

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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**Western Operating Company**  
**Martin-Peterson No. 16-1, Arroyo Field**  
**Section 16, T29S, R41W**  
Stanton County, Kansas  
January, 2019

**Well Summary**

The Western Operating Martin-Peterson No. 16-1 was drilled to a total depth of 5708' in the St. Louis Formation. No Keyes Sandstone was documented. No hydrocarbon shows or gas increase noted. The Martin-Peterson No. 16-1 was plugged and abandoned 1/9/19.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read "Peter Debenham", written over a large, stylized circular flourish.

Peter Debenham

## WELL DATA

Operator: Western Operating , 1165 Delaware St., Suite 200, Denver, CO 80204,  
President/owner Steve James, Geologist Jim Anderson

Well: Martin-Peterson No. 16-1, Arroya Field

API No.: 15-187-21342

Location: 2100'FSL & 2150'FWL, Section 16, 29S, R41W, Stanton Co., KS

Elevation: Ground Level 3404', Kelly Bushing 3417'

Contractor: Duke Drilling Rig No. 9, Type: Double jackknife, double stand, Toolpusher  
Emidgio Rojas & Victor Martinez, Drillers: Jose Cervantes, Alejandro V.,  
Fernando Jurado

Spud Date: 1/2/19

Total Depth: 1/8/19, Driller 5800', Logger 5797', Mississippi St. Louis

Casing Program: 38 joints of 8 5/8", J55, 24Lbs/ft, set at 1656', cement did circulate.

Mud Program: Mud Co./Service Mud Inc., Engineer Justin Whiting, mud up 3437'.

Wellsite Consultant: Peter Debenham with mudlogging trailer, Call depth 3000', Box 350, Drake,  
CO 80515, 720/220-4860.

Samples: 30' to 4900', 10' & 20' to TD.

Electric Logs: Weatherford engineer Adam Sill, 1) Array Induction, 2) Neutron/Density, 3)  
Microlog

Status: Plugged and abandoned 1/9/19 with 50 sacks cement at 1680', 50 at 710', 20 at  
60' and 30 in rat hole and 10 in mouse hole.





Liberal Yard #1717 - Phone 620-624-2277 - 1700 S. Country Estates Road, Liberal KS 67901

**PRESSURE PUMPING** Job Log

Customer:	Western Operating	Cement Pump No.:	38117, 19919 Hrs. 4.5	Operator TRK No.:	96816
Address:	1165 Delaware Street Suite 200	Ticket #:	1718 17205 L	Bulk TRK No.:	30464, 19578 Oscar
City, State, Zip:	Denver Co. 80204	Job Type:	Z42 - Cement Plug to Abandon		
Service District:	1718 - Liberal, Ks.	Well Type:	OIL		
Well Name and No.:	Martin-Peterson #1	Well Location:	16,29,41	County:	Stanton
				State:	Ks

Type of Cmt	Sacks	Additives	Truck Loaded On		
60/40 Poz	170	4% Total Gel	30464, 19578 Oscar	Front	Back
				Front	Back
				Front	Back

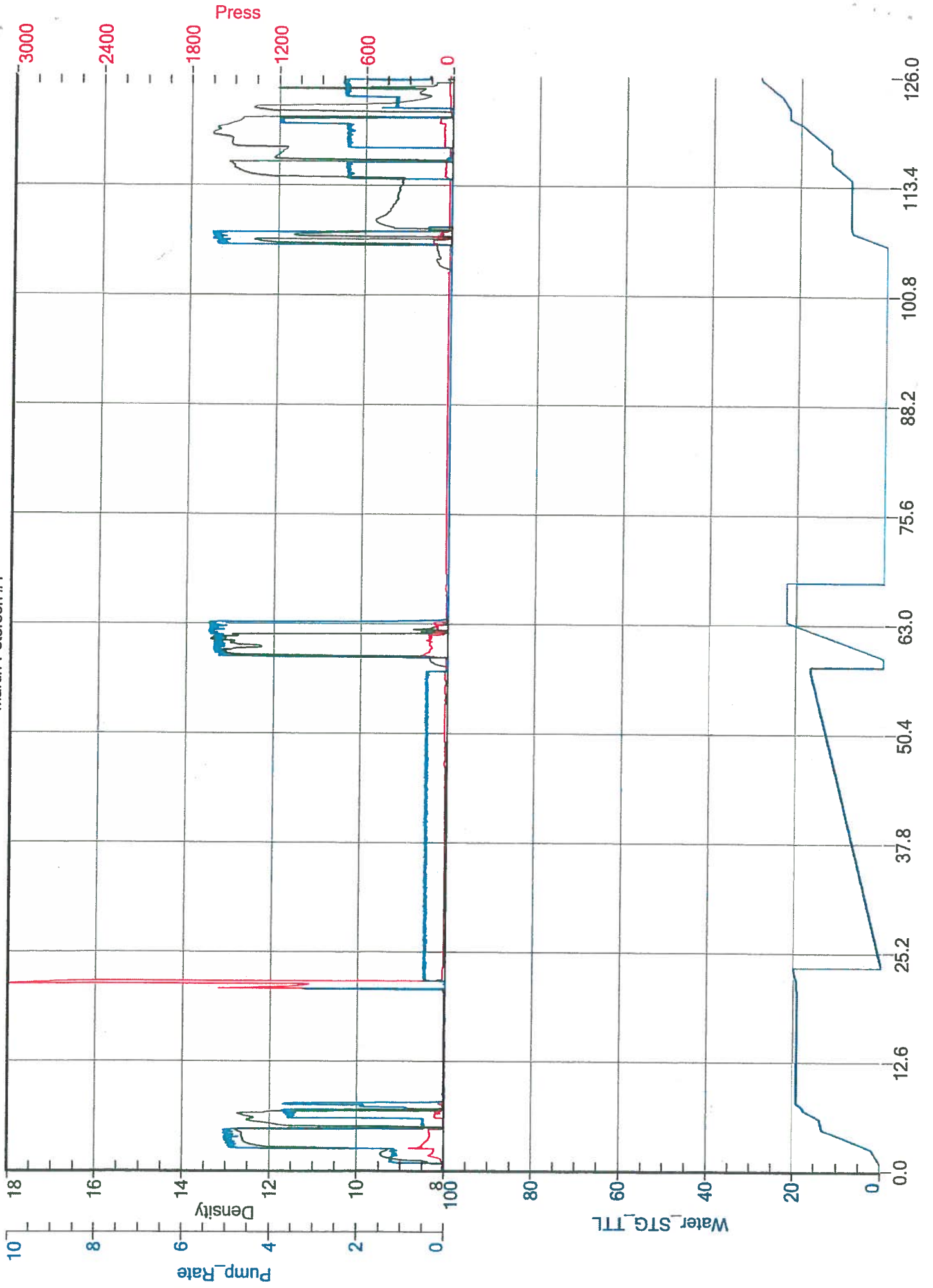
Lead/Tail:	Weight #1 Gal.	Cu/Ft/sk	Water Requirements	CU. FT.	Man Hours / Personnel	
<b>Lead:</b>	13.5	1.5	7.5	255	TT Man Hours:	34
<b>Tail:</b>					# of Men on Job:	3

