TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Computer Inventories

Well Name & No. HUCK "A" #15 Test No. 1 Date 6/3/90

Company QUINOCO PETROLEUM INC Zone Tested KS CITY "C-F"

Address 4582 S ULSTER ST PKWY #1700 DENVER CO Elevation 2270 GL

Co. Rep./Geo. MR JIM MUSGROVE Cont. RED TIGER RIG #5 Est. Ft. of Pay 5

Location: Sec. 31 Twp. 11S Rge. 20W Co. ELLIS State KANSAS

Interval Tested 3570-3640 Drill Pipe Size 4.5" XH

Anchor Length 70 Top Choke — 1" _____ Bottom Choke — ¾" _____

Top Packer Depth 3565 Hole Size — 7⅞" _____ Rubber Size — 6¾" _____

Bottom Packer Depth 3570 Wt. Pipe I.D. — 2.7 Ft. Run 325

Total Depth 3640 Drill Collar — 2.25 Ft. Run 0

Mud Wt. 9.0 lb/gal. Viscosity 45 Filtrate 10.4

Tool Open @ 9:15 PM Initial Blow VERY GOOD - BOTTOM OF BUCKET IN 10 MINUTES

Final Blow GOOD THROUGHOUT FLOW PERIOD-BOTTOM OF BUCKET IN 10 MINUTES

Recovery — Total Feet 405 Flush Tool? NO

Rec. 310 Feet of GAS IN PIPE

Rec. 0 Feet of

Rec. 30 Feet of SLIGHTLY OIL CUT MUD-10%OIL/90% MUD

Rec. 375 Feet of MUDDY GASSY OIL-80%OIL/4%WTR/16%MUD

Rec. 0 Feet of

BHT 110 °F Gravity _____ °API @ 0 °F Corrected Gravity 28 °API

RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 6000 ppm System

(A) Initial Hydrostatic Mud	1852.7	PSI	AK1 Recorder No.	5495	Range	4200
(B) First Initial Flow Pressure	76.5	PSI	@ (depth)	3605	w/Clock No.	8376
(C) First Final Flow Pressure	165.5	PSI	AK1 Recorder No.		Range	
(D) Initial Shut-In Pressure	290.5	PSI	@ (depth)		w/Clock No.	
(E) Second Initial Flow Pressure	189.7	PSI	AK1 Recorder No.	13337	Range	3995
(F) Second Final Flow Pressure	227.1	PSI	@ (depth)	3640	w/Clock No.	25184
(G) Final Shut-In Pressure	292.7	PSI	Initial Opening	30		
(H) Final Hydrostatic Mud	1837.9	PSI	Initial Shut-In	60		
			Final Flow	60		
			Final Shut-In	120		

Our Representative MR HARRY SCHMIDT TOTAL PRICE $ 500

Printcraft Printers - Hays, KS

TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Computer Investments

Well Name & No. HUCK "A" #15 Test No. 1 Date 6/3/90

Company QUINOCO PETROLEUM INC Zone Tested KS CITY "C-F"

Address 4582 S ULSTER ST PKWY #1700 DENVER CO Elevation 2270 GL

Co. Rep./Geo. MR JIM MUSGROVE Cont. RED TIGER RIG #5 Est. Ft. of Pay 5

Location: Sec. 31 Twp. 11S Rge. 20W Co. ELLIS State KANSAS

Interval Tested 3570-3640 Drill Pipe Size 4.5" XH

Anchor Length 70 Top Choke — 1" _____ Bottom Choke — ¾" _____

Top Packer Depth 3565 Hole Size — 7⅞" _____ Rubber Size — 6¾" _____

Bottom Packer Depth 3570 Wt. Pipe I.D. — 2.7 Ft. Run 325

Total Depth 3640 Drill Collar — 2.25 Ft. Run 0

Mud Wt. 9.0 lb/gal. Viscosity 45 Filtrate 10.4

Tool Open @ 9:15 PM Initial Blow VERY GOOD - BOTTOM OF BUCKET IN 10 MINUTES

Final Blow GOOD THROUGHOUT FLOW PERIOD-BOTTOM OF BUCKET IN 10 MINUTES

Recovery — Total Feet 405 Flush Tool? NO

Rec. 310 Feet of GAS IN PIPE

Rec. 0 Feet of _____

Rec. 30 Feet of SLIGHTLY OIL CUT MUD-10%OIL/90% MUD

Rec. 375 Feet of MUDDY GASSY OIL-80%OIL/4%WTR/16%MUD

Rec. 0 Feet of _____

BHT 110 °F Gravity _____ °API @ 0 °F Corrected Gravity 28 °API

RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 6000 ppm System

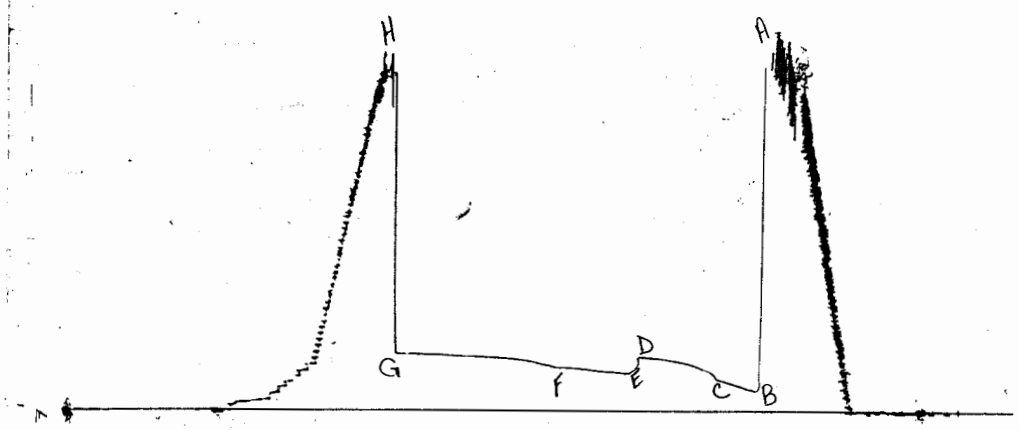
(A) Initial Hydrostatic Mud	1852.7 PSI	AK1 Recorder No.	5495	Range	4200
(B) First Initial Flow Pressure	76.5 PSI	@ (depth)	3605	w/Clock No.	8376
(C) First Final Flow Pressure	165.5 PSI	AK1 Recorder No.		Range	
(D) Initial Shut-In Pressure	290.5 PSI	@ (depth)		w/Clock No.	
(E) Second Initial Flow Pressure	189.7 PSI	AK1 Recorder No.	13337	Range	3995
(F) Second Final Flow Pressure	227.1 PSI	@ (depth)	3640	w/Clock No.	25184
(G) Final Shut-In Pressure	292.7 PSI	Initial Opening	30		
(H) Final Hydrostatic Mud	1837.9 PSI	Initial Shut-In	60		
		Final Flow	60		
		Final Shut-In	120		

Our Representative MR HARRY SCHMIDT TOTAL PRICE $ 500

Printcraft Printers - Hays, KS

DST# 1 RECORDER# 13337

#13337 TICKET #2518



This is an actual photograph of recorder chart.

