

15-067-21439

TRILOBITE TESTING L.L.C.

28-29S-37W

OPERATOR : Zinke & Trumbo Inc.

DATE 1-29-99

WELL NAME: Calhoun "1-28"

KB 3075.00 ft

TICKET NO: 10229

DST #1

LOCATION : 28-29S-37W Grant co KS

GR 3065.00 ft

FORMATION: Lansing

INTERVAL : 4350.00 To 4395.00 ft

TD 4425.00 ft

TEST TYPE: CONV-SRADDLE

RECORDER DATA

Mins	Field	1	2	3	4	TIME DATA-----
PF 30 Rec.	10242	10242	Alpine	13630		PF Fr. 2310 to 2340 hr
SI 60 Range(Psi)	4100.0	4100.0	5000.0	4625.0	0.0	IS Fr. 2340 to 0040 hr
SF 60 Clock(hrs)	12 HR	12 HR	12 HR	12 HR		SF Fr. 0040 to 0140 hr
FS 120 Depth(ft)	4389.0	4389.0	4355.0	4422.0	0.0	FS Fr. 0140 to 0340 hr

	Field	1	2	3	4	
A. Init Hydro	2097.0	2101.0	2066.0	0.0	0.0	T STARTED 2030 hr
B. First Flow	32.0	63.0	26.0	0.0	0.0	T ON BOTM 2307 hr
B1. Final Flow	63.0	85.0	97.0	0.0	0.0	T OPEN 2310 hr
C. In Shut-in	1201.0	1220.0	1193.0	0.0	0.0	T PULLED 0340 hr
D. Init Flow	112.0	143.0	100.0	0.0	0.0	T OUT 0700 hr
E. Final Flow	191.0	219.0	211.0	0.0	0.0	
F. Fl Shut-in	1201.0	1220.0	1186.0	0.0	0.0	TOOL DATA-----
G. Final Hydro	2078.0	2099.0	2058.0	0.0	0.0	Tool Wt. 2300.00 lbs
Inside/Outside	O	O	I	S		Wt Set On Packer 32000.00 lbs
						Wt Pulled Loose 23000.00 lbs
						Initial Str Wt 82000.00 lbs
						Unseated Str Wt 82000.00 lbs
						Bot Choke 0.75 in
						Hole Size 7.78 in
						D Col. ID 2.25 in
						D. Pipe ID 3.80 in
						D.C. Length 658.00 ft
						D.P. Length 3674.00 ft

RECOVERY

Tot Fluid 405.00 ft of 405.00 ft in DC and 0.00 ft in DP

30.00 ft of Mud 100% mud

100.00 ft of Mud cut Water 70% water 30% mud

275.00 ft of Gassy Water 3% gas 97% water

0.00 ft of

0.00 ft of

0.00 ft of

0.00 ft of

0.00 ft of

SALINITY 31000.00 P.P.M. A.P.I. Gravity 0.00

BLOW DESCRIPTION

Initial Flow:

Surface blow built back to 9" in 30 mins.

Initial Shut-in:

No blow back

Final Flow:

Surface blow built to strong off bottom of bucket in 49 mins.

Final Shut-in:

No blow back

MUD DATA-----

Mud Type	Chemical
Weight	9.10 lb/cf
Vis.	41.00 S/L
W.L.	8.40 in3
F.C.	0.00 in
Mud Drop Y	10.0 ft
Amt. of fill	0.00 ft
Btm. H. Temp.	111.00 F
Hole Condition	Good
% Porosity	20.00
Packer Size	6.75 in
No. of Packers	3
Cushion Amt.	0.00
Cushion Type	
Reversed Out N	
Tool Chased N	
Tester	Lanny Saloga
Co. Rep.	Ken Leblanc
Contr.	Big A
Rig #	2
Unit #	
Pump T.	

SAMPLES: None

SENT TO:

Test Successful: Y

*** TOOL DIAGRAM *** CONV-SRADDLE

WELL NAME: Calhoun "1-28"	P.O. SUB Cir. sub	4228
	C.O. SUB Top of tool	4320
	Double pin	4321
LOCATION : 28-29S-37W	S.I. TOOL H&T	4326
TICKET No. 10229 D.S.T. No. 1 DATE 1-29-99	Sampler	4329
TOTAL TOOL TO BOTTOM OF TOP PACKERS 30	HMV Sterling	4334
INTERVAL TOOL 30	JARS Bowen	4339
BOTTOM PACKERS AND ANCHOR 14		
TOTAL TOOL 74		
DRILL COLLAR ANCHOR IN INTERVAL		
D.C. ANCHOR STND.Stands Single Total	SAFETY JOINT Bowen	4341
D.P. ANCHOR STND.Stands Single 1 Total 31	PACKER Sparton	4346
TOTAL ASSEMBLY 105	PACKER Sparton	4350
D.C. ABOVE TOOLS.Stands 7 Single Total 658	DEPTH	
D.P. ABOVE TOOLS.Stands 39 Single 1 Total 3674	STUBB 3 ft. perfs	4354
	ANCHOR Co. sub	4355
TOTAL DRILL COLLARS DRILL PIPE & TOOLS .. 4437	Alpine	4355
	1 jt. DP	4386
TOTAL DEPTH 4425	Co. sub	4387
TOTAL DRILL PIPE ABOVE K.B. 12	AK-1	4389
REMARKS:	Pu. sub	4392
FLUID SAMPLER DATA	Blank	4392
Total Vol. 5000 ML.	3 ft. of packer	4395
Total Vol. Rec. 4800 ML.		
Oil 0 ML.	T.C.	
Mud 0 ML.	DEPTH	
Wtr. 4800 ML.	PACKER Sparton "Center"	4395
Gas 2.3 CF.	2 ft. of packer	4397
Psi. 160		
Bht. 111 F.		
Pit RW. 6.2 Ohms at 52 F. 1,200 PPM.	AK-1	4422
Rec RW. 0.30 Ohms at 51 F. 31,000 PPM.	26 ft. perfs	4423
Gravity -- at -- F.	BULLNOSE 2 ft. perf	
	T.D.	4425

TEST HISTORY

102229 D.S.T. #1 Calhoun "1-28" Zinke & Trumbo Inc.

Flag Points
t(Min.) P(PSig)

A:	0.00	2066.55
B:	0.00	26.36
C:	30.00	97.28
D:	59.00	1193.65
E:	0.00	100.44
F:	60.50	211.71
G:	121.00	1186.58
H:	0.00	2058.04

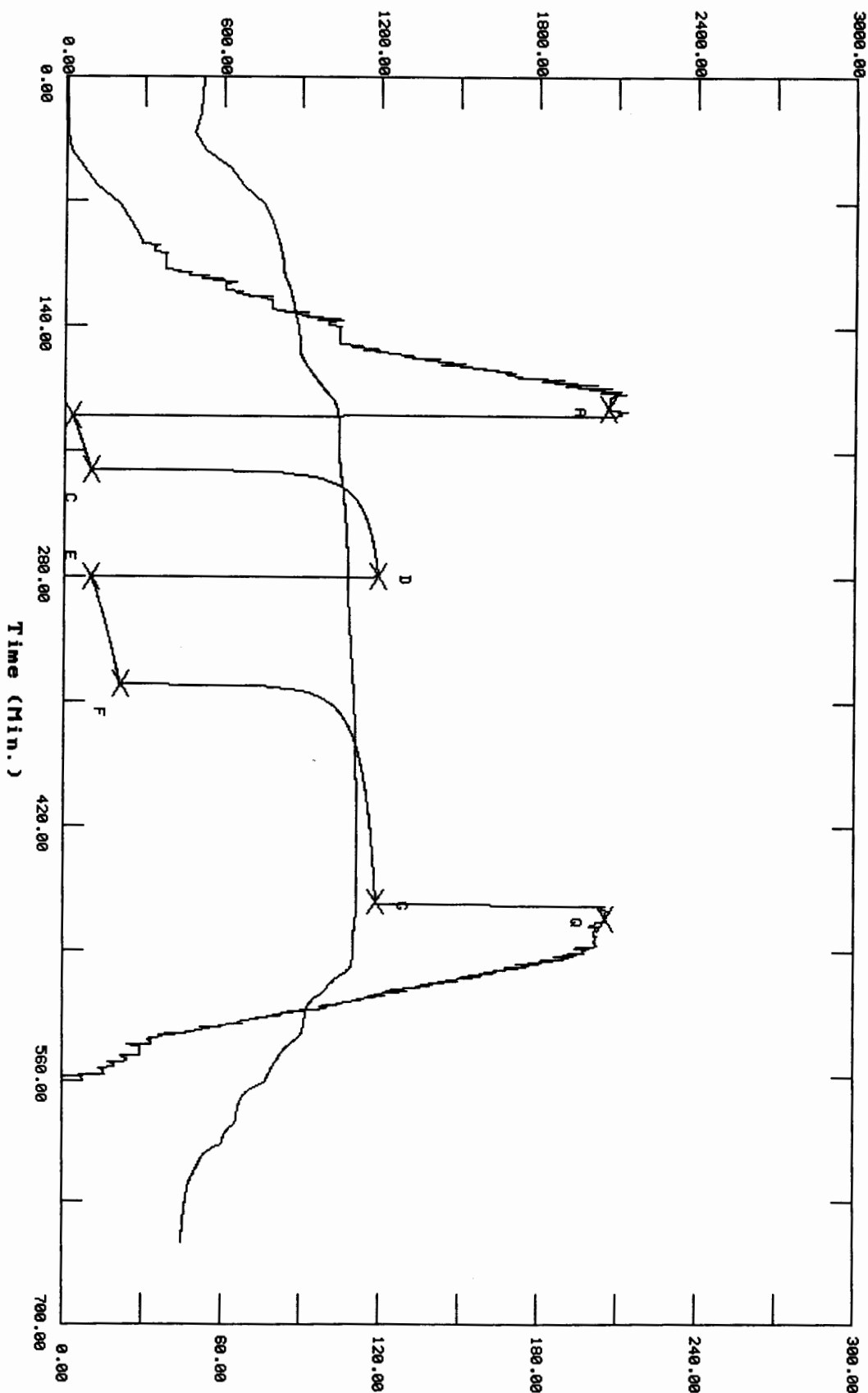
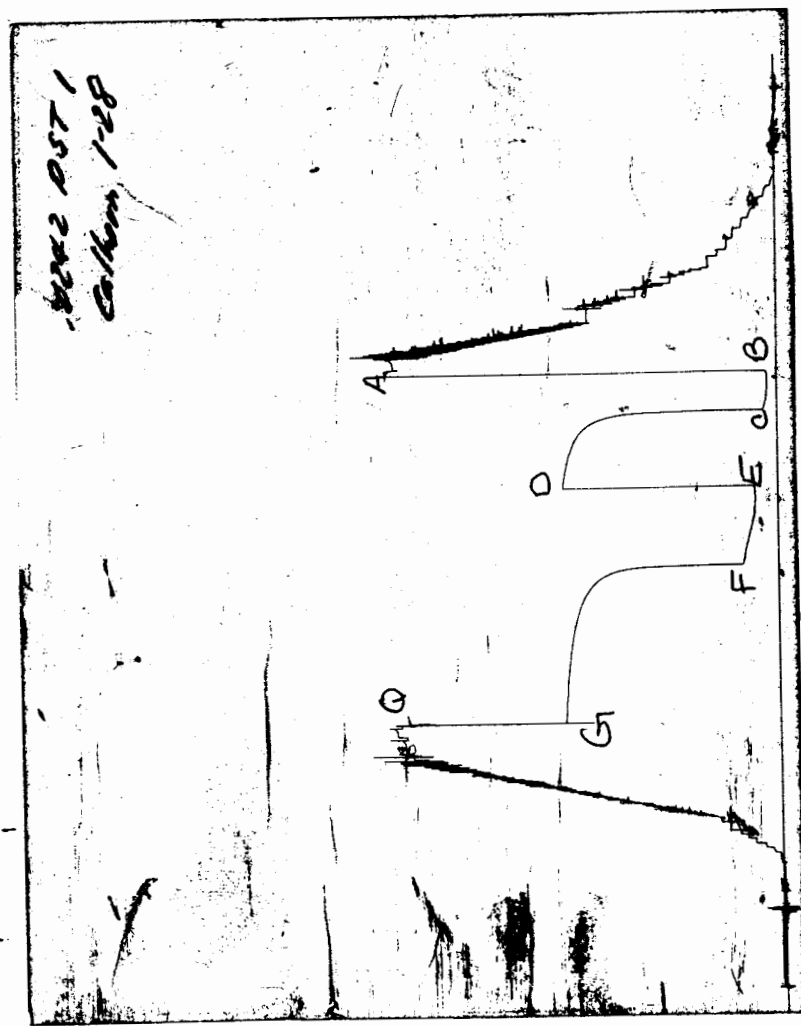
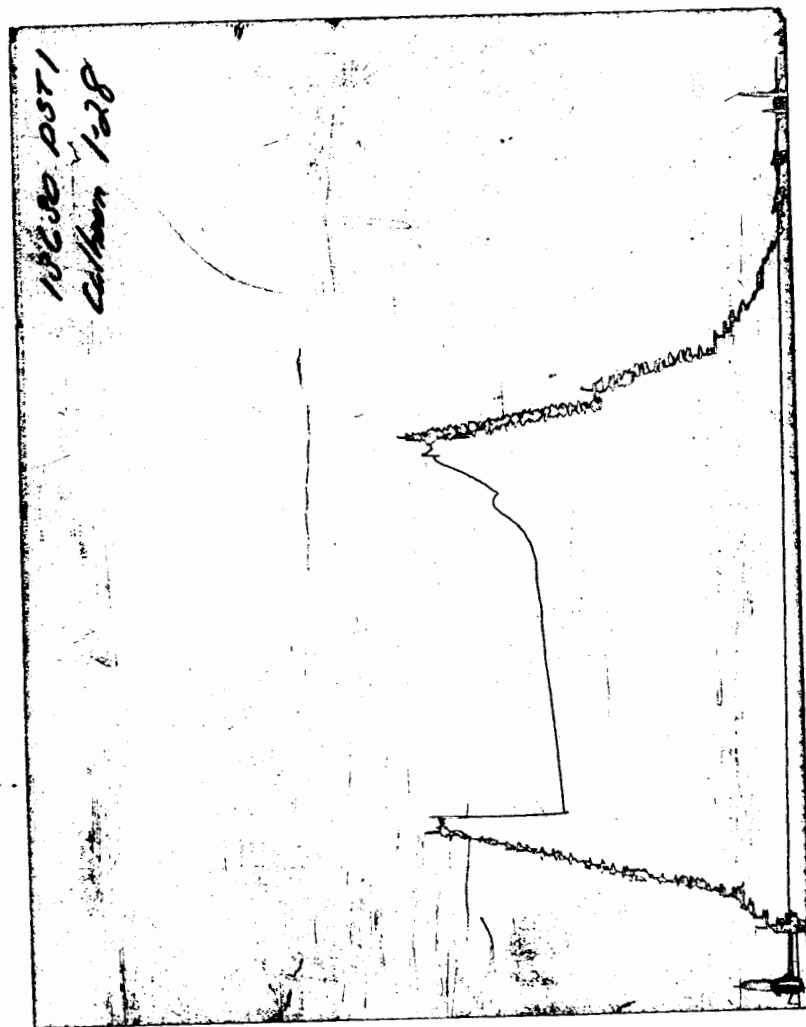


