

Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION  
OIL & GAS CONSERVATION DIVISION

Form ACO-1

January 2018

Form must be Typed

Form must be Signed

All blanks must be Filled

WELL COMPLETION FORM  
WELL HISTORY - DESCRIPTION OF WELL & LEASE

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

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

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

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

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

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

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

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

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

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

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

Designate Type of Completion:

New Well  Re-Entry  Workover

Oil  WSW  SWD

Gas  DH  EOR

OG  GSW

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 EOR  Conv. to SWD

Plug Back  Liner  Conv. to GSW  Conv. to Producer

Commingled Permit #: \_\_\_\_\_

Dual Completion Permit #: \_\_\_\_\_

SWD Permit #: \_\_\_\_\_

EOR Permit #: \_\_\_\_\_

GSW Permit #: \_\_\_\_\_

Spud Date or Date Reached TD Completion Date or Recompletion Date

API No.: \_\_\_\_\_

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

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

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

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

Footages Calculated from Nearest Outside Section Corner:

NE  NW  SE  SW

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

Datum:  NAD27  NAD83  WGS84

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

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

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

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

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

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

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

Multiple Stage Cementing Collar Used?  Yes  No

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

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

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

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

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

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

Location of fluid disposal if hauled offsite:

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

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

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

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

AFFIDAVIT

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

Submitted Electronically

KCC Office Use ONLY

Confidentiality Requested

Date: \_\_\_\_\_

Confidential Release Date: \_\_\_\_\_

Wireline Log Received  Drill Stem Tests Received

Geologist Report / Mud Logs Received

UIC Distribution

ALT  I  II  III Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

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

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

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

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

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i>  Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No  Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No Geologist Report / Mud Logs <input type="checkbox"/> Yes <input type="checkbox"/> No  List All E. Logs Run:	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample  Name Top Datum
--	---

CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

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

1. Did you perform a hydraulic fracturing treatment on this well?  Yes  No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?  Yes  No *(If No, skip question 3)*
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)*

Date of first Production/Injection or Resumed Production/Injection:	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____				
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5) (Submit ACO-4)</i>	PRODUCTION INTERVAL: Top Bottom
---	--	------------------------------------

Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i>

TUBING RECORD:	Size:	Set At:	Packer At:	
----------------	-------	---------	------------	--

Form	ACO1 - Well Completion
Operator	Lawco Holdings, LLC
Well Name	RADCLIFF 5-4
Doc ID	1469114

All Electric Logs Run

Sonic
Compensated Density
Composite
Dual Induction

Form	ACO1 - Well Completion
Operator	Lawco Holdings, LLC
Well Name	RADCLIFF 5-4
Doc ID	1469114

Tops

Name	Top	Datum
Stalnaker	1631	1304
Perry	1798	1304
Hog Shooter	1912	1304
Altamont	2406	1304
Pawnee	2482	1304
Fort Scott	2520	1304
Mississippian Chat	2810	1304
Meramecian	2832	1304
Woodford	3190	1304
Arbuckle	3198	1304



# WALLER WELL LOGGING LLC

## WellSight Systems

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

Measured Depth Log

Well Name: RADCLIFF #5-4

API:

Location: SE/4 SEC 4 - 33S - 7E COWLEY CO., KANSAS

License Number:

Region:

Spud Date: 7/30/19

Drilling Completed:

Surface Coordinates: SW-SW-SW-NW

Bottom Hole

Coordinates:

Ground Elevation (ft): 1304'

K.B. Elevation (ft): 1304'

Logged Interval (ft): 850' To: '

Total Depth (ft):

Formation:

Type of Drilling Fluid: CHEMICAL GEL, FRESH WATER

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

### OPERATOR

Company: LAWCO HOLDINGS LLC

Address: 113 S. MAIN

PO BOX 425

BENTONVILLE, ARKANSAS 72742

### GEOLOGIST


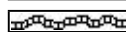
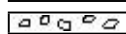

Name: CLAY WALLER/BRENT JUHNKE

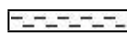



Company: WALLER WELL LOGGING, LLC





Address: 805 W. MAINE

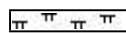
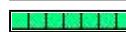
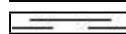
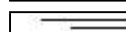
ENID, OKLAHOMA 73701

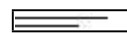



### ROCK TYPES

 Anhy  
 Bent  
 Brec  
 Cht

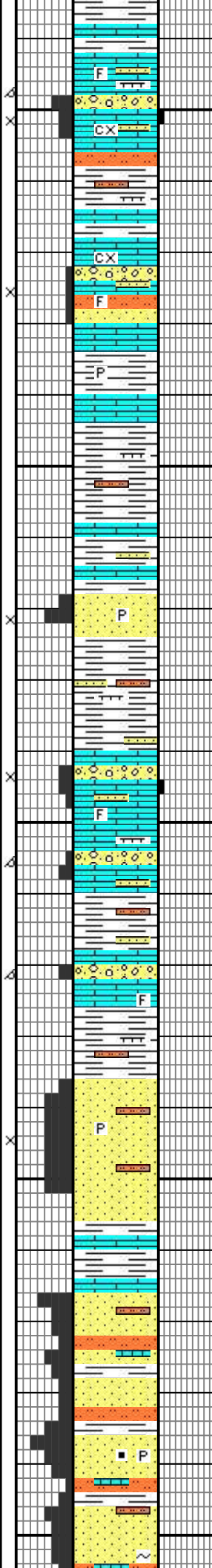
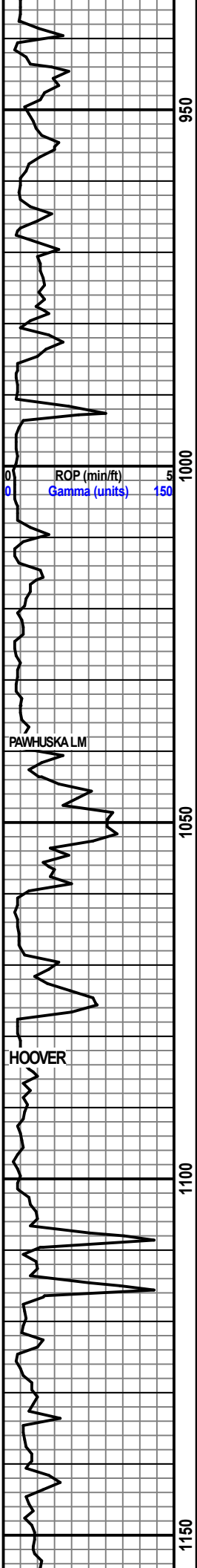
 Clyst  
 Coal  
 Congl  
 Dol

 Gyp  
 Igne  
 Lmst  
 Meta

 Mrst  
 Salt  
 Shale  
 Shcol

 Shgy  
 Sltst  
 Ss  
 Till



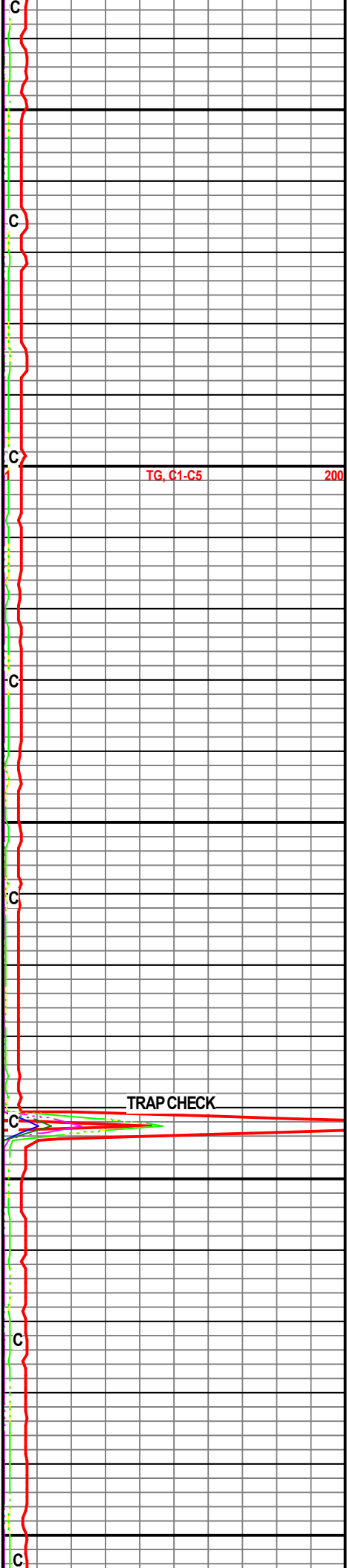


LS: SM AASM GY BRN MOTT, SM FRSTD OFF WHT LT BRN, FEW CRM FEW CRM BRN MOTT, SM VF XLN SM SUC GRAN SNDY TXT CXLN REXLN, FOSS, SM SHLY MRLY, ARGL, SM FREE QRTZ AND SIL, SM F PORO SM P, SCAT SHLY CALC SLT STN LT GRN TNT SFT WAXY TO GUMMY, SM MIN FLOR TR LT BLU FLOR, FNT RING

