



EQT (Chevron Data) 02-13-21

Marshall County, WV Chevron

Longworth

M07H

OH

Design: Longworth 7H As-Drilled

Standard Survey Report

26 July, 2021

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Office of Oil and Gas

NOV 18 2022

WV Department of
Environmental Protection

12/16/2022



EQT
Survey Report

Database:	EDM_Definitive	Local Co-ordinate Reference:	Well M07H
Company:	EQT (Chevron Data) 02-13-21	TVD Reference:	H14 @ 1287.000usft (H14)
Project:	Marshall County, WV Chevron	MD Reference:	H14 @ 1287.000usft (H14)
Site:	Longworth	North Reference:	True
Well:	M07H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Longworth 7H As-Drilled		

Project: Marshall County, WV Chevron

Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	West Virginia Northern Zone		

Site: Longworth

Site Position:		Northing:	493,086.404 usft	Latitude:	39.85
From:	Map	Easting:	1,624,022.636 usft	Longitude:	-80.73
Position Uncertainty:	0.000 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-0.7825 °

Well: M07H

Well Position	+N/-S	0.000 usft	Northing:	493,032.770 usft	Latitude:	39.8471683
	+E/-W	0.000 usft	Easting:	1,624,141.730 usft	Longitude:	80.7265072°W
Position Uncertainty		0.000 usft	Wellhead Elevation:	0.000 usft	Ground Level:	1,270.000 usft

Wellbore: OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	User Defined	5/16/2016	-8.7191	67.0776	52,269.24290376

Design: Longworth 7H As-Drilled

Audit Notes:	RECEIVED Office of Oil and Gas NOV 18 2022				
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.000
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.000	0.000	0.000	137.935	

Survey Program Date: 7/26/2021

From (')	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	571.000	Surface Gyro (OH)	SDI Standard Keeper 103 c	SDI Standard Wireline Keeper ver 1.0.3 c
0.00	15,944.000	BHGE ATC (OH)	11_MWD+IFR1+AX+Sag c	A007Mb: IFR dec & axial + sag corrections c

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.000	0.000	0.000	0.000	-1,287.000	0.000	0.000	0.000	0.00000	0.00000	0.00000
100.000	0.420	352.690	99.999	-1,187.001	0.364	-0.047	-0.301	0.42000	0.42000	0.00000
125.000	0.360	339.180	124.999	-1,162.001	0.528	-0.086	-0.450	0.43758	-0.24000	-54.04000
150.000	0.360	317.070	149.998	-1,137.002	0.659	-0.168	-0.601	0.55224	0.00000	-88.44000
175.000	0.410	302.940	174.997	-1,112.002	0.765	-0.296	-0.766	0.42767	0.20000	-56.52000
200.000	0.360	313.450	199.997	-1,087.003	0.868	-0.428	-0.931	0.34531	-0.20000	42.04000
225.000	0.360	297.120	224.996	-1,062.004	0.957	-0.555	-1.083	0.40903	0.00000	-65.32000
250.000	0.320	301.750	249.996	-1,037.004	1.030	-0.684	-1.223	0.19398	-0.16000	18.52000



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Wellbore:	OH		
Design:	Longworth 7H As-Drilled		

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275.000	0.300	288.350	274.996	-1,012.004	1.087	-0.806	-1.347	0.30005	-0.08000	-53.60000
300.000	0.360	283.480	299.995	-987.005	1.126	-0.944	-1.469	0.26472	0.24000	-19.48000
325.000	0.330	267.800	324.995	-962.005	1.142	-1.093	-1.580	0.39480	-0.12000	-62.72000
350.000	0.300	287.340	349.994	-937.006	1.158	-1.227	-1.682	0.44368	-0.12000	78.16000
375.000	0.530	284.070	374.994	-912.006	1.206	-1.402	-1.835	0.92449	0.92000	-13.08000
400.000	0.700	279.440	399.992	-887.008	1.259	-1.665	-2.050	0.70791	0.68000	-18.52000
425.000	0.480	269.290	424.991	-862.009	1.283	-1.920	-2.239	0.97091	-0.88000	-40.60000
450.000	0.430	268.520	449.990	-837.010	1.279	-2.118	-2.369	0.20149	-0.20000	-3.08000
475.000	0.380	300.110	474.990	-812.010	1.318	-2.284	-2.509	0.90266	-0.20000	126.36000
500.000	0.570	280.710	499.989	-787.011	1.383	-2.478	-2.687	0.98546	0.76000	-77.60000
525.000	0.560	274.190	524.987	-762.012	1.415	-2.722	-2.874	0.26012	-0.04000	-26.08000
550.000	0.540	288.000	549.986	-737.014	1.460	-2.956	-3.065	0.53490	-0.08000	55.24000
571.000	0.470	287.290	570.986	-716.014	1.517	-3.132	-3.224	0.33466	-0.33333	-3.38095
579.000	0.470	287.290	578.985	-708.015	1.536	-3.195	-3.281	0.00000	0.00000	0.00000
684.000	0.770	278.850	683.979	-603.021	1.773	-4.303	-4.199	0.29790	0.28571	-8.03810
715.000	0.730	276.400	714.976	-572.024	1.827	-4.705	-4.509	0.16535	-0.12903	-7.90323
746.000	0.670	307.240	745.974	-541.026	1.958	-5.046	-4.834	1.21519	-0.19355	99.48387
767.000	0.860	303.970	766.972	-520.028	2.121	-5.274	-5.108	0.92798	0.90476	-15.57143
777.000	0.920	300.810	776.971	-510.029	2.204	-5.405	-5.258	0.77497	0.60000	-31.60000
809.000	0.760	279.020	808.968	-478.032	2.369	-5.836	-5.668	1.10710	-0.50000	-68.09375
840.000	0.540	272.560	839.966	-447.034	2.407	-6.185	-5.931	0.74691	-0.70968	-20.83871
871.000	0.530	281.080	870.964	-416.036	2.442	-6.471	-6.148	0.25840	-0.03226	27.48387
902.000	0.580	257.740	901.963	-385.037	2.436	-6.765	-6.341	0.74129	0.16129	-75.29032
964.000	0.820	257.670	963.958	-323.042	2.274	-7.505	-6.717	0.38710	0.38710	-0.11290
995.000	0.720	249.790	994.955	-292.045	2.160	-7.905	-6.899	0.46912	-0.32258	-25.41936
1,027.000	0.750	253.920	1,026.953	-260.047	2.032	-8.295	-7.066	0.19020	0.09375	12.90625
1,058.000	0.360	277.170	1,057.951	-229.049	1.988	-8.586	-7.229	1.42795	-1.25806	75.00000
1,089.000	0.530	267.480	1,088.950	-198.050	1.994	-8.826	-7.394	0.59781	0.54839	-31.25807
1,120.000	0.640	249.760	1,119.949	-167.051	1.928	-9.132	-7.549	0.67884	0.35484	-57.16129
1,151.000	0.400	231.280	1,150.947	-136.052	1.800	-9.379	-7.620	0.93493	-0.77419	-59.61290
1,182.000	0.640	228.260	1,181.946	-105.054	1.617	-9.592	-7.627	0.77896	0.77419	-9.74194
1,213.000	1.070	228.940	1,212.943	-74.057	1.312	-9.940	-7.633	1.38746	1.38710	2.19355
1,245.000	1.840	232.390	1,244.932	-42.068	0.802	-10.572	-7.679	2.42068	2.40625	10.78125
1,276.000	2.270	224.570	1,275.912	-11.088	0.061	-11.397	-7.681	1.65290	1.38710	-25.22581
1,307.000	2.580	230.560	1,306.884	19.884	-0.820	-12.367	-7.677	1.29038	1.00000	19.32258
1,338.000	2.640	218.340	1,337.852	50.853	-1.823	-13.349	-7.590	1.80197	0.19355	-39.41936
1,370.000	3.310	224.060	1,369.809	82.809	-3.065	-14.448	-7.405	2.28754	2.09375	17.87500
1,401.000	3.560	222.980	1,400.754	113.754	-4.412	-15.727	-7.261	0.83299	0.80645	-3.48387
1,432.000	4.070	228.020	1,431.685	144.685	-5.852	-17.201	-7.180	1.96742	1.64516	16.25806
1,463.000	4.340	224.670	1,462.601	175.601	-7.422	-18.843	-7.115	1.17713	0.87097	-10.80645
1,494.000	4.670	224.380	1,493.506	206.506	-9.158	-20.550	-6.969	1.06705	1.06452	-0.93548
1,526.000	4.990	223.830	1,525.392	238.392	-11.093	-22.425	-6.789	1.01041	1.00000	-1.71875

