USGS

GEOLOGICAL SURVEY
RECEIVED
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LOS ANGELES

GEOLOGIC ENGINEERING SERVICE

g.e.s.

[illegible] N. WILMINGTON BLVD.
WILMINGTON, CALIFORNIA

TERMINAL 4-4519

NOTED
SEP 1 4 1965
CYPHER

WELL DATA

COMPANY **STANDARD OIL**	WATER DEPTH---------421'
WELL **NAUTILUS NO. 1**	ELEV G L
FIELD **OREGON OFFSHORE OCS PO 103**	ELEV KB 454' 366.76-13 3/8"
COUNTY	SURFACE CSG 2881'-10 3/4"
LOCATION X=1,020,650 Y=475,200	SPUD DATE 5-8-65
	BEGAN LOGGING 5-29-65
	RELEASED
	COMPLETED
	ABANDONED 8-1-65
	TOTAL DEPTH 12,628
NOTED - SOLANAS	G.E.S. GEOLOGISTS P. D. JONES F. F. GREEN
	NOTED

LEGEND

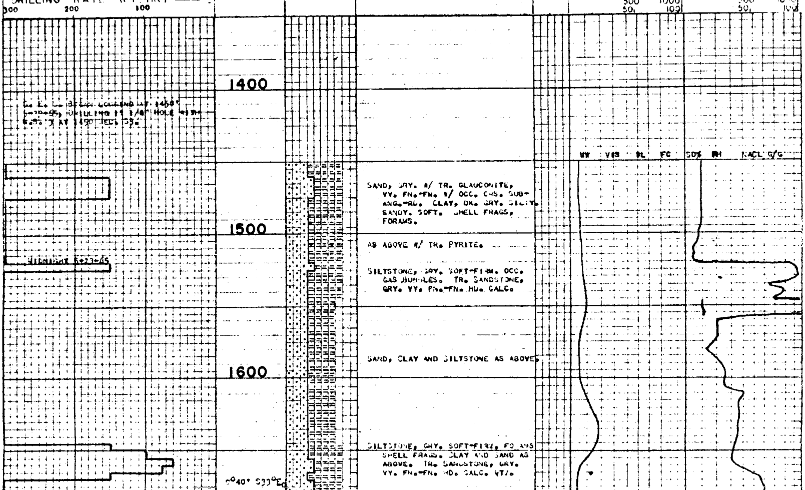
▦	LIMESTONE
▤	SHALE
☐	CLAY
▤	SILTSTONE
⛆	SANDSTONE
○	CONGLOMERATE
⁘	VOLCANIC
☐	
☐	SOLANAS
☐	

CORED INTERVAL	recovered ▮ lost ▯
SIDEWALL SAMPLE	•–□
HOLE DEVIATION	–○
NEW BIT	N.B.
CORE BIT	C.B.
CIRCULATE OUT	C.O.
NO RECOVERY	N.R.

OIL AND GAS EVALUATIONS

	OIL	GAS
TRACE	X	0-15
STRONG TRACE	XX	15-30
SHOW	XXX	30-50
GOOD SHOW	XXXX	50-70
EXCELLENT SHOW	XXXXX	70-

DRILLING RATE (FT/HR)	CORE DATA SP LOG	LITHOLOGY	LITHOLOGY DESCRIPTIONS RESISTIVITY LOG (M^2/M)	OIL	CUTTINGS GAS Total gas Pet Vapors	DITCH GAS Total gas Pet Vapors



[illegible] LOGGING AT 1454'
5-29-65, DRILLING 12 1/4" HOLE WITH
[illegible] AT 1490 [illegible]

MIDNIGHT 5-23-65

SAND, GRY. W/ TR. GLAUCONITE, VY. FN.-FN. W/ OCC. CRS. SUB-ANG.-RD. CLAY, DK. GRY. SILTY. SANDY. SOFT. SHELL FRAGS, FORAMS.

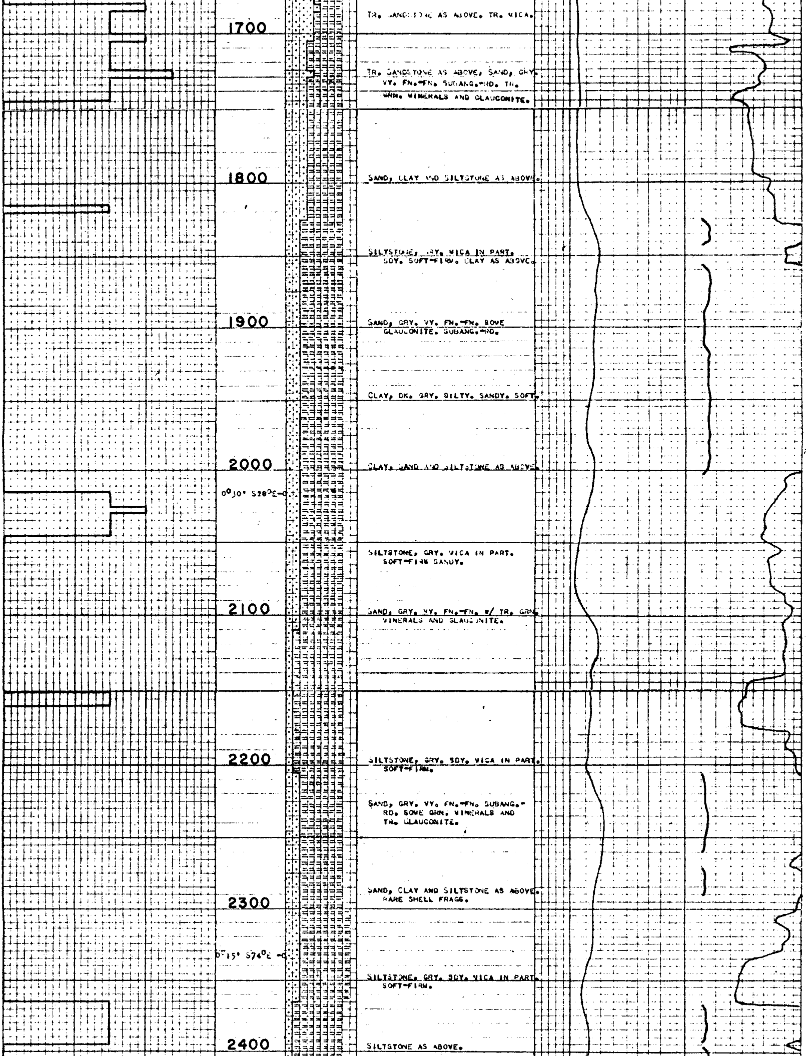
AS ABOVE W/ TR. PYRITE.

SILTSTONE, GRY. SOFT-FIRM. OCC. GAS BUBBLES. TR. SANDSTONE, GRY. VY. FN.-FN. HD. CALC.

SAND, CLAY AND SILTSTONE AS ABOVE.

SILTSTONE, GRY. SOFT-FIRM, FORAMS SHELL FRAGS. CLAY AND SAND AS ABOVE. TR. SANDSTONE, GRY. VY. FN.-FN. HD. CALC. QTZ.

5°40' S23°E



TR. SANDSTONE AS ABOVE. TR. MICA.

TR. SANDSTONE AS ABOVE, SAND, GRY. VY. FN.-FN. SUBANG.-RD. TR. GRN. MINERALS AND GLAUCONITE.

SAND, CLAY AND SILTSTONE AS ABOVE.

SILTSTONE, GRY. MICA IN PART. SDY. SOFT-FIRM. CLAY AS ABOVE.

SAND, GRY. VY. FN.-FN. SOME GLAUCONITE. SUBANG.-RD.

CLAY, DK. GRY. SILTY. SANDY. SOFT.

CLAY. SAND AND SILTSTONE AS ABOVE.

SILTSTONE, GRY. MICA IN PART. SOFT-FIRM SANDY.

SAND, GRY. VY. FN.-FN. W/ TR. GRN. MINERALS AND GLAUCONITE.

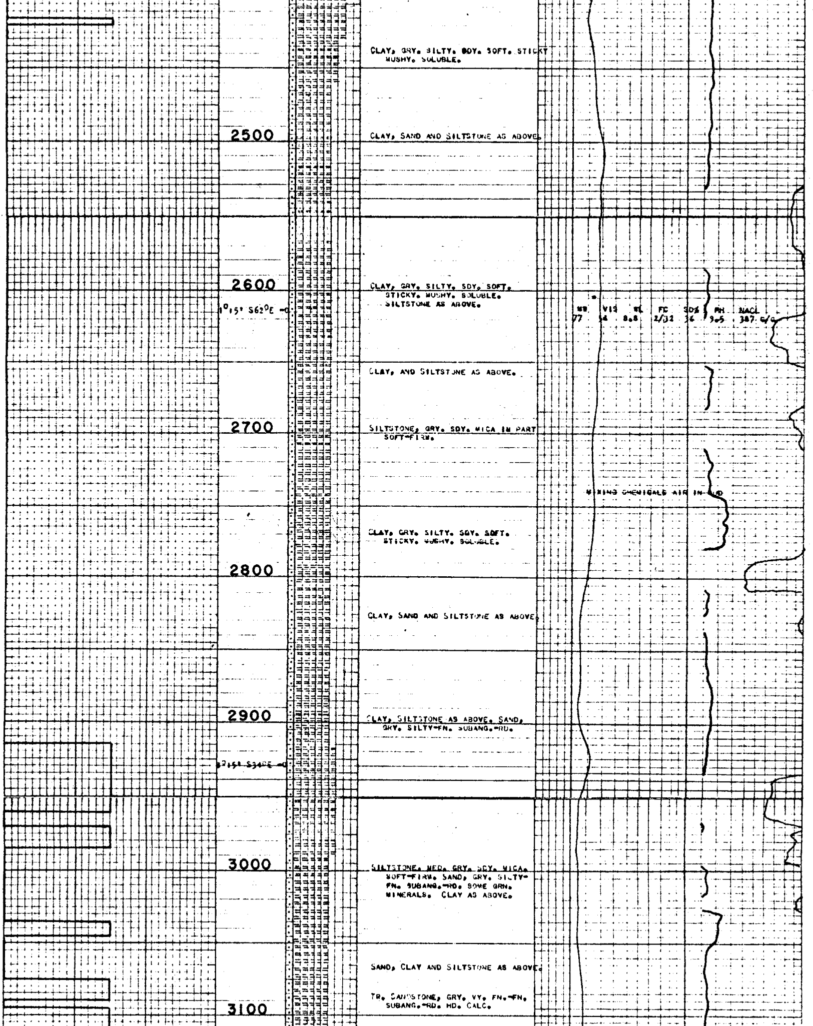
SILTSTONE, GRY. SDY. MICA IN PART. SOFT-FIRM.

