

EXPLORATION LOGGING

A GEOLOGICAL-ENGINEERING SERVICE

REMARKS
 DRILLING CONTRACT NO. **ROUND 9**
 WELL NAME **NABORS**
 DRILL DATE **APRIL 6, 1977**
 TYPE LOG **KCL-POLMER**
 INTERVALS **T.D.**

FORMATION PRESSURE LOG
 DATA ONLY
 ANALYSIS LOG

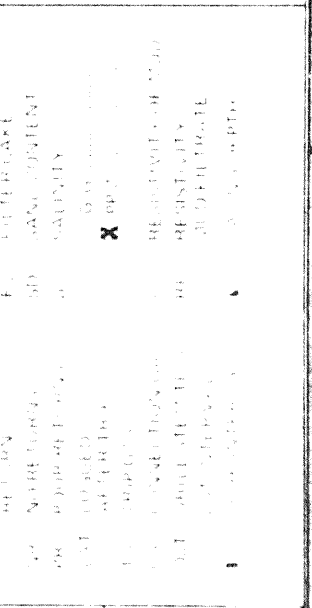
COMPANY COLUMBIA GAS DEVELOPMENT
WELL KOTANEELEE VT H-38
FIELD DEVELOPMENT
LOCATION 60° 07' 13.5" N
 124° 08' 31.8" W
COUNTY STATE YUKON, CANADA
API WELL INDEX NO.
ELEVATION GROUND ELEVATION 2225'
 RKB ELEVATION 2250'
DATE FROM APRIL 25, 1977 TO OCTOBER 14, 1977
DEPTH FROM 1000' TO 12789'
UNIT NO 120
LOG PREPARED BY R.D. DOOK; J.V. HOPKINS; J.C. JOHNSTON;
 E.F. DOYLE; P. GUBURY

ABBREVIATIONS
 MR MUD WEIGHT
 RBG RESISTIVITY
 CR COMPRESSIBILITY
 F FLOWLINE TEMPERATURE
 X CONNECTION GAS
 S SATURATED
 UN UNSATURATED
 RES RESISTIVITY
 RE RESISTIVITY
 TRIP TRIP LOG
 MUD MUD WEIGHT
 WGT WEIGHT
 SH SHALE FACTOR
 BD BULK DENSITY

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 BD BULK DENSITY

CASING RECORD
 20" 771'
 13 3/4" 3020'
 9 3/4" 10850'
 7" T.D.
HOLE SIZE
 26" 771'
 17 1/2" 3020'
 12 1/2" 10350'
 8 1/2" T.D.

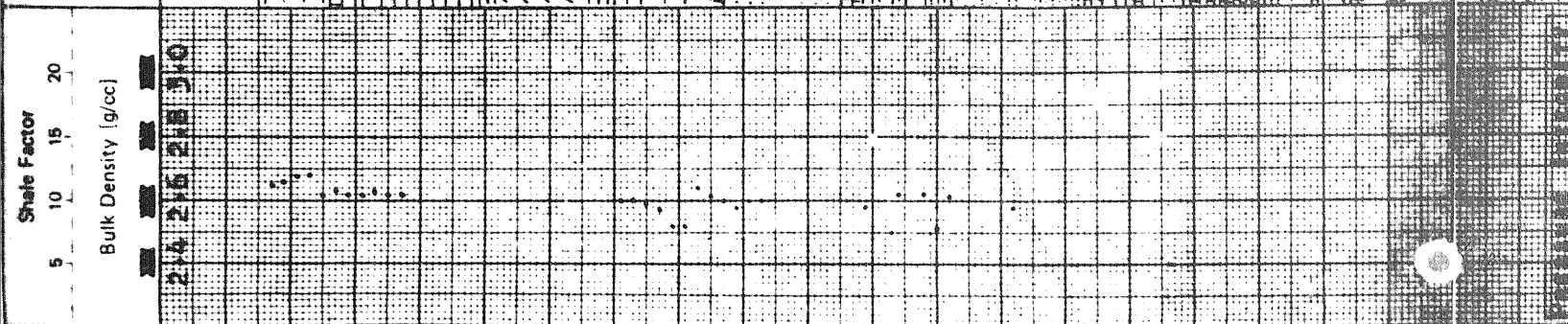
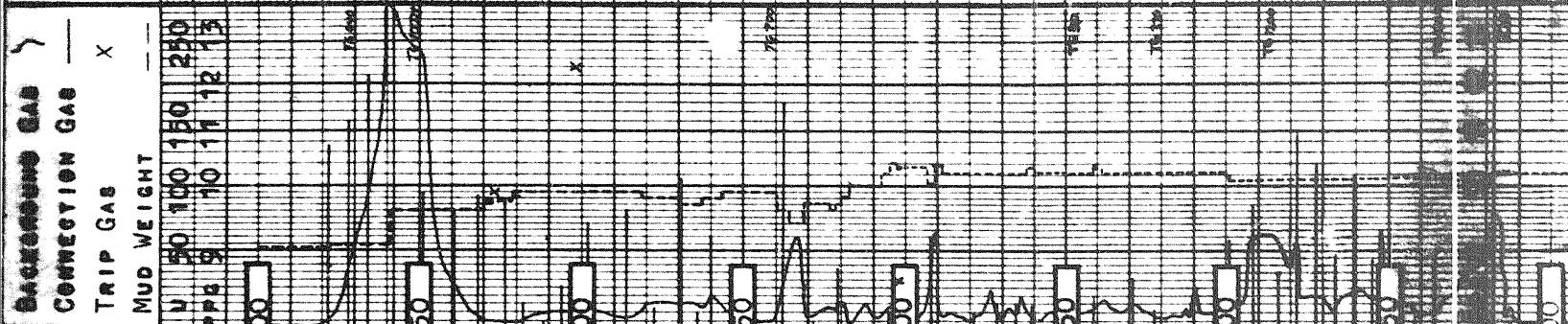
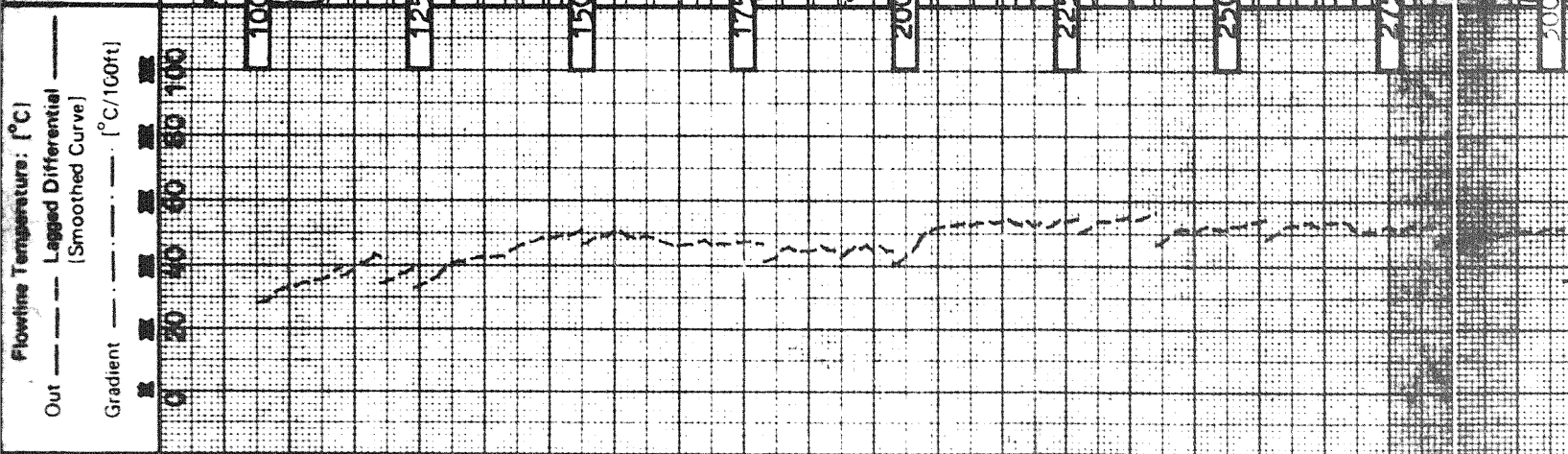
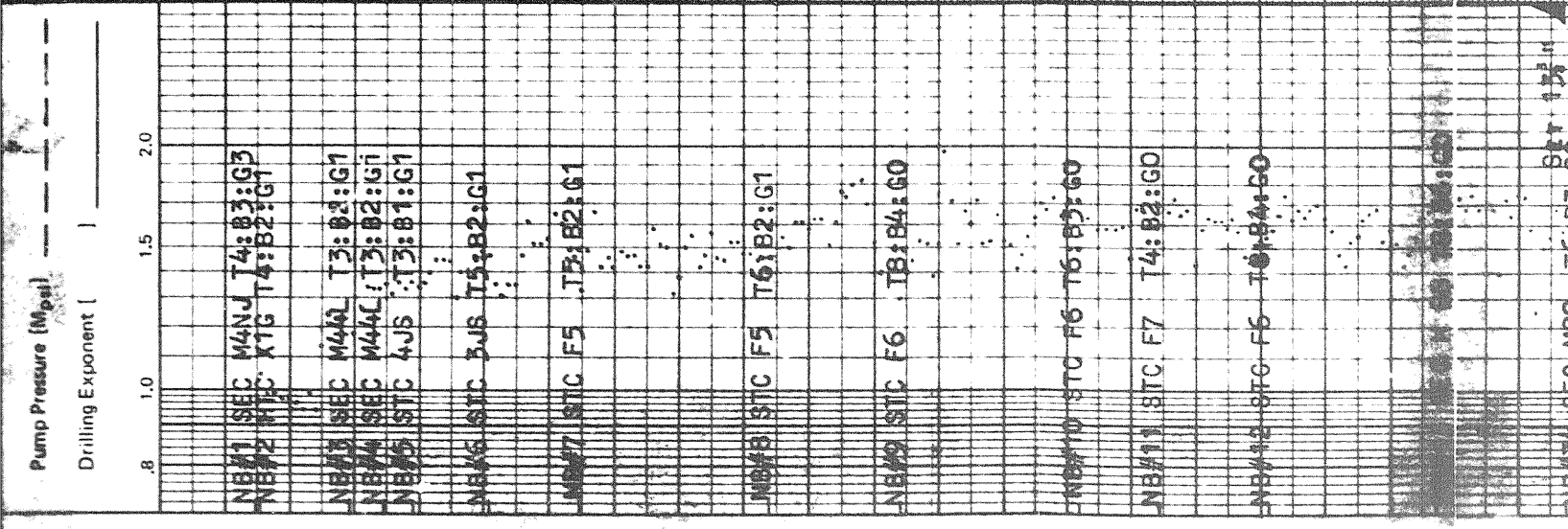
Flowline Temperature: [°C]
 Out --- [Lagged Differential]
 Gradient --- [Smoothed Curve] [°C/100ft]



