

ORIGINAL

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

API NO. 15- 081-20,796-0000

Operator: License # 5269 ✓

Name: Kansas Natural Gas, Inc.

Address P.O. Box 815

City/State/Zip Sublette, KS 67877

Purchaser: Williams Natural Gas

Operator Contact Person: Mr. Steve Lehning

Phone (316) 675-8185

Contractor: Name: Cheyenne Drilling Company ✓

License # 5382

Wellsite Geologist: Mr. Ron Osterbuhr

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 PBTD
 Commingled Docket No. _____
 Dual Completion Docket No. _____
 Other (SWD or Inj?) Docket No. _____

6-28-93 6-30-93 7-31-93
Spud Date Date Reached TD Completion Date

County Haskell ✓
App - C - SE 1/4 Sec. 20 Twp. 29S Rge. 32 E W

1250 Feet from SW (circle one) Line of Section

1250 Feet from EW (circle one) Line of Section

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

Lease Name Kelman / Well # 1-2

Field Name Hugoton

Producing Formation Chase Series

Elevation: Ground 2902' KB 2912'

Total Depth 2800' K.B. PBTD 2795' K.B. ✓

Amount of Surface Pipe Set and Cemented at 683 ✓ Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set _____ Feet

If Alternate II completion, cement circulated from 683 ✓

feet depth to surface / w/ 330 / 330 sx cmt.

Drilling Fluid Management Plan ALT I
(Data must be collected from the Reserve Pit)

Chloride content NA ppm Fluid volume NA bbls

Dewatering method used remove & backfill

Location of fluid disposal if hauled offsite: _____

Operator Name _____

Lease Name _____ License No. _____

Quarter _____ Sec. _____ Twp. _____ S Rng. _____ E/W

County _____ Docket No. _____

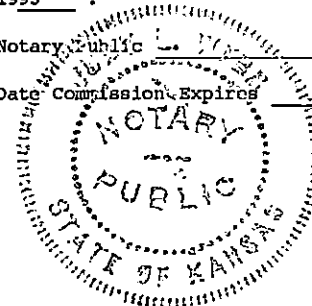
INSTRUCTIONS: An original and two copies of this form shall be filed with the Kansas Corporation Commission, 200 Colorado Derby Building, Wichita, Kansas 67202, within 120 days of the spud date, recompletion, workover or conversion of a well. Rule 82-3-130, 82-3-106 and 82-3-107 apply. Information on 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 Steven M. Lehning
Title Superintendent Date 8-30-93

Subscribed and sworn to before me this 30th day of August, 1993

Notary Public Judy L. Weiss
Date Commission Expires September 11, 1996



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

RECEIVED
STATE CORPORATION COMMISSION

Form ACO-1 (7-SEP 07 1993
9-7-1993
CONSERVATION DIVISION
Wichita, Kansas

P1

Operator Name Kansas Natural Gas, Inc. Lease Name Kelman Well # 1-2

Sec. 20 Twp. 29S Rge. 32 East West County Haskell

ORIGINAL

API # 15-081-20796

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:

- Gamma Ray Neutron Log
- Cement Bond Log
- Array Induction Log
- Compensated Photo Density
- Micro-Sensitivity Log

Name	Top	Datum
T/Permian	757'	+2156'
T/Cedar Hills	1323'	+1590'
B/Stone Corral	1832'	+1081'
T/Herrington	2641'	+ 272'
T/Winfield	2716'	+ 197'
T/Towanda	2762'	+ 151'
T/Ft. Riley	NR	
Plug back T.D.	2793'	+ 120'
Casing Total Depth	2796'	+ 117'
Rotary Total Depth	2800'	+ 113'

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 Casing	12 1/4"	8 5/8"	24#	683' G.L.	Class "C"	330	6% Gel
Production Casing	7 7/8"	5 1/2"	14#	2784' G.L.	Class "C"	600	2% Cal. Ch.

