



WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET No 12886

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

Elevation 2456 KB Formation Eff. Pay Ft.

District Pratt Date 8-8-81 Customer Order No.

COMPANY NAME Pickrell Drilling Company

ADDRESS Litwin Bldg, Suite 205 110 W. Market Wichita, Ks. 67202

LEASE AND WELL NO. A-2 44ft + 44ft COUNTY Clark STATE Ks. Sec. 2 Twp 30 Rge 22

Mail Invoice To Same Co. Name Address No. Copies Requested Req

Mail Charts To Same Address No. Copies Requested Req

Formation Test No. 1 Interval Tested from 5088 ft. to 5150 ft. Total Depth 5150 ft.

Packer Depth 5083 ft. Size 6 5/8 in. Packer Depth ft. Size in.

Packer Depth 5088 ft. Size 6 5/8 in. Packer Depth ft. Size in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 5091 ft. Recorder Number 1566 Cap. 4300

Bottom Recorder Depth (Outside) 5095 ft. Recorder Number 3086 Cap. 4400

Below Straddle Recorder Depth ft. Recorder Number Cap.

Drilling Contractor Co. F. O. Smith & Son Drill Collar Length 210 I. D. 2.2 in.

Mud Type chemical Viscosity 65 Weight Pipe Length I. D. in.

Weight 9.0 Water Loss 10.8 cc. Drill Pipe Length 4849 I. D. 3.8 in.

Chlorides 18,000 P.P.M. Test Tool Length 29 ft. Tool Size 5 1/2 in.

Jars: Make WTC Serial Number 3660 Anchor Length 29 3/4 Size 5 1/2 in. 3/4

Did Well Flow? no Reversed Out no 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 in.

Blow: Weak Building to Strong - F.F.P. - STRONG F.F.P. No gas to surface

Recovered 120 ft. of delq mud w/ a few specks of oil

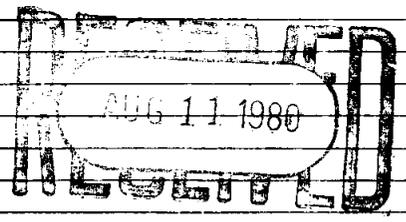
Recovered 120 ft. of Watery Delq mud

Recovered ft. of mud

Recovered ft. of

Recovered ft. of

Remarks:



Time On Location 5:00 AM Time Pick Up Tool 6:00 AM Time Off Location 5:00 AM

Time Set Packer(s) 8:30 PM Time Started Off Bottom 1:30 PM Maximum Temperature 129 F

Initial Hydrostatic Pressure (A) 2482 P.S.I.

Initial Flow Period Minutes 30 (B) 43 P.S.I. to (C) 54 P.S.I.

Initial Closed In Period Minutes 60 (D) 1614 P.S.I.

Final Flow Period Minutes 90 (E) 86 P.S.I. to (F) 108 P.S.I.

Final Closed In Period Minutes 120 (G) 1592 P.S.I.

Final Hydrostatic Pressure (H) 2537 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 [Signature] Signature of Customer or his authorized representative

Western Representative Mike Rogers Thank You!

FIELD INVOICE

Table with 2 columns: Item, Amount. Includes Open Hole Test (\$775.00), Mileage 70 (\$52.50), and TOTAL (\$1192.50).

WESTERN TESTING CO., INC.

Pressure Data

Date: 8-8 Test Ticket No. 12886
 Recorder No. 1566 Capacity 4300 Location 5091 Ft
 Clock No. _____ Elevation 2456 KB Well Temperature 129 °F

Point	Pressure	Open Tool	Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2548</u> P.S.I.		<u>8:30 P</u>	
B First Initial Flow Pressure	<u>52</u> P.S.I.	First Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>52</u> P.S.I.	Initial Closed-in Pressure	<u>60</u> Mins.	<u>60</u> Mins.
D Initial Closed-in Pressure	<u>1606</u> P.S.I.	Second Flow Pressure	<u>90</u> Mins.	<u>90</u> Mins.
E Second Initial Flow Pressure	<u>89</u> P.S.I.	Final Closed-in Pressure	<u>120</u> Mins.	<u>129</u> Mins.
F Second Final Flow Pressure	<u>110</u> P.S.I.			
G Final Closed-in Pressure	<u>1605</u> P.S.I.			
H Final Hydrostatic Mud	<u>2537</u> P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure
 Breakdown: 6 Inc.
 of 5 mins. and a
 final inc. of 0 Min.

Initial Shut-In
 Breakdown: 20 Inc.
 of 3 mins. and a
 final inc. of 0 Min.

Second Flow Pressure
 Breakdown: 18 Inc.
 of 5 mins. and a
 final inc. of 0 Min.

Final Shut-In
 Breakdown: 43 Inc.
 of 3 mins. and a
 final inc. of 0 Min.

Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 0	<u>52</u>	0	<u>52</u>	0	<u>89</u>	0	<u>110</u>
P 2 5	}	3	<u>136</u>	5	}	3	<u>222</u>
P 3 10		6	<u>361</u>	10		6	<u>400</u>
P 4 15		9	<u>680</u>	15		9	<u>624</u>
P 5 20		12	<u>910</u>	20		12	<u>832</u>
P 6 25		15	<u>1092</u>	25		15	<u>979</u>
P 7 30	<u>52</u>	18	<u>1216</u>	30	<u>91</u>	18	<u>1083</u>
P 8 35		21	<u>1307</u>	35	<u>93</u>	21	<u>1156</u>
P 9 40		24	<u>1365</u>	40	<u>95</u>	24	<u>1212</u>
P10 45		27	<u>1408</u>	45	<u>97</u>	27	<u>1255</u>
P11 50		30	<u>1444</u>	50	<u>99</u>	30	<u>1291</u>
P12 55		33	<u>1470</u>	55	<u>100</u>	33	<u>1324</u>
P13 60		36	<u>1496</u>	60	<u>101</u>	36	<u>1347</u>
P14		39	<u>1517</u>	65	<u>102</u>	39	<u>1371</u>
P15		42	<u>1532</u>	70	<u>102</u>	42	<u>1388</u>
P16		45	<u>1552</u>	75	<u>103</u>	45	<u>1405</u>
P17		48	<u>1567</u>	80	<u>105</u>	48	<u>1423</u>
P18		51	<u>1578</u>	85	<u>107</u>	51	<u>1438</u>
P19		54	<u>1586</u>	90	<u>110</u>	54	<u>1453</u>
P20		57	<u>1593</u>			57	<u>1463</u>
		60	<u>1606</u>			60	<u>1474</u>

omit

WESTERN TESTING CO., INC.
Pressure Data

Date _____

Test Ticket No. 12886

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 _____	
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.			

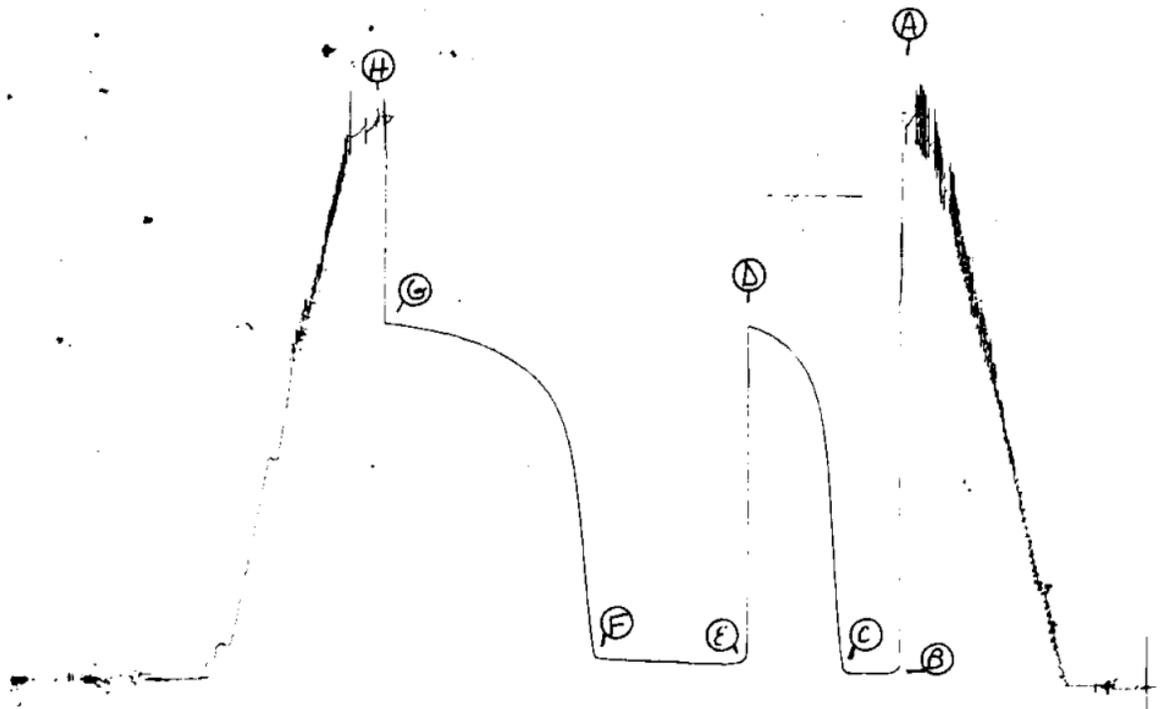
PRESSURE BREAKDOWN

Point Mins.	First Flow Pressure	Initial Shut-In	Second Flow Pressure	Final Shut-In
	Breakdown: _____ Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.	Breakdown: _____ Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.	Breakdown: _____ Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.	Breakdown: _____ Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.
	Point Minutes	Point Minutes	Point Minutes	Point Minutes
P 1 _____	Press. _____	Press. _____	Press. _____	Press. <u>1487</u>
P 2 _____	Press. _____	Press. _____	Press. _____	Press. <u>1496</u>
P 3 _____	Press. _____	Press. _____	Press. _____	Press. <u>1504</u>
P 4 _____	Press. _____	Press. _____	Press. _____	Press. <u>1515</u>
P 5 _____	Press. _____	Press. _____	Press. _____	Press. <u>1522</u>
P 6 _____	Press. _____	Press. _____	Press. _____	Press. <u>1528</u>
P 7 _____	Press. _____	Press. _____	Press. _____	Press. <u>1535</u>
P 8 _____	Press. _____	Press. _____	Press. _____	Press. <u>1543</u>
P 9 _____	Press. _____	Press. _____	Press. _____	Press. <u>1550</u>
P10 _____	Press. _____	Press. _____	Press. _____	Press. <u>1555</u>
P11 _____	Press. _____	Press. _____	Press. _____	Press. <u>1559</u>
P12 _____	Press. _____	Press. _____	Press. _____	Press. <u>1566</u>
P13 _____	Press. _____	Press. _____	Press. _____	Press. <u>1569</u>
P14 _____	Press. _____	Press. _____	Press. _____	Press. <u>1573</u>
P15 _____	Press. _____	Press. _____	Press. _____	Press. <u>1578</u>
P16 _____	Press. _____	Press. _____	Press. _____	Press. <u>1582</u>
P17 _____	Press. _____	Press. _____	Press. _____	Press. <u>1586</u>
P18 _____	Press. _____	Press. _____	Press. _____	Press. <u>1590</u>
P19 _____	Press. _____	Press. _____	Press. _____	Press. <u>1594</u>
P20 _____	Press. _____	Press. _____	Press. _____	Press. <u>1598</u>
				<u>1601</u>
				<u>1604</u>
				<u>1605</u>

TKT # 12886

1566.

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Company Pickrell Drilling Company Lease & Well No. #A-2 Luft Unit
 Elevation 2456 Kelly Bushing Formation - Effective Pay - Ft. Ticker No. 12886
 Date 8/8 /81 Sec. 2 Twp. 30S Range 22W County Clark State Kansas
 Test Approved by Claud Sheats, Jr. Western Representative Mike Rogers

Formation Test No. 1 Interval Tested from 5088 ft. to 5150 ft. Total Depth 5150 ft.
 Packer Depth 5083 ft. Size 6 5/8 in. Packer Depth - ft. Size - in.
 Packer Depth 5088 ft. Size 6 5/8 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -
 Top Recorder Depth (Inside) 5091 ft. Recorder Number 1566 Cap. 4300
 Bottom Recorder Depth (Outside) 5095 ft. Recorder Number 3086 Cap. 4400
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor Pickrell Drilling Drill Collar Length 210 I. D. 2.2 in.
 Mud Type chemical Viscosity 65 Weight Pipe Length - I. D. - in.
 Weight 9.0 Water Loss 10.8 cc. Drill Pipe Length 4849 I. D. 3.8 in.
 Chlorides 18,000 P.P.M. Test Tool Length 29 ft. Tool Size 5 1/2 in.
 Jars: Make WTC Serial Number 3660 Anchor Length Collars 62 ft. Size 5 1/2 in.
 Did Well Flow? No Reversed Out No 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 in.

