



WESTERN TESTING CO., INC.  
FORMATION TESTING

TICKET N<sup>o</sup> 19767

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

Elevation 1405 GL Formation Simpson Eff. Pay \_\_\_\_\_ Ft.

District Augusta Date 11-20-93 Customer Order No. \_\_\_\_\_

COMPANY NAME Oxy USA INC

ADDRESS 110 S. main #800 Wichita KS 67202

LEASE AND WELL NO. Porter D-89 COUNTY Butler STATE KS Sec. 6 Twp 26 Rge. 05E

Mail Invoice To #89 Porter D Same No. Copies Requested \_\_\_\_\_

Co. Name \_\_\_\_\_ Address \_\_\_\_\_

Mail Charts To Same No. Copies Requested \_\_\_\_\_

Address \_\_\_\_\_

Formation Test No. 1 Interval Tested From 2437 ft. to 2471 ft. Total Depth 2471 ft.

Packer Depth 2437 ft. Size 6 3/4 in. Packer Depth \_\_\_\_\_ ft. Size \_\_\_\_\_ in.

Packer Depth \_\_\_\_\_ ft. Size \_\_\_\_\_ in. Packer Depth \_\_\_\_\_ ft. Size \_\_\_\_\_ in.

Depth of Selective Zone Set \_\_\_\_\_

Top Recorder Depth (Inside) 2440 ft. Recorder Number 13521 Cap. 4300

Bottom Recorder Depth (Outside) 2471 ft. Recorder Number 13548 Cap. 4075

Below Straddle Recorder Depth \_\_\_\_\_ ft. Recorder Number \_\_\_\_\_ Cap. \_\_\_\_\_

Drilling Contractor Allen Rig #2 Drill Collar Length 325 I. D. 2 1/4 in.

Mud Type Chemical Viscosity 42 Weight Pipe Length \_\_\_\_\_ I. D. \_\_\_\_\_ in.

Weight 9.3 Water Loss \_\_\_\_\_ cc. Drill Pipe Length 2090 I. D. 3.8 in.

Chlorides \_\_\_\_\_ P.P.M. Test Tool Length 22 ft. Tool Size 5 1/2 in.

Jars: Make WTC Serial Number 460 Anchor Length 34 ft. Size 5 1/2 in.

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

Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 x 1 1/4 in.

Blow: Weak 3/4 inch in Bucket. 2ND Flow - Weak Surface

Blow Flushed Tool 1/2" Blow

Recovered 10 ft. of Heavy 0.1 Cut mud 30% 0.1 70% mud

Recovered \_\_\_\_\_ ft. of \_\_\_\_\_

Recovered \_\_\_\_\_ ft. of \_\_\_\_\_

Recovered \_\_\_\_\_ ft. of \_\_\_\_\_

Recovered \_\_\_\_\_ ft. of \_\_\_\_\_

Chlorides \_\_\_\_\_ P.P.M. Sample Jars used \_\_\_\_\_ Remarks: Read Btm chart

Time On Location 8:15 A.M. Time Pick Up Tool 10:00 A.M. Time Off Location \_\_\_\_\_ A.M.

Time Set Packer(s) 11:35 A.M. Time Started Off Bottom 1:50 A.M. Maximum Temperature 93°

Initial Hydrostatic Pressure \_\_\_\_\_ (A) 1172 P.S.I.

Initial Flow Period \_\_\_\_\_ Minutes 15 (B) 131 P.S.I. to (C) 80 P.S.I.

Initial Closed In Period \_\_\_\_\_ Minutes 30 (D) 794 P.S.I.

Final Flow Period \_\_\_\_\_ Minutes 30 (E) 121 P.S.I. to (F) 80 P.S.I.

Final Closed In Period \_\_\_\_\_ Minutes 60 (G) 773 P.S.I.

Final Hydrostatic Pressure \_\_\_\_\_ (H) 1132 P.S.I.

