

# BRAD HUTCHINSON

116 EVES DRIVE  
RUSSELL, KANSAS 67665

785-483-0492

## GEOLOGIST'S REPORT

### DRILLING TIME AND SAMPLE LOG

COMPANY <u>BRUNGARDT OIL &amp; LEASING, INC.</u> LEASE <u>HOLLAND A-1</u> FIELD _____ LOCATION <u>NE 5W NE 5W</u> SEC <u>26</u> TWSP <u>12S</u> RGE <u>15W</u> COUNTY <u>Russell</u> STATE <u>KANSAS</u>	ELEVATIONS KB <u>1812'</u> DF _____ GL <u>1807'</u> Measurements Are All From <u>Kelly Bushing</u>
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CONTRACTOR <u>SHIELDS OIL PRODUCERS</u> SPUD <u>5-21-2013</u> COMP <u>5-28-2013</u> RTD <u>3330 (-1518)</u> LTD <u>3329 (-1517)</u> MUD UP <u>2400'</u> TYPE MUD <u>CHEMICAL</u>	CASING SURFACE <u>8 7/8" @ 209'</u> PRODUCTION <u>4 1/2" @ 3325'</u> ELECTRICAL SURVEYS CNL/CDL DIL MEL
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SAMPLES SAVED FROM \_\_\_\_\_ 2650' TO \_\_\_\_\_ RTD  
 DRILLING TIME KEPT FROM \_\_\_\_\_ 2650' TO \_\_\_\_\_ RTD  
 SAMPLES EXAMINED FROM \_\_\_\_\_ 2700' TO \_\_\_\_\_ RTD  
 GEOLOGICAL SUPERVISION FROM \_\_\_\_\_ 2700' TO \_\_\_\_\_ RTD  
 GEOLOGIST ON WELL BRAD J. HUTCHISON

FORMATION TOPS	LOG	SAMPLES	
<u>ANHYDRITE</u>	<u>884 +928 (-8)</u>	<u>886 (+926)</u>	
<u>TOPEKA</u>	<u>2709 -897 (+2)</u>	<u>2710 (-898)</u>	
<u>HEEBNER</u>	<u>2930 -1118 (-)</u>	<u>2931 (-1119)</u>	
<u>TORONTO</u>	<u>2951 -1139 (-1)</u>	<u>2952 (-1140)</u>	
<u>LANSING</u>	<u>2982 -1170 (-)</u>	<u>2984 (-1172)</u>	
<u>BASE KANSAS CITY</u>	<u>3233 -1421 (-5)</u>	<u>3236 (-1424)</u>	
<u>ARBUCKLE</u>	<u>3254 -1442 (-5)</u>	<u>3255 (-1443)</u>	

Comparison

Brungardt Oil & Leasing, INC. Holland Unit #1



1812' KE

2700

**LOGICA 2710 (-898)**

• Lb CRM VEXL - highly  
chalky DO VIS S' gd  
dk brn str - sat.  
(SFO when broken)  
Fr odor

