15-081-21264 TRILOBITE TESTING L.L.C. 12-27s-34w

OPERATOR : Helmerich & Payne DATE 3-12-2000
WELL NAME: Government B-2 KB 2967.00 ft TICKET NO: 12500 DST # 1
LOCATION : 12-27s-34w Haskell co KS GR 2956.00 ft FORMATION: Marmonton-Pawnee
INTERVAL : 4668.00 To 4707.00 ft TD 4707.00 ft TEST TYPE: CONVENTIONAL

RECORDER DATA

Mins		Field	1	2	3	4
PF 15	Rec.	13278	13278	2357		
SI 60	Range(Psi)	4400.0	4400.0	5000.0	0.0	0.0
SF 60	Clock(hrs)	12HR	12HR	ELECT		
FS 180	Depth(ft)	4704.0	4704.0	4669.0	0.0	0.0

TIME DATA----------
PF Fr. 1330 to 1345 hr
IS Fr. 1345 to 1445 hr
SF Fr. 1445 to 1545 hr
FS Fr. 1545 to 1845 hr

	Field	1	2	3	4
A. Init Hydro	2218.0	2186.0	2209.0	0.0	0.0
B. First Flow	121.0	88.0	15.0	0.0	0.0
B1. Final Flow	121.0	88.0	52.0	0.0	0.0
C. In Shut-in	1336.0	1296.0	1354.0	0.0	0.0
D. Init Flow	165.0	136.0	62.0	0.0	0.0
E. Final Flow	165.0	139.0	146.0	0.0	0.0
F. Fl Shut-in	1336.0	1302.0	1353.0	0.0	0.0
G. Final Hydro	2141.0	2105.0	2201.0	0.0	0.0
Inside/Outside	I	I	I		

T STARTED 1105 hr
T ON BOTM 1328 hr
T OPEN 1330 hr
T PULLED 1845 hr
T OUT 2215 hr

RECOVERY
Tot Fluid 235.00 ft of 235.00 ft in DC and 0.00 ft in DP
60.00 ft of Gas in pipe.
175.00 ft of Slightly gas & oil cut mud
0.00 ft of 4% oil 92% mud
60.00 ft of Slightly gas cut watery mud
0.00 ft of 10% gas trace of oil 36% water 54% mud
0.00 ft of
0.00 ft of
0.00 ft of
SALINITY 23000.00 P.P.M. A.P.I. Gravity 0.00

TOOL DATA----------

Tool Wt.	1800.00 lbs
Wt Set On Packer	25000.00 lbs
Wt Pulled Loose	22000.00 lbs
Initial Str Wt	72000.00 lbs
Unseated Str Wt	73000.00 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	356.00 ft
D.P. Length	4298.00 ft

BLOW DESCRIPTION
Initial Flow:
Weak blow built to 3" in 15 minutes.
Initial Shut-In:
No blow back.
Final Flow:
Weak blow built to 4" in 60 minutes.
Final Shut-In:
No blow back.

MUD DATA----------

Mud Type	Chemical
Weight	9.00 lb/c
Vis.	52.00 S/L
W.L.	8.80 in3
F.C.	0.00 in
Mud Drop Y	30.0 ft
Amt. of fill	0.00 ft
Btm. H. Temp.	120.00 F
Hole Condition	Good
% Porosity	15.00
Packer Size	6.75 in
No. of Packers	2
Cushion Amt.	0.00
Cushion Type	
Reversed Out	N
Tool Chased	N
Tester	Brad Bortz
Co. Rep.	Mikeal Maune
Contr.	Cheyenne
Rig #	3
Unit #	
Pump T.	

SAMPLES: None
SENT TO:

Test Successful: Y

*** TOOL DIAGRAM *** CONVENTIONAL

WELL NAME: Government B-2

LOCATION : 12-27s-34w Haskell co KS

TICKET No. 12500 D.S.T. No. 1 DATE 3-12-2000

TOTAL TOOL TO BOTTOM OF TOP PACKERS 30

INTERVAL TOOL .....

BOTTOM PACKERS AND ANCHOR 39

TOTAL TOOL 69

DRILL COLLAR ANCHOR IN INTERVAL .....