Blow: Weak building to strong on initial flow period. Strong final flow period.
No gas to surface.

Recovered 120 ft. of drilling mud with a few specks of oil
 Recovered 120 ft. of watery drilling mud
 Recovered ft. of
 Recovered ft. of
 Recovered ft. of

Remarks:

Time Set Packer(s) 8:30 ~~A.M.~~ P.M. Time Started Off Bottom 1:30 ~~A.M.~~ P.M. Maximum Temperature 129°
 Initial Hydrostatic Pressure (A) 2548 P.S.I.
 Initial Flow Period (B) 30 Minutes (C) 52 P.S.I. to (D) 52 P.S.I.
 Initial Closed In Period (E) 60 Minutes (F) 1606 P.S.I.
 Final Flow Period (G) 90 Minutes (H) 89 P.S.I. to (I) 110 P.S.I.
 Final Closed In Period (J) 129 Minutes (K) 1605 P.S.I.
 Final Hydrostatic Pressure (L) 2537 P.S.I.

WESTERN TESTING CO., INC.

Pressure Data

Date 8/8/81 Recorder No. 1566 Capacity 4300 Test Ticket No. 12886
 Clock No. -- Elevation 2456 Kelly Bushing Location 5091 Ft. ---
 Well Temperature 129 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2548</u> P.S.I.	Open Tool	<u>8:30P</u>	<u>M</u>
B First Initial Flow Pressure	<u>52</u> P.S.I.	First Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>52</u> P.S.I.	Initial Closed-in Pressure	<u>60</u> Mins.	<u>60</u> Mins.
D Initial Closed-in Pressure	<u>1606</u> P.S.I.	Second Flow Pressure	<u>90</u> Mins.	<u>90</u> Mins.
E Second Initial Flow Pressure	<u>89</u> P.S.I.	Final Closed-in Pressure	<u>120</u> Mins.	<u>129</u> Mins.
F Second Final Flow Pressure	<u>110</u> P.S.I.			
G Final Closed-in Pressure	<u>1605</u> P.S.I.			
H Final Hydrostatic Mud	<u>2537</u> P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>6</u> Inc.		Breakdown: <u>20</u> Inc.		Breakdown: <u>18</u> Inc.		Breakdown: <u>43</u> 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>52</u>	<u>0</u>	<u>52</u>	<u>0</u>	<u>89</u>	<u>0</u>	<u>110</u>
P 2 <u>5</u>	<u>52</u>	<u>3</u>	<u>136</u>	<u>5</u>	<u>89</u>	<u>3</u>	<u>222</u>
P 3 <u>10</u>	<u>52</u>	<u>6</u>	<u>361</u>	<u>10</u>	<u>89</u>	<u>6</u>	<u>400</u>
P 4 <u>15</u>	<u>52</u>	<u>9</u>	<u>680</u>	<u>15</u>	<u>89</u>	<u>9</u>	<u>624</u>
P 5 <u>20</u>	<u>52</u>	<u>12</u>	<u>910</u>	<u>20</u>	<u>90</u>	<u>12</u>	<u>832</u>
P 6 <u>25</u>	<u>52</u>	<u>15</u>	<u>1092</u>	<u>25</u>	<u>90</u>	<u>15</u>	<u>979</u>
P 7 <u>30</u>	<u>52</u>	<u>18</u>	<u>1216</u>	<u>30</u>	<u>91</u>	<u>18</u>	<u>1083</u>
P 8		<u>21</u>	<u>1307</u>	<u>35</u>	<u>93</u>	<u>21</u>	<u>1156</u>
P 9		<u>24</u>	<u>1365</u>	<u>40</u>	<u>95</u>	<u>24</u>	<u>1212</u>
P10		<u>27</u>	<u>1408</u>	<u>45</u>	<u>97</u>	<u>27</u>	<u>1255</u>
P11		<u>30</u>	<u>1444</u>	<u>50</u>	<u>99</u>	<u>30</u>	<u>1291</u>
P12		<u>33</u>	<u>1470</u>	<u>55</u>	<u>100</u>	<u>33</u>	<u>1324</u>
P13		<u>36</u>	<u>1496</u>	<u>60</u>	<u>101</u>	<u>36</u>	<u>1347</u>
P14		<u>39</u>	<u>1517</u>	<u>65</u>	<u>102</u>	<u>39</u>	<u>1371</u>
P15		<u>42</u>	<u>1532</u>	<u>70</u>	<u>102</u>	<u>42</u>	<u>1388</u>
P16		<u>45</u>	<u>1552</u>	<u>75</u>	<u>103</u>	<u>45</u>	<u>1405</u>
P17		<u>48</u>	<u>1567</u>	<u>80</u>	<u>105</u>	<u>48</u>	<u>1423</u>
P18		<u>51</u>	<u>1578</u>	<u>85</u>	<u>107</u>	<u>51</u>	<u>1438</u>
P19		<u>54</u>	<u>1586</u>	<u>90</u>	<u>110</u>	<u>54</u>	<u>1453</u>
P20		<u>57</u>	<u>1593</u>			<u>57</u>	<u>1463</u>
		<u>60</u>	<u>1606</u>			<u>60</u>	<u>1474</u>

WESTERN TESTING CO., INC.

Pressure Data

Date 8/8/81 Recorder No. 1566 Capacity 4300 Test Ticket No. 12886
 Location 5091 Ft. --- Elevation 2456 Kelly Bushing Well Temperature 129 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	2548 P.S.I.	Open Tool	8:30P	M
B First Initial Flow Pressure	52 P.S.I.	First Flow Pressure	30 Mins.	30 Mins.
C First Final Flow Pressure	52 P.S.I.	Initial Closed-in Pressure	60 Mins.	60 Mins.
D Initial Closed-in Pressure	1606 P.S.I.	Second Flow Pressure	90 Mins.	90 Mins.
E Second Initial Flow Pressure	89 P.S.I.	Final Closed-in Pressure	120 Mins.	129 Mins.
F Second Final Flow Pressure	110 P.S.I.			
G Final Closed-in Pressure	1605 P.S.I.			
H Final Hydrostatic Mud	2537 P.S.I.			

PRESSURE BREAKDOWN

<p>First Flow Pressure Breakdown: <u>6</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.</p>	<p>Initial Shut-In Breakdown: <u>20</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.</p>	<p>Second Flow Pressure Breakdown: <u>18</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.</p>	<p>Final Shut-In Breakdown: <u>43</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.</p>
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Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1				63	1487		
P 2				66	1496		
P 3				69	1504		
P 4				72	1515		
P 5				75	1522		
P 6				78	1528		
P 7				81	1535		
P 8				84	1543		
P 9				87	1550		
P10				90	1555		
P11				93	1559		
P12				96	1566		
P13				99	1569		
P14				102	1573		
P15				105	1578		
P16				108	1582		
P17				111	1586		
P18				114	1590		
P19				117	1594		
P20				120	1598		
				123	1601		
				126	1604		
				129	1605		



WESTERN TESTING CO., INC.

FORMATION TESTING

TICKET No 12887 OK

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

Elevation 2456 KB Formation Cherokee Eff. Pay Ft.

District Pratt Date 8-10-81 Customer Order No.

COMPANY NAME Pickrell Orlg. Co.

ADDRESS Litwin Bldg, Suite 205 110 N. Market Wichita, Ks. 67202

LEASE AND WELL NO. 4-2 Luft COUNTY Clark STATE Ks. Sec. 2 Twp 30S Rge 22W

Mail Invoice To #2 "A" Luft Unit Co. Name Same Address Same No. Copies Requested Req

Mail Charts To Address Same No. Copies Requested Req

Formation Test No. 2 Interval Tested from 5164 ft. to 5280 ft. Total Depth 5280 ft.

Packer Depth 5159 ft. Size 6 5/8 in. Packer Depth ft. Size in.

Packer Depth 5164 ft. Size 6 5/8 in. Packer Depth ft. Size in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 5167 ft. Recorder Number 1566 Cap. 4300

Bottom Recorder Depth (Outside) 5170 ft. Recorder Number 3086 Cap. 4400

Below Straddle Recorder Depth ft. Recorder Number Cap.

Drilling Contractor Co-Tools Drill Collar Length 151 I. D. 2.2 in.

Mud Type Chemical Viscosity 65 Weight Pipe Length I. D. in.

Weight 9.0 Water Loss 10.8 cc. Drill Pipe Length 4984 I. D. 3.8 in.

Chlorides 18,000 P.P.M. Test Tool Length 28 ft. Tool Size 5 1/2 in.

Jars: Make UTC Serial Number 3660 Anchor Length 27 1/2 ft. Size 5 1/2 in.

Did Well Flow? no Reversed Out no 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 in.

Blow: Weak mud - Dead mud (Flush 60K) died in 20 min.

Recovered 35 ft. of Dslp mud-

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks: Slid 10' to Bottom -

Time On Location 11:30 ^{AM} Time Pick Up Tool 12:00 ^{AM} Time Off Location 8:00 ^{AM}

Time Set Packer(s) 2:30 ^{PM} Time Started Off Bottom 5:00 ^{PM} Maximum Temperature 128°

Initial Hydrostatic Pressure (A) 2591 P.S.I.

Initial Flow Period 30 Minutes (B) 75 P.S.I. to (C) 64 P.S.I.

Initial Closed In Period 60 Minutes (D) 75 P.S.I.

Final Flow Period 30 Minutes (E) 75 P.S.I. to (F) 75 P.S.I.

Final Closed In Period 30 Minutes (G) 75 P.S.I.

Final Hydrostatic Pressure (H) 2591 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
Signature of Customer or his authorized representative

Western Representative Mike Rogers Thanks!

FIELD INVOICE

Open Hole Test	\$	<u>275.00</u>
Misrun	\$	<u> </u>
Straddle Test	\$	<u> </u>
Jars	\$	<u>200.00</u>
Selective Zone	\$	<u> </u>
Safety Joint	\$	<u>65.00</u>
Standby	\$	<u> </u>
Evaluation	\$	<u> </u>
Extra Packer	\$	<u> </u>
Circ. Sub.	\$	<u> </u>
Mileage <u>70</u>	\$	<u>52.50</u>
Fluid Sampler	\$	<u> </u>
Extra Charts	\$	<u> </u>
Insurance	\$	<u> </u>
TOTAL	\$	<u>1192.50</u>

27
186
669

WESTERN TESTING CO., INC.

Pressure Data

Date 8-10 Recorder No. 1566 Capacity 4300 Test Ticket No. 12887
 Location 5167
 Clock No. Elevation 2456 KB Well Temperature 128

Point	Pressure	Open Tool	Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2591</u> P.S.I.		<u>2:30 AM</u>	
B First Initial Flow Pressure	<u>67</u> P.S.I.	First Flow Pressure	<u>30</u> Mins.	<u>30</u> Min.
C First Final Flow Pressure	<u>67</u> P.S.I.	Initial Closed-in Pressure	<u>60</u> Mins.	<u>51</u> Min.
D Initial Closed-in Pressure	<u>86</u> P.S.I.	Second Flow Pressure	<u>30</u> Mins.	<u>30</u> Min.
E Second Initial Flow Pressure	<u>65</u> P.S.I.	Final Closed-in Pressure	<u>30</u> Mins.	<u>36</u> Min.
F Second Final Flow Pressure	<u>65</u> P.S.I.			
G Final Closed-in Pressure	<u>67</u> P.S.I.			
H Final Hydrostatic Mud	<u>2591</u> P.S.I.			

