

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



C&G  
 DR19  
 Rig 1

<b>Cement or Acid Field Report</b>	
Ticket No.	<b>6432</b>
Foreman	<u>Kevin McCoy</u>
Camp	<u>EUREKA</u>

API #15-073-24247

Date	Cust. ID #	Lease & Well Number	Section	Township	Range	County	State
4-30-22	1090	DIVINE #5	23	24S	9E	GW	Ks
Customer		Safety Meeting	Unit #	Driver	Unit #	Driver	
R & W Energies		KM SF SM	111	SHANNON F.			
Mailing Address			113	Steve M.			
403 N. Myrtle							
City	State	Zip Code					
EUREKA	Ks	67045					

Job Type SURFACE Hole Depth 57' Slurry Vol. 12 BBL Tubing \_\_\_\_\_  
 Casing Depth 52' G.L. Hole Size 12 1/4 Slurry Wt. 15\* Drill Pipe \_\_\_\_\_  
 Casing Size & Wt. 8 5/8 Cement Left in Casing 5' Water Gal/SK \_\_\_\_\_ Other \_\_\_\_\_  
 Displacement 4 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 50 SKS CLASS 'A' Cement w/ 2% CaCl2, 2% Gel = 12 BBL slurry. Displace w/ 4 BBL fresh water. Shut casing in. Good cement to surface. Job complete. Rig down

Code	Qty or Units	Description of Product or Services	Unit Price	Total
C 101	1	Pump Charge	750.00	750.00
C 107	20	Mileage	4.50	90.00
C 200	50 SKS	CLASS 'A' Cement	18.55	927.50
C 205	100 #	CaCl2 2%	.75*	75.00
C 206	100 #	Gel 2%	-.30	30.00
C108A	2.35 TONS	Ton Mileage	M/C	390.00
			Sub Total	2462.50
			Less 5%	126.99
			Sales Tax	77.44
			7.5%	
Authorization <u>By Tim Gulick</u> Title <u>C&amp;G DR19</u>			Total	2412.95

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



C46 Prlg.  
 Rig 1

**Cement or Acid Field Report**  
 Ticket No. **6361**  
 Foreman David Gardner  
 Camp Eureka

API # 15-073-24247

Date	Cust. ID #	Lease & Well Number	Section	Township	Range	County	State
5-9-22	1090	Gray Devine #5	23	24S.	9E	Greenwood	KS
Customer		Safety Meeting		Unit #	Driver	Unit #	Driver
R+W Energies		DG JH BW KM SM		105	Jason		
Mailing Address				112	Broker		
403 N. Myrtle				113	Russ		
City		State		145	Steve		
Eureka		KS					
		Zip Code					
		67045					

Job Type Longstring Hole Depth 2258' K.B. Slurry Vol. 81 Bbl Lead Tubing \_\_\_\_\_  
38 Bbl Tail  
 Casing Depth 2249.99' G.L. Hole Size 7 7/8" Slurry Wt. 12.8\*/13.6\* Drill Pipe \_\_\_\_\_  
 Casing Size & Wt. 4 1/2" 11.60\* Cement Left in Casing 0' Water Gal/SK \_\_\_\_\_ Other \_\_\_\_\_  
 Displacement 36 Bbl Displacement PSI 900 Bump Plug to 1300 PSI BPM \_\_\_\_\_

Remarks: Safety Meeting: 4 1/2" 11.60\* casing set @ 2249.99' G.L. Circulate w/ Mud pump for 30 mins. Rig up to 4 1/2" casing. Break circulation w/ 10 Bbl fresh water. Mixed 275 sks 60/40 Pozmix Cement w/ 8% Gel, 1# Phenoseal/sk @ 12.8\*/gal, yield 1.65 = 81 Bbl slurry, Tail in w/ 110 sks Thick Set Cement w/ 5# Kolseal/sk, 2# Phenoseal/sk @ 13.6\*/gal, yield 1.94 = 38 Bbl slurry. Wash out pump & lines. Shut down. Release 4 1/2" Latch Down Plug. Displace plug to seat w/ 36 Bbl fresh water. Final pumping pressure of 900 PSI. Bump plug to 1300 PSI. Wait 2 mins. Release pressure. Float & plug held. Good circulation @ all times while cementing. Good cement returns to surface = 5 Bbl slurry to pit. 4 1/2" annulus standing full of cement. Job complete. Rig down.

Plug Rat Hole  
Centralizers on #1, 3, 5, 7, 9 Basket on #10

Code	Qty or Units	Description of Product or Services	Unit Price	Total
C102	1	Pump Charge	1180.00	1180.00
C107	20	Mileage	5.00	100.00
C203	275 sks	60/40 Pozmix Cement	15.75	4331.25
C206	1890#	Gel 8% } Lead Cement	.30	567.00
C208	275#	Phenoseal 1#/sk	1.55	426.25
C201	110 sks	Thick Set Cement	24.25	2667.50
C207	550#	Kolseal 5#/sk } Tail Cement	.56	308.00
C208	220#	Phenoseal 2#/sk	1.55	341.00
C108B	17.87 Tons	Ton Mileage - 30 miles - Bulk Trucks	1.50	536.10
C113	4 HRS.	80 Bbl Vac Truck	95.00/HR	380.00
C224	3300 Gals.	City Water	12.00/1000	39.60
C600	1	4 1/2" AFU Float Shoe	340.00	340.00
C420	1	4 1/2" Latch Down Plug	247.00	247.00
C503	5	4 1/2" x 7 7/8" Centralizers	55.00	275.00
C603	1	4 1/2" Cement Basket	251.00	251.00
<u>Thank You</u>			Sub Total	11,989.70
			Less 5%	636.21
			7.5% Sales Tax	734.52
Authorization _____ Title _____			Total	12,088.01

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# R & W Energies



Scale 1:240 Imperial

Well Name: Gray-Divine #5  
 Surface Location: NE/SW/SW/NW of Sec 23 T24S R9E  
 Bottom Location:  
 API: 15-073-24247  
 License Number: 7564  
 Spud Date: 5/5/2022 Time: 7:00 AM  
 Region: Greenwood County Kansas  
 Drilling Completed: 5/9/2022 Time: 12:00 AM  
 Surface Coordinates:  
 Bottom Hole Coordinates:  
 Ground Elevation: 1181.00ft  
 K.B. Elevation: 1187.00ft  
 Logged Interval: 800.00ft To: 2258.00ft  
 Total Depth: 2258.00ft  
 Formation: Bartlesville Sand  
 Drilling Fluid Type: Chemical Mud

## OPERATOR

Company: R and W Energies  
 Address: 403 N. Myrtle Street  
 Eureka, KS 67045

Contact Geologist:  
 Contact Phone Nbr: 620-583-4785  
 Well Name: Gray-Divine #5  
 Location: NE/SW/SW/NW of Sec 23 T24S R9E  
 API: 15-073-24247  
 Pool: Field: Thrall-Aagard  
 State: Kansas Country: United States

## CONTRACTOR

Contractor: C and G Drilling Inc.  
 Rig #:  
 Rig Type: Single  
 Spud Date: 5/5/2022 Time: 7:00 AM  
 TD Date: 5/9/2022 Time: 12:00 AM  
 Rig Release: Time:

## ELEVATIONS

K.B. Elevation: 1187.00ft Ground Elevation: 1181.00ft  
 K.B. to Ground: 6.00ft

## LOGGED BY

Company: Sparrow Oil LLC  
 Address: 701 P50 Road  
 Eureka, KS 67045  
 Phone Nbr: 620-953-2066  
 Logged By: Geologist Name: Seth L Evenson

## NOTES

### Cased-hole log tops


Heebner 840' (+347)  
 Toronto 852' (+335)

Douglas	873' (+314)
Lansing	1208' (-21)
KC	1485' (-298)
Stark	1588' (-401)
Hush	1614' (-427)
BKC	1648' (-461)
Marmaton	1759' (-572)
Altamont	1791' (-604)
Pawnee	1863' (-676)
Ft. Scott	1896' (-709)
Cherokee	1916' (-729)
Ardmore	2009' (-822)
Catt Snd	2072' (-885)
Up BV Snd	2115' (-928)
BV Snd	2155' (-968)
Bas BV	2212' (-1025)

Fair shows were encountered in the Upper Bartlesville sand section, though the sand had a high clay content and exhibited poor matrix porosity. It is recommended that the Upper Bartlesville be perforated and fracked prior to abandonment to evaluate the zone for commercial production. The main Bartlesville zone had 57 feet of sand development, with approximately 40 feet of fair, light oil saturation, and fair to good even fluorescence observed in samples. Porosity was fair to good in the main Bartlesville, and appeared to improve with depth. Dead flaky stain was observed in the bottom 10-12 feet of Bartlesville sand, which probably indicates complete water saturation.