D.C. ANCHOR STND.Stands Single Total

D.P. ANCHOR STND.Stands Single Total

TOTAL ASSEMBLY .....

D.C. ABOVE TOOLS.Stands 6 Single Total 356

D.P. ABOVE TOOLS.Stands 69 Single 1 Total 4298

TOTAL DRILL COLLARS DRILL PIPE & TOOLS .. 4723

TOTAL DEPTH 4707

TOTAL DRILL PIPE ABOVE K.B. 16

REMARKS:
FLUID SAMPLER

Total Vol. 4000 ML.
Total Vol. Rec. 3500 ML.
Oil Trc.ML.
Mud 2500 ML.
Wtr. 1000 ML.
Gas 5 CF.
Psi. 250
Bht. 120 F.
Rec RW. 0.56 Ohms at 42 F. 23000 PPM.

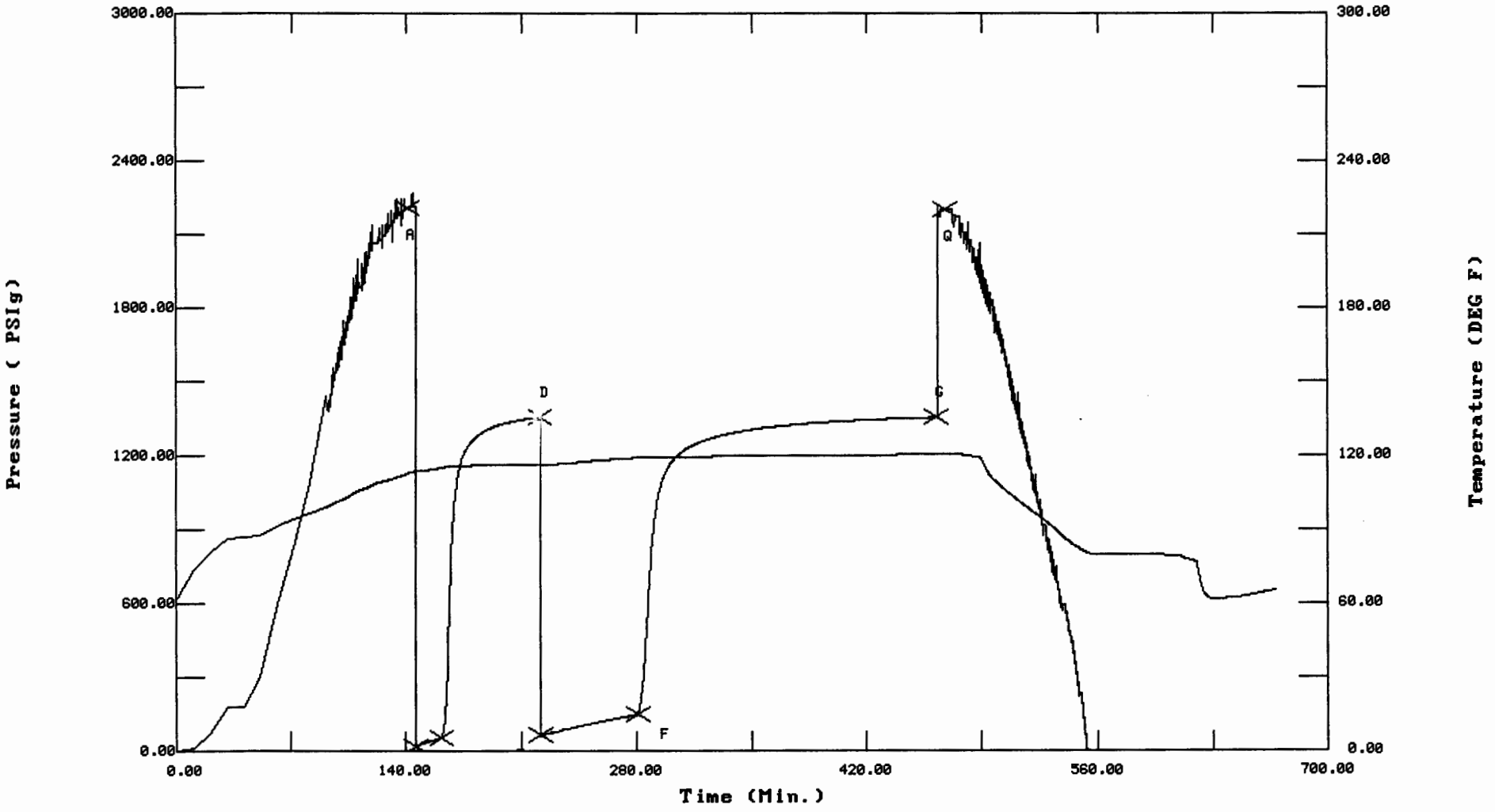
P.O. SUB Cir sub	4576
C.O. SUB Top of tool	4638
Double pin	4639
S.I. TOOL Sterling	4644
Sampler	4647
HMV Sterling	4652
JARS Sterling	4657
SAFETY JOINT Sterling	4659
PACKER Sparton	4664
PACKER Sparton	4668
DEPTH	
1 Ft.	4669
ANCHOR Alpine	4669
Pu. sub	4674
AK-1	4704
31 Ft. perfs.	4705
BULLNOSE 2 Ft. perfs.	
T.D.	4707

