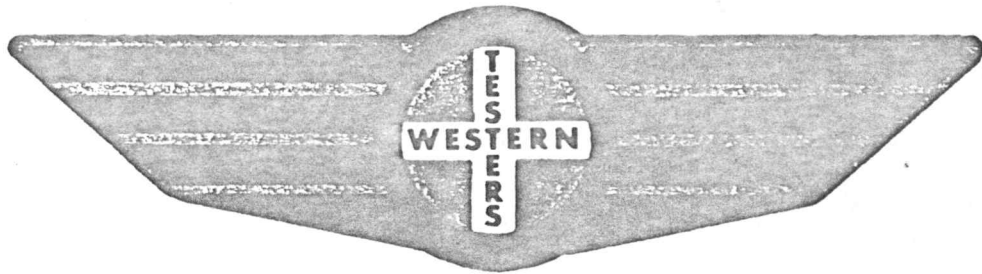


FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

PANY RAYMOND OIL COMPANY, INC. LEASE & WELL NO. #1 HUXMAN "A" SEC. 14 TWP. 16S RGE. 25W TEST NO. 1 DATE 12-2-85

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE: 12-2-85 TICKET #9127
CUSTOMER: RAYMOND OIL COMPANY INC. LEASE: HUXMAN "A"
WELL: 1 TEST: 1 GEOLOGIST: R.J. DIETTERICH
ELEVATION (KB): 2556 FORMATION: FORT SCOTT
SECTION: 14 TOWNSHIP: 16S
RANGE: 25W COUNTY: NESS STATE: KANSAS
GAUGE SN #4339 RANGE: 4300 CLOCK: 12

INTERVAL TEST FROM: 4378 FT TO: 4424 FT TOTAL DEPTH: 4424 FT
DEPTH OF SELECTIVE ZONE: FT
PACKER DEPTH: 4373 FT SIZE: 6 3/4 IN PACKER DEPTH: 4378 FT SIZE: 6 3/4 IN
PACKER DEPTH: FT SIZE: IN PACKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: DUKE DRLG. RIG #2
MUD TYPE: STARCH VISCOSITY: 48
WEIGHT: 10.0 WATER LOSS (CC): 10.0
CHLORIDES (P.P.M.): 41000
JARS - MAKE: NO SERIAL NUMBER:
DID WELL FLOW? NO REVERSED OUT?
DRILL COLLAR LENGTH: FT I.D.: IN
WEIGHT PIPE LENGTH: 434 FT I.D.: 3.2 IN
DRILL PIPE LENGTH: 3924 FT I.D.: 3.8 IN
TEST TOOL LENGTH: 20 FT TOOL SIZE: 5 1/2 OD IN
ANCHOR LENGTH: 45 FT SIZE: 5 1/2 OD IN
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 FH IN

BLOW: INITIAL FLOW PERIOD WEAK BLOW;
DIED IN 15 MINUTES.
FINAL FLOW PERIOD NO BLOW.

RECOVERED: 20 FT OF: MUD WITH A FEW OIL SPOTS.
RECOVERED: FT OF: CHLORIDES 42000 PPM.
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:

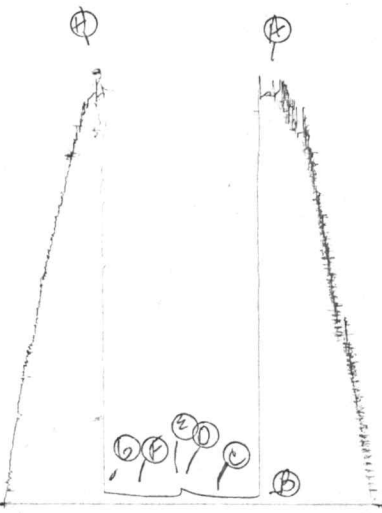
REMARKS: 32 FEET OF WEIGHT PIPE IN ANCHOR.

TIME SET PACKER(S): 10:50 PM TIME STARTED OFF BOTTOM: 12:50 AM
WELL TEMPERATURE: 115 'F
INITIAL HYDROSTATIC PRESSURE: (A) 2306 PSI
INITIAL FLOW PERIOD MIN: 30 (B) 43 PSI TO (C) 48 PSI
INITIAL CLOSED IN PERIOD MIN: 27 (D) 99 PSI
FINAL FLOW PERIOD MIN: 30 (E) 48 PSI TO (F) 51 PSI
FINAL CLOSED IN PERIOD MIN: 27 (G) 72 PSI
FINAL HYDROSTATIC PRESSURE (H) 2306 PSI

7337

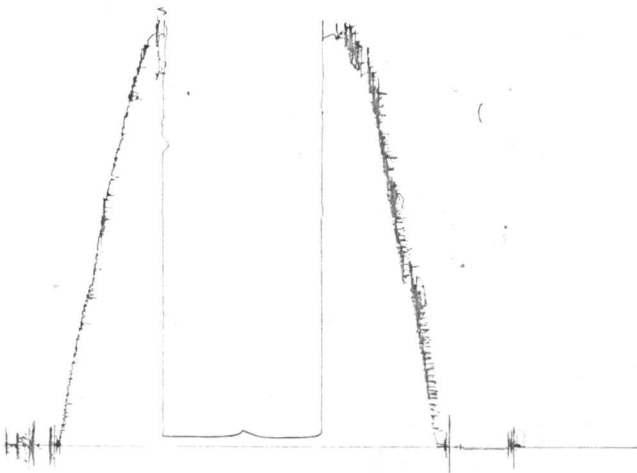
~~VI~~ #9127

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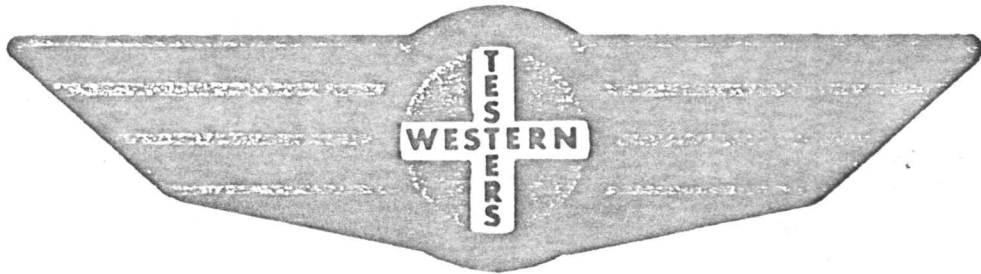


