

KIM B. SHOEMAKER

CONSULTING GEOLOGIST

316-884-9709 * WICHITA, KS

GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

COMPANY RAYMOND OIL COMPANY, INC.

LEASE # 1 AFI-BISCHOPING UNIT

FIELD CELIA

LOCATION 2665' FNL $\frac{1}{2}$ 1920' FEL

SEC 19 TWP 3S RGE 36W

COUNTY RAWLINS STATE KANSAS

CONTRACTOR L.D. DRILLING, INC.

SPUD 8-18-14 COMP 8-29-14

RTD 5015 LTD 5016

MUD UP 3600 TYPE MUD CHEMICAL

ELEVATIONS

KB 3364

DF _____

GL 3359

Measurements Are All From 3364 KB

CASING

SURFACE 8 5/8" @ 385'

PRODUCTION 4 1/2" @ 4850'

ELECTRICAL SURVEYS

DUAL IND., DENS-N., MICRO

SAMPLES SAVED FROM _____ 3700 TO 5015

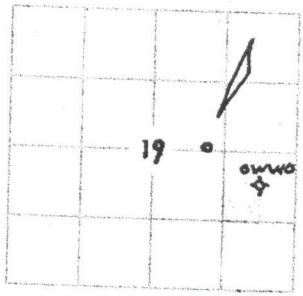
DRILLING TIME KEPT FROM _____ 3700 TO 5015

SAMPLES EXAMINED FROM _____ 3700 TO 5015

GEOLOGICAL SUPERVISION FROM _____ 4000 TO 5015

GEOLOGIST ON WELL KIM B. SHOEMAKER



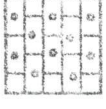
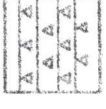
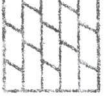
FORMATION TOPS	LOG	SAMPLES
ANHYDRITE	3178 + 186	3172 + 192
B/ANL.	3210 + 154	3212 + 152
HEEBNER	4221 - 857	4221 - 857
LANSING	4272 - 908	4272 - 908
B/KC	4540 - 1176	4546 - 1182
PAWNEE	4667 - 1303	4668 - 1304
FORT SCOTT	4721 - 1357	4726 - 1362
CHEROKEE	4740 - 1376	4743 - 1379
MISSISSIPPI	4946 - 1582	4944 - 1580



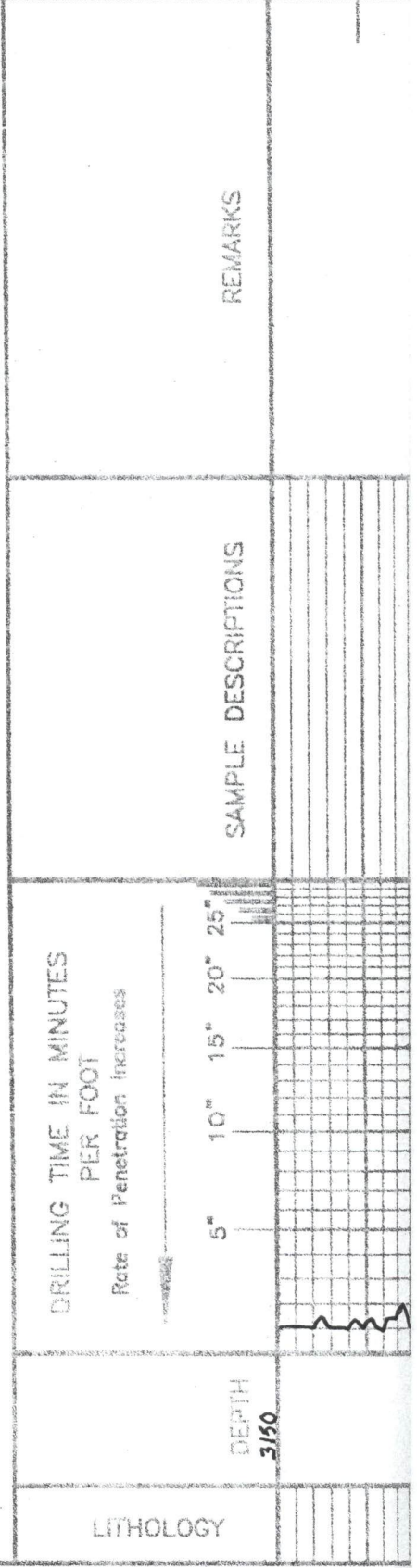
REMARKS	
8-18 @ 388'	SPUD
8-19 @ 1650'	
8-20 @ 2920'	
8-21 @ 3655'	
8-23 @ 4120'	
8-24 @ 4290'	
8-25 @ 4490'	
8-26 @ 4685'	
8-27 @ 4790'	
8-28 @ 4960'	
8-29 @ 5015'	

