

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

API NO. 15- 033-21067 0000

County Comanche County, Kansas
100' S of W/2- NE - NE Sec. 11 Twp. 33 Rge. 19 XX W

Operator: License # 5214

Name: LARIO OIL & GAS COMPANY

Address 301 S. Market

City/State/Zip Wichita, KS 67202

Purchaser: KANSAS GAS SUPPLY

Operator Contact Person: David Munro

Phone (316) 265-5611

Contractor: Name: Duke Drilling Co., Inc

License: 5929

Wellsite Geologist: Arden Ratzlaff

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/Re-Entry: old well info as follows:

Operator: _____

Well Name: _____

Comp. Date _____ Old Total Depth _____

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

2-22-00 3-6-00 4-21-00
Spud Date Date Reached TD Completion Date

760' Feet from S (circle one) Line of Section
990' Feet from W (circle one) Line of Section

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

Lease Name Colter Well # 1

Field Name Wildcat

Producing Formation Fort Scott

Location: Ground 2054' KB 2065'

Depth 6375' PBTB 5370'

Height of Surface Pipe Set and Cemented at 676' 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 gk 8/29/00
(Data must be collected from the Reserve Pit)

Chloride content 5000 ppm Fluid volume 1280 bbls

Dewatering method used Hauled to a disposal

Location of fluid disposal if hauled offsite:

Operator Name KBW Oil & Gas

Lease Name Harmon License No. 5993

NE Quarter Sec. 11 Twp. 33S S Rng. 21 X W

County Comanche Docket No. CD 98-329

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 David Munro DAVID MUNRO

Title OPERATIONS ENGINEER Date 7-31-00

Subscribed and sworn to before me this 31st day of July, 2000.

Notary Public Kathy L Ford KATHY L. FORD

Date Commission Expires 10-22-2002 Notary Public - State of Kansas My Appt. Expires 10-22-2002

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)

RECEIVED
STATE CORPORATION COMMISSION
AUG 1 2000
OBSERVATION DIVISION
Wichita, Kansas

Operator Name LARIO OIL & GAS COMPANY Lease Name COLTER Well # 1

Sec. 11 Twp. 33 Rge. 19 East West County Comanche

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.)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Log	Formation (Top), Depth and Datums	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Name	Top	Datum
Cores Taken	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	HEEBNER	3614'	-1549'
Electric Log Run (Submit Copy.)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	LANSING	4558'	-2493'
List All E.Logs Run: DENSITY-NEUTRON, MICROLOG, SONIC-GR, AND DUAL INDUCTION LOG		STARKEY	4888'	-2823'
		PAWNEE	5146'	-3081'
		FT. SCOTT	5180'	-3115'
		MISSISSIPPI	5296'	-3231'
		ARBUCKLE	6284'	-4219'
		TD	6375'	-4310'

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
Conductor	17 1/2"	13 3/8"	54#	1149'	Class A	150	3%cc
Surface	12 1/4"	8 5/8"	24#	676'	Lite Class A	50 150	6%gel 3%cc 3%cc
Production	7 7/8"	5 1/2"	15.5#	5424'	ASC	125	5#/sx kolsea

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 SPF	5184' - 5188'	600 gals. 15% MCA w/FE	5188'
		2000 gals. 20% SGA	5188'

TUBING RECORD	Size <u>2 3/8"</u>	Set At <u>5194'</u>	Packer At <u>NONE</u>	Liner Run <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Date of First, Resumed Production, SWD or Inj.	<u>6-22-00</u>	Producing Method <input checked="" type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other (Explain)		
Estimated Production Per 24 Hours	Oil <u>0</u> Bbls.	Gas <u>593</u> Mcf	Water <u>1.2</u> Bbls.	Gas-Oil Ratio <u>N/A</u> Gravity <u>N/A</u>

Disposition of Gas: Vented Sold Used on Lease METHOD OF COMPLETION Open Hole Perf. Dually Comp. Commingled Production Interval 5184'-88'

ORIGINAL

ALLIED CEMENTING CO., INC.

2245

Federal Tax I.D.# 48-0727860

REMIT TO P.O. BOX 31
RUSSELL, KANSAS 67665

SERVICE POINT:
MEDICINE CO.

DATE <u>2-21-00</u>	SEC. <u>11</u>	TWP. <u>33s</u>	RANGE <u>19W</u>	CALLED OUT <u>2:00 PM</u>	ON LOCATION <u>5:00 AM</u>	JOB START <u>10:40 AM</u>	JOB FINISH <u>11:00 AM</u>
LEASE <u>COLTER</u>	WELL # <u>1</u>	LOCATION <u>COLOWATER 5, 1W, 1/2 N, W1/4</u>			COUNTY <u>COMANCHE</u>	STATE <u>KANSAS</u>	
OLD OR <u>NEW</u> (Circle one)							

CONTRACTOR DUKE DRILG #5

TYPE OF JOB CONDUCTOR

HOLE SIZE 17 1/2 T.D. 154'

CASING SIZE 13 3/8" 54# DEPTH 149'

TUBING SIZE _____ DEPTH _____

DRILL PIPE _____ DEPTH _____

TOOL _____ DEPTH _____

PRES. MAX _____ MINIMUM _____

MEAS. LINE _____ SHOE JOINT _____

CEMENT LEFT IN CSG. 15'

PERFS. _____

DISPLACEMENT 1 9/16 FRESH H2O

OWNER GRAVES DRILG. Co.

CEMENT

AMOUNT ORDERED 150SK MASS A + 3% CL

COMMON <u>A</u>	<u>150</u>	@	<u>6.35</u>	<u>952.50</u>
POZMIX		@		
GEL		@		
CHLORIDE	<u>5</u>	@	<u>28.00</u>	<u>140.00</u>
		@		
		@		
		@		
		@		
HANDLING	<u>150</u>	@	<u>1.05</u>	<u>157.50</u>
MILEAGE	<u>150 x 45</u>		<u>.04</u>	<u>270.00</u>

EQUIPMENT

PUMP TRUCK CEMENTER _____

261-265 HELPER KEVIN BRUNGAOT

BULK TRUCK

242 DRIVER MIKE RUCKER

BULK TRUCK

_____ DRIVER MARK BRUNGAOT

TOTAL \$ _____

REMARKS:

SERVICE

Run 13 3/8" CG + Break Circ.

