

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) (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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Form	ACO1 - Well Completion
Operator	Griffin, Charles N.
Well Name	ADDIE 5
Doc ID	1471418

All Electric Logs Run

Sonic Log
Micro Log
Compensated Density/Neutron Log
Dual Induction Log

Form	ACO1 - Well Completion
Operator	Griffin, Charles N.
Well Name	ADDIE 5
Doc ID	1471418

Tops

Name	Top	Datum
Heebner	3902	-1914
Brown Lime	4070	-2082
Lansing	4083	-2905
Stark	4345	-2357
Base KC	4472	-2484
Pawnee	4535	-2547
Cherokee	4571	-2583
Viola	4611	-2623
Simpson	4768	-2780

QUALITY WELL SERVICE, INC.

7123

Federal Tax I.D. # 481187368

Home Office 30060 N. Hwy 281, Pratt, KS 67124

Mailing Address P.O. Box 468

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

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

Date	Sec.	Twp.	Range	County	State	On Location	Finish
5-17-19	23	29S	15W	PRATT	Ks		
Lease Addie		Well No. 5		Location Pratt, 1/4 HWY 54 W to 140 th Rd. 10 S to 100 th Rd			
Contractor WW Dalg P.g + 14				Owner IE to 130 th Rd 1 S to T 1/4 E N. into			
Type Job 8 5/8				To Quality Well Service, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.			
Hole Size 12 1/4		T.D. 267'		Charge To G. H. H.			
Csg. 8 7/8 23'		Depth 266'		Street			
Tbg. Size		Depth		City			
Tool		Depth		State			
Cement Left in Csg. 20'		Shoe Joint 20'		The above was done to satisfaction and supervision of owner agent or contractor.			
Meas Line		Displace 15.7		Cement Amount Ordered 400 SK Common			
EQUIPMENT				21/64 2 1/2" 11/2' PS USED 275 SK			
Pumptrk 6	No.	TS		Common 275			
Bulktrk 7	No.	SAGE		Poz. Mix			
Bulktrk	No.			Gel. 5 SK			
Pickup	No.			Calcium 10 SK			
JOB SERVICES & REMARKS				Hulls			
Rat Hole				Salt			
Mouse Hole				Flowseal 137.5'			
Centralizers				Kol-Seal			
Baskets				Mud CLR 48			
D/V or Port Collar				CFL-117 or CD110 CAF 38			
Run to H's 8 7/8 23' csg set 266'				Sand			
START csg csg on Bottom Hook up to csg				Handling 415			
Break circ w/ 21g				Mileage 25			
START Pumping 10 Bbls H2O				FLOAT EQUIPMENT			
Mix Pump 275 SK 14.0" / gal				Guide Shoe HEAD: manifold			
START down Release 8 7/8 Wooden Plug				Centralizer 8 5/8 Wooden Plug			
START Disp				Baskets			
Plug down 15.7 Bbl. at				AFU Inserts			
Close Valve on Csg				Float Shoe			
Open Circ thru JOBS				Latch Down			
Circ cut to AT				SERVICE Sup			
THANK YOU				LMV 25			
PLEASE CALL AGAIN				Pumptrk Charge surface			
Don Mind TS SAGE				Mileage 50			
X Signature <i>John Green</i>				Tax			
				Discount			
				Total Charge			

OPERATOR

Company: Charles N. Griffin
Address: PO Box 347
Pratt, KS 67124

Contact Geologist:
Contact Phone Nbr:
Well Name: #5 Addie
Location: Section 28-29S-15W
API: 15-151-22493
Pool:
State: Kansas

Field: Croft
Country: USA

Scale 1:240 Imperial

Well Name: #5 Addie
Surface Location: Section 28-29S-15W
Bottom Location: API: 15-151-22493
License Number: 5/17/2019
Spud Date: Pratt County
Region: 5/22/2019
Drilling Completed: 330' FSL & 1370' FWL
Surface Coordinates: 1977.00ft
Bottom Hole Coordinates: 1988.00ft
Ground Elevation: 3800.00ft
K.B. Elevation: 4810.00ft
Logged Interval: Total Depth:
Formation: 4810.00ft
Drilling Fluid Type: Chemical (MudCo)

