

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

**Marshall County, WV Chevron**

**Hines Pad EQT**

**Hines M03H**

**OH**

**Design: Hines M03H As Drilled**

## **Standard Survey Report**

**30 June, 2021**

**05/27/2022**

# EQT

## Survey Report

Database: EDM_Definitive	Local Co-ordinate Reference: Well Hines M03H	Company: EQT (Chevron Data) 02-13-21	TVD Reference: GL @ 1125.00 & 24' RKB @ 1148.998usft (Highlands 14)
Project: Marshall County, WV Chevron	MD Reference: GL @ 1125.00 & 24' RKB @ 1148.998usft (Highlands 14)	Site: Hines Pad EQT	North Reference: True
Well: Hines M03H	Survey Calculation Method: Minimum Curvature	Wellbore: OH	
Design: Hines M03H As Drilled			

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

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

Well: Hines M03H			
Well Position: +N/-S 0.000 usft	Northing: 514,467.040 usft	Latitude: 39.9062995	
+E/-W 0.000 usft	Easting: 1,632,055.740 usft	Longitude: 80.6993423°W	
Position Uncertainty: 0.000 usft	Wellhead Elevation: 0.000 usft	Ground Level: 1,124.998 usft	

Wellbore: OH					
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	User Defined	12/13/2019	-8.1300	66.7600	52,282.00000000

Design: Hines M03H As Drilled					
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	323.280	

Survey Program		Date: 6/28/2021				
From (')	To (usft)	Survey (Wellbore)	Tool Name	Description		
0.00	415.149	Keeper Gyro (OH)	SDI Standard Keeper 104	Standard Wireline Keeper ver 1.0.4		
0.00	5,600.000	Baker MWD (OH)	MWD c	MWD - Standard 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	-1,148.998	0.000	0.000	0.000	0.00000	0.00000	0.00000
11.520	0.520	339.670	99.998	-1,048.999	0.425	-0.158	0.435	0.52000	0.52000	0.00000
127.997	0.710	334.370	124.997	-1,024.001	0.283	-0.253	0.699	0.88001	0.88000	-0.40000
149.995	0.820	335.430	149.995	-999.003	0.955	-0.320	0.989	0.86786	0.00000	67.44014
174.993	1.710	1.020	174.993	-974.005	1.311	-0.319	1.242	0.40211	-0.12000	30.36006
200.000	0.620	16.750	199.991	-949.007	1.597	-0.269	1.441	0.67396	-0.32000	50.92010

# EQT

## Survey Report

<b>Database:</b> EDM Definitive <b>Company:</b> EQT (Chevron Data) 02-13-21	<b>Local Co-ordinate Reference:</b> Well Hines M03H <b>TVD Reference:</b> GL @ 1125.00 & 24' RKB @ 1148.998usft (Highlands 14) <b>MD Reference:</b> GL @ 1125.00 & 24' RKB @ 1148.998usft (Highlands 14) <b>North Reference:</b> True <b>Survey Calculation Method:</b> Minimum Curvature <small>Local Co-ordinate Reference TVD Reference:</small>	<b>Project:</b> Marshall County, WV Chevron <b>Site:</b> Hines Pad EQT <b>Well:</b> Hines M03H <b>Wellbore:</b> OH <b>Design:</b> Hines M03H As Drilled
--	--	---

