

RECEIVED
Office of Oil and Gas

SEP 25 2017

WV Department of
Environmental Protection



CNX Gas Company, LLC

Field: MARSHALL COUNTY, WV
Site: MC 44 WELL LOCATION
Well: ACCESS MC44
Wellpath: WEST LEG 1

Azimuths to Grid North
True North: 0.70°
Magnetic North: -7.76°

Magnetic Field
Strength: 53306nT
Dip Angle: 67.84°
Date: 4/16/2008
Model: Igrf2005



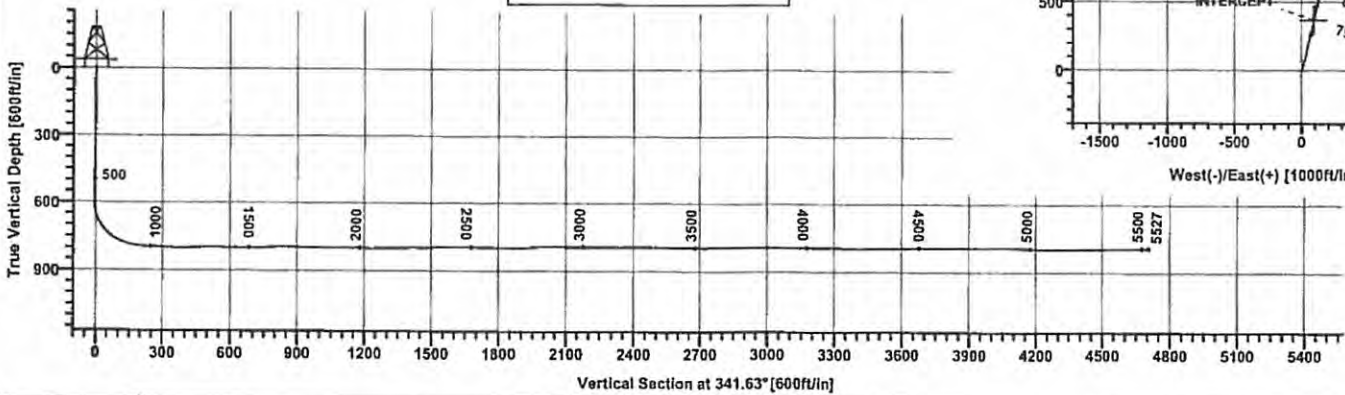
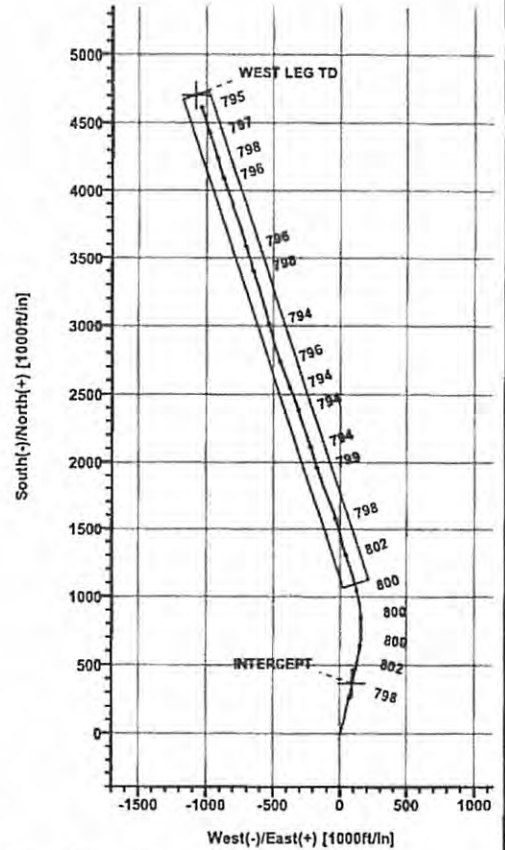
TARGET DETAILS						
Name	TVD	+N-S	+E-W	Northing	Easting	Shape
INTERCEPT	800.00	372.41	92.81	501267.56	1691095.82	Circle (Radius: 1)
WEST LEG TD	800.00	4701.91	-1079.13	505597.06	1689923.88	Rectangle (3800x200)

Plot Date: 5/02/2007
By: Carl Bakay
Scientific Drilling, Inc.
800-476-1302
carl.bakay@scientificdrilling.com

