

Company Carr Exploration, Inc. Lease & Well No. Hammer #5
 Elevation 1281 Ground Level Layton Formation Effective Pay -- Ft. Ticket No. 4918
 Date 4/17/80 Sec. 21 Twp. 31S Range 5E County Cowley State Kansas
 Test Approved by Gary Caruthers Western Representative Kenny Kirkendall

Formation Test No. 1 Interval Tested from 2293 ft. to 2313 ft. Total Depth 2313 ft.
 Packer Depth 2293 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Packer Depth 2288 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -
 Top Recorder Depth (Inside) 2299 ft. Recorder Number 3354 Cap. 4200
 Bottom Recorder Depth (Outside) 2304 ft. Recorder Number 2605 Cap. 4150
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -
 Drilling Contractor White & Ellis Drilling Drill Collar Length 124 I. D. - in.
 Mud Type chemical Viscosity 38 Weight Pipe Length - I. D. - in.
 Weight -- Water Loss - cc. Drill Pipe Length 2148 I. D. -- in.
 Chlorides 800 P.P.M. Test Tool Length 21 ft. Tool Size 5 1/2 in.
 Jars: Make No Serial Number - Anchor Length 20 ft. Size 5 1/2 in.
 Did Well Flow? - Reversed Out - Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.
 Main Hole Size - in. Tool Joint Size - in.

Blow: Weak blow throughout first flow; fair to weak blow second flow.

Recovered 120 ft. of gas in pipe
 Recovered 30 ft. of mud
 Recovered - ft. of -
 Recovered - ft. of -
 Recovered - ft. of -

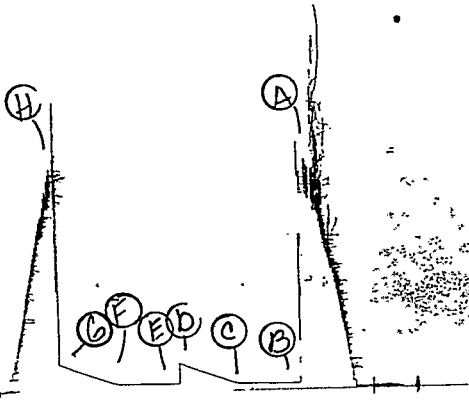
Remarks: -

| Time Set | Packer(s) | Time Started | Off Bottom | Maximum Temperature |
|------------------------------|----------------------|--------------|------------|----------------------------|
| 6:50 | P.M. A.M. | 9:50 | A.M. | 98° |
| Initial Hydrostatic Pressure | | (A) | 1143 | P.S.I. |
| Initial Flow Period | Minutes | (B) | 45 | 38 P.S.I. to (C) P.S.I. |
| Initial Closed In Period | Minutes | (D) | 45 | 148 P.S.I. |
| Final Flow Period | Minutes | (E) | 45 | 38 P.S.I. to (F) 42 P.S.I. |
| Final Closed In Period | Minutes | (G) | 45 | 152 P.S.I. |
| Final Hydrostatic Pressure | | (H) | 1141 | P.S.I. |

3364

4918

TRK # 4918
I



WESTERN TESTING CO., INC.
Pressure Data

Date 4-17-80

Test Ticket No. 4918

Recorder No. 3354

Capacity 4200

Location 2299 Ft.

Clock No. --- Elevation 1287: Ground Level

Well Temperature 98 °F

| Point | Pressure | | Time Given | Time Computed |
|--------------------------------|--------------------|----------------------------|-------------------|-----------------|
| A. Initial Hydrostatic Mud | <u>1143</u> P.S.I. | Open Tool | <u>6:50</u> A. M. | |
| B First Initial Flow Pressure | <u>38</u> P.S.I. | First Flow Pressure | <u>45</u> Mins. | <u>45</u> Mins. |
| C First Final Flow Pressure | <u>38</u> P.S.I. | Initial Closed-in Pressure | <u>45</u> Mins. | <u>45</u> Mins. |
| D Initial Closed-in Pressure | <u>148</u> P.S.I. | Second Flow Pressure | <u>45</u> Mins. | <u>45</u> Mins. |
| E Second Initial Flow Pressure | <u>38</u> P.S.I. | Final Closed-in Pressure | <u>45</u> Mins. | <u>45</u> Mins. |
| F Second Final Flow Pressure | <u>42</u> P.S.I. | | | |
| G Final Closed-in Pressure | <u>152</u> P.S.I. | | | |
| H Final Hydrostatic Mud | <u>1141</u> 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: 15 Inc.
of 3 mins. and a
final inc. of 0 Min.