Survey											
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	North Reference		Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
					+N/-S (usft)	+E/-W (usft)					
224.990	0.500	26.170	224.990	-924.008	1.827	-0.181	1.572	0.63744	-0.52000	37.68008	
248.989	0.380	40.070	249.989	-899.009	1.988	-0.079	1.641	0.63909	-0.48000	55.60011	
274.988	0.330	51.960	274.988	-874.010	2.072	0.110	1.595	1.70791	1.00000	165.72034	
299.987	0.280	63.826	299.987	-849.011	2.087	0.351	1.453	0.68831	-0.40000	55.68011	
324.986	0.230	75.676	324.986	-824.012	2.110	0.531	1.374	1.43772	-0.88000	-164.20033	
349.985	0.400	27.240	349.985	-799.012	2.227	0.626	1.411	0.75245	0.36000	-108.52022	
374.985	0.450	4.140	374.985	-774.013	2.402	0.673	1.523	0.70839	0.20000	-92.40019	
399.984	0.470	9.050	399.984	-749.014	2.601	0.696	1.669	0.17674	0.08000	19.64004	
<b>Depth 413' MD, TVD</b>											
415.983	0.470	358.090	415.133	-733.864	2.725	0.704	1.763	0.59253	0.00000	-72.34338	
566.000	0.670	18.490	567.974	-581.024	4.452	1.051	2.940	0.30073	0.26169	13.34635	
598.000	1.060	19.260	598.969	-550.029	4.954	1.192	3.259	0.67449	0.61290	-16.80645	
629.000	1.260	6.070	629.963	-519.035	5.578	1.288	3.701	0.89050	0.70968	-26.48387	
<b>Depth 661' MD, TVD</b>											
661.000	1.360	255.720	660.954	-488.043	6.290	1.291	4.270	0.74016	0.25806	-30.16129	
682.000	1.700	345.080	691.943	-457.054	7.101	1.145	5.007	1.42478	1.09677	-34.32258	
723.000	1.900	331.160	723.928	-425.070	8.025	0.767	5.974	1.49756	0.62500	-43.50000	
754.000	2.300	310.960	754.907	-394.091	8.944	0.111	7.103	1.92821	1.29032	-39.35484	
786.000	2.770	310.830	785.877	-363.121	9.903	-0.864	8.455	1.90535	1.51613	-26.22581	
817.000	2.920	307.350	816.840	-332.158	10.855	-2.037	9.919	0.57057	0.16129	-11.22581	
879.000	2.990	303.990	878.761	-270.237	12.682	-4.586	12.907	0.37642	0.25806	-5.41935	
942.000	3.320	303.880	941.666	-207.331	14.602	-7.440	16.153	0.47629	0.47619	-0.17460	
1,004.000	3.650	302.090	1,003.553	-145.445	16.836	-10.586	19.665	0.62420	0.59677	-3.03226	
1,067.000	4.040	297.670	1,066.411	-82.586	18.730	-14.252	23.534	0.77136	0.61905	-6.87302	
1,129.000	4.260	293.970	1,128.249	-20.749	20.679	-18.291	27.512	0.55877	0.35484	-5.96774	
1,192.000	4.770	293.400	1,191.053	42.055	22.670	-22.833	31.824	0.81264	0.80952	-0.90476	
1,254.000	5.180	293.400	1,252.819	103.822	24.806	-27.767	36.486	0.66129	0.66129	0.00000	
1,317.000	5.730	295.250	1,315.534	166.536	27.277	-33.222	41.728	0.91645	0.87302	2.93651	
1,379.000	5.940	296.160	1,377.213	228.215	30.011	-38.901	47.315	0.37011	0.33871	1.46774	
1,441.000	6.280	297.120	1,438.860	289.863	32.971	-44.798	53.214	0.57260	0.54839	1.54839	
1,503.000	6.710	294.200	1,532.257	383.259	37.566	-54.384	62.628	0.57669	0.45745	-3.10638	
1,628.000	6.340	291.960	1,624.655	475.657	41.714	-64.102	71.763	0.48283	-0.39785	-2.40860	
1,722.000	6.550	299.400	1,718.062	569.064	46.287	-73.586	81.099	0.91539	0.22340	7.91489	
1,816.000	7.590	304.660	1,811.347	662.349	52.449	-83.364	91.885	1.30214	1.10638	5.59574	
1,909.000	8.190	303.620	1,903.466	754.469	59.610	-93.932	103.944	0.66315	0.64516	-1.11828	
2,003.000	8.530	303.010	1,996.467	847.470	67.115	-105.354	116.789	0.37380	0.36170	-0.64894	
2,034.000	8.210	302.820	2,027.137	878.139	69.567	-109.142	121.019	1.03611	-1.03226	-0.61290	
2,077.000	8.310	300.630	2,069.691	920.693	72.814	-114.396	126.763	0.76771	0.23256	-5.09302	
2,171.000	6.830	289.560	2,162.874	1,013.877	78.147	-125.509	137.683	2.20357	-1.57447	-11.77660	
2,284.000	5.410	280.260	2,255.344	1,106.346	80.780	-135.034	145.488	1.85750	-1.52688	-10.00000	
2,356.000	5.470	256.900	2,349.003	1,200.006	80.739	-142.963	150.196	2.34011	-1.00000	-24.85106	

