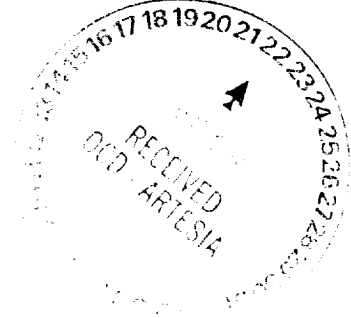


FASKEN OIL AND RANCH, LTD.

303 WEST WALL AVENUE, SUITE 1800
MIDLAND, TEXAS 79701-5116
(915) 687-1777

January 19, 2001

State Of New Mexico
Oil Conservation Division
811 S. First Street
P.O. Drawer DD
Artesia, New Mexico 88210



Attn.: Mr. Brian Arrant

Re: Fasken Oil and Ranch, Ltd.
Waiver of protective casing string
Maralo "34" Federal No. 4
660' FNL and 1550' FWL
Sec. 34, T20S, R27E
Eddy County, New Mexico

Dear Mr. Arrant,

Ms. Alexis Zwoboda with the Bureau of Land Management (Roswell Office) has requested a waiver from the NMOCD for setting an additional protective casing string on the subject well. As per our conversation this week, Fasken Oil and Ranch, Ltd. believes that no salt formations exists in this immediate area and proposes to set 13-3/8" surface at 400', 9-5/8" intermediate at 2275' and 5-1/2" production casing at TD of 11,250'.

I have attached a mud log and daily drilling reports for the Fasken Oil and Ranch, Ltd. Maralo "34" Federal No. 3 well. This well is a direct offset to the proposed Maralo "34" Federal No. 4 well. The surface and intermediate holes were drilled using fresh water with no salt contamination occurring in these intervals as noted by the consistent 8.4 ppg mud weight as reported on the daily drilling reports. Fasken Oil and Ranch, Ltd. drilled the production hole starting at 2290' with 9.0 ppg cut brine water. It is necessary to use cut brine in this area to balance the bottomhole pressure of the Delaware formation. The mud log indicates that no salt formations were drilled in this section of the hole.

If you have any questions please call me at (915) 687-1777.

Sincerely,

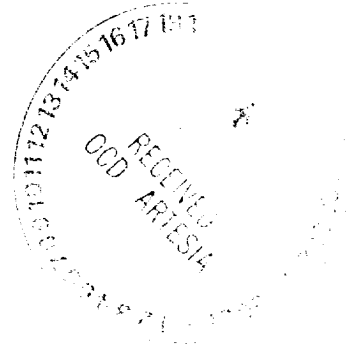
FASKEN OIL AND RANCH, LTD.

A handwritten signature in black ink that reads 'Tommy E. Taylor'. The signature is written in a cursive, flowing style.

Tommy E. Taylor
Drilling and Production Engineer

TET
Cc: wellfile

FASKEN OIL AND RANCH, LTD.
MARALO "34" FEDERAL NO. 3
A.F.E. NO. 147
DRILL AND COMPLETE



Location: 2150' FNL & 660 FEL, Section 34, T-20-S, R-27-E, Eddy County, New Mexico
Elevation: 3261' GL
Dirt Contractor: Sweatt Construction Company
Drilling Contractor: Peterson Drilling Company, Rig No. 3

4-12-99

MIRT. Plan to spud tonight.

4-13-99

TD 405'. Washing casing to bottom. Day 1. Made 405'. Surface rock. ST $\frac{3}{4}$ deg. @ 220', 1/2 deg. @ 382'. Bit #1 17-1/2" Security SS-4720 RT, SN 670866, 3-10 jets, in @ 40', made 365' in 8-1/4 hrs. Shock sub, 8" Blair, in @ 40', @ bit, 8-1/4 hrs. PP 800 psi @ 45 spm, WOB All, RPM 100. MW 8.4, vis 28

Mud Mixed: 14 sx fw gel, 13 sx paper, 11 sx multiseal, hauled 43 loads fresh water.

Time: 8-1/4 hrs. drilling, 1/4 hr. slope tests, 1/2 hr. circulate, 1 hr. TOH, 2 hrs. run 13-3/8" casing, 3/4 hr. wash 30' to bottom. Note: had no mud returns while drilling entire surface hole. **Spudded @ 6:15 p.m.**

CST 4-12-99.

Cumulative Cost: \$28,306.

4-14-99

TD 405'. WOC. Day 2. Made 0'.

Time: 1/4 hr. wash to bottom with casing, 3/4 hr. cementing, 3-1/2 hrs. cementing with 1" pipe, 19-1/2 hrs. WOC.

Note: Cemented casing with 20 bbls. gelled water, 440 sx Class "C" w/ 2% CaCl_2 (sw 14.8 ppg, yield 1.34 cuft/sk). Plug down at 8:00 am 4-13-99, had no returns while cementing with fluid level 23' FS. Cemented 17-1/2" x 13-3/8" annulus via 1" pipe with Class "C" cement w/ 4% CaCl_2 (sw 15.6 ppg, yield 1.2 cuft/sk) as follows:

RIW with 1" and tagged at 135'.

Stage No. 1- 50 sx, WOC 1-1/2 hrs, tagged @ 168'.

Stage No. 2- 50 sx, WOC 2 hrs, tagged @ 140'.

Stage No. 3- 25 sx, WOC 1-1/2 hrs, tagged @ 108'.

Stage No. 4- 25 sx, WOC 1-1/2 hrs, tagged @ 54'.

Stage No. 5- 84 sx, WOC 1-1/2 hrs, tagged 45'.

Stage No. 6- 25 sx, WOC 1-1/2 hrs, tagged 45'.

Stage No. 7- 100 sx w/ 2 yds. pea gravel, WOC 1-1/2 hrs, tagged @ 45'.

Dumped 4 yds. pea gravel and tagged @ 40'.

Stage No. 8- 25 sx, WOC 4 hrs, tagged @ 45'.

Cumulative Cost: \$47,138

FASKEN OIL AND RANCH, LTD.
MARALO "34" FEDERAL NO. 3
A.F.E. NO. 147
DRILL AND COMPLETE
PAGE 2

4-15-99

TD 765'. Drilling @ 33 ft/hr. Day 3. Made 360'. Sand and anhydrite. Bit #2 12-1/4" Security S86CF, SN 731457, 3-12 jets, in @ 405', made 360' in 11-1/2 hrs. Shock sub, 8" Blair, in @ 40', @ bit, 19-3/4 hrs. Stabilizer, Blair IBS 8", in @ 405', @ 30', 11-1/2 hrs. PP 800 psi @ 58 spm, WOB 50,000#, RPM 70. MW 8.4, vis 28.

Mud Mixed: 5 sx paper.

