



Where energy meets innovation.

EQT-Trans Energy

Marion County, WV

Jones Unit

Jones 3H - Slot Jones 3H

Wellbore #1

Design: Jones 3H As Drilled

Standard Survey Report

22 February, 2018

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08/31/2018



EQT Corporation
Survey Report

Database:	PEPCDBSW01DB	Local Co-ordinate Reference:	Well Jones 3H - Slot Jones 3H
Company:	EQT-Trans Energy	TVD Reference:	KB @ 1064.000usft
Project:	Marion County, WV	MD Reference:	KB @ 1064.000usft
Site:	Jones Unit	North Reference:	Grid
Well:	Jones 3H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Jones 3H As Drilled		

Project	Marion County, WV, West Virginia		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	West Virginia North 4701		

Site	Jones Unit				
Site Position:		Northing:	396,770.370 usft	Latitude:	39.59
From:	Map	Easting:	1,738,625.590 usft	Longitude:	-80.43
Position Uncertainty:	0.000 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-0.5915 °

Well	Jones 3H - Slot Jones 3H					
Well Position	+N/-S	0.000 usft	Northing:	396,768.930 usft	Latitude:	39.5856583
	+E/-W	0.000 usft	Easting:	1,738,640.880 usft	Longitude:	80.4273490°W
Position Uncertainty		0.000 usft	Wellhead Elevation:	0.000 usft	Ground Level:	1,042.000 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	3/14/2017	-8.8277	66.7831	52,072

Design	Jones 3H 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	145.515	

Survey Program	Date	2/22/2018			
From ()	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.00	14,299.000	Jones 2H Final Surveys (Wellbore #1)	MWD	MWD - Standard	

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	-1,064.000	0.000	0.000	0.000	0.00000	0.00000	0.00000	
24.000	0.000	54.520	24.000	-1,040.000	0.000	0.000	0.000	0.00000	0.00000	0.00000	
100.000	0.610	54.520	99.999	-964.001	0.235	0.329	-0.007	0.80263	0.80263	0.00000	
200.000	0.610	58.850	199.993	-864.007	0.819	1.218	0.015	0.04609	0.00000	4.33000	
300.000	0.620	53.840	299.987	-764.013	1.414	2.111	0.030	0.05468	0.01000	-5.01000	
400.000	0.610	55.060	399.981	-664.019	2.038	2.984	0.010	0.01648	-0.01000	1.22000	
500.000	0.570	59.640	499.976	-564.024	2.594	3.850	0.041	0.06181	-0.04000	4.58000	
600.000	0.650	53.790	599.970	-464.030	3.181	4.736	0.060	0.10129	0.08000	-5.85000	
700.000	0.600	40.000	699.964	-364.035	3.917	5.531	-0.097	0.15806	-0.05000	-13.79000	

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Wellbore:	Wellbore #1		
Design:	Jones 3H As Drilled		