4.5 inch production casing was ran to further evaluate and produce the Upper Bartlesville and Bartlesville Sands

#### ROCK TYPES

 Coal	 Ss	 Shblk
 Lmst fw<7	 Shgy	 Siltst

#### ACCESSORIES



**STRINGER**

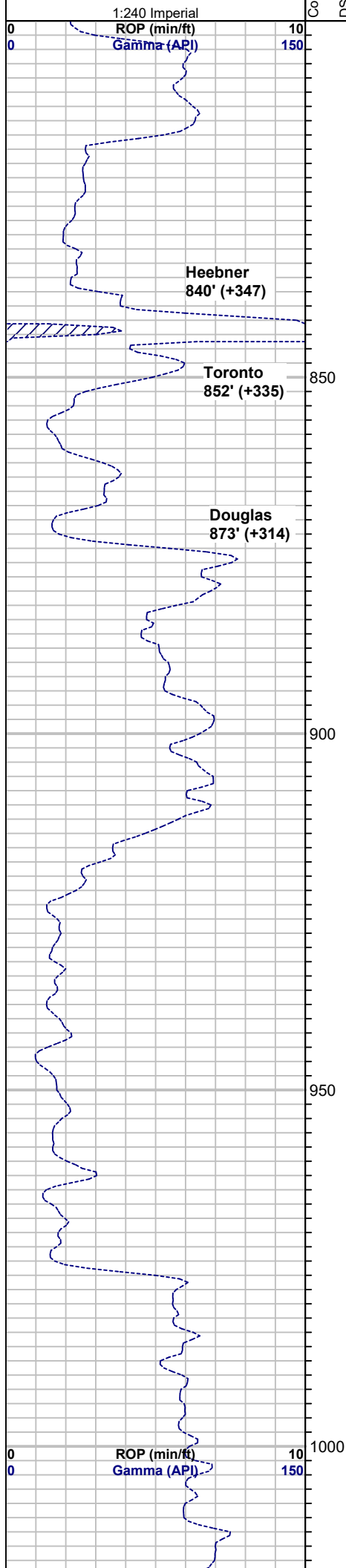
 Sandstone
 Siltstone
 Shale

#### OTHER SYMBOLS

**OIL SHOWS**

● Even Stn
● Spotted Stn 50 - 75 %
● Spotted Stn 25 - 50 %
○ Spotted Stn 1 - 25 %
○ Questionable Stn
D Dead Oil Stn
■ Fluorescence

<p>Curve Track #01</p> <p>ROP (min/ft) </p> <p>Gamma (API) </p>	<p>Depth   Intervals</p> <p>Oil Shows</p>	<p>Interpreted Lithology</p>	<p>Geological Descriptions</p>	<p>Comment</p>	<p>Vertical Comment 1</p>
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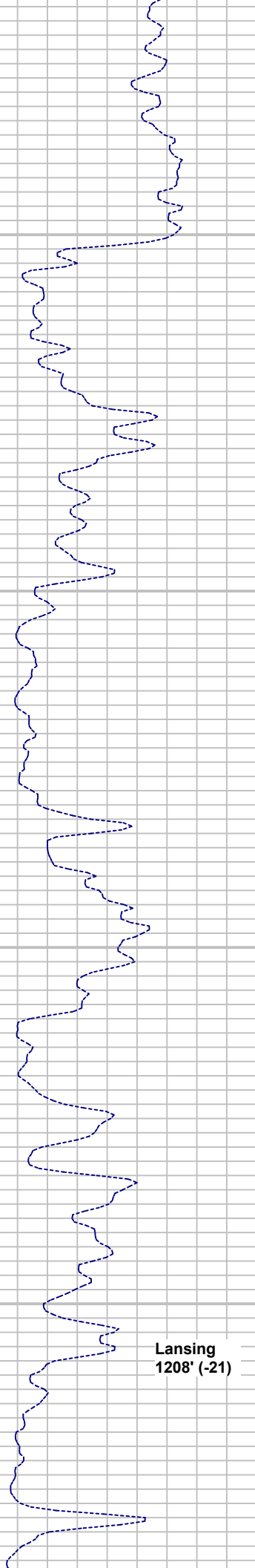
Lansing  
1208' (-21)

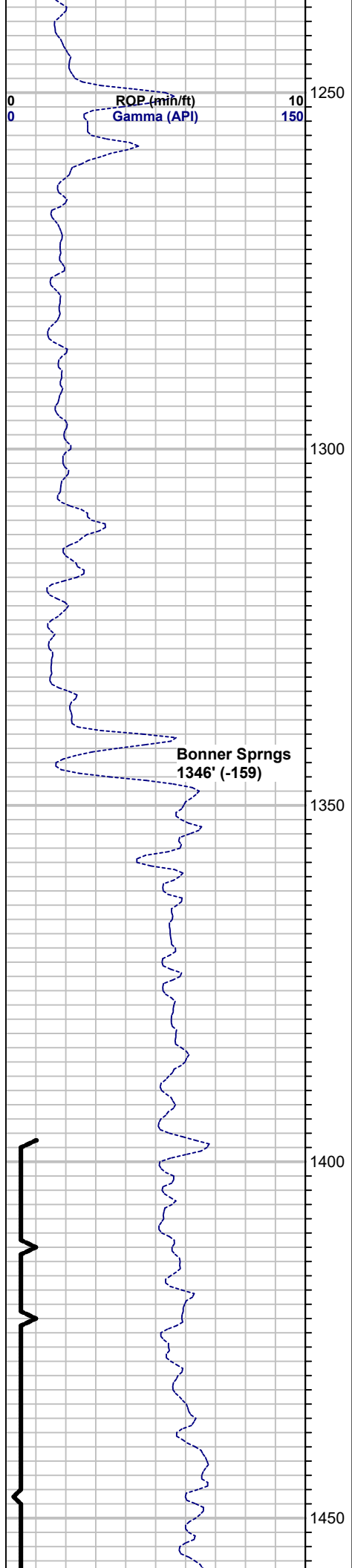
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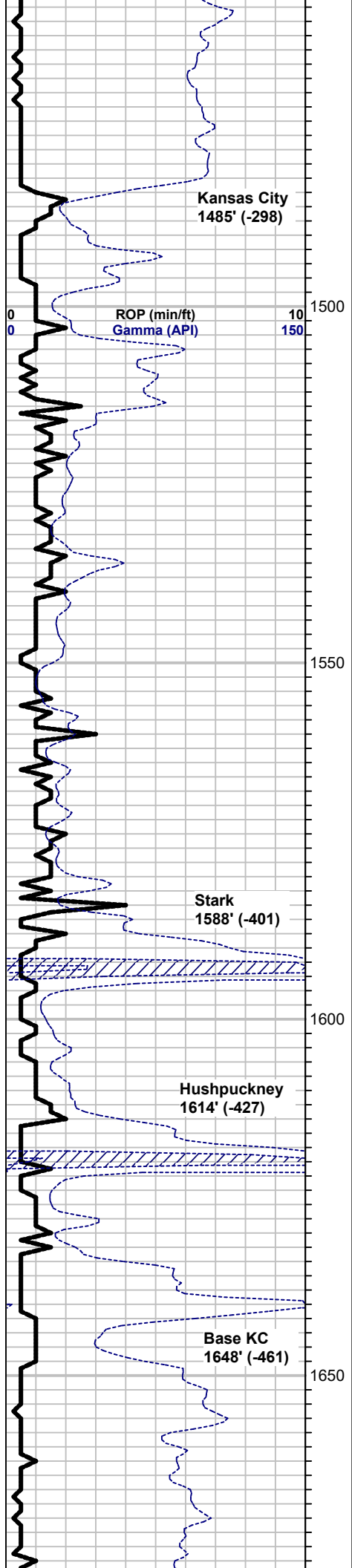
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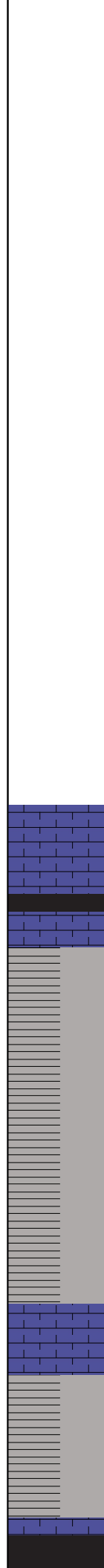
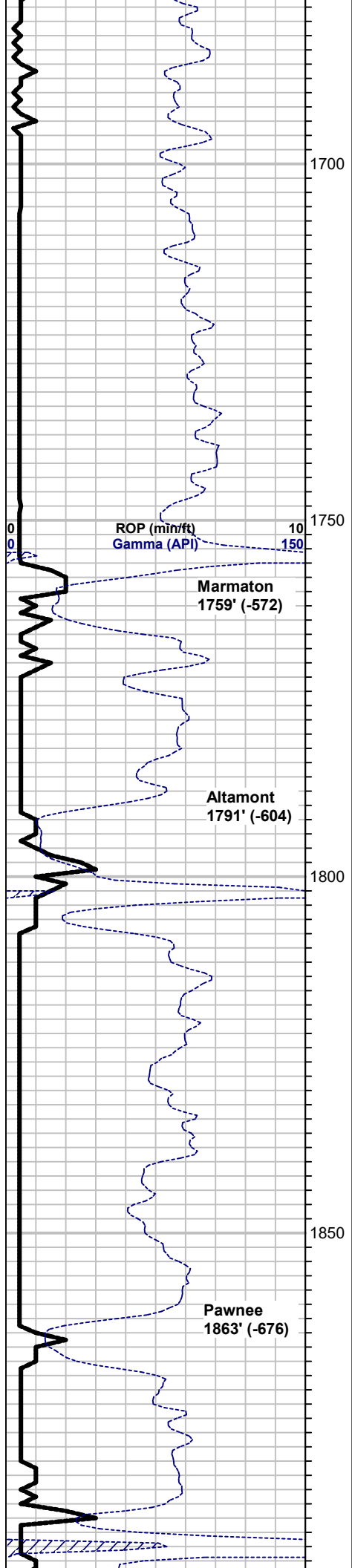
1100

1050









**1790'-1800'**: Much lms, wht-gry, micro-xtln, no vis poro, mstly shale & silty shale, gry, some sltstn to SS, gry, clay matrix, NVP.

**1800'-10'**: Mstly shale gry-drk gry. Some lms, gry-tan, vfn xtln, mealy txt, hrd res, vpr-no vis poro.

**1810'-20'**: Lms, gry-tan, vfn xtln, grainy txt, med-hrd res, sli foss, a few lrg ooids, vpr-no vis poro. Much shale as abv.