**PAWHUSKA 1038'(-266')**

SCAT LS: VARS BRNS, FN TO FEW MED CXLN, FRM M SFT, REXLN, QRTZ/SIL LAM, SHLY IP ARGL, MRLY, FOSS TR CAST, TR F PORO, FEW PCS SS PRED VARS GRYS, FN SUB RDD GRN, FRM, SHLY CALC CMT, SH INCL, TR F PORO, MULTI COLORED TXTRD SHALES, SCAT MIN FLOR

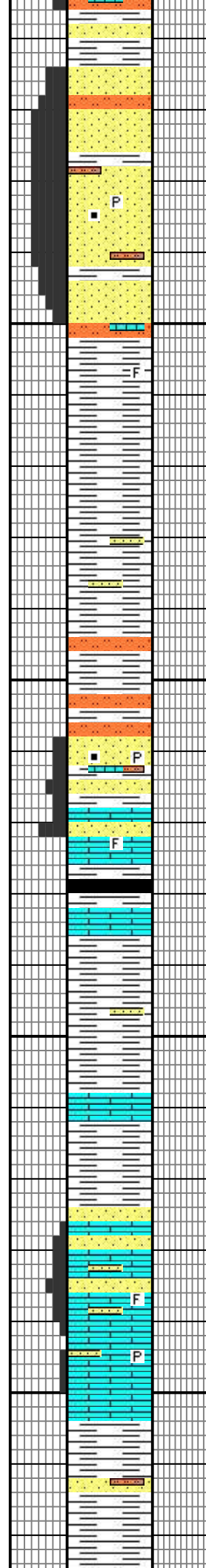
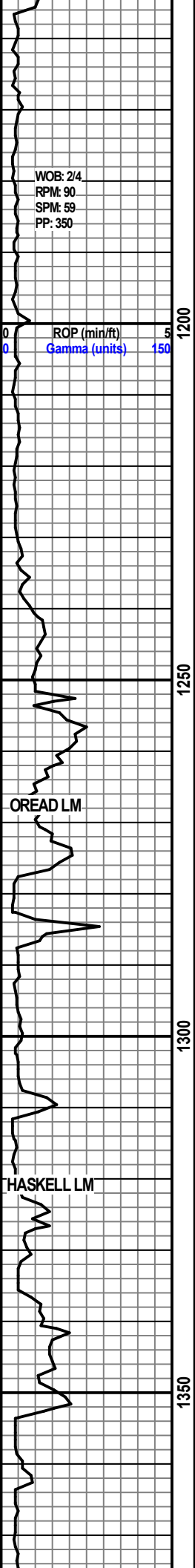
SS: OFF WHT SL TRNSL, SMKY GY WHT, FN SUB RDD GRN CONSOL, FRM FRI, MOD CMTD, CLN, FRLY SRTD, F INTGR PORO, FEW SH INCL, TR PYR



PAWHUSKA LM

HOOVER





SS: FRSTD OFF WHT MOD TRNSL, LT GY BRN OPAQ, PRED MED SUB RDD SUB ANG GRN CONSOL, FRM FRI, MOD CMTD, CLN SIL MTRX, FEW SH/MIN INCL, WELL SRTD, G PORO, NO FLOR

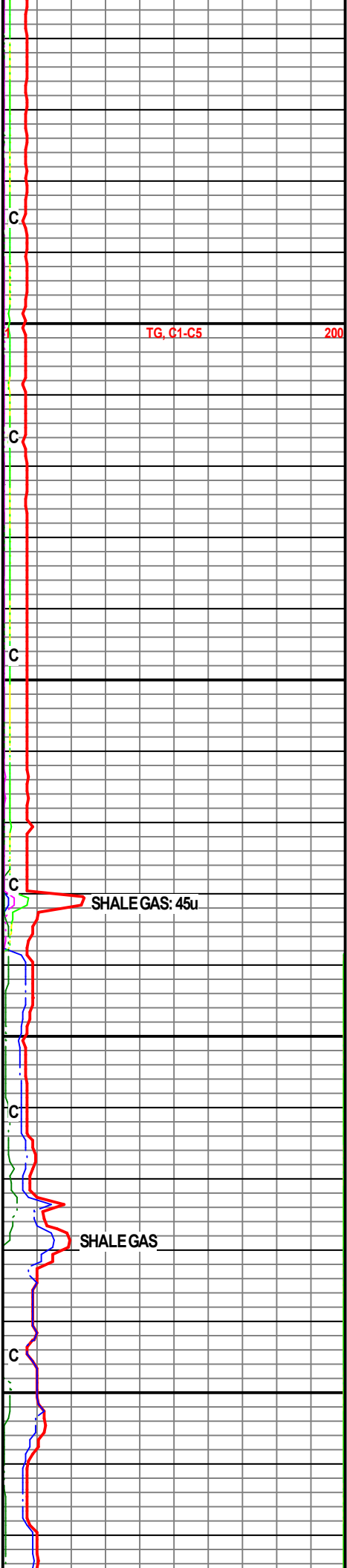
TR SS: LT BRN, FRM FRI, FN TO MED SUB ANG GRN, MOD CMTD, CALC, CARB SPEC, PYR, F INTGR PORO, TR PALE YG SPTTY FLOR, MOD MLKY CUT, MOD RING

**OREAD 1268'(+36')**

LS: VARS BRNS MOTT, PRED FN XLN, FRM M HRD, FEW SUC FRI, SM V HVY VIS FOSS, NO CAST, SHLY ARGLIP, RE REXLN, TR SEC PORO, SM YEL MIN FLOR,

**HASKELL 1320'(+16')**

LS: LT BRN TAN, OFF WHT CRM, SM MOTT, FN TO SM MOD SUC CXLN, FRM FRITO M HRD, FEW SUB CHLKY, SM QRTZTC, SCAT FOSS CAST/FRGS, FEW SHLY, FEW SCAT F P AND S PORO, YEL FLOR MSTLY MIN, TR SPT FLOR, FEW PCS SS: FRSTD LT GY BRN, SN SUB ANG GRN, FRM, CALC LMY TO FRLY CLN, FEW MIN, F INTGR PORO, CPL PCS PALE YEL YEL GRN SPT FLOR, MOD FAST BUT FNT MKLY BLOOM, FNT TO MOD RING



ENDICOTT SND

ROP (min/ft) 5  
Gamma (units) 150

1400

1450

1500

1550

IATAN LM

SS: OFF WHT LT GY TO VLT GRN  
TNT, LT BRN, VF TO FN SUB RDD  
GRN, FRM WELL CMT, CALC  
MTRX, SM SLTY SHLY, F SRTD,  
GLAUC PYR, MOD TT SM F PORO,  
NOFLOR

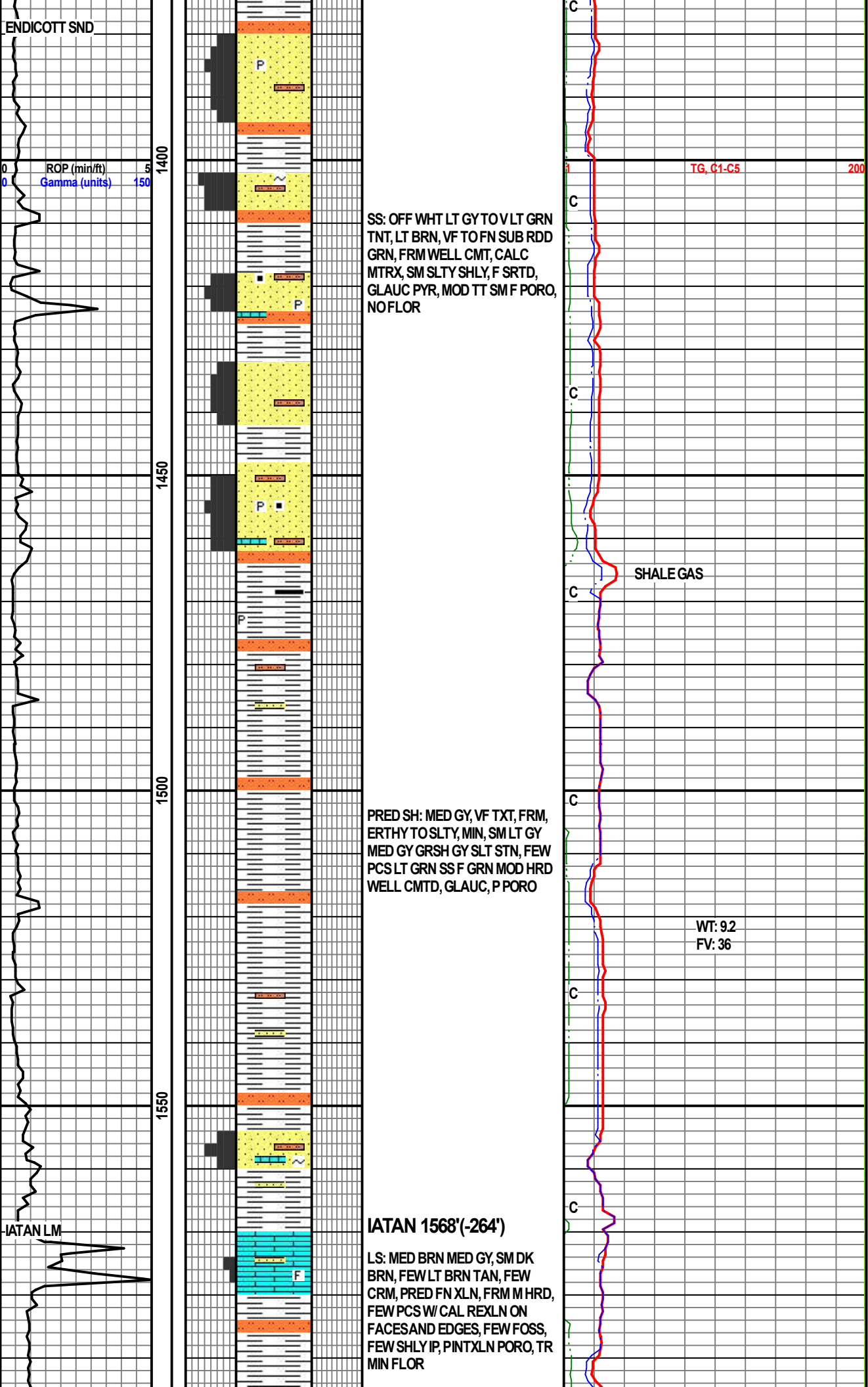
PRED SH: MED GY, VF TXT, FRM,  
ERTHY TO SLTY, MIN, SM LT GY  
MED GY GRSH GY SLT STN, FEW  
PCS LT GRN SS F GRN MOD HRD  
WELL CMTD, GLAUC, P PORO