Time: 3:30 PM

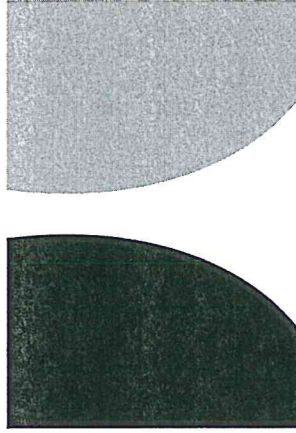
Time: 4:00 AM

To: 4810.00ft

SURFACE CO-ORDINATES

Well Type: Vertical
Longitude:
Latitude: 330' FSL
N/S Co-ord: 1370' FWL
E/W Co-ord:

LOGGED BY



TERRATECH
ENERGY SERVICE, LLC

Company: TerraTech Energy Service LLC.
Address: 1632 S. West St, Suite 12
Wichita, KS 67208

Phone Nbr: 316-617-3959
Logged By: Geologist

Name: Bruce Reed

CONTRACTOR

Contractor: WW Drilling
 Rig #: 14
 Rig Type: mud rotary
 Spud Date: 5/17/2019
 TD Date: 5/22/2019
 Rig Release: 5/23/2019

Time: 3:30 PM
 Time: 4:00 AM
 Time: 1:00 PM

ELEVATIONS

K.B. Elevation: 1988.00ft
 K.B. to Ground: 11.00ft
 Ground Elevation: 1977.00ft

NOTES

Surface Casing: 8-5/8" at 267'
 Production Casing: 5-1/2" at 4810'

Daily Penetration: 05/18/19 267' Spud @ 3:30 PM 05/19/19 3670'
 2252'

05/22/19 4810' RTD @ 4:00 AM 05/20/19 4500'
 05/23/19 4810' Rig released @ 1:00 PM

FORMATION TOPS

Formation	Sample Top	Datum	Log Top	Datum Comparison*
Heebner	3902'	-1914	3902'	-1914 -3
Brown Lime	4070'	-2082	4068'	-2080 -7
Lansing	4083'	-2095	4083'	-2095 -8
Stark	4345'	-2357	4344'	-2356 -7
Base KC	4472'	-2484	4475'	-2487 -8
Pawnee	4535'	-2547	4536'	-2548 -11
Cherokee	4571'	-2583	4573'	-2585 -13
Viola	4611'	-2623	4610'	-2622 -25
Simpson	4768'	-2780	4768'	-2780 -3

*Charles N. Griffin, #2 Addie, 1190' FSL & 790' FWL, Section 28-29S-15W, Pratt County, Kansas

