

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

Tracking Number:	1012
Company:	CNX Gas Company LLC
File Number:	BU-3669
Operations Name:	CBM BE104A W/PL
Operation Type:	Coalbed/Pipeline
<b>Drilling Report Type:</b>	Original

DRILLING REPORT (DGO-GO-14)						
1. Drilling Data						
Date drilling commenced:	12/8/2007	D	rilling Contractor:	Noah Horn		
Date drilling completed:	12/11/2007		Rig Type:	✓ Rotary		
Driller's Total Depth (feet):	2,760					
Log Total Depth (feet):	2,778	Co	al Seam At Total D	Depth Pocahontas		
2. Final Location Plat (as rec	uired by 4 VA	C25-150	-360.C.)			
Permitted State Plane X 974	4,053	Fir	nal Plat State Plane	e X: <u>974,050</u>		
Permitted State Plane Y: 292,112 Final Plat State Plane Y: 292,115						
☐ Plat Previously Submitted	Or					
List of Attached Items:						
Descrip	tion			FileName		
Pla	t		E	BE104A Plat.pdf		
3. Geological Data						
Fresh Water At:						
Depth	(in feet)		Rate	Unit of Measure		
	240 Damp GPM					
Salt Water At:						
Depth	(in feet)		Rate	Unit of Measure		
	2,260		Damp	GPM		

Form DGO-GO-14-E Rev. 1/2007

### Coal Seams

List of Attached Items:

Description	FileName		
Exhibit A	BE104A Exhibit A.pdf		

## Gas and Oil Shows

List of Attached Items:

Description	FileName
Show Gas	BE104A 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	BE104A Deviation.pdf

### 6. Casing and Tubing Program

List of Attached Items:

Description	FileName
Casing	BE104A 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" Casing cemented on the backside to surface

### 8. Drillers Log

Compiled By: Noah Horn

List of Attached Items:

Description	FileName		
Drill Data	BE104A Drill Data.pdf		

Form DGO-GO-14-E

## 9. Comments

10. Signature

Permitee: CNX Gas Company LLC Date: 1/12/2008 (Company)

Signed By: Leslie K. Arrington Title: Manager (Signature)

INTERNAL USE ONLY

Submit Date: 1/12/2008

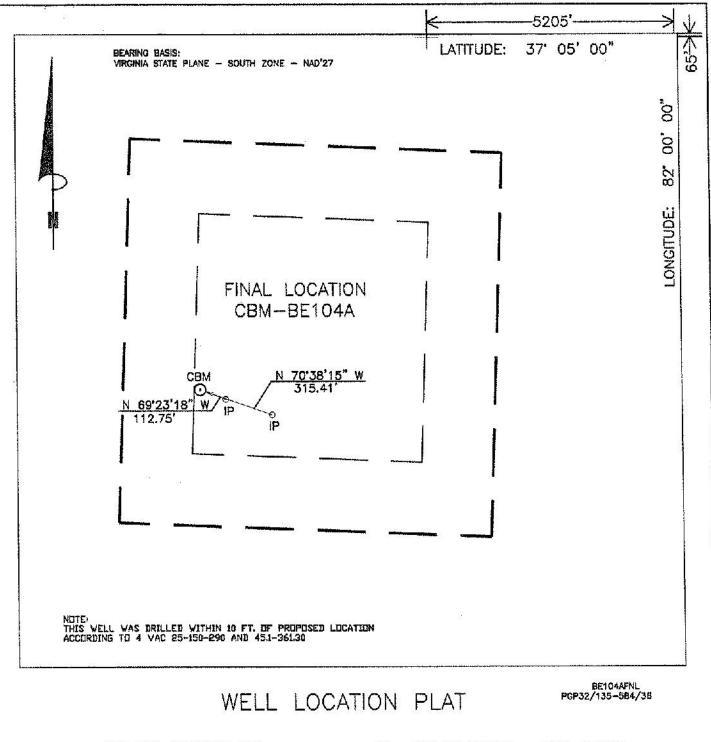
Status: Inspr Approved Date: 1/14/2008

Final PDF Date: 1/22/2008

Form DGO-GO-14-E

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Rev. 1/2007



COMPANYCNX_GAS_COMPANY, LLC. WELL NAME OR NUMBERCBM_BE104A  TRACT_NUMBERTAZEWELL COAL & IRONQUADRANGLEBIG_A_MOUNTAIN  DISTRICT:HURRICANE
WELL COORDINATES (VIRGINIA STATE PLANE): STATE PLANE: N 292,114.87 E 974,049.82
ELEVATION: 2666.78' METHOD USED TO DETERMINE ELEVATION: BY TRIG. LEVELS FROM CONSOL INC BM'S COUNTY BUCHANAN Scale: 1" = 400' Date 12-14-07 ALTHOR X  THIS PLAT IS A NEW PLAT; AN UPDATED PLAT; OR A FINAL LOCATION PLAT X  Denotes the location of a well on United States Topographic Maps, scales 1 to 24,000, latitude and longitude lines being represented by border lines as shown to Blional).  DANNY R. PRICE 5  Lic. No. 008540
DGO-GO-7 0/96
ONAL E

Form Rev. 1

# BE104A.CMP Exhibit A

Well Name: 07 CBM BE104A SURFACE ELEV: 2666.78 EASTING: 974049.82 NORTHING: 292114.87

SEAM	DEPTH FROM (FT)	DEPTH TO (FT)	ELEVATION (TOSE)	THK. (FT)	REMARKS
UB1	49.50 51.00	51.00	2615.50	1.50	
COAL	51.00 165.80 166.90	165.80 166.90 231.50	2614.00 2499.20 2498.10 2433.50	1.10 1.10 64.60	
LB1	231.50 233.50	233.50 314.90	2433.50 2431.50	2.00	
LB2	314.90 315.50	315.50	2431.50 2350.10 2349.50	2.00 81.40 0.60 63.90	
KN1	379.40	380.30	2285.60 2284.70 2251.90	0.90	
KN2	413.10	413.10 414.70 510.80 511.50	2251.90	1.60	
COAL	414.70 510.80 511.50	511.50 614.90	2250.30 2154.20 2153.50	1.60 96.10 0.70 103.40	
AL2	614.90	616.10	2153.50 2050.10 2048.90	1.20	
RA2	723.70	720.00	1941.50	3.10 49.70	
COAL	776.50	776.90	1888.50	0.40 92.50	
јв1	869.40	869.40 871.10 905.90	1795.60 1793.90	1.70	
<b>ЈВ</b> З	871.10 905.90 907.50	905.90 907.50 953.90	1759.10	1.60	
*T2	953 90	954 10	1757.50 1711.10	0.20	
*TI	954.10 1035.80	1035.80 1036.90 1038.70	1757.50 1711.10 1710.90 1629.20 1628.10 1626.30	1.10	
*COAL	1036.90 1038.70 1039.20	1038.70 1039.20 1183.10	1626.30 1625.80	1.80 0.50 143.90	
*US1	1183.10	1184.90	1481.90	1.80	
*LC3	1184.90 1185.90 1187.10	1185.90 1187.10 1189.90	1480.10 1479.10 1477.90	1.00 1.20 2.80 1.80	
*LC4	1189.90	1191.70	1475.10	1.80 143.50	
*GC1	1191.70 1335.20 1336.00	1335.20 1336.00 1336.20	1473.30 1329.80 1329.00	0.80	
*GC1	1336.20 1337.00	1337.00 1473.00	1328.80 1328.00	0.20 0.80 136.00	
*SE2	1473.00	1473.90	1192.00	0.90	
*LS2	1473.90 1521.80 1523.20	1521.80 1523.20 1586.10	1191.10 1143.20 1141.80	47.90 1.40 62.90	
*LS3	1586.10	1587.90	1078.90	1.80	
*UH2	1587.90 1638.40 1640.50	1638.40 1640.50 1665.20	1077.10 1026.60 1024.50	50.50 2.10 24.70	
*UH3	1665.20 1666.30	1666.30 1696.80	999.80 998.70	1.10 30.50	
*MH1	1696.80	1698.50	968.20	1.70	
*MH2	1698.50 1783.70	1783.70 1784.10	966.50 881.30 Page 1	85.20 0.40	

			BE104A.CMP	
	1784.10	1824.20	880.90	40.10
*P11	1824.20	1826.90	840.80	2.70
	1826.90	1833.80	838.10	6.90
*P10	1833.80	1834.90	831.20	1.10
	1834.90	1891.50	830.10	56.60
*LH3	1891.50	1893.20	773.50	1.70
	1893.20	1921.80	771.80	28.60
*P91	1921.80	1922.60	743.20	0.80
*P92	1922.60	1923.90	742.40	1.30
4-54	1923.90	1978.50	741.10	54.60
*P81	1978.50	1980.00	686.50	1.50
*-03	1980.00	1980.70	685.00	0.70
*P82	1980.70	1980.90	684.30	0.20
÷~71	1980.90	1986.70	684.10	5.80
*P71	1986.70 1987.10	1987.10 2041.10	678.30 677.90	0.40 54.00
*COAL	2041.10	2041.10	623.90	2.40
*COAL	2043.50	2043.30	621.50	0.60
*COAL	2044.10	2044.60	620.90	0.50
COAL	2044.60	2107.70	620.40	63.10
*COAL	2107.70	2108.20	557.30	0.50
COAL	2108.20	2145.00	556.80	36.80
*COAL	2145.00	2145.10	520.00	0.10
COAL	2145.10	2159.90	519.90	14.80
*COAL	2159.90	2160.50	505.10	0.60
4-4-7 Tm	2160.50	2348.90	504.50	188.40
*P41	2348.90	2349.20	316.10	0.30
	2349.20	2460.90	315.80	111.70
*P31	2460.90	2462.20	204.10	1.30
*P32	2462.20	2463.00	202.80	0.80
	2463.00	2511.10	202.00	48.10
*P34	2511.10	2512.00	153.90	0.90
	2512.00	2585.20	153.00	73.20
*P01	2585.20	2586.70	79.80	1.50
	2586.70	2777.52	78.30	190.82

COAL SEAMS TO BE STIMULATED WERE ADJUSTED DUE TO TOPOGRAPHY. GAMMA-CALIPER LOG FROM 0 TO 487.00 GAMMA-DENSITY LOG FROM 487.00 TO TD. NOTE: FOOTAGE NOT ADJUSTED FOR DEVIATION FILE: H:\JIMHAZ~1\PROJECTS\GAS\BE104A.CMP DATE: 12/26/07

Well: BE104A

# Oil & Gas Show

Formation	Top	Bottom	Thickness	IPF	Pressure	Hours
	-			(MCFD/BOPD)		Tested
Lee/Norton	1036	1924	888			
Pocahontas	2041	2587	546			
Total IPF				Not Taken		

## COMPU-LOG DEVIATION

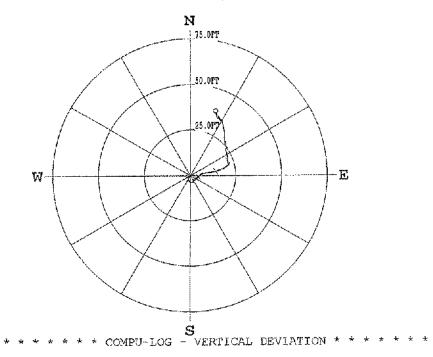
CLIEBT: Consol Emergy

LOCATION:

HOLE ID: 07-08X-BE-104-A DATE OF LCG: 12/11/07 FROBE: 9136CA 962

MAG DECL: -6.9

SCALE: 25 FT/IR TRUE DEPTE: 2764.63 FT ASIMOTH: 21.4 DISTANCE: 37.8 ET + = 500 PF INCR = BOTTON OF HOLE



HOLE ID. : 07-CNX-BE-104 DATE OF LOG : 12/11/07 CLIENT : Consol Energy

FIELD OFFICE :