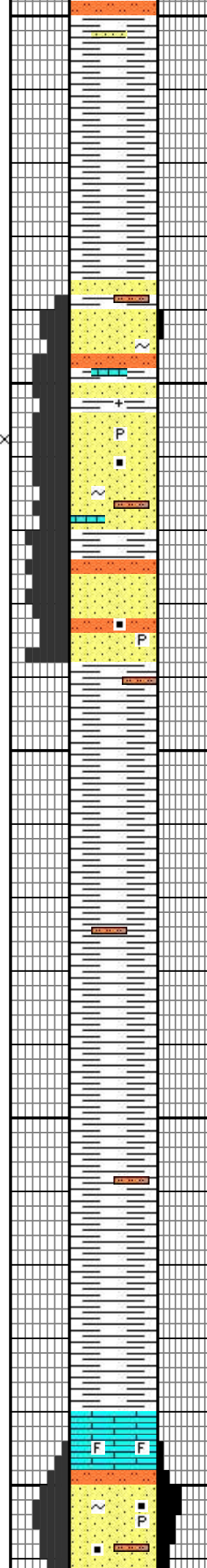
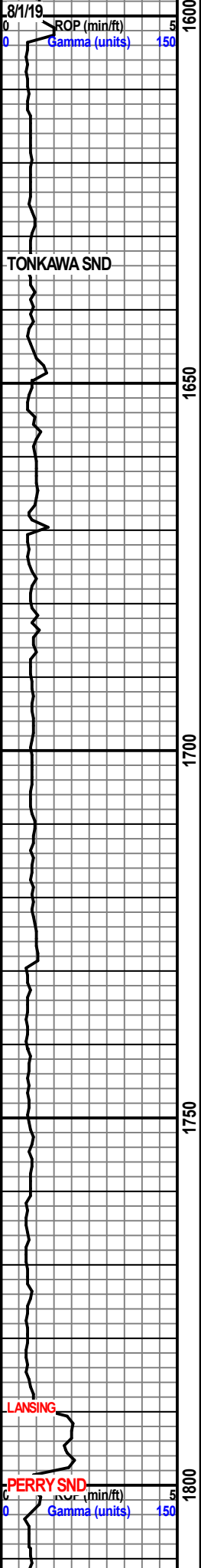
IATAN 1568'(-264')  
LS: MED BRN MED GY, SM DK  
BRN, FEW LT BRN TAN, FEW  
CRM, PRED FN XLN, FRM M HRD,  
FEW PCS W/ CAL REXLN ON  
FACES AND EDGES, FEW FOSS,  
FEW SHLY IP, PINTXLN PORO, TR  
MIN FLOR

TG, C1-C5 200

SHALE GAS

WT: 92  
FV: 36



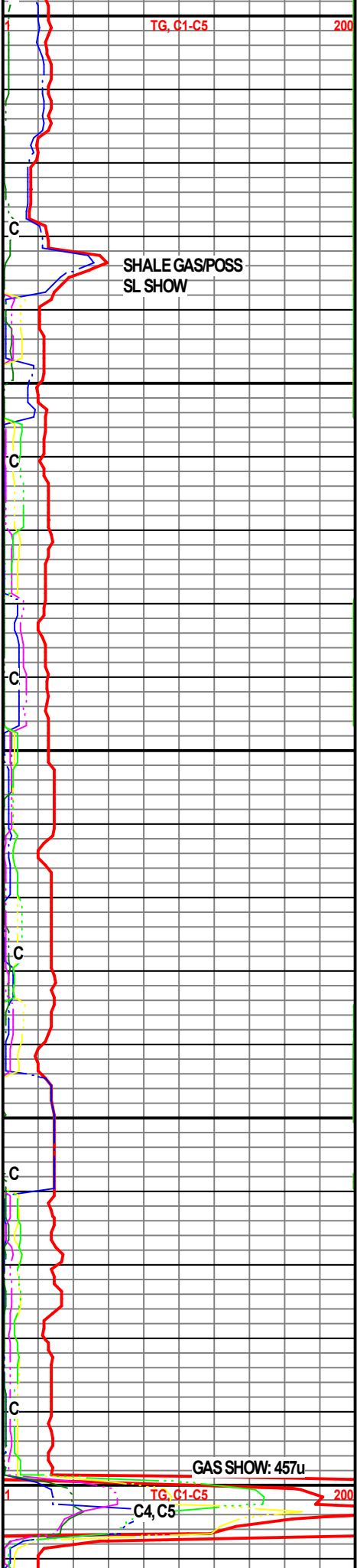


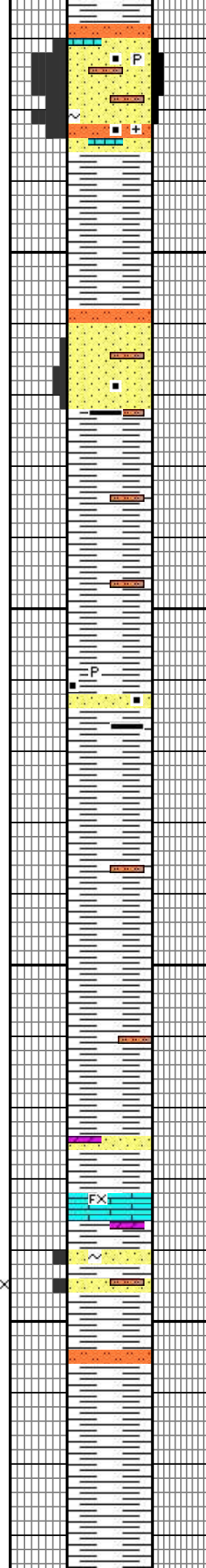
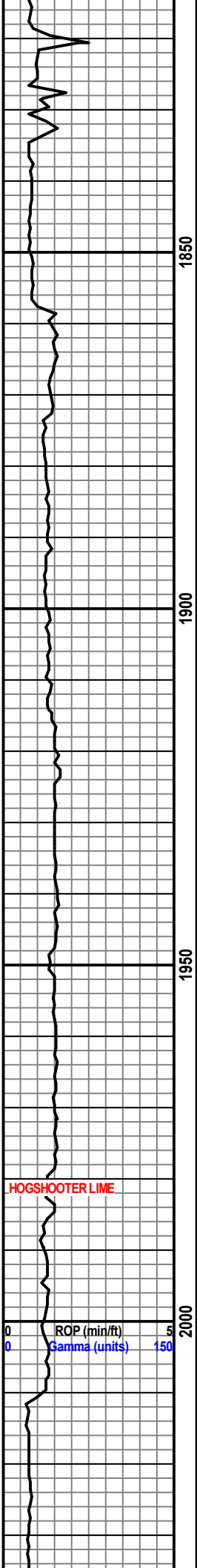
SS: LT BRN OFF WHT SMKY WHT,  
 LT GY OPAQ, PRED FN TR MED  
 SUB RDD GRN, PRED MOD WELL  
 CMTD, CALC ARGL IP, FRM FRI,  
 CLN TO SHLY LMY, SLT LAM, PYR  
 GLAUC, F SRTD, F TO SM G  
 INTGR PORO, TR PALE YEL SPT  
 FLOR, FNT RING