TEST HISTORY

12500 DST #1 Government B-2 Helmerich & Payne

Flag Points

	t(Min.)	P(PSIg)
A:	0.00	2209.09
B:	0.00	15.93
C:	15.25	52.86
D:	59.75	1354.37
E:	0.00	62.77
F:	59.25	146.80
G:	181.75	1353.36
Q:	0.00	2201.40



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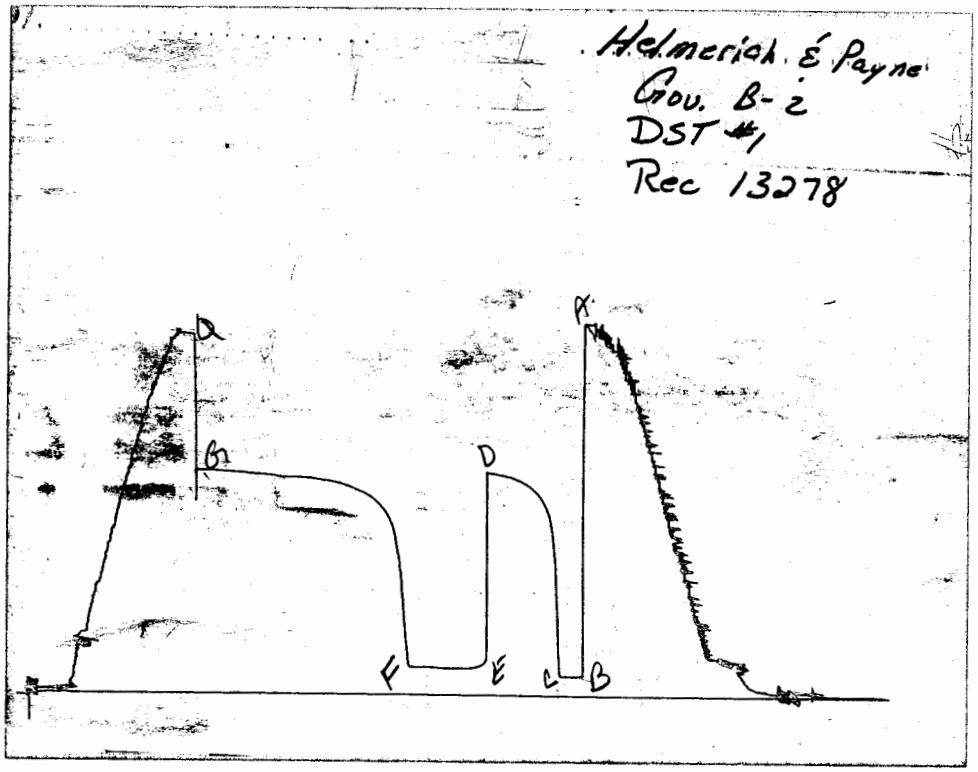


This is a photocopy of the actual AK-1 recorder chart

TRILOBITE TESTING L.L.C.

