

GEOLOGICAL REPORT

DRILLING TIME

S.D. ANGLE - COPYRIGHT 2010

SAMPLE LOG

COMPANY Russell Oil Inc.
 LEASE McDaniel "N" Unit
 WELL NO. 1
 LOCATION 2090'F3h + 2640'F4h
 SEC 28 TWN 155 RNG 34W
 COUNTY LOGAN STATE KANSAS
 POOL McDaniel (extension)
 API NO. 15-109-20942-00-00

ELEVATIONS
 KB 3029'
 DF —
 GL 3018'
 MEASUREMENT FROM
Kelly Bushing
 PIPE STRAP @ 4000'
.79' long to
Board.

CONTRACTOR H2 - Rig #2
 COMMENCED October 5, 2010
 COMPLETED October 16, 2010
 RTD 4800'
 MUD Mud-Co, Inc. Chemical
 SAMPLES FROM 3400' TO 4800'
 DRILLING TIME FROM 3400' TO 4800'
 SUPERVISION FROM 3400' TO 4800'
 GEOLOGIST STEVEN D. ANGLE

CASING RECORD
 SURFACE New 8 5/8"
23' set @ 225' w/
165sx com + 370cc
270 Gal. CDC/surf.
 PRODUCTION NONE
DRY Hole -
Plugged + Abandoned

REMARKS _____

All formation tops, zones of interest, porosity, shows and sample time lag are based from the top of Kelly Bushing measurements. Any corrections in measurements during the drilling of this well have been incorporated into this report.

ORIGINAL
 COPY

Sincerely,

Steven D. Angle
 WBC

FORMATION TOPS

DATUM ELEVATION 3029 KB

FORMATION	SAMPLE	E LOG	DATUM	WELL A	WELL B
Anhydrite	2374'	2372'	+ 657		
Base/Anhydrite	2393'	2391'	+ 638		
TOPCKA		3633'	- 615		
Heebner		3866'	- 848		
Toronto		3882'	- 864		
LANSING/KC		3907'	- 889		
STARK shale		4189'	-1171		
Base/KC		4291'	-1273		
MARMATON		4319'	-1301		
PAWNEE		4396'	-1378		
MYRIC STATION		4432'	-1414		
FORT SCOTT		4450'	-1432		
Cherokee shale		4476'	-1458		
ATOKA lime		4553'	-1524		
MORROW SAND		4582'	-1553		
MISSISSIPPI		4668'	-1639		
Rotary Total Depth		4800'	-1771		
LOG TOTAL Depth		4803'	-1774		

CORRELATION WELLS

DAILY PENETRATION

DEPTH	@	TIME	ON	DATE
UNDER surface		4:15 A.M.		10-5-10
1240'		7:00 A.M.		10-6-10
2486'		7:00 A.M.		10-7-10
3275'		7:00 A.M.		10-8-10
3805'		7:00 A.M.		10-9-10
4000'		7:00 A.M.		10-10-10
4190'		7:00 A.M.		10-11-10
4326'		7:00 A.M.		10-12-10
4435'		7:00 A.M.		10-13-10
4540'		7:00 A.M.		10-14-10
4640'		7:00 A.M.		10-15-10
4800'		8:55 P.M.		10-15-10

MUD RECORD

DEPTH	TYPE & AMOUNTS
Surface	65 sx Gel, 4 sx lime, 20 sx hulls.
2190'	75 sx Gel, 10 sx hulls.
3090'	85 sx Gel, 2 sx lime, 6 sx Soda Ash, 4 sx lignite
—	4 sx Caustic Soda, 2 sx Dris Pac, 24 sx hulls.
3625'	100 sx Gel, 8 sx Soda Ash, 5 sx caustic Soda,
—	5 sx lignite, 2 1/2 sx Dris Pac, 14 sx hulls.
4214'	10 sx Gel.
4482'	3 sx Gel, 1/2 sx lignite, 1 sx caustic Soda.
4520'	35 sx Gel, 3 sx Soda Ash, 2 sx caustic Soda,
—	2 sx Dris Pac, 2 sx lignite, 5 sx hulls.
4800'	15 sx Gel, 1 sx Soda Ash, 1 sx caustic Soda,
—	10 sx hulls.

