

# TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

Computer Inventoried  
APR 24 1991

## Drill-Stem Test Data

# CONFIDENTIAL

Well Name #2 HALL "F" Test No. 1 Date 3/23/91  
 Company PETROLEUM INCORPORATED Zone Tested SIMPSON  
 Address 301 N MAIN #900 WICHITA KS 67202 Elevation 1501 KB  
 Co. Rep./Geo. MILA MAUNE Cont. ALLEN #5 Est. Ft. of Pay \_\_\_\_\_  
 Location: Sec. 36 Twp. 33S Rge. 13W Co. BARBER State KS

Interval Tested 4915-4943 Drill Pipe Size 4.5 XH  
 Anchor Length 28 Wt. Pipe I.D. - 2.7 Ft. Run \_\_\_\_\_  
 Top Packer Depth 4910 Drill Collar - 2.25 Ft. Run \_\_\_\_\_  
 Bottom Packer Depth 4915  
 Total Depth 4943

Mud Wt. 8.9 lb / gal. Viscosity 47 Filtrate 8.8

Tool Open @ 1:55 PM Initial Blow WEAK SURFACE BLOW THROUGHOUT 1st OPENING  
 Final Blow VERY WEAK SURFACE BLOW - DIED IN 10 MINUTES

Recovery - Total Feet 15 Flush Tool? \_\_\_\_\_

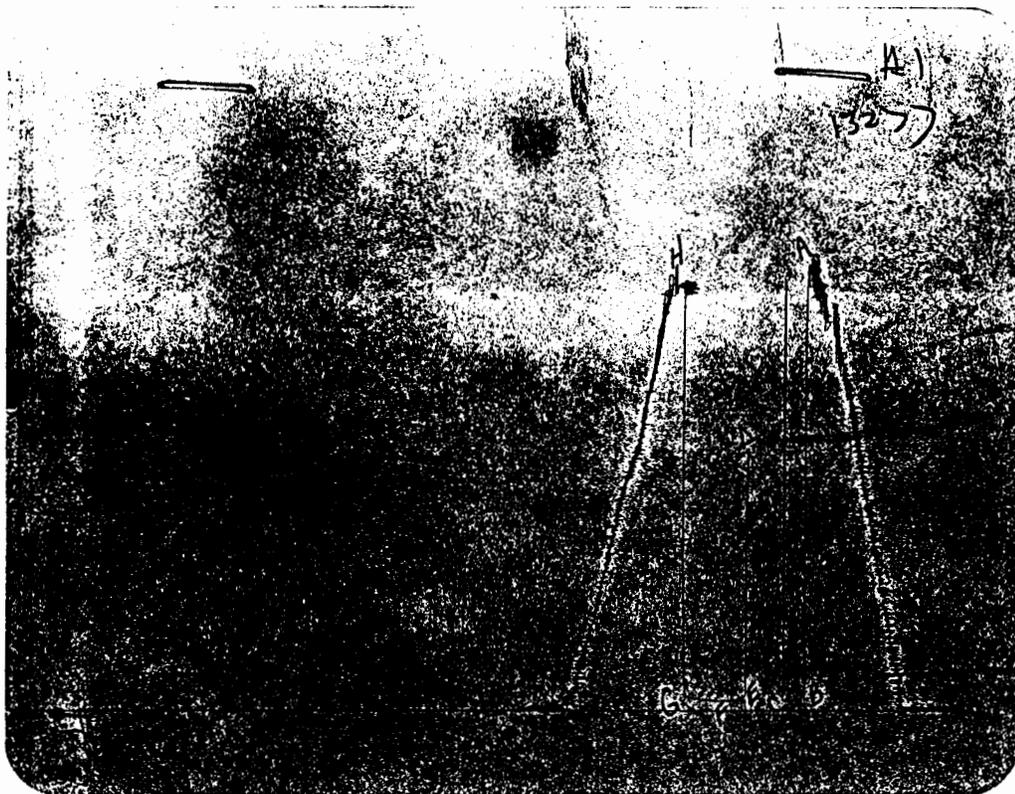
Rec. 15 Feet of MUD-NO SHOW  
 Rec. \_\_\_\_\_ Feet of \_\_\_\_\_  
 BHT 109 °F Gravity \_\_\_\_\_ °API @ \_\_\_\_\_ °F Corrected Gravity \_\_\_\_\_ °API

RW 0.63 @ 77.2 °F Chlorides 9650 ppm Recovery Chlorides 9000 ppm System

(A) Initial Hydrostatic Mud 2431.5 PSI AK1 Recorder No. 24174 Range 3350  
 (B) First Initial Flow Pressure 36.5 PSI @ (depth) 4942 w/Clock No. \_\_\_\_\_  
 (C) First Final Flow Pressure 36.5 PSI AK1 Recorder No. 13277 Range 4150  
 (D) Initial Shut-In Pressure INVALID PSI @ (depth) 4918 w/Clock No. 17652  
 (E) Second Initial Flow Pressure 36.5 PSI AK1 Recorder No. \_\_\_\_\_ Range \_\_\_\_\_  
 (F) Second Final Flow Pressure 36.5 PSI @ (depth) \_\_\_\_\_ w/Clock No. \_\_\_\_\_  
 (G) Final Shut-In Pressure 51.9 PSI Initial Opening 15 Final Flow 15  
 (H) Final Hydrostatic Mud 2340.5 PSI Initial Shut-In 30 Final Shut-In 30

Our Representative MR PAUL SIMPSON TOTAL PRICE \$ 1000

**RELEASED**  
**MAY 20 1992**  
**FROM CONFIDENTIAL**



POINT This is an actual photograph of recorder chart PRESSURE

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	2427	2431.5
(B) FIRST INITIAL FLOW PRESSURE	33	36.5
(C) FIRST FINAL FLOW PRESSURE	33	36.5
(D) INITIAL CLOSED-IN PRESSURE	INVALID	INVALID
(E) SECOND INITIAL FLOW PRESSURE	33	36.5
(F) SECOND FINAL FLOW PRESSURE	33	36.5
(G) FINAL CLOSED-IN PRESSURE	49	51.9
(H) FINAL HYDROSTATIC MUD	2335	2340.5

# TRILOBITE TESTING COMPANY

P.O. Box 362 - Hays, Kansas 67601

## FLUID SAMPLER DATA

Ticket No. 3701 Date 3/23/91

Company Name PETROLEUM INCORPORATED

Lease #2 HALL "F" Test No. 1

County BARTON Sec. 36 Twp. 33S Rng. 13W

### SAMPLER RECOVERY

Gas \_\_\_\_\_ ML Chlorides 9650 ppm.

