



# BAROID OF CANADA, LTD./ LOGGING SYSTEMS

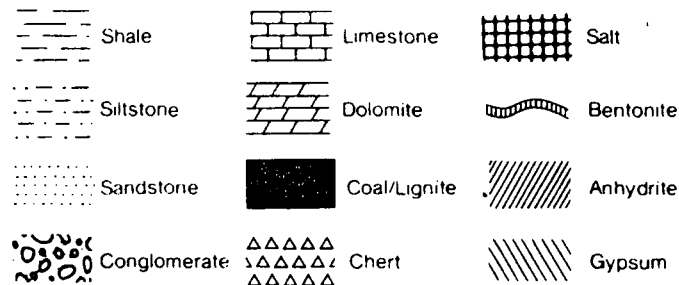
A Division of NL Information Services

COMPANY NORTHCOR ENERGY LTD.  
WELL Northcor et al Liard F-25, F-25A  
PROVINCE N.W.T.  
LOCATION 60° 24' 22.25" N  
123° 35' 07.58" W

UNIT MANAGER \_\_\_\_\_  
LOGGERS \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

DRILLING CONT. Peter Bowden  
RIG/TYPE 33  
TOTAL DEPTH 3478 m  
SPUD DATE 01/25/86  
T.D. DATE 11/25/86

## LEGEND



## MUD GAS LOG

GROUND ELEVATION 715.6 m  
ELEVATION OF KB 723.0 m  
WATER DEPTH \_\_\_\_\_  
LOGGED DEPTH 20 m to 3478 m  
LOGGED DATES \_\_\_\_\_ to \_\_\_\_\_  
LOGGING UNIT No. \_\_\_\_\_

### HOLE DATA

660.0 mm to 196.5 m  
444.5 mm to 767.0 m  
311.2 mm to 3187 m

### MUD TYPE DATA

KCL to TD  
\_\_\_\_\_ to \_\_\_\_\_  
\_\_\_\_\_ to \_\_\_\_\_

### OTHER SERVICES

MUD COMPANY Dynamic Drilling Fluids  
WIRELINE CO. Schlumberger  
CEMENTING CO. Haliburton  
CASING CO. \_\_\_\_\_

### CASING DATA

508.0 mm to 196.5 m  
339.5 mm to 767.0 m  
