

Commonwealth of Virginia Department of Mines, Minerals, and Energy Division of Gas and Oil P.O. Box 1416; Abingdon, VA 24212 Telephone: (276) 676-5423

1011
CNX Gas Company LLC
3U-3648
CBM N23A W/PL
Coalbed/Pipeline
Driginal

# DRILLING REPORT (DGO-GO-14)

1. Drilling Data		
Date drilling commenced:	11/13/2007	Drilling Contractor: Noah Horn
Date drilling completed:	11/30/2007	Rig Type: 🔽 Rotary 🔲 Cable Tool
Driller's Total Depth (feet):	2,253	
Log Total Depth (feet):	2,265	Coal Seam At Total Depth Pocahontas

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

Permitted State Plane X 987,274	Final Plat State Plane X: 987,280
Permitted State Plane Y: 341,540	Final Plat State Plane Y: <u>341,542</u>

Plat Previously Submitted Or...

List of Attached Items:

Description	FileName
Plat	N23A Plat.pdf

# 3. Geological Data

Fresh Water At:

Depth (in feet) Rate	Unit of Measure
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Salt Water At:

Depth (in feet)	Rate	Unit of Measure
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#### Coal Seams

List of Attached Items:

Description	FileName
Exhibit A	N23A Exhibit A.pdf

Gas and Oil Shows

List of Attached Items:

Description	FileName
Show Gas	N23A Gas Show.xls

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

List all logs run: Caliper,Gamma,Density,Temp,Deviation

Did logs disclose vertical locations of a coal seam? 
Yes 
No

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

List of Attached Items:

Description	FileName
Deviation	N23A Deviation.pdf

# 6. Casing and Tubing Program

List of Attached Items:

Description	FileName
Casing	N23A Casing.xls

### 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.

7" / 13 3/8" Casing cemented on the backside to surface

#### 8. Drillers Log

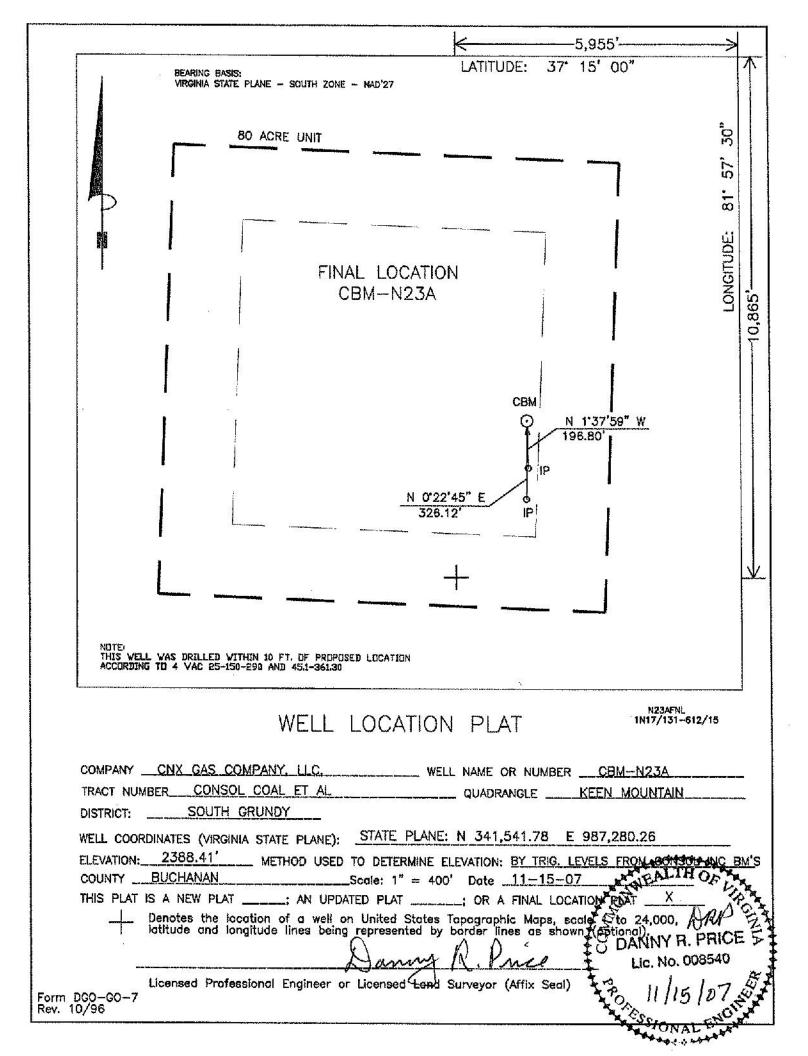
Compiled By: Noah Horn

List of Attached Items:

Description	FileName
Drill Data	N23A Drill Data.pdf

# 9. Comments

10. Signature					
Permitee: <u>CN</u> >	Gas Company LLC	Date:	1/12/2008		(Company)
Signed By: Lesl	ie K. Arrington		Manager		(Signature)
INTERNAL USE	ONLY				
	e: <u>1/12/2008</u>				
Submit Date			 Date:	1/17/2008	



#### Exhibit A

SEAM		DEPTH TO			REMARKS
	(FT)	(FT)			
		124.00 161.50			
	124.00	161.50	2264.41	37.50	
HGl	161.50	163,00	2226.91	1.50	
		281.80			
ÇOAL		282.20			
A	282.20	308.40	2106.21	26.20	
SD1	308.40	309.90	2080.01	1.50	
<b>ab</b> 0	309.90	340.80	2078.51	30.90	
SD2	340.80	$343.00\\348.50$	2047.61 2045.41	2.20 5.50	
SD3	343.00 348.50	348.50 349.20	2043,41	0.50	
202	348.50 349.20	426.10	2039.91 2039.91	76 00	
UB1		428.10			
<b>U</b> L		553.60			
COAL		554.10			
001121		709.90			
KN2	709.90	710.70	1678.51	0.80	
	710.70	907.70	1677.71	197.00	
RA1	907.70	909.40	1480.71	1.70	
	909.40	710.70 907.70 909.40 956.90	1479.01	47.50	
RA2	956.90	959.60	1431.51	2.70	
		965.80	1428.81	6.20	
ra3	965.80	968.50			
		1081.90		113.40	
JB2	1081.90	1083.60		1.70	
	1083.60	1132.90	1304.81	49.30	
T1	1122 00	1122 20	1255.51	0.30	
	1133.20	1287.10	1255.21	153.90 0.80	
US1	1287.10	1287.90	1101.31	0.80	
GC2		1452.50 1453.90	1100.51 935.91	1.40	
662				80.00	
SE2	1433.90	1533.90 1535.00	934.51 854.51	1.10	
002	1535.00	1568.20	853.41	33.20	
LS1	1568.20	1569.70	820.21	1.50	
1.110	1569.70	1634.20	818.71	64.50	
UH1	1634.20	1634.90	754.21	0.70	
	1634.90	1732.20	753.51	97.30	
MH1	1732.20	1733.10	656.21	0.90	
	1733.10	1822.90	655.31	89.80	
P11	1822.90	1824.90	565.51	2.00	
	1824.90	1849.10	563.51	24.20	
P10	1849.10	1850.00	539.31	0.90	
	1850.00	1907.10	538.41	57.10	
LH3	1907.10	1908.90	481.31	1.80	
	1908.90	1968.40	479.51	59.50	
P91	1968.40	1969.80	420.01	1.40	
	1969.80	1970.80	418.61	1.00	