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St #9127
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FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

PANY RAYMOND OIL COMPANY, INC. LEASE & WELL NO. #1 HUXMAN "A" SEC. 14 TWP. 16S RGE. 25W TEST NO. 2 DATE 12-30-85

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE: 12-3-85 TICKET #9128
CUSTOMER: RAYMOND OIL COMPANY INC. LEASE: HUXMAN "A"
WELL: 1 TEST: 2 GEOLOGIST: R.J. DIETTERICH
ELEVATION (KB): 2556 FORMATION: MISSISSIPPI
SECTION: 14 TOWNSHIP: 16S
RANGE: 25W COUNTY: NESS STATE: KANSAS
GAUGE SN #4339 RANGE: 4300 CLOCK: 12

INTERVAL TEST FROM: 4462 FT TO: 4498 FT TOTAL DEPTH: 4498 FT
DEPTH OF SELECTIVE ZONE: FT
PACKER DEPTH: 4457 FT SIZE: 6 3/4 IN PAKER DEPTH: 4462 FT SIZE: 6 3/4 IN
PACKER DEPTH: FT SIZE: IN PAKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: DUKE DRLG. RIG #2
MUD TYPE: STARCH VISCOSITY: 44
WEIGHT: 10.0 WATER LOSS (CC): 11.6
CHLORIDES (P.P.M.): 40000
JARS - MAKE: NO SERIAL NUMBER:
DID WELL FLOW? REVERSED OUT?

DRILL COLLAR LENGTH: FT I.D.: IN
WEIGHT PIPE LENGTH: 434 FT I.D.: 3.2 IN
DRILL PIPE LENGTH: 4008 FT I.D.: 3.8 IN
TEST TOOL LENGTH: 20 FT TOOL SIZE: 5 1/2 OD IN
ANCHOR LENGTH: 36 FT SIZE: 5 1/2 OD IN
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 FH IN

BLOW: INITIAL FLOW PERIOD WEAK BLOW;
DIED IN 10 MINUTES. FINAL FLOW
PERIOD NO BLOW; FLUSHED TOOL;
TWO BURSTS.

RECOVERED: 5 FT OF: MUD WITH SLIGHT OIL STAIN.
RECOVERED: FT OF: CHLORIDES 40000 PPM.
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:

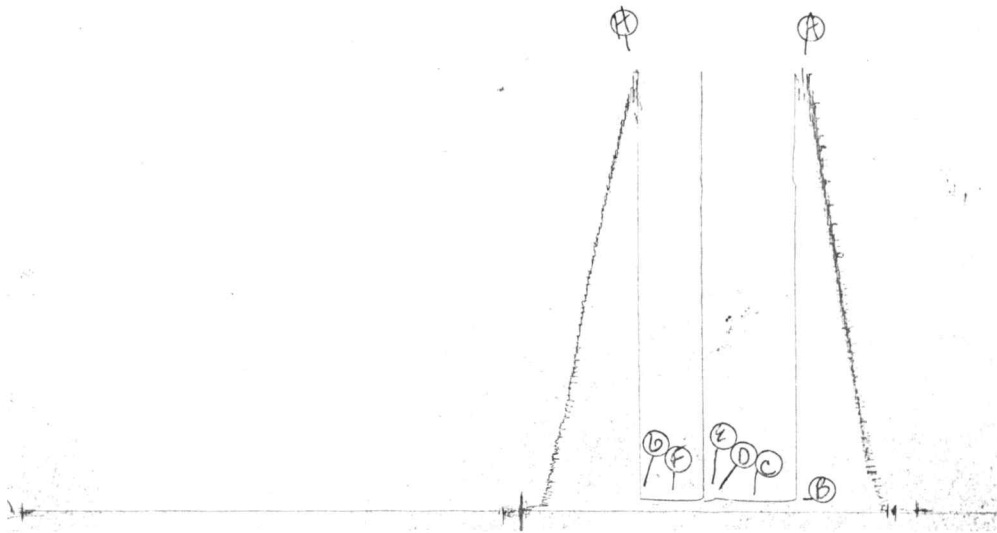
REMARKS:

TIME SET PACKER(S): 10:30 PM TIME STARTED OFF BOTTOM: 12:30 AM
WELL TEMPERATURE: 118 °F
INITIAL HYDROSTATIC PRESSURE: (A) 2389 PSI
INITIAL FLOW PERIOD MIN: 30 (B) 63 PSI TO (C) 63 PSI
INITIAL CLOSED IN PERIOD MIN: 30 (D) 80 PSI
FINAL FLOW PERIOD MIN: 30 (E) 64 PSI TO (F) 66 PSI
FINAL CLOSED IN PERIOD MIN: 24 (G) 74 PSI
FINAL HYDROSTATIC PRESSURE (H) 2389 PSI

