

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

OGA

API NO. 15- 163-23378-0000

ORIGINAL

County ROOKS

APPROX

SE - NW - NE Sec. 28 Twp. 9 Rge. 20 ^E_W

980 Feet from (N) (circle one) Line of Section

1550 Feet from (E/W) (circle one) Line of Section

Footages Calculated from Nearest Outside Section Corner:
(NE) SE, NW or SW (circle one)

Lease Name PALCO SOUTH UNIT Well # 28-1

Field Name NORTHHAMPTON

Producing Formation ARBUCKLE

Elevation: Ground 2265' KB 2270'

Total Depth 3895' PBDT 3895'

Amount of Surface Pipe Set and Cemented at 216 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 10000 ppm Fluid volume 100 bbls

Dewatering method used LET DRY

Location of fluid disposal if hauled offsite:

Operator Name

Lease Name License No.

 Quarter Sec. Twp. S Rng. E/W

County Docket No.

Operator: License # 5259

Name: MAI OIL OPERATIONS, INC.

Address P.O. BOX 33

City/State/Zip RUSSELL, KS. 67665

Purchaser: N/A

Operator Contact Person: ALLEN BANGERT

Phone (785) 483 2169

Contractor: Name: MURFIN DRILLING CO., INC.

License: 30606

Wellsite Geologist: TODD MORGENSTERN

Designate Type of Completion
 New Well Re-Entry Workover

Oil SWD SLOW Temp. Abd.
 Gas ENHR SIGW
 Dry Other (Core, WSW, Expl., Cathodic, etc)

If Workover:

Operator:

Well Name:

Comp. Date Old Total Depth

Deepening Re-perf. Conv. to Inj/SWD
 Plug Back PBDT
 Commingled Docket No.
 Dual Completion Docket No.
 Other (SWD or Inj?) Docket No.

6-6-2003 6-10-2003 6-11-2003
Spud Date Date Reached TD Completion Date

INSTRUCTIONS: An original and two copies of this form shall be filed with the Kansas Corporation Commission, 130 S. Market - Room 2078, Wichita, Kansas 67202, within 120 days of the spud date, recompletion, workover or conversion of a well. Rule 82-3-130, 82-3-106 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 geologist well report 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.

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 Allen Bangert
Title PROD. SUPT Date 7-25-2003

Subscribed and sworn to before me this 25th day of July, 2003

Notary Public Verna May Hutchings

Date Commission Expires April 10, 2005

K.C.C. OFFICE USE ONLY
F Letter of Confidentiality Attached
C Wireline Log Received
C Geologist Report Received

Distribution
 KCC SWD/Rep NGPA
 KGS Plug Other (Specify)

VERNA MAY HUTCHINGS
State of Kansas
My Appt. Exp. 4-10-05

RECEIVED
7/28/03
JUL 28 2003

KCC WICHITA

Form ACO-1 (7-91)

1414120

SIDE TWO

Operator Name MAI OIL OPERATIONS, INC.

Lease Name PALCO SOUTH UNIT Well # 28-1

Sec. 28 Twp. 9 Rge. 20 East West

County ROOKS

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.)

List All E.Logs Run: RADIATION-GUARD, SONIC

Log Formation (Top), Depth and Datum Sample

Name	Top	Datum
ANHYDRITE	1770'	500
BASE ANHYDRITE	1804'	466
TOPEKA	3301'	-1031
HEEBNER	3508'	-1238
TORONTO	3530'	-1260
LANGING	3548'	-1278
BKC	3769'	-1498
ARBUCKLE	3880'	-1610

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 1/4"	8 5/8"	20#	216'	60-40POZ	165	2% GEL 3% CC

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				

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record (Amount and Kind of Material Used)	
		Amount	Depth

TUBING RECORD		Size	Set At	Packer At	Liner Run <input type="checkbox"/> Yes <input type="checkbox"/> No
Date of First, Resumed Production, SWD or Inj.		Producing Method <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other (Explain)			
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

Disposition of Gas: Vented Sold Used on Lease (If vented, submit ACO-18.)

