3271519.33	1313225.04	40°11'20.8123"N	104°31'41.1787"W	polygon
2D Polygon: dimensions not calculated								

WELLPATH COMPOSITION - Ref Wellbore: GUTTERSEN D35-750 AWB Ref Wellpath: GUTTERSEN D35-750 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date
0.00	1923.00	Gyrodata 2015 - GC+DROP+COND	13.5" GYRODATA 2015 (GC+DROP+COND) <0' - 1923'>	GUTTERSEN D35-750 AWB	3/23/2020
1923.00	17381.00	OWSG MWD rev2 + IFR1 + Multi-Station Correction	8.5" OWSG MWD REV.2 (IFR1+MSA) <1994' - 17330'>	GUTTERSEN D35-750 AWB	3/23/2020

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	GUTTERSEN D35-750
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.23-T03N-R64W	Wellbore	GUTTERSEN D35-750 AWB
Slot	SLOT#27 GUTTERSEN D35-750 (2126'FWL & 816'FSL, SEC.23)		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
86.00	0.170	139.710	86.00	FIRST 3RD PARTY GYRO SURVEY
1923.00	0.160	27.750	1922.97	TIE ON TO 3RD PARTY GYRO SURVEY
1994.00	0.240	115.470	1993.97	FIRST BH MWD SURVEY
17330.00	90.000	178.790	6811.31	LAST BH MWD SURVEY
17381.00	90.000	178.790	6811.31	EXTRAPOLATED TO TD