

TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name SCHAFFER #1 Test No. 1 Date 05/02/95
Company AFG ENERGY INC Zone TOPEKA
Address BOX 458, HAYS KS 67601 Elevation 2041
Co. Rep./Geo. ED GLASSMAN Cont. DUKE #4 Est. Ft. of Pay _____
Location: Sec. 23 Twp. 16S Rge. 18W Co. RUSH State KS

Interval Tested 3020-3045 Drill Pipe Size 4.5" XH
Anchor Length 25 Wt. Pipe I.D. - 2.7 Ft. Run _____
Top Packer Depth 3015 Drill Collar - 2.25 Ft. Run _____
Bottom Packer Depth 3020 Mud Wt. 8.7 lb/Gal.
Total Depth 3045 Viscosity 47 Filtrate 10.4

Tool Open @ 8:31 AM Initial Blow STRONG, BOTTOM OF BUCKET IN 8 MIN
INITIAL SHUTIN - 1/2" BLOW
Final Blow STRONG, BOTTOM OF BUCKET AS SOON AS TOOL OPENED
FINAL SHUTIN - NO BLOW

Recovery - Total Feet 30 Flush Tool? NO

Rec. 870 Feet of GAS IN PIPE
Rec. 30 Feet of GASSY MUD
Rec. _____ Feet of OIL SPOTS IN TOOL
Rec. _____ Feet of _____
Rec. _____ Feet of _____

BHT 84 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides _____ ppm System

(A) Initial Hydrostatic Mud 1476.90 PSI AK1 Recorder No. 22150 Range 3925

(B) First Initial Flow Pressure 26.60 PSI @ (depth) 3022 w / Clock No. 22336

(C) First Final Flow Pressure 26.60 PSI AK1 Recorder No. 24174 Range 3050

(D) Initial Shut-in Pressure 689.30 PSI @ (depth) 3039 w / Clock No. 23839

(E) Second Initial Flow Pressure 34.10 PSI AK1 Recorder No. _____ Range _____

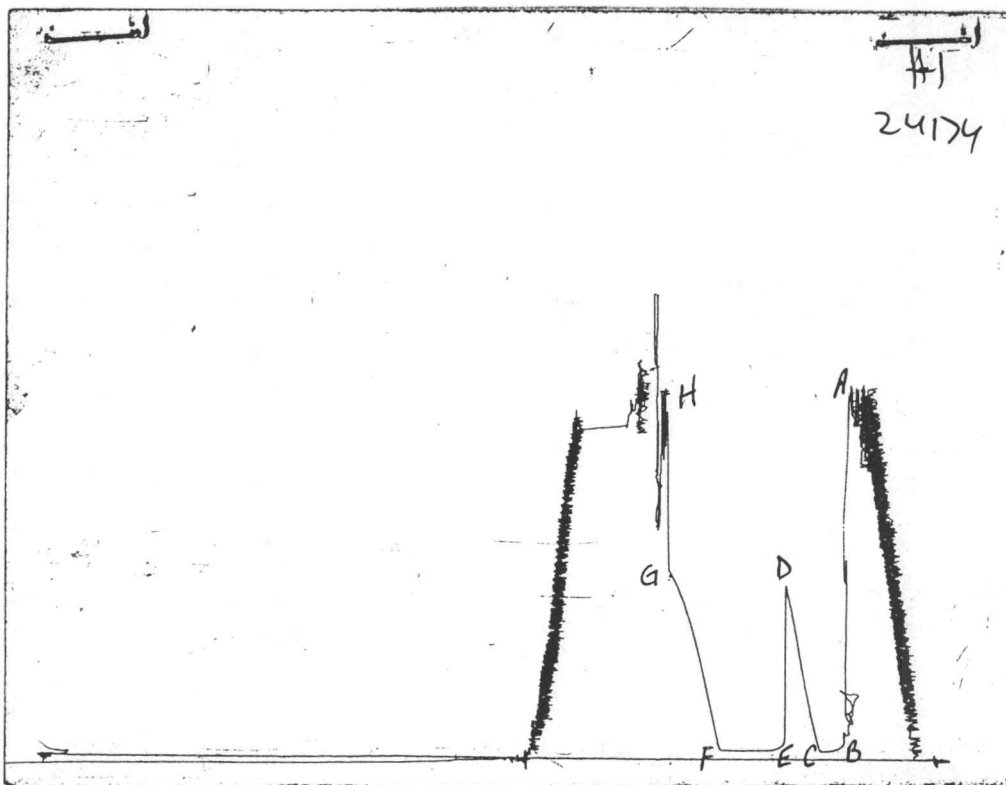
(F) Second Final Flow Pressure 34.10 PSI @ (depth) _____ w / Clock No. _____