METHOD OF COMPLETION: Open Hole Perf. Dually Comp. Commingled Other (Specify) DRY HOLE

Production Interval: _____

ALLIED CEMENTING CO., INC.

14000
ORIGINAL

P.O. BOX 31
RUSSELL, KANSAS 67665

SERVICE POINT:

2

SEC.	TWP.	RANGE	CALLED OUT	ON LOCATION	JOB START	JOB FINISH
16-6-03						
WELL # <u>28-1</u>			LOCATION <u>Polco South Unit</u>		COUNTY <u>ROCKS</u>	STATE <u>KS</u>
OLD OR NEW (Circle one) <u>NEW</u>						

CONTRACTOR MUFFIN 116
 TYPE OF JOB SURFACE
 HOLE SIZE 12 1/4 T.D. 217
 CASING SIZE 8 5/8 DEPTH 217
 TUBING SIZE _____ DEPTH _____
 DRILL PIPE _____ DEPTH _____
 TOOL _____ DEPTH _____
 PRES. MAX _____ MINIMUM _____
 MEAS. LINE _____ SHOE JOINT _____
 CEMENT LEFT IN CSG. 10-15"
 PERFS. _____
 DISPLACEMENT 12 3/4 BBL

OWNER _____

CEMENT

AMOUNT ORDERED 1165 6940 370 CC
270 GEL

COMMON	<u>99</u>	@	<u>7.15</u>	<u>707.45</u>
POZMIX	<u>66</u>	@	<u>3.80</u>	<u>250.80</u>
GEL	<u>3</u>	@	<u>10.00</u>	<u>30.00</u>
CHLORIDE	<u>5</u>	@	<u>30.00</u>	<u>150.00</u>

EQUIPMENT

PUMP TRUCK CEMENTER MARK
 # 345 HELPER CLEN
 BULK TRUCK
 # 282 DRIVER SCOTT
 BULK TRUCK
 # _____ DRIVER _____

HANDLING 165 @ 1.15 189.75
 MILEAGE 545 @ 1.15 625.75

RECEIVED

TOTAL 1699.20

JUL 28 2003

KCC WICHITA SERVICE

REMARKS:

CEMENT CIRC ✓

DEPTH OF JOB _____
 PUMP TRUCK CHARGE _____ 520.00
 EXTRA FOOTAGE _____ @ _____
 MILEAGE 45 @ 3.50 157.50
 PLUG 8 5/8 wood @ _____ 15.00

TOTAL 722.50

CHARGE TO: MAI
 STREET _____
 CITY _____ STATE _____ ZIP _____

FLOAT EQUIPMENT

_____	@	_____
_____	@	_____
_____	@	_____
_____	@	_____
_____	@	_____

TOTAL _____

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

ALLIED CEMENTING CO., INC.

ORIGINAL

REMIT TO P.O. BOX 31
RUSSELL, KANSAS 67665

SERVICE POINT:

Russell
6-12-03

DATE <u>6-11-03</u>	SEC. <u>28</u>	TWP. <u>9 S</u>	RANGE <u>20 W</u>	CALLED OUT <u>10:15 PM</u>	ON LOCATION <u>12:15 AM</u>	JOB START <u>1:55 AM</u>	JOB FINISH <u>5:30 AM</u>
LEASE <u>Palco SOUTH UNIT</u>				WELL # <u>28-1</u>	LOCATION <u>Palco 1/4 E 1/4 S</u>	COUNTY <u>ROOKS</u>	STATE <u>KANSAS</u>

OLD OR NEW (Circle one)
NEW

CONTRACTOR MURFIN Rig #16

TYPE OF JOB ROTARY Plug

HOLE SIZE 7 7/8 I.D. 3895

CASING SIZE 8 5/8 SURFACE DEPTH 215

TUBING SIZE _____ DEPTH _____

DRILL PIPE 4 1/2 X-H DEPTH 3820'

