

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	MARY #1
Doc ID	1477447

Tops

Name	Top	Datum
Heebner	3906	-1907
Brown Lime	4075	-2076
Lansing	4098	-2099
Stark	4352	-2353
Base KC	4480	-2481
Pawnee	4542	-2543
Cherokee	4580	-2581
Cherokee Sand	4605	-2606
Viola	4625	-2626
Simpson	4766	-2767
Simpson Sand	4800	-2801

QUALITY WELL SERVICE, INC.

7195

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

Int 2/21/2

Date	Sec.	Twp.	Range	County	State	On Location	Finish
8-12-19	33	295	15W	PRATT	Ks		
Lease	MARY		Well No.	1			
Contractor	Foss. 11 Dalg Rig 3			Location - PRATT KS W on HWY 54 to 190th Rd N S			
Type Job	8 5/8			Owner to 100th Rd 1E to 130th Rd 1S 1/2 E			
Hole Size	12 1/4			T.D.			
Csg.	8 5/8 23"			Depth 273			
Tbg. Size				Depth 271			
Tool				Depth			
Cement Left in Csg.	20			Shoe Joint 20			
Meas Line				Displace 16			
EQUIPMENT				2 1/2 GAL 3 1/2 CC 1/2" PS			
Pumptrk	No.	8		Common 275			
Bulktrk	No.	11		Poz. Mix			
Bulktrk	No.			Gel. 57"			
Pickup	No.			Calcium 776"			
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 6 5/8 23" Csg. set @ 271'				Sand			
START Csg Csg on Bottom Hook up to				Handling 296			
Csg Break Circ W/RIG				Mileage 25			
START Pumping 5 Bbls H ₂ O				8 5/8 FLOAT EQUIPMENT			
START Mix & Pump 283 gal Common				Guide Shoe HEAVY MANIBLD 1EA			
2 1/2 GAL 3 1/2 CC 1/2" PS @ 14.8" CAL				Centralizer 8 5/8 WOODEN PLUG 1 EA			
SHUT DOWN				Baskets			
RELEASE 8 5/8 WOODEN PLUG				AFU Inserts			
START DISP				Float Shoe			
16 Bbls of Plug DOWN				Latch Down			
Close Valve on Csg 150'				SERVICE SQUIP 1 EA			
Good Circ thro ID3				LMV 25			
Circ CNT to Pit				Pumptrk Charge SURFACE			
THANK YOU				Mileage 50			
PLEASE CALL AGAIN							
TODD T J TAKE							
Signature <i>Rick A. Conroy</i>							
						Tax	
						Discount	
						Total Charge	

QUALITY WELL SERVICE, INC.

7202

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

*lms
C-2119*

Date	Sec.	Twp.	Range	County	State	On Location	Finish		
8-18-19	33	29S	15W	PRATT	Ks				
Lease	MAY		Well No.	1				Location	PRATT, K. W on HWY 54 to 140 th AVE S
Contractor	FOSS II Drilg Rig #			Owner				to 110 th ST 1 1/2 E Sinto	
Type Job	4 1/2 L.S.			To Quality Well Service, Inc.				You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.	
Hole Size	7 7/8		T.D.	4850'				Charge To	Griffin
Csg.	4 1/2		Depth	4849				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.	20.80		Shoe Joint	20.80				Cement Amount Ordered	2004 Pro C 2 1/2 GAL
Meas Line			Displace	76.09				10% SALT 5 1/2 Kolseal 67 C-16A 1/4 PS	
EQUIPMENT									
Pumptrk	B	No.		Common				200 SL Pro C	
Bulktrk	D	No.		Poz. Mix					
Bulktrk		No.		Gel.				376 #	
Pickup		No.		Calcium					
JOB SERVICES & REMARKS									
Rat Hole	30x			Salt				1100"	
Mouse Hole	20x			Flowseal				50"	
Centralizers	1-3-5-7-9-11			Kol-Seal				1000"	
Baskets				Mud CLR 48				500 GAL	
D/V or Port Collar				CFL-117 or CD110 CAF 38				C-16A 113"	
Rin 116	4 1/2 105 [#] CSG SET @ 4849			Sand				CC-1 7 gal	
START CSG	CSG on Bottom & TAG			Handling				304	
Hook up to CSG	Break size w/ rig			Mileage				25	
Drop Ball	8" dia w/ rig			4 1/2 FLOAT EQUIPMENT					
Start Pumping	SBHC H2O 17 Bbls MF 5 Bbls H2O			Guide Shoe				HEAD manifold	
Start Pumping	Bat: maxise Holes 52x			Centralizer				6 EA	
Start mix	Pump 150 ⁵⁰ CSG @ 14.8 ^{1/2} gal			Baskets					
Shut down	Release 4 1/2 L.P. 1/6 & wash up			AFU Inserts					
Start Diso	w/ 2% KCL			Float Shoe				1 EA	
Lift Diso	66 out 700'			Latch Down				1 EA	
Pump down	77 at 1100"			Service Sp				1 EA	
PSWP on CSG	1600"			LMV				25	
Release & HELD	1/4 psi back			Pumptrk Charge				15	
Good dia thru IDB				Mileage				50	
Thank you please call AGAIN								Tax	
XOOD TO JACK								Discount	
<i>[Signature]</i>								Total Charge	

