



Where energy meets innovation.

EQT Production - Marcellus

Taylor County, WV
Taylor County 514300
Well 514300

Main Wellbore

Design: 514300 As Drilled Surveys

Standard Survey Report

17 February, 2014



Where energy meets innovation.

09122014

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Taylor County 514300
Company:	EQT Production - Marcellus	TVD Reference:	KB @ 1606.0usft
Project:	Taylor County, WV	MD Reference:	KB @ 1606.0usft
Site:	Taylor County 514300	North Reference:	Grid
Well:	Well 514300	Survey Calculation Method:	Minimum Curvature
Wellbore:	Main Wellbore		
Design:	514300 As Drilled Surveys		

Project	Taylor County, WV		
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		Using geodetic scale factor

Site	Taylor County 514300				
Site Position:		Northing:	297,172.80 usft	Latitude:	39.31
From:	Map	Easting:	1,810,066.10 usft	Longitude:	-80.17
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-0.43. "

Well	Well 514300					
Well Position	+N/-S	0.0 usft	Northing:	297,172.80 usft	Latitude:	39° 18' 50.281 N
	+E/-W	0.0 usft	Easting:	1,810,066.10 usft	Longitude:	80° 10' 16.645 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	1,590.0 usft

Wellbore	Main Wellbore				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010_14	1/15/2014	-8.89	66.79	52.282

Design	514300 As Drilled Surveys				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	153.52	

Survey Program	Date	2/17/2014			
From (')	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.00	5,828.0	514300 Gyrodata Gyro (Main Wellbore)	GYD_DP_MS	Gyrodata gyro-compassing and drop	
0.00	12,628.0	514300 MWD (Main Wellbore)	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)
0.0	0.00	0.00	0.0	-1,606.0	0.0	0.0	0.0	0.00	0.00	0.00
103.0	0.56	254.73	103.0	-1,503.0	-0.1	-0.5	-0.1	0.54	0.54	0.00
203.0	0.14	306.03	203.0	-1,403.0	-0.2	-1.1	-0.3	0.48	-0.42	51.30
303.0	0.16	303.07	303.0	-1,303.0	0.0	-1.3	-0.5	0.02	0.02	-2.96
403.0	0.16	329.98	403.0	-1,203.0	0.2	-1.5	-0.8	0.07	0.00	26.91
503.0	0.15	339.63	503.0	-1,103.0	0.4	-1.6	-1.1	0.03	-0.01	9.65
603.0	0.04	303.12	603.0	-1,003.0	0.5	-1.6	-1.2	0.12	-0.11	-36.51
703.0	0.12	248.78	703.0	-903.0	0.5	-1.8	-1.3	0.10	0.08	-54.34

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Project:	Taylor County, WV	MD Reference:	KB @ 1605.0usft
Site:	Taylor County 514300	North Reference:	Grid
Well:	Well 614300	Survey Calculation Method:	Minimum Curvature
Wellbore:	Main Wellbore		
Design:	514300 Aa Drilled Surveys		

