



WESTERN TESTING CO., INC.

FORMATION TESTING

TICKET No 15435

P. O. BOX 1599 PHONE (316) 262-5861

Elevation _____ Formation LANS Eff. Pay _____ Ft.

WICHITA, KANSAS 67201

District H080 GREAT BEND Date 5-5-90 Customer Order No. _____

COMPANY NAME HELLAR DRUG Company Inc.

ADDRESS 125 N. MARKET SUITE 1422 WICHITA, KS. 67202

LEASE AND WELL NO. ISRAEL #3 COUNTY FORD STATE KS Sec. 35 Twp. 25S Rge. 21W

Mail Invoice To SAME Co. Name ISRAEL #3 Address _____ No. Copies Requested REG

Mail Charts To SAME Co. Name ISRAEL #3 Address _____ No. Copies Requested REG

Formation Test No. 1 Interval Tested From 4172 ft. to 4191 ft. Total Depth 4191 ft.

Packer Depth 4172 ft. Size 6 5/8 in. Packer Depth _____ ft. Size _____ in.

Packer Depth 4167 ft. Size 6 5/8 in. Packer Depth _____ ft. Size _____ in.

Depth of Selective Zone Set _____

Top Recorder Depth (Inside) 4183 ft. Recorder Number 3659 Cap. 4000

Bottom Recorder Depth (Outside) 4186 ft. Recorder Number 4339 Cap. 4300

Below Straddle Recorder Depth _____ ft. Recorder Number _____ Cap. _____

Drilling Contractor BLUE GOOSE #2 Drill Collar Length 274 I. D. 2.02 in.

Mud Type CHEMICAL Viscosity 55 Weight Pipe Length _____ I. D. _____ in.

Weight 9.2 Water Loss 11.2 cc. Drill Pipe Length 3876 I. D. _____ in.

Chlorides 5000 P.P.M. Test Tool Length 22 ft. Tool Size 5 1/2 in.

Jars: Make _____ Serial Number _____ Anchor Length 19 ft. Size 5 1/2 in.

Did Well Flow? _____ Reversed Out _____ Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.

Main Hole Size 7 1/8 in. Tool Joint Size 4 1/2 XH in.

Blow: STRONG OFF BOTTOM BUCKET 1 MIN.

STRONG GAS TO SURFACE 30 MIN INTO 2ND OPEN

Recovered 30 ft. of MUD OIL SPOTED

Recovered 500 ft. of MUD CUT OIL 2% MUD 78% OIL 20% GAS

Recovered 500 ft. of SILT WATER

Recovered _____ ft. of 39 GRAVITY OIL 390.3 oil

Recovered _____ ft. of _____

Chlorides 98,000 P.P.M. Sample Jars used _____ Remarks: GAUGED 8,870 CFPD 504. WTR

Time On Location 1:00 A.M. Time Pick Up Tool 3:00 A.M. Time Off Location 1:20 A.M.

Time Set Packer (s) 7:40 A.M. Time Started Off Bottom 7:40 A.M. Maximum Temperature 178

Initial Hydrostatic Pressure _____ (A) 2133 P.S.I.

Initial Flow Period _____ Minutes 30 (B) 142 P.S.I. to (C) 224 P.S.I.

Initial Closed In Period _____ Minutes 45 (D) 1087 P.S.I.

Final Flow Period _____ Minutes 60 (E) 306 P.S.I. to (F) 459 P.S.I.

Final Closed In Period _____ Minutes 45 (G) 988 P.S.I.

Final Hydrostatic Pressure _____ (H) 2052 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 Bah Douglas
Signature of Customer or his authorized representative

Western Representative Norman Hickel 0830 Thank You

FIELD INVOICE

Open Hole Test	✓ \$ <u>400</u>
Misrun	\$ _____
Straddle Test	\$ _____
Jars	\$ _____
Selective Zone	\$ _____
Safety Joint	\$ _____
Standby	\$ _____
Evaluation	\$ _____
Extra Packer	\$ _____
Circ. Sub.	\$ _____
Mileage	\$ _____
Fluid Sampler	\$ _____
Extra Charts	\$ _____
Insurance	\$ _____
Telecopier	\$ _____
TOTAL	\$ _____

WESTERN TESTING CO., INC.

Pressure Data

Date 5-5-70 Test Ticket No. 15425
 Recorder No. 31059 Capacity 4000 Location _____ Ft. _____
 Clock No. _____ Elevation _____ Well Temperature 118 °F

Point	Pressure	Open Tool	Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2105</u> P.S.I.		<u>4:40 P</u> M	
B First Initial Flow Pressure	<u>140</u> P.S.I.	First Flow Pressure	<u>20</u> Mins	<u>20</u> Mins.
C First Final Flow Pressure	<u>250</u> P.S.I.	Initial Closed-in Pressure	<u>45</u> Mins	<u>45</u> Mins.
D Initial Closed-in Pressure	<u>1101</u> P.S.I.	Second Flow Pressure	<u>60</u> Mins	<u>60</u> Mins.
E Second Initial Flow Pressure	<u>207</u> P.S.I.	Final Closed-in Pressure	<u>45</u> Mins	<u>45</u> Mins.
F Second Final Flow Pressure	207 <u>457</u> P.S.I.			
G Final Closed-in Pressure	207 <u>990</u> P.S.I.			
H Final Hydrostatic Mud	<u>2024</u> P.S.I.			