sh gry

Lb gry dse foss

Lb AA chalky

sh gry

Lb buff FTLX foss

AA w/ animal w/HT carb

sh brk carb w/ gry  
micaceous sh

int pale grs sh

Lb CRM - WHT VEXL highly  
foss IR sat lt str (2-3 pc)  
Fr FO no odor

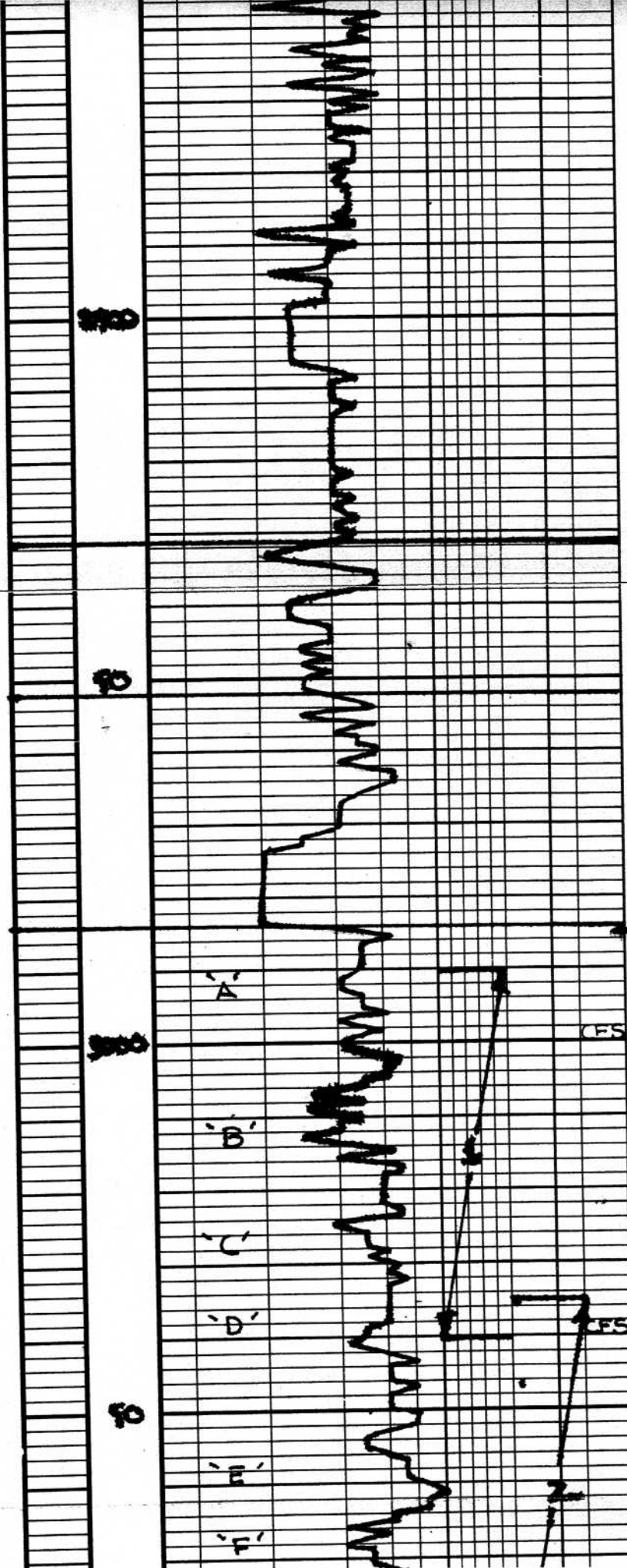
Lb buff - lt gry dse.

sh gry

Lb dirty gry w/ sh  
AA.

8

2800



L5 buff FRVL DSE  
Sl Foss

L5 CRM-WHT chalky  
AA

L5 AA w/ inc gry sh

L5 CRM VFRVL - chalky  
TR spt dk sh - sct SEO  
very heavy) vs odor abund  
wht chalk

L6 CRM highly chalky  
AA

**Horizon 2931 (-119)**  
sh blk carb.

**Horizon 2952 (-140)**  
L6 lt gry - tn blocky  
dse

sh gry - pale grn gumbo  
AA micaceous

**Horizon 2984 (-172)**

L5 buff VFRVL - DSE  
no vis of sctd lt brn sh,  
NEO sh odor

sh gry grn maroon  
gumbo

L5 CRM FRVL Foss - ool,  
FR sctd int ool - sh vug p  
lt brn sh - sct  
sh SEO FT odor

L5 CRM-WHT FRVL sh DSE  
Sl Foss TR nodular L5  
spt FR vug p TR FR v. lt  
spt sh. / 55% v. FT odor  
tr milky wht ool A

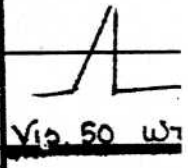
sh blk carb.

sh gry

L5 gry DSE ool TR  
spt int ool of tr spt lt sh  
NEO sh odor

L5 CRM FRVL ool - Foss,  
FR spt FR int ool - vug p  
FR sctd lt brn sh,  
TR FO sh odor  
abund Doney w/lt ool A

DST-1 2990  
30-30-60  
IF BOB-2  
FF BOB 16  
REL. 405' (30' HOGCM  
30% o.g.  
40% OM  
62' VGMO  
55% o.g 30%  
I'IP 394#  
FSEP 450#  
EP (25-40  
HSH (1438-1



