

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 # 5208
Name Mobil Oil Corporation
Address P.O. Box 5444
City/State/Zip Denver, CO 80217-5444

Purchaser Northern Natural*
Gas Company

Operator Contact Person D. C. Forbes
Phone (303) 298-2056

Contractor: License # 5147
Name Beredco #1

Wellsite Geologist R. Stever
Phone (303) 298-2294

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

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

WELL HISTORY

Drilling Method:
 Mud Rotary Air Rotary Cable
7-3-85 7-15-85 8-8-85
Spud Date Date Reached TD Completion Date
6450' 3263'
Total Depth PBTD

Amount of Surface Pipe Set and Cemented at 181 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 cmt

API NO. 15-189-20856-0000
County Stevens
C SW SW 6 32S 35 East
Sec. Twp. Rge. West

660 Ft North from Southeast Corner of Section
4620 Ft West from Southeast Corner of Section
(Note: Locate well in section plat below)

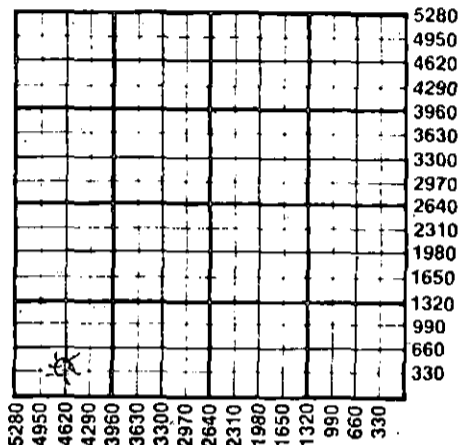
Lease Name Brownell #1 Unit Well # 2

Field Name Panama*

Producing Formation Council Grove

Elevation: Ground 3035' KB 3051'

Section Plat



WATER SUPPLY INFORMATION

Disposition of Produced Water: Disposal
Docket # CD-82-408-C* Repressuring
C-13, 821

Questions on this portion of the ACO-1 call:
Water Resources Board (913) 296-3717

Source of Water:
Division of Water Resources Permit # T85-589
220' NW of gas well
 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 J. E. Dawson

Title Producing Accounting Supervisor Date 2-28-88

Subscribed and sworn to before me this 4th day of March 1988
Notary Public Claudia C. Soustek
Date Commission Expires 2-9-88

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

Sec. 1 Page 3 of 3

SIDE TWO

Operator Name Mobil Oil Corporation Lease Name Brownell #1 Unit Well # 2

Sec. 6 Twp. 32S Rge. 35 East West County Stevens

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

Acid/Frac Record:

Frac'd form down 5 1/2" casing w/44,000 gals. Apollo 30x-linked gel containing 105,000# 16/30 sand in the following stages:

Tagged sand w/.5 mic RA material per 1000# 9,000 gal pad; 7000 gals w/1 ppg sand @ 31 BPM; 7000 gals w/2 ppg sand @ 31 BPM; 7000 gals w/3 ppg sand @ 31 BPM; 7000 gals w/4 ppg sand @ 31 BPM; 7000 gals w/5 ppg sand @ 31 BPM. Flushed to top perf w/2982 gals wtr @ 31 BPM

Name	Top	Bottom
Wellington	2270	
Chase	2652	
Winfield	2731	
Council Grove	2965	
Admire	3227	
Wabaunsee	3375	
Shawnee	3779	
Lansing	4283	
Kansas City	4550	
Marmaton	4998	
Cherokee	5225	
Morrow	5670	
Chester	6007	
Ste. Genevieve	6204	
St. Louis	6334	

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"	9-5/8"	36#	1811'	65/35 Poz	590	6% gel + 3% CaCl ₂
					"H"	100	3% CaCl ₂
Production	8-3/4"	5 1/2"	15.5#	3310'	Lite 65/35	100	6% gel + 3% CaCl ₂
					50/50 Poz	245	2% CaCl ₂
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	2992' - 3012'			(see acid/frac record detailed above)			
TUBING RECORD				Liner Run <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Date of First Production		Size 2-3/8"	Set At 3029'	Packer at			
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		
					CFPB		

METHOD OF COMPLETION

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

Production Interval

2992 - 3012