OPERATOR

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

Contact Geologist:
Contact Phone Nbr:
Well Name: #1 Mary
Location: Section 33-29S-15W
API: 15-151-22499
Pool:
State: Kansas

Field: Croft Ext.
Country: USA

Scale 1:240 Imperial

Well Name: #1 Mary
Surface Location: Section 33-29S-15W
Bottom Location:
API: 15-151-22499
License Number:
Spud Date: 8/12/2019
Region: Pratt County
Drilling Completed: 8/17/2019
Surface Coordinates: 500' FNL & 1280' FWL
Bottom Hole Coordinates:
Ground Elevation: 1987.00ft
K.B. Elevation: 1999.00ft
Logged Interval: 3800.00ft
Total Depth: 4850.00ft
Formation:
Drilling Fluid Type: Chemical (MudCo)

Time: 3:00 PM

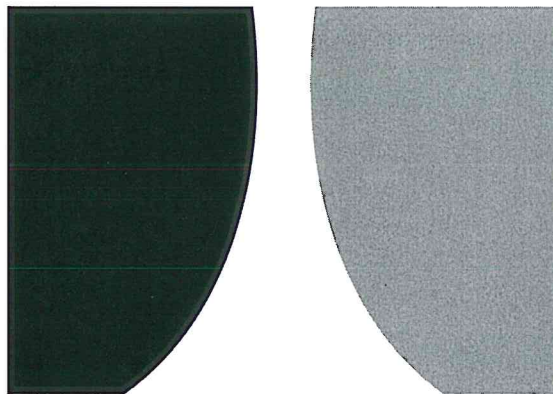
Time: 11:00 AM

To: 4850.00ft

SURFACE CO-ORDINATES

Well Type: Vertical
Longitude:
Latitude:
N/S Co-ord: 500' FNL
E/W Co-ord: 1280' FWL

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: Fossil Drilling
 Rig #: 3
 Rig Type: mud rotary
 Spud Date: 8/12/2019
 TD Date: 8/17/2019
 Rig Release: 8/18/2019

Time: 3:00 PM
 Time: 11:00 AM
 Time: 2:45 PM

ELEVATIONS

K.B. Elevation: 1999.00ft
 K.B. to Ground: 12.00ft

Ground Elevation: 1987.00ft

NOTES

Surface Casing: 8-5/8" at 273'
 Production Casing: 4-1/2" at 4849'

Daily Penetration:

08/12/19	Spud @ 3:00 PM
08/13/19	345'
08/14/19	1795'
08/15/19	2937'
08/16/19	4070'
08/17/19	4748' RTD @ 11:00 AM
08/18/19	4850' Rig released @ 2:45 PM

FORMATION TOPS

Formation	Sample Top	Datum	Log Top	Datum	Comparison*
Heebner	3906'	-1907	3906'	-1907	+7
Brown Lime	4075'	-2076	4075'	-2076	+4
Lansing	4099'	-2100	4098'	-2099	-4
Stark	4350'	-2351	4352'	-2353	+3
Base KC	4477'	-2478	4480'	-2481	+6
Pawnee	4544'	-2545	4542'	-2543	+5
Cherokee	4579'	-2580	4580'	-2581	+4
Cherokee Sand	4603'	-2604	4605'	-2606	flat
Viola	4625'	-2626	4625'	-2626	-4
Simpson	4766'	-2767	4766'	-2767	+13
Simpson Sand	4802'	-2803	4800'	-2801	+13

