



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1138101  
OIL & GAS CONSERVATION DIVISION

Form ACO-1  
August 2013

Form must be Typed  
Form must be Signed  
All blanks must be Filled

WELL COMPLETION FORM  
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Address 1: \_\_\_\_\_

Address 2: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ + \_\_\_\_\_

Contact Person: \_\_\_\_\_

Phone: ( \_\_\_\_\_ ) \_\_\_\_\_

CONTRACTOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Wellsite Geologist: \_\_\_\_\_

Purchaser: \_\_\_\_\_

Designate Type of Completion:

- New Well       Re-Entry       Workover
- Oil       WSW       SWD       SIOW
- Gas       D&A       ENHR       SIGW
- OG       GSW       Temp. Abd.
- CM (Coal Bed Methane)
- Cathodic       Other (Core, Expl., etc.): \_\_\_\_\_

If Workover/Re-entry: Old Well Info as follows:

Operator: \_\_\_\_\_

Well Name: \_\_\_\_\_

Original Comp. Date: \_\_\_\_\_ Original Total Depth: \_\_\_\_\_

- Deepening       Re-perf.       Conv. to ENHR       Conv. to SWD
- Plug Back       Conv. to GSW       Conv. to Producer
- Commingled      Permit #: \_\_\_\_\_
- Dual Completion      Permit #: \_\_\_\_\_
- SWD      Permit #: \_\_\_\_\_
- ENHR      Permit #: \_\_\_\_\_
- GSW      Permit #: \_\_\_\_\_

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
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API No. 15 - \_\_\_\_\_

Spot Description: \_\_\_\_\_

\_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

\_\_\_\_\_ Feet from  North /  South Line of Section

\_\_\_\_\_ Feet from  East /  West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE       NW       SE       SW

GPS Location: Lat: \_\_\_\_\_, Long: \_\_\_\_\_  
(e.g. xx.xxxxx)      (e.g. -xxx.xxxxx)

Datum:  NAD27       NAD83       WGS84

County: \_\_\_\_\_

Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Field Name: \_\_\_\_\_

Producing Formation: \_\_\_\_\_

Elevation: Ground: \_\_\_\_\_ Kelly Bushing: \_\_\_\_\_

Total Vertical Depth: \_\_\_\_\_ Plug Back Total Depth: \_\_\_\_\_

Amount of Surface Pipe Set and Cemented at: \_\_\_\_\_ Feet

Multiple Stage Cementing Collar Used?  Yes  No

If yes, show depth set: \_\_\_\_\_ Feet

If Alternate II completion, cement circulated from: \_\_\_\_\_

feet depth to: \_\_\_\_\_ w/ \_\_\_\_\_ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: \_\_\_\_\_ ppm Fluid volume: \_\_\_\_\_ bbls

Dewatering method used: \_\_\_\_\_

Location of fluid disposal if hauled offsite:

Operator Name: \_\_\_\_\_

Lease Name: \_\_\_\_\_ License #: \_\_\_\_\_

Quarter \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

County: \_\_\_\_\_ Permit #: \_\_\_\_\_

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

- Confidentiality Requested  
Date: \_\_\_\_\_
- Confidential Release Date: \_\_\_\_\_
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT  I  II  III Approved by: \_\_\_\_\_ Date: \_\_\_\_\_



1138101

Operator Name: \_\_\_\_\_ Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West County: \_\_\_\_\_

**INSTRUCTIONS:** Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to [kcc-well-logs@kcc.ks.gov](mailto:kcc-well-logs@kcc.ks.gov). Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i>  Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No  Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No  List All E. Logs Run: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample  Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

Did you perform a hydraulic fracturing treatment on this well?  Yes  No *(If No, skip questions 2 and 3)*  
 Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?  Yes  No *(If No, skip question 3)*  
 Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry?  Yes  No *(If No, fill out Page Three of the ACO-1)*

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD:      Size: \_\_\_\_\_ Set At: \_\_\_\_\_ Packer At: \_\_\_\_\_ Liner Run:  Yes  No

Date of First, Resumed Production, SWD or ENHR: \_\_\_\_\_ Producing Method:  
 Flowing  Pumping  Gas Lift  Other *(Explain)* \_\_\_\_\_

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

<b>DISPOSITION OF GAS:</b> <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	<b>METHOD OF COMPLETION:</b> <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____ <input type="checkbox"/> Other <i>(Specify)</i> _____	<b>PRODUCTION INTERVAL:</b> _____ _____
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## HEADER

### WellSight Systems

Scale 1:240 (5"=100') Imperial  
Measured Depth Log

Well Name: KEETON #1  
Location: sec 13 - twp 20S - rge 36W WICHITA COUNTY  
License Number: API 15-203-20,211  
Spud Date: 13 MAR 2013  
Surface Coordinates: 2,248' FNL & 769' FEL  
Region: KANSAS  
Drilling Completed: 22 MAR 2013

Bottom Hole approx. NE - SW - SE - NE  
Coordinates: see comments section

Ground Elevation (ft): 3,162  
Logged Interval (ft): 3,450 To: 5,088 K.B. Elevation (ft): 3,173  
Formation: WABAUNSEE to MISSISSIPPIAN Total Depth (ft): 5,088  
Type of Drilling Fluid: CHEMICAL: displace @ 3,420

Printed by WellSight Log Viewer from WellSight Systems 1-800-447-1534 www.WellSight.com

## OPERATOR

Company: Raymond Oil Company, Inc. license # 5046  
Address: P.O. Box 48788  
Wichita, Kansas 67202-1822

## GEOLOGIST

Name: Max R. Lovely and Ted Jochems, Jr.  
Company: Consulting Geologist  
Address: 212 North Market ste 517  
Wichita, Kansas 67202

**COMMENTS**

CONTRACTOR: H2 Drilling, rig #1 (Carlos Fabela, toolpusher)  
 MUD: Mud-Co (Tony Maestas)  
 DRILL STEM TESTS: Trilobite Testing (Sam Esparsa)  
 GAS DETECTOR: MBC analog unit  
 ELECTRIC LOGS: Pioneer Energy Services (Daylon Kerr)  
 DIL, CNL/CDL, MEL  
 DEVIATION SURVEYS: 0.75 degree @ 267,  
 0.5 degree @ 997,  
 1.0 degree @ 1,692  
 0.75 degree @ 2,412  
 1.5 degrees @ 3,105  
 1.0 degree @ 3,705  
 1.0 degree @ 4,500  
 1.5 degrees @ 4,690  
 0.75 degree @ 5,088  
 SURFACE CASING: 8.625" @ 267  
 PRODUCTION CASING: 4.5" @ 4,750

**DAILY PENETRATION**

DATE	DEPTH	SPUD
13 MAR 2013	267	0700 hours
14 MAR	2,360	" "
15 MAR	3,500	" "
16 MAR	4,105	" "
17 MAR	4,500	" "
18 MAR	4,610	" "
19 MAR	4,690	" "
20 MAR	4,957	" "
21 MAR	5,088	" "
22 MAR		

DST #1  
 DST #2  
 TD - preparing to run pipe

MUD REPORTS

RPT DEPTH	WT	VIS	FIL	pH	PV	YP	GELS	CHLOR	SOLIDS	BTMS UP
3 3,705	8.9	52	6.4	10.5	16	16	20/40	5,100	4.0%	33 min
4 4,159	9.1	53	9.6	10.5	17	20	15/38	5,000	5.3%	35 min
5 4,600	9.0	66	8.0	10.5	18	22	16/46	5,500	4.7%	38 min
6 4,816	9.2	60	8.0	10.0	18	22	16/45	6,000	6.0%	39 min
7 4,690	9.2	56	8.8	10.5	17	21	15/41	6,800	5.9%	40 min
8 4,957	9.3	55	8.8	11.0	17	21	16/40	6,100	6.7%	42 min
9 5,088	-	-	-	-	-	-	-	24,000	-	44 min

- LITHOLOGY**
- Anhy
  - Bent
  - Brec
  - Cht
  - Clyst
  - Coal
  - Congl
  - Dol

**OTHER SYMBOLS**

- Gyp
- Igne
- Lmst
- Meta
- Mrlst
- Salt
- Shale
- Shcol
- Shgy
- Siltst
- Ss
- Till
- OIL SHOW**
- Even
- Spotted
- Ques
- Dead
- Gas
- EVENT**
- Conn
- Rft
- Sidewall

Curve Track 1

ROP (min/ft)

Depth

Lithology

Oil Shows

Geological Descriptions

TG, C1-C5

TG (Units)

C1 (units)

C2 (units)

C3 (units)

C4 (units)

C5 (units)

0.1 ROP (min/ft) 10

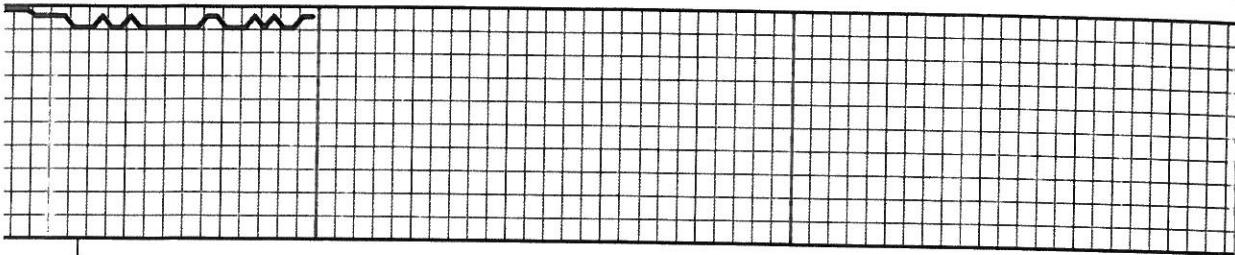
32

Oil Shows

Geological Descriptions

TG, C1-C5

200



3300

3250

examine samples wet for color, shows & description; dry for porosity & dry stain. sample descriptions are lagged up to true depth using mud engineer's calculations for bottoms up.

