Confidentiality Requested:
☑ Yes ☐ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1232414

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 # 5316
Name: Falcon Exploration, Inc.
Address 1: 125 N MARKET STE 1252
Address 2:
City: WICHITA State: KS Zip: 67202 + 1719
Contact Person: CYNDE WOLF
Phone: (316) 262-1378
CONTRACTOR: License # 5142
Name: Sterling Drilling Company
Wellsite Geologist: DAVE WILLIAMS
Purchaser: NA

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 #:

08/13/2014	08/20/2014	08/21/2014
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-069-20477-00-00
Spot Description:
NW SW NE SW Sec. 8 Twp. 28 S. R. 30 ☐ East ☑ West
1750 Feet from ☐ North / ☑ South Line of Section
1370 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: Gray
Lease Name: NANCY JOSSERAND Well #: 1-8(SW)
Field Name:
Producing Formation: NA
Elevation: Ground: 2822 Kelly Bushing: 2832
Total Vertical Depth: 5570 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 1884 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: 11/18/2014
☑ **Confidential Release Date:** 11/21/2016
☑ **Wireline Log Received**
☑ **Geologist Report Received**
☐ **UIC Distribution**
ALT ☑ **I** ☐ **II** ☐ **III** **Approved by:** NAOMI JAMES **Date:** 11/19/2014

[redacted] 1232414

Operator Name: Falcon Exploration, Inc. Lease Name: NANCY JOSSERAND Well #: 1-8(SW)

Sec. 8 Twp. 28 S. R. 30 ☐ East ☑ West County: Gray

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:
Attached

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

Name	Top	Datum
Attached	Attached	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	1884	A-CONN;CLASS A	623	CC;FS

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

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

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	Falcon Exploration, Inc.
Well Name	NANCY JOSSERAND 1-8(SW)
Doc ID	1232414

All Electric Logs Run

MEL
DIL
BHCS
CNL/CDL

Form	ACO1 - Well Completion
Operator	Falcon Exploration, Inc.
Well Name	NANCY JOSSERAND 1-8(SW)
Doc ID	1232414

Tops

Name	Top	Datum
ROOT SHALE	3522	-690
STOTLER	3546	-714
LANSING	4262	-1430
PAWNEE	4856	-2024
CHEROKEE SH	4906	-2074
MRW SH	5114	-2282
MISS/ST GEN	5230	-2398
ST LO LWR B POR	5353	-2521

Form	ACO1 - Well Completion
Operator	Falcon Exploration, Inc.
Well Name	NANCY JOSSERAND 1-8(SW)
Doc ID	1232414

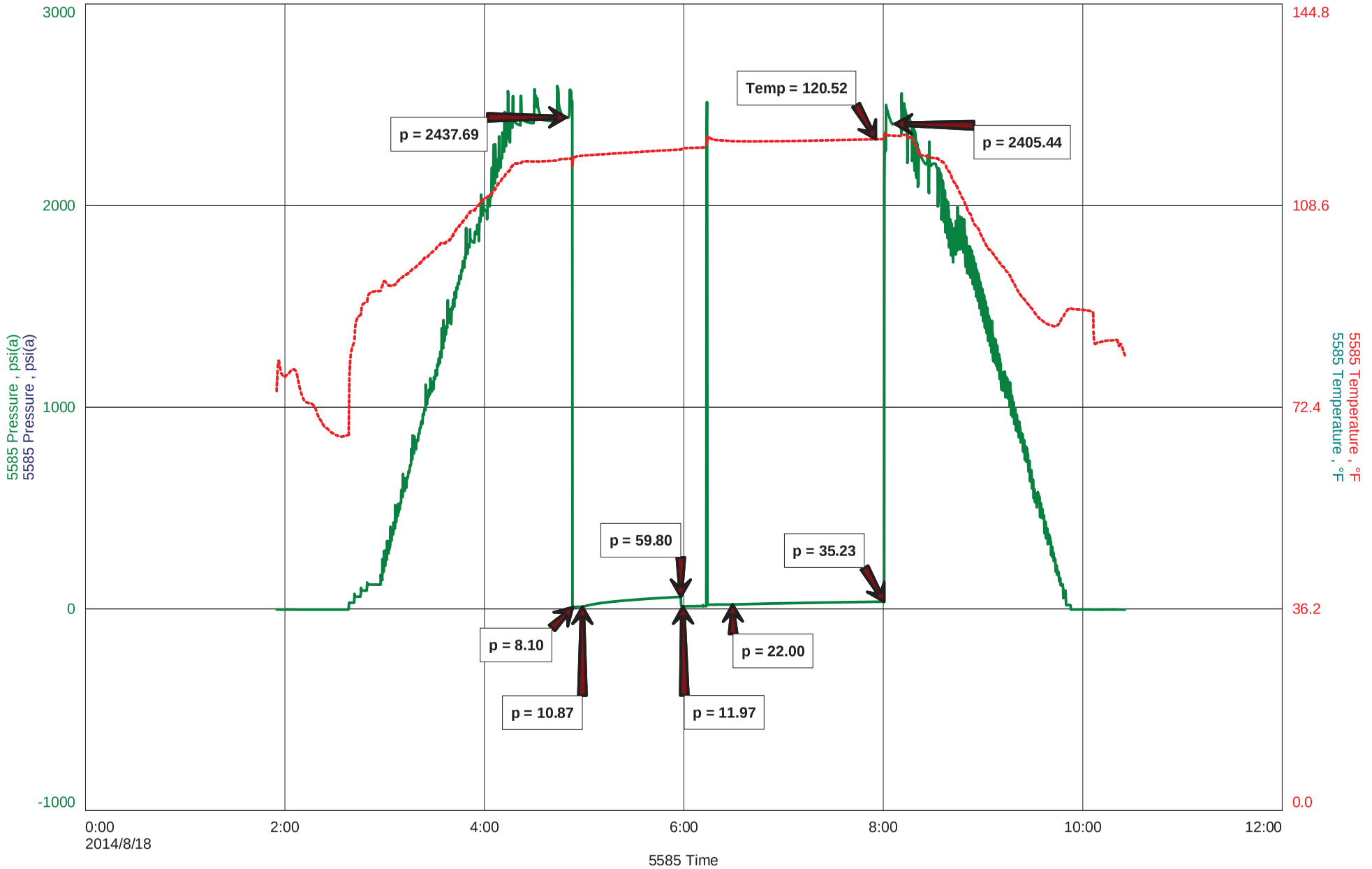
Casing

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	1884	A-CONN;CLASS A	623	CC;FS

FALCON EXPLORATION INC
DST1"MORROW"5102-5165"
Start Test Date: 2014/08/18
Final Test Date: 2014/08/18

N.JOSSERAND 1-8
Formation: DST1"MORROW"5102-5165"
Pool: WILDCAT
Job Number: A078

N.JOSSERAND 1-8



DIAMOND TESTING, LLC

TESTER : ANDY CARREIRA
CELL # 620-617-7202

General Information

Company Name	FALCON EXPLORATION INC		
Contact	CYNDE WOLF	Job Number	A078
Well Name	N.JOSSERAND 1-8	Representative	ANDY CARREIRA
Unique Well ID	DST1"MORROW"5102-5165"	Well Operator	FALCON EXPLORATION
Surface Location	SEC 8-28S-30W GRAY,CNTY.KS	Report Date	2014/08/18
Well License Number		Prepared By	ANDY CARREIRA
Field	WILDCAT		
Well Type	Vertical		

Test Information

Test Type	CONVENTIONAL
Formation	DST1"MORROW"5102-5165"
Well Fluid Type	01 Oil
Test Purpose	Initial Test

Start Test Date	2014/08/18	Start Test Time	01:55:00
Final Test Date	2014/08/18	Final Test Time	10:25:00

Gauge Name	5585

Test Results

RECOVERY: 10' MUD

TOOL SAMPLE: MUD

DIAMOND TESTING
P.O. Box 157
HOISINGTON, KANSAS 67544
(800) 542-7313

DRILL-STEM TEST TICKET
FILE: N.JOSSERAND 1-8 DST1

TIME ON: 01:55
TIME OFF: 10:25

Company FALCON EXPLORATION INC — Lease & Well No. N.JOSSERAND 1-8
Contractor STERLING 2 — Charge to FALCON EXPLORATION INC
Elevation 2832 KB — Formation MORROW — Effective Pay ____ Ft. — Ticket No. A078
Date 8-18-14 — Sec. 8 — Twp. 28 S — Range 30 W — County GRAY — State KANSAS
Test Approved By DAVE WILLIAMS — Diamond Representative ANDY CARREIRA

Formation Test No. 1 — Interval Tested from 5102 ft. to 5165 ft. — Total Depth 5165 ft.
Packer Depth 5097 ft. — Size 6 3/4 in. — Packer depth ____ ft. — Size 6 3/4 in.
Packer Depth 5102 ft. — Size 6 3/4 in. — Packer depth ____ ft. — Size 6 3/4 in.
Depth of Selective Zone Set ____

Top Recorder Depth (Inside) 5083 ft. — Recorder Number 5585 — Cap. 5000 P.S.I.
Bottom Recorder Depth (Outside) 5104 ft. — Recorder Number 8471 — Cap. 10000 P.S.I.
Below Straddle Recorder Depth ____ ft. — Recorder Number ____ — Cap. ____ P.S.I.

Mud Type CHEMICAL — Viscosity 48 — Drill Collar Length 216.34 ft. — I.D. 2 1/4 in.
Weight 9.1 — Water Loss 9.2 cc. — Weight Pipe Length 0 ft. — I.D. 2 7/8 in
Chlorides 1900 P.P.M. — Drill Pipe Length 4852.66 ft. — I.D. 3 1/2 in
Jars: Make STERLING — Serial Number 09 — Test Tool Length 33 ft. — Tool Size 3 1/2-IF in
Did Well Flow? NO — Reversed Out NO — Anchor Length 63 ft. — Size 4 1/2-FH in
Main Hole Size 7 7/8 — Tool Joint Size 4 1/2 XH in. — Surface Choke Size 1 in. — Bottom Choke Size 5/8 in

Blow: 1st Open: WEAK SURFACE BLOW (NOBb)
2nd Open: NO BLOW. FLUSHED,SURGED, NO BLOW (NOBb)

Recovered 10 ft. of MUD
Recovered ____ ft. of ____
Recovered ____ ft. of ____
Recovered ____ ft. of ____
Recovered ____ ft. of ____
Recovered ____ ft. of ____
Recovered ____ ft. of ____

Remarks: ____

TOOL SAMPLE: MUD

Price Job	
Other Charges	
Insurance	
Total	

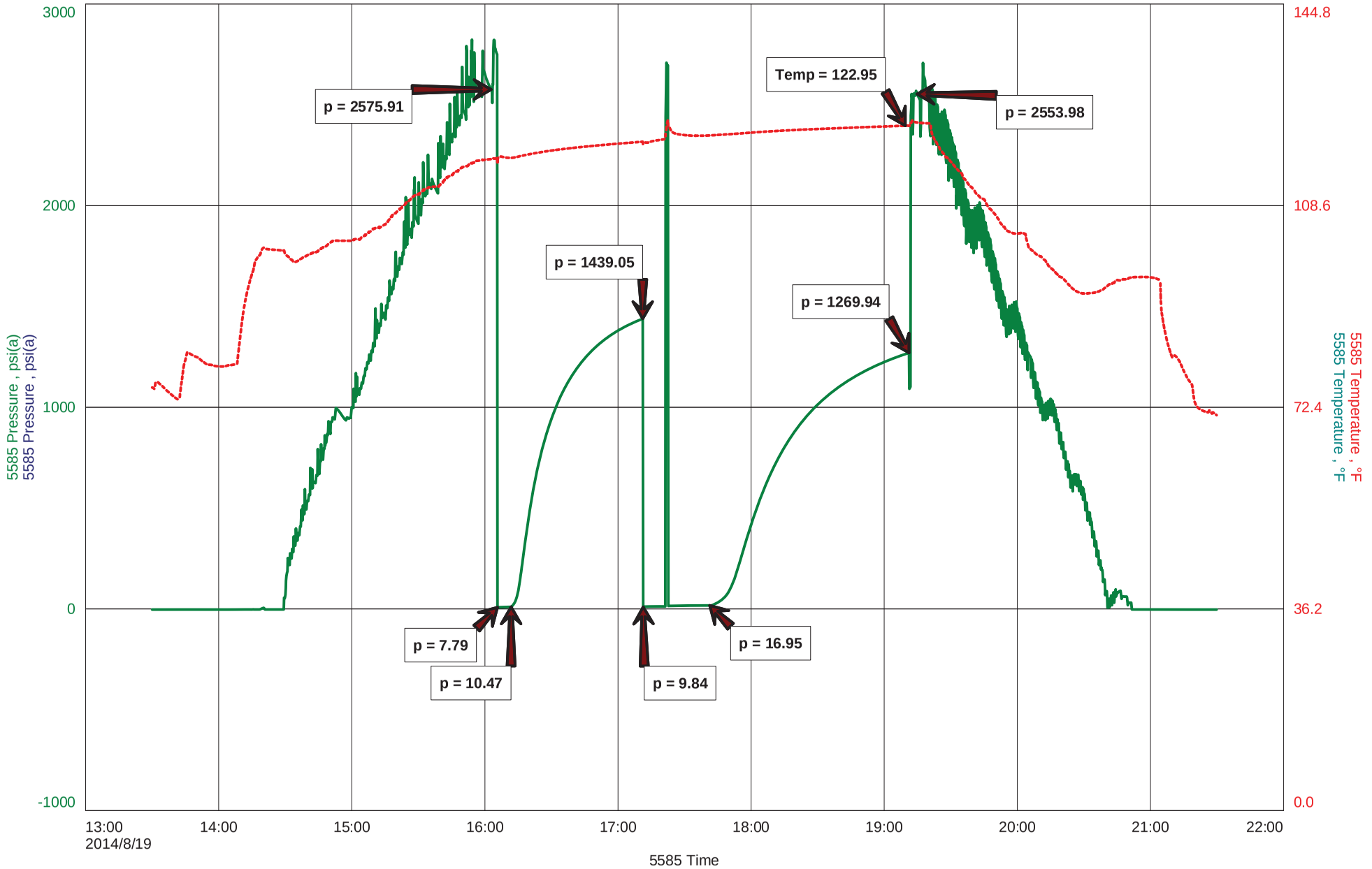
Time Set Packer(s) 4.53 AM A.M. P.M. — Time Started Off Bottom 7:58 AM A.M. P.M. — Maximum Temperature 121

Initial Hydrostatic Pressure ..... (A) 2438 P.S.I.
Initial Flow Period ..... Minutes 5 (B) 8 P.S.I. to (C) 11 P.S.I.
Initial Closed In Period ..... Minutes 60 (D) 60 P.S.I.
Final Flow Period ..... Minutes 30 (E) 12 P.S.I. to (F) 22 P.S.I.
Final Closed In Period ..... Minutes 90 (G) 35 P.S.I.
Final Hydrostatic Pressure ..... (H) 2405 P.S.I.