P.O. Box 362 - Hays, Kansas 67601

FLUID SAMPLER DATA

Ticket No. 12500 Date 3-12-2000

Company Name Helmerich & Payne

Lease Government B-2 Test No. 1

County Haskell Kansas Sec. 12 Twp. 27s Rng. 34w

SAMPLER RECOVERY

Gas 5 CF

Oil Trc. ML

Mud 2,500 ML

Water 1000 ML

Other — ML

Pressure 250 PSI

Total volume Rec 3,500 ML

Total Volume [redacted] 4,000 mL.

PIT MUD ANALYSIS

Chlorides 1,000 ppm.

Resistivity — ohms @ — F

Viscosity 52

Mud Weight 9.0

Filtrate 8.8

Other LCM 3#

SAMPLER ANALYSIS

Resistivity 0.56 ohms @ 42° F

Chlorides 23,000 ppm.

Gravity — corrected @ 60 F

PIPE RECOVERY

TOP

Resistivity — ohms @ — F

Chlorides — ppm.

MIDDLE

Resistivity — ohms @ — F

Chlorides — ppm.

BOTTOM

Resistivity 0.56 ohms @ 42° F

Chlorides 23,000 ppm.

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

Nº 12500

Well Name & No. Government "B" - 2 Test No. 1 Date 3-12-00

Company Helmerich & Payne Zone Tested Marmaton - Pawnee

Address 1579 E. 21st Tulsa ok 74114 Elevation 2967 KB 2956 GL

Co. Rep / Geo. Mikeal Maune Cont. Cheyenne #3 Est. Ft. of Pay 8 Por. 15 %

Location: Sec. 12 Twp. 27S Rge. 34W Co. Haskell State Ks

No. of Copies 4 Distribution Sheet (Y, N) 4 Turnkey (Y, N) — Evaluation (Y, N) —

Interval Tested 4668 - 4707 Initial Str Wt./Lbs. 72,000 Unseated Str Wt./Lbs. 73,000

Anchor Length 39' tool 30 Wt. Set Lbs. 25,000 Wt. Pulled Loose/Lbs. 22,000

Top Packer Depth 4663 Tool Weight 1,800

Bottom Packer Depth 4668 Hole Size — 7 7/8" — Rubber Size — 6 3/4" —

Total Depth 4707 Wt. Pipe Run — Drill Collar Run 6 stnd 356'

Mud Wt. 9.0 LCM 3# Vis. 52 WL 8.8 Drill Pipe Size Stnd 269 FH Single 4½ XH Ft. Run 4298' 16' up

Blow Description Weak Blow built to 3" in 15 min I.F.P.

No Blow Back I.S.I.P.

Weak Blow built to 4" Blow in 60 min F.F.P.

No Blow Back F.S.I.P.

Recovery — Total Feet 235' GIP 60' Ft. in DC 235 Ft. in DP —

Rec. 175	Feet Of	Slightly gas & oil cut mud	4	%gas	4	%oil		%water 92	%mud
Rec. 60	Feet Of	Slightly gas cut Water, mud	10	%gas	Tr	%oil	36	%water 54	%mud
Rec.	Feet Of			%gas		%oil		%water	%mud
Rec.	Feet Of			%gas		%oil		%water	%mud
Rec.	Feet Of			%gas		%oil		%water	%mud