DEPTH 2,200

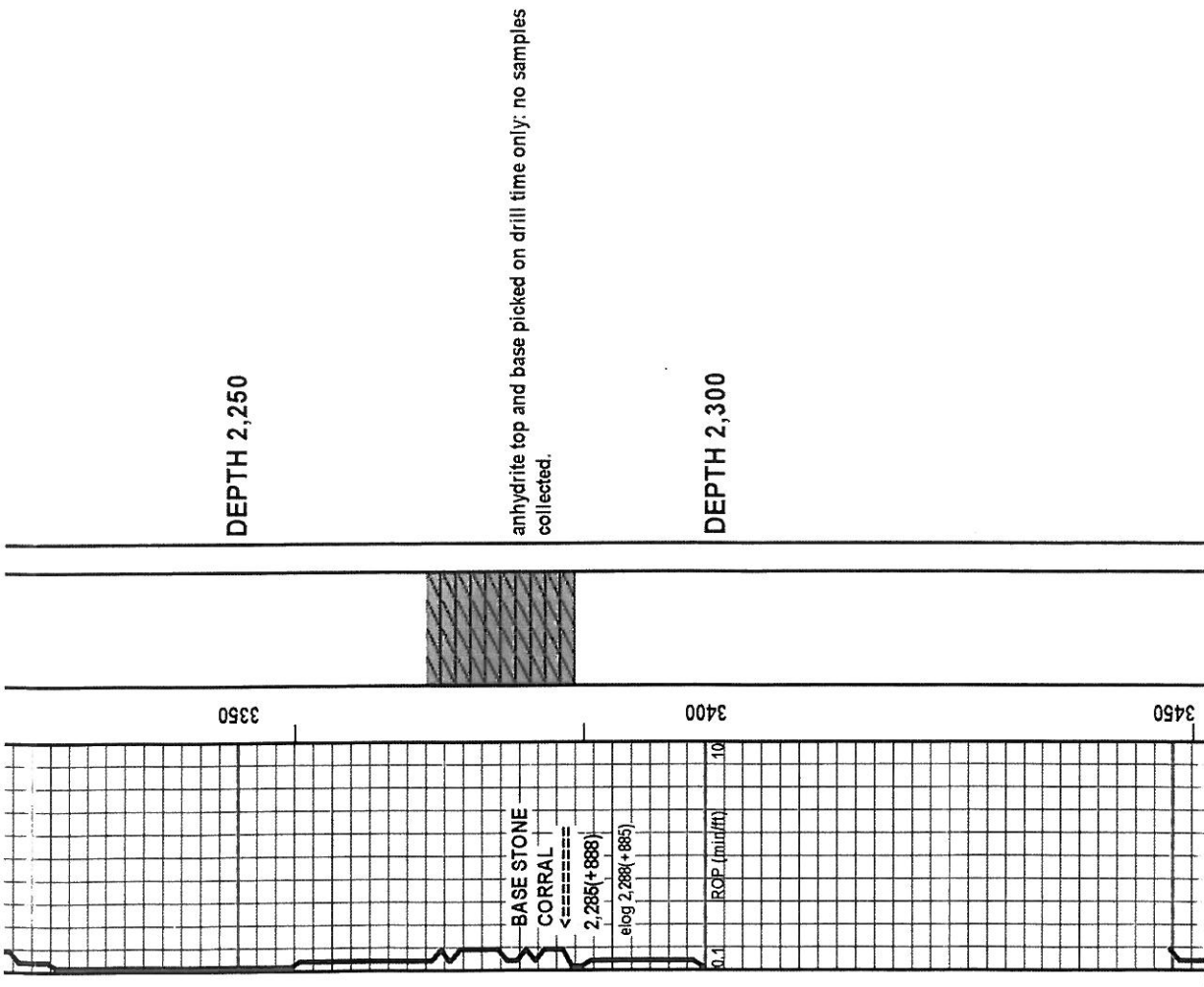
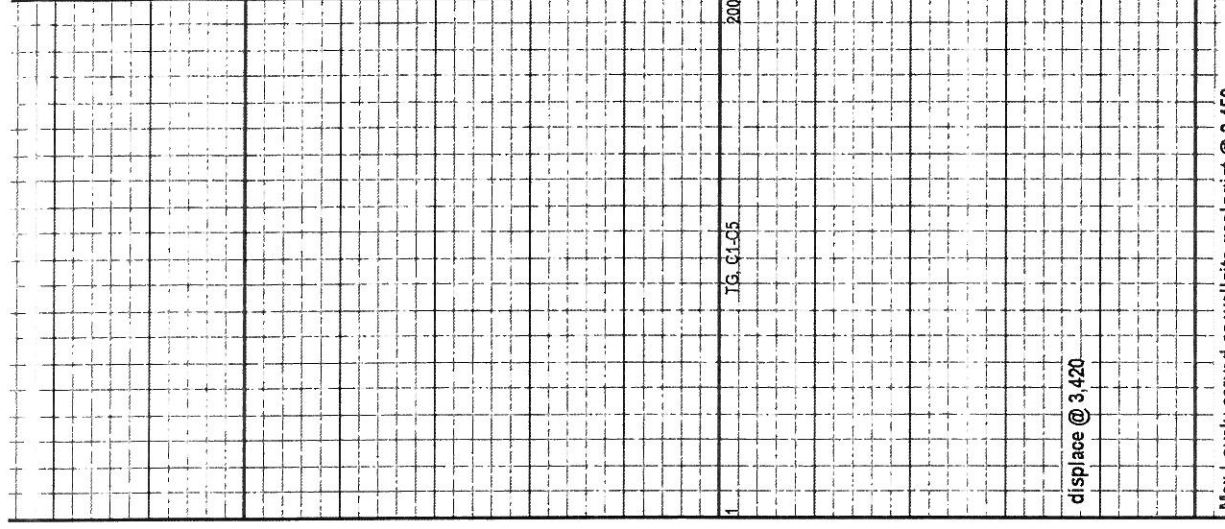
"cal flood" is synonymous with "lithographic," "massive" or "dense," this is pervasive replacement by calcite.

"cal overgrths" includes calcite crusts, drusy calcite, calcite veinlets and local recrystallization of larger fossils or clasts.

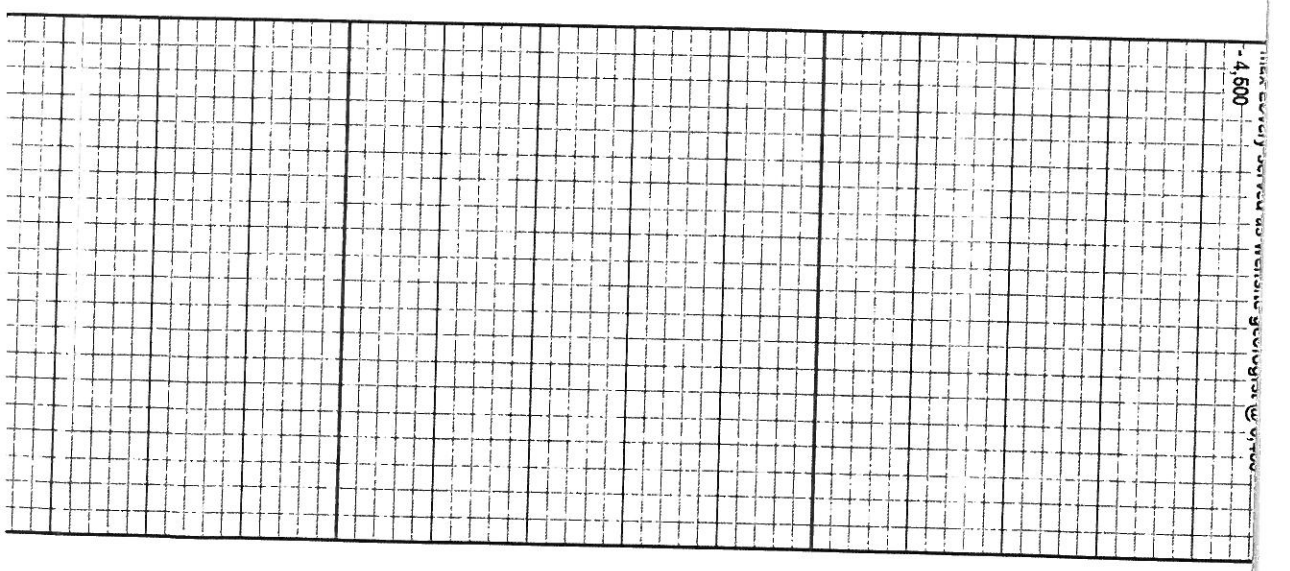
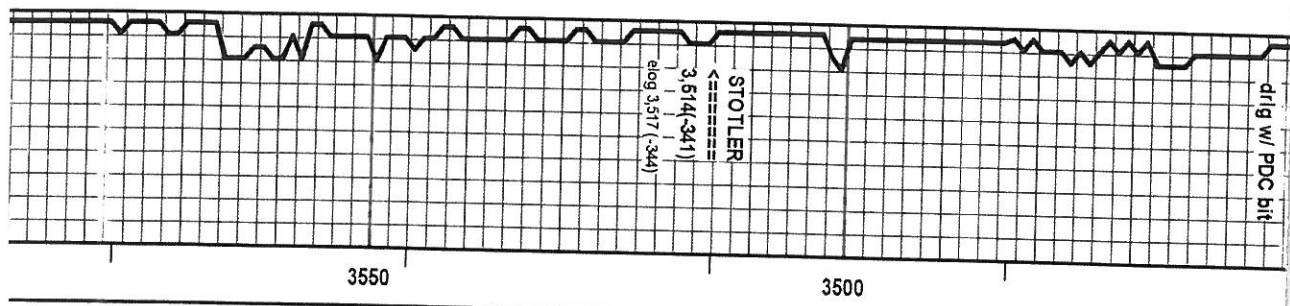
"rextizd" = recrystallized.

"sil" = siliceous; introduction of moderate to abundant silica - original color and texture preserved.

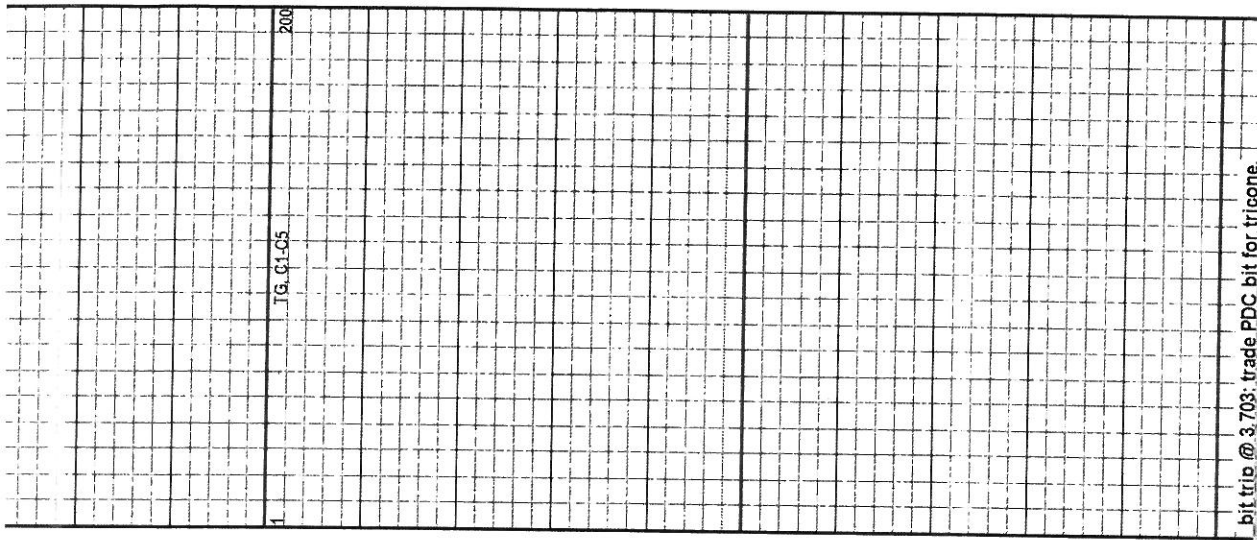
"ohr" describes very heavy silicification - original color and texture altered.



May Lately served as well site geologist @ 3,450

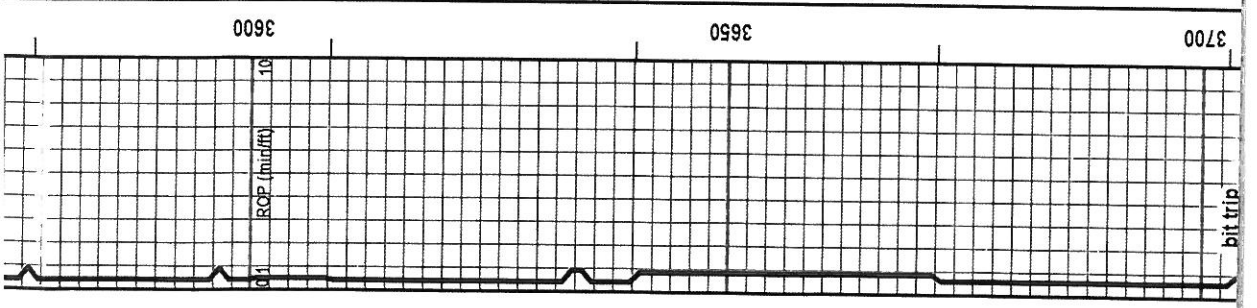






bit trip @ 3.703: trade PDC bit for tricone.

