

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

Operator: License # 5144  
Name: Mull Drilling Company, Inc.  
Address P.O. Box 2758  
City/State/Zip Wichita, KS 67201-2758  
Purchaser: KOCH OIL COMPANY  
Operator Contact Person: Mark Shreve  
Phone ( 316 ) 264-6336  
Contractor: Name: Duke Drilling Co., Inc.  
License: 5929  
Wellsite Geologist: Roger Marrin

Designate Type of Completion  
 New Well  Re-Entry  Workover  
 Oil  SWD  SIOW  
 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 \_\_\_\_\_ PBTD \_\_\_\_\_  
Commingled \_\_\_\_\_ Docket No. \_\_\_\_\_  
Dual Completion \_\_\_\_\_ Docket No. \_\_\_\_\_  
Other (SWD or Inj?) Docket No. \_\_\_\_\_  
Spud Date 10-22-93 Date Reached TD 10-29-93 Completion Date \_\_\_\_\_

API NO. 15- 135-23,787-0000  
County Ness  
200' S of C-SE/4  
Sec. 5 Twp. 19 Rge. 24  E  
1120 Feet from  N (circle one) Line of Section  
1320 Feet from  W (circle one) Line of Section  
Footages Calculated from Nearest Outside Section Corner:  
NE, SE, NW or SW (circle one)  
Lease Name Borger Well # 4  
Field Name McDonald  
Producing Formation Mississippian-Warsaw  
Elevation: Ground 2323 KS 2332  
Total Depth 4448' PBTD \_\_\_\_\_  
Amount of Surface Pipe Set and Cemented at 242 Feet  
Multiple Stage Cementing Collar Used?  Yes  No  
If yes, show depth set 1618 Feet  
If Alternate II completion, cement circulated from 1618  
feet depth to surface w/ 300 sx cnt.  
Drilling Fluid Management Plan  
(Data must be collected from the Reserve Pit)  
Chloride content 3600 ppm Fluid volume 1070 bbls  
Dewatering method used Evaporation  
Location of fluid disposal if hauled offsite:  
Operator Name \_\_\_\_\_  
Lease Name \_\_\_\_\_ License No. \_\_\_\_\_  
Quarter \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ Rge. \_\_\_\_\_ E/W \_\_\_\_\_  
County \_\_\_\_\_ Docket No. \_\_\_\_\_

ORIGINAL

DEC 2

CONFIDENTIAL

RELEASED

FEB 14 1995

FROM CONFIDENTIAL

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 Mark A. Shreve  
Title Petroleum Engineer Date 12/02/93

Subscribed and sworn to before me this 2nd day of December 19 93.

Notary Public PATRICIA L. UNGLEICH  
STATE OF KANSAS  
Date Commission Expires 3/27/95

Patricia L. Ungleich  
Patricia L. Ungleich  
March 27, 1995

K.C.C. OFFICE USE ONLY  
Letter of Confidentiality Attached  
Log Received  
Geologist Report Received  
Distribution  
KCC \_\_\_\_\_ SVD/Rep \_\_\_\_\_ NGPA \_\_\_\_\_  
KGS \_\_\_\_\_ Plug \_\_\_\_\_ Other (Specify) \_\_\_\_\_  
RECEIVED  
DEC 03 1993  
STATE CORPORATION COMMISSION  
CONSERVATION DIVISION  
Wichita, Kansas

PI

Operator Name Mull Drilling Co., Inc. Lease Name Borger Well # #4

Sec. 5 Twp. 19 Rge. 24  East  West

**CONFIDENTIAL**

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"/> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Log	Formation (Top), Depth and Datum	<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	T/Anhydrite	1595	+ 737
Electric Log Run (Submit Copy.)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Heebner	3706	-1374
List All E. Logs Run:		Toronto	3726	-1394
		Lansing	3746	-1414
		BKC	4062	-1730
		Marmaton	4070	-1738
		Pawnee	4180	-1848
		Ft Scott	4256	-1924
		Cherokee	4280	-1948
		Miss-Warsaw	4353	-2021
		Osage	4433	-2101
		<input checked="" type="checkbox"/> Nev <input type="checkbox"/> Used LTD	4450	-2118