SAND, GRY. VY. FN.-FN. SUBANG.-RD. SOME GRN. MINERALS AND TR. GLAUCONITE.

SAND, CLAY AND SILTSTONE AS ABOVE. RARE SHELL FRAGS.

SILTSTONE. GRY. SDY. MICA IN PART. SOFT-FIRM.

SILTSTONE AS ABOVE.



CLAY, GRY. SILTY. SDY. SOFT. STICKY
MUSHY. SOLUBLE.

2500

CLAY, SAND AND SILTSTONE AS ABOVE.

2600

CLAY, GRY. SILTY. SDY. SOFT.
STICKY. MUSHY. SOLUBLE.
SILTSTONE AS ABOVE.

1°15' S62°E -0

MW	VIS	WL	FC	SD%	PH	NACL
77	54	8.8	2/32	36	9.5	387 G/G

CLAY, AND SILTSTONE AS ABOVE.

2700

SILTSTONE, GRY. SDY. MICA IN PART
SOFT-FIRM.

MIXING CHEMICALS AIR IN MUD

CLAY. GRY. SILTY. SDY. SOFT.
STICKY. MUSHY. SOLUBLE.

2800

CLAY, SAND AND SILTSTONE AS ABOVE.

2900

CLAY, SILTSTONE AS ABOVE. SAND,
GRY. SILTY-FN. SUBANG.-RD.

1°15' S34°E -0

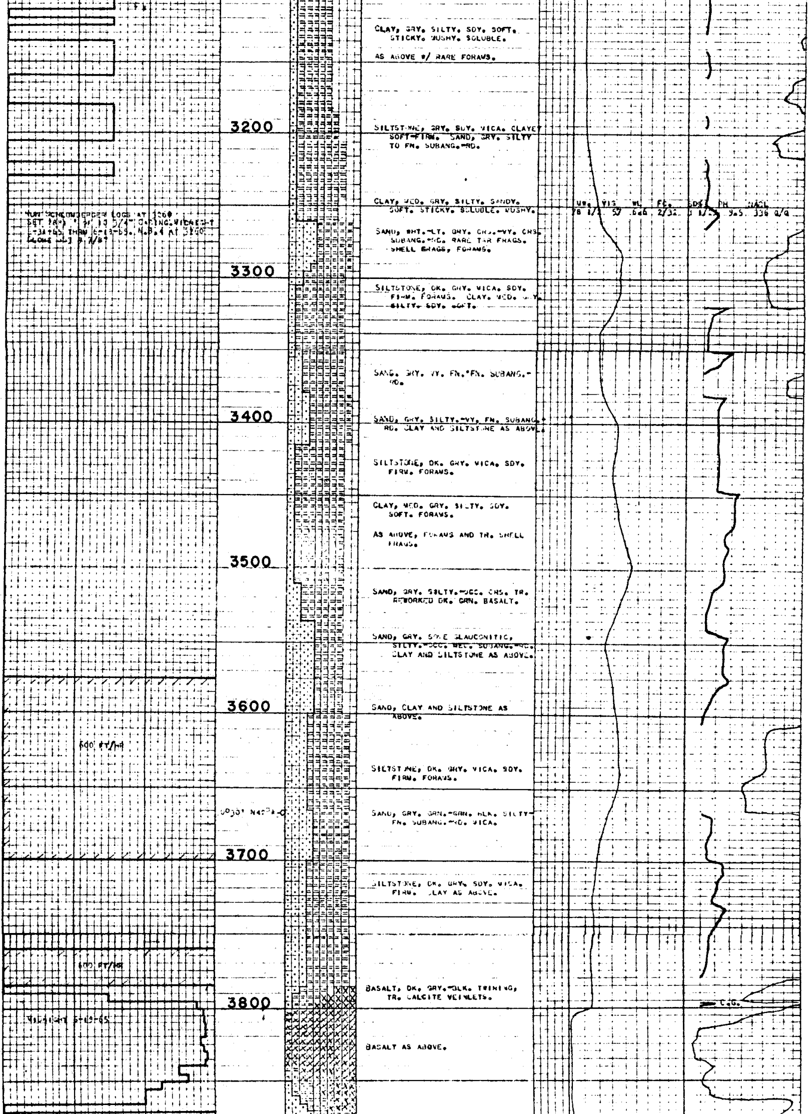
3000

SILTSTONE. MED. GRY. SDY. MICA.
SOFT-FIRM. SAND, GRY. SILTY-
FN. SUBANG.-RD. SOME GRN.
MINERALS. CLAY AS ABOVE.

SAND, CLAY AND SILTSTONE AS ABOVE.

TR. SANDSTONE, GRY. VY. FN.-FN.
SUBANG.-RD. HD. CALC.

3100



CLAY, GRY. SILTY. SDY. SOFT. STICKY. MUSHY. SOLUBLE.

AS ABOVE W/ RARE FORAMS.

SILTSTONE, GRY. SDY. MICA. CLAYEY SOFT-FIRM. SAND, GRY. SILTY TO FN. SUBANG.-RD.

CLAY, MED. GRY. SILTY. SANDY. SOFT. STICKY. SOLUBLE. MUSHY.

RUN SCHLUMBERGER LOGS AT 3260
SET [illegible] OF 13 3/4" CASING. [illegible]
[illegible] THRU 6-13-65. N.B.4 AT 3260
[illegible] 8 7/8"

WW.	VIS	WL	FC.	SD%	PH	NACL
78 1/2	57	.6	2/32	1 1/[illegible]	9.5	336 G/G

SAND, WHT.-LT. GRY. CRS.-VY. CRS. SUBANG.-RD. RARE TAR FRAGS. SHELL FRAGS, FORAMS.

SILTSTONE, DK. GRY. MICA. SDY. FIRM. FORAMS. CLAY. MED. GRY. SILTY. SDY. SOFT.

SAND. GRY. VY. FN.-FN. SUBANG.-RD.

SAND, GRY. SILTY.-VY. FN. SUBANG.-RD. CLAY AND SILTSTONE AS ABOVE.

SILTSTONE, DK. GRY. MICA. SDY. FIRM. FORAMS.

CLAY, MED. GRY. SILTY. SDY. SOFT. FORAMS.

AS ABOVE, FORAMS AND TR. SHELL FRAGS.

SAND, GRY. SILTY.-OCC. CRS. TR. REWORKED DK. GRN. BASALT.

SAND, GRY. SOME GLAUCONITIC, SILTY.-OCC. MED. SUBANG.-RD. CLAY AND SILTSTONE AS ABOVE.

SAND, CLAY AND SILTSTONE AS ABOVE.

SILTSTONE, DK. GRY. MICA. SDY. FIRM. FORAMS.

[illegible] N4[illegible]