Time (am/pm)	(BPM)	Volume (BBLS)	Pumps		Pressure (PSI)		Description of Operation and Materials
			T	C	Tubing	Casing	
13:15							ON LOCATION & SAFETY MEETING
13:30							RIG UP
2:45 PM	5	13.3 slurry				200	PUMP PLUG #1 @ 1680' 50SX @ 13.5#
2:52 PM		20.4					DISPLACE W/ 20.4BBL
2:54 PM							SHUTDOWN
15:44	5	13.3 slurry				190	PUMP PLUG #2 @ 710' 50SX @ 13.5#
15:47		6.6					DISPLACE W/ 6.6BBL
3:48 PM							SHUTDOWN
15:48		5.3 slurry					PUMP PLUG #3 @ 60' TO SURFACE 20SX @ 13.5#
15:50							SHUTDOWN
16:15		13.3 slurry					PLUG RAT & MOUSE W/ 50SX
16:45							SHUTDOWN
							JOB COMPLETE

Size Hole	7 7/8"	Depth			TYPE	Swage	
Drill Pipe	4 1/2" 16.6#	Depth		New / Used	Packer	Depth	
tbg.		Depth			Retainer	Depth	
Plugs	1680'	710'	60'	Rat & Mouse	Perfs	CIBP	

Customer Signature:	Basic Representative:	Daniel Beck
	Basic Signature:	<i>Daniel Beck</i>
	Date of Service:	1/9/2019

# Western Operating Martin-Peterson #1





Marta Reid

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**From:** Marta Reid  
**Sent:** Friday, February 22, 2019 9:44 AM  
**To:** 'kcc-well-logs@kcc.ks.gov'  
**Subject:** Martin Peterson #16-1 Logs  
**Attachments:** Martin Peterson 16-1 Electric Log.pdf; Martin Peterson 16-1 Porosity Log.pdf

Attached are the logs for the Martin-Peterson #16-1 to be filed as part of Form ACO-1.

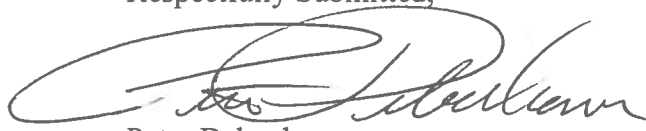
*Marta Reid*  
Western Operating Company  
1165 Delaware Street, Suite 200  
Denver, CO 80204  
303-893-2438

**Western Operating Company**  
**Martin-Peterson No. 16-1, Arroyo Field**  
**Section 16, T29S, R41W**  
Stanton County, Kansas  
January, 2019

**Well Summary**

The Western Operating Martin-Peterson No. 16-1 was drilled to a total depth of 5708' in the St. Louis Formation. No Keyes Sandstone was documented. No hydrocarbon shows or gas increase noted. The Martin-Peterson No. 16-1 was plugged and abandoned 1/9/19.

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Peter Debenham

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President/owner Steve James, Geologist Jim Anderson

Well: Martin-Peterson No. 16-1, Arroya Field

API No.: 15-187-21342

Location: 2100'FSL & 2150'FWL, Section 16, 29S, R41W, Stanton Co., KS

Elevation: Ground Level 3404', Kelly Bushing 3417'

Contractor: Duke Drilling Rig No. 9, Type: Double jackknife, double stand, Toolpusher  
Emidgio Rojas & Victor Martinez, Drillers: Jose Cervantes, Alejandro V.,  
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Microlog

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60' and 30 in rat hole and 10 in mouse hole.

## WELL CHRONOLOGY

<u>DATE</u>	<u>DEPTH</u>	<u>FOOTAGE</u>	<u>RIG ACTIVITY</u>
1/2	700'	700'	Move to location and rig up rotary tools. Mix spud mud and spud in 12 1/4" to 700'.
1/3	1668'	968'	Surveys(1/4 – 1/2 deg.). To 1668' and circulate. Trip for surface casing and run and cement 8 5/8" set at 1657' – did circulate. Nipple up BOP.
1/4	3280'	1612'	Pressure test BOP. Drill plug and cement and 7 7/8" to 1612'. Surveys(1/2 – 3/4 deg.).
1/5	4370'	1090'	Displace mud system at 3437'. Survey(3/4 deg.).
1/6	4920'	550'	Survey(1/2 deg.). To 4744' and wiper trip 50 stands and wait on parts and service mud pump. To 4920' and wiper trip to casing.
1/7	5500'	580'	Wiper trip and wait on parts and work on mud pump.
1/8	5708'TD	208'	Survey(3/4 deg.). To 5708'TD and circulate and wiper trip. Trip out for logs.
1/9	TD		Trip for logs and run Elogs. Trip in and circulate. Trip out laying down and plug and abandon well. Rig down.

## BIT RECORD

<u>NO.</u>	<u>MAKE</u>	<u>TYPE</u>	<u>SIZE</u>	<u>OUT</u>	<u>FOOTAGE</u>	<u>HOURS</u>
1	PLS 519		12 1/4"	1668'	1668'	11 1/2
2	TXT 516		7 7/8"	5708'	4040'	82 1/4
Total Rotating Hours:						93 3/4
Average:						60.9 Ft/hr

## DEVIATION RECORD - degree

799' 1/4, 1668' 1/2, 2182' 1/2, 2715' 3/4, 3437' 3/4, 4000' 1/2, 4502' 1/2, TD 3/4

**MUD PROPERTIES**

<u>DATE</u>	<u>DEPTH</u>	<u>WT</u>	<u>VIS</u>	<u>PV</u>	<u>YP</u>	<u>pH</u>	<u>WL</u>	<u>CL</u>	<u>LCM-LBS/BBL</u>
1/3	1668'	9.65	35	4	4	7.5	--	300	8
1/4	2377'	9.05	31	3	3	7.5	--	3.6	3
1/5	3868'	9.0	45	14	15	11.0	6.4	1.9K	6
1/6	4744'	9.05	58	19	19	10.5	6.8	1.1K	7
1/7	5195'	9.1	64	20	20	9.5	6.4	600	10
1/8	5581'	9.15	53	17	18	10.0	6.4	550	10

**ELECTRIC LOG FORMATION TOPS- KB Elev. 3400'**

<u>FORMATION</u>	<u>DEPTH</u>	<u>DATUM</u>	<u>*Fritz Trust No. 1</u>	
			<u>DATUM</u>	<u>POSITION</u>
Surface casing	1656'			
Heebner	3672'	-255	-232'	-23'
Toronto	3695'	-278'	-256'	-22'
Lansing	3774'	-357'	-338'	-19'
✓ Marmaton	4308'	-891'	-867'	-24'
Cherokee	4518'	-1101'	-1075'	-26'
✓ Morrow	5028'	-1611'	-1583'	-28'
Morrow LS	5374'	-1957'	-1928'	-29'
✓ Keyes	5474'	-2057'	-2071'	+14'
Mississippi	5606'	-2189'	-2113'	-76'
✓ St. Louis	5670'	-2253'	-2255'	+2'
TD	5711'			

\*Western Operating, Fritz Trust No. 1, 2285'FSL & 660'FWL, Section 15 – to the East, K.B. Elevation 3421'.

