Confidentiality Requested:
☑ Yes ☐ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1215655

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 # 4767
Name: Ritchie Exploration, Inc.
Address 1: 8100 E 22ND ST N # 700
Address 2: BOX 783188
City: WICHITA State: KS Zip: 67278 + 3188
Contact Person: Peter Fiorini
Phone: (316) 691-9500
CONTRACTOR: License # 33350
Name: Southwind Drilling, Inc.
Wellsite Geologist: Adam Eldani
Purchaser: JP Energy

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 #:

04/03/2014	04/16/2014	04/16/2014
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-145-21759-00-00
Spot Description: 2'S & 30'W of
_ - E2 - NE - SE Sec. 21 Twp. 21 S. R. 18 ☐ East ☑ West
1978 Feet from ☐ North / ☑ South Line of Section
360 Feet from ☑ East / ☐ West Line of Section

Footages Calculated from Nearest Outside Section Corner:
☐ NE ☐ NW ☑ SE ☐ SW

GPS Location: Lat: *(e.g. xx.xxxxx)* , Long: *(e.g. -xxx.xxxxx)*
Datum: ☐ NAD27 ☐ NAD83 ☐ WGS84
County: Pawnee
Lease Name: Biggs 21D Well #: 1X
Field Name:
Producing Formation: LKC
Elevation: Ground: 2090 Kelly Bushing: 2099
Total Vertical Depth: 4550 Plug Back Total Depth: 4240
Amount of Surface Pipe Set and Cemented at: 1175 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: 14500 ppm Fluid volume: 1000 bbls
Dewatering method used: Evaporated

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: 07/30/2014
☑ **Confidential Release Date:** 07/29/2016
☑ **Wireline Log Received**
☑ **Geologist Report Received**
☐ **UIC Distribution**
ALT ☑ **I** ☐ **II** ☐ **III** **Approved by:** NAOMI JAMES **Date:** 08/04/2014

[redacted] 1215655

Operator Name: Ritchie Exploration, Inc. Lease Name: Biggs 21D Well #: 1X

Sec. 21 Twp. 21 S. R. 18 ☐ East ☑ West County: Pawnee

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 ☑ Yes ☐ No
(Attach Additional Sheets)

Samples Sent to Geological Survey ☑ Yes ☐ No

Cores Taken ☐ Yes ☑ No

Electric Log Run ☑ Yes ☐ No

List All E. Logs Run:

Compensated Density/Neutron Log
Dual Induction Log

☐ Log Formation (Top), Depth and Datum ☑ Sample

Name Top Datum

See Attached

CASING RECORD ☐ New ☑ 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
Surface	12.25	8.625	24	1175	65/35 Pozmix	550	6% gel, 3% cc & 2% gel, 3% cc
Production	7.875	5.5	15.5	4265	ASC	170	10% salt, 2% gel, 6% Gyp-Seal, 5#/sx Kc

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
___ Perforate ___ Protect Casing ___ Plug Back TD ___ 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 *(Amount and Kind of Material Used)*	Depth
4	4047' - 4049' (5/5/14)	250 gals 15% INS Acid	
4	3800' - 3804' (5/7/14)	750 gals 15% NE	
	*** CIBP @ 4040'******		

TUBING RECORD:	Size:	Set At:	Packer At:	Liner Run:
	2.88	4027		☐ Yes ☑ No

Date of First, Resumed Production, SWD or ENHR.	Producing Method:
05/23/2014	☑ Flowing ☐ Pumping ☐ Gas Lift ☐ Other *(Explain)*

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
	21.75				39

DISPOSITION OF GAS:
☐ Vented ☐ Sold ☐ Used on Lease
(If vented, Submit ACO-18.)

METHOD OF COMPLETION:
☐ Open Hole ☑ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)*
☐ Other *(Specify)* _____

PRODUCTION INTERVAL:
_____
_____

Form	ACO1 - Well Completion
Operator	Ritchie Exploration, Inc.
Well Name	Biggs 21D 1X
Doc ID	1215655

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
Surface	12.25	8.625	24	1175	65/35 Pozmix	550	6% gel, 3% cc & 2% gel, 3% cc
Production	7.875	5.5	15.5	4265	ASC	170	10% salt, 2% gel, 6% Gyp-Seal, 5#/sx KolSeal, 1/4% CDI-26

Adam Eldani Geo-Log/Report
WellSight Systems
Scale 1:240 (5"=100') Imperial
Measured Depth Log

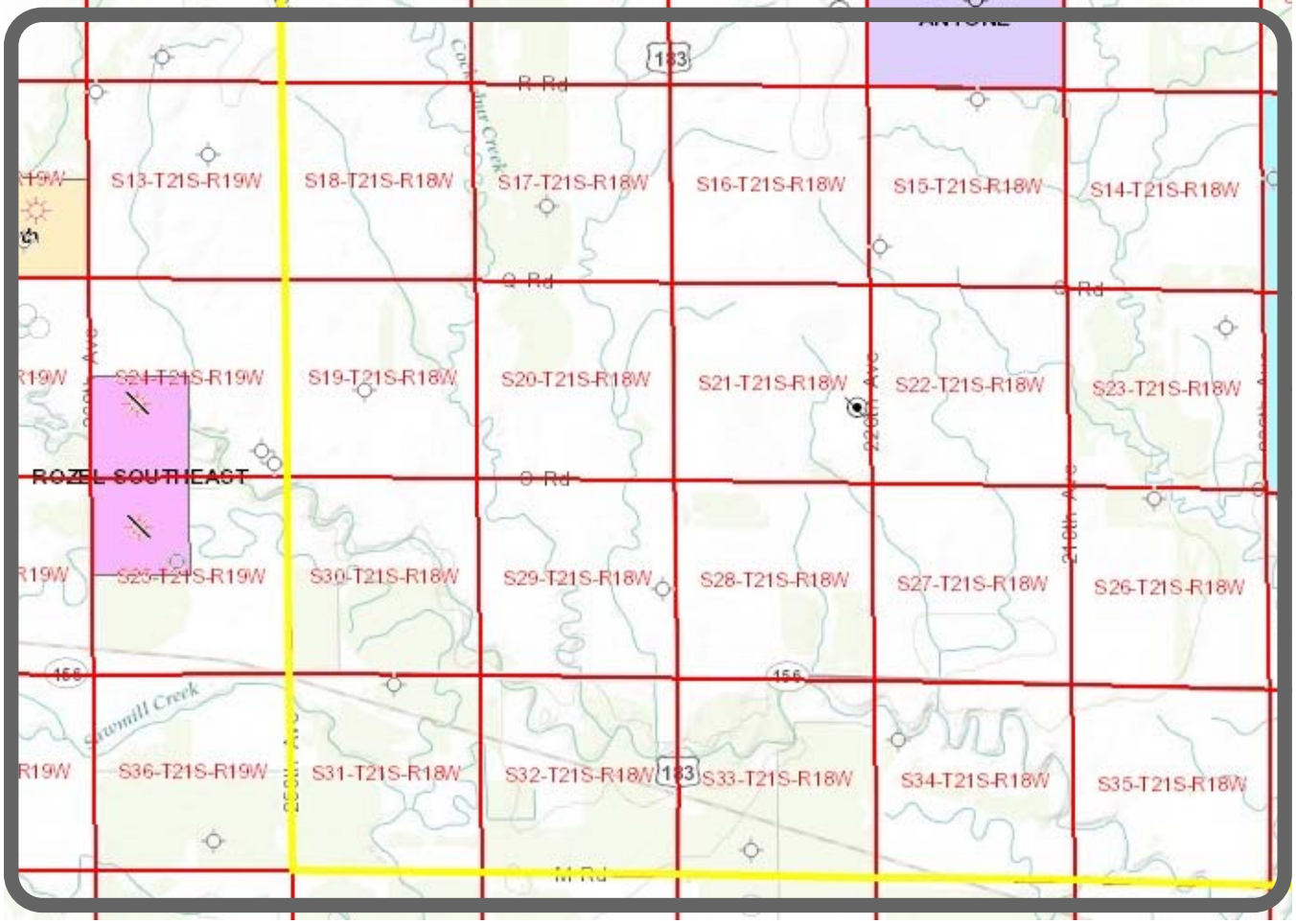
Well Name:	**#1 X BIGGS 21D**
Location:	**SEC 21-TOWNSHIP 21S- RANGE 18W PAWNEE COUNTY**
License Number:	**API 15-145-21759** **Region: KANSAS**
Spud Date:	**04/03/2014** **Drilling Completed: 04/16/2014**
Surface Coordinates:	**(Plugged & Abandoned the Biggs 21D #1 due to abnormal vertical borehole deviation; the rig moved 25' west and 3' north to alternate location) 1975' FSL &**
Bottom Hole Coordinates:	**Deviation Surveys are detailed through out the Geo-Report.**
Ground Elevation (ft):	**2090'** **K.B. Elevation (ft): 2099'**
Logged Interval (ft):	**1900'** **To: 4551'** **Total Depth (ft): 4551'**
Formation:	**Precambrian**
Type of Drilling Fluid:	**Mud-Co Chemical**

OPERATOR

Company: **Ritchie Exploration Inc. (drilled by Southwind Drilling 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


S13-T21S-R19W
S18-T21S-R18W
S17-T21S-R18W
S16-T21S-R18W
S15-T21S-R18W
S14-T21S-R18W
S24-T21S-R19W
S19-T21S-R18W
S20-T21S-R18W
S21-T21S-R18W
S22-T21S-R18W
S23-T21S-R18W
ROZEL SOUTHEAST
S25-T21S-R19W
S30-T21S-R18W
S29-T21S-R18W
S28-T21S-R18W
S27-T21S-R18W
S26-T21S-R18W
S36-T21S-R19W
S31-T21S-R18W
S32-T21S-R18W
S33-T21S-R18W
S34-T21S-R18W
S35-T21S-R18W
Sawmill Creek
R Rd
Q Rd
O Rd
M Rd
133
156
220th Ave
216th Ave

Tops & Daily Drilling Report

TOPS:
DRILLING REPORT

Sample Tops:	E-log Tops:
Anhydrite: 1168'+931	Anhydrite: 1162'+937
B/Anhydrite: 1195'+904	B/Anhydrite: 1182'+917
Heebner: 3515'-1416	Heebner: 3514'-1415
Toronto: 3528'-1429	Toronto: 3532'-1433
Lansing: 3597'-1498	Lansing: 3589'-1490
Muncie Sh: 3739'-1640	Muncie Sh: 3730'-1631
Stark Sh: 3820'-1721	Stark Sh: 3814'-1715
Hush: 3851'-1752	Hush: 3850'-1751
BKC: 3884'-1785	BKC: 3882'-1783
Marmaton: 3910'-1811	Marmaton: 3897'-1798
Pawnee: 3973'-1874	Pawnee: 3972'-1873
Fort Scott: 3994'-1895	Fort Scott: 3989'-1890
Cherokee Sh: 4008'-1909	Cherokee Sh: 4002'-1903
Cong. Sand: 4025'-1926	Cong. Sand: 4008'-1909
Arbuckle: 4046'-1947	Arbuckle: 4024'-1925
Reagan Sand: 4438'-2339	Reagan Sand: N/A
Granite: 4460'-2361	Granite: 4468'-2369
RTD: 4550'-2451	LTD: 4551'-2452

DAILY DRILLING REPORT:

DATE	DEPTH:
4/03	Spud
4/04	760'
4/05	1175'
4/06	1850'
4/07	2475'
4/08	3140'
4/09	3632'
4/10	3780'
4/11	3826'
4/12	3874'
4/13	3888'
4/14	4043'
4/15	4120'
4/16	4470'
4/17	4550'

Misc.

