

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

Operator: License # 5208  
Name MOBIL OIL CORPORATION  
Address P.O. BOX 5444

City/State/Zip DENVER, COLORADO 80217

Purchaser SOLD ON SPOT MARKET, TRANSPORTER  
P&A'D

Operator Contact Person B. R. MAYNARD  
Phone (303) 298-2069

Contractor: License # 9137  
Name UNIT DRILLING & EXPLORATION CO.

Wellsite Geologist D. DU BOIS  
Phone (303) 298-3742

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

If **OWHO**: old well info as follows;  
Operator \_\_\_\_\_  
Well Name \_\_\_\_\_  
Comp. Date \_\_\_\_\_

WELL HISTORY

Drilling Method:  
 Mud Rotary  Air Rotary  Cable  
10-11-88 10-20-88 P&A'D 10-26-88  
Spud Date Date Reached TD Completion Date

6600' P&A'D  
Total Depth PBTD 15 I

Amount of Surface Pipe Set and Cemented at 1761 feet  
Multiple Stage Cementing Collar Used?  Yes  No  
If yes, show depth set \_\_\_\_\_ feet  
If alternate 2 completion, cement circulated  
from \_\_\_\_\_ feet depth to \_\_\_\_\_ w/ \_\_\_\_\_ SX cat  
Cement Company Name \_\_\_\_\_  
Invoice # \_\_\_\_\_

API No. 15- 189-21266-00-00  
COUNTY STEVENS East  
NE NW Sec B Twp 33S Rge 35 X West  
4600 Ft North from Southeast Corner of Section  
3331.5 Ft West from Southeast Corner of Section  
(Note: Locate well in section plat below)

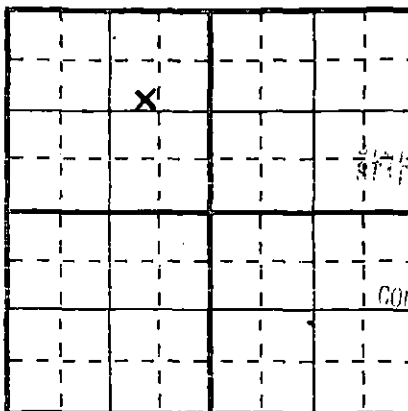
Lease Name CRAWFORD UNIT WELL # 3

Field Name WILDCAT

Producing Formation MORROW

Elevation: Ground 2979.5' KB 2995.5'

SECTION PLAT



WATER SUPPLY INFORMATION

Disposition of Produced Water:  Disposal  
Docket # D-25119  Repressuring

Questions on this portion of ACO-1 call:  
Water Resources Board (913) 296-3717  
Source of Water:  
Division of Water Resources Permit# T88-494

Groundwater 4605 Ft. North from Southeast Corner  
(well) 3496 Ft. West from Southeast Corner of  
Sec B Twp 33S Rge 35 East X 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 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. Submit cp-4 form with all plugged wells. Submit cp-111 form with all temporarily abandoned wells.

All requirements of 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 B. R. Maynard B. R. MAYNARD  
Title REGULATORY COMPLIANCE MANAGER Date 12-15-88

Subscribed and sworn to before me this 13th day of December  
1988  
Notary Public Donna J. Skinner  
Date Commission Expires June 8, 1990

K.C.C. OFFICE USE ONLY  
 Letter of Confidentiality Attached  
 Wireline Log Received  
 Drillers Timelog Received  
Distribution  
 KCC  SWD/Rep  NGPA  
 KGS  Plug  Other  
(Specify)  
12-15-88

SIDE TWO

Operator Name MOBIL OIL CORPORATION

Lease Name CRAWFORD UNIT

Well # 3

RELEASED

Sec 8 Twp 33S Rge 35 XX East  
XX West

County STEVENS

MAR 07 1990

WELL LOG

FROM CONFIDENTIAL

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 XX Yes      No  
Samples Sent to Geological Survey XX Yes      No  
Cores Taken      Yes XX No