CASING RECORD  Nev  Used LTD 4450 -2118  
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#	242'	60/40 poz	160	2% gel 3% cc
Production	7-7/8"	5 1/2"	14#	4442'	ASC	100	
2nd STAGE				1618'	60/40 poz	300	6% gel

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	4354-4366	500 gal 15% MCA	4354-4366

TUBING RECORD Size 2 3/8" Set At 3600' Packer At \_\_\_\_\_ Liner Run  Yes  No

Date of (First) Resumed Production, SWD or Inj. 11/5/93 Producing Method  Flowing  Pumping  Gas Lift  Other (Explain)

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
	26	0	258	- 0 -	36.8°

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 4354-4366

FORM MUST BE TYPED

**CONFIDENTIAL**

SIDE ONE

**CONFIDENTIAL**

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

API NO. 15- 135-23,787-0000

Operator: License # 5144  
Name: Mull Drilling Company, Inc.  
Address P.O. Box 2758  
City/State/Zip Wichita, KS 67201-2758

County Ness  
200' S of C-SE/4 Sec. 5 Twp. 19 Rge. 24  <sup>E</sup>

Purchaser: KOCH OIL COMPANY  
Operator Contact Person: Mark Shreve  
Phone (316) 264-6336  
Contractor: Name: Duke Drilling Co., Inc.  
License: 5929  
Wellsite Geologist: Roger Marrin

1120 Feet from S (circle one) Line of Section  
1320 Feet from E (circle one) Line of Section

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

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

Lease Name Borger Well # 4  
Field Name McDonald

Producing Formation Mississippian-Warsaw  
Elevation: Ground 2323 KS 2332

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 \_\_\_\_\_ PSTD  
\_\_\_\_\_ Commingled \_\_\_\_\_ Docket No. \_\_\_\_\_  
\_\_\_\_\_ Dual Completion \_\_\_\_\_ Docket No. \_\_\_\_\_  
\_\_\_\_\_ Other (SWD or Inj?) \_\_\_\_\_ Docket No. \_\_\_\_\_  
10-22-93 10-29-93  
Spud Date Date Reached TD Completion Date

Total Depth 4448' PSTD \_\_\_\_\_  
Amount of Surface Pipe Set and Cemented at 242 Feet

Multiple Stage Cementing Collar Used?  Yes  No  
If yes, show depth set 1618 Feet

If Alternate II completion, cement circulated from 1618  
feet depth to surface w/ 300 sz cmt.

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

Chloride content 3600 ppm Fluid volume 1070 bbls  
Dewatering method used Evaporation

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 Mark A. Shreve  
Title Petroleum Engineer Date 12/02/93

Subscribed and sworn to before me this 2nd day of December  
19 93  
Notary Public PATRICIA L. UNGLEICH  
PATRICIA L. UNGLEICH  
Date Commission Expires March 27, 1995

E.E.C. OFFICE USE ONLY  
 Letter of Confidentiality Attached  
 Wireline Log Received  
 Geologist Report Received  
Distribution  
 KCC  SWD/Rep  NGPA  
 KGS  Plug  Other  
(Specify)  
RECEIVED  
DEC 03 1993  
STATE CORPORATION COMMISSION  
OIL & GAS CONSERVATION DIVISION  
WICHITA, KANSAS