POINT	PRESSURE Field Reading	Office Reading	
(A) Initial Hydrostatic Mud	1855	1852.7	PSI
(B) First Initial Flow Pressure	98	76.5	PSI
(C) First Final Flow Pressure	148	165.5	PSI
(D) Initial Closed-in Pressure	276	290.5	PSI
(E) Second Initial Flow Pressure	197	189.7	PSI
(F) Second Final Flow Pressure	217	227.1	PSI
(G) Final Closed-in Pressure	276	292.7	PSI
(H) Final Hydrostatic Mud	1855	1837.9	PSI

COMPUTER EVALUATION BY TRILOBITE TESTING
QUINOCO PETROLEUM INC
REPORT FOR DST#1 FOR THE HUCK "A" #15
31-11S-20W ELLIS KS

****

TEST PARAMETERS

ELEVATION: 2270 KB
DATUM: -1336
TEST INTERVAL: 3570-3640

EST. PAY: 5 FT
ZONE TESTED: KS CITY "C-F"

TIME INTERVALS: 30-60-60-120
VISCOSITY: 9.869121 CP
HOLE SIZE: 7.875 IN

RECORDER DEPTH: 3605
BOTTOM HOLE TEMP: 110

****

CALCULATIONS

CUBIC FEET OF GAS IN PIPE: 24.75021

TOTAL FEET OF RECOVERY: 405
BARRELS IN DRILL PIPE: 1.1376
BARRELS IN WEIGHT PIPE: 2.275
GAS OIL RATIO: 7.252596 CU.FT./BBL
BUBBLE POINT PRESSURE: ; 5.770549E-02
TOTAL BARRELS OF RECOVERY: 3.4126
UNCORR. INIT. PROD.: 54.6016 BBL/DAY
API GRAVITY: 28
FLUID GRADIENT: .384
CORRECTED PIPE FILLUP: 591.4063
CORR. BARRELS OF RECOVERY: 6.05752 BBL
INITIAL PRODUCTION CORRECTED TO FINAL FLOW PRESSURE: 96.92031 BBL/DAY
INITIAL PRODUCTION CORRECTED TO PSEUDO STEADY FLOW STATE
99.35626

****

INITIAL SLOPE 142.4 PSI/CYCLE
INITIAL P* 316 PSI

FINAL SLOPE 69.93 PSI/CYCLE
FINAL P* 310 PSI

****

TRANSMISSIBILITY	225.3574 (MD.-FT./CP.)
PERMEABILITY	444.8159 (MD.)
INDICATED FLOW CAPACITY	2224.08 (MD.FT)
PRODUCTIVITY INDEX	.2546539 (BARRELS/DAY/PSI)
DAMAGE RATIO	.2169412
RADIUS OF INVESTIGATION	200.0836 (FT.)
POTENTIOMETRIC SURFACE	-616.11 (FT.)
DRAWDOWN FACTOR	1.898736 (%)

TRILOBITE TESTING COMPANY

P.O. Box 362 - Hays, Kansas 67601

FLUID SAMPLER DATA

Ticket No. 2518 Date 6/3/90

Company Name QUINOCO PETROLEUM INC

Lease HUCK "A" #15 Test No. 1

County ELLIS Sec. 31 Twp. 11S Rng. 20W

SAMPLER RECOVERY

Gas trace ML

Oil 2500 (gas cut) ML

Mud 0 ML

Water 0 ML

Other 0 ML

Pressure 270 PSI

Total 0 ML

PIT MUD ANALYSIS

Chlorides 6000 ppm.

Resistivity .68 ohms @ 71 F

Viscosity 45

Mud Weight 9.0

Filtrate 10.4

Other

SAMPLER ANALYSIS

Resistivity ohms @ F

Chlorides ppm.

Gravity corrected @ 60 F

PIPE RECOVERY

TOP

Resistivity ohms @ F

Chlorides ppm.

MIDDLE

Resistivity ohms @ F

Chlorides ppm.

BOTTOM

Resistivity ohms @ F

Chlorides ppm.

INITIAL FLOW

RECORDER # 5495
DST #1

DT(MIN)	PRESSURE	<> PRESSURE
0	76.5	76.5
3	78.7	2.199997
6	98.9	20.20001
9	118.9	20
12	121.1	2.199997
15	132.2	11.1
18	141.1	8.900009
21	145.5	4.399994
24	152.2	6.699997
27	156.6	4.400009
30	163.3	6.699997
33	165.5	2.199997

FINAL FLOW

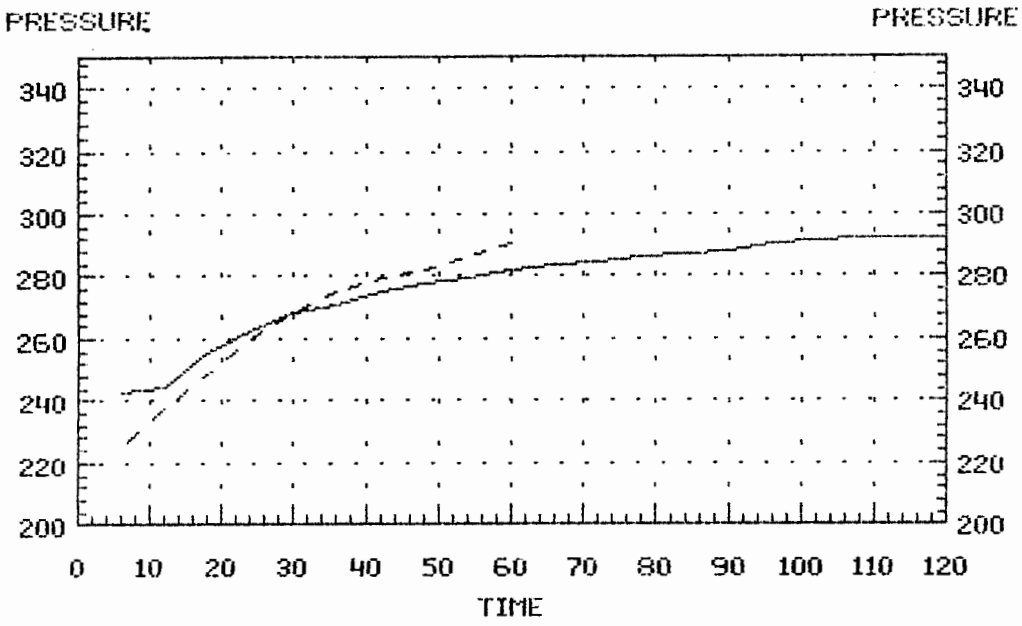
RECORDER # 5495
DST #1

DT(MIN)	PRESSURE	<> PRESSURE
0	189.7	189.7
3	192	2.300003
6	194.2	2.199997
9	196.4	2.199997
12	198.6	2.200012
15	200.8	2.199997
18	203	2.199997
21	204	1
24	205.2	1.199997
27	207.4	2.199997
30	209.6	2.200012
33	211.8	2.199997
36	216.2	4.399994
39	218.3	2.100006
42	220.5	2.199997
45	222.7	2.199997
48	223.5	.8000031
51	224.9	1.399994
54	227.1	2.200012
57	227.1	0
60	227.1	0

