



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1102961
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
-----------------------------------	-----------------	---

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: _____



1102961

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 List All E. Logs Run: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
--	---

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

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> <input type="checkbox"/> Other <i>(Specify)</i> _____ <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
--	---	---



#1 Ottley Brothers

1430' FNL & 1400' FWL

110' S & 80' E of NW Section 20-13S-30W

Gove Co., Kansas

API# 15-063-22031-00-00

Elevation: 2870' GL, 2880' KB

Sample Tops			Ref. Well
Anhydrite	2337'	+543	+22
B/Anhydrite	2367'	+513	+19
Stotler	3558'	-678	NA
Heebner	3916'	-1036	+23
Toronto	3941'	-1061	+26
Lansing	3960'	-1080	+23
Muncie	4117'	-1237	+16
Stark Shale	4204'	-1324	+21
Hush. Shale	4241'	-1361	+23
BKC	4273'	-1393	+16
Marmaton	4308'	-1428	+15
Altamont	4344'	-1464	+1
Pawnee	4412'	-1532	+5
Myrick	4454'	-1574	+3
Fort Scott	4478'	-1598	+2
Cherokee Shale	4504'	-1624	+5
Johnson	4558'	-1678	+3
Johnson Base	4580'	-1700	-11
Morrow	Absent		
Mississippian	4586'	-1706	+5
RTD	4700'	-1820	

ALLIED OIL & GAS SERVICES, LLC 056723

Federal Tax I.D.# 20-5976804

REMIT TO PO BOX 31
RUSSELL, KANSAS 67665

SERVICE POINT

09664

DATE <u>8-2-12</u>	SEC. <u>20</u>	TWP. <u>13</u>	RANGE <u>30</u>	CALLED OUT	ON LOCATION	JOB START <u>2:15 pm</u>	JOB FINISH <u>3:00 pm</u>
LEASE <u>offley</u>	WELL # <u>1</u>	LOCATION <u>ocion 3.5 12.0</u>	COUNTY <u>Gove</u>	STATE <u>KS</u>			
OLD OR NEW (Circle one)		<u>5/250</u>				<u>1.01</u>	<u>8.05</u>

CONTRACTOR <u>Matt Fin 14</u>	OWNER <u>same</u>
TYPE OF JOB <u>Surfpac</u>	
HOLE SIZE <u>12 1/4</u>	TD. <u>227'</u>
CASING SIZE <u>8 7/8</u>	DEPTH <u>227'</u>
TUBING SIZE	DEPTH
DRILL PIPE	DEPTH
TOOL	DEPTH
PRES. MAX	MINIMUM
MEAS. LINE	SHOE JOINT
CEMENT LEFT IN CSO. <u>15'</u>	
PERFS.	
DISPLACEMENT <u>13.5 BBL</u>	

CEMENT	AMOUNT ORDERED	
COMMON	<u>125 sks</u>	@ <u>16.25</u> <u>2031.25</u>
POZMIX		@
OBL	<u>3 sks</u>	@ <u>21.25</u> <u>63.75</u>
CHLORIDE	<u>6 sks</u>	@ <u>58.20</u> <u>349.20</u>
ASC		@

EQUIPMENT

PUMP TRUCK	CEMENTER <u>Andrew Fickel 1</u>
# <u>431</u>	HELPER <u>Dane Kubick 1</u>
BULK TRUCK	
# <u>404</u>	DRIVER <u>Ethan Gibson 3</u>
BULK TRUCK	
#	DRIVER

HANDLING	<u>189.23</u>	@ <u>2.10</u> <u>397.38</u>
MILEAGE	<u>28</u>	@ <u>15.54</u> <u>435.12</u>
TOTAL		<u>469.38</u>

REMARKS:

Cement did circulate.

thank you

CHARGE TO: Richie exploration

STREET _____

CITY _____ STATE _____ ZIP _____

SERVICE

DEPTH OF JOB	
PUMP TRUCK CHARGE	<u>1125.00</u>
EXTRA FOOTAGE	@
MILEAGE <u>28 miles</u>	@ <u>2.00</u> <u>161.00</u>
MANIFOLD <u>fixed</u>	@ <u>200.00</u>
<u>light vehicle</u>	@ <u>4.00</u> <u>92.00</u>

TOTAL 1508.00

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.

SALES TAX (if Any) 262.16

TOTAL CHARGES 5,597.38

DISCOUNT 20 1119.47 IF PAID IN 30 DAYS

PRINTED NAME Greg Church

SIGNATURE Greg Church

MIKE ENGELBRECHT

Licensed Geologist No. 334

2513 Spring Meadow
Wichita, KS 67205

Phone: 316-721-9226
Cell: 316-841-6008

GEOLOGIST'S REPORT DRILLING TIME AND SAMPLE LOG

OPERATOR RITCHIE EXPLORATION, INC.

LEASE OTLEY BROTHERS #1

FIELD WILDCAT

LOCATION APPROX. C NW/4 = 1430' ENL & 1400' ENL

SEC. 20 TWP. 13 RGE. 30W

COUNTY GOVE STATE KS.