PUMP 52815. H2O

MIX 150SK MASS A + 3% CL

DISPLACE CEMENT TO 135' WITH

1 9/16 BBL

CEMENT DED BRUULATE

DEPTH OF JOB 149'

PUMP TRUCK CHARGE _____ 470.00

EXTRA FOOTAGE @ _____

MILEAGE 45 @ 2.85 128.25

PLUG @ _____

@ _____

@ _____

TOTAL \$ 998.25

CHARGE TO: GRAVES DRILG. Co.

STREET P.O. Box 825D

CITY WICHITA STATE KANSAS ZIP 67208

FLOAT EQUIPMENT

@ _____

@ _____

@ _____

@ _____

@ _____

TOTAL _____

To Allied Cementing Co., Inc.

You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read & understand the "TERMS AND CONDITIONS" listed on the reverse side.

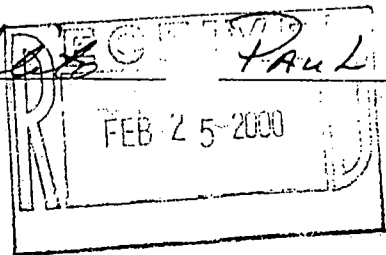
TAX _____

TOTAL CHARGE _____

DISCOUNT _____ IF PAID IN 30 DAYS

SIGNATURE Paul K. Shelite

PRINTED NAME PAUL K. Shelite



ORIGINAL

ALLIED CEMENTING CO., INC.

2246

Federal Tax I.D.# 48-0727860

REMIT TO P.O. BOX 31
RUSSELL, KANSAS 67665

SERVICE POINT: Medicine Lodge

DATE <u>2-22-00</u>	SEC. <u>11</u>	TWP. <u>33c</u>	RANGE <u>19W</u>	CALLED OUT <u>6:30 AM</u>	ON LOCATION <u>10:00 AM</u>	JOB START <u>12:30 PM</u>	JOB FINISH <u>3:00 PM</u>
LEASE <u>Cover</u>		WELL # <u>1</u>	LOCATION <u>Bedwater 5, 1 1/2 W, 5 E</u>		COUNTY <u>COMANCHE</u>	STATE <u>KANSAS</u>	
OLD OR NEW (Circle one)							

CONTRACTOR DUKE #5

TYPE OF JOB SURFACE

HOLE SIZE 12 1/4" T.D. 683'

CASING SIZE 8 5/8" 23# DEPTH 677'

TUBING SIZE _____ DEPTH _____

DRILL PIPE _____ DEPTH _____

TOOL _____ DEPTH _____

PRES. MAX 400# MINIMUM _____

MEAS. LINE _____ SHOE JOINT 35.18'

CEMENT LEFT IN CSG. _____

PERFS. _____

DISPLACEMENT 4 1/2 BBL FRESH #20

OWNER GRAVES DRUG Co

CEMENT USED 125 cu ALW

AMOUNT ORDERED

225 cu 65:35:6 + 3% CC + 1/4" FIO-SEAL

200 cu CLASS A + 3% CC + 2% GEL

COMMON A	<u>200</u>	@	<u>6.35</u>	<u>1270.00</u>
POZMIX		@		
GEL	<u>4</u>	@	<u>9.50</u>	<u>38.00</u>
CHLORIDE	<u>11</u>	@	<u>28.00</u>	<u>308.00</u>
ALW	<u>125</u>	@	<u>6.00</u>	<u>750.00</u>
FIO-SEAL	<u>31#</u>	@	<u>1.15</u>	<u>35.65</u>
		@		
		@		
		@		
HANDLING	<u>425</u>	@	<u>1.05</u>	<u>446.25</u>
MILEAGE	<u>425 x 45</u>	@	<u>.04</u>	<u>765.00</u>

EQUIPMENT

PUMP TRUCK CEMENTER KEVIN BRUNBAUDT

261-265 HELPER MARK BRUNBAUDT

BULK TRUCK

258-252 DRIVER J.D. DRELLING

BULK TRUCK

_____ DRIVER _____

TOTAL \$ 3612.90

REMARKS:

Lost Returns @ 358'±

Run 8 5/8" casing + Pump Csg. Agency

mix 50% ALW + 3% CC + 1/4" FIO-SEAL

mix 150% CLASS A + 3% CC + 2% GEL

DISPLACE PUG TO 638' WITH 4 1/2 BBL

Run 125' 1" mix 25% ALW + 3% CC + 1/4" FS

+ 50% CLASS A + 3% CC + 2% GEL

CIRC. CEMENT TO BOTTOM OF WELL

Run 40' 1" + CIRC. CEMENT TO SURFACE

WITH SOCK ALW

SERVICE

DEPTH OF JOB 677'

PUMP TRUCK CHARGE 0-300' 470.00

EXTRA FOOTAGE 300' @ .43 162.11

MILEAGE 45 @ 2.85 N/C

PLUG 8 5/8" TRP @ 90.00 90.00

_____ @ _____

_____ @ _____

TOTAL \$ 722.11

CHARGE TO: GRAVES DRUG Co.

STREET P.O. Box 8250

CITY WICHITA STATE KANSAS ZIP 67208

FLOAT EQUIPMENT

1-Baffle Plate @ 45.00 45.00

2-BASKETS @ 150.00 300.00

2-CENTRALIZERS @ 30.00 60.00

_____ @ _____

_____ @ _____

TOTAL \$ 405.00

To Allied Cementing Co., Inc.

You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read & understand the "TERMS AND CONDITIONS" listed on the reverse side.

TAX _____

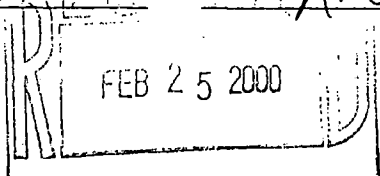
TOTAL CHARGE 4740.01

DISCOUNT 948.00 IF PAID IN 30 DAYS

3792.01

SIGNATURE R. G. Miller

PRINTED NAME R. G. Miller



15-033-21067-0000

ORIGINAL

Superior Testers Enterprises, Inc.