Formation Description  
XX Log      Sample

Name	Top	Bottom
CHASE	2640'	
COUNCIL GROVE	2952'	
ADMIRE	3237'	
HEEBNER	4180'	
LANSING	4332'	
KANSAS CITY	4640'	
MARMATON	5007'	
CHEADKEE	5246'	
MORROW	5688'	
CHESTER	6005'	
STE. GENEVIEVE	6245'	
ST. LOUIS	6346'	

CASING RECORD

XX 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"	24#	1761'	CL C	613 SX	65:35:6 +3% CaCl <sub>2</sub>
					CL C	149 SX	+2% CaCl <sub>2</sub>
					CL C	400 SX	+2% CaCl <sub>2</sub> FOR TOP JOB
						SX	

PERFORATION RECORD

Acid, Fracture, Shot, Cement Squeeze Record (Amount and Kind of Material Used)

Shots Per Foot	Specify Footage of Each Interval Perforated	Depth
	P&A'D	

TUBING RECORD	Size NA	Set At	Packer At	Liner Run	<u>    </u> Yes <u>XX</u> No
Date of First Production	Producing Method <u>    </u> Flowing <u>    </u> Pumping <u>    </u> Gas Lift <u>    </u> Other (explain)				
P&A'D					
Estimated Production Per 24 Hours	Oil <u>    </u> Bbls	Gas <u>    </u> MCF	Water <u>    </u> Bbls	Gas-Oil Ratio <u>    </u> CFPB	Gravity

METHOD OF COMPLETION

Production Interval

Disposition of gas:      Vented  
     Sold  
     Used on Lease

     Open Hole      Perforation  
     Other (Specify)     

     P&A'D

     Dually Completed  
     Commingled

REPORT NO.  
111735

PAGE NO. 1

TEST DATE:  
17-OCT-1988

# WELL PERFORMANCE TESTING™ REPORT

FLOPETROL JOHNSTON  
Schlumberger

MAR 07 1990

Based On Model Verified™ Interpretation

FROM CONFIDENTIAL

Company: MOBIL OIL CORP.

Well: CRAWFORD #3

### TEST IDENTIFICATION

Test Type ..... OH-DST-MFE  
Test No. .... ONE  
Formation ..... MORROW  
Test Interval (ft) ..... 5958-5988  
Reference Depth ..... G.L.

### WELL LOCATION

Field .....  
County ..... STEVENSON, Kansas  
State ..... KANSAS  
Sec/Twn/Rng ..... 8/33S/35W  
Elevation (ft) ..... 2980

### HOLE CONDITIONS

Total Depth (MD/TVD) (ft) .... 5988/5988  
Hole Size (in) ..... 7-7/8  
Casing/Liner I.D. (in) ..... 8-5/8 @ 1760 FT  
Perf'd Interval/Net Pay (ft)..  
Shot Density/Diameter (in) ...

### MUD PROPERTIES

Mud Type ..... CHEMICAL  
Mud Weight (lb/gal) ..... 9.1  
Mud Resistivity (ohm.m) .....  
Filtrate Resistivity (ohm.m)..  
Filtrate Chlorides (ppm) ..... 800

### INITIAL TEST CONDITIONS

Initial Hydrostatic (psi) .... 2848.9  
Gas Cushion Type ..... NONE  
Surface Pressure (psi) ..... 0.00  
Liquid Cushion Type ..... NONE  
Cushion Length (ft) .....

### TEST STRING CONFIGURATION

Pipe Length (ft)/I.D. (in) ... 5124.65/3.826  
Collar Length (ft)/I.D. (in).. 796.3/2.25  
Packer Depths (ft) ..... 5958  
Bottomhole Choke Size (in) ... 0.94  
Gauge Depth (ft)/Type ..... 5988/J-200

### NET PIPE RECOVERY

Volume	Fluid Type	Properties
0.07 BBL.	MUD	800 PPM CHL.