Oil \_\_\_\_\_ ML Resistivity \_\_\_\_\_ ohms @ \_\_\_\_\_ F

Mud 4000 ML Viscosity 47

Water \_\_\_\_\_ ML Mud Weight 8.9

Other \_\_\_\_\_ ML Filtrate 8.8

Pressure 20 PSI Other \_\_\_\_\_

Total 4000 ML \_\_\_\_\_

### PIT MUD ANALYSIS

### SAMPLER ANALYSIS

Resistivity 0.64 ohms @ 80 F TOP

Chlorides 8700 ppm. Resistivity \_\_\_\_\_ ohms @ \_\_\_\_\_ F

Gravity \_\_\_\_\_ corrected @ 60 F Chlorides \_\_\_\_\_ ppm.

### PIPE RECOVERY

MIDDLE

Resistivity \_\_\_\_\_ ohms @ \_\_\_\_\_ F

Chlorides \_\_\_\_\_ ppm.

BOTTOM

Resistivity \_\_\_\_\_ ohms @ \_\_\_\_\_ F

Chlorides \_\_\_\_\_ ppm.

# TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

No 3701

## Test Ticket

Well Name & No. <u>#2 Hall 'F'</u>	Test No. <u>1</u>	Date <u>3-23-91</u>
Company <u>Petroleum Incorporated</u>	Zone Tested <u>Simpson</u>	
Address <u>301 N Main #900 Wichita Ks 67202</u>	Elevation <u>1501 KB</u>	
Co. Rep./Geo. <u>Mike Maure</u>	Cont. <u>Allen #5</u>	Est. Ft. of Pay _____
Location: Sec. <u>36</u>	Twp. <u>33s</u>	Rge. <u>13w</u> Co. <u>Barber</u> State <u>Ks</u>
No. of Copies <u>5</u>	Distribution Sheet <input checked="" type="checkbox"/> Yes	No Turnkey _____ Yes _____ No _____ Evaluation _____

Interval Tested <u>4915 - 4943</u>	Drill Pipe Size <u>4 1/2 XH</u>
Anchor Length <u>28</u>	Top Choke — 1" _____ Bottom Choke — 3/4" _____
Top Packer Depth <u>4910</u>	Hole Size — 7 7/8" _____ Rubber Size — 6 3/4" _____
Bottom Packer Depth <u>4915</u>	Wt. Pipe I.D. — 2.7 Ft. Run _____
Total Depth <u>4943</u>	Drill Collar — 2.25 Ft. Run _____
Mud Wt. <u>8.9</u> lb/gal.	Viscosity <u>47</u> Filtrate <u>8.8</u>
Tool Open @ <u>1:55 PM</u>	Initial Blow <u>weak surface blow throughout 1st opening</u>
Final Blow <u>1/2 weak surface blow - died in 10 minutes</u>	

Recovery — Total Feet <u>15</u>	Feet of Gas in Pipe _____	Flush Tool? _____
Rec. <u>15</u> Feet Of <u>Mud (no show)</u>	%gas _____ %oil _____	%water _____ %mud _____
Rec. _____ Feet Of _____	%gas _____ %oil _____	%water _____ %mud _____
Rec. _____ Feet Of _____	%gas _____ %oil _____	%water _____ %mud _____
Rec. _____ Feet Of _____	%gas _____ %oil _____	%water _____ %mud _____
Rec. _____ Feet Of _____	%gas _____ %oil _____	%water _____ %mud _____

BHT <u>109</u> °F Gravity _____	°API @ _____	°F Corrected Gravity _____	°API _____
RW <u>.63</u> @ <u>77.2</u> °F	Chlorides <u>9650</u> ppm	Recovery Chlorides <u>9000</u> ppm	System _____
(A) Initial Hydrostatic Mud <u>2427</u> PSI	Ak1 Recorder No. <u>24174</u>	Range <u>3350</u>	
(B) First Initial Flow Pressure <u>33</u> PSI	@ (depth) <u>4942</u>	w/Clock No. _____	
(C) First Final Flow Pressure <u>33</u> PSI	AK1 Recorder No. <u>13277</u>	Range <u>4150</u>	
(D) Initial Shut-in Pressure <u>invalid - drilled out of hole</u> PSI	@ (depth) <u>4918</u>	w/Clock No. <u>17652</u>	
(E) Second Initial Flow Pressure <u>33</u> PSI	AK1 Recorder No. _____	Range _____	
(F) Second Final Flow Pressure <u>33</u> PSI	@ (depth) _____	w/Clock No. _____	
(G) Final Shut-in Pressure <u>49</u> PSI	Initial Opening <u>15</u>	Test <u>550</u>	
(H) Final Hydrostatic Mud <u>2335</u> PSI	Initial Shut-in <u>30</u>	Jars <u>200</u>	

TRILOBITE TESTING COMPANY 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 SUBSTAINED, 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>15</u>	Safety Joint <u>X 50</u>
Final Shut-in <u>30</u>	Straddle _____
	Circ. Sub _____
	Sampler <u>X 200</u>
	Extra Packer _____
	Other _____

Proved By Michael K. Maure  
Representative Paul Simpson

# TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

## Drill-Stem Test Data

Well Name #2 HALL "P" Test No. 2 Date 3/24/91  
Company PETROLEUM INCORPORATED Zone Tested SIMPSON  
Address 301 N MAIN #900 WICHITA KS 67202 Elevation 1501 KB  
Co. Rep./Geo. MILA MAUNE Cont. ALLEN #5 Est. Ft. of Pay \_\_\_\_\_  
Location: Sec. 36 Twp. 33S Rge. 13W Co. BAROER State KS

Interval Tested 4916-4950  
Anchor Length 34  
Top Packer Depth 4911  
Bottom Packer Depth 4916  
Total Depth 4950

Drill Pipe Size 4.5 XH  
Wt. Pipe I.D. - 2.7 Ft. Run \_\_\_\_\_  
Drill Collar — 2.25 Ft. Run \_\_\_\_\_

Mud Wt. 8.9 lb / gal. Viscosity 50 Filtrate 8.8

Tool Open @ 3:05 AM Initial Blow WEAK 1/4" BLOW BUILDING TO 1/2"

