

Commonwealth of Virginia

Department of Mines, Minerals, and Energy

Division of Gas and Oil

P.O. Drawer 159, Lebanon, VA 24266

Telephone: (276) 415-9700

Tracking Number: 2478

CNX Gas Company LLC Company:

File Number: RU-0597

Operations Name: CBM BK109A W/ PL

Operation Type: Coalbed/Pipeline

Drilling Report Type: Original

DRILLING REPORT (DGO-GO-14)

1. Drilling Data

Date drilling commenced: Drilling Contractor: NOAH HORN 12/8/2009

Date drilling completed: 12/11/2009 Rig Type: Rotary & Cable

Driller's Total Depth (feet): 2500.00

Log Total Depth (feet): 2471.68 Coal Seam at Total **Pocahontas**

Depth:

2. Final Location Plat (as required by 4 VAC25-150-360.C.)

Permitted State Plane X: Final Plat State Plane X: 10464811.9300 10464815.1900

Permitted State Plane Y: 3563622.3300 Final Plat State Plane Y: 3563619.2800

Plat Previously Submitted Or... F

List of Attached Items:

Form DGO-GO-14-E

Page 1 of 4

Rev. 04/2009

Description	FileName
PLAT	BK109A Plat.pdf

3. Geological Data

Fresh Water At:

	•	
Depth (in feet)	Rate	Unit of Measure

Salt Water At:

Depth (in feet)	Rate	Unit of Measure
2440	damp	

Coal Seams:

List of Attached Items:

Description	FileName
EXHIBIT A	BK109A Exh A.pdf

Gas and Oil Shows:

List of Attached Items:

Description	FileName
GAS SHOW	BK109A Gas Show.xlsx

4. Electric Logs (As required by 4VAC25-150-280.A)

List all logs run: CALIPER GAMMA DENSITY TEMP DEVIATION

 $\label{eq:disclose} \mbox{Did logs disclose vertical locations of a coal}$

seam?

R

5. Survery Results (As required by 4VAC25-150-280.B.2)

List of Attached Items:

Description	FileName
DEVIATION	BK109A Dev.pdf

Form DGO-GO-14-E

Page 2 of 4

Rev. 04/2009

6. Casing and Tubing Program

List of Attached Items:

Description	FileName
CASING	BK109A Casing.xlsx

7. Remarks

Use this space to note any conditions or occurrences, such as lost circulation, fishing jobs, junk left in hole, sidetracks, squeeze jobs, etc., not shown above. Include data and depth of condition/occurence.

8. C)ril	lers	Log
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Compiled By: NOAH HORN

List of Attached Items:

Description	FileName
DRILL DATA	BK109A Drill Data.pdf

9. Comments

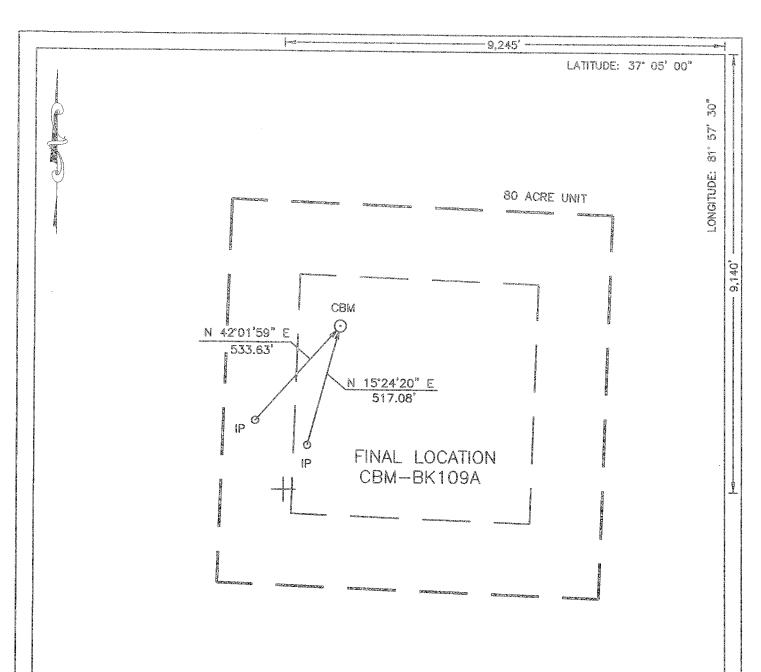
Approved [5/19/2010, cbl]

