

# **EQT (Chevron Data) 02-13-21**

**Marshall County, WV Chevron**

**Hines Pad EQT**

**Hines M01H**

**OH**

**Design: Hines M01H As Drilled**

## **Standard Survey Report**

**30 June, 2021**

**05/27/2022**

# EQT

## Survey Report

<b>Database:</b> EDM_Definitive <b>Company:</b> EQT (Chevron Data) 02-13-21	<b>Local Co-ordinate Reference:</b> <b>TVD Reference:</b> Well Hines M01H GL @ 1125.00 & 25' KB @ 1149.998usft (PD572)	<b>Project:</b> Marshall County, WV Chevron <b>MD Reference:</b> GL @ 1125.00 & 25' KB @ 1149.998usft (PD572)
<b>Site:</b> Hines Pad EQT <b>Well:</b> Hines M01H <b>Wellbore:</b> OH <b>Design:</b> Hines M01H As Drilled	<b>North Reference:</b> True <b>Survey Calculation Method:</b> Minimum Curvature	

<b>Project</b> Marshall County, WV Chevron		
<b>Map System:</b> US State Plane 1983	<b>System Datum:</b> Mean Sea Level	
<b>Geo Datum:</b> North American Datum 1983		
<b>Map Zone:</b> West Virginia Northern Zone		

<b>Site</b> Hines Pad EQT					
<b>Site Position:</b>		<b>Northing:</b> 514,501.050 usft	<b>Latitude:</b> 39.91		
<b>From:</b> Map		<b>Easting:</b> 1,631,895.930 usft	<b>Longitude:</b> -80.70		
<b>Position Uncertainty:</b> 1.500 usft		<b>Slot Radius:</b> 13-3/16 "	<b>Grid Convergence:</b> -0.7653 °		

<b>Well</b> Hines M01H					
<b>Well Position</b>	<b>+N/-S</b> 0.000 usft	<b>Northing:</b> 514,497.020 usft	<b>Latitude:</b> 39.9063818		
	<b>+E/-W</b> 0.000 usft	<b>Easting:</b> 1,632,056.920 usft	<b>Longitude:</b> 80.6993395°W		
<b>Position Uncertainty</b>	0.000 usft	<b>Wellhead Elevation:</b> 0.000 usft	<b>Ground Level:</b> 1,124.998 usft		

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

<b>Design</b> Hines M01H As Drilled					
<b>Audit Notes:</b>					
<b>Version:</b> 1.0	<b>Phase:</b> ACTUAL	<b>Tie On Depth:</b> 0.000			
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>	
	0.000	0.000	0.000	41.953	

<b>Survey Program</b>		<b>Date</b> 6/28/2021
<b>From (')</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>
0.00	420.849	Keeper Gyro (OH)
0.00	5,619.000	Survey #2 (OH)
		<b>Tool Name</b>
		SDI Standard Keeper 104
		MWD c
		<b>Description</b>
		Standard Wireline Keeper ver 1.0.4
		MWD - Standard c

<b>Survey</b>											
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	0.270	57.740	100.999	-1,048.998	0.127	0.201	0.229	0.26733	0.26733	0.00000	
128.000	0.140	42.980	125.999	-1,023.998	0.181	0.272	0.316	0.55706	-0.52000	-59.04012	
151.000	0.240	18.370	150.999	-998.999	0.253	0.309	0.395	0.50761	0.40000	-98.44020	
176.000	0.210	36.430	175.999	-973.999	0.339	0.353	0.488	0.30636	-0.12000	72.24015	
201.000	0.240	53.500	200.999	-948.999	0.407	0.422	0.585	0.29232	0.12000	68.28014	

**EQT**  
Survey Report

Database:	EDM_Definitive	Local Co-ordinate Reference:	Well Hines M01H
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 M01H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Hines M01H As Drilled		

