



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1185587  
OIL & GAS CONSERVATION DIVISION

Form ACO-1

August 2013

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       SIOW
- Gas       D&A       ENHR       SIGW
- OG       GSW       Temp. Abd.
- 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 ENHR       Conv. to SWD
- Plug Back       Conv. to GSW       Conv. to Producer
- Commingled      Permit #: \_\_\_\_\_
- Dual Completion      Permit #: \_\_\_\_\_
- SWD      Permit #: \_\_\_\_\_
- ENHR      Permit #: \_\_\_\_\_
- GSW      Permit #: \_\_\_\_\_

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
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API No. 15 - \_\_\_\_\_

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
- Geologist Report Received
- UIC Distribution
- ALT  I  II  III Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

1185587

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 <i>(Attach Additional Sheets)</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input type="checkbox"/> Yes <input type="checkbox"/> No	Name	Top	Datum
Cores Taken	<input type="checkbox"/> Yes <input type="checkbox"/> No			
Electric Log Run	<input type="checkbox"/> Yes <input type="checkbox"/> No			
List All E. Logs Run:				

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				

Did you perform a hydraulic fracturing treatment on this well?  Yes  No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?  Yes  No *(If No, skip question 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)*

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD:      Size: \_\_\_\_\_ Set At: \_\_\_\_\_ Packer At: \_\_\_\_\_ Liner Run:  Yes  No

Date of First, Resumed Production, SWD or ENHR. \_\_\_\_\_ Producing Method:  
 Flowing    Pumping    Gas Lift    Other *(Explain)* \_\_\_\_\_

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

<b>DISPOSITION OF GAS:</b> <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	<b>METHOD OF COMPLETION:</b> <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> <input type="checkbox"/> Other <i>(Specify)</i> _____	<b>PRODUCTION INTERVAL:</b> _____ _____
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**Ritchie Exploration, Inc.  
Hell Creek 20D No.1  
1785' FSL and 1775' FEL  
135'N & 125'W of SE NW SE  
Sec 20 T16S R31W  
Scott County, Kansas**

Geological Report  
by

Macklin M. Armstrong, P.G.  
License Number 743

Scale 1:240 Imperial

Well Name:	Hell Creek 20D No. 1	
Surface Location:	Sec 20 T16S R31W	
Bottom Location:	1785' FSL and 1775' FEL	
API:	15-171-20987	
License Number:	4767	
Spud Date:	10/1/2013	Time: 1:45 PM
Region:	Scott County, Kansas	
Drilling Completed:	10/10/2013	Time: 6:12 AM
Surface Coordinates:		
Bottom Hole Coordinates:		
Ground Elevation:	2933.00ft	
K.B. Elevation:	2938.00ft	
Logged Interval:	3400.00ft	To: 4736.00ft
Total Depth:	4735.00ft	
Formation:	Mississippi	
Drilling Fluid Type:	Chemical/Fresh Water Gel	

**OPERATOR**

Company:	Ritchie Exploration, Inc.	
Address:	8100 East 22nd Street North, No. 700 Wichita, Kansas 67278	
Contact Geologist:	Pete Fiorini	
Contact Phone Nbr:	316-691-9500	
Well Name:	Hell Creek 20D No. 1	
Location:	Sec 20 T16S R31W	API: 15-171-20987
Pool:	Oil	Field: Wildcat
State:	Kansas	Country: USA

**CONTRACTOR**

Contractor: WW Drilling  
 Rig #: 2  
 Rig Type: mud rotary  
 Spud Date: 10/1/2013  
 TD Date: 10/10/2013  
 Rig Release: 10/11/2013

Time: 1:45 PM  
 Time: 6:12 AM  
 Time: 4:15 AM

**SURFACE CO-ORDINATES**

Well Type: Vertical  
 Longitude: 100° 46' 03.691"      Latitude: 38° 38' 51.345"  
 N/S Co-ord:  
 E/W Co-ord:

**ELEVATIONS**

K.B. Elevation: 2938.00ft      Ground Elevation: 2933.00ft  
 K.B. to Ground: 5.00ft

**NOTES**

Date	Depth at 7 am	Activity
10-01-13	MIRU	Spud at 1:45 pm
10-02-13	835	Drilling
10-03-13	2645	Drilling
10-04-13	3340	Drilling
10-05-13	3930	Drilling
10-06-13	4045	Drilling
10-07-13	4245	Drilling
10-08-13	4470	OB with DST No. 3
10-09-13	4588	TOH for DST No. 4
10-10-13	4735	STCH for Log
10-11-13	4735	Set 4 1/2"

Surface Casing: 8 5/8" 23# at 211'  
 Production Casing: 4 1/2" 10.5# at 477'

Deviation: 211' - 1 1/4°  
 4006' - 1°  
 4735' - 1°

Bit Record:	Make	Size	Type	Depth In	Depth Out	Hours
	SM	12 1/4"	RR	Surface	211	2
	SM	7 7/8"	F27	211	4735	124 1/2

**Drill Stem Tests:**

DST No. 1 3978 to 4006 Formation: Lansing C Zone  
 30-45-45-60

Recovery: 144' GIP  
 102' MCGO (10%G, 30%M, 60%O)  
 124' MCGO (10%G, 40%M, 50%O)

IHP 1934      FHP 1898  
 IFP 40-82      FFP 87-91  
 ISIP 888      FSIP 853  
 Temp 116°

DST No. 2 4034 to 4058 Formation: Lansing E Zone  
 30-30-30-30

Recovery: 10' Mud  
 IHP 2007      FHP 1952  
 IFP 31-32      FFP 38-44  
 ISIP 949      FSIP 940  
 Temp 114°

DST No. 3 4434 to 4470 Formation: Pawnee  
 30-30-30-30  
 Recovery: 5' Mud  
 IHP 2211 FHP 2164  
 IFP 17-18 FFP 18-21  
 ISIP 454 FSIP 464  
 Temp 120°

DST No. 4 4532 to 4588 Formation: Johnson Zone  
 30-45-45-60  
 Recovery: 67' OCM (10%O, 90%M)  
 IHP 2298 FHP 2240  
 IFP 18-37 FFP 41-64  
 ISIP 1158 FSIP 1155  
 Temp 123°








