



WESTERN TESTING CO., INC.  
FORMATION TESTING

TICKET No 19099

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

Elevation 3163 H.B. Formation Morrow G. Sch Eff. Pay \_\_\_\_\_ Ft.

District Gooden City Date 8-24-93 Customer Order No. \_\_\_\_\_

COMPANY NAME McCoy Pet.

ADDRESS 110 S. Main, Suite 500 Wichita, KS 67202

LEASE AND WELL NO. Freeman "A" 1-8 COUNTY Stevens STATE KS Sec. 8 Twp. 35S Rge. 37W

Mail Invoice To McCoy Pet. Co. Name Same Address \_\_\_\_\_ No. Copies Requested Req.

Mail Charts To McCoy Pet. Co. Name Same Address \_\_\_\_\_ No. Copies Requested Req.

Formation Test No. 1 Interval Tested From 6382 ft. to 6396 ft. Total Depth 6396 ft.

Packer Depth 6377 ft. Size 6 5/8 in. Packer Depth \_\_\_\_\_ ft. Size \_\_\_\_\_ in.

Packer Depth 6382 ft. Size 6 5/8 in. Packer Depth \_\_\_\_\_ ft. Size \_\_\_\_\_ in.

Depth of Selective Zone Set \_\_\_\_\_

Top Recorder Depth (Inside) 6384 ft. Recorder Number 3849 Cap. 4200

Bottom Recorder Depth (Outside) 6387 ft. Recorder Number 2604 Cap. 4150

Below Straddle Recorder Depth \_\_\_\_\_ ft. Recorder Number \_\_\_\_\_ Cap. \_\_\_\_\_

Drilling Contractor Sweetman Drill Collar Length 279 I. D. 2 1/4 in.

Mud Type Chem Viscosity 53 Weight Pipe Length \_\_\_\_\_ I. D. \_\_\_\_\_ in.

Weight 8.8 Water Loss 7.2 cc. Drill Pipe Length 6075 I. D. 3.8 in.

Chlorides 1000 P.P.M. Test Tool Length 28 ft. Tool Size 5 1/2 in.

Jars: Make W.T.C. Serial Number 402 Anchor Length 14 ft. Size 5 1/2 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 X.H. in.

Blow: Weak 1/2", Built to Strong "B.O.B." in 15 min I.F.  
Strong Immediately, G.T.S. in 50 min. "See Flow chart" F.F.

Recovered 25 ft. of Mud

Recovered \_\_\_\_\_ ft. of \_\_\_\_\_

Recovered \_\_\_\_\_ ft. of \_\_\_\_\_

Recovered \_\_\_\_\_ ft. of \_\_\_\_\_

Recovered \_\_\_\_\_ ft. of Total Fluid Rec. 25'

Chlorides \_\_\_\_\_ P.P.M. Sample Jars used \_\_\_\_\_ Remarks: Slick tool 18' to 20' to Bottom.

Recorder 2604 Plugged

Time On Location 4:00 <sup>A.M.</sup>/<sub>P.M.</sub> Time Pick Up Tool 5:15 <sup>A.M.</sup>/<sub>P.M.</sub> Time Off Location \_\_\_\_\_ <sup>A.M.</sup>/<sub>P.M.</sub>

Time Set Packer(s) 7:45 <sup>A.M.</sup>/<sub>P.M.</sub> Time Started Off Bottom 12:50 <sup>A.M.</sup>/<sub>P.M.</sub> Maximum Temperature Break Thermometer

Initial Hydrostatic Pressure ..... (A) 3057 P.S.I.

Initial Flow Period ..... Minutes 30 (B) 42 P.S.I. to (C) 38 P.S.I.

Initial Closed In Period ..... Minutes 60 (D) 1853 P.S.I.

Final Flow Period ..... Minutes 95 (E) 27 P.S.I. to (F) 27 P.S.I.

Final Closed In Period ..... Minutes 120 (G) 1956 P.S.I.