RELEASED

FEB 14 1995

FROM CONFIDENTIAL

ORIGINAL

# FORMATION

# TEST

# REPORT

KCC

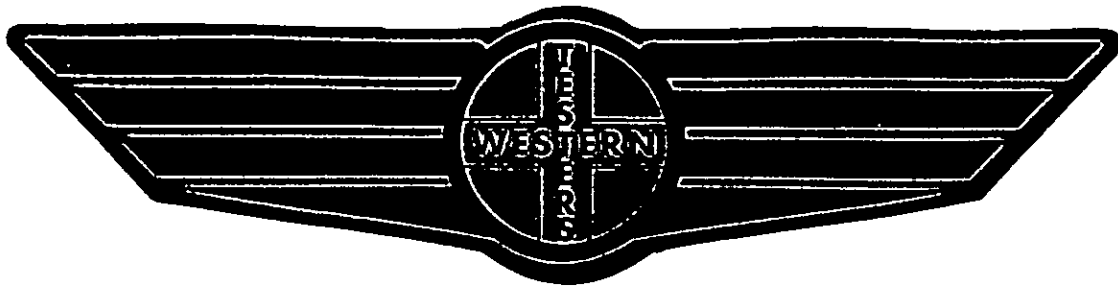
DEC 2

CONFIDENTIAL

COMPANY MULL DRILLING COMPANY, INC LEASE & WELL NO. #4 BORGER

SEC. 5 TWP. 19S RGE. 24W TEST NO. 1 DATE 10/28/93

API# 15-135-23787-0000



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone 1 - 80 - 688 - 7021

03003137

**DST REPORT**

**GENERAL INFORMATION**

DATE : 10-28-93	TICKET : 20086
CUSTOMER : MULL DRILLING CO., INC.	LEASE : BORGER
WELL : #4 TEST: 1	GEOLOGIST: ROGER L. MARTIN
ELEVATION: 2332 K.B.	FORMATION: MISSISSIPPI WARSAW
SECTION : 5	TOWNSHIP : 19S
RANGE : 24W COUNTY: NESS	STATE : KS
GAUGE SN#: 10270 RANGE : 4150	CLOCK : 12

**WELL INFORMATION**

PERFORATION INTERVAL FROM: 4320.00 ft	TO: 4362.00 ft	TVD: 4362.0 ft
DEPTH OF SELECTIVE ZONE:		TEST TYPE: OIL
DEPTH OF RECORDERS: 4323.0 ft	4326.0 ft	
TEMPERATURE: 126.0		

DRILL COLLAR LENGTH: 0.0 ft	I.D.:	0.000 in
WEIGHT PIPE LENGTH: 0.0 ft	I.D.:	0.000 in
DRILL PIPE LENGTH : 4300.0 ft	I.D.:	3.800 in
TEST TOOL LENGTH : 20.0 ft	TOOL SIZE :	5.500 in
ANCHOR LENGTH : 42.0 ft	ANCHOR SIZE:	5.500 in
SURFACE CHOKE SIZE : 0.750 in	BOTTOM CHOKE SIZE:	0.750 in
MAIN HOLE SIZE : 7.875 in	TOOL JOINT SIZE :	4.5XH
PACKER DEPTH: 4315.0 ft	SIZE:	6.630 in
PACKER DEPTH: 4320.0 ft	SIZE:	6.630 in
PACKER DEPTH: 0.0 ft	SIZE:	0.000 in
PACKER DEPTH: 0.0 ft	SIZE:	0.000 in

**MUD INFORMATION**

DRILLING CON. : DUKE DRLG. #4	
MUD TYPE : CHEMICAL	VISCOSITY : 48.00 cp
WEIGHT : 8.900 ppg	WATER LOSS: 9.000 cc
CHLORIDES : 5000 ppm	
JARS-MAKE :	SERIAL NUMBER:
DID WELL FLOW?: NO	REVERSED OUT?: NO

**COMMENTS**

Comment

WEAK BLOW THROUGHOUT INITIAL FLOW PERIOD .5" TO 1.25" BLOW. WEAK BLOW THROUGHOUT .25" TO .50" FINAL FLOW PEIOD.