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)	
803.0	0.15	243.55	803.0	-803.0	0.4	-2.0	-1.3	0.03	0.03	-5.23	
903.0	0.14	270.40	903.0	-703.0	0.4	-2.2	-1.3	0.07	-0.01	26.85	
1,003.0	0.10	344.51	1,003.0	-603.0	0.5	-2.4	-1.5	0.15	-0.04	74.11	
1,103.0	0.12	341.77	1,103.0	-503.0	0.6	-2.4	-1.7	0.02	0.02	-2.74	
1,203.0	0.64	345.00	1,203.0	-403.0	1.3	-2.6	-2.3	0.52	0.52	3.23	
1,303.0	0.90	349.11	1,303.0	-303.0	2.6	-2.9	-3.6	0.27	0.26	4.11	
1,403.0	1.05	349.65	1,403.0	-203.0	4.3	-3.2	-5.2	0.15	0.15	0.54	
1,503.0	1.17	353.38	1,502.9	-103.1	6.2	-3.5	-7.1	0.14	0.12	3.73	
1,603.0	1.18	351.21	1,602.9	-3.1	8.2	-3.8	-9.0	0.05	0.01	-2.17	
1,703.0	1.22	352.09	1,702.9	96.9	10.3	-4.1	-11.0	0.04	0.04	0.88	
1,803.0	1.31	352.42	1,802.9	196.9	12.5	-4.4	-13.1	0.09	0.09	0.33	
1,903.0	1.36	348.27	1,902.9	296.9	14.8	-4.8	-15.3	0.11	0.05	-4.15	
2,003.0	1.63	340.89	2,002.8	396.8	17.3	-5.5	-17.9	0.33	0.27	-7.38	
2,103.0	1.68	339.26	2,102.8	496.8	20.0	-6.5	-20.8	0.07	0.05	-1.63	
2,203.0	1.70	338.99	2,202.7	596.7	22.7	-7.5	-23.7	0.02	0.02	-0.27	
2,303.0	1.38	336.55	2,302.7	696.7	25.2	-8.5	-26.4	0.33	-0.32	-2.44	
2,403.0	1.29	336.47	2,402.7	796.7	27.4	-9.4	-28.7	0.09	-0.09	-0.08	
2,503.0	1.48	336.53	2,502.6	896.6	29.6	-10.4	-31.1	0.19	0.19	0.06	
2,603.0	1.53	337.62	2,602.6	996.6	32.0	-11.4	-33.7	0.06	0.05	1.09	
2,703.0	1.53	332.07	2,702.6	1,096.6	34.4	-12.6	-36.4	0.15	0.00	-5.55	
2,803.0	1.36	329.85	2,802.5	1,196.5	36.6	-13.8	-38.9	0.18	-0.17	-2.22	
2,903.0	1.22	329.10	2,902.5	1,296.5	38.6	-14.9	-41.2	0.14	-0.14	-0.75	
3,003.0	1.10	329.98	3,002.5	1,396.5	40.3	-16.0	-43.2	0.12	-0.12	0.88	
3,103.0	1.14	326.98	3,102.5	1,496.5	42.0	-17.0	-45.1	0.07	0.04	-3.00	
3,203.0	1.20	325.65	3,202.5	1,596.5	43.7	-18.1	-47.2	0.07	0.06	-1.33	
3,303.0	1.23	327.16	3,302.4	1,696.4	45.4	-19.3	-49.3	0.04	0.03	1.51	
3,403.0	1.24	321.59	3,402.4	1,796.4	47.2	-20.5	-51.4	0.12	0.01	-5.57	
3,503.0	1.30	316.83	3,502.4	1,896.4	48.9	-22.0	-53.5	0.12	0.06	-4.76	
3,603.0	1.26	316.52	3,602.4	1,996.4	50.5	-23.5	-55.7	0.04	-0.04	-0.31	
3,703.0	1.26	315.11	3,702.3	2,096.3	52.1	-25.1	-57.8	0.03	0.00	-1.41	
3,803.0	1.27	310.95	3,802.3	2,196.3	53.6	-26.7	-59.8	0.09	0.01	-4.16	
3,903.0	1.30	308.90	3,902.3	2,296.3	55.0	-28.4	-61.9	0.05	0.03	-2.05	
4,003.0	1.29	306.08	4,002.3	2,396.3	56.4	-30.2	-63.9	0.06	-0.01	-2.82	
4,103.0	1.21	305.88	4,102.2	2,496.2	57.7	-31.9	-65.9	0.08	-0.08	-0.20	
4,203.0	1.19	304.80	4,202.2	2,596.2	58.9	-33.7	-67.7	0.03	-0.02	-1.08	
4,303.0	1.12	308.16	4,302.2	2,696.2	60.1	-35.3	-69.5	0.10	-0.07	3.36	
4,403.0	1.12	307.95	4,402.2	2,796.2	61.3	-36.8	-71.3	0.00	0.00	-0.21	
4,503.0	1.13	312.44	4,502.2	2,896.2	62.5	-38.3	-73.1	0.09	0.01	4.49	
4,603.0	1.14	316.02	4,602.1	2,996.1	63.9	-39.7	-74.9	0.07	0.01	3.58	
4,703.0	1.19	316.93	4,702.1	3,096.1	65.4	-41.1	-76.9	0.05	0.05	0.91	
4,803.0	1.13	318.47	4,802.1	3,196.1	66.9	-42.5	-78.8	0.07	-0.06	1.54	
4,903.0	1.07	313.19	4,902.1	3,296.1	68.3	-43.8	-80.6	0.12	-0.06	-5.28	