Final Hydrostatic Pressure ..... (H) 2968 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 John P. Hoag  
Signature of Customer or his authorized representative

Western Representative Jimmy S. Sabgar

FIELD INVOICE

Open Hole Test	\$	<input checked="" type="checkbox"/>
Misrun	\$	
Straddle Test	\$	
Jars	\$	<input checked="" type="checkbox"/>
Selective Zone	\$	
Safety Joint	\$	<input checked="" type="checkbox"/>
Standby	\$	
Evaluation	\$	
Extra Packer	\$	
Circ. Sub.	\$	
Mileage	\$	
Fluid Sampler	\$	
Extra Charts	\$	
Insurance	\$	
Telecopier	\$	
TOTAL	\$	



**Nº 4768**

**GAS FLOW REPORT**

Date 8-24-93 Ticket 19099 Company McLoy Prod.  
Well Name and No. Ficeman "A" 1-8 Dst No. 1 Interval Tested 6382-6396  
County Stearns State KS. Sec. 8 Twp. 35S. Rg. 37W.

Time Gauge in Min.	P.S.I. on Merla Orifice Well Tester	Size of Orifice	P.S.I. on Pitot Tester	P.S.I. on Side Static Tester	Description of Flow
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**PRE FLOW**


**SECOND FLOW**

Time	Inches of Water	Size of Orifice	P.S.I. on Pitot Tester	P.S.I. on Side Static Tester	Description of Flow
55	18	1/4"			G.T.S. 50 min. into F.F.P.
60	22	"			C.F.P.D.
65	26	"			"
70	28	"			"
75	32	"			"
80	36	"			"
85	34	"			"
90	"	"			"
95	36	"			"

**GAS BOTTLE**

Serial No. \_\_\_\_\_ Date Bottle Filled \_\_\_\_\_ Date to be Invoiced \_\_\_\_\_

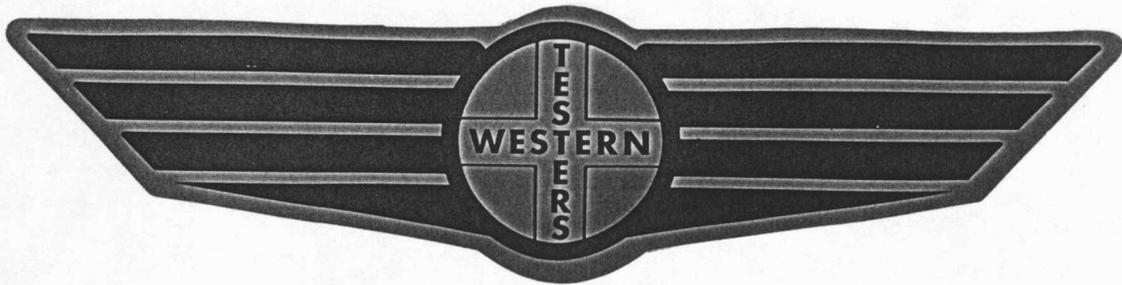
Requisition and Provisions for high pressure stainless steel gas bottles. Western Testing Co., Inc. shall not be liable for damage of any kind to property or personnel of the one whom gas bottle is filled or for any loss suffered or sustained directly or indirectly through the use of these bottles. By signing of this ticket showing receipt of a gas testing bottle, the undersigned agrees for himself and as agent for operator, to return this bottle to Western Testing Co., Inc. within thirty (30) days free of charge, or be invoiced in the amount of \$75.00 (total charge). Should valve or seal plug be missing or damaged beyond repair, operator shall be invoiced for repairs at our invoiced price.

All charges subject to 1 1/2% per month, equal to 18% interest per annum after 30 days from date of invoice. Any expense incurred for collection will be added to the original amount.

COMPANY'S NAME \_\_\_\_\_

Authorized by \_\_\_\_\_

# FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone **1 - 800 - 688 - 7021**

COMPANY MCCOY PETROLEUM CORP LEASE & WELL NO. #1-8 FREEMAN A SEC. 8 TWP. 35S RGE. 37W TEST NO. 1 DATE 8/24/93

DST REPORT

GENERAL INFORMATION

DATE : 8/24/93	TICKET : 19099
CUSTOMER : MCCOY PETROLEUM CORP	LEASE : FREEMAN A
WELL : #1-8                      TEST: 1	GEOLOGIST: HASTINGS
ELEVATION: 3163 KB	FORMATION: MORROW G SAND
SECTION : 8	TOWNSHIP : 35S
RANGE : 37W                      COUNTY: STEVENS	STATE : KS
GAUGE SN#: 3849                      RANGE : 4200	CLOCK : 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 6382.00 ft	TO: 6396.00 ft	TVD: 6396.0 ft
DEPTH OF SELECTIVE ZONE:		TEST TYPE: GAS
DEPTH OF RECORDERS: 6384.0 ft	6387.0 ft	
TEMPERATURE: 0.0		