COMPANY TERMS

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

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

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

Western Representative Stuart Stover

Steven W. Kile Thanks!  
AFE

FIELD INVOICE

Open Hole Test	\$ <u>600 00</u>
Misrun	\$ _____
Straddle Test	\$ _____
Jars	\$ _____
Selective Zone	\$ <u>225 00</u>
Safety Joint	\$ _____
Standby	\$ <u>25 00</u>
Evaluation	\$ _____
Extra Packer	\$ _____
Circ. Sub.	\$ _____
Mileage	\$ _____
Fluid Sampler	\$ _____
Extra Charts	\$ _____
Insurance	\$ _____
Telecopier	\$ _____
TOTAL	\$ <u>850 00</u>

# WESTERN TESTING CO., INC.

## Pressure Data

Date \_\_\_\_\_ Test Ticket No. 19767  
 Recorder No. 13521 Capacity \_\_\_\_\_ Location \_\_\_\_\_ Ft. \_\_\_\_\_  
 Clock No. \_\_\_\_\_ Elevation \_\_\_\_\_ Well Temperature \_\_\_\_\_ °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1163</u>	P.S.I.		M
B First Initial Flow Pressure	<u>114</u>	P.S.I.	<u>15</u> Mins.	<u>15</u> Mins.
C First Final Flow Pressure	<u>50</u>	P.S.I.	<u>30</u> Mins.	<u>30</u> Mins.
D Initial Closed-in Pressure	<u>815</u>	P.S.I.	<u>30</u> Mins.	<u>30</u> Mins.
E Second Initial Flow Pressure	<u>111</u>	P.S.I.	<u>40</u> Mins.	<u>40</u> Mins.
F Second Final Flow Pressure	<u>72</u>	P.S.I.		<del>57</del>
G Final Closed-in Pressure	<u>795</u>	P.S.I.		
H Final Hydrostatic Mud	<u>1142</u>	P.S.I.		

### PRESSURE BREAKDOWN

**First Flow Pressure**  
 Breakdown: \_\_\_\_\_ Inc.  
 of 5 mins. and a  
 final inc. of 0 Min.

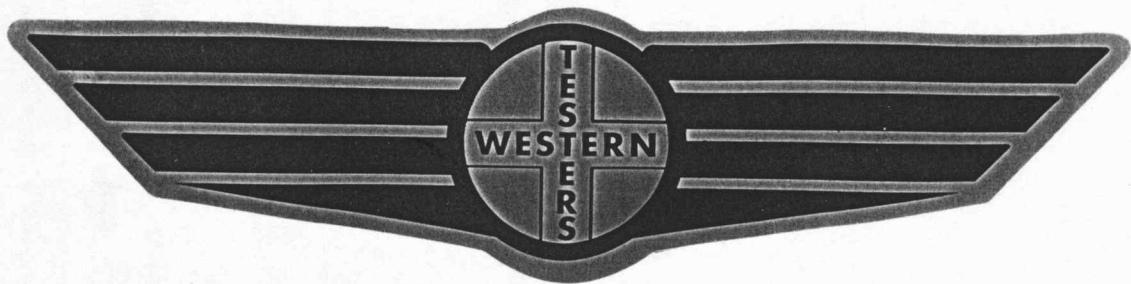
**Initial Shut-In**  
 Breakdown: \_\_\_\_\_ Inc.  
 of 3 mins. and a  
 final inc. of 0 Min.

**Second Flow Pressure**  
 Breakdown: \_\_\_\_\_ Inc.  
 of 5 mins. and a  
 final inc. of 0 Min.

**Final Shut-In**  
 Breakdown: \_\_\_\_\_ Inc.  
 of 3 mins. and a  
 final inc. of 0 Min.

Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
B P 1 0	<u>104</u>	C 0	<u>50</u>	E 0	<u>111</u>	F 0	<u>72</u>
P 2 5	<u>83</u>	3	<u>572</u>	5	<u>111</u>	3	<u>468</u>
P 3 10	<u>67</u>	6	<u>678</u>	10	<u>93</u>	6	<u>485</u>
P 4 15	<u>50</u>	9	<u>720</u>	15	<u>78</u>	9	<u>678</u>
P 5 20		12	<u>746</u>	20	<u>72</u>	12	<u>695</u>
P 6 25		15	<u>766</u>	25	<u>72</u>	15	<u>715</u>
P 7 30		18	<u>777</u>	F 30	<u>72</u>	18	<u>726</u>
P 8 35		21	<u>791</u>	35		21	<u>741</u>
P 9 40		24	<u>797</u>	40		24	<u>748</u>
P10 45		27	<u>799</u>	45		27	<u>753</u>
P11 50		D 30	<u>815</u>	50		30	<u>762</u>
P12 55		33		55		33	<u>7640</u>
P13 60		36		60		36	<u>778</u> <u>775</u>
P14 65		39		65		39	<u>775</u>
P15 70		42		70		42	<u>777</u>
P16 75		45		75		45	<u>779</u>
P17 80		48		80		48	<u>781</u>
P18 85		51		85		51	<u>785</u>
P19 90		54		90		54	<u>788</u>
P20 95		57		95		57	<u>795</u>
100		60		100		G. 60	<u>795</u>

# FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone 1-800-637-021

DST REPORT

GENERAL INFORMATION

DATE : 11/20/93	TICKET : 19767
CUSTOMER : OXY USA, INC.	LEASE : PORTER D
WELL : #89                      TEST: 1	GEOLOGIST: KILE
ELEVATION: 1405 GL	FORMATION: SIMPSON
SECTION : 6	TOWNSHIP : 26S
RANGE : 5E                      COUNTY: BUTLER	STATE : KS
GAUGE SN#: 13521              RANGE : 4300	CLOCK : 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 2437.00 ft	TO: 2471.00 ft	TVD: 2471.0 ft
DEPTH OF SELECTIVE ZONE:		TEST TYPE: OIL
DEPTH OF RECORDERS: 2440.0 ft	2471.0 ft	
TEMPERATURE: 93.0		

DRILL COLLAR LENGTH: 325.0 ft	I.D.:	2.250 in
WEIGHT PIPE LENGTH : 0.0 ft	I.D.:	0.000 in
DRILL PIPE LENGTH : 2090.0 ft	I.D.:	3.800 in
TEST TOOL LENGTH : 22.0 ft	TOOL SIZE :	5.500 in
ANCHOR LENGTH : 34.0 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: 2437.0 ft	SIZE:	6.750 in
PACKER DEPTH: 0.0 ft	SIZE:	0.000 in
PACKER DEPTH: 0.0 ft	SIZE:	0.000 in
PACKER DEPTH: 0.0 ft	SIZE:	0.000 in

MUD INFORMATION

DRILLING CON. : ALLEN RIG #2	
MUD TYPE : CHEMICAL	VISCOSITY : 42.00 cp
WEIGHT : 9.300 ppg	WATER LOSS: 0.000 cc
CHLORIDES : 0 ppm	
JARS-MAKE : WTC	SERIAL NUMBER: 460
DID WELL FLOW?: NO	REVERSED OUT?: NO

COMMENTS

Comment

INITIAL FLOW PERIOD WEAK 3/4 INCH BLOW IN BUCKET.  
 FINAL FLOW PERIOD WEAK SURFACE BLOW - FLUSHED TOOL  
 - 1/2 INCH BLOW.

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
10.0	30.0	0.0	0.0	70.0	HEAVY OIL CUT MUD

RATE INFORMATION

OIL VOLUME: 0.0148 STB	TOTAL FLOW TIME: 45.0000 min.
GAS VOLUME: 0.0000 SCF	AVERAGE OIL RATE: 1.5736 STB/D
MUD VOLUME: 0.0344 STB	AVERAGE WATER RATE: 0.0000 STB/D
WATER VOLUME: 0.0000 STB	
TOTAL FLUID : 0.0492 STB	

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1172.00

Description	Duration	p1	p End
INITIAL FLOW	15.00	131.00	80.00
INITIAL SHUT-IN	30.00		794.00
FINAL FLOW	30.00	121.00	80.00
FINAL SHUT-IN	60.00		773.00

FINAL HYDROSTATIC PRESSURE: 1132.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1163.00

Description	Duration	p1	p End
INITIAL FLOW	15.00	114.00	50.00
INITIAL SHUT-IN	30.00		815.00
FINAL FLOW	30.00	111.00	72.00
FINAL SHUT-IN	60.00		795.00

FINAL HYDROSTATIC PRESSURE: 1142.00

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE	: 11/20/93	TICKET	: 19767
CUSTOMER	: OXY USA, INC.	LEASE	: PORTER D
WELL	: #89	TEST:	1
ELEVATION	: 1405 GL	GEOLOGIST	: KILE
SECTION	: 6	FORMATION	: SIMPSON
RANGE	: 5E	TOWNSHIP	: 26S
GAUGE SN#	: 13521	STATE	: KS
		CLOCK	: 12
		COUNTY	: BUTLER
		RANGE	: 4300

INITIAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	114.00	114.00
5.00	83.00	-31.00
10.00	67.00	-16.00
15.00	50.00	-17.00

INITIAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	572.00	572.00	0.00
6.00	678.00	106.00	0.00
9.00	726.00	48.00	0.00
12.00	746.00	20.00	0.00
15.00	766.00	20.00	0.00
18.00	777.00	11.00	0.00
21.00	791.00	14.00	0.00
24.00	797.00	6.00	0.00
27.00	799.00	2.00	0.00
30.00	815.00	16.00	0.00

FINAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	111.00	111.00
5.00	111.00	0.00
10.00	93.00	-18.00
15.00	78.00	-15.00

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL FLOW (CONTINUED)

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
20.00	72.00	-6.00
25.00	72.00	0.00
30.00	72.00	0.00

FINAL SHUT IN

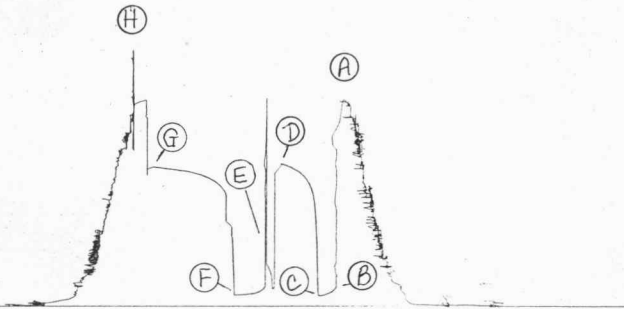
<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	468.00	468.00	0.00
6.00	485.00	17.00	0.00
9.00	678.00	193.00	0.00
12.00	695.00	17.00	0.00
15.00	715.00	20.00	0.00
18.00	726.00	11.00	0.00
21.00	741.00	15.00	0.00
24.00	748.00	7.00	0.00
27.00	753.00	5.00	0.00
30.00	762.00	9.00	0.00
33.00	764.00	2.00	0.00
36.00	772.00	8.00	0.00
39.00	775.00	3.00	0.00
42.00	777.00	2.00	0.00
45.00	779.00	2.00	0.00
48.00	781.00	2.00	0.00
51.00	785.00	4.00	0.00
54.00	788.00	3.00	0.00
57.00	791.00	3.00	0.00
60.00	795.00	4.00	0.00

TK# 19767

+13521

I.

19767

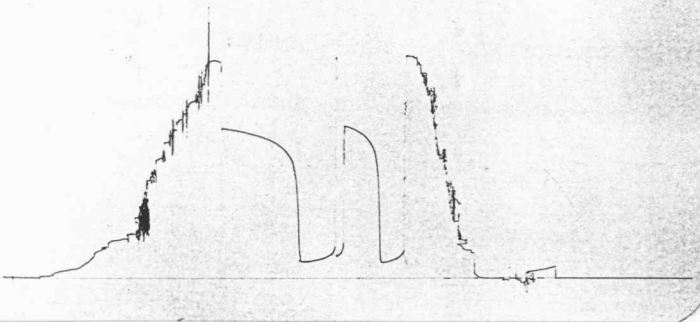


TK# 19767

13548

O.

19767





WESTERN TESTING CO., INC.

FORMATION TESTING

TICKET NO 19768

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

Elevation 1405 Gk Formation Arbuckle Eff. Pay Ft.

District Augusta Date 11-21-93 Customer Order No.

COMPANY NAME Oxy USA INC

ADDRESS 110 S. main #800 Wichita, KS. 67202

LEASE AND WELL NO. Porter D-89 COUNTY Butler STATE KS Sec. 6 Twp. 26 Rge. 25E

Mail Invoice To #89 Porter D Same Co. Name Address No. Copies Requested

Mail Charts To Same Address No. Copies Requested

Formation Test No. 2 Interval Tested From 2475 ft. to 2484 ft. Total Depth 2484 ft.

Packer Depth 2475 ft. Size 6 3/4 in. Packer Depth ft. Size in.