SITE DETAILS
MC 44 WELL LOCATION
Marshall Co., WV

Site Centre Northing: 500895.15
Easting: 1691003.01

Ground Level: 1224.50
Positional Uncertainty: 0.00
Convergence: -0.70



SEP 25 2017



Scientific Drilling Survey Report

WV Department of
Environmental Protection

Company: CNX Gas Company, LLC Field: MARSHALL COUNTY, WV Site: MC 44 WELL LOCATION Well: ACCESS MC44 Wellpath: WEST LEG 1	Date: 5/2/2008 Time: 13:21:39 Page: 1 Co-ordinate(NE) Reference: Well: ACCESS MC44, Grid North Vertical (TVD) Reference: GL 1224.5 +8 1232.5 Section (VS) Reference: Well (0.00N,0.00E,341.63Azl) Survey Calculation Method: Minimum Curvature Db: Sybase																																																																																																																																																																																																																																																													
Field: MARSHALL COUNTY, WV Northern West Virginia and Pennsylvania Operations U.S.A. Map System: US State Plane Coordinate System 1927 Map Zone: West Virginia, Northern Zone Geo Datum: NAD27 (Clarke 1866) Coordinate System: Well Centre Sys Datum: Mean Sea Level Geomagnetic Model: igrf2005																																																																																																																																																																																																																																																														
Site: MC 44 WELL LOCATION Marshall Co., WV Site Position: Northing: 500895.15 ft Latitude: 39 52 12.126 N From: Map Easting: 1691003.01 ft Longitude: 80 36 3.198 W Position Uncertainty: 0.00 ft North Reference: Grid Ground Level: 1224.50 ft Grid Convergence: -0.70 deg																																																																																																																																																																																																																																																														
Well: ACCESS MC44 Slot Name: Well Position: +N-S 0.00 ft Northing: 500895.15 ft Latitude: 39 52 12.126 N +E-W 0.00 ft Easting: 1691003.01 ft Longitude: 80 36 3.198 W Position Uncertainty: 0.00 ft																																																																																																																																																																																																																																																														
Wellpath: WEST LEG 1 Drilled From: Surface Current Datum: GL 1224.5 +8 Height 1232.50 ft Tie-on Depth: 0.00 ft Magnetic Data: 4/16/2008 Above System Datum: Mean Sea Level Field Strength: 53306 nT Declination: -8.46 deg Vertical Section: Depth From (TVD) +N-S +E-W Direction ft ft ft deg 1232.50 0.00 0.00 341.63																																																																																																																																																																																																																																																														
Survey Program for Definitive Wellpath Date: 4/24/2008 Validated: No Version: 1 Actual From To Survey Toolcode Tool Name ft ft 50.00 495.00 Gyro Survey #1 Drop Gyro-SYS Drop Gyro Systematic 495.00 5527.00 Survey #2 MWD-SDI-SYS Scientific MWD Systematic																																																																																																																																																																																																																																																														
Survey <table border="1" style="width:100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>MD ft</th> <th>Incl deg</th> <th>Azlm deg</th> <th>TVD ft</th> <th>+N-S ft</th> <th>+E-W ft</th> <th>VS ft</th> <th>DLS deg/100ft</th> <th>Build deg/100ft</th> <th>Turn deg/100ft</th> <th>Tool/Comment</th> </tr> </thead> <tbody> <tr><td>0.00</td><td>0.41</td><td>119.50</td><td>0.00</td><td>0.00</td><td>0.00</td><td>0.00</td><td>0.00</td><td>0.00</td><td>0.00</td><td>TIE LINE</td></tr> <tr><td>50.00</td><td>0.36</td><td>135.70</td><td>50.00</td><td>-0.20</td><td>0.27</td><td>-0.27</td><td>0.24</td><td>-0.10</td><td>32.40</td><td>Drop Gyro-SYS</td></tr> <tr><td>100.00</td><td>0.22</td><td>134.20</td><td>100.00</td><td>-0.38</td><td>0.44</td><td>-0.50</td><td>0.28</td><td>-0.28</td><td>-3.00</td><td>Drop Gyro-SYS</td></tr> <tr><td>150.00</td><td>0.29</td><td>154.80</td><td>150.00</td><td>-0.56</td><td>0.57</td><td>-0.71</td><td>0.23</td><td>0.14</td><td>41.20</td><td>Drop Gyro-SYS</td></tr> <tr><td>200.00</td><td>0.31</td><td>147.30</td><td>200.00</td><td>-0.79</td><td>0.69</td><td>-0.97</td><td>0.09</td><td>0.04</td><td>-15.00</td><td>Drop Gyro-SYS</td></tr> <tr><td>250.00</td><td>0.24</td><td>138.90</td><td>250.00</td><td>-0.98</td><td>0.84</td><td>-1.20</td><td>0.16</td><td>-0.14</td><td>-16.80</td><td>Drop Gyro-SYS</td></tr> <tr><td>300.00</td><td>0.26</td><td>152.60</td><td>300.00</td><td>-1.16</td><td>0.96</td><td>-1.40</td><td>0.13</td><td>0.04</td><td>27.40</td><td>Drop Gyro-SYS</td></tr> <tr><td>350.00</td><td>0.39</td><td>169.00</td><td>350.00</td><td>-1.43</td><td>1.04</td><td>-1.69</td><td>0.32</td><td>0.26</td><td>32.80</td><td>Drop Gyro-SYS</td></tr> <tr><td>400.00</td><td>0.35</td><td>179.80</td><td>399.99</td><td>-1.75</td><td>1.07</td><td>-2.00</td><td>0.16</td><td>-0.08</td><td>21.60</td><td>Drop Gyro-SYS</td></tr> <tr><td>450.00</td><td>0.39</td><td>188.00</td><td>449.99</td><td>-2.07</td><td>1.05</td><td>-2.30</td><td>0.13</td><td>0.08</td><td>16.40</td><td>Drop Gyro-SYS</td></tr> <tr><td>495.00</td><td>0.59</td><td>188.12</td><td>494.99</td><td>-2.45</td><td>1.00</td><td>-2.64</td><td>0.44</td><td>0.44</td><td>0.27</td><td>MWD-SDI-SYS</td></tr> <tr><td>563.00</td><td>0.73</td><td>106.98</td><td>562.99</td><td>-2.92</td><td>1.36</td><td>-3.20</td><td>1.27</td><td>0.21</td><td>-118.32</td><td>MWD-SDI-SYS</td></tr> <tr><td>594.00</td><td>0.74</td><td>110.54</td><td>593.99</td><td>-3.05</td><td>1.74</td><td>-3.44</td><td>0.15</td><td>0.03</td><td>11.48</td><td>MWD-SDI-SYS</td></tr> <tr><td>626.00</td><td>4.77</td><td>18.78</td><td>625.95</td><td>-1.86</td><td>2.36</td><td>-2.51</td><td>15.15</td><td>12.59</td><td>-286.75</td><td>MWD-SDI-SYS</td></tr> <tr><td>657.00</td><td>17.38</td><td>11.79</td><td>656.31</td><td>3.91</td><td>3.73</td><td>2.54</td><td>40.83</td><td>40.68</td><td>-22.55</td><td>MWD-SDI-SYS</td></tr> <tr><td>689.00</td><td>30.10</td><td>11.92</td><td>685.54</td><td>16.49</td><td>6.37</td><td>13.64</td><td>39.75</td><td>39.75</td><td>0.41</td><td>MWD-SDI-SYS</td></tr> <tr><td>721.00</td><td>41.84</td><td>17.62</td><td>711.40</td><td>34.58</td><td>11.28</td><td>29.27</td><td>38.12</td><td>36.69</td><td>17.81</td><td>MWD-SDI-SYS</td></tr> <tr><td>752.00</td><td>51.49</td><td>15.99</td><td>732.65</td><td>56.15</td><td>17.76</td><td>47.69</td><td>31.36</td><td>31.13</td><td>-5.26</td><td>MWD-SDI-SYS</td></tr> <tr><td>784.00</td><td>58.08</td><td>13.97</td><td>751.10</td><td>81.39</td><td>24.50</td><td>69.52</td><td>21.23</td><td>20.59</td><td>-6.31</td><td>MWD-SDI-SYS</td></tr> <tr><td>816.00</td><td>66.03</td><td>12.75</td><td>766.08</td><td>108.88</td><td>31.02</td><td>93.55</td><td>25.07</td><td>24.84</td><td>-3.61</td><td>MWD-SDI-SYS</td></tr> <tr><td>847.00</td><td>72.20</td><td>12.61</td><td>777.13</td><td>137.12</td><td>37.37</td><td>118.36</td><td>19.91</td><td>19.90</td><td>-0.45</td><td>MWD-SDI-SYS</td></tr> <tr><td>879.00</td><td>78.54</td><td>13.17</td><td>785.20</td><td>167.29</td><td>44.28</td><td>144.81</td><td>19.88</td><td>19.81</td><td>1.75</td><td>MWD-SDI-SYS</td></tr> </tbody> </table>		MD ft	Incl deg	Azlm deg	TVD ft	+N-S ft	+E-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment	0.00	0.41	119.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	TIE LINE	50.00	0.36	135.70	50.00	-0.20	0.27	-0.27	0.24	-0.10	32.40	Drop Gyro-SYS	100.00	0.22	134.20	100.00	-0.38	0.44	-0.50	0.28	-0.28	-3.00	Drop Gyro-SYS	150.00	0.29	154.80	150.00	-0.56	0.57	-0.71	0.23	0.14	41.20	Drop Gyro-SYS	200.00	0.31	147.30	200.00	-0.79	0.69	-0.97	0.09	0.04	-15.00	Drop Gyro-SYS	250.00	0.24	138.90	250.00	-0.98	0.84	-1.20	0.16	-0.14	-16.80	Drop Gyro-SYS	300.00	0.26	152.60	300.00	-1.16	0.96	-1.40	0.13	0.04	27.40	Drop Gyro-SYS	350.00	0.39	169.00	350.00	-1.43	1.04	-1.69	0.32	0.26	32.80	Drop Gyro-SYS	400.00	0.35	179.80	399.99	-1.75	1.07	-2.00	0.16	-0.08	21.60	Drop Gyro-SYS	450.00	0.39	188.00	449.99	-2.07	1.05	-2.30	0.13	0.08	16.40	Drop Gyro-SYS	495.00	0.59	188.12	494.99	-2.45	1.00	-2.64	0.44	0.44	0.27	MWD-SDI-SYS	563.00	0.73	106.98	562.99	-2.92	1.36	-3.20	1.27	0.21	-118.32	MWD-SDI-SYS	594.00	0.74	110.54	593.99	-3.05	1.74	-3.44	0.15	0.03	11.48	MWD-SDI-SYS	626.00	4.77	18.78	625.95	-1.86	2.36	-2.51	15.15	12.59	-286.75	MWD-SDI-SYS	657.00	17.38	11.79	656.31	3.91	3.73	2.54	40.83	40.68	-22.55	MWD-SDI-SYS	689.00	30.10	11.92	685.54	16.49	6.37	13.64	39.75	39.75	0.41	MWD-SDI-SYS	721.00	41.84	17.62	711.40	34.58	11.28	29.27	38.12	36.69	17.81	MWD-SDI-SYS	752.00	51.49	15.99	732.65	56.15	17.76	47.69	31.36	31.13	-5.26	MWD-SDI-SYS	784.00	58.08	13.97	751.10	81.39	24.50	69.52	21.23	20.59	-6.31	MWD-SDI-SYS	816.00	66.03	12.75	766.08	108.88	31.02	93.55	25.07	24.84	-3.61	MWD-SDI-SYS	847.00	72.20	12.61	777.13	137.12	37.37	118.36	19.91	19.90	-0.45	MWD-SDI-SYS	879.00	78.54	13.17	785.20	167.29	44.28	144.81	19.88	19.81	1.75	MWD-SDI-SYS
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Field: MARSHALL COUNTY, WV	Co-ordinate(NE) Reference:	Well: ACCESS MC44, Grid North	
Site: MC 44 WELL LOCATION	Vertical (TVD) Reference:	GL 1224.5 +8 1232.5	
Well: ACCESS MC44	Section (VS) Reference:	Well (0.00N,0.00E,341.63Azi)	
Wellpath: WEST LEG 1	Survey Calculation Method:	Minimum Curvature	Db: Sybase