(G) Final Shut-in Pressure 748.00 PSI Initial Opening 15 Final Flow 50

(H) Final Hydrostatic Mud 1459.50 PSI Initial Shut-in 30 Final Shut-in 45

Our Representative PAUL SIMPSON

CHART PAGE



This is an actual photograph of an AK1 recorder chart

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	1461	1476.90
(B) FIRST INITIAL FLOW PRESSURE	30	26.60
(C) FIRST FINAL FLOW PRESSURE	30	26.60
(D) INITIAL CLOSED-IN PRESSURE	690	689.30
(E) SECOND INITIAL FLOW PRESSURE	30	34.10
(F) SECOND FINAL FLOW PRESSURE	30	34.10
(G) FINAL CLOSED-IN PRESSURE	736	748.00
(H) FINAL HYDROSTATIC MUD	1447	1459.50

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Drill-Stem Test Data

Well Name SCHAFFER #1 Test No. 2 Date 05/03/95
Company AFG ENERGY INC Zone LKC
Address BOX 458, HAYS KS 67601 Elevation 2050
Co. Rep./Geo. ED GLASSMAN Cont. DUKE #4 Est. Ft. of Pay _____
Location: Sec. 23 Twp. 16S Rge. 18W Co. RUSH State KS

Interval Tested 3309-3358 Drill Pipe Size 4.5" XH
Anchor Length 49 Wt. Pipe I.D. - 2.7 Ft. Run _____
Top Packer Depth 3304 Drill Collar - 2.25 Ft. Run _____
Bottom Packer Depth 3309 Mud Wt. _____ lb/Gal.
Total Depth 3358 Viscosity _____ Filtrate _____

Tool Open @ 7:40 AM Initial Blow BOTTOM OF BUCKET IN 9 MIN

Final Blow STRONG, BOTTOM OF BUCKET WHEN TOOL OPENED

Recovery - Total Feet 45 Flush Tool? NO

Rec. 900 Feet of GAS IN PIPE
Rec. 45 Feet of GASSY MUD
Rec. _____ Feet of _____
Rec. _____ Feet of _____
Rec. _____ Feet of _____

BHT _____ °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides _____ ppm System