# Petrolific Consulting Services

**Peter Debenham**

P.O. Box 350  
Drake, Colorado 80515

**Wellsite Geology**

720/220-4860  
petrolific@earthlink.net

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

Well Name: Western Operating, Martin-Peterson No. 16-1, Arroyo Field  
Location: 2100'FSL & 2150'FWL, Sec. 16, 29S, 41W, Stanton Co. KS  
Licence Number: API: 15-187-21342 Region: Hougoton  
Spud Date: 1/2/19 Drilling Completed: 1/8/19  
Surface Coordinates: 2100'FSL & 2150'FWL, Sec. 16, 29S, 41W, Stanton Co. KS

Bottom Hole Coordinates: 2100'FSL & 2150'FWL, Sec. 16, 29S, 41W, Stanton Co. KS  
Ground Elevation (ft): 3404' K.B. Elevation (ft): 3417'  
Logged Interval (ft): 3600' To: TD Total Depth (ft): 5708'  
Formation: Cherokee, Morrow, Keyes, Mississippi  
Type of Drilling Fluid: Chemical Gel/LSND/LCM, mud up 3400'

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

## OPERATOR

Company: Western Operating Company  
Address: 1165 Delaware Street, Suite 200  
Denver, CO 80202  
Pres.: Steve James, Geologist Jim Anderson

## GEOLOGIST



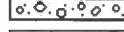

Name: Wellsite: Peter Debenham  
Company: Petrolific Consulting Services  
Address: P.O. Box 350  
Drake, CO 80515  
720/220-4860, Petrolific@gmail.com




## Comments

38 joints of 8 5/8", J55, 24Lbs/ft, set at 1656', cement did circulate. Duke Drilling Rig No. 9, Type: Double jackknife, double stand, Toolpusher Emidgio Rojas & Victor Martinez, Drillers: Jose Cervantes, Alejandro V., Fernando Jurado, Service Mud engineer Justin Whiting, Weatherford Logs engineer Adam Sill, Plugged and abandoned 1/9/19 with 50 sacks cement at 1680', 50 at 710', 20 at 60' and 30 in rat hole and 10 in mouse hole.



## ROCK TYPES

 Anhy  
 Bent  
 Brec  
 Cht

 Clyst  
 Coal  
 Congl  
 Dol

 Gyp  
 Igne  
 Lmst  
 Meta

 Mrlst  
 Salt  
 Shale  
 Shcol

 Shgy  
 Sltst  
 Ss  
 Till

**ACCESSORIES**

**FOSSIL**

- Algae
- Amph
- Belm
- Bioclst
- Brach
- Bryozoa
- Cephal
- Coral
- Crin
- Echin
- Fish
- Foram
- Fossil
- Gastro
- Oolite

- Ostra
- Pelec
- Pellet
- Pisolite
- Plant
- Strom

**MINERAL**

- Anhy
- Arggrn
- Arg
- Bent
- Bit
- Brecfrag
- Calc
- Carb

- Chtdk
- Chtlt
- Dol
- Feldspar
- Ferrpel
- Ferr
- Glau
- Gyp
- Hvymn
- Kaol
- Marl
- Minxl
- Nodule
- Phos
- Pyr
- Salt

- Sandy
- Silt
- Sil
- Sulphur
- Tuff

**STRINGER**

- Anhy
- Arg
- Bent
- Coal
- Dol
- Gyp
- Ls
- Mrst
- Sltstrg

- Ssstrg

**TEXTURE**

- Boundst
- Chalky
- Cryxln
- Earthy
- Finexln
- Grainst
- Lithogr
- Microxln
- Mudst
- Packst
- Wackest

**OTHER SYMBOLS**

**INTERVALS**

- Core
- Dst

**EVENTS**

- Rft
- Sidewall

**POROSITY TYPE**

- Earthy
- Fenest
- Fracture
- Inter
- Moldic
- Organic

- Pinpoint
- Vuggy

**SORTING**

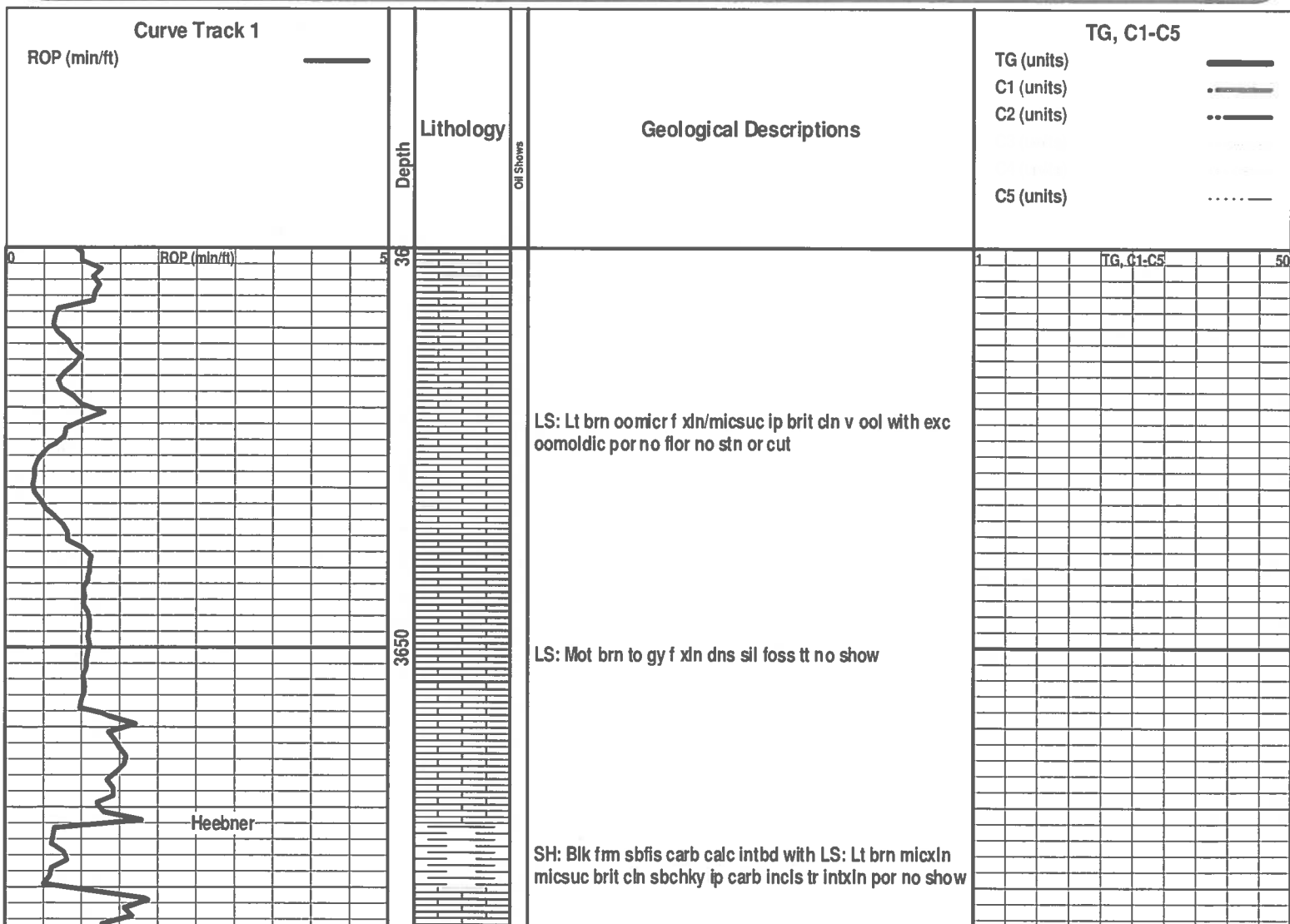
- Well
- Moderate
- Poor

**ROUNDING**

- Rounded
- Subrnd
- Subang
- Angular

**OIL SHOWS**

- Even
- Spotted
- Ques
- Dead



Toronto

Lt brn micxn micsuc brit cln sbchky ip carb inclc tr  
intxn por occ gd moldic por no show