244.5 mm to \_\_\_\_\_

|     |              |     |                  |       |                         |
|-----|--------------|-----|------------------|-------|-------------------------|
| NB  | New Bit      | TG  | Trip Gas         | CKF   | Check Flow              |
| RRB | Rerun Bit    | STG | Short Trip Gas   | ✓     | Casing Seat             |
| TB  | Turbo Bit    | CO  | Circulate Out    | E-LOG | Wireline Log Run        |
| CB  | Core Bit     | PR  | Partial Returns  | PIT   | Pressure Integrity Test |
| NR  | No Returns   | DS  | Deviation Survey |       |                         |
| DTG | Downtime Gas | DST | Drill Stem Test  |       |                         |

REMARKS Hole was cemented back to 2050m and whipstocked. Kickoff point at 2059 m.

### DRILLING RATE

☐ min/m ☒ m/hr  
15 10 5

### LITHOLOGY

SCALE  
1:600

STAINING

### HOTWIRE GAS

100 200 300  
C1 C2 C3 C4 C5+  
6k 2k 18k ppm

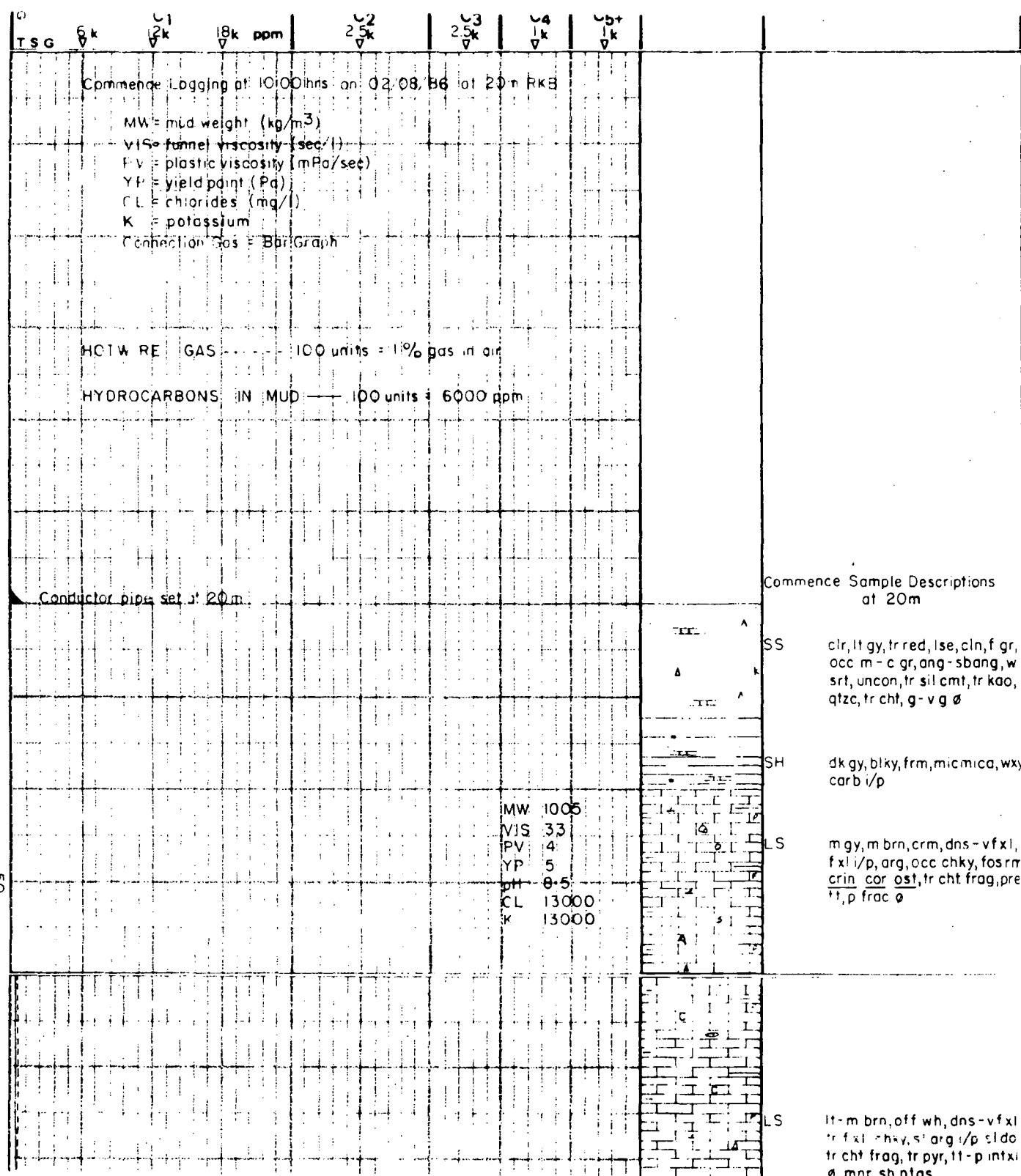
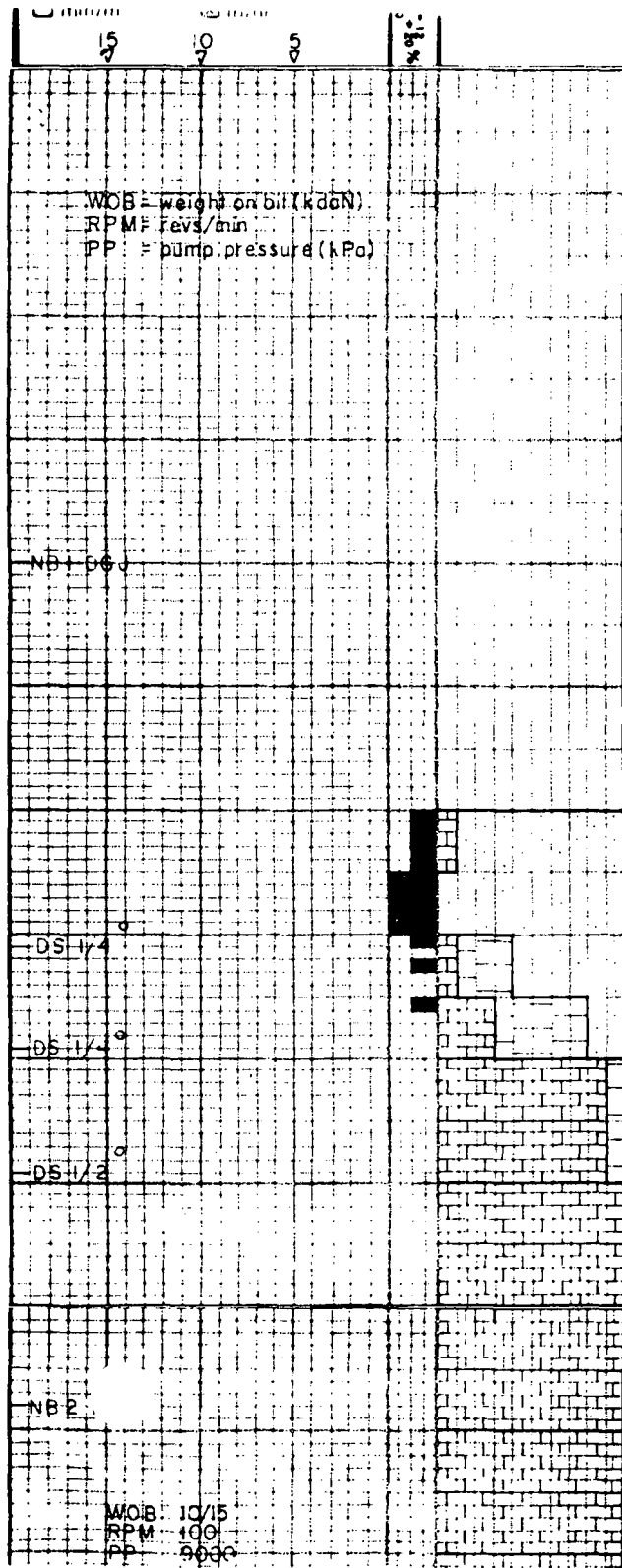
### HYDROCARBONS IN MUD