Time: 5-1/2 hrs. WOC and poured ready mix and pea gravel, 4-3/4 hrs. cut-off casing, weld on bradenhead and NU BOP, 1-1/4 hrs. drilling cement, 11-1/2 hrs drilling formation.

Note: Stage No. 9- Poured 3 yds. pea gravel and 4 yds ready mix cement down 17-1/2" x 13-3/8" annulus and raised TOC to surface. Mr. Duncan Whitlock with the BLM witnessed all 1" cementing operations.

13-3/8" 48.0#/ft H-40 ST&C Casing Detail:

1- notched guide shoe	0.65'
9- jts. Casing	<u>411.53'</u>
	412.18'
less cut-off	<u>- 24.90'</u>
	387.28'
below KB	<u>+ 16.33'</u>
landed @	403.61'

Cumulative Cost: \$53,644.

4-16-99

TD 1435'. Drilling @ 30 ft/hr. Day 4. Made 670'. Sand and anhydrite. ST 1/2 deg. @ 880', 1-1/4 deg. @ 1191', 1-1/2 deg. @ 1350'. Bit #2 12-1/4" Security S86CF, SN 731457, 3-12 jets, in @ 405', made 1030' in 31-3/4 hrs. Shock sub, 8" Blair, in @ 40', @ bit, 40 hrs. Stabilizer, Blair IBS 8", in @ 405', @ 30', 31-3/4 hrs. PP 1200 psi @ 60 spm, WOB 60,000#, RPM 70. MW 8.4, vis 28, pH 10.

Mud Mixed: 49 sx gel, 4 sx Multiseal, 18 sx paper, 1 sx soda ash, 2 sx caustic.

Time: 20-1/4 hrs. drilling, 3 hrs. trip for plugged bit, 1/2 hr. circulating.

Note: Lost complete returns at 1412'.

Cumulative Cost: \$64,920.

4-17-99

TD 2050'. Drilling @ 30 ft/hr. Day 5. Made 615'. Sand and anhydrite. ST 1-1/2 deg. @ 1629', 3 deg. @ 1912'. Bit #2 12-1/4" Security S86CF, SN 731457, 1-12, 2-13 jets, in @ 405', made 1645' in 50-3/4 hrs. Shock sub, 8" Blair, in @ 40', @ bit, 59 hrs. Stabilizer, Blair IBS 8", in @ 405', @ 30', 50-3/4 hrs. PP 700 psi @ 45 spm, WOB 30,000#, RPM 70. MW 8.4, vis 28, pH 10.

Mud Mixed: 47 sx gel, 20 sx Multiseal, 10 sx cedar fiber, 14 sx paper, 4 sx soda ash, 2 sx lime, 14 gallons MF-55. Hauled 53 loads fresh water

Time: 1/4 hr. drilling, 4 hrs. trip for plugged bit, installed larger jets, 18-3/4 hrs. drilling, 1 hr ST.

Note: Pumped 150 bbl mud containing 15 ppb LCM material. Continued drilling with no returns.

Cumulative Cost: \$75,374.

FASKEN OIL AND RANCH, LTD.
MARALO "34" FEDERAL NO. 3
A.F.E. NO. 147
DRILL AND COMPLETE
PAGE 4

4-20-99

TD 3575'. Drilling @ 50 ft/hr. Day 8. Made 1065'. Sand. ST 2-1/4 deg. @ 2542', 2-1/4 deg. @ 2797', 2 deg. @ 3043', 1-3/4 deg. @ 3517'. Bit #3 8-3/4" Hughes HR40C, SN Z47YH, 3-12 jets, in @ 2290', made 1285' in 30-1/4 hrs. Stabilizers; Tri collar above bit, Blair IBS, in @ 2290', @ 60', 30-1/4 hrs. PP 1250 psi @ 60 spm, WOB 60,000#, RPM 60. MW 9.0, vis 28, pH 10, CI 69,000 ppm.

Mud Mixed: 8 sx salt gel, 9 sx paper.

Time: 22-3/4 hrs. drilling, 3/4 hrs. ST, 1/2 hr. circulate samples at 3083'.

Cumulative cost \$ 158,424.

4-21-99

TD 4520'. TOH for logs. Day 9. Made 945'. Sand and Lime. ST 1-3/4 deg. @ 4055'. Bit #3 8-3/4" Hughes HR40C, SN Z47YH, 3-12 jets, in @ 2290', made 2230' in 51-3/4 hrs. Stabilizers; Tri collar above bit, Blair IBS, in @ 2290', @ 60'. PP 1450 psi @ 60 spm, WOB 60,000#, RPM 60. MW 9.1, vis 28, pH 10, CI 68,000 ppm.

Mud Mixed: 40 sx salt gel, 5 sx paper.

Time: 20 hrs. drilling, 1/2 hr. ST, 3/4 hr. circulate @ 4460', 1-1/2 hrs. drilling, 1 hr. circulate, 1/4 hr. TOH.

Note: reached TD at 4460', called loggers and found not available, resumed drilling.

Cumulative Cost: \$174,984.

4-22-99

TD 4915'. Drilling 40'/hr. Day 10. Made 395'. Lime. Bit #3 8-3/4" Hughes HR40C, SN Z47YH, 3-12 jets, in @ 2290', made 2625' in 61-1/2 hrs. Stabilizers; Tri collar above bit, Blair IBS, in @ 2290', @ 60'. Blair IBS, in at 4520', at top of drill collars. PP 1500 psi @ 60 spm, WOB 60,000#, RPM 60. MW 9.1, vis 28, pH 10, CI 68,000 ppm.

Mud Mixed: 1 sx caustic.

Time: 2 hrs. TOH for logs, 2 hrs. WO loggers, 8 hrs. logging, 2-1/4 hrs. TIH, 9-3/4 hrs. drilling.

Cumulative Cost: \$195,051

4-23-99

TD 5635'. Drilling 28'/hr. Day 11. Made 720'. Lime and shale. ST 1 deg. @ 4977', 3/4 deg. @ 5449'. Bit #3 8-3/4" Hughes HR40C, SN Z47YH, 3-12 jets, in @ 2290', made 3345' in 85 hrs. Stabilizers; Tri collar above bit, Blair IBS, in @ 2290', @ 60'. Blair IBS, in at 4520', at top of drill collars. PP 1500 psi @ 60 spm, WOB 60,000#, RPM 60. MW 9.1, vis 28, pH 10.5, CI 88,000 ppm.

Mud Mixed: 30 sx salt gel, 6 sx paper, hauled 2 loads fresh water.

Time: 23-1/2 hrs. drilling, 1/2 hr. ST.

Cumulative Cost: \$206,388.