R.R. 3, Box 295B, Great Bend, Kansas 67530

(316) 792-6902

2065 K.B.

Date 3-2-2000 Location C#16-11/11-33-19 W Elevation 2054 GL County Comanche

Company GRAVES Drilling Company Inc Number of Copies 5

Charts Mailed to P.O. box 8250 Wichita Kansas 67208

Drilling Contractor Duke Drilling Rig #5

Length Drill Pipe 5264 I.D. Drill Pipe 3.80 Tool Joint Size

Length Weight Pipe NONE I.D. Weight Pipe NONE Tool Joint Size NONE

Length Drill Collars NONE I.D. Drill Collars NONE Tool Joint Size NONE

Top Packer Depth 5280 Bottom Packer Depth 5285 Number of Packers 2 Packer Size 6 3/4"

TESTED FROM 5285 TO 5350 ANCHOR LENGTH 65 TOTAL DEPTH 5350 Hole Size 7 7/8

LEASE & WELL NO. Colter #1 FORMATION TESTED Mississippi TEST NO. 2

Mud Weight 9.2 Viscosity 50 Water Loss 89 Chlorides - Pits 7000 D.S.T.

Maximum Temp. 122 °F Initial Hydrostatic Pressure (A) 2604 P.S.I. Final Hydrostatic Pressure (H) 2545 P.S.

Tool Open I.F.P. from 12:20 P.m to 12:50 P.m 30 min

from [B] 147 P.S.I. to [C] 109 P.S.I.

Tool Closed I.C.I.P. from 12:50 P.m to 1:35 P.m 45 min

[D] 512 P.S.I.

Tool Open F.F.P. from 1:35 P.m to 2:35 P.m 60 min

from [E] 97 P.S.I. to [F] 106 P.S.I.

Tool Closed F.C.I.P. from 2:35 P.m to 3:35 P.m 60 min

[G] 395 P.S.I.

Initial Blow Strong blow - Gas to surface in 4 minutes

Final Blow Strong blow - SEE Gas flow Report

Total Feet Recovered 150 Gravity of Oil Correct

150 Feet of Gas at Drilling 1774D % Gas % Oil % Mud % Water

Feet of % Gas % Oil % Mud % Water

Feet of % Gas % Oil % Mud % Water

Feet of % Gas % Oil % Mud % Water

Feet of % Gas % Oil % Mud % Water

Feet of % Gas % Oil % Mud % Water

Feet of % Gas % Oil % Mud % Water

Feet of % Gas % Oil % Mud % Water

Feet of % Gas % Oil % Mud % Water

Feet of % Gas % Oil % Mud % Water

Remarks

Extra Equipment - Jars NONE Safety Joint NONE Extra Packer NONE Straddle NONE Hook Wall NONE

Top Recorder No. 78225 Clock No. Electronic Depth 5344 Cir. Sub Sampler NONE

Bottom Recorder No. 13189 Clock No. 47441 Depth 5347 Insurance NONE

Price of Job

Tool Operator Gene Sulz

Approved By

No 13889

Superior Testers Enterprises, Inc. shall not be liable for damage of any kind to the property or personnel of the one for whom a test is made, of for any damage sustained, directly or indirectly, through the use of its equipment or operations. No opinion concerning the results of any test. Tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.

RECEIVED STATE CORPORATION COMMISSION AUG 1 2000

CONSERVATION DIVISION Wichita, Kansas

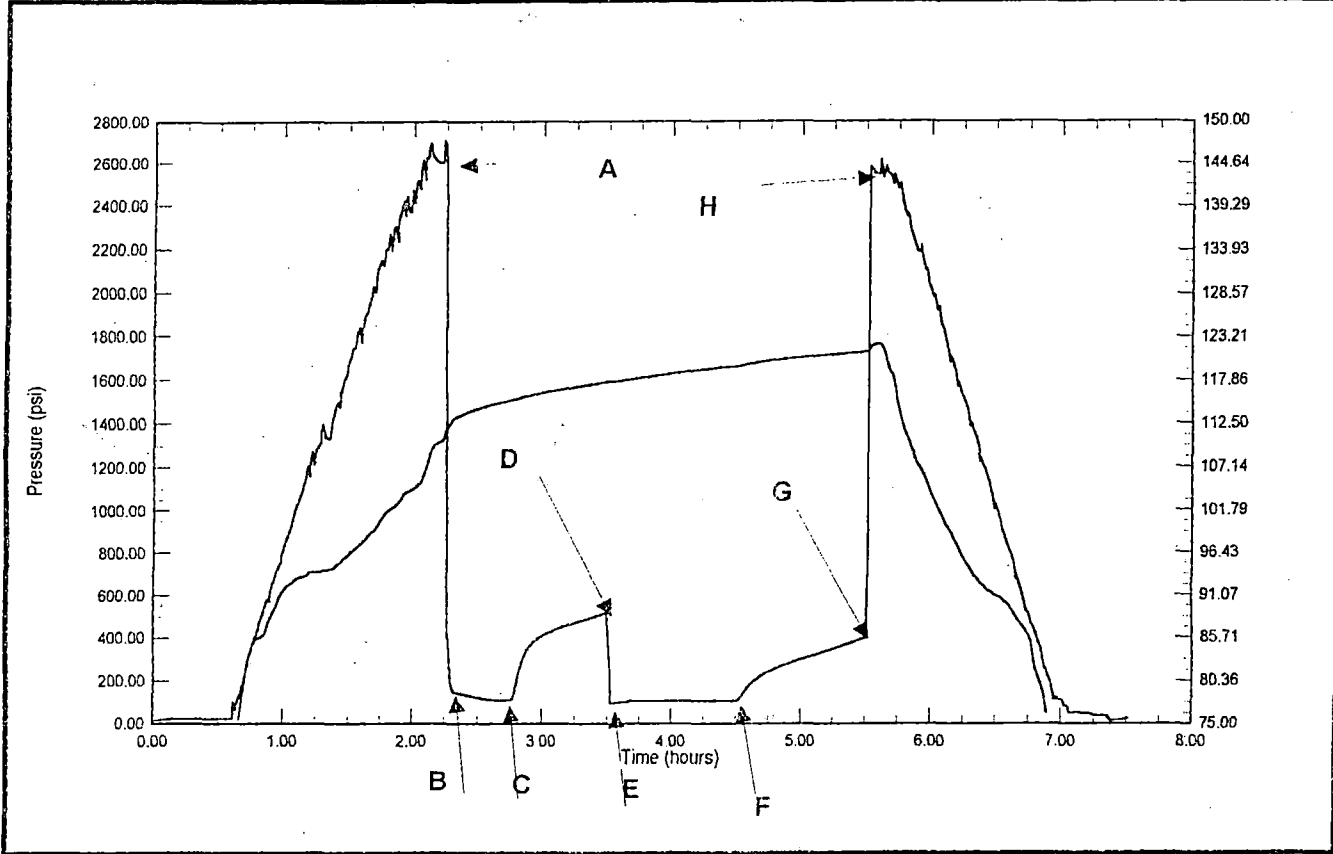
SUPERIOR TESTERS ENTERPRISES INC. ORIGINAL
CHART DATA (316) 792-6902

