

STATE CORPORATION COMMISSION OF KANSAS  
OIL & GAS CONSERVATION DIVISION  
WELL COMPLETION FORM  
ACO-1 WELL HISTORY  
DESCRIPTION OF WELL AND LEASE

ORIGINAL

API NO. 15- 119-20895-0000  
County Meade  
SE SE SW Sec. 28 Twp. 31S Rge. 30W E

Operator: License # 30606

Name: Murfin Drilling Co., Inc.

Address 250 N. Water, Suite 300

City/State/Zip Wichita, KS 67202

Purchaser:

Operator Contact Person: Larry M. Jack

Phone ( ) 267-3241

Contractor: Name: Murfin Drilling Co., Inc.

License: 30606

Wellsite Geologist: Paul Godowic

Designate Type of Completion  
 New Well  Re-Entry  Workover

Oil  SWD  SLOW  Temp. Abd.  
 Gas  ENHR  SIGW  
 Dry  Other (Core, MSW, Expl., Cathodic, etc)

If Workover/Re-Entry: old well info as follows:

Operator:

Well Name:

Comp. Date Old Total Depth

Deepening  Re-perf.  Conv. to Inj/SWD  
 Plug Back  PBTD  
 Commingled  Docket No.  
 Dual Completion  Docket No.  
 Other (SWD or Inj?)  Docket No.

3/28/94 4/14/94 6/10/94  
Spud Date Date Reached TD Completion Date

440 Feet from S/R (circle one) Line of Section

3080 Feet from E/W (circle one) Line of Section

Footages Calculated from Nearest Outside Section Corner:  
NE, SE, NW or SW (circle one)

Lease Name Harris Well # 1-28

Field Name Unknown

Producing Formation Council Grove/Towanda

Elevation: Ground 2755 KB 2763

Total Depth 5970 PBSD 3065

Amount of Surface Pipe Set and Cemented at 1702 Feet

Multiple Stage Cementing Collar Used? Yes  No

If yes, show depth set Feet

If Alternate II completion, cement circulated from

feet depth to w/ sx cat.

Drilling Fluid Management Plan ALT 1 & K 10-24-94  
(Data must be collected from the Reserve Pit)

Chloride content 4500 ppm Fluid volume 2500 bbls

Dewatering method used evaporation

Location of fluid disposal if hauled offsite:

RELEASED

Operator Name KCC

Lease Name JUL 26 1995 License No. JUN 15

Quarter Sec. Twp. S Rge. E/W

FROM CONFIDENTIAL CONFIDENTIAL  
County Docket No.

INSTRUCTIONS: An original and two copies of this form shall be filed with the Kansas Corporation Commission, 200 Colorado Derby Building, Wichita, Kansas 67202, within 120 days of the spud date, recompletion, workover or conversion of a well. Rule 82-3-130, 82-3-106 and 82-3-107 apply. Information on side two of this form will be held confidential for a period of 12 months if requested in writing and submitted with the form (see rule 82-3-107 for confidentiality in excess of 12 months). One copy of all wireline logs and geologist well report shall be attached with this form. ALL CEMENTING TICKETS MUST BE ATTACHED. Submit CP-4 form with all plugged wells. Submit CP-111 form with all plugged or abandoned wells.

All requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Signature By: Larry M. Jack  
Title Larry M. Jack, Prod. Mgr. Date 6/15/94

Subscribed and sworn to before me this 15 day of June 19 94.

Notary Public KERRAN REDINGTON  
Kerran Redington  
Date Commission Expires 2/16/98

KERRAN REDINGTON  
NOTARY PUBLIC  
STATE OF KANSAS  
My Appt. Exp. 2-16-98

CONSERVATION OFFICE USE ONLY  
K.C.C. of Confidentiality Attached  
F  Letter of Confidentiality Attached  
C  Wireline Log Received  
C  Geologist Report Received  
Distribution  
 KCC  SWD/Rap  NGPA  
 KGS  Plug  Other (Specify)

CONFIDENTIAL

SIDE TWO

Operator Name Murfin Drilling Co., Inc.

Lease Name Harris

Well # 1-28

Sec. 28 Twp. 31S Rge. 30W

East  
 West

County Meade

INSTRUCTIONS: Show important tops and base of formations penetrated. Detail all cores. Report all drill stem tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface during test. Attach extra sheet if more space is needed. Attach copy of log.

Drill Stem Tests Taken  Yes  No  
(Attach Additional Sheets.)  
Samples Sent to Geological Survey  Yes  No  
Cores Taken  Yes  No  
Electric Log Run  Yes  No  
(Submit Copy.)

Log Formation (Top), Depth and Datum  Sample  
Name Top Datum

See attached.

List All E.Logs Run:

Drill stem tests and logs attached.

CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs./Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
Surface	12 1/2	8 5/8	24#	1702	Lite Common	550 150	3%cc, 2% gel " " 175 lbs F <sub>2</sub>
Production	7 7/8	4 1/2	10.5#	3303	50/50 Poz	370	10% salt, 3/4% FL28

ADDITIONAL CEMENTING/SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	#Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate				
<input type="checkbox"/> Protect Casing	3250-3500	Common	35	
<input checked="" type="checkbox"/> Plug Back TD				
<input type="checkbox"/> Plug Off Zone	5400-5600	Common	35	

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated		Acid, Fracture, Shot, Cement Squeeze Record (Amount and Kind of Material Used) Depth	
	4	3042-43'		1500 gal. 15% HCL
4	2783-85'		250 gal. 15% MCA	2783-85'

TUBING RECORD Size 2 3/8 Set At 2850 Packer At \_\_\_\_\_ Liner Run  Yes  No

Date of First, Resumed Production, S.W.D. or Inj. SIGW 6/10/94 Producing Method  Flowing  Pumping  Gas Lift  Other (Explain)

Estimated Production Per 24 Hours Oil --- Bbls. Gas 100 Mcf Water 34 Bbls. Gas-Oil Ratio --- Gravity ---

Disposition of Gas:  Vented  Sold  Used on Lease (If vented, submit ACO-18.) METHOD OF COMPLETION  Open Hole  Perf.  Dually Comp.  Commingled  Other (Specify) \_\_\_\_\_ Production Interval as above

# TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

ORIGINAL  
CONFIDENTIAL

## Drill-Stem Test Data

Well Name HARRIS #1-28 Test No. 1 Date 4/1/94  
 Company MURFIN DRILLING CO Zone KRIDER  
 Address 250 N. WATER-SWT# 300 WICHITA KS 67202 Elevation 2763  
 Co. Rep./Geo. PAUL GODOWIC Cont. MURFIN DRLG RIG #21 Est. Ft. of Pay 16  
 Location: Sec. 28 Twp. 31S Rge. 30W Co. MEADE State KS  
**API#15-119-20895**

Interval Tested 2647-2701 Drill Pipe Size 4.5" XH  
 Anchor Length 54 Wt. Pipe I.D. - 2.7 Ft. Run \_\_\_\_\_  
 Top Packer Depth 2642 Drill Collar - 2.25 Ft. Run 464  
 Bottom Packer Depth 2647 Mud Wt. 8.8 lb/Gal.  
 Total Depth 2701 Viscosity 47 Filtrate 9.6

Tool Open @ 4:35 PM Initial Blow WEAK SURFACE BLOW BUILT TO 3"  
 Final Blow FAIR BLOW BUILT TO 5"

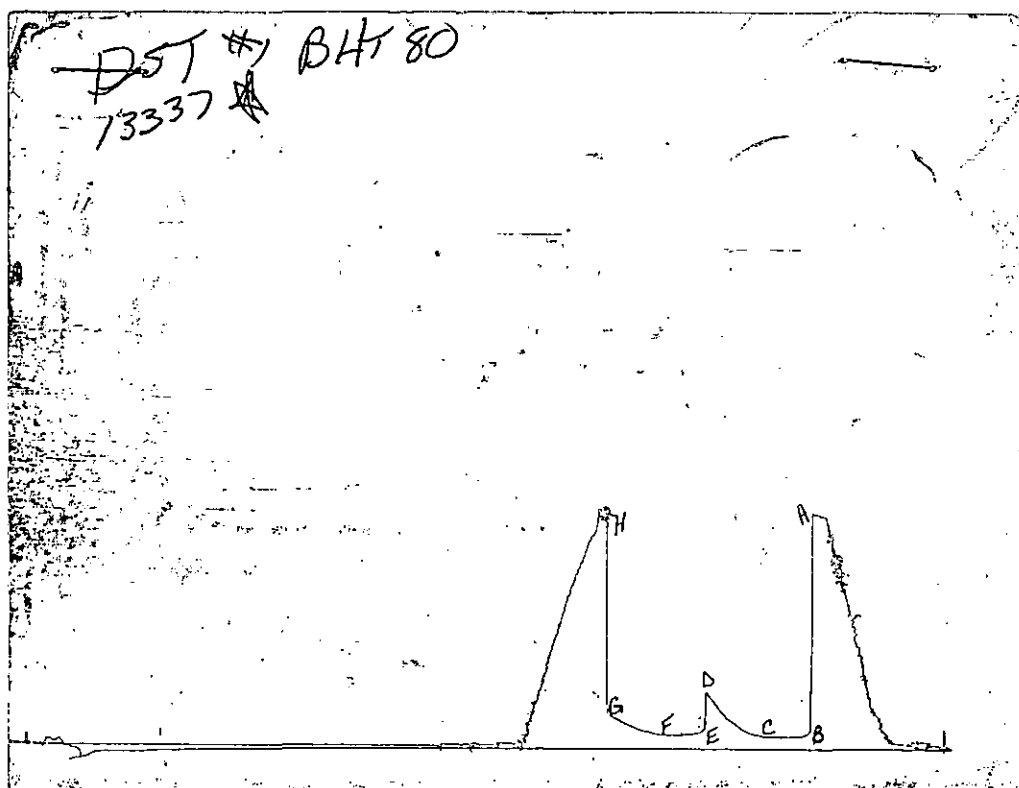
Recovery - Total Feet 30 Flush Tool? NO

Rec. 30 Feet of DRILLING MUD **RELEASED**  
 Rec. \_\_\_\_\_ Feet of \_\_\_\_\_ **KCC**  
 Rec. \_\_\_\_\_ Feet of JUL 26 1995 **JUN 15**  
 Rec. \_\_\_\_\_ Feet of \_\_\_\_\_ **FROM CONFIDENTIAL** **CONFIDENTIAL**

BHT 80 °F Gravity \_\_\_\_\_ °API @ \_\_\_\_\_ °F Corrected Gravity \_\_\_\_\_ °API  
 RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm Recovery Chlorides 3250 ppm System

(A) Initial Hydrostatic Mud 1198.5 PSI AK1 Recorder No. 13337 Range 3975  
 (B) First Initial Flow Pressure 71.1 PSI @ (depth) 2650 w / Clock No. 25810  
 (C) First Final Flow Pressure 61.2 PSI AK1 Recorder No. 10333 Range 4050  
 (D) Initial Shut-in Pressure 290.4 PSI @ (depth) 2698 w / Clock No. 14389  
 (E) Second Initial Flow Pressure 82.1 PSI AK1 Recorder No. \_\_\_\_\_ Range \_\_\_\_\_  
 (F) Second Final Flow Pressure 70.1 PSI @ (depth) \_\_\_\_\_ w / Clock No. \_\_\_\_\_  
 (G) Final Shut-in Pressure 179.8 PSI Initial Opening 30 Final Flow 30  
 (H) Final Hydrostatic Mud 1194.5 PSI Initial Shut-in 45 Final Shut-in 45

Our Representative ROBERT COLLINS



This is an actual photograph of recorder chart

#13337

KCC

JUN 15

RELEASED

JUL 26 1995

FIELD  
READING

OFFICE  
READING

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FROM CONFIDENTIAL

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	1204	1198.5
(B) FIRST INITIAL FLOW PRESSURE	59	71.1
(C) FIRST FINAL FLOW PRESSURE	59	61.2
(D) INITIAL CLOSED-IN PRESSURE	266	290.4
(E) SECOND INITIAL FLOW PRESSURE	69	82.1
(F) SECOND FINAL FLOW PRESSURE	69	70.1
(G) FINAL CLOSED-IN PRESSURE	168	179.8
(H) FINAL HYDROSTATIC MUD	1164	1194.5

FLUID SAMPLER DATA

CONFIDENTIAL

Ticket No.: 6956 Date: 4/1/94  
 Company: MURFIN DRILLING CO  
 Lease: HARRIS #1-28 Test No.: 1  
 County: MEADE Sec.: 28 Twp.: 31S Rng.: 30W

SAMPLER RECOVERY

Gas  
 Oil  
 Mud 4000  
 Water  
 Other  
 Pressure  
 TOTAL 4000

PIT MUD ANALYSIS

Chlorides 3250  
 Resistivity ohms@ F  
 Viscosity 47  
 Mud Wt. 8.8  
 Filtrate 9.6  
 Other

KCC  
 JUN 15  
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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

RELEASED

JUN 26 1995

FROM CONFIDENTIAL

1380

# TRILOBITE TESTING L.L.C.

P.O. Box 362 - Hays, Kansas 67601

## CONFIDENTIAL

### FLUID SAMPLER DATA

Ticket No. 6956 Date 4-1-94  
 Company Name MacFin  
 Lease Harris # 1-28 Test No. 1  
 County \_\_\_\_\_ Sec. 28 Twp. 31 Rng. 30W

#### SAMPLER RECOVERY

Gas \_\_\_\_\_ ML  
 Oil \_\_\_\_\_ ML  
 Mud 4060 ML  
 Water \_\_\_\_\_ ML  
 Other \_\_\_\_\_ ML  
 Pressure \_\_\_\_\_ PSI  
 Total 4000 ML