ORIGINAL

DST REPORT (CONTINUED)

KCC

DEC 2

CONFIDENTIAL

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
30.0	100.0	0.0	0.0	0.0	CLEAN OIL GRAVITY 36
60.0	55.0	0.0	0.0	45.0	MUDDY OIL

RATE INFORMATION

OIL VOLUME: 0.8837 STB  
 GAS VOLUME: 0.0000 SCF  
 MUD VOLUME: 0.3787 STB  
 WATER VOLUME: 0.0000 STB  
 TOTAL FLUID : 1.2624 STB

TOTAL FLOW TIME: 120.0000 min.  
 AVERAGE OIL RATE: 15.1485 STB/D  
 AVERAGE WATER RATE: 0.0000 STB/D

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2087.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	31.00	31.00
INITIAL SHUT-IN	45.00		1288.00
FINAL FLOW	90.00	31.00	41.00
FINAL SHUT-IN	60.00		1277.00

FINAL HYDROSTATIC PRESSURE: 2045.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2115.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	40.00	46.00
INITIAL SHUT-IN	45.00		1296.00
FINAL FLOW	90.00	50.00	65.00
FINAL SHUT-IN	60.00		1299.00

FINAL HYDROSTATIC PRESSURE: 2066.00

RELEASED

FEB 14 1995

FROM CONFIDENTIAL

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE : 10-28-93	TICKET : 20086
CUSTOMER : MULL DRILLING CO., INC.	LEASE : BORGER
WELL : #4 TEST: 1	GEOLOGIST: ROGER L. MARTIN
ELEVATION: 2332 K.B.	FORMATION: MISSISSIPPI WARSAW
SECTION : 5	TOWNSHIP : 19S
RANGE : 24W COUNTY: NESS	STATE : KS
GAUGE SN#: 10270 RANGE : 4150	CLOCK : 12

INITIAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	40.00	40.00
5.00	40.00	0.00
10.00	41.00	1.00
15.00	42.00	1.00
20.00	43.00	1.00
25.00	44.00	1.00
30.00	46.00	2.00

INITIAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	117.00	117.00	0.00
6.00	446.00	329.00	0.00
9.00	838.00	392.00	0.00
12.00	1089.00	251.00	0.00
15.00	1176.00	87.00	0.00
18.00	1237.00	61.00	0.00
21.00	1257.00	20.00	0.00
24.00	1272.00	15.00	0.00
27.00	1280.00	8.00	0.00
30.00	1288.00	8.00	0.00
33.00	1290.00	2.00	0.00
36.00	1292.00	2.00	0.00
39.00	1294.00	2.00	0.00
42.00	1295.00	1.00	0.00
45.00	1296.00	1.00	0.00

G. B. ...

...

...

PRESSURE TRANSIENT REPORT (CONTINUED)

ORIGINAL

FINAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	50.00	50.00
5.00	51.00	1.00
10.00	52.00	1.00
15.00	53.00	1.00
20.00	54.00	1.00
25.00	55.00	1.00
30.00	56.00	1.00
35.00	57.00	1.00
40.00	58.00	1.00
45.00	59.00	1.00
50.00	60.00	1.00
55.00	61.00	1.00
60.00	62.00	1.00
65.00	62.00	0.00
70.00	63.00	1.00
75.00	63.00	0.00
80.00	64.00	1.00
85.00	64.00	0.00
90.00	65.00	1.00

KCC  
DEC 2  
CONFIDENTIAL

RELEASED

FEB 14 1995

FROM CONFIDENTIAL

FINAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	94.00	94.00	0.00
6.00	167.00	73.00	0.00
9.00	354.00	187.00	0.00
12.00	604.00	250.00	0.00
15.00	861.00	257.00	0.00
18.00	1052.00	191.00	0.00
21.00	1187.00	135.00	0.00
24.00	1228.00	41.00	0.00
27.00	1249.00	21.00	0.00
30.00	1263.00	14.00	0.00
33.00	1272.00	9.00	0.00
36.00	1278.00	6.00	0.00
39.00	1282.00	4.00	0.00
42.00	1286.00	4.00	0.00
45.00	1290.00	4.00	0.00
48.00	1292.00	2.00	0.00
51.00	1294.00	2.00	0.00
54.00	1296.00	2.00	0.00
57.00	1298.00	2.00	0.00



PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL SHUT IN (CONTINUED)

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
60.00	1299.00	1.00	0.00

022845.134

201 1 1 1

JAN 28 1960 10 00 AM

RELEASED  
FEB 14 1995  
FROM CONFIDENTIAL

FORMATION

TEST

REPORT

ORIGINAL

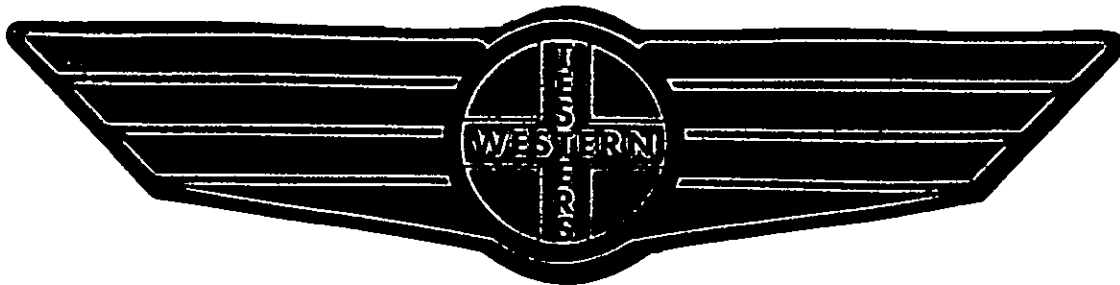
KCC

DEC 2

CONFIDENTIAL

COMPANMULL DRILLING COMPANY, INC. LEASE & WELL NO. #4 BORGER SEC. 5 TWP. 19S RGE. 24W TEST NO. 2 DATE 10/28/93

API # 15-135-23787



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone 1 - 80 - 688 - 7021

DST REPORT

GENERAL INFORMATION

DATE : 10-28-93  
CUSTOMER : MULL DRILLING CO., INC.  
WELL : #4 TEST: 2  
ELEVATION: 2332 K.B.  
SECTION : 5  
RANGE : 24W COUNTY: NESS  
GAUGE SN#: 10270 RANGE : 4150  
TICKET : 20087  
LEASE : BORGER  
GEOLOGIST: ROGER L. MARTIN  
FORMATION: MISSISSIPPI WARSAW  
TOWNSHIP : 19S  
STATE : KS  
CLOCK : 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 4362.00 ft TO: 4372.00 ft TVD: 4372.0 ft  
DEPTH OF SELECTIVE ZONE: TEST TYPE: OIL  
DEPTH OF RECORDERS: 4366.0 ft 4369.0 ft  
TEMPERATURE: 131.0  
DRILL COLLAR LENGTH: 0.0 ft I.D.: 0.000 in  
WEIGHT PIPE LENGTH : 0.0 ft I.D.: 0.000 in  
DRILL PIPE LENGTH : 4342.0 ft I.D.: 3.800 in  
TEST TOOL LENGTH : 20.0 ft TOOL SIZE : 5.500 in  
ANCHOR LENGTH : 10.0 ft ANCHOR SIZE: 5.500 in  
SURFACE CHOKE SIZE : 0.750 in BOTTOM CHOKE SIZE: 0.750 in  
MAIN HOLE SIZE : 7.875 in TOOL JOINT SIZE : 4.5XH  
PACKER DEPTH: 4357.0 ft SIZE: 6.630 in  
PACKER DEPTH: 4362.0 ft SIZE: 6.630 in  
PACKER DEPTH: 0.0 ft SIZE: 0.000 in  
PACKER DEPTH: 0.0 ft SIZE: 0.000 in

