

T O M W E A V E R
CONSULTING GEOLOGIST
2932 KERRYLANE • OKLAHOMA CITY, OKLAHOMA 73120
TELEPHONE VI 2-7602

GEOLOGICAL REPORT
HALLIBURTON OIL PRODUCING COMPANY

#1 Mar Gal

NE SE NW 35-15S-7E
Morris County
Kansas

GENERAL INFORMATION:

DRILLING CONTRACTOR: White & Ellis Drilling Company

DRILLING HISTORY: 4/9/70: MIRT

4/10/70: Set 153' 85/8" w/100
sacks with 3% calcium
chloride set at 1:45 a.m.
Start under surface at
12:00 noon.

4/11/70: Drilling at 1275'.

4/12/70: Drilling at 1890'.

4/13/70: Drilling at 2155'.

RTD 2180' at 9:11 a.m.

DRILLING TIME: 5' drilling time from 700' to 1000'.
1' drilling time from 1000' to 2180' RTD.

SAMPLES: 10' samples from surface pipe to
RTD of 2180'. (Delivered to Wichita
Sample Library).

ELECTRICAL SURVEYS: None.

DRILL STEM TESTS: None.

CORES: None.

DIRECTIONS: Wilsey, Kansas
2 miles E, 43/4 miles N, 1/2 mile E.

STRUCTURAL POSITION:

Hunton 3' higher than Adair
#1 Metcalfe $\frac{1}{2}$ mile W. Lansing
4' higher than Adair Metcalfe
and 54' lower than Anderson
Prichard #1 Lawrence, approxi-
mately $\frac{1}{2}$ mile SE.

BIT RECORD:

12 $\frac{1}{2}$ HTC retip 153'
77/8 Sec S-6J retip 955'
77/8 Sec M-4 NJ retip 1425'
77/8 Smith V2 HJ New 2180

MUD RECORD:

3 sacks soda ash
26 sacks gel
mudded up @ 1890

DRILLERS:

Morning: R. R. Thompson
Daylight: Clifford Camp
Evening: R. W. Leedy

RECOMMENDATION:

It was recommended that the
#1 Mar Gal be plugged and abandoned
due to the absence of commercial
shows of oil and relatively low
structural position.

ELEVATIONS:

G. L. 1402
D. F. 1404
K. B. 1407

All measurements are from KB.

FORMATION TOPS

SAMPLE

Oread	1130 + 277
Heeb	1152 + 257
Doug	1166 + 241
Lans	1373 + 34
BKC	1692 - 285
Hunt	1875 - 468
Mq	1896 - 489
Viola	1986 - 579
Smp Sd	2084 - 677
Arb	2149 - 742
RTD	2180 - 773

LITHOLOGIC DESCRIPTION 900 to 2180 RTD "NOT CORRECTED FOR LAG"

900 - 920	Ls light grey, medium to fine xln.
920 - 930	Ls white finely xln.

940 - 970	Ls grey micro xln.
970 - 980	Ls grey shaly.
980 - 990	Shale, light, grey, sandy.
990 - 1000	Ss light grey very fine grained.
1000 - 1010	Shale, grey green.
1010 - 1020	Ls white foss.
1020 - 1030	Ss light grey finely xln.
1030 - 1040	Ls white to tan foss.
1040 - 1050	Shale, pale green.
1050 - 1060	Ls white micro xln to chalky.
1060 - 1090	Shale, grey to black.
1090 - 1110	Ls grey and brown resinous dense.
1110 - 1120	Ss grey, fine grain, micaceous.
1120 - 1130	Shale grey.
 <u>OREAD - 1130 + 277</u>	
1130 - 1152	Ls white finely xln to chalky.
 <u>HB - 1152 + 257</u>	
1152 - 1156	Shale, black carbonaceous.
1156 - 1166	Ls white finely xln with a small amount of white finely xln dolomite.
 <u>DOUG - 1166 + 241</u>	
1166 - 1180	Dolomite white medium xln with good vug porosity.
1180 - 1220	Shale grey.
1220 - 1230	Ss light grey medium grained.

