

Remarks

The Coppen # 1-7 was declared dry and abandoned.
 All sample shows of oil were drill stem tested and condemned.

Electric log measurements correlate about 2' high compared to rotary measurements.

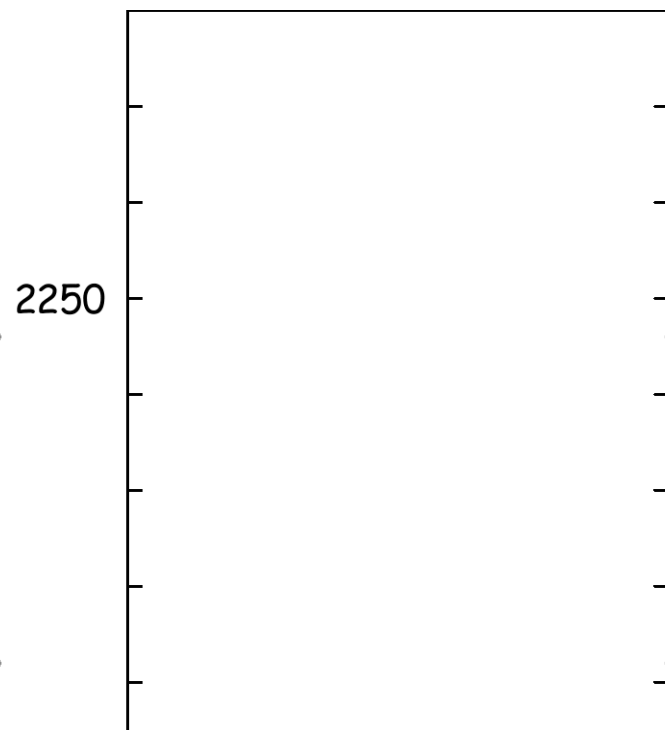
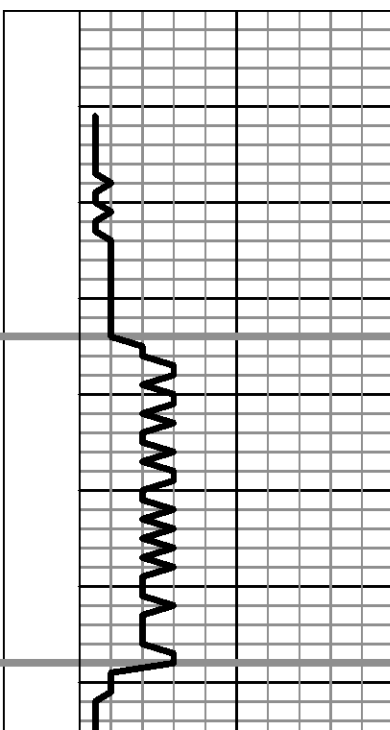
Samples deposited at the Kansas Geological Survey.

