

ORIGINAL

FORM MUST BE TYPED

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 # 5428
Name: Graves Drilling Co., Inc.
Address: P.O. Box 8250

City/State/Zip: Wichita, KS 67208-0250
Purchaser: Koch Oil Company/KGS

Operator Contact Person: Fredrick W. Stump
Phone: (316) 687-2777

Contractor Name: Duke Drilling Co., Inc.
License #: 5929

Wellsite Geologist: Arden Ratzlaff

Designate Type of Completion
 New Well Re-Entry Workover Temp. Abd.
 Oil SWD SLOW
 Gas ENHR SIGW
 Dry Other (Core, WSW, Expl., Cathodic, etc.)

If Workover/Re-Entry: old well info as follows:
Operator: _____
Well Name: _____
Comp. Date: _____

Deepening Conv. to Inj/SWD
 Plug Back PBTB
 Commingled Docket No.
 Dual Completion Docket No.
 Other (SWD or inj?) Docket No.

10-10-96 Spud Date 10-16-96 Date Reached TD 10-17-96 Completion Date

INSTRUCTIONS: An original and two copies of this form shall be filed with the Kansas Corporation Commission, 130 S. Market, Rm 2078, Wichita, KS 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: Phyllis A. Freeman
Title: Agent

Subscribed and sworn to before me this 10th day of December, 1996.
Sandra J. Boyd
Dt Commission Expires May 13, 1999
Sandra J. Boyd, Notary Public

API NO. 15- 007-22523 0000
County: Barber

W/2 - SW - SW - Sec. 3 Twp. 32S Rge. 12 W

680 Feet from S (circle one) Line of Section
330 Feet from W (circle one) Line of Section
Footages Calculated from Nearest Outside Section Corner:
NE, SE, NW, SW (circle one)

Lease Name: Houlton Well #: 1
Field Name: Whelan SW

Producing Formation: Mississippian
Elevation: Ground 1470 ft KB 1481 ft
Total Depth: 4340 ft PBTB 4400

Amount of Surface Pipe Set and Cemented at: 450 ft
Multiple Stage Cementing Collar Used? Yes No
If yes, show depth set: _____ ft
If Alternate II Completion, cement circulated from: _____
feet/depth to _____ w/ _____ sx cmt.

Drilling Fluid Management Plan ALT 1 J# 6-11-97
(Data must be collected from the Reserve Pit)

Chloride content 5300 ppm Fluid Volume 3800 bbls
Dewatering method used Hauled

Location of fluid disposal if hauled offsite: _____

Operator Name: Graves Drilling Co., Inc.

Lease Name: Jacobs #1

NE/4 Quarter Sec. 4 Twp. 32S Rge. 12 W

County Barber Docket No. CD-11809
(C-20,013)

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)

Operator Name: Graves Drilling Co., Inc. Lease Name: Houlton Well #: 1
 Sec. 3 Twp. 32S Rge. 12 W Barber

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-Density - Sonic -Induction

Log Formation (Top), Depth and Durums Sample
 Name Top Datum
See Attached.

CASING RECORD <input 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"	23#	450'	60/40 Poz	250	3% cc, 2% gel
Production	7-7/8"	5-1/2"	15.50#	4345'	50/50 Poz	125	10% salt, 5% gel

ADDITIONAL CEMENTING/ SQUEEZE RECORD					
Purpose:	Top	Depth Bottom	Type of Cemer	# Sacks Used	Type and Percent Additives
Perforate					
Protect Casing					
Plug Back TD					
Plug Off Zone					

Shots Per Foot	PERFORATION RECORD - <small>Bridge Plugs Set/Type</small> Specify Footage of Each Interval Perforated		Acid, Fracture, Shot, Cement Squeeze Record (AMOUNT AND KIND OF MATERIAL USED) Depth	
	2	Perf: 4222 - 4236		Delta crosslinked gel-72,000 gal & 4300 gal gelled wtr. 20,000#, 100 mesh sand, 4500#, 20/40 sand & 77,000 12/20 sand