#### PIT MUD ANALYSIS

Chlorides 3,250 ppm.  
 Resistivity \_\_\_\_\_ ohms @ \_\_\_\_\_ F  
 Viscosity 47  
 Mud Weight 8.8  
 Filtrate 9.6 NCU  
 Other \_\_\_\_\_ JUN 1 5

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#### SAMPLER ANALYSIS

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

#### PIPE RECOVERY

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

**RELEASED**  
**JUL 26 1995**  
**FROM CONFIDENTIAL**

ORIGINAL

Test Ticket

No. 6956

Well Name & No. Harris #128 Test No. 1 Date 4-1-94  
 Company Murkin Drilling Co Zone Tested Krider  
 Address 250 N Water Suite 300 Wichita 67202 Elevation 2763 KB  
 Co. Rep./Geo. Paul Godwin Cont. Murkin 21 Est. Ft. of Pay 16  
 Location: Sec. 28 Twp. 31 Rge. 30W Co. Meade State KS  
 No. of Copies \_\_\_\_\_ Distribution Sheet \_\_\_\_\_ Yes \_\_\_\_\_ No \_\_\_\_\_ Turnkey \_\_\_\_\_ Yes \_\_\_\_\_ No \_\_\_\_\_ Evaluation \_\_\_\_\_

Interval Tested 2647-2701 Drill Pipe Size 4 1/2 x 4 1/4  
 Anchor Length 54 Top Choke — 1" \_\_\_\_\_ Bottom Choke — 3/4" \_\_\_\_\_  
 Top Packer Depth 2642 Hole Size — 7 7/8" \_\_\_\_\_ Rubber Size — 6 3/4" \_\_\_\_\_  
 Bottom Packer Depth 2647 Wt. Pipe I.D. — 2.7 Ft. Run \_\_\_\_\_  
 Total Depth 2701 Drill Collar — 2.25 Ft. Run 4 3/4 x 4 1/4  
 Mud Wt. 8.8 lb/gal. Viscosity 47 Filtrate 9.6  
 Tool Open @ 4:35 PM Initial Blow Weak surface blow build to 3 in

Final Blow Fair blow build to 5 in KCC

Recovery — Total Feet 30 Feet of Gas In Pipe \_\_\_\_\_ JUN 15  
 Flush Tool? NO

Rec.	Feet Of	% gas	% oil	% water	% mud
Rec. <u>30</u>	Feet Of <u>DR 15 Mud</u>				<u>100% mud</u>
Rec. _____	Feet Of _____	% gas	% oil	% water	% mud
Rec. _____	Feet Of _____	% gas	% oil	% water	% mud
Rec. _____	Feet Of _____	% gas	% oil	% water	% mud

BHT 80 °F Gravity \_\_\_\_\_ °API @ \_\_\_\_\_ °F Corrected Gravity \_\_\_\_\_ °API

RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm Recovery Chlorides 3,250 ppm System

(A) Initial Hydrostatic Mud 1204 PSI AK1 Recorder No. 13337 Range 3975  
 (B) First Initial Flow Pressure 59 PSI @ (depth) 2650 w/Clock No. 25810  
 (C) First Final Flow Pressure 59 PSI AK1 Recorder No. 10333 Range 4050  
 (D) Initial Shut-In Pressure 266 PSI @ (depth) 2698 w/Clock No. 17389  
 (E) Second Initial Flow Pressure 69 PSI AK1 Recorder No. \_\_\_\_\_ Range \_\_\_\_\_  
 (F) Second Final Flow Pressure 69 PSI @ (depth) \_\_\_\_\_ w/Clock No. \_\_\_\_\_  
 (G) Final Shut-In Pressure 168 PSI Initial Opening 30 Test ✓ 600  
 (H) Final Hydrostatic Mud 1164 PSI Initial Shut-In 45 Jars ✓ 200

TRIOBITE 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 J. Godwin RELEASED  
 Our Representative R. Callor JUL 26 1995

Final Flow 30 Safety Joint ✓ 50  
 Final Shut-In 45 Straddle \_\_\_\_\_  
 Circ. Sub ✓ N/A  
 Sampler ✓ 800  
 Extra Packer \_\_\_\_\_  
 Other \_\_\_\_\_

TOTAL PRICE \$ 1050.00

# TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

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## Drill-Stem Test Data

Well Name HARRIS #1-28 Test No. 2 Date 4/2/94  
 Company MURFIN DRILLING CO Zone COUNCIL GROV  
 Address 250 N. WATER-SWT# 300 WICHITA KS 67202 Elevation 2763  
 Co. Rep./Geo. PAUL GODOWIC Cont. MURFIN DRLG RIG #21 Est. Ft. of Pay 11  
 Location: Sec. 28 Twp. 31S Rge. 30W Co. MEADE State KS  
API # 15-119-20895

Interval Tested	<u>3042-3058</u>	Drill Pipe Size	<u>4.5" XH</u>
Anchor Length	<u>16</u>	Wt. Pipe I.D. - 2.7 Ft. Run	<u>461</u>
Top Packer Depth	<u>3037</u>	Drill Collar - 2.25 Ft. Run	<u>8.8</u>
Bottom Packer Depth	<u>3042</u>	Mud Wt.	<u>41</u> lb/Gal.
Total Depth	<u>3058</u>	Viscosity	<u>9.4</u> Filtrate

Tool Open @ 9:45 PM Initial Blow STRONG BLOW-BOTTOM OF BUCKET IN 10 SECONDS  
GAS TO SURFACE IN 5 MINUTES  
 Final Blow GAS TO SURFACE AS TOOL OPENED

Recovery - Total Feet 180 Flush Tool? NO

Rec. 180 Feet of SLIGHTLY GAS CUT MUD- 10% GAS/ 90% MUD  
 Rec. \_\_\_\_\_ Feet of RELEASED KCC  
 Rec. \_\_\_\_\_ Feet of \_\_\_\_\_ JUL 26 1995 JUN 15  
 Rec. \_\_\_\_\_ Feet of \_\_\_\_\_ CONFIDENTIAL

FROM CONFIDENTIAL

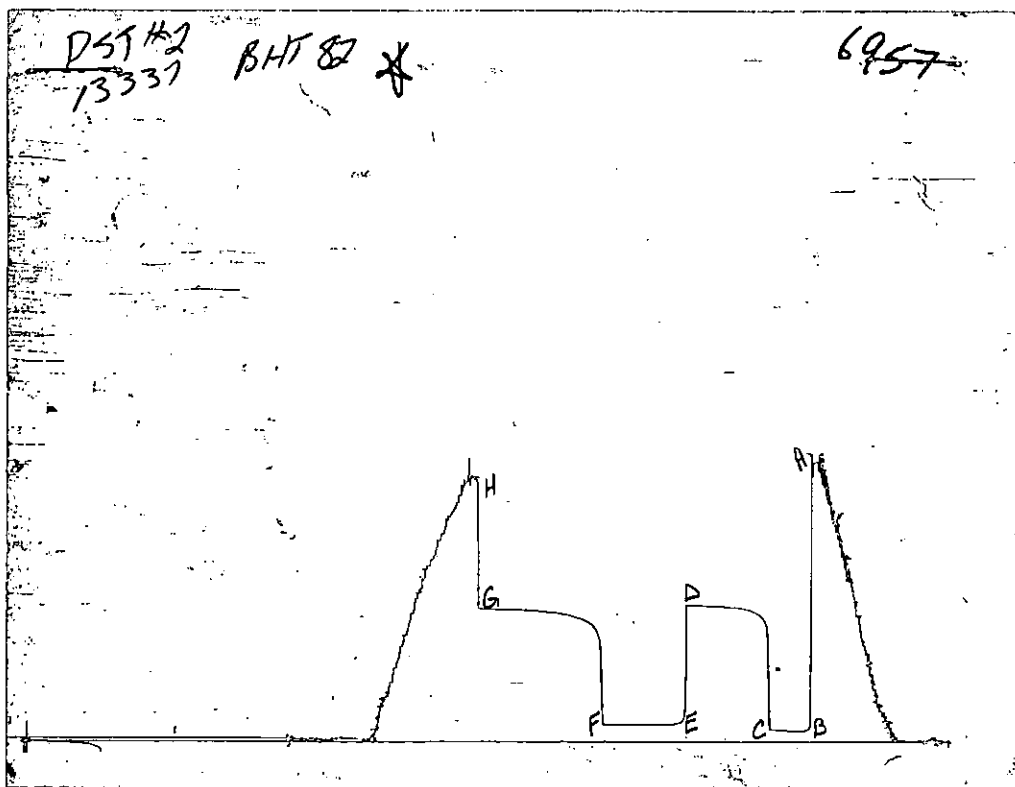
BHT 82 °F Gravity \_\_\_\_\_ °API @ \_\_\_\_\_ °F Corrected Gravity \_\_\_\_\_ °API  
 RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm Recovery Chlorides 4000 ppm System

(A) Initial Hydrostatic Mud	<u>1434.1</u> PSI	AK1 Recorder No.	<u>13337</u>	Range	<u>3975</u>
(B) First Initial Flow Pressure	<u>49.4</u> PSI	@ (depth)	<u>3045</u>	w / Clock No.	<u>25810</u>
(C) First Final Flow Pressure	<u>60.2</u> PSI	AK1 Recorder No.	<u>10333</u>	Range	<u>4050</u>
(D) Initial Shut-in Pressure	<u>696.4</u> PSI	@ (depth)	<u>3053</u>	w / Clock No.	<u>14389</u>
(E) Second Initial Flow Pressure	<u>83.1</u> PSI	AK1 Recorder No.	_____	Range	_____
(F) Second Final Flow Pressure	<u>87.9</u> PSI	@ (depth)	_____	w / Clock No.	_____
(G) Final Shut-in Pressure	<u>681.7</u> PSI	Initial Opening	<u>30</u>	Final Flow	<u>60</u>
(H) Final Hydrostatic Mud	<u>1354.2</u> PSI	Initial Shut-in	<u>60</u>	Final Shut-in	<u>90</u>

Our Representative ROBERT COLLINS



CHART PAGE



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JUN 15  
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This is an actual photograph of recorder chart #13337

RELEASED

JUL 26 1995

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FIELD READING      OFFICE READING

(A) INITIAL HYDROSTATIC MUD	1424	1434.1
(B) FIRST INITIAL FLOW PRESSURE	39	49.4
(C) FIRST FINAL FLOW PRESSURE	49	60.2
(D) INITIAL CLOSED-IN PRESSURE	680	696.4
(E) SECOND INITIAL FLOW PRESSURE	69	83.1
(F) SECOND FINAL FLOW PRESSURE	69	87.9
(G) FINAL CLOSED-IN PRESSURE	670	681.7
(H) FINAL HYDROSTATIC MUD	1344	1354.2

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COMPUTER GAS EVALUATION BY TRILOBITE TESTING, L.L.C.  
MURFIN DRILLING CO

HARRIS #1-28 DST 2  
28 31S 30W MEADE KS

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ELEVATION:	2763 KB	EST. PAY:	11 FT.
DATUM:	-283	ZONE TESTED:	COUNCIL GROVE
TEST INTERVAL:	3042-3058	TIME INTERVALS:	30-60-60-90
RECORDER DEPTH:	3045	VISCOSITY:	0.01199 CP
BOTTOM HOLE TEMP:	82	HOLE SIZE:	7.875 IN
COMPRESSIBILITY:	0.998	GAS GRAVITY:	0.6855

\*\*\*\*\*

TEMPERATURE RANKINE:		542.00	&
TRANSMISSIBILITY:		12255.64	Kh/%
THEORITICAL FLOW CAPICITY:		146.95	Kh
AVERAGE EFFECTIVE PERMEABILITY:		13.36	K(md.)
RADIUS OF INVESTIGATION:		34.67	FT.
DAMAGE RATIO:		2.57	
ABSOLUTE OPEN FLOW(MAX)		337.33	MCFD
ABSOLUTE OPEN FLOW(MIN)		334.66	MCFD
THEORITICAL OPEN FLOW(MAX)		868.32	MCFD
THEORITICAL OPEN FLOW(MIN)		861.43	MCFD
POTENTIOMETRIC SURFACE		0.00	(FT.)