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

RIG: Southwind Rig #2
TOOL PUSHER: Bill Sanders
MUD: MUD CO. (Jason Whiting)
GAS DETECTOR: MBC Well Service,

DRILL STEM TEST'S: Diamond Testing, Mike Cochran

LOGS: NABORS (Jason Cappellucci)

OFFICE: Mike Engelbrecht

Comments

Ran 28 jts new 24# 8-5/8" surface casing. Tally at 1163', set at 1175'. Cemented with 400 sacks 65/35 Poz, 6% gel, 3% cc and 150 sacks common 2% gel, 3% cc. Cement did circulate. Plug down at 3:30 a.m. on 4/5/14.

AFTER THE RESULTS OF SAMPLE LOGGING, ELECTRIC LOGGING, AND ALL DST TESTS ANALYSIS & CALCULATIONS; IT WAS DECIDED TO RUN 5 1/2 INCH PRODUCTION CASING TO FURTHER TEST THE #1 X Biggs 21D FOR OIL & GAS COMMERICAL QUANTITIES.

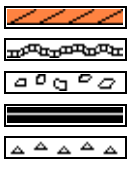
Ran new 5 ½" 15.5# production casing with basket shoe, set at 4265'. Insert at 4243'. Pumped 500 gallons mud flush. Cemented casing with 170 sacks ASC + 10% salt + 2% gel + 6% Gyp-Seal + 5#/sack Kol-Seal + 1/4% CDI-26. Plug down at 3:30 p.m. Plugged rat hole with 30 sacks.

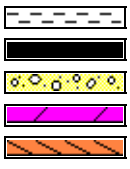
Well Log Surveys BY: NABORS. Compensated Denisty/ Neutron Log, Dual Induction & Sonic.

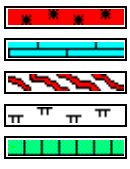
SAMPLES WILL BE DEPOSITED WITH KANSAS GEOLOGICAL SURVEY.

RESPECTFULLY SUBMITTED
Adam M. A. Eldani

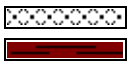
ROCK TYPES


Anhy
Bent
Brec
Carb sh
Cht


Clyst
Coal
Congl
Dol
Gyp


Igne
Lmst
Meta
Mrlst
Salt


Shale
Shcol
Shgy
Sltst
Ss


Till
Red shale

ACCESSORIES

MINERAL
- Anhy
- Arggrn
- Arg
- Bent
- Bit
- Brecfrag
- 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