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Site:	Taylor County 514300	North Reference:	Grid
Well:	Well 514300	Survey Calculation Method:	Minimum Curvature
Wellbore:	Main Wellbore		
Design:	514300 As Ordered Surveys		

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)	
5,003.0	0.93	310.37	5,002.1	3,396.1	69.4	-45.1	-82.3	0.15	-0.14	-2.82	
5,103.0	1.04	310.73	5,102.0	3,496.0	70.6	-46.4	-83.9	0.11	0.11	0.36	
5,203.0	1.01	309.63	5,202.0	3,596.0	71.7	-47.8	-85.5	0.04	-0.03	-1.10	
5,303.0	0.67	308.74	5,302.0	3,696.0	72.6	-48.9	-86.8	0.34	-0.34	-0.89	
5,403.0	0.38	306.42	5,402.0	3,796.0	73.2	-49.7	-87.7	0.29	-0.29	-2.32	
5,503.0	0.10	197.74	5,502.0	3,896.0	73.3	-49.9	-87.9	0.42	-0.28	-108.68	
5,603.0	0.69	168.53	5,602.0	3,996.0	72.6	-49.9	-87.2	0.60	0.59	-29.21	
5,703.0	1.14	169.57	5,702.0	4,096.0	71.1	-49.6	-85.7	0.45	0.45	1.04	
5,803.0	1.20	163.06	5,802.0	4,196.0	69.1	-49.1	-83.7	0.15	0.06	-6.51	
 gyro Tie In MD=5928'											
5,828.0	1.27	162.64	5,827.0	4,221.0	68.6	-48.9	-83.2	0.28	0.28	-1.68	
5,838.0	1.10	164.20	5,837.0	4,231.0	68.4	-48.9	-83.0	1.73	-1.70	15.60	
5,901.0	1.20	167.10	5,900.0	4,294.0	67.2	-48.5	-81.7	0.18	0.16	4.60	
5,964.0	0.80	160.90	5,962.9	4,356.9	66.1	-48.3	-80.7	0.66	-0.63	-9.84	
6,027.0	0.70	134.30	6,025.9	4,419.9	65.4	-47.8	-79.9	0.57	-0.16	-42.22	
6,059.0	3.10	21.70	6,057.9	4,451.9	66.1	-47.4	-80.3	10.72	7.50	-351.88	
6,091.0	7.50	21.40	6,089.8	4,483.8	68.8	-46.3	-82.2	13.75	13.75	-0.94	
6,122.0	10.40	21.90	6,120.4	4,514.4	73.3	-44.5	-85.5	9.36	9.35	1.61	
6,154.0	12.10	22.90	6,151.8	4,545.8	79.1	-42.1	-89.6	5.35	5.31	3.13	
6,185.0	13.60	22.20	6,182.0	4,576.0	85.4	-39.5	-94.1	4.86	4.84	-2.26	