4329

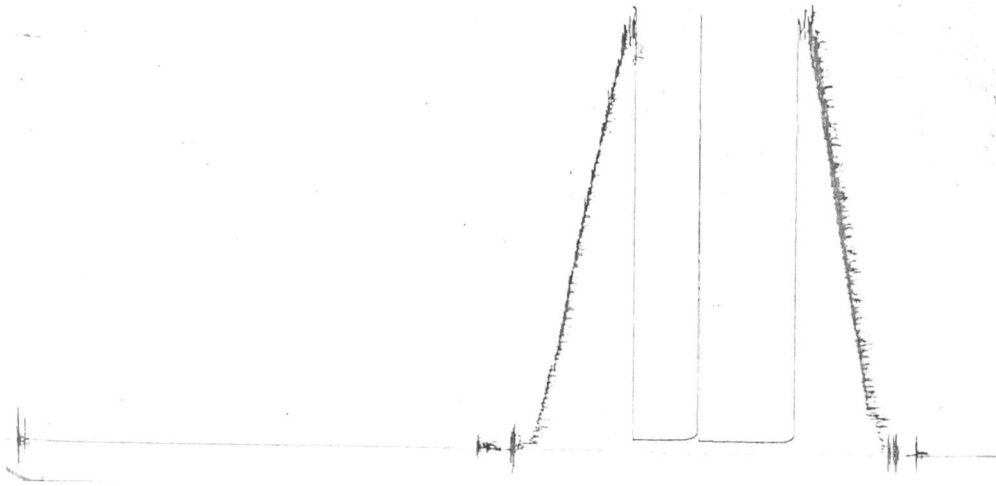
JK #9128

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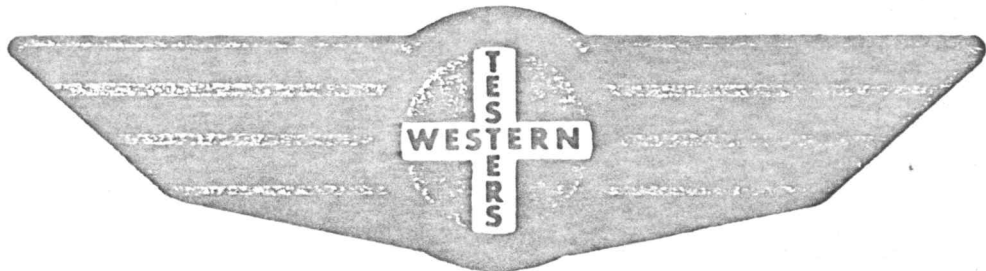


13271

JK # 9128
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FORMATION TEST REPORT



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Phone (316) 262-5861

COMPANY RAYMOND OIL COMPANY, INC. LEASE & WELL NO. #1 HUXMAN "A" SEC. 14 TWP. 16S RGE. 25W TEST NO. 3 DATE 12/4/85

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE: 12/4/85
CUSTOMER: RAYMOND OIL COMPANY INC.
WELL: 1 TEST: 3
ELEVATION (KB): 2556 FORMATION: MISSISSIPPI
SECTION: 14 TOWNSHIP: 16S
RANGE: 25W COUNTY: NESS STATE: KANSAS
GAUGE SN #13271 RANGE: 4400 CLOCK: 12

TICKET #7726
LEASE: HUXMAN "A"
GEOLOGIST: DIETTERICH

INTERVAL TEST FROM: 4462 FT TO: 4508 FT TOTAL DEPTH: 4508 FT
DEPTH OF SELECTIVE ZONE: FT
PACKER DEPTH: 4457 FT SIZE: 6 3/4 IN PAKER DEPTH: 4462 FT SIZE: 6 3/4 IN
PACKER DEPTH: FT SIZE: IN PAKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: DUKE DRLG
MUD TYPE: STARCH VISCOSITY: 43
WEIGHT: 10.1 WATER LOSS (CC): 11.2
CHLORIDES (P.P.M.): 40000
JARS - MAKE: SERIAL NUMBER:
DID WELL FLOW? NO REVERSED OUT? NO
DRILL COLLAR LENGTH: FT I.D.: IN
WEIGHT PIPE LENGTH: 442 FT I.D.: 3.2 IN
DRILL PIPE LENGTH: 4000 FT I.D.: 3.8 IN
TEST TOOL LENGTH: 20 FT TOOL SIZE: 5 1/2 OD IN
ANCHOR LENGTH: 46 FT SIZE: 5 1/2 OD IN
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: INITIAL FLOW PERIOD WEAK BLOW (2" IN BUCKET).
FINAL FLOW PERIOD VERY WEAK BLOW
(1/2" IN BUCKET).

RECOVERED: 75 FT OF: DRILLING MUD WITH SCUM OF OIL.
RECOVERED: FT OF: (5% GAS; 2% OIL; 3% WATER; 90% MUD).
RECOVERED: FT OF: CHLORIDES 20000 PPM.
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:

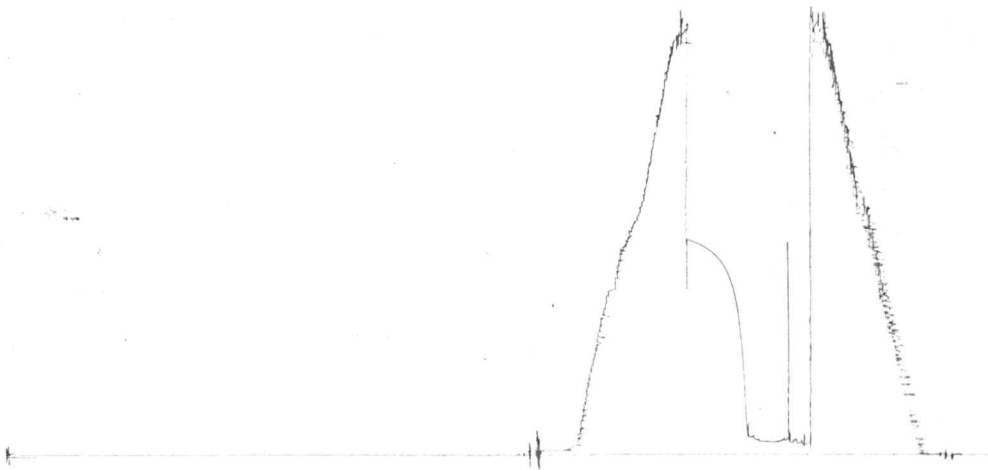
REMARKS: SLIGHT PLUGGING ACTION ON BOTH FLOW PERIODS.
CLOCK STOPPED ON INSIDE RECORDER.
READ OUTSIDE CHART. SLID TOOL 5'
TO BOTTOM AFTER TOOL OPENED.

TIME SET PACKER(S): 11:25 AM TIME STARTED OFF BOTTOM: 1:55 PM
WELL TEMPERATURE: 121 °F
INITIAL HYDROSTATIC PRESSURE: (A) 2401 PSI
INITIAL FLOW PERIOD MIN: 30 (B) 103 PSI TO (C) 130 PSI
INITIAL CLOSED IN PERIOD MIN: 45 (D) 1243 PSI
FINAL FLOW PERIOD MIN: 30 (E) 110 PSI TO (F) 138 PSI
FINAL CLOSED IN PERIOD MIN: 42 (G) 1223 PSI
FINAL HYDROSTATIC PRESSURE (H) 2372 PSI

4339

Raymond J
DST 3

QK # 7726
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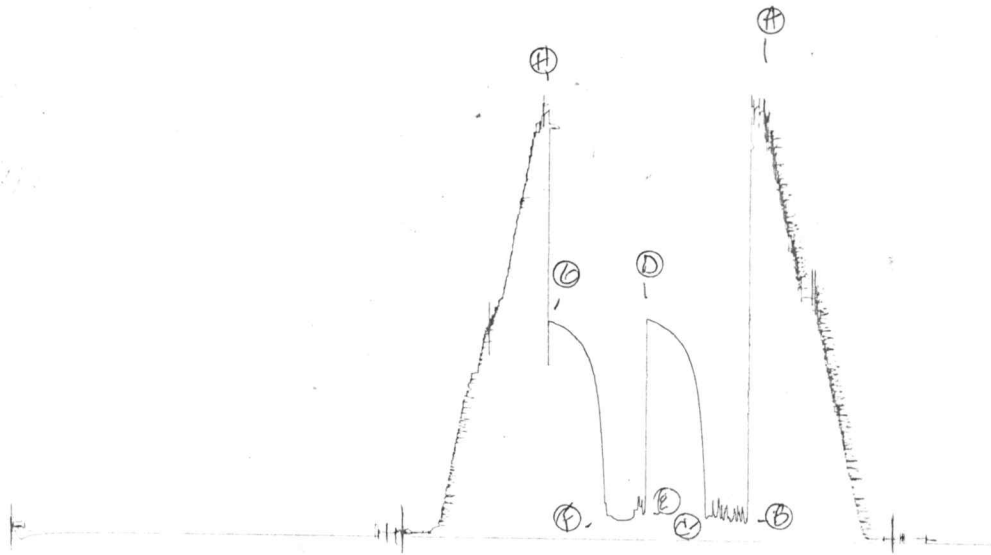


13271

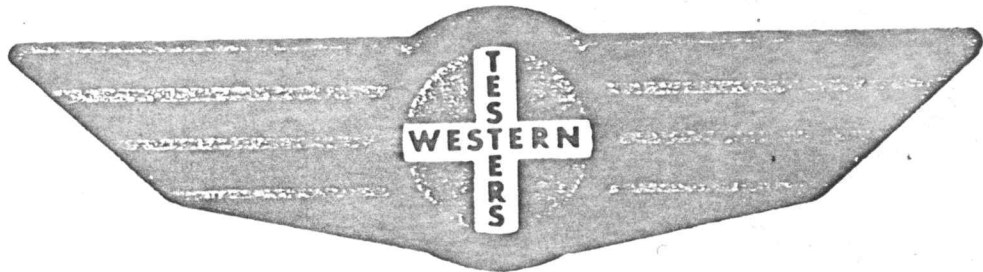
W # 7726

RAYMOND
Oil Co.
DST 3

○



FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

COMPANY _____ RAYMOND OIL COMPANY, INC. _____ LEASE & WELL NO. _____ #1 HUXMAN "A" _____ SEC. 14 _____ TWP. 16S _____ RGE. 25W _____ TEST NO. 4 _____ DATE 12/5/85

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE: 12-5-85
CUSTOMER: RAYMOND OIL COMPANY INC.
WELL: 1 TEST: 4
ELEVATION (KB): 2556
SECTION: 14
RANGE: 25W COUNTY: NESS
GAUGE SN #4339 RANGE: 4300

