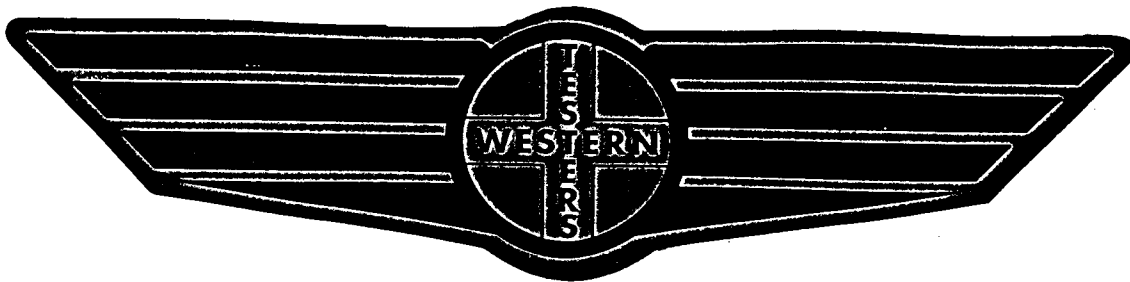


FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone 1 - 800-688-7021

DST REPORT

GENERAL INFORMATION

DATE : 9/6/92
CUSTOMER : RANGE OIL COMPANY, INC.
WELL : 1 TEST: 1
ELEVATION: 1048 KB
SECTION : 13
RANGE : 9E COUNTY: CHAUTAUQUA
GAUGE SN#: 1051 RANGE : 4250
TICKET : 18828
LEASE : SWEET
GEOLOGIST: T. BLAIR
FORMATION: MISSISSIPPI
TOWNSHIP : 32S
STATE : KS
CLOCK : 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 2087.00 ft TO: 2100.00 ft TVD: 2100.0 ft
DEPTH OF SELECTIVE ZONE: TEST TYPE: OIL
DEPTH OF RECORDERS: 2090.0 ft 2093.0 ft
TEMPERATURE: 102.0
DRILL COLLAR LENGTH: 342.0 ft I.D.: 2.250 in
WEIGHT PIPE LENGTH : 0.0 ft I.D.: 0.000 in
DRILL PIPE LENGTH : 1725.0 ft I.D.: 3.800 in
TEST TOOL LENGTH : 20.0 ft TOOL SIZE : 5.500 in
ANCHOR LENGTH : 13.0 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 : 4.5FH
PACKER DEPTH: 2082.0 ft SIZE: 6.630 in
PACKER DEPTH: 2087.0 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. : GLAVES RIG 1
MUD TYPE : CHEMICAL VISCOSITY : 43.00 cp
WEIGHT : 9.800 ppg WATER LOSS: 11.200 cc
CHLORIDES : 1100 ppm
JARS-MAKE :
DID WELL FLOW?: NO SERIAL NUMBER:
REVERSED OUT?: NO

COMMENTS

Comment

INITIAL FLOW PERIOD 1/2 INCH BLOW DEPLEATING TO NO
BLOW IN 14 MINUTES.
FINAL FLOW PERIOD FEW BUBBLES AND DIED.

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
5.0	0.0	0.0	0.0	100.0	MUD

RATE INFORMATION

OIL VOLUME:	0.0000 STB	TOTAL FLOW TIME:	60.0000 min.
GAS VOLUME:	0.0000 SCF	AVERAGE OIL RATE:	0.5901 STB/D
MUD VOLUME:	0.0246 STB	AVERAGE WATER RATE:	0.0000 STB/D
WATER VOLUME:	0.0000 STB		
TOTAL FLUID :	0.0246 STB		

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1069.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	75.00	75.00
INITIAL SHUT-IN	30.00		75.00
FINAL FLOW	30.00	75.00	75.00
FINAL SHUT-IN	30.00		75.00

FINAL HYDROSTATIC PRESSURE: 1048.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1057.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	77.00	77.00
INITIAL SHUT-IN	30.00		77.00
FINAL FLOW	30.00	77.00	77.00
FINAL SHUT-IN	30.00		77.00

