



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1204292
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: _____

1204292

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. 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: <input type="checkbox"/> Yes <input type="checkbox"/> No
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Date of First, Resumed Production, SWD or ENHR.	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____
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Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <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> _____	PRODUCTION INTERVAL: _____ _____
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Adam Eldani Geo-Log/Report

WellSight Systems

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

Measured Depth Log

Well Name: #1 Martin Trust
Location: SEC 1-TOWNSHIP 16S- RANGE 34W SCOTT COUNTY
License Number: API 15-171-21025 Region: KANSAS
Spud Date: 2/10/2014 Drilling Completed: 2/22/2014
Surface Coordinates: 2695' FNL & 1420' FEL
55' S & 100' W of W/2 Section 1-16S-34W
Bottom Hole Deviation Surveys are detailed through out the Geo-Report.
Coordinates:
Ground Elevation (ft): 3095' K.B. Elevation (ft): 3100'
Logged Interval (ft): 3800 To: 4920 Total Depth (ft): 4923
Formation: Mississippian
Type of Drilling Fluid: Mud-Co Chemical

Printed by MUD.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: Ritchie Exploration Inc. (drilled by WW RIG# 2)
Address: 8100 E. 22nd ST. N. #700
Wichita, KS, 67278-3188

GEOLOGIST

Name: Adam M.A. Eldani
Company: Ritchie Exploration Inc.
Address: 8100 E. 22nd ST. N. #700
Wichita, KS, 67278-3188

Tops & Drill Report

TOPS: DRILLING REPORT

Sample Tops:

Anhydrite: 2460'+640	Anhydrite: 2460'+640
B/Anhydrite: 2481'+619	B/Anhydrite: 2479'+621
Stotler: 3624'-524	Stotler: 3626'-526
Heebner: 3992'-892	Heebner: 3993'-893
Toronto: 4012'-912	Toronto: 4014'-914
Lansing: 4042'-942	Lansing: 4038'-938
Muncie Sh: 4211'-1111	Muncie Sh: 4213'-1113
Stark Sh: 4302'-1202	Stark Sh: 4306'-1206
Hush. Sh: 4346'-1246	Hush. Sh: 4350'-1250
BKC: 4381'-1281	BKC: 4384'-1284
Marmaton: 4424'-1324	Marmaton: 4421'-1321
Altamont: 4434'-1334	Altamont: 4438'-1338
Pawnee: 4516'-1416	Pawnee: 4520'-1420
Myrick: 4560'-1460	Myrick: 4563'-1463
Fort Scott: 4572'-1472	Fort Scott: 4574'-1474
Cherokee: 4598'-1498	Cherokee: 4603'-1503
Johnson: 4693'-1593	Johnson: 4692'-1592
Morrow: 4719'-1619	Morrow: 4721'-1621
Mississippian: 4768'-1668	Mississippian: 4772'-1672
RTD: 4920'-1820	RTD: 4923'-1823

DAILY DRILLING REPORT:

DATE DEPTH:

2/10	Spud
2/11	320'
2/12	2260'
2/13	3305'
2/14	3945'
2/15	4148'
2/16	4277'
2/17	4305'
2/18	4375'
2/19	4470'
2/20	4507'
2/21	4780'
2/22	4920'

Misc.

All DST's info. are NEAR the correct log depth.

RIG: WW RIG #2
TOOL PUSHER: Lonnie Lang
MUD: MUD CO. (Tony Ison)
GAS DETECTOR: N/A

DRILL STEM TEST'S: Suprior Testing, Inc.

LOGS: NABORS (Jeff Groneweg)

OFFICE: PETER FIORINI

Comments

Moved in and rigged up. Spud at 5:00 p.m. Ran 5 jts used 23# 8-5/8" surface casing. Tally at 210.72', set at 219'. Cemented with 165 sacks common, 2% gel, 3% cc. Cement did circulate. Plug down at 10:00 p.m. Drilled out plug at 6:00 a.m. on 2/11/14.

After all Results of SAMPLE LOGGING, ELECTRIC LOGGING, AND ALL DST TESTS ANALYSIS & CALCULATIONS; It was ELECTED to PLUG & ABANDON.

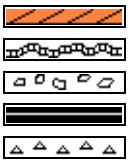
Plug and Abandon. 1st plug set at 2490' with 50 sacks 60/40 Poz, 4% gel, 1/4# flocele; 2nd plug set at 1650' with 80 sacks; 3rd plug set at 825' with 50 sacks; 4th plug set at 250' with 50 sacks; 5th plug set at 60' with 20 sacks; 250 total sacks. Plugged the rat hole with 30 sacks and the mouse hole with 20 sacks. Job complete at 12:00 p.m. Plugging orders by Nathan Willis with the KCC.

Well Log Surveys BY: NABORS. Compensated Denisty/ Neutron Log, Dual Induction.

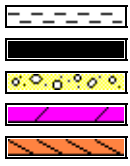
SAMPLES WILL BE DEPOSITED WITH KANSAS GEOLOGICAL SURVEY.

RESPECTFULLY SUBMITTED
Adam M. A. Eldani

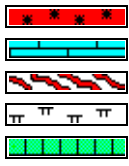
ROCK TYPES



Anhy
Bent
Brec
Carb sh
Cht



Clyst
Coal
Congl
Dol
Gyp



Igne
Lmst
Meta
Mrlst
Salt



Shale
Shcol
Shgy
Sltst
Ss



Till

ACCESSORIES

MINERAL

- Anhy
- Arggrn
- Arg
- Bent
- Bit
- Breclfrag
- Calc
- Carb
- Chtdk
- Chtlt
- Dol
- Feldspar
- Ferrpel
- Ferr
- Glau
- Gyp

- Hvymin
- Kaol
- Marl
- Minxl
- Nodule
- Phos
- Pyr
- Salt
- Sandy
- Silt
- Sil
- Sulphur
- Tuff

FOSSIL

- Algae
- Amph

- Belm
- Bioclst
- Brach
- Bryozoa
- Cephal
- Coral
- Crin
- Echin
- Fish
- Foram
- Fossil
- Fuss
- Gastro
- Oolite
- Oomold
- Ostra
- Pelec

- Pellet
- Pisolite
- Plant
- Strom

STRINGER

- Anhy
- Arg
- Bent
- Coal
- Dol
- Gyp
- Ls
- Mrst
- Sltstrg
- Ssstrg

TEXTURE

- Boundst
- Chalky
- Cryxln
- Earthy
- Finexln
- Grainst
- Lithogr
- Microxln
- Mudst
- Packst
- Wackest

