

CONFIDENTIAL

11-35s-31w  
KCC

# Computer Inventoried TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

NOV 2

## Drill-Stem Test Data

API #15-175-21330 ~~CONFIDENTIAL~~

Well Name LOUDERBACK #1-11 Test No. 1 Date 8/26/93  
 Company MURFIN DRILLING CO INC Zone TORONTO  
 Address 250 N WATER SWT #300 WICHITA KS 67202 Elevation 2681  
 Co. Rep./Geo. PAUL GODOWIC Cont. MURFIN RIG #21 Est. Ft. of Pay \_\_\_\_\_  
 Location: Sec. 11 Twp. 35S Rge. 31W Co. SEWARD State KS

Interval Tested	<u>4467-4490</u>	Drill Pipe Size	<u>4.5" XH</u>
Anchor Length	<u>23</u>	Wt. Pipe I.D. - 2.7 Ft. Run	_____
Top Packer Depth	<u>4462</u>	Drill Collar - 2.25 Ft. Run	<u>461</u>
Bottom Packer Depth	<u>4467</u>	Mud Wt.	<u>9</u> lb/Gal.
Total Depth	<u>4490</u>	Viscosity	<u>50</u> Filtrate <u>11.2</u>

Tool Open @ 7:00 PM Initial Blow SURFACE BLOW - BUILT TO 2"  
NO BLOW BACK  
 Final Blow 1" BLOW - BUILT TO 5"  
NO BLOW BACK

Recovery - Total Feet 20 Flush Tool? NO

Rec. 20 Feet of DRILLING MUD  
 Rec. \_\_\_\_\_ Feet of \_\_\_\_\_  
 Rec. \_\_\_\_\_ Feet of \_\_\_\_\_  
 Rec. \_\_\_\_\_ Feet of \_\_\_\_\_  
 Rec. \_\_\_\_\_ Feet of \_\_\_\_\_

RELEASED

DEC 22 1994

FROM CONFIDENTIAL

BHT 108 °F Gravity \_\_\_\_\_ °API @ \_\_\_\_\_ °F Corrected Gravity \_\_\_\_\_ °API  
 RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm Recovery Chlorides 4000 ppm System

(A) Initial Hydrostatic Mud 2155.9 PSI AK1 Recorder No. 5495 Range 4200

(B) First Initial Flow Pressure 39.6 PSI @ (depth) 4470 w / Clock No. 25813

(C) First Final Flow Pressure 41.6 PSI AK1 Recorder No. 11038 Range 5075

(D) Initial Shut-in Pressure 220.4 PSI @ (depth) 4487 w / Clock No. 25814

(E) Second Initial Flow Pressure 41.6 PSI AK1 Recorder No. \_\_\_\_\_ Range \_\_\_\_\_

(F) Second Final Flow Pressure 41.6 PSI @ (depth) \_\_\_\_\_ w / Clock No. \_\_\_\_\_

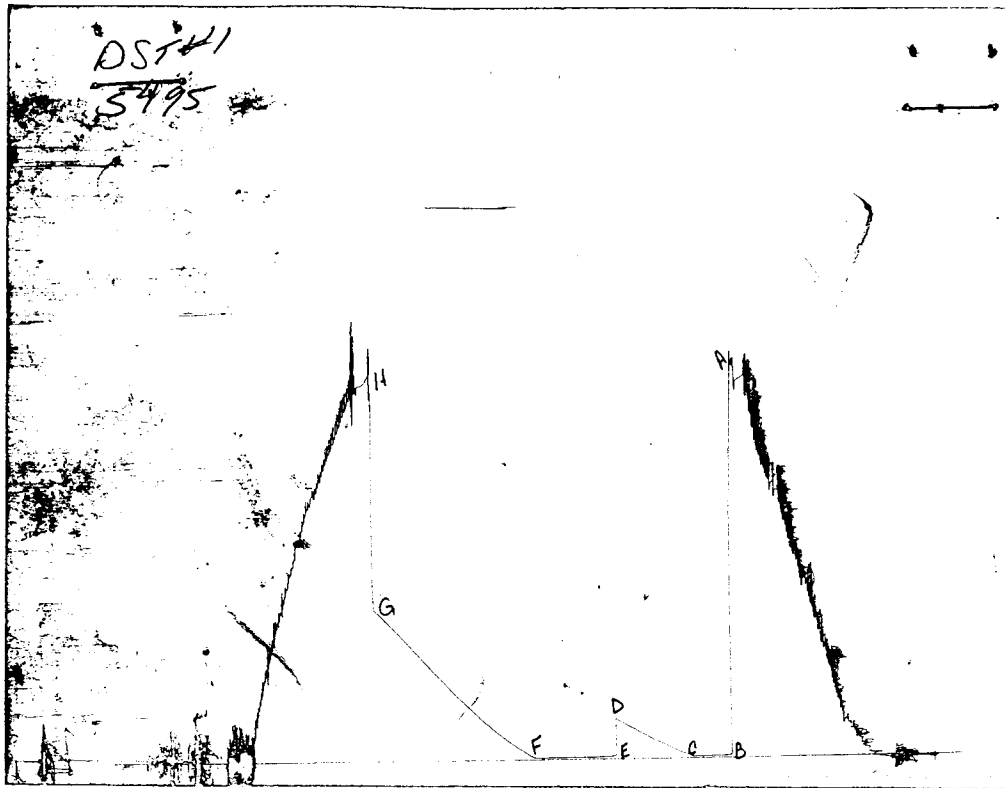
(G) Final Shut-in Pressure 847.9 PSI Initial Opening 30 Final Flow \_\_\_\_\_

(H) Final Hydrostatic Mud 2103.6 PSI Initial Shut-in 60 Final Shut-in \_\_\_\_\_

RECEIVED  
 STATE CORPORATION COMMISSION  
 NOV 8 9 1993  
 CONSERVATION DIVISION  
 WICHITA, KANSAS

Our Representative TOM HORACEK

CHART PAGE



This is an actual photograph of recorder chart

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	2144	2155.9
(B) FIRST INITIAL FLOW PRESSURE	41	39.6
(C) FIRST FINAL FLOW PRESSURE	41	41.6
(D) INITIAL CLOSED-IN PRESSURE	217	220.4
(E) SECOND INITIAL FLOW PRESSURE	41	41.6
(F) SECOND FINAL FLOW PRESSURE	41	41.6
(G) FINAL CLOSED-IN PRESSURE	843	847.9
(H) FINAL HYDROSTATIC MUD	2093	2103.6

FLUID SAMPLER DATA

KCC  
NOV 2  
CONFIDENTIAL

Ticket No.: 6072 Date: 8/26/93  
Company: MURFIN DRILLING CO INC  
Lease: LOUDERBACK #1-11 Test No.: 1  
County: SEWARD Sec.: 11 Twp.: 35S Rng.: 31W