FALCON EXPLORATION INC
DST2 MISS."ST.LOUIS"5307-5355
Start Test Date: 2014/08/19
Final Test Date: 2014/08/19

N.JOSSERAND 1-8
Formation: DST2 MISS."ST.LOUIS"5307-5355
Pool: WILDCAT
Job Number: A079

N.JOSSERAND 1-8



DIAMOND TESTING, LLC

TESTER : ANDY CARREIRA
CELL # 620-617-7202

General Information

Company Name	FALCON EXPLORATION INC		
Contact	CYNDE WOLF	Job Number	A079
Well Name	N.JOSSERAND 1-8	Representative	ANDY CARREIRA
Unique Well ID	DST2 MISS."ST.LOUIS"5307-5355	Well Operator	FALCON EXPLORATION INC
Surface Location	SEC 8-28S-30W GRAY CNTY. KS	Report Date	2014/08/19
Well License Number		Prepared By	ANDY CARREIRA
Field	WILDCAT		
Well Type	Vertical		

Test Information

Test Type	CONVENTIONAL
Formation	DST2 MISS."ST.LOUIS"5307-5355
Well Fluid Type	01 Oil
Test Purpose	Initial Test

Start Test Date	2014/08/19	Start Test Time	13:30:00
Final Test Date	2014/08/19	Final Test Time	21:30:00

Gauge Name	5585

Test Results

RECOVERY: 5' MUD

TOOL SAMPLE: MUD

DIAMOND TESTING
P.O. Box 157
HOISINGTON, KANSAS 67544
(800) 542-7313

DRILL-STEM TEST TICKET
FILE: N.JOSSERAND 1-8 DST2

TIME ON: 13:30
TIME OFF: 21:30

Company FALCON EXPLORATION INC — Lease & Well No. N.JOSSERAND 1-8
Contractor STERLING 2 — Charge to FALCON EXPLORATION INC
Elevation 2832 KB — Formation MISS."ST.LOUIS" — Effective Pay ____ Ft. — Ticket No. A079
Date 8-19-14 — Sec. 8 — Twp. 28 S — Range 30 W — County GRAY — State KANSAS
Test Approved By DAVE WILLIAMS — Diamond Representative ANDY CARREIRA

Formation Test No. 2 — Interval Tested from 5307 ft. to 5355 ft. — Total Depth 5355 ft.
Packer Depth 5302 ft. — Size 6 3/4 in. — Packer depth ____ ft. — Size 6 3/4 in.
Packer Depth 5307 ft. — Size 6 3/4 in. — Packer depth ____ ft. — Size 6 3/4 in.
Depth of Selective Zone Set ____

Top Recorder Depth (Inside) 5288 ft. — Recorder Number 5585 — Cap. 5000 P.S.I.
Bottom Recorder Depth (Outside) 5309 ft. — Recorder Number 8471 — Cap. 10000 P.S.I.
Below Straddle Recorder Depth ____ ft. — Recorder Number ____ — Cap. ____ P.S.I.

Mud Type CHEMICAL — Viscosity 57 — Drill Collar Length 216.34 ft. — I.D. 2 1/4 in.
Weight 9.1 — Water Loss 9.2 cc. — Weight Pipe Length 0 ft. — I.D. 2 7/8 in
Chlorides 3000 P.P.M. — Drill Pipe Length 5057.66 ft. — I.D. 3 1/2 in
Jars: Make STERLING — Serial Number 09 — Test Tool Length 33 ft. — Tool Size 3 1/2-IF in
Did Well Flow? NO — Reversed Out NO — Anchor Length 48 ft. — Size 4 1/2-FH in
Main Hole Size 7 7/8 — Tool Joint Size 4 1/2 XH in. — Surface Choke Size 1 in. — Bottom Choke Size 5/8 in

Blow: 1st Open: WEAK SURFACE BLOW, DIED IN 1 MIN. (NOBb)
2nd Open: NO BLOW, FLUSHED, SURGED, NO BLOW (NOBb)

Recovered 5 ft. of MUD
Recovered ____ ft. of ____
Recovered ____ ft. of ____
Recovered ____ ft. of ____
Recovered ____ ft. of ____
Recovered ____ ft. of ____

Price Job
Other Charges
Insurance
Total

Remarks: ____

TOOL SAMPLE: MUD

Time Set Packer(s) 4:06 PM A.M. P.M. — Time Started Off Bottom 7:11 PM A.M. P.M. — Maximum Temperature 123

Initial Hydrostatic Pressure ..... (A) 2576 P.S.I.
Initial Flow Period ..... Minutes 5 (B) 8 P.S.I. to (C) 10 P.S.I.
Initial Closed In Period ..... Minutes 60 (D) 1439 P.S.I.
Final Flow Period ..... Minutes 30 (E) 10 P.S.I. to (F) 17 P.S.I.
Final Closed In Period ..... Minutes 90 (G) 1270 P.S.I.
Final Hydrostatic Pressure ..... (H) 2554 P.S.I.

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

Well Name:	**NANCY JOSSERAND # 1-8 (SW)**		
API:	**#15-069-20,477-00-00**		
Location:	**NW-SW-NE-SW 1/4 of SEC. 8 - 28 S. - 30 W.**		
License Number:	**KCC # 5316**	**Region:**	**GRAY CO., KS.**
Spud Date:	**08/13/2014**	**Drilling Completed:**	**8/21/2014**
Surface Coordinates:	**1750' FSL & 1370' FWL**		
Bottom Hole Coordinates:			
Ground Elevation (ft):	**2822'**	**K.B. Elevation (ft):**	**2832'**
Logged Interval (ft):	**1000' To: 5576'**	**Total Depth (ft):**	**5576'**
Formation:	**MISSISSIPPIAN "SALEM (SPERGEN)**		
Type of Drilling Fluid:	**CHEMICAL/POLYMER/GEL. & MUD DISPLACEMENT @ 3211'.**		

OPERATOR

Company: **Falcon Exploration, Inc. KCC KCC. # 5316**
Address: **125 North Market Street, Ste. #1252**
Wichita, Kansas 67202

GEOLOGIST

Name: **David P. Williams, P.G.**
Company: **DW Energy, LLC (DWE)**
Address: **312 North Broadview Street**
Wichita,Kansas 67208

Casing & Deviation Surveys Taken

Surface Casing: Spud at 2:30 AM on 08/13/14. Drilled 12-1/4" to 1890'. Ran 44 joints of new 24#, 8-5/8" casing. Tallied 1867'. Set at 1884' KB . Welded straps on GS & bottom 3 joints, then tack welded all collars. Cemented with 460 sks A-Conn; 3% CC, 1/4# FS. Tailed with 150 sks Class A, 2% CC. Cement did circulate. Plug down at 11:00 AM on 03/19/14 .Basic Energy Svcs Cementing ticket #9767. Centralozers (5) 1,3,6,32,38. Baskets (2) #3 & #24'. Cement fell 40' below GL. Filled annulus with 13 sks Premium Plus Cement.

Deviation Surveys: @ 890' = 3/4 degree; @ 5112' = 4 degrees (Miss-Run); @ 5165' = 1 degree; @ 5355' = 2 degrees; @ 5570' = 1 degree.

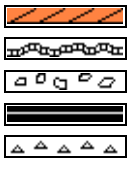
DSTs

~~DST # 1~~ Interval: 5102'-5165'. Times: 5"-60"-30"-90"; Blow: IF= Weak Surface Blow. No Blow Back. FF= No Blow (Flushed Tool @ 10" Good Surge & Died). No Blowback.
Recovery: 10' M (100% M).
Pressures: IH=2438#; FH=2405#; IF=8-11#; FF=12-22#; ISIP=60#; FSIP=35#; Temp= 121 degrees F..

~~DST # 2~~ Interval: 5307'-5355'. Times: 5"-60"-30"-90"; Blow: IF= Weak Surface Blow. No Blow Back. FF= No Blow (Flushed Tool @ 10" Good Surge & Died). No Blowback.
Recovery: 5' M (100% M).
Pressures: IH=2576#; FH=2554#; IF=8-10#; FF=10-17#; ISIP=1439#; FSIP=1270#; Temp= 123 degrees F..

Comments

ROCK TYPES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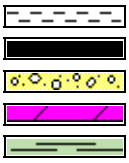
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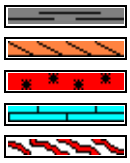
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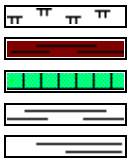
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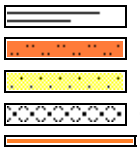
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ACCESSORIES

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
Grysh
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
Ø
Vuggy