# EQT Survey Report

<b>Database:</b>	EDM Definitive	<b>Local Co-ordinate Reference:</b>	Well Hines M03H
<b>Company:</b>	EQT (Chevron Data) 02-13-21	<b>TVD Reference:</b>	GL @ 1125.00 & 24' RKB @ 1148.998usft (Highlands 14)
<b>Project:</b>	Marshall County, WV Chevron	<b>MD Reference:</b>	GL @ 1125.00 & 24' RKB @ 1148.998usft (Highlands 14)
<b>Site:</b>	Hines Pad EQT	<b>North Reference:</b>	True
<b>Well:</b>	Hines M03H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH	<b>Local Co-ordinate Reference:</b>	
<b>Design:</b>	Hines M03H As Drilled	<b>TVD Reference:</b>	

Survey											
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	North Reference		Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
					+N/-S (usft)	+E/-W (usft)					
2,443.733	280	234.970	2,443.733	1,294.735	77.985	-140.472	151.784	1.76127	-0.20000	-23.08421	
2,537.504	282	235.250	2,537.504	1,388.506	78.075	-154.045	151.962	1.87249	-1.87234	0.41489	
2,631.530	284	235.530	2,631.530	1,482.532	78.165	-167.618	151.771	2.45284	-2.24468	-57.89362	
2,724.502	286	235.810	2,724.502	1,575.504	78.255	-181.191	151.285	2.95424	2.25806	-130.8172	
2,818.392	3,020	58.270	2,818.392	1,669.395	76.227	-150.130	150.864	0.54500	0.54255	-1.07447	
2,912.247	3,080	63.120	2,912.247	1,763.249	76.774	-145.567	150.178	0.48150	0.36170	5.15957	
3,005.125	2,490	62.820	3,005.125	1,856.127	80.929	-141.339	149.378	0.93563	-0.93548	-0.32258	
3,099.050	2,070	65.770	3,099.050	1,950.052	82.612	-137.999	148.730	0.44860	-0.44681	1.01064	
3,192.995	1,030	67.420	3,192.995	2,043.997	83.549	-135.068	148.048	0.25996	-0.22340	3.88298	
3,285.949	1,730	59.180	3,285.949	2,136.951	85.268	-132.482	147.560	0.34067	-0.13978	-9.93548	
3,379.897	2,090	55.570	3,379.897	2,230.899	86.986	-129.862	147.370	0.39390	0.38298	-2.77660	
3,473.868	0,890	56.680	3,473.868	2,324.870	88.460	-128.194	147.555	1.61999	-1.48936	-30.73404	
3,566.862	0,640	340.380	3,566.862	2,417.864	89.471	-128.038	148.272	0.46015	-0.05376	-40.10753	
3,660.857	0,700	37.070	3,660.857	2,511.859	90.442	-127.996	149.025	0.31669	-0.06383	29.45745	
3,753.850	0,800	34.490	3,753.850	2,604.852	91.524	-127.762	149.760	0.26071	0.23656	-9.22581	
3,849.842	0,600	12.090	3,849.842	2,700.844	92.754	-127.543	150.607	0.13399	-0.12500	3.75000	
3,943.832	0,950	8.320	3,943.832	2,794.835	94.074	-127.341	151.544	0.29985	0.28723	-6.13830	
4,037.816	1,180	25.170	4,037.816	2,888.819	95.725	-126.843	152.570	0.44265	0.24468	20.05319	
4,130.809	0,200	325.030	4,130.809	2,981.811	96.773	-126.573	153.248	1.15909	-0.96774	-66.81721	
4,224.805	0,770	284.790	4,224.805	3,075.807	97.717	-127.321	153.972	0.61359	0.52128	-40.69149	
4,318.794	0,810	298.010	4,318.794	3,169.796	97.841	-128.613	155.164	0.27602	0.18085	14.07447	
4,411.747	2,690	256.550	4,411.747	3,262.749	97.481	-131.409	156.716	2.23735	1.88172	-44.58065	
4,505.492	5,590	247.280	4,505.492	3,356.495	95.209	-137.779	158.695	3.15622	3.08511	-9.86170	
4,597.869	7,050	339.400	4,597.869	3,448.872	90.308	-147.286	160.451	2.41582	2.21505	-8.47312	
4,690.904	0,780	235.120	4,690.904	3,541.906	80.021	-158.557	161.349	1.36609	1.20213	-4.55319	
4,782.747	0,260	225.240	4,782.747	3,633.749	73.636	-169.751	160.519	1.78439	0.62366	-10.62366	
4,875.566	0,860	215.910	4,875.566	3,726.568	62.390	-179.425	157.289	1.65693	-0.53191	-9.92553	
4,971.346	0,330	215.860	4,971.346	3,822.348	49.967	-188.412	152.704	0.48460	0.48454	-0.05155	
5,063.110	0,370	216.620	5,063.110	3,914.113	37.781	-197.344	148.277	0.13956	0.04301	0.81720	
5,155.947	0,690	222.680	5,155.947	4,006.949	26.419	-206.723	144.777	1.24288	-0.72340	6.44681	
5,247.866	0,900	224.060	5,247.866	4,098.868	16.142	-216.433	142.345	0.25472	0.11828	1.48387	
5,340.748	0,800	222.860	5,340.748	4,191.750	5.650	-226.374	139.879	0.21839	0.09574	-1.27660	
5,433.615	0,820	225.180	5,433.615	4,284.618	-1.811	-236.484	137.539	0.38336	0.03191	2.46809	
<b>Final MWD=5528' MD/ 5608' TVD</b>											
5,528.000	9,410	225.970	5,505.683	4,356.686	-12.948	-244.789	135.982	0.69300	0.67123	1.08219	
<b>Projection to Tophole TD=5800' MD/ 5577' TVD - Hines SW1TOP - Hines A NW2 LP - Hines SW2 Potential TOP - Hines A NW2 AZI - Hines J</b>											
5,870.000	9,410	225.970	5,576.714	4,427.717	-21.130	-253.252	134.484	0.00000	0.00000	0.00000	