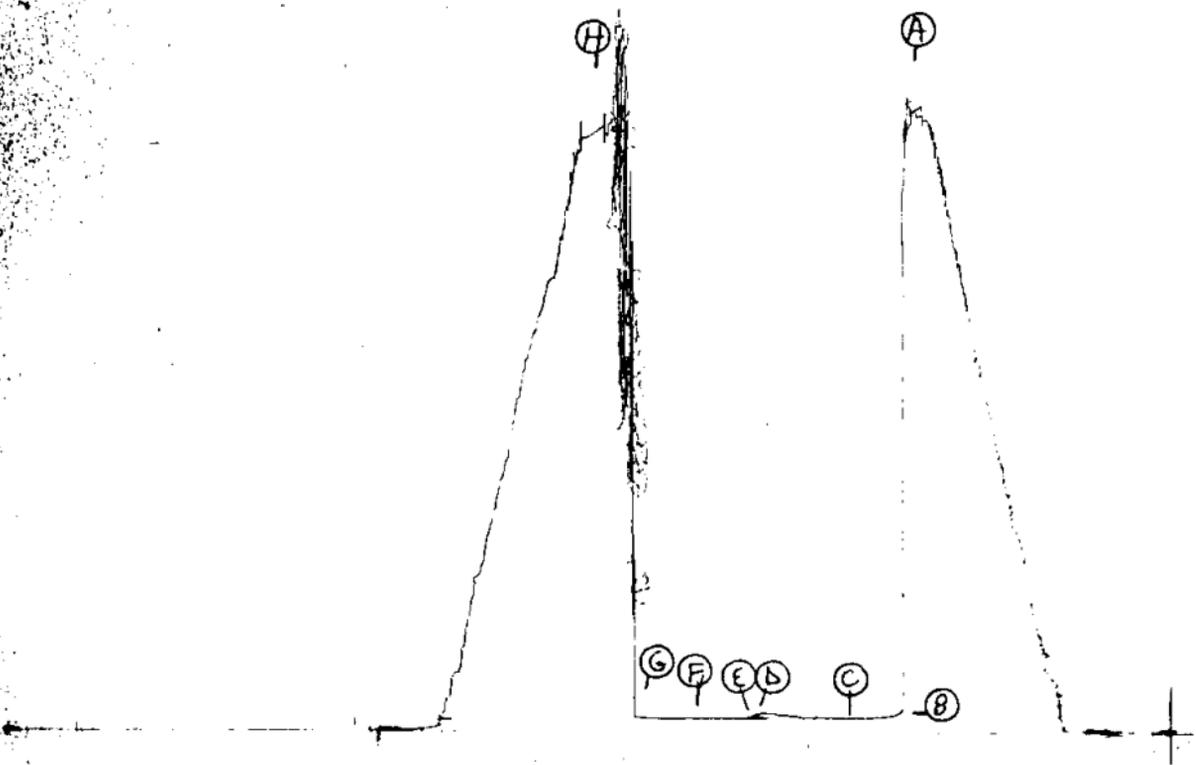
PRESSURE BREAKDOWN

First Flow Pressure Breakdown: <u>6</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.		Initial Shut-In Breakdown: <u>17</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.		Second Flow Pressure Breakdown: <u>6</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.		Final Shut-In Breakdown: <u>12</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 0	<u>67</u>	0	<u>67</u>	0	<u>65</u>	0	<u>65</u>
P 2 5		3		5		3	
P 3 10		6		10		6	
P 4 15		9		15		9	<u>65</u>
P 5 20		12		20		12	<u>64</u>
P 6 25		15		25		15	<u>64</u>
P 7 30	<u>67</u>	18		30	<u>65</u>	18	<u>64</u>
P 8 35		21		35		21	<u>65</u>
P 9 40		24	<u>67</u>	40		24	<u>65</u>
P10 45		27	<u>70</u>	45		27	<u>65</u>
P11 50		30	<u>73</u>	50		30	<u>66</u>
P12 55		33	<u>75</u>	55		33	<u>66</u>
P13 60		36	<u>77</u>	60		36	<u>67</u>
P14		39	<u>79</u>	65		39	
P15		42	<u>82</u>	70		42	
P16		45	<u>85</u>	75		45	
P17		48	<u>86</u>	80		48	
P18		51	<u>86</u>	85		51	
P19		54		90		54	
P20		57				57	
		60				60	

TKT.# 12887

1086

I



Company Pickrell Drilling Company Lease & Well No. #A-2 Luft Unit
2456 Kelly Bushing Cherokee Effective Pay _____ Ft. Ticket No. 12887
 Elevation _____ Formation 30S Range 22W County Clark State Kansas
 Date 8/10/81 Sec 2 Twp _____

Test Approved by Claud Sheats, Jr. Western Representative Mike Rogers

Formation Test No. 2 Interval Tested from 5164 ft. to 5280 ft. Total Depth 5280 ft.
 Packer Depth 5159 ft. Size 6 5/8 in. Packer Depth - ft. Size - in.
 Packer Depth 5164 ft. Size 6 5/8 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set _____
 Top Recorder Depth (Inside) 5167 ft. Recorder Number 1566 Cap. 4300
 Bottom Recorder Depth (Outside) 5170 ft. Recorder Number 3086 Cap. 4400
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor Pickrell Drilling Company Drill Collar Length 151 I. D. 2.2 in.
 Mud Type chemical Viscosity 65 Weight Pipe Length _____ I. D. - in.
 Weight 9.0 Water Loss 10.8 cc. Drill Pipe Length 4984 I. D. 3.8 in.
 Chlorides 18,000 P.P.M. Test Tool Length 29 ft. Tool Size 5 1/2 in.
 Jars: Make WIC Serial Number 3660 Collars Anchor Length 27 + 89 ft. Size 5 1/2 in.
 Did Well Flow? No Reversed Out No 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 in.

Blow: Weak on initial flow period. Dead on final flow period. (Flushed - okay) died in twenty minutes.

Recovered 35 ft. of drilling mud
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____

Remarks: Slid ten feet to bottom.

Time Set Packer(s)	<u>2:30</u>	P.M. <u>A.M.</u>	Time Started Off Bottom	<u>5:00</u>	P.M. <u>A.M.</u>	Maximum Temperature	<u>128°</u>
Initial Hydrostatic Pressure			(A)	<u>2591</u>		P.S.I.	
Initial Flow Period		Minutes	<u>30</u>	(B)	<u>67</u>	P.S.I. to (C)	<u>67</u> P.S.I.
Initial Closed In Period		Minutes	<u>51</u>	(D)	<u>86</u>		P.S.I.
Final Flow Period		Minutes	<u>30</u>	(E)	<u>65</u>	P.S.I. to (F)	<u>65</u> P.S.I.
Final Closed In Period		Minutes	<u>36</u>	(G)	<u>67</u>		P.S.I.
Final Hydrostatic Pressure			(H)	<u>2591</u>		P.S.I.	

WESTERN TESTING CO., INC.

Pressure Data

Date 8/10/81 Test Ticket No. 12887
 Recorder No. 1566 Capacity 4300 Location _____ Ft.
 Clock No. = Elevation 2456 Kelly Bushing Well Temperature 128 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2591</u> P.S.I.	Open Tool	<u>2:30A</u>	<u>M</u>
B First Initial Flow Pressure	<u>67</u> P.S.I.	First Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>67</u> P.S.I.	Initial Closed-in Pressure	<u>60</u> Mins.	<u>51</u> Mins.
D Initial Closed-in Pressure	<u>86</u> P.S.I.	Second Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
E Second Initial Flow Pressure	<u>65</u> P.S.I.	Final Closed-in Pressure	<u>30</u> Mins.	<u>36</u> Mins.
F Second Final Flow Pressure	<u>65</u> P.S.I.			
G Final Closed-in Pressure	<u>67</u> P.S.I.			
H Final Hydrostatic Mud	<u>2591</u> P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure
 Breakdown: 6 Inc.
 of 5 mins. and a
 final inc. of 0 Min.

Initial Shut-In
 Breakdown: 17 Inc.
 of 3 mins. and a
 final inc. of 0 Min.

Second Flow Pressure
 Breakdown: 6 Inc.
 of 5 mins. and a
 final inc. of 0 Min.

Final Shut-In
 Breakdown: 12 Inc.
 of 3 mins. and a
 final inc. of 0 Min.

Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1	<u>0</u> 67	<u>0</u> 67	<u>0</u> 67	<u>0</u> 65	<u>0</u> 65	<u>0</u> 65	<u>0</u> 65
P 2	<u>5</u> 67	<u>3</u> 67	<u>5</u> 67	<u>5</u> 65	<u>3</u> 65	<u>3</u> 65	<u>3</u> 65
P 3	<u>10</u> 67	<u>6</u> 67	<u>10</u> 67	<u>10</u> 65	<u>6</u> 65	<u>6</u> 65	<u>6</u> 65
P 4	<u>15</u> 67	<u>9</u> 67	<u>15</u> 67	<u>15</u> 65	<u>9</u> 65	<u>9</u> 65	<u>9</u> 65
P 5	<u>20</u> 67	<u>12</u> 67	<u>20</u> 67	<u>20</u> 65	<u>12</u> 65	<u>12</u> 65	<u>12</u> 64
P 6	<u>25</u> 67	<u>15</u> 67	<u>25</u> 67	<u>25</u> 65	<u>15</u> 65	<u>15</u> 65	<u>15</u> 64
P 7	<u>30</u> 67	<u>18</u> 67	<u>30</u> 67	<u>30</u> 65	<u>18</u> 65	<u>18</u> 65	<u>18</u> 64
P 8		<u>21</u> 67			<u>21</u> 65		<u>21</u> 65
P 9		<u>24</u> 67			<u>24</u> 65		<u>24</u> 65
P10		<u>27</u> 70			<u>27</u> 65		<u>27</u> 65
P11		<u>30</u> 73			<u>30</u> 66		<u>30</u> 66
P12		<u>33</u> 75			<u>33</u> 66		<u>33</u> 66
P13		<u>36</u> 77			<u>36</u> 67		<u>36</u> 67
P14		<u>39</u> 79					
P15		<u>42</u> 82					
P16		<u>45</u> 85					
P17		<u>48</u> 86					
P18		<u>51</u> 86					
P19							
P20							



WESTERN TESTING CO., INC.

FORMATION TESTING

TICKET No 12888

OK

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

Elevation 2456 KB Formation mud Eff. Pay Ft.

District Pratt Date 8-10-81 Customer Order No.

COMPANY NAME Pickrell Orlg Co. Litterer Bldg.

ADDRESS 110 N. Market Suite 205 Wichita, Ks. 67202

LEASE AND WELL NO. A-2 Left Unit COUNTY Clark STATE Ks. Sec. 2 Twp 30S Rge 22W

Mail Invoice To Same Co. Name Address No. Copies Requested 14

Mail Charts To Same Address No. Copies Requested 14

Formation Test No. 3 Interval Tested from 5268 ft. to 5330 ft. Total Depth 5330 ft.

Packer Depth 5263 ft. Size 6 5/8 in. Packer Depth ft. Size in.

Packer Depth 5668 ft. Size 6 5/8 in. Packer Depth ft. Size in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 5671 ft. Recorder Number 1566 Cap. 4300

Bottom Recorder Depth (Outside) 5675 ft. Recorder Number 3086 Cap. 4400

Below Straddle Recorder Depth ft. Recorder Number Cap.

Drilling Contractor Co. Tools - Drill Collar Length 211 I. D. 2.2 in.

Mud Type chemical Viscosity 62 Weight Pipe Length I. D. in.

Weight 8.8 Water Loss 12.8 cc. Drill Pipe Length 5038' I. D. 3.8 in.

Chlorides 26,000 P.P.M. Test Tool Length 29 ft. Tool Size 5 1/2 in.

Jars: Make WTC Serial Number 3660 Anchor Length 29 33 ft. Size 5 1/2 in.

Did Well Flow? 42 Reversed Out no yes 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 in.

Blow:

Recovered 5000 ft. of mud -

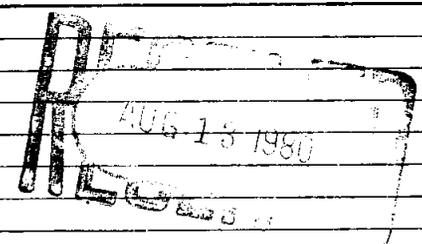
Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks: Slide 10' to Bottom - Hydraulic Tool Leaked -



Time On Location 7:15 A.M. Time Pick Up Tool 7:30 P.M. Time Off Location A.M. P.M.

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

Initial Hydrostatic Pressure (A) 2581 P.S.I.

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

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

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

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

Final Hydrostatic Pressure (H) 2581 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 Signature of Customer or his authorized representative

Western Representative Mike Rojas Thanks Again!