Great Bend, Kansas

State KANSAS
 County COMANCHE
 Field

Test Date March 2, 2000
 Sec Town Range 11-33S-19W
 Report Number 13889

Company: GRAVES DRILLING COMPANY INC. Lease & Well No. COLTER #1 Test # 2 Date: 3-2-2000
 SEC. 11 TWP. 33S RGE. 19W



Field Reading

(A)	Initial Hydrostatic Pressure	2604
(B)	Initial Flow Pressure	147
(C)	Final Initial Flow Pressure	109
(D)	Initial Shut-In Pressure	512
(E)	Initial Final Flow Pressure	97
(F)	Final Flow Pressure	106
(G)	Final Shut-In Pressure	395
(H)	Final Hydrostatic Pressure	2545

ELECTRONIC RECORDER DEPTH 5344 FT, RECORDER NUMBER 78225

SUPERIOR TESTERS ENTERPRISES INC.

DRILL STEM TEST REPORT

GREAT BEND, KANSAS 67530 (316)792-6902

GENERAL INFORMATION

COMPANY NAME	GRAVES DRILLING COMPANY INC.	LEASE AND WELL NUMBER	COLTER #1
TEST DATE	3/2/00	FORMATION TESTED	MISSISSIPPI
SECTION-TOWN-RANGE	11-33S-19W	DRILL STEM TEST NUMBER	2
STATE	KANSAS	REPORT NUMBER	13889
COUNTY	COMANCHE	ELEVATION KELLY BUSHINGS	2065
ELEVATION GROUND LEVEL	2054	TESTING ENGINEER	GENE BUDIG
COMPANY REPRESENTATIVE	ARDEN RATZLAFF		

TOOL SETTING INFORMATION

TEST INTERVAL (From)	5285	TOP PACKER DEPTH	5280
TEST INTERVAL (to)	5350	BOTTOM PACKER DEPTH	5285
ANCHOR LENGTH	65	NUMBER OF PACKERS	2
TOTAL DEPTH (ft)	5350	PACKER SIZE	6 3/4
		HOLE SIZE	7 7/8

FLOW TIMES

INITIAL OPEN

TOOL OPEN (from)
 12:20 |

TOOL OPEN (to)
 12:50 |

DURATION (min.)
 30 |

INITIAL SHUT-IN

TOOL CLOSED (from)
 12:50 |

TOOL CLOSED (to)
 1:35 |

DURATION (min.)
 45 |

FINAL OPEN

TOOL OPEN (from)
 1:35 |

TOOL OPEN (to)
 2:35 |

DURATION (min.)
 60 |

FINAL SHUT-IN

TOOL CLOSED (from)
 2:35 |

TOOL CLOSED (to)
 3:25 |

DURATION (min.)
 60 |

PRESSURE READINGS

INITIAL HYDROSTATIC
 2604 |

INITIAL FLOW
 147 |

FINAL INITIAL FLOW
 109 |

INITIAL SHUT-IN
 512 |

INITIAL FINAL FLOW
 97 |

FINAL FLOW
 106 |

FINAL SHUT-IN
 395 |

FINAL HYDROSTATIC
 2545 |

MAXIMUM TEMPERATURE
 122 |

TOP RECORDER DEPTH
 5344 |

RECORDER NUMBER
 78225 |

BOTTOM RECORDER DEPTH
 4347 |

RECORDER NUMBER
 13189 |

INITIAL BLOW

STRONG BLOW WITH GAS TO SURFACE IN 4 MINUTES

FINAL BLOW

STRONG BLOW-SEE GAS FLOW REPORT

RECEIVED
STATE CORPORATION COMMISSION

AUG 1 2000

EXTRA EQUIPMENT

JARS
 NO |

SAFETY JOINT
 YES |

ELECTRONIC RECORDER
 YES |

CIRCULATING SUB
 YES |

EXTRA PACKER (3RD)
 NO |

EXTRA PACKER (4TH)
 NO |

STRADDLE
 NO |

HOOKEWALL
 NO |

SAMPLER
 NO |

CONSERVATION DIVISION
Wichita, Kansas

ORIGINAL

SUPERIOR TESTERS ENTERPRISES INC.

GREAT BEND, KANSAS

GAS FLOW RATE

(316) 792-6902

#

STATE.....	KANSAS	Test Date	3/2/00
COUNTY.....	COMANCHE	Sec Town Range	11-33S-19W
FIELD.....		Report Number	13889

Initial Flow

Comments	Time (hh:mm:ss)	Period dt (min)	Inches H2O Orifice Tester	PSI on Orifice Tester	PSI on Pitot Tube	Choke Size (in)	Gas Rate (MCF/Day)
TOOL OPENED	12:25	5	11			1 1/2	231.000
AT 12:20	12:35	15	4			1 1/2	139.000
WITH GAS TO	12:45	25	15			1	101.000
SURFACE IN 4	12:50	30	7			1	68.300
MINUTES AT							
12:24							

Final Flow

Comments	Time (hh:mm:ss)	Period dt (min)	Inches H2O Orifice Tester	PSI on Orifice Tester	PSI on Pitot Tube	Choke Size (in)	Gas Rate (MCF/Day)
TOOL OPENED	1:45	10	4			1	51.600
AT 1:35	1:55	20	30			1/2	34.300
	2:05	30	16			1/2	25.100
	2:15	40	11			1/2	20.900
	2:25	50	8			1/2	17.200
	2:35	60	7			1/2	16.700

Superior Testers Enterprises, Inc.

R.R. 3, Box 295B, Great Bend, Kansas 67530

(316) 792-6902

Date 3-1-2000 Location CNE NE 11-33-19W Elevation 2041 KB 20306L County Comanche

Company GRAVES Drilling Company Inc. Number of Copies 5

Charts Mailed to P.O. Box

Drilling Contractor Duke Drilling Rig #5

Length Drill Pipe 5156 I.D. Drill Pipe 3.80 Tool Joint Size 4 1/2" X 1 1/2"

Length Weight Pipe NONE I.D. Weight Pipe NONE Tool Joint Size NONE

Length Drill Collars NONE I.D. Drill Collars NONE Tool Joint Size NONE

Top Packer Depth 5172 Bottom Packer Depth 5177 Number of Packers 2 Packer Size 6 3/4"

TESTED FROM 5177 TO 5192 ANCHOR LENGTH 15 TOTAL DEPTH 5192 Hole Size 7 7/8"

LEASE & WELL NO. Colter #1 FORMATION TESTED Foot Spot TEST NO. 1

Mud Weight 9.7 Viscosity 52 Water Loss 8.8 Chlorides - Pits 5000 D.S.T. 10

Maximum Temp. 108 °F Initial Hydrostatic Pressure (A) 2602 P.S.I. Final Hydrostatic Pressure (H) 2459 P.S.I.

