

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

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

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)</i> <i>(Submit ACO-4)</i>	PRODUCTION INTERVAL: Top Bottom
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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:	
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QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 948

Date	9-14-18	Sec.	23	Twp.	17	Range	19	County	Ellsworth	State	KS	On Location		Finish	7:00 AM
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Lease PCR Well No. 1-23 Location Bushton Gas plant - 3E to 11 Rd, Owner 3N, E/Into

Contractor Discovery #4 To Quality Oilwell Cementing, Inc.
Type Job Surface 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. 473' Charge To American ~~Oil~~ Oil
Csg. 8 3/8" Depth 473' Street

Tbg. Size Depth City State

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

Cement Left in Csg. 15' Shoe Joint 15' Cement Amount Ordered 220 80/20 3 1/2 CC 2 1/2 Gel

Meas Line Displace 29 Bus

EQUIPMENT		Common
Pumptrk	16 No. Cementer Helper <u>David</u>	<u>176</u>
Bulktrk	15 No. Driver <u>Doug</u>	<u>44</u>
Bulktrk	p.u. No. Driver <u>Rick</u>	<u>5</u>
		Calcium <u>8</u>

JOB SERVICES & REMARKS		Hulls
Remarks:	<u>Cement did Circulate</u>	Salt
Rat Hole		Flowseal
Mouse Hole		Kol-Seal
Centralizers		Mud CLR 48
Baskets		CFL-117 or CD110 CAF 38
D/V or Port Collar		Sand
		Handling <u>233</u>
		Mileage

FLOAT EQUIPMENT	
	Guide Shoe
	Centralizer
	Baskets
	AFU Inserts
	Float Shoe
	Latch Down

Pumptrk Charge Surface
Mileage 380

Signature <u>[Signature]</u>	Tax
	Discount
	Total Charge

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 1101

Date	9-18-18	Sec.	23	Twp.	17	Range	9	County	Rice	State	Ks	On Location		Finish	8:00 PM
Lease	PCR		Well No.	1-23		Owner	E/into								
Contractor	Discovery #4					To Quality Oilwell Cementing, Inc.			You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.						
Type Job	Longstring					Charge To			American oil						
Hole Size	7 7/8"		T.D.	3290'		Street									
Csg.	5 1/2" New 15.50#		Depth	3291'		City			State						
Tbg. Size			Depth			The above was done to satisfaction and supervision of owner agent or contractor.									
Tool			Depth			Cement Amount Ordered			175 Com 10% Salt 5% Gilsenite						
Cement Left in Csg.	37'		Shoe Joint	37'		Cement			500 gal mud Clear 48 - 20 BLS KCL						
Meas Line			Displace	77 BLS		Common			175						
EQUIPMENT															
Pumptrk	17	No.	Cementer	David		Poz. Mix									
Bulktrk	18	No.	Helper	Doug		Gel.									
Bulktrk	p.u.	No.	Driver	Rick		Calcium									
JOB SERVICES & REMARKS															
Remarks:	Hulls KCL 2 gal														
Rat Hole	Salt 15														
Mouse Hole	Flowseal														
Centralizers	1, 3, 5, 7, 9, 11											Kol-Seal 750#			
Baskets	1, 3, 5, 7, 9, 11 12											Mud CLR 48 500 gal			
D/V or Port Collar	pipe on bottom, Break Circulation											CFL-117 or CD110 CAF 38			
Pump	500 gal mud Clear 48, pump 10 BLS KCL, plug Rathole w/ 305x and mouse hole w/ 155x. Hook to 5 1/2"											Sand Handling 187			
Casing	+ mix 1305x Cement. Shut down wash pump + lines. Displaced plug w/ 77 BLS of H2O. 10 BLS of KCL. 67 H2O.											Mileage			
Released + Held.												FLOAT EQUIPMENT			
Lift pressure 600 #												Guide Shoe			
Land plug to 1500 #												Centralizer 6			
												Baskets 1			
												AFU Inserts			
												Float Shoe 1			
												Latch Down 1			
												Rotating Head			
												Pumptrk Charge			
												Mileage 38			
												prool string			
												Tax			
												Discount			
												Total Charge			
Signature: <i>John Smith</i>															

AUSTIN B. KLAUS

Cell 785.650.3629
Work 785.483.3145
Ext 225

PO BOX 352
Russell, KS 67665
austin.klaus@johnofarmer.com

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

Well Name: PCR #1-23
Location: Ellsworth County
License Number: API #15-053-21366
Spud Date: 9/13/2018
Surface Coordinates: Section 23, Township 17 South, Range 9 West
1,138' FSL & 857' FWL
Bottom Hole Coordinates: Vertical well w/ minimal deviation, same as above
Ground Elevation (ft): 1774
Logged Interval (ft): 2400 To: RTD
Formation: LKC, Arbuckle
Type of Drilling Fluid: Chemical (Andy's Mud)

