

KIM B. SHOEMAKER

CONSULTING GEOLOGIST

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GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

COMPANY RAYMOND OIL COMPANY, INC.

LEASE # 1 HINEMAN

FIELD WILDCAT

LOCATION 1260' FNL & 2120' FWL

SEC 9 TWPSP 19s RGE 27W

COUNTY LANE STATE KANSAS

CONTRACTOR H2 DRILLING, LLC RIG 1

SPUD 10-21-13 COMP 10-29-13

RTD 4779 LTD 4780

MUD UP 3550 TYPE MUD CHEMICAL

ELEVATIONS

KB 2724

DF _____

GI 2713

Measurements Are All
From 2724 KB

CASING

SURFACE 856' @ 266'

PRODUCTION 5 1/2 @

ELECTRICAL SURVEYS

DUAL IND, DENS-N, MICRO

SAMPLES SAVED FROM _____ 3400 TO 4779

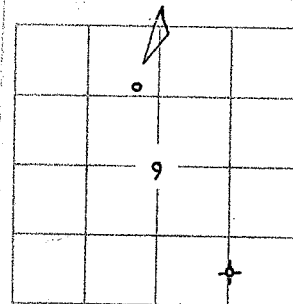
DRILLING TIME KEPT FROM _____ 3400 TO 4779

SAMPLES EXAMINED FROM _____ 3400 TO 4779

GEOLOGICAL SUPERVISION FROM _____ 3800 TO 4779

GEOLOGIST ON WELL KIM B. SHOEMAKER

FORMATION TOPS	LOG	SAMPLES
ANHYDRITE	2070+659	2073 + 651
B/ANH.	2099+625	2099 + 625
STOTLER	3549-825	3538 - 824
HEEBNER	3983-1259	3981 - 1260
LANSING	4022-1298	4026 - 1302
STARK	4283-1559	4289 - 1565
MARMATON	4391-1667	4395 - 1671
FORT SCOTT	4536-1812	4538 - 1814
CHEROKEE	4559-1835	4560 - 1836
MISS. DOL.	4674-1950	4674 - 1950






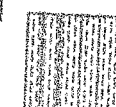





30.30.30.30

REMARKS

10-21-13 SPbD
 10-22 @ 267'
 10-23 @ 1976'
 10-24 @ 3520' Pull POC Bit
 10-25 @ 4038'
 10-26 @ 4315'
 10-27 @ 4590'
 10-28 @ 4632'
 10-29 @ 4779'

API: 15-101-22467

LEGEND

-  Anhydrite
-  Salt
-  Sandstone
-  Shale
-  Carb sh
-  Limestone
-  Ool. Lime
-  Chert
-  Dolomite

DRILLING TIME IN MINUTES
 PER FOOT
 Rate of Penetration Increases

5" 10" 15" 20" 25"