OTHER SYMBOLS

POROSITY

- Earthy
- Fenest
- Fracture
- Inter
- Moldic
- Organic
- Pinpoint

- Vuggy

SORTING

- Well
- Moderate
- Poor

ROUNDING

- Rounded
- Subrnd
- Subang
- Angular

- Even
- Spotted
- Ques
- Dead

- Dst_alt
- Dst

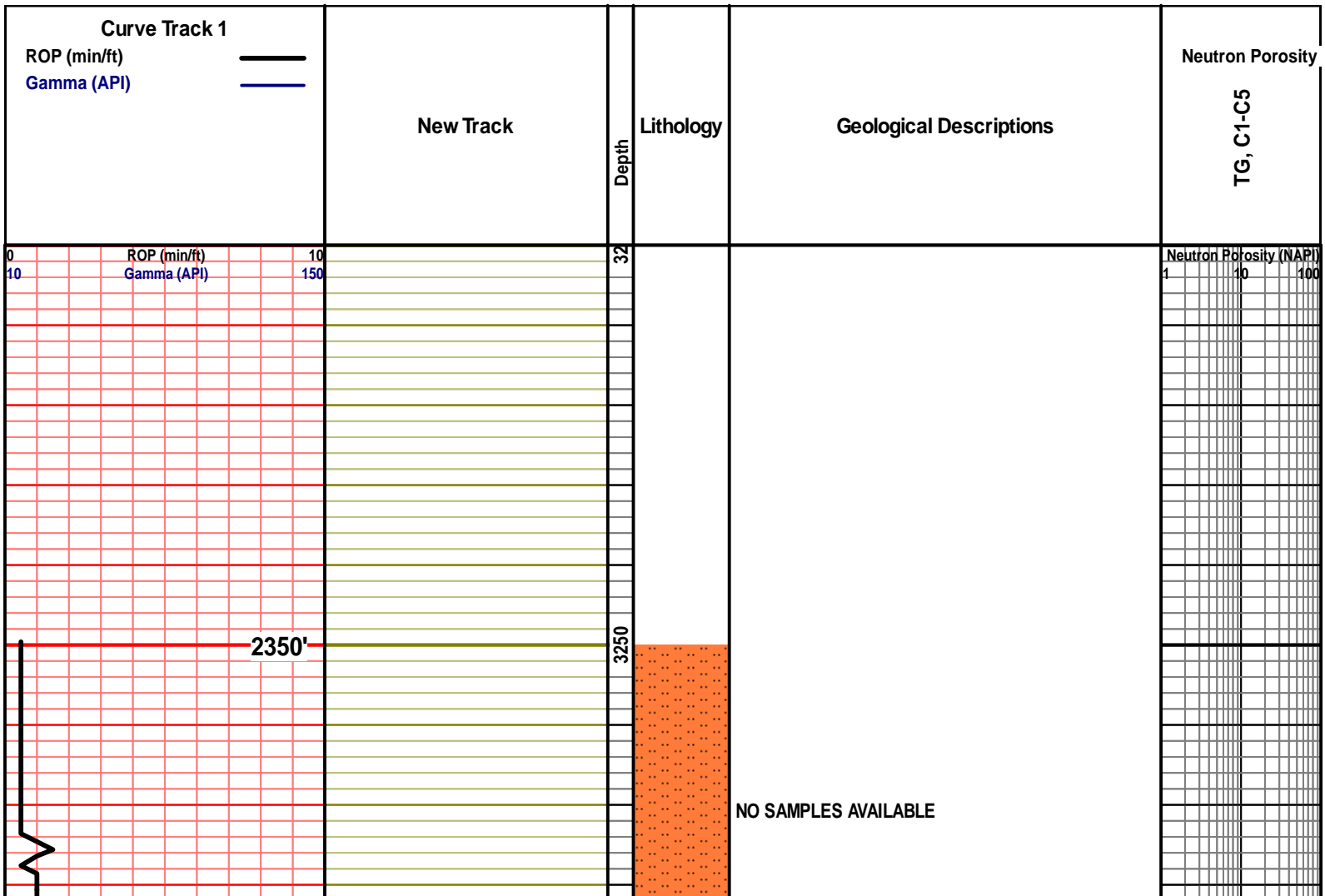
EVENT

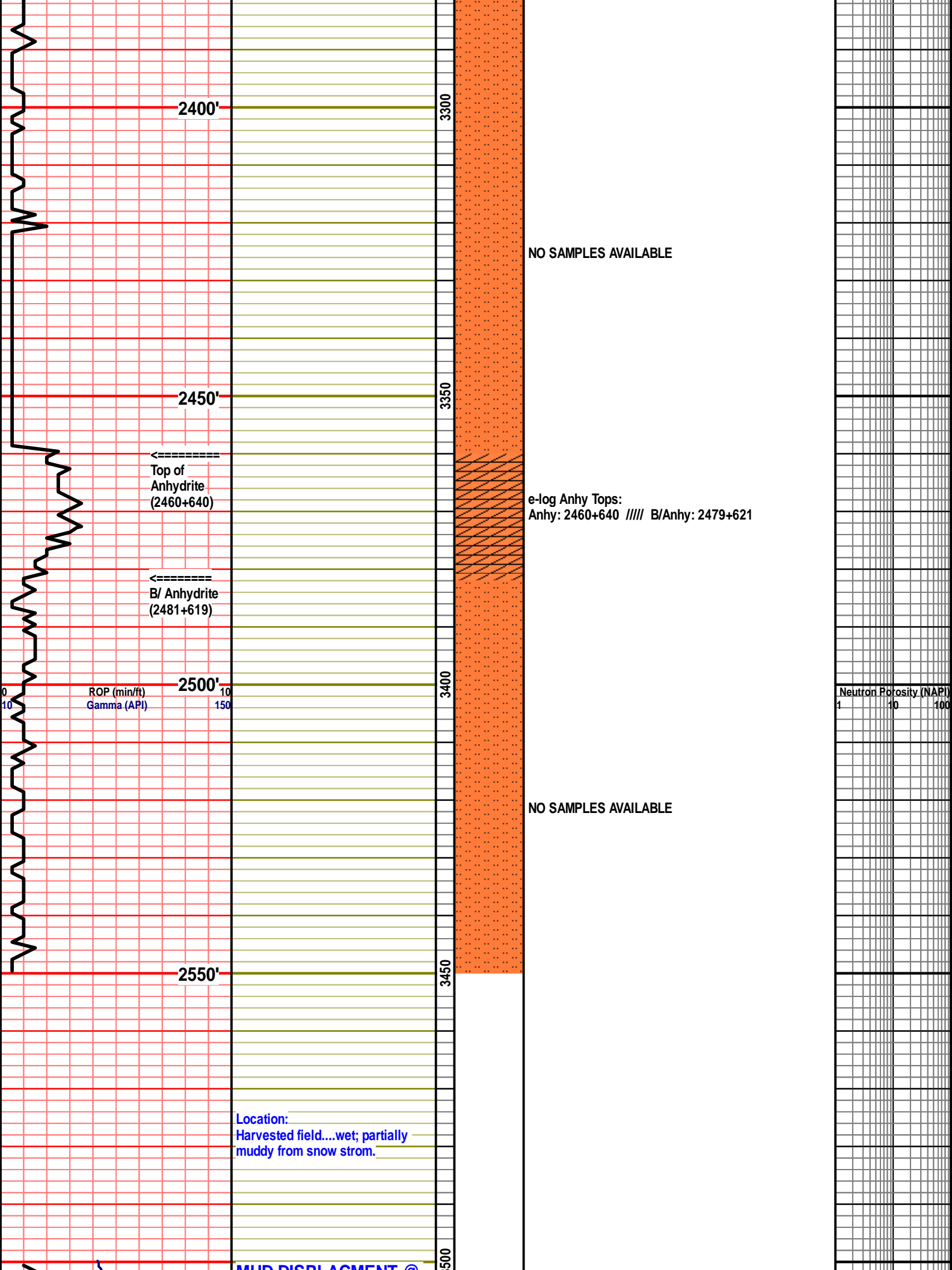
- Rft
- Sidewall

INTERVAL

- Core
- Dst

- OIL SHOW
- aimimg_1





2400'

3300

NO SAMPLES AVAILABLE

2450'

3350

←-----
Top of
Anhydrite
(2460+640)

e-log Anhy Tops:
Anhy: 2460+640 // B/Anhy: 2479+621

←-----
B/ Anhydrite
(2481+619)

2500'

3400

ROP (min/ft)
Gamma (API)

Neutron Porosity (NAPI)

NO SAMPLES AVAILABLE

2550'

3450

Location:
Harvested field....wet; partially
muddy from snow strom.