SH: MED GY DK GY, VF TXT, FRM,  
 CALC, FRLY SMTH WAXY DNS,  
 SM SLTY, ERHTY, SCAT SLT STN

**LANSING 1786' (-482')**  
 LS: VAR BRN MOTT, FN TO MED  
 SUC GRAN CLNX, FRM, SNDY,  
 ABNDT FOSS, SS GRNS LAM,  
 FEW F PORO, YEL FLOR, MOD  
 CUT

SS: SMKY OFF WHT LT BRN W/

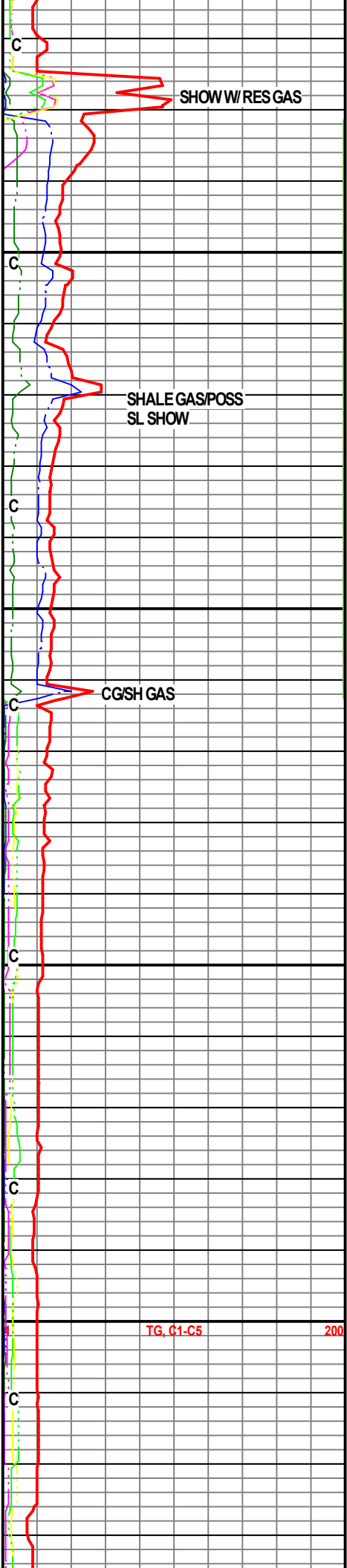




BLK SPECS VV SL TRNSL, SMKY  
 LT GY VV LT GRN TNT, MED TO  
 FEW MOD CRSE SUB RDD RDD  
 GRN CONSOL, MSLTY FRM MOD  
 CALC CMT, FRM FRI, ABNDT MIN  
 GLAUC/PYR/FLD, CARB SPECS,  
 FEW LMY INCL, FEW SLT LAM, SM  
 LT BRN OIL STNG, F TOP SRTD, F  
 TO G INTGR PORO, FEW TT,  
 ABNDT 40-50% MOD YEL YEL  
 GRN FLOR, FLASH MOD MLKY  
 TO STRMG CUT, HVY BRT RES  
 RING, MOD ODOR

SH: MED GY DK GY, VF SL SLTY  
 TXT, CALC FRM, VF MICA/PYR,  
 FEW CARB, FEW PCS TAN LS W/  
 FOSS, SCAT LT GY SLT STN

**HOGSHOOTER**  
**1985'(-671')**  
 LS/DOL: LT BRN, FN SNDY SUC  
 XLN, FRI SFT, GDNG TO CALC SS,  
 SHLY MTRX, SM FN QRTZ LAM,  
 TR F INTXLN PORO, TR FRCS,  
 SCAT PALE BLU GRN FLOR,  
 SLOW MOD MLKY BLOOM, FNT  
 TO MOD RING



HOGSHOOTER LIME

ROP (min/ft) 5  
 Gamma (units) 150

TG, C1-C5 200

LAYTON SANDS

2050

SS: OFF WHT LT GY LT BRN, SM SLT PPR, SM LT GY BRN W/ SM DRKR LAM, PRED FN SUB RDD GRN, FRM MOD CMT C CALC SHLY MTRX, SM W/ HVY SH INCL, MIN INCL, P SRTD, F INTGR PORO, NO FLOR

C

2100

SS: SLT PPR, LT BRN TNT SL TRNSL, PRED FN TO FEW MED SUB RDD SUB ANG GRN CONSOL, FRM FRI, MOD CALC CMT, ABNDT BLK CARB INCL, SM W/ MOD HVY MIN INCL, F SRTG, TR STNG, F TO G INTGR PORO, FEW PCS DULL SPTTY YEL GRN FLOR, MOD FST FNT MLKY CUT, FNT ODOR

C

KANSAS CITY

2150

LS: OFF WHT CRM, FN XLN, FRM M SFT, SL CHLKY, SM SNDYSL SUC W/ MOD REXLN ON F AND E, SM CAL HLD FRCS, RDD QRTZ LAM, TR SPOTTY YEL GRN FLOR, SLW FNT MLKYBLOOM, FNT TO MOD RES CUT RING

C

DODDS CREEK

2200

SS: SLT PPR, LT BRN TNT SL TRNSL, PRED FN TO FEW MED SUB RDD SUB ANG GRN CONSOL, FRM FRI, MOD CALC CMT, ABNDT BLK CARB INCL, SM W/ MOD HVY MIN INCL, F SRTG, TR STNG, F TO G INTGR PORO, FEW PCS DULL SPTTY YEL GRN FLOR, MOD FST FNT MLKY CUT, FNT ODOR

C

SWOPE LM

2250

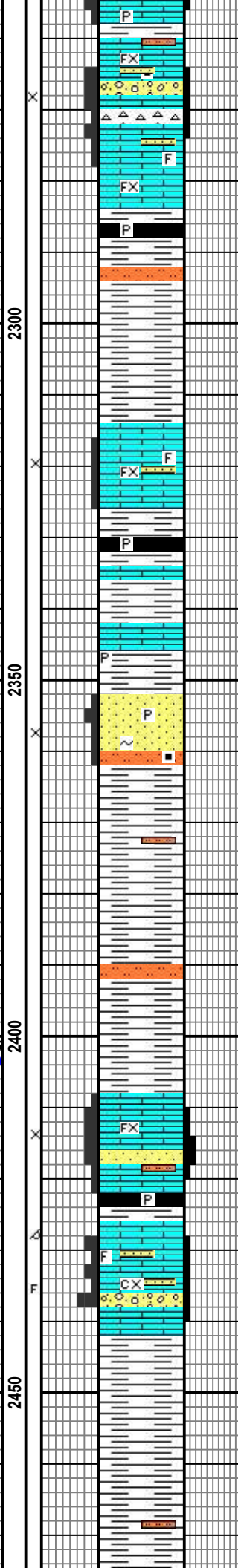
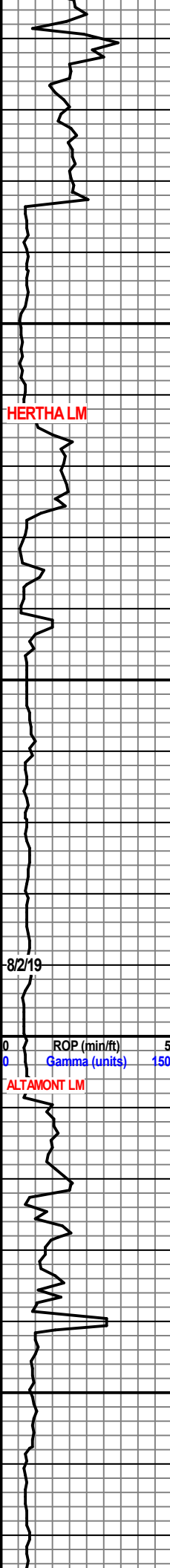
SWOPE 2237' (-933')