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800.000	0.550	36.960	799.959	-264.040	4.701	6.156	-0.390	0.05856	-0.05000	-3.04000	
900.000	0.780	28.120	899.953	-164.047	5.685	6.765	-0.856	0.25118	0.23000	-8.84000	
965.000	1.100	32.580	964.944	-99.056	6.601	7.310	-1.303	0.50464	0.49231	6.86154	
1,063.000	2.010	88.670	1,062.912	-1.088	7.434	9.535	-0.729	1.70221	0.92857	57.23470	
1,094.000	2.580	88.610	1,093.887	29.887	7.463	10.776	-0.051	1.83873	1.83871	-0.19355	
1,126.000	2.940	86.510	1,125.849	61.849	7.531	12.315	0.765	1.16835	1.12500	-6.56250	
1,158.000	3.400	83.250	1,157.800	93.800	7.692	14.076	1.629	1.54338	1.43750	-10.18750	
1,189.000	3.780	80.050	1,188.740	124.740	7.977	15.996	2.481	1.38532	1.22581	-10.32258	
1,221.000	4.280	76.450	1,220.660	156.660	8.439	18.195	3.346	1.75040	1.56250	-11.25000	
1,253.000	4.680	72.280	1,252.563	188.563	9.116	20.600	4.149	1.61123	1.25000	-13.03125	
1,284.000	5.170	67.500	1,283.448	219.448	10.035	23.095	4.804	2.06046	1.58065	-15.41936	
1,316.000	5.700	63.120	1,315.304	251.304	11.306	25.844	5.314	2.10217	1.65625	-13.68750	
1,347.000	5.940	59.990	1,346.145	282.145	12.804	28.606	5.643	1.28333	0.77419	-10.09677	
1,379.000	6.990	54.550	1,377.941	313.941	14.761	31.627	5.739	3.79523	3.28125	-17.00000	
1,410.000	7.650	48.960	1,408.689	344.689	17.210	34.720	5.472	3.12994	2.12903	-18.03226	
1,442.000	8.490	42.860	1,440.372	376.372	20.340	37.933	4.711	3.74513	2.62500	-19.06250	
1,474.000	8.580	39.970	1,472.018	408.018	23.901	41.073	3.554	1.36940	0.28125	-9.03125	
1,537.000	8.550	37.180	1,534.315	470.315	31.234	46.922	0.821	0.66121	-0.04762	-4.42857	
1,632.000	8.290	33.510	1,628.292	564.292	42.571	54.971	-3.967	0.62826	-0.27368	-3.86316	
1,726.000	8.350	31.810	1,721.303	657.303	54.022	62.310	-9.250	0.26936	0.06383	-1.80851	
1,758.000	8.450	31.410	1,752.960	688.960	58.003	64.760	-11.144	0.36194	0.31250	-1.25000	
1,789.000	8.380	29.540	1,783.626	719.626	61.912	67.061	-13.064	0.91115	-0.22581	-6.03226	
1,820.000	7.060	29.740	1,814.344	750.344	65.532	69.120	-14.882	4.25894	-4.25806	0.64516	
1,852.000	6.580	29.000	1,846.118	782.118	68.843	70.984	-16.556	1.52490	-1.50000	-2.31250	
1,884.000	6.250	28.560	1,877.917	813.917	71.976	72.706	-18.164	1.04262	-1.03125	-1.37500	
1,915.000	6.210	28.020	1,908.734	844.734	74.939	74.300	-19.703	0.22887	-0.12903	-1.74194	
1,947.000	6.230	29.740	1,940.546	876.546	77.974	75.974	-21.257	0.58568	0.06250	5.37500	
1,979.000	5.650	27.990	1,972.374	908.374	80.873	77.575	-22.740	1.89860	-1.81250	-5.46875	
2,010.000	4.870	24.530	2,003.243	939.243	83.417	78.838	-24.122	2.71511	-2.51613	-11.16129	
2,042.000	4.360	22.320	2,035.139	971.139	85.778	79.864	-25.488	1.68755	-1.59375	-6.90625	
2,074.000	4.120	18.990	2,067.052	1,003.052	87.991	80.700	-26.838	1.07415	-0.75000	-10.40625	
2,106.000	3.970	15.280	2,098.972	1,034.972	90.146	81.366	-28.238	0.94239	-0.46875	-11.59375	
2,168.000	3.480	5.210	2,160.842	1,096.842	94.091	82.102	-31.072	1.31545	-0.79032	-16.24194	
2,200.000	3.210	5.570	2,192.787	1,128.787	95.949	82.277	-32.505	0.84630	-0.84375	1.12500	
2,232.000	3.090	2.840	2,224.739	1,160.739	97.703	82.407	-33.876	0.60023	-0.37500	-8.53125	
2,264.000	2.570	8.170	2,256.700	1,192.700	99.274	82.552	-35.090	1.81954	-1.62500	16.65625	
2,295.000	2.040	8.190	2,287.674	1,223.675	100.508	82.729	-36.007	1.70968	-1.70968	0.06452	
2,327.000	1.550	0.110	2,319.659	1,255.659	101.505	82.811	-36.782	1.71977	-1.53125	-25.25000	
2,390.000	1.180	356.600	2,382.641	1,318.641	103.004	82.774	-38.039	0.60184	-0.58730	-5.57143	
2,421.000	0.680	352.770	2,413.637	1,349.637	103.505	82.732	-38.476	1.62442	-1.61290	-12.35484	
2,484.000	0.560	329.420	2,476.633	1,412.633	104.141	82.528	-39.115	0.43981	-0.19048	-37.06349	
2,578.000	0.290	271.310	2,570.631	1,506.631	104.542	82.057	-39.713	0.50586	-0.28723	-61.81915	

