

EXPLORATION LOGGING

A GEOLOGICAL - ENGINEERING SERVICE CO.

COMPANY SUNRAY MID-CONT. OIL CO.
 WELL BEAR CREEK UNIT # 1
 AREA

LOCATION Sec 30, T17S, R19E
 COUNTY, STATE CROOK COUNTY, OREGON
 ELEV. G.L. _____ K.B. **4252'** D.F. _____

CASING RECORD

11 3/4" AT 769'
 _____ AT _____
 _____ AT _____

LEGEND

NB	NEW BIT	FC	FILTER CAKE
RRB	RERUN BIT	F	MUD FILTRATE cc 15 Min
CB	CORE BIT		X cc 30 Min
WLCB	WIRE LINE CB	S	SALINITY g/g
NR	NO RETURNS		X ppm CL.
CR	CIRCULATE RETURNS	R	MUD RESISTIVITY
CG	CONNECTION GAS	Rmf	MUD FILTRATE RESISTIVITY
TG	TRIP GAS	I	CORE INTERVAL
DST	DRILL STEM TEST	I	DST INTERVAL
W	MUD WEIGHT		
V	MUD VISCOSITY		

REMARKS

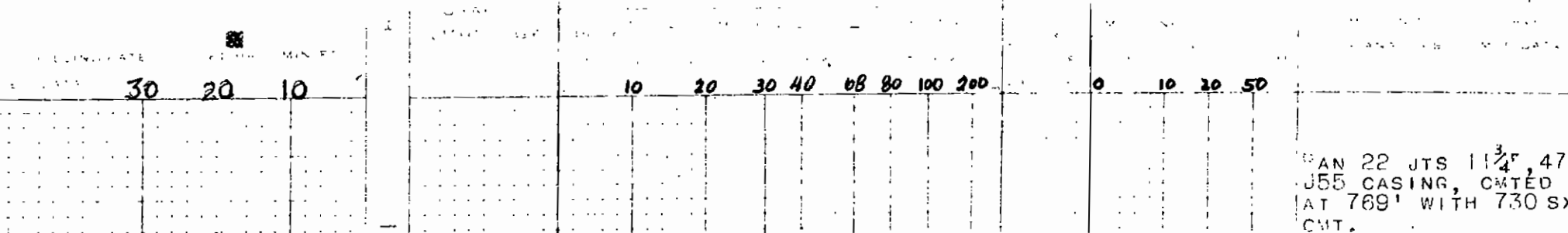
① GRAYWACKE
 ▲ BRECCIATED QUARTZITE & CHERT

DATE FROM 5/22/58 TO 8/6/58
 DEPTH FROM 1112 TO 7919
 UNIT NO. 5
 GEO-ENGINEERS DOBSON, LEWIS,
 BENDETTO

LITHOLOGY LEGEND

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Clay and Shale	Silty Shale	Silty Siltst.	Sandy Siltst.	Sand Siltst.	Congl. siltst.	Salt Limest.	Chert	Vol. Intrusive			

EXPLORATION LOG



CAN 22 JTS 11 3/4", 47"
 355 CASING, CMTD
 AT 769' WITH 730 SX
 CMT.

5/22/58

RR#5
1.53 FT/12 1/2 HR

NB#6
5/23 27.3 FT/ISHR

1200

1300

1400

AGGLOMERATE WITH DK GRN TO
GRY WITH MINOR CYELL -
AMTS OF BRN AND ANG -
OWISH BRN NAT TO CON -
FRAGS OF PROB BASAL -
TIC TO ANDESITIC COMP.

GD TRC LT TO MED GRN
VERY SOFT ALTERATION
MINERAL, PROB TALC.

AGGLOMERATE REDDISH
BRN FRAGS INCREASING

AGGLOMERATE DOM REDD -
ISH GRK WITH LT GRY
AND BLACK FRAGS

AGGLOMERATE DK GRN TO
BLK ABUND GRN RED &
SOME WHITE FRAGS.

AGGLOMERATE DK GRN
TO DK GRY-GRN.

AGGLOMERATE MOTTLED
GRY & BRN AD TOP

-1°00'

-0°45'

-1°00'

WT. 69
VIS. 50
W.L. 9.2
W.C. 2/32
SD. 1.54

WT. 67
VIS. 55
W.L. 10.8
W.C. 2/32
SD. 2.54
PH 10

LN# 7 278 FT
5/24 22% HR

1500

1600

1700

REDDISH FRAGS.

AGGLOMERATE PREDOM
GRY-GRN WITH INCR
WHITE FRAGS WITH PROBLE
FRAG FILLINGS & PROBLE
CALCITE REST PROBLE
A ZEOLITE

0°45'

AGGLOMERATE MATRIX
PREDOM RED & GRN,
TRC WHITE FRAGS.

AGGLOMERATE MULTI
COLORED, DOM RED &
GRN W/ INCR AMTS OF
WHITE, V. SOFT MAT.

AGGLOMERATE BECOMING
HARDER, MATRIX IS
MULTICOLORED BUT IS
DOM DK GRN TO BLK.

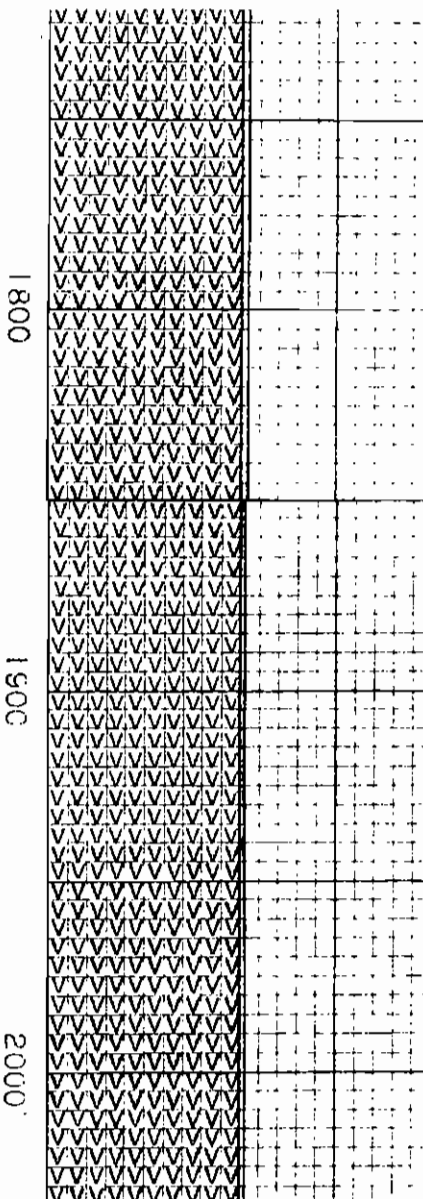
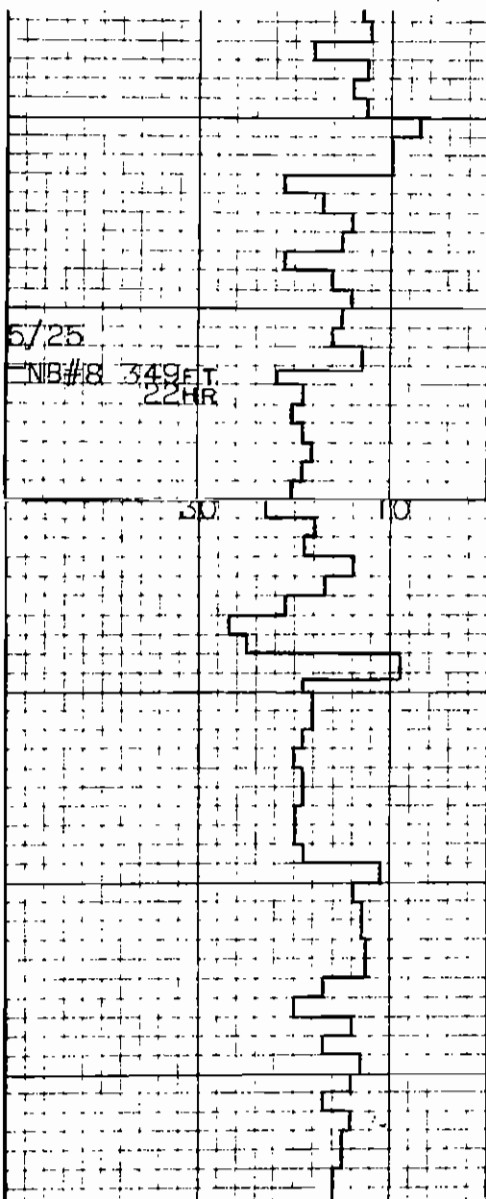
0°45'

AS ABOVE BUT W/ INCR
AMNT OF WHITE MAT.