1230 - 1240	Shale grey green.
1250 - 1270	SS light grey med to fine grain.
1270 - 1300	Shale, grey silty.
1300 - 1310	Ls brown, dense.
1310 - 1320	Shale, grey green micaceous.
1320 - 1330	Shale, as above, with a small amount of fine grained ss.
1330 - 1373	Shale grey.

LANSING - 1373 + 34

1373 - 1380	Ls white finely xln.
1380 - 1387	Ls white oocastic with spotted dark oil stain, good porosity.
1387 - 1406	Ls white dense to chalky.
1406 - 1410	Shale, black, carbonaceous.
1410 - 1430	Ls white dense to chalky.
1430 - 1470	Shale grey.
1470 - 1480	Shale, as above, with a small amount of grey shaly lime.
1480 - 1510	Ls white to light grey finely xln.
1510 - 1520	Ls, as above, with grey green shale.
1520 - 1550	Ls white micro xln to dense.
1550 - 1560	Shale, green and grey.
1560 - 1590	Ls white finely xln to dense.
1590 - 1644	Ls white finely xln to chalky with some opaque lt grey chert.
1644 - 1648	Shale black and carbonaceous.
1648 - 1692	Ls white, dense to chalky.

BASE KANSAS CITY - 1692 - 285

1692 - 1730	Shale, black to grey and green.
1730 - 1740	Shale, as above, with trace of fine grained ss.
1740 - 1770	Shale grey.
1770 - 1790	Ls light grey and tan, dense.
1790 - 1800	Ls white chalky.
1800 - 1840	Shale grey.
1840 - 1850	Ls tan, dense.
1850 - 1860	Shale, grey green pyritic with a trace of grey green ss.
1860 - 1875	Ss grey green medium to fine grained with green shale.

HUNTON - 1875 - 468

1875 - 1896	Dolomite, white medium xln porous.
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MQ - 1896 - 489

1896 - 1930	Shale grey and grey green dolomitic.
1930 - 1940	Dolomite grey finely xln silty.
1940 - 1960	Shale grey green red and maroon.
1960 - 1986	Shale grey to black and green.

VIOLA - 1986 - 579

1986 - 2010	Dolomite white very coarsely xln porous.
2010 - 2030	Ls white to grey, dense.
2030 - 2070	Ls white finely xln dolomitic with light tan and light grey opaque chert.

2070 - 2084

Ls, tan to brown finely xln and
dolomitic.

SIMPSON SAND - 2084 -677

2084 - 2108

Ss coarse grain, rounded and very
friable.

2108 - 2130

SS, as above, with increase in green
shale.

2130 - 2140

Ss, as above, with light brown to
grey and red shale.

2140 - 2149

Shale, red with hematite pellets.

ARBUCKLE - 2149 - 742

2149 - 2170

Dolomite light tan, coarsely xln.

2170 - 2180

Dolomite light tan, medium to coarsely
xln with light grey translucent
oolitic chert.

RTD - 2180 -773

Tom Weaver
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April 13, 1970

TIME LOG

Halliburton Oil Producing Company  
No.1 Mar Gal  
NE SE NW 35-15S-7E  
Morris County, Kansas

Elevation: 1407 K.B.  
1404 D.F.  
1402 G.L.  
Contractor: White & Ellis Drlg. Co.  
Spud: 8-5/8" cst at 153'  
Completed: 4-13-70; Dry & abandoned

Drilling Time Recorded: 5' Drilling Time 700 to 1000'

| DEPTH     | TIME                             | REMARKS     |
|-----------|----------------------------------|-------------|
| 700 - 750 | 2- 2- 1½- 1½- 2- 1½- 1½- 2- 4- 2 | Trip @ 955' |
| 750 - 800 | 3- 2- 2- 3- 7- 2- 1- 1- 1½- 2    |             |
| 800 - 850 | 5- 7- 10- 3- 2- 3- 3- 3- 3- 3    |             |
| 850 - 900 | 3- 3- 3- 5- 4- 5- 5- 5- 7- 9     |             |
| 900 - 950 | 7- 7- 6- 3- 3- 4- 3- 3- 4- 5     |             |
| 950 -1000 | 10- 7- 5- 6- 4- 4- 5- 4- 4- 7    |             |

