

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

Operator: License # 5135
Name: JOHN O. FARMER, INC.
Address: P.O. Box 352
Russell, KS 67665
City/State/Zip _____
Purchaser: Farmland Industries, Inc.
Operator Contact Person: John O. Farmer III
Phone (913) 483-3144
Contractor: Name: ALLEN DRILLING COMPANY
License: 5418
Wellsite Geologist: Martin K. Dubois
Designate Type of Completion
 New Well Re-Entry Workover
 Oil SWD SIOW Temp. Abd.
 Gas ENHR SIGW
 Dry Other (Core, WSW, Expl., Cathodic, etc)

If Workover/Re-Entry: old well info as follows:

Operator: N/A
Well Name: _____
Comp. Date _____ Old Total Depth _____
 Deepening Re-perf. Conv. to Inj/SWD
 Plug Back PBSD
 Commingled Docket No. _____
 Dual Completion Docket No. _____
 Other (SWD or Inj?) Docket No. _____
10/16/93 10/26/93 11/10/93
Spud Date Date Reached TD Completion Date.

DB-00

API NO. 15- 151-22,110 **ORIGINAL**
County Pratt
E - SE - SW - SE Sec. 21 Twp. 29 Rge. 13 E
330 Feet from N (circle one) Line of Section
1650 Feet from E (circle one) Line of Section
Footages Calculated from Nearest Outside Section Corner:
NE, SE, NW or SW (circle one)
Lease Name NOVOTNY Well # 1
Field Name Jem
Producing Formation Simpson Sandstone
Elevation: Ground 1931' KB 1936'
Total Depth 4790' PBSD _____
Amount of Surface Pipe Set and Cemented at 278 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/ _____ ex cnt.
Drilling Fluid Management Plan ALT 1 JH 6-15-94
(Data must be collected from the Reserve Pit)
Chloride content 58,000 ppm Fluid volume 1,800 bbls
Dewatering method used evaporation
Location of fluid disposal if hauled offsite:
(not hauled)
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 John O. Farmer III
Title President Date 1-19-94
Subscribed and sworn to before me this 19th day of January, 1994.
Notary Public Margaret A. Schulte
Margaret A. Schulte
Date Commission Expires _____

K.C.C. OFFICE USE ONLY

F Letter of Confidentiality (Accepted)
C Wireline Log Received
C Geologist Report Received 1-20-94

Distribution JAN 20 1994
KCC _____ SWD/Rep _____ NGPA _____
KGS _____ Plug _____ Other _____
CONSERVATION DIVISION
Wichita, Kansas

NOTARY PUBLIC - State of Kansas
MARGARET A. SCHULTE
My Appt. Exp. 1-27-97

Operator Name: JOHN O. FARMER, INC.

Lease Name: NOVOTNY

Well # 1

Sec. 21 Twp. 29 Rgs. 13

East
 West

County: Pratt

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:

Dual Induction Log

Dual Compensated Porosity Log

Log Formation (Top), Depth and Datum Sample

Name	Top	Datum
Heebner	3776'	(-1840)
Lansing	3971'	(-2035)
Stark	4283'	(-2347)
Marmaton	4365'	(-2429)
Mississippi	4449'	(-2513)
Kinderhook	4472'	(-2536)
Viola	4512'	(-2576)
Simpson Sandstone	4633'	(-2697)
Arbuckle	4738'	(-2802)
L.T.D.	4790'	(-2854)

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	12-1/4"	10-3/4"	32#	278'	60/40poz	200	2%gel 3%cc
production	7-7/8"	5-1/2"	15.5#	4788'	EA2	200	10% salt

ADDITIONAL CEMENTING/SQUEEZE RECORD-NA

Purpose:	Depth		Type of Cement	#Sacks Used	Type and Percent Additives
	Top	Bottom			
<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	Simpson Sandstone 4633-37 (4')		none

TUBING RECORD	Size 2-1/2"	Set At 4746'	Packer At --	Liner Run <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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Date of First, Resumed Production, SWD or Inj. November 24, 1993	Producing Method <input type="checkbox"/> Flowing <input checked="" type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other (Explain)
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Estimated Production Per 24 Hours	Oil 60 Bbls.	Gas TSTM Mcf	Water Bbls. 0	Gas-Oil Ratio	Gravity 32
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Disposition of Gas: Vented Sold Used on lease Open Hole Perf. Dually Comp. Commingled Other (Specify)

Production Interval: 4633-37 (4')



HALLIBURTON
ENERGY SERVICES

TICKET CONTINUATION

COPY

TICKET No. 509 542

FORM 1911 R-8

CUSTOMER JOHN O FARMER	WELL 1 NOVOTNY	DATE 10-27-93	PAGE 2	OF 2
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ORIGINAL

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			TIME	DESCRIPTION	QTY.		UNIT PRICE	AMOUNT	
		LOC	ACCT	DF			QTY.	U/M		QTY.	U/M
504-308	516.00261	1				200	sk	6.96	1392	00	
508-291	516.00337	1				1000	lb	40	400	00	
509-968	516.00158	1				900	lb	13	117	00	
508-127	890.50131	1				9	sk	20.70	186	30	
507-775	516.00144	1				75	lb	6.90	517	50	
507-970	70.15764	1				50	lb	3.25	162	50	
509-968	516.00158	1				250	lb	13	32	50	
500-207					SERVICE CHARGE		CUBIC FEET				
							254	1.35	342	90	
500-306					MILEAGE CHARGE	TOTAL WEIGHT	LOADED MILES	TON MILES			
						21,975	11	120.86	.95	114.81	

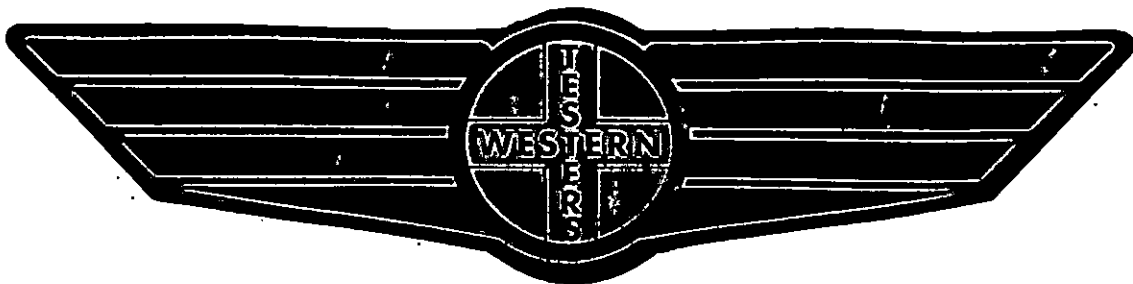
CONTINUATION TOTAL

5245.00

ORIGINAL

FORMATION TEST REPORT

COMPANY JOHN C. FARRER, INC. LEASE & WELL NO. # 110-0111
APR 7/5-151-22.110 SEC. 1 IMP. COB. TEST NO.