FINAL HYDROSTATIC PRESSURE: 1036.00

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE : 9/6/92	TICKET : 18828
CUSTOMER : RANGE OIL COMPANY, INC.	LEASE : SWEET
WELL : 1 TEST: 1	GEOLOGIST: T. BLAIR
ELEVATION: 1048 KB	FORMATION: MISSISSIPPI
SECTION : 13	TOWNSHIP : 32S
RANGE : 9E COUNTY: CHAUTAUQUA	STATE : KS
GAUGE SN#: 1051 RANGE : 4250	CLOCK : 12

INITIAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	77.00	77.00
5.00	77.00	0.00
10.00	77.00	0.00
15.00	77.00	0.00
20.00	77.00	0.00
25.00	77.00	0.00
30.00	77.00	0.00

INITIAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	77.00	77.00	0.00
6.00	77.00	0.00	0.00
9.00	77.00	0.00	0.00
12.00	77.00	0.00	0.00
15.00	77.00	0.00	0.00
18.00	77.00	0.00	0.00
21.00	77.00	0.00	0.00
24.00	77.00	0.00	0.00
27.00	77.00	0.00	0.00
30.00	77.00	0.00	0.00

FINAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	77.00	77.00

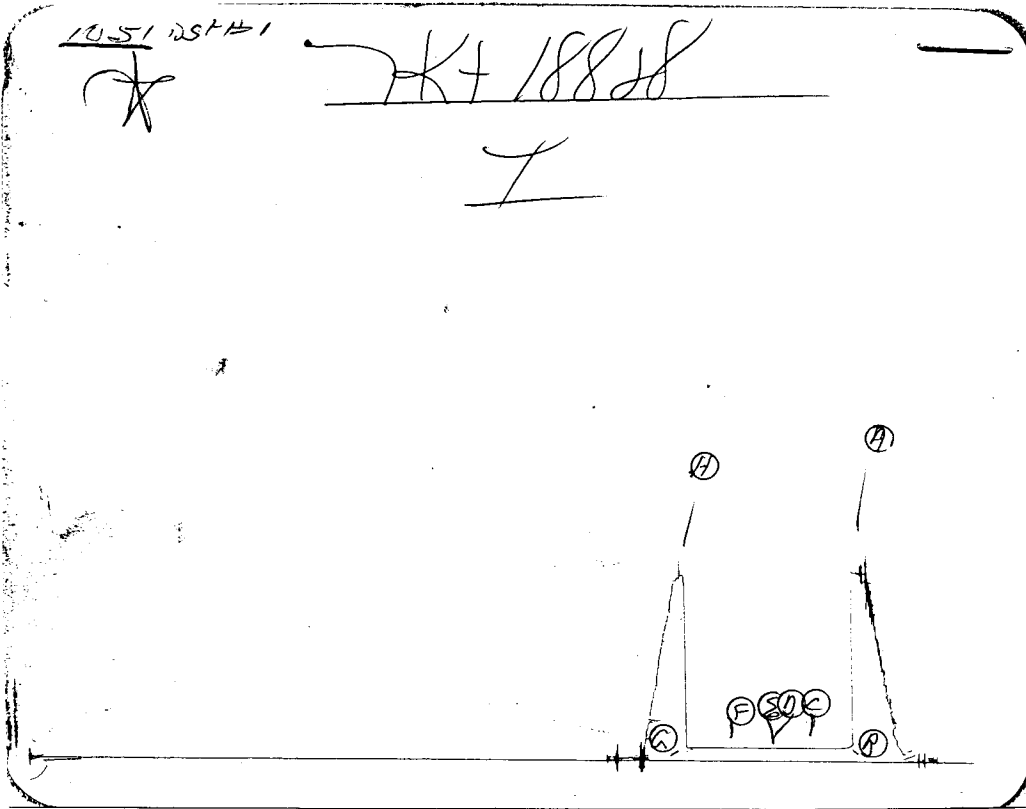
PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL FLOW (CONTINUED)