LS: CRM TAN BRN GY MOTT, PRED VE XLN, FRM M HRD, FEW

C

ROP (min/ft) 5  
Gamma (units) 150

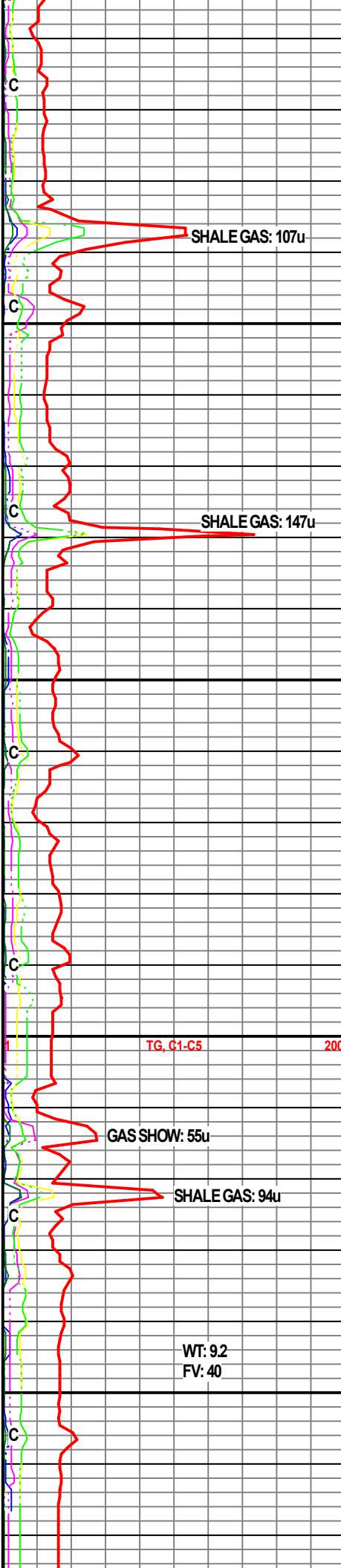
TG, C1-C5 200



PCS SL SUC IP W/ MOD RELXN ON F AND E, FEW W/ SEC MICRO FRACS, TR FOSS, PRED P W/ TR F INTXLN PORO, TR SEC/FAC PORO, FEW PCS SPOTTY YEL GRN FLOR, SLOW FNT MLKY BLOOM W/ FNT TO MOD RES RING/CUT, FNT ODOR

LS: OFF WHT CRM BRN DK BRN GY BRN MOTT, PRED F XLN, FRM M HRD TO M SFT, FEW SL CHLKY, FEW W/ MOD CAL REXLN ON FACES AND EDGES, FEW CAL HLD FRACS, P TO FEW F PORO, FEW SCAT PCS DULL SPOTTY YEL GRN FLOR, SLOW FNT MLKY BLOOM W/ FNT TO MOD RES CUT/RING, FNT ODOR

LS: LT BRN TAN OFF WHT CRM, SM BRN CRM MOTT, SM VF XLN FRM M HRD, SM SNDY TXT SUC CXLN, FRI, FOSS W/ TR CAST CAL HLD, FEW PCS W/ TINY PP VUGS, FEW CAL HLD FRACS, TR LT STNG, F INTXLN PORO TR F TO G SEC PORO, SCAT (20-25%) PRED DULL TR MOD PRED SPOTTY YEL GRN FLOR, SLOW FNT MLKY BLOOM W/ SL MORE HVY CRUSH CUT, FNT TO MOD RES CUT/RING, MOD OIL ODOR SCAT SS LT TO MED GY BRN, F GRN, MOD WELL CMTD, CALC ARGIL MTRX, TRASHY, TT, TR F PORO, NO FLOR



HERTHA LM

ALTAMONT LM

ALTAMONT 2406'(-1102')

SHALE GAS: 107u

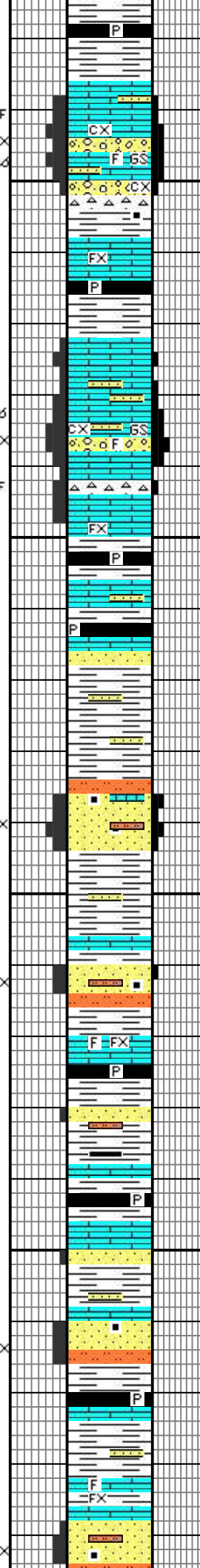
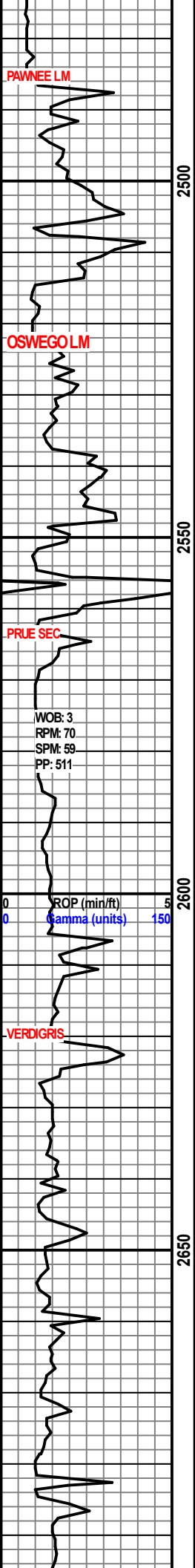
SHALE GAS: 147u

TG, C1-C5 200

GAS SHOW: 55u

SHALE GAS: 94u

WT: 9.2  
FV: 40



**PAWNEE 2483'(-1179')**  
 LS: OFF WHT CRM, LT BRN TAN, FEW MED BRN CRM SL MOTT, FEW ARGIL CRM BLK LAM, F TO MOD CRSE SM V SUC SNDY TXT CGXLN, QRTZ LAM, SM HVY SEC CAL REXLN ON FACES AND EDGES, SCAT SUB CHLKY, FEW SEC FRACS, SM LT STNG, PRED F W/ FEW G PRIM INTXLN PORO, SCAT(30%) MOD PRED SPOTTY BLU GRN FLOR, MOD FAST BUT FAINT MLKYBLOOM, MOD REC CUT AND RING, MOD OIL ODOR

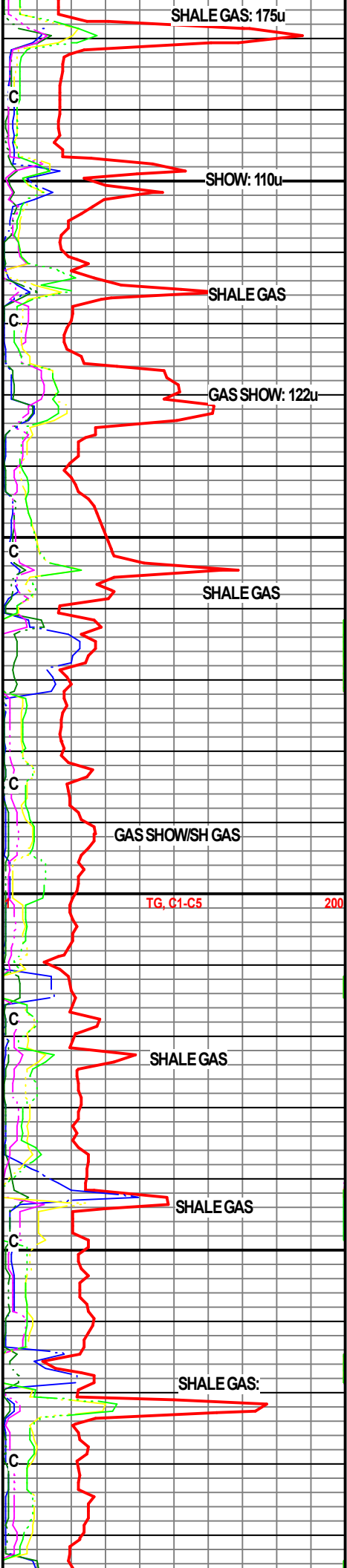
LS: VARS SHADES OF LT TO DK BRN, SM MOTT, MICRO TO VF XLN PRED, M TO HRD DNS, CLN LS, P PORO, FEW TAN CRM PCS SL SUC XLN, SM VF CAL REXLN, FEW FOSS, FEW CAL HLD FRCS, TR SIL IP, FEW F PORO, SM SB CHLKY, SM DD OIL, ABNDTYEL MIN FLOR, TR SPOTTY BG FLOR, FNT RING, NO ODOR

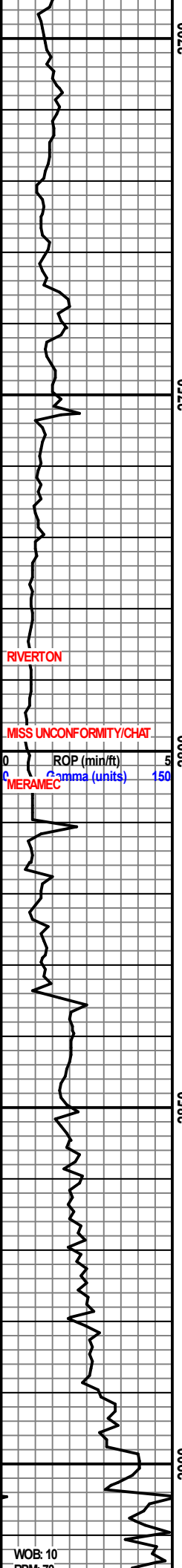
SS: LT TO MED BRN GY BRN OPAQ, PRED FN SUB ANG GRN CONSOL, FRM FRI MOD TO LSPLY CMTD, PRED V CALC LMY MTRX, ARGIL IP, SM VF MICA AND PYR, TR GLAUC, P TO FRLY SRTD, SCAT PCS W/ F INTGR PORO, SCAT(20%) PALE BLU GRN FLOR, SLOW FNT TO MOD MLKY BLOOM, SL M HVY CRUSH CUT, MOD DRY RING, POSS FNT ODOR