962 DATA FROM : PROBE : 9136CA ,

DEPTH UNITS : FEET MAG. DECL. : -6.900

LOG: 07-C	NX-BE-104-A	12-11-07_01-	18_9136CA	020.02_2	765.80_DE	VI.log	
CABLE DEPTH	TRUE DEPTH	NORTH DEV.	EAST DEV.	DISTANCE	AZIMUTH	SANG	SANGB
50.0	49.99	<b>~0.55</b>	-0.67	0.9	231.0	1.4	222.4
60.0	59.98	-0.75	-0.80	1.1	227.0	1.3	206.5
70.0	69.99	-0.96	-0.86	1.3	221.8	1.3	190.3
80.0	79,98	-1.18	~0.95	1.5	218.8	1.5	211.9
90.0	89.97	-1.40	-1.09	1.8	217.9	1.3	206.4
100.0	99.97	-1.63	-1.16	2.0	215.5	1.3	185.4
110,0	109.97	-1.85	-1.13	2.2	211.3	1.3	170.6
120.0	119.97	-2.06	-1.08	2.3	207.6	1.1	161.4
130.0	129.96	-2.26	-1.00	2.5	203.8	1.4	152.5
140.0	139,96	-2.46	-0.94	2.6	200.8	1.3	175.5
150.0	149.96	-2.69	-0.94	2.8	199.2	1.2	161.2
160.0	159.96	-2.39	-0.87	3.0	196.8	1.3	161.5
170.0	169.95	-3.06	-0.77	3.2	194.1	1.2	141.3
180.0	179.95	-3.24	-0.63	3.3	191.0	1.3	144.8
190.0	189.95	-3.37	-0.45	3.4	187.6	1.3	123.7
200.0	199.95	-3.52	-0.27	3.5	184.3	1.4	135.0
210.0	209.94	-3.66	-0.07	3.7	181.1	1.4	116.3
220.0	219.94	-3.74	0.14	3.7	177.8	1.4	111.6
230.0	229.94	<b>~</b> 3.86	0.36	3.9	174.7	1.4	123.0
240.0	239.93	-3.93	0.58	4.0	171.7	1.4	98.3
250.0	249.93	-3.96	0.82	4.0	168.3	1.4	93.0
260.0	259,93	-3.90	1.06	4.0	164.8	1.5	68.3
270.0	269.93	-3.80	1.30	4.0	161.2	1.5	61.7
280.0	279.92	-3.69	1.53	4.0	157.4	1.5	64.1
290.0	289.92	~3.50	1.72	3.9	153.8	1.6	25.9
300.0	299.91	-3.22	$\frac{1.79}{1.79}$	3.7 3.4	151.0 148.5	$\frac{1.8}{1.7}$	3.2 1.6
310.0	309.91	-2.92	1.76	3.1	146.1	1.9	355.3
320.0	319.90	~2.61	1.56	2.9	144.5	1.6	322.0
330.0	329.90	-2.33	1.55	2.7	146.6	0.8	247.5
340.0	339.90	-2.25 -2.31	1.38	2.7	149.2	0.4	209.2
350.0	349.90		1.42	2.8	149.8	1.0	126.8
360.0	359.90	-2.43 -2.53	1.42	3.0	147.5	1.4	107.1
370.0	369.89	-K+03	1.01	3.0	T4', 7		.07.1

359.90	-2.45	4.44	= L3	<b></b>		.5m 1
369.89	-2.53	1.61	3.0 3.2	147.5 143.6		ბ7.1 98.7
379.89	-2.56 -2.59	1.89 2.19	3.4	139.8	1.9	86.4
389 <b>.89</b> 3 <b>9</b> 9. <b>88</b>	-2.43	2.56	3.5	133.5		58.2 38.4
409.86	-2.09	2.92	3.6 3.5	125.6 118.5		50.4
419.85	-1.67 -1.54	3.08 2.99	3.4	117.3	0.5 2	99.1
429.85 439.85	-1.55 -1.55	3.00	3.4	117.3		.10.3 81.4
449.85	-1.60	3.21	3.6 3.8	116.4 110.8	2.1 2.8	39.5
459.84	-1.37 -0.96	3.60 3.82	3.9	104.2	2.6	17.5
469.83 479.82	-0.64	3.89	3.9	99.3	1.6	19.8 .76.4
489.82	-0,69	3.93	4.0 4.2	99.9 100.0	1.7 I 1.4	76.2
499.81	-0.73 -0.81	4,13 4,18	4.3	100.9	1.7 2	223.0
. 509.81 519.81	-0.78	4.21	4.3	100.5	0.6 1.0	67.1 52.3
529 <b>.81</b>	-0.67	4.31 4.43	4.4 4.5	98.9 97.3	0.9	34.8
539.80 549.80	-0.57 -0.67	4.52	4.5	96.0	0.8	38.5
559.80	-0.37	4.62	4.6	94.6 93.2	1.0 1.0	$47.2 \\ 47.1$
569.80	-0.27	4.74 4.88	4.7 4.9	93.2 91.8	0.8	55.3
579.80 589.80	-0.16 -0.07	5.00	5.0	90.B	0.8	38.3
599.80	0.04	5.11	5.1	89.6	1.0 0.6	44.7 68.5
609.80	0.15	5.20 5.30	5.2 5.3	38.4 98.0	0.8	36.7
619.79 629.79	0.18 0.26	5.40	5.4	87.3	0.7	57.1
639.79	0.35	5.51	5.5 5.6	.86.4 85.5	0.6 0.9	62.7 38.4
649.79	0.44 0.52	5.62 5.71	5.0	84.8	0.7	49.1
659.79 669.79	0.59	<b>5.</b> 80	5.8	84.2 83.8	0.7 0.7	94.6 25.7
679.79	0.64	5.88 5.95	5.9 6.0	83.1	0.6	44.0
689.79 699.79	0.72 0.78	5.01	6.1	82.6	0.6	38.6
709.79	0.88	6.07	6.1	81.7 80.9	0.8 0.8	$19.7 \\ 37.4$
719.79	$\begin{array}{c} 0.96 \\ 1.04 \end{array}$	6.05 6.28	6.1 6.4	80.6	1.7	83.0
729.78 739.78	1.14	6.55	6.7	80.1	$1.8 \\ 1.7$	73.0 82.5
749.77	1.18	6.85	7.0 7.2	80.3 80.6	$\frac{1.7}{1.5}$	83.5
759.77	1.18 1.23	7.13 7.40	7.5	80.5	1.7	74.4
769.77 779.76	1.27	7.68	7.8	80.6	1.5	85.1 73.1
789.76	1.27	7,94	8.0 8.3	80.9 81.1	1.4 1.5	94.1
799.76 809.75	1.29 1.30	8.20 8.46	8.6	81.3	1.5	87.8
819.75	1.33	8.73	8.8	81.4	1.7 1.6	86.2 88.9
829.75	1.34	9.01 9.28	9.1 9.4	81.5 81.7	1.6	82.4
839,74 849,74	1.36 1.39	9.56	9.7	81.7	1.8	90.6
859.73	1.42	9.85	10.0	81.8 81.7	$\frac{1.6}{1.6}$	$62.7 \\ 81.2$
869.73	1.49 1.51	10.15 10.42	$\frac{10.3}{10.5}$	81.8	1.6	97.0
879.72 <b>8</b> 89.72	1.54	10.69	10.8	81.8	1.5	79.9
899.72	1.59	10.97	$\begin{array}{c} 11.1 \\ 11.4 \end{array}$	81.9	1.6 1.6	70.3 $98.1$
909.71	1.61 1.68	11.25 11.52	11.6	81.7	1.8	85.4
919.71 929.70	1.72	11.82	11.9	81.7	1.7	78.8 67.9
939.70	1.80	12.10 12.40	12.2 12.5	81.5 81.3	1.6 1.8	80.3
949.69 959.69	- 1.90 1.95	12.69	12.8	81.2	1.7	76.1
969.69	2.04	12.97	13.1	81.1 80.8	1.8 2.0	91.7 55.2
979.68	2.15	13.24 13.55	13.4 13.7	30.8	1.6	54.0
989.68 999.67	2.19 2.28	13.82	14.0	80.6	1.8	90.8
1009.67	2.35	14.11	14.3 14.6	80.5 80.3	1.8 1.8	90.7 81.5
1019.66 1029.66	2.45 2.5 <b>2</b>	14.39 14.68	14.9	80.3	1.8	64.1
1039.65	2.61	14.98	15.2	80.1 79.9	2.0 1.9	93.3 65.1
1049.65	2.71 2.84	15,29 15.61	15.5 15.9	79.9	1.9	68.7
1059.64 1069.64	2.96	15.92	16.2	79.5	2.1	73.4
1079.63	3.08	16.25	$16.5 \\ 16.9$	79.3 79.1	2.0 1.7	75.8 82.9
1089.62	3.20	16.57	10,3	70 0	7 9	73.0

	- · · ·			79.1	1.7 82.9
1089.62	3.20	16.57	16.9	78.9	1.9 73.0
1099.62	3.31	16.87	17.2	78.7	2.1 64.6
1109.61	3.44	17.17	17.5	78.4	1.8 67.2
1119.61	3.58	17.48	17.8	78.2	1.7 62.9
1129.60	3.72	17.75	18.1	78.0	1.5 68.8
1139,60	3.82	18.01	18.4		1.6 53.8
1149.60	3.96	18,23	18.7	77.8	1.4 70.1
1159.59	4.06	18.46	18.9	77.6	1.2 54.6
1169.59	4.16	18.65	19.1	77.4	1.2 58.2
1179.59	4.27	18.85	19.3	77.2	1.4 59.4
1189.58	4.38	19.04	19.5	77.0	1.3 58.2
1199,58	4.51	19.24	19.8	76.8	1.2 53.3
1209.58	4.62	19.42	20.0	76.6	1.3 59.7
1219.58	4.76	19.60	20.2	76.4	1.2 54.1
1229.57	4.85	19.77	20.4	76.2	1.2 36.8
1239.57	5.01	19.93	20.6	75.9 75.7	1.1 53.6
1249.57	5.12	20.12	20.8	75.7 75.5	1.4 47.1
1259.57	5.25	20.29	21.0	75.2	1.4 40.7
1269.56	5.41	20.46	21.2	75.2 74.8	1.6 44.7
1279.56	5,60	20.62	21.4	74.5	1.4 45.7
1289.56	5.78	20.80	21.6	74.J	1.4 50.8
1299.55	5.96	20.98	21.8	79.1	1.5 28.3
1309.55	6.16	21.15	22.0	73.2	1.6 245.9
1319.55	6.40	21 <b>.1</b> 8	22.1		0.7 317.8
1329.54	6.25	21.01	21.9	73.4 73.2	0.1 339.4
1339.54	8.31	20.95	21.9	73.1	0.3 324.7
1349.54	6.36	20.31	21.9	72.9	0.4 318.8
1359.54	6.43	20.86	21.8	72.7	0.3 343.5
1369.54	6.49	20.80 20.77	$\substack{21.8\\21.8}$	72.5	0.4 348.5
1379.54	6.56	20.74	21.7	72.2	0.5 334.9
1389.54	6.63	20.70	21.7	72.0	0.5 324.2
1399.54	6.71	20.60	21.7	71.7	0.4 324.3
1409.54	6.79	20.55	21.7	71.5	0.5 351.3
1419.54	6.87	20.54	21.7	71.2	0.6 346.5
1429.54	6.98	20.53	21.7	70.9	0.6 352.0
1439.54	7.11	20.50	21.7	70.6	0.9 338.6
1449.54	7.24	20.50	21.8	70.3	0.9 352.3
1459.54	7.34	20.49	21.8	69.9	1.0 352.4
1469.53	7.51 7.65	20.48	21.9	69.5	0.9 15.4
1479.53		20.49	21.9	69.1	0.8 345.7
1489.53	7.81	20.49	22.0	68.7	1.3 358.5
1499.53	7.99 8.18	20.50	22.1	68.2	1.1   12.4
1509.53	8.34	20.48	22.1	67.8	0.9 356.9
1519.53	8,52	20.49	22.2	67.4	0.8 12.0
1529.53	8,66	20.49	22.2	67.1	0.8
1539.52	8.80	20.50	22.3	66.6	0.7 354.4
1549.52	8.92	20.52	22.4	66.5	0.8 352.9
1559.52	9.06	20.53	22.4	66.2	0.8 359.5
1569.52 1579.52	9.19	20.53	22.5	65.9	0.7 16.6
1589.52	9.30	20,55	22.6	65.7	0.7 356.7
1599.52	9.44	20.52	22.6	65.3	0.8 354.8
1609.52	9,55	20.55	22.7	65.1	0.7 16.9
1619.52	9.70	20.52	22.7	64.7	0.8 335.2
1629.52	9.84	20.48	22.7	64.3	0.7 337.2
1639.52	9.97	20.43	22.7	64.0	1.0 338.6
1649.51	10.10	20.43	22.8	63.7	0.8 350.9
1659.51	10.24	20.39	22.8	63.3	0.9 335.0
1669.51	10.39	20.36	22.9	63.0	0.9 343.5
1679.51	10.52	20.29	22.9	62.6	0.8 344.7
1689.51	10.63	20.30	22.9	62.4	0.9 334.0
1699.51	10.77	20.26	22.9	62.0	0.8 22.5
1709.51	10.92	20,22	23.0	61.6	0.8 346.0
1719.51	11.06	20.19	23.0	61.3	1.0 325.9 0.8 8.8
1729-51	11.21	20.17	23.1	60.9 60.5	0.8 8.8 1.0 346.9
1739.50	11.36	20.12	23.1 23.1	60.1	1.0 354.3
1749.50	11.53	20.06	23.1 23.2	59.6	1.2 355.5
1759.50	11.74	20.01	23.2	59.1	1.3 340.8
1759.50	11.95	19.97	23.3	58.6	1,1 351.3
1779.49	12.18	19,93	23.4	58.2	1.5 47.1
1789.49	12.38	19.98	23.5	57.6	1.5 351.9
1799.49	12.58	19.82	23.6	57.4	1.3 51.7
1809.48	12.75	19.92	23.5	56.8	1.4 333.3
1010 49	12.ዳጸ	19.67		50.0	= •=

