Confidentiality Requested:
☑ Yes ☐ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1177317

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 # 5003
Name: McCoy Petroleum Corporation
Address 1: 8080 E CENTRAL STE 300
Address 2:
City: WICHITA State: KS Zip: 67206 + 2366
Contact Person: Scott Hampel
Phone: (316) 636-2737
CONTRACTOR: License # 5142
Name: Sterling Drilling Company
Wellsite Geologist: Evan Stone
Purchaser: West Wichita Gas Gathering / MVPurchasing

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 #:

11/30/2013	12/7/2013	1/30/2014
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-077-21991-00-00
Spot Description: C S2 NW
_ - _ - S2 - NW Sec. 10 Twp. 31 S. R. 9 ☐ East ☑ West
1980 Feet from ☑ North / ☐ South Line of Section
1320 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: Harper
Lease Name: MILLER 'T' GU Well #: #2-10
Field Name: Spovey-Grabs-Basil
Producing Formation: Mississippian
Elevation: Ground: 1685 Kelly Bushing: 1694
Total Vertical Depth: 4550 Plug Back Total Depth: 4508
Amount of Surface Pipe Set and Cemented at: 259 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: 14000 ppm Fluid volume: 800 bbls
Dewatering method used: Hauled to Disposal

Location of fluid disposal if hauled offsite:

Operator Name: Messenger Petroleum, Inc.
Lease Name: NICHOLAS #1-20 SWDW License #: 4706
Quarter NE Sec. 20 Twp. 30 S. R. 8 ☐ East ☑ West
County: Kingman Permit #: D-27434

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: 03/11/2014
☑ **Confidential Release Date:** 03/10/2016
☑ **Wireline Log Received**
☑ **Geologist Report Received**
☐ **UIC Distribution**
ALT ☑ **I** ☐ **II** ☐ **III** **Approved by:** NAOMI JAMES **Date:** 03/11/2014

[redacted] 1177317

Operator Name: McCoy Petroleum Corporation Lease Name: MILLER 'T' GU Well #: #2-10

Sec. 10 Twp. 31 S. R. 9 ☐ East ☑ West County: Harper

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:

Pioneer: Dual Induction, Dual Compensated, Microlog, Sonic Cement Bond Log

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

Name Top Datum

See Attachment

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	23	259	Pozmix 60/40	275	2%Gel, 3%CC, 1/4# Celoflake/sx
Production	7.875	4.5	10.5	4542	Premium Class H	150	10%Salt, Gilsonite, .75%GasBlock

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	0-259	Common	195	3%CC, 1/4#Celoflake/sx
	-			

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
2	4448-4478' (Miss)	AC: 750gals 7.5% MIRA, 75 ball sealers. FRAC: 55,500gals Profrac LG 2500, 73500# 16/30 white, 7500# re	4478

TUBING RECORD: Size: 2.375 Set At: 4438 Packer At: 0

Liner Run: ☐ Yes ☑ No

Date of First, Resumed Production, SWD or ENHR. 1/30/2014

Producing Method: ☐ Flowing ☑ Pumping ☐ Gas Lift ☐ Other *(Explain)* _____

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
	0	46	0		

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:
4448-4478' (Miss)

Mail to: KCC - Conservation Division, 130 S. Market - Room 2078, Wichita, Kansas 67202

Form	ACO1 - Well Completion
Operator	McCoy Petroleum Corporation
Well Name	MILLER 'T' GU #2-10
Doc ID	1177317

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	23	259	Pozmix 60/40	275	2%Gel, 3%CC, 1/4# Celoflake/ sx
Production	7.875	4.5	10.5	4542	Premium Class H	150	10%Salt, Gilsonite, .75%Gas Block

SAMPLE TOPS
McCoy Petroleum Corp.
MILLER "T" GU #2-10
C S2 NW
1980'FNL & 1320'FWL
Sec 10-31s-9w
KB: 1694’

	Depth	Datum
Topeka	3109	-1415
Heebner	3510	-1816
Lansing	3714	-2020
Stark	4137	-2443
Hushpuckney	4167	-2473
Pawnee	4326	-2632
Cherokee	4366	-2672
Miss.	4450	-2756
RTD	4550	-2856

LOG TOPS
McCoy Petroleum Corp.
MILLER "T" GU #2-10
C S2 NW
1980'FNL & 1320'FWL
Sec 10-31s-9w
KB: 1694’

	Depth	Datum
Heebner	3498	-1804
Lansing	3714	-2020
Stark	4138	-2444
Hushpuckney	4168	-2474
Pawnee	4324	-2630
Cherokee	4368	-2674
Miss.	4435	-2741
LTD	4548	-2854

QUALITY WELL SERVICE, INC.

6073

Federal Tax I.D. # 481187368

Home Office 324 Simpson St., Pratt, KS 67124

Office 620-727-3410
Fax 620-672-3663

Rich's Cell 620-727-3409
Brady's Cell 620-727-6964

Date	Sec.	Twp.	Range	County	State	On Location	Finish
12-1-13	10	31	9	Harper	KS	1:00 AM	3:30 PM

Lease Miller G-U | Well No. 2-10 | Location

Contractor Sterling | Owner

Type Job Surface | To Quality Well Service, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.

Hole Size 12 1/4 | T.D. 264

Csg. 8 5/8 | Depth | Charge To McCoy Pet.

Tbg. Size | Depth | Street

Tool | Depth | City | State

Cement Left in Csg. 20' | Shoe Joint | The above was done to satisfaction and supervision of owner agent or contractor.

Meas Line | Displace 15.3 | Cement Amount Ordered 275sx 60/40 2% Gel 3% cc 1/4 C.F

EQUIPMENT

Pumptrk 8	No.	David	
Bulktrk 9	No.	Chad	
Bulktrk	No.		
Pickup	No.		

