

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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#1 Whitham 21A

408' FNL & 429' FEL

78' S & 99' W of NE NE NE Section 21-17S-37W

Wichita County, Kansas

API# 15-203-20343-0000

Elevation: GL: 3,278', KB: 3,286'

Sample Tops			Ref. Well
Anhydrite	2447'	839	-7
B/Anhydrite	2466'	820	-8
Stotler	3553'	-267	-2
Heebner	3930'	-644	+5
Toronto	3946'	-660	+4
Lansing	3979	-693	+4
Muncie	4163'	-877	+4
Stark	4258'	-972	+4
BKC	4357'	-1071	+7
Marmaton	4406'	-1120	+13
Altamont	4424'	-1138	+13
Pawnee	4512'	-1226	+15
Myrick	4538'	-1252	+16
Johnson	4686'	-1400	+12
Morrow	4751'	-1465	+11
Mississippian	4879'	-1593	+32
RTD	4960'	-1674	



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

11524
11417

TICKET NUMBER 55862
LOCATION Dealey
FOREMAN Jerry

FIELD TICKET & TREATMENT REPORT
CEMENT

main #814066 KS

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
9-9-18	7173	Whitman 21A #1	21	175	37W	Wichita
CUSTOMER			TRUCK #	DRIVER	TRUCK #	DRIVER
Ritchie Exp			731	Gay D		
MAILING ADDRESS			693	Walt D		
P.O. BOX 783188			535	Jerry		
CITY	STATE	ZIP CODE	Lot: N to J 2 1/2 W across pressure			
Wichita	KS	67278-3188				

JOB TYPE Surface HOLE SIZE 12 1/4 HOLE DEPTH 220' CASING SIZE & WEIGHT 8 5/8 23#
 CASING DEPTH 220' DRILL PIPE _____ TUBING _____ OTHER _____
 SLURRY WEIGHT 15.2 SLURRY VOL 1.24 WATER gal/sk _____ CEMENT LEFT in CASING 20'
 DISPLACEMENT 12 3/4 DISPLACEMENT PSI _____ MIX PSI _____ RATE _____

REMARKS: Safety meeting @ rig upon well 12. circulate casing mix 180 sks com 3% CCL 2% gel wash up & displace with 12 3/4 W/ Fresh water & shut in

found cement in cellar
Cement came to surface
Thank you Jerry & crew

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
CE0471	1	PUMP CHARGE	1150.00	1150.00
CE0002	45	MILEAGE	7.15	321.75
CE0710	8.46	ten mileage delivery	1.75	148.05
CE5871	180 sks	Surface blend IT	24.00	4320.00
			Subtotal	6457.98
			-308	1937.39
			Subtotal	4520.59
			SALES TAX	257.04
			ESTIMATED TOTAL	4777.63

SCANNED

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.



Services, Inc.

CHARGE TO: Ritchie Exploration
 ADDRESS: _____
 CITY, STATE, ZIP CODE: _____

TICKET 27397

PAGE 1 OF

1. SERVICE LOCATIONS <u>Hays Ks</u>	WELL/PROJECT NO. <u>#1</u>	LEASE <u>Wyndham 21A</u>	COUNTY/PARISH <u>Wichita</u>	STATE <u>Ks</u>	CITY	DATE <u>9-18-18</u>	OWNER
2. <u>Nesse City Ks</u>	TICKET TYPE <input type="checkbox"/> SERVICE <input type="checkbox"/> SALES	CONTRACTOR <u>Wm Drilling</u>	RIG NAME/NO. <u>Rig # 12</u>	SHIPPED <u>W/OT</u>	DELIVERED TO <u>Location</u>	ORDER NO.	WELL LOCATION
3.	WELL TYPE <u>O:1</u>	WELL CATEGORY <u>Wildcat</u>	JOB PURPOSE <u>Long Str</u>	WELL PERMIT NO.			
4. REFERRAL LOCATION	INVOICE INSTRUCTIONS						

