

SIDE ONE

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

Operator: License # 5140  
Name: Frontier Oil Company  
Address 125 N. Market, Ste. 1720

City/State/Zip Wichita, KS 67202  
Purchaser: N/A

Operator Contact Person: Jean Angèle  
Phone (316) 263-1201

Contractor: Name: Red Tiger Drilling Co.  
License: 5302

Mellsite Geologist: Dick Parker

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

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

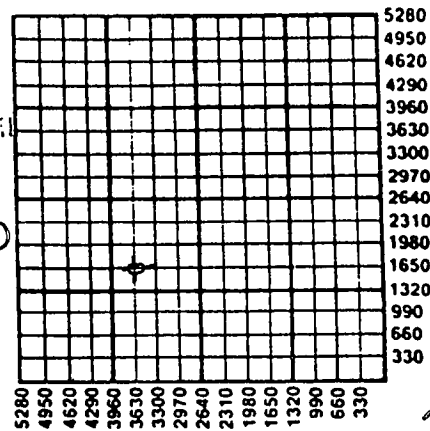
Drilling Method:  
 Mud Rotary  Air Rotary  Cable  
12-8-89 12-21-89 12-21-89  
Spud Date Date Reached TD Completion Date

API NO. 15- 051-24,631-00-00  
County Ellis

SW NE SW Sec. 11 Twp. 13 Rge. 17  East  West  
1650 Ft. North from Southeast Corner of Section  
3630 Ft. West from Southeast Corner of Section  
(NOTE: Locate well in section plat below.)

Lease Name Dreiling Well # 1  
Field Name Catherine

Producing Formation N/A  
Elevation: Ground 2025 KB 2030  
Total Depth 3590 PBTD N/A



Amount of Surface Pipe Set and Cemented at 232 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.

**INSTRUCTIONS:** This form shall be completed in triplicate and filed with the Kansas Corporation Commission, 200 Colorado Derby Building, Wichita, Kansas 67202, within 120 days of the spud date of any well. Rule 82-3-130, 82-3-107 and 82-3-106 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. ALL CEMENTING TICKETS MUST BE ATTACHED. Submit CP-4 form with all plugged wells. Submit CP-111 form with all temporarily abandoned wells. Any recompletion, workover or conversion of a well requires filing of ACO-2 within 120 days from commencement date of such work.

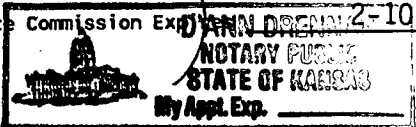
All requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Signature Jean Angèle  
Title Agent Date 1-5-90

Subscribed and sworn to before me this 5th day of January, 19 90.

Notary Public D. Ann Dusenman

Date Commission Expires 2-10-90



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

PI

**SIDE TWO**

Operator Name Frontier Oil Company Lease Name Dreiling Well # 1  
 Sec. 11 Twp. 13 Rge. 17W  East County Ellis  
 West

**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  
 (Attach Additional Sheets.)

Samples Sent to Geological Survey  Yes  No

Cores Taken  Yes  No

Electric Log Run  Yes  No  
 (Submit Copy.)

DST #1(3198-3255) 30-30-30-30. Rec. 110'  
 M. IF 49-49, FF 59-59, ISIP 1024, FSIP 955

DST #2 (3300-3360) 60-30-60-30. Rec. 90'  
 M, IF 60-60, FF 69-69, ISIP 108, FSIP 108.

Continued on Attached Sheet.

Formation Description		
	<input type="checkbox"/> Log	<input checked="" type="checkbox"/> Sample
Name	Top	Bottom
Anhydrite	1202	+828
Topeka	3001	-971
Heebner	3248	-1218
Toronto	3268	-1238
Lansing - KS City	3292	-1262
Base of KS City	3526	-1496
Conglomerate	3540	-1510
Simpson Shale	3558	-1528
Arbuckle	3562	-1532
RPD	3590	-1560

**CASING RECORD**  New  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 1/4"	8 5/8"	20#	232	60-40 POZ	140sx	2% gel, 2%cc

PERFORATION RECORD		Acid, Fracture, Shot, Cement Squeeze Record	
Shots Per Foot	Specify Footage of Each Interval Perforated	(Amount and Kind of Material Used)	Depth
N/A			

**TUBING RECORD** Size N/A Set At \_\_\_\_\_ Packer At \_\_\_\_\_ Liner Run  Yes  No

Date of First Production N/A 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: N/A  Vented  Sold  Used on Lease (If vented, submit ACO-18.)