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1,557.000	5.000	222.490	1,556.274	269.274	-13.062	-24.271	-6.564	0.37773	0.03226	-4.32258
1,588.000	5.480	220.630	1,587.145	300.145	-15.181	-26.148	-6.248	1.64229	1.54839	-6.00000
1,619.000	5.650	224.910	1,617.999	330.999	-17.385	-28.189	-5.979	1.44640	0.54839	13.80645
1,650.000	5.720	224.260	1,648.846	361.846	-19.573	-30.345	-5.800	0.30680	0.22581	-2.09677
1,682.000	5.950	224.160	1,680.680	393.680	-21.905	-32.613	-5.588	0.71945	0.71875	-0.31250
1,713.000	5.110	218.260	1,711.536	424.536	-24.141	-34.587	-5.250	3.26863	-2.70968	-19.03226
1,744.000	4.740	218.930	1,742.421	455.422	-26.222	-36.247	-4.818	1.20787	-1.19355	2.16129
1,775.000	4.120	215.320	1,773.329	486.329	-28.127	-37.696	-4.374	2.19200	-2.00000	-11.64516
1,806.000	3.460	212.680	1,804.261	517.261	-29.823	-38.845	-3.885	2.20163	-2.12903	-8.51613
1,838.000	2.360	202.970	1,836.219	549.219	-31.242	-39.623	-3.353	3.75490	-3.43750	-30.34375
1,869.000	1.620	180.430	1,867.201	580.201	-32.268	-39.875	-2.760	3.43132	-2.38710	-72.70968
1,900.000	1.570	152.880	1,898.189	611.189	-33.084	-39.685	-2.027	2.45493	-0.16129	-88.87097
1,931.000	1.340	142.190	1,929.179	642.179	-33.749	-39.269	-1.255	1.14462	-0.74194	-34.48387
1,962.000	1.160	112.470	1,960.172	673.172	-34.155	-38.757	-0.610	2.14286	-0.58065	-95.87097
1,994.000	1.680	110.060	1,992.162	705.162	-34.440	-38.017	0.097	1.63532	1.62500	-7.53125
2,025.000	1.570	105.760	2,023.150	736.150	-34.711	-37.182	0.858	0.52951	-0.35484	-13.87097
2,056.000	1.950	92.140	2,054.135	767.135	-34.846	-36.246	1.585	1.81488	1.22581	-43.93548
2,087.000	2.270	90.000	2,085.114	798.114	-34.865	-35.105	2.364	1.06291	1.03226	-6.90323
2,118.000	2.630	91.370	2,116.086	829.086	-34.882	-33.780	3.264	1.17647	1.16129	4.41935
2,150.000	3.010	91.000	2,148.047	861.047	-34.915	-32.206	4.343	1.18886	1.18750	-1.15625
2,227.000	3.930	87.340	2,224.905	937.905	-34.828	-27.549	7.399	1.22835	1.19481	-4.75325
2,316.000	3.760	72.620	2,313.707	1,026.707	-33.814	-21.717	10.553	1.12216	-0.19101	-16.53933
2,406.000	3.360	54.420	2,403.536	1,116.536	-31.398	-16.755	12.084	1.32520	-0.44444	-20.22222
2,496.000	3.400	3.390	2,493.399	1,206.399	-27.199	-14.452	10.509	3.23411	0.04444	-56.70000
2,585.000	3.960	347.470	2,582.217	1,295.217	-21.564	-14.963	5.984	1.30309	0.62921	-17.88764
2,674.000	2.920	351.070	2,671.056	1,384.056	-16.324	-15.981	1.412	1.19291	-1.16854	4.04494
2,764.000	2.390	347.210	2,760.959	1,473.959	-12.230	-16.753	-2.145	0.62117	-0.58889	-4.28889
2,854.000	2.070	339.200	2,850.891	1,563.891	-8.880	-17.745	-5.296	0.49552	-0.35556	-8.90000
2,943.000	1.520	325.810	2,939.847	1,652.847	-6.401	-18.979	-7.964	0.77317	-0.61798	-15.04494
3,032.000	1.430	340.980	3,028.818	1,741.818	-4.375	-20.005	-10.155	0.44881	-0.10112	17.04494
3,122.000	2.460	351.470	3,118.765	1,831.765	-1.403	-20.657	-12.798	1.20618	1.14444	11.65556
3,212.000	2.400	4.180	3,208.685	1,921.685	2.387	-20.806	-15.711	0.60120	-0.06667	14.12222
KOP=3302' MD										
3,302.000	3.230	8.880	3,298.576	2,011.576	6.771	-20.278	-18.612	0.95646	0.92222	5.22222
3,391.000	5.980	18.360	3,387.281	2,100.281	13.650	-18.430	-22.481	3.19565	3.08989	10.65169
3,481.000	6.760	14.700	3,476.725	2,189.725	23.223	-15.609	-27.698	0.97666	0.86667	-4.06667
3,570.000	7.420	20.040	3,565.045	2,278.045	33.689	-12.310	-33.258	1.04728	0.74157	6.00000
3,659.000	8.010	31.210	3,653.244	2,366.244	44.392	-7.128	-37.731	1.80701	0.66292	12.55056
3,749.000	8.140	33.380	3,742.352	2,455.352	55.076	-0.373	-41.137	0.36817	0.14444	2.41111
3,838.000	11.790	40.790	3,829.998	2,542.998	67.226	9.038	-43.852	4.33859	4.10112	8.32584
3,938.000	11.730	41.770	3,927.899	2,640.899	82.542	22.483	-46.215	0.20855	-0.06000	0.98000
4,017.000	10.880	44.290	4,005.366	2,718.366	93.868	33.039	-47.551	1.24422	-1.07595	3.18987
4,107.000	10.940	49.390	4,093.741	2,806.741	105.507	45.454	-47.874	1.07424	0.06667	5.66667