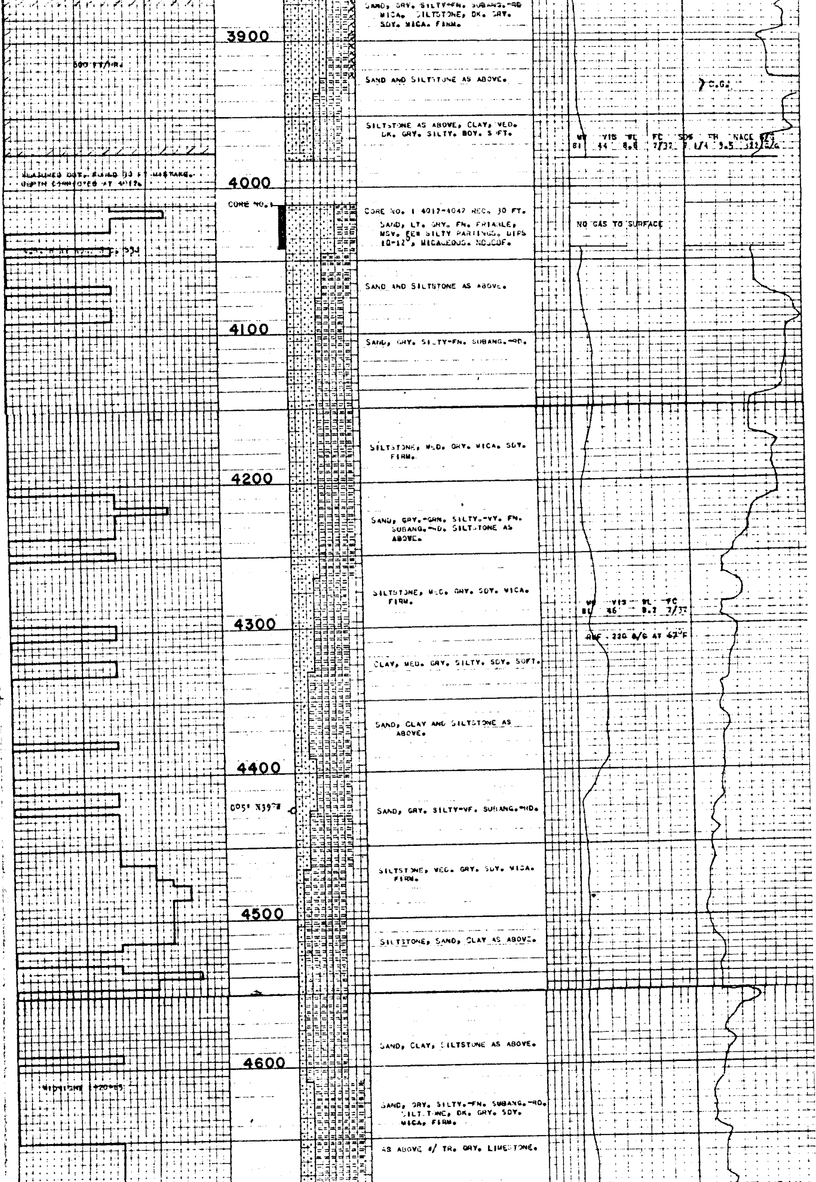
SAND, GRY. GRN.-GRN. BLK. SILTY-FN. SUBANG.-RD. MICA.

SILTSTONE, DK. GRY. SDY. MICA. FIRM. CLAY AS ABOVE.

BASALT, DK. GRY.-BLK. TWINING, TR. CALCITE VEINLETS.

[illegible] 6-19-65

BASALT AS ABOVE.



SAND, GRY. SILTY-FN. SUBANG.-RD. MICA. SILTSTONE, DK. GRY. SDY. MICA. FIRM.

SAND AND SILTSTONE AS ABOVE.

SILTSTONE AS ABOVE, CLAY, MED. DK. GRY. SILTY. SDY. SOFT.

WT	VIS	WL	FC	SDS	PH	NACL PPG
81	44	8.8	2/32	7 1/4	9.5	322 G/G

MEASURED OUT, FOUND 33 FT MISTAKE. DEPTH CORRECTED AT 4012.

CORE NO. 1 4012-4042 REC. 30 FT. SAND, LT. GRY. FN. FRIABLE, MSV. FEW SILTY PARTINGS. DIPS 10-12°, MICACEOUS. NOSCOF.

NO GAS TO SURFACE

SAND AND SILTSTONE AS ABOVE.

SAND, GRY. SILTY-FN. SUBANG.-RD.

SILTSTONE, MED. GRY. MICA. SDY. FIRM.

SAND, GRY.-GRN. SILTY.-VY. FN. SUBANG.-RD. SILTSTONE AS ABOVE.

SILTSTONE, MED. GRY. SDY. MICA. FIRM.

WT	VIS	WL	FC
81	46	8.2	2/32

RMF .220 Ω/M AT 67°F

CLAY, MED. GRY. SILTY. SDY. SOFT.

SAND, CLAY AND SILTSTONE AS ABOVE.

SAND, GRY. SILTY-VF. SUBANG.-RD.

SILTSTONE, MED. GRY. SDY. MICA. FIRM.

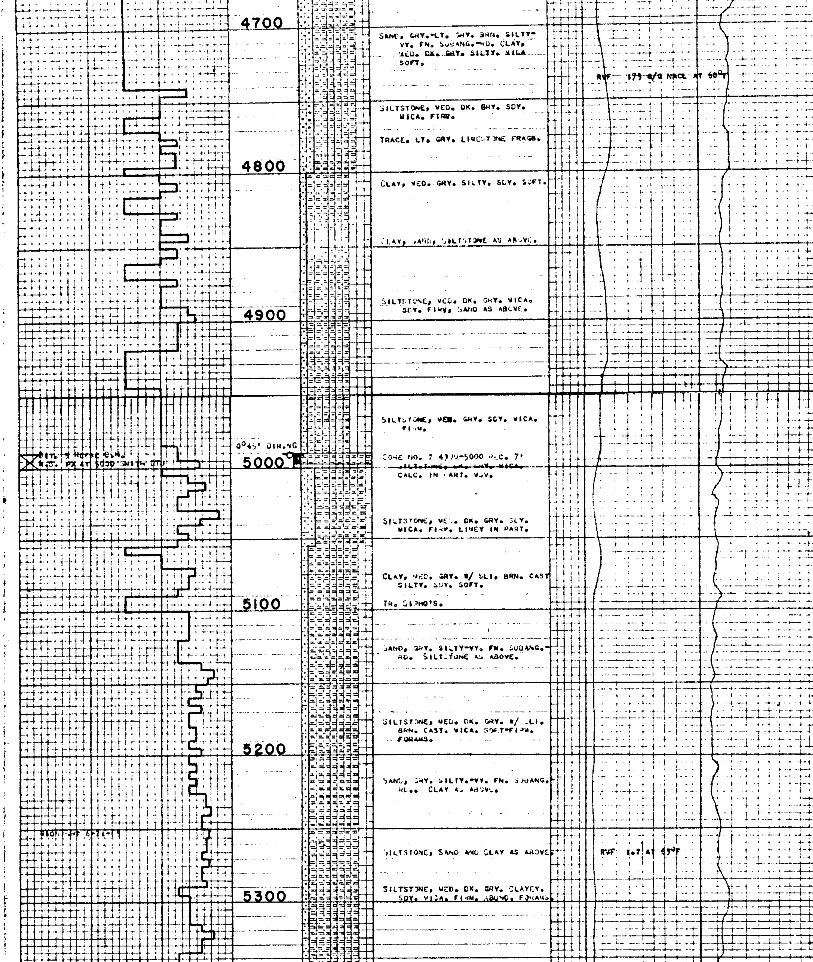
SILTSTONE, SAND, CLAY AS ABOVE.

SAND, CLAY, SILTSTONE AS ABOVE.

MIDNIGHT 4-20-65

SAND, GRY. SILTY.-FN. SUBANG.-RD. SILTSTONE, DK. GRY. SDY. MICA, FIRM.

AS ABOVE W/ TR. GRY. LIMESTONE.



SAND, GRY.-LT. GRY. BRN. SILTY-VY. FN. SUBANG.-RD. CLAY, MED. DK. GRY. SILTY. MICA SOFT.

RMF 175 G/G NACL AT 60°F

SILTSTONE, MED. DK. GRY. SDY. MICA. FIRM.

TRACE. LT. GRY. LIMESTONE FRAGS.

CLAY, MED. GRY. SILTY. SDY. SOFT.

CLAY, SAND, SILTSTONE AS ABOVE.

SILTSTONE, MED. DK. GRY. MICA. SDY. FIRM, SAND AS ABOVE.

SILTSTONE, MED. GRY. SDY. MICA. FIRM.

CORE NO. 2 4990-5000 REC. 7'
~~SILTSTONE, MED. GRY. MICA.~~
CALC. IN PART. VSV.

SILTSTONE, MED. DK. GRY. SLY. MICA. FIRM. LIMEY IN PART.

CLAY, MED. GRY. W/ SLI. BRN. CAST SILTY. SDY. SOFT.

TR. SIPHO'S.

SAND, GRY. SILTY-VY. FN. SUBANG.-RD. SILTSTONE AS ABOVE.

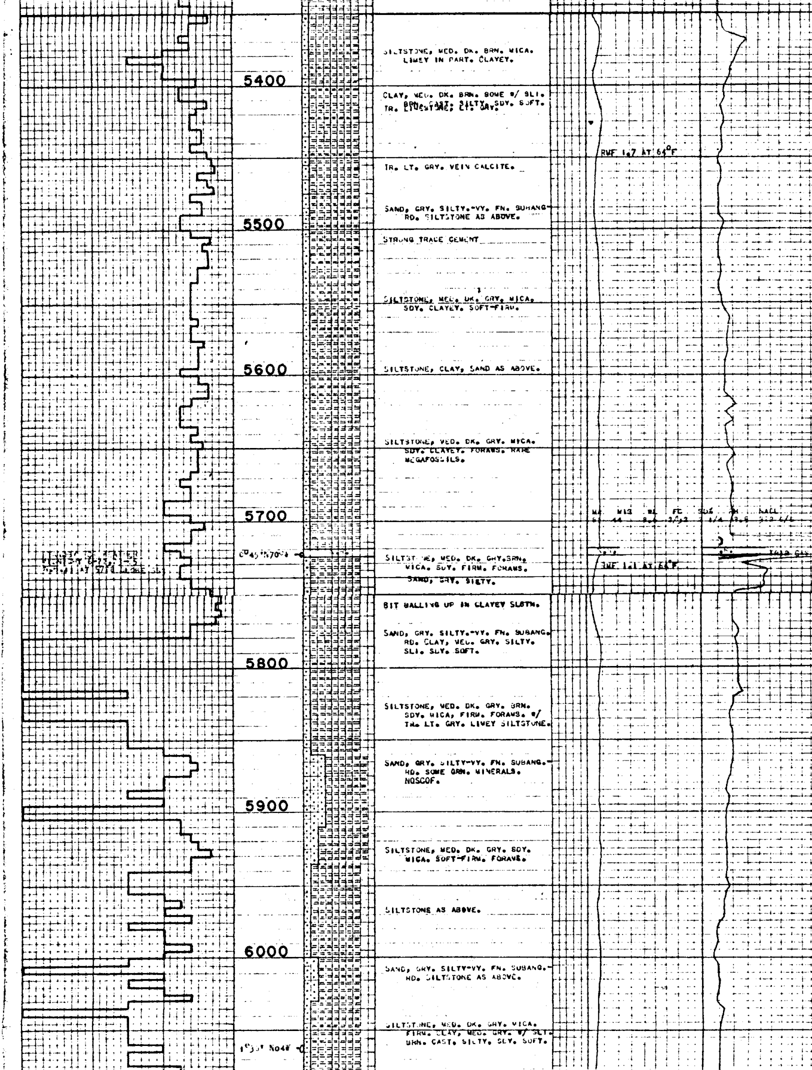
SILTSTONE, MED. DK. GRY. W/ SLI. BRN. CAST. MICA. SOFT-FIRM. FORAMS.