DEPTH
 2000

LITHOLOGY

SAMPLE DESCRIPTIONS

REMARKS

50-103051-06

Sh. Rd. Silly

Sh. Road Silly

Sh. Rd. h. Silly

ANHYDRITE 2073 + 651

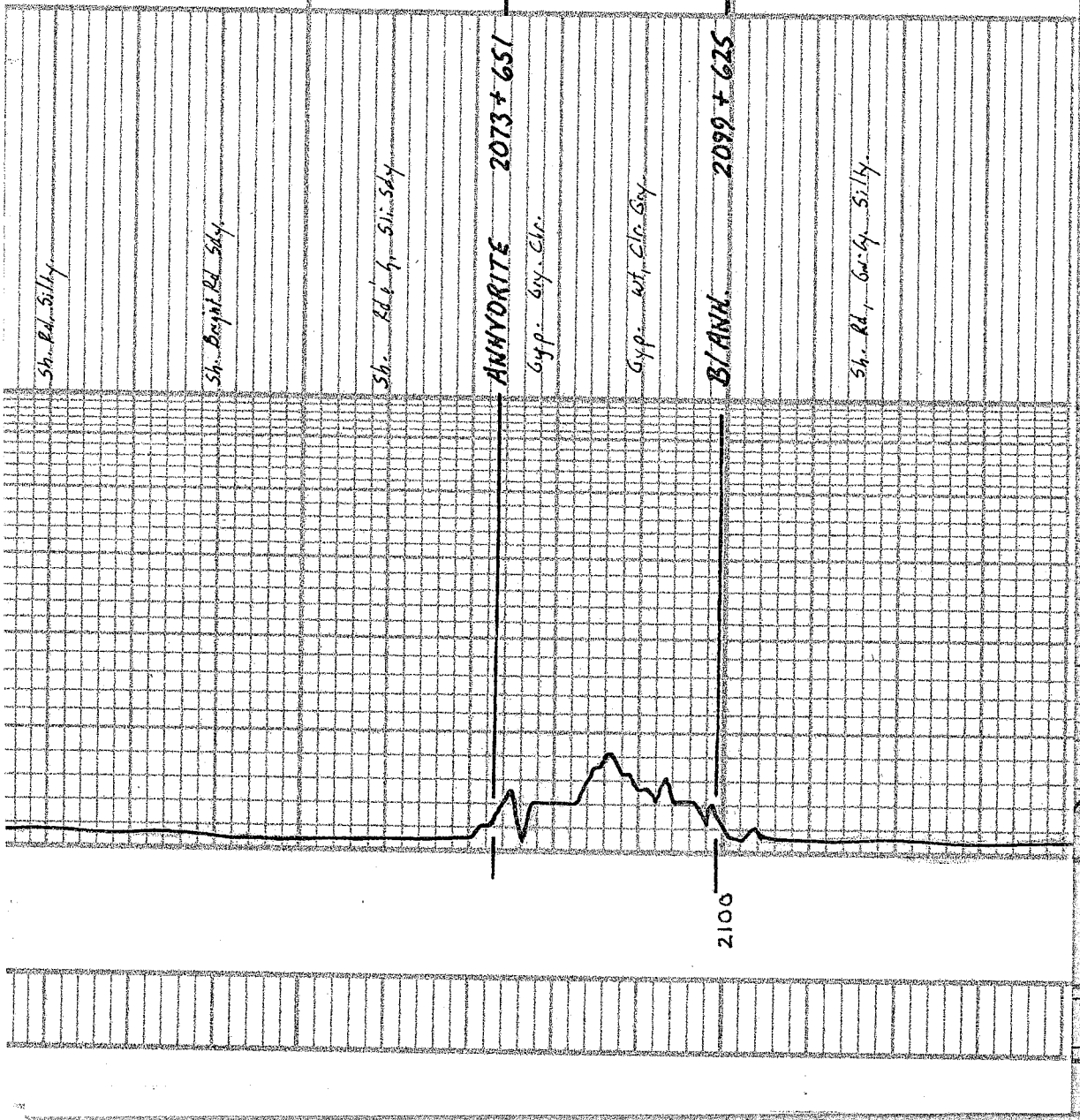
Gyp. Gy. Cr.

Gyp. wt. Cr. Gy.

