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 James C. Musgrove  
 Petroleum Geologist

# GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

COMPANY Pauley Oil  
 LEASE Yager #1  
 FIELD \_\_\_\_\_  
 LOCATION 5/2 - NW-SW-SW (975' FS L 330' RW)  
 SEC 5 TWP 17S RGE 10W  
 COUNTY Ellsworth STATE Kansas  
 CONTRACTOR Southwind Drilling Co (rig #8)  
 RTD 12/27/2013 COMP \_\_\_\_\_  
 MUD UP 2597 TYPE MUD Chemical displaced  
 SAMPLES SAVED FROM 2800 TO \_\_\_\_\_  
 DRILLING TIME KEPT FROM 2800 TO \_\_\_\_\_  
 SAMPLES EXAMINED FROM 2800 TO \_\_\_\_\_  
 GEOLOGICAL SUPERVISION FROM 2850 TO \_\_\_\_\_  
 GEOLOGIST ON WELL Jim Musgrove

FORMATION TOPS	LOG	SAMPLES
only drite	677	+1212
Base anhydrite	83	+1200
Hebner	2986	-1023
Toronto	2923	-1040
Douglas	2941	-1058
Brown lime	3012	-1129
Hansling	3034	-1151
Base Kansas City	3301	-1418
Conglomerate	3315	-1432
Arbuckle	3363	-1480
RTD	3480	-1597

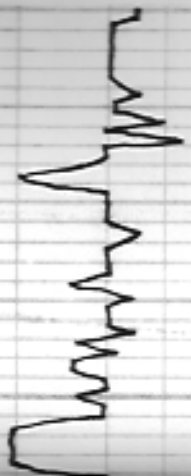
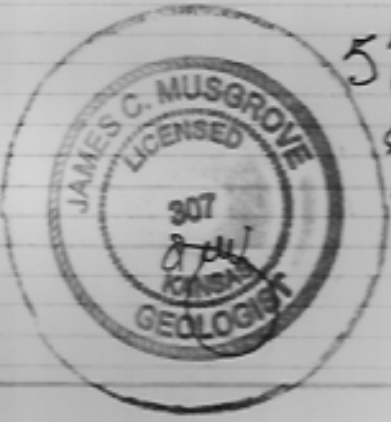
ELECTRICAL SURVEYS  
 SURFACE \_\_\_\_\_  
 PRODUCTION \_\_\_\_\_  
 85' HE 392  
 5 1/2" HE 3479

RTD

REMARKS

5 1/2" production casing was set & cemented in the Yager #1.

Respectfully submitted,  
 James C. Musgrove  
 Petroleum Geologist



# WELL REPORT

WELL SAMPLE LOG

## ELEVATIONS

KB 1883

DF

CL 1874

Measurements Are All From -KB-

ASAS Ca (right #8)