**VERDIGRIS 2618'(-1314')**  
 LS: MED BRN DK BRN, FEW MOTT, VF XLN, M HRD DNS CLN, P INTXLN PORO, MIN FLOR

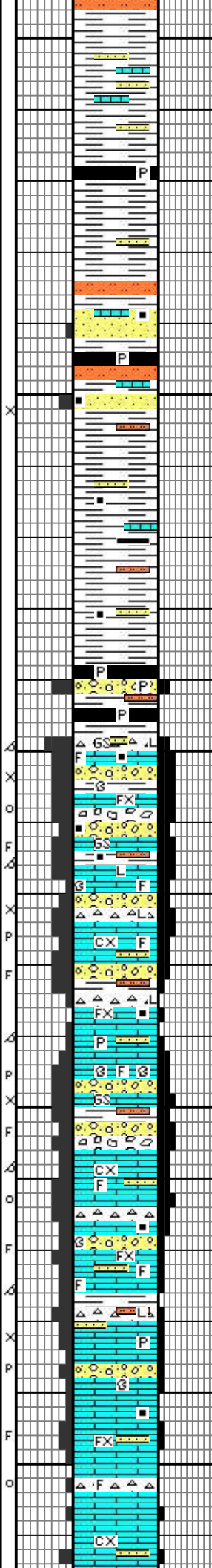
COAL: BLK SHNY VT, FRM TO M SFT, HVY PYR LAM, VIS VF GAS DESORBITION

SS: LT BRN MED BRN, FN SUB RDD SUB ANG GRN CONSOL, FRM MOD WELL CMTD, V CALC LMY SL SLTY MTRX, SM LT STNG, GLAUC. PYR SPECS. TR F PORO.





2700  
2750  
2800  
2850  
2900



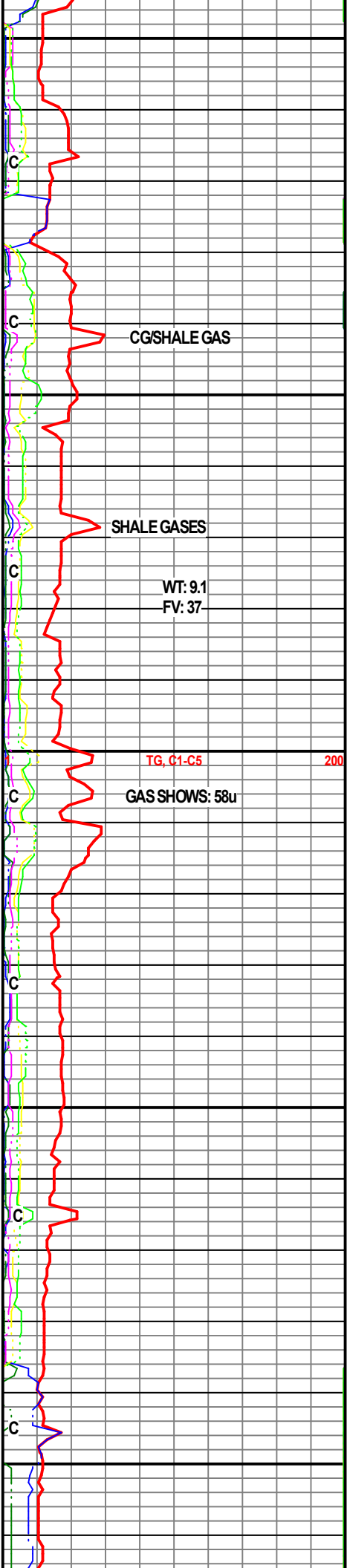
TWO PCS DULL GRN FLOR, FNT MLKY CUT W/ MOD CRUSH CUT RES/RING, FNT ODOR

PRED SH: MED GY BRN, PRED SLTY SNDY, CALC LMY IP, SCAT SHLY LS FRAGS, SCAT GY F GRN SHLY TT CALC SS, MICAPYR, NO VIS FLOR

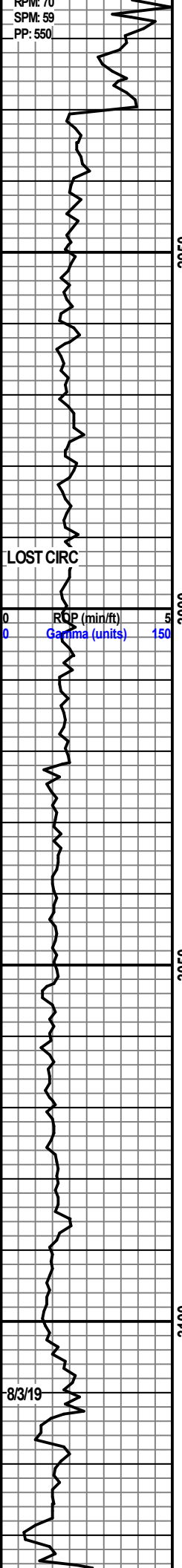
MULTI COLORED AND TXTRD PENN SHALES W/ SM BRN V LMY SS GRDNG TO SNDY SLTY LS, TR F PORO, TR DULL GRN FLOR FNT MLKY CUT SL BTTR CRUSH, FNT RES CUT/RING, NO ODOR, ABNDT GRN SLT STN AND CARB SH

**MISSISSIPPI**  
**2796'(-14952')**

SNDY LS: OFF WHT CRM, LT BRN TAN, SM MED BRN CRM MOTT, FEW SMKY GY BRN, FEW DRKR BRN GY BRN MOTT, SM FNR XLN BUT SL SUC SNDY TXT, FRM M HRD, SM MED TO MOD CRSE GRAN CXLN, NOBBY TXT, FRI, SM SNDY W/ FN QRTZ LAM, SM SIL NODS BREC FRGS LAM IN SUC LS MTRX, SM PCS W/ ABNDT HVY VIS FOSS FRGS FEW VIS CAST, SCAT SIL LS AND CHRT: WHT SMKY WHT GY, WHT LT BRN SL MOTT, SM FRSH SMTH HRD DNS, SM W/ MOD FRCS, FEW WTHRD REWRKD TRIP, F TR G SEC PORO, FEW PCS SS LT GY BRN FRN GRN CALC ARGL IP, LAM W/ VARS COLORED AND TXTRD SHALES AND SLTS, GLAUC AND PYR, PRED F TO SM G PRIM INTXLN PORO, PRED F TO FEW G VIS SEC PORO, SCAT W/ SM LT TO SPTY HVY OIL STNG, ABNDT(50-60% FEW PALE ABNDT MOD BRT FULL TO SPTTYEL YEL GRN FLOR, G PORO W/ FLASH MOD TO HVY STRMG W/ SLOW MLKY CUTS, MOD HVY DRY RES CUT/RING, MOD TO STRONG OIL ODOR