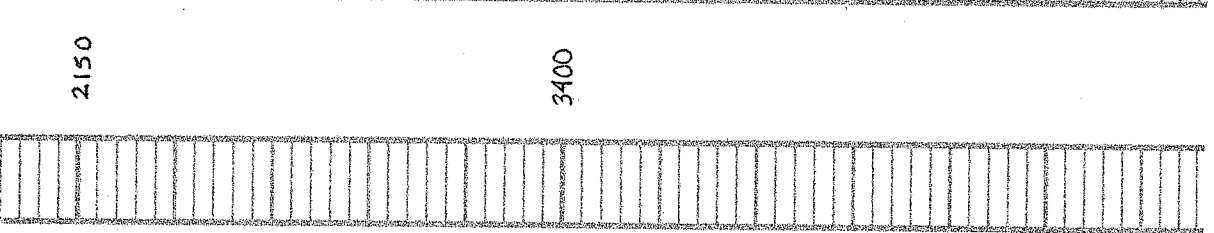
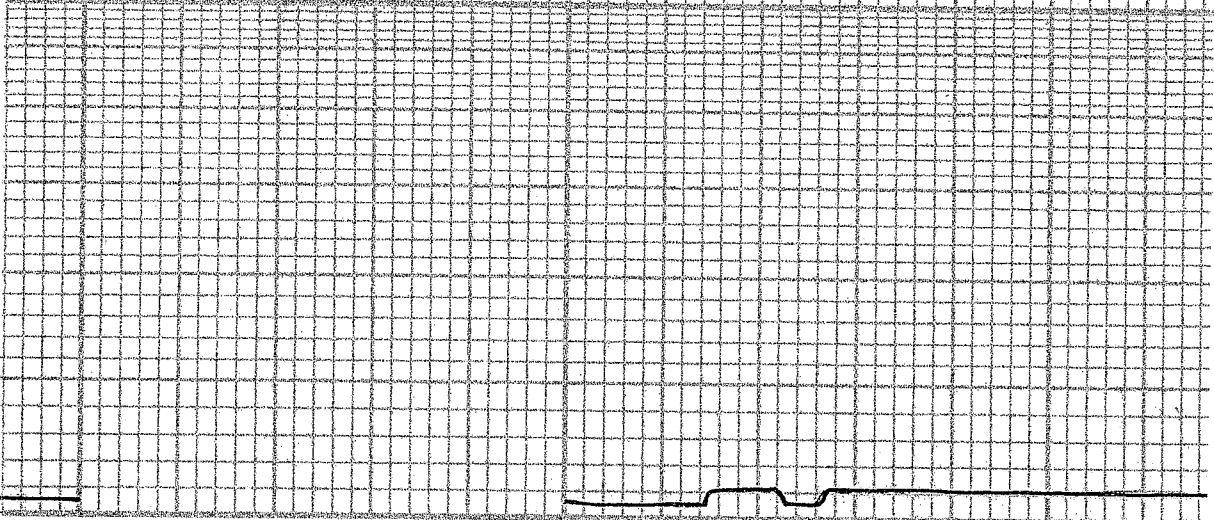
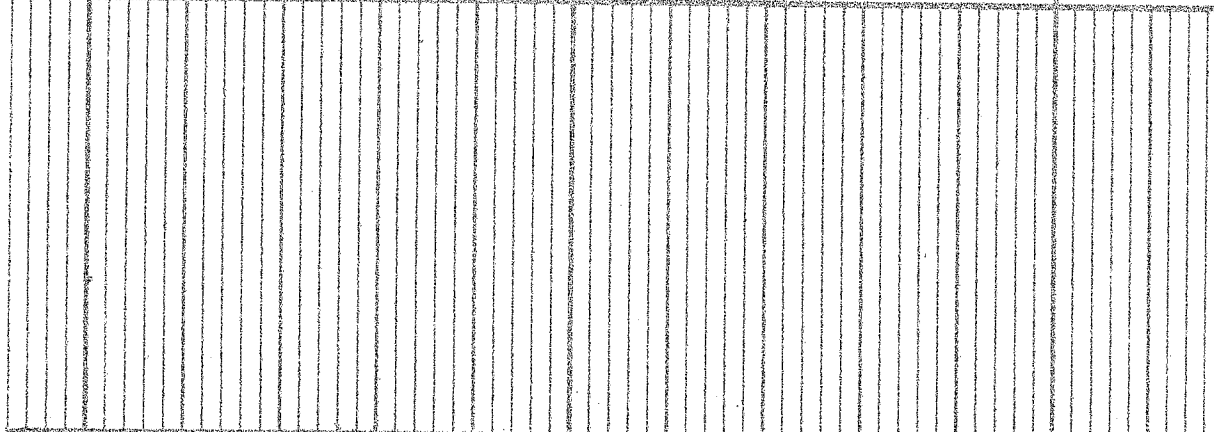
BLANK 2099 + 625

Sh. Rd. Cr. Gy. Silly

2100

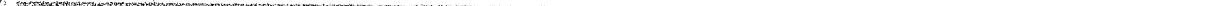
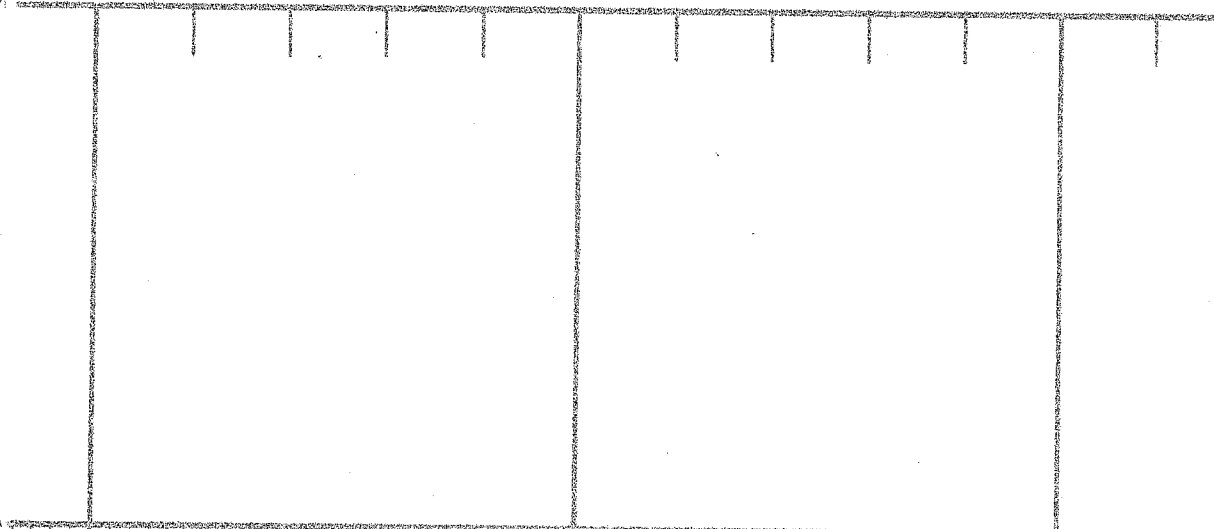