1909.43 1919.42 15.46 19.91 1929.41 15.45 19.52 19.52 19.51 19.91 15.45 19.52 19.52 19.51 15.57 19.54 15.57 19.55 19.52 19.50 19.51 15.57 19.51 15.57 19.53 19.52 19.50 19.51 19.51 19.53 19.53 19.55 19.51 19.73 19.79 19.60 10.70 19.79 19.60 10.70 19.79 19.70							
1.99				2.1.2	01.0	<b></b>	.,
1819.48					57.4	1.3	51.7
1919, 48						1.4	333,3
1829, 48 1839, 47 13.29 19.59 1869, 47 13.74 19.56 23.9 54.9 1869, 46 13.96 19.52 24.0 24.0 24.0 24.0 24.0 24.0 25.0 24.0 24.0 24.0 25.0 24.0 24.0 25.0 24.0 25.0 24.0 25.0 24.0 25.0 26.0 26.0 26.0 26.0 26.0 26.0 26.0 26							
1839, 47  13.50  19.50  23.8  55.4  13.74  13.76  19.50  23.9  54.4  13.76  19.50  23.9  54.4  13.9  189.46  13.96  19.73  23.9  54.3  12.2  139.46  13.91  19.39  23.9  54.3  12.2  139.9  44  13.96  19.73  124.6  53.6  53.6  2.4  31.2	1829.48						
1849-47 13.74 19.56 23.9 54.9 14.6 13.96 19.52 24.0 24.0 35.3 14.2 299.1 1869, 46 13.96 19.52 24.0 35.8 24.3 35.0 14.2 299.1 1889, 46 14.9 19.73 24.6 53.3 2.4 37.6 1999, 44 14.69 19.73 24.6 53.3 2.4 37.6 1999, 43 15.10 19.88 25.0 52.0 22.2 41.0 1919.41 15.27 19.54 22.8 25.0 22.5 1929.41 15.27 19.54 22.8 19.52 22.0 1939.41 15.62 19.52 22.0 19.52 19.59 41 15.62 19.52 22.0 19.53 19.99 41 15.62 19.52 22.0 19.53 19.99 41 15.62 19.52 22.0 19.53 19.99 41 15.62 19.52 22.0 19.59 41 15.79 19.59 41 15.62 19.52 25.0 20.7 19.79 41 16.63 19.55 25.5 50.2 0.7 19.79 40 16.63 19.55 25.4 50.4 0.6 344.7 19.99 40 16.65 19.49 25.6 49.5 0.7 30.7 30.7 30.7 30.9 340.6 20.9 40 16.66 19.49 25.6 49.5 0.8 36.6 20.9 34.6 20.9 34.6 34.6 34.6 34.7 20.9 34.6 34.6 34.6 34.6 34.6 34.6 34.6 34.6	1839.47						
1859, 46	1849.47						
1869, 46  13.96  19.52  24.0  36.4  13.96  19.52  24.0  36.4  13.91  19.39  25.0  55.3  1.2  239.1  189.4  189.44  14.69  19.73  24.6  53.3  2.4  37.3  34.2  1899.44  14.69  19.73  24.6  53.3  2.4  37.3  34.2  1899.44  15.10  19.88  25.0  52.8  22.2  21.1  1915.42  1915.42  19.54  22.8  25.2  25.2  22.2  297.7  1939.41  15.27  19.54  22.8  23.0  51.3  0.9  349.8  19.59  19.54  22.8  19.52  23.0  51.3  0.9  349.8  19.59  19.51  19.52  23.0  51.3  0.9  349.8  19.59  19.51  19.52  23.1  51.1  0.9  349.8  19.59  19.51  19.53  23.1  50.7  19.99  10.6  10.7  10.7  19.79  11.1  19.99  10.6  10.7  10.7  10.99  10.8  10.99  10.8  10.90  10.8  10.90  10.9	1859.47	13.74					
1879, 46		13.96					
1899, 45			19.39				
1899.44  18.69  19.73  24.65  53.3  24.4  37.64  19.91  19.88  25.0  52.0  22.2  41.01  19.91  19.91  19.93  19.73  24.65  53.3  24.4  37.65  19.91  19.94  24.8  52.0  52.2  22.5  27.2  27.2  28.9  51.6  1.0  0.7  1.63  0.7  1.939  11  15.62  19.52  22.9  51.3  0.9  34.9  34.9  19.51  19.52  25.0  51.3  0.9  34.9  34.9  31.9  32.9  25.0  51.3  0.9  34.9  34.9  32.9  31.9  31.9  32.9  32.1  31.1  31.9  32.1  32.				24.2			
1909.43 15.10 1919.42 15.45 1919.42 15.27 1919.54 15.27 19.54 15.27 19.54 19.52 24.8 52.0 1.6 302.3 1919.41 15.45 19.52 24.8 52.0 1.6 302.3 1999.41 15.76 19.52 25.1 15.13 0.9 349.2 1399.41 15.78 19.52 25.1 15.13 0.9 349.2 1399.41 16.03 19.55 25.3 10.7 19.9 11.9 19.9 10.9 10				24.6	53.3		
1919.4.2   15.46   19.91   25.2   52.2   2.5   297.7     1929.4.1   15.45   19.52   24.9   51.6   1.0   0.7     1939.4.1   15.45   19.52   24.9   51.6   1.0   0.7     1949.4.1   15.62   19.52   25.1   51.1   0.9   9.2     1369.4.1   15.91   19.53   25.2   50.8   0.7   1.1     1979.4.1   16.03   19.55   25.3   50.7   0.9   338.6     1979.4.1   16.03   19.55   25.4   50.4   0.8   344.5     1999.4.1   16.17   19.55   25.5   50.2   0.7   1.1     1999.4.1   16.17   19.55   25.5   50.2   0.7   37.8     1999.4.0   16.30   19.55   25.5   50.4   0.8   344.5     1999.4.0   16.30   19.55   25.5   50.4   0.7   347.5     2009.4.0   16.41   19.54   25.8   50.0   0.7   347.5     2019.4.0   16.65   19.44   25.6   49.5   0.8   356.4     2029.4.0   16.65   19.44   25.6   43.5   1.6   359.5     2039.4.0   16.65   19.44   25.6   43.5   1.6   359.5     2039.4.0   15.97   19.48   25.6   49.5   0.8   344.5     2049.4.0   15.97   19.48   25.6   49.5   0.8   344.5     2049.3.3   17.34   19.52   26.1   48.4   2.2   34.5     2069.3.8   17.69   19.54   26.4   47.8   2.1   346.5     2079.37   18.10   19.56   26.6   47.2   2.5   14.5     2099.35   18.31   19.57   26.4   46.4   2.2   25.1     2099.35   18.31   19.57   26.6   45.2   0.8   37.1     219.35   18.35   18.97   26.4   66.4   2.2   25.1     219.35   18.71   18.86   26.6   45.2   0.8   37.2     219.30   18.35   18.63   27.0   43.7   2.7   3.3     219.31   18.63   26.7   43.1   2.6   35.2     219.30   20.97   18.65   28.0   41.8   2.6   35.2     229.21   22.22   22.92   18.65   28.0   41.8   2.6   35.2     229.31   20.42   18.65   28.0   41.8   2.6   35.2     229.32   22.92   22.92   18.71   29.6   30.2   37.9   2.7   34.5     229.91   29.24   21.68   18.76   29.9   38.5   2.8   34.5     229.91   29.24   21.68   18.76   29.9   38.5   2.9   32.2     229.91   22.28   18.66   22.2   34.0   30.9   36.5   2.9   32.2     229.91   22.28   18.81   16.39   30.9   36.5   2.9   32.2     229.91   22.29   22.95   18.71   29.6   30.2   31.9   33.3     239.91   22.24   23.1   23.9   30.6   32.2					52.8	2.2	41.0
19:29.41 15.27 19:39.41 15.45 19:52 19:53 19:54 19:55 19:55 20:5 10:3 19:99.41 15.62 19:52 25:0 15:1 19:99.41 16:03 19:55 19:52 25:1 19:7 19:79.41 16:03 19:55 19:55 25:2 19:7 19:79.41 16:03 19:55 25:3 19:7 19:79.41 16:03 19:55 25:5 19:7 19:79.41 16:03 19:55 25:5 19:7 19:79.41 16:03 19:55 25:5 19:7 19:79.41 16:03 19:55 25:5 19:7 19:79.41 16:03 19:55 25:5 19:7 20:9 16:30 19:55 20:7 18:10 19:55 20:8 18:7 19:52 20:8 18:17 19:15 20:9 10:15 20:9 10:15 20:1						2.5	297.7
1929, 41						1.6	302.2
1939.41 15.62 1959.41 15.78 19.52 25.1 51.3 0.9 349.41 15.78 1959.41 15.91 19.53 25.2 50.8 0.7 1.3 1979.41 16.03 19.55 25.5 50.8 0.7 1.3 1979.41 16.03 19.55 25.5 50.8 0.7 1.3 1989.41 16.17 19.55 25.5 50.8 0.7 1.3 1989.41 16.17 19.55 25.5 50.2 0.7 18.8 2009.40 16.30 19.55 25.5 50.2 0.7 18.8 2009.40 16.65 19.49 25.6 49.7 0.7 356.2 2009.40 16.65 19.49 25.6 49.7 0.7 356.2 2009.40 16.65 19.49 25.6 49.7 0.7 356.2 2009.40 16.65 19.49 25.6 49.7 0.7 356.2 2009.40 16.65 19.49 25.6 49.7 0.7 356.2 2009.40 16.65 19.49 25.6 49.7 0.7 356.2 2009.30 16.62 19.44 25.6 49.7 0.8 356.4 2049.40 16.97 19.48 25.6 48.9 2.4 344.2 2059.38 17.34 19.52 26.1 48.4 22.1 346.2 2069.38 17.69 19.54 26.4 47.8 2.1 36.6 2079.37 208.8 208.8 209.38 18.17 19.10 26.4 46.5 2.6 2.6 2.6 2.6 2.6 2.7 2109.35 18.35 18.97 26.7 46.8 21.3 340.2 219.35 18.71 19.10 26.6 44.9 1.0 344.2 21.3 21.3 21.3 21.3 21.3 21.3 21.3 21							
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1939, 41 196, 41 15, 91 1979, 41 16, 03 19, 55 25, 3 50, 7 0, 9 338, 6 1989, 40 16, 17 1999, 40 16, 17 1999, 40 16, 17 1999, 40 16, 18 19, 55 25, 5 50, 2 0, 7 18, 6 2009, 40 16, 41 19, 55 25, 5 50, 2 0, 7 18, 6 2009, 40 16, 41 19, 54 25, 8 49, 7 0, 7 335, 6 2029, 40 16, 65 19, 49 25, 6 49, 5 0, 0 356, 6 2039, 40 16, 62 19, 44 25, 6 49, 5 16 2049, 40 16, 97 19, 48 25, 8 48, 9 2, 4 344, 6 2049, 40 16, 97 19, 48 25, 8 48, 9 2, 4 344, 6 2079, 37 19, 15 2069, 38 17, 34 19, 15 2069, 38 17, 69 19, 54 26, 4 47, 8 2, 1 36, 6 2079, 37 18, 10 19, 56 26, 6 47, 2 2, 5 16, 3 36, 3 209, 35 18, 17 19, 10 26, 4 46, 4 22, 25 21, 2 219, 35 18, 71 19, 10 26, 6 44, 9 10, 344, 2 2139, 35 18, 93 2129, 35 18, 93 2149, 34 19, 11 18, 63 26, 6 44, 9 10, 344, 34 2149, 34 18, 95 18, 68 26, 6 44, 6 11, 2 201, 34 2169, 33 19, 53 18, 63 27, 0 43, 7 27, 7 3, 2 219, 32 219, 33 19, 53 18, 63 27, 7 42, 4 43, 1 2, 6 32 219, 30 219, 30 21, 6 31 2169, 33 219, 97 18, 70 22 219, 38 219, 39 21, 68 22, 97 22, 8 38, 6 39 22, 7 32, 8 32, 8 32, 8 32, 8 32, 8 32, 8 32, 8 32, 8 32, 8 32, 8 32, 8 32, 8 32, 8 32, 8 32, 8 32, 8 32, 8 32, 8 33, 8 34, 8 34, 8 36, 8 37, 9 38, 6 38, 8 38, 9 38, 6 38, 8 38, 9 38, 6 38, 8 38, 9 38, 8 38, 8 38, 9 38, 8 38, 9 38, 8 38, 8 38, 9 38, 8 38, 9 38, 8 38, 8 38, 9 38, 8 38, 9 38, 8 38, 8 38, 9 38, 8 38, 9 38, 8 38, 8 38, 9 38, 8 38, 9 38, 8 38, 8 38, 9 38, 8 38, 9 38, 8 38, 8 38, 9 38, 8 38, 8 38, 9 38, 8 38, 8 38, 9 38, 8 38, 8 38, 9 38, 8 38, 8 38, 9 38, 8 38, 8 38, 9 38, 8 38, 8 38, 9 38, 8 38, 8 38, 9 38, 8 38, 8 38, 9 38, 8 38, 8 38, 9 38, 8 38, 8 38, 9 38, 8 38, 8 38, 9 38, 8 38, 8 38, 9 38, 8 38, 8 38, 9 38, 8 38, 8 38, 9 38, 8 38, 8 38, 9 38, 8 38, 8 38, 8 38, 8 38, 8 38, 9 38, 8 38,	1949.41						
1969, 41	1959.41						
1979, 41         16.03         19.56         25.3         50.7         0.9         338.4           1983, 41         16.17         19.55         25.4         50.4         0.8         344.7           2009, 40         16.43         19.54         25.5         50.2         0.7         18.8           2019, 40         16.65         19.49         25.6         49.5         0.0         0.7         356.4           2039, 40         16.62         19.49         25.6         49.5         0.0         356.4           2044, 40         16.97         19.48         25.6         49.5         1.6         358.6           2059, 39         17.34         19.52         26.1         48.4         2.2         344.2           2069, 36         18.10         19.56         26.6         47.2         2.5         12.1           2089, 35         18.17         19.10         25.4         46.4         2.2         252.1           2109, 35         18.35         18.97         26.4         46.4         2.2         252.1           2109, 35         18.53         18.93         26.5         45.6         1.4         399.2           219, 35         18.63	1969.41	15.91					
1989.41		16.03	19.56				
1999.40			19.55				
2009.40			19,55	25.5	50.2		
2019.40 16.55 19.49 25.6 49.7 0.7 358.6 2029.40 16.65 19.49 25.6 49.5 0.8 366.2 39.40 16.62 19.44 25.6 49.5 1.6 358.8 2039.40 16.97 19.48 25.8 48.9 2.4 344.6 2059.39 17.34 19.52 26.1 48.4 2.2 34.4 2069.38 17.69 19.54 26.4 47.8 2.1 346.1 2079.37 18.10 19.56 26.6 47.2 2.5 16.2 25.1 2089.36 18.41 19.37 26.7 46.5 2.6 275.1 2089.35 18.17 19.10 25.4 46.4 2.2 252.1 2099.35 18.17 19.10 25.4 46.4 2.2 252.1 21.3 21.9 35 18.35 18.93 26.5 45.6 1.4 339.1 21.9 35 18.35 18.93 26.5 45.6 1.4 339.1 21.9 35 18.71 18.86 26.6 45.2 0.8 347.2 21.9 3.5 18.71 18.86 26.6 44.9 1.0 344.2 21.3 34.3 21.9 35 18.91 18.89 26.6 44.9 1.0 344.2 21.3 3.3 18.93 26.5 44.6 1.2 201.1 21.9 3.3 18.91 18.63 26.7 44.3 2.2 31.3 21.9 3.3 18.91 18.63 26.7 44.3 2.2 31.3 21.9 3.3 18.97 18.60 26.6 44.9 1.0 344.2 21.9 3.3 18.97 18.60 26.6 44.9 1.0 344.2 21.9 3.3 18.97 18.63 26.7 44.3 2.2 31.3 21.9 3.3 18.97 18.63 26.7 44.3 1.2 2.6 358.2 21.9 3.3 18.97 18.60 26.6 44.9 1.0 344.2 21.9 3.2 21.9 3.2 21.9 2.2 21.2 2.8 18.65 28.0 41.8 2.6 13. 22.9 2.2 21.9 2.2 21.8 18.65 28.0 41.8 2.6 13. 22.9 2.2 22.9 27 22.08 18.81 29.0 40.4 2.3 1.2 2.6 32.2 22.9 27 22.08 18.81 29.0 40.4 2.3 3.2 22.9 22.9 2.1 28 18.65 28.3 41.2 2.6 32.2 22.9 22.9 2.1 28.8 18.75 29.3 39.8 2.2 2.4 34.2 22.9 2.2 2.9 3.8 5 18.56 30.2 37.9 2.7 345. 22.9 2.2 2.9 5 18.71 29.6 39.2 2.4 34.0 2.2 3.40 18.64 29.9 38.5 2.8 35.9 2.6 330.2 22.9 2.9 24.3 18.64 29.9 38.5 2.8 35.9 2.6 330.2 22.9 2.9 24.3 18.64 29.9 38.5 2.8 35.9 2.6 330.2 22.9 2.9 24.8 18.69 31.2 35.9 2.6 330.3 2.3 55.2 2.9 33.2 2.4 34.0 3.0 3.4 31.9 33.3 3.4 31.9 3.3 3.3 3.4 31.9 3.3 3.5 3.2 3.5 3.5 3.5 3.6 3.0 3.9 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0				25.5	50.0		
2029.40 16.55 19.49 25.6 49.5 1.6 358.6 2039.40 16.62 19.44 25.6 49.5 1.6 358.2 2049.40 16.97 19.48 25.8 48.9 2.4 344.8 2059.39 17.34 19.52 26.1 48.4 2.2 34.2 2069.38 17.69 19.54 26.4 47.8 2.1 346.2 2079.37 18.10 19.56 26.6 47.2 2.5 14.1 2079.37 18.10 19.56 26.6 47.2 2.5 14.1 2079.35 18.11 19.37 26.7 46.5 2.6 276.7 2099.35 18.17 19.10 25.4 46.4 2.2 252.2 2109.35 18.35 18.97 26.4 46.0 1.4 340.2 2199.35 18.35 18.93 26.5 45.6 1.4 339.3 2119.35 18.53 18.93 26.5 45.6 1.4 339.3 219.35 18.88 18.80 26.6 44.9 1.0 344.2 2129.35 18.71 18.56 26.6 44.9 1.0 344.2 2129.35 18.71 18.663 26.7 44.3 2.2 3.2 2139.35 18.36 18.69 26.6 44.9 1.0 344.2 2139.35 18.36 18.69 26.6 44.9 1.0 344.2 2139.35 18.95 18.663 27.0 43.7 2.7 3.2 2139.35 18.59 18.663 27.0 43.7 2.7 3.2 2139.35 18.53 18.63 27.0 43.7 2.7 3.2 2139.30 19.53 18.65 27.7 42.4 2.7 7.2 2139.30 20.42 16.65 27.7 42.4 2.7 7.2 2199.30 20.42 16.65 27.7 42.4 2.7 7.2 2199.30 20.9 21.28 18.65 28.3 41.2 2.8 32.2 229.27 22.08 18.81 29.0 40.4 2.3 1.2 2.8 32.2 229.27 22.08 18.81 29.0 40.4 2.3 1.2 2.8 32.2 229.27 22.08 18.81 29.0 40.4 2.3 1.2 2.8 32.2 229.27 22.08 18.65 28.3 41.2 2.8 32.2 229.27 22.08 18.65 28.3 41.2 2.8 32.2 229.27 22.08 18.65 28.3 41.2 2.8 32.2 229.27 22.95 18.71 29.6 39.2 2.4 359.2 229.1 22.95 18.75 29.3 39.8 2.6 352.2 229.5 18.75 29.3 39.8 2.6 352.2 229.5 18.75 29.3 39.8 2.6 352.2 229.5 18.75 29.3 39.8 2.6 352.2 229.5 18.75 29.3 39.8 2.6 352.2 229.5 18.75 29.3 39.8 2.6 352.2 229.1 22.95 18.75 29.3 39.8 2.6 352.2 229.1 22.95 18.75 29.3 39.8 2.6 352.2 239.19 25.28 18.28 31.2 35.9 2.6 340.3 32.3 55.2 340 18.64 29.9 38.5 5 2.9 332.2 24.3 31.9 32.2 34.0 18.64 29.9 38.5 5 2.9 332.2 24.3 31.5 36.3 32.3 55.2 34.0 34.2 34.3 32.3 55.2 34.0 34.2 34.3 32.3 55.2 34.0 34.2 34.3 32.3 55.2 34.0 34.3 32.3 55.2 34.0 34.3 32.3 55.2 34.0 34.3 32.3 55.2 34.0 34.3 32.3 55.2 34.0 34.3 32.3 55.3 34.2 35.9 34.2 34.3 34.3 32.3 55.3 34.2 35.9 34.2 34.3 34.3 32.3 55.3 34.2 35.9 34.2 34.3 34.3 32.3 55.3 34.2 35.9 34.3 32.3 55.3 34.2 35.9 34.2 34.3 34.3 32.3 55.3 34.2 35.9 34.2 34.3 34.3 34.3 34.3 34.				25.6	49.7	0.7	
2039.40 16.62 19.44 25.6 49.5 1.6 359.8 2049.40 16.97 19.48 25.8 48.9 2.4 344.8 2059.39 17.34 19.52 26.1 48.4 2.2 34.2 2069.38 17.69 19.54 26.4 47.8 2.1 346.2 2069.38 17.69 19.56 26.6 47.2 2.5 14.2 2069.38 18.10 19.56 26.6 47.2 2.5 16.2 2069.35 18.17 19.10 25.4 46.4 2.2 252.2 2089.35 18.17 19.10 25.4 46.4 2.2 252.2 219.35 18.35 18.97 26.7 46.5 2 0.8 347.2 219.35 18.53 18.93 26.5 45.6 1.4 339.7 2129.35 18.71 18.56 26.6 45.2 0.8 347.2 219.35 18.71 18.56 26.6 45.2 0.8 347.3 2139.35 18.88 18.80 26.6 44.9 1.0 344.2 2139.35 18.89 18.68 26.6 44.9 1.0 344.2 2139.35 18.93 18.68 26.6 44.6 1.2 201.2 216.33 19.53 18.63 27.0 43.7 2.7 3.2 2169.33 19.53 18.63 27.0 43.7 2.7 3.2 2169.30 20.87 18.65 27.7 42.4 2.7 7.2 2169.30 20.87 18.65 28.0 41.8 2.6 13.2 229.27 22.08 18.81 29.0 40.4 2.3 1.2 229.27 22.08 18.81 29.0 40.4 2.3 1.2 229.27 22.08 18.81 29.0 40.4 2.3 1.2 229.27 22.08 18.81 29.0 40.4 2.3 1.2 229.27 22.08 18.81 29.0 40.4 2.3 1.2 229.27 22.08 18.81 29.0 40.4 2.3 1.2 229.27 22.08 18.81 29.0 40.4 2.3 32.2 229.27 22.08 18.81 29.0 40.4 2.3 32.2 229.27 22.08 18.81 29.0 40.4 2.3 32.2 229.27 22.08 18.81 29.0 40.4 2.3 32.2 229.27 22.08 18.81 29.0 40.4 2.3 32.2 229.27 22.08 18.81 29.0 40.4 2.3 32.2 229.27 22.08 18.81 29.0 40.4 2.3 32.2 229.27 22.08 18.81 29.0 40.4 2.3 32.2 229.27 22.08 18.81 29.0 40.4 2.3 32.2 229.27 22.08 18.81 29.0 40.4 2.3 32.2 229.27 22.08 18.81 29.0 40.4 2.3 32.2 229.27 22.08 18.81 29.0 40.4 2.3 32.2 229.27 22.08 18.81 29.0 40.4 2.3 32.2 229.27 22.08 18.81 29.0 40.4 2.3 32.2 239.26 22.50 18.75 29.3 39.8 2.6 352.2 24.3 359.4 26.5 34.0 26.6 30.2 37.9 22.7 354.5 22.9 32.6 34.0 30.0 30.0 30.0 30.0 30.0 30.0 30.0					49.5	0.8	356.4