(A) Initial Hydrostatic Mud 1635.90 PSI AK1 Recorder No. 22150 Range 3925

(B) First Initial Flow Pressure 44.40 PSI @ (depth) 3324 w / Clock No. 23839

(C) First Final Flow Pressure 44.40 PSI AK1 Recorder No. 24174 Range 3050

(D) Initial Shut-in Pressure 877.20 PSI @ (depth) 3353 w / Clock No. 22336

(E) Second Initial Flow Pressure 54.90 PSI AK1 Recorder No. _____ Range _____

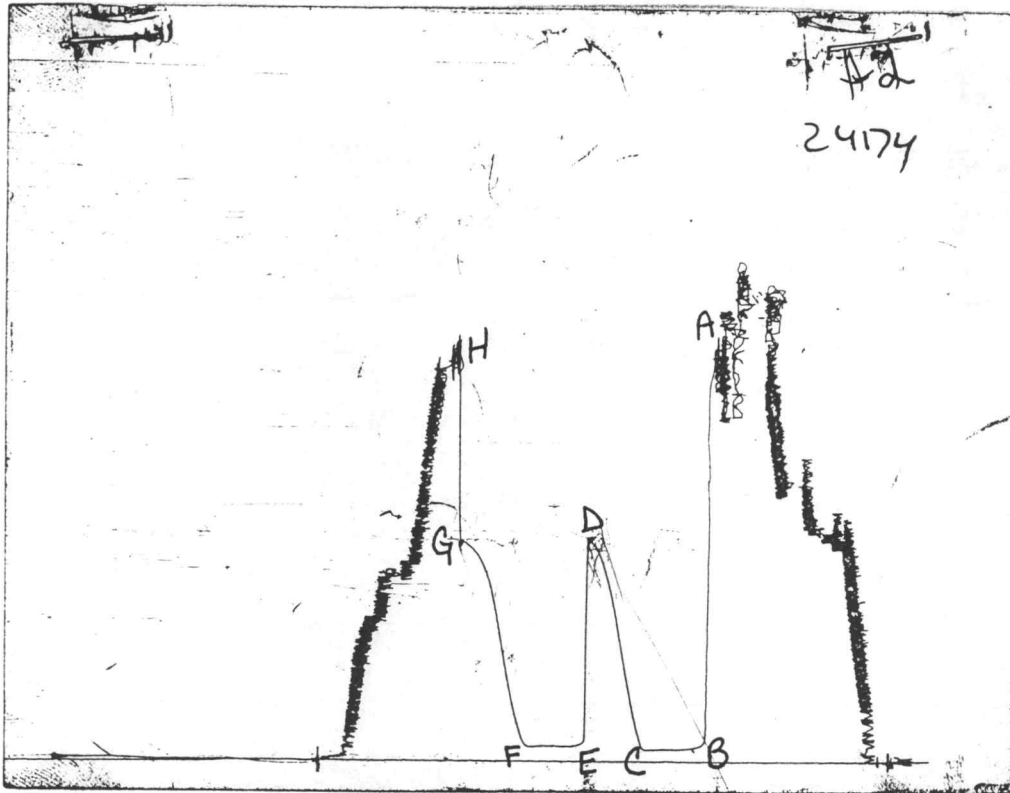
(F) Second Final Flow Pressure 54.90 PSI @ (depth) _____ w / Clock No. _____

(G) Final Shut-in Pressure 869.90 PSI Initial Opening 45 Final Flow 45

(H) Final Hydrostatic Mud 1579.00 PSI Initial Shut-in 45 Final Shut-in 45

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CHART PAGE



This is an actual photograph of an AK1 recorder chart

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	1635	1635.90
(B) FIRST INITIAL FLOW PRESSURE	44	44.40
(C) FIRST FINAL FLOW PRESSURE	44	44.40
(D) INITIAL CLOSED-IN PRESSURE	804	877.20
(E) SECOND INITIAL FLOW PRESSURE	52	54.90
(F) SECOND FINAL FLOW PRESSURE	52	54.90
(G) FINAL CLOSED-IN PRESSURE	789	869.90
(H) FINAL HYDROSTATIC MUD	1575	1579.00

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Drill-Stem Test Data

Well Name SCHAFFER #1 Test No. 3 Date 05/03/95
Company AFG ENERGY INC Zone LKC
Address PO BOX 458, HAYS KS 67601 Elevation 2050
Co. Rep./Geo. ED GLASSMAN Cont. DUKE #4 Est. Ft. of Pay _____
Location: Sec. 23 Twp. 16S Rge. 18W Co. RUSH State KS

