



EQT (Chevron Data) 02-13-21

Marshall County, WV Chevron

Longworth

M14H

OH

Design: Longworth 14H As Drilled

Standard Survey Report

20 July, 2021

09/09/2022



EQT
Survey Report

Database:	EDM_Definitive	Local Co-ordinate Reference:	Well M14H
Company:	EQT (Chevron Data) 02-13-21	TVD Reference:	Air RKB @ 1294.000usft (Highlands 9)
Project:	Marshall County, WV Chevron	MD Reference:	Air RKB @ 1294.000usft (Highlands 9)
Site:	Longworth	North Reference:	True
Well:	M14H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Longworth 14H 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	M14H					
Well Position	+N/-S	0.000 usft	Northing:	493,091.381 usft	Latitude:	39.8473279
	+E/-W	0.000 usft	Easting:	1,624,109.103 usft	Longitude:	80.7266263°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	-8.7190	67.0778	52,269.34295740

Design	Longworth 14H As Drilled				
Audit Notes:					
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	334.528	

Survey Program	Date	7/20/2021			
From (')	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.00	583.610	Surface Gyro (OH)	NS-GYRO-MS c	North sensing gyrocompassing m/s c	
0.00	5,785.000	EM Tool (OH)	11_MWD+IFR1+AX+Sag c	A007Mb: IFR dec & axial + sag corrections c	
0.00	11,788.000	Survey #3 (OH)	11_MWD+IFR1+AX+Sag c	A007Mb: IFR dec & axial + sag corrections c	

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	-1,294.000	0.000	0.000	0.000	0.00000	0.00000	0.00000
100.000	0.400	298.300	99.999	-1,194.001	0.165	-0.307	0.282	0.40000	0.40000	0.00000
125.000	0.430	309.080	124.999	-1,169.001	0.266	-0.457	0.437	0.33396	0.12000	43.12000
150.000	0.370	310.530	149.998	-1,144.002	0.378	-0.591	0.595	0.24337	-0.24000	5.80000
175.000	0.350	308.210	174.997	-1,119.003	0.477	-0.713	0.737	0.09898	-0.08000	-9.28000
200.000	0.300	341.810	199.997	-1,094.003	0.587	-0.793	0.871	0.77549	-0.20000	134.40000
225.000	0.270	0.950	224.997	-1,069.003	0.708	-0.812	0.988	0.39709	-0.12000	76.56000