TUBING RECORD		SIZE	SET AT	PACKER AT	LINER RUN		
		2-3/8"	4240	4202'	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Date of First, Resumed Production, SWD or Inj. November 2, 1996				Producing Method			
				<input type="checkbox"/> Flowing	<input checked="" type="checkbox"/> Pumping	<input type="checkbox"/> Gas Lift	
Estimated Production Per 24 Hours	Oil Bbls	Gas MCF	Water Bbls	Gas - Oil Ratio		Gravity	
	25	80000	25			31 degrees	

Disposition of Gas: vented sold used on Lease

METHOD OF COMPLETION
 Open Hole Perf Dually Comp.
 Commingled Other (specify) _____

ORIGINAL

DST No 1 (3621-3660)

15-007-22523

30-45-60-45

STRONG BLOW BOTH OPENS

REC: 240' MUDDY WATER

1300' GASSY WATER (120.000

PPM CHLORIDES)

151P/1150# FSIP/1150#

1FP/72-294# FFF/378-667#

TEMP 118° F.

STRAIGHT HOLE TEST @ 3660'
DEVIATION = 1°

STRAP PIPE @ 3660'

STRAP 3694.78'

BOARD 3690.69'

STRAP LONG 4.09'

RECEIVED
KANSAS CORP COMM
1996 DEC 11
A 1-12

ORIGINAL

15-007-22523

FORMATION TOPS

SAMPLE

ELECTRIC LOG

INDIAN CAVE	2562 (-1081)	2563 (-1082)
WABAUNSEE	2614 (-1133)	2614 (-1133)
TARKIO	2762 (-1281)	2762 (-1281)
ELGIN	3355 (-1874)	3342 (-1861)
HEEBNER	3506 (-2025)	3512 (-2031)
LOWER DOUGLAS SAND	3620 (-2139)	3624 (-2143)
LANSING	3679 (-2198)	3683 (-2202)
STARK	4046 (-2565)	4047 (-2566)
MISSISSIPPIAN	4216 (-2735)	4222 (-2741)
TOTAL DEPTH	4340 (-2859)	4346 (-2865)

RECEIVED
KANSAS GEOLOGICAL SURVEY
DEC 11 4 11:12



JOB SUMMARY

HALLIBURTON DIVISION
HALLIBURTON LOCATIONMid Cont
Pratt KS

BILLED ON TICKET NO. 104701

WELL DATA

FIELD _____ SEC. 3 TWP. 32 RNG. 12 COUNTY Barber 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	u	15.5	5 1/2	KR	4344	
LINER						
TUBING						
OPEN HOLE			7 1/8	4344	45	SHOTS/FT.
PERFORATIONS			ORIGINAL			
PERFORATIONS						
PERFORATIONS						

JOB DATA

TOOLS AND ACCESSORIES

TYPE AND SIZE	QTY.	MAKE
FLOAT COLLAR		
FLOAT SHOE		
GUIDE SHOE	1	Hawco
CENTRALIZERS 5-4	6	"
BOTTOM PLUG		
TOP PLUG 5-4	1	"
HEAD manifold		
PACKER		
OTHER TSV 4/E 11	1	"

CALLLED OUT	ON LOCATION	JOB STARTED	JOB COMPLETED
DATE 10-17	DATE 10-17	DATE 10-17	DATE 10-17
TIME 1000	TIME 1230	TIME 1516	TIME 1730

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 100 lbs MF-1 5 gal mudflo

OTHER 2 gal Clay-Fix II

PERSONNEL AND SERVICE UNITS

NAME	UNIT NO. & TYPE	LOCATION

DEPARTMENT Unit

DESCRIPTION OF JOB 035

JOB DONE THRU: TUBING CASING ANNULUS TBG./ANN.