ROCK TYPES



INTERVALS

- Core
- DST

Oil Show

- Good Show
- Fair Show
- Poor Show
- Spotted or Trace
- Questionable
- Stn

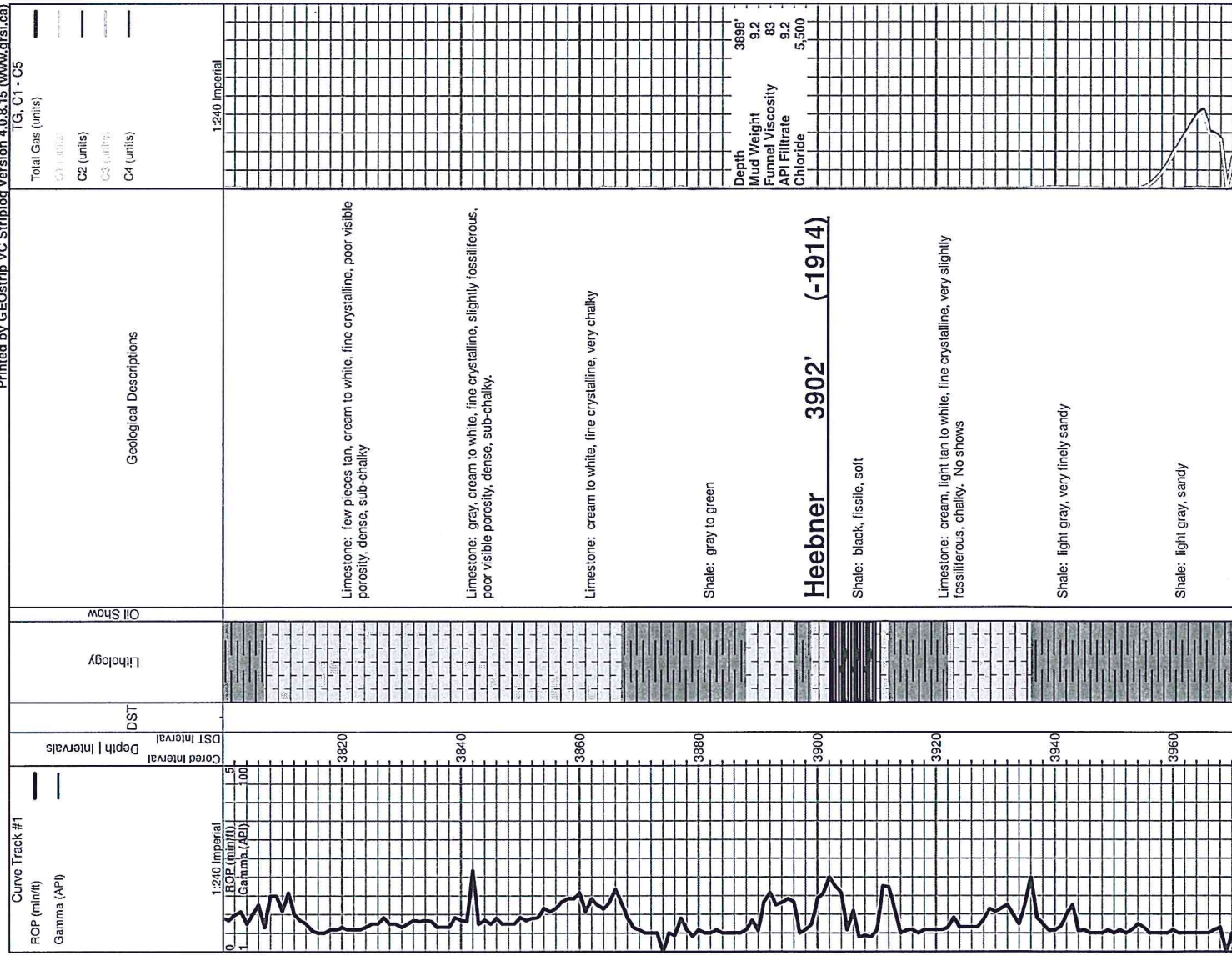
DST

- DST Int
- DST alt
- Core
- fall pipe

OTHER SYMBOLS

D Dead Oil Stn
 ■ Fluorescence
 * Gas

Printed by GEOstrip VC Striplog version 4.0.8.15 (www.grsi.ca)



Geological Descriptions

Limestone: few pieces tan, cream to white, fine crystalline, poor visible porosity, dense, sub-chalky

Limestone: gray, cream to white, fine crystalline, slightly fossiliferous, poor visible porosity, dense, sub-chalky.