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			DESCRIPTION	MILEAGE	QTY.			UNIT PRICE	AMOUNT
		LOC	ACCT	DF			QTY.	UM	QTY.		
575						100	mi			5.00	500.00
578					Pump Charge - Long String	1	EA			1300.00	1300.00
290					A-Air	3	EA			42.00	126.00
287					MudFlush	500	EA			1.50	750.00
221					Koi Spacer	2	EA			25.00	50.00
403					Account Basket	4	EA	1/2		250.00	1000.00
404					Port Collar	1	EA			2400.00	2400.00
406					Lath Down Plug & Baffle	1	EA			225.00	225.00
402					Insect Filter stop w/ Auto Fill	1	EA			300.00	300.00
409					Turbolizer	9	EA			70.00	630.00

LEGAL TERMS: Customer hereby acknowledges and agrees to the terms and conditions on the reverse side hereof which include, but are not limited to, PAYMENT, RELEASE, INDEMNITY, and LIMITED WARRANTY provisions.

MUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO START OF WORK OR DELIVERY OF GOODS

DATE SIGNED: _____ TIME SIGNED: A.M. P.M.

REMIT PAYMENT TO:
 SWIFT SERVICES, INC.
 P.O. BOX 466
 NESS CITY, KS 67560
 785-798-2300

SURVEY

OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?	WE UNDERSTOOD AND MET YOUR NEEDS?	OUR SERVICE WAS PERFORMED WITHOUT DELAY?	WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY?	ARE YOU SATISFIED WITH OUR SERVICE?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CUSTOMER DID NOT WISH TO RESPOND
 YES NO

CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES The customer hereby acknowledges receipt of the materials and services listed on this ticket.

SWIFT OPERATOR: Dennis Edgerton APPROVAL: _____

TOTAL: 13326.19

Thank You!



PO Box 466
Ness City, KS 67560
Off: 785-798-2300

TICKET CONTINUATION

TICKET No. 27397

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			TIME	DESCRIPTION	WELL				DATE	PAGE	OF
		LOC	ACCT	DF			QTY	U/M	QTY	U/M			

CUSTOMER
Pitkin Exploration

WELL
Almshaven 218-#1

DATE
9-18-18

PAGE 2 OF 3

325						Standard Cement	260	sks			13	00	3380	00
229						Bentonite Gel	5	sks			30	00	150	00
283						SALT	1400	lbs			20	00	280	00
277						Pool Seal	1300	lbs			85	00	1105	00

SERVICE CHARGE		MILEAGE CHARGE		CUBIC FEET		TON MILES		UNIT PRICE		AMOUNT	
DESCRIPTION	AMOUNT	CHARGE	AMOUNT	QTY	U/M	QTY	U/M	UNIT PRICE	AMOUNT	UNIT PRICE	AMOUNT
Cement	1	2740	100	260	sks	1382		75	455	85	1174
											90

CONTINUATION TOTAL 6541.30

JOB LOG

SWIFT Services, Inc.

DATE 9-18-18 PAGE NO.

CUSTOMER *Kitchie Exploration* WELL NO. *#1* LEASE *Whitham 2/A* JOB TYPE *Long String* TICKET NO. *27397*

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	1600							On location
								Rtd - 4960 Lrd - 4956 Pipe set @ 4953.88 Base @ 4911 Centralizers - 1, 3, 5, 7, 10, 14, 60, 62, 86 Bskets - 11, 65, 85, 101 P.C. 61
	1730							Start Running Csg
	2000							Circ on Bottom
	2100	2.5	8			0		Plug Rat hole - 30 sks
	2105	6	12			200		Pump Mud flush - 500 gal
		6	20			200		Pump Kcl spacer
	2110	6	56			200		Pump Crat - 230 sks @ 14.7 rpm Drop plug / wash P&L
		6.5	0			100		START DISP
	2140	5	78			800/1500		land plug land psi - 1500 psi lift psi - 800 psi
	2145							Release psi - Dry
								Thanks David, Zach & Isaac



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

11692
11572

TICKET NUMBER 55870
LOCATION Orkley KS
FOREMAN Jerry Y

FIELD TICKET & TREATMENT REPORT
CEMENT

Invoice #814221 KS

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
9-21-18	7175	Whitman 21A #1	21	17S	37W	Wichita
CUSTOMER <u>Ketchum Exp</u>			TRUCK # DRIVER TRUCK # DRIVER			
MAILING ADDRESS <u>P.O. Box 783188</u>			<u>731 / Wolf D</u>			
CITY <u>Wichita</u>			<u>530-7129 / Steve C</u>			
STATE <u>KS</u>			<u>535 / Jerry Y</u>			
ZIP CODE <u>67278-3188</u>						