Tool Open I.F.P. from 11:45 A.M. to 11:45 A.M. 30 min

Tool Closed I.C.I.P. from 12:15 P.M. to 12:15 P.M. 45 min

Tool Open F.F.P. from 1:00 P.M. to 2:00 P.M. 60 min

Tool Closed F.C.J.P. from 2:00 P.M. to 3:00 P.M. 80 min

Initial Blow Stroke blow - GAS to SURFACE in 5 minutes

Final Blow Stroke blow - See GAS Flow Report

Total Feet Recovered 25 Gravity of Oil Corrected

Table with 4 columns: Feet of, % Gas, % Oil, % Mud, % Water. Row 1: 25 Feet of Drilling Mud GAS cut no shows of

Remarks

Extra Equipment - Jars NONE Safety Joint YES Extra Packer NONE Straddle NONE Hook Wall NONE

Top Recorder No. 78225 Clock No. Electronic Depth 5185 Cir. Sub NONE Sampler NONE

Bottom Recorder No. 12189 Clock No. 47441 Depth 5189 Insurance NONE

Price of Job

Tool Operator Gene Buckley

Approved By No 13888

Pressure table with columns [B], [C], [D], [E], [F], [G] and P.S.I. values: 81, 93, 1606, 79, 92, 1869

Superior Testers Enterprises, Inc. shall not be liable for damage of any kind to the property or personnel of the one for whom a test is made...

ORIGINAL

SUPERIOR TESTERS ENTERPRISES INC.

Great Bend, Kansas

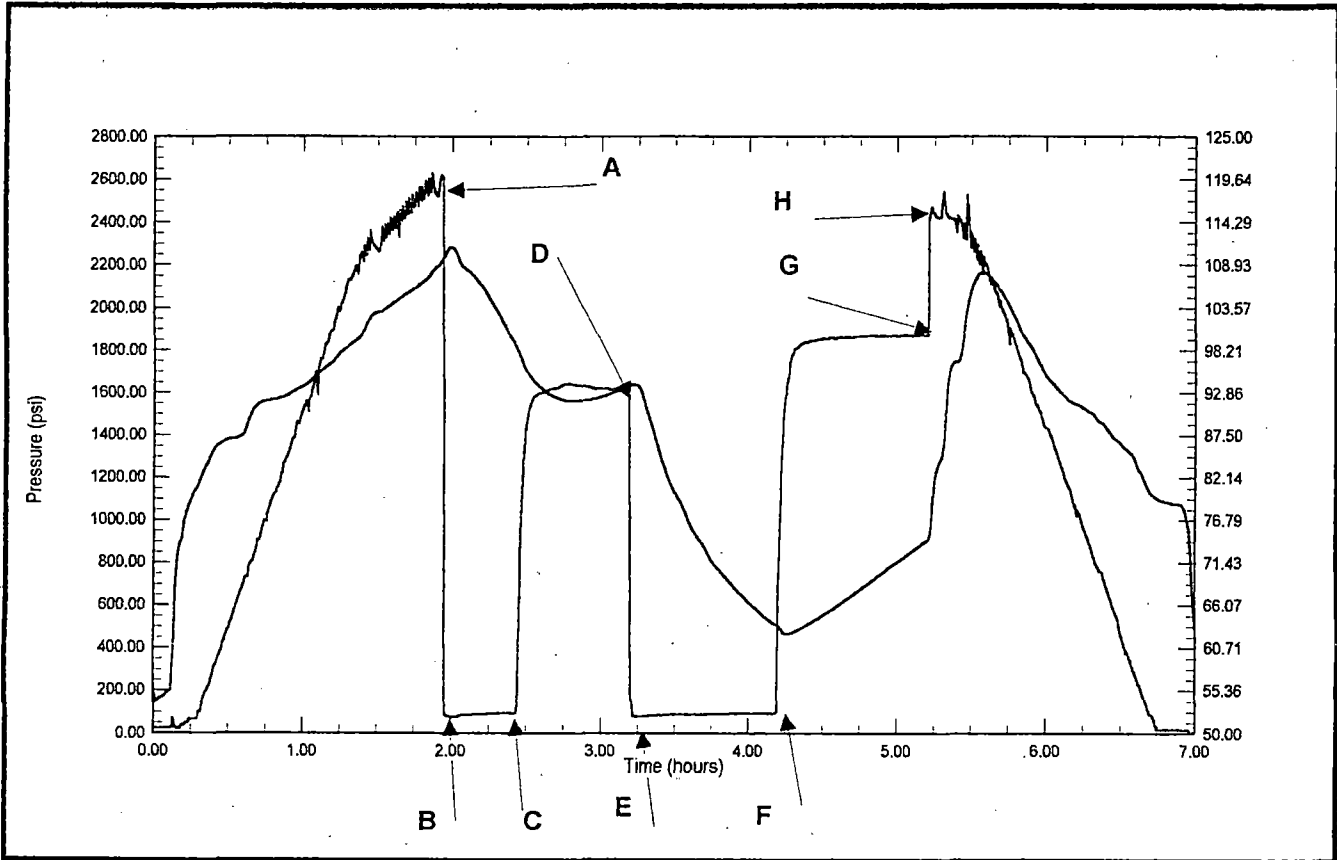
CHART DATA

(316) 792-6902

State KANSAS
County COMANCHE
Field

Test Date March 1, 2000
Sec Town Range 11-33S-19W
Report Number 13888

Company: GRAVES DRILLING COMPANY INC. Lease & Well No. COLTIER #1 Test # 1 Date: 3-1-2000
SEC. 11 TWP. 33S RGE. 19W



Field Reading

(A)	Initial Hydrostatic Pressure	2602
(B)	Initial Flow Pressure	81
(C)	Final Initial Flow Pressure	93
(D)	Initial Shut-In Pressure	1606
(E)	Initial Final Flow Pressure	79
(F)	Final Flow Pressure	92
(G)	Final Shut-In Pressure	1869
(H)	Final Hydrostatic Pressure	2459