Limestone: cream to white, fine crystalline, very chalky

Shale: gray to green

Heebner 3902' (-1914)

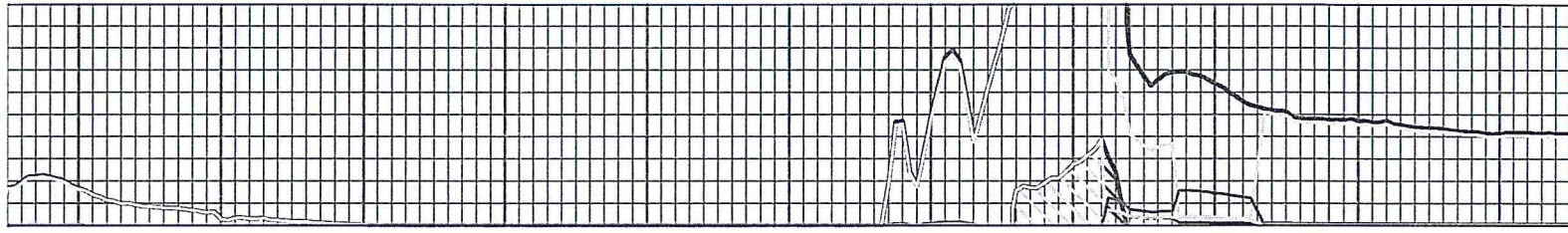
Shale: black, fissile, soft

Limestone: cream, light tan to white, fine crystalline, very slightly fossiliferous, chalky. No shows

Shale: light gray, very finely sandy

Shale: light gray, sandy

Depth 3898'
 Mud Weight 9.2
 Funnel Viscosity 83
 API Filtrate 9.2
 Chloride 5,500



Shale: light gray, sandy

Sandstone: cream to light gray, very fine grained, micaceous

Sandstone: light gray, very fine grained

Sandstone: cream to light gray, fine grained

Sandstone: fine to very slightly medium grained

Brown Lime 4066' (-2078)

Limestone: light tan to brown, fine crystalline, dense

Shale: medium gray, green, brown

Lansing 4083' (-2095)

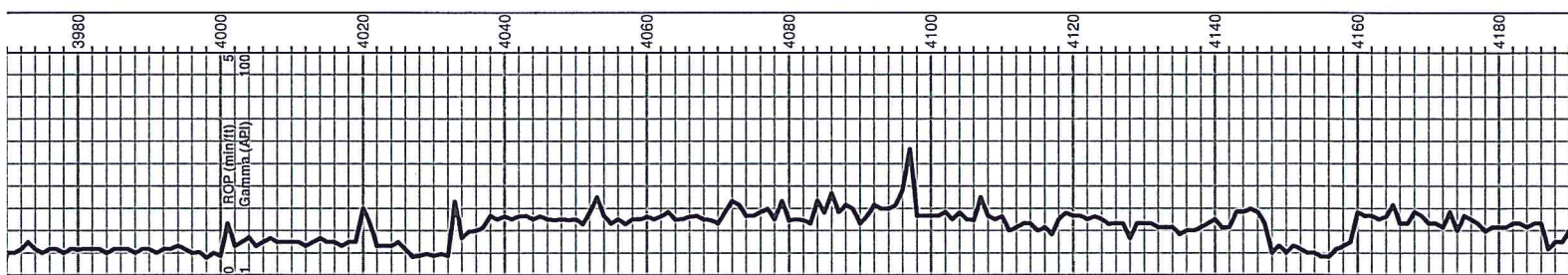
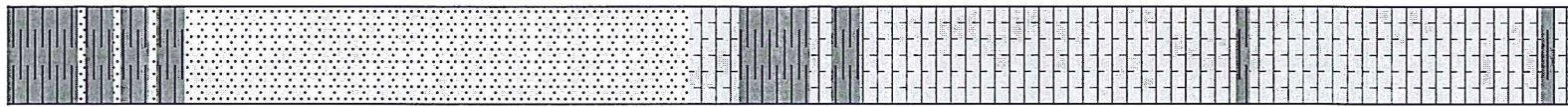
Limestone: cream to white, fine crystalline, poor visible porosity, sub-chalky. Note samples carry lots of sandstone