JOB TYPE Port Collar HOLE SIZE _____ HOLE DEPTH _____ CASING SIZE & WEIGHT 4 1/2
 CASING DEPTH _____ DRILL PIPE _____ TUBING _____ OTHER Port Collar 2404
 SLURRY WEIGHT 12.5 SLURRY VOL 1.89 WATER gal/sk _____ CEMENT LEFT in CASING _____
 DISPLACEMENT 8 1/2 bbl DISPLACEMENT PSI _____ MIX PSI _____ RATE _____

REMARKS: Safety meeting set up on HD test tool to 1100 ft hold 7 min
open tool take rate & ✓ for blow mix 320 sks (60/40) 1/4" #10 seal
Wish up & displace with 8 1/2 bbl shut down close tool & test to 1100 ft hold 5 min
run 5 jts & reverse clean with 30 bbl pull tubing load casing & press to 500 ft
& shut in

Thank you
Jerry & crew

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
<u>CE0451</u>	<u>1</u>	<u>PUMP CHARGE</u>	<u>1900.00</u>	<u>1900.00</u>
<u>CE0000</u>	<u>45</u>	<u>MILEAGE</u>	<u>7.15</u>	<u>321.75</u>
<u>CB0710</u>	<u>13.76</u>		<u>1.75</u>	<u>1083.60</u>
<u>CC5831</u>	<u>320 sks</u>	<u>liteblend VTL</u>	<u>17.50</u>	<u>5600.00</u>
<u>CC6075</u>	<u>80 #</u>	<u>Pb Seal</u>	<u>3.00</u>	<u>240.00</u>
<u>CC6080</u>	<u>500 #</u>	<u>hulls</u>	<u>1.00</u>	<u>500.00</u>
			<u>Subtotal</u>	<u>9645.35</u>
			<u>-2.5%</u>	<u>2411.34</u>
			<u>Subtotal</u>	<u>7234.01</u>
			<u>SALES TAX</u>	<u>401.18</u>
			<u>ESTIMATED TOTAL</u>	<u>7635.19</u>

Flavin 3737

AUTHORIZATION [Signature] TITLE _____ DATE 9-21-18

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.



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

11826
11708

TICKET NUMBER 55882
LOCATION Oakley, KS
FOREMAN Walt Dinkel

FIELD TICKET & TREATMENT REPORT
CEMENT

Invoice #814362²⁵

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
10-17-18	7173	Witham 21A #1	21	19 S	39 W	Wichita
CUSTOMER			TRUCK #	DRIVER	TRUCK #	DRIVER
Ritchie Explorations			753	Miles Skand		
Mailing Address			597	Walt Dinkel		
Leoti north to Rd J						
2 West						
CITY	STATE	ZIP CODE				
Wichita	KS	67278-3188				

JOB TYPE Squeeze HOLE SIZE _____ HOLE DEPTH _____ CASING SIZE & WEIGHT 4 1/2"
 CASING DEPTH _____ DRILL PIPE _____ TUBING 2 3/8" OTHER Perfs 24424-28
 SLURRY WEIGHT 14.8 SLURRY VOL _____ WATER gal/sk _____ CEMENT LEFT in CASING _____
 DISPLACEMENT 16.4 DISPLACEMENT PSI _____ MIX PSI _____ RATE 2 BPM @ 950#

REMARKS: 2,95 C
Safety Meeting, rig up equipment, local backside pressure to 500#
Take injection Rate: 2 BPM @ 950#, mixed 50 sks carry 8% salt, 25% CDI-26
14# CaF-38, clear Pump & Lines, Displace 17 1/2 BBL H₂O, Squeeze to 1500#
release Pressure, Hold, reverse out Clean,
Pressure casing to 500# Shut in

Thank You
Walt + crew

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
Cen 451	1	PUMP CHARGE	1,900.00	1,900.00
Ce0002	45	MILEAGE	7.15	321.75
Ce0711	2.35	Ten Mileage Delivery	1.75	660.00
Ce1163	1	Squeeze Manifold	400.00	400.00
CC5800	50 SKs	Class A	20.00	1,000.00
CC5326	196 #	Salt	.75	147.00
CC6000	12 #	CDI-26	7.85	94.20
CC6155	7 #	CaF-38	10.20	71.40
				4,594.35
		Less 25% Disc		1,148.59
				3,445.76
		SALES TAX		83.68
		ESTIMATED TOTAL		3529.44

AUTHORIZATION Gay W 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.



