



WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET N° 19837

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

Elevation 2319 KB Formation Miss Eff. Pay Ft.

District August Date 6-30-93 Customer Order No.

COMPANY NAME Pickrell Drilling Company Inc

ADDRESS 110 N Market Street 205 Wichita Ks 67202

LEASE AND WELL NO. View D #1 COUNTY Hodgeman STATE Ks Sec. 14 Twp. 21 Rge. 25W

Mail Invoice To Same Co. Name No. Copies Requested 1

Mail Charts To Same #1 View D Address No. Copies Requested 5

Formation Test No. D51 #1 Interval Tested From 4435 ft. to 4469 ft. Total Depth 4469 ft.

Packer Depth 4430 ft. Size 6 5/8 in. Packer Depth ft. Size in.

Packer Depth 4435 ft. Size 6 5/8 in. Packer Depth ft. Size in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 4463 ft. Recorder Number 10979 Cap. 4100

Bottom Recorder Depth (Outside) 4466 ft. Recorder Number 3354 Cap. 4200

Below Straddle Recorder Depth ft. Recorder Number Cap.

Drilling Contractor Pickrell Rig 10 Drill Collar Length 180 I. D. 2.25 in.

Mud Type Chem Viscosity 43 Weight Pipe Length I. D. in.

Weight 9.3 Water Loss 12.0 cc. Drill Pipe Length 4265 I. D. 3.8 in.

Chlorides 4600 P.P.M. Test Tool Length 20 ft. Tool Size 5700 in.

Jars: Make Serial Number Anchor Length 34 ft. Size 5700 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 1 1/4 in.

Blow: Very weak below on (FFP) top of bricht. NO blow on (FFP) flush tool very weak below (FFP)

Recovered 30 ft. of Free Oil 38% gravity at 60°

Recovered 170 ft. of Oil Cut Mud 50% oil 70% mud 10% gas

Recovered ft. of

Recovered ft. of

Recovered ft. of

Chlorides P.P.M. Sample Jars used 4 Remarks:

Time On Location 2:30 A.M. Time Pick Up Tool 3:00 P.M. Time Off Location A.M. P.M.

Time Set Packer(s) 4:00 A.M. P.M. Time Started Off Bottom 8:30 A.M. P.M. Maximum Temperature 125°F

Initial Hydrostatic Pressure (A) 2130 P.S.I.

Initial Flow Period Minutes 30 (B) 20 P.S.I. to (C) 30 P.S.I.

Initial Closed In Period Minutes 60 (D) 1315 P.S.I.

Final Flow Period Minutes 90 (E) 75 P.S.I. to (F) 95 P.S.I.

Final Closed In Period Minutes 90 (G) 1245 P.S.I.

Final Hydrostatic Pressure (H) 2120 P.S.I. 10979

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 Bill Klever Signature of Customer or his authorized representative

Western Representative Jeffery A Pittman

FIELD INVOICE

Table with 2 columns: Item Name and Price. Items include Open Hole Test, Misrun, Straddle Test, Jars, Selective Zone, Safety Joint, Standby, Evaluation, Extra Packer, Circ. Sub., Mileage, Fluid Sampler, Extra Charts, Insurance, Telecopier, and TOTAL.

WESTERN TESTING CO., INC.

Pressure Data

Date 6-30-93

Test Ticket No. 19837

Recorder No. _____ Capacity _____ Location _____ Ft.

Clock No. _____ Elevation _____ Well Temperature _____ °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2128</u>	P.S.I.		M
B First Initial Flow Pressure	<u>40</u>	P.S.I.	<u>30</u> Mins	<u>30</u> Mins
C First Final Flow Pressure	<u>46</u>	P.S.I.	<u>60</u> Mins	_____ Mins
D Initial Closed-in Pressure		P.S.I.	<u>90</u> Mins	_____ Mins
E Second Initial Flow Pressure		P.S.I.	<u>90</u> Mins	_____ Mins
F Second Final Flow Pressure		P.S.I.		
G Final Closed-in Pressure		P.S.I.		
H Final Hydrostatic Mud	<u>2119</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>40</u>	0	<u>46</u>	0	<u>63</u>	0	<u>94</u>
P 2 5	<u>40</u>	3	<u>134</u>	5	<u>65</u>	3	<u>121</u>
P 3 10	<u>40</u>	6	<u>384</u>	10	<u>65</u>	6	<u>313</u>
P 4 15	<u>40</u>	9	<u>925</u>	15	<u>73</u> Flushed tool	9	<u>636</u>
P 5 20	<u>42</u>	12	<u>1102</u>	20	<u>77</u>	12	<u>906</u>
P 6 25	<u>44</u>	15	<u>1166</u>	25	<u>79</u>	15	<u>1012</u>
P 7 30	<u>40</u>	18	<u>1203</u>	30	<u>81</u>	18	<u>1063</u>
P 8 35		21	<u>1225</u>	35	<u>83</u>	21	<u>1096</u>
P 9 40		24	<u>1246</u>	40	<u>84</u>	24	<u>1116</u>
P10 45		27	<u>1260</u>	45	<u>85</u>	27	<u>1133</u>
P11 50		30	<u>1269</u>	50	<u>86</u>	30	<u>1145</u>
P12 55		33	<u>1278</u>	55	<u>87</u>	33	<u>1157</u>
P13 60		36	<u>1284</u>	60	<u>88</u>	36	<u>1166</u>
P14 65		39	<u>1286</u>	65	<u>89</u>	39	<u>1174</u>
P15 70		42	<u>1293</u>	70	<u>90</u>	42	<u>1180</u>
P16 75		45	<u>1297</u>	75	<u>91</u>	45	<u>1184</u>
P17 80		48	<u>1303</u>	80	<u>92</u>	48	<u>1191</u>
P18 85		51	<u>1305</u>	85	<u>93</u>	51	<u>1196</u>
P19 90		54	<u>1307</u>	90	<u>94</u>	54	<u>1200</u>
P20 95		57	<u>1311</u>	95		57	<u>1204</u>
100		60	<u>1313</u>	100		60	<u>1209</u>

WESTERN TESTING CO., INC.