MUD DISPLACEMENT @

3500

MOD DISPLACEMENT @ 3500'

PUMP PRESSURE 950+

GEOLOGIST ON LOCATION @ 3707'

ROP (min/hr)
Gamma (API)

Stotler
3626'-526'

2/14/2014
mud info.
wt: 8.9
Funnel Vis. 55
Filtrate API: 6.4
Chloride 5,200
LCM # 2

NO SAMPLES AVAILABLE

NO SAMPLES AVAILABLE

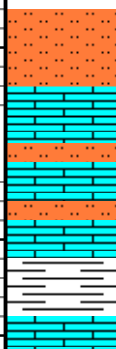
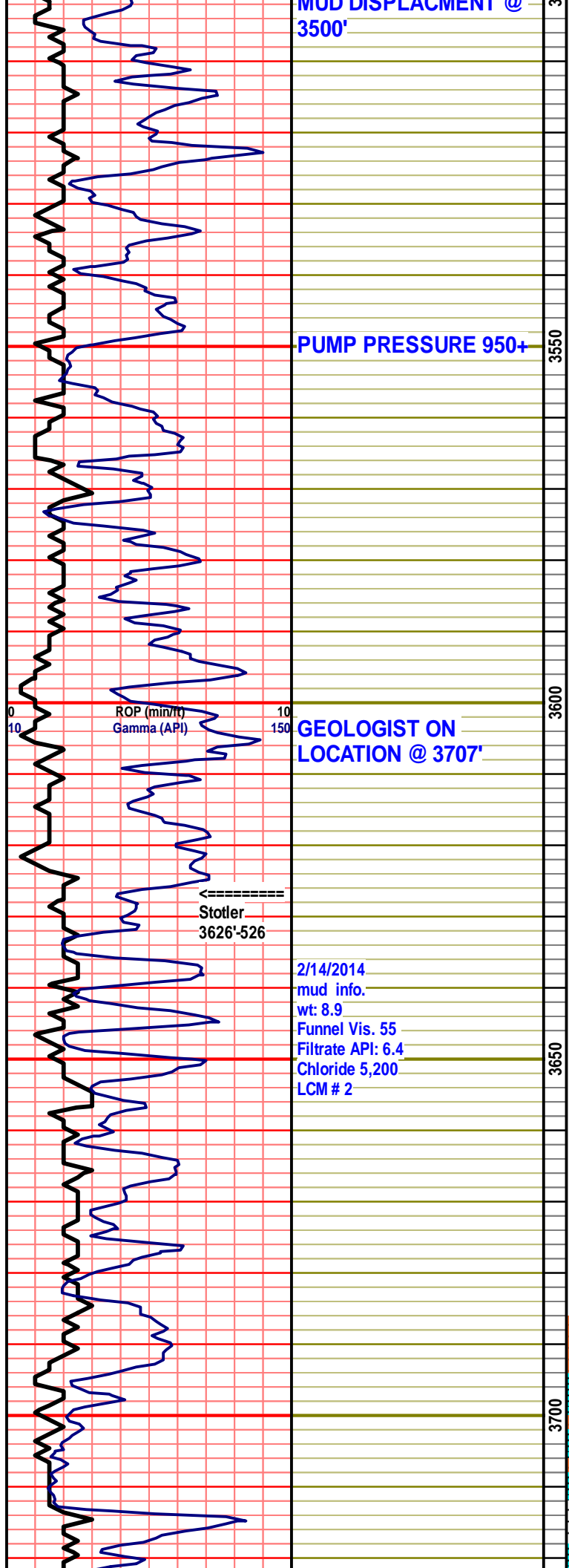
Neutron Porosity (NAPI)

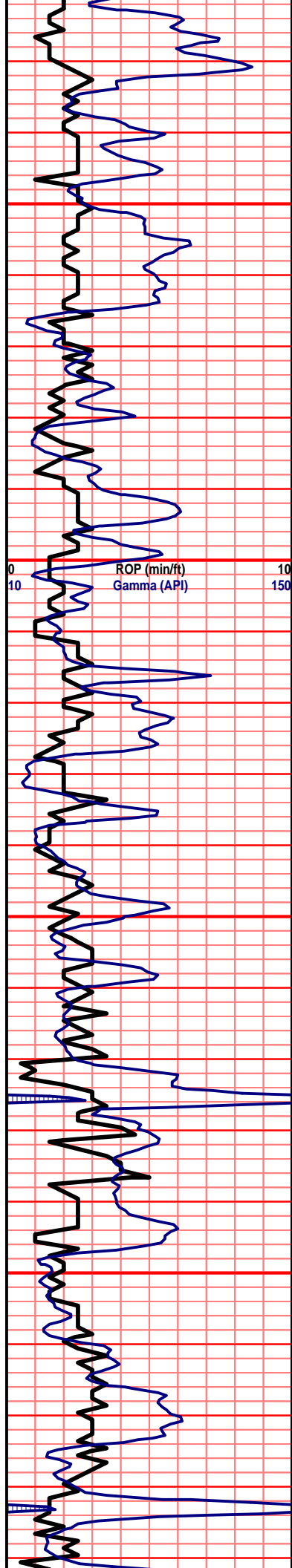
3710: lots of red sly stn, red sh tan-gry xln lm, foss, poor por, few drk crm v. fn grn pacj stn lm, fair intr prtcl por, no odr, ns.

3720: incrs in gry sh, incrs in lght crm xln lm, poor xln por, foss, no odr, ns.

3730: aa, sig incrs in wht chlk, incrs in gry foss xln lm, poor-no por, no odr, ns.

3740: mstly crm chlk-chlky lm, lots of v. fn grn pack





PUMP PRESSURE 950+

PUMP PRESSURE 950+



3750: incrs in gry slty shly lm, mstly crm fn xln lm, poor-no por, no odr, ns.

3760: aa, incrs in gry sh, incrs in wht chlk, no odr, ns.

3770: incrs in in gry inxln lm, popor-no inxln por, lots of crm-drty gry/crm xln lm, slightly foss, poor po, no odr, ns.

3780: mstly gry inxln lm, poor-no inxln por, gew crm inxln lm, poor por, no odr, ns.

3790: incrs in slty gry sh, ncrs in crmy chlk, no odr, ns.

3800: sig incrs in crm chlky lm, gry xln lm, incrs in red sh, no odr, ns.

3810: slight incrs in red sh, mstly crm-dr crm xln lm, some v. foss, sli ool, poor por, no odr, ns.

3820: slight incrs in gry sh, mostly crm chlky lm, few fn xln lm, no vis por, no odr, ns.

3830: incrs in red sh, mstly crm fn-cors xln lm, no odr, ns.

3840: crm-drk tan xln lm, some sli foss, poor-no por, no odr, ns.

3850: aa, sig incrs in wht-crm chlk, shw of v. drk gry sh, no odr, ns.

3860: crm-gry xln lm, poor por, sli foss in prt, no odr, ns.

3870: aa, sli incrs in brwn sh, sig incrs in chlk-chlky lm, no odr, ns.

3880: crm v. fn grn pack stn lm, poor-no por, lots of chlk, few lght crm chrt-chrty lm, no vis por, no odr, ns.

3890: aa, shw of blk-drk gry sh, lots of chlk, no odr, ns.

3900: shw of blk carb sh, lots of crm xln lm, shw of crm-gry chrt no vis por, no odr, ns.

3910: sh aa, incrs in gry slty sh, lots of crm chlky lm, no odr, ns.

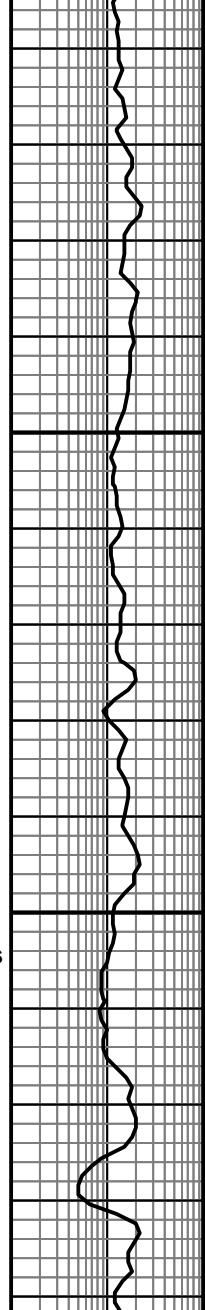
3920: aa, incrs in brwn sh, mstly wht foss chrt, no vis por, no odr, ns.