Region: Kansas
Drilling Completed: 9/18/2018
K.B. Elevation (ft): 1782
Total Depth (ft): 3290

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

OPERATOR

Company: American Oil, LLC
Address: 1200 Main, Suite 410
Hays, KS 67601

GEOLOGIST

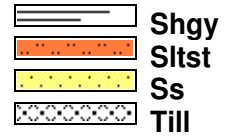
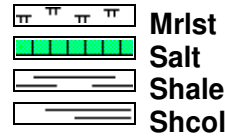
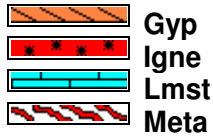
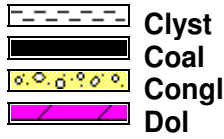
Name: Austin Klaus
Company: John O. Farmer, Inc.
Address: 370 W. Wichita Ave.
Russell, KS 67665

Comments

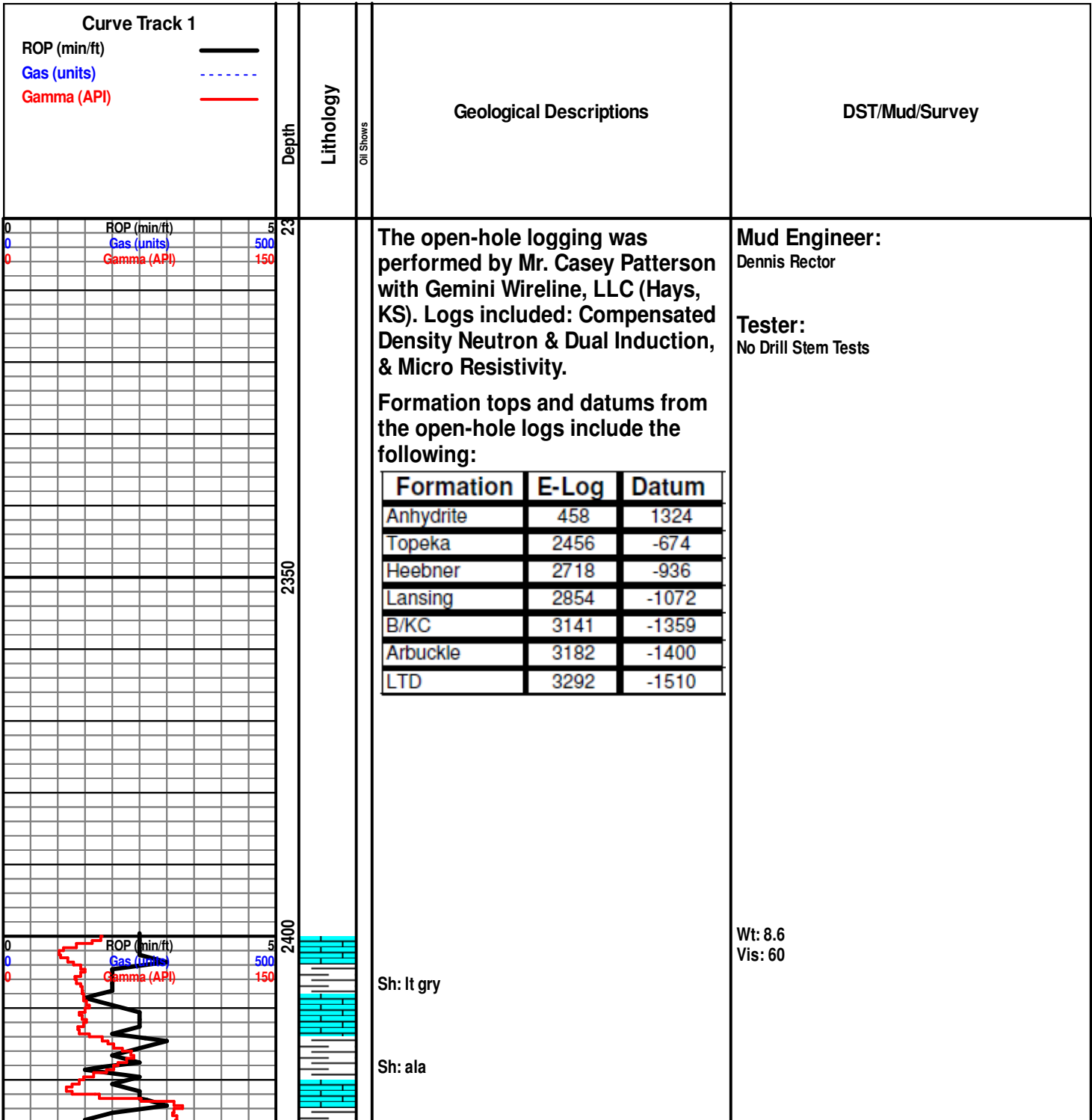
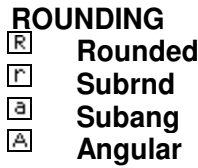
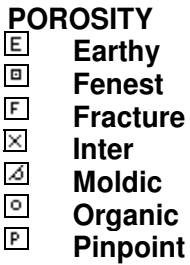
The PCR #1-23 well was drilled by Discovery Drilling Rig #4 (Tool Pusher: Galen Gaschler).