SH: Blk dk brn to gy frm fis to blk carb calc mica with  
intbd LS: Mot brn mic/crpxln hd dns to tr intxn por sil &  
tt ip tripolic foss carb no show tr CHRT: Mot gy tripolic  
hd dns

LS: Lt to med brn bf micr micxn micsuc cln sbchky &  
brit ip foss occ oomoldic por no show with SH: Gy brn  
gygn frm sbfis wxy carb

SH: Gy brn gygn frm sbfis wxy carb

Lansing

LS: Pred aa occ v chky & brit micsuc with intxn por no  
show intbd with SH: Gy brn gygn frm sbfis wxy carb

ROP (min/ft)

LS: Lt to med brn to gy micr micxn micsuc ip cln foss tr  
intxn & occ moldic por no show

LS: Lt to med brn gy bf micr micxn micsuc ip cln foss tr  
intxn por occ moldic por no show

LS: Mot brn to gy pred aa pred hd & tt no show occ intbd  
with SH

LS: Lt brn bf oomicr micxn micsuc brit cln foss ool with  
moldic por no flr no stn or cut intbd with LS: Brn tan  
crpxln hd dns sil tt no show

3700

3750

3800

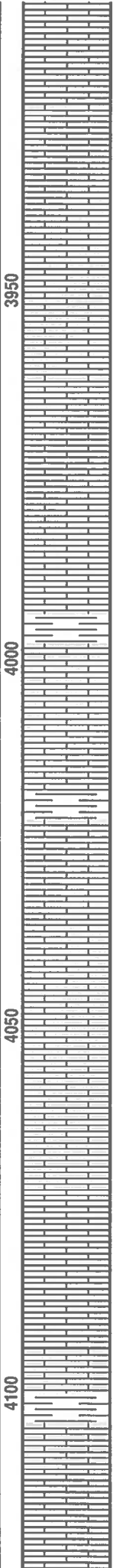
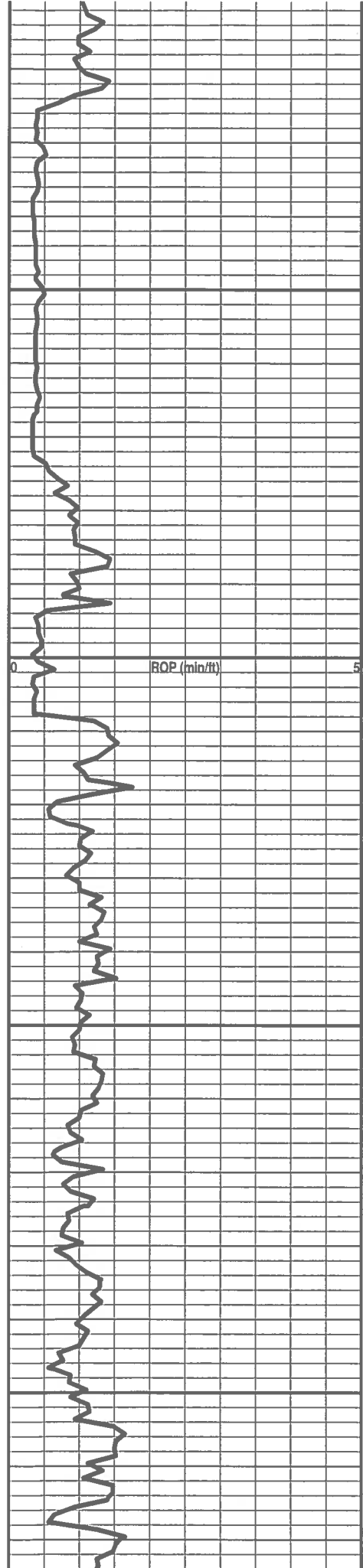
3850

3900

TG, C1-C5

50





LS: Lt brn bf oomicr v brit cln v ool with exc oomoldic por no show

LS: Lt brn bf oomicr v brit cln v ool with exc oomoldic por no show

LS: Lt to med brn micxn to crpxn hd dns to tr intxn & occ moldic por cln foss sbchky ip occ sil & tt no show with SH: Brn gy gygn blk y wxy to sndy lp carb

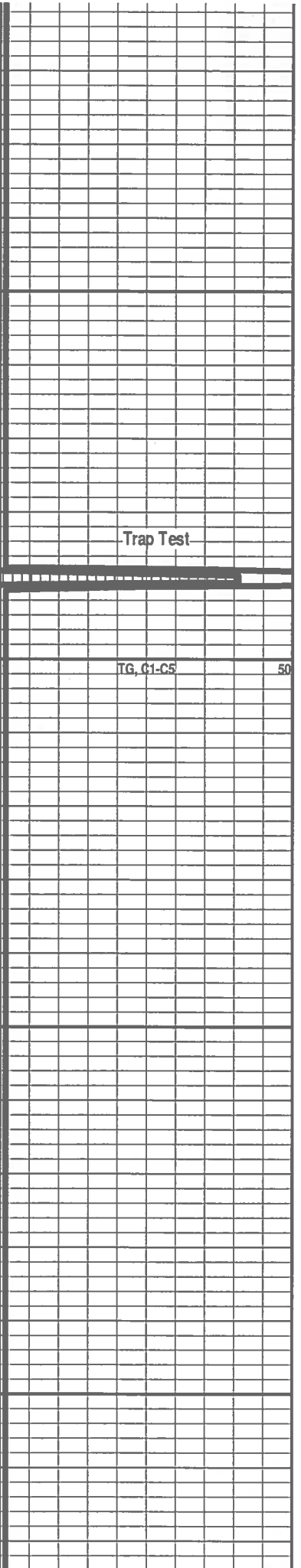
LS: Pred aa suc with occ fr intxn por no show

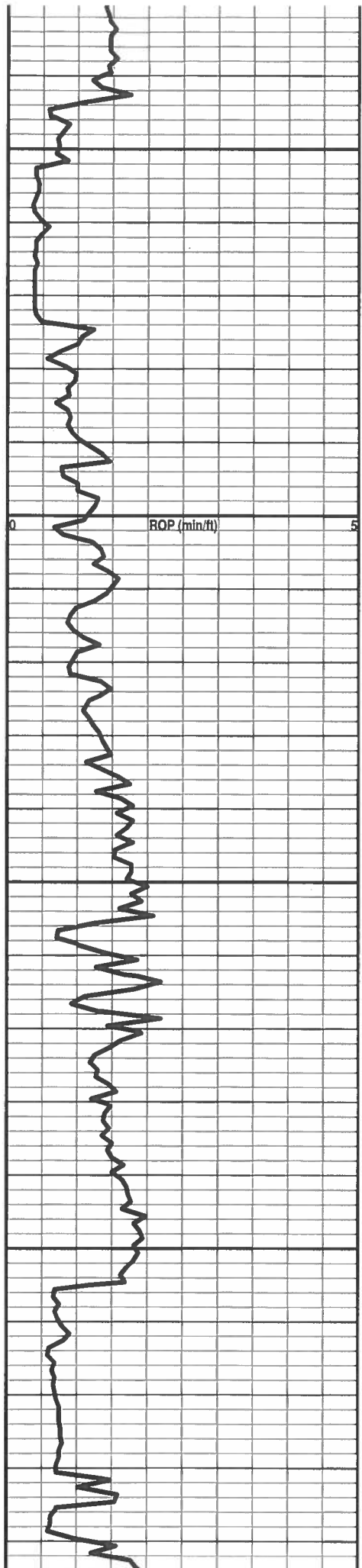
LS: Med to dk brn to gy dk gy crpxn hd dns arg to mrl y ip tt no show intbd with SH: Gy brn frm sbfis to blk y carb calc