Drilling Time Recorded: 1-foot time 1000-2180 T.D.

| DEPTH       | TIME                            | REMARKS |
|-------------|---------------------------------|---------|
| 1000 - 1010 | 1- 1- 1- ½- ½- ½- ½- 1- 1- 1-   |         |
| 1010 - 1020 | 1- 1- 1- 1- 1- 1- 1- 1- 1- 1-   |         |
| 1020 - 1030 | 1- 1- 1- 1- ½- ½- 1- 1- 2- 2-   |         |
| 1030 - 1040 | 2- 2- 2- 2- 3- 2- 1- 1- 2- 1-   |         |
| 1040 - 1050 | 1- 1- 1- 1- 2- 3- 3- 2- 3- 2-   |         |
| 1050 - 1060 | 2- 2- 2- 2- 3- 2- 2- 2- 2- 1-   |         |
| 1060 - 1070 | 1- 1- 2- 1- 2- 2- 1- ½- 1½- 1-  |         |
| 1070 - 1080 | 2- 3- 1- 2- 1- 2- 1- 2- 1- 2-   |         |
| 1080 - 1090 | 2- 2- 1- 1- 2- 4- 2- 2- 1- 1-   |         |
| 1090 - 1100 | 1- 1- 1- ½- ½- 1- 2- 2- 1- 1-   |         |
| 1100 - 1110 | 1- 2- 2- 1- 1- 1- ½- ½- 1- 1-   |         |
| 1110 - 1120 | 1- ½- ½- 1- 1- 1- ½- ½- 1- 1-   |         |
| 1120 - 1130 | 1- 1- 1- 1- ½- ½- ½- ½- ½- ½-   |         |
| 1130 - 1140 | 2- 1- 2- 2- 1- 2- 1- 2- 2- 2-   |         |
| 1140 - 1150 | 2- 3- 2- 2- 2- 3- 2- 2- 2- 2-   |         |
| 1150 - 1160 | 2- 3- 1- 1- 1- ½- 1½- 1- 1- 1½- |         |
| 1160 - 1170 | 1½- 1- 2- 3- 2- 3- 2- 1- 1- 1-  |         |
| 1170 - 1180 | ½- ½- ½- ½- ½- ½- ½- ½- ½- ½-   |         |
| 1180 - 1190 | 2- 1- 1- 1- 1- 1- 1- ½- ½- 1-   |         |
| 1190 - 1200 | 1- 1- ½- ½- 1- 1- 1- 1- 1- 1-   |         |
| 1200 - 1210 | 1- 1- 1- 2- 1- 1- 1- 1- 1- 1-   |         |
| 1210 - 1220 | 1- 1- 1- 1- ½- ½- 1- ½- ½- 1-   |         |
| 1220 - 1230 | ½- ½- 1- 1- 1- 1- ½- ½- 1- 1-   |         |
| 1230 - 1240 | ½- ½- 1- ½- ½- 1- 1- 1- 1- 1-   |         |

Page 2, Time Log  
Halliburton Oil Prod. Co. #1 Mar Gal  
NE SE NW 35-15S-7E  
Morris County, Kansas