ELECTRONIC RECORDER DEPTH 5185 FT, RECORDER NUMBER 78225

SUPERIOR TESTERS ENTERPRISES INC.**DRILL STEM TEST REPORT**

GREAT BEND, KANSAS 67530 (316)792-6902

GENERAL INFORMATION

COMPANY NAME	GRAVES DRILLING COMPANY INC.	LEASE AND WELL NUMBER	COLTER #1
TEST DATE	3/1/00	FORMATION TESTED	FORT SCOTT
SECTION-TOWN-RANGE	11-33S-19W	DRILL STEM TEST NUMBER	1
STATE	KANSAS	REPORT NUMBER	13888
COUNTY	COMANCHE	ELEVATION KELLY BUSHINGS	2041
ELEVATION GROUND LEVEL	2030	TESTING ENGINEER	GENE BUDIG
COMPANY REPRESENTATIVE	ARDEN RATZLAFF		

TOOL SETTING INFORMATION

TEST INTERVAL (From)	5177	TOP PACKER DEPTH	5172
TEST INTERVAL (to)	5192	BOTTOM PACKER DEPTH	5177
ANCHOR LENGTH	15	NUMBER OF PACKERS	2
TOTAL DEPTH (ft)	5192	PACKER SIZE	6 3/4
		HOLE SIZE	7 7/8

FLOW TIMES

INITIAL OPEN

TOOL OPEN (from)
 11:45 |

TOOL OPEN (to)
 12:15 |

DURATION (min.)
 30 |

INITIAL SHUT-IN

TOOL CLOSED (from)
 12:15 |

TOOL CLOSED (to)
 1:00 |

DURATION (min.)
 45 |

FINAL OPEN

TOOL OPEN (from)
 1:00 |

TOOL OPEN (to)
 2:00 |

DURATION (min.)
 60 |

FINAL SHUT-IN

TOOL CLOSED (from)
 2:00 |

TOOL CLOSED (to)
 3:00 |

DURATION (min.)
 60 |

PRESSURE READINGS

INITIAL HYDROSTATIC
 2602 |

INITIAL FLOW
 81 |

FINAL INITIAL FLOW
 93 |

INITIAL SHUT-IN
 1606 |

INITIAL FINAL FLOW
 79 |

FINAL FLOW
 92 |

FINAL SHUT-IN
 1869 |

FINAL HYDROSTATIC
 2459 |

MAXIMUM TEMPERATURE
 |

TOP RECORDER DEPTH
 5185 |

RECORDER NUMBER
 78225 |

BOTTOM RECORDER DEPTH
 5189 |

RECORDER NUMBER
 13189 |

INITIAL BLOW**STRONG BLOW-GAS TO SURFACE IN 5 MINUTES****FINAL BLOW****STRONG BLOW-SEE GAS FLOW REPORT****EXTRA EQUIPMENT**

JARS	NO	EXTRA PACKER (3RD)	NO
SAFETY JOINT	YES	EXTRA PACKER (4TH)	NO
ELECTRONIC RECORDER	YES	STRADDLE	NO
CIRCULATING SUB	NO	HOOKWALL	NO
		SAMPLER	NO

SUPERIOR TESTERS ENTERPRISES INC.

DRILL STEM TEST REPORT

GREAT BEND ,KANSAS 67530 (316)792-6902

WELL INFORMATION

DRILLING CONTRACTOR **DUKE DRILLING RIG #5**

DRILL PIPE LENGTH **5156**

DRILL PIPE I.D. **3.8**

TOOL JOINT SIZE **4 1/2 X.H.**

DRILL COLLAR LENGTH **0**

DRILL COLLAR I.D. **2.25**

TOOL JOINT SIZE **4 1/2 X.H.**

WEIGHT PIPE LENGTH

WEIGHT PIPE I.D. **2.25**

TOOL JOINT SIZE **4 1/2 X.H.**

MUD WEIGHT #/GAL **9.2**

VISCOSITY **52**

WATER LOSS **8.8**

CHLORIDES-PITS **5000**

CHLORIDES-DST

	FEET OF RECOVERY	RECOVERY DESCRIPTION	%	%	%	%
			GAS	OIL	MUD	WATER
1)	25	GAS CUT DRILLING MUD NO SHOW OF OIL				
2)						
3)						
4)						
5)						
6)						
7)						
8)						
9)						
10)						
11)						
12)						
13)						
14)						
15)						

TOTAL RECOVERY

COMMENTS

ORIGINAL

SUPERIOR TESTERS ENTERPRISES INC.

GREAT BEND, KANSAS

GAS FLOW RATE

(316) 792-6902

#

STATE.....	KANSAS	Test Date	3/1/00
COUNTY.....	COMANCHE	Sec Town Range	11-33S-19W
FIELD.....		Report Number	13888

Initial Flow

Comments	Time (hh:mm:ss)	Period dt (min)	Inches H2O Orifice Tester	PSI on Orifice Tester	PSI on Pitot Tube	Choke Size (in)	Gas Rate (MCF/Day)
TOOL OPENED	11:50	5	7			1 1/4	116.000
AT 11:45 WITH	12:00	15	30			1 1/4	241.000
GAS TO	12:10	25	34			1 1/4	256.000
SURFACE IN	12:05	30	35			1 1/4	260.000
5 MINUTES AT 11:50							

Final Flow

Comments	Time (hh:mm:ss)	Period dt (min)	Inches H2O Orifice Tester	PSI on Orifice Tester	PSI on Pitot Tube	Choke Size (in)	Gas Rate (MCF/Day)
TOOL OPENED	1:10	10	9			1 1/2	209.000
AT	1:20	20	10			1 1/2	220.000
1:00	1:30	30	10			1 1/2	220.000
	1:40	40	10			1 1/2	220.000
	1:50	50	10			1 1/2	220.000
	2:00	60	10			1 1/2	220.000