P.O. Box 80531
MIDLAND, TX 79708
(915) 687-1823

HYDROCARBON LOGGING
GEOLOGICAL WEBSITE CONSULTING

COMPANY FASKEN OIL & RANCH, LTD.
WELL MARALO "34" FEDERAL NO. 3
FIELD AVALON (MORROW)
COUNTY EDDY
LOCATION 2150' FNL & 660' FEL SEC. 34
STATE NEW MEXICO
T-20-S, R-27-E

Spud Date 4/12/99

Started: 4/18/99 AT 2290'

Ended: 5/11/99 AT 11100'

API No.: 300153033100

G.L.: 3261'

K.B.: 3274'

LOGGING PERSONNEL:

DAVE CROCKETT

DAVID M. RAINES

Unit No.: D-145

Rig: FWA/PIERSON #303

Filename: MARA34-3.LOG

Abbreviations

MB...New Bit
CO...Circ Out
NR...No Returns
TG...Trip Gas
WOB...Wt On Bit
RPM...Rev/Min.
SG...Survey Gas
DST...Drill Stem Test
DS...Directional Survey
CG...Connection Gas
LAT...Logged After Trip
PP...Pump Pressure
SPM...Strokes/Min.
DTG...Down Time Gas

Mud Data
WT...Weight V...Viscosity
PH...Acidity F...Filtrate
CH...Chlorides

Lithology Symbols

Anhydrite ☐ Salt ☐ Granite ☐
Siltstone ☐ Chert ☐ Sandstone ☐
Dolomite ☐ Conglomerate ☐ Limestone ☐
Coal ☐ Shale ☐ Bentonite ☐
Glaucconite ☐ Pyrite ☐ Fossils ☐ Oolites ☐
Anhydritic

Gas Chromatograph Analysis

Hot Wire -----
C1 -----
C2 -----
C3 -----
C4 -----

Drilling
& Mud
Data

Drilling Rate
Min/Ft

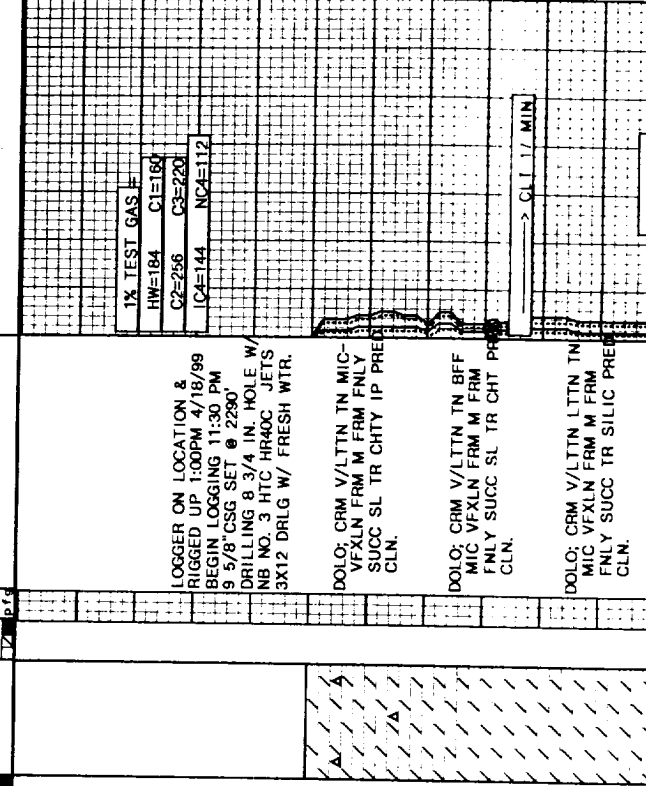
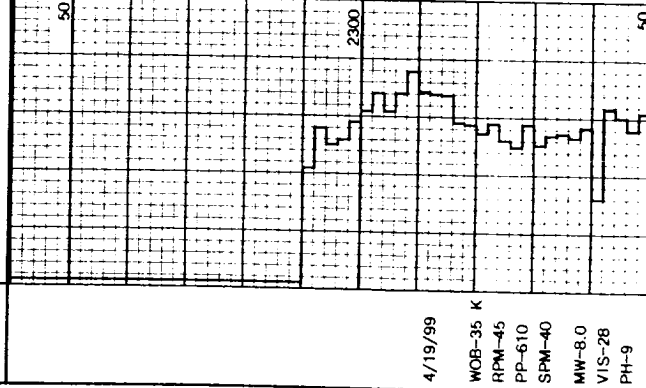
Graphic
Lithology

Vis
Poro

Fluor
Cut
0 to
100%
tr/

Descriptions/Remarks

Hydrocarbon Analysis Log
Hot Wire/Chromatograph



LOGGING ON LOCATION &
RIGGED UP 1:00PM 4/18/99
BEGIN LOGGING 11:30 PM
9 5/8 CSG SET @ 2290'
DRILLING 8 3/4 IN. HOLE W/
NB NO. 3 HTC HR40C JETS
3X12 DRLG W/ FRESH WTR.

DOLO; CRM V/LTTN TN MIC-
VFXLN FRM M FRM FNLY
SUCC SL TR CHTY IP PRE
CLN.

DOLO; CRM V/LTTN TN BFF
MIC VFXLN FRM M FRM
FNLY SUCC SL TR CHT
CLN.

DOLO; CRM V/LTTN LTTN TN
MIC VFXLN FRM M FRM
FNLY SUCC TR SILIC PRE
CLN.