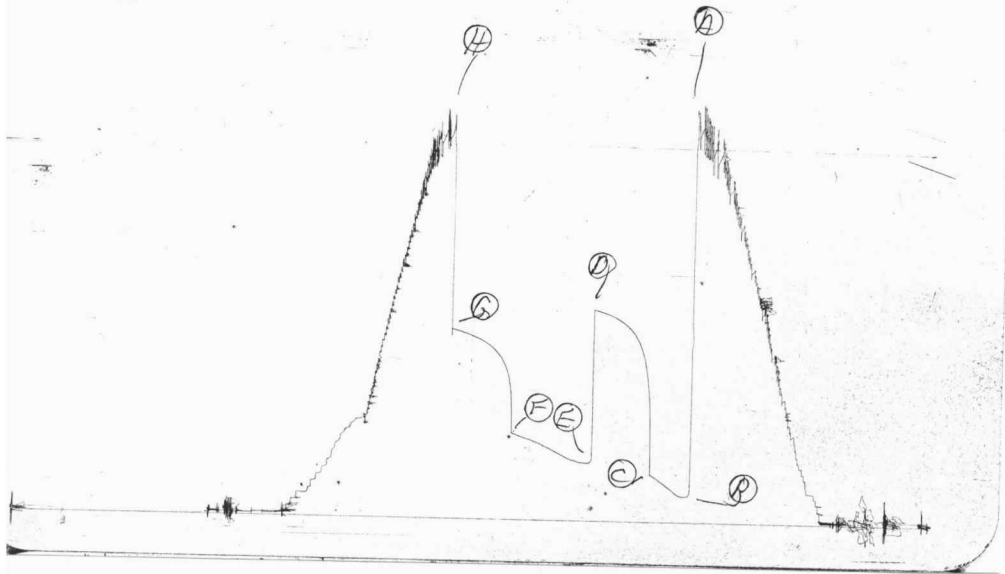
PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: _____ Inc.		Breakdown: _____ Inc.		Breakdown: _____ Inc.		Breakdown: _____ Inc.	
of <u>5</u> mins. and a		of <u>3</u> mins. and a		of <u>5</u> mins. and a		of <u>3</u> mins. and a	
final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 0	<u>140</u>	0	<u>250</u>	0	<u>207</u>	0	<u>457</u>
P 2 5	<u>140</u>	3	<u>217</u>	5	<u>209</u>	3	<u>743</u>
P 3 10	<u>151</u>	6	<u>838</u>	10	<u>212</u>	6	<u>804</u>
P 4 15	<u>180</u>	9	<u>902</u>	15	<u>221</u>	9	<u>843</u>
P 5 20	<u>207</u>	12	<u>945</u>	20	<u>238</u>	12	<u>868</u>
P 6 25	<u>232</u>	15	<u>985</u>	25	<u>255</u>	15	<u>891</u>
P 7 30	<u>250</u>	18	<u>1005</u>	30	<u>275</u>	18	<u>907</u>
P 8 35		21	<u>1022</u>	35	<u>390</u>	21	<u>920</u>
P 9 40		24	<u>1039</u>	40	<u>406</u>	24	<u>932</u>
P10 45		27	<u>1052</u>	45	<u>421</u>	27	<u>941</u>
P11 50		30	<u>1061</u>	50	<u>432</u>	30	<u>952</u>
P12 55		33	<u>1072</u>	55	<u>445</u>	33	<u>960</u>
P13 60		36	<u>1079</u>	60	<u>457</u>	36	<u>968</u>
P14 65		39	<u>1086</u>	65		39	<u>975</u>
P15 70		42	<u>1092</u>	70		42	<u>981</u>
P16 75		45	<u>1101</u>	75		45	<u>990</u>
P17 80		48		80		48	
P18 85		51		85		51	
P19 90		54		90		54	
P20 95		57		95		57	
100		60		100		60	

3659

KT 15435

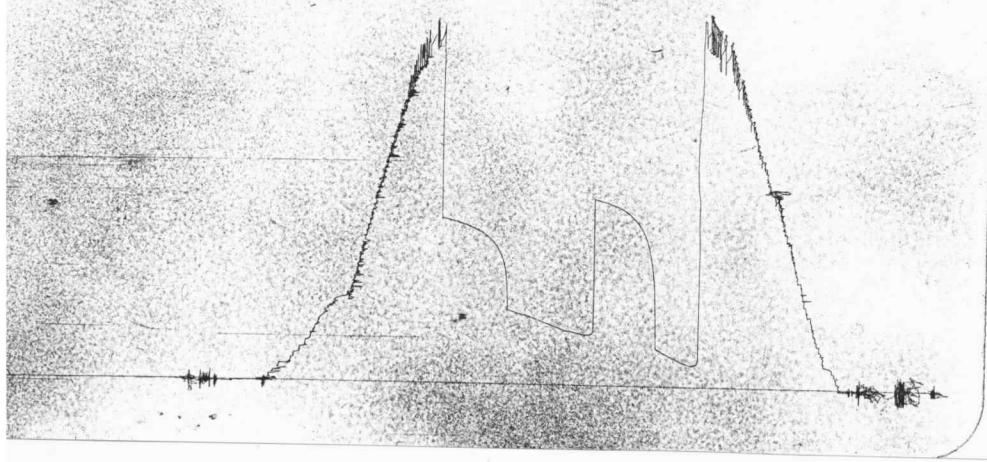
F



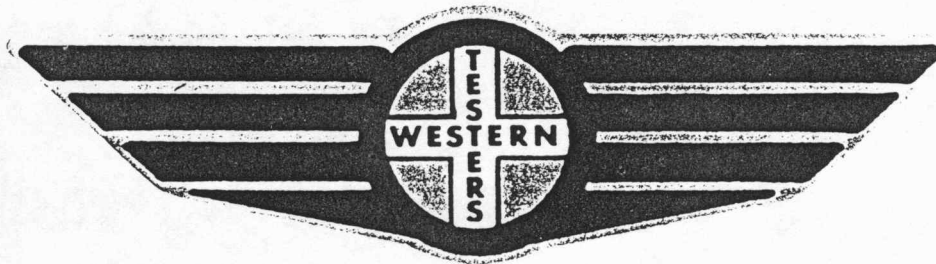
3659

KT 15435

O



FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE : 5-5-90 TICKET : 15435
CUSTOMER : HELLAR DRILLING COMPANY INC. LEASE : ISRAEL
WELL : #3 TEST: 1 GEOLOGIST : DOUGLASS
ELEVATION : FORMATION : LANSING
SECTION : 35 TOWNSHIP : 25S
RANGE : 21W COUNTY : FORD STATE : KANSAS
GAUGE SN# : 3659 RANGE : 4000 CLOCK : 12

INTERVAL FROM : 4172 TO : 4191 TOTAL DEPTH : 4191
DEPTH OF SELECTIVE ZONE :
PACKER DEPTH : 4172 SIZE : 6.63
PACKER DEPTH : 4167 SIZE : 6.63
PACKER DEPTH : SIZE :
PACKER DEPTH : SIZE :

DRILLING CON. : BLUE GOOSE #2
MUD TYPE : CHEMICAL VISCOSITY : 55
WEIGHT : 9.2 WATER LOSS (CC) : 11.2
CHLORIDES (PPM) : 5000
JARS-MAKE : SERIAL NUMBER :
DID WELL FLOW ? : REVERSED OUT ? :

DRILL COLLAR LENGTH : 274 FT I.D. inch : 2.20
WEIGHT PIPE LENGTH : 0 FT I.D. inch : 0.00
DRILL PIPE LENGTH : 3876 FT I.D. inch : 3.80
TEST TOOL LENGTH : 22 FT TOOL SIZE : 5.50
ANCHOR LENGTH : 19 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 STRONG BLOW.
BLOW COMMENT #2 : OFF BOTTOM OF BUCKET IN 1 MINUTE.
BLOW COMMENT #3 : FINAL FLOW PERIOD STRONG BLOW.
BLOW COMMENT #4 : GAS TO SURFACE 30 MINUTES.