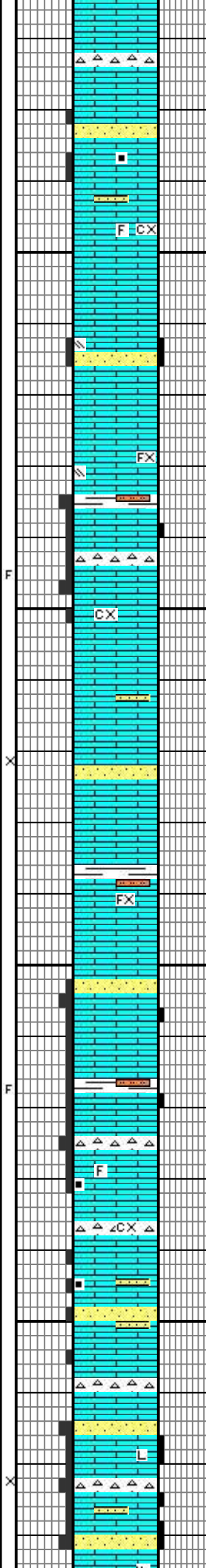


2950

3000

3050

3100

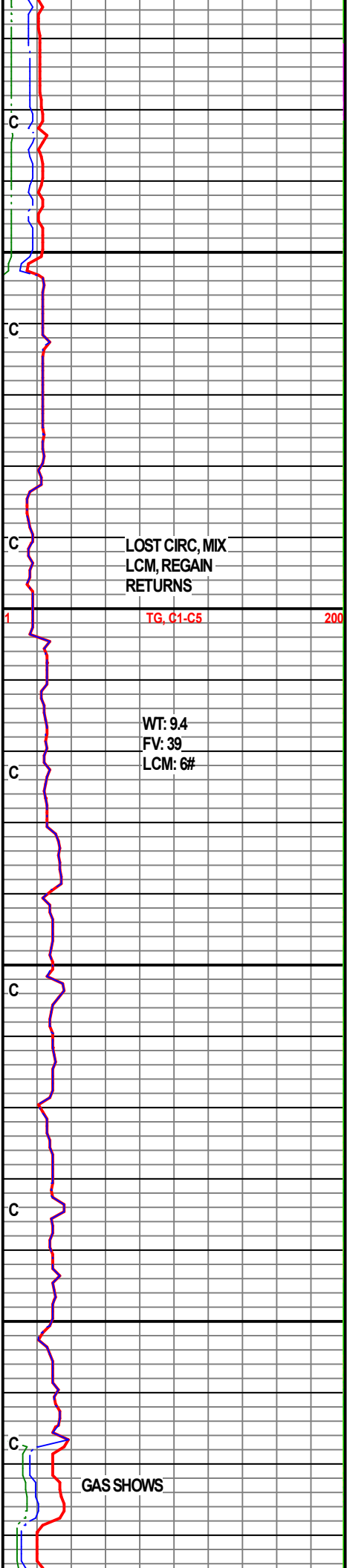


LS: PRED MED BRN, SM W/DK BRN MOTT, FEW MED GY BRN, PRED FN XLN FRM, SL FN GRN SNDY TXT, SM REXLN, SM FN QRTZ LAM, TR SIL, FEW PCS SHLY ARGL, PRED PINTXLN PORO, TR F FEW SEC PORO, NO FLOR, SCAT CALC SHALES MED GY BRN, GY, GY GRN

LS PRED AA FEW PCS OFF WHT CRM, FN SUC CLXN, FRM, SIL IP SIL LAM, FEW VIS FOSS, TR VIS CAL HLD FRCs, FEW PCS GY BN CHRT TR MICR FRC, FEW PCS W/ ALMST F PORO, FEW FRCs, CPL PCS W/ V PALE BG YG SPTTY FLOR, VV FNT SLW MLKY CUT, FNT DRY RING, INCREASE IN SHALES GY BRN GRN CALC SHALES, BRN ERHTY, BLK CARB, PYR

PRED LS AA, SCAT SIL LS: MED TO DK BRN GY BRN, SMKY GY BRN DK BRN MOTT, PRED FN XLN W/ SM SIL NODS AND QRTZ EMBD APPR SNDY, SM CAL REXLN ON FACES EDGES AND FRC PLNS, SM PCS V SIL, FEW PCS BSCLY CHRT SMKY GY BRN TO DK GY BRN, VF SMTH TO FEW SL SNDY TXT RWRKD, PRED PTR F PRIM PORO, SM W/ SEC PORO, FEW SCAT PCS W/ PALE BLU GRN FLOR ON FRC FACES/PLNS, REXLN, SLOW FNT MLKY CUT, FNT TR MOD DRY RING, POSS VV FNT ODOR

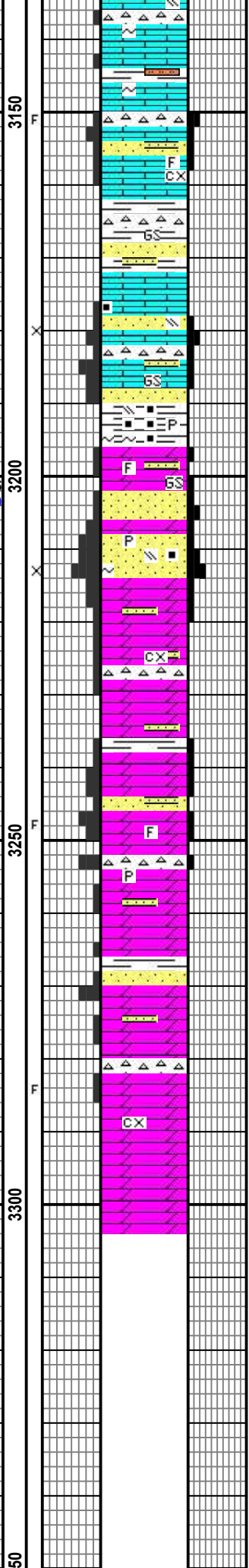
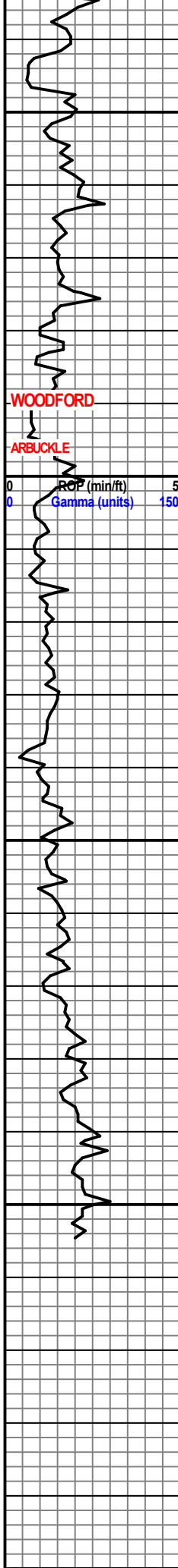
INCRS IN SIL LS/CHRT: ABNDT MED TO DK BRN, GY BRN, SM MED DK BRN GY BRN TAN CRM MOTT, FEW OFF WHT CRM LT BRN TAN, PRED FN XLN, FRM M HRD TO FEW FRI, SM SUC GRAN SNDY TXT FRM CAL REXLN, SIL LNS/NDS, QRTZ, GRWNG SIL SNDY AND LAM, M SHLYW/ INCRS IN SHALE, SM SCAT PCS W/ POSS F INTXLN PORO, FEW F SEC POR/FRCs, INCRS IN CHRT: PRED BRN GY BRN TO DK BRN, FEW SMKY LT GY OFF WHT FEW LT BRN, FRSH SMTH V HRD DNS TO RWRKD SL SNDY TRIP, SH LAM, PYR SPECS, SM VIS FRCs, SM SCAT PRED PALE SPOTY IN SEC POR BLU GRN FLOR, FEW FRC PLNS SEC POR TINY MOD BRT SPECS, PRED SLOW FNT TR MOD MLKY CUT, TR FLSH CUT FRM FRC, FNT TO SM MOD RES CUT AND RING, FNT TO MOD



LOST CIRC, MIX LCM, REGAIN RETURNS

WT: 9.4  
FV: 39  
LCM: 6#

GAS SHOWS



ODOR

SNDY LS: MED BRN DK BRN, BRN TAN CRM SL MOTT, FN TR MED GRAN SNDY CLXN, FRM, QRTZTC FEW SIL, REXLN, SM SHLY IP SM LAM, SM GLAUC, SM F INTXLN PORO, PALE BLU BLU GRN FLOR, SLOW FNT BLOOM, FEW W/ MOD RES CUT RING, FNT TO MOD ODOR

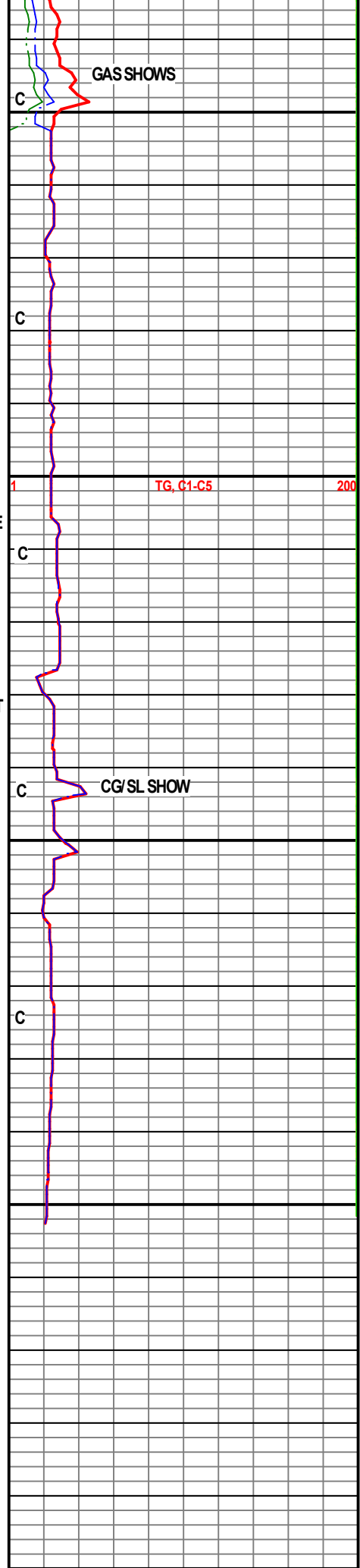
SHLY CARB LS, CALC CARB SH: V DK BRN, GRITTY TXT, HVY GLAUC SM PYR, CARB MTRX

**ARBUCKLE**  
**3195'(-1891')**

SS: FRSTD OFF WHT LT BTN SL TRNSL SMKY, MED TO FEW CRSE ANG TO SUB ANG GRN CONSOL, FRM MOD WELL CMTD, SM SIL MTRX SM DOLMTC/CALC, P SRTD, SM CARB INCL/LAM, PYR/GLUAC, SM GDNG TO SNDY DOL FEW VIS RHMBX XLN, SM F FEW G INTGR PORO, SM PP SPICS, SM LT TO MOD LV/DD OIL STNG, SM PALE SM MOD BRT SPT BLU GRN YEL GRN FLOR, FLASH M MLKY TR STRMG CUT, MOD RING, MOD ODOR

