

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 # 5929

Name: Duke Drilling Co., Inc.

Address P.O. Box 823

City/State/Zip Great Bend, KS 67530

Purchaser: _____

Operator Contact Person: James B. Phillips

Phone (316) 267-1331

Contractor: Name: Duke Drilling Co., Inc.

License: 5929

Wellsite Geologist: _____

Designate Type of Completion

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

If OWO: old well info as follows:

Operator: _____

Well Name: _____

Comp. Date _____ Old Total Depth _____

Drilling Method:

Mud Rotary Air Rotary Cable

03-02-90 3-9-90 3-9-90

Spud Date Date Reached TD Completion Date

API NO. 15- 151-21,984-00-00

County Pratt

SE SW NE Sec. 28 Twp. 29 Rge. 14 East West

2970 Ft. North from Southeast Corner of Section

1650 Ft. West from Southeast Corner of Section
(NOTE: Locate well in section plat below.)

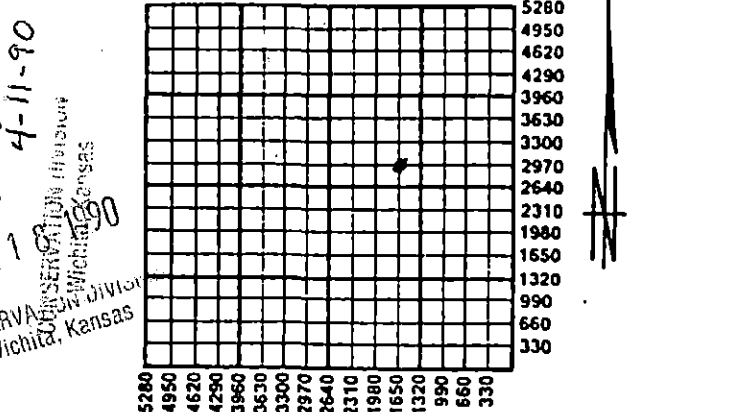
Lease Name Cooper Well # 1-28

Field Name _____

Producing Formation _____

Elevation: Ground 1983 KB 1991

Total Depth 4700' PBTD _____



Amount of Surface Pipe Set and Cemented at 401 Feet

Multiple Stage Cementing Collar Used? Yes 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 B. Phillips

Title Explor. Manager Date 4/11/90

Subscribed and sworn to before me this 11th day of APRIL, 19 90.

Notary Public Sally R. Byers

Date Commission Expires 12/6/92

SALLY R. BYERS
NOTARY PUBLIC
STATE OF KANSAS
My Appl. Exp. 12/6/92

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) Dist. 3

COPY

SIDE TWO

Operator Name Duke Drilling Co., Inc. Lease Name Cooper Well # 1-28
 Sec. 28 Twp. 29 Rge. 14 East County Pratt
 West

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.)

Formation Description

Log Sample

Name	Top	Bottom
Heebner	3846	(-1863)
Lansing 4026	4028	(-2045)
BKC	4111	(-2428)
Viola 4	4537	(-2554)
Simpson Sand	4578	(-2595)
Arbuckle	4668	(-2685)
TD	4702	

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	12 1/2'	8-5/8"	20#	401'	60/40poz	215	

Shots Per Foot	PERFORATION RECORD Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record (Amount and Kind of Material Used)	Depth

CASING RECORD Size Set At Packer At Liner Run Yes No

Date of First Production _____ Producing Method Flowing Pumping Gas Lift Other (Explain) _____

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

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 _____



P. O. BOX 1599 PHONE (316) 262-5861
WICHITA, KANSAS 67201

WESTERN TESTING CO., INC.
FORMATION TESTING

API # 15-151-21,984

ORIGINAL
TICKET No. 15880

Elevation _____ Formation _____ Eff. Pay _____ Ft.

District _____ Date 3/19/90 Customer Order No. _____

COMPANY NAME _____

ADDRESS _____

LEASE AND WELL NO. _____ COUNTY Pratt STATE Ko Sec. 28 Twp. 29 Rge. 14

Mail Invoice To _____ Co. Name _____ Address _____ No. Copies Requested 5

Mail Charts To _____ Address _____ No. Copies Requested 5

Formation Test No. _____ Interval Tested From 4190 ft. to 4225 ft. Total Depth 4700 ft.

Packer Depth _____ ft. Size _____ in. Packer Depth 4225 ft. Size 6 3/4 in.

Packer Depth _____ ft. Size _____ in. Packer Depth _____ ft. Size _____ in.

Depth of Selective Zone Set _____

Top Recorder Depth (Inside) _____ ft. Recorder Number 13552 Cap. 4250

Bottom Recorder Depth (Outside) _____ ft. Recorder Number 13361 Cap. 4250

Below Straddle Recorder Depth _____ ft. Recorder Number _____ Cap. _____

Drilling Contractor _____ Drill Collar Length _____ I. D. _____ in.

Mud Type _____ Viscosity _____ Weight Pipe Length _____ I. D. _____ in.

Weight _____ Water Loss _____ cc. Drill Pipe Length 4169 I. D. 3 1/2 in.

Chlorides _____ P.P.M. Test Tool Length _____ ft. Tool Size _____ in.

Jars: Make _____ Serial Number _____ Anchor Length 35 ft. Size _____ in.

Did Well Flow? _____ Reversed Out _____ Surface Choke Size 3/4 in. Bottom Choke Size _____ in.

Main Hole Size _____ in. Tool Joint Size _____ in.