BHT 120 °F Gravity — °API D@ — °F Corrected Gravity — °API

RW 0.56 @ 42 °F Chlorides 23,000 ppm Recovery Chlorides 1000 ppm System

	AK-1	Alpine					
(A) Initial Hydrostatic Mud	2218	2209	PSI	Recorder No.	2357	T-On Location	9:30
(B) First Initial Flow Pressure	121	15	PSI	(depth)	4669	T-Started	11:05
(C) First Final Flow Pressure	121	52	PSI	Recorder No.	13278	T-Open	1:30 PM
(D) Initial Shut-In Pressure	1336	1354	PSI	(depth)	4704	T-Pulled	8:45 PM
(E) Second Initial Flow Pressure	165	62	PSI	Recorder No.	—	T-Out	20:15
(F) Second Final Flow Pressure	165	146	PSI	(depth)	—	T-Off Location	11:30
(G) Final Shut-in Pressure	1336	1353	PSI	Initial Opening	15	Test	700
(Q) Final Hydrostatic Mud	2141	2201	PSI	Initial Shut-in	60	Jars	200
				Final Flow	60	Safety Joint	50
				Final Shut-in	180	Straddle	
				—		Circ. Sub	
				—		Sampler	200
						Extra Packer	
						Elec. Rec.	150
						Mileage	
						Other ext 3 hrs @ 30 = 90	
						TOTAL PRICE $	1390

11:10

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 Mikeal K. Maune

Our Representative Brad Bot

TRILOBITE TESTING L.L.C.

OPERATOR : Helmerich & Payne — DATE 3-14-00
WELL NAME: Government B #2 — KB 2968.00 ft — TICKET NO: 11196 — DST #2
LOCATION : 12-27-34 — GR 2956.00 ft — FORMATION: Morrow
INTERVAL : 4986.00 To 5090.00 ft — TD 5090.00 ft — TEST TYPE: CONVENTIONAL

RECORDER DATA

Mins			Field	1	2	3	4
PF	0	Rec.	2023		2346		
SI	0	Range(Psi)	4500.0	0.0	4995.0	0.0	0.0
SF	0	Clock(hrs)	12		alpin		
FS	0	Depth(ft)	5087.0	0.0	5021.0	0.0	0.0

TIME DATA----------
PF Fr. 1010 to 1015 hr
IS Fr. to hr
SF Fr. to hr
FS Fr. to hr

	Field	1	2	3	4
A. Init Hydro	0.0	0.0	2388.0	0.0	0.0
B. First Flow	0.0	0.0	0.0	0.0	0.0
B1. Final Flow	0.0	0.0	0.0	0.0	0.0
C. In Shut-in	0.0	0.0	0.0	0.0	0.0
D. Init Flow	0.0	0.0	0.0	0.0	0.0
E. 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
G. Final Hydro	0.0	0.0	2382.0	0.0	0.0
Inside/Outside	i		o		

T STARTED 0650 hr
T ON BOTM 1007 hr
T OPEN 1010 hr
T PULLED 1015 hr
T OUT 1300 hr

RECOVERY
Tot Fluid 620.00 ft of 356.00 ft in DC and 264.00 ft in DP
620.00 ft of Drilling mud
0.00 ft of 100% 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 900.00 P.P.M. A.P.I. Gravity 0.00

TOOL DATA----------

Tool Wt.	5000.00 lbs
Wt Set On Packer	26000.00 lbs
Wt Pulled Loose	85000.00 lbs
Initial Str Wt	74000.00 lbs
Unseated Str Wt	79000.00 lbs
Bot Choke	0.75 in
Hole Size	7.88 in
D Col. ID	2.25 in
D. Pipe ID	3.50 in
D.C. Length	356.00 ft
D.P. Length	4683.00 ft

BLOW DESCRIPTION
Initial Flow:
Packer failure at open. Pulled and reset. Packer failure at open. Pulled tool.

MUD DATA----------

Mud Type	Chemical
Weight	9.00 lb/cf
Vis.	48.00 S/L
W.L.	9.60 in3
F.C.	0.00 in
Mud Drop Y	0.0 ft
Amt. of fill	0.00 ft
Btm. H. Temp.	115.00 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	Shane McBride
Co. Rep.	Mike Maune
Contr.	Cheyenne
Rig #	3
Unit #	
Pump T.	

SAMPLES:
SENT TO:

Test Successful: N

*** TOOL DIAGRAM *** CONVENTIONAL

WELL NAME: Government B #2

LOCATION : 12-27-34

TICKET No. 11196 D.S.T. No. 2 DATE 3-14-00

TOTAL TOOL TO BOTTOM OF TOP PACKERS 30

INTERVAL TOOL .....

BOTTOM PACKERS AND ANCHOR 41

TOTAL TOOL 71

DRILL COLLAR ANCHOR IN INTERVAL .....

