WELL NAME:	Smith #1
COMPANY:	AFG Energy
LOCATION:	Sec. 27 Twp. 12 Rge. 33 Logan County Kansas
DATE:	10-2-96

TRILOBITE TESTING L.L.C.

OPERATOR : AFG Energy — DATE 10-2-96
WELL NAME: Smith #1 — KB 3119.00 ft — TICKET NO: 9540 — DST #1
LOCATION : 27-12s-33w — GR 3125.00 ft — FORMATION: Lansing
INTERVAL : 4074.00 To 4194.00 ft — TD 4194.00 ft — TEST TYPE: CONV

RECORDER DATA

Mins		Field	1	2	3	4
PF 15	Rec.	11057	11057	11058		
SI 3	Range(Psi)	4500.0	4500.0	4475.0	0.0	0.0
SF 45	Clock(hrs)	12	12	12		
FS 30	Depth(ft)	4076.0	4076.0	4191.0	0.0	0.0

TIME DATA----------
PF Fr. 1811 to 1826 hr
IS Fr. 1826 to 1856 hr
SF Fr. 1856 to 1941 hr
FS Fr. 1941 to 2011 hr

	Field	1	2	3	4
A. Init Hydro	1993.0	2005.0	0.0	0.0	0.0
B. First Flow	179.0	182.0	0.0	0.0	0.0
Bl. Final Flow	336.0	336.0	0.0	0.0	0.0
C. In Shut-in	1219.0	1223.0	0.0	0.0	0.0
D. Init Flow	426.0	422.0	0.0	0.0	0.0
E. Final Flow	794.0	806.0	0.0	0.0	0.0
F. Fl Shut-in	1208.0	1208.0	0.0	0.0	0.0
G. Final Hydro	1970.0	1981.0	0.0	0.0	0.0
Inside/Outside		I	I	O	

T STARTED 1600 hr
T ON BOTM 1809 hr
T OPEN 1811 hr
T PULLED 2011 hr
T OUT 2245 hr

RECOVERY
Tot Fluid 1680.00 ft of 30.00 ft in DC and 1650.00 ft in DP
60.00 ft of Drilling Mud Trace Water
0.00 ft of
540.00 ft of Water Cut Mud
0.00 ft of
240.00 ft of Mud Cut Water
0.00 ft of
840.00 ft of Salt Water
0.00 ft of
SALINITY 5000.00 P.P.M. A.P.I. Gravity 0.00

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

Tool Wt.	6000.00 lbs
Wt Set On Packer	26000.00 lbs
Wt Pulled Loose	67000.00 lbs
Initial Str Wt	46000.00 lbs
Unseated Str Wt	54000.00 lbs
Bot Choke	0.75 in
Hole Size	7.88 in
D Col. ID	2.25 in
D. Pipe ID	3.80 in
D.C. Length	30.00 ft
D.P. Length	4125.00 ft
H.W. I.D	2.70 in

BLOW DESCRIPTION
Initial Flow -
Bottom of Bucket in 2-1/2 min.

Initial Shut-In:
Bleed off Blow - No Return

Final Flow -
Bottom of Bucket in 2 min.