6,216.0	16.20	21.10	6,212.0	4,606.0	92.9	-36.5	-99.4	8.44	8.39	-3.55	
6,248.0	17.60	21.20	6,242.6	4,636.6	101.5	-33.2	-105.7	4.38	4.38	0.31	
6,279.0	20.00	19.00	6,271.9	4,665.9	110.9	-29.8	-112.6	8.07	7.74	-7.10	
6,310.0	22.80	15.40	6,300.8	4,694.8	121.7	-26.4	-120.7	9.97	9.03	-11.61	
6,342.0	25.20	13.40	6,330.0	4,724.0	134.3	-23.2	-130.6	7.92	7.50	-6.25	
6,373.0	27.60	14.40	6,357.8	4,751.8	147.7	-19.9	-141.1	7.87	7.74	3.23	
6,405.0	30.90	15.90	6,385.7	4,779.7	162.8	-15.6	-152.8	10.56	10.31	4.69	
6,437.0	32.00	19.10	6,413.0	4,807.0	178.7	-10.8	-164.8	6.25	3.44	10.00	
6,468.0	35.40	17.90	6,438.8	4,832.8	195.0	-5.3	-176.9	11.18	10.97	-3.87	
6,499.0	37.10	18.70	6,463.8	4,857.8	212.4	0.4	-190.0	5.69	5.48	2.58	
6,530.0	40.00	17.20	6,488.0	4,882.0	230.8	6.4	-203.8	9.83	9.35	-4.84	
6,562.0	44.50	16.20	6,511.7	4,905.7	251.4	12.5	-219.4	14.22	14.06	-3.13	
6,593.0	46.20	16.20	6,533.5	4,927.5	272.6	18.7	-235.7	5.48	5.48	0.00	
6,656.0	43.80	14.50	6,576.0	4,972.0	315.5	30.5	-268.8	4.26	-3.81	-2.70	
6,719.0	42.80	15.90	6,623.9	5,017.9	357.2	41.6	-301.1	2.20	-1.59	2.22	
6,782.0	41.80	18.40	6,670.5	5,064.5	397.7	54.3	-331.8	3.11	-1.59	3.97	
6,845.0	41.50	19.00	6,717.6	5,111.6	437.4	67.7	-361.3	0.79	-0.48	0.95	
6,908.0	40.50	17.60	6,765.1	5,159.1	476.6	80.7	-390.7	2.16	-1.59	-2.22	
6,940.0	39.00	15.30	6,789.7	5,183.7	496.2	86.5	-405.6	6.56	-4.69	-7.19	
6,971.0	39.00	15.80	6,813.8	5,207.8	515.0	91.7	-420.1	1.02	0.00	1.61	
7,003.0	39.30	21.70	6,838.6	5,232.6	534.2	98.2	-434.3	11.68	0.94	18.44	
7,035.0	39.70	27.00	6,863.3	5,257.3	552.7	106.6	-447.2	10.61	1.25	16.56	
7,065.0	38.70	35.10	6,886.6	5,280.6	568.9	116.4	-457.4	17.38	-3.33	27.00	