CONTRACTOR MUREIN DRUG RIG #14

CONTRACT NO. 08-07-12 COMP. 08-13-12

RTD 4760' LOG TD 4704'

SAMPLES SAVED FROM 3600' TO RTD

DRILLING TIME KEPT FROM 3550' TO RTD

SAMPLES EXAMINED FROM 3600' TO RTD

GEOLOGICAL SUPERVISION FROM 3750' TO RTD

MUD UP DISPL @ 3394' TYPE MUD CHEMICAL

API # 15-063-22,031-0000

FORMATION	TOP	LOG	DEPTH	SAMPLE	DEPTH	STRUCT. COMP.
ANHYDRITE	2338	+542	2337	+543	+21	
BASE	2367	+513	2367	+513	+19	
STÖTLER	3559	-679	3558	-678		
HEBNER	3918	-1038	3916	-1036	+21	
LANSING	3963	-1083	3960	-1080	+20	
MUNICIE SH	4120	-1240	4117	-1237	+13	
STARK SH	4207	-1327	4204	-1324	+18	
BKC	4278	-1398	4277	-1397	+11	
ALTAMONT	4343	-1463	4340	-1460	+2	
PAJUNEE	4414	-1534	4412	-1532	+3	
CHEROKEE SH	4507	-1627	4503	-1623	+2	
JOHANSON ZN	4561	-1681	4559	-1679	-6	
MISSISSIPPI	4586	-1706	4586	-1706	+5	

ELEVATION

KB 2880'

DF 2670'

GL 2670'

Measurements Are All

From KB 2880'

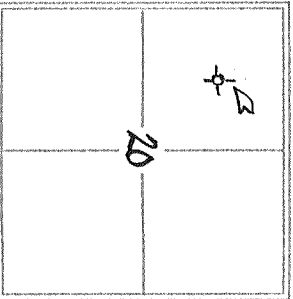
CASING RECORD

SURFACE 8 5/8" @ 224'

w/175 SXS.

PRODUCTION

WELL LOG SURVEYS
COMP DENIS/NEUTRON
DUAL INDUCTION



REFERENCE WELL FOR STRUCTURAL COMPARISON

MUREIN DRILLING Co. 1 & A
#1 Downward NW NW NW 21-13-30W

FORM 9 7-00 AM

OF 4 SHEETS

DATE	DEPTH	NO	SIZE	WGT	TYPE	DEPTH OUT
8-7-12	MIRT					
8-8	DRLG @ 890'					
8-9	DRLG @ 3350'					
8-10	DRLG @ 3923'					
8-11	DRLG @ 4234'					
8-12	DRS @ 4550'					
8-13	@ I Logging					

FORMATION DEPTH DEPTH OF SCREEN

3500

10

20

30

40

50

STOTLER

3558

-678

DISPLACED @ 3394'