SORTING

Well
Moderate
Poor

ROUNDING

Rounded
Subrnd
Subang
Angular

OIL SHOW

Gas show

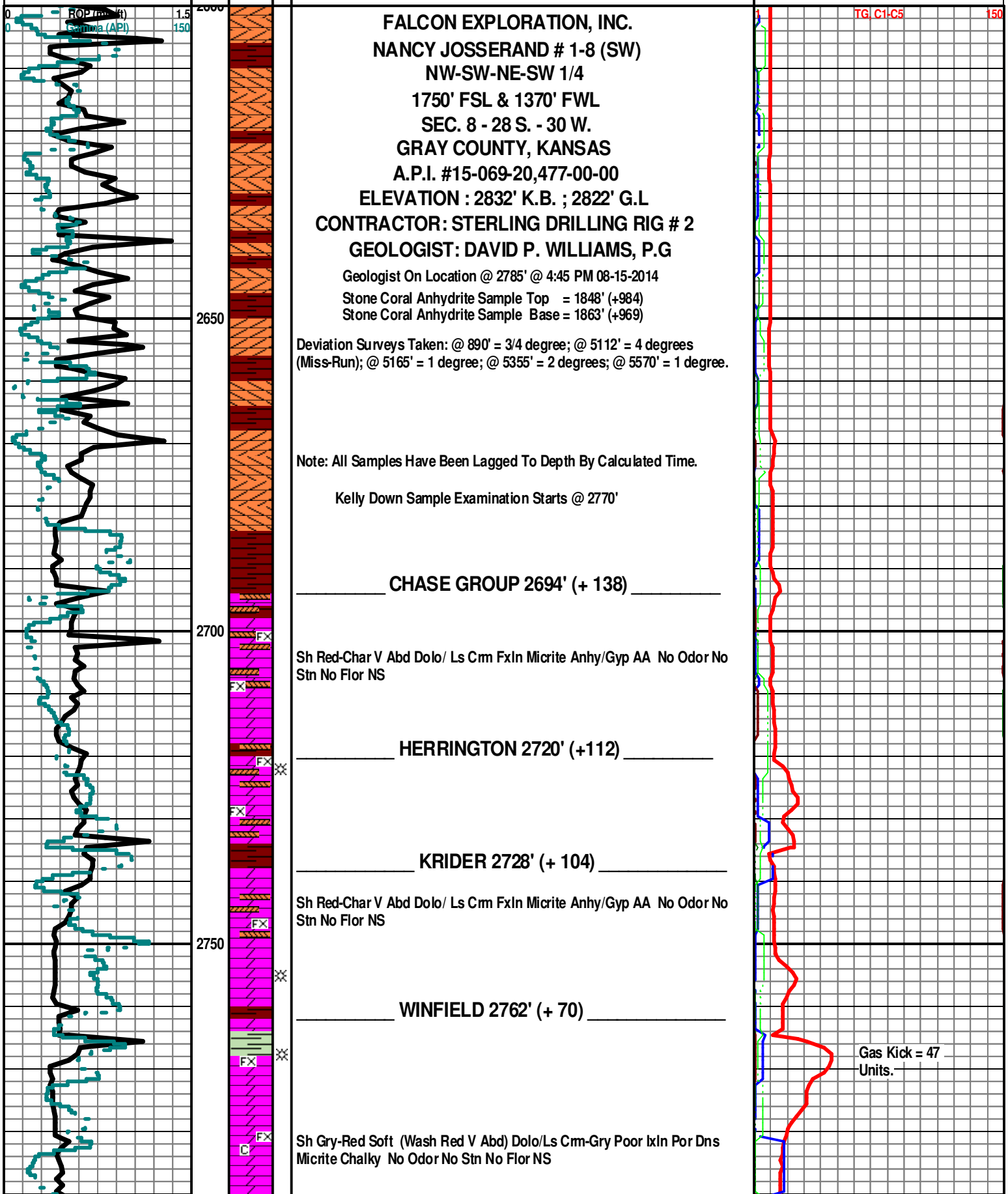
Even
Spotted
Ques
Dead

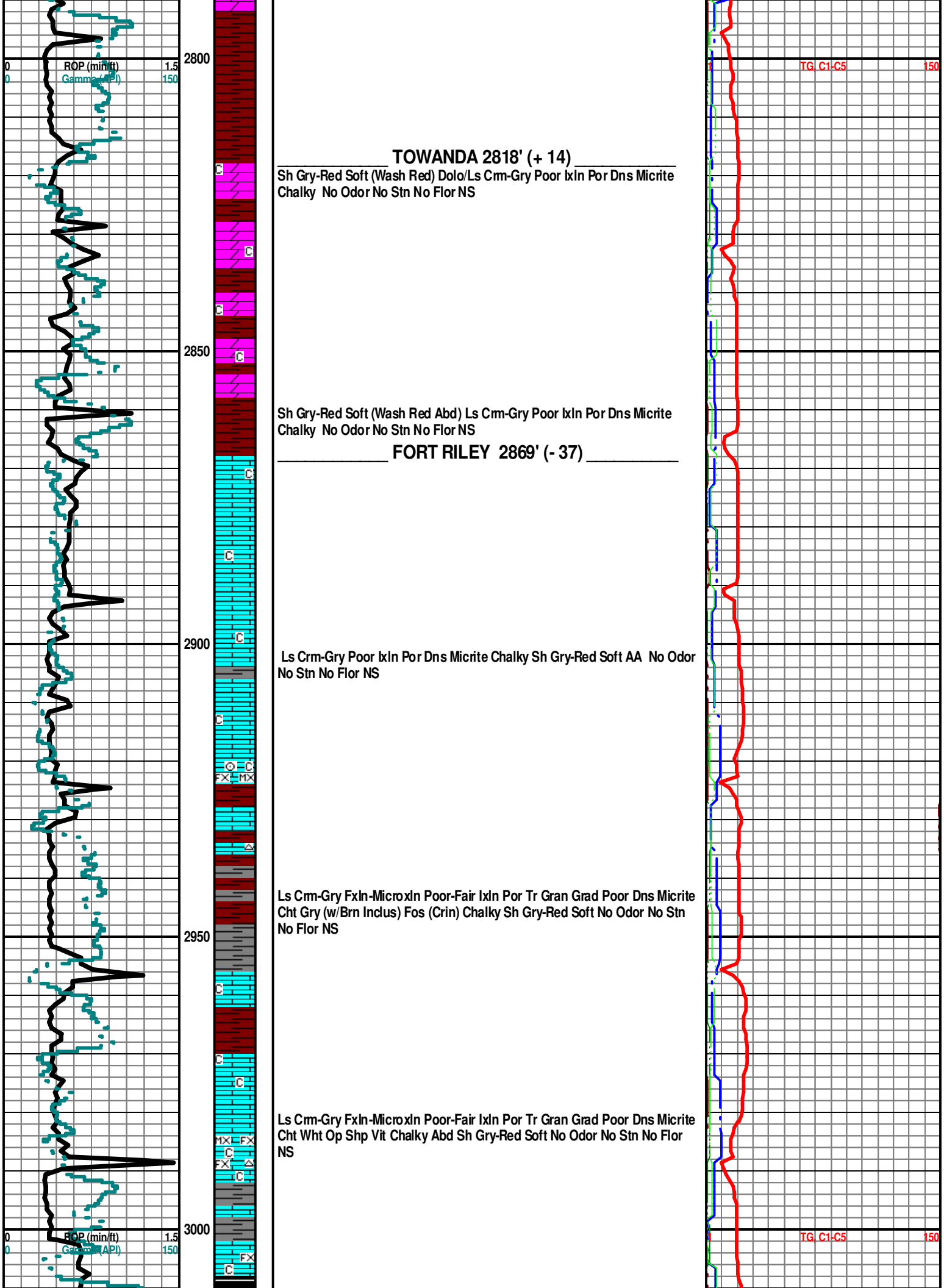
INTERVAL

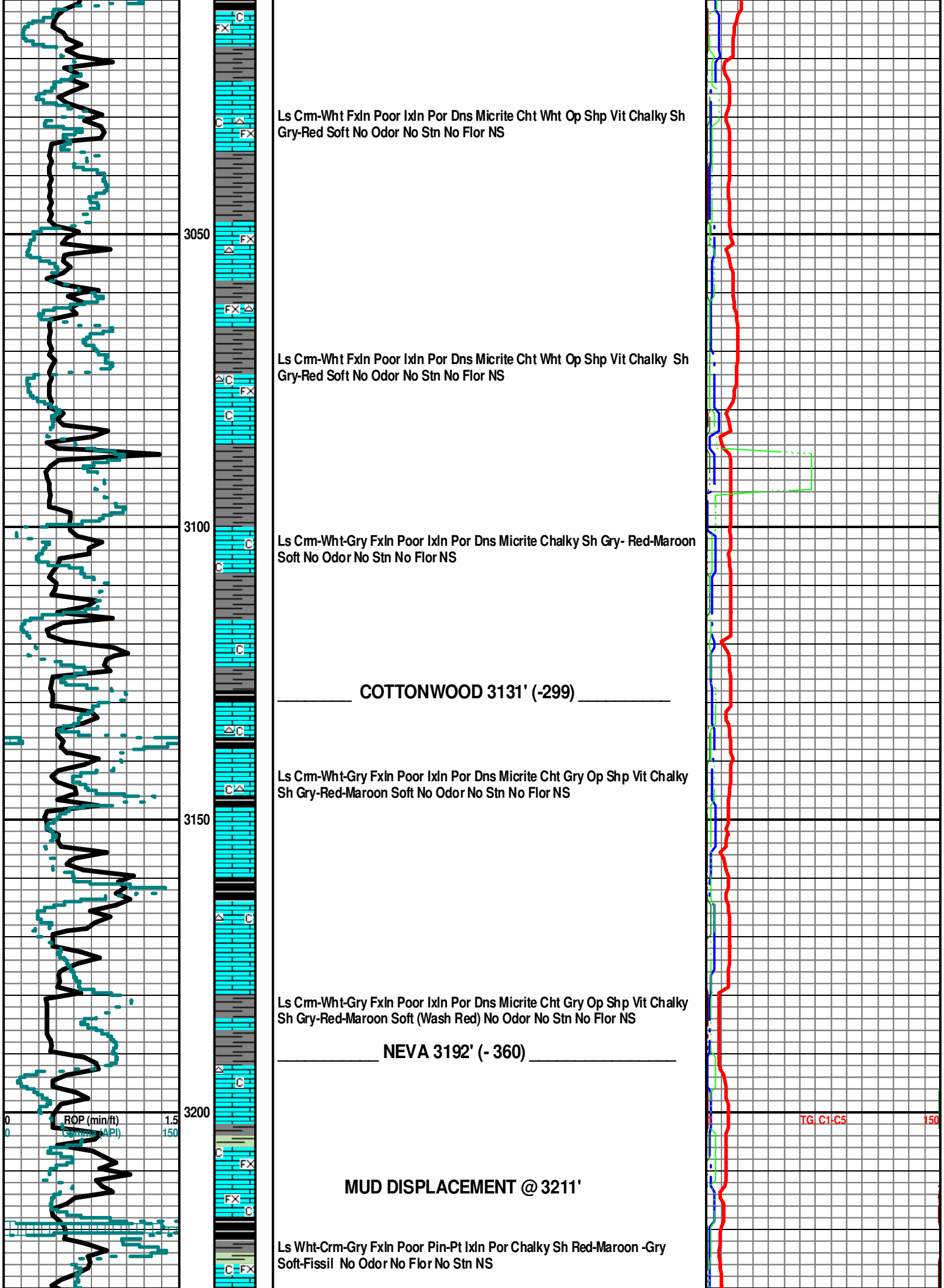
Dst
Dst_alt

EVENT

Rft
Sidewall


Curve Track 1
ROP (min/ft)
Gamma (API)
Depth
thholog
Oil Shows
Geological Descriptions
TG, C1-C5
TG (Units)
C1 (units)
C2 (units)
C3 (units)
C4 (units)
0
1.5
150
2650
2700
2750
TG, C1-C5
150
FALCON EXPLORATION, INC.
NANCY JOSSERAND # 1-8 (SW)
NW-SW-NE-SW 1/4
1750' FSL & 1370' FWL
SEC. 8 - 28 S. - 30 W.
GRAY COUNTY, KANSAS
A.P.I. #15-069-20,477-00-00
ELEVATION : 2832' K.B. ; 2822' G.L
CONTRACTOR: STERLING DRILLING RIG # 2
GEOLOGIST: DAVID P. WILLIAMS, P.G
Geologist On Location @ 2785' @ 4:45 PM 08-15-2014
Stone Coral Anhydrite Sample Top = 1848' (+984)
Stone Coral Anhydrite Sample Base = 1863' (+969)
Deviation Surveys Taken: @ 890' = 3/4 degree; @ 5112' = 4 degrees (Miss-Run); @ 5165' = 1 degree; @ 5355' = 2 degrees; @ 5570' = 1 degree.
Note: All Samples Have Been Lagged To Depth By Calculated Time.
Kelly Down Sample Examination Starts @ 2770'
CHASE GROUP 2694' (+ 138)
Sh Red-Char V Abd Dolo/ Ls Crm Fxln Micrite Anhy/Gyp AA No Odor No Stn No Flor NS
HERRINGTON 2720' (+112)
KRIDER 2728' (+ 104)
Sh Red-Char V Abd Dolo/ Ls Crm Fxln Micrite Anhy/Gyp AA No Odor No Stn No Flor NS
WINFIELD 2762' (+ 70)
Gas Kick = 47 Units.
Sh Gry-Red Soft (Wash Red V Abd) Dolo/Ls Crm-Gry Poor Ixln Por Dns Micrite Chalky No Odor No Stn No Flor NS


0
ROP (min/ft)
1.5
0
Gamma (API)
150
2800
2850
2900
2950
3000
TG, C1-C5
150
TOWANDA 2818' (+ 14)
Sh Gry-Red Soft (Wash Red) Dolo/Ls Crm-Gry Poor Ixln Por Dns Micrite Chalky No Odor No Stn No Flor NS
Sh Gry-Red Soft (Wash Red Abd) Ls Crm-Gry Poor Ixln Por Dns Micrite Chalky No Odor No Stn No Flor NS
FORT RILEY 2869' (- 37)
Ls Crm-Gry Poor Ixln Por Dns Micrite Chalky Sh Gry-Red Soft AA No Odor No Stn No Flor NS
Ls Crm-Gry Fxln-Microxln Poor-Fair Ixln Por Tr Gran Grad Poor Dns Micrite Cht Gry (w/Brn Inclus) Fos (Crin) Chalky Sh Gry-Red Soft No Odor No Stn No Flor NS
Ls Crm-Gry Fxln-Microxln Poor-Fair Ixln Por Tr Gran Grad Poor Dns Micrite Cht Wht Op Shp Vit Chalky Abd Sh Gry-Red Soft No Odor No Stn No Flor NS



Ls Crm-Wht Fxln Poor Ixln Por Dns Micrite Cht Wht Op Shp Vit Chalky Sh Gry-Red Soft No Odor No Stn No Flor NS

Ls Crm-Wht Fxln Poor Ixln Por Dns Micrite Cht Wht Op Shp Vit Chalky Sh Gry-Red Soft No Odor No Stn No Flor NS

Ls Crm-Wht-Gry Fxln Poor Ixln Por Dns Micrite Chalky Sh Gry- Red-Maroon Soft No Odor No Stn No Flor NS

COTTONWOOD 3131' (-299)

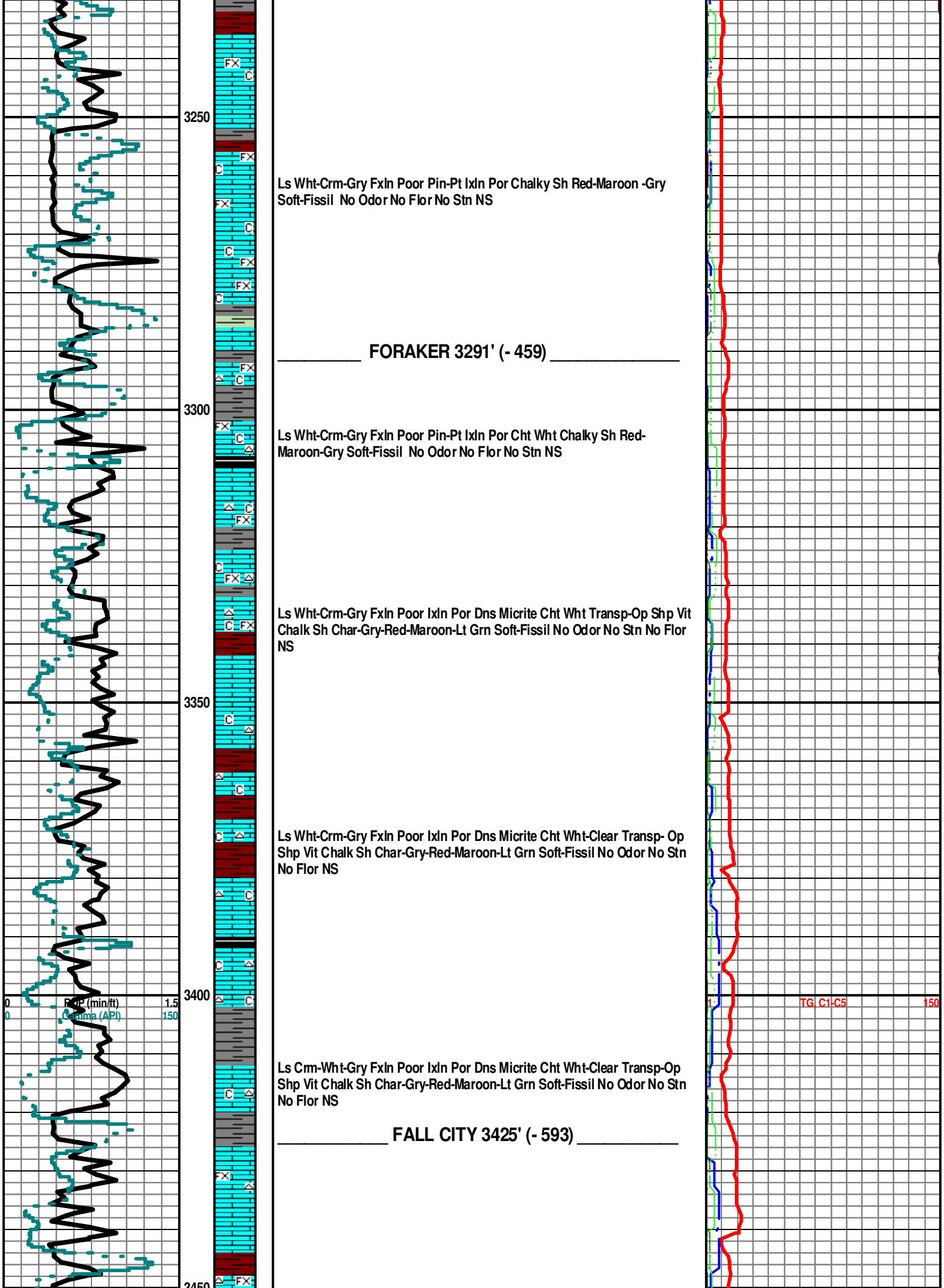
Ls Crm-Wht-Gry Fxln Poor Ixln Por Dns Micrite Cht Gry Op Shp Vit Chalky Sh Gry-Red-Maroon Soft No Odor No Stn No Flor NS