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2,673.000	0.460	276.470	2,665.629	1,601.629	104.591	81.437	-40.103	0.18226	0.17895	5.43158
2,768.000	0.650	250.480	2,760.624	1,696.624	104.454	80.551	-40.492	0.32712	0.20000	-27.35790
2,863.000	1.000	243.440	2,855.614	1,791.614	103.903	79.301	-40.746	0.38287	0.36842	-7.41053
2,958.000	1.070	263.140	2,950.599	1,886.599	103.426	77.679	-41.271	0.37974	0.07368	20.73684
3,002.000	0.740	259.790	2,994.594	1,930.594	103.327	76.992	-41.579	0.75926	-0.75000	-7.61364
3,086.000	0.960	252.540	3,078.584	2,014.584	103.020	75.786	-42.008	0.29102	0.26190	-8.63095
3,117.000	0.470	266.920	3,109.582	2,045.582	102.935	75.412	-42.150	1.67111	-1.58065	46.38710
KOP=3148' MD/ 3141' TVD										
3,148.000	0.980	44.640	3,140.580	2,076.580	103.117	75.471	-42.266	4.40279	1.64516	444.25807
3,180.000	2.930	52.310	3,172.560	2,108.560	103.812	76.311	-42.364	6.13477	6.09375	23.96875
3,211.000	5.790	51.090	3,203.467	2,139.467	105.278	78.155	-42.529	9.23014	9.22581	-3.93548
3,243.000	6.520	53.980	3,235.283	2,171.283	107.361	80.880	-42.702	2.47755	2.28125	9.03125
3,274.000	6.380	53.930	3,266.087	2,202.087	109.410	83.696	-42.797	0.45198	-0.45161	-0.16129
3,306.000	5.800	53.720	3,297.906	2,233.906	111.413	86.437	-42.896	1.81383	-1.81250	-0.65625
3,337.000	5.560	51.740	3,328.754	2,264.754	113.270	88.878	-43.044	0.99938	-0.77419	-6.38710
3,369.000	4.870	50.210	3,360.621	2,296.621	115.099	91.139	-43.272	2.19942	-2.15625	-4.78125
3,400.000	5.450	53.590	3,391.495	2,327.495	116.815	93.335	-43.443	2.11159	1.87097	10.90323
3,432.000	6.340	55.820	3,423.326	2,359.326	118.710	96.020	-43.485	2.87135	2.78125	6.96875
3,463.000	7.530	57.880	3,454.098	2,390.099	120.752	99.157	-43.392	3.92106	3.83871	6.64516
3,494.000	8.970	55.870	3,484.777	2,420.777	123.188	102.878	-43.293	4.73672	4.64516	-6.48387
3,525.000	10.200	54.340	3,515.344	2,451.344	126.144	107.108	-43.335	4.05161	3.96774	-4.93548
3,557.000	11.310	52.680	3,546.781	2,482.781	129.698	111.906	-43.548	3.60094	3.46875	-5.18750
3,589.000	11.800	49.050	3,578.133	2,514.133	133.745	116.873	-44.072	2.73932	1.53125	-11.34375
3,652.000	12.130	46.440	3,639.765	2,575.765	142.528	126.535	-45.841	1.00587	0.52381	-4.14286
3,746.000	11.470	48.570	3,731.778	2,667.778	155.519	140.699	-48.529	0.84114	-0.70213	2.26596
3,841.000	14.720	50.120	3,824.295	2,760.296	169.512	157.048	-50.807	3.44066	3.42105	1.63158
3,936.000	16.730	50.650	3,915.735	2,851.735	185.922	176.885	-53.101	2.12116	2.11579	0.55789
4,030.000	17.880	48.790	4,005.480	2,941.480	204.008	198.204	-55.939	1.35748	1.22340	-1.97872
4,125.000	15.500	47.740	4,096.471	3,032.471	222.155	218.573	-59.365	2.52519	-2.50526	-1.10526
4,220.000	14.150	48.840	4,188.307	3,124.307	238.335	236.711	-62.432	1.45155	-1.42105	1.15789
4,315.000	14.210	52.280	4,280.414	3,216.414	253.111	254.677	-64.440	0.88916	0.06316	3.62105
4,410.000	14.800	51.020	4,372.386	3,308.386	267.878	273.333	-66.049	0.70428	0.62105	-1.32632
4,505.000	14.440	47.970	4,464.311	3,400.311	283.441	291.563	-68.555	0.89445	-0.37895	-3.21053
4,600.000	14.680	44.830	4,556.261	3,492.261	299.909	308.849	-72.343	0.86836	0.25263	-3.30526
4,693.000	16.290	40.010	4,645.886	3,581.886	318.258	325.544	-78.015	2.21486	1.73118	-5.18280
4,788.000	17.200	40.590	4,736.857	3,672.857	339.130	343.249	-85.195	0.97390	0.95789	0.61053
4,883.000	18.650	43.480	4,827.245	3,763.245	360.820	362.842	-91.980	1.79017	1.52632	3.04211
4,977.000	16.030	43.160	4,916.965	3,852.965	381.197	382.065	-97.893	2.78907	-2.78723	-0.34043
5,071.000	15.760	40.080	5,007.373	3,943.373	400.432	399.163	-104.067	0.94210	-0.28723	-3.27660
5,166.000	15.260	43.930	5,098.915	4,034.916	419.308	416.144	-110.012	1.20445	-0.52632	4.05263
5,260.000	15.320	48.750	5,189.592	4,125.592	436.405	434.063	-113.959	1.35332	0.06383	5.12766
5,354.000	16.470	49.650	5,279.996	4,215.996	453.221	453.555	-116.784	1.25116	1.22340	0.95745
5,449.000	13.620	50.270	5,371.731	4,307.731	469.093	472.424	-119.183	3.00474	-3.00000	0.65263