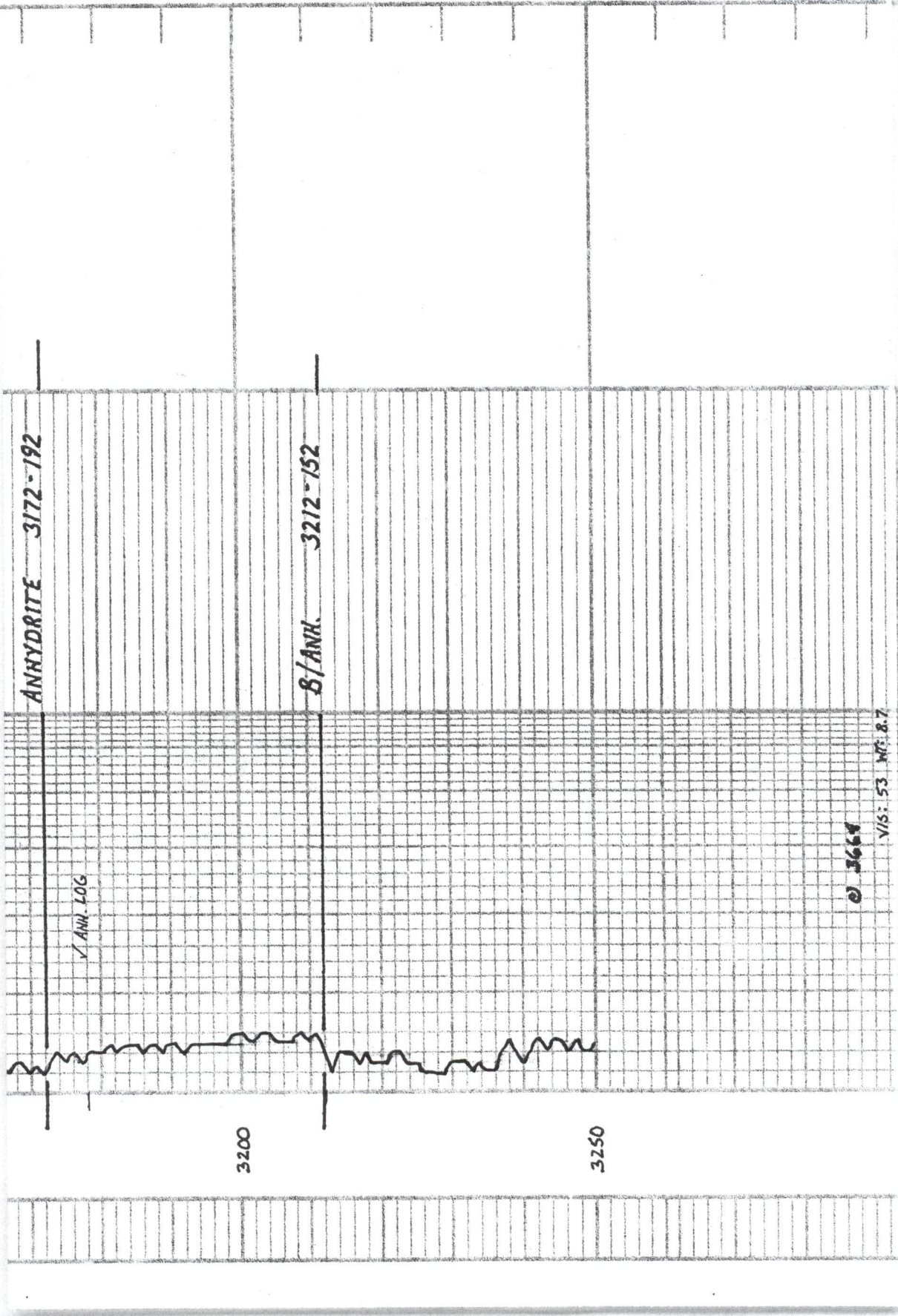
API: 15-153-21038

LEGEND

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

SHOE 01-11





ANHYDRITE 3172-192

B/ANH. 3212-152

✓ ANH. LOG

3200

3250

3614

V/S: 53 NO. 8.7

WL: 6.9
CWL: 1400

3700

3800

Samples are lagged

Sh. Rd. Sdy.

ls. wt. chly. ls. cas. Das

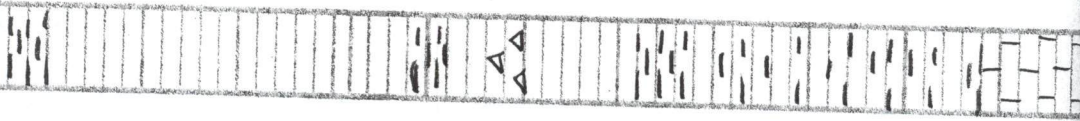
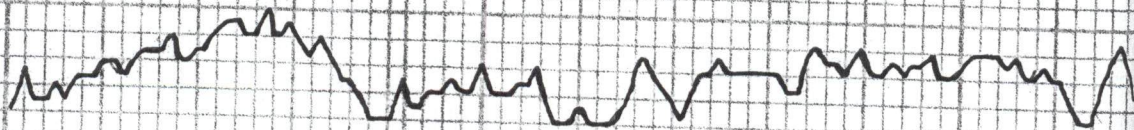
Sh. chly.