AGGLOMERATE HD DOM
GRN TO BLK MATRIX W/
RED AND MED/LT GRN
MOTTILING, FREQUENT
INCLUSIONS OF MED/LT
GRN CRYSTALLINE MAT.

WT. 67
VIS. 45
W.L. 11
SD. .54
PH 9.7

0°45'



AGGLOMERATE, AS ABOVE
BUT W/ INCR AMT OF
WHITE VEIN FILLING
MAT.

AGGLOMERATE, DOM DK
GRY TO BLK, FREQUENT
MED/LT GRN INCLUSIONS.
SOME RED & GRN MOTTLING.

AGGLOMERATE, DK GRY/GRN
MATRIX, W/ DK GRN MOTT-
LING, LARGE MED/LT GRN
FRAGS. LTR. RED MOTTLING.

AS ABOVE BUT W/ ABNDT
RED MOTTLING AND LARGE
GRN FRAGS.

AGGLOMERATE, DK GRN TO
GRY MOTTLED, MATRIX TO
ABNDT REDDISH FRAGS.

AS ABOVE, BUT W/ INCR
IN WHITE, & GRN SECON
MIN.

0°15'

LOSING MUD.

WT. 67
VIS. 48
W.L. 10
W.C. 2/3 29
SD. 5%
PH 9.5

5/26
NB#9
230 FT
18 1/2 HR

2100

2200

2300

AGGLOMERATE MATRIX
GRN & GRY INC IN V
SOFT WHITE MAT PROB
ALTERATION PROD.

AS ABOVE W/ INC IN
REDDISH FRAGS.

AGGLOMERATE MULTI
COLOR MATRIX GRY
GRN MOTTLED BY REDS
AND GRNS. LARGE FRAGS
OF RED AND GRN-WHITE.

AGGLOMERATE LT GRY
W/ FRAGS OF DK GRN/BLK
MAT & WHITE FRAC FILLING
MIN.

AGGLOMERATE DOM DK
GRY TO BLK MATRIX
SOME FRAGS OF GRN &
WHITE MAT.

AS ABOVE BUT W/ INCR
IN GRN & WHITE FRAC
FILLING

0°45'

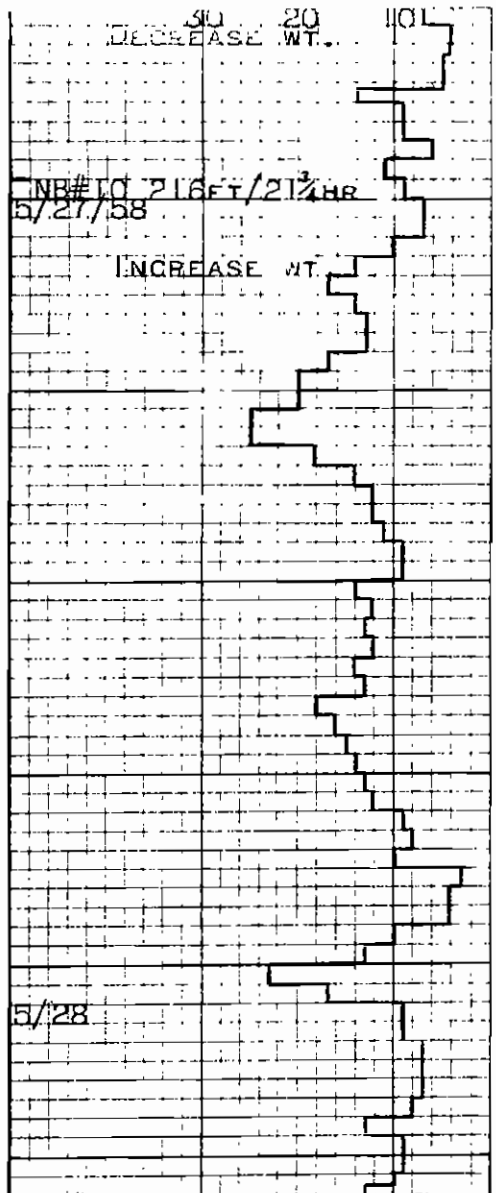
1°30'

STILL LOSING MUD,
BYPASSING SHAKER.

2°00'

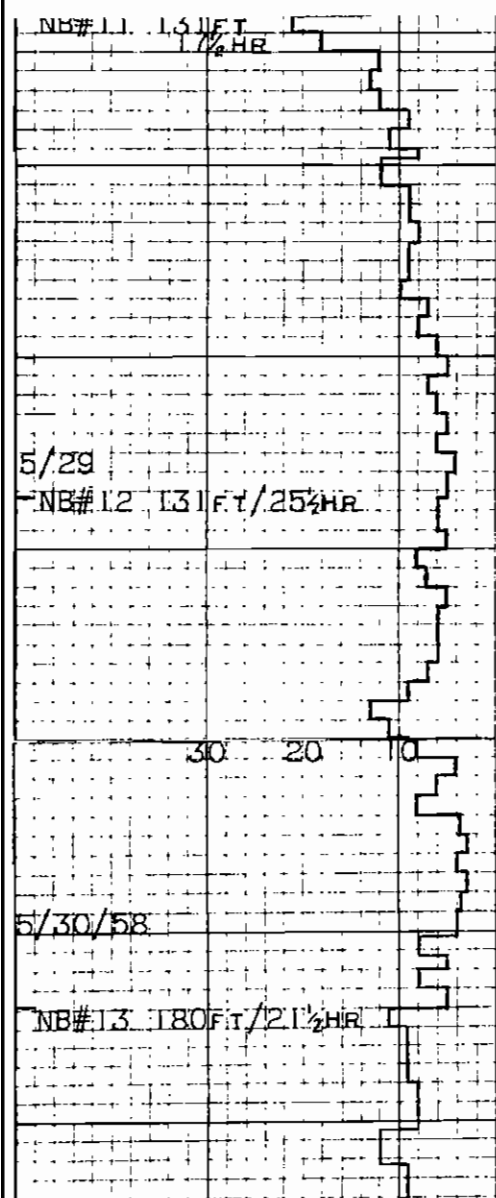
2°00'