LS: brn, gry, f xlin, soft, britl, crmbly, f to p por, NS

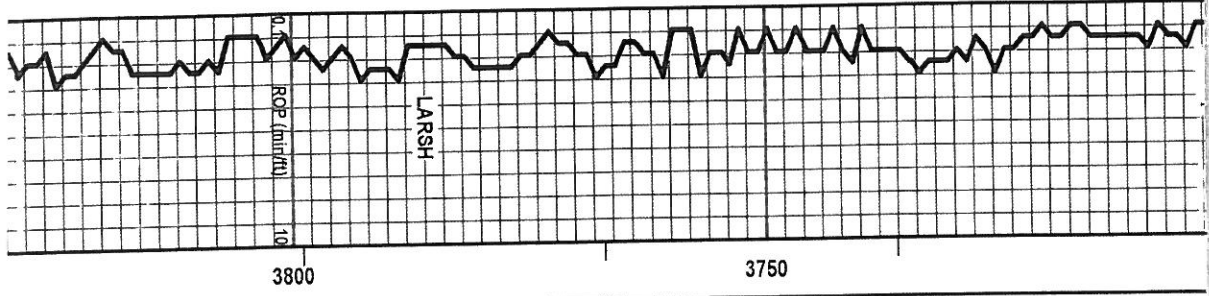


bit trip

3600

3650

3700



LS: tan, f xlin, chalky, soft, NS

LS: tan, buff, f xlin, soft, v chalky, NS

chalk

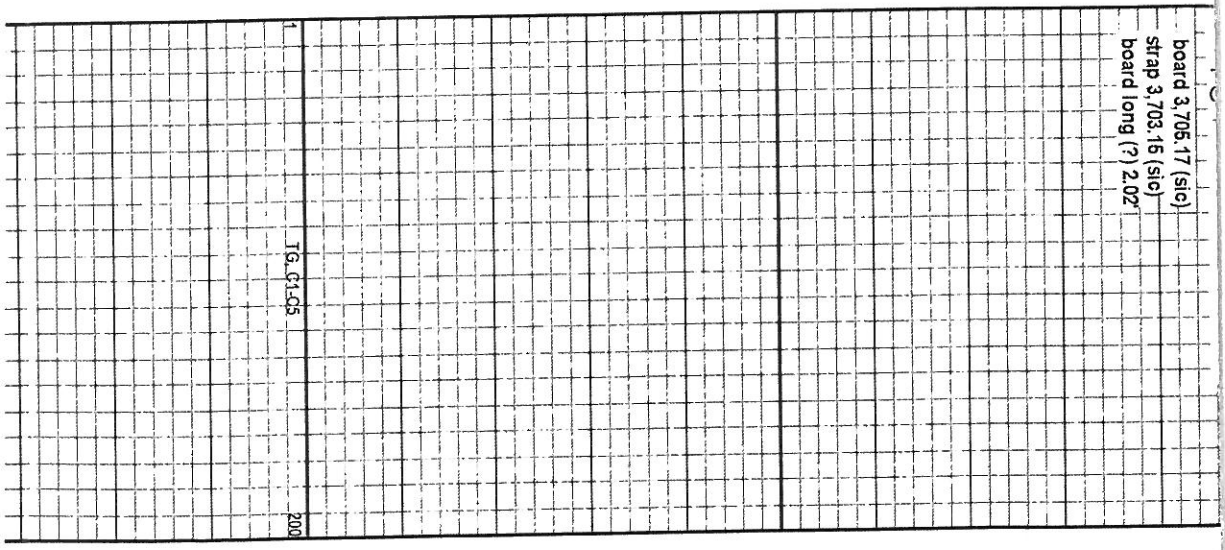
LS: gry, v f xlin, soft, brtl, no app por, NS

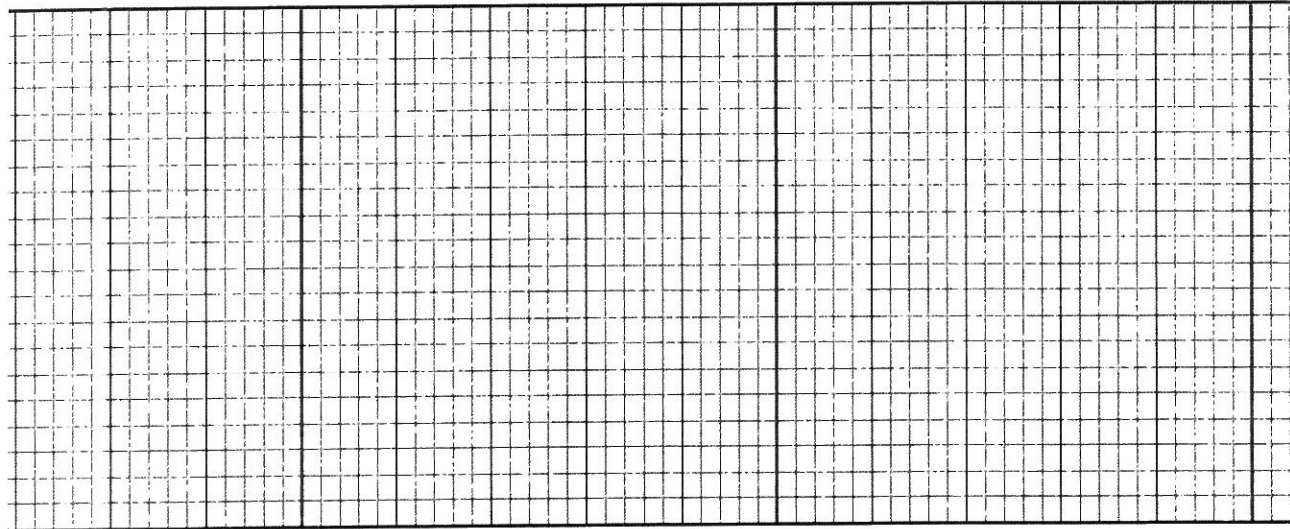
LS: wht, gry/brn, f xlin, soft, chalky, NS

SH: blk, sticky

LS: lt gry, v f to f xlin, v soft, NS

LS: gry, tan, brn, f xlin, v soft, NS





LS: gry, tan, brn, f xlin, v soft, NS

SH: blk, sticky, soft  
 LS: tan, f xlin, set gil, soft, "rotten," g por, NS

LS: crm, f xlin, m hrd, abun foss frags, w cmt'd, p por, NS

LS: crm, tan, f xlin, w/ abun lg grns w/n, foss, f por, NS

LS: tan, brn, f xlin, s to m hrd, p por, ? dd blk sing, no odor,  
 NSFO

SH: blk

LS: crm, wht, f xlin, hrd to m hrd, no app por, NS

3850

3900

3950

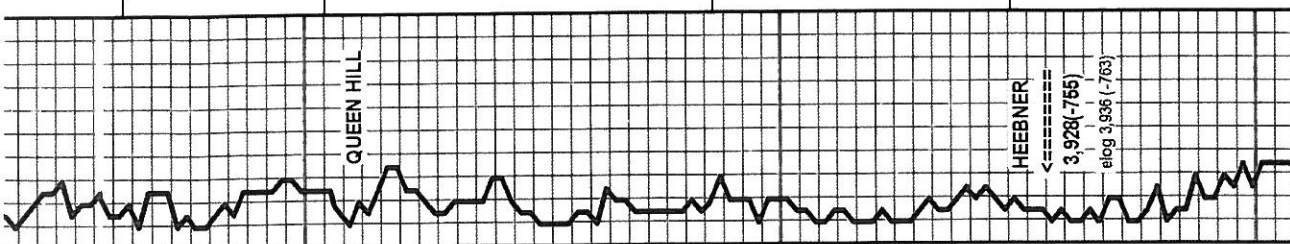
QUEEN HILL

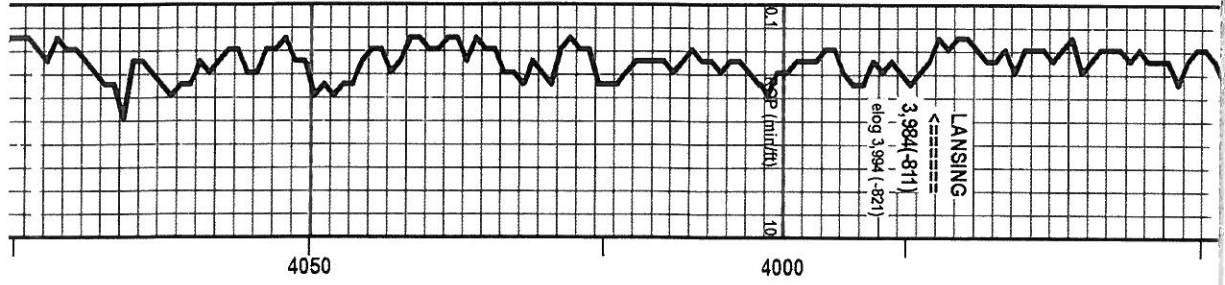
HEEBNER

←=====

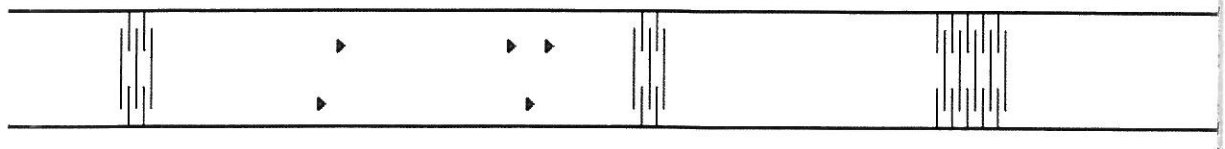
3,928(-755)

elvg 3,936 (-763)