2049.40 16.97 19.48 25.8 48.9 2.4 344.6 2059.39 17.34 19.52 26.1 48.4 2.2 34 2069.38 17.69 19.54 26.4 47.8 2.1 346 2079.37 18.10 19.56 26.6 47.2 2.5 14 2099.35 18.17 19.10 26.4 46.4 2.2 252 2109.35 18.35 18.97 26.4 46.0 1.4 340 2119.35 18.35 18.97 26.4 46.0 1.4 340 2119.35 18.53 18.93 26.5 45.6 1.4 339 2129.35 18.71 18.86 26.6 45.2 0.8 347 2139.35 18.81 19.80 26.6 44.9 1.0 344 21239.35 18.91 19.80 26.6 44.9 1.0 344 2139.35 18.88 19.80 26.6 44.9 1.0 344 2139.35 18.89 19.80 26.6 44.9 1.0 344 2139.35 18.89 19.80 26.6 44.9 1.0 344 2139.35 18.91 19.86 26.6 44.9 1.0 344 2139.34 19.11 18.63 26.7 44.3 2.2 3. 2159.34 19.11 18.63 26.7 44.3 2.2 3. 2179.32 19.97 18.70 27.4 43.1 2.6 358 2179.32 19.97 18.70 27.4 43.1 2.6 358 2199.30 20.42 16.65 27.7 42.4 2.7 7. 2199.30 20.42 16.65 27.7 42.4 2.7 7. 2199.30 20.42 18.65 28.3 41.2 2.8 32. 2219.29 21.28 18.65 28.3 41.2 2.8 32. 2219.29 21.28 18.65 28.3 41.2 2.8 32. 2229.27 22.08 18.81 29.0 40.4 2.3 1. 22.29 2229.27 22.08 18.81 29.0 40.4 2.3 1. 2239.26 22.50 18.75 29.3 39.8 2.6 352. 2249.25 22.95 18.71 29.6 39 2 2.4 359 2239.26 22.50 18.75 29.3 39.8 2.6 352. 2249.25 22.95 18.71 29.6 39 2 2.4 352. 2239.2 24.8 18.68 30.6 37 2 2.7 345. 2239.20 24.8 1 6.38 30.9 36.5 2.9 324 2339.20 24.8 1 6.38 30.9 36.5 2.9 322 4339.10 25.28 31.5 35.3 2.6 341 2339.14 27.76 17.72 32.9 32.5 33.3 32.8 36.5 18.56 30.2 37.9 2.7 345. 2239.14 27.26 19 18.08 31.8 34.6 30.0 349 2339.14 27.76 17.72 32.9 32.5 33.3 32.8 36.5 18.50 30.9 36.5 2.9 332 24.9 339 34 359 344 349					43.5	1.6	358.8
2049, 90 2059, 39 2059, 39 17.69 19.54 2064, 47.8 2.1 346.; 2069, 38 17.69 18.10 19.56 26.6 47.2 2.5 14.4 2099, 35 18.11 19.10 26.4 46.4 2.2 2252, 22 2219, 35 18.35 18.35 18.97 25.4 46.0 1.4 340, 21 2119, 35 18.53 18.93 26.5 45.6 1.4 339, 35 2129, 35 18.71 18.86 26.6 44.9 1.0 344. 2139, 35 18.89 19.80 26.6 44.9 1.0 344. 2139, 35 18.91 18.89 19.80 26.6 44.9 1.0 344. 2139, 35 18.91 18.63 26.7 46.4 20.8 31.70 21.93 21.9							344.8
2059.38							
2069.38 17.69 2079.37 18.10 19.56 26.6 47.2 2.5 14.1 2089.35 18.41 19.37 26.7 46.5 2.6 276.7 2099.35 18.35 18.97 26.4 46.6 2.2 2252.1 2109.35 18.35 18.97 26.5 45.6 1.4 339.1 2119.35 18.53 18.93 26.5 45.6 1.4 339.1 2119.35 18.871 18.68 26.6 45.2 0.8 347.1 2139.35 18.98 18.00 26.6 44.9 1.0 344 2149.34 18.95 18.68 26.6 44.9 1.0 344 215.89 2169.33 19.97 18.68 26.6 44.6 1.2 2011. 2011. 2139.35 18.95 18.68 26.6 44.6 1.2 2011. 2011. 2139.35 18.95 18.68 26.6 44.9 1.0 344 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2							
2079, 37         19,10         19,37         26,7         46,5         2,6         276,2           2099, 35         18,17         19,10         26,4         46,4         2,2         252,2           2109, 35         18,35         18,97         26,4         46,0         1,4         330,1           2129, 35         18,71         18,65         26,6         45,2         0,8         347,1           2139, 35         18,71         18,65         26,6         44,9         1,0         344,2           2139, 35         18,88         18,68         26,6         44,9         1,0         344,2           2169, 34         19,11         18,63         26,7         44,3         2,2         3,           2169, 34         19,11         18,63         26,7         44,3         2,2         3,           2179, 32         19,97         18,70         27,4         43,1         2,6         358,           2189, 31         20,42         16,65         28,0         41,8         2,6         13,           2209, 29         21,28         18,65         28,3         41,2         2,6         352,           2219, 28         21,68         18,78							
2089, 35	2079.37	18.10					
2109.35 18.35 18.97 26.4 46.0 1.4 340.2 2119.35 18.53 18.93 26.5 45.6 1.4 339.9 2119.35 18.71 18.86 26.6 45.2 0.8 347.3 2129.35 18.71 18.86 26.6 45.2 0.8 347.3 2139.35 18.88 18.80 26.6 44.9 1.0 344.2 2149.34 18.95 18.63 26.7 44.3 1.2 23.2 2139.33 19.53 18.63 27.0 43.7 2.7 3. 2179.32 19.97 18.70 27.4 43.1 2.6 358.2 2199.30 20.42 16.65 27.7 42.4 2.7 7. 2199.30 20.87 18.65 28.0 41.8 2.6 13. 2209.29 21.28 18.65 28.3 41.2 2.8 32. 2219.28 21.68 18.78 28.7 40.9 2.4 3.2 2219.28 21.68 18.78 28.7 40.9 2.4 3.2 2229.27 22.08 18.81 29.0 40.4 2.3 1. 2239.26 22.55 18.71 29.6 39.8 2.6 352. 2249.25 22.95 18.71 29.6 39.2 2.4 359.2 2249.25 22.95 18.71 29.6 39.2 2.7 354.2 2229.21 28.4 36.6 29.9 38.5 2.8 344.2 2269.23 23.65 18.56 30.2 37.9 2.7 354.2 2299.19 25.28 18.28 30.9 36.5 2.9 332.2 2299.19 25.28 18.28 31.2 35.9 2.6 330.2 2299.19 25.28 18.28 31.2 35.9 2.6 340.2 239.16 25.73 18.22 31.5 35.3 2.6 340.2 239.16 25.73 18.22 31.5 35.3 2.6 340.2 239.16 25.73 18.22 31.5 35.3 2.6 340.2 239.16 27.23 17.88 32.6 33.3 3.2 356.2 239.16 26.71 18.00 32.2 34.0 3.0 358.2 239.16 26.71 18.00 32.2 34.0 3.0 358.2 239.16 26.71 18.00 32.2 34.0 3.0 358.2 239.16 26.71 18.00 32.2 34.0 3.0 358.2 239.16 26.71 18.00 32.2 34.0 3.0 358.2 239.16 26.71 18.00 32.2 34.0 3.0 358.2 239.16 26.71 18.00 32.2 34.0 3.0 358.2 239.16 26.71 18.00 32.2 34.0 3.0 358.2 239.16 26.71 18.00 32.2 34.0 3.0 358.2 239.16 26.71 18.00 32.2 34.0 3.0 358.2 239.10 28.88 17.49 33.8 31.2 3.4 35.3 3.3 354.2 239.00 30.00 16.39 34.1 28.7 3.3 354.2 239.00 30.00 16.39 34.1 28.7 1.8 34.6 30.0 3.1 344.2 239.00 30.00 16.39 34.1 28.7 1.8 34.6 30.0 3.1 344.2 2449.00 30.00 16.39 34.1 28.7 1.8 340.2 2449.00 30.01 16.41 34.3 28.6 1.8 14.2 2459.00 30.07 16.41 34.3 28.6 1.8 14.2 2469.09 30.72 16.09 34.7 27.6 1.6 355.2 2468.98 31.47 15.79 35.2 26.6 1.6 355.2 2508.98 31.47 15.79 35.2 26.6 1.6 355.2 2508.98 31.76 15.72 35.8 35.3 26.6 2.9 332.2 2429.00 30.07 16.41 34.3 35.9 26.6 1.6 355.2 2508.98 31.47 15.79 35.2 26.6 1.6 355.2 2508.98 31.47 15.79 35.2 26.6 1.6 355.2 2508.98 31.47 15.79 35.2 26.6 1.6 355.2	2089,36	18.41				2.2	252.9
2119, 35       18.53       18.93       26.5       45.6       1.4       339.1         2119, 35       18.71       18.86       26.6       45.2       0.8       347.1         2139, 35       18.88       18.90       26.6       44.9       1.0       347.1         2139, 34       18.19       18.63       26.6       44.6       1.2       201.2         2139, 34       19.11       18.63       26.7       44.3       2.2       3         2179, 32       19.97       18.70       27.4       43.1       2.6       358.         2179, 32       19.97       18.70       27.4       43.1       2.6       358.         2189, 31       20.42       18.65       27.7       42.4       2.7       7         2199, 30       70.87       18.65       28.3       41.2       2.8       32.         2209, 29       21.28       18.65       28.3       41.2       2.8       32.         2229, 27       22.08       18.81       29.0       40.4       2.3       1.         2239, 26       22.50       18.71       29.6       39.2       2.4       359.         2259, 24       23.40       18.64 <td>2099.35</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	2099.35						
2119,35       18.71       18.85       26.6       45.2       0.8       347.1         2139,35       18.88       18.80       26.6       44.9       1.0       344.2         2149,34       19.11       18.63       26.7       44.3       2.2       3.         2159,34       19.11       18.63       26.7       44.3       2.2       3.         2179,32       19.97       18.70       27.4       43.1       2.6       358.2         2189,31       20.42       18.65       27.7       42.4       2.7       7.         219,28       18.65       28.0       41.8       2.6       13.         2209,29       21.28       18.65       28.3       41.2       2.8       32.         2219,28       21.68       18.78       28.7       40.9       2.4       3.       2.2       22.9       22.20       18.75       29.3       39.8       2.6       352.         2219,28       22.50       18.75       29.3       39.2       2.4       359.       224.3       359.       2.6       334.       2259.24       23.40       18.48       30.6       37.2       2.7       345.       2279.22       24.33       18.48	2109.35						
2129,35         18.71         18.86         26.6         44.9         1.0         344           2139,35         18.88         18.60         26.6         44.6         1.2         201           2139,34         19.11         18.63         26.7         44.3         2.2         3.           2169,33         19.57         18.70         27.4         43.1         2.6         358.           2179,32         19.97         18.70         27.4         43.1         2.6         358.           2199,30         20.42         18.65         27.7         42.4         2.7         7.           2199,30         20.87         18.65         28.0         41.8         2.6         13.           2209,29         21.28         18.65         28.3         41.2         2.8         32.           2219,28         21.68         18.78         28.7         40.9         2.4         3.           2229,27         22.00         18.81         29.0         40.4         2.3         1.           2239,26         22.95         18.71         29.6         39.2         2.4         359.           2249,27         24,0         18.64         29.9	2119.35						
2139.35         18.88         18.60         26.6         44.6         1.2         201.34           2143.34         19.11         18.63         26.7         44.3         2.2         3.           2169.33         19.53         18.63         27.0         43.7         2.7         3.           2179.32         19.97         18.70         27.4         43.1         2.6         358.           2189.31         20.42         16.65         27.7         42.4         2.7         7.           219.30         20.87         18.65         28.0         41.8         2.6         13.           2209.29         21.28         18.65         28.3         41.2         2.8         32.           2219.28         21.68         18.78         28.7         40.9         2.4         3.           2229.27         22.08         18.75         29.3         39.8         2.6         352.           2249.25         22.95         18.71         29.6         39.2         2.4         359.           2249.25         22.95         18.71         29.6         39.2         2.4         359.           2249.25         22.95         18.71         29.6		18.71	18.96				
2149.34       18.95       18.68       26.6       44.6       1.2       201         2159.34       19.11       18.63       26.7       44.3       2.2       3         2169.33       19.57       18.70       27.4       43.1       2.6       358         2189.31       20.42       16.65       27.7       42.4       2.7       7.         2199.30       20.87       18.65       28.0       41.8       2.6       13.         2209.29       21.28       18.65       28.3       41.2       2.8       32.         2219.28       21.68       18.78       28.7       40.9       2.4       3.         2229.27       22.08       18.81       29.0       40.4       2.3       1.         2239.26       22.50       18.71       29.6       39.2       2.4       35.         2249.27       22.95       18.71       29.6       39.2       2.4       35.         2259.24       23.40       18.64       29.9       38.5       2.8       344.         2269.23       24.81       18.38       30.9       36.5       2.9       332.         2295.19       19.26       39.2       2		18.88	18.80	26.6			
2139.34         19.11         18.63         26.7         44.3         2.2         3.           2169.33         19.53         18.63         27.0         43.7         2.7         3.           2179.32         19.97         18.70         27.4         43.1         2.6         358.           2199.30         20.42         16.65         27.7         42.4         2.7         7.           2199.30         20.87         18.65         28.0         41.8         2.6         13.           2209.29         21.28         18.65         28.3         41.2         2.8         32.           2219.28         21.68         18.78         28.7         40.9         2.4         3.           2229.27         22.08         18.81         29.0         40.4         2.3         1.           2239.26         22.50         18.75         29.3         39.2         2.4         359.           2249.25         22.95         18.71         29.6         39.2         2.4         359.           2259.24         23.40         18.64         29.9         38.5         2.8         344.           2269.23         23.65         18.71         29.6		18.95	18.68	26.6	44.6		
2169.33       19.53       18.63       27.0       43.7       2.7       3.         2179.32       19.97       18.70       27.4       43.1       2.6       358.         2189.31       20.42       16.65       27.7       42.4       2.7       7.         2199.30       20.87       18.65       28.3       41.2       2.8       32.         2219.28       21.68       18.78       28.7       40.9       2.4       3.         2229.27       22.08       18.81       29.0       40.4       2.3       1.         2239.26       22.50       18.75       29.3       39.8       2.6       352.         2249.25       22.95       18.71       29.6       39.2       2.4       359.         2269.25       23.40       18.64       29.9       38.5       2.3       344.         2269.25       24.33       18.48       30.6       37.2       2.7       345.         2289.20       24.81       16.38       30.9       36.5       2.9       332.         2299.19       25.28       18.28       31.2       35.3       2.6       341.         2319.17       26.19       18.08       31.				26.7	44.3		3.9
2179,32         19,97         18,70         27,4         43,1         2,6         358.           2189,31         20,42         18,65         27,7         42,4         2,7         7,           2199,30         20,87         18,65         28,0         41,8         2,6         13,           2209,29         21,28         18,65         28,3         41,2         2,6         32,           2219,28         21,68         18,78         29,7         40,9         2,4         3,           2229,27         22,08         18,81         29,0         40,4         2,3         1,           2239,26         22,50         18,75         29,3         39,8         2,6         352,           2249,25         22,95         18,71         29,6         39,2         2,4         359,           2259,23         23,85         18,56         30,2         37,9         2,7         345,           2279,22         24,33         18,48         30,6         37,2         2,7         354,           229,19         25,28         18,28         31,2         35,9         2,6         341,           2309,18         25,73         18,08         31,8				27.0	43.7		3.9
2189,31         20,42         18,65         27,7         42,4         2,7         7,2           2199,30         20,87         18,65         28,0         41,8         2,6         13,2           2209,29         21,28         18,65         28,3         41,2         2,8         32,2           2219,28         21,68         18,78         28,7         40,9         2,4         3,2           2229,27         22,08         18,61         29,0         40,4         2,3         1,2           2239,26         22,50         18,75         29,3         39,8         2,6         352,2           2249,25         22,95         18,71         29,6         39,2         2,4         359,2           2259,24         23,40         18,64         29,9         38,5         2,8         344,2           2269,23         23,65         18,56         30,2         37,9         2,7         345,2           2283,20         24,81         16,38         30,9         36,5         2,9         332,2           2299,19         25,28         18,28         31,2         35,3         2,6         341,2           2309,18         25,73         18,22         31					43.1		358.3
2199.30         20.87         18.65         28.0         41.8         2.6         13.           2209.29         21.28         18.65         28.3         41.2         2.8         32.           2219.28         21.68         18.78         28.7         40.9         2.4         3.           2229.27         22.08         18.81         29.0         40.4         2.3         1.           2239.26         22.50         18.75         29.3         39.8         2.6         352.           2249.25         22.95         18.71         29.6         39.2         2.4         359.           2259.24         23.40         18.64         29.9         38.5         2.8         344.           2269.23         23.65         18.56         30.2         37.9         2.7         345.           2279.22         24.81         18.38         30.9         36.5         2.9         332.           2299.19         25.28         18.28         31.2         35.9         2.6         330.           2309.18         25.73         18.22         31.5         35.3         2.6         341.           2339.14         27.23         17.88         32.6					42.4	2.7	7.4