8 5/8" No 392  
5 1/2" No 3479

Original displaced

By Pioneer  
DIL, cuthead, mixed  
source

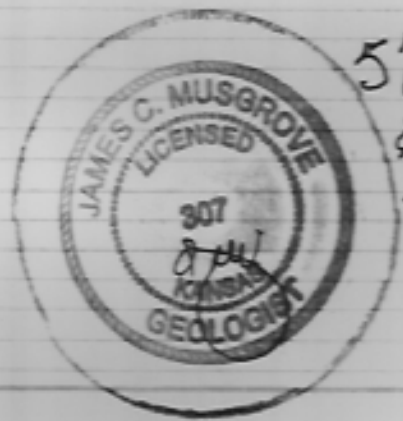
## ELECTRICAL SURVEYS

RTD

50  
10  
10  
10

SAMPLES


## REMARKS



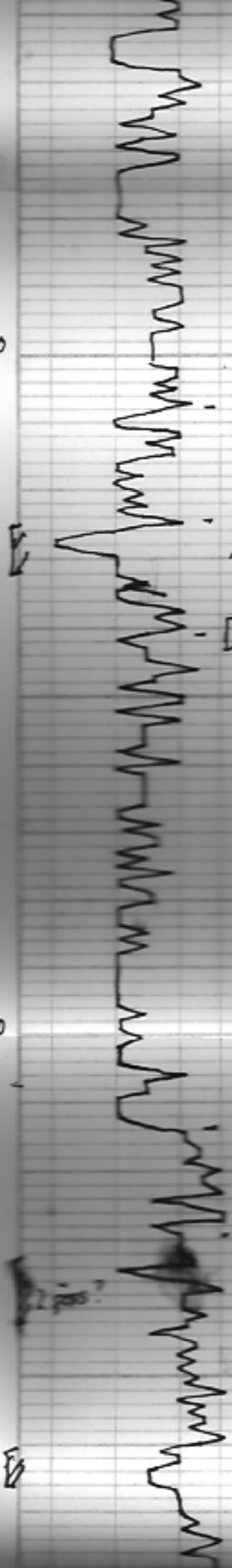
5 1/2" production casing was set & cemented in the Layer #1.

Respectfully submitted,  
James C. Musgrove  
Petroleum Geologist

20  
11  
40  
60



60  
80  
2900  
20  
40  
60  
80  
3000  
20  
40  
60



- Heebner  
2907 (-1024)  
- Toronto  
- Douglas

Brown lime  
3014 (-1131)  
Hansing  
3028 (-1145)

fr. gm; Δ  
??  
ls, gm/wh; fr. ls; gran; ch. key  
poor & mly

black carb sh

- 1883 KB-

ls, wh/gm; fr. ls; gran in  
part; fine finely com. mly

v.c. soft. silty sh

fr. sand, gm; grayish green  
v. silty; mica; fr.  
poor sh; fr. sh; no odor

??  
gm/gm; grayish green silty

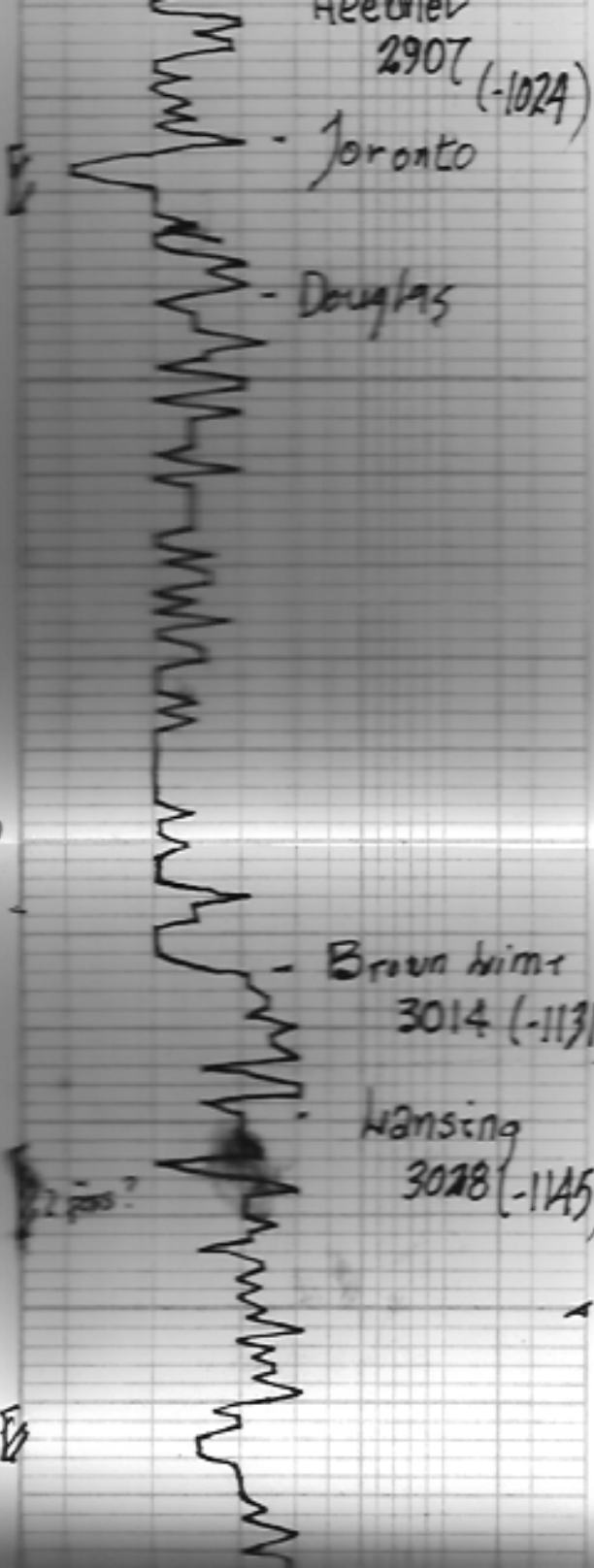
??