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4,196.000	10.460	54.950	4,181.196	2,894.196	115.644	58.479	-46.673	1.27849	-0.53933	6.24719
4,286.000	10.140	54.460	4,269.745	2,982.746	124.941	71.614	-44.775	0.36864	-0.35556	-0.54444
4,375.000	9.710	54.200	4,357.413	3,070.413	133.886	84.076	-43.066	0.48576	-0.48315	-0.29213
4,464.000	9.040	56.960	4,445.224	3,158.225	142.088	96.025	-41.150	0.90639	-0.75281	3.10112
4,554.000	9.880	62.600	4,534.002	3,247.002	149.497	108.808	-38.086	1.38891	0.93333	6.26667
4,643.000	10.330	60.310	4,621.621	3,334.621	156.963	122.519	-34.442	0.67774	0.50562	-2.57303
4,732.000	9.730	61.990	4,709.261	3,422.261	164.448	136.091	-30.906	0.74998	-0.67416	1.88764
4,776.000	10.640	58.500	4,752.567	3,465.567	168.316	142.838	-29.258	2.49801	2.06818	-7.93182
4,855.000	12.790	58.600	4,829.917	3,542.917	176.684	156.521	-26.302	2.72164	2.72152	0.12658
4,944.000	13.200	57.220	4,916.638	3,629.638	187.318	173.474	-22.839	0.57772	0.46067	-1.55056
5,034.000	14.080	56.170	5,004.099	3,717.099	198.977	191.207	-19.613	1.01571	0.97778	-1.16667
5,123.000	14.150	54.610	5,090.412	3,803.412	211.304	209.069	-16.798	0.43462	0.07865	-1.75281
5,212.000	14.160	54.420	5,176.710	3,889.710	223.938	226.791	-14.304	0.05340	0.01124	-0.21348
5,302.000	14.210	53.970	5,263.966	3,976.966	236.841	244.678	-11.899	0.13453	0.05556	-0.50000
5,391.000	14.180	53.610	5,350.248	4,063.248	249.734	262.287	-9.673	0.10476	-0.03371	-0.40449
5,480.000	14.260	53.420	5,436.521	4,149.521	262.734	279.865	-7.547	0.10407	0.08989	-0.21348
5,570.000	14.700	62.630	5,523.674	4,236.674	274.591	298.909	-3.590	2.60223	0.48889	10.23333
5,659.000	15.310	88.060	5,609.732	4,322.732	280.186	320.704	6.858	7.37151	0.68539	28.57303
5,748.000	17.340	93.600	5,695.145	4,408.145	279.751	345.688	23.920	2.87231	2.28090	6.22472
5,838.000	23.280	108.060	5,779.564	4,492.564	273.386	376.029	48.973	8.59529	6.60000	16.06667
5,927.000	28.630	119.440	5,859.608	4,572.608	257.432	411.366	84.492	8.18895	6.01124	12.78652
6,017.000	33.750	121.050	5,936.575	4,649.575	233.923	451.590	128.893	5.76337	5.68889	1.78889
6,106.000	34.820	120.730	6,010.110	4,723.110	208.186	494.613	176.824	1.21918	1.20225	-0.35955
6,195.000	34.740	121.380	6,083.210	4,796.210	181.997	538.104	225.404	0.42619	-0.08989	0.73034
6,285.000	34.710	123.180	6,157.183	4,870.183	154.621	581.444	274.765	1.13973	-0.03333	2.00000
6,374.000	35.920	123.380	6,229.804	4,942.804	126.389	624.453	324.539	1.36574	1.35955	0.22472
6,464.000	40.030	124.550	6,300.735	5,013.735	95.436	670.357	378.272	4.63602	4.56667	1.30000
6,553.000	46.530	127.190	6,365.499	5,078.499	59.641	719.715	437.915	7.57990	7.30337	2.96629
6,643.000	53.790	130.300	6,423.126	5,136.127	16.352	773.503	506.088	8.49007	8.06667	3.45556
M07H LP										
6,711.927	59.114	132.316	6,461.207	5,174.207	-21.575	816.615	563.128	8.09888	7.72399	2.92478
6,732.000	60.670	132.860	6,471.276	5,184.276	-33.325	829.399	580.416	8.09888	7.75212	2.71027
6,822.000	67.390	135.400	6,510.670	5,223.670	-89.662	887.399	661.098	7.88517	7.46667	2.82222
Top of Marcellus @ 6532' TVD										
6,882.464	71.899	138.056	6,531.700	5,244.700	-130.935	926.228	717.754	8.51830	7.45770	4.39216
6,911.000	74.040	139.260	6,540.057	5,253.057	-151.419	944.248	745.034	8.51830	7.50202	4.22037
7,000.000	81.540	143.230	6,558.874	5,271.874	-219.217	998.617	831.792	9.48631	8.42697	4.46067
LP=7090' MD/ 6566' TVD										
7,090.000	89.110	146.380	6,566.206	5,279.206	-292.465	1,050.262	920.771	9.10480	8.41111	3.50000
M07H LP2										
7,094.557	89.108	146.315	6,566.276	5,279.277	-296.259	1,052.788	925.279	1.42719	-0.03394	-1.42696
7,179.000	89.080	145.110	6,567.611	5,280.611	-366.017	1,100.351	1,008.932	1.42719	-0.03370	-1.42697
7,269.000	88.770	142.630	6,569.300	5,282.300	-438.689	1,153.403	1,098.427	2.77652	-0.34444	-2.75556