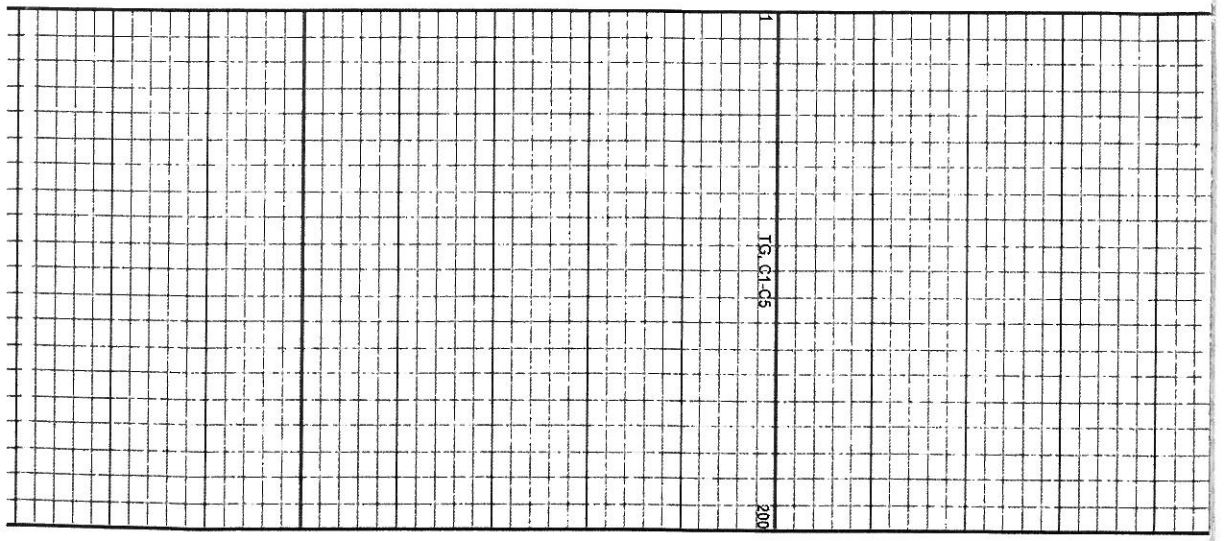


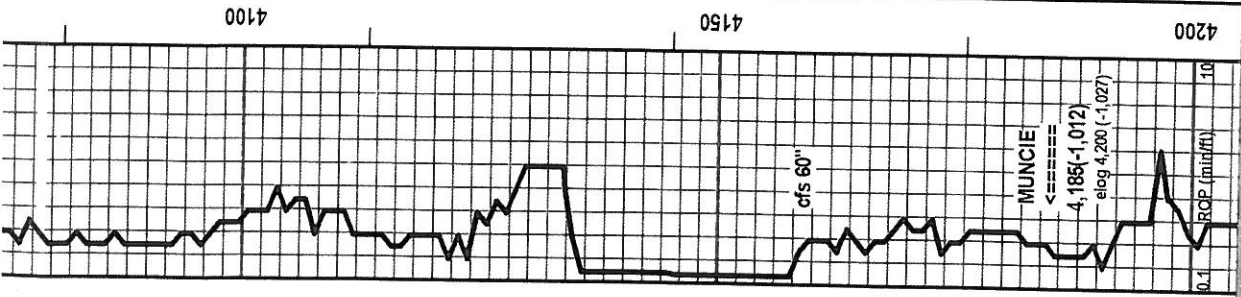


rho SP (mV/dm)  
 0.1  
 10  
 3,984 (811)  
 <-----  
 Lansing  
 3,984 (-821)



L.S: tan, brn, f to m xlin w/n, abun foss + frags, p por, NS  
 SH: gry  
 L.S: wht, crm, f xlin, hrd, sl dns, few foss, NS  
 SH: dk gry  
 L.S: crm, tan, f xlin, hrd, vp xlin por, NS  
 CHT: wht, whtblrn  
 L.S: crm, wht, f xlin, soft, sd foss, f to g por, NS  
 CHT: wht, abun foss w/n  
 L.S: crm, wht, v soft, chiky, NS  
 SH: gry  
 chalk, wht, crm  
 L.S: crm, wht, tan, v f xlin, v brtl, sl frac'd, f to n frac, por, NS





LS: erm, wht, tan, vf xtin, v brttl, sl frac'd, f to g frac por, NS

LS: lt gry, lt tan, wht, vf xtin, hrd, dns, wht w/ abun foss, tite to vp por, NS

LS: buff, vf xtin, s to m hard, scat foss + frags, vg oom por, no con por, NS

CFS: ala, few pcs w/ scat fluor stng, 1 microfluor o spt on brk, no odor

LS: tan, f xtin w/ m to lg xtis w/in, hrd, scat foss, f por, NS

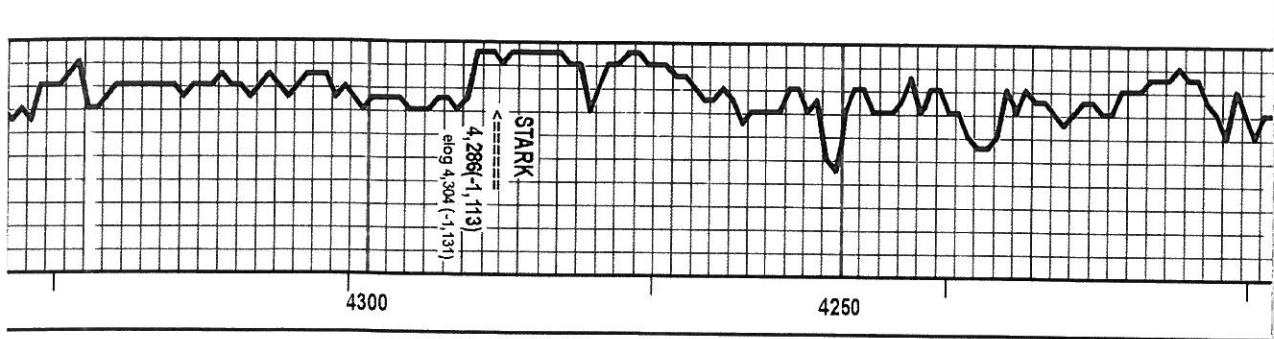
LS: wht, f xtin, hrd, tite, scat wht cht, NS

SH: blk

LS: tan, buff, vf xtin, hrd, few rextl'd frac's, p por, NS

7:00 AM 3 - 17 - 2013 drlg @ 4,114

2u hw / 3u c-1



LS: tan, buff, v' xlin, m hrd, dns, foss, NS

LS: buff, v' xlin, dns, v hrd, tile, NS

LS: wht, v' xlin, hrd, dns, v few foss, NS

a/a

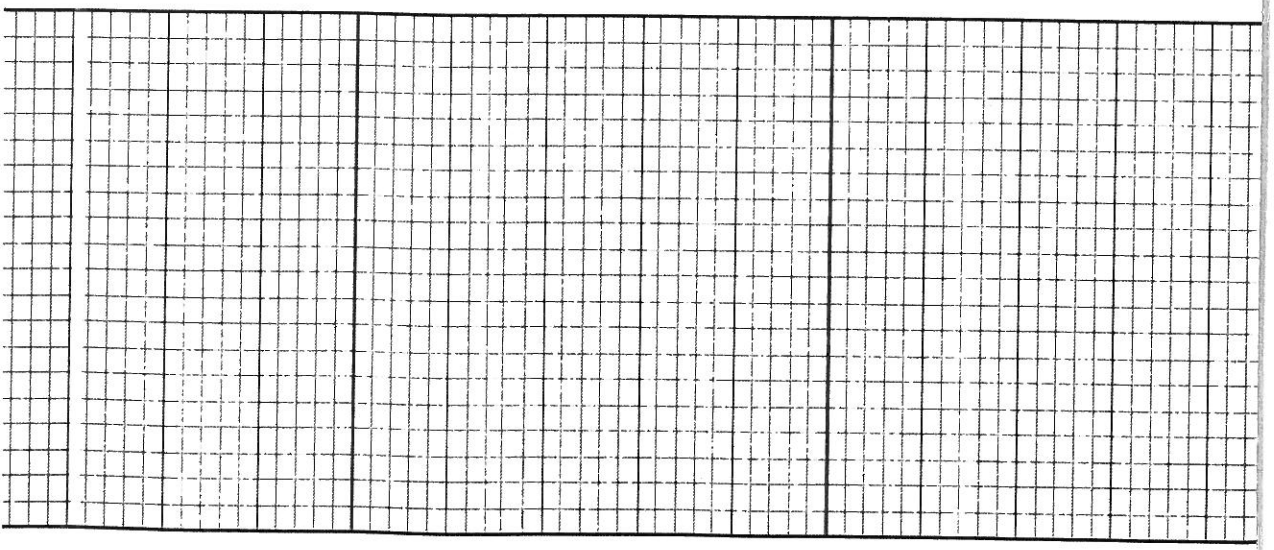
LS: wht, f xlin, soft, m xlis w/in, p por, NS

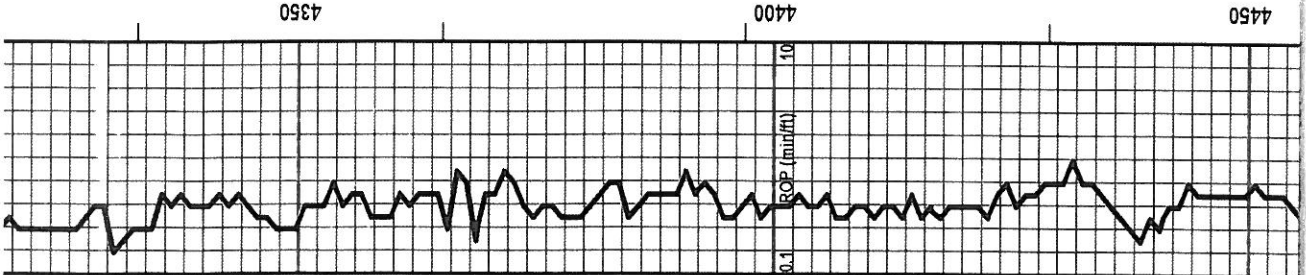
LS: buff, f xlin, m hrd, v oom, v ool, p to f por, no app, perm, NS

LS: buff, tan, f xlin, hrd, pcs v dns, tile, NS

a/a

LS: buff, v' xlin, v oom, brtl, g oom por, no perm, NS





LS: buff, vf xlin, v oom, brtli, g oom por, no perm, NS

LS: wht, crm, f xlin, s to m hrd, v ool, w cmt'd ools, no por, NS

a/a

tight conn

LS: tan, crm, f xlin, crs txt, m hrd, g xlin por, NS

LS: lt gry, f xlin, hrd, v foss, w cmt'd foss, no app por, NS

LS: tan, lt gry, f xlin, m hrd, sl foss, ? por, NS

LS: tan, vf xlin, v dns, hrd, tite, NS

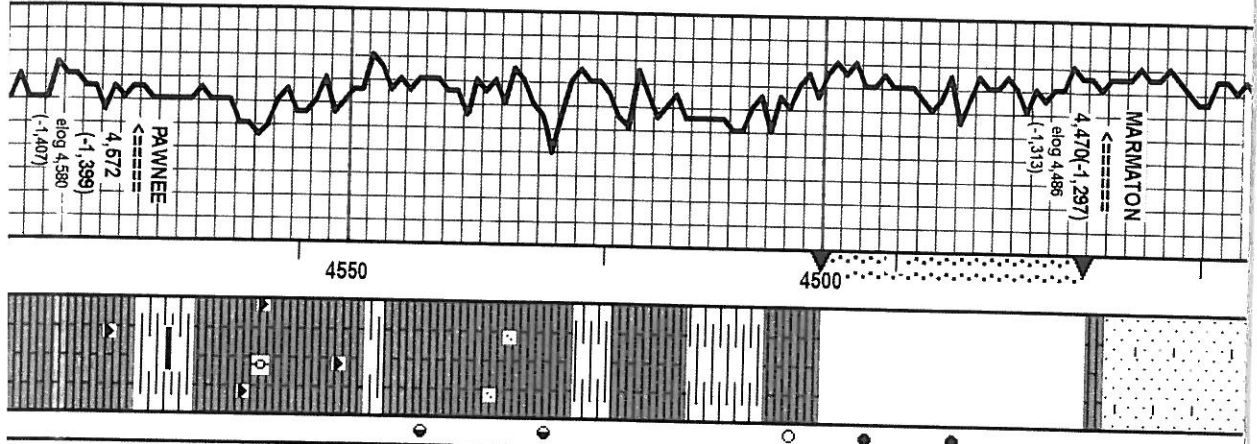
LS: lt gry, vf xlin, v dns, v hrd, no por, NS, v clean ls

200

16. 01. 05

1

DST #1



set stn, gry, pos tan / brn SS, sl friable, yg por, NS

LS: brn / wht, hrd, v foss, v w cont'd foss, sl chky, no por, NS

LS: wht, crm, f xtn, m xls w/rn, chalky, on brk stng, dk brn oil spots on brk — frt odor, brn FO

LS: wht, v ool, soft, v g o fill por, f to g FO on brk, v lt odor, dk brn FO

LS: crm to gry, microxtln, loc rextlzd, loc ool, minor gry cht, poor por. 1 pc w/ wk SO (dk brn, no odor, patchy brn dry stn, ?eaving?), tr VSSG on brk.