LS: Med brn to gy f xln dns arg to mrl y ip foss pred tt no flor no stn or cut intbd with SH: Med gy brn hd blk y carb calc sity mica

LS: Lt brn gy micxn micsuc ip brit cln to arg chky occ intxn por no show

LS: Lt brn oomicr f xln brit cln v ool with exc oomoldic por no flor no sth or cut occ intbd with LS: Brn to gy frm blk y carb calc





LS: Lt brn oomcr f xln brit cln v ool with exc oomoldic por no flor no sth or cut with LS: Mot brn brit sbchky foss cln tr intxn por no show

LS: Lt brn oomcr f xln brit cln v ool with exc oomoldic por no flor no sth or cut with LS: Mot brn brit sbchky foss cln tr intxn por no show  
occ intbd with SH: Gy brn gygn blkly calc carb

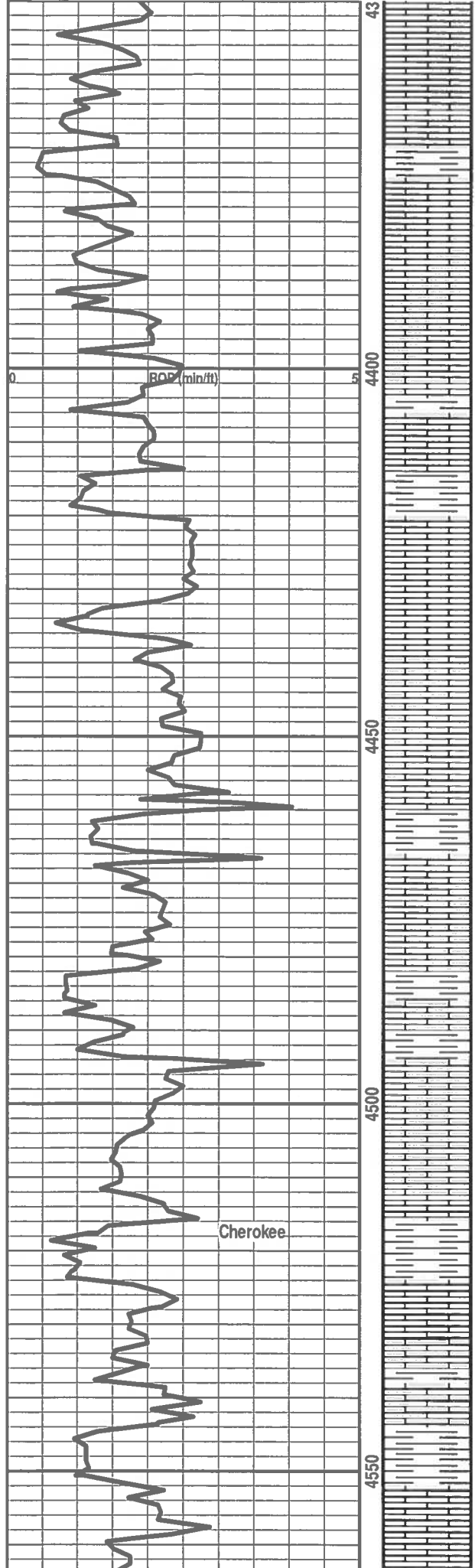
LS: Lt brn oomcr f xln brit cln v ool with exc oomoldic por no flor no sth or cut with LS: Mot brn brit sbchky foss cln tr intxn por no show

LS: Mot brn gy mlcr f xln sbchky dns cln to mrlly ip foss ool with occ moldic por no flor no stn or cut

LS: Med to dk brn to gy f xln dns arg foss pred tt no show

LS: Med to lt mot brn biomcr micxln micsuc brit cln to arg foss pyr tr intxn and moldic por no flor no stn or cut

SH: Brn hd blkly calc foss ip



with SH: Brn hd blk calc foss ip

LS: Lt brn oomcr brit cln v foss & ol with moldic por no flor no stn or cut

SH: Med to dk brn to gy occ blk frm sbfis to blk carb calc intbd with LS: aa no show

LS: Mot brn gy f xln micsuc ip sbchky arg to mrlly ip tr intxln & occ moldic por no flor no stn or cut

SH: Blk frm sbfis carb sl calc with LS: aa

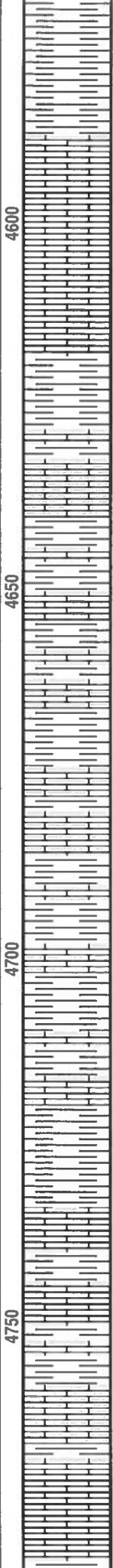
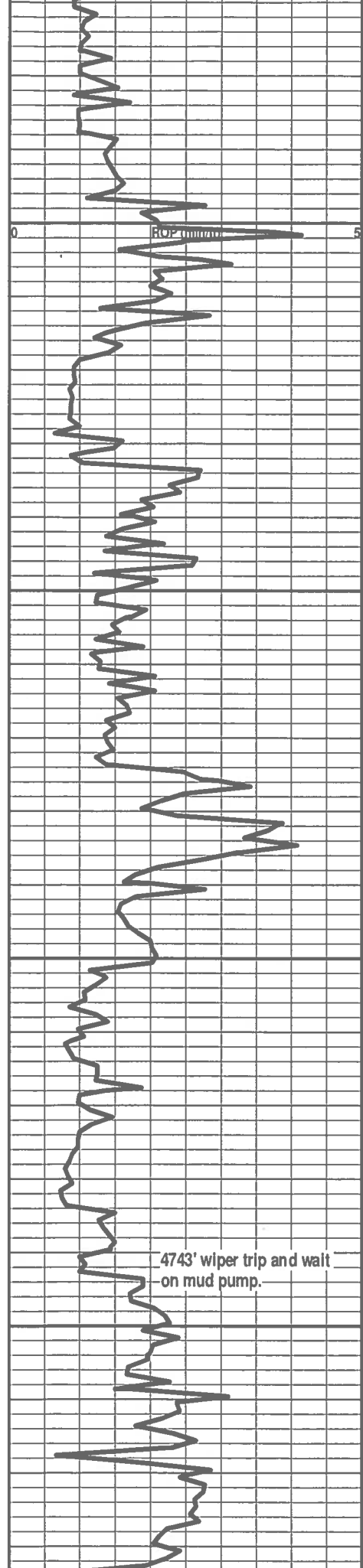
LS: Mot brn gy f xln micsuc ip sbchky arg to mrlly ip tr intxln & occ moldic por no flor no stn or cut