*P92	1970.80	1971.10	417.61	0.30
	1971.10	1972.00	417.31	0.90
*P93	1972.00	1972.80	416.41	0.80
	1972.80	2208.50	415.61	235.70
*COAL	2208.50	2209.30	179.91	0.60
	2209.10	2246.10	179.31	37.00
*P52	2246.10	2247.10	142.31	1.00
	2247.10	2264.92	141.31	17.82

COAL SEAMS TO BE STIMULATED WERE ADJUSTED DUE TO TOPOGRAPHY. GAMMA-CALIPER LOG FROM 0 TO 1002.00 GAMMA-DENSITY LOG FROM 1002.00 TO TD. NOTE: FOOTAGE NOT ADJUSTED FOR DEVIATION FILE: H:\JIMHAZ~1\PROJECTS\GAS\N23A.CMP DATE: 12/19/07

Well: N23A

Formation	Тор	Bottom	Thickness	IPF	Pressure	Hours
				(MCFD/BOPD)		Tested
Lee/Norton	1453	1971	518			
Pocahontas	2246	2247	1			
Total IPF				Not Taken		

# **Oil & Gas Show**

#### COMPU-LOG DEVIATION

SCAL3: 25 FT/18 CLIEWT: Consol Energy TRUE DEPTH: 2287.56 FT LOCATION: ASIMUTE: 21.5 HOLE ID: 07-CHX-N-23-A DISTRUCE: 18.2 FT DATE OF LOG: 11/29/07 + = 300 FT INCR PROBE: 9136CA 962 MAG DECL: -6.9 ○ = SOTTON OF BOLE N \_75.0PT SC.DFT 25.0F9 385 Έ W \* COMPU-LOG - VERTICAL DEVIATION \* \* \* \* \* \* 4 4 ÷k• : 07-CNX-N-23-A HOLE ID: : Consol Energy CLIENT DATE OF LOG : 11/29/07 FIELD OFFICE : PROBE : 9136CA , 962 DATA FROM . : -6,900 DEPTH UNITS : FEET MAG. DECL. LOG: 07-CNX-N-23-A\_11-29-07\_09-50\_9136CA\_.02\_-0.02\_2258.41\_DEVI.log CABLE DEPTH TRUE DEPTH NORTH DEV. EAST DEV. DISTANCE AZIMUTH SANG SANGB 49.98 0.13-0.45 0.5 285.5 1.561.4 50.0 1.3 129.2 0.09 -0.230,2 288.7 60.0 59.98 1.5 169.2 -0.16-0.17 0.2 226.9 69.98 70.0 1.7 225.1 80.0 79.97 -0.41-0.28 0.5 214.4 1.7 226.5 ~0.64 -0.460.8 215.9 90.0 89.97 1.6 207.5 218.3 -0.84-0.671.1 100.0 99.96 -0.93 223.1 1.9 266.5 109.96 -0.991.4 110.0 -1.23 230.9 1.8 271.0 119.95 -1.001.8 120.0 -1.52 1.8 238.8 1.6 310.0 -0.92 130.0 129.95 1,8 1.4 340.8 -0.71 -1.65 246.8 139.95 140.0 1.9 1.3 18.6 -1.72264.4 149.94 -0.48150.0 1.7 -0.29260.0 1.1 34.0 159,94 -1.64160.0 84.7 262.8 1.3 -0.19~1.47 1.5 170.0 169.94 1,4 136.2 ~0.23 -1.26 1.3 259.7 180.0 179.94 1.5 173.4 -1.171.3 248.5 -0.46190.0 189.93 -1.251.4 240.1 1.6 188.6 -0.72200.0 199.93 1.8 268.6 -0.91-1.43 1.7 237.5 210.0 209.92 2.0 240.1 1.8 294.9 -1.71219,92 +0.98 220.0 1.6 337.9 -0.81 -1.95 2.1 247.4 229.92 230.0 1.5 356.9 -0.57 ~2.09 2.2 254.8 239.91 240.0 1.7 341.5 -2.112.1 261.3 249.91 ~0.32 250.0 39.1 1.2 -0.13-2.042.0 266.4 260.0 259,91 1.6 188.2 -1.88 1.9 266.9 270.0 269.90 -0.101.6 192.3 260.1 -0.32-1.871.9 279.90 280.0 1.9 234.6 2.0 253.6 -0.57 -1.95289.90 290.0 2.2212.4 1.7 300.0 299.89 -0.80-2.10 249.1 -0.96-2.55 247.0 1. i 251.1 309.89 310.0 1.8 282.1 -1.00~2.65 2.8 249.3 320.0 319.88 1.8 329.2 253.8 330.0 329,88 -0.86 -2.95 3.1