2209.29         21.28         18.65         28.3         41.2         2.6         32.           2219.28         21.68         18.78         28.7         40.9         2.4         3.           2229.27         22.08         18.81         29.0         40.4         2.3         1.           2239.26         22.50         18.75         29.3         39.8         2.6         352.           2249.25         22.95         18.71         29.6         39.2         2.4         359.           2259.24         23.40         18.64         29.9         38.5         2.8         344.           2269.23         23.65         18.56         30.2         37.9         2.7         3d5.           2279.22         24.31         16.38         30.9         36.5         2.9         332.           2299.19         25.28         18.28         31.2         35.9         2.6         330.           2399.18         25.73         18.22         31.5         35.3         2.6         341.           2319.17         26.19         18.08         31.8         34.6         3.0         358.           2329.16         27.23         17.88         32.6						2.6	13.6
2209.29         21.26         18.78         28.7         40.9         2.4         3.           2219.28         21.68         18.78         29.0         40.4         2.3         1.           2239.26         22.50         18.75         29.3         39.8         2.6         352.           2249.25         22.95         18.71         29.6         39.2         2.4         359.           2259.24         23.40         18.64         29.9         38.5         2.8         344.           2269.25         23.65         18.56         30.2         37.9         2.7         345.           2279.22         24.33         18.48         30.6         37.2         2.7         354.           2289.20         24.81         18.38         30.9         36.5         2.9         332.           2299.19         25.28         18.28         31.5         35.3         2.6         30.           2309.18         25.73         18.22         31.5         35.3         2.6         341.           2319.17         26.19         18.08         31.8         34.6         3.0         358.           2349.13         27.76         17.72         32.2							32.0
2219.28         21.08         18.81         29.0         40.4         2.3         1.           2229.27         22.08         18.75         29.3         39.8         2.6         352.           2249.25         22.95         18.71         29.6         39.2         2.4         359.           2259.24         23.40         18.64         29.9         38.5         2.8         344.           2269.23         23.85         18.56         30.2         37.9         2.7         345.           2279.22         24.81         18.38         30.9         36.5         2.9         332.           2299.19         25.28         18.28         31.2         35.9         2.6         330.           2309.18         25.73         18.22         31.5         35.3         2.6         341.           2319.17         26.71         18.00         32.2         34.0         3.0         349.           2349.13         27.76         17.72         32.9         32.5         3.3         354.           2349.13         27.76         17.72         32.9         32.5         3.3         354.           2359.11         28.83         17.49         33.8 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>3.3</td>							3.3
2229.27         22.39         18.75         29.3         39.8         2.6         352.           2249.25         22.95         18.71         29.6         39.2         2.4         359.           2259.24         23.40         18.64         29.9         38.5         2.8         344.           2269.23         23.85         18.56         30.2         37.9         2.7         354.           2279.22         24.33         18.48         30.6         37.2         2.7         354.           2299.20         24.81         16.38         30.9         36.5         2.9         332.           2299.19         25.28         18.28         31.2         35.9         2.6         341.           2319.17         26.19         18.08         31.8         34.6         3.0         358.           2329.16         26.71         18.00         32.2         34.0         3.0         349.           2339.14         27.23         17.88         32.6         33.3         3.2         356.           2349.13         27.76         17.72         32.9         32.5         3.3         346.           2379.08         29.44         17.39         34.2<							1.0
2249.25         22.95         18.71         29.6         39.2         2.4         359.           2249.25         22.95         18.71         29.6         39.2         2.4         359.           2259.24         23.40         18.64         29.9         38.5         2.8         344.           2269.23         23.85         18.56         30.2         37.9         2.7         345.           2279.22         24.33         18.48         30.6         37.2         2.7         354.           2299.19         25.28         18.38         30.9         36.5         2.9         332.           2299.19         25.28         18.22         31.5         35.3         2.6         341.           2309.18         25.73         18.22         31.5         35.3         2.6         341.           2319.17         26.19         18.08         31.8         34.6         3.0         358.           2329.16         26.71         18.00         32.2         34.0         3.0         340.           2339.14         27.76         17.72         32.9         32.5         3.3         356.           2349.13         27.76         17.72         32.9<	2229.27						
2249,25         22,93         18,64         29,9         38,5         2,8         344,           2269,23         23,65         18,56         30,2         37,9         2,7         345,           2279,22         24,33         18,48         30,6         37,2         2,7         354,           2289,20         24,81         18,38         30,9         36,5         2,9         332,           2399,19         25,28         18,28         31,2         35,9         2,6         341,           2309,18         25,73         19,22         31,5         35,3         2,6         341,           2319,16         26,71         18,00         32,2         34,0         3,0         340,           2339,14         27,23         17,88         32,6         33,3         3,2         356,           2349,13         27,76         17,72         32,9         32,5         3,3         354,           2359,11         28,33         17,63         33,4         31,9         3,3         346,           2379,08         29,44         17,39         34,2         30,6         3,2         355,           2389,04         30,04         16,90         34,5<	2239.26	22.50					
2259.24       23.85       18.56       30.2       37.9       2.7       345.         2279.22       24.33       18.48       30.6       37.2       2.7       354.         2283.20       24.81       16.38       30.9       36.5       2.9       332.         2299.19       25.28       18.28       31.2       35.9       2.6       341.         2309.18       25.73       18.22       31.5       35.3       2.6       341.         2319.17       26.19       18.08       31.8       34.6       3.0       358.         2329.16       26.71       18.00       32.2       34.0       3.0       340.         2339.14       27.76       17.72       32.9       32.5       3.3       354.         2349.13       27.76       17.72       32.9       32.5       3.3       345.         2359.11       28.33       17.63       33.4       31.9       3.3       345.         2379.08       29.44       17.39       34.2       30.6       32.3       355.         2379.08       29.44       17.39       34.5       29.4       3.5       246.         2399.04       30.04       16.90	2249,25	22.95					
2269.23       23.85       18.56       30.2       37.9       2.7       354.         2279.22       24.33       18.48       30.6       37.2       2.7       354.         2283.20       24.81       16.38       30.9       36.5       2.9       332.         2299.19       25.28       18.28       31.2       35.9       2.6       330.         2309.18       25.73       18.22       31.5       35.3       2.6       341.         2319.17       26.19       18.08       31.8       34.6       3.0       358.         2329.16       26.71       18.00       32.2       34.0       3.0       340.         2339.14       27.23       17.88       32.6       33.3       3.2       354.         2349.13       27.76       17.72       32.9       32.5       3.3       346.         2359.11       28.38       17.49       33.8       31.2       3.4       353.         2379.09       28.88       17.49       33.8       31.2       3.4       353.         2379.09       29.44       17.39       34.2       30.6       3.2       355.         2389.06       29.98       17.31	2259.24						
2279.22       24.33       18.48       30.6       37.2       2.7       354.         2289.20       24.81       16.38       30.9       36.5       2.9       332.         2299.19       25.28       18.28       31.2       35.9       2.6       330.         2309.18       25.73       18.22       31.5       35.3       2.6       341.         2319.17       26.19       18.08       31.8       34.6       3.0       358.         2329.16       26.71       18.00       32.2       34.0       3.0       340.         2339.14       27.23       17.88       32.6       33.3       3.2       356.         2349.13       27.76       17.72       32.9       32.5       3.3       346.         2359.11       28.33       17.63       33.4       31.9       3.3       346.         2379.08       29.44       17.39       34.2       30.6       3.2       355.         2389.06       29.98       17.31       34.5       30.0       3.1       344.         2399.04       30.04       16.90       34.5       29.4       3.5       246.         2409.03       29.70       16.49		23.65	18.56				
2289.20       24.81       16.38       30.9       35.5       2.9       330.         2299.19       25.28       18.28       31.2       35.9       2.6       341.         2309.18       25.73       18.22       31.5       35.3       2.6       341.         2319.17       26.19       18.08       31.8       34.6       3.0       358.         2329.16       26.71       18.00       32.2       34.0       3.0       349.         2339.14       27.23       17.88       32.6       33.3       3.2       356.         2349.13       27.76       17.72       32.9       32.5       3.3       354.         2359.11       28.33       17.63       33.4       31.9       3.3       346.         2379.08       29.44       17.39       34.2       30.6       3.2       355.         2389.06       29.98       17.31       34.6       30.0       3.1       344.         2399.04       30.04       16.90       34.5       29.4       3.5       246.         2499.03       29.70       16.49       34.0       29.0       1.9       322.         2419.02       30.07       16.35			18.48	30.6			
2299.19       25.28       18.28       31.2       35.9       2.6       330.         2309.18       25.73       18.22       31.5       35.3       2.6       341.         2319.17       26.19       18.08       31.8       34.6       3.0       358.         2329.16       26.71       18.00       32.2       34.0       3.0       349.         2339.14       27.76       17.72       32.9       32.3       3.3       354.         2349.13       27.76       17.72       32.9       32.3       3.3       354.         2359.11       28.33       17.63       33.4       31.9       3.3       346.         2379.09       28.88       17.49       33.8       31.2       3.4       353.         2379.08       29.44       17.39       34.2       30.6       3.2       355.         2389.06       29.98       17.31       34.6       30.0       3.1       344.         2399.04       30.04       16.90       34.5       29.4       3.5       246.         2499.03       29.70       16.49       34.0       29.0       1.9       322.         2429.02       30.07       16.39			18.38	30.9			
2309.18       25.73       18.22       31.5       35.3       2.6       341.         2319.17       26.19       18.08       31.8       34.6       3.0       358.         2329.16       26.71       18.00       32.2       34.0       3.0       349.         2339.14       27.23       17.88       32.6       33.3       3.2       356.         2349.13       27.76       17.72       32.9       32.5       3.3       354.         2359.11       28.33       17.63       33.4       31.9       3.3       346.         2369.09       28.88       17.49       33.8       31.2       3.4       353.         2379.08       29.44       17.39       34.2       30.6       3.2       355.         2389.06       29.98       17.31       34.5       30.0       3.1       344.         2399.04       30.04       16.90       34.5       29.4       3.5       246.         2409.03       29.70       16.49       34.0       29.0       1.9       322.         2419.02       30.02       16.35       34.2       26.6       1.8       349.         2429.00       30.16       16.27			18.28	31.2	35.9		330.4
2319.17       26.19       18.08       31.8       34.6       3.0       358.         2329.16       26.71       19.00       32.2       34.0       3.0       349.         2339.14       27.23       17.88       32.6       33.3       3.2       356.         2349.13       27.76       17.72       32.9       32.5       3.3       354.         2359.11       28.33       17.63       33.4       31.9       3.3       346.         2369.09       28.88       17.49       33.8       31.2       3.4       353.         2379.08       29.44       17.39       34.2       30.6       3.2       355.         2389.06       29.98       17.31       34.6       30.0       3.1       344.         2399.04       30.04       16.90       34.5       29.4       3.5       246.         2409.03       29.70       16.49       34.0       29.0       1.9       322.         2419.02       30.02       16.35       34.2       28.6       1.8       34.0         2429.02       30.07       16.41       34.3       28.7       1.8       340.         2449.00       30.18       16.27				31.5	35.3		341.1
2329.16         26.71         19.00         32.2         34.0         3.0         349.           2339.14         27.23         17.88         32.6         33.3         3.2         356.           2349.13         27.76         17.72         32.9         32.5         3.3         354.           2359.11         28.33         17.63         33.4         31.9         3.3         346.           2369.09         28.88         17.49         33.8         31.2         3.4         353.           2379.08         29.44         17.39         34.2         30.6         3.2         355.           2389.06         29.98         17.31         34.6         30.0         3.1         344.           2399.04         30.04         16.90         34.5         29.4         3.5         246.           2409.03         29.70         16.49         34.0         29.0         1.9         322.           2419.02         30.02         16.35         34.2         26.6         1.8         349.           2429.02         30.07         16.41         34.3         28.6         1.8         14.           2439.01         29.90         16.39         34.1 </td <td></td> <td></td> <td></td> <td>31.8</td> <td>34.6</td> <td>3.0</td> <td>358.2</td>				31.8	34.6	3.0	358.2