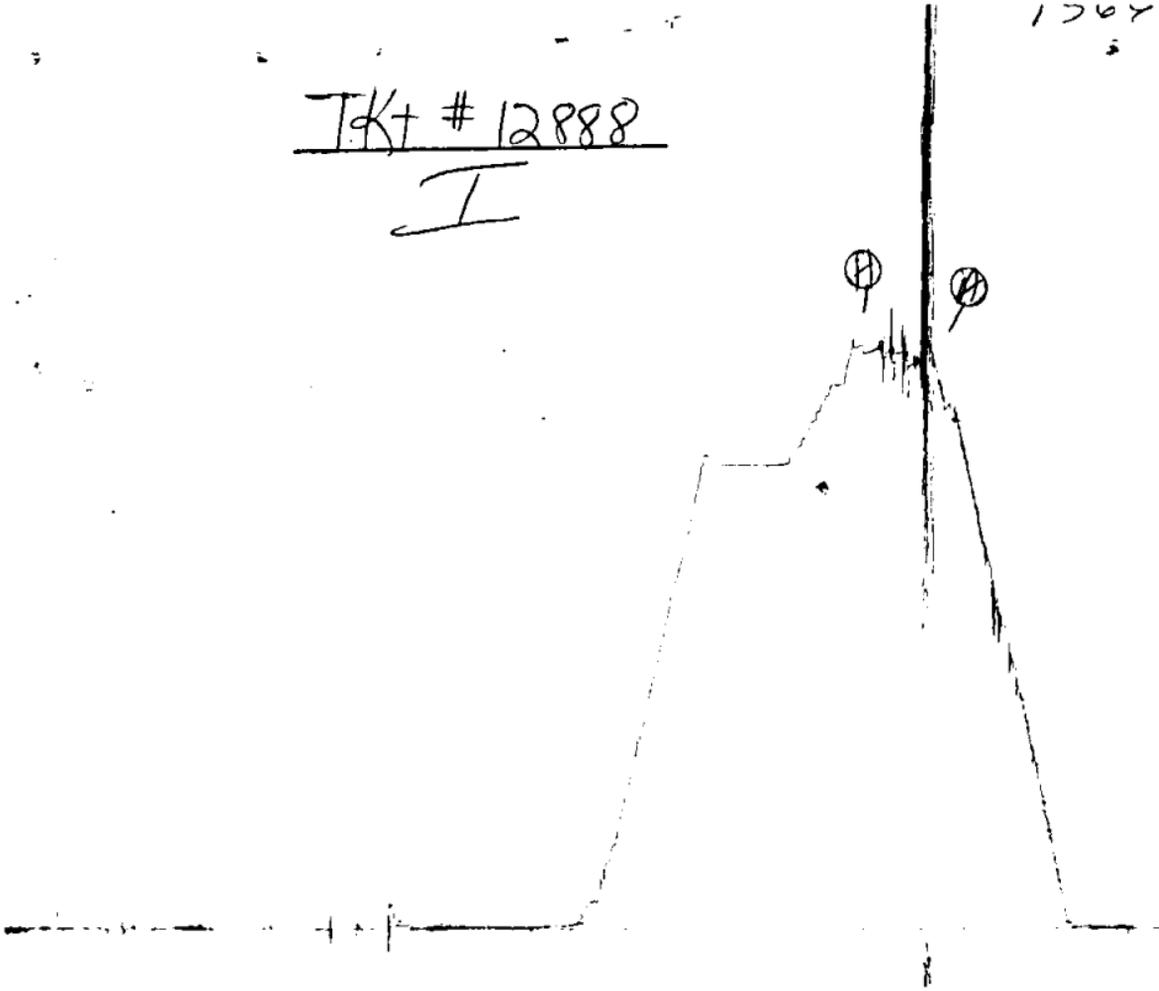
FIELD INVOICE

Table with 2 columns: Item, Amount. 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, TOTAL.

1207

TKT # 12888

I



Company Pickrell Drilling Company Lease & Well No. Luft Unit #2'A"
 Elevation 2456 Kelly Bushing Mississippi Formation Effective Pay - Ft. Ticket No. 12888
 Date 8/10 /81 Sec 2 Twp 30S Range 22W County Clark State Kansas
 Test Approved by ? Western Representative Mike Rogers

Formation Test No. 3 Interval Tested from 5268 ft. to 5330 ft. Total Depth 5330 ft.
 Packer Depth 5263 ft. Size 6 5/8 Packer Depth - ft. Size - in.
 Packer Depth 5668 ft. Size 6 5/8 Packer Depth - ft. Size - in.

Depth of Selective Zone Set -
 Top Recorder Depth (Inside) 5671 ft. Recorder Number 1566 Cap. 4300
 Bottom Recorder Depth (Outside) 5675 ft. Recorder Number 3086 Cap. 4400
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor Pickrell Drilling Drill Collar Length 211 I. D. 2.2 in.
 Mud Type chemical Viscosity 62 Weight Pipe Length - I. D. - in.
 Weight 8.8 Water Loss 12.8 cc. Drill Pipe Length 5028 I. D. 3.8 in.
 Chlorides 26,000 P.P.M. Test Tool Length 29 ft. Tool Size 5 1/2 OD in.
 Jars: Make WIC Serial Number 3660 Drill Collar 29 - 33 ft. Size 5 1/2 OD in.
 Did Well Flow? NO Reversed Out Yes 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 in.

Blow: MISRUN

Recovered 5000 ft. of mud
 Recovered ft. of
 Recovered ft. of
 Recovered ft. of
 Recovered ft. of

Remarks: Slid ten feet to bottom. Hydraulic tool leaked.

Time Set Packer(s)	A.M. P.M.	Time Started Off Bottom	A.M. P.M.	Maximum Temperature
Initial Hydrostatic Pressure		(A) <u>2581</u>	P.S.I.	
Initial Flow Period		Minutes (B) <u>-</u>	P.S.I. to (C) <u>-</u>	P.S.I.
Initial Closed In Period		Minutes (D) <u>-</u>	P.S.I.	
Final Flow Period		Minutes (E) <u>-</u>	P.S.I. to (F) <u>-</u>	P.S.I.
Final Closed In Period		Minutes (G) <u>-</u>	P.S.I.	
Final Hydrostatic Pressure		(H) <u>2581</u>	P.S.I.	



WESTERN TESTING CO., INC.

FORMATION TESTING

TICKET

No. 14849

OK

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

Elevation 2456 RB Formation MISS Eff. Pay Ft.

District PRATT Date 8-11-81 Customer Order No.

COMPANY NAME Pickrell Drilling Co. Address Int 205 - Wichita, KS 67202

LEASE AND WELL NO. #2 "A" h u f + Vint COUNTY CLARK STATE Kansas Sec. 2 Twp 30s Rge 22w

Mail Invoice To Same Co. Name Address No. Copies Requested Reg 4

Mail Charts To Same Address No. Copies Requested Reg 4

Formation Test No. 4 Interval Tested from 5268 ft. to 5330 ft. Total Depth 5330 ft.

Packer Depth 5263 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Packer Depth 5268 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -

Top Recorder Depth (Inside) 5272 ft. Recorder Number 2606 Cap. 4150

Bottom Recorder Depth (Outside) 5275 ft. Recorder Number 4332 Cap. 4200

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

Drilling Contractor Co Tools Drill Collar Length 236 I. D. 2 1/4 in.

Mud Type Drispac Viscosity 70 Weight Pipe Length - I. D. - in.

Weight 9.2 Water Loss 14.8 cc. Drill Pipe Length 5034 I. D. 3.8 in.

Chlorides 31,000 P.P.M. Test Tool Length 28 ft. Tool Size 5 1/2 in.

Jars: Make WTC Serial Number 409 Anchor Length 32-30 (62) ft. Size 5600 int 6"

Did Well Flow? NO Reversed Out NO Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.

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

Blow: Strong blow throughout test - gas to surface in 25 minutes see flow charts attached for gas measurement

Recovered 240 ft. of gas out mud

Recovered - ft. of

Recovered - ft. of

Recovered - ft. of

Recovered - ft. of

Remarks: false seal failed on first try - pulled loose & reset tool - held slide tool 12 ft to bottom

Time On Location 4:00 AM Time Pick Up Tool 4:45 AM Time Off Location 2:45 AM

Time Set Packer(s) 6:40 AM Time Started Off Bottom 11:45 PM Maximum Temperature 128 F

Initial Hydrostatic Pressure (A) 2607 P.S.I.

Initial Flow Period Minutes 30 (B) 154 P.S.I. to (C) 135 P.S.I.

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

Final Flow Period Minutes 90 (E) - P.S.I. to (F) 208 P.S.I.

Final Closed In Period Minutes 120 (G) 1642 P.S.I.

Final Hydrostatic Pressure (H) 2554 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.

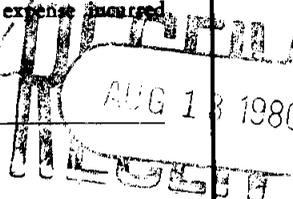
All charges subject to 12% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.

Test Approved By [Signature] Signature of Customer or his authorized representative

Western Representative [Signature] Thank you

FIELD INVOICE

Table with 2 columns: Item, Amount. Includes Open Hole Test (\$775.00), Selective Zone (\$65.00), Mileage (\$52.50), and TOTAL (\$1242.50).



COMPANY NAME Pickens Drilling Co
 SOURCE Part Date 8-11-81 Customer Order No.

LEASE AND WELL NO. 2 Luft COUNTY Clax STATE Miss

Well Location To Shunk Address Shunk No. Copies Requested Reg
 Well Casing To 3000 Address Shunk No. Copies Requested Reg

Log Section Test No. 4 Interval From Log 5268 to 5330 ft. Total Depth 5330 ft.
 Log Depth 5263 ft. Section 6-34 in. Packer Depth --- ft. Section --- in.
 Log Depth 5268 ft. Section 6-34 in. Packer Depth --- ft. Section --- in.

No. Recorder Depth (Inside) 5272 ft. Recorder Number 2606 Cap 4150
 No. Recorder Depth (Outside) 5275 ft. Recorder Number 4332 Cap 4200
 No. Saddle Recorder Depth --- ft. Recorder Number --- Cap ---

Drilling Company Co Looka Drill Collar Length 236 I.D. 2 1/4 in.
 Well Type Desp Viscosity 70 Weight Pipe Length --- I.D. --- in.
 Weight 9.2 Water Loss 14.8 cc. Drill Pipe Length 5034 I.D. 3.8 in.
 Viscosity 31,000 PPM Test Tool Length 28 ft. Test String --- in.
 or Make WTC Serial Number 409 Anchor Length 32-30/62 in. Size 5600 at 6
 or Well Flow? NO Reported On NO Surface Check Size 3/4 in. Bottom Check Size 3/4 in.
 Main Hole Size 2 1/2 in. Test Joint Size 1 3/4 in.