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5,544.000	15.090	41.840	5,463.772	4,399.772	485.458	489.278	-123.130	2.68588	1.54737	-8.87368	
5,639.000	20.300	33.160	5,554.262	4,490.262	508.486	506.556	-132.330	6.13302	5.48421	-9.13684	
5,733.000	18.710	33.650	5,642.865	4,578.865	534.689	523.830	-144.147	1.70041	-1.69149	0.52128	
5,828.000	16.140	45.970	5,733.529	4,669.529	556.561	541.776	-152.016	4.71887	-2.70526	12.96842	
5,923.000	13.110	43.980	5,825.440	4,761.441	573.495	558.755	-156.361	3.23257	-3.18947	-2.09474	
6,018.000	14.000	44.520	5,917.793	4,853.793	589.442	574.294	-160.707	0.94626	0.93684	0.56842	
6,113.000	14.100	50.220	6,009.956	4,945.956	605.040	591.245	-163.967	1.45984	0.10526	6.00000	
6,208.000	13.340	46.530	6,102.246	5,038.246	619.984	608.092	-166.747	1.21975	-0.80000	-3.88421	
6,301.000	13.000	46.160	6,192.800	5,128.800	634.611	623.423	-170.123	0.37666	-0.36559	-0.39785	
6,394.000	16.110	41.740	6,282.807	5,218.807	651.489	639.563	-174.897	3.54865	3.34409	-4.75269	
6,489.000	13.460	42.150	6,374.654	5,310.654	669.524	655.760	-180.592	2.79163	-2.78947	0.43158	
6,583.000	12.780	39.730	6,466.200	5,402.200	685.631	669.747	-185.949	0.92981	-0.72340	-2.57447	
6,677.000	13.290	39.130	6,557.778	5,493.778	702.008	683.211	-191.826	0.56132	0.54255	-0.63830	
6,771.000	16.500	38.760	6,648.607	5,584.607	720.803	698.391	-198.723	3.41638	3.41489	-0.39362	
6,866.000	16.240	41.680	6,739.758	5,675.758	741.244	715.670	-205.789	0.90838	-0.27368	3.07368	
6,960.000	19.150	47.300	6,829.307	5,765.307	761.523	735.748	-211.137	3.58636	3.09574	5.97872	
7,032.000	18.460	49.310	6,897.464	5,833.464	776.964	753.070	-214.057	1.31448	-0.95833	2.79167	
7,087.000	18.620	53.470	6,949.612	5,885.612	787.868	766.729	-215.312	2.42202	0.29091	7.56364	
7,118.000	17.640	62.930	6,979.079	5,915.079	792.953	774.890	-214.882	9.99580	-3.16129	30.51613	
7,150.000	16.310	73.870	7,009.692	5,945.692	796.409	783.527	-212.841	10.79230	-4.15625	34.18750	
7,181.000	15.680	84.670	7,039.499	5,975.499	798.007	791.881	-209.428	9.79806	-2.03226	34.83871	
7,213.000	16.360	97.280	7,070.265	6,006.265	797.838	800.660	-204.318	11.05849	2.12500	39.40625	
7,245.000	16.990	106.060	7,100.924	6,036.924	795.973	809.625	-197.706	8.10723	1.96875	27.43750	
7,276.000	17.190	112.140	7,130.558	6,066.558	792.994	818.221	-190.382	5.79716	0.64516	19.61290	
7,308.000	17.850	117.930	7,161.076	6,097.076	788.914	826.935	-182.086	5.82148	2.06250	18.09375	
7,340.000	18.770	122.610	7,191.457	6,127.457	783.842	835.605	-172.996	5.41777	2.87500	14.62500	
7,371.000	20.210	126.470	7,220.681	6,156.681	777.971	844.114	-163.339	6.22961	4.64516	12.45161	
7,403.000	23.310	130.410	7,250.399	6,186.399	770.579	853.382	-151.999	10.70394	9.68750	12.31250	
7,434.000	26.830	133.410	7,278.475	6,214.475	761.792	863.138	-139.232	12.06922	11.35484	9.67742	
7,466.000	30.660	135.550	7,306.527	6,242.527	751.000	874.102	-124.129	12.39157	11.96875	6.68750	
7,498.000	35.480	135.330	7,333.335	6,269.335	738.564	886.352	-106.943	15.06715	15.06250	-0.68750	
7,529.000	39.330	132.590	7,357.958	6,293.958	725.512	899.915	-88.505	13.52763	12.41936	-8.83871	
7,561.000	41.790	130.620	7,382.268	6,318.268	711.705	915.477	-68.314	8.66653	7.68750	-6.15625	
7,593.000	43.460	131.360	7,405.813	6,341.813	697.490	931.832	-47.336	5.44857	5.21875	2.31250	
7,624.000	46.150	132.730	7,427.806	6,363.806	682.857	948.048	-26.093	9.21895	8.67742	4.41935	
7,655.000	49.140	134.750	7,448.690	6,384.690	667.015	964.589	-3.670	10.77947	9.64516	6.51613	
7,687.000	53.310	136.990	7,468.728	6,404.728	649.105	981.944	20.919	14.12640	13.03125	7.00000	
7,719.000	57.170	138.250	7,486.970	6,422.970	629.685	999.655	46.955	12.48833	12.06250	3.93750	
7,749.000	59.840	139.300	7,502.641	6,438.641	610.445	1,016.509	72.356	9.38686	8.90000	3.50000	
7,780.000	62.850	140.730	7,517.506	6,453.506	589.601	1,033.983	99.430	10.51933	9.70968	4.61290	
7,811.000	65.060	141.630	7,531.116	6,467.116	567.902	1,051.440	127.201	7.59114	7.12903	2.90323	
7,843.000	65.910	142.370	7,544.394	6,480.394	544.959	1,069.364	156.261	3.38858	2.65625	2.31250	