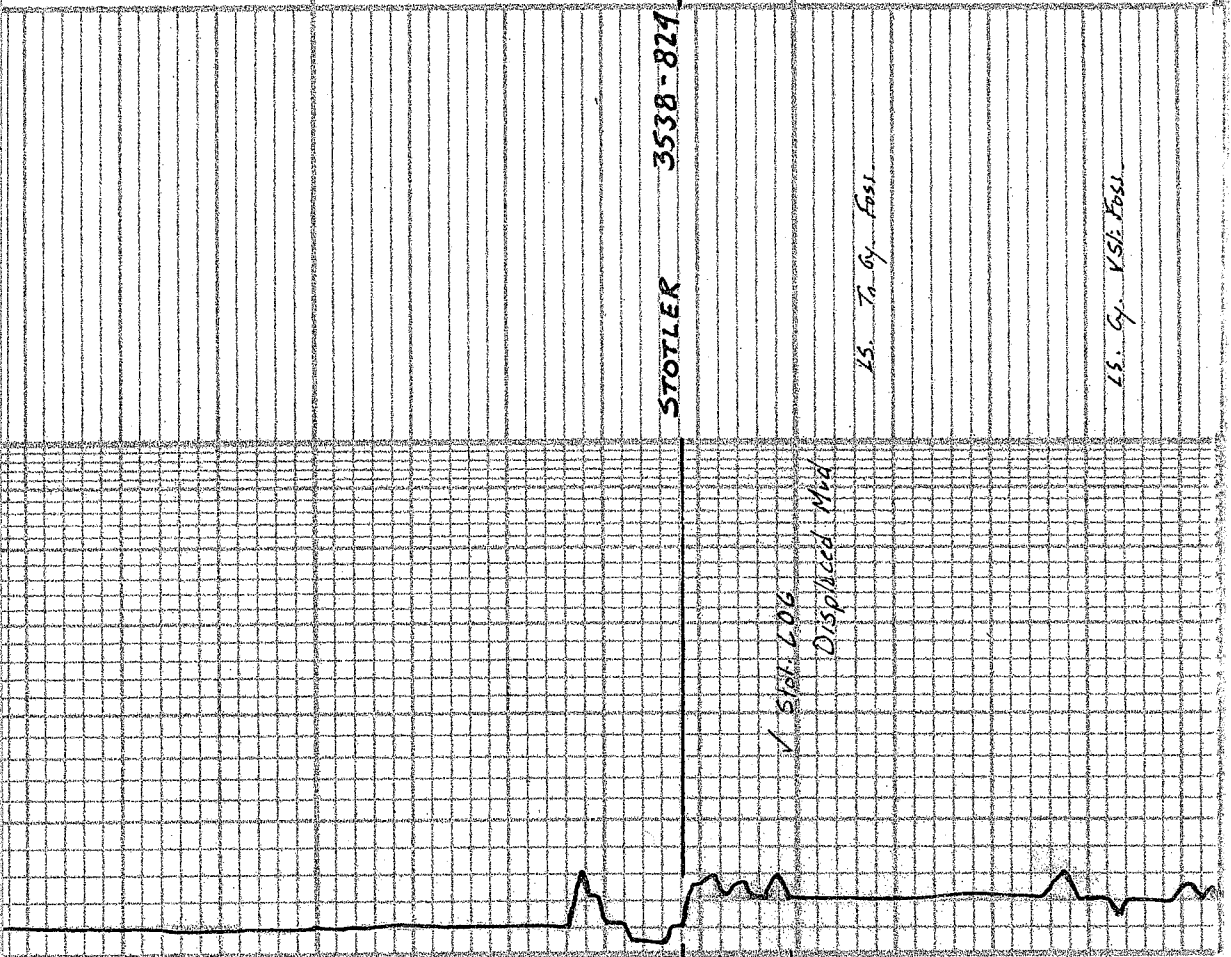
2150



2150

3400





STOTLER 3538-824

LS. 7n Gy. Fosi.