Flowline Temperature: [°C]
 Out --- [Lagged Differential]
 Gradient --- [Smoothed Curve] [°C/100ft]

Pump Pressure [Mpa] ---
Drilling Exponent [] ---

SEC	TIME	DEPTH (ft)	TRIP GAS	MUD WEIGHT
1	00	0	---	---
1	05	50	---	---
1	10	100	---	---
1	15	150	---	---
1	20	200	---	---
1	25	250	---	---
1	30	300	---	---
1	35	350	---	---
1	40	400	---	---
1	45	450	---	---
1	50	500	---	---
1	55	550	---	---
1	00	600	---	---
1	05	650	---	---
1	10	700	---	---
1	15	750	---	---
1	20	800	---	---
1	25	850	---	---
1	30	900	---	---
1	35	950	---	---
1	40	1000	---	---
1	45	1050	---	---
1	50	1100	---	---
1	55	1150	---	---
1	00	1200	---	---
1	05	1250	---	---
1	10	1300	---	---
1	15	1350	---	---
1	20	1400	---	---
1	25	1450	---	---
1	30	1500	---	---
1	35	1550	---	---
1	40	1600	---	---
1	45	1650	---	---
1	50	1700	---	---
1	55	1750	---	---
1	00	1800	---	---
1	05	1850	---	---
1	10	1900	---	---
1	15	1950	---	---
1	20	2000	---	---
1	25	2050	---	---
1	30	2100	---	---
1	35	2150	---	---
1	40	2200	---	---
1	45	2250	---	---
1	50	2300	---	---
1	55	2350	---	---
1	00	2400	---	---
1	05	2450	---	---
1	10	2500	---	---
1	15	2550	---	---
1	20	2600	---	---
1	25	2650	---	---
1	30	2700	---	---
1	35	2750	---	---
1	40	2800	---	---
1	45	2850	---	---
1	50	2900	---	---
1	55	2950	---	---
1	00	3000	---	---
1	05	3050	---	---
1	10	3100	---	---
1	15	3150	---	---
1	20	3200	---	---
1	25	3250	---	---
1	30	3300	---	---
1	35	3350	---	---
1	40	3400	---	---
1	45	3450	---	---
1	50	3500	---	---
1	55	3550	---	---
1	00	3600	---	---
1	05	3650	---	---
1	10	3700	---	---
1	15	3750	---	---
1	20	3800	---	---
1	25	3850	---	---
1	30	3900	---	---
1	35	3950	---	---
1	40	4000	---	---
1	45	4050	---	---
1	50	4100	---	---
1	55	4150	---	---
1	00	4200	---	---
1	05	4250	---	---
1	10	4300	---	---
1	15	4350	---	---
1	20	4400	---	---
1	25	4450	---	---
1	30	4500	---	---
1	35	4550	---	---
1	40	4600	---	---
1	45	4650	---	---
1	50	4700	---	---
1	55	4750	---	---
1	00	4800	---	---
1	05	4850	---	---
1	10	4900	---	---
1	15	4950	---	---
1	20	5000	---	---
1	25	5050	---	---
1	30	5100	---	---
1	35	5150	---	---
1	40	5200	---	---
1	45	5250	---	---
1	50	5300	---	---
1	55	5350	---	---
1	00	5400	---	---
1	05	5450	---	---
1	10	5500	---	---
1	15	5550	---	---
1	20	5600	---	---
1	25	5650	---	---
1	30	5700	---	---
1	35	5750	---	---
1	40	5800	---	---
1	45	5850	---	---
1	50	5900	---	---
1	55	5950	---	---
1	00	6000	---	---
1	05	6050	---	---
1	10	6100	---	---
1	15	6150	---	---
1	20	6200	---	---
1	25	6250	---	---
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1	35	6350	---	---
1	40	6400	---	---
1	45	6450	---	---
1	50	6500	---	---
1	55	6550	---	---
1	00	6600	---	---
1	05	6650	---	---
1	10	6700	---	---
1	15	6750	---	---
1	20	6800	---	---
1	25	6850	---	---
1	30	6900	---	---
1	35	6950	---	---
1	40	7000	---	---
1	45	7050	---	---
1	50	7100	---	---
1	55	7150	---	---
1	00	7200	---	---
1	05	7250	---	---
1	10	7300	---	---
1	15	7350	---	---
1	20	7400	---	---
1	25	7450	---	---
1	30	7500	---	---
1	35	7550	---	---
1	40	7600	---	---
1	45	7650	---	---
1	50	7700	---	---
1	55	7750	---	---
1	00	7800	---	---
1	05	7850	---	---
1	10	7900	---	---
1	15	7950	---	---
1	20	8000	---	---
1	25	8050	---	---
1	30	8100	---	---
1	35	8150	---	---
1	40	8200	---	---
1	45	8250	---	---
1	50	8300	---	---
1	55	8350	---	---
1	00	8400	---	---
1	05	8450	---	---
1	10	8500	---	---
1	15	8550	---	---
1	20	8600	---	---
1	25	8650	---	---
1	30	8700	---	---
1	35	8750	---	---
1	40	8800	---	---
1	45	8850	---	---
1	50	8900	---	---
1	55	8950	---	---
1	00	9000	---	---
1	05	9050	---	---
1	10	9100	---	---
1	15	9150	---	---
1	20	9200	---	---
1	25	9250	---	---
1	30	9300	---	---
1	35	9350	---	---
1	40	9400	---	---
1	45	9450	---	---
1	50	9500	---	---
1	55	9550	---	---
1	00	9600	---	---
1	05	9650	---	---
1	10	9700	---	---
1	15	9750	---	---
1	20	9800	---	---
1	25	9850	---	---
1	30	9900	---	---
1	35	9950	---	---
1	40	10000	---	---
1	45	10050	---	---
1	50	10100	---	---
1	55	10150	---	---
1	00	10200	---	---
1	05	10250	---	---
1	10	10300	---	---
1	15	10350	---	---
1	20	10400	---	---
1	25	10450	---	---
1	30	10500	---	---
1	35	10550	---	---
1	40	10600	---	---
1	45	10650	---	---
1	50	10700	---	---
1	55	10750	---	---
1	00	10800	---	---
1	05	10850	---	---
1	10	10900	---	---
1	15	10950	---	---
1	20	11000	---	---
1	25	11050	---	---
1	30	11100	---	---
1	35	11150	---	---
1	40	11200	---	---
1	45	11250	---	---
1	50	11300	---	---
1	55	11350	---	---
1	00	11400	---	---
1	05	11450	---	---
1	10	11500	---	---
1	15	11550	---	---
1	20	11600	---	---
1	25	11650	---	---
1	30	11700	---	---
1	35	11750	---	---
1	40	11800	---	---
1	45	11850	---	---
1	50	11900	---	---
1	55	11950	---	---
1	00	12000	---	---
1	05	12050	---	---
1	10	12100	---	---
1	15	12150	---	---
1	20	12200	---	---



Remarks	CUTTINGS LITHOLOGY
SH, GRAY, BRN, CALC	[Lithology symbols]
FRAC, HD, DEL, SH-SL, GRAY-CALC, H2O-FLOW, INCR. VT.	[Lithology symbols]
INCR. VT., TO, CHERT, GRY, BE, HOLY & BMLY, OK, GRY, PYR, SH, BRN, GRY, CALC, SH, LGW, FRT, V, SRT, VOB, 25, H2O-FLOW, INCR. VT.	[Lithology symbols]
LS, BLK, MASSIVE, SH, BLK, SLT, ST, GRY, BMLY	[Lithology symbols]
SB, HD, F, GRND, V, W, CALC, CNT, INT, BDD, SLT, SH	[Lithology symbols]
LS, DOL, GRY, MXLN, CHERT, HD	[Lithology symbols]
LS, DOL, INT, BDD, V, SLT, ST, & SS, VOB, 25	[Lithology symbols]
SS, WH, HD, GRY, CROX, DOL, BRN, GRY, HD	[Lithology symbols]