JOB SERVICES & REMARKS

Rat Hole

Mouse Hole

Centralizers

Baskets

D/V or Port Collar

Ran 6 jts 8 5/8 csg

Established circulation with Mud Pump

Mixed and Pumped 275sx 60/40 2% Gel 3% cc 1/4 C.F. Shut down released Plug. Displaced with 15.3 bbls H2O. Shut in 300 psi.

Cement did circulate to Surface

Common	165
Poz. Mix	110
Gel.	5
Calcium	10
Hulls	
Salt	
Flowseal	68.75
Kol-Seal	
Mud CLR 48	
CFL-117 or CD110 CAF 38	
Sand	
Handling	290
Mileage	45

FLOAT EQUIPMENT

Guide Shoe	
Centralizer	
Baskets	8 5/8 set @ 206
AFU Inserts	
Float Shoe	
Latch Down	

Pumptrk Charge	Surface
Mileage	45
Tax	
Discount	
Total Charge	

X Signature

Taylor Printing, Inc.

QUALITY WELL SERVICE, INC.

6074

Federal Tax I.D. # 481187368

Home Office 324 Simpson St., Pratt, KS 67124

Office 620-727-3410
Fax 620-672-3663

Rich's Cell 620-727-3409
Brady's Cell 620-727-6964

Date	Sec.	Twp.	Range	County	State	On Location	Finish
12-1-15	10	31	9	Harper	KS	11:00 AM 7:30 PM	12:30 9:30 PM

Lease Miller G-U | Well No. 2-10 | Location

Contractor Sterling

Type Job 1" Surface.

Hole Size 12¼ | T.D.

Csg. 8 5/8 | Depth

Tbg. Size | Depth

Tool | Depth

Cement Left in Csg. | Shoe Joint

Meas Line | Displace

Owner

To Quality Well Service, Inc.
You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.

Charge To McCoy

Street

City | State

The above was done to satisfaction and supervision of owner agent or contractor.

Cement Amount Ordered 250 sx Common

Used 95sx Common. - 80sx Common 3%cc ¼#

EQUIPMENT

Pumptrk 8	No.	Shay
Bulktrk 9	No.	David
Bulktrk	No.	
Pickup	No.	

JOB SERVICES & REMARKS

Rat Hole

Mouse Hole

Centralizers

Baskets

D/V or Port Collar

12-1-15 11:00 AM to 12:30

Ran 1" tubing to 23' mixed and Pumped 95sx common cement cellar stayed full.

12-1-15 7:30 PM to 9:30 PM

Ran 1" tubing to 30' mixed and Pumped 80sx common 3%cc ¼ C.F. cellar stayed full

X Signature Wyatt Bratt

Common	175
Poz. Mix	
Gel.	
Calcium	6
Hulls	
Salt	
Flowseal	20 DO
Kol-Seal	
Mud CLR 48	
CFL-117 or CD110 CAF 38	
Sand	
Handling	181
Mileage	45 x 2
FLOAT EQUIPMENT	
Guide Shoe	DO
Centralizer	
Baskets	
AFU Inserts	
Float Shoe	
Latch Down	
LMV	45 x 2
Pumptrk Charge	1" Surface.
Mileage	45 x 2
Tax	
Discount	
Total Charge	

QUALITY WELL SERVICE, INC.

6056

Federal Tax I.D. # 481187368

Home Office 324 Simpson St., Pratt, KS 67124

Office 620-727-3410 Todd's 620.398-5422 **Rich's Cell 620-727-3409**
Fax 620-672-3663 **Brady's Cell 620-727-6964**

Date	Sec.	Twp.	Range	County	State	On Location	Finish
12-7-13	10	31	9	Harper	Ks	6:30 P.M	3:00 A.M

Lease Miller GUT Well No. 2-10 Location 2E, 10 Rks S to Ridge Rd W to 140th

Contractor Sterling Drlg Rig 4 Owner 1/4 S Into

Type Job 4½ L.S

To Quality Well Service, Inc.
You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.

Hole Size	7 7/8	T.D.	4550
Csg.	4½	Depth	4549.99
Tbg. Size		Depth	
Tool		Depth	
Cement Left in Csg.		Shoe Joint	33.60
Meas Line		Displace	71.31 Bbls

Charge To McCoy Pet. Corp.

Street

City State

The above was done to satisfaction and supervision of owner agent or contractor.

Cement Amount Ordered 150 sx Pro C 10% Salt 5# /sx Gilsonite .75% Gas-Blok 505 60/40 4% Gel

EQUIPMENT

Pumptrk	No.	9	Mike
Bulktrk	No.	9	Sean
Bulktrk	No.		
Pickup	No.		Todd

JOB SERVICES & REMARKS

Rat Hole 30 sx

Mouse Hole 20 sx

Centralizers 1-3-5

Baskets

D/V or Port Collar

Run 118 Jts 4½ 10.5# csg

Set @ 4544 6' off Bottom

1 Jt = 33.88' Float Shoe: 2 Baffle

csg on Bottom Drop Ball 1.5"

Break Circ W/ Rig & Rotate 1 hr

Pump 3 Bbl H2O 13 Bbl MF 3 Bbl H2O

Plug R-M Holes 50 sx

Mix & pump 150 sx Pro C @ 15#/gal

Shut down Wash up tk Release Plug

Disp Disp 71.8 Bbls fluid

Lift psi 600#

Plug down @ 2:15 1500#

Release & Held

Good Circ thru Job

Thank Todd Mike Sean

Plug Rat Hole with 30 sx

X Signature

Common	30	
Poz. Mix	20	
Gel.	1	
Calcium	Pro C 150	
Hulls		
Salt	16	
Flowseal		
Kol-Seal	750#	
Mud CLR 48	~~750~~ 500 gal	
CFL-117 or CD110 CAF 38		
Sand	Gas-Blok 105.75 #	
Handling	217	
Mileage	45	
4½	**FLOAT EQUIPMENT**	
Guide Shoe		
Centralizer	4 EA	
Baskets		
AFU Inserts		
Float Shoe	1 EA	
Latch Down	1 EA	
LMV	45	
Pumptrk Charge	L.S.	
Mileage	45	
	Tax	
	Discount	
	Total Charge	

Taylor Printing, Inc.