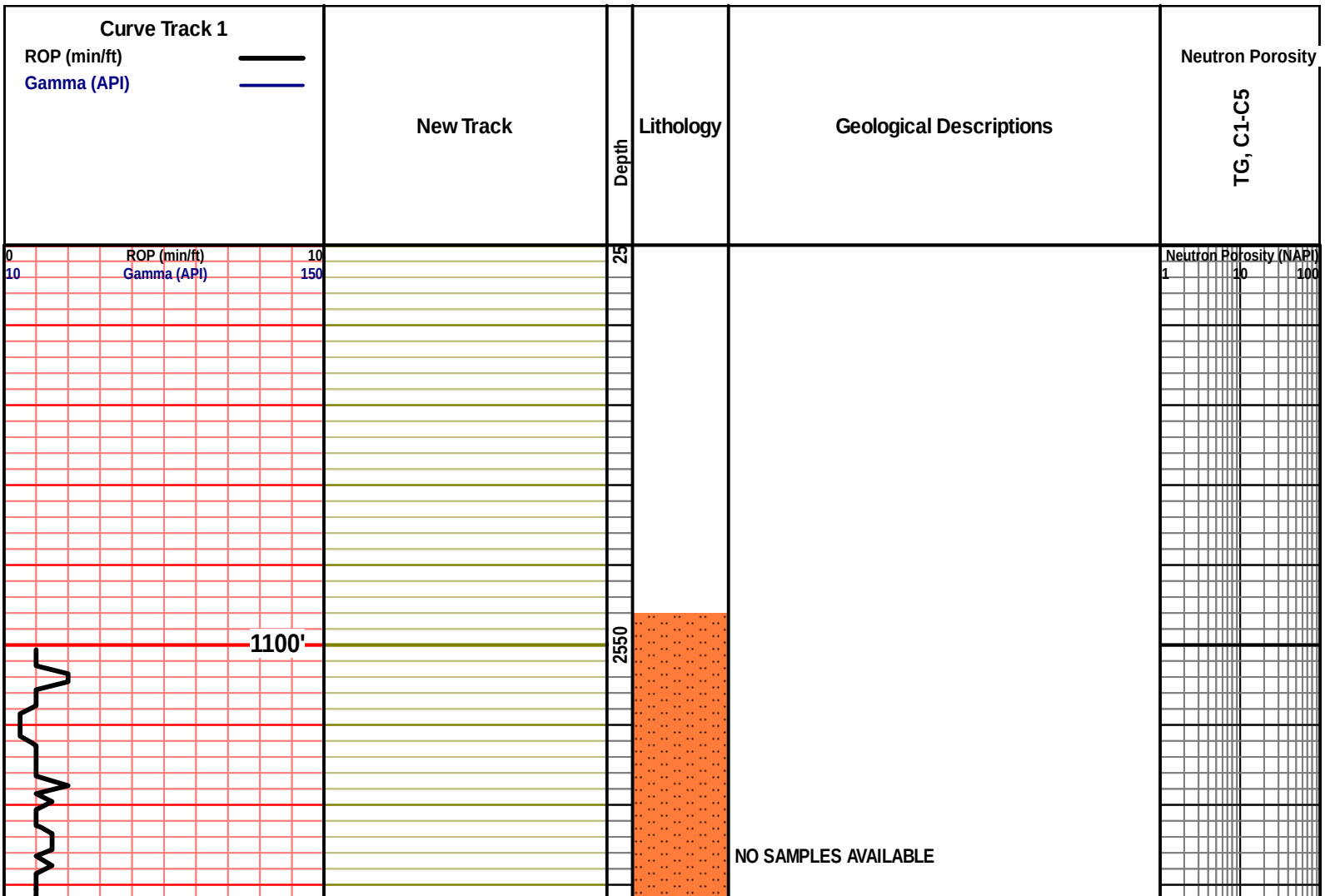
OIL SHOW
- aimimg_1

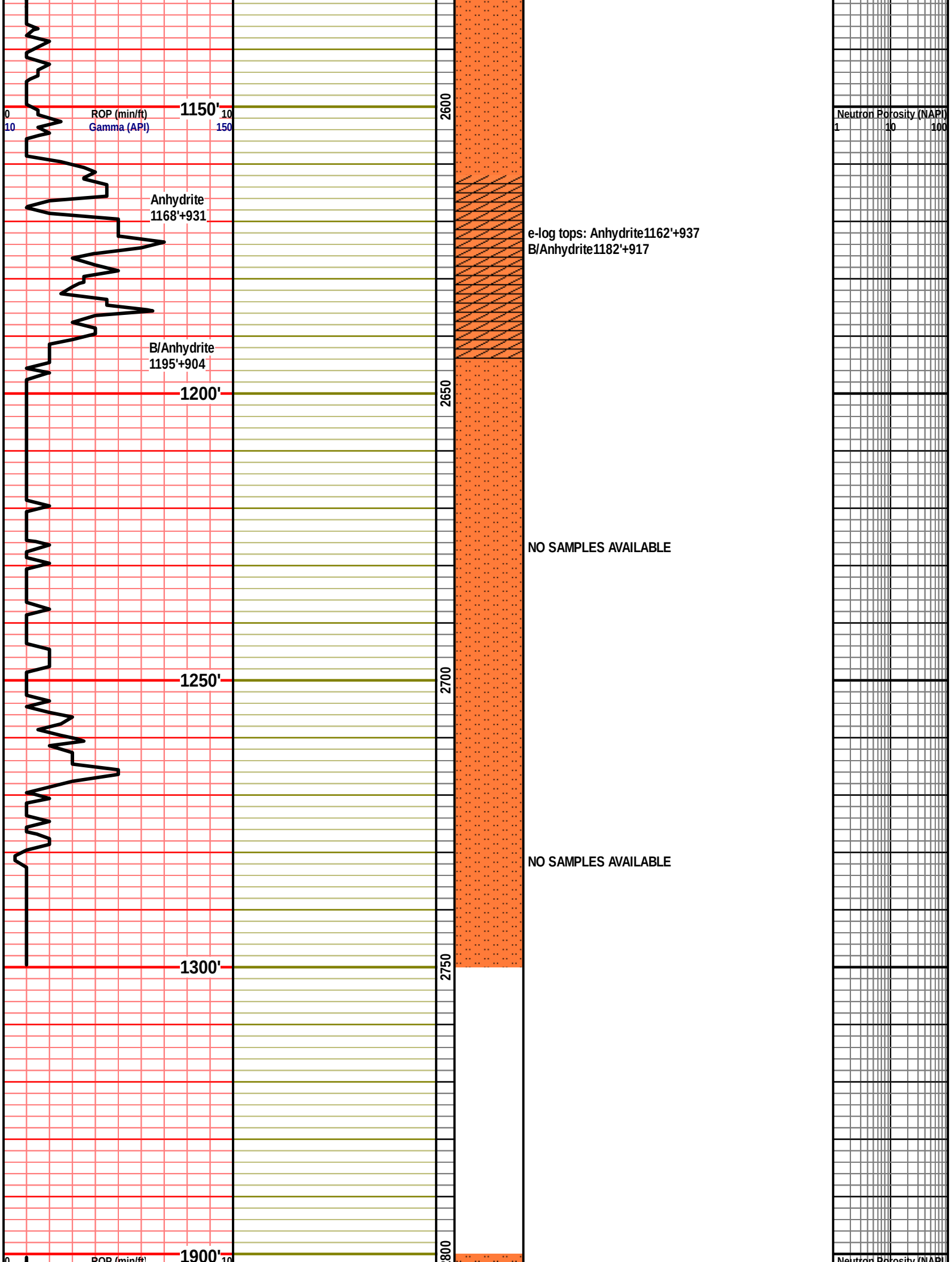
- Even
- Spotted
- Ques
- Dead

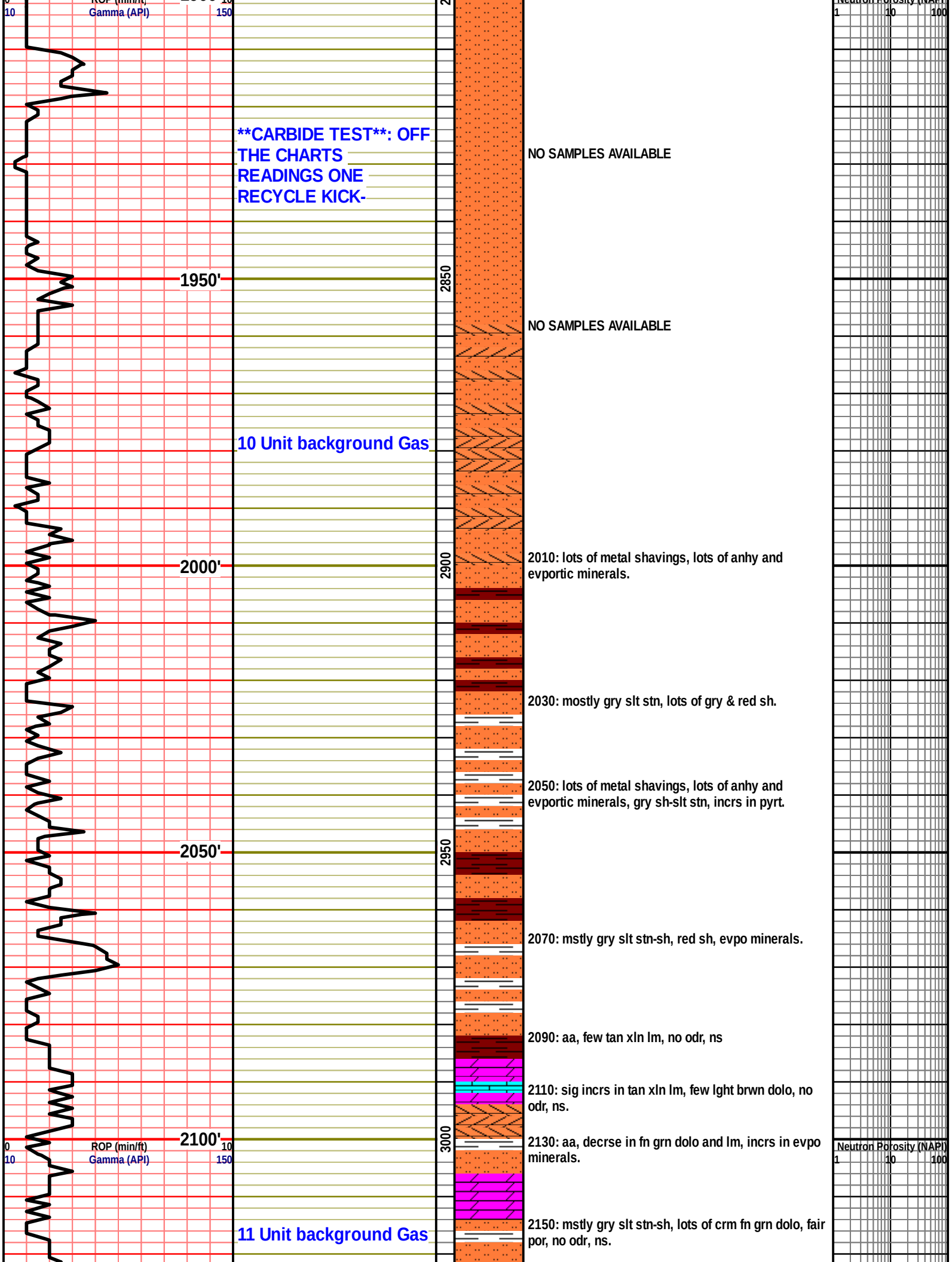
INTERVAL
- Core
- Dst

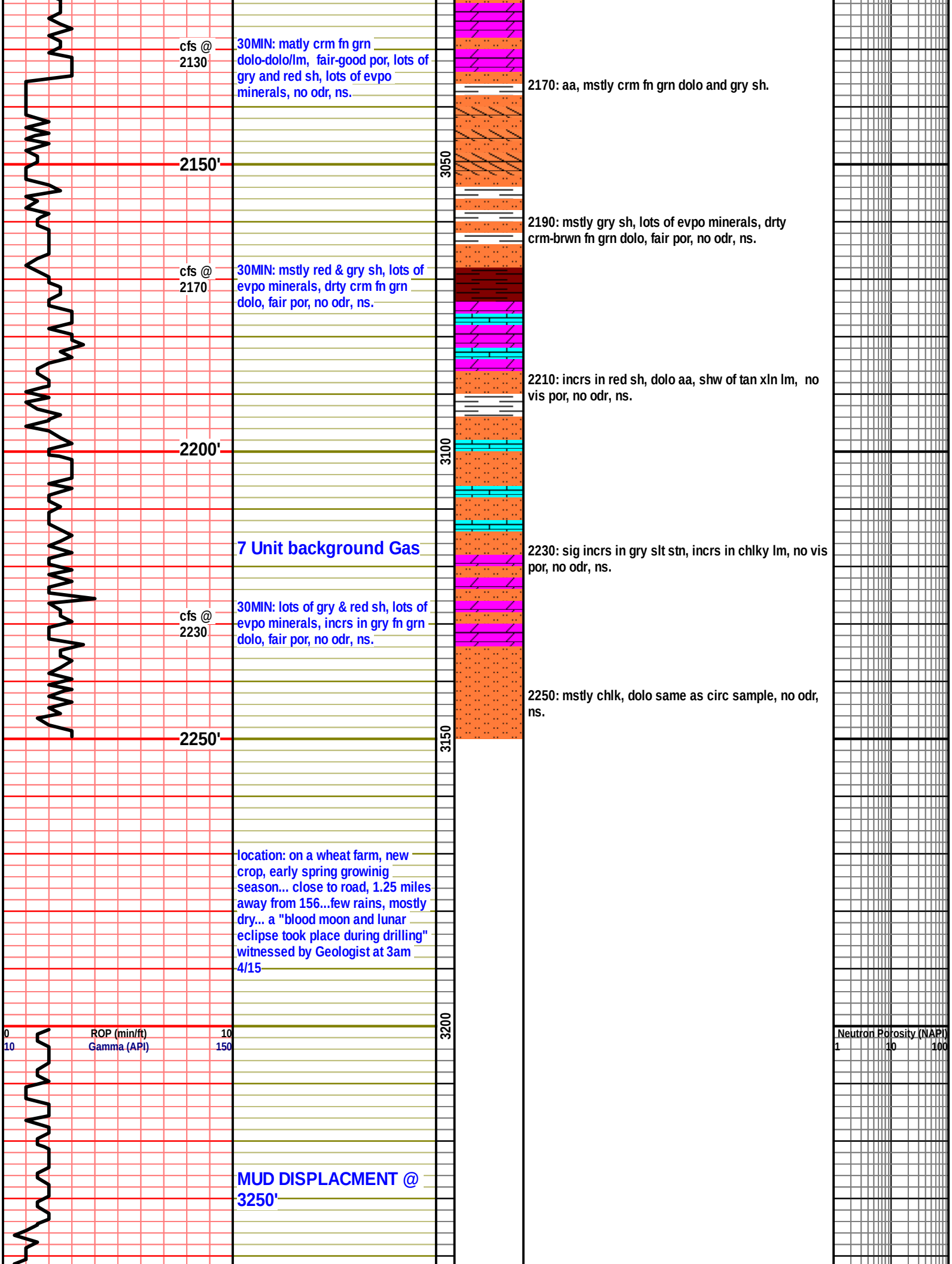
- Dst_alt
- Dst

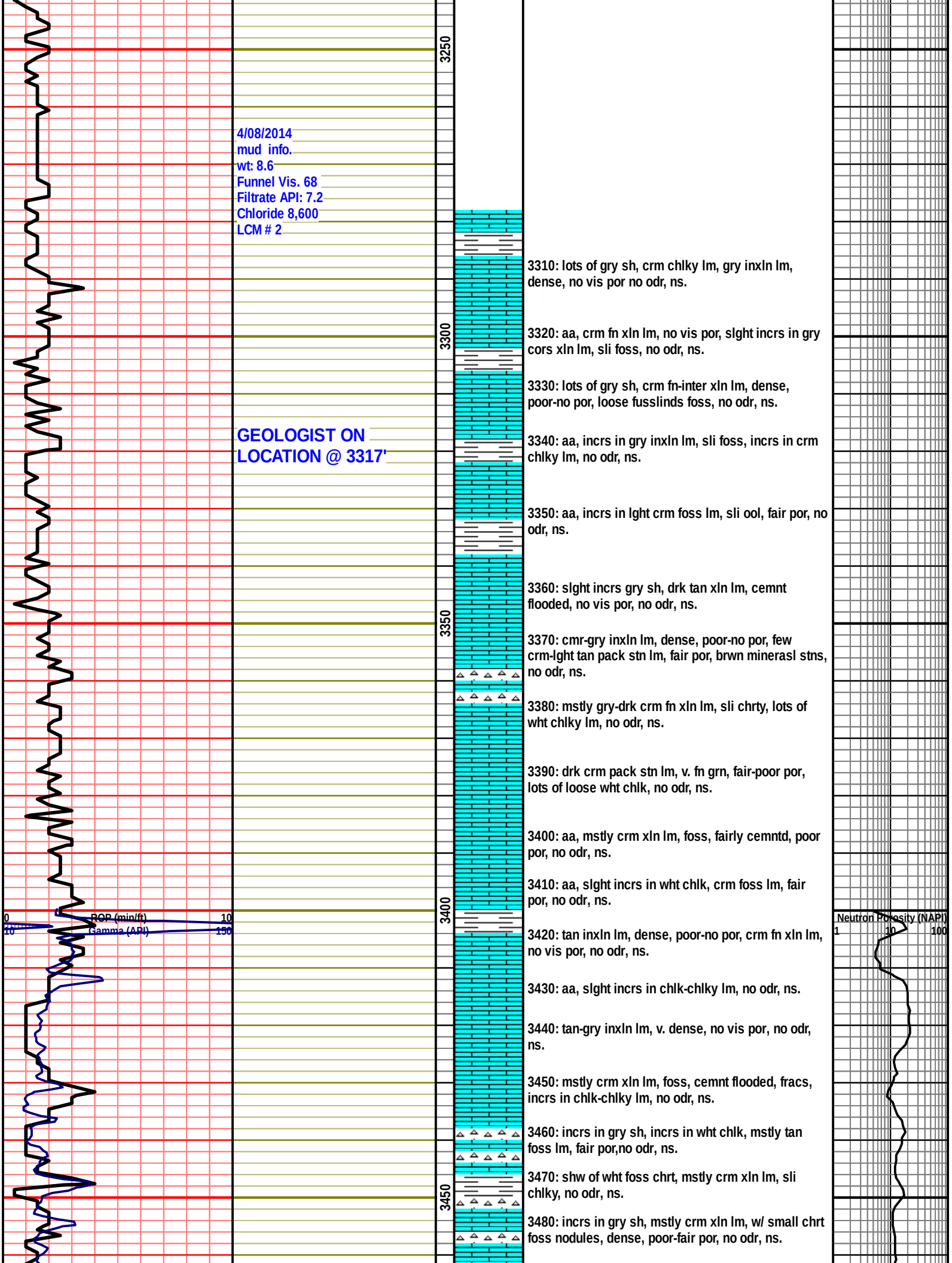
EVENT
- Rft
- Sidewall

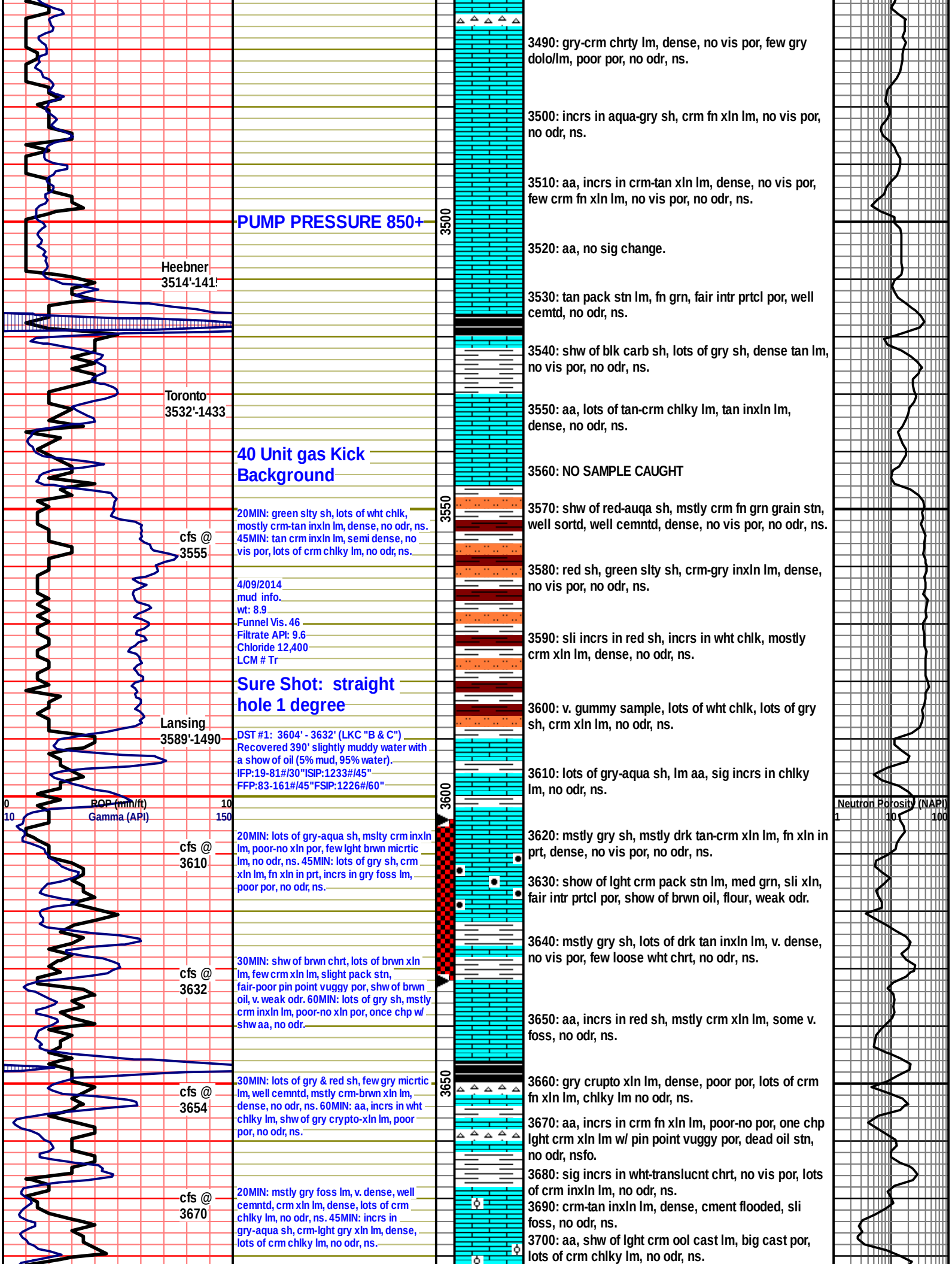


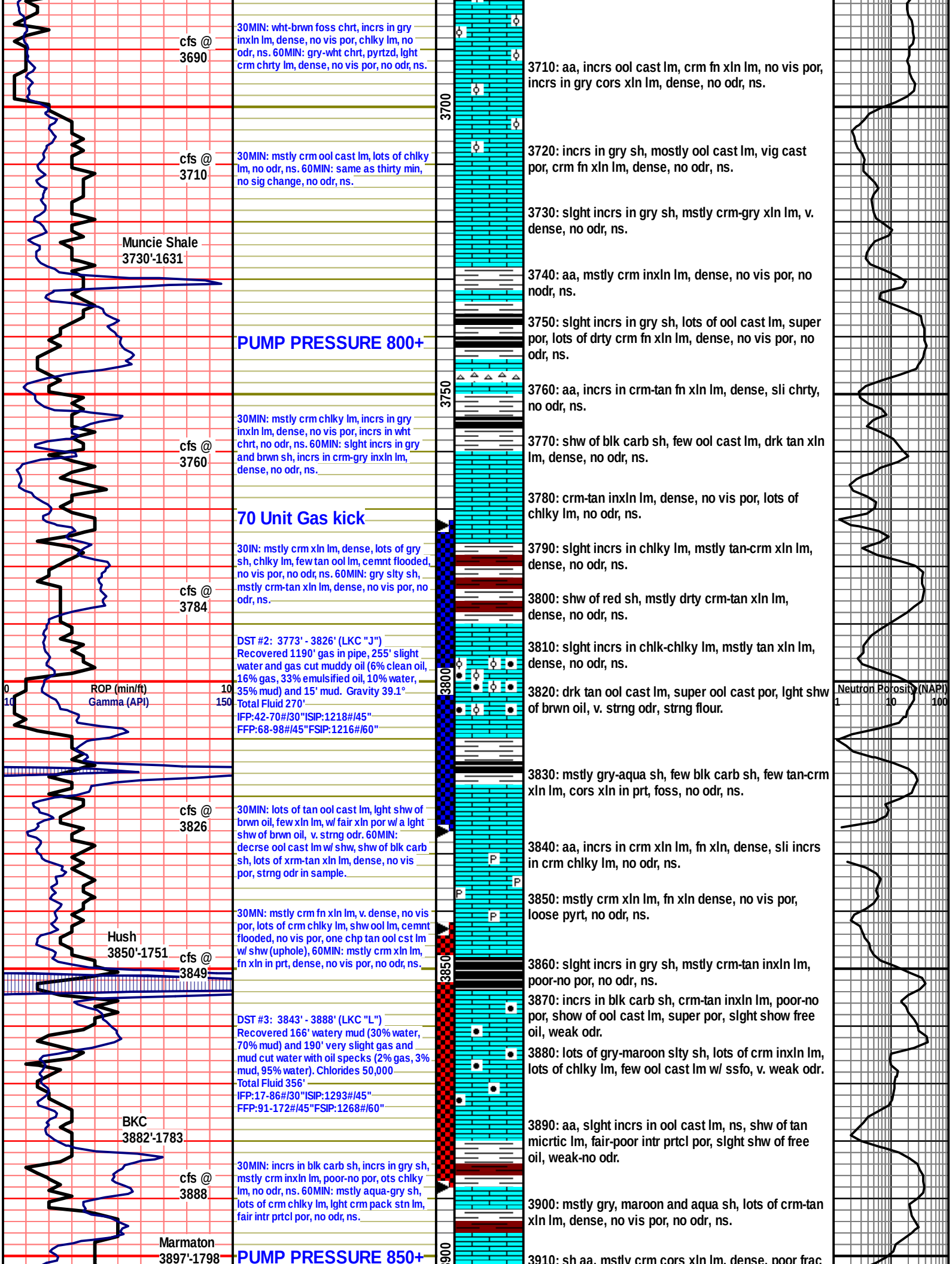

0
10
ROP (min/ft)
Gamma (API)
10
150
1150'
Anhydrite
1168'+931
B/Anhydrite
1195'+904
1200'
1250'
1300'
1900'
2600
2650
2700
2750
2800
e-log tops: Anhydrite1162'+937
B/Anhydrite1182'+917
NO SAMPLES AVAILABLE
NO SAMPLES AVAILABLE
Neutron Porosity (NAPI)
1
10
100
Neutron Porosity (NAPI)

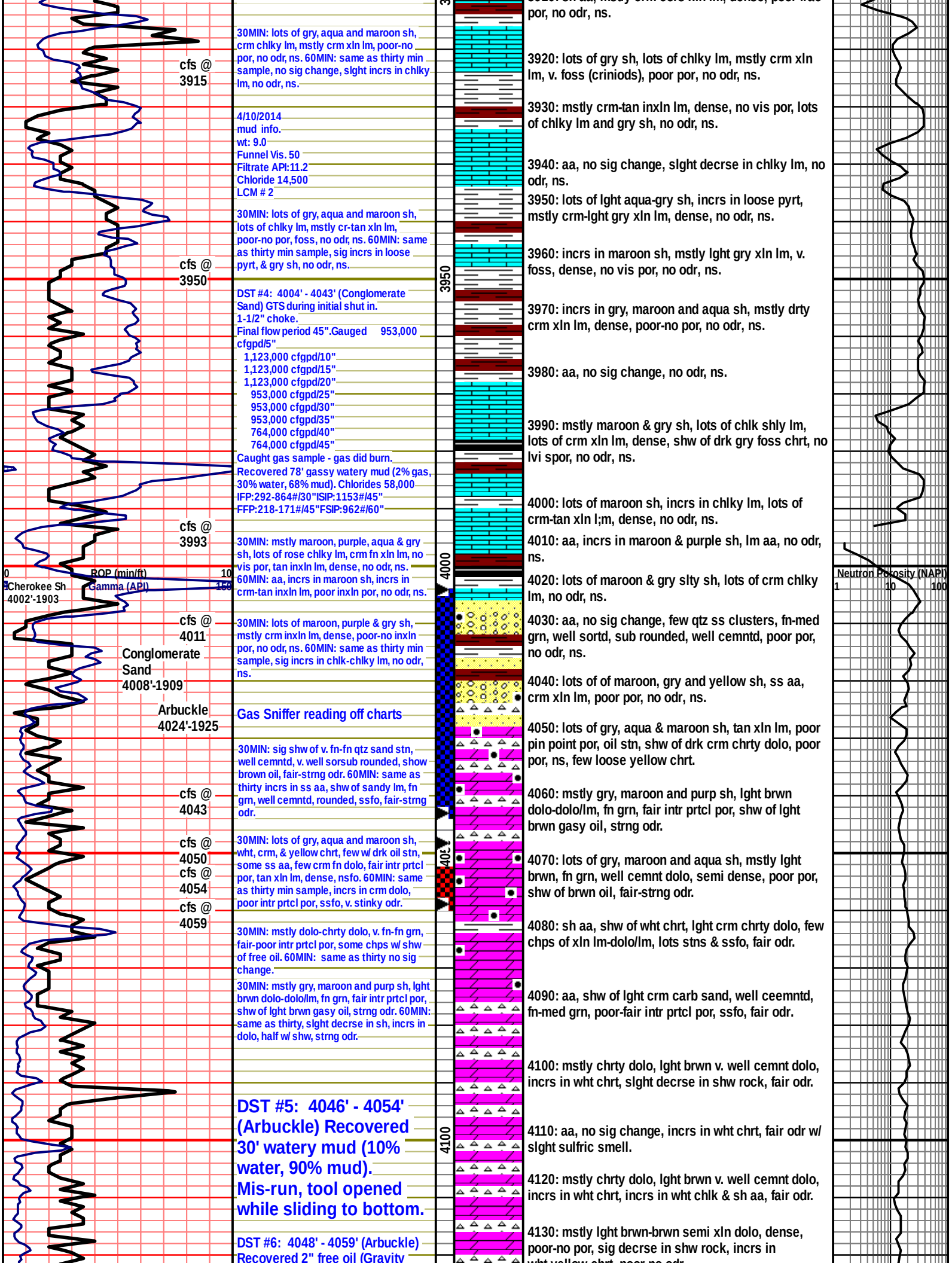

ROP (min/ft)
0
10
Gamma (API)
10
150
CARBIDE TEST: OFF THE CHARTS READINGS ONE RECYCLE KICK-
1950'
10 Unit background Gas
2000'
2050'
2100'
11 Unit background Gas
2850
2900
2950
3000
NO SAMPLES AVAILABLE
NO SAMPLES AVAILABLE
2010: lots of metal shavings, lots of anhy and evportic minerals.
2030: mostly gry slt stn, lots of gry & red sh.
2050: lots of metal shavings, lots of anhy and evportic minerals, gry sh-slt stn, incrs in pyrt.
2070: mstly gry slt stn-sh, red sh, evpo minerals.
2090: aa, few tan xln lm, no odr, ns
2110: sig incrs in tan xln lm, few lght brwn dolo, no odr, ns.
2130: aa, decrse in fn grn dolo and lm, incrs in evpo minerals.
2150: mstly gry slt stn-sh, lots of crm fn grn dolo, fair por, no odr, ns.
Neutron Porosity (NAPI)
1
10
100

