TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name LOHREY #1 Test No. 1 Date 5/24/93

Company AFG ENERGY, INC. Zone LKC 'A,B,C'

Address P.O. BOX 458 HAYS KANSAS 67601 Elevation 2113

Co. Rep./Geo. ED GLASSMAN Cont. EMPHASIS #6 Est. Ft. of Pay

Location: Sec. 12 Twp. 17S Rge. 18W Co. RUSH State KS

Interval Tested 3371-3430 Drill Pipe Size 4.5" XH

Anchor Length 59 Wt. Pipe I.D. - 2.7 Ft. Run

Top Packer Depth 3366 Drill Collar – 2.25 Ft. Run

Bottom Packer Depth 3371 Mud Wt. 8.8 lb/Gal.

Total Depth 3430 Viscosity 46 Filtrate 9.2

Tool Open @ 5:24 AM Initial Blow STRONG - BOTTOM OF BUCKET IN 11 MINUTES

Final Blow STRONG - BOTTOM OF BUCKET IN 18 MINUTES

Recovery - Total Feet 435 Flush Tool? NO

Rec. 435 Feet of MUDDY WATER 70%WATER/30%MUD

Rec. Feet of

Rec. Feet of

Rec. Feet of

Rec. Feet of

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

RW 0.04 @ 80 °F Chlorides 60000 ppm Recovery Chlorides 6000 ppm System

(A) Initial Hydrostatic Mud 1833.1 PSI AK1 Recorder No. 13754 Range 4000

(B) First Initial Flow Pressure 68.5 PSI @ (depth) 3375 w / Clock No. 27567

(C) First Final Flow Pressure 103.4 PSI AK1 Recorder No. 7437 Range 4200

(D) Initial Shut-in Pressure 1163.2 PSI @ (depth) 3426 w / Clock No. 8376

(E) Second Initial Flow Pressure 135.6 PSI AK1 Recorder No. Range

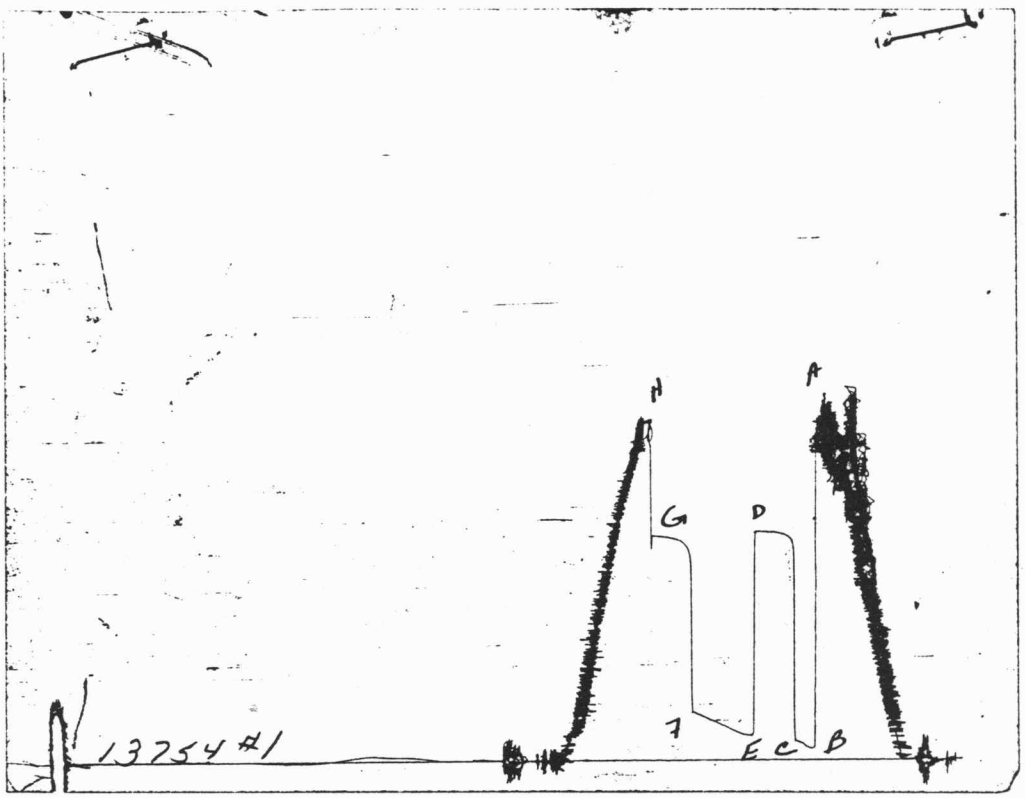
(F) Second Final Flow Pressure 251.3 PSI @ (depth) w / Clock No.

(G) Final Shut-in Pressure 1145.6 PSI Initial Opening 15 Final Flow 45

(H) Final Hydrostatic Mud 1742.9 PSI Initial Shut-in 30 Final Shut-in 30

Our Representative DAN BANGLE

CHART PAGE



This is an actual photograph of recorder chart

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	1826	1833.1
(B) FIRST INITIAL FLOW PRESSURE	59	68.5
(C) FIRST FINAL FLOW PRESSURE	98	103.4
(D) INITIAL CLOSED-IN PRESSURE	1156	1163.2
(E) SECOND INITIAL FLOW PRESSURE	127	135.6
(F) SECOND FINAL FLOW PRESSURE	246	251.3
(G) FINAL CLOSED-IN PRESSURE	1136	1145.6
(H) FINAL HYDROSTATIC MUD	1736	1742.9

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

№ 5678

Well Name & No. Lohrey #1 Test No. 1 Date 5-24-93

Company AFG Energy, Inc. Zone Tested A-B-C L.K.C.

Address Box 458, Hays, Ks. 67601 Elevation 2113 K.B.

Co. Rep./Geo. Ed Glassman Cont. Emphasis #6 Est. Ft. of Pay

Location: Sec. 12 Twp. 17 Rge. 18 Co. Rush State Ks.

No. of Copies Distribution Sheet Yes No Turnkey Yes No Evaluation

Interval Tested 3371-3430 Drill Pipe Size 4.5 XH

Anchor Length 59 Top Choke — 1" Bottom Choke — ¼"

Top Packer Depth 3366 Hole Size — 7⅞" Rubber Size — 6¾"

Bottom Packer Depth 3371 Wt. Pipe I.D. — 2.7 Ft. Run

Total Depth 3430 Drill Collar — 2.25 Ft. Run

Mud Wt. 8.8 lb/gal. Viscosity 46 Filtrate 9.2

Tool Open @ 5:24 a.m. Initial Blow Strong - B.O.B. in 11 min.

Final Blow Strong - B.O.B. in 18 min.

Recovery — Total Feet 435 Feet of Gas in Pipe Flush Tool?

Rec. 435	Feet Of Mdy WTR.	%gas	%oil 70	%water 30	%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 @ °F Corrected Gravity °API

RW .04 @ 80 °F Chlorides 60,000 ppm Recovery Chlorides 6,000 ppm System

(A) Initial Hydrostatic Mud	1826 PSI	AK1 Recorder No. 13754		Range	4000
(B) First Initial Flow Pressure	59 PSI	@ (depth)	3375	w/Clock No.	27567
(C) First Final Flow Pressure	98 PSI	AK1 Recorder No.	7437	Range	4200
(D) Initial Shut-In Pressure	1156 PSI	@ (depth)	3426	w/Clock No.	8376
(E) Second Initial Flow Pressure	127 PSI	AK1 Recorder No.		Range	
(F) Second Final Flow Pressure	246 PSI	@ (depth)		w/Clock No.	
(G) Final Shut-In Pressure	1136 PSI	Initial Opening	15	Test	600
(H) Final Hydrostatic Mud	1736 PSI	Initial Shut-In	30	Jars	
		Final Flow	45	Safety Joint	
		Final Shut-In	30	Straddle	
				Circ. Sub	
				Sampler	
				Extra Packer	
				Other	
				TOTAL PRICE $	600

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 Ed Glassman

Our Representative Dan Brungardt

Printcraft Printers - Hays, KS

TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name LOHREY #1 Test No. 2 Date 5/24/93

Company AFG ENERGY, INC. Zone LKC 'D,E,F'

Address P.O. BOX 458 HAYS KANSAS 67601 Elevation 2113

Co. Rep./Geo. ED GLASSMAN Cont. EMPHASIS #6 Est. Ft. of Pay

Location: Sec. 12 Twp. 17S Rge. 18W Co. RUSH State KS

Interval Tested 3433-3500

Anchor Length 67

Top Packer Depth 3428

Bottom Packer Depth 3433

Total Depth 3500

Drill Pipe Size 4.5" XH

Wt. Pipe I.D. - 2.7 Ft. Run

Drill Collar – 2.25 Ft. Run

Mud Wt. 9 lb/Gal.