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

Final Shut-In
Breakdown: 15 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>0</u> | <u>38</u> | <u>0</u> | <u>38</u> | <u>0</u> | <u>42</u> |
| P 2 | <u>5</u> | <u>3</u> | <u>44</u> | <u>5</u> | <u>38</u> | <u>3</u> | <u>49</u> |
| P 3 | <u>10</u> | <u>6</u> | <u>51</u> | <u>10</u> | <u>38</u> | <u>6</u> | <u>55</u> |
| P 4 | <u>15</u> | <u>9</u> | <u>59</u> | <u>15</u> | <u>39</u> | <u>9</u> | <u>60</u> |
| P 5 | <u>20</u> | <u>12</u> | <u>66</u> | <u>20</u> | <u>39</u> | <u>12</u> | <u>70</u> |
| P 6 | <u>25</u> | <u>15</u> | <u>74</u> | <u>25</u> | <u>40</u> | <u>15</u> | <u>78</u> |
| P 7 | <u>30</u> | <u>18</u> | <u>80</u> | <u>30</u> | <u>40</u> | <u>18</u> | <u>85</u> |
| P 8 | <u>35</u> | <u>21</u> | <u>86</u> | <u>35</u> | <u>41</u> | <u>21</u> | <u>92</u> |
| P 9 | <u>40</u> | <u>24</u> | <u>92</u> | <u>40</u> | <u>41</u> | <u>24</u> | <u>99</u> |
| P10 | <u>45</u> | <u>27</u> | <u>97</u> | <u>45</u> | <u>42</u> | <u>27</u> | <u>108</u> |
| P11 | | <u>30</u> | <u>112</u> | | | <u>30</u> | <u>116</u> |
| P12 | | <u>33</u> | <u>119</u> | | | <u>33</u> | <u>123</u> |
| P13 | | <u>36</u> | <u>127</u> | | | <u>36</u> | <u>130</u> |
| P14 | | <u>39</u> | <u>134</u> | | | <u>39</u> | <u>138</u> |
| P15 | | <u>42</u> | <u>141</u> | | | <u>42</u> | <u>145</u> |
| P16 | | <u>45</u> | <u>148</u> | | | <u>45</u> | <u>152</u> |
| P17 | | | | | | | |
| P18 | | | | | | | |
| P19 | | | | | | | |
| P20 | | | | | | | |



WESTERN TESTING CO., INC.

FORMATION TESTING

TICKET No 4918

P. O. BOX 1599 PHONE (316) 838-0601 WICHITA, KANSAS 67201

Elevation 128151 Formation Houston Eff. Pay Ft.

District Auguste Date April 17, 1980 Customer Order No.

COMPANY NAME Carr Exploration, Inc.

ADDRESS 1540 North Broadway Wichita Ks. 21 315 SE

LEASE AND WELL NO. Hammon #5 COUNTY Cowley STATE Ks Sec. 21 Twp. 33S Rge. 5E

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

Mail Charts To Same Co. Name Address No. Copies Requested 5

Formation Test No. 1 Interval Tested from 2293 ft. to 2313 ft. Total Depth 2313 ft.

Packer Depth 2293 ft. Size 6 3/4 in. Packer Depth ft. Size in.

Packer Depth 2288 ft. Size 6 3/4 in. Packer Depth ft. Size in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 2299 ft. Recorder Number 3354 Cap. 4200

Bottom Recorder Depth (Outside) 2304 ft. Recorder Number 2605 Cap. 4150

Below Straddle Recorder Depth ft. Recorder Number Cap.

Drilling Contractor White & Ellis Drill Collar Length 124 I. D. in.

Mud Type Cham Viscosity 38 Weight Pipe Length I. D. in.

Weight Water Loss cc. Drill Pipe Length 2148 I. D. in.

Chlorides 800 P.P.M. Test Tool Length 21 ft. Tool Size 5 1/2 in.

Jars: Make 100 Serial Number Anchor Length 20 ft. Size 5 1/2 in.

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

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

Blow: wear R blow throughout first flow, fair to wear R blow; second flow

Recovered 120' ft. of gas in pipe

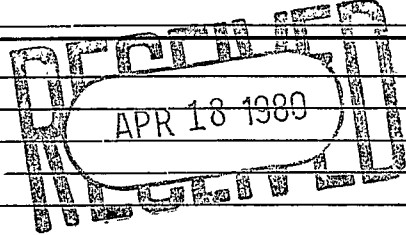
Recovered 30' ft. of mud

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks:



Time Set Packer(s) 650 AM 950 AM Maximum Temperature 98°

Initial Hydrostatic Pressure (A) 1107 P.S.I.

Initial Flow Period Minutes 45 (B) 42 P.S.I. to (C) 42 P.S.I.

Initial Closed In Period Minutes 45 (D) 147 P.S.I.

Final Flow Period Minutes 45 (E) 52 P.S.I. to (F) 52 P.S.I.

Final Closed In Period Minutes 45 (G) 158 P.S.I.