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	North Reference +N/-S (usft)	East Reference +E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
225.000	0.180	47.470	225.998	-923.999	0.465	0.493	0.676	0.25544	-0.24000	-24.12005
275.955	0.280	47.440	250.998	-899.000	0.533	0.567	0.776	0.40000	0.40000	-0.12000
300.995	0.320	77.790	275.998	-874.000	0.589	0.680	0.893	0.64694	0.16000	121.40025
325.999	0.400	50.530	300.997	-849.000	0.659	0.816	1.036	0.74653	0.32000	-109.04022
350.999	0.460	33.820	325.996	-824.001	0.798	0.939	1.221	0.55338	0.24000	-66.84014
375.999	0.590	25.880	350.995	-799.002	0.997	1.051	1.444	0.59469	0.52000	-31.76006
400.999	0.540	33.810	375.994	-774.004	1.211	1.173	1.685	0.37080	-0.20000	31.72006
425.999	0.510	32.230	400.993	-749.005	1.403	1.298	1.911	0.13323	-0.12000	-6.32001
<b>Final Gyro=421' MD/TVD</b>										
420.843	0.400	32.200	420.842	-729.155	1.536	1.382	2.066	0.55416	-0.55416	-0.15113
513.999	0.450	24.590	513.990	-636.008	2.144	1.707	2.736	0.08084	0.05368	-8.16964
575.999	0.540	38.120	575.987	-574.011	2.595	1.989	3.260	0.23698	0.14516	21.82262
605.999	0.470	27.410	606.986	-543.012	2.823	2.138	3.529	0.37815	-0.22581	-34.54846
669.999	0.240	32.070	669.984	-480.013	3.164	2.327	3.909	0.36764	-0.36508	7.39684
700.999	0.440	8.020	700.984	-449.014	3.337	2.378	4.072	0.77911	0.64516	-77.58080
731.999	0.480	318.900	731.983	-418.015	3.553	2.309	4.186	1.23909	0.12903	-158.45193
<b>Nudge KOP=732' MD/TVD</b>										
732.000	0.480	318.900	731.984	-418.013	3.553	2.309	4.186	0.00000	0.00000	0.00000
825.998	1.390	316.180	825.969	-324.028	4.672	1.261	4.318	0.96898	0.96810	-2.89367
949.998	1.970	312.770	949.915	-200.082	7.205	-1.345	4.459	0.47443	0.46774	-2.75001
1,012.998	2.610	320.700	1,012.865	-137.133	9.050	-3.049	4.693	1.13121	1.01588	12.58733
1,106.998	2.460	319.360	1,106.772	-43.225	12.237	-5.718	5.278	0.17157	-0.15957	-1.42553
1,196.998	3.220	323.420	1,199.657	49.660	15.849	-8.575	6.055	0.84484	0.81721	4.36560
1,293.997	4.000	322.140	1,293.470	143.472	20.558	-12.160	7.159	0.83416	0.82979	-1.36170
1,480.997	6.160	321.210	1,479.724	329.726	33.529	-22.450	9.927	1.15588	1.15508	-0.49733
1,574.997	7.390	326.850	1,573.067	423.069	42.522	-28.915	12.293	1.48618	1.30851	6.00001
1,669.997	8.740	326.900	1,667.125	517.127	53.684	-36.198	15.725	1.42107	1.42106	0.05263
1,763.996	8.740	324.340	1,760.033	610.036	65.469	-44.261	19.099	0.41379	0.00000	-2.72341
1,857.996	9.030	323.850	1,852.905	702.907	77.228	-52.776	22.152	0.31884	0.30851	-0.52128
1,950.996	8.580	324.920	1,944.809	794.811	88.798	-61.069	25.213	0.51491	-0.48387	1.15054
2,034.996	7.900	322.180	2,027.941	877.944	98.486	-68.210	27.644	0.93460	-0.80953	-3.26191
2,081.996	7.380	320.980	2,074.524	924.526	103.383	-72.091	28.692	1.15723	-1.10639	-2.55320
2,174.996	8.380	323.810	2,166.645	1,016.647	113.493	-79.853	31.021	1.15305	1.07527	3.04302
2,268.995	8.910	324.790	2,259.576	1,109.579	124.969	-88.095	34.046	0.58518	0.56383	1.04256
2,455.995	6.620	316.290	2,444.855	1,294.857	144.596	-103.895	38.080	1.36675	-1.22460	-4.54546
2,549.995	4.880	309.080	2,538.379	1,388.382	151.034	-110.744	38.289	2.00069	-1.85107	-7.67023
2,642.995	3.020	285.300	2,631.160	1,481.162	154.174	-116.178	36.992	2.62473	-2.00000	-25.56994
2,736.994	1.940	239.790	2,725.079	1,575.081	154.027	-119.942	34.366	2.29914	-1.14894	-48.41499
2,830.994	2.140	179.860	2,819.029	1,669.031	151.471	-121.313	31.549	2.17540	0.21277	-63.75545
2,923.994	4.230	141.400	2,911.889	1,761.891	147.053	-119.168	29.697	3.09648	2.24732	-41.35492
3,017.994	6.320	116.520	3,005.497	1,855.500	142.033	-112.375	30.505	3.24730	2.22341	-26.46814