DELTA T DELTA P

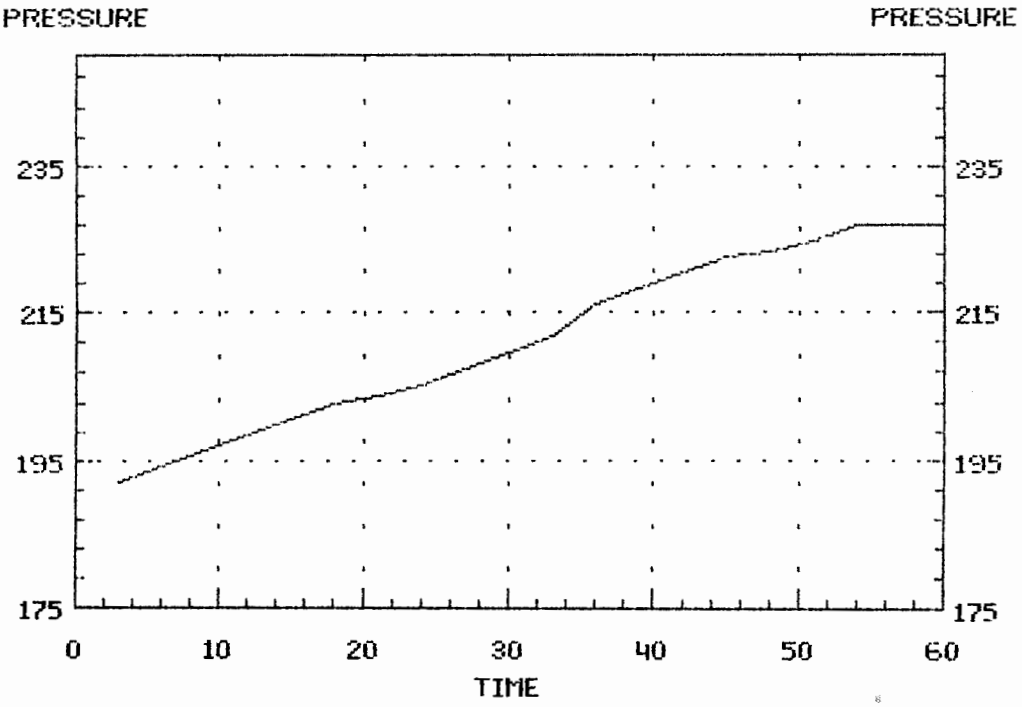
DST #1 INITIAL & FINAL SHUTIN
RECORDER # 5495

FINAL ——— INITIAL - - - - - -



DELTA T DELTA P

DST #1 FINAL FLOW
RECORDER # 5495



INITIAL PRODUCTION CORRECTED TO PSEUDO STEADY FLOW STATE 99.35626 BBL/DAY

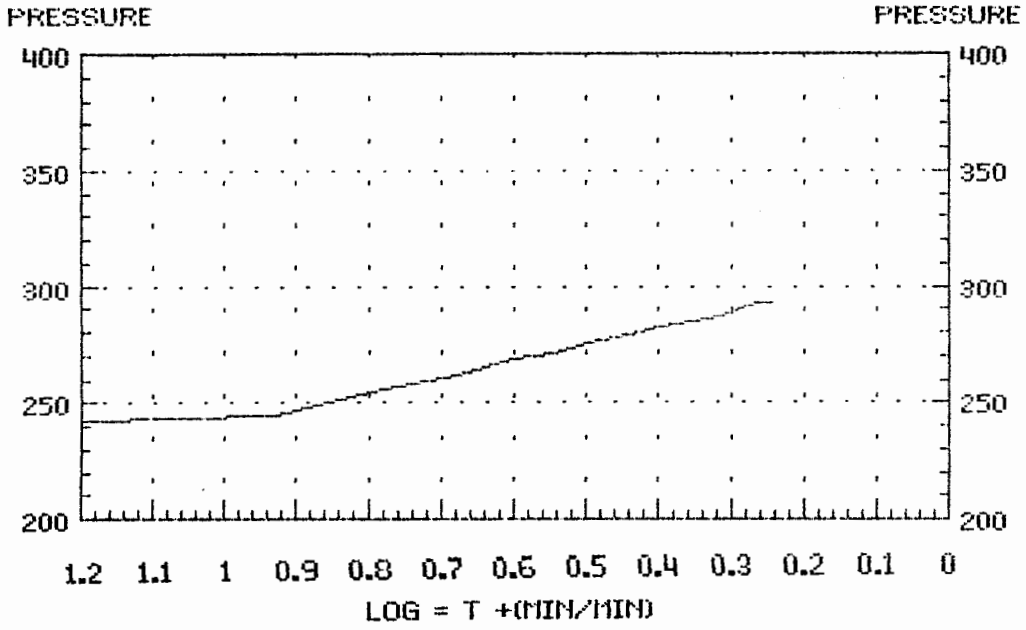
HUCK "A" #15DST #1
FINAL SHUTIN
90 TOTAL FLOW TIME

Slope -69.93 psi/cycle
P * 310 psi

	TIME(MIN)	Pws (psi)	Horn T	Log Horn T	<> PRESSURE
	6	242.5	16	1.204	242.5
X	12	244.7	9	0.929	2.2
	18	255.6	6	0.778	10.9
	24	262.2	5	0.677	6.6
	30	268.7	4	0.602	6.5
	36	270.9	4	0.544	2.2
	42	275.3	3	0.497	4.4
	48	277.5	3	0.459	2.2
	54	279.6	3	0.426	2.1
	60	281.8	3	0.398	2.2
	66	284.0	2	0.374	2.2
	72	285.1	2	0.352	1.1
	78	286.2	2	0.333	1.1
	84	287.3	2	0.316	1.1
	90	288.4	2	0.301	1.1
	96	290.5	2	0.287	2.1
	102	291.6	2	0.275	1.1
	108	292.7	2	0.263	1.1
	114	292.7	2	0.253	0.0
X	120.0	292.7	2	0.243	0.0

HORNER PLOT

DST #1 FINAL SHUTIN
RECORDER # 5495



SLOPE -69.93
P * 310

HUCK "A" #15DST #1
INITIAL SHUTIN

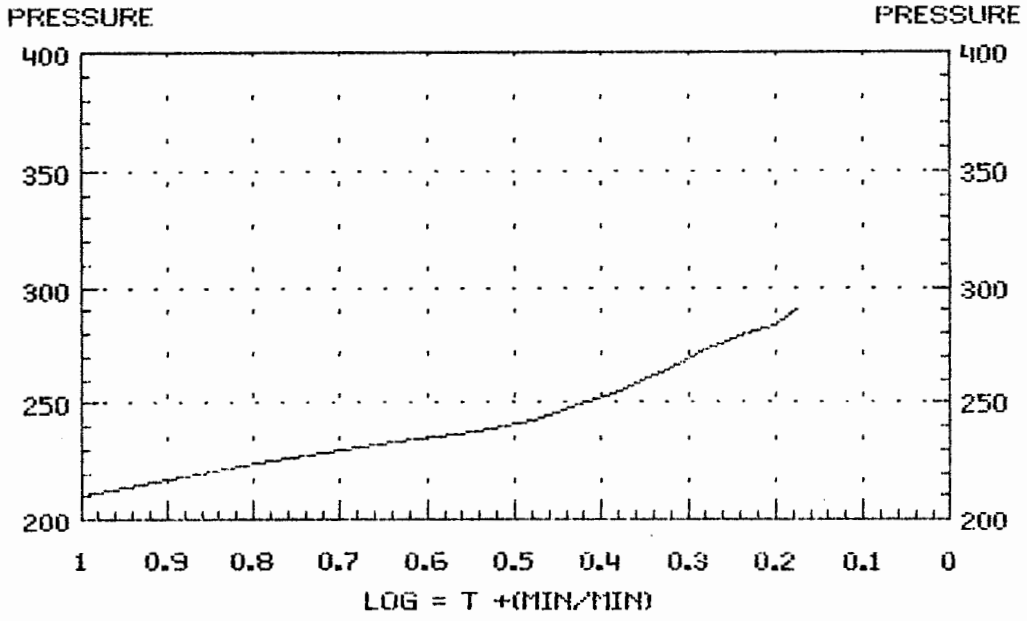
30 INITIAL FLOW TIME

Slope -142.40 psi/cycle
P * 316 psi

	TIME(MIN)	Pws (psi)	Horn T	Log Horn T	<> PRESSURE
	3	207.4	11	1.041	207.4
	6	224.9	6	0.778	17.5
	9	233.7	4	0.637	8.8
X	12	238.1	4	0.544	4.4
	15	242.5	3	0.477	4.4
	18	249.0	3	0.426	6.5
	21	253.4	2	0.385	4.4
	24	260.0	2	0.352	6.6
	27	264.4	2	0.325	4.4
	30	268.7	2	0.301	4.3
	33	273.1	2	0.281	4.4
	36	275.3	2	0.263	2.2
	39	277.5	2	0.248	2.2
	42	279.6	2	0.234	2.1
	45	280.7	2	0.222	1.1
	48	281.8	2	0.211	1.1
	51	284.0	2	0.201	2.2
	54	286.2	2	0.192	2.2
	57	288.4	2	0.184	2.2
X	60.0	290.5	2	0.176	2.1