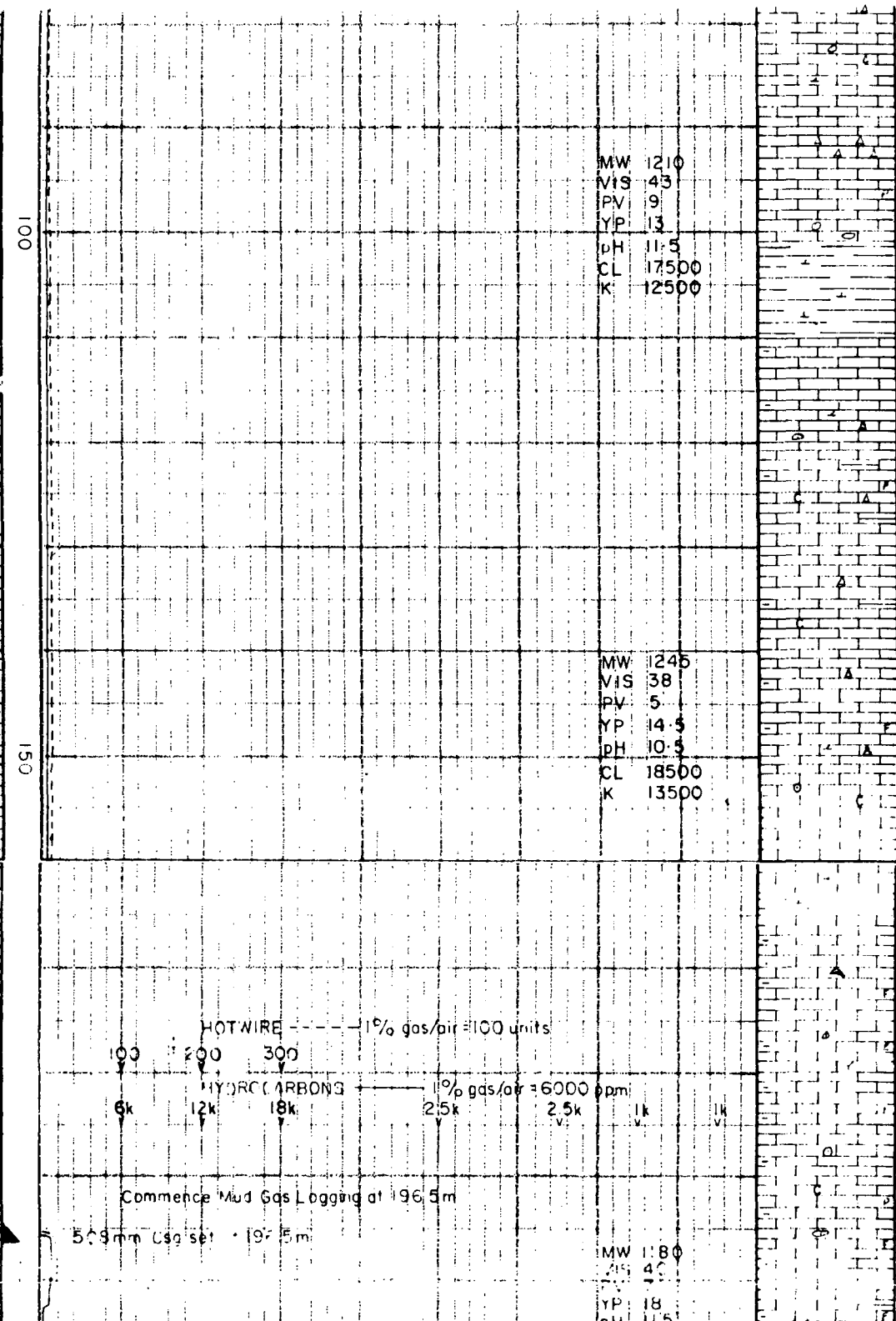
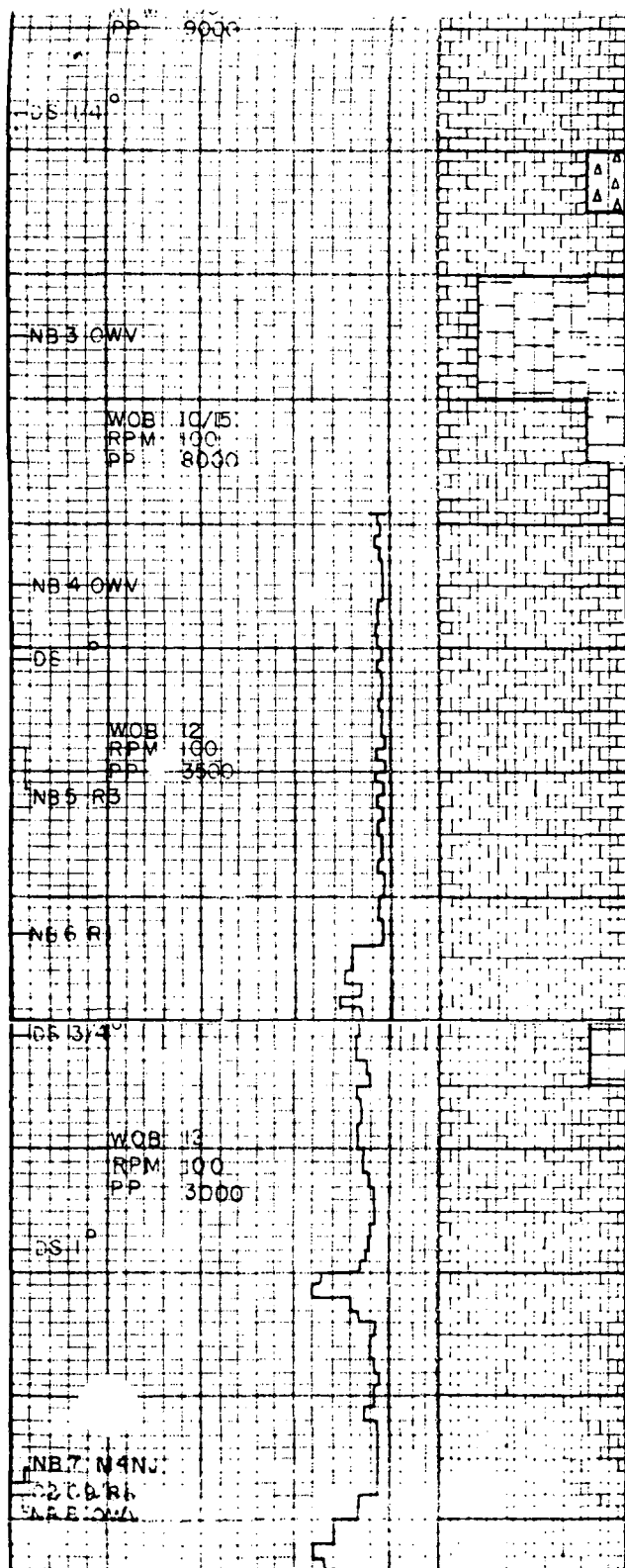
k = 1000