RECOVERED : 30 FT OF: OIL-SPOTTED MUD
RECOVERED : 500 FT OF: MUD-CUT OIL
RECOVERED : 0 FT OF: 2%M 78%O 20%G GRAVITY 39
RECOVERED : 500 FT OF: SALT WATER

Total Barrels Fluid = 11.89
Total Fluid Prod Rate = 190.27 BFPD
Indicated Oil Rate = 72.10 BOPD
Indicated Wtr Rate = 93.10 BWPD
Corrected Oil Rate = 162.96 BOPD
Corrected Wtr Rate = 210.43 BWPD

REMARK 1 :
REMARK 2 : CHLORIDES 98000 P.P.M.
REMARK 3 : GUAGED 8870 C.F.P.D.
REMARK 4 :

SET PACKER(S) : 4:40 P.M. TIME STARTED OFF BOTTOM : 7:40 P.M.
WELL TEMPERATURE : 118
INITIAL HYDROSTATIC PRESSURE (A) 2105
INITIAL FLOW PERIOD MIN: 30 (B) 140 PSI TO (C) : 250
INITIAL CLOSED IN PERIOD MIN: 45 (D) 1101
FINAL FLOW PERIOD MIN: 60 (E) 309 PSI TO (F) : 457
FINAL CLOSED IN PERIOD MIN: 45 (G) 990
FINAL HYDROSTATIC PRESSURE (H) 2034

WESTERN TESTING CO. INC.
WICHITA-KANSAS

Pressure Transient Report

COMPANY : HELLAR DRILLING COMPANY INC.
RIG : FORD-KANSAS
FIELD : ISRAEL
WELL : #3
DATE : 5-5-90
GAUGE NO : 3659

OPERATIONAL COMMENTS

CHLORIDES 98000 P.P.M.
GUAGED 8870 C.F.P.D.

COMPANY : HELLAR DRILLING COMPANY INC.
 WELL : #3
 GAUGE # : 3659
 DATE : 5/ 5/90

FIELD : ISRAEL
 JOB # : 15435
 DEPTH : 4191
 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	4:40: 0	0.000	140.000	118.00	0.000
3	4:44:59	0.083	140.000	118.00	0.000
4	4:50: 0	0.167	151.000	118.00	11.000
5	4:55: 0	0.250	180.000	118.00	29.000
6	4:59:59	0.333	207.000	118.00	27.000
7	5: 5: 0	0.417	233.000	118.00	26.000
8	5:10: 0	0.500	250.000	118.00	17.000

INITIAL SHUT-IN PERIOD

9	5:13: 0	0.550	717.000	118.00	467.000
10	5:16: 0	0.600	838.000	118.00	121.000
11	5:19: 0	0.650	902.000	118.00	64.000
12	5:22: 0	0.700	945.000	118.00	43.000
13	5:25: 0	0.750	982.000	118.00	37.000
14	5:28: 0	0.800	1005.000	118.00	23.000
15	5:31: 0	0.850	1022.000	118.00	17.000
16	5:34: 0	0.900	1039.000	118.00	17.000
17	5:37: 0	0.950	1052.000	118.00	13.000
18	5:40: 0	1.000	1061.000	118.00	9.000
19	5:43: 0	1.050	1072.000	118.00	11.000
20	5:46: 0	1.100	1079.000	118.00	7.000
21	5:49: 0	1.150	1086.000	118.00	7.000
22	5:52: 0	1.200	1092.000	118.00	6.000
23	5:55: 0	1.250	1101.000	118.00	9.000

FINAL FLOW PERIOD

24	5:56: 0	1.267	309.000	118.00	-792.000
25	5:59:59	1.333	309.000	118.00	0.000
26	6: 5: 0	1.417	312.000	118.00	3.000
27	6:10: 0	1.500	321.000	118.00	9.000
28	6:14:59	1.583	338.000	118.00	17.000
29	6:20: 0	1.667	355.000	118.00	17.000
30	6:25: 0	1.750	375.000	118.00	20.000
31	6:29:59	1.833	390.000	118.00	15.000
32	6:35: 0	1.917	406.000	118.00	16.000
33	6:40: 0	2.000	421.000	118.00	15.000
34	6:44:59	2.083	432.000	118.00	11.000
35	6:50: 0	2.167	445.000	118.00	13.000
36	6:55: 0	2.250	457.000	118.00	12.000

FINAL SHUT-IN PERIOD

37	6:58: 0	2.300	743.000	118.00	286.000
38	7: 1: 0	2.350	804.000	118.00	61.000
39	7: 4: 0	2.400	843.000	118.00	39.000
40	7: 7: 0	2.450	868.000	118.00	25.000
41	7:10: 0	2.500	891.000	118.00	23.000
42	7:13: 0	2.550	907.000	118.00	16.000
43	7:16: 0	2.600	920.000	118.00	13.000
44	7:19: 0	2.650	932.000	118.00	12.000
45	7:22: 0	2.700	941.000	118.00	9.000
46	7:25: 0	2.750	952.000	118.00	11.000
47	7:28: 0	2.800	960.000	118.00	8.000
48	7:31: 0	2.850	968.000	118.00	8.000

COMPANY : HELLAR DRILLING COMPANY INC.
WELL : #3
GAUGE # : 3659
DATE : 5/ 5/90

FIELD : ISRAEL
JOB # : 15435
DEPTH : 4191
TEST :

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(i-1)
49	7:34: 0	2.900	975.000	118.00	7.000
50	7:37: 0	2.950	981.000	118.00	6.000
51	7:40: 0	3.000	990.000	118.00	9.000

WESTERN TESTING CO. INC.

GAS FLOW REPORT

Date : 5-5-90	Ticket # : 15435
Customer : HELLAR DRILLING COMPANY INC.	Lease : ISRAEL
Well : #3 Test : 1	Geologist : DOUGLASS
Elevation (KB) :	Formation : LANSING
Section : 35	Township : 25S
Range : 21W County : FORD	State : KANSAS
Gauge SN # : 3659 Range : 4000	Clock : 12

TIME GAUGE (MIN)	TESTER TYPE	ORFICE SIZE	PRESSURE (PSI)	FLOW DESCRIPTION
---------------------	-------------	----------------	-------------------	------------------

PRE FLOW
=====

SECOND FLOW
=====

30 MIN.	MERLA	1/2"		GAS TO SURFACE
40 MIN.	MERLA	1/2"	2 PSIG	8870 C.F.P.D.
50 MIN.	MERLA	1/2"	2 PSIG	8870 C.F.P.D.
60 MIN.	MERLA	1/2"	2 PSIG	8870 C.F.P.D.

Gas Bottle SN # :
 Date Bottle Filled : 5-5-90
 Date to be Invoiced : 5-5-90



WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET N^o 15436

P. O. BOX 1599 PHONE (316) 262-5861

WICHITA, KANSAS 67201

Elevation NA Formation CHEREKEE Eff. Pay Ft.

