



EQT Production - Marcellus

Doddridge County, WV Grid

Doddridge County 512473

Well #512473

Well #512473

Survey: Survey #1

Standard Survey Report

24 June, 2010



Survey Report

Company:	EQT Production - Marcellus	Local Co-ordinate Reference:	Site Doddridge County 512473
Project:	Doddridge County, WV Grid	TVD Reference:	WELL @ 0.00ft (Original Well Elev)
Site:	Doddridge County 512473	MD Reference:	WELL @ 0.00ft (Original Well Elev)
Well:	Well #512473	North Reference:	Grid
Wellbore:	Well #512473	Survey Calculation Method:	Minimum Curvature
Design:	Well #512473	Database:	NER

Project	Doddridge County, WV Grid		
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	Doddridge County 512473				
Site Position:		Northing:	266,031.00ft	Latitude:	39.22319
From:	Map	Easting:	1,634,172.00ft	Longitude:	-80.79132
Position Uncertainty:	0.00 ft	Slot Radius:	in	Grid Convergence:	-0.82 °

Well	Well #512473					
Well Position	+N/-S	0.00 ft	Northing:	266,031.00 ft	Latitude:	39.22319
	+E/-W	0.00 ft	Easting:	1,634,172.00 ft	Longitude:	-80.79132
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	0.00ft

Wellbore	Well #512473				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	12/31/2009	-8.22	67.21	52,785

Design	Well #512473				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00	154.99	

Survey Program	Date 6/24/2010				
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
100.00	5,000.00	Gyro (Well #512473)	WLST		
5,029.00	10,792.00	Survey #1 (Well #512473)	WLST		

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
5,000.00	1.24	293.50	4,999.28	-16.93	-15.67	8.71	0.00	0.00	0.00	
5,029.00	1.30	287.40	5,028.28	-16.70	-16.27	8.26	0.51	0.21	-21.03	
5,061.00	1.50	290.80	5,060.27	-16.45	-17.01	7.71	0.68	0.62	10.62	
5,092.00	2.40	293.40	5,091.25	-16.04	-17.98	6.94	2.92	2.90	8.39	
5,124.00	3.70	303.80	5,123.20	-15.20	-19.46	5.55	4.40	4.06	32.50	
5,156.00	4.80	306.20	5,155.11	-13.84	-21.40	3.49	3.48	3.44	7.50	
5,187.00	6.70	309.40	5,185.96	-11.92	-23.84	0.73	6.21	6.13	10.32	
5,219.00	9.40	315.00	5,217.64	-8.89	-27.13	-3.41	8.78	8.44	17.50	
5,250.00	12.20	320.00	5,248.09	-4.59	-31.03	-8.96	9.52	9.03	16.13	
5,282.00	14.70	323.80	5,279.21	1.28	-35.60	-16.21	8.28	7.81	11.87	
5,313.00	16.70	328.90	5,309.05	8.27	-40.22	-24.50	7.83	6.45	16.45	
5,345.00	19.30	331.40	5,339.48	16.85	-45.13	-34.35	8.47	8.12	7.81	



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Well:	Well #512473	North Reference:	Grid
Wellbore:	Well #512473	Survey Calculation Method:	Minimum Curvature
Design:	Well #512473	Database:	NER