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

Depth of Selective Zone Set

Top Recorder Depth (Inside) 2478 ft. Recorder Number 13521 Cap. 4300

Bottom Recorder Depth (Outside) 2484 ft. Recorder Number 13548 Cap. 4075

Below Straddle Recorder Depth ft. Recorder Number Cap.

Drilling Contractor ALLEN #2 Drill Collar Length 325 I. D. 2 1/4 in.

Mud Type Chemical Viscosity 42 Weight Pipe Length I. D. in.

Weight 9.4 Water Loss 8.0 cc. Drill Pipe Length 2128 I. D. 3.8 in.

Chlorides P.P.M. Test Tool Length 22 ft. Tool Size 5 1/2 in.

Jars: Make WTC Serial Number 460 Anchor Length 9 ft. Size 5 1/2 in.

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

Main Hole Size 7 1/8 in. Tool Joint Size 4 1/2 x 14 in.

Blow: Weak increasing to 2" in Bucket

2nd Flow - 1" increasing to 3" Blow

Recovered 30 ft. of CLEAN oil

Recovered 20 ft. of MUDDY oil - 80% oil 20% MVD

Recovered 10 ft. of Heavy oil cut MVD - 65% MVD 35% oil

Recovered ft. of

Recovered ft. of

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

Time On Location 9:30 A.M. Time Pick Up Tool 8:15 A.M. Time Off Location P.M.

Time Set Packer(s) 9:30 P.M. Time Started Off Bottom 11:45 P.M. Maximum Temperature 95°

Initial Hydrostatic Pressure (A) 1223 P.S.I.

Initial Flow Period (B) 15 Minutes (C) 50 P.S.I. to (D) 50 P.S.I.

Initial Closed In Period (E) 30 Minutes (F) 775 P.S.I.

Final Flow Period (G) 30 Minutes (H) 121 P.S.I. to (I) 80 P.S.I.

Final Closed In Period (J) 60 Minutes (K) 763 P.S.I.

Final Hydrostatic Pressure (L) 1223 P.S.I.

COMPANY TERMS

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

Test Approved By Steven W. Kie AFE Signature of Customer or his authorized representative

Western Representative Stuart Storen

Thanks!

FIELD INVOICE

Table with 2 columns: Item, Amount. Includes Open Hole Test (\$600.00), Jars (\$225.00), Safety Joint (\$25.00), and TOTAL (\$850.00).

WESTERN TESTING CO., INC.

Pressure Data

Date \_\_\_\_\_

Test Ticket No. 19768

Recorder No. 13521

Capacity \_\_\_\_\_ Location \_\_\_\_\_ Ft.

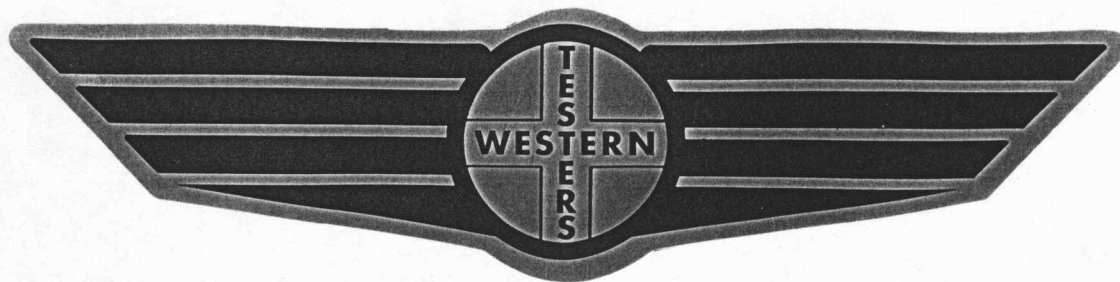
Clock No. \_\_\_\_\_ Elevation \_\_\_\_\_ Well Temperature \_\_\_\_\_ °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1202</u>	P.S.I.		M
B First Initial Flow Pressure	<u>30</u>	P.S.I.	<u>15</u> Mins.	<u>15</u> Mins.
C First Final Flow Pressure	<u>30</u>	P.S.I.	<u>30</u> Mins.	<u>30</u> Mins.
D Initial Closed-in Pressure	<u>779</u>	P.S.I.	<u>30</u> Mins.	<u>30</u> Mins.
E Second Initial Flow Pressure	<u>106</u>	P.S.I.	<u>60</u> Mins.	<u>60</u> Mins.
F Second Final Flow Pressure	<u>64</u>	P.S.I.		
G Final Closed-in Pressure	<u>759</u>	P.S.I.		
H Final Hydrostatic Mud	<u>1202</u>	P.S.I.		

