

STATE CORPORATION COMMISSION OF KANSAS  
OIL & GAS CONSERVATION DIVISION  
WELL COMPLETION OR RECOMPLETION FORM  
ACO-1 WELL HISTORY  
DESCRIPTION OF WELL AND LEASE

Operator: License # 4767  
Name Ritchie Exploration, Inc.  
Address 125 N. Market, Suite 1000  
City/State/Zip Wichita, KS 67202

Purchaser Koch Oil Co.  
Wichita, KS

Operator Contact Person Galen Babcock  
Phone 316/267-4375

Contractor: License # 6033  
Name Murfin Drilling Co.

Wellsite Geologist Larry Zink  
Phone 316/267-4375

Designate Type of Completion  
 New Well  Re-Entry  Workover  
 Oil  SWD  Temp Abd  
 Gas  Inj  Delayed Comp.  
 Dry  Other (Core, Water Supply etc.)

If OWO: old well info as follows:  
Operator  
Well Name  
Comp. Date Old Total Depth

WELL HISTORY

Drilling Method:  
 Mud Rotary  Air Rotary  Cable  
1/30/86 2/06/86 2/25/86  
Spud Date Date Reached TD Completion Date  
3865' n/a  
Total Depth PBTD

Amount of Surface Pipe Set and Cemented at 250 feet  
Multiple Stage Cementing Collar Used?  Yes  No  
If yes, show depth set 1952 feet  
If alternate 2 completion, cement circulated from 1952 feet depth to surface 300 cmt  
Cement Company Name Allied Cementing Co.  
Invoice # 477

API No. 15-065-22,298-0000  
County Graham  
..SW ..NW ..NE Sec. 13 Twp. 6S. Rge. 22.  East  West  
4290 Ft North from Southeast Corner of Section  
2310 Ft West from Southeast Corner of Section  
(Note: Locate well in section plat below)  
Lease Name Ary Well # 2  
Field Name not named yet Boyo SW  
Producing Formation Lansing  
Elevation: Ground 2284' KB 2289'  
Section Plat

PLEASE KEEP THIS INFORMATION CONFIDENTIAL

WATER SUPPLY INFORMATION

Disposition of Produced Water:  Disposal  
Docket # D 20,496  Repressuring

Questions on this portion of the ACO-1 call:  
Water Resources Board (913) 296-3717  
Source of Water:  
Division of Water Resources Permit #  
Groundwater.....Ft North from Southeast Corner (Well) .....Ft West from Southeast Corner of Sec Twp Rge East West  
Surface Water.....Ft North from Southeast Corner (Stream, pond etc).....Ft West from Southeast Corner Sec Twp Rge East West  
Other (explain) (purchased from city, R.W.D. #)

INSTRUCTIONS: This form shall be completed in duplicate and filed with the Kansas Corporation Commission, 200 Colorado Derby Building, Wichita, Kansas 67202, within 90 days after completion or recompletion of any well. Rule 82-3-130 and 82-3-107 apply.  
Information on side two of this form will be held confidential for a period of 12 months if requested in writing and submitted with the form. See rule 82-3-107 for confidentiality in excess of 12 months.  
One copy of all wireline logs and drillers time log shall be attached with this form. Submit CP-4 form with all plugged wells. Submit CP-111 form with all temporarily abandoned wells.

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.

Signature [Signature]  
Title President Date 3/24/86

Subscribed and sworn to before me this 24th day of March 1986  
Notary Public Linda K. Rice  
Date Commission Expires 6/07/88



K.C.C. OFFICE USE ONLY  
 Letter of Confidentiality Attached  
 Wireline Log Received  
 Drillers Time Log Received  
Distribution  
 KCC  SWD/Rep  NGPA  
 KGS  Plug  Other  
(Specify)

MAR 25 1986

CONSERVATION DIVISION

3-2586

Form ACO-1 (7-84)

15-065-22298-00-00

SIDE TWO

Operator Name Ritchie Exploration, Inc. Lease Name Ary Well # 2

Sec. 13 Twp. 6S Rge. 22  East  West County Graham

WELL LOG

INSTRUCTIONS: Show important tops and base of formations penetrated. Detail all cores. Report all drill stem 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 during test. Attach extra sheet if more space is needed. Attach copy of log.