Pressure Data

Date _____ Test Ticket No. _____

Recorder No. _____ Capacity _____ Location _____ Ft. _____

Clock No. _____ Elevation _____ Well Temperature _____ °F _____

Point	Pressure	Time Given	Time Computed
A Initial Hydrostatic Mud _____ P.S.I.	Open Tool _____	_____ M _____	_____ M _____
B First Initial Flow Pressure _____ P.S.I.	First Flow Pressure _____	_____ Mins _____	_____ Mins _____
C First Final Flow Pressure _____ P.S.I.	Initial Closed-in Pressure _____	_____ Mins _____	_____ Mins _____
D Initial Closed-in Pressure _____ P.S.I.	Second Flow Pressure _____	_____ Mins _____	_____ Mins _____
E Second Initial Flow Pressure _____ P.S.I.	Final Closed-in Pressure _____	_____ Mins _____	_____ Mins _____
F Second Final Flow Pressure _____ P.S.I.			
G Final Closed-in Pressure _____ P.S.I.			
H Final Hydrostatic Mud _____ 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						
P 1 105	_____	63	_____	105	_____	63	1215	
P 2 110	_____	66	_____	110	_____	66	1218	
P 3 115	_____	69	_____	115	_____	69	1221	1219
P 4 120	_____	72	_____	120	_____	72	1225	
P 5 125	_____	75	_____	125	_____	75	1228	
P 6 130	_____	78	_____	130	_____	78	1231	
P 7 135	_____	81	_____	135	_____	81	1235	
P 8 140	_____	84	_____	140	_____	84	1238	
P 9 145	_____	87	_____	145	_____	87	1240	
P10 150	_____	90	_____	150	_____	90	1243	
P11 155	_____	93	_____	155	_____	93		
P12 160	_____	96	_____	160	_____	96		
P13 165	_____	99	_____	165	_____	99		
P14 170	_____	102	_____	170	_____	102		
P15 175	_____	105	_____	175	_____	105		
P16 180	_____	108	_____	180	_____	108		
P17 185	_____	111	_____	185	_____	111		
P18 190	_____	114	_____	190	_____	114		
P19 195	_____	117	_____	195	_____	117		
P20 200	_____	120	_____	200	_____	120		

FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone 1 - 800-688-7021

DST REPORT

GENERAL INFORMATION

DATE : 06-30-93 TICKET : 19837
CUSTOMER : PICKRELL DRILLING CO. LEASE : VIEUX D
WELL : #1 TEST: 1 GEOLOGIST: KLAVER
ELEVATION: 2319 K.B. FORMATION: MISS.
SECTION : 14 TOWNSHIP : 21
RANGE : 25W COUNTY: HODGEMAN STATE : KS
GAUGE SN#: 10979 RANGE : 4100 CLOCK : 12HR

WELL INFORMATION

PERFORATION INTERVAL FROM: 4435.00 ft TO: 4469.00 ft TVD: 4469.0 ft
DEPTH OF SELECTIVE ZONE: NONE TEST TYPE: OIL
DEPTH OF RECORDERS: 4463.0 ft 4466.0 ft
TEMPERATURE: 125.0

DRILL COLLAR LENGTH: 180.0 ft I.D.: 2.250 in
WEIGHT PIPE LENGTH : 0.0 ft I.D.: 0.000 in
DRILL PIPE LENGTH : 4235.0 ft I.D.: 3.800 in
TEST TOOL LENGTH : 20.0 ft TOOL SIZE : 5.500 in
ANCHOR LENGTH : 34.0 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: 4430.0 ft SIZE: 6.630 in
PACKER DEPTH: 4435.0 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. : PICKRELL RIG 10
MUD TYPE : CHEMICAL VISCOSITY : 43.00 cp
WEIGHT : 9.300 ppg WATER LOSS: 12.000 cc
CHLORIDES : 4600 ppm
JARS-MAKE : NONE SERIAL NUMBER:
DID WELL FLOW?: NO REVERSED OUT?: NO

COMMENTS

Comment

VERY WEAK BLOW ON INITIAL FLOW PERIOD ON TOP OF
BUCKET. NO BLOW ON FINAL FLOW PERIOD FLUSHED TOOL
VERY WEAK BLOW FINAL FLOW PERIOD.