Low string down through out test - good to surface in
2.5 minutes. See that --- the attached sheet for gas
 covered 240 ft. of gas out of well
 covered --- ft. of
 covered --- ft. of
 covered --- ft. of
 covered --- ft. of
 Test - held --- stick test 12 ft. to bottom

Test On Location 4100 Time Pick Up Tool 4145 Time Off Location 2145
 Time Set Packer(s) 6:40 Time Sealed Off Bottom 11:45 Maximum Temperature 128
 Initial Hydraulic Pressure (A) 2607 PSI
 Initial Flow Period Minutes 20 (B) 156 PSI to (C) 135 PSI

Initial Closed In Period Minutes 60 (D) --- PSI
 Initial Flow Period Minutes 90 (E) --- PSI to (F) 208 PSI
 Initial Closed In Period Minutes 120 (G) 1642 PSI
 Initial Hydraulic Pressure (H) 2554 PSI

COMPANY TERMS
 Western Testing Co., Inc. shall not be liable for damages of any kind to the property or personnel of the user for whom a test is made or for any loss suffered or incurred directly or indirectly through the use of its equipment, or its accessories or supplies constituting 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 Clayton Shunk
 Signature of Customer or his authorized representative
Subair Shunk

FUELS INVOICE
 Open Hole Test
 Mixon ---
 Saddle Test ---
 Jam ---
 Selective Zone ---
 Safety Joint ---
 Sealing ---
 Evaluation ---
 Extra Packer ---
 Clear Sol ---
 Misc ---



No 3356

GAS FLOW REPORT

Date 8-11-81 Ticket 14849 Company Pickrell Drilling Co
 Well Name and No. 2 - Luft Dst No. 4 Interval Tested 5268-5330
 County CLARK State Kansas Sec. 2 Twp. 30S Rg. 22W

Time Gauge in Min.	P.S.I. on Merla Orifice Well Tester	Size of Orifice	P.S.I. on Pitot Tester	P.S.I. on Side Static Tester	Description of Flow
--------------------	-------------------------------------	-----------------	------------------------	------------------------------	---------------------

PRE FLOW

<u>6:45 AM</u>					<u>Tool open</u>
<u>25 min</u>					<u>gas to surface</u>
<u>30</u>		<u>1/2</u>			<u>19,900 CFPD</u>

SECOND FLOW

Time	Locks of Water	Size of Orifice	P.S.I. on Pitot Tester	P.S.I. on Side Static Tester	Description of Flow
<u>10</u>	<u>18</u>	<u>1/2</u>			<u>26,600</u>
<u>20</u>	<u>19</u>				<u>27,300</u>
<u>30</u>	<u>18</u>				<u>26,600</u>
<u>40</u>	<u>18</u>				<u>26,600</u>
<u>50</u>	<u>14</u>				<u>23,700</u>
<u>60</u>	<u>16</u>				<u>25,100</u>
<u>70</u>	<u>17</u>				<u>25,800</u>
<u>80</u>	<u>19</u>				<u>27,300</u>
<u>90</u>	<u>19</u>				<u>27,300</u>

GAS BOTTLE

Serial No. _____ Date Bottle Filled _____ Date to be Invoiced _____

Requisition and Provisions for high pressure stainless steel gas bottles. Western Testing Co., Inc. shall not be liable for damage of any kind to property or personnel of the one whom gas bottle is filled or for any loss suffered or sustained directly or indirectly through the use of these bottles. By signing of this ticket showing receipt of a gas testing bottle, the undersigned agrees for himself and as agent for operator, to return this bottle to Western Testing Co., Inc. within thirty (30) days free of charge, or be invoiced in the amount of \$75.00 (total charge). Should valve or seal plug be missing or damaged beyond repair, operator shall be invoiced for repairs at our invoiced price.

All charges subject to 1 1/2% per month, equal to 18% interest per annum after 30 days from date of invoice. Any expense incurred for collection will be added to the original amount.

COMPANY'S NAME _____

Authorized by _____

WESTERN TESTING CO., INC.

Pressure Data

Date: 8-11 Test Ticket No. 14849
 Recorder No. 2606 Capacity 4150 Location 5272 Ft.
 Clock No. _____ Elevation 2456 KB Well Temperature 128 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2607</u>	P.S.I.	<u>6:40 A.M.</u>	
B First Initial Flow Pressure	<u>139</u>	P.S.I.	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>139</u>	P.S.I.	<u>60</u> Mins.	<u>60</u> Mins.
D Initial Closed-in Pressure	<u>373 *</u>	P.S.I.	<u>90</u> Mins.	<u>85</u> Mins.
E Second Initial Flow Pressure	<u>358 *</u>	P.S.I.	<u>120</u> Mins.	<u>117</u> Mins.
F Second Final Flow Pressure	<u>213 *</u>	P.S.I.		
G Final Closed-in Pressure	<u>1645</u>	P.S.I.		
H Final Hydrostatic Mud	<u>2554</u>	P.S.I.		

* Pressures questionable due to tool being out of stage.

PRESSURE BREAKDOWN

First Flow Pressure Breakdown: 6 Inc. of 5 mins. and a final inc. of 0 Min.

Initial Shut-In Breakdown: 20 Inc. of 3 mins. and a final inc. of 0 Min.

Second Flow Pressure Breakdown: 17 Inc. of 5 mins. and a final inc. of 0 Min.

Final Shut-In Breakdown: 39 Inc. of 3 mins. and a final inc. of 0 Min.

Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 0	<u>139</u>	0	<u>139</u>	0	<u>358 *</u>	0	<u>213 *</u>
P 2 5		3	<u>148 *</u>	5	<u>352 *</u>	3	<u>481</u>
P 3 10		6	<u>158 *</u>	10	<u>345 *</u>	6	<u>742</u>
P 4 15		9	<u>163 *</u>	15	<u>346 *</u>	9	<u>936</u>
P 5 20		12	<u>171 *</u>	20	<u>347 *</u>	12	<u>1087</u>
P 6 25		15	<u>177 *</u>	25	<u>349 *</u>	15	<u>1228</u>
P 7 30	<u>139</u>	18	<u>189 *</u>	30	<u>351 *</u>	18	<u>1316</u>
P 8 35		21	<u>204 *</u>	35	<u>358 *</u>	21	<u>1391</u>
P 9 40		24	<u>212 *</u>	40	<u>431 *</u>	24	<u>1442</u>
P10 45		27	<u>223 *</u>	45	<u>477 *</u>	27	<u>1488</u>
P11 50		30	<u>235 *</u>	50	<u>533 *</u>	30	<u>1519</u>
P12 55		33	<u>239 *</u>	55	<u>566 *</u>	33	<u>1544</u>
P13 60		36	<u>245 *</u>	60	<u>581 *</u>	36	<u>1565</u>
P14		39	<u>252 *</u>	65	<u>597 *</u>	39	<u>1580</u>
P15		42	<u>257 *</u>	70	<u>585 *</u>	42	<u>1592</u>
P16		45	<u>264 *</u>	75	<u>583 *</u>	45	<u>1605</u>
P17		48	<u>270 *</u>	80	<u>580 *</u>	48	<u>1611</u>
P18		51	<u>278 *</u>	85	<u>213 *</u>	51	<u>1617</u>
P19		54	<u>310 *</u>			54	<u>1622</u>
P20		57	<u>368 *</u>			57	<u>1626</u>
		60	<u>373 *</u>			60	<u>1630</u>

cont.

WESTERN TESTING CO., INC.
Pressure Data

Date _____

Test Ticket No. 14849

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	
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.			

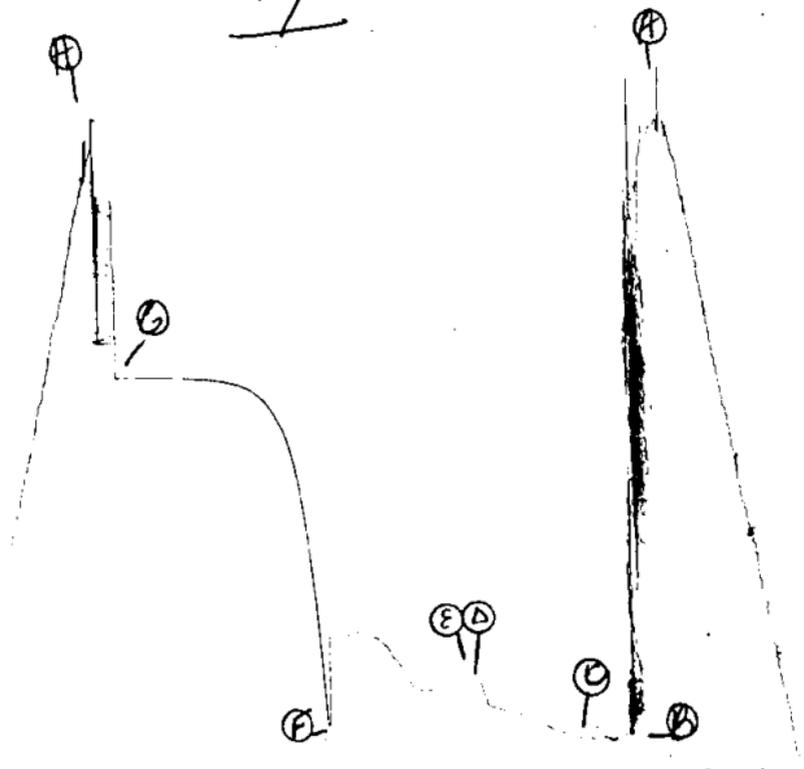
PRESSURE BREAKDOWN

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	Press.	Point Minutes
P 1		63		63
P 2		66		66
P 3		69		69
P 4		72		72
P 5		75		75
P 6		78		78
P 7		81		81
P 8		84		84
P 9		87		87
P10		90		90
P11		93		93
P12		96		96
P13		99		99
P14		102		102
P15		105		105
P16		108		108
P17		111		111
P18		114		114
P19		117		117
P20		120		120

2600

TKT # 14849

I



Company Pickrell Drilling Company Lease & Well No. Luft Unit #2"A"
 Elevation 2456 Kelly Bushing Formation Mississippi Effective Pay - Ft. Ticket No. 14849
 Date 8/ 11/81 Sec 2 Twp 30S Range 22W County Clark State Kansas
 Test Approved by Claud L. Sheats, Jr. Western Representative Rod Tritt

Formation Test No. 4 Interval Tested from 5268 ft. to 5330 ft. Total Depth 5330 ft.
 Packer Depth 5263 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Packer Depth 5268 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -
 Top Recorder Depth (Inside) 5272 ft. Recorder Number 2606 Cap. 4150
 Bottom Recorder Depth (Outside) 5275 ft. Recorder Number 4332 Cap. 4200
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor Pickrell Drilling Drill Collar Length 236 I. D. 2 1/4 in.
 Mud Type drispac Viscosity 70 Weight Pipe Length - I. D. - in.
 Weight 9.2 Water Loss 14.8 cc. Drill Pipe Length 5034 I. D. 3.8 in.
 Chlorides 31,000 P.P.M. Test Tool Length 28 ft. Tool Size 5 1/2 OD in.
 Jars: Make WTC Serial Number 409 Anchor Length 32 - 30 (62) ft. Size 5 1/2 OD in.
 Did Well Flow? No Reversed Out No 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 TH in.

Blow: Strong blow throughout test. Gas to surface in twenty-five minutes. See attached sheet for gas measurements.

Recovered 240 ft. of gas cut mud
 Recovered - ft. of -
 Recovered - ft. of -
 Recovered - ft. of -
 Recovered - ft. of -

Remarks: Packer seat failed on first try; pulled loose and reset tool; held; slid tool twelve feet to bottom.

Time Set Packer(s) 6:40 A.M. Time Started Off Bottom 11:45 P.M. Maximum Temperature 128°
 Initial Hydrostatic Pressure (A) 2607 P.S.I.
 Initial Flow Period Minutes 30 (B) 139 P.S.I. to (C) 139 P.S.I.
 Initial Closed In Period Minutes 60 (D) 373 * P.S.I.
 Final Flow Period Minutes 85 (E) 358 * P.S.I. to (F) 213 * P.S.I.
 Final Closed In Period Minutes 117 (G) 1645 P.S.I.
 Final Hydrostatic Pressure (H) 2554 P.S.I.

GAS FLOW REPORT

Date 8/11/81 Ticket 14849 Company Pickrell Drilling Company
 Well Name and No. Luft Unit "A" #2 Dst No. 4 Interval Tested 5268' - 5330'
 County Clark State Kansas Sec. 2 Twp. 30S Rg. 22W

Time Gauge Pre-Flow	Time Gauge in Min.	P.S.I. on Meria Orifice Well Tester	P.S.I. on Pitot Tester	P.S.I. on Side Static Tester	P.S.I. on U-Tube Tester	Description of Flow
PRE FLOW						
6:45 AM						Tool open
	25 min.					Gas to surface
	30 min.	1/2" orifice				19,900 CFPD

SECOND FLOW						
	10 min.	18" of water	1/2" orifice	26,600	CFPD	
	20 min.	19" of water	1/2" orifice	27,300	CFPD	
	30 min.	18" of water	1/2" orifice	26,600	CFPD	
	40 min.	18" of water	1/2" orifice	26,600	CFPD	
	50 min.	14" of water	1/2" orifice	23,700	CFPD	
	60 min.	16" of water	1/2" orifice	25,100	CFPD	
	70 min.	17" of water	1/2" orifice	25,800	CFPD	
	80 min.	19" of water	1/2" orifice	27,300	CFPD	
	90 min.	19" of water	1/2" orifice	27,300	CFPD	

GAS BOTTLE

Serial No. - Date Bottle Filled -- Date to be Invoiced 8/11/81

Requisition and Provisions for high pressure stainless steel gas bottles. Western Testing Co., Inc. shall not be liable for damage of any kind to property or personnel of the one whom gas bottle is filled or for any loss suffered or sustained directly or indirectly through the use of these bottles. By signing of this ticket showing receipt of a gas testing bottle, the undersigned agrees for himself and as agent for operator, to return this bottle to Western Testing Co., Inc. within thirty (30) days free of charge, or be invoiced in the amount of \$75.00 (total charge). Should valve or seal plug be missing or damaged beyond repair, operator shall be invoiced for repairs at our invoiced price.