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82.6

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3.0

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2.8

2.8

3.0

-2.96

-2.93

-2.76

~2.73

-2.90

-0.62

-0.38

-0.28

-0.62

-0.64

339.87

349.87

359.87

369.87

379.86

340.0

350.0

360.0

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258.3

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$\begin{array}{cccccccccccccccccccccccccccccccccccc$	499.80	0.60	-4.42			
	500.80	0.48	-4.31	4.3	276.4	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$			-4.20	4.2	275.3	1.2 103.5
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	539.79	0.36	~4.01			
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		0.48	-3,88	3.9	277.1	
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$\begin{array}{cccccccccccccccccccccccccccccccccccc$	569.79					
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	579.78	0.18	~3.87	3.9		
539.770.10-4.514.5 $271.2$ $2.4.307.3$ 609.770.43-4.554.6 $275.4$ 1.6 $15.4$ 617.760.69-4.454.4280.61.4285.5639.760.81-4.314.4280.61.4285.5639.760.79-4.664.1280.81.2187.5655.750.73-4.304.4290.81.2187.5666.741.17-4.484.6283.82.2249.8679.731.47-4.424.7288.42.36.8679.731.417-4.424.7288.42.38.8679.722.06-4.154.6296.71.739.1709.722.26-4.004.6299.51.142.3719.722.26-4.004.6295.52.0272.4739.701.97-3.814.3296.61.254.8729.711.92-3.814.4300.41.9144.5729.701.97-4.124.6295.52.0272.4749.702.06-4.425.0298.51.254.6759.692.53-4.285.0300.61.149.1779.682.36-4.285.0300.31.5218.3799.682.36-4.285.0300.31.5218.3799.682.36-4.335.5299.02.22	580 78	0.14	-4.18	4.2	271.9	
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$\begin{array}{cccccccccccccccccccccccccccccccccccc$	619.76	0.69	-4.45	4.5		
633.76 $0.92$ $-4.15$ $4.3$ $282.5$ $1.1$ $279.4$ 643.76 $0.79$ $-4.05$ $4.1$ $270.8$ $1.2$ $197.5$ 659.75 $0.73$ $-4.30$ $4.4$ $279.7$ $2.2$ $349.8$ 669.74 $1.10$ $-4.482$ $4.7$ $286.4$ $2.2$ $349.8$ 679.73 $1.47$ $-4.42$ $4.7$ $286.4$ $2.2$ $349.8$ 679.73 $1.47$ $-4.42$ $4.7$ $292.4$ $1.9$ $27.7$ 699.72 $2.08$ $-4.15$ $4.6$ $296.7$ $1.7$ $39.7$ 709.72 $2.26$ $-4.00$ $4.6$ $299.5$ $1.1$ $42.3$ 719.72 $2.24$ $-3.81$ $4.4$ $300.4$ $1.9$ $201.6$ 739.70 $1.97$ $-4.12$ $4.6$ $295.5$ $2.0$ $272.4$ 749.70 $2.06$ $-4.42$ $5.0$ $300.6$ $1.1$ $49.1$ 779.69 $2.53$ $-4.28$ $5.0$ $300.3$ $1.5$ $218.3$ 759.69 $2.50$ $-4.28$ $5.0$ $300.3$ $1.5$ $218.1$ 799.68 $2.36$ $-4.17$ $4.0$ $299.8$ $1.0$ $96.3$ 799.68 $2.36$ $-4.33$ $5.5$ $298.0$ $2.2$ $281.1$ 809.67 $2.7$ $-4.33$ $5.5$ $296.0$ $2.2$ $281.1$ 809.63 $3.02$ $-4.57$ $5.7$ $306.4$ $1.9$ $42.1$ 869.64 $3.37$ $-4.57$ $5.7$ $306.4$ $1.9$		0.81	-4.31	4.4	280.6	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$			-4 15	4.3	282.5	1.1 79.4
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699.73 $1.91$ $-4.31$ $4.7$ $292.8$ $1.9$ $27.7$ $699.72$ $2.06$ $-4.15$ $4.6$ $296.7$ $1.7$ $39.1$ $709.72$ $2.26$ $-4.00$ $4.6$ $299.5$ $1.1$ $42.3$ $719.72$ $2.24$ $-3.81$ $4.3$ $296.6$ $1.9$ $201.6$ $739.70$ $1.97$ $-4.12$ $4.6$ $295.5$ $2.0$ $272.4$ $749.70$ $2.06$ $-4.42$ $4.9$ $295.1$ $2.7$ $335.3$ $759.69$ $2.40$ $-4.42$ $5.0$ $298.5$ $1.2$ $54.8$ $769.69$ $2.53$ $-4.28$ $5.0$ $300.6$ $1.1$ $49.1$ $779.66$ $2.50$ $-4.28$ $5.0$ $300.6$ $1.1$ $49.1$ $799.68$ $2.42$ $-4.50$ $5.1$ $299.8$ $1.0$ $96.3$ $799.68$ $2.42$ $-4.50$ $5.1$ $299.2$ $2.3$ $281.1$ $809.67$ $2.79$ $-5.66$ $5.8$ $299.8$ $1.0$ $96.3$ $819.53$ $3.08$ $-5.13$ $6.0$ $304.5$ $1.9$ $42.1$ $859.64$ $3.37$ $-4.57$ $5.7$ $306.4$ $1.1$ $131.7$ $879.64$ $3.20$ $-4.59$ $5.5$ $303.4$ $1.9$ $242.1$ $899.63$ $3.02$ $-4.90$ $5.8$ $301.6$ $1.4$ $259.9$ $909.62$ $3.29$ $5.13$ $6.1$ $302.7$ $2.6$ $345.1$ $919.61$ $3.69$ $-5.07$ $6$		1.47	-4.42	4.7		
699.722.08 $-4.15$ 4.6296.71.739.1709.722.26 $-4.00$ 4.6299.51.142.3719.722.24 $-3.81$ 4.3296.51.9201.6739.701.97 $-4.12$ 4.6295.52.7335.3759.692.40 $-4.42$ 5.0299.51.254.6769.692.53 $-4.22$ 5.0300.61.149.1779.682.50 $-4.28$ 5.0300.31.5518.3789.682.41 $-4.22$ 4.9295.52.3281.180.672.42 $-4.80$ 5.1296.21.7251.6819.672.57 $-4.83$ 5.5298.02.2300.2829.662.79 $-5.06$ 5.8298.91.8266.6633.653.08 $-5.13$ 6.0301.01.749.6849.643.39 $-4.57$ 5.7306.41.1131.7879.643.20 $-4.51$ 5.5305.41.2108.2899.633.02 $-4.90$ 5.8301.61.8250.9909.623.29 $-5.07$ 6.3306.41.2108.9929.613.72 $-4.87$ 6.1307.41.199.3939.613.64 $-4.72$ 6.0306.72.6337.0929.613.72 $-4.87$ 6.1307.41.199.3939.613.64 $-4.72$ <t< td=""><td></td><td>1.81</td><td>-4.31</td><td>4.7</td><td>292.8</td><td>1.9 27.7</td></t<>		1.81	-4.31	4.7	292.8	1.9 27.7
$\begin{array}{cccccccccccccccccccccccccccccccccccc$				4.6		1.7 39.1