C2 C3 C4 C5+  
25k 25k 1k 1k

### REMARKS

### LITHOLOGICAL DESCRIPTIONS





tr cht frag, tr pyr, tt-p int  
ø, mnr sh ptgs

CHT milky wh, transl, ang frag

SH m-dk gy, blkgy, hd, v calc,  
micmica

LS bf, lt-m brn, off wh, dns-  
xl, frag, chky, arg, dol i/p, t  
cht, tr pyr, tt, no shows, m  
sh ptgs

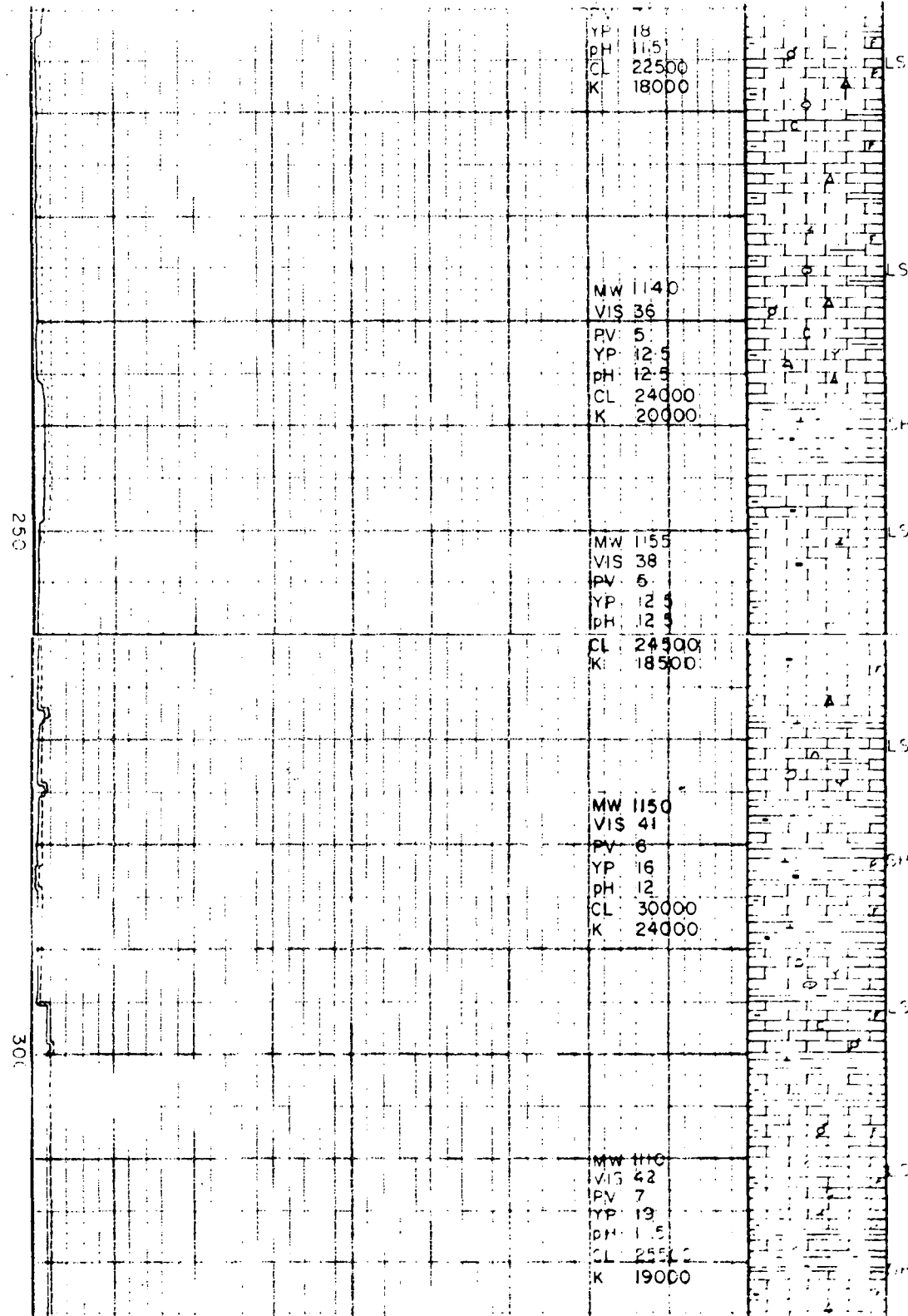
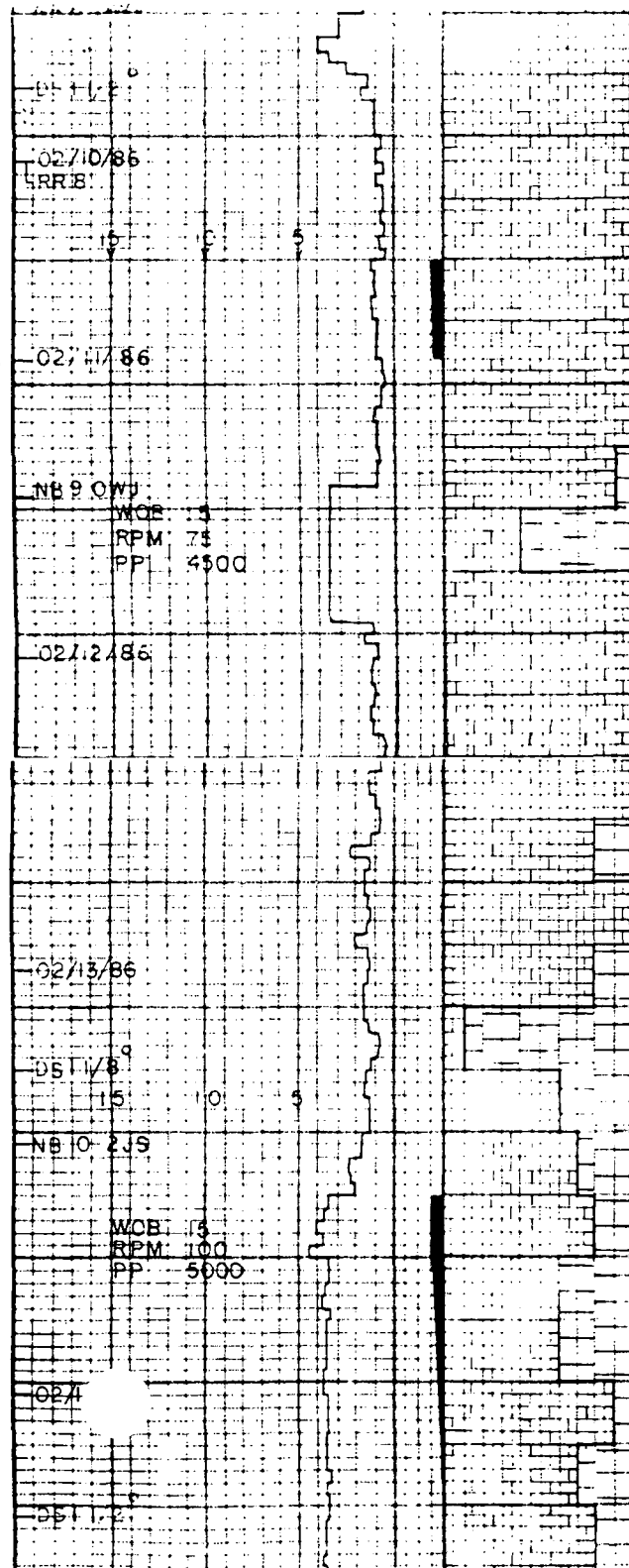
LS bf, lt-m brn, occ lt gy, a/a