← BIT TRIP @ 3520'
S.H.T. = 1°
PIPE STRAP 5B SHORT

60

70

80

90

3600

10

20

30

CRN BUFF GRAY FUSSED LS POOR φ NS
LOTS GRAY - LT GN. SHS

LT GRAY - GRN GUMBO SHS

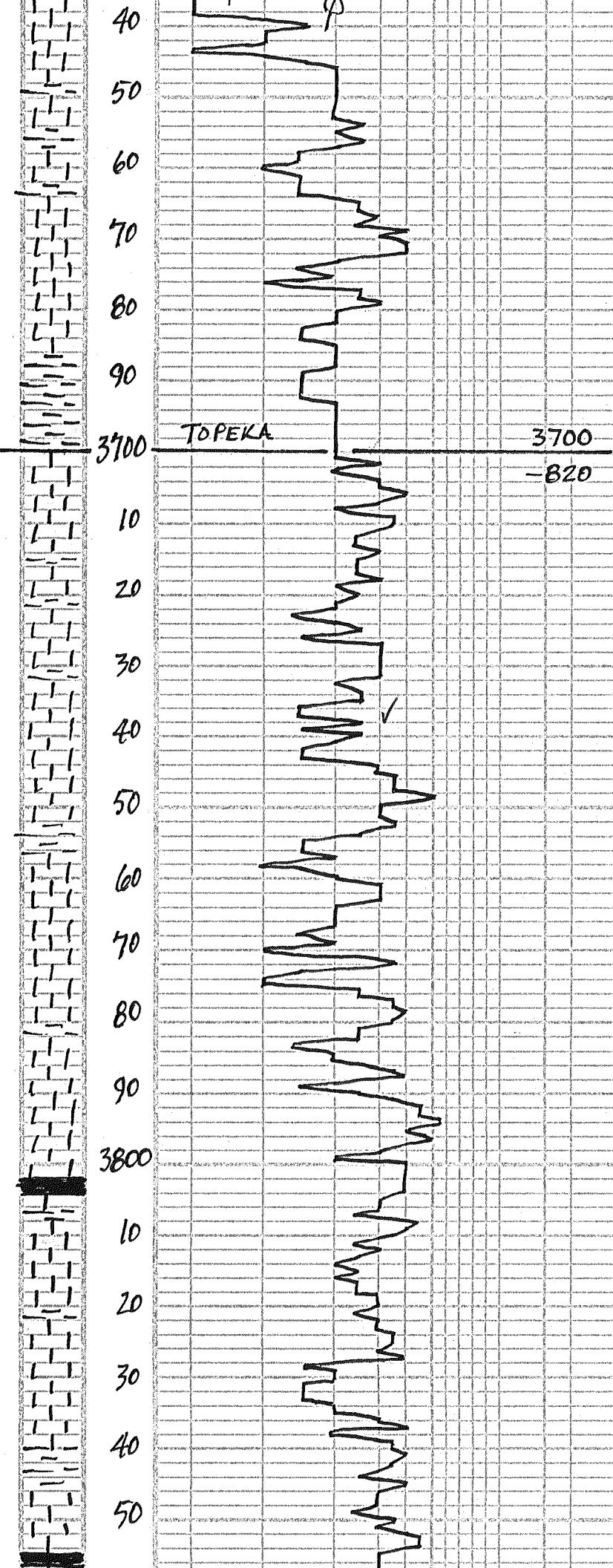
20 LT GRAY BUFF CRN SLL Foss LS - NS

30 LT - MD GRAY - MOLT - MEXLY LS POOR
φ - NS NO ODOR

40 LT CRN - BUFF SLL Foss LS - NS

50 LT GRAY - BUFF SLL Foss LS POOR φ
NS NO ODOR

60 FLOOD LT CRN - WH FN - XCN LS



P-F ϕ - NS NO ODOR 'LOTS WH CK

70 GRAY-BUFF FN-XLN LS POOR ϕ - NS

80 LT-MD GRAY MEALY LS POOR ϕ NS
NO ODOR

90 GRAY LS DNSE-POOR ϕ - NS

100 MD GRAY FN-XLN DNSE LS POOR ϕ
FEW SOFT, NS NO ODOR

110 GRAY-BUFF V. FOSS LS P-F FOSS ϕ
NS NO ODOR

20 BRN-RUSF GUMBO SHS

30 WH-CRM-BUFF SLI-FOSS LS POOR ϕ
NS NO ODOR

40 LT CRM V. FOSS LS FAIR ϕ - NS
NO ODOR

← VISC: 61
WT: 8.9
LCM: 3*

50 WH-LT CRM SLI-FOSS LS
POOR ϕ - NS INC CRM

60 FLOOD GRAY FN-XLN LS POOR ϕ
NS NO ODOR

← GEOL. ON LOC. 11:00 PM
THURS. 8-9-12

70 FLOOD LT CRM LT TAN V. FOSS
LS P-F FOSS ϕ - NS NO ODOR

80 LOTS WH-LT CRM FOSS LS FAIR ϕ
NS NO ODOR INC WH CK

90 CRM-BUFF SEMI-FOSS LS P-F ϕ
NS NO ODOR

← VISC: 52
WT: 8.9

100 PRED BUFF V. LT GRAY FOSS LS
P-F FOSS ϕ - NS NO ODOR

1000*#PP

10 LS AA - NS NO ODOR, FEW
BLK SHS

20 LT GRAY-LT TAN SLI-FOSS LS
POOR ϕ - NS NO ODOR

30 FLOOD LT GRAY V. FN-GA SST-
SILTSTONE LMY MATRIX
NS NO ODOR

40 FLOOD WH-LT CRM V. FOSS LS
FAIR FOSS ϕ - NS NO ODOR

50 WH-LT CRM V. FOSS CRM LS
F-POOR ϕ NS NO ODOR INC CK

60 WH-LT CRM-LT TAN SEMI-FOSS
LS P-F ϕ - NS NO ODOR

70 LT CRM-LT TAN FN-XLN LS

← MUD-CO ✓
VISC: 59 FILT: B.0

WT: 8.9 CHL: 2,000

60 DNSE - CRKY POOR ϕ - NS
80 WH - LT CRM FN - XLN CRKY LS - NS
FEW BLK SHS

90 WH - LT CRM FN - XLN CRKY LS
P - F ϕ - NS NO ODOR