Natural Gas • Crude Oil
Exploration & Production

McCOY PETROLEUM CORPORATION

Wichita, Kansas

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

Well Name:	Miller 'T' GU #2-10		
Location:	Sec. 10 - T31S - R9W, Harper County, KS		
License Number:	API #: 15-077-21991	Region:	Spivey-Grabs-Basil
Spud Date:	November 30, 2013	Drilling Completed:	December 6, 2013
Surface Coordinates:	S/2 NW 1980' FNL & 1320' FWL		
Bottom Hole Coordinates:			
Ground Elevation (ft):	1685'	K.B. Elevation (ft):	1694'
Logged Interval (ft):	3400' To: 4550'	Total Depth (ft):	4550' RTD 4548' LTD
Formation:	Mississippian		
Type of Drilling Fluid:	Chemical/Polymer/Gel		

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

OPERATOR

Company: McCoy Petroleum Corporation, KCC License #5003
Address: 8080 E. Central Ave., Suite 300
Wichita, KS 67206

GEOLOGIST

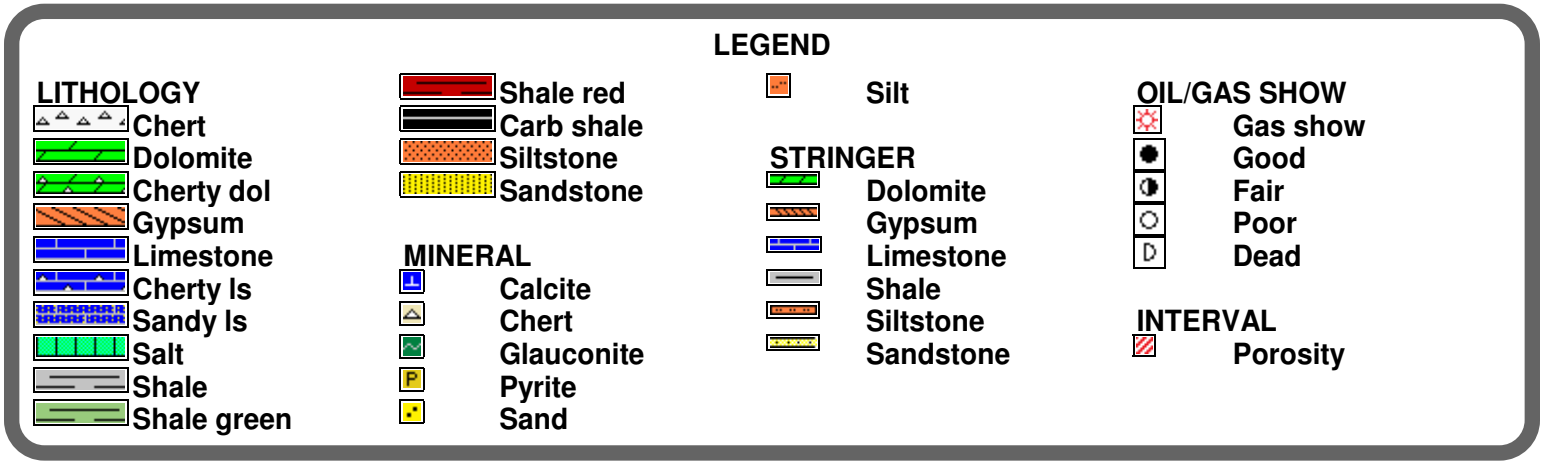
Name: Evan Stone
Company: McCoy Petroleum Corporation
Address: 8080 E. Central Ave., Suite 300
Wichita, KS 67206

CASING & DEVIATION

Spud at 3:45 pm on 11/30/13.

Drilled 12-1/4" hole to 264'. Ran 6 joints of new 23# 8-5/8" surface casing, tallied 248.40', set at 259.40' KB. Welded straps on bottom 3 joints. Cemented with 275 sks 60/40 POZ; 2% Gel; 3% CC; 1/4# CF. Plug down at 3:30 am on 12/01/13. Cement did circulate. Quality Cementing ticket #6073. Basket at 220' KB which is 209' from GL, which is below the minimum casing requirement of 200'. Cemented through 1" tubing with 95 sks Common. Cement to cellar. Quality Cementing. Cement has again fallen down to 20' below GL. Cement with 100 sks Common. Quality Cementing ticket #6074 for both jobs.