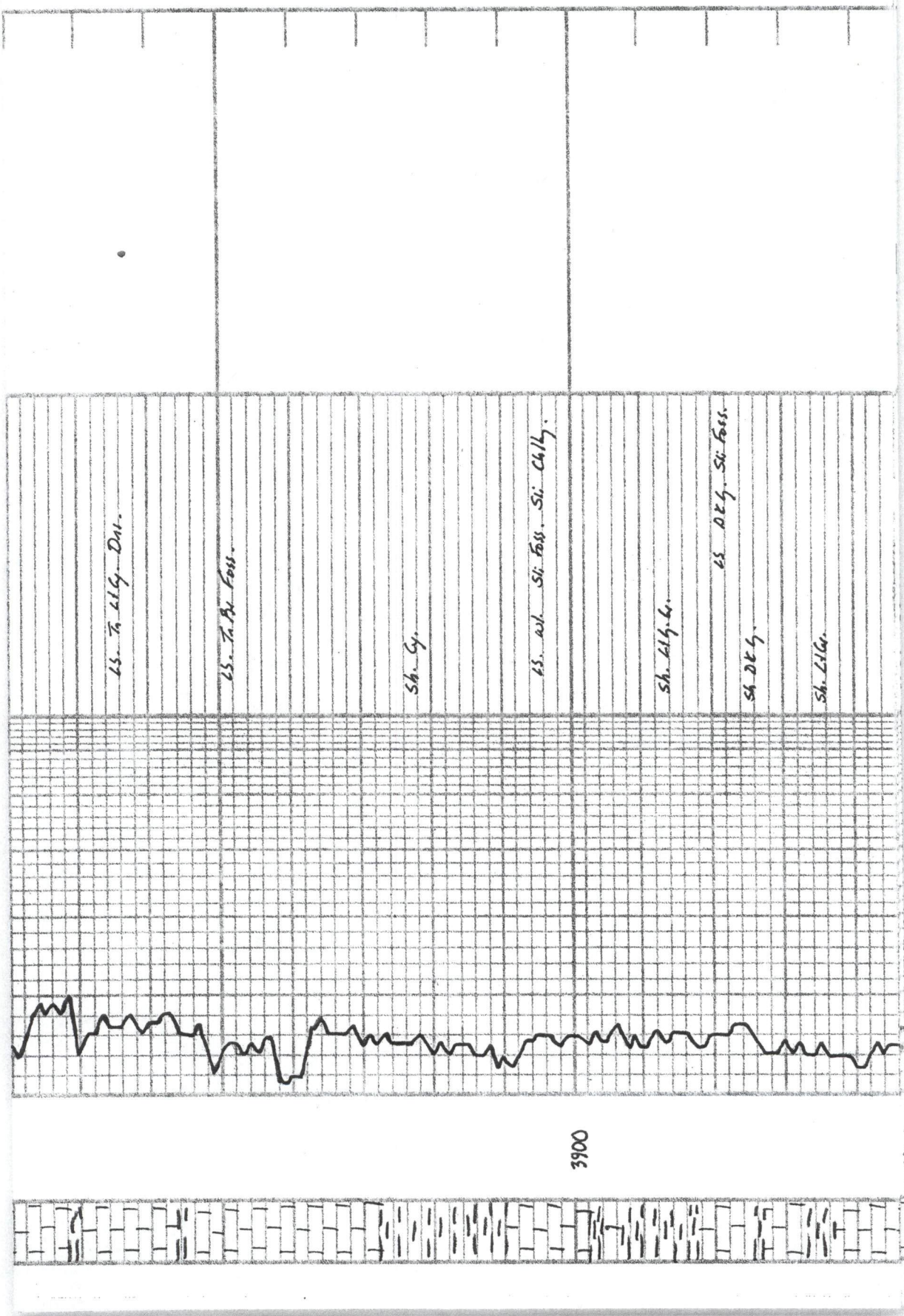
A Orange

Sh. Rd. Br. Sdy.

Sh. Rd. Sdy.

ls. in foss.





ls. T. Alg. Dal.

ls. T. Al. Foss.

Sh. Gy.

ls. w. Si. Foss. Si. Chly.

Sh. Alg. G.

