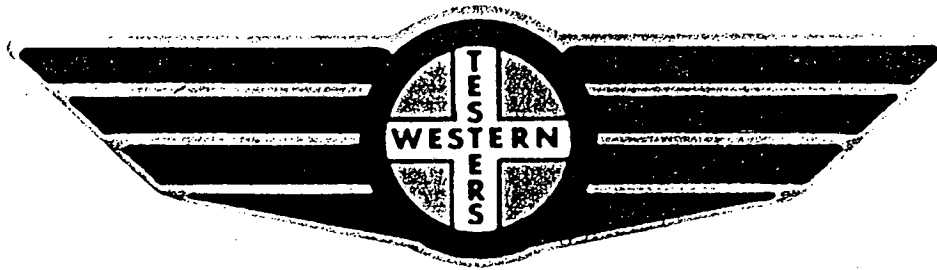


15-065-22569-00-00

FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

COMPANY IMPERIAL OIL PROPERTIES, INC. LEASE & WELL NO. SANGER #1 SEC. 7 TWP. 8S RGE. 24W TEST NO. 3 DATE 5/29/90

15-005-22569-00-00

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE : 5-29-90 . TICKET : 15780
CUSTOMER : IMPERIAL OIL PROPERTIES INC. LEASE : SANGER
WELL : #1 TEST: 3 GEOLOGIST : CAULK
ELEVATION : 2358 K.B. FORMATION : LOWER K.C.
SECTION : 7 TOWNSHIP : 8S
RANGE : 24W COUNTY : GRAHAM STATE : KANSAS
GAUGE SN# : 6233 RANGE : 4000 CLOCK : 12

INTERVAL FROM : 3827 TO : 3886 TOTAL DEPTH : 3886
DEPTH OF SELECTIVE ZONE :
PACKER DEPTH : 3822 SIZE : 6.75
PACKER DEPTH : 3827 SIZE : 6.75
PACKER DEPTH : SIZE :
PACKER DEPTH : SIZE :

DRILLING CON. : ABERCROMBIE RIG #4
MUD TYPE : MONPAC VISCOSITY : 41
WEIGHT : 9.7 WATER LOSS (CC) : 11.2
CHLORIDES (PPM) : 2000
JARS-MAKE : NO SERIAL NUMBER :
DID WELL FLOW ? : NO REVERSED OUT ? : NO

DRILL COLLAR LENGTH : 0 FT I.D. inch : 0.00
WEIGHT PIPE LENGTH : 498 FT I.D. inch : 3.20
DRILL PIPE LENGTH : 3309 FT I.D. inch : 3.80
TEST TOOL LENGTH : 20 FT TOOL SIZE : 5.50
ANCHOR LENGTH : 59 FT ANCHOR SIZE : 5.50
SURFACE CHOKE SIZE : .75 IN BOTTOM CHOKE SIZE : .75
MAIN HOLE SIZE : 7.875 IN TOOL JOINT SIZE : 4.5XH

BLOW COMMENT #1 : INITIAL FLOW PERIOD WEAK BLOW--TOP OF WATER-
BLOW COMMENT #2 : DIED IN 20 MINUTES.
BLOW COMMENT #3 : FINAL FLOW PERIOD NO BLOW.
BLOW COMMENT #4 :

15-065-22569-00-00

WESTERN TESTING CO. INC.
WICHITA-KANSAS

Pressure Transient Report

COMPANY : IMPERIAL OIL PROPERTIES INC.
RIG : GRAHAM-KANSAS
FIELD : SANGER
WELL : #1
DATE : 5-29-90
GAUGE NO : 6233

OPERATIONAL COMMENTS

15-005-22569-00-00

RECOVERED : 10 FT OF: MUD

Total Barrels Fluid = 0.10
Total Fluid Prod Rate = 1.79 BFPD
Indicated Wtr Rate = 0.18 BWPD

REMARK 1 :
REMARK 2 :
REMARK 3 :
REMARK 4 :

SET PACKER(S) : 7:35 A.M.