District H080 GREAT BEND Date 5-7-90 Customer Order No.

COMPANY NAME HELLAR DRUG COMPANY Inc.

ADDRESS 125 N. MARKET SUITE 1422 WICHITA, KS. 67202

LEASE AND WELL NO. ISRAEL #3 COUNTY FORD STATE KS. Sec. 35 Twp. 25S Rge. 21W

Mail Invoice To SAME Co. Name ISRAEL #3 Address No. Copies Requested REG

Mail Charts To SAME Co. Name ISRAEL #3 Address No. Copies Requested REG

Formation Test No. 2 Interval Tested From 4687 ft. to 4744 ft. Total Depth 4744 ft.

Packer Depth 4687 ft. Size 6 5/8 in. Packer Depth ft. Size in.

Packer Depth 4682 ft. Size 6 5/8 in. Packer Depth ft. Size in.

Depth of Selective-Zone Set

Top Recorder Depth (Inside) 4737 ft. Recorder Number 3659 Cap. 4000

Bottom Recorder Depth (Outside) 4740 ft. Recorder Number 4339 Cap. 4300

Below Straddle Recorder Depth ft. Recorder Number Cap.

Drilling Contractor BLUEGOOSE #2 Drill Collar Length 274 I. D. 2.2 in.

Mud Type CHEMICAL Viscosity 56 Weight Pipe Length I. D. in.

Weight 9.2 Water Loss 13.2 cc. Drill Pipe Length 4391 I. D. 3.8 in.

Chlorides 8200 P.P.M. Test Tool Length 22 ft. Tool Size 5 1/2 in.

Jars: Make Serial Number Anchor Length 57 ft. Size 5 1/2 in.

Did Well Flow? Reversed Out 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: WEAK DEAD IN 15 MIN

NO BLOW FLUSH TOOL BLOWBACK DEAD IN 10 MIN

Recovered 10 ft. of MVD

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Chlorides P.P.M. Sample Jars used 1 Remarks: 1.0 W

Time On Location 1200 A.M. P.M. Time Pick Up Tool 4:45 A.M. P.M. Time Off Location 800 A.M. P.M.

Time Set Packer(s) 330 A.M. P.M. Time Started Off Bottom 530 A.M. P.M. Maximum Temperature 220

Initial Hydrostatic Pressure (A) 2497 ~~2495~~ P.S.I.

Initial Flow Period 30 Minutes (B) 71 P.S.I. to (C) 71 P.S.I.

Initial Closed In Period 30 Minutes (D) 91 P.S.I.

Final Flow Period 30 Minutes (E) 71 P.S.I. to (F) 71 P.S.I.

Final Closed In Period 30 Minutes (G) 91 P.S.I.

Final Hydrostatic Pressure (H) 2497 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 Bob Douglas
Signature of Customer or his authorized representative

Western Representative Norman Hickel 0830 Thank You

FIELD INVOICE

Open Hole Test	400
Misrun	\$
Straddle Test	\$
Jars	\$
Selective Zone	\$
Safety Joint	\$
Standby	\$
Evaluation	\$
Extra Packer	\$
Circ. Sub.	\$
Mileage	\$
Fluid Sampler	\$
Extra Charts	\$
Insurance	\$
Telecopier	\$
TOTAL	\$

WESTERN TESTING CO., INC.

Pressure Data

Date 5-7-90 Test Ticket No. 15456
 Recorder No. 2159 Capacity 4000 Location _____ Fr. _____
 Clock No. _____ Elevation _____ Well Temperature 110 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2508</u>	P.S.I.	<u>N.P.P.P</u>	M
B First Initial Flow Pressure	<u>77</u>	P.S.I.	<u>30</u>	Mins. <u>30</u> Mins.
C First Final Flow Pressure	<u>77</u>	P.S.I.	<u>30</u>	Mins. <u>30</u> Mins.
D Initial Closed-in Pressure	<u>91</u>	P.S.I.	<u>30</u>	Mins. <u>30</u> Mins.
E Second Initial Flow Pressure	<u>77</u>	P.S.I.	<u>30</u>	Mins. <u>30</u> Mins.
F Second Final Flow Pressure	<u>87</u>	P.S.I.	<u>30</u>	Mins. <u>30</u> Mins.
G Final Closed-in Pressure	<u>107</u>	P.S.I.		
H Final Hydrostatic Mud	<u>2468</u>	P.S.I.		

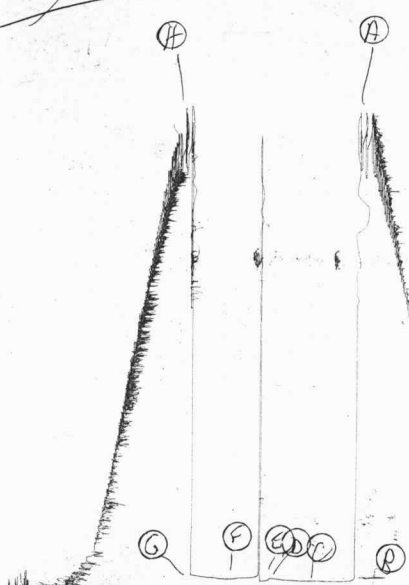
PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: _____ Inc.		Breakdown: _____ Inc.		Breakdown: _____ Inc.		Breakdown: _____ Inc.	
of <u>5</u> mins. and a		of <u>3</u> mins. and a		of <u>5</u> mins. and a		of <u>3</u> mins. and a	
final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 <u>0</u>	<u>77</u>	<u>0</u>	<u>77</u>	<u>0</u>	<u>77</u>	<u>0</u>	<u>87</u>
P 2 <u>5</u>		<u>3</u>		<u>5</u>	<u>77</u>	<u>3</u>	
P 3 <u>10</u>		<u>6</u>		<u>10</u>	<u>98</u>	<u>6</u>	<u>82</u>
P 4 <u>15</u>		<u>9</u>		<u>15</u>	<u>94</u>	<u>9</u>	<u>91</u>
P 5 <u>20</u>		<u>12</u>	<u>77</u>	<u>20</u>	<u>92</u>	<u>12</u>	<u>94</u>
P 6 <u>25</u>		<u>15</u>	<u>78</u>	<u>25</u>	<u>89</u>	<u>15</u>	<u>96</u>
P 7 <u>30</u>	<u>77</u>	<u>18</u>	<u>80</u>	<u>30</u>	<u>87</u>	<u>18</u>	<u>98</u>
P 8 <u>35</u>		<u>21</u>	<u>82</u>	<u>35</u>		<u>21</u>	<u>100</u>
P 9 <u>40</u>		<u>24</u>	<u>84</u>	<u>40</u>		<u>24</u>	<u>102</u>
P10 <u>45</u>		<u>27</u>	<u>86</u>	<u>45</u>		<u>27</u>	<u>104</u>
P11 <u>50</u>		<u>30</u>	<u>88</u>	<u>50</u>		<u>30</u>	<u>107</u>
P12 <u>55</u>		<u>33</u>	<u>91</u>	<u>55</u>		<u>33</u>	
P13 <u>60</u>		<u>36</u>		<u>60</u>		<u>36</u>	
P14 <u>65</u>		<u>39</u>		<u>65</u>		<u>39</u>	
P15 <u>70</u>		<u>42</u>		<u>70</u>		<u>42</u>	
P16 <u>75</u>		<u>45</u>		<u>75</u>		<u>45</u>	
P17 <u>80</u>		<u>48</u>		<u>80</u>		<u>48</u>	
P18 <u>85</u>		<u>51</u>		<u>85</u>		<u>51</u>	
P19 <u>90</u>		<u>54</u>		<u>90</u>		<u>54</u>	
P20 <u>95</u>		<u>57</u>		<u>95</u>		<u>57</u>	
<u>100</u>		<u>60</u>		<u>100</u>		<u>60</u>	