MUD INFORMATION

DRILLING CON. : DUKE DRLG. #4  
MUD TYPE : CHEMICAL  
WEIGHT : 8.900 ppg  
CHLORIDES : 7000 ppm  
JARS-MAKE :  
DID WELL FLOW?: NO  
VISCOSITY : 54.00 cp  
WATER LOSS: 8.000 cc  
SERIAL NUMBER:  
REVERSED OUT?: NO

COMMENTS

Comment

WEAK BUILDING TO A STRONG BLOW ON INITIAL FLOW PERIOD IN 10 MINUTES. WEAK BUILDING TO A STRONG BLOW IN 15 MINUTES ON FINAL FLOW PERIOD.

RELEASED

FEB 14 1995

ORIGINAL

FROM CONFIDENTIAL  
DST REPORT (CONTINUED)

KCC

FLUID RECOVERY

DEC 2

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
298.0	95.0	5.0	0.0	0.0	GASSY OIL GRAVITY 36
72.0	85.0	5.0	0.0	10.0	MUDDY GASSY OIL
62.0	20.0	10.0	30.0	40.0	OIL & GAS CUT WTRY MUD
186.0	2.0	5.0	90.0	3.0	OIL & GAS C/MDDY WATER
248.0	0.0	0.0	100.0	0.0	WATER RW .20 AT 80 DEG F.
0.0	0.0	0.0	0.0	0.0	250 GAS ABOVE FLUID
0.0	0.0	0.0	0.0	0.0	CHLORIDES 18000 PPM

CONFIDENTIAL

RATE INFORMATION

OIL VOLUME:	5.0554 STB	TOTAL FLOW TIME:	90.0000 min.
GAS VOLUME:	2.6778 SCF	AVERAGE OIL RATE:	84.7554 STB/D
MUD VOLUME:	0.5271 STB	AVERAGE WATER RATE:	101.9635 STB/D
WATER VOLUME:	6.0874 STB		
TOTAL FLUID :	11.6699 STB		

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2139.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	52.00	135.00
INITIAL SHUT-IN	45.00		1298.00
FINAL FLOW	60.00	177.00	354.00
FINAL SHUT-IN	60.00		1288.00

FINAL HYDROSTATIC PRESSURE: 2087.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2156.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	67.00	150.00
INITIAL SHUT-IN	45.00		1317.00
FINAL FLOW	60.00	194.00	369.00
FINAL SHUT-IN	60.00		1311.00

FINAL HYDROSTATIC PRESSURE: 2112.00

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE : 10-28-93	TICKET : 20087
CUSTOMER : MULL DRILLING CO., INC.	LEASE : BORGER
WELL : #4 TEST: 2	GEOLOGIST: ROGER L. MARTIN
ELEVATION: 2332 K.B.	FORMATION: MISSISSIPPI WARSAW
SECTION : 5	TOWNSHIP : 19S
RANGE : 24W COUNTY: NESS	STATE : KS
GAUGE SN#: 10270 RANGE : 4150	CLOCK : 12

INITIAL FLOW

Time (min)	Pressure	Delta P
0.00	67.00	67.00
5.00	71.00	4.00
10.00	83.00	12.00
15.00	96.00	13.00
20.00	115.00	19.00
25.00	135.00	20.00
30.00	150.00	15.00

INITIAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	1185.00	1185.00	0.00
6.00	1260.00	75.00	0.00
9.00	1280.00	20.00	0.00
12.00	1293.00	13.00	0.00
15.00	1299.00	6.00	0.00
18.00	1305.00	6.00	0.00
21.00	1309.00	4.00	0.00
24.00	1310.00	1.00	0.00
27.00	1311.00	1.00	0.00
30.00	1312.00	1.00	0.00
33.00	1313.00	1.00	0.00
36.00	1314.00	1.00	0.00
39.00	1315.00	1.00	0.00
42.00	1316.00	1.00	0.00
45.00	1317.00	1.00	0.00