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Site:	Taylor County 514300	North Reference:	Grid
Well:	Well #14300	Survey Calculation Method:	Minimum Curvature
Wellbore:	Main Wellbore		
Design:	514300 As Drilled Surveys		

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)	
7,097.0	35.30	42.30	6,912.2	5,306.2	583.9	128.4	-465.5	17.20	-10.63	22.50	
7,129.0	32.30	47.50	6,938.8	5,332.8	596.6	140.9	-471.2	13.02	-9.38	16.25	
7,160.0	31.70	46.90	6,965.0	5,359.0	607.7	152.9	-475.8	2.19	-1.94	-1.94	
7,192.0	31.20	50.40	6,992.3	5,386.3	618.7	165.5	-480.1	5.92	-1.56	10.94	
7,223.0	30.40	54.70	7,019.0	5,413.0	628.4	178.1	-483.1	7.56	-2.58	13.87	
7,255.0	29.20	61.50	7,046.8	5,440.8	636.8	191.5	-484.6	11.20	-3.75	21.25	
7,286.0	29.60	67.20	7,073.8	5,467.8	643.4	205.2	-484.4	9.12	1.29	18.39	
7,318.0	30.50	69.40	7,101.5	5,495.5	649.3	220.1	-483.1	4.45	2.81	6.88	
7,349.0	29.70	68.00	7,128.3	5,522.3	654.9	234.6	-481.7	3.43	-2.58	-4.52	
7,381.0	28.30	72.20	7,156.3	5,550.3	660.2	249.2	-479.9	7.72	-4.38	13.13	
7,412.0	27.10	74.20	7,183.7	5,577.7	664.4	263.0	-477.5	4.90	-3.87	6.45	
7,444.0	26.80	78.80	7,212.2	5,606.2	667.8	277.1	-474.2	6.58	-0.94	14.38	
7,475.0	28.40	84.60	7,239.7	5,633.7	669.8	291.3	-469.7	10.08	5.16	18.71	
7,507.0	30.20	89.70	7,267.6	5,661.6	670.6	306.9	-463.5	9.61	5.63	15.94	
7,539.0	29.70	96.60	7,295.4	5,689.4	669.7	322.8	-455.6	10.87	-1.56	21.56	
7,570.0	30.20	103.30	7,322.2	5,716.2	667.1	338.0	-446.4	10.91	1.61	21.61	
7,602.0	30.40	108.70	7,349.9	5,743.9	662.6	353.5	-435.5	8.53	0.63	16.86	
7,633.0	32.40	113.00	7,376.3	5,770.3	656.8	368.6	-423.6	9.68	6.45	13.87	
7,665.0	34.30	115.30	7,403.1	5,797.1	649.6	384.7	-410.0	7.13	5.94	7.19	
7,696.0	36.50	119.20	7,428.3	5,822.3	641.4	400.6	-395.5	10.17	7.10	12.58	
7,728.0	38.00	120.90	7,453.8	5,847.8	631.7	417.4	-379.4	5.68	4.69	5.31	
7,760.0	39.50	126.00	7,478.8	5,872.8	620.7	434.1	-362.1	11.02	4.69	15.94	
7,791.0	42.50	129.20	7,502.2	5,896.2	608.2	450.2	-343.8	11.81	9.68	10.32	
7,823.0	46.10	132.20	7,525.1	5,919.1	593.7	467.1	-323.2	13.01	11.25	9.38	
7,854.0	48.70	133.80	7,546.0	5,940.0	578.1	483.8	-301.8	9.21	8.39	5.16	
7,886.0	51.60	136.30	7,566.6	5,960.6	560.7	501.1	-278.5	10.87	9.06	7.81	
7,917.0	54.50	138.80	7,585.2	5,979.2	542.4	517.8	-254.7	11.36	9.35	8.06	
7,949.0	59.30	142.00	7,602.7	5,996.7	521.8	534.9	-228.6	17.18	15.00	10.00	
7,980.0	63.80	145.30	7,617.4	6,011.4	489.8	551.0	-201.7	17.27	14.52	10.65	
8,012.0	66.90	147.80	7,630.8	6,024.8	475.5	567.1	-172.9	12.01	9.69	7.81	
8,044.0	69.50	149.30	7,642.7	6,036.7	450.2	582.5	-143.3	9.22	8.13	4.69	
8,075.0	71.50	150.60	7,653.0	6,047.0	424.9	597.2	-114.1	7.57	6.45	4.19	
8,107.0	72.00	152.00	7,663.0	6,057.0	398.3	611.8	-83.7	4.44	1.56	4.38	
8,138.0	74.20	153.40	7,672.0	6,066.0	371.9	625.4	-54.1	8.31	7.10	4.52	
8,170.0	76.10	155.30	7,680.2	6,074.2	344.0	638.8	-23.2	8.26	5.94	5.94	
8,201.0	78.60	158.20	7,687.0	6,081.0	316.2	650.7	7.0	12.18	8.06	9.35	
8,233.0	81.20	160.70	7,692.6	6,086.6	286.7	661.7	38.4	11.19	8.13	7.81	
8,264.0	83.80	162.60	7,696.7	6,090.7	257.6	671.4	68.8	10.36	8.39	6.13	
8,296.0	85.70	162.90	7,699.6	6,093.6	227.1	680.9	100.2	6.01	5.94	0.94	
8,328.0	87.30	163.80	7,701.6	6,095.6	196.5	690.0	131.7	5.73	5.00	2.81	
8,359.0	89.50	164.00	7,702.4	6,096.4	166.8	698.6	162.2	7.13	7.10	0.65	
8,411.0	90.60	163.60	7,702.4	6,096.4	116.8	713.1	213.3	2.25	2.12	-0.77	
8,474.0	88.20	163.10	7,703.1	6,097.1	56.5	731.2	275.4	3.89	-3.81	-0.79	