**1820'-30'**: Lms, gry-tan, micro-xtln, mst non-allchmcl, no vis poro. Increase in gry sltstn & shaley SS, NS.

**1830'-40'**: Sltstn, gry. Some lms, as abv. Much gry shale.

**1840'-50'**: Mix of shale, sltstn & lms, crm-yellowish/gry, vfn xtln, med res, mealy txt, vpr-no vis poro.

**1850'-60'**: Sltstn, gry. Some lms, off-wht to crm, vfn-micro xtln, vpr-no vis poro.

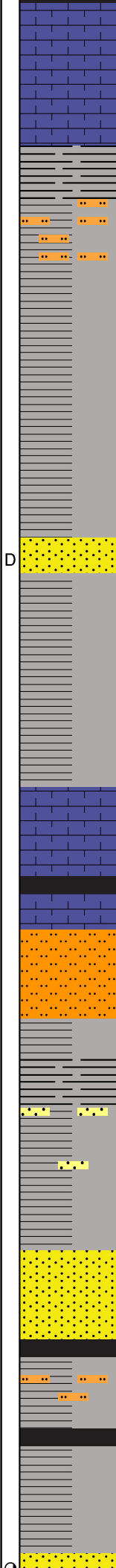
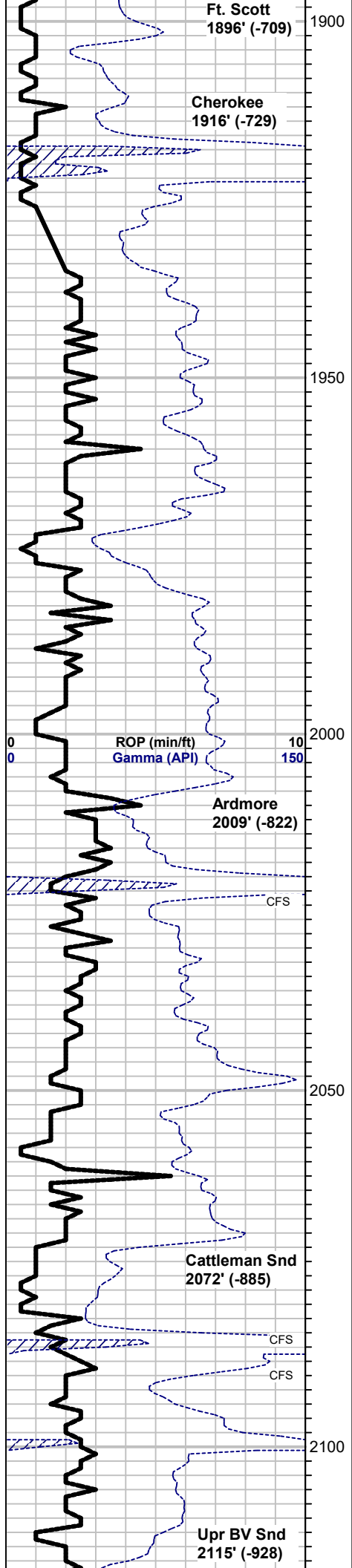
**1860'-70'**: Sndy shale & some shaley SS, gry, vfn grained, platy, vpr-no vis poro, NS. A few pcs pyrite.

**1870'-80'**: Vry shaley SS, gry, vfn grained, platy, vpr-no vis poro, NS. Some pyrite.

**1880'-90'**: Siltstone, gry, blkly to platy. A few pcs gry shaley, SS, vfn grained, vpr-no vis poro, NS.

**1890'-1900'**: Lms, gry-tan, micro-xtln, med-hrd res, sli mealy txt,





poss sli chlky, vpr-no vis poro.

**1900'-10'**: Lms, tan-gry, micro-xtln, med res, no vis poro. Much pyrite. Some gry silty shale.

**1910'-20'**: Lms, drk gry-drk brwn, micro-xtln, med-hrd res, tite, no vis poro. Some blk carb shale.

**1920'-30'**: Lms, lt gry, vfn xtln, med res, no vis poro, non-allchmcl.

**1930'-40'**: Silty shale, lt gry, sft-mshy. Much gry shale, sft, blkly to fissile.

**1940'-50'**: Shale, gry to lt grn. Much silty shale. a few pcs pyrite. Also some lms tite. A few pcs SS, lt gry, fn grnd, pr vis poro, NS.

**1950'-60'**: Mstly shale, gry fissile. Much siltstone, sft-mshy, gry-lt gry. Some lms, lt gry-tan, micro-xtln, no vis poro.

**1960'-70'**: Shale, gry-drk gry, sli silty. A few pcs pyrite.

**1970'-80'**: Shale, as abv.

**1980'-90'**: Shale, as abv. A few pcs shaley SS, gry, tite, NS.

**1990'-2000'**: SS, gry, fn grnd, sub-rnd qtz, mod srted, med res, pr vis poro, clay mtrx, poss dead blk flky stn, NSFO, no fluor, no cut, no odr.

**2000'-10'**: Shale, gry, sli silty. A few pcs SS, as abv.

**2010'-20'**: Lms, lt gry-gry, vfn xtln, med res, poss sli silty, tite, no vis poro. Mstly shale gry-drk gry.

**2020'-30'**: Blk carb shale, firm. Much gry shale & a few pcs lt grn shale.

**2030'-40'**: Lms, lt yellow/tan, micro-vfn xtln, med res, no vis poro. Much silty shale gry-lt gry.

**2040'-50'**: Siltstone, gry-lt gry, sft. Some lms, as abv.

**2050'-60'**: Blk shale, sli carbonaceous, much gry shale. A few pcs lt grn shale.

**2060'-70'**: SS, off-wht, vfn grained, sft wht chlky matrix, no vis poro, NS. Mstly shale gry, fissile.

**2070'-80'**: Silty shale, gry, platy.

**2080'-90'**: SS, lt gry-tan, fn-med grained, sub-rnd to rnd, prly srted, med res, pr-fr intr-gran poro, NS. Less clay in matrix.

**2090'-2100'**: Silty/sndy shale, off-wht, mshy. Some gry shale, sli silty.

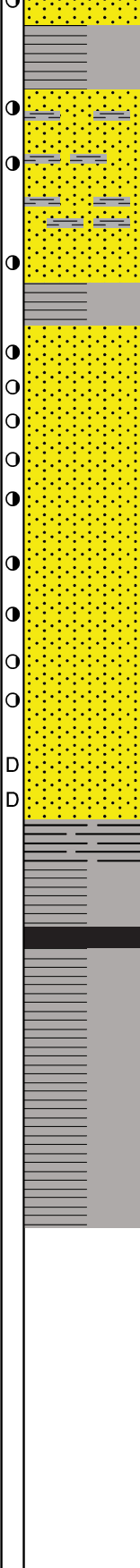
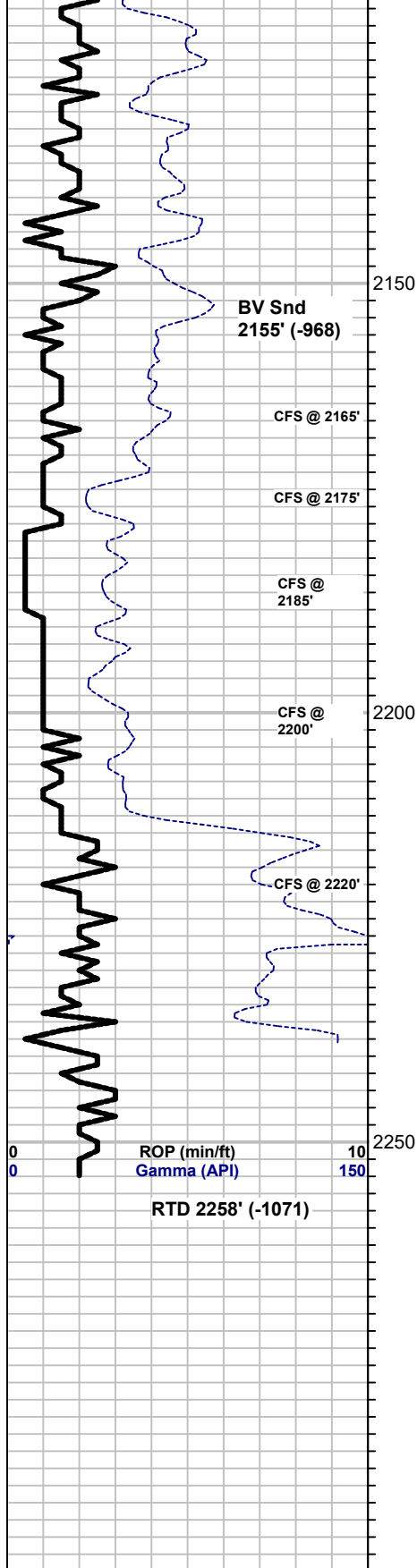
**2100'-10'**: Shaley SS & sndy/silty shale, gry to tan, med res, vpr-no vis poro. Much gry shale.

**2110'-20'**: Silty shale, lt gry, platy, sft

**CFS @ 2023' 15 min**: Lms, gry, micro-vfn xtln, med-hrd res, no vis poro. Much gry shale

**CFS @ 2085' 15 min**: SS, lt gry, fn grained, sub-rnd, qtz, poorly srted, brtl-med res, pr vis poro, clay matrix. some sndy shale, likely at top, NS.

**CFS @ 2090' 15 min**: Blk carb shale, firm. Also SS, as abv.



**2110'-20'**: Silty shale, lt gry, platy, srt.

**2120'-30'**: SS, tan-lt gry, vfn grained well srted, brtl-med res, fr poro, trc FO, wk sat, VSSG on brk, sli odr, gd even yell/wht fluor, vgd cut & bloom.

**2130'-40'**: SS, tan-lt gry, vfn grained, well srted, pr intr-gran poro, some pcs fri, clay matrix, med res, VSSFO, fr odr, gd even yell/wht fluor, trc gas bbls. 1 pc w/VSSFO & gas on brk! Gd cut & bloom.

**2140'-50'**: SS, lt gry, vfn grained, well srted, brtl-med res, clay matrix, semi-fri, pr-fr intr-gran poro, mst w/VSSG on brk, pr-no vis sat, gd odr, gd even brt yell/wht fluor, less poro than abv.

**2150'-60'**: SS, gry, vfn grained, well srted, med res, some semi-fri, SSFO & fr shw popping gas on brk, gd brt even yell/wht fluor, fr odr, abndt clay/shaley matrix pr vis poro.

**2160'-70'**: Shale, gry, tan, fissile, some tite gry SS, vfn grained, hrd res, vpr vis poro. Mst pcs NS, seems to have drilled past show.