ORIGINAL

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	194.00	194.00
5.00	196.00	2.00
10.00	206.00	10.00
15.00	225.00	19.00
20.00	233.00	8.00
25.00	250.00	17.00
30.00	269.00	19.00
35.00	288.00	19.00
40.00	302.00	14.00
45.00	320.00	18.00
50.00	335.00	15.00
55.00	352.00	17.00
60.00	369.00	17.00

KCC  
DEC 2  
CONFIDENTIAL

FINAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	1004.00	1004.00	0.00
6.00	1237.00	233.00	0.00
9.00	1263.00	26.00	0.00
12.00	1274.00	11.00	0.00
15.00	1280.00	6.00	0.00
18.00	1286.00	6.00	0.00
21.00	1290.00	4.00	0.00
24.00	1295.00	5.00	0.00
27.00	1299.00	4.00	0.00
30.00	1301.00	2.00	0.00
33.00	1302.00	1.00	0.00
36.00	1303.00	1.00	0.00
39.00	1304.00	1.00	0.00
42.00	1305.00	1.00	0.00
45.00	1306.00	1.00	0.00
48.00	1307.00	1.00	0.00
51.00	1308.00	1.00	0.00
54.00	1309.00	1.00	0.00
57.00	1310.00	1.00	0.00
60.00	1311.00	1.00	0.00

RELEASED

FEB 14 1995

FROM CONFIDENTIAL



Phone 316-793-5661, Russell, Kansas  
 Phone 316-793-5661, Great Bend, Kansas

CONFIDENTIAL

Phone Plainville 913-434-2812  
 Phone Ness City 913-798-3843

# ALLIED CEMENTING CO., INC.

4845

Home Office P. O. Box 31

Russell, Kansas 67665

Date	11/29/93	Sec.	5	Twp.	19S	Range	24W	Called Out	4 PM	On Location	9:35	Finish	10:05
Lease	Boyer	Well No.	4	Location	4W 1 1/2 S 1/2 W N into			Ness	County	Ness	State	Ks	
Contractor	D. L. Co	ORIGINAL											
Type Job	TWO Stage Btm												
Hole Size	7 7/8	T.D.	4450										
Drill Pipe	5 1/2	Depth	444-KCC										
Drill Pipe	14"	Depth	DEC 2										
Drill Pipe		Depth	CONFIDENTIAL										
Tool	Acme DV	Depth	1678"										
Cement Left in Cg	1	Shoe Joint	43'										
Press Max	1200	Minimum											
Press Min		Displace	107.3 bbl										

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 listed.

Charge To: M. H. D. Co. Inc.  
 Street: PO Box 421  
 City: Ness City, State: Ks. 67560

The above was done to satisfaction and supervision of owner agent or contractor.

Purchase Order No. X  
 CEMENT  
 500 lbs. WFR-2

Amount Ordered: 100 ASC 5# Gilsomite per sk

Consisting of	Common	100	750	750.00
Poz. Mix				
Gel.				
Chloride	Gilsomite 500	.39		195.00
Quickset	500 lbs. WFR II	1.00		500.00
Handling	100	1.00		100.00
Mileage	6	mi		60.00
Total	\$ 6573.50			
Disc	- 1314.70			
Total	\$ 5258.80			1605.00

EQUIPMENT		Released
Operator	Gary	
Helper	Mike	
Operator		
Helper		
Driver	Bill	
Driver		
DEPTH of Job	4444'	
Rotating Head		1038.00
6 Mileage FROM CONFIDENTIAL		13.50
Rotating Head		75.00
Total		1126.50

Floating Equipment	
Guide Shoe	- 125.00
Insert	- 189.00
6 STATE COOPERATION COMMISSION	336.00
Stage 11/29/93	- 3065.00
Cement Baker	- 127.00
CONSERVATION DIVISION Wichita Kansas	3842.00

Mix Young Flash Mix cement  
 replace Floor held.  
 Thank you  
 Van & Hene