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EQT Corporation

Survey Report

Database: PEPDDBSW01DB	Local Co-ordinate Reference: Well Jones 3H - Slot Jones 3H
Company: EQT-Trans Energy	TVD Reference: KB @ 1064.000usft
Project: Marion County, WV	MD Reference: KB @ 1064.000usft
Site: Jones Unit	North Reference: Grid
Well: Jones 3H	Survey Calculation Method: Minimum Curvature
Wellbore: Wellbore #1	
Design: Jones 3H 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)	
7,875.000	65.800	142.410	7,557.484	6,493.484	521.827	1,087.185	185.418	0.36218	-0.34375	0.12500	
7,906.000	66.250	142.850	7,570.080	6,506.080	499.315	1,104.377	213.707	1.94656	1.45161	1.41935	
7,937.000	69.340	143.840	7,581.795	6,517.795	476.292	1,121.506	242.384	10.39686	9.96774	3.19355	
7,969.000	73.660	146.630	7,591.948	6,527.948	451.366	1,138.796	272.719	15.82935	13.50000	8.71875	
8,000.000	75.820	148.050	7,600.107	6,536.107	426.189	1,154.933	302.608	8.25078	6.96774	4.58065	
8,032.000	75.830	149.030	7,607.943	6,543.943	399.724	1,171.125	333.590	2.96942	0.03125	3.06250	
8,063.000	76.780	149.720	7,615.283	6,551.283	373.807	1,186.467	363.640	3.75069	3.06452	2.22581	
8,094.000	79.360	150.260	7,621.690	6,557.690	347.544	1,201.635	393.875	8.49526	8.32258	1.74194	
8,126.000	82.380	150.750	7,626.767	6,562.767	320.047	1,217.188	425.346	9.55780	9.43750	1.53125	
8,158.000	85.630	151.910	7,630.109	6,566.109	292.128	1,232.454	457.002	10.77697	10.15625	3.62500	
8,189.000	88.030	152.390	7,631.823	6,567.823	264.763	1,246.912	487.745	7.89477	7.74194	1.54839	
LP=8220' MD/ 7632' TVD											
8,220.000	90.370	153.880	7,632.256	6,568.256	237.114	1,260.918	518.466	8.94832	7.54839	4.80645	
8,315.000	90.120	153.910	7,631.850	6,567.850	151.806	1,302.719	612.450	0.26505	-0.26316	0.03158	
8,409.000	90.000	153.890	7,631.752	6,567.752	67.391	1,344.074	705.446	0.12942	-0.12766	-0.02128	
8,503.000	90.060	152.810	7,631.702	6,567.702	-16.621	1,386.236	798.567	1.15071	0.06383	-1.14894	
8,598.000	90.060	148.910	7,631.603	6,567.603	-99.581	1,432.486	893.136	4.10526	0.00000	-4.10526	