7/10/76
SH, BLK
SHA, BLK

DOL BRN
GRY HD
SA V

VZ10PPE
SH, BLK
VDA 32
RPN 32

SS, GRY
HD, QZSE

H2O FLOW
INCR VI

VOB 35

SB, LT GY
HD, FN M
SRID, SB
AN

SH BLK
FTS, SBT

- Y VOB 35

SH GRY
BRN, SLTY
SLTST, OK
GRY, MYRT

LS, BRN
DK, GRY
ARENAC

SH DK GY

SLY BRN
DOL CRYPT
XCN, BT
HD, TT BM

SH, M, HD
FRAG, LKA

SH, TAN,
SLTST, PM

SS, QZISE

SLTST

SH, GRY
BRN, HD
QZISE, PR

SLTST

MITMIGAC

VOB 27

SLTST
BLK, TAG
OCC, ONLY

VOB 30

SA/S

ARG, F100

SH, BLK,
MOD, HD



NET 13"
NBW34 SEC M88 T6:B3:G0

NBW35 SEC H88 T8:B4:G0

NBW36 SEC H88 T8:B3:G0

NBW37 SEC M100 T4:B2:G1

NBW38 SEC M100 T4:B2:G1

NBW39 SEC M89F T3:B1:G1

NBW40 BTC F6 T5:B1:G1

NBW41 NEED 572J T2:B1:G1

NBW42 BTC F5 T3:B2:G1

NBW43 SEC M88 T3:B2:G1

NBW44 SEC H77 T4:B1:G1

NBW45 BTC F4 T5:B2:G1

NBW46 NEED FP62 T5:B7:G1

1 of

NB441 NEED S72J T2 B1 G1
NB442 BTC F6 T3 B2 G1

NB443 SEC M88 T3 B2 G1

NB444 SEC H77 T4 B1 G1
NB445 STC F4 T5 B2 G1

NB446 NEED FP62 T5 B7 G1

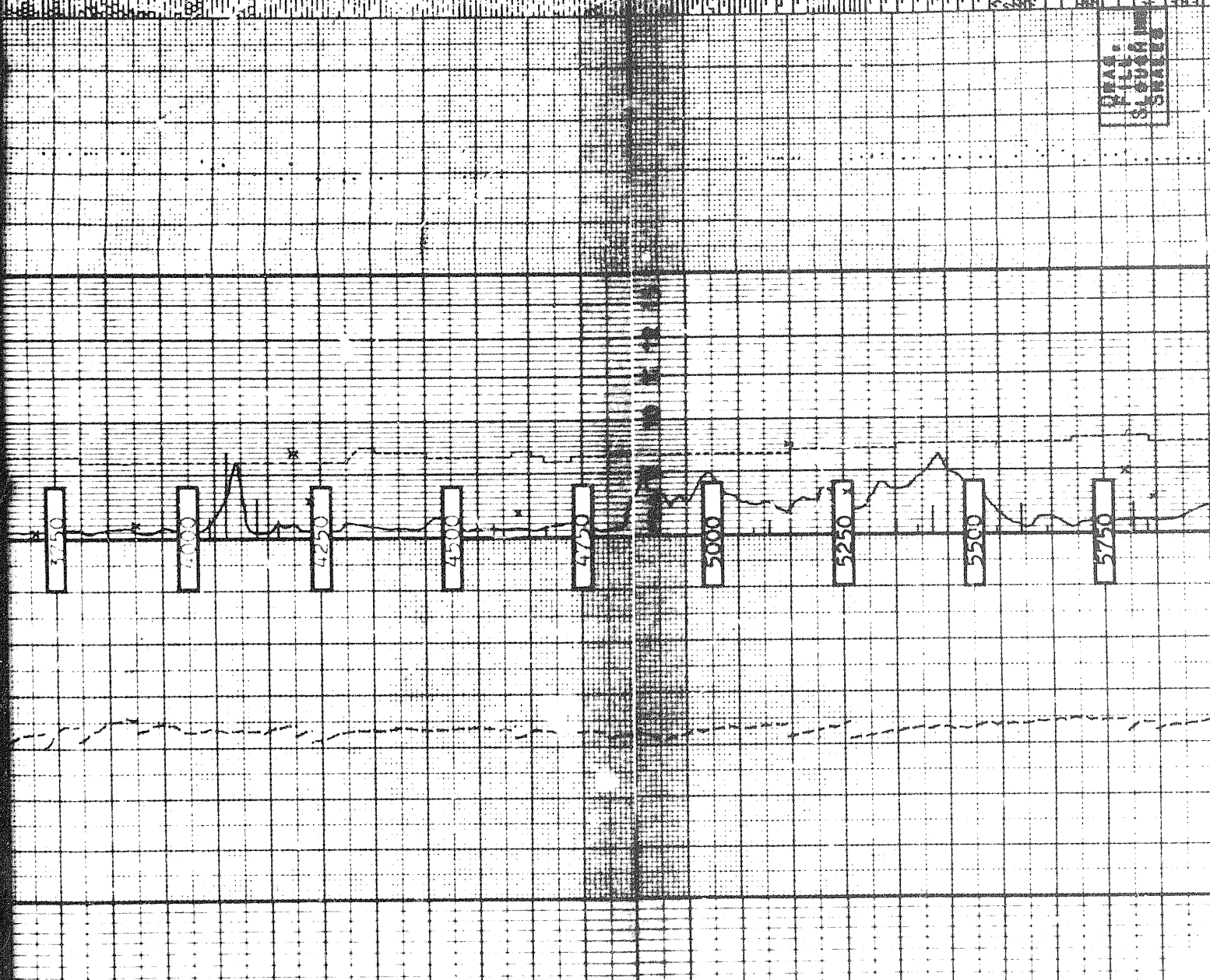
NB447 SEC S88 T3 B1 G1

NB448 STC F4 T2 B1 G1

NB449 NEED FP63 T2 B1 G1
NB450 SEC M44N T4 B2 G1

GRY PRT
LB BRN
DK GRY
ARENAC
SM DK GY
BOOL BRN
CRYPT
FXLN BT BN
SM LT
SM, TT
SM, VM HB
SMAC FOR
SM BLK FA
SM TAN.
SM, TD, MA
SLIST, PM
V SUTISE
SLIST
SM GRY / M
SM GRY / M
QYZSE, PR
POR
SLIST
MTCM GAC
VOB 27
SLIST
BLK, AAC
OCC SHLY
VOB 30
SS/S
ARG, FISS
SM, BLK,
MOD HD,
FISS, SLI
SLTY, TA
LS&DL
SLIST, DK
GRY HD
BLK PPR
VOB 55
RPM 60
SM, DK GR
BLK F M
-MD FISS
-BLK TR
SLTY-8D
CHERT, MH
GRONS, TO
QITZE
DOL, GRY
DOL BRN,
SLTY, HD,
CRYPT FXL
SM, BLK,
FISS, GAC
LS, BRN,
GRY, FISS
SM, GRY,

QRA:
WILL
SLUGA
SMALC



NB#49 REED FP63 T2 B1 G1
NB#50 SEC MAIN T4 B2 G1

NB#51 STC 3JS T7 B3 G1

NB#52 STC F2 T2 B8 G1

NB#53 REED FP52 T6 B2 G0

NB#54 STC F3 T5 B2 G0

RR#49 REED FP63 T3 B1 G1
NB#55 REED FP62 T6 B1 G1

5750

6000

6250

6500

6750

7000

7250

7500

7750

8000

DEAS.
FILES
SLOUGH
SMILES

DEAS.
MOUNTAIN
SLOUGH
SMILES

DST #1

DOL, BRN, CR
DOL, BRN, CR
CRYPTXLN
SH, BLK,
FIS, CALC
S, BRN-
SH, GRY, GA-
CALC, MARL
ONG, L, S, R
DOL, SLTY
MARL, SFT
BRN, GRY
VOB 30
RPM 50
SH, A, A,
SEC, GRY,
LS, GRY, SLTY
PLA, M
TY, BRN
GRG, BRN
ARG, MXL
CAL, GLU,
W, LSE
SH, A, A,
CALC, A, A
P, V, P, M
LS, SH, B, T
MARL, V,
GRG, S, T

VOB, GRY
TY, GRY
MARL, F, G
SLTY
SH, GRY,
BLK, FIS,
SLTY
VOB 30
RPM 60
LS, GRY
WD, MXL
ARG, SLTY
VOB 35
RPM 60
SH, A, A,
M, W, C, A, C, Y
CALC, V,
CHERT,
B, W, L, T
GRY, SPIC
VOB 35
INCR, WT.
TA, 9, 5,
INCR, WT.
TO, 9, 8,
VOB 50
RPM 55
LS, DK, GY
SH, BRN,

76-14200

26 10000

26 10000

WICACY
CALC
CHER
BWN-LT
GRY, SPIC

VOB 35
INCR WT.
TO 5
INCR WT.
TO 8

VOB 50
RPM 35

S, DK GY
SM, BRN/
GRY, MXLN

SM, GRY
FSS, A/A
FRONG, TD

MARL, GY
MWN, SLTY
MOD, HD.

VARG
S, CRN-
BRN, BRN,
VARG, T.