SH: gry & red-brn, argil, earthy hmt, rare py.

LS: tan to brn, microxtln, cal floood, loc ool, scarce cal crusts, tr cht (orange, fossil), no vis por. NSO NSG

SH: gry & brn, argil, pyr.

LS: lt gry & tan, microxtln, cal floood, minor cal crusts & overgrths, loc fossil, loc v sdy & chalky, no/poor vis por. 1 pc w/ minute oil drpfts (no odor, wk patchy dry stn)

LS: tan to brn, microxtln, cal floood, cal crusts, loc chalky, no / poor vis por. 1 pc w/ SSO (brn, no odor, wk patchy dry stn)

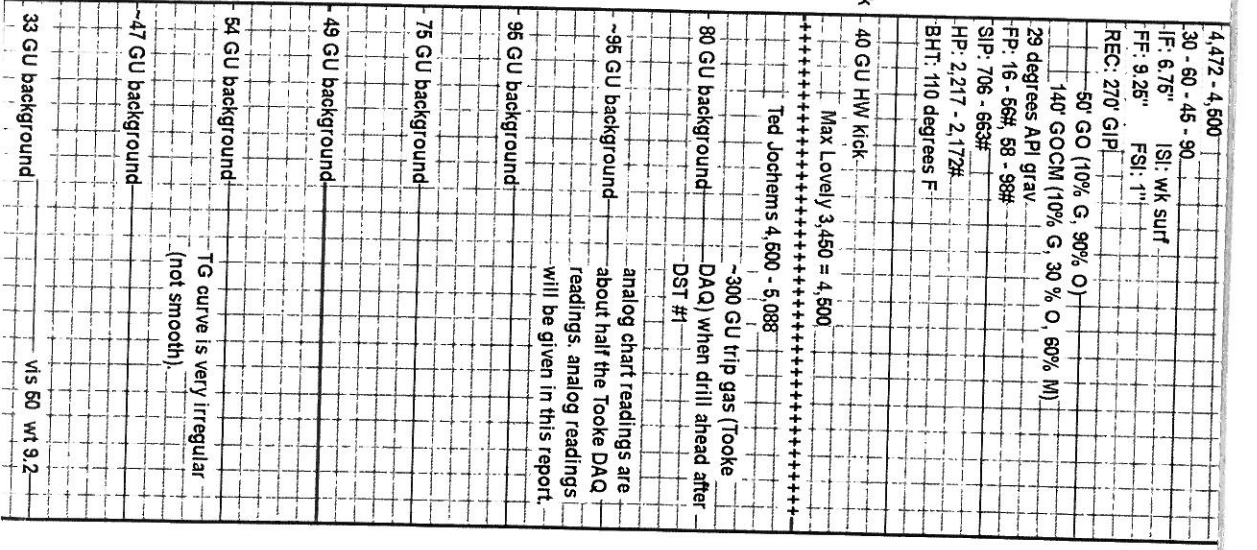
SH: gry & brn, argil, soft.

LS: gry to tan, microxtln, cal floood, cal crusts, loc ool, loc siltd to cht (gry, wht & brn, loc mottled blue, fossil), no vis por. NS

SH: gry & blk, argil, cale, pyr, tr carb w/ algaee.

LS: dk gry, microxtln, cal floood, small cal crusts, loc siltd (dk gry, crypxtn), no vis por, no odor, NS

LS: gry to brn, microxtln, cal floood, cal overgrths, minor



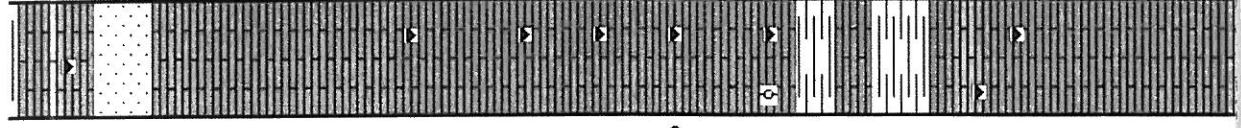
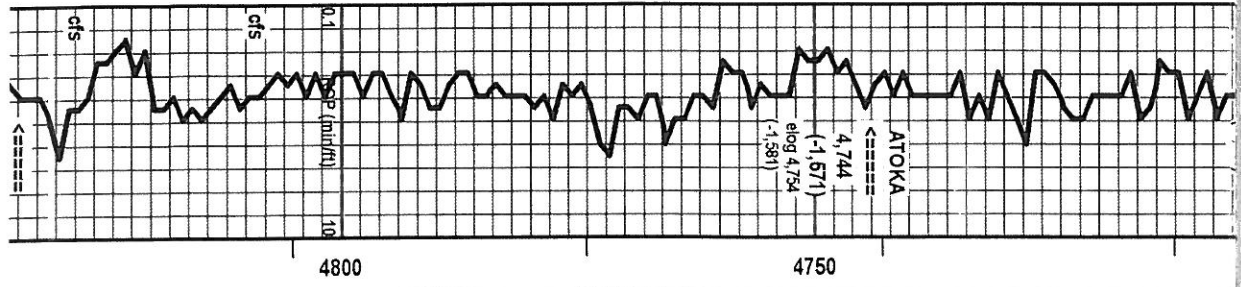




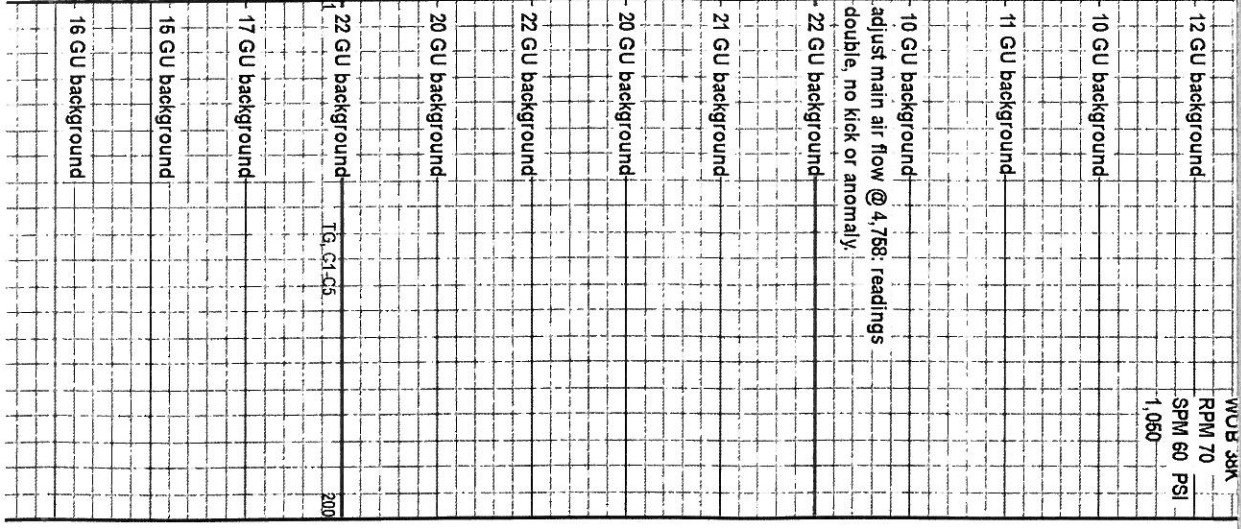
33 GU background	vis 50 wt 9.2
28 GU background	
25 GU background	
65 GU background	TG: C1-C5
>95 GU background (60 GU after cfs)	
82 GU background	DST #2 4,618 - 4,690 30 - 60 - 45 - 90 IFP: 8" blow ISIP: no return FFP: no blow FSIP: no return REC 5' DM (100% M) FP: 15 - 19# / 19 - 20# SIP: 475 - 441# HP: 2,314 - 2,280# BHT: 110 degrees F
82 GU background	
70 GU background	
80 GU background	
76 GU background	
74 GU background	
70 GU background	
64 GU background	

