

EQT (Chevron Data) 02-13-21

Marshall County, WV Chevron

Hines Pad EQT

Hines M12H

OH

Design: Hines M12H As Drilled

Standard Survey Report

30 June, 2021

05/27/2022

EQT

Survey Report

Database: Company:	EDM_Definitive EQT (Chevron Data) 02-13-21	Local Co-ordinate Reference: TVD Reference:	Well Hines M12H GL @ 1125.00 & 25' KB @ 1149.998usft (PD572)
Project:	Marshall County, WV Chevron	MD Reference:	GL @ 1125.00 & 25' KB @ 1149.998usft (PD572)
Site:	Hines Pad EQT	North Reference:	True
Well:	Hines M12H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Hines M12H 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: Hines Pad EQT			
Site Position:		Northing:	514,501.050 usft
From:	Map	Easting:	1,631,895.930 usft
Position Uncertainty:	1.500 usft	Slot Radius:	13-3/16 "
		Latitude:	39.91
		Longitude:	-80.70
		Grid Convergence:	-0.7653 °

Well: Hines M12H			
Well Position	+N/-S	0.000 usft	Northing:
	+E/-W	0.000 usft	Easting:
Position Uncertainty		0.000 usft	Wellhead Elevation:
			0.000 usft
			Latitude:
			39.9062974
			Longitude:
			80.6992353°W
			Ground Level:
			1,124.998 usft

Wellbore: OH					
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	4/25/2019	-7.9500	66.9667	52,392.30000000

Design: Hines M12H 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	156.230	

Survey Program		Date	6/28/2021		
From ()	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.00	415.999	Keeper Gyro (OH)	SDI Standard Keeper 104	Standard Wireline Keeper ver 1.0.4	
0.00	5,828.988	Survey #2 (OH)	MWD c	MWD - Standard 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	-1,149.998	0.000	0.000	0.000	0.00000	0.00000	0.00000	
101.000	0.510	40.890	100.998	-1,048.999	0.340	0.294	-0.192	0.50495	0.50495	0.00000	
126.000	0.450	42.290	125.998	-1,024.000	0.497	0.433	-0.280	0.24452	-0.24000	5.60001	
151.000	0.450	33.030	150.997	-999.001	0.651	0.553	-0.373	0.29059	0.00000	-37.04008	
176.000	0.310	19.220	175.996	-974.002	0.798	0.628	-0.477	0.66531	-0.56000	-55.24011	
201.000	0.340	353.450	200.996	-949.002	0.935	0.642	-0.597	0.59147	0.12000	-103.0802	
											1