100 FLOOD LT CRM - LT TAN V. FOSS LS
FAIR FOSS ϕ - NS NO ODOR

110 FLOOD WH - LT CRM SEMI - FOSS
CRKY LS P - F ϕ - NS NO ODOR

120 LT CRM - LT TAN FN - XLN CRKY LS
POOR ϕ - NS SOFT MEALY

← VISC: 49
WT: 8.9

130 FLOOD BLK SHS!

ADDING PREMIX

140 FLOOD LT GRV SILTSTONE &
LT GRV GUMBO SHS

150 DRED RUST - BRN SHS FEW LT GRV
TAN FN - XLN LS POOR ϕ NS NO ODOR

30 MIN: FLOOD WH - LT CRM SLI - FOSS
LS W/ P - F V. G ϕ - NS NO ODOR

160 LT CRM - WH - FN - XLN CRKY LS - NS
PTLY CRKY - 1/4"

170 LT CRM - LT GRV V. OOL LS POOR ϕ
NS NO ODOR LOTS RED RUST SHS

180 30 MIN: WH - LT CRM SUB OOL LS PTLY
CRKY P - F ϕ NS NO ODOR

← VISC: 58
WT: 9.1
LCM: 3#

190 WH - LT CRM SEMI - OOL CRKY LS - NS

200 FLOOD WH FN - XLN CRKY LS - NS,
NO ODOR, INC CRKY

210 WH - LT CRM - LT TAN SLI - FOSS LS
P - F ϕ - NS NO ODOR

220 LOTS BRN RUST SHS & CLM - BUFF
SLI - FOSS LS POOR ϕ - NS NO ODOR

30 MIN: FLOOD WH - LT CRM SEMI - OOL
LS POOR ϕ SLI CRKY - NS NO ODOR

230 WH - LT CRM SLI - FOSS CRKY LS
POOR ϕ - NS NO ODOR

← VISC: 56
WT: 9.0
LCM: 3#

240 LOTS V. LT GRV GRN LS FN - XLN
POOR ϕ - NS NO ODOR

30 MIN: FLOOD WH - LT CRM - LT
TAN SLI - FOSS LS POOR ϕ - NS
PTLY CRKY

250 PRED LT CRM FN - XLN LS POOR ϕ
DNSE - CRKY NS NO ODOR

260 PRED LT CRM - LT TAN SLI - FOSS LS
POOR ϕ - NS NO ODOR PTLY CRKY

270 WH - LT CRM SLI - FOSS LS FN - XLN
DNSE - SEMI CRKY POOR ϕ - NS

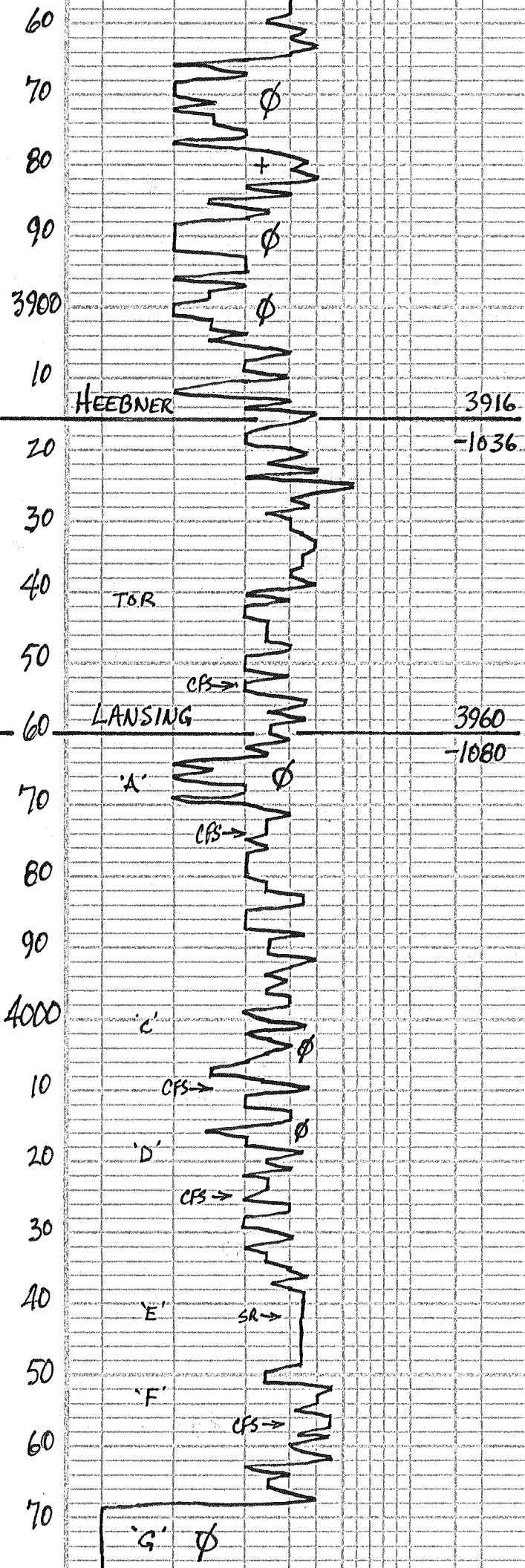
280 LT CRM - LT TAN SEMI - OOL LS
DNSE - CRKY POOR ϕ - NS NO ODOR

← VISC: 60
WT: 9.1
LCM: 2#

30 MIN: LT CRM - LT TAN SEMI - FOSS
LS POOR ϕ - NS NO ODOR SLI CRKY

290 WH - LT CRM FN - XLN LS - NS

300 LT CRM - LT TAN SEMI - OOL LS
POOR ϕ - NS NO ODOR



HEEBNER

3916

-1036

TOR

LANSING

3960

-1080

'A'