4/19/99

WOB-35 K

RPM-45

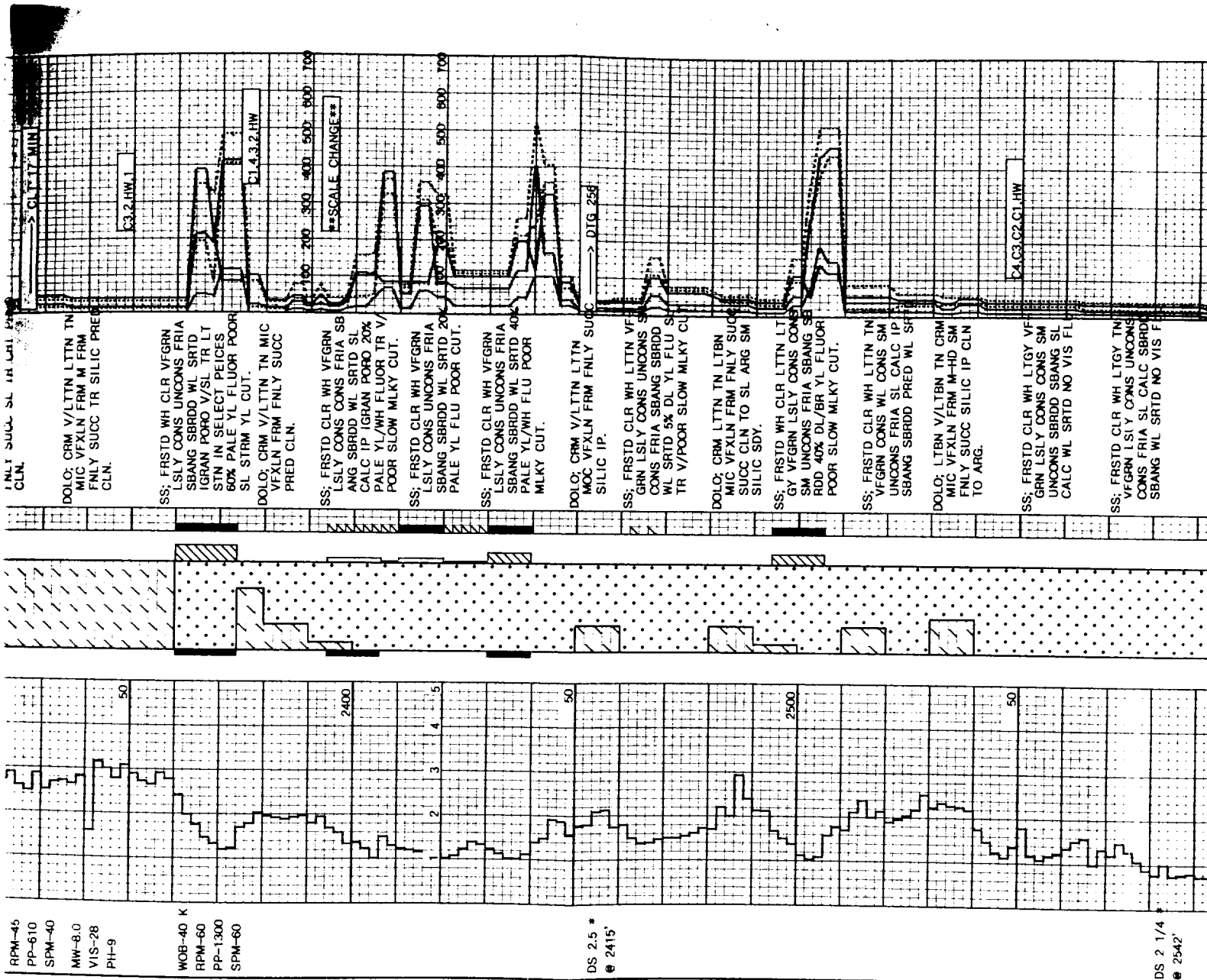
PP-610

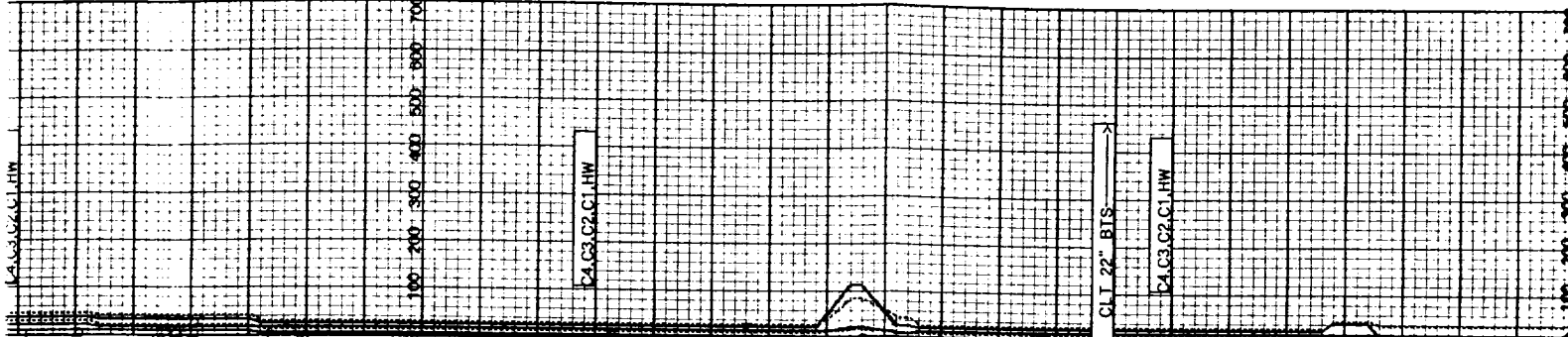
SPM-40

MW-8.0

VIS-28

PH-9





SS: FRSTD CLR WH LTGY VF
GRN LSLY CONS CONS SM
UNCONS SBRDD SBANG SL
CALC WL SRTD NO VIS FLU

SS: FRSTD CLR WH LTGY TN
VFGRN LSLY CONS UNCONS
CONS FRIA SL CALC SBRDD
SBANG WL SRTD NO VIS F

SS: FRSTD WH CLR LTGY VF
GRN LSLY CONS UNCONS
CONS FRIA SL CALC IP SE
RDD SBANG WL SRTD NO
VIS FLU

SS: FRSTD WH CLR LTGY
VFGRN LSLY CONS UNCONS
CONS FRIA SBANG SBRDD
WL SRTD NO VIS FLU.

SS: LT GRY TO CLR,GRY-TN
UNCON TO PRLY CALC CMT
CLSTR,VVFG TO VFG,MOD
WL SRTD,CLN TO SLI SLT
SLI TR GRAD TO SNDR SL
SB ANG TO SB RND,GD VIS
I-G POR,NO SHOW,FNT SUL
OOD