Respectfully Submitted,

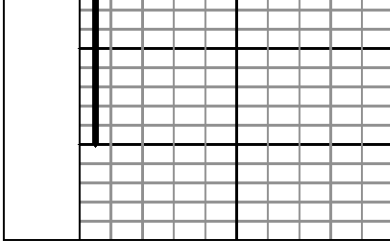


Jeff Christian

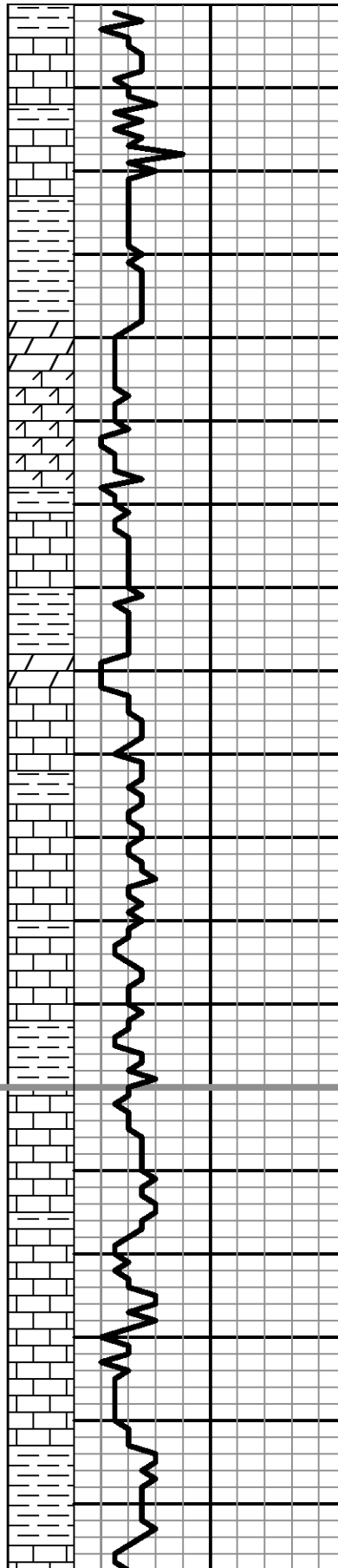
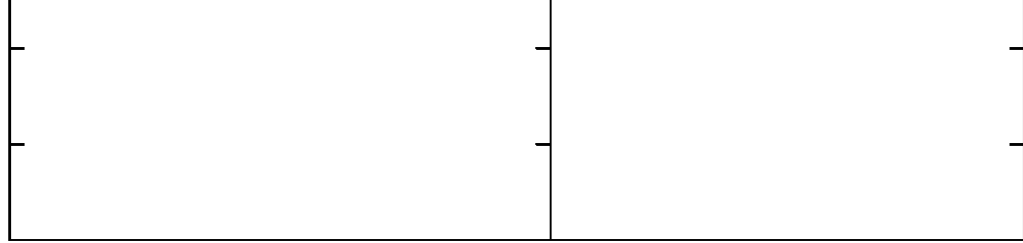
LITH.	0	DRILL TIME (MIN/FT)	10	DEPTH	SHW	SAMPLE DESCRIPTIONS	REMARKS
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ANHYDRITE 2254' (+399) E Log 2251' (+402)
Base ANHYDRITE 2288' (+365) E Log 2285' (+368)



2300



3400

Ls: crm-lt gry, fn xln, dns, foss, pr vis por, ns

Sh: gry-some red/brn w/ Ls: lt brn-lt gry, fn xln, dns, foss, ns

Dolo: crm-lt brn, fn-some med xln, suc, fr intrxln-trc vug por, ns

3450

Dolo: as above w/ Ls: crm-lt gry, fn xln, subchlky, part dns, ns

Sh: gry w/ Ls: crm-lt gry, fn xln, dns, foss-mott, pr vis por, ns

Dolo: crm-lt brn, fn xln, suc, fr intrxln-vug por, ns

Ls: off wt-crm-lt gry, fn xln, part chlky, part dns, sli foss, pr vis por, ns

3500

Sh: gry-trc grn

Ls: lt brn-lt gry-gry, fn xln, dns, sli foss, pr vis por, ns

Ls: lt gry-gry, fn xln, dns, sli foss, pr vis por, ns

Sh: gry

Ls: crm, fn xln, sli grnlr, sli foss, pr intrxln por, ns

TOPEKA 3530' (-877)

E Log 3528' (-875)

