

TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name GRAHAM #1 Test No. 1 Date 2/14/95
Company AFG ENERGY INC Zone TOPEKA
Address P O BOX 458, HAYS, KS 67601 Elevation 2069
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 3035-3051
Anchor Length 16
Top Packer Depth 3030
Bottom Packer Depth 3035
Total Depth 3051

Drill Pipe Size 4.5" XH
Wt. Pipe I.D. - 2.7 Ft. Run _____
Drill Collar - 2.25 Ft. Run _____
Mud Wt. 8.8 lb/Gal.
Viscosity 50 Filtrate 8.2

Tool Open @ 3:50AM Initial Blow 1 INCH BLOW BUILDING TO BOTTOM OF BUCKET IN 8 MINUTES.
(1/4 INCH BLOW ON SHUT IN.)

Final Blow STRONG - BOTTOM OF BUCKET WHEN TOOL OPENED.

Recovery - Total Feet 30 Flush Tool? NO

Rec. 930 Feet of GAS IN PIPE.
Rec. 30 Feet of MUD WITH OIL SPOTS IN TOOL.
Rec. _____ Feet of _____
Rec. _____ Feet of _____
Rec. _____ Feet of _____

BHT 94 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides _____ ppm System

(A) Initial Hydrostatic Mud 1408.60 PSI AK1 Recorder No. 22150 Range 3925

(B) First Initial Flow Pressure 32.60 PSI @ (depth) 3038 w / Clock No. 23839

(C) First Final Flow Pressure 32.60 PSI AK1 Recorder No. 24174 Range 3050

(D) Initial Shut-in Pressure 751.90 PSI @ (depth) 3044 w / Clock No. 22336

(E) Second Initial Flow Pressure 33.50 PSI AK1 Recorder No. _____ Range _____

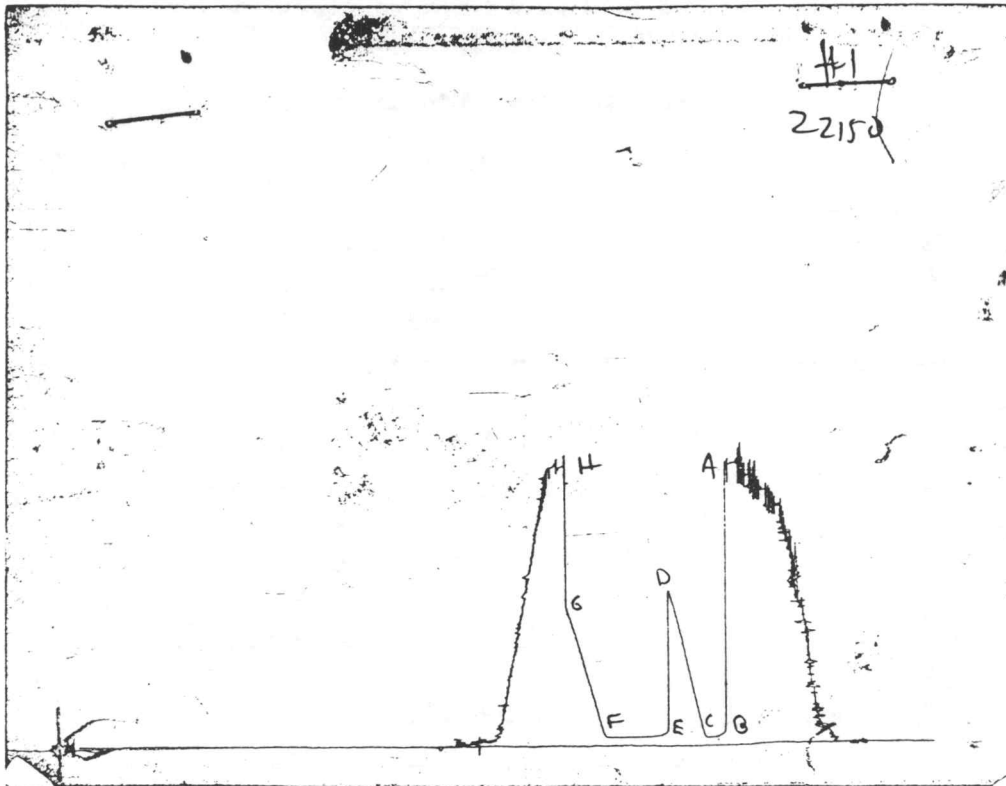
(F) Second Final Flow Pressure 33.50 PSI @ (depth) _____ w / Clock No. _____