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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)
250.000	0.290	3.920	249.996	-1,044.004	0.830	-0.807	1.096	0.09882	0.08000	11.88000
275.000	0.260	3.000	274.996	-1,019.004	0.950	-0.800	1.201	0.12129	-0.12000	-3.68000
300.000	0.100	7.070	299.996	-994.004	1.028	-0.794	1.269	0.64164	-0.64000	16.28000
325.000	0.260	13.490	324.996	-969.004	1.105	-0.778	1.332	0.64406	0.64000	25.68000
350.000	0.470	355.710	349.995	-944.005	1.262	-0.773	1.472	0.94466	0.84000	-71.12000
375.000	0.430	339.520	374.995	-919.005	1.452	-0.813	1.661	0.53110	-0.16000	-64.76000
400.000	0.390	343.560	399.994	-894.006	1.622	-0.870	1.838	0.19732	-0.16000	16.16000
425.000	0.400	326.640	424.993	-869.007	1.776	-0.942	2.009	0.46657	0.04000	-67.68000
450.000	0.430	324.040	449.993	-844.007	1.925	-1.045	2.187	0.14165	0.12000	-10.40000
475.000	0.550	329.840	474.992	-819.008	2.105	-1.161	2.399	0.51879	0.48000	23.20000
500.000	0.660	335.860	499.990	-794.010	2.340	-1.280	2.663	0.50760	0.44000	24.08000
525.000	0.660	337.690	524.989	-769.011	2.604	-1.393	2.950	0.08431	0.00000	7.32000
550.000	0.710	330.520	549.987	-744.013	2.872	-1.524	3.249	0.39655	0.20000	-28.68000
575.000	1.040	32.710	574.985	-719.015	3.198	-1.478	3.523	3.78770	1.32000	248.76000
583.610	1.300	42.280	583.593	-710.407	3.336	-1.370	3.601	3.76754	3.01974	111.14983
699.000	0.470	7.500	698.969	-595.031	4.774	-0.427	4.494	0.82544	-0.71930	-30.14126
700.000	0.470	7.230	699.969	-594.031	4.782	-0.426	4.501	0.22148	0.00000	-27.00000
776.000	0.650	25.270	775.965	-518.035	5.481	-0.203	5.036	0.32878	0.23684	23.73684
887.000	0.630	22.690	886.958	-407.042	6.613	0.301	5.841	0.03160	-0.01802	-2.32432
1,012.000	0.650	21.000	1,011.950	-282.050	7.909	0.820	6.788	0.02200	0.01600	-1.35200
1,106.000	0.880	16.810	1,105.942	-188.058	9.098	1.220	7.689	0.25165	0.24468	-4.45745
1,199.000	0.970	13.050	1,198.930	-95.070	10.549	1.604	8.833	0.11668	0.09677	-4.04301
1,293.000	0.640	357.920	1,292.920	-1.080	11.848	1.765	9.938	0.41467	-0.35106	-16.09575
1,386.000	0.250	213.470	1,385.919	91.919	12.198	1.634	10.310	0.92025	-0.41935	-155.32258
1,480.000	0.780	159.920	1,479.915	185.915	11.426	1.741	9.567	0.70502	0.56383	-56.96809
1,574.000	1.090	160.900	1,573.902	279.902	9.981	2.253	8.041	0.33021	0.32979	1.04255
1,667.000	1.260	160.860	1,666.883	372.883	8.179	2.878	6.146	0.18280	0.18280	-0.04301
1,761.000	1.080	167.740	1,760.863	466.863	6.337	3.405	4.256	0.24258	-0.19149	7.31915
1,854.000	0.130	222.150	1,853.857	559.857	5.402	3.520	3.363	1.08590	-1.02151	58.50538
1,948.000	0.100	45.580	1,947.857	653.857	5.380	3.507	3.349	0.24457	-0.03191	-187.84043
2,042.000	0.300	40.410	2,041.856	747.857	5.625	3.725	3.476	0.21341	0.21277	-5.50000
2,135.000	0.640	55.350	2,134.853	840.853	6.106	4.310	3.659	0.38557	0.36559	16.06452
2,231.000	1.140	67.380	2,230.841	936.841	6.778	5.633	3.697	0.55321	0.52083	12.53125
2,324.000	0.750	319.360	2,323.834	1,029.834	7.596	6.090	4.238	1.66268	-0.41935	-116.15054
2,418.000	1.870	293.180	2,417.808	1,123.809	8.666	4.280	5.983	1.32109	1.19149	-27.85106
2,512.000	0.970	232.550	2,511.783	1,217.783	8.786	2.238	6.970	1.73450	-0.95745	-64.50000
2,605.000	1.520	178.990	2,604.764	1,310.764	7.074	1.635	5.683	1.31677	0.59140	-57.59140
KOP=2589' MD/TVD										
2,699.000	0.890	103.360	2,698.747	1,404.747	5.659	2.367	4.091	1.65863	-0.67021	-80.45745
2,792.000	4.010	53.420	2,791.657	1,497.657	7.430	5.682	4.264	3.76768	3.35484	-53.69893
2,886.000	8.790	50.960	2,885.044	1,591.044	13.917	13.905	6.584	5.09231	5.08511	-2.61702