F088

VOB 60
RPM 55

SM, DK GY
BLAY-FIS

MNIG, PYR
VN, GLE

GRY,
VN, PYR
SLI, SLTY

S, DK GRY,
HD, BLKY,
MXLN

MARL, LT
GRY, VARG

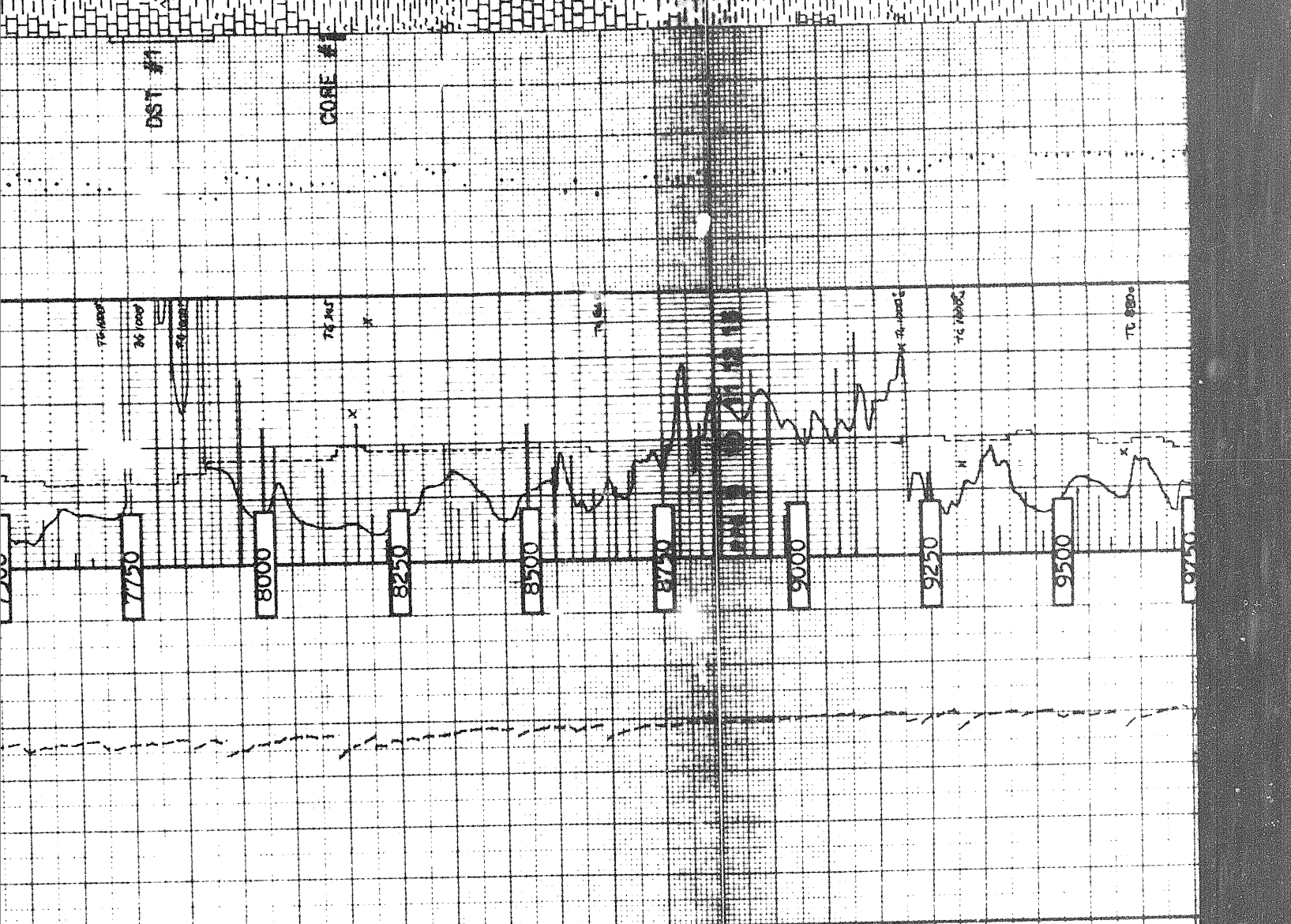
SM, PRED
LT-NED

GRY, GGA/
QZ, VNG &
PYR RARE

VOB 55
RPM 60

SM, MED
GRY, MNIG
OCC, SLTY

CLYST, LT
GRY, SLTY



DST #1

CORE #

NB#54 BTC F3 T5 B2 G0

NB#55 REED FP63 T3 B4 G1

NB#55 REED FP62 T6 B4 G1

NB#56 SEC H-77 T5 B2 G1

NB#56 SEC S-88 T1 B2 G1

NB#57 BTC 2JS T7 B7 G1

NB#58 STC 3JS T4 B6 G1

NB#59 REED FP52 T4 B8 G1

NB#60 SEC MAAN T4 B3 G1

NB#61 STC 3JS T2 B2 G1

2 of 6

SLTY
WOB 30
RPM 60

LS, GRV
HD, MXLN
ARG, SLTY
WOB 35
RPM 60

SH, A/A,
M/CACV
CALC V/
CHERT
BRN, LT
GRV, SPIC

WOB 35
INCR WT.
TA 9, 5
INCR WT.
TO 9, 8

WOB 50
RPM 55
LS, DK GY
SM, BRN/
GRV, MXLN
ARG

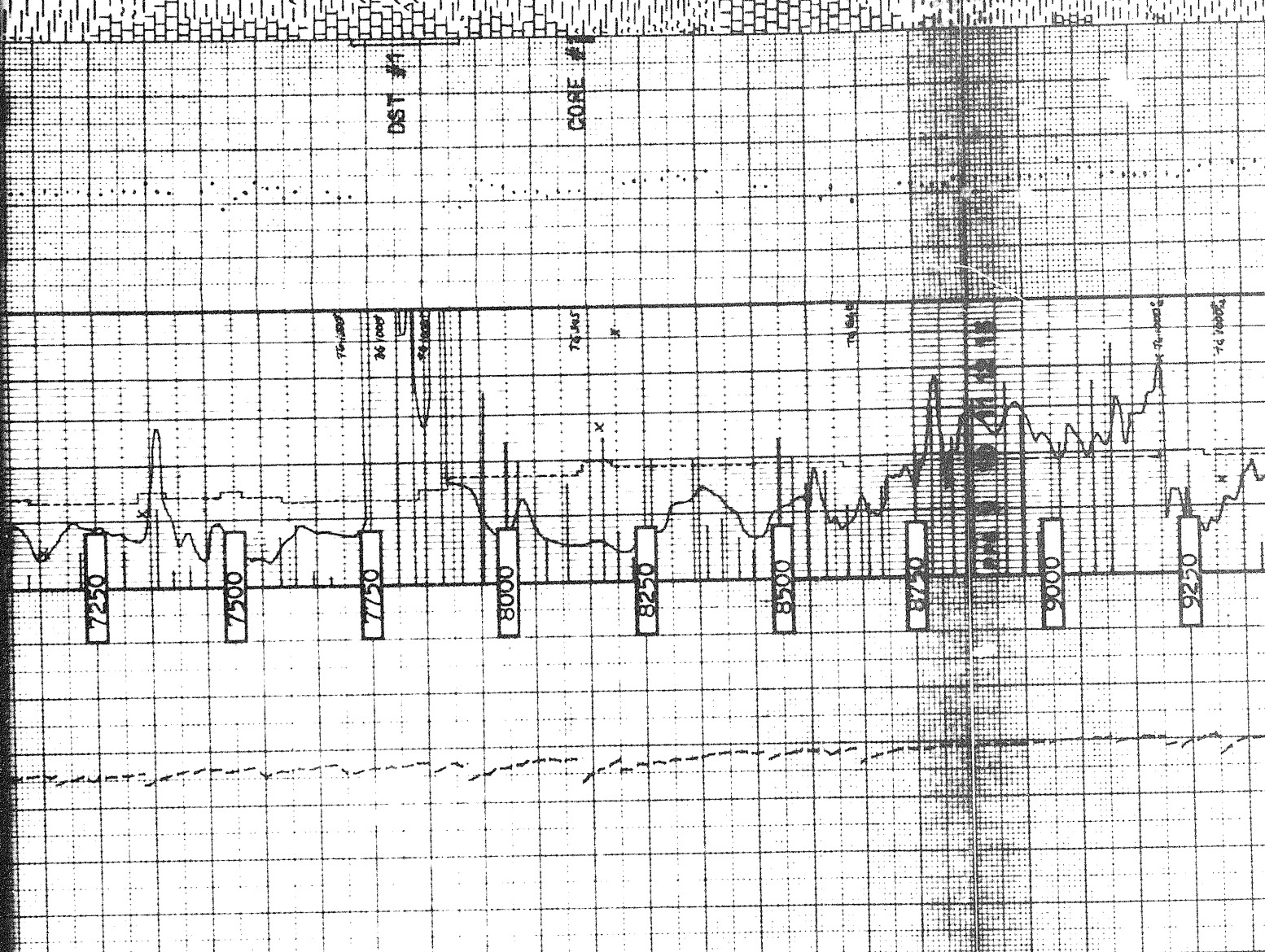
SH, GY, A/A
FT, GOND & TO
MARL, GY
BRN, SLTY
MOD, HD:
V, CALC,
VARG
LS, CRM-
WH-BRN;
ARG, TT,
POSS

WOB 60
RPM 55
SM, DK GY
SLTY-FIB
MRIG, PYR
V, M, GLE

GRV, GY,
V, N, PYR
SL, SLTY
LS, DK GRV,
HD, BLKY,
MXLN

MARL, LT
GRV, VARG
SM, PRED
LT-MED
GRV, GA/
QZ VNG &
PYR FARE

WOB 55



NB#52 STC F2 T2 B8 G1

NB#53 REED FP52 T6 B2 G0

NB#54 BTC F3 T5 B2 G0

ARR#49 REED FP63 T3 B1 G1
NB#55 REED FP62 T6 B1 G1

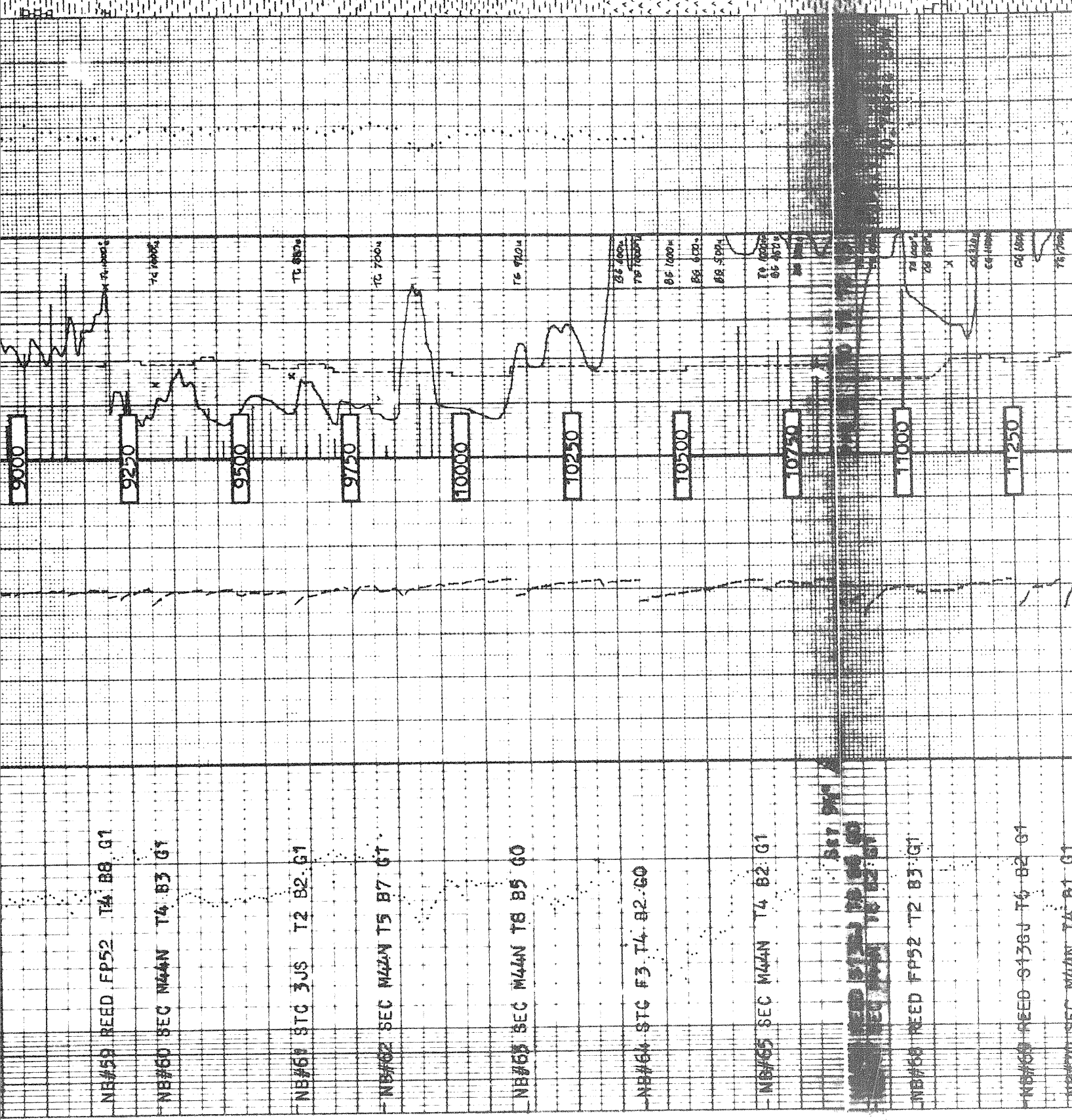
ARR#44 SEC M-77 T5 B2 G1
CEM1 CHRIS
NB#56 SEC S-88 T1 B2 G1
NB#57 STC 2JS T7 B7 G1