719.722.24-3.814.4300.41.9144.5729.711.92-3.814.3296.69201.6739.701.97-4.124.6295.52.0272.4749.702.06-4.424.9295.12.7335.3759.692.40-4.425.0208.51.254.8769.692.53-4.285.0300.61.149.1779.682.50-4.285.0300.31.5218.3789.682.41-4.214.9293.81.096.3799.682.36-4.174.6299.52.3281.1809.672.42-4.505.1298.21.7251.6819.672.57-4.835.5298.02.2300.2829.662.79-5.065.8298.81.8266.6839.633.08-5.136.0301.01.749.6849.543.38-4.575.7306.41.1131.7879.543.02-4.935.8301.61.8259.9909.623.29-51.146.1307.41.1198.289.633.02-4.935.8301.61.8259.9909.623.29-51.46.1307.41.1199.3939.613.64-4.726.0305.51.0263.6959.603.53-4.956.1305.51.0 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td></t<>						
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	709.72					
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	719.72	2.24	-3.81	4.4	300.4	
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749.702.06-4.424.9295.12.7335.3759.692.46-4.425.0298.51.254.6769.692.53-4.285.0300.61.149.1779.682.50-4.285.0300.31.5218.3789.682.41-4.214.9299.81.096.3789.682.36-4.174.6299.52.3281.1809.672.42-4.505.1298.21.7251.6819.672.57-4.835.5298.02.2300.2829.662.79-5.065.8290.91.8266.6839.653.08-5.136.0301.01.749.6849.643.37-4.575.7306.41.1131.7879.643.20-4.515.5305.41.2106.2889.633.02-4.935.8301.61.8266.8999.623.29-5.146.1302.72.6345.1919.613.69-5.076.3306.12.038.9929.613.77-5.236.5305.51.0263.6959.593.77-5.236.5305.82.2294.6979.564.08-5.476.8306.72.5337.0935.514.64-4.726.6312.21.297.51015.574.34-4.776.5317.31.4<					295.5	2.0 272.4
759.69 $2.40$ $-4.42$ $5.0$ $298.5$ $1.2$ $54.8$ $769.69$ $2.53$ $-4.28$ $5.0$ $300.6$ $1.1$ $49.1$ $779.68$ $2.50$ $-4.28$ $5.0$ $300.3$ $1.5$ $218.3$ $789.68$ $2.36$ $-4.17$ $4.6$ $299.8$ $1.0$ $96.3$ $789.68$ $2.36$ $-4.17$ $4.6$ $299.5$ $2.3$ $281.1$ $805.67$ $2.42$ $-4.50$ $5.1$ $298.2$ $1.7$ $251.6$ $819.67$ $2.57$ $-4.83$ $5.5$ $298.0$ $2.2$ $300.2$ $829.66$ $2.79$ $-5.06$ $5.8$ $298.9$ $1.8$ $266.6$ $839.65$ $3.08$ $-5.13$ $6.0$ $301.0$ $1.7$ $49.6$ $849.64$ $3.37$ $-4.57$ $5.7$ $306.4$ $1.1$ $1131.7$ $879.64$ $3.20$ $-4.59$ $5.5$ $303.4$ $1.9$ $266.8$ $899.63$ $3.02$ $-4.93$ $5.8$ $301.6$ $1.8$ $259.9$ $909.62$ $3.29$ $-5.14$ $6.1$ $302.7$ $2.6$ $345.1$ $919.61$ $3.69$ $-5.07$ $6.3$ $306.1$ $2.0$ $38.9$ $939.61$ $3.64$ $-4.72$ $6.0$ $307.6$ $1.0$ $142.3$ $949.61$ $3.59$ $-4.95$ $6.13$ $305.5$ $1.0$ $263.6$ $979.58$ $4.08$ $-5.47$ $6.6$ $312.2$ $1.2$ $294.6$ $979.56$ $4.64$ $-4.69$ <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
139,09 $2.50$ $-4.28$ $5.0$ $300.6$ $1.1$ $49.1$ $779.68$ $2.50$ $-4.28$ $5.0$ $300.3$ $1.5$ $218.3$ $799.68$ $2.36$ $-4.17$ $4.9$ $299.8$ $1.0$ $96.5$ $799.68$ $2.36$ $-4.17$ $4.8$ $299.5$ $2.3$ $221.1$ $802.67$ $2.42$ $-4.50$ $5.1$ $298.2$ $1.7$ $251.6$ $819.67$ $2.57$ $-4.83$ $5.5$ $292.0$ $2.2$ $300.2$ $829.66$ $2.79$ $-5.06$ $5.8$ $298.8$ $1.8$ $266.6$ $839.65$ $3.08$ $-5.13$ $6.0$ $301.0$ $1.7$ $49.6$ $849.84$ $3.38$ $-4.93$ $6.0$ $304.5$ $1.9$ $42.1$ $859.64$ $3.41$ $-4.73$ $5.8$ $305.6$ $1.0$ $91.0$ $869.63$ $3.02$ $-4.51$ $5.5$ $303.4$ $1.2$ $106.2$ $889.63$ $3.02$ $-4.51$ $5.5$ $303.4$ $1.9$ $2266.8$ $899.63$ $3.02$ $-5.14$ $6.1$ $302.7$ $2.6$ $345.1$ $91.61$ $3.69$ $-5.07$ $6.3$ $306.1$ $2.0$ $38.9$ $929.61$ $3.77$ $-4.87$ $6.1$ $307.4$ $1.1$ $99.3$ $949.61$ $3.50$ $-4.63$ $5.6$ $305.5$ $1.0$ $242.3$ $949.61$ $3.50$ $-4.63$ $5.6$ $306.7$ $2.5$ $337.0$ $939.50$ $3.77$ $-5.23$ <td< td=""><td>749.70</td><td></td><td></td><td></td><td></td><td></td></td<>	749.70					
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	759.69	2,40	-4.42	5.0	298.5	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		2.53	-4.28	5.0	300.6	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$					300.3	1.5 218.3
$\begin{array}{cccccccccccccccccccccccccccccccccccc$						
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$\begin{array}{cccccccccccccccccccccccccccccccccccc$	849.84	3.38	-4.93	6.0		
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009.54 $0.20$ $-4.51$ $5.5$ $305.4$ $1.2$ $108.2$ $889.63$ $3.03$ $-4.59$ $5.5$ $303.4$ $1.9$ $266.6$ $899.63$ $3.02$ $-4.93$ $5.8$ $301.6$ $1.8$ $259.9$ $909.62$ $3.29$ $-5.14$ $6.1$ $302.7$ $2.6$ $345.1$ $919.61$ $3.69$ $-5.07$ $6.3$ $306.1$ $2.0$ $38.9$ $929.61$ $3.72$ $-4.87$ $6.1$ $307.4$ $1.1$ $99.3$ $939.61$ $3.64$ $-4.72$ $6.0$ $307.6$ $1.0$ $142.3$ $949.61$ $3.50$ $-4.63$ $5.8$ $307.1$ $1.5$ $233.8$ $959.60$ $3.53$ $-4.95$ $6.1$ $305.5$ $1.8$ $263.6$ $969.59$ $3.77$ $-5.23$ $6.5$ $305.8$ $2.2$ $294.6$ $979.58$ $4.08$ $-5.47$ $6.8$ $306.7$ $2.5$ $337.0$ $935.56$ $4.41$ $-5.39$ $7.0$ $309.3$ $1.4$ $7.7$ $989.57$ $4.46$ $-5.15$ $6.2$ $310.9$ $1.4$ $86.1$ $1009.57$ $4.46$ $-4.692$ $6.6$ $312.2$ $1.2$ $97.5$ $1019.57$ $4.34$ $-4.77$ $6.5$ $317.3$ $1.2$ $161.3$ $1029.56$ $4.90$ $-4.43$ $6.6$ $315.0$ $2.3$ $24.7$ $1039.55$ $4.64$ $-4.64$ $6.6$ $315.0$ $2.3$ $24.3$ $1049.55$ $5.90$ $-3.78$ <td></td> <td></td> <td></td> <td>57</td> <td></td> <td>1.1 131.7</td>				57		1.1 131.7