Viscosity 47 Filtrate 9.6

Tool Open @ 6:55 PM Initial Blow WEAK - BUILDING TO 2"

Final Blow WEAK - BUILDING TO 1"

Recovery - Total Feet 155 Flush Tool? NO

Rec. 155 Feet of MUDDY WATER 50%WATER/50%MUD

Rec. Feet of

Rec. Feet of

Rec. Feet of

Rec. Feet of

BHT 110 °F Gravity °API @ °F Corrected Gravity °API

RW @ °F Chlorides ppm Recovery Chlorides 6000 ppm System

(A) Initial Hydrostatic Mud 1889.6 PSI AK1 Recorder No. 13754 Range 4000

(B) First Initial Flow Pressure 63.5 PSI @ (depth) 3437 w / Clock No. 27567

(C) First Final Flow Pressure 72.9 PSI AK1 Recorder No. 7437 Range 4200

(D) Initial Shut-in Pressure 1086.5 PSI @ (depth) 3496 w / Clock No. 8376

(E) Second Initial Flow Pressure 92.4 PSI AK1 Recorder No. Range

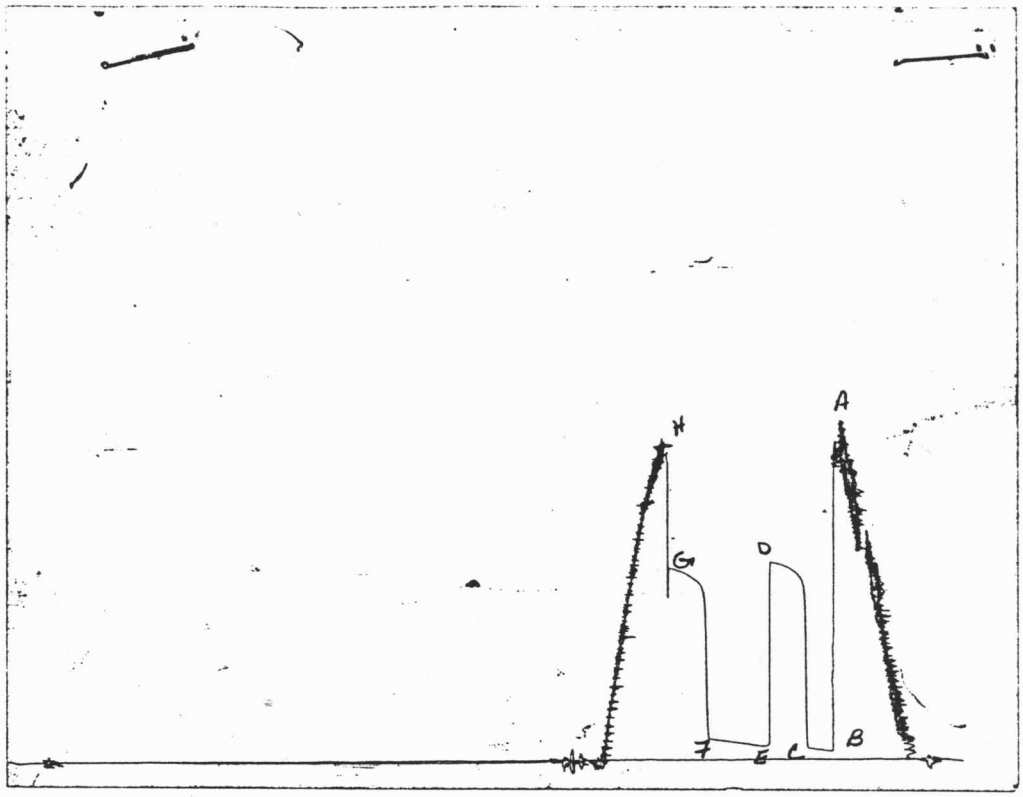
(F) Second Final Flow Pressure 112.3 PSI @ (depth) w / Clock No.

(G) Final Shut-in Pressure 1056.3 PSI Initial Opening 15 Final Flow 45

(H) Final Hydrostatic Mud 1745.6 PSI Initial Shut-in 30 Final Shut-in 30

Our Representative DAN BANGLE

CHART PAGE



This is an actual photograph of recorder chart

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	1876	1889.6
(B) FIRST INITIAL FLOW PRESSURE	59	63.5
(C) FIRST FINAL FLOW PRESSURE	68	72.9
(D) INITIAL CLOSED-IN PRESSURE	1076	1086.5
(E) SECOND INITIAL FLOW PRESSURE	88	92.4
(F) SECOND FINAL FLOW PRESSURE	108	112.3
(G) FINAL CLOSED-IN PRESSURE	1046	1056.3
(H) FINAL HYDROSTATIC MUD	1736	1745.6

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

№ 5679

Well Name & No. Schrey #1 Test No. 2 Date 5-24-93

Company AFG Energy, Inc Zone Tested D-E-F L.K.C.

Address _____ Elevation 2113 K.B.

Co. Rep./Geo. Ed Glassman Cont. Emphasis #6 Est. Ft. of Pay _____

Location: Sec. 12 Twp. 17 Rge. 18 Co. Rush State Ks.

No. of Copies _____ Distribution Sheet _____ Yes _____ No Turnkey _____ Yes _____ No _____ Evaluation

Interval Tested 3433 - 3500 Drill Pipe Size 4.5 XH

Anchor Length 67 Top Choke — 1" _____ Bottom Choke — ¾" _____

Top Packer Depth 3428 Hole Size — 7⅞" _____ Rubber Size — 6¾" _____

Bottom Packer Depth 3433 Wt. Pipe I.D. — 2.7 Ft. Run _____

Total Depth 3500 Drill Collar — 2.25 Ft. Run _____

Mud Wt. 9 lb / gal. Viscosity 47 Filtrate 8.6

Tool Open @ 6:55 p.m. Initial Blow Weak - building to 2"

Final Blow Weak - building to 1"

Recovery — Total Feet 155' Feet of Gas in Pipe _____ Flush Tool? _____

Rec. 155 Feet Of mdy wtr. %gas %oil 50 %water 50 %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 110 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API

RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 6,000 ppm System

(A) Initial Hydrostatic Mud	1876 PSI	Ak1 Recorder No.	13754	Range	4000
(B) First Initial Flow Pressure	59 PSI	@ (depth)	3437	w/Clock No.	27567
(C) First Final Flow Pressure	68 PSI	AK1 Recorder No.	7437	Range	4200
(D) Initial Shut-In Pressure	1076 PSI	@ (depth)	3496	w/Clock No.	8376
(E) Second Initial Flow Pressure	88 PSI	AK1 Recorder No.	_____	Range	_____
(F) Second Final Flow Pressure	108 PSI	@ (depth)	_____	w/Clock No.	_____
(G) Final Shut-In Pressure	1046 PSI	Initial Opening	15	Test	600
(H) Final Hydrostatic Mud	1736 PSI	Initial Shut-In	30	Jars	_____
		Final Flow	45	Safety Joint	_____
		Final Shut-In	30	Straddle	_____
				Circ. Sub	_____
				Sampler	_____
				Extra Packer	_____
				Other	_____
				TOTAL PRICE $	600

Approved By Ed Glassman

Our Representative Dan Bangle

Printcraft Printers - Hays, KS

TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name: LOHREY #1 — Test No. 3 — Date 5/25/93

Company: AFG ENERGY, INC. — Zone LOWER KC

Address: P.O. BOX 458 HAYS KANSAS 67601 — Elevation 2113

Co. Rep./Geo.: ED GLASSMAN — Cont. EMPHASIS #6 — Est. Ft. of Pay 3

Location: Sec. 12 — Twp. 17S — Rge. 18W — Co. RUSH — State KS

Interval Tested: 3526-3620

Anchor Length: 94

Top Packer Depth: 3521

Bottom Packer Depth: 3526

Total Depth: 3620

Drill Pipe Size: 4.5" XH

Wt. Pipe I.D. - 2.7 Ft. Run:

Drill Collar – 2.25 Ft. Run:

Mud Wt.: 9.1 lb/Gal.

Viscosity: 52 — Filtrate: 10.8

Tool Open @: 11:15 AM — Initial Blow: STRONG - BOTTOM OF BUCKET IN 2 MINUTES

Final Blow: STRONG - BOTTOM OF BUCKET IN 4 MINUTES

Recovery - Total Feet: 77

Flush Tool?: NO

Rec. 248	Feet of	GAS IN PIPE
Rec. 15	Feet of	GASSY MUD 10%GAS/90%MUD
Rec. 62	Feet of	SLIGHTLY OIL CUT GASSY MUD 10%GAS/6%OIL/84%MUD
Rec.	Feet of	
Rec.	Feet of	

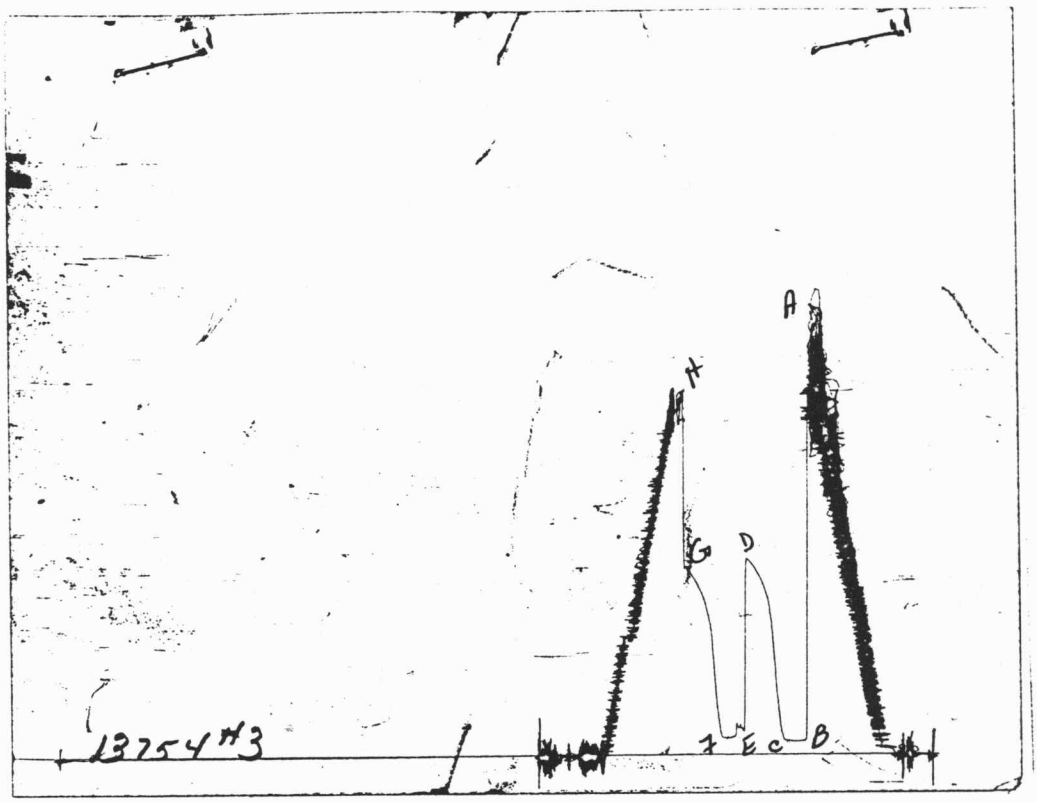
BHT: 109 °F — Gravity: °API — @ °F — Corrected Gravity: °API