3659
CASS
DS#2

KT 15456

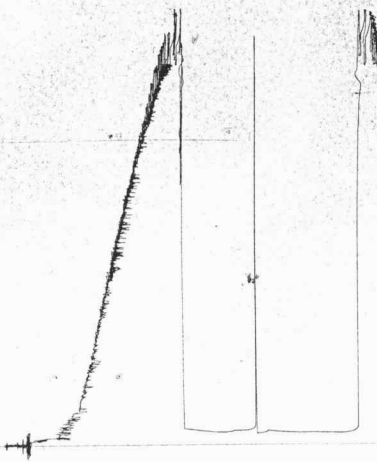
I



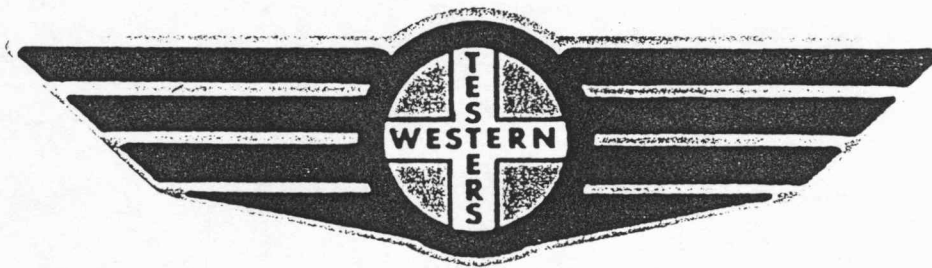
3659
CASS
DS#2

KT 15456

O



FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE : 5-7-90 TICKET : 15436
CUSTOMER : HELLAR DRILLING COMPANY INC. LEASE : ISRAEL
WELL : #3 TEST: 2 GEOLOGIST : DOUGLASS
ELEVATION : NA FORMATION : CHEROKEE
SECTION : 35 TOWNSHIP : 25S
RANGE : 21W COUNTY : FORD STATE : KANSAS
GAUGE SN# : 3659 RANGE : 4000 CLOCK : 12

INTERVAL FROM : 4687 TO : 4744 TOTAL DEPTH : 4744
DEPTH OF SELECTIVE ZONE :
PACKER DEPTH : 4687 SIZE : 6.63
PACKER DEPTH : 4682 SIZE : 6.63
PACKER DEPTH : SIZE :
PACKER DEPTH : SIZE :

DRILLING CON. : BLUE GOOSE #2
MUD TYPE : CHEMICAL VISCOSITY : 56
WEIGHT : 9.2 WATER LOSS (CC) : 13.2
CHLORIDES (PPM) : 8200
JARS-MAKE : SERIAL NUMBER :
DID WELL FLOW ? : REVERSED OUT ? :

DRILL COLLAR LENGTH : 274 FT I.D. inch : 2.20
WEIGHT PIPE LENGTH : 0 FT I.D. inch : 0.00
DRILL PIPE LENGTH : 4391 FT I.D. inch : 3.80
TEST TOOL LENGTH : 22 FT TOOL SIZE : 5.50
ANCHOR LENGTH : 57 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.
BLOW COMMENT #2 : DEAD IN 15 MINUTES.
BLOW COMMENT #3 : FINAL FLOW PERIOD NO BLOW-FLUSHED TOOL-
BLOW COMMENT #4 : BLOW BACK. DEAD IN 10 MINUTES.

RECOVERED : 10 FT OF: MUD

Total Barrels Fluid = 0.05
Total Fluid Prod Rate = 1.13 BFPD
Indicated Wtr Rate = 0.11 BWPD

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

SET PACKER(S) : 3:30 P.M.

TIME STARTED OFF BOTTOM : 5:30 P.M.