CHART PAGE



This is a photocopy of the actual AK-1 recorder chart

CHART PAGE



This is a photocopy of the actual AK-1 recorder chart

TRILOBITE TESTING L.L.C.

P.O. Box 362 - Hays, Kansas 67601

FLUID SAMPLER DATA

Ticket No. 10229 Date 1-29-99
Company Name Zinke + Trumba Inc.
Lease Calhoun "1-28" Test No. 1
County Grant KS. Sec. 28 Twp. 29S Rng. 37W.

SAMPLER RECOVERY

Gas 2.3 C.F. #
Oil 0 ML
Mud 0 ML
Water 4800 ML
Other 0 ML
Pressure 160 PSI
Total Vol. Rec. = 4800 ML
Total Vol. Chamber 5000 ML.

SAMPLER ANALYSIS

Resistivity 0.30 ohms @ 51 F
Chlorides 34,000 ppm.
Gravity — corrected @ 60 F

PIT MUD ANALYSIS

Chlorides 1,200 ppm.
Resistivity 6.2 ohms @ 52 F
Viscosity 41
Mud Weight 9.1
Filtrate 8.4
Other 2# L.C.M.

PIPE RECOVERY

TOP
Resistivity — ohms @ — F
Chlorides — ppm.

MIDDLE
Resistivity — ohms @ — F
Chlorides — ppm.

BOTTOM
Resistivity 0.30 ohms @ 51 F
Chlorides 34,000 ppm.

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

No 10229

Well Name & No. <u>Calhoun "1-28"</u>	Test No. <u>1</u>	Date <u>1-29-99</u>
Company <u>Zinke & Tumbo Inc.</u>	Zone Tested <u>Lansing</u>	
Address <u>Tulsa Ok.</u>	Elevation <u>3075</u> KB <u>3065</u> GL	
Co. Rep / Geo. <u>Ken Leblanc</u>	Cont. <u>Bq A #2</u>	Est. Ft. of Pay <u>10</u> Por <u>20</u> %
Location: Sec. <u>28</u>	Twp. <u>29S</u>	Rge. <u>37W</u> Co. <u>Grant</u> State <u>Ks.</u>
No. of Copies <u>Reg.</u>	Distribution Sheet (Y, N) <u>Y</u>	Turnkey (Y, N) <u>N</u> Evaluation (Y, N) <u></u>

Interval Tested 4350-4395 Initial Str Wt./Lbs 8200 Unseated Str Wt./Lbs. 82000
Anchor Length 45' Tail = 30' Tool = 30' Wt. Set Lbs. 32,000 Wt. Pulled Loose/Lbs 23,000
Top Packer Depth 4345 Tool Weight 2,300
Bottom Packer Depth 4350 S-Packer = 4395 Hole Size — 7 7/8" Rubber Size — 6 3/4"
Total Depth 4425 Wt. Pipe Run — Drill Collar Run 658
Mud Wt. 9.1 LCM 2# Vis. 41 WL 8.4 Drill Pipe Size 4 1/2 XH Ft. Run 3674 12' up
Blow Description Surface blow, built to 9" in 30 min. T.S.P.
No blow-back. T.S.P.
Surface blow, built to strong ORB in 49 min. F.F.P.
No blow-back. F.S.P.

Recovery — Total Feet	GIP	Ft. in DC	Ft. in DP
<u>405</u>	<u>0</u>	<u>405</u>	<u>0</u>
Rec. <u>30</u> Feet Of <u>Mud</u>	%gas	%oil	%water <u>100</u> %mud
Rec. <u>100</u> Feet Of <u>Mud cut Wt.</u>	%gas	%oil <u>70</u>	%water <u>30</u> %mud
Rec. <u>275</u> Feet Of <u>Grassy Wt.</u>	<u>3</u> %gas	%oil <u>97</u>	%water %mud
Rec. _____ Feet Of _____	%gas	%oil	%water %mud
Rec. _____ Feet Of _____	%gas	%oil	%water %mud

BHT 111 °F Gravity — °API D@ — °F Corrected Gravity — °API

RW On 30 @ 51 °F Chlorides 31,000 ppm Recovery Chlorides 1,200 ppm System

(A) Initial Hydrostatic Mud	PSI	Recorder No.	T-Started
<u>2097</u> <u>2066</u>	<u>2017</u>	<u>"20:00"</u>	<u>8:30 P.M.</u>
(B) First Initial Flow Pressure	PSI	(depth)	T-Open
<u>32</u> <u>26</u>	<u>4355</u>	<u>11:10 P.M.</u>	
(C) First Final Flow Pressure	PSI	Recorder No.	T-Pulled
<u>63</u> <u>97</u>	<u>10242</u>	<u>3:40 A.M.</u>	
(D) Initial Shut-in Pressure	PSI	(depth)	T-Out
<u>1201</u> <u>1193</u>	<u>4389</u>	<u>7:00 A.M.</u>	
(E) Second Initial Flow Pressure	PSI	Recorder No.	
<u>112</u> <u>100</u>	<u>13630</u>		
(F) Second Final Flow Pressure	PSI	(depth)	
<u>191</u> <u>211</u>	<u>4422</u>		
(G) Final Shut-in Pressure	PSI	Initial Opening	Test
<u>1201</u> <u>1186</u>	<u>30</u>	<u>700</u>	<u>✓</u>
(H) Final Hydrostatic Mud	PSI	Initial Shut-in	Jars
<u>2078</u> <u>2058</u>	<u>60</u>	<u>200</u>	<u>✓</u>

1299200.017

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

Ken Leblanc

Our Representative

Jimmy S. Salgan

Final Flow 60 Safety Joint 150 ✓
Final Shut-in 120 Straddle 1250 ✓
Circ. Sub 1 ✓
Sampler 200 ✓
Extra Packer 150 ✓
Elect. Rec. 150 ✓
Other _____
TOTAL PRICE \$ 1700

TRILOBITE TESTING L.L.C.

OPERATOR : Zinke & Trumbo Inc.

DATE 1-30-99

WELL NAME: Calhoun "1-28"

KB 3075.00 ft

TICKET NO: 10230 DST #2

LOCATION : 28-29S-37W Grant co KS

GR 3065.00 ft

FORMATION: Lansing

INTERVAL : 4470.00 To 4505.00 ft

TD 4505.00 ft

TEST TYPE: CONVENTIONAL

RECORDER DATA

Mins	Field	1	2	3	4	TIME DATA-----
PF 30 Rec.	10242	10242	Alpine			PF Fr. 2115 to 2145 hr
SI 60 Range(Psi)	4100.0	4100.0	5000.0	0.0	0.0	IS Fr. 2145 to 2245 hr
SF 60 Clock(hrs)	12 HR	12 HR	12 HR			SF Fr. 2245 to 2345 hr
FS 120 Depth(ft)	4502.0	4502.0	4472.0	0.0	0.0	FS Fr. 2345 to 0145 hr

	Field	1	2	3	4	
A. Init Hydro	2158.0	2176.0	2128.0	0.0	0.0	T STARTED 1920 hr
B. First Flow	32.0	61.0	29.0	0.0	0.0	T ON BOTM 2112 hr
B1. Final Flow	123.0	143.0	156.0	0.0	0.0	T OPEN 2115 hr
C. In Shut-in	1256.0	1272.0	1249.0	0.0	0.0	T PULLED 0145 hr
D. Init Flow	210.0	240.0	163.0	0.0	0.0	T OUT 0530 hr
E. Final Flow	355.0	380.0	338.0	0.0	0.0	
F. Fl Shut-in	1273.0	1299.0	1252.0	0.0	0.0	TOOL DATA-----
G. Final Hydro	2088.0	2087.0	2088.0	0.0	0.0	Tool Wt. 1800.00 lbs
Inside/Outside	O	O	I			Wt Set On Packer 22000.00 lbs
						Wt Pulled Loose 18000.00 lbs
						Initial Str Wt 82000.00 lbs
						Unseated Str Wt 83000.00 lbs
						Bot Choke 0.75 in
						Hole Size 7.78 in
						D Col. ID 2.25 in
						D. Pipe ID 3.80 in
						D.C. Length 658.00 ft
						D.P. Length 3798.00 ft

RECOVERY

Tot Fluid 665.00 ft of 658.00 ft in DC and 7.00 ft in DP
 70.00 ft of Mud cut Water 18% Mud 82% Water
 595.00 ft of Gassy Water 2% Gas 98% Water
 0.00 ft of
 0.00 ft of
 0.00 ft of
 0.00 ft of
 0.00 ft of
 0.00 ft of

SALINITY 46000.00 P.P.M. A.P.I. Gravity 0.00

BLOW DESCRIPTION

Initial Flow:

Surface blow built to strong off
 bottom of bucket in 21 mins.