8,693.000	90.060	147.200	7,631.503	6,567.503	-180.191	1,482.749	988.039	1.80000	0.00000	-1.80000	
8,787.000	90.030	148.080	7,631.429	6,567.430	-259.592	1,533.061	1,081.973	0.93671	-0.03191	0.93617	
8,882.000	89.940	146.190	7,631.454	6,567.454	-339.384	1,584.612	1,176.931	1.99173	-0.09474	-1.98947	
8,976.000	90.000	148.970	7,631.504	6,567.504	-418.726	1,635.002	1,270.861	2.95814	0.06383	2.95745	
9,070.000	90.090	151.490	7,631.430	6,567.430	-500.313	1,681.671	1,364.535	2.68256	0.09574	2.68085	
9,165.000	90.000	154.540	7,631.355	6,567.355	-584.960	1,724.773	1,458.711	3.21192	-0.09474	3.21053	
9,260.000	90.090	157.900	7,631.280	6,567.281	-671.882	1,763.074	1,552.044	3.53811	0.09474	3.53684	
9,355.000	90.090	159.590	7,631.131	6,567.131	-760.417	1,797.512	1,644.520	1.77895	0.00000	1.77895	
9,448.000	89.780	157.950	7,631.237	6,567.237	-847.102	1,831.187	1,735.039	1.79467	-0.33333	-1.76344	
9,543.000	89.750	155.070	7,631.626	6,567.627	-934.220	1,869.049	1,828.285	3.03172	-0.03158	-3.03158	
9,638.000	89.780	153.300	7,632.016	6,568.016	-1,019.735	1,910.416	1,922.195	1.86341	0.03158	-1.86316	
9,732.000	90.000	151.490	7,632.197	6,568.197	-1,103.031	1,953.972	2,015.514	1.93970	0.23404	-1.92553	
9,827.000	89.910	149.220	7,632.271	6,568.271	-1,185.590	2,000.958	2,110.169	2.39135	-0.09474	-2.38947	
9,921.000	89.820	149.230	7,632.493	6,568.493	-1,266.353	2,049.054	2,203.972	0.09633	-0.09574	0.01064	
10,016.000	89.910	150.360	7,632.717	6,568.717	-1,348.454	2,096.848	2,298.705	1.19324	0.09474	1.18947	
10,111.000	89.880	150.280	7,632.891	6,568.891	-1,430.990	2,143.887	2,393.371	0.08994	-0.03158	-0.08421	
10,206.000	89.850	150.070	7,633.115	6,569.115	-1,513.407	2,191.136	2,488.057	0.22330	-0.03158	-0.22105	
10,301.000	89.910	148.920	7,633.313	6,569.314	-1,595.256	2,239.358	2,582.826	1.21217	0.06316	-1.21053	
10,395.000	89.880	146.550	7,633.486	6,569.486	-1,674.735	2,289.535	2,676.748	2.52147	-0.03191	-2.52128	
10,490.000	89.910	146.150	7,633.660	6,569.660	-1,753.817	2,342.176	2,771.738	0.42223	0.03158	-0.42105	
10,585.000	89.910	147.830	7,633.809	6,569.809	-1,833.478	2,393.929	2,866.703	1.76842	0.00000	1.76842	