WT. 67
VIS. 55
W.L. 11
W.C. 2/32
SD. 5
PH 6.4
SAL 14000

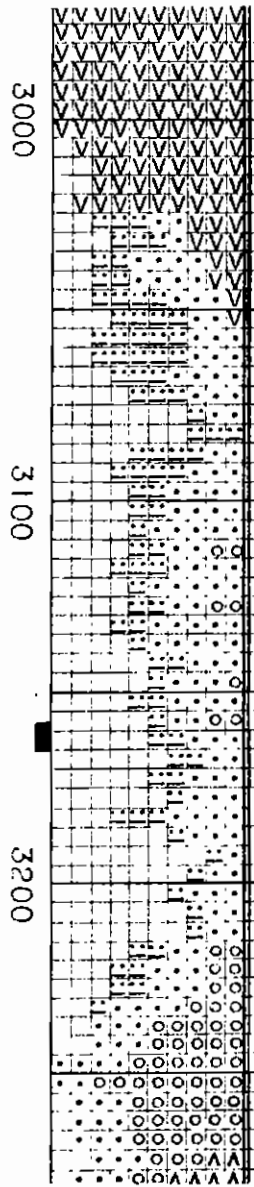
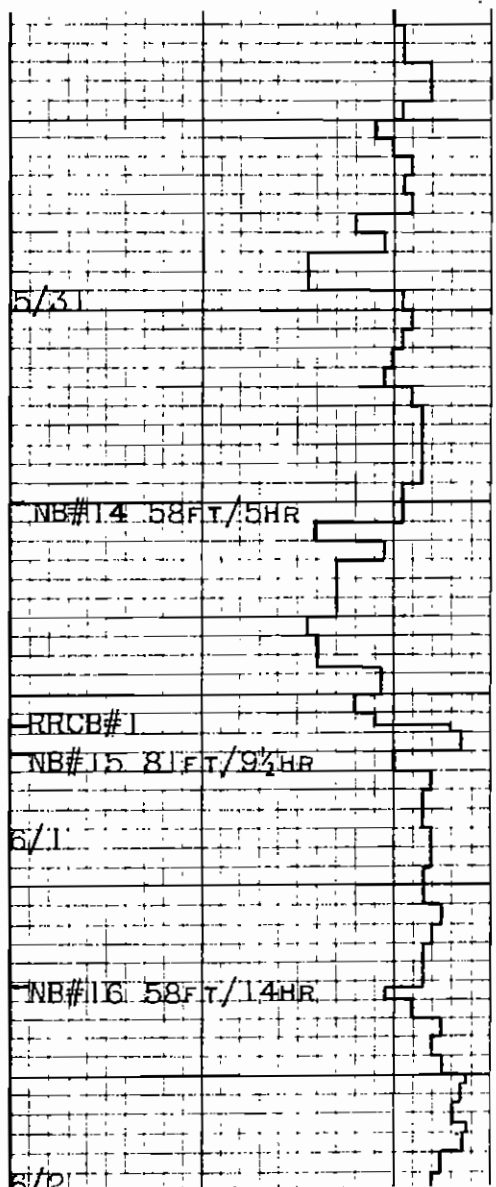


2400	AGGL. DOM DK GRY/BLK. ABNDT RED FRAGS W/ SOME MOTTLING.
	AGGL DK GRY TO BRN, GD TRC OF REDDISH MAT. & ABNDT WHITE FRAC FILLING MAT.
2500	AGGL. PREDOM GRY-GRN TO BLK. W/ TRC OF GRN WHITE & REDDISH FRAGS.
	AGGL. DK GRY-GRN TO BLK. PROB. BASALTIC. GD. TRC OF LT GRN MIN, PROB OLIVINE.
2600	AGGL. AS ABOVE BUT W/ INCR. IN REDDISH FRAGS.
	AGGL. MED/DK GRY, SUGARY, ABNDT GRN MAT ALSO FRAGS OF GRN & WHITE.
	AS ABOVE BUT W/ INCLU- SIONS OF OLIVINE.

2'00'	CL=
	USING SHAKERS
1°45'	
1°45'	
1°30'	WT. 67 VIS. 48 W.L. 11.2 W.C. 2/32 SD. 5 PH. 9.2 SAL. 140
2°15'	
1°45'	
1°45'	
	WT. 67



2700	<p>AGGL, GRY-GRN TO BLK, INCL. OF OLIVINE, SOME GRN & WHITE MAT.</p>	2°00'	<p>VIS. 45 W.L. 9.9 SD. 1 1/4 PH 9.0</p>
	<p>CLAYST BUFF, TAN & REDDISH BRN; FIRM/BRITTLE & SL SILTY, SOME DK GRY CGL FRAGS, PROB BASALT.</p>	1°30'	
	<p>AGGL, MED-LI GRY SUGARY SOFT/FIRM & HD, SOMEWHAT MULTICOLORED.</p>	2°00'	
2800	<p>AGGL, MED GRY, W/GRN INCL, MOTTLED BY MED/DK BRN.</p>	2°00'	<p>WT. 67 VIS. 42 W.L. 10.6 SD. 75% PH 9.1</p>
	<p>CLAYST BUFF, TAN, BLK & REDDISH BRN; FIRM/BRITTLE/SOFT/SILTY.</p>	1°45'	
	<p>AGGL, MATRIX GRY; FRAGS OF ABOVE CLAYST.</p>		
2900	<p>CGL, DOM. REDDISH-BRN, GRY & BUFF PEBBLES, SOME BLK MAT (BASALT??) W/RED & GRN-WHITE TUFF-ACEOUS MAT, SOFT/FIRM.</p>	1°45'	
	<p>CGL AS ABOVE BUT W/SOFT/FIRM, WHITE/GRY TUFFACEOUS MATRIX.</p>	1°15'	<p>WT. 67 VIS. 70 W.L. 10.8 W.C. 2/32 SD. 5 1/2 PH 9.1 SAL. 140 PPM CL</p>



AGGL FIRM TO HD GRN
TO GRN-GRN MATRIX W/
BRN TO BUFF CLAYST W/
FRAGS & THIC OF HD, BLK
FRAGS (BASALT?).

AGGL BROWNISH GRN &
GRN FRAGS OF CLAYST
ALSO HD DK GRN FRAGS
W/GEN MOTTLING.

SDST LT TO DK GRN
FIRM TO HD F GRN SILTY
MICACEDUS W/SILTST DK
GRN FIRM & CLAYST DK
GRN TO BLK HD OF
VOLC FRAGS, PROB FROM
CGL.

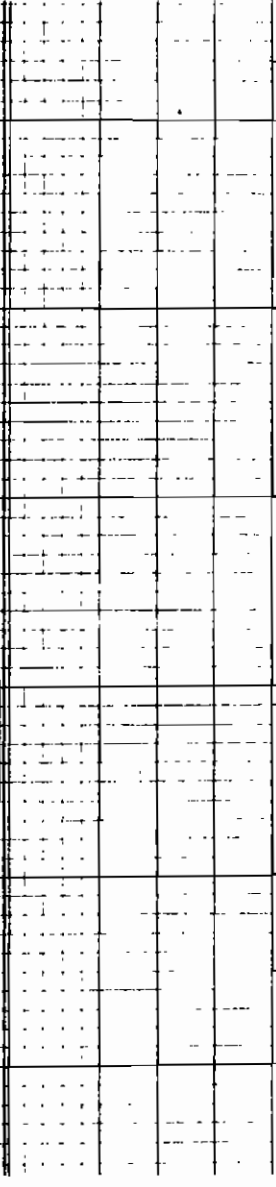
INTERBEDDED SDST &
CLAYST.

CORE #2 3158-3165 REC 7
CGL 1/2 FT, SUB-RND/RND 1"
PEBBLES OF ABOVE VOLC
3/4 FT INTERBEDDED LT GRN
F-MED SDST & HD SILTY
CLAYST, HIGHLY FRAC DIP 3°
CLAYST DK GRN SL SILTY
W/SDST, GRN, FIRM TO HD,
MED GR.

SDST HD SL SILTY AND
TO SUB-RND, CONGLOMER-
ATIC.

CGL HD WELL RND REE-
BLES OF CHERT, QUARTZITE
& VOLC MAT W/SDST, GRN,
FIRM TO HD.