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EQT
Survey Report

Database:	EDM_Definitive	Local Co-ordinate Reference:	Well M07H
Company:	EQT (Chevron Data) 02-13-21	TVD Reference:	H14 @ 1287.000usft (H14)
Project:	Marshall County, WV Chevron	MD Reference:	H14 @ 1287.000usft (H14)
Site:	Longworth	North Reference:	True
Well:	M07H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Longworth 7H As-Drilled		

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
7,359.000	89.140	143.000	6,570.942	5,283.942	-510.379	1,207.789	1,188.085	0.58135	0.41111	0.41111
7,448.000	88.920	139.920	6,572.449	5,285.449	-579.974	1,263.227	1,276.894	3.46899	-0.24719	-3.46067
7,537.000	88.950	139.700	6,574.103	5,287.103	-647.950	1,320.651	1,365.830	0.24944	0.03371	-0.24719
7,626.000	89.630	143.950	6,575.206	5,288.206	-717.894	1,375.641	1,454.598	4.83563	0.76404	4.77528
7,716.000	89.630	147.570	6,575.787	5,288.788	-792.282	1,426.271	1,543.743	4.02214	0.00000	4.02222
7,805.000	90.220	147.760	6,575.904	5,288.904	-867.481	1,473.874	1,631.462	0.69645	0.66292	0.21348
7,895.000	89.910	143.970	6,575.802	5,288.802	-941.962	1,524.368	1,720.585	4.22517	-0.34444	-4.21111
7,985.000	89.480	140.900	6,576.281	5,289.281	-1,013.292	1,579.230	1,810.295	3.44435	-0.47778	-3.41111
8,074.000	89.380	136.780	6,577.167	5,290.167	-1,080.280	1,637.791	1,899.261	4.63035	-0.11236	-4.62921
8,163.000	89.200	132.760	6,578.270	5,291.270	-1,142.941	1,700.958	1,988.100	4.52103	-0.20225	-4.51685
8,252.000	89.540	133.800	6,579.249	5,292.249	-1,203.952	1,765.746	2,076.800	1.22933	0.38202	1.16854
8,342.000	88.980	130.320	6,580.411	5,293.412	-1,264.229	1,832.549	2,166.305	3.91608	-0.62222	-3.86667
8,431.000	89.080	131.710	6,581.918	5,294.918	-1,322.626	1,899.692	2,254.642	1.56561	0.11236	1.56180
8,520.000	88.220	134.960	6,584.016	5,297.016	-1,383.678	1,964.400	2,343.318	3.77636	-0.96629	3.65169
8,609.000	89.570	140.680	6,585.733	5,298.733	-1,449.590	2,024.122	2,432.262	6.60223	1.51685	6.42697
8,699.000	89.630	139.360	6,586.362	5,299.362	-1,518.551	2,081.946	2,522.199	1.46815	0.06667	-1.46667
8,788.000	89.720	142.550	6,586.867	5,299.867	-1,587.663	2,138.001	2,611.062	3.58564	0.10112	3.58427
8,877.000	89.720	145.980	6,587.302	5,300.302	-1,659.895	2,189.972	2,699.505	3.85389	0.00000	3.85393
8,967.000	89.880	146.260	6,587.616	5,300.616	-1,734.613	2,240.143	2,788.588	0.35832	0.17778	0.31111
9,056.000	89.850	143.700	6,587.826	5,300.826	-1,807.493	2,291.212	2,876.908	2.87659	-0.03371	-2.87640
9,146.000	89.780	142.060	6,588.116	5,301.116	-1,879.254	2,345.524	2,966.570	1.82387	-0.07778	-1.82222
9,235.000	90.340	140.180	6,588.023	5,301.023	-1,948.534	2,401.386	3,055.428	2.20407	0.62921	-2.11236
9,325.000	90.460	139.650	6,587.395	5,300.395	-2,017.390	2,459.337	3,145.371	0.60378	0.13333	-0.58889
9,415.000	91.940	142.590	6,585.509	5,298.510	-2,087.426	2,515.810	3,235.200	3.65651	1.64444	3.26667
9,504.000	90.890	137.780	6,583.310	5,296.311	-2,155.746	2,572.763	3,324.077	5.53008	-1.17978	-5.40449
9,594.000	90.180	135.330	6,582.470	5,295.470	-2,221.081	2,634.644	3,414.040	2.83410	-0.78889	-2.72222
9,683.000	89.720	133.790	6,582.548	5,295.548	-2,283.526	2,698.056	3,502.882	1.80588	-0.51685	-1.73094
9,773.000	89.630	138.030	6,583.058	5,296.058	-2,348.152	2,760.662	3,592.804	4.71210	-0.10000	4.71111
9,862.000	89.170	139.960	6,583.990	5,296.991	-2,415.309	2,819.051	3,681.780	2.22916	-0.51685	2.16854
9,952.000	88.860	140.950	6,585.538	5,298.538	-2,484.699	2,876.343	3,771.678	1.15251	-0.34444	1.10000
10,041.000	88.800	141.970	6,587.355	5,300.355	-2,554.297	2,931.783	3,860.490	1.14781	-0.06742	1.14607
10,130.000	88.800	143.000	6,589.219	5,302.219	-2,624.875	2,985.969	3,949.189	1.15705	0.00000	1.15730
10,220.000	88.860	143.190	6,591.057	5,304.057	-2,696.827	3,040.002	4,038.805	0.22135	0.06667	0.21111
10,309.000	88.860	143.540	6,592.827	5,305.827	-2,768.231	3,093.099	4,127.388	0.39318	0.00000	0.39326
10,399.000	88.710	145.590	6,594.736	5,307.736	-2,841.540	3,145.264	4,216.762	2.28336	-0.16667	2.27778
10,488.000	88.650	147.200	6,596.786	5,309.786	-2,915.644	3,194.508	4,304.767	1.80976	-0.06742	1.80899
10,577.000	88.740	147.120	6,598.813	5,311.813	-2,990.401	3,242.760	4,392.593	0.13528	0.10112	-0.08989
10,667.000	88.710	145.300	6,600.816	5,313.816	-3,065.177	3,292.799	4,481.630	2.02200	-0.03333	-2.02222