RW: @ °F — Chlorides: ppm Recovery — Chlorides: 7000 ppm System

(A) Initial Hydrostatic Mud	1893.4 PSI	AK1 Recorder No.	13754 — Range 4000
(B) First Initial Flow Pressure	74.8 PSI	@ (depth)	3530 — w / Clock No. 27567
(C) First Final Flow Pressure	78.7 PSI	AK1 Recorder No.	7437 — Range 4200
(D) Initial Shut-in Pressure	1001.0 PSI	@ (depth)	3616 — w / Clock No. 8376
(E) Second Initial Flow Pressure	90.5 PSI	AK1 Recorder No.	— Range
(F) Second Final Flow Pressure	90.5 PSI	@ (depth)	— w / Clock No.
(G) Final Shut-in Pressure	959.4 PSI	Initial Opening	15 — Final Flow 15
(H) Final Hydrostatic Mud	1863.9 PSI	Initial Shut-in	30 — Final Shut-in 30

Our Representative: DAN BANGLE

CHART PAGE



This is an actual photograph of recorder chart

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	1886	1893.4
(B) FIRST INITIAL FLOW PRESSURE	68	74.8
(C) FIRST FINAL FLOW PRESSURE	68	78.7
(D) INITIAL CLOSED-IN PRESSURE	986	1001
(E) SECOND INITIAL FLOW PRESSURE	88	90.5
(F) SECOND FINAL FLOW PRESSURE	88	90.5
(G) FINAL CLOSED-IN PRESSURE	946	959.4
(H) FINAL HYDROSTATIC MUD	1856	1863.9

COMPUTER OIL EVALUATION BY TRILOBITE TESTING, L.L.C.

AFG ENERGY, INC.

LOHREY #1 DST 3

12 17S 18W RUSH KS

ELEVATION:	2113	KB	EST. PAY	3	FT
DATUM:	-1418		ZONE TESTED:	LOWER KC	
TEST INTERVAL:	3526-3620		TIME INTERVALS:	15-30-15-30	
RECORDER DEPTH:	3530		VISCOSITY:	7.46	CP
BOTTOM HOLE TEMP:	109		HOLE SIZE:	7.875	IN

CUBIC FEET OF GAS IN PIPE:	20			
TOTAL FEET OF RECOVERY:	77.00	CORRECTED PIPE FILLUP:	245.924	
TOTAL BARRELS OF RECOVERY:	1.09	CORR. BARRELS OF RECOVERY:	3.484	BBL
BARRELS IN DRILL PIPE:	1.09	API GRAVITY:	35	
BARRELS IN WEIGHT PIPE:	0.00	FLUID GRADIENT:	0.368	
BARRELS IN DRILL COLLARS:	0.00			
GAS OIL RATIO:	18.08	CU.FT/BBL		
BUBBLE POINT PRESSURE:	142			
UNCORRECTED INITIAL PRODUCTION:			52.56	BBL
INITIAL PRODUCTION CORRECTED TO FINAL FLOW PRESSURE:			167.23	BBL/DAY
INITIAL PRODUCTION CORRECTED TO PSEUDO STEADY FLOW STATE:			36.677	

INITIAL SLOPE	1167.9384	PSI/CYCL	FINAL SLOPE	830.848568	PSI/CYCLE
INITIAL P*	1206.66	PSI	FINAL P*	1209.51034	PSI

TRANSMISSIBILITY	32.73	(MD.-FT./CP.)
PERMEABILITY	81.42	(MD.)
INDICATED FLOW CAPACITY	244.27	(MD.FT)
PRODUCTIVITY INDEX	0.04	(BARREL/DAY/PSI)
DAMAGE RATIO	0.25	
RADIUS OF INVESTIGATION	49.42	(FT,)
POTENTIOMETRIC SURFACE	1387.85	(FT.)
DRAWDOWN FACTOR	-0.236	(%)

INITIAL FLOW

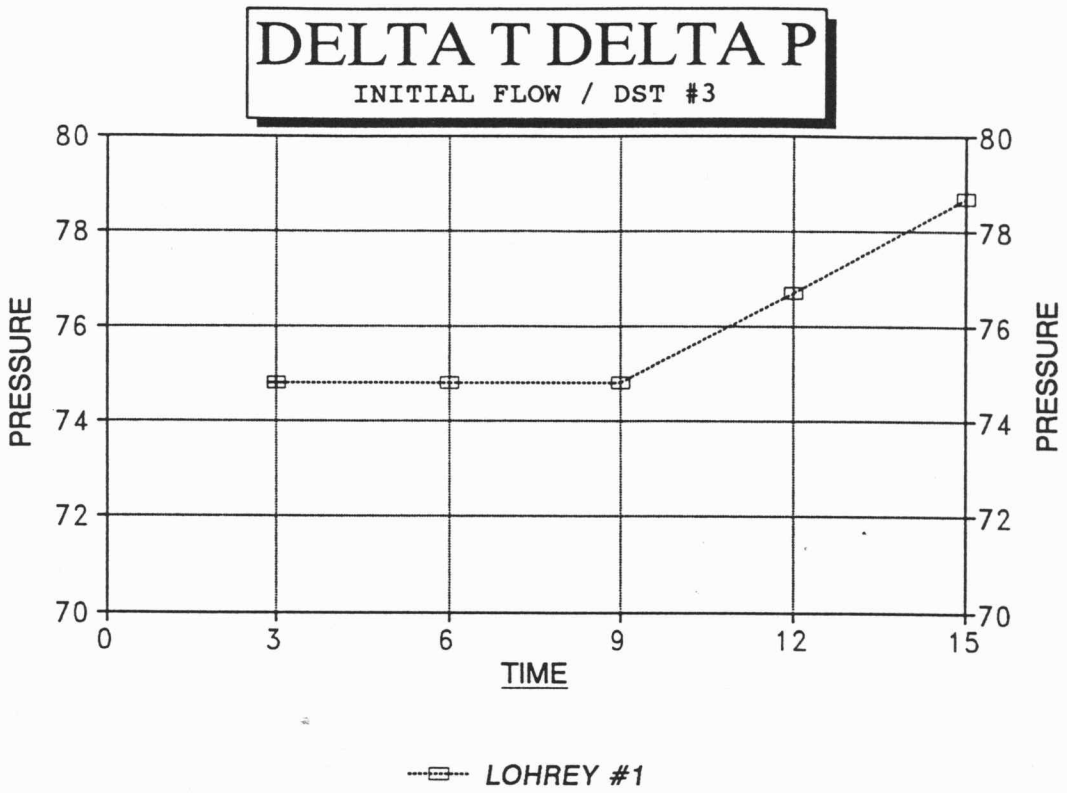
RECORDER #13754 DST # 3

TIME(MIN)	PRESSURE	<>PRESSURE
3	74.8	74.8
6	74.8	0.0
9	74.8	0.0
12	76.7	1.9
15	78.7	2.0

FINAL FLOW

RECORDER #13754 DST # 3

TIME(MIN)	PRESSURE	<> PRESSURE
3	90.5	90.5
6	90.5	0.0
9	90.5	0.0
12	90.5	0.0
15	90.5	0.0



INITIAL PRODUCTION CORRECTED TO PSEUDO STEADY FLOW STATE: 36.677

LOYREY #1
INITIAL

DST #3
SHUTIN
15 INITIAL FLOW TIME

SLOPE 1167.9 PSI/CYCLE
P* 1206.66 PSI

	TIME(MIN)	Pws (psi)	Log Horn T	<> PRESSURE	Horn T
	3	116.1	0.778	116.1	6
	6	268.7	0.544	152.6	4
	9	489.1	0.426	220.4	3
	12	720.3	0.352	231.2	2
	15	824.1	0.301	103.8	2
	18	882.4	0.263	58.3	2
	21	922.9	0.234	40.5	2
X	24	960.4	0.211	37.5	2
	27	983.2	0.192	22.8	2
X	30	1001.0	0.176	17.8	2