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: _____ Inc.		Breakdown: _____ Inc.		Breakdown: _____ Inc.		Breakdown: _____ Inc.	
of <u>5</u> mins. and a		of <u>3</u> mins. and a		of <u>5</u> mins. and a		of <u>3</u> mins. and a	
final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 0	<u>30</u>	C 0	<u>30</u>	E 0	<u>106</u>	F 0	<u>64</u>
P 2 5	<u> </u>	3	<u>550</u>	5	<u>84</u>	3	<u>434</u>
P 3 10	<u> </u>	6	<u>663/601</u>	10	<u>69</u>	6	<u>527</u>
P 4 15	<u>30</u>	9	<u>664</u>	15	<u>64</u>	9	<u>567</u>
P 5 20		12	<u>695</u>	20	<u>64</u>	12	<u>613</u>
P 6 25		15	<u>723</u>	25	<u>64</u>	15	<u>637</u>
P 7 30		18	<u>739</u>	F 30	<u>64</u>	18	<u>651</u>
P 8 35		21	<u>754</u>	35		21	<u>669</u>
P 9 40		24	<u>766</u>	40		24	<u>688</u>
P10 45		27	<u>772</u>	45		27	<u>697</u>
P11 50		D 30	<u>779</u>	50		30	<u>708</u>
P12 55		33		55		33	<u>713</u>
P13 60		36		60		36	<u>721</u>
P14 65		39		65		39	<u>729</u>
P15 70		42		70		42	<u>735</u>
P16 75		45		75		45	<u>739</u>
P17 80		48		80		48	<u>742</u>
P18 85		51		85		51	<u>747</u>
P19 90		54		90		54	<u>751</u>
P20 95		57		95		57	<u>755</u>
100		60		100		G 60	<u>760</u> <u>759</u>

# FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone 1-800-637-021

DST REPORT

GENERAL INFORMATION

DATE : 11/21/93	TICKET : 19768
CUSTOMER : OXY USA, INC.	LEASE : PORTER D
WELL : #89                      TEST: 2	GEOLOGIST: KILE
ELEVATION: 1405 GL	FORMATION: ARBUCKLE
SECTION : 6	TOWNSHIP : 26S
RANGE : 5E                      COUNTY: BUTLER	STATE : KS
GAUGE SN#: 13521              RANGE : 4300	CLOCK : 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 2475.00 ft	TO: 2484.00 ft	TVD: 2484.0 ft
DEPTH OF SELECTIVE ZONE:		TEST TYPE: OIL
DEPTH OF RECORDERS: 2478.0 ft	2484.0 ft	
TEMPERATURE: 95.0		

DRILL COLLAR LENGTH: 325.0 ft	I.D.:	2.250 in
WEIGHT PIPE LENGTH : 0.0 ft	I.D.:	0.000 in
DRILL PIPE LENGTH : 2128.0 ft	I.D.:	3.800 in
TEST TOOL LENGTH : 22.0 ft	TOOL SIZE :	5.500 in
ANCHOR LENGTH : 9.0 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: 2475.0 ft	SIZE:	6.750 in
PACKER DEPTH: 0.0 ft	SIZE:	0.000 in
PACKER DEPTH: 0.0 ft	SIZE:	0.000 in
PACKER DEPTH: 0.0 ft	SIZE:	0.000 in

MUD INFORMATION

DRILLING CON. : ALLEN RIG #2	VISCOSITY : 42.00 cp
MUD TYPE : CHEMICAL	WATER LOSS: 8.000 cc
WEIGHT : 9.400 ppg	
CHLORIDES : 0 ppm	
JARS-MAKE : WTC	SERIAL NUMBER: 460
DID WELL FLOW?: NO	REVERSED OUT?: NO

COMMENTS

Comment

INITIAL FLOW PERIOD WEAK BLOW INCREASING TO 2 INCHES IN BUCKET. FINAL FLOW PERIOD 1 INCH INCREASING TO 3 INCH BLOW.