Initial Shut-in:

No blow back

Final Flow:

Surface blow built to strong off
 bottom of bucket in 28 mins.

Final Shut-in:

No blow back

MUD DATA-----

Mud Type	Chemical
Weight	9.00 lb/cf
Vis.	42.00 S/L
W.L.	9.60 in3
F.C.	0.00 in
Mud Drop Y	10.0 ft
Amt. of fill	0.00 ft
Btm. H. Temp.	114.00 F
Hole Condition	Good
% Porosity	20.00
Packer Size	6.75 in
No. of Packers	2
Cushion Amt.	0.00
Cushion Type	
Reversed Out N	
Tool Chased N	
Tester	Lanny Saloga
Co. Rep.	Ken Leblanc
Contr.	Big A
Rig #	2
Unit #	
Pump T.	

SAMPLES: None

SENT TO:

Test Successful: Y

*** TOOL DIAGRAM *** CONVENTIONAL

WELL NAME: Calhoun "1-28"

LOCATION : 28-29S-37W

TICKET No. 10230 D.S.T. No. 2 DATE 1-30-99

TOTAL TOOL TO BOTTOM OF TOP PACKERS 30

INTERVAL TOOL

TOTAL PACKERS AND ANCHOR 35

TOTAL TOOL 65

DRILL COLLAR ANCHOR IN INTERVAL

C. ANCHOR STAND.Stands Single Total

P. ANCHOR STAND.Stands Single Total

TOTAL ASSEMBLY

C. ABOVE TOOLS.Stands 7 Single Total 658

P. ABOVE TOOLS.Stands 40 Single 2 Total 3798

TOTAL DRILL COLLARS DRILL PIPE & TOOLS .. 4521

TOTAL DEPTH 4505

TOTAL DRILL PIPE ABOVE K.B. 16

REMARKS:

FLUID SAMPLER DATA

Total Vol. 5000 ML.

Total Vol. Rec. 4900 ML.

Oil 0 ML.

Mud 0 ML.

Wtr. 4900 ML.

Gas 2.6 CF.

Psi. 180

Bht. 114 F.

Pit RW. 4.4 Ohms at 47 F. 2,000 PPM.

Rec RW. 0.17 Ohms at 68 F. 46,000 PPM.

Gravity -- at -- F.

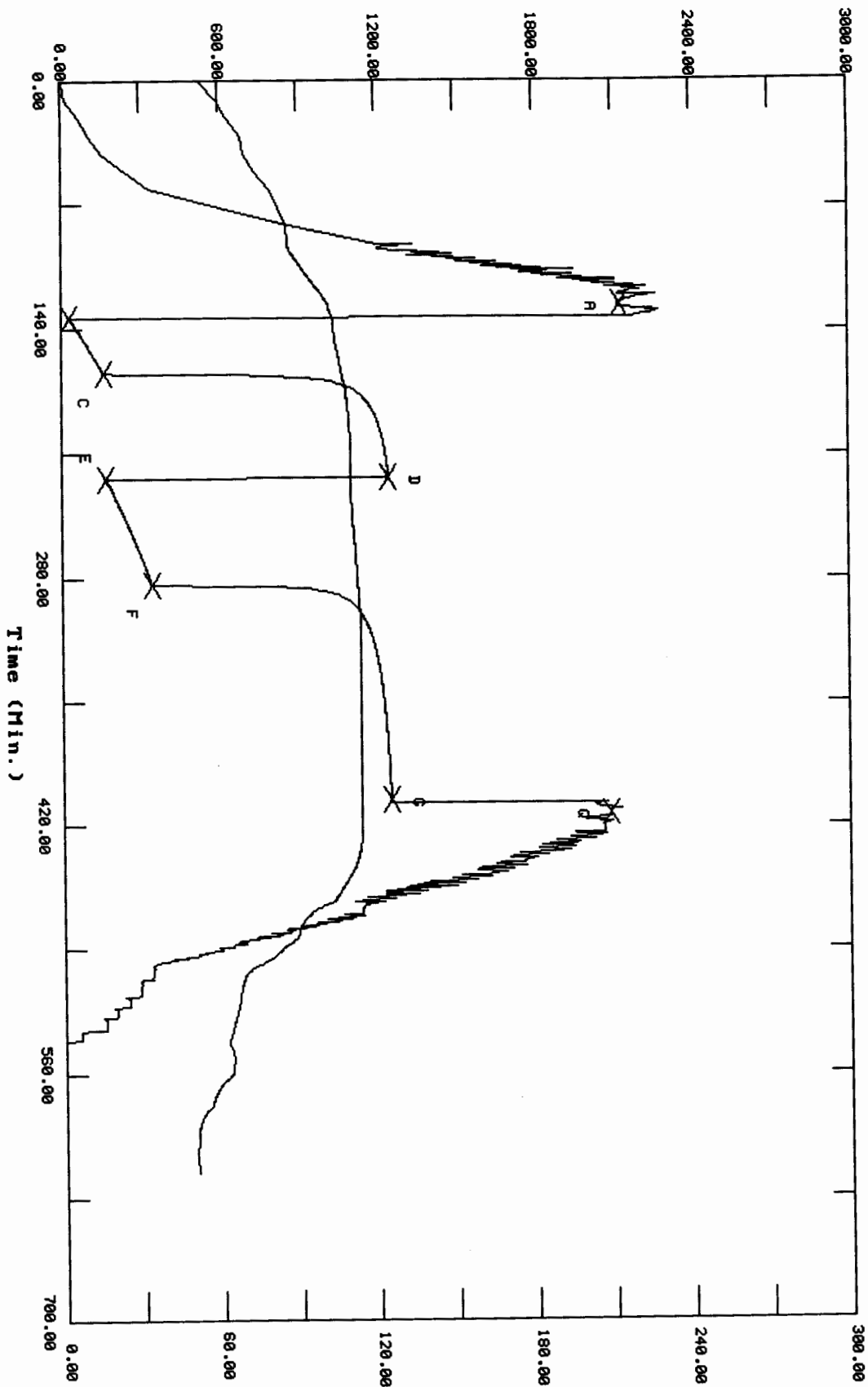
P.O. SUB Cir. sub	4348
C.O. SUB Top of tool	4440
Double pin	4441
S.I. TOOL H&T	4446
Sampler	4449
HMV Sterling	4454
JARS Bowen	4459
SAFETY JOINT Bowen	4461
PACKER Sparton	4466
PACKER Sparton	4470
DEPTH	
STUBB Rec. sub	4472
ANCHOR Alpine	4472
T.C.	
DEPTH	
Pu. sub	4477
AK-1	4502
26 ft. perfs	4503
BULLNOSE 2 ft. perf	
T.D.	4505

10230 D.S.T.#2 Calhoun "1-28" Zinke & Trumbo Inc.

TEST HISTORY

Flag Points

t(Min.)	P(PSig)
A: 0.00	2128.80
B: 0.00	29.10
C: 31.50	156.92
D: 58.50	1249.00
E: 0.00	163.03
F: 60.00	338.44
G: 121.50	1252.97
H: 0.00	2089.14



10242 DST 2
Calham 128

A hand-drawn sketch of a landscape profile. The profile shows a series of peaks and valleys. The left side is labeled 'A' at the top and 'B' at the bottom. The right side is labeled 'C' at the top and 'D' at the bottom. The profile is drawn with a thick line, and the area between the profile and the baseline is shaded with diagonal lines. The sketch is oriented vertically on the page.

10242 0572
Calhoun 128

10242 0572
Calhoun 128

TRILOBITE TESTING L.L.C.

P.O. Box 362 - Hays, Kansas 67601

FLUID SAMPLER DATA

Ticket No. 10230 Date 1-30-99
Company Name Zince & Trumbo, Inc.
Lease Calhoun "1-28" Test No. 2
County Grovet KS. Sec. 28 Twp. 29S Rng. 37W.

SAMPLER RECOVERY

Gas 2.6 CF. ~~ML~~
Oil 0 ML
Mud 0 ML
Water 4900 ML
Other 0 ML
Pressure 180 PSI
Total Vol. Rec. = 4900 ML
Total Vol. Chamber 5000 ML.

SAMPLER ANALYSIS

Resistivity 0.17 ohms @ 68 F
Chlorides 46,000 ppm.
Gravity — corrected @ 60 F

PIT MUD ANALYSIS

Chlorides 2,000 ppm.
Resistivity 4.4 ohms @ 47 F
Viscosity 42
Mud Weight 9.0
Filtrate 9.6
Other 2# L.C.M.

PIPE RECOVERY

TOP
Resistivity — ohms @ — F
Chlorides — ppm.

MIDDLE
Resistivity — ohms @ — F
Chlorides — ppm.

BOTTOM
Resistivity 0.17 ohms @ 68 F
Chlorides 46,000 ppm.