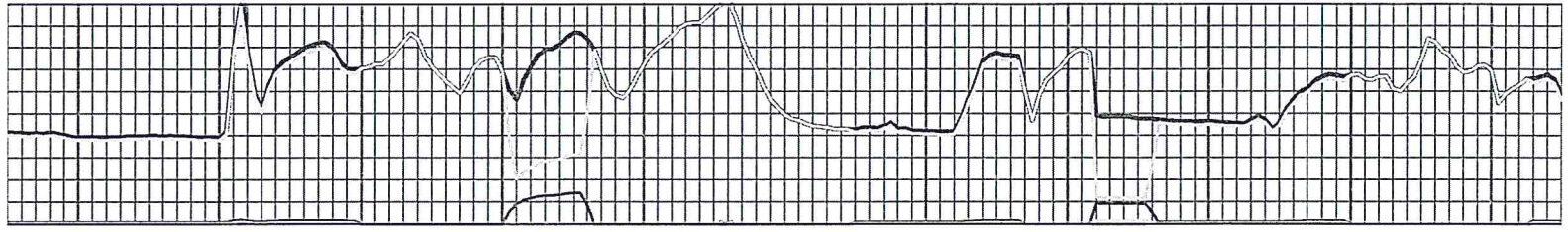
Limestone: cream, light tan to light gray, fine crystalline to fossiliferous, poor visible porosity. Note samples carry lots of sandstone

Limestone: cream, fine crystalline, some small pinhead vug porosity

Poor quality sample

Limestone: cream to gray, fine crystalline, dense





Limestone: light brown, cream to gray, fine to slightly medium crystalline, poor visible porosity, dense.

Limestone: cream to light tan, some white, fine crystalline, poor visible porosity, sub-chalky. Note sample quality has improved

Limestone: cream to light tan, fine crystalline, mealy with some visible porosity

Limestone: cream to light tan, fine to rare medium piece, poor visible porosity

Limestone: no significant change

Limestone: cream to tan, light brown, fine crystalline slightly fossiliferous, poor visible porosity

Limestone: cream to light tan, some brown, fine crystalline, rare medium crystalline, dense

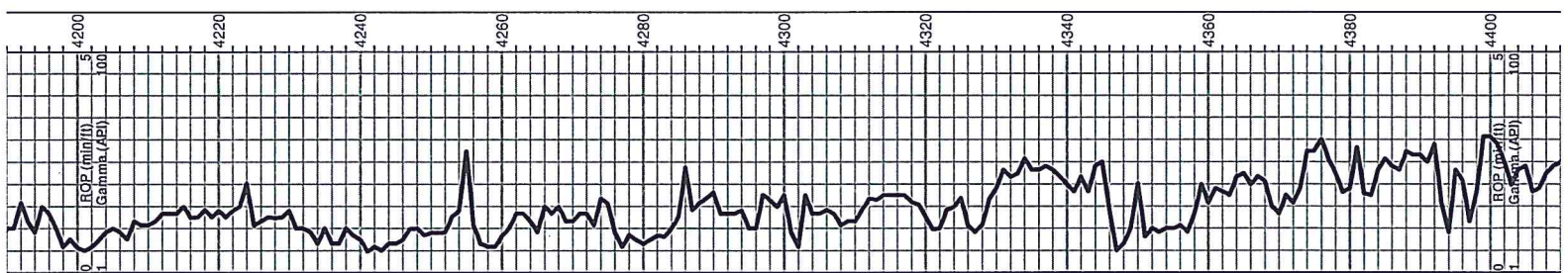
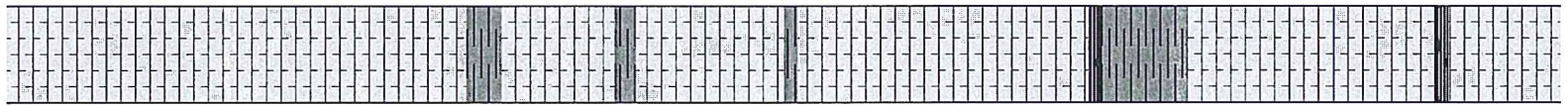
Limestone: light tan to brown, dense