Final Shut-In:
Bleed off Blow - No Return

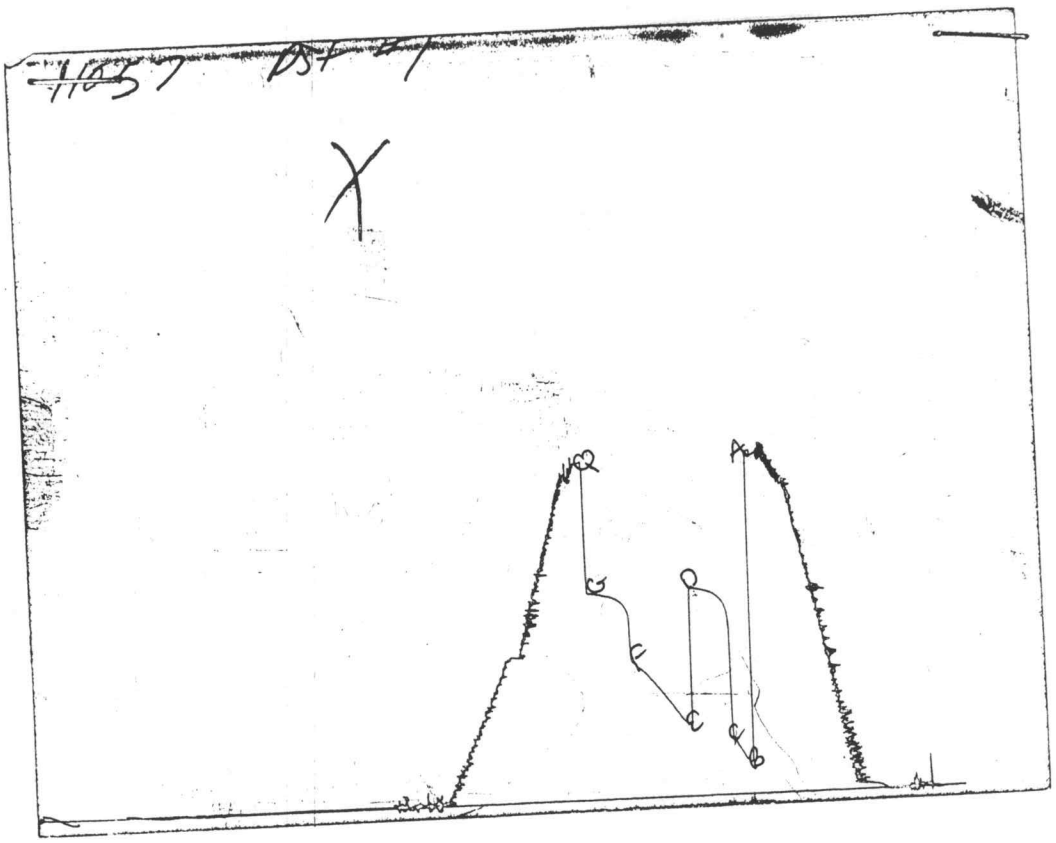
MUD DATA----------

Mud Type	Chem
Weight	9.10 lb/cf
Vis.	46.00 S/L
W.L.	8.80 in3
F.C.	0.00 in
Mud Drop	
Amt. of fill	0.00 ft
Btm. H. Temp.	1140.00 F
Hole Condition	
% Porosity	0.00
Packer Size	6.75 in
No. of Packers	2
Cushion Amt.	0.00
Cushion Type	
Reversed Out	
Tool Chased	
Tester	Shane McBride
Co. Rep.	Ed Glassman
Contr.	Discovery
Rig #	2
Unit #	
Pump T.	

SAMPLES:
SENT TO:

Test Successful: Y

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

Test Ticket

№ 9540

Well Name & No. Smith #1 Test No. 1 Date 10-2-96

Company AFG Energy Zone Tested Lans

Address P.O. Box 458 Hays Ks 67601 Elevation ____ KB 3125' GL

Co. Rep / Geo. Ed Glassman Cont. Dis #2 Est. Ft. of Pay ____ Por. ____ %

Location: Sec. 27 Twp. 12 Rge. 33 Co. Logan State Ks

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

Interval Tested 4074' — 4194' Initial Str Wt./Lbs. 46,000 Unseated Str Wt./Lbs. 54,000

Anchor Length 120' Wt. Set Lbs. 26,000 Wt. Pulled Loose/Lbs. 67,000

Top Packer Depth 4069' Tool Weight 6,000

Bottom Packer Depth 4074' Hole Size — 7 7/8" ✓ Rubber Size — 6 3/4" ✓

Total Depth 4194' Wt. Pipe Run — Drill Collar Run 30

Mud Wt. 9.1 LCM Trace Vis. 46 WL 8.8 Drill Pipe Size 4½ XH Ft. Run 4125'

Blow Description B.O.B in 2½ mn.