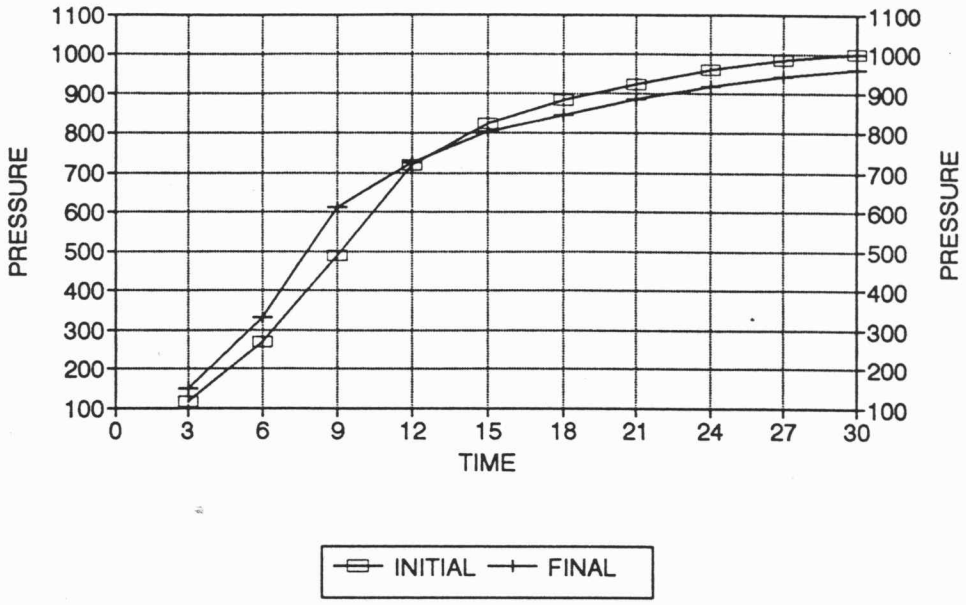
LOHREY #1
FINAL

DST #3
SHUTIN
30 TOTAL FLOW TIME

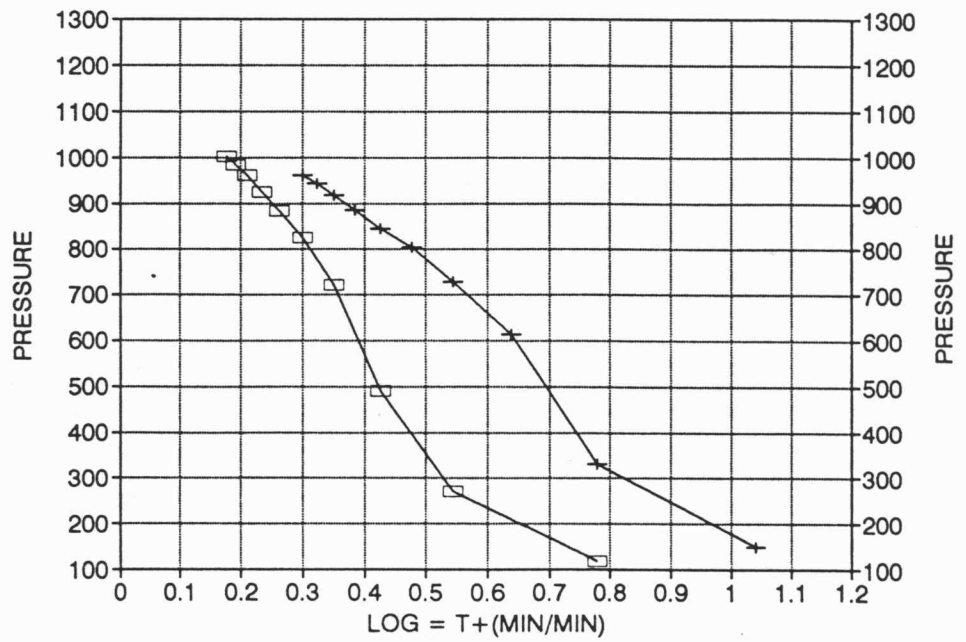
SLOPE 830.8 PSI/CYCLE
P* 1209.5 PSI

		Pws (psi)	Log Horn T	<> PRESSURE	Horn T
	3	148.6	1.041	148.6	11
	6	329.7	0.778	181.1	6
	9	611.5	0.637	281.8	4
	12	726.2	0.544	114.7	4
	15	803.3	0.477	77.1	3
	18	844.8	0.426	41.5	3
	21	884.3	0.385	39.5	2
X	24	916.9	0.352	32.6	2
	27	942.6	0.325	25.7	2
X	30	959.4	0.301	16.8	2

LOHREY #1 / DST #3
DELTA T DELTA P



HORNER PLOT

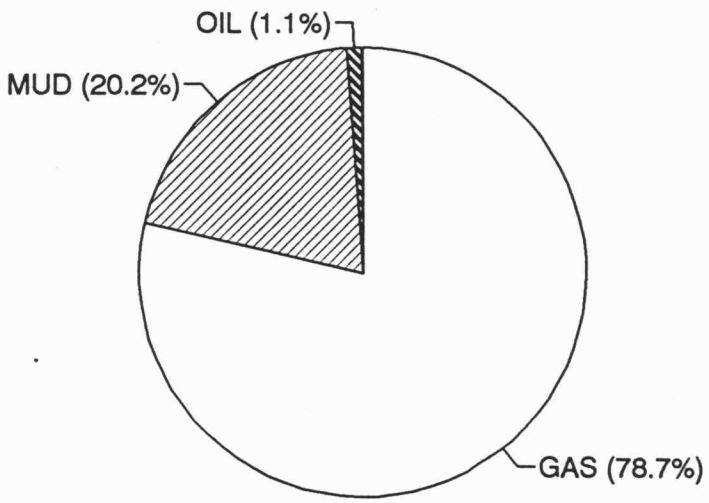


CALCULATED RECOVERY ANALYSIS DRILL PIPE

DST # 3 TICKET 5680

SAMPLE #	TOTAL FEET	GAS %	OIL FEET	OIL %	OIL FEET	WATER %	WATER FEET	MUD %	MUD FEET
1	248	100	248		0		0		0
2	15	10	1.5		0		0	90	13.5
3	62	10	6.2	6	3.72		0	84	52.08
4			0		0		0		0
5			0		0		0		0
TOTAL	325	78.676923	255.7	1.14	3.72	0	0	20.2	65.58

			HRS	BBL/DAY
BBL OIL=	0.0528984	*	0.5	2.5391
BBL WATER=	0	*		0
BBL MUD=	0.9325476			
BBL GAS	3.636054			



TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

№ 5680

Well Name & No. Lohrey #1 Test No. 3 Date 5-25-93

Company AFG Energy, Inc. Zone Tested Lower K.C.

Address _____ Elevation 2113 K.B.

Co. Rep./Geo. Ed Glassman Cont. Emphasis #6 Est. Ft. of Pay 3

Location: Sec. 12 Twp. 17 Rge. 18 Co. Rush State Ks.

No. of Copies _____ Distribution Sheet _____ Yes _____ No Turnkey _____ Yes _____ No _____ Evaluation

Interval Tested 3526-3620 Drill Pipe Size 4.5 XH

Anchor Length 94 Top Choke — 1" _____ Bottom Choke — ¾" _____

Top Packer Depth 3521 Hole Size — 7⅞" _____ Rubber Size — 6¾" _____

Bottom Packer Depth 3526 Wt. Pipe I.D. — 2.7 Ft. Run _____

Total Depth 3620 Drill Collar — 2.25 Ft. Run _____

Mud Wt. 9.1 lb / gal. Viscosity 52 Filtrate 10.8

Tool Open @ 11:15 a.m. Initial Blow STrong - B.O.B. in 2 min.

Final Blow STrong - B.O.B. in 4 min.

Recovery — Total Feet 77 Feet of Gas in Pipe 248 Flush Tool? _____

Rec. 15	Feet Of	Gsy Mud	10 %gas	%oil	%water	90	%mud
Rec. 62	Feet Of	SlTy O.C Gsy M	10 %gas	6 %oil	%water	84	%mud
Rec. _____	Feet Of	_____	%gas	%oil	%water		%mud
Rec. _____	Feet Of	_____	%gas	%oil	%water		%mud
Rec. _____	Feet Of	_____	%gas	%oil	%water		%mud

BHT 109 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API

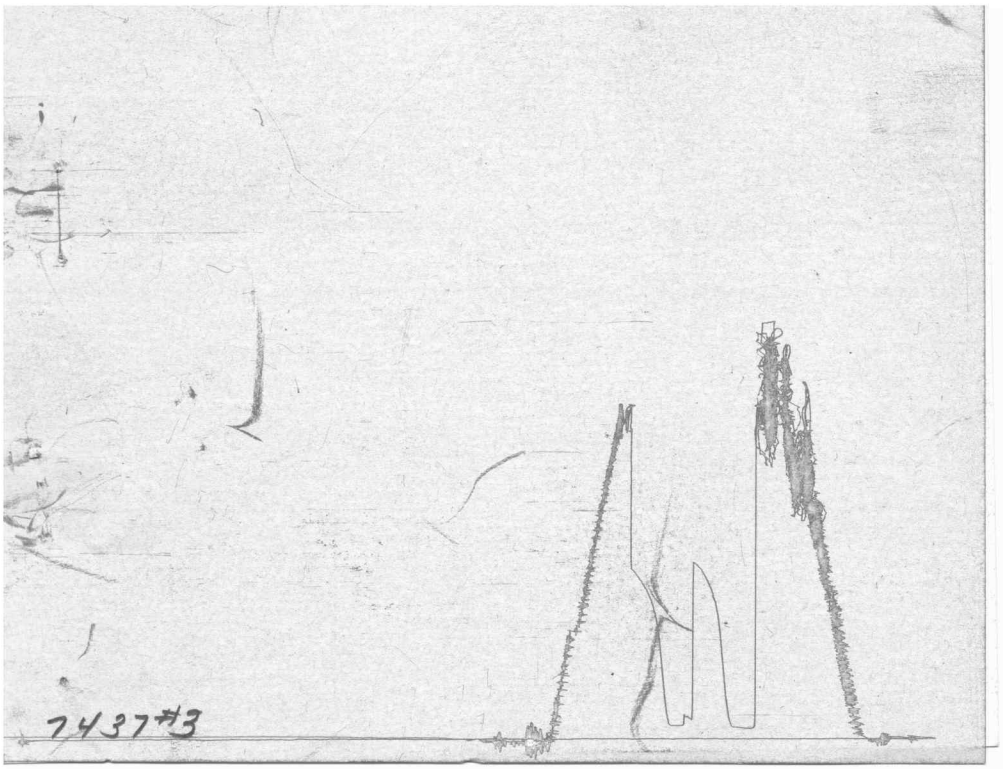
RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 7,000 ppm System