Survey

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
910.00	82.25	12.96	790.38	197.06	51.18	170.88	11.99	11.97	-0.68	MWD-SDI-SYS
941.00	83.23	14.95	794.29	226.90	58.60	186.87	7.11	3.16	6.42	MWD-SDI-SYS
973.00	85.16	13.98	797.53	257.72	66.55	223.62	6.74	6.03	-3.03	MWD-SDI-SYS
1004.00	91.98	13.41	798.30	287.81	73.88	249.86	22.08	22.00	-1.84	MWD-SDI-SYS
1037.00	88.69	13.92	798.11	319.87	81.68	277.83	10.09	-9.97	1.55	MWD-SDI-SYS
1067.00	85.33	12.59	799.68	349.03	88.55	303.34	12.04	-11.20	-4.43	MWD-SDI-SYS
1099.00	87.72	12.48	801.62	380.21	95.48	330.74	7.48	7.47	-0.34	MWD-SDI-SYS
1130.00	89.46	12.77	802.38	410.45	102.25	357.31	5.69	5.61	0.94	MWD-SDI-SYS
1162.00	90.67	12.32	802.34	441.68	109.20	384.76	4.03	3.78	-1.41	MWD-SDI-SYS
1192.00	90.27	12.04	802.10	471.01	115.53	410.60	1.63	-1.33	-0.93	MWD-SDI-SYS
1224.00	91.78	11.98	801.52	502.30	122.19	438.20	4.72	4.72	-0.19	MWD-SDI-SYS
1257.00	91.58	12.79	800.56	534.52	129.26	466.54	2.53	-0.61	2.45	MWD-SDI-SYS
1288.00	91.65	12.86	799.68	564.73	136.14	493.05	0.32	0.23	0.23	MWD-SDI-SYS
1320.00	90.60	11.49	799.05	596.01	142.89	520.60	5.39	-3.28	-4.28	MWD-SDI-SYS
1351.00	87.78	7.50	799.49	626.57	148.00	548.00	15.76	-9.10	-12.87	MWD-SDI-SYS
1383.00	88.32	6.01	800.58	658.33	151.76	576.95	4.85	1.69	-4.66	MWD-SDI-SYS
1413.00	88.29	4.15	801.47	688.20	154.42	604.46	6.20	-0.10	-6.20	MWD-SDI-SYS
1445.00	90.44	1.01	801.82	720.16	155.86	634.34	11.89	6.72	-9.81	MWD-SDI-SYS
1476.00	90.34	359.79	801.61	751.15	156.07	663.69	3.95	-0.32	-3.94	MWD-SDI-SYS
1508.00	90.10	0.65	801.49	783.15	156.20	694.02	2.79	-0.75	2.69	MWD-SDI-SYS
1540.00	90.97	358.75	801.19	815.15	156.03	724.44	6.53	2.72	-5.94	MWD-SDI-SYS
1571.00	92.39	357.76	800.28	846.12	155.09	754.13	5.58	4.58	-3.19	MWD-SDI-SYS
1603.00	92.15	355.20	799.01	878.03	153.12	785.03	8.03	-0.75	-8.00	MWD-SDI-SYS
1634.00	92.22	353.56	797.83	908.86	150.09	815.24	5.29	0.23	-5.29	MWD-SDI-SYS
1666.00	91.18	350.03	796.88	940.51	145.53	846.72	11.50	-3.25	-11.03	MWD-SDI-SYS
1698.00	87.34	349.28	797.30	971.98	139.78	878.40	12.23	-12.00	-2.34	MWD-SDI-SYS
1729.00	88.05	347.21	798.54	1002.31	133.47	909.17	7.05	2.29	-6.68	MWD-SDI-SYS
1761.00	88.05	345.11	799.63	1033.36	125.82	941.05	6.56	0.00	-6.56	MWD-SDI-SYS
1793.00	87.92	343.17	800.76	1064.12	117.08	973.00	6.07	-0.41	-6.06	MWD-SDI-SYS
1824.00	89.23	343.58	801.53	1093.81	108.21	1003.97	4.43	4.23	1.32	MWD-SDI-SYS
1856.00	89.90	344.43	801.77	1124.57	99.40	1035.94	3.38	2.09	2.66	MWD-SDI-SYS
1887.00	90.91	343.05	801.55	1154.33	90.72	1066.92	5.52	3.26	-4.45	MWD-SDI-SYS
1919.00	90.84	343.69	801.06	1184.99	81.56	1098.90	2.01	-0.22	2.00	MWD-SDI-SYS
1950.00	89.19	342.30	801.05	1214.63	72.50	1129.89	6.96	-5.32	-4.48	MWD-SDI-SYS
1982.00	89.43	340.45	801.44	1244.95	62.28	1161.89	5.83	0.75	-5.78	MWD-SDI-SYS
2014.00	89.16	340.14	801.83	1275.08	51.49	1193.87	1.28	-0.84	-0.97	MWD-SDI-SYS
2045.00	89.66	340.68	802.15	1304.28	41.09	1224.87	2.37	1.61	1.74	MWD-SDI-SYS
2077.00	90.97	342.82	801.98	1334.67	31.07	1256.86	7.84	4.09	6.69	MWD-SDI-SYS
2110.00	90.47	345.12	801.56	1366.38	21.96	1289.83	7.13	-1.52	6.97	MWD-SDI-SYS
2142.00	91.18	345.51	801.10	1397.33	13.85	1321.76	2.53	2.22	1.22	MWD-SDI-SYS
2173.00	89.83	344.27	800.83	1427.26	5.77	1352.71	5.91	-4.35	-4.00	MWD-SDI-SYS
2205.00	91.34	344.86	800.50	1458.10	-2.74	1384.66	5.07	4.72	1.84	MWD-SDI-SYS
2236.00	91.28	345.20	799.79	1488.04	-10.75	1415.60	1.11	-0.19	1.10	MWD-SDI-SYS
2268.00	91.21	345.09	799.10	1518.96	-18.95	1447.53	0.41	-0.22	-0.34	MWD-SDI-SYS
2299.00	90.30	343.33	798.69	1548.79	-27.39	1478.50	6.39	-2.94	-5.68	MWD-SDI-SYS
2331.00	90.67	342.40	798.42	1579.37	-36.81	1510.49	3.13	1.16	-2.91	MWD-SDI-SYS
2363.00	90.90	342.25	797.98	1609.85	-46.53	1542.48	0.86	0.72	-0.47	MWD-SDI-SYS
2394.00	90.00	340.38	797.74	1639.22	-56.46	1573.48	6.69	-2.90	-6.03	MWD-SDI-SYS
2425.00	91.44	338.70	797.35	1668.26	-67.28	1604.45	7.14	4.65	-5.42	MWD-SDI-SYS
2456.00	89.80	338.25	797.01	1697.09	-78.67	1635.40	5.49	-5.29	-1.45	MWD-SDI-SYS
2487.00	89.60	338.23	797.17	1725.88	-90.16	1666.35	0.65	-0.65	-0.06	MWD-SDI-SYS
2519.00	91.55	338.20	796.85	1755.60	-102.03	1698.29	6.09	6.09	-0.09	MWD-SDI-SYS
2551.00	89.33	338.65	796.61	1785.35	-113.80	1730.24	7.08	-6.94	1.41	MWD-SDI-SYS