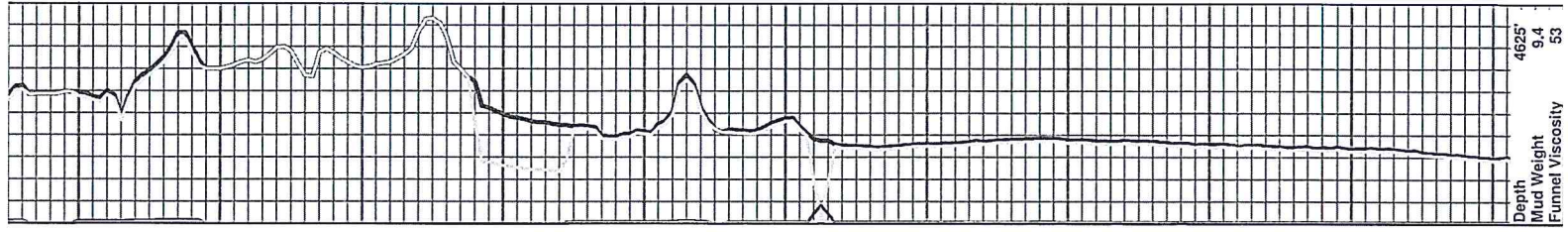
Stark 4343' (-2355)

Limestone: cream to light tan, fine crystalline, rare piece poorly developed oolitic porosity, sub-chalky, very faint odor, NSFO

Limestone: cream to white, fine crystalline, dense

Limestone: cream to white, fine crystalline, poor to no visible porosity, dense





Limestone: chalky white

Limestone: cream to gray, fine crystalline, poor to no visible porosity, sub-shaley

Limestone: cream to gray to light tan, fine crystalline, poor visible porosity. Sample carries lots gray to green shale

B/KC 4472' (-2484)

Shale: dark to medium gray, soft

Shale: gray. Note Bit Trip @ 4500. Changed from PDC to Button Bit

Limestone: cream to light tan, fine crystalline, few pieces pelletal, poor visible porosity, dense.

Limestone: cream, white to brown, fine to micro crystalline, no visible porosity, dense, some chalky material

Pawnee 4535' (-2547)

Limestone: as above

Limestone: cream to tan, fine to micro crystalline, very dense, some scattered gray brown shale.

Limestone: white, light tan, sub-chalky

Limestone: cream, white to light tan, fine to micro crystalline, no visible porosity, dense, sub-chalky

Cherokee 4571' (-2583)

Limestone as above

Shale: gray, green, brown and rust red. Limestone: cream to tan, fine crystalline, dense

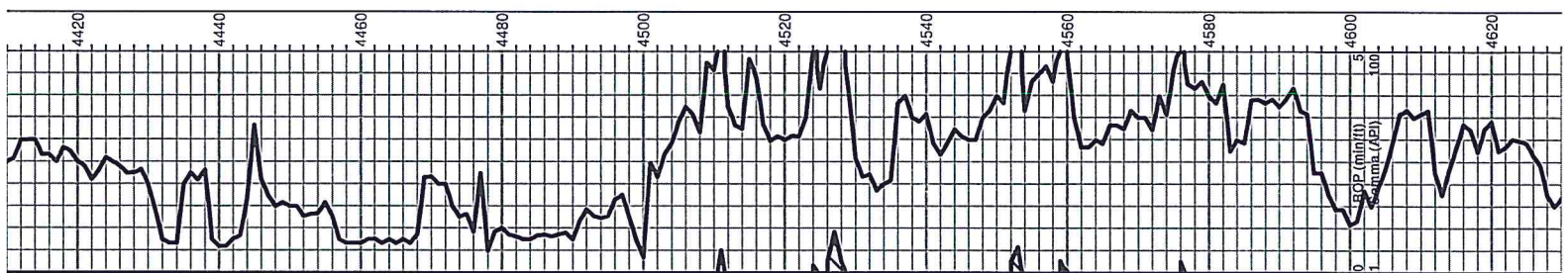
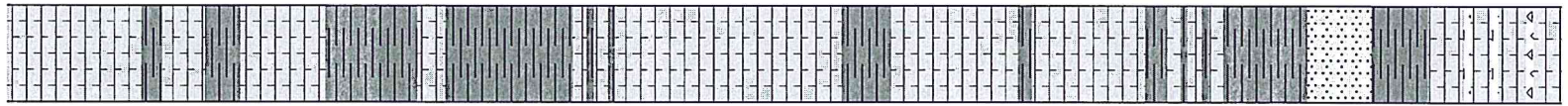
Shale: gray to green, some pieces hard and brittle, some scattered pyrite. One cluster light tan sandstone, poor visible porosity, no show