Where energy meets innovation.

Phoenix Technology Services Survey Report



Where energy meets innovation.

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Taylor County 514300
Company:	EQT Production - Marcellus	TVD Reference:	KB @ 1503.0usft
Project:	Taylor County, WV	MD Reference:	KB @ 1606.0usft
Site:	Taylor County 514300	North Reference:	Grid
Well:	Well 514300	Survey Calculation Method:	Minimum Curvature
Wellbore:	Main Wellbore		
Design:	514300 As Drilled Surveys		

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)
8,537.0	87.30	163.20	7,705.5	6,099.5	-3.8	749.4	337.5	1.44	-1.43	0.16
8,600.0	86.40	162.40	7,709.0	6,103.0	-63.9	768.0	399.6	1.91	-1.43	-1.27
8,663.0	87.50	162.70	7,712.3	6,106.3	-123.9	786.9	461.7	1.81	1.75	0.48
8,726.0	90.50	163.40	7,713.4	6,107.4	-184.1	805.2	523.8	4.89	4.76	1.11
8,790.0	91.00	163.50	7,712.6	6,106.6	-245.5	823.5	586.8	0.80	0.78	0.16
8,853.0	90.40	163.60	7,711.8	6,105.8	-305.9	841.3	648.9	0.97	-0.95	0.16
8,916.0	90.10	163.40	7,711.6	6,105.6	-366.3	859.2	710.9	0.57	-0.48	-0.32
8,979.0	89.70	163.40	7,711.7	6,105.7	-426.7	877.2	773.0	0.63	-0.63	0.00
9,042.0	88.60	162.30	7,712.6	6,106.6	-486.9	895.8	835.1	2.47	-1.75	-1.75
9,105.0	87.60	161.40	7,714.7	6,108.7	-546.7	915.4	897.4	2.13	-1.59	-1.43
9,168.0	88.00	161.20	7,717.1	6,111.1	-606.3	935.6	959.8	0.71	0.63	-0.32
9,231.0	89.50	160.60	7,718.5	6,112.5	-665.8	956.2	1,022.3	2.56	2.38	-0.95
9,294.0	88.10	159.40	7,719.8	6,113.8	-725.0	977.7	1,084.9	2.93	-2.22	-1.90
9,357.0	87.20	158.00	7,722.4	6,116.4	-783.7	1,000.6	1,147.6	2.64	-1.43	-2.22
9,420.0	88.60	160.40	7,724.7	6,118.7	-842.5	1,022.9	1,210.2	4.41	2.22	3.81
9,483.0	88.20	160.10	7,726.5	6,120.5	-901.8	1,044.2	1,272.7	0.79	-0.63	-0.48
9,545.0	88.80	160.00	7,728.1	6,122.1	-960.0	1,065.4	1,334.3	0.98	0.97	-0.16
9,608.0	90.80	163.50	7,728.3	6,122.3	-1,019.9	1,085.1	1,396.7	6.40	3.17	5.56
9,671.0	91.60	164.00	7,727.0	6,121.0	-1,080.3	1,102.7	1,458.6	1.50	1.27	0.79