SEP 25 2017



Scientific Drilling Survey Report

WV Department of
Environmental Protection

Company: CNX Gas Company, LLC		Date: 5/2/2008		Time: 13:21:39		Page: 3				
Field: MARSHALL COUNTY, WV		Co-ordinate(NE) Reference:		Well: ACCESS MC44, Grid North						
Site: MC 44 WELL LOCATION		Vertical (TVD) Reference:		GL 1224.5 +8 1232.5						
Well: ACCESS MC44		Section (VS) Reference:		Well (0.00N,0.00E,341.63Azi)						
Wellpath: WEST LEG 1		Survey Calculation Method:		Minimum Curvature		Db: Sybase				
Survey										
MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
2582.00	87.31	339.69	797.52	1814.31	-124.82	1761.19	7.33	-6.52	3.35	MWD-SDI-SYS
2612.00	87.78	339.62	798.80	1842.41	-135.24	1791.15	1.58	1.57	-0.23	MWD-SDI-SYS
2644.00	89.66	341.95	799.52	1872.62	-145.77	1823.13	9.35	5.87	7.28	MWD-SDI-SYS
2676.00	91.51	342.32	799.19	1903.07	-155.58	1855.13	5.90	5.78	1.16	MWD-SDI-SYS
2707.00	89.76	342.56	798.85	1932.63	-164.93	1886.12	5.70	-5.65	0.77	MWD-SDI-SYS
2739.00	91.45	343.56	798.51	1963.23	-174.26	1918.11	6.14	5.28	3.12	MWD-SDI-SYS
2770.00	93.87	344.37	797.07	1992.99	-182.81	1949.05	8.23	7.81	2.61	MWD-SDI-SYS
2802.00	93.56	344.24	795.00	2023.74	-191.45	1980.94	1.05	-0.97	-0.41	MWD-SDI-SYS
2834.00	91.75	343.50	793.51	2054.44	-200.33	2012.88	6.11	-5.66	-2.31	MWD-SDI-SYS
2865.00	89.43	341.76	793.19	2084.02	-209.58	2043.87	9.35	-7.48	-5.61	MWD-SDI-SYS
2898.00	88.12	340.85	793.90	2115.27	-220.16	2076.86	4.83	-3.97	-2.76	MWD-SDI-SYS
2930.00	88.66	339.58	794.80	2145.37	-230.98	2108.84	4.31	1.69	-3.97	MWD-SDI-SYS
2961.00	90.03	339.50	795.15	2174.41	-241.82	2139.82	4.43	4.42	-0.26	MWD-SDI-SYS
2993.00	89.29	340.49	795.34	2204.48	-252.77	2171.80	3.86	-2.31	3.09	MWD-SDI-SYS
3024.00	89.40	340.66	795.70	2233.72	-263.07	2202.80	0.65	0.35	0.55	MWD-SDI-SYS
3056.00	90.34	341.40	795.77	2263.98	-273.48	2234.79	3.74	2.94	2.31	MWD-SDI-SYS
3088.00	90.94	341.42	795.41	2294.31	-283.68	2266.79	1.88	1.87	0.06	MWD-SDI-SYS
3119.00	90.00	341.38	795.16	2323.69	-293.56	2297.79	3.04	-3.03	-0.13	MWD-SDI-SYS
3151.00	91.04	341.84	794.87	2354.05	-303.66	2329.79	3.55	3.25	1.44	MWD-SDI-SYS
3182.00	91.41	341.83	794.21	2383.50	-313.32	2360.78	1.19	1.19	-0.03	MWD-SDI-SYS
3214.00	90.81	341.66	793.59	2413.88	-323.34	2392.78	1.95	-1.87	-0.53	MWD-SDI-SYS
3246.00	91.07	340.53	793.06	2444.15	-333.71	2424.77	3.62	0.61	-3.53	MWD-SDI-SYS
3277.00	89.53	339.42	792.90	2473.27	-344.33	2455.75	6.12	-4.97	-3.58	MWD-SDI-SYS
3309.00	88.72	338.35	793.39	2503.12	-355.85	2487.71	4.19	-2.53	-3.34	MWD-SDI-SYS
3340.00	89.66	337.75	793.82	2531.87	-367.44	2518.65	3.60	3.03	-1.94	MWD-SDI-SYS
3372.00	88.83	337.84	794.25	2561.50	-379.53	2550.57	2.61	-2.59	0.28	MWD-SDI-SYS
3404.00	88.82	337.89	794.90	2591.11	-391.64	2582.49	0.47	-0.03	-0.47	MWD-SDI-SYS
3435.00	89.13	338.46	795.46	2619.86	-403.21	2613.43	2.68	1.00	2.48	MWD-SDI-SYS
3467.00	89.03	338.24	795.97	2649.60	-415.01	2645.37	0.76	-0.31	-0.69	MWD-SDI-SYS
3498.00	89.56	338.70	796.35	2678.44	-426.39	2676.32	2.26	1.71	1.48	MWD-SDI-SYS
3530.00	90.00	338.88	796.48	2708.27	-437.97	2708.28	1.49	1.37	0.56	MWD-SDI-SYS
3561.00	90.77	340.06	796.27	2737.30	-448.84	2739.26	4.55	2.48	3.81	MWD-SDI-SYS
3592.00	92.08	341.31	795.50	2766.54	-459.09	2770.25	5.84	4.23	4.03	MWD-SDI-SYS
3624.00	91.04	341.24	794.62	2796.84	-469.36	2802.23	3.26	-3.25	-0.22	MWD-SDI-SYS
3655.00	90.37	341.84	794.24	2826.24	-479.17	2833.23	2.90	-2.16	1.94	MWD-SDI-SYS
3687.00	91.58	343.22	793.70	2856.76	-488.78	2865.22	5.73	3.78	4.31	MWD-SDI-SYS
3719.00	90.94	343.57	793.00	2887.42	-497.92	2897.20	2.28	-2.00	1.09	MWD-SDI-SYS
3751.00	89.63	343.89	792.84	2918.13	-506.88	2929.17	4.21	-4.09	1.00	MWD-SDI-SYS
3783.00	89.06	344.43	793.20	2948.92	-515.62	2961.14	2.45	-1.78	1.69	MWD-SDI-SYS
3814.00	90.07	344.56	793.44	2978.79	-523.90	2992.10	3.28	3.26	0.42	MWD-SDI-SYS
3846.00	88.49	344.60	793.84	3009.63	-532.41	3024.05	4.94	-4.94	0.12	MWD-SDI-SYS
3877.00	87.85	344.16	794.83	3039.47	-540.75	3055.00	2.50	-2.06	-1.42	MWD-SDI-SYS
3909.00	89.60	343.58	795.54	3070.20	-549.64	3086.97	5.76	5.47	-1.81	MWD-SDI-SYS
3941.00	90.74	344.38	795.45	3100.96	-558.47	3118.94	4.35	3.56	2.50	MWD-SDI-SYS
3972.00	90.61	344.01	795.08	3130.78	-566.92	3149.91	1.26	-0.42	-1.19	MWD-SDI-SYS
4004.00	90.84	343.51	794.68	3161.50	-575.86	3181.88	1.72	0.72	-1.56	MWD-SDI-SYS
4035.00	89.90	343.27	794.48	3191.21	-584.73	3212.87	3.13	-3.03	-0.77	MWD-SDI-SYS
4067.00	90.13	343.67	794.47	3221.89	-593.83	3244.85	1.44	0.72	1.25	MWD-SDI-SYS
4098.00	88.49	343.13	794.84	3251.59	-602.69	3275.83	5.57	-5.29	-1.74	MWD-SDI-SYS
4129.00	88.39	342.80	795.68	3281.22	-611.76	3306.81	1.11	-0.32	-1.06	MWD-SDI-SYS
4162.00	87.68	342.12	796.82	3312.67	-621.70	3339.79	2.98	-2.15	-2.06	MWD-SDI-SYS
4193.00	88.69	341.49	797.80	3342.10	-631.38	3370.77	3.84	3.26	-2.03	MWD-SDI-SYS
4225.00	89.66	342.32	798.26	3372.52	-641.32	3402.77	3.99	3.03	2.59	MWD-SDI-SYS
4256.00	90.84	342.33	798.12	3402.05	-650.73	3433.77	3.81	3.81	0.03	MWD-SDI-SYS

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WV Department of Environmental Protection



Scientific Drilling Survey Report

Company: CNX Gas Company, LLC
 Field: MARSHALL COUNTY, WV
 Site: MC 44 WELL LOCATION
 Well: ACCESS MC44
 Wellpath: WEST LEG 1

Date: 5/2/2008 Time: 13:21:39 Page: 4
 Co-ordinate(NE) Reference: Well: ACCESS MC44, Grid North
 Vertical (TVD) Reference: GL 1224.5 +8 1232.5
 Section (VS) Reference: Well (0.00N,0.00E,341.63Azi)
 Survey Calculation Method: Minimum Curvature Db: Sybase

Survey

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Bulld deg/100ft	Turn deg/100ft	Tool/Comment
4288.00	90.94	342.45	797.63	3432.55	-660.41	3465.75	0.49	0.31	0.37	MWD-SDI-SYS
4320.00	91.07	343.51	797.07	3463.14	-669.77	3497.74	3.34	0.41	3.31	MWD-SDI-SYS
4351.00	89.97	342.49	796.78	3492.79	-676.84	3528.73	4.84	-3.55	-3.29	MWD-SDI-SYS
4383.00	89.93	342.52	796.81	3523.31	-688.46	3560.73	0.16	-0.12	0.09	MWD-SDI-SYS
4416.00	90.10	343.31	796.80	3554.85	-698.15	3593.72	2.45	0.52	2.39	MWD-SDI-SYS
4447.00	91.24	344.25	796.44	3584.61	-706.81	3624.70	4.77	3.68	3.03	MWD-SDI-SYS
4479.00	91.18	344.34	795.77	3615.41	-715.47	3656.65	0.34	-0.19	0.28	MWD-SDI-SYS
4511.00	90.88	343.55	795.16	3646.16	-724.32	3688.62	2.55	-0.62	-2.47	MWD-SDI-SYS
4542.00	89.66	342.28	794.99	3675.79	-733.42	3719.61	5.91	-4.26	-4.10	MWD-SDI-SYS
4574.00	89.83	342.45	795.10	3706.28	-743.12	3751.61	1.00	0.84	0.53	MWD-SDI-SYS
4605.00	90.60	341.79	794.95	3735.78	-752.64	3782.61	3.03	2.16	-2.13	MWD-SDI-SYS
4637.00	89.23	340.35	795.01	3766.05	-763.02	3814.61	6.21	-4.28	-4.50	MWD-SDI-SYS
4668.00	90.17	340.83	795.17	3795.29	-773.32	3845.60	3.40	3.03	1.55	MWD-SDI-SYS
4700.00	91.18	341.10	794.79	3825.54	-783.75	3877.59	3.27	3.16	0.84	MWD-SDI-SYS
4732.00	90.10	341.95	794.44	3855.89	-793.89	3909.59	4.29	-3.37	2.66	MWD-SDI-SYS
4763.00	90.50	342.41	794.27	3885.40	-803.38	3940.59	1.97	1.29	1.48	MWD-SDI-SYS
4795.00	90.37	341.72	794.03	3915.84	-813.23	3972.59	2.19	-0.41	-2.16	MWD-SDI-SYS
4826.00	89.33	340.34	794.11	3945.16	-823.31	4003.58	5.57	-3.35	-4.45	MWD-SDI-SYS
4858.00	90.03	340.63	794.29	3975.32	-834.00	4035.58	2.37	2.19	0.91	MWD-SDI-SYS
4889.00	90.40	340.99	794.17	4004.60	-844.19	4066.57	1.67	1.19	1.16	MWD-SDI-SYS
4921.00	88.76	341.71	794.41	4034.91	-854.42	4098.57	5.60	-5.12	2.25	MWD-SDI-SYS
4952.00	88.39	341.93	795.18	4064.36	-864.09	4129.56	1.39	-1.19	0.71	MWD-SDI-SYS
4984.00	88.42	341.34	795.07	4094.71	-874.17	4161.55	1.85	0.09	-1.84	MWD-SDI-SYS
5015.00	88.72	342.74	796.84	4124.19	-883.73	4192.54	4.62	0.97	4.52	MWD-SDI-SYS
5047.00	88.86	341.58	797.52	4154.65	-893.53	4224.53	3.65	0.44	-3.62	MWD-SDI-SYS
5079.00	89.39	342.18	798.01	4185.06	-903.48	4256.52	2.50	1.66	1.87	MWD-SDI-SYS
5110.00	80.03	342.53	798.16	4214.60	-912.87	4287.52	2.35	2.06	1.13	MWD-SDI-SYS
5142.00	90.03	343.00	798.15	4245.16	-922.36	4319.52	1.47	0.00	1.47	MWD-SDI-SYS
5173.00	90.67	344.05	797.96	4274.89	-931.15	4350.50	3.97	2.06	3.39	MWD-SDI-SYS
5204.00	90.50	343.08	797.64	4304.62	-939.92	4381.48	3.18	-0.55	-3.13	MWD-SDI-SYS
5234.00	89.70	342.32	797.59	4333.26	-948.84	4411.47	3.68	-2.67	-2.53	MWD-SDI-SYS
5264.00	80.27	342.21	797.60	4361.84	-957.98	4441.47	1.84	1.90	-0.37	MWD-SDI-SYS
5296.00	91.07	341.18	797.22	4392.21	-968.03	4473.47	4.08	2.50	-3.22	MWD-SDI-SYS
5328.00	91.48	341.44	796.51	4422.52	-978.28	4505.46	1.52	1.28	0.81	MWD-SDI-SYS
5359.00	91.85	341.71	795.61	4451.92	-988.07	4536.44	1.48	1.19	0.87	MWD-SDI-SYS
5391.00	89.87	342.61	795.13	4482.37	-997.87	4568.44	6.80	-6.19	2.81	MWD-SDI-SYS
5423.00	89.80	343.57	795.22	4512.99	-1007.18	4600.43	3.01	-0.22	3.00	MWD-SDI-SYS
5455.00	91.11	343.28	794.97	4543.66	-1016.31	4632.41	4.19	4.09	-0.91	MWD-SDI-SYS
5486.00	90.00	342.65	794.67	4573.30	-1025.39	4663.40	4.12	-3.58	-2.03	MWD-SDI-SYS
5527.00	90.00	342.65	794.67	4612.43	-1037.62	4704.38	0.00	0.00	0.00	MWD-SDI-SYS