TICKET #7727
LEASE: HUXMAN "A"
GEOLOGIST: R.J. DIETTERICH
FORMATION: MISSISSIPPI
TOWNSHIP: 16S
STATE: KANSAS
CLOCK: 12

INTERVAL TEST FROM: 4462 FT TO: 4516 FT TOTAL DEPTH: 4516 FT
DEPTH OF SELECTIVE ZONE:
PACKER DEPTH: 4457 FT SIZE: 6 3/4 IN PAKER DEPTH: 4462 FT SIZE: 6 3/4 IN
PACKER DEPTH: FT SIZE: IN PAKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: DUKE DRLG. RIG #2
MUD TYPE: STARCH VISCOSITY: 43
WEIGHT: 10.1 WATER LOSS (CC): 11.2
CHLORIDES (P.P.M.): 40000
JARS - MAKE: SERIAL NUMBER:
DID WELL FLOW? NO REVERSED OUT? NO
DRILL COLLAR LENGTH: FT I.D.: IN
WEIGHT PIPE LENGTH: 442 FT I.D.: 3.2 IN
DRILL PIPE LENGTH: 4000 FT I.D.: 3.8 IN
TEST TOOL LENGTH: 20 FT TOOL SIZE: 5 1/2 OD IN
ANCHOR LENGTH: 54 FT SIZE: 5 1/2 OD IN
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: INITIAL FLOW PERIOD STRONG BLOW;
BOTTOM OF BUCKET IN 10 MINUTES.
FINAL FLOW PERIOD STRONG BLOW;
BOTTOM OF BUCKET IN 20 MINUTES.

RECOVERED: 126 FT OF: VERY HEAVY OIL & GAS CUT MUD
RECOVERED: FT OF: (35% MUD; 65% OIL).
RECOVERED: 189 FT OF: VERY HEAVY OIL & GAS CUT MUD
RECOVERED: FT OF: (25% MUD; 65% OIL; 10% GAS).
RECOVERED: 252 FT OF: VERY HEAVY OIL & GAS CUT MUD
RECOVERED: FT OF: (5% MUD; 65% OIL; 30% GAS).
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:

REMARKS:

TIME SET PACKER(S): 6:25 AM
WELL TEMPERATURE: 121 °F
INITIAL HYDROSTATIC PRESSURE:
INITIAL FLOW PERIOD MIN: 30
INITIAL CLOSED IN PERIOD MIN: 45
FINAL FLOW PERIOD MIN: 45
FINAL CLOSED IN PERIOD MIN: 60
FINAL HYDROSTATIC PRESSURE

TIME STARTED OFF BOTTOM: 9:25 AM
(A) 2372 PSI
(B) 81 PSI TO (C) 160 PSI
(D) 1202 PSI
(E) 211 PSI TO (F) 268 PSI
(G) 1193 PSI
(H) 2342 PSI

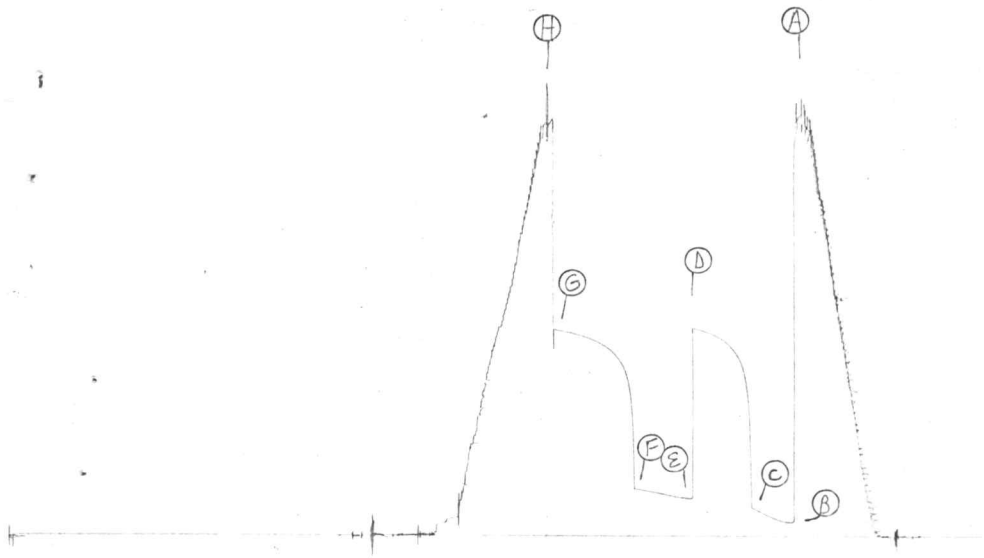
4339

TKT # 7727

MAY Mond

DST 4

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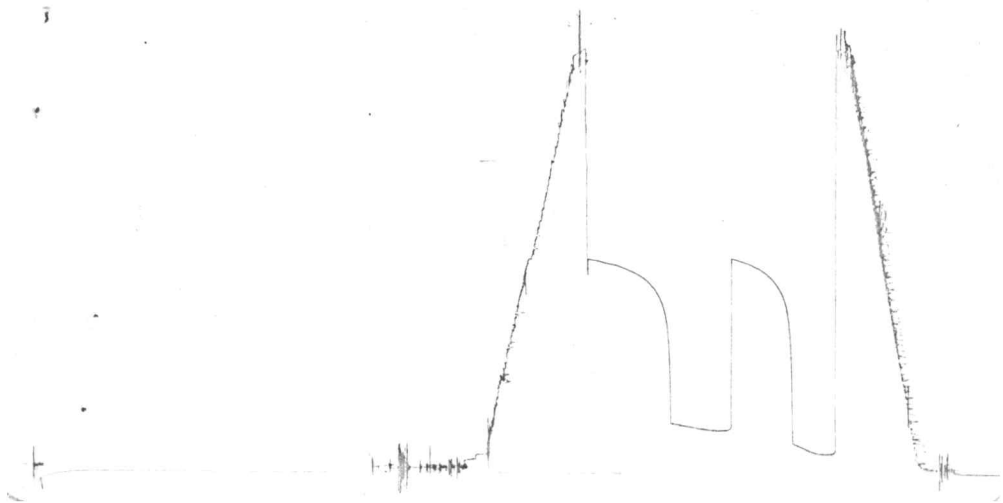