HORNER PLOT

DST #1 INITIAL SHUTIN
RECORDER # 5495



SLOPE -142.40
P * 316

TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

TEST TICKET

№ 2518

Well Name & No. HUCK A. #15 Test No. 1 Date 6-3-90

Company QUNIOCO PETROLEUM INC. Zone Tested Ks City "C-F"

Address 4582 S. ULSTER ST. PKWY #1700 DENVER Elevation 2270 GL.

Co. Rep. / Geo. JIM MUSGROVE Cont. RED TIGER Est. Ft. of Pay 57

Location: Sec. 31 Twp. 11 Rge. 20 Co. ELLIS State KS.

No. of Copies ? Distribution Sheet ? Yes ____ No Turnkey ? Yes ____ No

Interval Tested 3570 - 3640 Drill Pipe Size 4½" XH.

Anchor Length 70 Top Choke — 1" 8/14 Bottom Choke — ¾" ¾

Top Packer Depth 3565 Hole Size — 7⅞" 7⅞ Rubber Size — 6¾" 6¾

Bottom Packer Depth 3570 Wt. Pipe I.D. — 2.7 Ft. Run 325

Total Depth 3640 Drill Collar — 2.25 Ft. Run —

Mud Wt. 9.0 lb / gal. Viscosity 45 Filtrate 10.4

Tool Open @ 9:15 PM Initial Blow VERY GOOD BOT. OF BUCKET IN 5 MIN.

Final Blow GOOD THROUGHOUT FLOW PERIOD BOT. OF BUCKET IN 10 MIN.

Recovery — Total Feet 405 Flush Tool? NO

Rec. 310 Feet of gas in pipe

Rec. 30' Feet of very slightly oil cut mud 10% oil 90%

Rec. 375' Feet of muddy gassy oil

Rec. ____ Feet of 80% OIL 4% WATER 16% MUD

Rec. ____ Feet of ____

BHT 110 °F Gravity ____ °API @ ____ °F Corrected Gravity 28 TO HEAVY °API

RW ____ @ ____ °F Chlorides ____ ppm Recovery Chlorides 6000 ppm System

(A) Initial Hydrostatic Mud	1855 PSI	AK1 Recorder No.	5495	Range	4200
(B) First Initial Flow Pressure	98 PSI	@ (depth)	3605	w/Clock No.	8376
(C) First Final Flow Pressure	148 PSI	AK1 Recorder No.	13337	Range	3995
(D) Initial Shut-In Pressure	276 PSI	@ (depth)	3640	w/Clock No.	25194
(E) Second Initial Flow Pressure	197 PSI	AK1 Recorder No.	____	Range	____
(F) Second Final Flow Pressure	217 PSI	@ (depth)	____	w/Clock No.	____
(G) Final Shut-In Pressure	276 PSI	Initial Opening	30	Test	X 400.00
(H) Final Hydrostatic Mud	1855 PSI	Initial Shut-In	60	Jars	____
		Final Flow	60	Safety Joint	____
		Final Shut-In	120	Straddle	____
				Circ. Sub	____
				Sampler	X 100.00
				Extra Packer	____
				Other	____
				TOTAL PRICE $	____

Approved By Jim Musgrove

Our Representative [signature]

Printcraft Printers - Hays, KS

TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name & No. HUCK "A" #15 Test No. 2 Date 6/4/90

Company QUINOCO PETROLEUM INC Zone Tested KS CITY "K-L"

Address 4582 S ULSTER ST PKWY #1700 DENVER CO Elevation 2270 GL

Co. Rep./Geo. MR JIM MUSGROVE Cont. RED TIGER RIG #5 Est. Ft. of Pay 0

Location: Sec. 31 Twp. 11S Rge. 20W Co. ELLIS State KANSAS

Interval Tested 3714-3760 Drill Pipe Size 4.5" XH

Anchor Length 46 Top Choke — 1" _____ Bottom Choke — ¾" _____

Top Packer Depth 3709 Hole Size — 7⅞" _____ Rubber Size — 6¾" _____

Bottom Packer Depth 3714 Wt. Pipe I.D. — 2.7 Ft. Run 0

Total Depth 3760 Drill Collar — 2.25 Ft. Run 0

Mud Wt. 9.2 lb / gal. Viscosity 56 Filtrate 11.2

Tool Open @ 8:30 PM Initial Blow INITIAL SURGE-NO BLOW

Final Blow NONE

Recovery — Total Feet 15 Flush Tool? YES

Rec. 15 Feet of MUD

Rec. 0 Feet of _____

Rec. 0 Feet of _____

Rec. 0 Feet of _____

Rec. 0 Feet of _____

BHT 0 °F Gravity _____ °API @ 0 °F Corrected Gravity 0 °API

RW 0.68 @ 70 °F Chlorides 6000 ppm Recovery Chlorides 6000 ppm System

(A) Initial Hydrostatic Mud	1890.2 PSI	AK1 Recorder No.	5495	Range	4200
(B) First Initial Flow Pressure	48.9 PSI	@ (depth)	3750	w/Clock No.	8376
(C) First Final Flow Pressure	49.6 PSI	AK1 Recorder No.	13337	Range	3975
(D) Initial Shut-In Pressure	622.3 PSI	@ (depth)	3760	w/Clock No.	25184
(E) Second Initial Flow Pressure	60.2 PSI	AK1 Recorder No.	0	Range	0
(F) Second Final Flow Pressure	61.3 PSI	@ (depth)	0	w/Clock No.	0
(G) Final Shut-In Pressure	574.6 PSI	Initial Opening	30		
(H) Final Hydrostatic Mud	1856.2 PSI	Initial Shut-In	30		
		Final Flow	30		
		Final Shut-In	30		

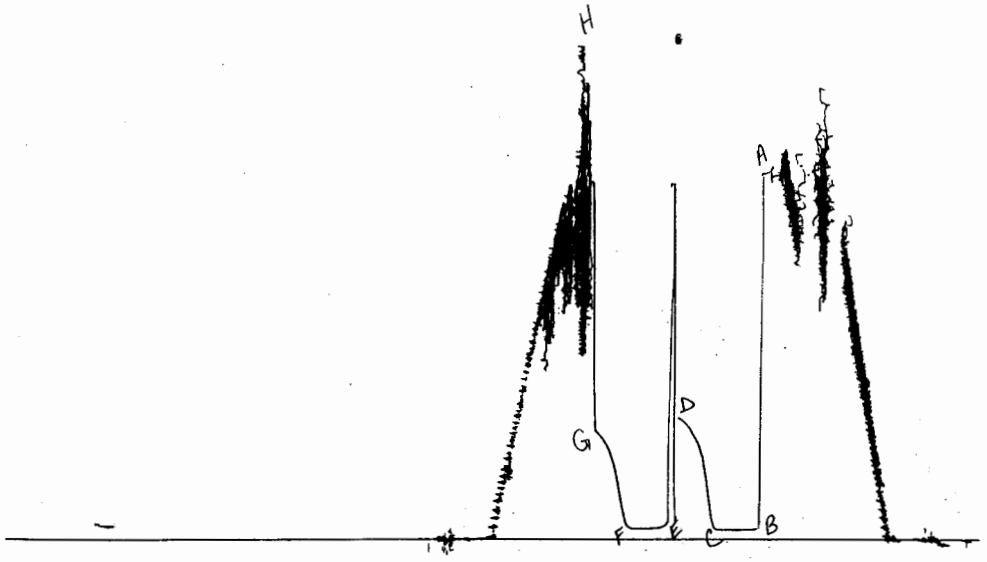
MR HARRY SCHMIDT 500

Our Representative _____ TOTAL PRICE $ _____

Printcraft Printers - Hays, KS

DST# 2 RECORDER# 13337

TICKET # 2519 # 13337



This is an actual photograph of recorder chart.