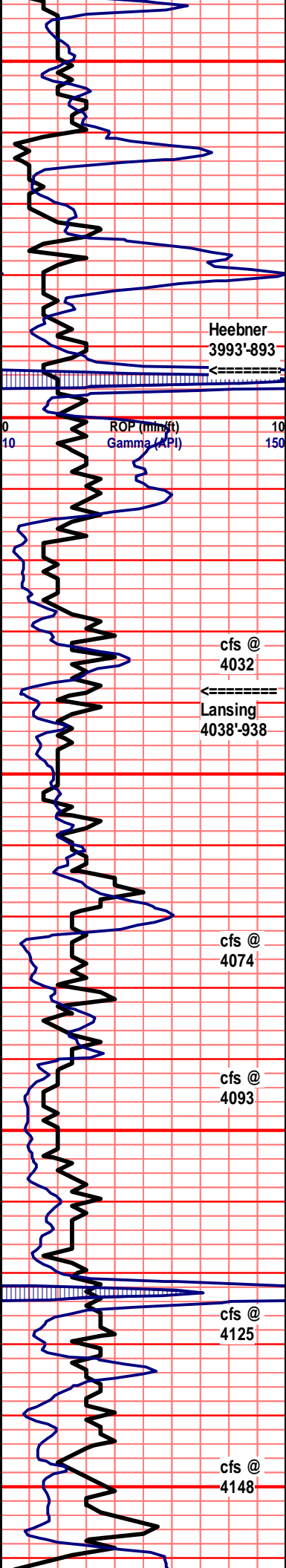
3930: incrs in v. lght gry slit stn, mostly tan inxln lm, sli foss, some w/ chrt nod, poor por, no odr, ns.

3940: incrs in brwn sh, incrs in wht chlk, mstly crm-gry foss lm, well cemntd, poor por, no odr, ns.

3950: crm xln lm, poor por, incrs in v. lght crm chrty lm, sli foss, no vis por, no odr, ns.

Neutron Porosity (NAPI)





2/15/2014
 mud info.
 wt: 9.3
 Funnel Vis. 50
 Filtrate API: 6.4
 Chloride 5,500
 LCM # 1

Heebner
 3993'-893

ROP (min/ft)
 Gamma (API)

cfs @
 4032

Lansing
 4038'-938

cfs @
 4074

cfs @
 4093

cfs @
 4125

cfs @
 4148

30MIN: mstly crm chlky lm, lots of
 wht-clear chrt, few crm fn xln lm,
 no vis por, no odr, ns. 60MIN:
 same as thirty, sig incrs in
 brwn-gry sh, no odr, ns.

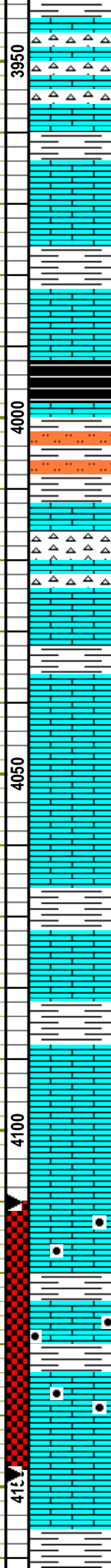
30MIN: sig incrs in brwn-aqua sh, lots of
 crm-lght gry inxln lm, poor inxln por, lots of
 chl, few lght ool lm, cemnt flooded, no odr,
 ns. 60MIN: v. peachy sample, lots of brwn
 sh, lost of chl, crm xln lm, dense, no odr,
 ns.

30MIN: brwn-red sh, incrs in chl-chlky lm,
 crm-tan ool lm, cemnt flooded, some semi
 xln, poor por, no odr, ns. 60MIN: lots of gry
 sh, mstly chl, crm cors xln lm, v. foss,
 poor por, no odr, ns.

DST #1: 4110' - 4148' (LKC "E &
 F") Recovered 1440' muddy water
 (5% mud, 95% water). Chlorides
 19,000. IFP: 168-510#/30" ISIP:
 1105#/45" FFP: 538-748#/30"
 FSIP: 1070#/45"

30MIN: incrs in v. drk sh, mstly crm-tan
 inxln lm, dense, poor-no por, no odr, ns.
 60MIN: crm fn xln lm, dense, no vis por, no
 odr, ns.

30MIN: mstly chlky lm, lots of fn xln crm
 lm, no vis por, few crm xln lm, w/ pin pont
 vuggy por, v. weak shw of free oil, weak
 odr. 60MIN: incrs in gry and aqua sh, loys
 of chlky lm, no odr, ns.



3960: mstly crm-drk crm xln lm, poor por, no odr, ns.

3970: aa, incrs in wht chl, sig incrs in wht chrt, sli
 foss, no vis por, no odr, ns.

3980: aa, incrs in red sh, mstly crm fn xln lm, lm,
 poor-no por, no odr, ns.

3990: aa, incrs in chlky lm, few pack stn lm, fn grn w/
 foss, no odr, ns.

4000: lots of gry/crm micrtic lm, crm xln lm, v. foss,
 poor-no por, no odr, ns.

4010: show of blk carb sh, ots of crm chlky lm, drk
 crm fn xln lm, no vis por, no odr, ns.

4020: incrs in blk and green sh, mstly chl-chlky lm,
 few tan micrtic lm, poor-no por, no odr, ns.

4030: mstly green-red sh, lots of wht chrt, no vis por,
 no odr, ns.

4040: red sh, mstly crm foss chrt lm, poor-no por, no
 odr, ns.

4050: incrs in aqua sh, mstly crm xln lm, poor-no por,
 lght crm ool lm, cemnt flooded, no odr, ns.

4060: incrs in lght crm chlky lm, sig incrs ool lm aa,
 incrs in lght crm fn xln lm, no vis por, no odr, ns.

4070: graeter inrs in chl-chlky lm, incrs in fn xln lm,
 no odr, ns.

4080: peachy sample, lots of wht chl, drk crm xln
 lm, sli foss, no vis por, no odr, ns.

4090: slight incrs in gry sh, shw of tan ool lm, mstly
 xln in prt, poor por, no odr, ns.

4100: mstly crm fn-cors xln lm, sli foss, poor-no por,
 no odr, ns.

4110: aa, incrs in gry sh, sig incrs in wht chl-chlky
 lm, no odr, ns.

4120: aa, no sig change.

4130: drk crm inxln lm, fair pin point vuggy por, shw
 of brwn oil, fair odr.

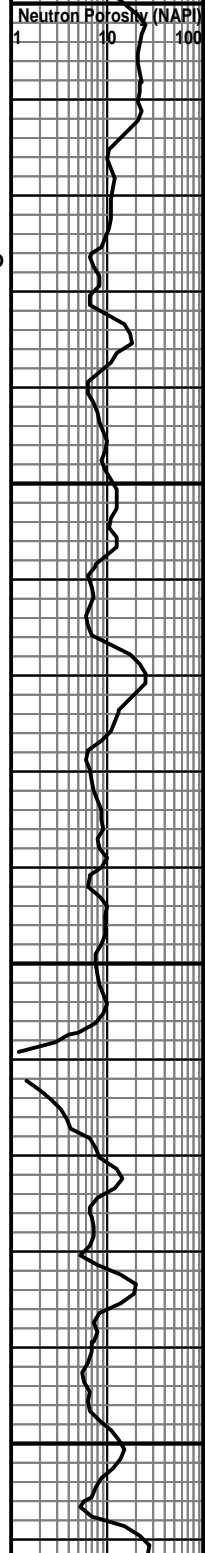
4140: tan inxln lm, w/ fair pin point vuggy por, fair
 shw of brwn oil, fair-strng odr.