|             |                 |                 |                 |                 |                  |                  |                 |                  |                 |                 |
|-------------|-----------------|-----------------|-----------------|-----------------|------------------|------------------|-----------------|------------------|-----------------|-----------------|
| 1240 - 1250 | 1-              | 1-              | 1-              | 1-              | 1-               | $\frac{1}{2}$ -  | $\frac{1}{2}$ - | $\frac{1}{2}$ -  | $\frac{1}{2}$ - | $\frac{1}{2}$ - |
| 1250 - 1260 | $\frac{1}{2}$ - | 1-              | $\frac{1}{2}$ - | $\frac{1}{2}$ - | 1-               | 1-               | 1-              | $\frac{1}{2}$ -  | $\frac{1}{2}$ - | $\frac{1}{2}$ - |
| 1260 - 1270 | $\frac{1}{2}$ - | 1-              | $\frac{1}{2}$ - | $\frac{1}{2}$ - | 1-               | 1-               | $\frac{1}{2}$ - | $\frac{1}{2}$ -  | 1-              | 1-              |
| 1270 - 1280 | 1-              | 1-              | 1-              | 1-              | 1-               | 1-               | 1-              | $\frac{1}{2}$ -  | $\frac{1}{2}$ - | $\frac{1}{2}$ - |
| 1280 - 1290 | $\frac{1}{2}$ - | 1-              | $\frac{1}{2}$ - | $\frac{1}{2}$ - | 1-               | 1-               | 1-              | $\frac{1}{2}$ -  | $\frac{1}{2}$ - | $\frac{1}{2}$ - |
| 1290 - 1300 | $\frac{1}{2}$ - | 1-              | $\frac{1}{2}$ - | $\frac{1}{2}$ - | 1-               | 1-               | $\frac{1}{2}$ - | $3\frac{1}{2}$ - | 2-              | 1-              |
| 1300 - 1310 | 1-              | 2-              | 1-              | 1-              | 1-               | 1-               | 1-              | 1-               | 1-              | 1-              |
| 1310 - 1320 | 1-              | 1-              | 1-              | $\frac{1}{2}$ - | $\frac{1}{2}$ -  | 1-               | 1-              | 1-               | 1-              | 1-              |
| 1320 - 1330 | 1-              | 1-              | $\frac{1}{2}$ - | $\frac{1}{2}$ - | $\frac{1}{2}$ -  | $\frac{1}{2}$ -  | 1-              | $\frac{1}{2}$ -  | $\frac{1}{2}$ - | 1-              |
| 1330 - 1340 | 1-              | $\frac{1}{2}$ - | $\frac{1}{2}$ - | $\frac{1}{2}$ - | $\frac{1}{2}$ -  | $\frac{1}{2}$ -  | $\frac{1}{2}$ - | $\frac{1}{2}$ -  | $\frac{1}{2}$ - | 1-              |
| 1340 - 1350 | $\frac{1}{2}$ - | $\frac{1}{2}$ - | $\frac{1}{2}$ - | $\frac{1}{2}$ - | $\frac{1}{2}$ -  | $\frac{1}{2}$ -  | $\frac{1}{2}$ - | $\frac{1}{2}$ -  | $\frac{1}{2}$ - | $\frac{1}{4}$ - |
| 1350 - 1360 | $\frac{1}{2}$ - | $\frac{1}{2}$ - | $\frac{1}{2}$ - | $\frac{1}{2}$ - | $\frac{1}{2}$ -  | $\frac{1}{2}$ -  | $\frac{1}{2}$ - | $\frac{1}{2}$ -  | $\frac{1}{2}$ - | $\frac{1}{2}$ - |
| 1360 - 1370 | $\frac{1}{2}$ - | $\frac{1}{2}$ - | $\frac{1}{2}$ - | $\frac{1}{2}$ - | $\frac{1}{2}$ -  | $\frac{1}{2}$ -  | $\frac{1}{2}$ - | $\frac{1}{2}$ -  | $\frac{1}{2}$ - | $\frac{1}{2}$ - |
| 1370 - 1380 | $\frac{1}{4}$ - | $\frac{1}{4}$ - | $\frac{1}{4}$ - | 1-              | 2-               | 1-               | 2-              | 1-               | 1-              | 1-              |
| 1380 - 1390 | 1-              | $\frac{1}{2}$ - | $\frac{1}{4}$ - | $\frac{1}{4}$ - | $\frac{1}{2}$ -  | $\frac{1}{2}$ -  | 1-              | 2-               | 2-              | 2-              |
| 1390 - 1400 | 1-              | 2-              | 2-              | 2-              | 2-               | 1-               | 1-              | 1-               | $\frac{1}{2}$ - | $\frac{1}{2}$ - |
| 1400 - 1410 | 1-              | 1-              | 1-              | 2-              | 1-               | 1-               | $\frac{1}{2}$ - | $\frac{1}{2}$ -  | 2-              | 1-              |
| 1410 - 1420 | 2-              | 2-              | 2-              | 2-              | 2-               | 1-               | 2-              | 3-               | 1-              | 1-              |
| 1420 - 1430 | $\frac{1}{2}$ - | $\frac{1}{2}$ - | 1-              | 2-              | 3-               | 2-               | 3-              | 3-               | 2-              | 1-              |
| 1430 - 1440 | 2-              | 1-              | 1-              | 1-              | 2-               | 1-               | 1-              | 1-               | 1-              | 1-              |
| 1440 - 1450 | 2-              | 1-              | 2-              | 1-              | 1-               | 1-               | 1-              | $\frac{1}{2}$ -  | $\frac{1}{2}$ - | 1-              |
| 1450 - 1460 | 1-              | 1-              | 1-              | 1-              | 1-               | $\frac{1}{2}$ -  | $\frac{1}{2}$ - | 1-               | $\frac{1}{2}$ - | 1-              |
