

TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name #17 BENDER "A" Test No. 1 Date 4/1/93
Company OXY USA, INC. Zone ARBUCKLE
Address 110 S MAIN WICHITA KS 67202 Elevation 1883
Co. Rep./Geo. GARY WAGNER Cont. ABERCROMBIE DRLG RIG #8 Est. Ft. of Pay 1
Location: Sec. 25 Twp. 15S Rge. 14W Co. RUSSELL State KS

Interval Tested 3307-3325 Drill Pipe Size 4.5" XH
Anchor Length 18 Wt. Pipe I.D. - 2.7 Ft. Run 400
Top Packer Depth 3302 Drill Collar - 2.25 Ft. Run
Bottom Packer Depth 3307 Mud Wt. 9.3 lb/Gal.
Total Depth 3325 Viscosity 44 Filtrate 8.8

Tool Open @ 11:53 Initial Blow STRONG BLOW-10 MIN/5" - 20 MIN/9" - 28 MIN/BOTTOM OF
BUCKET 13" / VERY WEAK BLOWBACK 1/4"
Final Blow STRONG BLOW - 10 MIN/6" - 20 MIN/10" - 27 MIN
BOTTOM OF BUCKET 13" / VERY WEAK BLOWBACK 1/4"

Recovery - Total Feet 200 Flush Tool? NO

Rec. 300 Feet of GAS IN PIPE
Rec. 140 Feet of CLEAN GASSY OIL
Rec. 60 Feet of GAS & OIL CUT MUD-30%GAS/25%OIL/45%MUD
Rec. Feet of
Rec. Feet of

BHT 102 °F Gravity 36 °API @ 60 °F Corrected Gravity 36 °API
RW @ °F Chlorides ppm Recovery Chlorides 8000 ppm System

(A) Initial Hydrostatic Mud 1714.5 PSI AK1 Recorder No. 13198 Range 3925

(B) First Initial Flow Pressure 15.6 PSI @ (depth) 3310 w / Clock No. 25814

(C) First Final Flow Pressure 27.9 PSI AK1 Recorder No. 11058 Range 4475

(D) Initial Shut-in Pressure 1081.4 PSI @ (depth) 3322 w / Clock No. 31154

(E) Second Initial Flow Pressure 40.6 PSI AK1 Recorder No. Range

(F) Second Final Flow Pressure 77.8 PSI @ (depth) w / Clock No.

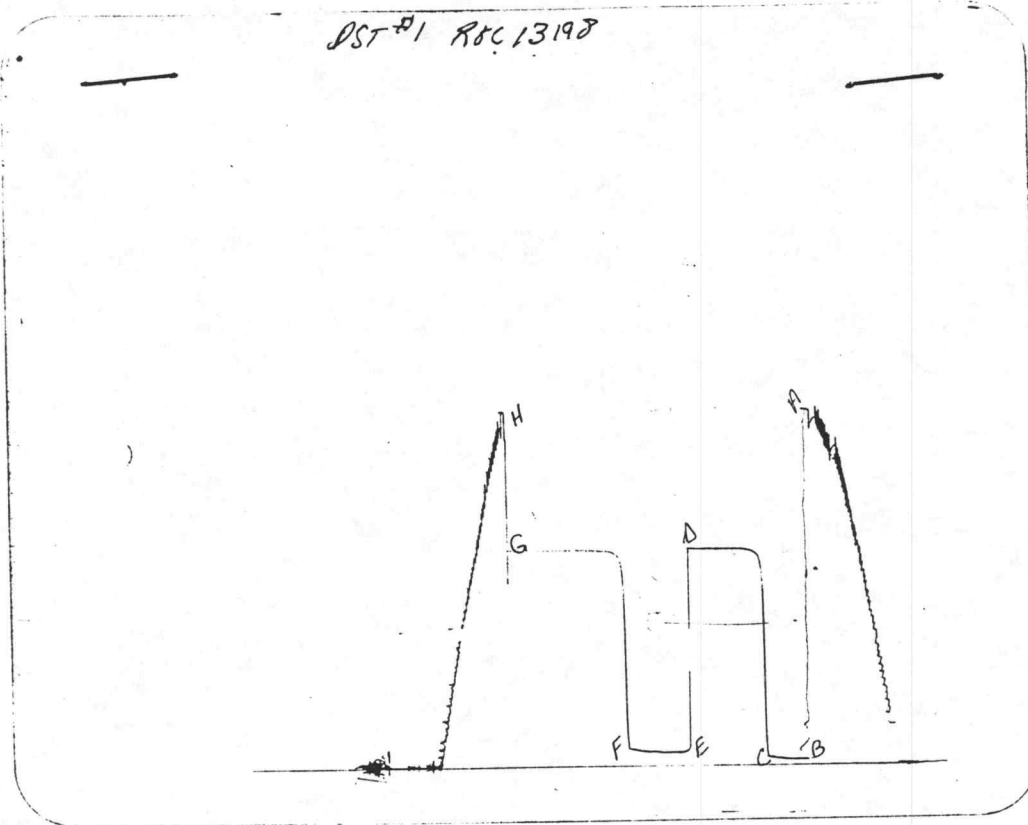
(G) Final Shut-in Pressure 1077.9 PSI Initial Opening 30 Final Flow 45