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Wellbore:	QH		
Design:	Longworth 14H 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)
2,980.000	12.700	52.140	2,977.378	1,683.378	24.786	27.646	10.487	4.16594	4.15957	1.25532
3,073.000	15.710	49.590	3,067.525	1,773.525	39.226	45.309	15.927	3.30499	3.23656	-2.74194
3,167.000	17.560	43.980	3,157.593	1,863.593	57.682	64.848	24.186	2.60412	1.96809	-5.96809
3,260.000	19.070	42.840	3,245.879	1,951.879	78.919	84.922	34.726	1.66865	1.62366	-1.22581
3,354.000	21.570	42.040	3,334.023	2,040.023	103.015	106.938	47.012	2.67589	2.65957	-0.85106
3,447.000	23.710	36.920	3,419.860	2,125.860	130.666	129.622	62.219	3.12635	2.30108	-5.50538
3,541.000	21.260	33.640	3,506.711	2,212.711	159.969	150.420	79.730	2.92722	-2.60638	-3.48936
3,635.000	16.470	39.530	3,595.643	2,301.644	184.451	168.354	94.119	5.47762	-5.09574	6.26596
3,728.000	15.760	41.940	3,684.990	2,390.990	204.015	185.186	104.542	1.04876	-0.76344	2.59140
3,822.000	15.910	41.930	3,775.422	2,481.422	223.095	202.328	114.396	0.15960	0.15957	-0.01064
3,916.000	16.010	48.180	3,865.806	2,571.806	241.325	220.599	122.997	1.83048	0.10638	6.64894
4,009.000	18.160	55.920	3,954.708	2,660.708	258.002	242.166	128.777	3.36032	2.31183	8.32258
4,102.000	21.590	58.110	4,042.157	2,748.157	275.168	268.705	132.861	3.77344	3.68817	2.35484
4,196.000	24.430	53.330	4,128.677	2,834.677	295.919	298.989	138.571	3.61427	3.02128	-5.08511
4,290.000	24.530	46.190	4,214.246	2,920.246	321.041	328.669	148.487	3.14760	0.10638	-7.59574
4,383.000	23.380	41.640	4,299.241	3,005.241	348.199	354.864	161.740	2.33905	-1.23656	-4.89247
4,476.000	22.810	37.950	4,384.792	3,090.792	376.206	378.212	176.983	1.67239	-0.61290	-3.96774
4,570.000	18.220	44.820	4,472.820	3,178.820	401.015	399.791	190.100	5.50619	-4.88298	7.30851
4,663.000	18.490	52.160	4,561.100	3,267.100	420.377	421.688	198.163	2.50068	0.29032	7.89247
4,757.000	19.020	51.440	4,650.109	3,356.109	439.069	445.437	204.825	0.61526	0.56383	-0.76596
4,851.000	21.030	49.980	4,738.422	3,444.422	459.465	470.333	212.531	2.20329	2.13830	-1.55319