Deviation Surveys Taken: @ 246' = 1 degree; @4550' = 2.5 degrees



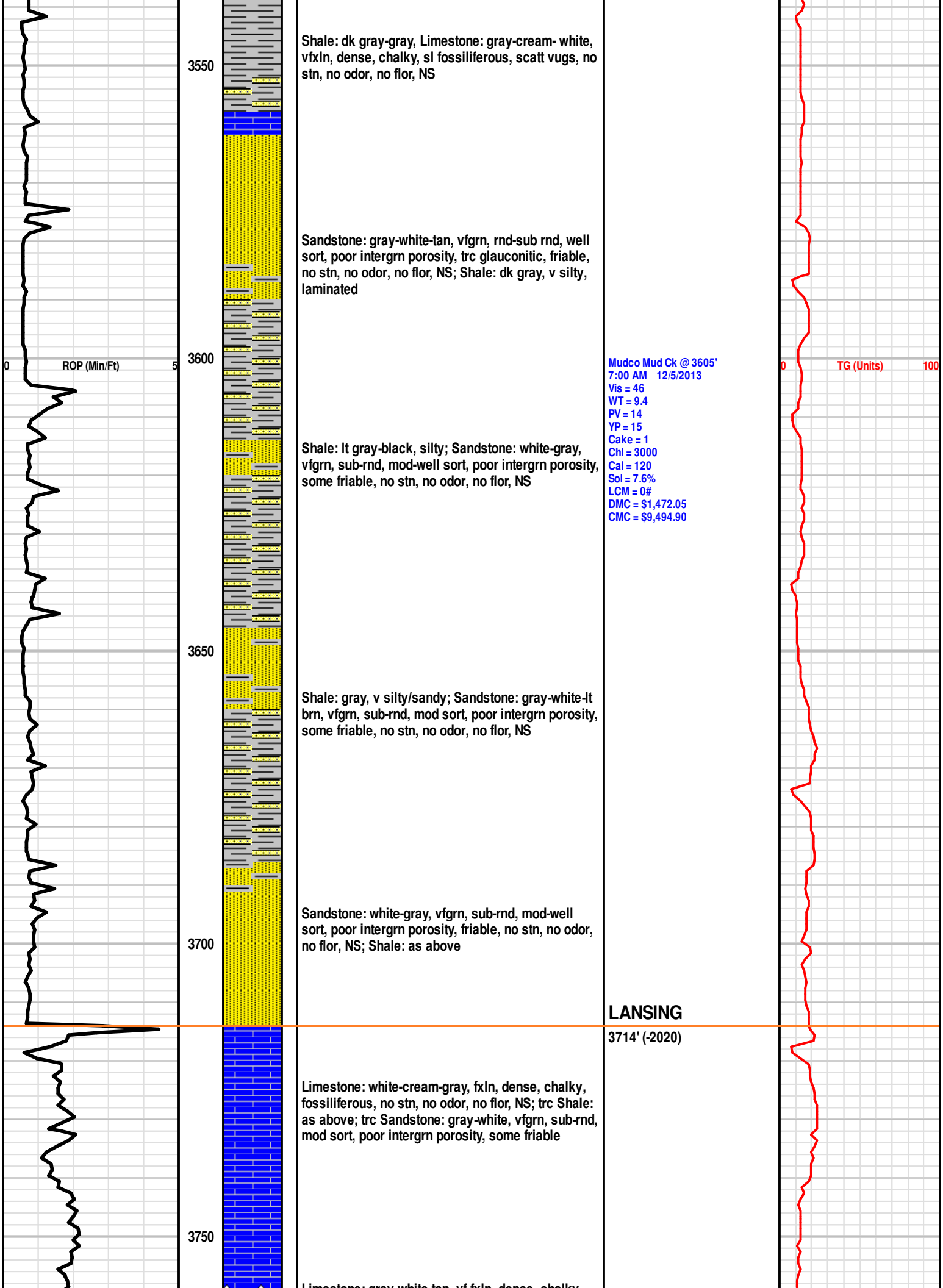
Miller 'T' GU #2-10

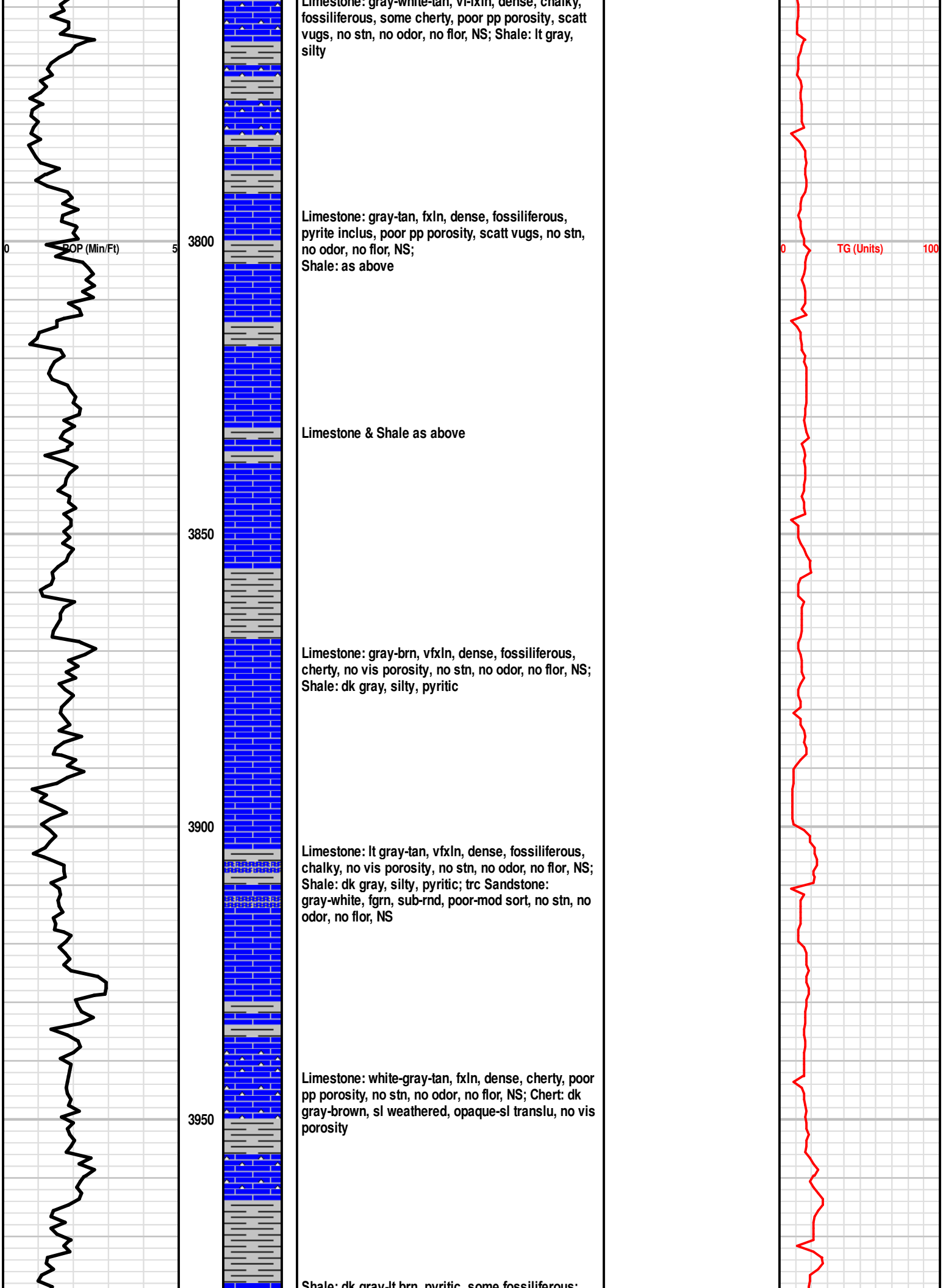
ROP (Min/Ft)

