

# TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

## Drill-Stem Test Data



Well Name DOWNING #1-30 Test No. 1 Date 7/20/93  
Company MURFIN DRILLING CO INC Zone MORROW  
Address 250 N WATER SWT #300 WICHITA KS 67202 Elevation 3767  
Co. Rep./Geo. PAUL GODOWIC Cont. MURFINRIG #25 Est. Ft. of Pay 5  
Location: Sec. 31 Twp. 21S Rge. 46W Co. PROWERS State CO

Interval Tested 4486-4643  
Anchor Length 157  
Top Packer Depth 4482  
Bottom Packer Depth 4486  
Total Depth 4634

Drill Pipe Size 4.5" XH  
Wt. Pipe I.D. - 2.7 Ft. Run  
Drill Collar - 2.25 Ft. Run 578/H-90  
Mud Wt. 9.2 lb/Gal.  
Viscosity 62 Filtrate 9.6

Tool Open @ 11:15 Initial Blow PACKER FAILURE

Final Blow

Recovery - Total Feet 454

Flush Tool? NO

Rec. 454 Feet of DRILLING MUD  
Rec. \_\_\_\_\_ Feet of \_\_\_\_\_  
Rec. \_\_\_\_\_ Feet of \_\_\_\_\_  
Rec. \_\_\_\_\_ Feet of \_\_\_\_\_  
Rec. \_\_\_\_\_ Feet of \_\_\_\_\_

BHT 121 °F Gravity \_\_\_\_\_ °API @ \_\_\_\_\_ °F Corrected Gravity \_\_\_\_\_ °API  
RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm Recovery Chlorides 350 ppm System

(A) Initial Hydrostatic Mud \_\_\_\_\_ PSI AK1 Recorder No. 13850 Range 4325

(B) First Initial Flow Pressure \_\_\_\_\_ PSI @ (depth) 4490 w / Clock No. 17639

(C) First Final Flow Pressure \_\_\_\_\_ PSI AK1 Recorder No. 13851 Range 4425

(D) Initial Shut-in Pressure \_\_\_\_\_ PSI @ (depth) 4640 w / Clock No. 27585

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

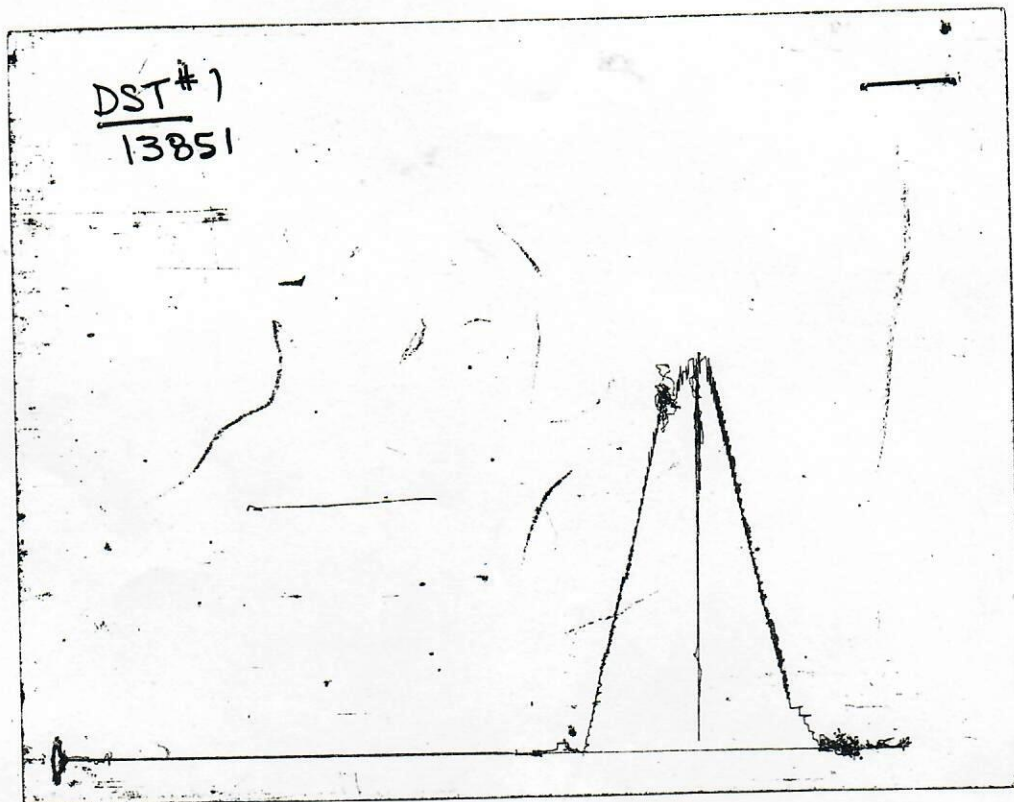
(F) Second Final Flow Pressure \_\_\_\_\_ PSI @ (depth) \_\_\_\_\_ w / Clock No. \_\_\_\_\_