**METHOD OF COMPLETION**  Open Hole  Perforation  Dually Completed  Commingled  Other (Specify) \_\_\_\_\_

Production Interval \_\_\_\_\_

Phone 913-483-2627, Russell, Kansas

Phone 316-793-5861, Great Bend, Kansas

15-051-24631-00-00

Phone Plainville 913-434-2812

Phone Ness City 913-798-3843

# ALLIED CEMENTING CO., INC. No. 8665

Home Office P. O. Box 31 Russell, Kansas 67665

New

Date	12-21-89	Sec.	11	Twp.	13S	Range	17W	Called Out	11:30 AM	On Location	3:00 PM
Lease	Dreiling	Well No.	1	Location	Catherine	1/2 E 1/2 N	Ellis	County	Ellis	State	Ks
Contractor	Red Tiger										
Type Job	Plug										
Hole Size	7 7/8	ED.	3590								
Csg.	Depth										
Tbg. Size	Depth										
Drill Pipe	Depth										
Tool	Depth										
Cement Left in Csg.	Shoe Joint										
Press Max.	Minimum										
Meas Line	Displace										
Perf.											

To Allied Cementing Co., Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.

Charge To: Frontier Oil Co

Street: 1437 N. Franklin

City: Russell, Kan. State: Kan. 67665

The above was done to satisfaction and supervision of owner agent or contractor.

Purchase Order No. \_\_\_\_\_

*Dance* *Therapy*

Flowseal CEMENT

Amount Ordered: 215.00 6% gel 3% CC

EQUIPMENT		
No.	Cementer	Helper
Pumptrk 153	<i>Dave</i>	<i>Gerold</i>
No.	Cementer	Helper
Pumptrk		
Driver	<i>Joel</i>	
Bulktrk 22		
Bulktrk		

Consisting of		
Common	129	5.00 = 645.00
Poz. Mix	96	2.25 = 193.50
Gel.	14	6.75 = 94.50
Chloride	7	20.00 = 140.00
Quickset		
1 5x Flo Seal		40.00 = 40.00
		Sales Tax
Handling	90	193.50
Mileage	1.3m	0.3 = 83.85
		Sub Total
		1390.35
		Total
		Floating Equipment

DEPTH of Job	
Reference:	
Pump trk chg	360.00
100 Per Ord. mile	13.00
Plug	20.00
Sub Total	393.00
Tax	
Total	

Remarks:

25 sk @ 3530

25 @ 1220

100 + 1 flowseal @ 650

40 @ 280

10 wt plug @ 40

15 kat hole

Sub Total	
	1390.35
Total	
Floating Equipment	

Phone 913-483-2627, Russell, Kansas  
 Phone 316-793-5861, Great Bend, Kansas

15-051-24631-00-00

Phone Plainville 913-434-2812  
 Phone Ness City 913-798-3843

# ALLIED CEMENTING CO., INC. No. 9522

Home Office P. O. Box 31 Russell, Kansas 67665

*New*

Date	12-8-89	Sec.	11	Twp.	13	Range	17 W
Lease	Dreeling	Well No.	1	Location	Catherine	12 E	KN
Contractor	Red Tiger						
Type Job	Surface						
Hole Size	12 1/4	T.D.	237	Csg.	8 3/8	Depth	232
Tbg. Size		Depth		Drill Pipe		Depth	
Tool		Depth		Cement Left in Csg.	10-15	Shoe Joint	
Press Max.		Minimum		Meas Line		Displace	
Perf.							