ls, tan, brown, fr. ls  
slightly dry mly

ls, wh, foss, cherty; poorly  
dev'd; ??? sh; mly  
no odor.

ls, wh/gm; fr. ls; mly  
sub-oolite; fr. brk/gm; sh; mly  
no odor  
wh/gm Δ  
??

20  
40  
60  
80  
100  
120  
140  
160  
180  
200  
220  
240  
260  
280  
300  
320  
340  
360  
380  
400  
420  
440  
460  
480  
500  
520  
540  
560  
580  
600  
620  
640  
660  
680  
700  
720  
740  
760  
780  
800  
820  
840  
860  
880  
900  
920  
940  
960  
980  
1000



1883 KB-

blk carb sh

ls, wh/gry, fex, gran in part, few finely com. of

v.c. soft silty sh

fr. sand, gm, grayish green v. silty, mica, fr. poor sh, fr. no odor

33

gry/gryish green silty sh

32

Brown lime 3014 (-1131)

ls, tan, brown, fex, slightly dry

Lansing 3028 (-1145)

2 pos?

ls, wh, foss, cherty. Poorly bedded, ?? stn, no odor.

ls, wh/gry, fex, gran sub-bedded, fr. blk/gry stn, no odor & wh/gry Δ

30

80  
300  
20  
40  
66  
80  
80



no odor  
LS/W/gray Δ

LS/W/gray; cool, chunky  
poor dev & nls

LS, gray/tan, cool; Poorly  
dev & nls

LS, gray/tan, cool; Poorly  
dev & nls

LS, gray/wh; cool, few cool  
good dev & (barren)

LS, gray/tan - dense

blk carb. sh

LS, CRM/wh; cool, chunky  
one (1) / SFO; ??? sh / odor

LS, CRM/wh; cool, chunky nls

LS, wh/gray; cool/few cool  
chunky; Poorly dev &  
to brown sh, nlsfo  
??? odor