(G) Final Shut-in Pressure 670.50 PSI Initial Opening 15 Final Flow 45

(H) Final Hydrostatic Mud 1420.20 PSI Initial Shut-in 30 Final Shut-in 30

Our Representative PAUL SIMPSON

CHART PAGE



This is an actual photograph of an AK1 recorder chart

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	1420	1408.60
(B) FIRST INITIAL FLOW PRESSURE	38	32.60
(C) FIRST FINAL FLOW PRESSURE	38	32.60
(D) INITIAL CLOSED-IN PRESSURE	779	751.90
(E) SECOND INITIAL FLOW PRESSURE	48	33.50
(F) SECOND FINAL FLOW PRESSURE	48	33.50
(G) FINAL CLOSED-IN PRESSURE	672	670.50
(H) FINAL HYDROSTATIC MUD	1391	1420.20

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Drill-Stem Test Data

Well Name GRAHAM #1 Test No. 2 Date 2/15/95
Company AFG ENERGY INC Zone LKC "G-I"
Address P O BOX 458, HAYS, KS 67601 Elevation 2069
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 3375-3485 Drill Pipe Size 4.5" XH
Anchor Length 110 Wt. Pipe I.D. - 2.7 Ft. Run _____
Top Packer Depth 3370 Drill Collar - 2.25 Ft. Run _____
Bottom Packer Depth 3375 Mud Wt. 8.8 lb/Gal.
Total Depth 3385 Viscosity 50 Filtrate 8.2

Tool Open @ 11:36AM Initial Blow 1 INCH BLOW BUILDING TO BOTTOM OF BUCKET IN 15 MINUTES.
(BLOW BACK, BUILT TO 1 INCH).

Final Blow 1/2 INCH BLOW BUILDING TO BOTTOM OF BUCKET IN 35 MINUTES.
SURFACE BLOW ON SHUT IN.

Recovery - Total Feet 352 Flush Tool? NO

Rec. 30 Feet of GAS IN PIPE.
Rec. 1 Feet of CLEAN OIL.
Rec. 151 Feet of WATERY MUD WITH OIL SPOTS. 15% WATER; 85% MUD.
Rec. 200 Feet of MUDDY WATER. 60% WATER; 40% MUD.
Rec. _____ Feet of _____

BHT _____ °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
RW 0.2 @ 52 °F Chlorides 53000 ppm Recovery Chlorides _____ ppm System