9,734.0	91.80	162.90	7,725.1	6,119.1	-1,140.7	1,120.7	1,520.7	1.77	0.32	-1.75
9,797.0	90.60	162.30	7,723.8	6,117.8	-1,200.8	1,139.5	1,582.9	2.13	-1.90	-0.95
9,860.0	90.50	165.20	7,723.2	6,117.2	-1,261.3	1,157.1	1,644.9	4.61	-0.16	4.60
9,924.0	89.70	164.90	7,723.1	6,117.1	-1,323.1	1,173.6	1,707.6	1.33	-1.25	-0.47
9,987.0	88.70	164.90	7,723.9	6,117.9	-1,383.9	1,190.0	1,769.3	1.59	-1.59	0.00
10,050.0	87.80	163.40	7,725.9	6,119.9	-1,444.5	1,207.2	1,831.2	2.78	-1.43	-2.38
10,113.0	88.40	164.30	7,728.0	6,122.0	-1,505.0	1,224.8	1,893.1	1.72	0.95	1.43
10,176.0	88.60	165.40	7,729.6	6,123.6	-1,565.8	1,241.2	1,954.9	1.77	0.32	1.75
10,239.0	88.60	164.70	7,731.2	6,125.2	-1,626.6	1,257.5	2,016.6	1.11	0.00	-1.11
10,302.0	88.50	164.40	7,732.7	6,126.7	-1,687.3	1,274.2	2,078.4	0.50	-0.16	-0.48
10,365.0	88.70	164.70	7,734.3	6,128.3	-1,748.0	1,291.0	2,140.2	0.57	0.32	0.48
10,428.0	88.70	164.60	7,735.7	6,129.7	-1,808.8	1,307.7	2,202.0	0.16	0.00	-0.16
10,491.0	88.60	164.50	7,737.2	6,131.2	-1,869.5	1,324.5	2,263.9	0.22	-0.16	-0.16
10,553.0	88.80	164.20	7,738.6	6,132.6	-1,929.1	1,341.2	2,324.7	0.56	0.32	-0.48
10,617.0	88.20	162.80	7,740.3	6,134.3	-1,990.5	1,359.4	2,387.8	2.38	-0.94	-2.19
10,680.0	88.50	162.70	7,742.1	6,136.1	-2,050.6	1,378.0	2,449.9	0.50	0.48	-0.16
10,743.0	88.40	162.40	7,743.8	6,137.8	-2,110.7	1,396.9	2,512.1	0.50	-0.16	-0.48
10,806.0	88.60	162.70	7,745.4	6,139.4	-2,170.8	1,415.8	2,574.3	0.57	0.32	0.48
10,869.0	89.50	162.70	7,746.5	6,140.5	-2,230.9	1,434.5	2,636.5	1.43	1.43	0.00
10,931.0	89.10	162.00	7,747.2	6,141.2	-2,290.0	1,453.3	2,697.8	1.30	-0.65	-1.13
10,994.0	88.70	161.20	7,748.5	6,142.5	-2,349.8	1,473.2	2,760.1	1.42	-0.63	-1.27
11,057.0	88.00	161.40	7,750.3	6,144.3	-2,409.4	1,493.4	2,822.5	1.16	-1.11	0.32
11,121.0	87.50	161.40	7,752.8	6,146.8	-2,470.0	1,513.8	2,885.9	0.78	-0.78	0.00



Where energy meets innovation.

Phoenix Technology Services Survey Report



Where energy meets innovation.