# EQT

## Survey Report

<b>Database:</b> EDM Definitive <b>Company:</b> EQT (Chevron Data) 02-13-21	<b>Local Co-ordinate Reference:</b> Well Hines M03H <b>TVD Reference:</b> GL @ 1125.00 & 24' RKB @ 1148.998usft (Highlands 14)	
<b>Project:</b> Marshall County, WV Chevron	<b>MD Reference:</b> EQT GL @ 1125.00 & 24' RKB @ 1148.998usft (Highlands 14)	
<b>Site:</b> Hines Pad EQT <b>Well:</b> Hines M03H <b>Wellbore:</b> OH <b>Design:</b> Hines M03H As Drilled	<b>North Reference:</b> True <b>Survey Calculation Method:</b> Minimum Curvature Local Co-ordinate Reference TVD Reference	

Design Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(usft)	(6,557.076)	(-5,268.914)	(usft)	(usft)		
(2) Hines M03H - R	0.000	0.000	6,268.98	6,557.076	-5,268.914	521,066.927	1,626,874.831	39.9242989	80.7181290°W
- actual wellpath misses target center by 8301.138usft at 5600.000usft MD (5578.715 TVD, -21.130 N, -253.252 E) - Point									
Hines M03H - R	0.000	0.000	6,268.98	7,470.896	-5,149.200	522,004.497	1,627,067.895	39.9268071	80.7174847°W
- actual wellpath misses target center by 8943.255usft at 5600.000usft MD (5578.715 TVD, -21.130 N, -253.252 E) - Point									
Hines M03H - R	0.000	0.000	6,268.98	1,095.994	-705.409	515,561.390	1,632,186.170	39.9093083	80.6989294°W
- actual wellpath misses target center by 1365.069usft at 5600.000usft MD (5578.715 TVD, -21.130 N, -253.252 E) - Point									
(1) Hines M03H - R	0.000	0.000	6,284.98	440.675	-705.401	514,917.105	1,631,355.285	39.9075092	80.7018604°W
- actual wellpath misses target center by 959.300usft at 5600.000usft MD (5578.715 TVD, -21.130 N, -253.252 E) - Point									

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
415.149	415.133	2.725	0.704	Gyro Tie in=415' MD/ TVD	
661.000	660.954	6.290	1.251	Nudge KOP=661' MD/ TVD	
660.000	659.948	-2.548	-1.473	Final MD=660.0' MD/660.0' TVD	
600.000	579.714	-21.130	-253.252	Projection LTP=600' TD=3600' MD=5578' TVD	