SAND, GRY. SILTY.-VY. FN. SUBANG.-RD.. CLAY AS ABOVE.

SILTSTONE, SAND AND CLAY AS ABOVE.

RMF 1.2 AT 69°F

SILTSTONE, MED. DK. GRY. CLAYEY. SDY. MICA. FIRM. ABUND. FORAMS.



SILTSTONE, MED. DK. BRN. MICA. LIMEY IN PART. CLAYEY.

CLAY, MED. DK. BRN. SOME W/ SLI. BRN. CAST. SILTY. SDY. SOFT.
TR. LIMESTONE, LT. GRY.

TR. LT. GRY. VEIN CALCITE.

SAND, GRY. SILTY.-VY. FN. SUBANG-RD. SILTSTONE AS ABOVE.

STRONG TRACE CEMENT

SILTSTONE, MED. DK. GRY. MICA. SDY. CLAYEY. SOFT-FIRM.

SILTSTONE, CLAY, SAND AS ABOVE.

SILTSTONE, MED. DK. GRY. MICA. SDY. CLAYEY. FORAMS. RARE MEGAFOSSILS.

SILTSTONE, MED. DK. GRY.BRN. MICA. SDY. FIRM. FORAMS.
SAND, GRY. SILTY.

BIT BALLING UP IN CLAYEY SLSTN.

SAND, GRY. SILTY.-VY. FN. SUBANG. RD. CLAY, MED. GRY. SILTY. SLI. SDY. SOFT.

SILTSTONE, MED. DK. GRY. BRN. SDY. MICA, FIRM. FORAMS. W/ TR. LT. GRY. LIMEY SILTSTONE.

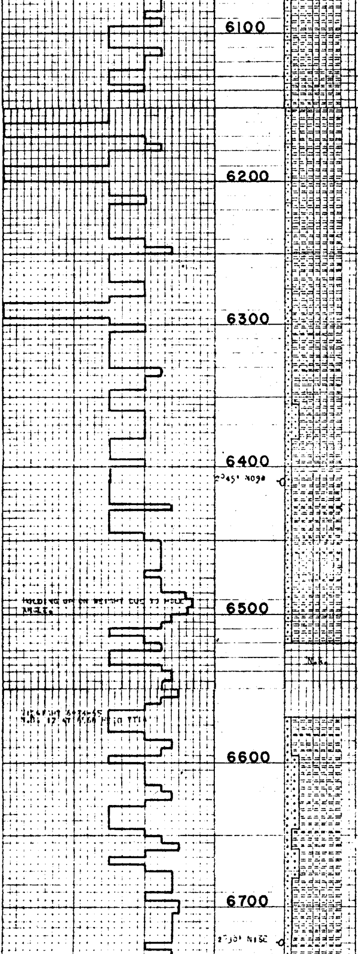
SAND, GRY. SILTY-VY. FN. SUBANG.-RD. SOME GRN. MINERALS. NOSCOF.

SILTSTONE, MED. DK. GRY. SDY. MICA. SOFT-FIRM. FORAMS.

SILTSTONE AS ABOVE.

SAND, GRY. SILTY-VY. FN. SUBANG.-RD. SILTSTONE AS ABOVE.

SILTSTONE, MED. DK. GRY. MICA. FIRM. CLAY, MED. GRY. W/ SLI. BRN. CAST. SILTY. SDY. SOFT.



TRACE, VOLCANIC TUFF WHT.-LT. GRY.

SILTSTONE, MED. DK. GRY. MICA. SDY. FIRM.

SILTSTONE, CLAY, SAND AS ABOVE.

SILTSTONE, MED. DK. GRY. MICA. BECOMING PLATY. FIRM

SAND, GRY. SILTY.-VY. FN. SUBANG-RD. CLAY. MED. GRY. SILTY. SANDY. SOFT.

SILTSTONE, MED. DK. GRY. PLATY. MICA. SDY. FIRM.

CLAY, MED. GRY. SILTY. SDY. SOFT.

SILTSTONE, CLAY, SAND AS ABOVE.

SAND, GRY. SILTY-VY. FN. SUBANG.-RD. CLAY. MED. GRY. SILTY. SDY. SOFT.

AS ABOVE W/ TR. SIPHONS.

SILTSTONE, MED. DK. GRY. SDY. PLATY. SOFT-FIRM. FORAMS.

SILTSTONE, MED. DK. GRY. SDY. PLATY. SOFT-FIRM. FORAMS.

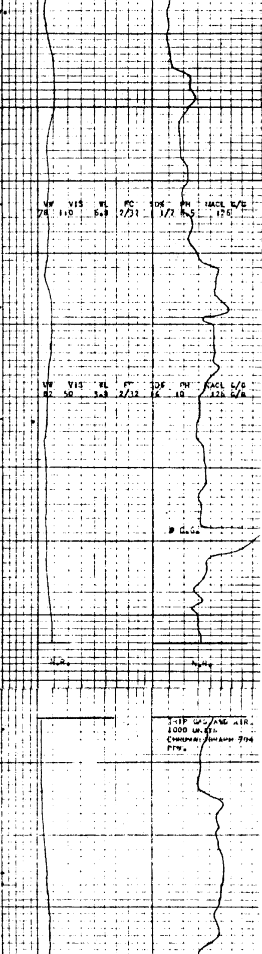
HOLE PACKING OFF. PULL OUT NO SAMPLE RETURNS

SILTSTONE, CLAY AND SAND AS ABOVE. FORAMS.

SAND, GRY. SILTY-VY. FN. SUBANG.-RD. NO COF.

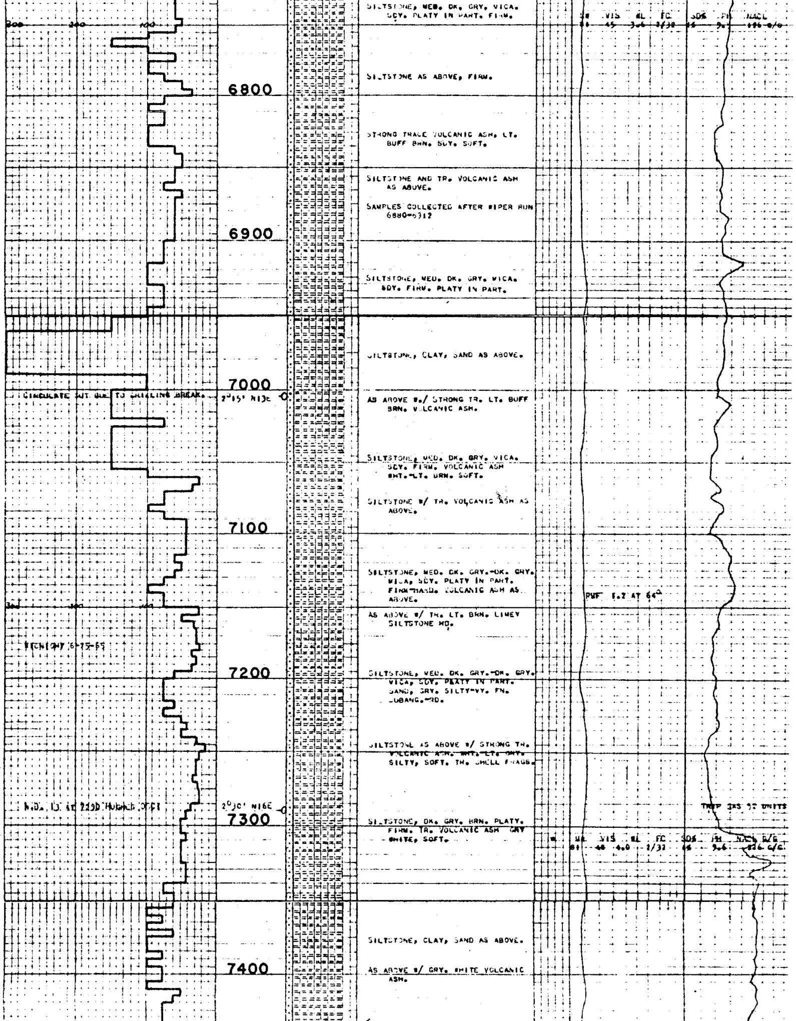
SILTSTONE, MED. DK. GRAY. PLATY. MICA. SDY. SOFT.-FIRM. TR. ~~SANDSTONE, GRY. SILTY-VY. FN. RD. CALC.~~

SAND, GRY. SILTY.-VY. FN. SUBANG.-RD. W/ TR. SANDSTONE AS ABOVE



WT	VIS	WL	FC	SD%	PH	NACL C/G
78	110	6.8	2/32	1/2	8.5	126

WT	VIS	WL	FC	SD%	PH	NACL C/G
82	50	3.8	2/32	16	10	126 C/G



SILTSTONE, MED. DK. GRY. MICA. SDY. PLATY IN PART. FIRM.

