



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1160858
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: _____



1160858

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
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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				

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: <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> <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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Ritchie Exploration, Inc.
Lowry 12A No.1
1645' FNL and 1960' FEL
5'N and 20'E of N2 SW NE
Sec 12 T6S R25W
Graham County, Kansas

Geological Report
by

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

Scale 1:240 Imperial

Well Name: Lowry 12A No. 1
 Surface Location: Sec 12 T6S R25W
 Bottom Location: 1645' FNL and 1960' FEL
 API: 15-065-23946
 License Number: 4767
 Spud Date: 6/14/2013 Time: 1:15 PM
 Region: Graham County, Kansas
 Drilling Completed: 6/20/2013 Time: 8:17 PM
 Surface Coordinates:
 Bottom Hole Coordinates:
 Ground Elevation: 2464.00ft
 K.B. Elevation: 2469.00ft
 Logged Interval: 3100.00ft To: 4045.00ft
 Total Depth: 4045.00ft
 Formation: Arbuckle
 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: Lowry 12A No. 1
 Location: Sec 12 T6S R25W API: 15-065-23946
 Pool: Oil Field: Wildcat
 State: Kansas Country: USA

SURFACE CO-ORDINATES

Well Type: Vertical
 Longitude: 100° 03' 26.322" Latitude: 39° 32' 56.679"
 N/S Co-ord:
 E/W Co-ord:

CONTRACTOR

Contractor: WW Drilling
 Rig #: 6
 Rig Type: mud rotary Time: 1:15 PM
 Spud Date: 6/14/2013 Time: 8:17 PM
 TD Date: 6/20/2013 Time: 10:30 AM
 Rig Release: 6/21/2013

ELEVATIONS

K.B. Elevation: 2469.00ft Ground Elevation: 2464.00ft
 K.B. to Ground: 5.00ft

NOTES

Date	Depth at 7 am	Activity
6-14-13	MIRU	Spud at 1:15 pm
6-15-13	873	Drilling
6-16-13	2708	Drilling
6-17-13	3465	Drilling
6-18-13	3666	CFS
6-19-13	3700	OB with DST No. 4
6-20-13	3791	CFS
6-21-13	4045	P & A

Surface casing: 8 5/8" 23# at 221'
 Production casing: None set

Deviation: 222° - 3/4°
 3624' - 1°
 4045' - 1 1/2°

Bit Record:	Make	Size	Type	Depth In	Depth Out	Hours
	SM	12 1/4"	Tooth Bit	222	222	1 1/4
	SM	7 7/8"	F271Y		4045	74 1/4

Drill Stem Tests:

DST No. 1 3582 to 3624 Formation: Toronto
 30-30-30-30
 Recovery: 5' Mud
 IHP 1729 FHP 1727
 IFP 16-19 FFP 65-25
 ISIP 103 FSIP 317
 Temp 107°

DST No. 2 3616 to 3666 Formation: Lansing A and C Zones
 30-45-45-60
 Recovery: 93' WM (40%W, 60%M)
 123' MW (30%M, 70%W)
 55' MW (20%M, 80%W - Chl 65,000 ppm)
 5' Mud
 IHP 1778 FHP 1766
 IFP 19-89 FFP 94-140
 ISIP 1157 FSIP 1148
 Temp 109°

DST No. 3 3664 to 3700 Misrun due to packer failure

DST No. 4 3659 to 3700 Formation: Lansing D, E, and F Zones
 30-45-45-60
 Recovery: 20' Free Oil
 102' OCWM (10%O, 10%W, 80%M)
 120' Oil Spotted MW (30%M, 70%W - Chl 63,000 ppm)
 IHP 1825 FHP 1781
 IFP 26-92 FFP 91-126
 ISIP 1184 FSIP 1177
 Temp 110°