4,945.000	21.740	46.630	4,825.953	3,531.953	482.266	495.906	222.118	1.50277	0.75532	-3.56383
5,038.000	20.890	42.350	4,912.596	3,618.596	506.350	519.598	233.672	1.90568	-0.91398	-4.60215
5,132.000	21.310	39.040	5,000.296	3,706.296	532.003	541.647	247.349	1.34389	0.44681	-3.52128
5,225.000	21.220	35.420	5,086.968	3,792.968	558.845	562.046	262.809	1.41484	-0.09677	-3.89247
5,319.000	21.040	37.000	5,174.648	3,880.648	586.185	582.061	278.883	0.63544	-0.19149	1.68085
5,412.000	20.610	39.670	5,261.575	3,967.575	612.117	602.557	293.481	1.12039	-0.46237	2.87097
5,506.000	20.010	47.630	5,349.747	4,055.747	635.695	625.005	305.113	3.00544	-0.63830	8.46809
5,600.000	21.430	52.920	5,437.673	4,143.673	656.890	650.591	313.244	2.49790	1.51064	5.62766
5,694.000	22.860	52.450	5,524.736	4,230.737	678.373	678.768	320.520	1.53290	1.52128	-0.50000
5,906.000	20.760	43.930	5,721.601	4,427.601	730.547	737.503	342.364	1.78947	-0.99057	-4.01887
5,999.000	21.870	25.130	5,808.340	4,514.340	758.133	756.317	359.177	7.41379	1.19355	-20.21505
6,091.000	21.890	22.870	5,893.714	4,599.714	789.448	770.259	381.452	0.91566	0.02174	-2.45652
6,183.000	21.810	23.120	5,979.105	4,685.105	820.968	783.635	404.155	0.13338	-0.08696	0.27174
6,276.000	25.230	8.220	6,064.442	4,770.442	856.516	793.264	432.107	7.34884	3.67742	-16.02151
6,368.000	30.420	356.300	6,145.840	4,851.840	899.227	794.566	470.107	8.24636	5.64130	-12.95652
6,460.000	37.890	344.010	6,222.009	4,928.009	949.760	785.257	519.731	11.01958	8.11957	-13.35870
6,552.000	45.290	339.010	6,290.789	4,996.789	1,007.536	765.732	580.288	8.81025	8.04348	-5.43478
6,645.000	50.280	334.620	6,353.274	5,059.274	1,070.761	738.540	649.062	6.40177	5.36559	-4.72043
6,737.000	57.280	333.920	6,407.602	5,113.602	1,137.572	706.320	723.236	7.63334	7.60870	-0.76087
6,830.000	63.340	329.980	6,453.658	5,159.658	1,208.779	668.284	803.880	7.48190	6.51613	-4.23656
Top of Marcellus @ 6503' TVD										
6,895.577	68.309	327.303	6,480.509	5,186.509	1,259.830	637.141	863.362	8.44268	7.57784	-4.08220