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

N^o 10230

Well Name & No. <u>Callahan "1-28"</u>	Test No. <u>2</u>	Date <u>1-30-99</u>
Company <u>Zinke & Trumba Inc.</u>	Zone Tested <u>Lansing</u>	
Address <u>Tulsa OK</u>	Elevation <u>3075</u> KB <u>3065</u> GL	
Co. Rep / Geo. <u>Ken Leblanc</u>	Cont. <u>Big A Rig 2</u>	Est. Ft. of Pay <u>22</u> Por. <u>20</u> %
Location: Sec. <u>28</u> Twp. <u>29S</u> Rge. <u>37W</u> Co. <u>Grant</u> State <u>KS</u>		
No. of Copies <u>See</u> Distribution Sheet (Y, N) <u>Y</u>	Turnkey (Y, N) <u>N</u>	Evaluation (Y, N) <u></u>

Interval Tested <u>4470 - 4505</u>	Initial Str Wt./Lbs. <u>82000</u>	Unseated Str Wt./Lbs. <u>83000</u>
Anchor Length <u>35'</u> Tail = <u>30'</u>	Wt. Set Lbs. <u>22,000</u>	Wt. Pulled Loose/Lbs. <u>18</u>
Top Packer Depth <u>4465</u>	Tool Weight <u>1,800</u>	
Bottom Packer Depth <u>4470</u>	Hole Size — 7 7/8" Rubber Size — 6 3/4"	
Total Depth <u>4505</u>	Wt. Pipe Run <u>—</u> Drill Collar Run <u>658</u>	
Mud Wt. <u>9.0</u> LCM <u>2#</u> Vis. <u>42</u> WL <u>9.6</u>	⁴⁰⁺² Drill Pipe Size <u>4 1/2 XH</u> Ft. Run <u>3798</u> <u>16' up</u>	
Blow Description <u>Surface blow, built to string OBB in 21 min. I.F.P.</u>		
<u>No blow-backs. T.S. I.P.</u>		
<u>Surface blow, built to string OBB in 28 min. F.F.P.</u>		
<u>No blow-backs. F.S. I.P.</u>		
Recovery — Total Feet <u>6665</u> GIP <u>0</u>	Ft. in DC <u>658</u>	Ft. in DP <u>7</u>
Rec. <u>70</u> Feet Of <u>Mud cut with</u>	%gas <u></u> %oil <u>82</u> %water <u>18</u> %mud <u></u>	
Rec. <u>595</u> Feet Of <u>Gassy with</u>	<u>2</u> %gas <u></u> %oil <u>98</u> %water <u></u> %mud <u></u>	
Rec. <u></u> Feet Of <u></u>	%gas <u></u> %oil <u></u> %water <u></u> %mud <u></u>	
Rec. <u></u> Feet Of <u></u>	%gas <u></u> %oil <u></u> %water <u></u> %mud <u></u>	
Rec. <u></u> Feet Of <u></u>	%gas <u></u> %oil <u></u> %water <u></u> %mud <u></u>	
BHT <u>114</u> °F Gravity <u>—</u> °API D@ <u>—</u> °F Corrected Gravity <u>—</u> °API		
RW <u>0.17</u> @ <u>68</u> °F Chlorides <u>46,000</u> ppm Recovery Chlorides <u>2000</u> ppm System		
(A) Initial Hydrostatic Mud <u>2158</u> <u>2128</u> PSI Recorder No. <u>3017</u> "19:01" T-Started <u>7:20 P.M.</u>		
(B) First Initial Flow Pressure <u>32</u> <u>29</u> PSI (depth) <u>4472</u> T-Open <u>9:15 P.M.</u>		
(C) First Final Flow Pressure <u>123</u> <u>156</u> PSI Recorder No. <u>10242</u> T-Pulled <u>1:45 A.M.</u>		
(D) Initial Shut-in Pressure <u>1256</u> <u>1249</u> PSI (depth) <u>4502</u> T-Out <u>5:30 A.M.</u>		
(E) Second Initial Flow Pressure <u>210</u> <u>163</u> PSI Recorder No. <u>—</u>		
(F) Second Final Flow Pressure <u>355</u> <u>338</u> PSI (depth) <u>—</u>		
(G) Final Shut-in Pressure <u>1273</u> <u>1252</u> PSI Initial Opening <u>30</u> Test <u>700</u> ✓		
(H) Final Hydrostatic Mud <u>2088</u> <u>2088</u> PSI Initial Shut-in <u>60</u> Jars <u>300</u> ✓		
<u>AN-1 Alpine</u>	Final Flow <u>60</u> Safety Joint <u>150</u> ✓	
<u>13091901.017</u>	Final Shut-in <u>120</u> Straddle <u>—</u>	
	Circ. Sub <u>—</u>	
	Sampler <u>200</u> ✓	
	Extra Packer <u>—</u>	
	Elect. Rec. <u>150</u> ✓	
	Other <u>18 copies 105.00</u>	
	TOTAL PRICE \$ <u>1300</u>	
	<u>1345</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 Ken Leblanc

Our Representative Jimmy J. Leblanc

TRILOBITE TESTING L.L.C.

OPERATOR : Zinke & Trumbo Inc
 WELL NAME: Calhoun #1-28
 LOCATION : 28-29S-37W Grant KS
 INTERVAL : 7440.00 To 7659.00 ft

DATE 2-10-99
 KB 3076.00 ft TICKET NO: 11904 DST #3
 GR 3065.00 ft FORMATION: Arbuckle
 TD 7659.00 ft TEST TYPE: CONVENTIONAL

RECORDER DATA

Mins	Field	1	2	3	4	TIME DATA-----
PF 30 Rec.	13339	13339	3024			PF Fr. 0600 to 0630 hr
SI 60 Range(Psi)	4025.0	4025.0	4995.0	0.0	0.0	IS Fr. 0630 to 0730 hr
SF 75 Clock(hrs)	12 HR	12	ALP			SF Fr. 0730 to 0845 hr
TS 120 Depth(ft)	7654.0	7654.0	7445.0	0.0	0.0	FS Fr. 0845 to 1045 hr

	Field	1	2	3	4	
A. Init Hydro	0.0	0.0	3296.0	0.0	0.0	T STARTED 0055 hr
B. First Flow	1421.0	1417.0	1304.0	0.0	0.0	T ON BOTM 0557 hr
C1. Final Flow	1812.0	1841.0	1821.0	0.0	0.0	T OPEN 0600 hr
C. In Shut-in	2273.0	2263.0	2271.0	0.0	0.0	T PULLED 1045 hr
D. Init Flow	2063.0	2073.0	1967.0	0.0	0.0	T OUT 1630 hr
E. Final Flow	2223.0	2253.0	2220.0	0.0	0.0	
F. Fl Shut-in	2423.0	2439.0	2372.0	0.0	0.0	TOOL DATA-----
G. Final Hydro	3187.0	3188.0	3226.0	0.0	0.0	Tool Wt. 2500.00 lbs
Inside/Outside	0	0	I			Wt Set On Packer 30000.00 lbs
						Wt Pulled Loose 160000.00 lbs
						Initial Str Wt 110000.00 lbs
						Unseated Str Wt 140000.00 lbs
						Bot Choke 0.75 in
						Hole Size 8.88 in
						D Col. ID 2.25 in
						D. Pipe ID 3.80 in
						D.C. Length 659.00 ft
						D.P. Length 6767.00 ft

RECOVERY

ot Fluid 3760.00 ft of 659.00 ft in DC and 3101.00 ft in DP
 60.00 ft of Mud
 3100.00 ft of Salt Water
 .00 ft of
 .00 ft of
 0.00 ft of
 0.00 ft of
 .00 ft of
 0.00 ft of RW .15 @ 60 deg
 SALINITY 60000.00 P.P.M. A.P.I. Gravity 0.00

BLOW DESCRIPTION

Initial Flow:
 Fair to strong blow off bottom in
 30 secs - strong for 10 mins then
 decreased to 2" @ 30 mins.
 Initial Shut-in:
 No return blow
 Final Flow:
 Fair to strong blow off bottom in
 1 min - steady throughout
 Final Shut-in:
 No return blow

AMPLES:
 ENT TO:

MUD DATA-----

Mud Type	Chemical
Weight	9.00 lb/cf
Vis.	64.00 S/L
W.L.	8.80 in3
F.C.	0.00 in
Mud Drop N	
Amt. of fill	0.00 ft
Btm. H. Temp.	157.00 F
Hole Condition	Good
% Porosity	0.00
Packer Size	6.75 in
No. of Packers	2
Cushion Amt.	0.00
Cushion Type	
Reversed Out N	
Tool Chased N	
Tester	Rod Steinbrink
Co. Rep.	Ken LeBlanc
Contr.	Big A
Rig #	2
Unit #	
Pump T.	

Test Successful: Y

*** TOOL DIAGRAM *** CONVENTIONAL

WELL NAME: Calhoun #1-28

LOCATION : 28-29S-37W Grant KS

TICKET No. 11904 D.S.T. No. 3 DATE 2-10-99

TOTAL TOOL TO BOTTOM OF TOP PACKERS 30

INTERVAL TOOL 31

TOTAL PACKERS AND ANCHOR

TOTAL TOOL 61

DRILL COLLAR ANCHOR IN INTERVAL

C. ANCHOR STND.Stands Single Total

P. ANCHOR STND.Stands 2 Single Total 188

TOTAL ASSEMBLY 249

C. ABOVE TOOLS.Stands7 Single Total 659

P. ABOVE TOOLS.Stands72 Single 2 Total 6767

TOTAL DRILL COLLARS DRILL PIPE & TOOLS .. 7675

TOTAL DEPTH 7659

TOTAL DRILL PIPE ABOVE K.B. 16

REMARKS:

Sampler Data;

AS;

IL;

Water; 4000 ml

UD;

Total Volume; 4000 ml

Pressure; 1500 # psi

P.O. SUB 1' Above 90' DC	7310
C.O. SUB 1'	7400
S.I. TOOL 5'	7416
3' Sampler	7419
HMV 5'	7424
JARS 5'	7429
SAFETY JOINT 2'	7431
PACKER 4'	7435
PACKER 5'	7440
DEPTH	
STUBB 1'	7441
ANCHOR	
ALP Rec. @	7445
23' Perf	7464
1' c/o sub	7465
188' DP	7653
1' c/o sub	7654
T.C.	
DEPTH	
AK-1 Rec. @	7654
BULLNOSE 5'	
T.D.	7659

TEST HISTORY

11904 DST #3 Calhoun #1-28 Zinke & Trumbo Inc

Flag Points

t (Min.)	P (PSig)
A: 0.00	3296.83
B: 0.00	1304.14
C: 27.00	1821.04
D: 62.00	2271.75
E: 0.00	1967.82
F: 71.00	2220.38
G: 122.00	2372.95
H: 0.00	3226.49