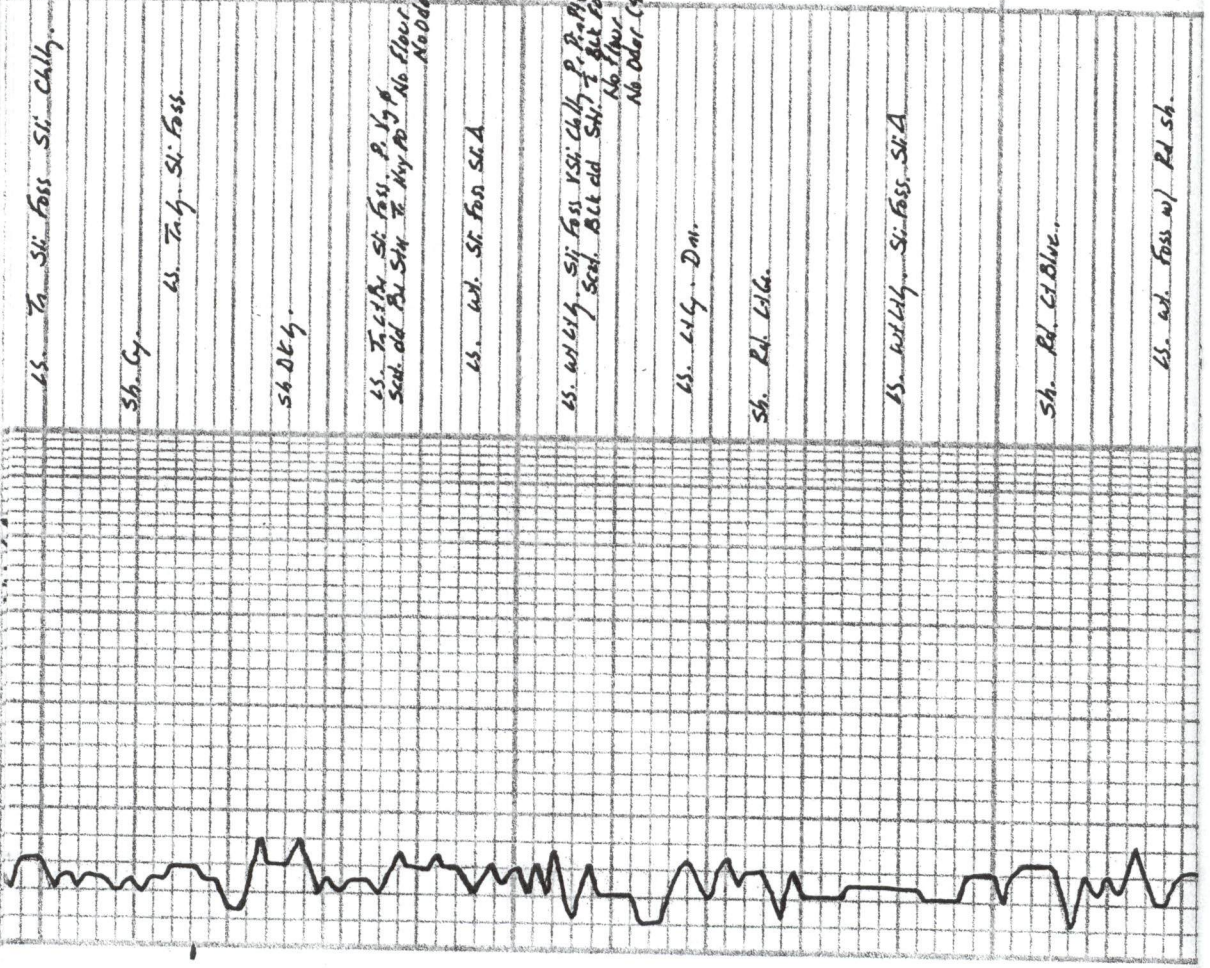
ls. Alg. Si. Foss.

Sh. Alg.

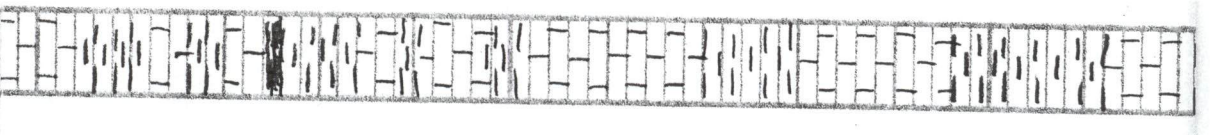
Sh. L. G.

3900





4000



ls. Ta. Sl. Foss. Sl. Chlg.

Sh. Gy.

ls. Ta. Sl. Foss.

Sh. DEG.

ls. Ta. Sl. Foss. Sl. Chlg. P. J. J. P. No. Flour (4000) No. Flour No. Flour

ls. wt. Sl. Foss. Sl. A

ls. wt. Sl. Foss. Sl. Chlg. P. J. J. P. No. Flour (4000) No. Flour No. Flour

ls. Chlg. - Dm.

Sh. Rd. L. G.

ls. wt. Sl. Foss. Sl. A

Sh. Rd. Sl. Blue.

ls. wt. Foss. w/ Rd. Sh.

Sa. Est.

ls. to sh. ool. sil. A

sh. blue gy

ls. w. sil. chly.

sh. blue sil. shly

ls. w. foss. calcite.