D.C. ANCHOR STND.Stands Single Total

D.P. ANCHOR STND.Stands 1 Single Total 63

TOTAL ASSEMBLY 134

D.C. ABOVE TOOLS.Stands6 Single Total 356

D.P. ABOVE TOOLS.Stands68 Single Total 4631

TOTAL DRILL COLLARS DRILL PIPE & TOOLS .. 5121

TOTAL DEPTH 5090

TOTAL DRILL PIPE ABOVE K.B. 31

REMARKS:
Gas:

Oil:

Water:

Mud: 4000 ml.

Total: 4000 ml. drilling mud

Pressure: --

Chlorides in sampler 900 RW 7.1 @ 62* F

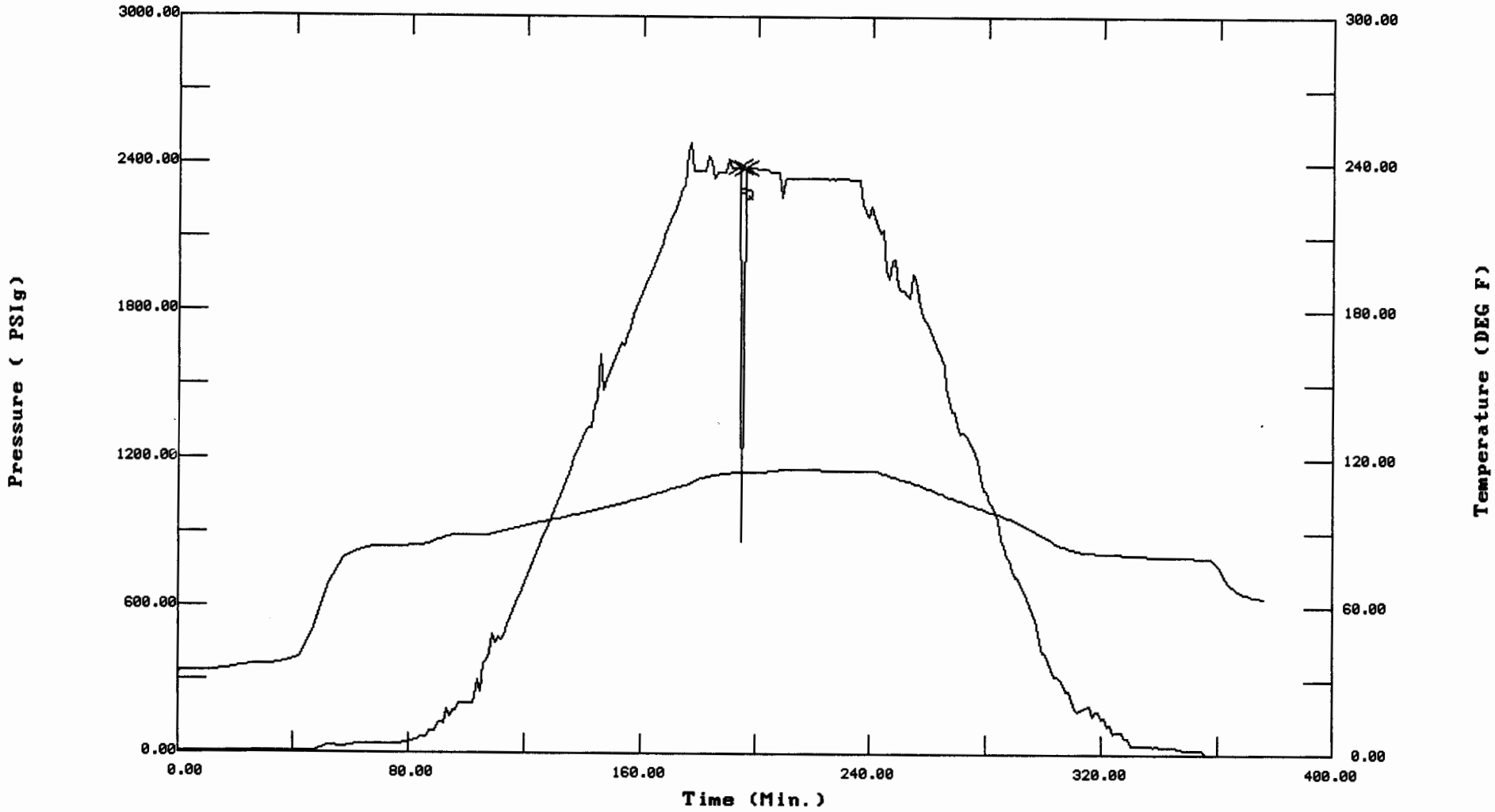
P.O. SUB	
C.O. SUB 1'	4955
S.I. TOOL 5'	4961
sampler 3'	4964
HMV 5'	4969
JARS 5'	4974
SAFETY JOINT 2'	4976
PACKER top	4981
PACKER bottom	4986
DEPTH 4986	
1'	4987
ANCHOR 33' perf	5020
1' c.o.	5021
alpine recorder	5021
63' drillpipe	5084
1' c.o.	5085
ak-1 recorder	5087
BULLNOSE 5'bullplug	5090
T.D.	5090