'C'

'D'

'E'

'F'

'G'

CFS →

CFS →

CFS →

CFS →

SR →

CFS →

ϕ

+

ϕ

ϕ

ϕ

ϕ

ϕ

ϕ

ϕ

ϕ

ϕ

ϕ

ϕ

ϕ

ϕ

ϕ

ϕ

ϕ

ϕ

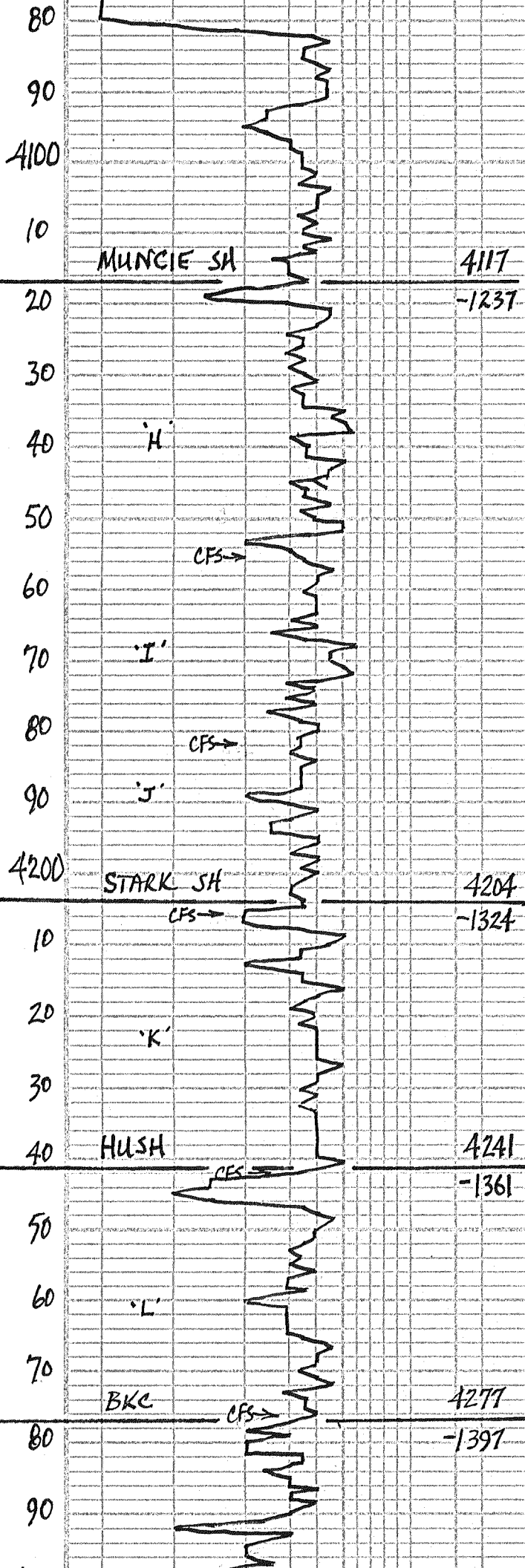
ϕ

ϕ

ϕ

ϕ

ϕ



90 LOTS LT TAN OOC LS W/ FAIR OOC
 ϕ - NS LOTS LOOSE CK NO ODOR

00 FLOOD WH - LTCRM SUB OOC LS/
 P-F OOC ϕ - NS NO ODOR CKY

10 FLOOD V. LT GRN FN-XLN LS
 POOR ϕ - NS, NO ODOR

20 TAN FN-XLN DNSE LS POOR ϕ
 NS NO ODOR FEW BLK SHS

30 FAIR AMT BLK SHS.

40 LOTS LT GRN-GRN GUMBO SHS
 LT TAN-GRN FN-XLN LS - NS

50 PREN V. LT GRN FN-XLN LS POOR ϕ
 NS NO ODOR

55) WH - V. LT GRN FN-XLN LS POOR ϕ
 NS NO ODOR
 30 MIN: V. LT GRN - CRM FN-MD-
 XLN LS POOR ϕ NS NO ODOR
 60 MIN: INC BLK SHS LS AA-NS

60 LOTS BLK SHS & GRN SHS

70 FLOOD LT TAN FN-XLN LS
 MOSTLY DNSE POOR ϕ - NS

80) FLOOD WH - LTCRM FN-XLN LS
 POOR ϕ NS NO ODOR
 30 MIN: V. LT GRN - TAN FN-XLN
 LS POOR ϕ - NS NO ODOR
 60 MIN: LS AA-NS & BRN &
 GRN SHS
 BRN - RUST - PEACH GUMBO SHS

00 FLOOD WH - LTCRM SLI-FOSS LS
 CKY POOR ϕ - NS NO ODOR

06) FLOOD WH SUB OOC CKY LS
 P-FOOC ϕ - NS NO ODOR
 30 MIN: WH - V. LT GRN FN-XLN
 CRM LS - NS
 60 MIN: WH - LT CRM FN-XLN
 CKY LS - NS & BLK SHS