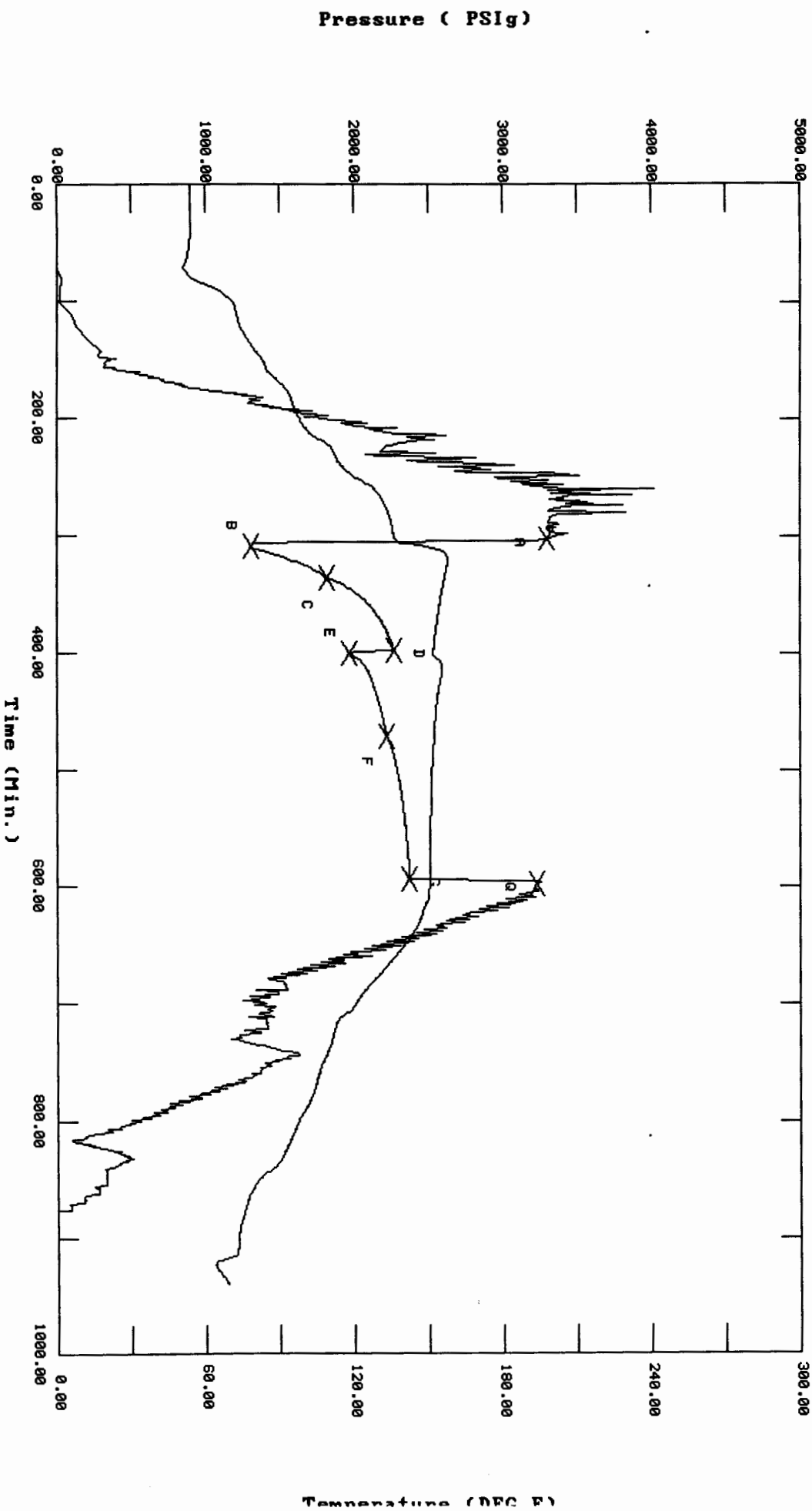
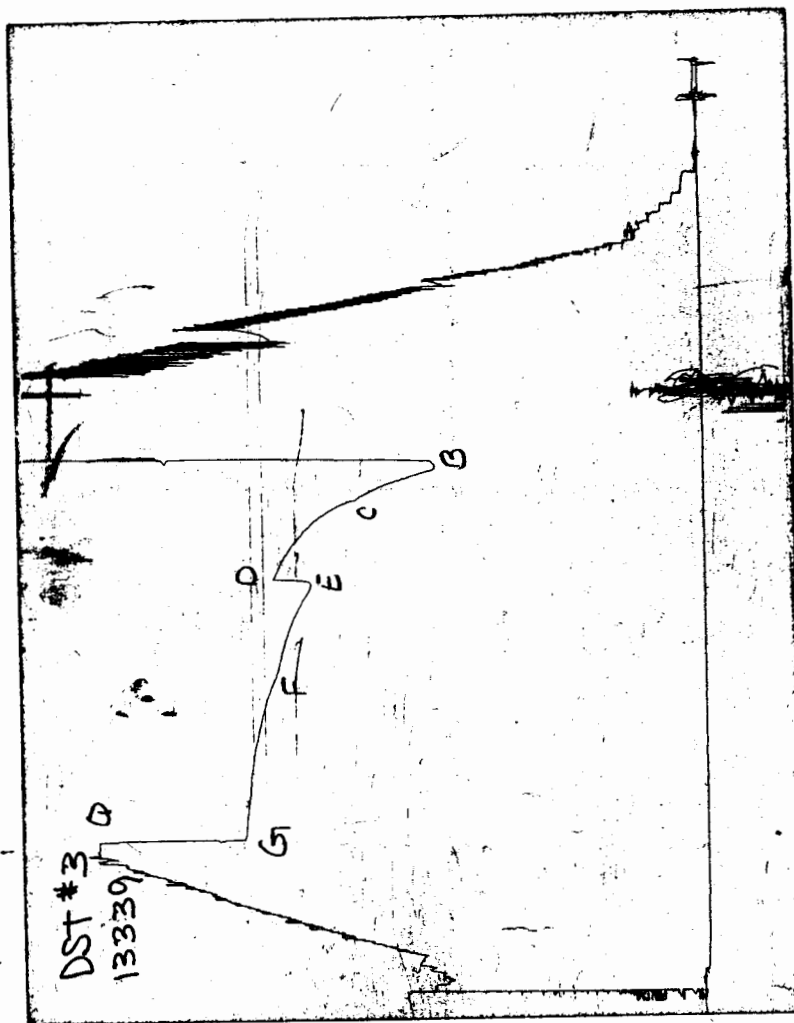


CHART PAGE



This is a photocopy of the actual AK-1 recorder chart

TRILOBITE TESTING L.L.C.

P.O. Box 362 - Hays, Kansas 67601

FLUID SAMPLER DATA

Ticket No. 11904 Date 2-10-99
Company Name Zinke & Trumbo Cont. Big A #2
Lease Calhoun #1-28 Test No. 3 Arbuckle
County Grant KS. Sec. 28 Twp. 29^S Rng. 37^W

SAMPLER RECOVERY

Gas — ML
Oil — ML
Mud — ML
Water 4,000 ML
Other — ML
Pressure 1,500* PSI
Total 4,000 ML

PIT MUD ANALYSIS

Chlorides 1,000 ppm.
Resistivity — ohms @ — F
Viscosity 64
Mud Weight 9.0
Filtrate 8.8
Other LCM 11 #/bbl

SAMPLER ANALYSIS

Resistivity .15 ohms @ 60° F
Chlorides 60,000 ppm.
Gravity — corrected @ 60 F

PIPE RECOVERY

TOP
Resistivity .16 ohms @ 60° F
Chlorides 55,000 ppm.

MIDDLE
Resistivity — ohms @ — F
Chlorides — ppm.

BOTTOM
Resistivity .15 ohms @ 60° F
Chlorides 60,000 ppm.

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

N^o 11904

Test Ticket

Well Name & No.	Calhoun #1-28	Test No.	3	Date	2-10-99
Company	Zinke & Trumbo, Inc.	Zone Tested	Arbuckle		
Address	1202 E. 23 rd Ste 100 Tulsa, OK 74105	Elevation	3076	KB	3065 GL
Co. Rep / Geo.	Ken LeBlanc	Cont.	Big A #2	Est. Ft. of Pay	Por. %
Location: Sec.	28	Twp.	29 ^s	Rge.	37 ^w
		Co.	Grant	State	KS
No. of Copies		Distribution Sheet (Y, N)		Turnkey (Y, N)	
		Evaluation (Y, N)			

Interval Tested	7440 - 7659	Initial Str Wt./Lbs.	110,000	Unseated Str Wt./Lbs.	140,000
Anchor Length	219'	Wt. Set Lbs.	30,000	Wt. Pulled Loose/Lbs.	160,000
Top Packer Depth	7435	Tool Weight	2,500		
Bottom Packer Depth	7440	Hole Size — 7 7/8"		Rubber Size — 6 3/4"	
Total Depth	7659	Wt. Pipe Run	—	Drill Collar Run	659' (1)
Mud Wt.	9.0 LCM 11 [#]	Drill Pipe Size	4 1/2" XH	Ft. Run	6767' (72.2)
Vis.	64 WL 8.8				
Blow Description	IF: Fair to strong blow off bttm in 30 secs - strong f/10 mins. then decreased to 2" @ 30 mins IST: No return blow FF: Fair to strong blow off bttm in 1 min - steady throughout FSI: No return blow				

Recovery — Total Feet	3760'	GIP	—	Ft. in DC	659'	Ft. in DP	3101'
Rec.		Feet Of		%gas	%oil	%water	%mud
Rec.	660'	Feet Of	Mud	%gas	%oil	%water	%mud
Rec.		Feet Of		%gas	%oil	%water	%mud
Rec.	3100'	Feet Of	Salt Wtr.	%gas	%oil	%water	%mud
Rec.		Feet Of		%gas	%oil	%water	%mud
BHT	157°	°F Gravity		°API D@		°F Corrected Gravity	
RW	15	@	60°	°F Chlorides	60,000	ppm Recovery	Chlorides 1,000 ppm System

	AK-1	Alpine				
(A) Initial Hydrostatic Mud		3296	PSI Recorder No.	3024	T-On Location	2245
(B) First Initial Flow Pressure	1421	1304	PSI (depth)	7445	T-Started	0055
(C) First Final Flow Pressure	1812	1821	PSI Recorder No.	13339	T-Open	0600
(D) Initial Shut-In Pressure	2273	2271	PSI (depth)	7654	T-Pulled	1045
(E) Second Initial Flow Pressure	2063	1967	PSI Recorder No.	—	T-Out	1630
(F) Second Final Flow Pressure	2223	2220	PSI (depth)	—	T-Off Location	1800
(G) Final Shut-in Pressure	2423	2372	PSI Initial Opening	30	Test	1000
(Q) Final Hydrostatic Mud	3187	3226	PSI Initial Shut-in	60	Jars	X 200
			Final Flow	75	Safety Joint	X 50
			Final Shut-in	120	Straddle	

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Approved By Ken LeBlanc

Our Representative Rod Steinbrink

Circ. Sub	X	N/C
Sampler	X	200
Extra Packer		
Elec. Rec.	X	150
Mileage		
Other		
TOTAL PRICE \$		11000

TRILOBITE TESTING L.L.C.

OPERATOR : Zinke & Trumbo Inc.

DATE 2-13-99

WELL NAME: Calhoun #1-28

KB 3076.00 ft

TICKET NO: 11905

DST #4

LOCATION : 28-29S-37W Grant KS

GR 3065.00 ft

FORMATION: St Louis

INTERVAL : 5770.00 To 5850.00 ft

TD 5852.00 ft

TEST TYPE: CONV STRADDLE HOOK

RECORDER DATA

Mins	Field	1	2	3	4	TIME DATA-----
F 0 Rec.	13339	13339	3024		13309	PF Fr. to hr
I 0 Range(Psi)	4025.0	4025.0	4995.0	0.0	4700.0	IS Fr. to hr
SF 0 Clock(hrs)	12 HR	12	ALP		12 HR	SF Fr. to hr
FS 0 Depth(ft)	3590.0	3590.0	3530.0	0.0	3606.0	FS Fr. to hr

	Field	1	2	3	4	
A. Init Hydro	0.0	0.0	1939.0	0.0	0.0	T STARTED 1400 hr
. First Flow	0.0	0.0	0.0	0.0	0.0	T ON BOTM 1755 hr
l. Final Flow	0.0	0.0	0.0	0.0	0.0	T OPEN hr
C. In Shut-in	0.0	0.0	0.0	0.0	0.0	T PULLED 0030 hr
. Init Flow	0.0	0.0	0.0	0.0	0.0	T OUT 0130 hr
. Final Flow	0.0	0.0	0.0	0.0	0.0	
F. Fl Shut-in	0.0	0.0	0.0	0.0	0.0	TOOL DATA-----
G. Final Hydro	0.0	0.0	1572.0	0.0	0.0	Tool Wt. 2500.00 lbs
Inside/Outside	O	O	I		S	Wt Set On Packer 0.00 lbs
						Wt Pulled Loose 0.00 lbs
						Initial Str Wt 70000.00 lbs
						Unseated Str Wt 80000.00 lbs
						Bot Choke 0.75 in
						Hole Size 8.88 in
						D Col. ID 2.25 in
						D. Pipe ID 3.80 in
						D.C. Length 659.00 ft
						D.P. Length 2828.00 ft

RECOVERY

0.00 Fluid 1100.00 ft of 659.00 ft in DC and 441.00 ft in DP
 0.00 ft of Heavy Drilling mud
 0.00 ft of
 0.00 ft of
 0.00 ft of
 0.00 ft of
 0.00 ft of
 0.00 ft of

SALINITY 0.00 P.P.M. A.P.I. Gravity 0.00

BLOW DESCRIPTION

1st Bridges @ 2670 3495 3600

Not able to drop through 3600 TOHw/hook

MUD DATA-----

Mud Type	Chemical
Weight	9.00 lb/cf
Vis.	58.00 S/L
W.L.	9.20 in3
F.C.	0.00 in
Mud Drop Y	200.0 ft

Amt. of fill	0.00 ft
Btm. H. Temp.	106.00 F
Hole Condition	Fair
% Porosity	0.00
Packer Size	6.75 in
No. of Packers	3
Cushion Amt.	0.00
Cushion Type	
Reversed Out N	
Tool Chased N	
Tester	Rod Steinbrink
Co. Rep.	Ken LeBlanc
Contr.	Big A
Rig #	2
Unit #	
Pump T.	