Interval Tested 3361-3450 Drill Pipe Size 4.5" XH
Anchor Length 89 Wt. Pipe I.D. - 2.7 Ft. Run _____
Top Packer Depth 3356 Drill Collar - 2.25 Ft. Run _____
Bottom Packer Depth 3361 Mud Wt. 9 lb/Gal.
Total Depth 3450 Viscosity 52 Filtrate 8.8

Tool Open @ 10:20 PM Initial Blow 1/2" BLOW BUILDING TO 2"

Final Blow 2" BLOW BUILDING TO 5"

Recovery - Total Feet 50 Flush Tool? NO

Rec. 40 Feet of GAS IN PIPE
Rec. 50 Feet of SLIGHTLY WATERY MUD
Rec. _____ Feet of OIL SPOTS IN TOOL
Rec. _____ Feet of _____
Rec. _____ Feet of _____

BHT _____ °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides _____ ppm System

(A) Initial Hydrostatic Mud 1710.37 PSI AK1 Recorder No. 22150 Range 3925

(B) First Initial Flow Pressure 79.40 PSI @ (depth) 3420 w / Clock No. 23839

(C) First Final Flow Pressure 79.40 PSI AK1 Recorder No. 24174 Range 3050

(D) Initial Shut-in Pressure 792.10 PSI @ (depth) 3443 w / Clock No. 22336

(E) Second Initial Flow Pressure 79.40 PSI AK1 Recorder No. _____ Range _____

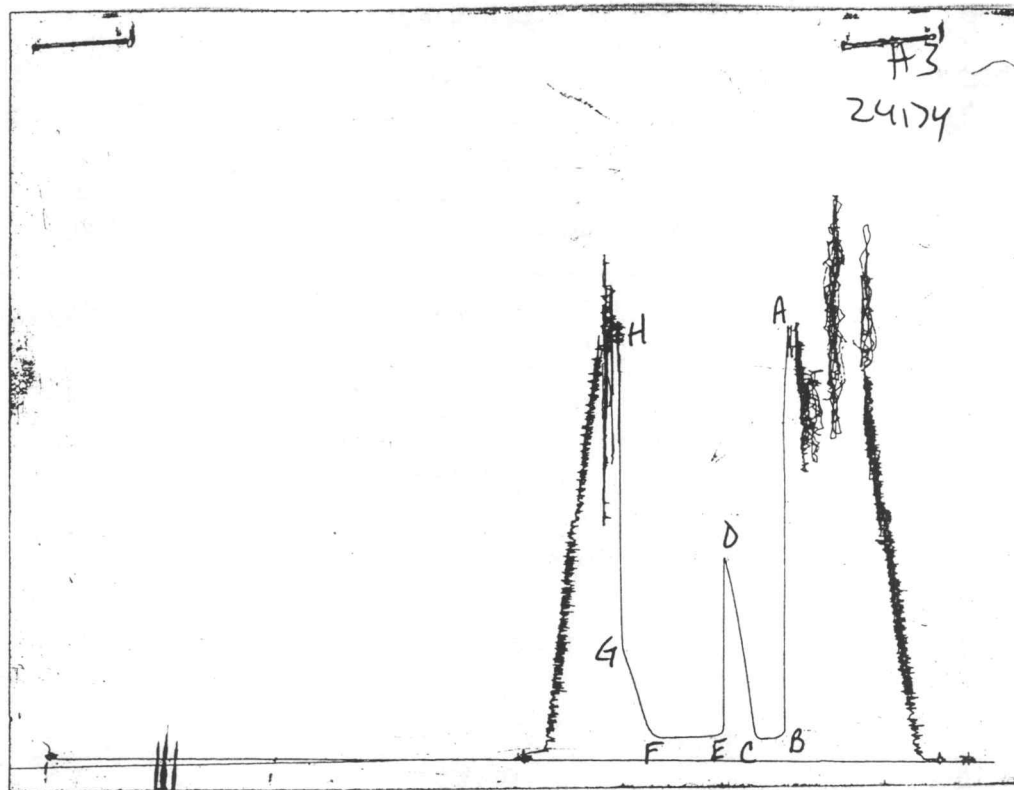
(F) Second Final Flow Pressure 79.40 PSI @ (depth) _____ w / Clock No. _____