LARGE FRAGS OF MULTI-



1°30'

1°15'

0°45'

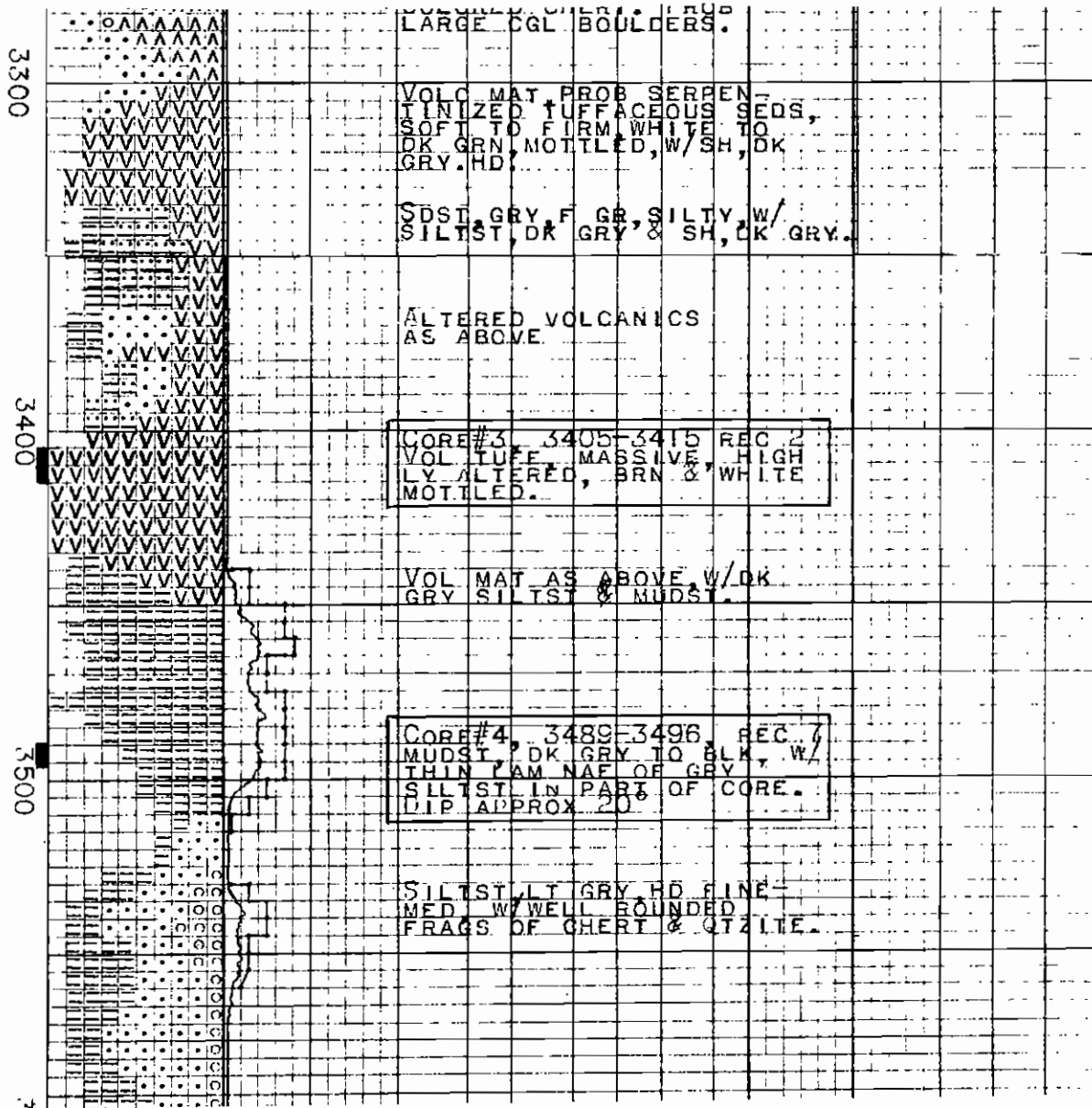
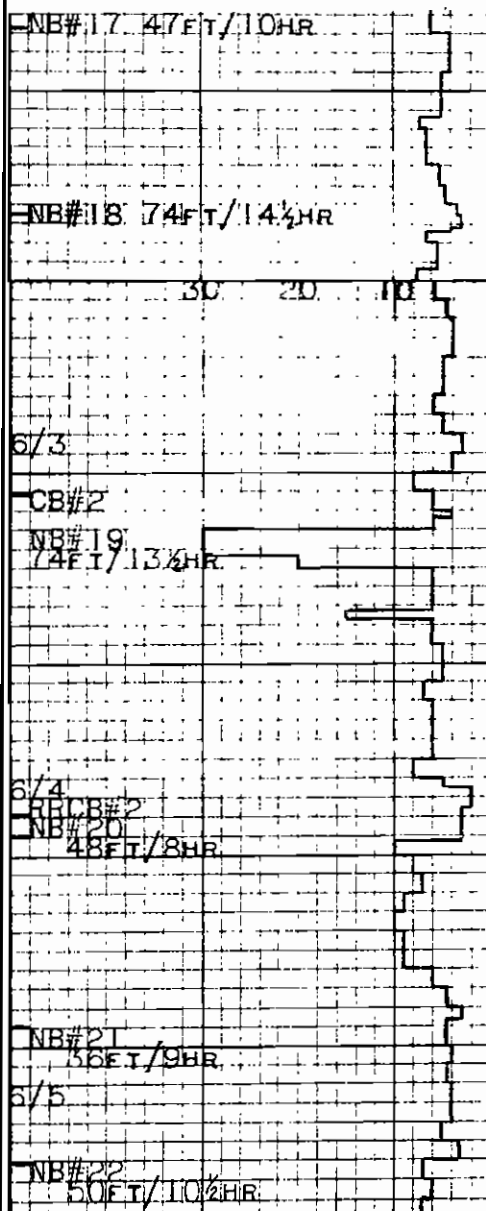
WT. 67
VIS. 48

1°00'

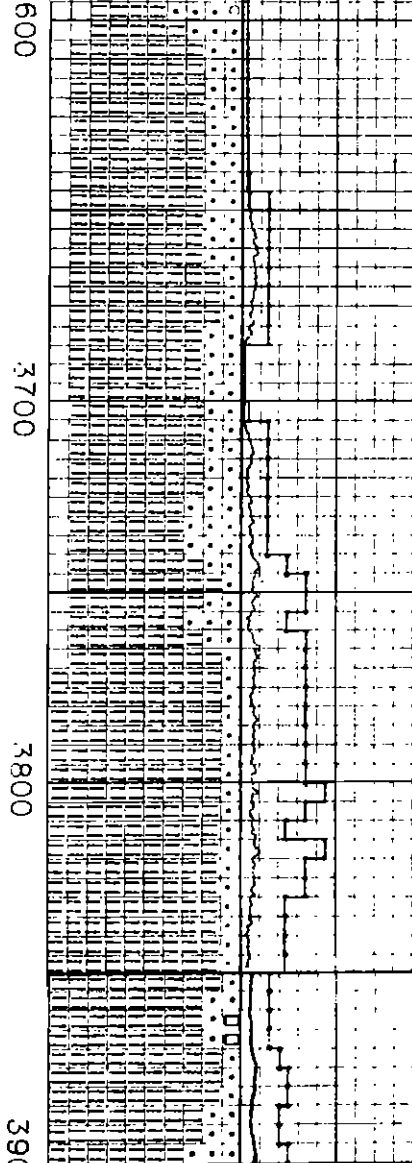
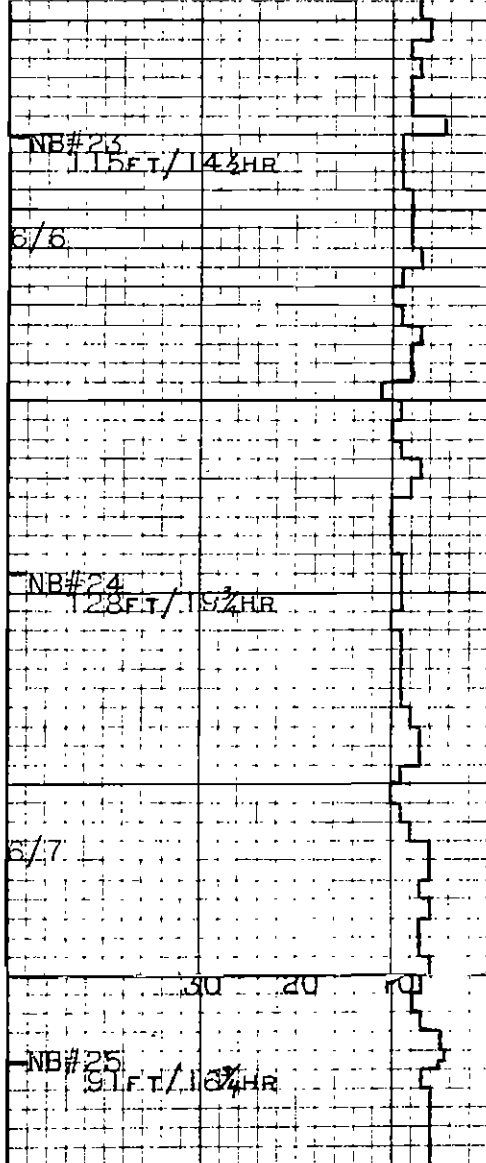
1°00'