MPLES:

INT TO:

Test Successful: N

*** TOOL DIAGRAM *** CONV STRADDLE HOOK

WELL NAME: Calhoun #1-28

LOCATION : 28-29S-37W Grant KS

TICKET No. 11905 D.S.T. No. 4 DATE 2-13-99

TOTAL TOOL TO BOTTOM OF TOP PACKERS 31

INTERVAL TOOL 20

BOTTOM PACKERS AND ANCHOR

TOTAL TOOL 51

DRILL COLLAR ANCHOR IN INTERVAL

D.C. ANCHOR STND.Stands Single Total

D.P. ANCHOR STND.Stands Single 2 Total 62

TOTAL ASSEMBLY 113

D.C. ABOVE TOOLS.Stands7 Single Total 659

D.P. ABOVE TOOLS.Stands30 Single 1 Total 2828

TOTAL DRILL COLLARS DRILL PIPE & TOOLS .. 3600

TOTAL DEPTH 3600

TOTAL DRILL PIPE ABOVE K.B.

REMARKS:

Sampler Data;

Gas;

Dil;

Water;

Mud; 4000 ml

Total Volume; 4000 ml

Pressure; 0# psi

P.O. SUB 1' Above 90' DC	3401
C.O. SUB 1'	3491
S.I. TOOL 5'	3497
3' Sampler	3500
HMV 5'	3504
JARS 5'	3509
SAFETY JOINT 2'	3511
PACKER 4'	3515
PACKER 5' Shale	3520
DEPTH	
STUBB 1'	3521
ANCHOR	
5'	3526
Alp Rec. @	3530
1' c/o sub	3527
62' DP	3589
1' c/o sub	3590
AK-1 Rec. @	3590
4' Perf	3594
1' Blank Off Sub	3595
T.C.	
DEPTH	
PACKER 5' Shale	3600
1' Stubb	3601
5' Hook Wall	3602
AK-1 Rec. @	3606
1' c/o sub	3607
23' DP	3700
1' c/o sub	3701
BULLNOSE 5'	
T.D.	3706

TEST HISTORY

11905 DST #4 Calhoun #1-28 Zinke & Trumbo Inc

Flag Points
 t(Min.) P(PSig)
 A: 0.00 1939.96
 B: 0.00 1572.02
 Q: 0.00 1572.02

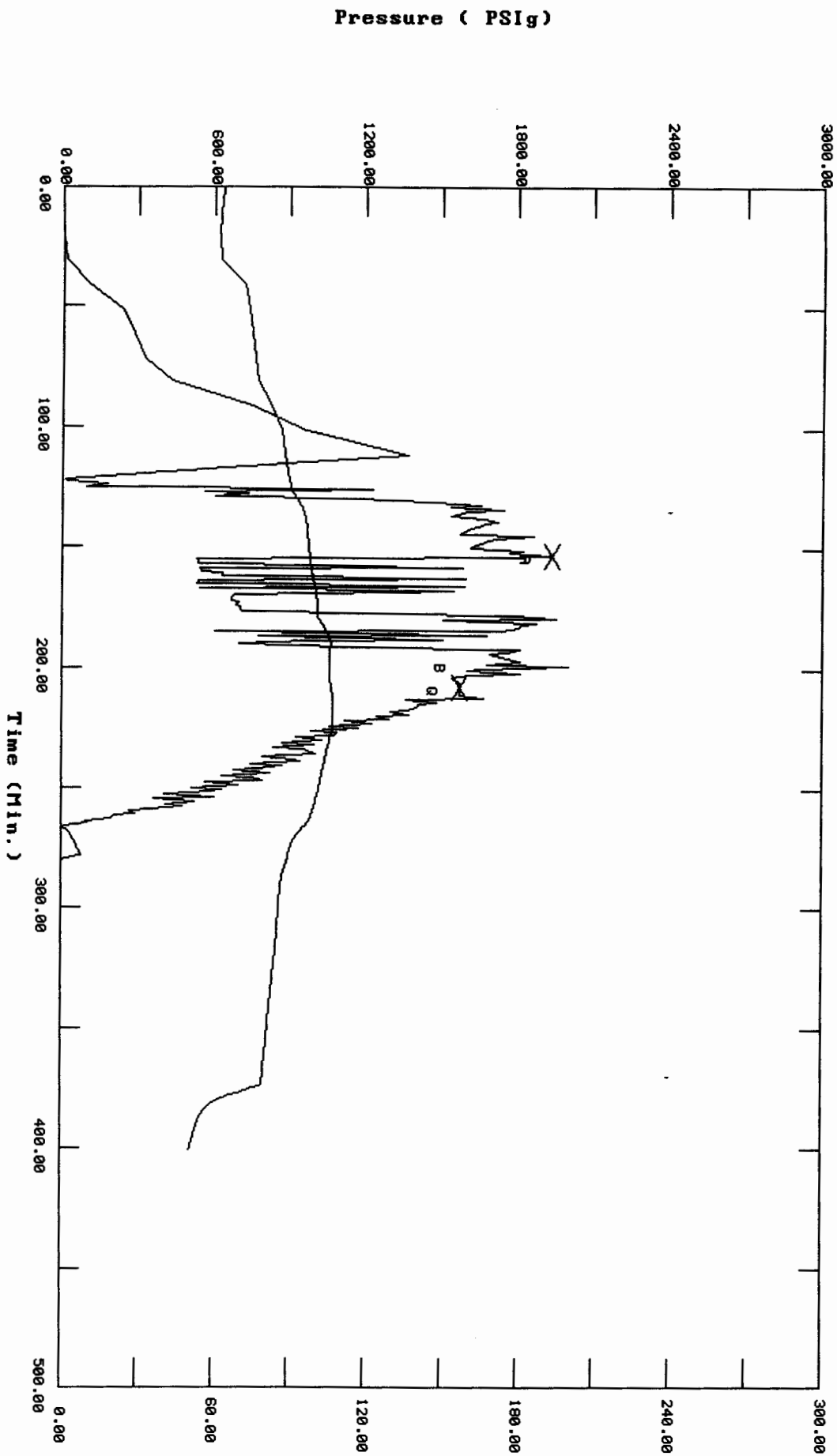
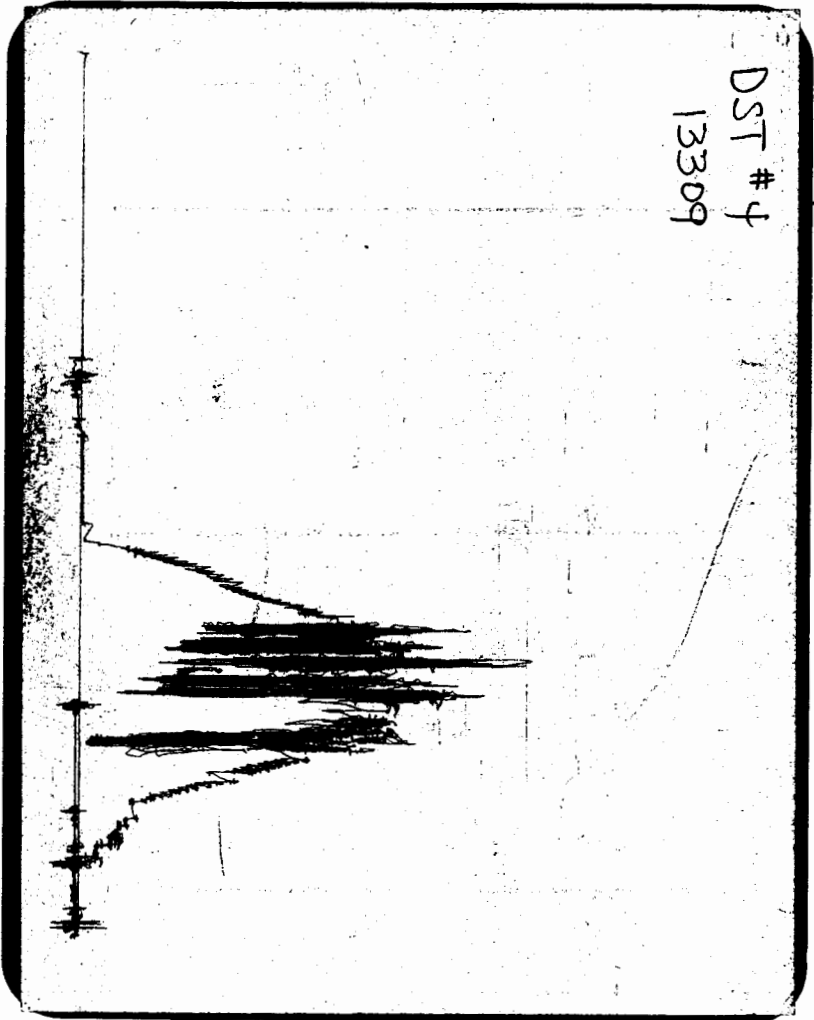


CHART PAGE



This is a photocopy of the actual AK-1 recorder chart

TRILOBITE TESTING L.L.C.