EQT

Survey Report

Database:	EDM_Definitive	Local Co-ordinate Reference:	Well Hines M12H
Company:	EQT (Chevron Data) 02-13-21	TVD Reference:	GL @ 1125.00 & 25' KB @ 1149.998usft (PD572)
Project:	Marshall County, WV Chevron	MD Reference:	GL @ 1125.00 & 25' KB @ 1149.998usft (PD572)
Site:	Hines Pad EQT	North Reference:	True
Well:	Hines M12H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Hines M12H 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)
226.000	0.380	1.490	225.995	-924.003	1.092	0.636	-0.743	0.25737	0.16000	32.16007
250.999	0.370	7.270	250.995	-899.003	1.255	0.648	-0.887	0.15644	-0.04000	23.12005
275.999	0.210	32.380	275.994	-874.003	1.373	0.683	-0.982	0.80286	-0.64000	100.44020
300.999	0.300	63.890	300.994	-849.004	1.441	0.766	-1.010	0.65335	0.36000	126.04026
325.999	0.400	70.930	325.993	-824.004	1.498	0.908	-1.005	0.43468	0.40000	28.16006
350.999	0.300	87.520	350.993	-799.005	1.530	1.056	-0.974	0.56555	-0.40000	66.36013
375.999	0.310	70.530	375.992	-774.005	1.555	1.185	-0.946	0.36261	0.04000	-67.96014
400.999	0.240	27.270	400.992	-749.006	1.624	1.272	-0.973	0.85169	-0.28000	-173.04035
Final Gyro Survey=416' MD/ TVD										
415.999	0.490	44.550	415.992	-734.006	1.698	1.332	-1.017	1.80267	1.66667	115.20023
514.999	0.640	41.460	514.987	-635.011	2.414	1.995	-1.405	0.15456	0.15152	-3.12122
545.999	0.530	52.020	545.985	-604.013	2.632	2.223	-1.513	0.49545	-0.35484	34.06459
607.999	0.540	46.480	607.982	-542.015	3.009	2.660	-1.682	0.08494	0.01613	-8.93550
638.999	0.480	45.630	638.981	-511.017	3.201	2.859	-1.777	0.19508	-0.19355	-2.74194
670.999	0.470	29.750	670.980	-479.018	3.408	3.020	-1.902	0.41125	-0.03125	-49.62510
701.999	0.500	39.030	701.979	-448.019	3.624	3.168	-2.039	0.27088	0.09677	29.93554
732.998	0.380	40.560	732.978	-417.020	3.807	3.320	-2.146	0.38891	-0.38710	4.93549
763.998	0.330	22.280	763.977	-386.021	3.968	3.421	-2.252	0.39713	-0.16129	-58.96786
857.998	0.580	224.370	857.976	-292.022	3.878	3.191	-2.263	0.95152	0.26596	-167.98970
Nudge KOP=858' MD/TVD										
858.000	0.580	224.370	857.977	-292.020	3.878	3.191	-2.263	0.04975	0.00000	0.00000
950.998	1.360	234.090	950.961	-199.036	2.894	1.968	-1.856	0.85419	0.83873	10.45183
1,044.998	2.370	232.610	1,044.910	-105.087	1.060	-0.480	-1.163	1.07560	1.07447	-1.57447
1,138.998	4.020	238.720	1,138.761	-11.237	-1.831	-4.840	-0.275	1.78984	1.75532	6.50001
1,231.997	4.720	254.390	1,231.493	81.495	-4.554	-11.312	-0.392	1.48129	0.75269	16.84950
1,325.997	5.720	246.860	1,325.103	175.105	-7.435	-19.344	-0.993	1.28736	1.06383	-8.01065
1,419.997	5.770	246.800	1,418.631	268.633	-11.138	-27.995	-1.091	0.05357	0.05319	-0.06383
1,512.997	5.710	250.800	1,511.164	361.167	-14.501	-36.661	-1.506	0.43489	-0.06452	4.30108
1,606.997	6.000	251.770	1,604.674	454.676	-17.575	-45.743	-2.353	0.32597	0.30851	1.03192
1,699.997	6.160	247.360	1,697.151	547.153	-21.017	-54.965	-2.921	0.53074	0.17204	-4.74195
1,793.996	6.400	252.910	1,790.588	640.590	-24.498	-64.628	-3.630	0.69415	0.25532	5.90427
1,886.996	6.480	254.660	1,883.001	733.003	-27.409	-74.643	-5.002	0.22790	0.08602	1.88172
1,980.996	6.560	252.670	1,976.393	826.395	-30.412	-84.884	-6.382	0.25499	0.08511	-2.11703
2,042.996	6.730	256.600	2,037.976	887.979	-32.309	-91.799	-7.433	0.78288	0.27419	6.33872
2,079.996	7.880	255.670	2,074.675	924.678	-33.439	-96.365	-8.239	3.12440	3.10811	-2.51352
2,175.996	6.700	254.320	2,169.897	1,019.900	-36.581	-108.133	-10.107	1.24197	-1.22917	-1.40625
2,268.995	8.900	257.910	2,262.032	1,112.034	-39.555	-120.393	-12.327	2.42178	2.36560	3.86022
2,362.995	11.860	262.720	2,354.485	1,204.487	-42.302	-137.088	-16.542	3.27846	3.14894	5.11703
2,455.995	14.790	261.420	2,444.971	1,294.973	-45.285	-158.310	-22.366	3.16678	3.15054	-1.39785
2,549.995	18.930	261.670	2,534.911	1,384.913	-49.286	-185.272	-29.572	4.40493	4.40426	0.26596
2,642.995	21.950	260.060	2,622.046	1,472.048	-54.473	-217.327	-37.745	3.30283	3.24732	-1.73119