WT. 67
VIS. 50

1°00'



2°00'	
1°15'	
1°15'	WT. 67 VIS. 65 W.L. 9.8 W.C. 2/32 SO. 17 PH. 1.7 SAL. 140
1°30'	WT. 67 VIS. 42 W.L. 12
1°30'	WT. 67 VIS. 54 W.L. 10.6
1°30'	



SILTST DK GRV, FIRM/
 HD, W/SH BLK HD, & TRC
 OF PYRITE, SANDST, FINE
 GRAINED, GRV & HD, FINE

SILTST, AS ABOVE

SILTST, DK GRV, CRS
 SANDY, FIRM/HD, W/SH
 ST GRV, DOM FINE SANDST, HD

SILTST DK GRV, CRS GR,
 FIRM TO HD W/SH SANDST,
 LT TO DK GRV, HD & HD,
 LIMEST, V LT GRV MAT, HD,
 TRC OF LT GRN MAT #3,
 SIMILAR TO CORE #3,
 POSS CAVINGS.

1°30'

1°30'

WT. 69
 VIS. 48
 SD. 1.25%
 PH. 8.0

2°15'

WT. 69
 VIS. 51
 W.L. 10.6
 W.C. 2/325%
 SD. 1.25%
 PH. 8.0
 SAL. 140

6/8

CB#3 12FT/4HR

NB#26 37FT/11 1/2 HR WT: 2 TONS

6/9

NB#27 58FT/13 3/4 HR

NB#28 104FT/21 1/2 HR
6/10

NB#29 95FT/21 1/2 HR
6/11

4000

4100

4200

CORE #5 3964-3976 REC 9
DOM QTZ SS LT GRV HD
FIND GR CALC CEMENT W/
2 FT OF SS CONGL REBBLES
TO 3/8" BOULDERS TO 2 1/2"
ANG WELL ROED. DLP 23%

SDST. BRN-GRY F.N/MED
ABNDT BRN MICA W/SOME
PYRITE.

SILTST. GRV-BRN, VEEY
SILTY, ABNDT MULTI-
COLORED CHERTY FRAGS.

SILTST. GRV-BRN, FIRM
W/MULTI COLORED CHERTY
FRAGS & TRC CRS-F, HD
SANDST.

3°15'

WT. 69
VIS. 48
W.L. 12.4
W.C. 2/32
SD. 1%
PH. 8

3°15'

2°45'

WT. 69
VIS. 48

2°45'

WT. 69
VIS. 51
SD. 1.25%
SAL. 100
PPM CL

3°00'

WT. 69
VIS. 48

W.L. 11.9

NB#30 75FT/21½HR
6/12

3°30'

WT. 72
VIS. 40
W.L. 12.9
SD. 1%
SAL. 140

NB#31 118FT/29HR
6/13/58 30 20 10

2°45'

WT. 73.5
VIS. 43
W.L. 12.6
SD. 1.25%
SAL. 82
PPMCL
PH 8.3
OIL 0%

6/14

CB#4 12FT/5HR

NB#32 47FT/13 HR

6/15

NB#33 78FT/19½HR

3°15'

SILTSTONE AS ABOVE
CHERTY MAT. MULTI-COLORED FRAGS. PROBABLE
PEBBLES IN SILTST. (SOME
ALSO LARGE CORN STAN-
TENACEOUS MAT. FRAGS.)

CORE #6 4463-4475 REC 12"
SILTST. BLK. HD. MASSIVE.
FRACTURED W/ SOME CALCITE
FILLED; SLICKENSIDES; MEGA
FOSSILS. POSS 20-23" DIP.

LIMESTONE, WHITISH GRN/
WHITISH BUFF, HARD
EFFERVESCES ON FRACTURE
PLANES AND POCK MARKS

3°15'

WT. 69
VIS. 75
SAL. 97
PPMCL

4700

4400

4500

IN LS. ABNDT PYRITE.

SILTST. MED/DRK GRV
FIRM, AND ABNDT MICA

3°00'

WT. 72
VIS. 48
W.L. 10.4
W.C. 1/32
SD. 1%
SAL. 97

SILTST. VERY SANDY, MD
GRV, SOFT TO BRITTLE
W/OOC LT SIZ-SS LIMY-
CEMENTED STRINGERS.

SILTST. BRN/GRV, HD,
ABNDT MICA, PYRITE.

3°15'

SILTST. AS ABOVE, W/
POSS INC SANDY CONTENT.

WT. 71
VIS. 52
W.L. 11.8
PH. 8.2
SAL. 140

SILTST. GRV-BRN, FIRM
TO HD.

2°45'

SILTST. AS ABOVE, W/TRC
VOL W/L.

6/16

NB#34 81FT/22½HR

4600

6/17

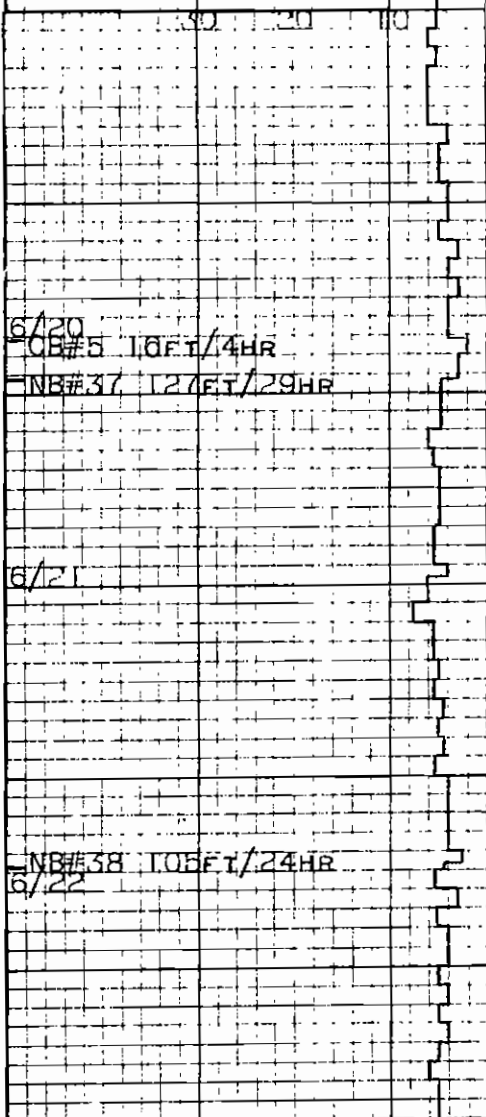
NB#35 124FT/28½HR

4700

6/18

NB#36 131FT/29½HR

4800



4900

5000

5100

SILTST, GRY-BRN, FIRM
 W/TRC VOL FRAGS, HD &
 SDST FINE GRN,
 TIGHT

CORE #71 4936-4946 REC 8 FT
 GRN TO WHITE MASSIVE
 HIGHLY ALTERED MAT. POSS
 VOL OR INTRUSIVE

MAT AS IN CORE, W/SILTST
 DRK GRY/BLK, V. MICACEOUS
 FIRM TO HD.

SILTST, GRY-BRN, MICACEOUS
 FIRM, W/TRC VOL MAT.

SILTST AS ABOVE, W/VARY-
 ING AMTS OF Qtz SDST.
 POSS CAVINGS.