Final Blow WEAK 1/2" BLOW DECREASING TO 1/4"

Recovery — Total Feet 20 Flush Tool? \_\_\_\_\_

Rec. 20 Feet of MUD

Rec. \_\_\_\_\_ Feet of \_\_\_\_\_

BHT 109 °F Gravity \_\_\_\_\_ °API @ \_\_\_\_\_ °F Corrected Gravity \_\_\_\_\_ °API

RW 0.642 @ 71.8 °F Chlorides 9600 ppm Recovery Chlorides 8700 ppm System

(A) Initial Hydrostatic Mud 2420.8 PSI AK1 Recorder No. 24174 Range 4150

(B) First Initial Flow Pressure 27.3 PSI @ (depth) 4749 w/Clock No. 27501

(C) First Final Flow Pressure 27.3 PSI AK1 Recorder No. 13277 Range 3350

(D) Initial Shut-In Pressure 110.4 PSI @ (depth) 4920 w/Clock No. 17652

(E) Second Initial Flow Pressure 40.8 PSI AK1 Recorder No. \_\_\_\_\_ Range \_\_\_\_\_

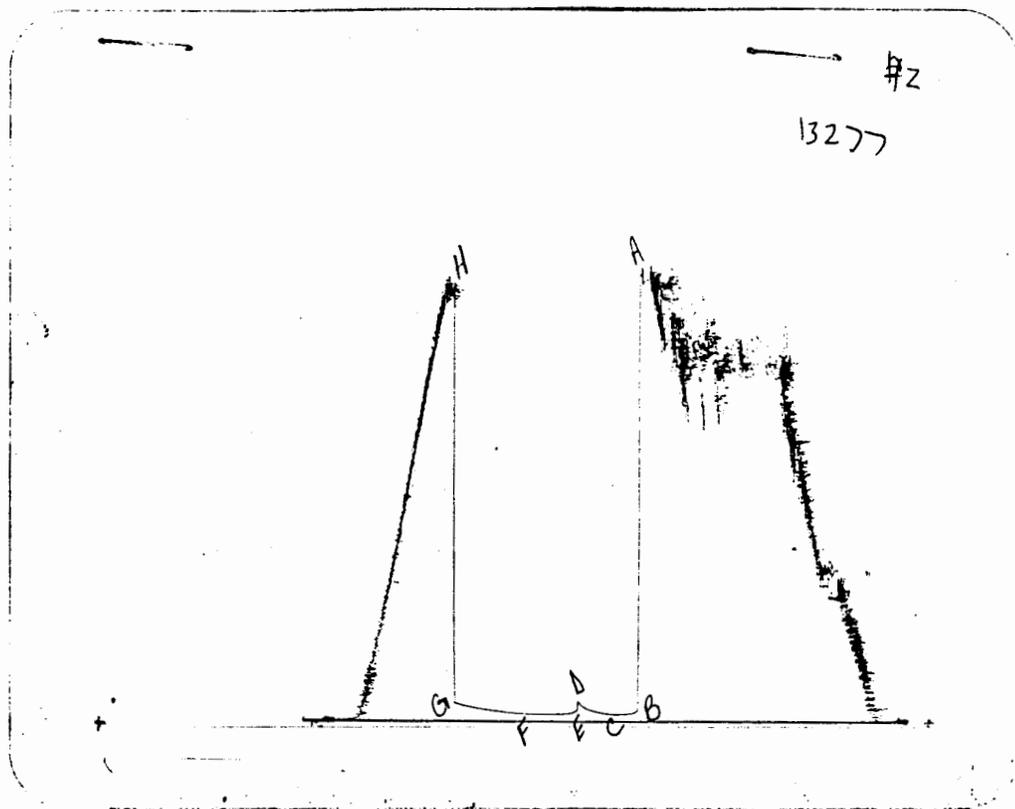
(F) Second Final Flow Pressure 40.8 PSI @ (depth) \_\_\_\_\_ w/Clock No. \_\_\_\_\_

(G) Final Shut-In Pressure 94.6 PSI Initial Opening 15 Final Flow 30

(H) Final Hydrostatic Mud 2410.8 PSI Initial Shut-In 30 Final Shut-In 60

Our Representative MR PAUL SIMPSON

TOTAL PRICE \$ 1000



POINT This is an actual photograph of recorder chart PRESSURE

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	2419	2420.8
(B) FIRST INITIAL FLOW PRESSURE	25	27.3
(C) FIRST FINAL FLOW PRESSURE	25	27.3
(D) INITIAL CLOSED-IN PRESSURE	107	110.4
(E) SECOND INITIAL FLOW PRESSURE	33	40.8
(F) SECOND FINAL FLOW PRESSURE	33	40.8
(G) FINAL CLOSED-IN PRESSURE	91	94.6
(H) FINAL HYDROSTATIC MUD	2411	2410.8

# TRILOBITE TESTING COMPANY

P.O. Box 362 - Hays, Kansas 67601

## FLUID SAMPLER DATA

Ticket No. 3702 Date 3/24/91

Company Name PETROLEUM INCORPORATED

Lease #2 HALL "F" Test No. 2

County BARTON Sec. 36 Twp. 33S Rng. 13W

### SAMPLER RECOVERY

Gas \_\_\_\_\_ ML Chlorides 9600 ppm.  
Oil \_\_\_\_\_ ML Resistivity \_\_\_\_\_ ohms @ \_\_\_\_\_ F  
Mud 4000 ML Viscosity 50  
Water \_\_\_\_\_ ML Mud Weight 8.9  
Other \_\_\_\_\_ ML Filtrate 8.8  
Pressure 25 PSI Other \_\_\_\_\_  
Total 4000 ML

### PIT MUD ANALYSIS

### SAMPLER ANALYSIS

Resistivity 0.59 ohms @ 79.2 F  
Chlorides 9100 ppm.  
Gravity \_\_\_\_\_ corrected @ 60 F

### PIPE RECOVERY

TOP  
Resistivity \_\_\_\_\_ ohms @ \_\_\_\_\_ F  
Chlorides \_\_\_\_\_ ppm.  
MIDDLE  
Resistivity 0.642 ohms @ \_\_\_\_\_ F  
Chlorides \_\_\_\_\_ ppm.  
BOTTOM  
Resistivity 0.642 ohms @ 71.8 F  
Chlorides 9600 ppm.

# TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

No. 3702

## Test Ticket

Well Name & No. <u>#2 Hall F</u>	Test No. <u>2</u>	Date <u>3-24-91</u>
Company <u>Petroleum Incorporated</u>	Zone Tested <u>Simpson</u>	
Address _____	Elevation <u>1501 KB</u>	
Co. Rep./Geo. <u>Mike Maure</u>	Cont. <u>Allen #5</u>	Est. Ft. of Pay _____
Location: Sec. <u>36</u> Twp. <u>33s</u> Rge. <u>13w</u> Co. <u>Barber</u> State <u>Ks</u>		
No. of Copes <u>5</u> Distribution Sheet <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Turnkey <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Evaluation _____		

Interval Tested <u>4916-4950</u>	Drill Pipe Size <u>4 1/2 KH</u>
Anchor Length <u>34</u>	Top Choke — 1" _____ Bottom Choke — 3/4" _____
Top Packer Depth <u>4911</u>	Hole Size — 7 7/8" _____ Rubber Size — 6 3/4" _____
Bottom Packer Depth <u>4916</u>	Wt. Pipe I.D. — 2.7 Ft. Run _____
Total Depth <u>4950</u>	Drill Collar — 2.25 Ft. Run _____
Mud Wt. <u>8.9</u> lb/gal.	Viscosity <u>50</u> Filtrate <u>8.8</u>
Tool Open @ <u>3:05 AM</u>	Initial Blow <u>weak 1/2" blow building to 1/2"</u>

Final Blow weak 1/2" blow decreasing to 1/4"

Recovery — Total Feet	Feet of Gas in Pipe	Flush Tool?	%gas	%oil	%water	%mud
<u>20</u>						
Rec. _____ Feet Of <u>Mud</u>						
Rec. _____ Feet Of _____						
Rec. _____ Feet Of _____						
Rec. _____ Feet Of _____						
Rec. _____ Feet Of _____						

BHT <u>109</u> °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
RW <u>.642</u> @ <u>71.8</u> °F Chlorides <u>9600</u> ppm Recovery Chlorides <u>8700</u> ppm System
(A) Initial Hydrostatic Mud <u>2419</u> PSI AK1 Recorder No. <u>24174</u> Range <u>4150</u>
(B) First Initial Flow Pressure <u>25</u> PSI @ (depth) <u>4949</u> w/Clock No. <u>27501</u>
(C) First Final Flow Pressure <u>25</u> PSI AK1 Recorder No. <u>13277</u> Range <u>3350</u>
(D) Initial Shut-In Pressure <u>107</u> PSI @ (depth) <u>4920</u> w/Clock No. <u>17652</u>
(E) Second Initial Flow Pressure <u>33</u> PSI AK1 Recorder No. _____ Range _____
(F) Second Final Flow Pressure <u>33</u> PSI @ (depth) _____ w/Clock No. _____
(G) Final Shut-In Pressure <u>91</u> PSI Initial Opening <u>15</u> Test <u>550</u>
(H) Final Hydrostatic Mud <u>2411</u> PSI Initial Shut-In <u>30</u> Jars <u>200</u>

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Final Flow <u>30</u>	Safety Joint <u>50</u>
Final Shut-In <u>60</u>	Straddle _____

Approved By Michael Maure  
 Our Representative Paul Simpson

Circ. Sub _____
Sampler <u>x 200</u>
Extra Packer _____
Other _____
TOTAL PRICE \$ <u>1000</u>

# TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

## Drill-Stem Test Data

Well Name #2 HALL "F" Test No. 3 Date 3/24/91  
Company PETROLEUM INCORPORATED Zone Tested SIMPSON  
Address 301 N MAIN #900 WICHITA KS 67202 Elevation 1501 KB  
Co. Rep./Geo. MILA MAUNE Cont. ALLEN #5 Est. Ft. of Pay \_\_\_\_\_  
Location: Sec. 36 Twp. 33S Rge. 13W Co. BARBER State KS

Interval Tested 4917-4960 Drill Pipe Size 4.5 XH  
Anchor Length 43 Wt. Pipe I.D. - 2.7 Ft. Run \_\_\_\_\_  
Top Packer Depth 4912 Drill Collar - 2.25 Ft. Run \_\_\_\_\_  
Bottom Packer Depth 4917  
Total Depth 4960

Mud Wt. 8.8 lb / gal. Viscosity 52 Filtrate 10.4

Tool Open @ 4:26 PM Initial Blow WEAK 1/8" BLOW THROUGHOUT

Final Blow SURFACE BLOW THROUGHOUT 2nd OPENING

Recovery - Total Feet 10 Flush Tool? \_\_\_\_\_

Rec. 10 Feet of MUD

Rec. \_\_\_\_\_ Feet of \_\_\_\_\_

BHT 110 °F Gravity \_\_\_\_\_ °API @ \_\_\_\_\_ °F Corrected Gravity \_\_\_\_\_ °API

RW 0.46 @ 71.2 °F Chlorides \_\_\_\_\_ ppm Recovery Chlorides 4000 ppm System

(A) Initial Hydrostatic Mud 2431.8 PSI Ak1 Recorder No. 24174 Range 3350

(B) First Initial Flow Pressure 42.9 PSI @ (depth) 4959 w/Clock No. 25828

(C) First Final Flow Pressure 813.3 PSI Ak1 Recorder No. 13277 Range 4125

(D) Initial Shut-in Pressure 34.4 PSI @ (depth) 4920 w/Clock No. 27501

(E) Second Initial Flow Pressure 57.8 PSI Ak1 Recorder No. \_\_\_\_\_ Range \_\_\_\_\_

(F) Second Final Flow Pressure 541.7 PSI @ (depth) \_\_\_\_\_ w/Clock No. \_\_\_\_\_

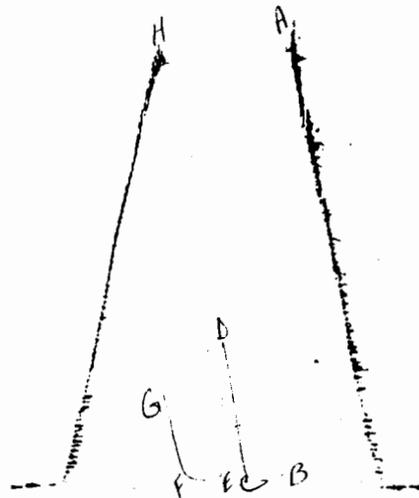
(G) Final Shut-in Pressure 2370.4 PSI Initial Opening 15 Final Flow 15

