TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name & No. HUCK "A" #12 Test No. 1 Date 8/7/89

Company QUINOCO PETROLEUM INC Zone Tested KC

Address P.O. BOX 378111 DENVER CO 80237 Elevation 2283 KB

Co. Rep./Geo. E. BAILEY J MUSGROVE Cont. RED TIGER RIG #7 Est. Ft. of Pay 0

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

Interval Tested 3726-3770 Drill Pipe Size 5"

Anchor Length 44 Top Choke — 1"

Top Packer Depth 3721 Bottom Choke — ¾"

Bottom Packer Depth 3726 Hole Size — 7⅞"

Total Depth 3770 Rubber Size — 6¾"

Wt. Pipe I.D. — 2.7 Ft. Run 377.62

Drill Collar — 2.25 Ft. Run 0

Mud Wt. 9.3 lb./gal. Viscosity 48 Filtrate 19.2

Tool Open @ 12:58 PM Initial Blow WEAK BUILDING TO MEDIUM 3" BLOW

Final Blow WEAK BUILDING TO MEDIUM 4" BLOW

Recovery — Total Feet 200 Flush Tool?

Rec. 80 Feet of MUD WITH FEW OIL SPECKS

Rec. 120 Feet of WATER

Rec. 0 Feet of

Rec. 0 Feet of

Rec. 0 Feet of

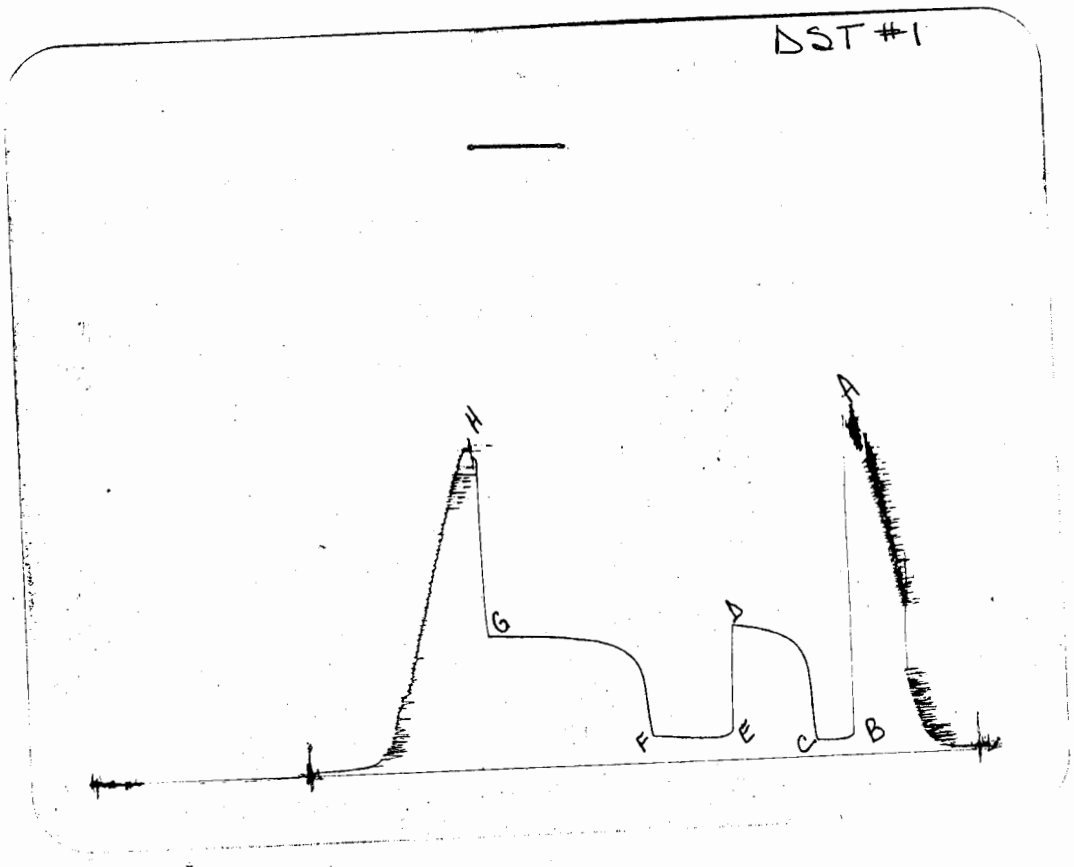
BHT 115 °F Gravity °API @ 0 °F Corrected Gravity 0 °API

RW .16 @ 74 °F Chlorides 42000 ppm Recovery Clorides 5000 ppm System

(A)	Initial Hydrostatic Mud	1994.2 PSI	AK1 Recorder No.	13850	Range 4325
(B)	First Initial Flow Pressure	23.1 PSI	@ (depth)	3760	w/Clock No. 17652
(C)	First Final Flow Pressure	45.2 PSI	AK1 Recorder No.	13849	Range 4375
(D)	Initial Shut-In Pressure	765.2 PSI	@ (depth)	3766	w/Clock No. 31154
(E)	Second Initial Flow Pressure	67.1 PSI	Initial Opening	30	
(F)	Second Final Flow Pressure	123.2 PSI	Initial Shut-In	60	
(G)	Final Shut-In Pressure	776.3 PSI	Final Flow	60	
(H)	Final Hydrostatic Mud	1952.2 PSI	Final Shut-In	120	

Our Representative CARL F GOFF TOTAL PRICE ..... $ 405

Printcraft Printers - Hays, KS



This is an actual photograph of recorder chart.

POINT	PRESSURE Field Reading	Office Reading	
(A) Initial Hydrostatic Mud	1993	1994.2	PSI
(B) First Initial Flow Pressure	22	23.1	PSI
(C) First Final Flow Pressure	44	45.2	PSI
(D) Initial Closed-in Pressure	764	765.2	PSI
(E) Second Initial Flow Pressure	66	67.1	PSI
(F) Second Final Flow Pressure	122	123.2	PSI
(G) Final Closed-in Pressure	775	776.3	PSI
(H) Final Hydrostatic Mud	1950	1952.2	PSI

TRILOBITE TESTING COMPANY

P.O. Box 362 - Hays, Kansas 67601

FLUID SAMPLER DATA

Ticket No. 2114 Date 8/7/89

Company Name QUINOCO PETROLEUM INC

Lease HUCK "A" # 12 Test No. 1

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

SAMPLER RECOVERY

Gas _____ ML

Oil _____ ML

Mud 400 ML

Water 3600 ML

Other _____ ML

Pressure 225 PSI

Total _____ ML

PIT MUD ANALYSIS

Chlorides 5000 ppm.

Resistivity _____ ohms @ _____ F

Viscosity 48

Mud Weight 9.3

Filtrate 19.2

Other _____

SAMPLER ANALYSIS

Resistivity .16 ohms @ 74 F

Chlorides 42000 ppm.

Gravity _____ corrected @ 60 F

PIPE RECOVERY

TOP

Resistivity .16 ohms @ 74 F

Chlorides 42000 ppm.

MIDDLE

Resistivity _____ ohms @ _____ F

Chlorides _____ ppm.

BOTTOM

Resistivity _____ ohms @ _____ F

Chlorides _____ ppm.

TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

TEST TICKET

№ 2114

Well Name & No. Huck "A" #12 Test No. 1 Date 8/7/89

Company Quinoco Pet. Inc. Zone Tested KC

Address P.O. Box 378111, Denver, Col. 80237 Elevation 2283 KB

Co. Rep./Geo. Ed Bailey, Jim Musgrove Cont. Red Tiger Rig #2 Est. Ft. of Pay

Location: Sec. 31 Twp. 11S Rge. 20W Co. Ellis State Ks.

Interval Tested 3226-3270 Drill Pipe Size 5"

Anchor Length 44 Top Choke — 1"

Top Packer Depth 3221 Bottom Choke — ¾"

Bottom Packer Depth 3226 Hole Size — 7⅞"

Total Depth 3270 Rubber Size — 6¾"

Wt. Pipe I.D. — 2.7 Ft. Run 377.62

Drill Collar — 2.25 Ft. Run

Mud Wt. 9.3 lb./gal. Viscosity 48 Filtrate 19.2

Tool Open @ 12:58 pm. Initial Blow Weak building to Medium 3" blow

Final Blow Weak building to Medium 4" blow

Recovery — Total Feet 200 Flush Tool?