LS bf, lt gy, off wh, occ lt-m t  
dns-micxl, frag, chky, arg,  
dol, p intxl ø, tr fos rmn cr  
tr cht, innr dk gy, carb sh  
ptgs

LS m-dk gy, blkgy, hd, v calc,  
micmica

LS lt-m brn, m-dk gy, wh, dns-  
v xl, v arg i/p, frag i/p, tt  
no show, abnt wh calc, v  
tr fos rmn crin bry, trcht

LS m-dk gy, lt-m brn, chky i/p  
a/a



lt-m brn, off wh, dns-vfxl  
chky, arg i/p, pel, p intxl  
no show, tr fos rmn crin o  
cor, tr cht, mn carb sh pty

lt-m brn, lt gy, off wh, v  
fxl, dns i/p, chky, sl arg, sl  
dol, frag, pel, p intxl, tr fo  
crin, tr cht, mn sh pty

m dk gy, blk, hd, calc, sl  
bit

m dk gy, calc, frag, v  
arg, dol i/p, carb, tr  
m brn dns ls, no show

lt gy, calc, m brn, m, v  
frag, dns i/p, tr calc, vng, tr  
sl arg, tr fos rmn brn  
calc, mn dk gy carb sh pty

m dk gy, blk, calc, sl, v  
carb, tr pty

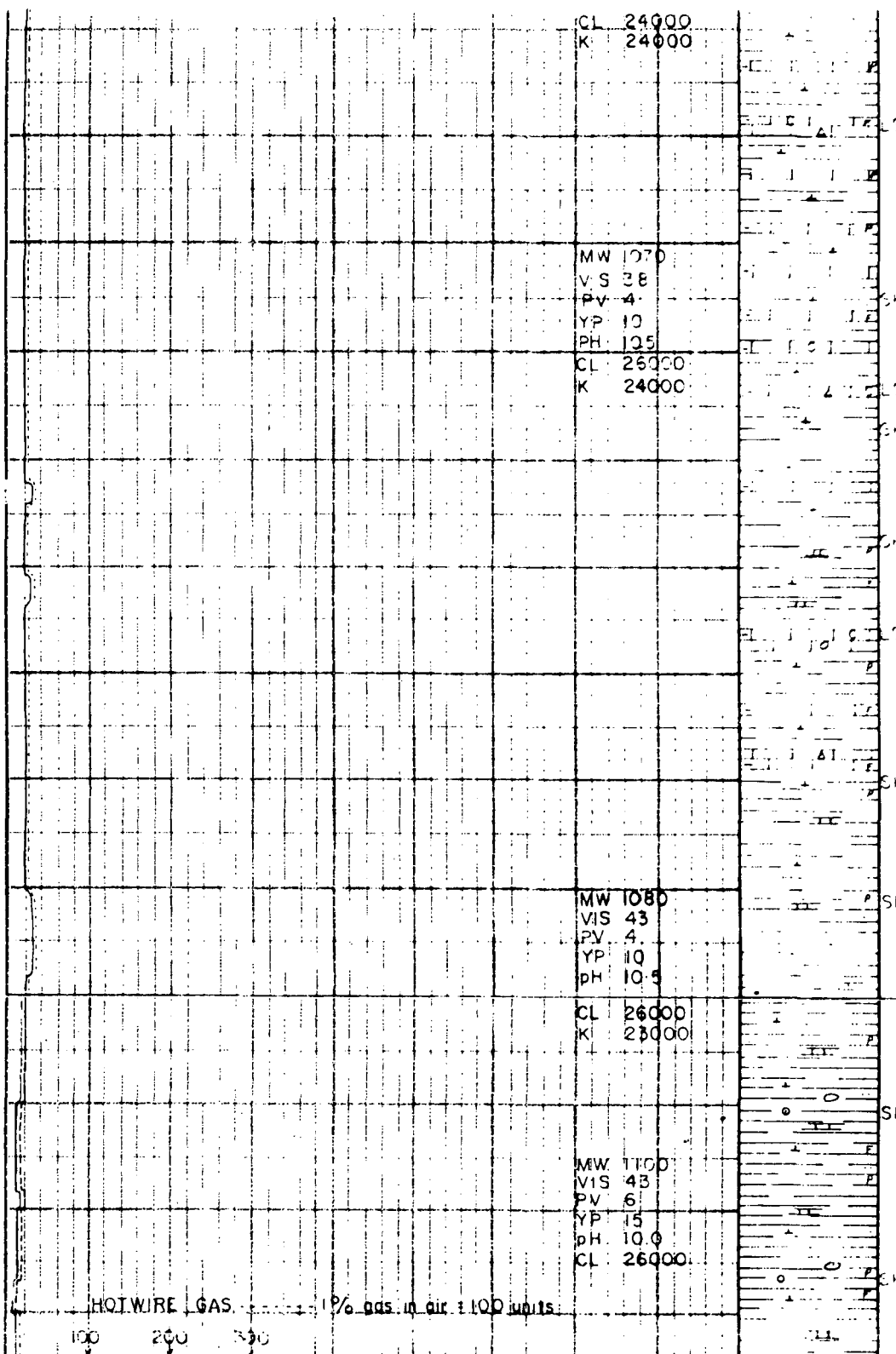
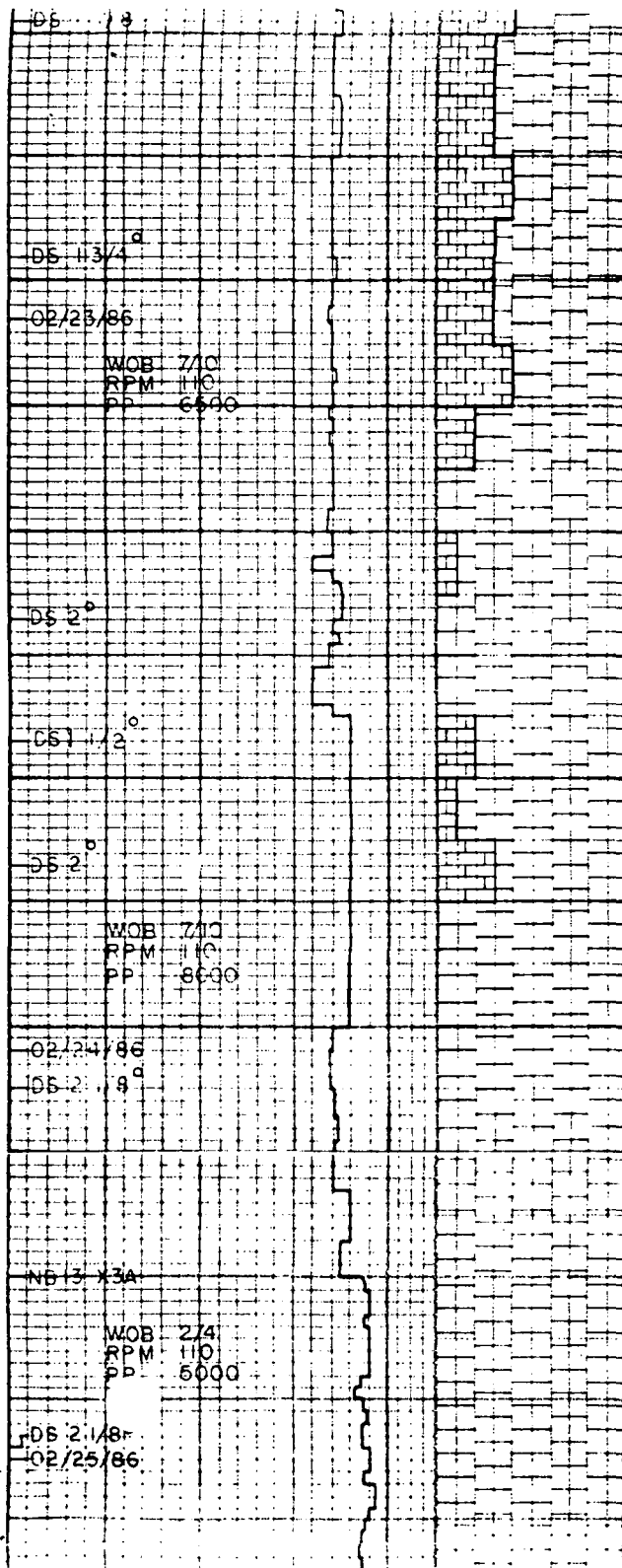
lt gy, calc, m dk gy, dns  
m, tr pty, tr fos rmn, arg  
tr fos rmn, p intxl, no show

lt m brn, m brn, dns, v  
lt m brn, m brn, dns

m dk gy, blk, calc, sl, v







m-dk gy, brn, ooc m, dk brn,  
 pred shky, dns, arg, v arg,  
 abnt wh trnst, calc, sl, tr fcs  
 rnm, tr carb, tr pyr, tr sh, tr  
 v, d, tr fcs frag

dk brngy, blk, hd, calc, v  
 arg, mod hd, hd, m, m, m,  
 slity

a/a, m, m, m, trnst frag

a/a, m, m, m, trnst frag,  
 v, d, tr fcs frag, tr fcs frag,  
 slity, tr calc, arg