TIME STARTED OFF BOTTOM : 10:20 A

WELL TEMPERATURE : 117

INITIAL HYDROSTATIC PRESSURE

(A) 2015

INITIAL FLOW PERIOD MIN: 25

(B) 30 PSI TO (C) : 30

INITIAL CLOSED IN PERIOD MIN: 27

(D) 513

FINAL FLOW PERIOD MIN: 55

(E) 30 PSI TO (F) : 30

FINAL CLOSED IN PERIOD MIN: 60

(G) 888

FINAL HYDROSTATIC PRESSURE

(H) 1968

15-065-22569-00-00

COMPANY : IMPERIAL OIL PROPERTIES INC. FIELD : SANGER
 WELL : #1 JOB # : 15780
 GAUGE # : 6233 DEPTH : 3886
 DATE : 29/ 5/90 TEST :

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P. Pi-P(i-1)
INITIAL FLOW PERIOD					
2	7:35: 0	0.000	30.000	117.00	0.000
3	7:39:59	0.083	30.000	117.00	0.000
4	7:45: 0	0.167	30.000	117.00	0.000
5	7:50: 0	0.250	30.000	117.00	0.000
6	7:54:59	0.333	30.000	117.00	0.000
7	8: 0: 0	0.417	30.000	117.00	0.000
INITIAL SHUT-IN PERIOD					
8	8: 3: 0	0.467	36.000	117.00	6.000
9	8: 6: 0	0.517	52.000	117.00	16.000
10	8: 9: 0	0.567	90.000	117.00	38.000
11	8:12: 0	0.617	153.000	117.00	63.000
12	8:15: 0	0.667	232.000	117.00	79.000
13	8:18: 0	0.717	311.000	117.00	79.000
14	8:21: 0	0.767	389.000	117.00	78.000
15	8:24: 0	0.817	465.000	117.00	76.000
16	8:27: 0	0.867	513.000	117.00	48.000
FINAL FLOW PERIOD					
17	8:28: 0	0.883	30.000	117.00	-483.000
18	8:32: 0	0.950	30.000	117.00	0.000
19	8:37: 0	1.033	30.000	117.00	0.000
20	8:42: 0	1.117	30.000	117.00	0.000
21	8:47: 0	1.200	30.000	117.00	0.000
22	8:52: 0	1.283	30.000	117.00	0.000
23	8:57: 0	1.367	30.000	117.00	0.000
24	9: 2: 0	1.450	30.000	117.00	0.000
25	9: 7: 0	1.533	30.000	117.00	0.000
26	9:12: 0	1.617	30.000	117.00	0.000
27	9:17: 0	1.700	30.000	117.00	0.000
28	9:22: 0	1.783	30.000	117.00	0.000
FINAL SHUT-IN PERIOD					
29	9:25: 0	1.833	32.000	117.00	2.000
30	9:28: 0	1.883	36.000	117.00	4.000
31	9:31: 0	1.933	47.000	117.00	11.000
32	9:34: 0	1.983	64.000	117.00	17.000
33	9:37: 0	2.033	92.000	117.00	28.000
34	9:40: 0	2.083	134.000	117.00	42.000
35	9:43: 0	2.133	190.000	117.00	56.000
36	9:46: 0	2.183	247.000	117.00	57.000
37	9:49: 0	2.233	309.000	117.00	62.000
38	9:52: 0	2.283	378.000	117.00	69.000
39	9:55: 0	2.333	437.000	117.00	59.000
40	9:58: 0	2.383	505.000	117.00	68.000
41	10: 1: 0	2.433	563.000	117.00	58.000
42	10: 4: 0	2.483	611.000	117.00	48.000
43	10: 7: 0	2.533	662.000	117.00	51.000
44	10:10: 0	2.583	714.000	117.00	52.000
45	10:13: 0	2.633	760.000	117.00	46.000
46	10:16: 0	2.683	799.000	117.00	39.000
47	10:19: 0	2.733	844.000	117.00	45.000
48	10:22: 0	2.783	888.000	117.00	44.000