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Buld Rate (°/100ft)	Turn Rate (°/100ft)	
5,376.00	22.10	331.90	5,368.48	26.49	-50.33	-45.29	9.05	9.03	1.61	
5,408.00	24.50	332.80	5,397.87	37.70	-56.20	-57.93	7.58	7.50	2.81	
5,440.00	26.80	334.90	5,426.71	50.14	-62.29	-71.78	7.73	7.19	6.56	
5,471.00	29.00	337.10	5,454.11	63.39	-68.18	-86.28	7.83	7.10	7.10	
5,503.00	31.10	339.50	5,481.81	78.28	-74.10	-102.27	7.56	6.56	7.50	
5,534.00	33.00	341.30	5,508.08	93.78	-79.61	-118.64	6.86	6.13	5.81	
5,566.00	35.10	342.40	5,534.59	110.81	-85.19	-136.43	6.84	6.56	3.44	
5,598.00	36.90	342.90	5,560.48	128.76	-90.79	-155.07	5.70	5.62	1.56	
5,629.00	38.30	342.50	5,585.04	146.82	-96.42	-173.81	4.58	4.52	-1.29	
5,661.00	38.90	341.40	5,610.05	165.80	-102.60	-193.63	2.85	1.87	-3.44	
5,692.00	40.60	339.70	5,633.88	184.48	-109.21	-213.36	6.51	5.48	-5.48	
5,724.00	43.10	338.70	5,657.72	204.44	-116.79	-234.65	8.09	7.81	-3.12	
5,755.00	43.70	339.10	5,680.24	224.31	-124.46	-255.90	2.13	1.94	1.29	
5,787.00	39.30	339.90	5,704.20	244.16	-131.89	-277.03	13.85	-13.75	2.50	
5,819.00	36.20	340.40	5,729.50	262.59	-138.55	-296.54	9.73	-9.69	1.56	
5,850.00	33.40	341.50	5,754.96	279.31	-144.33	-314.13	9.26	-9.03	3.55	
5,882.00	31.10	343.20	5,782.02	295.57	-149.51	-331.07	7.73	-7.19	5.31	
5,913.00	28.50	344.40	5,808.92	310.36	-153.81	-346.29	8.60	-8.39	3.87	
5,944.00	26.60	345.80	5,836.40	324.22	-157.51	-360.41	6.47	-6.13	4.52	
5,976.00	24.40	348.50	5,865.28	337.64	-160.58	-373.87	7.77	-6.87	8.44	
6,007.00	21.30	354.50	5,893.85	349.53	-162.40	-385.41	12.50	-10.00	19.35	
6,039.00	17.60	4.30	5,924.03	360.14	-162.59	-395.11	15.38	-11.56	30.62	
6,070.00	14.40	11.20	5,953.82	368.60	-161.49	-402.31	11.99	-10.32	22.26	
6,102.00	11.70	16.30	5,985.00	375.62	-159.81	-407.96	9.17	-8.44	15.94	
6,134.00	10.70	28.20	6,016.39	381.35	-157.49	-412.18	7.85	-3.12	37.19	
6,165.00	10.30	42.90	6,046.88	385.92	-154.25	-414.94	8.71	-1.29	47.42	
6,197.00	11.40	57.50	6,078.31	389.71	-149.63	-416.43	9.22	3.44	45.62	
6,228.00	13.10	72.40	6,108.61	392.42	-143.70	-416.38	11.53	5.48	48.06	
6,260.00	16.10	85.50	6,139.58	393.87	-135.81	-414.36	13.89	9.37	40.94	
6,291.00	18.90	93.90	6,169.15	393.87	-126.51	-410.42	12.14	9.03	27.10	
6,323.00	21.10	103.00	6,199.22	392.22	-115.73	-404.37	11.89	6.87	28.44	
6,354.00	23.20	112.50	6,227.94	388.62	-104.64	-396.42	13.37	6.77	30.65	
6,386.00	25.70	120.20	6,257.08	382.72	-92.82	-386.07	12.64	7.81	24.06	
6,449.00	26.90	139.60	6,313.66	364.96	-71.74	-361.07	13.72	1.90	30.79	
6,477.00	27.80	147.66	6,338.54	354.62	-64.14	-348.48	13.60	3.21	28.79	
6,509.00	29.88	155.60	6,366.58	341.05	-56.85	-333.10	13.61	6.50	24.81	
6,520.00	29.40	156.40	6,376.14	336.08	-54.63	-327.66	5.65	-4.36	7.27	
6,551.00	32.30	157.00	6,402.75	321.48	-48.35	-311.77	9.41	9.35	1.94	
6,583.00	35.10	157.10	6,429.37	305.13	-41.43	-294.03	8.75	8.75	0.31	
6,600.00	36.50	157.40	6,443.16	295.96	-37.58	-284.10	8.30	8.24	1.76	
6,614.00	37.60	156.40	6,454.33	288.20	-34.27	-275.67	8.96	7.86	-7.14	
6,645.00	40.80	156.50	6,478.35	270.24	-26.45	-256.08	10.32	10.32	0.32	
6,677.00	44.00	155.60	6,501.98	250.53	-17.68	-234.51	10.18	10.00	-2.81	
6,709.00	47.50	154.80	6,524.31	229.72	-8.07	-211.59	11.08	10.94	-2.50	
6,740.00	49.70	153.10	6,544.81	208.84	2.15	-188.35	8.20	7.10	-5.48	
6,772.00	53.10	152.80	6,564.77	186.57	13.52	-163.36	10.65	10.62	-0.94	
6,804.00	56.70	152.80	6,583.17	163.29	25.49	-137.20	11.25	11.25	0.00	
6,835.00	60.90	154.10	6,599.22	139.57	37.33	-110.70	14.01	13.55	4.19	
6,867.00	64.70	154.80	6,613.85	113.90	49.60	-82.25	12.03	11.87	2.19	
6,898.00	68.70	155.70	6,626.11	88.04	61.52	-53.78	13.18	12.90	2.90	
6,929.00	71.10	155.20	6,636.76	61.57	73.61	-24.67	7.89	7.74	-1.61	
6,961.00	74.80	156.90	6,646.14	33.61	86.02	5.91	12.63	11.56	5.31	
6,993.00	77.60	158.30	6,653.77	4.88	97.86	36.95	9.73	8.75	4.37	
7,025.00	81.40	159.80	6,659.60	-24.50	109.11	68.33	12.74	11.87	4.69	