(G) Final Shut-in Pressure \_\_\_\_\_ PSI Initial Opening \_\_\_\_\_ Final Flow \_\_\_\_\_

(H) Final Hydrostatic Mud \_\_\_\_\_ PSI Initial Shut-in \_\_\_\_\_ Final Shut-in \_\_\_\_\_

Our Representative R COLLINS/ P WAGGONER

CHART PAGE



This is an actual photograph of recorder chart

FIELD  
READING

OFFICE  
READING

- (A) INITIAL HYDROSTATIC MUD
- (B) FIRST INITIAL FLOW PRESSURE
- (C) FIRST FINAL FLOW PRESSURE
- (D) INITIAL CLOSED-IN PRESSURE
- (E) SECOND INITIAL FLOW PRESSURE
- (F) SECOND FINAL FLOW PRESSURE
- (G) FINAL CLOSED-IN PRESSURE
- (H) FINAL HYDROSTATIC MUD

# FLUID SAMPLER DATA

Ticket No.: 5578 Date: 7/20/93  
 Company: MURFIN DRILLING CO INC  
 Lease: DOWNING #1-30 Test No.: 1  
 County: PROWERS Sec.: 31 Twp.: 21S Rng.: 46W

## SAMPLER RECOVERY

Gas  
 Oil  
 Mud 4000  
 Water  
 Other  
 Pressure  
 TOTAL 4000

## SAMPLER ANALYSIS

Resistivity ohms@ F  
 Chlorides ppm.  
 Gravity corrected @60F

## PIT MUD ANALYSIS

Chlorides 350  
 Resistivity ohms@ F  
 Viscosity 62  
 Mud Wt. 9.2  
 Filtrate 9.6  
 Other

## PIPE RECOVERY

### TOP

Resistivity ohms@ F  
 Chlorides ppm

### MIDDLE

Resistivity ohms@ F  
 Chlorides ppm

### BOTTOM

Resistivity ohms@ F  
 Chlorides ppm

# TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

## Test Ticket

N2 5578

Well Name & No. <u>Downing #1-30</u>	Test No. <u>1</u>	Date <u>7-20-93</u>
Company <u>MDC</u>	Zone Tested <u>Morrow</u>	
Address <u>Martin DR 15 CO 250 N. Water Santa Fe 300 67202</u>		
Co. Rep./Geo <u>Paul Goddard</u>	cont. <u>MDC Rig #25</u>	Elevation <u>3767 KB</u>
Location: Sec. <u>30</u>	Twp. <u>21S</u>	Rge. <u>46W</u>
	Co. <u>Prowers</u>	State <u>CO</u>
No. of Copies _____	Distribution Sheet _____	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Turnkey _____
		Yes _____ No _____ Evaluation _____

Interval Tested <u>4486-4643</u>	Drill Pipe Size <u>4 1/2 NH</u>
Anchor Length <u>157</u>	Top Choke — 1" _____ Bottom Choke — 3/4" _____
Top Packer Depth <u>4482</u>	Hole Size — 7 7/8" _____ Rubber Size — 6 3/4" _____
Bottom Packer Depth <u>4486</u>	Wt. Pipe I.D. — 2.7 Ft. Run _____
Total Depth <u>4634</u>	Drill Collar — 2.25 Ft. Run <u>578 LH 903</u>
Mud Wt. <u>9.2</u> lb/gal.	Viscosity <u>62</u> Filtrate <u>9.6</u>
Tool Open @ <u>11:15</u>	Initial Blow <u>Packer Failure</u>