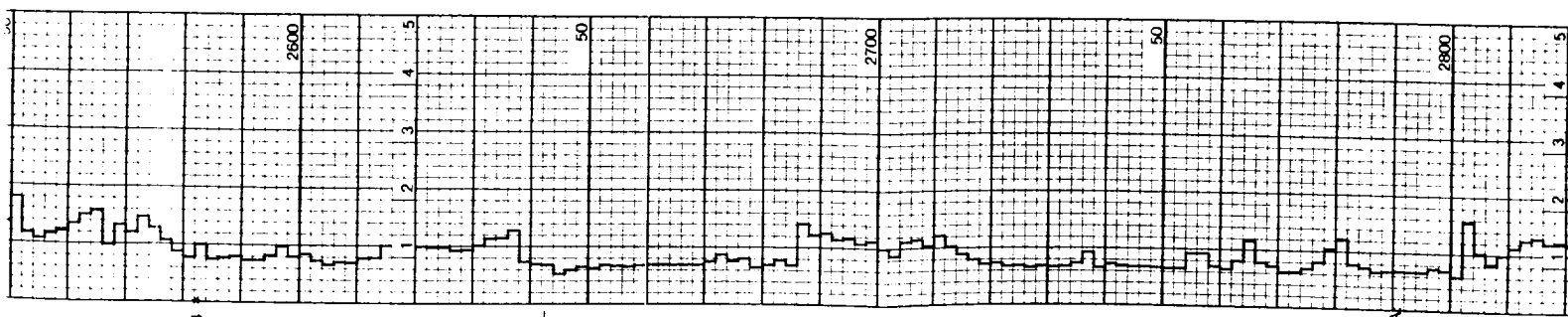
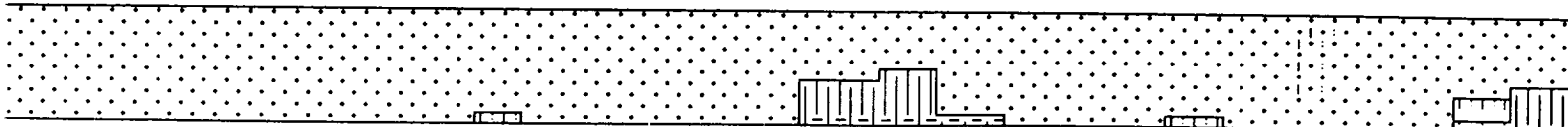
SS: LT GRY-TN TO LT GRY,
CLR TO FRSTD,UNCON TO
PRLY CALC CMT,VVFG TO
VFG,MOD SULF ODR,MOD C
TOSB ANG TO SB RND,NO
SHOW.

SH: DK BRN TO BRN TR BLK,
GRNLR/SNDY TEXT,BUKY TO
SB BLKY,CARB,CALC,MSV
SIL IP.

SS: LT GRY-TN TO LT GRY,
CLR TO FRSTD,UNCON TO
V/PRLY CALC CMT,MOD CL
TO SLI SLTY,SB ANG TO
SB RND,MOD SULF ODR,
GD VIS I-G POR,NO FLU/
DRY CUT.

SS: LT GRY TO GRY,GRY-TN,
CLR TO FRSTD,UNCON TO
V/PRLY CALC CMT,VVFG
TO VFG,MOD WL SRTD,MOD
CLN TO SLI SLTY,SB ANG
TO SB RND,NO VIS SHOW.

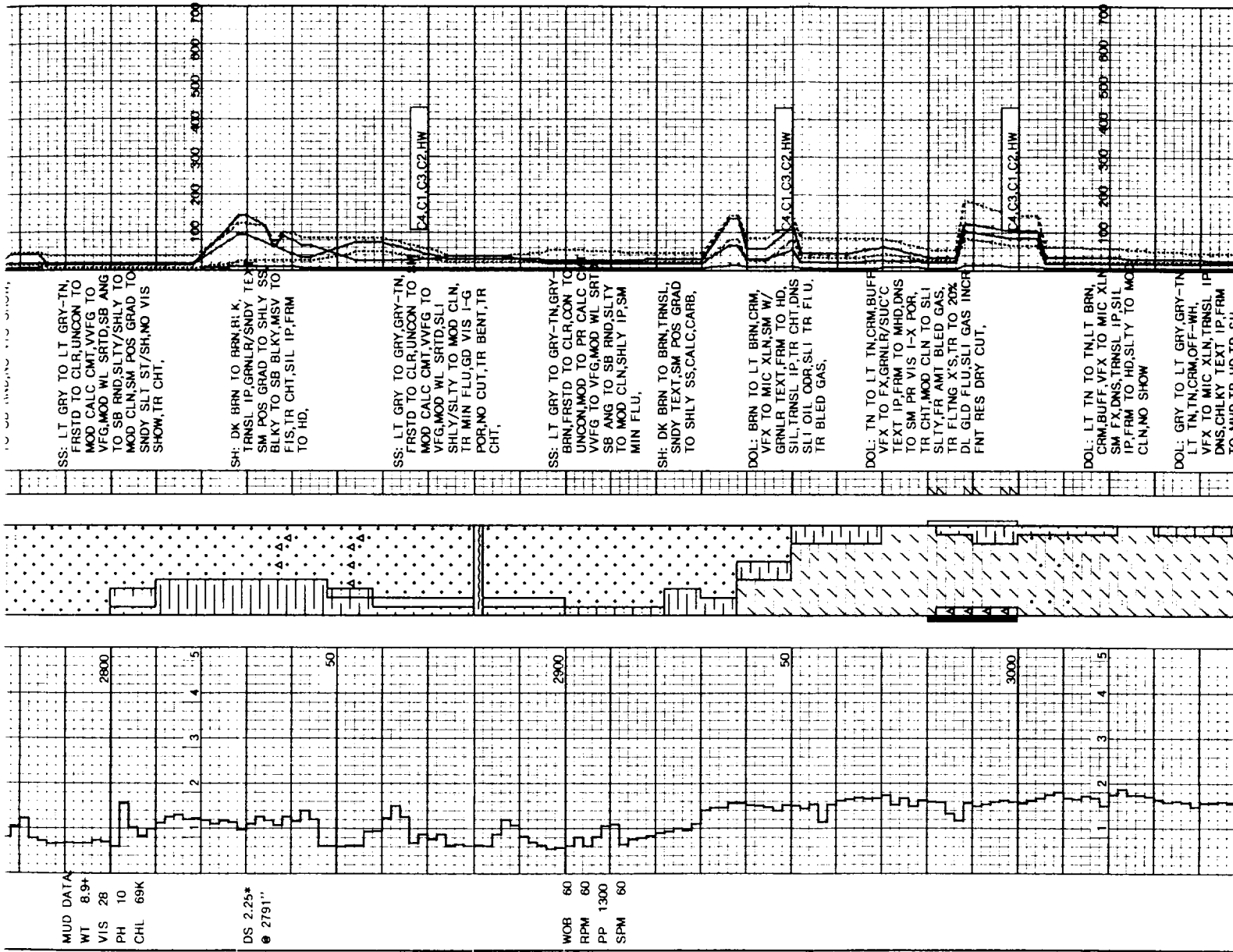
SS: LT GRY TO LT GRY-TN,
FRSTD TO CLR,UNCON TO
MOD CALC CMT,VVFG TO
VFG,MOD WL SRTD,SB ANG
TO SB RND,SLTY/SHLY TO
MOD CLN,SM POS GRAD TO
SNDR SLT ST/SH,NO VIS
SHOW,TR CHT.