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909.62 $3.29$ $-5.14$ $6.1$ $302.7$ $2.6$ $345.1$ $919.61$ $3.69$ $-5.07$ $6.3$ $306.1$ $2.0$ $38.9$ $929.61$ $3.72$ $-4.87$ $6.1$ $307.4$ $1.1$ $99.3$ $939.61$ $3.64$ $-4.72$ $6.0$ $307.6$ $1.0$ $142.3$ $949.61$ $3.50$ $-4.63$ $5.8$ $307.1$ $1.5$ $233.8$ $959.60$ $3.53$ $-4.95$ $6.1$ $305.5$ $1.0$ $263.6$ $969.59$ $3.77$ $-5.23$ $6.5$ $305.8$ $2.2$ $294.6$ $979.58$ $4.08$ $-5.47$ $6.8$ $306.7$ $2.5$ $337.0$ $909.57$ $4.46$ $-5.15$ $6.9$ $310.9$ $1.4$ $76.7$ $999.57$ $4.46$ $-5.15$ $6.9$ $312.2$ $1.2$ $97.5$ $1019.57$ $4.34$ $-4.77$ $6.5$ $312.3$ $1.2$ $151.3$ $1029.56$ $4.38$ $-4.69$ $6.4$ $313.0$ $2.3$ $24.7$ $1039.55$ $4.64$ $-4.64$ $6.6$ $317.9$ $2.3$ $21.4$ $1059.54$ $5.28$ $-4.24$ $6.8$ $321.2$ $2.4$ $23.3$ $1069.53$ $5.66$ $-4.07$ $7.0$ $324.3$ $2.4$ $33.7$ $1079.52$ $5.81$ $-3.90$ $7.0$ $326.1$ $2.1$ $204.8$ $1089.51$ $5.90$ $-3.78$ $7.0$ $327.4$ $2.4$ $40.9$ $1099.51$ $6.23$ $-3.59$ </td <td></td> <td></td> <td>-4.90</td> <td>5.8</td> <td>301.6</td> <td>1.8 259.9</td>			-4.90	5.8	301.6	1.8 259.9
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$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	929.61	3.72	-4.87	6.1		
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949.01 $3.53$ $-4.95$ $6.1$ $305.5$ $1.0$ $263.6$ $969.59$ $3.77$ $-5.23$ $6.5$ $305.8$ $2.2$ $294.6$ $979.56$ $4.08$ $-5.47$ $6.8$ $306.7$ $2.5$ $337.0$ $939.56$ $4.41$ $-5.39$ $7.0$ $309.3$ $1.4$ $7C.7$ $999.57$ $4.46$ $-5.15$ $6.9$ $310.9$ $1.4$ $86.1$ $1009.57$ $4.46$ $-4.92$ $6.6$ $312.2$ $1.2$ $97.5$ $1019.57$ $4.34$ $-4.77$ $6.5$ $317.3$ $1.2$ $161.3$ $1029.56$ $4.38$ $-4.69$ $6.4$ $313.0$ $2.3$ $24.7$ $1039.55$ $4.64$ $-4.64$ $6.6$ $315.0$ $2.3$ $10.2$ $1049.55$ $4.90$ $-4.43$ $6.6$ $317.9$ $2.3$ $21.4$ $1059.54$ $5.28$ $-4.24$ $6.8$ $321.2$ $2.4$ $23.3$ $1069.53$ $5.66$ $-4.07$ $7.0$ $326.1$ $2.1$ $204.8$ $1089.51$ $5.90$ $-3.78$ $7.0$ $327.4$ $2.4$ $40.9$ $1099.31$ $6.23$ $-3.59$ $7.2$ $330.1$ $2.3$ $28.5$ $1109.50$ $6.58$ $-3.39$ $7.4$ $332.7$ $2.3$ $34.6$ $1119.49$ $6.92$ $-3.19$ $7.6$ $335.2$ $2.1$ $21.7$ $122.48$ $7.27$ $-3.01$ $7.9$ $337.5$ $2.2$ $32.0$			-4 63	5.8	307.1	1.5 233.8
959.50 $3.77$ $-5.23$ $6.5$ $305.8$ $2.2$ $294.6$ 979.56 $4.08$ $-5.47$ $6.8$ $306.7$ $2.5$ $337.0$ 939.56 $4.41$ $-5.39$ $7.0$ $309.3$ $1.4$ $7C.7$ 999.57 $4.46$ $-5.15$ $6.9$ $310.9$ $1.4$ $86.1$ $1009.57$ $4.46$ $-4.92$ $6.6$ $312.2$ $1.2$ $97.5$ $1019.57$ $4.34$ $-4.77$ $6.5$ $312.3$ $1.2$ $161.3$ $1029.56$ $4.38$ $-4.69$ $6.4$ $313.0$ $2.3$ $24.7$ $1039.55$ $4.64$ $-4.64$ $6.6$ $315.0$ $2.3$ $10.2$ $1049.55$ $4.90$ $-4.43$ $6.6$ $317.9$ $2.3$ $21.4$ $1059.54$ $5.28$ $-4.24$ $6.8$ $321.2$ $2.4$ $23.3$ $1069.53$ $5.66$ $-4.07$ $7.0$ $326.1$ $2.1$ $204.8$ $1089.51$ $5.90$ $-3.78$ $7.0$ $327.4$ $2.4$ $40.9$ $1099.31$ $6.23$ $-3.59$ $7.2$ $330.1$ $2.3$ $28.5$ $1109.50$ $6.58$ $-3.39$ $7.4$ $332.7$ $2.3$ $34.6$ $1119.49$ $6.92$ $-3.19$ $7.6$ $335.2$ $2.1$ $21.7$ $1129.48$ $7.27$ $-3.01$ $7.9$ $337.5$ $2.2$ $32.6$						
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979.36 $4.41$ $-5.39$ $7.0$ $309.3$ $1.4$ $7C.7$ $989.57$ $4.46$ $-5.15$ $6.9$ $310.9$ $1.4$ $86.1$ $1009.57$ $4.46$ $-4.92$ $6.6$ $312.2$ $1.2$ $97.5$ $1019.57$ $4.34$ $-4.77$ $6.5$ $312.3$ $1.2$ $161.3$ $1029.56$ $4.38$ $-4.69$ $6.4$ $313.0$ $2.3$ $24.7$ $1039.55$ $4.64$ $-4.64$ $6.6$ $317.9$ $2.3$ $21.4$ $1049.55$ $4.90$ $-4.43$ $6.6$ $317.9$ $2.3$ $21.4$ $1059.54$ $5.28$ $-4.24$ $6.8$ $321.2$ $2.4$ $23.3$ $1069.53$ $5.66$ $-4.07$ $7.0$ $326.1$ $2.1$ $204.8$ $1089.51$ $5.90$ $-3.78$ $7.0$ $327.4$ $2.4$ $40.9$ $1099.51$ $6.23$ $-3.59$ $7.2$ $330.1$ $2.3$ $28.5$ $1109.50$ $6.58$ $-3.39$ $7.4$ $332.7$ $2.3$ $34.6$ $1119.49$ $6.92$ $-3.19$ $7.6$ $335.2$ $2.1$ $21.7$ $1129.48$ $7.27$ $-3.01$ $7.9$ $337.5$ $2.2$ $32.6$	969.59	3.77	~5.23			
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	979.58	4.08	-5.47	6.8	306.7	
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339.57 $4.46$ $-4.92$ $6.6$ $312.2$ $1.2$ $97.5$ $1019.57$ $4.34$ $-4.77$ $6.5$ $312.3$ $1.2$ $161.3$ $1029.56$ $4.38$ $-4.69$ $6.4$ $313.0$ $2.3$ $24.7$ $1039.55$ $4.64$ $-4.64$ $6.6$ $315.0$ $2.3$ $10.2$ $1049.55$ $4.90$ $-4.43$ $6.6$ $317.9$ $2.3$ $21.4$ $1059.54$ $5.28$ $-4.24$ $6.8$ $321.2$ $2.4$ $23.3$ $1069.53$ $5.66$ $-4.07$ $7.0$ $324.3$ $2.4$ $33.7$ $1079.52$ $5.81$ $-3.90$ $7.0$ $326.1$ $2.1$ $204.8$ $1089.51$ $5.90$ $-3.78$ $7.0$ $327.4$ $2.4$ $40.9$ $1099.51$ $6.23$ $-3.59$ $7.2$ $330.1$ $2.3$ $28.5$ $1109.50$ $6.58$ $-3.39$ $7.4$ $332.7$ $2.3$ $34.6$ $1119.49$ $6.92$ $-3.19$ $7.6$ $335.2$ $2.1$ $21.7$ $1129.48$ $7.27$ $-3.01$ $7.9$ $337.5$ $2.2$ $32.6$						
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1029.56 $4.38$ $-4.69$ $6.4$ $313.0$ $2.3$ $24.7$ $1039.55$ $4.64$ $-4.64$ $6.6$ $315.0$ $2.3$ $10.2$ $1049.55$ $4.90$ $-4.43$ $6.6$ $317.9$ $2.3$ $21.4$ $1059.54$ $5.28$ $-4.24$ $6.8$ $321.2$ $2.4$ $23.3$ $1069.53$ $5.66$ $-4.07$ $7.0$ $324.3$ $2.4$ $33.7$ $1079.52$ $5.81$ $-3.90$ $7.0$ $326.1$ $2.1$ $204.8$ $1089.51$ $5.90$ $-3.78$ $7.0$ $327.4$ $2.4$ $40.9$ $1099.31$ $6.23$ $-3.59$ $7.2$ $330.1$ $2.3$ $28.5$ $1109.50$ $6.58$ $-3.39$ $7.4$ $332.7$ $2.3$ $34.6$ $1119.49$ $6.92$ $-3.19$ $7.6$ $335.2$ $2.1$ $21.7$ $1129.48$ $7.27$ $-3.01$ $7.9$ $337.5$ $2.2$ $32.0$	1019.57		-4-77		312-3	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		4.38				