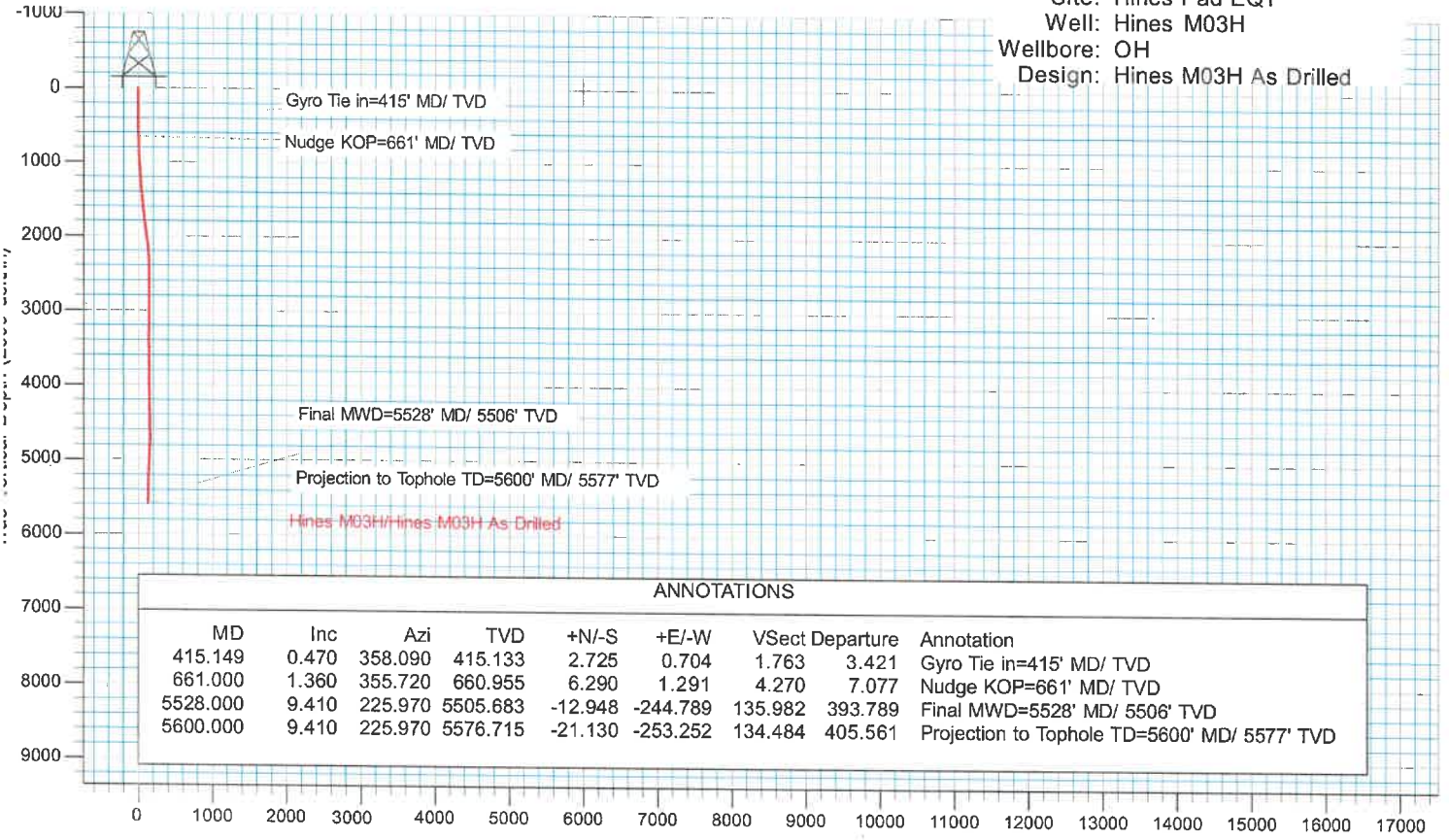
Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_