2339.14       27.23       17.88       32.6       33.3       3.2       356.         2349.13       27.76       17.72       32.9       32.5       3.3       354.         2359.11       28.33       17.63       33.4       31.9       3.3       346.         2369.09       28.88       17.49       33.8       31.2       3.4       353.         2379.08       29.44       17.39       34.2       30.6       3.2       355.         2389.06       29.98       17.31       34.6       30.0       3.1       344.         2399.04       30.04       16.90       34.5       29.4       3.5       246.         2409.03       29.70       16.49       34.0       29.0       1.9       322.         2419.02       30.02       16.35       34.2       26.6       1.8       329.         2429.02       30.07       16.41       34.3       28.6       1.8       14.         2439.01       29.90       16.39       34.1       28.7       1.8       340.         2449.00       30.18       16.27       34.3       28.3       1.8       305.         2459.00       30.45       16.18					34.0	3.0	340.7
2349.13       27.76       17.72       32.9       32.5       3.3       354.         2359.11       28.33       17.63       33.4       31.9       3.3       345.         2369.09       28.88       17.49       33.8       31.2       3.4       353.         2379.08       29.44       17.31       34.5       30.6       3.2       355.         2389.06       29.98       17.31       34.5       30.0       3.1       344.         2399.04       30.04       16.90       34.5       29.4       3.5       246.         2409.03       29.70       16.49       34.0       29.0       1.9       322.         2419.02       30.02       16.35       34.2       28.6       1.8       34.         2429.02       30.07       16.41       34.3       28.6       1.8       14.         2439.01       29.90       16.39       34.1       28.7       1.8       340.         2449.00       30.18       16.27       34.3       28.3       1.8       34.5         2459.00       30.45       16.18       34.5       28.0       1.5       337.         2466.99       30.97       15.97						3.2	356.6
2349.13       27.70       17.72         2359.11       28.33       17.63       33.4       31.9       3.3       346.         2369.09       28.88       17.49       33.8       31.2       3.4       353.         2379.08       29.44       17.39       34.2       30.6       3.2       355.         2389.06       29.98       17.31       34.6       30.0       3.1       344.         2399.04       30.04       16.90       34.5       29.4       3.5       246.         2409.03       29.70       16.49       34.0       29.0       1.9       322.         2419.02       30.02       16.35       34.2       26.6       1.8       329.         2429.02       30.07       16.41       34.3       28.6       1.8       14.         2439.01       29.90       16.39       34.1       28.7       1.8       340.         2449.00       30.18       16.27       34.3       28.3       1.8       305.         2459.00       30.45       16.18       34.5       28.0       1.5       337.         2468.99       30.72       15.09       34.7       27.6       1.6       337.     <						3.3	354.2
2359.11       28.88       17.49       33.8       31.2       3.4       353.         2379.08       29.44       17.39       34.2       30.6       3.2       355.         2389.06       29.98       17.31       34.5       30.0       3.1       344.         2399.04       30.04       16.90       34.5       29.4       3.5       246.         2409.03       29.70       16.49       34.0       29.0       1.9       322.         2419.02       30.02       16.35       34.2       26.6       1.8       34.         2429.02       30.07       16.41       34.3       28.6       1.8       14.         2439.01       29.90       16.39       34.1       28.7       1.8       340.         2449.00       30.16       16.27       34.3       28.3       1.8       340.         2459.00       30.45       16.18       34.5       28.0       1.5       353.         2468.99       30.72       16.09       34.7       27.6       1.6       337.         2478.99       30.97       15.97       34.8       27.3       1.6       356.         2498.98       31.47       15.78							346.8
2369.09       29.44       17.39       34.2       30.6       3.2       355.         2389.06       29.98       17.31       34.6       30.0       3.1       344.         2399.04       30.04       16.90       34.5       29.4       3.5       246.         2409.03       29.70       16.49       34.0       29.0       1.9       322.         2419.02       30.02       16.35       34.2       26.6       1.8       329.         2429.02       30.07       16.41       34.3       28.6       1.8       340.         2439.01       29.90       16.39       34.1       28.7       1.8       340.         2449.00       30.18       16.27       34.3       28.3       1.8       345.         2459.00       30.45       16.18       34.5       28.0       1.5       353.         2466.99       30.72       16.09       34.7       27.6       1.6       337.         2478.99       30.97       15.88       35.0       27.0       1.4       350.         2488.98       31.22       15.88       35.0       27.0       1.4       355.         2508.98       31.76       15.72							
2379.08       29.98       17.31       34.6       30.0       3.1       344.         2389.04       30.04       16.90       34.5       29.4       3.5       246.         2409.03       29.70       16.49       34.0       29.0       1.9       322.         2419.02       30.02       16.35       34.2       26.6       1.8       329.         2429.02       30.07       16.41       34.3       28.6       1.8       340.         2439.01       29.90       16.39       34.1       28.7       1.8       340.         2449.00       30.18       16.27       34.3       28.3       1.8       305.         2459.00       30.45       16.18       34.5       28.0       1.5       353.         2468.99       30.72       16.09       34.7       27.6       1.6       337.         2478.99       30.97       15.97       34.8       27.3       1.6       336.         2488.98       31.22       15.88       35.0       27.0       1.4       350.         2508.98       31.76       15.72       35.4       26.3       1.7       339.         2518.97       31.83       15.66							
2389.06       29.93       17.52       34.5       29.4       3.5       246.         2399.04       30.04       16.90       34.5       29.0       1.9       322.         2409.03       29.70       16.49       34.0       29.0       1.9       322.         2419.02       30.02       16.35       34.2       26.6       1.8       329.         2429.02       30.07       16.41       34.3       28.6       1.8       340.         2439.01       29.90       16.39       34.1       28.7       1.8       340.         2449.00       30.18       16.27       34.3       28.3       1.8       305.         2459.00       30.45       16.27       34.3       28.0       1.5       353.         2466.99       30.72       16.09       34.7       27.6       1.6       337.         2478.99       30.97       15.97       34.8       27.3       1.6       336.         2488.98       31.22       15.88       35.0       27.0       1.4       350.         2498.98       31.47       15.78       35.2       26.6       1.6       355.         2508.98       31.76       15.72	2379.08						
2399.04       30.04       10.30       34.0       29.0       1.9       322.         2409.03       29.70       16.49       34.0       29.0       1.9       322.         2419.02       30.02       16.35       34.2       26.6       1.8       329.         2429.02       30.07       16.41       34.3       28.6       1.8       340.         2439.01       29.90       16.39       34.1       28.7       1.8       340.         2449.00       30.18       16.27       34.3       28.3       1.8       340.         2459.00       30.45       16.18       34.5       28.0       1.5       353.         2468.99       30.72       16.09       34.7       27.6       1.6       337.         2478.99       30.97       15.97       34.8       27.3       1.6       336.         2488.98       31.22       15.88       35.0       27.0       1.4       350.         2498.98       31.47       15.78       35.2       26.6       1.6       355.         2508.98       31.76       15.72       35.4       26.3       1.7       339.         2518.97       31.83       15.66	2389.06	.29.98					
2409.03       29.70       16.35       34.2       28.6       1.8       329.         2429.02       30.07       16.41       34.3       28.6       1.8       14.         2439.01       29.90       16.39       34.1       28.7       1.8       340.         2449.00       30.18       16.27       34.3       28.3       1.8       305.         2459.00       30.45       16.18       34.5       28.0       1.5       353.         2468.99       30.72       16.09       34.7       27.6       1.6       337.         2478.99       30.97       15.97       34.8       27.3       1.6       336.         2488.98       31.22       15.88       35.0       27.0       1.4       350.         2498.98       31.47       15.78       35.2       26.6       1.6       355.         2508.98       31.76       15.72       35.4       26.3       1.7       339.         2518.97       31.83       15.66       35.5       26.2       1.8       134.         2528.96       31.58       15.80       35.3       26.6       2.9       232.	2399.04						
2419.02     30.02     16.35     34.2     28.6     1.3     329.       2429.02     30.07     16.41     34.3     28.6     1.8     14.       2439.01     29.90     16.39     34.1     28.7     1.8     340.       2449.00     30.18     16.27     34.3     28.3     1.8     305.       2459.00     30.45     16.18     34.5     28.0     1.5     353.       2468.99     30.72     16.09     34.7     27.6     1.6     337.       2478.99     30.97     13.97     34.8     27.3     1.6     336.       2488.98     31.22     15.88     35.0     27.0     1.4     350.       2498.98     31.47     15.78     35.2     26.6     1.6     355.       2508.98     31.76     15.72     35.4     26.3     1.7     339.       2518.97     31.83     15.66     35.5     26.2     1.8     134.       2528.96     31.58     15.80     35.3     26.6     2.9     232.	2409.03	29.70					
2429.02       30.07       16.41       34.3       28.6       1.8       340.         2439.01       29.90       16.39       34.1       28.7       1.8       340.         2449.00       30.18       16.27       34.3       28.3       1.8       305.         2459.00       30.45       16.18       34.5       29.0       1.5       353.         2468.99       30.72       16.09       34.7       27.6       1.6       337.         2478.99       30.97       13.97       34.8       27.3       1.6       336.         2488.98       31.22       15.88       35.0       27.0       1.4       350.         2498.98       31.47       15.78       35.2       26.6       1.6       355.         2508.98       31.76       15.72       35.4       26.3       1.7       339.         2518.97       31.83       15.66       35.5       26.2       1.8       134.         2528.96       31.58       15.80       35.3       26.6       2.9       232.		30.02	16.35	34.2			
2439.01       29.90       16.39       34.1       28.7       1.8       340.         2449.00       30.18       16.27       34.3       28.3       1.8       305.         2459.00       30.45       16.18       34.5       28.0       1.5       353.         2468.99       30.72       16.09       34.7       27.6       1.6       337.         2478.99       30.97       15.97       34.8       27.3       1.6       336.         2488.98       31.22       15.88       35.0       27.0       1.4       350.         2498.98       31.47       15.78       35.2       26.6       1.6       355.         2508.98       31.76       15.72       35.4       26.3       1.7       339.         2518.97       31.83       15.66       35.5       26.2       1.8       134.         2528.96       31.58       15.80       35.3       26.6       2.9       232.			16.41				14.1
2449.00         30.18         16.27         34.3         28.3         1.8         305.           2459.00         30.45         16.18         34.5         28.0         1.5         353.           2468.99         30.72         16.09         34.7         27.6         1.6         337.           2478.99         30.97         15.97         34.8         27.3         1.6         336.           2488.98         31.22         15.88         35.0         27.0         1.4         350.           2498.98         31.47         15.78         35.2         26.6         1.6         355.           2508.98         31.76         15.72         35.4         26.3         1.7         339.           2518.97         31.83         15.66         35.5         26.2         1.8         134.           2528.96         31.58         15.80         35.3         26.6         2.9         232.			16.39	34.1	28.7		340.2
2459.00     30.45     16.18     34.5     28.0     1.5     303.2       2468.99     30.72     16.09     34.7     27.6     1.6     337.       2478.99     30.97     15.97     34.8     27.3     1.6     336.       2488.98     31.22     15.88     35.0     27.0     1.4     350.       2498.98     31.47     15.78     35.2     26.6     1.6     355.       2508.98     31.76     15.72     35.4     26.3     1.7     339.       2518.97     31.83     15.66     35.5     26.2     1.8     134.       2528.96     31.58     15.80     35.3     26.6     2.9     232.	2449.00		16.27	34.3			
2468.99       30.72       16.09       34.7       27.6       1.6       337.         2478.99       30.97       13.97       34.8       27.3       1.6       336.         2488.98       31.22       15.88       35.0       27.0       1.4       350.         2498.98       31.47       15.78       35.2       26.6       1.6       355.         2508.98       31.76       15.72       35.4       26.3       1.7       339.         2518.97       31.83       15.66       35.5       26.2       1.8       134.         2528.96       31.58       15.80       35.3       26.6       2.9       232.		30.45	16.18				
2478.99     30.97     15.97     34.8     27.3     1.6     336.       2488.98     31.22     15.88     35.0     27.0     1.4     350.       2498.98     31.47     15.78     35.2     26.6     1.6     355.       2508.98     31.76     15.72     35.4     26.3     1.7     339.       2518.97     31.83     15.65     35.5     26.2     1.8     134.       2528.96     31.58     15.80     35.3     26.6     2.9     232.				34.7			
2488.98     31.22     15.88     35.0     27.0     1.4     350.       2498.98     31.47     15.78     35.2     26.6     1.6     355.       2508.98     31.76     15.72     35.4     26.3     1.7     339.       2518.97     31.83     15.66     35.5     26.2     1.8     134.       2528.96     31.58     15.80     35.3     26.6     2.9     232.				34.8			336.3
2498.98     31.47     15.78     35.2     26.6     1.6     355.       2508.98     31.76     15.72     35.4     26.3     1.7     339.       2518.97     31.83     15.66     35.5     26.2     1.8     134.       2528.96     31.58     15.80     35.3     26.6     2.9     232.				35.0	27.0		350.4
2508.98 31.76 15.72 35.4 26.3 1.7 339. 2518.97 31.83 15.66 35.5 26.2 1.8 134. 2528.96 31.58 15.80 35.3 26.6 2.9 232.					26.6	1.6	355.6
2508.98 2518.97 2528.96 31.58 15.66 35.5 26.2 1.8 134. 2528.96 31.58 15.80 35.3 26.6 2.9 232.							339.6
2518.97 2528.96 31.58 15.80 35.3 26.6 2.9 232.							
2528.96 31.56 25.00							232.3
	2528.96	31.58	13.50	30.3	44.0		