13271

TKT # 7727

Kay Mori-^o
DST 4

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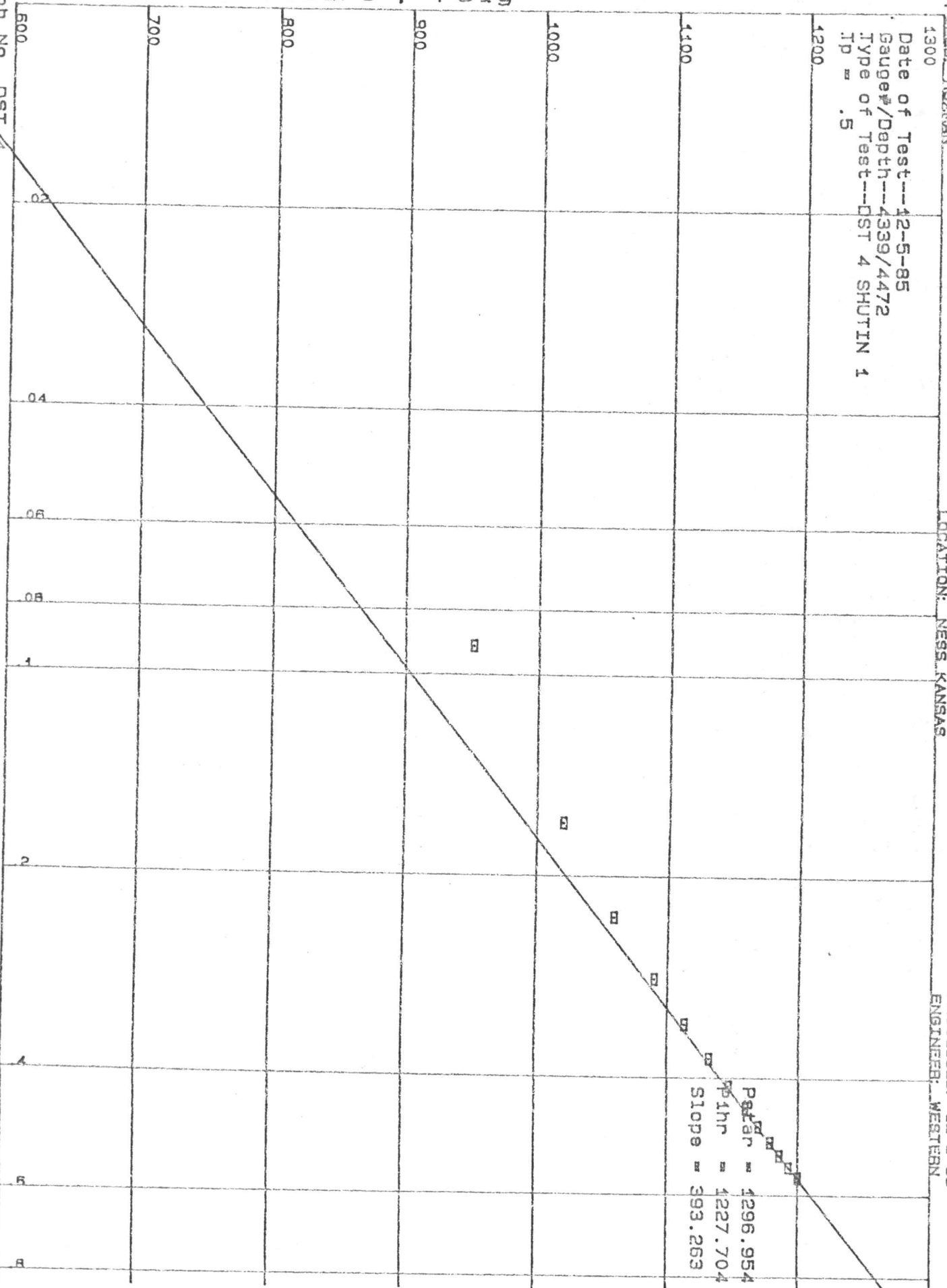
COMPANY: RAYMOND OIL
FIELD: HUXMAN

WELL #: 1-A
LOCATION: NESS, KANSAS

PROCESSED: 12-8-85
ENGINEER: WESTERN

Date of Test---12-5-85
Gauge#/Depth---4339/4472
Type of Test---DST 4 SHUTIN 1
IP = .5

Pressure, Psig



Pressure = 1296.954
P_{1hr} = 1227.704
Slope = 393.263

Job No. DST 4
WESTERN TESTING TNO

Honnan Ratio 44 / (7.124)