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) Depth
4	2638' - 2694'	Acid - 3,000 gallons 15% HCL Acid and
	2712' - 2738'	2% KCL Water
	2762' - 2776'	Fracture - 28,000# Cross-Link Gel at 30 #
		Borate Gel at 25 BPM

TUBING RECORD	Size	Set At	Packer At	Liner Run
	2 3/8" EUE	2775' G.L.	None	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Date of First, Resumed Production, SWD or Inj. Pending pipeline connection Producing Method Flowing Pumping Gas Lift Other (Explain)

Estimated Production Per 24 Hours	Oil Bbbs. Estimated Production	Gas Mcf N/A	Water Bbbs. N/A	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)

Production Interval: _____

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 2712' - 2738'
 2762' - 2776'
 SEP 06 1993
 07
 CONSERVATION DIVISION
 Wichita, Kansas

DRILLING & GEOLOGICAL SUMMARY

ORIGINAL

OPERATOR: Kansas Natural Gas, Inc. KCC #: 5269
 WELL NAME: Kelman #1-2 API #: 15-081-20,796
 LOCATION: 1250' FSL, 1250' FEL sec 20-T29S-R32W COUNTY: Haskell
 ELEVATIONS: GL-2902', KB-2913' TOTAL DEPTH: 2800'
 SPUD DATE: 06/28/93 DRILLING COMPLETED: 06/30/93
 DRILLING CONTRACTOR: Cheyenne Drlg. - Rig #4 KCC #: 5382

SURFACE CASING SIZE: 8.625" WEIGHT: 24# GRADE: J55 DEPTH: 694'
 CEMENT: 180 sx of "Premium+ Lite", 2% CaCl₂, 1/4# cello-flake; and
 150 sx Premium+ with 2% CaCl₂, 1/4# cello-flake.
 CASING EQUIPMENT: 2 centralizers, baffle-plate, "Texas" pattern shoe.
 COMMENTS: circulated 131 sx cement to surface.

PRODUCTION CASING SIZE: 5.500" WEIGHT: 14# GRADE: J55 DEPTH: 2799'
 1st STAGE CEMENT: 450 sx of Class "C" Lite with 2% CaCl₂, 1/4# flake;
 150 sx "C" with 1% CaCl₂, 1% "Halad 322", 1/4# cello-flake.
 2nd STAGE CEMENT:
 CASING EQUIPMENT: 8 centralizers, guide shoe, latch-down baffle & plug.
 COMMENTS: displaced latch-down plug with acetic acid and 2% KCl water.
 landed plug @ 700#, circulated approx. 27 sx cement to surface.

OPEN-HOLE LOGS: BPB; dual induction, compensated neutron-density,
 spectral gamma-ray, micro resistivity logs.
 Cased-hole logs: G/R-Neutron, CCL, Cement bond

FORMATION TOPS:

horizon	depth	datum	remarks
T/Cement (for 5 1/2")	140'	+2773'	cement top from bond log
T/Permian	757'	+2156'	"red beds"
T/Cedar Hills	1323'	+1590'	unconsolidated fine sand
B/Stone Corral	1832'	+1081'	anhydrite marker
T/Herington	2641'	+ 272'	
T/Winfield	2716'	+ 197'	
T/Towanda	2762'	+ 151'	
T/Ft. Riley	NR		
Plug-back Depth	2793'	+ 120'	log depth
Casing Total Depth	2796'	+ 117'	log depth
Rotary Total Depth	2800'	+ 113'	driller depth

PERFORATIONS: 2638'-2694', 2712'-2738', 2762'-2776'; all with 4 jet
 shots per foot.
 ACID TREATMENTS: 1500 gallons 28% HCl (Towanda); 1000 gallons of 15%
 HCL (Winfield); 2000 gallons of 15% (Herington-Krider).
 FRACTURE TREATMENTS: 28,000# 10/20 sand, 10,000 gallons of 30# cross-
 linked gel; treated Herington-Krider perforations, only.

all depths are from KB elevation

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SEP 06 1993
 07
 CONSERVATION DIVISION
 Wichita, Kansas

CUSTOMER: KEYSTONE DRILLING INC. LEASE: KEYMAN WELL NO: 1-2 JOB TYPE: 8 1/2" SURFACE CEMENT

WELL DATA

FIELD _____ SEC. 20 TWP. 29S RNG. 32W COUNTY HASKELL STATE KS.