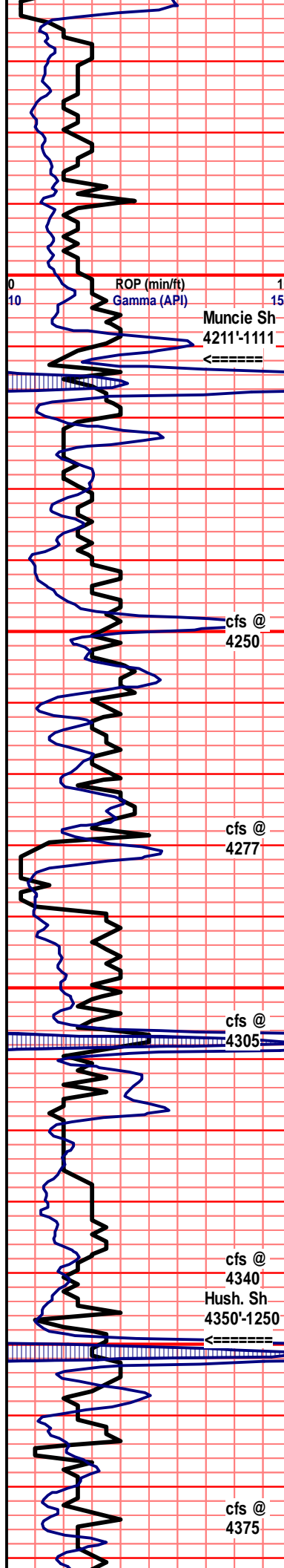
4150: shw rock aa, incrs in aqua & gry sh, gry ool
 lm, no vis por, fair-weak odr.

4160: mstly red, aqua, & gry sh, mstly lght crm fn xln
 lm, sli foss, no vis por, no odr, ns.

4170: aa, sig incrs in v lght crm chl-chlky lm, no

Neutron Porosity (NAPI)
 1 10 100





2/16/2014
mud info.
wt: 9.4
Funnel Vis. 55
Filtrate API: 7.2
Chloride 6,100
LCM # 1/2

2/17/2014
mud info.
wt: 9.4
Funnel Vis. 55
Filtrate API: 8.0
Chloride 6,500
LCM # 1

30MIN: sig incrs in gry sh, mstly wht chlk, lots of crm-tan inxln lm, poor por, no odr, ns. 60MIN: same as thirty min sample, incrs in brwn sh, no odr, ns.

DST #2: 4243' - 4277' (LKC "I") Recovered 61' very lightly oil spotted mud and 122' mud.
Total Fluid 183'. IFP: 42-88#/30" ISIP: 1238#/45" FFP: 94-114#/45" FSIP: 1226#/60"

30MIN: lots of chlk, lght crm pack stn lm, fair intr prtcl por, strng shw of brwn oil, few tan xln lm, w/ fair xln por, shw of brwn oil, strng odr. 60MIN: v. chlky, incrs in gry sh, lots of crm-brwn xln lm, dense, no vis por, nsfo, weak odr.

DST #3: 4267' - 4305' (LKC "J") Recovered 121' oil spotted muddy water (13% mud, 87% water) and 245' oil spotted water. Chlorides 24,000.
Total Fluid 366'. IFP: 54-135#/30" ISIP: 1231#/45" FFP: 139-210#/45" FSIP: 1221#/60"

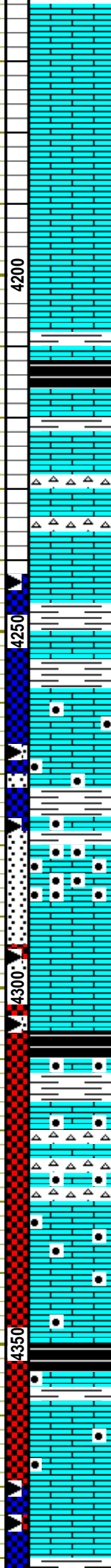
30MIN: shw of blk carb sh, lots of crm-gry ool cast lm, super por, lots of chps w/ free oil shws, strng odr. 60MIN: same as thirty min smple, lots of ool shw rock, lots free oil, decse in blk sh, v. strng odr.

DST #4: 4296' - 4375' (LKC "K & L") Recovered 244' very lightly oil spotted mud, 305' very lightly oil spotted muddy water (30% mud, 70% water) and 488' water.
Total Fluid 1037'. Chlorides 24,000. IFP: 86-372#/30" ISIP: 1277#/45" FFP: 377-553#/30" FSIP: 1254#/45"

30MIN: mstly chlk-chlky lm, crm-tan xln lm, dense, no vis por, lots of wht chrt, 2 chps ool cas w/ strng live oil stn, no odr. 60MIN: same as thirty min sample, no sig change, sli incrs in chlk, fair odr.

PUMP PRESSURE 950+

30MIN: 90% try wht chlk-chlky lm, few ool cst chps w/ live oil stns, few brwn xln lm, pyrtzd, v. dense, flash odr. 60MIN: decse in chlk, shw of blk & gry sh, one chp crm xln semi ool lm w/ stn, v. weak-no odr.



odr, ns.

4180: v. chlky sample, mstly tan ool cast lm, super por, no vis shw or stn, no odr.

4190: aa, sig incrs in wht chlk, v. lght gry fn xln lm, sli pyrtzd, no vis por, no odr, ns.

4200: lots of chlk, mstly lght gry-gry fn xln lm, no vis por, few tan ool cast lm, no odr, ns.

4210: aa, no sig change, no odr, ns.

4220: mstly chlk, lots of crm- v. lght gry crm inxln lm, poor por, no odr, ns.

4230: show of blk carb sh, lots of gry slit stn, hry-lght brwn xln lm, poor-no por, no odr, ns.

4240: lots of wht chlk, crm-tan inxln lm, sli foss, poor por, no odr, ns.

4250: aa, incrs in crm- wht chrt-chrty lm, sli foss, no vis por, few tan prtly ool cast por, no odr, ns.

4260: lots of wht chlk, shw of brwn fn xln lm, v. dense, no vis por, no odr, ns.

4270: v. chlky sample, gummy, lght gry-tan xln lm, one chp w/ stn, flash-weak odr.

4280: aa, lght crm inxln lm w/ fair fenstrl-xln por, goos shw of drk brwn oil, v. strng odr.

4290: incrs in aqua/gry sh, lots of tan-brwn dense xln lm, no vis por, good shw of crm xln lm, w/ fair xln por, shw of drk brwn oil, fair-strng odr.

4300: crm ool cast lm, v. strng shw of brwn oil, v. abundnt, super por, v.; strng odr.

4310: mstly gry, maroon and blk carb sh, lots ool cas shw rock, uphole, strng & odr.

4320: aa, slght decse ool cast lm shw rock, incrs in chlky lm, crm fn xln lm, no odr, ns.

4330: chlky sample, lots of cr ool cast lm w/ shw of free oil, brwn xln lm, dense, no vis por, ns, fair-strng odr.

4340: lots of chlk-chlky lm, sig shw of wht chrt-chrty lm, no vis por, shw of crm ool cast and xln lm, fair xln por, shw of brwn oil, fair odr.

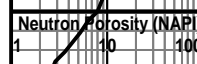
4350: shw of blk carb sh, lots of wht-tan chrt, lots of chlk-chlky lm, few ool cst chps w. stn, v. weak odr.