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6,923.000	70.400	326.240	6,490.178	5,196.178	1,281.293	623.079	888.786	8.44268	7.62382	-3.87637
7,015.000	77.020	327.400	6,515.970	5,221.970	1,355.168	574.791	976.246	7.29658	7.19565	1.26087
7,108.000	83.120	326.350	6,532.000	5,238.000	1,431.845	524.749	1,066.992	6.65266	6.55914	-1.12903
M14H LP										
7,175.955	88.979	323.899	6,536.680	5,242.680	1,487.431	486.001	1,133.839	9.34286	8.62254	-3.60750
LP/Deepest Point of Well=7201' MD/ 6535' TVD										
7,201.000	91.140	323.000	6,536.654	5,242.654	1,507.549	471.087	1,158.416	9.34286	8.62668	-3.58763
7,293.000	91.010	322.970	6,534.928	5,240.928	1,580.996	415.710	1,248.539	0.14502	-0.14130	-0.03261
7,386.000	90.870	322.500	6,533.403	5,239.403	1,654.999	359.406	1,339.563	0.52726	-0.15054	-0.50538
7,479.000	90.440	320.800	6,532.339	5,238.339	1,727.925	301.709	1,430.214	1.88541	-0.46237	-1.82796
7,571.000	90.640	320.890	6,531.472	5,237.472	1,799.263	243.621	1,519.599	0.23839	0.21739	0.09783
7,664.000	90.470	320.620	6,530.571	5,236.572	1,871.283	184.788	1,609.921	0.34306	-0.18280	-0.29032
7,757.000	90.770	320.790	6,529.565	5,235.565	1,943.251	125.894	1,700.222	0.37077	0.32258	0.18280
7,849.000	90.540	320.930	6,528.513	5,234.513	2,014.602	67.826	1,789.610	0.29267	-0.25000	0.15217
7,942.000	90.640	321.840	6,527.556	5,233.556	2,087.263	9.790	1,880.168	0.98433	0.10753	0.97849
8,035.000	90.540	321.750	6,526.598	5,232.598	2,160.339	-47.726	1,970.876	0.14466	-0.10753	-0.09677
8,127.000	90.440	321.810	6,525.811	5,231.811	2,232.615	-104.642	2,060.605	0.12676	-0.10870	0.06522
8,220.000	90.670	321.140	6,524.910	5,230.911	2,305.369	-162.565	2,151.197	0.76166	0.24731	-0.72043
8,313.000	90.570	320.900	6,523.904	5,229.904	2,377.660	-221.063	2,241.619	0.27956	-0.10753	-0.25806
8,405.000	90.570	321.960	6,522.989	5,228.989	2,449.585	-278.419	2,331.220	1.15212	0.00000	1.15217
8,498.000	90.600	320.980	6,522.039	5,228.039	2,522.332	-336.347	2,421.809	1.05420	0.03226	-1.05376
8,591.000	90.270	320.920	6,521.333	5,227.333	2,594.554	-394.935	2,512.207	0.36066	-0.35484	-0.06452
8,683.000	90.070	321.120	6,521.060	5,227.060	2,666.071	-452.807	2,601.661	0.30744	-0.21739	0.21739
8,776.000	90.130	320.420	6,520.898	5,226.898	2,738.109	-511.623	2,691.992	0.75545	0.06452	-0.75269
8,868.000	90.440	320.980	6,520.440	5,226.440	2,809.302	-569.893	2,781.324	0.69573	0.33696	0.60870
8,961.000	90.130	320.260	6,519.978	5,225.978	2,881.185	-628.897	2,871.595	0.84289	-0.33333	-0.77419
9,053.000	90.370	321.160	6,519.576	5,225.576	2,952.387	-687.154	2,960.931	1.01244	0.26087	0.97826
9,146.000	90.200	320.870	6,519.114	5,225.114	3,024.676	-745.661	3,051.355	0.36145	-0.18280	-0.31183
9,239.000	90.440	321.250	6,518.594	5,224.594	3,097.010	-804.111	3,141.796	0.48327	0.25806	0.40860
9,332.000	90.500	320.530	6,517.831	5,223.831	3,169.169	-862.774	3,232.170	0.77685	0.06452	-0.77419
9,424.000	90.400	321.020	6,517.109	5,223.109	3,240.437	-920.950	3,321.529	0.54357	-0.10870	0.53261
9,517.000	90.400	321.060	6,516.460	5,222.460	3,312.750	-979.425	3,411.961	0.04301	0.00000	0.04301
9,609.000	90.570	321.760	6,515.681	5,221.681	3,384.657	-1,036.807	3,501.557	0.78296	0.18478	0.76087
9,702.000	90.740	321.630	6,514.618	5,220.618	3,457.631	-1,094.449	3,592.227	0.23011	0.18280	-0.13978
9,795.000	90.810	320.730	6,513.360	5,219.360	3,530.082	-1,152.743	3,682.706	0.97058	0.07527	-0.96774
9,887.000	90.770	321.250	6,512.091	5,218.091	3,601.562	-1,210.647	3,772.141	0.56683	-0.04348	0.56522
9,980.000	90.870	321.130	6,510.760	5,216.760	3,674.023	-1,268.928	3,862.623	0.16795	0.10753	-0.12903
10,072.000	90.840	320.920	6,509.388	5,215.388	3,745.538	-1,326.787	3,952.069	0.23055	-0.03261	-0.22826
10,165.000	90.940	320.520	6,507.943	5,213.943	3,817.517	-1,385.660	4,042.370	0.44329	0.10753	-0.43011
10,257.000	90.700	320.960	6,506.626	5,212.626	3,888.743	-1,443.875	4,131.710	0.54474	-0.26087	0.47826