WT. 71
 VIS. 40
 W.L. 10.9
 W.C. 2/32
 SD. 14
 PH. 8.7

SAL. 140

2°45'

WT. 72
 VIS. 59
 W.L. 9.4

2°30'

WT. 71
 VIS. 50
 W.L. 9.8

WT. 71
 VIS. 47
 W.L. 9.4

NB#39 1.33 FT./29 HR.

6/23

5200

SILTST. GRY-BRN. FIRM,
W/SOST. LT/DRK. GRY.
MILCACEOUS, FINE/MED
GRAIN, HD.

1°45'

WT. 71
VIS. 52
W.L. 8.8

SH. MED/DRK. GRY. PURPLE
CAST. HD. & BRITTLE.
PYRITE DISSEMINATED
THROUGHOUT. ALSO FRACT.
URES FILLED W/PYRITE.

LS. MED/LT. GRY. HD. &
BRITTLE, SEMI-CRYST.
ALLINE.

6/24

5300

NB#46 9 FT./4 1/2 HR.

NB#40 1.35 FT./29 1/2 HR.

CORE #8 5311-5320 REC 9 FT.
SILTY SH. BLK. HD. & HIGHLY
FRACTURED. PYRITE DISSEM-
INATED THROUGHOUT. RARE
MEGA FOSSIL IMPRINT OF SHELLS.

2°15'

WT. 71
VIS. 50
W.L. 8.8
W.C. 2/32
SD. 27
PH. 8.8

6/25 50 20 10

5400

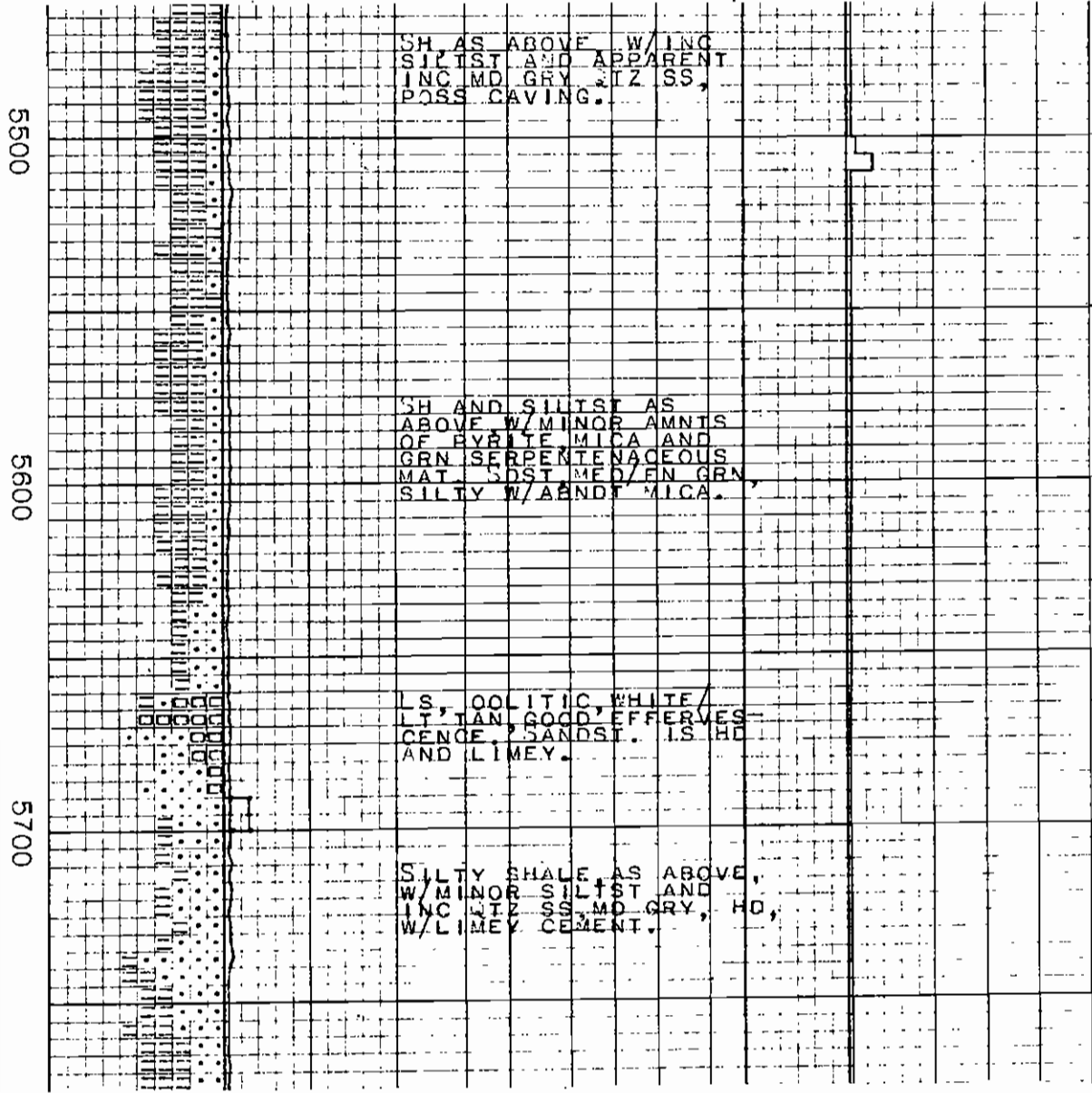
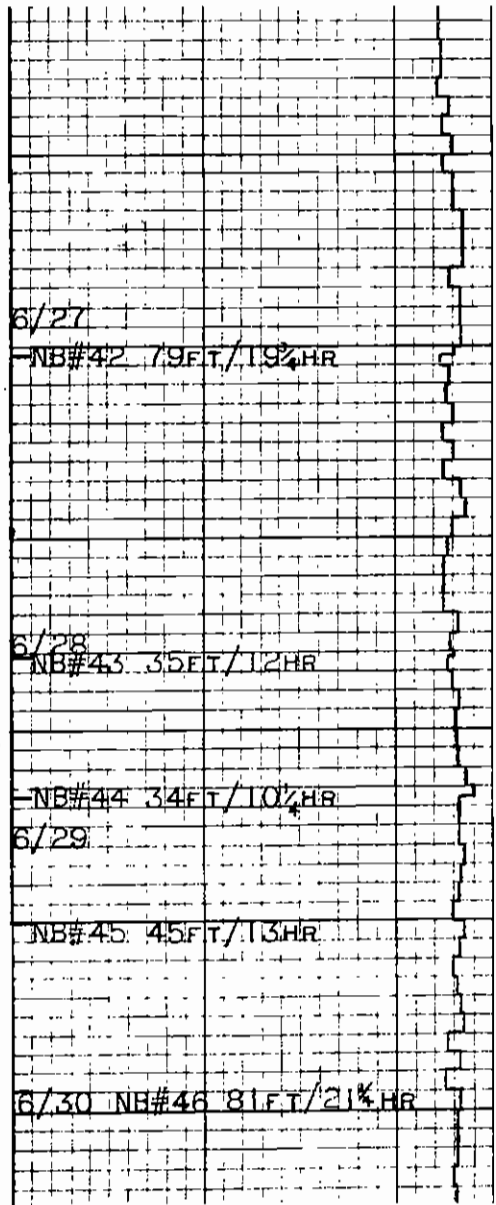
FIRM. BROWN GRY. SILTY
OF HD. BRN. SH. W/SOME
CHERT. SHELL FRAGS.
SILTST. GRY-BRN/BRN.
VERY SILTY. ABNDT. MICA,
TRC PYRITE.

WT. 71
VIS. 51
W.L. 8.6
PH. 8.6

POSS. SHELL FRAGS. IN
GRY. SH.