SEP 25 2017



Scientific Drilling Survey Report - Geographic

WV Department of
 Environmental Protection

Company: CNX Gas Company, LLC		Date: 5/2/2008		Time: 13:22:36		Page: 1	
Field: MARSHALL COUNTY, WV		Co-ordinate(NE) Reference:		Well: ACCESS MC44, Grid North			
Site: MC 44 WELL LOCATION		Vertical (TVD) Reference:		GL 1224.5 +8 1232.5			
Well: ACCESS MC44		Section (VS) Reference:		Well (0.00N,0.00E,341.63Azi)			
Wellpath: WEST LEG 1		Survey Calculation Method:		Minimum Curvature		Db: Sybase	

Field: MARSHALL COUNTY, WV Northern West Virginia and Pennsylvania Operations U.S.A.		Map System: US State Plane Coordinate System 1927		Map Zone: West Virginia, Northern Zone	
Geo Datum: NAD27 (Clarke 1866)		Coordinate System: Well Centre		Geomagnetic Model: igrf2005	
Sys Datum: Mean Sea Level					

Site: MC 44 WELL LOCATION					
Marshall Co., WV					
Site Position:	Northing:	500895.15 ft	Latitude:	39 52	12.126 N
From: Map	Easting:	1691003.01 ft	Longitude:	80 36	3.198 W
Position Uncertainty:	0.00 ft		North Reference:	Grid	
Ground Level:	1224.50 ft		Grid Convergence:	-0.70 deg	

Well: ACCESS MC44		Slot Name:			
Well Position:	+N/-S 0.00 ft	Northing:	500895.15 ft	Latitude:	39 52 12.126 N
	+E/-W 0.00 ft	Easting:	1691003.01 ft	Longitude:	80 36 3.198 W
Position Uncertainty:	0.00 ft				

Wellpath: WEST LEG 1		Drilled From: Surface	
Current Datum:	GL 1224.5 +8	Height	1232.50 ft
Magnetic Data:	4/16/2008	Tie-on Depth:	0.00 ft
Field Strength:	53306 nT	Above System Datum:	Mean Sea Level
Vertical Section:	Depth From (TVD)	Declination:	-8.46 deg
	ft	Mag Dip Angle:	67.84 deg
		+N/-S	Direction
		ft	deg
	1232.50	0.00	0.00 341.63

Survey Program for Definitive Wellpath				
Date: 4/24/2008		Validated: No		Version: 1
Actual From	To	Survey	Toolcode	Tool Name
ft	ft			
50.00	495.00	Gyro Survey #1	Drop Gyro-SYS	Drop Gyro Systematic
495.00	5527.00	Survey #2	MWD-SDI-SYS	Scientific MWD Systematic

Survey													
MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	← Latitude →			← Longitude →		
								Deg	Min	Sec	Deg	Min	Sec
0.00	0.41	119.50	0.00	0.00	0.00	500895.15	1691003.01	39 52	12.126 N	80 36	3.198 W		
50.00	0.36	135.70	50.00	-0.20	0.27	500894.95	1691003.28	39 52	12.124 N	80 36	3.195 W		
100.00	0.22	134.20	100.00	-0.38	0.44	500894.77	1691003.45	39 52	12.123 N	80 36	3.193 W		
150.00	0.29	154.80	150.00	-0.56	0.57	500894.59	1691003.58	39 52	12.121 N	80 36	3.191 W		
200.00	0.31	147.30	200.00	-0.79	0.69	500894.36	1691003.70	39 52	12.119 N	80 36	3.189 W		
250.00	0.24	138.90	250.00	-0.98	0.84	500894.17	1691003.85	39 52	12.117 N	80 36	3.187 W		
300.00	0.26	152.60	300.00	-1.16	0.96	500893.99	1691003.97	39 52	12.115 N	80 36	3.186 W		
350.00	0.39	169.00	350.00	-1.43	1.04	500893.72	1691004.05	39 52	12.112 N	80 36	3.185 W		
400.00	0.35	179.80	399.99	-1.75	1.07	500893.40	1691004.08	39 52	12.109 N	80 36	3.184 W		
450.00	0.39	188.00	449.99	-2.07	1.05	500893.08	1691004.06	39 52	12.106 N	80 36	3.184 W		
495.00	0.59	188.12	494.99	-2.45	1.00	500892.70	1691004.01	39 52	12.102 N	80 36	3.185 W		
563.00	0.73	106.98	562.99	-2.92	1.36	500892.23	1691004.37	39 52	12.097 N	80 36	3.180 W		
594.00	0.74	110.54	593.99	-3.05	1.74	500892.10	1691004.75	39 52	12.096 N	80 36	3.175 W		
626.00	4.77	18.78	625.95	-1.86	2.36	500893.29	1691005.37	39 52	12.108 N	80 36	3.168 W		
657.00	17.38	11.79	656.31	3.91	3.73	500899.06	1691006.74	39 52	12.165 N	80 36	3.151 W		
689.00	30.10	11.92	685.54	16.49	6.37	500911.64	1691009.38	39 52	12.290 N	80 36	3.119 W		
721.00	41.84	17.62	711.40	34.58	11.28	500929.73	1691014.29	39 52	12.469 N	80 36	3.059 W		
752.00	51.49	15.99	732.65	56.15	17.76	500951.30	1691020.77	39 52	12.683 N	80 36	2.979 W		
784.00	58.08	13.97	751.10	81.39	24.50	500976.54	1691027.51	39 52	12.934 N	80 36	2.897 W		
816.00	66.03	12.75	766.08	108.88	31.02	501004.03	1691034.03	39 52	13.206 N	80 36	2.818 W		
847.00	72.20	12.61	777.13	137.12	37.37	501032.27	1691040.38	39 52	13.486 N	80 36	2.741 W		

SEP 25 2017



Scientific Drilling Survey Report - Geographic

WV Department of
 Environmental Protection

Company: CNX Gas Company, LLC	Date: 5/2/2008	Time: 13:22:36	Page: 2
Field: MARSHALL COUNTY, WV	Co-ordinate(NE) Reference:	Well: ACCESS MC44, Grid North	
Site: MC 44 WELL LOCATION	Vertical (TVD) Reference:	GL 1224.5 +8 1232.5	
Well: ACCESS MC44	Section (VS) Reference:	Well (0.00N,0.00E,341.63Azi)	
Wellpath: WEST LEG 1	Survey Calculation Method:	Minimum Curvature	Db: Sybase