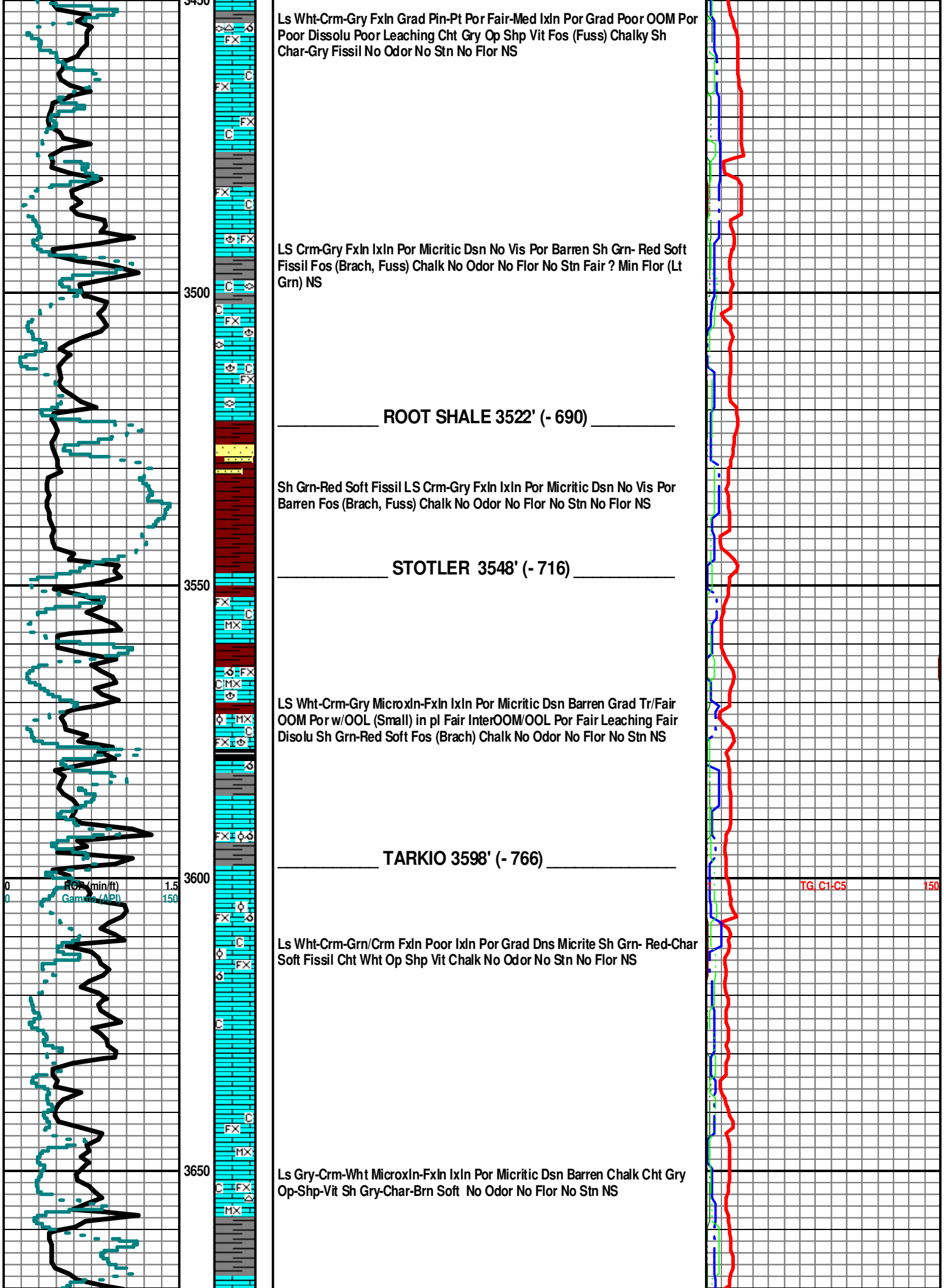
Ls Crm-Wht-Gry Fxln Poor Ixln Por Dns Micrite Cht Gry Op Shp Vit Chalky Sh Gry-Red-Maroon Soft (Wash Red) No Odor No Stn No Flor NS

NEVA 3192' (- 360)

MUD DISPLACEMENT @ 3211'

Ls Wht-Crm-Gry Fxln Poor Pin-Pt Ixln Por Chalky Sh Red-Maroon -Gry Soft-Fissil No Odor No Flor No Stn NS


3250
3300
3350
3400
3450
0
ROP (min/ft)
1.5
0
Gamma (API)
150
1
TG, C1-C5
150
Ls Wht-Crm-Gry Fxln Poor Pin-Pt Ixln Por Chalky Sh Red-Maroon -Gry Soft-Fissil No Odor No Flor No Stn NS
FORAKER 3291' (- 459)
Ls Wht-Crm-Gry Fxln Poor Pin-Pt Ixln Por Cht Wht Chalky Sh Red-Maroon-Gry Soft-Fissil No Odor No Flor No Stn NS
Ls Wht-Crm-Gry Fxln Poor Ixln Por Dns Micrite Cht Wht Transp-Op Shp Vit Chalk Sh Char-Gry-Red-Maroon-Lt Grn Soft-Fissil No Odor No Stn No Flor NS
Ls Wht-Crm-Gry Fxln Poor Ixln Por Dns Micrite Cht Wht-Clear Transp- Op Shp Vit Chalk Sh Char-Gry-Red-Maroon-Lt Grn Soft-Fissil No Odor No Stn No Flor NS
Ls Crm-Wht-Gry Fxln Poor Ixln Por Dns Micrite Cht Wht-Clear Transp-Op Shp Vit Chalk Sh Char-Gry-Red-Maroon-Lt Grn Soft-Fissil No Odor No Stn No Flor NS
FALL CITY 3425' (- 593)



Ls Wht-Crm-Gry Fxln Grad Pin-Pt Por Fair-Med Ixln Por Grad Poor OOM Por Poor Dissolu Poor Leaching Cht Gry Op Shp Vit Fos (Fuss) Chalky Sh Char-Gry Fissil No Odor No Stn No Flor NS

LS Crm-Gry Fxln Ixln Por Micritic Dsn No Vis Por Barren Sh Grn- Red Soft Fissil Fos (Brach, Fuss) Chalk No Odor No Flor No Stn Fair ? Min Flor (Lt Grn) NS

_____ ROOT SHALE 3522' (- 690) _____

Sh Grn-Red Soft Fissil LS Crm-Gry Fxln Ixln Por Micritic Dsn No Vis Por Barren Fos (Brach, Fuss) Chalk No Odor No Flor No Stn No Flor NS

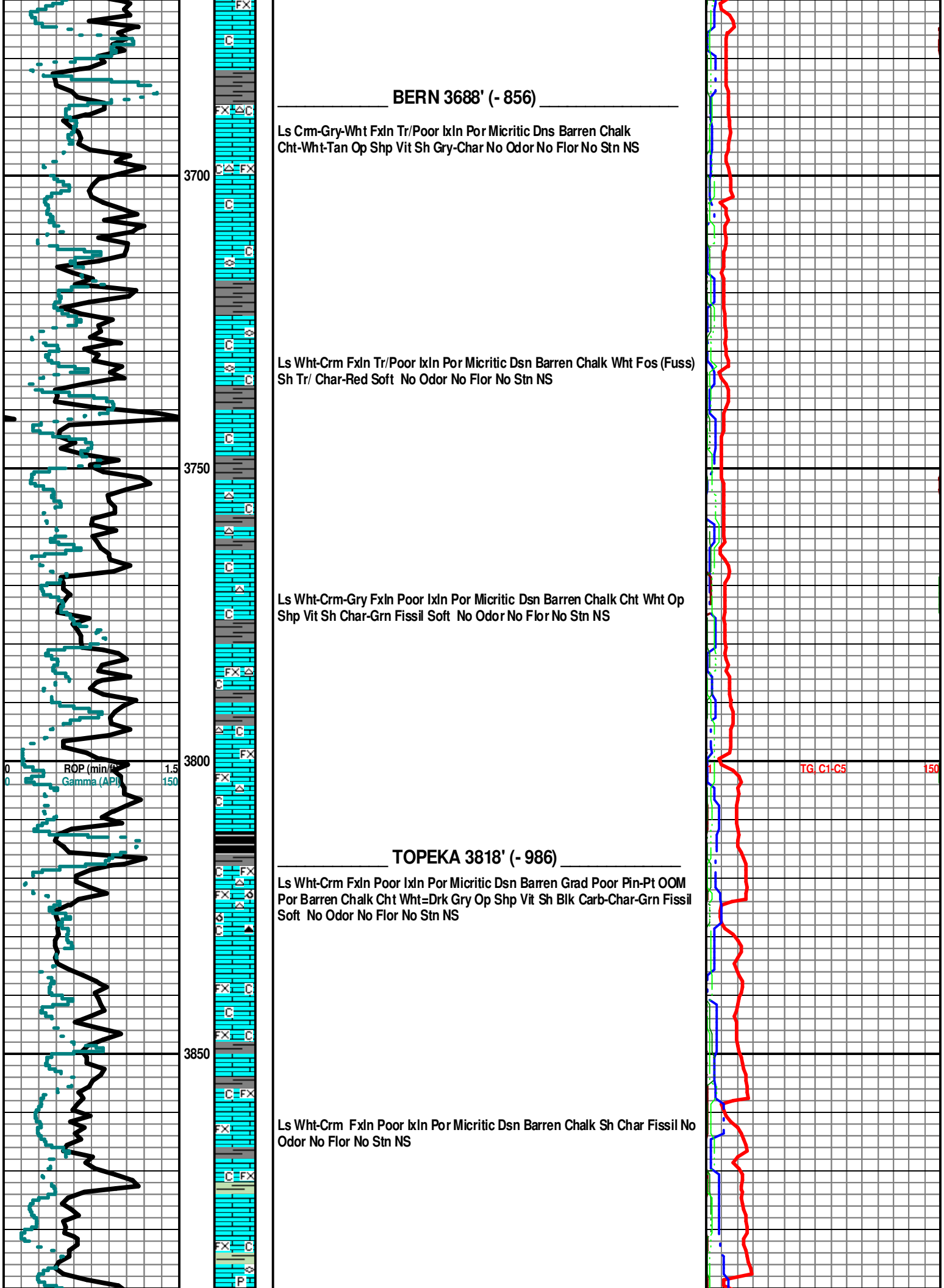
_____ STOTLER 3548' (- 716) _____

LS Wht-Crm-Gry Microxln-Fxln Ixln Por Micritic Dsn Barren Grad Tr/Fair OOM Por w/OOL (Small) in pl Fair InterOOM/OOL Por Fair Leaching Fair Disolu Sh Grn-Red Soft Fos (Brach) Chalk No Odor No Flor No Stn NS

_____ TARKIO 3598' (- 766) _____

Ls Wht-Crm-Grn/Crm Fxln Poor Ixln Por Grad Dns Micrite Sh Grn- Red-Char Soft Fissil Cht Wht Op Shp Vit Chalk No Odor No Stn No Flor NS

Ls Gry-Crm-Wht Microxln-Fxln Ixln Por Micritic Dsn Barren Chalk Cht Gry Op-Shp-Vit Sh Gry-Char-Brn Soft No Odor No Flor No Stn NS



BERN 3688' (- 856)

Ls Crm-Gry-Wht Fxln Tr/Poor Ixln Por Micritic Dns Barren Chalk
Cht-Wht-Tan Op Shp Vit Sh Gry-Char No Odor No Flor No Stn NS

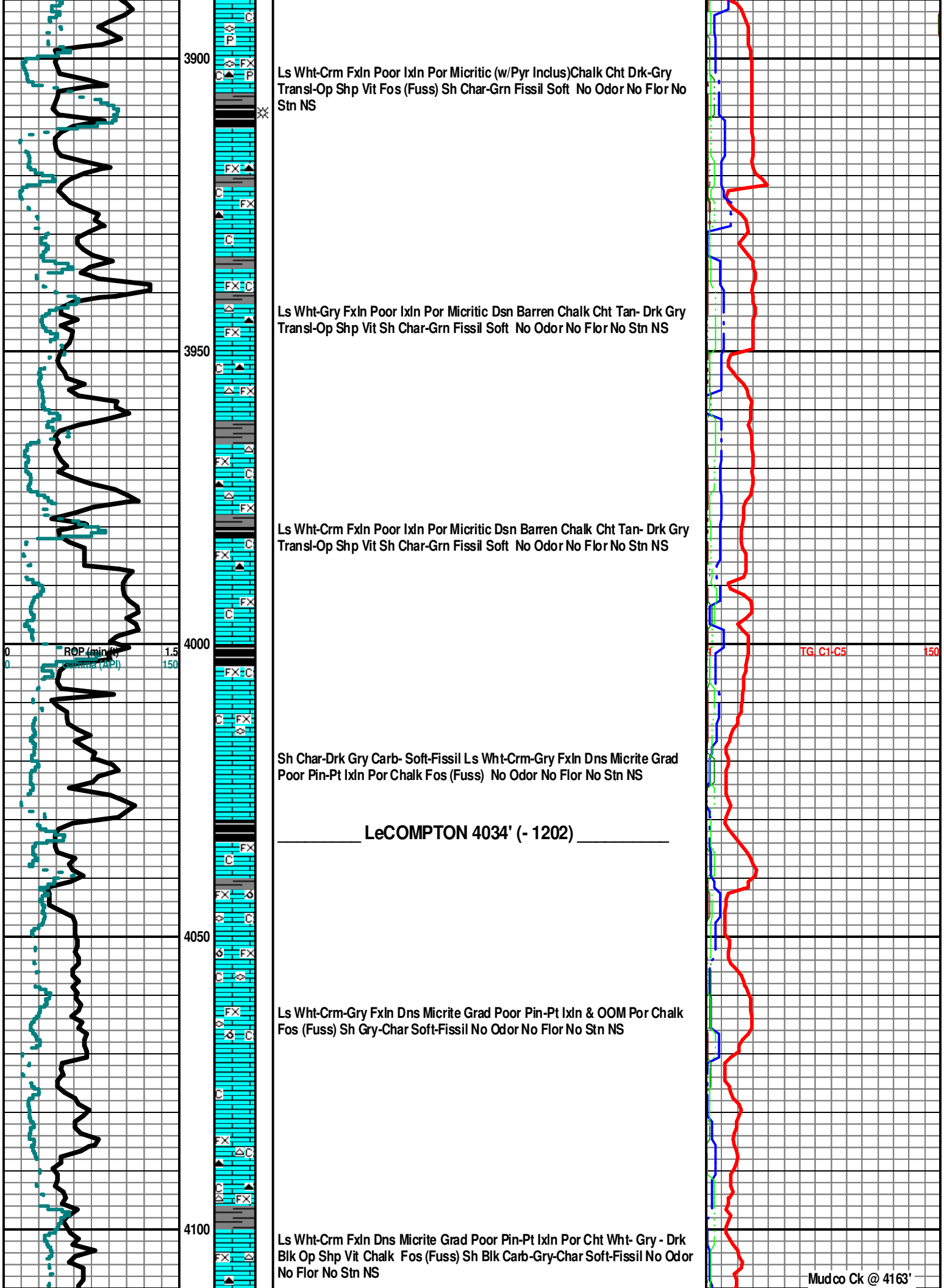
Ls Wht-Crm Fxln Tr/Poor Ixln Por Micritic Dsn Barren Chalk Wht Fos (Fuss)
Sh Tr/ Char-Red Soft No Odor No Flor No Stn NS