SILTSTONE AS ABOVE, FIRM.

STRONG TRACE VOLCANIC ASH, LT. BUFF BRN. SDY. SOFT.

SILTSTONE AND TR. VOLCANIC ASH AS ABOVE.

SAMPLES COLLECTED AFTER WIPER RUN 6880-6912

SILTSTONE, MED. DK. GRY. MICA. SDY. FIRM. PLATY IN PART.

SILTSTONE, CLAY, SAND AS ABOVE.

AS ABOVE W./ STRONG TR. LT. BUFF BRN. VOLCANIC ASH.

SILTSTONE, MED. DK. GRY. MICA. SDY. FIRM. VOLCANIC ASH WHT.-LT. BRN. SOFT.

SILTSTONE W/ TR. VOLCANIC ASH AS ABOVE.

SILTSTONE, MED. DK. GRY.-DK. GRY. MICA, SDY. PLATY IN PART. FIRM-HARD. VOLCANIC ASH AS ABOVE.

AS ABOVE W/ TR. LT. BRN. LIMEY SILTSTONE HD.

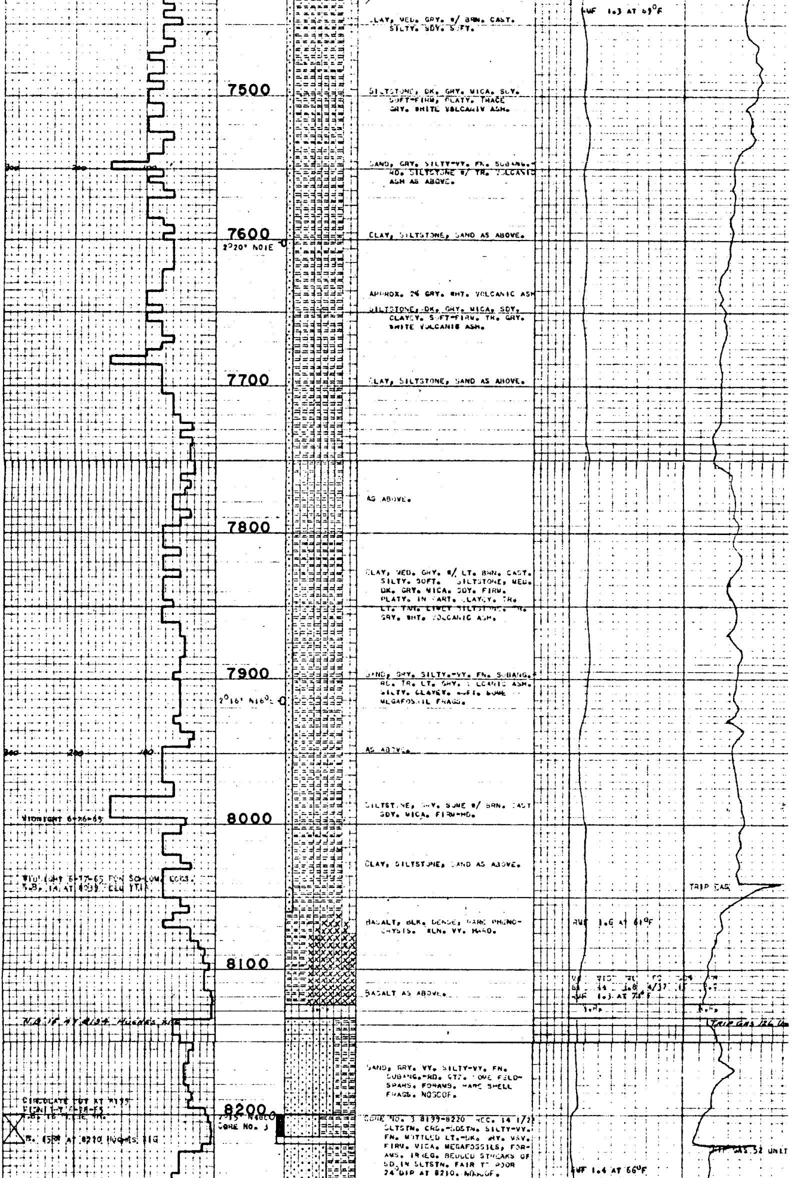
SILTSTONE, MED. DK. GRY.-DK. GRY. MICA, SDY. PLATY IN PART. SAND, GRY. SILTY-VY. FN. SUBANG.-RD.

SILTSTONE AS ABOVE W/ STRONG TR. VOLCANIC ASH. WHT.-LT. GRY. SILTY, SOFT. TR. SHELL FRAGS.

SILTSTONE, DK. GRY. BRN. PLATY. FIRM. TR. VOLCANIC ASH GRY WHITE, SOFT.

SILTSTONE, CLAY, SAND AS ABOVE.

AS ABOVE W/ GRY. WHITE VOLCANIC ASH.



CLAY, MED. GRY. W/ BRN. CAST. SILTY. SDY. SOFT.

SILTSTONE, DK. GRY. MICA. SDY. SOFT-FIRM, PLATY. TRACE GRY. WHITE VOLCANIC ASH.

SAND, GRY. SILTY-VY. FN. SUBANG.-RD. SILTSTONE W/ TR. VOLCANIC ASH AS ABOVE.

CLAY, SILTSTONE, SAND AS ABOVE.

APPROX. 2% GRY. WHT. VOLCANIC ASH

SILTSTONE, DK. GRY. MICA. SDY. CLAYEY. SOFT-FIRM. TR. GRY. WHITE VOLCANIC ASH.

CLAY, SILTSTONE, SAND AS ABOVE.

AS ABOVE.

CLAY, MED. GRY. W/ LT. BRN. CAST. SILTY. SOFT. SILTSTONE, MED. DK. GRY. MICA. SDY. FIRM. PLATY. IN PART. CLAYEY. TR. LT. TAN. LIMEY SILTSTONE. TR. GRY. WHT. VOLCANIC ASH.

SAND, GRY. SILTY.-VY. FN. SUBANG.-RD. TR. LT. GRY. VOLCANIC ASH. SILTY. CLAYEY. SOFT. SOME MEGAFOSSIL FRAGS.

AS ABOVE.

SILTSTONE, GRY. SOME W/ BRN. CAST SDY. MICA. FIRM-HD.

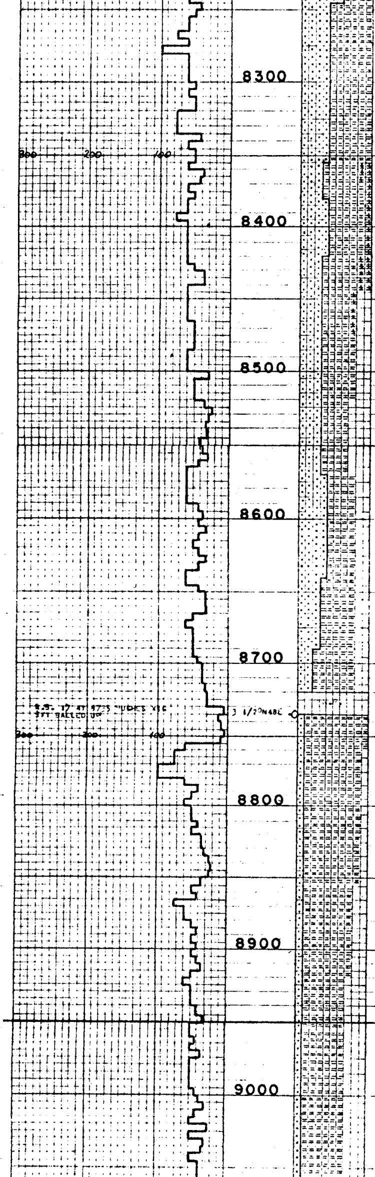
CLAY, SILTSTONE, SAND AS ABOVE.

BASALT, BLK. DENSE, RARE PHENOCRYSTS. XLN. VY. HARD.

BASALT AS ABOVE.

SAND, GRY. VY. SILTY-VY. FN. SUBANG.-RD. QTZ. SOME FELDSPARS. FORAMS. RARE SHELL FRAGS. NOSCOF.

CORE NO. 3 8139-8220 REC. 14 1/2' SLTSTN. CRS.-SDSTN. SILTY-VY. FN. MOTTLED LT.-DK. GRY. MSV. FIRM. MICA. MEGAFOSSILS, FORAMS. IRREG. BEDDED STREAKS OF SD. IN SLTSTN. FAIR TO POOR 24° DIP AT 8210. NOSCOF.



TR. VOLCANICS, PROB. FALLIN IN.

TR. GRN. NOVACULITE.

SAND, GRY. VY. SILTY-VY. FN. SUB-
ANG.-RD.

SILTSTONE, MED. DK. GRY.-MED. GRY.
BRN. SDY. MICA. FIRM-HD.
LIMEY IN PART.