All charges subject to 1 1/2% per month, equal to 18% interest per annum after 30 days from date of invoice. Any expense incurred for collection will be added to the original amount.

COMPANY'S NAME Pickrell Drilling Company
 Authorized by Claud L. Sheats, Jr.

WESTERN TESTING CO., INC.
Pressure Data

Date 8/11/81 Test Ticket No. 14849
 Recorder No. 2606 Capacity 4150 Location 5272 Ft.
 Clock No. - Elevation 2456 Kelly Bushing Well Temperature 128 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2607</u>	P.S.I.	<u>6:40A</u> M	
B First Initial Flow Pressure	<u>139</u>	P.S.I.	<u>30</u> Mins	<u>30</u> Mins.
C First Final Flow Pressure	<u>139</u>	P.S.I.	<u>60</u> Mins	<u>60</u> Mins.
D Initial Closed-in Pressure	<u>373 *</u>	P.S.I.	<u>90</u> Mins	<u>85</u> Mins.
E Second Initial Flow Pressure	<u>358 *</u>	P.S.I.	<u>120</u> Mins	<u>117</u> Mins.
F Second Final Flow Pressure	<u>213 *</u>	P.S.I.		
G Final Closed-in Pressure	<u>1645</u>	P.S.I.		
H Final Hydrostatic Mud	<u>2554</u>	P.S.I.		

Open Tool
 First Flow Pressure
 Initial Closed-in Pressure
 Second Flow Pressure
 Final Closed-in Pressure

* PRESSURES QUESTIONABLE DUE TO TOOL BEING
 OUT OF STAGE.

PRESSURE BREAKDOWN

First Flow Pressure
 Breakdown: 6 Inc.
 of 5 mins. and a
 final inc. of 0 Min.

Initial Shut-In
 Breakdown: 20 Inc.
 of 3 mins. and a
 final inc. of 0 Min.

Second Flow Pressure
 Breakdown: 17 Inc.
 of 5 mins. and a
 final inc. of 0 Min.

Final Shut-In
 Breakdown: 39 Inc.
 of 3 mins. and a
 final inc. of 0 Min.

Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 <u>0</u>	<u>139</u>	<u>0</u>	<u>139</u>	<u>0</u>	<u>358 *</u>	<u>0</u>	<u>213 *</u>
P 2 <u>5</u>	<u>139</u>	<u>3</u>	<u>148*</u>	<u>5</u>	<u>352 *</u>	<u>3</u>	<u>481</u>
P 3 <u>10</u>	<u>139</u>	<u>6</u>	<u>158*</u>	<u>10</u>	<u>345 *</u>	<u>6</u>	<u>742</u>
P 4 <u>15</u>	<u>139</u>	<u>9</u>	<u>163*</u>	<u>15</u>	<u>346 *</u>	<u>9</u>	<u>936</u>
P 5 <u>20</u>	<u>139</u>	<u>12</u>	<u>171*</u>	<u>20</u>	<u>347 *</u>	<u>12</u>	<u>1087</u>
P 6 <u>25</u>	<u>139</u>	<u>15</u>	<u>177*</u>	<u>25</u>	<u>349 *</u>	<u>15</u>	<u>1228</u>
P 7 <u>30</u>	<u>139</u>	<u>18</u>	<u>189*</u>	<u>30</u>	<u>351 *</u>	<u>18</u>	<u>1316</u>
P 8		<u>21</u>	<u>204*</u>	<u>35</u>	<u>358 *</u>	<u>21</u>	<u>1391</u>
P 9		<u>24</u>	<u>212*</u>	<u>40</u>	<u>431 *</u>	<u>24</u>	<u>1442</u>
P 10		<u>27</u>	<u>223*</u>	<u>45</u>	<u>477 *</u>	<u>27</u>	<u>1488</u>
P 11		<u>30</u>	<u>235*</u>	<u>50</u>	<u>533 *</u>	<u>30</u>	<u>1519</u>
P 12		<u>33</u>	<u>239*</u>	<u>55</u>	<u>566 *</u>	<u>33</u>	<u>1544</u>
P 13		<u>36</u>	<u>245*</u>	<u>60</u>	<u>581 *</u>	<u>36</u>	<u>1565</u>
P 14		<u>39</u>	<u>252*</u>	<u>65</u>	<u>597 *</u>	<u>39</u>	<u>1580</u>
P 15		<u>42</u>	<u>257*</u>	<u>70</u>	<u>585 *</u>	<u>42</u>	<u>1592</u>
P 16		<u>45</u>	<u>264*</u>	<u>75</u>	<u>583 *</u>	<u>45</u>	<u>1605</u>
P 17		<u>48</u>	<u>270*</u>	<u>80</u>	<u>580 *</u>	<u>48</u>	<u>1611</u>
P 18		<u>51</u>	<u>278*</u>	<u>85</u>	<u>213 *</u>	<u>51</u>	<u>1617</u>
P 19		<u>54</u>	<u>310*</u>			<u>54</u>	<u>1622</u>
P 20		<u>57</u>	<u>368*</u>			<u>57</u>	<u>1626</u>
		<u>60</u>	<u>373*</u>			<u>60</u>	<u>1630</u>

WESTERN TESTING CO., INC.
Pressure Data

Date 8/11/81 Test Ticket No. 14849
 Recorder No. 2606 Capacity 4150 Location 5272 Ft.
 Clock No. - Elevation 2456 Kelly Bushing Well Temperature 128 °F

Point	Pressure	Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2607</u> P.S.I.	<u>6:40A</u> M	
B First Initial Flow Pressure	<u>139</u> P.S.I.	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>139</u> P.S.I.	<u>60</u> Mins.	<u>60</u> Mins.
D Initial Closed-in Pressure	<u>373 *</u> P.S.I.	<u>90</u> Mins.	<u>85</u> Mins.
E Second Initial Flow Pressure	<u>358 *</u> P.S.I.	<u>120</u> Mins.	<u>117</u> Mins.
F Second Final Flow Pressure	<u>213 *</u> P.S.I.		
G Final Closed-in Pressure	<u>1645</u> P.S.I.		
H Final Hydrostatic Mud	<u>2554</u> P.S.I.		

* PRESSURES QUESTIONABLE DUE TO TOOL BEING OUT OF STAGE.

PRESSURE BREAKDOWN

Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
						63	1633
P 1						66	1635
P 2						69	1637
P 3						72	1638
P 4						75	1639
P 5						78	1640
P 6						81	1641
P 7						84	1642
P 8						87	1643
P 9						90	1643
P10						93	1643
P11						96	1643
P12						99	1643
P13						102	1643
P14						105	1643
P15						108	1644
P16						111	1644
P17						114	1645
P18						117	1645
P19							
P20							



WESTERN TESTING CO., INC.

FORMATION TESTING

TICKET No 14850

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

Elevation 2456 LB Formation Miss Eff. Pay Ft.

District PRATT Date 8-12-81 Customer Order No.

COMPANY NAME Pickrell Drilling Company

ADDRESS 205 W. Wichita, Ks. 67202

LEASE AND WELL NO. 2 "A" ... COUNTY ... STATE Kansas Sec. 2 Twp. 30S Rge. 22W

Mail Invoice To Same Co. Name Address No. Copies Requested 19

Mail Charts To Same Address No. Copies Requested 19

Formation Test No. 5 Interval Tested from 5301 ft. to 5355 ft. Total Depth 5355 ft.

Packer Depth 5296 ft. Size 6 3/4 in. Recorder Number 2606 Cap. 4150

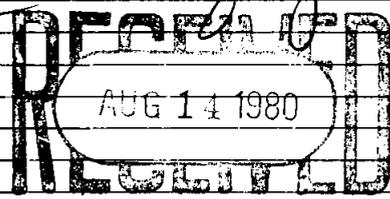
Drilling Contractor Co Tools Drill Collar Length 236 I. D. 2 1/4 in.

Mud Type Respac Viscosity 70 Weight 9.2 Water Loss 14.8 cc. Chlorides 31,000 P.P.M.

Jars: Make WTC Serial Number 409 Did Well Flow? NO Reversed Out NO

Blow: Strong blow - gas to surface 30 minutes See flow chart See attached gas sheet for gas measurements

Recovered 180 ft. of gas cut mud



Time On Location 11:30 A.M. Time Pick Up Tool 12:30 P.M. Time Off Location 10:00 P.M.

Time Set Packer(s) 2:10 P.M. Time Started Off Bottom 7:25 P.M. Maximum Temperature 128 F

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...

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 [Signature] Signature of Customer or his authorized representative

Western Representative [Signature] Thank you

FIELD INVOICE

Open Hole Test 775.00 Miscrun \$ Straddle Test \$ Jars 300.00 Selective Zone \$ Safety Joint 65.00 Standby \$ Evaluation \$ Extra Packer \$ Circ. Sub. \$ Mileage 70 70.5250 Fluid Sampler \$ Extra Charts \$ Insurance \$ TOTAL 1192.50



Nº 3357

GAS FLOW REPORT

Date 8-12-81 Ticket 14850 Company Pickrell Drilling Co
 Well Name and No. 2 1/2" depth Dst No. 5 Interval Tested 5301-5355
 County Clay State Kansas Sec. 2 Twp. 30s Rg. 22W

Time Gauge in Min.	P.S.I. on Merla Orifice Well Tester	Size of Orifice	P.S.I. on Pitot Tester	P.S.I. on Side Static Tester	Description of Flow
PRE FLOW					
					<i>Traces of water</i>
30 min	—	1/2			
35	4 inches	}			OK. gas to surface
40	4 inches				12,500 CFPD
45	5 inches				12,500 CFPD
					OK. 14,100

SECOND FLOW					
10	20 psi	1/4			OK. 47,100 CFPD
20	13 psi				OK. 35,900
30	9				OK. 29,000
40	5				OK. 20,700
50	4				OK. 18,500
60	3				15,700
70	2				15,700
80	1				15,700
90	0				15,700

GAS BOTTLE

Serial No. _____ Date Bottle Filled _____ Date to be Invoiced _____

Requisition and Provisions for high pressure stainless steel gas bottles. Western Testing Co., Inc. shall not be liable for damage of any kind to property or personnel of the one whom gas bottle is filled or for any loss suffered or sustained directly or indirectly through the use of these bottles. By signing of this ticket showing receipt of a gas testing bottle, the undersigned agrees for himself and as agent for operator, to return this bottle to Western Testing Co., Inc. within thirty (30) days free of charge, or be invoiced in the amount of \$75.00 (total charge). Should valve or seal plug be missing or damaged beyond repair, operator shall be invoiced for repairs at our invoiced price.

All charges subject to 1 1/2% per month, equal to 18% interest per annum after 30 days from date of invoice. Any expense incurred for collection will be added to the original amount.

COMPANY'S NAME _____

Authorized by _____

WESTERN TESTING CO., INC.

Pressure Data

Date 8-12

Test Ticket No. 14850

Recorder No. 2606

Capacity 4150

Location 5305 Ft.

Clock No. -----

Elevation 2456 KB

Well Temperature 128 °F

Point	Pressure	
A Initial Hydrostatic Mud	<u>2659</u>	P.S.I.
B First Initial Flow Pressure	<u>53</u>	P.S.I.
C First Final Flow Pressure	<u>53</u>	P.S.I.
D Initial Closed-in Pressure	<u>1532</u>	P.S.I.
E Second Initial Flow Pressure	<u>69</u>	P.S.I.
F Second Final Flow Pressure	<u>69</u>	P.S.I.
G Final Closed-in Pressure	<u>1622</u>	P.S.I.
H Final Hydrostatic Mud	<u>2519</u>	P.S.I.

	Time Given	Time Computed
Open Tool	<u>2:10 A.M.</u>	
First Flow Pressure	<u>45</u> Mins.	<u>45</u> Mins.
Initial Closed-in Pressure	<u>60</u> Mins.	<u>60</u> Mins.
Second Flow Pressure	<u>90</u> Mins.	<u>90</u> Mins.
Final Closed-in Pressure	<u>120</u> Mins.	<u>120</u> Mins.