Rec. 80 Feet of mud few oil specks

Rec. 120 Feet of water

Rec. Feet of

Rec. Feet of

Rec. Feet of

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

RW .16 @ 74 °F Chlorides 42,000 ppm Recovery Chlorides 5000 ppm System

(A)	Initial Hydrostatic Mud	1993 PSI	AK1 Recorder No.	13850	Range	4325	
(B)	First Initial Flow Pressure	22 PSI	@ (depth)	3260	w/Clock No.	12652	
(C)	First Final Flow Pressure	44 PSI	AK1 Recorder No.	13849	Range	4325	
(D)	Initial Shut-In Pressure	264 PSI	@ (depth)	3266	w/Clock No.	21154	
(E)	Second Initial Flow Pressure	66 PSI	Initial Opening	30	Test		
(F)	Second Final Flow Pressure	122 PSI	Initial Shut-In	60	Jars	X	
(G)	Final Shut-In Pressure	225 PSI	Final Flow	60	Safety Joint	X	
(H)	Final Hydrostatic Mud	1950 PSI	Final Shut-In	120	Straddle		
					Circ. Sub	X	
					Sampler	X	
					Extra Packer		
					Other		
					TOTAL PRICE	$ 405.00	

Approved By Jim Musgrove

Our Representative Carl E. Ball

Printcraft Printers - Hays, KS

TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name & No. HUCK "A" # 12 Test No. 2 Date 8/8/89

Company QUINOCO PETROLEUM INC Zone Tested ARBUCKLE

Address P.O. BOX 378111 DENVER CO 80237 Elevation 2283 KB

Co. Rep./Geo. F. BAILEY J MUSGROVE Cont. RED TIGER RIG # 7 Est. Ft. of Pay 4

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

Interval Tested 3867-3876 Drill Pipe Size 5"

Anchor Length 9 Top Choke — 1"

Top Packer Depth 3862 Bottom Choke — ¾"

Bottom Packer Depth 3867 Hole Size — 7⅞"

Total Depth 3876 Rubber Size — 6¾"

Wt. Pipe I.D. — 2.7 Ft. Run 377

Drill Collar — 2.25 Ft. Run 0

Mud Wt. 9.2 lb./gal. Viscosity 43 Filtrate 11.2

Tool Open @ 1:40 PM Initial Blow MEDIUM BUILDING TO STRONG BLOW
OFF BOTTOM IN 20 MIN-WEAK SURFACE RESIDUAL ISI

Final Blow MEDIUM BLOW BUILDING TO STRONG BLOW
OFF BOTTOM IN 26 MIN-VERY WEAK SURFACE RESIDUAL FOR 45 MIN FSI

Recovery — Total Feet 530 Flush Tool?

Rec. 200 Feet of GAS IN PIPE

Rec. 435 Feet of CLEAN GASSY OIL

Rec. 95 Feet of MUD CUT GASSY OIL

Rec. 0 Feet of

Rec. 0 Feet of

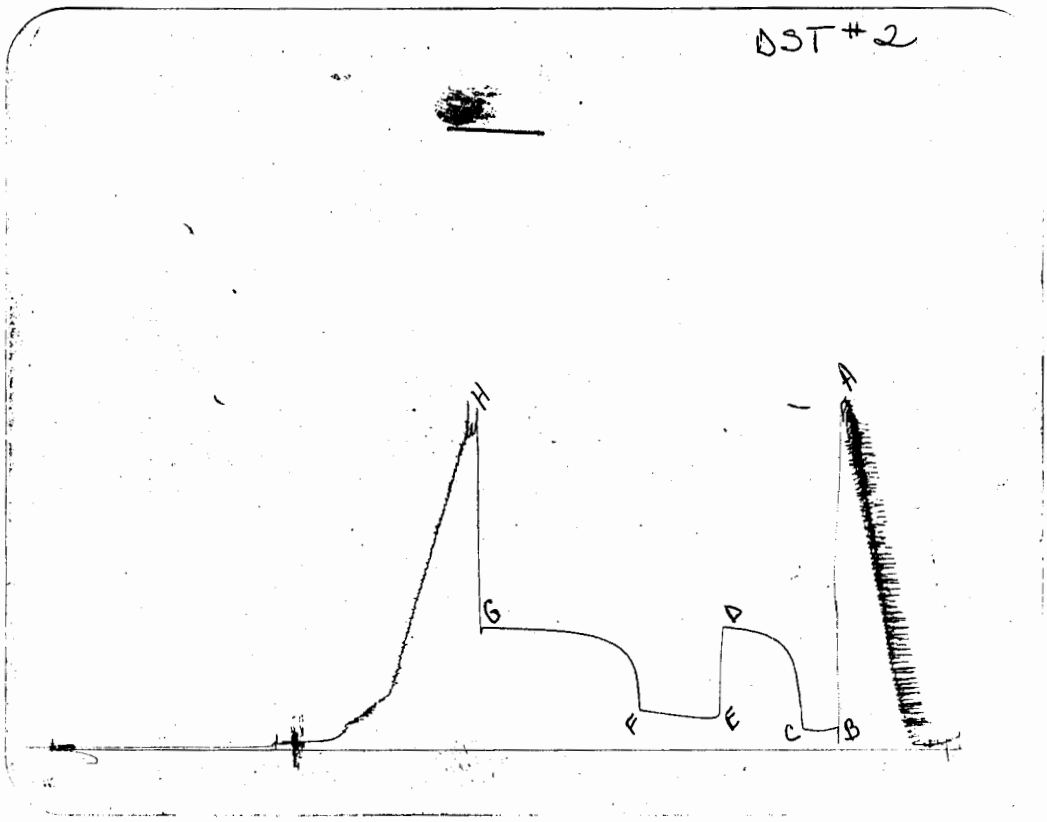
BHT 122 °F Gravity 36 °API @ 90 °F Corrected Gravity 33 °API

RW @ °F Chlorides 2000 ppm Recovery Clorides 13850 ppm System 4325

(A)	Initial Hydrostatic Mud	1988.1 PSI	AK1 Recorder No.	3869	Range 31154
(B)	First Initial Flow Pressure	11.8 PSI	@(depth)	13849	w/Clock No. 4375
(C)	First Final Flow Pressure	106.8 PSI	AK1 Recorder No.	3872	Range 17652
(D)	Initial Shut-In Pressure	698.9 PSI	@(depth)	30	w/Clock No.
(E)	Second Initial Flow Pressure	127.1 PSI	Initial Opening	60	
(F)	Second Final Flow Pressure	199.8 PSI	Initial Shut-In	60	
(G)	Final Shut-In Pressure	700 PSI	Final Flow	120	
(H)	Final Hydrostatic Mud	1781.4 PSI	Final Shut-In		

Our Representative CARL F GOFF TOTAL PRICE..... $ 405

Printcraft Printers - Hays, KS



This is an actual photograph of recorder chart.