Final Hydrostatic Pressure (H) 1107 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 G. Caruthers G. Caruthers Signature of Customer or his authorized representative

Western Representative Kenny K. Kendall

On location 2:30 AM 4-17-80 Job complete 11:00 AM 4-17-80

FIELD INVOICE

Table with 2 columns: Item and Price. Items include Open Hole Test (\$500.00), Misrun, Straddle Test, Jars, Selective Zone, Safety Joint, Standby, Evaluation, Extra Packer, Circ. Sub., Mileage, Fluid Sampler, Extra Charts, and TOTAL (\$500.00).

WESTERN TESTING CO. INC.

Pressure Data

Date 4-17-80 Test Ticket No. 4918
 Recorder No. 3364 Capacity 4200 Location 2299 Ft.
 Clock No. _____ Elevation 1281 LL Well Temperature 98 °F

| Point | Pressure | | Time Given | Time Computed |
|--------------------------------|-------------|--------|-----------------|-----------------|
| A Initial Hydrostatic Mud | <u>1143</u> | P.S.I. | <u>6:50</u> A M | |
| B First Initial Flow Pressure | <u>38</u> | P.S.I. | <u>45</u> Mins. | <u>45</u> Mins. |
| C First Final Flow Pressure | <u>38</u> | P.S.I. | <u>45</u> Mins. | <u>45</u> Mins. |
| D Initial Closed-in Pressure | <u>148</u> | P.S.I. | <u>45</u> Mins. | <u>45</u> Mins. |
| E Second Initial Flow Pressure | <u>38</u> | P.S.I. | <u>45</u> Mins. | <u>45</u> Mins. |
| F Second Final Flow Pressure | <u>42</u> | P.S.I. | | |
| G Final Closed-in Pressure | <u>152</u> | P.S.I. | | |
| H Final Hydrostatic Mud | <u>1141</u> | P.S.I. | | |

PRESSURE BREAKDOWN

| Point Mins. | 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>15</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min. | Second Flow Pressure Breakdown: <u>9</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min. | Final Shut-In Breakdown: <u>15</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min. | |
|---------------|--|---|---|---|--------|
| Point Minutes | Press. | Point Minutes | Press. | Point Minutes | Press. |
| P 1 | <u>0</u> <u>38</u> | <u>0</u> <u>38</u> | <u>0</u> <u>38</u> | <u>0</u> <u>42</u> | |
| P 2 | <u>5</u> <u>33</u> | <u>3</u> <u>44</u> | <u>5</u> <u>38</u> | <u>3</u> <u>49</u> | |
| P 3 | <u>10</u> <u>33</u> | <u>6</u> <u>51</u> | <u>10</u> <u>38</u> | <u>6</u> <u>55</u> | |
| P 4 | <u>15</u> <u>33</u> | <u>9</u> <u>59</u> | <u>15</u> <u>39</u> | <u>9</u> <u>60</u> | |
| P 5 | <u>20</u> <u>35</u> | <u>12</u> <u>66</u> | <u>20</u> <u>39</u> | <u>12</u> <u>70</u> | |
| P 6 | <u>25</u> <u>35</u> | <u>15</u> <u>74</u> | <u>25</u> <u>40</u> | <u>15</u> <u>78</u> | |
| P 7 | <u>30</u> <u>35</u> | <u>18</u> <u>80</u> | <u>30</u> <u>40</u> | <u>18</u> <u>85</u> | |
| P 8 | <u>35</u> <u>36</u> | <u>21</u> <u>86</u> | <u>35</u> <u>41</u> | <u>21</u> <u>92</u> | |
| P 9 | <u>40</u> <u>37</u> | <u>24</u> <u>92</u> | <u>40</u> <u>41</u> | <u>24</u> <u>99</u> | |
| P 10 | <u>45</u> <u>38</u> | <u>27</u> <u>97</u> | <u>45</u> <u>42</u> | <u>27</u> <u>108</u> | |
| P 11 | <u>50</u> | <u>30</u> <u>112</u> | <u>50</u> | <u>30</u> <u>116</u> | |
| P 12 | <u>55</u> | <u>33</u> <u>119</u> | <u>55</u> | <u>33</u> <u>123</u> | |
| P 13 | <u>60</u> | <u>36</u> <u>127</u> | <u>60</u> | <u>36</u> <u>130</u> | |
| P 14 | | <u>39</u> <u>134</u> | <u>65</u> | <u>39</u> <u>138</u> | |
| P 15 | | <u>42</u> <u>141</u> | <u>70</u> | <u>42</u> <u>145</u> | |
| P 16 | | <u>45</u> <u>148</u> | <u>75</u> | <u>45</u> <u>152</u> | |
| P 17 | | <u>48</u> | <u>80</u> | <u>48</u> | |
| P 18 | | <u>51</u> | <u>85</u> | <u>51</u> | |
| P 19 | | <u>54</u> | <u>90</u> | <u>54</u> | |
| P 20 | | <u>57</u> | | <u>57</u> | |
| | | <u>60</u> | | <u>60</u> | |