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone 1-80-688-7021

DST REPORT

ORIGINAL

GENERAL INFORMATION

DATE : 10/22/93	TICKET : 16174
CUSTOMER : JOHN O FARMER, INC.	LEASE : NOVOTNY
WELL : #1 TEST: 1	GEOLOGIST: DUBOIS
ELEVATION: 1946 GL	FORMATION: MISSISSIPPI
SECTION : 21	TOWNSHIP : 29S
RANGE : 13W COUNTY: PRATT	STATE : KS
GAUGE SN#: 1051 RANGE : 4250	CLOCK : 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 4451.00 ft	TO: 4470.00 ft	TVD: 4470.0 ft
DEPTH OF SELECTIVE ZONE:		TEST TYPE: OIL
DEPTH OF RECORDERS: 4461.0 ft	4464.0 ft	
TEMPERATURE: 122.0		

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 : 4429.0 ft	I.D.:	3.800 in
TEST TOOL LENGTH : 22.0 ft	TOOL SIZE :	5.500 in
ANCHOR LENGTH : 19.0 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: 4446.0 ft	SIZE:	6.630 in
PACKER DEPTH: 4451.0 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. : ALLEN DRILLING	VISCOSITY : 53.00 cp
MUD TYPE : CHEMICAL	WATER LOSS: 10.000 cc
WEIGHT : 9.500 ppg	SERIAL NUMBER:
CHLORIDES : 6500 ppm	REVERSED OUT?: NO
JARS-MAKE :	
DID WELL FLOW?: NO	

COMMENTS

Comment

INITIAL FLOW PERIOD STRONG BLOW IN 5 MINUTES.
 FINAL FLOW PERIOD STRONG BLOW - DEPLEATING TO A
 GOOD 9 INCH BLOW.

ORIGINAL

DST REPORT (CONTINUED)

COMMENTS (CONTINUED)

Comment

TIGHT HOLE.

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
0.0	0.0	0.0	0.0	0.0	550 FT GAS ABOVE FLUID
10.0	0.0	60.0	0.0	40.0	GAS CUT MUD

RATE INFORMATION

OIL VOLUME:	0.0000	STB	TOTAL FLOW TIME:	75.0000	min.
GAS VOLUME:	0.4725	SCF	AVERAGE OIL RATE:	0.0000	STB/D
MUD VOLUME:	0.0561	STB	AVERAGE WATER RATE:	0.0000	STB/D
WATER VOLUME:	0.0000	STB			
TOTAL FLUID :	0.0561	STB			

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2294.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	75.00	75.00
INITIAL SHUT-IN	45.00		247.00
FINAL FLOW	45.00	75.00	75.00
FINAL SHUT-IN	60.00		430.00

FINAL HYDROSTATIC PRESSURE: 2294.00

ORIGINAL

DST REPORT (CONTINUED)

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2296.00

<u>Description</u>	<u>Duration</u>	<u>p1</u>	<u>p End</u>
INITIAL FLOW	30.00	72.00	72.00
INITIAL SHUT-IN	51.00		244.00
FINAL FLOW	45.00	66.00	66.00
FINAL SHUT-IN	60.00		396.00

FINAL HYDROSTATIC PRESSURE: 2283.00

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE : 10/22/93	TICKET : 16174
CUSTOMER : JOHN O FARMER, INC.	LEASE : NOVOTNY
WELL : #1 TEST: 1	GEOLOGIST: DUBOIS
ELEVATION: 1946 GL	FORMATION: MISSISSIPPI
SECTION : 21	TOWNSHIP : 29S
RANGE : 13W COUNTY: PRATT	STATE : KS
GAUGE SN#: 1051 RANGE : 4250.	CLOCK : 12

INITIAL FLOW

Time (min)	Pressure	Delta P
0.00	72.00	72.00
5.00	72.00	0.00
10.00	72.00	0.00
15.00	72.00	0.00
20.00	72.00	0.00
25.00	72.00	0.00
30.00	72.00	0.00

INITIAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	72.00	72.00	0.00
6.00	72.00	0.00	0.00
9.00	72.00	0.00	0.00
12.00	73.00	1.00	0.00
15.00	75.00	2.00	0.00
18.00	80.00	5.00	0.00
21.00	88.00	8.00	0.00
24.00	101.00	13.00	0.00
27.00	117.00	16.00	0.00
30.00	132.00	15.00	0.00
33.00	151.00	19.00	0.00
36.00	166.00	15.00	0.00
39.00	181.00	15.00	0.00
42.00	199.00	18.00	0.00
45.00	213.00	14.00	0.00
48.00	227.00	14.00	0.00
51.00	244.00	17.00	0.00

ORIGINAL

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL FLOW

Time (min)	Pressure	Delta P
0.00	66.00	66.00
5.00	66.00	0.00
10.00	66.00	0.00
15.00	66.00	0.00
20.00	66.00	0.00
25.00	66.00	0.00
30.00	66.00	0.00
35.00	66.00	0.00
40.00	66.00	0.00
45.00	66.00	0.00

FINAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	68.00	68.00	0.00
6.00	71.00	3.00	0.00
9.00	75.00	4.00	0.00
12.00	85.00	10.00	0.00
15.00	104.00	19.00	0.00
18.00	124.00	20.00	0.00
21.00	143.00	19.00	0.00
24.00	163.00	20.00	0.00
27.00	186.00	23.00	0.00
30.00	208.00	22.00	0.00
33.00	227.00	19.00	0.00
36.00	248.00	21.00	0.00
39.00	267.00	19.00	0.00
42.00	285.00	18.00	0.00
45.00	306.00	21.00	0.00
48.00	323.00	17.00	0.00
51.00	341.00	18.00	0.00
54.00	361.00	20.00	0.00
57.00	379.00	18.00	0.00
60.00	396.00	17.00	0.00

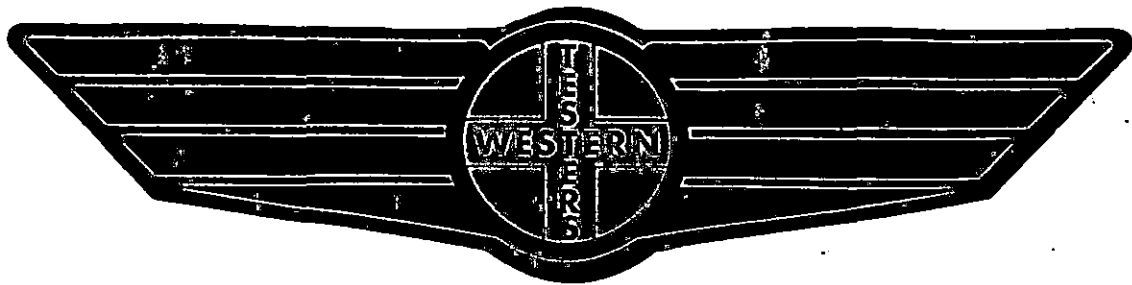
ORIGINAL

FORMATION

TEST

REPORT

COMPANY JOHN O. FARMER
LEASE & WELL NO. NOVOLINK II 1
APRIL/S-151-22110
SEC. 21 IMP. 295-RGE. 13W TEST NO. 2
DATE 10-23-55



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone 1-80-688-7021

ORIGINAL

DST REPORT

GENERAL INFORMATION

DATE : 10/23/93
CUSTOMER : JOHN O FARMER, INC.
WELL : #1 TEST: 2
ELEVATION: 1946 KB
SECTION : 21
RANGE : 13W COUNTY: PRATT
GAUGE SN#: 1051 RANGE : 4250
TICKET : 16175
LEASE : NOVOTNY
GEOLOGIST: DUBOIS
FORMATION: VIOLA
TOWNSHIP : 29S
STATE : KS
CLOCK : 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 4521.00 ft TO: 4554.00 ft TVD: 4554.0 ft
DEPTH OF SELECTIVE ZONE: TEST TYPE: OIL
DEPTH OF RECORDERS: 4524.0 ft 4527.0 ft
TEMPERATURE: 123.0
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 : 4499.0 ft I.D.: 3.800 in
TEST TOOL LENGTH : 22.0 ft TOOL SIZE : 5.500 in
ANCHOR LENGTH : 33.0 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: 4515.0 ft SIZE: 6.630 in
PACKER DEPTH: 4521.0 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. : ALLEN DRILLING
MUD TYPE : CHEMICAL
WEIGHT : 9.500 ppg
CHLORIDES : 8000 ppm
JARS-MAKE :
DID WELL FLOW?: NO
VISCOSITY : 62.00 cp
WATER LOSS: 10.000 cc
SERIAL NUMBER:
REVERSED OUT?: NO

COMMENTS

Comment

INITIAL FLOW PERIOD STRONG BLOW. GAS TO SURFACE
IN 7 MINUTES. SEE GAS SHEET ATTACHED.
TIGHT HOLE.

ORIGINAL

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
480.0	70.0	20.0	0.0	10.0	FREE GASSY OIL
0.0	0.0	0.0	0.0	0.0	34 GRAVITY

RATE INFORMATION

OIL VOLUME:	4.7129	STB	
GAS VOLUME:	7.5608	SCF	
MUD VOLUME:	0.6733	STB	
WATER VOLUME:	0.0000	STB	
TOTAL FLUID :	5.3861	STB	
			TOTAL FLOW TIME: 75.0000 min.
			AVERAGE OIL RATE: 103.4135 STB/D
			AVERAGE WATER RATE: 0.0000 STB/D

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2455.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	139.00	139.00
INITIAL SHUT-IN	45.00		1334.00
FINAL FLOW	45.00	193.00	193.00
FINAL SHUT-IN	60.00		1313.00

FINAL HYDROSTATIC PRESSURE: 2348.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2442.00

Description	Duration	p1	p End
INITIAL FLOW	35.00	196.00	170.00
INITIAL SHUT-IN	45.00		1340.00
FINAL FLOW	40.00	219.00	219.00
FINAL SHUT-IN	60.00		1288.00

FINAL HYDROSTATIC PRESSURE: 2334.00

ORIGINAL

GAS FLOW REPORT

GENERAL INFORMATION

DATE : 10/23/93
CUSTOMER : JOHN O FARMER, INC.
WELL : #1 TEST: -2
ELEVATION: 1946 KB
SECTION : 21
RANGE : 13W COUNTY: PRATT
GAUGE SN#: 1051 RANGE : 4250
TICKET : 16175
LEASE : NOVOTNY
GEOLOGIST: DUBOIS
FORMATION: VIOLA
TOWNSHIP : 29S
STATE : KS
CLOCK : 12

PRE FLOW

Time Guage (min)	Tester Type	Orifice Size	Pressure	Flow Desc.
10 MIN	MERLA	0.750	4 PSIG	156000 SCF/D
20 MIN	MERLA	0.750	4 PSIG	156000 SCF/D
30 MIN	MERLA	0.750	4 PSIG	156000 SCF/D