EQT
Survey Report

Database:	EDM_Definitive	Local Co-ordinate Reference:	Well M14H
Company:	EQT (Chevron Data) 02-13-21	TVD Reference:	Air RKB @ 1294.000usft (Highlands 9)
Project:	Marshall County, WV Chevron	MD Reference:	Air RKB @ 1294.000usft (Highlands 9)
Site:	Longworth	North Reference:	True
Well:	M14H	Survey Calculation Method:	Minimum Curvature
Wellbore:	QH		
Design:	Longworth 14H 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)
10,350.00 0	90.640	320.620	6,505.539	5,211.539	3,960.798	-1,502.662	4,222.043	0.37122	-0.06452	-0.36559
10,442.00 0	90.540	320.780	6,504.591	5,210.592	4,031.987	-1,560.930	4,311.371	0.20508	-0.10870	0.17391
10,535.00 0	90.330	320.690	6,503.885	5,209.885	4,103.988	-1,619.789	4,401.687	0.24567	-0.22581	-0.09677
10,628.00 0	90.700	321.440	6,503.049	5,209.050	4,176.326	-1,678.230	4,492.127	0.89922	0.39785	0.80645
10,720.00 0	90.270	320.380	6,502.271	5,208.271	4,247.728	-1,736.237	4,581.535	1.24333	-0.46739	-1.15217
10,813.00 0	90.440	320.900	6,501.694	5,207.695	4,319.632	-1,795.216	4,671.814	0.58825	0.18280	0.55914
10,905.00 0	90.600	321.410	6,500.860	5,206.860	4,391.282	-1,852.917	4,761.316	0.58097	0.17391	0.55435
10,997.00 0	90.440	320.410	6,500.025	5,206.025	4,462.685	-1,910.923	4,850.724	1.10074	-0.17391	-1.08696
11,090.000	90.800	320.760	6,499.018	5,205.018	4,534.529	-1,969.968	4,940.978	0.53987	0.38710	0.37634
11,182.000	90.540	320.370	6,497.942	5,203.942	4,605.580	-2,028.403	5,030.253	0.50946	-0.28261	-0.42391
11,274.000	90.870	320.540	6,496.810	5,202.810	4,676.518	-2,086.973	5,119.485	0.40349	0.35870	0.18478
11,367.000	90.740	320.310	6,495.504	5,201.504	4,748.194	-2,146.217	5,209.673	0.28406	-0.13978	-0.24731
11,459.000	90.600	320.350	6,494.428	5,200.428	4,819.005	-2,204.942	5,298.856	0.15826	-0.15217	0.04348
11,552.000	90.840	319.780	6,493.259	5,199.259	4,890.309	-2,264.635	5,388.901	0.66497	0.25806	-0.61290
11,644.000	90.840	320.260	6,491.911	5,197.911	4,960.798	-2,323.741	5,477.958	0.52168	0.00000	0.52174
11,736.000	90.840	320.240	6,490.562	5,196.562	5,031.524	-2,382.563	5,567.106	0.02174	0.00000	-0.02174
Final Survey=11766' MD/ 6489' TVD - M14H BHL										
11,766.000	90.800	320.130	6,490.133	5,196.133	5,054.565	-2,401.770	5,596.168	0.39012	-0.13333	-0.36667
Projection to TD=11788' MD/ 6488' TVD										
11,788.000	90.800	320.130	6,489.825	5,195.825	5,071.448	-2,415.872	5,617.475	0.00000	0.00000	0.00000

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (5.659)	+E/-W (2.367)	Northing (usft)	Easting (usft)	Latitude	Longitude
Longworth 14H KOP	0.000	0.000	2,698.74 7	5.659	2.367	493,097.007	1,624,111.548	39.8473435	80.7266178°W
- hit/miss target									
- Shape									
- actual wellpath hits target center									
- Point									
Longworth 14H BHL	0.000	0.000	6,488.34 9	5,074.638	-2,413.932	498,198.505	1,621,764.683	39.8612590	80.7352255°W
- actual wellpath misses target center by 4.015usft at 11788.000usft MD (6489.826 TVD, 5071.449 N, -2415.872 E)									
- Point									
Longworth 14H LP	0.000	0.000	6,535.17 8	1,510.739	473.026	494,595.520	1,624,602.713	39.8514754	80.7249414°W
- actual wellpath misses target center by 3.760usft at 7202.407usft MD (6536.627 TVD, 1508.672 N, 470.240 E)									
- Point									



EQT
Survey Report

Database:	EDM_Definitive	Local Co-ordinate Reference:	Well M14H
Company:	EQT (Chevron Data) 02-13-21	TVD Reference:	Air RKB @ 1294.000usft (Highlands 9)
Project:	Marshall County, WV Chevron	MD Reference:	Air RKB @ 1294.000usft (Highlands 9)
Site:	Longworth	North Reference:	True
Well:	M14H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Longworth 14H As Drilled		

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
6,895.577	6,502.500	Top of Marcellus@6503' TVD		-1.0000	