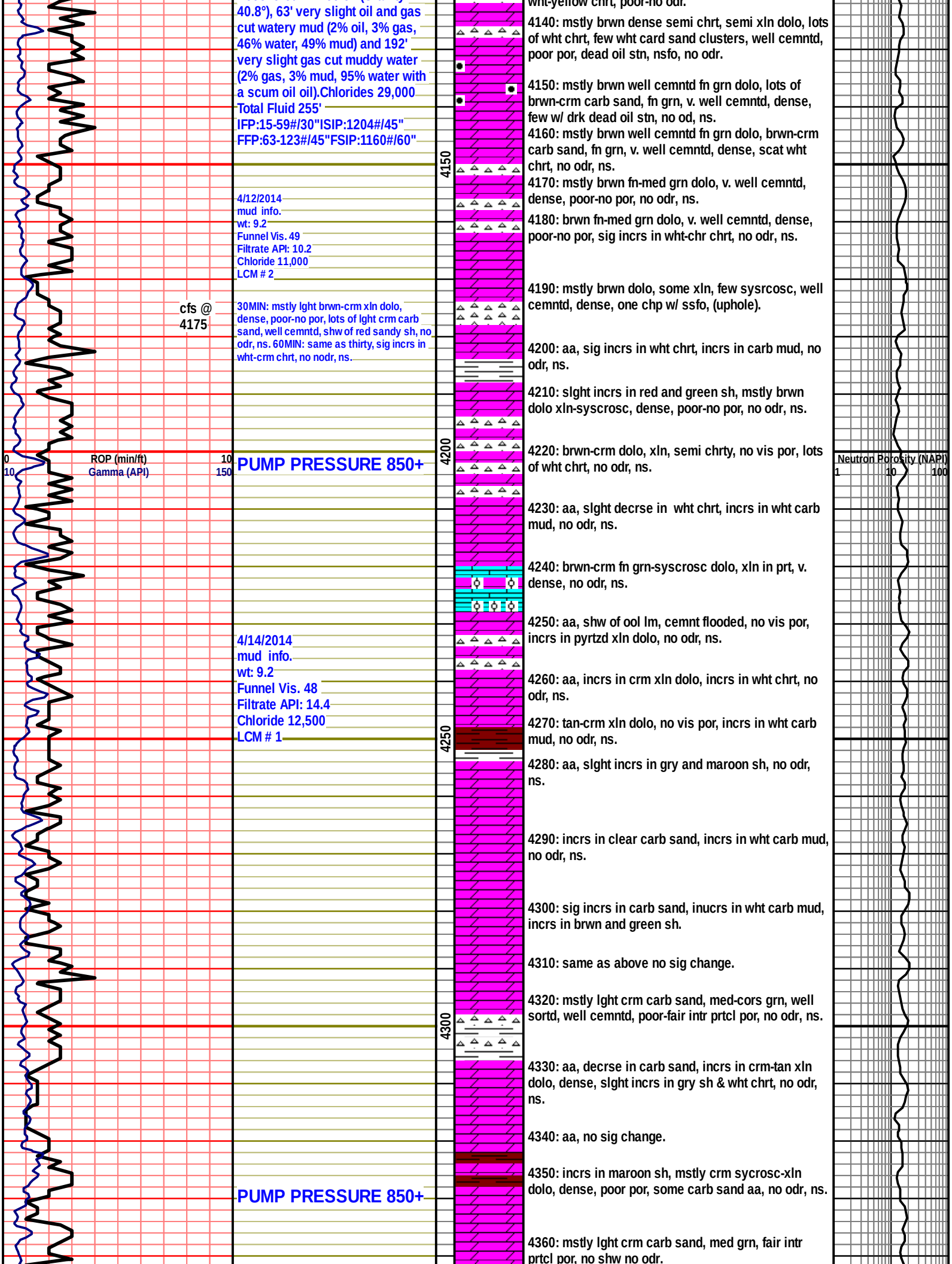

cfs @ 2130
30MIN: matly crm fn grn dolo-dolo/lm, fair-good por, lots of gry and red sh, lots of evpo minerals, no odr, ns.
2150'
cfs @ 2170
30MIN: mstly red & gry sh, lots of evpo minerals, drty crm fn grn dolo, fair por, no odr, ns.
2200'
7 Unit background Gas
cfs @ 2230
30MIN: lots of gry & red sh, lots of evpo minerals, incrs in gry fn grn dolo, fair por, no odr, ns.
2250'
location: on a wheat farm, new crop, early spring growinig season... close to road, 1.25 miles away from 156...few rains, mostly dry... a "blood moon and lunar eclipse took place during drilling" witnessed by Geologist at 3am 4/15
MUD DISPLACMENT @ 3250'
3050
3100
3150
3200
2170: aa, mstly crm fn grn dolo and gry sh.
2190: mstly gry sh, lots of evpo minerals, drty crm-brwn fn grn dolo, fair por, no odr, ns.
2210: incrs in red sh, dolo aa, shw of tan xln lm, no vis por, no odr, ns.
2230: sig incrs in gry slt stn, incrs in chlky lm, no vis por, no odr, ns.
2250: mstly chlk, dolo same as circ sample, no odr, ns.
0
10
ROP (min/ft)
Gamma (API)
10
150
Neutron Porosity (NAPI)
1
10
100

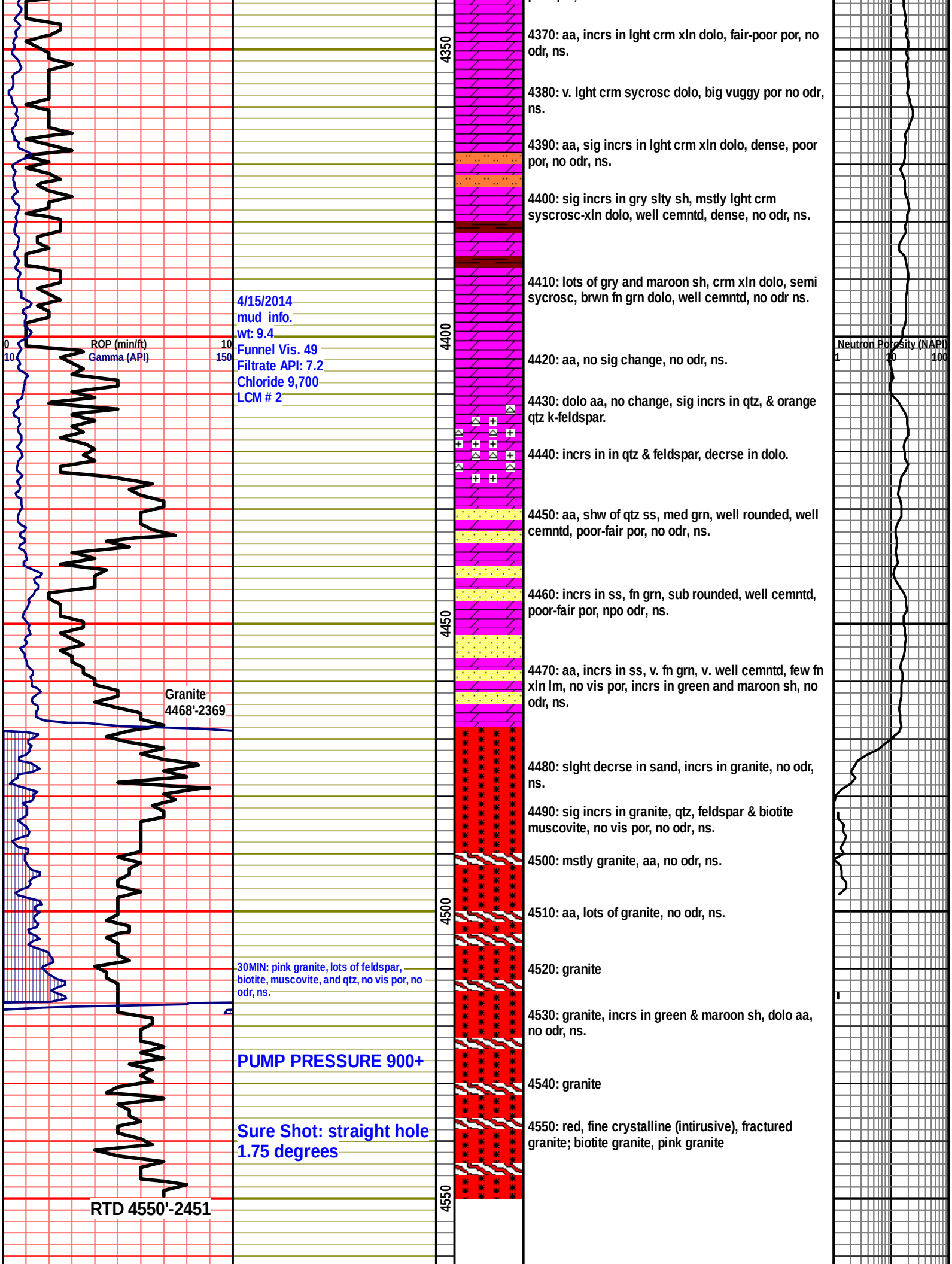

4/08/2014
mud info.
wt: 8.6
Funnel Vis. 68
Filtrate API: 7.2
Chloride 8,600
LCM # 2
GEOLOGIST ON LOCATION @ 3317'
3250
3300
3350
3400
3450
0
ROP (min/ft)
10
10
Gamma (API)
150
Neutron Porosity (NAPI)
1
10
100
3310: lots of gry sh, crm chlky lm, gry inxln lm, dense, no vis por no odr, ns.
3320: aa, crm fn xln lm, no vis por, slght incrs in gry cors xln lm, sli foss, no odr, ns.
3330: lots of gry sh, crm fn-inter xln lm, dense, poor-no por, loose fusslinds foss, no odr, ns.
3340: aa, incrs in gry inxln lm, sli foss, incrs in crm chlky lm, no odr, ns.
3350: aa, incrs in lght crm foss lm, sli ool, fair por, no odr, ns.
3360: slght incrs gry sh, drk tan xln lm, cemnt flooded, no vis por, no odr, ns.
3370: cmr-gry inxln lm, dense, poor-no por, few crm-lght tan pack stn lm, fair por, brwn minerasl stns, no odr, ns.
3380: mstly gry-drk crm fn xln lm, sli chrty, lots of wht chlky lm, no odr, ns.
3390: drk crm pack stn lm, v. fn grn, fair-poor por, lots of loose wht chlk, no odr, ns.
3400: aa, mstly crm xln lm, foss, fairly cemntd, poor por, no odr, ns.
3410: aa, slght incrs in wht chlk, crm foss lm, fair por, no odr, ns.
3420: tan inxln lm, dense, poor-no por, crm fn xln lm, no vis por, no odr, ns.
3430: aa, slght incrs in chlk-chlky lm, no odr, ns.
3440: tan-gry inxln lm, v. dense, no vis por, no odr, ns.
3450: mstly crm xln lm, foss, cemnt flooded, fracs, incrs in chlk-chlky lm, no odr, ns.
3460: incrs in gry sh, incrs in wht chlk, mstly tan foss lm, fair por,no odr, ns.
3470: shw of wht foss chrt, mstly crm xln lm, sli chlky, no odr, ns.
3480: incrs in gry sh, mstly crm xln lm, w/ small chrt foss nodules, dense, poor-fair por, no odr, ns.