POINT	PRESSURE Field Reading	Office Reading	
(A) Initial Hydrostatic Mud	2048	1988.1	PSI
(B) First Initial Flow Pressure	33	11.8	PSI
(C) First Final Flow Pressure	100	106.8	PSI
(D) Initial Closed-in Pressure	720	698.9	PSI
(E) Second Initial Flow Pressure	122	127.1	PSI
(F) Second Final Flow Pressure	200	199.8	PSI
(G) Final Closed-in Pressure	709	700	PSI
(H) Final Hydrostatic Mud	2004	1781.4	PSI

COMPUTER EVALUATION BY TRILOBITE TESTING
QUINOCO PETROLEUM INC
REPORT FOR DST#2 FOR THE HUCK 'A' #12
31 11S 20W ELLIS KS

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TEST PARAMETERS

ELEVATION:	2283 KB	EST. PAY:	4 FT
DATUM:	-1587	ZONE TESTED:	ARBUCKLE
TEST INTERVAL:	3867-3876		
		TIME INTERVALS:	30-60-60-120
RECORDER DEPTH:	3869	VISCOSITY:	6 CP
BOTTOM HOLE TEMP:	122	HOLE SIZE:	7.875 IN

****

CALCULATIONS

CUBIC FEET OF GAS IN PIPE: 15.96788

TOTAL FEET OF RECOVERY: 530
BARRELS IN DRILL PIPE: 2.8152
BARRELS IN WEIGHT PIPE: 2.9406
GAS OIL RATIO: 2.774224 CU.FT./BBL
TOTAL BARRELS OF RECOVERY: 5.7558
UNCORR. INIT. PROD.: 92.09281 BBL/DAY
API GRAVITY: 33
FLUID GRADIENT: .373
CORRECTED PIPE FILLUP: 535.6569
CORR. BARRELS OF RECOVERY: 5.847801 BB
INITIAL PRODUCTION CORRECTED TO FINAL FLOW PRESSURE: 93.56481 BBL/DAY
INITIAL PRODUCTION CORRECTED TO PSEUDO STEADY FLOW STATE
55.37672

****

INITIAL SHUT-IN VALUES:
THEORETICAL STATIC PRESSURE 741.9319
SLOPE 244.4168

FINAL SHUT-IN VALUES
THEORETICAL STATIC PRESSURE 743.949
SLOPE 180.864

****

TRANSMISSIBILITY	84.11645 (MD.-FT./CP.)
PERMEABILITY	126.1747 (MD.)
INDICATED FLOW CAPACITY	504.6987 (MD.FT)
PRODUCTIVITY INDEX	9.505159E-02 (BARRELS/DAY/PSI)
DAMAGE RATIO	.5505754
RADIUS OF INVESTIGATION	106.5632 (FT.)
POTENTIOMETRIC SURFACE	139.2177 (FT.)
DRAWDOWN FACTOR	-.2718687 (%)

INITIAL FLOW

RECORDER # 13850
DST #2

DT(MIN)	PRESSURE	<> PRESSURE
0	11.8	11.8
3	37.4	25.6
6	41.7	4.299999
9	44.9	3.200001
12	50.2	5.299999
15	55.6	5.399998
18	66.2	10.6
21	74.8	8.600006
24	83.3	8.5
27	89.7	6.399994
30	96.2	6.5
33	106.8	10.60001

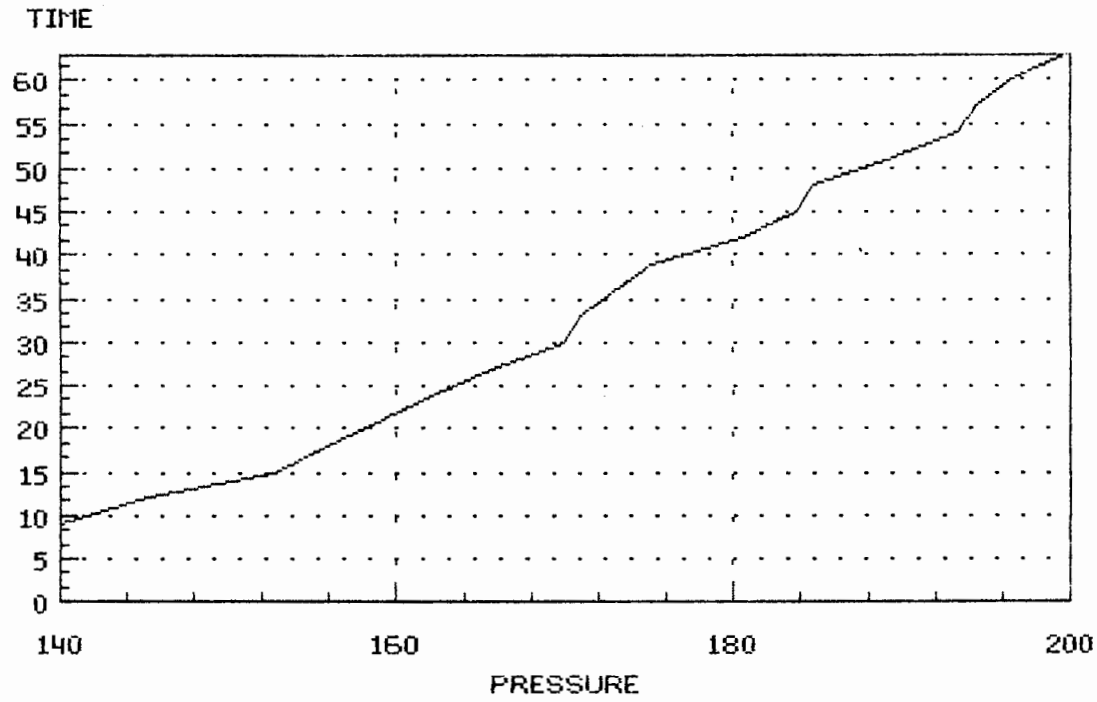
FINAL FLOW

RECORDER # 13850
DST #2

DT(MIN)	PRESSURE	<> PRESSURE
0	127.1	127.1
3	139.9	12.8
6	139.9	0
9	139.9	0
12	145.3	5.400009
15	152.8	7.5
18	155.9	3.099991
21	159.2	3.300003
24	162.4	3.199997
27	165.6	3.200012
30	169.9	4.299988
33	170.9	1
36	173.1	2.200012
39	175.2	2.099991
42	180.6	5.400009
45	183.8	3.199997
48	184.8	1
51	189.1	4.300003
54	193.4	4.299988
57	194.4	1
60	196.6	2.200012
63	199.8	3.199997

DELTA T DELTA P

DST #2 FINAL FLOW
RECORDER # 13850



INITIAL PRODUCTION CORRECTED TO PSEUDO STEADY FLOW STATE 55.37672 BBL/DA

INITIAL SHUT-IN BUILDUP
DST #2

RECORDER # 13850
INITIAL FLOW TIME (MIN.): 30

MIN	LOG(T+MIN/MIN)	PRESSURE	<> PRESSURE
0	0	106.8	106.8
3	1.041205	472.2	365.4
6	.778011	550	77.79999
9	.6367073	580.9	30.90003
12	.5439701	602.1	21.19995
15	.4770353	614.9	12.80005
18	.425892	629.8	14.89996
21	.3852815	643.6	13.79999
24	.352119	651.1	7.5
27	.3244526	663.8	12.70001
30	.3009757	672.3	8.5
33	.280776	676.6	4.299988
36	.263194	682.9	6.300049
39	.2477398	685.1	2.199951
42	.234041	687.2	2.100037
45	.2218087	688.3	1.099976
48	.2108154	692.5	4.200012
51	.2008786	694.7	2.200012
54	.191851	695.7	1
57	.1836113	696.8	1.099976
60	.1760595	698.9	2.100037