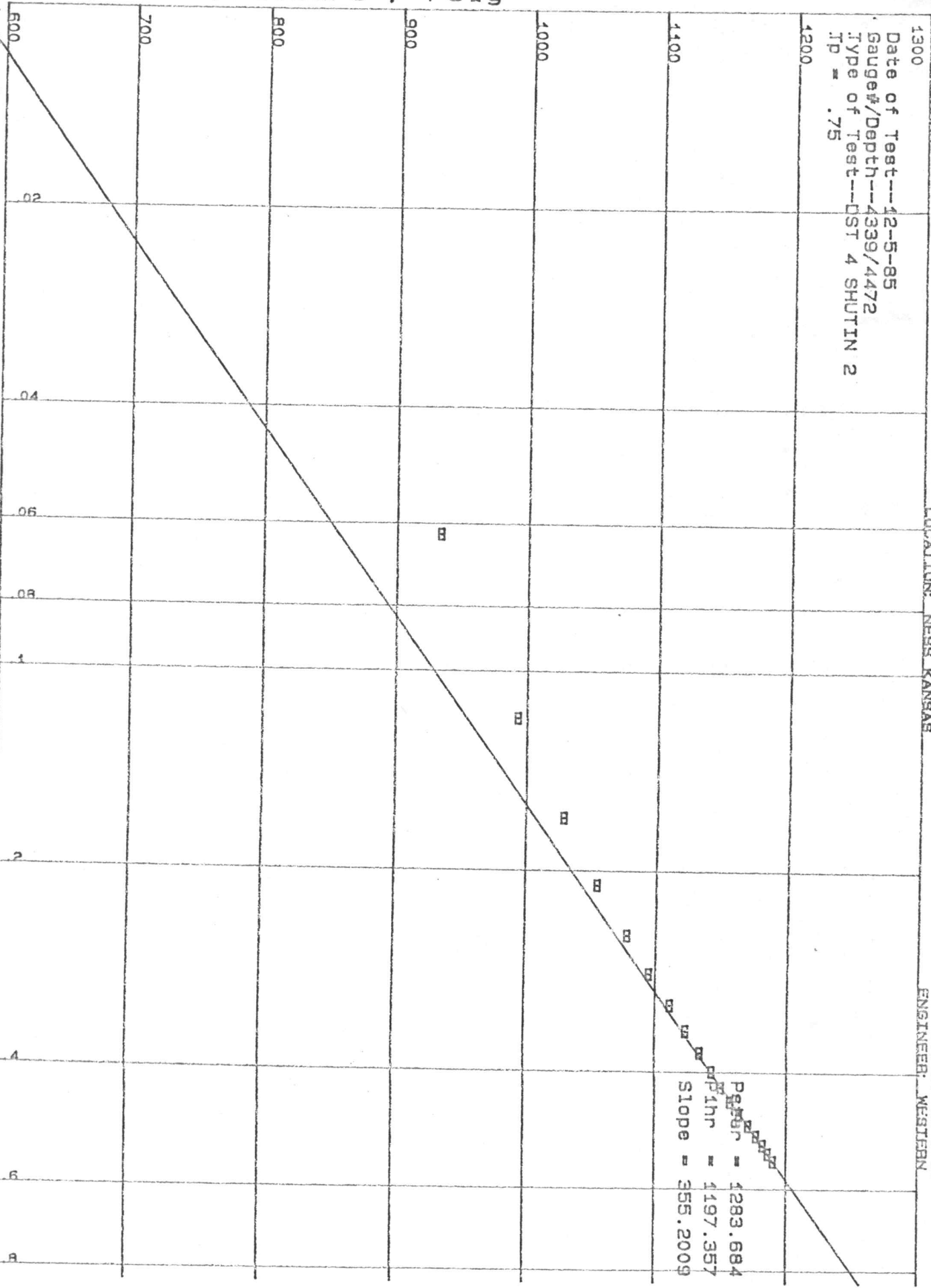
COMPANY: RAYMOND OIL
FIELD: HUXMAN

WELL #: 1-A
LOCATION: NESS KANSAS

PROCESSED: 12-5-85
ENGINEER: WESTERN

Date of Test--12-5-85
Gauge#/Depth--4339/4472
Type of Test--DST 4 SHUTIN 2
Tp = .75

Pressure, Psig



Job No. DST 4
WESTERN TESTING INC.

Horner Ratio. dt / (T+dt)

WELL TEST ANALYSIS REPORT
HORNER METHOD

COMPANY : RAYMOND OIL
 DATE : 12-5-85
 FIELD : HUXMAN "A"
 WELL : 1
 AREA : NESS-KANSAS
 JOB NUMBER : 7727
 GAUGE NUMBER : 4339
 GAUGE DEPTH : 4516
 ZONE TESTED : MISSISSIPPI

=====I=N=P=U=T====D=A=T=A====S=U=M=M=A=R=Y=====

NETPAY	H	7.0	Feet
POROSITY	POR	0.00	Frac
VISCOSITY.	U	0.4000	Cp
FORMATION VOLUME FACTOR.	B	1.00	Rb/stb
TOTAL COMPRESSIBILITY.	Ct	0.0000D+00	Psi ⁻¹
WELLBORE RADIUS.	Rw	7.875	Feet
DRAINAGE RADIUS.	Re	1500.0	Feet
RESERVOIR TEMPERATURE.	T	121.0	Deg F
GRAVITY OF FLUID	G	34.0	
INITIAL PRESSURE	Pi	810.00E-01	Psig
PRESSURE AT SHUT-IN.	Pwf	120.20E+01	Psig
FINAL BUILDUP PRESSURE	Ps	120.20E+01	Psig
FLOW RATE at SHUT-IN	Q	6.1	Bbl/day
TOTAL FLOW TIME.	T	1.3	Hours

=====R=E=G=R=E=S=S=I=O=N====R=E=S=U=L=T=S=====

LEAST SQUARE RESULTS OVER THE INTERVAL :
 FROM .01 TO 1

SLOPE OF THE LINE.	393.00E+00	psi/cycle
FALSE PRESSURE, PSTAR.	129.60E+01	psi
PRESSURE AT 1 HOUR	122.70E+01	psi

=====A=N=A=L=Y=S=I=S====R=E=S=U=L=T=S=====

TRANSMISSIBILITY.	Kh/u	2.52	md-ft/cp
FLOW CAPACITY.	Kh	1.01	md-ft
PERMEABILITY to PHASE.	K	0.14	md
DAMAGE RATIO	Dr	0.0	
RADIUS OF INVESTIGATION.	Rinv	3.3	ft