DRILLING INFORMATION

DRILLING CONTR: H2 Drilling Inc. Rig #2
 RIG PHONE: 620-290-6399
 TOOL PUSHER STEVE Craig
 PHONE: 620-770-2214
 DRILLERS - DAYLIGHT TOUR: Richard Rickens
 EVENING TOUR: Daniel Meredith
 MORNING TOUR: KIVEN Connelson
 SPUD DATE 10-5-2010 DATE OF RTD: 10-15-2010
 SITE DIRECTIONS: West of Pence, Ks to 25th Road,
North approx 5 mile to Bison Rd, East 1 1/2 North IN
 SURFACE PIPE: New 8 5/8", 23' set @ 225' w/
165 sx cement + 37 cc, 290 Gal. Dil CIR to surface.
 WELL STATUS: DRY Hole - Plugged & Abandoned
 PRODUCTION CASING: NONE

DRILLING MUD CONTR: MUD-CO, INC. ENGINEER:
Reid Atkins - Ph. 785-694-3741
 DRILL STEM TESTING: Trilebite - Engineer - Harley Davidson
TEST #1, Shane McBride: TEST #2 785-623-1451
 CEMENTING: Allied Cementing - Surface Pipe

ELECTRIC LOGGING: ADG-Tech, Engineers: C. Desaire,
LOGS: Dual Induction, Microresistivity, Dual
Compensated Porosity.
Hydrocarbon Detection + Well Supervision:
ENGINEER: Kevin J. Bailey

BIT RECORD

NO.	PURPOSE	SIZE	MAKE	TYPE	IN	OUT	JETS	PUMP
1	Surface	12 1/4"	Varel	Conv.	0	230'		
1	Bore	7 7/8"	Varel	Heilmann	230'	4800'		1000 th

0. 1 INTERVAL 3736' TO 4000' TYPE Anchor 64' TIMES 5 - 60-60-60
Good Blow building to 7", 5T No Blow Back. 2nd Good Blow
Building to B.O.B in 8 minutes, 5T, No blow back.
940' MUD CUT WATER.

46 - 127 SIF/SFF 136 - 438 IS/FSI 1184 - 1154 IH/FH 1899 - 1844 Temp: 117°F

0. 2 INTERVAL 4130' TO 4190' TYPE Anchor 60' TIMES 5 - 60-60-60
Built to 9 1/2" blow, 5T, No blow back. 2nd - B.O.B in 7 min.
No Blow Back.
140' WATER CUT MUD (50% WATER), 186' MVA CUT WATER (80% WATER),
744' WATER (100% WATER).

57 - 158 SIF/SFF 181 - 499 IS/FSI 1236 - 1119 IH/FH 2009 - 1957 Temp: 119°F

0. 3 INTERVAL 4288 TO 4395 TYPE Anchor 107' TIMES 5 - 60-15-30
1/4" at open chisel back to weak surface blow. 5T, No return.
Surface blow - chisel in 3 minutes, 5T - No return.
3' MUD.

22 - 23 SIF/SFF 25 - 26 IS/FSI 789 - 532 IH/FH 2114 - 2057 Temp: 119°F

0. 4 INTERVAL 4430' TO 4482 TYPE Anchor 32' TIMES 5 - 60-15-30
Weak blow chisel in 4 minutes, 5T, No return. 2nd No Blow.
5T. No return
3' MUD with oil spots.

20 - 22 SIF/SFF 26 - 29 IS/FSI 871 - 635 IH/FH 2282 - 2221 Temp: 119°F

0. 5 INTERVAL 4476' TO 4560' TYPE Anchor 84' TIMES 5 - 60-60-60
1 inch Blow, 5T. No return. 2nd - Built to 5 inch blow.
5T. No return.
62' of slightly gassy oil cut mud, 62' gassy oil cut mud.