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
30.0	100.0	0.0	0.0	0.0	FREE OIL 38 GRAVITY AT
0.0	0.0	0.0	0.0	0.0	60 DEG. F.
170.0	20.0	10.0	0.0	70.0	OIL CUT MUD

RATE INFORMATION

OIL VOLUME:	0.4969 STB			
GAS VOLUME:	0.4694 SCF			
MUD VOLUME:	0.5852 STB			
WATER VOLUME:	0.0000 STB			
TOTAL FLUID :	1.0821 STB			
			TOTAL FLOW TIME:	120.0000 min.
			AVERAGE OIL RATE:	12.9849 STB/D
			AVERAGE WATER RATE:	0.0000 STB/D

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2130.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	20.00	30.00
INITIAL SHUT-IN	60.00		1315.00
FINAL FLOW	90.00	75.00	95.00
FINAL SHUT-IN	90.00		1245.00

FINAL HYDROSTATIC PRESSURE: 2120.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2128.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	40.00	46.00
INITIAL SHUT-IN	60.00		1313.00
FINAL FLOW	90.00	65.00	94.00
FINAL SHUT-IN	90.00		1243.00

FINAL HYDROSTATIC PRESSURE: 2119.00

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE : 06-30-93	TICKET : 19837
CUSTOMER : PICKRELL DRILLING CO.	LEASE : VIEUX D
WELL : #1 TEST: 1	GEOLOGIST: KLAVER
ELEVATION: 2319 K.B.	FORMATION: MISS.
SECTION : 14	TOWNSHIP : 21
RANGE : 25W COUNTY: HODGEMAN	STATE : KS
GAUGE SN#: 10979 RANGE : 4100	CLOCK : 12HR

INITIAL FLOW

<u>Time</u> <u>(min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	40.00	40.00
5.00	40.00	0.00
10.00	40.00	0.00
15.00	40.00	0.00
20.00	42.00	2.00
25.00	44.00	2.00
30.00	46.00	2.00

INITIAL SHUT IN

<u>Time</u> <u>(min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	134.00	134.00	0.00
6.00	589.00	455.00	0.00
9.00	925.00	336.00	0.00
12.00	1102.00	177.00	0.00
15.00	1166.00	64.00	0.00
18.00	1203.00	37.00	0.00
21.00	1225.00	22.00	0.00
24.00	1246.00	21.00	0.00
27.00	1260.00	14.00	0.00
30.00	1267.00	7.00	0.00
33.00	1278.00	11.00	0.00
36.00	1284.00	6.00	0.00
39.00	1286.00	2.00	0.00
42.00	1293.00	7.00	0.00
45.00	1297.00	4.00	0.00
48.00	1303.00	6.00	0.00
51.00	1305.00	2.00	0.00
54.00	1307.00	2.00	0.00
57.00	1311.00	4.00	0.00

PRESSURE TRANSIENT REPORT (CONTINUED)

INITIAL SHUT IN (CONTINUED)

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
60.00	1313.00	2.00	0.00

FINAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	65.00	65.00
5.00	65.00	0.00
10.00	65.00	0.00
15.00	73.00	8.00
20.00	77.00	4.00
25.00	79.00	2.00
30.00	81.00	2.00
35.00	83.00	2.00
40.00	84.00	1.00
45.00	85.00	1.00
50.00	86.00	1.00
55.00	87.00	1.00
60.00	88.00	1.00
65.00	89.00	1.00
70.00	90.00	1.00
75.00	91.00	1.00
80.00	92.00	1.00
85.00	93.00	1.00
90.00	94.00	1.00

FINAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	121.00	121.00	0.00
6.00	313.00	192.00	0.00
9.00	636.00	323.00	0.00
12.00	906.00	270.00	0.00
15.00	1012.00	106.00	0.00
18.00	1063.00	51.00	0.00
21.00	1096.00	33.00	0.00
24.00	1116.00	20.00	0.00
27.00	1133.00	17.00	0.00
30.00	1145.00	12.00	0.00

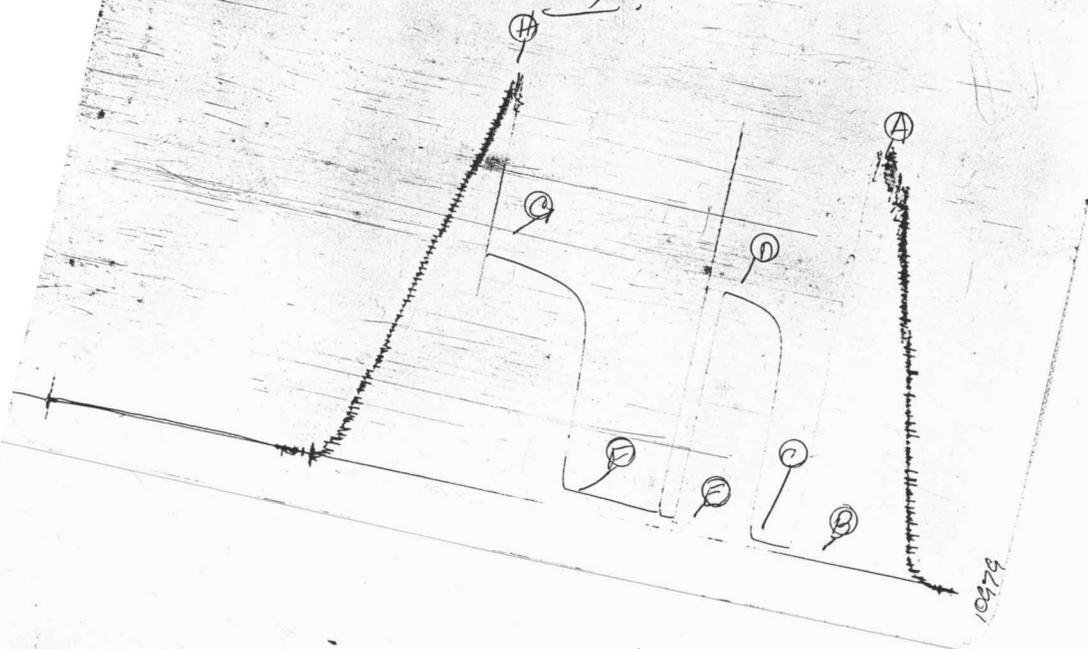
PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL SHUT IN (CONTINUED)