Survey Report

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Site: Doddridge County 512473	MD Reference:	WELL @ 0.00ft (Original Well Elev)
Well: Well #512473	North Reference:	Grid
Wellbore: Well #512473	Survey Calculation Method:	Minimum Curvature
Design: Well #512473	Database:	NER

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Bulld Rate (°/100ft)	Turn Rate (°/100ft)
7,056.00	83.20	159.90	6,663.76	-53.34	119.69	98.94	5.82	5.81	0.32
7,088.00	82.70	159.90	6,667.69	-83.16	130.80	130.58	1.56	-1.56	0.00
7,119.00	85.10	160.40	6,670.98	-112.15	141.07	161.28	7.91	7.74	1.61
7,151.00	85.30	161.00	6,673.66	-142.25	151.61	193.01	1.97	0.62	1.87
7,183.00	86.70	161.30	6,675.89	-172.46	161.92	224.74	4.47	4.37	0.94
7,215.00	88.20	162.60	6,677.31	-202.85	171.83	256.47	6.20	4.69	4.06
7,246.00	89.60	164.00	6,677.91	-232.54	180.73	287.14	6.39	4.52	4.52
7,278.00	89.50	163.50	6,678.16	-263.26	189.69	318.77	1.59	-0.31	-1.56
7,342.00	89.90	163.60	6,678.49	-324.63	207.81	382.05	0.64	0.62	0.16
7,404.00	90.60	162.90	6,678.22	-384.00	225.68	443.41	1.60	1.13	-1.13
7,467.00	90.20	161.20	6,677.78	-443.93	245.09	505.93	2.77	-0.63	-2.70
7,530.00	90.50	160.00	6,677.40	-503.35	266.02	568.62	1.96	0.48	-1.90
7,593.00	90.00	158.00	6,677.12	-562.17	288.59	631.46	3.27	-0.79	-3.17
7,656.00	90.30	156.80	6,676.96	-620.33	312.80	694.41	1.96	0.48	-1.90
7,719.00	90.20	155.10	6,676.68	-677.85	338.48	757.39	2.70	-0.16	-2.70
7,782.00	91.10	155.30	6,675.97	-735.04	364.90	820.39	1.46	1.43	0.32
7,846.00	90.20	154.80	6,675.24	-793.06	391.89	884.38	1.61	-1.41	-0.78
7,909.00	90.30	154.50	6,674.97	-850.00	418.87	947.38	0.50	0.16	-0.48
7,973.00	89.30	154.30	6,675.19	-907.71	446.52	1,011.38	1.59	-1.56	-0.31
8,035.00	88.80	153.80	6,676.22	-963.45	473.65	1,073.36	1.14	-0.81	-0.81
8,099.00	89.10	153.00	6,677.39	-1,020.67	502.30	1,137.32	1.33	0.47	-1.25
8,162.00	88.20	152.60	6,678.88	-1,076.69	531.09	1,200.26	1.56	-1.43	-0.63
8,224.00	87.90	151.80	6,680.99	-1,131.50	559.99	1,262.15	1.38	-0.48	-1.29
8,287.00	88.70	151.80	6,682.86	-1,186.99	589.74	1,325.02	1.27	1.27	0.00
8,350.00	89.50	152.60	6,683.85	-1,242.72	619.12	1,387.94	1.80	1.27	1.27
8,414.00	89.60	153.60	6,684.35	-1,299.79	648.08	1,451.90	1.57	0.16	1.56
8,477.00	89.90	154.90	6,684.62	-1,356.53	675.45	1,514.90	2.12	0.48	2.06
8,540.00	90.00	155.70	6,684.68	-1,413.77	701.77	1,577.90	1.28	0.16	1.27
8,603.00	90.00	156.10	6,684.68	-1,471.27	727.50	1,640.89	0.63	0.00	0.63
8,665.00	90.20	156.90	6,684.57	-1,528.13	752.22	1,702.86	1.33	0.32	1.29
8,728.00	88.50	157.20	6,685.28	-1,586.14	776.78	1,765.82	2.74	-2.70	0.48
8,792.00	88.60	156.80	6,686.90	-1,645.03	801.78	1,829.76	0.64	0.16	-0.62
8,854.00	89.10	156.80	6,688.15	-1,702.01	826.20	1,891.71	0.81	0.81	0.00
8,917.00	89.70	156.50	6,688.81	-1,759.84	851.17	1,954.68	1.06	0.95	-0.48
8,980.00	89.60	156.10	6,689.19	-1,817.53	876.49	2,017.67	0.65	-0.16	-0.63
9,044.00	90.00	155.70	6,689.42	-1,875.95	902.62	2,081.66	0.88	0.62	-0.62
9,106.00	89.50	156.50	6,689.69	-1,932.63	927.74	2,143.64	1.52	-0.81	1.29
9,169.00	88.50	156.00	6,690.79	-1,990.29	953.11	2,206.62	1.77	-1.59	-0.79
9,232.00	88.70	155.90	6,692.33	-2,047.80	978.78	2,269.59	0.35	0.32	-0.16
9,296.00	89.10	155.80	6,693.55	-2,106.19	1,004.96	2,333.57	0.64	0.62	-0.16
9,359.00	88.70	156.20	6,694.76	-2,163.73	1,030.58	2,396.55	0.90	-0.63	0.63
9,421.00	89.00	156.20	6,696.01	-2,220.45	1,055.59	2,458.52	0.48	0.48	0.00
9,485.00	88.80	156.00	6,697.24	-2,278.95	1,081.51	2,522.50	0.44	-0.31	-0.31
9,549.00	88.90	155.60	6,698.52	-2,337.31	1,107.74	2,586.48	0.64	0.16	-0.62
9,612.00	89.50	155.90	6,699.40	-2,394.75	1,133.62	2,649.47	1.06	0.95	0.48
9,675.00	89.40	156.00	6,700.01	-2,452.28	1,159.29	2,712.46	0.22	-0.16	0.16
9,739.00	88.80	155.10	6,701.01	-2,510.53	1,185.78	2,776.44	1.69	-0.94	-1.41
9,801.00	89.70	154.90	6,701.82	-2,568.71	1,211.98	2,838.44	1.49	1.45	-0.32
9,864.00	89.90	154.00	6,702.04	-2,623.55	1,239.15	2,901.43	1.46	0.32	-1.43
9,927.00	90.30	153.30	6,701.93	-2,680.01	1,267.11	2,964.42	1.28	0.63	-1.11
9,989.00	90.70	153.60	6,701.39	-2,735.47	1,294.82	3,026.39	0.81	0.65	0.48
10,052.00	91.80	154.10	6,700.02	-2,792.00	1,322.58	3,089.36	1.92	1.75	0.79
10,116.00	90.50	154.10	6,698.73	-2,849.56	1,350.53	3,153.34	2.03	-2.03	0.00
10,180.00	90.00	153.60	6,698.45	-2,907.01	1,378.73	3,217.33	1.10	-0.78	-0.78



