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KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

Form ACO-1
September 1999
Form Must Be Typed

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

COPY

Operator: License # 31062
Name: City of Ulysses, Kansas
Address: 115 W. Grant Ave.
City/State/Zip: Ulysses, Kansas 67880
Purchaser: Duke Energy Field Services, LP
Operator Contact Person: William T. Powers
Phone: (620) 356-4600
Contractor: Name: Cheyenne Drilling, Inc.
License: 05382
Wellsite Geologist: Ron Osterbuhr

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

If Workover/Re-entry: Old Well Info as follows:
Operator:
Well Name:
Original Comp. Date: ___ Original Total Depth: ___
___ Deepening ___ Re-perf. ___ Conv. to Enhr./SWD
___ Plug Back ___ Plug Back Total Depth
___ Commingled Docket No.
___ Dual Completion Docket No.
___ Other (SWD or Enhr.?) Docket No.

08/06/01	08/08/01	08/22/01
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 067-21478
County: Grant
W/2 - NW Sec. 27 Twp. 28 S. R. 37 ☐ East ☑ West
1250 feet from S / (N) (circle one) Line of Section
549 feet from E / (W) (circle one) Line of Section
Footages Calculated from Nearest Outside Section Corner:
(circle one) NE SE (NW) SW
Lease Name: City of Ulysses Well #: 2
Field Name: Hugoton
Producing Formation: Chase
Elevation: Ground: 3058 Kelly Bushing: 3063
Total Depth: 2615 Plug Back Total Depth: 2602
Amount of Surface Pipe Set and Cemented at 685 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.

Drilling Fluid Management Plan ALT 1 JH 04/08/02
(Data must be collected from the Reserve Pit)
Chloride content ___ ppm Fluid volume ___ bbls
Dewatering method used
Location of fluid disposal if hauled offsite:
Operator Name:
Lease Name: ___ License No.:
Quarter ___ Sec. ___ Twp. ___ S. R. ___ ☐ East ☐ West
County: ___ Docket No.:

INSTRUCTIONS: An original and two copies of this form shall be filed with the Kansas Corporation Commission, 130 S. Market - Room 2078, 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 of 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: William T. Powers
Title: City Administrator Date: December 03, 2001
Subscribed and sworn to before me this 03 day of December,
19 2001
Notary Public: Joyce Briggs
Date Commission Expires: 10-25-2002

JOYCE BRIGGS
Notary Public - State of Kansas
My Appt. Expires 10-25-2002

KCC Office Use ONLY
___ Letter of Confidentiality Attached
✓ If Denied, Yes ☐ Date:
___ Wireline Log Received
___ Geologist Report Received
___ UIC Distribution
IDG

Side Two

COPY

Operator Name: City of Ulysses, Kansas Lease Name: City of Ulysses Well #: 2

Sec. 27 Twp. 28 S. R. 37 ☐ East ☑ West County: Grant

INSTRUCTIONS: Show important tops and base of formations penetrated. Detail all cores. Report all final copies of drill stems 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 test, along with final chart(s). Attach extra sheet if more space is needed. Attach copy of all Electric Wireline Logs surveyed. Attach final geological well site report.

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

List All E. Logs Run:

Gamma Ray/Nertron and Cement Bond

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☑ Log Formation (Top), Depth and Datum ☐ Sample

Name	Top	Datum
Permian	680	+2378
Cedar Hills	1282	+1776
Stone Corral	1748	+1310
Hollenberg	2374	+ 684
Herrington	2403	+ 655

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	12.25"	8.625"	23	685			
Production	7.875"	5.5"	15.5	2604			

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose: ___ Perforate ___ Protect Casing ___ Plug Back TD ___ Plug Off Zone	Depth Top Bottom	Type of Cement	#Sacks Used	Type and Percent Additives

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	2404-12, 2420-30, 2468-76, 2481-87, 2430-38, and	Acidized w/ 5,000 gal. 15% HCl w/ 350 ball	
	2546-52 Total - 46 feet	sealers	
		Fractured w/ 26,800 gal. gelled H2O,	
		623,000 scf N2, and 162,700 lbs. sand	

TUBING RECORD Size: 2.375" Set At: 2575' Packer At: Liner Run ☐ Yes ☒ No

Date of First, Resumed Production, SWD or Enhr.: Shut-in Gas Well

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, Sumit ACO-18.)