TEST HISTORY

11196 DST #2 Government B #2 Helmerich & Payne

Flag Points

	t(Min.)	P(PSIg)
A:	0.00	2388.13
Q:	0.00	2382.14



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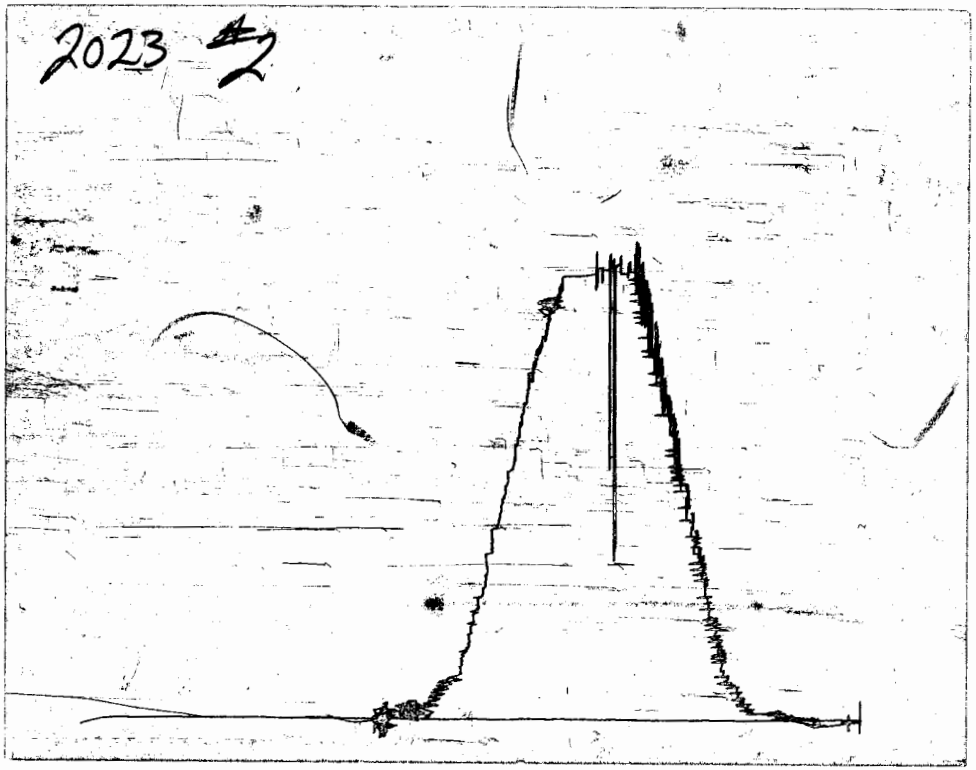

This is a photocopy of the actual AK-1 recorder chart

TRILOBITE TESTING L.L.C.