*Charles N. Griffin, #5 Addie, 330' FSL and 1370' FWL, Section 28-29S-15W
 Pratt County, Kansas

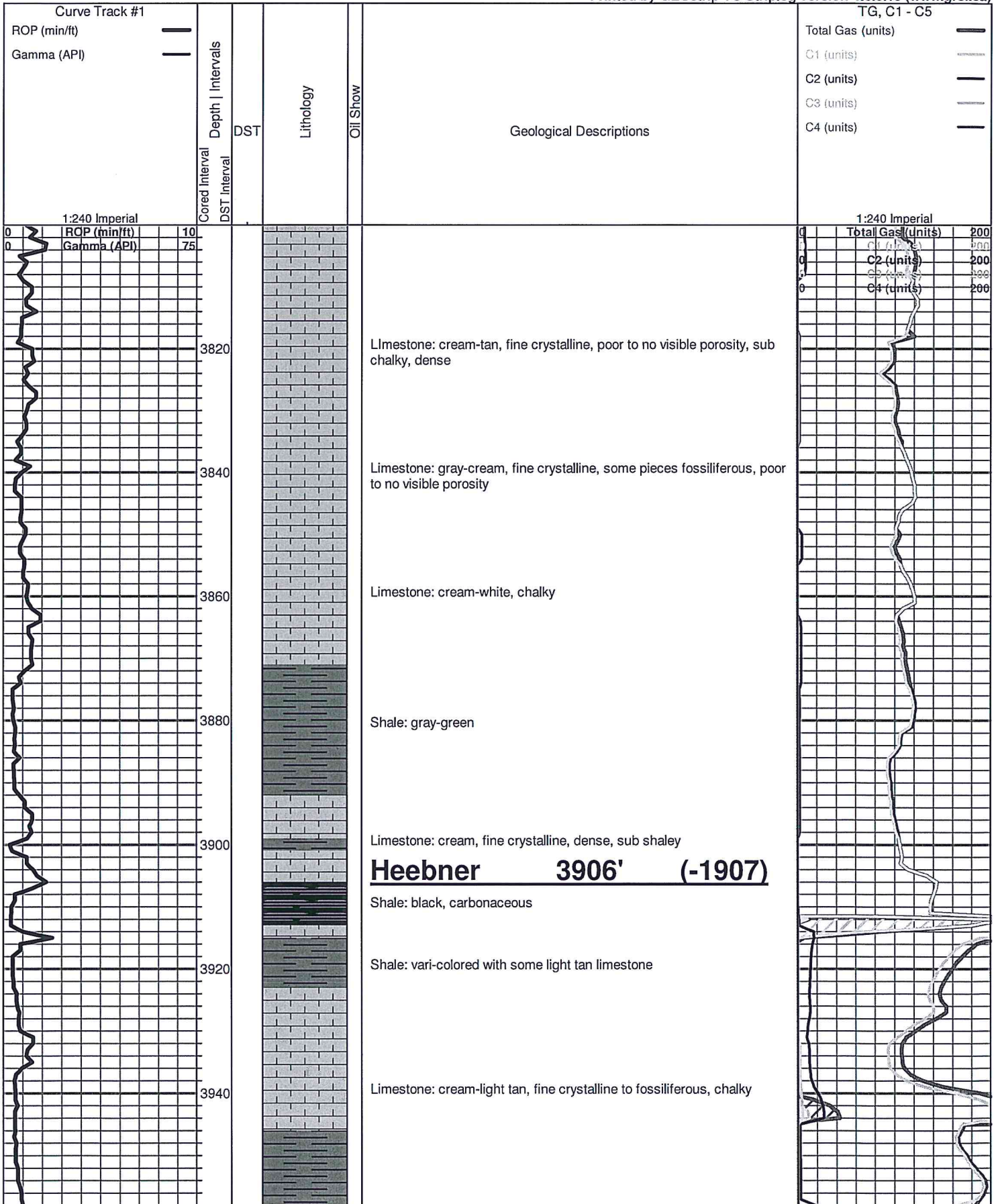
ROCK TYPES

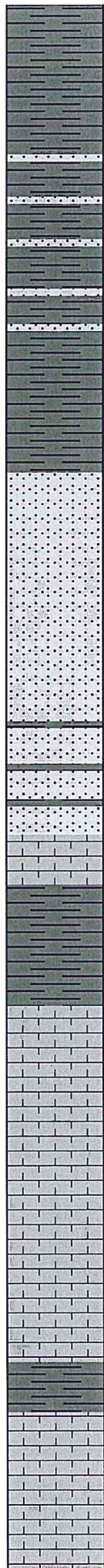
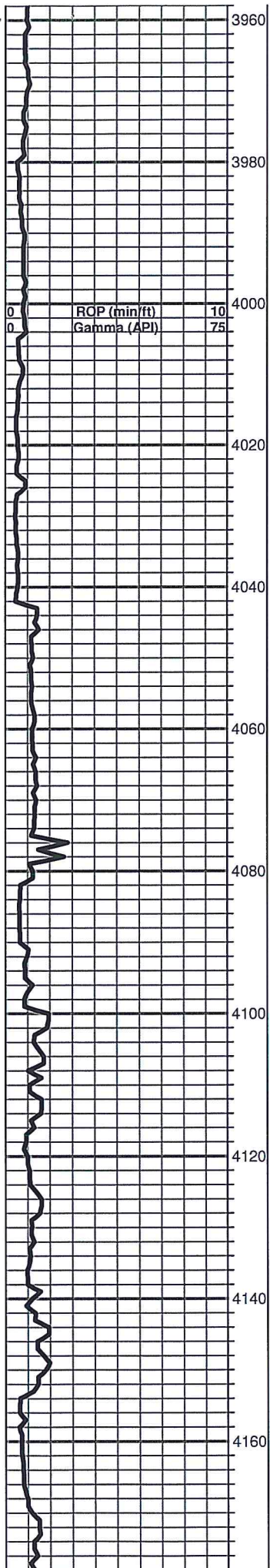
 Cht	 Lmst fw7> shale, gry	 Carbon Sh
 Dolprim	 shale, gry	 Ss

OTHER SYMBOLS

INTERVALS Oil Show DST

- Core
- Good Show
- Fair Show
- Poor Show
- Spotted or Trace
- Questionable Stn
- Dead Oil Stn
- Fluorescence
- * Gas
- DST Int
- DST alt
- Core