Company: Ritchie Exploration, Inc.

Lease: Whitham 21A

SEC: 21 TWN: 17S RNG: 37W
County: WICHITA
State: Kansas
Drilling Contractor: WW Drilling, LLC - Rig 12
Elevation: 3278 EGL
Field Name: Wildcat
Pool: WILDCAT
Job Number: 228

Operation:
Uploading recovery & pressures

DATE
September
15
2018

DST #1 **Formation: Altamont A** **Test Interval: 4372 - 4444'** **Total Depth: 4444'**
Time On: 02:31 09/15 Time Off: 14:27 09/15
Time On Bottom: 08:07 09/15 Time Off Bottom: 11:07 09/15

Electronic Volume Estimate:
565'

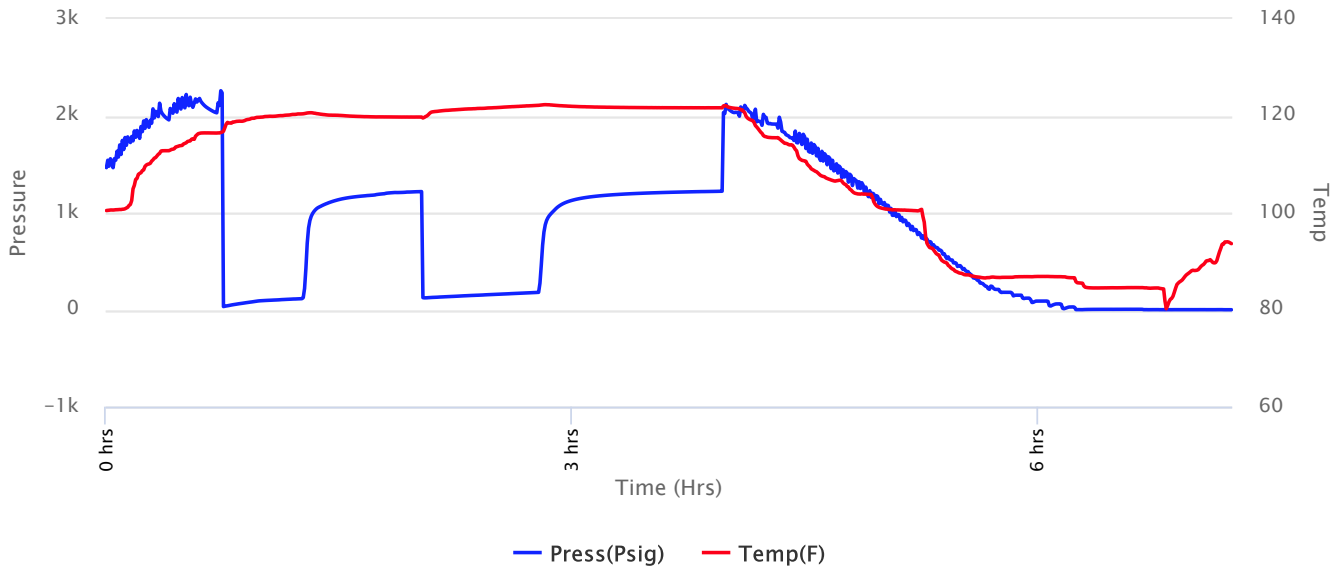
1st Open
Minutes: 30
Current Reading:
13" at 30 min
Max Reading: 13"

1st Close
Minutes: 45
Current Reading:
0" at 45 min
Max Reading: .5"

2nd Open
Minutes: 45
Current Reading:
19" at 45 min
Max Reading: 19"

2nd Close
Minutes: 60
Current Reading:
7" at 60 min
Max Reading: 7"

Inside Recorder





Company: Ritchie Exploration, Inc.