LS. Gy. VSI: Fosi.

1 Slot LOG
Displaced Mid

3500



LS. Bn. G. St. Foss.

LS. Foss. Col. Calc.

LS. calc. Foss. Col. Calc.

Sh. DEh.

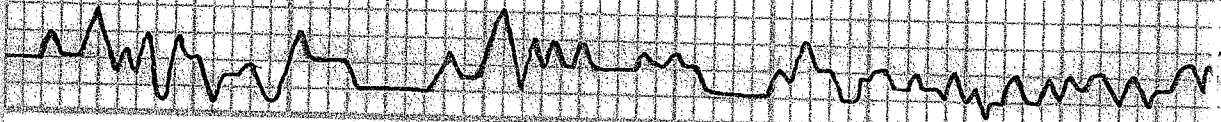
Sh. G. G.

LS. Foss. Col. Calc.

LS. Foss. Col. Calc.

LS. Foss. Col. Calc.

Sh. DEh. Calc.



3800

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
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LS. Dwell. Foxla. w/ wt. Foss.

HEEDNER 3984-1260
Sh. Blk. Conc. (1000)

Sh. Lily. bl.

LS. w/ VSI Foss. Chalk

Sh. Gy.

LANSING 4026-1302

LS. Trawl. Sh. Foss. w/od. Sli. A

A. Blch.

LS. To VSI: A
Sh. Gy. DK. G.

LI. Bl. Sli. Foss.

Sh. Lily.

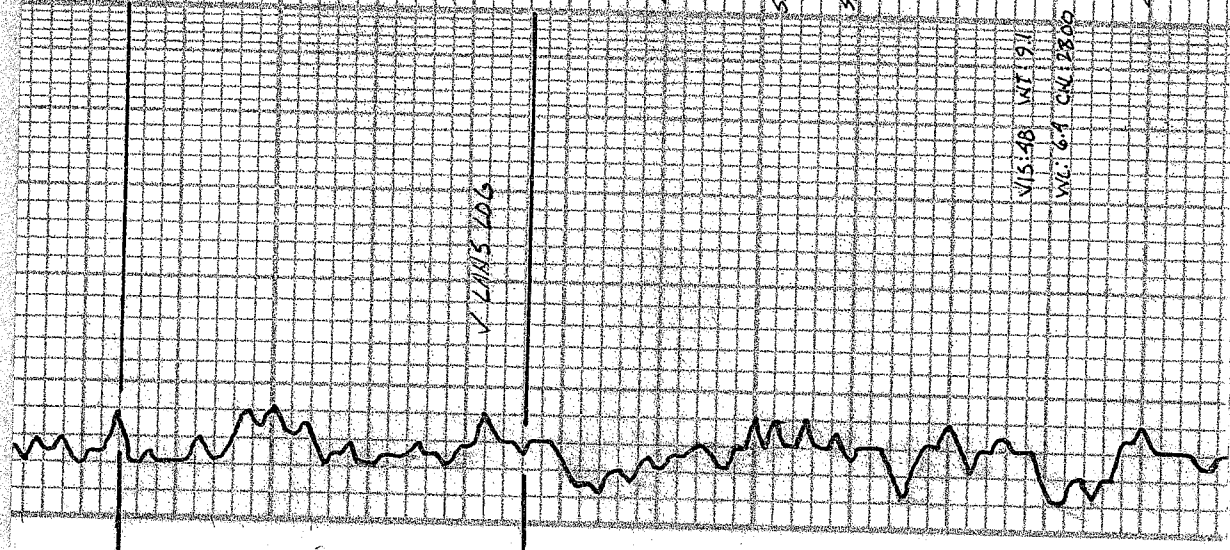
LS. Trawl. Sli. Foss. Sli. A

LS. Blch. Dnc.