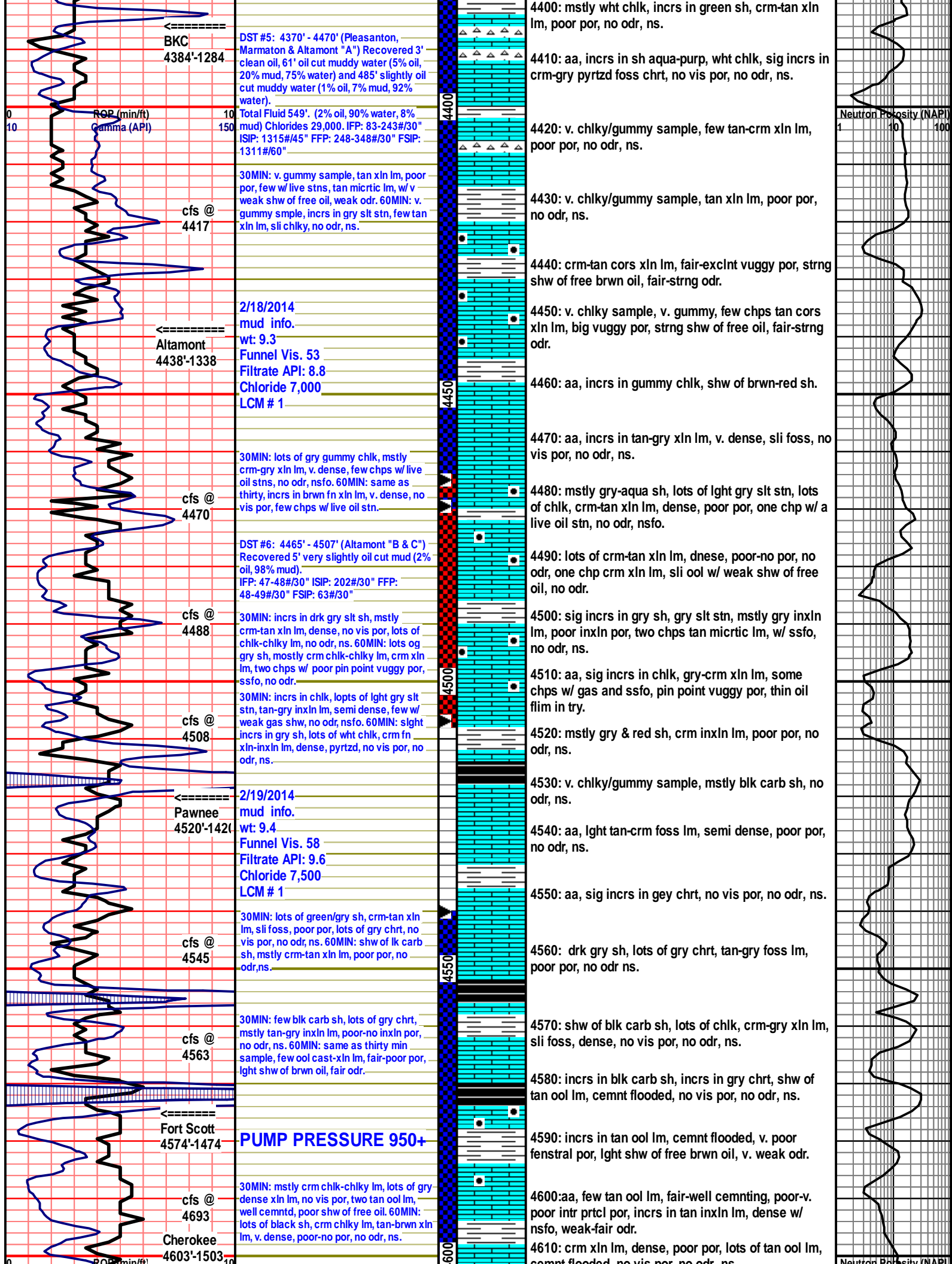
4360: lots of blk carb sh, wht sli foss chrt, chlk-chlky lm, shw of tan-gry inxln lm, semi dense, poor-n por, no odr, ns.

4370: crm-tan xln lm, sli ool, fair-poor por, shw of brwn oil, fair odr.

4380: NO SAMPLE CAUGHT

4390: lots of gry & maroon sh, chlk-chlky lm, few tan micrtic lm, w/ sat oil stn, incrs crm xln lm, w/ fair pin point vuggy por, shw of brwn oil.





BKC
4384'-1284

DST #5: 4370' - 4470' (Pleasanton, Marmaton & Altamont "A") Recovered 3' clean oil, 61' oil cut muddy water (5% oil, 20% mud, 75% water) and 485' slightly oil cut muddy water (1% oil, 7% mud, 92% water).
Total Fluid 549'. (2% oil, 90% water, 8% mud) Chlorides 29,000. IFP: 83-243#/30" ISIP: 1315#/45" FFP: 248-348#/30" FSIP: 1311#/60"

ROP (min/ft)
Gamma (API)

cfs @
4417

30MIN: v. gummy sample, tan xln lm, poor por, few w/ live stns, tan micritic lm, w/ v weak shw of free oil, weak odr. 60MIN: v. gummy smple, incrs in gry slit stn, few tan xln lm, sli chlky, no odr, ns.

Altamont
4438'-1338

2/18/2014 mud info.
wt: 9.3
Funnel Vis. 53
Filtrate API: 8.8
Chloride 7,000
LCM # 1

cfs @
4470

30MIN: lots of gry gummy chlk, mstly crm-gry xln lm, v. dense, few chps w/ live oil stns, no odr, nsfo. 60MIN: same as thirty, incrs in brwn fn xln lm, v. dense, no vis por, few chps w/ live oil stn.

cfs @
4488

DST #6: 4465' - 4507' (Altamont "B & C") Recovered 5' very slightly oil cut mud (2% oil, 98% mud).
IFP: 47-48#/30" ISIP: 202#/30" FFP: 48-49#/30" FSIP: 63#/30"

cfs @
4508

30MIN: incrs in drk gry slit sh, mstly crm-tan xln lm, dense, no vis por, lots of chlk-chlky lm, no odr, ns. 60MIN: lots of gry sh, mostly crm chlk-chlky lm, crm xln lm, two chps w/ poor pin point vuggy por, ssfo, no odr.

2/19/2014 mud info.
wt: 9.4
Funnel Vis. 58
Filtrate API: 9.6
Chloride 7,500
LCM # 1

cfs @
4545

30MIN: incrs in chlk, lopts of lght gry slit stn, tan-gry inxln lm, semi dense, few w/ weak gas shw, no odr, nsfo. 60MIN: slght incrs in gry sh, lots of wht chlk, crm fn xln-inxln lm, dense, pyrtzd, no vis por, no odr, ns.

cfs @
4563

30MIN: lots of green/gry sh, crm-tan xln lm, sli foss, poor por, lots of gry chrt, no vis por, no odr, ns. 60MIN: shw of lk carb sh, mstly crm-tan xln lm, poor por, no odr, ns.

Fort Scott
4574'-1474

30MIN: few blk carb sh, lots of gry chrt, mstly tan-gry inxln lm, poor-no inxln por, no odr, ns. 60MIN: same as thirty min sample, few ool cast-xln lm, fair-poor por, lght shw of brwn oil, fair odr.

cfs @
4693

30MIN: mstly crm chlk-chlky lm, lots of gry dense xln lm, no vis por, two tan ool lm, well cemntd, poor shw of free oil. 60MIN: lots of black sh, crm chlky lm, tan-brwn xln lm, v. dense, poor-no por, no odr, ns.

Cherokee
4603'-1503

PUMP PRESSURE 950+

30MIN: mstly crm chlk-chlky lm, lots of gry dense xln lm, no vis por, two tan ool lm, well cemntd, poor shw of free oil. 60MIN: lots of black sh, crm chlky lm, tan-brwn xln lm, v. dense, poor-no por, no odr, ns.

4400: mstly wht chlk, incrs in green sh, crm-tan xln lm, poor por, no odr, ns.

4410: aa, incrs in sh aqua-purp, wht chlk, sig incrs in crm-gry pyrtzd foss chrt, no vis por, no odr, ns.

4420: v. chlky/gummy sample, few tan-crm xln lm, poor por, no odr, ns.

4430: v. chlky/gummy sample, tan xln lm, poor por, no odr, ns.

4440: crm-tan cors xln lm, fair-exclnt vuggy por, strng shw of free brwn oil, fair-strng odr.