Final Blow \_\_\_\_\_

Recovery — Total Feet 454 Feet of Gas in Pipe \_\_\_\_\_ Flush Tool? no

Rec. _____	Feet Of _____	%gas	%oil	%water	%mud
Rec. <u>154</u>	Feet Of <u>DR 1 Mud</u>	%gas	%oil	%water <u>100</u>	%mud
Rec. _____	Feet Of _____	%gas	%oil	%water	%mud
Rec. _____	Feet Of _____	%gas	%oil	%water	%mud
Rec. _____	Feet Of _____	%gas	%oil	%water	%mud

BHT 121 °F Gravity \_\_\_\_\_ °API @ \_\_\_\_\_ °F Corrected Gravity \_\_\_\_\_ °API

RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm Recovery Chlorides 350 ppm System

(A) Initial Hydrostatic Mud _____	PSI	AK1 Recorder No. <u>13850</u>	Range <u>4325</u>
(B) First Initial Flow Pressure _____	PSI	@ (depth) <u>4490</u>	w/Clock No. <u>17639</u>
(C) First Final Flow Pressure _____	PSI	AK1 Recorder No. <u>13851</u>	Range <u>4425</u>
(D) Initial Shut-In Pressure _____	PSI	@ (depth) <u>4640</u>	w/Clock No. <u>27585</u>
(E) Second Initial Flow Pressure _____	PSI	AK1 Recorder No. _____	Range _____
(F) Second Final Flow Pressure _____	PSI	@ (depth) _____	w/Clock No. _____
(G) Final Shut-In Pressure _____	PSI	Initial Opening _____	Test <u>on show</u> <u>400.00</u>
(H) Final Hydrostatic Mud _____	PSI	Initial Shut-In _____	Jars <u>X</u> <u>200.00</u>

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.

Approved By Paul F. Goddard

Our Representative Paul F. Goddard

Printcraft Printers - Hays, KS

Final Flow \_\_\_\_\_ Safety Joint X 50.00  
 Final Shut-In \_\_\_\_\_ Straddle \_\_\_\_\_  
 Circ. Sub X 250.00  
 Sampler X \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  
 Other \_\_\_\_\_  
 TOTAL PRICE \$ 900.00

# TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

## Drill-Stem Test Data

Well Name DOWNING #1-30 Test No. 2 Date 7/20/93  
Company MURFIN DRILLING CO INC Zone MORROW  
Address 250 N WATER SWT #300 WICHITA KS 67202 Elevation 3767  
Co. Rep./Geo. PAUL GODOWIC Cont. MURFINRIG #25 Est. Ft. of Pay 5  
Location: Sec. 31 Twp. 21S Rge. 46W Co. PROWERS State CO

Interval Tested 4452-4643  
Anchor Length 191  
Top Packer Depth 4448  
Bottom Packer Depth 4452  
Total Depth 4643

Drill Pipe Size 4.5" XH  
Wt. Pipe I.D. - 2.7 Ft. Run 578/H-90  
Drill Collar - 2.25 Ft. Run 9.2  
Mud Wt. 62 lb/Gal.  
Viscosity 9.6 Filtrate 9.6

Tool Open @ 3:50 PM Initial Blow WEAK SURFACE BLOW BUILT TO 1.5"

Final Blow WEAK BLOW BUILT TO 1 3/4"

Recovery - Total Feet 30

Flush Tool? NO

Rec. 30 Feet of DRILLING MUD  
Rec. \_\_\_\_\_ Feet of \_\_\_\_\_  
Rec. \_\_\_\_\_ Feet of \_\_\_\_\_  
Rec. \_\_\_\_\_ Feet of \_\_\_\_\_  
Rec. \_\_\_\_\_ Feet of \_\_\_\_\_

BHT 126 °F Gravity \_\_\_\_\_ °API @ \_\_\_\_\_ °F Corrected Gravity \_\_\_\_\_ °API  
RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm Recovery Chlorides 350 ppm System

(A) Initial Hydrostatic Mud 2223.6 PSI AK1 Recorder No. 13850 Range 4325

(B) First Initial Flow Pressure 34.1 PSI @ (depth) 4456 w / Clock No. 17639

(C) First Final Flow Pressure 34.1 PSI AK1 Recorder No. 13851 Range 4425

(D) Initial Shut-in Pressure 94.6 PSI @ (depth) 4640 w / Clock No. 27585

(E) Second Initial Flow Pressure 50.6 PSI AK1 Recorder No. \_\_\_\_\_ Range \_\_\_\_\_