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	v		ш	ш	a	·		,

Permitee: CNX Gas Company LLC Date: 4/6/2010

Signed By: Jerry Boothe Title: Manager

INTERNAL USE ONLY				
Submit Date:	4/6/2010			
Status:	A	Date:	5/19/2010	
Final PDF Date:	5/26/2010			



NOTE: THIS VELL WAS DRILLED WITHIN 10 FT. OF PROPOSED LOCATION ACCORDING TO 4 VAC 25-150-290 AND 45.1-361.30

WELL LOCA	TION PLAT	BK109AFNL PGP40/60-755/35
0 0 V 0 0 110	I Name or Number	CBM-BK109A
Tract No. GENT ROYALTY PARTNERS, LLC ET AL		Scale: 1" = 400'
County RUSSELL District NEW GARDEN	Quadrangle _	HONAKER Deba 12-11-09
Elevation 2160.51' Well Elevation Determined E	ly Trig. Levels From	CONSOL Inc. abenchworks O
Well Coordinates N 282,741.37 E 981,824.81	(Virginia State	Plane - South Zone - NAD 27
Well Coordinates N 3.563.619.28 E 10.464,811.93	(Virginia State	The Company of the Co
This plat is a new plat; an updated	•	: for a find PlataTCHELLX
Denotes the location of a well on United States T 24,000, latitude and longitude lines being represen	opographic Maps, sc ted by border lines	ale 1 to as shown. Lic. No. 002289
Form DGO-GO-7		3 12/16/09 \$
Rev. 9/91 Licensed Professional Engine	er or Licensed Land	Surveyor (Affix Seal)
		Markey working

BK109A EXHIBIT A

HOLE NO = 09 CBM BK109A

STATE = VIRGINIA COUNTY = BUCHANAN

S ELEV = 2161

N-COOR =	282741	E-COOR =	981825		
STRATA ELEV (TOP) 2082.51 2081.51		DEPTH TO 79.00 97.60	STRATA THICK 1.00 18.60	SEAM CODE COAL	COMMENTS
2062.91	97.60	98.00	. 40	COAL	
2062.51 1959.41 1956.71	98.00 201.10 203.80	201.10 203.80 243.20	103.10 2.70 39.40	KN2	WITHIN 319 FT OF OLD WORKS.
1917.31	243.20	243.30	. 10	COAL	or ord works.
1917.21 1836.81	243.30 323.70	323.70 323.90	80.40	AL1	
1836.61 1778.21 1776.51	323.90 382.30	382.30 384.00 479.10	58.40 1.70	AL2	
1681.41 1680.11	384.00 479.10 480.40	480.40 497.80	95.10 1.30 17.40	RA2	
1662.71	497.80 498.10	498.10 527.00	.30 28.90	RA3	
1633.51 1632.71	527.00 527.80	527.80 527.80 633.00	.80 105.20	COAL	
1527.51	633.00	634.90	1.90	JB1	
1525.61 1525.41	634.90 635.10	635.10 635.20	. 20	COAL	
1525.31 1512.51	635.20 648.00	648.00 649.10	12.80 1.10	3B3	
1511.41 1365.51	649.10 795.00	795.00 796.00	145.90 1.00	TI	
1364.51 1358.31	796.00 802.20	802.20 802.30	6.20	TI	
1358.21 1249.11 1248.51	911.40	911.40 912.00	109.10 .60	US1	
1248.01	912.00 912.50	912.50 912.90	.50 .40	US1	
1247.61 1047.51	912.90 1113.00 1113.70	1113.00 1113.70 1114.40	200.10 .70 .70	GC1	
1046.81 1046.11 1044.81	1114.40 1115.70	1115.70 1232.20	1.30 116.50	GC2	
928.31	1232.20 1232.90	1232.90 1249.30	.70 16.40	*SE1	
927.61 911.21 910.31	1249.30	1250.20	. 90	*SE2	
896.81	1250.20 1263.70	1263.70 1263.80	13.50 .10	*SE3	
896.71 838.81	1263.80 1321.70	1321.70 1321.90	57.90 .20	*COAL	
838.61 837.81	1321.90 1322.70	1322.70 1322.90 1378.90	.80 .20	*COAL	
837.61 781.61	1322.90 1378.90	1381.80	56.00 2.90	*LS3	
778.71 730.91	1381.80	1429.60 1431.00	47.80 1.40	*UH1	
729.51	1431.00	1438.80	7.80	Dage 1	