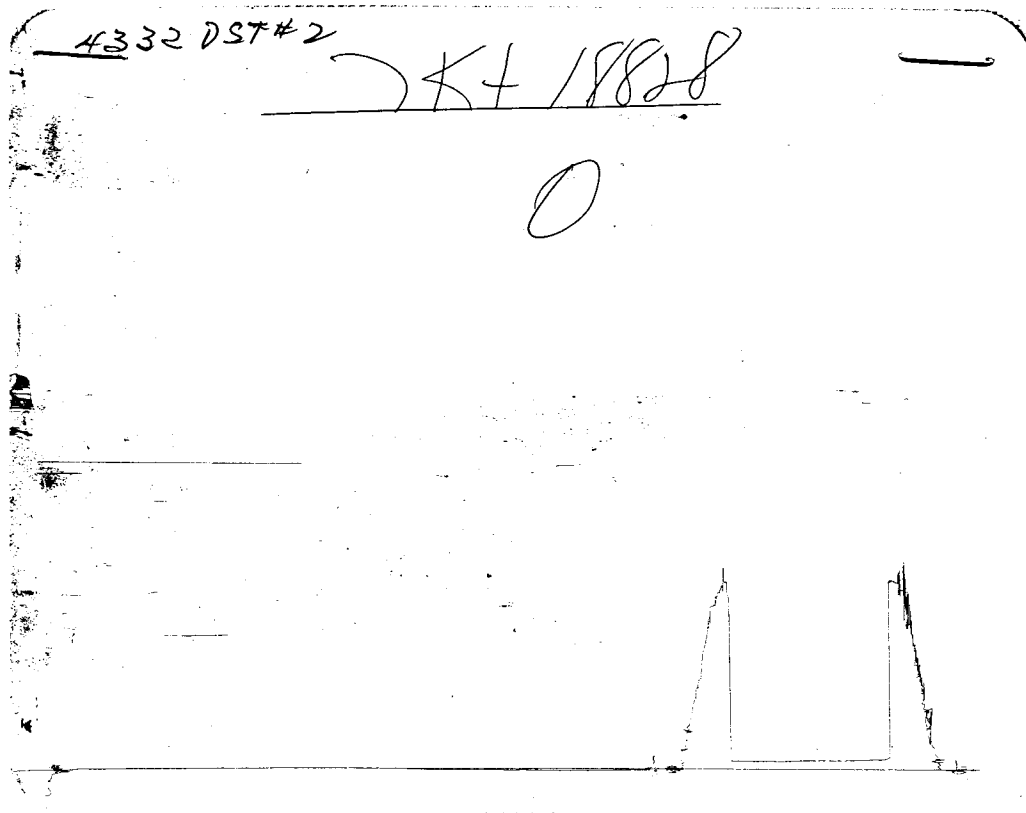
<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
5.00	77.00	0.00
10.00	77.00	0.00
15.00	77.00	0.00
20.00	77.00	0.00
25.00	77.00	0.00
30.00	77.00	0.00

FINAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	77.00	77.00	0.00
6.00	77.00	0.00	0.00
9.00	77.00	0.00	0.00
12.00	77.00	0.00	0.00
15.00	77.00	0.00	0.00
18.00	77.00	0.00	0.00
21.00	77.00	0.00	0.00
24.00	77.00	0.00	0.00
27.00	77.00	0.00	0.00
30.00	77.00	0.00	0.00