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EQT Corporation
Survey Report

Database:	PEPCDBSW01DB	Local Co-ordinate Reference:	Well Jones 3H - Slot Jones 3H
Company:	EQT-Trans Energy	TVD Reference:	KB @ 1064.000usft
Project:	Marion County, WV	MD Reference:	KB @ 1064.000usft
Site:	Jones Unit	North Reference:	Grid
Well:	Jones 3H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Jones 3H 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)
10,679.000	89.970	148.500	7,633.908	6,569.908	-1,913.337	2,443.511	2,960.602	0.71562	0.06383	0.71277
10,774.000	88.920	150.370	7,634.828	6,570.828	-1,995.129	2,491.815	3,055.370	2.25739	-1.10526	1.96842
10,869.000	88.860	152.200	7,636.668	6,572.668	-2,078.426	2,537.447	3,149.867	1.92699	-0.06316	1.92632
10,964.000	88.860	152.680	7,638.558	6,574.558	-2,162.630	2,581.393	3,244.155	0.50516	0.00000	0.50526
11,058.000	89.200	154.270	7,640.150	6,576.150	-2,246.720	2,623.365	3,337.233	1.72949	0.36170	1.69149
11,152.000	89.420	155.360	7,641.282	6,577.282	-2,331.777	2,663.362	3,429.989	1.18287	0.23404	1.15957
11,247.000	89.780	155.590	7,641.945	6,577.945	-2,418.204	2,702.795	3,523.555	0.44968	0.37895	0.24211
11,340.000	89.820	157.590	7,642.270	6,578.270	-2,503.544	2,739.742	3,614.818	2.15095	0.04301	2.15054
Deepest Point of Well=11435' MD/ 7642' TVD										
11,435.000	89.970	158.570	7,642.444	6,578.444	-2,591.674	2,775.206	3,707.541	1.04359	0.15789	1.03158
11,531.000	91.230	157.430	7,641.439	6,577.439	-2,680.676	2,811.165	3,801.263	1.76992	1.31250	-1.18750
11,626.000	90.550	152.060	7,639.962	6,575.962	-2,766.553	2,851.677	3,894.987	5.69706	-0.71579	-5.65263
11,720.000	89.910	148.040	7,639.584	6,575.584	-2,847.983	2,898.596	3,988.672	4.33040	-0.68085	-4.27660
11,814.000	90.340	147.250	7,639.379	6,575.379	-2,927.388	2,948.901	4,082.606	0.95685	0.45745	-0.84043
11,909.000	90.250	145.960	7,638.890	6,574.890	-3,006.700	3,001.188	4,177.585	1.36118	-0.09474	-1.35789
12,003.000	89.910	145.880	7,638.759	6,574.759	-3,084.556	3,053.860	4,271.583	0.37158	-0.36170	-0.08511
12,098.000	89.970	150.310	7,638.858	6,574.858	-3,165.184	3,104.056	4,366.463	4.66358	0.06316	4.66316
12,193.000	90.150	156.100	7,638.759	6,574.759	-3,249.947	3,146.864	4,460.568	6.09768	0.18947	6.09477
12,287.000	91.350	158.600	7,637.528	6,573.528	-3,336.682	3,183.057	4,552.553	2.94984	1.27660	2.65957
12,382.000	90.550	156.720	7,635.953	6,571.953	-3,424.534	3,219.160	4,645.410	2.15040	-0.84211	-1.97899
12,477.000	90.520	152.820	7,635.066	6,571.066	-3,510.451	3,259.645	4,739.151	4.10521	-0.03158	-4.10526
12,571.000	90.520	150.100	7,634.212	6,570.212	-3,593.018	3,304.549	4,832.633	2.89350	0.00000	-2.89362
12,667.000	90.520	146.610	7,633.341	6,569.341	-3,674.728	3,354.906	4,928.496	3.63527	0.00000	-3.63542
12,761.000	90.550	145.580	7,632.463	6,568.463	-3,752.740	3,407.338	5,022.486	1.09616	0.03191	-1.09574
12,856.000	90.580	148.580	7,631.526	6,567.526	-3,832.473	3,458.959	5,117.435	3.15790	0.03158	3.15789
12,950.000	90.490	153.520	7,630.648	6,566.648	-3,914.698	3,504.443	5,210.964	5.25596	-0.09574	5.25532
13,044.000	90.550	156.100	7,629.795	6,565.795	-3,999.748	3,544.447	5,303.718	2.74531	0.06383	2.74468
13,138.000	90.460	156.710	7,628.966	6,564.966	-4,085.886	3,582.070	5,396.021	0.65594	-0.09574	0.64894
13,233.000	90.550	157.750	7,628.129	6,564.129	-4,173.477	3,618.837	5,489.037	1.09879	0.09474	1.09474