# EQT

## Survey Report

<b>Database:</b>	EDM_Definitive	<b>Local Co-ordinate Reference:</b>	Well Hines M01H
<b>Company:</b>	EQT (Chevron Data) 02-13-21	<b>TVD Reference:</b>	GL @ 1125.00 & 25' KB @ 1149.998usft (PD572)
<b>Project:</b>	Marshall County, WV Chevron	<b>MD Reference:</b>	GL @ 1125.00 & 25' KB @ 1149.998usft (PD572)
<b>Site:</b>	Hines Pad EQT	<b>North Reference:</b>	True
<b>Well:</b>	Hines M01H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Hines M01H As Drilled		

Survey	Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	North Reference +N/-S (usft)	East Reference +E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
	3,110.99	6.370	89.200	3,097.948	1,947.951	139.819	-102.634	35.370	3.21665	0.05376	-29.37640
	3,254.991	7.180	51.810	3,191.335	2,041.338	143.525	-92.798	44.702	4.68252	0.86170	-39.77668
	3,357.991	9.650	43.370	3,283.305	2,133.308	152.803	-82.765	58.384	3.16244	2.87097	-9.07529
	3,491.991	12.360	43.420	3,375.538	2,225.540	166.057	-70.327	76.481	2.67024	2.67022	0.05319
	3,648.991	14.910	42.440	3,469.969	2,319.972	182.288	-55.244	98.635	1.75743	1.74227	-1.01031
	3,832.993	15.110	45.400	3,560.942	2,410.945	199.312	-38.821	122.275	1.37805	1.12766	3.14894
	3,878.992	14.950	54.560	3,651.739	2,501.742	214.947	-20.216	146.341	2.53023	-0.17021	9.74470
	3,769.992	13.890	62.650	3,741.817	2,591.820	227.033	-0.525	168.492	2.44507	-1.13979	8.69894
	3,863.992	12.980	63.590	3,833.244	2,683.246	236.912	18.952	188.860	0.99555	-0.96809	1.00000
	3,985.992	12.680	58.590	3,923.868	2,773.871	247.005	37.227	208.584	1.20773	0.01075	-5.37635
	4,050.992	11.850	62.320	4,015.668	2,865.671	256.995	54.792	227.755	1.48237	-1.21277	3.96809
	4,144.992	11.650	61.580	4,107.698	2,957.701	265.996	71.685	245.743	0.26640	-0.21277	-0.78724
	4,237.991	11.470	59.430	4,198.812	3,048.814	275.167	87.905	263.407	0.50205	-0.19355	-2.31183
	4,331.991	11.830	58.380	4,290.875	3,140.878	284.972	104.157	281.564	0.44445	0.38298	-1.11702
	4,424.991	11.610	64.160	4,381.940	3,231.942	294.050	120.698	299.372	1.28387	-0.23656	6.21507
	4,520.991	11.380	65.290	4,476.014	3,326.016	302.219	137.996	317.012	0.33529	-0.23958	1.17709
	4,614.991	10.150	62.340	4,568.358	3,418.361	309.941	153.757	333.292	1.43340	-1.30851	-3.13830
	4,707.990	10.160	57.560	4,659.903	3,509.905	318.145	167.938	348.873	0.90602	0.01075	-5.13980
	4,801.990	11.560	56.920	4,752.217	3,602.219	327.734	182.828	365.958	1.49486	1.48936	-0.68085
	4,894.990	12.650	55.410	4,843.148	3,693.150	338.601	199.019	384.864	1.22040	1.17205	-1.62366
	4,988.990	12.190	61.740	4,934.952	3,784.954	349.144	216.235	404.214	1.52788	-0.48936	6.73406
	5,081.990	11.460	65.890	5,025.979	3,875.981	357.567	233.317	421.897	1.20466	-0.78495	4.46237
	5,175.989	10.520	62.850	5,118.255	3,968.257	365.297	249.476	438.450	1.17445	-1.00000	-3.23405
	5,269.989	10.300	59.800	5,210.708	4,060.710	373.440	264.375	454.466	0.63118	-0.23404	-3.24469
	5,362.989	10.280	56.450	5,302.213	4,152.215	382.209	278.477	470.414	0.64373	-0.02151	-3.60216
	5,456.989	11.340	57.340	5,394.543	4,244.546	391.832	293.248	487.445	1.14152	1.12766	0.94681
	5,493.711	11.801	56.663	5,430.519	4,280.521	395.844	299.425	494.558	1.30842	1.25503	-1.84491
	5,549.900	12.509	55.721	5,485.448	4,335.450	402.429	309.253	506.026	1.30842	1.26004	-1.67490
	5,549.989	12.510	55.720	5,485.535	4,335.537	402.440	309.269	506.045	1.30842	1.26280	-1.58132
	5,619.000	12.510	55.720	5,552.907	4,402.910	410.859	321.621	520.564	0.00000	0.00000	0.00000