NB#58 STC 3JS T4 B6 G1

NB#59 REED FP52 T4 B8 G1

NB#60 SEC N44N T4 B3 G1

S, OK GRY, HD, BLKY, MXLN
 MARL, LT GRY, VARG
 SM, PRED
 LT-MED
 GRY, GA/
 QZ VNG &
 PYR RARE
 VOB 55
 RPM 60
 SM, MED
 GRY, MMIC
 OCC SLTY
 CLYST, LT
 GRY SLTY
 MARLY.
 VOB 50
 SM, OK
 GRY, HD,
 BLKY, OPT
 V SLTY,
 MMICAG.
 SLTST
 GRY, TAN
 CALC, CR
 -ONG MRE
 SM, A/A
 VOB 58
 RPM 60
 CHERT
 DK SWA/
 GRY SLTY
 W/PTR
 VOB 45
 VOB 50
 SM, LT-DK
 GRY, NON
 CALC, HD
 W/PTR
 SM, GRY/
 TAN, SIL
 W/FRACS
 LS GRY,
 DOLIC
 SM, M GRY
 NON-CALC
 LS GRY,
 DOLIC,
 GRAN
 SM, BLK
 W/PTR



NB#59 REED FP52 T4 B8 G1

NB#60 SEC M44N T4 B3 G1

NB#61 STC 3JS T2 B2 G1

NB#62 SEC M44N T5 B7 G1

NB#63 SEC M44N T8 B5 G0

NB#64 STC F3 T4 B2 G0

NB#65 SEC M44N T4 B2 G1

NB#66 NEED FP52 T2 B3 G1

NB#67 REED S136J T6 B2 G1

STC 3JS
 SEC M44N T4 B3 G1
 SEC M44N T5 B7 G1
 SEC M44N T8 B5 G0
 SEC M44N T4 B2 G1
 NEED FP52 T2 B3 G1
 REED S136J T6 B2 G1

SH, LT-BK
GRY NON
CALG HD
W/ABST

SH, GRAY
BRN SIL
W/FAACS
LS GRAY,
DOLIC

SH, M GRAY
W/FAACS
LS GRAY,
DOLIC,
GRAN

SH, BLK
W/ABST
PYR

SH, A/A
SL DOLIC
WOB 35
RPH 30

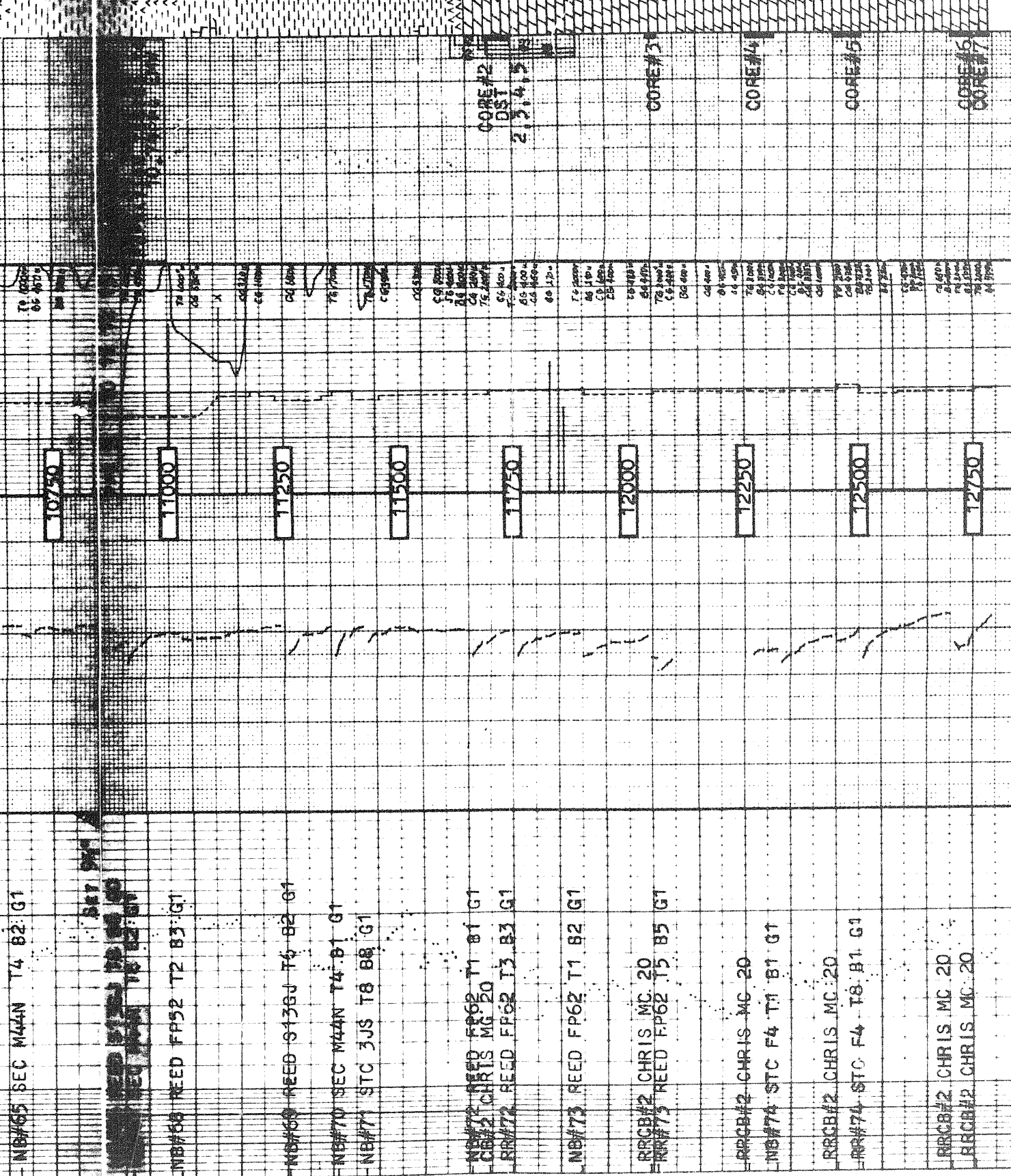
CHERT, BK
DOLIC, BK
W/ABST
TO 10.2

DOL, WH/
BLK, HD,
W/ABST, PYR
FRAGS &
VUGS, W/
QTZ, POSS
REPLCMT
TR SPHAL
WT. 9.9

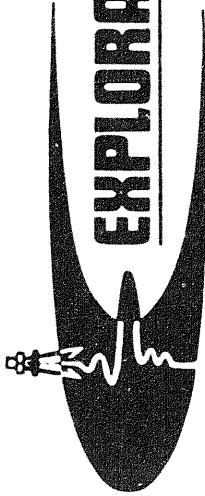
DOL, LT-
W/ABST IN
QTZ
WT. 10

DOL, A/A
LT GRAY,
BEIGE
SPLNT
IN PT
DOL, A/A,
W/ABST
WT. 10

TOTAL
DPTM
127.89 FT



3023



EXPLORATION LOGGING

A GEOLOGICAL-ENGINEERING SERVICE

REMARKS

PROJECT NO. 70001

NABORS

APRIL 6, 1977

WELL NO. 104-10-1

KCL-POLMER

T.D.

FORMATION PRESSURE LOG

DATA OK

ANALYSES

ABBREVIATIONS

WELL NO. 104-10-1
WELL NAME KOTANEELEE YUKON
WELL TYPE DEVELOPMENT
WELL STATUS OPERATIONAL
WELL CONDITION GOOD
WELL LOCATION 60° 07' 13.5" N
124° 00' 31.8" W
WELL DEPTH 2225'
WELL ELEVATION 2225'
WELL RKB ELEVATION 2250'
WELL DATE APRIL 25, 1977
WELL DEPTH 1000'
WELL UNIT NO. 120
LOG PREPARED BY R. D. BOOK; J. V. HOPKINS; J. C. JOHNSTON;
E. F. DOYLE; J. J. BURRY

COMPANY COLUMBIA GAS DEVELOPMENT

WELL KOTANEELEE YUKON H-38

FIELD DEVELOPMENT

LOCATION 60° 07' 13.5" N
124° 00' 31.8" W

COUNTY STATE YUKON, CANADA

API WELL INDEX NO.

ELEVATION 2225'
GROUND ELEVATION 2225'
RKB ELEVATION 2250'

DATE APRIL 25, 1977

DEPTH 1000'

UNIT NO. 120

LOG PREPARED BY R. D. BOOK; J. V. HOPKINS; J. C. JOHNSTON;
E. F. DOYLE; J. J. BURRY

CASING RECORD

20" 771'
13 3/4" 3020'
9 5/8" 10850'
7" T.D.

HOLE SIZE

26" 771'
17 1/2" 3020'
12 1/2" 10850'
8 1/2" T.D.