| 1460 - 1470 | 1-              | $\frac{1}{2}$ - | 1-              | 1-              | $\frac{1}{2}$ -  | $\frac{1}{2}$ -  | 1-              | $\frac{1}{2}$ -  | $\frac{1}{2}$ - | 1-              |
| 1470 - 1480 | 1-              | $\frac{1}{2}$ - | $\frac{1}{2}$ - | 1-              | 2-               | 1-               | 1-              | 1-               | 1-              | 1-              |
| 1480 - 1490 | 2-              | 1-              | $\frac{1}{2}$ - | $\frac{1}{2}$ - | 1-               | 1-               | 1-              | 1-               | 1-              | 1-              |
| 1490 - 1500 | 1-              | $\frac{1}{2}$ - | $\frac{1}{2}$ - | $\frac{1}{2}$ - | $1\frac{1}{2}$ - | 1-               | 1-              | 1-               | 2-              | 1-              |
| 1500 - 1510 | 1-              | 1-              | 2-              | 1-              | 1-               | 1-               | 1-              | 1-               | 2-              | 1-              |
| 1510 - 1520 | 1-              | 2-              | 1-              | 2-              | 1-               | 2-               | 2-              | 1-               | 2-              | 2-              |
| 1520 - 1530 | 1-              | 2-              | 1-              | 1-              | 2-               | 2-               | 2-              | 2-               | 1-              | 1-              |
| 1530 - 1540 | 2-              | 2-              | 1-              | 2-              | 1-               | 2-               | 1-              | 2-               | 1-              | 1-              |
| 1540 - 1550 | 2-              | 1-              | 1-              | 2-              | 1-               | 1-               | 2-              | 1-               | 1-              | 2-              |
| 1550 - 1560 | 1-              | 1-              | $\frac{1}{2}$ - | $\frac{1}{2}$ - | $\frac{1}{2}$ -  | $\frac{1}{2}$ -  | 1-              | 2-               | 1-              | 1-              |
| 1560 - 1570 | 2-              | 2-              | 2-              | 1-              | 1-               | 1-               | 2-              | 1-               | 2-              | 1-              |
| 1570 - 1580 | 2-              | 1-              | 2-              | 1-              | 1-               | 1-               | $\frac{1}{2}$ - | $\frac{1}{2}$ -  | $\frac{1}{2}$ - | $\frac{1}{2}$ - |
| 1580 - 1590 | 1-              | $\frac{1}{2}$ - | 1-              | 2-              | 2-               | $1\frac{1}{2}$ - | 2-              | 2-               | 1-              | 2-              |
| 1590 - 1600 | 2-              | 2-              | 1-              | 1-              | 1-               | 1-               | 1-              | 1-               | 2-              | 2-              |
| 1600 - 1610 | 3-              | 2-              | 1-              | 1-              | 2-               | 2-               | 2-              | 3-               | 3-              | 2-              |
| 1610 - 1620 | 2-              | 1-              | 1-              | 1-              | 2-               | 3-               | 2-              | 3-               | 3-              | 3-              |
| 1620 - 1630 | 3-              | 3-              | 3-              | 3-              | 3-               | 4-               | 3-              | 4-               | 2-              | 3-              |
| 1630 - 1640 | 3-              | 3-              | 3-              | 3-              | 3-               | 3-               | 3-              | 3-               | 2-              | 3-              |
| 1640 - 1650 | 3-              | 2-              | 2-              | 3-              | 1-               | 1-               | 1-              | 2-               | 2-              | 2-              |
| 1650 - 1660 | 2-              | 2-              | 3-              | 3-              | 3-               | 3-               | 4-              | 3-               | 2-              | 3-              |
| 1660 - 1670 | 4-              | 2-              | 4-              | 3-              | 3-               | 4-               | 2-              | 1-               | 4-              | 2-              |
| 1670 - 1680 | 1-              | 2-              | 2-              | 3-              | 3-               | 4-               | 3-              | 5-               | 3-              | 3-              |
| 1680 - 1690 | 3-              | 3-              | 4-              | 3-              | 3-               | 2-               | 3-              | 3-               | 4-              | 3-              |
| 1690 - 1700 | 4-              | 5-              | 2-              | 2-              | 1-               | 2-               | 2-              | 1-               | 2-              | 3-              |