Page 1

may may vig vig vig 2 shapin 2 s sha	4.00 FO	· · ·	BK109A
721.71 1438.80 721.01 1439.50	1450.00	.70 10.50	*UH2
709.51 1451.00	1451.00 1486.90	1.00 35. <u>9</u> 0	*UH3
673.61 1486.90 671.91 1488.60		1.70 82.50	*MH1
589.41 1571.10 587.91 1572.60	1586.70	1.50 14.10	*MH2
573.81 1586.70 572.81 1587.70	1592.00	1.00 4.30	*P11
568.51 1592.00 567.31 1593.20	1619.00	1.20 25.80	*113
541.51 1619.00 540.11 1620.40	1664.00	1.40 43.60	*P10
495.01 1665.50	1665.90	1.50 .40	*LH3
494.61 1665.90 494.71 1665.80	1667.40	10 1.60	*LH3
493.11 1667.40 492.51 1668.00	1668.40	. 60 . 40	*LH3
492.11 1668.40 492.01 1668.50	1704.10	.10 35.60	*COAL
456.41 1704.10 454.61 1705.90		1.80 50.10	*P91
404.51 1756.00 403.61 1756.90	1756.90	.90 .30	*P81
403.31 1757.20 402.81 1757.70	1757.70 1758.60	. 50 . 90	*COAL
401.91 1758.60 401.51 1759.00	1759.00	.40 17.00	*P82
384.51 1776.00 383.51 1777.00	1777.00	1.00 32.30	*COAL
351.21 1809.30 350.51 1810.00	1810.00	.70 1.90	*COAL
348.61 1811.90 348.31 1812.20	1812.20	.30 8.60	*COAL
339.71 1820.80 339.41 1821.10	1821.10	.30 84.90	*COAL
254.51 1906.00 252.41 1908.10	1908.10	2.10 46.00	*P72
206.41 1954.10 205.61 1954.90	1954.90	.80 8.20	*COAL
197.41 1963.10 196.61 1963.90	1963.90	.80 66.80	*COAL
129.81 2030.70 129.31 2031.20	2031.20	.50 79.20	*COAL
50.11 2110.40	2111.10	.70 71.70	*P41
-22.29 2182.80	2182.90	.10 31.50	*COAL
-53.89 2214.40	2214.90	. 50	*COAL
-54.39 2214.90 -81.49 2242.00	2242.90	27.10 .90	*P32
-82.39 2242.90 -82.59 2243.10	2243.80	.20 .70	*P33
-83.29 2243.80 -123.89 2284.40	2285.10	40.60 .70	*345
-124.59 2285.10 -217.89 2378.40	2378.50	93.30 .10	*COAL
-217.99 2378.50 -281.79 2442.30	2442.70	63.80 .40	*COAL
-282.19 2442.70	2500.00	57.30	BOTTOM HOLE Page 2

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BK109A

COAL SEAMS TO BE STIMULATED WERE ADJUSTED DUE TO LEWIS CREEK AND WATER WELL BK109-5.

GAMMA-CALIPER LOG FROM 0 TO 221.00

GAMMA-DENSITY LOG FROM 221.00 TO TD.

NOTE: FOOTAGE NOT ADJUSTED FOR DEVIATION

Well: **BK109A**

Oil & Gas Show

Formation	Тор	Bottom	Thickness	IPF	Pressure	Hours
				(MCFD/BOPD)		Tested
Lee/Norton	1378.9	1705.9	327.0			
Pocahontas	1776.0	1908.1	132.1			
Total IPF				NOT TAKEN		

PLAN VIEW COMPU-LOG DEVIATION

CENT: CONSOL ENERGY

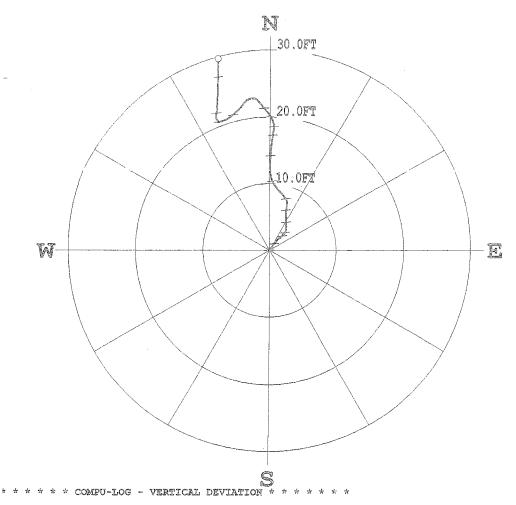
TATION:

LE ID: CNK-09-BK-109A TE OF LOG: 12/11/09 DBE: 9136CH 1244 MAG DECL: -6.9

SCALE: 10 FT/IN

TRUE DEPTH: 2470.58 FT

AZIMUTH: 344.7
DISTANCE: 29.7 FT
+ = 150 FT INCR
= BOTTOM OF HOLE



ILIENT	: CONSOL	ENERGY	HOLE ID.	:	CNX-09-BK-109
FIELD OFFICE	: BLUEFIE	ELD	DATE OF LO	G:	12/11/09
DATA FROM	:		Probe	:	9136CH , 1244
CAG. DECL.	: -6.90	00	DEPTH UNIT	S :	FEET
log: CNX-09-1	K-109A_12	2-11-09_13-52	_9136CH10_0	.00_	2471.10_DEVI.log

JE DEPTH	TRUE DEPTH	NORTH DEV.	EAST DEV.	DISTANCE	AZIMUTH	sang :	SANGB
0.50	0.50	0.00	0.00	0.0	0.0	0.0	0.0
10.00	10.00	-0.00	-0.00	0.0	229.0	0.0	273.9
20.00	20.00	0.00	-0.01	0.0	307.7	0.2	318.2
30.00	30.00	0.00	0.02	0.0	83.4	0.7	47.1
40.00	40.00	0.04	0.08	0.1	64.5	0.4	21.2
50.00	50.00	0.10	0.11	0.2	45.8	0.2	11.2
60.00	60.00	0.16	0.13	0.2	38.5	0.5	23.7
70.00	70.00	0.25	0.17	0.3	35.3	0.4	29.9
80.00	80.00	0.32	0.24	0.4	36.5	0.4	43.5
90.00	90.00	0.41	0.31	0.5	37.7	0.7	36.3
100.00	100.00	0.51	0.39	0.6	37.1	0.6	31.0
L20.00	110.00	0.61	0.45	0.8	36.4	0.8	27.9
120.00	119.99	0.70	0.51	0.9	35.9	0.5	23.5