Survey

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	← Latitude →			← Longitude →		
								Deg	Min	Sec	Deg	Min	Sec
879.00	78.54	13.17	785.20	167.29	44.28	501062.44	1691047.28	39	52	13.785 N	80	36	2.657 W
910.00	82.25	12.96	790.38	197.06	51.18	501092.21	1691054.19	39	52	14.080 N	80	36	2.573 W
941.00	83.23	14.95	794.29	226.90	58.60	501122.05	1691061.61	39	52	14.376 N	80	36	2.482 W
973.00	85.16	13.98	797.53	257.72	66.55	501152.87	1691069.56	39	52	14.681 N	80	36	2.385 W
1004.00	91.98	13.41	798.30	287.81	73.88	501182.86	1691076.89	39	52	14.979 N	80	36	2.296 W
1037.00	88.69	13.92	798.11	319.87	81.68	501215.02	1691084.69	39	52	15.297 N	80	36	2.201 W
1067.00	85.33	12.59	799.68	349.03	88.55	501244.18	1691091.56	39	52	15.586 N	80	36	2.118 W
1099.00	87.72	12.48	801.62	380.21	95.48	501275.36	1691098.49	39	52	15.895 N	80	36	2.034 W
1130.00	89.46	12.77	802.38	410.45	102.25	501305.60	1691105.26	39	52	16.195 N	80	36	1.951 W
1162.00	90.67	12.32	802.34	441.68	109.20	501336.83	1691112.21	39	52	16.504 N	80	36	1.867 W
1192.00	90.27	12.04	802.10	471.01	115.53	501366.16	1691118.54	39	52	16.795 N	80	36	1.791 W
1224.00	91.78	11.98	801.52	502.30	122.19	501397.45	1691125.20	39	52	17.105 N	80	36	1.710 W
1257.00	91.58	12.79	800.56	534.52	129.26	501429.67	1691132.27	39	52	17.424 N	80	36	1.624 W
1288.00	91.65	12.86	799.68	564.73	136.14	501459.88	1691139.15	39	52	17.724 N	80	36	1.541 W
1320.00	90.60	11.49	799.05	596.01	142.89	501491.16	1691145.90	39	52	18.034 N	80	36	1.459 W
1351.00	87.78	7.50	799.49	626.57	148.00	501521.72	1691151.01	39	52	18.336 N	80	36	1.399 W
1383.00	88.32	6.01	800.58	658.33	151.76	501553.48	1691154.77	39	52	18.651 N	80	36	1.355 W
1413.00	88.29	4.15	801.47	688.20	154.42	501583.35	1691157.43	39	52	18.946 N	80	36	1.326 W
1445.00	90.44	1.01	801.82	720.16	155.86	501615.31	1691158.87	39	52	19.262 N	80	36	1.313 W
1476.00	90.34	359.79	801.61	751.15	156.07	501646.30	1691159.08	39	52	19.568 N	80	36	1.315 W
1508.00	90.10	0.65	801.49	783.15	156.20	501678.30	1691159.21	39	52	19.885 N	80	36	1.318 W
1540.00	90.97	358.75	801.19	815.15	156.03	501710.30	1691159.04	39	52	20.201 N	80	36	1.325 W
1571.00	92.39	357.76	800.28	846.12	155.09	501741.27	1691158.10	39	52	20.507 N	80	36	1.342 W
1603.00	92.15	355.20	799.01	878.03	153.12	501773.18	1691156.13	39	52	20.822 N	80	36	1.372 W
1634.00	92.22	353.56	797.83	908.86	150.09	501804.01	1691153.10	39	52	21.126 N	80	36	1.416 W
1666.00	91.18	350.03	796.88	940.51	145.53	501835.66	1691148.54	39	52	21.438 N	80	36	1.480 W
1698.00	87.34	349.28	797.30	971.98	139.78	501867.13	1691142.79	39	52	21.749 N	80	36	1.558 W
1729.00	88.05	347.21	798.54	1002.31	133.47	501897.46	1691136.48	39	52	22.048 N	80	36	1.644 W
1761.00	88.05	345.11	799.63	1033.36	125.82	501928.51	1691128.83	39	52	22.354 N	80	36	1.747 W
1793.00	87.92	343.17	800.76	1064.12	117.08	501959.27	1691120.09	39	52	22.657 N	80	36	1.864 W
1824.00	89.23	343.58	801.53	1093.81	108.21	501988.96	1691111.22	39	52	22.949 N	80	36	1.982 W
1856.00	89.80	344.43	801.77	1124.57	99.40	502019.72	1691102.41	39	52	23.252 N	80	36	2.100 W
1887.00	90.91	343.05	801.55	1154.33	90.72	502049.48	1691093.73	39	52	23.545 N	80	36	2.216 W
1919.00	90.84	343.69	801.06	1184.89	81.56	502080.14	1691084.57	39	52	23.847 N	80	36	2.338 W
1950.00	89.19	342.30	801.05	1214.63	72.50	502109.78	1691075.51	39	52	24.139 N	80	36	2.459 W
1982.00	89.43	340.45	801.44	1244.95	62.28	502140.10	1691065.29	39	52	24.437 N	80	36	2.595 W
2014.00	89.16	340.14	801.83	1275.08	51.49	502170.23	1691054.50	39	52	24.733 N	80	36	2.738 W
2045.00	89.66	340.68	802.15	1304.28	41.09	502199.43	1691044.10	39	52	25.021 N	80	36	2.876 W
2077.00	90.97	342.82	801.98	1334.67	31.07	502229.82	1691034.08	39	52	25.320 N	80	36	3.009 W
2110.00	90.47	345.12	801.56	1366.38	21.86	502261.53	1691024.97	39	52	25.632 N	80	36	3.131 W
2142.00	91.18	345.51	801.10	1397.33	13.85	502292.48	1691016.86	39	52	25.937 N	80	36	3.240 W
2173.00	89.83	344.27	800.83	1427.26	5.77	502322.41	1691008.78	39	52	26.232 N	80	36	3.349 W
2205.00	91.34	344.86	800.50	1458.10	-2.74	502353.25	1691000.27	39	52	26.536 N	80	36	3.463 W
2236.00	91.28	345.20	799.79	1488.04	-10.75	502383.19	1690992.26	39	52	26.830 N	80	36	3.570 W
2268.00	91.21	345.09	799.10	1518.96	-18.95	502414.11	1690984.06	39	52	27.135 N	80	36	3.680 W
2299.00	90.30	343.33	798.69	1548.79	-27.39	502443.94	1690975.82	39	52	27.429 N	80	36	3.793 W
2331.00	90.67	342.40	798.42	1579.37	-36.81	502474.52	1690966.20	39	52	27.730 N	80	36	3.919 W
2363.00	90.90	342.25	797.98	1609.85	-46.53	502505.00	1690956.48	39	52	28.030 N	80	36	4.048 W
2394.00	90.00	340.38	797.74	1639.22	-56.46	502534.37	1690946.55	39	52	28.319 N	80	36	4.180 W
2425.00	91.44	338.70	797.35	1668.26	-67.29	502563.41	1690935.72	39	52	28.605 N	80	36	4.324 W
2456.00	89.80	338.25	797.01	1697.09	-78.67	502592.24	1690924.34	39	52	28.888 N	80	36	4.474 W
2487.00	89.60	338.23	797.17	1725.88	-90.16	502621.03	1690912.85	39	52	29.171 N	80	36	4.626 W
2519.00	91.55	338.20	796.85	1755.60	-102.03	502650.75	1690900.98	39	52	29.464 N	80	36	4.783 W

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WV Department of Environmental Protection



Scientific Drilling Survey Report - Geographic

Company: CNX Gas Company, LLC **Date:** 5/2/2008 **Time:** 13:22:36 **Page:** 3
Field: MARSHALL COUNTY, WV **Co-ordinate(NE) Reference:** Well: ACCESS MC44, Grid North
Site: MC 44 WELL LOCATION **Vertical (TVD) Reference:** GL 1224.5 +8 1232.5
Well: ACCESS MC44 **Section (VS) Reference:** Well (0.00N,0.00E,341.63Azi)
Wellpath: WEST LEG 1 **Survey Calculation Method:** Minimum Curvature **Db:** Sybase