Formation	Sample	E-Log	Datum	Well 1	Well 2	Well 3
Anhydrite	2337	2337	+601	-3	+7	-11
B/Anhydrite	2359	2358	+580	-5	+7	-11
Stotler	3549	3548	-610	-6	+4	-12
Heebner	3934	3932	-994	-8	-1	-8
Toronto	3952	3950	-1012	-2	-2	-7
Lansing	3972	3970	-1032	-12	+1	-8
Muncie Creek	4140	4139	-1201	+1	+1	+1
Stark	4237	4237	-1299	+1	-3	-3
Hushpuckney	4276	4276	-1338	-3	-8	+1
B/Kansas City	4319	4319	-1381	0	-4	+3
Marmaton	4355	4354	-1416	-2	-8	+1
Altamont	4381	4380	-1442	-11	-15	-2
Pawnee	4454	4454	-1516	-4	-6	-1
Myrick Station	4485	4484	-1546	-8	-8	0
Fort Scott	4500	4500	-1562	-5	-5	+1
Cherokee Shale	4525	4524	-1586	-7	-7	-2
Johnson Zone	4563	4562	-1624	-2	-2	+5
Morrow	4587	4687	-1649	+8	+8	+11
Mississippi	4616	4616	-1678	-3	-3	+15
Total Depth	4735	4736	-1798			

Well 1: Ritchie Exploration, Inc. Huseman 20C No. 1 2275' FSL and 563' FWL Sec 20 T16S R31W  
 Well 2: Ritchie Exploration, Inc. Huseman 20B No. 1 485' FNL and 1180' FWL Sec 20 T16S R31W  
 Well 3: Chief Drilling Company Grothusen No. 1 NE NW NE Sec 30 T16S R31W

Pipe was set to further test the Lansing zone.

Respectfully submitted,  
 Macklin M. Armstrong

### ROCK TYPES

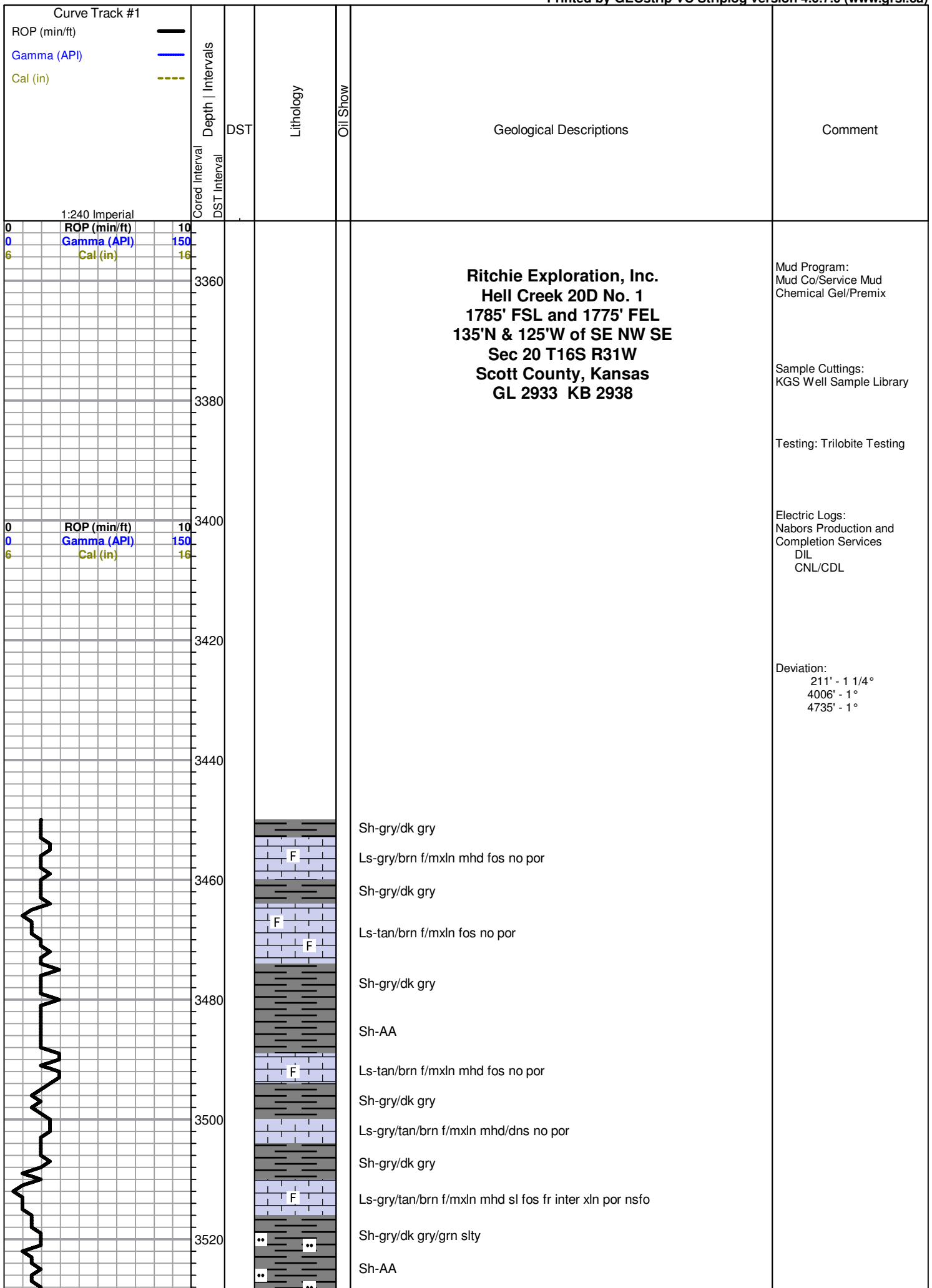
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 shale, grn	 Carbon Sh	 Shcol	