SAMPLER RECOVERY

Gas  
Oil  
Mud 4000  
Water  
Other  
Pressure 450  
TOTAL 4000

PIT MUD ANALYSIS

Chlorides 4000  
Resistivity ohms@ F  
Viscosity 50  
Mud Wt. 9  
Filtrate 11.2  
Other

RELEASED  
DEC 22 1994  
FROM CONFIDENTIAL

SAMPLER ANALYSIS

Resistivity 1.4 ohms@ 80 F  
Chlorides 4500 ppm.  
Gravity corrected @60F

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

NOV 2  
CONFIDENTIAL

## Drill-Stem Test Data *API#15-175-2133*

Well Name LOUDERBACK #1-11 Test No. 2 Date 8/27/93  
 Company MURFIN DRILLING CO INC Zone LANSING  
 Address 250 N WATER SWT #300 WICHITA KS 67202 Elevation 2681  
 Co. Rep./Geo. PAUL GODOWIC Cont. MURFIN RIG #21 Est. Ft. of Pay \_\_\_\_\_  
 Location: Sec. 11 Twp. 35S Rge. 31W Co. SEWARD State KS

Interval Tested 4594-4610 Drill Pipe Size 4.5" XH  
 Anchor Length 16 Wt. Pipe I.D. - 2.7 Ft. Run \_\_\_\_\_  
 Top Packer Depth 4589 Drill Collar - 2.25 Ft. Run 461  
 Bottom Packer Depth 4594 Mud Wt. 9 lb/Gal.  
 Total Depth 4610 Viscosity 44 Filtrate 11.2

Tool Open @ 5:15 PM Initial Blow STRONG BLOW - BOTTOM OF BUCKET IN 7 MINUTES  
 ISI: BLD OFF BLOW - NO BLOW BACK  
 Final Blow FAIR BLOW - BUILT TO 8"  
 FSI: BLD OFF BLOW - NO BLOW BACK

Recovery - Total Feet 240 Flush Tool? NO

Rec. 180 Feet of GAS IN PIPE  
 Rec. 67 Feet of SLTLY OIL & GAS CUT MUD-5% GAS/ 2% OIL / 93% MUD  
 Rec. 173 Feet of SALT WATER  
 Rec. \_\_\_\_\_ Feet of \_\_\_\_\_  
 Rec. \_\_\_\_\_ Feet of \_\_\_\_\_

**RELEASED**

**DEC 22 1994**

**FROM CONFIDENTIAL**

BHT 112 °F Gravity \_\_\_\_\_ °API @ \_\_\_\_\_ °F Corrected Gravity \_\_\_\_\_ °API  
 RW 0.071 @ 73 °F Chlorides 120000 ppm Recovery Chlorides 4000 ppm System

(A) Initial Hydrostatic Mud 2199.3 PSI AK1 Recorder No. 5495 Range 4200

(B) First Initial Flow Pressure 85.4 PSI @ (depth) 4597 w / Clock No. 25813

(C) First Final Flow Pressure 85.4 PSI AK1 Recorder No. 11038 Range 5075

(D) Initial Shut-in Pressure 1214.6 PSI @ (depth) 4607 w / Clock No. 25814

(E) Second Initial Flow Pressure 126.9 PSI AK1 Recorder No. \_\_\_\_\_ Range \_\_\_\_\_

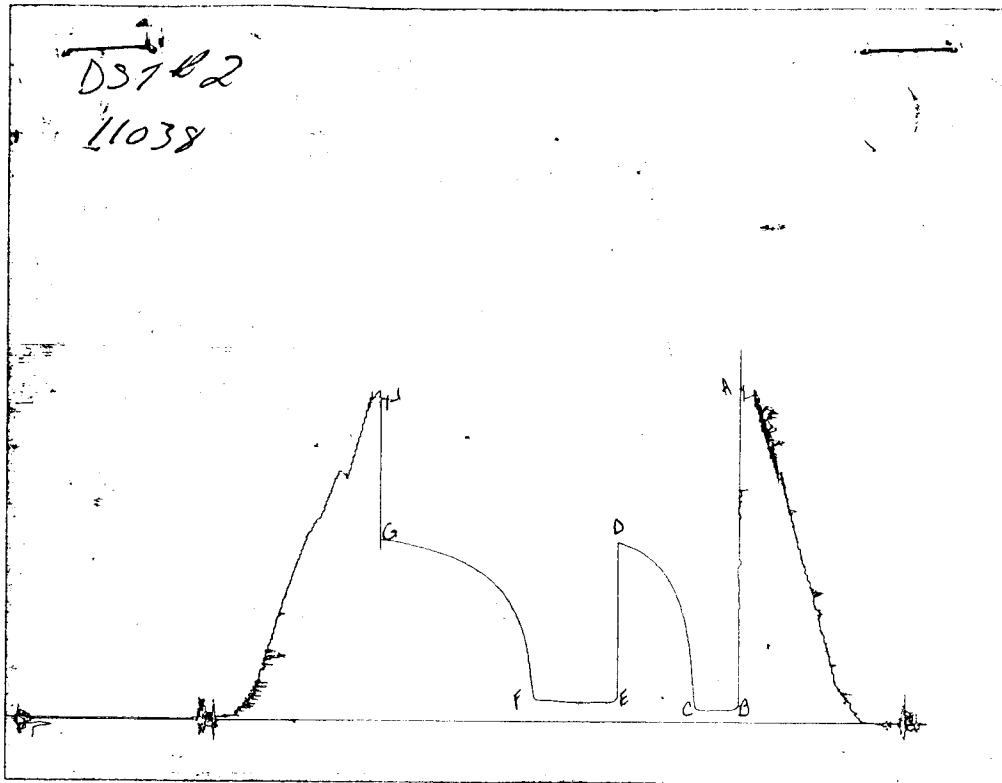
(F) Second Final Flow Pressure 141.2 PSI @ (depth) \_\_\_\_\_ w / Clock No. \_\_\_\_\_

(G) Final Shut-in Pressure 1223.7 PSI Initial Opening 30 Final Flow 60

(H) Final Hydrostatic Mud 2160.9 PSI Initial Shut-in 60 Final Shut-in 120

Our Representative TOM HORACEK

CHART PAGE



This is an actual photograph of recorder chart

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	2182	2199.3
(B) FIRST INITIAL FLOW PRESSURE	82	85.4
(C) FIRST FINAL FLOW PRESSURE	82	85.4
(D) INITIAL CLOSED-IN PRESSURE	1209	1214.6
(E) SECOND INITIAL FLOW PRESSURE	122	126.9
(F) SECOND FINAL FLOW PRESSURE	136	141.2
(G) FINAL CLOSED-IN PRESSURE	1222	1223.7
(H) FINAL HYDROSTATIC MUD	2157	2160.9