CUSTOMER REPRESENTATIVE: X R. J. Miller

HALLIBURTON OPERATOR D Scott COPIES REQUESTED _____

CEMENT DATA

STAGE	NUMBER OF SACKS	CEMENT	BRAND	BULK SACKED	ADDITIVES	YIELD CU.FT./SK.	MIXED LBS./GAL.
25	25	50-50	Poz	B	2% Gel Plug R.H. + M.H.	1.28	14.4
Lead	150	50/50	Poz	B	2% Gel 5# Gel 10% Salt .5% Hael-322	1.38	13.95

PRESSURES IN PSI

CIRCULATING _____ DISPLACEMENT _____

BREAKDOWN _____ MAXIMUM Tested 4000 psi

AVERAGE _____ FRACTURE GRADIENT _____

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

HYDRAULIC HORSEPOWER

ORDERED _____ AVAILABLE _____ USED _____

AVERAGE RATES IN BPM _____

TREATING _____ DISPL _____ OVERALL _____

CEMENT LEFT IN PIPE _____

FEET 18.62 REASON T Insert

SUMMARY

VOLUMES

PRESLUSH: BBL.-GAL. 20 x 12 TYPE Clay-Fix II + MF-1

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

TREATMENT: BBL.-GAL. _____ DISPL: BBL.-GAL. 102.9

CEMENT SLURRY: BBL.-GAL. 56.6 4.4 1.1 36.8

TOTAL VOLUME: BBL.-GAL. _____

REMARKS
21:1 V
RECEIVED
KANSAS CONCRETE



HALLIBURTON

JOB SUMMARY

HALLIBURTON DIVISION

Mid Cont

HALLIBURTON LOCATION

Pratt KS

BILLED ON TICKET NO. 104547

WELL DATA

FIELD _____ SEC. 3 TWP. 22 RNG. 12 COUNTY Barber 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 _____

Table with columns: NEW USED, WEIGHT, SIZE, FROM, TO, MAXIMUM PSI ALLOWABLE. Includes handwritten entries: 23, 8 7/8, KB, 450, 12 1/4, 450, 455, ORIGINAL.

JOB DATA

Table with columns: CALLED OUT, ON LOCATION, JOB STARTED, JOB COMPLETED. Includes handwritten entries: DATE 10-10, TIME 0000, DATE 10-10, TIME 2230, DATE 10-11, TIME, DATE 10-11, TIME.

TOOLS AND ACCESSORIES

Table with columns: TYPE AND SIZE, QTY., MAKE. Includes handwritten entries: TOP PLUG Wooden, HEAD manifold, MAKE Howco.

PERSONNEL AND SERVICE UNITS

Table with columns: NAME, UNIT NO. & TYPE, LOCATION. Mostly blank with some faint markings.

MATERIALS

TREAT. FLUID _____ DENSITY _____ LB/GAL. API
DISPL. FLUID _____ DENSITY _____ LB/GAL. API
PROP. TYPE _____ SIZE _____ LB.
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 _____

DEPARTMENT CMT
DESCRIPTION OF JOB OIL
JOB DONE THRU: TUBING [] CASING [] ANNULUS [] TBG/ANN. []
CUSTOMER REPRESENTATIVE X [Signature]
HALLIBURTON OPERATOR D Scott COPIES REQUESTED _____

CEMENT DATA

Table with columns: STAGE, NUMBER OF SACKS, CEMENT, BRAND, BULK SACKED, ADDITIVES, YIELD CU.FT./SK., MIXED LBS./GAL. Includes handwritten entries: 1, 250, 40-60, Poz, B, 2% Cel, 3% CC, 128, 14.15.

PRESSURES IN PSI

SUMMARY

VOLUMES

CIRCULATING _____ DISPLACEMENT _____ PRESLUSH: BBL-GAL. 3 TYPE H2O
BREAKDOWN _____ MAXIMUM 1500 LOAD & BKDN: BBL-GAL. PAD: BBL-GAL.
AVERAGE _____ FRACTURE GRADIENT _____ TREATMENT: BBL-GAL. DISPL: BBL-GAL. 27.8
SHUT-IN: INSTANT _____ 5-MIN _____ 15-MIN _____ CEMENT SLURRY: BBL-GAL. 56.7
HYDRAULIC HORSEPOWER _____ TOTAL VOLUME: BBL-GAL. _____
ORDERED _____ AVAILABLE _____ USED _____ REMARKS: See 7.17.06 602 SVS...
TREATING _____ DISPL _____ OVERALL _____
CEMENT LEFT IN PIPE _____
FEET 15 REASON Requested