TOOL _____ DEPTH _____

PRES. MAX _____ MINIMUM

MEAS. LINE _____ SHOE JOINT _____

CEMENT LEFT IN CSG. _____

PERFS. _____

DISPLACEMENT _____

OWNER _____

CEMENT AMOUNT ORDERED 225 SK 6% 6% GEL
1/4# FLO-SEAL PER SK

COMMON	<u>135</u>	@	<u>7.15</u>	<u>965.25</u>
POZMIX	<u>90</u>	@	<u>3.80</u>	<u>342.00</u>
GEL	<u>11</u>	@	<u>10.00</u>	<u>110.00</u>
CHLORIDE		@		
<u>FLOSEAL</u>	<u>56#</u>	@	<u>1.40</u>	<u>78.40</u>
		@		
		@		
		@		
		@		
HANDLING	<u>225</u>	@	<u>1.15</u>	<u>258.75</u>
MILEAGE	<u>54/SK</u>	/MILE		<u>506</u>

EQUIPMENT

PUMP TRUCK # 345 CEMENTER Gilman HELPER Dave

BULK TRUCK # 213 DRIVER RUFOS

BULK TRUCK # _____ DRIVER _____

RECEIVED

JUL 28 2003

KCC WICHITA SERVICE

TOTAL 2260.65

REMARKS:

- 25 SK @ 3820'
 - 25 SK @ 1800
 - 100 SK @ 1025
 - 40 SK @ 275
 - 10 SK @ 40' Plug
 - 15 SK @ RAT Hole
 - 10 SK @ mouse Hole
- THANK'S

DEPTH OF JOB _____

PUMP TRUCK CHARGE _____ 63.00

EXTRA FOOTAGE @ _____

MILEAGE 45 @ 3.50 157.50

PLUG 8 5/8 Dry hole @ _____

TOTAL 810.50

CHARGE TO: Mat Oil Operation's

STREET _____

CITY _____ STATE _____ ZIP _____

FLOAT EQUIPMENT

_____	@	_____
_____	@	_____
_____	@	_____
_____	@	_____
_____	@	_____

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

TOTAL _____

ORIGINAL

RECEIVED

JUL 28 2003

KCC WICHITA

REPORT COPY

Geological Report

for



MAI OIL OPERATIONS

No. 28-1 PALCO SOUTH UNIT
980' FNL & 1550' FEL
Section 28-9S-20W
Rooks County, Kansas

Todd E. Morgenstern

Petroleum Geologist
Sunflower Bank Building
P.O. Box 251
Ellinwood, Kansas 67526

ORIGINAL

OPERATOR: Mai Oil Operations

WELL: No. 28-1 Palco South Unit
API # 15-163-23,378-00-00

LOCATION: 980' from the North Line
1550' from the East Line
Section 28-9S-20W
Rooks County, Kansas

FIELD: Northampton

CONTRACTOR: Murfin Drilling Co., Rig No. 16

DRILLING COMMENCED: 06-06-2003

DRILLING COMPLETED: 05-06-2003

DRILLING TIME: One (1) foot drilling time was recorded
from 3150' to 3895' RTD.

SAMPLES: Samples were saved and examined from 3200'
to 3895' RTD.

ELEVATIONS: 2265' Ground Level 2270' Kelly Bushing

MEASUREMENTS: All depths are measured from 2270' K.B.

CASING RECORD: 8 5/8" Surface Casing set @ 216' with 165 sxs. 60/40 poz

FORMATION TESTING: One (1) test were run by Trilobite Testing Co.
Jason McLemore, Tester

MUD: Andy's Mud & Chemical Co. (Chemical Mud)

OPEN HOLE LOGS: ELI Wireline Services (Radiation Guard& Sonic)

PRODUCTION: D & A

FORMATION TOPS:

FORMATION	SAMPLE	LOG	DATUM
ANHYDRITE	1773'	1770'	+ 500'
BASE ANHYDRITE	1801'	1804'	+ 466'
TOPEKA	3303'	3301'	-1031'
HEEBNER SHALE	3510'	3508'	-1238'
TORONTO	3531'	3530'	-1260'
LANSING	3550'	3548'	-1278'
BASE KANSAS CITY	3773'	3769'	-1498'
ARBUCKLE	3884'	3880'	-1610'
LOG TOTAL DEPTH	*****	3893'	-1628'
ROTARY TOTAL DEPTH	3895'	*****	-1631'

SAMPLE DESCRIPTIONS AND TEST DATA: All depths have been corrected to log measurements.