**2170'-80'**: SS, brwn-gry, fn-med grained qtz, mod srted, med res, fri-semi fri, fr vis poro, fr sat, NSFO, trc gas bbls, gd even yell/wht fluor, vgd streaming cut & gd blm on brk, gd odr.

**2180'-90'**: SS, brn-gry, fn grained, well srted, sft-med res, friable, gd poro, fairly cln matrix, fr sat, sli-fr rainbow lstr, fr-gd odr, NSFO, gd even yell/wht fluor in 100% pcs.

**2190'-2200'**: SS, brwn, gry, fn grained, mod-well srted, wk sat, NSFO, fr-gd odr, med res, semi-fri, fr poro, gd yell/wht fluor.

**2200'-10'**: SS, gry, fn grained, med-hrd res, mod srted, clay matrix, pr poro mst pcs, much dead flky stn, brwn & blk on brk, fr odr, fr even dull yell/wht fluor, trc FO.

**2210'-20'**: SS, gry, fn grained, mod srted, med-hrd res, pr-fr poro, clay matrix, fr even dull yell/grn fluor, no vis sat, NSFO, no stn, 1 pc w/trc rainbw lstr on brk.

**2220'-30'**: Shale, gry-drk gry, some blk sli carbonaceous.

**2230'-40'**: Shale, gry, lt gry, drk gry, fissile.

**2240'-50'**: Shale, gry-drk gry, some blk sli carbonaceous.

**2250'-58'**: Shale as abv. A few pcs pyrite.

**2130'-40'**: Recommed perforating if zone thickness is sufficient.

**2140'-50' cont:** A couple pcs w/vgd shw gssy lt brwn FO on brk!

**CFS @ 2165' 15 min:** SS, lt gry/brwn, fn grained, well srted, sli clay matrix, VSSFO, gd odr, 1 pc w/gd shw gssy FO on brk, gd even yell/wht fluor, wk sat, VSSG.

**CFS @ 2175' 15 min:** SS, brwn, fn graind, sub-ang to sub-rnd qtz, mod srted, fr poro, med res, fri-semi fri, wk-fr sat, VSSFO, SSG, fr odr, gd even yell/grn fluor, fr-gd strming cut.

**CFS @ 2185' 15 min:** SS, brwn, fn-med graind, sft, fri, fr-gd poro, fr sat, fr rainbw lstr, NSFO, fr-gd odr, gd even yell/grn fluor.

**CFS @ 2200' 15 min:** SS, gry, fn graind, med res, shaley matrix, pr-fr poro, SSFO, sli gssy FO on brk, gd odr, gd even yell/wht fluor, wk-fr sat.

**CFS @ 2220' 15 min:** Shale, drk gry-blk. Some blk carb organic shale, w/sli petroliferous odor.



# R & W Energies



Scale 1:240 Imperial

Well Name: Gray-Divine #5  
 Surface Location: NE/SW/SW/NW of Sec 23 T24S R9E  
 Bottom Location:  
 API: 15-073-24247  
 License Number: 7564  
 Spud Date: 5/5/2022 Time: 7:00 AM  
 Region: Greenwood County Kansas  
 Drilling Completed: 5/9/2022 Time: 12:00 AM  
 Surface Coordinates:  
 Bottom Hole Coordinates:  
 Ground Elevation: 1181.00ft  
 K.B. Elevation: 1187.00ft  
 Logged Interval: 800.00ft To: 2258.00ft  
 Total Depth: 2258.00ft  
 Formation: Bartlesville Sand  
 Drilling Fluid Type: Chemical Mud

## OPERATOR

Company: R and W Energies  
 Address: 403 N. Myrtle Street  
 Eureka, KS 67045

Contact Geologist:  
 Contact Phone Nbr: 620-583-4785  
 Well Name: Gray-Divine #5  
 Location: NE/SW/SW/NW of Sec 23 T24S R9E  
 API: 15-073-24247  
 Pool: Field: Thrall-Aagard  
 State: Kansas Country: United States

## CONTRACTOR

Contractor: C and G Drilling Inc.  
 Rig #: Rig Type: Single  
 Spud Date: 5/5/2022 Time: 7:00 AM  
 TD Date: 5/9/2022 Time: 12:00 AM  
 Rig Release: Time:

## ELEVATIONS

K.B. Elevation: 1187.00ft Ground Elevation: 1181.00ft  
 K.B. to Ground: 6.00ft

## LOGGED BY

Company: Sparrow Oil LLC  
 Address: 701 P50 Road  
 Eureka, KS 67045  
 Phone Nbr: 620-953-2066  
 Logged By: Geologist Name: Seth L Evenson

## NOTES

### Cased-hole log tops







Heebner 840' (+347)  
 Toronto 852' (+335)

Douglas	873' (+314)
Lansing	1208' (-21)
KC	1485' (-298)
Stark	1588' (-401)
Hush	1614' (-427)
BKC	1648' (-461)
Marmaton	1759' (-572)
Altamont	1791' (-604)
Pawnee	1863' (-676)
Ft. Scott	1896' (-709)
Cherokee	1916' (-729)
Ardmore	2009' (-822)
Catt Snd	2072' (-885)
Up BV Snd	2115' (-928)
BV Snd	2155' (-968)
Bas BV	2212' (-1025)

Fair shows were encountered in the Upper Bartlesville sand section, though the sand had a high clay content and exhibited poor matrix porosity. It is recommended that the Upper Bartlesville be perforated and fracked prior to abandonment to evaluate the zone for commercial production. The main Bartlesville zone had 57 feet of sand development, with approximately 40 feet of fair, light oil saturation, and fair to good even fluorescence observed in samples. Porosity was fair to good in the main Bartlesville, and appeared to improve with depth. Dead flaky stain was observed in the bottom 10-12 feet of Bartlesville sand, which probably indicates complete water saturation.




4.5 inch production casing was ran to further evaluate and produce the Upper Bartlesville and Bartlesville Sands

### ROCK TYPES

 Coal	 Ss	 Shblk
 Lmst fw<7	 Shgy	 Siltst

### ACCESSORIES



**STRINGER**

 Sandstone
 Siltstone
 Shale

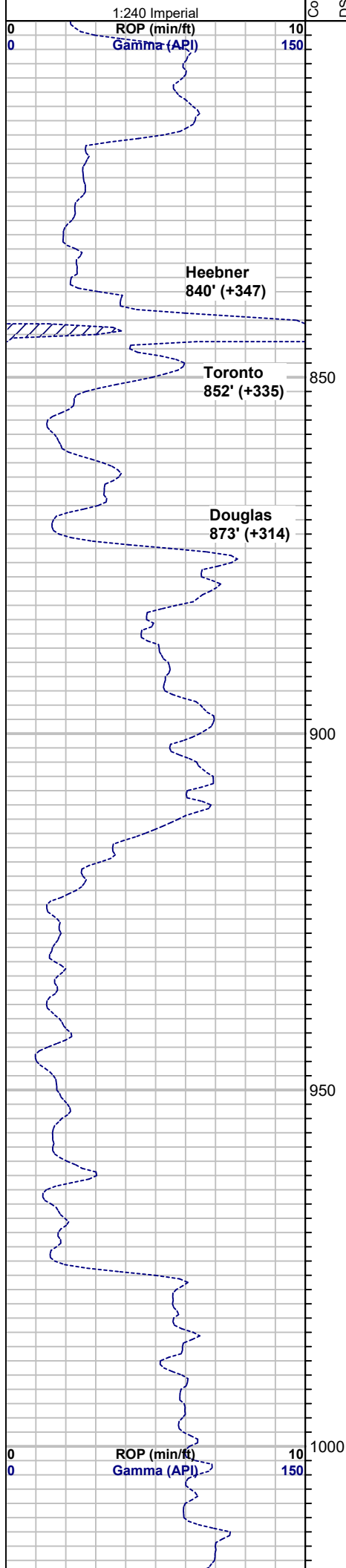
### OTHER SYMBOLS

**OIL SHOWS**

● Even Stn
● Spotted Stn 50 - 75 %
● Spotted Stn 25 - 50 %
○ Spotted Stn 1 - 25 %
○ Questionable Stn
D Dead Oil Stn
■ Fluorescence

Curve Track #01						
ROP (min/ft)		Depth   Intervals Oil Shows	Interpreted Lithology	Geological Descriptions	Comment	Vertical Comment 1
Gamma (API)						





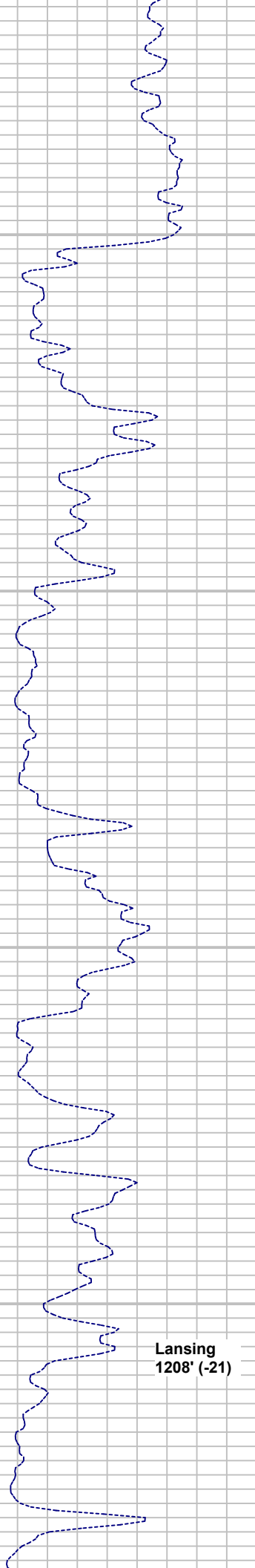
Lansing  
1208' (-21)