P.O. Box 362 - Hays, Kansas 67601

FLUID SAMPLER DATA

Ticket No. 11905 Date 2-13-99
Company Name Zinke & Trumbo Inc. Cont. Big A #2
Lease Calhoun #1-28 Test No. #4 St Louis
County Grant KS. Sec. 28 Twp. 29^S Rng. 37^W

SAMPLER RECOVERY

Gas _____ ML
Oil _____ ML
Mud 4,000 ML
Water _____ ML
Other _____ ML
Pressure 0# PSI
Total 4,000 ML

SAMPLER ANALYSIS

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

PIT MUD ANALYSIS

Chlorides 6,700 ppm.
Resistivity _____ ohms @ _____ F
Viscosity 58
Mud Weight 9.0
Filtrate 9.2
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

N^o 11905

Test Ticket

Well Name & No.	Calhoun #1-28	Test No.	4	Date	2-13-99
Company	Zinke & Trumbo, Inc.	Zone Tested	St. Louis		
Address	1202 E 23 rd Ste 100 Tulsa, OK 74105	Elevation	3076	KB	3065 GL
Co. Rep / Geo.	Ken LeBlanc	Cont.	Big A #2	Est. Ft. of Pay	Por. %
Location: Sec.	28	Twp.	29 ^S	Rge.	37 ^W
		Co.	Grant	State	KS
No. of Copies		Distribution Sheet (Y, N)		Turnkey (Y, N)	
		Evaluation (Y, N)			

Interval Tested 5770 - 5850 Initial Str Wt./Lbs. 70,000 @ 3600' Unseated Str Wt./Lbs. _____
Anchor Length 80' Wt. Set Lbs. 35,000 Wt. Pulled Loose/Lbs. _____
Top Packer Depth 5765 - 5770 Tool Weight 2,500 _____
Bottom Packer Depth 5850 Hole Size — 7 7/8" Rubber Size — 6 3/4" _____
Total Depth 8000 Hookwell @ 5852 Wt. Pipe Run _____ Drill Collar Run 659'
Mud Wt. 9.0 LCM Vis. 58 WL 9.2 Drill Pipe Size 4 1/2" KH Ft. Run _____
Blow Description Hit bridges @ 2670 - 3495 - 3600 not able to go through
ToH @ 2115 pm

Recovery — Total Feet 1100' GIP — Ft. in DC 659' Ft. in DP 441'
Rec. _____ Feet Of _____ %gas %oil %water %mud
Rec. _____ Feet Of _____ %gas %oil %water %mud
Rec. 1100' Feet Of Drilg Mud %gas %oil %water %mud
Rec. _____ Feet Of _____ %gas %oil %water %mud
Rec. _____ Feet Of _____ %gas %oil %water %mud
BHT 106° °F Gravity _____ °API D@ _____ °F Corrected Gravity _____ °API
RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 6,700 ppm System

(A) Initial Hydrostatic Mud	AK-1	Alpine	1939	PSI Recorder No.	3024	T-On Location	1400
(B) First Initial Flow Pressure				PSI (depth)	5772	T-Started	1755
(C) First Final Flow Pressure				PSI Recorder No.	13339	T-Open	
(D) Initial Shut-In Pressure				PSI (depth)	5840	T-Pulled	2115
(E) Second Initial Flow Pressure				PSI Recorder No.	13309	T-Out	0030
(F) Second Final Flow Pressure				PSI (depth)	5856	T-Off Location	0130
(G) Final Shut-in Pressure				PSI Initial Opening		Test	600
(Q) Final Hydrostatic Mud			1572	PSI Initial Shut-in		Jars	R 200

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Approved By Ken LeBlanc

Our Representative Rod Steinbrink

Final Flow _____ Safety Joint X 50
Final Shut-in _____ Straddle X 250
Circ. Sub X 35
Sampler X nc
Extra Packer X 150
Elec. Rec. X 150
Ruined Shale X 500
Other Hookwell X 300
TOTAL PRICE \$ 2235

TRILOBITE TESTING L.L.C.

OPERATOR : Zinke & Trumbo Inc

DATE 2-14-99

WELL NAME: Calhoun #1-28

KB 3076.00 ft

TICKET NO: 11906

DST #5

LOCATION : 28-29S-37W Grant KS

GR 3065.00 ft

FORMATION: St Louis

INTERVAL : 5790.00 To 5870.00 ft

TD 5872.00 ft

TEST TYPE: CONV STRADDLE HOOK

RECORDER DATA

Mins	Field	1	2	3	4	TIME DATA-----
F 30 Rec.	13309	13309	3024		13339	PF Fr. 2200 to 2230 hr
I 42 Range(Psi)	4700.0	4700.0	4995.0	0.0	4025.0	IS Fr. 2230 to 2330 hr
SF 0 Clock(hrs)	12 HR	12	ALP		12 HR	SF Fr. to hr
TS 0 Depth(ft)	5860.0	5860.0	5792.0	0.0	5876.0	FS Fr. to hr

	Field	1	2	3	4	
A. Init Hydro	2711.0	2743.0	2708.0	0.0	2662.0	T STARTED 1800 hr
. First Flow	58.0	93.0	63.0	0.0	0.0	T ON BOTM 2150 hr
.1. Final Flow	448.0	485.0	504.0	0.0	0.0	T OPEN 2200 hr
C. In Shut-in	1594.0	1621.0	1622.0	0.0	0.0	T PULLED 2330 hr
. Init Flow	0.0	0.0	0.0	0.0	0.0	T OUT 0430 hr
. Final Flow	0.0	0.0	0.0	0.0	0.0	
F. Fl Shut-in	0.0	0.0	0.0	0.0	0.0	TOOL DATA-----
C. Final Hydro	2664.0	2667.0	1847.0	0.0	2473.0	Tool Wt. 2500.00 lbs
Inside/Outside	O	O	I		S	Wt Set On Packer 30000.00 lbs
						Wt Pulled Loose 170000.00 lbs
						Initial Str Wt 92000.00 lbs
						Unseated Str Wt 110000.00 lbs
						Bot Choke 0.75 in
						Hole Size 8.88 in
						D Col. ID 2.25 in
						D. Pipe ID 3.80 in
						D.C. Length 659.00 ft
						D.P. Length 5104.00 ft

RECOVERY

10.00 ft of Fluid 1089.00 ft of 659.00 ft in DC and 430.00 ft in DP
 40.00 ft of Muddy water 80% water 20% mud
 849.00 ft of Salt water 100% water
 .00 ft of
 .00 ft of
 0.00 ft of
 0.00 ft of
 .00 ft of
 0.00 ft of RW .23 @ 80 deg =
 SALINITY 26000.00 P.P.M. A.P.I. Gravity 0.00

BLOW DESCRIPTION

Initial Flow:

Fair to strong blow off bottom in 5 mins.

Initial Shut-in:

Bled off blow - no return.

Lost Hook Seat at end of 60 mins.

Tools out of hole with test

MUD DATA-----

Mud Type	Chemical
Weight	8.90 lb/cf
Vis.	48.00 S/L
W.L.	14.40 in3
F.C.	0.00 in
Mud Drop N	
Amt. of fill	0.00 ft
Btm. H. Temp.	133.00 F
Hole Condition	Good
% Porosity	0.00
Packer Size	6.75 in
No. of Packers	3
Cushion Amt.	0.00
Cushion Type	
Reversed Out N	
Tool Chased Y	20.00 ft
Tester	Rod Steinbrink
Co. Rep.	Ken LeBlanc
Contr.	Big A
Rig #	2
Unit #	
Pump T.	

MPLES:

ENT TO:

Test Successful: Y

*** TOOL DIAGRAM *** CONV STRADDLE HOOK

WELL NAME: Calhoun #1-28

LOCATION : 28-29S-37W Grant KS

TICKET No. 11906 D.S.T. No. 5 DATE 2-14-99

TOTAL TOOL TO BOTTOM OF TOP PACKERS 31

INTERVAL TOOL 20

BOTTOM PACKERS AND ANCHOR

TOTAL TOOL 51

DRILL COLLAR ANCHOR IN INTERVAL

D.C. ANCHOR STND.Stands Single Total

D.P. ANCHOR STND.Stands Single 2 Total 62

TOTAL ASSEMBLY 113

D.C. ABOVE TOOLS.Stands7 Single Total 659

D.P. ABOVE TOOLS.Stands54 Single 2 Total 5104

TOTAL DRILL COLLARS DRILL PIPE & TOOLS .. 5876

TOTAL DEPTH 5872

TOTAL DRILL PIPE ABOVE K.B. 4

REMARKS:

Sampler Data;

Gas;

Oil;

Water; 4000 ml

Mud;

Total Volume; 4000 ml

Pressure; 200# psi

RW .23 @ 80 deg = 26,000 Chlorides

P.O. SUB 1' Above 90' DC	5670
C.O. SUB 1'	5760
S.I. TOOL 5'	5766
3' Sampler	5769
HMV 5'	5774
JARS 5'	5779
SAFETY JOINT 2'	5781
PACKER 4'	5785
PACKER 5' Shale	5790
DEPTH	
STUBB 1'	5791
ANCHOR	
ALP Rec. @	5792
5'	5796
1' c/o sub	5797
62' DP	5859
AK-1 Rec. @	5860
1' c/o sub	5860
4' Perf	5864
1' Blank Off Sub	5865
T.C.	
DEPTH	
PACKER 5' Shale	5870
1' Stubb	5871
5' Hook @	5872
AK-1 Rec. @	5876
1' c/o sub	5877
93' DP	5970
1' c/o sub	5971
BULLNOSE 5'	
T.D.	5976

TEST HISTORY

11906 DST #5 Calhoun #1-28 Zinke & Trumbo Inc.

Flag Points

t(Min.) P(PSIg)