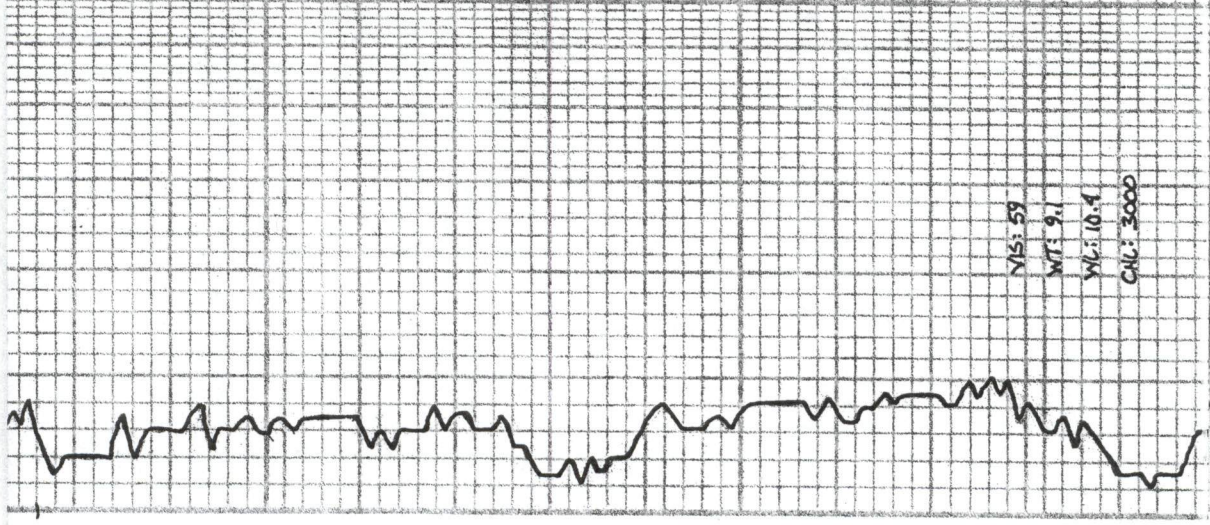
ls. blue. Dm.

ls. gy blue. Dm.

sh. blue.

sh. blue

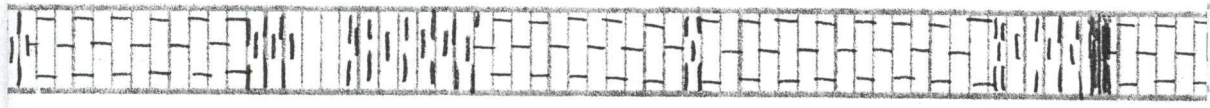
ls. w. gy. foss. w. sil. calcite.



NIS: 59
 WTS: 9.1
 YAL: 10.4
 CAL: 3000

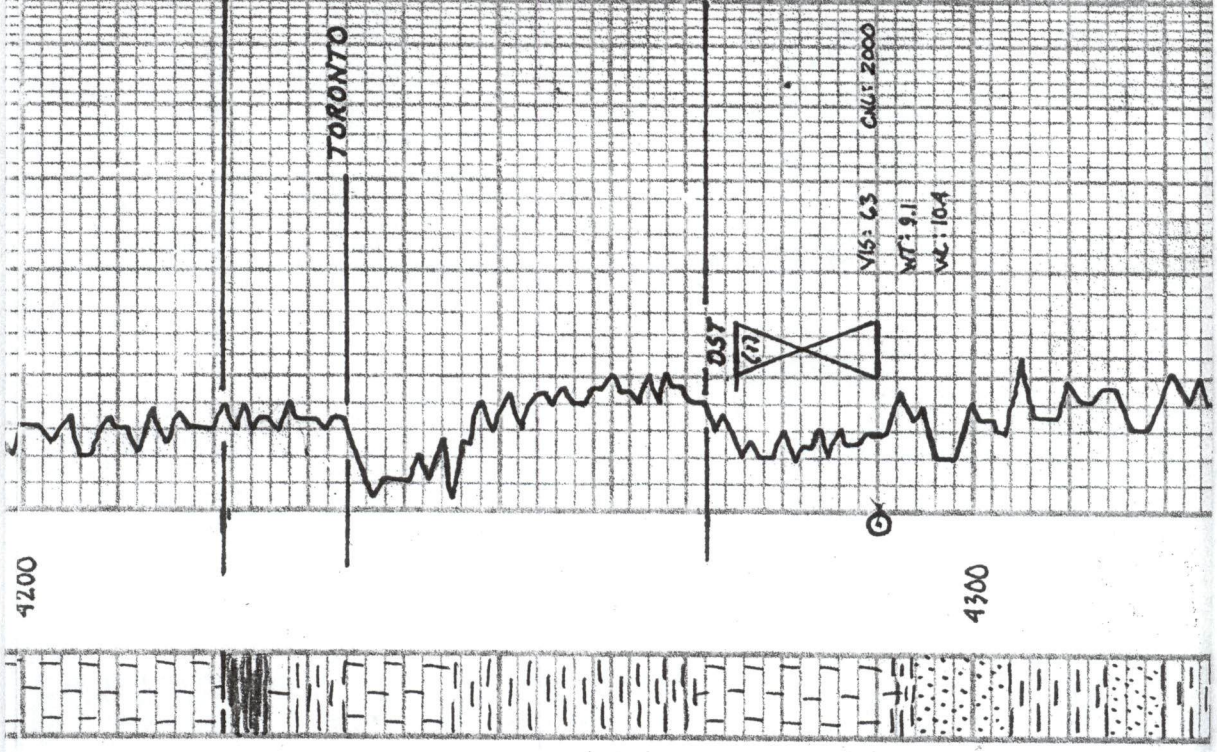
Top.