POINT	PRESSURE Field Reading	Office Reading	
(A) Initial Hydrostatic Mud	1894	1890.2	PSI
(B) First Initial Flow Pressure	49	48.9	PSI
(C) First Final Flow Pressure	49	49.6	PSI
(D) Initial Closed-in Pressure	621	622.3	PSI
(E) Second Initial Flow Pressure	59	60.2	PSI
(F) Second Final Flow Pressure	59	61.3	PSI
(G) Final Closed-in Pressure	572	574.6	PSI
(H) Final Hydrostatic Mud	1855	1856.2	PSI

TRILOBITE TESTING COMPANY

P.O. Box 362 - Hays, Kansas 67601

FLUID SAMPLER DATA

Ticket No. 2519 Date 6/4/90

Company Name QUINOCO PETROLEUM INC

Lease HUCK "A" #15 Test No. 2

County ELLIS Sec. 31 Twp. 11S Rng. 20W

SAMPLER RECOVERY

Gas 0 ML

Oil 0 ML

Mud 4500 ML

Water 0 ML

Other 0 ML

Pressure 0 PSI

Total 4500 ML

PIT MUD ANALYSIS

Chlorides 6000 ppm.

Resistivity .068 ohms @ 70 F

Viscosity 56

Mud Weight 9.2

Filtrate 11.2

Other

SAMPLER ANALYSIS

Resistivity .68 ohms @ 70 F

Chlorides 6000 ppm.

Gravity 0 corrected @ 60 F

PIPE RECOVERY

TOP

Resistivity .68 ohms @ 70 F

Chlorides 6000 ppm.

MIDDLE

Resistivity 0 ohms @ 0 F

Chlorides 0 ppm.

BOTTOM

Resistivity 0 ohms @ 0 F

Chlorides 0 ppm.

TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

TEST TICKET

№ 2519

Well Name & No. HUCK A #15 Test No. TWO Date 6-4-90

Company QUINOCO PETROLEUM INC. Zone Tested 15+L

Address 4582 S. ULSTER ST. PKWY #700 DENVER Elevation 2270 G.L.

Co. Rep. / Geo. JIM MUSGROVE Cont. RED TIGER Est. Ft. of Pay

Location: Sec. 31 Twp. 11 Rge. 20 Co. ELLIS State KS.

No. of Copies Distribution Sheet Yes No Turnkey Yes No

Interval Tested 3714 TO 3760 Drill Pipe Size

Anchor Length 46' Top Choke — 1" Bottom Choke — ¼"

Top Packer Depth 3709 Hole Size — 7⅞" Rubber Size — 6¾"

Bottom Packer Depth 3714 Wt. Pipe I.D. — 2.7 Ft. Run

Total Depth 3760 Drill Collar — 2.25 Ft. Run

Mud Wt. 9.2 lb / gal. Viscosity 56 Filtrate 11.2

Tool Open @ 8:30 P Initial Blow INITAL SURGE NO BLOW

Final Blow NONE

Recovery — Total Feet 15' Flush Tool? YES

Rec. 15 Feet of MUD

Rec. Feet of

Rec. Feet of

Rec. Feet of

Rec. Feet of

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

RW 0.68 @ 70 °F Chlorides 6000 ppm Recovery Chlorides 6000 ppm System

(A) Initial Hydrostatic Mud	1894 PSI	AK1 Recorder No.	5495	Range	4200
(B) First Initial Flow Pressure	49 PSI	@ (depth)	3750	w/Clock No.	8376
(C) First Final Flow Pressure	49 PSI	AK1 Recorder No	13237	Range	3975
(D) Initial Shut-In Pressure	621 PSI	@ (depth)	3760	w/Clock No.	25184
(E) Second Initial Flow Pressure	59 PSI	AK1 Recorder No.		Range	
(F) Second Final Flow Pressure	59 PSI	@ (depth)		w/Clock No.	
(G) Final Shut-In Pressure	572 PSI	Initial Opening	30	Test	X 400.00
(H) Final Hydrostatic Mud	1855 PSI	Initial Shut-In	30	Jars	X
		Final Flow	30	Safety Joint	X
		Final Shut-In	30	Straddle	
				Circ. Sub	X
				Sampler	X 100.00
				Extra Packer	
				Other	
				TOTAL PRICE $	500.00

Approved By Jim Musgrove

Our Representative Thomas B. Schmidt

Printcraft Printers - Hays, KS

TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name & No. HUCK "A" #15 Test No. 3 Date 6/5/90

Company QUINOCO PETROLEUM INC Zone Tested ARBUCKLE

Address P.O. BOX 404 PLAINVILLE KS Elevation 2270 GL

Co. Rep./Geo. MR JIM MUSGROVE Cont. RED TIGER RIG #5 Est. Ft. of Pay 5

Location: Sec. 31 Twp. 11S Rge. 20W Co. ELLIS State KANSAS

Interval Tested 3866-3875 Drill Pipe Size 4.5" XH

Anchor Length 9 Top Choke — 1" _____ Bottom Choke — ¾" _____

Top Packer Depth 3861 Hole Size — 7⅞" _____ Rubber Size — 6¾" _____

Bottom Packer Depth 3866 Wt. Pipe I.D. — 2.7 Ft. Run 630

Total Depth 3875 Drill Collar — 2.25 Ft. Run 0

Mud Wt. 9.3 lb/gal. Viscosity 42 Filtrate 11.6

Tool Open @ 9:45 PM Initial Blow WEAK & INTERMITANT 2" IN BUCKET

Final Blow FIRST 5 MIN-WEAK & INTERMINTANT-FLUSHED TOOL-RECEIVED GOOD BLOW THROUGHOUT FINAL FLOW-BOTTOM OF BUCKET IN 20 MINUTES

Recovery — Total Feet 540 Flush Tool? YES

Rec. 60 Feet of GAS IN PIPE

Rec. 300 Feet of CLEAN GASSY OIL

Rec. 150 Feet of SLTLY MUD CUT GASSY WTRY OIL-WTR 22%/OIL 73%/ 5% MUD

Rec. 30 Feet of OIL CUT MUDDY WTR-OIL 10%/MUD 55%/WTR 35%

Rec. 60 Feet of WATER WITH TRACE OF OIL

BHT 110 °F Gravity 35 °API @ 78 °F Corrected Gravity 33 °API

RW 1.0 @ 68 °F Chlorides 6000 ppm Recovery Chlorides 9000 ppm System

(A) Initial Hydrostatic Mud	1998.4 PSI	AK1 Recorder No.	5495	Range	4200
(B) First Initial Flow Pressure	24.8 PSI	@ (depth)	3857	w/Clock No.	8376
(C) First Final Flow Pressure	50.7 PSI	AK1 Recorder No.	13337	Range	3975
(D) Initial Shut-In Pressure	364.4 PSI	@ (depth)	3875	w/Clock No.	25184
(E) Second Initial Flow Pressure	85.5 PSI	AK1 Recorder No.	0	Range	0
(F) Second Final Flow Pressure	284 PSI	@ (depth)	0	w/Clock No.	0
(G) Final Shut-In Pressure	360 PSI	Initial Opening	30		
(H) Final Hydrostatic Mud	1928.7 PSI	Initial Shut-In	60		
		Final Flow	90		
		Final Shut-In	120		