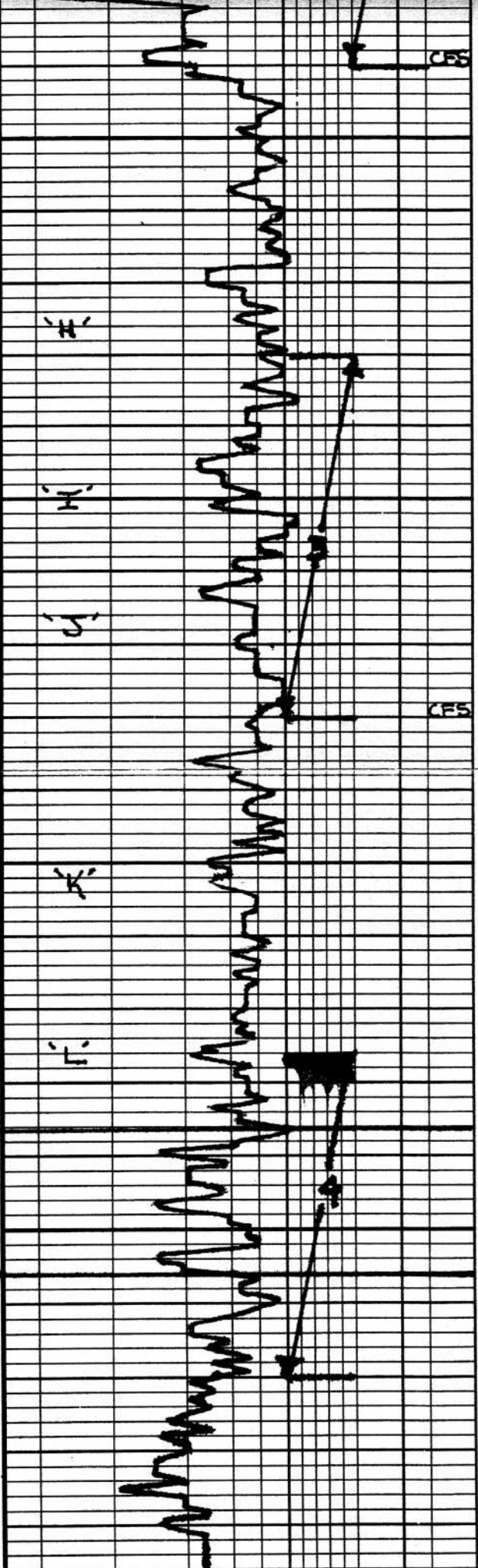
DST-2 3035-  
30-30-60

300

30

300

30



abund w/ht chalk,  
 h5 GRY - buff Dse. w/ abund w/ht chalk,  
 AA  
 sh blk carb.,  
 h5 LT GRY - buff DSE sh FOSS.,  
 sh gry - brick red abund w/ht chalk  
 h5 WHT-LT GRY FRXL OOL FR scd INT OBL VUG O' TR atz inclusions FR-od' SED ladden brn str-sat SED FT odor.,  
 sh blk carb abund var sh-gumbo -  
 h5 CRM - WHT FRXL TR STA NEO or odor FOSS - OOL  
 h5 gry DSE  
 sh blk carb.,  
 sh gry - Red gumbo /  
 h5 WHT FRXL - chalky highly chalky - no FOSS NS  
 AA w/irc gry sh.,  
 h5 OFF WHT DSE NS  
**REC. 3236 (1924)**  
 sh gry lt gen macoa  
 AA  
 h5 FRXL (domatic) TR VUG O' scd FR STR-SAT SED FR odor  
 sh greyish WHT (gumbo)  
**ARGONNE 3238 (1928)**  
 DOLO FRXL (SOFT) od dk brn STR-SAT qd SED FR odor  
 DOLO LT GRY MD XL FR-od lat xl of scd FR-od dk str STR-SAT (few pieces) FR odor qd SED.  
 DOLO AA w/ dec. in str IRC w/ht chalk.  
 DOLO LT GRY - sh pf md - (SXL qd lat xl) NS

REC. 60' GIP  
 80' GCMW  
 124' GCMW  
 SIP (410-4)  
 FP (16-70)  
 HSH (1489-1)  
 DST. 3 3220-3  
 30. 30. 30. 3  
 IF SURFACE  
 EF SURFACE  
 REC. 20' OCL  
 70% O 93%  
 SEP (135-91)  
 FP (22-29)  
 HSH (1504-14)  
 DST-4 3226-3  
 30. 30. 70. 71  
 IF SURFACE  
 EF NO blow  
 GIP (120-66)  
 FP (16-19) (19-  
 HSH (1590-15)  
 REC. 2' MUD

NS  
 AA w/line - gfy sh...  
 1.5 off wht ose  
 NA  
 D5T-4 3226-3  
 30. 30. 30. 31  
**REC. 2' MUD**  
 EF 4URCOLE  
 EF NO HLOW  
 SH GY LT GRN MACROA  
 AA  
 IS FINE (Laminar) TR  
 VING R. SCLD ER STR-SAT  
 GED ER ODOR  
 SH GRYSK WHT (LUMBO)  
**RESISTANCE TEST (1993)**  
 DOLO ENXL (SOFT) OD DK  
 LORN STR-SAT OD SBD ER  
 ODOR  
 DOLO LT GY MO XL ER-9d  
 LAR XL SCLD ER-9d DR 9d  
 STR-SCL (FEW PIECES) ER ODOR  
 9d SBD...  
 DOLO AA W/ det in STR  
 LAR WHT CLAR...  
 DOLO LT GRN = SL DR MD =  
 LAR XL 9d INT XL...  
 NS  
 AA...  
 AA...  
 AA...  
 AA...