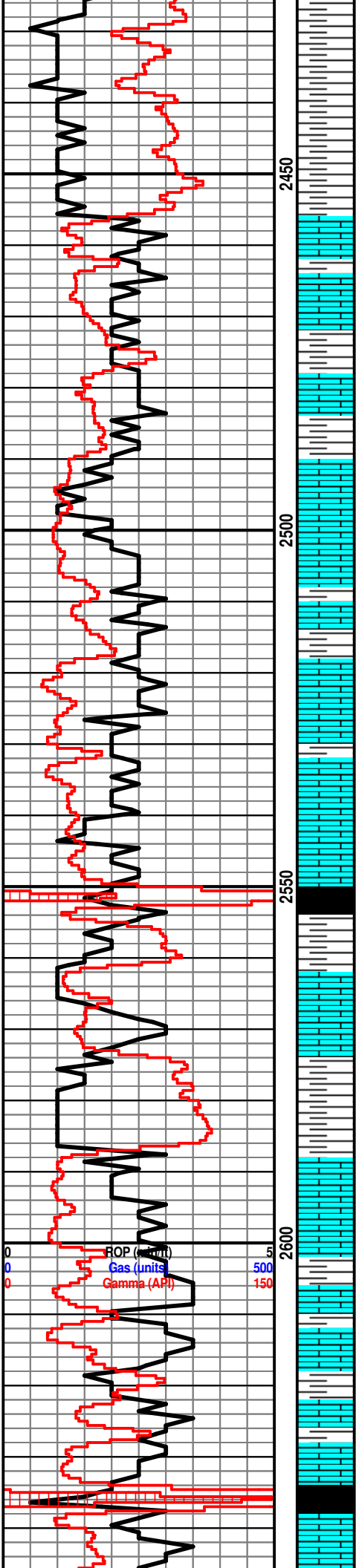
The PCR #1-23 was discovered via 3D seismic survey. Rock samples were gathered and evaluated from 2,400' - 3290'. Oil shows were encountered in the LKC H, J, and Arbuckle. Structurally, the Lansing top was picked 3' high to the comparison well, 660' to the northwest (Groth #2 - 1974'). Structure thickened slightly through the LKC and below, which resulted in an Arbuckle top picked 2' low to the comparison well. However, Arbuckle datum is still considerably higher than production to the east. After evaluation of all oil shows and electric logs, it was decided that 5 1/2" production casing be set to further evaluate the PCR #1-23 on 9/18/2018.

ROCK TYPES



OTHER SYMBOLS





Sh: lt-drk gry

Sh: ala

Topeka 2456' (-674)