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1039.55	4.64	-4.64	6.6		
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1009.005.81-3.807.0326.12.1204.81079.525.91-3.787.0327.42.440.91099.516.23-3.597.2330.12.328.51109.506.58-3.397.4332.72.334.61119.496.92-3.197.6335.22.121.71129.487.27-3.017.9337.52.232.0						
1019.525.90-3.787.0327.42.440.91089.515.90-3.597.2330.12.328.51099.516.23-3.597.4332.72.334.61109.506.58-3.397.4332.72.334.61119.496.92-3.197.6335.22.121.71129.487.27-3.017.9337.52.232.0	1069.53					
1089.515.90-3.787.0327.42.440.91099.516.23-3.597.2330.12.328.51109.506.58-3.397.4332.72.334.61119.496.92-3.197.6335.22.121.71129.487.27-3.017.9337.52.232.0	1079.52	5,81				
1009.516.23-3.597.2330.12.328.51109.506.58-3.397.4332.72.334.61119.496.92-3.197.6335.22.121.71129.487.27-3.017.9337.52.232.0		5.90	-3.78	7.0	327.4	
1099.51 $0.12$ $-3.39$ $7.4$ $332.7$ $2.3$ $34.6$ $1109.50$ $6.58$ $-3.19$ $7.6$ $335.2$ $2.1$ $21.7$ $1119.49$ $6.92$ $-3.19$ $7.6$ $335.2$ $2.1$ $21.7$ $1129.48$ $7.27$ $-3.01$ $7.9$ $337.5$ $2.2$ $32.0$						2.3 28.5
1103.30 $0.92$ $-3.19$ $7.6$ $335.2$ $2.1$ $21.7$ $1119.49$ $6.92$ $-3.19$ $7.6$ $337.5$ $2.2$ $32.0$ $1129.48$ $7.27$ $-3.01$ $7.9$ $337.5$ $2.2$ $32.0$						
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1099.51 1109.50 1119.49 1129.48 1139.48	5.23 5.58 6.92 7.27 7.57	-3.59 -3.39 -3.19 -3.01 -2.82	7.2 7.4 7.6 7.9 8.1	330.1 332.7 335.2 337.5 339.5	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
1149.47 1159.47 1169.46	7,84 8,08 8,33	-2.64 -2.46 -2.30	8.3 8.4 8.6	341.4 343.1 344.6	1.8 36.1 1.6 30.6 1.8 29.4
$1179.46 \\ 1189.45$	8.58 8.89	-2.11 -1.97	8.8 9.1 9.3	346.2 347.5 348.8	$\begin{array}{rrrr} 1.8 & 17.7 \\ 2.0 & 42.1 \\ 2.0 & 26.6 \end{array}$
1199.45 1209.44 1219.43	9.18 9.47 9.77	-1.81 -1.64 -1.47	9.6 9.9	350.2 351.4	2.0 29.5 1.9 37.2
1229.43 1229.43 1239.42	10.07 10.40	-1.29 -1.12	10.1 10.3	352.7 353.9	2.1 27.4 2.3 25.7
12 <b>49.41</b> 1253.41	10.75 11.07	-0.90 -0.70	10.8 11.1 11.4	355.2 356.4 357.7	$\begin{array}{cccc} 2.2 & 36.5 \\ 2.3 & 37.3 \\ 2.1 & 37.0 \end{array}$
1269.40 1279.39 1289.39	11.36 11.64 11.83	-0.46 -0.24 0.03	11.6 11.8	358.8	2.1
1299.38 1309.37	12.10 12.30	0.25 0.56	$\frac{12.1}{12.3}$	1.2 2.6	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
1319.37 1329.36	12.54 12.75 12.95	0.83 1,14 1.46	12.6 12.8 13.0	3.8 5.1 6.4	2.2 53.3 2.2 58.3 2.1 59.1
1339.35 1349.34 1359.34	12.90 13.09 13.13	1.65 1.51	13.2 13.2	7.2 6.6	2.3 257.3 1.7 55.9
1369.33 1379.32 1389.32	$13.47 \\ 13.83 \\ 14.16$	1.67 1.79 1.69	$13.6 \\ 13.9 \\ 14.3$	7.1 7.4 7.6	$\begin{array}{cccc} 2.3 & 19.6 \\ 2.1 & 18.3 \\ 1.9 & 15.2 \end{array}$
1399.31 1409.31	14.43 14.79	1.99 2.05	14.6 14.9	7.8 7.9	$\begin{array}{ccc} 1.8 & 15.3 \\ 1.7 & 11.7 \\ \end{array}$
1419.30 1429.30 1439.30	15.07 15.34 15.58	2.12 2.16 2.20	$15.2 \\ 15.5 \\ 15.7 $	8.0 8.0 8.0	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
1459.29 1459.29	15.73 15.69	$\begin{array}{c} 2.29 \\ 2.51 \end{array}$	15.9 15.9	8.3 9.1	1.4 136.5 1.6 74.8
1469.29 1479.28	15.80 15.93	2.77 3.02 3.24	16.0 16.2 16.4	9.9 10.7 11.4	$   \begin{array}{rrrr}     1.7 & 48.7 \\     1.5 & 70.4 \\     1.5 & 60.5 \\   \end{array} $
1489.28 1499.28 1509.27	16,05 16,20 16,37	3.46 3.66	16.6 16.8	12.0 12.6	1.5 52.0 1.5 49.9
1519.27 1529.27	16.55 16.74	3.81 3.96	$\frac{17.0}{17.2}$	$13.0 \\ 13.3 \\ 13.9$	$\begin{array}{cccc} 1.4 & 23.1 \\ 1.5 & 42.1 \\ 1.5 & 67.5 \end{array}$
1539.26 1549.26 1559.26	16.89 17.07 17.08	4.17 4.35 4.22	17.4 17.6 17.6	13.9 14.3 13.9	1.6  15.0  1.7  208.6
1569.25 1579.23	17.01 17.02	4.14 4.16	17.5	13.7 13.7	0.1 145.5 0.2 0.5 1.5 44.5
1589.25 1599.25 1609.24	17.16 17.33 17.51	4.32 4.55 4.78	17.7 17.9 18.2	14.1 14.7 15.3	$ \begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$
1619.24 1629.23	$17.71 \\ 17.93$	5.00 5,20	18.4 18.7	15.8 16.2	1.7 46.5 1.7 37.3 1.2 50.2
1639.23 1649.22 1659.22	18.12 18.32 18.49	5.44 5.66 5.90	18.9 19.2 19.4	16.7 17.2 17.7	$\begin{array}{rrrr} 1.7 & 50.3 \\ 1.8 & 50.4 \\ 1.6 & 55.0 \end{array}$
1659,22 1679,21	18.70 18.53	6.03 5.87	19.6 19.4	17.9 17.6 17.6	1.6 298.2 0.2 258.2 0.0 19.7
1689.21 1699.21 1709.21	*18.52 18.50 18.48	5.86 5.87 5.85	19.4 19.4 19.4	17.6 17.6	0.3 212.8 0.2 196.6
1719.21 1729.21 1739.21	18.47 18.48 18.45	5.86 5.87 5.89	19.4 19.4 19.4	17.6 17.6 17.7	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
1749.21 1759.21	18.42 18.41	5.89 5.89	19.3 19.3	17.7 17.7	0.2 218.2 0.0 226.8
1769.21 1779.21 1789.21	18.59 18.79 18.86	5.86 5.92 5.76	19.5 19.7 19.7	17.5 17.5 17.0	$\begin{array}{rrrr} 1.4 & 349.9 \\ 1.1 & 332.4 \\ 0.6 & 274.2 \end{array}$
1799.21 1799.21 1809.21	18.88 18.88	5.68 5.62	19.7 19.7	16.7 16.6	0.4 263.6 0.3 280.9
1819.21 1829.20	18.86 18.83	5.61 5.62	19.7 19.6	$16.6 \\ 16.6$	0.3 158.4 0.4 120.8