DS 2 1/4
@ 2542'

DC
DMR

MUD DATA
WT 8.9+
VIS 28
PH 10
CHL 69K



MUD DATA
WT 8.9+
VIS 28
PH 10
CHL 69K

DS 2.25*
@ 2791"

WOB 60
RPM 60
PP 1300
SPM 60

SS: LT GRY TO LT GRY-TN,
FRSTD TO CLR,UNCON TO
MOD CALC CMT,VFVG TO
VFG,MOD WL SRTD,SB ANG
TO SB RND,SLTY/SHLY TO
MOD CLN,SM POS GRAD TO
SNDY SLT ST/SH,NO VIS
SHOW,TR CHT,

SH: DK BRN TO BRN,IR K,
TRNSL IP,GRNLR/SNDY TEX
SM POS GRAD TO SHLY SS,
BLKY TO SB BLKY,MSV TO
FIS,TR CHT,SIL IP,FRM
TO HD,

SS: LT GRY TO GRY,GRY-TN,
FRSTD TO CLR,UNCON TO
MOD CALC CMT,VFVG TO
VFG,MOD WL SRTD,SLI
SHLY/SLTY TO MOD CLN,
TR MIN FLU,GD VIS I-G,
POR,NO CUT,TR BENT,TR
CHT,

SS: LT GRY TO GRY-TN,GRY-
BRN,FRSTD TO CLR,CON TO
UNCON,MOD TO PR CALC C
VFVG TO VFG,MOD WL SRT
SB ANG TO SB RND,SLTY
TO MOD CLN,SHLY IP,SM
MIN FLU,

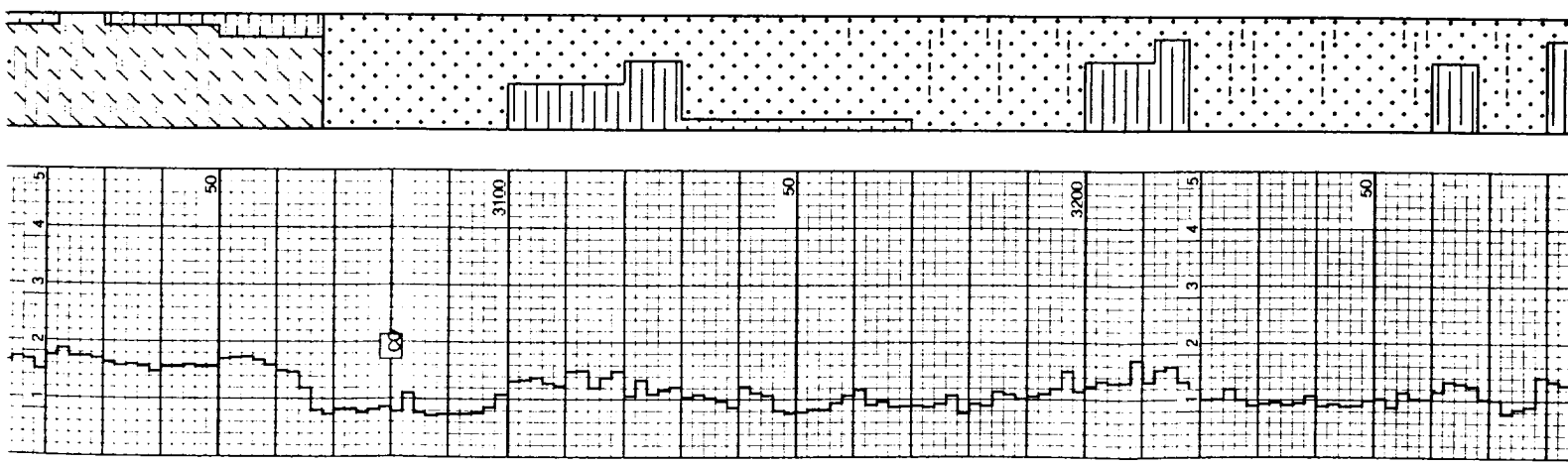
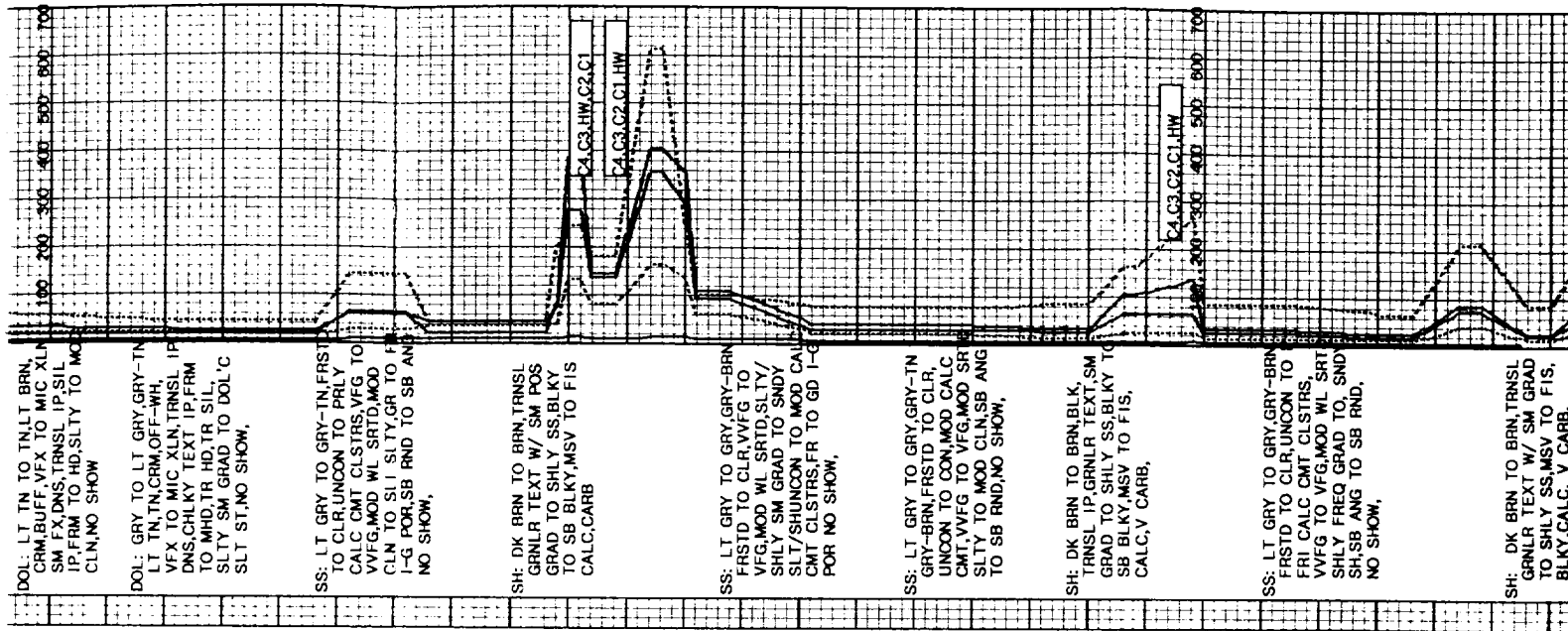
SH: DK BRN TO BRN,TRNSL,
SNDY TEXT,SM POS GRAD
TO SHLY SS,CALC,CARB,