DRILL COLLAR LENGTH: 279.0 ft	I.D.:	2.250 in
WEIGHT PIPE LENGTH : 0.0 ft	I.D.:	0.000 in
DRILL PIPE LENGTH : 6075.0 ft	I.D.:	3.800 in
TEST TOOL LENGTH : 28.0 ft	TOOL SIZE :	5.500 in
ANCHOR LENGTH : 14.0 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: 6377.0 ft	SIZE:	6.630 in
PACKER DEPTH: 6382.0 ft	SIZE:	6.630 in
PACKER DEPTH: 0.0 ft	SIZE:	0.000 in
PACKER DEPTH: 0.0 ft	SIZE:	0.000 in

MUD INFORMATION

DRILLING CON. : SWEETMAN	
MUD TYPE : CHEMICAL	VISCOSITY : 53.00 cp
WEIGHT : 8.800 ppg	WATER LOSS: 7.200 cc
CHLORIDES : 1000 ppm	
JARS-MAKE : WTC	SERIAL NUMBER: 402
DID WELL FLOW?: NO	REVERSED OUT?: NO

COMMENTS

Comment

INITIAL FLOW PERIOD WEAK 1/2 INCH BLOW BUILT TO STRONG- BOTTOM OF BUCKET IN 15 MINUTES.  
FINAL FLOW PERIOD STRONG BLOW IMMEDIATELY. GAS TO

DST REPORT (CONTINUED)

COMMENTS (CONTINUED)

Comment

SURFACE IN 50 MINUTES. SEE CHART ATTACHED.  
SLID TOOL 18 TO 20 FT TO BOTTOM.

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
25.0	0.0	0.0	0.0	100.0	MUD

RATE INFORMATION

OIL VOLUME:	0.0000	STB	TOTAL FLOW TIME:	125.0000	min.
GAS VOLUME:	0.0000	SCF	AVERAGE OIL RATE:	0.0000	STB/D
MUD VOLUME:	0.1229	STB	AVERAGE WATER RATE:	0.0000	STB/D
WATER VOLUME:	0.0000	STB			
TOTAL FLUID :	0.1229	STB			

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 3057.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	42.00	38.00
INITIAL SHUT-IN	60.00		1853.00
FINAL FLOW	95.00	27.00	27.00
FINAL SHUT-IN	120.00		1956.00

FINAL HYDROSTATIC PRESSURE: 2968.00

DST REPORT (CONTINUED)

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 3014.00

<u>Description</u>	<u>Duration</u>	<u>p1</u>	<u>p End</u>
INITIAL FLOW	30.00	57.00	42.00
INITIAL SHUT-IN	57.00		1851.00
FINAL FLOW	95.00	21.00	21.00
FINAL SHUT-IN	120.00		1958.00

FINAL HYDROSTATIC PRESSURE: 2938.00

GAS FLOW REPORT

GENERAL INFORMATION

DATE : 8/24/93	TICKET : 19099
CUSTOMER : MCCOY PETROLEUM CORP	LEASE : FREEMAN A
WELL : #1-8                      TEST: 1	GEOLOGIST: HASTINGS
ELEVATION: 3163 KB	FORMATION: MORROW G SAND
SECTION : 8	TOWNSHIP : 35S
RANGE : 37W                      COUNTY: STEVENS	STATE : KS
GAUGE SN#: 3849                      RANGE : 4200	CLOCK : 12

PRE FLOW

Time Guage (min)	Tester Type	Orifice Size	Pressure	Flow Desc.
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SECOND FLOW