(G) Final Shut-in Pressure 430.38 PSI Initial Opening 15 Final Flow 45

(H) Final Hydrostatic Mud 1669.28 PSI Initial Shut-in 30 Final Shut-in 30

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CHART PAGE



This is an actual photograph of an AK1 recorder chart

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	1712	1710.37
(B) FIRST INITIAL FLOW PRESSURE	89	79.40
(C) FIRST FINAL FLOW PRESSURE	89	79.40
(D) INITIAL CLOSED-IN PRESSURE	797	792.10
(E) SECOND INITIAL FLOW PRESSURE	89	79.40
(F) SECOND FINAL FLOW PRESSURE	89	79.40
(G) FINAL CLOSED-IN PRESSURE	430	430.38
(H) FINAL HYDROSTATIC MUD	1666	1669.28

TRILOBITE TESTING L.L.C.

OPERATOR : AFG ENERGY
WELL NAME: SCHAFER #1
LOCATION : 23-16S-18W
INTERVAL : 3546.00 To 3621.00 ft

DATE 05/04/95
KB 2050.00 ft
GR 0.00 ft
TD 3621.00 ft

TICKET NO: 8300
FORMATION: LKC
TEST TYPE: CONVENTIONAL

DST #4

RECORDER DATA

Mins	Field	1	2	3	4	TIME DATA-----
PF 45 Rec.	24174	24174	22150			PF Fr. 45 to hr
SI 45 Range(Psi)	3050.0	3050.0	3925.0	0.0	0.0	IS Fr. 45 to hr
SF 45 Clock(hrs)	22336	22336	23839			SF Fr. 45 to hr
FS 45 Depth(ft)	3615.0	3615.0	3554.0	0.0	0.0	FS Fr. 45 to hr

	Field	1	2	3	4	
A. Init Hydro	1803.0	1800.0	0.0	0.0	0.0	T STARTED hr
B. First Flow	560.0	553.0	0.0	0.0	0.0	T ON BOTM hr
Bl. Final Flow	978.0	981.0	0.0	0.0	0.0	T OPEN 1740 hr
C. In Shut-in	1130.0	1134.0	0.0	0.0	0.0	T PULLED 2025 hr
D. Init Flow	1001.0	1004.0	0.0	0.0	0.0	T OUT hr
E. Final Flow	1130.0	1126.0	0.0	0.0	0.0	
F. Fl Shut-in	1137.0	1147.0	0.0	0.0	0.0	
G. Final Hydro	1788.0	1792.0	0.0	0.0	0.0	
Inside/Outside	0	0	I			

RECOVERY

Tot Fluid 2000.00 ft of 0.00 ft in DC and 2000.00 ft in DP
420.00 ft of GASSY SLIGHTLY WATERY MUD - 15% GAS, 10% H2O,
0.00 ft of 75% MUD
1580.00 ft of GASSY WATER - 20% GAS, 80% 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 20000.00 P.P.M. A.P.I. Gravity 0.00

BLOW DESCRIPTION

INITIAL BLOW -
STRONG, GAS TO SURFACE IN 8 MIN

INITIAL SHUTIN -

VERY STRONG BLOW BACK

FINAL BLOW -

STRONG, GAUGING GAS (SEE REPORT)

SAMPLES:

SENT TO:

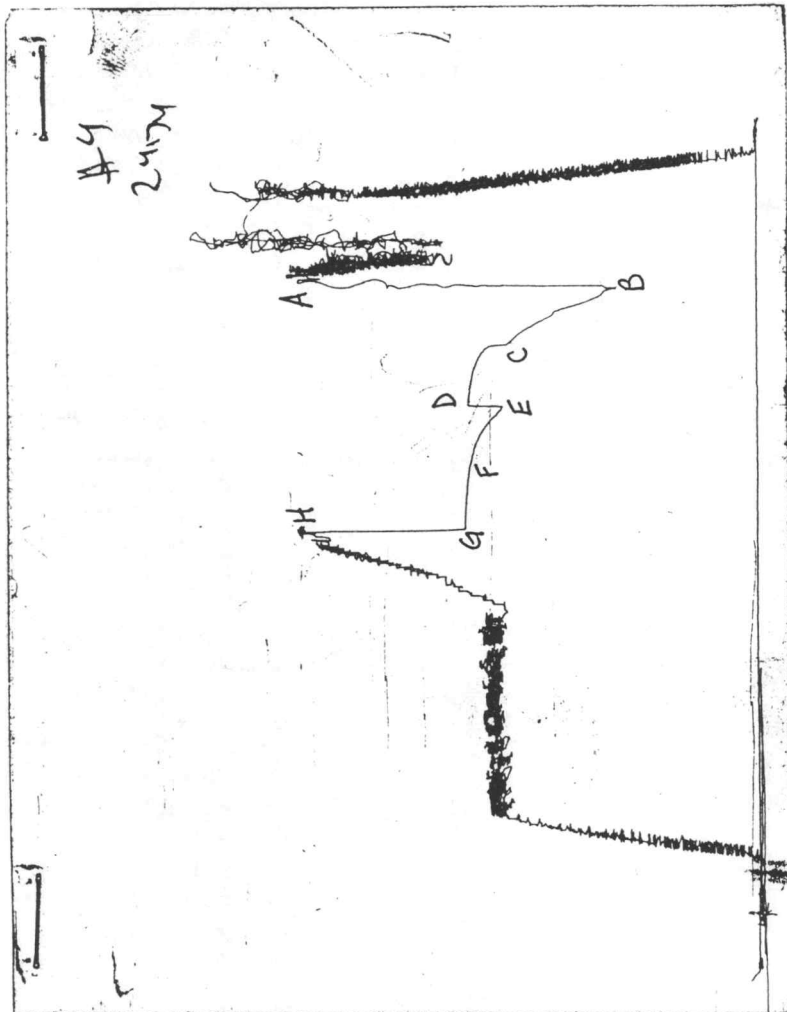
MUD DATA-----

Mud Type	CHEMICAL
Weight	9.10 lb/c
Vis.	53.00 S/L
W.L.	9.60 in3
F.C.	0.00 in
Mud Drop	

Amt. of fill	0.00 ft
Btm. H. Temp.	0.00 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	PAUL SIMPSON
Co. Rep.	ED GLASSMAN
Contr.	DUKE
Rig #	4
Unit #	
Pump T.	

Test Successful: Y

CHART PAGE



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GAS RECOVERY -----

COMPANY: AFG ENERGY

DATE: 05/04/95

WELL NAME: SCHAFER #1

KB Elev: 2050.00 ft TICKET #8300

DST #4

WELL LOCATION: 23-16S-18W

GR Elev: 0.00 ft FORMATION: LKC

INTERVAL Fr.: 3546.00 To 3621.00 T.D.: 3621.00 ft TEST TYPE: CONVENTIONAL

GAS RECOVERY MEASURED WITH MERLA

***** GAS RATES FOR FLOW #1

Time (min)	Orifice (in)	Pressure (Psi)	H2O (in)	Rate (cf/d)
8	0.75	0	64	114.0
10	0.75	0	46	96.3
20	0.75	0	22	66.6
28	0.75	0	16	56.8

***** GAS RATES FOR FLOW #2

Time (min)	Orifice (in)	Pressure (Psi)	H2O (in)	Rate (cf/d)
10	0.75	0	16	56.8
20	0.75	0	16	56.8
30	0.75	0	8	40.0
40	0.50	0	30	34.3
45	0.50	0	20	28.0