BENTONITE, LT. GRY. XLN.

SAND, SILTSTONE AS ABOVE.

BENTONITE, LT. GRY. XLN.

CLAY, LT. GRY.-LT. GRY. BRN. SLTY
SDY. SOFT. BENTONITIC.

SAND, SILTSTONE AND BENTONITIC
CLAY AS ABOVE.

SAND, GRY. SILTY-VY. FN. SUBANG.-
RD. CLAY, MED. GRY.-LT. GRY.
BRN. SILTY. SDY. SOFT BENT-
ONITIC IN PART.

SILTSTONE, MED. DK. GRY.-GRY. BRN.
SDY. MICA. FIRM. LIMEY IN
PART. TR. LT. BRN. XLN. CAL-
CITE.

CLAY, AND SILTSTONE AS ABOV .

SAND, CLAY AND SILTSTONE AS ABOVE.

SILTSTONE, MED. DK. BRN. CHS.
W/ FEW GRN. MIN. INCLUSIONS.
VY. HD. CALC. TR. BENTONITE
AND BASALT FROM UP HOLE.
SHELL FRAGS, FORAMS RARE FISH
SCALES.

CLAY, LT. GRY. BRN. SILTY. SDY.
SOFT. BENTONITIC IN PART.

SILTSTONE, MED. DK. GRY. MICA.
SDY. FIRM-HARD. LIMEY IN PART.

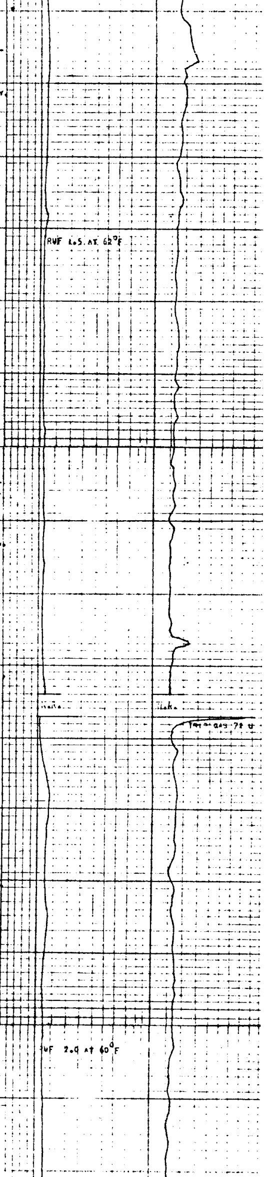
CLAY AND SILTSTONE AS ABOVE.
SAND, GRY. SILTY. SUBANG.-RD.

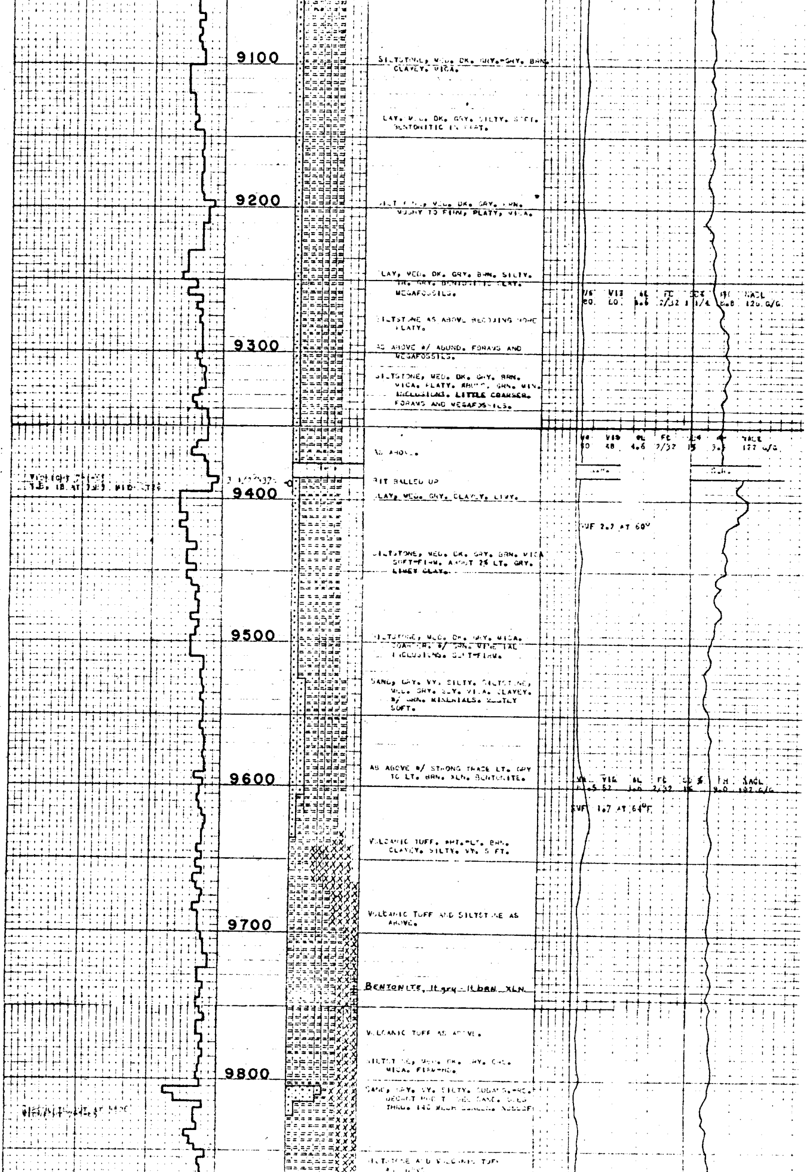
CLAY, LT. GRY. BRN. SILTY. SOFT.
BENTONITIC IN PART.

SILTSTONE, MED. DK. GRY. CHS.
MICA. SDY. FIRM.

TR. BASALT. FALL IN

SAND, GRY. VY. SILTY. SUBANG.-RD.





SILTSTONE, MED. DK. GRY.-GRY. BRN. CLAYEY. MICA.

CLAY. MED. DK. GRY. SILTY. SOFT. BENTONITIC IN PART.

SILTSTONE, MED. DK. GRY. BRN. MUSHY TO FIRM, PLATY, MICA.

CLAY, MED. DK. GRY. BRN. SILTY. TR. GRY. BENTONITIC CLAY. MEGAFOSSILS.

SILTSTONE AS ABOVE BECOMING MORE PLATY.

AS ABOVE W/ ABUND. FORAMS AND MEGAFOSSILS.

SILTSTONE, MED. DK. GRY. BRN. MICA. PLATY. ABUND. GRN. MIN. INCLUSIONS. LITTLE COARSER. FORAMS AND MEGAFOSSILS.

AS ABOVE.

BIT BALLED UP

CLAY, MED. GRY. CLAYEY. LIMY.

SILTSTONE, MED. DK. GRY. BRN. MICA SOFT-FIRM. ABOUT 2% LT. GRY. LIMEY CLAY.

SILTSTONE, MED. DK. GRY. MICA. COARSER. W/ GRN. MINERAL INCLUSIONS. SOFT-FIRM.

SAND, GRY. VY. SILTY. SILTSTONE, MED. GRY. SLY. MICA. CLAYEY. W/ GRN. MINERALS. MOSTLY SOFT.

AS ABOVE W/ STRONG TRACE LT. GRY TO LT. BRN. XLN. BENTONITE.

VOLCANIC TUFF. WHT.-LT. BRN. CLAYEY. SILTY. VY. 5 FT.

VOLCANIC TUFF AND SILTSTONE AS ABOVE.

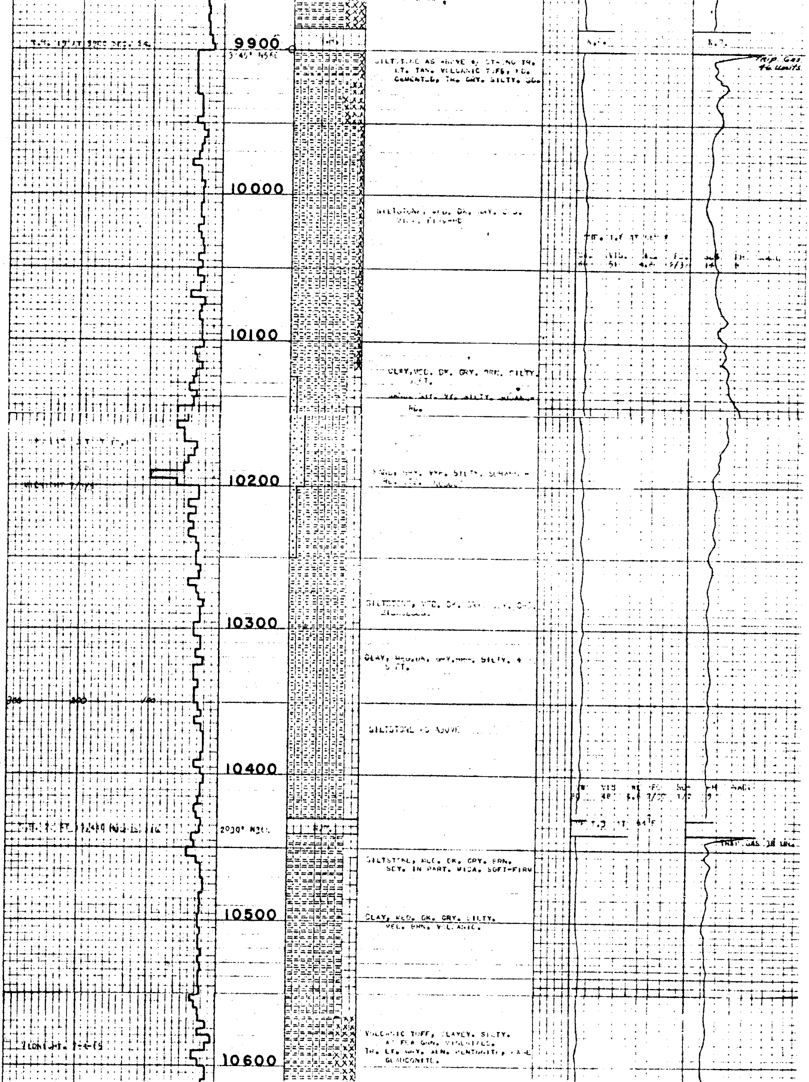
Bentonite, lt gry - lt brn XLN.