blk / coffee brown ss

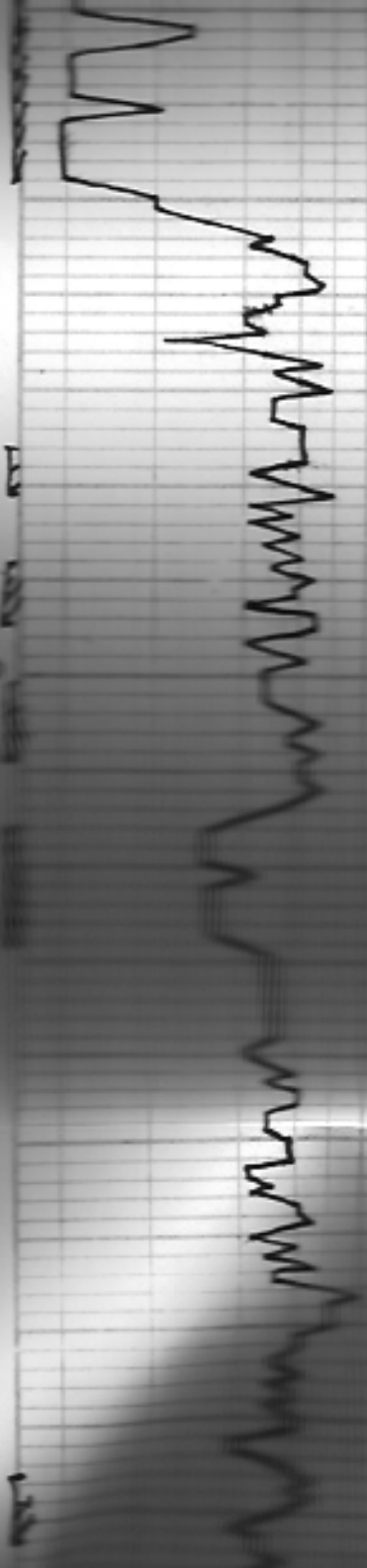
odor

odor





40  
66  
80  
80  
80



good com. (barren)

??  
and

LS, gm/tan - dense

~ blk carb. sh

LS, CRM/wb; com, chky  
one (1) / SFO; ??? str / ???  
odon

LS, CRM/wb; foss/ool, chky ~/  
??

LS, CRM/wb; foss/ool, chky ~/  
??

LS, wh/gry; foss/fam oob  
chky / poorly dev  
to brown sh, rslfo  
???

~ blk / coffee brown ss

LS, CRM/wb; foss/ool, chky ~/  
??

80  
3100  
20  
40  
66  
80  
3200  
60  
80



no odor & wh/gray Δ

LS, wh/gray, ool, cherty  
poor sh & m/s

LS, gray/tan, ool; Poorly  
dev'd m/s

LS, gray/wh, ool, few ool  
good ool (barrels)

LS, gray/tan - dense

blk carb. sh

LS, CRM/wh, ool, cherty  
one (1) sfo; ??? sh; odor

LS, CRM/wh, foss/ool, cherty m/s

LS, wh/gray, ool, good ool  
few sh & m/s

LS, wh/gray, foss/few ool  
cherty, Poorly dev'd  
to brown sh, m/sfo  
??? odor

blk / coffee brown sh

LS, tan/gray, foss,  
poorly dev'd

odor  
faint  
odor

20  
30  
40  
50



no odor  
5 wh/gm Δ

? ?  
LS, wh/gm, cool, chunky  
poor wh/gm

? ?  
- brown  
- tan, 75%

LS, grey/tan, cool; Pearty  
good wh/gm

LS, grey/tan, cool, few cool  
good wh/gm (barren)