(H) Final Hydrostatic Mud 2410.8 PSI Initial Shut-in 30 Final Shut-in 30

Our Representative MR PAUL SIMPSON

TOTAL PRICE \$ 1000

#3  
13277



POINT This is an actual photograph of recorder chart  
PRESSURE

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	2428	2431.8
(B) FIRST INITIAL FLOW PRESSURE	33	42.9
(C) FIRST FINAL FLOW PRESSURE	33	813.3
(D) INITIAL CLOSED-IN PRESSURE	803	34.4
(E) SECOND INITIAL FLOW PRESSURE	33	57.8
(F) SECOND FINAL FLOW PRESSURE	33	541.7
(G) FINAL CLOSED-IN PRESSURE	537	2370.4
(H) FINAL HYDROSTATIC MUD	2378	2410.8

#2 HALL 'F' DST #3  
 INITIAL SHUTIN  
 15 INITIAL FLOW TIME

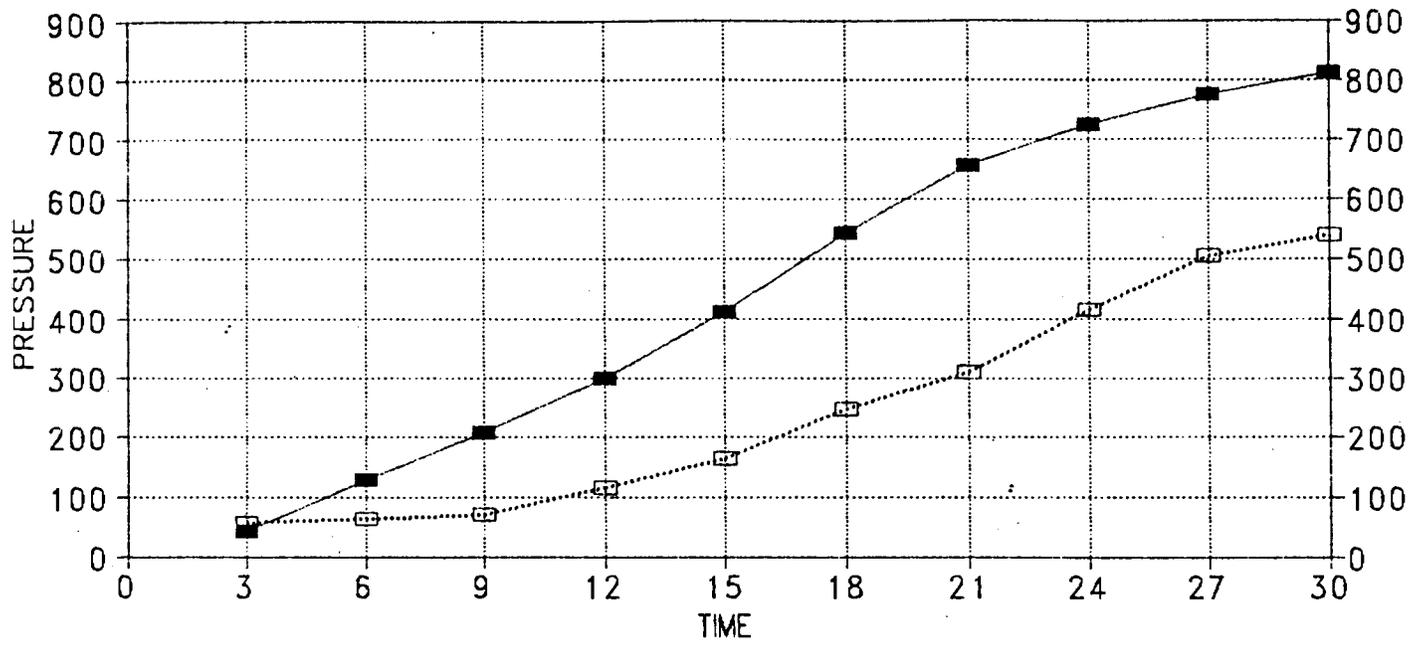
TIME(MIN)	Pws (psi)	Horn T	Log		PRESSURE
			Horn T	< >	
3	42.9	6	0.778		42.9
6	128.7	4	0.544		85.8
9	207.9	3	0.426		79.2
12	298.7	2	0.352		90.8
15	412.5	2	0.301		113.8
18	543.3	2	0.263		130.8
21	656.7	2	0.234		113.4
24	725.0	2	0.211		68.3
27	775.0	2	0.192		50.0
30	813.3	2	0.176		38.3

#2 HALL 'F' DST #2  
 FINAL SHUTIN  
 30 TOTAL FLOW TIME

TIME(MIN)	Pws (psi)	Horn T	Log		PRESSURE
			Horn T	< >	
3	57.8	6	0.778		57.8
6	64.3	4	0.544		6.5
9	71.0	3	0.426		6.7
12	115.5	2	0.352		44.5
15	165.0	2	0.301		49.5
18	247.5	2	0.263		82.5
21	273.7	2	0.234		26.2
24	361.4	2	0.211		87.7
27	506.7	2	0.192		145.3
30	541.7	2	0.176		35.0

# DELTA T DELTA P

DST #2 #2 HALL 'F'



—■— INITIAL ...□... FINAL

# TRILOBITE TESTING COMPANY

P.O. Box 362 - Hays, Kansas 67601

## FLUID SAMPLER DATA

Ticket No. 3703 Date 3/24/91  
Company Name PETROLEUM INCORPORATED  
Lease #2 HALL "F" Test No. 3  
County BARTON Sec. 36 Twp. 33S Rng. 13W

### SAMPLER RECOVERY

Gas \_\_\_\_\_ ML Chlorides \_\_\_\_\_ ppm.  
Oil \_\_\_\_\_ ML Resistivity \_\_\_\_\_ ohms @ \_\_\_\_\_ F  
Mud 4000 ML Viscosity 52  
Water \_\_\_\_\_ ML Mud Weight 8.8  
Other \_\_\_\_\_ ML Filtrate 10.4  
Pressure 90 PSI Other \_\_\_\_\_  
Total 4000 ML \_\_\_\_\_

### PIT MUD ANALYSIS

### SAMPLER ANALYSIS

Resistivity 0.473 ohms @ 69.3 F  
Chlorides 14000 ppm.  
Gravty \_\_\_\_\_ corrected @ 60 F

### PIPE RECOVERY

TOP  
Resistivity \_\_\_\_\_ ohms @ \_\_\_\_\_ F  
Chlorides \_\_\_\_\_ ppm.  
MIDDLE  
Resistivity 0.468 ohms @ \_\_\_\_\_ F  
Chlorides \_\_\_\_\_ ppm.  
BOTTOM  
Resistivity 0.468 ohms @ 71.2 F  
Chlorides 14000 ppm.

# TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

No 3703

## Test Ticket

Well Name & No. #2 Hall 'E' Test No. 3 Date 3-24-94  
 Company Petroleum Incorporated Zone Tested Simpson  
 Address \_\_\_\_\_ Elevation 1501 K0  
 Co. Rep./Geo. Mike Maune cont. Allen #5 Est. Ft. of Pay \_\_\_\_\_  
 Location: Sec. 36 Twp. 33s Rge. 13 w Co. Barber State Ks  
 No. of Copies 5 Distribution Sheet  Yes  No Turnkey  Yes  No  Evaluation

Interval Tested 4917-4960 Drill Pipe Size 4 1/2 XH  
 Anchor Length 43 Top Choke — 1" \_\_\_\_\_ Bottom Choke — 3/4" \_\_\_\_\_  
 Top Packer Depth 4912 Hole Size — 7 7/8" \_\_\_\_\_ Rubber Size — 6 3/4" \_\_\_\_\_  
 Bottom Packer Depth 4917 Wt. Pipe I.D. — 2.7 Ft. Run \_\_\_\_\_  
 Total Depth 4960 Drill Collar — 2.25 Ft. Run \_\_\_\_\_  
 Mud Wt. 8.8 lb/gal. Viscosity 52 Filtrate 10.4  
 Tool Open @ 4:26 PM Initial Blow weak 1/8" blow throughout

Final Blow surface blow through 2nd opening

Recovery — Total Feet	Feet of Gas In Pipe	Flush Tool?			
Rec. <u>10</u> Feet Of <u>Mud</u>		%gas	%oil	%water	%mud
Rec. _____ Feet Of _____		%gas	%oil	%water	%mud
Rec. _____ Feet Of _____		%gas	%oil	%water	%mud
Rec. _____ Feet Of _____		%gas	%oil	%water	%mud
Rec. _____ Feet Of _____		%gas	%oil	%water	%mud

BHT 110 °F Gravity \_\_\_\_\_ °API @ \_\_\_\_\_ °F Corrected Gravity \_\_\_\_\_ °API

RW .46 @ 71.2 °F Chlorides \_\_\_\_\_ ppm Recovery Chlorides 14,000 ppm System

- (A) Initial Hydrostatic Mud 2428 PSI AK1 Recorder No. 24174 Range 3350
- (B) First Initial Flow Pressure 33 PSI @ (depth) 4959 w/Clock No. 25828
- (C) First Final Flow Pressure 33 PSI AK1 Recorder No. 13277 Range 4125
- (D) Initial Shut-In Pressure 803 PSI @ (depth) 4920 w/Clock No. 27501
- (E) Second Initial Flow Pressure 33 PSI AK1 Recorder No. \_\_\_\_\_ Range \_\_\_\_\_
- (F) Second Final Flow Pressure 33 PSI @ (depth) \_\_\_\_\_ w/Clock No. \_\_\_\_\_
- (G) Final Shut-In Pressure 537 PSI Initial Opening 15 Test 550
- (H) Final Hydrostatic Mud 2378 PSI Initial Shut-In 30 Jars 200

TRILOBITE TESTING COMPANY 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 SUBSTAINED, 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 15 Safety Joint 50  
Final Shut-In 30 Straddle \_\_\_\_\_

Approved By Michael K. Maune  
Our Representative Paul Simpson

Sampler 200  
Extra Packer \_\_\_\_\_  
Other \_\_\_\_\_  
TOTAL PRICE \$ 1000

# TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

## Drill-Stem Test Data

Well Name #2 HALL "F" Test No. 4 Date 3/25/91  
Company PETROLEUM INCORPORATED Zone Tested SIMPSON  
Address 301 N MAIN #900 WICHITA KS 67202 Elevation 1501 KB  
Co. Rep./Geo. MILA MAUNE cont. ALLEN #5 Est. Ft. of Pay \_\_\_\_\_  
Location: Sec. 36 Twp. 33S Rge. 13W Co. BARBER State KS

Interval Tested 4918-4980 Drill Pipe Size 4.5 XH  
Anchor Length 62 Wt. Pipe I.D. - 2.7 Ft. Run \_\_\_\_\_  
Top Packer Depth 4913 Drill Collar — 2.25 Ft. Run \_\_\_\_\_  
Bottom Packer Depth 4918  
Total Depth 4980

Mud Wt. 8.8 lb / gal. Viscosity 51 Filtrate 10.4

Tool Open @ 6:22 AM Initial Blow WEAK 1/2" BLOW BUILDING TO 5"

Final Blow WEAK 1/4" BLOW BUILDING TO 8.5"

Recovery — Total Feet 210 Flush Tool? \_\_\_\_\_

Rec. 60 Feet of GAS IN PIPE

Rec. 30 Feet of SLIGHTLY GASSY MUD W/ OIL SPOTS

Rec. 150 Feet of GASSY MUD

Rec. 30 Feet of MUDDY SALT WATER-30%WTR/70 MUD

Rec. 1 Feet of \_\_\_\_\_

BHT 113 °F Gravity \_\_\_\_\_ °API @ \_\_\_\_\_ °F Corrected Gravity \_\_\_\_\_ °API

RW 0.335 @ 74.9 °F Chlorides 19500 ppm Recovery Chlorides 11000 ppm System

(A) Initial Hydrostatic Mud 2452 PSI AK1 Recorder No. 24174 Range 3350

(B) First Initial Flow Pressure 56.1 PSI @ (depth) 4979 w/Clock No. 17652

(C) First Final Flow Pressure 72.6 PSI AK1 Recorder No. 13277 Range 4125

(D) Initial Shut-In Pressure 1805 PSI @ (depth) 4923 w/Clock No. 25828

(E) Second Initial Flow Pressure 85.8 PSI AK1 Recorder No. \_\_\_\_\_ Range \_\_\_\_\_