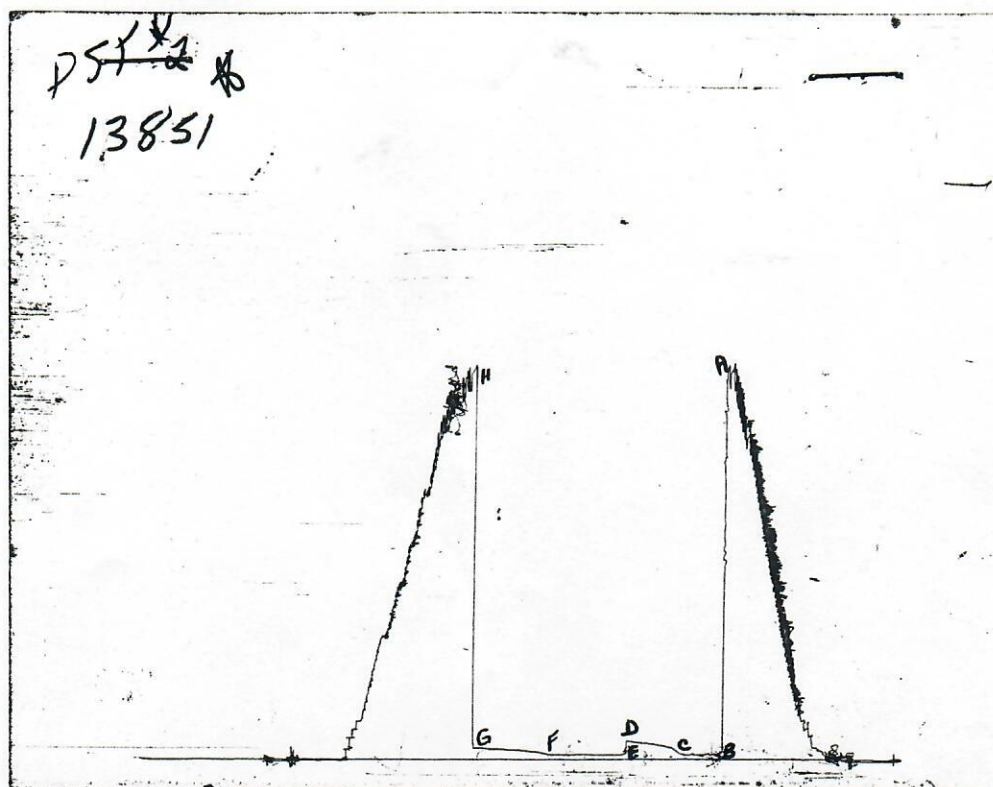
(F) Second Final Flow Pressure 57.8 PSI @ (depth) \_\_\_\_\_ w / Clock No. \_\_\_\_\_

(G) Final Shut-in Pressure 69.3 PSI Initial Opening 30 Final Flow 60

(H) Final Hydrostatic Mud 2216.4 PSI Initial Shut-in 45 Final Shut-in 60

Our Representative R COLLINS/ P WAGGONER

# CHART PAGE



This is an actual photograph of recorder chart

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	2218	2223.6
(B) FIRST INITIAL FLOW PRESSURE	33	34.1
(C) FIRST FINAL FLOW PRESSURE	33	34.1
(D) INITIAL CLOSED-IN PRESSURE	88	94.6
(E) SECOND INITIAL FLOW PRESSURE	44	50.6
(F) SECOND FINAL FLOW PRESSURE	55	57.8
(G) FINAL CLOSED-IN PRESSURE	66	69.3
(H) FINAL HYDROSTATIC MUD	2218	2216.4

# FLUID SAMPLER DATA

Ticket No.: 5579

Date: 7/20/93

Company: MURFIN DRILLING CO INC

Lease: DOWNING #1-30

Test No.: 2

County: PROWERS

Sec.: 31

Twp.: 21S

Rng.: 46W

## SAMPLER RECOVERY

Gas

Oil

Mud 4000

Water

Other

Pressure 10

TOTAL 4000

## SAMPLER ANALYSIS

Resistivity ohms@ F

Chlorides ppm.