FLUID SAMPLER DATA

KCC

NOV 2

CONFIDENTIAL

Ticket No.: 6073 Date: 8/27/93  
 Company: MURFIN DRILLING CO INC  
 Lease: LOUDERBACK #1-11 Test No.: 2  
 County: SEWARD Sec.: 11 Twp.: 35S Rng.: 31W

SAMPLER RECOVERY

Gas 1.2 CU FT  
 Oil  
 Mud  
 Water 3800  
 Other  
 Pressure 400  
 TOTAL 3800

PIT MUD ANALYSIS

Chlorides 4000  
 Resistivity ohms@ F  
 Viscosity 44  
 Mud Wt. 9  
 Filtrate 11.2  
 Other

RELEASED

DEC 2 2 1994

FROM CONFIDENTIAL

SAMPLER ANALYSIS

Resistivity 0.071 ohms@ 73 F  
 Chlorides 120000 ppm.  
 Gravity corrected @60F

PIPE RECOVERY

TOP

Resistivity 0.07 ohms@ 73 F  
 Chlorides 120000 ppm

MIDDLE

Resistivity ohms@ F  
 Chlorides ppm

BOTTOM

Resistivity 0.071 ohms@ F  
 Chlorides 120000

RECEIVED

STATE CORPORATION COMMISSION

NOV 03 1993

CONSERVATION DIVISION  
Wichita, Kansas

# TRILOBITE TESTING, L.L.C.

KCC

P.O. Box 362 • Hays, Kansas 67601

## Drill-Stem Test Data

NOV 2  
CONFIDENTIAL  
API # 15-175-21331

Well Name LOUDERBACK #1-11 Test No. 3 Date 8/30/93  
 Company MURFIN DRILLING CO INC Zone MARMATON  
 Address 250 N WATER SWT #300 WICHITA KS 67202 Elevation 2681  
 Co. Rep./Geo. PAUL GODOWIC Cont. MURFIN RIG #21 Est. Ft. of Pay \_\_\_\_\_  
 Location: Sec. 11 Twp. 35S Rge. 31W Co. SEWARD State KS

Interval Tested <u>5308-5343</u>	Drill Pipe Size <u>4.5" XH</u>
Anchor Length <u>35</u>	Wt. Pipe I.D. - 2.7 Ft. Run _____
Top Packer Depth <u>5303</u>	Drill Collar - 2.25 Ft. Run <u>461</u>
Bottom Packer Depth <u>5308</u>	Mud Wt. <u>9.3</u> lb/Gal.
Total Depth <u>5343</u>	Viscosity <u>44</u> Filtrate <u>12</u>

Tool Open @ 11:30 AM Initial Blow SURFACE BLOW - DIED IN 6 MINUTES

Final Blow NO BLOW

Recovery - Total Feet 10 Flush Tool? NO

Rec. 10 Feet of DRILLING MUD  
 Rec. \_\_\_\_\_ Feet of \_\_\_\_\_  
 Rec. \_\_\_\_\_ Feet of \_\_\_\_\_  
 Rec. \_\_\_\_\_ Feet of \_\_\_\_\_  
 Rec. \_\_\_\_\_ Feet of \_\_\_\_\_

BHT 118 °F Gravity \_\_\_\_\_ °API @ \_\_\_\_\_ °F Corrected Gravity \_\_\_\_\_ °API  
 RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm Recovery Chlorides 4000 ppm System

(A) Initial Hydrostatic Mud 2588.7 PSI AK1 Recorder No. 5495 Range 4200

(B) First Initial Flow Pressure 75.4 PSI @ (depth) 5311 w / Clock No. 25813

(C) First Final Flow Pressure 75.4 PSI AK1 Recorder No. 11038 Range 5075

(D) Initial Shut-in Pressure 75.4 PSI @ (depth) 5340 w / Clock No. 25814

(E) Second Initial Flow Pressure 61.6 PSI AK1 Recorder No. \_\_\_\_\_ Range \_\_\_\_\_

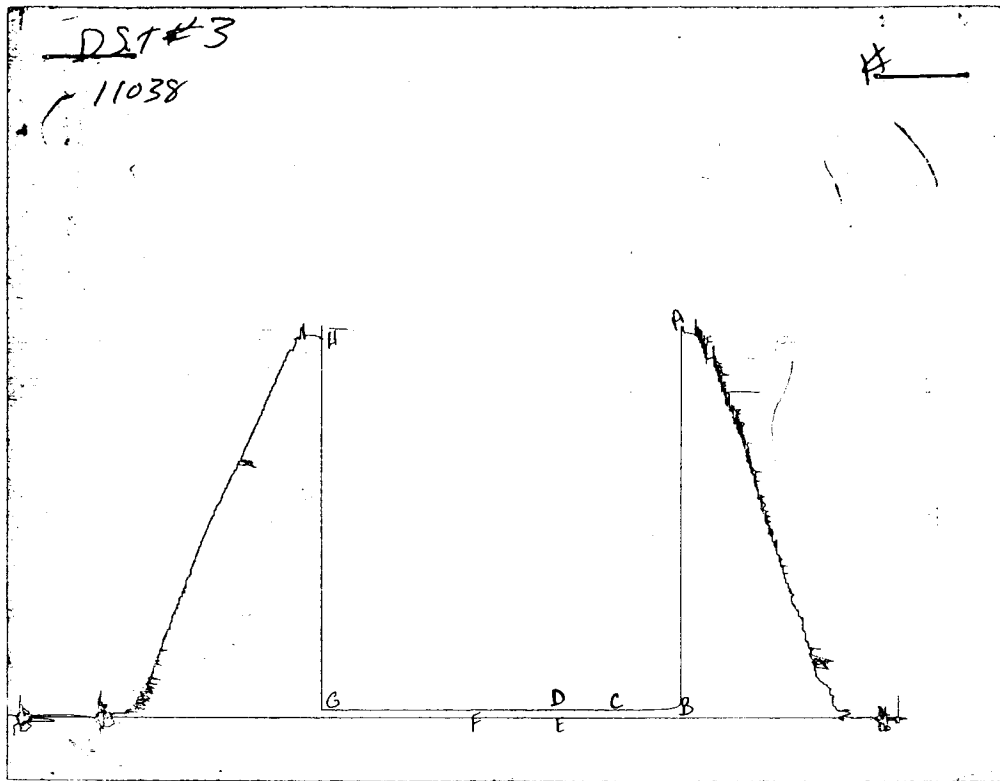
(F) Second Final Flow Pressure 61.6 PSI @ (depth) \_\_\_\_\_ w / Clock No. \_\_\_\_\_