PRESSURE BREAKDOWN

First Flow Pressure
Breakdown: 9 Inc.
of 5 mins. and a
final inc. of 0 Min.

Initial Shut-In
Breakdown: 20 Inc.
of 3 mins. and a
final inc. of 0 Min.

Second Flow Pressure
Breakdown: 18 Inc.
of 5 mins. and a
final inc. of 0 Min.

Final Shut-In
Breakdown: 40 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 0	<u>53</u>	0	<u>53</u>	0	<u>69</u>	0	<u>69</u>
P 2 5		3	<u>227</u>	5		3	<u>364</u>
P 3 10		6	<u>398</u>	10		6	<u>579</u>
P 4 15		9	<u>562</u>	15		9	<u>748</u>
P 5 20		12	<u>715</u>	20		12	<u>898</u>
P 6 25		15	<u>852</u>	25		15	<u>1035</u>
P 7 30		18	<u>969</u>	30		18	<u>1147</u>
P 8 35		21	<u>1054</u>	35		21	<u>1224</u>
P 9 40		24	<u>1142</u>	40		24	<u>1296</u>
P10 45	<u>53</u>	27	<u>1209</u>	45		27	<u>1352</u>
P11 50		30	<u>1263</u>	50		30	<u>1398</u>
P12 55		33	<u>1319</u>	55		33	<u>1433</u>
P13 60		36	<u>1359</u>	60		36	<u>1465</u>
P14		39	<u>1396</u>	65		39	<u>1488</u>
P15		42	<u>1429</u>	70		42	<u>1506</u>
P16		45	<u>1454</u>	75		45	<u>1523</u>
P17		48	<u>1477</u>	80		48	<u>1538</u>
P18		51	<u>1496</u>	85		51	<u>1552</u>
P19		54	<u>1513</u>	90	<u>69</u>	54	<u>1561</u>
P20		57	<u>1527</u>			57	<u>1571</u>
		60	<u>1532</u>			60	<u>1579</u>

11-11

WESTERN TESTING CO., INC.

Pressure Data

Date: _____

Test Ticket No. 14850

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	
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.			

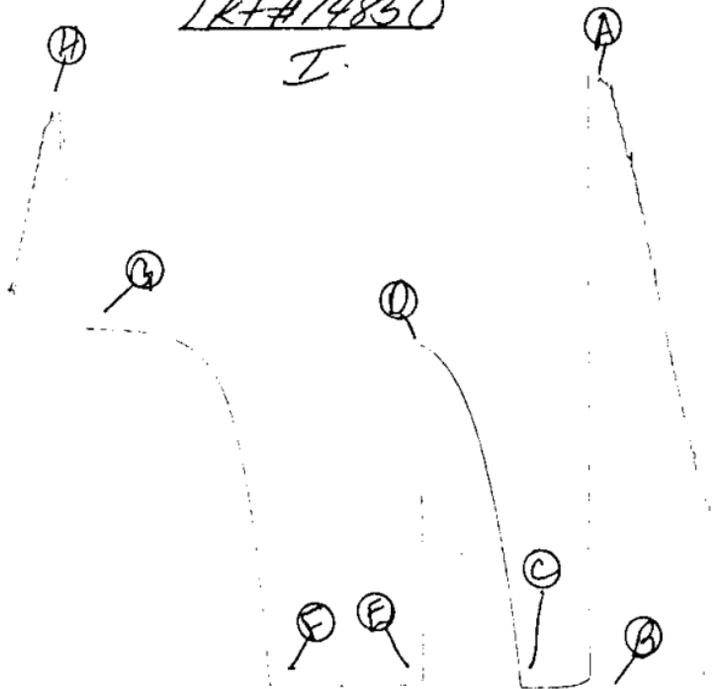
PRESSURE BREAKDOWN

Point Mins.	First Flow Pressure	Initial Shut-In	Second Flow Pressure	Final Shut-In
	Breakdown: _____ Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.	Breakdown: _____ Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.	Breakdown: _____ Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.	Breakdown: _____ Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.
	Press.	Point Minutes	Point Minutes	Point Minutes
P 1		63		63
P 2		66		66
P 3		69		69
P 4		72		72
P 5		75		75
P 6		78		78
P 7		81		81
P 8		84		84
P 9		87		87
P10		90		90
P11		93		93
P12		96		96
P13		99		99
P14		102		102
P15		105		105
P16		108		108
P17		111		111
P18		114		114
P19		117		117
P20		120		120
				Press.
				1585
				1590
				1595
				1598
				1601
				1603
				1605
				1607
				1609
				1610
				1612
				1614
				1616
				1617
				1618
				1619
				1620
				1621
				1622
				1622

2606 DST #5

TR #14850

I.



Company Pickrell Drilling Company Lease & Well No. Luft Unit 'A' #2
 Elevation 2456 Kelley Bushing Mississippi Formation Effective Pay - Ft. Ticket No. 14850
 Date 8/12/81 Sec 2 Twp 30S Range 22W Country Clark State Kansas
 Test Approved by Claud L. Sheats, Jr. Western Representative Rod Tritt

Formation Test No. 5 Interval Tested from 5301 ft. to 5355 ft. Total Depth 5355 ft.
 Packer Depth 5296 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Packer Depth 5301 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -
 Top Recorder Depth (Inside) 5305 ft. Recorder Number 2606 Cap. 4150
 Bottom Recorder Depth (Outside) 5308 ft. Recorder Number 4332 Cap. 4200
 Below Straddle Recorder Depth - ft. Recorder Number -- Cap. -

Drilling Contractor Pickrell Drilling Company Drill Collar Length 236 I. D. 2 1/2 in.
 Mud Type drispac Viscosity 70 Weight Pipe Length - I. D. - in.
 Weight 9.2 Water Loss 14.8 cc. Drill Pipe Length 5066 I. D. 3.8 in.
 Chlorides 31,000 P.P.M. Test Tool Length 28 ft. Tool Size 5 1/2 OD in.
 Jars: Make WTC Serial Number 409 Anchor Length 54 (29 + 25) ft. Size 5 1/2 OD in.
 Did Well Flow? No Reversed Out No 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: Strong blow. Gas to surface in thirty minutes. See attached sheet for gas measurements.

Recovered 180 ft. of gas cut mud
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____

Remarks: _____

Time Set Packer(s) 2:10 A.M. Time Started Off Bottom 7:25 A.M. Maximum Temperature 128°
P.M. P.M.
 Initial Hydrostatic Pressure (A) 2659 P.S.I.
 Initial Flow Period Minutes 45 (B) 53 P.S.I. to (C) 53 P.S.I.
 Initial Closed In Period Minutes 60 (D) 1532 P.S.I.
 Final Flow Period Minutes 90 (E) 69 P.S.I. to (F) 69 P.S.I.
 Final Closed In Period Minutes 120 (G) 1622 P.S.I.
 Final Hydrostatic Pressure (H) 2519 P.S.I.

GAS FLOW REPORT

Date 8/12/81 Ticket 14850 Company Pickrell Drilling Company
 Well Name and No. Luft Unit "A" #2 Dst No. 5 Interval Tested 5301'-5355'
 County Clark State Kansas Sec. 2 Twp. 30S Rg. 22W

Time Gauge Pre-Flow	Time Gauge in Min.	P.S.I. on Meria Orifice Well Tester	P.S.I. on Pitot Tester	P.S.I. on Side Static Tester	P.S.I. on U-Tube Tester	Description of Flow
PRE FLOW						
	30 min.					Gas to surface
	35 min.	4" of water		1/2" orifice		12,500 CFPD
	40 min.	4" of water		1/2" orifice		12,500 CFPD
	45 min.	5" of water		1/2" orifice		14,100 CFPD

SECOND FLOW						
	10 min.	20 PSIG		1/4" orifice		47,100 CFPD
	20 min.	13 PSIG		1/4" orifice		35,900 CFPD
	30 min.	9 PSIG		1/4" orifice		29,000 CFPD
	40 min.	5 PSIG		1/4" orifice		20,700 CFPD
	50 min.	4 PSIG		1/4" orifice		18,500 CFPD
	60 min.	3 PSIG		1/4" orifice		15,700 CFPD
	70 min.	3 PSIG		1/4" orifice		15,700 CFPD
	80 min.	3 PSIG		1/4" orifice		15,700 CFPD
	90 min.	3 PSIG		1/4" orifice		15,700 CFPD

GAS BOTTLE

Serial No. _____ Date Bottle Filled _____ Date to be Invoiced 8/12/81

Requisition and Provisions for high pressure stainless steel gas bottles. Western Testing Co., Inc. shall not be liable for damage of any kind to property or personnel of the one whom gas bottle is filled or for any loss suffered or sustained directly or indirectly through the use of these bottles. By signing of this ticket showing receipt of a gas testing bottle, the undersigned agrees for himself and as agent for operator, to return this bottle to Western Testing Co., Inc. within thirty (30) days free of charge, or be invoiced in the amount of \$75.00 (total charge). Should valve or seal plug be missing or damaged beyond repair, operator shall be invoiced for repairs at our invoiced price.

All charges subject to 1 1/2% per month, equal to 18% interest per annum after 30 days from date of invoice. Any expense incurred for collection will be added to the original amount.

COMPANY'S NAME Pickrell Drilling Company

Authorized by Claud L. Sheats, Jr.

WESTERN TESTING CO., INC.

Pressure Data

Date 8/12/81 Test Ticket No. 14850
 Recorder No. 2606 Capacity 4150 Location 5305 Ft.
 Clock No. - Elevation 2456 Kelly Bushing Well Temperature 128 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	2659	P.S.I.	2:10A	M
B First Initial Flow Pressure	53	P.S.I.	45	45
C First Final Flow Pressure	53	P.S.I.	60	60
D Initial Closed-in Pressure	1532	P.S.I.	90	90
E Second Initial Flow Pressure	69	P.S.I.	120	120
F Second Final Flow Pressure	69	P.S.I.		
G Final Closed-in Pressure	1622	P.S.I.		
H Final Hydrostatic Mud	2519	P.S.I.		

PRESSURE BREAKDOWN

First Flow Pressure Breakdown: <u>9</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.	Initial Shut-In Breakdown: <u>20</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.	Second Flow Pressure Breakdown: <u>18</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.	Final Shut-In Breakdown: <u>40</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.
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Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 0	53	0	52	0	69	0	69
P 2 5	53	3	227	5	69	3	364
P 3 10	53	6	398	10	69	6	579
P 4 15	53	9	562	15	69	9	748
P 5 20	53	12	715	20	69	12	898
P 6 25	53	15	852	25	69	15	1035
P 7 30	53	18	969	30	69	18	1147
P 8 35	53	21	1054	35	69	21	1224
P 9 40	53	24	1142	40	69	24	1296
P10 45	53	27	1209	45	69	27	1352
P11		30	1263	50	69	30	1398
P12		33	1319	55	69	33	1433
P13		36	1359	60	69	36	1465
P14		39	1396	65	69	39	1488
P15		42	1429	70	69	42	1506
P16		45	1454	75	69	45	1523
P17		48	1477	80	69	48	1538
P18		51	1496	85	69	51	1552
P19		54	1513	90	69	54	1561
P20		57	1528			57	1571
WTC - 4		60	1532			60	1579

continued next page

WESTERN TESTING CO., INC.

Pressure Data

Date 8/12/81 Test Ticket No. 14850
 Recorder No. 2606 Capacity 4150 Location 5305 Ft.
 Clock No. - Elevation 2456 Kelly Bushing Well Temperature 128 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	2659	P.S.I.	2:10A	M
B First Initial Flow Pressure	53	P.S.I.	45	45 Mins.
C First Final Flow Pressure	53	P.S.I.	60	60 Mins.
D Initial Closed-in Pressure	1532	P.S.I.	90	90 Mins.
E Second Initial Flow Pressure	69	P.S.I.	120	120 Mins.
F Second Final Flow Pressure	69	P.S.I.		
G Final Closed-in Pressure	1622	P.S.I.		
H Final Hydrostatic Mud	2519	P.S.I.		

PRESSURE BREAKDOWN

First Flow Pressure
 Breakdown: 9 Inc.
 of 5 mins. and a
 final inc. of 0 Min.