- || tail pipe





Shale: gray, slightly sandy

Shale: gray-light gray, slightly sandy

Shale: gray, trace cream sandstone

Shale: gray

Sandstone: cream-gray, fine to very fine grained, sub shaley

Sandstone: cream, fine grained, micaceous, sub shaley

Brown Lime 4075' (-2076)

Limestone: tan-brown, fine crystalline, dense

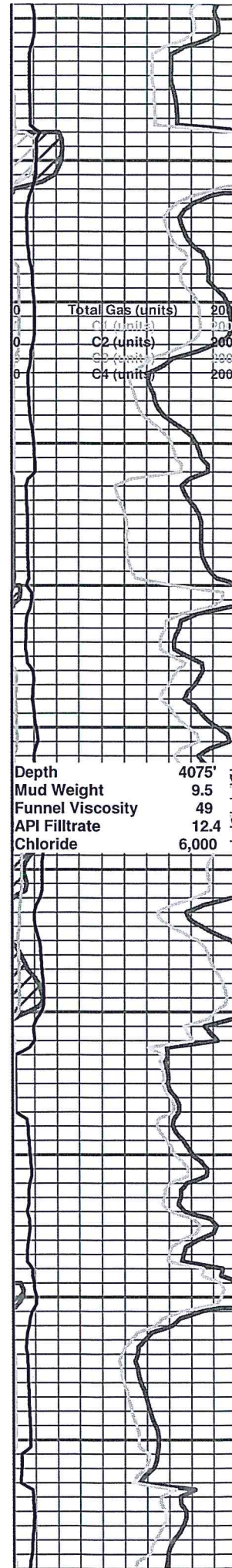
Lansing 4099' (-2100)

Limestone: gray-tan-brown, fine crystalline to fossiliferous, poor to no visible porosity, dense