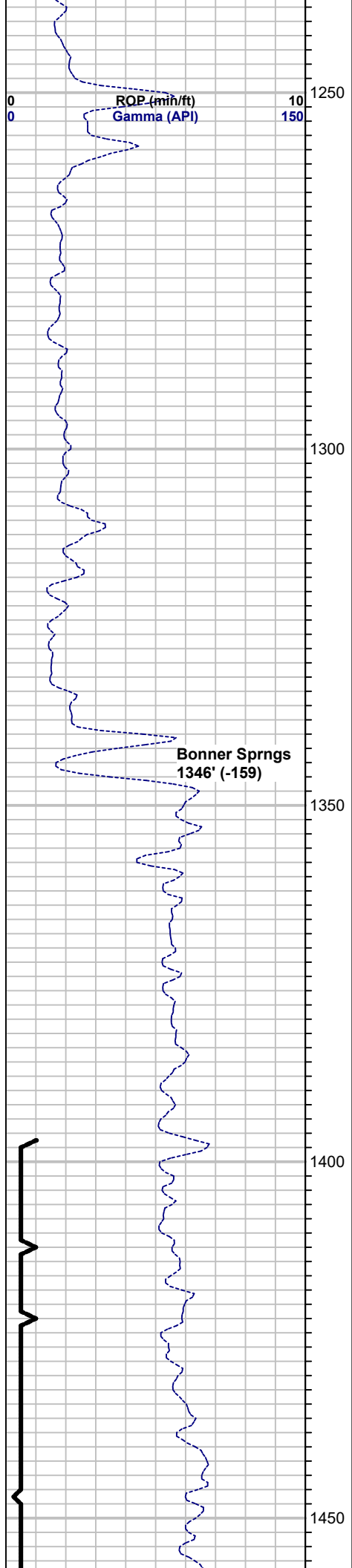
1200

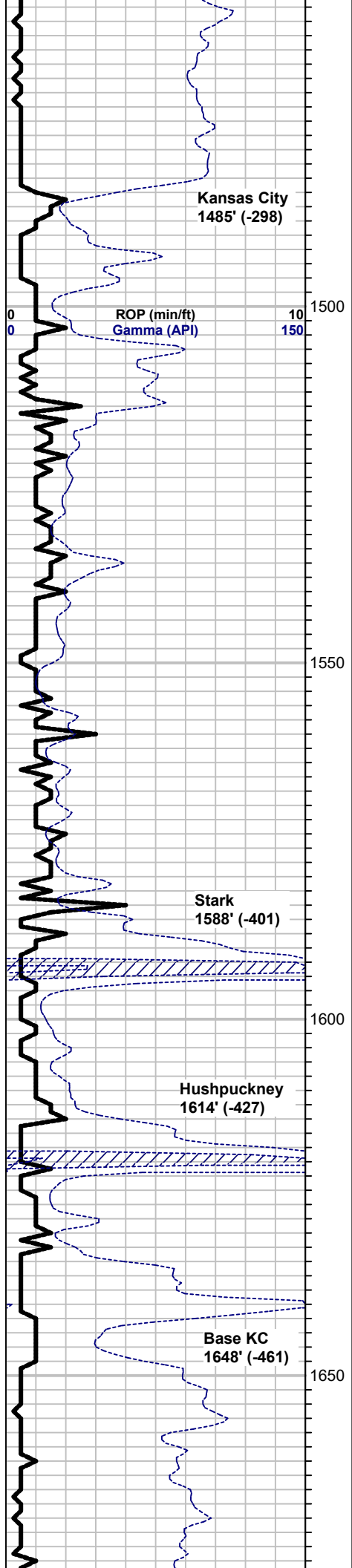
1150

1100

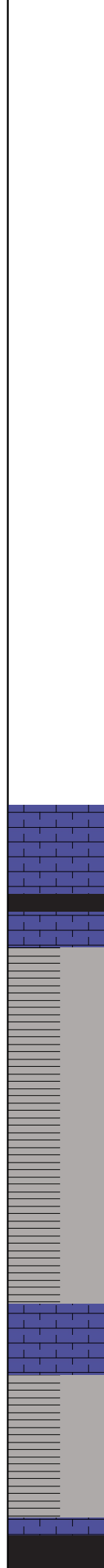
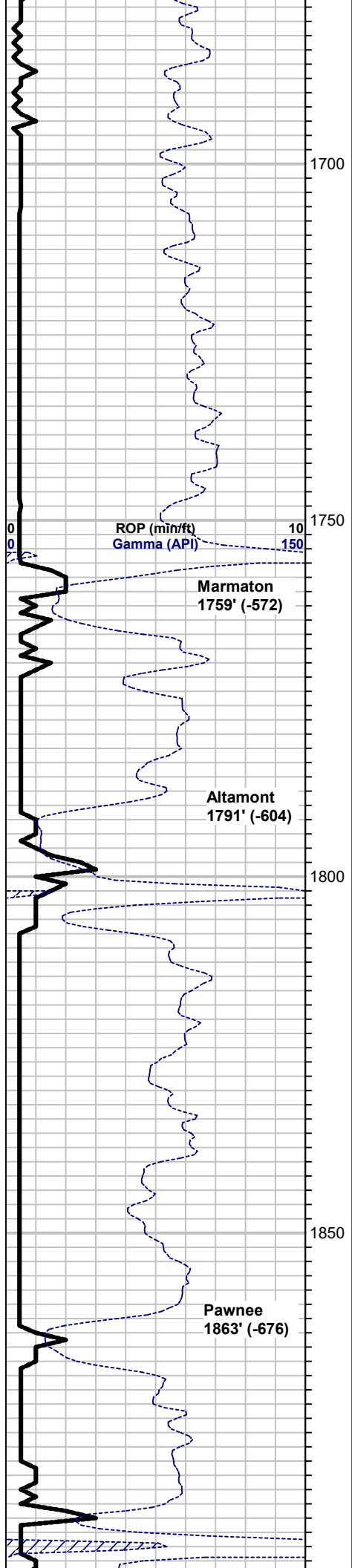
1050











**1790'-1800'**: Much lms, wht-gry, micro-xtln, no vis poro, mstly shale & silty shale, gry, some sltstn to SS, gry, clay matrix, NVP.

**1800'-10'**: Mstly shale gry-drk gry. Some lms, gry-tan, vfn xtln, mealy txt, hrd res, vpr-no vis poro.

**1810'-20'**: Lms, gry-tan, vfn xtln, grainy txt, med-hrd res, sli foss, a few lrg ooids, vpr-no vis poro. Much shale as abv.

**1820'-30'**: Lms, gry-tan, micro-xtln, mst non-allchmcl, no vis poro. Increase in gry sltstn & shaley SS, NS.

**1830'-40'**: Sltstn, gry. Some lms, as abv. Much gry shale.

**1840'-50'**: Mix of shale, sltstn & lms, crm-yellowish/gry, vfn xtln, med res, mealy txt, vpr-no vis poro.

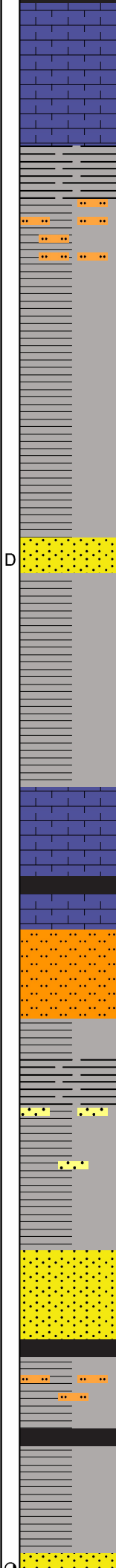
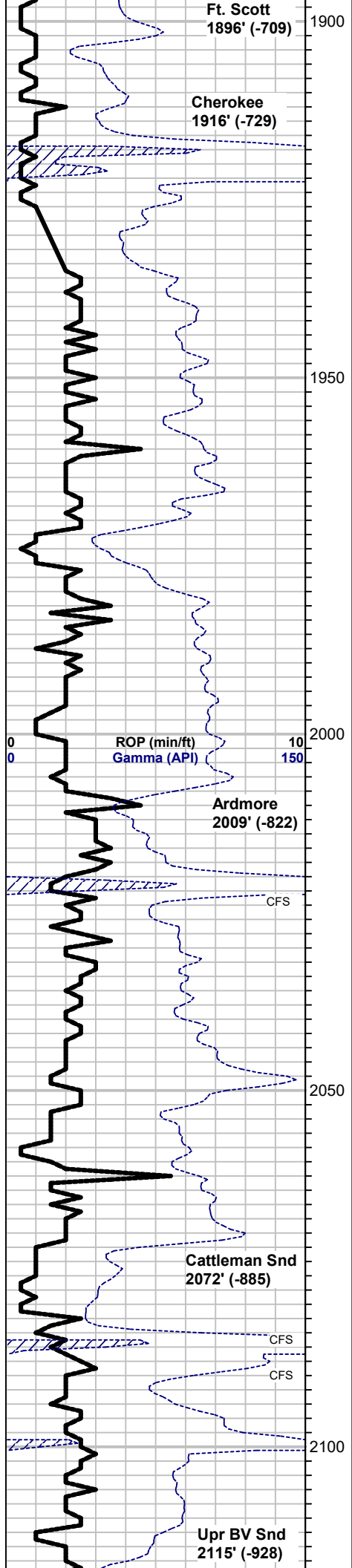
**1850'-60'**: Sltstn, gry. Some lms, off-wht to crm, vfn-micro xtln, vpr-no vis poro.

**1860'-70'**: Sndy shale & some shaley SS, gry, vfn grained, platy, vpr-no vis poro, NS. A few pcs pyrite.

**1870'-80'**: Vry shaley SS, gry, vfn grained, platy, vpr-no vis poro, NS. Some pyrite.

**1880'-90'**: Siltstone, gry, blkly to platy. A few pcs gry shaley, SS, vfn grained, vpr-no vis poro, NS.

**1890'-1900'**: Lms, gry-tan, micro-xtln, med-hrd res, sli mealy txt,



poss sli chlky, vpr-no vis poro.