(A) Initial Hydrostatic Mud	1886 PSI	AK1 Recorder No.	13754	Range	4000
(B) First Initial Flow Pressure	68 PSI	@ (depth)	3530	w/Clock No.	27567
(C) First Final Flow Pressure	68 PSI	AK1 Recorder No.	7437	Range	4200
(D) Initial Shut-In Pressure	986 PSI	@ (depth)	3616	w/Clock No.	8376
(E) Second Initial Flow Pressure	88 PSI	AK1 Recorder No.	_____	Range	_____
(F) Second Final Flow Pressure	88 PSI	@ (depth)	_____	w/Clock No.	_____
(G) Final Shut-In Pressure	946 PSI	Initial Opening	15	Test	600
(H) Final Hydrostatic Mud	1856 PSI	Initial Shut-In	30	Jars	_____
		Final Flow	15	Safety Joint	_____
		Final Shut-In	30	Straddle	_____
				Circ. Sub	_____
				Sampler	_____
				Extra Packer	_____
				Other	evel 50
				TOTAL PRICE $	1050

Approved By Ed Glassman

Our Representative Dan Bangle

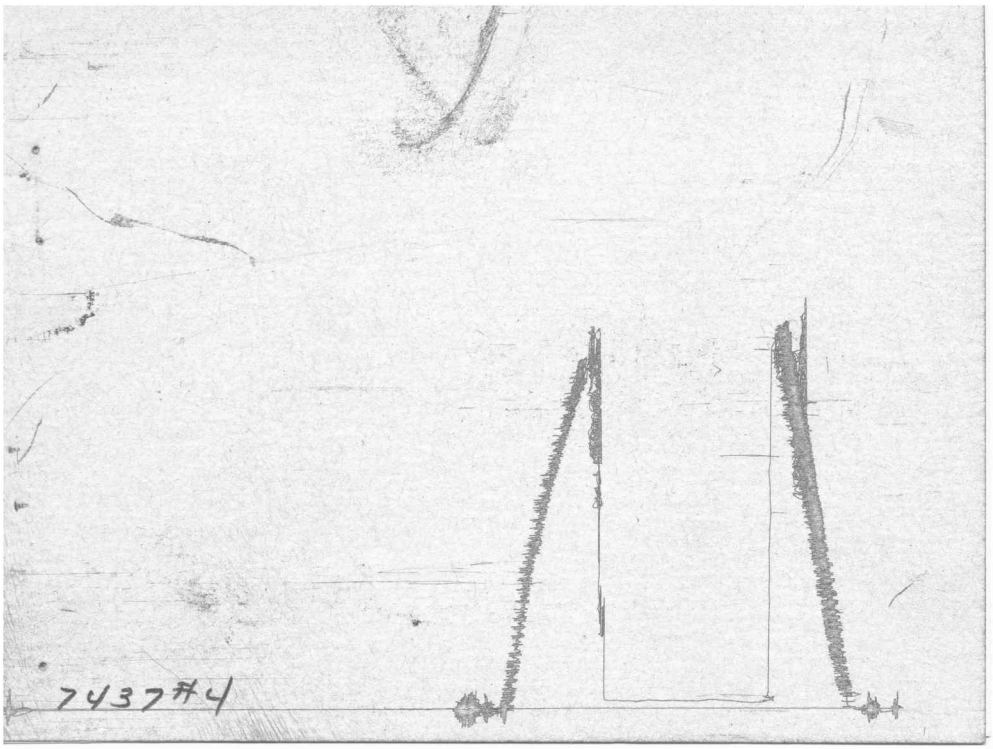
Printcraft Printers - Hays, KS

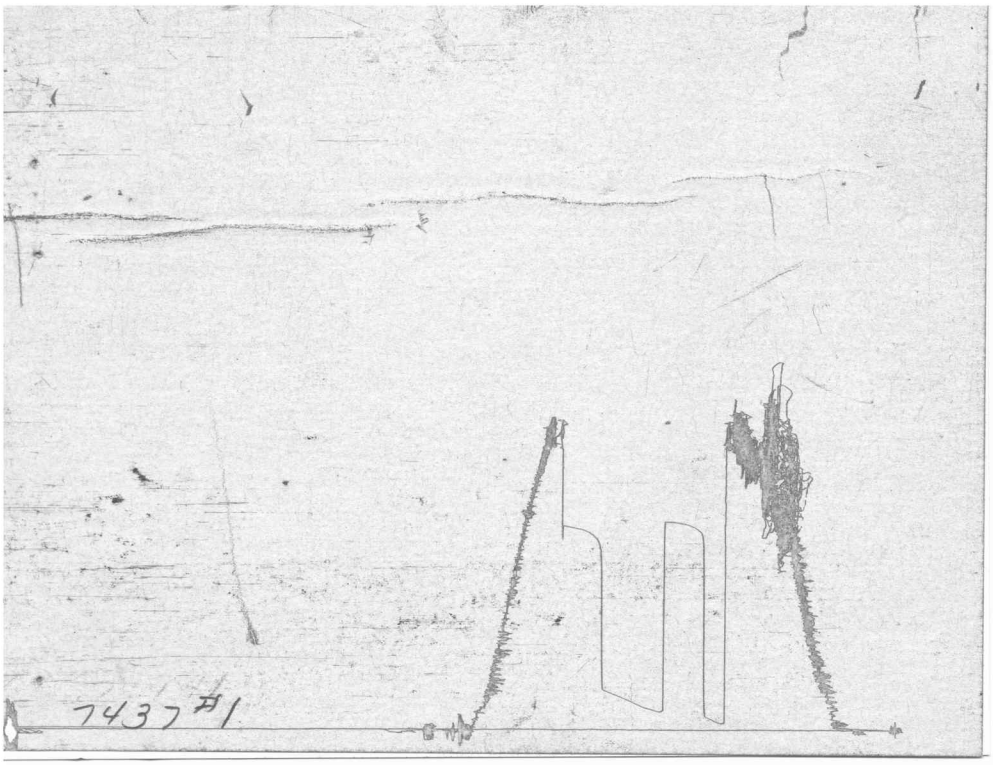

7437#3

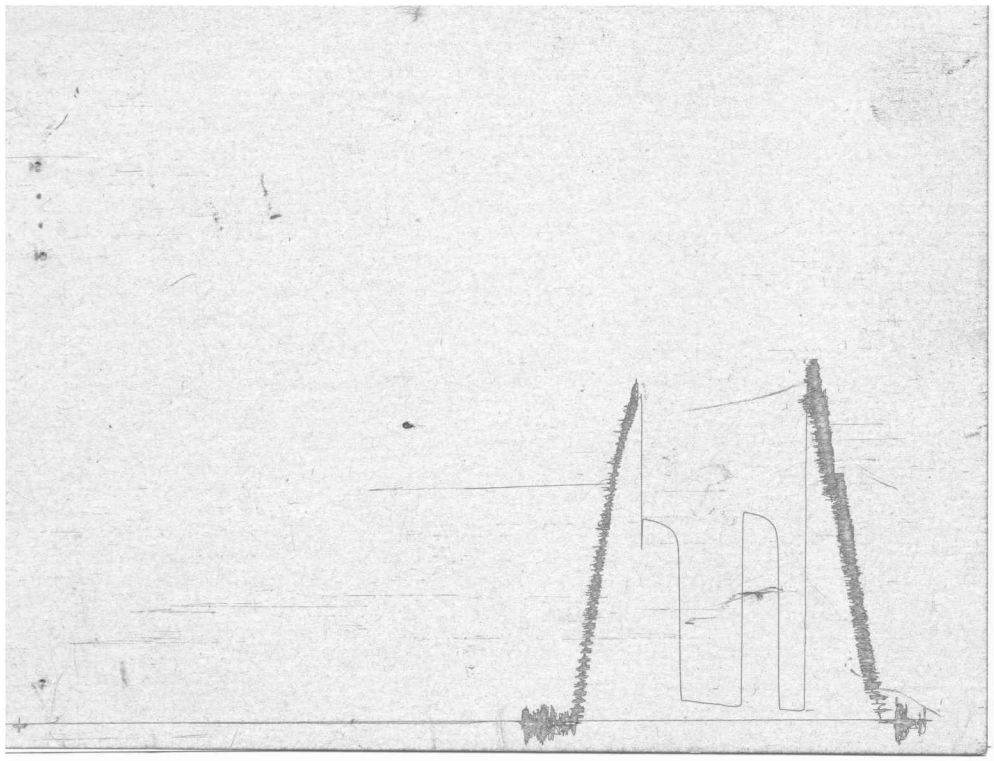
WELL NAME Sobrey DST # 3 RECORDER # 13754

INIT. HYD. MUD. _____ _____ FINAL HYD. MUD _____ _____

NITIAL FLOW INUTES 15 NTERVAL		INITIAL SHUTIN MINUTES 30 INTERVAL			FINAL FLOW MINUTES 15 INTERVAL		FINAL SHUTIN MINUTES 30 INTERVAL	
.079				1	.126			
.077		.118	114.1	2	.143		.151	148.6
.076	74.8	.273	268.7	3	.102		.335	329.7
.076		.497	489.1	4	.094		.621	611.5
.078	76.7	.731	720.3	5	.092		.737	726.2
.080	78.7	.836	824.1	6	.092	90.5	.815	803.3
		.895	882.4	7			.857	844.8
		.936	922.9	8			.897	884.3
		.974	960.4	9			.930	916.9
		.997	983.2	10			.956	942.6
		1.015	1001	11			.973	959.4
				12				
				13				
				14				
				15				
				16				
				17				
				18				
				19				
				20				
				21				
				22				
				23				
				24				
				25				
				26				
				27				


7437#4


7437 #1



TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name: LOHREY #1 | Test No. 4 | Date 5/26/93

Company: AFG ENERGY, INC. | Zone GRANITE WASH

Address: P.O. BOX 458 HAYS KANSAS 67601 | Elevation 2113

Co. Rep./Geo.: ED GLASSMAN | Cont. EMPHASIS #6 | Est. Ft. of Pay

Location: Sec. 12 | Twp. 17S | Rge. 18W | Co. RUSH | State KS

Interval Tested: 3658-3687

Anchor Length: 29

Top Packer Depth: 3653

Bottom Packer Depth: 3658

Total Depth: 3587

Drill Pipe Size: 4.5" XH

Wt. Pipe I.D. - 2.7 Ft. Run:

Drill Collar – 2.25 Ft. Run:

Mud Wt.: 9 lb/Gal.