DATA FROM . FROM

LOG: CNX-	09-BK-109A 1	2-11-09_13-5		0_0.00_247		.log	
SLE DEPTH	TRUE DEPTH	NORTH DEV.	EAST DEV.	DISTANCE	AZIMUTH	sang s	ange
0.50	0.50	0.00	0.00	0.0	0.0	0.0	0.0
10.00 20.00	10.00 20.00	~0.00 0.00	-0.00 -0.01	0.0	229.0 307.7	0.0 0.2	273.9 318.2
30.00	30.00	0.00		0.0	83.4	0.7	47.1
40.00	40.00	0.04	0.08	0.1	64.5		21.2
50.00	50.00	0.10	0.11	0.2	45.8		
60.00 70.00	60.00 70.00	0.16 0.25	0.13 0.17	0.2 0.3	38.5 35.3	0.5 0.4	23.7 29.9
80.00	80.00	0.32	0.24	0.4	36.5		43.5
90.00	90.00	0.41	0.32	0.5	37.7		36.3
100.00	100.00	0.51	0.39			0.6	31.0
110.00	110.00	0.51	0.45	0.8			27.9
120.00 130.00	119.99 129.99	0.70 0.79	0.51 0.57	0.9	35.9 36.0	0.5 0.8	23.5 42.5
140.00	139.99	0.90	0.67	1.1	36.7	0.9	33.5
150.00	149.99	0.99	0.73	1.2	36.5	0.6	37.0
160.00	159.99	1.10	0.81	1.4	36.1	1.0	26.4
170.00 180.00	169.99 179.99	1.21 1.29	0.89 0.97	1.5 1.6	3 6.4 36.8		41.1 44.5
190.00	189.99	1.33	1.01	1.7	37.2	0.5	45.6
200.00	199.99	1.43	1.10	1.8	37.5		
210.00 220.00	209.99 219.99	1.51 1.61	1.17 1.24	1.9 2.0	37.7 37.7		37.8 29.0
230.00	229.99	1.63	1.30	2.1	38.6		126.5
240.00	239.99	1.67	1.38	2.2			52.7
250.00	249.99	1.76	1.40	2.2	39.4 38.5	0.7	
260.00 270.00	259.99 269.98	1.81 1.86	1.49 1.60	2.3 2.5	39.4 40.8		61.1 92.3
280.00	279.98	1.93	1.70	2.6	41.3		59.9
290.00	289.98	2.04	1.81	2.7	41.6	0.9	57.5
300.00	299.98	2.12	1.93	2.9	42.4		53.9
310.00 320.00	309.98 319.98	2.19 2.25	2.04 2.14	3.0 3.1	42.9 43.6	0.7 0.7	72.2 33.5
330.00	329.98	2.33	2.07	3.1	41.6 40.8		0.4
340.00	339.98	2.36	2.04	3.1			
350,00 360.00	349.98 359.98	2.36 2.37	2.02	3.1 3.1	40.6 40.8	0.1 0.4	186.1 62.8
370.00	369.98	2.40	2.12	3.2	41.5	0.4	
380.00	379.98	2.42	2.19	3.3	42.1	0.5	
390.00	389.98	2.44	2.12	3.2	40.9	0.1	
400.00 410.00	399.98 409.98	2.45 2.44	2.10 2.12	3.2 3.2	40.6 41.0	0.3 0.4	53.3 68.6
420.00	419.98	2.44	2.19	3.3	41.8	0.4	90.2
430.00	429.98	2.45	2.25	3.3	42.5	0.4	74.2
440.00	439.98	2.51	2.29	3.4	42.4	0.7	15.8
450.00 460.00	449.98 459.98	2.61 2.71	2.34 2.38	3.5 3.6	41.9 41.4	0.6 0.7	25.5 18.3
470.00	469.98	2.82	2.43	3.7	40.8	0.7	26.4
680.00	479.97	2.93	2.45	3.8	39.9	0.6	16.0
190.00	489.97	3.05	2.48	3.9	39.1	0.8	10.3
500.00 510.00	499.97 509.97	3.13 3.22	2.49 2.51	4.0 4.1	38.5 38.0	0.7 0.5	177.0 1.8
520.00	519.97	3.33	2.51	4.2	37.1	0.7	0.4
530.00	529.97	3.43	2.52	4.3	36.2	0.7	14.5
540.00 550.00	539.97 549.97	3.54 3.64	2.52 2.51	4.3 4.4	35.5 34.6	0.8 0.6	4.6
560.00	559.97	3.72	2.48	4.5	33.7	0.7	329.8
570.00	569.97	3.78	2.52	4.5	33.7	0.5	319.9
580.00	579.97	3.89	2.49	4.6	32.7	0.8	325.5
590.00 500.00	589.97 599.97	4.01 4.14	2.48 2.46	4.7 4.8	31.7 30.7	0.8 0.8	358.1 355.9
510.00	609.96	4.23	2.44	4.9	30.0	1.0	37.1
520.00	619.96	4.32	2.48	5.0	29.8	0.8	352.4
530.00 540.00	629.96	4.45 4.57	2.46 2.46	5.1	29.0	0.7	353.1
550.00	639.96 649.96	4.64	2.49	5.2 5.3	28.3 28.2	1.0 0.8	8.9 87.4
360.00	659.96	4.71	2.51	5.3	28.0	0.9	0.4
370.00	669.96	4.83	2.53	5.5	27.6	0.7	343.0
380.00 390.00	679.96 689.96	4.96 5.11	2.49 2.48	5.5 5.7	26.6 25.9	0.9 0.9	0.7 0.7
100.00	699.96	5.27	2.47	5.6	25.1	0.9	352.9
120.00	709.95	5.42	2.47	6.0	24.5	1.1	354.7
120.00	719.95	5.56	2.47	6.1	24.0	0.7	10.0
'30.00 '40.00	729.95 739.95	5.70 5.84	2.48 2.48	6.2 6.3	23.5	0.8 0.9	1.4 10.9
750.00	749.95	5.95	2.47	6.4	23.0 22.6	0.8	206.7
'60.00	759.95	5.97	2.54	6.5	23.1	0.7	24.4
70.00	769.95	6.07	2.54	6.6	22.7	8.0	345.8
'80.00 '90.00	779.95 789.95	6.19 6.29	2.55 2.57	6.7 6.8	22.4 22.2	0.8 0.6	37.3 309.2
100.00	799.95	6.38	2.62	6.9	22.3	0.8	47.5
120.00	809.95	6.50	2.58	7.0	21.7	0.9	342.9
120.00	819.94	6.62	2.62	7.1	21.6	0.6	354.8
:30.00 :40.00	829.94 839.94	5.73 6.81	2.59 2.66	7.2 7.3	21.1 21.3	0.9 0.6	24.2 32.1
150.00	849.94	6.93	2.63	7.4	20.8	0.9	335.5
160.00	859.94	7.06	2.65	7.5	20.6	0.7	3.5
170.00	869.94	7.20 7.35	2.64 2.61	7.7 7.8	20.1	0.9	321.7 337.8
180.00 190.00	879.94 889.94	7.50 7.50	2.55	7.9	19.6 18.8	0.8 1.1	337.6
00.00	899.94	7.66	2.49	8.1	18.0	1.3	334.4
920.00	909.93	7.78	2.34	8.1	16.8	1.0	336.3