EQT
Survey Report

Database:	EDM_Definitive	Local Co-ordinate Reference:	Well Hines M12H
Company:	EQT (Chevron Data) 02-13-21	TVD Reference:	GL @ 1125.00 & 25' KB @ 1149.998usft (PD572)
Project:	Marshall County, WV Chevron	MD Reference:	GL @ 1125.00 & 25' KB @ 1149.998usft (PD572)
Site:	Hines Pad EQT	North Reference:	True
Well:	Hines M12H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Hines M12H 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)
2,736.994	24.720	259.760	2,708.348	1,558.351	-61.001	-253.980	-46.545	2.94952	2.94681	-0.31915
2,830.994	26.480	259.400	2,793.117	1,643.120	-68.350	-293.924	-55.918	1.87963	1.87234	-0.38298
2,923.994	28.620	262.140	2,875.570	1,725.573	-75.211	-336.374	-66.750	2.67377	2.30108	2.94624
3,017.994	29.540	261.800	2,957.720	1,807.722	-81.595	-381.612	-79.141	0.99438	0.97873	-0.36170
3,111.994	29.590	260.570	3,039.481	1,889.484	-88.703	-427.443	-91.109	0.64781	0.05319	-1.30851
3,205.993	29.440	261.510	3,121.283	1,971.285	-95.916	-473.185	-102.945	0.51785	-0.15957	1.00000
3,300.993	28.650	263.230	3,204.336	2,054.338	-102.048	-518.893	-115.757	1.20996	-0.83158	1.81053
3,394.993	28.280	264.720	3,286.973	2,136.975	-106.753	-563.444	-129.408	0.85186	-0.39362	1.58511
3,487.993	28.760	264.200	3,368.687	2,218.690	-111.042	-607.640	-143.297	0.58108	0.51613	-0.55914
3,581.993	28.580	262.610	3,451.164	2,301.166	-116.219	-652.436	-156.615	0.83378	-0.19149	-1.69149
3,674.992	28.190	263.420	3,532.982	2,382.985	-121.597	-696.318	-169.380	0.58931	-0.41936	0.87097
3,768.992	28.770	264.340	3,615.607	2,465.609	-126.373	-740.886	-182.974	0.77363	0.61702	0.97873
3,862.992	28.260	262.330	3,698.205	2,548.208	-131.574	-785.452	-196.177	1.15596	-0.54255	-2.13830
3,955.992	28.680	263.540	3,779.959	2,629.961	-137.023	-829.446	-208.922	0.76720	0.45161	1.30108
4,049.992	28.340	264.840	3,862.560	2,712.563	-141.568	-874.080	-222.754	0.75270	-0.36170	1.38298
4,143.992	28.500	264.380	3,945.232	2,795.234	-145.770	-918.620	-236.860	0.28847	0.17021	-0.48936
4,239.991	28.910	262.970	4,029.434	2,879.437	-150.853	-964.444	-250.678	0.82463	0.42708	-1.46875
4,332.991	28.740	265.200	4,110.913	2,960.916	-155.476	-1,009.037	-264.422	1.17039	-0.18280	2.39785
4,426.991	28.230	264.130	4,193.534	3,043.536	-159.641	-1,053.672	-278.601	0.76751	-0.54255	-1.13830
4,519.991	28.110	265.200	4,275.519	3,125.521	-163.723	-1,097.384	-292.484	0.55827	-0.12903	1.15054
4,613.991	29.130	266.620	4,358.033	3,208.035	-166.925	-1,142.293	-307.654	1.30418	1.08511	1.51064
4,706.990	28.990	264.640	4,439.327	3,289.330	-170.365	-1,187.328	-322.659	1.04498	-0.15054	-2.12904
4,800.990	28.550	262.450	4,521.726	3,371.728	-175.445	-1,232.277	-336.127	1.21502	-0.46809	-2.32979
4,894.990	28.700	263.290	4,604.237	3,454.239	-181.033	-1,276.960	-349.023	0.45688	0.15957	0.89362
4,987.990	29.080	264.910	4,685.664	3,535.666	-185.648	-1,321.650	-362.813	0.93550	0.40860	1.74194
5,081.990	28.530	263.470	4,768.033	3,618.035	-190.227	-1,366.706	-376.783	0.94187	-0.58511	-1.53192
5,174.989	28.350	261.760	4,849.811	3,699.813	-195.918	-1,410.625	-389.277	0.89677	-0.19355	-1.83871
5,268.989	28.340	263.920	4,932.542	3,782.545	-201.480	-1,454.900	-402.033	1.09099	-0.01064	2.29788
5,365.989	28.210	262.670	5,017.969	3,867.972	-206.843	-1,500.532	-415.517	0.62497	-0.13402	-1.28866
5,458.989	28.670	264.500	5,099.747	3,949.749	-211.786	-1,544.541	-428.732	1.05959	0.49462	1.96775
5,552.989	27.950	263.190	5,182.504	4,032.507	-216.559	-1,588.860	-442.227	1.01164	-0.76596	-1.39362
Hines M01H LP - Rev-2										
5,646.988	28.730	263.390	5,265.237	4,115.239	-221.772	-1,633.176	-455.319	0.83591	0.82979	0.21277
5,739.988	28.230	262.510	5,346.983	4,196.985	-227.212	-1,677.187	-468.079	0.70188	-0.53764	-0.94624
(2) Hines M12H BHL - Rev-1										
5,807.701	28.481	262.891	5,406.571	4,256.573	-231.298	-1,709.086	-477.198	0.45701	0.37054	0.56323
Final MWD Survey=5929' MD/ 5425' TVD - Hines NW2 BHL - Hines NW1 LP+3000 - Hines SW1 BHL - (1) Hines M12H LP - Rev-1 - Hines SW										
5,828.988	28.560	263.010	5,425.275	4,275.277	-232.545	-1,719.173	-480.122	0.45701	0.37157	0.55726