(G) Final Shut-in Pressure 75.4 PSI Initial Opening 30 Final Flow 60

(H) Final Hydrostatic Mud 2560.3 PSI Initial Shut-in 60 Final Shut-in 120

Our Representative TOM HORACEK

CHART PAGE



This is an actual photograph of recorder chart

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	2580	2588.7
(B) FIRST INITIAL FLOW PRESSURE	55	75.4
(C) FIRST FINAL FLOW PRESSURE	55	75.4
(D) INITIAL CLOSED-IN PRESSURE	55	75.4
(E) SECOND INITIAL FLOW PRESSURE	41	61.6
(F) SECOND FINAL FLOW PRESSURE	41	61.6
(G) FINAL CLOSED-IN PRESSURE	55	75.4
(H) FINAL HYDROSTATIC MUD	2542	2560.3

FLUID SAMPLER DATA

KUC

NOV 2

CONFIDENTIAL

Ticket No.: 6074 Date: 8/30/93  
 Company: MURFIN DRILLING CO INC  
 Lease: LOUDERBACK #1-11 Test No.: 3  
 County: SEWARD Sec.: 11 Twp.: 35S Rng.: 31W

SAMPLER RECOVERY

Gas  
 Oil  
 Mud 4000  
 Water  
 Other  
 Pressure 10  
 TOTAL 4000

PIT MUD ANALYSIS

Chlorides 4000  
 Resistivity ohms@ F  
 Viscosity 44  
 Mud Wt. 9.3  
 Filtrate 12  
 Other

RELEASED

DEC 22 1994

SAMPLER ANALYSIS

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

PIPE RECOVERY FROM CONFIDENTIAL

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

KCC

NOV 2

CONFIDENTIAL

## Drill-Stem Test Data

API# 15-175-21331

Well Name LOUDERBACK #1-11 Test No. 4 Date 9/2/93  
 Company MURFIN DRILLING CO INC Zone CHESTER  
 Address 250 N WATER SWT #300 WICHITA KS 67202 Elevation 2681  
 Co. Rep./Geo. PAUL GODOWIC Cont. MURFIN RIG #21 Est. Ft. of Pay \_\_\_\_\_  
 Location: Sec. 11 Twp. 35S Rge. 31W Co. SEWARD State KS

Interval Tested	<u>5987-6034</u>	Drill Pipe Size	<u>4.5" XH</u>
Anchor Length	<u>47</u>	Wt. Pipe I.D. - 2.7 Ft. Run	_____
Top Packer Depth	<u>5982</u>	Drill Collar - 2.25 Ft. Run	<u>434</u>
Bottom Packer Depth	<u>5987</u>	Mud Wt.	<u>9.2</u> lb/Gal.
Total Depth	<u>6034</u>	Viscosity	<u>57</u> Filtrate <u>8.8</u>

Tool Open @ 3:20 PM Initial Blow STRONG BLOW-BOTTOM OF BUCKET IN 1.5 MINUTES  
 ISI: bled off blow - NO BLOW BACK  
 Final Blow STRONG BLOW - BOTTOM OF BUCKET IN 15 SECONDS  
 FSI: NO BLOW BACK

Recovery - Total Feet 30 Flush Tool? NO

**RELEASED**

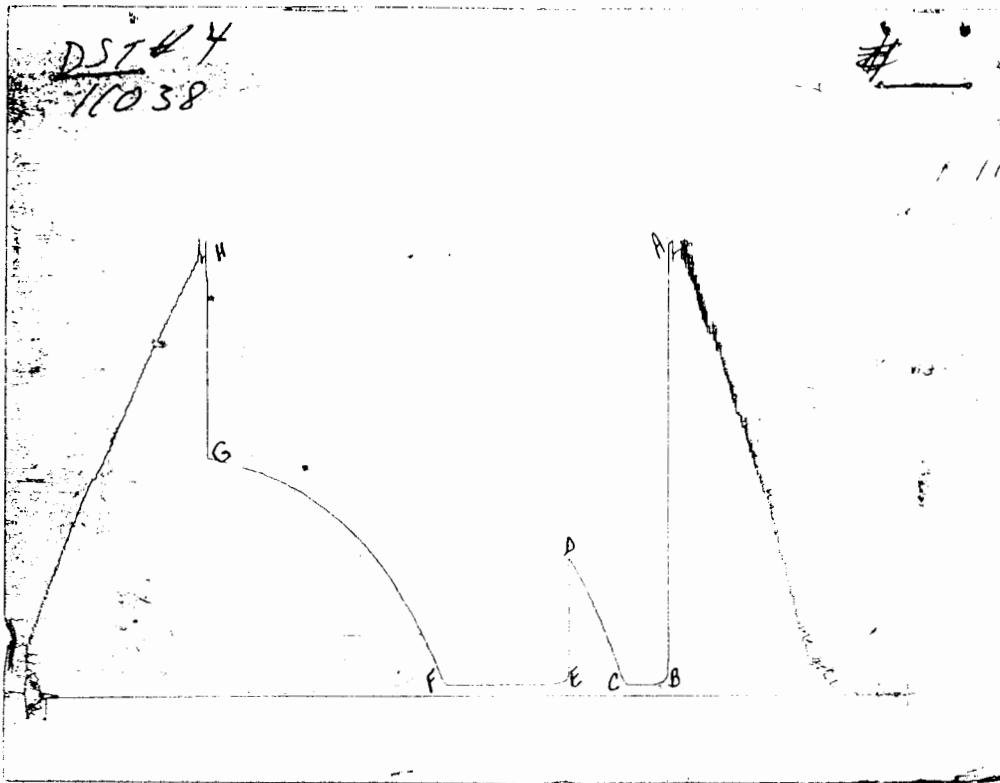
Rec. <u>3238</u>	Feet of	<u>GAS IN PIPE</u>	
Rec. <u>30</u>	Feet of	<u>SLTLY GAS CUT MUD-2% GAS/ 98% MUD</u>	<u>DEC 2 2 1994</u>
Rec. _____	Feet of	_____	<b>FROM CONFIDENTIAL</b>
Rec. _____	Feet of	_____	
Rec. _____	Feet of	_____	

BHT 126 °F Gravity \_\_\_\_\_ °API @ \_\_\_\_\_ °F Corrected Gravity \_\_\_\_\_ °API  
 RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm Recovery Chlorides 3500 ppm System