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EQT
Survey Report

Database:	EDM_Definitive	Local Co-ordinate Reference:	Well: M07H
Company:	EQT (Chevron Data) 02-13-21	TVD Reference:	H14 @ 1287.000usft (H14)
Project:	Marshall County, WV Chevron	MD Reference:	H14 @ 1287.000usft (H14)
Site:	Longworth	North Reference:	True
Well:	M07H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Longworth 7H As-Drilled		

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,756.000	89.110	143.770	6,602.509	5,315.509	-3,137.649	3,344.426	4,570.021	1.77658	0.44944	-1.71910
10,845.000	89.020	143.160	6,603.961	5,316.961	-3,209.150	3,397.402	4,658.595	0.69272	-0.10112	-0.68539
10,935.000	89.380	145.950	6,605.218	5,318.218	-3,282.456	3,449.584	4,747.977	3.12540	0.40000	3.10000
11,024.000	89.350	148.630	6,606.205	5,319.205	-3,357.331	3,497.671	4,835.780	3.01124	-0.03371	3.01124
11,114.000	89.450	145.700	6,607.147	5,320.148	-3,432.940	3,546.463	4,924.600	3.25727	0.11111	-3.25556
11,203.000	89.570	139.740	6,607.909	5,320.909	-3,503.721	3,600.345	5,013.247	6.69774	0.13483	-6.69663
11,293.000	89.450	136.450	6,608.679	5,321.679	-3,570.692	3,660.446	5,103.231	3.65785	-0.13333	-3.65556
11,382.000	89.480	134.680	6,609.510	5,322.510	-3,634.237	3,722.749	5,192.147	1.98896	0.03371	-1.98876
11,472.000	89.420	134.240	6,610.374	5,323.374	-3,697.271	3,786.983	5,281.977	0.49339	-0.06667	-0.48889
11,561.000	89.480	134.590	6,611.229	5,324.229	-3,759.555	3,850.552	5,370.805	0.39898	0.06742	0.39326
11,651.000	89.480	134.950	6,612.045	5,325.045	-3,822.936	3,914.443	5,460.664	0.39998	0.00000	0.40000
11,785.000	89.350	138.260	6,613.414	5,326.414	-3,920.286	4,006.487	5,594.602	2.47192	-0.09701	2.47015
11,830.000	89.420	139.660	6,613.897	5,326.897	-3,954.225	4,036.031	5,639.591	3.11482	0.15556	3.11111
11,919.000	89.480	139.760	6,614.751	5,327.751	-4,022.109	4,093.581	5,728.545	0.13103	0.06742	0.11236
12,009.000	89.420	138.880	6,615.615	5,328.615	-4,090.358	4,152.242	5,818.513	0.98000	-0.06667	-0.97778
12,098.000	89.420	138.090	6,616.516	5,329.516	-4,156.995	4,211.230	5,907.504	0.88759	0.00000	-0.88764
12,188.000	89.420	139.630	6,617.427	5,330.427	-4,224.769	4,270.436	5,997.485	1.71102	0.00000	1.71111
12,277.000	89.260	145.740	6,618.453	5,331.453	-4,295.514	4,324.358	6,086.131	6.86706	-0.17978	6.86517
12,367.000	89.420	148.810	6,619.490	5,332.490	-4,371.215	4,373.004	6,174.921	3.41551	0.17778	3.41111
12,456.000	89.480	146.370	6,620.345	5,333.345	-4,446.342	4,420.700	6,262.650	2.74228	0.06742	-2.74157
12,546.000	89.450	144.080	6,621.185	5,334.185	-4,520.260	4,472.026	6,351.913	2.54455	-0.03333	-2.54444
12,635.000	89.420	142.010	6,622.063	5,335.063	-4,591.373	4,525.526	6,440.550	2.32597	-0.03371	-2.32584
12,725.000	89.450	139.590	6,622.951	5,335.951	-4,661.110	4,582.402	6,530.426	2.68896	0.03333	-2.68889
12,814.000	89.350	134.600	6,623.883	5,336.883	-4,726.277	4,642.969	6,619.384	5.60756	-0.11236	-5.60674
12,904.000	89.020	135.020	6,625.163	5,338.163	-4,789.698	4,706.813	6,709.240	0.59345	-0.36667	0.46667
12,993.000	89.020	139.920	6,626.686	5,339.686	-4,855.255	4,766.948	6,798.197	5.50481	0.00000	5.50562
13,083.000	89.080	139.520	6,628.179	5,341.179	-4,923.906	4,825.127	6,888.141	0.44936	0.06667	-0.44444
13,172.000	89.050	139.150	6,629.631	5,342.631	-4,991.406	4,883.114	6,977.103	0.41704	-0.03371	-0.41573
13,261.000	88.710	143.780	6,631.372	5,344.372	-5,060.992	4,938.535	7,065.892	5.21526	-0.38202	5.20225