**1900'-10'**: Lms, tan-gry, micro-xtln, med res, no vis poro. Much pyrite. Some gry silty shale.

**1910'-20'**: Lms, drk gry-drk brwn, micro-xtln, med-hrd res, tite, no vis poro. Some blk carb shale.

**1920'-30'**: Lms, lt gry, vfn xtln, med res, no vis poro, non-allchmcl.

**1930'-40'**: Silty shale, lt gry, sft-mshy. Much gry shale, sft, blkly to fissile.

**1940'-50'**: Shale, gry to lt grn. Much silty shale. a few pcs pyrite. Also some lms tite. A few pcs SS, lt gry, fn grnd, pr vis poro, NS.

**1950'-60'**: Mstly shale, gry fissile. Much siltstone, sft-mshy, gry-lt gry. Some lms, lt gry-tan, micro-xtln, no vis poro.

**1960'-70'**: Shale, gry-drk gry, sli silty. A few pcs pyrite.

**1970'-80'**: Shale, as abv.

**1980'-90'**: Shale, as abv. A few pcs shaley SS, gry, tite, NS.

**1990'-2000'**: SS, gry, fn grnd, sub-rnd qtz, mod srted, med res, pr vis poro, clay mtrx, poss dead blk flky stn, NSFO, no fluor, no cut, no odr.

**2000'-10'**: Shale, gry, sli silty. A few pcs SS, as abv.

**2010'-20'**: Lms, lt gry-gry, vfn xtln, med res, poss sli silty, tite, no vis poro. Mstly shale gry-drk gry.

**2020'-30'**: Blk carb shale, firm. Much gry shale & a few pcs lt grn shale.

**2030'-40'**: Lms, lt yellow/tan, micro-vfn xtln, med res, no vis poro. Much silty shale gry-lt gry.

**2040'-50'**: Siltstone, gry-lt gry, sft. Some lms, as abv.

**2050'-60'**: Blk shale, sli carbonaceous, much gry shale. A few pcs lt grn shale.

**2060'-70'**: SS, off-wht, vfn grained, sft wht chlky matrix, no vis poro, NS. Mstly shale gry, fissile.

**2070'-80'**: Silty shale, gry, platy.

**2080'-90'**: SS, lt gry-tan, fn-med grained, sub-rnd to rnd, prly srted, med res, pr-fr intr-gran poro, NS. Less clay in matrix.

**2090'-2100'**: Silty/sndy shale, off-wht, mshy. Some gry shale, sli silty.

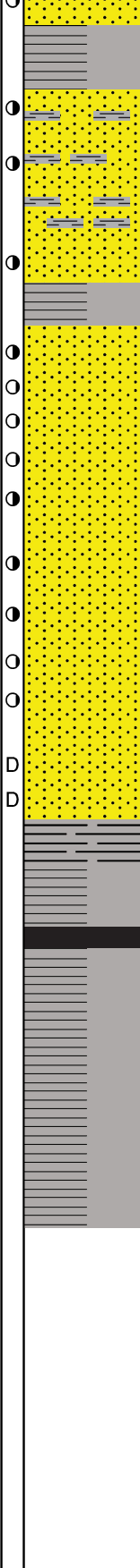
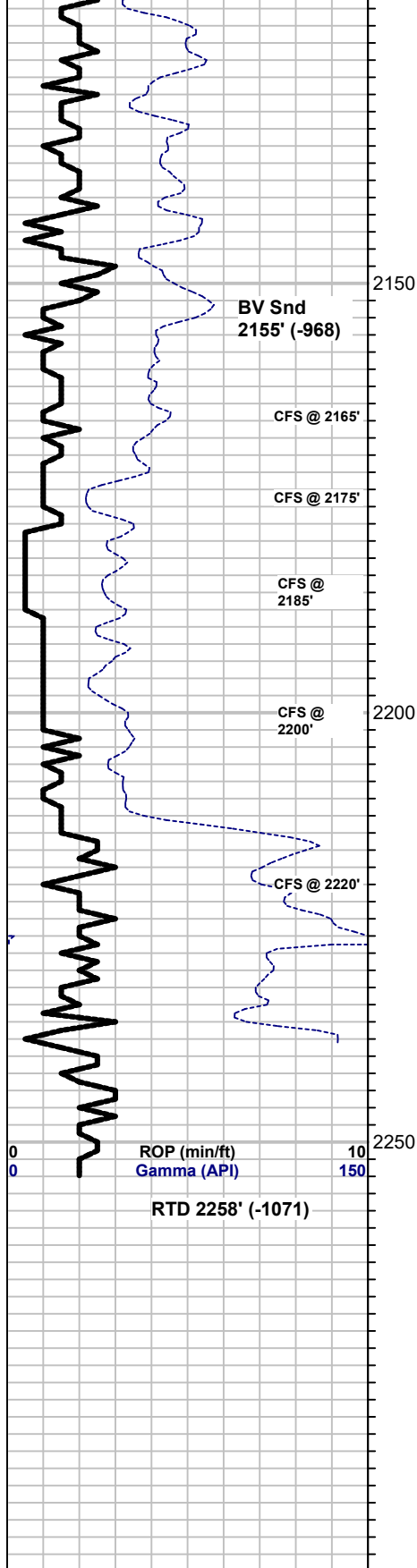
**2100'-10'**: Shaley SS & sndy/silty shale, gry to tan, med res, vpr-no vis poro. Much gry shale.

**2110'-20'**: Silty shale, lt gry, platy, sft

**CFS @ 2023' 15 min**: Lms, gry, micro-vfn xtln, med-hrd res, no vis poro. Much gry shale

**CFS @ 2085' 15 min**: SS, lt gry, fn grained, sub-rnd, qtz, poorly srted, brtl-med res, pr vis poro, clay matrix. some sndy shale, likely at top, NS.

**CFS @ 2090' 15 min**: Blk carb shale, firm. Also SS, as abv.



**2110'-20'**: Silty shale, lt gry, platy, srt.

**2120'-30'**: SS, tan-lt gry, vfn grained well srted, brtl-med res, fr poro, trc FO, wk sat, VSSG on brk, sli odr, gd even yell/wht fluor, vgd cut & bloom.

**2130'-40'**: SS, tan-lt gry, vfn grained, well srted, pr intr-gran poro, some pcs fri, clay matrix, med res, VSSFO, fr odr, gd even yell/wht fluor, trc gas bbls. 1 pc w/VSSFO & gas on brk! Gd cut & bloom.

**2140'-50'**: SS, lt gry, vfn grained, well srted, brtl-med res, clay matrix, semi-fri, pr-fr intr-gran poro, mst w/VSSG on brk, pr-no vis sat, gd odr, gd even brt yell/wht fluor, less poro than abv.

**2150'-60'**: SS, gry, vfn grained, well srted, med res, some semi-fri, SSFO & fr shw popping gas on brk, gd brt even yell/wht fluor, fr odr, abndt clay/shaley matrix pr vis poro.

**2160'-70'**: Shale, gry, tan, fissile, some tite gry SS, vfn grained, hrd res, vpr vis poro. Mst pcs NS, seems to have drilled past show.

**2170'-80'**: SS, brwn-gry, fn-med grained qtz, mod srted, med res, fri-semi fri, fr vis poro, fr sat, NSFO, trc gas bbls, gd even yell/wht fluor, vgd streaming cut & gd blm on brk, gd odr.

**2180'-90'**: SS, brn-gry, fn grained, well srted, sft-med res, friable, gd poro, fairly cln matrix, fr sat, sli-fr rainbow lstr, fr-gd odr, NSFO, gd even yell/wht fluor in 100% pcs.

**2190'-2200'**: SS, brwn, gry, fn grained, mod-well srted, wk sat, NSFO, fr-gd odr, med res, semi-fri, fr poro, gd yell/wht fluor.

**2200'-10'**: SS, gry, fn grained, med-hrd res, mod srted, clay matrix, pr poro mst pcs, much dead flky stn, brwn & blk on brk, fr odr, fr even dull yell/wht fluor, trc FO.

**2210'-20'**: SS, gry, fn grained, mod srted, med-hrd res, pr-fr poro, clay matrix, fr even dull yell/grn fluor, no vis sat, NSFO, no stn, 1 pc w/trc rainbw lstr on brk.

**2220'-30'**: Shale, gry-drk gry, some blk sli carbonaceous.

**2230'-40'**: Shale, gry, lt gry, drk gry, fissile.

**2240'-50'**: Shale, gry-drk gry, some blk sli carbonaceous.

**2250'-58'**: Shale as abv. A few pcs pyrite.

**2130'-40'**: Recommed perforating if zone thickness is sufficient.

**2140'-50' cont'**: A couple pcs w/vgd shw gssy lt brwn FO on brk!

**CFS @ 2165' 15 min**: SS, lt gry/brwn, fn grained, well srted, sli clay matrix, VSSFO, gd odr, 1 pc w/gd shw gssy FO on brk, gd even yell/wht fluor, wk sat, VSSG.

**CFS @ 2175' 15 min**: SS, brwn, fn graind, sub-ang to sub-rnd qtz, mod srted, fr poro, med res, fri-semi fri, wk-fr sat, VSSFO, SSG, fr odr, gd even yell/grn fluor, fr-gd strming cut.

**CFS @ 2185' 15 min**: SS, brwn, fn-med graind, sft, fri, fr-gd poro, fr sat, fr rainbw lstr, NSFO, fr-gd odr, gd even yell/grn fluor.

**CFS @ 2200' 15 min**: SS, gry, fn graind, med res, shaley matrix, pr-fr poro, SSFO, sli gssy FO on brk, gd odr, gd even yell/wht fluor, wk-fr sat.