I.S.I: Bleed off Blow — No return

F.F.: B.O.B in 2mn

F.S.I: Bleed off Blow — No return

Recovery — Total Feet 1680' GIP — Ft. in DC 30' Ft. in DP 1650'

Rec. 60'	Feet Of Drilling Mud Trace Water	‰gas	‰oil	Trace ‰water	100 ‰mud
Rec. 540'	Feet Of Water cut mud	‰gas	‰oil	35 ‰water	65 ‰mud
Rec. 240'	Feet Of mud cut Water	‰gas	‰oil	70 ‰water	30 ‰mud
Rec. 840'	Feet Of Salt Water	‰gas	‰oil	100 ‰water	‰mud
Rec. ____	Feet Of ____	‰gas	‰oil	‰water	‰mud

BHT 114° °F Gravity — °API D@ — °F Corrected Gravity — °API

RW .276 @ 51 °F Chlorides 38,000 ppm Recovery Chlorides 5,000 ppm System

(A) Initial Hydrostatic Mud	1993 PSI	Recorder No.	11057	T-Started	16:00 P.m.
(B) First Initial Flow Pressure	179 PSI	(depth)	4076'	T-Open	18:11 P.m.
(C) First Final Flow Pressure	336 PSI	Recorder No.	11058	T-Pulled	20:11 P.m.
(D) Initial Shut-in Pressure	1219 PSI	(depth)	4191'	T-Out	22:45 P.m.
(E) Second Initial Flow Pressure	426 PSI	Recorder No.	____		
(F) Second Final Flow Pressure	794 PSI	(depth)	____		
(G) Final Shut-in Pressure	1208 PSI	Initial Opening	15	Test X	6000
(H) Final Hydrostatic Mud	1970 PSI	Initial Shut-in	30	Jars	____
		Final Flow	45	Safety Joint	____
		Final Shut-in	30	Straddle	____
				Circ. Sub X	N/C
				Sampler	____
				Extra Packer	____
				Elect. Rec.	____
				Other	____
				TOTAL PRICE $	600

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 Ed Glassman

Our Representative Dave McBride

TRILOBITE TESTING L.L.C.

OPERATOR : AFG Energy
WELL NAME: Smith #1
LOCATION : 27-12s-33w Logan KS
INTERVAL : 4240.00 To 4357.00 ft

DATE 10-3-96
KB 3119.00 ft
GR 3111.00 ft
TD 4357.00 ft
TICKET NO: 9541 DST #2
FORMATION: Lower KC
TEST TYPE: CONV

RECORDER DATA

Mins		Field	1	2	3	4
PF 15	Rec.	11057	11057	11058		
SI 30	Range(Psi)	4500.0	4500.0	4475.0	0.0	0.0
SF 45	Clock(hrs)	12	12	12		
FS 30	Depth(ft)	4242.0	4242.0	4354.0	0.0	0.0

TIME DATA----------
PF Fr. 1444 to 1459 hr
IS Fr. 1459 to 1529 hr
SF Fr. 1529 to 1614 hr
FS Fr. 1614 to 1644 hr

	Field	1	2	3	4
A. Init Hydro	214.0	2191.0	0.0	0.0	0.0
B. First Flow	112.0	118.0	0.0	0.0	0.0
B1. Final Flow	123.0	123.0	0.0	0.0	0.0
C. In Shut-in	950.0	949.0	0.0	0.0	0.0
D. Init Flow	168.0	160.0	0.0	0.0	0.0
E. Final Flow	201.0	201.0	0.0	0.0	0.0
F. Fl Shut-in	917.0	914.0	0.0	0.0	0.0
G. Final Hydro	2151.0	2157.0	0.0	0.0	0.0
Inside/Outside	I	I	O		

T STARTED 1250 hr
T ON BOTM 1442 hr
T OPEN 1444 hr
T PULLED 1644 hr
T OUT 1900 hr