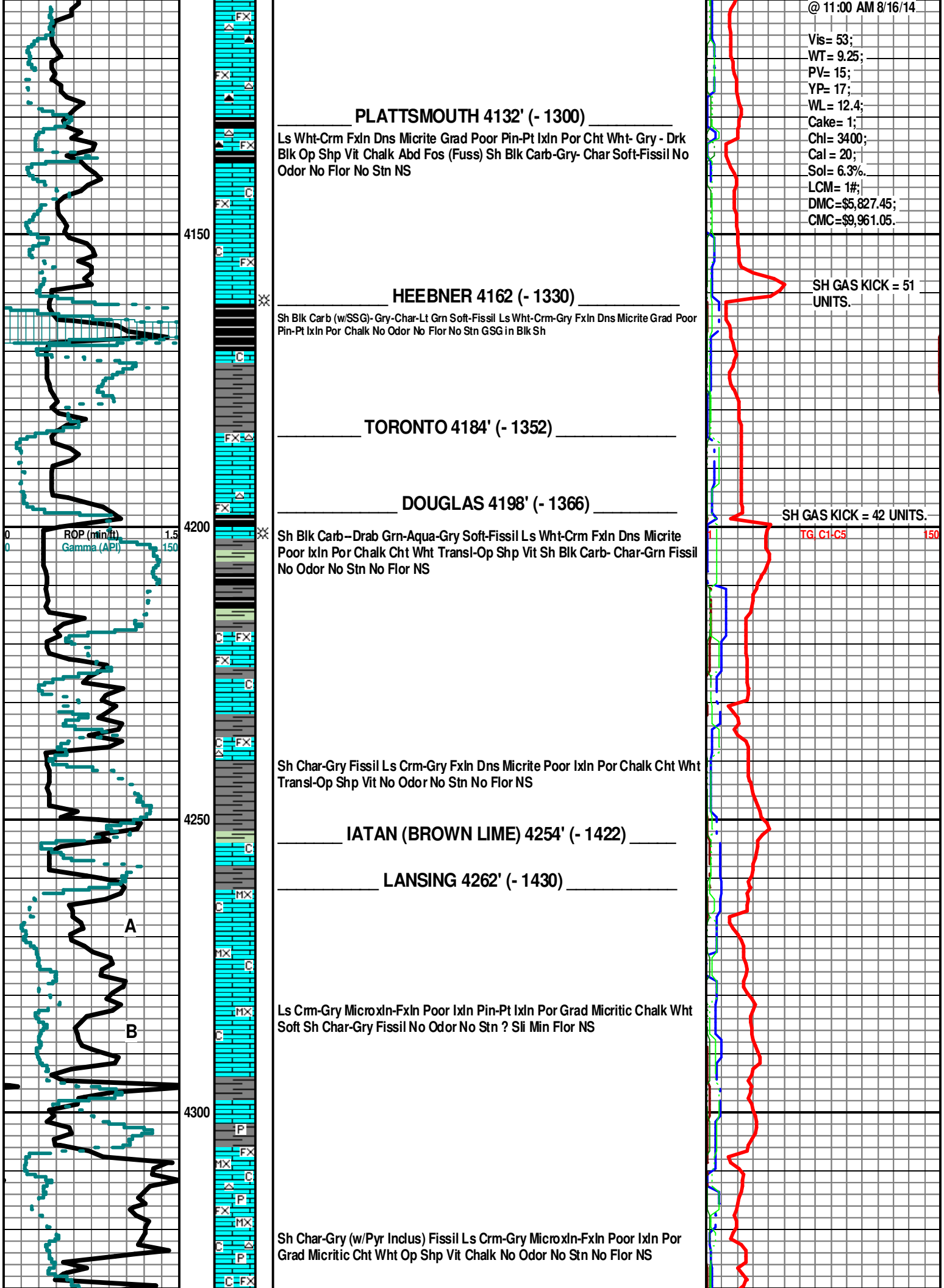
Ls Wht-Crm-Gry Fxln Poor Ixln Por Micritic Dsn Barren Chalk Cht Wht Op
Shp Vit Sh Char-Grn Fissil Soft No Odor No Flor No Stn NS

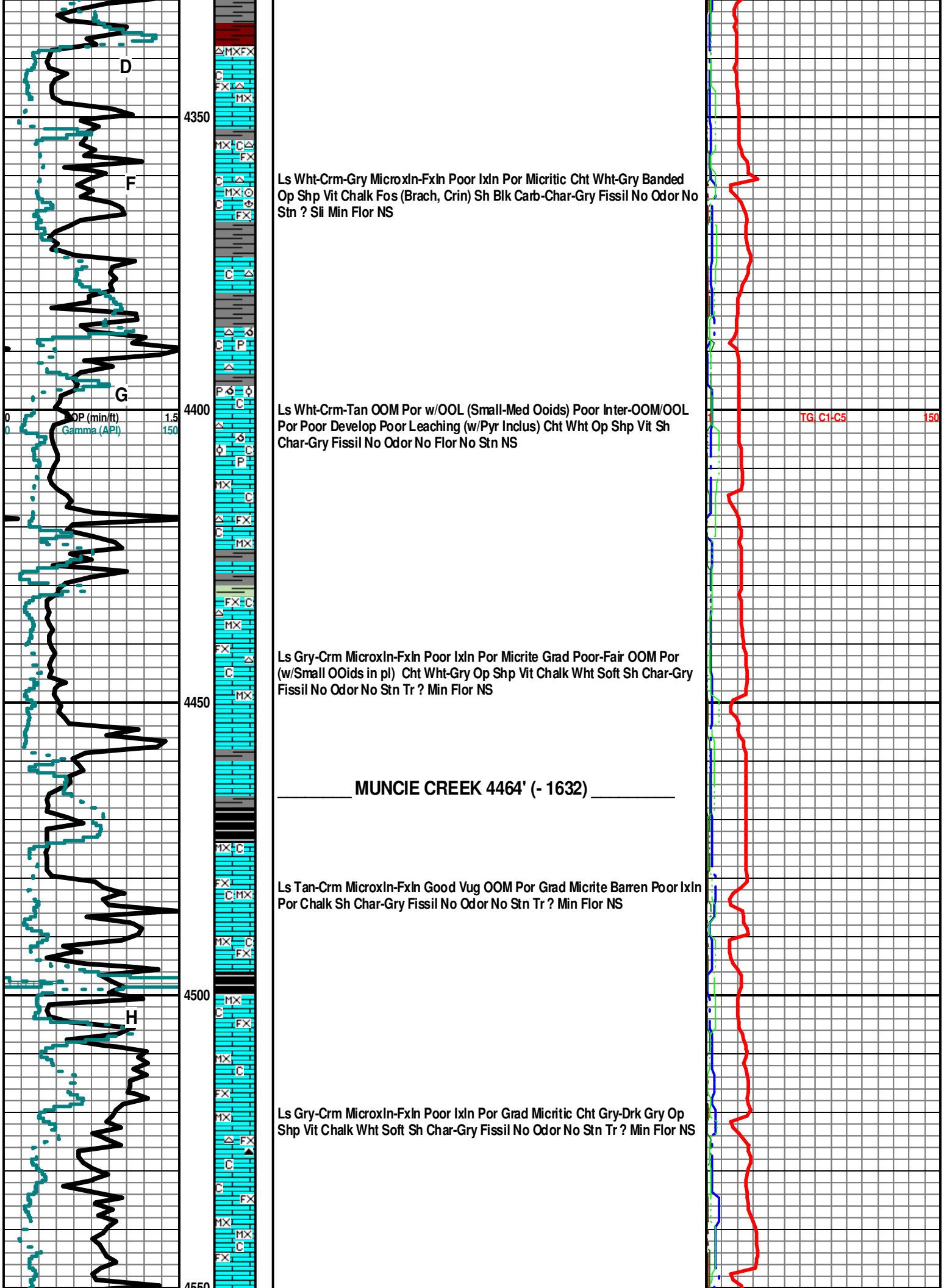
TOPEKA 3818' (- 986)

Ls Wht-Crm Fxln Poor Ixln Por Micritic Dsn Barren Grad Poor Pin-Pt OOM
Por Barren Chalk Cht Wht=Drk Gry Op Shp Vit Sh Blk Carb-Char-Grn Fissil
Soft No Odor No Flor No Stn NS

Ls Wht-Crm Fxln Poor Ixln Por Micritic Dsn Barren Chalk Sh Char Fissil No
Odor No Flor No Stn NS


3900
3950
4000
4050
4100
0
ROP (min/ft)
1.5
0
Gamma (API)
150
TG C1-C5
150
Ls Wht-Crm Fxln Poor Ixln Por Micritic (w/Pyr Inclus)Chalk Cht Drk-Gry Transl-Op Shp Vit Fos (Fuss) Sh Char-Grn Fissil Soft No Odor No Flor No Stn NS
Ls Wht-Gry Fxln Poor Ixln Por Micritic Dsn Barren Chalk Cht Tan- Drk Gry Transl-Op Shp Vit Sh Char-Grn Fissil Soft No Odor No Flor No Stn NS
Ls Wht-Crm Fxln Poor Ixln Por Micritic Dsn Barren Chalk Cht Tan- Drk Gry Transl-Op Shp Vit Sh Char-Grn Fissil Soft No Odor No Flor No Stn NS
Sh Char-Drk Gry Carb- Soft-Fissil Ls Wht-Crm-Gry Fxln Dns Micrite Grad Poor Pin-Pt Ixln Por Chalk Fos (Fuss) No Odor No Flor No Stn NS
LeCOMPTON 4034' (- 1202)
Ls Wht-Crm-Gry Fxln Dns Micrite Grad Poor Pin-Pt Ixln & OOM Por Chalk Fos (Fuss) Sh Gry-Char Soft-Fissil No Odor No Flor No Stn NS
Ls Wht-Crm Fxln Dns Micrite Grad Poor Pin-Pt Ixln Por Cht Wht- Gry - Drk Blk Op Shp Vit Chalk Fos (Fuss) Sh Blk Carb-Gry-Char Soft-Fissil No Odor No Flor No Stn NS
Mudco Ck @ 4163'


@ 11:00 AM 8/16/14
Vis= 53;
WT= 9.25;
PV= 15;
YP= 17;
WL= 12.4;
Cake= 1;
Chl= 3400;
Cal = 20;
Sol= 6.3%.
LCM= 1#;
DMC=$5,827.45;
CMC=$9,961.05.
PLATTSMOUTH 4132' (- 1300)
Ls Wht-Crm Fxln Dns Micrite Grad Poor Pin-Pt Ixln Por Cht Wht- Gry - Drk Blk Op Shp Vit Chalk Abd Fos (Fuss) Sh Blk Carb-Gry- Char Soft-Fissil No Odor No Flor No Stn NS
4150
HEEBNER 4162 (- 1330)
SH GAS KICK = 51 UNITS.
Sh Blk Carb (w/SSG)- Gry-Char-Lt Grn Soft-Fissil Ls Wht-Crm-Gry Fxln Dns Micrite Grad Poor Pin-Pt Ixln Por Chalk No Odor No Flor No Stn GSG in Blk Sh
TORONTO 4184' (- 1352)
DOUGLAS 4198' (- 1366)
SH GAS KICK = 42 UNITS.
4200
0
ROP (min/ft)
1.5
0
Gamma (API)
150
Sh Blk Carb--Drab Grn-Aqua-Gry Soft-Fissil Ls Wht-Crm Fxln Dns Micrite Poor Ixln Por Chalk Cht Wht Transl-Op Shp Vit Sh Blk Carb- Char-Grn Fissil No Odor No Stn No Flor NS
1
TG, C1-C5
150
Sh Char-Gry Fissil Ls Crm-Gry Fxln Dns Micrite Poor Ixln Por Chalk Cht Wht Transl-Op Shp Vit No Odor No Stn No Flor NS
4250
IATAN (BROWN LIME) 4254' (- 1422)
LANSING 4262' (- 1430)
A
B
Ls Crm-Gry Microxln-Fxln Poor Ixln Pin-Pt Ixln Por Grad Micritic Chalk Wht Soft Sh Char-Gry Fissil No Odor No Stn ? Sli Min Flor NS
4300
Sh Char-Gry (w/Pyr Inclus) Fissil Ls Crm-Gry Microxln-Fxln Poor Ixln Por Grad Micritic Cht Wht Op Shp Vit Chalk No Odor No Stn No Flor NS



Ls Wht-Crm-Gry Microxln-Fxln Poor Ixln Por Micritic Cht Wht-Gry Banded Op Shp Vit Chalk Fos (Brach, Crin) Sh Blk Carb-Char-Gry Fissil No Odor No Stn ? Sli Min Flor NS