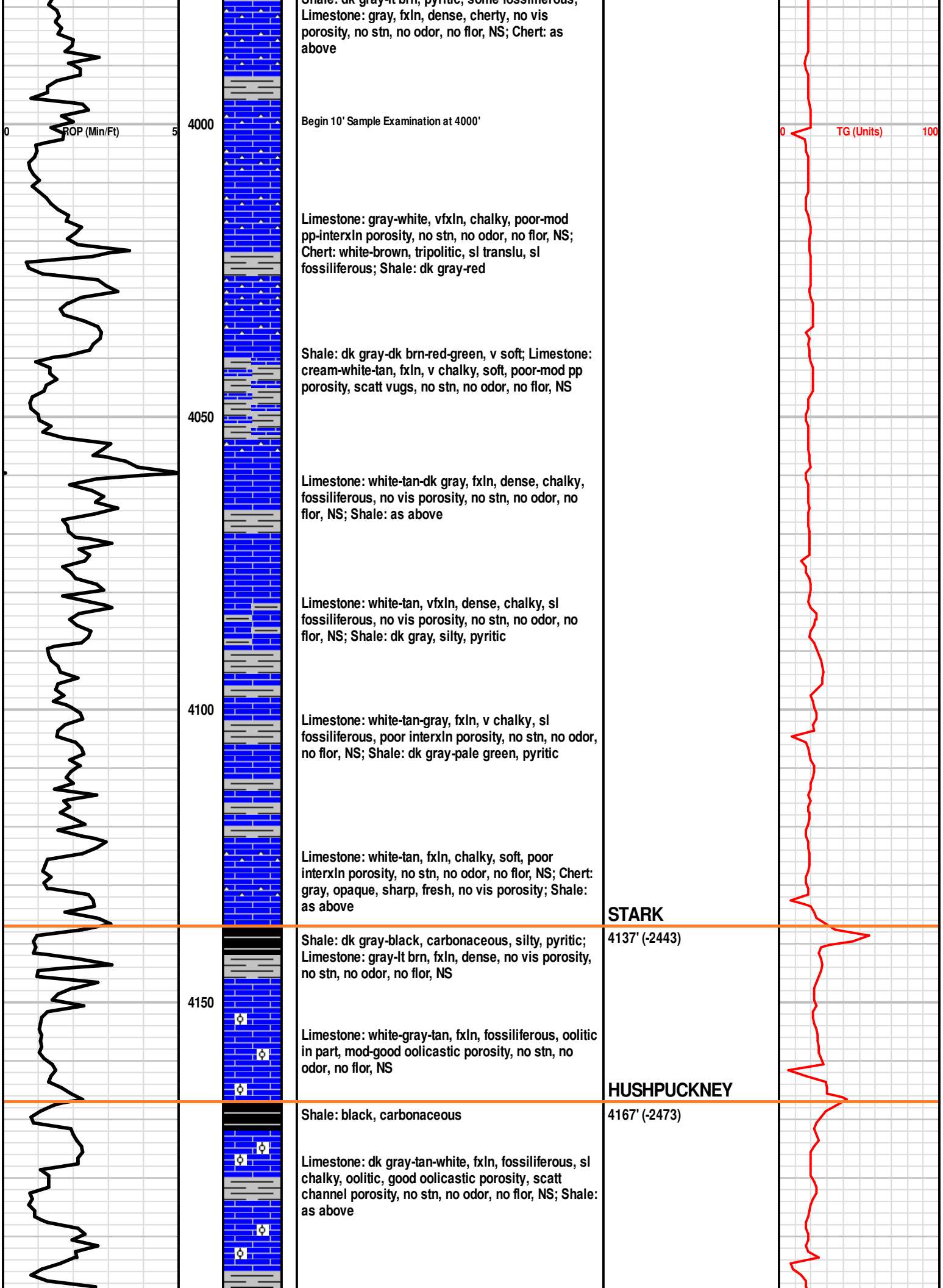
TOTAL GAS

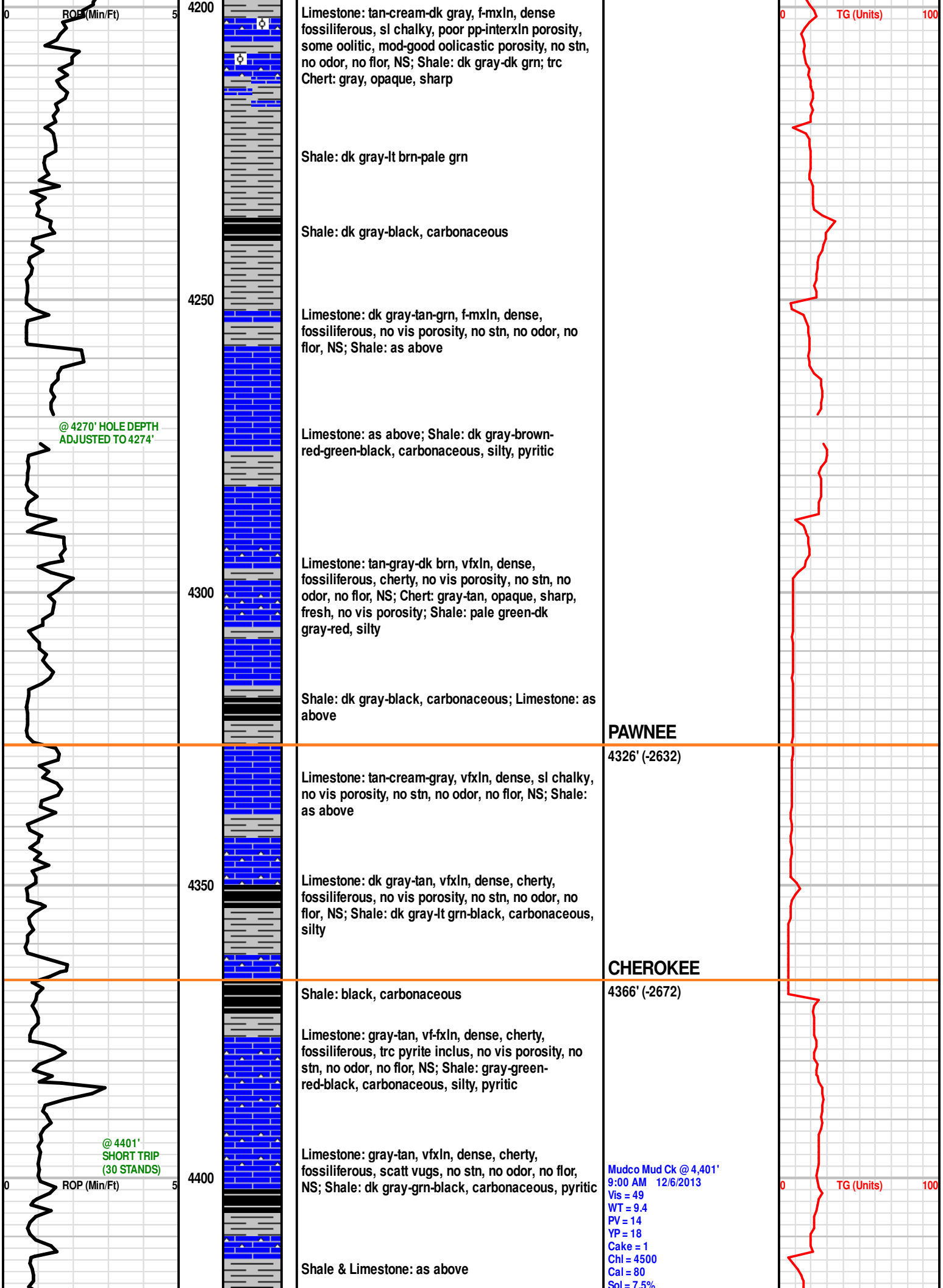
TG (Units)

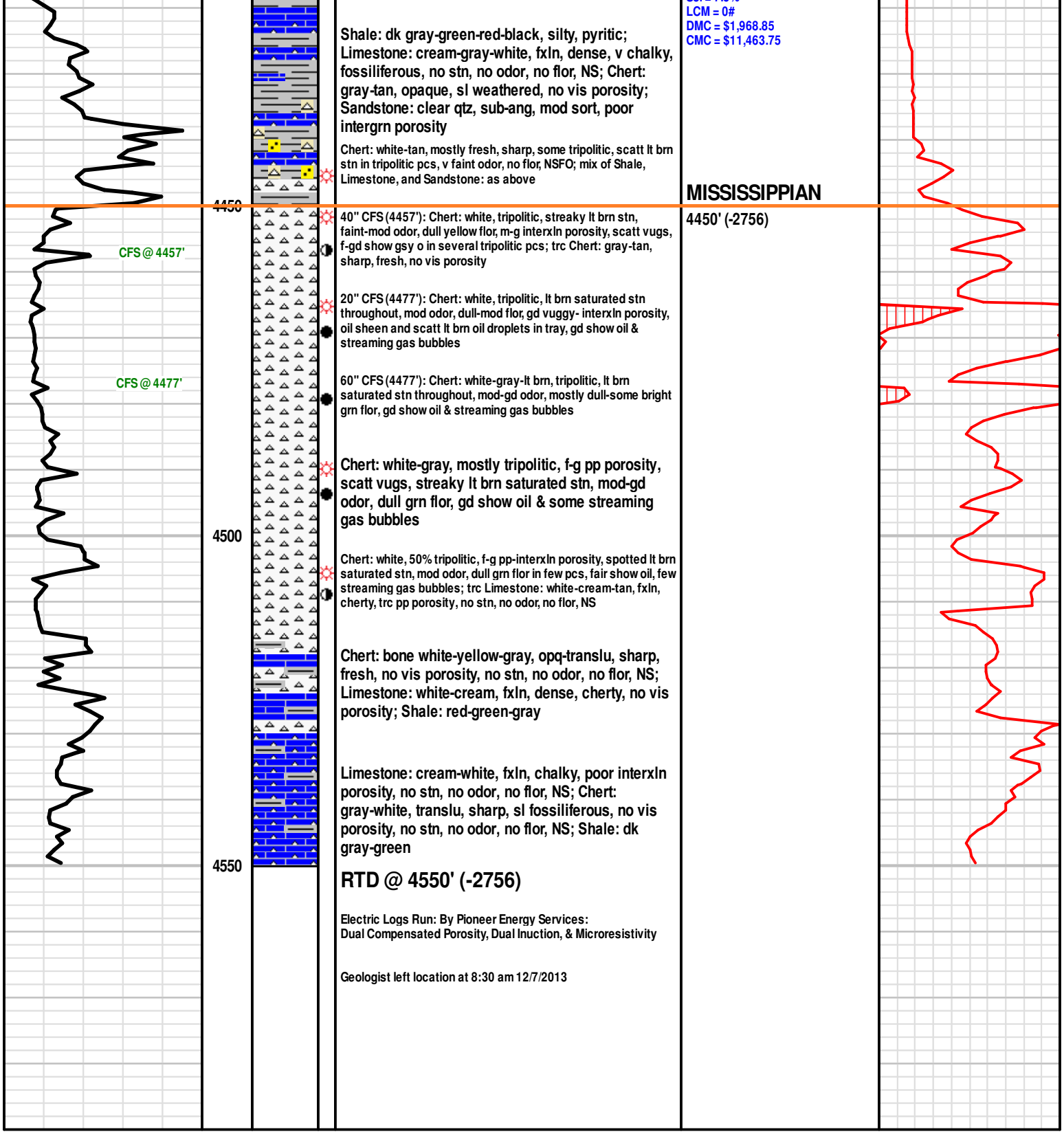
DEPTH	LITHOLOGY	OIL/GAS SHOWS	SAMPLE DESCRIPTIONS	REMARKS
3400			McCoy Petroleum Corporation Miller 'T' GU #2-10 S/2 NW 1980' FNL & 1320' FWL Sec. 10 - T31S - R9W Spivey-Grabs-Basil Field Harper County, KS API: 15-077-21991 Sterling Drilling: Rig #4 Elevations: 1694' KB 1685' GL Geologist on location: 4060' at 10:00 pm on 12/5/2013 Begin 31' Sample Examination at 3000'	
3450				
3500			Shale: lt gray-dk gray-black, carbonaceous, sandy, pyritic, some fossiliferous; Limestone: white-cream-brn, fxln, fossiliferous, no vis porosity, sl chalky	HEEBNER 3510' (-1816)
			Shale: dk gray-black, silty, carbonaceous; Limestone: white-cream, no vis porosity, soft, v chalky, no stn, no odor, no flor, NS	