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JUN 1 5  
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INITIAL SHUT-IN VALUES:

SLOPE	23647.25
THEORETICAL STATIC PRESSURE	713

RELEASED

FINAL SHUT-IN VALUES:

SLOPE	23987.26
THEORETICAL STATIC PRESSURE	699

JUL 2 6 1995

FROM CONFIDENTIAL

DRAWDOWN FACTOR: 1.98 (%)

HARRIS #1-28  
INITIAL

DST #2  
SHUTIN

30 INITIAL FLOW TIME Slope 23647.25 psi/cycle  
P \* 713 psi

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TIME(MIN)	Pws (psi)	Horn T	Log <> PRESSURE	Horn T
3	579.5	1.041	579.5	11
6	627.7	0.778	48.2	6
9	648.3	0.637	20.6	4
12	657.1	0.544	8.8	4
15	665.1	0.477	8.0	3
18	670.9	0.426	5.8	3
21	674.8	0.385	3.9	2
24	678.8	0.352	4.0	2
27	681.7	0.325	2.9	2
30	681.7	0.301	0.0	2
33	683.7	0.281	2.0	2
36	686.6	0.263	2.9	2
X 39	688.6	0.248	2.0	2
42	689.6	0.234	1.0	2
45	690.6	0.222	1.0	2
48	691.5	0.211	0.9	2
51	692.5	0.201	1.0	2
54	693.5	0.192	1.0	2
57	694.5	0.184	1.0	2
60	695.5	0.176	1.0	2
X 63	696.4	0.169	0.9	1

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HARRIS #1-28  
FINAL

DST #2  
SHUTIN

90 TOTAL FLOW TIME Slope 23987.26 psi/cycle  
P \* 699 psi

TIME(MIN)	Pws (psi)	Horn T	Log <> PRESSURE	Horn T
6	582.4	1.204	582.4	16
12	616.8	0.929	34.4	9
18	632.6	0.778	15.8	6
24	637.5	0.677	4.9	5
30	648.3	0.602	10.8	4
36	657.1	0.544	8.8	4
42	661.1	0.497	4.0	3
48	666.0	0.459	4.9	3
54	668.9	0.426	2.9	3
60	670.9	0.398	2.0	3
66	674.8	0.374	3.9	2
X 72	676.8	0.352	2.0	2
78	677.8	0.333	1.0	2
84	678.8	0.316	1.0	2
90	679.7	0.301	0.9	2
96	680.7	0.287	1.0	2
X 102	681.7	0.275	1.0	2

RELEASED  
JUL 26 1995  
FROM CONFIDENTIAL

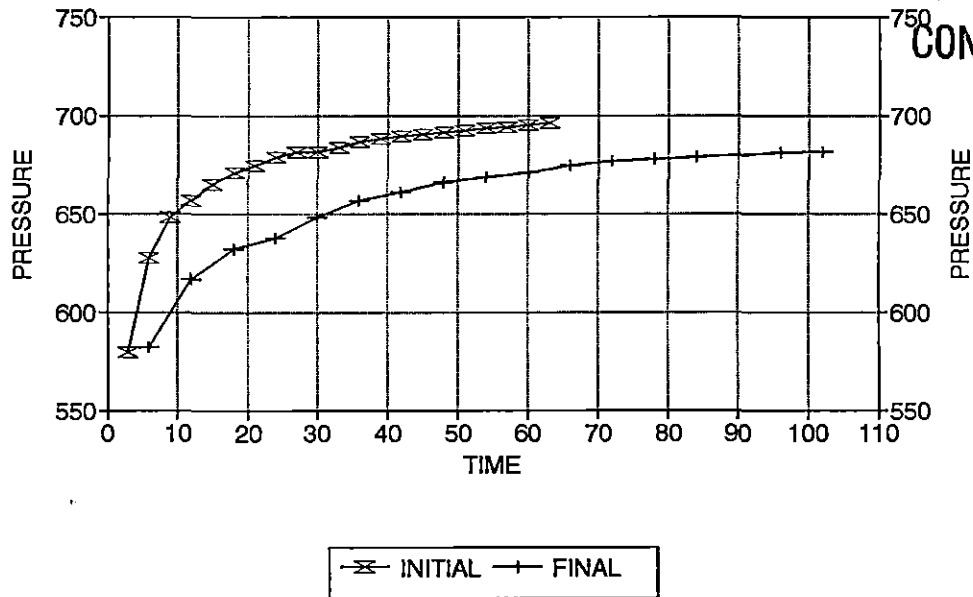
CONFIDENTIAL

### HARRIS #1-28 / DST #2 DELTA T DELTA P

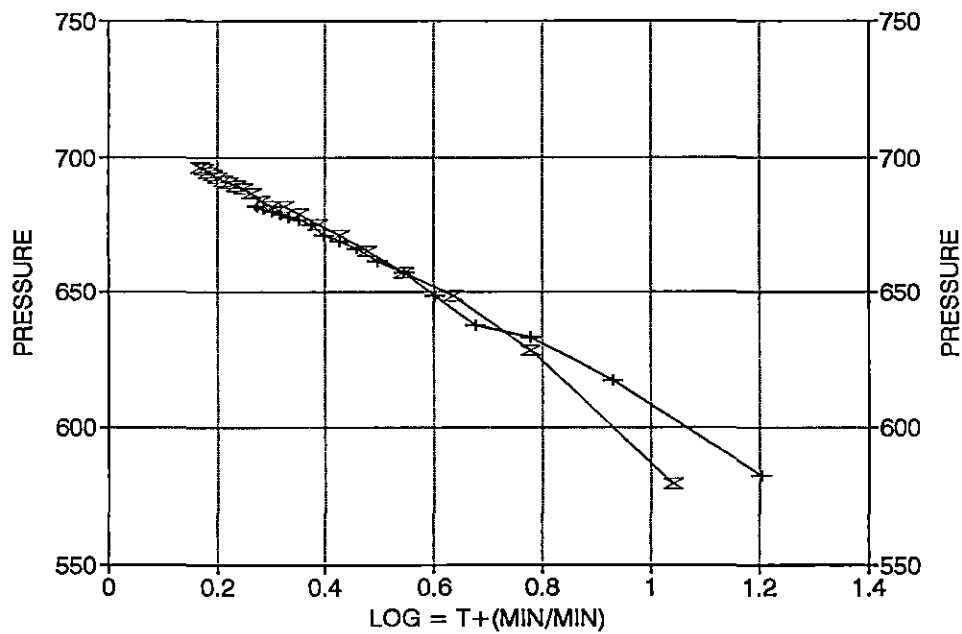
RCC

JUN 15

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### HORNER PLOT



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JUL 26 1995

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INITIAL FLOW

CONFIDENTIAL

RECORDER 13337

DST # 2

TIME(MIN)      PRESSURE <> PRESSURE

TIME(MIN)	PRESSURE	<> PRESSURE
0	49.4	49.4
3	49.4	0.0
6	49.4	0.0
9	50.3	0.9
12	50.3	0.0
15	51.3	1.0
18	53.3	2.0
21	54.3	1.0
24	56.3	2.0
27	58.3	2.0
30	60.2	1.9

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JUN 15  
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FINAL FLOW

RECORDER 13337

DST # 2

TIME(MIN)      PRESSURE <> PRESSURE

TIME(MIN)	PRESSURE	<> PRESSURE
0	83.1	83.1
3	85.0	1.9
6	85.0	0.0
9	85.9	0.9
12	85.9	0.0
15	85.9	0.0
18	85.9	0.0
21	85.9	0.0
24	85.9	0.0
27	85.9	0.0
30	85.9	0.0
33	85.9	0.0
36	86.9	1.0
39	86.9	0.0
42	87.9	1.0
45	87.9	0.0
48	87.9	0.0
51	87.9	0.0
54	87.9	0.0
57	87.9	0.0
60	87.9	0.0

RELEASED  
JUN 26 1995  
FROM CONFIDENTIAL

FLUID SAMPLER DATA

CONFIDENTIAL

Ticket No.: 6957 Date: 4/2/94  
 Company: MURFIN DRILLING CO  
 Lease: HARRIS #1-28 Test No.: 2  
 County: MEADE Sec.: 28 Twp.: 31S Rng.: 30W

KCC

JUN 1 5

CONFIDENTIAL

SAMPLER RECOVERY

PIT MUD ANALYSIS

Gas .3 CU FT  
 Oil  
 Mud  
 Water  
 Other  
 Pressure 25  
 TOTAL 4000

Chlorides 4000  
 Resistivity ohms@ F  
 Viscosity 41  
 Mud Wt. 8.8  
 Filtrate 9.4  
 Other

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SAMPLER ANALYSIS

PIPE RECOVERY

TOP

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

Resistivity ohms@ F  
 Chlorides ppm

MIDDLE

Resistivity ohms@ F  
 Chlorides ppm

BOTTOM

Resistivity ohms@ F  
 Chlorides ppm

GAS VOLUME REPORT

CONFIDENTIAL

MURFIN DRILLING CO

HARRIS #1-28

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DST # 2

MIN	INCHES OF WTR	ORIFICE	MCF/D	MIN	PSIG	ORIFICE	MCF/D
5	18	1.25	186	10	2	1.25	332
20	30	1.25	241	20	2	1.25	332
30	34	1.25	256	30	2	1.25	332
				40	2	1.25	332
				50	2	1.25	332
				60	2	1.25	332

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Remarks: GAS TO SURFACE IN 5 MINUTES/ GAS WILL BURN

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NATURAL GAS ANALYSIS REPORT

Sampled by:  
Trilobite Testing, L.L.C.  
Hays, Kansas  
Scott City, Kansas  
Phone: 800-728-5369  
Fax: 913-625-5620

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JUN 15  
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Analyzed by:  
Caraway Analytical, L.L.C.  
728 North Roosevelt  
Liberal, Kansas 67901  
Phone: 316-324-5389  
Fax: 316-626-7108

Lab Number: 940164  
Sample From: Harris 1-28 DST 2  
Producer: Marfin Drilling  
Date:  
Time:  
Sampler:  
Source:

Analyzed: 04/03/94  
Pressure:  
Temperature:  
Location: 28-30-31W  
County: Meade  
State: Kansas  
Formation: Council Grove

	Mole %	GPM
Helium	He:	0.000
Oxygen	O2:	0.000
Nitrogen	N2:	17.534
Carbon Dioxide	CO2:	0.052
Methane	C1:	76.092
Ethane	C2:	3.341
Propane	C3:	1.527
Iso Butane	iC4:	0.259
Normal Butane	nC4:	0.550
Iso Pentane	iC5:	0.161
Normal Pentane	nC5:	0.205
Hexanes Plus	C6+:	0.279

TOTAL: 100.000 1.827  
Z Fact: 0.9980 --  
SP.GR.: 0.6855 --  
BTU (SAT): 909.2 @ 14.73 psia  
BTU (DRY): 925.3 @ 14.73 psia  
OCTANE RATING: 104.9

COMMENTS: Sample entered under vacuum  
Insufficient pressure for Helium analysis

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JUL 26 1995

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# TRILOBITE TESTING L.L.C.

P.O. Box 362 - Hays, Kansas 67601

ORIGINAL

CONFIDENTIAL

## FLUID SAMPLER DATA

Ticket No. 6957 Date 4-2-94 KCC  
JUN 15

Company Name MarEn CONFIDENTIAL

Lease Harris #1-28 Test No. 2

County Meade KS Sec. 28 Twp. 31 Rng. 30W

### SAMPLER RECOVERY

### PIT MUD ANALYSIS

Gas 4000 ~~36F~~ ML

Oil \_\_\_\_\_ ML

Mud \_\_\_\_\_ ML

Water \_\_\_\_\_ ML

Other \_\_\_\_\_ ML

Pressure 25 PSI

Total 4000 ML

Chlorides 4000 ppm.

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

Viscosity 41

Mud Weight 8.8

Filtrate 9.4

Other \_\_\_\_\_

### SAMPLER ANALYSIS

### PIPE RECOVERY

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

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

Gravity \_\_\_\_\_ corrected @ 60 F

TOP

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

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

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MIDDLE

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

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

**JUL 26 1995**

**FROM CONFIDENTIAL**

BOTTOM

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

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



# TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

CONFIDENTIAL  
No. 6957

ORIGINAL

## Test Ticket

Well Name & No. Harris 1-28 Test No. 2 Date 4-2-94  
 Company MarFin Drilling Co Zone Tested COUNCIL-BROOK  
 Address 250 W. Water Suite 300 Wichita 67202 Elevation 2763 KB  
 Co. Rep./Geo. Paul Godowic Cont. MarFin 21 Est. Ft. of Pay 11  
 Location: Sec. 28 Twp. 31 Rge. 30W Co. Meade State KS  
 No. of Copies \_\_\_\_\_ Distribution Sheet \_\_\_\_\_ Yes  No Turnkey \_\_\_\_\_ Yes  No \_\_\_\_\_ Evaluation \_\_\_\_\_

Interval Tested 3042-3058 Drill Pipe Size 4-1/2" A  
 Anchor Length 16 Top Choke — 1" \_\_\_\_\_ Bottom Choke — 3/4" \_\_\_\_\_  
 Top Packer Depth 3037 Hole Size — 7 7/8" \_\_\_\_\_ Rubber Size — 6 3/4" \_\_\_\_\_  
 Bottom Packer Depth 3042 Wt. Pipe I.D. — 2.7 Ft. Run \_\_\_\_\_  
 Total Depth 3058 Drill Collar — 2.25 Ft. Run 461" A  
 Mud Wt. 8.8 lb/gal. Viscosity 41 Filtrate 9.4  
 Tool Open @ 9:45 PM Initial Blow Strong blow bottom of bucket in 10 sec  
(GTS in 5 min.) NO  
 Final Blow GTS as tool opened

JUN 15

Recovery — Total Feet	Feet of Gas In Pipe	CONFIDENTIAL			
Rec. _____ Feet Of _____	_____	% gas	% Oil	% water	% mud
Rec. <u>180</u> Feet Of _____	<u>51% gas cut mud</u>	10% gas	% Oil	% water	90% mud
Rec. _____ Feet Of _____	_____	% gas	% Oil	% water	% mud
Rec. _____ Feet Of _____	_____	% gas	% Oil	% water	% mud
Rec. _____ Feet Of _____	_____	% gas	% Oil	% water	% mud

BHT 82 °F Gravity \_\_\_\_\_ °API @ \_\_\_\_\_ °F Corrected Gravity \_\_\_\_\_ °API

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

(A) Initial Hydrostatic Mud 1424 PSI Ak1 Recorder No. 13337 Range 3975  
 (B) First Initial Flow Pressure 39 PSI @ (depth) 3045 w/Clock No. 25810  
 (C) First Final Flow Pressure 49 PSI Ak1 Recorder No. 10333 Range 4050  
 (D) Initial Shut-In Pressure 680 PSI @ (depth) 3053 w/Clock No. 14389  
 (E) Second Initial Flow Pressure 69 PSI Ak1 Recorder No. \_\_\_\_\_ Range \_\_\_\_\_  
 (F) Second Final Flow Pressure 69 PSI @ (depth) \_\_\_\_\_ w/Clock No. \_\_\_\_\_  
 (G) Final Shut-In Pressure 670 PSI Initial Opening 30 Test  600.00  
 (H) Final Hydrostatic Mud 1344 PSI Initial Shut-In 60 Jars  200.00