SECOND FLOW

Time Guage (min)	Tester Type	Orifice Size	Pressure	Flow Desc.
10 MIN	MERLA	0.750	5 PSIG	175000 SCF/D
20 MIN	MERLA	0.750	4 PSIG	156000 SCF/D
30 MIN	MERLA	0.750	4 PSIG	156000 SCF/D
40 MIN	MERLA	0.750	4 PSIG	156000 SCF/D
45 MIN	MERLA	0.750	4 PSIG	156000 SCF/D

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE : 10/23/93	TICKET : 16175
CUSTOMER : JOHN O FARMER, INC.	LEASE : NOVOTNY
WELL : #1 TEST: 2	GEOLOGIST: DUBOIS
ELEVATION: 1946 KB	FORMATION: VIOLA
SECTION : 21	TOWNSHIP : 29S
RANGE : 13W	STATE : KS
COUNTY: PRATT	CLOCK : 12
GAUGE SN#: 1051	RANGE : 4250

INITIAL FLOW

<u>Time</u> <u>(min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	196.00	196.00
5.00	196.00	0.00
10.00	180.00	-16.00
15.00	172.00	-8.00
20.00	169.00	-3.00
25.00	170.00	1.00
30.00	170.00	0.00
35.00	170.00	0.00

INITIAL SHUT IN

<u>Time</u> <u>(min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	805.00	805.00	12.67
6.00	1074.00	269.00	6.83
9.00	1167.00	93.00	4.89
12.00	1205.00	38.00	3.92
15.00	1233.00	28.00	3.33
18.00	1253.00	20.00	2.94
21.00	1268.00	15.00	2.67
24.00	1282.00	14.00	2.46
27.00	1290.00	8.00	2.30
30.00	1300.00	10.00	2.17
33.00	1312.00	12.00	2.06
36.00	1320.00	8.00	1.97
39.00	1325.00	5.00	1.90
42.00	1332.00	7.00	1.83
45.00	1340.00	8.00	1.78

ORIGINAL

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	219.00	219.00
5.00	219.00	0.00
10.00	219.00	0.00
15.00	219.00	0.00
20.00	219.00	0.00
25.00	219.00	0.00
30.00	219.00	0.00
35.00	219.00	0.00
40.00	219.00	0.00

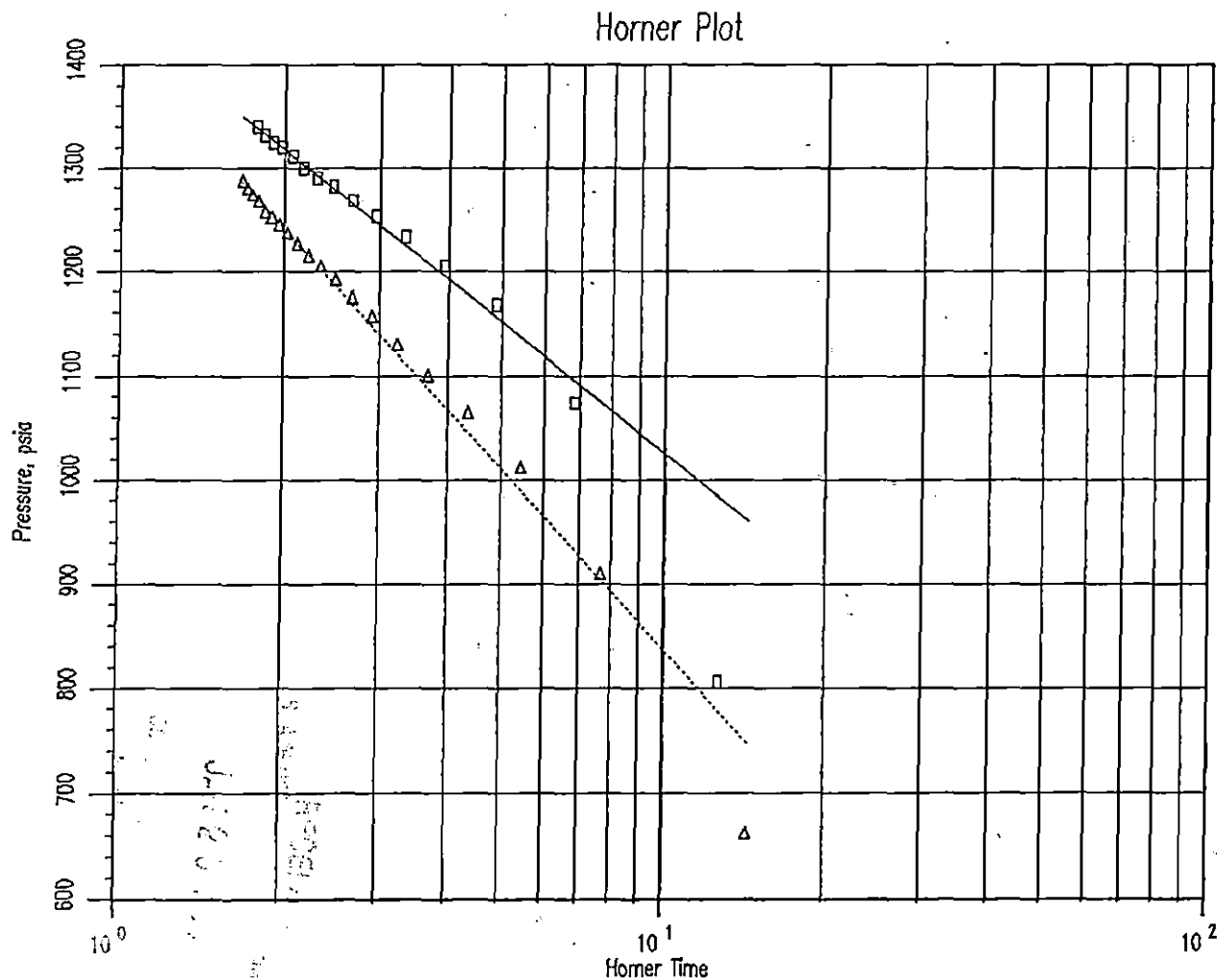
FINAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	662.00	662.00	14.33
6.00	910.00	248.00	7.67
9.00	1012.00	102.00	5.44
12.00	1065.00	53.00	4.33
15.00	1101.00	36.00	3.67
18.00	1130.00	29.00	3.22
21.00	1157.00	27.00	2.90
24.00	1175.00	18.00	2.67
27.00	1192.00	17.00	2.48
30.00	1205.00	13.00	2.33
33.00	1215.00	10.00	2.21
36.00	1227.00	12.00	2.11
39.00	1237.00	10.00	2.03
42.00	1245.00	8.00	1.95
45.00	1252.00	7.00	1.89
48.00	1258.00	6.00	1.83
51.00	1268.00	10.00	1.78
54.00	1274.00	6.00	1.74
57.00	1280.00	6.00	1.70
60.00	1288.00	8.00	1.67