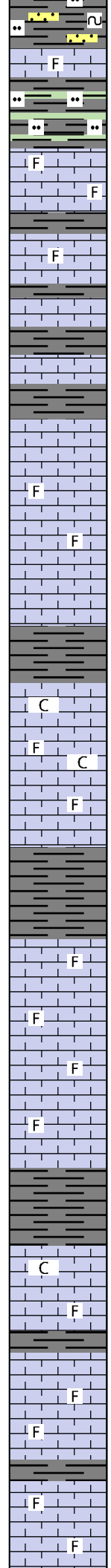
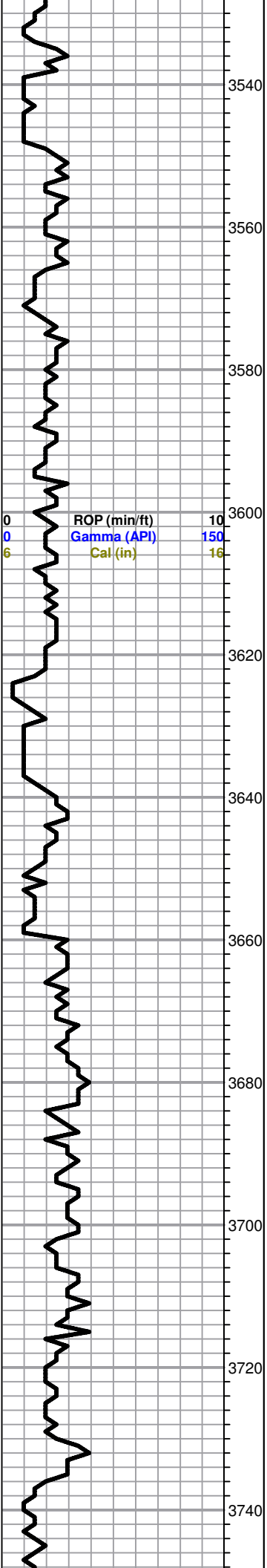
### ACCESSORIES

<b>MINERAL</b>	<b>FOSSIL</b>	<b>STRINGER</b>	<b>TEXTURE</b>
▲ Chert, dark	∩ Bryozoa	••• Sandstone	C Chalky
∩ Glauconite	F Fossils < 20%		
•• Silty	∅ Oolite		
△ Chert White	∅ Pellets		
	⊕ Oomoldic		

### OTHER SYMBOLS

<b>DST</b>
 DST Int
 DST alt
 Core





Sh-AA with sm Ss-lt gry frgn sub ang to sub rnd sl fri sl glau

Ls-tan/brn f/mxln dns sl fos no por

Sh-gry/dk gry/gry grn slty

----- **Stotler 3549 -611** -----

Ls-tan/gry f/mxln mhd/dns sl fos no por

Sh-gry/dk gry

Ls-tan/gry f/mxln mhd/dns sl fos no por

Sh-gry/dk gry

Ls-tan/gry brn f/mxln pr inter xln por nsfo

Sh-gry/dk gry

Ls-gry/tan f/mxln mhd/dns no por

Sh-gry/dk gry

Ls-lt gry/tan fxln mhd/dns no por

Ls-AA sm Ls-brn f/mxln mhd fos no por

Ls-AA

Ls-tan/gry f/mxln dns no por

Sh-gry/dk gry

Ls-crm/lt tan fxln soft clky fr inter xln por nsfo

Ls-lt gry/tan f/mxln mhd no por

Ls-crm/lt tan f/mxln soft/mhd sl fos sl clky no por

Ls-tan/lt gry f/mxln dns sl fos no por

Sh-gry/dk gry

Ls-crm/tan f/mxln dns sl fos no por

Ls-lt gry/tan f/mxln mhd sl fos no por

Ls-lt gry/tan f/mxln dns fos no por

Ls-AA

Sh-gry/dk gry

Ls-crm/lt gry f/mxln mhd sl clky no por

Ls-lt gry f/mxln dns sl fos no por

Sh-gry/dk gry

Ls-lt gry/gry f/mxln mhd sl fos no por

Ls-AA

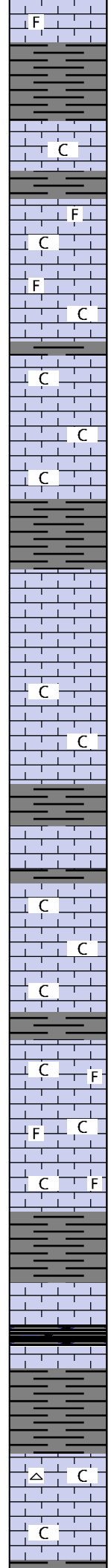
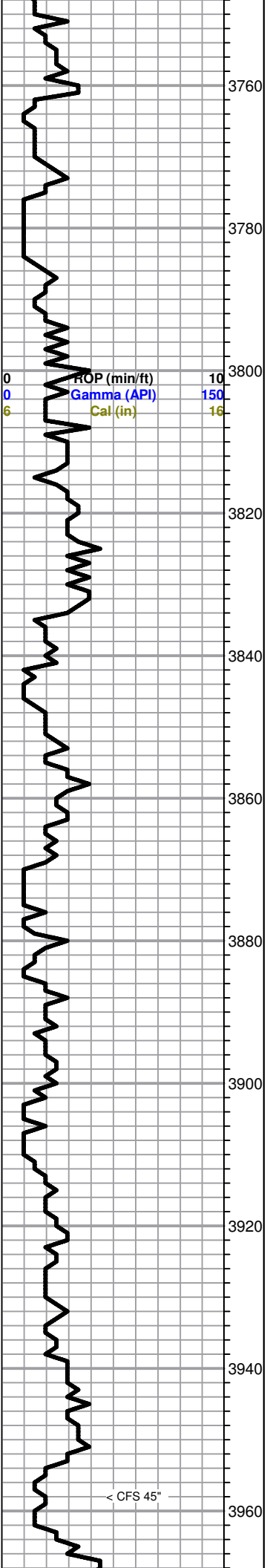
Ls-lt gry/gry f/mxln dns sl fos no por

Sh-gry/dk gry

Ls-crm/lt gry f/mxln mhd sl fos pr inter xln por nsfo

Ls-AA

All formation tops on this geological log have been correlated back to the electric log



Ls-gry/brn f/mxln dns sl fos no por

Sh-gry/dk gry

Ls-crm/tan f/mxln mhd sl clkly no por

Sh-gry/dk gry

Ls-crm/tan f/mxln clkly sl fos pr inter xln por nsfo

Ls-crm/tan f/mxln mhd sl clkly sl fos no por

Ls-AA

Sh-gry/dk gry

Ls-tan/lt gry fxln mhd clkly no por

Ls-tan/lt gry mhd/dns sl clkly no por

Ls-AA

Sh-gry/dk gry

Ls-tan fxln dns no por

Ls-crm/tan f/mxln mhd no por

Ls-tan fxln mhd sl clkly fr inter xln por nsfo

Ls-tan fxln mhd/dns sl clkly no por

Sh-gry/dk gry

Ls-tan fxln mhd/dns no por

Sh-gry/dk gry

Ls-crm/tan fxln soft clkly fr inter xln por nsfo

Ls-crm/tan fxln mhd sl clkly no por

Ls-crm/tan fxln soft sl clkly trc inter xln por nsfo

Ls-crm/tan fxln dns sl clkly no por

Sh-gry/dk gry

Ls-crm/tan f/mxln mhd sl clkly sl fos no por

Ls-AA

Ls-crm/tan f/mxln soft/mhd sl clkly fr inter xln por nsfo

Ls-tan/brn mott gry f/mxln mhd/dns sl clkly sl fos no por

Sh-gry/dk gry

Ls-tan/brn mott gry f/mxln dns no por

----- Heebner 3934 -996 -----

Sh-blk carb

Ls-tan/brn fxln dns no por

Sh-gry/dk gry

----- Toronto 3952 -1014 -----

Ls-crm/lt tan fxln mhd sl clkly trc inter xln por nsfo sm Cht-crm/tan fsh opa and Ls-wt fxln soft clkly