10 BLK SHS

20 CRM-TAN - ROOT BEER FN-XLN LS
 DNSE CKY - NS NO ODOR

30 FLOOD WH - LTCRM MEXLY CKY LS
 POOR ϕ - NS NO ODOR

40 FLOOD WH - V. LT GRN FN-XLN LS
 POOR ϕ - NS PTLY CKY
 30 MIN: LS AA FEW OOC - NS
 60 MIN: BRN, BLK SHS
 INC BLK SHS
 60 MIN: LT TAN FN-XLN LS - NS

50 CRM-TAN FN-XLN LS - NS
 LOTS BLK SHS

60 DK GRN-TAN FN-XLN LS DNSE
 -MEALY POOR ϕ - NS NO ODOR

70 GRN-TAN FN-XLN LS DNSE-MEALY
 POOR ϕ - NS NO ODOR

76) LT GRN-LT TAN FN-XLN LS POOR
 ϕ - NS NO ODOR
 30 MIN: PREN LT GRN FN-XLN LS
 POOR ϕ - NS NO ODOR
 60 MIN: LT GRN SILTY LS & SH

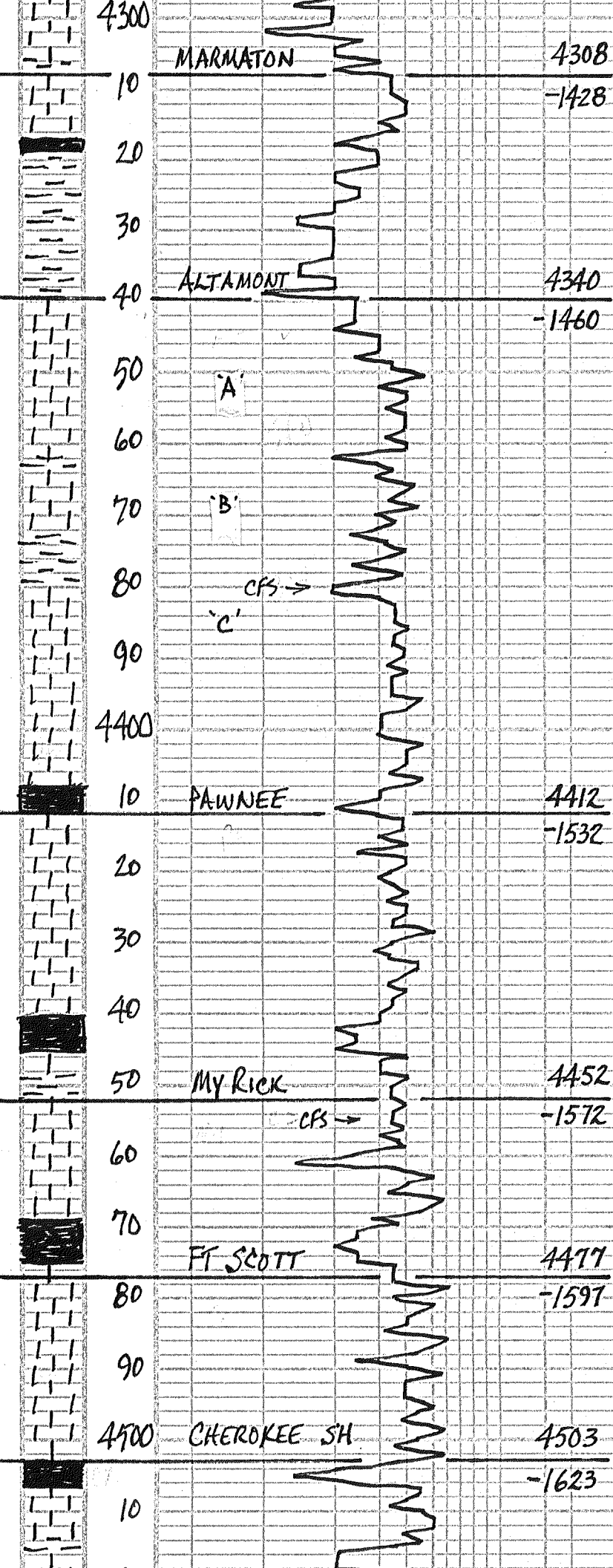
00 GRN - LT TAN FN-XLN LS POOR ϕ
 NS, NO ODOR