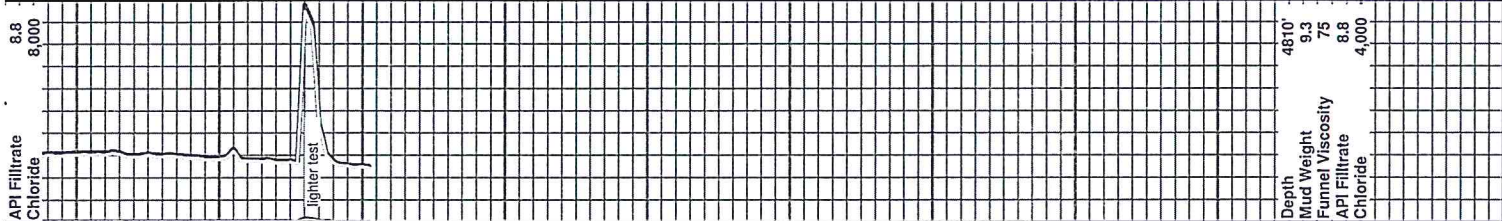
Limestone: cream, fine crystalline to slightly fossiliferous, abundant shale, gray, green, scattered few sandstone clusters, light, NS

Viola 4611' (-2623)

Shale: gray, green, rust red, silty, few pieces pyrite. Sample washes slightly red

Chert: cream to white, vitreous, opaque, sharp and blocky. Sandstone: light tan, fine grained, moderately friable, milky cut, odor when broken.





Chert: more cream than white, vitreous, opaque. Sandstone: light tan to tan, fine grained fair to good friable, increase in amount in sample tray. Odor in fresh, ssfo. Some pale green limestone, dense

Chert: cream, white to off white, mostly vitreous, few pieces weathered, decrease in amount of sandstone, rare piece dark tan dolomite with some visible porosity. Fluorescence when broken, vssfo, faint odor

Shale: flood gray, red, slightly silty

Poor quality sample

Chert: white to off-white, vitreous, opaque, sharp and blocky, some dull fluorescence.

Circulated @ 4680' Chert: mostly white vitreous, poor quality sample, 60" Cherty dolomite: medium brown, fine crystalline, sucrosic, 10% of sample. Faint odor, sto when broken, scattered bright fluorescence

Chert: white to cream, vitreous, very sharp, blocky, good porosity. Minor amount of cream dolomite, very faint odor with vssfo, moderate fluorescence

Cherty dolomite as above

Cherty dolomitic lime: cream to white, fine crystalline, sub-sucrosic, poor visible porosity, NS