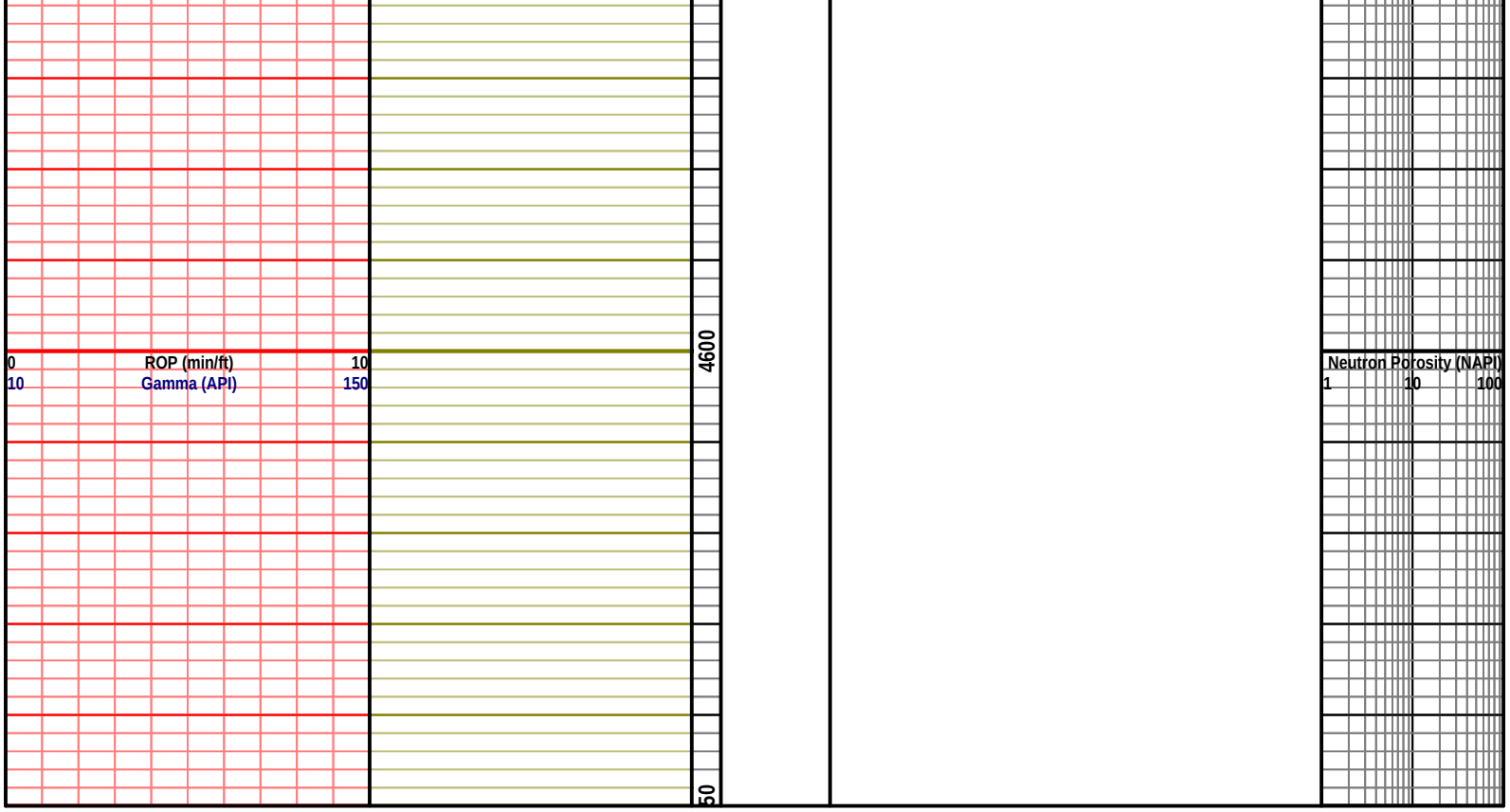

3490: gry-crm chrty lm, dense, no vis por, few gry dolo/lm, poor por, no odr, ns.
3500: incrs in aqua-gry sh, crm fn xln lm, no vis por, no odr, ns.
3510: aa, incrs in crm-tan xln lm, dense, no vis por, few crm fn xln lm, no vis por, no odr, ns.
PUMP PRESSURE 850+
3500
3520: aa, no sig change.
Heebner
3514'-141
3530: tan pack stn lm, fn grn, fair intr prtcl por, well cemtd, no odr, ns.
3540: shw of blk carb sh, lots of gry sh, dense tan lm, no vis por, no odr, ns.
Toronto
3532'-1433
3550: aa, lots of tan-crm chlky lm, tan inxln lm, dense, no odr, ns.
40 Unit gas Kick
Background
3560: NO SAMPLE CAUGHT
3550
3570: shw of red-auqa sh, mstly crm fn grn grain stn, well sortd, well cemntd, dense, no vis por, no odr, ns.
20MIN: green slty sh, lots of wht chlk, mostly crm-tan inxln lm, dense, no odr, ns.
45MIN: tan crm inxln lm, semi dense, no vis por, lots of crm chlky lm, no odr, ns.
cfs @
3555
3580: red sh, green slty sh, crm-gry inxln lm, dense, no vis por, no odr, ns.
4/09/2014
mud info.
wt: 8.9
Funnel Vis. 46
Filtrate API: 9.6
Chloride 12,400
LCM # Tr
3590: sli incrs in red sh, incrs in wht chlk, mostly crm xln lm, dense, no odr, ns.
Sure Shot: straight
hole 1 degree
3600: v. gummy sample, lots of wht chlk, lots of gry sh, crm xln lm, no odr, ns.
Lansing
3589'-1490
DST #1: 3604' - 3632' (LKC "B & C")
Recovered 390' slightly muddy water with a show of oil (5% mud, 95% water).
IFP:19-81#/30"ISIP:1233#/45"
FFP:83-161#/45"FSIP:1226#/60"
3600
3610: lots of gry-aqua sh, lm aa, sig incrs in chlky lm, no odr, ns.
0
ROP (min/ft)
10
10
Gamma (API)
150
Neutron Porosity (NAPI)
1
10
100
20MIN: lots of gry-aqua sh, mslty crm inxln lm, poor-no xln por, few lght brwn micrtic lm, no odr, ns. 45MIN: lots of gry sh, crm xln lm, fn xln in prt, incrs in gry foss lm, poor por, no odr, ns.
cfs @
3610
3620: mstly gry sh, mstly drk tan-crm xln lm, fn xln in prt, dense, no vis por, no odr, ns.
3630: show of lght crm pack stn lm, med grn, sli xln, fair intr prtcl por, show of brwn oil, flour, weak odr.
3640: mstly gry sh, lots of drk tan inxln lm, v. dense, no vis por, few loose wht chrt, no odr, ns.
30MIN: shw of brwn chrt, lots of brwn xln lm, few crm xln lm, slight pack stn, fair-poor pin point vuggy por, shw of brwn oil, v. weak odr. 60MIN: lots of gry sh, mstly crm inxln lm, poor-no xln por, once chp w/ shw aa, no odr.
cfs @
3632
3650: aa, incrs in red sh, mstly crm xln lm, some v. foss, no odr, ns.
3650
30MIN: lots of gry & red sh, few gry micrtic lm, well cemntd, mstly crm-brwn xln lm, dense, no odr, ns. 60MIN: aa, incrs in wht chlky lm, shw of gry crypto-xln lm, poor por, no odr, ns.
cfs @
3654
3660: gry crupto xln lm, dense, poor por, lots of crm fn xln lm, chlky lm no odr, ns.
3670: aa, incrs in crm fn xln lm, poor-no por, one chp lght crm xln lm w/ pin point vuggy por, dead oil stn, no odr, nsfo.
3680: sig incrs in wht-translucnt chrt, no vis por, lots of crm inxln lm, no odr, ns.
20MIN: mstly gry foss lm, v. dense, well cemntd, crm xln lm, dense, lots of crm chlky lm, no odr, ns. 45MIN: incrs in gry-aqua sh, crm-lght gry xln lm, dense, lots of crm chlky lm, no odr, ns.
cfs @
3670
3690: crm-tan inxln lm, dense, cment flooded, sli foss, no odr, ns.
3700: aa, shw of lght crm ool cast lm, big cast por, lots of crm chlky lm, no odr, ns.


cfs @ 3690
cfs @ 3710
Muncie Shale 3730'-1631
cfs @ 3760
cfs @ 3784
ROP (min/ft) 0 10
Gamma (API) 10 150
Hush 3850'-1751
cfs @ 3826
cfs @ 3849
BKC 3882'-1783
cfs @ 3888
Marmaton 3897'-1798
30MIN: wht-brwn foss chrt, incrs in gry inxln lm, dense, no vis por, chlky lm, no odr, ns. 60MIN: gry-wht chrt, pyrtzd, lght crm chrty lm, dense, no vis por, no odr, ns.
30MIN: mstly crm ool cast lm, lots of chlky lm, no odr, ns. 60MIN: same as thirty min, no sig change, no odr, ns.
PUMP PRESSURE 800+
30MIN: mstly crm chlky lm, incrs in gry inxln lm, dense, no vis por, incrs in wht chrt, no odr, ns. 60MIN: slght incrs in gry and brwn sh, incrs in crm-gry inxln lm, dense, no odr, ns.
70 Unit Gas kick
30IN: mstly crm xln lm, dense, lots of gry sh, chlky lm, few tan ool lm, cemnt flooded, no vis por, no odr, ns. 60MIN: gry slty sh, mstly crm-tan xln lm, dense, no vis por, no odr, ns.
DST #2: 3773' - 3826' (LKC "J")
Recovered 1190' gas in pipe, 255' slight water and gas cut muddy oil (6% clean oil, 16% gas, 33% emulsified oil, 10% water, 35% mud) and 15' mud. Gravity 39.1°
Total Fluid 270'
IFP:42-70#/30"ISIP:1218#/45"
FFP:68-98#/45"FSIP:1216#/60"
30MIN: lots of tan ool cast lm, lght shw of brwn oil, few xln lm, w/ fair xln por w/ a lght shw of brwn oil, v. strng odr. 60MIN: decrse ool cast lm w/ shw, shw of blk carb sh, lots of xrm-tan xln lm, dense, no vis por, strng odr in sample.
30MN: mstly crm fn xln lm, v. dense, no vis por, lots of crm chlky lm, shw ool lm, cemnt flooded, no vis por, one chp tan ool cst lm w/ shw (uphole), 60MIN: mstly crm xln lm, fn xln in prt, dense, no vis por, no odr, ns.
DST #3: 3843' - 3888' (LKC "L")
Recovered 166' watery mud (30% water, 70% mud) and 190' very slight gas and mud cut water with oil specks (2% gas, 3% mud, 95% water). Chlorides 50,000
Total Fluid 356'
IFP:17-86#/30"ISIP:1293#/45"
FFP:91-172#/45"FSIP:1268#/60"
30MIN: incrs in blk carb sh, incrs in gry sh, mstly crm inxln lm, poor-no por, ots chlky lm, no odr, ns. 60MIN: mstly aqua-gry sh, lots of crm chlky lm, lght crm pack stn lm, fair intr prtcl por, no odr, ns.
PUMP PRESSURE 850+
3700
3750
3800
3850
3900
3710: aa, incrs ool cast lm, crm fn xln lm, no vis por, incrs in gry cors xln lm, dense, no odr, ns.
3720: incrs in gry sh, mostly ool cast lm, vig cast por, crm fn xln lm, dense, no odr, ns.
3730: slght incrs in gry sh, mstly crm-gry xln lm, v. dense, no odr, ns.
3740: aa, mstly crm inxln lm, dense, no vis por, no nodr, ns.
3750: slght incrs in gry sh, lots of ool cast lm, super por, lots of drty crm fn xln lm, dense, no vis por, no odr, ns.
3760: aa, incrs in crm-tan fn xln lm, dense, sli chrty, no odr, ns.
3770: shw of blk carb sh, few ool cast lm, drk tan xln lm, dense, no odr, ns.
3780: crm-tan inxln lm, dense, no vis por, lots of chlky lm, no odr, ns.
3790: slght incrs in chlky lm, mstly tan-crm xln lm, dense, no odr, ns.
3800: shw of red sh, mstly drty crm-tan xln lm, dense, no odr, ns.
3810: slght incrs in chlk-chlky lm, mstly tan xln lm, dense, no odr, ns.
3820: drk tan ool cast lm, super ool cast por, lght shw of brwn oil, v. strng odr, strng flour.
3830: mstly gry-aqua sh, few blk carb sh, few tan-crm xln lm, cors xln in prt, foss, no odr, ns.
3840: aa, incrs in crm xln lm, fn xln, dense, sli incrs in crm chlky lm, no odr, ns.
3850: mstly crm xln lm, fn xln dense, no vis por, loose pyrt, no odr, ns.
3860: slght incrs in gry sh, mstly crm-tan inxln lm, poor-no por, no odr, ns.
3870: incrs in blk carb sh, crm-tan inxln lm, poor-no por, show of ool cast lm, super por, slght show free oil, weak odr.
3880: lots of gry-maroon slty sh, lots of crm inxln lm, lots of chlky lm, few ool cast lm w/ ssfo, v. weak odr.
3890: aa, slght incrs in ool cast lm, ns, shw of tan micrtic lm, fair-poor intr prtcl por, slght shw of free oil, weak-no odr.
3900: mstly gry, maroon and aqua sh, lots of crm-tan xln lm, dense, no vis por, no odr, ns.
3910: sh aa, mstly crm cors xln lm, dense, poor frac
Neutron Porosity (NAPI) 1 10 100