27 - 35 SIF/SFF 48 - 67 IS/FSI 1233 - 916 IH/FH 2221 - 2191 Temp: 117°F

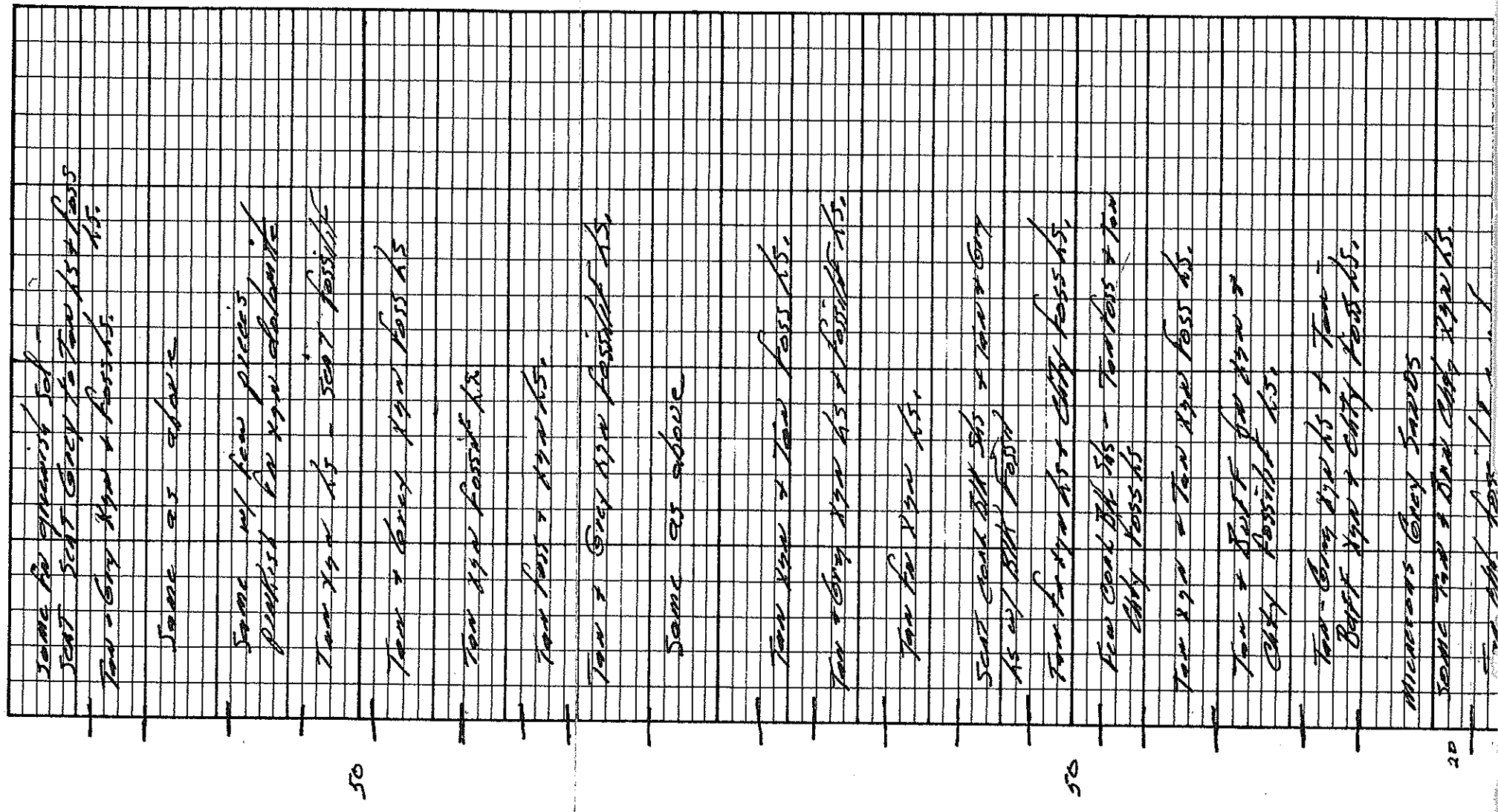
0. N/A INTERVAL TO TYPE TIMES

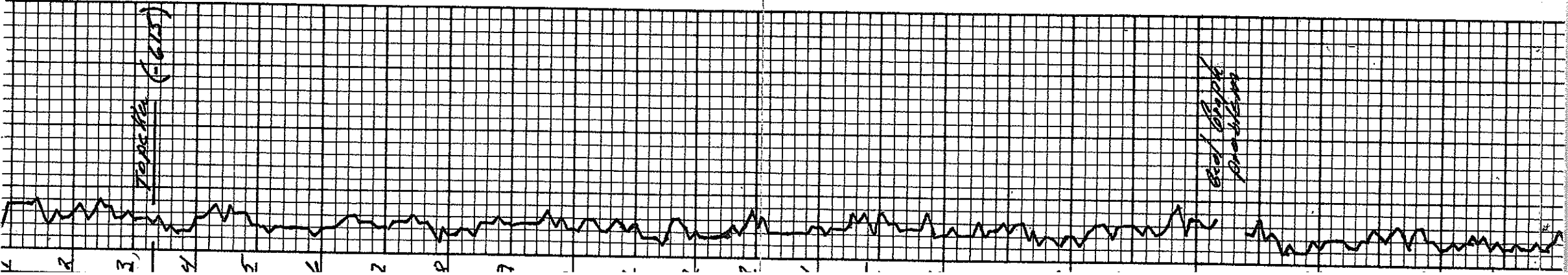
- END -

SIF/SFF IS/FSI IH/FH Temp:

LEGEND

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





TOAST (6.15)

Red Graph
Production

10	100 - 700 - 1000
	Mercedes Sprint
	Same as above
20	100 - 1000 - 1000
	100 - 1000 - 1000
	100 - 1000 - 1000
	100 - 1000 - 1000
	100 - 1000 - 1000
30	100 - 1000 - 1000
	100 - 1000 - 1000
40	100 - 1000 - 1000
	100 - 1000 - 1000
50	100 - 1000 - 1000
	100 - 1000 - 1000
60	100 - 1000 - 1000
	100 - 1000 - 1000
70	100 - 1000 - 1000
	100 - 1000 - 1000
80	100 - 1000 - 1000
	100 - 1000 - 1000
90	100 - 1000 - 1000
	100 - 1000 - 1000
100	100 - 1000 - 1000
	100 - 1000 - 1000

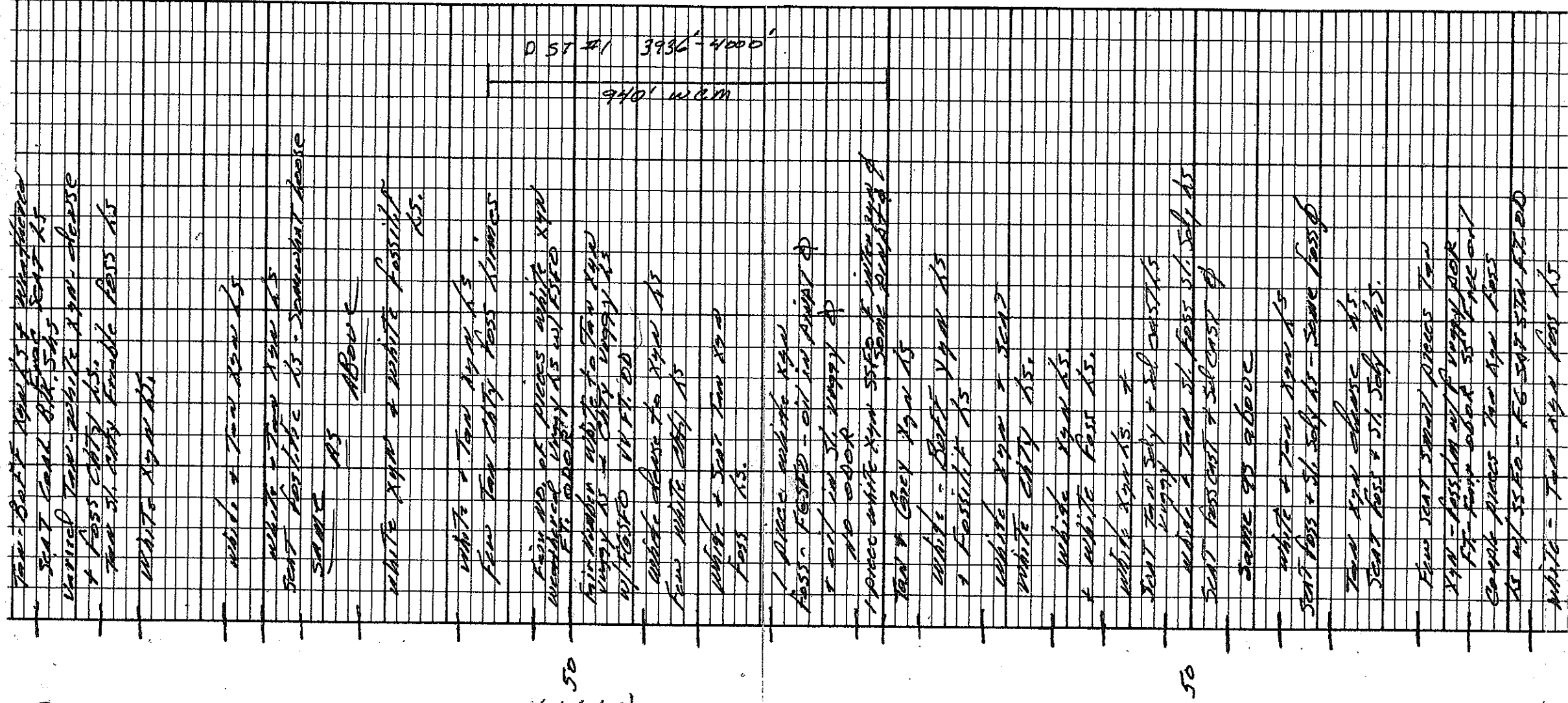
Hebner (868)

Toronto (864)

W.C. (889)

885

STARRA 81171



Top - Butte top of white ls. + fossiliferous ls.