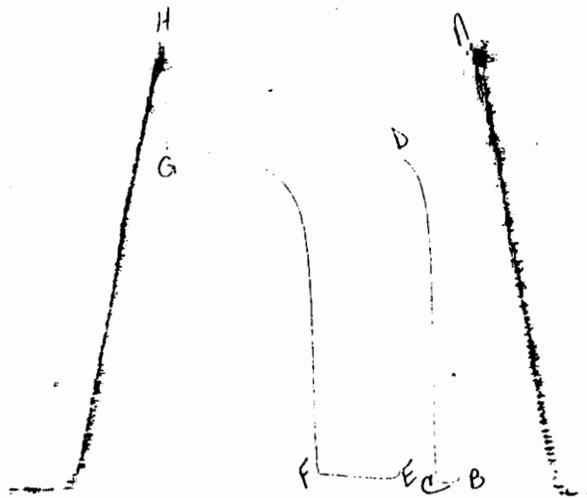
(F) Second Final Flow Pressure 101.4 PSI @ (depth) \_\_\_\_\_ w/Clock No. \_\_\_\_\_

(G) Final Shut-In Pressure 1863.3 PSI Initial Opening 15 Final Flow 60

(H) Final Hydrostatic Mud 2415.8 PSI Initial Shut-In 30 Final Shut-In 120

Our Representative MR PAUL SIMPSON TOTAL PRICE \$ 1000

13277 #4



POINT This is an actual photograph of recorder chart PRESSURE

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	2444	2452
(B) FIRST INITIAL FLOW PRESSURE	74	56.1
(C) FIRST FINAL FLOW PRESSURE	83	72.6
(D) INITIAL CLOSED-IN PRESSURE	1807	1805
(E) SECOND INITIAL FLOW PRESSURE	91	85.8
(F) SECOND FINAL FLOW PRESSURE	116	101.4
(G) FINAL CLOSED-IN PRESSURE	1865	1863.3
(H) FINAL HYDROSTATIC MUD	2402	2415.8

INITIAL FLOW

RECORDED # 24174  
DST #4

DT(MIN)	PRESSURE	<> PRESSURE
0	56.1	56.1
3	59.4	3.300003
6	62.7	3.299999
9	64.3	1.600002
12	67.6	3.299996
15	72.6	5

FINAL FLOW

RECORDED # 24174  
DST #4

DT(MIN)	PRESSURE	<> PRESSURE
0	85.8	85.8
15	88.9	3.099999
30	90.8	1.900002
45	96.2	5.399994
60	101.4	5.200005

#2 HALL 'F' DST #4  
INITIAL SHUTIN

15 INITIAL FLOW TIME

-----  
Slope \*\*\*\*\*psi/cycle  
P \* 2,033 psi  
-----

Log  
TIME(MIN) Pws (psi) Horn T Horn T (<) PRESSURE  
-----  
6 359.7 4 0.544 359.7  
12 1403.2 2 0.352 1043.5  
18 1673.3 2 0.263 270.1  
X 24 1760.0 2 0.211 86.7  
X 30 1805.0 2 0.176 45.0

#2 HALL 'F' DST #4  
FINAL SHUTIN

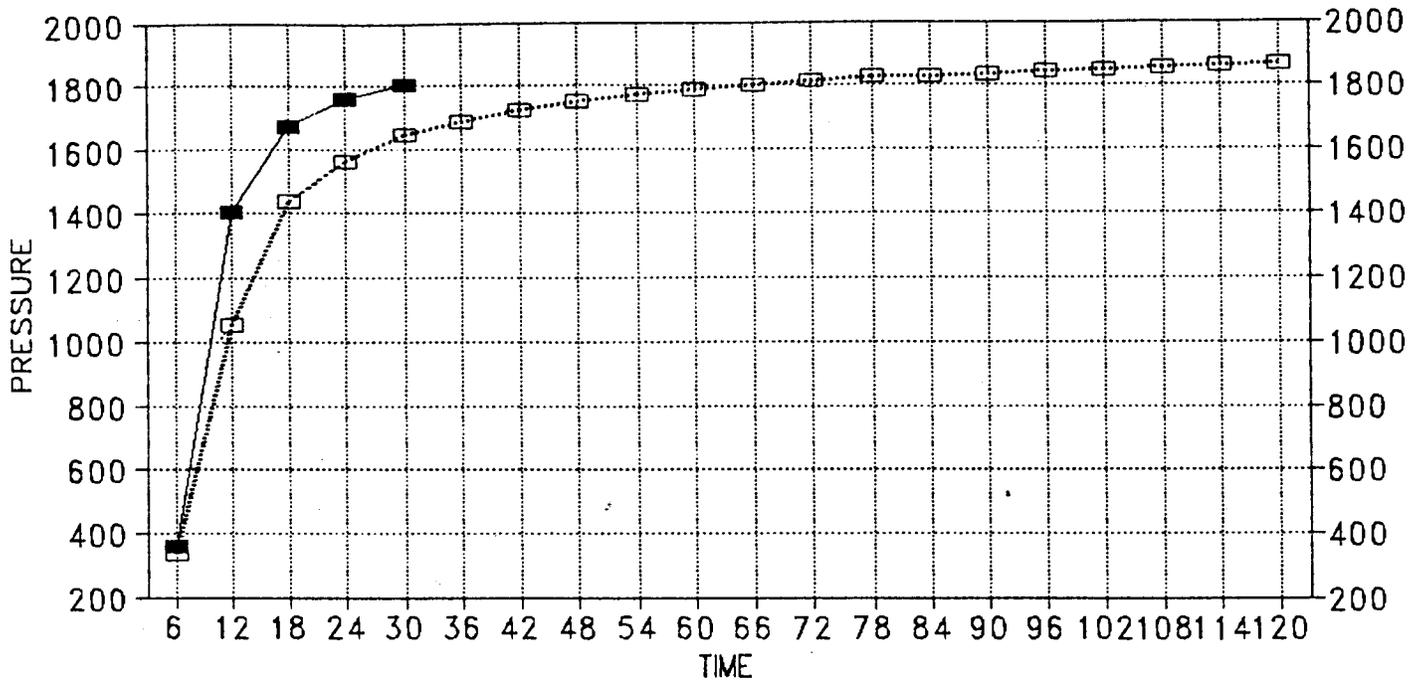
75 TOTAL FLOW TIME

-----  
Slope -447.74 psi/cycle  
P \* 1,958 psi  
-----

Log  
TIME(MIN) Pws (psi) Horn T Horn T (<) PRESSURE  
-----  
6 336.3 14 1.130 336.3  
12 1053.7 7 0.860 717.4  
18 1437.9 5 0.713 384.2  
24 1563.3 4 0.615 125.4  
30 1645.0 4 0.544 81.7  
36 1686.7 3 0.489 41.7  
42 1721.7 3 0.445 35.0  
48 1750.0 3 0.409 28.3  
54 1770.0 2 0.378 20.0  
60 1788.3 2 0.352 18.3  
66 1801.7 2 0.330 13.4  
72 1816.3 2 0.310 14.6  
X 78 1826.7 2 0.293 10.4  
84 1830 2 0.277 3.3  
90 1838.3 2 0.263 8.3  
96 1845 2 0.251 6.7  
102 1850 2 0.239 5.0  
108 1855 2 0.229 5.0  
114 1860 2 0.220 5.0  
X 120 1863.3 2 0.211 3.3