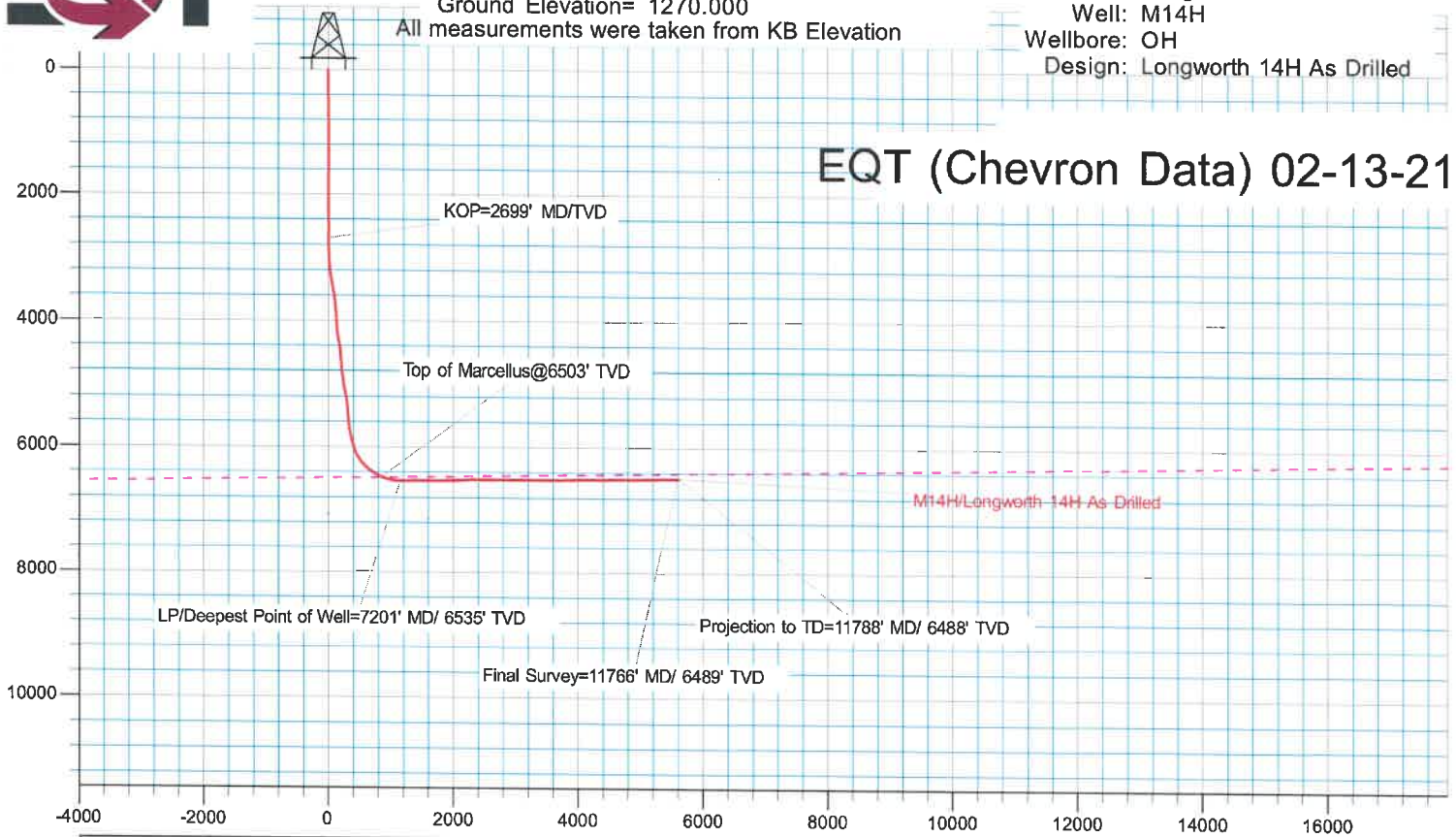
Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
2,699.000	2,698.747	5.659	2.367	KOP=2699' MD/TVD	
7,201.000	6,536.654	1,507.549	471.087	LP/Deepest Point of Well=7201' MD/ 6535' TVD	
11,766.000	6,490.133	5,054.565	-2,401.770	Final Survey=11766' MD/ 6489' TVD	
11,788.000	6,489.825	5,071.448	-2,415.872	Projection to TD=11788' MD/ 6488' TVD	