? ?  
odor

LS, grey/tan - dense

odor  
? } faint  
odor

LS, wh/gm, cool, chunky  
poor wh/gm

LS, wh/gm, cool, chunky  
poor wh/gm

LS, wh/gm, cool, chunky  
poor wh/gm

LS, wh/gm, cool, chunky  
poor wh/gm

LS, wh/gm, cool, chunky  
poor wh/gm

LS, wh/gm, cool, chunky  
poor wh/gm

LS, wh/gm, cool, chunky  
poor wh/gm

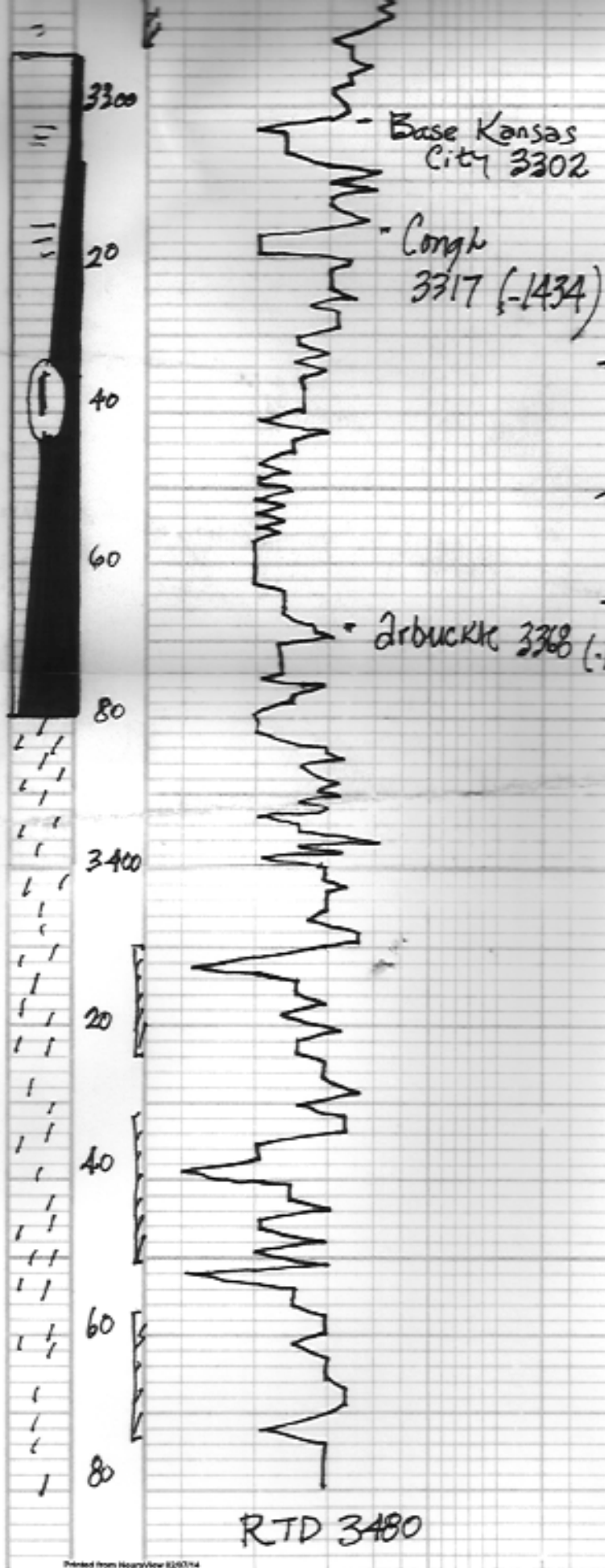
LS, wh/gm, cool, chunky  
poor wh/gm

LS, wh/gm, cool, chunky  
poor wh/gm

LS, wh/gm, cool, chunky  
poor wh/gm

LS, wh/gm, cool, chunky  
poor wh/gm





ls, tan/gry; fr-ly  
poorly dev. of sh

~ aa

~ grey/green sl  
ls tan/brown, fr-ly  
slightly d'ly - chunky (dense)

~ sandstone ??

~ mar/rusty brown sh  
fr. yellow/orange  
+ rose t'ribed; chunky - d'ly Rec.