DST No. 5 3720 to 3778 Formation: Lansing H, I, and J Zones
 30-45-45-60
 Recovery: 65' WM (30%W, 70%M)
 120' MW (50%M, 50%W - Chl 32,000 ppm)
 IHP 1830 FHP 1788
 IFP 17-78 FFP 85-104
 ISIP 1247 FSIP 1207
 Temp 110°

Formation	Sample	E-Log	Datum	Well 1	Well 2	Well 3
Anhydrite	2103	2100	+369	-4	-24	-12
B/Anhydrite	2135	2134	+335	-6	-26	-12
Topeka	3384	3383	-914	+1	-36	-4
King Hill	3475	3475	-1006	+2	-36	-2
Queen Hill	3535	3535	-1066	+3	-34	0
Heebner	3586	3585	-1116	+3	-32	-3
Toronto	3609	3608	-1139	+7	-33	-3
Lansing	3624	3624	-1155	+5	-34	-2
Muncie Creek	3721	3720	-1251	+6	-31	+3
Stark	3772	3773	-1304	+6	-32	-1
Hushpuckney	3791	3792	-1323	+4	-31	-3
B/Kansas City	3808	3810	-1341	+5	-33	-5
Marmaton	3830	3832	-1363	+8	-32	+2
Altamont	3848	3850	-1381	+4	+4	+7
Pawnee	3872	3874	-1405	+8	+8	+4
Fort Scott	3896	3898	-1429	+6	+6	+9
Cherokee	3904	3904	-1435	+7	+7	+17
Conglomerate	3980	3982	-1513	+1	0	0
Arbuckle	4022	4024	-1555	+10	+29	+29
Total Depth	4045	4045	-1576			

Well 1: Murlin Drilling Company Schoen No. 1 C NE SE Sec 1 T6S R25W
 Well 2: Blueridge Petroleum Company Slipke N1-10-2250' FSL and 1602' FEL Sec 10 T6S R25W
 Well 3: A & A Production Schoen No. 1 1710' FSL and 1660' FEL Sec 14 T6S R25W

Due to the results of the Drill Stem Tests and the electric log calculations, it was decided to plug this test well.

Respectfully submitted,
Macklin M. Armstrong

ROCK TYPES

	Cht vari		Dolprim		Shale, grn		Shcol
	Congl		Lmst fw7		Carbon, Sh		Shale, red
	Chtcong1		shale, grn		shale, red		