10 LT GRN - BUFF SLI-FOSS LS - NS
 LOTS GRN GRN BLK SHS

Visc: 59
 WT: 9.1
 LCM: 2#

MUD CO ✓
 VISC: 58 FILT: 7.6
 WT: 9.2 CHL: 2.500
 LCM: 2# PH: 16.5

1100# PSI



20 MUDDY GRAY MEALY LS POOR φ NS
LOTS GRAY SHS

30 FLOOD BRN RUST SILTY SHS
WH-TAN BUFF FN-XLN DNSE
LS POOR φ - NS NO ODR

40 WH-CRM-GRY FN-XLN LS-NS
LOTS GRAY SHS

50 WH-LT BUFF SLI-Foss LS POOR
φ - NS NO ODR

60 FLOOD BRN-RUST PURPLE SHS

70 FRED LT CRM-BUFF FN-XLN LS
POOR φ - NS NO ODR

80) FLOOD LT CRM-LT TAN FN-XLN
LS POOR φ - NS NO ODR DNSE
30 MIN: WH-LT CRM-LT TAN FN-
XLN LS POOR φ - NS NO ODR
60 MIN: LT CRM FN-XLN LS-NS
INC BRN RUST SHS

90 LT CRM-LT TAN FN-XLN LS

100 LT GRAY BUFF FN-XLN LS
POOR φ - NS NO ODR
LOTS GRAY SHS

10 FLOOD LT CRM FN-XLN LS POOR φ
NS NO ODR DNSE-CLY

20 LT TAN-LT CRM FN-XLN LS POOR φ
DNSE-CLY NS NO ODR

30 FLOOD WH-CRM FN-XLN LS
DNSE-SLI CLY POOR φ - NS

40 FEW DK GRAY LS & BLK SHS
FRED LT TAN CRM FN-XLN LS
POOR φ - NS NO ODR

50 FLOOD DK GRAY-TAN DNSE LS
& BLK SHS

55) FLOOD TAN-DK BRN FN-XLN LS
POOR φ - NS NO ODR
30 MIN: LT CRM-LT TAN FN-XLN
LS POOR φ - NS NO ODR
SLI CLY & FEW BLK SHS
60 MIN: LT CRM-GRY-TAN
FN-XLN LS POOR φ - NS NO ODR
CRM-LT TAN FN-XLN LS POOR φ

70 FLOOD WH-LT CRM FN-XLN LS
POOR φ - NS PLY CLY

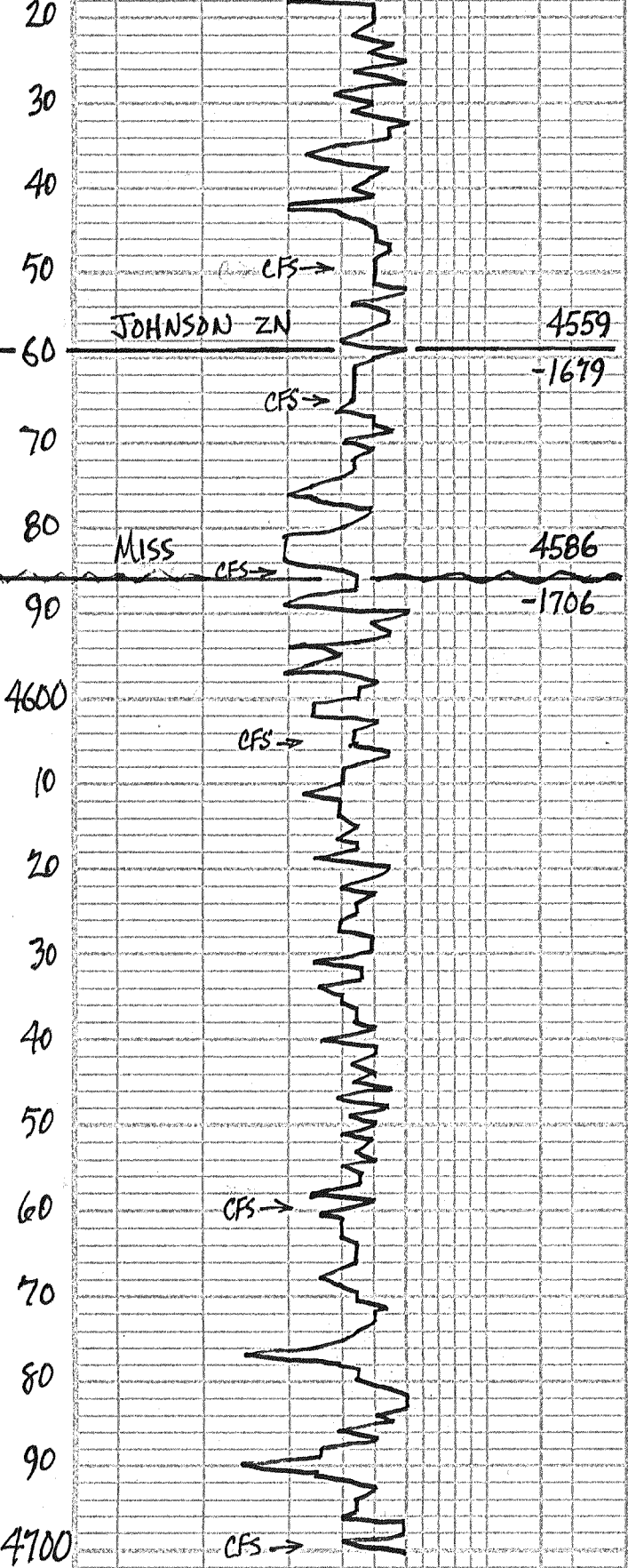
80 FLOOD BRN SHS & CRM-LT TAN
FN-XLN LS - NS NO ODR