SH: dk brn to gy occ blk frm sbfis to blk calc stly intbd with LS: Mot brn gy f xln micsuc ip sbchky arg to mrlly ip tr intxln & occ moldic por no flor no stn or cut

LS: Brn gy crpxn hd dns sil ip foss carb pyr tt no show

TG, C1-C5

50



SH: Dk brn gy gygn frm blkly calc

LS: Lt to med brn to gy f xln dns to tr intxln por cln foss pred tt no show intbd with SH: aa with LS: Lt brn bf micxln micsuc brit cln sbchky foss ool pyr tr intxln & moldic por no flor no stn or cut CHRT: Mot gy milky gy trnsi hd xln

SH: Dk gy blkly hd slty to sndy ip carb calc mica

LS: Lt to med brn to gy biomicr micro to crpxn pred hd & dns cln foss carb sil p vis por no show with tr CHRT: aa intbd with SH: Dk gy blkly hd slty to sndy ip carb calc mica

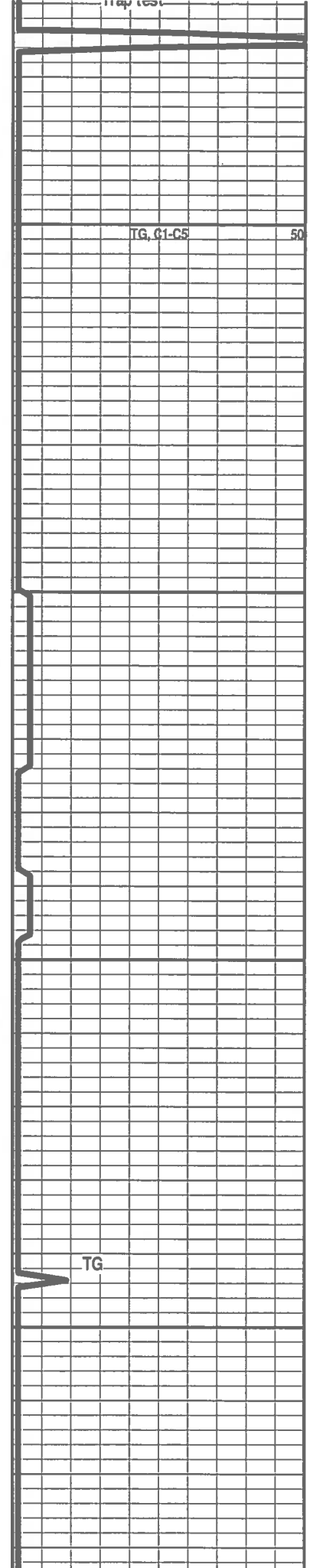
SH: Dk gy blkly hd slty to sndy ip carb calc mica

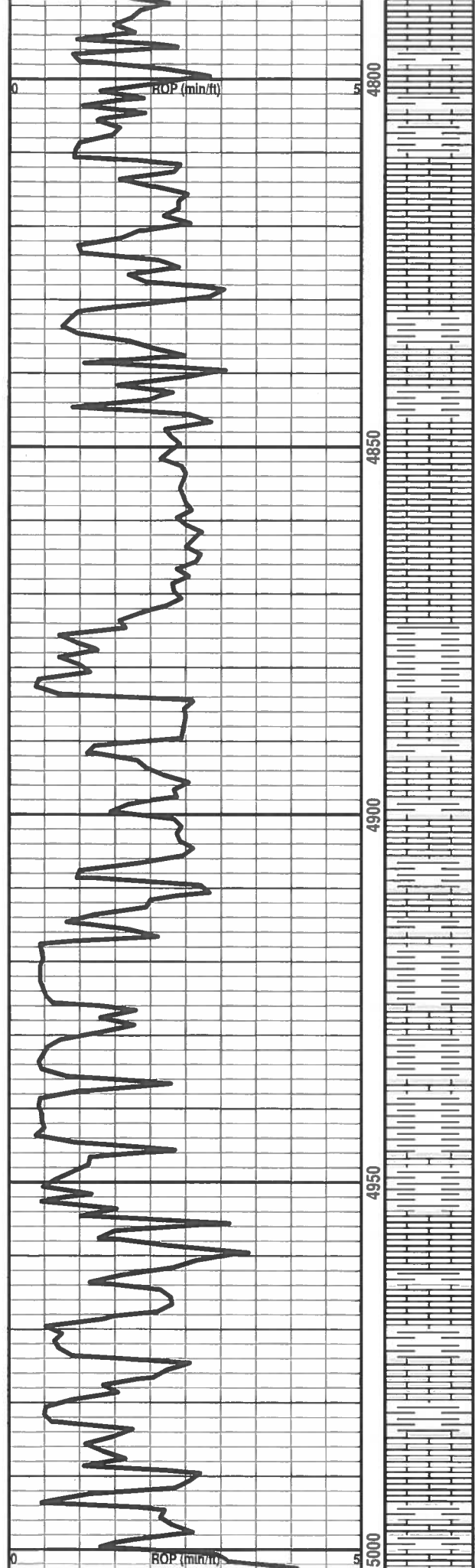
LS: Med to dk mot gy to brn f xln micsuc ip cln to mrlly foss carb occ por no flor no stn or cut intbd with SH: Dk gy blkly hd slty to sndy ip carb calc mica with CHRT: aa

SH: Dk gy blk mot hd blkly calc carb sndy occ foss occ intbd with LS: aa

4743' wiper trip and wait on mud pump.

LS: Med to dk mot gy to brn f xln micsuc ip cln to mrlly foss carb occ por no flor no stn or cut CHRT: Milky gy brn trnsi hd xln





LS: Med to dk mot brn to gy f xln micsuc ip cln to mry sil ip foss sndy carb tt no show

TG, C1-C5 50

LS: Med to dk mot brn to gy f xln dns cln to arg slty to sndy ip carb foss p vis por no flor no stn or cut intbd with SH: aa Blk frm fis carb

SH: Blk gy to brn hd blk calc carb slty pyr

LS: Med to dk mot brn to gy f xln micsuc ip cln to mry ip foss carb tt to occ intxln por no flor no stn or cut