Pump Pressure (Mpsi) ———

Drilling Exponent () ———

0.8 1.0 1.5 2.0

NB71 SEC M4NJ T4:B2:G3
NB72 STC KTE T4:B2:G1

NB73 SEC M4AL T3:B2:G1
NB74 SEC M4AL T3:B2:G1
NB75 STC 4JS T3:B1:G1

NB76 STC 3UB T5:B2:G1

NB77 STC F5 T3:B2:G1

Flowline Temperature: (°C)
Out ——— [Logged Differential]
Gradient ——— [Smoothed Curve]

0 20 40 60 80 100

0 20 40 60 80 100

1000

1250

1500

BACKSUNGAS GAS
CONNECTION GAS

TRIP GAS X

MUD WEIGHT

N 50 100 150 200

PPH 9 10 11 12 13

2.4 2.15 2.15 3.0

LITHOLOGY

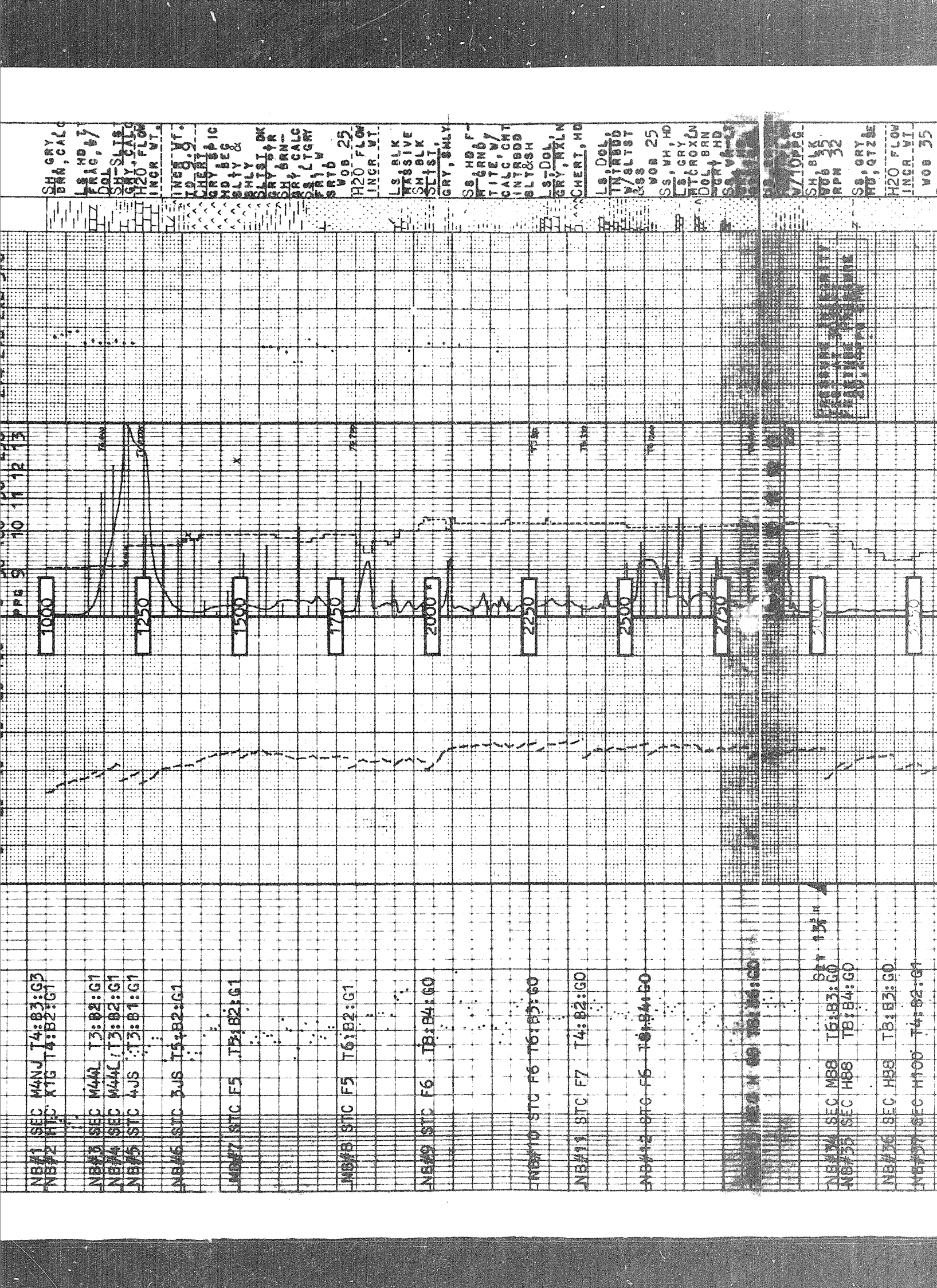
Shale Factor
5 10 15 20

Bulk Density (g/cc)

2.4 2.15 2.15 3.0

Remarks

SH. GRAY
SBN, CALC
FRAC. 4/7
DOL. SLIST
SHY. CALC
H2O FLOW
INCR VTA
INCR VT.
T.D. 9.9
CHRY. BEIC
MD. BE &
SHELY



SH GRY
BRN, CALC
LS, HD, T
FRAC, W/
DOL
SH-SLST
H2O FLOW
INCR VI

INCR VI
TO G.9
GRY SPIC
HD BES
SLY &
SLY, BK
GRY BRN
SH, CALC
LTCRY
CR, W
WOB 25
H2O FLOW
INCR VI

LS BLK
MASSIVE
SH BLK
SLST,
GRY, ONLY
SB HD F-
W GRND
TYPE, CNT
CALC, CNT
INTRBD
SLT&SH
LS-DOL
GRY, MAXLN
CHERT, HD

LS, DOL
INTRBD
W/SLST
WOB 25
SS, WH, HD
LS, GRY, LN
WT-CROXN
DOL, BRN
GRY, HD
SS, VA-1

V710PPG
SH, BLK
WOB 35
RPM 32
SS, GRY &
HD, OTZ&
H2O FLOW
INCR VI
WOB 35

PREPARED BY
ENGINEER
DATE: 11/11/13

NB#1 SEC M4NJ T4:B3:G3
NB#2 SEC K15 T4:B2:G1
NB#3 SEC M4AL T3:B2:G1
NB#4 SEC M4AL T3:B2:G1
NB#5 SEC 4JS T3:B1:G1
NB#6 SEC 3JS T5:B2:G1
NB#7 SEC F5 T3:B2:G1
NB#8 SEC F5 T6:B2:G1
NB#9 SEC F6 T8:B4:G0
NB#10 SEC F6 T6:B3:G0
NB#11 SEC F7 T4:B2:G0
NB#12 SEC F5 T8:B4:G0
NB#13 SEC M88 T6:B3:G0
NB#14 SEC H88 T8:B4:G0
NB#15 SEC H88 T8:B3:G0
NB#16 SEC H100 T4:B2:G1

8 1/2" 1 1/2"

SEC M88 T6:B3:G0
SEC H88 T8:B4:G0

SEC H88 T8:B3:G0
SEC H100 T4:B2:G1

SEC H100 T4:B2:G1

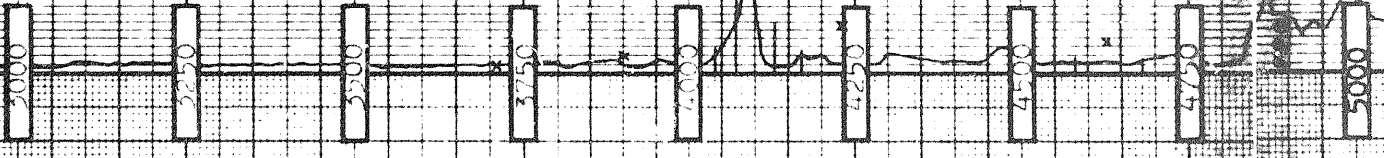
SEC M89F T3:B1:G1
SIC F6 T5:B1:G1

NEED 872J T2:B1:G1
SIC F6 T3:B2:G1

SEC M88 T3:B2:G1

SEC H77 T4:B1:G1
SIC F4 T5:B2:G1

NEED FP62 T5:B7:G1



RESISTIVITY
CORRECTION
FRAMING
SCALE

VZ10P28
SH BLK
VOB 32
RPH 32
S8, GRY
WB, QTZE
H2O FLOW
INCR. VI
VOB 35
S8, LT GY
WB, FN W
S8, FD, SB
ANG BLK
STAG, SLT
VOB 35
SH, GRY
BRN, SLTY
SLTST, DK
GRY, BRN
LUR, GRY
ARENAC
SH, DK GY
SLTY BRN
DOL, CRYPT
RDX, NT BN
S8, LT BN
WB, WH HB
FRAC, FOR
SH, BLK FA
STAN, FA
S8, T-HD, FA
SLTST, FM
VSDY, FSE
S8, GRY
ARG, UN W
S8, GRY, HD
QTZE, PR
PORST
SLTST, AC
MICH, AC
VOB 27
SLTST, AC
BLK, XAG
OCC, SHLY
VOB 30
SA/S, DT

NB739 SEC M89F T3 B1 G1
 NB740 STC F6 T5 B1 G1
 NB741 NEED 572J T2 B1 G1
 NB742 STC F6 T3 B2 G1
 NB743 SEC M88 T3 B2 G1

NB744 SEC H77 T4 B1 G1
 NB745 STC F4 T5 B2 G1

NB746 NEED FP62 T5 B7 G1

NB747 SEC S88 T3 B1 G1
 NB748 STC F4 T2 B1 G1

NB749 NEED FP63 T2 B1 G1
 NB750 SEC M44N T4 B2 G1

3500

4000

4250

4500

4750

5000

5250

5500

5750

vob 35
 SH, GR, Y
 BRN, SLTY
 SLTST, DK
 GRY, PTR
 LS, BRN
 GN, GRY
 ARENACB
 SH, DK
 GY
 SLTY
 DOL, BRN
 FUL, CRYPT
 XLN, BN
 SLT, TT
 S, VM, FCB
 SH, BLK, F4
 ST68, F4
 STAN, F4
 ST1-HD, AA
 SLTST, F4
 S, OT, ISE
 SLTY
 ANG, GR, W
 S, GR, W
 VM, F, MO
 TZSE, PR
 PORST
 SLTY
 HTCT, GAC
 vob 27
 SLTST, ARG
 BLK, SHLY
 OGC, SHLY
 vob 30
 SA/S

ARG, FISS
 SH, BLK,
 HD, HD,
 FISS, SL
 SLTY, TR
 L, S, DOL
 SLTST, DK
 GRY, HD, P4
 BLK, P4
 vob 35
 RPM 60
 SH, DK, OR
 BLK, FM
 HD, FISS
 BLK, TR
 SLTY, S
 CHERT, WH
 CRONE, TO
 QTZTE
 DOL, GRY
 DOL, BRN
 BLK, HD,
 CRYPT, XL
 SH, BLK,
 FISS, CAL
 S, GR, Y

ARG,
 SLTY,
 SH, GR, Y

NB#49 REED FP63 T2 B1 G1
NB#50 SEC M44N T4 B2 G1

NB#51 STC 1JS T7 B3 G1

NB#52 STC F2 T2 B8 G1

NB#53 REED FP62 T6 B2 G0

NB#54 STC F3 T5 B2 G0

RR#49 REED FP63 T3 B1 G1
NB#55 REED FP62 T6 B1 G1

RR#44 SEC M-77 T5 B2 G1

DOL BRN,
BLK, MD,
GRY, PXLN,
SH, BLK,
FIS, CALC,
GRY, FOSB,
SH, BRN,
SH, GRY,
SH, L3, X,
DOL, SLTY,
MARL, SPT
BRN, GRY,
VOB 30
RPM 60
SH, A/A
BEC CHM,
LS, GRY,
LS, SLTY,
VVA, SH
CRA, BRN,
ARG, MXLA,
CALCLUT,
W/LSE
CALC,
SH, A/A
CALC, IA
PT, V/PY,
L, B, G,
PALM, W/
SPRG, BRN