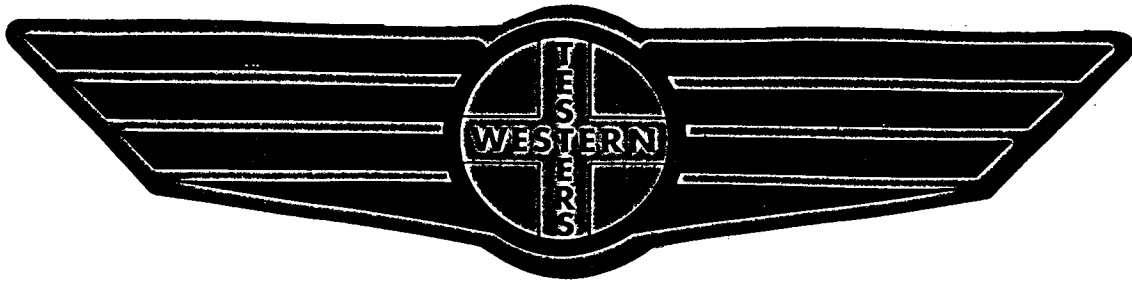


Inside Recorder



Outside Recorder

FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone 1-800-688-7021

COMPANY RANGE OIL COMPANY, INC. LEASE & WELL NO. #1 SWEET

SEC. 13 TWP. 32S RGE. 9E TEST NO. 2 DATE 9/8/92

DST REPORT

GENERAL INFORMATION

DATE : 9/8/92	TICKET : 18602
CUSTOMER : RANGE OIL COMPANY, INC.	LEASE : SWEET
WELL : 1 TEST: 2	GEOLOGIST: T. BLAIR
ELEVATION: 1048 KB	FORMATION: ARBUCKLE
SECTION : 13	TOWNSHIP : 32S
RANGE : 9E	COUNTY: CHAUTAUQUA
GAUGE SN#: 10979	RANGE : 4100
	STATE : KS
	CLOCK : 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 2341.00 ft	TO: 2401.00 ft	TVD: 2401.0 ft
DEPTH OF SELECTIVE ZONE:		TEST TYPE: OIL
DEPTH OF RECORDERS: 2397.0 ft	2394.0 ft	
TEMPERATURE: 110.0		

DRILL COLLAR LENGTH: 360.0 ft	I.D.:	2.250 in
WEIGHT PIPE LENGTH : 0.0 ft	I.D.:	0.000 in
DRILL PIPE LENGTH : 1961.0 ft	I.D.:	3.800 in
TEST TOOL LENGTH : 20.0 ft	TOOL SIZE :	5.500 in
ANCHOR LENGTH : 60.0 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 :	4.5FH
PACKER DEPTH: 2336.0 ft	SIZE:	6.630 in
PACKER DEPTH: 2341.0 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. : GLAVES RIG 1	
MUD TYPE : CHEMICAL	VISCOSITY : 42.00 cp
WEIGHT : 9.800 ppg	WATER LOSS: 10.400 cc
CHLORIDES : 1100 ppm	
JARS-MAKE :	SERIAL NUMBER:
DID WELL FLOW?: NO	REVERSED OUT?: NO

COMMENTS

Comment

WEAK TO A STRONG BLOW ON BOTH FLOW PERIODS.

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
970.0	0.0	0.0	100.0	0.0	SALT WATER CHLORIDES 55000 P.P.M.
0.0	0.0	0.0	0.0	0.0	

RATE INFORMATION

OIL VOLUME:	0.0000	STB	TOTAL FLOW TIME:	90.0000	min.
GAS VOLUME:	0.0000	SCF	AVERAGE OIL RATE:	0.0000	STB/D
MUD VOLUME:	0.0000	STB	AVERAGE WATER RATE:	165.2219	STB/D
WATER VOLUME:	10.3264	STB			
TOTAL FLUID :	10.3264	STB			

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1175.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	85.00	250.00
INITIAL SHUT-IN	30.00		865.00
FINAL FLOW	60.00	315.00	490.00
FINAL SHUT-IN	60.00		895.00

FINAL HYDROSTATIC PRESSURE: 1165.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1225.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	93.00	267.00
INITIAL SHUT-IN	30.00		890.00
FINAL FLOW	60.00	328.00	498.00
FINAL SHUT-IN	63.00		902.00