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2528.96 2538.96 2548.95 2558.94 2568.93 2578.92 2588.91 2598.91 2609.90 2618.90 2628.89 2638.89 2638.89 2648.88 2658.87 2678.87 2678.86 2698.86 2708.86 2718.95	31.58 31.74 31.35 31.35 31.47 31.21 31.15 31.43 31.72 32.00 32.30 32.58 32.81 33.12 33.40 33.68 33.94 34.20 34.47 34.72	15.80 15.68 15.72 15.48 15.36 15.16 14.84 14.75 14.61 14.57 14.62 14.38 14.26 14.21 14.17 14.08 14.07 14.03 13.92	35.4 35.1 35.0 35.0 34.7 34.7 35.2 35.4 35.2 35.4 35.7 36.3 36.7 37.0 37.2	26.6 26.3 26.3 26.3 26.0 25.5 25.1 24.3 24.3 24.3 23.7 23.0 22.4 22.4 22.1	1.9 3.3 1.7 1.6 3.3 1.8 1.6 1.8 1.7 1.8 2.5 2.1 1.7 1.5	161.4 197.7 326.9 172.3 210.0 334.1 354.4 337.6 19.7 11.1 284.8 347.1 335.5 319.5 353.8 342.9 351.0 337.0 337.5
2698.86	34.20 34.47	14.07 14.03	37.0 37.2	22.4 22.1	1.4 1.7	351.0 337.0