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Taylor County 514300
Company:	EQT Production - Marcellus	TVD Reference:	KB @ 1806 0usft
Project:	Taylor County, WV	MD Reference:	KB @ 1806 0usft
Site:	Taylor County 514300	North Reference:	Grid
Well:	Well 514300	Survey Calculation Method:	Minimum Curvature
Wellbore:	Main Wellbore		
Design:	514300 As Drilled Surveys		

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)
11,183.0	87.90	162.00	7,755.3	6,149.3	-2,528.8	1,533.2	2,947.2	1.16	0.65	0.97
11,246.0	88.00	163.00	7,757.5	6,151.5	-2,588.9	1,552.2	3,009.4	1.59	0.16	1.59
11,309.0	86.70	164.00	7,759.3	6,153.3	-2,649.3	1,570.1	3,071.4	1.94	1.11	1.59
11,372.0	89.10	163.30	7,760.6	6,154.6	-2,709.7	1,587.8	3,133.4	1.28	0.63	-1.11
11,436.0	88.90	162.80	7,761.7	6,155.7	-2,770.9	1,605.5	3,196.5	0.84	-0.31	-0.78
11,499.0	88.80	162.80	7,762.9	6,156.9	-2,831.1	1,625.1	3,258.7	0.16	-0.16	0.00
11,562.0	87.60	161.00	7,764.9	6,158.9	-2,890.9	1,644.6	3,321.0	3.43	-1.90	-2.86
11,625.0	87.10	160.20	7,767.8	6,161.8	-2,950.3	1,665.5	3,383.4	1.50	-0.79	-1.27
11,688.0	86.90	159.40	7,771.1	6,165.1	-3,009.3	1,687.3	3,446.0	1.31	-0.32	-1.27
11,751.0	86.20	159.10	7,774.9	6,168.9	-3,068.2	1,709.5	3,508.5	1.21	-1.11	-0.48
11,814.0	86.30	159.20	7,779.0	6,173.0	-3,126.9	1,731.9	3,571.1	0.22	0.16	0.16
11,877.0	86.00	158.40	7,783.3	6,177.3	-3,185.5	1,754.7	3,633.7	1.35	-0.48	-1.27
11,943.0	85.60	158.90	7,788.1	6,182.1	-3,246.8	1,778.6	3,699.2	0.97	-0.61	0.76
12,006.0	85.60	158.90	7,792.9	6,186.9	-3,305.4	1,801.2	3,761.8	0.00	0.00	0.00
12,069.0	85.40	160.00	7,797.9	6,191.9	-3,364.2	1,823.3	3,824.2	1.77	-0.32	1.75
12,132.0	85.60	160.00	7,802.8	6,196.8	-3,423.2	1,844.8	3,886.6	0.32	0.32	0.00
12,195.0	86.50	160.10	7,807.2	6,201.2	-3,482.3	1,866.2	3,949.1	1.44	1.43	0.16
12,257.0	87.20	159.90	7,810.6	6,204.6	-3,540.5	1,887.4	4,010.6	1.17	1.13	-0.32
12,320.0	88.80	160.80	7,812.8	6,206.8	-3,599.8	1,908.5	4,073.1	2.91	2.54	1.43
12,384.0	88.00	159.80	7,814.5	6,208.5	-3,660.0	1,930.1	4,136.6	2.00	-1.25	-1.56
12,447.0	88.30	158.70	7,816.6	6,210.6	-3,718.9	1,952.4	4,199.3	1.81	0.48	-1.75
12,510.0	88.90	158.70	7,818.1	6,212.1	-3,777.6	1,975.3	4,262.0	0.95	0.95	0.00
Last Survey MD=12572'										
12,572.0	89.60	158.00	7,818.9	6,212.9	-3,835.2	1,998.2	4,323.8	1.60	1.13	-1.13
Projection to TD MD=12628'										
12,628.0	89.60	158.00	7,819.3	6,213.3	-3,887.1	2,019.1	4,379.6	0.00	0.00	0.00

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Comment
5,828.0	5,827.0	68.6	-48.9	Gyro Tie In MD=5828'
12,572.0	7,818.9	-3,835.2	1,998.2	Last Survey MD=12572'
12,628.0	7,819.3	-3,887.1	2,019.1	Projection to TD MD=12628'

Checked By: _____ Approved By: _____ Date: _____



EQT Production - Marcellus

Project: Taylor County, WV
Site: Taylor County 514300
Well: Well 514300
Wellbore: Main Wellbore
Design: 514300 As Drilled Surveys