4100



4200

4300



ls. Tan SilA

HEEBNER 4221-857

Sh. DK Gy.

ls. Tan SilA

Sh. Gy.

ls. wt. Foss SilA

Sh. Lt. Blue-Gy.

Sh. Lt.

LANSING 4272-908

ls. wt. Sil. St. Foss SilA P. Yopp
Sect. DK. Bl. Sil. SS. Foss No. Odor
(4290)

ls. Tan wt. Sil. Foss SilA P. Yopp
Sect. DK. Bl. Sil. St. Foss No. Odor
(4290, 30)

Sd. Silty Tan. Lt. Sub. Rd. Fr. Sordid.

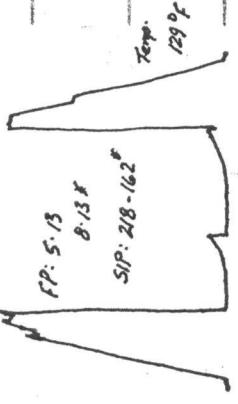
Sh. Lt. Blue-Sky loose Silty Pyrite

Sd. Lt. Lt. Blue Tan. Lt. Sub. Rd.

DST (1) 4275-4290

1500EN: 44" Blow
2100EN: Surface Blow died 3 min.
30-60-45-75

Re. 1' Head w/ Slings Over



Temp. 129° F

ls. wt. Sl. Foss. Sl. A. P. l. y. d.
Sch. DE. A. - B. L. K. S. M. - S. S. F. D. No. Fly. d.
No. 0.0 dm
(9390)

ls. wt. Fly. Y. S. I. Foss. Y. S. I. Ch. l. l. y.

Sh. Fly.

ls. Fly. Sl. Foss. P. l. y. d.
T. B. K. A. - B. L. K. S. M. - T. B. No. Fly. d.
No. 0.0 dm
(9390)

Sh. DE. l. - G. I. B. l. a.

ls. T. wt.ool. Sl. A.

ls. wt. ch. l. y.

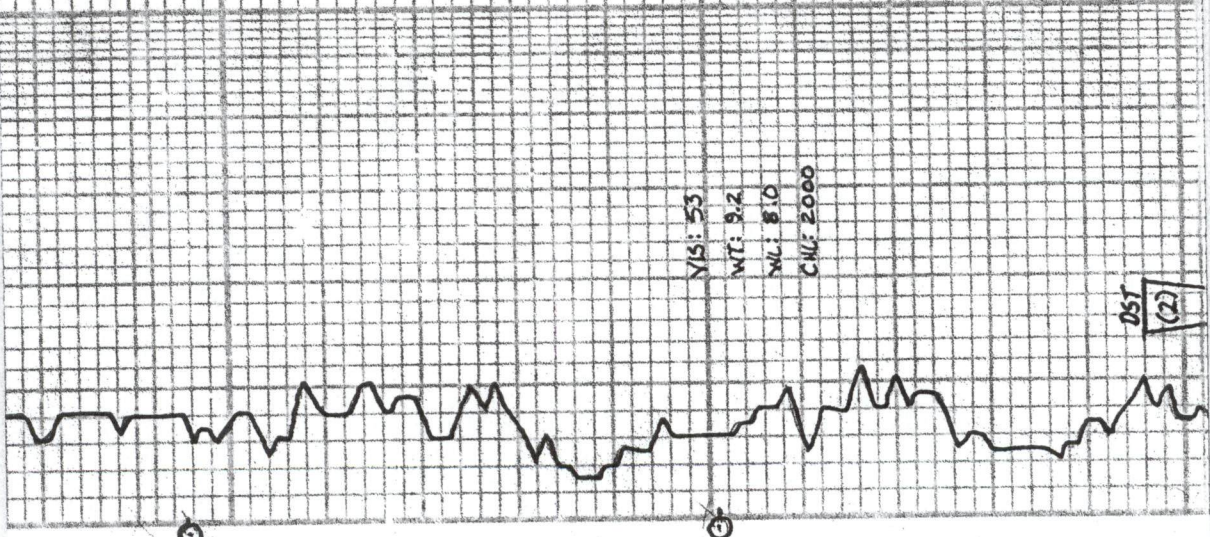
Sh. B. l. e.

Sh. G. y.

ls. T. l. l. R. - Sl. Foss. - Sl. A.

ls. Fly. D. M.

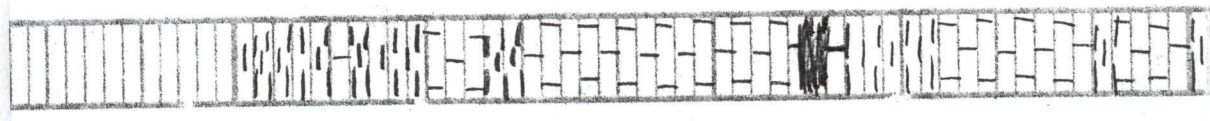
DST (2) 9996-9990
150 psi 1/2" dia.