a/a, m, m, m, trnst frag,  
 tr pyr, tr fcs rnm, crin

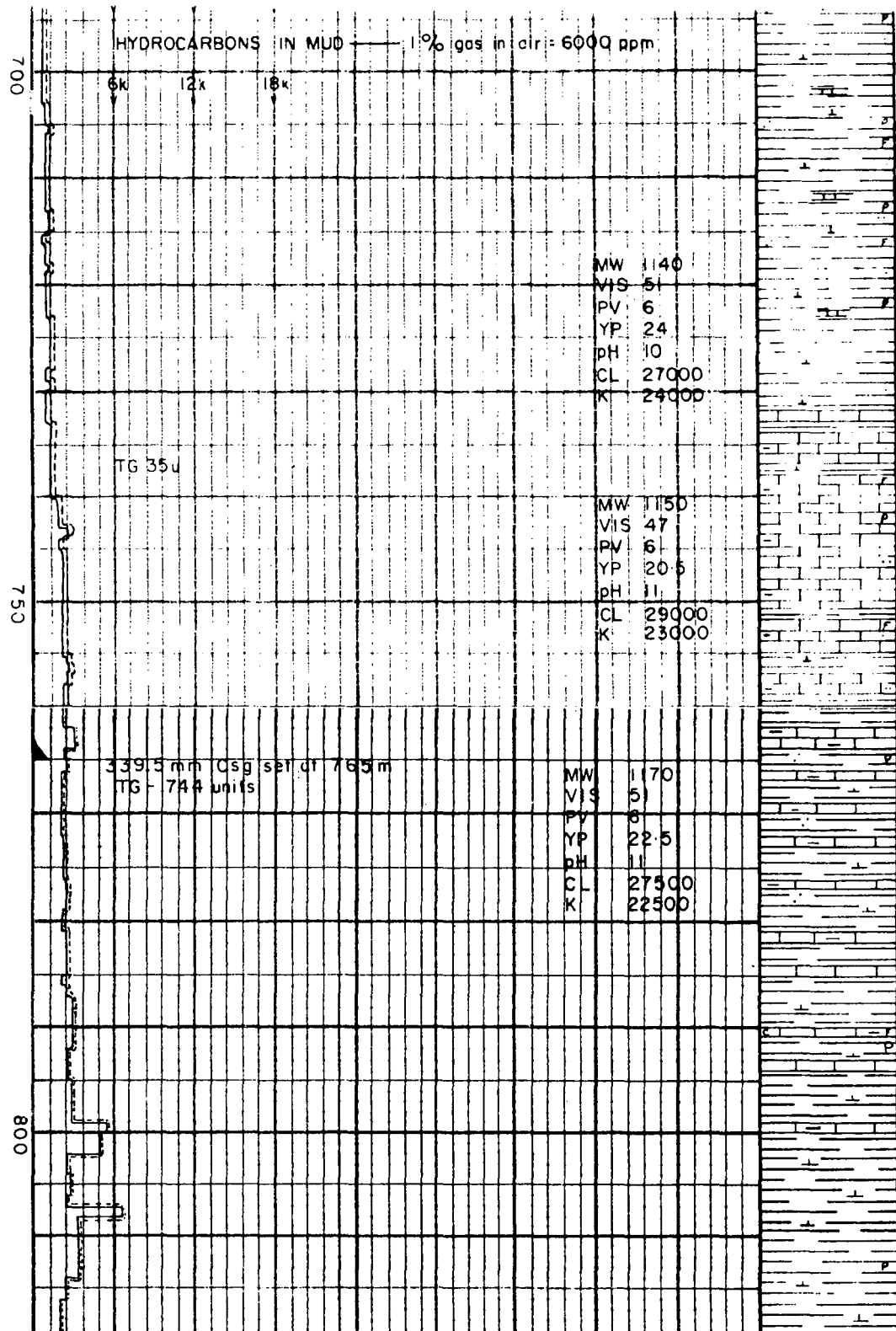
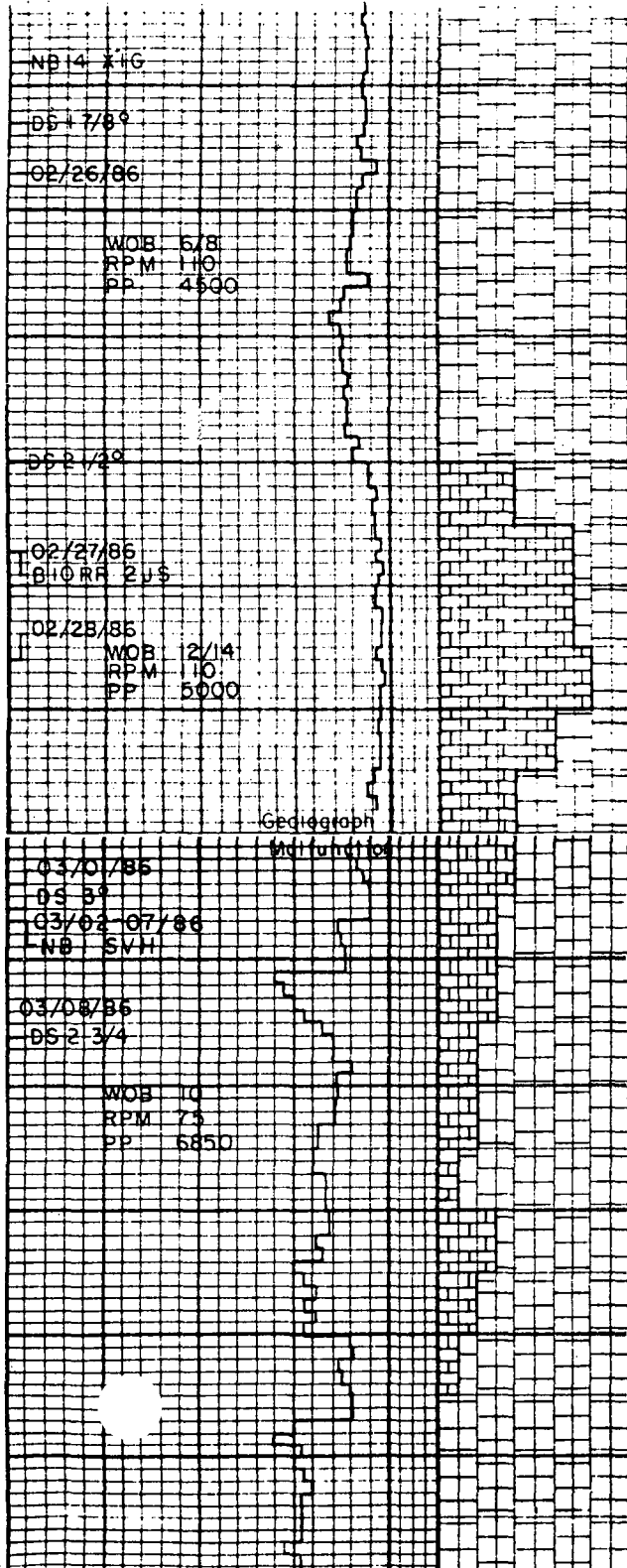
m-dk brngy, brn, ooc, dk gy,  
 brn, dns, shky, /p, ooc m, calc,  
 arg, /p, tr fcs rnm, crin

m-dk gy, blk, hd, calc, v  
 calc, sl, slity, mnr ls, ins, com  
 dsm pyr, tr pyr nod, tr fgr  
 ss w/ tr d, o

a/a, mnr m-dk brn, bf, crm  
 ls, ins, com, lse, ang, -sbrd  
 qtz gr, tr sl, tr trnst

m-dk gy, ooc blk, blk, frm-  
 hd, calc, v calc, rr carb, sl  
 slity, mnr ls, ins, tr trnst, ang  
 qtz frag, tr red brn, v fgr, ss,  
 tr fcs rnm, crin, ost, tr pyr

m-dk gy, ooc blk, a/a



SH m-dk gy, dk brngy, blk, mod  
 hd-hd, calc-v calc i/p, slty,  
 mnr ls lns, tr vf dism pyr, tr  
 pyr nod, tr pel, tr lse qtz  
 frag  
 SH m-dk gy, dk brngy, a/a, grdg  
 to v arg ls i/p, tr dism pyr  
 LS m-dk gy brn, m brn, bf, pred  
 cnky, dns i/p, arg-v arg, sl  
 slty, tr fos rmn bry, no vis  
 LS m-dk gy brn, occ bf-lt brn,  
 micxl, dns i/p, hd-brit, occ  
 cnky, frm, v arg, tr dism pyr  
 tr, no vis  
 SH m-dk gy brn, m-dk gy, frm-  
 mod hd, calc-v calc, grdg  
 to v arg ls, sl micmca,  
 frac, com lse f subrd-  
 sbang qtz gr, tr pyr  
 LS clr-wt-yel-brn, gen cal-  
 cite, xl rhmb, ang-sbrd,  
 occ fos rmn ost cor, tr  
 pyr pel  
 SH m gy-dk gy, gybrn, blk-  
 plty, frm-mod hd, non-  
 sl-v cal, abnt sks, frac,  
 cal vn, qtr pyr, pyr pel

03/09/86

DS 3 3/4

WOB 40  
RPM 120  
PP 8000

NB 2 X-8V

DS 3 1/2

WOB 6-9  
RPM 115  
PP 8400

NB 3 DSJ  
03/13/86

TO  
RPM 96  
PP 1000

850

TG- 70 units

900

TG- 475 units

MW 1130  
VS 42  
PV 7  
YP 10  
PH 115  
CL 31500  
K 26500

MW 1110  
VS 72  
PV 12  
YP 24.5  
PH 9  
CL 30000  
K 25000

SH

m-dk gy, blk-y-pty, occ  
elg, ang-sbdg, mic mica  
non-sl calc, g sks, slsity  
occ v thnlam, mod hd -  
hd, abnt pyr

abnt mass pyr

SS

wh, lt dk gy, qtz, mica, vf  
gr, ang-sbrd, m-srt,  
occ arg v arg, calc cmt,  
p Ø, calc rhmb. pyr,