(A) Initial Hydrostatic Mud	<u>2996.3</u> PSI	AK1 Recorder No.	<u>5495</u>	Range	<u>4200</u>
(B) First Initial Flow Pressure	<u>98.3</u> PSI	@ (depth)	<u>5991</u>	w / Clock No.	<u>25813</u>
(C) First Final Flow Pressure	<u>62.0</u> PSI	AK1 Recorder No.	<u>11038</u>	Range	<u>5075</u>
(D) Initial Shut-in Pressure	<u>913.7</u> PSI	@ (depth)	<u>6031</u>	w / Clock No.	<u>25814</u>
(E) Second Initial Flow Pressure	<u>103.0</u> PSI	AK1 Recorder No.	_____	Range	_____
(F) Second Final Flow Pressure	<u>76.9</u> PSI	@ (depth)	_____	w / Clock No.	_____
(G) Final Shut-in Pressure	<u>1643.0</u> PSI	Initial Opening	<u>30</u>	Final Flow	<u>90</u>
(H) Final Hydrostatic Mud	<u>2947.8</u> PSI	Initial Shut-in	<u>45</u>	Final Shut-in	<u>180</u>

Our Representative TOM HORACEK

CHART PAGE



This is an actual photograph of recorder chart

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	2992	2996.3
(B) FIRST INITIAL FLOW PRESSURE	82	98.3
(C) FIRST FINAL FLOW PRESSURE	82	62
(D) INITIAL CLOSED-IN PRESSURE	932	913.7
(E) SECOND INITIAL FLOW PRESSURE	95	103
(F) SECOND FINAL FLOW PRESSURE	82	76.9
(G) FINAL CLOSED-IN PRESSURE	1587	1643
(H) FINAL HYDROSTATIC MUD	2941	2947.8

FLUID SAMPLER DATA

KCC

NOV 2

CONFIDENTIAL

Ticket No.: 6075 Date: 9/2/93

Company: MURFIN DRILLING CO INC

Lease: LOUDERBACK #1-11 Test No.: 4

County: SEWARD Sec.: 11 Twp.: 35S Rng.: 31W

SAMPLER RECOVERY

Gas 28.4 CU F

Oil

Mud 800

Water

Other

Pressure 1250

TOTAL 800

PIT MUD ANALYSIS

Chlorides 3500

Resistivity ohms@ F

Viscosity 57

Mud Wt. 9.2

Filtrate 8.8

Other

RELEASED  
 DEC 22 1994  
 FROM CONFIDENTIAL

SAMPLER ANALYSIS

Resistivity ohms@ F

Chlorides ppm.

Gravity corrected @60F

PIPE RECOVERY

TOP

Resistivity ohms@ F

Chlorides ppm

MIDDLE

Resistivity ohms@ F

Chlorides ppm

BOTTOM

Resistivity ohms@ F

Chlorides ppm

RECEIVED  
 STATE CORPORATION COMMISSION  
 F  
 NOV 03 1993  
 CONSERVATION DIVISION  
 Wichita, Kansas

LOUDERBACK #1-11 DST #4  
 INITIAL SHUTIN

30 INITIAL FLOW TIME SLOPE 3703.7 PSI/CYCLE  
 P\* 1749.91 PSI

-----  
 Log <>  
 -----

TIME(MIN)	Pws (psi)	Horn T	PRESSURE	Horn T
7.2	150.6	0.713	150.6	5
13.5	330.3	0.508	179.7	3
19.3	460.2	0.407	129.9	3
25.6	595.8	0.337	135.6	2
32.9	726.3	0.281	130.5	2
X 37.6	813.9	0.255	87.6	2
X 44	913.7	0.226	99.8	2

LOUDERBACK #1-11 DST #4  
 FINAL SHUTIN

120 TOTAL FLOW TIME SLOPE 627.9 PSI/CYCLE  
 P\* 1781.1 PSI

-----  
 Log <>  
 -----

	Pws (psi)	Horn T	PRESSURE	Horn T
	7.9	1.209	168.6	16
	13	1.010	126.1	10
	19.3	0.858	121.7	7
	25.8	0.752	108.1	6
	31.7	0.680	89.2	5
	37.9	0.620	95.1	4
	44.4	0.569	105.7	4
	49.8	0.533	69.6	3
	56.6	0.494	76.4	3
	62	0.468	64.8	3
	69	0.438	72.1	3
	75.2	0.414	62.9	3
	81.5	0.393	48.4	2
	88.1	0.373	48.1	2
	94.3	0.357	45.4	2
	100	0.342	39.1	2
	106.6	0.328	36.0	2
	113.4	0.313	40.7	2
	118.5	0.304	33.5	2
	126.4	0.290	23.7	2
	131.6	0.281	29.0	2
	137.9	0.272	20.0	2
	144.7	0.262	23.1	2
	150.9	0.254	20.0	2
	157.4	0.246	22.8	2
	162.5	0.240	23.1	2
	168.4	0.234	16.5	2
X	174.7	0.227	9.0	2
X	182.5	0.219	4.3	2