(H) Final Hydrostatic Mud 1670.8 PSI Initial Shut-in 60 Final Shut-in 90

Our Representative JOHN RIEDL

CHART PAGE

DST #1 RSC 13198



This is an actual photograph of recorder chart

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	1702	1714.5
(B) FIRST INITIAL FLOW PRESSURE	13	15.6
(C) FIRST FINAL FLOW PRESSURE	29	27.9
(D) INITIAL CLOSED-IN PRESSURE	1076	1081.4
(E) SECOND INITIAL FLOW PRESSURE	38	40.6
(F) SECOND FINAL FLOW PRESSURE	71	77.8
(G) FINAL CLOSED-IN PRESSURE	1071	1077.9
(H) FINAL HYDROSTATIC MUD	1679	1670.8

CALCULATED RECOVERY ANALYSIS

WEIGHT PIPE

DST #

1

TICKET #

5716

SAMPLE #	TOTAL FEET	GAS		OIL		WATER		MUD	
		%	FEET	%	FEET	%	FEET	%	FEET
1	140	5	7	95	133	0	0	0	0
2	60	30	18	25	15	0	0	45	27
3			0		0		0		0
4			0		0		0		0
5			0		0		0		0
TOTAL	200	12.5	25	74	148	0	0	13.5	27

HRS OPEN

BBL/DAY

BBL OIL=

1.036

*

1.25

19.8912

BBL WATER=

0

*

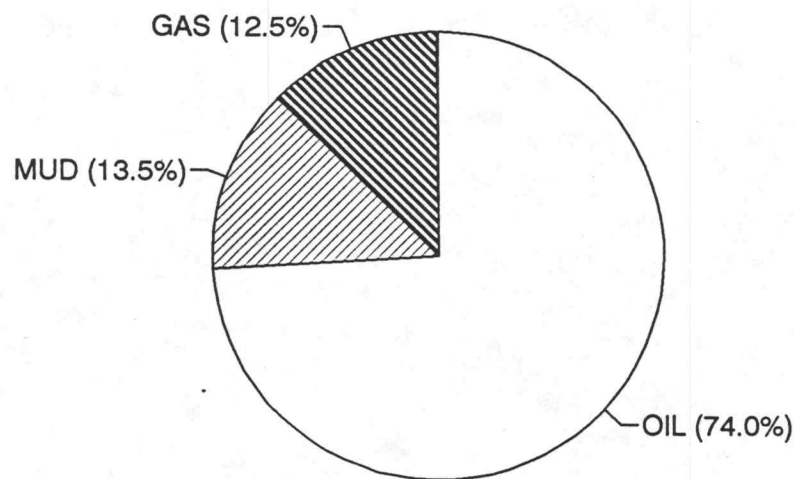
0

BBL MUD=

0.189

BBL GAS=

0.175



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Test Ticket

No 5716

Well Name & No. <u>BENDER</u>	Test No. <u>1</u>	Date <u>4/1/93</u>
Company <u>OXY U.S.A. INC</u>	Zone Tested <u>ARBUCKLE</u>	
Address <u>110 S MAIN #880 WICHITA KS 67202</u>	Elevation <u>1883 G.L.</u>	
Co. Rep./Geo. <u>GARY WAGNER</u>	Cont. <u>ABERCROMBIE R168</u>	Est. Ft. of Pay <u>1'</u>
Location: Sec. <u>25</u>	Twp. <u>15S</u>	Rge. <u>14W</u>
Co. <u>RUSSELL</u>	State <u>KS</u>	
No. of Copies <u>5</u>	Distribution Sheet <u>Yes</u>	Turnkey <u>(NO)</u> Yes <u>(NO)</u> NO Evaluation

Interval Tested <u>3307-3325</u>	Drill Pipe Size <u>4 1/2 X 11</u>
Anchor Length <u>18 FT</u>	Top Choke — 1" Bottom Choke — 1/4"
Top Packer Depth <u>3302</u>	Hole Size — 7 7/8" Rubber Size — 6 3/4"
Bottom Packer Depth <u>3307</u>	Wt. Pipe I.D. — 2.7 Ft. Run <u>400 FT</u>
Total Depth <u>3325</u>	Drill Collar — 2.25 Ft. Run <u>0</u>
Mud Wt. <u>9.3</u> lb/gal.	Viscosity <u>44</u> Filtrate <u>8.8</u>