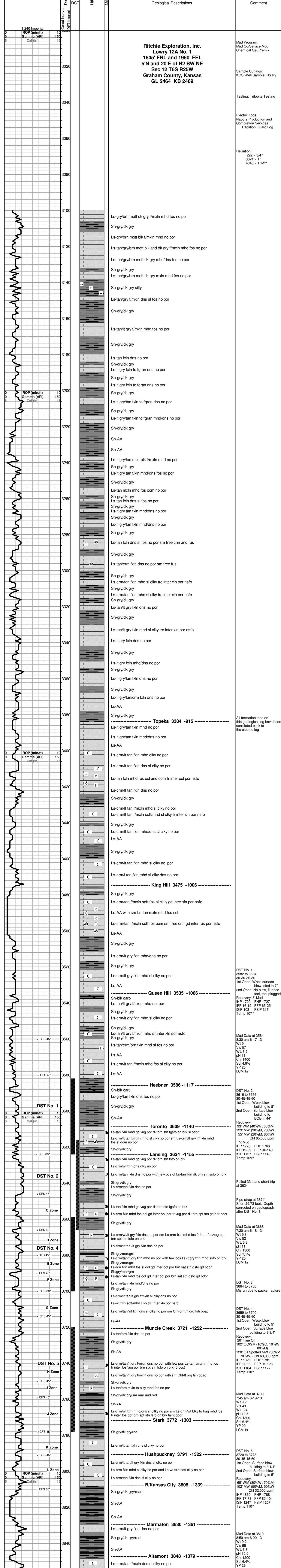
ACCESSORIES

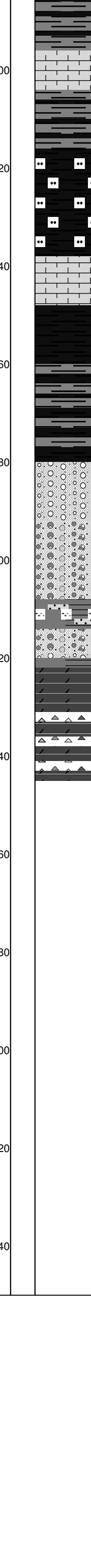
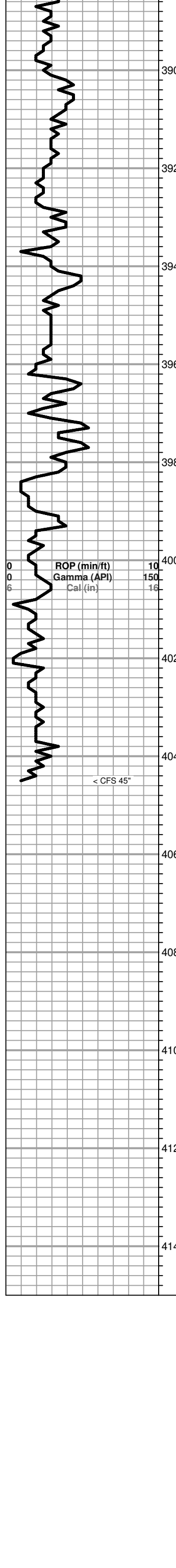
	Silty		SANDSTONE		Chalky
	Varicolored chert		STRANGER		Fossils < 20%
			Colite		Comoldic
			Fossilid		

OTHER SYMBOLS

	DST Int
	DST alt
	Core

Printed by GEOstrip VC Striplog version 4.0.7.0 (www.grsi.ca)





Sh-AA

----- **Fort Scott 3896 -1427** -----

Ls-lt gry/lt red brn fxin to sl gran mhd no por

----- **Cherokee 3904 -1435** -----

Sh-gry/dk gry/red

Sh-AA

Sh-red/red brn sl silky

Sh-AA

Sh-AA

Ls-tan mott gry and brn blkly to frag mhd no por

Sh-gry/red brn gummy

Sh-AA

Sh-gry/dk gry/red brn

Sh-AA

----- **Conglomerate 3980 -1511** -----

Ls-lt gry/brn f/mxn mhd sl shly no por sm Ss-clr/lt red brn m/cgm sub ang to sub rnd fri nsfo and Sh-red/red brn

Sh-gry/dn gry/red/sm yel and Ls-AA

Sh-AA with Cht-dk org/crm/tan/gry fsh opac and Ls-gry/brn blkly mhd no por

Sh and Cht-AA

Sh-gry/dk gry/red/yel with some Cht-org/tan/crm/wt fsh opaq and Ss-red brn cgm sub ang lite cement

Sh and Cht-AA with sm Ss

----- **Arbuckle 4022 -1553** -----

Dolo-lt gry tbn to fsuc mhd/dns no por

Dolo-lt gry fsuc to suc mhd/dns chty no por and Cht-tan/lt org crm fsh opaq

Dolo and Cht-AA

----- **RTD 4045 -1576** -----

Finished Drilling at 8:17 pm on 6-20-13. Pulled 12 stand short trip, then Cir for Log 90"

Finished Logging at 3:30 am on 6-21-13



Sh-AA

----- **Fort Scott 3896 -1427** -----

Ls-lt gry/lt red brn fxin to sl gran mhd no por

----- **Cherokee 3904 -1435** -----

Sh-gry/dk gry/red

Sh-AA

Sh-red/red brn sl silky

Sh-AA

Sh-AA

Ls-tan mott gry and brn blkly to frag mhd no por

Sh-gry/red brn gummy

Sh-AA

Sh-gry/dk gry/red brn

Sh-AA

----- **Conglomerate 3980 -1511** -----

Ls-lt gry/brn f/mxn mhd sl shly no por sm Ss-clr/lt red brn m/cgm sub ang to sub rnd fri nsfo and Sh-red/red brn