Gravity corrected @60F

## PIT MUD ANALYSIS

Chlorides 350

Resistivity ohms@ F

Viscosity 62

Mud Wt. 9.2

Filtrate 9.6

Other

## PIPE RECOVERY

### TOP

Resistivity ohms@ F

Chlorides ppm

### MIDDLE

Resistivity ohms@ F

Chlorides ppm

### BOTTOM

Resistivity ohms@ F

Chlorides ppm

# TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

## Test Ticket

No 5579

Well Name & No. <u>Downing #1-30</u>	Test No. <u>2</u>	Date <u>7-20-93</u>
Company <u>MDC</u>	Zone Tested <u>Morrow</u>	
Address <u>250 N Water Suite 300 Wichita KS 67202</u>		Elevation <u>3767</u>
Co. Rep./Geo. <u>Paul Godowic</u>	Cont <u>Martin Rigas</u>	Est. Ft. of Pay <u>5</u>
Location: Sec. <u>30</u>	Twp. <u>21S</u>	Rge. <u>46W</u> Co. <u>Prowers</u> State <u>CO</u>
No. of Copies _____	Distribution Sheet _____	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Turnkey _____ Yes <input type="checkbox"/> No <input type="checkbox"/> Evaluation _____

Interval Tested <u>4452-4643</u>	Drill Pipe Size <u>4 1/2 x 4</u>
Anchor Length <u>191</u>	Top Choke — 1" _____ Bottom Choke — 3/4" _____
Top Packer Depth <u>4448</u>	Hole Size — 7 7/8" _____ Rubber Size — 6 3/4" _____
Bottom Packer Depth <u>4452</u>	Wt. Pipe I.D. — 2.7 Ft. Run _____
Total Depth <u>4643</u>	Drill Collar — 2.25 Ft. Run <u>578 (H-90)</u>
Mud Wt. <u>9.2</u> lb/gal.	Viscosity <u>62</u> Filtrate <u>9.6</u>
Tool Open @ <u>3:50 PM</u>	Initial Blow <u>Weak surface blow build to 1 1/2</u>

Final Blow Weak blow build to 1 1/4

Recovery — Total Feet 30 Feet of Gas in Pipe \_\_\_\_\_ Flush Tool? NO

Rec. _____	Feet Of _____	% gas	% oil	% water	% mud
Rec. <u>30</u>	Feet Of <u>DRIS Mud</u>	% gas	% oil	% water <u>100</u>	% mud
Rec. _____	Feet Of _____	% gas	% oil	% water	% mud
Rec. _____	Feet Of _____	% gas	% oil	% water	% mud
Rec. _____	Feet Of _____	% gas	% oil	% water	% mud

BHT 126 °F Gravity \_\_\_\_\_ °API @ \_\_\_\_\_ °F Corrected Gravity \_\_\_\_\_ °API

RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm Recovery Chlorides 350 ? ppm System

(A) Initial Hydrostatic Mud <u>2218</u>	PSI	AK1 Recorder No. <u>13850</u>	Range <u>4325</u>
(B) First Initial Flow Pressure <u>33</u>	PSI	@ (depth) <u>4456</u>	w/Clock No. <u>17639</u>
(C) First Final Flow Pressure <u>33</u>	PSI	AK1 Recorder No. <u>13851</u>	Range <u>4425</u>
(D) Initial Shut-In Pressure <u>88</u>	PSI	@ (depth) <u>4640</u>	w/Clock No. <u>27585</u>
(E) Second Initial Flow Pressure <u>44</u>	PSI	AK1 Recorder No. _____	Range _____
(F) Second Final Flow Pressure <u>55</u>	PSI	@ (depth) _____	w/Clock No. _____
(G) Final Shut-In Pressure <u>66</u>	PSI	Initial Opening <u>30</u>	Test <input checked="" type="checkbox"/> <u>600.00</u>
(H) Final Hydrostatic Mud <u>2218</u>	PSI	Initial Shut-In <u>45</u>	Jars <input checked="" type="checkbox"/> <u>200.00</u>

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>60</u>	Safety Joint <input checked="" type="checkbox"/> <u>50.00</u>
Final Shut-In <u>60</u>	Straddle _____
	Circ. Sub <input checked="" type="checkbox"/> <u>N/C</u>
	Sampler <input checked="" type="checkbox"/> <u>250.00</u>
	Extra Packer _____
	Other _____

Approved By Paul F. Godowic

Our Representative Rollie McWhorter

TOTAL PRICE \$ 1100.00