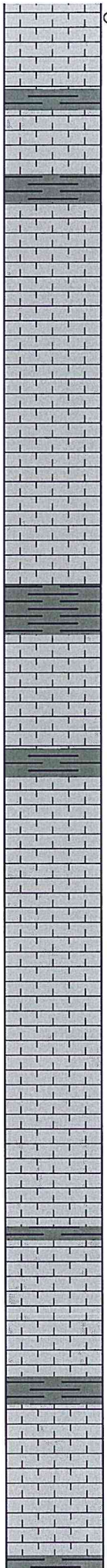
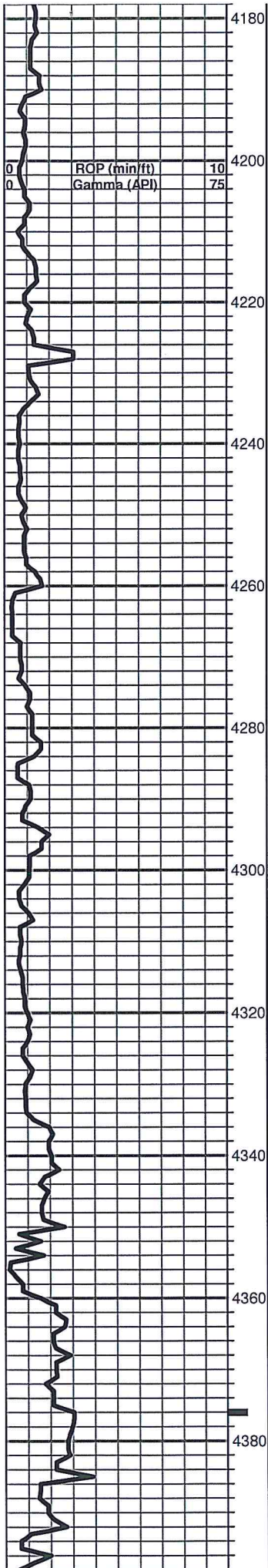
Limestone: cream-brown-white, fine crystalline, slight fossiliferous (pelletal), sub chalky

Limestone: cream-white-light brown, fine crystalline, slightly fossiliferous, sub chalky

Limestone: cream-white-light gray, fine to slightly medium crystalline



Depth	4075'
Mud Weight	9.5
Funnel Viscosity	49
API Filltrate	12.4
Chloride	6,000



Limestone: cream-gray-brown, fine crystalline, rare oolitic piece, sub chalky, 1 piece stain, very faint odor

Limestone: cream-light gray, fine to slightly medium crystalline, rare visible porosity, sub chalky

Limestone: light-tan, fossiliferous, few pieces oolitic, poor to fair visible porosity

Limestone: cream-light tan-gray, fine crystalline, some visible porosity

Limestone: cream-light tan-white, fine crystalline, very slightly fossiliferous

Limestone: cream-light tan, fine crystalline, few pieces pin head porosity

Limestone: cream-tan, fine crystalline, poor to no visible porosity, dense, sub chalky

Limestone: cream-light brown, fine crystalline to fossiliferous, few pieces appear sandy, trace chalky

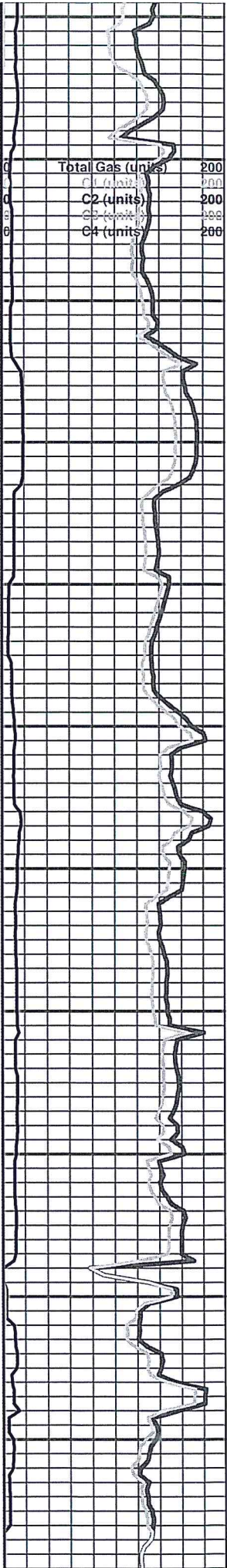
Limestone: cream-white-brown, fine crystalline, dense