Survey Report

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Site:	Doddridge County 512473	MD Reference:	WELL @ 0.00ft (Original Well Elev)
Well:	Well #512473	North Reference:	Grid
Wellbore:	Well #512473	Survey Calculation Method:	Minimum Curvature
Design:	Well #512473	Database:	NER

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
10,244.00	90.20	153.50	6,698.34	-2,964.31	1,407.24	3,281.31	0.35	0.31	-0.16	
10,306.00	90.20	152.60	6,698.13	-3,019.58	1,435.34	3,343.27	1.45	0.00	-1.45	
10,369.00	90.50	153.80	6,697.74	-3,075.81	1,463.74	3,406.24	1.96	0.48	1.90	
10,433.00	90.10	152.90	6,697.41	-3,133.01	1,492.45	3,470.21	1.54	-0.62	-1.41	
10,497.00	90.30	153.10	6,697.18	-3,190.03	1,521.50	3,534.17	0.44	0.31	0.31	
10,561.00	90.50	152.90	6,696.74	-3,247.05	1,550.56	3,598.13	0.44	0.31	-0.31	
10,624.00	90.00	151.20	6,696.46	-3,302.70	1,580.09	3,661.04	2.81	-0.79	-2.70	
10,687.00	90.20	150.20	6,696.35	-3,357.64	1,610.92	3,723.87	1.62	0.32	-1.59	
10,748.00	91.30	150.90	6,695.55	-3,410.75	1,640.91	3,784.68	2.14	1.80	1.15	
10,792.00	91.30	150.90	6,694.55	-3,449.19	1,662.30	3,828.55	0.00	0.00	0.00	

Checked By: _____ Approved By: _____ Date: _____