# DELTA T DELTA P

DST #4-#2 HALL 'F'



—■— INITIAL    ···□··· FINAL

# TRILOBITE TESTING COMPANY

P.O. Box 362 - Hays, Kansas 67601

## FLUID SAMPLER DATA

Ticket No. 3704 Date 3/25/91

Company Name PETROLEUM INCORPORATED

Lease #2 HALL "F" Test No. 4

County BARBER Sec. 36 Twp. 33S Rng. 13W

### SAMPLER RECOVERY

Gas TRACE ML Chlorides 19500 ppm.

Oil FEW SPOTS ML Resistivity \_\_\_\_\_ ohms @ \_\_\_\_\_ F

Mud 60 ML Viscosity 51

Water 3640 ML Mud Weight 8.8

Other \_\_\_\_\_ ML Filtrate 10.4

Pressure 150 PSI Other \_\_\_\_\_

Total 4000 ML \_\_\_\_\_

### PIT MUD ANALYSIS

### SAMPLER ANALYSIS

Resistivity 0.243 ohms @ 73.9 F TOP

Chlorides 27500 ppm. Resistivity 0.354 ohms @ 75.3 F

Gravty \_\_\_\_\_ corrected @ 60 F Chlorides 18,300 ppm.

### PIPE RECOVERY

MIDDLE  
Resistivity \_\_\_\_\_ ohms @ \_\_\_\_\_ F

Chlorides \_\_\_\_\_ ppm.

BOTTOM  
Resistivity 0.335 ohms @ 74.9 F

Chlorides 19500 ppm.

# TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

No 3704

## Test Ticket

Well Name & No. <u>#2 Hall 'F'</u>	Test No. <u>4</u>	Date <u>3-25-91</u>
Company <u>Petroleum Incorporated</u>	Zone Tested <u>Simpson</u>	
Address _____	Elevation <u>1501 KB</u>	
Co. Rep./Geo. <u>Mike Maune</u>	cont. <u>Allen #5</u>	Est. Ft. of Pay <u>105</u>
Location: Sec. <u>36</u>	Twp. <u>33s</u>	Rge. <u>13w</u> Co. <u>Barber</u> State <u>Ks</u>
No. of Copies <u>5</u>	Distribution Sheet _____	Yes _____ No _____ Turnkey _____ Yes _____ No _____ Evaluation _____

Interval Tested <u>4918-4980</u>	Drill Pipe Size <u>4 1/2 IH</u>
Anchor Length <u>62</u>	Top Choke — 1" _____ Bottom Choke — 1/4" _____
Top Packer Depth <u>4913</u>	Hole Size — 7 7/8" _____ Rubber Size — 6 3/4" _____
Bottom Packer Depth <u>4918</u>	Wt. Pipe I.D. — 2.7 Ft. Run _____
Total Depth <u>4980</u>	Drill Collar — 2.25 Ft. Run _____
Mud Wt. <u>8.8</u> lb/gal.	Viscosity <u>51</u> Filtrate <u>10.4</u>
Tool Open @ <u>6:22 AM</u>	Initial Blow <u>weak 1/2" blow building to 5"</u>

Final Blow weak 1/4" blow building to 8 1/2"

Recovery — Total Feet <u>210</u>	Feet of Gas in Pipe <u>60</u>	Flush Tool? _____
Rec. <u>30</u> Feet Of <u>sl/gassy mud w/ oil spots</u>	% gas _____ % oil _____ % water _____ % mud _____	
Rec. <u>150</u> Feet Of <u>gassy mud</u>	% gas _____ % oil _____ % water _____ % mud _____	
Rec. <u>30</u> Feet Of <u>Muddy salt water</u>	% gas _____ % oil _____ % water <u>30</u> % mud <u>70</u>	
Rec. _____ Feet Of _____	% gas _____ % oil _____ % water _____ % mud _____	
Rec. _____ Feet Of _____	% gas _____ % oil _____ % water _____ % mud _____	

BHT 113 °F Gravity \_\_\_\_\_ °API @ \_\_\_\_\_ °F Corrected Gravity \_\_\_\_\_ °API

RW 335 @ 74.7 °F Chlorides 19,500 ppm Recovery Chlorides 11,000 ppm System

(A) Initial Hydrostatic Mud <u>2444</u> PSI	AK1 Recorder No. <u>24174</u>	Range <u>3350</u>
(B) First Initial Flow Pressure <u>74</u> PSI	@ (depth) <u>4979</u>	w/Clock No. <u>17652</u>
(C) First Final Flow Pressure <u>83</u> PSI	AK1 Recorder No. <u>13277</u>	Range <u>4125</u>
(D) Initial Shut-In Pressure <u>1807</u> PSI	@ (depth) <u>4923</u>	w/Clock No. <u>25828</u>
(E) Second Initial Flow Pressure <u>91</u> PSI	AK1 Recorder No. _____	Range _____
(F) Second Final Flow Pressure <u>116</u> PSI	@ (depth) _____	w/Clock No. _____
(G) Final Shut-In Pressure <u>1865</u> PSI	Initial Opening <u>15</u>	Test <u>550</u>
(H) Final Hydrostatic Mud <u>2402</u> PSI	Initial Shut-in <u>30</u>	Jars <u>200</u>

Final Flow <u>60</u>	Safety Joint <u>50</u>
Final Shut-in <u>120</u>	Straddle _____
	Circ. Sub _____
	Sampler <u>200</u>
	Extra Packer _____
	Other _____

Approved By Mike K. Maune

Our Representative Paul Simpson

TOTAL PRICE \$ 1000

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