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Survey Report

Database:	EDM_Definitive	Local Co-ordinate Reference:	Well M07H
Company:	EQT (Chevron Data) 02-13-21	TVD Reference:	H14 @ 1287.000usft (H14)
Project:	Marshall County, WV Chevron	MD Reference:	H14 @ 1287.000usft (H14)
Site:	Longworth	North Reference:	True
Well:	M07H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Longworth 7H As-Drilled		

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
13,351.00	89.080	150.890	6,633.109	5,346.109	-5,136.695	4,987.070	7,154.610	7.90921	0.41111	7.90000
0										
13,440.00	89.200	153.570	6,634.445	5,347.445	-5,215.428	5,028.528	7,240.837	3.01391	0.13483	3.01124
0										
13,530.00	89.260	151.500	6,635.655	5,348.655	-5,295.273	5,070.031	7,327.918	2.30076	0.06667	-2.30000
0										
13,619.00	89.350	149.000	6,636.735	5,349.735	-5,372.531	5,114.188	7,414.857	2.81060	0.10112	-2.80899
0										
13,708.00	89.290	146.480	6,637.791	5,350.791	-5,447.781	5,161.685	7,502.543	2.83206	-0.06742	-2.83146
0										
13,798.00	89.080	144.780	6,639.071	5,352.071	-5,522.057	5,212.486	7,591.721	1.90306	-0.23333	-1.88889
0										
13,887.00	88.980	142.670	6,640.578	5,353.578	-5,593.794	5,265.134	7,680.249	2.37311	-0.11236	-2.37079
0										
13,976.00	88.830	140.110	6,642.279	5,355.279	-5,663.321	5,320.656	7,769.063	2.88081	-0.16854	-2.87640
0										
14,066.00	88.950	137.340	6,644.023	5,357.023	-5,730.941	5,380.010	7,859.029	3.08009	0.13333	-3.07778
0										
14,155.00	88.920	134.530	6,645.678	5,358.678	-5,794.875	5,441.890	7,947.951	3.15694	-0.03371	-3.15730
0										
14,244.00	88.770	138.120	6,647.472	5,360.472	-5,859.222	5,503.328	8,036.883	4.03641	-0.16854	4.03371
0										
14,334.00	89.020	142.440	6,649.209	5,362.209	-5,928.419	5,560.817	8,126.769	4.80714	0.27778	4.80000
0										
14,423.00	89.230	145.010	6,650.568	5,363.568	-6,000.155	5,613.464	8,215.297	2.89693	0.23596	2.88764
0										
14,512.00	89.420	145.750	6,651.617	5,364.617	-6,073.391	5,664.024	8,303.540	0.85837	0.21348	0.83146
0										
14,601.00	89.690	146.060	6,652.308	5,365.308	-6,147.090	5,713.913	8,391.678	0.46190	0.30337	0.34831
0										
14,691.00	90.000	141.960	6,652.551	5,365.551	-6,219.895	5,766.789	8,481.153	4.56854	0.34444	-4.55556
0										
14,780.00	89.450	140.400	6,652.979	5,365.979	-6,289.233	5,822.579	8,570.006	1.85853	-0.61798	-1.75281
0										
14,869.00	89.200	141.960	6,654.027	5,367.027	-6,358.568	5,878.365	8,658.854	1.77505	-0.28090	1.75281
0										
14,959.00	89.230	142.440	6,655.260	5,368.260	-6,429.675	5,933.521	8,748.596	0.53432	0.03333	0.53333
0										
15,026.36	89.207	141.380	6,656.179	5,369.179	-6,482.688	5,975.074	8,815.791	1.57325	-0.03377	-1.57303
5										
15,048.00	89.200	141.040	6,656.480	5,369.480	-6,499.550	5,988.626	8,837.390	1.57325	-0.03351	-1.57304
0										
15,137.00	89.200	139.280	6,657.722	5,370.722	-6,567.878	6,045.636	8,926.310	1.97734	0.00000	-1.97753
0										
15,227.00	88.830	140.250	6,659.269	5,372.270	-6,636.573	6,103.760	9,016.250	1.15337	-0.41111	1.07778
0										
15,316.00	88.890	143.030	6,661.041	5,374.041	-6,706.340	6,158.977	9,105.038	3.12370	0.06742	3.12360
0										

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Survey Report

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Company: EQT (Chevron Data) 02-13-21	TVD Reference:	H14 @ 1287.000usft (H14)
Project: Marshall County, WV Chevron	MD Reference:	H14 @ 1287.000usft (H14)
Site: Longworth	North Reference:	True
Well: M07H	Survey Calculation Method:	Minimum Curvature
Wellbore: OH		
Design: Longworth 7H As-Drilled		