Ls: tan-gry, fn-sub xln, mostly DNS

Ls: ala

Ls: tan-gry, fn xln, no visible porosity

Ls: tan-gry, fn xln, fair int xln porosity, scat dead oil stn

Ls: tan-gry, fn xln, no visible porosity, scat chalk

Ls: ala

Sh: drk gry-blk

Sh: lt-drk gry

Ls: tan-gry, fn-sub xln, mostly DNS

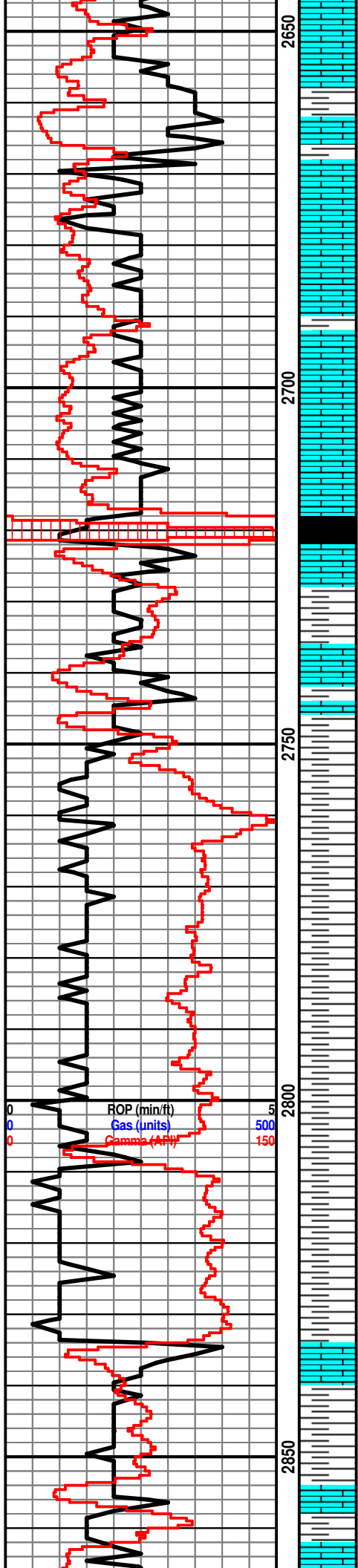
Sh: lt-drk gry

Ls: off wh-tan, fn xln, scat int xln porosity, NSFO, scat chalk

Ls: tan-buff, fn-sub xln, scat int xln porosity, scat chalk

Sh: drk gry-blk

ROP (API) 5
 Gas (units) 500
 Gamma (API) 150



Ls: off wh-tan, fn xln, fair int xln porosity, mostly barren

Ls: tan-gry, fn xln, mostly DNS

Ls: tan-gry, fn-sub xln, DNS, scat chert

Ls: tan-gry, fn xln, scat int xln & pp porosity, NSFO

Heebner 2718' (-936)

Sh: blk, carb, fissile

Ls: off wh-tan, fn xln, poor int xln, NSFO, scat chalk

Sh: lt gry

Sh: ala

Sh: lt gry

Sh: ala

Sh: lt gry

Sh: ala

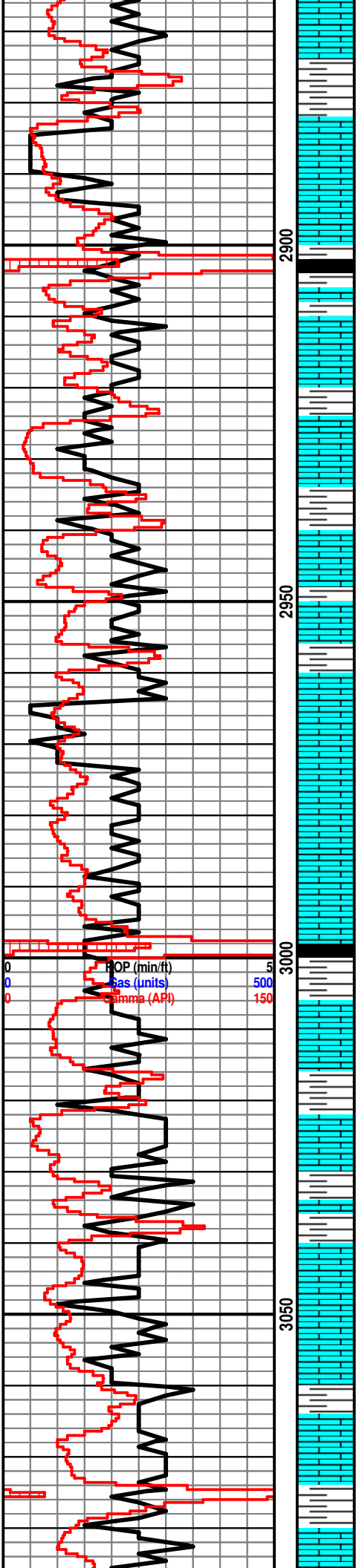
Sh: lt-drk gry

Lansing 2854' (-1072)

Ls: off wh-tan, fn xln, mostly DNS

Sh: lt-drk gry

ROP (min/f) 5
 Gas (units) 500
 Gamma (API) 150



Ls: tan-gry, fn xln, mostly DNS

Sh: lt gry

Ls: off wh-tan, fn xln, ool, fair-good oom porosity, scat dead oil stn in porosity, NSFO

Sh: lt-drk gry

Ls: off wh-tan, fn xln, fair int xln porosity, scat ool, sl oil stn in porosity, sl odor

Sh: lt gry

Ls: off wh-tan, fn xln, foss, fair-good int foss porosity, scat dead oil stn, sl odor, scat chalk