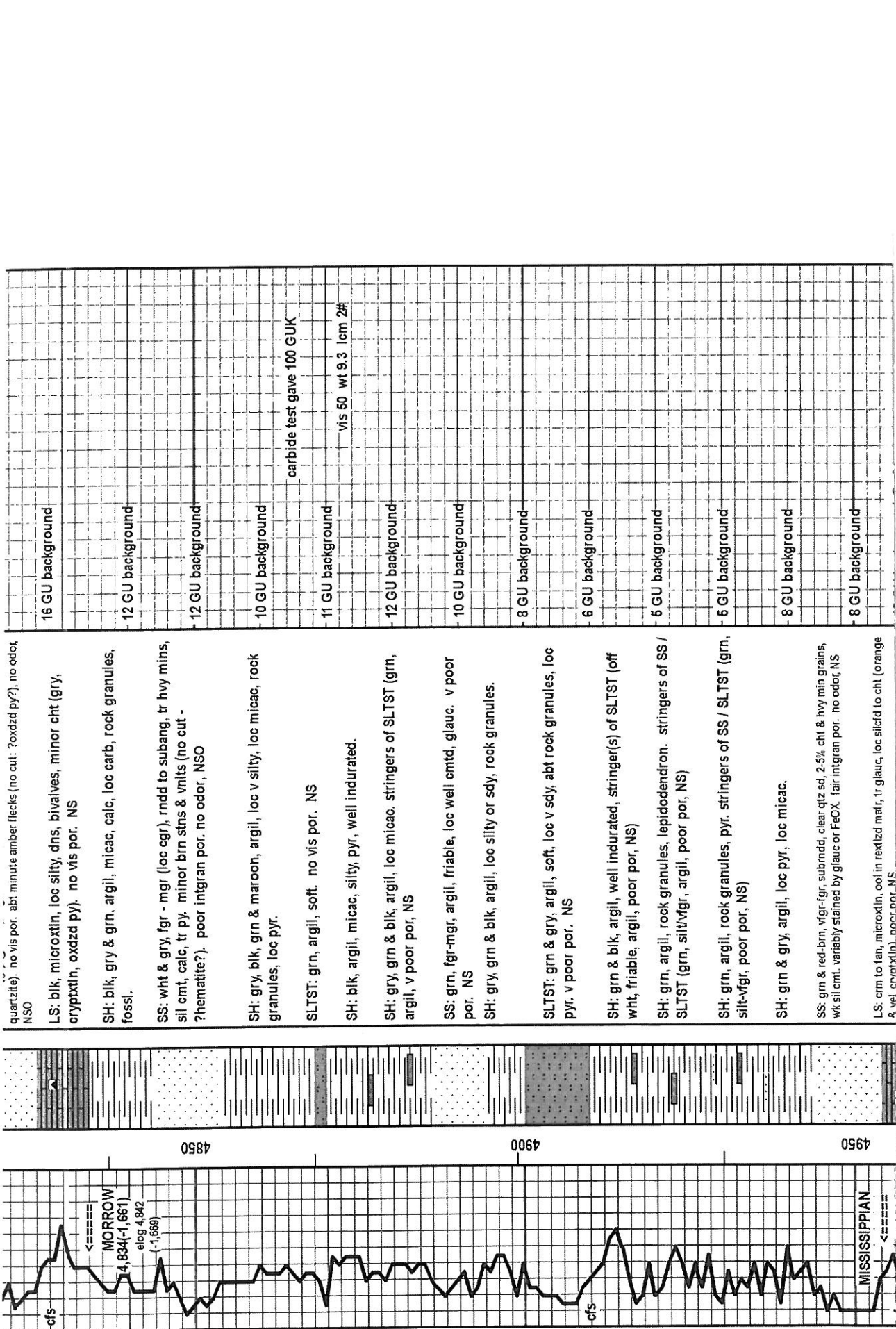
gry, cryptxtln, no vis por. no odor, NS  
 LS: gry to brn, microxtln, cal floodd, cal overgrths, minor fossils (?erinooids?). no vis por. no odor, NS  
 LS: crm to tan, microxtln, wkly rextlzd, chalky, relicct fossils (forams & bivalves), tr hematite. poor vis por. no odor, NS  
 SH: gry, grn & blk, argil, loc carb.  
 LS: crm, tan & gry, microxtln, cal floodd, loc chalky, relicct fossils, cal overgrths, minor cht (gry & brn). poor vis por. brn flecks & stn (no odor, no cut), NSFO  
 SH: blk, carb, micae, calc (whit & pink)  
 LS: crm to tan, microxtln, wkly cal floodd, loc chalky, fossil. poor vis por. NS  
 LS: tan, microxtln, cal floodd, chalky partings, v fossil. poor por, loc poor-fair infossil por w/ SSO (dk brn spots, fair cut, no odor, patchy brn dry stn, druzoy cal).  
 LS: tan, gry & brn, microxtln, cal floodd, loc fossil / ool, cal crusts, minor silicfen to cht (gry & wht, cryptxtln, fossil). no vis por. no odor, NS  
 LS: brn, microxtln, cal floodd, cal crusts, loc fossil, loc cht (brn, xiscent & opaq, cryptxtln, pyr), no vis por. no odor, NS  
 SH: blk, carb, micae, cal inclusions.  
 LS: tan to brn, microxtln, sl rextlzd, chalky, ool, loc sil, loc earthy. poor por. no odor, NS  
 SH: gry & grn, argil, sdy, pyr  
 LS: brn & gry, microxtln, cal floodd, dns, cal crusts & druzoy cal, chalky partings, loc silcfd to cht (brn, gry & blue, fossil, cryptxtln). v poor intxtln por, loc fair vug por. wk SO (brn, fair cut, no odor, patchy brn dry stn).  
 LS: gry & tan, microxtln, wkly cal floodd, cal crusts, druzoy cal, loc cht (gry, cryptxtln, fossil). minor fair vug por. minor VSSO (dk brn, no odor, wk flesh cut, v wk it brn dry stn)  
 SH: gry, grn & blk, argil, loc carb, micae, loc sdy, cal vnfts.  
 SH: gry, grn & blk, argil, pyr, loc v silty, loc carb, micae.  
 LS: gry, microxtln, cal floodd, minor cal crusts, relicct fossils. no vis por. no odor, no stns, NS  
 LS: brn, microxtln, cal floodd, dns, cal crusts, relicct fossils, grn smears (?glauc?), rarely sil. no vis por. no odor, NS

hotwire curve settled down after DST #2. gave 22  
 GUK on carbide test. no trip gas kick.



LS: brn & tan-brn, microxtln, cal floodd, relict fossils, tr cal crusts, no vis por. 1 pc w/ minute brn strms (no out), no odor, NSO  
 LS: brn & gry, microxtln, cal floodd, dns, chalky partings, cal crusts & druzyl cal, tr py relict fossils (incl bryozoans), loc silicd to cht (brn & gry, cryptxtln, xiscent), NVP NS  
 LS: brn, microxtln, cal floodd, dns, cal crusts & druzyl cal, relict fossils, loc silicd to cht (brn, cryptxtln, xiscent), no vis por, NS  
 SH: dk gry to blk, argil, micae, loc carb.  
 LS: brn & tan, microxtln, cal floodd, loc chalky poor vis por, NS  
 SH: dk gry to blk, argil, micae, carb in part.  
 LS: gry to tan, microxtln, cal floodd, chalky partings, loc ool, loc cht (whit, ool), poor vis por, NS  
 LS: brn & gry, microxtln, hvly cal floodd, minor cal crusts, loc ool w/ relict matl, loc silicd to cht (brn, cryptxtln, xiscent, loc ool), no vis por. GSFO in tray (dk brn, no / good cut, no odor, no gas kick, dk brn patchy to sand dry str).  
 LS: gry to blk, microxtln, cal floodd, chalky relict partings, loc earthy, loc silicd to cht (blk, opaq), no vis por, minor blk glisonte (no odor), NSO  
 LS: tan & gry, microxtln, cal floodd, loc relict, relict fossils, loc sdy, minor cal crusts, no vis por, NS  
 LS: crm & pale gry, microxtln, relict, loc cal floodd, fossil, minor cal crusts, loc silicd to cht (lt orange, microxtln, fossil), v poor por, no odor, NS  
 LS: gry & wht, earthy, relict, chalky (?day?), relict fossils, loc pelletal, poor vis por, no odor, NS  
 LS: tan, lt brn & lt gry, microxtln, cal floodd, relict fossils, loc silicd to cht (lt brn & off wht, cryptxtln, fossil), no vis por, no odor, NS  
 SS: crm (gry @ base), vfg, subrrndd, sil cm, loc v calc, durable (almost quartzite), no vis por, abt minute amber flecks (no cut: ?oxdzd py?), no odor, NSO  
 LS: blk, microxtln, loc silty, dns, bivalves, minor cht (gry, cryptxtln, oxdzd py), no vis por, NS





quartzite). no vis por. abt minute amber flecks (no cut: ?oxidz py?), no odor, NSO

LS: blk, microxtln, loc silty, dns, bivalves, minor cht (gry, cryptxtln, oxidz py). no vis por. NS

SH: blk, gry & grn, argil, micac, calc, loc carb, rock granules, fossil.

SS: wht & gry, fgr - mgr (loc cgr), rndd to subang, tr hvy mins, sil emt, calc, tr py, minor brn sfns & vnits (no cut - ?hematite?). poor intgran por. no odor, NSO

SH: gry, blk, grn & maroon, argil, loc v silty, loc micac, rock granules, loc pyr.

SLTST: grn, argil, soft. no vis por. NS

SH: blk, argil, micac, silty, pyr, well indurated.

SH: gry, grn & blk, argil, loc micac. stringers of SLTST (grn, argil, v poor por, NS)

SS: grn, fgr-mgr, argil, friable, loc well emtd, glauc. v poor por. NS

SH: gry, grn & blk, argil, loc silty or sdy, rock granules.

SLTST: grn & gry, argil, soft, loc v sdy, abt rock granules, loc pyr. v poor por. NS

SH: grn & blk, argil, well indurated, stringer(s) of SLTST (off wht, friable, argil, poor por, NS)

SH: grn, argil, rock granules, lepidodendron. stringers of SS / SLTST (grn, silt/vfgr, argil, poor por, NS)

SH: grn, argil, rock granules, pyr. stringers of SS / SLTST (grn, silt-vfgr, poor por, NS)

SH: grn & gry, argil, loc pyr, loc micac.

SS: grn & red-brn, vfgr-fgr, subrndd, clear qtz sd, 2-5% cht & hvy min grains, wk sil emt. variably stained by glauc or FeOX. fair intgran por. no odor, NS

LS: crm to tan, microxtln, ool in rextzld matr, tr glauc, loc siltd to cht (orange & vel. chromxtln). no cr. por. NS

16 GU background

12 GU background

12 GU background

10 GU background

11 GU background

12 GU background

10 GU background

8 GU background

6 GU background

6 GU background

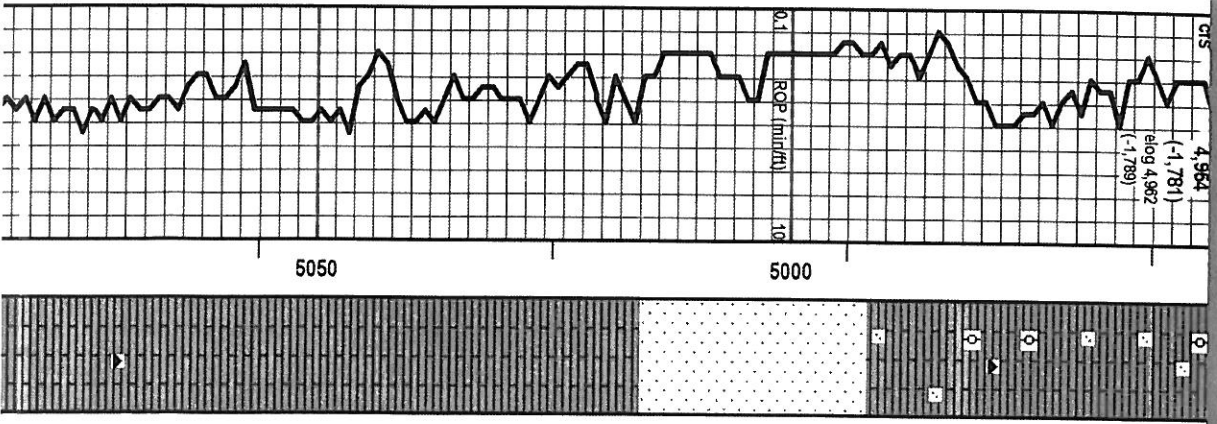
6 GU background

8 GU background

8 GU background

carbide test gave 100 GUK

vis 50 wt 9.3 lcm 2#



LS: wht, sand in chalk matr. poor por. NS

LS: wht to off wht, sandd (vfg rdd qtz sd in a cal matr more competent than above, grain contact), no vis por. NS

LS: wht to off wht, microxtln, wkly cal floodd, ool, loc chalk matr, minor wk ooc, cht (orange, crypxtn), v poor por. NS

LS: wht, sandd (vfg sd set in chalk matr), poor vis por. NS  
Flood shales in sample

SS: wht (minor pale gry & pale grn), vfg-gr, subrrdd, clean qtz sd, v calc, friable (good clusters to surface), poor - fair intrgran por. rare brn stns: no odor, no cut, NSO NSG flood shales in spl

LS: crm, micro-fgr xtn, cal floodd, relict forams (?ool?) & bivalves, chalky partings, loc sl sandd (no grain contact), no vis por. NS

LS: tan to beige, crypt-microxtln, hvly cal floodd, no vis por. NS

LS: wht chalk, v mushy, v poor vis por. NS

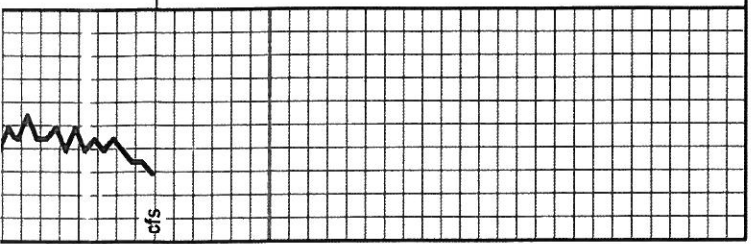
LS: lt brn, microxtln, hvly cal floodd, relict forams, no vis por. NS