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
30.0	100.0	0.0	0.0	0.0	CLEAN OIL
20.0	80.0	0.0	0.0	20.0	MUDDY OIL
10.0	35.0	0.0	0.0	65.0	HEAVY OIL CUT MUD

RATE INFORMATION

OIL VOLUME:	0.2434	STB	TOTAL FLOW TIME:	45.0000	min.
GAS VOLUME:	0.0000	SCF	AVERAGE OIL RATE:	9.4416	STB/D
MUD VOLUME:	0.0516	STB	AVERAGE WATER RATE:	0.0000	STB/D
WATER VOLUME:	0.0000	STB			
TOTAL FLUID :	0.2950	STB			

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1223.00

Description	Duration	p1	p End
INITIAL FLOW	15.00	50.00	50.00
INITIAL SHUT-IN	30.00		775.00
FINAL FLOW	30.00	121.00	80.00
FINAL SHUT-IN	60.00		763.00

FINAL HYDROSTATIC PRESSURE: 1223.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1202.00

Description	Duration	p1	p End
INITIAL FLOW	15.00	30.00	30.00
INITIAL SHUT-IN	30.00		779.00
FINAL FLOW	30.00	106.00	64.00
FINAL SHUT-IN	60.00		759.00

FINAL HYDROSTATIC PRESSURE: 1202.00

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE : 11/21/93	TICKET : 19768
CUSTOMER : OXY USA, INC.	LEASE : PORTER D
WELL : #89	TEST: 2
ELEVATION: 1405 GL	GEOLOGIST: KILE
SECTION : 6	FORMATION: ARBUCKLE
RANGE : 5E	TOWNSHIP : 26S
COUNTY: BUTLER	STATE : KS
GAUGE SN#: 13521	RANGE : 4300
	CLOCK : 12

INITIAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	30.00	30.00
5.00	30.00	0.00
10.00	30.00	0.00
15.00	30.00	0.00

INITIAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	550.00	550.00	0.00
6.00	601.00	51.00	0.00
9.00	664.00	63.00	0.00
12.00	695.00	31.00	0.00
15.00	723.00	28.00	0.00
18.00	739.00	16.00	0.00
21.00	754.00	15.00	0.00
24.00	766.00	12.00	0.00
27.00	772.00	6.00	0.00
30.00	779.00	7.00	0.00

FINAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	106.00	106.00
5.00	84.00	-22.00
10.00	69.00	-15.00
15.00	64.00	-5.00

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL FLOW (CONTINUED)

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
20.00	64.00	0.00
25.00	64.00	0.00
30.00	64.00	0.00

FINAL SHUT IN

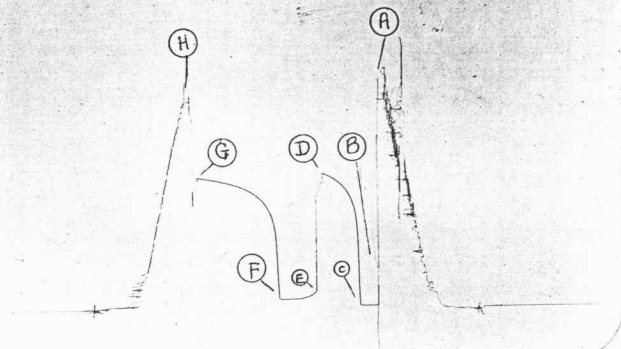
<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	434.00	434.00	0.00
6.00	527.00	93.00	0.00
9.00	567.00	40.00	0.00
12.00	613.00	46.00	0.00
15.00	637.00	24.00	0.00
18.00	651.00	14.00	0.00
21.00	669.00	18.00	0.00
24.00	688.00	19.00	0.00
27.00	697.00	9.00	0.00
30.00	708.00	11.00	0.00
33.00	713.00	5.00	0.00
36.00	721.00	8.00	0.00
39.00	729.00	8.00	0.00
42.00	735.00	6.00	0.00
45.00	739.00	4.00	0.00
48.00	743.00	4.00	0.00
51.00	747.00	4.00	0.00
54.00	751.00	4.00	0.00
57.00	755.00	4.00	0.00
60.00	759.00	4.00	0.00

TK # 19768

I.

13521

19768



TK # 19768

O.

13548

19768