VOLCANIC TUFF AS ABOVE.

SILTSTONE, MED. DK. GRY. CHL. MICA. FIRM-HD.

SAND, GRY. VY. SILTY. SUBANG.-RD. DECANT PORTION [illegible] SAND. [illegible] THRU. 140 MESH SCREEN. [illegible]

SILTSTONE AND VOLCANIC TUFF AS ABOVE.



SILTSTONE AS ABOVE W/ STRING TR. LT. TAN. VOLCANIC TUFF, FG. CEMENTED, TR. GRY. SILTY. SS.

SILTSTONE, MED. DK. GRY. [illegible] [illegible] FIRM

TRIP, 1.5 AT [illegible]

WT. VIS. W.L. F.C. SD. PH. NACL
9.4 51 4.2 2/32 1% 9

CLAY, MED. DK. GRY. BRN. SILTY. SOFT.

~~[illegible] SILTY. [illegible]~~ RG.

SAND GRY. VFG. SILTY, SUBANG. - RD. [illegible] [illegible]

SILTSTONE, MED. DK. GRY. [illegible] CALC. [illegible]

CLAY, MED. DK. GRY. BRN. SILTY, & SOFT.

SILTSTONE AS ABOVE

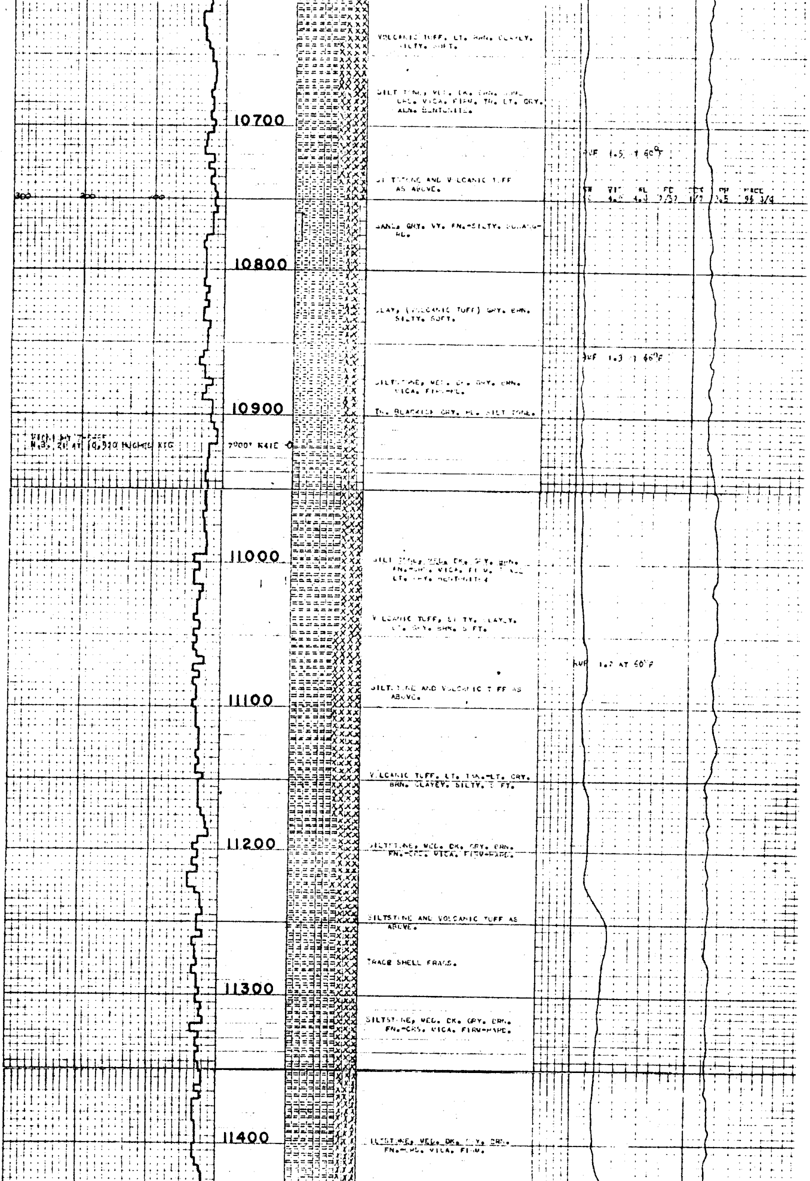
WT. VIS. WL. FC. SD. PH. NACL
9.0 48 8.6 2/32 1/2 9

T.D. 7.3 AT 64°F

SILTSTONE, MED. DK. GRY. BRN. SDY. IN PART. MICA. SOFT-FIRM

CLAY, MED. DK. GRY. SILTY. VEL. BRN. VOLCANIC.

VOLCANIC TUFF, CLAYEY. SILTY.
A FEW GRN. MINERALS.
TR. LT. GRY. ALN. BENTONITE, RARE GLAUCONITE.



VOLCANIC TUFF, LT. BRN. CLAYEY. SILTY. SOFT.

SILTSTONE, MED. DK. BRN. FN.-CRS. MICA. FIRM. TR. LT. GRY. BRN. BENTONITE.

SILTSTONE AND VOLCANIC TUFF AS ABOVE.

SAND, GRY. VY. FN.-SILTY. SUBANG-RD.

CLAY, (VOLCANIC TUFF) GRY. BRN. SILTY. SOFT.

SILTSTONE, MED. DK. GRY. BRN. MICA. FIRM-HD.

TR. BLACKISH GRY. HD. SILTSTONE.

SILTSTONE, MED. DK. GRY. BRN. FN.-CRS. MICA. FIRM. [illegible] LT. GRY. BENTONITE.

VOLCANIC TUFF, SILTY. CLAYEY. LT. GRY. BRN. SOFT.

SILTSTONE AND VOLCANIC TUFF AS ABOVE.

VOLCANIC TUFF, LT. TAN.-LT. GRY. BRN. CLAYEY. SILTY. SOFT.

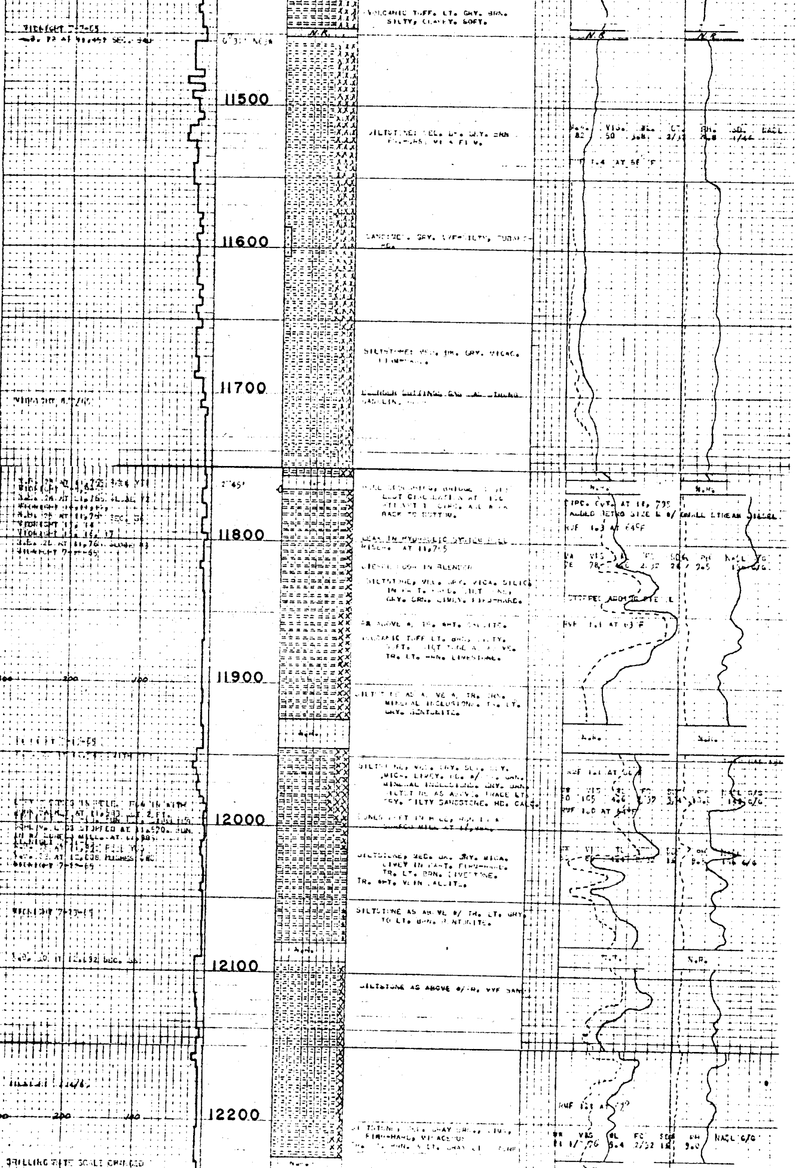
SILTSTONE, MED. DK. GRY. BRN. FN.-CRS. MICA. FIRM-HARD.