0
ROP (Min/Ft)
5
3550
3600
3650
3700
3750
Shale: dk gray-gray, Limestone: gray-cream- white, vfxln, dense, chalky, sl fossiliferous, scatt vugs, no stn, no odor, no flor, NS
Sandstone: gray-white-tan, vfgrn, rnd-sub rnd, well sort, poor intergrn porosity, trc glauconitic, friable, no stn, no odor, no flor, NS; Shale: dk gray, v silty, laminated
Shale: lt gray-black, silty; Sandstone: white-gray, vfgrn, sub-rnd, mod-well sort, poor intergrn porosity, some friable, no stn, no odor, no flor, NS
Shale: gray, v silty/sandy; Sandstone: gray-white-lt brn, vfgrn, sub-rnd, mod sort, poor intergrn porosity, some friable, no stn, no odor, no flor, NS
Sandstone: white-gray, vfgrn, sub-rnd, mod-well sort, poor intergrn porosity, friable, no stn, no odor, no flor, NS; Shale: as above
Limestone: white-cream-gray, fxln, dense, chalky, fossiliferous, no stn, no odor, no flor, NS; trc Shale: as above; trc Sandstone: gray-white, vfgrn, sub-rnd, mod sort, poor intergrn porosity, some friable
Mudco Mud Ck @ 3605'
7:00 AM 12/5/2013
Vis = 46
WT = 9.4
PV = 14
YP = 15
Cake = 1
Chl = 3000
Cal = 120
Sol = 7.6%
LCM = 0#
DMC = $1,472.05
CMC = $9,494.90
LANSING
3714' (-2020)
0
TG (Units)
100


0
ROP (Min/Ft)
5
3800
3850
3900
3950
0
TG (Units)
100
Limestone: gray-white-tan, vf-fxln, dense, chalky, fossiliferous, some cherty, poor pp porosity, scatt vugs, no stn, no odor, no flor, NS; Shale: lt gray, silty
Limestone: gray-tan, fxln, dense, fossiliferous, pyrite inclus, poor pp porosity, scatt vugs, no stn, no odor, no flor, NS;
Shale: as above
Limestone & Shale as above
Limestone: gray-brn, vfxln, dense, fossiliferous, cherty, no vis porosity, no stn, no odor, no flor, NS;
Shale: dk gray, silty, pyritic
Limestone: lt gray-tan, vfxln, dense, fossiliferous, chalky, no vis porosity, no stn, no odor, no flor, NS;
Shale: dk gray, silty, pyritic; trc Sandstone: gray-white, fgrn, sub-rnd, poor-mod sort, no stn, no odor, no flor, NS
Limestone: white-gray-tan, fxln, dense, cherty, poor pp porosity, no stn, no odor, no flor, NS; Chert: dk gray-brown, sl weathered, opaque-sl translu, no vis porosity
Shale: dk gray-lt brn, pyritic, some fossiliferous;


0
ROP (Min/Ft)
5
4000
4050
4100
4150
Limestone: gray, fxln, dense, cherty, no vis porosity, no stn, no odor, no flor, NS; Chert: as above
Begin 10' Sample Examination at 4000'
Limestone: gray-white, vfxln, chalky, poor-mod pp-interxln porosity, no stn, no odor, no flor, NS; Chert: white-brown, tripolitic, sl translu, sl fossiliferous; Shale: dk gray-red
Shale: dk gray-dk brn-red-green, v soft; Limestone: cream-white-tan, fxln, v chalky, soft, poor-mod pp porosity, scatt vugs, no stn, no odor, no flor, NS
Limestone: white-tan-dk gray, fxln, dense, chalky, fossiliferous, no vis porosity, no stn, no odor, no flor, NS; Shale: as above
Limestone: white-tan, vfxln, dense, chalky, sl fossiliferous, no vis porosity, no stn, no odor, no flor, NS; Shale: dk gray, silty, pyritic
Limestone: white-tan-gray, fxln, v chalky, sl fossiliferous, poor interxln porosity, no stn, no odor, no flor, NS; Shale: dk gray-pale green, pyritic
Limestone: white-tan, fxln, chalky, soft, poor interxln porosity, no stn, no odor, no flor, NS; Chert: gray, opaque, sharp, fresh, no vis porosity; Shale: as above
STARK
4137' (-2443)
Shale: dk gray-black, carbonaceous, silty, pyritic; Limestone: gray-lt brn, fxln, dense, no vis porosity, no stn, no odor, no flor, NS
Limestone: white-gray-tan, fxln, fossiliferous, oolitic in part, mod-good oolicastic porosity, no stn, no odor, no flor, NS
HUSHPUCKNEY
4167' (-2473)
Shale: black, carbonaceous
Limestone: dk gray-tan-white, fxln, fossiliferous, sl chalky, oolitic, good oolicastic porosity, scatt channel porosity, no stn, no odor, no flor, NS; Shale: as above
0
TG (Units)
100