Blow: _____

Recovered _____ ft. of _____

Recovered _____ ft. of _____

Recovered _____ ft. of _____

Recovered _____ ft. of _____

Recovered _____ ft. of _____

Chlorides _____ P.P.M. Sample Jars used _____ Remarks: - _____

Time On Location 8:00 A.M. P.M. Time Pick Up Tool 8:00 A.M. P.M. Time Off Location _____ A.M. P.M.

Time Set Packer(s) 9:20 A.M. P.M. Time Started Off Bottom 12:20 A.M. P.M. Maximum Temperature 120°

Initial Hydrostatic Pressure (A) 2346 P.S.I.

Initial Flow Period Minutes 30 (B) 91 P.S.I. to (C) 91 P.S.I.

Initial Closed In Period Minutes 60 (D) 1226 P.S.I.

Final Flow Period Minutes 30 (E) 1135 P.S.I. to (F) 1135 P.S.I.

Final Closed In Period Minutes 60 (G) 3226 P.S.I.

Final Hydrostatic Pressure (H) 3226 P.S.I.

COMPANY TERMS

Western Testing Co., Inc. shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained directly or indirectly through the use of its equipment, of its statements or opinion concerning the results of any test. Tools lost or damaged in the hole shall be paid at cost by the party for whom the test is made.

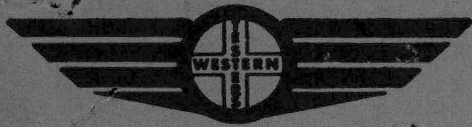
All charges subject to 12% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.

Test Approved By [Signature]
Signature of Customer or his authorized representative

Western Representative [Signature]

FIELD INVOICE

Open Hole Test \$ 2400
Misrun \$ _____
Straddle Test \$ 1200
Jars \$ _____
Selective Zone \$ _____
Safety Joint \$ _____
Standby \$ _____
Evaluation \$ _____
Extra Packer \$ _____
Circ. Sub. \$ _____
Mileage \$ _____
Fluid Sampler \$ _____
Extra Charts \$ _____
Insurance \$ _____
Telecopier \$ _____
TOTAL \$ _____



P. O. BOX 1599 PHONE (316) 262-5861
WICHITA, KANSAS 67201

WESTERN TESTING CO., INC.
FORMATION TESTING

ORIGINAL
TICKET No 15881

15-151-21, 984

Elevation _____ Formation _____ Eff. Pay _____ Ft.

District _____ Date _____ Customer Order No. _____

COMPANY NAME _____

ADDRESS _____

LEASE AND WELL NO. _____ COUNTY _____ STATE _____ Sec. _____ Twp. _____ Rge. _____

Mail Invoice To _____ Co. Name _____ Address _____ No. Copies Requested _____

Mail Charts To _____ Address _____ No. Copies Requested _____

Formation Test No. _____ Interval Tested From _____ ft. to _____ ft. Total Depth _____ ft.

Packer Depth _____ ft. Size _____ in. Packer Depth _____ ft. Size _____ in.

Packer Depth _____ ft. Size _____ in. Packer Depth _____ ft. Size _____ in.

Depth of Selective Zone Set _____

Top Recorder Depth (Inside) _____ ft. Recorder Number _____ Cap. _____

Bottom Recorder Depth (Outside) _____ ft. Recorder Number _____ Cap. _____

Below Straddle Recorder Depth _____ ft. Recorder Number _____ Cap. _____

Drilling Contractor _____ Drill Collar Length _____ I. D. _____ in.

Mud Type _____ Viscosity _____ Weight Pipe Length _____ I. D. _____ in.

Weight _____ Water Loss _____ cc. Drill Pipe Length _____ I. D. _____ in.

Chlorides _____ P.P.M. Test Tool Length _____ ft. Tool Size _____ in.

Jars: Make _____ Serial Number _____ Anchor Length _____ ft. Size _____ in.

Did Well Flow? _____ Reversed Out _____ Surface Choke Size _____ in. Bottom Choke Size _____ in.

Main Hole Size _____ in. Tool Joint Size _____ in.

Blow: _____

Recovered _____ ft. of _____

Recovered _____ ft. of _____

Recovered _____ ft. of _____

Recovered _____ ft. of _____

Recovered _____ ft. of _____

Chlorides _____ P.P.M. Sample Jars used _____ Remarks: _____

Time On Location _____ A.M. _____ P.M. Time Pick Up Tool _____ A.M. _____ P.M. Time Off Location _____ A.M. _____ P.M.

Time Set Packer(s) _____ A.M. _____ P.M. Time Started Off Bottom _____ A.M. _____ P.M. Maximum Temperature _____

Initial Hydrostatic Pressure _____ (A) _____ P.S.I.

Initial Flow Period _____ Minutes _____ (B) _____ P.S.I. to (C) _____ P.S.I.

Initial Closed In Period _____ Minutes _____ (D) _____ P.S.I.

Final Flow Period _____ Minutes _____ (E) _____ P.S.I. to (F) _____ P.S.I.

Final Closed In Period _____ Minutes _____ (G) _____ P.S.I.

Final Hydrostatic Pressure _____ (H) _____ P.S.I.

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All charges subject to 12% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.

Test Approved By _____
 Signature of Customer or his authorized representative

Western Representative _____

FIELD INVOICE

Open Hole Test \$ _____
 Misrun \$ _____
 Straddle Test \$ _____
 Jars \$ _____
 Selective Zone \$ _____
 Safety Joint \$ _____
 Standby \$ _____
 Evaluation \$ _____
 Extra Packer \$ _____
 Circ. Sub. \$ _____
 Mileage \$ _____
 Fluid Sampler \$ _____
 Extra Charts \$ _____
 Insurance \$ _____
 Telecopier \$ _____
TOTAL \$ _____