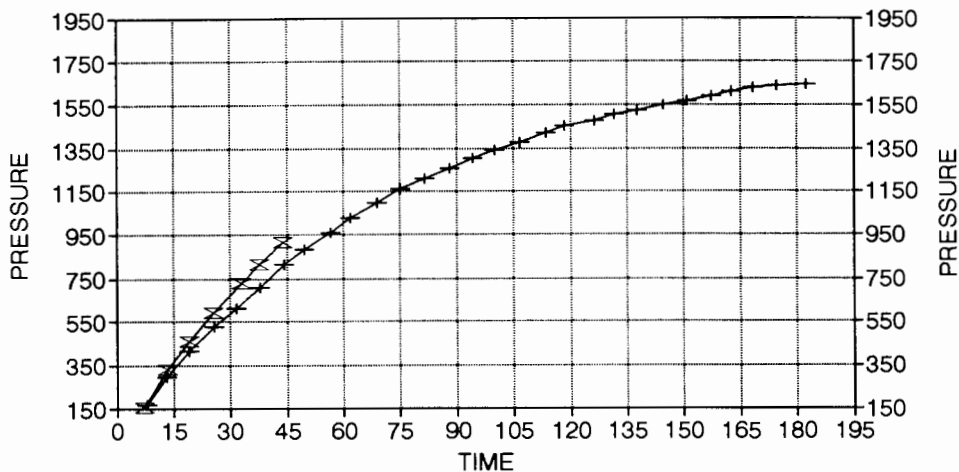
ORIGINAL

KCC

NOV 2

CONFIDENTIAL

# LOUDERBACK #1-11 / DST #4 DELTA T DELTA P



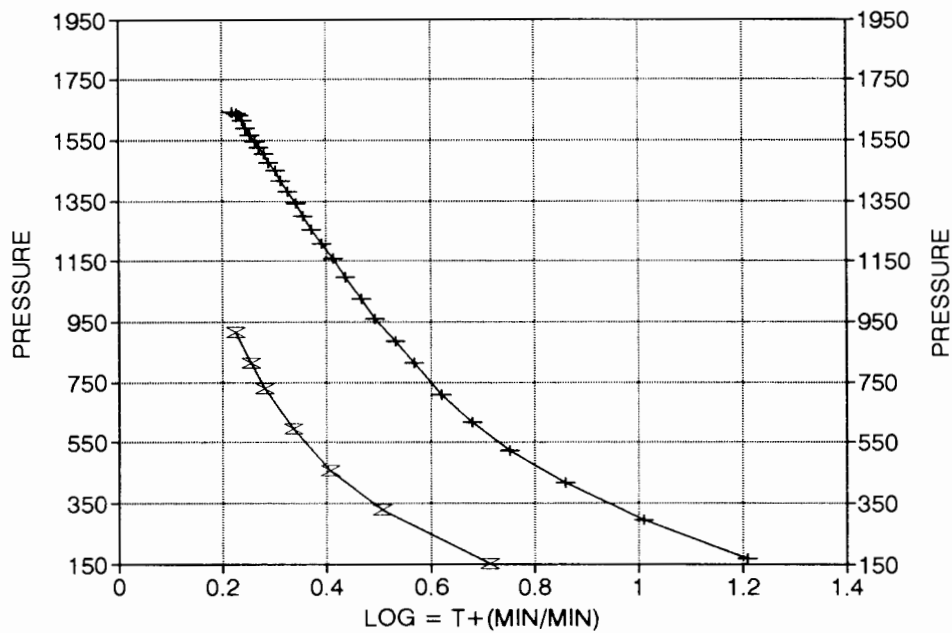
—x— INITIAL —+— FINAL

RELEASED

DEC 2 2 1994

## HORNER PLOT

FROM CONFIDENTIAL



KOC

NOV 2

CONFIDENTIAL

# TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

## Drill-Stem Test Data

API #15-175-21331

Well Name LOUDERBACK #1-11 Test No. 5 Date 9/3/93  
 Company MURFIN DRILLING CO INC Zone CHESTER  
 Address 250 N WATER SWT #300 WICHITA KS 67202 Elevation 2681  
 Co. Rep./Geo. PAUL GODOWIC Cont. MURFIN RIG #21 Est. Ft. of Pay \_\_\_\_\_  
 Location: Sec. 11 Twp. 35S Rge. 31W Co. SEWARD State KS

Interval Tested	<u>6034-6112</u>	Drill Pipe Size	<u>4.5" XH</u>
Anchor Length	<u>78</u>	Wt. Pipe I.D. - 2.7 Ft. Run	_____
Top Packer Depth	<u>6029</u>	Drill Collar - 2.25 Ft. Run	<u>406</u>
Bottom Packer Depth	<u>6034</u>	Mud Wt.	<u>9</u> lb/Gal.
Total Depth	<u>6112</u>	Viscosity	<u>50</u> Filtrate <u>10.4</u>

Tool Open @ 8:55 PM Initial Blow 1/4" BLOW - DIED IN 8 MINUTES

Final Blow 1/4" BLOW - DIED IN 14 MINUTES

Recovery - Total Feet 20 Flush Tool? NO

**RELEASED**

Rec. 20 Feet of DRILLING MUD  
 Rec. \_\_\_\_\_ Feet of \_\_\_\_\_  
 Rec. \_\_\_\_\_ Feet of \_\_\_\_\_  
 Rec. \_\_\_\_\_ Feet of \_\_\_\_\_  
 Rec. \_\_\_\_\_ Feet of \_\_\_\_\_

**DEC 2 2 1994**

**FROM CONFIDENTIAL**

BHT 128 °F Gravity \_\_\_\_\_ °API @ \_\_\_\_\_ °F Corrected Gravity \_\_\_\_\_ °API  
 RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm Recovery Chlorides 3800 ppm System

(A) Initial Hydrostatic Mud 3022.6 PSI AK1 Recorder No. 5495 Range 4200

(B) First Initial Flow Pressure 83.8 PSI @ (depth) 6037 w / Clock No. 25813

(C) First Final Flow Pressure 83.8 PSI AK1 Recorder No. 11038 Range 5075

(D) Initial Shut-in Pressure 94.4 PSI @ (depth) 6109 w / Clock No. 25814

(E) Second Initial Flow Pressure 68.1 PSI AK1 Recorder No. \_\_\_\_\_ Range \_\_\_\_\_

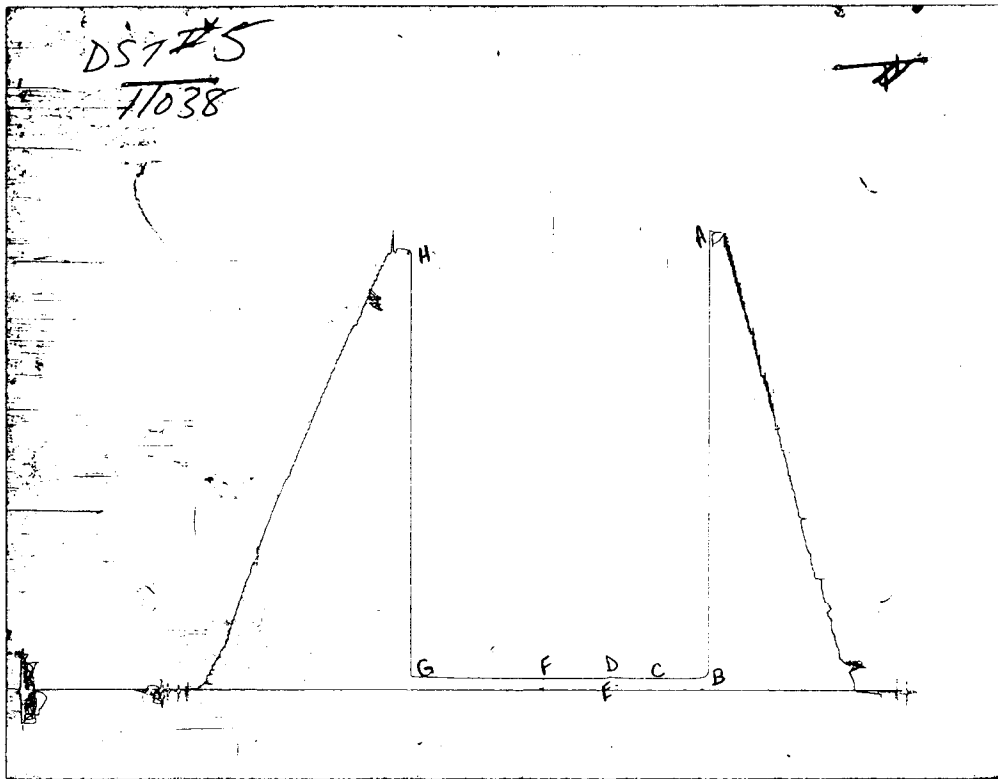
(F) Second Final Flow Pressure 83.8 PSI @ (depth) \_\_\_\_\_ w / Clock No. \_\_\_\_\_