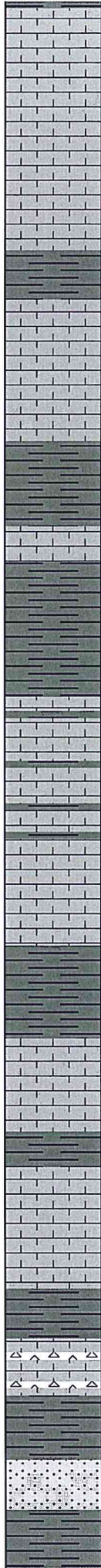
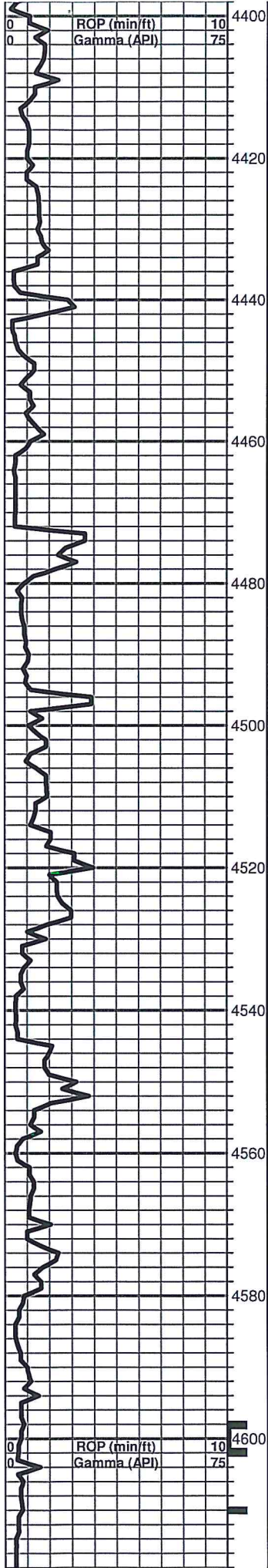
Stark 4350' (-2351)

Limestone: cream, fine crystalline, few pieces fossiliferous, few pieces dark gray black shale

Circulated at 4376' Limestone: cream-white, fine crystalline, rare oolitic porosity, sub chalky, no shows

Limestone: cream-light tan, fine crystalline, dense





Shale: gray-red

Limestone: cream, fine to slightly medium crystalline, trace fossiliferous, sub chalky

Shale: medium gray-green, some cream fossiliferous limestone

Limestone: gray, fine crystalline, dense

B/KC 4477' (-2478)

Shale: light gray-green-red, slightly silty

Shale: gray-light gray, slightly silty with some limestone: cream, fine crystalline, dense

Limestone: cream-tan-light brown, fine crystalline, very slightly fossiliferous, sub chalky

Shale: medium gray, soft

Pawnee 4544' (-2545)

Shale: gray-green-brown, some limestone: cream-tan, very dense

Cherokee 4579' (-2580)

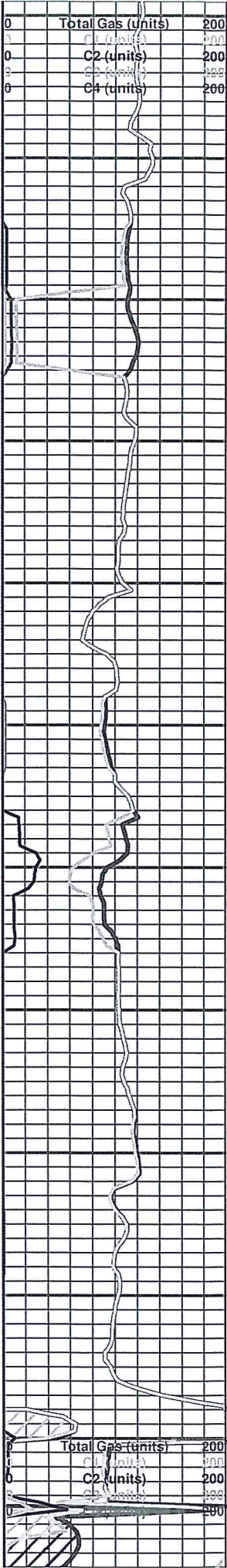
Shale: dark gray, Limestone: cream, fine crystalline, some vugular porosity, no odor, few pieces show free oil