(A) Initial Hydrostatic Mud 1664.40 PSI AK1 Recorder No. 22150 Range 3925

(B) First Initial Flow Pressure 86.20 PSI @ (depth) 3471 w / Clock No. 23839

(C) First Final Flow Pressure 130.30 PSI AK1 Recorder No. 24174 Range 3050

(D) Initial Shut-in Pressure 955.40 PSI @ (depth) 3481 w / Clock No. 22336

(E) Second Initial Flow Pressure 172.40 PSI AK1 Recorder No. _____ Range _____

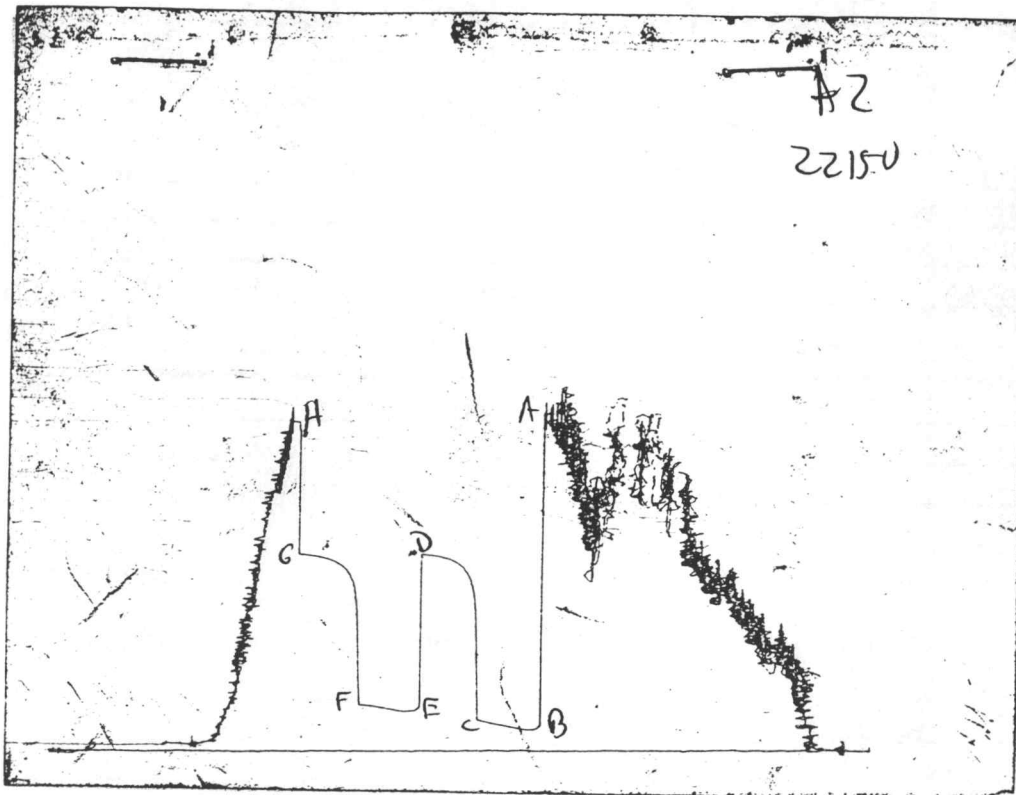
(F) Second Final Flow Pressure 200.20 PSI @ (depth) _____ w / Clock No. _____

(G) Final Shut-in Pressure 942.80 PSI Initial Opening 45 Final Flow 45

(H) Final Hydrostatic Mud 1635.80 PSI Initial Shut-in 45 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	1693	1664.40
(B) FIRST INITIAL FLOW PRESSURE	98	86.20
(C) FIRST FINAL FLOW PRESSURE	153	130.30
(D) INITIAL CLOSED-IN PRESSURE	993	955.40
(E) SECOND INITIAL FLOW PRESSURE	192	172.40
(F) SECOND FINAL FLOW PRESSURE	259	200.20
(G) FINAL CLOSED-IN PRESSURE	981	942.80
(H) FINAL HYDROSTATIC MUD	1682	1635.80

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Drill-Stem Test Data

Well Name GRAHAM #1 Test No. 3 Date 2/15/95
Company AFG ENERGY INC Zone "J" LKC
Address P O BOX 458, HAYS, KS 67601 Elevation 2069
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 3495-3501 Drill Pipe Size 4.5" XH
Anchor Length 6 Wt. Pipe I.D. - 2.7 Ft. Run _____
Top Packer Depth 3490 Drill Collar - 2.25 Ft. Run _____
Bottom Packer Depth 3495 Mud Wt. 9 lb/Gal.
Total Depth 3501 Viscosity 46 Filtrate 8.8

Tool Open @ 10:30PM Initial Blow WEAK, BUILDING TO 1/4 INCH.

Final Blow WEAK 1/4 INCH STEADY BLOW.

Recovery - Total Feet 5 Flush Tool? NO

Rec. 5 Feet of DRILLING MUD.
Rec. _____ Feet of _____
Rec. _____ Feet of _____
Rec. _____ Feet of _____
Rec. _____ Feet of _____