Checked By: _____ Approved By: _____ Date: _____

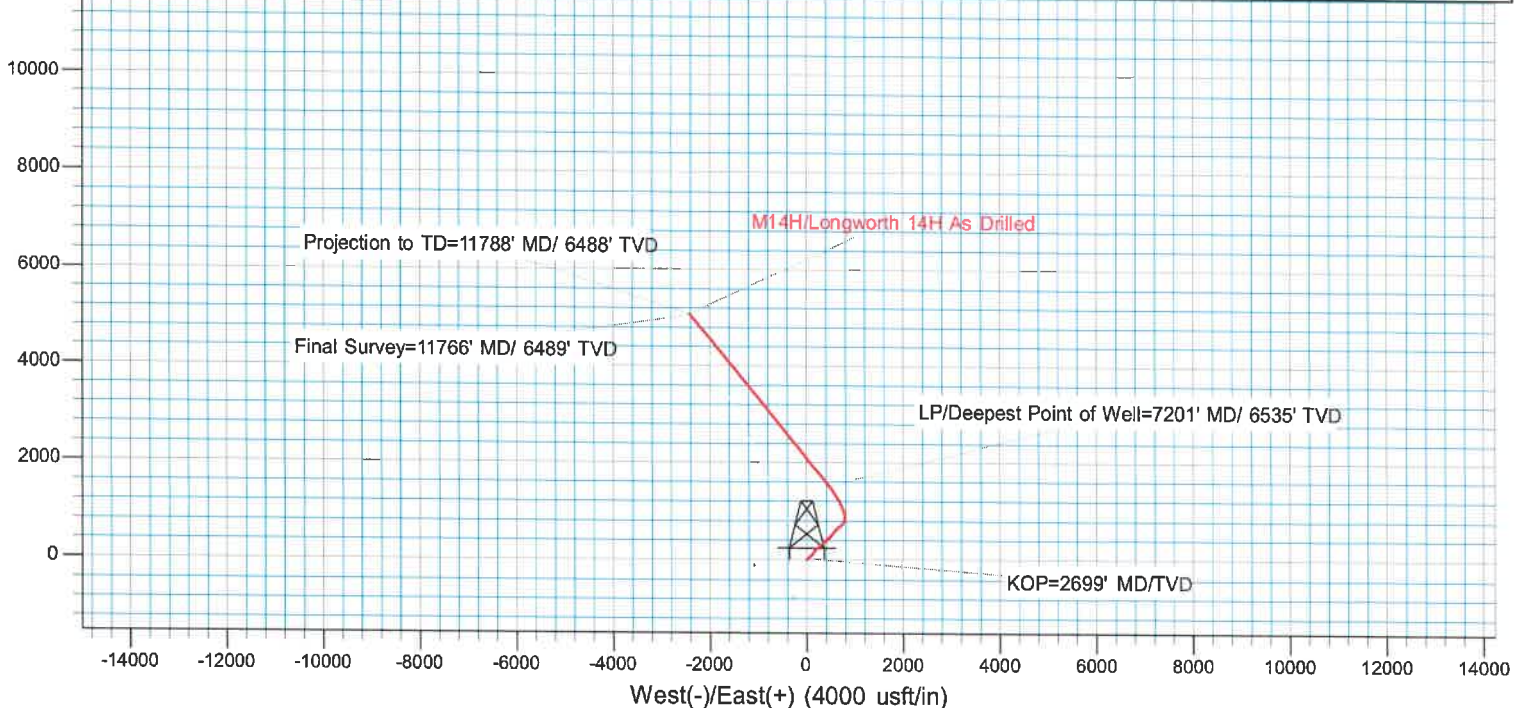


KB Elevation= Air RKB @ 1294.000ustt (Highlands 9) Site: Longworth
 Ground Elevation= 1270.000 Well: M14H
 All measurements were taken from KB Elevation Wellbore: OH
 Design: Longworth 14H As Drilled

EQT (Chevron Data) 02-13-21



Surface Location: M14H						
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.000	0.000	493091.381	1624109.104	39.8473279	80.7266263°W	
DESIGN TARGET DETAILS						
Name	TVD	Northing	Easting	Latitude	Longitude	
Longworth 14H KOP	2698.747	493097.007	1624111.548	39.8473434	80.7266179°W	
Longworth 14H BHL	6488.349	498198.505	1621764.683	39.8612590	80.7352255°W	
Longworth 14H LP	6535.178	494595.521	1624602.713	39.8514753	80.7249415°W	



09/09/2022