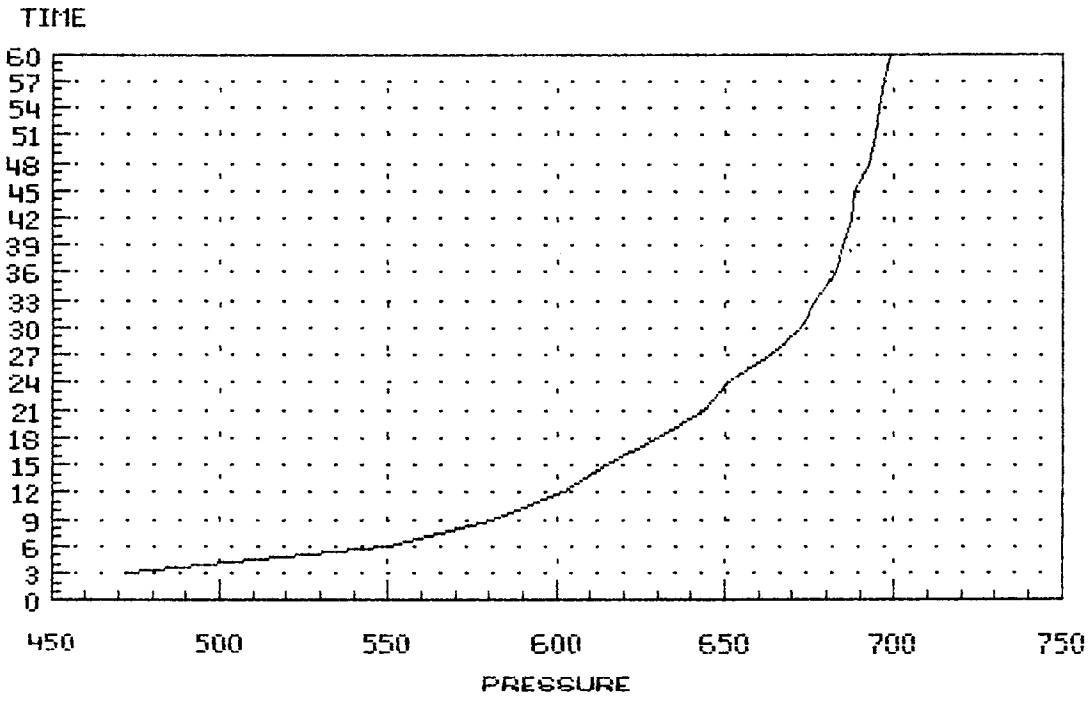
FINAL SHUT-IN BUILDUP
DST #2

RECORDER # 13850
TOTAL FLOW TIME (MIN.): 90

MIN	LOG(T+MIN/MIN)	PRESSURE	<> PRESSURE
0	0	199.8	199.8
6	1.203903	500	300.2
12	.9292515	567	67
18	.778011	602.1	35.09998
24	.6765717	622.3	20.20001
30	.6019515	635.1	12.79999
36	.5439701	646.8	11.70001
42	.4972351	656.4	9.600037
48	.4585552	661.7	5.299988
54	.425892	671.3	9.599976
60	.3978683	676.6	5.299988
66	.3735134	678.7	2.100037
72	.352119	681.9	3.200012
78	.3331547	681.9	0
84	.316213	685.1	3.199951
90	.3009757	687.2	2.100037
96	.2871899	691.5	4.299988
102	.2746515	693.6	2.099976
108	.263194	696.8	3.200012
114	.2526798	700	3.200012
120	.2429943	700	0