DOLO: LT BRN TAN, OFF WHT CRM, FEW MOTT, FN SUC GRAN RHMBX XLN, FRM M HRD TO FRI, SM SIL AND QRTZ LAM, FEW CHLKY, SM F INTXLN PORO, SM SEC FRCS

**TD WELL 8/3/19 @ 3303'**



810 E 7<sup>TH</sup>  
 PO Box 92  
 EUREKA, KS 67045  
 (620) 583-5561



**Cement or Acid Field Report**  
**4615**  
 Ticket No. \_\_\_\_\_  
 Foreman David Gardner  
 Camp Eureka

Date	Cust. ID #	Lease & Well Number	Section	Township	Range	County	State
7-30-19	1136	Radcliff # 5-4	4	33S.	7E.	Cowley	KS
Customer <u>Lawco Holding, LLC</u>			Unit #		Driver		Driver
Mailing Address <u>P.O. Box 425</u>			105		Jason		
City <u>Bentonville</u>			113		Josh		
State <u>AR</u>		Zip Code <u>72712</u>					

Job Type Surface Hole Depth 325' K.B. Slurry Vol. 45 Bbl Tubing \_\_\_\_\_  
 Casing Depth 315' G.L. Hole Size 12 1/4" Slurry Wt. 15" Drill Pipe \_\_\_\_\_  
 Casing Size & Wt. 8 5/8" 24" Cement Left in Casing 15' +/- Water Gal/SK 6.5 Other \_\_\_\_\_  
 Displacement 20 Bbl Displacement PSI \_\_\_\_\_ Bump Plug to \_\_\_\_\_ BPM \_\_\_\_\_

Remarks: Safety Meeting. Rig up to 8 5/8" casing. Break circulation w/ 10 Bbl fresh water. Mixed 190 sks Class 'A' Cement w/ 3% Caclz, 2% Gel, & 1/4" Floseal/sk @ 15" /gal, yield 1.35 = 45 Bbl slurry. Displace w/ 20 Bbl fresh water. Good circulation @ all times while cementing. Good cement returns to surface = 20 Bbl good cement slurry to pit. Close 8 5/8" casing in. Job complete. Rig down.

Code	Qty or Units	Description of Product or Services	Unit Price	Total
C101	1	Pump Charge 2 <sup>nd</sup> of 2 wells	890.00	890.00
C107	0	Mileage Same field - No charge	0	0
C200	190 sks	Class 'A' Cement	15.75	2992.50
C205	535"	Caclz @ 3%	.63	337.05
C206	360"	Gel @ 2%	.21	75.60
C209	50"	Floseal @ 1/4" /sk	2.35	117.50
C1088	8.93 Tons	Ton Mileage - Bulk Truck	1.40	875.14
<u>Thank You</u>				
			Sub Total	5,287.79
			Less 5%	275.84
			Sales Tax	228.97
			<b>Total</b>	<b>5,240.92</b>

Authorization [Signature] Title \_\_\_\_\_

I agree to the payment terms and conditions of services provided on the back of this job ticket. Any amendments to payment terms must be in writing on the front of this job ticket or in the Customer's records at ELITE's office.

810 E 7<sup>TH</sup>  
 PO Box 92  
 EUREKA, KS 67045  
 (620) 583-5561



**Cement or Acid Field Report**  
 Ticket No. **4679**  
 Foreman Russell McCoy  
 Camp Eureka

Date	Cust. ID #	Lease & Well Number	Section	Township	Range	County	State
B-4-19	1136	RADCLIFF #5-4				cowley	KS
Customer Lawco Holding LLC			Unit #		Driver		
Mailing Address P.O. Box 425			105		JASON		
City Bentonsville			112		JOSH		
State AR			113		CALEB		
Zip Code 72912			128		Russell		
Safety Meeting RM JASON JOSH CALEB							

Job Type Longstring Hole Depth 3303 Slurry Vol. Lead 44 7A/58 Tubing \_\_\_\_\_  
 Casing Depth 3261 G.L. Hole Size 7 7/8 Slurry Wt. 12.6 13.8 Drill Pipe \_\_\_\_\_  
 Casing Size & Wt. 5 1/2 15 1/2 Cement Left in Casing 0 Water Gal/SK \_\_\_\_\_ Other \_\_\_\_\_  
 Displacement 79 1/2 Displacement PSI 1250 Bump Plug to 1650 # BPM 5

Remarks: Safety meeting + Job Procedure Rig to 5 1/2 casing, Break circulation w/ 15 Bbl water mix + Pump 150 SKs 60/40 Pozmix 6% Gel 2# Phenoseal @ 12.6# = 44 Slurry Tail w/ 175 SKs T.S. cement w/ 5# Kolsal 1# Phenoseal = 58 Bbl Slurry @ 13.8# Washout Pump + Lines, Release 5 1/2 inch Down Plug Displace w/ 79 1/2 Bbl Fresh water. Final Pump PST 1250# Bump Plug to 1650# wait 2 min check float float held. Good circulation during cement procedure. Job complete, Tear Down.

THANK YOU

Russell McCoy

Centralizers # 1 # 4, 6, 9, 12, 15, 18, 21, 23, 29, 36, 38. Baskets # 2 # 31

Code	Qty or Units	Description of Product or Services	Unit Price	Total
C-102	1	Pump Charge	1100.00	1100.00
C-107	70	Mileage	4.20	294.00
C-203	150	SKs 60/40 Pozmix	13.40	2010.00
C-206	1775 #	Gel = 6% } LEAD CEMENT	.21	162.75
C-208	300 #	Phenoseal = 2# Per SK	1.30	390.00
C-201	175	SKs Thickset cement	20.50	3587.50
C-207	875 #	Kolsal 5# Per SK	.47	411.25
C-208	175 #	Phenoseal = 1# Per SK	1.30	227.50
C-108B	16.07	Tow Tow mileage 70 miles	1.40	1574.86
C-661	1	5 1/2 AFU FLOAT SHOE	309.00	309.00
C-421	1	5 1/2 hatch Down Plug	242.00	242.00
C-604	2	5 1/2 cement BASKETS	236.00	472.00
S-504	12	5 1/2 x 7 7/8 centralizers	50.00	600.00
C-222	5	gallons KCL mixed w/ First 50 Bbl Displacement	30.00	150.00
			SubTOTAL	11,530.86
			- 5%	
			Sales Tax	

Authorization [Signature] Title Col Rep Total \_\_\_\_\_

I agree to the payment terms and conditions of services provided on the back of this job ticket. Any amendments to payment terms must be in writing on the front of this job ticket or in the Customer's records at ELITE's office.

## Lynette Davis

---

**From:** Lynette Davis  
**Sent:** Tuesday, November 12, 2019 3:26 PM  
**To:** 'kcc-well-logs@kcc.ks.gov'  
**Subject:** Logs for Confidential Radcliff #5-4, Cowley County, KS  
**Attachments:** 15035247090000\_Radcliff #5-4\_DIL.pdf; 15035247090000\_Radcliff #5-4\_COMP.pdf.pdf; 15035247090000\_Radcliff #5-4\_CDLM.pdf.pdf; 15035247090000\_Radcliff #5-4\_BHC.pdf.pdf; 15035247090000\_LAWCO\_Radcliff #5-4\_DIL\_LAS.las; 15035247090000\_LAWCO\_Radcliff #5-4\_COMP\_LAS.las; 15035247090000\_LAWCO\_Radcliff #5-4\_BHC\_LAS.las; 15035247090000\_LAWCO\_Radcliff #5-4\_CDLM\_LAS.las

**Importance:** High

*Please see the attached logs for this Confidential ACO1, Radcliff #5-4, Cowley County, KS.*

*Thank you,*



**Lynette Davis**

Executive Assistant

113 South Main Street  
P.O. Box 425  
Bentonville, Arkansas 72712  
[www.lawcoenergy.com](http://www.lawcoenergy.com)

Office: 479.273.2670  
Cell: 479.372.3609  
Fax: 479.273.2699  
[ldavis@lawcoenergy.com](mailto:ldavis@lawcoenergy.com)