MR HARRY SCHMIDT

Our Representative _____

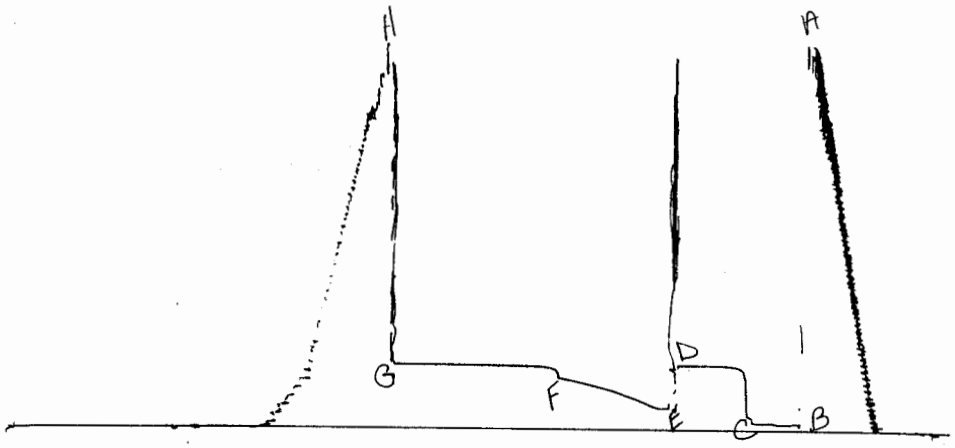
500

TOTAL PRICE $ _____

Printcraft Printers - Hays, KS

DST# 3 RECORDER# 13337

TICKET # 2520 # 13337



This is an actual photograph of recorder chart.

POINT	PRESSURE Field Reading	Office Reading	
(A) Initial Hydrostatic Mud	1992	1998.4	PSI
(B) First Initial Flow Pressure	29	24.8	PSI
(C) First Final Flow Pressure	69	50.7	PSI
(D) Initial Closed-in Pressure	326	364.4	PSI
(E) Second Initial Flow Pressure	108	85.5	PSI
(F) Second Final Flow Pressure	256	284	PSI
(G) Final Closed-in Pressure	326	360	PSI
(H) Final Hydrostatic Mud	1972	1928.7	PSI

COMPUTER EVALUATION BY TRILOBITE TESTING
QUINOCO PETROLEUM INC
REPORT FOR DST#3 FOR THE HUCK "A" #15
31-1S-20W ELLIS KS

****

TEST PARAMETERS

ELEVATION: 2270 KB
DATUM: -1588
TEST INTERVAL: 3866-3875

RECORDER DEPTH: 3857
BOTTOM HOLE TEMP: 110

EST. PAY: 5 FT
ZONE TESTED: ARBUCKLE

TIME INTERVALS: 30-60-90-120
VISCOSITY: 6.665085 CP
HOLE SIZE: 7.875 IN

****

CALCULATIONS

CUBIC FEET OF GAS IN PIPE: 2.341253

TOTAL FEET OF RECOVERY: 540
BARRELS IN WEIGHT PIPE: 3.78
GAS OIL RATIO: .6193791 CU.FT./BBL
BUBBLE POINT PRESSURE: ; .0675405
TOTAL BARRELS OF RECOVERY: 3.78

UNCORR. INIT. PROD.: 45.36 BBL/DAY

API GRAVITY: 33

FLUID GRADIENT: .373

CORRECTED PIPE FILLUP: 761.3941

CORR. BARRELS OF RECOVERY: 6.27282 BBL
INITIAL PRODUCTION CORRECTED TO FINAL FLOW PRESSURE: 75.27383 BBL/DAY
INITIAL PRODUCTION CORRECTED TO PSEUDO STEADY FLOW STATE
58.94262

****

INITIAL SLOPE 36.21 PSI/CYCLE
INITIAL P* 371 PSI

FINAL SLOPE 9.54 PSI/CYCLE
FINAL P* 361 PSI

****

TRANSMISSIBILITY	1282.969 (MD.-FT./CP.)
PERMEABILITY	1710.22 (MD.)
INDICATED FLOW CAPACITY	8551.098 (MD.FT)
PRODUCTIVITY INDEX	1.449755 (BARRELS/DAY/PSI)
DAMAGE RATIO	1.477044
RADIUS OF INVESTIGATION	453.0192 (FT.)
THEORETICAL POTENTIAL	111.1828 BBL/DAY
POTENTIOMETRIC SURFACE	-749.841 (FT.)
DRAWDOWN FACTOR	2.695418 (%)

TRILOBITE TESTING COMPANY

P.O. Box 362 - Hays, Kansas 67601

FLUID SAMPLER DATA

Ticket No. 2520 Date 6/5/90

Company Name QUINOCO PETROLEUM INC

Lease HUCK "A" #15 Test No. 3

County ELLIS Sec. 31 Twp. 11S Rng. 20W

SAMPLER RECOVERY

Gas trace ML

Oil 550 ML

Mud trace ML

Water 3950 ML

Other 0 ML

Pressure 300 PSI

Total 4500 ML

PIT MUD ANALYSIS

Chlorides 9000 ppm.

Resistivity .75 ohms @ 65 F

Viscosity 42

Mud Weight 9.3

Filtrate 11.6

Other

SAMPLER ANALYSIS

Resistivity 1 ohms @ 68 F

Chlorides 6000 ppm.

Gravity 33 corrected @ 60 F

PIPE RECOVERY

TOP

Resistivity 0 ohms @ 0 F

Chlorides 0 ppm.

MIDDLE

Resistivity 0 ohms @ 0 F

Chlorides 0 ppm.

BOTTOM

Resistivity 1.0 ohms @ 68 F

Chlorides 6,000 ppm.

INITIAL FLOW

RECORDER # 5495
DST #3

DT(MIN)	PRESSURE	<> PRESSURE
0	24.8	24.8
3	40.6	15.8
6	33.8	-6.799999
9	29.3	-4.5
12	31.6	2.300001
15	31.6	0
18	33.8	2.199999
21	45.1	11.3
24	49.6	4.5
27	49.6	0
30	50.7	1.100002