RECOVERY
Tot Fluid 350.00 ft of 30.00 ft in DC and 320.00 ft in DP
180.00 ft of Gassy Oil Cut Mud - Trace Water
0.00 ft of
170.00 ft of Slightly Oil Cut, Watery, Gassy Mud
0.00 ft of
0.00 ft of
0.00 ft of
0.00 ft of
0.00 ft of
SALINITY 6500.00 P.P.M. A.P.I. Gravity 0.00

BLOW DESCRIPTION

SAMPLES:
SENT TO:

Test Successful: Y

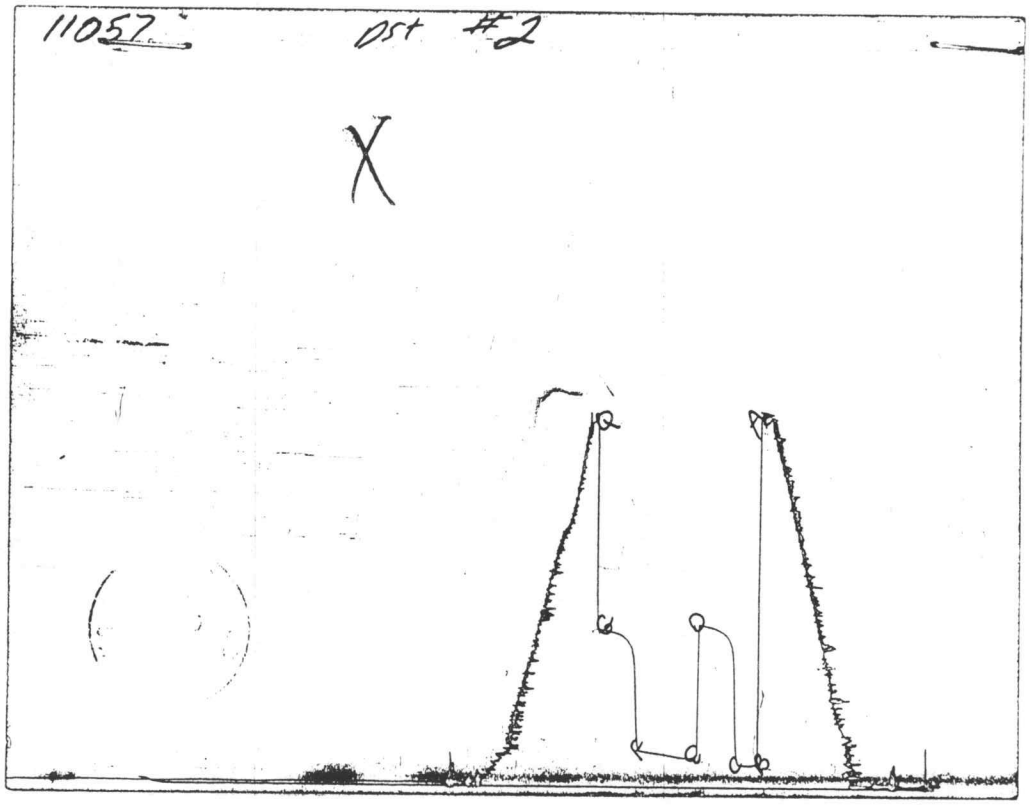
TOOL DATA----------

Tool Wt.	6000.00 lbs
Wt Set On Packer	26000.00 lbs
Wt Pulled Loose	55000.00 lbs
Initial Str Wt	46000.00 lbs
Unseated Str Wt	47000.00 lbs
Bot Choke	0.75 in
Hole Size	7.88 in
D Col. ID	2.25 in
D. Pipe ID	3.80 in
D.C. Length	30.00 ft
D.P. Length	4281.00 ft
H.W. Length	2.70 ft

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

Mud Type	Chem
Weight	9.20 lb/cf
Vis.	53.00 S/L
W.L.	8.80 in3
F.C.	0.00 in
Mud Drop	
Amt. of fill	0.00 ft
Btm. H. Temp.	1150.00 F
Hole Condition	
% Porosity	0.00
Packer Size	6.75 in
No. of Packers	2
Cushion Amt.	0.00
Cushion Type	
Reversed Out	
Tool Chased	
Tester	Shane McBride
Co. Rep.	Ed Glassman
Contr.	Discovery
Rig #	@
Unit #	
Pump T.	