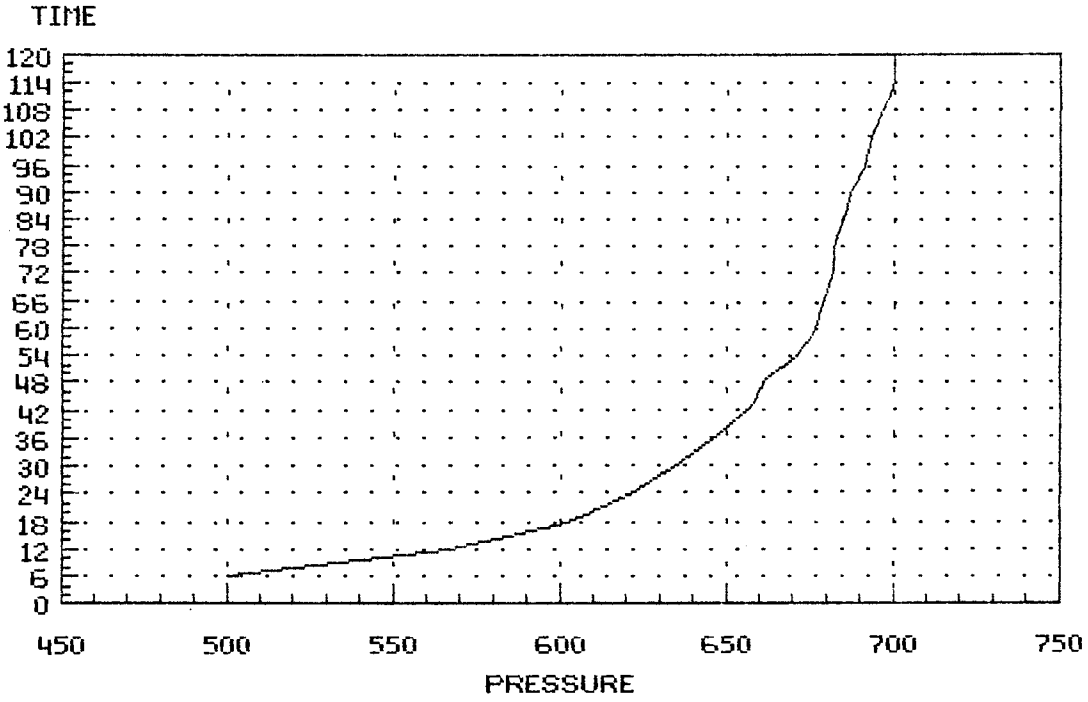
DELTA T DELTA P

DST #2 INITIAL SHUTIN
RECORDER # 13850



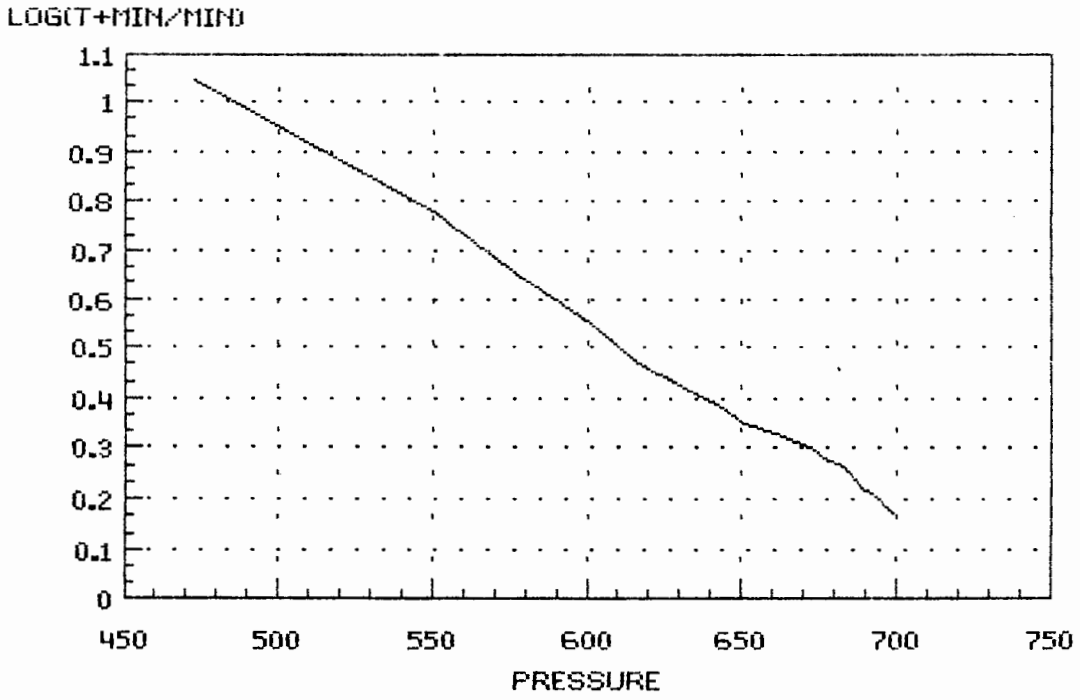
DELTA T DELTA P

DST #2 FINAL SHUTIN
RECORDER # 13850



HORNER PLOT

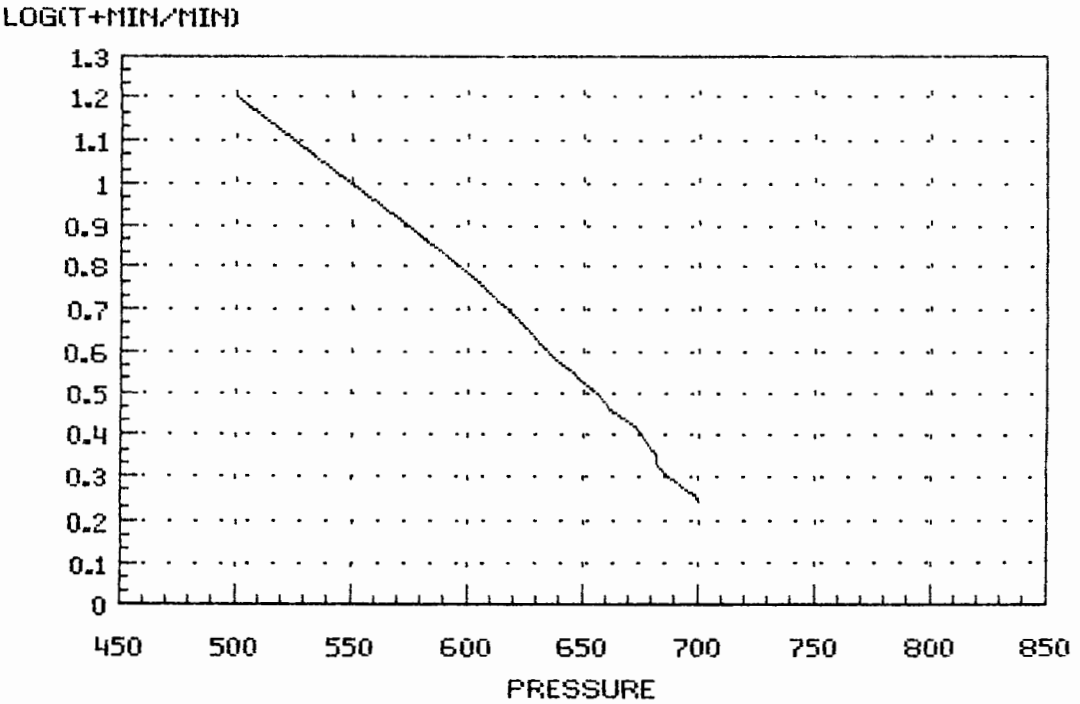
DST #2 INITIAL SHUTIN
RECORDER # 13850



STATIC PRESSURE 741.9319
SLOPE 244.4168
POINTS USED 19

HORNER PLOT

DST #2 FINAL SHUTIN
RECORDER # 13850



STATIC PRESSURE 743.949
SLOPE 180.864
POINTS USED 19

TRILOBITE TESTING COMPANY

P.O. Box 362 - Hays, Kansas 67601

FLUID SAMPLER DATA

Ticket No. 2115 Date 8/8/89

Company Name QUINOCO PETROELUM INC

Lease HUCK "A" # 12 Test No. 2

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

SAMPLER RECOVERY

Gas _____ ML

Oil 2800 ML

Mud 1200 ML

Water _____ ML

Other _____ ML

Pressure 40 PSI

Total _____ ML

PIT MUD ANALYSIS

Chlorides 2000 ppm.

Resistivity 22 ohms @ 80 F

Viscosity 43

Mud Weight 9.2

Filtrate 11.2

Other _____

SAMPLER ANALYSIS

Resistivity _____ ohms @ _____ F

Chlorides 33 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.

TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

TEST TICKET

No. 2115

Well Name & No. Huck 'A' #12 Test No. 2 Date 8/8/89

Company Quinoco Pet. Inc. Zone Tested Arb.

Address PO Box 378111, Denver, Co. 80237 Elevation 2283 KB

Co. Rep./Geo. Ed Bailey, Jim Musgrove Cont. Red Tiger Rig #2 Est. Ft. of Pay 4'

Location: Sec. 31 Twp. 11S Rge. 20W Co. Ellis State Ks.

Interval Tested 3867-3876 Drill Pipe Size 5"

Anchor Length 9' Top Choke — 1" —

Top Packer Depth 3862 Bottom Choke — ¾" —

Bottom Packer Depth 3867 Hole Size — 7⅞" —

Total Depth 3876 Rubber Size — 6¾" —

Wt. Pipe I.D. — 2.7 — Ft. Run 327

Drill Collar — 2.25 — Ft. Run —

Mud Wt. 9 lb./gal. Viscosity 43 Filtrate 11

Tool Open @ 1:40 pm Initial Blow Medium building to strong blow off bottom in 20 min. - Weak surface residual 1st shut In

Final Blow Medium blow building to Strong blow off bottom in 26 min. Very Weak surface residual for 45 min - Final shut in

Recovery — Total Feet 530' Flush Tool? —

Rec. 200 Feet of Gas In Pipe

Rec. 435' Feet of Clean Gassy Oil

Rec. 95' Feet of Mud Cut Gassy Oil

Rec. — Feet of —

Rec. — Feet of —

BHT 122 °F Gravity 36 °API @ 90 °F Corrected Gravity 33 °API

RW — @ — °F Chlorides — ppm Recovery Chlorides 2000 ppm System

(A)	Initial Hydrostatic Mud	2048 PSI	AK1 Recorder No.	13850	Range	4325
(B)	First Initial Flow Pressure	23 PSI	@ (depth)	3869	w/Clock No.	2115-4
(C)	First Final Flow Pressure	100 PSI	AK1 Recorder No.	13849	Range	4325
(D)	Initial Shut-In Pressure	720 PSI	@ (depth)	3872	w/Clock No.	17652
(E)	Second Initial Flow Pressure	122 PSI	Initial Opening	30	Test	405
(F)	Second Final Flow Pressure	200 PSI	Initial Shut-In	60	Jars	X
(G)	Final Shut-In Pressure	709 PSI	Final Flow	60	Safety Joint	X
(H)	Final Hydrostatic Mud	2004 PSI	Final Shut-In	120	Straddle	—
					Circ. Sub	X
					Sampler	X 50.00
					Extra Packer	—
					Other	—
					TOTAL PRICE	$ 405.00

Approved By Jim Musgrove

Our Representative Carl E. Ball

Printcraft Printers - Hays, KS

TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name & No. HUCK "A" #12 Test No. 3 Date 8/9/89

Company QUINOCO PETROLEUM INC Zone Tested ARBUCKLE

Address P.O. BOX 378111 DENVER CO 80237 Elevation 2283 KB

Co. Rep./Geo. E BAILEY J MUSGROVE Cont. RED TIGER RIG #7 Est. Ft. of Pay 4

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

Interval Tested 3882-3891 Drill Pipe Size 5"

Anchor Length 9 Top Choke — 1"

Top Packer Depth 3877 Bottom Choke — ¾"

Bottom Packer Depth 3882 Hole Size — 7⅞"

Total Depth 3891 Rubber Size — 6¾"

Wt. Pipe I.D. — 2.7 Ft. Run 377

Drill Collar — 2.25 Ft. Run 0

Mud Wt. 9.2 lb./gal. Viscosity 48 Filtrate 10.4

Tool Open @ 8:04 AM Initial Blow STRONG OFF BOTTOM IN 2 1/2' MIN

4" RESIDUAL ON ISI

Final Blow STRONG OFF BOTTOM IN 5 MIN

VERY WEAK INTERMITTEN SURFACE BLOW ON FSI FOR 20 MIN

Recovery — Total Feet 1185 Flush Tool?