Sh-gry/dn gry/red/sm yel and Ls-AA

Sh-AA with Cht-dk org/crm/tan/gry fsh opac and Ls-gry/brn blkly mhd no por

Sh and Cht-AA

Sh-gry/dk gry/red/yel with some Cht-org/tan/crm/wt fsh opaq and Ss-red brn cgm sub ang lite cement

Sh and Cht-AA with sm Ss

----- **Arbuckle 4022 -1553** -----

Dolo-lt gry tbn to fsuc mhd/dns no por

Dolo-lt gry fsuc to suc mhd/dns chty no por and Cht-tan/lt org crm fsh opaq

Dolo and Cht-AA

----- **RTD 4045 -1576** -----

Finished Drilling at 8:17 pm on 6-20-13. Pulled 12 stand short trip, then Cir for Log 90"

Finished Logging at 3:30 am on 6-21-13



#1 Lowry 12A

1645' FNL & 1960' FEL

5' N & 20' E of C N/2 SW NE Section 12-6S-25W

Graham County, Kansas

API# 15-065-23946-0000

Elevation: 2464' GL, 2469' KB

Sample Tops			Ref. Well
Anhydrite	2103'	+366	-7
B/Anhydrite	2135'	+334	-7
Topeka	3388'	-919	-4
Heebner	3586'	-1117	+2
Toronto	3611'	-1142	+4
Lansing	3626'	-1157	+3
Muncie Shale	3725'	-1256	+1
Stark Shale	3771'	-1302	+8
Hush	3788'	-1319	+8
BKC	3806'	-1337	+9
Marmaton	3830'	-1361	+10
Altamont	3842'	-1373	+12
Pawnee	3870'	-1401	+12
Fort Scott	3893'	-1424	+11
Cherokee Shale	3900'	-1431	+11
Conglomerate	3971'	-1502	+12
Arbuckle	4021'	-1552	+13
RTD	4045'	-1576	

ALLIED OIL & GAS SERVICES, LLC 060798

Federal Tax I.D. # 20-8651475

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

SERVICE POINT:

Dakley K

DATE <i>6/14/13</i>	SEC. <i>12</i>	TWP. <i>6</i>	RANGE <i>25</i>	CALLED OUT	ON LOCATION	JOB START <i>4:00pm</i>	JOB FINISH <i>4:30pm</i>
LEASE <i>our 12</i>	WELL # <i>1</i>	LOCATION <i>Morland #70170 N70</i>			COUNTY <i>Grasman</i>	STATE <i>K</i>	
OLD OR NEW (Circle one)		<i>CC 1W N70170</i>					

CONTRACTOR *WV 6* OWNER *Same*

TYPE OF JOB *Sur Face*

HOLE SIZE *12 1/4* T.D. *222* CEMENT AMOUNT ORDERED *160 SK Com 300cc*

CASING SIZE *8 5/8* DEPTH *222* *200 gal*

TUBING SIZE DEPTH

DRILL PIPE DEPTH

TOOL DEPTH

PRES. MAX MINIMUM COMMON *160 @ 17 20 2864.00*

MEAS. LINE SHOE JOINT POZMIX @

CEMENT LEFT IN CSG. *15'* OBL *3 @ 20.20*

PERFS. CHLORIDE *6 @ 384.00*

DISPLACEMENT *13,185.9 BBL* ASC @

EQUIPMENT @

PUMP TRUCK CEMENTER *Alan Ryan* @

422 HELPER *Wayne McGinley* @

BULK TRUCK DRIVER *Kevin Ryan* @

DRIVER @

HANDLING *173 all CF @ 2.48 429.24*

MILEAGE *26.70 @ 2.9 77.43*

TOTAL *5282.97*

REMARKS:

Analy, Circulate, Mix Cement, Displace Cement shut in

(Cement Add Circulate)