4450: v. chlky sample, v. gummy, few chps tan cors xln lm, big vuggy por, strng shw of free oil, fair-strng odr.

4460: aa, incrs in gummy chlk, shw of brwn-red sh.

4470: aa, incrs in tan-gry xln lm, v. dense, sli foss, no vis por, no odr, ns.

4480: mstly gry-aqua sh, lots of lght gry slit stn, lots of chlk, crm-tan xln lm, dense, poor por, one chp w/ a live oil stn, no odr, nsfo.

4490: lots of crm-tan xln lm, dnese, poor-no por, no odr, one chp crm xln lm, sli ool w/ weak shw of free oil, no odr.

4500: sig incrs in gry sh, gry slit stn, mstly gry inxln lm, poor inxln por, two chps tan micritic lm, w/ ssfo, no odr, ns.

4510: aa, sig incrs in chlk, gry-crm xln lm, some chps w/ gas and ssfo, pin point vuggy por, thin oil flim in try.

4520: mstly gry & red sh, crm inxln lm, poor por, no odr, ns.

4530: v. chlky/gummy sample, mstly blk carb sh, no odr, ns.

4540: aa, lght tan-crm foss lm, semi dense, poor por, no odr, ns.

4550: aa, sig incrs in gey chrt, no vis por, no odr, ns.

4560: drk gry sh, lots of gry chrt, tan-gry foss lm, poor por, no odr ns.

4570: shw of blk carb sh, lots of chlk, crm-gry xln lm, sli foss, dense, no vis por, no odr, ns.

4580: incrs in blk carb sh, incrs in gry chrt, shw of tan ool lm, cemnt flooded, no vis por, no odr, ns.

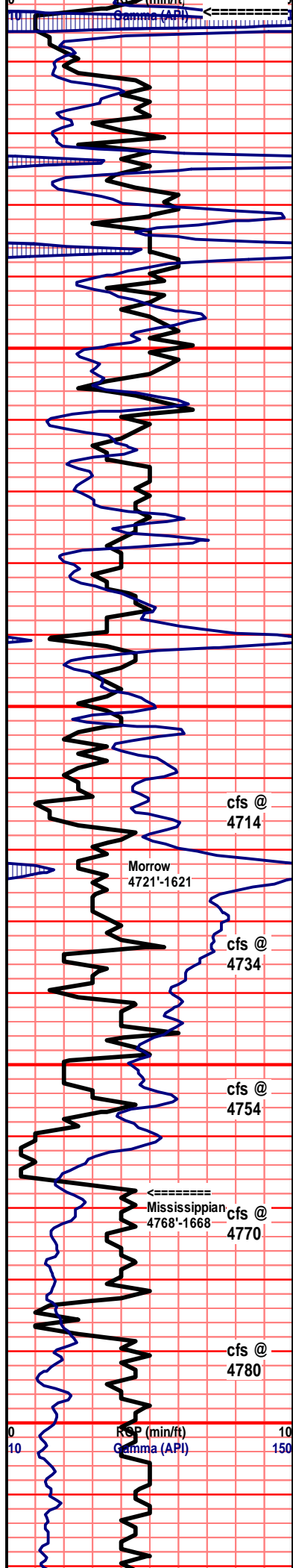
4590: incrs in tan ool lm, cemnt flooded, v. poor fenstral por, lght shw of free brwn oil, v. weak odr.

4600:aa, few tan ool lm, fair-well cemnting, poor-v. poor intr prtcl por, incrs in tan inxln lm, dense w/ nsfo, weak-fair odr.

4610: crm xln lm, dense, poor por, lots of tan ool lm, cemnt flooded, no vis por, no odr, ns.

Neutron Porosity (NAPI)

Neutron Porosity (NAPI)



DST #7: 4540' - 4714' (Myrick, Fort Scott, Cherokee & Johnson)
 Recovered 75' very slightly oil cut mud (2% oil, 98% mud). IFP: 119-141#/30" ISIP: 1159#/30" FFP: 136-155#/30" FSIP: 917#/30"

2/20/2014
 mud info.
 wt: 9.5
 Funnel Vis: 58
 Filtrate API: 9.6
 Chloride 8,200
 LCM # 1/2

PUMP PRESSURE 950+

DST #8: 4698' - 4780' (Morrow)
 Recovered 12' mud.
 IFP: 70-78#/30" ISIP: 919#/45" FFP: 80-88#/45" FSIP: 928#/60"

cfs @ 4714

Morrow 4721'-1621

cfs @ 4734

cfs @ 4754

Mississippian 4768'-1668

cfs @ 4770

cfs @ 4780

30MIN: mstly chlk-chlky lm, lots of crm-gry xln lm, few w/ live oil stns, flash odr. 60MIN: slight incrs in blk carb sh, lots of gry chrt-chrty lm, tan-crm xln lm, poor pin point vuggy por, weak shw of oil, v. weak odr.

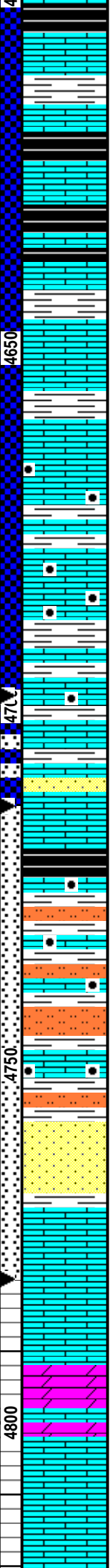
30MIN: mstly aqua, red, and red sh, lots of chlky lm, crm xln lm, semi dense poor por, few tan ool lm, cemnt flooded w/ poor fenstral por, weak show of free oil, no odr. 60MIN: same as thirty min sample, incrs in clr-gry slt stn, shw of gry foss chrt, no odr, ns.

30MIN: v. gummy sample, lots of gry & aqua sh, few qtz ss clusters, v. fn grn, well sortd, rounded-well rounded, few xln-ool lm, some w/ weak show of free oil, no odr. 60MIN: decrse in lm, no ss, incrs in green sh, no odr, ns.

30MIN: few crm-tan xln lm, some w/ stns, mstly wht qtz ss, v. fn grn, rounded-subangular, fair-well cemntd, lots of wht clay matrix, no odr, ns. 60MIN: ss same as thirty min sample, incrs in tan-brwn chrt lm, no vis por, no odr, ns.

30 MIN: mstly gry sh, wht qtz ss, v. fn grn, rounded-subangular, fair-well cemntd, lots of wht clay matrix, few gry med grn clusters, well cemntd, shw of tan xln lm, slt foss, poor-no por, no odr, ns. 60MIN: same as thirty min sample, incrs in tan fn xln, no vis por, no odr, ns.

2/21/2014



4620: incrs in blk sh, mstly gry xln lm, v. dense, no vis por, no odr, ns.

4630: aa, msly tan-gry dense lm, no vis por, no odr, ns.

4640: slight incrs blk carb sh, sig incrs in gummy chlk, no odr, ns.

4650: aa, incrs in gummy chlk, tan inxln lm, poor-no por, no odr, ns.

4660: brwn inxln lm, v. dense, cemnt flooded por, pyrtzd, poor-no por, no odr, ns.

4670: tan-brwn xln lm, dense, w/ poor pin point vuggy por, slight shw brwn oil, no odr.

4680: slight incrs in gry sh, crm-brwn xln lm, poor pin point vuggy por, live oil stn, no odr.

4690: aa, no sig change, no odr oil stn aa.

4700: incrs in crm chlk-chlky lm, incrs in crm-gry chrty lm, few crm xln lm, w/ poor pin point vuggy por, weak shw of oil, no odr.

4710: aa, no sig change in litho or por, weak-fair odr.

4720: mstly gry-red sh, few ool cast lm, w/ live oil stn, no odr, nsfo.

4730: mstly aqua, gry and red sh, few tan ool lm, cemnt flooded, weak shw of free oil, two clusters of qtz ss, sub-rounded-sub angular, fn grn, poorly sortd, well cemntd, shly, no odr, ns.