### NET SAMPLE CHAMBER RECOVERY

Volume	Fluid Type	Properties
0.57 CU.FT.	GAS	
10 C.C.	MUD	800 PPM CHL
Press. 110	GOR:	GLR:

### VALIDATION RESULTS

Model of Behavior .....  
Fluid Type Used .....  
Reservoir Pressure (psi) .....  
Transmissibility (md.ft/cp) ..  
Permeability (md) .....  
Skin Factor/Damage Ratio ..  
Storativity Ratio .....  
Interporosity Flow Coeff..  
Distance to an Anomaly (ft) ..  
Radius of Investigation (ft)..  
Potentiometric Surface (ft) ..

### ROCK/FLUID/WELLBORE PROPERTIES

Oil Density (deg. API) .....  
Basic Solids (%) .....  
Gas Gravity .....  
Water Cut (%) .....  
Viscosity (cp) .....  
Total Compressibility (1/psi).  
Porosity (%) .....  
Reservoir Temperature (F) .... 140  
Form.Vol.Factor (bb1/STB) ....

### PRODUCTION RATE DURING TEST:

### COMMENTS:

THIS TEST WAS A MECHANICALLY SUCCESSFUL DST OF THE MORROW FORMATION. NO SIGNIFICANT VOLUMES OF OIL OR GAS WERE RECOVERED.

THE GENERAL CHARACTER OF THE BUILD-UP PLOTS SUGGEST LOW PERMEABILITY AND THE POSSIBILITY OF DEPLETION.

IF YOU HAVE ANY QUESTIONS REGARDING THIS DST, PLEASE CONTACT SCOTT COULTER AT (405) 256-3588 OR TOM BECKER AT (405) 840-2781.

© 1985 FLOPETROL JOHNSTON / SCHLUMBERGER

All requirements of 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: B. R. Maynard B. R. MAYNARD

Title: REGULATORY COMPLIANCE MANAGER Date: 12-13-88

Subscribed and Sworn to before me this 13<sup>th</sup> day of December  
1988  
Notary Public: Donna J. Skinner  
Date Commission Expires: June 8, 1990

K.C.C. OFFICE USE ONLY		
<input checked="" type="checkbox"/>	Letter of Confidentiality Attached	
<input checked="" type="checkbox"/>	Wireline Log Received	
<input type="checkbox"/>	Drillers Timelog Received	
Distribution		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
KCC	SWD/Rep	NGPA
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
KGS	Plug	Other
(Specify)		

# TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

RELEASED

## Drill-Stem Test Data

MAR 07 1990

Well Name & No. <u>CRAWFORD UNIT #3</u>	Test No. <u>2</u>	Date <u>10/19/88</u>	FROM CONFIDENTIAL
Company <u>MOBIL OIL COPRORATION</u>	Zone Tested <u>ST GENEVIEVE</u>		
Address <u>P.O. BOX 5444 DENVER COLO 80217</u>	Elevation <u>2995</u>		
Co. Rep./Geo. <u>MELANIE MALMBERG</u>	Cont. <u>UNIT #19</u>	Est. Ft. of Pay <u>5</u>	
Location: Sec. <u>8</u>	Twp. <u>33S</u>	Rge. <u>35W</u>	Co. <u>STEVENS</u> State <u>KS</u>

Interval Tested <u>6412-6455</u>	Drill Pipe Size <u>4.5 XH</u>
Anchor Length <u>43</u>	Top Choke — 1" _____
Top Packer Depth <u>6407</u>	Bottom Choke — 3/4" _____
Bottom Packer Depth <u>6412</u>	Hole Size — 7 7/8" _____
Total Depth <u>6455</u>	Rubber Size — 6 3/4" _____
Wt. Pipe I.D. — 2.7 _____	Ft. Run <u>0</u>
Drill Collar — 2.25 _____	Ft. Run <u>750</u>
Mud Wt. <u>9.2</u> lb./gal.	Viscosity <u>54</u> Filtrate <u>9.6</u>
Tool Open @ <u>6:14 AM</u>	Initial Blow <u>WEAK SURFACE BLOW ALMOST DEAT</u>
<u>AT 10 MINUTES</u>	
Final Blow <u>1/2" BLOW SLOWLY DECREASED AND DIED IN 23 MINUTES</u>	