METHOD OF COMPLETION: ☐ Open Hole ☒ Perf. ☐ Dually Comp. ☐ Commingled ☐ Other (Specify)

Production Interval: 2546'-2552' 2481'-2487' 2468'-247[illegible] 2430'-2438' 2420'-2430' 2404'-2412'

Side Two

COPY

Operator Name: City of Ulysses, Kansas Lease Name: City of Ulysses Well #: 2

Sec. 27 Twp. 28 S. R. 37 ☐ East ☑ West County: Grant

INSTRUCTIONS: Show important tops and base of formations penetrated. Detail all cores. Report all final copies of drill stems 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 test, along with final chart(s). Attach extra sheet if more space is needed. Attach copy of all Electric Wireline Logs surveyed. Attach final geological well site report.

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:

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☑ Log Formation (Top), Depth and Datum ☐ Sample

Name	Top	Datum
Continuation of Page 2		
Krider	2424	+634
Winfield	2464	+594
Towanda	2526	+532
Ft. Riley	2582	+476

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

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose: ___ Perforate ___ Protect Casing ___ Plug Back TD ___ Plug Off Zone	Depth Top Bottom	Type of Cement	#Sacks Used	Type and Percent Additives

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

TUBING RECORD Size Set At Packer At Liner Run ☐ Yes ☐ No

Date of First, Resumed Production, SWD or Enhr. 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 METHOD OF COMPLETION Production Interval

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

☐ Open Hole ☐ Perf. ☐ Dually Comp. ☐ Commingled _____
☐ Other *(Specify)* _____

City of Ulysses
City of Ulysses #2 (Hugoton Infill)
4731' FEL, 4030' FSL Sec 27-T28S-R37W
Grant County, Kansas
API#: 15-067-21478
Elevations: G.L. – 3058' (reference datum); K.B. – 3063'
RTD: 2610'; LTD: 2602'; PBTD: 2602'

Surface casing: 8.625", 23# set @ 685' (T/cement @ surface)
Production casing: 5.5", 15.5#, J-55, LT&C set @ 2604' (T/cement @ 500')
Perforations: 2404'-2412' (Herington), 2420'-2430' (Krider), 2468'-2476' (Winfield), 2481'-2487' (Winfield), 2530'-2538' (Towanda), 2546'-2552' (Towanda); all intervals w/4spf.
Acid treatment: 5000 gallons of 15% HCl, w/350 ball sealers
Fracture treatment: 162,700# 16-30 sand; 623,000 scf N_2; 26,800 gallons of gelled water.
Tubing string: 1 – 4' open-ended tailpipe (2.375" tubing sub), 1 – 1.1' seating nipple, 81 joints (2573') of new, 2.375" EUE J-55 tubing.
Tubing head: Hercules type "HB", w/stripping bowl
Tubing depth: 2575'
Seating nipple depth: 2570'
Pump & rod string: 2" x 1.250" x 10' RWBC BHD insert pump, 102 new .625" D-type rods, 1 - 6' pony rod, 2 - 4' pony rods, 1 – 2' pony rod, 1.125" x 11' polish rod w/1.375" x 5' liner.

08/06/01 – Moved in and rigged-up Cheyenne Drilling, Inc. Rig #8. Drilled a 12.250" hole to 695', and ran 8.625" surface casing.

08/07/01 – Began drilling a 7.875" hole at 9:00am.

08/08/01 – Drilled a 7.875" hole to 2615' (from K.B.) at 6:20am, and ran 5.500" production casing.

08/11/01 – Schlumberger moved in a logging truck with a mast, and ran a gamma-ray/compensated neutron/ccl log and a variable density cement bond log. Top of the cement was at 500', and formation tops were as follows:

formation	depth	datum
T/Permian	680'	+2378'
T/Cedar Hills	1282'	+1776'
B/Stone Corral	1748'	+1310'
T/Hollenberg	2374'	+ 684'
T/Herington	2403'	+ 655'
T/Krider	2424'	+ 634'
T/Winfield	2464'	+ 594'
T/Towanda	2526'	+ 532'
T/Ft. Riley	2582'	+ 476'

 Ulysses #2

08/15/01 – Moved-in and rigged-up Border-Line Well Service Rig #11. Lathem Tank Service moved in tanks for treatment water and a swab tank. Hooked up swab lines to tank, and shut down.