4740: lots of gry, aqua & red sh, mstly crm-tan xln lm, poor pin point vuggy por, few w/ weak live oil stns-shws, no odr, ns.

4750: v. gummy sample, mstly sh aa, lm aa slight incrs in shw rock, v. weak odr.

4760: lots of gry-aqua sh, slight incrs in chlky lm, tan-crm xln lm, dense, few w/ ssfo, poor por, no odr.

4770: aa, sig incrs in aqua & gry sh, shw of wht-crm chrt, decrse in tan xln lm, few w/ oil stns.

4780: lots of gry sh, wht qtz ss, v. fn grn, rounded-subangular, fair-well cemntd, lots of wht clay matrix, no odr, ns.

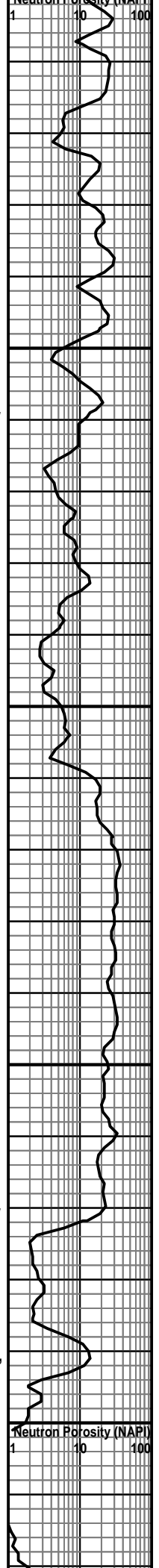
4790: mstly drk gry sh, ss aa, crm-tan xln lm, no odr, ns.

4800: mstly gry sh & slt stn, slight incrs in crm xln lm, cemnt flooded por, no odr, ns.

4810: aa, sig incrs in wht carbnte mud, lots of wht syrcsc dolo, cors grn, super intr prtcl por, no odr, ns.

4820: lots of wht carb mud, mostly wht dolo-dandy lm, poor por, well cemntd, no odr, ns.

4830: aa, slight incrs in gry sh, mstly drk crm xln lm



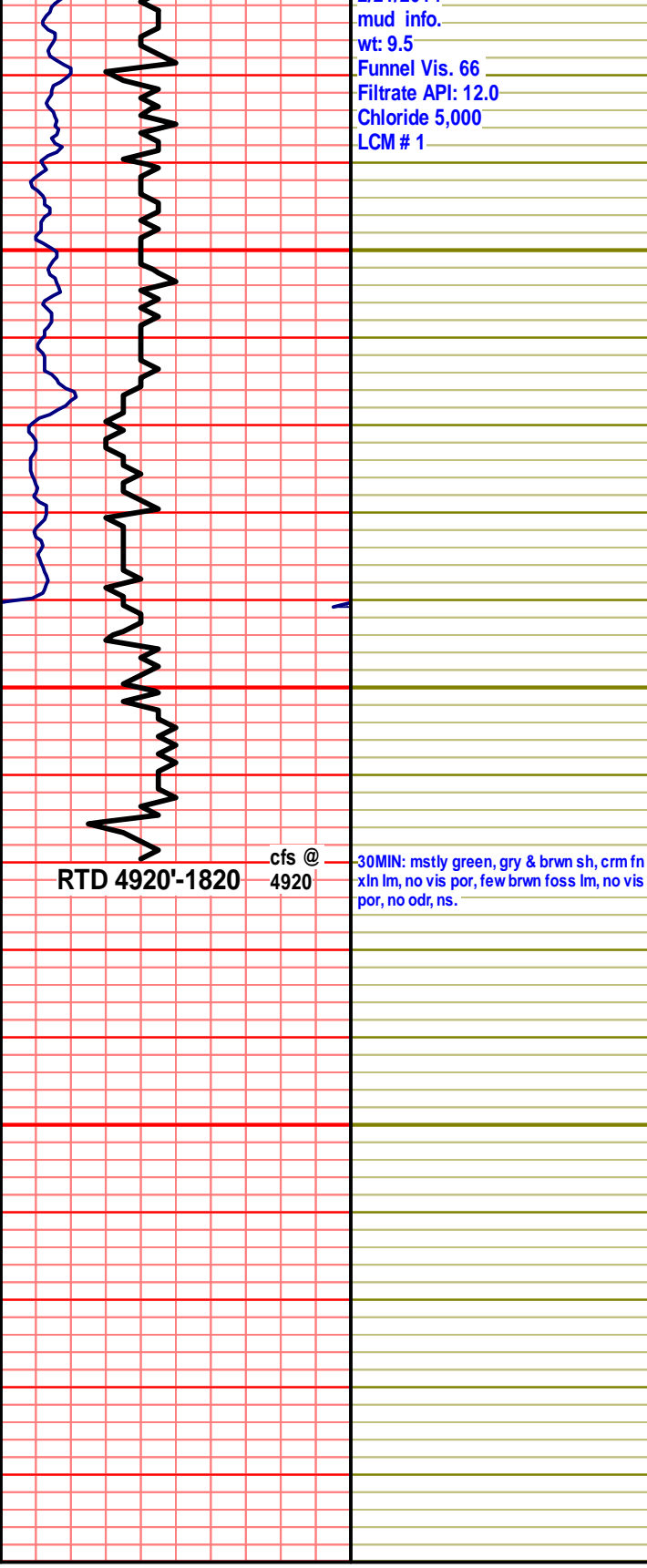
mud info.
wt: 9.5
Funnel Vis. 66
Filtrate API: 12.0
Chloride 5,000
LCM # 1

4830: aa, slight incrs in gry sh, msly drty crm xln lm, v. dense, no vis por, no odr, ns.
4840: aa, lots of crm xln lm, poor por, no odr, ns.
4850: mstly crm inxln lm, fair-poor por, no odr, ns.
4860: aa, slight incrs in wht-crm sandy lm, well cemntd, poor-no por, no odr, ns.
4870: slight incrs in carb mud chps, mstly wht sandy lm, cors grn, well cemntd, no odr, ns.
4880: aa, shw of tan-brwn inxln lm, dense, no vis por, no odr, ns.
4890: incrs in carbnte mud chps, wht-drtty crm xln lm, poor-no por, no odr, ns.
4900: sig incrs in drk gry-aqua sh, crm fn xln, cemnt flooded fracs, no odr, ns.
4910: mstly aqua brwn and gry sh, lm aa, no odr, ns.
4920: aa, brwn foss lm, cemnt flooded, no vis por, no odr, ns.

RTD 4920'-1820 cfs @ 4920

30MIN: mstly green, gry & brwn sh, crm fn xln lm, no vis por, few brwn foss lm, no vis por, no odr, ns.

4850
4900
4950
00





#1 Martin Trust Unit
 2695' FNL & 1420' FEL
 55' S & 100' W of W/2 Section 1-16S-34W
 Scott County, Kansas
 API# 15-171-21025-0000
 Elevation: 3095' GL, 3100' KB

Sample Tops			Ref. Well
Anhydrite	2460'	+640	-3
B/Anhydrite	2481'	+619	-5
Stotler	3624'	-524	-10
Heebner	3992'	-892	-12
Toronto	4012'	-912	-13
Lansing	4042'	-942	-15
Muncie Shale	4211'	-1111	-8
Stark Shale	4302'	-1202	-1
Hush. Shale	4346'	-1246	-2
BKC	4381'	-1281	-3
Marmaton	4424'	-1324	-5
Altamont	4434'	-1334	-2
Pawnee	4516'	-1416	-2
Myrick	4560'	-1460	-3
Fort Scott	4572'	-1472	-2
Cherokee	4598'	-1498	Flat
Johnson	4693'	-1593	-2
Morrow	4719'	-1619	-1
Mississippian	4768'	-1668	+7
RTD	4920'	-1820	