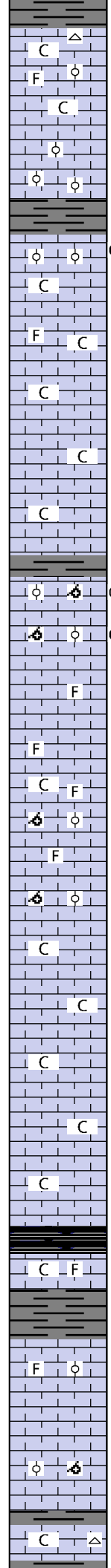
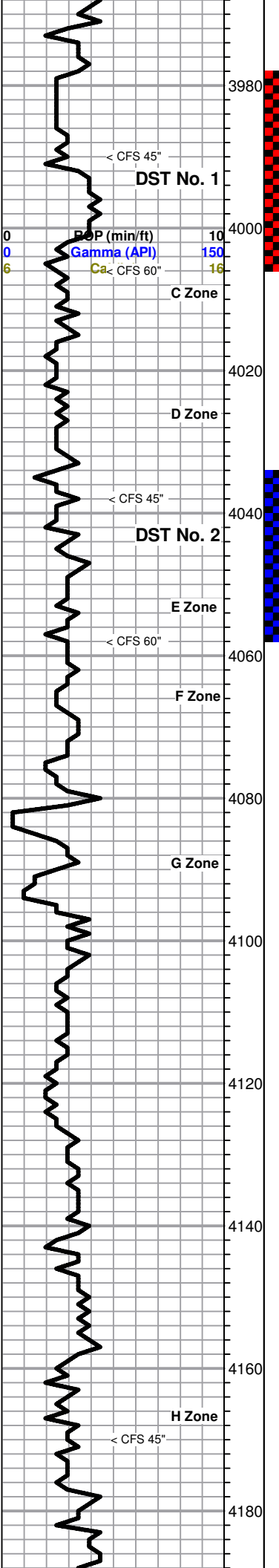
Ls-crm/tan f/mxln mhd sl clkly no por

Sh-gry/dk gry

Mud Data at 3910'  
 6:00 am 10-05-13  
 Wt 9.2 Vis 52 WL 7.2  
 pH 10 Chl 1500 Sol 5.8%  
 YP 17 LCM 2#

DST No. 1  
 3978 to 4006  
 30-45-45-60  
 1st CFS - ROP in 20"





----- **Lansing 3972 -1034** -----

Sh-gry/dk gry

Ls-crm/tan f/mxln mhd sl clky no por sm Ls-lt gry f/mxln mhd fos with blk ool no por