SH

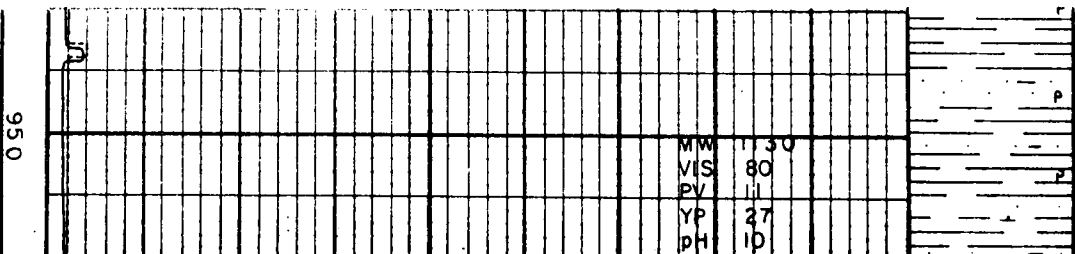
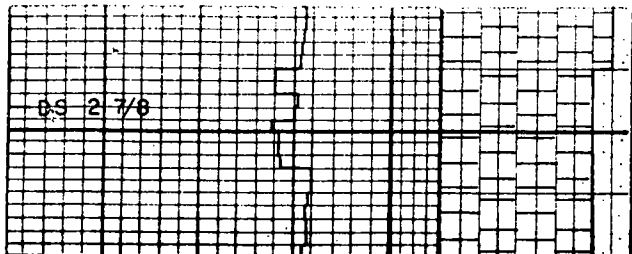
m-dk gy, sl slty, blk-y-  
pty, non-mod calc, mic-  
mica, frm-mod hd, sks  
pyr

SS

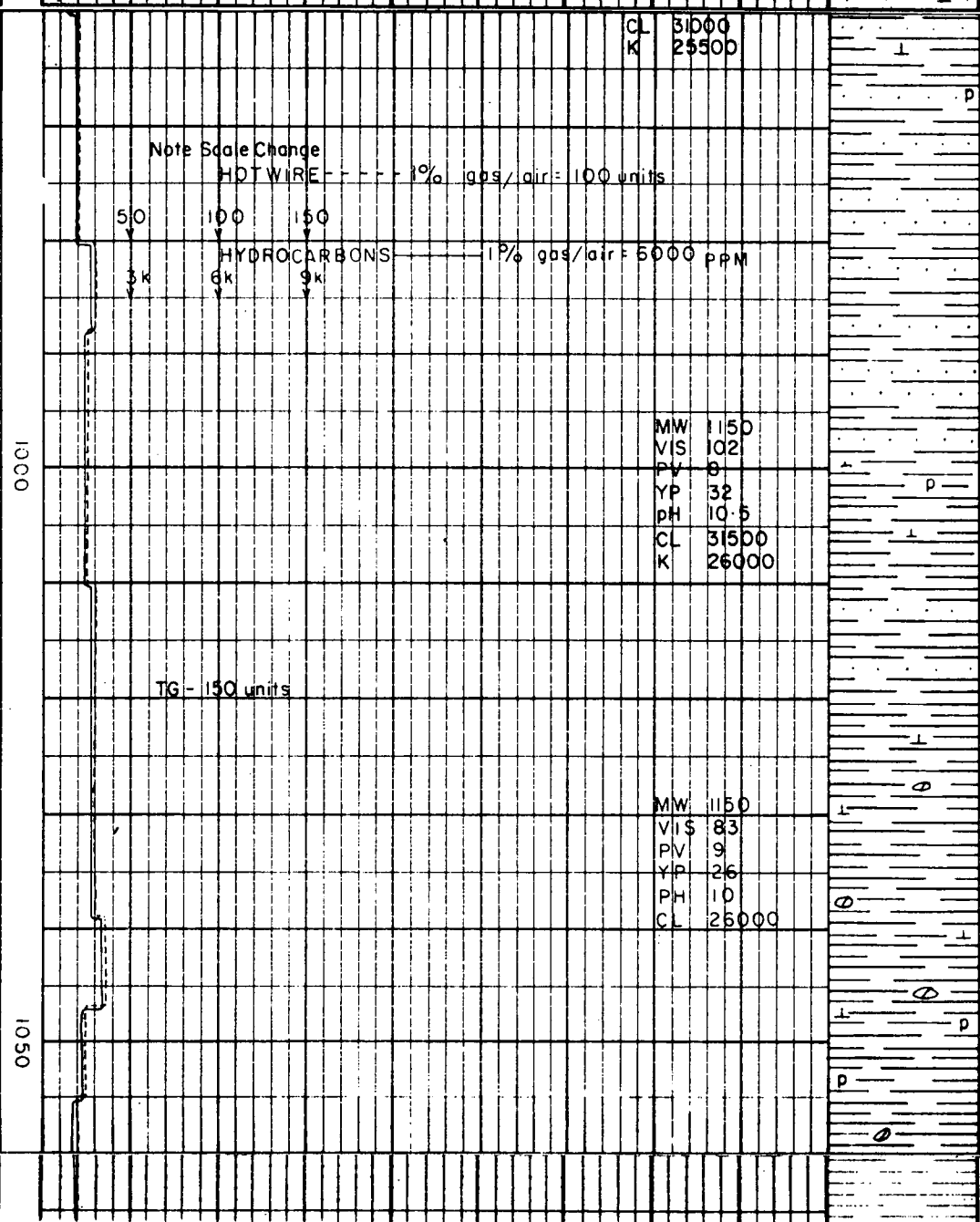
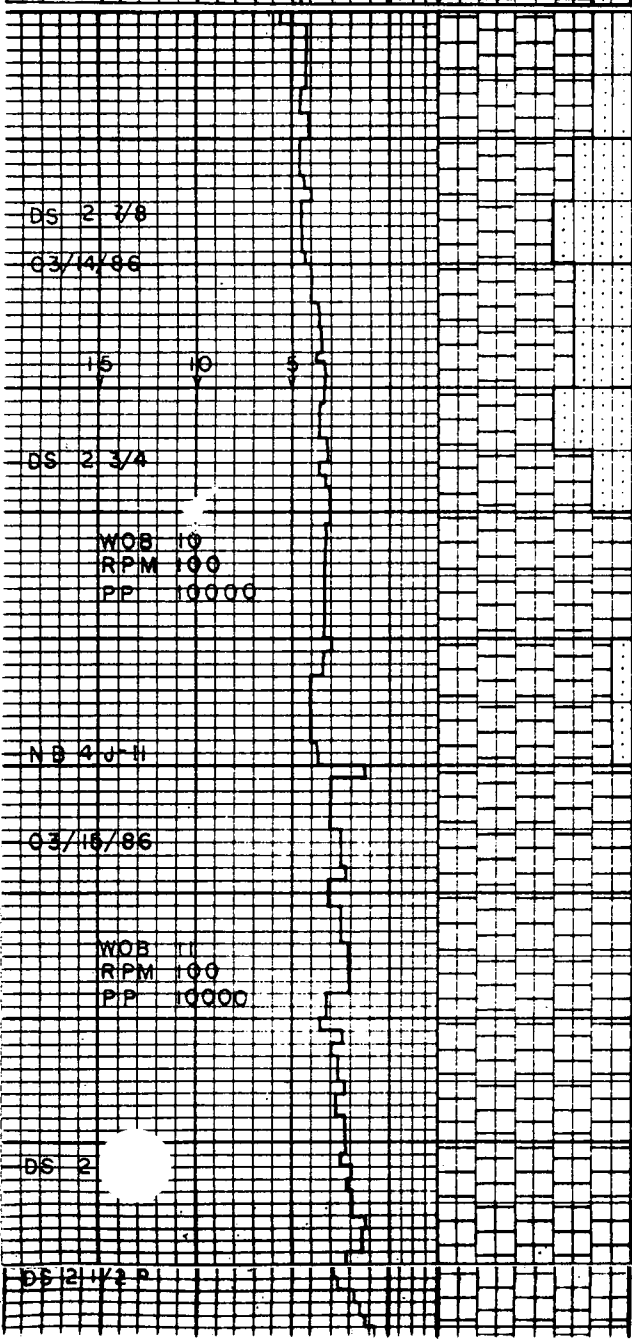
lt-dk gy, occ wh, qtz,  
mica, slt, vfgr, ang-sbrd,  
mod srt, hd, calc cmt,  
mas pyr, p Ø