Viscosity: 54 | Filtrate: 10.2

Tool Open @: 2:15 AM | Initial Blow: WEAK - BUILDING TO 1"

Final Blow: WEAK - DIED IN 10 MINUTES

Recovery - Total Feet: 10 | Flush Tool?: NO

Rec. 10 Feet of DRILLING MUD

Rec. Feet of

Rec. Feet of

Rec. Feet of

Rec. Feet of

BHT: 111 °F | Gravity °API @ °F | Corrected Gravity °API

RW @ °F | Chlorides ppm Recovery: | Chlorides: 7000 ppm System

(A) Initial Hydrostatic Mud: 2026.9 PSI | AK1 Recorder No.: 13754 | Range: 4000

(B) First Initial Flow Pressure: 35.2 PSI | @ (depth): 3662 | w / Clock No.: 27567

(C) First Final Flow Pressure: 35.2 PSI | AK1 Recorder No.: 7437 | Range: 4200

(D) Initial Shut-in Pressure: 56.1 PSI | @ (depth): 3683 | w / Clock No.: 8376

(E) Second Initial Flow Pressure: 46.3 PSI | AK1 Recorder No.: | Range:

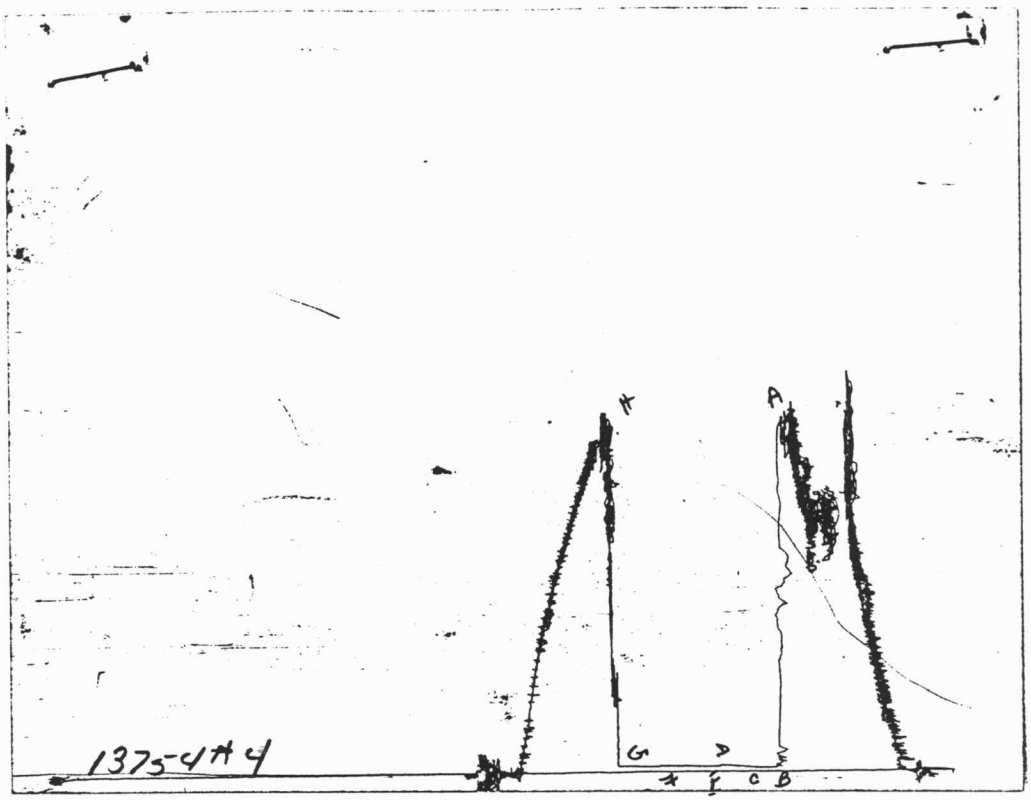
(F) Second Final Flow Pressure: 46.3 PSI | @ (depth): | w / Clock No.:

(G) Final Shut-in Pressure: 56.1 PSI | Initial Opening: 15 | Final Flow: 45

(H) Final Hydrostatic Mud: 1961.7 PSI | Initial Shut-in: 30 | Final Shut-in: 30

Our Representative: DAN BANGLE

CHART PAGE



This is an actual photograph of recorder chart

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	2016	2026.9
(B) FIRST INITIAL FLOW PRESSURE	29	35.2
(C) FIRST FINAL FLOW PRESSURE	29	35.2
(D) INITIAL CLOSED-IN PRESSURE	49	56.1
(E) SECOND INITIAL FLOW PRESSURE	39	46.3
(F) SECOND FINAL FLOW PRESSURE	39	46.3
(G) FINAL CLOSED-IN PRESSURE	49	56.1
(H) FINAL HYDROSTATIC MUD	1956	1961.7

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

№ 5681

Well Name & No. Lohrey #1 Test No. 4 Date 5-26-93

Company AFG Energy, Inc. Zone Tested Granite Wash

Address _____ Elevation 2113 K.B.

Co. Rep./Geo. Ed Glassman Cont. Emphasis #6 Est. Ft. of Pay _____

Location: Sec. 12 Twp. 17 Rge. 18 Co. Rush State Ks.

No. of Copies _____ Distribution Sheet _____ Yes _____ No Turnkey _____ Yes _____ No _____ Evaluation

Interval Tested 3658 - 3687 Drill Pipe Size 4.5 XH

Anchor Length 29 Top Choke — 1" _____ Bottom Choke — ¾" _____

Top Packer Depth 3653 Hole Size — 7⅞" _____ Rubber Size — 6¾" _____

Bottom Packer Depth 3658 Wt. Pipe I.D. — 2.7 Ft. Run _____

Total Depth 3687 Drill Collar — 2.25 Ft. Run _____

Mud Wt. 9 lb / gal. Viscosity 54 Filtrate 10.2

Tool Open @ 2:15 a.m. Initial Blow Weak - building to 1"

Final Blow Weak - Died in 10 min.

Recovery — Total Feet 10 Feet of Gas in Pipe _____ Flush Tool? _____

Rec. 10 Feet Of D.M. %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 111 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API

RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 2,000 ppm System

(A) Initial Hydrostatic Mud	2016 PSI	Ak1 Recorder No.	13754	Range	4000
(B) First Initial Flow Pressure	29 PSI	@ (depth)	3662	w/Clock No.	27567
(C) First Final Flow Pressure	29 PSI	AK1 Recorder No.	7437	Range	4200
(D) Initial Shut-In Pressure	49 PSI	@ (depth)	3683	w/Clock No.	8376
(E) Second Initial Flow Pressure	39 PSI	AK1 Recorder No.		Range	
(F) Second Final Flow Pressure	39 PSI	@ (depth)		w/Clock No.	
(G) Final Shut-In Pressure	49 PSI	Initial Opening	15	Test	600
(H) Final Hydrostatic Mud	1956 PSI	Initial Shut-In	30	Jars	
		Final Flow	45	Safety Joint	
		Final Shut-In	30	Straddle	
				Circ. Sub	
				Sampler	
				Extra Packer	
				Other	
				TOTAL PRICE $	600

Approved By Ed Glassman

Our Representative Dan Bangle

Printcraft Printers - Hays, KS

WESTERN TESTING CO., INC.
FORMATION TESTING TICKET

Nº 18739

P. O. BOX 1599 PHONE (316) 262-5861
WICHITA, KANSAS 67201

Elevation NA Formation _____ Eff. Pay _____ Ft.

District Colby Date 5-27-93 Customer Order No. _____

COMPANY NAME AFG Energy Inc

ADDRESS PO Box 458 Hays KS. 67601

LEASE AND WELL NO. Lohrey # 1 COUNTY Rush STATE KS. Sec. 12 Twp. 17 Rge. 18

Mail Invoice To Co. Name Same #1 Lohrey Address No. Copies Requested Reg

Mail Charts To Same Address No. Copies Requested Reg

Formation Test No. 5 Interval Tested From 2628 ft. to 2640 ft. Total Depth 3720 ft.

Packer Depth 2623 ft. Size 6 3/4 in. Packer Depth 2640 ft. Size 6 3/4 in.

Packer Depth 2628 ft. Size 6 3/4 in. Packer Depth — ft. Size — in.

Depth of Selective Zone Set 2674

Top Recorder Depth (Inside) 2631 ft. Recorder Number 6233 Cap. 4000

Bottom Recorder Depth (Outside) 2634 ft. Recorder Number 13400 Cap. 3950

Below Straddle Recorder Depth 2709 ft. Recorder Number 13547 Cap. _____

Drilling Contractor Emphasis Rig #6 Drill Collar Length 117 I. D. 2.2 in.

Mud Type Chemical Viscosity 52 Weight Pipe Length — I. D. — in.

Weight 9.0 Water Loss 10.2 cc. Drill Pipe Length 2491 I. D. 3.6 in.

Chlorides 8000 P.P.M. Test Tool Length 20 ft. Tool Size 5 1/2 OD in.

Jars: Make NO Serial Number — Anchor Length 12 ft. Size 5 1/2 OD in.