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1819.21	18.86	5.61	19.7	16.6	0.3	158.4	
1829.20	18.83	5.62	19.6	16.6	0.4	120.8	
1839.20	18.76	5.64	19.6	16.7	្.ខ	145.1	
1849,20	18,68	5.66	19.5	16.9	0.6	214.9	•
1859.20	18.60	5.68	19.4	17.0	0.5	170.9	
1869.20	18.51	5.68	19.4	17.1	0.6	171.5	
1879.20	18.41	5,68	19.3	17.2	0.7	203.0	
1889.20	18.33	5,66	19.2	17.2	0.6	187.5	
1899.20	18.23	5.67	19.1	17.3	0.6	171 <b>.1</b>	
1909.20	19.12	5.69	19.0	17.4	0.8	101.7	
1919.20	18,15	5,59	19.0	17.1	1.3	341.9	
1929.20	18.13	5.61	19.0	17.2	0.4	189.9	
1939.20	18.05	5,62	18.9	17.3	0.6	140.0	
1949.20	18.09	5.60	18.9	17.2	1.9	310.1	
1969.19	18,19	5.51	19.0	16.8	0.7	158.9	
1969.19	18.22	5.55	19.0	16.9	0.5	329.7	
1979.19	18,45	5.36	19.2	16.2	0.9	45.1	
1989.19	18.41	5.40	19.2	16.3	0.4		
1999.19	18.34	5.41	19.1	16.4	0.4	168.9	
2009.19	18.27	5.43	19 <b>.1</b>	16.5	0.4	159.9	
2019.19	18.19	5.42	19.0	16.6	0.5		
2029.19	18.13	5.46	18.9	16.8	0.6	135.6	
2039.18	18.05	5.48	18.9	16.9	े.4		
2049.18	17.97	5.53	18.8	17.1	0.6		
2059.18	17.98	5.61	18.7	17.4	0.7		
2069,18	17.81	5.68	18.7	17.7	0.6		
2079.18	17.74	5.79	18.7	18.1	1.6		
2089.18	17.69	្និ. ជូភ្ន	18.8	$17.5 \\ 17.6$	$1.3 \\ 0.3$		
2099.18	18.01	5.73	18.9	17.8	0.6		
2109.18	17.94	5.78	18.9 18.8	18.0	0.4		
2119.17	17.87	5.81	18.7	18.3	0.7		
2129.17	17.78	5.89	18.7	18.5	0.6		
2139.17	17.70	5.96 6.02	18.6	18.9	0.7		
-2149.17	17.62	6.02 6,09	18.5	19.2	0.7		
2159.17	17.52	6,16	18.5	19.4	0.6		,
2169.17	17.43 17.34	6.23	18.4	19.8	0.6		
2179.17	17.25	6.30	18.4	20.1	0.8		
2189.17	17.17	6.38	18.3	20.4	0.6		
2199.17	17.14	6.44	18.3	20.6	0.6	110.0	
2209.17	17.09	6.41	18.2	20.6	0.5	125.4	
2219.17	17.02	6.48	18.2	20.8	0.7		
2229.17	16.97	6.55	18.2	21.1	0.4		
2239.17	16.96	6.64	13.2	21.4	1.0	115.1	
2249.17	16.94	6.68	18.2	21.5	0.6		
2257.56	10.24	Q. 00					