Rec. 300 Feet of GAS IN PIPE

Rec. 870 Feet of CLEAN GASSY OIL

Rec. 315 Feet of OIL CUT WATER

Rec. 0 Feet of

Rec. 0 Feet of

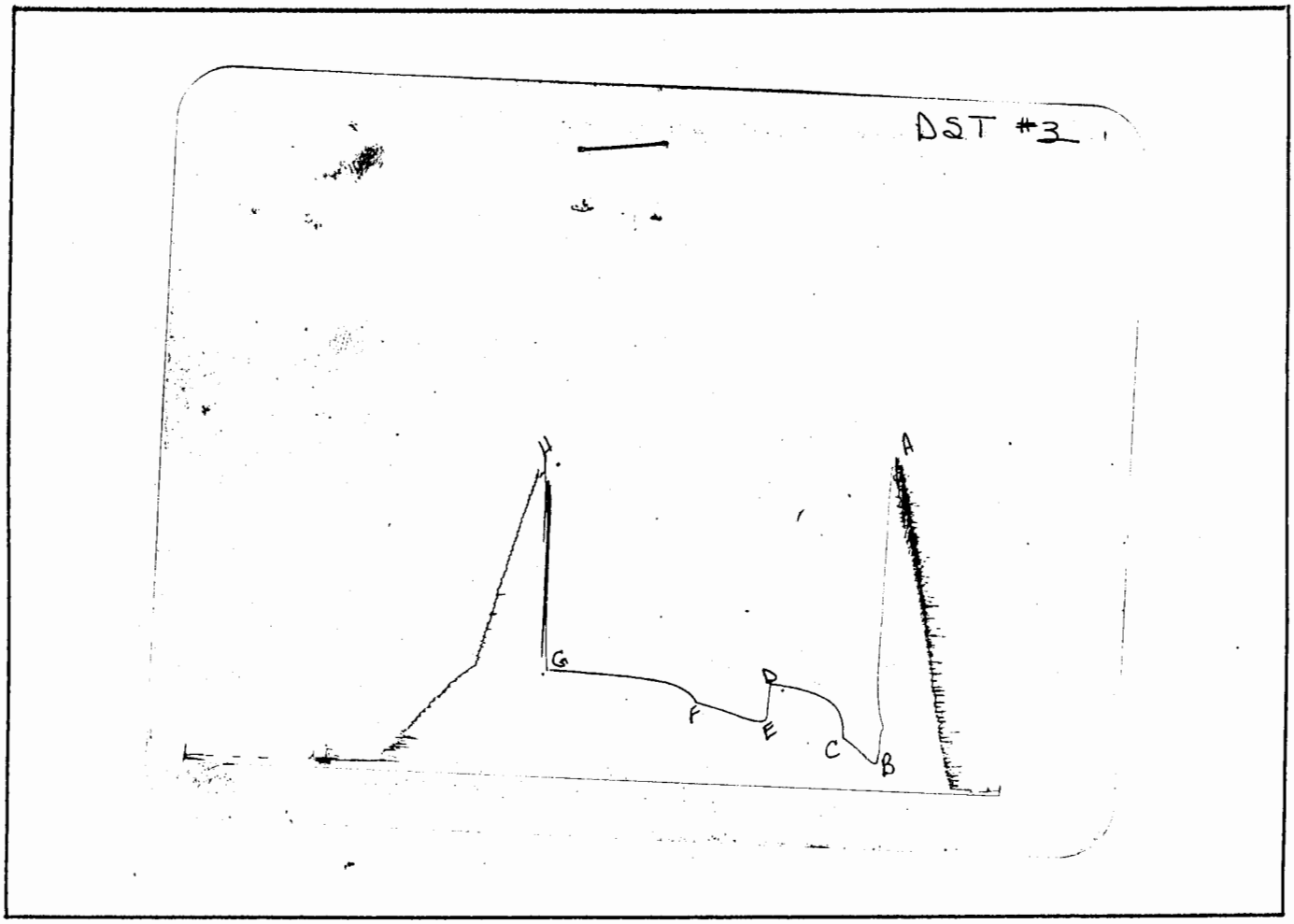
BHT 122 °F Gravity 32 °API @ 88 °F Corrected Gravity 29 °API

RW .20 @ 88 °F Chlorides 28000 ppm Recovery Clorides 2000 ppm System

(A)	Initial Hydrostatic Mud	1737 PSI	AK1 Recorder No.	13850	Range 4325
(B)	First Initial Flow Pressure	108.9 PSI	@ (depth)	3885	w/Clock No. 31154
(C)	First Final Flow Pressure	286.3 PSI	AK1 Recorder No.	13849	Range 4375
(D)	Initial Shut-In Pressure	601.1 PSI	@ (depth)	3887	w/Clock No. 17652
(E)	Second Initial Flow Pressure	326.9 PSI	Initial Opening	30	
(F)	Second Final Flow Pressure	463.7 PSI	Initial Shut-In	60	
(G)	Final Shut-In Pressure	612.8 PSI	Final Flow	60	
(H)	Final Hydrostatic Mud	1773.8 PSI	Final Shut-In	120	

Our Representative CARL F GOFF TOTAL PRICE..... $ 405

Printcraft Printers - Hays, KS



This is an actual photograph of recorder chart.

POINT	PRESSURE Field Reading	Office Reading	
(A) Initial Hydrostatic Mud	2026	1737	PSI
(B) First Initial Flow Pressure	100	108.9	PSI
(C) First Final Flow Pressure	300	286.3	PSI
(D) Initial Closed-in Pressure	621	601.1	PSI
(E) Second Initial Flow Pressure	355	326.9	PSI
(F) Second Final Flow Pressure	477	463.7	PSI
(G) Final Closed-in Pressure	632	612.8	PSI
(H) Final Hydrostatic Mud	1895	1773.8	PSI

COMPUTER EVALUATION BY TRILOBITE TESTING
QUINOCO PETROLEUM INC
REPORT FOR DST#3 FOR THE HUCK 'A' #12
31 11S 20W ELLIS KS

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TEST PARAMETERS

ELEVATION:	2283 KB	EST. PAY:	4 FT
DATUM:	-1603	ZONE TESTED:	ARBUCKLE
TEST INTERVAL:	3882-3891		
		TIME INTERVALS:	30-60-60-120
RECORDER DEPTH:	3885	VISCOSITY:	8 CP
BOTTOM HOLE TEMP:	122	HOLE SIZE:	7.875 IN

****

CALCULATIONS

CUBIC FEET OF GAS IN PIPE: 23.95182

TOTAL FEET OF RECOVERY: 1185
BARRELS IN DRILL PIPE: 14.8672
BARRELS IN WEIGHT PIPE: 2.9406
GAS OIL RATIO: 1.345018 CU.FT./BBL
TOTAL BARRELS OF RECOVERY: 17.8078
UNCORR. INIT. PROD.: 284.9248 BBL/DAY

API GRAVITY: 30
FLUID GRADIENT: .379

CORRECTED PIPE FILLUP: 1223.483
CORR. BARRELS OF RECOVERY: 18.507 BBL
INITIAL PRODUCTION CORRECTED TO FINAL FLOW PRESSURE: 296.112 BBL/DAY
INITIAL PRODUCTION CORRECTED TO PSEUDO STEADY FLOW STATE
117.0848

****

INITIAL SHUT-IN VALUES:
THEORETICAL STATIC PRESSURE 638.5425
SLOPE 212.6689

FINAL SHUT-IN VALUES
THEORETICAL STATIC PRESSURE 634.5595
SLOPE 89.54756

****

TRANSMISSIBILITY	537.6786	(MD.-FT./CP.)
PERMEABILITY	1075.357	(MD.)
INDICATED FLOW CAPACITY	4301.429	(MD.FT)
PRODUCTIVITY INDEX	.6075769	(BARRELS/DAY/PSI)
DAMAGE RATIO	.3491696	
RADIUS OF INVESTIGATION	311.0983	(FT.)
POTENTIOMETRIC SURFACE	-130.4565	(FT.)
DRAWDOWN FACTOR	.6237507	(%)

INITIAL FLOW

RECORDER # 13850
DST #3

DT(MIN)	PRESSURE	<> PRESSURE
0	108.9	108.9
3	115.4	6.5
6	141	25.6
9	164.5	23.5
12	188	23.5
15	207.3	19.3
18	231.8	24.5
21	245.7	13.89999
24	263.9	18.2
27	274.6	10.70001
30	286.3	11.69998