Did Well Flow? NO Reversed Out NO Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.

Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 XH in.

Blow: IFP- Weak blow- 1/2" in water

FFP- Weak blow- 1/2" in water

Recovered 70 ft. of Thin mud

Recovered ____ ft. of _____

Recovered ____ ft. of _____

Recovered ____ ft. of _____

Recovered ____ ft. of _____

JUN 01 1993

Chlorides 10,000 P.P.M. Sample Jars used _____ Remarks: _____

Time On Location 1100 A.M. / P.M. Time Pick Up Tool 12 30 A.M. / P.M. Time Off Location _____ A.M. / P.M.

Time Set Packer(s) 2 10 A.M. / P.M. Time Started Off Bottom 4 10 A.M. / P.M. Maximum Temperature NA

Initial Hydrostatic Pressure			(A)	1305	P.S.I.	
Initial Flow Period	Minutes	15	(B)	50	P.S.I. to (C)	50 P.S.I.
Initial Closed In Period	Minutes	30	(D)	836	P.S.I.	
Final Flow Period	Minutes	45	(E)	50	P.S.I. to (F)	60 P.S.I.
Final Closed In Period	Minutes	30	(G)	796	P.S.I.	
Final Hydrostatic Pressure			(H)	1263	P.S.I.	

COMPANY TERMS

Western Testing Co., Inc. shall not be liable for damages of any kind to 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, of its statements or opinion concerning the results of any test. Tools lost or damaged in the hole shall be paid at cost by the party for whom the test is made.

All charges subject to 12% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.

Test Approved By E. Klassman
Signature of Customer or his authorized representative

Western Representative Mike Shelest

Thanks!

FIELD INVOICE

Open Hole Test	$ 1000
Misrun	$ _____
Straddle Test	$ 250
Jars	$ _____
Selective Zone	$ 300
Safety Joint	$ _____
Standby	$ _____
Evaluation	$ _____
Extra Packer	$ 150
Circ. Sub.	$ _____
Mileage	$ _____
Fluid Sampler	$ _____
Extra Charts	$ _____
Insurance	$ _____
Telecopier	$ _____
TOTAL	$ 1700

WESTERN TESTING CO., INC.
Pressure Data

Date 5-27- Test Ticket No. 18739

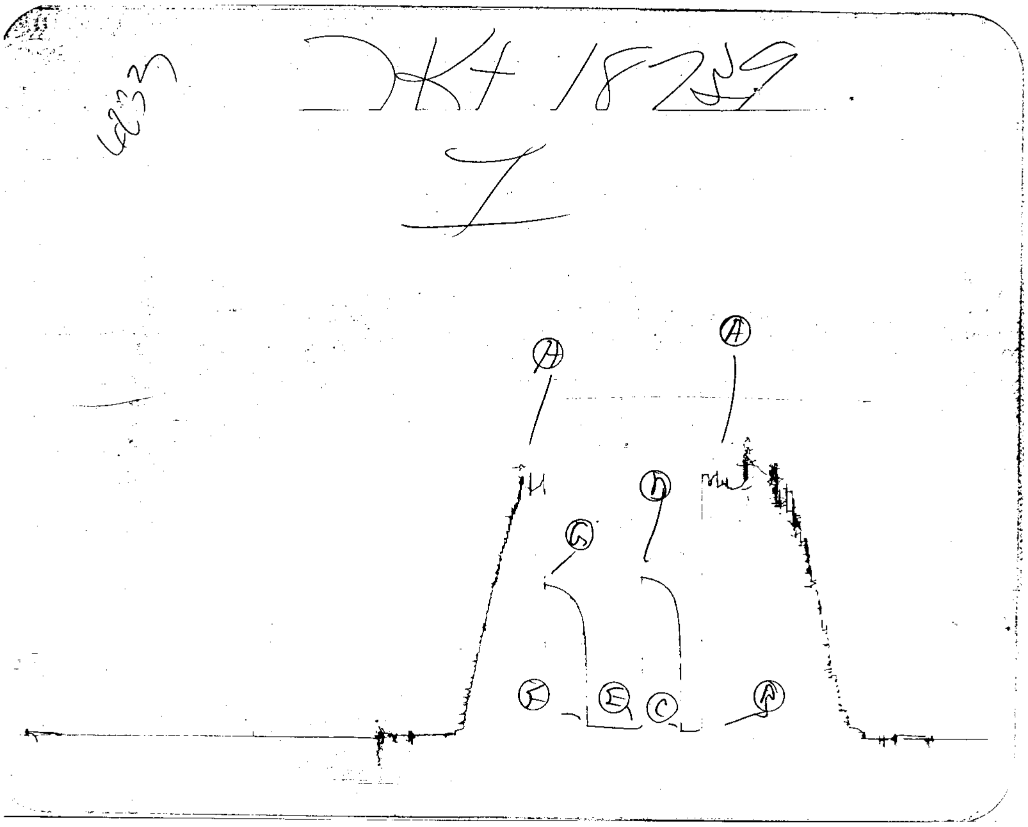
Recorder No. 6233 Capacity Location Ft.