Trip at 1425

Page 3, Time Log  
Halliburton Oil Prod. Co. #1 Mar Gal  
NE SE NW 35-15S-7E  
Morris County, Kansas

|             |                                                                                       |
|-------------|---------------------------------------------------------------------------------------|
| 1700 - 1710 | 3- 2- 2- 1- 1- 2- 1- 2- 1- 2-                                                         |
| 1710 - 1720 | 1- 2- 1- 1- 2- 1- 2- 2- 1- 2-                                                         |
| 1720 - 1730 | 1- 2- 1- 1- 2- 1- 1- 1- 1- 1-                                                         |
| 1730 - 1740 | 1- 2- 1- 1- 2- 2- 1- 2- 2- 2-                                                         |
| 1740 - 1750 | 2- 1- 2- 2- 2- 2- 2- 2- 2- 2-                                                         |
| 1750 - 1760 | 1- 2- 2- 1- 2- 3- 2- 2- 1- 1-                                                         |
| 1760 - 1770 | 1- 1- 2- 3- 3- 3- 3- 2- 2- 2-                                                         |
| 1770 - 1780 | 2- 3- 3- 3- 2- 3- 3- 2- 1- 2-                                                         |
| 1780 - 1790 | 2- 2- 3- 5- 5- 3- 3- 1- 2- 2-                                                         |
| 1790 - 1800 | 1- 2- 2- 3- 2- 3- 1- 2- 3- 2-                                                         |
| 1800 - 1810 | 2- 2- 1- 1- 1- $\frac{1}{2}$ - $\frac{1}{2}$ - 3- 3- 2-                               |
| 1810 - 1820 | 4- 4- 3- 3- 2- 2- 1- 3- 4- 2-                                                         |
| 1820 - 1830 | 3- 5- 3- 3- 2- 2- 3- 2- 2- 3-                                                         |
| 1830 - 1840 | 5- 3- 3- 2- 2- 2- 3- 2- 1- 2-                                                         |
| 1840 - 1850 | 2- 2- 2- 3- 3- 2- 3- 2- 1- 3-                                                         |
| 1850 - 1860 | 2- 2- 1- 2- 2- 2- 2- 2- 2- 2-                                                         |
| 1860 - 1870 | 2- 2- 1- 2- 2- 2- 2- 2- 4- $1\frac{1}{2}$ -                                           |
| 1870 - 1880 | $2\frac{1}{2}$ - 2- 2- 2- 1- $1\frac{1}{2}$ - 2- 2- 3- 3-                             |
| 1880 - 1890 | 2- 2- 3- 2- $1\frac{1}{2}$ - $1\frac{1}{2}$ - 2- 2- 2- 2-                             |
| 1890 - 1900 | 2- 2- 3- 2- 2- 2- 3- 3- 3- 3-                                                         |
| 1900 - 1910 | 2- 3- 2- 2- 3- 3- 3- 2- 2- 2-                                                         |
| 1910 - 1920 | 1- 1- 2- $1\frac{1}{2}$ - $1\frac{1}{2}$ - $1\frac{1}{2}$ - 2- $2\frac{1}{2}$ - 2- 3- |
| 1920 - 1930 | 3- 3- 3- 4- 3- 3- 3- 3- 2- 3-                                                         |