Survey

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	← Latitude →		← Longitude →					
								Deg	Min	Sec	Deg	Min	Sec		
2551.00	89.33	338.65	796.61	1785.35	-113.80	502680.50	1690889.21	39	52	29.756	N	80	36	4.938	W
2582.00	87.31	339.69	797.52	1814.31	-124.82	502709.46	1690878.19	39	52	30.041	N	80	36	5.084	W
2612.00	87.78	339.62	798.80	1842.41	-135.24	502737.56	1690867.77	39	52	30.317	N	80	36	5.222	W
2644.00	89.66	341.95	799.52	1872.62	-145.77	502767.77	1690857.24	39	52	30.615	N	80	36	5.362	W
2676.00	91.51	342.32	799.19	1903.07	-155.58	502788.22	1690847.43	39	52	30.914	N	80	36	5.493	W
2707.00	89.76	342.56	798.85	1932.63	-164.83	502827.78	1690838.08	39	52	31.205	N	80	36	5.617	W
2739.00	91.45	343.56	798.51	1963.23	-174.26	502858.38	1690828.75	39	52	31.507	N	80	36	5.742	W
2770.00	93.87	344.37	797.07	1992.99	-182.81	502888.14	1690820.20	39	52	31.800	N	80	36	5.856	W
2802.00	93.56	344.24	795.00	2023.74	-191.45	502918.89	1690811.56	39	52	32.103	N	80	36	5.972	W
2834.00	91.75	343.50	793.51	2054.44	-200.33	502949.59	1690802.68	39	52	32.405	N	80	36	6.091	W
2865.00	89.43	341.76	793.19	2084.02	-209.58	502979.17	1690793.43	39	52	32.696	N	80	36	6.214	W
2898.00	88.12	340.85	793.90	2115.27	-220.16	503010.42	1690782.85	39	52	33.004	N	80	36	6.354	W
2930.00	88.66	339.58	794.80	2145.37	-230.98	503040.52	1690772.03	39	52	33.300	N	80	36	6.498	W
2961.00	90.03	339.50	795.15	2174.41	-241.82	503069.56	1690761.19	39	52	33.596	N	80	36	6.642	W
2993.00	89.29	340.49	795.34	2204.48	-252.77	503099.63	1690750.24	39	52	33.881	N	80	36	6.787	W
3024.00	89.40	340.66	795.70	2233.72	-263.07	503128.87	1690739.94	39	52	34.169	N	80	36	6.924	W
3056.00	90.34	341.40	795.77	2263.98	-273.48	503159.13	1690729.53	39	52	34.467	N	80	36	7.062	W
3088.00	90.94	341.42	795.41	2294.31	-283.68	503189.46	1690719.33	39	52	34.765	N	80	36	7.197	W
3119.00	90.00	341.38	795.16	2323.69	-293.56	503218.84	1690709.45	39	52	35.054	N	80	36	7.329	W
3151.00	91.04	341.84	794.87	2354.05	-303.66	503249.20	1690699.35	39	52	35.353	N	80	36	7.463	W
3182.00	91.41	341.83	794.21	2383.50	-313.32	503278.65	1690689.69	39	52	35.643	N	80	36	7.592	W
3214.00	90.81	341.66	793.59	2413.88	-323.34	503309.03	1690679.67	39	52	35.942	N	80	36	7.725	W
3246.00	91.07	340.53	793.06	2444.15	-333.71	503339.30	1690669.30	39	52	36.240	N	80	36	7.863	W
3277.00	89.53	339.42	792.90	2473.27	-344.33	503368.42	1690658.68	39	52	36.527	N	80	36	8.003	W
3309.00	88.72	338.35	793.39	2503.12	-355.85	503398.27	1690647.16	39	52	36.820	N	80	36	8.156	W
3340.00	88.66	337.75	793.82	2531.87	-367.44	503427.02	1690635.57	39	52	37.103	N	80	36	8.309	W
3372.00	88.83	337.84	794.25	2561.50	-379.53	503456.65	1690623.48	39	52	37.394	N	80	36	8.469	W
3404.00	88.82	337.69	794.90	2591.11	-391.64	503486.26	1690611.37	39	52	37.685	N	80	36	8.629	W
3435.00	89.13	338.46	795.46	2619.86	-403.21	503515.01	1690599.80	39	52	37.968	N	80	36	8.782	W
3467.00	89.03	338.24	795.97	2649.60	-415.01	503544.75	1690588.00	39	52	38.261	N	80	36	8.938	W
3498.00	89.56	338.70	796.35	2678.44	-426.39	503573.59	1690576.62	39	52	38.544	N	80	36	9.088	W
3530.00	90.00	338.88	796.48	2708.27	-437.97	503603.42	1690565.04	39	52	38.838	N	80	36	9.241	W
3561.00	90.77	340.06	796.27	2737.30	-448.84	503632.45	1690554.17	39	52	39.123	N	80	36	9.385	W
3592.00	92.08	341.31	795.50	2766.54	-459.09	503661.69	1690543.92	39	52	39.411	N	80	36	9.521	W
3624.00	91.04	341.24	794.62	2796.84	-469.36	503691.99	1690533.65	39	52	39.709	N	80	36	9.658	W
3655.00	90.37	341.84	794.24	2826.24	-479.17	503721.39	1690523.84	39	52	39.998	N	80	36	9.788	W
3687.00	91.58	343.22	793.70	2856.76	-488.78	503751.91	1690514.23	39	52	40.299	N	80	36	9.916	W
3719.00	90.94	343.57	793.00	2887.42	-497.92	503782.57	1690505.09	39	52	40.601	N	80	36	10.039	W
3751.00	89.63	343.89	792.84	2918.13	-506.88	503813.28	1690496.13	39	52	40.903	N	80	36	10.158	W
3783.00	89.06	344.43	793.20	2948.92	-515.62	503844.07	1690487.39	39	52	41.206	N	80	36	10.275	W
3814.00	90.07	344.56	793.44	2978.79	-523.90	503873.94	1690479.11	39	52	41.501	N	80	36	10.386	W
3846.00	88.49	344.60	793.84	3009.63	-532.41	503904.78	1690470.60	39	52	41.804	N	80	36	10.500	W
3877.00	87.85	344.16	794.83	3039.47	-540.75	503934.62	1690462.26	39	52	42.098	N	80	36	10.612	W
3909.00	89.60	343.58	795.54	3070.20	-549.64	503965.35	1690453.37	39	52	42.401	N	80	36	10.731	W
3941.00	90.74	344.38	795.45	3100.96	-558.47	503996.11	1690444.54	39	52	42.704	N	80	36	10.849	W
3972.00	90.61	344.01	795.08	3130.78	-566.92	504025.93	1690436.09	39	52	42.997	N	80	36	10.962	W
4004.00	90.84	343.51	794.68	3161.50	-575.86	504056.65	1690427.15	39	52	43.300	N	80	36	11.081	W
4035.00	89.90	343.27	794.48	3191.21	-584.73	504086.36	1690418.28	39	52	43.592	N	80	36	11.200	W
4067.00	90.13	343.67	794.47	3221.89	-593.83	504117.04	1690409.18	39	52	43.894	N	80	36	11.321	W
4088.00	88.49	343.13	794.84	3251.59	-602.89	504148.74	1690400.32	39	52	44.187	N	80	36	11.440	W
4129.00	88.39	342.80	795.68	3281.22	-611.76	504176.37	1690391.25	39	52	44.479	N	80	36	11.561	W
4162.00	87.68	342.12	796.82	3312.67	-621.70	504207.82	1690381.31	39	52	44.788	N	80	36	11.693	W



Scientific Drilling Survey Report - Geographic

Company: CNX Gas Company, LLC
 Field: MARSHALL COUNTY, WV
 Site: MC 44 WELL LOCATION
 Well: ACCESS MC44
 Wellpath: WEST LEG 1

Date: 5/2/2008 Time: 13:22:36 Page: 4
 Co-ordinate(NE) Reference: Well: ACCESS MC44, Grid North
 Vertical (TVD) Reference: GL 1224.5 +8 1232.5
 Section (VS) Reference: Well (0.00N,0.00E,341.63Azi)
 Survey Calculation Method: Minimum Curvature Db: Sybase