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
15,405.00 0	88.890	144.510	6,662.765	5,375.765	-6,778.116	6,211.567	9,193.557	1.66261	0.00000	1.66292
15,495.00 0	88.800	145.200	6,664.579	5,377.579	-6,851.694	6,263.364	9,282.883	0.77301	-0.10000	0.76667
15,585.00 0	88.800	146.710	6,666.464	5,379.464	-6,926.249	6,313.738	9,371.981	1.67741	0.00000	1.67778
15,674.00 0	88.860	147.270	6,668.281	5,381.281	-7,000.866	6,362.213	9,459.853	0.63268	0.06742	0.62921
15,764.00 0	88.830	145.380	6,670.095	5,383.095	-7,075.745	6,412.104	9,548.867	2.09984	-0.03333	-2.10000
15,853.00 0	88.830	143.810	6,671.913	5,384.913	-7,148.270	6,463.654	9,637.246	1.76368	0.00000	-1.76404
Final Survey=15919' MD/ 6673' TVD										
15,919.00 0	88.740	143.850	6,673.312	5,386.312	-7,201.538	6,502.598	9,702.882	0.14922	-0.13636	0.06061
M07H BHL										
15,940.84 3	88.740	143.850	6,673.793	5,386.793	-7,219.171	6,515.480	9,724.603	0.00000	0.00000	0.00000
Projection to BHL Design Point of Well - 15944' MD/6532' TVD										
15,944.00 0	88.740	143.850	6,673.862	5,386.862	-7,221.720	6,517.342	9,727.743	0.00000	0.00000	0.00000

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Target Name	- hit/miss target	- Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (6.771)	+E/-W (-20.278)	Northing (usft)	Easting (usft)	Latitude	Longitude
Longworth 7H KOP			0.000	0.000	3,298.57 6	6.771	-20.278	493,039.817	1,624,121.547	39.8471868	80.7265794°W
	- actual wellpath hits target center										
	- Point										
Longworth 7H LP			0.000	0.000	6,566.20 6	-292.465	1,050.262	492,725.993	1,625,187.901	39.8463653	80.7227666°W
	- actual wellpath hits target center										
	- Point										
Longworth 7H BHL			0.000	0.000	6,673.86 2	-7,221.719	6,517.341	485,722.748	1,630,559.872	39.8273400	80.7033017°W
	- actual wellpath hits target center										
	- Point										

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
6,882.464	6,531.700	Top of Marcellus@6532' TVD		0.0000	



EQT
Survey Report

Database:	EDM_Definitive	Local Co-ordinate Reference:	Well M07H
Company:	EQT (Chevron Data) 02-13-21	TVD Reference:	H14 @ 1287.000usft (H14)
Project:	Marshall County, WV Chevron	MD Reference:	H14 @ 1287.000usft (H14)
Site:	Longworth	North Reference:	True
Well:	M07H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Longworth 7H As-Drilled		

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
3,302.000	3,298.576	6.771	-20.278	KOP=3302' MD
7,090.000	6,566.206	-292.465	1,050.262	LP=7090' MD/ 6566' TVD
15,919.000	6,673.312	-7,201.538	6,502.598	Final Survey=15919' MD/ 6673' TVD
15,944.000	6,673.862	-7,221.720	6,517.342	Projection to BHL/Deepest Point of Well=15944' MD/ 6674' TVD

Checked By: _____ Approved By: _____ Date: _____

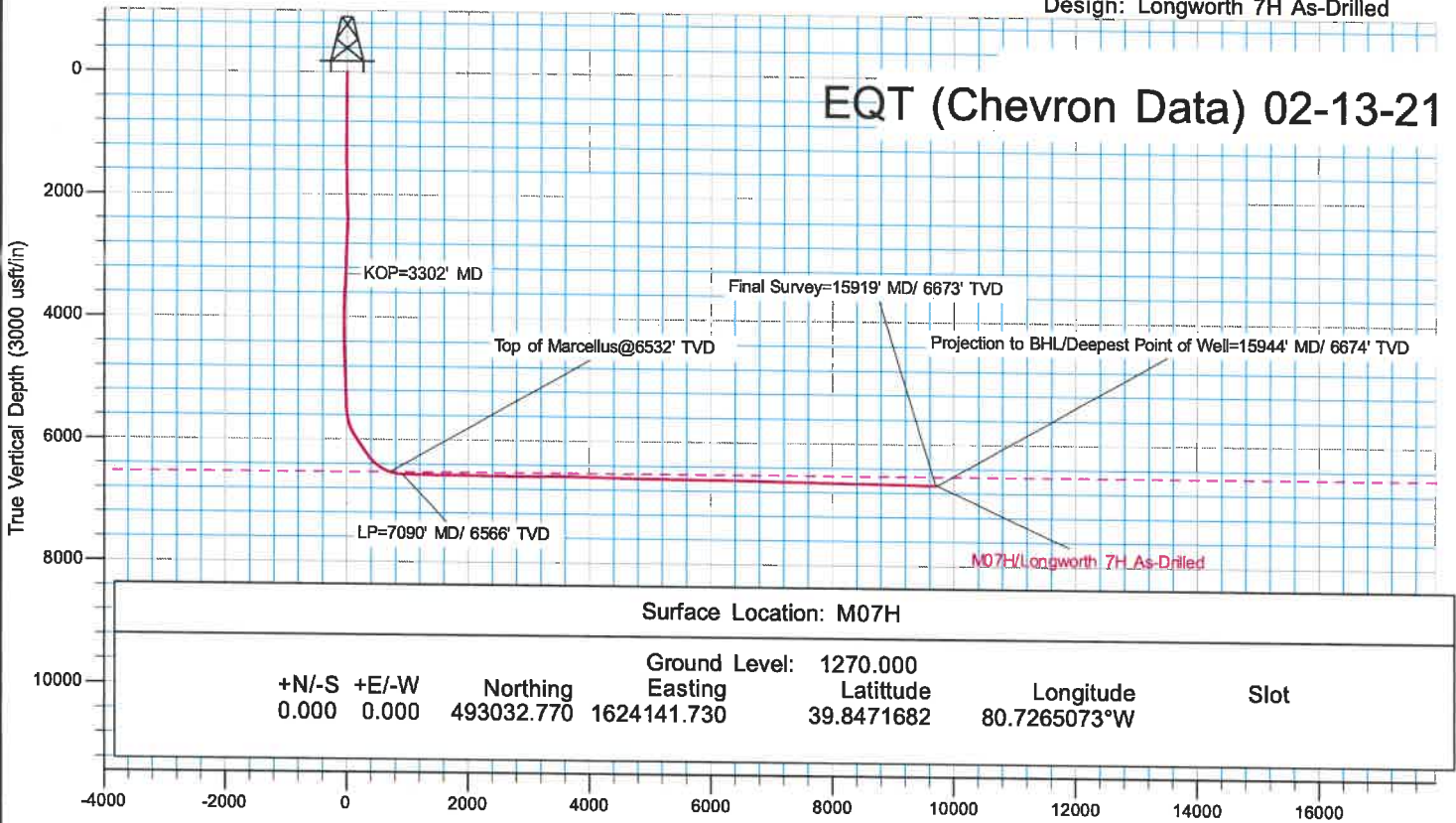
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KB Elevation= H14 @ 1287.000usft (H14)
 Ground Elevation= 1270.000
 All measurements were taken from KB Elevation