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

Test Ticket

№ 9541

Well Name & No. Smith #1 Test No. 2 Date 10-3-96

Company AFG Energy Zone Tested Lower KC

Address P.O. Box 458 Hays KS 67601 Elevation 3119' KB 3111' GL

Co. Rep / Geo. Ed Glassman Cont. Dis #2 Est. Ft. of Pay ____ Por. ____ %

Location: Sec. 27 Twp. 12 Rge. 33 Co. Logan State KS

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

Interval Tested 4240' — 4357' Initial Str Wt./Lbs. 46,000 Unseated Str Wt./Lbs. 47,000

Anchor Length 117' Wt. Set Lbs. 26,000 Wt. Pulled Loose/Lbs. 55,000

Top Packer Depth 4235' Tool Weight 6,000

Bottom Packer Depth 4240' Hole Size — 7 7/8" ✓ Rubber Size — 6 3/4" ✓

Total Depth 4357' Wt. Pipe Run ____ Drill Collar Run 30'

Mud Wt. 9.2 LCM ____ Vis. 53 WL 8.8 Drill Pipe Size 4 1/2 X H Ft. Run 4281'

Blow Description 1/2 in Blow @ open built to 7 1/2" in.

I.S.I: Bleed off Blow - No return

F.F.: B.O.B in 23 min.

F.S.I: Bleed of Blow - weak Surface return in 4 min. 1/8" in.

Recovery — Total Feet 350' GIP 60' Ft. in DC 30' Ft. in DP 320'

Rec. 180' Feet Of Gassy oil Cut mud Trace Water 40 %gas 25 %oil Trace %water 35 %mud

Rec. 170' Feet Of Slitty oil cut watery gassy mud 15 %gas 5 %oil 20 %water 60 %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 .24 @ 61 °F Chlorides 32,000 ppm Recovery Chlorides 6500 ppm System

(A) Initial Hydrostatic Mud	2174 PSI	Recorder No.	11057	T-Started	12:50 P.M.
(B) First Initial Flow Pressure	112 PSI	(depth)	4242'	T-Open	14:44 P.M.
(C) First Final Flow Pressure	123 PSI	Recorder No.	11058	T-Pulled	16:44 P.M.
(D) Initial Shut-in Pressure	950 PSI	(depth)	4354'	T-Out	19:00 P.M.
(E) Second Initial Flow Pressure	168 PSI	Recorder No.			
(F) Second Final Flow Pressure	201 PSI	(depth)			
(G) Final Shut-in Pressure	917 PSI	Initial Opening	15	Test X	600
(H) Final Hydrostatic Mud	2151 PSI	Initial Shut-in	30	Jars	
		Final Flow	45	Safety Joint	
		Final Shut-in	30	Straddle	
				Circ. Sub X	N/C
				Sampler	
				Extra Packer	
				Elect. Rec.	
				Other	
				TOTAL PRICE $	600

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Approved By Ed Glassman

Our Representative Steve McBride

TRILOBITE TESTING L.L.C.

OPERATOR : AFG Energy — DATE 10-4-96
WELL NAME: Smith #1 — KB 3119.00 ft — TICKET NO: 9542 — DST #3
LOCATION : 27-12s-33w Logan KS — GR 3111.00 ft — FORMATION: Johnson
INTERVAL : 4570.00 To 4660.00 ft — TD 4660.00 ft — TEST TYPE: CONV

RECORDER DATA

	Mins		Field	1	2	3	4
PF	15	Rec.	11057	11057	11058		
SI	30	Range(Psi)	4500.0	4500.0	4475.0	0.0	0.0
SF	45	Clock(hrs)	12	12	12		
FS	30	Depth(ft)	4572.0	4572.0	4657.0	0.0	0.0