FINAL FLOW

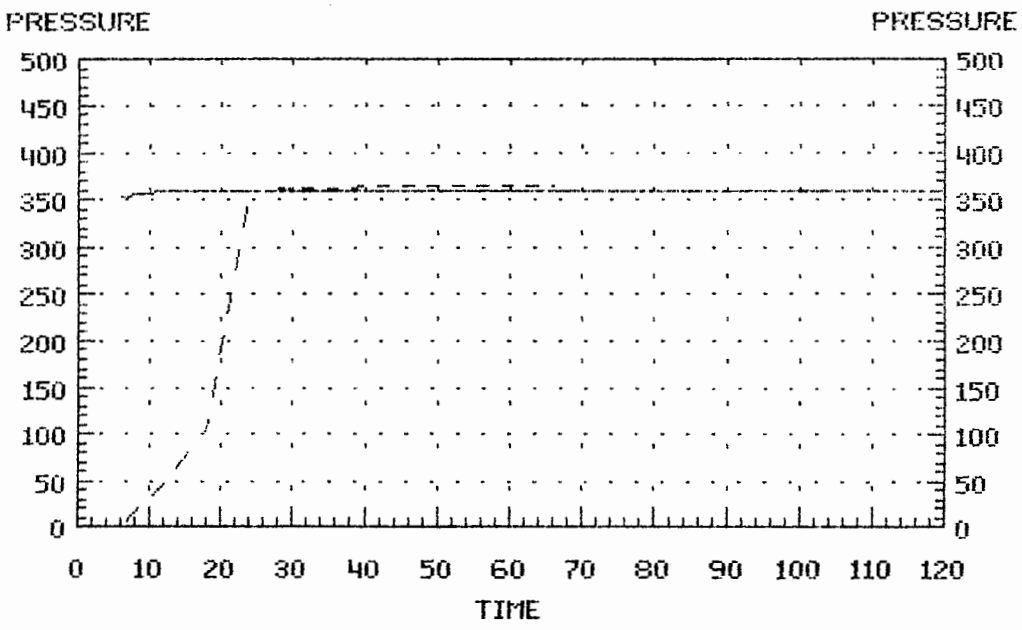
RECORDER # 5495
DST #3

DT(MIN)	PRESSURE	<> PRESSURE
0	85.5	85.5
3	85.5	0
6	87.7	2.199997
9	94.4	6.700005
12	98.9	4.5
15	107.8	8.900001
18	121.1	13.3
21	129.1	8.000008
24	140.1	11
27	151.1	11
30	162.2	11.09999
33	167.7	5.5
36	175.4	7.699997
39	183.1	7.700012
42	189.7	6.599991
45	200.8	11.10001
48	208.5	7.699997
51	217.2	8.699997
54	222.7	5.5
57	228.2	5.5
60	231.5	3.300003
63	238.1	6.600006
66	242.5	4.399994
69	248.1	5.600006
72	253.4	5.299988
75	257.8	4.399994
78	262.2	4.400025
81	265.4	3.199982
84	269.8	4.399994
87	274.2	4.400025
90	277.5	3.299988
93	281.8	4.299988
96	284	2.200012

DELTA T DELTA P

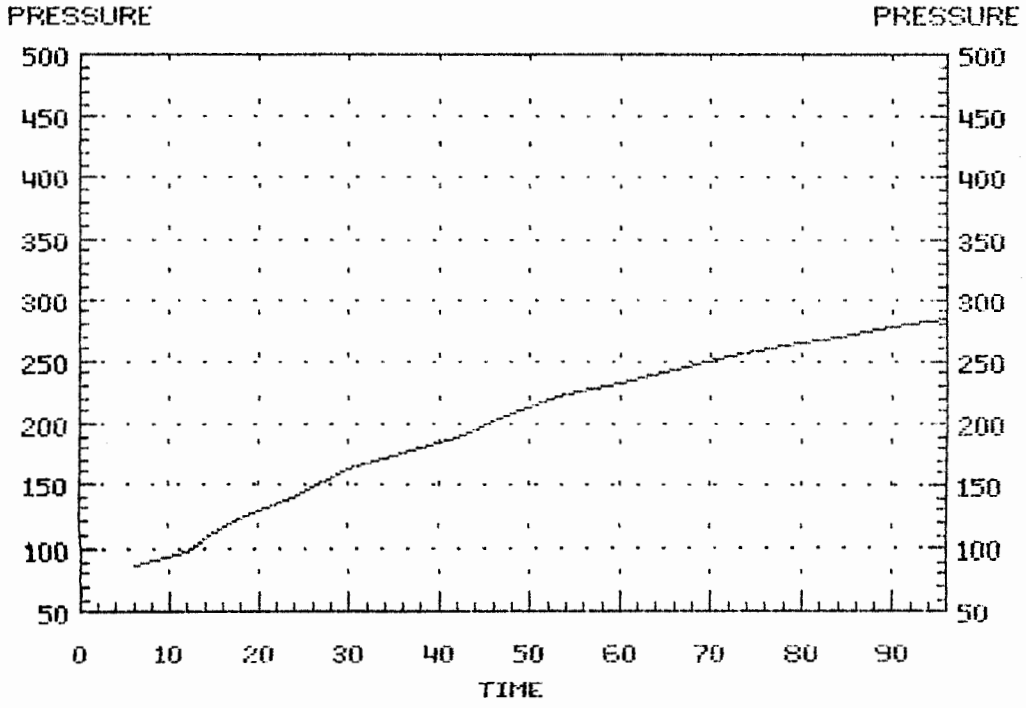
DST #3 INITIAL & FINAL SHUTIN
RECORDER # 5495

FINAL ——— INITIAL - - - - - -



DELTA T DELTA P

DST #3 FINAL FLOW
RECORDER # 5495



INITIAL PRODUCTION CORRECTED TO PSEUDO STEADY FLOW STATE 58.94262 BBL/DAY

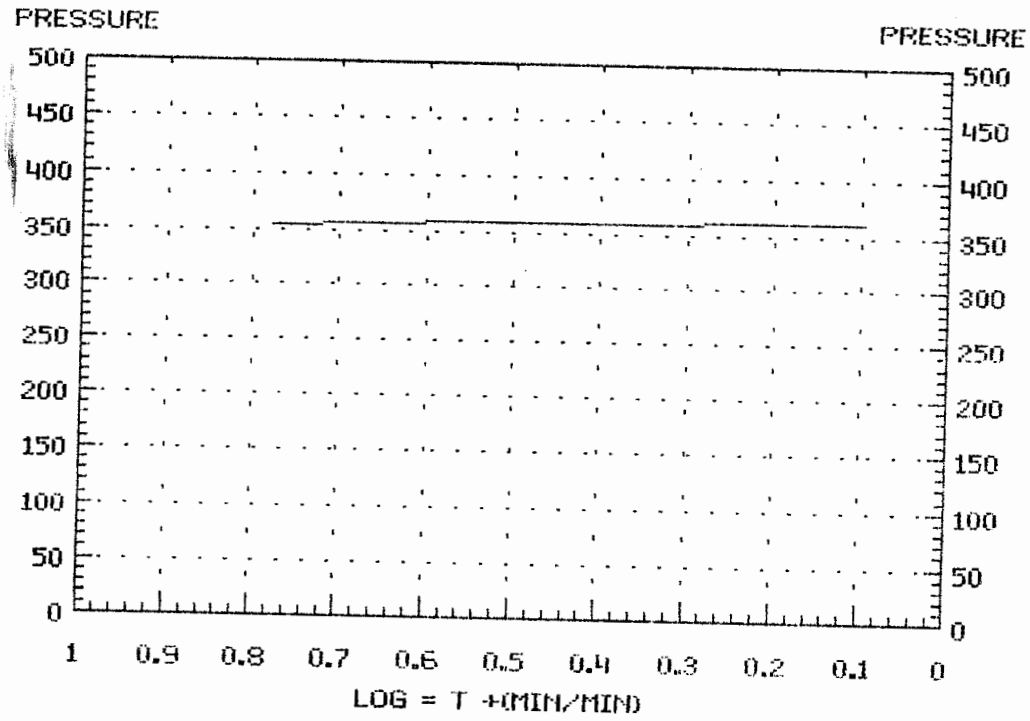
HUCK "A" #15DST #3
FINAL SHUTIN
120 TOTAL FLOW TIME