DOL: BRN TO LT BRN,CRM,
VFVG TO MIC XLN,SM W/
GRNLR TEXT,FRM TO HD,
SIL,TRNSL IP,TR CHT,DNS
SLI OIL OOR,SLI TR FLU,
TR BLED GAS,

DOL: TN TO LT TN,CRM,BUFF
VFVG TO FX,GRNLR/SUC'C
TEXT IP,FRM TO MHD,DNS
TO SM PR VIS I-X POR,
TR CHT,MOD CLN TO SLI
SLTY,FR AMT BLED GAS,
TR FLTG X'S,TR TO 20%,
DI GLD FLU,SLI GAS INCR
FNT RES DRY CUT,

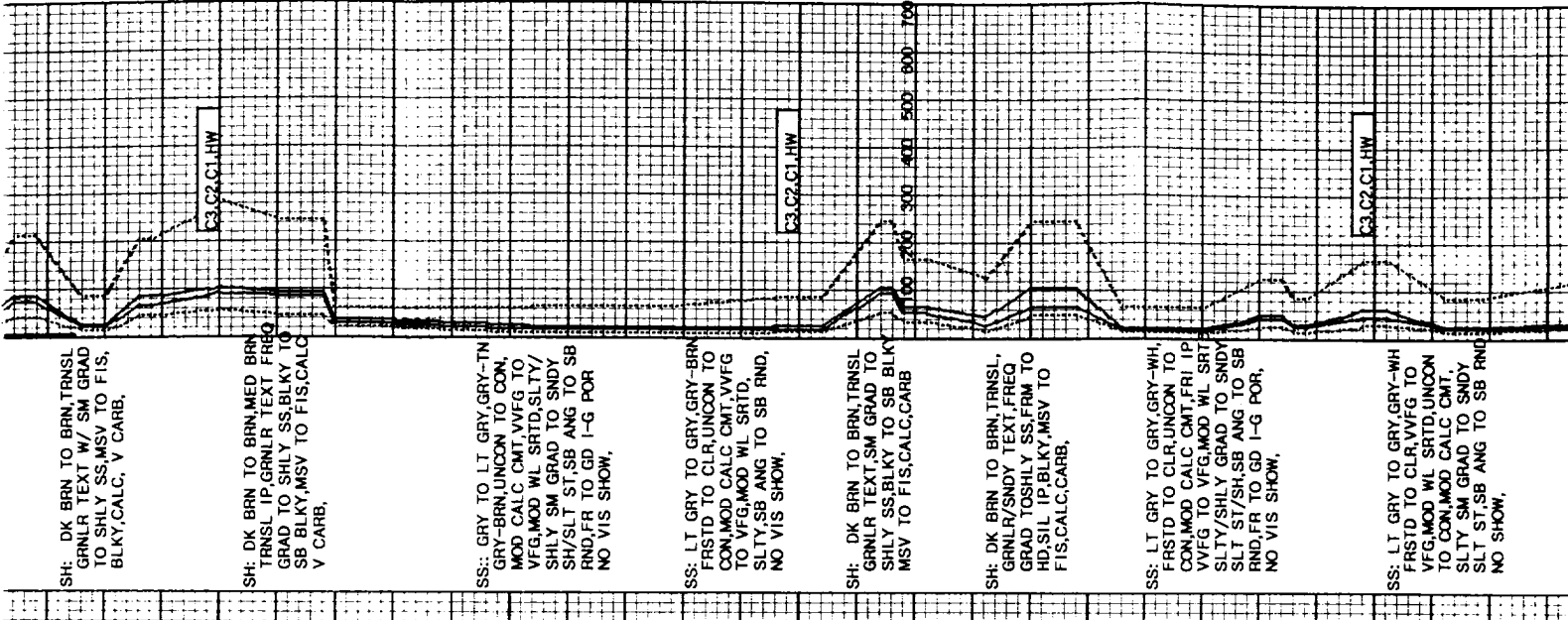
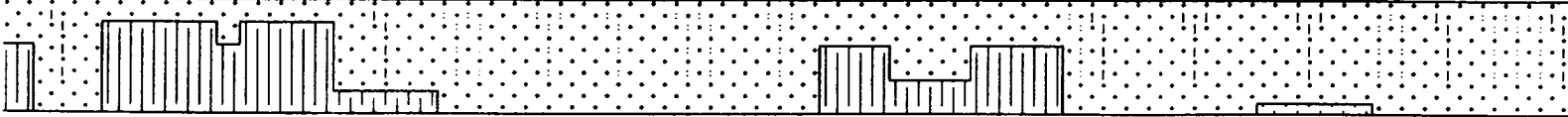
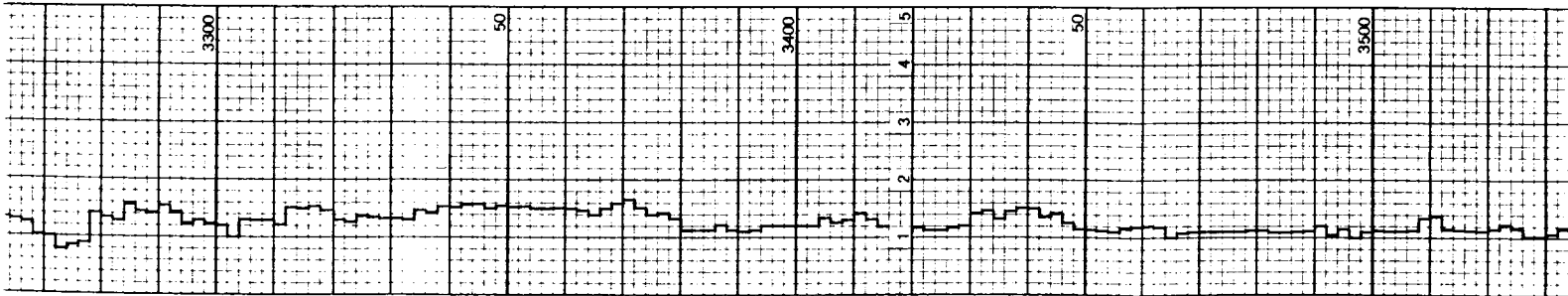
DOL: LT TN TO TN,LT BRN,
CRM,BUFF VFVG TO MIC XLN,
SM FX,DNS,TRNSL IP,SIL
IP,FRM TO HD,SLTY TO MOD
CLN,NO SHOW