Lease: Whitham 21A

SEC: 21 TWN: 17S RNG: 37W
 County: WICHITA
 State: Kansas
 Drilling Contractor: WW Drilling, LLC - Rig 12
 Elevation: 3278 EGL
 Field Name: Wildcat
 Pool: WILDCAT
 Job Number: 228

Operation:
 Uploading recovery & pressures

DATE
 September
15
 2018

DST #1 **Formation: Altamont A** **Test Interval: 4372 - 4444'** **Total Depth: 4444'**
 Time On: 02:31 09/15 Time Off: 14:27 09/15
 Time On Bottom: 08:07 09/15 Time Off Bottom: 11:07 09/15

Recovered

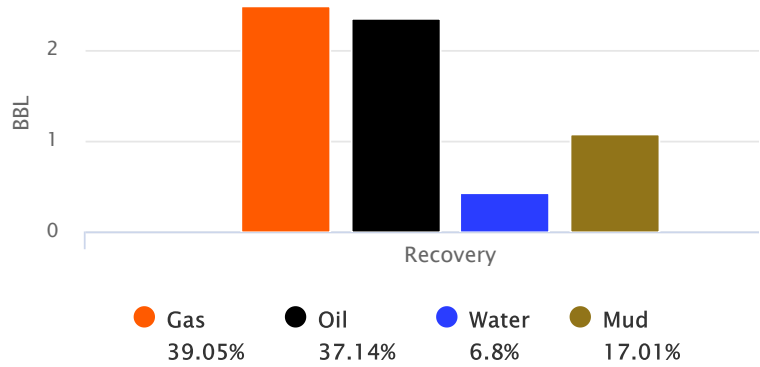
Foot	BBLs	Description of Fluid	Gas %	Oil %	Water %	Mud %
124	1.76452	G	100	0	0	0
124	1.76452	GCO	25	75	0	0
124	1.76452	SLGCHMCO	10	50	0	40
193	1.0834378	SLGCSLOCHMCW	10	15	40	35

Total Recovered: 565 ft
 Total Barrels Recovered: 6.3769978

Reversed Out
 NO

Initial Hydrostatic Pressure	2035	PSI
Initial Flow	33 to 114	PSI
Initial Closed in Pressure	1218	PSI
Final Flow Pressure	123 to 180	PSI
Final Closed in Pressure	1222	PSI
Final Hydrostatic Pressure	2037	PSI
Temperature	123	°F
Pressure Change Initial Close / Final Close	0.0	%

Recovery at a glance





Company: Ritchie Exploration, Inc.

Lease: Whitham 21A

SEC: 21 TWN: 17S RNG: 37W
County: WICHITA
State: Kansas
Drilling Contractor: WW Drilling, LLC -
Rig 12
Elevation: 3278 EGL
Field Name: Wildcat
Pool: WILDCAT
Job Number: 228

Operation:
Uploading recovery &
pressures

DATE
September
15
2018

DST #1	Formation: Altamont A	Test Interval: 4372 - 4444'	Total Depth: 4444'
	Time On: 02:31 09/15	Time Off: 14:27 09/15	
	Time On Bottom: 08:07 09/15	Time Off Bottom: 11:07 09/15	

BUCKET MEASUREMENT:

1st Open: BOB in 28 min
1st Close: Built to .5 died in 35 min
2nd Open: BOB in 31 min
2nd Close: Built to 7"

REMARKS:

Tool Sample: 0% Gas 10% Oil 70% Water 20% Mud
Gravity: 27.8 @ 60 °F
Chlorides: 10,000 ppm



Company: Ritchie Exploration, Inc.