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
33.00	1157.00	12.00	0.00
36.00	1166.00	9.00	0.00
39.00	1174.00	8.00	0.00
42.00	1180.00	6.00	0.00
45.00	1184.00	4.00	0.00
48.00	1191.00	7.00	0.00
51.00	1196.00	5.00	0.00
54.00	1200.00	4.00	0.00
57.00	1204.00	4.00	0.00
60.00	1209.00	5.00	0.00
63.00	1215.00	6.00	0.00
66.00	1218.00	3.00	0.00
69.00	1221.00	3.00	0.00
72.00	1225.00	4.00	0.00
75.00	1228.00	3.00	0.00
78.00	1231.00	3.00	0.00
81.00	1235.00	4.00	0.00
84.00	1238.00	3.00	0.00
87.00	1240.00	2.00	0.00
90.00	1243.00	3.00	0.00

TK# 19831

J.

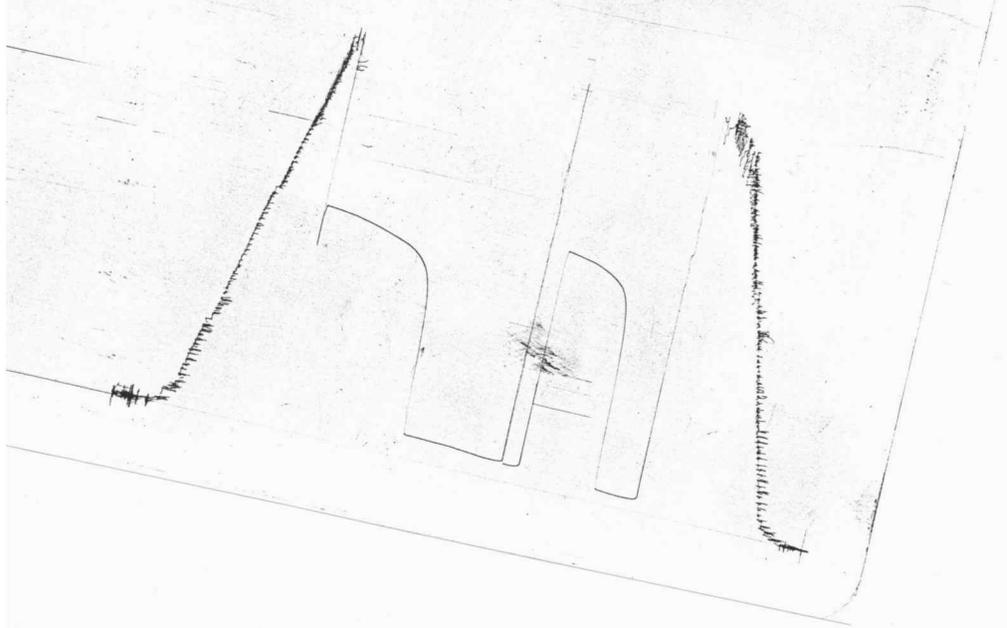


19831

354

TK# 19831

D.





WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET No 19838

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

Elevation 2319 KB Formation Miss Eff. Pay Ft.

District August Date 7-1-93 Customer Order No.

COMPANY NAME Pickrell Drilling Co

ADDRESS 110 N Market Suite 205 Wichita Ks 67202

LEASE AND WELL NO. View COUNTY Hodgeman STATE Ks Sec 14 Twp H Rge 15a

Mail Invoice To Same Co. Name #1 View D Address No. Copies Requested

Mail Charts To Same #1 View D Address No. Copies Requested

Formation Test No. DST 02 Interval Tested From 4463 ft. to 4474 ft. Total Depth 4474 ft.

Packer Depth 4458 ft. Size 6 5/8 in. Packer Depth 7 ft. Size 7 in.

Packer Depth 4463 ft. Size 6 5/8 in. Packer Depth 7 ft. Size 7 in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 4468 ft. Recorder Number 10979 Cap. 4100

Bottom Recorder Depth (Outside) 4471 ft. Recorder Number 3354 Cap. 4200

Below Straddle Recorder Depth ft. Recorder Number Cap.

Drilling Contractor Pickrell Rig 10 Drill Collar Length 180 I. D. 2.25 in.

Mud Type Chem Viscosity 43 Weight Pipe Length I. D. in.

Weight 9.3 Water Loss 12.0 cc. Drill Pipe Length 4263 I. D. 38 in.

Chlorides 4600 P.P.M. Test Tool Length 20 ft. Tool Size 5.600 in.

Jars: Make Serial Number Anchor Length 11 ft. Size 5.600 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 x 1 1/4 in.

Blow: Very Weak blow thru out test

Recovered 30 ft. of gas in pipe

Recovered 80 ft. of fine oil 38% grains at 60°

Recovered 60 ft. of salt water

Recovered ft. of

Recovered ft. of

Chlorides 30,000 P.P.M. Sample Jars used 2 Remarks:

Time On Location Start by 11:00 A.M. Time Pick Up Tool 10:00 A.M. Time Off Location A.M.