Ls-crm/lt tan fxln mhd clky no por

Ls-tan/brn fxln mhd/dns fos highly ool no por

Sh-gry/dk gry

Ls-tan fxln mhd fos ool gd inter ool por sct brn stn gd cut gsfo on brk fr odor

Ls-crm/lt tan fxln mhd/dns clky no por

Ls-crm/lt tan/lt gry fxln mhd/dns clky sl fos no por

Ls-crm/lt gry fxln mhd/dns clky no por sm Ls-wt fxln soft clky

Ls-AA

Ls-crm/lt tan/t gry fxln mhd/dns sl clky no por

Sh-gry/dk gry

Ls-crm/tan fxln pr inter xln por brn spt stn fsfo on brk sl odor

Ls-tan fxln mhd fos oom and ool gd inter fos por brn spt stn gsfo gd odor

Ls-crm/tan fxln mhd/dns fos no por

Ls-AA

Ls-crm/wt fxln mhd clky sl fos no por

Ls-tan/brn fxln mhd fos sl ool and oom gd ooc por nsfo

Ls-tan fxln dns fos no por

Ls-tan/brn fxln mhd fos sl ool and oom gd ooc por nsfo

Ls-crm/lt tan fxln dns sl clky no por

Ls-AA

Ls-crm/tan fxln dns sl clky no por

Ls-crm/tan/lt gry fxln dns sl clky no por

Ls-AA

----- **Muncie Creek 4140 -1202** -----

Sh-blk carb

Ls-tan/brn f/mxln sm blkly mhd sub clky sl fos no por

Sh-gry/dk gry

Ls-lt gry/tan fxln dns no por and Ls-tan/brn fxln dns fos sl ool no por

Ls-tan/brn fxln dns no por

Ls-crm/tan fxln mhd fos sl oom and ool fr inter ool/ooc por nsfo

Sh-gry/dk gry

Ls-crm/tan fxln dns sl clky no por sm Cht-wt/crm fsh opa

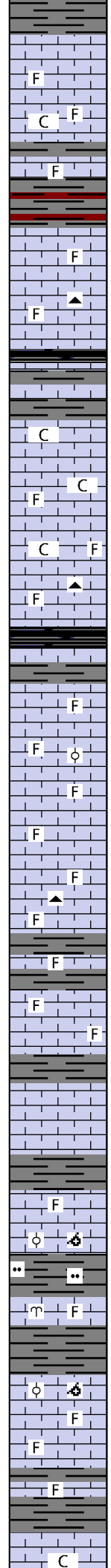
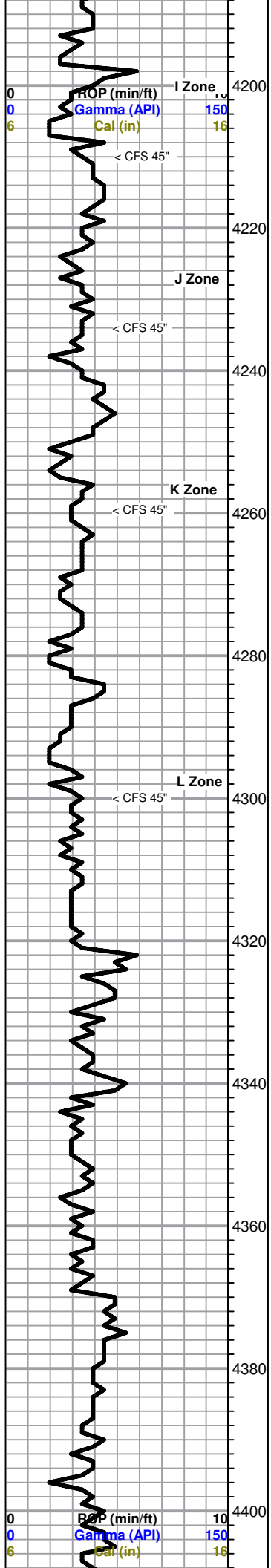
1st Open: BOB in 28"  
 2nd Open: BOB in 30"  
 Recovery:  
 144' GIP  
 102' MCGO (10%G, 30%M 60%O)  
 124' MCGO (10%G, 40%M 50%O)  
 IHP 1934 FHP 1898  
 IFP 40-82 FFP 87-91  
 ISIP 888 FSIP 853  
 Temp 116°

Pulled 20 stand short trip at 4006', then cir for test - 60"

Mud Data at 4038'  
 6:20 am 10-06-13  
 Wt 9.2 Vis 53 WL 10.4  
 pH 9 Chl 2800 Sol 5.9%  
 YP 18 LCM 2#

Pipe Strap at 4058'  
 Short 0.75'

DST No. 2  
 4034 to 4058  
 30-30-30-30  
 1st Open: Weak sur blow, died in 10"  
 2nd Open: No blow, flushed tool, no help  
 Recovery: 10' Mud  
 IHP 2007 FHP 1952  
 IFP 31-32 FFP 38-44  
 ISIP 949 FSIP 940  
 Temp 114°



Sh-gry/dk gry

Ls-gry/brn fxln mhd no por

Ls-tan/lt gry fxln dns sl fos no por

Ls-crm/tan f/mxln mhd sl clky sl fos no por

Sh-gry/dk gry

Ls-tan/brn f/mxln dns sl fos no por

Sh-gry/dk gry/mar

Ls-tan/lt gry fxln mhd/dns no por

Ls-tan/gry/brn f/mxln dns sl fos no por sm Cht-brn fsh opa

----- **Stark 4237 -1299** -----

Sh-blk carb

Sh-gry/dk gry

Ls-tan/gry fxln dns no por

Sh-gry/dk gry

Ls-crm/tan fxln dns sl clky no por

Ls-tan/lt gry/brn mxln mhd clky no por

Ls-crm/lt gry/tan fxln dns sl clky sl fos no por

Ls-crm/lt gry/tan fxln dns sl clky sl fos no por

Ls-tan/gry/brn f/mxln sm blkly sl fos no por sm Cht-lt gry fsh opa

----- **Hushpuckney 4276 -1338** -----

Sh-blk carb

Sh-gry/dk gry

Ls-lt gry/crm fxln dns sl fos no por

Ls-tan/gry mott brnf/mxln sm blkly mhd fos with blk ool no por

Ls-crm/tan f/mxln mhd/dns sl fos no por

Ls-lt gry f/mxln mhd/dns sl fos no por

Ls-tan/gry f/mxln dns sl fos no por sm Cht-gry fsh opa

----- **B/Kansas City 4319 -1381** -----

Ls-tan/gry f/mxln dns sl fos no por

Sh-gry/dk gry

Ls-tan/gry/brn f/mxln dns sl fos no por

Sh-gry/dk gry

Ls-tan/brn/gry f/mxln dns no por

Sh-gry/dk gry

----- **Marmaton 4355 -1417** -----

Ls-tan/gry/brn f/mxln mhd/dns sl fos no por

Ls-AA with sm Ls-brn cxln to frag mhd fos ool and oom no por

Sh-gry/dk gry/grn slty

Ls-tan/gry fxln dns sl fos no por with a few free byrozoa

Sh-gry/dk gry

----- **Altamont 4381 -1443** -----

Ls-tan/gry fxln dns sl fos no por with sm Ls-brn cxln mhd fos ool and oom no por

Ls-tan/gry/brn f/mxln sm blkly dns sl fos no por

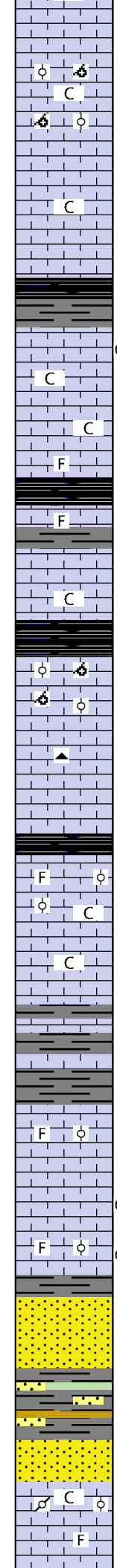
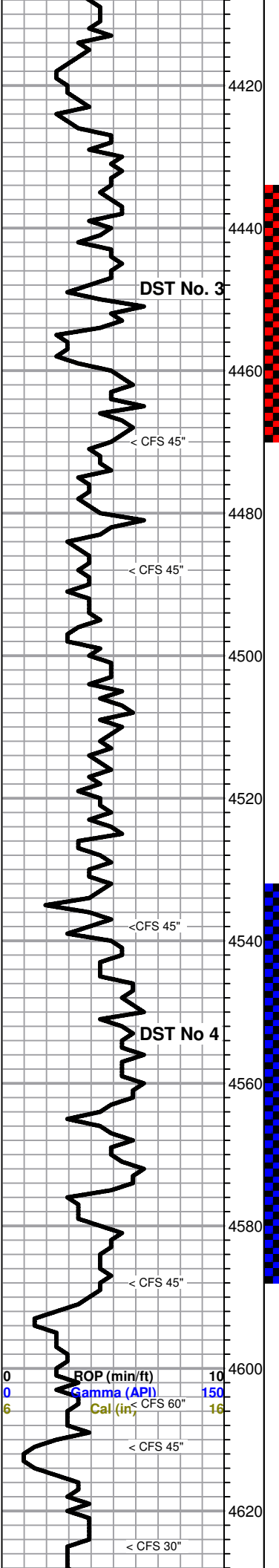
Sh-gry/dk gry