3550

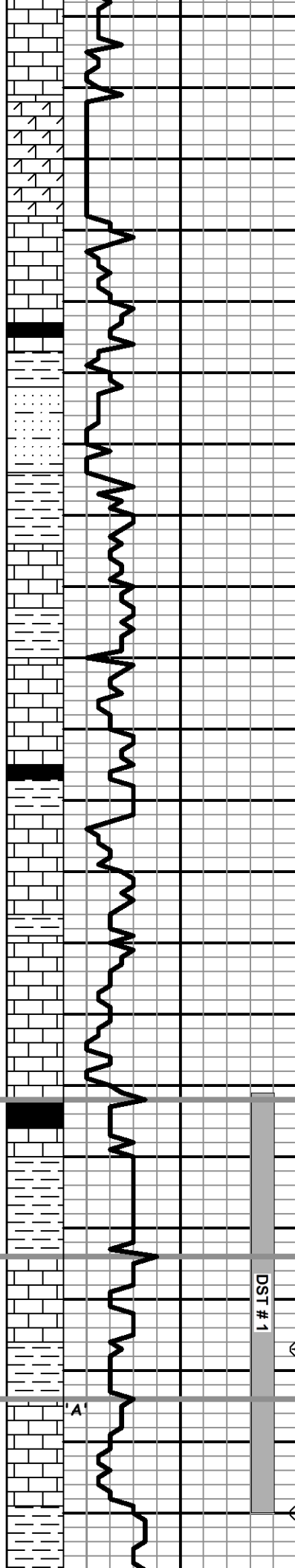
Ls: as above w/ Ls: lt gry, fn xln, dns, pr vis por, ns

Ls: crm-lt gry, fn xln, sli grnlr, part dns, sli foss, sli chrt, sct pr-fr pp-intrxln por, ns

Ls: crm-lt gry, fn xln, subchlky, part dns, sli foss, trc chrt, vy sct pp-vug por, ns

Sh: gry w/ Slst: gry, calc, hard

Ls: crm-lt gry, fn xln, sli grnlr, sli foss, trc chrt, fn



3600

Ls: crm-lt gry, fn xln, grnlr, sli foss, pr intrxln-vug por, ns

Dolo Ls: crm-lt brn, fn xln, grnlr, chlky, sli foss, fr intrxln-pp por, ns

Same

Ls: crm, fn xln, sli grnlr, subchlky, sli foss, pr-fr intrxln por, ns

Sh: blk, carb

3650

Sst: lt gry-gry, vy fn-some fn grn, calc, subfri-hard, pr vis por, ns

Sh: gry-red/brn, sndy in part

Ls: crm-lt gry, fn xln, part dns, foss, pr foss-vug por, ns

Sh: gry-red/brn

Ls: crm-lt gry, fn xln, subchlky, foss-sli ool, trc pp-vug por, ns

3700

Sh: blk, carb

Ls: crm-lt brn-lt gry, fn xln, dolo in part, foss in part, pr intrxln por, ns

Ls: as above, part dns

Same w/ sct wt chlky

Ls: crm-lt gry, fn xln, sli grnlr in part, sli foss, vy sct intrxln-vug por, ns

HEEBNER 3742' (-1089)

E Log 3740' (-1087)

3750

Sh: blk, carb

Ls: brn, fn xln, dns, foss

Sh: gry, trc grn & red/brn w/ Slst: gry, vy fn grn, calc, hard, ns

Sh: red/brn, some gry & grn

Ls: crm-lt gry, fn xln, ool in part, chrty, pr-trc fr introol-vug por, cpl pcs vssfo, no odor, blk sptd stn in wet, drk brn sptd stn dry

Ls: crm-lt brn, fn-some med xln, chrty, pr-fr intrxln por, ns

Sh: gry-grn-some red/brn

TORONTO 3764' (-1111)

E Log 3762' (-1109)

Morgan Mud: 3777'; 1/22/14
Wt. 9.0, Vis. 56, WL. 5.6, Chl. 1,200, LCM. 2.0

3800

Ls: crm-lt gry, fn xln, foss-ool in part, chrty, pr-trc fr intrpart-vug por, cpl pcs vssfo, no odor, blk sptd stn

Ls: crm-lt gry, fn xln, sli grnlr, sli chlky, sct chrty, pr-trc fr intrxln-vug por, nsfo, no odor, vy scy blk sptd stn