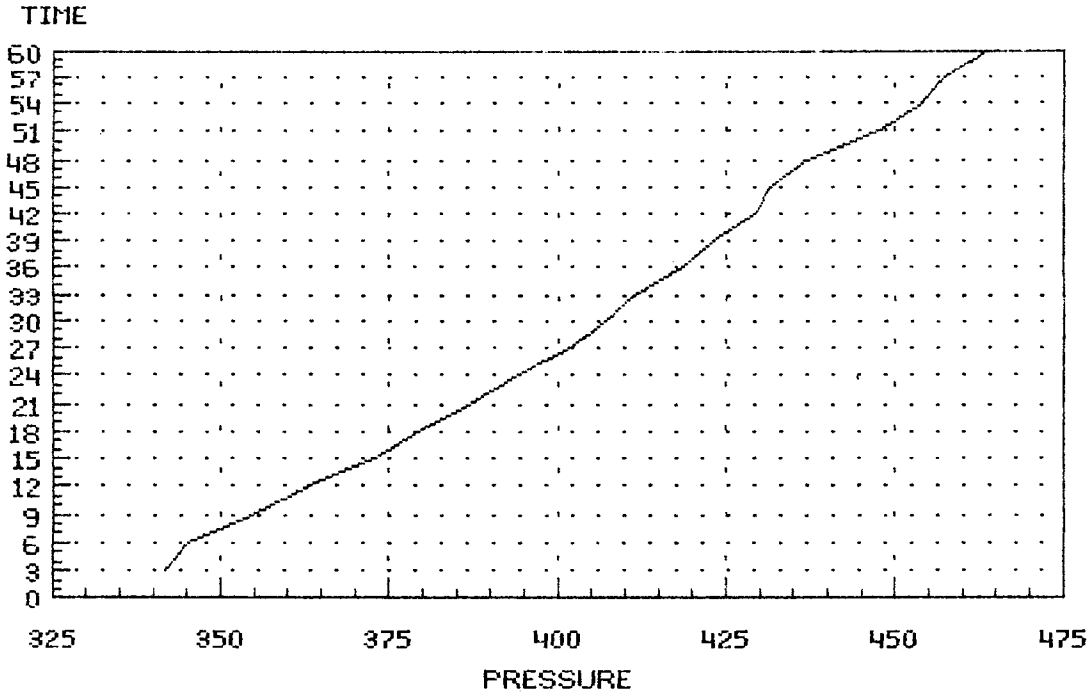
FINAL FLOW

RECORDER # 13850
DST #3

DT(MIN)	PRESSURE	<> PRESSURE
0	326.9	326.9
3	341.9	15
6	345.1	3.200012
9	354.7	9.600006
12	363.3	8.599976
15	372.9	9.600006
18	379.3	6.399994
21	386.8	7.5
24	394.2	7.400025
27	401.7	7.5
30	407.1	5.399994
33	411.3	4.199982
36	418.8	7.5
39	423.1	4.300019
42	429.5	6.399994
45	431.6	2.100006
48	436.9	5.299988
51	447.7	10.80002
54	454.1	6.399994
57	457.3	3.199982
60	463.7	6.400025

DELTA T DELTA P

DST #3 FINAL FLOW
RECORDER # 13850



INITIAL PRODUCTION CORRECTED TO PSEUDO STEADY FLOW STATE 117.0848 BBL/DAY

INITIAL SHUT-IN BUILDUP
DST #3

RECORDER # 13850
INITIAL FLOW TIME (MIN.): 30

MIN	LOG(T+MIN/MIN)	PRESSURE	<> PRESSURE
0	0	286.3	286.3
3	1.041205	465.8	179.5
6	.778011	494.7	28.90003
9	.6367073	514.9001	20.20001
12	.5439701	528.7	13.79999
15	.4770353	541.5	12.79999
18	.425892	550	8.5
21	.3852815	558.5	8.5
24	.352119	562.8	4.299988
27	.3244526	568.1	5.299988
30	.3009757	575.5	7.400025
33	.280776	577.7	2.200012
36	.263194	580.9	3.200012
39	.2477398	585.1	4.199951
42	.234041	586.2	1.100037
45	.2218087	586.2	0
48	.2108154	587.2	1
51	.2008786	589.4	2.200012
54	.191851	591.5	2.099976
57	.1836113	593.6	2.099976
60	.1760595	601.1	7.5

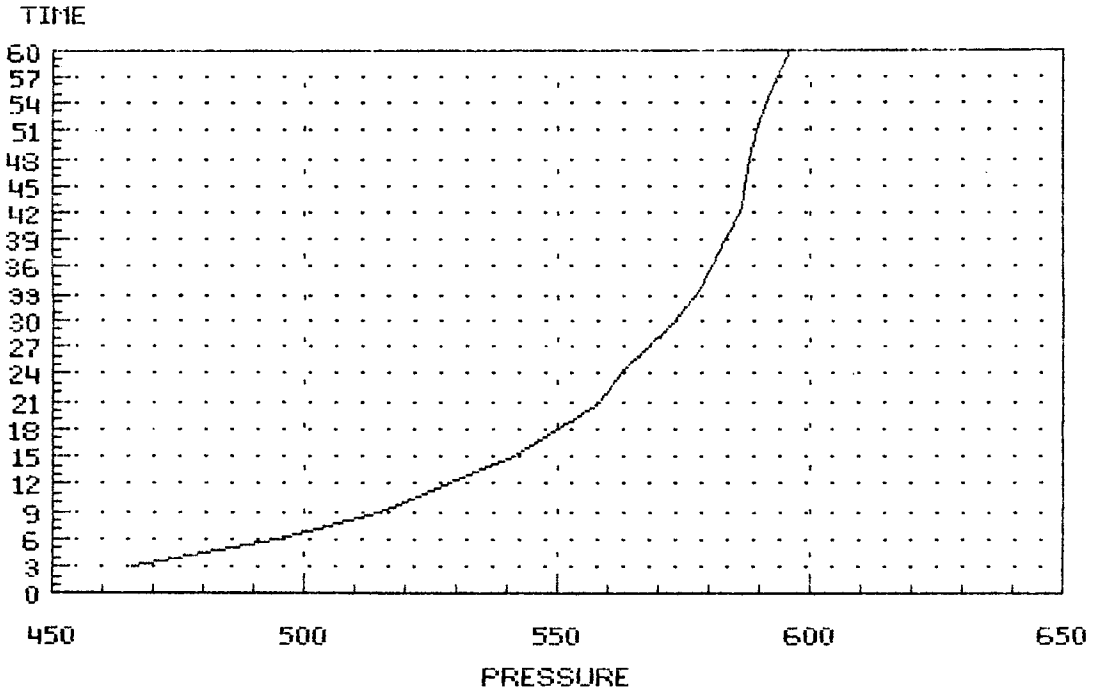
FINAL SHUT-IN BUILDUP
DST #3

RECORDER # 13850
TOTAL FLOW TIME (MIN.): 90

MIN	LOG(T+MIN/MIN)	PRESSURE	<> PRESSURE
0	0	463.7	463.7
6	1.203903	529.8	66.09998
12	.9292515	550	20.20001
18	.778011	559.6	9.599976
24	.6765717	570.2	10.60004
30	.6019515	576.6	6.399964
36	.5439701	584	7.400025
42	.4972351	591.5	7.5
48	.4585552	596.8	5.299988
54	.425892	601.1	4.299988
60	.3978683	601.1	0
66	.3735134	601.1	0
72	.352119	602.1	1
78	.3331547	602.1	0
84	.316213	602.1	0
90	.3009757	606.4	4.300049
96	.2871899	610.6	4.199951
102	.2746515	611.7	1.100037
108	.263194	612.8	1.099976
114	.2526798	612.8	0
120	.2429943	612.8	0