Called Out	On-Location	Job Start	Finish
			5:00 PM
Owner	County	State	
	Ellis	KS	
To Allied Cementing Co., Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.			
Charge To	Frontier Oil Co		
Street	1437 N. Franklin		
City	Russell State Kan 67665		
The above was done to satisfaction and supervision of owner agent or contractor.			
Purchase Order No.	D one Drushy		
Amount Ordered	140 <sup>00</sup> 3% cc 2% gel		

### EQUIPMENT

Pumptrk	No.	Cementor	Dave
	153	Helper	
Pumptrk	No.	Cementor	Steve
		Helper	
Bulktrk		Driver	
	155	Driver	

Consisting of:			
Common	84	SKS D	5.00
Poz. Mix.	56	SKS D	2.25
Gel.	3	SKS D	6.75
Chloride	4	SKS D	20.00
Quickset			
Sales Tax			
Handling	90¢		126 <sup>00</sup>
Mileage	3¢		50 <sup>40</sup>
12 miles			
Sub Total			
Total			822 <sup>65</sup>

### DEPTH of Job

Reference:	Pump trk chg	360 <sup>00</sup>
	1.00 per mile	12 <sup>00</sup>
	8 3/8 wooden Plug	40 <sup>00</sup>
	Sub Total	
	Tax	
	Total	412 <sup>00</sup>

Remarks: Cement Cio

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Wichita, Kansas

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SIDE TWO (Page Two)

ACO-1 WELL HISTORY

OPERATOR Frontier Oil Comany LEASE NAME Dreiling #1 SEC. 11 TWP. 13 RGE. 17W

**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
<p>DST #3 (3352-3410) 30-30-60-30. Rec. 65' M. IF 59-59; FF 69-69, ISIP 118, FSIP 88.</p>				
<p>DST #4 (3410-3526) 30-30-30-30. Rec. 10' M. IF 69-79, FF 69-69, ISIP 98, FSIP 69.</p>				
<p>DST #5 (3510-3567) 60-30-30-30. Rec. 35' M. IF 40-40, FF 49-49, ISIP 79, FSIP 59.</p>				
<p>DST #6 (3512-3572) 30-30-30-30. Rec. 70' M. IF 96-96, FF 96-96, ISIP 337, FSIP 270.</p>				
<p>DST #7 (3566-3582) Mis- Run</p>				
<p>DST #8 (3510-3582) 30-30-30-30. Rec. 60' M. IF no pressure. FF 55-58, ISIP 1021, FSIP 638.</p>				
<p>DST #9 (3510-3590) 30-30-60-30. Rec. 60' M w/specksof 0, 813' MSW. IF 89-99, FF 158-227, ISIP 1015, FSIP 966.</p>				

STATE CORPORATION COMMISSION  
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 CONSERVATION DIVISION  
 Wichita, Kansas

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GEOLOGICAL REPORT

FRONTIER OIL COMPANY

DREILING NO. 1

SW. NE. SW. 11-13S-17W

ELLIS COUNTY, KANSAS

DATE COMMENCED: December 8, 1989

DATE OF RTD: December 20, 1989

GEOLOGIST

RICHARD D. PARKER

WICHITA STATE UNIVERSITY  
DEPARTMENT OF GEOLOGY

JAN 8 1990

CONSERVATION DIVISION  
Wichita, Kansas

Frontier Oil Company  
 1720 W.S.B.T Bldg  
 Wichita, Kansas 67202

Re: Frontier Oil Company  
 Nat Ditching  
 SW NE SW 11-135-174W  
 Ellis County, Kansas

Dear Sir:

The following is a Geological Report, with a  
 Time log attached, on the above captioned well.

Drilling was suspended from 2800' to 3590',  
 relay hole depth. Samples were examined from  
 2800' to relay hole depth.

All formation logs, zones of porosity and  
 storage are based on relay hole logging measurements.  
 Any corrections in measurements during the  
 drilling of the well have been incorporated into  
 this report.

Elevation American Elevations 2027 DF - 2030 KB

Anhydrite	1202 + 828
Top of	3001 - 971
Hea base	3248 - 1218
Toronto	3268 - 1238
Lensing - Kansas City	3292 - 1262
Base of Kansas City	3526 - 1496
Coal measure	3540 - 1510
Simpson Shale	3558 - 1528
Arbuckle	3562 - 1532
RTD	3590 - 1560

STATE OF KANSAS

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 Wichita, Kansas

Structurally on top of the Lansing - Kansas City,  
 the No. 1 Drilling ran 5' low to the Wilkinson's  
 No. 1 Drilling, an abandoned Lansing well, located  
 two locations West. On top of the above the  
 the No. 1 Drilling ran 24' low to Wilkinson's  
 No. 1 Drilling.