FORMATION NAME _____ TYPE _____

FORMATION THICKNESS _____ FROM _____ TO _____

INITIAL PROD: OIL _____ BPD. WATER _____ BPD. GAS _____ MCFD _____

PRESENT PROD: OIL _____ BPD. WATER _____ BPD. GAS _____ MCFD _____

COMPLETION DATE _____ MUD TYPE _____ MUD WT. _____

PACKER TYPE _____ SET AT _____

BOTTOM HOLE TEMP. _____ PRESSURE _____

MISC. DATA _____ TOTAL DEPTH _____

	NEW USED	WEIGHT	SIZE	FROM	TO	MAXIMUM PSI ALLOWABLE
CASING	N	24	8 3/8	KB	696	
LINER						
TUBING						
OPEN HOLE			12 1/4	KB	695	SHOTS/FT.
PERFORATIONS						
PERFORATIONS						
PERFORATIONS						

ORIGINAL

JOB DATA

TOOLS AND ACCESSORIES

TYPE AND SIZE	QTY.	MAKE
FLOAT COLLAR <u>Aluminum RAFFLE</u>	<u>1</u>	
FLOAT SHOE		
GUIDE SHOE		
CENTRALIZERS <u>5-4</u>	<u>3</u>	<u>H/O</u>
BOTTOM PLUG		
TOP PLUG <u>5in</u>	<u>1</u>	<u>H/O</u>
HEAD <u>HAWICO WELDS LB.</u>	<u>1</u>	<u>H/O</u>
PACKER		
OTHER		

CALLED OUT	ON LOCATION	JOB STARTED	JOB COMPLETED
DATE <u>6-28-93</u>	DATE <u>6-28-93</u>	DATE <u>6-28-93</u>	DATE <u>6-25-93</u>
TIME <u>0900</u>	TIME <u>1100</u>	TIME <u>1725</u>	TIME <u>1804</u>

PERSONNEL AND SERVICE UNITS

NAME	UNIT NO. & TYPE	LOCATION
<u>BROADBENT - 04604</u>	<u>40048</u>	<u>LIBERAL KS.</u>
<u>SMITH C4463</u>	<u>52276</u>	<u>"</u>
	<u>70900</u>	
<u>PIERCE B7106</u>	<u>3626</u>	<u>HIGHTON KS.</u>
	<u>4734</u>	

MATERIALS

TREAT. FLUID _____ DENSITY _____ LB/GAL. API _____

DISPL. FLUID _____ DENSITY _____ LB/GAL. API _____

PROP. TYPE _____ SIZE _____ LB.

PROP. TYPE _____ SIZE _____ LB.

ACID TYPE _____ GAL. _____ %

ACID TYPE _____ GAL. _____ %

ACID TYPE _____ GAL. _____ %

SURFACTANT TYPE _____ GAL. _____ IN.

NE AGENT TYPE _____ GAL. _____ IN.

FLUID LOSS ADD. TYPE _____ GAL.-LB. _____ IN.

GELLING AGENT TYPE _____ GAL.-LB. _____ IN.

FRIC. RED. AGENT TYPE _____ GAL.-LB. _____ IN.

BREAKER TYPE _____ GAL.-LB. _____ IN.

BLOCKING AGENT TYPE _____ GAL.-LB. _____

PERFPAC BALLS TYPE _____ QTY. _____

OTHER _____

OTHER _____

DEPARTMENT CEMENT

DESCRIPTION OF JOB CEMENT 8 1/2" SURFACE CSG.

JOB DONE THRU: TUBING CASING ANNULUS TBG/ANN.