DATE 10/23/93
 CUSTOMER JOHN O FARMER, INC.
 WELL #1
 ELEVATION 1946 KB
 SECTION 21
 RANGE 13W
 GAUGE SN# 1051

TEST 2
 COUNTY PRATT
 RANGE 4250

TICKET 16175
 LEASE NOVOTNY
 GEOLOGIST DUBOIS
 FORMATION VIOLA
 TOWNSHIP 29S
 STATE KS
 CLOCK 12



	Result	
	#1	#2
tp, hrs	0.58	0.67
Slope	-416.67	-575.92
Pstar, psig	1442.19	1412.83
P1hr, psig	1359.04	1285.06
Skin	5.27	4.24
k, md	3.55	2.57
kh/u, md-ft/cp	82.11	59.40
ri, ft	0.08	0.07
DR, %	-2.21	-1.29
Drawdown Factor, %		3.881
Drawdown P*, %		2.036

— BUILD 1
 BUILD 2

ORIGINAL

HORNER ANALYSIS REPORT

GENERAL INFORMATION

DATE : 10/23/93	TICKET : 16175
CUSTOMER : JOHN O FARMER, INC.	LEASE : NOVOTNY
WELL : #1 TEST: 2	GEOLOGIST: DUBOIS
ELEVATION: 1946 KB	FORMATION: VIOLA
SECTION : 21	TOWNSHIP : 29S
RANGE : 13W COUNTY: PRATT	STATE : KS
GAUGE SN#: 1051 RANGE : 4250	CLOCK : 12

Input Data

Porosity 0.800 Rw: 0.328 ft h: 10.000 ft
 qo 103.4 STB GOR 1508.5 SCF/STB

Pvt Data
 Evaluation Pressure : 1340.0
 Evaluation Temperature: 123.0

Oil Grav 34.00 API	Gas Grav 1.20 API	Pb 3281.83 PSIA
Bo 2.035 RBL/STB	Vis 1.000 cp	Ct 1.0986E+000 1/PSI

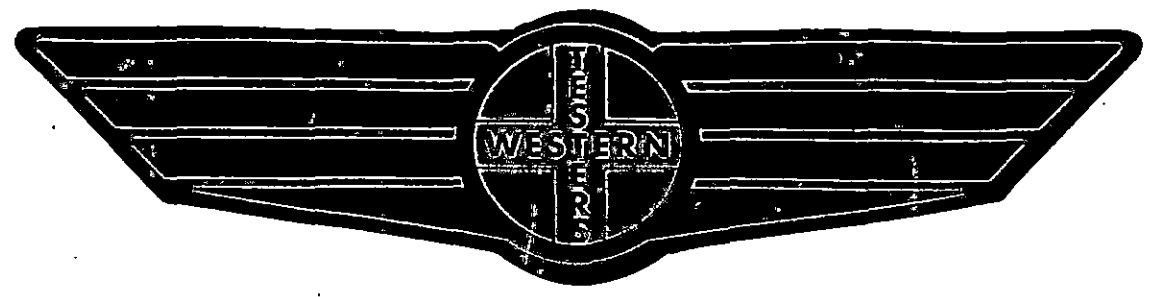
Horner Results

	Initial Shut-In	Final Shut-In
pseudo pressure time	0.58 hrs	0.67 hrs
slope	-416.67	-575.92
pstar	1442.19 psig	1412.83 psig
plhr	1359.04 psig	1285.06 psig
skin	5.27	4.24
permeability	3.55 md	2.57 md
transmissability	82.11 md-ft/cp	59.40 md-ft/cp
radius of investigation	0.08 ft	0.07 ft
Damage-Ratio	-2.2 percent	-1.3 percent
Drawdown Factor		3.881 percent
Drawdown P*		2.036 percent

ORIGINAL

FORMATION TEST REPORT

COMPANY JOHN O. FARMER
LEASE & WELL NO. NOVONIX #1
API #/S- 151-22110
SEC. 21 TWP. 29S RGE. 13W TEST NO. 3
DATE 10-24-93



Home Office:
P.O. Box 1599

Wichita, Kansas 67201
Phone 1-80-688-7021

DST REPORT

ORIGINAL

GENERAL INFORMATION

DATE	: 10/24/93	TICKET	: 20026
CUSTOMER	: JOHN O FARMER, INC.	LEASE	: NOVOTNY
WELL	: #1	GEOLOGIST	: DUBOIS
ELEVATION	: 1946 KB	FORMATION	: SIMPSON SAND
SECTION	: 21	TOWNSHIP	: 29S
RANGE	: 13W	COUNTY	: PRATT
Gauge SN#	: 1051	RANGE	: 4250
		STATE	: KS
		CLOCK	: 12
		TEST	: 3

WELL INFORMATION

PERFORATION INTERVAL FROM:	4614.00 ft	TO:	4637.00 ft	TVD:	4637.0 ft
DEPTH OF SELECTIVE ZONE:		TEST TYPE:	OIL		
DEPTH OF RECORDERS:	4626.0 ft		4629.0 ft		
TEMPERATURE:	132.0				
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:	4594.0 ft	I.D.:	3.800 in		
TEST TOOL LENGTH:	20.0 ft	TOOL SIZE:	5.500 in		
ANCHOR LENGTH:	23.0 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:	4609.0 ft	SIZE:	6.630 in		
PACKER DEPTH:	4614.0 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.:	ALLEN DRILLING	VISCOSITY:	59.00 cp
MUD TYPE:	CHEMICAL	WATER LOSS:	10.800 cc
WEIGHT:	9.200 ppg	SERIAL NUMBER:	
CHLORIDES:	7000 ppm	REVERSED OUT?:	NO
JARS-MAKE:			
DID WELL FLOW?:	NO		

COMMENTS

Comment

INITIAL FLOW PERIOD STRONG BLOW. FINAL FLOW PERIOD STRONG BLOW - GAS TO SURFACE IN 15 MINUTES. SEE GAS SHEET ATTACHED.