Alan Ryan, Kevin Ryan

CHARGE TO *Ritchie Exploration*

STREET

CITY STATE ZIP

SERVICE

DEPTH OF JOB

PUMP TRUCK CHARGE *1512.25*

EXTRA FOOTAGE @

MILEAGE *25 @ 7 20 577.50*

MANIFOLD @ *4 40 330.00*

TOTAL *2419.25*

PLUG & FLOAT EQUIPMENT

@

@

@

@

@

TOTAL

SALES TAX (If Any)

TOTAL CHARGES *7,707.72*

DISCOUNT *1,772.77* IF PAID IN 30 DAYS

5,934.94 Net.

PRINTED NAME *Jason Ritchie*

SIGNATURE *[Signature]*



ALLIED OIL & GAS SERVICES, LLC 060317

Federal Tax I.D. # 20-8661476

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

SERVICE POINT
Oakley

DATE <i>6/21/13</i>	SEC <i>12</i>	TWP <i>6</i>	RANGE <i>25</i>	CALLED OUT	ON LOCATION	JOB START <i>7:30 AM</i>	JOB FINISH <i>10:30 AM</i>
BASE <i>Louty</i>	WELL # <i>1</i>	LOCATION <i>Morland E to 170 N to CC</i>			COUNTY <i>Graham</i>	STATE <i>Ks.</i>	
JLD OR <i>(N)EW</i> (Circle one)				<i>1W - N+W into</i>			

CONTRACTOR *WW-6*

TYPE OF JOB *PTA*

HOLE SIZE *7 7/8* TD. *4045'*

CASING SIZE DEPTH

UBING SIZE DEPTH

RILL PIPE *4 1/2* DEPTH *4020*

COOL DEPTH

RES. MAX MINIMUM

FEAS. LINE SHOE JOINT

ELEMENT LEFT IN CSG.

ERFS.

ISPLACEMENT *50.05*

EQUIPMENT

JMP TRUCK CEMENTER *Duon Racetto*

423-281 HELPER *Paul Beaver*

JLK TRUCK

373-308 DRIVER *Brandon Wilkinson*

JLK TRUCK

DRIVER

OWNER *Same*

CEMENT

AMOUNT ORDERED *255 SKs 60/40 4% Gal*

1/4" Flo Seal

COMMON *153 SKs @ 17.70 \$2738.70*

POZMIX *102 SKs @ 9.35 \$953.70*

OBI. *9 SKs @ 23.40 \$210.60*

CHLORIDE @

ASC @

Flo Seal 64" @ 2.92 \$190.08

@

@

@

@

@

HANDLING *273.89 4% X @ 2.98 \$811.39*

MILEAGE *11.44 x 75 X \$2.00 \$2280.80*

TOTAL *\$7003.13*

REMARKS:

ix 50 SKs Cement 4020'

ix 25 SKs Cement 2160'

ix 100 SKs Cement 1289'

ix 40 SKs Cement 270'

ix 10 SKs Cement 40' 1/4"

ug Rathole 30 SKs Cement

Thank You.

SERVICE

DEPTH OF JOB *4020'*

PUMP TRUCK CHARGE *\$2810.84*

EXTRA FOOTAGE @

MILEAGE *75 @ 7.70 \$577.50*

MANIFOLD @

L.V. mileage @ 4.40 \$330.00

@

TOTAL *\$3718.34*

ARGE TO: *Ritchie Exploration*

REET

Y. STATE ZIP

PLUG & FLOAT EQUIPMENT

1 Wooden Plug @ \$107.64

@

@

@

TOTAL *\$107.64*

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

SALES TAX (if Any)

TOTAL CHARGES *10,829.11*

DISCOUNT *2,490.69* IF PAID IN 30 DAYS

8,338.41 Net.

VTED NAME *JD Hafliker*

SIGNATURE *[Signature]*

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

October 01, 2013

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

Re: ACO1
API 15-065-23946-00-00
Lowry 12A 1
NE/4 Sec.12-06S-25W
Graham 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