SEAT base of white ls. + fossiliferous ls.

white xpm ls.

white + tan xpm ls.

SEAT fossiliferous ls. - somewhat coarse

same as above

white xpm + white fossilif. ls.

white + tan xpm ls. few tan cherty fossiliferous ls.

thin bed of pieces white xpm weathered ls. w/ fossiliferous ls.

thin bed of white ls. to top of xpm w/ fossiliferous ls.

white xpm to top of ls.

few white cherty ls.

white + tan xpm ls. fossiliferous ls.

1 piece white xpm fossiliferous - on in print of

1 piece white xpm fossiliferous - on in print of

white - buff xpm ls. + fossiliferous ls.

white xpm + tan white cherty ls.

white xpm ls. + white fossiliferous ls.

white xpm ls. +

SEAT tan ls. + red ls. fossiliferous

SEAT fossiliferous + siliceous

same as above

white + tan xpm ls.

SEAT fossiliferous + siliceous

tan and siliceous ls.

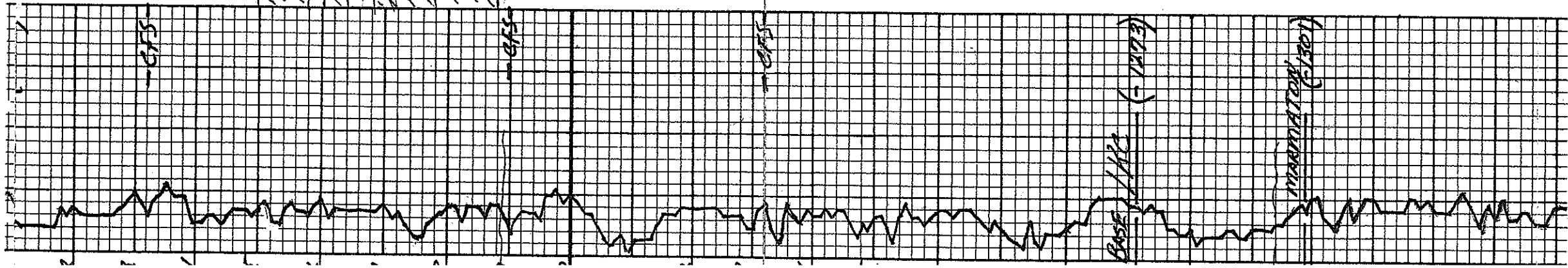
SEAT fossiliferous + siliceous

few SEAT small pieces tan xpm - fossiliferous + siliceous

Coarse pieces tan xpm fossiliferous + siliceous - FE SEAT STARRA 81171

50

50



-GFS

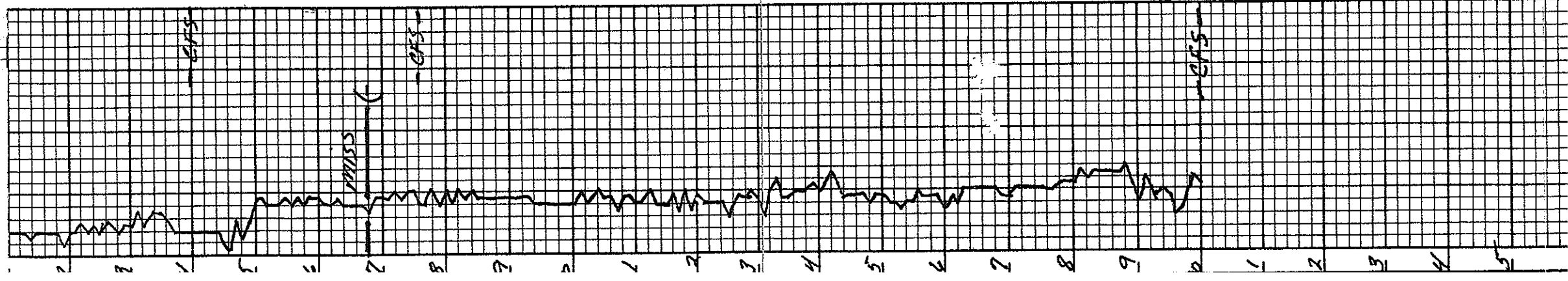
-GFS

-GFS

BASE 1/1/2 (-107)