Ls-tan/gry fxln dns sl fos no por

Sh-gry/dk gry

Ls-crm/tan fxln dns sl clky no por

Mud Data at 4229'  
 5:45 am 10-07-13  
 Wt 9.3 Vis 54 WL 8.8  
 pH 10 Chl 4000 Sol 6.6%  
 YP 20 LCM 2#



Ls-tan/lt gry fxln dns no por

Ls-tan fxln mhd fos ool and oom no por

Ls-AA with sm Ls-wt fxln soft clk

Ls-tan/lt gry fxln dns no por

Ls-AA with sm Ls-wt fxln soft clk

Ls-tan/brn fxln mhd no por

Sh-blk carb  
Sh-gry/dk gry

----- **Pawnee 4454 -1516** -----

Ls-crmtan f/mxln mhd fr inter xln por spt brn stn fgsfo on brk faint odor

Ls-tan/brn fxln dns no por sm Ls-crm fxln mhd clk no por

Ls-gry/brn fxln dns sl fos no por

Sh-blk carb

Ls-gry/brn fxln dns sl fos no por

----- **Myrick Station 4485 -1547** -----

Ls-lt gry/tan/gry fxln mhd/dns no por

Ls-crm/lt gry/tan fxln mhd/dns sl clk no por

Sh-blk carb

----- **Fort Scott 4500 -1562** -----

Ls-gry/brn f/mxln mhd fos ool and oom no por

Ls-gry/brn fxln dns no por sm Ls-brn f/mxln mhd fos ool and oom no por

Ls-tan/gry/brn fxln dns no por sm Cht-brn/gry fsh opa

Ls-gry/tan f/mxln dns no por

----- **Cherokee Shale 4525 -1587** -----

Sh-blk carb

Ls-tan/brn f/mxln dns fos with blk and dk brn ool no por sm Ls-lt gry f/mxln mhd sub clk fos with blk ool no por

Ls-lt gry f/mxln mhd sub clk dns fos with blk ool no por

Ls-gry/lt gry fxln dns no por

Ls-tan/brn fxln dns no por sm Ls-lt gry/tan fxln mhd/dns sub clk no por

Ls-gry/lt gry/brn fxln dns no por

Sh-gry/dk gry

Ls-gry/brn fxln dns no por

Sh-gry/dk gry

Ls-AA

Sh-gry/dk gry

----- **Johnson Zone 4563 -1625** -----

Ls-lt gry/gry f/mxln mhd sl fos sl ool no por

Ls-gry/lt gry/brn fxln dns no por

Ls-tan/brn fxln mhd fr vug por fr cut spt brn stn fsfo on brk faint odor

Ls-tan/brn fxln dns no por with sm Ls-tan f/mxln mhd fos sl ool fr vug por spt brn stn fsfo on brk faint odor

----- **Morrow 4587 -1649** -----

Sh-gry/dk gry

Ss-lt gry/lt grn fgrn ang to sub ang tite cement sm Ss-lt gry fgrn sub ang to sub rnd sl fri to sl cement nsfo

Sh-gry/dk gry/grn/sm yel

Sh-AA with sm Ss-lt gry fgrn sub ang to rnd sl fri

Ss-wt/lt gry fgrn sub ang to sub rnd fri nsfo

----- **Mississippi 4616 -1678** -----

Ls-crm/wt mxln to sl gran mhd fos sl ool or pell sl clk no por

Ls-tan/lt gry fxln mhd/dns sl fos no por

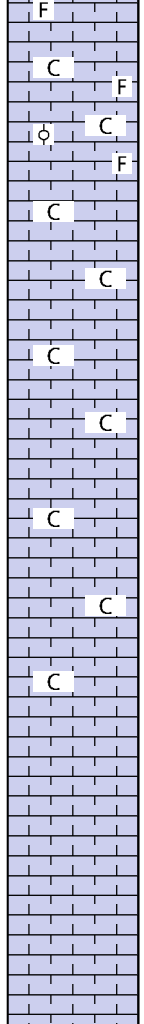
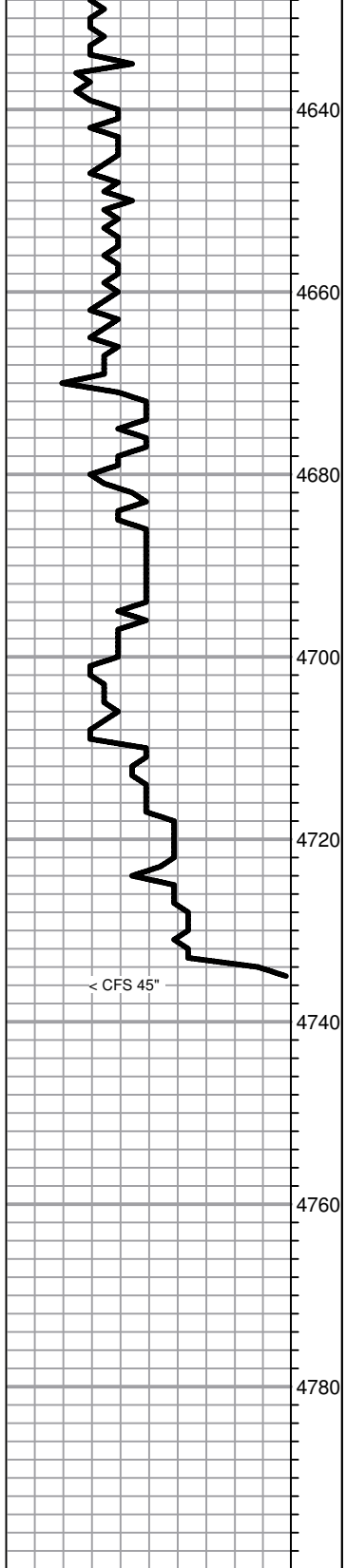
DST No. 3  
4434 to 4470  
30-30-30-30  
1st Open: Weak sur blow, died in 6"  
2nd Open: No blow, flushed tool, no help  
Recovery: 5' Mud  
IHP 2211 FHP 2164  
IFP 17-18 FFP 18-21  
ISIP 454 FSIP 464  
Temp 120°

Pulled 15 stand short trip at 4470' then cir for test - 60"

Mud Data at 4470'  
9:15 am 10-08-13  
Wt 9.3 Vis 50 WL 6.8  
pH 10 Chl 2000 Sol 7%  
YP 18 LCM 2#