WELL TEMPERATURE : 120

INITIAL HYDROSTATIC PRESSURE

(A) 2508

INITIAL FLOW PERIOD MIN: 30

(B) 77 PSI TO (C) : 77

INITIAL CLOSED IN PERIOD MIN: 33

(D) 91

FINAL FLOW PERIOD MIN: 30

(E) 77 PSI TO (F) : 87

FINAL CLOSED IN PERIOD MIN: 30

(G) 107

FINAL HYDROSTATIC PRESSURE

(H) 2468

WESTERN TESTING CO. INC.
WICHITA-KANSAS

Pressure Transient Report

COMPANY : HELLAR DRILLING COMPANY INC.
RIG : FORD-KANSAS
FIELD : ISRAEL
WELL : #3
DATE : 5-7-90
GAUGE NO : 3659

OPERATIONAL COMMENTS

COMPANY : HELLAR DRILLING COMPANY INC.
WELL : #3
GAUGE # : 3659
DATE : 7/ 5/90

FIELD : ISRAEL
JOB # : 15436
DEPTH : 4744
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	3:30: 0	0.000	77.000	120.00	0.000
3	3:34:59	0.083	77.000	120.00	0.000
4	3:40: 0	0.167	77.000	120.00	0.000
5	3:45: 0	0.250	77.000	120.00	0.000
6	3:49:59	0.333	77.000	120.00	0.000
7	3:55: 0	0.417	77.000	120.00	0.000
8	4: 0: 0	0.500	77.000	120.00	0.000
INITIAL SHUT-IN PERIOD					
9	4: 3: 0	0.550	77.000	120.00	0.000
10	4: 6: 0	0.600	77.000	120.00	0.000
11	4: 9: 0	0.650	77.000	120.00	0.000
12	4:12: 0	0.700	77.000	120.00	0.000
13	4:15: 0	0.750	78.000	120.00	1.000
14	4:18: 0	0.800	80.000	120.00	2.000
15	4:21: 0	0.850	82.000	120.00	2.000
16	4:24: 0	0.900	84.000	120.00	2.000
17	4:27: 0	0.950	86.000	120.00	2.000
18	4:30: 0	1.000	88.000	120.00	2.000
19	4:33: 0	1.050	91.000	120.00	3.000
FINAL FLOW PERIOD					
20	4:34: 0	1.067	77.000	120.00	-14.000
21	4:37:59	1.133	77.000	120.00	0.000
22	4:43: 0	1.217	98.000	120.00	21.000
23	4:48: 0	1.300	94.000	120.00	-4.000
24	4:52:59	1.383	92.000	120.00	-2.000
25	4:58: 0	1.467	89.000	120.00	-3.000
26	5: 3: 0	1.550	87.000	120.00	-2.000
FINAL SHUT-IN PERIOD					
27	5: 5:59	1.600	87.000	120.00	0.000
28	5: 9: 0	1.650	87.000	120.00	0.000
29	5:12: 0	1.700	91.000	120.00	4.000
30	5:15: 0	1.750	94.000	120.00	3.000
31	5:18: 0	1.800	96.000	120.00	2.000
32	5:21: 0	1.850	98.000	120.00	2.000
33	5:24: 0	1.900	100.000	120.00	2.000
34	5:27: 0	1.950	102.000	120.00	2.000
35	5:30: 0	2.000	106.000	120.00	4.000
36	5:33: 0	2.050	107.000	120.00	1.000

WESTERN TESTING CO. INC.



WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET N^o 15437

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

Elevation NA Formation MISS Eff. Pay Ft.

District GREAT BEND Date 5-8-90 Customer Order No.

COMPANY NAME HELLAR DRIG Company Inc.

ADDRESS 125 N. MARKET SUITE 1423 WICHITA, KS 67203

LEASE AND WELL NO. ISRAEL #3 COUNTY FORD STATE KS Sec. 35 Twp. 25^S Rge. 21^W

Mail Invoice To SAME No. Copies Requested REG

Mail Charts To SAME Co. Name ISRAEL #3 Address No. Copies Requested REG

Address 4778 No. Copies Requested REG

Formation Test No. 3 Interval Tested From 4756 ft. to 4788 ft. Total Depth 4788 ft.

Packer Depth 4756 ft. Size 3 5/8 in. Packer Depth ft. Size in.

Packer Depth 4751 ft. Size 3 5/8 in. Packer Depth ft. Size in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 4780 ft. Recorder Number 4339 Cap. 4300

Bottom Recorder Depth (Outside) 4783 ft. Recorder Number 13521 Cap. 4375

Below Straddle Recorder Depth ft. Recorder Number Cap.

Drilling Contractor BLUE GOOSE #2 Drill Collar Length 215 I. D. 2.0 in.

Mud Type CHEMICAL Viscosity 55 Weight Pipe Length I. D. in.

Weight 9.0 Water Loss 14 cc. Drill Pipe Length 4519 I. D. 3.8 in.

Chlorides 7600 P.P.M. Test Tool Length 22 ft. Tool Size 5 1/2 in.

Jars: Make Serial Number Anchor Length 22 ft. Size 5 1/2 in.

Did Well Flow? Reversed Out 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 4 in.

Blow: WEAK BUILD TO 3" IN BUCKET

WEAK TO FAIR 7" IN BUCKET

Recovered 600 ft. of GAS IN PIPE

Recovered 2060 ft. of MCO 20% MUD 50% OIL 30% GAS

Recovered 970 ft. of HEAVY FROGY OIL 10% MUD 90% GASSY FROGY OIL

Recovered 120 ft. of MCO 15% MUD 80% OIL 5% GAS

Recovered ft. of

Chlorides P.P.M. Sample Jars used Remarks: 189. Oil

3.7 W

Time On Location 400 A.M. Time Pick Up Tool 545 P.M. Time Off Location 400 A.M.

Time Set Packer(s) 745 P.M. Time Started Off Bottom 1115 P.M. Maximum Temperature 120

Initial Hydrostatic Pressure (A) 2538 P.S.I.

Initial Flow Period (B) 30 Minutes (C) 68 P.S.I.

Initial Closed In Period (D) 60 Minutes (E) 589 P.S.I.

Final Flow Period (F) 60 Minutes (G) 113 P.S.I.

Final Closed In Period (H) 60 Minutes (I) 544 P.S.I.

Final Hydrostatic Pressure (J) 2430 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 Bob Roush
Signature of Customer or his authorized representative

Western Representative Norman Hickel 0830 Thank You

FIELD INVOICE

Open Hole Test	\$ <u>400</u>
Misrun	\$
Straddle Test	\$
Jars	\$
Selective Zone	\$
Safety Joint	\$
Standby	\$
Evaluation	\$
Extra Packer	\$
Circ. Sub.	\$
Mileage	\$
Fluid Sampler	\$
Extra Charts	\$
Insurance	\$
Telecopier	\$
TOTAL	\$

WESTERN TESTING CO., INC.

Pressure Data

Date 5-8-90 Test Ticket No. 15437
 Recorder No. 4339 Capacity 4300 Location _____ Ft. _____
 Clock No. _____ Elevation _____ Well Temperature 120 °F

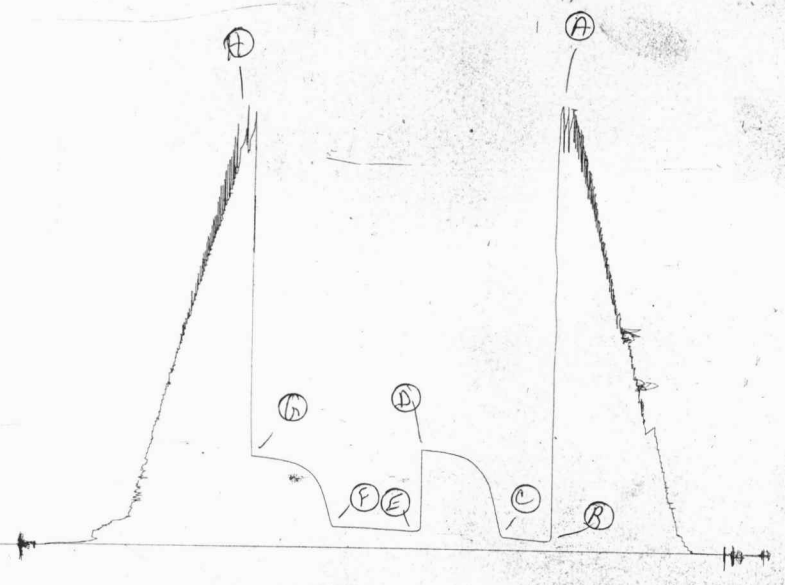
Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2536</u>	P.S.I.	<u>7:45A</u>	M
B First Initial Flow Pressure	<u>64</u>	P.S.I.	<u>30</u>	Mins. <u>25</u> Mins.
C First Final Flow Pressure	<u>83</u>	P.S.I.	<u>60</u>	Mins. <u>65</u> Mins.
D Initial Closed-in Pressure	<u>590</u>	P.S.I.	<u>60</u>	Mins. <u>65</u> Mins.
E Second Initial Flow Pressure	<u>114</u>	P.S.I.	<u>60</u>	Mins. <u>60</u> Mins.
F Second Final Flow Pressure	<u>132</u>	P.S.I.		
G Final Closed-in Pressure	<u>540</u>	P.S.I.		
H Final Hydrostatic Mud	<u>2447</u>	P.S.I.		