BHT 104 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 4000 ppm System

(A) Initial Hydrostatic Mud 1744.10 PSI AK1 Recorder No. 22150 Range 3925

(B) First Initial Flow Pressure 24.00 PSI @ (depth) 3483 w / Clock No. 23839

(C) First Final Flow Pressure 24.00 PSI AK1 Recorder No. 24174 Range 3050

(D) Initial Shut-in Pressure 24.00 PSI @ (depth) 3497 w / Clock No. 22336

(E) Second Initial Flow Pressure 24.00 PSI AK1 Recorder No. _____ Range _____

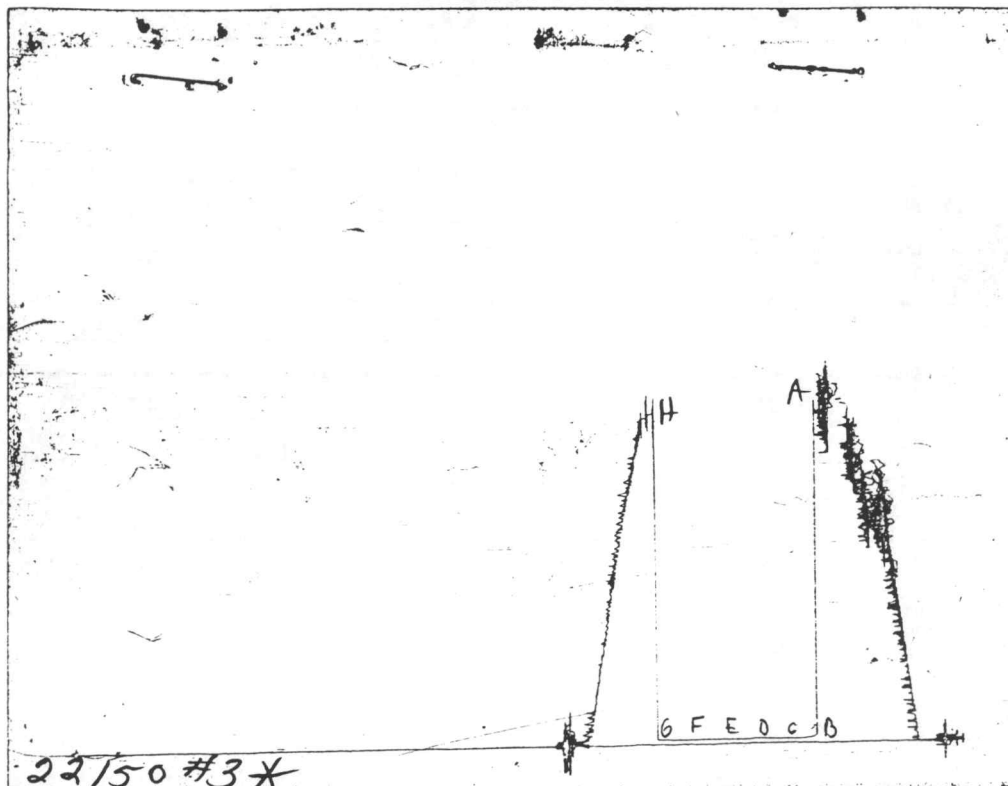
(F) Second Final Flow Pressure 24.00 PSI @ (depth) _____ w / Clock No. _____

(G) Final Shut-in Pressure 24.00 PSI Initial Opening 15 Final Flow 45

(H) Final Hydrostatic Mud 1657.50 PSI Initial Shut-in 30 Final Shut-in 30

Our Representative DAN BANGLE

CHART PAGE



This is an actual photograph of an AK1 recorder chart

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	1744	1744.10
(B) FIRST INITIAL FLOW PRESSURE	28	24.00
(C) FIRST FINAL FLOW PRESSURE	28	24.00
(D) INITIAL CLOSED-IN PRESSURE	28	24.00
(E) SECOND INITIAL FLOW PRESSURE	28	24.00
(F) SECOND FINAL FLOW PRESSURE	28	24.00
(G) FINAL CLOSED-IN PRESSURE	28	24.00
(H) FINAL HYDROSTATIC MUD	1665	1657.50

TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name GRAHAM #1 Test No. 4 Date 2/16/95
Company AFG ENERGY INC Zone "K" LKC
Address P O BOX 458, HAYS, KS 67601 Elevation 2069
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 3508-3520 Drill Pipe Size 4.5" XH
Anchor Length 12 Wt. Pipe I.D. - 2.7 Ft. Run _____
Top Packer Depth 3503 Drill Collar - 2.25 Ft. Run _____
Bottom Packer Depth 3508 Mud Wt. 9 lb/Gal.
Total Depth 3520 Viscosity 53 Filtrate 9.3

Tool Open @ 8:43AM Initial Blow WEAK STEADY SURFACE BLOW.

Final Blow WEAK 1/4 INCH STEADY BLOW.