PVT Detail

INPUT DATA	
1	Pr (psia) 888.00
2	Temperature of Interest (psia) 108.00
3	Yield (bb/mmscf)..... 250.00
4	Water Cut (%) 0.00%
5	Standard Pressure (psia) 14.7000
6	Standard Temperature (F) 60.0000
7	API Gravity Liq Hydrocarbon 0.000E+00
8	Water Salinity (ppm) 0.000E+00
9	Liq. Hydro. SOL GOR AND PB Correlation ... STANDING
10	Liq. Hydro. FVF Correlation. STANDING
11	Dead Oil Correlation BEGGS-ROBINSON
12	Dead Water Correlation MEEHAN
13	Reservoir Fluid Type GAS
14	Reservoir Oil Saturation (%) 80.00%
15	Reservoir H2O Saturation (%) 20.00%
16	Reservoir Gas Saturation (%) 0.00%
17	Reservoir Rock Type LIMESTONE
18	Reservoir Rock Porosity (%) 18.00%
19	True Vertical Depth (ft) 5192
20	CO2 (Mole %) 0.000E+00
21	H2S (Mole %) 0.000E+00
22	N2 (Mole %) 0.000E+00
23	Specific Gravity Gas (dim) 0.6500
24	Pseudo Critical Temp (R) 370.0000
25	Pseudo Critical Press (psia) 671.0000
CALCULATED VALUES	
26	Ct Reservoir (1/psi) 1.481E-04
27	Cf Wellbore (1/psi) 3.498E-05
28	Total Fluid Visc (cp) 0.0905
29	Total FVF (bbl/stb) 4.027E-03
30	Total Fluid Bubble Point Press (psi) 0.2227
31	Fluid Density (lbs/r-ft3) 31.0997
32	Total Fluid SG (dim) 1.6409
33	FVF Oil (Rbl/Stb) N/A
34	FVF H2O (Rbl/Stb) N/A
35	FVF GAS (Scf/FT3) N/A
36	Mu Oil (cp) N/A
37	Mu H2O (cp) N/A
38	Mu Gas (cp) N/A
39	Density Oil (lb/rft3) N/A
40	Density H2O (lb/rft3) N/A
41	Density Gas (lb/rft3) N/A
42	Compress. Oil (1/psi) 1.787E-04
43	Compress. H2O (1/psi) 1.995E-05
44	Compress. Gas (1/psi) 1.260E-03
45	Compress. Rock (1/psi) 1.174E-06
46	Critical Temp (R) 674.8260
47	Critical Press (psia) 613.2509
48	Oil Vol Frac of Total Fluid (frac) 0.000E+00
49	Water Vol Frac of Total Fluid (frac) 0.000E+00
50	Gas Vol Frac of Total Fluid (frac) N/A
51	Dissolved Gas/Oil Ratio (Scf/Stb oil) N/A
52	Dissolved Gas/H2O Ratio (Scf/Stb H2O) N/A
53	Free Gas/Liquid Ratio (Scf/STB Tot Liq) N/A
54	Gas Gravity of Free Gas (dim) N/A
55	Gas Gravity of Gas in Oil (dim) N/A
56	Gas Gravity of Gas in H2O (dim) N/A

SUPERIOR TESTERS ENTERPRISES INC.

GREAT BEND, KANSAS

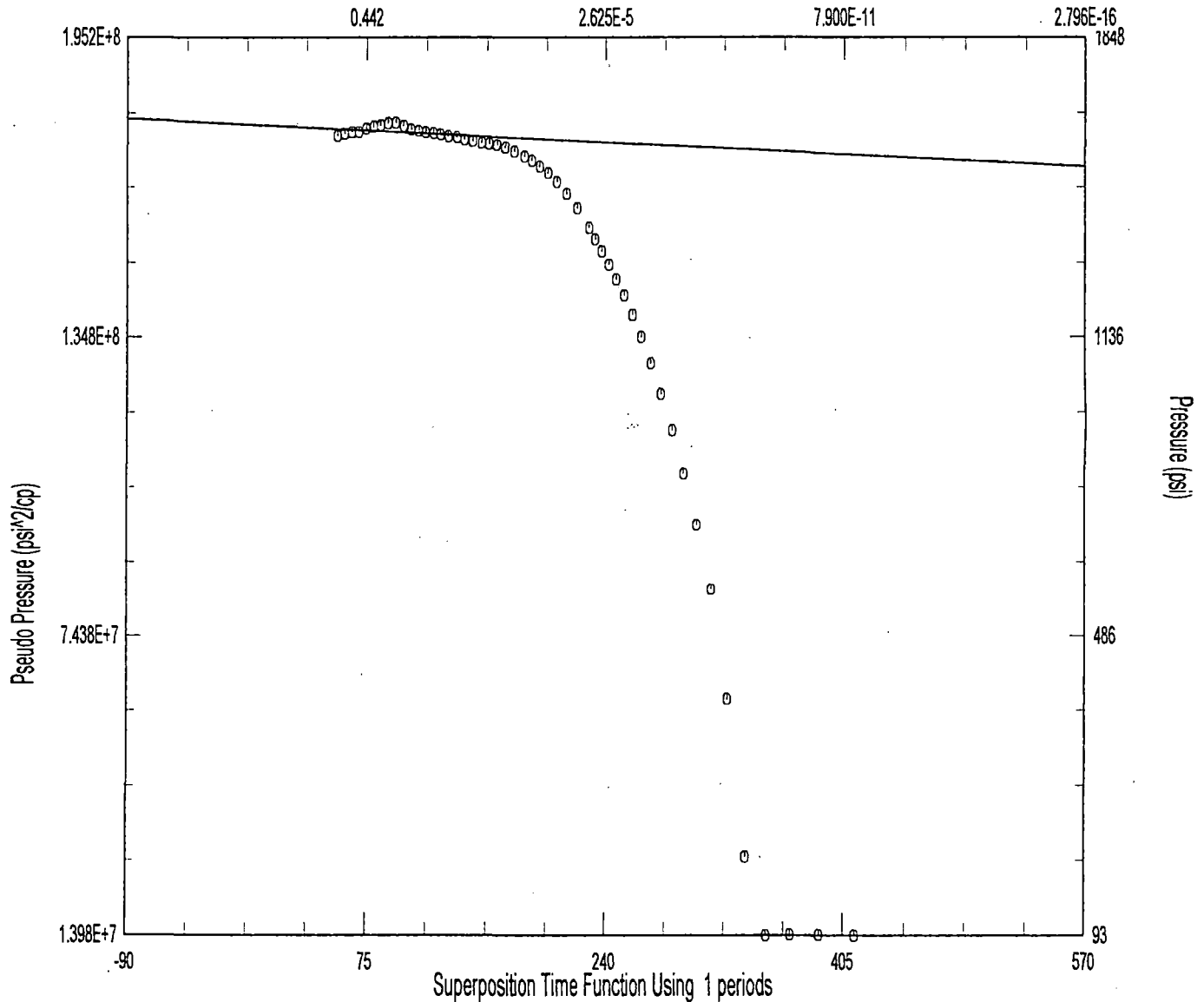
SUPERPOSITION ANALYSIS

(316) 792-6902

1ST SHUT-IN

State KANSAS
County COMANCHE
Field

Test Date 3/1/00
Sec Town Range 11-33S-19W
Report Number 13888



Field :
County or Parish :
State :