DOL: GRY TO LT GRY,GRY-TN
LT TN,TRN,CRM,OFF-WH,
VFVG TO MIC XLN,TRNSL IP
DNS,CHLKY TEXT IP,FRM
TO MHD TR HD TR SIL



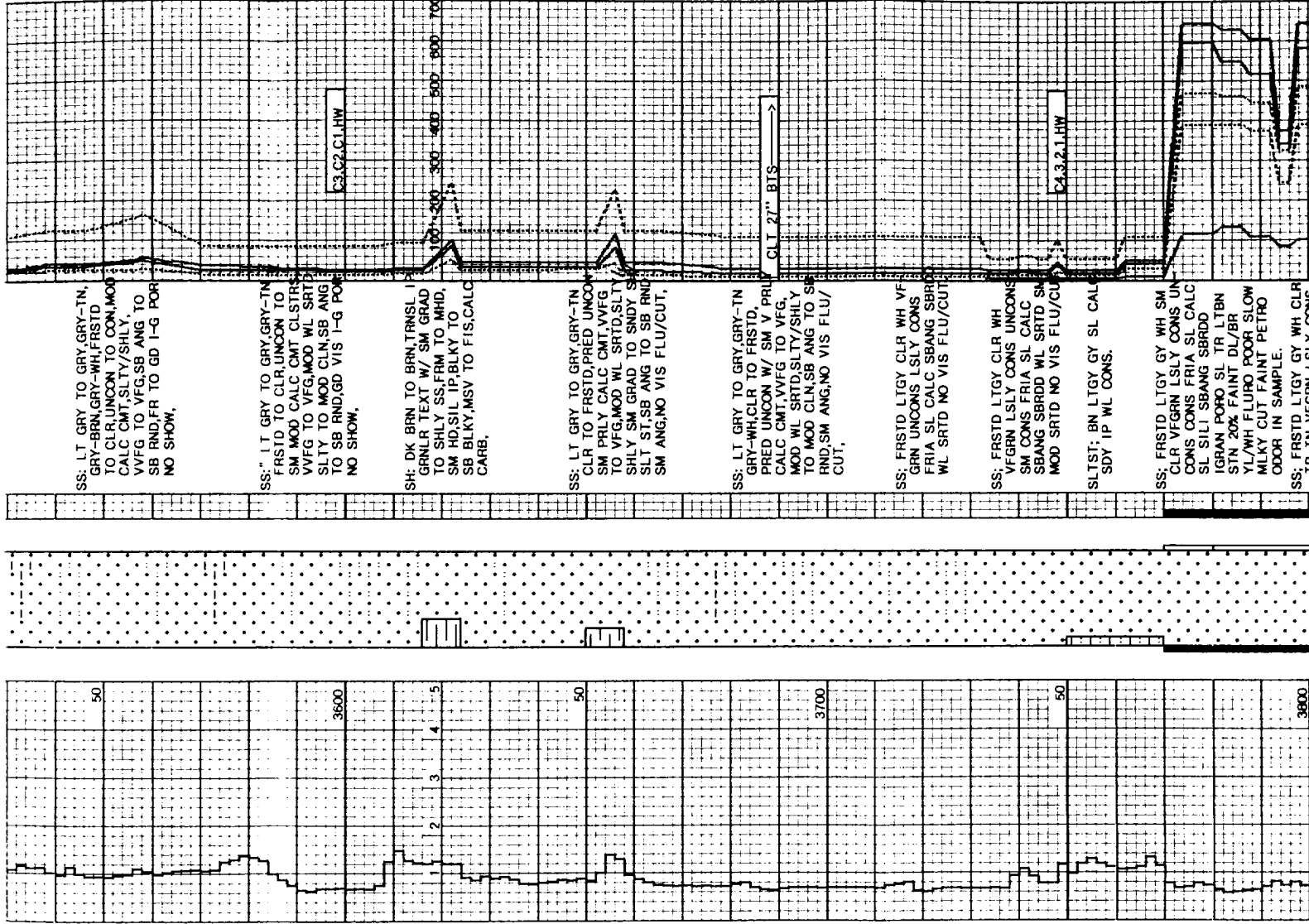
4/20/99-->

WOB 60
RPM 60
PP 1300
SPM 60



DS 1.75*
● 3517"

DMR
DC



SS: LT GRY TO GRY,GRY-TN,
GRY-BRN,GRY-WH,FRSTD
TO CLR,UNCON TO CON,MOD
CALC CMT,SLTY/SHLY,
VFG TO VFG,SB ANG TO
SB RND,FR TO GD 1-G POR
NO SHOW.

SS: LT GRY TO GRY,GRY-TN
FRSTD TO CLR,UNCON TO
SM MOD CALC CMT CLSTR
VFG TO VFG,MOD WL SRTD
SLTY TO MOD CLN,SB ANG
TO SB RND,GD VIS 1-G POR
NO SHOW.

SH: DK BRN TO BRN,TRNSL I
GRNLR TEXT W/ SM GRAD
TO SHLY SS,FRM TO MHD,
SM HD,SIL IP,BLKY TO
SB BLKY,MSV TO FIS,CALC
CARB.

SS: LT GRY TO GRY,GRY-TN
CLR TO FRSTD,PRED UNCON
SM PRLY CALC CMT VFG
TO VFG,MOD WL SRTD,SLTY
SHLY SM GRAD TO SNDY SM
SLT ST,SB ANG TO SB RND
SM ANG,NO VIS FLU/CUT,

SS: LT GRY TO GRY,GRY-TN
GRY-WH,CLR TO FRSTD,
PRED UNCON W/ SM V PRLY
CALC CMT,VFG TO VFG,
MOD WL SRTD,SLTY/SHLY
TO MOD CLN,SB ANG TO SB
RND,SM ANG,NO VIS FLU/
CUT,

SS: FRSTD LTGY CLR WH VFG
GRN UNCONS LSLY CONS
FRIA SL CALC SBANG SBRD
WL SRTD NO VIS FLU/CUT

SS: FRSTD LTGY CLR WH
VFGN LSLY CONS UNCON
SM CONS FRIA SL CALC
SBANG SBRD WL SRTD SM
MOD SRTD NO VIS FLU/CUT

SLTST; BN LTGY GY SL CAL
SDY IP WL CONS.

SS: FRSTD LTGY GY WH SM
CLR VFGN LSLY CONS UN
CONS CONS FRIA SL CALC
SL SILI SBANG SBRD
IGRAN PORO SL TR LTBN
STN 20% FAINT DL/BR
YL/WH FLURO POOR SLOW
MLKY CUT FAINT PETRO
ODOR IN SAMPLE.
SS: FRSTD LTGY GY WH CLR
TR TN VFGN LSLY CONS