Recovery - Total Feet 1 Flush Tool? NO

Rec. 1 Feet of DRILLING MUD.
Rec. _____ Feet of _____
Rec. _____ Feet of _____
Rec. _____ Feet of _____
Rec. _____ Feet of _____

BHT 104 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 5500 ppm System

(A) Initial Hydrostatic Mud 1691.90 PSI AK1 Recorder No. 22150 Range 3925

(B) First Initial Flow Pressure 27.80 PSI @ (depth) 3512 w / Clock No. 23839

(C) First Final Flow Pressure 27.80 PSI AK1 Recorder No. 24174 Range 3050

(D) Initial Shut-in Pressure 27.80 PSI @ (depth) 3516 w / Clock No. 22336

(E) Second Initial Flow Pressure 27.80 PSI AK1 Recorder No. _____ Range _____

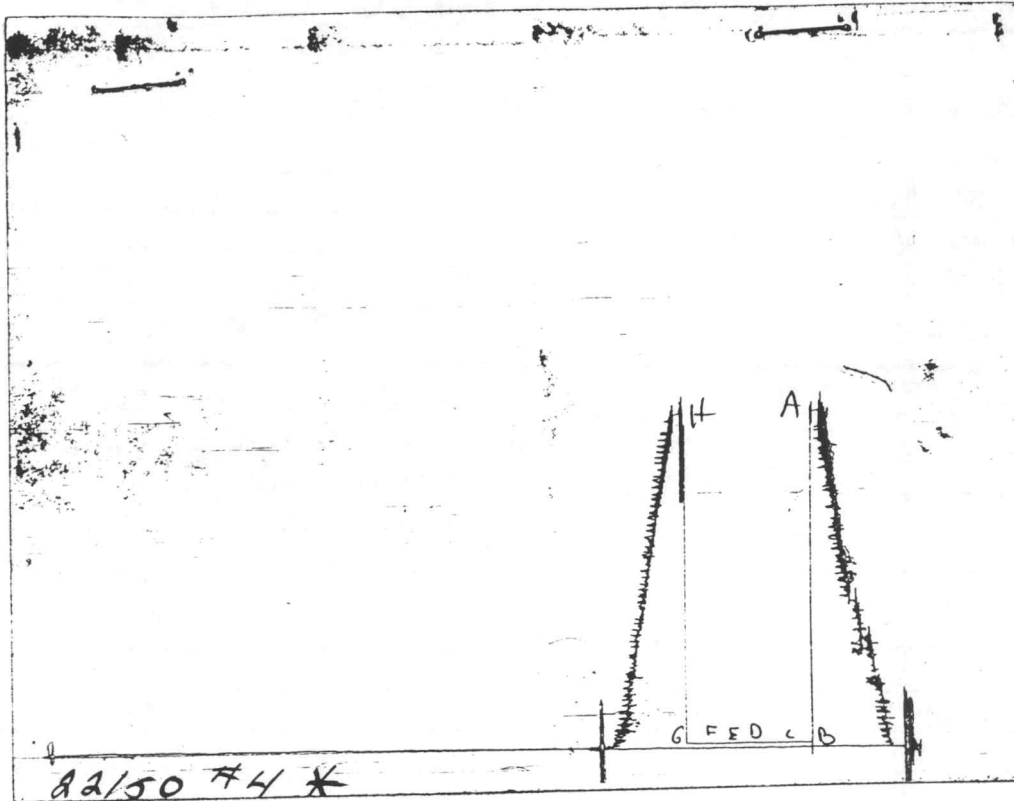
(F) Second Final Flow Pressure 27.80 PSI @ (depth) _____ w / Clock No. _____

(G) Final Shut-in Pressure 27.80 PSI Initial Opening 15 Final Flow 15

(H) Final Hydrostatic Mud 1658.50 PSI Initial Shut-in 30 Final Shut-in 30

Our Representative DAN BANGLE

CHART PAGE



This is an actual photograph of an AK1 recorder chart

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	1694	1691.90
(B) FIRST INITIAL FLOW PRESSURE	28	27.80
(C) FIRST FINAL FLOW PRESSURE	28	27.80
(D) INITIAL CLOSED-IN PRESSURE	28	27.80
(E) SECOND INITIAL FLOW PRESSURE	28	27.80
(F) SECOND FINAL FLOW PRESSURE	28	27.80
(G) FINAL CLOSED-IN PRESSURE	28	27.80
(H) FINAL HYDROSTATIC MUD	1665	1658.50

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Drill-Stem Test Data

Well Name GRAHAM #1 Test No. 5 Date 2/17/95
Company AFG ENERGY INC Zone LKC 'A-C'
Address P O BOX 458, HAYS, KS 67601 Elevation 2069
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 3297-3371 Drill Pipe Size 4.5" XH
Anchor Length 74 Wt. Pipe I.D. - 2.7 Ft. Run _____
Top Packer Depth 3292-3297 Drill Collar - 2.25 Ft. Run _____
Bottom Packer Depth 3371 Mud Wt. 9 lb/Gal.
Total Depth 3620 Viscosity 53 Filtrate 9.2

Tool Open @ 9:27AM Initial Blow STRONG - GAS TO SURFACE IN THREE MINUTES. (SEE REPORT).