Time Guage (min)	Tester Type	Orifice Size	Pressure	Flow Desc.
55 MIN	MERLA	0.250	18" WATER	7120 SCF/D
60 MIN	MERLA	0.250	22" WATER	7880 SCF/D
65 MIN	MERLA	0.250	26" WATER	8560 SCF/D
70 MIN	MERLA	0.250	28" WATER	8890 SCF/D
75 MIN	MERLA	0.250	32" WATER	9500 SCF/D
80 MIN	MERLA	0.250	36" WATER	10100 SCF/D
85 MIN	MERLA	0.250	34" WATER	9790 SCF/D
90 MIN	MERLA	0.250	34" WATER	9790 SCF/D
95 MIN	MERLA	0.250	36" WATER	10100 SCF/D

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE : 8/24/93	TICKET : 19099
CUSTOMER : MCCOY PETROLEUM CORP	LEASE : FREEMAN A
WELL : #1-8                      TEST: 1	GEOLOGIST: HASTINGS
ELEVATION: 3163 KB	FORMATION: MORROW G SAND
SECTION : 8	TOWNSHIP : 35S
RANGE : 37W                      COUNTY: STEVENS	STATE : KS
GAUGE SN#: 3849                      RANGE : 4200	CLOCK : 12

INITIAL FLOW

Time (min)	Pressure	Delta P
0.00	57.00	57.00
5.00	55.00	-2.00
10.00	55.00	0.00
15.00	48.00	-7.00
20.00	44.00	-4.00
25.00	42.00	-2.00
30.00	42.00	0.00

INITIAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	42.00	42.00	11.00
6.00	157.00	115.00	6.00
9.00	361.00	204.00	4.33
12.00	529.00	168.00	3.50
15.00	748.00	219.00	3.00
18.00	958.00	210.00	2.67
21.00	1102.00	144.00	2.43
24.00	1211.00	109.00	2.25
27.00	1315.00	104.00	2.11
30.00	1410.00	95.00	2.00
33.00	1487.00	77.00	1.91
36.00	1566.00	79.00	1.83
39.00	1621.00	55.00	1.77
42.00	1671.00	50.00	1.71
45.00	1709.00	38.00	1.67
48.00	1746.00	37.00	1.63
51.00	1778.00	32.00	1.59
54.00	1805.00	27.00	1.56
57.00	1851.00	46.00	1.53

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	21.00	21.00
5.00	21.00	0.00
10.00	21.00	0.00
15.00	21.00	0.00
20.00	21.00	0.00
25.00	21.00	0.00
30.00	21.00	0.00
35.00	21.00	0.00
40.00	21.00	0.00
45.00	21.00	0.00
50.00	21.00	0.00
55.00	21.00	0.00
60.00	21.00	0.00
65.00	21.00	0.00
70.00	21.00	0.00
75.00	21.00	0.00
80.00	21.00	0.00
85.00	21.00	0.00
90.00	21.00	0.00
95.00	21.00	0.00

FINAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	210.00	210.00	32.67
6.00	529.00	319.00	16.83
9.00	817.00	288.00	11.56
12.00	1014.00	197.00	8.92
15.00	1205.00	191.00	7.33
18.00	1370.00	165.00	6.28
21.00	1525.00	155.00	5.52
24.00	1623.00	98.00	4.96
27.00	1695.00	72.00	4.52
30.00	1757.00	62.00	4.17
33.00	1801.00	44.00	3.88
36.00	1835.00	34.00	3.64
39.00	1858.00	23.00	3.44
42.00	1879.00	21.00	3.26
45.00	1893.00	14.00	3.11
48.00	1906.00	13.00	2.98
51.00	1914.00	8.00	2.86
54.00	1923.00	9.00	2.76

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL SHUT IN (CONTINUED)