**CFS @ 2220' 15 min**: Shale, drk gry-blk. Some blk carb organic shale, w/sli petroliferous odor.



# R & W Energies



Scale 1:240 Imperial

Well Name: Gray-Divine #5  
 Surface Location: NE/SW/SW/NW of Sec 23 T24S R9E  
 Bottom Location:  
 API: 15-073-24247  
 License Number: 7564  
 Spud Date: 5/5/2022 Time: 7:00 AM  
 Region: Greenwood County Kansas  
 Drilling Completed: 5/9/2022 Time: 12:00 AM  
 Surface Coordinates:  
 Bottom Hole Coordinates:  
 Ground Elevation: 1181.00ft  
 K.B. Elevation: 1187.00ft  
 Logged Interval: 800.00ft To: 2258.00ft  
 Total Depth: 2258.00ft  
 Formation: Bartlesville Sand  
 Drilling Fluid Type: Chemical Mud

## OPERATOR

Company: R and W Energies  
 Address: 403 N. Myrtle Street  
 Eureka, KS 67045

Contact Geologist:  
 Contact Phone Nbr: 620-583-4785  
 Well Name: Gray-Divine #5  
 Location: NE/SW/SW/NW of Sec 23 T24S R9E  
 API: 15-073-24247  
 Pool: Field: Thrall-Aagard  
 State: Kansas Country: United States

## CONTRACTOR

Contractor: C and G Drilling Inc.  
 Rig #: Rig Type: Single  
 Spud Date: 5/5/2022 Time: 7:00 AM  
 TD Date: 5/9/2022 Time: 12:00 AM  
 Rig Release: Time:

## ELEVATIONS

K.B. Elevation: 1187.00ft Ground Elevation: 1181.00ft  
 K.B. to Ground: 6.00ft

## LOGGED BY

Company: Sparrow Oil LLC  
 Address: 701 P50 Road  
 Eureka, KS 67045  
 Phone Nbr: 620-953-2066  
 Logged By: Geologist Name: Seth L Evenson

## NOTES

### Cased-hole log tops







Heebner 840' (+347)  
 Toronto 852' (+335)

Douglas	873' (+314)
Lansing	1208' (-21)
KC	1485' (-298)
Stark	1588' (-401)
Hush	1614' (-427)
BKC	1648' (-461)
Marmaton	1759' (-572)
Altamont	1791' (-604)
Pawnee	1863' (-676)
Ft. Scott	1896' (-709)
Cherokee	1916' (-729)
Ardmore	2009' (-822)
Catt Snd	2072' (-885)
Up BV Snd	2115' (-928)
BV Snd	2155' (-968)
Bas BV	2212' (-1025)

Fair shows were encountered in the Upper Bartlesville sand section, though the sand had a high clay content and exhibited poor matrix porosity. It is recommended that the Upper Bartlesville be perforated and fracked prior to abandonment to evaluate the zone for commercial production. The main Bartlesville zone had 57 feet of sand development, with approximately 40 feet of fair, light oil saturation, and fair to good even fluorescence observed in samples. Porosity was fair to good in the main Bartlesville, and appeared to improve with depth. Dead flaky stain was observed in the bottom 10-12 feet of Bartlesville sand, which probably indicates complete water saturation.




4.5 inch production casing was ran to further evaluate and produce the Upper Bartlesville and Bartlesville Sands

### ROCK TYPES

 Coal	 Ss	 Shblk
 Lmst fw<7	 Shgy	 Siltst

### ACCESSORIES



**STRINGER**

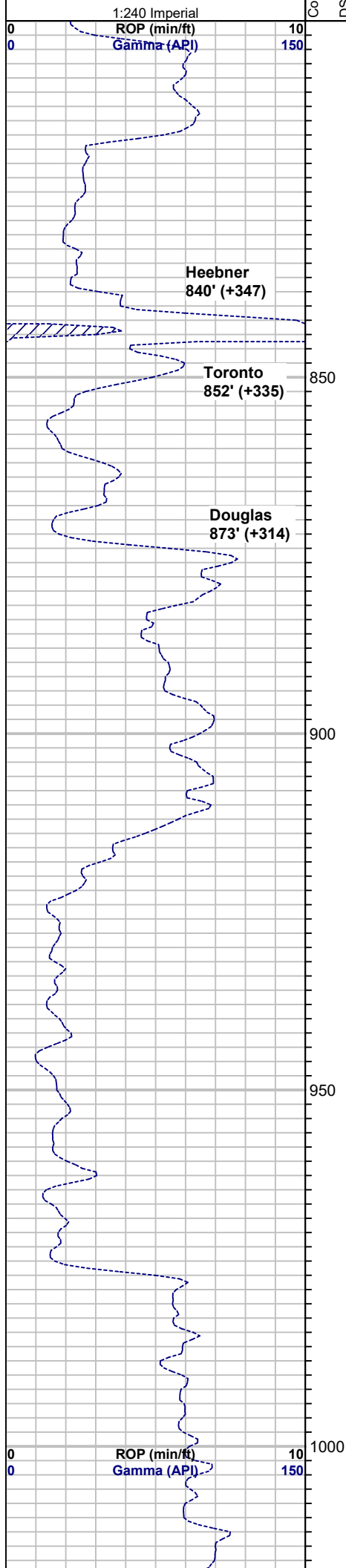
 Sandstone
 Siltstone
 Shale

### OTHER SYMBOLS

**OIL SHOWS**

● Even Stn
● Spotted Stn 50 - 75 %
● Spotted Stn 25 - 50 %
○ Spotted Stn 1 - 25 %
○ Questionable Stn
D Dead Oil Stn
■ Fluorescence

Curve Track #01						
ROP (min/ft)		Depth   Intervals Oil Shows	Interpreted Lithology	Geological Descriptions	Comment	Vertical Comment 1
Gamma (API)						



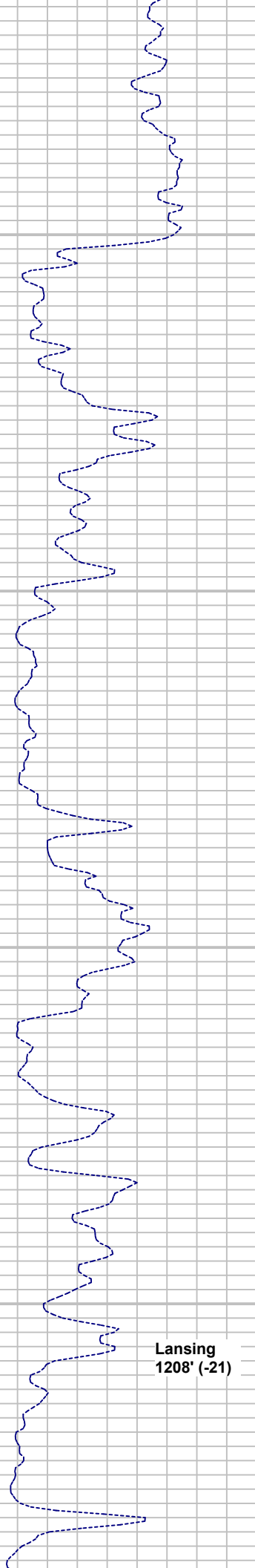
Lansing  
1208' (-21)

1200

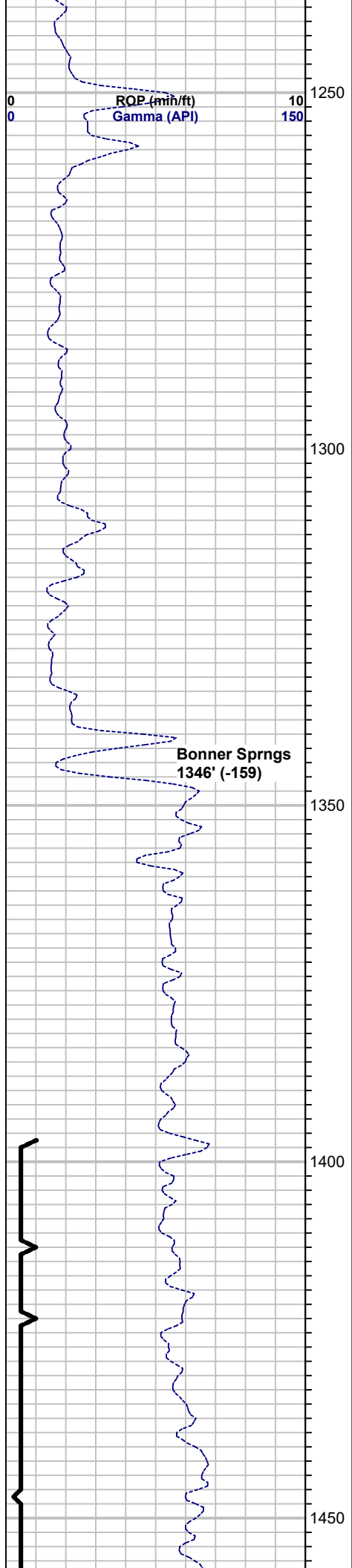
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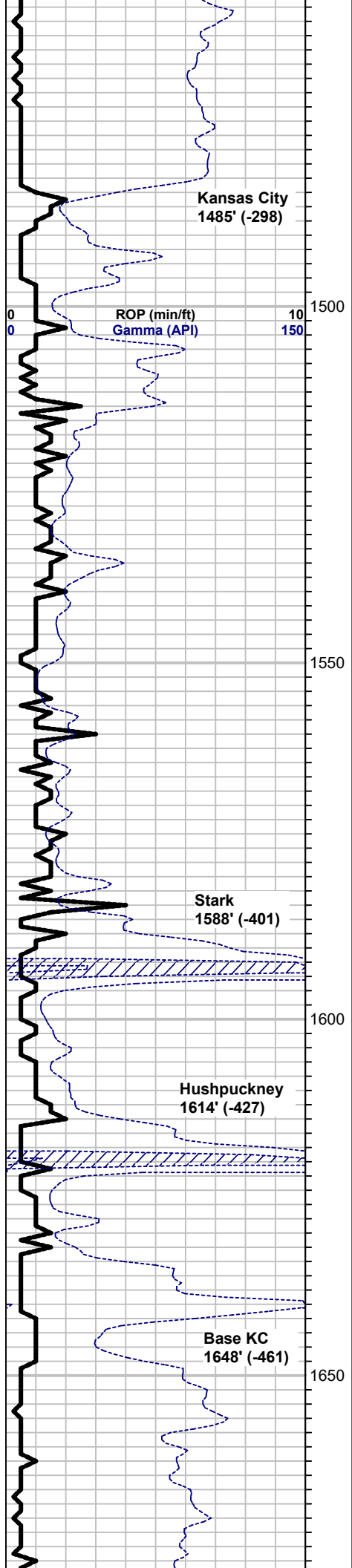
1100