08/16/01 – Ran the swab tools to get a bottom flag, and swabbed the casing to 1800'. Schlumberger perforated from 2546'-2552', 2530'-2538', 2481'-2487', 2468'-2476', 2420'-2430', and 2404'-2412' (all intervals w/4spf). Swabbed the casing to 2550', and rigged-up Dowell to acidize. D/S treated the casing with 5000 gallons of 15% HCl acid, 350 ball sealers, and 61 bbls of 2% KCl flush water. Maximum treating pressure was 1430#, and average treating pressure was approximately 450# at an average rate of 7.5 bpm. The data acquisition equipment experienced power problems, and pressure readings were inconsistent. Good ball action was observed during the final stage of pumping, and the perforations appeared to "ball-off". Instant shut-in pressure was 100#. Total treatment load to recover was 184 bbls. Ran a "ball knocker" tool in the casing to knock off the ball sealers (fluid level was at 1300'). Swabbed the casing to recover 23 bbls of load, shut casing in, and shut down. Total treatment load left to recover was 161 bbls.

08/17/01 – Shut-in casing pressure was 60#. Opened the casing to blow down into the swab tank, and swabbed the casing to recover 20 bbls of treatment load in 3 hours. D/S treated the casing with 162,700# of 16/30 sand, 623,000 scf of N_2, and 26,800 gallons of gelled water. Maximum treating pressure was 925#, and average treating pressure was 753# at an average slurry rate of 38.4bpm. Maximum proppant concentration was 4#/gallon of slurry. Instant shut-in pressure was 879#, and the 15 minute shut-in pressure was 664#. Total treatment fluid to recover was 638 bbls. Nippled up a flow line to the swab tank, and opened the casing to blow down through a .750" choke nipple. Flowed the casing for 5 hours to recover 52 bbls of treatment water, shut the casing in, and shut down. Total treatment loads left to recover were 727 bbls.

08/18/01 – Shut-in casing pressure was 90#. Flowed the casing through a 2" line to the swab tank for 11 hours. Recovered 34 bbls of treatment fluid. Flow samples were carrying some "frac" sand. Shut the casing in, and shut down. Total treatment loads left to recover were 693 bbls.

08/20/01 – Shut-in casing pressure was 72#. Opened the casing to blow down into the swab tank, and ran the swab tools to find total depth at 2554' (48' of fill-up). Made 5 swab runs to get well flowing through a 2" line to the swab tank. Well was carrying some sand with foamy treatment fluid. Ran the swab tools to find total depth at 2549' (53' of fill-up). Shut the casing in, and shut down. Recovered approximately 10 bbls of treatment loads. Total treatment loads left to recover were 683 bbls.

08/21/01 – Shut-in casing pressure was 70#. Opened the casing to flow to the swab tank, and flowed through a 2" line. Installed a .750" choke nipple in the flow line at 2:00pm, and flowed for 1 hour through the choke with a steady backpressure of 21# (indicating a flow rate of approximately 510mcfd). Opened the well through the 2" flow line and flowed into the swab tank. Recovered a daily total of less than 5 bbls of

fluid, with the last few hourly samples showing no sand. Rigged-up a sand pump and lubricator, shut the casing in, and shut down. Total treatment loads left to recover were approximately 678 bbls.

08/22/01 – Shut-in casing pressure was 70#. Opened the casing to blow down into the swab tank. Pumped 5 bbls of 2% KCl water down the casing, to be able to sand pump. Used the sand pump to tag bottom at 2550', and cleaned out to 2600'. Recovered ball sealers and thin cement on the last run. Pumped 15 bbls of KCl water to kill the well, removed the orbit valve, and nippled-up the tubing head. Pumped KCl water down the annulus while running tubing. Ran a 4' - 2.375" EUE tubing sub as an open-ended tailpipe, 1 – 1.1' seating nipple, and 81 joints (2573') of new 2.375" EUE J-55 tubing. Tagged bottom and landed the tubing string 25' off bottom, with the seating nipple at 2570'. Ran a 2" x 1.250" x 10' RWBC BHD insert pump, 102 new .625" rods, 1 – 6' pony rod, 2 – 4' pony rods, 1 – 2' pony rod, and an 11' x 1.125" polish rod w/1.375" x 5' liner. Flushed the tubing with 5 bbls of KCl water before seating the pump, seated the pump, and loaded the tubing with KCl water. Long-stroked the rod string to pressure up the tubing to 500#, and held pressure for 5 minutes. Pumped a total of 55 bbls of 2% KCl water. Rigged down and moved out Rig #11. Shut down waiting on pipeline hookup, and installation of surface equipment. Total treatment loads left to recover were 733 bbls.

Ron Osterbuhr
08/24/01