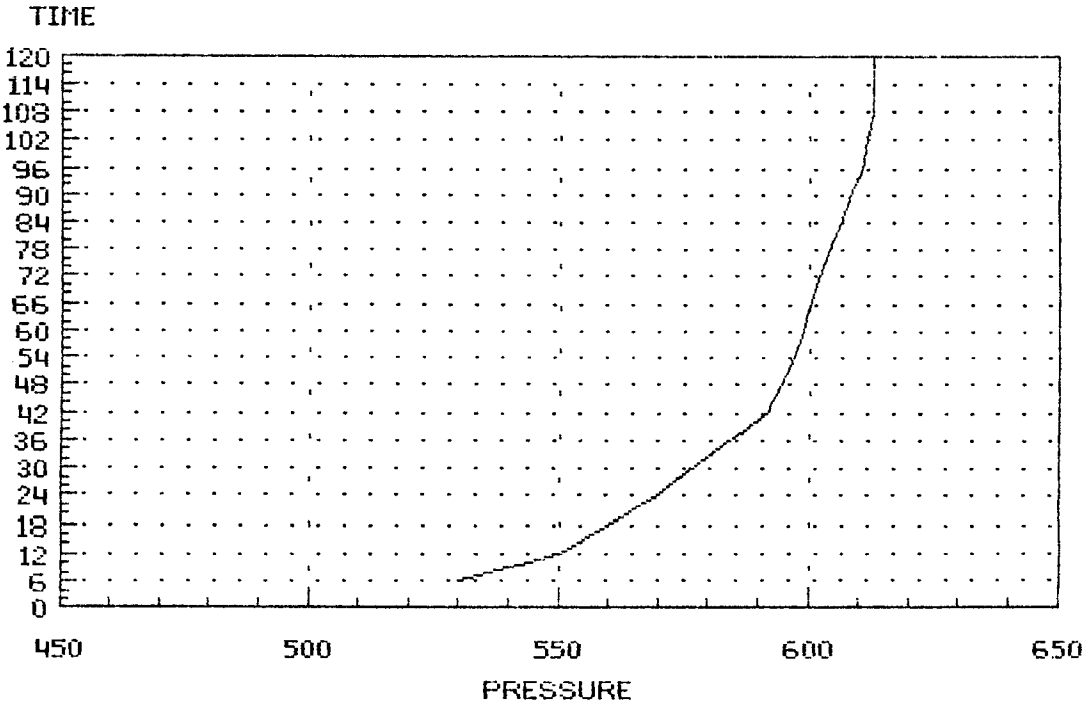
DELTA T DELTA P

DST #3 INITIAL SHUTIN
RECORDER # 13850



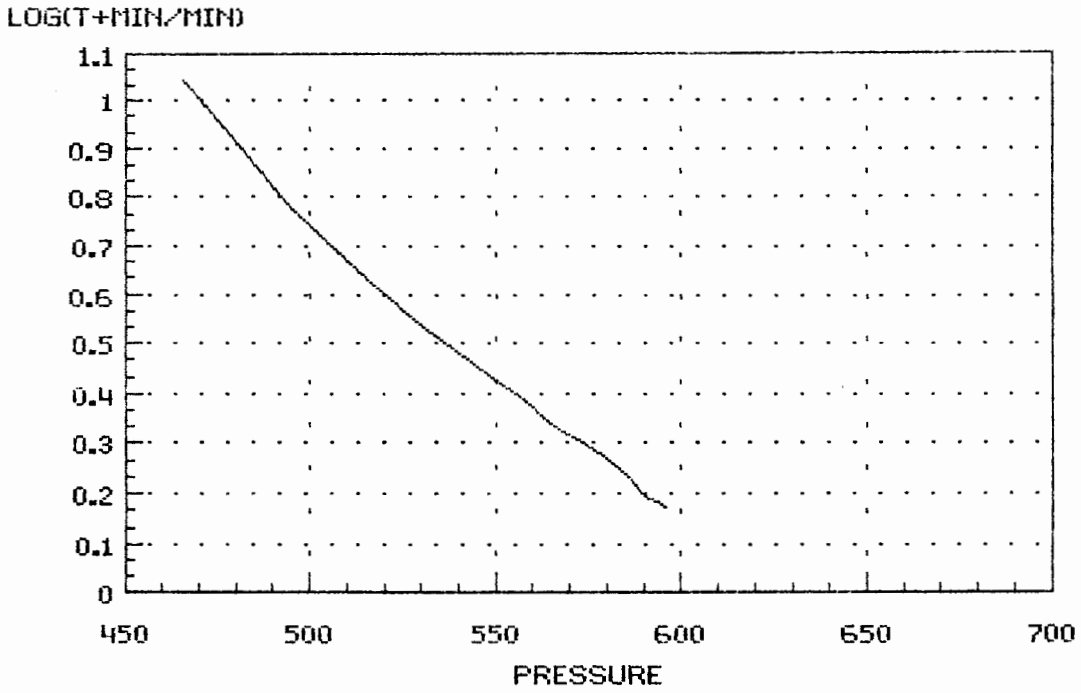
DELTA T DELTA P

DST #3 FINAL SHUTIN
RECORDER # 13850



HORNER PLOT

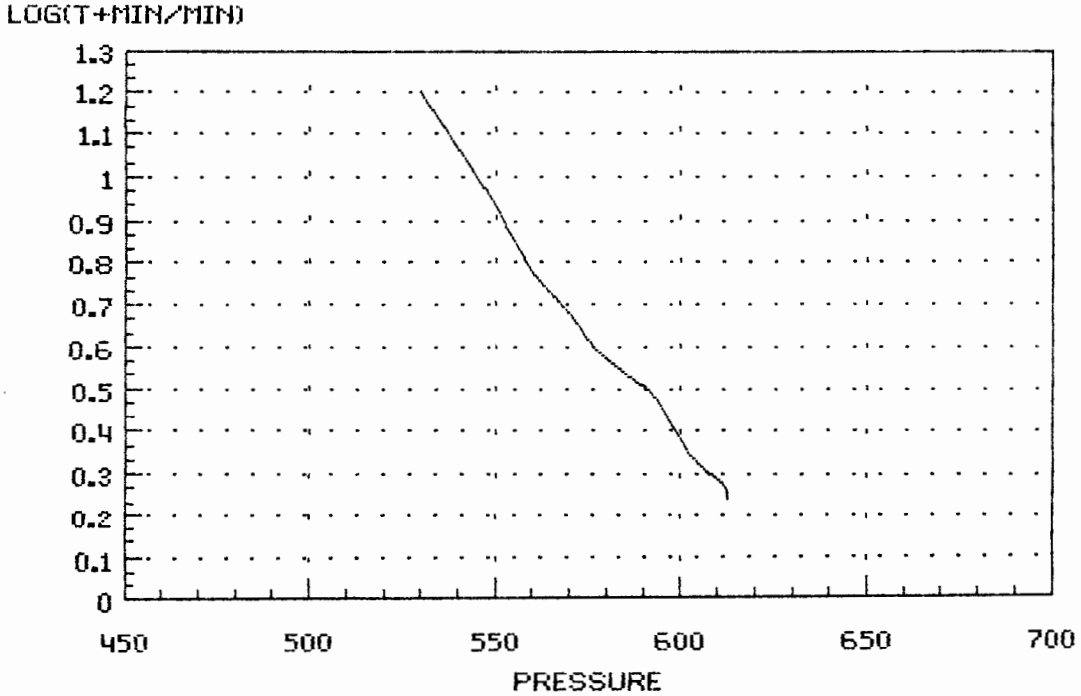
DST #3 INITIAL SHUTIN
RECORDER # 13850



STATIC PRESSURE 638.5424
SLOPE 212.6689
POINTS USED 20

HORNER PLOT

DST #3 FINAL SHUTIN
RECORDER # 13850



STATIC PRESSURE 634.5595
SLOPE 89.54756
POINTS USED 20

TRILOBITE TESTING COMPANY

P.O. Box 362 - Hays, Kansas 67601

FLUID SAMPLER DATA

Ticket No. 2116 Date 8/9/89

Company Name QUINOCO PETROLEUM INC

Lease HUCK "A" # 12 Test No. 3

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

SAMPLER RECOVERY

Gas 400 ML

Oil 3600 ML

Mud ML

Water ML

Other ML

Pressure 60 PSI

Total ML

PIT MUD ANALYSIS

Chlorides 2000 ppm.

Resistivity ohms @ F

Viscosity 48

Mud Weight 9.2

Filtrate 10.4

Other

SAMPLER ANALYSIS

Resistivity ohms @ F

Chlorides ppm.

Gravity 29 corrected @ 60 F

PIPE RECOVERY

TOP

Resistivity .20 ohms @ 88 F

Chlorides 28,000 ppm.

MIDDLE

Resistivity ohms @ F

Chlorides ppm.

BOTTOM

Resistivity ohms @ F

Chlorides ppm.