WESTERN TESTING INC.
WICHITA - KANSAS

COMPANY : RAYMOND OIL
WELL : 1-A
FIELD : HUXMAN
LOCATION : NESS KANSAS
DATE OF TEST : 12-5-85
GAUGE-DEPTH : 4339/4472
JOB NUMBER : DST 4

REGRESSION BASED ON HORNER PRESSURE ANALYSIS

REGRESSION RUN THRU THE FOLLOWING POINTS

STARTING AT: .482 TO: 1

STANDARD DEVIATION OF ESTIMATE : .4506
COEFFICIENT OF DETERMINATION : .9971
ERROR SUM OF SQUARES IS EQUAL TO : .6092

PSTAR = 1283.684
P@ 1HOUR = 1197.357
SLOPE = 355.2009

COMPANY : RAYMOND OIL

FIELD : HUXMAN

WELL : 1-A

JOB # : DST 4

GAUGE # : 4339
MON/DAY : 12/ 5

DEPTH : 4472

PAGE 5

TEST REPORTED : SHUTIN 2
FLOW TIME, MIN : 45

REC#	REAL TIME HR:MIN:SEC	ELAPSE TIME MINS	ELAPSE TIME HOURS	PRESSURE PSIG	TEMP DEG F	HORNER dt/(T+dt)	DELTA P PSIG
36	6:28: 0	3	0.000	821.00	121.0	0.00000000	0.00
37	6:31: 0	6	0.050	933.00	121.0	0.06227106	112.00
38	6:34: 0	9	0.100	993.00	121.0	0.11774842	172.00
39	6:37: 0	12	0.150	1029.00	121.0	0.16657624	208.00
40	6:40: 0	15	0.200	1055.00	121.0	0.21028277	234.00
41	6:43: 0	18	0.250	1078.00	121.0	0.25000000	257.00
42	6:46: 0	21	0.300	1095.00	121.0	0.28558141	274.00
43	6:49: 0	24	0.350	1111.00	121.0	0.31824234	290.00
44	6:52: 0	27	0.400	1123.00	121.0	0.34777069	302.00
45	6:55: 0	30	0.450	1134.00	121.0	0.37484738	313.00
46	6:58: 0	33	0.500	1143.00	121.0	0.40000001	322.00
47	7: 1: 0	36	0.550	1150.00	121.0	0.42299023	329.00
48	7: 4: 0	39	0.600	1157.00	121.0	0.44448462	336.00
49	7: 7: 0	42	0.650	1164.00	121.0	0.46424833	343.00
50	7:10: 0	45	0.700	1171.00	121.0	0.48265409	350.00
51	7:13: 0	48	0.750	1177.00	121.0	0.50000000	356.00
52	7:16: 0	51	0.800	1182.00	121.0	0.51606804	361.00
53	7:19: 0	54	0.850	1186.00	121.0	0.53127861	365.00
54	7:22: 0	57	0.900	1190.00	121.0	0.54542762	369.00
55	7:25: 0	60	0.950	1193.00	121.0	0.55874747	372.00

WESTERN TESTING INC.
WICHITA - KANSAS

COMPANY : RAYMOND OIL
WELL : 1-A
FIELD : HUXMAN
LOCATION : NESS KANSAS
DATE OF TEST : 12-5-85
GAUGE-DEPTH : 4339/4472
JOB NUMBER : DST 4

REGRESSION BASED ON HORNER PRESSURE ANALYSIS

REGRESSION RUN THRU THE FOLLOWING POINTS

STARTING AT: .5 TO: 1

STANDARD DEVIATION OF ESTIMATE : .6851
COEFFICIENT OF DETERMINATION : .9961
ERROR SUM OF SQUARES IS EQUAL TO : .9388

PSTAR = 1296.954
P@ 1HOUR = 1227.704
SLOPE = 393.263

COMPANY : RAYMOND OIL

FIELD : HUXMAN

WELL : 1-A

JOB # : DST 4

GAUGE # : 4339
MON/DAY : 12/ 5

DEPTH : 4472

PAGE 3

TEST REPORTED : SHUTIN 1
FLOW TIME, MIN : 30

REC#	REAL TIME HR:MIN:SEC	ELAPSE TIME MINS	ELAPSE TIME HOURS	PRESSURE PSIG	TEMP DEG F	HORNER dt/(T+dt)	DELTA P PSIG
10	6:28: 0	3	0.000	694.00	121.0	0.00000000	0.00
11	6:31: 0	6	0.050	951.00	121.0	0.09058615	257.00
12	6:34: 0	9	0.100	1020.00	121.0	0.16680227	326.00
13	6:37: 0	12	0.150	1059.00	121.0	0.23065364	365.00
14	6:40: 0	15	0.200	1090.00	121.0	0.28541520	396.00
15	6:43: 0	18	0.250	1113.00	121.0	0.33333334	419.00
16	6:46: 0	21	0.300	1132.00	121.0	0.37484738	438.00
17	6:49: 0	24	0.350	1147.00	121.0	0.41183227	453.00
18	6:52: 0	27	0.400	1160.00	121.0	0.44438416	466.00
19	6:55: 0	30	0.450	1170.00	121.0	0.47352186	476.00
20	6:58: 0	33	0.500	1179.00	121.0	0.50000000	485.00
21	7: 1: 0	36	0.550	1186.00	121.0	0.52372092	492.00
22	7: 4: 0	39	0.600	1193.00	121.0	0.54549491	499.00
23	7: 7: 0	42	0.650	1200.00	121.0	0.56518048	506.00
24	7:10: 0	45	0.700	1202.00	121.0	0.58323157	508.00