DST REPORT (CONTINUED)

COMMENTS (CONTINUED)

Comment

TIGHT HOLE.

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
40.0	20.0	60.0	0.0	20.0	HEAVY GAS CUT OIL & MUD
180.0	60.0	20.0	0.0	20.0	GAS & MUD CUT OIL
840.0	100.0	0.0	0.0	0.0	FREE GASSY OIL
180.0	50.0	50.0	0.0	0.0	HEAVY GAS CUT OIL

RATE INFORMATION

OIL VOLUME: 14.6716 STB	
GAS VOLUME: 11.8137 SCF	TOTAL FLOW TIME: 70.0000 min.
MUD VOLUME: 0.6172 STB	AVERAGE OIL RATE: 314.5110 STB/D
WATER VOLUME: 0.0000 STB	AVERAGE WATER RATE: 0.0000 STB/D
TOTAL FLUID : 15.2887 STB	

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2401.00

Description	Duration	pl	p End
INITIAL FLOW	30.00	161.00	215.00
INITIAL SHUT-IN	45.00		591.00
FINAL FLOW	45.00	322.00	398.00
FINAL SHUT-IN	60.00		591.00
FINAL HYDROSTATIC PRESSURE: 2348.00			

ORIGINAL

DST REPORT (CONTINUED)

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2391.00

Description	Duration	p _i	p End
INITIAL FLOW	25.00	175.00	205.00
INITIAL SHUT-IN	48.00		585.00
FINAL FLOW	45.00	319.00	392.00
FINAL SHUT-IN	60.00		589.00

FINAL HYDROSTATIC PRESSURE: 2316.00

GAS FLOW REPORT

GENERAL INFORMATION

DATE : 10/24/93	TICKET : 20026
CUSTOMER : JOHN O FARMER, INC.	LEASE : NOVOTNY
WELL : #1	GEOLOGIST: DUBOIS
ELEVATION: 1946 KB	FORMATION: SIMPSON SAND
SECTION : 21	TOWNSHIP : 29S
RANGE : 13W	COUNTY: PRATT
GAUGE SN#: 1051	RANGE : 4250
	STATE : KS
	CLOCK : 12
	TEST: 3

PRE FLOW

Time Guage (min)	Tester Type	Orifice Size	Pressure	Flow Desc.
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SECOND FLOW

Time Guage (min)	Tester Type	Orifice Size	Pressure	Flow Desc.
15 MIN	MERLA	0.500	3" WATER	10900 SCF/D
20 MIN	MERLA	0.500	3" WATER	10900 SCF/D
30 MIN	MERLA	0.500	2" WATER	8870 SCF/D
40 MIN	MERLA	0.500	2" WATER	8870 SCF/D
45 MIN	MERLA	0.500	2" WATER	8870 SCF/D

ORIGINAL

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE : 10/24/93
CUSTOMER : JOHN O FARMER, INC.
WELL : #1 TEST: 3
ELEVATION: 1946 KB
SECTION : 21
RANGE : 13W COUNTY: PRATT
GAUGE SN#: 1051 RANGE : 4250
TICKET : 20026
LEASE : NOVOTNY
GEOLOGIST: DUBOIS
FORMATION: SIMPSON SAND
TOWNSHIP : 29S
STATE : KS
CLOCK : 12

INITIAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	175.00	175.00
5.00	167.00	-8.00
10.00	168.00	1.00
15.00	175.00	7.00
20.00	188.00	13.00
25.00	205.00	17.00

INITIAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	501.00	501.00	9.33
6.00	540.00	39.00	5.17
9.00	559.00	19.00	3.78
12.00	570.00	11.00	3.08
15.00	580.00	10.00	2.67
18.00	582.00	2.00	2.39
21.00	583.00	1.00	2.19
24.00	584.00	1.00	2.04
27.00	584.00	0.00	1.93
30.00	585.00	1.00	1.83
33.00	585.00	0.00	1.76
36.00	585.00	0.00	1.69
39.00	585.00	0.00	1.64
42.00	585.00	0.00	1.60
45.00	585.00	0.00	1.56
48.00	585.00	0.00	1.52

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	319.00	319.00
5.00	319.00	0.00
10.00	319.00	0.00
15.00	319.00	0.00
20.00	322.00	3.00
25.00	336.00	14.00
30.00	348.00	12.00
35.00	361.00	13.00
40.00	373.00	12.00
45.00	392.00	19.00