Lease: Whitham 21A

SEC: 21 TWN: 17S RNG: 37W
County: WICHITA
State: Kansas
Drilling Contractor: WW Drilling, LLC - Rig 12
Elevation: 3278 EGL
Field Name: Wildcat
Pool: WILDCAT
Job Number: 228

Operation:
Uploading recovery & pressures

DATE
September
15
2018

DST #1 **Formation: Altamont A** **Test Interval: 4372 - 4444'** **Total Depth: 4444'**
Time On: 02:31 09/15 Time Off: 14:27 09/15
Time On Bottom: 08:07 09/15 Time Off Bottom: 11:07 09/15

Down Hole Makeup

Heads Up: 9.8000000000002 FT	Packer 1: 4366.85 FT
Drill Pipe: 4170.46 FT <i>ID-3 1/2</i>	Packer 2: 4371.85 FT
Weight Pipe: FT <i>ID-2 7/8</i>	Top Recorder: 4356.27 FT
Collars: 178.62 FT <i>ID-2 1/4</i>	Bottom Recorder: 4442 FT
Test Tool: 33.57 FT <i>ID-3 1/2-FH</i> <i>Jars</i> <i>Safety Joint</i>	Well Bore Size: 7 7/8
Total Anchor: 72.15	Surface Choke: 1"
<u>Anchor Makeup</u>	Bottom Choke: 5/8"
Packer Sub: 1 FT	
Perforations: (top): 35 FT <i>4 1/2-FH</i>	
Change Over: 1 FT	
Drill Pipe: (in anchor): 31.15 FT <i>ID-3 1/2</i>	
Change Over: 1 FT	
Perforations: (below): 3 FT <i>4 1/2-FH</i>	



Company: Ritchie Exploration, Inc.

Lease: Whitham 21A

SEC: 21 TWN: 17S RNG: 37W
County: WICHITA
State: Kansas
Drilling Contractor: WW Drilling, LLC - Rig 12
Elevation: 3278 EGL
Field Name: Wildcat
Pool: WILDCAT
Job Number: 228

Operation:
Uploading recovery & pressures

DATE
September
15
2018

DST #1 **Formation: Altamont A** **Test Interval: 4372 - 4444'** **Total Depth: 4444'**
Time On: 02:31 09/15 Time Off: 14:27 09/15
Time On Bottom: 08:07 09/15 Time Off Bottom: 11:07 09/15

Gas Volume Report

1st Open

2nd Open

Time	Orifice	PSI	MCF/D
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Time	Orifice	PSI	MCF/D
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Max R. Lovely

GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

COMPANY: Ritchie Exploration

FIELD: #1 Whitham 21A

LOCATION: 408 EN 429 FEEL

SECTION: 21 T1S17 R0E37W

COUNTY: Wichita STATE: KS

CONTRACTOR: WW #12

RWD 9-8-18 CMP 9-18-18

SPD 4950 LTD 4956

MUD UP: 3502 TYPE: Mud Chem

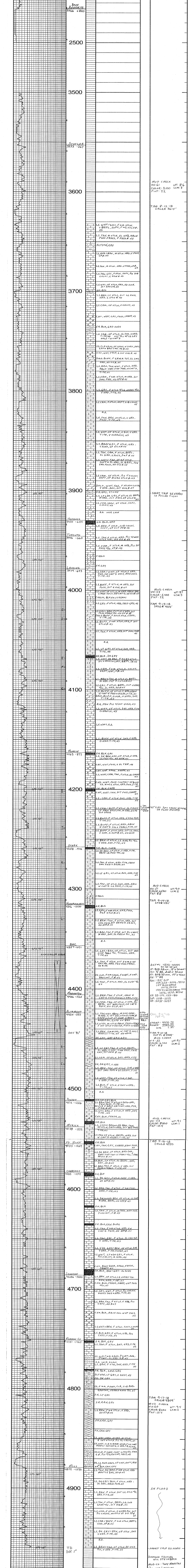
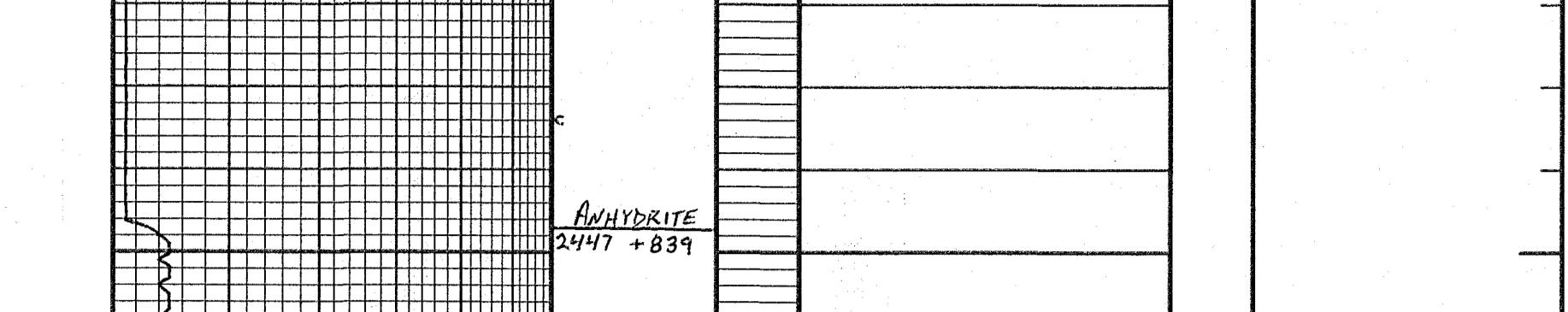
FORMATION TOPS AND STRUCTURAL POSITION