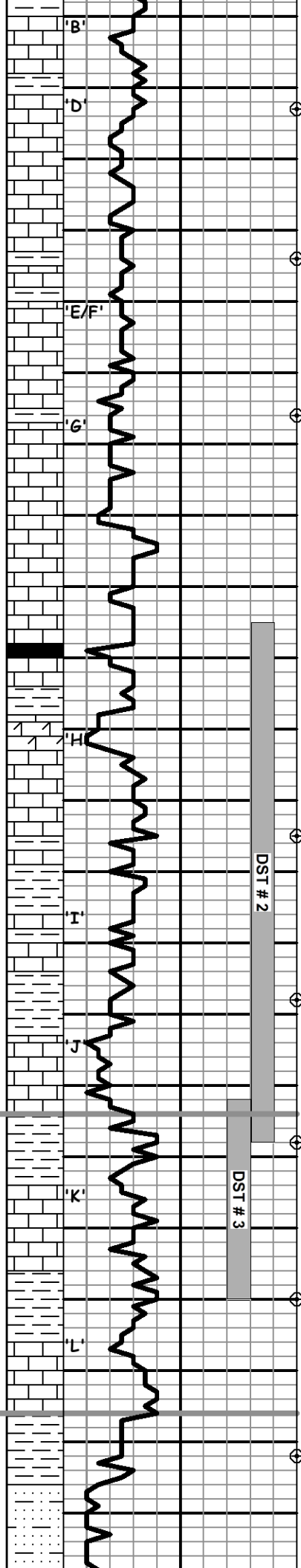
LANSING 3784' (-1131)

E Log 3782' (-1129)

DST # 1 3741' to 3800'
IF: BOB/ 30" ISI: No Return
FF: BOB/28" FSI: No Return
RECOVERY: 577' total fluid
451' SWCM (5%W, 95%M)
126' SMCW (90%W, 10%M)

DST # 1

'A'



3850

'B'

Ls: crm-lt gry, fn xln, subchlky, sli foss-ool, sct pr-fr intrpart-vug por, ns

'D'

Ls: crm-lt gry, fn xln, subchlky, part dns, sli foss-ool in part, mostly pr vis por, cpl pcs/tray fr vug por, sptd drk stn, nsfo, no odor

Ls: crm-lt gry, fn xln, dns, chlky in part, pr vis por, ns

'E/F'

Ls: lt brn-lt gry, fn xln, dns, sli chlky in part, foss-ool in part, pr vis por, 1 pc/tray hvy dead oil stn, nsfo, no odor

Ls: crm-lt brn, fn xln, chlky, sli foss-ool in part, pr vis por, trc dull sptd stn, nsfo, no odor

'G'

Ls: crm-lt brn, fn xln, dns, chlky in part, micro ool in part, pr vis por, ns

Same

Ls: crm-lt brn-lt gry, fn xln, dns, chlky in part, chrty, pr vis por, ns

3900

Sh: blk, carb

Sh: gry-red/brn, some grn

'H'

Dolo Ls: lt brn-brn, fn xln, dns, sli suc, chrty, pr vis por, vy sct pcs w/ xtl ovgrwth, sfo, brn sptd-subsat stn, no odor

Ls: crm-lt gry, fn xln, dns, sli foss, pr vis por, ns

Ls: lt gry, fn xln, dns, sli foss, ns

Sh: vari color

'I'

Ls: lt gry-gry, fn xln, dns, shly, pr vis por, ns

3950

Sh: red/brn, slty & sndy in part, some gry & grn sh

'J'

Ls: crm-lt gry, fn-some med xln, grnlr, chlky in part, pr-some fr intrxln-pp por, ns

Sh: gry-red/brn, some grn

'K'

Ls: wt-crm-lt gry, fn xln, chlky in part, sli foss, pr interfoss-vug por, few pcs ssfo, fnt odor, dull brn sptd-sat stn

Sh: gry-red/brn

4000

'L'

Ls: lt gry, fn xln, dns, sli foss, sct wt chlk, pr vis por, ns

Sh: gry-red/brn-grn

Sltst: lt gry, vy fn grn, calc, fri-mushy, pr vis por, sct pcs w/ dead stn, nsfo, no odor, no flur, no cut

IFP: 39-143# ISIP: 1063#
 FFP: 146-285# FSIP: 1055#
 IHP: 1824# FHP: 1812#
 BHT: 123 deg. F
 CHL: 23,000 ppm

Pipe Strap: 1.24' long to board dev. 1/2 deg.