0
ROP (Min/Ft)
5
4200
4250
4300
4350
4400
@ 4270' HOLE DEPTH
ADJUSTED TO 4274'
@ 4401'
SHORT TRIP
(30 STANDS)
0
ROP (Min/Ft)
5
Limestone: tan-cream-dk gray, f-mxln, dense fossiliferous, sl chalky, poor pp-interxln porosity, some oolitic, mod-good oolicastic porosity, no stn, no odor, no flor, NS; Shale: dk gray-dk grn; trc Chert: gray, opaque, sharp
Shale: dk gray-lt brn-pale grn
Shale: dk gray-black, carbonaceous
Limestone: dk gray-tan-grn, f-mxln, dense, fossiliferous, no vis porosity, no stn, no odor, no flor, NS; Shale: as above
Limestone: as above; Shale: dk gray-brown-red-green-black, carbonaceous, silty, pyritic
Limestone: tan-gray-dk brn, vfxln, dense, fossiliferous, cherty, no vis porosity, no stn, no odor, no flor, NS; Chert: gray-tan, opaque, sharp, fresh, no vis porosity; Shale: pale green-dk gray-red, silty
Shale: dk gray-black, carbonaceous; Limestone: as above
PAWNEE
4326' (-2632)
Limestone: tan-cream-gray, vfxln, dense, sl chalky, no vis porosity, no stn, no odor, no flor, NS; Shale: as above
Limestone: dk gray-tan, vfxln, dense, cherty, fossiliferous, no vis porosity, no stn, no odor, no flor, NS; Shale: dk gray-lt grn-black, carbonaceous, silty
CHEROKEE
4366' (-2672)
Shale: black, carbonaceous
Limestone: gray-tan, vf-fxln, dense, cherty, fossiliferous, trc pyrite inclus, no vis porosity, no stn, no odor, no flor, NS; Shale: gray-green-red-black, carbonaceous, silty, pyritic
Limestone: gray-tan, vfxln, dense, cherty, fossiliferous, scatt vugs, no stn, no odor, no flor, NS; Shale: dk gray-grn-black, carbonaceous, pyritic
Shale & Limestone: as above
Mudco Mud Ck @ 4,401'
9:00 AM 12/6/2013
Vis = 49
WT = 9.4
PV = 14
YP = 18
Cake = 1
Chl = 4500
Cal = 80
Sol = 7.5%
0
TG (Units)
100
0
TG (Units)
100


LCM = 0#
DMC = $1,968.85
CMC = $11,463.75
Shale: dk gray-green-red-black, silty, pyritic; Limestone: cream-gray-white, fxln, dense, v chalky, fossiliferous, no stn, no odor, no flor, NS; Chert: gray-tan, opaque, sl weathered, no vis porosity; Sandstone: clear qtz, sub-ang, mod sort, poor intergrn porosity
Chert: white-tan, mostly fresh, sharp, some tripolitic, scatt lt brn stn in tripolitic pcs, v faint odor, no flor, NSFO; mix of Shale, Limestone, and Sandstone: as above
MISSISSIPPIAN
4450' (-2756)
4450
CFS @ 4457'
40" CFS (4457'): Chert: white, tripolitic, streaky lt brn stn, faint-mod odor, dull yellow flor, m-g interxln porosity, scatt vugs, f-gd show gsy o in several tripolitic pcs; trc Chert: gray-tan, sharp, fresh, no vis porosity
20" CFS (4477'): Chert: white, tripolitic, lt brn saturated stn throughout, mod odor, dull-mod flor, gd vuggy- interxln porosity, oil sheen and scatt lt brn oil droplets in tray, gd show oil & streaming gas bubbles
CFS @ 4477'
60" CFS (4477'): Chert: white-gray-lt brn, tripolitic, lt brn saturated stn throughout, mod-gd odor, mostly dull-some bright grn flor, gd show oil & streaming gas bubbles
Chert: white-gray, mostly tripolitic, f-g pp porosity, scatt vugs, streaky lt brn saturated stn, mod-gd odor, dull grn flor, gd show oil & some streaming gas bubbles
4500
Chert: white, 50% tripolitic, f-g pp-interxln porosity, spotted lt brn saturated stn, mod odor, dull grn flor in few pcs, fair show oil, few streaming gas bubbles; trc Limestone: white-cream-tan, fxln, cherty, trc pp porosity, no stn, no odor, no flor, NS
Chert: bone white-yellow-gray, opq-translu, sharp, fresh, no vis porosity, no stn, no odor, no flor, NS; Limestone: white-cream, fxln, dense, cherty, no vis porosity; Shale: red-green-gray
Limestone: cream-white, fxln, chalky, poor interxln porosity, no stn, no odor, no flor, NS; Chert: gray-white, translu, sharp, sl fossiliferous, no vis porosity, no stn, no odor, no flor, NS; Shale: dk gray-green
4550
RTD @ 4550' (-2756)
Electric Logs Run: By Pioneer Energy Services:
Dual Compensated Porosity, Dual Inuction, & Microresistivity
Geologist left location at 8:30 am 12/7/2013