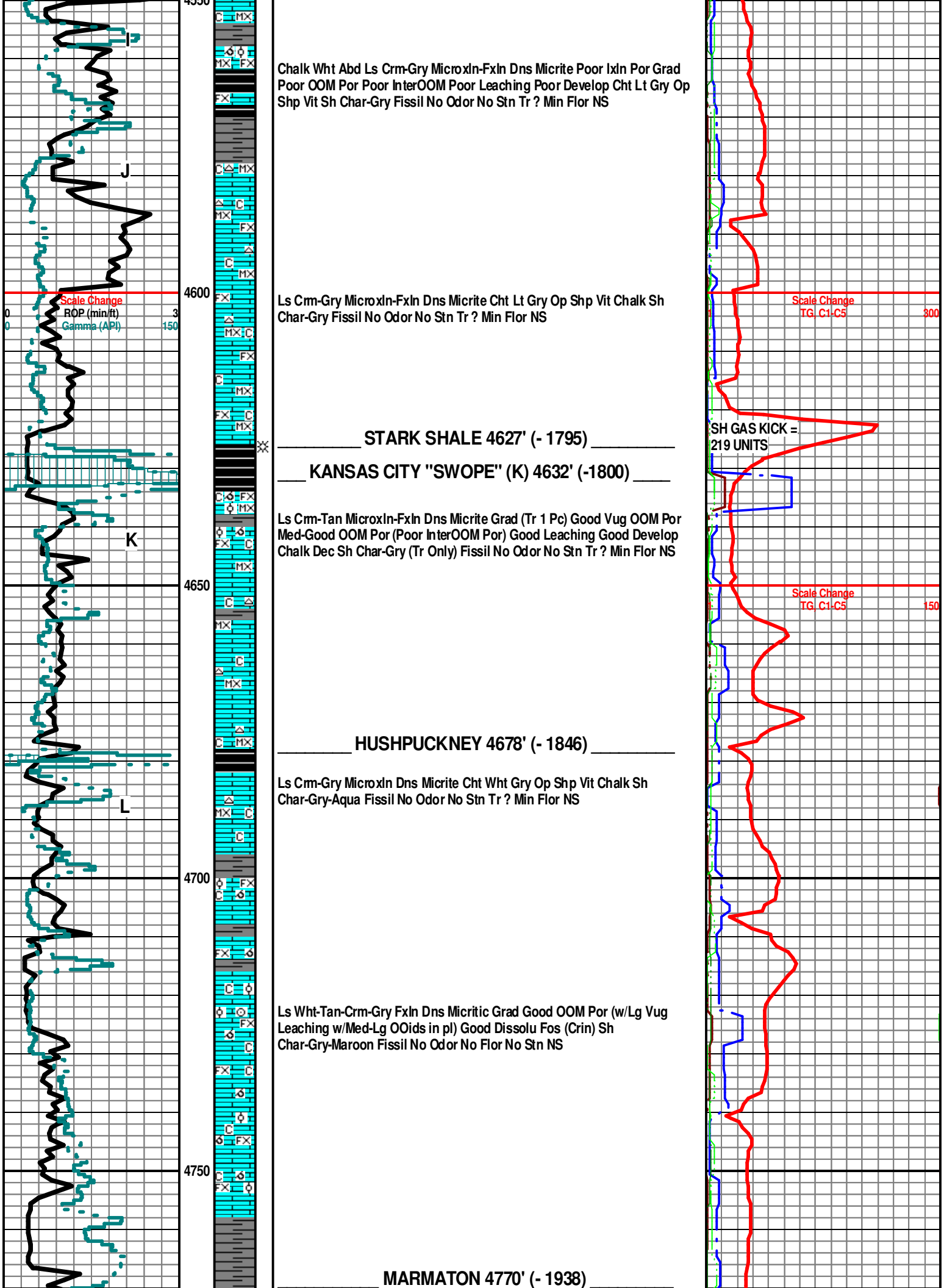
Ls Wht-Crm-Tan OOM Por w/OOL (Small-Med Ooids) Poor Inter-OOM/OOL Por Poor Develop Poor Leaching (w/Pyr Inclus) Cht Wht Op Shp Vit Sh Char-Gry Fissil No Odor No Flor No Stn NS

Ls Gry-Crm Microxln-Fxln Poor Ixln Por Micrite Grad Poor-Fair OOM Por (w/Small OOids in pl) Cht Wht-Gry Op Shp Vit Chalk Wht Soft Sh Char-Gry Fissil No Odor No Stn Tr ? Min Flor NS

_____ MUNCIE CREEK 4464' (- 1632) _____

Ls Tan-Crm Microxln-Fxln Good Vug OOM Por Grad Micrite Barren Poor Ixln Por Chalk Sh Char-Gry Fissil No Odor No Stn Tr ? Min Flor NS

Ls Gry-Crm Microxln-Fxln Poor Ixln Por Grad Micritic Cht Gry-Drk Gry Op Shp Vit Chalk Wht Soft Sh Char-Gry Fissil No Odor No Stn Tr ? Min Flor NS



Chalk Wht Abd Ls Crm-Gry Microxln-Fxln Dns Micrite Poor Ixln Por Grad Poor OOM Por Poor InterOOM Poor Leaching Poor Develop Cht Lt Gry Op Shp Vit Sh Char-Gry Fissil No Odor No Stn Tr ? Min Flor NS

Ls Crm-Gry Microxln-Fxln Dns Micrite Cht Lt Gry Op Shp Vit Chalk Sh Char-Gry Fissil No Odor No Stn Tr ? Min Flor NS

_____ STARK SHALE 4627' (- 1795) _____

___ KANSAS CITY "SWOPE" (K) 4632' (-1800) ____

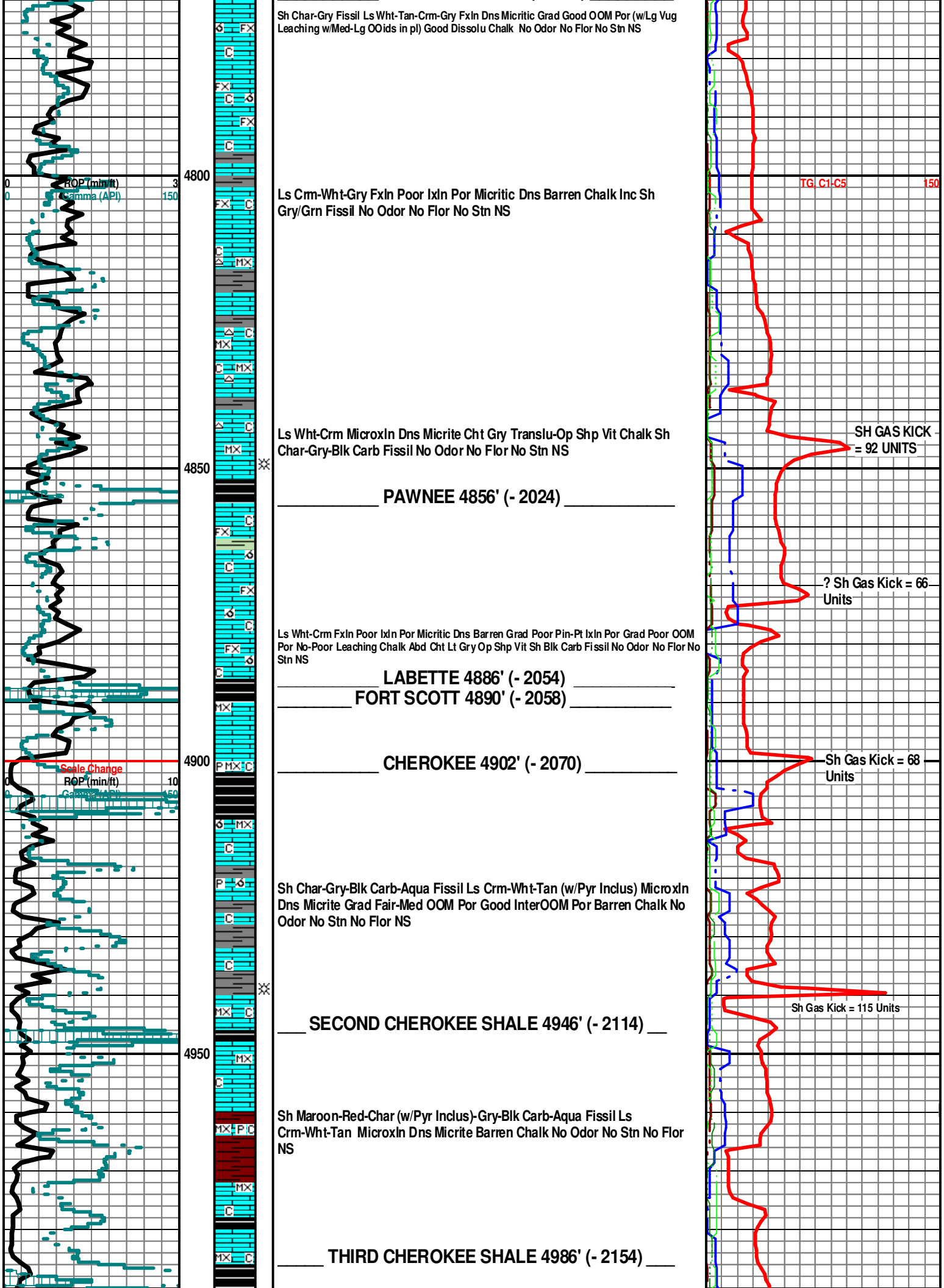
Ls Crm-Tan Microxln-Fxln Dns Micrite Grad (Tr 1 Pc) Good Vug OOM Por Med-Good OOM Por (Poor InterOOM Por) Good Leaching Good Develop Chalk Dec Sh Char-Gry (Tr Only) Fissil No Odor No Stn Tr ? Min Flor NS

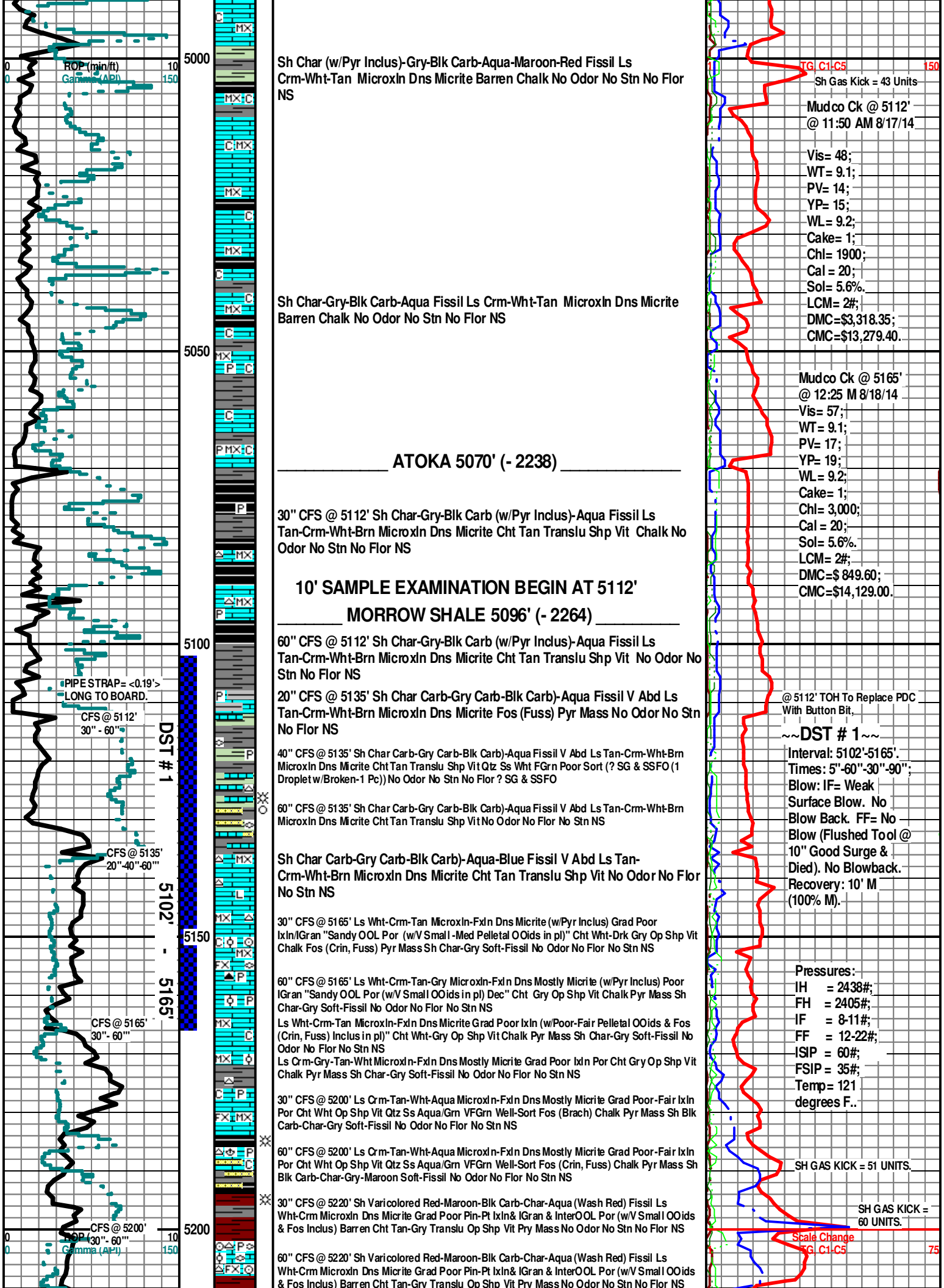
_____ HUSHPUCKNEY 4678' (- 1846) _____

Ls Crm-Gry Microxln Dns Micrite Cht Wht Gry Op Shp Vit Chalk Sh Char-Gry-Aqua Fissil No Odor No Stn Tr ? Min Flor NS

Ls Wht-Tan-Crm-Gry Fxln Dns Micritic Grad Good OOM Por (w/Lg Vug Leaching w/Med-Lg OOids in pl) Good Dissolu Fos (Crin) Sh Char-Gry-Maroon Fissil No Odor No Flor No Stn NS

_____ MARMATON 4770' (- 1938) _____


Sh Char-Gry Fissil Ls Wht-Tan-Crm-Gry Fxln Dns Micritic Grad Good OOM Por (w/Lg Vug Leaching w/Med-Lg OOids in pl) Good Dissolu Chalk No Odor No Flor No Stn NS
4800
ROP (min/ft)
Gamma (API)
TG, C1-C5
150
Ls Crm-Wht-Gry Fxln Poor Ixln Por Micritic Dns Barren Chalk Inc Sh Gry/Grn Fissil No Odor No Flor No Stn NS
Ls Wht-Crm Microxln Dns Micrite Cht Gry Translu-Op Shp Vit Chalk Sh Char-Gry-Blk Carb Fissil No Odor No Flor No Stn NS
SH GAS KICK = 92 UNITS
4850
PAWNEE 4856' (- 2024)
? Sh Gas Kick = 66 Units
Ls Wht-Crm Fxln Poor Ixln Por Micritic Dns Barren Grad Poor Pin-Pt Ixln Por Grad Poor OOM Por No-Poor Leaching Chalk Abd Cht Lt Gry Op Shp Vit Sh Blk Carb Fissil No Odor No Flor No Stn NS
LABETTE 4886' (- 2054)
FORT SCOTT 4890' (- 2058)
Scale Change
ROP (min/ft)
10
4900
CHEROKEE 4902' (- 2070)
Sh Gas Kick = 68 Units
Sh Char-Gry-Blk Carb-Aqua Fissil Ls Crm-Wht-Tan (w/Pyr Inclus) Microxln Dns Micrite Grad Fair-Med OOM Por Good InterOOM Por Barren Chalk No Odor No Stn No Flor NS
Sh Gas Kick = 115 Units
SECOND CHEROKEE SHALE 4946' (- 2114)
4950
Sh Maroon-Red-Char (w/Pyr Inclus)-Gry-Blk Carb-Aqua Fissil Ls Crm-Wht-Tan Microxln Dns Micrite Barren Chalk No Odor No Stn No Flor NS
THIRD CHEROKEE SHALE 4986' (- 2154)



Sh Char (w/Pyr Inclus)-Gry-Blk Carb-Aqua-Maroon-Red Fissil Ls Crm-Wht-Tan Microxln Dns Micrite Barren Chalk No Odor No Stn No Flor NS

Mudco Ck @ 5112' @ 11:50 AM 8/17/14

Vis= 48;
WT= 9.1;
PV= 14;
YP= 15;
WL= 9.2;
Cake= 1;
Chl= 1900;
Cal = 20;
Sol= 5.6%.
LCM= 2#;
DMC=$3,318.35;
CMC=$13,279.40.