Survey

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	← Latitude →		← Longitude →					
								Deg	Min	Sec	Deg	Min	Sec		
4193.00	88.69	341.49	797.80	3342.10	-831.38	504237.25	1690371.63	39	52	45.078	N	80	36	11.822	W
4225.00	89.66	342.32	798.26	3372.52	-641.32	504267.67	1690381.69	39	52	45.377	N	80	36	11.854	W
4256.00	90.84	342.33	798.12	3402.05	-650.73	504297.20	1690352.28	39	52	45.668	N	80	36	12.080	W
4288.00	90.94	342.45	797.63	3432.55	-660.41	504327.70	1690342.60	39	52	45.968	N	80	36	12.209	W
4320.00	91.07	343.51	797.07	3463.14	-669.77	504358.29	1690333.24	39	52	46.269	N	80	36	12.333	W
4351.00	89.97	342.49	796.78	3492.79	-678.84	504387.94	1690324.17	39	52	46.561	N	80	36	12.454	W
4383.00	89.93	342.52	796.81	3523.31	-688.46	504418.46	1690314.55	39	52	46.862	N	80	36	12.583	W
4416.00	90.10	343.31	796.80	3554.85	-698.15	504450.00	1690304.86	39	52	47.172	N	80	36	12.712	W
4447.00	91.24	344.25	796.44	3584.61	-706.81	504479.76	1690296.20	39	52	47.465	N	80	36	12.828	W
4479.00	91.18	344.34	795.77	3615.41	-715.47	504510.56	1690287.54	39	52	47.769	N	80	36	12.944	W
4511.00	90.98	343.55	795.16	3646.16	-724.32	504541.31	1690278.69	39	52	48.071	N	80	36	13.062	W
4542.00	89.66	342.28	794.89	3675.79	-733.42	504570.94	1690269.59	39	52	48.363	N	80	36	13.183	W
4574.00	89.93	342.45	795.10	3706.28	-743.12	504601.43	1690259.89	39	52	48.663	N	80	36	13.313	W
4605.00	80.60	341.79	794.96	3735.78	-752.64	504630.93	1690250.37	39	52	48.954	N	80	36	13.439	W
4637.00	89.23	340.35	795.01	3766.05	-763.02	504661.20	1690239.99	39	52	49.252	N	80	36	13.577	W
4668.00	90.17	340.83	795.17	3795.29	-773.32	504690.44	1690229.69	39	52	49.539	N	80	36	13.714	W
4700.00	91.18	341.10	794.79	3825.54	-783.75	504720.69	1690219.26	39	52	49.837	N	80	36	13.853	W
4732.00	90.10	341.85	794.44	3855.89	-793.89	504751.04	1690209.12	39	52	50.136	N	80	36	13.987	W
4763.00	90.50	342.41	794.27	3885.40	-803.38	504780.55	1690199.63	39	52	50.426	N	80	36	14.114	W
4795.00	90.37	341.72	794.03	3915.84	-813.23	504810.99	1690189.78	39	52	50.726	N	80	36	14.245	W
4826.00	89.33	340.34	794.11	3945.16	-823.31	504840.31	1690179.70	39	52	51.014	N	80	36	14.379	W
4858.00	90.03	340.63	794.29	3975.32	-834.00	504870.47	1690169.01	39	52	51.311	N	80	36	14.521	W
4889.00	90.40	340.99	794.17	4004.60	-844.19	504899.75	1690158.82	39	52	51.599	N	80	36	14.656	W
4921.00	88.76	341.71	794.41	4034.91	-854.42	504930.06	1690148.59	39	52	51.898	N	80	36	14.792	W
4952.00	88.39	341.93	795.18	4064.36	-864.09	504959.51	1690138.92	39	52	52.187	N	80	36	14.921	W
4984.00	88.42	341.34	796.07	4094.71	-874.17	504989.86	1690128.84	39	52	52.486	N	80	36	15.055	W
5015.00	88.72	342.74	796.84	4124.19	-883.73	505019.34	1690119.28	39	52	52.776	N	80	36	15.182	W
5047.00	88.86	341.58	797.52	4154.65	-893.53	505049.80	1690109.48	39	52	53.076	N	80	36	15.312	W
5079.00	89.39	342.18	798.01	4185.06	-903.48	505080.21	1690099.53	39	52	53.375	N	80	36	15.445	W
5110.00	90.03	342.53	798.16	4214.60	-912.87	505109.75	1690090.14	39	52	53.666	N	80	36	15.570	W
5142.00	90.03	343.00	798.15	4245.16	-922.36	505140.31	1690080.65	39	52	53.967	N	80	36	15.697	W
5173.00	90.67	344.05	797.96	4274.89	-931.15	505170.04	1690071.86	39	52	54.260	N	80	36	15.814	W
5204.00	90.50	343.08	797.64	4304.62	-939.92	505199.77	1690063.09	39	52	54.553	N	80	36	15.931	W
5234.00	89.70	342.32	797.59	4333.26	-948.84	505228.41	1690054.17	39	52	54.834	N	80	36	16.050	W
5264.00	90.27	342.21	797.60	4361.84	-957.98	505256.99	1690045.03	39	52	55.116	N	80	36	16.172	W
5296.00	91.07	341.18	797.22	4392.21	-968.03	505287.36	1690034.98	39	52	55.415	N	80	36	16.306	W
5328.00	91.48	341.44	796.51	4422.52	-978.28	505317.67	1690024.73	39	52	55.713	N	80	36	16.442	W
5359.00	91.85	341.71	795.61	4451.92	-988.07	505347.07	1690014.94	39	52	56.002	N	80	36	16.572	W
5391.00	88.87	342.61	795.13	4482.37	-997.87	505377.52	1690005.14	39	52	56.302	N	80	36	16.703	W
5423.00	89.80	343.57	795.22	4512.99	-1007.18	505408.14	1689995.83	39	52	56.604	N	80	36	16.827	W
5455.00	91.11	343.28	794.97	4543.66	-1016.31	505438.81	1689986.70	39	52	56.906	N	80	36	16.949	W
5486.00	90.00	342.65	794.67	4573.30	-1025.39	505468.45	1689977.62	39	52	57.197	N	80	36	17.070	W
5527.00	90.00	342.65	794.67	4612.43	-1037.62	505507.58	1689965.39	39	52	57.583	N	80	36	17.233	W

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FIGURE 1

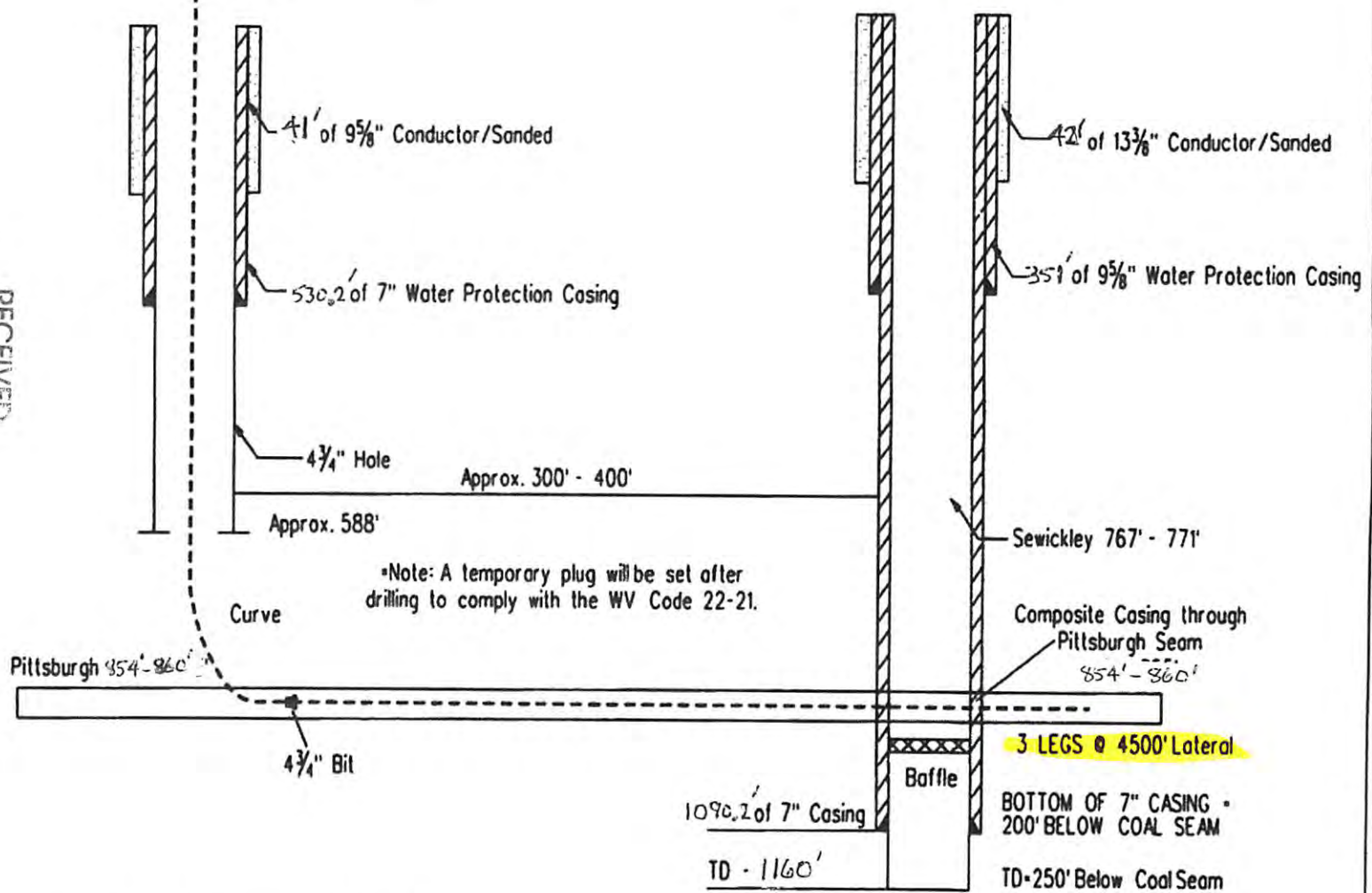
CNX GAS COMPANY LLC

(AS BUILT)

INFO FROM WR35

(47-051-01099C)
ACCESS MC44A

(47-051-01098C)
PRODUCTION MC44



Note: A temporary plug will be set after drilling to comply with the WV Code 22-21.

NOT TO SCALE

WV Department of Environmental Protection

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NOTE: Additional casing string may be used depending on hole conditions

4705101098C