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 60 Safety Joint  50.00  
 Final Shut-In 90 Straddle \_\_\_\_\_

Approved By Paul F. Godowic RELEASED  
 Our Representative P. Collins JUN 26 1995  
 Sampler  200.00  
 Extra Packer \_\_\_\_\_  
 Other \_\_\_\_\_

Printcraft Printers - Hays, KS

TOTAL PRICE \$ 1050.00

FROM CONFIDENTIAL

# TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

CONFIDENTIAL

ORIGINAL

## Drill-Stem Test Data

Well Name HARRIS #1-28 Test No. 3 Date 4/5/94  
 Company MURFIN DRILLING CO Zone LWR SHAWNEE  
 Address 250 N. WATER-SWT# 300 WICHITA KS 67202 Elevation 2763  
 Co. Rep./Geo. PAUL GODOWIC Cont. MURFIN DRLG RIG #21 Est. Ft. of Pay 25  
 Location: Sec. 28 Twp. 31S Rge. 30W Co. MEADE State KS  
API # IS - 119-20895

Interval Tested 3826-3876 Drill Pipe Size 4.5" XH  
 Anchor Length 50 Wt. Pipe I.D. - 2.7 Ft. Run \_\_\_\_\_  
 Top Packer Depth 3821 Drill Collar - 2.25 Ft. Run 144  
 Bottom Packer Depth 3826-3876 Mud Wt. \_\_\_\_\_ 9 lb/Gal.  
 Total Depth 4165 Viscosity 37 Filtrate 9

Tool Open @ 6:25 Initial Blow VERY WEAK SURFACE BLOW/ (44" LINE PLUGGED WITH ICE)  
BOTTOM OF BUCKET IN 6 MINUTES

Final Blow STRONG BLOW BOTTOM OF BUCKET IN 2 MINUTES

Recovery - Total Feet 2220 Flush Tool? NO

Rec. 90 Feet of WATERY MUD- 10% WTR/ 90% MUD  
 Rec. 2130 Feet of SALT WATER  
 Rec. \_\_\_\_\_ Feet of \_\_\_\_\_  
 Rec. \_\_\_\_\_ Feet of \_\_\_\_\_  
 Rec. \_\_\_\_\_ Feet of \_\_\_\_\_

KCC  
 JUN 15  
 CONFIDENTIAL

BHT 105 °F Gravity \_\_\_\_\_ °API @ \_\_\_\_\_ °F Corrected Gravity \_\_\_\_\_ °API  
 RW 0.113 @ \_\_\_\_\_ °F Chlorides 140000 ppm Recovery Chlorides 4000 ppm System

(A) Initial Hydrostatic Mud 1843.7 PSI AK1 Recorder No. 13337 Range 3975

(B) First Initial Flow Pressure 272.6 PSI @ (depth) 3861 w / Clock No. 25810

(C) First Final Flow Pressure 763.2 PSI AK1 Recorder No. 10333 Range 4050

(D) Initial Shut-in Pressure 1073.8 PSI @ (depth) 3871 w / Clock No. 14389

(E) Second Initial Flow Pressure 872.2 PSI AK1 Recorder No. 1055 Range 4100

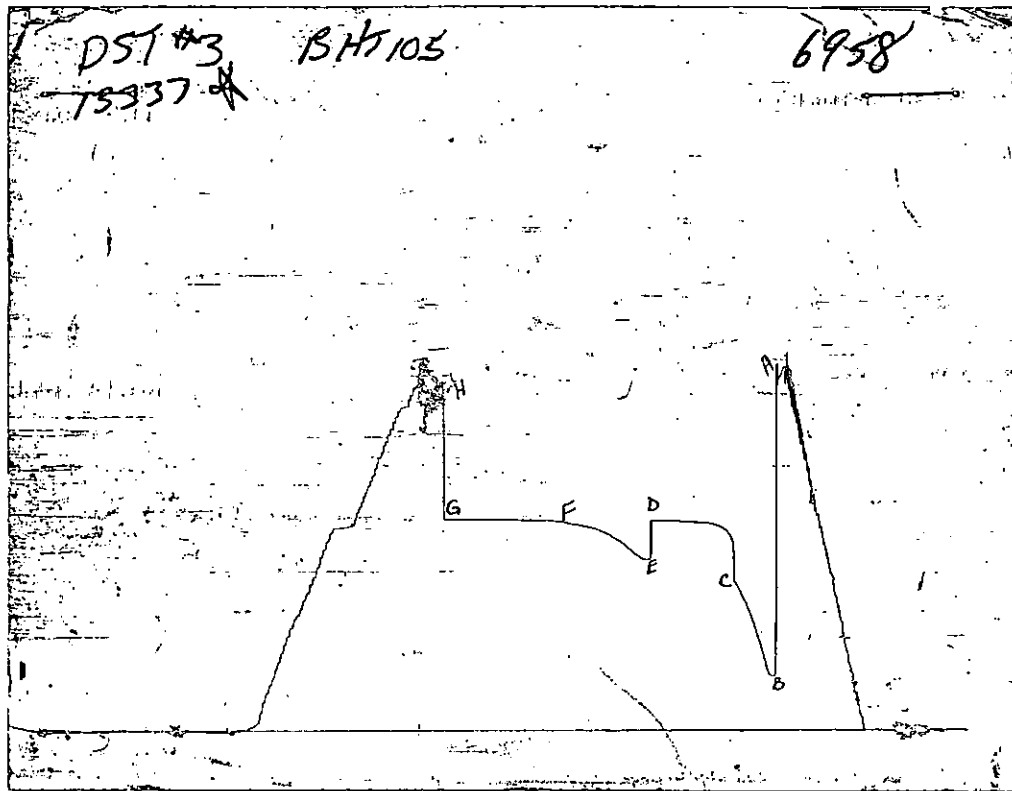
(F) Second Final Flow Pressure 1053.9 PSI @ (depth) 4162 w / Clock No. 26191

(G) Final Shut-in Pressure 1079.8 PSI Initial Opening 30 Final Flow 60

(H) Final Hydrostatic Mud 1789.0 PSI Initial Shut-in 60 Final Shut-in 90

Our Representative ROBERT COLLINS

CHART PAGE



KCC  
JUN 15

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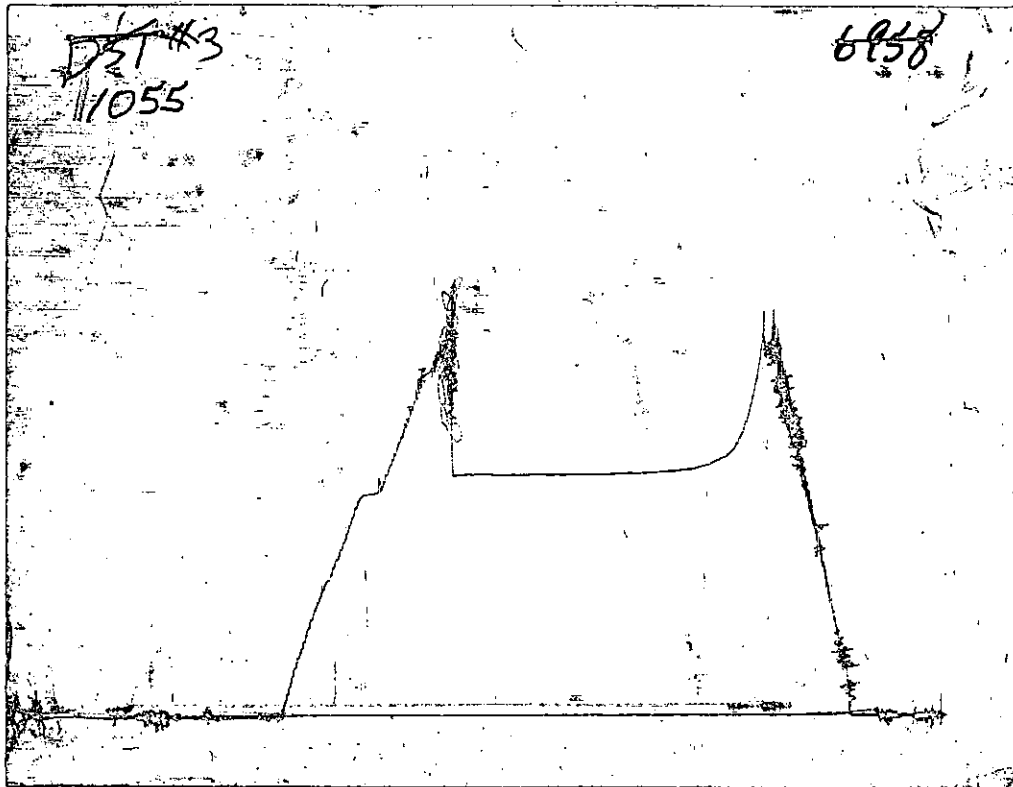
JUL 26 1995

FIELD  
READING

OFFICE  
READING

FROM CONFIDENTIAL

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	1845	1843.7
(B) FIRST INITIAL FLOW PRESSURE	266	272.6
(C) FIRST FINAL FLOW PRESSURE	759	763.2
(D) INITIAL CLOSED-IN PRESSURE	1044	1073.8
(E) SECOND INITIAL FLOW PRESSURE	867	872.2
(F) SECOND FINAL FLOW PRESSURE	1044	1053.9
(G) FINAL CLOSED-IN PRESSURE	1044	1079.8
(H) FINAL HYDROSTATIC MUD	1777	1789



*not*  
 JUN 15  
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This is an actual photograph of recorder chart # 1055

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

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JUL 26 1995

FROM CONFIDENTIAL

FLUID SAMPLER DATA

CONFIDENTIAL

Ticket No.: 6958 Date: 4/5/94  
 Company: MURFIN DRILLING CO  
 Lease: HARRIS #1-28 Test No.: 3  
 County: MEADE Sec.: 28 Twp.: 31S Rng.: 30W

SAMPLER RECOVERY

Gas  
 Oil  
 Mud  
 Water 4000  
 Other  
 Pressure  
 TOTAL 4000

PIT MUD ANALYSIS

Chlorides 4000  
 Resistivity ohms@ F  
 Viscosity 37  
 Mud Wt. 9  
 Filtrate 9  
 Other  
 KOC  
 JUN 15  
 CONFIDENTIAL

SAMPLER ANALYSIS

Resistivity 0.113 ohms@ 70 F  
 Chlorides 140000 ppm.  
 Gravity corrected @60F

PIPE RECOVERY

TOP  
 Resistivity ohms@ F  
 Chlorides ppm  
 MIDDLE  
 Resistivity 0.075 ohms@ 65 F  
 Chlorides 120000 ppm  
 BOTTOM  
 Resistivity 0.113 ohms@ 70 F  
 Chlorides 140000 ppm

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 JUN 26 1995  
 FROM CONFIDENTIAL

TRILOBITE TESTING L.L.C.

P.O. Box 362 - Hays, Kansas 67601

1383

FLUID SAMPLER DATA

Ticket No. 6958 Date 4-5-94
Company Name MarFin
Lease Harris #1-28 Test No. 3
County Meade KS Sec. 28 Twp. 31 Rng. 30W

SAMPLER RECOVERY

Gas ML
Oil ML
Mud ML
Water 4000 ML
Other ML
Pressure PSI
Total 4000 ML

PIT MUD ANALYSIS

Chlorides 4000 ppm.
Resistivity ohms @ F
Viscosity 37
Mud Weight 9.0 KOC
Filtrate 9.0 JUN 15
Other CONFIDENTIAL

SAMPLER ANALYSIS

Resistivity 113 ohms @ 70 F
Chlorides 140,000 ppm.
Gravity corrected @ 60 F

RELEASED PIPE RECOVERY

TOP JUL 26 1995
Resistivity ohms @ F
FROM CONFIDENTIAL
Chlorides ppm.

MIDDLE
Resistivity .075 ohms @ 65 F
Chlorides 120,000 ppm.

BOTTOM
Resistivity 113 ohms @ 70 F
Chlorides 140,000 ppm.



# TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

CONFIDENTIAL

No. 6958

## Test Ticket

Well Name & No. Harris 1-28 Test No. 3 Date 4-5-94  
 Company Marlin Drilling Co Zone Tested Lower-Shawnee  
 Address 250 W Water Suite 300 Wichita 67202 Elevation 2763 KB  
 Co. Rep./Geo. Paul Godowic Cont. Marlin 21 Est. Ft. of Pay 25  
 Location: Sec. 28 Twp. 31 Rge. 30W Co. Meade State Ks  
 No. of Copies \_\_\_\_\_ Distribution Sheet \_\_\_\_\_ Yes  No Turnkey \_\_\_\_\_ Yes  No \_\_\_\_\_ Evaluation \_\_\_\_\_

Interval Tested 3826-3876 Drill Pipe Size 4 1/2 x 2 1/4  
 Anchor Length 50 Top Choke — 1" \_\_\_\_\_ Bottom Choke — 3/4" \_\_\_\_\_  
 Top Packer Depth 3821 Hole Size — 7 7/8" \_\_\_\_\_ Rubber Size — 6 3/4" \_\_\_\_\_  
 Bottom Packer Depth 3826-3876 Wt. Pipe I.D. — 2.7 Ft. Run \_\_\_\_\_  
 Total Depth 4165 Drill Collar — 2.25 Ft. Run 1 1/4 x 1 1/4  
 Mud Wt. 9.0 lb/gal. Viscosity 37 Filtrate 9.0  
 Tool Open @ 6:25 Initial Blow Very Weak Surface blow / 1/4 in line plugged with ice  
bottom of bucket in 6 min NOG  
 Final Blow Strong blow bottom of bucket in 2 min

JUN 1 5

Recovery — Total Feet 2220 Feet of Gas in Pipe \_\_\_\_\_ CONFIDENTIAL Flush Tool? NO

Rec.	Feet Of	% gas	% oil	% water	% mud
<u>90</u>	<u>Wtly Mud</u>		<u>10</u>	<u>90</u>	
<u>2130</u>	<u>Salt Water</u>		<u>100</u>		

BHT 105 °F Gravity \_\_\_\_\_ °API @ \_\_\_\_\_ °F Corrected Gravity \_\_\_\_\_ °API  
 RW 113 @ 70 °F Chlorides 140,000 ppm Recovery Chlorides 4000 ppm System

(A) Initial Hydrostatic Mud 1845 PSI AK1 Recorder No. 13337 Range 3975  
 (B) First Initial Flow Pressure 266 PSI @ (depth) 3861 w/Clock No. 25810  
 (C) First Final Flow Pressure 759 PSI AK1 Recorder No. 10333 Range 4050  
 (D) Initial Shut-In Pressure 1044 PSI @ (depth) 3871 w/Clock No. 25810/14389  
 (E) Second Initial Flow Pressure 867 PSI AK1 Recorder No. 1055 Range 4100  
 (F) Second Final Flow Pressure 1044 PSI @ (depth) 4162 w/Clock No. 26191  
 (G) Final Shut-In Pressure 1044 PSI Initial Opening 30 Test  1000.00  
 (H) Final Hydrostatic Mud 1777 PSI Initial Shut-In 60 Jars  200.00

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 60 Safety Joint  50.00  
 Final Shut-In 90 Straddle  250.00  
 Circ. Sub  100.00  
 Sampler  200.00  
 Extra Packer  150.00  
 Other \_\_\_\_\_

Approved By Paul F. Godowic  
 Our Representative Marlin Drilling Co

RELEASED

JUL 26 1995

# TRILOBITE TESTING, L.L.C.

CONFIDENTIAL

P.O. Box 362 • Hays, Kansas 67601

## Drill-Stem Test Data

Well Name HARRIS #1-28 Test No. 4 Date 4/8/94  
 Company MURFIN DRILLING CO Zone SWOPE  
 Address 250 N. WATER-SWT# 300 WICHITA KS 67202 Elevation 2763  
 Co. Rep./Geo. PAUL GODOWIC Cont. MURFIN DRLG RIG #21 Est. Ft. of Pay 4  
 Location: Sec. 28 Twp. 31S Rge. 30W Co. MEADE State KS  
API#15-119-20893

Interval Tested 4804-4830 Drill Pipe Size 4.5" XH  
 Anchor Length 26 Wt. Pipe I.D. - 2.7 Ft. Run 461  
 Top Packer Depth 4799 Drill Collar - 2.25 Ft. Run 9.1  
 Bottom Packer Depth 4804 Mud Wt. 50 lb/Gal.  
 Total Depth 4830 Viscosity 8.4 Filtrate

Tool Open @ 7:35 AM Initial Blow WEAK SURFACE BLOW BUILT TO 1"

Final Blow WEAK SURFACE BLOW BUILT TO 1/2"

Recovery - Total Feet 65 Flush Tool? NO

Rec. 20 Feet of MUDDY WATER - 90% WATER / 10% MUD KCC  
 Rec. 45 Feet of SALT WATER JUN 15  
 Rec. \_\_\_\_\_ Feet of \_\_\_\_\_  
 Rec. \_\_\_\_\_ Feet of \_\_\_\_\_  
 Rec. \_\_\_\_\_ Feet of \_\_\_\_\_

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BHT 112 °F Gravity \_\_\_\_\_ °API @ \_\_\_\_\_ °F Corrected Gravity \_\_\_\_\_ °API  
 RW 0.127 @ 69 °F Chlorides 90000 ppm Recovery Chlorides 4000 ppm System

(A) Initial Hydrostatic Mud 2268.8 PSI AK1 Recorder No. 13337 Range 3975

(B) First Initial Flow Pressure 46.4 PSI @ (depth) 4807 w / Clock No. 25810

(C) First Final Flow Pressure 43.4 PSI AK1 Recorder No. 10333 Range 4050

(D) Initial Shut-in Pressure 1281.4 PSI @ (depth) 4827 w / Clock No. 14389

(E) Second Initial Flow Pressure 77.1 PSI AK1 Recorder No. \_\_\_\_\_ Range \_\_\_\_\_

(F) Second Final Flow Pressure 77.1 PSI @ (depth) JUL 26 1995 w / Clock No. \_\_\_\_\_

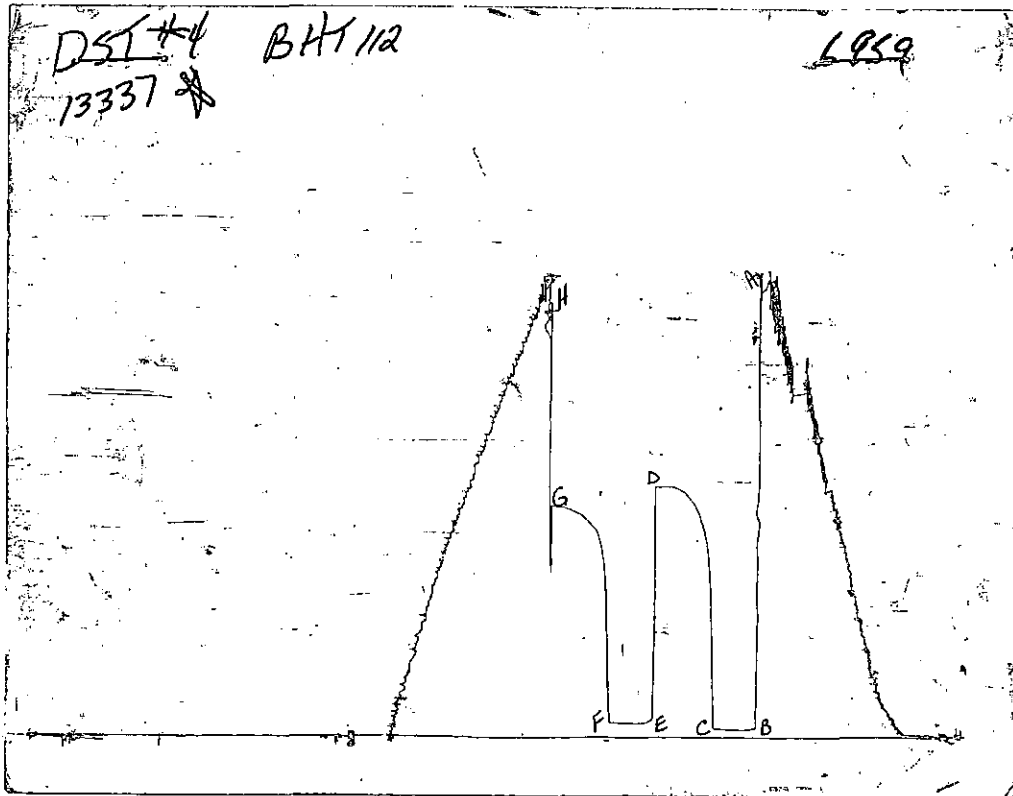
(G) Final Shut-in Pressure 1184.6 PSI Initial Opening 30 Final Flow 30

(H) Final Hydrostatic Mud 2263.8 PSI Initial Shut-in 45 Final Shut-in 45

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FROM CONFIDENTIAL

Our Representative ROBERT COLLINS



ncc

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#13337

JUN 15

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JUL 26 1995

FIELD  
READING

OFFICE  
READING

FROM CONFIDENTIAL

(A) INITIAL HYDROSTATIC MUD	2278	2268.8
(B) FIRST INITIAL FLOW PRESSURE	39	46.4
(C) FIRST FINAL FLOW PRESSURE	39	43.4
(D) INITIAL CLOSED-IN PRESSURE	1264	1281.4
(E) SECOND INITIAL FLOW PRESSURE	69	77.1
(F) SECOND FINAL FLOW PRESSURE	69	77.1
(G) FINAL CLOSED-IN PRESSURE	1184	1184.6
(H) FINAL HYDROSTATIC MUD	2219	2263.8

FLUID SAMPLER DATA

CONFIDENTIAL

Ticket No.: 6959 Date: 4/8/94  
 Company: MURFIN DRILLING CO  
 Lease: HARRIS #1-28 Test No.: 4  
 County: MEADE Sec.: 28 Twp.: 31S Rng.: 30W

SAMPLER RECOVERY

Gas  
 Oil  
 Mud  
 Water 4000  
 Other  
 Pressure  
 TOTAL 4000

PIT MUD ANALYSIS

Chlorides 4000  
 Resistivity ohms@ F  
 Viscosity 50  
 Mud Wt. 9.1  
 Filtrate 8.4  
 Other

KCC  
 JUN 15  
 CONFIDENTIAL

SAMPLER ANALYSIS

Resistivity 0.127 ohms@ 69 F  
 Chlorides 90000 ppm.  
 Gravity corrected @60F

PIPE RECOVERY

TOP

Resistivity 0.245 ohms@ 68 F  
 Chlorides 25000 ppm

MIDDLE

Resistivity ohms@ F  
 Chlorides ppm

BOTTOM

Resistivity 0.127 ohms@ 69 F  
 Chlorides 90000 ppm

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TRILOBITE TESTING L.L.C.

P.O. Box 362 - Hays, Kansas 67601

1383

FLUID SAMPLER DATA

Ticket No. 6959 Date 4-8-94
Company Name Murfin
Lease Harris #1-28 Test No. 4
County Meade KS Sec. 28 Twp. 31 Rng. 30W

SAMPLER RECOVERY

Gas ML
Oil ML
Mud ML
Water 4000 ML
Other ML
Pressure PSI
Total 4000 ML

PIT MUD ANALYSIS

Chlorides ppm.
Resistivity ohms @ F
Viscosity 50
Mud Weight 9.1
Filtrate 8.4
Other JUN 15
CONFIDENTIAL

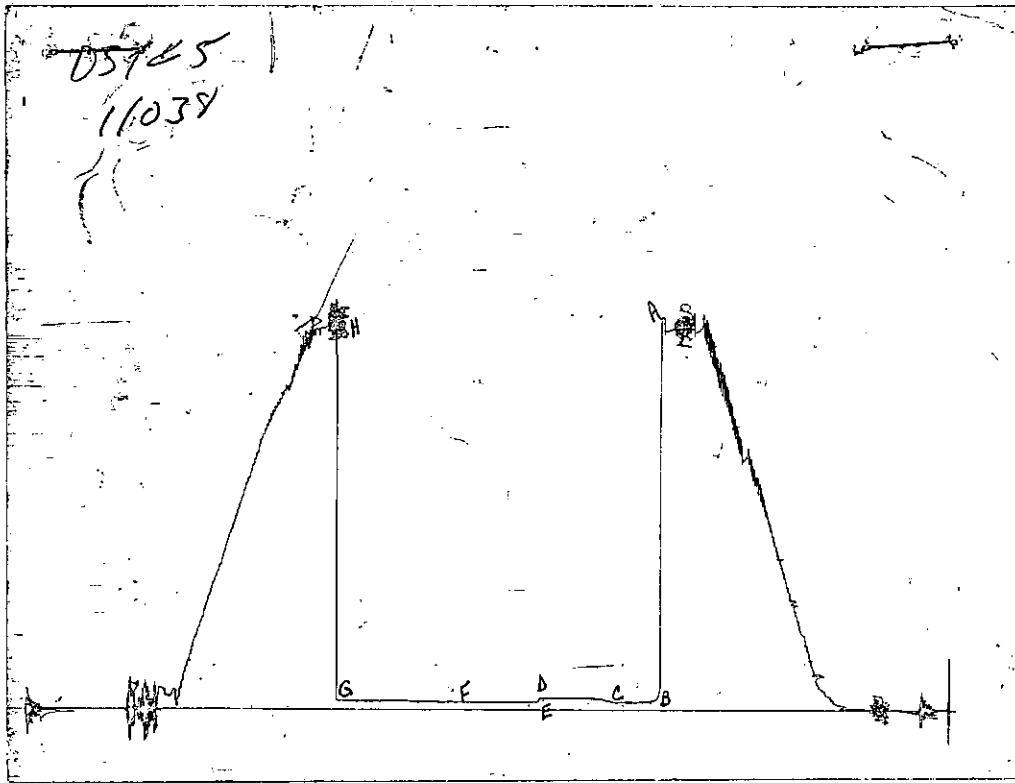
SAMPLER ANALYSIS

Resistivity 127 ohms @ 69 F
Chlorides 90,000 ppm.
Gravity corrected @ 60 F

PIPE RECOVERY

TOP
Resistivity 245 ohms @ 68 F
Chlorides 25,000 ppm.
MIDDLE
Resistivity ohms @ F
Chlorides ppm.
BOTTOM
Resistivity 127 ohms @ 69 F
Chlorides 90,000 ppm.