Drill Stem Tests Taken  Yes  No  
 Samples Sent to Geological Survey  Yes  No  
 Cores Taken  Yes  No

Formation Description  
 Log  Sample

DST #1 from 3490' to 3553' (Toronto & Top zone). Recovered 5' of heavily oil cut mud (35% oil & 65% mud); 60' of oil cut watery mud (12% oil, 13% water, & 85% mud); and 180' of slightly oil cut mud (3% oil & 97% mud).  
 IFP: 45-86#/30"; ISIP: 983#/45";  
 FFP: 111-148#/30"; FSIP: 938#/45".

Name	Top	Bottom
Anhydrite	1946' (+ 343)	
B/Anhydrite	1978' (+ 311)	
Topeka	3312' (-1023)	
Heebner	3496' (-1207)	
Toronto	3522' (-1233)	
Lansing	3539' (-1250)	
B/KC	3725' (-1436)	
Cong. Sd.	3775' (-1486)	
Arbuckle	3808' (-1519)	
LTD	3864' (-1575)	

DST #2 from 3557' to 3580' (35' zone). Recovered 1' of clean oil, 125' of slightly oil cut watery mud (4% oil, 21% water, & 75% mud); and 300' of muddy water with oil specks.  
 IFP: 31-114#/30"; ISIP: 747#/45";  
 FFP: 134-194#/30"; FSIP: 743#/45".

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 CONFIDENTIAL 6-11-87  
 JUN 11 1987

DST #3 from 3579' to 3598' (50' zone). Recovered 378' of gas in pipe; 186' of gassy mud cut oil (15% gas, 30% mud & 55% oil); 124' of heavily oil cut mud (cont'd)

FROM CONFIDENTIAL

CASING RECORD <input checked="" 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
Surface	12 1/2"	8-5/8"	23#	250'	60/40 ppz	185	2% gel, 3%
Production	7-7/8"	4 1/2"	10.5#	3864'	60/40 ppz	140	10% salt & 3% gilsonite
						10	salt flush
PERFORATION RECORD				Acid, Fracture, Shot, Cement Squeeze Record			
Shots Per Foot	Specify Footage of Each Interval Perforated			(Amount and Kind of Material Used)		Depth	
2 SSB	3687'-3691'			750 gal. of 28%		3687'-91'	
2 SSB	3710 1/2'-3714'; 3720 1/2'-24'			750 gal. of 28%		3710 1/2'-14'	
	3584'-3587'					3720 1/2'-24'	
						3584'-87'	
TUBING RECORD				Liner Run <input type="checkbox"/> Yes <input type="checkbox"/> No			
Date of First Production	Producing Method						
2/25/86	<input type="checkbox"/> Flowing <input checked="" type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other (explain):						
Estimated Production Per 24 Hours	Oil	Gas	Water	Gas-Oil Ratio	Gravity		
	60Bbls	MCF	45Bbls	CFPB			

METHOD OF COMPLETION

Production Interval

Disposition of gas:  Vented  Open Hole  Perforation  
 Sold  Other (Specify) .....  
 Used on Lease  Dually Completed  Commingled

3687'-91'; 3710 1/2'-14'; 3720 1/2'-24'; 3584'-87'

15065-22298-00-00

SIDE TWO (Page Two)

ACO-1 WELL HISTORY

OPERATOR Ritchie Exploration, ID# CASE NAME Ary

SEC. 13 TWP 6S RGE. 22W

FILL IN WELL LOG AS REQUIRED:

Show all important zones of porosity and contents thereof; cored intervals, and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries.

SHOW GEOLOGICAL MARKERS, LOGS RUN, OR OTHER DESCRIPTIVE INFORMATION.