CUSTOMER REPRESENTATIVE X A. DAVIS

HALLIBURTON OPERATOR J. Broadbent COPIES REQUESTED _____

CEMENT DATA

STAGE	NUMBER OF SACKS	CEMENT	BRAND	BULK SACKED	ADDITIVES	YIELD CU.FT./SK.	MIXED LBS./GAL.
<u>1</u>	<u>180</u>	<u>PREMIER PLUS 1.7</u>	<u>B</u>	<u>B</u>	<u>2% C.C. - 1/4" KB 7106</u>	<u>2.06</u>	<u>12.3</u>
<u>1</u>	<u>150</u>	<u>PREMIER PLUS</u>	<u>A</u>	<u>A</u>	<u>2% C.C. - 1/4" KB 7106</u>	<u>1.37</u>	<u>14.8</u>

PRESSURES IN PSI

CIRCULATING _____ DISPLACEMENT _____

BREAKDOWN _____ MAXIMUM _____

AVERAGE _____ FRACTURE GRADIENT _____

SHUT-IN: INSTANT _____ 5-MIN. _____ 15-MIN. _____

ORDERED _____ AVAILABLE _____ USED _____

AVERAGE RATES IN BPM _____

TREATING _____ DISPL. _____ OVERALL _____

CEMENT LEFT IN PIPE _____

FEET 42 56 REASON SHOE JT.

SUMMARY

5 VOLUMES

PRESLUSH/BBL GAL. _____ TYPE H2O

LOAD & BKDN: BBL-GAL. _____ PAD: BBL-GAL. _____

TREATMENT: BBL-GAL. _____ DISPL: BBL-GAL. 42

CEMENT SLURRY: BBL-GAL. 66 - 35

TOTAL VOLUME: BBL-GAL. _____

REMARKS CEMENT C. RELATED TO PIT 48ARI - 131 SKS

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CONSERVATION DIVISION Wichita, Kansas



HALLIBURTON SERVICES
Duncan, Oklahoma 73538

BULK MATERIALS DELIVERY AND TICKET CONTINUATION

ORIGINAL

FOR INVOICE AND TICKET NO. 245818

A Division of Halliburton Company

DATE 6-30-93	CUSTOMER ORDER NO.	WELL NO. AND FARM Kelman 1-2	COUNTY Haskell	STATE Kansas
CHARGE TO Cheyenne Drilling		OWNER Kansas Natural	CONTRACTOR Cheyenne #4	No. B 171354
MAILING ADDRESS		DELIVERED FROM Hugoton, Kansas	LOCATION CODE 025535	PREPARED BY Don Phillips
CITY & STATE		DELIVERED TO Hugoton, Kansas	TRUCK NO.	RECEIVED BY <i>Tom Payer</i>

*(KELMAN #1-2)
LONG STRING CEMENT*

PRICE REFERENCE	SECONDARY REF. OR PART-NO.	CODE		DESCRIPTION	UNITS 1		UNITS 2		UNIT PRICE	AMOUNT	
		L	D		QTY.	MEAS.	QTY.	MEAS.			
504-050	516.00265	2	B	Premium Plus Cement	150	sk			8.95	1,342	50
504-120		2	B	Halliburton Light Cement	450	sk			8.05	3,622	50
504-050	516.00265	2	B								
506-105	516.00286										
506-121	516.00259										
507-210	890.50071	2	B	Flocele B/ 1/4 W/ 600	150	lb			1.40	210	000
507-775	516.00144	2	B	Halad-322 B/ 1/8 W/ 150	141	lb			6.90	972	90
509-406	890.50812	2	B	Calcium Chloride B/ 1/2 W/ 150 2/8 W/ 450	10	sk			28.25	282	50

			Returned Mileage Charge	TOTAL WEIGHT	LOADED MILES	TON MILES					
			SERVICE CHARGE ON MATERIALS RETURNED				CU. FEET				
500-207		2	B				630	1.25		787	50
500-306		2	B				556.290				

No. B 171354	CARRY FORWARD TO INVOICE	SUB-TOTAL	SEP 06 1993
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Wichita, Kansas