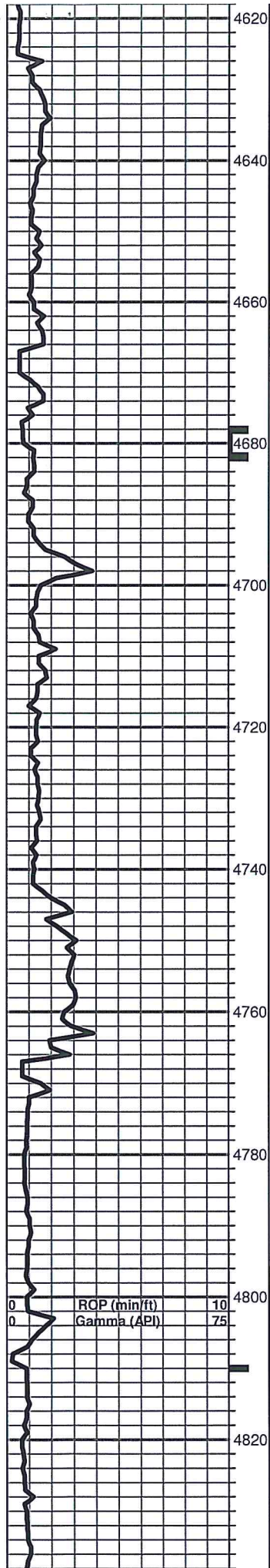
Circulated at 4600' Limestone: cream-gray, fine crystalline, fossiliferous with vari-colored shale and vitreous chert, trace tripolitic piece, one piece fossiliferous (oolitic) limestone with show free oil

Cherokee Sand 4603' (-2604)

Circulated at 4610' Sandstone: light tan, fine grained, sub rounded, good friability, fair odor in fresh, fair show free oil and fluorescence

Shale: gray, samples carry sandstone: light brown, moderatley friable, fair show free oil





Viola 4625' (-2626)

Cherty dolomite: cream, fine crystalline, sucrosic, some fossiliferous chert, some chalky white material, no shows

Cherty dolomite: cream-white, fine crystalline, sucrosic, poor visible porosity, some chalky material, both vitreous/weathered chert with black stain

Circulated at 4680' Mostly white chert with some dolomite: cream, pale green, sucrosic, some rare visible porosity, decrease in chalky material, no shows

Cherty dolomite: white, fine crystalline, sucrosic, lots of white vitreous chert with few pieces good weathered porosity, questionable odor, slight show free oil, moderate fluorescence

Circulated at 4710' Cherty dolomite: cream-white, chalky, some visible porosity, chert: cream-white, vitreous, few pieces edge weathering, decrease in shows, scattered dull yellow fluorescence

Cherty dolomitic limestone: sub sucrosic, abundant white chert

Cherty dolomite: limestone: cream-gray, fine crystalline, lots of white vitreous chert

Simpson 4766' (-2767)

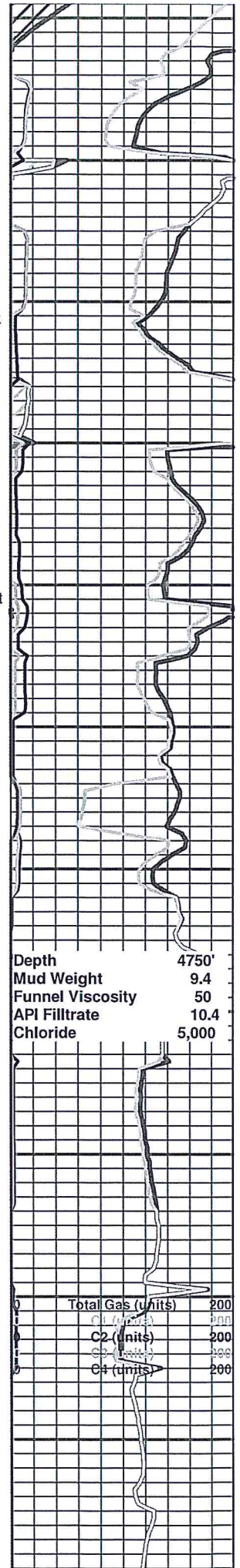
Flood Simpson type shale, very rare piece sandstone, no shows

Shale: as above

Simpson Sand 4802' (-2803)

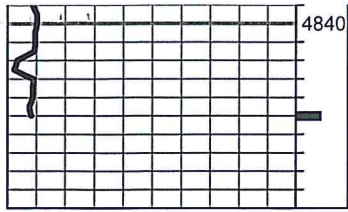
Circulated at 4810' Sandstone: white-gray, fine to medium grained, moderately sorted, sub rounded, glauconite inclusions, flakey dead oil, no fluorescence

Shale: gray-green-blue



Depth	4750'
Mud Weight	9.4
Funnel Viscosity	50
API Filtrate	10.4
Chloride	5,000

Total Gas (Units)	200
C1 (Units)	200
C2 (Units)	200
C3 (Units)	200
C4 (Units)	200



Shale: gray-green-blue

Circulated at 4850' Mostly Simpson type shale