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JUL 26 1995
FROM CONFIDENTIAL



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#11038

KUC  
JUN 15

CONFIDENTIAL

FIELD  
READING

OFFICE  
READING

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	2632	2576.7
(B) FIRST INITIAL FLOW PRESSURE	55	61.8
(C) FIRST FINAL FLOW PRESSURE	55	53.6
(D) INITIAL CLOSED-IN PRESSURE	95	82.2
(E) SECOND INITIAL FLOW PRESSURE	55	53.6
(F) SECOND FINAL FLOW PRESSURE	55	57.7
(G) FINAL CLOSED-IN PRESSURE	68	65.9
(H) FINAL HYDROSTATIC MUD	2554	2574.2

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JUL 26 1995

FROM CONFIDENTIAL

FLUID SAMPLER DATA

CONFIDENTIAL

Ticket No.: 6935 Date: 4/11/94  
 Company: MURFIN DRILLING CO  
 Lease: HARRIS #1-28 Test No.: 5  
 County: MEADE Sec.: 28 Twp.: 31S Rng.: 30W

SAMPLER RECOVERY

Gas .6 cu ft  
 Oil  
 Mud 3900  
 Water  
 Other  
 Pressure 30  
 TOTAL 4000

SAMPLER ANALYSIS

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

PIT MUD ANALYSIS

Chlorides 3000  
 Resistivity ohms@ F  
 Viscosity 49  
 Mud Wt. 9.1  
 Filtrate 9.4  
 Other

KCC  
 JUN 15  
 CONFIDENTIAL

PIPE RECOVERY

TOP

Resistivity ohms@ F  
 Chlorides ppm

MIDDLE

Resistivity ohms@ F  
 Chlorides ppm

BOTTOM

Resistivity ohms@ F  
 Chlorides ppm





# TRIOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

CONFIDENTIAL 6935

ORIGINAL

## Test Ticket

Well Name & No. Harris #1-28 Test No. #5 Date 4-11-94  
 Company Murdin Drilling Company, Inc. Zone Tested Morrow  
 Address 250 N. Water Suite 300, Wichita KS 67202 Elevation 3763 (KB)  
 Co. Rep./Geo. Paul Godowic Cont. Murdin Drlg #21 Est. Ft. of Pay \_\_\_\_\_  
 Location: Sec. 28 Twp. 31 Rge. 30 Co. Meade State Ks  
 No. of Copies \_\_\_\_\_ Distribution Sheet \_\_\_\_\_ Yes \_\_\_\_\_ No \_\_\_\_\_ Turnkey \_\_\_\_\_ Yes X No \_\_\_\_\_ Evaluation \_\_\_\_\_

Interval Tested 5420-5500 Drill Pipe Size 4.5 x - Hole  
 Anchor Length 80' Top Choke - 1" \_\_\_\_\_ Bottom Choke - 3/4" \_\_\_\_\_  
 Top Packer Depth 5415 Hole Size - 7 7/8" \_\_\_\_\_ Rubber Size - 6 3/4" \_\_\_\_\_  
 Bottom Packer Depth 5420 Wt. Pipe I.D. - 2.7 Ft. Run \_\_\_\_\_  
 Total Depth 5500 Drill Collar - 2.25 Ft. Run 404'  
 Mud Wt. 9.1 lb/gal. Viscosity 49 Filtrate 9.4  
 Tool Open @ 4:05 AM Initial Blow strong blow - Bottom of bucket 15 sec.  
Bled off blow - weak blow - Built to bottom of bucket 30 min.  
 Final Blow Fair blow - Built to bottom of bucket 1 1/2 min.  
FSF - Bled all blow - weak blow - Built to bottom in 20 min. (GTS in 40 min.)  
 Recovery - Total Feet 90' Feet of Gas In Pipe \_\_\_\_\_ Flush Tool? NO

Rec.	Feet Of	%gas	%oil	%water	%mud
Rec.	Feet Of	%gas	%oil	%water	%mud
Rec.	<u>90'</u> Feet Of	<u>Gas, Dirt, mud</u>			
Rec.	Feet Of	<u>NUL</u>			
Rec.	Feet Of	<u>JUN 1-5</u>			

BHT 124 °F Gravity \_\_\_\_\_ °API @ \_\_\_\_\_ °F Corrected Gravity \_\_\_\_\_ °API  
 RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm Recovery Chlorides 3,000 ppm System

(A) Initial Hydrostatic Mud 2632 PSI AK1 Recorder No. 13615 Range 4575  
 (B) First Initial Flow Pressure 55 PSI @ (depth) 5424 w/Clock No. 25813  
 (C) First Final Flow Pressure 55 PSI AK1 Recorder No. 11038 Range 5075  
 (D) Initial Shut-In Pressure 95 PSI @ (depth) 5497 w/Clock No. 25814  
 (E) Second Initial Flow Pressure 55 PSI AK1 Recorder No. \_\_\_\_\_ Range \_\_\_\_\_  
 (F) Second Final Flow Pressure 55 PSI @ (depth) \_\_\_\_\_ w/Clock No. \_\_\_\_\_  
 (G) Final Shut-In Pressure 68 PSI Initial Opening 30 Test X 700 ??  
 (H) Final Hydrostatic Mud 2554 PSI Initial Shut-In 60 Jars X 200

TRIOBITE 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 60 Safety Joint X 50  
 Final Shut-In 90 Straddle \_\_\_\_\_

Approved By Paul F. Godowic **RELEASED**  
 Our Representative Tom Horacek **JUL 26 1995**  
 Sampler X 200  
 Extra Packer \_\_\_\_\_  
 Other \_\_\_\_\_

ORIGINAL

# TRILOBITE TESTING, L.L.C.

CONFIDENTIAL

P.O. Box 362 • Hays, Kansas 67601

## Drill-Stem Test Data

Well Name HARRIS #1-28 Test No. 6 Date 4/12/94  
 Company MURFIN DRILLING CO Zone CHESTER  
 Address 250 N. WATER-SWT# 300 WICHITA KS 67202 Elevation 2763  
 Co. Rep./Geo. PAUL GODOWIC Cont. MURFIN DRLG RIG #21 Est. Ft. of Pay 5  
 Location: Sec. 28 Twp. 31S Rge. 30W Co. MEADE State KS  
API#15-119-20895

Interval Tested 5527-5551 Drill Pipe Size 4.5" XH  
 Anchor Length 24 Wt. Pipe I.D. - 2.7 Ft. Run \_\_\_\_\_  
 Top Packer Depth 5522 Drill Collar - 2.25 Ft. Run 461  
 Bottom Packer Depth 5527 Mud Wt. 9 lb/Gal.  
 Total Depth 5551 Viscosity 45 Filtrate 9.2

Tool Open @ 1:30 AM Initial Blow STRONG BLOW-BOTTOM OF BUCKET IN 1 MINUTE  
GAS TO SURFACE IN 20 MINUTES

Final Blow BOTTOM OF BUCKET AS TOOL OPENED-GAUGED @31.4 MCF/DAY

Recovery - Total Feet 125 Flush Tool? NO

Rec. 125 Feet of GASSY CUT OILY MUD KCC  
 Rec. \_\_\_\_\_ Feet of \_\_\_\_\_ JUN 15  
 Rec. \_\_\_\_\_ Feet of \_\_\_\_\_ CONFIDENTIAL  
 Rec. \_\_\_\_\_ Feet of \_\_\_\_\_

BHT 125 °F Gravity \_\_\_\_\_ °API @ \_\_\_\_\_ °F Corrected Gravity \_\_\_\_\_ °API  
 RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm Recovery Chlorides 2750 ppm System

(A) Initial Hydrostatic Mud 2715.8 PSI AK1 Recorder No. 13615 Range 4575

(B) First Initial Flow Pressure 48.2 PSI @ (depth) 5530 w / Clock No. 25813

(C) First Final Flow Pressure 50.9 PSI AK1 Recorder No. 11038 Range 5075

(D) Initial Shut-in Pressure 1820.5 PSI @ (depth) 5548 w / Clock No. 25814

(E) Second Initial Flow Pressure 60.4 PSI AK1 Recorder No. \_\_\_\_\_ Range \_\_\_\_\_

(F) Second Final Flow Pressure 60.4 PSI @ (depth) \_\_\_\_\_ w / Clock No. \_\_\_\_\_

(G) Final Shut-in Pressure 1812.9 PSI Initial Opening 30 Final Flow 60

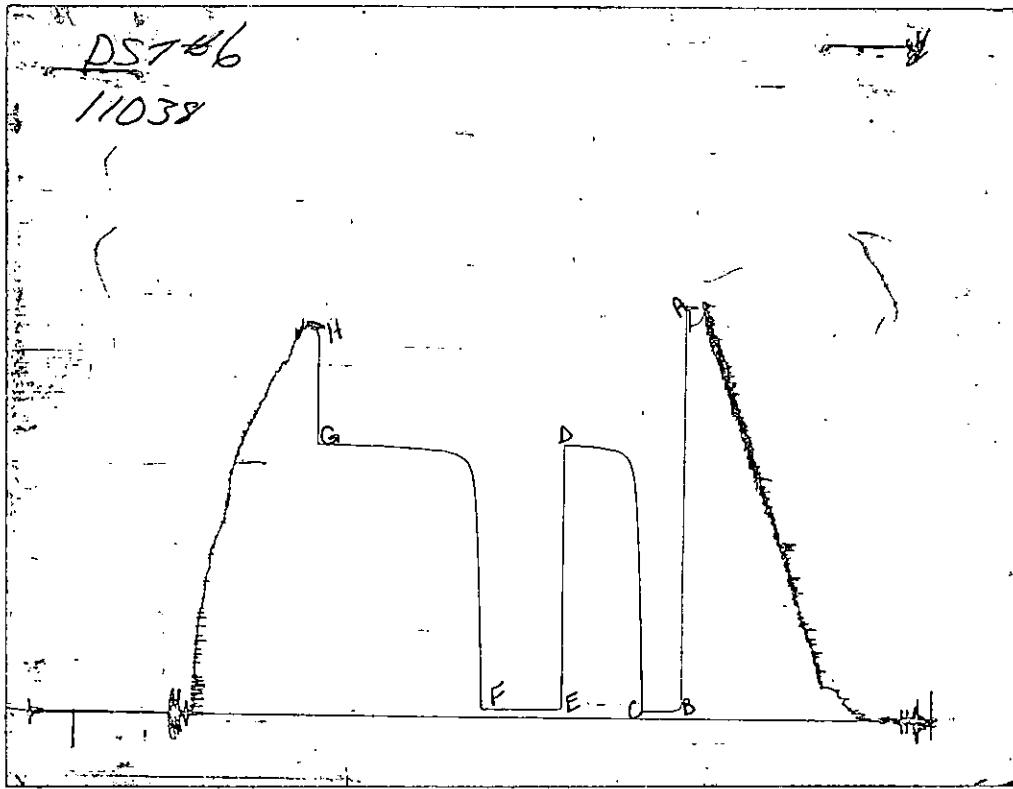
(H) Final Hydrostatic Mud 2596.1 PSI Initial Shut-in 60 Final Shut-in 120

Our Representative TOM HORACEK

RELEASED

JUL 26 1995

FROM CONFIDENTIAL



ncc

This is an actual photograph of recorder chart

#11038

JUN 15

CONFIDENTIAL

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	2683	2715.8
(B) FIRST INITIAL FLOW PRESSURE	55	48.2
(C) FIRST FINAL FLOW PRESSURE	55	50.9
(D) INITIAL CLOSED-IN PRESSURE	1839	1820.5
(E) SECOND INITIAL FLOW PRESSURE	55	60.4
(F) SECOND FINAL FLOW PRESSURE	55	60.4
(G) FINAL CLOSED-IN PRESSURE	1814	1812.9
(H) FINAL HYDROSTATIC MUD	2606	2596.1

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JUL 26 1995

FROM CONFIDENTIAL

# TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

CONFIDENTIAL

No. 6959

ORIGINAL

## Test Ticket

Well Name & No. Harris 1-28 Test No. 4 Date 4-8-94  
 Company Murfin Drilling Co Zone Tested SWAPE  
 Address 250 W Water Suite 300 Wichita 67202 Elevation 2763  
 Co. Rep./Geo. Paul Godawie cont. Murfin 21 Est. Ft. of Pay 4  
 Location: Sec. 28 Twp. 31 Rge. 30W Co. Meade State Ks  
 No. of Copies \_\_\_\_\_ Distribution Sheet \_\_\_\_\_ Yes  No Turnkey \_\_\_\_\_ Yes  No \_\_\_\_\_ Evaluation \_\_\_\_\_

Interval Tested 4804-4830 Drill Pipe Size 4 1/2" HA  
 Anchor Length 26 Top Choke — 1" \_\_\_\_\_ Bottom Choke — 3/4" \_\_\_\_\_  
 Top Packer Depth 4799 Hole Size — 7 7/8" \_\_\_\_\_ Rubber Size — 6 3/4" \_\_\_\_\_  
 Bottom Packer Depth 4804 Wt. Pipe I.D. — 2.7 Ft. Run \_\_\_\_\_  
 Total Depth 4830 Drill Collar — 2.25 Ft. Run 461 HA  
 Mud Wt. 9.1 lb/gal. Viscosity 50 Filtrate 8.4  
 Tool Open @ 7:35 AM Initial Blow Weak surface blow build to lin  
NOG  
 Final Blow Weak surface blow build to gain JUN 15

Recovery — Total Feet	Feet of Gas in Pipe	CONFIDENTIAL			
<u>65</u>		Flush Tool?	<u>10</u>		
Rec. <u>20</u> Feet Of	<u>Muddy Water</u>	% gas	% oil <u>90</u>	% water <u>10</u>	% mud
Rec. _____ Feet Of		% gas	% oil	% water	% mud
Rec. <u>45</u> Feet Of	<u>salt water</u>	% gas	% oil <u>100</u>	% water	% mud
Rec. _____ Feet Of		% gas	% oil	% water	% mud
Rec. _____ Feet Of		% gas	% oil	% water	% mud

