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 # 4779

Name: NORTH AMERICAN RESOURCES CO

Address 16 E. GRANITE

City/State/Zip BUTTE, MT 59701

Purchaser:

Operator Contact Person: TED NEES

Phone (406) 782-4233

Contractor: Name: RED TIGER DRILLING CO.

License: 5302

Wellsite Geologist: Wesley D. Hansen

Designate Type of Completion
X New Well ____ Re-Entry ____ Workover

X 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 _____

Drilling Method:
X Mud Rotary ____ Air Rotary ____ Cable

2-22-91 Spud Date | 3-5-91 Date Reached TD | 3-20-91 Completion Date

API NO. 15- 055-20,979

County FINNEY

C SW SW Sec. 08 Twp. 23 Rge. 30 ____ East W West

660 Ft. North from Southeast Corner of Section

4620 Ft. West from Southeast Corner of Section
(NOTE: Locate well in section plat below.)

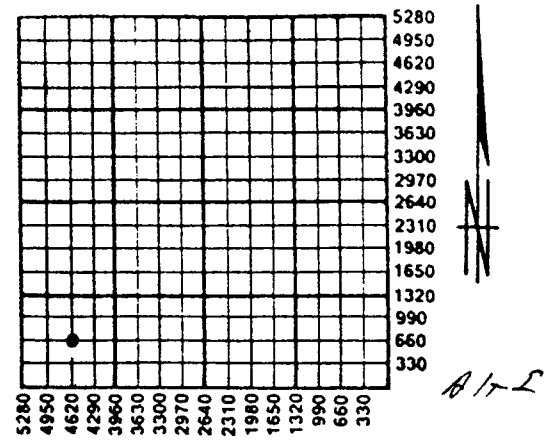
Lease Name HAFLICH Well # #8-1

Field Name BULGER

Producing Formation ST. GENEVIEVE

Elevation: Ground 2842' KB 2847'

Total Depth 4900 PBTD 4854'



Amount of Surface Pipe Set and Cemented at 1759 Feet

Multiple Stage Cementing Collar Used? _____ Yes X 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 James R. Elce

Title SR. PETROLEUM ENGINEER Date 5/2/91

Subscribed and sworn to before me this 3rd day of May, 19 91.

Notary Public Julie P. Denrich

Date Commission Expires

NOTARY PUBLIC for the State of Montana
Residing at Butte, Montana
My Commission Expires March 7, 1992

K.C.C. OFFICE USE ONLY
F ____ Letter of Confidentiality Attached
C ✓ Wireline Log Received
C ✓ Drillers Timelog Received

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

I-S

Form ACO-1 (7-89)

SIDE TWO

Operator Name NORTH AMERICAN RESOURCES CO Lease Name HAFLICH Well # #8-1

Sec. 08 Twp. 23 Rge. 30 ☐ East ☒ West County FINNEY

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 (Attach Additional Sheets.) ☒ Yes ☐ No

Samples Sent to Geological Survey ☐ Yes ☒ No

Cores Taken ☐ Yes ☒ No

Electric Log Run (Submit Copy.) ☒ Yes ☐ No

DST, Geological Report, Logs, & Cement Tickets are attached.

Formation Description

☒ Log ☐ Sample

Name	Top	Bottom
Anhydrite	1985	2043
B/Anhydrite	2043	3975
Heebner	3975	4065
Lansing	4065	4372
Stark	4372	4457
BKC	4457	4477
Marmaton	4477	4558
Pawnee	4558	4582
Fort Scott	4582	4596
Cherokee	4596	4722
Morrow Shale	4722	4726
St. Genevieve	4726	4815
St. Louis	4815	4900 (TD)

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	12¼"	8 5/8"	23	1759	60-40POZ	710	6%GEL &
					CLASS H	100	2%CC
PRODUCTION	7 7/8"	5½"	14	4894	CLASS H	200	10%CC,10%THIXAD

PERFORATION RECORD Shots Per Foot	Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record (Amount and Kind of Material Used)	Depth
2 SPF	4815-21'	Cast Iron BP set @	4800'KB
2 SPF	4727-42'	1500 gals 15% MSR 100 acid w/add.	
		Flushed w/1000 gal 2% KCl w/add.	

TUBING RECORD	Size	Set At	Packer At	Liner Run
	2-3/8"	4785'	N/A	☐ Yes ☒ No

Date of First Production	Producing Method
3/27/91	☐ Flowing ☒ Pumping ☐ Gas Lift ☐ Other (Explain)

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
	162	TSTM	0	NA	29.7

Disposition of Gas:

☐ Vented ☐ Sold ☒ Used on Lease (If vented, submit ACO-18.)

METHOD OF COMPLETION

☐ Open Hole ☒ Perforation ☐ Dually Completed ☐ Commingled

☐ Other (Specify) _____

Production Interval