FORMATION	STAGE	ELEVATION	DEPTH	STRUCTURAL POSITION
Base Anhydrite	2466	2468	828	B
Hebber	3553	3548	-65	-283
Hebber	3930	3924	-68	-64
Muncie	3979	3972	-86	-680
Muncie	4183	4166	-81	-680
BKC	4357	4349	-103	-1078
Wilmington	4406	4401	-115	-1125
Wilmington	4512	4508	-122	-1201
El Scott	4555	4550	-124	-1201
Cherokee SH	4583	4576	-128	-1289
Johnson	4686	4674	-188	-1387
Johnson	4751	4746	-189	-1489
Missouri	4878	4871	-185	-1584
Missouri	4878	4871	-185	-1584

REFERENCE WELLS FOR STRUCTURE:
 A Falcon Expt #1 Kildean 3505 FT. S. 30° E. 167' 37W
 B Falcon Expt #2 Kildean 3505 FT. S. 30° E. 167' 37W
 C Falcon Expt #3 Kildean 3505 FT. S. 30° E. 167' 37W
 D Falcon Expt #4 Kildean 3505 FT. S. 30° E. 167' 37W
 E Falcon Expt #5 Kildean 3505 FT. S. 30° E. 167' 37W
 F Falcon Expt #6 Kildean 3505 FT. S. 30° E. 167' 37W
 G Falcon Expt #7 Kildean 3505 FT. S. 30° E. 167' 37W
 H Falcon Expt #8 Kildean 3505 FT. S. 30° E. 167' 37W
 I Falcon Expt #9 Kildean 3505 FT. S. 30° E. 167' 37W
 J Falcon Expt #10 Kildean 3505 FT. S. 30° E. 167' 37W

REMARKS:

LEGEND



MUD CHECK WT: 8.6
 VIS: 61 CHLOR: 3,100 LCM: 3
 FILT: 7.2
 7 AM 8-12-18
 DRLOG 3615'

MUD CHECK WT: 8.7
 VIS: 53 CHLOR: 5,400 LCM: 3
 FILT: 7.2
 7 AM 9-13-18
 DRLOG 4044'

MUD CHECK WT: 9.0
 VIS: 52 CHLOR: 6,500 LCM: 2
 FILT: 8.8
 7 AM 9-14-18
 DRLOG 4311'

MUD CHECK WT: 9.1
 VIS: 60 CHLOR: 8,200 LCM: 2
 FILT: 10.4
 7 AM 9-15-18
 DST #1 @ 4311'
 1ST 11' 30"
 2ND 11' 30"
 3RD 11' 30"
 4TH 11' 30"
 5TH 11' 30"
 6TH 11' 30"
 7TH 11' 30"
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 99TH 11' 30"
 100TH 11' 30"

MUD CHECK WT: 9.4
 VIS: 60 CHLOR: 8,200 LCM: 2
 FILT: 10.4
 7 AM 9-17-18
 DRLOG 4809'

SHORT TRIP 20 STABS
 DIAMOND TESTING
 WIL STEEL CHECK
 MUD CO: TONY MAESTAS
 POWER LOGGING