YIS: 53
WT: 9.2
NL: 8.0
CHL: 2000

4400

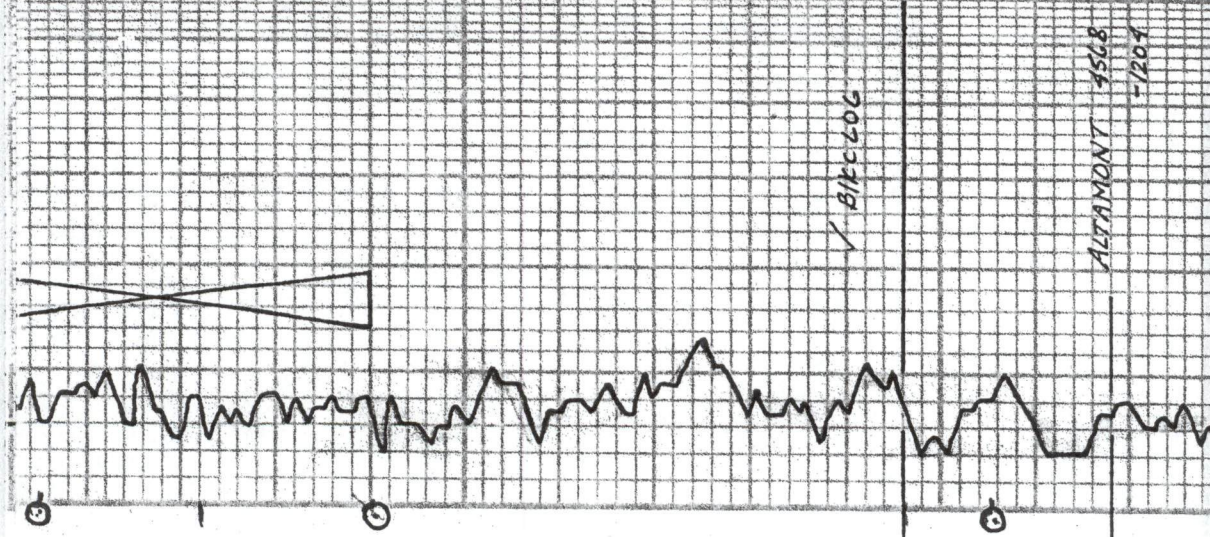
DST
(2)



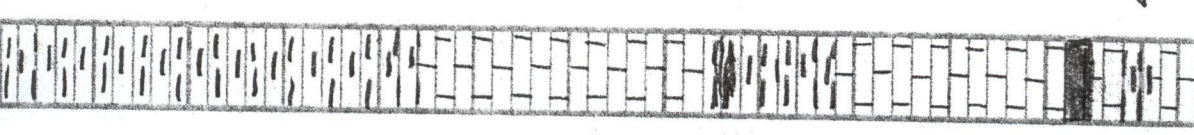
Paper: No Blow
30-60-85-75
Rec. 1' Mid

F-Recorders failed, No Data.

Sh. Live - Sky
Sh. Bl. G.
LS. To Bl. Sh. Foss. P. Prod Pip. Lt. Bl. Bl. Sk. / Sh. 55' to Div. Flow No. Data (9980)
LS. w/ Sh. Foss. Sh. Ch. / DE. R. Bl. Sk. To Bl. No. Flow No. Data
Sh. G. Bl.
LS. w/ Sh. Foss. Sh. Ch. /
Sh. DE. G.
LS. w/ Foss. Sh. A. Sh. Col. /
Sh. G. Bl.
LS. To w/ XSh. Foss. Sh. Ch. /
Bl. K. 4546-1182
LS. To Bl. w/ Sh. A.
Sh. Bl. G.
LS. To Bl. w/ Col. / Sh. A.