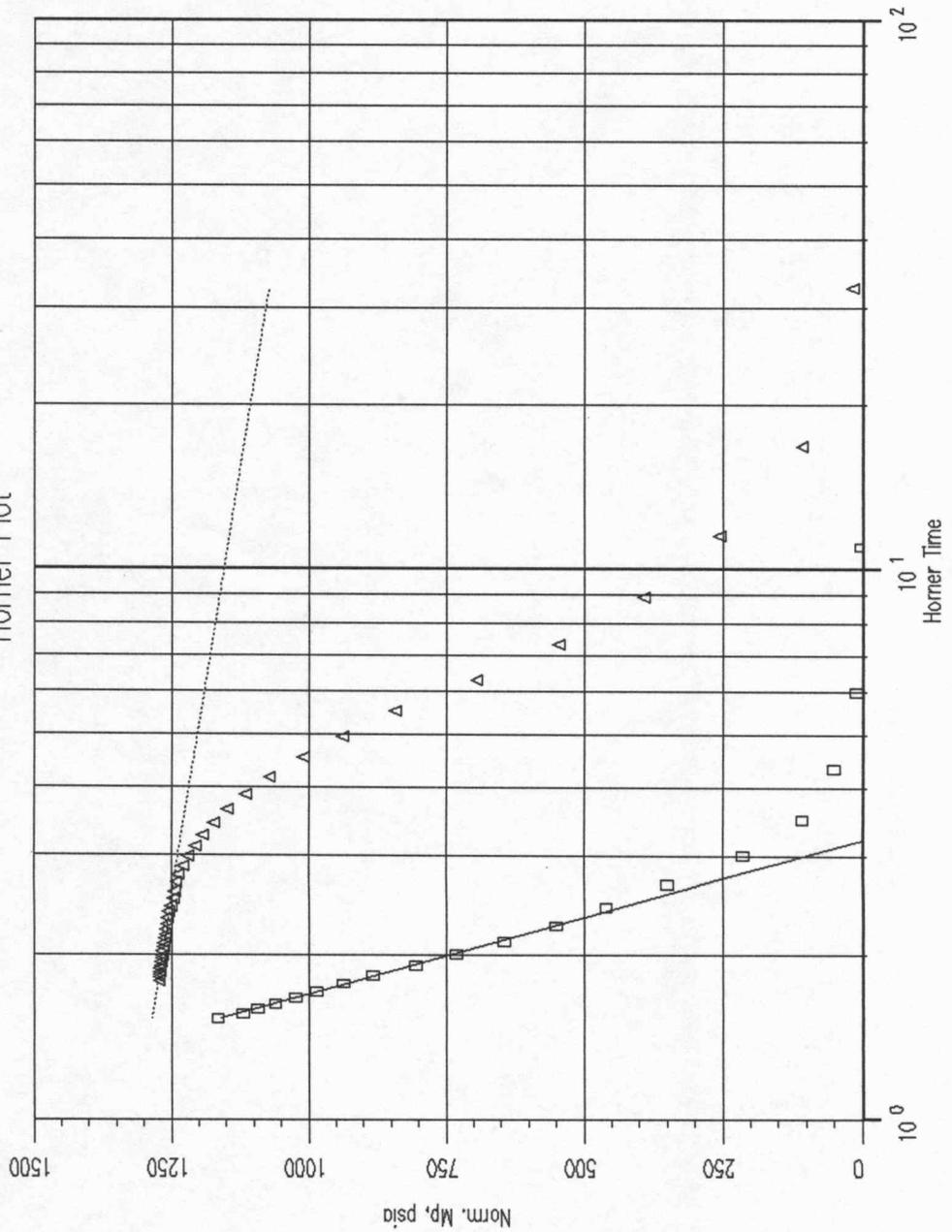
<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
57.00	1927.00	4.00	2.67
60.00	1931.00	4.00	2.58
63.00	1933.00	2.00	2.51
66.00	1937.00	4.00	2.44
69.00	1941.00	4.00	2.38
72.00	1943.00	2.00	2.32
75.00	1945.00	2.00	2.27
78.00	1946.00	1.00	2.22
81.00	1947.00	1.00	2.17
84.00	1948.00	1.00	2.13
87.00	1950.00	2.00	2.09
90.00	1951.00	1.00	2.06
93.00	1952.00	1.00	2.02
96.00	1953.00	1.00	1.99
99.00	1954.00	1.00	1.96
102.00	1955.00	1.00	1.93
105.00	1956.00	1.00	1.90
108.00	1957.00	1.00	1.88
111.00	1957.00	0.00	1.86
114.00	1958.00	1.00	1.83
117.00	1958.00	0.00	1.81
120.00	1958.00	0.00	1.79

DATE 8/24/93  
 CUSTOMER MCCOY PETROLEUM CORP  
 WELL #1-8  
 ELEVATION 3163 KB  
 SECTION 8  
 RANGE 37W  
 GAUGE SN# 3849