MARINATOR (-130)

DST #2 4130-4190		DST #3 4288-4395	
White Xgn Pass - 5/1 seat AS			
White - Tan at Gray Xgn AS			
Seat Pass AS			
Few at Gray chks 1 piece SS oil			
Tan Xgn AS - Few at Tan chks AS			
Varied Tan - Buff - AT even			
Gray Xgn + Pass AS			
Tan chks st. Xgn AS Fair number			
Some gray to w/ w/ w/ F5 FE			
17: FT. DOOR			
Fair number Tan chks w/ w/ AS			
16:570 w/ at 17: DOOR			
Fairly at Amnest white + seat			
Grey chks weathered w/ w/ AS			
Number AS w/ to chks seat			
350 seat over			
Few seat white chks st. w/ w/ AS			
AS - F5 FE			
17:100 seat w/ chks			
NO DOOR BK chks Tan chks			
White - Tan Xgn AS			
Pass AS			
17:100 chks st. Tan Xgn AS			
17:100 chks st. Tan Xgn AS			
Buff chks Xgn AS - Fair prices			
gray chks Tan AS			
1 piece st. w/ w/ w/ AS			
BK w/ w/ Free oil			
Buff Xgn AS - 1 piece of			
Grey chks 1M w/ show FE oil			
Buff Tan Xgn AS - 1 piece white AS			
Xgn Tan w/ F5 BK chks + 17:100 oil			
Seat Black chks + Tan Xgn AS			
Tan Xgn AS + seat Pass AS			
Tan - Grey Fossil AS			
Tan - Grey Xgn Pass AS			
Few Grey Tan chks			
Buff - Tan Xgn AS + seat			
st. weathered Tan Pass AS			
Varied Buff - Tan AS			
Dense - Tan - seat Fossil AS			
Varied Tan - Buff - Tan AS			
Fairly weathered AS + Tan AS			
Fair Amnest at Grey chks			
9:00 AM seat chks AS			
Seat Tan Xgn - chks - Pass AS			
Tan chks st. Pass			
w/ seat st. w/ w/ w/ AS			
w/ AS seat st. w/ w/ w/ AS			
Buff - Tan Xgn AS			
1 piece Tan chks Pass AS oil			
Seat white - Tan Xgn Pass			
chks AS - F5 - 17:100 w/ w/ w/ AS			
F5 oil stream			
Seat seat Tan chks Tan AS			
weather. F5 white w/ w/ oil			
same AS above			



- BK - grey sbs piece xpm for w/ seat on of a i
 BK - Grey shaks - few buff - Tan
 xpm - Pass h.s.
 Couple other med. rounded ground
 sd clusters - fairly base.
 Grey sbs - few tan sbs - few med -
 clear red ground sd clusters
 rd grey sbs - seat for white
 sd clusters - few by rd dtr clusters.
 white for ground + med ground
 white sd stone - fairly rd + tile.
 white for ground - few med ground sd
 BK - Grey sbs - white sd
 few rd + tan Pass h.s. - tan h.s.
 white for sd - seat med ground for white
 few tan Pass h.s. - white xpm sd
 white for sd seat h.s. - tan - yellow sd
 1 piece med h.s. Pass - some white Pass
 w/ ss oil - no pd
 white sd - some at tan - yellowish
 sd - seat white - tan xpm h.s. - BK sbs.
 white - at grey for ground sbs -
 BK sbs - seat touchy xpm Pass h.s.
 Tan xpm + seat xpm Pass h.s. -
 seat white sd.
 Tan xpm ground for rounded Pass h.s.
 few white for ground clusters
 buff xpm - caty seat Pass h.s.
 BK sbs.
 pair of pieces Iron pyrite -
 seat for red + few orange Pass sd ground
 buff xpm + seat Pass h.s.
 buff xpm + dense h.s. - seat
 loose ground sub, rd sd ground
 seat pyrite
 buff - tan dense sbs caty h.s. xpm h.s.
 seat Pass h.s. weathered h.s. - few white
 for ground sd clusters - few yellow med. for ground
 buff - tan - dense rd seat Pass h.s.
 + black + sbs green shales
 buff - tan - xpm + rd seat Pass h.s.
 seat tan h.s. - sbs BK sbs for sbs.
 tan + white for xpm - tan
 white sbs h.s. - seat tan Pass h.s.
 tan sbs h.s. - grey sd - seat white - tan ground

RTD @ 8:55 AM RN 10-15-10