FINAL HYDROSTATIC PRESSURE: 1190.00

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE : 9/8/92	TICKET : 18602
CUSTOMER : RANGE OIL COMPANY, INC.	LEASE : SWEET
WELL : 1	TEST: 2
ELEVATION: 1048 KB	GEOLOGIST: T. BLAIR
SECTION : 13	FORMATION: ARBUCKLE
RANGE : 9E	TOWNSHIP : 32S
COUNTY: CHAUTAUQUA	STATE : KS
GAUGE SN#: 10979	RANGE : 4100
	CLOCK : 12

INITIAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	93.00	93.00
5.00	111.00	18.00
10.00	166.00	55.00
15.00	208.00	42.00
20.00	226.00	18.00
25.00	248.00	22.00
30.00	267.00	19.00

INITIAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	807.00	807.00	0.00
6.00	839.00	32.00	0.00
9.00	852.00	13.00	0.00
12.00	862.00	10.00	0.00
15.00	869.00	7.00	0.00
18.00	876.00	7.00	0.00
21.00	882.00	6.00	0.00
24.00	886.00	4.00	0.00
27.00	888.00	2.00	0.00
30.00	890.00	2.00	0.00

FINAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	328.00	328.00

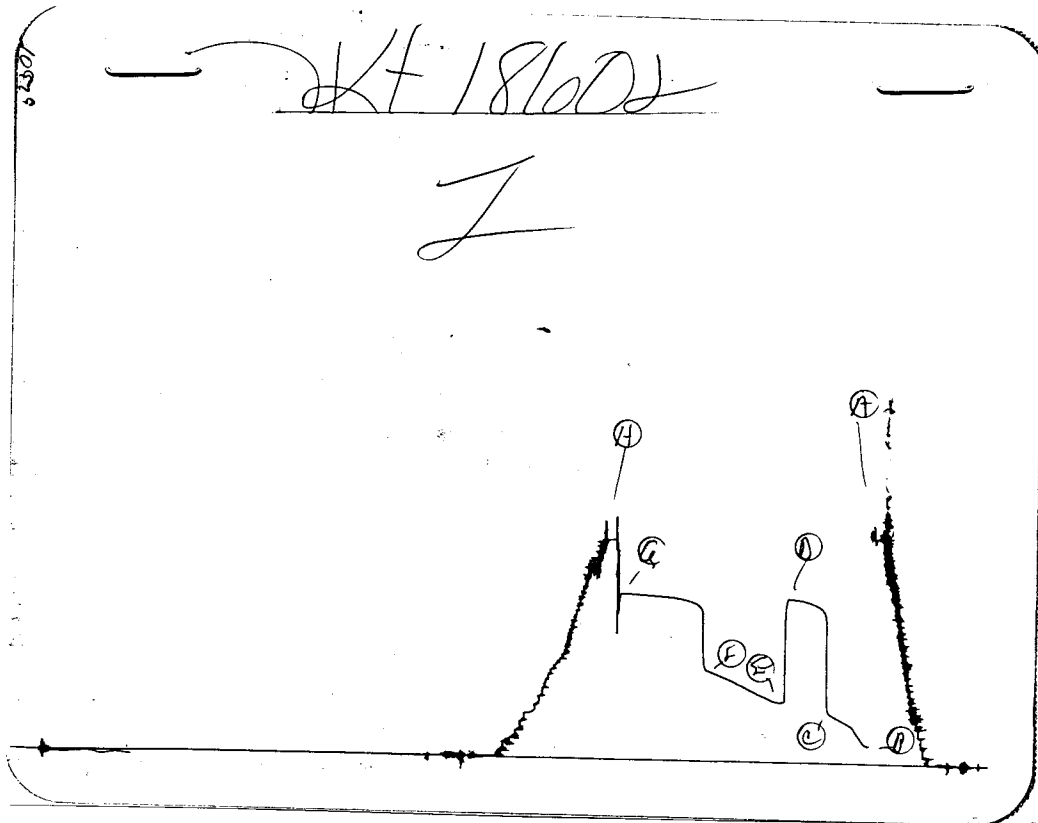
PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL FLOW (CONTINUED)