Final Blow STRONG - GUAGING GAS - SEE REPORT.

Recovery - Total Feet 510 Flush Tool? NO

Rec. 150 Feet of GASSY MUD.
Rec. 360 Feet of GASSY MUDDY WATER. 50% GAS; 40% WATER; 10% MUD.
Rec. _____ Feet of _____
Rec. _____ Feet of _____
Rec. _____ Feet of _____

BHT 92 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides _____ ppm System

(A) Initial Hydrostatic Mud 1635.80 PSI AK1 Recorder No. 24174 Range 3050

(B) First Initial Flow Pressure 147.50 PSI @ (depth) 3365 w / Clock No. 22336

(C) First Final Flow Pressure 314.20 PSI AK1 Recorder No. 22150 Range 3925

(D) Initial Shut-in Pressure 967.10 PSI @ (depth) 3302 w / Clock No. 23839

(E) Second Initial Flow Pressure 286.40 PSI AK1 Recorder No. 10994 Range 4200

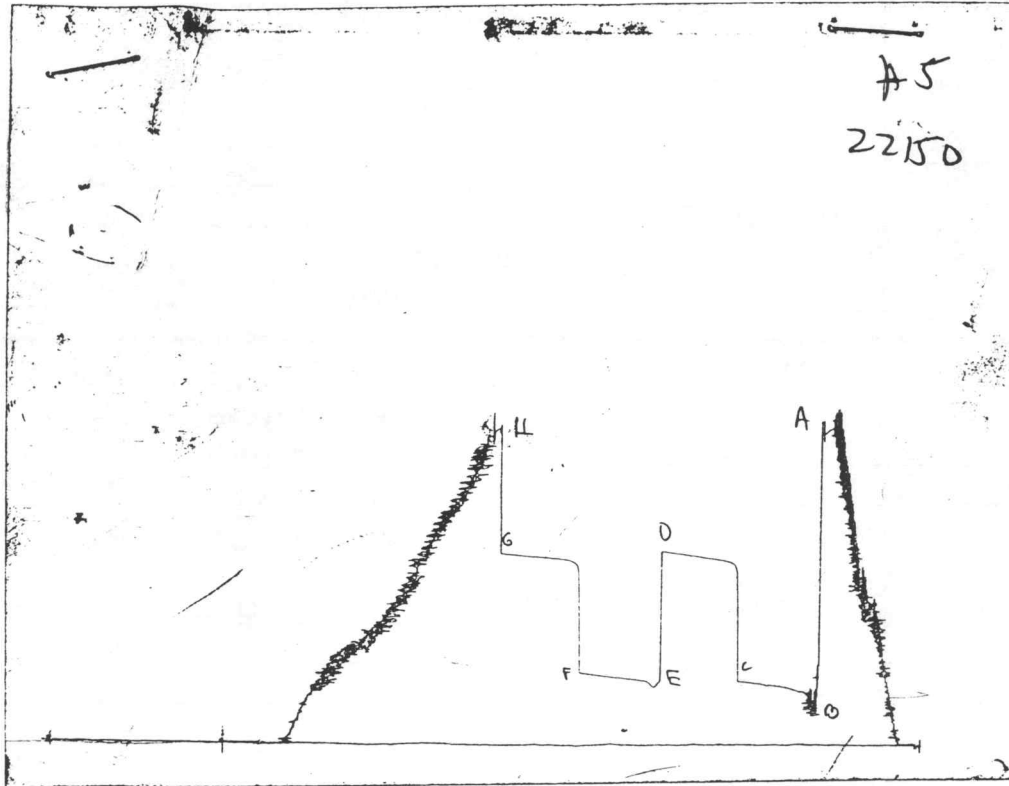
(F) Second Final Flow Pressure 354.40 PSI @ (depth) 3368 w / Clock No. 23834