LS, GRY,
RD, MXLA,
ARG, SLTY,
VOB 30
RPM 60

SH, A/A,
W/CAC,
CALC, W/
CHERT,
GRY, SPIC,
VOB 35
RPM 60

VOB 35
INCR WT.
TO 9, 5,
INCR WT.
TO 9, 8,
VOB 50
RPM 55

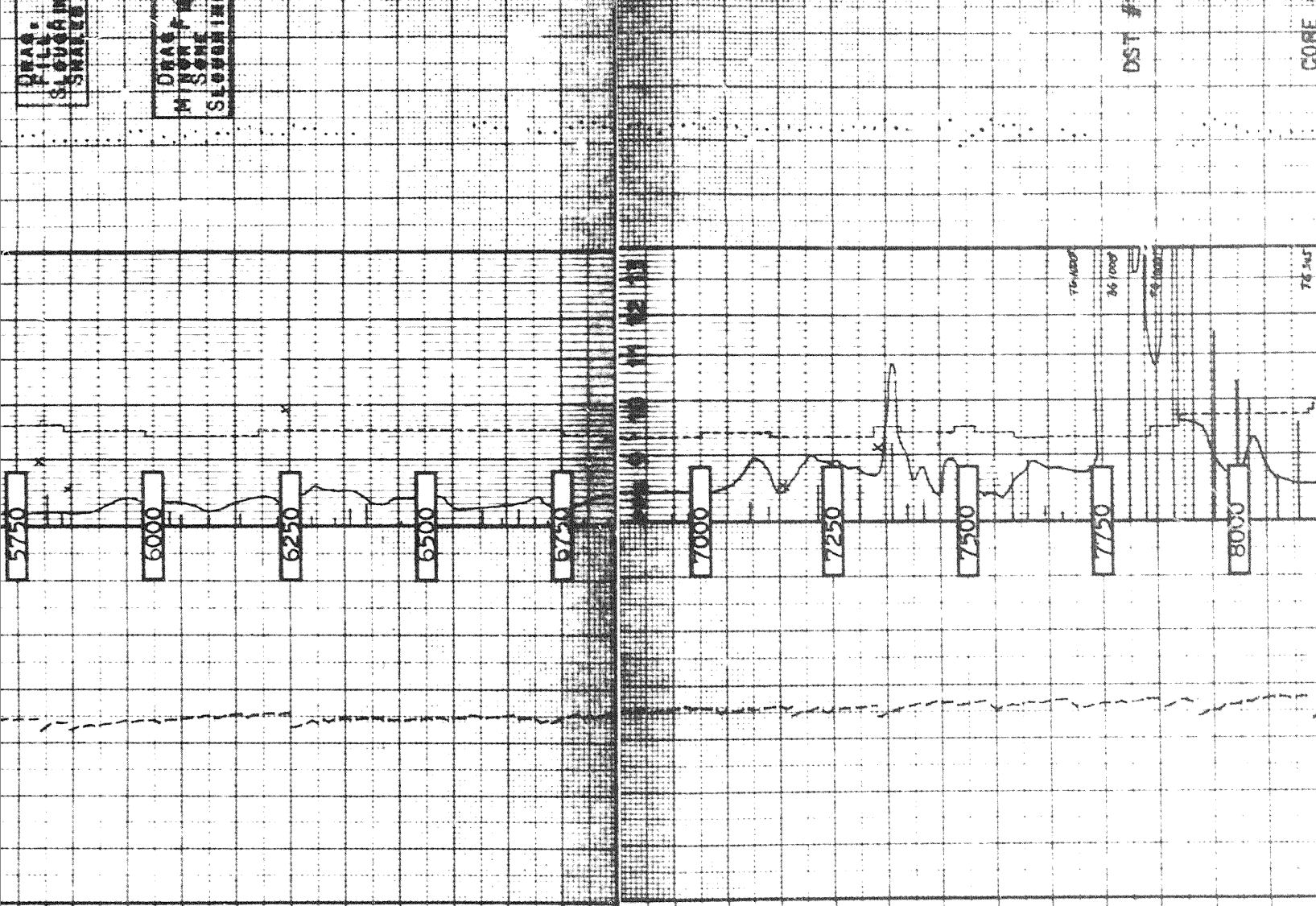
LS, BK, GY,
SH, BRN,
GRY, MXLA,
ARG,

DRAG
FILE
SLUGGING
SMALLE

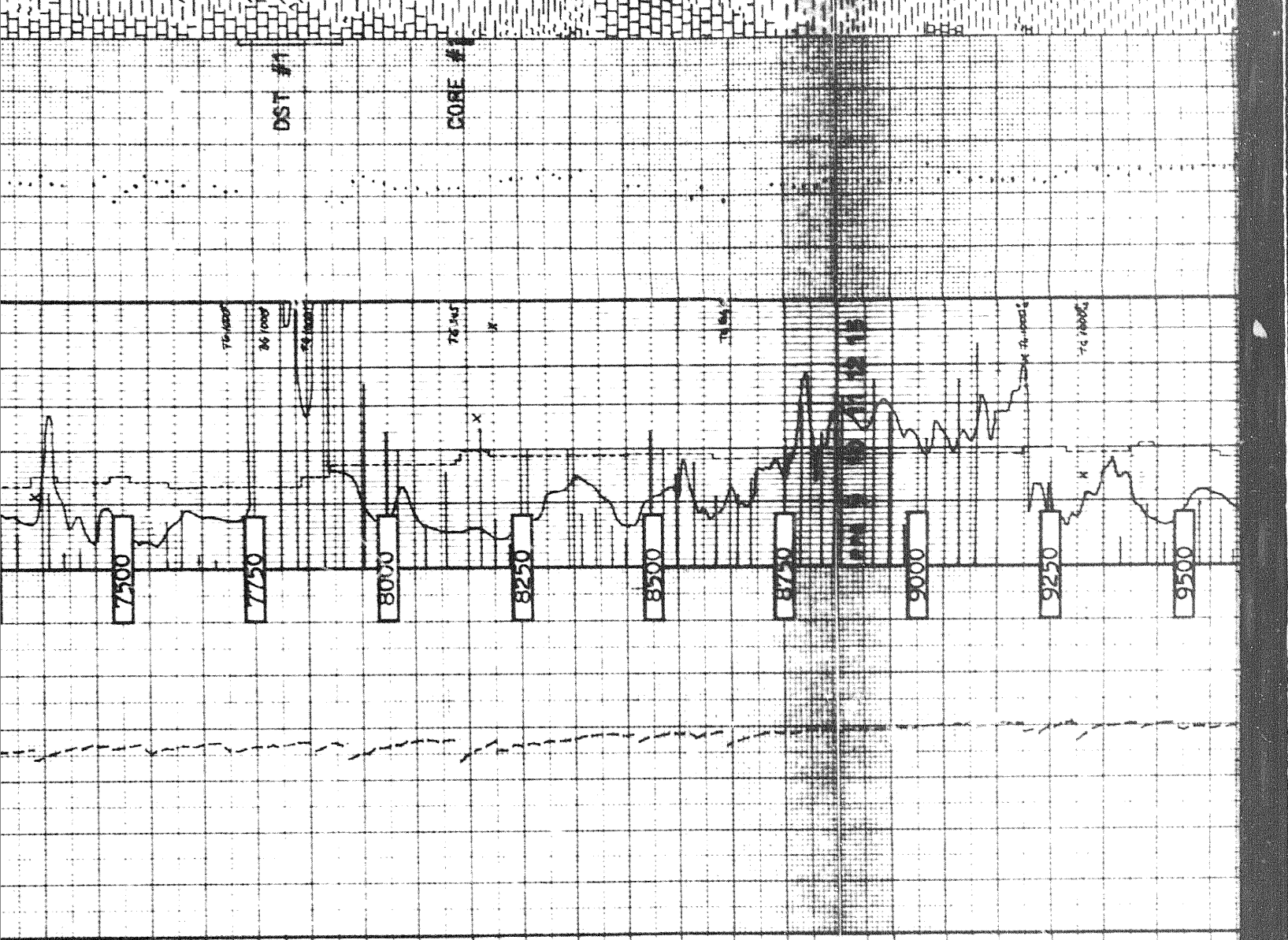
DRAG
M
NON-F
SOME
SLOWING

DST #1

CORE #1



TO, MXLN
 ARG, SLTY
 WOB 35
 RPM 60
 SH, A/A,
 MW, CAC,
 CALC, V/
 CHERT,
 SWN, LT
 GRY, SPIC
 WOB 35
 RPM 60
 INCR, VT,
 TO, 9, 5,
 INCR, VT,
 TO, 9, 8,
 WOB 59
 RPM 55
 S, DK GY
 SW, BRN/
 GRY, MXLN
 ARG
 SH, GRY
 FTSS, A/A
 GRON, TO
 MARL, GY
 BRN, SLTY
 MOD, HD,
 V, CALC,
 VARG
 S, CRN-
 SW, BRN,
 WARG, TT,
 FOS
 WOB 60
 RPM 55
 SH, DK GY
 BLKY-FI
 MRIG, PYR
 VN, GALS,
 SH, GRY,
 VN, PYR
 SL, SLTY
 LS, DK GRY,
 RD, BLKY,
 MXLN
 MARL, LT
 GRY, VARG
 SH, PRED
 LT-MED
 GRY, GA/
 QZ, VNG &
 PYR RARE
 WOB 55
 RPM 60
 SH, MED
 GRY, MHIC



NB#53 REED FP52 T6 B2 G0
 NB#54 BTC F3 T5 B2 G0
 NB#55 REED FP63 T3 B4 G1
 NB#56 REED FP62 T6 B4 G1
 RR#44 SEC M-77 T5 B2 G1
 CR#1 CHRIS
 NB#56 SEC S-68 T1 B2 G1
 NB#57 BTC 2JS T7 B7 G1
 NB#58 BTC 3JS T4 B6 G1
 NB#59 REED FP52 T4 B8 G1
 NB#60 SEC M44N T4 B3 G1