Recovery — Total Feet <u>40</u>	Flush Tool? <u>NO</u>
Rec. <u>40</u> Feet of <u>DRILLING MUD</u>	
Rec. <u>0</u> Feet of _____	
Rec. <u>0</u> Feet of _____	
Rec. <u>0</u> Feet of _____	
Rec. <u>0</u> Feet of _____	
BHT <u>122</u> °F Gravity _____ °API @ <u>0</u> °F Corrected Gravity <u>0</u> °API	
RW <u>2.59</u> @ <u>100</u> °F Chlorides <u>1300</u> ppm Recovery Chlorides <u>800</u> ppm System	
(A) Initial Hydrostatic Mud <u>3221.3</u> PSI AK1 Recorder No. <u>13850</u> Range <u>4325</u>	
(B) First Initial Flow Pressure <u>84.5</u> PSI @ (depth) <u>6447</u> w/Clock No. <u>27566</u>	
(C) First Final Flow Pressure <u>84.5</u> PSI AK1 Recorder No. <u>13849</u> Range <u>4375</u>	
(D) Initial Shut-In Pressure <u>138.8</u> PSI @ (depth) <u>6450</u> w/Clock No. <u>26191</u>	
(E) Second Initial Flow Pressure <u>80</u> PSI Initial Opening <u>10</u>	
(F) Second Final Flow Pressure <u>80</u> PSI Initial Shut-In <u>60</u>	
(G) Final Shut-In Pressure <u>184.4</u> PSI Final Flow <u>60</u>	
(H) Final Hydrostatic Mud <u>3030.8</u> PSI Final Shut-In <u>180</u>	

Our Representative ROD STEINBRINK TOTAL PRICE..... \$ 750  
 Printcraft Printers - Hays, KS

All requirements of 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 B. R. Maynard B. R. MAYNARD  
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 19 88  
 Notary Public Donna J. Skinner  
 Date Commission Expires June 8, 1990

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<input checked="" type="checkbox"/>	KS	<input type="checkbox"/>
<input type="checkbox"/>	SWD/Rep	<input type="checkbox"/>
<input type="checkbox"/>	Plug	<input type="checkbox"/>
<input type="checkbox"/>	NGPA	<input type="checkbox"/>
<input type="checkbox"/>	Other	<input type="checkbox"/>
(Specify)		

# TRILOBITE TESTING COMPANY

P.O. Box 362 - Hays, Kansas 67601

RELEASED

MAD 11 7 1988

CONFIDENTIAL

## FLUID SAMPLER DATA

Ticket No. 1578 Date 10/19/88  
 Company Name Mobil Oil Corporation  
 Lease Crawford Unit #3 Test No. 2  
 County Stevens KS Sec. 8 Twp. 33s Rng. 35w

### SAMPLER RECOVERY

Gas \_\_\_\_\_ ML  
 Oil 200 ML  
 Mud 1800 ML  
 Water \_\_\_\_\_ ML  
 Other \_\_\_\_\_ ML  
 Pressure 90 PSI  
 Total 2000 ML

### PIT MUD ANALYSIS

Chlorides \_\_\_\_\_ ppm.  
 Resistivity \_\_\_\_\_ ohms @ \_\_\_\_\_ F  
 Viscosity 54  
 Mud Weight 9.2  
 Filtrate 9.6  
 Other \_\_\_\_\_

### SAMPLER ANALYSIS

Resistivity 2.59 ohms @ 100 F  
 Chlorides 1300 ppm.  
 Gravity \_\_\_\_\_ corrected @ 60 F

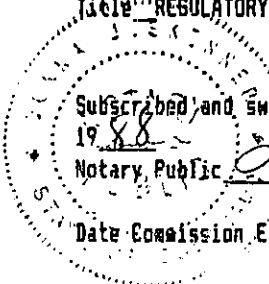
### PIPE RECOVERY

TOP  
 Resistivity 2.59 ohms @ 100 F  
 Chlorides 1300 ppm.  
 MIDDLE  
 Resistivity \_\_\_\_\_ ohms @ \_\_\_\_\_ F  
 Chlorides \_\_\_\_\_ ppm.  
 BOTTOM  
 Resistivity 2.59 ohms @ 100 F  
 Chlorides 1300 ppm.

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