Slope -9.54 psi/cycle
P * 361 psi

	TIME(MIN)	Pws (psi)	Horn T	Log Horn T	<> PRESSURE
X	6	353.5	6	0.778	353.5
	12	357.9	4	0.544	4.4
	18	357.9	3	0.426	0.0
	24	357.9	2	0.352	0.0
	30	358.1	2	0.301	0.2
	36	360.0	2	0.263	1.9
	42	360.0	2	0.234	0.0
	48	360.0	2	0.211	0.0
	54	360.0	2	0.192	0.0
	60	360.0	2	0.176	0.0
	66	360.0	1	0.163	0.0
	72	360.0	1	0.151	0.0
	78	360.0	1	0.141	0.0
	84	360.0	1	0.133	0.0
	90	360.0	1	0.125	0.0
	96	360.0	1	0.118	0.0
	102	360.0	1	0.112	0.0
	108	360.0	1	0.106	0.0
	114	360.0	1	0.101	0.0
X	120	360.0	1	0.097	0.0

HORNER PLOT

DST #3 FINAL SHUTIN
RECORDER # 5495



HUCK "A" #15DST #3
INITIAL SHUTIN

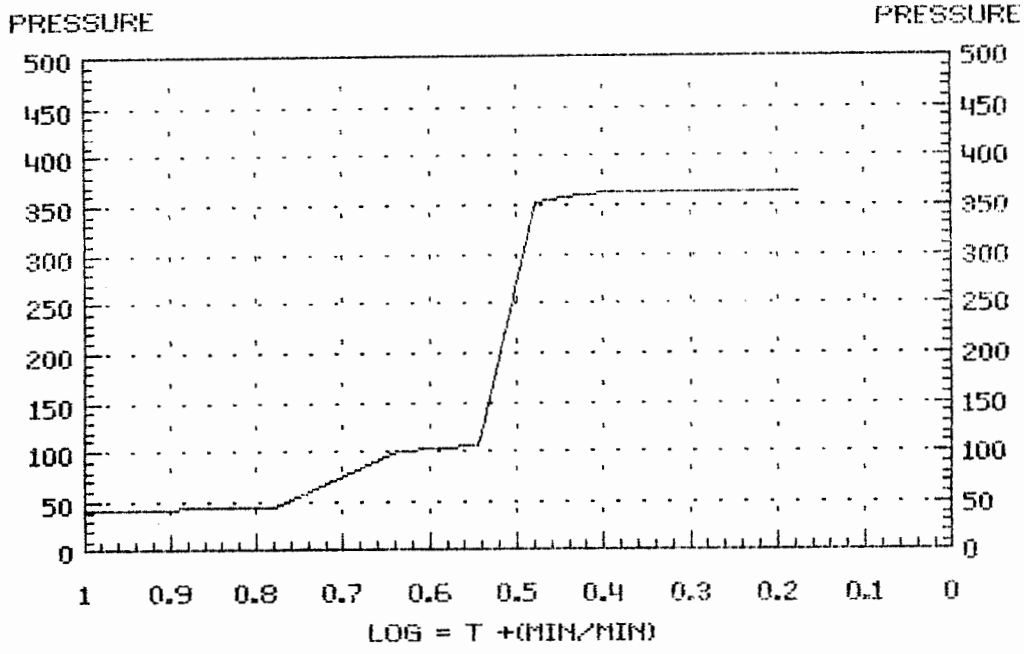
30 INITIAL FLOW TIME

Slope -36.21 psi/cycle
P * 371 psi

	TIME(MIN)	Pws (psi)	Horn T	Log Horn T	<> PRESSURE
	3	40.6	11	1.041	40.6
	6	45.1	6	0.778	4.5
	9	101.1	4	0.637	56.0
	12	105.5	4	0.544	4.4
X	15	353.5	3	0.477	248.0
	18	360.0	3	0.426	6.5
	21	362.2	2	0.385	2.2
	24	362.2	2	0.352	0.0
	27	362.2	2	0.325	0.0
	30	362.2	2	0.301	0.0
	33	363.3	2	0.281	1.1
	36	363.3	2	0.263	0.0
	39	364.4	2	0.248	1.1
	42	364.4	2	0.234	0.0
	45	364.4	2	0.222	0.0
	48	364.4	2	0.211	0.0
	51	364.4	2	0.201	0.0
	54	364.4	2	0.192	0.0
	57	364.4	2	0.184	0.0
X	60	364.4	2	0.176	0.0

HORNER PLOT

DST #3 INIITAL SHUTIN
RECORDER # 5495



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TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

TEST TICKET

№ 2520

Well Name & No. HUCK A #15 Test No. 3 Date 6-5-90

Company QUINOCO PET. INC. Zone Tested ARB.

Address P.O BOX 404 PLAINVILLE KS Elevation 2270 G.L.

Co. Rep. / Geo. JIM MUSGROVE Cont. RED TIGER INC. Est. Ft. of Pay 5

Location: Sec. 31 Twp. 11 Rge. 20 Co. ELLIS State KS.

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

Interval Tested 3866 TO 3875 Drill Pipe Size 4½" X.H.

Anchor Length 9' Top Choke — 1" 18/64 Bottom Choke — ¾" ¾

Top Packer Depth 3861 Hole Size — 7⅞" 7⅞ Rubber Size — 6¾" 6¾

Bottom Packer Depth 3866 Wt. Pipe I.D. — 2.7 Ft. Run 630

Total Depth 3875 Drill Collar — 2.25 Ft. Run —

Mud Wt. 9.3 lb / gal. Viscosity 42 Filtrate 11.6

Tool Open @ 9:45 PM Initial Blow WEAK AND INTERMITANT 2" IN BUCKET

Final Blow FIRST 5' MIN WEAK AND INTERMITANT / FLUSHED TOOL REC / A GOOD BLOW THROUGHOUT F.P. BOT. OF BUCKET IN 20M.

Recovery — Total Feet 540 Flush Tool? YES

Rec. 60 Feet of gas in pipe

Rec. 300 Feet of Clean gassy oil

Rec. 150 Feet of slightly mud cut gassy watery oil WATER 22% OIL 73%

Rec. 30 Feet of oil cut muddy water OIL 10% / 55% MUD 35% WATER

Rec. 60 Feet of water, Trace of oil

BHT 110 °F Gravity 35 °API @ 78 °F Corrected Gravity 33 °API

RW 1.0 @ 67° °F Chlorides 6000 ppm Recovery Chlorides 9000 ppm System

(A) Initial Hydrostatic Mud	1992 PSI	AK1 Recorder No.	5495	Range	4200
(B) First Initial Flow Pressure	29 PSI	@ (depth)	3857	w/Clock No.	8376
(C) First Final Flow Pressure	69 PSI	AK1 Recorder No.	13337	Range	3975
(D) Initial Shut-In Pressure	326 PSI	@ (depth)	3875	w/Clock No.	25184
(E) Second Initial Flow Pressure	108 PSI	AK1 Recorder No.	—	Range	—
(F) Second Final Flow Pressure	256 PSI	@ (depth)	—	w/Clock No.	—
(G) Final Shut-In Pressure	326 PSI	Initial Opening	30 10:15	Test X	400.00
(H) Final Hydrostatic Mud	1972 PSI	Initial Shut-In	60 11:15	Jars X	
		Final Flow	90 12:45	Safety Joint X	
		Final Shut-In	120 2:45	Straddle	
				Circ. Sub	
				Sampler X	100.00
				Extra Packer	
				Other	
				TOTAL PRICE $	

Approved By Jim Musgrove

Our Representative

Printcraft Printers - Hays, KS