LS: crm to lt brn, microxtln, cal floodd, chalky partings, relict forams (?loc ool?) & bivalves, no/poor vis por. NS

LS: lt brn, microxtln, cal floodd, loc ool, minor cal crusts, loc silicd to cht (brn & orange, crypxtn), no vis por. NS

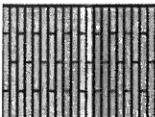
LS: lt brn, microxtln, cal floodd, minor relict fossils, minor chalky partings, no vis por. NS

12 GU background @ cfs		
8 GU background after cfs		
8 GU background		
10 GU background		
12 GU background		work on draw works @ 4,986: had to pick up kelly & stop circulation.
12 GU background	16.01.05	200
13 GU background		
6 GU background		
6 GU background		
7 GU background		
3 GU background		
3 GU background		
3 GU background		
3 GU background		
adjust main air flow		
12 GU background		



5100

50

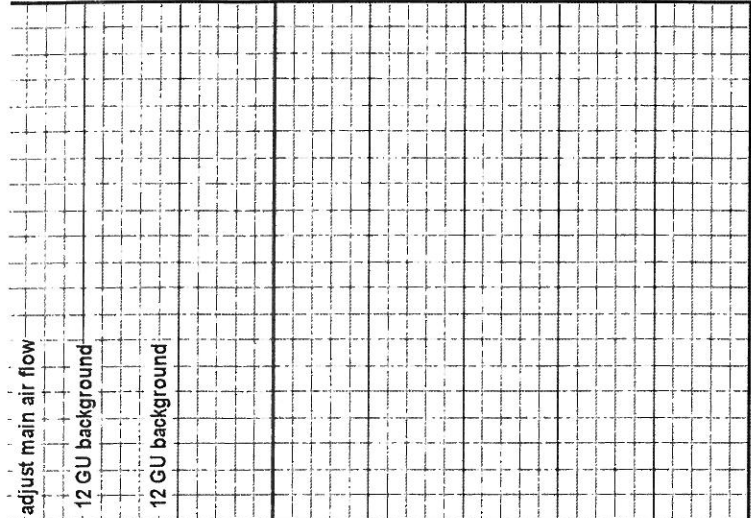


LS: lt brn, microxtin, cal floood, minor relict fossils, minor chalky partings. no vis por. NS  
 LS: erm to tan, microxtin, wkly cal floood, chalky, relict fossils. no/poor vis por. NS

RTD 5,088  
 LTD 5,092

Raymond Oil Co.  
 Keeton #1  
 sec 13 - twp 20S - rge 36W  
 2,248' FNL & 769 FEL  
 Wichita County, Kansas

adjust main air flow  
 - 12 GU background  
 - 12 GU background



IED  
LLC

257567

TICKET NUMBER 39375  
LOCATION Osley Ks  
FOREMAN (Jerry Fuzzym)  
Trainee

Manate, KS 66720  
210 or 800-467-8676

FIELD TICKET & TREATMENT REPORT  
CEMENT

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
3-22-13	7158	Kecton #1	13	20S	36W	Wichita
CUSTOMER <u>Raymond Oil</u>			TRUCK #	DRIVER	TRUCK #	DRIVER
MAILING ADDRESS			463	Travis W		
CITY			693	Ed W		
STATE			529	Tim W		
ZIP CODE						

JOB TYPE 2 Stage HOLE SIZE 7 7/8 HOLE DEPTH 5088 CASING SIZE & WEIGHT 4 1/2 10 1/2 #  
CASING DEPTH 4769.91 DRILL PIPE \_\_\_\_\_ TUBING \_\_\_\_\_ #59 OTHER total 2293'  
SLURRY WEIGHT 14.3-12.5 SLURRY VOL. 1.27-1.89 WATER gal/sk \_\_\_\_\_ CEMENT LEFT in CASING 20'  
DISPLACEMENT 75 1/2-36 1/2 DISPLACEMENT PSI \_\_\_\_\_ MIX PSI \_\_\_\_\_ RATE \_\_\_\_\_

REMARKS: Safety meeting on H<sub>2</sub>S + 1 Run float equip Cent 1, 3, 5, 7, 9, 11, 60  
Basket (B) #1, 59 DU Tool top of #59. Rise up and circulate. Pumps 5 BBL  
water, mix 266 sks 60/40 7 1/2 90 salt, 20 seal. Wash pump and lines  
Drop plug and displace 39 BBL water, 36 1/2 BBL mud. Lift press 700\*  
hand @ 1400\*. Drop DU Bomb with 15 min open Tool @ 1200\*. Circ 15 min.  
Mix 20 sks with 30 sks RH. Mix 510 sks 60/40 pos 8 90 seal 1 1/4 @ close down  
4 1/2 egg. Wash pump and lines. Drop plug and displace 37 1/2 BBL (390 over)  
Plug did not land Had 600\* lift shut in @ 500\* and lost head.  
+ man Cold. Cement did circulate approx 20 BBL to pit.

Thanks Jerry & Crew

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
5401G	1	PUMP CHARGE	3020 <sup>00</sup>	3020 <sup>00</sup>
5406	60	MILEAGE	500	300 <sup>00</sup>
5407A	35.5 ton	TON mileage delivery	167	3557 <sup>40</sup>
1131	266 sks	60/40 pos (Bottom)	15 <sup>10</sup>	4016 <sup>00</sup>
1131	560 sks	60/40 pos (Top)	15 <sup>10</sup>	8456 <sup>00</sup>
1148B	4311 #	Bentonite	.25	1077 <sup>75</sup>
1107	140 #	Flt-seal	2 <sup>83</sup>	394 <sup>00</sup>
1111	965 #	SALT	.45	434 <sup>25</sup>
4156	1	4 1/2 - AFO Float shoe	287 <sup>00</sup>	287 <sup>00</sup>
4129	7	4 1/2 - Centralizers	46 <sup>00</sup>	322 <sup>00</sup>
4103	2	4 1/2 - BASKETS	261 <sup>00</sup>	522 <sup>00</sup>
4283	1	4 1/2 - DU Tool w/latchdown	3850 <sup>00</sup>	3850 <sup>00</sup>
		Subtotal		26237 <sup>00</sup>
		1495.1090		2623 <sup>75</sup>
		Subtotal		23614 <sup>02</sup>
1111	100 #	SALT	N/C	SALES TAX 1446 <sup>23</sup>

Ravin 3737  
ESTIMATED TOTAL 25060.25  
AUTHORIZATION [Signature] TITLE \_\_\_\_\_ DATE \_\_\_\_\_

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form.



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Raymond Oil Company, Inc.  
 P.O. Box 48788 Wichita, KS 67202  
 ATTN: Max Lovely

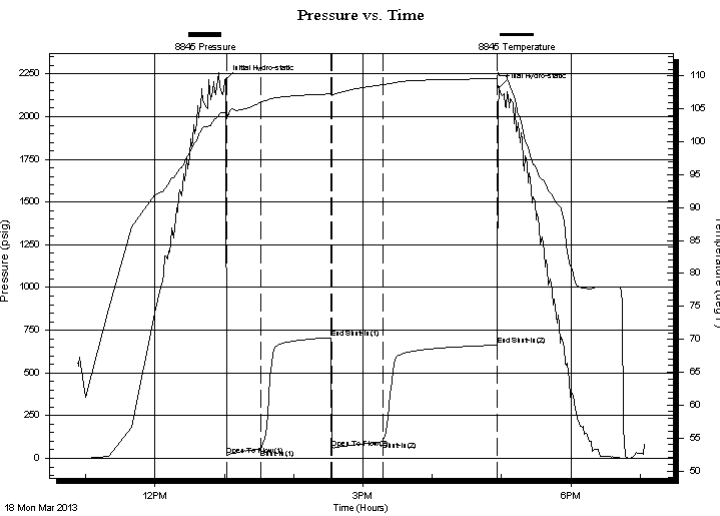
**13-20s-36w Wichita Co.**  
**Keeton #1**  
 Job Ticket: 46896 **DST#: 1**  
 Test Start: 2013.03.18 @ 10:53:00

## GENERAL INFORMATION:

Formation: **Marmaton**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Initial)  
 Time Tool Opened: 13:01:45 Tester: Sam Esparza  
 Time Test Ended: 19:03:45 Unit No: 64  
 Interval: **4472.00 ft (KB) To 4500.00 ft (KB) (TVD)** Reference Elevations: 3173.00 ft (KB)  
 Total Depth: 4500.00 ft (KB) (TVD) 3161.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: KB to GR/CF: 12.00 ft

**Serial #: 8845 Outside**  
 Press @ Run Depth: 98.47 psig @ 4473.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2013.03.18 End Date: 2013.03.18 Last Calib.: 2013.03.18  
 Start Time: 10:53:05 End Time: 19:03:44 Time On Btm: 2013.03.18 @ 13:01:30  
 Time Off Btm: 2013.03.18 @ 16:57:45

**TEST COMMENT:** IF: 6 3/4" blow .  
 IS: Weak surface return died @ 35 min.  
 FF: 9 1/4" blow .  
 FS: 1" return.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2216.65	104.41	Initial Hydro-static
1	15.87	103.60	Open To Flow (1)
31	55.94	105.99	Shut-In(1)
91	705.94	107.25	End Shut-In(1)
92	58.21	107.14	Open To Flow (2)
136	98.47	108.67	Shut-In(2)
235	663.09	109.60	End Shut-In(2)
237	2171.90	110.05	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
140.00	GOCM 10g 30o 60m	0.69
50.00	GO 10g 90o	0.25
0.00	270' GIP	0.00

## Gas Rates

Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Raymond Oil Company, Inc.