1050









**Kansas City**  
1485' (-298)

ROP (min/ft)  
Gamma (API)

1500

1550

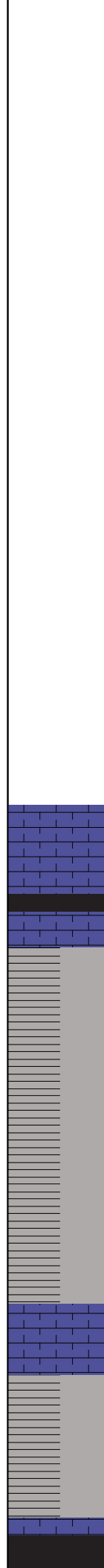
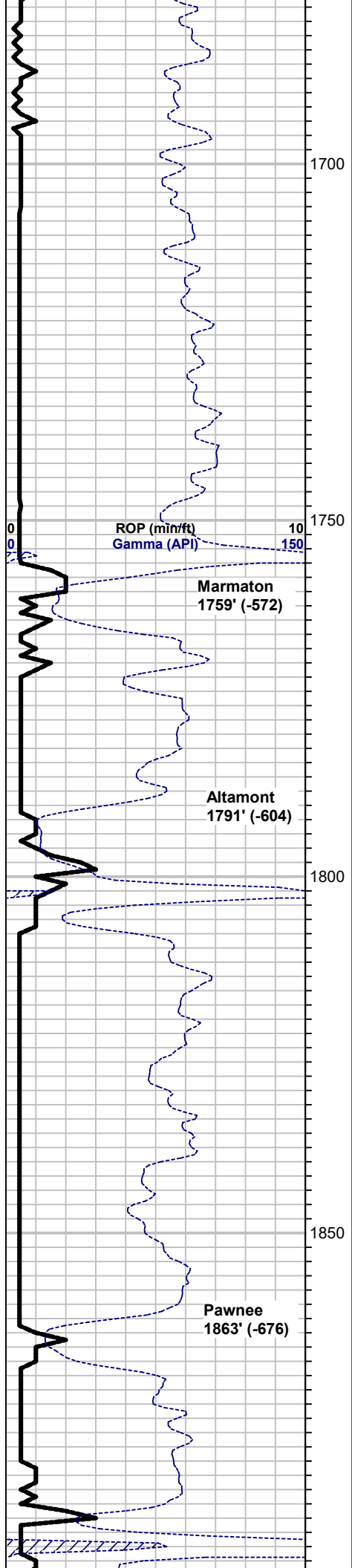
**Stark**  
1588' (-401)

1600

**Hushpuckney**  
1614' (-427)

1650

**Base KC**  
1648' (-461)



**1790'-1800'**: Much lms, wht-gry, micro-xtln, no vis poro, mstly shale & silty shale, gry, some sltstn to SS, gry, clay matrix, NVP.

**1800'-10'**: Mstly shale gry-drk gry. Some lms, gry-tan, vfn xtln, mealy txt, hrd res, vpr-no vis poro.

**1810'-20'**: Lms, gry-tan, vfn xtln, grainy txt, med-hrd res, sli foss, a few lrg ooids, vpr-no vis poro. Much shale as abv.

**1820'-30'**: Lms, gry-tan, micro-xtln, mst non-allchmcl, no vis poro. Increase in gry sltstn & shaley SS, NS.

**1830'-40'**: Sltstn, gry. Some lms, as abv. Much gry shale.

**1840'-50'**: Mix of shale, sltstn & lms, crm-yellowish/gry, vfn xtln, med res, mealy txt, vpr-no vis poro.

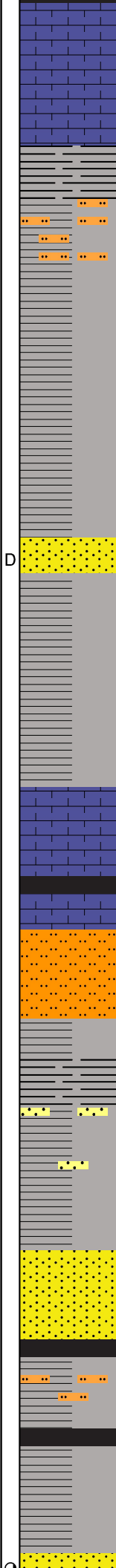
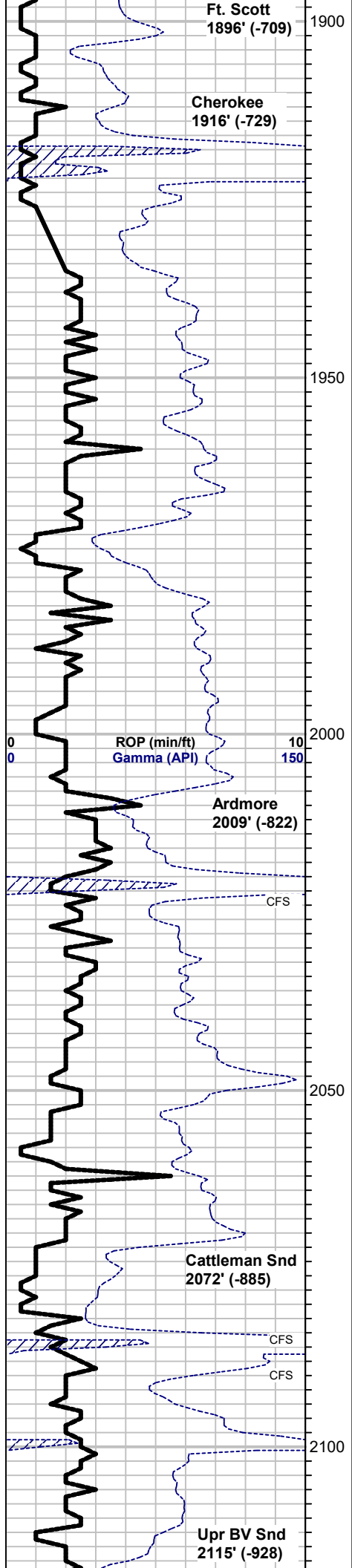
**1850'-60'**: Sltstn, gry. Some lms, off-wht to crm, vfn-micro xtln, vpr-no vis poro.

**1860'-70'**: Sndy shale & some shaley SS, gry, vfn grained, platy, vpr-no vis poro, NS. A few pcs pyrite.

**1870'-80'**: Vry shaley SS, gry, vfn grained, platy, vpr-no vis poro, NS. Some pyrite.

**1880'-90'**: Siltstone, gry, blkly to platy. A few pcs gry shaley, SS, vfn grained, vpr-no vis poro, NS.

**1890'-1900'**: Lms, gry-tan, micro-xtln, med-hrd res, sli mealy txt,



poss sli chlky, vpr-no vis poro.

**1900'-10'**: Lms, tan-gry, micro-xtln, med res, no vis poro. Much pyrite. Some gry silty shale.

**1910'-20'**: Lms, drk gry-drk brwn, micro-xtln, med-hrd res, tite, no vis poro. Some blk carb shale.

**1920'-30'**: Lms, lt gry, vfn xtln, med res, no vis poro, non-allchmcl.

**1930'-40'**: Silty shale, lt gry, sft-mshy. Much gry shale, sft, blkly to fissile.

**1940'-50'**: Shale, gry to lt grn. Much silty shale. a few pcs pyrite. Also some lms tite. A few pcs SS, lt gry, fn grnd, pr vis poro, NS.

**1950'-60'**: Mstly shale, gry fissile. Much siltstone, sft-mshy, gry-lt gry. Some lms, lt gry-tan, micro-xtln, no vis poro.

**1960'-70'**: Shale, gry-drk gry, sli silty. A few pcs pyrite.

**1970'-80'**: Shale, as abv.

**1980'-90'**: Shale, as abv. A few pcs shaley SS, gry, tite, NS.

**1990'-2000'**: SS, gry, fn grnd, sub-rnd qtz, mod srted, med res, pr vis poro, clay mtrx, poss dead blk flky stn, NSFO, no fluor, no cut, no odr.

**2000'-10'**: Shale, gry, sli silty. A few pcs SS, as abv.

**2010'-20'**: Lms, lt gry-gry, vfn xtln, med res, poss sli silty, tite, no vis poro. Mstly shale gry-drk gry.

**2020'-30'**: Blk carb shale, firm. Much gry shale & a few pcs lt grn shale.

**2030'-40'**: Lms, lt yellow/tan, micro-vfn xtln, med res, no vis poro. Much silty shale gry-lt gry.

**2040'-50'**: Siltstone, gry-lt gry, sft. Some lms, as abv.

**2050'-60'**: Blk shale, sli carbonaceous, much gry shale. A few pcs lt grn shale.

**2060'-70'**: SS, off-wht, vfn grained, sft wht chlky matrix, no vis poro, NS. Mstly shale gry, fissile.

**2070'-80'**: Silty shale, gry, platy.

**2080'-90'**: SS, lt gry-tan, fn-med grained, sub-rnd to rnd, prly srted, med res, pr-fr intr-gran poro, NS. Less clay in matrix.

**2090'-2100'**: Silty/sndy shale, off-wht, mshy. Some gry shale, sli silty.

**2100'-10'**: Shaley SS & sndy/silty shale, gry to tan, med res, vpr-no vis poro. Much gry shale.

**2110'-20'**: Silty shale, lt gry, platy, sft

**CFS @ 2023' 15 min**: Lms, gry, micro-vfn xtln, med-hrd res, no vis poro. Much gry shale

**CFS @ 2085' 15 min**: SS, lt gry, fn grained, sub-rnd, qtz, poorly srted, brtl-med res, pr vis poro, clay matrix. some sndy shale, likely at top, NS.

**CFS @ 2090' 15 min**: Blk carb shale, firm. Also SS, as abv.