Project: Marshall County, WV Chevron
 Site: Longworth
 Well: M07H
 Wellbore: OH
 Design: Longworth 7H As-Drilled

EQT (Chevron Data) 02-13-21



Surface Location: M07H

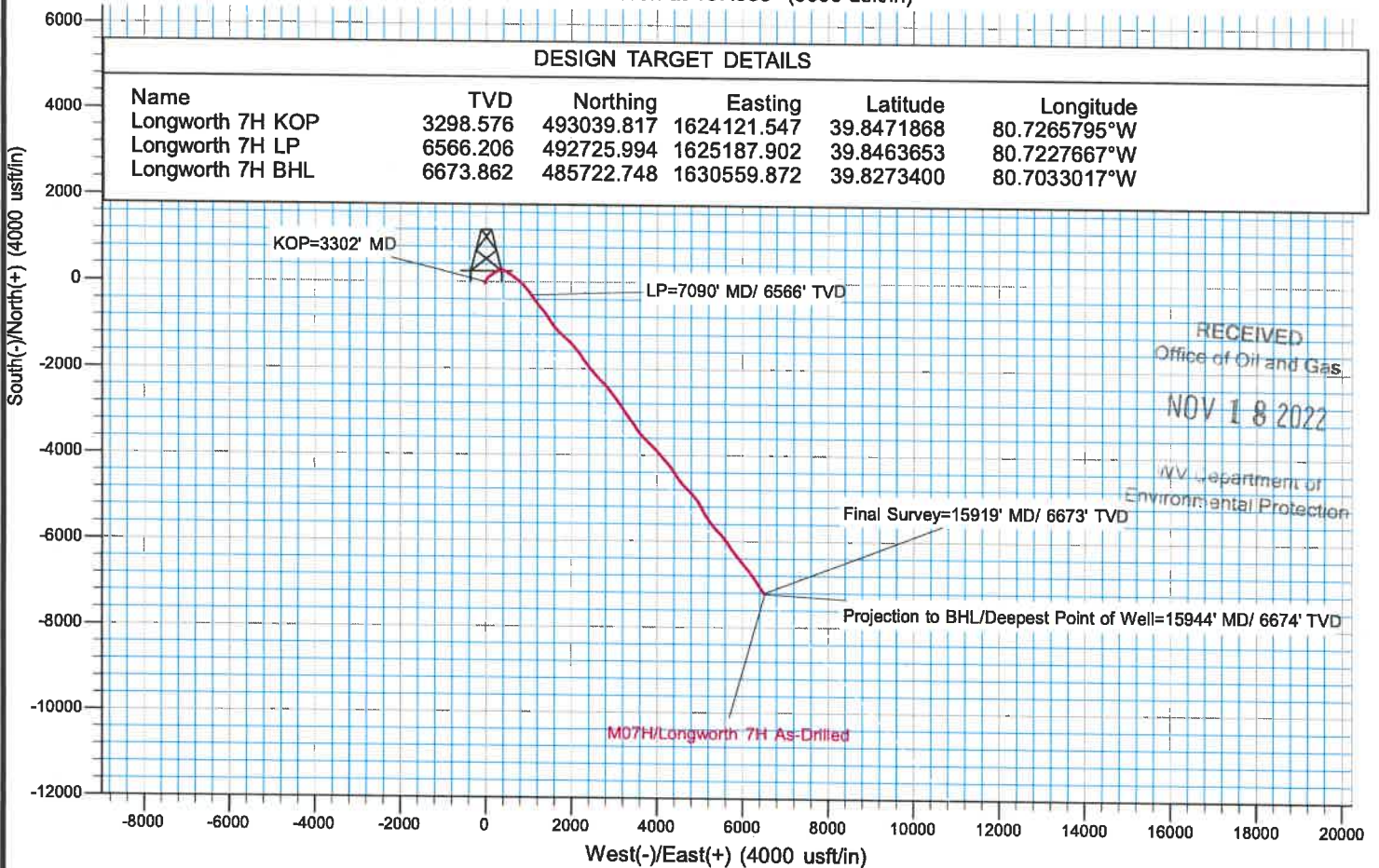
Ground Level: 1270.000

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.000	0.000	493032.770	1624141.730	39.8471682	80.7265073°W	

Vertical Section at 137.935° (3000 usft/in)

DESIGN TARGET DETAILS

Name	TVD	Northing	Easting	Latitude	Longitude
Longworth 7H KOP	3298.576	493039.817	1624121.547	39.8471868	80.7265795°W
Longworth 7H LP	6566.206	492725.994	1625187.902	39.8463653	80.7227667°W
Longworth 7H BHL	6673.862	485722.748	1630559.872	39.8273400	80.7033017°W



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