Tool Open @ <u>11:53</u>	Initial Blow <u>STRONG BLOW 10 MIN - 5" 20 MIN 9" 28 MIN - B.O.B. 13"</u>
	<u>V.W. BLOWBACK 1/4"</u>
Final Blow <u>STRONG BLOW 10 MIN - 6" 20 MIN 10" 27" B.O.B. 13"</u>	
	<u>V.W. BLOWBACK 1/4"</u>

Recovery — Total Feet <u>800</u>	Feet of Gas In Pipe <u>300'</u>	Flush Tool? <u>NO</u>
Rec. <u>140</u> Feet Of <u>CLEAN GASSY OIL</u>	%gas %oil %water %mud	
Rec. <u>60</u> Feet Of <u>GAST OIL CUT MUD</u>	30 %gas 25 %oil %water 45 %mud	
Rec. _____ Feet Of _____	%gas %oil %water %mud	
Rec. _____ Feet Of _____	%gas %oil %water %mud	
Rec. _____ Feet Of _____	%gas %oil %water %mud	

BHT <u>102</u> °F Gravity <u>36</u>	°API @ <u>60</u> °F Corrected Gravity <u>36</u> °API
RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides <u>8,000</u> ppm System	
(A) Initial Hydrostatic Mud <u>1702</u> PSI	Ak1 Recorder No. <u>13198</u> ^{WHITE} Range <u>3925</u>
(B) First Initial Flow Pressure <u>13</u> PSI	@ (depth) <u>3310</u> w/Clock No. <u>25814</u>
(C) First Final Flow Pressure <u>29</u> PSI	Ak1 Recorder No. <u>11058</u> ^{BLACK READ} Range <u>4415</u>
(D) Initial Shut-In Pressure <u>1076</u> PSI	@ (depth) <u>3322</u> w/Clock No. <u>31154</u>
(E) Second Initial Flow Pressure <u>38</u> PSI	Ak1 Recorder No. _____ Range _____
(F) Second Final Flow Pressure <u>71</u> PSI	@ (depth) _____ w/Clock No. _____
(G) Final Shut-In Pressure <u>1071</u> PSI	Initial Opening <u>30</u> Test <u>✓ 600.00</u>
(H) Final Hydrostatic Mud <u>1679</u> PSI	Initial Shut-In <u>60</u> Jars _____

TRILOBITE TESTING L.L.C. SHALL NOT BE LIABLE FOR DAMAGE OF ANY KIND OF 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, OR ITS STATEMENTS OR 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.

Final Flow <u>45</u>	Safety Joint <u>✓ 50.01</u>
Final Shut-In <u>90</u>	Straddle _____
	Circ. Sub _____
	Sampler _____
	Extra Packer _____
	Other _____
	TOTAL PRICE \$ <u>650.00</u>

Approved By [Signature]

Our Representative [Signature]