Cherty dolomitic lime as above

Poor quality sample

Poor quality sample, sample carries abundant shale

Poor quality sample, sample carries abundant shale

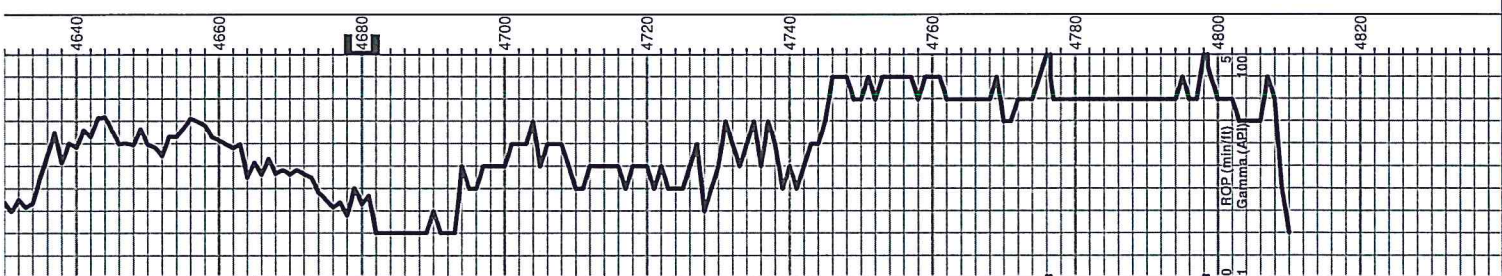
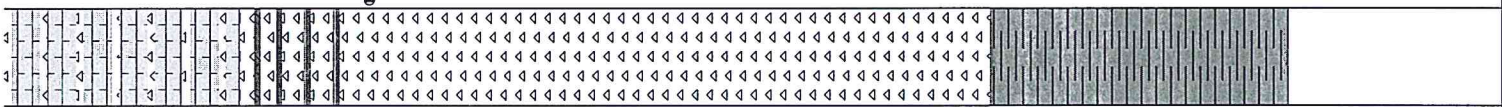
Simpson 4768' (-2780)
Shale: varicolored, mostly rust red, gray

Shales as above

Shale: gray, red, few pieces blue

Shale: gray, red, brown, increase in blue

Circulated at 4810' Shales as above with some sandstone clusters, white, fine grained, moderate porosity, barren



Depth	4810'
Mud Weight	9.3
Funnel Viscosity	75
API Filtrate Chloride	8.8
	4,000

Customer Charles Grotkin	Lease No.	Date 5-23-19
Lease Addie	Well # 5	
Field Order # 17939	Station Pratt	Casing 5 1/2
		Depth 4811.59
Type Job Z-42 5 1/2" Long string	Formation	County Pratt
		State KS
		Legal Description 28-295-15W

PIPE DATA		PERFORATING DATA		FLUID USED		TREATMENT RESUME		
Casing Size	Tubing Size	Shots/Ft		Acid	150 SKS AA-2	RATE	PRESS	ISIP
5 1/2				Pre Pad	50 SKS 60% 40 P02			5 Min.
Depth 4811.59	Depth	From	To	Pad		Min		10 Min.
Volume 114.5	Volume	From	To	Frac		Avg		15 Min.
Max Press 1300	Max Press	From	To			HHP Used		Annulus Pressure
Well Connection PC	Annulus Vol.	From	To	Flush	114	Gas Volume		Total Load
Plug Depth 4790.64	Packer Depth	From	To					

Customer Representative JR Grotkin	Station Manager Westerman	Treater MATTAL
Service Units 83353	84981	20920
Driver James MATTAL	MATTAL	Coilley

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
10:45					ON LOCATION / SAFETY meeting
3:30					run 5 1/2" casing 20.95' 5400
					tubing 1, 2, 3, 4, 5, 6.
6:40					casing on bottom
6:50					hook to casing / Break wire w rig
8:09	200		12	5	Pump 500 gal. mud flush
8:11	200		5	5	Pump 5 bbl water
8:13	200		38	5	mix 150 SKS AA-2 cont
8:23			4	4	DROP Plug / wash pump + wire
8:26	100			6	START disp.
8:42	200		85	6	LIFT pressure
8:46	600			3	slow rate
8:48	1,500		114		plug down, released + held
9:00			7.5		plug rat + mouse holes
					circulation thru JOB
					JOB complete
					Thank You!
					Mike Mattal
					Edmund + Ron