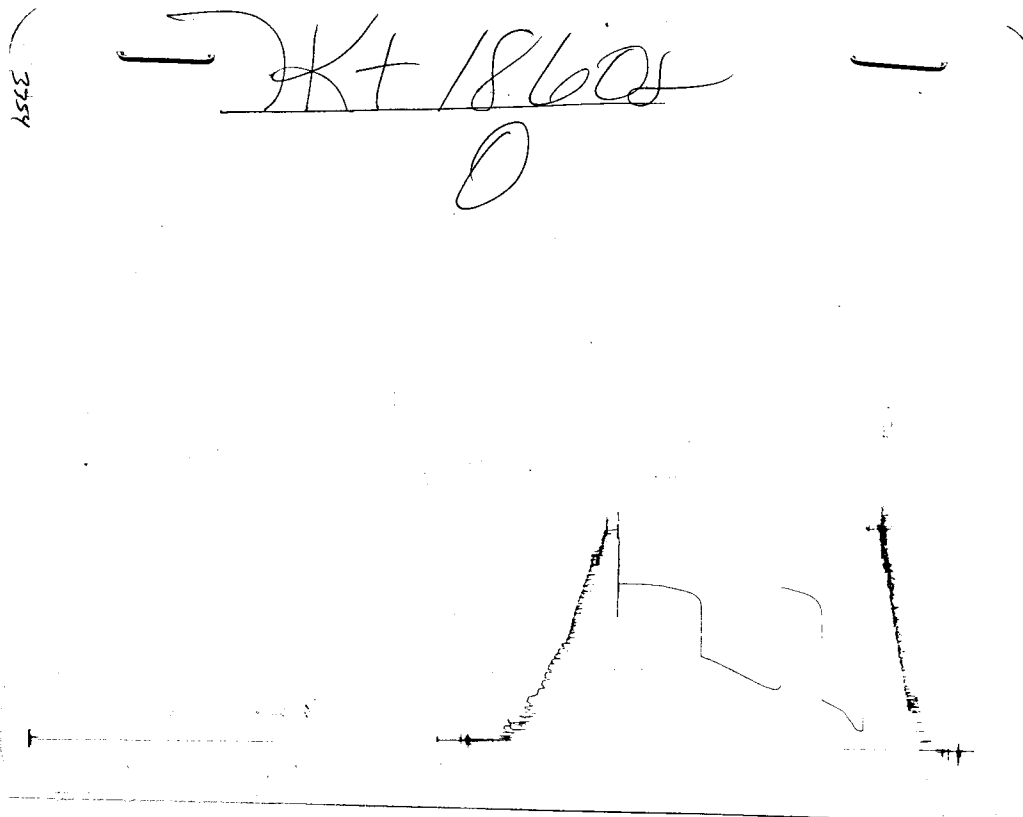
<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
5.00	328.00	0.00
10.00	336.00	8.00
15.00	353.00	17.00
20.00	368.00	15.00
25.00	385.00	17.00
30.00	405.00	20.00
35.00	423.00	18.00
40.00	440.00	17.00
45.00	457.00	17.00
50.00	471.00	14.00
55.00	485.00	14.00
60.00	498.00	13.00

FINAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	816.00	816.00	0.00
6.00	845.00	29.00	0.00
9.00	858.00	13.00	0.00
12.00	864.00	6.00	0.00
15.00	871.00	7.00	0.00
18.00	877.00	6.00	0.00
21.00	881.00	4.00	0.00
24.00	884.00	3.00	0.00
27.00	887.00	3.00	0.00
30.00	890.00	3.00	0.00
33.00	892.00	2.00	0.00
36.00	893.00	1.00	0.00
39.00	894.00	1.00	0.00
42.00	895.00	1.00	0.00
45.00	896.00	1.00	0.00
48.00	897.00	1.00	0.00
51.00	898.00	1.00	0.00
54.00	899.00	1.00	0.00
57.00	900.00	1.00	0.00
60.00	901.00	1.00	0.00
63.00	902.00	1.00	0.00



Inside Recorder



Outside Recorder