ORIGINAL

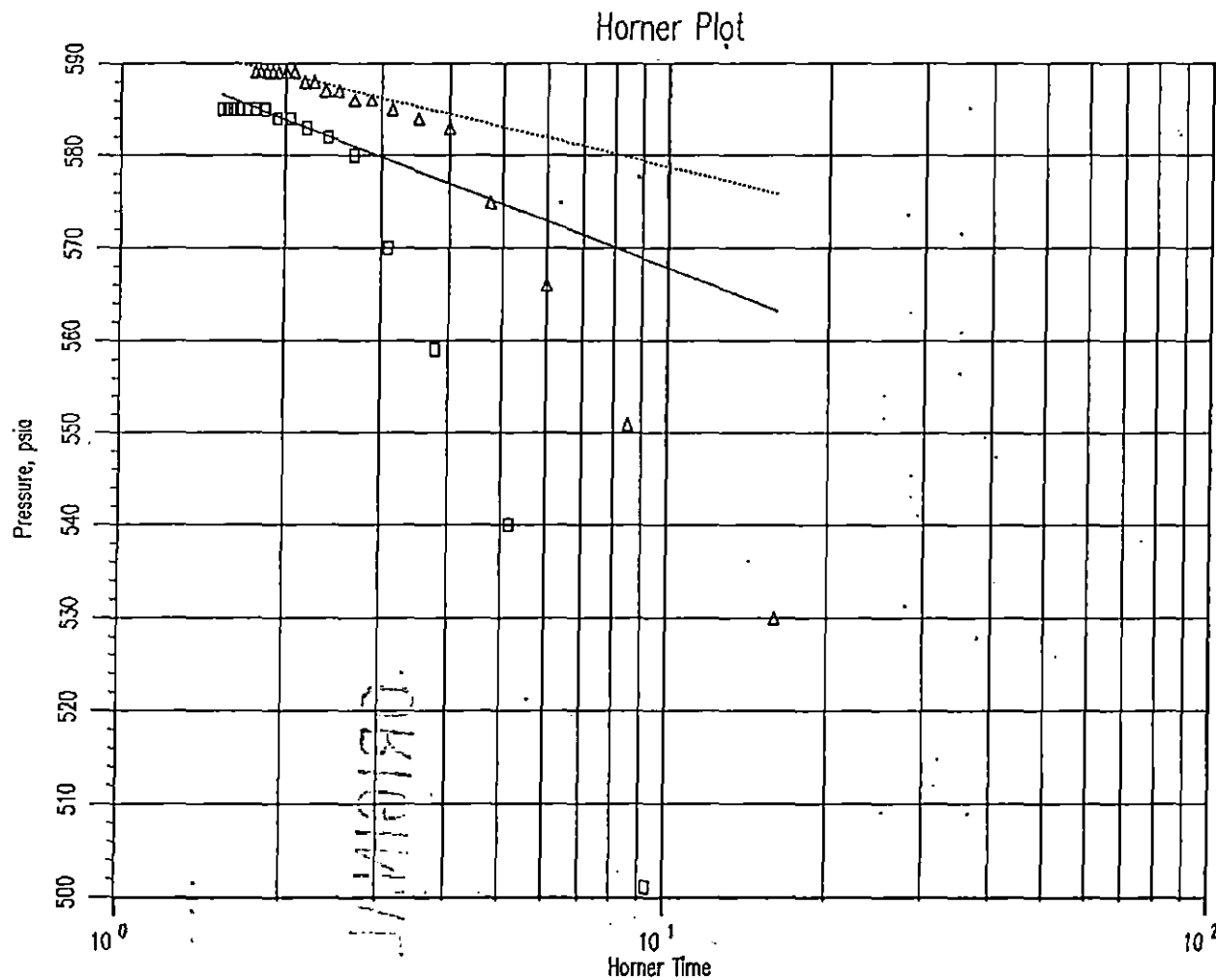
FINAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	530.00	530.00	16.00
6.00	551.00	21.00	8.50
9.00	566.00	15.00	6.00
12.00	575.00	9.00	4.75
15.00	583.00	8.00	4.00
18.00	584.00	1.00	3.50
21.00	585.00	1.00	3.14
24.00	586.00	1.00	2.88
27.00	586.00	0.00	2.67
30.00	587.00	1.00	2.50
33.00	587.00	0.00	2.36
36.00	588.00	1.00	2.25
39.00	588.00	0.00	2.15
42.00	589.00	1.00	2.07
45.00	589.00	0.00	2.00
48.00	589.00	0.00	1.94
51.00	589.00	0.00	1.88
54.00	589.00	0.00	1.83
57.00	589.00	0.00	1.79
60.00	589.00	0.00	1.75

DATE 10/24/93
 CUSTOMER JOHN O FARMER, INC.
 WELL #1
 ELEVATION 1946 KB
 SECTION 21
 RANGE 13W
 GAUGE SN# 1051

TEST 3
 COUNTY PRATT
 RANGE 4250

TICKET 20026
 LEASE NOVOTNY
 GEOLOGIST DUBOIS
 FORMATION SIMPSON SAND
 TOWNSHIP 29S
 STATE KS
 CLOCK 12



Result

	#1	#2
tp, hrs	0.42	0.75
Slope	-22.93	-14.35
Pstar, psig	590.78	593.14
P1hr, psig	587.31	589.65
Skin	12.41	8.65
k, md	822.81	1314.50
kh/u, md-ft/cp	2329.25	3721.15
ri, ft	462.07	783.56
DR, %	2.60	2.08
Drawdown Factor, %		-0.684
Drawdown P*, %		-0.400

— BUILD 1
 BUILD 2

HORNER ANALYSIS REPORT

ORIGINAL

GENERAL INFORMATION

DATE : 10/24/93	TICKET : 20026
CUSTOMER : JOHN O FARMER, INC.	LEASE : NOVOTNY
WELL : #1 TEST: 3	GEOLOGIST: DUBOIS
ELEVATION: 1946 KB	FORMATION: SIMPSON SAND
SECTION : 21	TOWNSHIP : 29S
RANGE : 13W COUNTY: PRATT	STATE : KS
GAUGE SN#: 1051 RANGE : 4250	CLOCK : 12

Input Data

Porosity 0.170 Rw: 0.328 ft h: 6.000 ft

qo 314.5 STB GOR 28.2 SCF/STB

Pvt Data

Evaluation Pressure : 585.0
 Evaluation Temperature: 132.0

Oil Grav 38.00 API	Gas Grav 1.20 API	Pb 84.98 PSIA
Bo 1.044 RBL/STB	Vis 1.000 cp	Ct 4.7010E-006 1/PSI

Horner Results

	Initial Shut-In	Final Shut-In
pseudo pressure time	0.42 hrs	0.75 hrs
slope	-22.93	-14.35
pstar	590.78 psig	593.14 psig
plhr	587.31 psig	589.65 psig
skin	12.41	8.65
permeability	822.81 md	1314.50 md
transmissability	2329.25 md-ft/cp	3721.15 md-ft/cp
radius of investigation	462.07 ft	783.56 ft
Damage-Ratio	2.6 percent	2.1 percent
Drawdown Factor		-0.684 percent
Drawdown P*		-0.400 percent