TIME DATA----------
PF Fr. 2255 to 2310 hr
IS Fr. 2310 to 2340 hr
SF Fr. 2340 to 2425 hr
FS Fr. 2425 to 2455 hr

	Field	1	2	3	4
A. Init Hydro	2311.0	2320.0	0.0	0.0	0.0
B. First Flow	55.0	58.0	0.0	0.0	0.0
B1. Final Flow	44.0	50.0	0.0	0.0	0.0
C. In Shut-in	1064.0	1057.0	0.0	0.0	0.0
D. Init Flow	44.0	53.0	0.0	0.0	0.0
E. Final Flow	44.0	53.0	0.0	0.0	0.0
F. Fl Shut-in	929.0	923.0	0.0	0.0	0.0
G. Final Hydro	2278.0	2336.0	0.0	0.0	0.0
Inside/Outside		I	I	O	

T STARTED 2105 hr
T ON BOTM 2253 hr
T OPEN 2255 hr
T PULLED 0055 hr
T OUT 0310 hr

RECOVERY
Tot Fluid 30.00 ft of 30.00 ft in DC and 0.00 ft in DP
30.00 ft of 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
0.00 ft of
SALINITY 6500.00 P.P.M. A.P.I. Gravity 0.00

BLOW DESCRIPTION
Initial Flow -
Weak 1/4" Blow

Initial Shut-In -
No Return

Final Flow -
Bubble to 0pen Tool - No Blow

Final Shut-In -
No Return

SAMPLES:
SENT TO:

Test Successful: Y

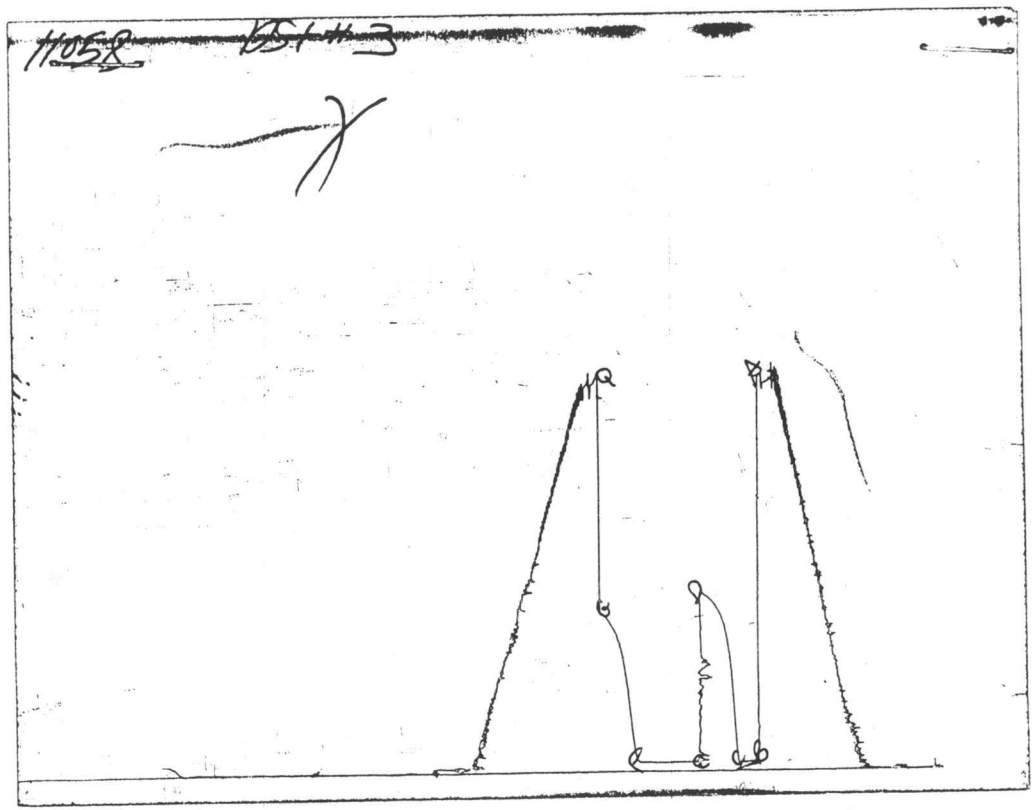
TOOL DATA----------

Tool Wt.	6000.00 lbs
Wt Set On Packer	26000.00 lbs
Wt Pulled Loose	54000.00 lbs
Initial Str Wt	48000.00 lbs
Unseated Str Wt	48000.00 lbs
Bot Choke	0.75 in
Hole Size	7.88 in
D Col. ID	2.25 in
D. Pipe ID	3.80 in
D.C. Length	30.00 ft
D.P. Length	0.00 ft
H.W. Length	2.70 ft

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

Mud Type	Chem
Weight	9.20 lb/cf
Vis.	52.00 S/L
W.L.	8.20 in3
F.C.	0.00 in
Mud Drop	
Amt. of fill	0.00 ft
Btm. H. Temp.	113.00 F
Hole Condition	
% Porosity	0.00
Packer Size	6.75 in
No. of Packers	2
Cushion Amt.	0.00
Cushion Type	
Reversed Out	
Tool Chased	
Tester	Shane McBride
Co. Rep.	Ed Glassman
Contr.	Discovery
Rig #	2
Unit #	
Pump T.	

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

Test Ticket

№ 9542

Well Name & No. Smith #1 Test No. 3 Date 10-4-96

Company AFG Energy Zone Tested Johnson

Address P.O. Box 458 Hays, Ks 67601 Elevation 3119' KB 3111' GL

Co. Rep / Geo. Ed Glassman Cont. D.S. #2 Est. Ft. of Pay ____ Por. ____ %

Location: Sec. 27 Twp. 12 Rge. 33 Co. Logan State Ks

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

Interval Tested 4572' — 4660' Initial Str Wt./Lbs. 48,000 Unseated Str Wt./Lbs. 48,000

Anchor Length 90' Wt. Set Lbs. 26,000 Wt. Pulled Loose/Lbs. 54,000

Top Packer Depth 4565' Tool Weight 6,000

Bottom Packer Depth 4570' Hole Size — 7 7/8" ✓ Rubber Size — 6 3/4" ✓

Total Depth 4660' Wt. Pipe Run — Drill Collar Run 30'

Mud Wt. 9.2 LCM ____ Vis. 52 WL 8.2 Drill Pipe Size 4 1/2 XH Ft. Run ____

Blow Description Weak 1/4" in Blow

I.S.I: No return

F.F: Bubble to open tool — No Blow.

F.S.I: No return

Recovery — Total Feet 30' GIP — Ft. in DC 30' Ft. in DP —

Rec. 30'	Feet Of Drilling Mud	‰gas	‰oil	Trace	‰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 113° °F Gravity ____ °API D@ ____ °F Corrected Gravity ____ °API

RW ____ @ ____ °F Chlorides ____ ppm Recovery Chlorides 6,500 ppm System

(A) Initial Hydrostatic Mud	2311 PSI	Recorder No.	11057	T-Started	21:05 P.M.
(B) First Initial Flow Pressure	55 PSI	(depth)	4572'	T-Open	22:55 P.M.
(C) First Final Flow Pressure	44 PSI	Recorder No.	11058	T-Pulled	12:55 A.M.
(D) Initial Shut-in Pressure	1064 PSI	(depth)	4657'	T-Out	3:10 A.M
(E) Second Initial Flow Pressure	44 PSI	Recorder No.			
(F) Second Final Flow Pressure	44 PSI	(depth)			
(G) Final Shut-in Pressure	929 PSI	Initial Opening	15	Test X	600
(H) Final Hydrostatic Mud	2278 PSI	Initial Shut-in	30	Jars	
		Final Flow	45	Safety Joint	
		Final Shut-in	30	Straddle	
				Circ. Sub X	N/C
				Sampler	
				Extra Packer	
				Elect. Rec.	
				Other	
				TOTAL PRICE $	600

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Approved By Ed Glassman

Our Representative Steve McBride