# EQT

## Survey Report

Database: EDM_Definitive	Local Co-ordinate Reference:	Well Hines M01H
Company: EOT (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 M01H	Survey Calculation Method:	Minimum Curvature
Wellbore: OH	Local Co-ordinate Reference:	
Design: Hines M01H As Drilled	TVD Reference:	

Design Targets										
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	
- hit/miss target	(°)	(°)	(usft)	(1,066.663)	(96.315)	(usft)	(usft)			
- Shape										
Hines M01H LP - Rev-3	0.000	0.000	6,269.98 7	1,066.663	96.315	515,562.302	1,632,167.467	39.9093101	80.6989961°W	
- actual wellpath misses target center by 997.519usft at 5619.000usft MD (5552.908 TVD, 410.859 N, 321.621 E)										
- Point										
Hines M01H LP - Rev-	0.000	0.000	6,269.98 7	7,440.705	-5,088.810	522,004.997	1,627,067.895	39.9268071	80.7174847°W	
- actual wellpath misses target center by 8899.758usft at 5619.000usft MD (5552.908 TVD, 410.859 N, 321.621 E)										
- Point										
Hines M01H LP - Rev-2	0.000	0.000	6,269.98 7	1,066.001	115.029	515,561.390	1,632,186.170	39.9093083	80.6989294°W	
- actual wellpath misses target center by 993.023usft at 5619.000usft MD (5552.908 TVD, 410.859 N, 321.621 E)										
- Point										

Design Annotations					
Measured Depth	Vertical Depth	Local Coordinates		Comment	
(usft)	(usft)	+N/-S	+E/-W		
		(usft)	(usft)		
420.849	420.842	1.536	1.382	Final Gyro=421' MD/ TVD	
732.000	731.984	3.553	2.309	Nudge KOP=732' MD/TVD	
5,548.600	5,485.448	402.429	305.253	Final MWD Survey=5550' MD/ 5485' TVD	
5,619.000	5,552.907	410.859	321.621	Projection to Top Hole TD=5619' MD/ 5553' TVD	