PRESSURE BREAKDOWN

Point Mins.	First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
	Breakdown: _____ Inc.	of _____ mins. and a final inc. of _____ Min.	Breakdown: _____ Inc.	of _____ mins. and a final inc. of _____ Min.	Breakdown: _____ Inc.	of _____ mins. and a final inc. of _____ Min.	Breakdown: _____ Inc.	of _____ mins. and a final inc. of _____ Min.
	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes
P 1 0	<u>64</u>	0	<u>83</u>	0	<u>114</u>	0	<u>132</u>	0
P 2 5	<u>64</u>	3	<u>113</u>	3	<u>5</u>	3	<u>173</u>	3
P 3 10	<u>65</u>	6	<u>209</u>	6	<u>114</u>	6	<u>259</u>	6
P 4 15	<u>68</u>	9	<u>302</u>	9	<u>116</u>	9	<u>332</u>	9
P 5 20	<u>72</u>	12	<u>390</u>	12	<u>119</u>	12	<u>385</u>	12
P 6 25	<u>76</u>	15	<u>432</u>	15	<u>131</u>	15	<u>424</u>	15
P 7 30	<u>80</u>	18	<u>466</u>	18	<u>123</u>	18	<u>448</u>	18
P 8 35	<u>83</u>	21	<u>491</u>	21	<u>125</u>	21	<u>464</u>	21
P 9 40		24	<u>511</u>	24	<u>127</u>	24	<u>479</u>	24
P10 45		27	<u>532</u>	27	<u>129</u>	27	<u>493</u>	27
P11 50		30	<u>544</u>	30	<u>131</u>	30	<u>501</u>	30
P12 55		33	<u>551</u>	33	<u>132</u>	33	<u>508</u>	33
P13 60		36	<u>560</u>	36	<u>133</u>	36	<u>513</u>	36
P14 65		39	<u>565</u>	39	<u>135</u>	39	<u>519</u>	39
P15 70		42	<u>570</u>	42		42	<u>524</u>	42
P16 75		45	<u>575</u>	45		45	<u>527</u>	45
P17 80		48	<u>578</u>	48		48	<u>530</u>	48
P18 85		51	<u>581</u>	51		51	<u>533</u>	51
P19 90		54	<u>583</u>	54		54	<u>536</u>	54
P20 95		57	<u>585</u>	57		57	<u>538</u>	57
100		60	<u>587</u>	60		60	<u>540</u>	60
		<u>63</u>	<u>590</u>					

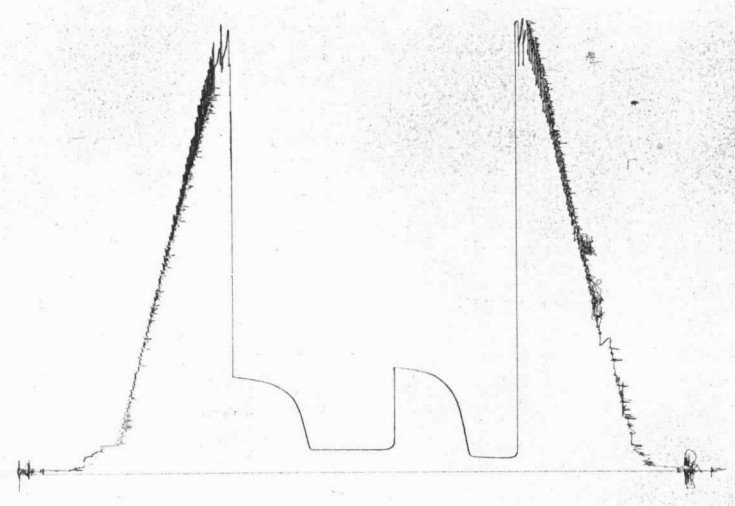
4339

KT 15437
Z

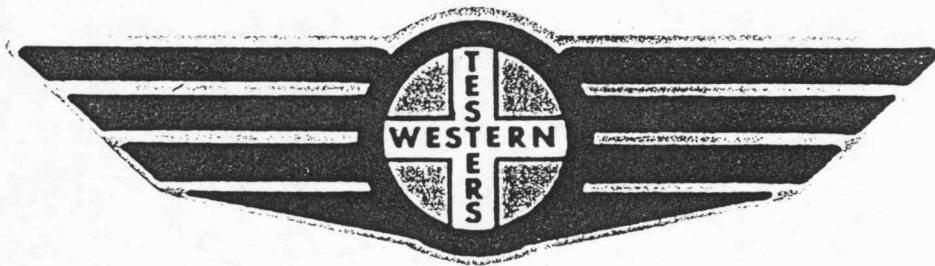


0573

KT 15437
O



FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE : 5-8-90 TICKET : 15437
CUSTOMER : HELLAR DRILLING COMPANY INC. LEASE : ISRAEL
WELL : #3 TEST: 3 GEOLOGIST : DOUGLASS
ELEVATION : NA FORMATION : MISSISSIPPI
SECTION : 35 TOWNSHIP : 25S
RANGE : 21W COUNTY : FORD STATE : KANSAS
GAUGE SN# : 4339 RANGE : 4300 CLOCK : 12

INTERVAL FROM : 4756 TO : 4778 TOTAL DEPTH : 4778
DEPTH OF SELECTIVE ZONE :
PACKER DEPTH : 4756 SIZE : 6.63
PACKER DEPTH : 4751 SIZE : 6.63
PACKER DEPTH : SIZE :
PACKER DEPTH : SIZE :

DRILLING CON. : BLUE GOOSE #2
MUD TYPE : CHEMICAL VISCOSITY : 55
WEIGHT : 9.0 WATER LOSS (CC) : 14.0
CHLORIDES (PPM) : 7600
JARS-MAKE : SERIAL NUMBER :
DID WELL FLOW ? : REVERSED OUT ? :

DRILL COLLAR LENGTH : 215 FT I.D. inch : 2.20
WEIGHT PIPE LENGTH : 0 FT I.D. inch : 0.00
DRILL PIPE LENGTH : 4519 FT I.D. inch : 3.80
TEST TOOL LENGTH : 22 FT TOOL SIZE : 5.50
ANCHOR LENGTH : 22 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.
BLOW COMMENT #2 : BUILT TO 3 INCHES IN BUCKET.
BLOW COMMENT #3 : FINAL FLOW PERIOD WEAK TO FAIR BLOW.
BLOW COMMENT #4 : 7 INCHES IN BUCKET.