**13-20s-36w Wlchita Co.**

P.O Box 48788 Wichita, KS 67202

**Keeton #1**

Job Ticket: 46896

**DST#: 1**

ATTN: Max Lovely

Test Start: 2013.03.18 @ 10:53:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

29 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 65.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.99 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 5500.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
140.00	GOCM 10g 30o 60m	0.688
50.00	GO 10g 90o	0.246
0.00	270' GIP	0.000

Total Length: 190.00 ft      Total Volume: 0.934 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Oil API: 29 @ 60 degrees= 29 API



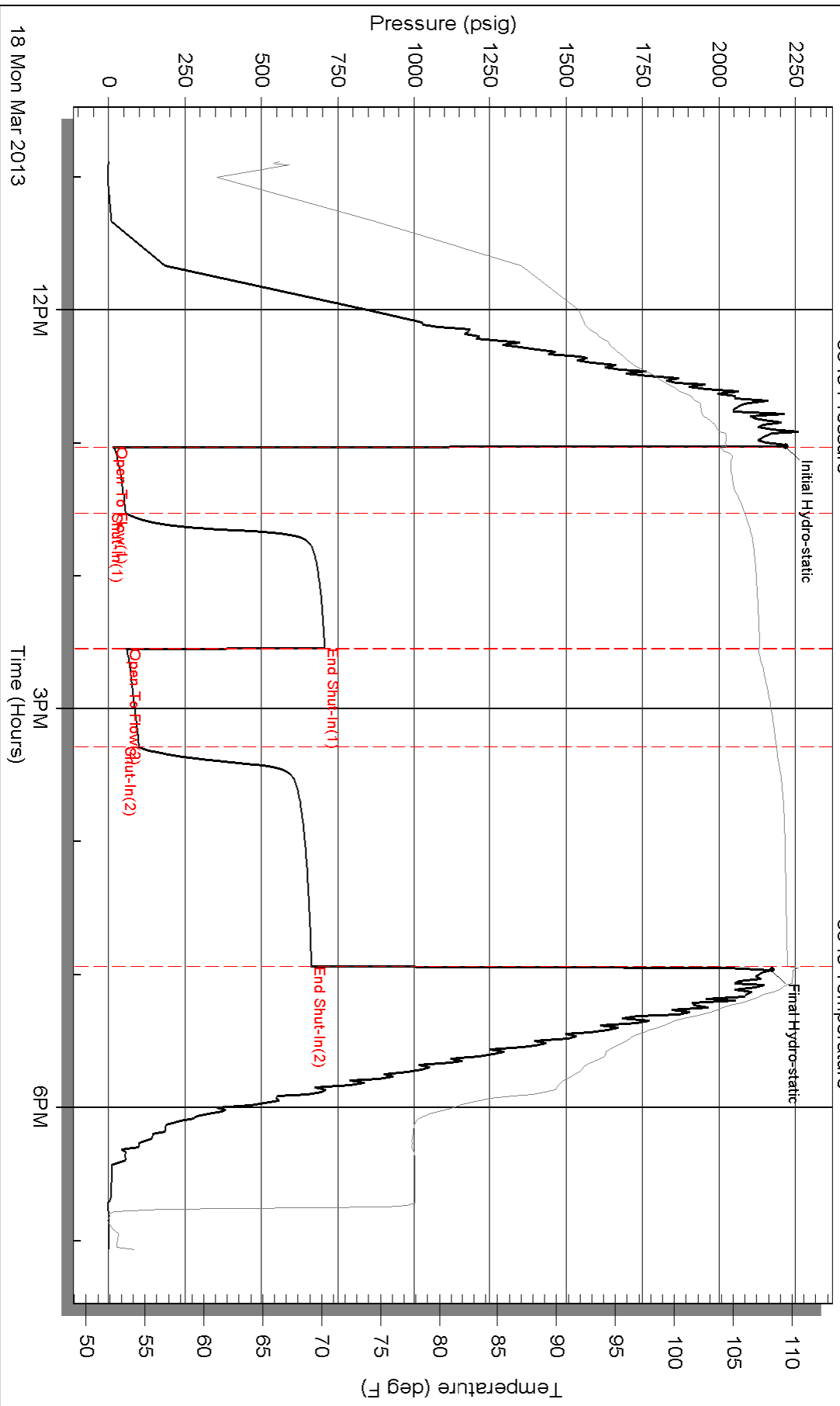
Serial #: 8845

Outside Raymond Oil Company, Inc.

Keeton #1

DST Test Number: 1

# Pressure vs. Time



Triobite Testing, Inc

Ref. No: 46896

Printed: 2013.03.18 @ 23:35:02



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Raymond Oil Company, Inc.  
 P.O Box 48788 Wichita, KS 67202  
 ATTN: Ted Jochems

**13-20s-36w Wlchita Co.**  
**Keeton #1**  
 Job Ticket: 46897      **DST#: 2**  
 Test Start: 2013.03.19 @ 21:13:00

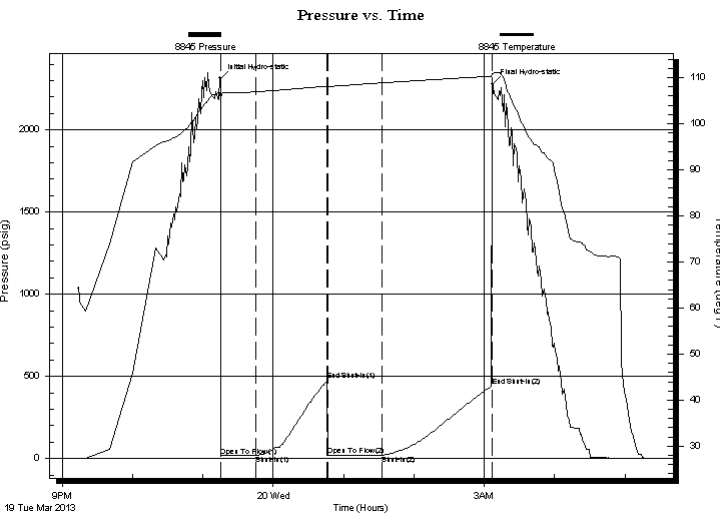
## GENERAL INFORMATION:

Formation: **Ft. Scott - Cherokee**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 23:15:15  
 Time Test Ended: 05:17:15  
 Interval: **4618.00 ft (KB) To 4690.00 ft (KB) (TVD)**  
 Total Depth: 4690.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Sam Esparza  
 Unit No: 64  
 Reference Elevations: 3173.00 ft (KB)  
 3161.00 ft (CF)  
 KB to GR/CF: 12.00 ft

## Serial #: 8845 Outside

Press @ Run Depth: 20.20 psig @ 4619.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2013.03.19 End Date: 2013.03.20 Last Calib.: 2013.03.20  
 Start Time: 21:13:05 End Time: 05:17:14 Time On Btm: 2013.03.19 @ 23:15:00  
 Time Off Btm: 2013.03.20 @ 03:07:15

TEST COMMENT: IF: 1/4" blow.  
 IS: No return.  
 FF: No blow.  
 FS: No return.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2314.49	106.83	Initial Hydro-static
1	15.28	105.43	Open To Flow (1)
31	18.90	106.92	Shut-In(1)
91	475.03	108.14	End Shut-In(1)
92	18.89	108.00	Open To Flow (2)
138	20.20	108.87	Shut-In(2)
232	441.19	110.28	End Shut-In(2)
233	2280.15	110.89	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud 100m	0.02

\* Recovery from multiple tests

## Gas Rates

Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**FLUID SUMMARY**

Raymond Oil Company, Inc.

**13-20s-36w Wlchita Co.**

P.O Box 48788 Wichita, KS 67202

**Keeton #1**

Job Ticket: 46897

**DST#: 2**

ATTN: Ted Jochems

Test Start: 2013.03.19 @ 21:13:00

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.98 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 6000.00 ppm

Filter Cake: 1.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
5.00	Mud 100m	0.025

Total Length: 5.00 ft      Total Volume: 0.025 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

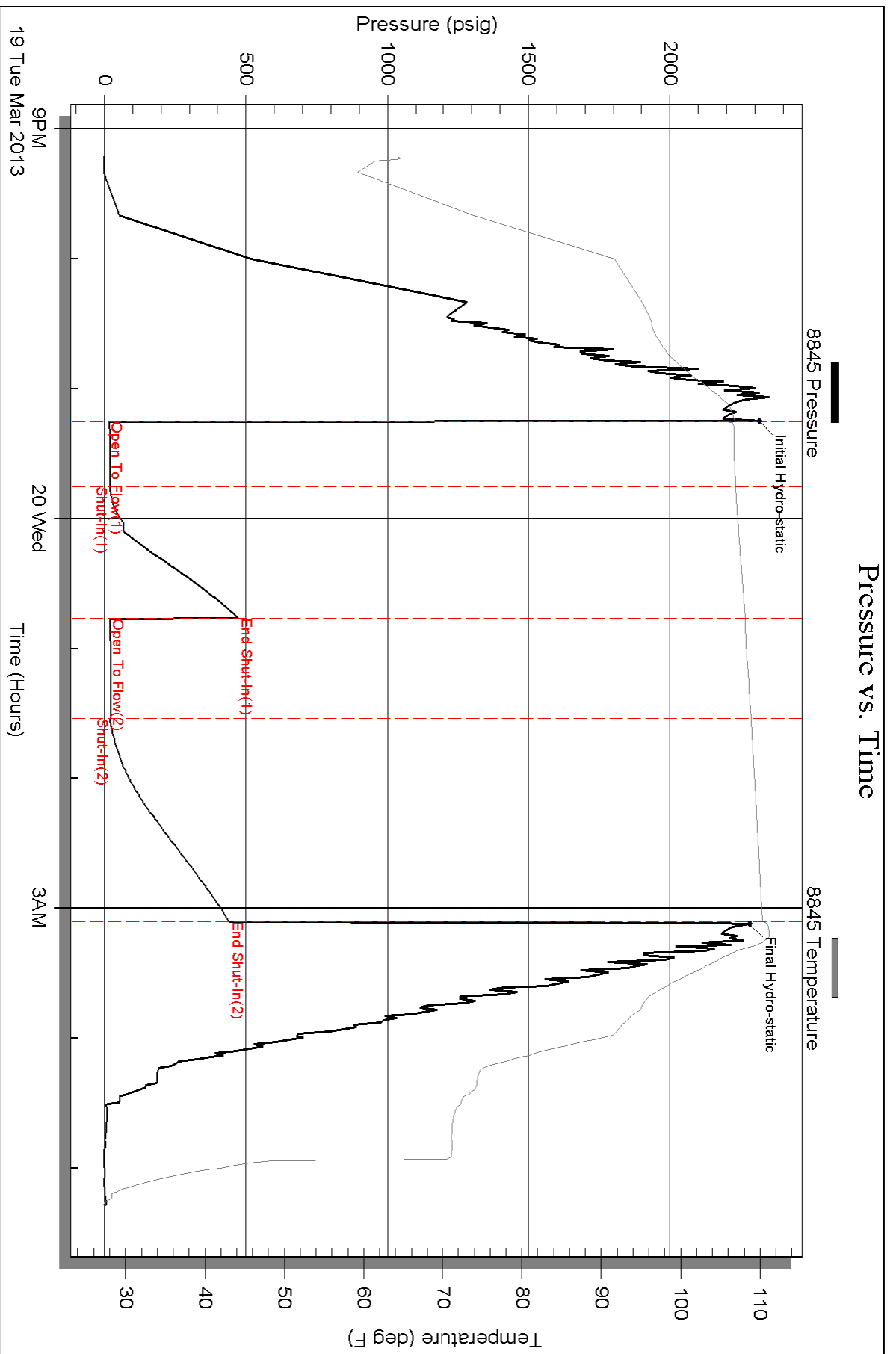
Serial #: 8845

Outside Raymond Oil Company, Inc.

Keeton #1

DST Test Number: 2

# Pressure vs. Time



Triobite Testing, Inc

Ref. No: 46897

Printed: 2013.03.20 @ 08:05:42

Conservation Division  
Finney State Office Building  
130 S. Market, Rm. 2078  
Wichita, KS 67202-3802



Phone: 316-337-6200  
Fax: 316-337-6211  
<http://kcc.ks.gov/>

Mark Sievers, Chairman  
Thomas E. Wright, Commissioner  
Shari Feist Albrecht, Commissioner

Sam Brownback, Governor

June 06, 2013

Ted McHenry  
Raymond Oil Company, Inc.  
PO BOX 48788  
WICHITA, KS 67202-1822

Re: ACO1  
API 15-203-20211-00-00  
Keeton 1  
NE/4 Sec.13-20S-36W  
Wichita County, Kansas

Dear Production Department:

We are herewith requesting that the Well Completion Form ACO-1 and attached information for the subject well be held confidential for a period of two years.

Should you have any questions or need additional information regarding subject well, please contact our office.

Respectfully,  
Ted McHenry