~ aa; d; wh/gry; opaque  
v.c. Δ + mar/green sh

~ aa  
dol; con/wh; f-med sh; con;  
fr fr-ly; brown sh/ox  
550'; fr odor

~ } }  
dol; sh; con; fr; fr-ly; sh; con;  
+ wh Δ

~ } }  
dol; tan/gry; con, fr con of  
(barren)  
fr. wh Δ

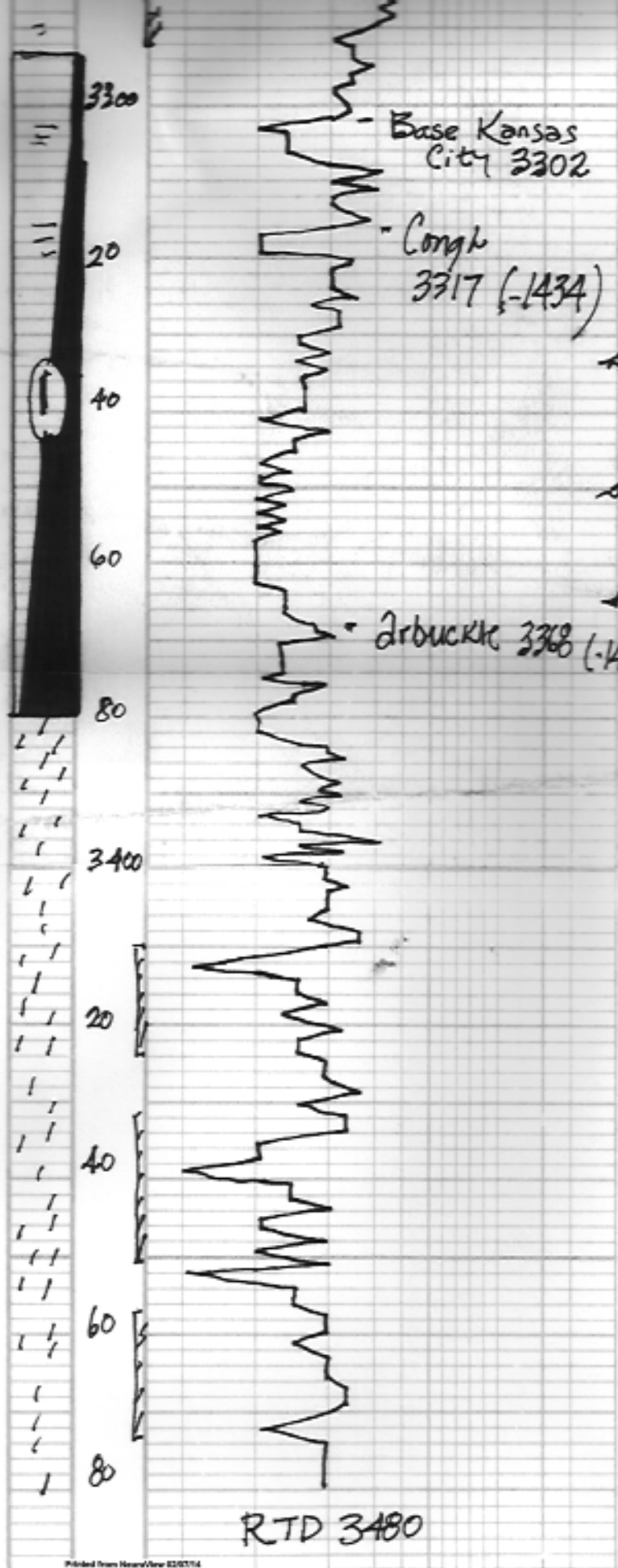
~ } }  
dol; tan; f-med sh; sac  
in part; few sh; fr-ly  
med sh; fr-ly; sh  
+ wh/gry Δ

~ } }  
aa + wh chiq  
few sandy sh

~ } }

Dst #1 3295  
-3380  
30-30-45-45  
Blow; weak (2 1/2")  
2nd opening; weak (3 1/2")  
Rec; 5' clean oil  
5' muddy oil  
(60% oil; 40% mud)  
25' oil cut mud  
(10% oil; 90% mud)

pressures  
(-1482) ISIP 1030 ps  
SSIP 1016  
FFP 21-27  
SSP 28-36  
NSH  
1641  
-1564 p



ls, tan (gm), fr-lv  
poorly dev. & mly

~ aa

~ grey/green sh

ls tan/brown, fr-lv  
slightly clay - chunky (dense)

~ marls? ?

~ mar/rusty brown sh  
fr. yellow/orange  
rose tinted; chunky - clay ss.

~ aa; d; wh/gm; opaque

~ }  
v.c. & fr mar/green sh

~ aa

dol; tan/wh; fr med & h; ss  
fr fr-lv; brown sh/300  
550'; fr odor

~ }  
dol; ss; fr-lv; fr-lv; fr-lv  
+ wh d

~ }  
dol; tan/gm; com, fr com of  
Charron  
fr. wh d

~ }  
dol; tan; fr med & h; sac  
on sand; few ss; fr  
med ss-lv; fr  
+ wh/gm d

~ }  
aa + wh chiq  
few sandy ss

~ }  
}

Dst # 1 3295  
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30-30-45-45  
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Rec; 5' clean oil  
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pressures  
(-1482) ISIP 1030 ps  
SSIP 1016  
FFP 21-27  
SSP 28-36  
MSH  
1641  
-1564 ps