TEST 1  
 COUNTY STEVENS  
 RANGE 4200

TICKET 19099  
 LEASE FREEMAN A  
 GEOLOGIST HASTINGS  
 FORMATION MORROW G SAND  
 TOWNSHIP 35S  
 STATE KS  
 CLOCK 12

Horner Plot



Result

	#1	#2
tp, hrs	0.50	1.58
Slope	-3589.65	-160.65
Pstar, psig	2511.46	2000.73
P1hr, psig	1186.94	1248.93
Skin	0.48	7.19
k, md	0.00	0.01
kh/u, md-ft/cp	0.33	7.45
ri, ft	0.49	4.08
DR, %	0.85	4.47
Drawdown Factor, %		-0.058
Drawdown P*		0.203

— BUILD 1  
 ..... BUILD 2

## HORNER ANALYSIS REPORT

### GENERAL INFORMATION

DATE : 8/24/93	TICKET : 19099
CUSTOMER : MCCOY PETROLEUM CORP	LEASE : FREEMAN A
WELL : #1-8 TEST: 1	GEOLOGIST: HASTINGS
ELEVATION: 3163 KB	FORMATION: MORROW G SAND
SECTION : 8	TOWNSHIP : 35S
RANGE : 37W COUNTY: STEVENS	STATE : KS
GAUGE SN#: 3849 RANGE : 4200	CLOCK : 12

### Input Data

Porosity 0.100      Rw: 0.328 ft      h: 13.000 ft

qg 10100.0 STB

#### Pvt Data

Evaluation Pressure : 1851.0  
 Evaluation Temperature: 0.0

Gas Grav 0.65 API      Bg 0.001 RBL/STB      Vis 0.022 cp      Ct 5.7355E-004 1/PSI

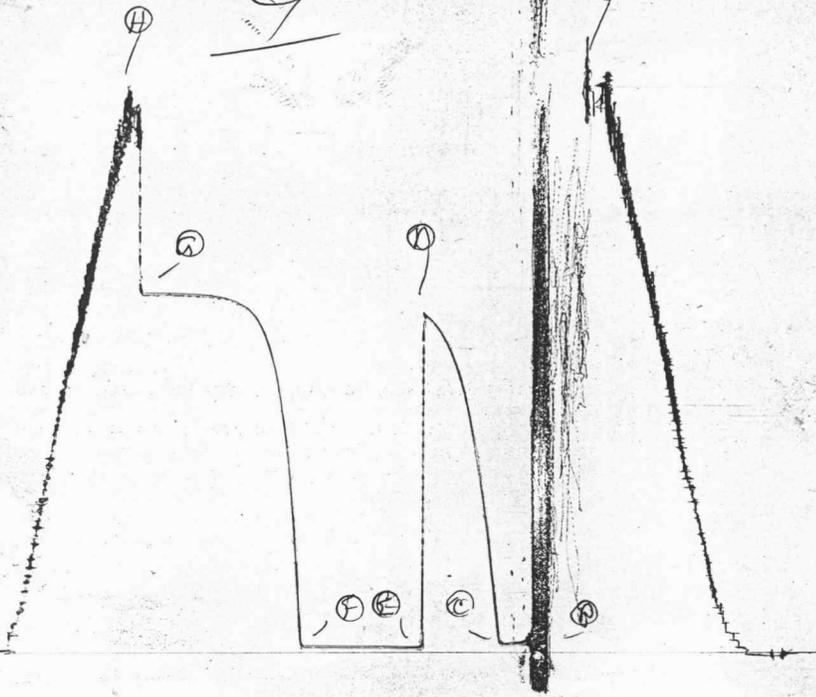
### Horner Results

	Initial Shut-In	Final Shut-In
pseudo pressure time	0.50 hrs	1.58 hrs
slope	-3589.65	-160.65
pstar	2511.46 psig	2000.73 psig
plhr	1186.94 psig	1248.93 psig
skin	0.48	7.19
permeability	0.00 md	0.01 md
transmissability	0.33 md-ft/cp	7.45 md-ft/cp
radius of investigation	0.49 ft	4.08 ft
Damage-Ratio	0.85 percent	4.5 percent
Drawdown Factor		-0.058 percent
Drawdown P*		0.203 percent

KT 19099

#3849 DST 1

7



KT 19099

2604 DST 1

0