LS. w/ Lily. Foss. w/od. VSI. Chalk

A. Blch.

LS. w/ VSI. Foss. VSI. Chalk



4000

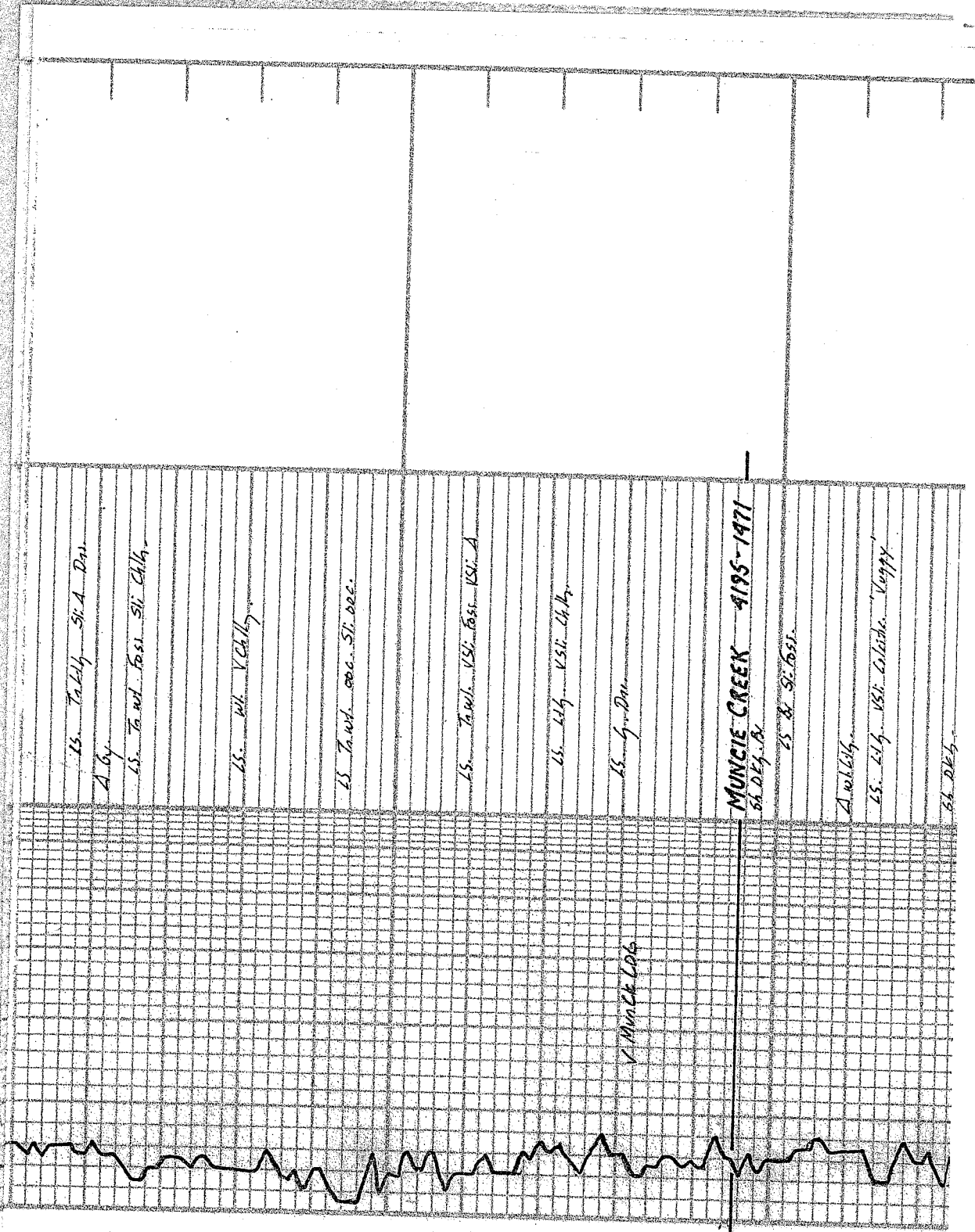
V. LANSING 106

VIS. 481 INT 921

W/L: 6.1 CAL 2800

4100

4200



ls. Tally Sil. A. Dan.
A. G.

ls. Tally. Foss. Sil. Chlg.

ls. wi. V. Chlg.

ls. Tally. sec. Sil. sec.

ls. Tally. V. Sil. Foss. V. Sil. A.

ls. Chlg. V. Sil. Chlg.

ls. G. Dan.

MUNCIE CREEK 4195-1471
Sil. sec. Sil.