(G) Final Shut-in Pressure 94.4 PSI Initial Opening 30 Final Flow 60

(H) Final Hydrostatic Mud 2947.8 PSI Initial Shut-in 45 Final Shut-in 90

Our Representative TOM HORACEK

CHART PAGE



This is an actual photograph of recorder chart

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	3018	3022.6
(B) FIRST INITIAL FLOW PRESSURE	82	83.8
(C) FIRST FINAL FLOW PRESSURE	82	83.8
(D) INITIAL CLOSED-IN PRESSURE	95	94.4
(E) SECOND INITIAL FLOW PRESSURE	68	68.1
(F) SECOND FINAL FLOW PRESSURE	82	83.8
(G) FINAL CLOSED-IN PRESSURE	95	94.4
(H) FINAL HYDROSTATIC MUD	2941	2947.8

FLUID SAMPLER DATA

KCC

NOV 2

CONFIDENTIAL

Ticket No.: 6076 Date: 9/3/93  
 Company: MURFIN DRILLING CO INC  
 Lease: LOUDERBACK #1-11 Test No.: 5  
 County: SEWARD Sec.: 11 Twp.: 35S Rng.: 31W

SAMPLER RECOVERY

Gas  
 Oil  
 Mud 4000  
 Water  
 Other  
 Pressure 30  
 TOTAL 4000

PIT MUD ANALYSIS

Chlorides 3800  
 Resistivity 1.4 ohms@ 78 F  
 Viscosity 50  
 Mud Wt. 9  
 Filtrate 10.4  
 Other

RELEASED

DEC 22 1994

FROM CONFIDENTIAL

SAMPLER ANALYSIS

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

PIPE RECOVERY

TOP

Resistivity ohms@ F  
 Chlorides ppm

MIDDLE

Resistivity ohms@ F  
 Chlorides ppm

BOTTOM

Resistivity ohms@ F  
 Chlorides ppm

KCC

# TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

NOV 2

CONFIDENTIAL

## Drill-Stem Test Data *API #15-175-21331*

Well Name LOUDERBACK #1-11 Test No. 6 Date 9/4/93  
 Company MURFIN DRILLING CO INC Zone CHESTER  
 Address 250 N WATER SWT #300 WICHITA KS 67202 Elevation 2681  
 Co. Rep./Geo. PAUL GODOWIC Cont. MURFIN RIG #21 Est. Ft. of Pay \_\_\_\_\_  
 Location: Sec. 11 Twp. 35S Rge. 31W Co. SEWARD State KS

Interval Tested	<u>6205-6250</u>	Drill Pipe Size	<u>4.5" XH</u>
Anchor Length	<u>45</u>	Wt. Pipe I.D. - 2.7 Ft. Run	_____
Top Packer Depth	<u>6200</u>	Drill Collar - 2.25 Ft. Run	<u>434</u>
Bottom Packer Depth	<u>6205</u>	Mud Wt.	<u>9.1</u> lb/Gal.
Total Depth	<u>6250</u>	Viscosity	<u>54</u>
		Filtrate	<u>9.6</u>

Tool Open @ 1:00 AM Initial Blow 1" BLOW - BOTTOM OF BUCKET IN 28 MINUTES  
 ISI: BLED OFF BLOW - NO BLOW BACK  
 Final Blow STRONG BLOW - BOTTOM OF BUCKET IN 1 MINUTE  
 FSI: BLED OFF BLOW - WEAK BLOW - BUILT TO 1.5"

CONFIDENTIAL

Recovery - Total Feet 70 Flush Tool? NO

RELEASED

Rec. 1083 Feet of GAS IN PIPE  
 Rec. 70 Feet of GASSY SLIGHTLY OIL CUT MUD-64% GAS/ 4% OIL/ 2.2% 1994  
 Rec. \_\_\_\_\_ Feet of \_\_\_\_\_  
 Rec. \_\_\_\_\_ Feet of \_\_\_\_\_  
 Rec. \_\_\_\_\_ Feet of \_\_\_\_\_

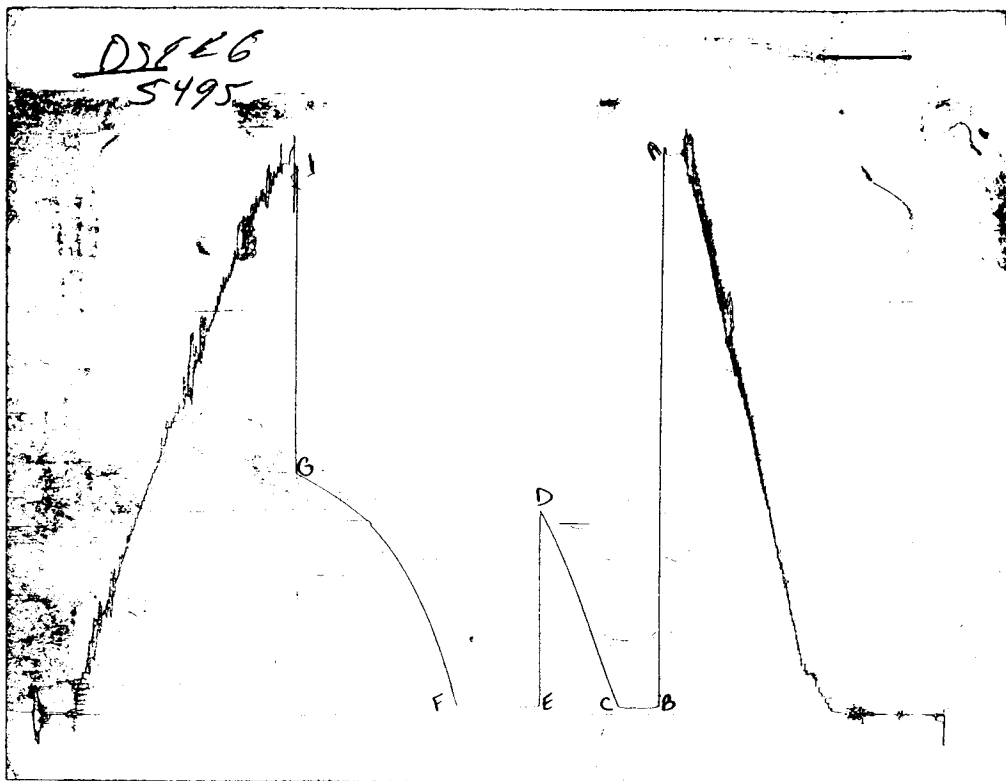
FROM CONFIDENTIAL

BHT 130 °F Gravity \_\_\_\_\_ °API @ \_\_\_\_\_ °F Corrected Gravity \_\_\_\_\_ °API  
 RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm Recovery Chlorides 3000 ppm System