| 1930 - 1940 | 2- 3- 3- 3- 3- 6- 3- 3- 3- 3-                                                         |
| 1940 - 1950 | 3- 3- 3- 3- 3- 3- 3- 3- 3- 3-                                                         |
| 1950 - 1960 | 4- 4- 4- 4- 4- 4- 3- 3- 4- 3-                                                         |
| 1960 - 1970 | 3- 3- 2- 2- 3- 3- 3- 3- 3- 2-                                                         |
| 1970 - 1980 | 4- 3- 2- 4- 2- 4- 3- 3- 3- 3-                                                         |
| 1980 - 1990 | 3- 4- 4- 5- 3- 3- 3- 4- 3- 3-                                                         |
| 1990 - 2000 | 4- 4- 3- 4- 4- 4- 3- 4- 3- 3-                                                         |
| 2000 - 2010 | 3- 3- 3- 3- 2- 3- 2- 3- 3- 4-                                                         |
| 2010 - 2020 | 4- 4- 3- 4- 3- 4- 4- 5- 4- 3-                                                         |
| 2020 - 2030 | 5- 5- 7- 6- 7- 6- 7- 6- 5- 6-                                                         |
| 2030 - 2040 | 5- 5- 7- 5- 6- 5- 6- 5- 6- 6-                                                         |
| 2040 - 2050 | 6- 6- 6- 5- 6- 7- 8- 7- 7- 7-                                                         |
| 2050 - 2060 | 6- 5- 3- 6- 5- 6- 3- 4- 6- 6-                                                         |
| 2060 - 2070 | 6- 6- 6- 6- 4- 3- 2- 4- 3- 4-                                                         |
| 2070 - 2080 | 6- 6- 5- 7- 9- 7- 8- 8- 9- 9-                                                         |
| 2080 - 2090 | 9- 8- 7- 9- 8- 1- 1- 1- 2- 4-                                                         |
| 2090 - 2100 | 2- 1- 2- 1- 2- 1- 1- 1- 1- 2-                                                         |
| 2100 - 2110 | 1- 1- 1- $\frac{1}{2}$ - $\frac{1}{2}$ - 1- 2- 2- 6- 7-                               |
| 2110 - 2120 | 5- 4- 6- 3- 2- 1- 1- 2- 3- 4-                                                         |
| 2120 - 2130 | 5- 4- 2- 2- 3- 4- 5- 4- 5- 7-                                                         |
| 2130 - 2140 | 6- 8- 5- 6- 4- 5- 7- 6- 7- 5-                                                         |
| 2140 - 2150 | 7- 8- 8- 6- 5- 4- 5- 4- 5- 11-                                                        |

Circ @ 1890

Circ @ 1992

Page 4, Time Log  
Halliburton Oil Prod. Co. #1 Mar Gal  
NE SE NW 35-15S-7E  
Morris County, Kansas

|             |                               |           |           |
|-------------|-------------------------------|-----------|-----------|
| 2150 - 2160 | 7- 4- 3- 4- 5- 6- 6- 4- 6- 5- | SR @ 2151 | SR @ 2152 |
| 2160 - 2170 | 6- 5- 4- 4- 4- 4- 4- 3- 7- 5- | R @ 2157  | R @ 2160  |
| 2170 - 2180 | 6- 7- 9- 7- 6- 7- 7- 6- 5- 7- | R @ 2167  | R @ 2169  |

RTD 2180