SILTSTONE AND VOLCANIC TUFF AS ABOVE.

TRACE SHELL FRAGS.

SILTSTONE, MED. DK. GRY. BRN. FN.-CRS. MICA. FIRM-HARD.

SILTSTONE, MED. DK. GRY. BRN. FN.-CRS. MICA. FIRM.



VOLCANIC TUFF. LT. GRY. BRN. SILTY, CLAYEY. SOFT.

SILTSTONE: MED. DK. GRY. BRN. FIRM-HARD, MICA. FI. W.

SANDSTONE: GRY. VYF-SILTY, TUBAC- EC.

SILTSTONE: MED. DK. GRY. MICAC. FIRM-HARD.

LIGHTER CUTTINGS DUE TO CLOUDED CASING.

HOLE SLOUGHING, BRIDGE. LOST CIRCULATION AT 11,795. REGAINED CIRC. AND WORK BACK TO BOTTOM.

LEAK IN HYDRAULIC SYSTEM DIESEL RISER AT 11,795

DIESEL FOUND IN BLENDER

SILTSTONE, MED. GRY. MICA. SILIC. IN PART. FIRM. SILT. SHALE, GRY. BRN. LIMEY. FIRM-HARD.

AS ABOVE W/ TR. WHT. CALCITE.

VOLCANIC TUFF LT. BRN. SILTY. SOFT. SILTSTONE AS ABOVE. TR. LT. BRN. LIMESTONE.

SILTSTONE AS ABOVE W/ TR. BRN. MINERAL INCLUSIONS. TR. LT. GRY. BENTONITE.

SILTSTONE, MED. GRY. SLTY. GRY. MICA. LIMEY. HD. W/ TR. GRN. MINERAL INCLUSIONS. GRY. BRN. SILTSTONE AS ABOVE. TRACE LT. GRY. SILTY SANDSTONE. HD. CALC.

CONES LEFT IN HOLE, RAN JUNK MILL AT 11,983.

SILTSTONE, MED. DK. GRY. MICA. LIMEY IN PART. FIRM-HARD. TR. LT. BRN. LIMESTONE. TR. WHT. VEIN CALCITE.

SILTSTONE AS ABOVE W/ TR. LT. GRY. TO LT. BRN. BENTONITE.

SILTSTONE AS ABOVE W/ TR. VYF SAND

SILTSTONE, MED. GRAY GRN. LIMY, FIRM-HARD, MICACEOUS. TR. LT. BRN. & LT. GRAY LIMESTONE

MIDNIGHT 7-7-65

BIT NO. 22 AT 11,457 SEC. 34

MIDNIGHT 8-7-65

T.D. BIT NO. 23 AT 11,725 ...

MIDNIGHT 11,63

BIT NO. 24 AT 11,765

MIDNIGHT

BIT NO. 25 AT 11,79 SEC. 36

MIDNIGHT 11,74

MIDNIGHT 11,16, 17

BIT NO. 26 AT 11,76

MIDNIGHT 7-11-65

MIDNIGHT 7-12-65

CONES LEFT IN HOLE. RAN IN WITH JUNK BASKET AT 11,983. CUT 2 FT.

BIT NO. 27 ... STOPPED AT 11,970. RAN IN W/ JUNK MILL AT 11,985

MIDNIGHT

BIT NO. 28 AT 11,992

BIT NO. 29 AT 12,006 HUGHES

MIDNIGHT 7-12-65

MIDNIGHT 7-13-65

BIT NO. 30 AT 12,132

MIDNIGHT 7-14-65

WT. VIS. WL. FC. PH. SD. NACL
82 50 3.8 2/32 9.8 1/4

RMF 1.4 AT 56 F

TRIPS. CUT. AT 11,795

ADDED RETRO SIZE W/ SMALL STREAM DIESEL

RMF 1.3 AT 64°F

WT VIS WL FC SD% PH NACL G/G
78 4.6 2/32 2% 9.5 1500 G/G

STOPPED ADDING DIESEL

RMF 1.1 AT 63°F

RMF 1.1 AT 60°F

WT VIS WL FC SD PH NACL G/G
10 105 4.6 2/32 2% 9.5 1500 G/G

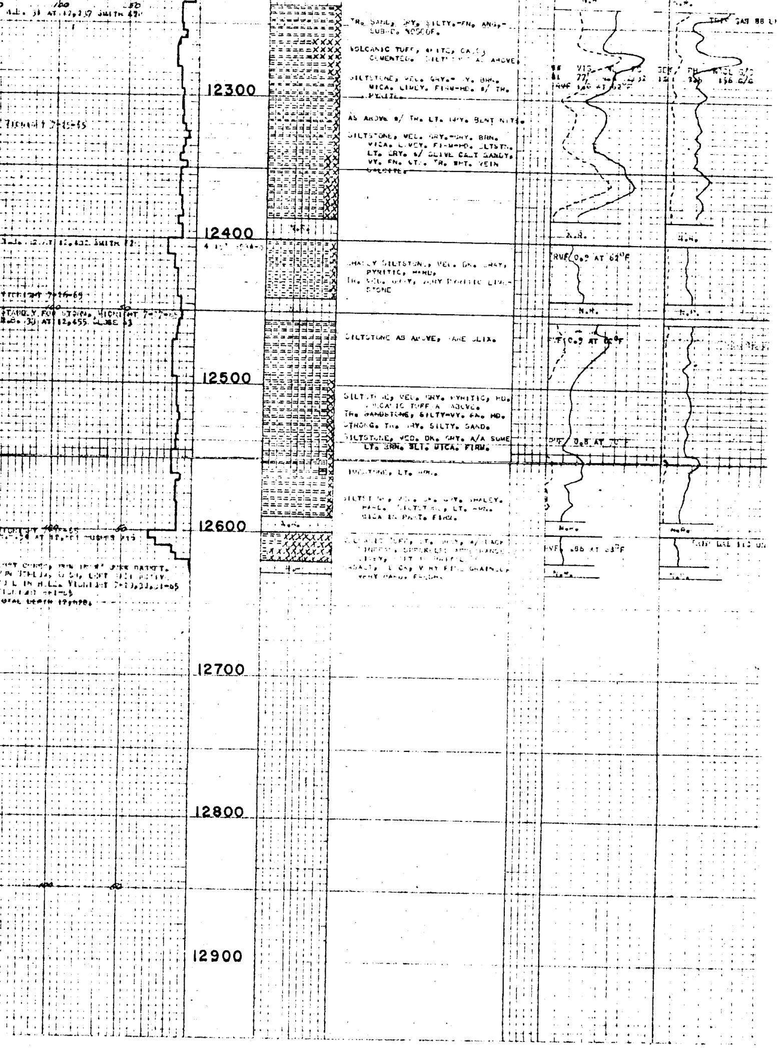
RMF 1.0 AT 64°F

WT VIS WL FC SD PH NACL G/G
... 4.4 2/32 1% 9.5 1500 G/G

RMF 1.1 AT 72°F

WT VIS WL FC SD PH NACL G/G
... 76 4.4 2/32 1% 9.0

T.T.
N.R.



TR. SAND, GRY, SILTY.-FN. ANG.-SUB-R. NOSCOF.

VOLCANIC TUFF, WHITE, CALC. CEMENTED. SILTSTONE AS ABOVE.

SILTSTONE, MED. GRY.-LT. BRN. MICA. LIMEY. FIRM-HD. W/ TR. PYRITE.

AS ABOVE W/ TR. LT. GRY. BENTONITE.

SILTSTONE, MED. GRY.-GRY. BRN. MICA. LIMEY. FIRM-HD. SLTSTN. LT. GRY. W/ OLIVE CAST SANDY, VY. FN. GT. TR. WHT. VEIN CALCITE.

SHALEY SILTSTONE, MED. DK. GRAY, PYRITIC, HARD. TR. MED. GRY, VERY PYRITIC LIMESTONE

SILTSTONE AS ABOVE, RARE GLIX.

SILTSTONE, MED. GRY. PYRITIC, HD. VOLCANIC TUFF AS ABOVE. TR. SANDSTONE, SILTY-VY. FN. HD. STRONG. TR. GRY. SILTY. SAND. SILTSTONE, MED. DK. GRY. A/A SOME LT. BRN. SLT. MICA. FIRM.

SILTSTONE, LT. GRN.

SILTSTONE, MED. DK. GRY. SHALEY. HARD. SILTSTONE, LT. GRN. MICA IN PARTS. FIRM.

VOLCANIC TUFF, LT. GRY, W/ BLACK [illegible] SPECKLED APPEARANCE LIMEY, [illegible]
BASALT, [illegible] VERY FINE GRAINED, VERY HARD, FRESH.

[illegible] RAN IN [illegible] JUNK BASKET. [illegible] LEFT [illegible] IN HOLE MIDNIGHT 7-20,21,-65
MIDNIGHT 7-21-65
TOTAL DEPTH 12,620.