(A) Initial Hydrostatic Mud 3135.9 PSI AK1 Recorder No. 5495 Range 4200  
 (B) First Initial Flow Pressure 75.4 PSI @ (depth) 6208 w / Clock No. 25813  
 (C) First Final Flow Pressure 75.4 PSI AK1 Recorder No. 11038 Range 5075  
 (D) Initial Shut-in Pressure 1110.4 PSI @ (depth) 6247 w / Clock No. 25814  
 (E) Second Initial Flow Pressure 68.6 PSI AK1 Recorder No. \_\_\_\_\_ Range \_\_\_\_\_  
 (F) Second Final Flow Pressure 68.6 PSI @ (depth) \_\_\_\_\_ w / Clock No. \_\_\_\_\_  
 (G) Final Shut-in Pressure 1352.0 PSI Initial Opening 30 Final Flow 60  
 (H) Final Hydrostatic Mud 3088.6 PSI Initial Shut-in 60 Final Shut-in 120

Our Representative TOM HORACEK

CHART PAGE



This is an actual photograph of recorder chart

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	3107	3135.9
(B) FIRST INITIAL FLOW PRESSURE	68	75.4
(C) FIRST FINAL FLOW PRESSURE	68	75.4
(D) INITIAL CLOSED-IN PRESSURE	1058	1110.4
(E) SECOND INITIAL FLOW PRESSURE	82	68.6
(F) SECOND FINAL FLOW PRESSURE	82	68.6
(G) FINAL CLOSED-IN PRESSURE	1360	1352
(H) FINAL HYDROSTATIC MUD	3082	3088.6

FLUID SAMPLER DATA

KCC  
NOV 2  
CONFIDENTIAL

Ticket No.: 6077 Date: 9/4/93  
Company: MURFIN DRILLING CO INC  
Lease: LOUDERBACK #1-11 Test No.: 6  
County: SEWARD Sec.: 11 Twp.: 35S Rng.: 31W

SAMPLER RECOVERY

Gas 30  
Oil TRACE  
Mud 600  
Water  
Other  
Pressure 1150  
TOTAL 4000

PIT MUD ANALYSIS

Chlorides 3000  
Resistivity ohms@ F  
Viscosity 54  
Mud Wt. 9.1  
Filtrate 9.6  
Other

CONFIDENTIAL

RELEASED  
DEC 22 1994  
FROM CONFIDENTIAL

SAMPLER ANALYSIS

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

PIPE RECOVERY

TOP

Resistivity ohms@ F  
Chlorides ppm

MIDDLE

Resistivity ohms@ F  
Chlorides ppm

BOTTOM

Resistivity ohms@ F  
Chlorides ppm

LOUDERBACK #1-11 DST #6

INITIAL

SHUTIN

-----  
 30 INITIAL FLOW TIME SLOPE 2556.5 PSI/CYCLE  
 P\* 1526.41 PSI  
 -----

Log <>

TIME(MIN)	Pws (psi)	Horn T	PRESSURE	Horn T
3	84.9	1.041	84.9	11
6	116.0	0.778	31.1	6
9	153.8	0.637	37.8	4
12	219.7	0.544	65.9	4
15	281.1	0.477	61.4	3
18	344.8	0.426	63.7	3
21	395.0	0.385	50.2	2
24	458.1	0.352	63.1	2
27	511.7	0.325	53.6	2
30	570.3	0.301	58.6	2
33	614.4	0.281	44.1	2
36	676.4	0.263	62.0	2
39	740.7	0.248	64.3	2
42	782.9	0.234	42.2	2
45	837.9	0.222	55.0	2
48	887.6	0.211	49.7	2
51	933.3	0.201	45.7	2
54	976.4	0.192	43.1	2
57	1015.7	0.184	39.3	2
60	1058.6	0.176	42.9	2
X 63	1094.0	0.169	35.4	1
X 66	1110.4	0.163	16.4	1

LOUDERBACK #1-11 DST #6

FINAL

SHUTIN

-----  
 90 TOTAL FLOW TIME SLOPE 2523.8 PSI/CYCLE  
 P\* 1942.8 PSI  
 -----

Log <>

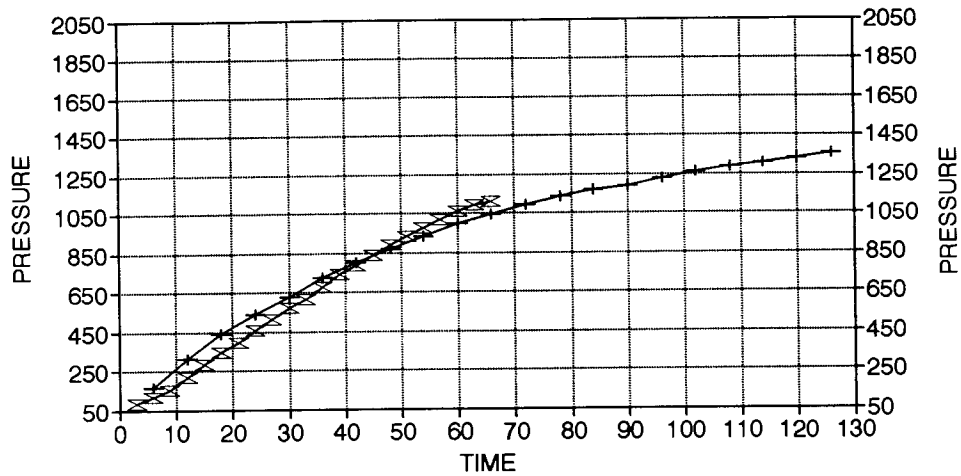
	Pws (psi)	Horn T	PRESSURE	Horn T
6	166.0	1.204	166.0	16
12	311.7	0.929	145.7	9
18	443.7	0.778	132.0	6
24	537.8	0.677	94.1	5
30	631.2	0.602	93.4	4
36	726.6	0.544	95.4	4
42	797.0	0.497	70.4	3
48	867.2	0.459	70.2	3
54	934.6	0.426	67.4	3
60	996.7	0.398	62.1	3
66	1043.4	0.374	46.7	2
72	1091.5	0.352	48.1	2
78	1133.1	0.333	41.6	2
84	1165.8	0.316	32.7	2
90	1187.2	0.301	21.4	2
96	1226.3	0.287	39.1	2
102	1257.7	0.275	31.4	2
108	1282.9	0.263	25.2	2
114	1306.7	0.253	23.8	2
X 120	1329.4	0.243	22.7	2
X 126	1352.0	0.234	22.6	2

KCC

NOV 8

CONFIDENTIAL

# LOUDERBACK #1-11 / DST #6 DELTA T DELTA P



—x— INITIAL —+— FINAL

RELEASED CONFIDENTIAL

DEC 22 1994

# HORNER PLOT FROM CONFIDENTIAL