90 LT TAN BUFF FN-XLN LS POOR φ
NS NO ODR LOTS DNSE

100 FLOOD TAN-BUFF FN-XLN LS
DNSE-MEALY POOR φ - NS NO ODR

10 WH-CRM-TAN FN-XLN LS POOR φ
NS - NO ODR CLY-DNSE

20 TAN-BUFF SEMI-OO LS DNSE-
MEALY POOR φ - NS NO ODR



30 LOTS WH-LTCRM FU-XLN CKY LS
POOR ϕ - NS NO ODOR

40 FLOOD LTCRM BUFF GRN LS
DNSE-CKY POOR ϕ - NS NO ODOR

50 WH-LT TAN-BUFF FU-XLN LS
POOR ϕ - NS NO ODOR DNSE-CKY
30 MIN: CRM-LT TAN LT BUFF
FU-XLN LS - NS NO ODOR CKY-DNSE
60 MIN: TAN-BUFF FU-XLN LS
POOR ϕ - NS NO ODOR
LS AA NS, NO ODOR FEW GRN SHS

65) CRM-TAN V. FU-XLN LS DNSE TAN
CKY-CRM POOR ϕ - NS NO ODOR
30 MIN: LT-MD TAN FU-XLN LS
POOR ϕ - NS NO ODOR
60 MIN: PRED LT TAN FU-XLN LS
POOR ϕ - NS NO ODOR

80 CRM-TAN-BUFF FU-XLN LS POOR ϕ
NS NO ODOR DNSE-CKY

85) LOTS WH-LTCRM FU-XLN CKY
LS POOR ϕ - NS NO ODOR
30 MIN: DK TAN V. FU-XLN DNSE LS
& CRM-BUFF DOTTED FOSS DOL LS
POOR ϕ - NS
60 MIN: GOLD GRN, BLK SHS &
WH-CRM CKY LS POOR ϕ - NS
LOTS GOLD GRN SHS SOME SLTY
LTCRM-BUFF MICRO DOL LS
SALT & PEPPER POOR ϕ - NS

85) LOTS LT TAN FU-XLN LS POOR
 ϕ - NS NO ODOR SLI-CKY
30 MIN: CRM-LT TAN FU-XLN LS
POOR ϕ - NS NO ODOR
60 MIN: WH-LTCRM SDLS CKY
POOR ϕ - NS NO ODOR

10 CRM-LT TAN FU-MD-XLN LS POOR ϕ
NS NO ODOR

20 PRED WH-LT PURP-LT GRN SDLS -
MICRO-DOL LS FAIR ϕ - NS
NO ODOR

30 WH-LT-CRM MICRO-DOL LS LOTS
CKY P-F ϕ - NS NO ODOR

40 LT CRM-LT TAN V. FU-CR LS
DNSE POOR ϕ - NS NO ODOR

50 LT TAN-LT BUFF FU-XLN LS
DNSE-CKY POOR ϕ - NS NO ODOR

60) LT CRM-LT TAN MICRO-DOL LS
FAIR ϕ - NS NO ODOR
30 MIN: WH-LT CRM MICRO-DOL LS
P-F ϕ - NS NO ODOR
60 MIN: WH-LT CRM MICRO-DOL LS
P-F ϕ - NS NO ODOR CKY

70 LT CRM-LT TAN FU-XLN LS POOR ϕ
NS NO ODOR PTLY CKY

80 CRM-LT TAN FU-XLN LS POOR ϕ
NS INC CKY NO ODOR

90 LS AA & PURE WH CKY LS
POOR ϕ - NS SOME WH A

00 LT TAN STD DOLD W/FAIR VUG ϕ
NS NO ODOR
30 MIN MD TAN SICC DOLD W/FAIR
VUG ϕ - NS NO ODOR
SLI CKY

MUD-CO CKV
VISC: 52 FILT: 6.8
WT: 9.2 CHL: 2,000

MUD-CO ✓
VISC: 59 FILT: 7.2
WT: 9.4 CHL: 2,000

RTD 4700'
LTD 4704'

REACHED RTD 9:00 PM 8-12-12
PULLED 25 STD STRIP - SEMI TIGHT
COND HOLE 2 HRS.
CAME OUT FOR LOGS.

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/>

Mark Sievers, Chairman
Thomas E. Wright, Commissioner
Shari Feist Albrecht, Commissioner

Sam Brownback, Governor

November 29, 2012

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

Re: ACO1
API 15-063-22031-00-00
Ottley Brothers 1
NW/4 Sec.20-13S-30W
Gove County, Kansas

Dear Production Department:

We are herewith requesting that the Well Completion Form ACO-1 and attached information for the subject well be held confidential for a period of two years.

Should you have any questions or need additional information regarding subject well, please contact our office.

Respectfully,
John Niernberger