FORMATION DESCRIPTION, CONTENTS, ETC.	TOP	BOTTOM	NAME	DEPTH
DST #3 (cont'd) : (5% gas, 30% oil, & 65% mud); 65' of slightly mud cut oil (6% mud & 94% oil); 410' of clean oil; & 120' of oil cut mud (20% oil & 80% mud). IFP: 79-251#/15"; ISIP: 628#/30"; FFP: 292-369#/15"; FSIP: 623#/30".				
DST #4 from 3642' to 3706' (140', 160', & 180' zones). Recovered 150' of gas in pipe; 120' of heavily oil cut mud (3% gas, 33% oil & 64% mud); 120' of oil cut mud (3% gas, 25% oil & 72% mud); and 60' of oil cut mud (16% oil & 84% mud). IFP: 59-105#/30"; ISIP: 752#/45"; FFP: 125-157#/30"; FSIP: 730#/45".				
DST #5 from 3698' to 3736' (200' & 220' zones). Misrun, packer failure.				
DST #6 from 3753' to 3792' (Cong. sand). Recovered 20' of heavy oil; 125' of gassy mud cut oil (50% gas, 5% mud & 45% oil); 240' of oil cut mud (20% oil, 10% gas, & 70% mud); and 60' of slightly oil cut mud (2% oil, 8% water, & 90% mud). IFP: 36-132#/30"; ISIP: 990#/45"; FFP: 168-244#/30"; FSIP: 926#/45".				
DST #7 from 3815' to 3820' (Arbuckle). Recovered 2' of mud with oil spots. IFP: 15-15#/30"; ISIP: 54#/30"; FFP: 18-18#/30"; FSIP: 54#/30".				

**CONFIDENTIAL**

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MAR 31 1986  
State Geological Survey  
WICHITA BRANCH

RELEASED  
6-11-87  
JUN 11 1987

FROM CONFIDENTIAL

MAR 25 1983

15-065-22298-00-00

# WELL LOG

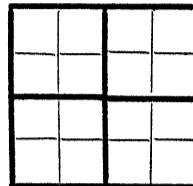
**COMPANY** Ritchie Exploration, Inc.  
125 N. Market, Suite 1000  
Wichita, KS 67202  
**FARM** ARY NO. 2

SEC. 13 T. 6S R. 22W  
LOC. SW NW NE

**CONFIDENTIAL**

**RIG. NO.** 8  
**TOTAL DEPTH** 3865'  
**COMM.** 01-30-86 **COMP.** 02-07-86

**COUNTY** Graham  
KANSAS



**CONTRACTOR** Murfin Drilling Company  
250 N. Water, Suite 300  
Wichita, KS 67202

**CASING**  
10 10  
15 8 -5/8" set @ 250' w/185 sx 60/40 Poz, 2% Gel, 3% CC. **ELEVATION**  
12 6  
13 5 4-1/2" set @ 3864' w/150 sx 60/40 Poz, 10% Salt **PRODUCTION**

FIGURES INDICATE BOTTOM OF FORMATIONS

Surface Dirt, Sand & Shale	251'
Shale & Sand	1945'
Anhydrite	1976'
Shale	2470'
Shale & Lime (RTD)	3865'

MAR 31 1986  
State Geological Survey  
WICHITA BRANCH

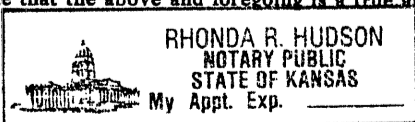
RELEASED

JUN 14 1987  
6-11-87  
FROM CONFIDENTIAL

State of KANSAS  
County of SEDGWICK } ss:

I, Robert A. Ramseyer, Jr. of the Murfin Drilling Company

upon oath state that the above and foregoing is a true and correct copy of the log of the Ary #2 well.



*Robert A. Ramseyer, Jr.*  
Robert A. Ramseyer, Jr., Agent for Operator

Subscribed and sworn to before me this 11th day of February 19 86

My Commission Expires: 11-18-87

STATE OF KANSAS COMMISSIONER

MAR 25 1986

*Rhonda R. Hudson*  
NOTARY PUBLIC  
Rhonda R. Hudson