TOPEKA:

3327-3340 Limestone, gray and white, finely crystalline, dense in part, fossiliferous, fair visible interparticle porosity, slightly chalky, no shows of oil were noted.

3458-3462 Limestone, gray, buff and tan, finely crystalline, slightly fossiliferous, with fair visible intercrystalline porosity, slightly sucrosic, chalky in part, no shows of oil were noted.

TORONTO:

3530-3541 Limestone, white, gray and tan, dense to finely crystalline, slightly fossiliferous, chalky in part, minor white chert, poor visible porosity, no shows of oil were noted.

LANSING:

3548-3558 Limestone, cream, tan and buff, finely crystalline, oolitic and slightly fossiliferous, minor chalk, no shows of oil were noted.

3587-3594 Limestone, white and gray, finely crystalline, oolitic, poor to fair visible interoolitic and slightly vugular porosity, scattered staining, very slight show of oil on break, no odor. (Covered by D.S.T. No. 1)

3606-3613 Limestone, white and tan, dense to finely crystalline, oolitic, poor visible interoolitic porosity, scattered staining, no show of free oil. (Covered by D.S.T. No. 1)

3622-3630 Limestone, white and gray, oolitic, fair visible interoolitic porosity, fair staining, fair show of free oil, light odor. (Covered by D.S.T. No. 1)

- 3633-3638 Limestone, white and gray, finely crystalline, oolitic and slightly fossiliferous, as above, fair show of free oil, light odor. (Covered by D.S.T. No. 1)
- 3640-3646 Limestone, cream and white, finely crystalline, oolitic and slightly oolitic, chalky in part, with very slight show of free oil, gassy, light odor. (Covered by D.S.T. No. 1)

FORMATION TEST NO. 1			
Lansing (70' & 90' zones)			
Tested from 3592'-3646'			
<i>Fair to 8 Inch Blow</i>	45 min.	I.H.P.	1767#
<i>No Blow-Back</i>	45 min.	I.F.P.	21# -698#
<i>Fair to B.O.B in 20 min.</i>	45 min.	<u>I.S.I.P.</u>	<u>926#</u>
<i>No Blow-Back</i>	60 min.	F.F.P.	129# -818#
		<u>F.S.I.P.</u>	<u>920#</u>
		F.H.P.	1703#
RECOVERY:	425' Muddy Water		
TEMPERATURE:	106*		
CHLORIDES:	N/A p.p.m. (Recovery) 3,000 p.p.m. (System)		

- 3682-3694 Limestone, gray and tan, dense to finely crystalline, fossiliferous in part, poor visible porosity, slightly chalky, no shows of oil were noted.
- 3704-3716 Limestone, tan and white, finely crystalline, slightly oolitic and fossiliferous, chalky in part, poor visible porosity, rare spotted staining, no show of free oil, no odor.
- 3721-3729 Limestone, tan and white, finely crystalline, slightly oolitic and fossiliferous, chalky in part, no shows of oil were noted.
- 3740-3750 Limestone, gray and white, finely crystalline, dense, slightly oolitic, poor visible porosity, no shows of oil were noted.
- 3758-3769 Limestone, gray and white, dense, oolitic and fossiliferous, no shows of oil were noted.
- ARBUCKLE:**
3780-3795 Dolomite, white and gray, fine to medium crystalline, poor to fair visible intercrystalline porosity, no shows of oil were noted.