(G) Final Shut-in Pressure 947.70 PSI Initial Opening 60 Final Flow 60

(H) Final Hydrostatic Mud 1634.80 PSI Initial Shut-in 60 Final Shut-in 60

Our Representative PAUL SIMPSON

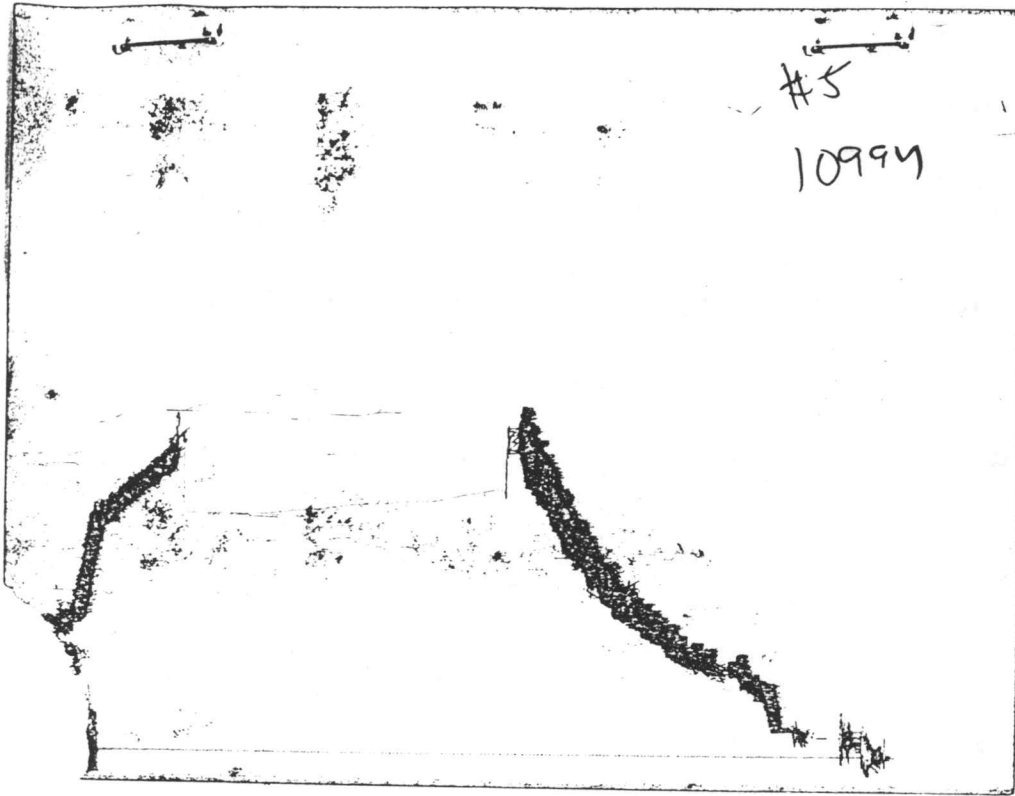
CHART PAGE



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	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	1626	1635.80
(B) FIRST INITIAL FLOW PRESSURE	153	147.50
(C) FIRST FINAL FLOW PRESSURE	320	314.20
(D) INITIAL CLOSED-IN PRESSURE	963	967.10
(E) SECOND INITIAL FLOW PRESSURE	287	286.40
(F) SECOND FINAL FLOW PRESSURE	354	354.40
(G) FINAL CLOSED-IN PRESSURE	953	947.70
(H) FINAL HYDROSTATIC MUD	1606	1634.80

CHART PAGE



This is an actual photograph of recorder chart

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

GAS VOLUME REPORT

AFG ENERGY INC

GRAHAM #1

DST # 5

<u>MIN</u>	<u>INS. WATER</u> <u>PSIG</u>	<u>ORIFICE</u>	<u>MCF/D</u>	<u>MIN</u>	<u>INS. WATER</u> <u>PSIG</u>	<u>ORIFICE</u>	<u>MCF/D</u>
5	13	1	552	5	7	1	385
10	18	1	687	10	15	1	603
15	19	1	699	15	19	1	699
20	19	1	699	20	21	1	749
25	18	1	687	25	21	1	749
30	18	1	687	30	21	1	749
35	18	1	687	40	21	1	
40	18	1	687	50	21	1	
50	18.5	1	693	60	21	1	
60	18.5	1	693				

Remarks: GAS TO SURFACE IN 3 MINUTES. HEAVY MIST OF MUD AT END OF FINAL FLOW.