EQT

Survey Report

Database: EDM_Definitive	Local Co-ordinate Reference: Well Hines M12H	GL @ 1125.00' & 25' KB @ 1149.998usft
Company: EQT (Chevron Data) 02-13-21	TVD Reference:	(PD572)
Project: Marshall County, WV Chevron	MD Reference:	GL @ 1125.00' & 25' KB @ 1149.998usft
Site: Hines Pad EQT	North Reference: True	(PD572)
Well: Hines M12H	Survey Calculation Method: Minimum Curvature	
Wellbore: OH		
Design: Hines M12H As Drilled		

Design Targets										
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	
- hit/miss target	(°)	(°)	(usft)	(-6,917.394	(750.184)	(usft)	(usft)			
- Shape										
(2) Hines M12H BHL - R	0.000	0.000	6,269.98	-6,917.394	750.184	507,539.068	1,632,743.501	39.8873072	80.6965619°W	
			7							
- actual wellpath misses target center by 7176.168usft at 5807.701usft MD (5406.571 TVD, -231.298 N, -1709.086 E)										
- Point										
(1) Hines M12H LP - Re	0.000	0.000	6,269.98	-1,020.457	-1,846.987	513,470.148	1,630,225.275	39.9034957	80.7058189°W	
			7							
- actual wellpath misses target center by 1162.188usft at 5828.988usft MD (5425.275 TVD, -232.545 N, -1719.173 E)										
- Point										
Hines M01H BHL - Rev-	0.000	0.000	6,269.98	7,471.483	-5,118.014	522,004.997	1,627,067.895	39.9268071	80.7174847°W	
			7							
- actual wellpath misses target center by 8462.725usft at 5828.988usft MD (5425.275 TVD, -232.545 N, -1719.173 E)										
- Point										
Hines M01H LP - Rev-2	0.000	0.000	6,269.98	1,096.773	85.817	515,561.390	1,632,186.170	39.9093083	80.6989294°W	
			7							
- actual wellpath misses target center by 2388.101usft at 5646.989usft MD (5265.237 TVD, -221.772 N, -1633.177 E)										
- Point										

Design Annotations					
Measured Depth	Vertical Depth	Local Coordinates		Comment	
(usft)	(usft)	+N/-S	+E/-W		
		(usft)	(usft)		
415.999	415.992	1.698	1.332	Final Gyro Survey=416' MD/ TVD	
858.000	857.977	3.878	3.191	Nudge KOP=858' MD/TVD	
5,828.988	5,425.275	-232.545	-1,719.173	Final MWD Survey=5829' MD/ 5425' TVD	