ZONES OF INTEREST

TOPEKA (Top 3001),

3001 to 3006

Tan chalky to slightly  
 fossiliferous lime no shale

3209 to 3220

White fine crystalline  
 to slightly waxy lime  
 with fine irregular porosity  
 Fair show of free oil,  
 fair odor, spotted light  
 and dark stains.

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 DEPARTMENT OF GEOLOGY

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DRILL STEM TEST NO. 1 (TRILGITE TESTING)

3198 to 3255

30-30-30-30

First open bit blow  
decreasing to no blow  
in 30 minutes.

Second open very weak blow.

Recovered 110' mud.

Initial flows 49 to 49.

Final flows 59 to 59.

Initial shut in pressure 1029

Final shut in pressure 955

TORONTO (Top 3268)

3268 to 3273

white fine crystalline  
to chalky lime  
with no show of oil

LANSING-KANSAS CITY (Top 3292)

3292 to 3298

white fine  
crystalline to dense  
lime with no show.

3-11-1990

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3308 to 3312

White fine crystalline  
to chalky lime  
with no show.  
(Included in DST #1)

3318 to 3323

White tesselated  
to fine crystalline lime  
with poor show of  
free oil, fair odor  
trace of oil stain  
(Included in DST #1)

3336 to 3340

Light tan to white  
fine crystalline lime with  
fair irregular porosity,  
fair show of free oil,  
faint odor, spotted oil stain

DRILL STEM TEST NO. 2 (TRILOBITE TESTING)

3300 to 3360

60-30-60-30

First open fair blow.  
Second open very weak blow.  
Recovered 90' mud.  
Initial flows 60 to 60  
Final flows 69 to 69  
Initial shut in pressure 108  
Final shut in pressure 108

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3364 to 3368

White oolitic to slightly oolitic lime with a few specks of free oil, good odor, good spotted stains  
(Included in DST #3)

3374 to 3379

White fine crystalline to cherty lime and trash with chert, poor show of free oil, free odors, traces of spotted stains  
(Included in DST #3)

3386 to 3392

White well developed oolitic lime with traces of free oil, good odor, traces of oil stain.

DRILL STAIN TEST NO. 3 (TRILOBITE TESTING)

3352 to 3410

30-30-60-30

First open well blow for 20 minutes.

Second open well blow

Recovered 65' mud

Initial flows 59 to 59

Final flows 69 to 69

Initial shut in pressure 118

Final shut in pressure 88

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3452 to 3455

White chalky to  
dense lime with no show  
(Included in PST#4)

3468 to 3470

Tan fossiliferous to  
fine crystalline lime  
with a faint odor, no  
show of tree oil, trace of  
stems. (Included in PST#4)

3479 to 3483

Tan fine crystalline to  
dense lime with a faint  
odor, trace of tree odor  
trace of stems  
(Included in PST#4)

3498 to 3504

White dense to cherty  
lime with no show of oil  
(Included in PST#4)

3520 to 3526

White fine crystalline  
to fossiliferous lime  
with no show of oil.

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DRILL STEM TEST NO. 4 (TRILOBITE TESTING)

3410 to 3526

30-30-30-30

First open well blow  
Second open no blow  
Reversed 10' mud  
Initial flow 69 to 79  
Final flow 69 to 69  
Initial shut in pressure 98#  
Final shut in pressure 69#

ARBUCKLE (Top 3562)

3562 to 3567

Tan medium to  
coarse crystalline lime  
with fair vuggy to  
intercrystalline porosity,  
fair show of free oil,  
fair odor, fair spotted  
light stain.

DRILL STEM TEST NO. 5 (TRILOBITE TESTING)

3510 to 3567

60-30-30-30

First open well blow  
Second open well blow  
to dead in 5 minutes  
Reversed 35' mud  
Initial flow 40 to 40  
Final flow 49 to 49  
Initial shut in pressure 79#  
Final shut in pressure 59#

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3567 to 3572

Lots of small brown  
shale (shales) white  
fine to medium crystalline  
success down to with  
a faint odor, traces free  
oil, trace of dark stain.