BHT 112 °F Gravity \_\_\_\_\_ °API @ \_\_\_\_\_ °F Corrected Gravity \_\_\_\_\_ °API  
 RW 127 @ 69 °F Chlorides 90,000 ppm Recovery Chlorides 4,000 ppm System

(A) Initial Hydrostatic Mud 2278 PSI AK1 Recorder No. 13337 Range 3975  
 (B) First Initial Flow Pressure 39 PSI @ (depth) 4807 w/Clock No. 25810  
 (C) First Final Flow Pressure 39 PSI AK1 Recorder No. 10333 Range 4050  
 (D) Initial Shut-In Pressure 1264 PSI @ (depth) 4827 w/Clock No. 14389  
 (E) Second Initial Flow Pressure 69 PSI AK1 Recorder No. \_\_\_\_\_ Range \_\_\_\_\_  
 (F) Second Final Flow Pressure 69 PSI @ (depth) \_\_\_\_\_ w/Clock No. \_\_\_\_\_  
 (G) Final Shut-In Pressure 1184 PSI Initial Opening 30 Test  600-20  
 (H) Final Hydrostatic Mud 2219 PSI Initial Shut-In 45 Jars  200-00  
 Final Flow 30 Safety Joint  50-00  
 Final Shut-In 6 1985 Straddle \_\_\_\_\_  
 Circ. Sub Full  
 Sampler  200-00  
 Extra Packer \_\_\_\_\_  
 Other \_\_\_\_\_

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Approved By Paul F. [Signature]  
 Our Representative [Signature]

FROM CONFIDENTIAL

# TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

CONFIDENTIAL

## Drill-Stem Test Data

Well Name HARRIS #1-28 Test No. 5 Date 4/11/94  
 Company MURFIN DRILLING CO Zone MORROW  
 Address 250 N. WATER-SWT# 300 WICHITA KS 67202 Elevation 2763  
 Co. Rep./Geo. PAUL GODOWIC Cont. MURFIN DRLG RIG #21 Est. Ft. of Pay \_\_\_\_\_  
 Location: Sec. 28 Twp. 31S Rge. 30W Co. MEADE State KS  
API# 15-119-20895

Interval Tested	<u>5420-5500</u>	Drill Pipe Size	<u>4.5" XH</u>
Anchor Length	<u>80</u>	Wt. Pipe I.D. - 2.7 Ft. Run	_____
Top Packer Depth	<u>5415</u>	Drill Collar - 2.25 Ft. Run	<u>404</u>
Bottom Packer Depth	<u>5420</u>	Mud Wt.	<u>9.1</u> lb/Gal.
Total Depth	<u>5500</u>	Viscosity	<u>49</u>
		Filtrate	<u>9.4</u>

Tool Open @ 4:05 AM Initial Blow STRONG BLOW-BOTTOM OF BUCKET IN 15 SECONDS  
bled off BLOW-WEAK BLOW-BUILT TO BOTTOM OF BUCKET IN 30 MINUTES  
 Final Blow FAIR BLOW-BUILT TO BOTTOM OF BUCKET IN 1.5 MINUTES  
FSI: BLED OFF BLOW-WEAK BLOW-BUILT TO BOTTOM IN 20 MINUTES/GTS IN 40 MINUTE

Recovery - Total Feet 90 Flush Tool? NO

Rec. 90 Feet of GASSY DRILLING MUD  
 Rec. \_\_\_\_\_ Feet of \_\_\_\_\_  
 Rec. \_\_\_\_\_ Feet of \_\_\_\_\_  
 Rec. \_\_\_\_\_ Feet of \_\_\_\_\_  
 Rec. \_\_\_\_\_ Feet of \_\_\_\_\_

KCC  
JUN 15  
**CONFIDENTIAL**

BHT 124 °F Gravity \_\_\_\_\_ °API @ \_\_\_\_\_ °F Corrected Gravity \_\_\_\_\_ °API  
 RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm Recovery Chlorides 3000 ppm System

(A) Initial Hydrostatic Mud	<u>2576.7</u> PSI	AK1 Recorder No.	<u>13615</u>	Range	<u>4575</u>
(B) First Initial Flow Pressure	<u>61.8</u> PSI	@ (depth)	<u>5424</u>	w / Clock No.	<u>25813</u>
(C) First Final Flow Pressure	<u>53.6</u> PSI	AK1 Recorder No.	<u>11038</u>	Range	<u>5075</u>
(D) Initial Shut-in Pressure	<u>82.2</u> PSI	@ (depth)	<u>5497</u>	w / Clock No.	<u>25814</u>
(E) Second Initial Flow Pressure	<u>53.6</u> PSI	AK1 Recorder No.	_____	Range	_____
(F) Second Final Flow Pressure	<u>57.7</u> PSI	@ (depth)	_____	w / Clock No.	_____
(G) Final Shut-in Pressure	<u>65.9</u> PSI	Initial Opening	<u>30</u>	Final Flow	<u>60</u>
(H) Final Hydrostatic Mud	<u>2574.2</u> PSI	Initial Shut-in	<u>60</u>	Final Shut-in	<u>90</u>

Our Representative TOM HORACEK

**RELEASED**  
MAY 26 1995  
**FROM CONFIDENTIAL**

ORIGINAL

CONFIDENTIAL

COMPUTER GAS EVALUATION BY TRILOBITE TESTING, L.L.C.  
MURFIN DRILLING CO

HARRIS #1-28

DST 6

28 31S 30W

MEADE

KS

JUN 15

CONFIDENTIAL

100

\*\*\*\*\*

ELEVATION:	2763 KB	EST. PAY:	5 FT.
DATUM:	-2786	ZONE TESTED:	CHESTER
TEST INTERVAL:	5527-5551	TIME INTERVALS:	30-60-60-120
RECORDER DEPTH:	5548	VISCOSITY:	0.01581 CP
BOTTOM HOLE TEMP:	125	HOLE SIZE:	7.875 IN
COMPRESSIBILITY:	0.9976	GAS GRAVITY:	0.6731

\*\*\*\*\*

TEMPERATURE RANKINE:	585.00	&
TRANSMISSIBILITY:	324.93	Kh/%
THEORITICAL FLOW CAPICITY:	5.14	Kh
AVERAGE EFFECTIVE PERMEABILITY:	1.03	K(md.)
RADIUS OF INVESTIGATION:	9.62	FT.
DAMAGE RATIO:	7.00	
ABSOLUTE OPEN FLOW(MAX)	31.43	MCFD
ABSOLUTE OPEN FLOW(MIN)	31.42	MCFD
THEORITICAL OPEN FLOW(MAX)	219.97	MCFD
THEORITICAL OPEN FLOW(MIN)	219.85	MCFD
POTENTIOMETRIC SURFACE	0.00	(FT.)

\*\*\*\*\*

INITIAL SHUT-IN VALUES:

SLOPE	94731.24
THEORETICAL STATIC PRESSURE	1846

FINAL SHUT-IN VALUES:

SLOPE	92321.13
THEORETICAL STATIC PRESSURE	1838

DRAWDOWN FACTOR: 0.44 (%)

RELEASED

JUL 26 1995

FROM CONFIDENTIAL

HARRIS #1-28  
INITIAL

DST #6  
SHUTIN

30 INITIAL FLOW TIME Slope 94731.24 psi/cycle  
P \* 1846 psi

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	TIME(MIN)	Pws (psi)	Log Horn T	<> PRESSURE	Horn T
	3	1092.8	1.041	1092.8	11
	6	1516.7	0.778	423.9	6
	9	1680.3	0.637	163.6	4
	12	1738.4	0.544	58.1	4
	15	1761.1	0.477	22.7	3
	18	1776.2	0.426	15.1	3
	21	1783.8	0.385	7.6	2
	24	1788.9	0.352	5.1	2
	27	1793.9	0.325	5.0	2
	30	1796.4	0.301	2.5	2
	33	1801.4	0.281	5.0	2
	36	1806.5	0.263	5.1	2
	39	1810.3	0.248	3.8	2
	42	1812.9	0.234	2.6	2
	45	1814.1	0.222	1.2	2
X	48	1815.4	0.211	1.3	2
	51	1816.7	0.201	1.3	2
	54	1817.9	0.192	1.2	2
	57	1819.2	0.184	1.3	2
X	60	1820.5	0.176	1.3	2

NO  
JUN 15  
CONFIDENTIAL

HARRIS #1-28  
FINAL

DST #6  
SHUTIN

90 TOTAL FLOW TIME Slope 92321.13 psi/cycle  
P \* 1838 psi

		Pws (psi)	Log Horn T	<> PRESSURE	Horn T
	6	1441.2	1.204	1441.2	16
	12	1706.8	0.929	265.6	9
	18	1743.4	0.778	36.6	6
	24	1764.9	0.677	21.5	5
	30	1775.0	0.602	10.1	4
	36	1780.0	0.544	5.0	4
	42	1786.3	0.497	6.3	3
	48	1788.9	0.459	2.6	3
	54	1792.6	0.426	3.7	3
X	60	1795.2	0.398	2.6	3
	66	1800.2	0.374	5.0	2
	72	1802.7	0.352	2.5	2
	78	1804.0	0.333	1.3	2
	84	1806.5	0.316	2.5	2
	90	1807.8	0.301	1.3	2
	96	1809.1	0.287	1.3	2
	102	1810.3	0.275	1.2	2
	108	1810.3	0.263	0.0	2
	114	1811.6	0.253	1.3	2
	120	1811.6	0.243	0.0	2
X	126	1812.9	0.234	1.3	2

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JUL 26 1995  
FROM CONFIDENTIAL

ORIGINAL

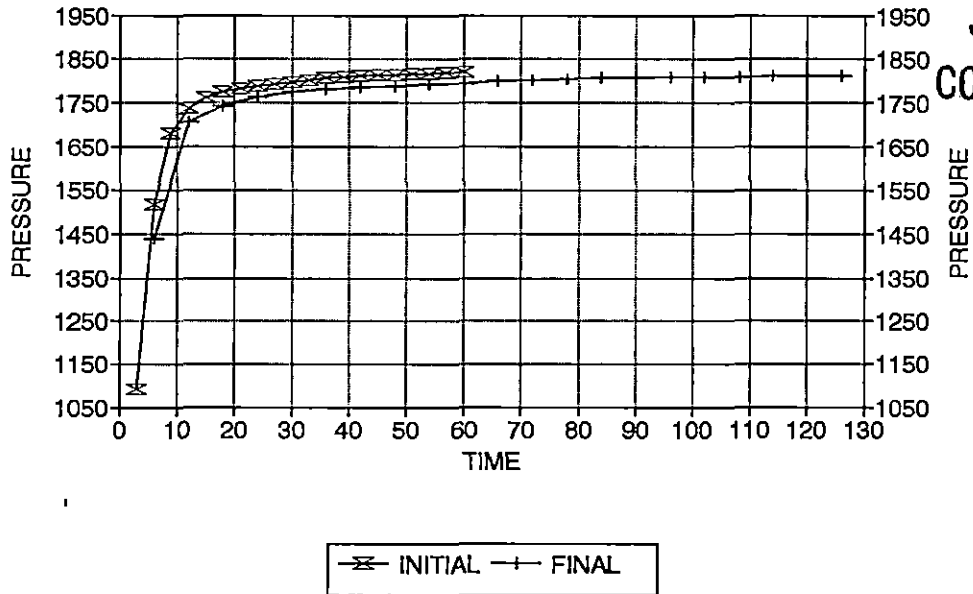
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### HARRIS #1-28 / DST #6 DELTA T DELTA P

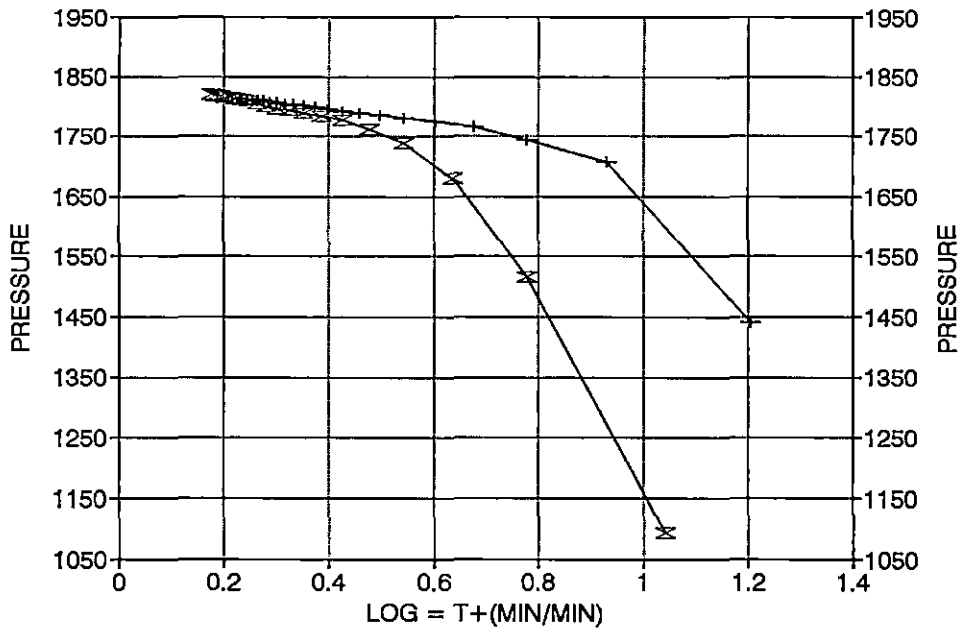
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JUN 15