Sh Char-Gry-Blk Carb-Aqua Fissil Ls Crm-Wht-Tan Microxln Dns Micrite Barren Chalk No Odor No Stn No Flor NS

Mudco Ck @ 5165' @ 12:25 M 8/18/14

Vis= 57;
WT= 9.1;
PV= 17;
YP= 19;
WL= 9.2;
Cake= 1;
Chl= 3,000;
Cal = 20;
Sol= 5.6%.
LCM= 2#;
DMC=$ 849.60;
CMC=$14,129.00.

_____ ATOKA 5070' (- 2238) _____

30" CFS @ 5112' Sh Char-Gry-Blk Carb (w/Pyr Inclus)-Aqua Fissil Ls Tan-Crm-Wht-Brn Microxln Dns Micrite Cht Tan Translu Shp Vit Chalk No Odor No Stn No Flor NS

10' SAMPLE EXAMINATION BEGIN AT 5112'

_____ MORROW SHALE 5096' (- 2264) _____

60" CFS @ 5112' Sh Char-Gry-Blk Carb (w/Pyr Inclus)-Aqua Fissil Ls Tan-Crm-Wht-Brn Microxln Dns Micrite Cht Tan Translu Shp Vit No Odor No Stn No Flor NS

20" CFS @ 5135' Sh Char Carb-Gry Carb-Blk Carb)-Aqua Fissil V Abd Ls Tan-Crm-Wht-Brn Microxln Dns Micrite Fos (Fuss) Pyr Mass No Odor No Stn No Flor NS

@ 5112' TOH To Replace PDC With Button Bit,

~~DST # 1~~

Interval: 5102'-5165'.
Times: 5"-60"-30"-90";
Blow: IF= Weak Surface Blow. No Blow Back. FF= No Blow (Flushed Tool @ 10" Good Surge & Died). No Blowback.
Recovery: 10' M (100% M).

40" CFS @ 5135' Sh Char Carb-Gry Carb-Blk Carb)-Aqua Fissil V Abd Ls Tan-Crm-Wht-Brn Microxln Dns Micrite Cht Tan Translu Shp Vit Qtz Ss Wht FGrn Poor Sort (? SG & SSFO (1 Droplet w/Broken-1 Pc)) No Odor No Stn No Flor ? SG & SSFO

60" CFS @ 5135' Sh Char Carb-Gry Carb-Blk Carb)-Aqua Fissil V Abd Ls Tan-Crm-Wht-Brn Microxln Dns Micrite Cht Tan Translu Shp Vit No Odor No Flor No Stn NS

Sh Char Carb-Gry Carb-Blk Carb)-Aqua-Blue Fissil V Abd Ls Tan-Crm-Wht-Brn Microxln Dns Micrite Cht Tan Translu Shp Vit No Odor No Flor No Stn NS

30" CFS @ 5165' Ls Wht-Crm-Tan Microxln-Fxln Dns Micrite (w/Pyr Inclus) Grad Poor Ixln/lGran "Sandy OOL Por (w/V Small -Med Pelletal OOids in pl)" Cht Wht-Drk Gry Op Shp Vit Chalk Fos (Crin, Fuss) Pyr Mass Sh Char-Gry Soft-Fissil No Odor No Flor No Stn NS

Pressures:
IH = 2438#;
FH = 2405#;
IF = 8-11#;
FF = 12-22#;
ISIP = 60#;
FSIP = 35#;
Temp= 121 degrees F..

60" CFS @ 5165' Ls Wht-Crm-Tan-Gry Microxln-Fxln Dns Mostly Micrite (w/Pyr Inclus) Poor lGran "Sandy OOL Por (w/V Small OOids in pl) Dec" Cht Gry Op Shp Vit Chalk Pyr Mass Sh Char-Gry Soft-Fissil No Odor No Flor No Stn NS

Ls Wht-Crm-Tan Microxln-Fxln Dns Micrite Grad Poor Ixln (w/Poor-Fair Pelletal OOids & Fos (Crin, Fuss) Inclus in pl)" Cht Wht-Gry Op Shp Vit Chalk Pyr Mass Sh Char-Gry Soft-Fissil No Odor No Flor No Stn NS

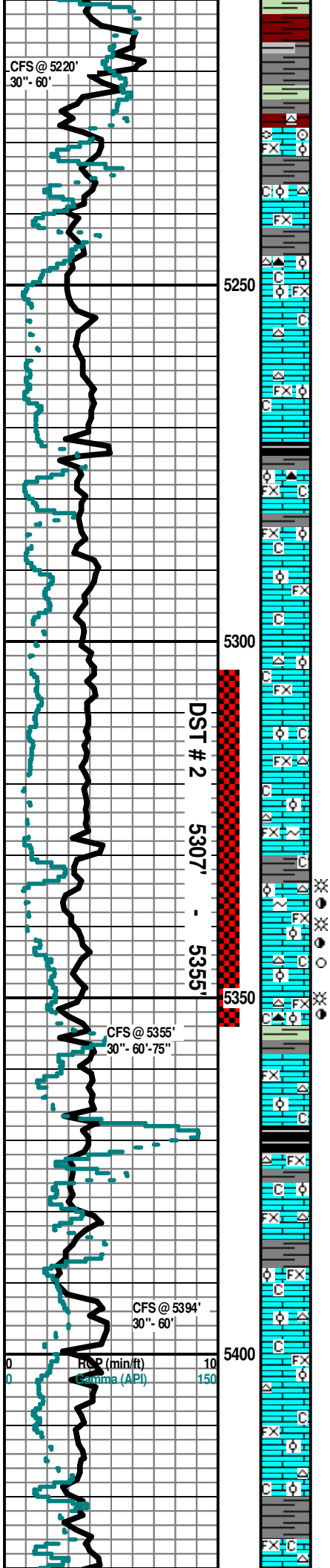
Ls Crm-Gry-Tan-Wht Microxln-Fxln Dns Mostly Micrite Grad Poor Ixln Por Cht Gry Op Shp Vit Chalk Pyr Mass Sh Char-Gry Soft-Fissil No Odor No Flor No Stn NS

30" CFS @ 5200' Ls Crm-Tan-Wht-Aqua Microxln-Fxln Dns Mostly Micrite Grad Poor-Fair Ixln Por Cht Wht Op Shp Vit Qtz Ss Aqua/Grn VFGrn Well-Sort Fos (Brach) Chalk Pyr Mass Sh Blk Carb-Char-Gry Soft-Fissil No Odor No Flor No Stn NS

60" CFS @ 5200' Ls Crm-Tan-Wht-Aqua Microxln-Fxln Dns Mostly Micrite Grad Poor-Fair Ixln Por Cht Wht Op Shp Vit Qtz Ss Aqua/Grn VFGrn Well-Sort Fos (Crin, Fuss) Chalk Pyr Mass Sh Blk Carb-Char-Gry-Maroon Soft-Fissil No Odor No Flor No Stn NS

30" CFS @ 5220' Sh Varicolored Red-Maroon-Blk Carb-Char-Aqua (Wash Red) Fissil Ls Wht-Crm Microxln Dns Micrite Grad Poor Pin-Pt Ixln& lGran & InterOOL Por (w/V Small OOids & Fos Inclus) Barren Cht Tan-Gry Translu Op Shp Vit Pry Mass No Odor No Stn No Flor NS

60" CFS @ 5220' Sh Varicolored Red-Maroon-Blk Carb-Char-Aqua (Wash Red) Fissil Ls Wht-Crm Microxln Dns Micrite Grad Poor Pin-Pt Ixln& lGran & InterOOL Por (w/V Small OOids & Fos Inclus) Barren Cht Tan-Gry Translu Op Shp Vit Pry Mass No Odor No Stn No Flor NS



Ls Wht Fxln Poor OOL Por (w/Small OOL in pl) "Sandy OOL Ls" Barren Grad Ls CrmTan-Gry Fxln Dns Micrite Cht Wht-Gry (w/Fos (Crin & OOL (Tr Drk Gry-Blk Gillsonitic Inclus) Chalky Sh Varicolored Soft Fissil No Odor No Stn No Flor NS

___ MISSISSIPPIAN "STE. GEN" 5228' (- 2396) ___

Ls Wht Fxln Poor OOL Por (w/Small OOL in pl) "Sandy OOL Ls" Barren Grad Gry Fxln Dns Micrite Cht Gry Op Shp Vit Chalky Sh AA Fissil No Odor No Stn No Flor NS

Ls Wht Fxln Poor OOL Por (w/Small OOL in pl) "Sandy OOL Ls" Barren Grad Ls Crm-Gry Fxln Dns Micrite Cht Peach-Org Op Shp Vit Chalky Sh AA-Red-Maroon Fissil No Odor No Stn No Flor NS

Ls Wht Fxln Poor OOL Por (w/Small OOL in pl) "Sandy OOL Ls" Barren Grad Ls Crm-Gry Fxln Dns Micrite Chalky Cht Wht-Peach Op Shp Vit Sh AA Fissil No Odor No Stn No Flor NS

Ls Wht Fxln Poor OOL Por (w/Small OOL in pl) "Sandy OOL Ls" Barren Grad Gry Fxln Dns Micrite Cht Lt-DrkTan Op Shp Vit Chalky Sh AA Fissil No Odor No Stn No Flor NS

_____ MISS. ST. LOUIS 5326' (- 2494) _____

Ls Wht Fxln Poor OOL Por (w/Small OOL in pl) "Sandy OOL Ls" Barren Grad Gry Dns Micrite Cht Red-Org Speck Op Shp Vit Chalky Sh Varicolored-Blk Carb Fissil No Odor No Stn No Flor NS

Ls Wht Fxln Poor OOL Por (w/Small OOL in pl) "Sandy OOL Ls" Barren Grad Gry Dns Micrite Chalky Sh AA-Blk Carb Fissil No Odor No Stn No Flor NS

Ls Wht Fxln Poor OOL Por (w/Small OOL in pl) "Sandy OOL Ls" Barren Grad Gry Dns Micrite Chalky Sh AA Fissil No Odor No Stn No Flor NS

Ls Wht Fxln Poor OOL Por (w/Small OOL in pl) "Sandy OOL Ls" Barren Grad Gry Dns Micrite Cht Tan Op Shp Vit Chalky Sh AA-Aqua Fissil No Odor No Stn No Flor NS

Ls Wht Fxln Poor OOL Por (w/Small OOL in pl) "Sandy OOL Ls" Barren Grad Gry Dns Micrite Cht Gry Op Shp Vit Chalky Sh AA Fissil No Odor No Stn No Flor NS

Ls Wht Fxln Poor OOL Por (w/Small OOL in pl) "Sandy OOL Ls" Barren Grad Gry Dns Micrite Cht Gry Op Shp Vit Chalky Sh AA Fissil No Odor No Stn No Flor NS

__ MISS. "ST. LOUIS LOWER B Ø ' 5334' (- 2502) _

Ls Wht Fair-Med OOL Por (w/Small-Med OOids in pl) Friable Fair InterOOL Por (w/Tr Drk Brn-Blk Stn on Edges of InterOOL Por) VSSG & VSSO (w/VSSFO When Broken in Wtr Under Heat) Tr Glacu Inclus Cht Wht-Peach Op Shp Vit Chalky V Abd Poor-Fair Odor No Flor SSG & SSO

Ls Wht Med OOL Por (w/Med OOids in pl) Friable Fair-Med InterOOL Por (w/Tr Drk Brn-Blk Stn in Pin-Pt InterOOL Por) SSG & SSO (w/SSFO When Broken in Wtr Under Heat) Tr Glacu Inclus Cht Wht-Peach Op Shp Vit Chalky V Abd Fair Odor No Flor SSG & SSO

30" CFS @ 5355' Ls Wht-Crm Fxln Poor OOL Por AA (w/Dec VSSG & VSSO AA) Grad Dns Micrite Cht Wht-Peach-Gry (w/ Blk Inclus) Abd Translu-Op Shp Vit Chalk Dec ? Faint Odor No Flor Sli ? Tr SG & SO AA Mostly NS

60" & 75" CFS @ 5355' Ls Wht-Crm Fxln Poor OOL Por AA (w/1 Pc w/Good Lg OOids & FSG & FSFO When Broken in Wtr Under Heat) Grad Dns Micrite Cht Wht-Peach-Org Gry (w/ Blk Inclus) Translu-Op Shp Vit Chalk No Odor No Flor Sli ? SG & SO

Ls Wht-Crm Fxln Poor OOL Por (w/Small-Med-Lg OOids in pl) Grad Dns Micrite Cht Wht-Gry (w/Blk Inclus) Translu-Op Shp Vit Chalk No Odor No Flor No Stn NS

Ls Wht-Crm Fxln Poor OOL Por (w/Small-Med-Lg OOids in pl) Grad Dns Micrite Cht Wht-Gry (w/Blk Inclus) Translu-Op Shp Vit Chalk No Odor No Flor No Stn NS

30" CFS @ 5394' Ls Wht-Crm Fxln Poor OOL Por (w/Small-Med OOids) Grad Dns Micrite Cht Wht-Gry (w/ Blk Inclus) Abd Translu-Op Shp Vit Chalk No Odor No Flor No Stn NS

60" CFS @ 5394' Ls Wht-Crm Fxln Med OOL Por (w/Small-Med-Lg OOids in pl) Barren Cht Wht-Gry (w/Blk Inclus) Translu-Op Shp Vit Chalky Sh Blk Carb-Char-Gry-Aqua Fissil No Odor No Flor No Stn NS

Ls Wht-Crm Fxln Med OOL Por (w/Small-Med-Lg OOids in pl) Barren Cht Wht-Gry (w/Blk Inclus) Translu-Op Shp Vit Chalky Sh Blk Carb-Char-Gry-Aqua Fissil No Odor No Flor No Stn NS

Ls Wht-Crm Fxln Poor OOL Por (w/Small-Med OOids) Grad Dns Micrite Cht Wht-Gry (w/ Blk Inclus) Abd Translu-Op Shp Vit Chalk No Odor No Flor No Stn NS

Ls Wht-Crm Fxln Med OOL Por (w/Small-Med OOids in pl) Barren Cht Wht-Gry (w/Blk Inclus) Translu-Op Shp Vit Chalky Calcite Xls (Tr) Sh Blk Carb-Char-Gry-Aqua Fissil No Odor No Flor No Stn NS

~~DST # 2~~
Interval: 5307'-5355'.
Times: 5"-60"-30"-90";
Blow: IF= Weak Surface Blow. No Blow Back.
FF= No Blow (Flushed Tool @ 10" Good Surge & Died). No Blowback.
Recovery: 5' M (100% M).