SH

lt-dk gy, gen blk-y, mic-  
mica, frm-hd, lse calc  
gr, n-mod calc



SH  
p



SH  
p  
SH  
SS  
SH  
SH  
SH  
p  
SH

lt-dk gy, blk-pity, frm-hd, n-si calc, sks, frac, mic mica, tr pyr

lt-dk gy, qtz, v f gr, ang-srd, m-srt, calc cmt, v arg, p-δ

a/a, gy brn, dns

a/a, sity

lt-v dk gy, frm-hd, blk-pity, n-si calc, mic mica, Fe-conc, Fe-stn, pyr,

a/o, fis, pyr xl

03/16/86

WOB 12  
RPM 1100  
PP 700

OS 2 1/4°  
03/17/86

15 10 5

OS 2°  
03/18/86

WOB 12  
RPM 100  
PP 7000

OS 2 1/4°

15 10 5

1100

1150

TG - 70 units

MW 1165  
VIS 92  
PV 12  
YP 26  
PH 10  
CL 28000  
K 25000

MW 1160  
VIS 72  
PV 9  
YP 22  
PH 10.5  
CL 29000  
K 25000

MW 1150  
VIS 6  
PV 7  
YP 19  
PH 10.5  
CL 29000  
K 25000

MW 1140  
VIS 66  
PV 8

SH

gen lt-m gy, occ dk gy,  
blky-elig, fiss, frm-hd,  
non calc, occ sl slty,  
lse calc frag, tr pyr,  
rr fos

SH

lt-dk gy, slsly, frm-hd,  
blky-sbfis, micmica, tr pyr  
sl calc

SH

lt-dk gy, frm-hd, blky-fis  
sl micmica, sl calc, tr fos  
tr pyr

SH

m-dk gy, blky-fis  
n-calc, micmica, frm-  
hd, occ calc frag,  
fos frag, tr pyr

SH

a/a, calc lse-frag,  
Fe-stn



WOB 8  
RPM 110  
PP 7000

DS 2°

Geobograph Malfunction  
(m/hr)

15 10 5

03/24/86

DS 1 1/2°

WOB 8  
RPM 110  
PP 12000

DS 1°

03/25/86

TG - 140 units

MW 1160  
VIS 7.8  
PIV 13  
YP 16  
PH 10.5  
CL 31000  
K 27000

1350

1400

MW 1120  
VIS 75  
PIV 12  
YP 15.5  
PH 11.5  
CL 32500  
K 26500

x20

SH

m-dk gy, blk-y-plty, sbfis  
micmica, sl calc, tr pyr  
tr clr-wh calc vn

SH

m-dk gy, tr v dk gy, blk-y  
frm, sl calc, micmica,  
g tr off wh calc vn,  
tr clr qtz x1

SH

m-dk gy, frm-hd, sl slty  
blk-y- sbfis, micmica,  
sl calc, g tr calc vn,  
tr mas pyr, tr fos

WOB 10  
RPM 100  
PP 10000

DS 3/4°

WOB 10  
RPM 100  
PP 8000

DS 1°

DS 26/86

WOB 8/10  
RPM 110  
PP 8500/9000

DS 1 3/4°

DS 2°

DS 27/86

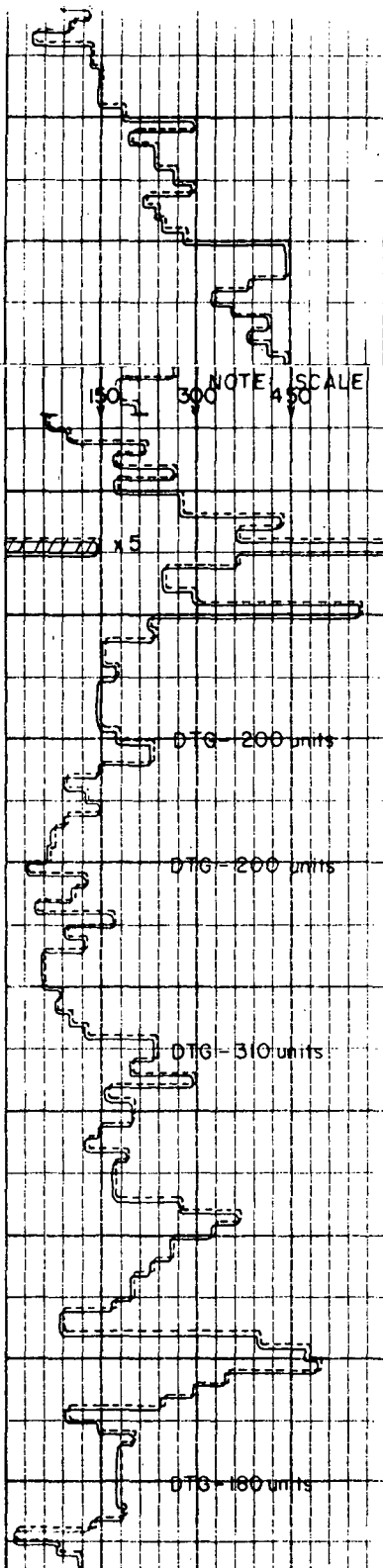
W 1/15000  
R 15/100  
PP 10000/10500

DS 1 1/2°

1450

1500

1550



MW 1110  
VIS 68  
PV 11  
YP 15.5  
pH 11  
CL 27000  
K 24000

MW 1120  
VIS 70  
PV 12  
YP 16  
pH 11.5  
CL 32000  
K 26500

MW 1160  
VIS 90  
PV 12  
YP 28  
pH 11.5

SH

m - dk gy, tr lt - v dk gy,  
blky, hd, v calc, sl micmica,  
sl tr sks, tr off wh calc vng  
sl tr crin

SH

m dk gy, tr lt & v dk gy,  
blky - plty, hd, sbfis ip,  
v calc, sl micmica, tr lse pyr,  
tr off wh calc vng, tr sh  
cvgs

SH

m dk gy, blky, hd, v calc,  
sl micmica, tr sks, sl tr off  
wh calc vng

SH

m dk gy, blky, hd, v calc,  
silty, sl micmica, rrlly carb/  
bit, sl tr lse pyr, tr off wh  
calc vng, sl tr wh sucra anty,  
tr lse fltg qtz xls