RECOVERED : 60 FT OF: MUD-CUT OIL
 RECOVERED : 0 FT OF: 20%M 50%O 30%G
 RECOVERED : 70 FT OF: HEAVY FROGY OIL
 RECOVERED : 0 FT OF: 10%M 90%GASSY FROGY OIL
 RECOVERED : 120 FT OF: MUD-CUT OIL
 RECOVERED : 0 FT OF: 15%M 80%O 5%G

Total Barrels Fluid = 1.50
 Total Fluid Prod Rate = 21.62 BFPD
 Indicated Oil Rate = 16.35 BOPD
 Indicated Wtr Rate = 0.32 BWPD
 Corrected Oil Rate = 15.70 BOPD
 Corrected Wtr Rate = 0.31 BWPD

REMARK 1 :
 REMARK 2 : 600 FT. GAS ABOVE FLUID
 REMARK 3 :
 REMARK 4 :

SET PACKER(S) : 7:45 A.M. TIME STARTED OFF BOTTOM : 11:15 A.M.
 WELL TEMPERATURE : 120
 INITIAL HYDROSTATIC PRESSURE (A) 2536
 INITIAL FLOW PERIOD MIN: 35 (B) 64 PSI TO (C) : 83
 INITIAL CLOSED IN PERIOD MIN: 63 (D) 590
 FINAL FLOW PERIOD MIN: 65 (E) 114 PSI TO (F) : 132
 FINAL CLOSED IN PERIOD MIN: 60 (G) 540
 FINAL HYDROSTATIC PRESSURE (H) 2447

WESTERN TESTING CO. INC.
WICHITA-KANSAS

Pressure Transient Report

COMPANY : HELLAR DRILLING COMPANY INC.
RIG : FORD-KANSAS
FIELD : ISRAEL
WELL : #3
DATE : 5-8-90
GAUGE NO : 4339

OPERATIONAL COMMENTS

600 FT. GAS ABOVE FLUID

COMPANY : HELLAR DRILLING COMPANY INC.
WELL : #3
GAUGE # : 4339
DATE : 8/ 5/90

FIELD : ISRAEL
JOB # : 15437
DEPTH : 4778
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	7:45:0	0.000	64.000	120.00	0.000
3	7:49:59	0.083	64.000	120.00	0.000
4	7:55:0	0.167	65.000	120.00	1.000
5	8:0:0	0.250	68.000	120.00	3.000
6	8:4:59	0.333	72.000	120.00	4.000
7	8:10:0	0.417	76.000	120.00	4.000
8	8:15:0	0.500	80.000	120.00	4.000
9	8:19:59	0.583	83.000	120.00	3.000
INITIAL SHUT-IN PERIOD					
10	8:22:59	0.633	113.000	120.00	30.000
11	8:25:59	0.683	209.000	120.00	96.000
12	8:28:59	0.733	302.000	120.00	93.000
13	8:31:59	0.783	390.000	120.00	88.000
14	8:34:59	0.833	432.000	120.00	42.000
15	8:37:59	0.883	466.000	120.00	34.000
16	8:40:59	0.933	491.000	120.00	25.000
17	8:43:59	0.983	511.000	120.00	20.000
18	8:46:59	1.033	532.000	120.00	21.000
19	8:49:59	1.083	544.000	120.00	12.000
20	8:52:59	1.133	551.000	120.00	7.000
21	8:55:59	1.183	560.000	120.00	9.000
22	8:58:59	1.233	565.000	120.00	5.000
23	9:1:59	1.283	570.000	120.00	5.000
24	9:4:59	1.333	575.000	120.00	5.000
25	9:7:59	1.383	578.000	120.00	3.000
26	9:10:59	1.433	581.000	120.00	3.000
27	9:13:59	1.483	583.000	120.00	2.000
28	9:16:59	1.533	585.000	120.00	2.000
29	9:19:59	1.583	587.000	120.00	2.000
30	9:22:59	1.633	590.000	120.00	3.000
FINAL FLOW PERIOD					
31	9:24:0	1.650	114.000	120.00	-476.000
32	9:27:59	1.717	114.000	120.00	0.000
33	9:33:0	1.800	114.000	120.00	0.000
34	9:37:59	1.883	116.000	120.00	2.000
35	9:42:59	1.967	119.000	120.00	3.000
36	9:48:0	2.050	121.000	120.00	2.000
37	9:52:59	2.133	123.000	120.00	2.000
38	9:57:59	2.217	125.000	120.00	2.000
39	10:3:0	2.300	127.000	120.00	2.000
40	10:7:59	2.383	129.000	120.00	2.000
41	10:12:59	2.467	131.000	120.00	2.000
42	10:18:0	2.550	132.000	120.00	1.000
43	10:22:59	2.633	132.000	120.00	0.000
44	10:27:59	2.717	132.000	120.00	0.000
FINAL SHUT-IN PERIOD					
45	10:30:59	2.767	173.000	120.00	41.000
46	10:33:59	2.817	259.000	120.00	86.000
47	10:36:59	2.867	332.000	120.00	73.000
48	10:39:59	2.917	385.000	120.00	53.000

COMPANY : HELLAŘ DRILLING COMPANY INC.
WELL : #3
GAUGE # : 4339
DATE : 8/ 5/90

FIELD : ISRAEL
JOB # : 15437
DEPTH : 4778
TEST :

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(i-1)
49	10:42:59	2.967	424.000	120.00	39.000
50	10:45:59	3.017	448.000	120.00	24.000
51	10:48:59	3.067	464.000	120.00	16.000
52	10:51:59	3.117	479.000	120.00	15.000
53	10:54:59	3.167	493.000	120.00	14.000
54	10:57:59	3.217	501.000	120.00	8.000
55	11: 0:59	3.267	508.000	120.00	7.000
56	11: 3:59	3.317	513.000	120.00	5.000
57	11: 6:59	3.367	519.000	120.00	6.000
58	11: 9:59	3.417	524.000	120.00	5.000
59	11:12:59	3.467	527.000	120.00	3.000
60	11:15:59	3.517	530.000	120.00	3.000
61	11:18:59	3.567	533.000	120.00	3.000
62	11:21:59	3.617	536.000	120.00	3.000
63	11:24:59	3.667	538.000	120.00	2.000
64	11:27:59	3.717	540.000	120.00	2.000

WESTERN TESTING CO. INC.