VOB 30
RPM 60
LS, GRV
FD, MXLN
ARG, SLTY

VOB 35
RPM 60
SH, A/
MICAL V/
CALC V/
CHERT
BRN, LT
GRV, SPK

VOB 35
INCR 3, 5
TA 9, 5
INCR 8, 8
TO 9, 8

VOB 50
RPM 55
LS, DK GRV
BRN/
GRV, MXLN
ARG

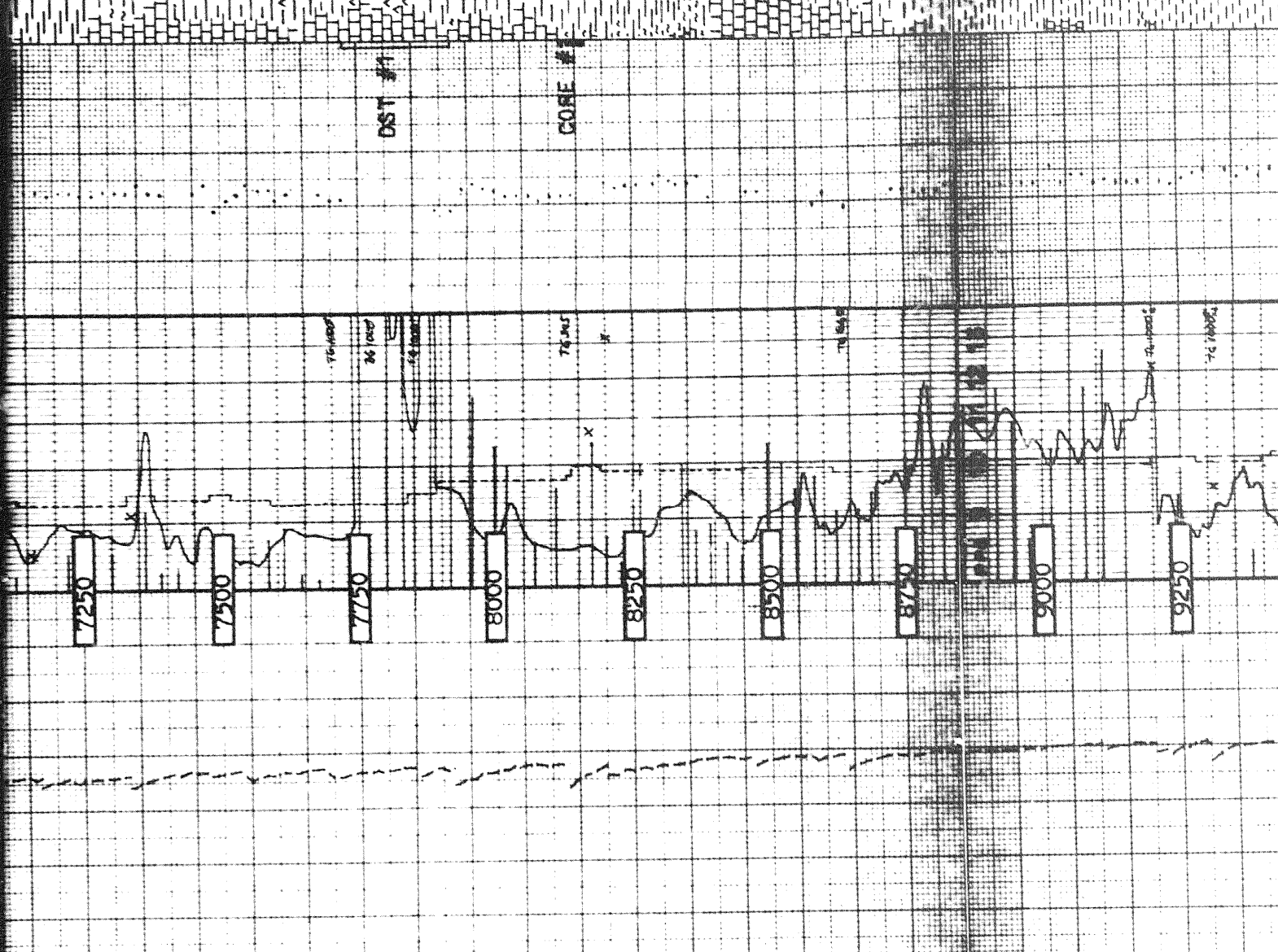
SH, GRV
FTSS A/VA
GRON & TO
MARL, GY
BRN, SLTY
MOD, HD,
V ARG
LS, GRH-
BRN,
ARG, TT,
F088

VOB 60
RPM 55
SH, DK GRV
BLRY-FIB
MMAG, PFR
VN CALC

LS, DK GRV,
HD, BLKY,
MXLN

MARL, LT
GRV, VARG
SH, PRED
LT-MED
GRV, GA/
QZ, VNG &
PYR RARE

VOB 55
RPM 55



NB#52 STC F2 T2 B8 G1
NB#53 REED FP52 T6 B2 G0

NB#54 BTC F3 T5 B2 G0
RR#49 REED FP63 T3 B1 G1
NB#55 REED FP62 T6 B1 G1

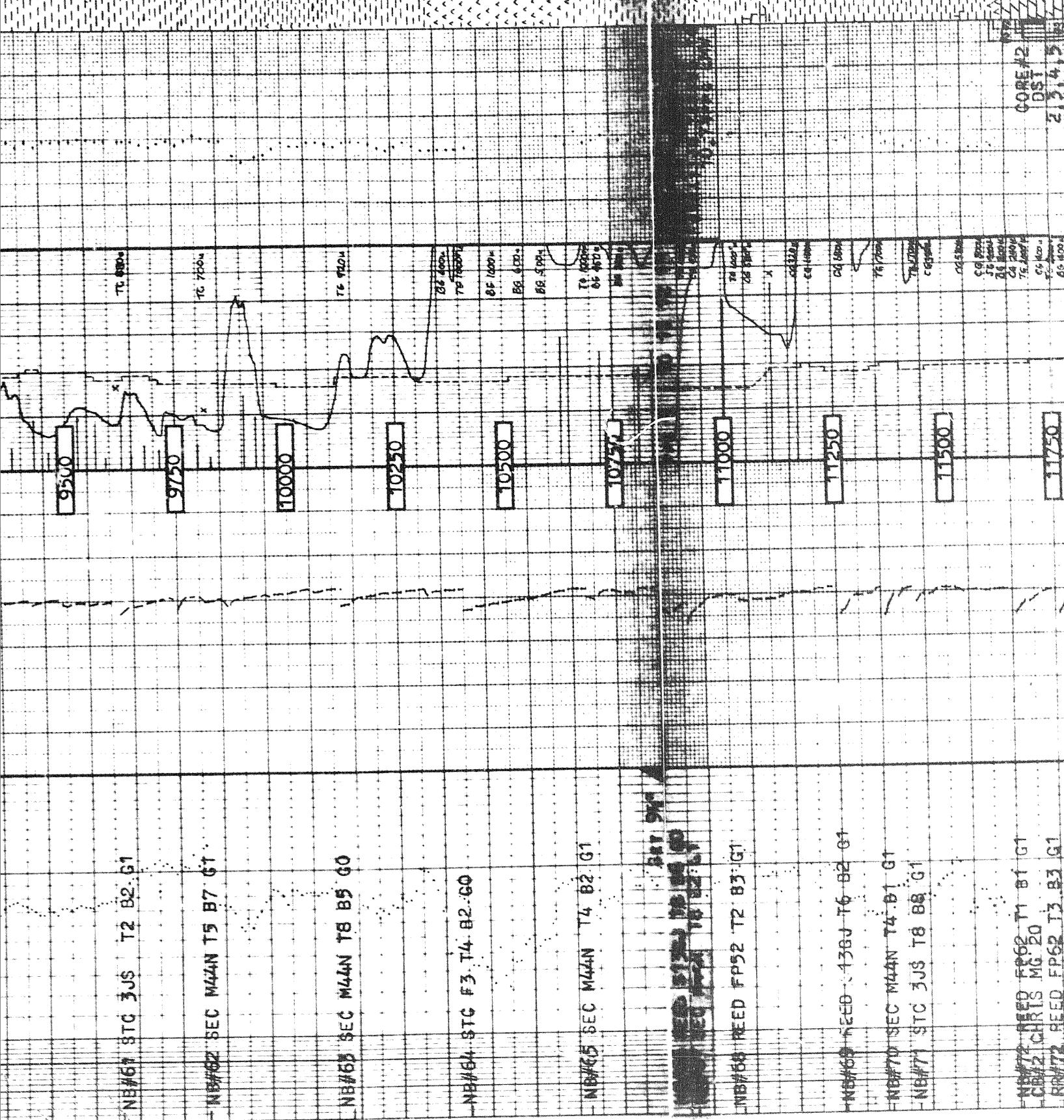
RR#44 SEC H-77 T5 B2 G1
CEM1 CHRIS
NB#56 SEC 9-88 T1 B2 G1
NB#57 BTC 2JS T7 B7 G1

NB#58 STC 1JS T4 B6 G1

NB#59 REED FP52 T4 B8 G1

NB#50 SEC M44N T4 B3 G1

PYR RARE
 VOB 55
 RPN 60
 SH, MED
 GRY, MMIC
 OCC SLTY
 CLYST, LT
 GRY SLTY
 HARLY.
 VOB 50
 SH, DK
 GRY, HD
 BLKY OF
 V SLTY,
 MMICAC.
 SLTST
 GRY/BRN
 CALC, GR
 -DNG, MRL
 SH, A/A
 VOB 58
 RPN 60
 CHERT
 DK BRN/
 GRY SLTY
 V/PFR
 VOB 45
 VOB 50
 SH, LT-DK
 GRY, NON
 CALC, HD
 W/FRACS
 V/FRACS
 LB GRY,
 DOLIC
 SH, M GRY
 NON-CALC
 LS GRY,
 DOLIC,
 GRAN
 SH, BLK
 W/ ABDT
 PYR
 SH, A/A
 ST, DOLIC
 VOB 35
 RPN 50
 CHERT, BRN
 DOL, W/FR
 V/FRACS
 V/FRACS
 TR, 10.2
 DOL, MM/
 213.45



NB#61 STC 3JS T2 B2 G1
 NB#62 SEC M44N T5 B7 G1
 NB#63 SEC M44N T8 B5 G0
 NB#64 STC F3 T4 B2 G0
 NB#65 SEC M44N T4 B2 G1
 NB#66 REED FP52 T2 B3 G1
 NB#69 REED 138J T6 B2 G1
 NB#70 SEC M44N T4 B1 G1
 NB#71 STC 3JS T8 B8 G1
 NB#72 REED FP62 T1 B1 G1
 CB#2 CHRIS MG 20
 RW#72 REED FP62 T3 B3 G1

CORE #2
 DST
 213.45