Sh: drk gry

Ls: off wh-tan, fn xln, foss, scat int foss porosity, scat dead oil stn, NSFO

Ls: off wh-tan, fn xln, ool, fair-good oom porosity, barren, scat chert- off wh

Ls: off wh-tan, fn xln, barren

Sh: drk gry-blk

Ls: tan-lt gry, fn xln, scat int xln porosity, lt oil stn in porosity, VSSFO, scat chalk

Sh: lt-drk gry

Ls: off wh-tan, fn xln, scat foss, fair int foss & scat int xln porosity, vry lt oil stn, fnt odor

Sh: lt-drk gry

Ls: off wh-tan, fn xln, foss, poor-fair int foss porosity, fair oil stn, VSSFO, poor-fair odor, scat chalk

Sh: lt gry

Ls: off wh-tan, fn-sub xln, mostly DNS, barren, scat chert-off wh

Sh: lt-drk gry

Wt: 8.9
Vis: 50

0 5
0 500
0 150

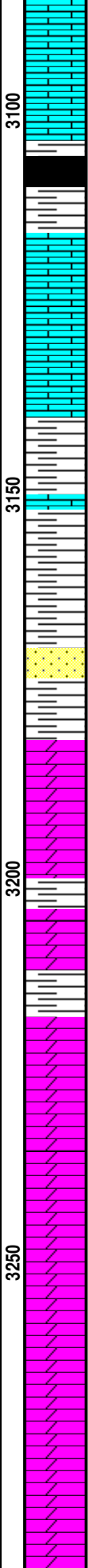
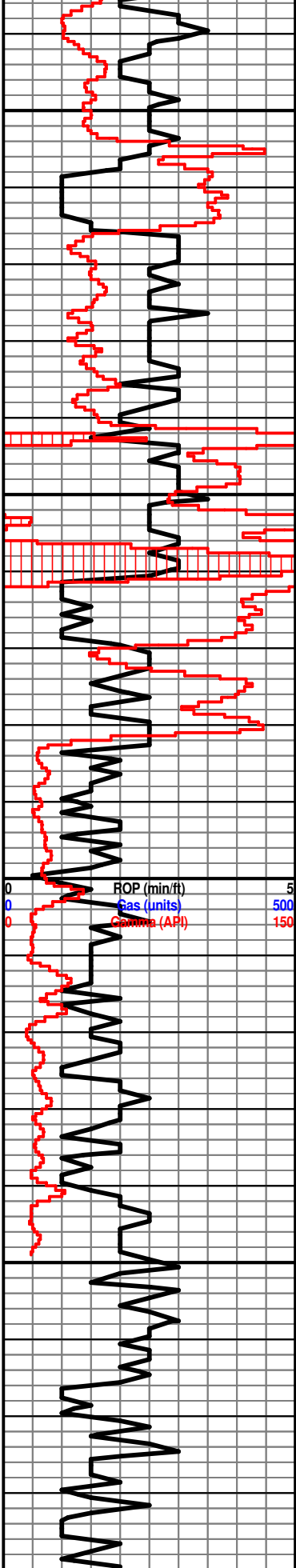
POP (min/ft)
Gas (units)
Gamma (API)

2900

2950

3000

3050



Ls: off wh-tan, fn xln, scat foss, poor int xln porosity, scat dead oil stn, NSFO, scat chert-off wh

3100

Sh: drk gry-blk

Ls: off wh-tan-gry, fn xln, scat int xln porosity, barren

Ls: ala

B/KC 3140' (-1358)

Sh: lt-gry

Ls: tan-gry, fn-sub xln, mostly DNS, NSFO

Sh: lt gry-brn

Ss: qtz, off wh, fn grn, mostly rnd, fairly well sorted, poor - scat fair int grn porosity, lt oil stn, fair odor, NSFO

Arbuckle 3182' (-1400)

Dolo: off wh-tan, fn xln, fair-good sucrosic xln porosity, fair-good oil sat, SSFO, fair-good odor

Dolo: off wh-tan, fn-md xln, fair-good sucrosic xln porosity, good oil sat, SSFO, good odor, fair yel fluor

Dolo: off wh-tan, md xln, fair-good sucrosic xln porosity, fair-good oil sat, SSFO, good odor, scat sh: drk grn, wxy

Dolo: off wh-tan, fn-md xln, fair-good int xln porosity, fair-good oil sat, SSFO, fair-good odor

Dolo: ala

Dolo: off wh-tan, fn-md xln, fair int xln porosity, fair oil sat, VSSFO, fair-good odor

Dolo: off wh-tan, fn-md xln, scat foss, fair int xln porosity, barren

Dolo: ala

Wt: 9.3
Vis: 60