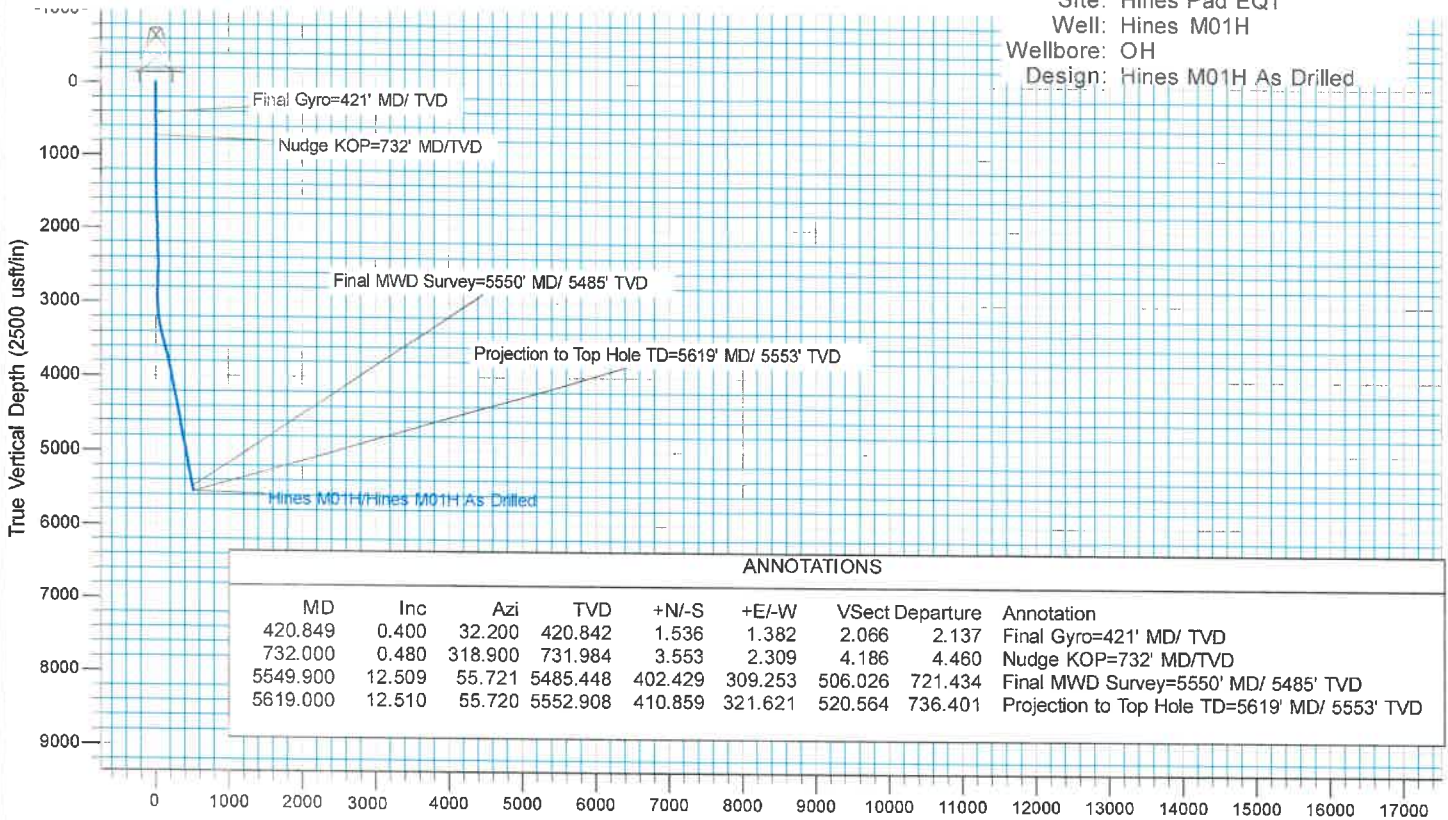
Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_



# EQT (Chevron Data) 02-13-21

KB Elevation= GL @ 1125.00 & 25' KB @ 1149.998usft (PD572)  
 Ground Elevation= 1124.998  
 All measurements were taken from KB Elevation

Project: Marshall County, WV Chevron  
 Site: Hines Pad EQT  
 Well: Hines M01H  
 Wellbore: OH  
 Design: Hines M01H As Drilled



ANNOTATIONS								
MD	Inc	Azi	TVD	+N/-S	+E/-W	V Sect	Departure	Annotation
420.849	0.400	32.200	420.842	1.536	1.382	2.066	2.137	Final Gyro=421' MD/ TVD
732.000	0.480	318.900	731.984	3.553	2.309	4.186	4.460	Nudge KOP=732' MD/TVD
5549.900	12.509	55.721	5485.448	402.429	309.253	506.026	721.434	Final MWD Survey=5550' MD/ 5485' TVD
5619.000	12.510	55.720	5552.908	410.859	321.621	520.564	736.401	Projection to Top Hole TD=5619' MD/ 5553' TVD

Vertical Section at 41.953° (2500 usft/in)