Morgan Mud: 3873'; 1/23/14
 Wt. 9.1, Vis. 51, WL. 6.0, Chl. 1,600, LCM. 2.0

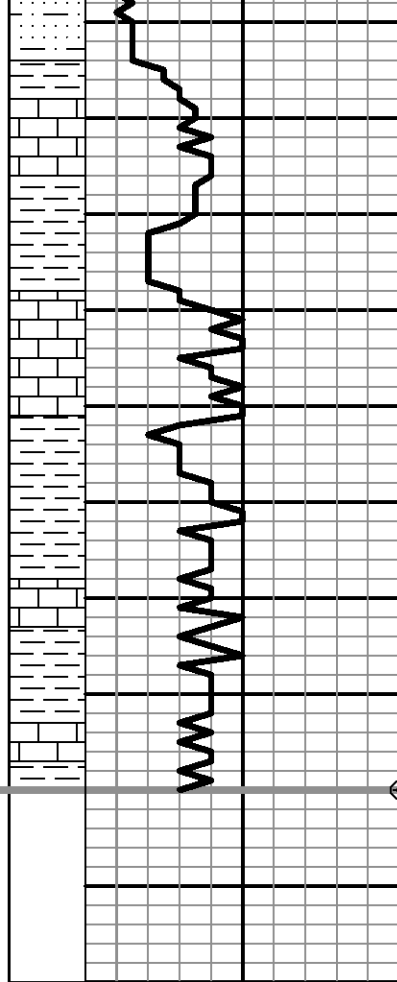
DST # 2 3895' to 3968'
 IF: BOB/ 4" ISI: No Return
 FF: BOB/6" FSI: No Return
 RECOVERY: 1953' total fluid
 504' WCM (20%W, 80%M)
 315' SMCW (95%W, 5%M)
 1,139 Wtr
 IFP: 51-295# ISIP: 1174#
 FFP: 303-641# FSIP: 1128#
 IHP: 1898# FHP: 1891#
 BHT: 126 deg. F
 CHL: 46,000 ppm

STARK 3964' (-1311)
 E Log 3962' (-1309)

DST # 3 3962' to 3990'
 IF: Blow Built to 1" / Died Back to Surface
 FF: Surface Blow/30"
 RECOVERY: 3' Mud w/ oil spts
 IFP: 19-22# ISIP: 1170#
 FFP: 22-24# FSIP: 1157#
 IHP: 2035# FHP: 1982#
 BHT: 111 deg. F

BKC 4006' (-1353)
 E Log 4004' (-1351)

Morgan Mud: 3990'; 1/24/14
 Wt. 9.0, Vis. 55, WL. 5.6, Chl. 1,900, LCM. 1.0



4050

4100

Ls: lt gry, fn xln, dns, some wt-crm chlky, pr vis por, ns

Sh: red/brn-gry, some grn, sndy in part

Ls: lt gry-discolor, fn xln, dns, sli foss in part, pr vis por, ns

Sh: red/brn, some gry & grn

Ls: wt-crm-lt gry, fn xln, chlky, part dns w/ Sh: as above

Sh: red/brn-gry, some grn, sndy in part

Sh: as above w/ Ls: lt gry-brn, fn xln, dns, some wt chlky, ns

RTD 4110' (-1457)

E Log 4005' (-1452)

Drill Stem Test Charts