A: 0.00 2708.19
B: 0.00 63.19
C: 31.00 504.33
D: 42.00 1622.43
G: 0.00 1847.36

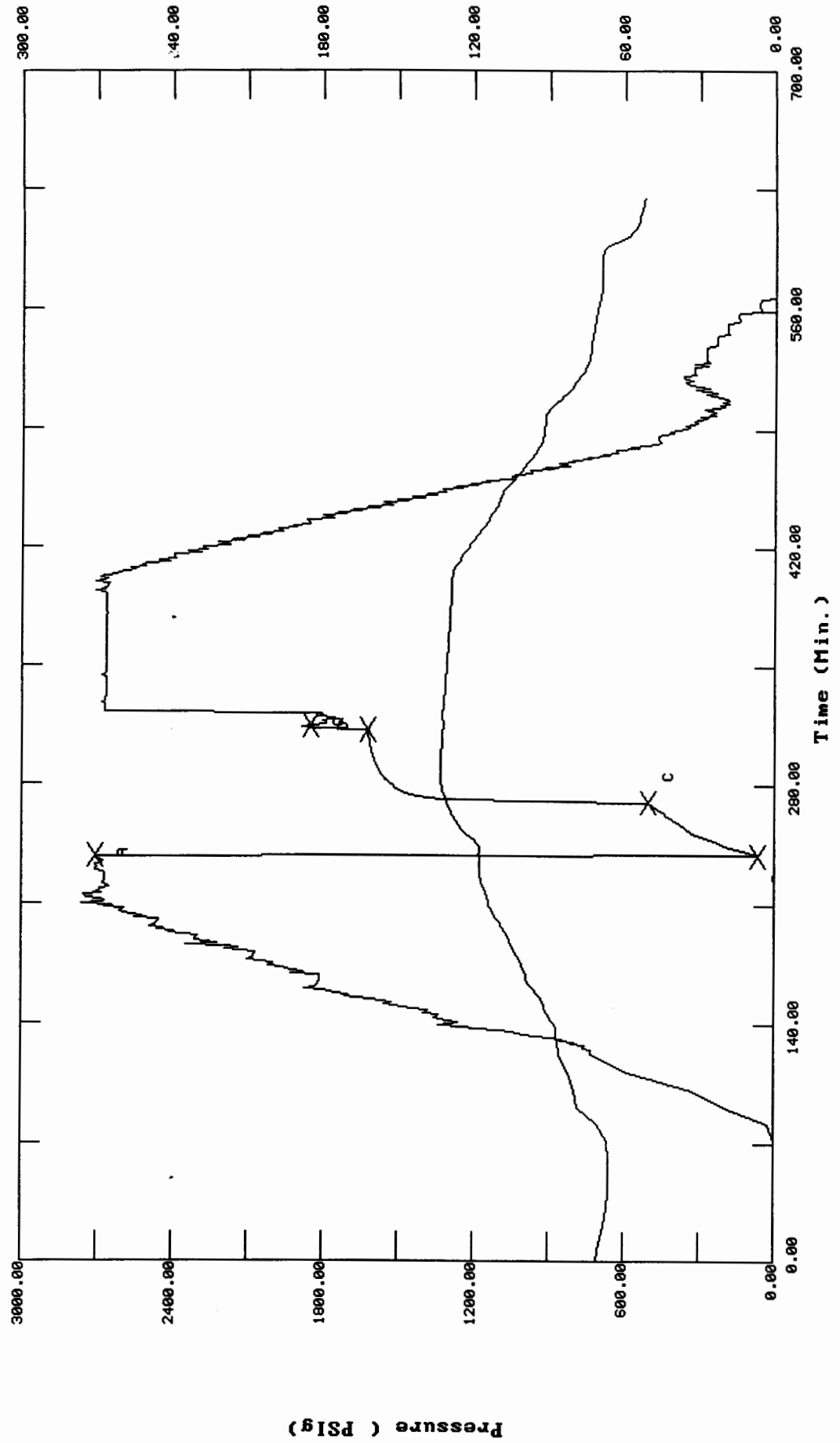
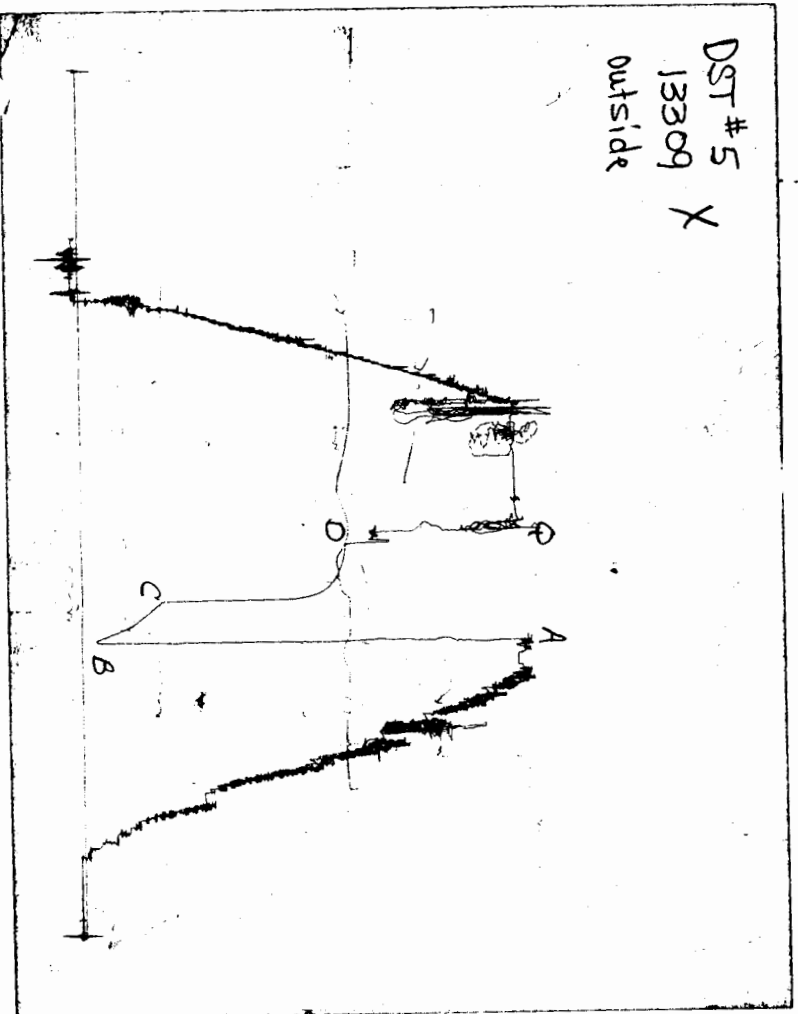
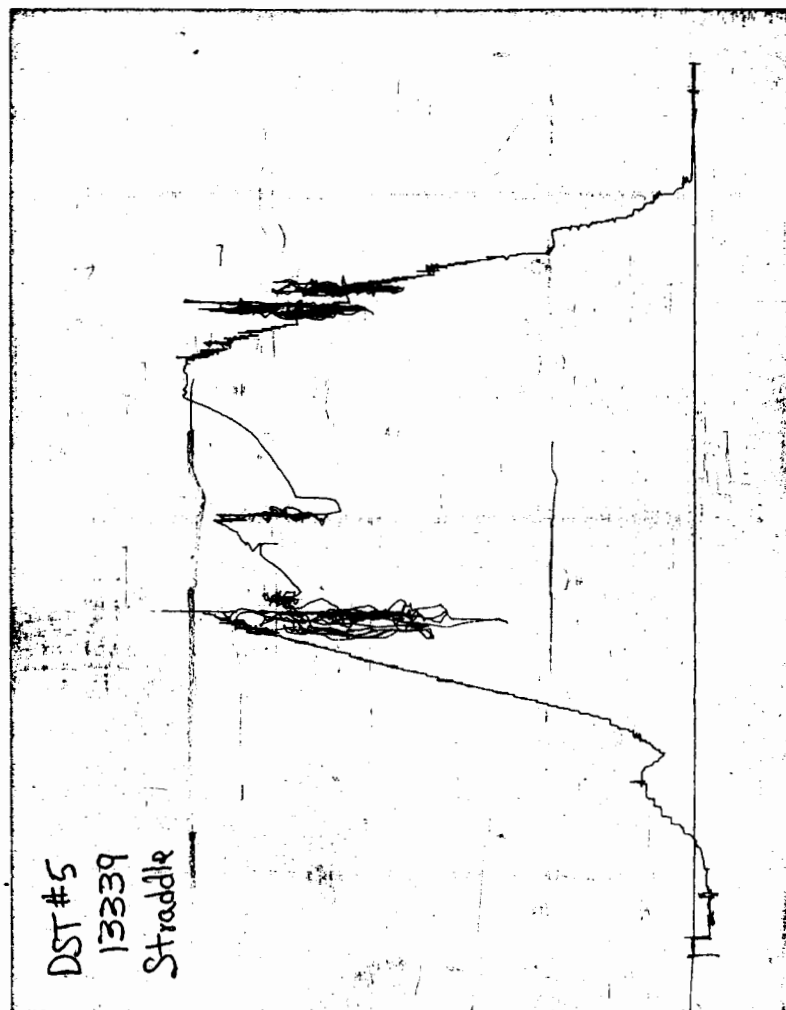


CHART PAGE



This is a photocopy of the actual AK-1 recorder chart

CHART PAGE



This is a photocopy of the actual AK-1 recorder chart

TRILOBITE TESTING L.L.C.

P.O. Box 362 - Hays, Kansas 67601

FLUID SAMPLER DATA

Ticket No. 11906 Date 2-14-99
Company Name Zinke & Trumbo Inc. Cont Big A #2
Lease Calhoun #1-28 Test No. #5 St Louis
County Grant KS. Sec. 28 Twp. 29^S Rng. 37^W

SAMPLER RECOVERY

Gas _____ ML
Oil _____ ML
Mud _____ ML
Water 4,000 ML
Other _____ ML
Pressure 200 # PSI
Total 4,000 ML

PIT MUD ANALYSIS

Chlorides 22,000 ppm.
Resistivity _____ ohms @ _____ F
Viscosity 48
Mud Weight 8.9
Filtrate 14.4
Other LCM 5#/bbl

SAMPLER ANALYSIS

Resistivity .23 ohms @ 80 F
Chlorides 26,000 ppm.
Gravity _____ corrected @ 60 F

PIPE RECOVERY

TOP
Resistivity .30 ohms @ 80 F
Chlorides 20,000 ppm.

MIDDLE
Resistivity .28 ohms @ 70 F
Chlorides 25,000 ppm.

BOTTOM
Resistivity .23 ohms @ 80 F
Chlorides 26,000 ppm.

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Nº 11906

Test Ticket

Well Name & No.	Calhoun #1-28	Test No.	5	Date	2-14-99
Company	Zinke & Trumbo, Inc.	Zone Tested	St. Louis		
Address	1202 E 23rd Ste 100 Tulsa OK 74105	Elevation	3076	KB	3065 GL
Co. Rep / Geo.	Ken LeBlanc	Cont.	Big A #2	Est. Ft. of Pay	Por. %
Location: Sec.	28	Twp.	29 ^S	Rge.	37 ^W
		Co.	Grant	State	KS.
No. of Copies		Distribution Sheet (Y, N)	Y	Turnkey (Y, N)	N
		Evaluation (Y, N)			

Interval Tested	5790 - 5830	Initial Str Wt./Lbs.	92,000	Unseated Str Wt./Lbs.	110,000
Anchor Length	80'	Wt. Set Lbs.	30,000	Wt. Pulled Loose/Lbs.	110,000
Top Packer Depth	5785 - 5790	Tool Weight	2,500		
Bottom Packer Depth	5830 - 5870	Hole Size — 7 7/8"		Rubber Size — 6 3/4"	
Total Depth	8000 Hook Wall @ 5830 - 5872	Wt. Pipe Run	—	Drill Collar Run	659'
Mud Wt.	8.9 LCM 5# Vis. 48 WL 14.4	Drill Pipe Size	4 1/2" x H	Ft. Run	
Blow Description	IF: Fair to strong blow off btm in 5 mins.				
	ISI: Bled off blow - no return. Last Hook Set 42 mins into				

TOH w/ Hook

Recovery — Total Feet	1089'	GIP	—	Ft. in DC	659'	Ft. in DP	430'
Rec.		Feet Of		%gas	%oil	%water	%mud
Rec.	240'	Feet Of	Muddy wtr.	%gas	%oil	80	%water 20 %mud
Rec.		Feet Of		%gas	%oil		%water %mud
Rec.	849'	Feet Of	Salt wtr.	%gas	%oil	100	%water %mud
Rec.		Feet Of		%gas	%oil		%water %mud
BHT	133°	°F Gravity		°API D@		°F Corrected Gravity	
RW	23	@	80°	°F Chlorides	26,000	ppm Recovery	Chlorides 22,000 ppm System

	AK-1	Alpine					
(A) Initial Hydrostatic Mud	2711	2708	PSI	Recorder No.	3024	T-On Location	1430
(B) First Initial Flow Pressure	58	63	PSI	(depth)	5772	T-Started	1800
(C) First Final Flow Pressure	448	504	PSI	Recorder No.	13339	T-Open	2200
(D) Initial Shut-In Pressure	1594	1622	PSI	(depth)	5840	T-Pulled	2300 - 30
(E) Second Initial Flow Pressure			PSI	Recorder No.	13309	T-Out	0430
(F) Second Final Flow Pressure			PSI	(depth)	5856	T-Off Location	0600
(G) Final Shut-in Pressure			PSI	Initial Opening	30	Test	800
(Q) Final Hydrostatic Mud	2664	1847	PSI	Initial Shut-in	42	Jars	X 200
				Final Flow	—	Safety Joint	X 50
				Final Shut-in	—	Straddle	X 250

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 Ken LeBlanc

Our Representative Rod Steinbrink

2012 @ 165100

Ruined! Shale Pkg

Circ. Sub	X	N/C
Sampler	X	200
Extra Packer	X	150
Elec. Rec.	X	150
Mudlog	X	250
Other Hook Wall	X	300
TOTAL PRICE \$		2350