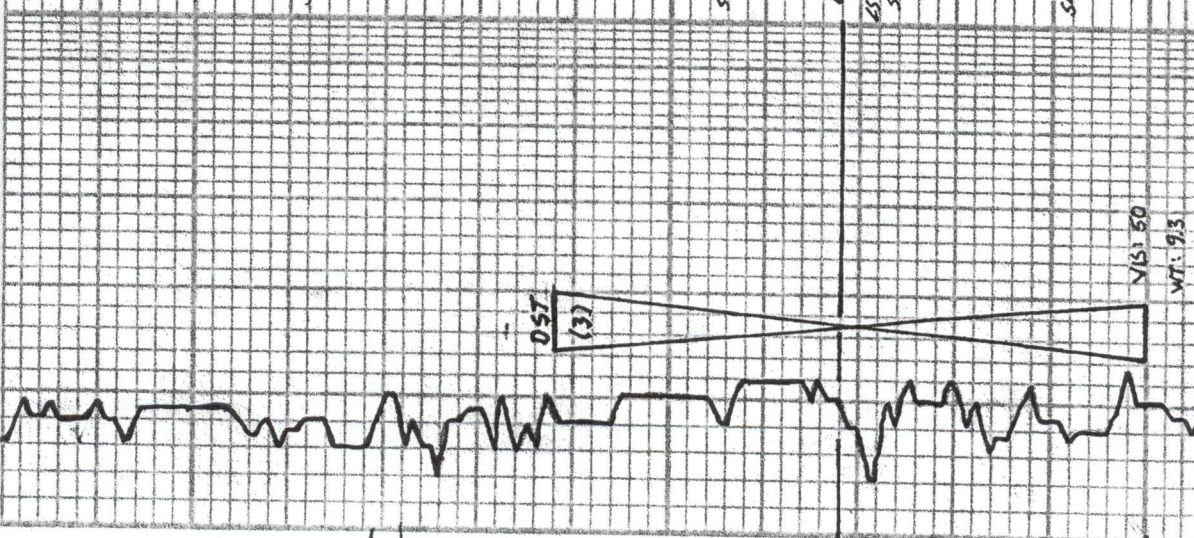
4500



4600



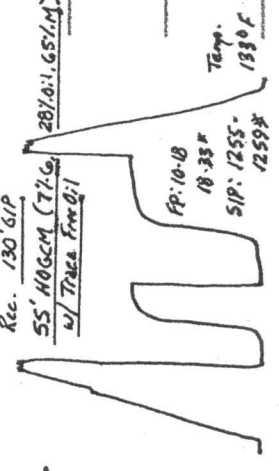
4700



Vis: 50
WT: 9.13

Sh. Gy. Bl. A. Orange
Sh. Bl. G.
Sh. Bl. Purple.
G.S. Gy. w/ Bl. Sh. streak
G.S. Gy. Silty.
Sh. DE G. BLT
Sh. G.S.
PANNEE 4668-7304
G.S. w/ L.L. Sil. For. V.S.I. 444. F. 7.2. Gyp
Sak. Bl. Sil. S.S.E.
Dol. Flour. No. 0.04
(98800)
G.S. Tally. Sil. A.
G.S. Bl. G. V.S.I. For.
Sh. Blt.
G.S. A. DE Bl. Sil. For.

DST (3) 4638-4700
1-50 PSI: Blow built to 9"
2-0 PSI: 1" Blow died, flushed tool, west surge
30-60-95-90
Rec. 130' GIP
55' HOGCM (7 1/2 G. 28% oil, 65% M)
w/ Trace Free Oil
FP: 10-18
18.33°
SIP: 1255-1259#
Temp. 1330 F
Tool Sample: 2 1/2 G. 38% oil, 65% M



MISSISSIPPI 4944-1580

Shy Sh Rd. P. 1/2

Sh. 8 in 3/4. Ad. Co. Va. Co. 36 Rd. P. 1/2

Sh. 8 in 3/4.

Shy 8 in 3/4. Ad. Co. Va. Co. 36 Rd. P. 1/2

Sh. DE G. G.

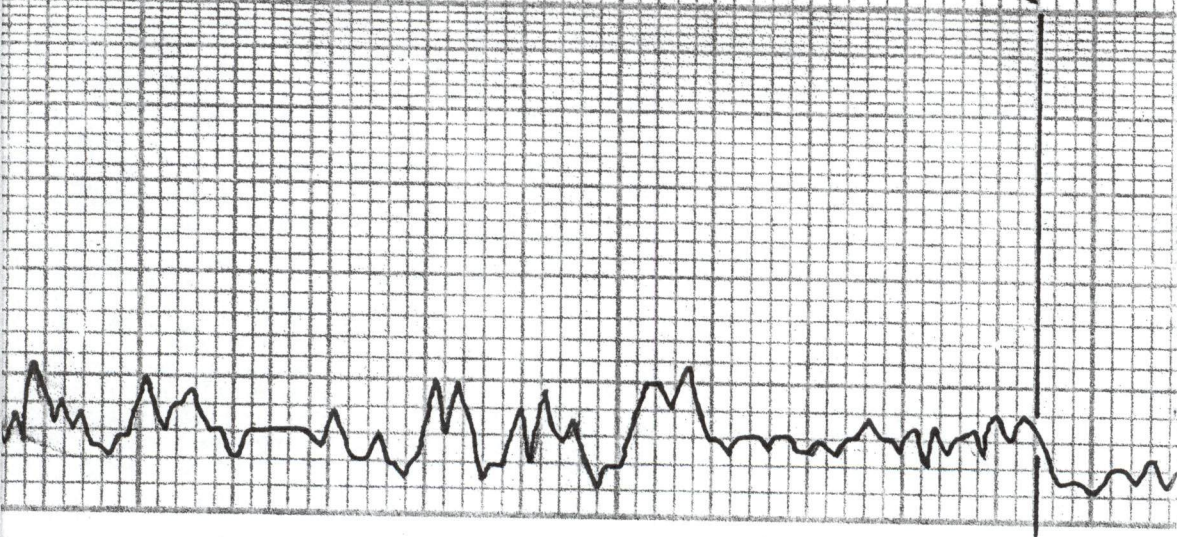
Sh. DE G. G.

Sh. DE G. G.

Sh. DE G. G.

MISSISSIPPI 4944-1580

Sh. DE G. G.



4900