1740.00 1750.00 1750.00 1750.00 1760.00 1790.00 1790.00 1810.00 1820.00 1820.00 1840.00 1850.00 1860.00 1870.00 1860.00 1870.0	1650.00 1660.00 1670.00 1680.00 1690.00 1710.00 1710.00 1720.00
1739.72 1749.72 17799.72 17799.72 17799.72 17899.72 17899.72 18199.70 18199.70 18199.70 18199.70 18199.66 18199.67 181999.66 19199.66 19199.66 19199.66 19199.66 19199.66 19199.66 19199.66 1919999.66 191999.66 191999.66 191999.66 191999.66 191999.66 191999.66 191999.66 191999.66 191999.66 191999.66 191999.66 191999.66 191999.66 1919999.66 1919999.66 1919999.66 191999999999999999999999999999999999	1689.74 1699.73 1709.73 1719.73 1729.73
222.663.79118668221.964.6221.9663.222.222.222.222.222.222.222.222.222.	21.27 21.48 21.64 21.83 22.03 22.18 22.25 22.25
1112355640864318656402116506110869852288379428091204038854280777.77.889982691204038854318918656444116506108698522883790091204038854380777.77.88998269120403885333333333333333333333333333333333	-0.87 -1.07 -1.22 -1.36 -1.54 -1.72 -1.67 -2.03
22.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2	21.3 21.5 21.7 21.1 22.2 22.5 22.6
35544.77395050594926038 554444.733950505949.6038 3555555555555553334468 344653333333333333333333333333333333333	357.6 3576.8 3566.4 3556.5 3555.2 3555.2
1.2 3147.3 4 1 2 1 4 7 5 3 4 3 5 5 6 7 7 7 5 8 8 3 5 5 6 7 7 1 1 1 1 1 2 2 2 2 3 3 5 5 6 7 7 1 1 1 1 1 2 2 2 2 3 3 3 5 3 4 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	1.6 320.4 1.6 309.3 1.8 350.8 1.6 317.5 1.5 315.2 1.3 271.3 1.3 338.4 1.3 312.7 1.2 316.3

Well: **BK109A**

Casing & Tubing Program

	Casing	Casing	Hole	Cement	Ceme	nted	Date	Packers or
		Interval	Size	used in cu/ft	to Su	rface	Cemented	Bridge Plugs
					Yes	No		
Conductor	13 3/8"	31	15"			Х	12/9/09	
Surface	7"	210.75	8 7/8"	70.8	Χ		12/9/09	Basket@88
Water Protection	4 1/2"	2310.40	6 1/2"	346.45	Χ		12/11/09	
Coal Protection	4 1/2"	2310.40	6 1/2"	346.45	Χ		12/11/09	
Other Casing & Tubing								
Other Casing & Tubing								
Liners								

COMPANY CNX GAS CO LLC HOLE BK-109-A

RIG #:

294

LOCATION: GRISSOM CREEK RD

DATE STARTED: DATE COMPLETED: 12/11/2009

12/8/2009

ELECTRIC LOGGED: YES GROUTED: YES

DEPTH	THICKNESS		STRATA
FROM	TO	FT	DESCRIPTION, VOIDS ETC.
	0	17	17 OVERBURDEN
	17	31	14 OVERBURDEN
	31	60	29 SAND/SHALE
	60	90	30 SHALE/COAL/SHALE
	90	120	30 SAND/SHALE
	120	150	30 SHALE/COAL/SHALE
	150	180	30 SAND/SHALE
	180	210	30 SHALE/COAL/SHALE
	210	230	20 SAND/SHALE
	230	250	20 SAND/SHALE/COAL
	250	280	30 SAND/SHALE
	280	310	30 SAND/SHALE
	310	340	30 SAND/SHALE/COAL
	340	370	30 SAND/SHALE/COAL
	370	400	30 SAND/SHALE
	400	430	30 SAND/SHALE/COAL
	430	460	30 SAND/SHALE/COAL
	460	490	30 SAND/SHALE
	490	520	30 SAND/SHALE/COAL
	520	550	30 SAND/SHALE
	550	580	30 SAND/SHALE
	580	610	30 SAND/SHALE/COAL
	610	640	30 SAND/SHALE
	640	670	30 SAND/SHALE/COAL
	670	700	30 SAND/SHALE/COAL
	700	730	30 SAND/SHALE
	730	760	30 SAND/SHALE
	760	790	30 SAND/SHALE/COAL
	790	820	30 SAND/SHALE/COAL
	820	850	30 SAND/SHALE
	850	880	30 SAND/SHALE
	880	910	30 SAND/SHALE/COAL
	910	940	30 SAND/SHALE
	940	970	30 SAND/SHALE/COAL
	970	1000	30 SAND/SHALE/COAL
	1000	1030	30 SAND/SHALE/COAL
	1030	1060	30 SAND/SHALE
	1060	1090	30 SAND/SHALE
	1090	1120	30 SAND/SHALE/COAL

1120	1150	30 SAND/SHALE
1150	1180	30 SAND/SHALE
1180	1210	30 SAND/SHALE/COAL
1210	1240	30 SAND/SHALE
1240	1270	30 SAND/SHALE/COAL
1270	1300	30 SAND/SHALE
1300	1330	30 SAND/SHALE/COAL
1330	1360	30 SAND/SHALE
1360	1390	30 SAND/SHALE/COAL
1390	1420	30 SAND/SANDY SHALE
1420	1450	30 SAND/SANDY SHALE/COAL
1450	1480	30 SAND/SANDY SHALE/COAL
1480	1510	30 SAND/SANDY SHALE
1510	1540	30 SAND/SANDY SHALE/COAL
1540	1570	30 SAND/SANDY SHALE/COAL
1570	1600	30 SAND/SANDY SHALE
1600	1630	30 SAND/SANDY SHALE/COAL
1630	1660	30 SAND/SANDY SHALE/COAL
1660	1690	30 SAND/SANDY SHALE/COAL
1690	1720	30 SAND/SANDY SHALE/COAL
1720	1750	30 SAND/SANDY SHALE
1750	1780	30 SAND/SANDY SHALE/COAL
1780	1810	30 SAND/SANDY SHALE
1810	1840	30 SAND
1840	1870	30 SAND
1870	1900	30 SAND/SANDY SHALE
1900	1930	30 SAND
1930	1960	30 SAND
1960	1990	30 SAND
1990	2020	30 SAND
2020	2050	30 SAND/SANDY SHALE/COAL
2050	2080	30 SAND/SANDY SHALE
2080	2110	30 SAND/SANDY SHALE
2110	2140	30 SAND/SANDY SHALE/COAL
2140	2170	30 SAND/SANDY SHALE
2170	2200	30 SAND/SANDY SHALE
2200	2230	30 SAND/SANDY SHALE
2230	2260	30 SAND/SANDY SHALE/COAL
2260	2290	30 SAND/SANDY SHALE/COAL
2290	2320	30 SAND/SANDY SHALE/COAL
2320	2350	30 SAND/SANDY SHALE
2350	2380	30 SAND/SANDY SHALE
2380	2410	30 SAND/SHALE
2410	2440	30 SAND/SHALE
2440	2470	30 SAND/SHALE
2470	2500	30 SAND/SHALE/RED SHALE
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2500' TOTAL DEPTH 31' OF 13 3/8" CASING 210.75' OR 7" CASING 2320.40' OF 4 1/2" CASING