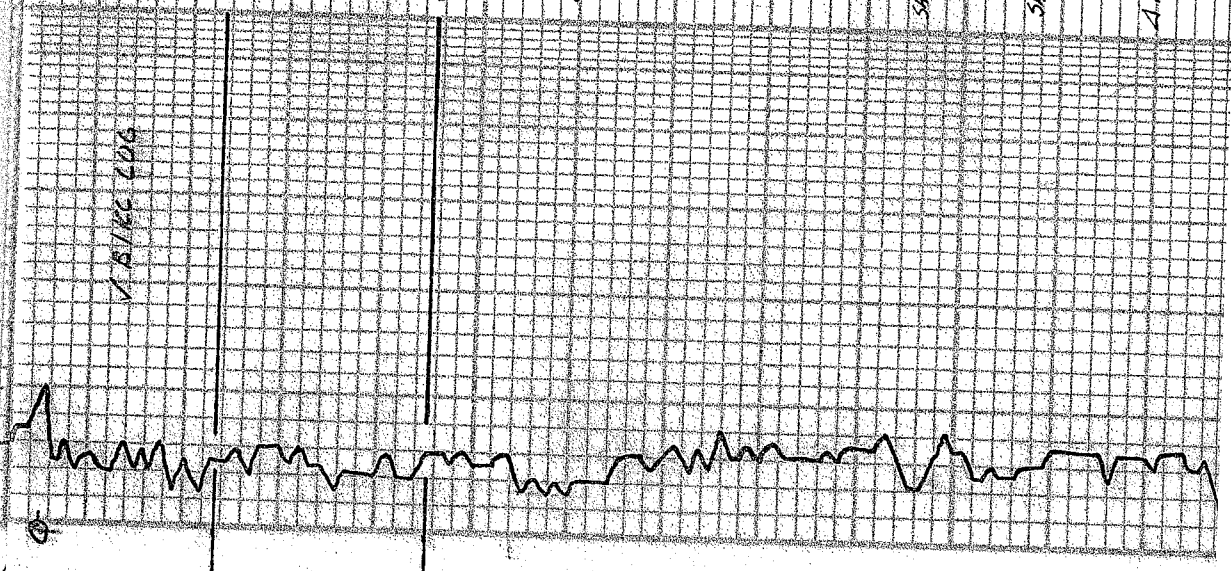
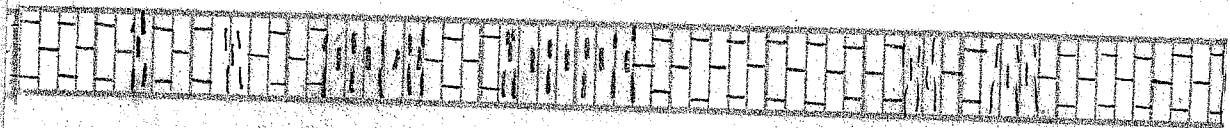
ls. & Sil. sec.

A. G.

ls. Chlg. V. Sil. Caliche. Veggy

ls. sec.

MUNCIE LOG



V/S/KC LOG

4400

LS. Mt. Lily Sil. Pass. of DE. h. Pass.

LS. Mt. Y. Sil. Pass, Calif.

O/KC 4373-1649

LS. Mt. Ta. Sil. Pass. Sh. Lily

Sh. Lily of Silby Silby

MARMATON 4395-1671

LS. Ta. h. Sil. Pass.