ORIGINAL

FORMATION

TEST

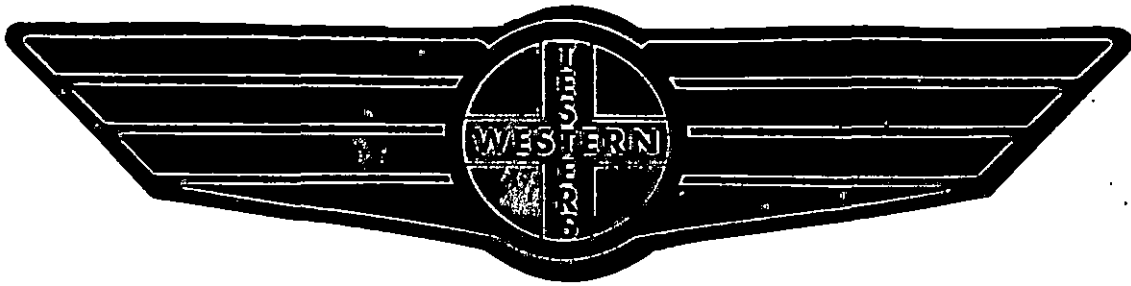
REPORT

COMPANY JOHN O FARMER, INC.

LEASE & WELL NO. #1 HOVOTHE

API#15-151-22 110

SEC. 21 UNIT, 200 ACRES, 100 WEST 100' 1 UNIT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone 1-80-688-7021

DST REPORT

GENERAL INFORMATION

DATE : 10/26/93	TICKET : 20027
CUSTOMER : JOHN O FARMER, INC.	LEASE : NOVOTNY
WELL : #1 TEST: 4	GEOLOGIST: DUBOIS
ELEVATION: 1946 KB	FORMATION: ARBUCKLE
SECTION : 21	TOWNSHIP : 29S
RANGE : 13W COUNTY: PRATT	STATE : KS
GAUGE SN#: 1051 RANGE : 4250	CLOCK : 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 4741.00 ft	TO: 4756.00 ft	TVD: 4756.0 ft
DEPTH OF SELECTIVE ZONE:	TEST TYPE: OIL	
DEPTH OF RECORDERS: 4747.0 ft	4750.0 ft	
TEMPERATURE: 128.0		

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 : 4721.0 ft	I.D.:	3.800 in
TEST TOOL LENGTH : 20.0 ft	TOOL SIZE :	5.500 in
ANCHOR LENGTH : 15.0 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: 4736.0 ft	SIZE:	6.630 in
PACKER DEPTH: 4741.0 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. : ALLEN DRILLING	
MUD TYPE : CHEMICAL	VISCOSITY : 48.00 cp
WEIGHT : 9.000 ppg	WATER LOSS: 10.800 cc
CHLORIDES : 8000 ppm	
JARS-MAKE :	SERIAL NUMBER:
DID WELL FLOW?: NO	REVERSED OUT?: NO

COMMENTS

Comment

INITIAL FLOW PERIOD VERY WEAK BLOW FOR 15 MINUTES
AND DIED. FINAL FLOW PERIOD FEW BUBBLES AND DIED.
TIGHT HOLE.

DST REPORT (CONTINUED)

ORIGINAL

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
25.0	0.0	0.0	0.0	100.0	MUD

RATE INFORMATION

OIL VOLUME:	0.0000	STB	TOTAL FLOW TIME:	75.0000	min.
GAS VOLUME:	0.0000	SCF	AVERAGE OIL RATE:	0.0000	STB/D
MUD VOLUME:	0.3507	STB	AVERAGE WATER RATE:	0.0000	STB/D
WATER VOLUME:	0.0000	STB			
TOTAL FLUID :	0.3507	STB			

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2294.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	75.00	75.00
INITIAL SHUT-IN	30.00		1381.00
FINAL FLOW	30.00	86.00	86.00
FINAL SHUT-IN	30.00		1281.00

FINAL HYDROSTATIC PRESSURE: 2283.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2289.00

Description	Duration	p1	p End
INITIAL FLOW	35.00	90.00	73.00
INITIAL SHUT-IN	27.00		1404.00
FINAL FLOW	40.00	91.00	79.00
FINAL SHUT-IN	24.00		1257.00

FINAL HYDROSTATIC PRESSURE: 2287.00

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE : 10/26/93	TICKET : 20027
CUSTOMER : JOHN O FARMER, INC.	LEASE : NOVOTNY
WELL : #1 TEST: 4	GEOLOGIST: DUBOIS
ELEVATION: 1946 KB	FORMATION: ARBUCKLE
SECTION : 21	TOWNSHIP : 29S
RANGE : 13W COUNTY: PRATT	STATE : KS
GAUGE SN#: 1051 RANGE : 4250	CLOCK : 12

INITIAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	90.00	90.00
5.00	90.00	0.00
10.00	90.00	0.00
15.00	86.00	-4.00
20.00	86.00	0.00
25.00	81.00	-5.00
30.00	77.00	-4.00
35.00	73.00	-4.00

INITIAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	112.00	112.00	0.00
6.00	427.00	315.00	0.00
9.00	797.00	370.00	0.00
12.00	1180.00	383.00	0.00
15.00	1259.00	79.00	0.00
18.00	1277.00	18.00	0.00
21.00	1349.00	72.00	0.00
24.00	1390.00	41.00	0.00
27.00	1404.00	14.00	0.00

FINAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	91.00	91.00

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL FLOW (CONTINUED)

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
5.00	91.00	0.00
10.00	86.00	-5.00
15.00	81.00	-5.00
20.00	80.00	-1.00
25.00	79.00	-1.00
30.00	79.00	0.00
35.00	79.00	0.00
40.00	79.00	0.00

FINAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	116.00	116.00	0.00
6.00	282.00	166.00	0.00
9.00	609.00	327.00	0.00
12.00	922.00	313.00	0.00
15.00	1064.00	142.00	0.00
18.00	1152.00	88.00	0.00
21.00	1215.00	63.00	0.00
24.00	1257.00	42.00	0.00