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### HORNER PLOT







# TRIOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

# COPY

## Test Ticket

# CONFIDENTIAL

No. 6936

Well Name & No. Harris # 1-28 Test No. # 6 Date 4-12-94  
 Company Murkin Drilling Company Inc. Zone Tested Chester Sd.  
 Address 250 N. Water Suite 300, Wichita Ks, 67202 Elevation 2763 (KB)  
 Co. Rep./Geo. Paul Godowic cont. Murkin Dr # 21 Est. Ft. of Pay 5'  
 Location: Sec. 28 Twp. 31 Rge. 30 Co. meade State Ks  
 No. of Copies \_\_\_\_\_ Distribution Sheet \_\_\_\_\_ Yes \_\_\_\_\_ No \_\_\_\_\_ Turnkey \_\_\_\_\_ Yes X No \_\_\_\_\_ Evaluation \_\_\_\_\_

Interval Tested 5527-5551 Drill Pipe Size 4.5 x-Hole  
 Anchor Length 24 Top Choke - 1" \_\_\_\_\_ Bottom Choke - 1/4" \_\_\_\_\_  
 Top Packer Depth ORIGINAL 5522 Hole Size - 7 7/8" \_\_\_\_\_ Rubber Size - 6 3/4" \_\_\_\_\_  
 Bottom Packer Depth 5527 Wt. Pipe I.D. - 2.7 Ft. Run \_\_\_\_\_  
 Total Depth 5551 Drill Collar - 2.25 Ft. Run 461'  
 Mud Wt. 9.0 lb/gal. Viscosity 45 Filtrate 9.2  
 Tool Open @ 11:30 AM Initial Blow strong blow Bottom of bucket 1min  
 ( 675 in 20 min ) nil  
 Final Blow Bottom of bucket as tool opened JUN 15

Recovery - Total Feet 125' Feet of Gas In Pipe \_\_\_\_\_ Caused @ 31.4 MCF Flush Tool? NO

Rec.	Feet Of	%gas	%oil	%water	%mud
Rec.	<u>125'</u>				
Rec.					
Rec.					
Rec.					

BHT 125 °F Gravity \_\_\_\_\_ °API @ \_\_\_\_\_ °F Corrected Gravity \_\_\_\_\_ °API

RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm Recovery Chlorides 280 ppm System

(A) Initial Hydrostatic Mud 2683 PSI AK1 Recorder No. 13615 Range 4575  
 (B) First Initial Flow Pressure 55 PSI @ (depth) 5530 w/Clock No. 25813  
 (C) First Final Flow Pressure 55 PSI AK1 Recorder No. 11038 Range 5075  
 (D) Initial Shut-In Pressure 1839 PSI @ (depth) 5548 w/Clock No. 25814  
 (E) Second Initial Flow Pressure 55 PSI AK1 Recorder No. \_\_\_\_\_ Range \_\_\_\_\_  
 (F) Second Final Flow Pressure 55 PSI @ (depth) \_\_\_\_\_ w/Clock No. \_\_\_\_\_  
 (G) Final Shut-In Pressure 1814 PSI Initial Opening 30 Test X 700.00  
 (H) Final Hydrostatic Mud 2606 PSI Initial Shut-In 60 Jars X 200.00

TRIOBITE 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 60 Safety Joint X 500.00  
 Final Shut-In 120 Straddle \_\_\_\_\_

Approved By Paul Godowic  
 Our Representative Tom Horacek

RELEASED  
 JUL 26 1995

Circ. Sub \_\_\_\_\_  
 Sampler X 200.00  
 Extra Packer \_\_\_\_\_  
 Other \_\_\_\_\_

**TRILOBITE TESTING L.L.C.**

P.O. Box 362 - Hays, Kansas 67601

ORIGINAL

CONFIDENTIAL

**FLUID SAMPLER DATA**

Ticket No. 6936 Date 4-12-94  
 Company Name Murfin Drilling Company Inc.  
 Lease Harris #1-28 Test No. 26  
 County Meade Ks Sec. 28 Twp. 31 Rng. 30

**SAMPLER RECOVERY**

Gas 21.7 C.F. ML  
 Oil \_\_\_\_\_ ML  
 Mud \_\_\_\_\_ ML  
 Water \_\_\_\_\_ ML  
 Other \_\_\_\_\_ ML  
 Pressure 1510 PSI  
 Total 4,000 ML

**PIT MUD ANALYSIS**

Chlorides 2750 ppm.  
 Resistivity \_\_\_\_\_ ohms @ \_\_\_\_\_ F  
 Viscosity 45 ML  
 Mud Weight 9.0 JUN 1 5  
 Filtrate 9.2 CONFIDENTIAL  
 Other \_\_\_\_\_

**SAMPLER ANALYSIS**

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

**PIPE RECOVERY**

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

**RELEASED**

**JUL 26 1995**

**FROM CONFIDENTIAL**

GAS VOLUME REPORT

NUC

JUN 15  
CONFIDENTIAL

CONFIDENTIAL

MURFIN DRILLING CO

HARRIS #1-28

DST # 6

MIN	INCHES OF WTR	ORIFICE	MCF/D	MIN	PSIG	ORIFICE	MCF/D
25	72	0.25	14.3	10	1.5	0.375	23.3
30	90	0.25	15.9	20	2	0.375	27
				30	2.5	0.375	31.4
				40	2.5	0.375	31.4
				50	2.5	0.375	31.4
				60	2.5	0.375	31.4

Remarks: GAS TO SURFACE IN 20 MINUTES/ GAS WILL BURN

NATURAL GAS ANALYSIS REPORT

Sampled by:  
Trilobite Testing, L.L.C.  
Hays, Kansas  
Scott City, Kansas  
Phone: 800-728-5369  
Fax: 913-625-5620

Analyzed by:  
Caraway Analytical, L.L.C.  
728 North Roosevelt  
Liberal, Kansas 67901  
Phone: 316-324-5389  
Fax: 316-626-7108

Lab Number:	940182	Analyzed:	04/12/94
Sample From:	Harris 1-28 #6	Pressure:	
Producer:	Marfin Drilling	Temperature:	
Date:		Location:	28-30-31W
Time:		County:	Meade
Sampler:		State:	Kansas
Source:	API#15-119-20895	Formation:	Chester

	Mole %	GPM
Helium	He:	0.000
Oxygen	O2:	0.000
Nitrogen	N2:	8.941
Carbon Dioxide	CO2:	0.000
Methane	C1:	81.909
Ethane	C2:	5.163
Propane	C3:	2.153
Iso Butane	iC4:	0.289
Normal Butane	nC4:	0.608
Iso Pentane	iC5:	0.189
Normal Pentane	nC5:	0.256
Hexanes Plus	C6+:	0.492

TOTAL: 100.000 2.637  
 Z Fact: 0.9976  
 SP.GR.: 0.6731  
 BTU (SAT): 1031.7 @ 14.73 psia  
 BTU (DRY): 1050.0 @ 14.73 psia  
 OCTANE RATING: 115.1

ncc  
JUN 15  
CONFIDENTIAL

COMMENTS: Sample entered under vacuum  
Insufficient pressure for Helium analysis

RELEASED

JUL 26 1995

Caraway Analytical, 12-Apr-94

FROM CONFIDENTIAL



# ALLIED CEMENTING CO., INC.

7582

Home Office P. O. Box 31

Russell, Kansas 67665

## CONFIDENTIAL

*new*

Date	4-15-94	Sec.	28	Twp.	31	Range	30	Called Out	1:00 AM	On Location	6:45 AM	Job Start	7:30 AM	Finish	6:15 PM
Lease	Harris	Well No.	1-28	Location	Plains 3N-14E-N15			County	Meade	State	Kan				
Contractor	Murfine Drly Co #21														
Type Job	Production strings														
Hole Size	7 7/8	T.D.	5970'												
Csg.	4 1/2	Depth	3309'												
Tbg. Size		Depth													
Drill Pipe		Depth	ORIGINAL												
Tool		Depth													
Cement Left in Csg.	4.5'	Shoe Joint	45'												
Press Max.		Minimum													
Meas Line		Displace	✓ 51.8 BBL												
Perf.															

**EQUIPMENT**

No.	Cementer	
Pumptrk 300	Helper	Terry-Walt Wayne
No.	Cementer	
Pumptrk	Helper	RELEASED
	Driver	H.G. 2 6 1995
Bulktrk 3013	Driver	

FROM CONFIDENTIAL

<b>DEPTH of Job</b>		
Reference:	Pumptruck	980 <sup>00</sup>
	2.25 per mile	90 <sup>00</sup>
	Sub Total	
	Tax	
	Total	1070 <sup>00</sup>

Remarks: Set 2 Plugs on bottom  
 35 sks @ 5600'  
 35 sks @ 3500'  
 15 sks in P.H. 10 in M.H.  
 Float Held

Owner Same  
 To Allied Cementing Co., Inc.  
 You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.

Charge To Murfine Drly Co  
 Street 250 N. Water, St 300  
 City Wichita State Kan 67202  
 The above was done to satisfaction and supervision of owner agent or contractor.

Purchase Order No. *[Signature]*  
 X

**CEMENT**

Amount Ordered	500 gal WFR-2	46.5 sks 50% soap, 10% salt, 3/4 of 1% FI-28
Consisting of	Common	233 sks @ 6 <sup>85</sup> 1,596 <sup>00</sup>
	Poz. Mix	232 sks @ 3 <sup>00</sup> 696 <sup>00</sup>
	Salt	40 sks @ 7 <sup>00</sup> 280 <sup>00</sup>
	FI-28	296 lbs @ 8 <sup>25</sup> 2,450 <sup>00</sup>
	Quickset	500 gal WFR-2 @ 1 <sup>00</sup> 500 <sup>00</sup>

Handling	1 <sup>00</sup> per sk	46.5 <sup>00</sup>
Mileage	4¢ per sk 1/2 mi	744 <sup>00</sup>
40 miles		
	JUN 15	Sub Total
	<b>CONFIDENTIAL</b>	5,522 <sup>93</sup>
		Total

Floating Equipment 4 1/2

1- Guide shoe	- 109 <sup>00</sup>
1- Loc down insert	- 162 <sup>00</sup>
1- Basket	- 113 <sup>00</sup>
8- Centralizers	- 421 <sup>00</sup>
120' Scratchers	- 9,720 <sup>00</sup>
Float	- 400 <sup>00</sup>
<b>Total</b>	<b>11,720<sup>00</sup></b>

RECEIVED  
 STATE COMMISSION  
 JUN 16 1994  
 CONSERVATION DIVISION  
 Wichita, Kansas

Russell, KS  
Phone 316-793-5861, Great Bend, KS

Phone 913-625-5516, Hays, KS  
Phone 913-672-3471, Oakley, KS

Phone 316-886-5926, Medicine Lodge, KS  
Phone 913-798-3843, Ness City, KS

# ALLIED CEMENTING CO., INC.

Home Office P. O. Box 31

Russell, Kansas 67665

7576  
**CONFIDENTIAL**

*new*

Date	3-30-94	Sec.	28	Twp.	31	Range	30	Called Out		On Location	4:30 AM	Job Start		Finish	11:00 AM
Lease	Harris	Well No.	1-28	Location	Plains	3N-10E-14N		County	Meade	State	Kan				
Contractor	MurFin Dls Co #21														
Type Job	Surface														
Hole Size	12 1/4	T.D.	1705'												
Csg.	8 5/8	Depth	1702'												
Tbg. Size		Depth													
Drill Pipe		Depth	ORIGINAL												
Tool		Depth													
Cement Left in Csg.	43'	Shoe Joint	43.37'												
Press Max.		Minimum													
Meas Line		Displace	✓												
Perf.															

Owner Same  
To Allied Cementing Co., Inc.  
You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.

Charge To MurFin Dls Co, Inc  
Street 250 N. Water, St 300  
City Wichita State Kan 67202

The above was done to satisfaction and supervision of owner agent or contractor.

Purchase Order No. *Bill Wey*

**CEMENT**

Amount Ordered	150 sks com, 3%cc-2%gel, 1/4 Flo-Seal		
Consisting of	550 sks Lite, 3%cc, 1/4 Flo-Seal		
Common	150 sks @ 6.85		1,027.50
Lite-Mix	550 sks @ 5.85		3,217.50
Gel.	3 sks @ 9.00		27.00
Chloride	23 sks @ 25.00		575.00
Quickset Flo-Seal	175# @ 1.10		192.50

**EQUIPMENT**

Okley	No.	Cementer		
Pumptrk	300	Helper	Walt	
	No.	Cementer	Terry	
Pumptrk		Helper		
		Driver	Robert	
Bulktrk	309			
Bulktrk	303	Driver	Wayne	

**DEPTH of Job**

Reference:	Pumptruck	980.00
	8 5/8 Rubber Plus	83.00
	2.25 per mile	90.00
	Sub Total	
	Tax	
	Total	1,153.00

Remarks:

Cement Diel Circ **RELEASED**  
JUN 26 1995  
Float Held

FROM CONFIDENTIAL

Handling	1.00 per sk	700.00
Mileage	4¢ per sk/mile @ 40 miles	1,120.00
	JUN 15	Sub Total
	<b>CONFIDENTIAL</b>	Total
		4,832.50

Floating Equipment	8 5/8	
1- Regular Guide Shoe		224.00
1- AFU insert		122.00
2- Centralizers		122.00
1- Basket		122.00
Total =		784.00

RECEIVED  
STATE CORP COMMISSION  
JUN 17 1994  
CONSERVATION DIVISION  
Wichita, Kansas