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Well: N23A

	Casing	Casing	Hole	Cement	Ceme	nted	Date	Packers or
		Interval	Size	used in cu/ft	to Sur	face	Cemented	Bridge Plugs
					Yes	No		
Conductor	13 3/8"	536'	15"	240		Х	11/15/2007	bskt @ 253'
Surface	9 5/8"	782'	12 3/8"	306.8	Х		11/26/2007	oskt @ 576'/620
Water Protection	4 1/2"	2240'	6 1/2"	350	Х		11/29/2007	
Coal Protection	4 1/2"	2240'	6 1/2"	350	Х		11/29/2007	
Other Casing & Tubing	7"	1019'	8 7/8"	238	Х		11/27/2007	bskt @ 842'
Other Casing & Tubing	18"	21'	20"				11/14/2007	
Liners								

# Casing & Tubing Program

# DRILL DATA NOAH HORN WELL DRILLING

COMPANY: CNX HOLE: N-23-A RIG #: 88 LOCATION: RT. 600

# DATE STARTED: 11-13-07 DATE COMPLETED: 11-30-07

# ELECTRIC LOGGED: YES GROUTED: YES

DEPTH	THICKNESS		STRATA
FROM	то	FT	DESCRIPTION, VOIDS ETC
0	13	13	OVERBURDEN
13	30	17	SAND-SHALE
30	60	30	SAND-SHALE
60	90	30	SAND-SHALE-COAL
90	120	30	SAND-SHALE
120	150	30	SAND-SHALE-COAL
150	180	30	SAND-SHALE
180	210	30	SAND-SHALE-COAL
210	240	30	SAND-SILALE
240	270	30	SAND-SHALE
270	300	30	SAND-SHALE
300	330	30	SAND-SHALE
330	360	30	SAND-SHALE-COAL
360	390	30	SAND-SHALE
390	420	30	SAND-SHALE
420	450	30	SAND-SHALE-COAL
450	480	30	SAND-SHALE
480	510	30	SAND-SHALE-COAL - BROKE UP AT 510
494	524	30	SANDY SHALE-COAL-SAND
524	536	12	SANDY SHALE-SAND
536	545	9	SANDY SHALE-SAND
545	575	30	SAND-COAL-SANDY SHALE
575	605	30	SANDY SHALE-SAND
605	635	30	SAND
635	665	30	SANDY SHALE-SAND
665	695	30	SAND-SANDY SHALE
695	725	30	SANDY SHALE-COAL-SAND
725	755	30	SAND
755	785	30	SAND-SANDY SHALE
785	800	15	SANDY SHALE-SAND
800	815	15	SANDY SHALE-SAND
815	845	30	SAND-SANDY SHALE
845	875	30	SANDY SHALE-COAL-SANDY SHALE
875	905	30	SANDY SHALE-SAND
905	935	30	COAL-SAND-SANDY SHALE
935	965	30	SANDY SHALE-SAND-COAL
965	995	30	SANDY SHALE
995	1025	30	SANDY SHALE
1025	1040	15	SANDY SHALE-COAL-SANDY SHALE

# DRILL DATA NOAH HORN WELL DRILLING

DEPTH	THICKNESS		STRATA
FROM	то	FT	DESCRIPTION, VOIDS ETC
1040	1060	20	SANDY SHALE-SAND
1060	1090	30	SAND-SANDY SHALE
1090	1120	30	SANDY SHALE-COAL-SANDY SHALE
1120	1150	30	SANDY SHALE-COAL-SAND
1150	1180	30	SAND-SANDY SHALE
1180	1210	30	SANDY SHALE
1210	1240	30	SANDY SHALE-SAND
1240	1270	30	SAND-SANDY SHALE
1270	1300	30	SANDY SHALE
1300	1330	30	SANDY-SHALE
1330	1360	30	SANDY SHALE-COAL-SAND
1360	1390	30	SNADY-SANDY SHALE
1390	1420	30	SANDY SHALE
1420	1450	30	SANDY SHALE-COAL-SAND
1450	1480	30	SAND-SANDY SHALE
1480	1510	30	SANDY SHALE
1510	1540	30	SANDY SHALE-COAL-SANDY SHALE
1540	1570	30	SANDY SHALE-SAND
1570	1600	30	SAND-SANDY SHALE-SAND
1600	1630	30	SANDY-COAL-SANDY SHALE
1630		30	SANDY SHALE-SAND
1660	1690	30	SAND
1690	1720	30	SAND-COAL-SANDY SHALE
1720		30	SANDY SHALE
1750		30	SANDY SHALE
1780		30	SANDY SHALE-COAL-SANDY SHALE
1810		30	SANDY SHALE-COAL-SANDY SHALE
1840		30	SANDY SHALE
1870		30	SANDY SHALE-SAND
1900		30	SAND
1930		30	SAND-SANDY SHALE
1960		30	SANDY SHALE-COAL-SANDY SHALE
1990		30	SANDY SHALE
2020		30	SAND-SHALE-COAL
2050		30	SAND-SHALE
2080		30	SAND-SHALE
2110		30	SAND-SHALE
2140		30	SAND-SHALE
2170		24	SAND-SHALE
2194		6	SAND-SHALE
2200		30	SAND-SHALE-COAL
2230	2253	23	SAND-SHALE

# DRILL DATA NOAH HORN WELL DRILLING

DEPTH	THICKNESS		STRATA
FROM	то	FI	DESCRIPTION, VOIDS ETC
Т	OTALS		· · · · · · · · · · · · · · · · · · ·
2253'	TOTAL DEPTH		
20.75'	18" CASING		
546.88'	13 3/8" CASING		
782.40'	9 5/8" CASING		
1018.90'	7" CASING		
2239.70'	4 1/2" CASING		