2°45'

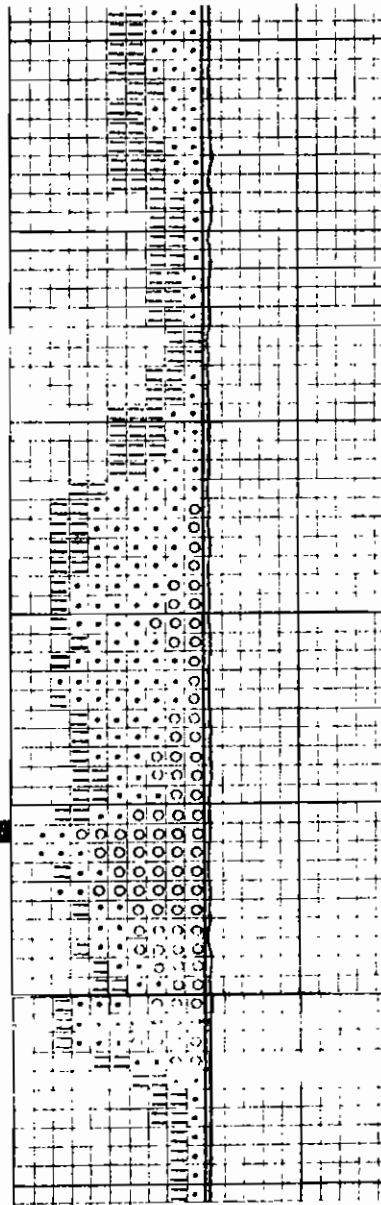
NB#41 97 FT./25 1/2 HR.



	WT. 72 VIS. 50 W.L. 2.6 SD. 17 PH. 8.6
2°30'	
	WT. 71 VIS. 48 PH. 8.0
2°45'	
2°30'	WT. 72 VIS. 48 SD. 54 PH. 8.6
2°15'	
2°00'	
	WT. 72 VIS. 46 PH. 7.0

7/7
 NB#54 29FT/15HR
 7/8
 NB#55 20FT/11HR
 NB#56 19FT/12½HR
 NB#57 23FT/10½HR
 7/9
 NB#58 27FT/13HR
 7/10
 NB#59 20FT/10½HR
 NB#60 18FT/10¼HR
 7/11
 NB#61 19FT/8¼HR
 7/12
 NB#62 19FT/9HR
 NB#63 72FT/23HR
 7/13/58

5100
 6200
 6300
 6400



SHALE & SILTST AS
 ABOVE.
 SDST F/MED. COC FRAGS
 CRS MAT. ABNDT PYRITE
 AND MICA.

SDST LT GRAY F-MED GR
 HD CONGLOMERATION, LIMY
 W/BLK SILTY SH & DK GR
 SILTST.

AS ABOVE BUT W/SDST,
 CGL MED-CRS GR, V HD,
 MICACEOUS.

CORE #10 8304-8309
 CONTAINING SDST MATHLX
 CHERT & CHERT COBBLES
 AND PEBBLES. V GOOD DLP

CH. DK GRAY/BLK SILTY
 SDST. COMF. FIN. GR
 SILTY SDST. HD, GR
 LIMY SDST.

WT. 70
 VIS. 45
 W.L. 9.8
 W.C. 2/32
 SD. .54
 SAL. 150

4°15'

4°00'

WT. 71.5
 VIS. 50
 W.L. 8.3
 SD. 1%

3°45'

3°30'

3°15'

WT. 72
 VIS. 49
 SD. 54
 PH 8.2

3°15'

3°30'

WT. 73
 VIS. 47
 W.L. 8.2
 W.C. 2/32
 PH. 8.4
 SD. 1%
 SAL. 145

3°00'

NB#64 53FT/15 1/4 HR
7/14

2°45'

SH & SILTST AS ABOVE W/ SDST F GR, HD LIMEY & CONGL, WELL RNDD PEBBLES OF QTZITE & CHERT.

WT. 73.5
VIS. 45
W.L. 7.9

NB#65 23FT/8 1/4 HR
7/15

2°45'

○ = GRAYWACKE

SDST AS ABOVE ABNDT LITHIC GRAYWACKE MAT, WELL CEMENTED AND HD. IRC RNDD FRAGS OF QTZITE, CHERT, AND F T7 SD.

NB#66 55FT/16 1/4 HR

7/16
NB#67 67FT/22 1/4 HR

2°30'

CHIEFLY GRAYWACKE AS ABOVE W/VARYING AMNT OF SILTST SHALE, AND LT QTZ SDST.

WT. 72.5
VIS. 52
W.L. 10
SD. .54

7/17
NB#68 76FT/20 1/4 HR

2°15'

GRAYWACKE AS ABOVE SH MED/DK GRY HIGHLY FRACTURED W/ SOME THIN STREAKS OF CALCITE.

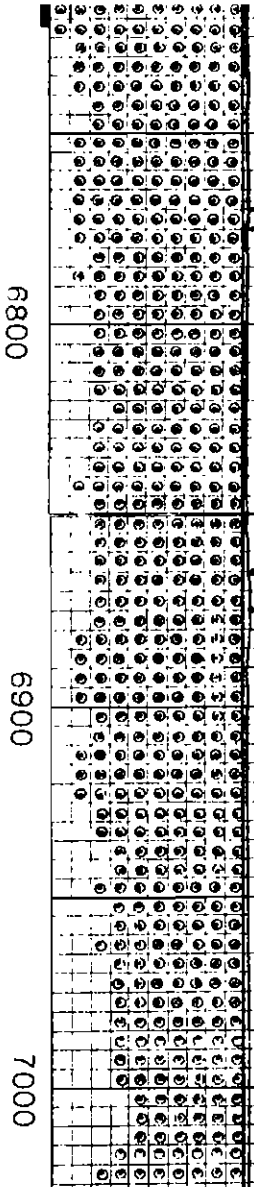
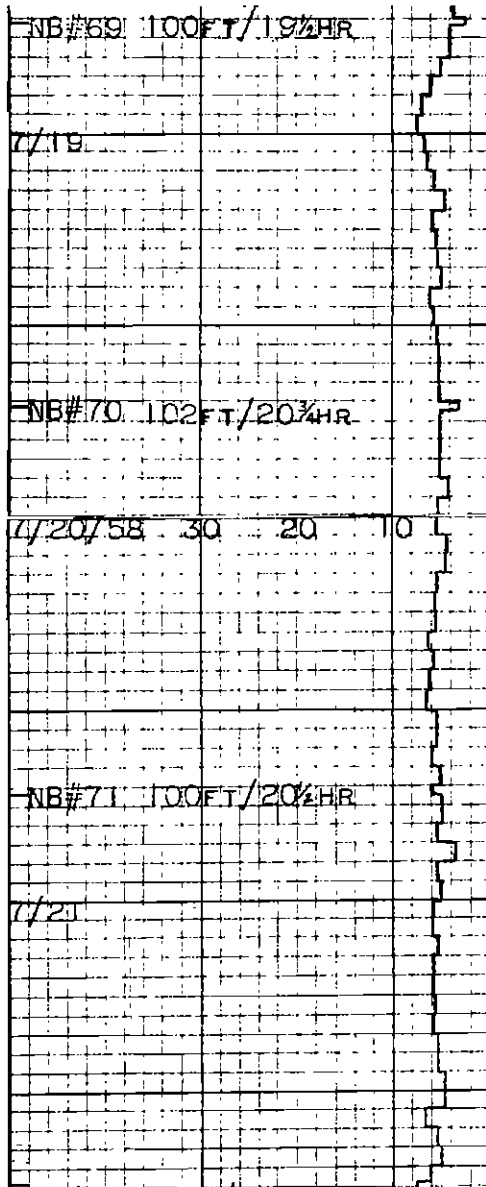
WT. 73
VIS. 65
W.L. 8.8

7/18
CB#9 11FT/3 1/2 HR

1°45'

CORE #11 6711-6722 REC 10'
GRAYWACKE, DK GRY, HD. F GR

C
6500
6600
6700



TO SILTY MASSIVE, HIGH
ANG TO VERT FRAC, W/CAL -
CITE COATINGS. NO DIPS.

SH AND GRAYWACKE AS
ABOVE SH IS PROBABLE
CAVINGS.

GRAYWACKE DK GRY, HD,
F GR TO SILTY W/SH
DK GRY TO BLK, HD.

GRAYWACKE & SH AS
ABOVE.