Date : 02-Mar-00 13:18:00
Analysis Period : end flow - 1st shut-in
Identifier : Line #

Superposition Slope -> m' -14812.320000
 Horner Slope -> m -3.851202E+6
 Intercept 1.775E+8
 P(dt=1 hr) 1.769E+8
 Pwf 1.398E+7
 R Sqr 0.1634

Intercept (psi) 1636.613
 k (md) 10.46219
 kh (md-ft) 62.77317
 k/u (md/cp) 105.67873
 kh/uB (md-ft/cp) 634.07239
 Skin 46.6667
 DP Skin 1458.4538
 Total DP 1543.6137
 Percent DP 94.48%

Radius Invest (ft) 55
 Radius Time (hrs) 0.74

Delta Q = 260
 h (ft)= 6
 mu (cp) = 0.0990
 B (stb/scf) = 0.0007

First Point # 42
 Second Point # 249
 Start Real Time 0.123
 End Real Time 0.744
 Start SF Time 174.335

SUPERIOR TESTERS ENTERPRISES INC.

GREAT BEND, KANSAS

SUPERPOSITION ANALYSIS

(316) 792-6902

2ND SHUT-IN

State KANSAS

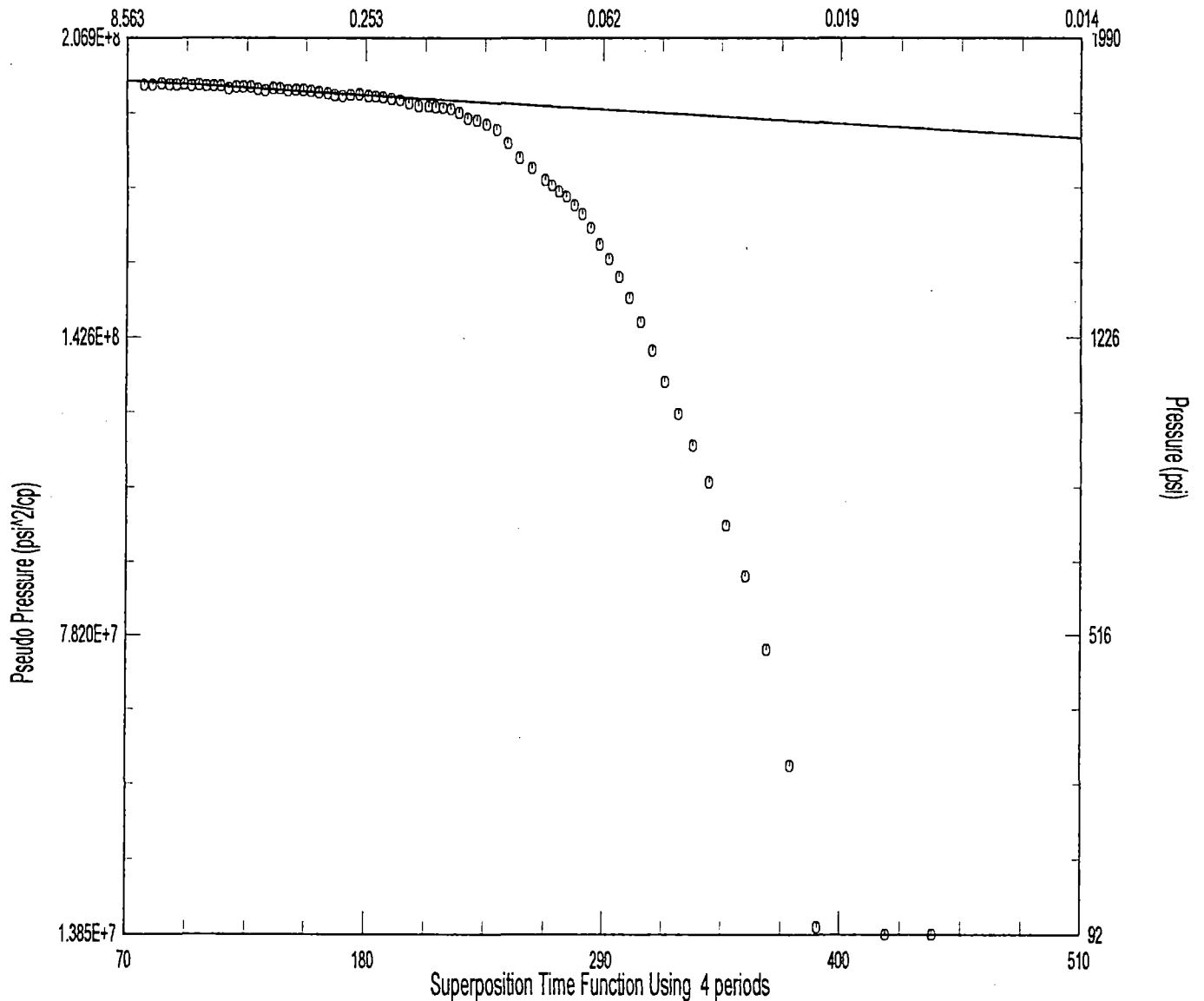
Test Date 3/1/00

County COMANCHE

Sec Town Range 11-33S-19W

Field

Report Number 13888



Field :
County or Parish :
State :

Date : 02-Mar-00 13:17:03
Analysis Period : end flow - 2nd shut-in
Identifier : Line #

Superposition Slope -> m' -28198.330000
Horner Slope -> m -6.203632E+6
Intercept 1.997E+8
P(dt=1 hr) 1.975E+8
Pwf 1.385E+7
R Sqr 0.9354

Intercept (psi) 1902.747
k (md) 5.49569
kh (md-ft) 32.97416
k/u (md/cp) 55.51205
kh/uB (md-ft/cp) 333.07228
Skin 32.3666
DP Skin 1676.0300
Total DP 1810.4411
Percent DP 92.58%

Radius Invest (ft) 47
Radius Time (hrs) 1.04

Delta Q = 220
h (ft)= 6
mu (cp) = 0.0990
B (stb/scf) = 0.0007

First Point # 58
Second Point # 300
Start Real Time 0.177
End Real Time 1.038
Start SF Time 198.525