DRILL STEM TEST NO. 6 (TRIOBITE TESTING)

3512 to 3522

30-30-30-30

First open weak blow  
Second open very weak blow  
Recovered 70' mud  
Initial flows 96 to 96  
Final flows 96 to 96  
Initial shut in pressure 337"  
Final shut in pressure 220"

3572 to 3579

lots of small  
grain to  
dark red dense shale  
scattered fine crystalline  
to dense dolomite  
with a faint odor  
traces of free oil  
traces of stain.

STATE GEOLOGICAL SURVEY

JAN 8 1990

CONSERVATION DIVISION  
Wichita, Kansas

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3579 to 3582

Green and red shale  
shaly and coarse  
crystalline dolomite  
with good intercrystalline  
dolomite, good show  
of fine oil and good  
spotted dark stain.

DRILL STEM TEST NO. 7 (TRIOBITE TESTING)

3586 to 3592

Perforation

DRILL STEM TEST NO. 8 (PERFORATION) (TRIOBITE TESTING)

3510 to 3582

35-30-30-50

First gun well blow  
Second gun very well blow  
Recovered 60' mud.  
Initial flow no pressure  
lost plugged on first opening.  
Final flow 55 to 58  
Initial shut in pressure 1021#  
Final shut in pressure 638#

3582 to 3590

white mudstone  
crystalline dolomite  
slightly sandy and  
cherty. Fine show  
of fine oil, but also  
spotted dark stain

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DRAILL STEM TEST NO. 9 (T BILLOBITE TESTING)

3510 to 3590

30-30-60-30

First gear inch  
increasing to four.

Second gear for necessary  
to goal. Recovered 60'

rod with oil spouts on top  
813' mostly salt water.

Turned flows 88 to 99

Flow flows 158 to 227

Turned shut in pressure 1015

Final shut in pressure 966#

Due to low structural position and negative  
drill stem test results the No. 1 Drilling  
was plugged and abandoned, a dry hole.

Sincerely,

*Richard D. Parker*

*Richard D. Parker*

STATE COMMISSION

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CONSERVATION DIVISION  
Wichita, Kansas



15-051-24631-00-00

DRILLING INFORMATION ON THE DRILLING NO. 1

Contractor: Red Tiger  
Tool Packer: Kenneth Lyke  
Driller: Leech  
by  
Crawley

Spud Date: December 8, 1989 Date of RTD: December 29, 1989  
Surface Pipe: 8 7/8" @ 232' / 1405' Casing: None

TOTAL FOOTAGE DRILLED PER DAY

Under Surface At 1:00 PM on Dec. 9, 1989

8:50	Feet	At	7:00 PM	On	12-9-89
1875	"	"	"	"	12-10-89
2425	"	"	"	"	12-11-89
2718	"	"	"	"	12-12-89
2955	"	"	"	"	12-13-89
3255	"	"	"	"	12-14-89
3360	"	"	"	"	12-15-89
3410	"	"	"	"	12-16-89
3499	"	"	"	"	12-17-89
3560	"	"	"	"	12-18-89
3572	"	"	"	"	12-19-89

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B.L.T. RECORD

B.L.T.	Type	Footage
No. 1	SEC - 533 SF New	237 - 1246
No. 2	CP - 527 CM New	1246 - 3255
No. 3	CP - 527 E.A.B. New	3255 -

W.D. RECORD

Well No. = W.D.	Well Type & Strata
2000	35 sx gel, 6 sx bulls, 2 sx lime
2825	45 sx salt gel
3043	75 sx salt gel, 50 sx starch, 5 sx bulls, 3 sx dry ash
3284	80 sx salt gel, 14 sx starch, 5 sx bulls
3404	65 sx salt gel, 20 sx starch, 2 sx bulls
3526	10 sx starch, 1 sx dry ash
3863	50 sx salt gel, 8 sx starch, 5 sx bulls, 2 sx dry ash
3972	25 sx salt gel, 5 sx starch, 8 sx barrel
3990	25 sx salt gel, 5 sx starch, 8 sx barrel

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