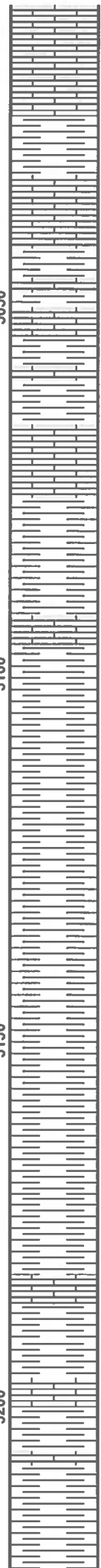
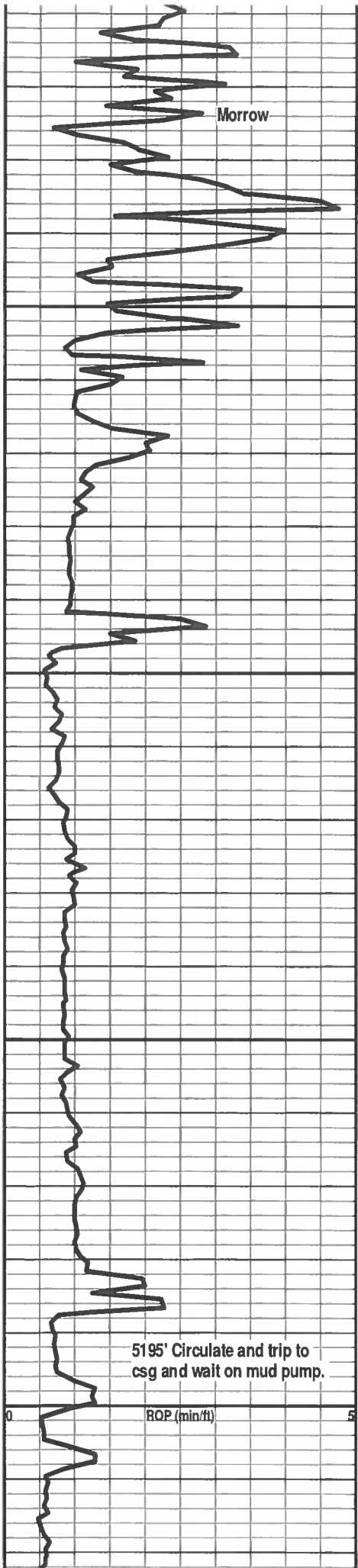
SH: Blk frm sbfis carb mica calc

LS: Brn crpxln hd dns foss tt no show with CHRT: Mlky gy trnsln brn hd xln foss ip

SH: Blk dk gy frm sbfis to fis carb slty foss ip CHRT: Dk mot gy mky hd xln intbd with LS: Lt to med brn gy f xln arg to mry dns tt no show

SH: Blk frm fis carb mica with SH: Gy blk & slty carb incld intbd with LS: Med to dk mot brn to gy micr crpxln hd dns ar to mry foss tt no show occ micsuc with tr intxln por no flor no stn or cut

TG, C1-C5 50



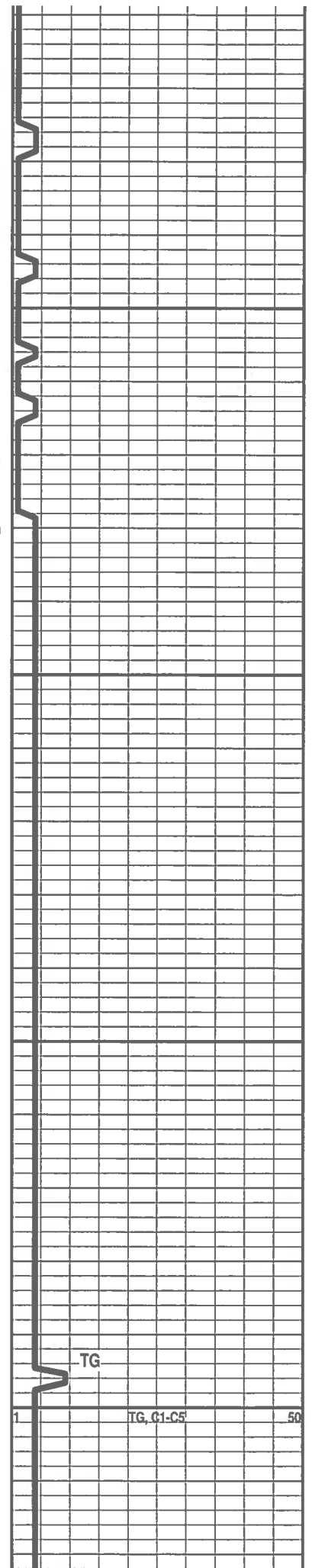
arg to mry foss tt no show intbd with SH: aa

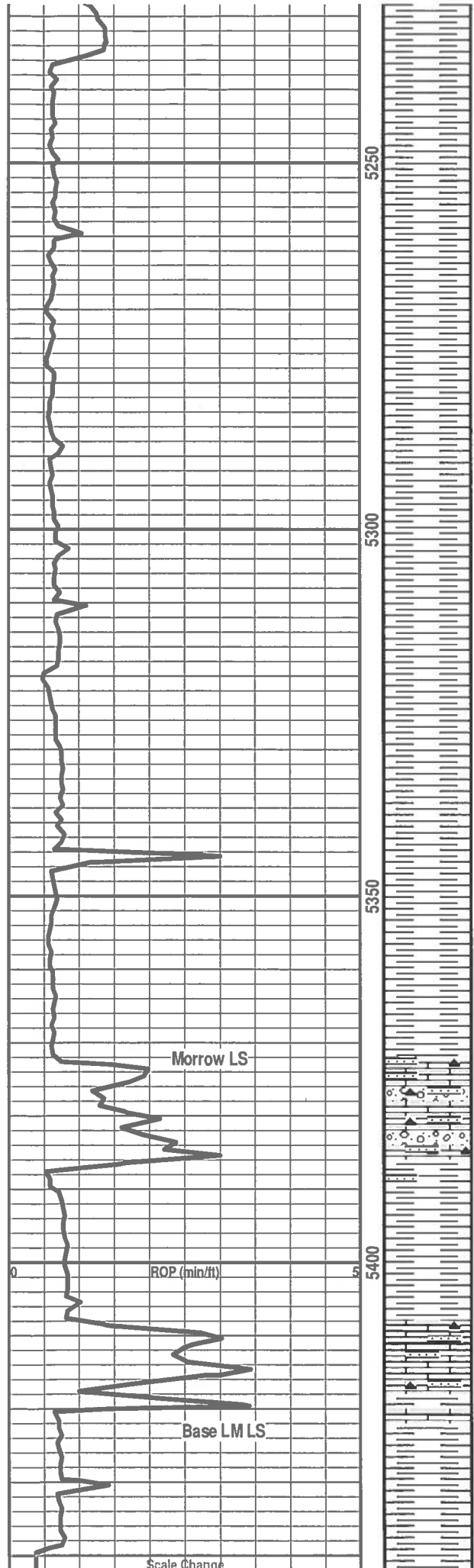
LS: Lt mot bm bf micxn micsuc ip sbchky foss arg tt/tr  
 Intxn por no flor no stn or cut  
 Intbd with SH: Bk dk gy frm fis wxy carb

SH: Bk frm fis wxy to slty ip v carb mics with LS: Dk bm  
 to gy occ bkl micr crpxin hd dns marl tt no show