Pressures:
IH = 2576#;
FH = 2554#;
IF = 8-10#;
FF = 10-17#;
ISIP = 1439#;
FSIP = 1270#;
Temp= 123 degrees F..

Mudco Ck @ 5355'
@ 12:50 PM 8/19/14

Vis= 72;
WT= 9.2;
PV= 20;
YP= 24;
WL= 10.4;
Cake= 1;
Chl= 3,700;
Cal = 20;
Sol= 6.2%.
LCM= 2#;
DMC=$1,254.80;
CMC=$15,383.80.

CHANGE OUT EXTRACTOR FILTER @ 5343' & GAS TEST. 127 UNITS OBSERVED ON TEST.

Gas Kick = 29 Units

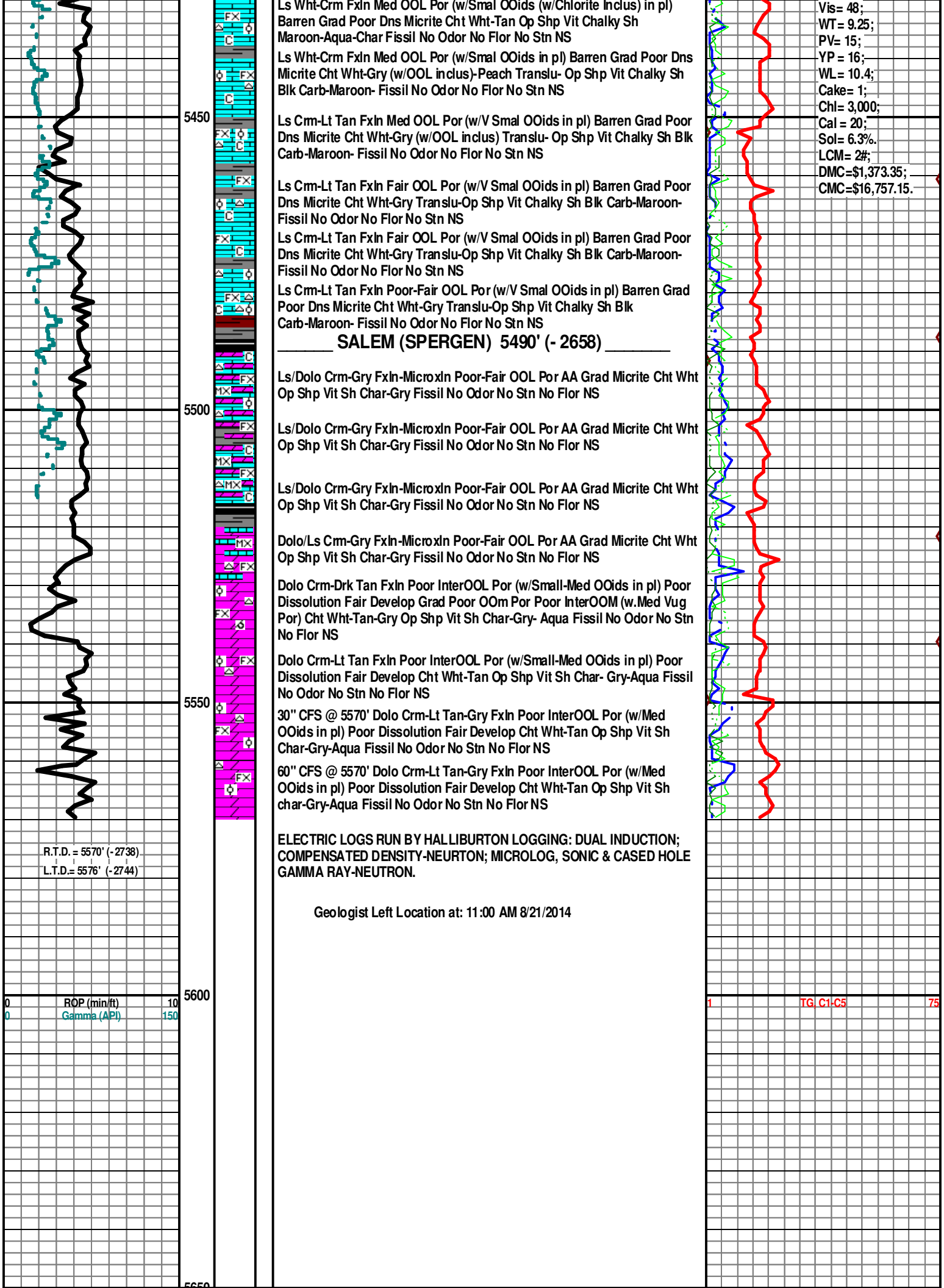
Gas Kick = 28 Units

Gas Kick = 30 Units

Gas Kick = 26 Units

1 TG, C1-C5 75

Mudco Ck @ 5466'
@ 11:00 AM 8/20/14



Ls Wht-Crm Fxln Med OOL Por (w/Smal OOids (w/Chlorite Inclus) in pl) Barren Grad Poor Dns Micrite Cht Wht-Tan Op Shp Vit Chalky Sh Maroon-Aqua-Char Fissil No Odor No Flor No Stn NS

Ls Wht-Crm Fxln Med OOL Por (w/Smal OOids in pl) Barren Grad Poor Dns Micrite Cht Wht-Gry (w/OOL inclus)-Peach Translu- Op Shp Vit Chalky Sh Blk Carb-Maroon- Fissil No Odor No Flor No Stn NS

Ls Crm-Lt Tan Fxln Med OOL Por (w/V Smal OOids in pl) Barren Grad Poor Dns Micrite Cht Wht-Gry (w/OOL inclus) Translu- Op Shp Vit Chalky Sh Blk Carb-Maroon- Fissil No Odor No Flor No Stn NS

Ls Crm-Lt Tan Fxln Fair OOL Por (w/V Smal OOids in pl) Barren Grad Poor Dns Micrite Cht Wht-Gry Translu-Op Shp Vit Chalky Sh Blk Carb-Maroon- Fissil No Odor No Flor No Stn NS

Ls Crm-Lt Tan Fxln Fair OOL Por (w/V Smal OOids in pl) Barren Grad Poor Dns Micrite Cht Wht-Gry Translu-Op Shp Vit Chalky Sh Blk Carb-Maroon- Fissil No Odor No Flor No Stn NS

Ls Crm-Lt Tan Fxln Poor-Fair OOL Por (w/V Smal OOids in pl) Barren Grad Poor Dns Micrite Cht Wht-Gry Translu-Op Shp Vit Chalky Sh Blk Carb-Maroon- Fissil No Odor No Flor No Stn NS

_____ SALEM (SPERGEN) 5490' (- 2658) _____

Ls/Dolo Crm-Gry Fxln-Microxln Poor-Fair OOL Por AA Grad Micrite Cht Wht Op Shp Vit Sh Char-Gry Fissil No Odor No Stn No Flor NS

Ls/Dolo Crm-Gry Fxln-Microxln Poor-Fair OOL Por AA Grad Micrite Cht Wht Op Shp Vit Sh Char-Gry Fissil No Odor No Stn No Flor NS

Ls/Dolo Crm-Gry Fxln-Microxln Poor-Fair OOL Por AA Grad Micrite Cht Wht Op Shp Vit Sh Char-Gry Fissil No Odor No Stn No Flor NS

Dolo/Ls Crm-Gry Fxln-Microxln Poor-Fair OOL Por AA Grad Micrite Cht Wht Op Shp Vit Sh Char-Gry Fissil No Odor No Stn No Flor NS

Dolo Crm-Drk Tan Fxln Poor InterOOL Por (w/Small-Med OOids in pl) Poor Dissolution Fair Develop Grad Poor OOm Por Poor InterOOM (w.Med Vug Por) Cht Wht-Tan-Gry Op Shp Vit Sh Char-Gry- Aqua Fissil No Odor No Stn No Flor NS

Dolo Crm-Lt Tan Fxln Poor InterOOL Por (w/Small-Med OOids in pl) Poor Dissolution Fair Develop Cht Wht-Tan Op Shp Vit Sh Char- Gry-Aqua Fissil No Odor No Stn No Flor NS

30" CFS @ 5570' Dolo Crm-Lt Tan-Gry Fxln Poor InterOOL Por (w/Med OOids in pl) Poor Dissolution Fair Develop Cht Wht-Tan Op Shp Vit Sh Char-Gry-Aqua Fissil No Odor No Stn No Flor NS

60" CFS @ 5570' Dolo Crm-Lt Tan-Gry Fxln Poor InterOOL Por (w/Med OOids in pl) Poor Dissolution Fair Develop Cht Wht-Tan Op Shp Vit Sh char-Gry-Aqua Fissil No Odor No Stn No Flor NS

ELECTRIC LOGS RUN BY HALLIBURTON LOGGING: DUAL INDUCTION; COMPENSATED DENSITY-NEURTON; MICROLOG, SONIC & CASED HOLE GAMMA RAY-NEUTRON.

Geologist Left Location at: 11:00 AM 8/21/2014

BASIC ENERGY SERVICES
Liberal, Kansas

Cement Report

Customer: Falcon Exploration	Lease No.	Date: 8-14-14	
Lease: Nancy & Jesserand	Well #: 1-8	Service Receipt	
Casing: 8 5/8 24#	Depth	County: Gray	State: KS
Job Type: 2-42	Formation	Legal Description: 8-28-30	

Pipe Data

Casing size: 8 5/8 24#	Tubing Size		
Depth: 1889'	Depth		
Volume: 117 bbl	Volume		
Max Press	Max Press		
Well Connection	Annulus Vol.		
Plug Depth: 1847'	Packer Depth		

Perforating Data

Shots/Ft		
From	To	
From	To	
From	To	
From	To	
From	To	

Cement Data

Lead: 460 sx @ 11.4 PPG 3% CC, 1/4# Poly Flake, 2% WCA-1

A-Con Blend

Tail in: 150 sx @ 14.8 PPG 2% CC, 1/4# Poly Flake

Premium Plus Cement

Time	Casing Pressure	Tubing Pressure	Bbls. Pumbed	Rate	Service Log
0500					On location - Rig up
0900					Safety Meeting
0915	2500				Pressure Test
0922	100		20	5	Pump Stoploss
0930	150		241	5	Pump 460 sx @ 11.4 PPG
1019	100		35	5	Pump 150 sx @ 14.8 PPG
1029					Drop Plug
1032	150			5	Start Displacement
1052	300		97	2	Slow Rate
1056	300		107	1	Slow Rate
1100	1000		117	1	Bump Plug
1105	0				Release Pressure - Float Held
					Shut Down Rig Down

Service Units	78940	38750 19847	30463 19564	33021 14284		
Driver Names	Ruben	Carlos	Roger	Santiago		

Osbaldo
Customer Representative

Jerry Bennett
Station Manager

Ruben Martinez
Cementer

Taylor Printing, Inc.

BASIC ENERGY SERVICES
Liberal, Kansas

Cement Report

Customer: Falcon Exploration	Lease No.	Date: 8-21-14	
Lease: Nancy Jesserand	Well #: 1-8	Service Receipt	
Casing	Depth	County: Gray	State: KS
Job Type: 2-92 PTA	Formation	Legal Description	

Pipe Data		Perforating Data		Cement Data
Casing size	Tubing Size	Shots/Ft		Lead 170Sx @ 13.5 PPG
Depth	Depth	From	To	
Volume	Volume	From	To	60/40 Poz
Max Press	Max Press	From	To	Tail in
Well Connection	Annulus Vol.	From	To	
Plug Depth	Packer Depth	From	To	

Time	Casing Pressure	Tubing Pressure	Bbls. Pumbed	Rate	Service Log
1400					On Location - Rig up
2130					Safety Meeting
2159	1000				Pressure Test
					① 1920' 50 sx @ 13.5 PPG
2210	100		13	4	Pump 50 sx @ 13.5 PPG
2215	100		24	4	Pump Displacement
2220	0				Shut Down
					② 810' 50 sx @ 13.5 PPG
2315	100		13	4	Pump 50 sx @ 13.5 PPG
2319	100		8	4	Pump Displacement
2321					Shut Down
					③ 60' 20 sx @ 13.5 PPG
2350	100		5	4	Pump 20 sx @ 13.5 PPG
2353					Circulate Cement To Surface
0015					④ Plug Rat Hole 30 SX
0030					⑤ Plug Mouse Hole 20 SX
					Shut Down - Rig Down

Service Units	38750 19842	78940	14354 19857			
Driver Names	Ruben	Jesus	Roger			

Evaldo
Customer Representative

Jerry Bennett
Station Manager

Ruben Martinez
Cementer

Taylor Printing, Inc.