P.O. Box 362 - Hays, Kansas 67601

FLUID SAMPLER DATA

Ticket No. 11196 Date 3-14-00

Company Name Helmerich & Payne

Lease Government B #2 Test No. 2

County Haskell, Ks Sec. 12 Twp. 27 Rng. 34

SAMPLER RECOVERY

Gas _____ ML

Oil _____ ML

Mud 4,000 ML

Water _____ ML

Other _____ ML

Pressure — PSI

Total 4,000 ML

PIT MUD ANALYSIS

Chlorides 900 ppm.

Resistivity 8.2 ohms @ 50 F

Viscosity 48

Mud Weight 9.0

Filtrate 9.6

Other #1

SAMPLER ANALYSIS

Resistivity 7.1 ohms @ 62 F

Chlorides 900 ppm.

Gravity — corrected @ 60 F

PIPE RECOVERY

TOP

Resistivity 7.1 ohms @ 62 F

Chlorides 900 ppm.

MIDDLE

Resistivity _____ ohms @ _____ F

Chlorides _____ ppm.

BOTTOM

Resistivity 7.1 ohms @ 62 F

Chlorides 900 ppm.

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

№ 11196

Well Name & No. Government 13 #2 Test No. 2 Date 3-14-00

Company Helmerich & Payne Zone Tested morrow

Address 1579 E 21st Tulsa, OK 74114 Elevation 2968' KB 2956' GL

Co. Rep / Geo. Wray Valentine / Mike Maune Cont. Cheyenne #3 Est. Ft. of Pay ____ Por. ____ %

Location: Sec. 12 Twp. 27 Rge. 34 Co. Haskell State Ks

No. of Copies Norm Distribution Sheet (Y, N) ____ Turnkey (Y, N) N Evaluation (Y, N) ____

Interval Tested 4986' 5090' Initial Str Wt./Lbs. 74,000 Unseated Str Wt./Lbs. 79,000

Anchor Length 104' Wt. Set Lbs. 80,000 Wt. Pulled Loose/Lbs. 85,000

Top Packer Depth 4981' Tool Weight 5,000

Bottom Packer Depth 4986' Hole Size — 7 7/8" ✓ Rubber Size — 6 3/4" ✓

Total Depth 5090' Wt. Pipe Run — Drill Collar Run 356'

Mud Wt. 9.0 LCM 1 Vis. 48 WL 9.6 Drill Pipe Size 4½ XH Ft. Run 4683'

Blow Description Packer failure @ open - pull reset - Packer failure - pull Tool.

Recovery — Total Feet 620' GIP — Ft. in DC 356 Ft. in DP 264

Rec. 620' Feet Of Drlg Mud %gas %oil %water 100 %mud

Rec. ____ Feet Of ____ %gas %oil %water %mud

Rec. ____ Feet Of ____ %gas %oil %water %mud

Rec. ____ Feet Of ____ %gas %oil %water %mud

Rec. ____ Feet Of ____ %gas %oil %water %mud

BHT 115° °F Gravity — °API D@ — °F Corrected Gravity — °API

RW — @ — °F Chlorides — ppm Recovery Chlorides 900 ppm System

(A) Initial Hydrostatic Mud	2388 PSI	Recorder No.	2346	T-Started	06:50 a.m.
(B) First Initial Flow Pressure	— PSI	(depth)	5021'	T-Open	10:10 A.M
(C) First Final Flow Pressure	— PSI	Recorder No.	2023	T-Pulled	10:15 A.M
(D) Initial Shut-in Pressure	— PSI	(depth)	5087'	T-Out	13:00 p.m.
(E) Second Initial Flow Pressure	— PSI	Recorder No.		on loc	04:45 A.M
(F) Second Final Flow Pressure	— PSI	(depth)		off loc	
(G) Final Shut-in Pressure	— PSI	Initial Opening	—	Test	600
(H) Final Hydrostatic Mud	2382 PSI	Initial Shut-in	—	Jars	200
	Alpine	Final Flow	—	Safety Joint	50
		Final Shut-in	—	Straddle	
				Circ. Sub	N/C
				Sampler	N/C
				Extra Packer	
				Elect. Rec.	150
				Other	70 miles
				TOTAL PRICE $	1100

TRILOBIITE 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 Mikael K. Maune

Our Representative Shane McBee