cfs @ 3915
cfs @ 3950
cfs @ 3993
ROP (min/ft) 0 10
Gamma (API) 0 150
Cherokee Sh 4002'-1903
cfs @ 4011
Conglomerate Sand 4008'-1909
Arbuckle 4024'-1925
cfs @ 4043
cfs @ 4050
cfs @ 4054
cfs @ 4059
30MIN: lots of gry, aqua and maroon sh, crm chlky lm, mstly crm xln lm, poor-no por, no odr, ns. 60MIN: same as thirty min sample, no sig change, slght incrs in chlky lm, no odr, ns.
4/10/2014
mud info.
wt: 9.0
Funnel Vis. 50
Filtrate API:11.2
Chloride 14,500
LCM # 2
30MIN: lots of gry, aqua and maroon sh, lots of chlky lm, mstly cr-tan xln lm, poor-no por, foss, no odr, ns. 60MIN: same as thirty min sample, sig incrs in loose pyrt, & gry sh, no odr, ns.
DST #4: 4004' - 4043' (Conglomerate Sand) GTS during initial shut in.
1-1/2" choke.
Final flow period 45".Gauged 953,000 cfgpd/5"
1,123,000 cfgpd/10"
1,123,000 cfgpd/15"
1,123,000 cfgpd/20"
953,000 cfgpd/25"
953,000 cfgpd/30"
953,000 cfgpd/35"
764,000 cfgpd/40"
764,000 cfgpd/45"
Caught gas sample - gas did burn.
Recovered 78' gassy watery mud (2% gas, 30% water, 68% mud). Chlorides 58,000
IFP:292-864#/30"ISIP:1153#/45"
FFP:218-171#/45"FSIP:962#/60"
30MIN: mstly maroon, purple, aqua & gry sh, lots of rose chlky lm, crm fn xln lm, no vis por, tan inxln lm, dense, no odr, ns. 60MIN: aa, incrs in maroon sh, incrs in crm-tan inxln lm, poor inxln por, no odr, ns.
30MIN: lots of maroon, purple & gry sh, mstly crm inxln lm, dense, poor-no inxln por, no odr, ns. 60MIN: same as thirty min sample, sig incrs in chlk-chlky lm, no odr, ns.
Gas Sniffer reading off charts
30MIN: sig shw of v. fn-fn qtz sand stn, well cemntd, v. well sorsub rounded, show brown oil, fair-strng odr. 60MIN: same as thirty incrs in ss aa, shw of sandy lm, fn grn, well cemntd, rounded, ssfo, fair-strng odr.
30MIN: lots of gry, aqua and maroon sh, wht, crm, & yellow chrt, few w/ drk oil stn, some ss aa, few crm fn dolo, fair intr prtcl por, tan xln lm, dense, nsfo. 60MIN: same as thirty min sample, incrs in crm dolo, poor intr prtcl por, ssfo, v. stinky odr.
30MIN: mstly dolo-chrty dolo, v. fn-fn grn, fair-poor intr prtcl por, some chps w/ shw of free oil. 60MIN: same as thirty no sig change.
30MIN: mstly gry, maroon and purp sh, lght brwn dolo-dolo/lm, fn grn, fair intr prtcl por, shw of lght brwn gasy oil, strng odr. 60MIN: same as thirty, slght decrse in sh, incrs in dolo, half w/ shw, strng odr.
DST #5: 4046' - 4054' (Arbuckle) Recovered 30' watery mud (10% water, 90% mud). Mis-run, tool opened while sliding to bottom.
DST #6: 4048' - 4059' (Arbuckle) Recovered 2" free oil (Gravity
3950
4000
4050
4100
por, no odr, ns.
3920: lots of gry sh, lots of chlky lm, mstly crm xln lm, v. foss (criniods), poor por, no odr, ns.
3930: mstly crm-tan inxln lm, dense, no vis por, lots of chlky lm and gry sh, no odr, ns.
3940: aa, no sig change, slght decrse in chlky lm, no odr, ns.
3950: lots of lght aqua-gry sh, incrs in loose pyrt, mstly crm-lght gry xln lm, dense, no odr, ns.
3960: incrs in maroon sh, mstly lght gry xln lm, v. foss, dense, no vis por, no odr, ns.
3970: incrs in gry, maroon and aqua sh, mstly drty crm xln lm, dense, poor-no por, no odr, ns.
3980: aa, no sig change, no odr, ns.
3990: mstly maroon & gry sh, lots of chlk shly lm, lots of crm xln lm, dense, shw of drk gry foss chrt, no lvi spor, no odr, ns.
4000: lots of maroon sh, incrs in chlky lm, lots of crm-tan xln l;m, dense, no odr, ns.
4010: aa, incrs in maroon & purple sh, lm aa, no odr, ns.
4020: lots of maroon & gry slty sh, lots of crm chlky lm, no odr, ns.
4030: aa, no sig change, few qtz ss clusters, fn-med grn, well sortd, sub rounded, well cemntd, poor por, no odr, ns.
4040: lots of of maroon, gry and yellow sh, ss aa, crm xln lm, poor por, no odr, ns.
4050: lots of gry, aqua & maroon sh, tan xln lm, poor pin point por, oil stn, shw of drk crm chrty dolo, poor por, ns, few loose yellow chrt.
4060: mstly gry, maroon and purp sh, lght brwn dolo-dolo/lm, fn grn, fair intr prtcl por, shw of lght brwn gasy oil, strng odr.
4070: lots of gry, maroon and aqua sh, mstly lght brwn, fn grn, well cemnt dolo, semi dense, poor por, shw of brwn oil, fair-strng odr.
4080: sh aa, shw of wht chrt, lght crm chrty dolo, few chps of xln lm-dolo/lm, lots stns & ssfo, fair odr.
4090: aa, shw of lght crm carb sand, well ceemntd, fn-med grn, poor-fair intr prtcl por, ssfo, fair odr.
4100: mstly chrty dolo, lght brwn v. well cemnt dolo, incrs in wht chrt, slght decrse in shw rock, fair odr.
4110: aa, no sig change, incrs in wht chrt, fair odr w/ slght sulfric smell.
4120: mstly chrty dolo, lght brwn v. well cemnt dolo, incrs in wht chrt, incrs in wht chlk & sh aa, fair odr.
4130: mstly lght brwn-brwn semi xln dolo, dense, poor-no por, sig decrse in shw rock, incrs in
Neutron Porosity (NAPI) 1 10 100


40.8°), 63' very slight oil and gas cut watery mud (2% oil, 3% gas, 46% water, 49% mud) and 192' very slight gas cut muddy water (2% gas, 3% mud, 95% water with a scum oil oil).Chlorides 29,000
Total Fluid 255'
IFP:15-59#/30"ISIP:1204#/45"
FFP:63-123#/45"FSIP:1160#/60"
4/12/2014
mud info.
wt: 9.2
Funnel Vis. 49
Filtrate API: 10.2
Chloride 11,000
LCM # 2
cfs @
4175
30MIN: mstly lght brwn-crm xln dolo, dense, poor-no por, lots of lght crm carb sand, well cemntd, shw of red sandy sh, no odr, ns. 60MIN: same as thirty, sig incrs in wht-crm chrt, no nodr, ns.
0
ROP (min/ft)
10
10
Gamma (API)
150
PUMP PRESSURE 850+
4/14/2014
mud info.
wt: 9.2
Funnel Vis. 48
Filtrate API: 14.4
Chloride 12,500
LCM # 1
PUMP PRESSURE 850+
4150
4200
4250
4300
wht-yellow chrt, poor-no odr.
4140: mstly brwn dense semi chrt, semi xln dolo, lots of wht chrt, few wht card sand clusters, well cemntd, poor por, dead oil stn, nsfo, no odr.
4150: mstly brwn well cemntd fn grn dolo, lots of brwn-crm carb sand, fn grn, v. well cemntd, dense, few w/ drk dead oil stn, no od, ns.
4160: mstly brwn well cemntd fn grn dolo, brwn-crm carb sand, fn grn, v. well cemntd, dense, scat wht chrt, no odr, ns.
4170: mstly brwn fn-med grn dolo, v. well cemntd, dense, poor-no por, no odr, ns.
4180: brwn fn-med grn dolo, v. well cemntd, dense, poor-no por, sig incrs in wht-chr chrt, no odr, ns.
4190: mstly brwn dolo, some xln, few sysrcosc, well cemntd, dense, one chp w/ ssfo, (uphole).
4200: aa, sig incrs in wht chrt, incrs in carb mud, no odr, ns.
4210: slght incrs in red and green sh, mstly brwn dolo xln-syscrosc, dense, poor-no por, no odr, ns.
4220: brwn-crm dolo, xln, semi chrty, no vis por, lots of wht chrt, no odr, ns.
4230: aa, slght decrse in wht chrt, incrs in wht carb mud, no odr, ns.
4240: brwn-crm fn grn-syscrosc dolo, xln in prt, v. dense, no odr, ns.
4250: aa, shw of ool lm, cemnt flooded, no vis por, incrs in pyrtzd xln dolo, no odr, ns.
4260: aa, incrs in crm xln dolo, incrs in wht chrt, no odr, ns.
4270: tan-crm xln dolo, no vis por, incrs in wht carb mud, no odr, ns.
4280: aa, slght incrs in gry and maroon sh, no odr, ns.
4290: incrs in clear carb sand, incrs in wht carb mud, no odr, ns.
4300: sig incrs in carb sand, inucrs in wht carb mud, incrs in brwn and green sh.
4310: same as above no sig change.
4320: mstly lght crm carb sand, med-cors grn, well sortd, well cemntd, poor-fair intr prtcl por, no odr, ns.
4330: aa, decrse in carb sand, incrs in crm-tan xln dolo, dense, slght incrs in gry sh & wht chrt, no odr, ns.
4340: aa, no sig change.
4350: incrs in maroon sh, mstly crm sycrosc-xln dolo, dense, poor por, some carb sand aa, no odr, ns.
4360: mstly lght crm carb sand, med grn, fair intr prtcl por, no shw no odr.
Neutron Porosity (NAPI)
1
10
100