GRAYWACKE & SHALE AS

-2°00'

-1°30'

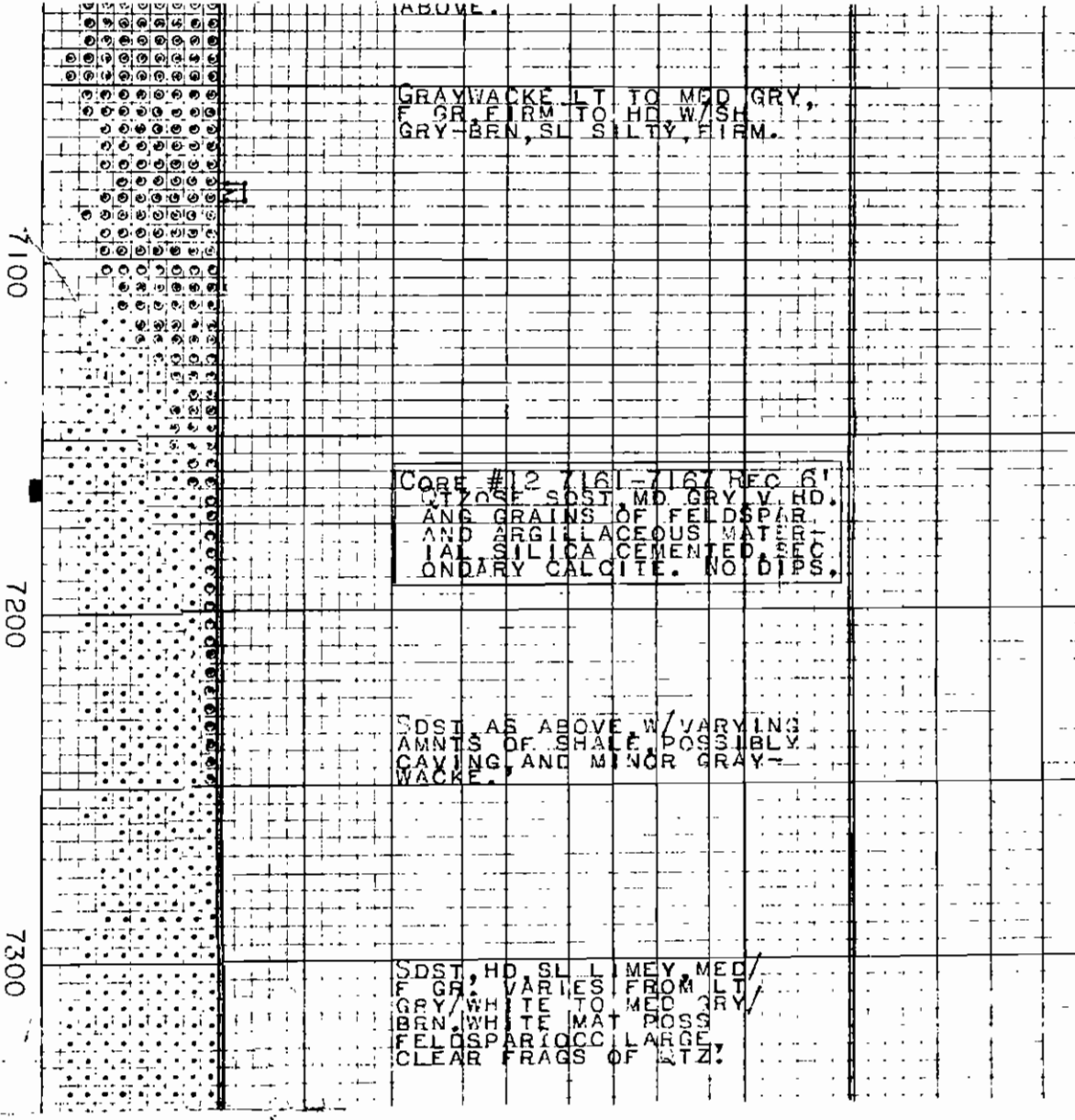
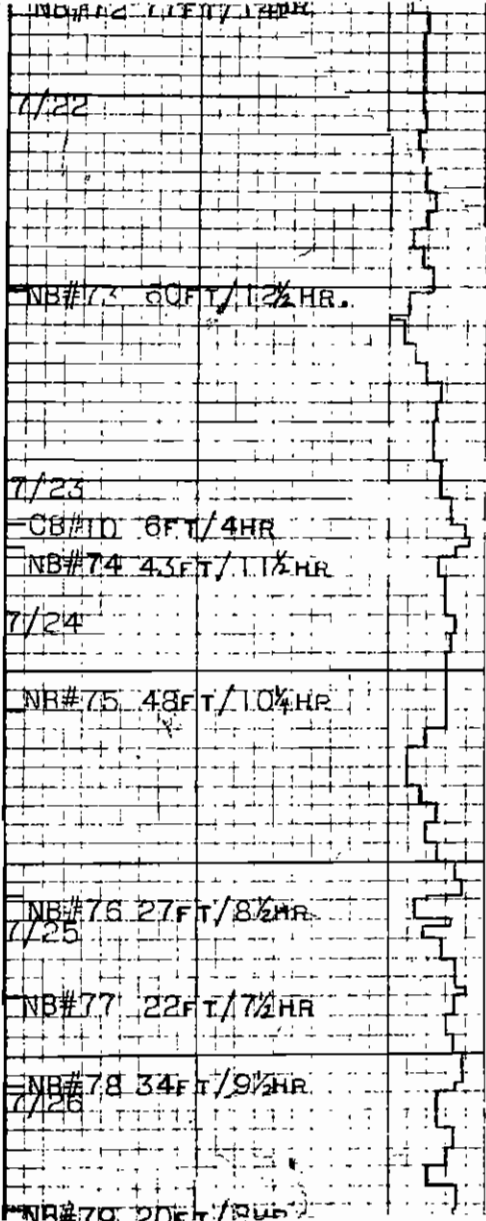
-1°00'

WT. 72.5
VIS. 48
W.L. 8.8
SD. 3/49
PH. 8.7

WT. 73.5
VIS. 35
W.L. 8.9
W.C. 2/32
PH. 8.6
SD. 17

SAL. 150
PPM CL

WT. 73.5
VIS. 48
W.L. 9.4



GRAYWACKE LT TO MED GRY,
F GR, FIRM TO HD, W/SH
GRY-BRN, SL SILTY, FIRM.

WT. 74
VIS. 52
W.L. 9.9

CORE #12 7161-7167 REC 6'
SDST, MD. GRY, V. HD.
AND GRAINS OF FELDSPAR,
AND ARGILLACEOUS MAT.
IAL SILICA CEMENTED SECT.
ONDARY CALCITE. NO DIPS.

WT. 73.5
VIS. 50
W.L. 9.6
SD. 1.5%
SAL. 220

SDST AS ABOVE W/ VARYING
AMNTS OF SHALE POSSIBLY
CAVING, AND MINOR GRAY-
WACKE.

WT. 73
VIS. 43
W.L. 9.8

SDST, HD SL, LIMEY, MED/
F GR, VARIES FROM LT GRY/
GRY/WHITE TO MED GRY/
BRN, WHITE MAT POSS
FELDSPAR, OCC LARGE
CLEAR FRAGS OF LTN!

WT. 73
VIS. 50
W.L. 9.6
W.C. 3/32
SD. 1%
SAL. 140

1°15'

0°45'

0°30'

0°30'

0°15'

7100

7200

7300

NR#70 59 FT / 9/16 HR

ALTERED SH.

SAL. 120
PPM CL

7900

AAAAAAAAAA
AAAAAAAAAA
AAAAAAAAAA
AAAAAAAAAA
AAAAAAAAAA

8000

TOTAL DEPTH 7919 (DRILLER)

-0°45'
RAN SCHLUMBERGER
E-LOG, MICROLOG, GAMMA
RAY-NEUTRON LOG, DIP-
METER & SIDEWALL
SAMPLES TO T.D.