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Survey Report

Database: PEPDDBSW01DB	Local Co-ordinate Reference: Well Jones 3H - Slot Jones 3H
Company: EQT-Trans Energy	TVD Reference: KB @ 1064.000usft
Project: Marion County, WV	MD Reference: KB @ 1064.000usft
Site: Jones Unit	North Reference: Grid
Well: Jones 3H	Survey Calculation Method: Minimum Curvature
Wellbore: Wellbore #1	
Design: Jones 3H 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)
13,328.000	90.650	156.740	7,627.134	6,563.134	-4,261.077	3,655.579	5,582.047	1.06830	0.10526	-1.06316
13,422.000	90.950	151.610	7,625.821	6,561.821	-4,345.653	3,696.510	5,674.936	5.46623	0.31915	-5.45745
13,516.000	90.580	144.680	7,624.564	6,560.564	-4,425.439	3,746.086	5,768.771	7.38217	-0.39362	-7.37234
13,611.000	90.620	141.480	7,623.569	6,559.569	-4,501.375	3,803.142	5,863.667	3.36850	0.04211	-3.36842
13,706.000	90.490	143.900	7,622.649	6,558.649	-4,576.926	3,860.717	5,958.540	2.55092	-0.13684	2.54737
13,800.000	90.340	143.680	7,621.968	6,557.968	-4,652.768	3,916.246	6,052.495	0.28326	-0.15957	-0.23404
13,895.000	90.800	150.280	7,621.022	6,557.022	-4,732.376	3,967.983	6,147.407	6.96386	0.48421	6.94737
13,990.000	90.280	151.670	7,620.126	6,556.126	-4,815.438	4,014.073	6,241.969	1.56213	-0.54737	1.46316
14,085.000	90.150	156.510	7,619.770	6,555.770	-4,900.863	4,055.571	6,335.878	5.09654	-0.13684	5.09474
14,180.000	90.280	158.530	7,619.413	6,555.413	-4,988.639	4,091.893	6,428.795	2.13070	0.13684	2.12632
Final Survey=14272' MD/ 7619' TVD										
14,272.000	90.310	158.220	7,618.939	6,554.939	-5,074.163	4,125.798	6,518.487	0.33853	0.03261	-0.33696
Projected TD=14299' MD/ 7619' TVD										
14,299.000	90.310	158.220	7,618.793	6,554.793	-5,099.235	4,135.816	6,544.825	0.00000	0.00000	0.00000

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Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (103.117)	+E/-W (75.471)	Northing (usft)	Easting (usft)	Latitude	Longitude
Jones 3H KOP - hit/miss target - Shape	0.000	360.000	3,140.580	103.117	75.471	396,872.047	1,738,716.352	39.5859435	80.4270850°W
- actual wellpath hits target center - Point									
Jones 3H TD	0.000	360.000	7,618.793	-5,099.235	4,135.816	391,669.695	1,742,776.696	39.5717753	80.4124916°W
- actual wellpath hits target center - Point									
Jones 3H LP	0.000	0.000	7,632.256	237.114	1,260.918	397,006.044	1,739,901.798	39.5863449	80.4228840°W
- actual wellpath hits target center - Point									



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Project:	Marion County, WV	MD Reference:	KB @ 1064.000usft
Site:	Jones Unit	North Reference:	Grid
Well:	Jones 3H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Jones 3H As Drilled		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
7,900.841	7,568.000	Marcellus		0.0000		

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
3,148.000	3,140.580	103.117	75.471	KOP=3148' MD/ 3141' TVD	
8,220.000	7,632.256	237.114	1,260.918	LP=8220' MD/ 7632' TVD	
11,435.000	7,642.444	-2,591.674	2,775.206	Deepest Point of Well=11435' MD/ 7642' TVD	
14,272.000	7,618.939	-5,074.163	4,125.798	Final Survey=14272' MD/ 7619' TVD	
14,299.000	7,618.793	-5,099.235	4,135.816	Projected TD=14299' MD/ 7619' TVD	

Checked By: _____ Approved By: _____ Date: _____

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