Sh. Red. Lily of Silby

LS. Lily Silby

LS. Ta. h. Du. Pass. Silby

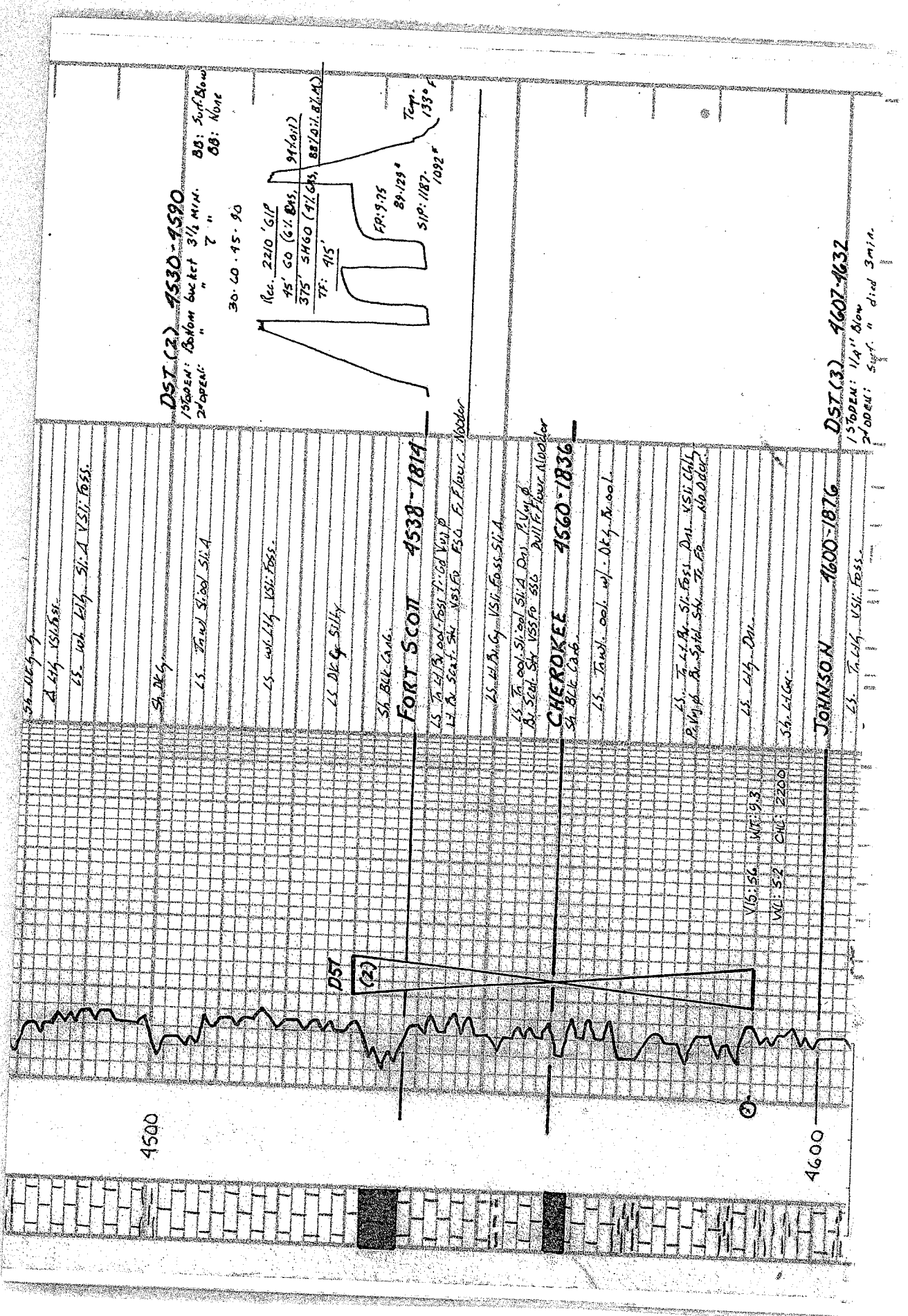
Sh. Lily

LS. Ta. h. Sil. Pass. Silby

Sh. Lily, Ca.

LS. h. Ta. Sil. A

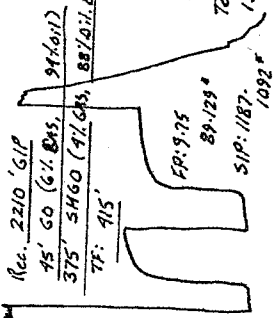
A.P.



DST (2) 4530-4590

1500psi: Bottom bucket 3 1/2 min.
 2000psi: " " 7 "
 3000psi: " " 7 "
 3000psi: " " 7 "

30. 40. 45. 90



Sh. dk. g. silty
 A. sh. silty
 ls. w. lily. sil. A. V.S.I. Foss.

Sh. dk. g.
 ls. Tan. Silty Sil. A.

ls. w. lily. V.S.I. Foss.
 ls. dk. g. silty

FORT SCOTT 4538-1814

ls. Tan. silty. Sil. A. V.S.I. Foss. D. Col. V. P.
 ls. dk. g. silty. Sil. A. V.S.I. Foss. D. Col. V. P.

ls. dk. g. silty. Sil. A. V.S.I. Foss. D. Col. V. P.
 ls. Tan. silty. Sil. A. V.S.I. Foss. D. Col. V. P.

CHEROKEE 4560-1836

ls. dk. g. silty. Sil. A. V.S.I. Foss. D. Col. V. P.
 ls. Tan. silty. Sil. A. V.S.I. Foss. D. Col. V. P.

ls. dk. g. silty. Sil. A. V.S.I. Foss. D. Col. V. P.
 ls. Tan. silty. Sil. A. V.S.I. Foss. D. Col. V. P.

ls. dk. g. silty. Sil. A. V.S.I. Foss. D. Col. V. P.
 ls. Tan. silty. Sil. A. V.S.I. Foss. D. Col. V. P.

JOHNSON 4600-1876

ls. Tan. silty. Sil. A. V.S.I. Foss. D. Col. V. P.
 ls. dk. g. silty. Sil. A. V.S.I. Foss. D. Col. V. P.

DST (3) 4607-4632

1500psi: 1 1/4" blow
 2000psi: 5 1/2" n. d. 3 min.