# EQT (Chevron Data) 02-13-21

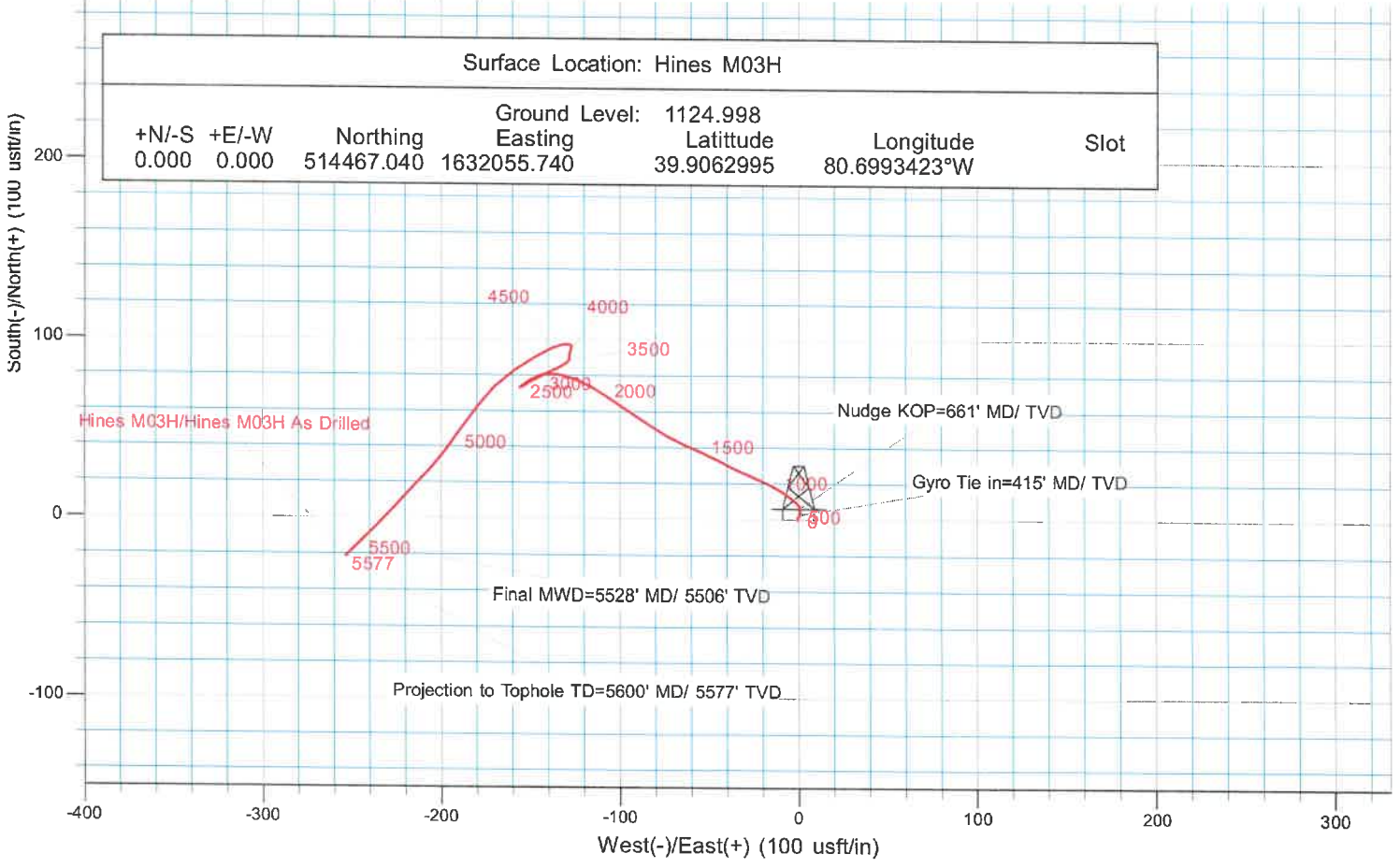
KB Elevation= GL @ 1125.00 & 24' RKB @ 1148.998usft (Highlands 14)  
 Ground Elevation= 1124.998  
 All measurements were taken from KB Elevation

Project: Marshall County, WV Chevron  
 Site: Hines Pad EQT  
 Well: Hines M03H  
 Wellbore: OH  
 Design: Hines M03H As Drilled



ANNOTATIONS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Vsect	Departure	Annotation	
415.149	0.470	358.090	415.133	2.725	0.704	1.763	3.421	Gyro Tie in=415' MD/ TVD	
661.000	1.360	355.720	660.955	6.290	1.291	4.270	7.077	Nudge KOP=661' MD/ TVD	
5528.000	9.410	225.970	5505.683	-12.948	-244.789	135.982	393.789	Final MWD=5528' MD/ 5506' TVD	
5600.000	9.410	225.970	5576.715	-21.130	-253.252	134.484	405.561	Projection to Tophole TD=5600' MD/ 5577' TVD	

Vertical Section at 323.280° (2500 usft/in)



Surface Location: Hines M03H						
+N/-S	+E/-W	Northing	Easting	Ground Level: 1124.998	Latitude	Longitude
0.000	0.000	514467.040	1632055.740		39.9062995	80.6993423°W
		Slot				