Time Set Packer(s) 11:00 P.M. Time Started Off Bottom 3:30 P.M. Maximum Temperature 123°C

Initial Hydrostatic Pressure (A) 2130 P.S.I.

Initial Flow Period Minutes 30 (B) 10 P.S.I. to (C) 20 P.S.I.

Initial Closed In Period Minutes 60 (D) 1285 P.S.I.

Final Flow Period Minutes 90 (E) 30 P.S.I. to (F) 65 P.S.I.

Final Closed In Period Minutes 90 (G) 1235 P.S.I.

Final Hydrostatic Pressure (H) 2120 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 Bill Uwev Signature of Customer or his authorized representative

Western Representative Jeffrey P. P. [Signature]

FIELD INVOICE

Table with 2 columns: Item, Price. Items include Open Hole Test, Misrun, Straddle Test, Jars, Selective Zone, Safety Joint, Standby, Evaluation, Extra Packer, Circ. Sub., Mileage, Fluid Sampler, Extra Charts, Insurance, Telecopier, TOTAL.

Rig (155.00)

WESTERN TESTING CO., INC.
Pressure Data

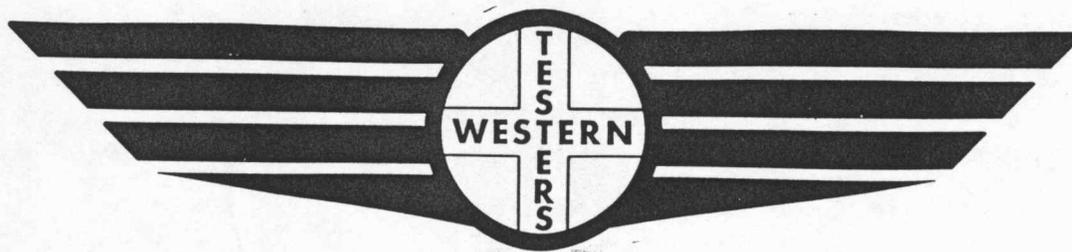
Date 8-1-93 Test Ticket No. _____
 Recorder No. 10979 Capacity 4100 Location _____ Ft.
 Clock No. _____ Elevation _____ Well Temperature _____ °F

Point	Pressure		Time Given	Time Computed
A. Initial Hydrostatic Mud	<u>2143</u>	P.S.I.	<u>4hr</u> M	<u>30mi</u>
B. First Initial Flow Pressure	<u>1464</u>	P.S.I.	<u>30</u> Mins.	_____ Mins.
C. First Final Flow Pressure	<u>2610</u>	P.S.I.	<u>60</u> Mins.	_____ Mins.
D. Initial Closed-in Pressure	<u>2610</u>	P.S.I.	<u>90</u> Mins.	_____ Mins.
E. Second Initial Flow Pressure	1809 <u>43</u>	P.S.I.	<u>90</u> Mins.	_____ Mins.
F. Second Final Flow Pressure	<u>71.73</u>	P.S.I.		
G. Final Closed-in Pressure	<u>1237</u>	P.S.I.		
H. Final Hydrostatic Mud	<u>2064</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>14</u>	<u>14.64</u>	<u>25</u>	<u>2610</u>	42 <u>42</u>	<u>43</u>	<u>68</u>	<u>71.73</u>
P 2 <u>15</u>	<u>15.25</u>	<u>54</u>	<u>56.48</u>	<u>39</u>	<u>40</u>	<u>93</u>	<u>97.</u>
P 3 <u>15</u>	<u>15.25</u>	<u>203</u>	<u>212.20</u>	<u>40</u>	<u>41</u>	<u>144</u>	<u>15062</u>
P 4 <u>23</u>	<u>24.05</u>	<u>681</u>	<u>710.</u>	<u>40</u>	<u>41</u>	<u>269</u>	<u>281</u>
P 5 <u>24</u>	<u>25.10</u>	<u>979</u>	<u>1019</u>	<u>40</u>	<u>41</u>	<u>776</u>	<u>729.87</u>
P 6 <u>25</u>	<u>26.10</u>	<u>1072</u>	<u>1115.09</u>	<u>42</u>	<u>43.93</u>	<u>921</u>	<u>959.</u>
P 7 _____	_____	<u>1125</u>	<u>1169</u>	<u>42</u>	<u>43.93</u>	<u>995</u>	<u>1035</u>
P 8 _____	_____	<u>1148</u>	<u>1192</u>	<u>42</u>	<u>43.93</u>	<u>1041</u>	<u>1082</u>
P 9 _____	_____	<u>1169</u>	<u>1214</u>	<u>43</u>	<u>45.00</u>	<u>1067</u>	<u>1109</u>
P10 _____	_____	<u>1185</u>	<u>1230</u>	<u>44</u>	<u>48</u>	<u>1090</u>	<u>1133</u>
P11 _____	_____	<u>1198</u>	<u>1243</u>	<u>48</u>	<u>50.21</u>	<u>1105</u>	<u>1148</u>
P12 _____	_____	<u>1208</u>	<u>1254</u>	<u>51</u>	<u>53</u>	<u>1118</u>	<u>1162</u>
P13 _____	_____	<u>1213</u>	<u>1259</u>	<u>54</u>	<u>56</u>	<u>1127</u>	<u>1170</u>
P14 _____	_____	<u>1218</u>	<u>1264</u>	<u>56</u>	<u>58.58</u>	<u>1135</u>	<u>1177</u>
P15 _____	_____	<u>1226</u>	<u>1272</u>	<u>58</u>	<u>60.67</u>	<u>1144</u>	<u>1188</u>
P16 _____	_____	<u>1233</u>	<u>1279</u>	<u>59</u>	<u>61.</u>	<u>1148</u>	<u>1192</u>
P17 _____	_____	<u>1236</u>	<u>1282</u>	<u>61</u>	<u>63.</u>	<u>1152</u>	<u>1196</u>
P18 _____	_____	<u>1241</u>	<u>1287</u>	<u>62</u>	<u>64.85</u>	<u>1158</u>	<u>1202</u>
P19 _____	_____	<u>1243</u>	<u>1289</u>	<u>68</u>	<u>71.13</u>	<u>1163</u>	<u>1208</u>
P20 _____	_____	<u>1244</u>	<u>1290</u>			<u>1165</u>	<u>1210</u>
		<u>1249</u>	<u>1296</u>			<u>1170</u>	<u>1215</u>
		<u>1252</u>	<u>1299</u>				

FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone 1 - 800-688-7021

DST REPORT

GENERAL INFORMATION

DATE : 7-1-93
CUSTOMER : PICKRELL DRILLING CO.
WELL : #1 TEST: 2
ELEVATION: 2319 K.B.
SECTION : 14
RANGE : 25W COUNTY: HODGEMAN
GAUGE SN#: 10979 RANGE : 4100
TICKET : 19838
LEASE : VIEUX D
GEOLOGIST: KLAVER
FORMATION: MISS.
TOWNSHIP : 21
STATE : KS
CLOCK : 12HR

WELL INFORMATION

PERFORATION INTERVAL FROM: 4463.00 ft TO: 4474.00 ft TVD: 4474.0 ft
DEPTH OF SELECTIVE ZONE: NONE TEST TYPE: OIL
DEPTH OF RECORDERS: 4468.0 ft 4471.0 ft
TEMPERATURE: 123.0

DRILL COLLAR LENGTH: 180.0 ft I.D.: 2.250 in
WEIGHT PIPE LENGTH : 0.0 ft I.D.: 0.000 in
DRILL PIPE LENGTH : 4263.0 ft I.D.: 3.800 in
TEST TOOL LENGTH : 20.0 ft TOOL SIZE : 5.500 in
ANCHOR LENGTH : 11.0 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: 4458.0 ft SIZE: 6.630 in
PACKER DEPTH: 4463.0 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. : PICKRELL RIG 10
MUD TYPE : CHEMICAL
WEIGHT : 9.300 ppg
CHLORIDES : 4600 ppm
JARS-MAKE : NONE
DID WELL FLOW?: NO
VISCOSITY : 43.00 cp
WATER LOSS: 12.000 cc
SERIAL NUMBER:
REVERSED OUT?: NO

COMMENTS

Comment

INITIAL AND FINAL FLOW PERIODS VERY WEAK BLOW.

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
80.0	100.0	0.0	0.0	0.0	FREE OIL 38 DEGREE AT 60
60.0	0.0	0.0	100.0	0.0	SALT WATER
0.0	0.0	0.0	0.0	0.0	CHLORIDES 30000 PPM
0.0	0.0	0.0	0.0	0.0	30 FT GAS ABOVE FLUID

RATE INFORMATION

OIL VOLUME:	0.3934 STB	
GAS VOLUME:	0.0000 SCF	TOTAL FLOW TIME: 120.0000 min.
MUD VOLUME:	0.0000 STB	AVERAGE OIL RATE: 4.7208 STB/D
WATER VOLUME:	0.2950 STB	AVERAGE WATER RATE: 3.5406 STB/D
TOTAL FLUID :	0.6884 STB	

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2130.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	10.00	20.00
INITIAL SHUT-IN	60.00		1285.00
FINAL FLOW	90.00	30.00	65.00
FINAL SHUT-IN	90.00		1235.00

FINAL HYDROSTATIC PRESSURE: 2120.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2143.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	14.00	28.00
INITIAL SHUT-IN	60.00		1299.00
FINAL FLOW	90.00	43.00	71.00
FINAL SHUT-IN	90.00		1237.00

FINAL HYDROSTATIC PRESSURE: 2064.00

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE : 7-1-93	TICKET : 19838
CUSTOMER : PICKRELL DRILLING CO.	LEASE : VIEUX D
WELL : #1 TEST: 2	GEOLOGIST: KLAVER
ELEVATION: 2319 K.B.	FORMATION: MISS.
SECTION : 14	TOWNSHIP : 21
RANGE : 25W COUNTY: HODGEMAN	STATE : KS
GAUGE SN#: 10979 RANGE : 4100	CLOCK : 12HR

INITIAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	14.00	14.00
5.00	15.00	1.00
10.00	17.00	2.00
15.00	24.00	7.00
20.00	25.00	1.00
25.00	26.00	1.00
30.00	28.00	2.00

INITIAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	56.00	56.00	0.00
6.00	212.00	156.00	0.00
9.00	710.00	498.00	0.00
12.00	1019.00	309.00	0.00
15.00	1115.00	96.00	0.00
18.00	1169.00	54.00	0.00
21.00	1192.00	23.00	0.00
24.00	1214.00	22.00	0.00
27.00	1230.00	16.00	0.00
30.00	1243.00	13.00	0.00
33.00	1254.00	11.00	0.00
36.00	1259.00	5.00	0.00
39.00	1264.00	5.00	0.00
42.00	1272.00	8.00	0.00
45.00	1279.00	7.00	0.00
48.00	1282.00	3.00	0.00
51.00	1285.00	3.00	0.00
54.00	1289.00	4.00	0.00
57.00	1294.00	5.00	0.00

PRESSURE TRANSIENT REPORT (CONTINUED)

INITIAL SHUT IN (CONTINUED)

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
60.00	1299.00	5.00	0.00

FINAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	43.00	43.00
5.00	40.00	-3.00
10.00	41.00	1.00
15.00	41.00	0.00
20.00	41.00	0.00
25.00	42.00	1.00
30.00	43.00	1.00
35.00	44.00	1.00
40.00	45.00	1.00
45.00	47.00	2.00
50.00	59.00	12.00
55.00	53.00	-6.00
60.00	56.00	3.00
65.00	58.00	2.00
70.00	60.00	2.00
75.00	63.00	3.00
80.00	65.00	2.00
85.00	67.00	2.00
90.00	71.00	4.00

FINAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	97.00	97.00	0.00
6.00	150.00	53.00	0.00
9.00	281.00	131.00	0.00
12.00	729.00	448.00	0.00
15.00	959.00	230.00	0.00
18.00	1035.00	76.00	0.00
21.00	1082.00	47.00	0.00
24.00	1109.00	27.00	0.00
27.00	1133.00	24.00	0.00
30.00	1148.00	15.00	0.00

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL SHUT IN (CONTINUED)

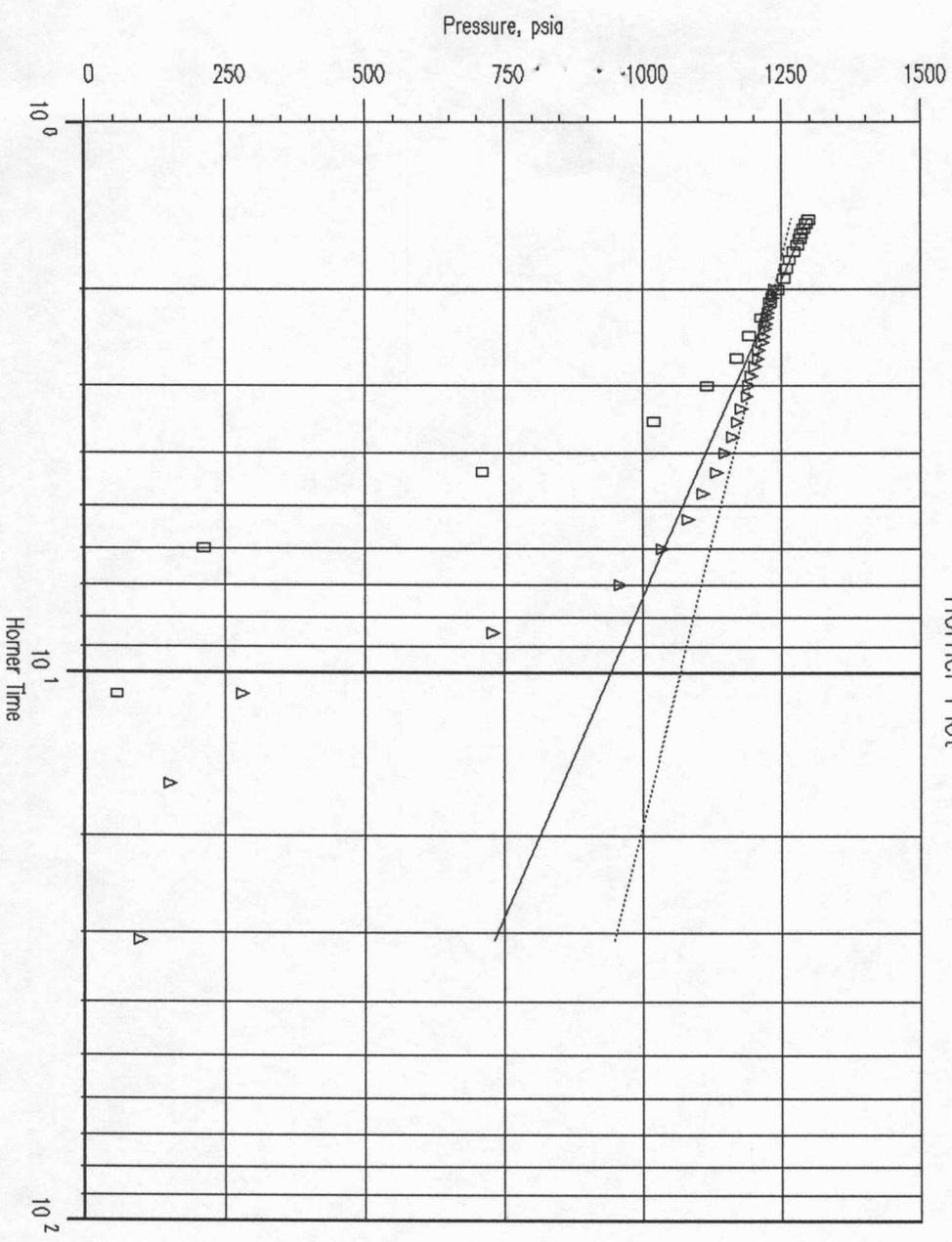
<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
33.00	1162.00	14.00	0.00
36.00	1170.00	8.00	0.00
39.00	1177.00	7.00	0.00
42.00	1188.00	11.00	0.00
45.00	1192.00	4.00	0.00
48.00	1196.00	4.00	0.00
51.00	1202.00	6.00	0.00
54.00	1208.00	6.00	0.00
57.00	1210.00	2.00	0.00
60.00	1215.00	5.00	0.00
63.00	1219.00	4.00	0.00
66.00	1220.00	1.00	0.00
69.00	1222.00	2.00	0.00
72.00	1224.00	2.00	0.00
75.00	1226.00	2.00	0.00
78.00	1228.00	2.00	0.00
81.00	1230.00	2.00	0.00
84.00	1233.00	3.00	0.00
87.00	1235.00	2.00	0.00
90.00	1237.00	2.00	0.00