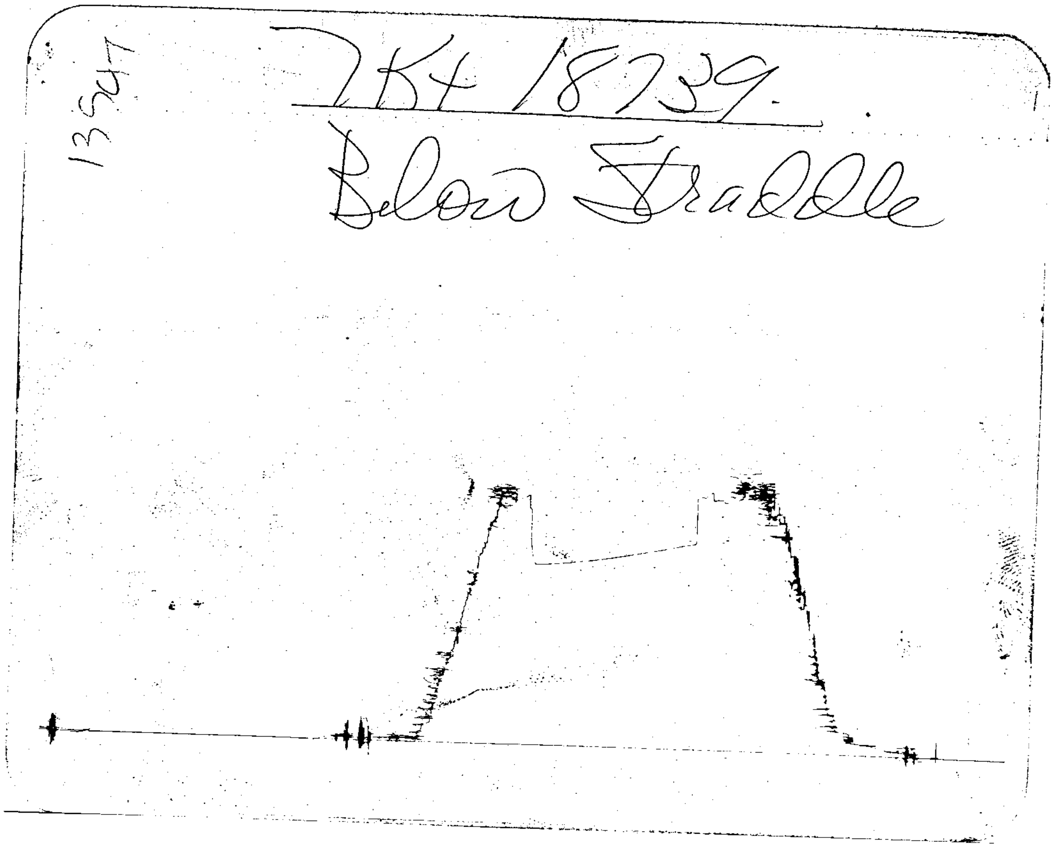
Clock No. Elevation Well Temperature °F

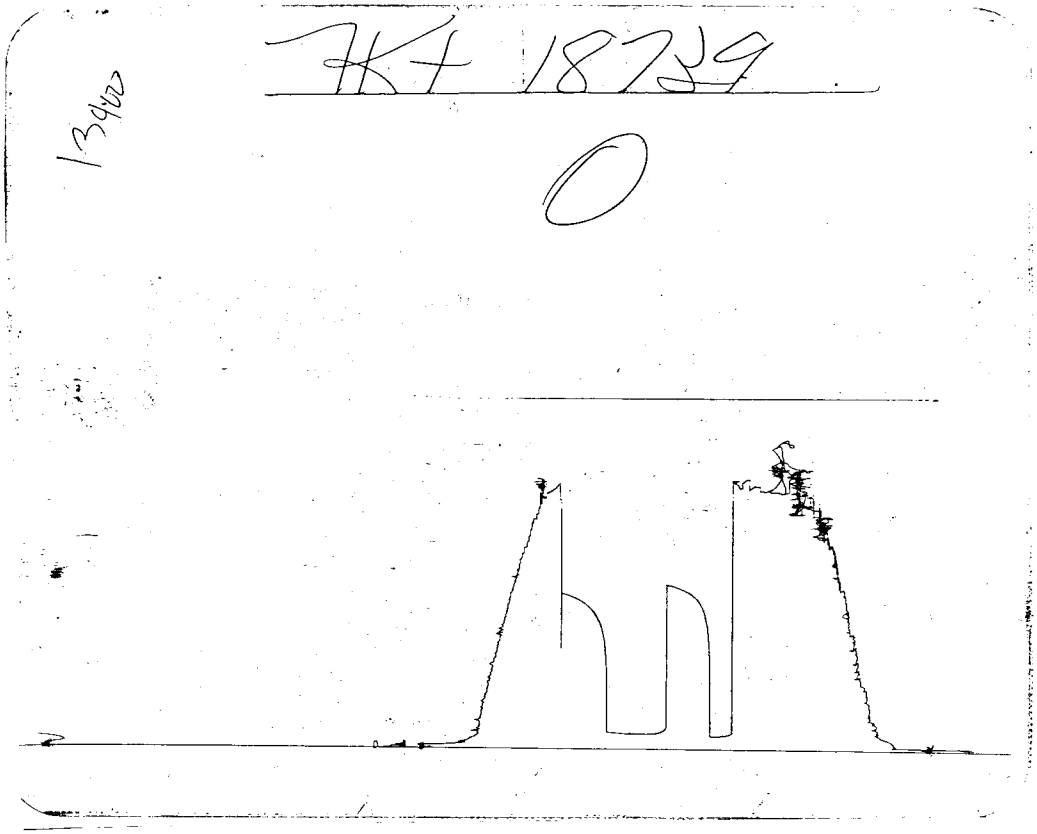
Point		Pressure		Time Given	Time Computed
A	Initial Hydrostatic Mud	1367 P.S.I.	Open Tool	M	
B	First Initial Flow Pressure	39 P.S.I.	First Flow Pressure	15 Mins.	15 Mins.
C	First Final Flow Pressure	39 P.S.I.	Initial Closed-in Pressure	30 Mins.	30 Mins.
D	Initial Closed-in Pressure	836 P.S.I.	Second Flow Pressure	45 Mins.	45 Mins.
E	Second Initial Flow Pressure	P.S.I.	Final Closed-in Pressure	30 Mins.	30 Mins.
F	Second Final Flow Pressure	P.S.I.			
G	Final Closed-in Pressure	P.S.I.			
H	Final Hydrostatic Mud	1341 P.S.I.			

PRESSURE BREAKDOWN

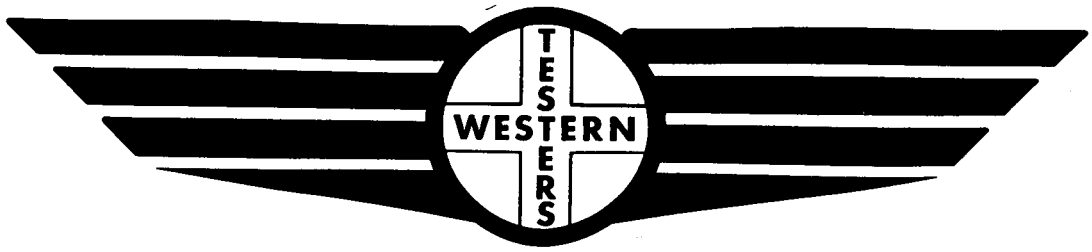
First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: Inc. of 5 mins. and a final inc. of 0 Min.		Breakdown: Inc. of 3 mins. and a final inc. of 0 Min.		Breakdown: Inc. of 5 mins. and a final inc. of 0 Min.		Breakdown: Inc. of 3 mins. and a final inc. of 0 Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 0	39	0	39	0	47	0	602
P 2 5	39	3	617	5	47	3	537
P 3 10	39	6	723	10	47	6	647
P 4 15	39	9	760	15	48	9	693
P 5 20		12	786	20	51	12	719
P 6 25		15	802	25	54	15	743
P 7 30		18	812	30	58	18	756
P 8 35		21	822	35	60	21	768
P 9 40		24	826	40	61	24	780
P10 45		27	832	45	62	27	784
P11 50		30	836	50		30	790
P12 55		33		55		33	796
P13 60		36		60		36	
P14 65		39		65		39	
P15 70		42		70		42	
P16 75		45		75		45	
P17 80		48		80		48	
P18 85		51		85		51	
P19 90		54		90		54	
P20 95		57		95		57	
100		60		100		60	


6233
DKt 18239
I
A
A
D
G
E
C


13647
DKt 18239.
Below Straddle


K+ 1859
0

FORMATION TEST REPORT



Home Office: Wichita, Kansas 67201

P.O. Box 1599 Phone **1-800-688-7021**

COMPANY AFG ENERGY, INC. LEASE & WELL NO. #1 LOHREY SEC. 12 TWP. 17S RGE. 18W TEST NO. 5 DATE 5/27/93

DST REPORT

GENERAL INFORMATION

DATE	: 5/27/93	TICKET	: 18739
CUSTOMER	: AFG ENERGY, INC.	LEASE	: LOHREY
WELL	: #1 TEST: 5	GEOLOGIST	: ?
ELEVATION	:	FORMATION	:
SECTION	: 12	TOWNSHIP	: 17S
RANGE	: 18W COUNTY: RUSH	STATE	: KS
GAUGE SN#	: 6233 RANGE : 4000	CLOCK	: 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 2628.00 ft TO: 2640.00 ft TVD: 3720.0 ft
DEPTH OF SELECTIVE ZONE: 2674 TEST TYPE: OIL
DEPTH OF RECORDERS: 2631.0 ft 2634.0 ft
TEMPERATURE: 0.0

DRILL COLLAR LENGTH:	117.0 ft	I.D.:	2.200 in
WEIGHT PIPE LENGTH :	0.0 ft	I.D.:	0.000 in
DRILL PIPE LENGTH :	2491.0 ft	I.D.:	3.800 in
TEST TOOL LENGTH :	20.0 ft	TOOL SIZE :	5.500 in
ANCHOR LENGTH :	12.0 ft	ANCHOR SIZE:	5.500 in
SURFACE CHOKE SIZE :	0.750 in	BOTTOM CHOKE SIZE:	0.750 in
MAIN HOLE SIZE :	7.875 in	TOOL JOINT SIZE :	4.5XH
PACKER DEPTH:	2623.0 ft	SIZE:	6.750 in
PACKER DEPTH:	2628.0 ft	SIZE:	6.750 in
PACKER DEPTH:	2640.0 ft	SIZE:	6.750 in
PACKER DEPTH:	0.0 ft	SIZE:	0.000 in

MUD INFORMATION

DRILLING CON.	: EMPHASIS RIG 6		
MUD TYPE	: CHEMICAL	VISCOSITY :	52.00 cp
WEIGHT	: 9.000 ppg	WATER LOSS:	10.200 cc
CHLORIDES	: 8000 ppm		
JARS-MAKE	:	SERIAL NUMBER:	
DID WELL FLOW?	: NO	REVERSED OUT?	: NO

COMMENTS

Comment

INITIAL FLOW PERIOD WEAK BLOW - 1 1/2 INCHES IN WATER. FINAL FLOW PERIOD WEAK BLOW - 1/2 INCH IN WATER.

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
70.0	0.0	0.0	0.0	100.0	THIN MUD
0.0	0.0	0.0	0.0	0.0	CHLORIDES 10000 PPM

RATE INFORMATION

OIL VOLUME:	0.0000 STB		
GAS VOLUME:	0.0000 SCF	TOTAL FLOW TIME:	60.0000 min.
MUD VOLUME:	0.3291 STB	AVERAGE OIL RATE:	0.0000 STB/D
WATER VOLUME:	0.0000 STB	AVERAGE WATER RATE:	0.0000 STB/D
TOTAL FLUID :	0.3291 STB		

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1305.00

Description	Duration	p1	p End
INITIAL FLOW	15.00	50.00	50.00
INITIAL SHUT-IN	30.00		836.00
FINAL FLOW	45.00	50.00	60.00
FINAL SHUT-IN	30.00		796.00

FINAL HYDROSTATIC PRESSURE: 1263.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1367.00

Description	Duration	p1	p End
INITIAL FLOW	15.00	39.00	39.00
INITIAL SHUT-IN	30.00		836.00
FINAL FLOW	45.00	47.00	62.00
FINAL SHUT-IN	33.00		796.00

FINAL HYDROSTATIC PRESSURE: 1341.00

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE	: 5/27/93			TICKET	: 18739
CUSTOMER	: AFG ENERGY, INC.			LEASE	: LOHREY
WELL	: #1	TEST: 5		GEOLOGIST	: ?
ELEVATION	:			FORMATION	:
SECTION	: 12			TOWNSHIP	: 17S
RANGE	: 18W	COUNTY:	RUSH	STATE	: KS
GAUGE SN#	: 6233	RANGE	: 4000	CLOCK	: 12

INITIAL FLOW

Time (min)	Pressure	Delta P
0.00	39.00	39.00
5.00	39.00	0.00
10.00	39.00	0.00
15.00	39.00	0.00

INITIAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	617.00	617.00	0.00
6.00	723.00	106.00	0.00
9.00	760.00	37.00	0.00
12.00	786.00	26.00	0.00
15.00	802.00	16.00	0.00
18.00	812.00	10.00	0.00
21.00	822.00	10.00	0.00
24.00	826.00	4.00	0.00
27.00	832.00	6.00	0.00
30.00	836.00	4.00	0.00

FINAL FLOW

Time (min)	Pressure	Delta P
0.00	47.00	47.00
5.00	47.00	0.00
10.00	47.00	0.00
15.00	48.00	1.00

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL FLOW (CONTINUED)

Time (min)	Pressure	Delta P
20.00	51.00	3.00
25.00	54.00	3.00
30.00	58.00	4.00
35.00	60.00	2.00
40.00	61.00	1.00
45.00	62.00	1.00

FINAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	537.00	537.00	0.00
6.00	647.00	110.00	0.00
9.00	693.00	46.00	0.00
12.00	719.00	26.00	0.00
15.00	743.00	24.00	0.00
18.00	756.00	13.00	0.00
21.00	768.00	12.00	0.00
24.00	780.00	12.00	0.00
27.00	784.00	4.00	0.00
30.00	790.00	6.00	0.00
33.00	796.00	6.00	0.00