DST No. 4  
4532 to 4588  
30-45-45-60  
1st Open: Weak blow, building to 1 3/4"  
2nd Open: Weak blow, building to 1/2"  
Recovery: 67' OCM (10%O, 90%M)  
IHP 2298 FHP 2240  
IFP 18-37 FFP 41-64  
ISIP 1158 FSIP 1155  
Temp 123°

Mud Data at 4588'  
8:30 am 10-09-13  
Wt 9.4 Vis 51 WL 7  
pH 10 Chl 1800 Sol 7.7%  
YP 18 LCM 2#



Ls-AA

Ls-crm/tan/lt gry f/mxln mhd/dns sl fos sl clkyl no por

Ls-crm/tan fxln to fgran dns sl clkyl no por

Ls-AA

Ls-tan/lt gry fxln to fgran dns sl clkyl no por

Ls-AA

Ls-tan/lt gry fxln to fgran dns no por

Ls-AA

Ls-tan/lt gry f/mxln dns no por

Ls-AA

Ls-AA

Ls-tan/lt gry f/mxln dns no por

Ls-AA

Ls-AA

----- **RTD 4735 -1797** -----

Finished Drilling at 6:12 am on 10-10-13. Pulled 10 stand short trip, then Cir for Log - 90"

Finished Logging at 1:35 pm on 10-10-13



**#1 Hell Creek 20D**

1785' FSL & 1775' FEL

135' N & 125' W of SE NW SE Section 20-16S-31W

Scott County, Kansas

API# 15-171-20987-00-00

Elevation: 2933' GL, 2938' KB

**DRILLING REPORT**

Sample Tops			Ref. Well
Anhydrite	2336'	+602	-2
B/Anhydrite	2359'	+579	-5
Heebner	3922'	-984	-2
Toronto	3940'	-1002	-2
Lansing	3960'	-1022	-2
Muncie Shale	4141'	-1203	-1
Stark Shale	4237'	-1299	Flat
Hush	4279'	-1341	Flat
BKC	4320'	-1382	-1
Altamont	4369'	-1431	Flat
Pawnee	4448'	-1510	+2
Myrick	4478'	-1540	+2
Fort Scott	4492'	-1554	+4
Cherokee Shale	4518'	-1580	+2
Johnson	4559'	-1621	+1
B/Johnson	4590'	-1652	-1
Mississippian	4615'	-1677	+3
RTD	4735'	-1797	

HELL CREEK 20A-1

# ALLIED OIL & GAS SERVICES, LLC

Federal Tax ID: # 20-8651475

REMIT TO P.O. BOX 93999  
SOUTHLAKE, TEXAS 76092

SERVICE POINT:

*Dakley*

DATE <i>10/1/13</i>	SEC. <i>5</i>	TWP. <i>29</i>	RANGE <i>16</i>	CALLED OUT	ON LOCATION	JOB START <i>5:40</i>	JOB FINISH <i>5:30p</i>
WELL # <i>HELLCRAK 200</i>	WELL #	LOCATION <i>Healy w/ to traps 2</i>		<i>miles w/</i>	<i>200 ft.</i>	STATE <i>KS</i>	
OLD OR NEW (Circle one) <input checked="" type="radio"/> OLD <input type="radio"/> NEW							

CONTRACTOR *WW 2* OWNER *Sun e*

TYPE OF JOB <i>Gravel</i>	CEMENT
HOLE SIZE <i>12 1/4</i> T.D.	AMOUNT ORDERED <i>160 tons 300 CL</i>
CASING SIZE <i>8 5/8</i> DEPTH	
TUBING SIZE DEPTH	
DRILL PIPE <i>4 1/2</i> DEPTH	
TOOL DEPTH	
PRES. MAX MINIMUM	COMMON <i>160 @ 17.20 = 2864.00</i>
MEAS. LINE SHOE JOINT	POZMIX @
CEMENT LEFT IN CSG. <i>15'</i>	GEL <i>3 @ 23.40 = 70.20</i>
PERFS.	CHLORIDE <i>6 @ 64.00 = 384.00</i>
DISPLACEMENT <i>12 1/4</i>	ASC @

EQUIPMENT

PUMP TRUCK CEMENTER <i>Alan Ryan</i>	
# <i>42-28</i> HELPER <i>Kevin Ryan</i>	
BULK TRUCK	
# <i>378</i> DRIVER <i>Alex (TWS)</i>	
BULK TRUCK	
# DRIVER	

HANDLING <i>103.23</i>	@ <i>7.10</i>	<i>732.26</i>
MILEAGE <i>7.896</i>	@ <i>7.00</i>	<i>55.27</i>
		<i>1026.53</i>
		TOTAL <i>4973.75</i>

REMARKS:

*Gravel, Cement, Dryline Cement*

*Shunt*

*Cement 160 tons Gravel*

*Dryline Alan, Kevin, Alex*

SERVICE

DEPTH OF JOB	
PUMP TRUCK CHARGE	<i>15.12</i>
EXTRA FOOTAGE @	
MILEAGE <i>50</i>	@ <i>7.20 = 385.00</i>
MANIFOLD @	
<i>Steelhead 50</i>	@ <i>4.40 = 220.00</i>
	@

TOTAL *2117.25*

CHARGE TO *Ritchie Kay*

STREET \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

PLUG & FLOAT EQUIPMENT

_____	@ _____	
_____	@ _____	
_____	@ _____	
_____	@ _____	
_____	@ _____	
_____	@ _____	

TOTAL \_\_\_\_\_

To: Allied Oil & Gas Services, LLC.  
You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PRINTED NAME *Romeo Yang*

SIGNATURE *Romeo Yang*

SALES TAX (If Any) \_\_\_\_\_

TOTAL CHARGES *6,891.00*

DISCOUNT *1,584.93* IF PAID IN 30 DAYS

*5,306.07 Net.*

*[Signature]*



**CONSOLIDATED**  
Oil Well Services, LLC

263270

TICKET NUMBER 44407  
LOCATION Oakley KS  
FOREMAN Dave - Trainee  
July 4

PO Box 884, Chanute, KS 66720  
620-431-9210 or 800-467-8676

**FIELD TICKET & TREATMENT REPORT**

**CEMENT**

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
10-15-13	7173	Hellcreek 201	20	16	31	Scott
CUSTOMER			TRUCK #	DRIVER	TRUCK #	DRIVER
Rinchie Exploration			399	Tom W		
MAILING ADDRESS			529	Cody R		
CITY	STATE	ZIP CODE				