ROP (min/ft)
0
10
Gamma (API)
10
150
Granite
4468'-2369
RTD 4550'-2451
4/15/2014
mud info.
wt: 9.4
Funnel Vis. 49
Filtrate API: 7.2
Chloride 9,700
LCM # 2
30MIN: pink granite, lots of feldspar, biotite, muscovite, and qtz, no vis por, no odr, ns.
PUMP PRESSURE 900+
Sure Shot: straight hole
1.75 degrees
4350
4400
4450
4500
4550
4370: aa, incrs in lght crm xln dolo, fair-poor por, no odr, ns.
4380: v. lght crm sycrosc dolo, big vuggy por no odr, ns.
4390: aa, sig incrs in lght crm xln dolo, dense, poor por, no odr, ns.
4400: sig incrs in gry slty sh, mstly lght crm syscrosc-xln dolo, well cemntd, dense, no odr, ns.
4410: lots of gry and maroon sh, crm xln dolo, semi sycrosc, brwn fn grn dolo, well cemntd, no odr ns.
4420: aa, no sig change, no odr, ns.
4430: dolo aa, no change, sig incrs in qtz, & orange qtz k-feldspar.
4440: incrs in in qtz & feldspar, decrse in dolo.
4450: aa, shw of qtz ss, med grn, well rounded, well cemntd, poor-fair por, no odr, ns.
4460: incrs in ss, fn grn, sub rounded, well cemntd, poor-fair por, npo odr, ns.
4470: aa, incrs in ss, v. fn grn, v. well cemntd, few fn xln lm, no vis por, incrs in green and maroon sh, no odr, ns.
4480: slght decrse in sand, incrs in granite, no odr, ns.
4490: sig incrs in granite, qtz, feldspar & biotite muscovite, no vis por, no odr, ns.
4500: mstly granite, aa, no odr, ns.
4510: aa, lots of granite, no odr, ns.
4520: granite
4530: granite, incrs in green & maroon sh, dolo aa, no odr, ns.
4540: granite
4550: red, fine crystalline (intirusive), fractured granite; biotite granite, pink granite
Neutron Porosity (NAPI)
1
10
100


0
ROP (min/ft)
10
10
Gamma (API)
150
4600
50
Neutron Porosity (NAPI)
1
10
100

RITCHIE
EXPLORATION, INC.
Wichita, Kansas

#1X Biggs 21D
(Plugged & Abandoned the Biggs 21D #1 due to excessive vertical borehole deviation and moved 25' west and 3' north for this alternate location)
1978' FSL & 360' FEL
2' S & 30' W of E/2 NE/4 SE/4 Section 21-21S-18W
Pawnee County, Kansas
API# 15-145-21759-0000
Elevation: 2090' GL, 2099' KB

Sample Tops			Ref. Well
Anhydrite	1168'	+931	+24
B/Anhydrite	1195'	+904	+18
Heebner	3515'	-1416	+80
Toronto	3528'	-1429	+85
Lansing	3597'	-1498	+78
Muncie Shale	3739'	-1640	+76
Stark Shale	3820'	-1721	+76
Hush	3851'	-1752	+82
BKC	3884'	-1785	+83
Marmaton	3910'	-1811	+82
Pawnee	3973'	-1874	+91
Fort Scott	3994'	-1895	+90
Cherokee Shale	4008'	-1909	+110
Conglomerate Sand	4025'	-1926	+95
Arbuckle	4046'	-1947	+126
Reagan Sand	4438'	-2339	N/A
Granite	4460'	-2361	N/A
RTD	4550'	-2451	

P.O. Box 783188
Wichita, Kansas 67278-3188

(316) 691-9500
Fax (316) 691-9550
rei@ritchie-exp.com

8100 E. 22nd St. N., Bldg. 700
Wichita, Kansas 67226-2328

ALLIED OIL & GAS SERVICES, LLC 062888

Federal Tax I.D. # 20-8651475

REMIT TO P.O. BOX 93999
SOUTHLAKE, TEXAS 76092

Biggs 21-1 X

SERVICE POINT: Great Bend

DATE	SEC.	TWP.	RANGE	CALLED OUT	ON LOCATION	JOB START	JOB FINISH
4-4-14	21	21	15		1pm	3 Am	4 Am

LEASE	WELL #	LOCATION	COUNTY	STATE
Biggs 21D	1	Rush Center South to Old 1E 4N W into	Rush	KS

OLD OR NEW (Circle one)

CONTRACTOR Southwind
TYPE OF JOB Surface
HOLE SIZE 12¼ T.D. 1163
CASING SIZE 8⅝ DEPTH 1175
TUBING SIZE DEPTH
DRILL PIPE DEPTH
TOOL DEPTH
PRES. MAX MINIMUM
MEAS. LINE SHOE JOINT 23'
CEMENT LEFT IN CSG. 23'
PERFS.
DISPLACEMENT 73.38 bbl fresh water

OWNER

EQUIPMENT

PUMP TRUCK # 366	CEMENTER	Josh Isaac
	HELPER	Don Newell
BULK TRUCK # 609-230	DRIVER	Brian Long
BULK TRUCK # 599	DRIVER	Andy Pinkal

REMARKS:

On location - Rig up - had safety meeting
Run 8⅝ casing - Break circulation - Pipe bottom
pump 10 bbl fresh water
Mix 400 65/35 6% gel 3% cc - Lead
mix - 150 class A 3% cc 2% gel - Tail
Drop plug
Displace 73.38 bbl fresh water
Plug plug 1000 psi - Cement did circulate
Rig down

CHARGE TO: Ritchie Exploration

STREET

CITY STATE ZIP

CEMENT

AMOUNT ORDERED 400 65/35 6% gel 3% cc
150 3% cc 2% gel

COMMON	150	@ 17.90	2,685.00
POZMIX		@	
GEL	3	@ 23.40	70.20
CHLORIDE	1467	@ .80	1,173.60
ASC		@	
400 SX 65/35 6%		@ 16.50	6600.00
HANDLING	615.81	@ 2.48	1,527.20
MILEAGE	26.38 X 35 X	2.60	2,400.58
		TOTAL	14,456.58

SERVICE

DEPTH OF JOB	1175		
PUMP TRUCK CHARGE			2213.25
EXTRA FOOTAGE		@	
MILEAGE	Hum 35	@ 7.70	269.50
MANIFOLD		@ 400.00	400.00
	Hum 35	@ 4.40	154.00
		@	
		TOTAL	3,037.57

PLUG & FLOAT EQUIPMENT

AFU Insert		@ 446.94	446.94
Rubber plug		@ 131.04	131.04
		@	
		@	
		@	
		TOTAL	577.98

SALES TAX (If Any)
TOTAL CHARGES 18,072.13
DISCOUNT 3,614.43 IF PAID IN 30 DAYS
14,457.70

To: Allied Oil & Gas Services, LLC.
You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PRINTED NAME X Frank Rome

SIGNATURE X Frank Rome

Thank you!!

B1665 21D 1X

ALLIED OIL & GAS SERVICES, LLC 062724

Federal Tax I.D. # 20-8651475

REMIT TO P.O. BOX 93999
SOUTHLAKE, TEXAS 76092

SERVICE POINT: great Bend

DATE	SEC.	TWP.	RANGE	CALLED OUT	ON LOCATION	JOB START	JOB FINISH
4-16-14	21	21	18	3:00am	8:30am	2:00pm	4:00pm
LEASE Briggs 21D	WELL # 1X		LOCATION Larned W to 183 Jct 1N 1E ½N W into			COUNTY pawnee	STATE Ks
OLD OR NEW (Circle one)							

CONTRACTOR southwind #2
TYPE OF JOB production
HOLE SIZE 7 7/8 T.D. 4550
CASING SIZE 5½ 15.5 DEPTH 4267.51
TUBING SIZE DEPTH
DRILL PIPE DEPTH
TOOL DEPTH
PRES. MAX 700 # MINIMUM 1500#
MEAS. LINE SHOE JOINT 21.35
CEMENT LEFT IN CSG. 21.35
PERFS.
DISPLACEMENT H20 101.05 BBI

OWNER same

EQUIPMENT

PUMP TRUCK # 398 CEMENTER Charles Kinyon
HELPER Mike Rothrock
BULK TRUCK #871-112 DRIVER Brian Rang
BULK TRUCK # DRIVER

CEMENT
AMOUNT ORDERED 200 sx ASC 2% gel 10% salt 6% gypseal 5# Kolseal 1/4 sx

COMMON	@		
POZMIX	@		
GEL	@		
CHLORIDE	@		
ASC 200 SX	@	20.90	4180.00
Kolseal 1000	@	.98	980.00
DV1100 500	@	1.27	635.00
	@		
	@		$5795.00
	@		
~~DV-1100~~	@		
Materials	Total:		5795.00
Service	Discount:		1159.00 /20%
HANDLING 255.28	@	2.48	634.33
MILEAGE 11.16 x35 X		2.60	1.015.92

REMARKS:

Rig Ran 4267.51' 5½ csg Broke circulation W/ Rig mud Drop Ball pump through @ 900 psi circulate 1hr pump 5 BBI H20 10 BBI DV1100 5 BBI H20 plug Rat hole W/30 sx ~~plug Mouse hole 20 sx~~ hook to Read mix 150 sx ASC 2% gel 10% salt 6% gypseal 5# Kolseal 1/4 sx shut down Wash pump & line Release plug displace 101 BBI H20 plug did land float did hold

CHARGE TO: Ritchie exploration
STREET
CITY STATE ZIP

DEPTH OF JOB 4265
PUMP TRUCK CHARGE 2.765.75
EXTRA FOOTAGE @
MILEAGE Hvm 35 @ 7.70 269.50
MANIFOLD @
Hvm 35 @ 4.40 154.00
@

TOTAL 4.839.50
Discount: 967.90 20%

PLUG & FLOAT EQUIPMENT

Ted 5½ Triplex shoe	1026.00	1026.00
w/ 6- centralizers	@ 57.33	343.98
w/ 2- Baskets	@ 394.29	788.58
Ted Latch Down	@ 325.00	325.00
	@	
	@	

TOTAL 2.483.56
0%

thank you!

To: Allied Oil & Gas Services, LLC.
You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

SALES TAX (If Any)
TOTAL CHARGES 13.118.06
DISCOUNT 2.126.90 IF PAID IN 30 DAYS 20/20/0%
10.991.16

PRINTED NAME X Scott Boeh
SIGNATURE X