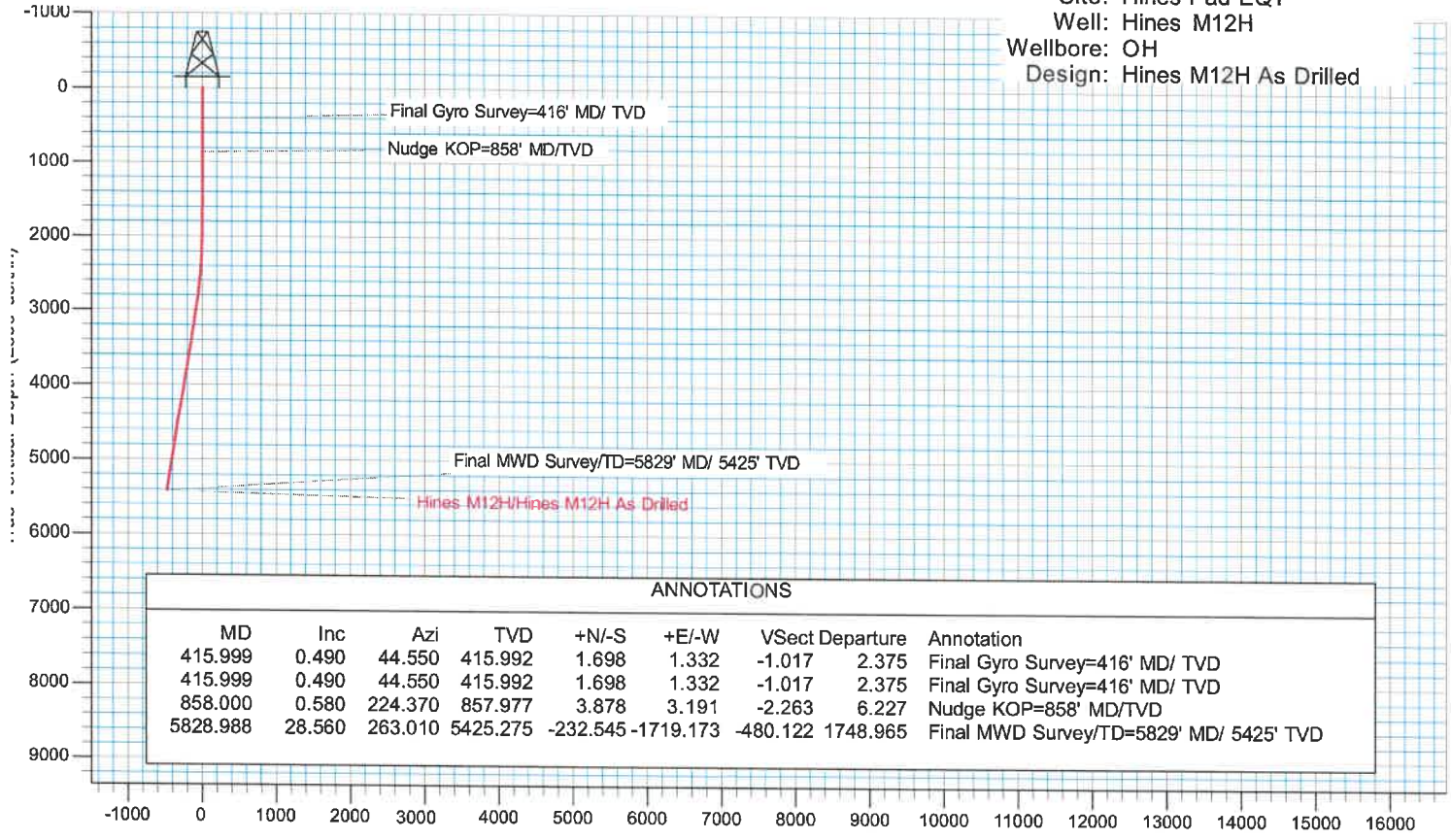
Checked By: _____ Approved By: _____ Date: _____



EQT (Chevron Data) 02-13-21

KB Elevation= GL @ 1125.00 & 25' KB @ 1149.99usft (PD572)
 Ground Elevation= 1124.998
 All measurements were taken from KB Elevation

Project: Marshall County, WV Chevron
 Site: Hines Pad EQT
 Well: Hines M12H
 Wellbore: OH
 Design: Hines M12H As Drilled



ANNOTATIONS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Vsect	Departure	Annotation	
415.999	0.490	44.550	415.992	1.698	1.332	-1.017	2.375	Final Gyro Survey=416' MD/ TVD	
415.999	0.490	44.550	415.992	1.698	1.332	-1.017	2.375	Final Gyro Survey=416' MD/ TVD	
858.000	0.580	224.370	857.977	3.878	3.191	-2.263	6.227	Nudge KOP=858' MD/TVD	
5828.988	28.560	263.010	5425.275	-232.545	-1719.173	-480.122	1748.965	Final MWD Survey/TD=5829' MD/ 5425' TVD	

Vertical Section at 156.230° (2500 usft/in)