JOB TYPE Port Collar HOLE SIZE \_\_\_\_\_ HOLE DEPTH \_\_\_\_\_ CASING SIZE & WEIGHT 4 1/2 10.5  
 CASING DEPTH \_\_\_\_\_ DRILL PIPE \_\_\_\_\_ TUBING 2 3/8 OTHER \_\_\_\_\_  
 SLURRY WEIGHT 12.5 SLURRY VOL \_\_\_\_\_ WATER gal/sk \_\_\_\_\_ CEMENT LEFT IN CASING P Collar 2327'  
 DISPLACEMENT 9.07 DISPLACEMENT PSI \_\_\_\_\_ MIX PSI \_\_\_\_\_ RATE \_\_\_\_\_

REMARKS: Safety meeting on KTM well service. Rig up & Test closed  
Port Collar @ 1100', open P-collars establish circulation, mix  
365gks 60/40 pos 690sel 1 1/4" Slossal w/ 500\* Cottonseed hulls. Displace  
8 1/2 BBL. Close P-collars Press to 1100' and hold. Wash pump  
and lines. Run 5 JTS and reverse lbs clean with 30 BBL water.

Thanks Dave & Crew

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
54013	1	PUMP CHARGE	1785 <sup>00</sup>	1785 <sup>00</sup>
5406	40	MILEAGE	523	210 <sup>00</sup>
5407A	15.7 ton	Tow mileage Delivery	125	1099 <sup>00</sup>
1131	365gks	60/40 pos	1586	5788 <sup>90</sup>
118B	1833#	Bondomite	127	494 <sup>91</sup>
1107	91#	Flo-sol	291	270 <sup>37</sup>
1105	500#	Cottonseed Hulls	58	290 <sup>00</sup>
		subtotal		9938 <sup>08</sup>
		less 1090		9938 <sup>01</sup>
		subtotal		8944 <sup>27</sup>
		SALES TAX 8.15%		502.03
		ESTIMATED TOTAL		9446.30

completed

Ravin 3737

AUTHORIZATION Gary Rowe TITLE \_\_\_\_\_ DATE \_\_\_\_\_

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form.



**CONSOLIDATED**  
Oil Well Services, LLC

263180

TICKET NUMBER 44371  
LOCATION Oakley, Mo  
FOREMAN Damen + Walt

PO Box 884, Chanute, KS 66720  
320-431-9210 or 800-467-8676

**FIELD TICKET & TREATMENT REPORT**

**CEMENT**

K6

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
10/10/13	7173	Hell Creek 20D #1	20	16	31	Scott

CUSTOMER: Ritchie Exploration  
 MAILING ADDRESS:  
 CITY: STATE: ZIP CODE:

TRUCK #	DRIVER	TRUCK #	DRIVER
463	Cory		
466	Merle		

JOB TYPE: Production HOLE SIZE: 7 7/8 HOLE DEPTH: 4733.88 CASING SIZE & WEIGHT: 4 1/2 10.5  
 CASING DEPTH: 4729 DRILL PIPE: TUBING: OTHER: Port Collar #56  
 SLURRY WEIGHT: 14 SLURRY VOL: 142 WATER gal/sk: CEMENT LEFT in CASING: 2327  
 DISPLACEMENT: 74.87 DISPLACEMENT PSI: MIX PSI: RATE:

REMARKS: Safety Meeting Rig up on WW-2 Run Float Equipment Turboblizers 1-2  
4-17-55-57 Baskets 16-56-69 Port Collar on #56. Circulate 1hr. pump 5 water  
500gal mud flush - 5 water mix 30SKs in Rathole mix 225 SKs OWC at 5" Gal/sk  
25% CDI 26 Down 4 1/2 Casing Washup Pump Lines Release plug & Displace  
74.87 bbl water 900' Lift 1500' Land Float Held  
Plug mouse hole 15 SKs Cement

*Thanks Damen + Crew*

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
5401C	1	PUMP CHARGE	\$3175.00	\$3175.00
5406	40	MILEAGE	\$5.25	\$210.00
5407A	12	Ten Mileage Delivery	\$1.25	\$15.00
1126	255 SKs	OWC	\$23.70	\$6043.50
1110A	1275 #	Kal seal	\$0.56	\$714.00
1137	60 #	CDI-26	\$10.20	\$612.00
1144G	500 gal	Mud Flush	\$1.00	\$500.00
7155	1	AFU Float Shoe	\$258.50	\$258.50
4139	6	4 1/2 Turboblizers	\$60.00	\$360.00
4284	1	4 1/2 Port Collar (I)	\$1984.50	\$1984.50
4103	3	Baskets 4 1/2 (W)	\$275.00	\$825.00
4453	1	Latch Down Plug Assy	\$290.00	\$290.00
			Sub Total	\$15812.50
			CRSS 10%	\$1581.25
			Sub Total	\$14231.25
			SALES TAX 8.15%	849.96
			ESTIMATED TOTAL	15081.21

completed

AUTHORIZATION: [Signature] TITLE: DATE:

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form

77



Conservation Division  
Finney State Office Building  
130 S. Market, Rm. 2078  
Wichita, KS 67202-3802



Phone: 316-337-6200  
Fax: 316-337-6211  
<http://kcc.ks.gov/>

Shari Feist Albrecht, Chair  
Thomas E. Wright, Commissioner  
Jay Scott Emler, Commissioner

Sam Brownback, Governor

February 07, 2014

Peter Fiorini  
Ritchie Exploration, Inc.  
8100 E 22ND ST N # 700  
BOX 783188  
WICHITA, KS 67278-3188

Re: ACO-1  
API 15-171-20987-00-00  
Hell Creek 20D 1  
SE/4 Sec.20-16S-31W  
Scott County, Kansas

Dear Peter Fiorini:

K.A.R. 82-3-107 provides for all completion information to be filed within 120 days of the spud date. Subsection(e)(2) of that regulation states "All rights to confidentiality shall be lost if the filings are not timely."

The above referenced well was spudded on 10/01/2013 and the ACO-1 was received on January 30, 2014 (not within the 120 days timely requirement).

Therefore, your request for confidential treatment of data contained within the ACO-1 filing cannot be granted at this time.

If you should have any questions, please do not hesitate to contact me at (316)337-6200.

Sincerely,

Production Department