Initial Shut-In
 Breakdown: 20 Inc.
 of 3 mins. and a
 final inc. of 0 Min.

Second Flow Pressure
 Breakdown: 18 Inc.
 of 5 mins. and a
 final inc. of 0 Min.

Final Shut-In
 Breakdown: 40 Inc.
 of 3 mins. and a
 final inc. of 0 Min.

Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1				63	1585		
P 2				66	1590		
P 3				69	1595		
P 4				72	1598		
P 5				75	1601		
P 6				78	1603		
P 7				81	1605		
P 8				84	1607		
P 9				87	1609		
P10				90	1610		
P11				93	1612		
P12				96	1614		
P13				99	1616		
P14				102	1617		
P15				105	1618		
P16				108	1619		
P17				111	1620		
P18				114	1621		
P19				117	1622		
P20				120	1622		



WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET No 13001

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

Elevation 2452 KB Formation Miss. Eff. Pay Ft.

District PCAT Date 8-12-81 Customer Order No.

COMPANY NAME Pickrell Drilling Company

ADDRESS Turner Bldg. Suite 205 Wichita, Ks. 67202

LEASE AND WELL NO. 2A2 COUNTY Clark STATE Kans Sec. 2 Twp. 30S Rge. 22W

Mail Invoice To Same No. Copies Requested 10

Co. Name Same Address No. Copies Requested 10

Mail Charts To Same Address No. Copies Requested 10

Formation Test No. 6 Interval Tested from 5360 ft. to 5398 ft. Total Depth 5398 ft.

Packer Depth 5355 ft. Size 6 3/4 in. Packer Depth ft. Size in.

Packer Depth 5360 ft. Size 6 3/4 in. Packer Depth ft. Size in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 5364 ft. Recorder Number 2606 Cap. 4150

Bottom Recorder Depth (Outside) 5367 ft. Recorder Number 4332 Cap. 4200

Below Straddle Recorder Depth ft. Recorder Number Cap.

Drilling Contractor Co tools Drill Collar Length 236 I. D. 2 1/4 in.

Mud Type Drypack Viscosity 50 Weight Pipe Length I. D. in.

Weight 9.0 Water Loss 15.6 cc. Drill Pipe Length 5096 I. D. 3.8 in.

Chlorides 28000 P.P.M. Test Tool Length 28 ft. Tool Size 5200 in.

Jars: Make Drypack Serial Number 409 Anchor Length 38 ft. Size 5200 in.

Did Well Flow? NO Reversed Out NO 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 in.

Blow: Very weak blow for 5 minutes on initial flow period

few bubbles on initial flow - flushed tool - some blow

Recovered 240 ft. of thin drilling mud

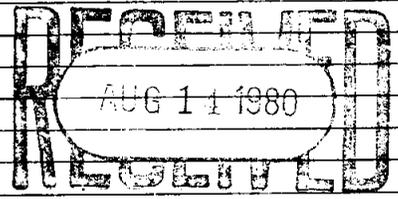
Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks:



Time On Location 7:00 ^{AM}/_{PM} Time Pick Up Tool 8:00 ^{AM}/_{PM} Time Off Location 3:30 ^{AM}/_{PM}

Time Set Packer(s) 10:15 ^{AM}/_{PM} Time Started Off Bottom 12:15 ^{AM}/_{PM} Maximum Temperature 128°F

Initial Hydrostatic Pressure (A) 2607 P.S.I.

Initial Flow Period 30 Minutes (B) 62 P.S.I. to (C) 52 P.S.I.

Initial Closed In Period 30 Minutes (D) 1558 P.S.I.

Final Flow Period 30 Minutes (E) 114 P.S.I. to (F) 135 P.S.I.

Final Closed In Period 30 Minutes (G) 1537 P.S.I.

Final Hydrostatic Pressure (H) 2659 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 Clay Shultz
Signature of Customer or his authorized representative

Western Representative Bob [unclear] Thank you

FIELD INVOICE

Open Hole Test 975.00
Misrun \$
Straddle Test \$
Jars 300.00
Selective Zone \$
Safety Joint 65.00
Standby \$
Evaluation \$
Extra Packer \$
Circ. Sub. \$
Mileage 70 1052.50
Fluid Sampler \$
Extra Charts \$
Insurance \$
TOTAL 1192.50

WESTERN TESTING CO., INC.

Pressure Data

Date: 8-12 Test Ticket No. 13001
 Recorder No. 2606 Capacity 4150 Location 5364 Ft
 Clock No. --- Elevation 2456 KB Well Temperature 128 °F

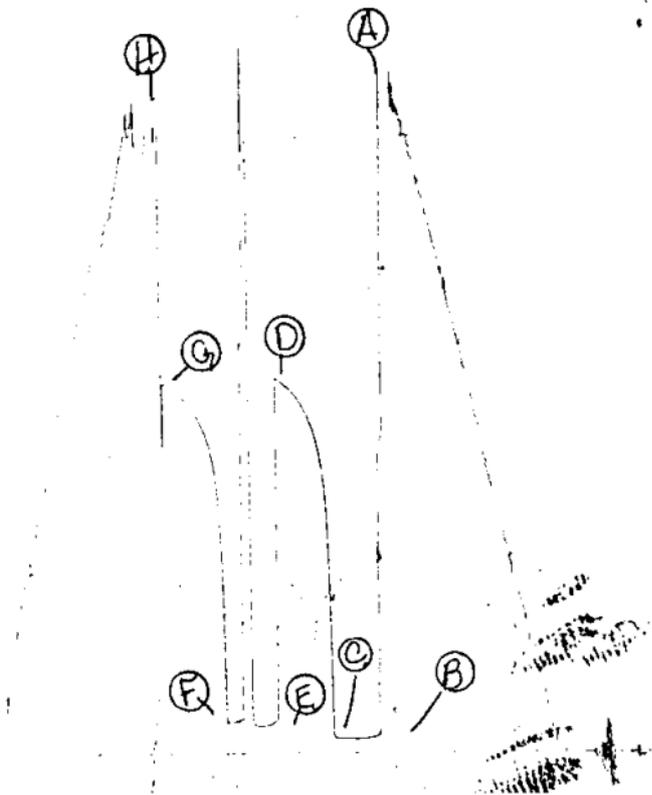
Point	Pressure	Open Tool	Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2725</u> P.S.I.		<u>10:15 P</u>	
B First Initial Flow Pressure	<u>62</u> P.S.I.	First Flow Pressure	<u>30</u> Mins.	<u>25</u> Mins.
C First Final Flow Pressure	<u>62</u> P.S.I.	Initial Closed-in Pressure	<u>30</u> Mins.	<u>30</u> Mins.
D Initial Closed-in Pressure	<u>1552</u> P.S.I.	Second Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
E Second Initial Flow Pressure	<u>110</u> P.S.I.	Final Closed-in Pressure	<u>30</u> Mins.	<u>33</u> Mins.
F Second Final Flow Pressure	<u>129</u> P.S.I.			
G Final Closed-in Pressure	<u>1527</u> P.S.I.			
H Final Hydrostatic Mud	<u>2597</u> P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>5</u> Inc.		Breakdown: <u>10</u> Inc.		Breakdown: <u>6</u> Inc.		Breakdown: <u>11</u> 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>62</u>	0	<u>62</u>	0	<u>110</u>	0	<u>129</u>
P 2 5		3	<u>746</u>	5		3	<u>929</u>
P 3 10		6	<u>1153</u>	10		6	<u>1174</u>
P 4 15		9	<u>1269</u>	15	<u>110</u>	9	<u>1277</u>
P 5 20		12	<u>1354</u>	20	<u>Flushed 138 Tool</u>	12	<u>1352</u>
P 6 25	<u>62</u>	15	<u>1406</u>	25	<u>129</u>	15	<u>1392</u>
P 7 30		18	<u>1448</u>	30	<u>129</u>	18	<u>1427</u>
P 8 35		21	<u>1480</u>	35		21	<u>1454</u>
P 9 40		24	<u>1504</u>	40		24	<u>1476</u>
P10 45		27	<u>1523</u>	45		27	<u>1497</u>
P11 50		30	<u>1552</u>	50		30	<u>1513</u>
P12 55		33		55		33	<u>1527</u>
P13 60		36		60		36	
P14		39		65		39	
P15		42		70		42	
P16		45		75		45	
P17		48		80		48	
P18		51		85		51	
P19		54		90		54	
P20		57				57	
		60				60	

432606 V 5176

TR# 13001
I



Company Pickrell Drilling Company Lease & Well No. Luft Unit "A" #2

Elevation 2456 Kelly Bushing Formation Mississippi Effective Pay - Ft. Ticket No. 13001

Date 8/12/81 Sec. 2 Twp 30S Range 22W County Clark State Kansas

Test Approved by Claud Sheats, Jr. Western Representative Rod Tritt

Formation Test No. 6 Interval Tested from 5360 ft. to 5398 ft. Total Depth 5398 ft.

Packer Depth 5355 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Packer Depth 5360 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -

Top Recorder Depth (Inside) 5364 ft. Recorder Number 2606 Cap. 4150

Bottom Recorder Depth (Outside) 5367 ft. Recorder Number 4332 Cap. 4260

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

Drilling Contractor Pickrell Drilling Drill Collar Length 236 I. D. 2 1/4 in.

Mud Type drispac Viscosity 50 Weight Pipe Length - I. D. - in.

Weight 9.0 Water Loss 15.6 cc. Drill Pipe Length 5096 I. D. 3.8 in.

Chlorides 28,000 P.P.M. Test Tool Length 28 ft. Tool Size 5 1/2 OD in.

Jars: Make WTC Serial Number 409 Anchor Length 38 ft. Size 5 1/2 OD in.

Did Well Flow? NO Reversed Out No 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: Very weak blow for five minutes on initial flow period. Few bubbles on final flow.

Flushed tool - same blow.

Recovered 240 ft. of thin drilling mud

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks:

Time Set Packer(s) 10:15 ~~A.M.~~ P.M. Time Started Off Bottom 12:15 ~~A.M.~~ P.M. Maximum Temperature 128°

Initial Hydrostatic Pressure 2725 (A) P.S.I.

Initial Flow Period 25 Minutes (B) 62 P.S.I. to (C) 62 P.S.I.

Initial Closed In Period 30 Minutes (D) 1552 P.S.I.

Final Flow Period 30 Minutes (E) 110 P.S.I. to (F) 129 P.S.I.

Final Closed In Period 33 Minutes (G) 1527 P.S.I.

Final Hydrostatic Pressure 2597 (H) P.S.I.

WESTERN TESTING CO., INC.
Pressure Data

Date 8/12/81 Test Ticket No. 13001
 Recorder No. 2606 Capacity 4150 Location 5364 Ft.
 Clock No. ----- Elevation 2456 Kelly Bushing Well Temperature 128 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	2725	P.S.I.	10:15P	M
B First Initial Flow Pressure	62	P.S.I.	30	Mins. 25 Mins.
C First Final Flow Pressure	62	P.S.I.	30	Mins. 30 Mins.
D Initial Closed-in Pressure	1552	P.S.I.	30	Mins. 30 Mins.
E Second Initial Flow Pressure	110	P.S.I.	30	Mins. 33 Mins.
F Second Final Flow Pressure	129	P.S.I.		
G Final Closed-in Pressure	1527	P.S.I.		
H Final Hydrostatic Mud	2597	P.S.I.		

PRESSURE BREAKDOWN

Point Mins.	First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
	Breakdown:	Inc.	Breakdown:	Inc.	Breakdown:	Inc.	Breakdown:	Inc.
	5		10		6		11	
	of 5 mins.		of 3 mins.		of 5 mins.		of 3 mins.	
	and a final inc. of 0 Min.		and a final inc. of 0 Min.		and a final inc. of 0 Min.		and a final inc. of 0 Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.	
P 1 0	62	0	62	0	110	0	129	
P 2 5	62	3	746	5	110	3	929	
P 3 10	62	6	1153	10	110	6	1174	
P 4 15	62	9	1269	15	110	9	1277	
P 5 20	62	12	1354	20	138	12	1352	
P 6 25	62	15	1406	25	129	15	1392	
P 7		18	1448	30	129	18	1427	
P 8		21	1480			21	1454	
P 9		24	1504			24	1476	
P10		27	1523			27	1497	
P11		30	1552			30	1513	
P12						33	1527	
P13								
P14								
P15								
P16								
P17								
P18								
P19								
P20								

Flushed tool