DATE 7-1-93
 CUSTOMER PICKRELL DRILLING CO.
 WELL #1
 ELEVATION 2319 K.B.
 SECTION 14
 RANGE 25W
 GAUGE SN# 10979

TEST 2
 COUNTY HODGEMAN
 RANGE 4100

TICKET 19838
 LEASE VIEWUX D
 GEOLOGIST KLAVER
 FORMATION MISS.
 TOWNSHIP 21
 STATE KS
 CLOCK 12HR

Horner Plot



Result

	#1	#2
tp, hrs	0.50	1.50
Slope	-429.52	-242.47
Pstar, psig	1372.68	1309.81
P1hr, psig	1297.04	1213.32
Skin	2.13	3.57
k, md	0.37	0.65
kh/u, md-ft/cp	1.99	3.52
ri, ft	1.92	4.42
DR, %	1.87	2.58
Drawdown Factor, %		4.773
Drawdown P*, %		4.580

— BUILD 1
 BUILD 2

HORNER ANALYSIS REPORT

GENERAL INFORMATION

DATE : 7-1-93	TICKET : 19838
CUSTOMER : PICKRELL DRILLING CO.	LEASE : VIEUX D
WELL : #1 TEST: 2	GEOLOGIST: KLAVER
ELEVATION: 2319 K.B.	FORMATION: MISS.
SECTION : 14	TOWNSHIP : 21
RANGE : 25W COUNTY: HODGEMAN	STATE : KS
GAUGE SN#: 10979 RANGE : 4100	CLOCK : 12HR

Input Data

Porosity 0.120 Rw: 0.328 ft h: 11.000 ft

qo 4.7 STB GOR 232.9 SCF/STB

Pvt Data

Evalutation Pressure : 1299.0

Evalutation Temperature: 123.0

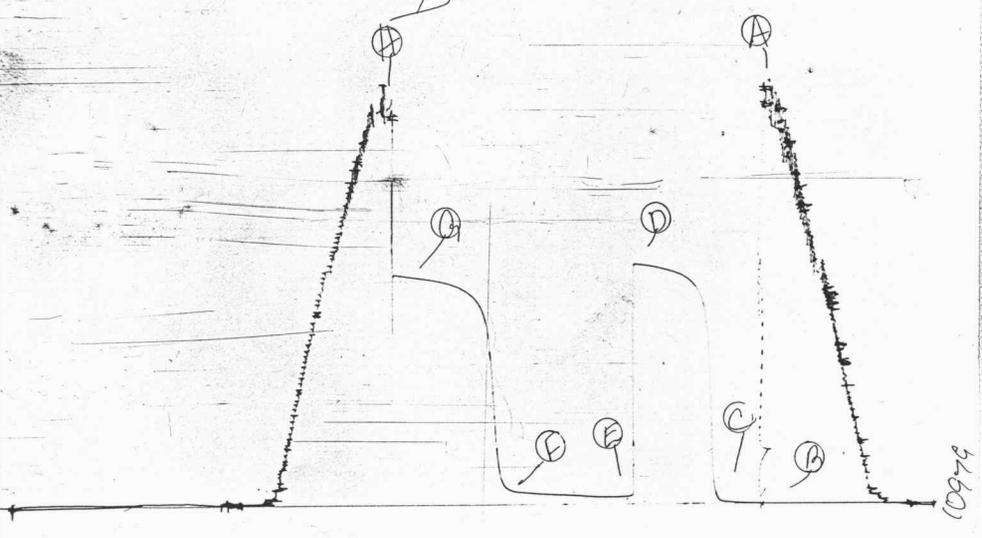
Oil Grav 30.00 API	Gas Grav 0.65 API	Pb 1299.00 PSIA
Bo 1.113 RBL/STB	Vis 1.000 cp	Ct 2.1668E-004 1/PSI

Horner Results

	Inital Shut-In	Final Shut-In
pseudo pressure time	0.50 hrs	1.50 hrs
slope	-429.52	-242.47
pstar	1372.68 psig	1309.81 psig
plhr	1297.04 psig	1213.32 psig
skin	2.13	3.57
permeability	0.37 md	0.65 md
transmisability	1.99 md-ft/cp	3.52 md-ft/cp
radius of investigation	1.92 ft	4.42 ft
Damage-Ratio	1.9 percent	2.6 percent
Drawdown Factor		4.773 percent
Drawdown P*		4.580 percent

TR# 19838

I.



DR L.

TR# 19838

O.