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Well: BE104A

# **Casing & Tubing Program**

	Casing	Casing	Hole	Cement	Cemented	Date	Packers or
		Interval	Size	used in cu/ft	to Surface	Cemented	Bridge Plugs
					Yes No		
Conductor	13 3/8"	14'	15"		X	12/8/2007	
Surface	7"	488'	8 7/8"	94.4	Х	12/9/2007	bskt @ 354'
Water Protection	4 1/2"	2640'	6 1/2"	390.4	Х	12/11/2007	
Coal Protection	4 1/2"	2640'	6 1/2"	390.4	Х	12/11/2007	
Other Casing & Tubing							
Other Casing & Tubing							
Liners							

## DRILL DATA NOAH HORN WELL DRILLING

## NOAH HORN WELL DRILLING DRILL DATA

COMPANY: CNX HOLE: BE-104A

RIG#: 88 LOCATION:

**DATE STARTED:** 12/8/2007

DATE COMPLETED: 12/11/2007

ELECTRIC LOGGED: YES

GROUTED: YES

E	EPTH	THICKNESS		STRATA
Ţ	ROM	TO	FT	DESCRIPTION, VOIDS ETC
	0	13.7	13.7	OVERBURDEN
	13.72	30	16.28	SANDY SHALE/SAND
	30	60	30	SAND/SANDY SHALE
	60	<del>9</del> 0	30	SANDY SHALE/COAL/SAND
	90	120	30	SAND/SHALE/COAL
	120	150	30	SAND/SHALE/COAL
	150	180	30	SAND/SHALE
	180	210	30	SAND/SHALE
	210	240	30	SAND/SHALE/COAL
	240	270	30	SAND/SHALE
	270	300	30	SAND/SHALE/COAL
	300	330	30	SAND/SHALE
	330	360	30	SAND/SHALE/COAL
	360	390	30	SAND/SHALE/COAL
	390	420	30	SAND/SHALE/COAL
	420	450	30	SAND/SHALE
	450	480	30	SAND/SHALE
	480	510	30	SAND/SHALE
	510	520	10	SANDY SHALE
	520	550	30	SANDY SHALE
	550	580	30	SANDY SHALE/SAND
	580	610	30	SAND/SANDY SHALE
	610	640	30	SAND/SHALE/COAL
	640	670	30	SAND/SHALE
	670	700	30	SAND/SHALE
	700	730	30	SAND/SHALE/COAL
	730	760	30	SAND/SHALE/COAL
	760	790	30	SAND/SHALE/COAL
	790	820	30	SAND/SHALE
	820	850	30	SAND/SHALE
	850	880	30	SAND/SHALE/COAL
	880	910	30	SAND/SHALE/COAL
	910	940	30	SAND/SHALE
	940	970	30	SAND/SHALE/COAL
	970	1000	30	SAND/SHALE
	1000	1030	30	SAND/SHALE

# DRILL DATA NOAH HORN WELL DRILLING

DEPTH	THICKNESS		STRATA
FROM	TO	FT	DESCRIPTION, VOIDS ETC
1030	1060	30	SAND/SHALE/COAL
1060	1090	30	SAND/SHALE
1090	1120	30	SAND/SHALE
1120	1150	30	SAND/SHALE
1150	1180	30	SAND/SHALE/COAL
1180	1210	30	SAND/SHALE
1210	1240	30	SAND/SHALE
1240	1270	30	SAND/SHALE
1270	1300	30	SAND/SHALE
1300	1330	30	SAND/SHALE/COAL
1330	1360	30	SAND/SHALE
1360	1390	30	SAND/SHALE
1390	1420	30	SAND/SHALE
1420	1450	30	SAND/SHALE/COAL
1450	1480	30	SAND/SHALE
1480	1510	30	SAND/SHALE/COAL
1510	1540	30	SAND/SHALE/COAL
1540	1570	30	SAND/SHALE
1570	1600	30	SAND/SHALE/COAL
1600	1630	30	SAND/SHALE
1630	1660	30	SAND/SHALE/COAL
1660	1690	30	SAND/SHALE/COAL
1690	1720	30	SAND/SHALE
1720	1750	30	SAND/SHALE
1750	1780	30	SANDY SHALE/COAL/SANDY SHALE
1780	1810	30	SANDY SHALE
1810	1840	30	SANDY SHALE/COAL/SAND
1840	1870	30	SAND/SANDY SHALE
1870	1900	30	SANDY SHALE/SAND
1900	1930	30	SAND/COAL/SANDY SHALE
1930	1960	30	SANDY SHALE
1960	1990	30	SANDY SHALE/COAL/SAND
1990	2020	30	SAND
2020	2050	30	SAND/COAL/SANDY SHALE
2050	2080	30	SANDY SHALE/SAND
2080	2110	30	SAND/SANDY SHALE
2110	2140	30	SANDY SHALE/COAL/SANDY SHALE
2140	2170	30	SANDY SHALE/SAND
2170	2200	30	SAND/SANDY SHALE/SAND
2200	2230	30	SAND
2230	2260	30	SAND
2260	2290	30	SAND
2290	2320	30	SAND/COAL/SANDY SHALE
2320	2350	30	SANDY SHALE/SAND
2350	2380	30	SAND
2380	2410	30	SAND
2410	2440	30	SAND
2440	2470	30	SAND/COAL/SAND (P-3 @2451-2453)
2470	2500	30	SAND/COAL/SANDY SHALE
2500	2530	30	SANDY SHALE/SAND/SANDY SHALE

# DRILL DATA NOAH HORN WELL DRILLING

DEPTH	THICKNESS		STRATA
FROM	TO	FT	DESCRIPTION, VOIDS ETC
2530	2560	30	SANDY SHALE
2560	2590	30	SANDY SHALE/COAL/SAND
2590	2620	30	SAND/SANDY SHALE
2620	2650	30	SANDY SHALE/SAND
2650	2680	30	SAND/SANDY SHALE
2680	2710	30	SAND/SHALE
2710	2740	30	SAND/SHALE
2740	2760	20	SAND/SHALE

## TOTALS

2760'	TOTAL DEPTH
13.70'	13 3/8" CASING
487.3*	7" CASING
2640.55'	4 1/2" CASING