SH: Bk frm fis wxy to slty ip v carb mica occ intbd with  
 mry LS: tt no show

SH: Bk frm fis wxy to slty ip v carb mica occ intbd with  
 mry LS: tt no show





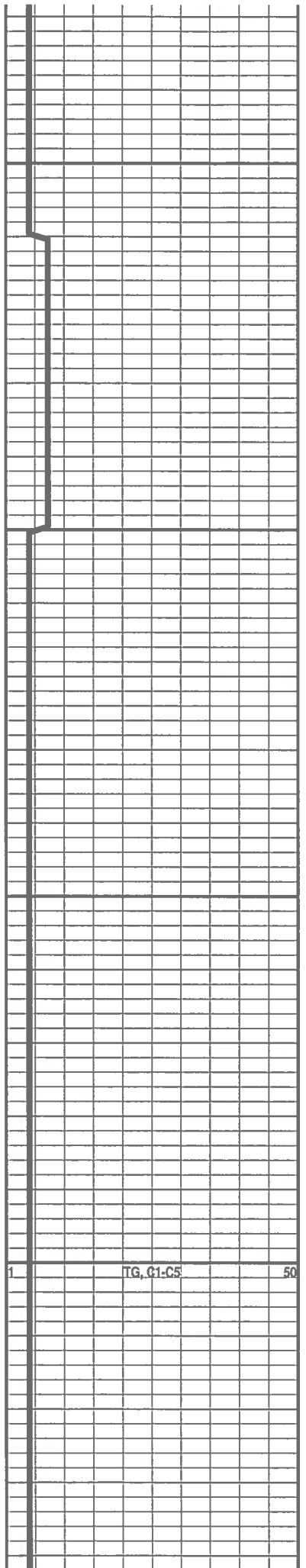
SH(100% sp): Bik dk gy frm asbfis to fis carb wxy mica

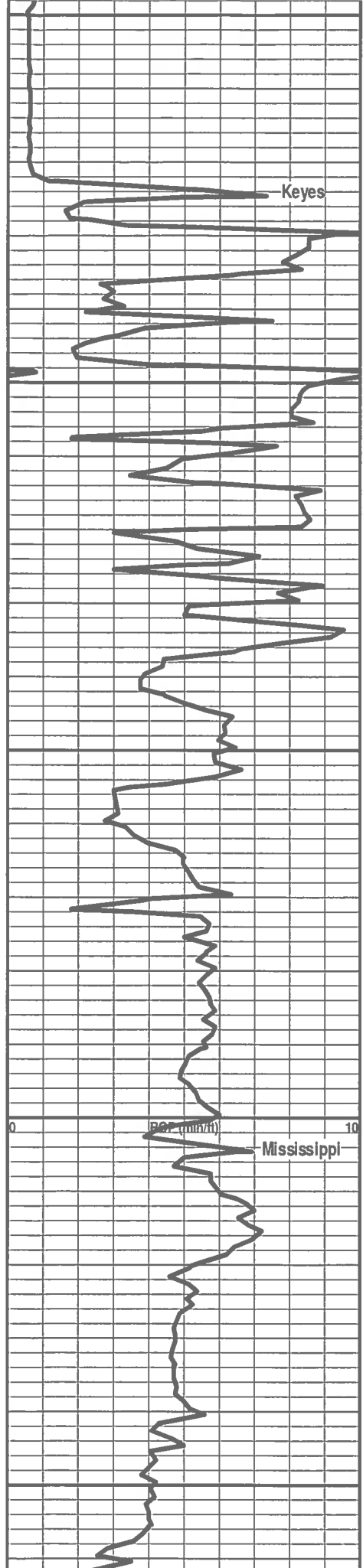
SH(100% sp): Bik dk gy frm fis wxy carb

LS: Mot gy to gn s&p spec gn frm dns f xin sbchky ip micsuc v sndy with m/vc & conglc ip p srt d sbang grs glauc ip pyr p vis por no flor no stn or cut grdng to & Intbd with Congl: Cir s&p spec gn hd to frl ip vc/conglc p srt d sbrng to sbrnd grs calc cmt cln to arg ip glauc pyr occ intgran por no show with abt unconsi grs intbd with SH: Bik dk gy frm sbfis to biky wxy to sndy ip carb

Abt c p srt d unconsi grs

LS: Mot brn to gy spec gn s&p spec gn frm dns f xin sbchky ip micsuc v sndy with f/vc & conglc ip p srt d sbang grs glauc ip pyr p vis por no flor no stn or cut tr unconsi grs





SH: Dk gy blk frm biky to sbfis wxy to sndy ip carb mica pyr

LS: Wh tan to bf micxn micsuc sbchky brit v sndy w f w srt d sbrnd grs p vis por no show Intbd with SH: Blk frm fis to biky carb, Chert: Trnsi wh mot org hd xln

LS: aa v sndy with vf w srt d sbrnd grs no show Tr SS: Spec gn gy s&p gy hd dns fl w srt d sbrnd grs ca cmt cln to arg glauc pyr carb p vis por no flor no stn or cut Intbd with SH: aa with c p srt d unconsi grs no show

LS: Wh tan to bf micxn micsuc sbchky brit v sndy w f w srt d sbrnd grs p vis por no show occ Intbd with SH: Blk frm fis to biky carb

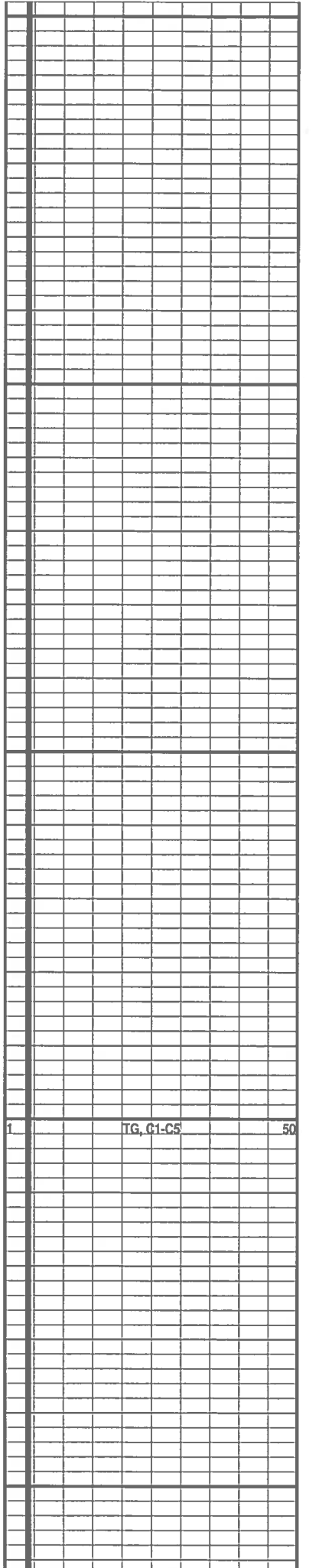
LS: Lt brn bf micxn micsuc brit v sndy & ool foss cin sl glauc p vis por no show

LS: Wh lt brn bf micxn micsuc sbchky sft brit cin ool foss sndy with f w srt d sbrnd grs p vis por no flor no stn or cut tr CHRT: Org mlky wh to gy hd xln tripol ip

CHRT: Trnsi mlky hd xln LS: Lt to med brn bf micxn sbchky v sndy ool occ por pred tt no flor no stn or cut

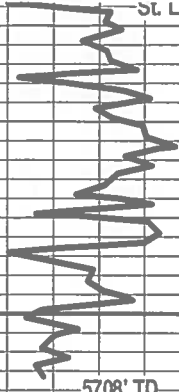
LS: Med to lt brn to bf wh biomic micxn sbchky cin ool & foss sndy ip p vis por no show

LS: Med to lt mot brn bf micr micxn sbchky cin brit v ool with tr Intpart por tr Intxn por no flor no stn or cut with





St. Louis



5708' TD

5700

5750

00



LS: Lt mot bm bf micr micxn sbchky cln brit v ool with tr  
Intpart por tr intxin por no flor no stn or cut with CHRT

