

Company Rupe Oil Company, Inc. Lease & Well No. Achenbach #1  
 Elevation - Formation Mississippi Effective Pay - Ft. Ticket No. 9099  
 Date 1/25/81 Sec. 9 Twp. 35S Range 12W County Barber State Kansas  
 Test Approved by Martha Thopper Western Representative Jeff Piotrowski

Formation Test No. 3 Interval Tested from 4858 ft. to 4884 ft. Total Depth 4884 ft.  
 Packer Depth 4853 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.  
 Packer Depth 4858 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.  
 Depth of Selective Zone Set -

Top Recorder Depth (Inside) 4861 ft. Recorder Number 5673 Cap. 5400  
 Bottom Recorder Depth (Outside) 4881 ft. Recorder Number 1565 Cap. 4900  
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor Union Rig #1 Drill Collar Length 480 I. D. 2.2 in.  
 Mud Type Chemical Viscosity 16.2 Weight Pipe Length - I. D. - in.  
 Weight 9.5 Water Loss 16.2 cc. Drill Pipe Length 4349 I. D. 3.8 in.  
 Chlorides 40,000 P.P.M. Test Tool Length 29 ft. Tool Size 5 1/2 OD in.  
 Jars: Make WTC Serial Number 405 Anchor Length 26 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 throughout test.

Recovered 500 ft. of gas in pipe  
 Recovered 90 ft. of gas & oil cut mud  
 Recovered          ft. of           
 Recovered          ft. of           
 Recovered          ft. of         

Remarks:         

Time Set Packer(s) 12:05 ~~P.M.~~ <sup>A.M.</sup> Time Started Off Bottom 4:50 ~~P.M.~~ <sup>A.M.</sup> Maximum Temperature 123  
 Initial Hydrostatic Pressure ..... (A) 2454 P.S.I.  
 Initial Flow Period ..... Minutes 30 (B) 60 P.S.I. to (C) 49 P.S.I.  
 Initial Closed In Period ..... Minutes 45 (D) 801 P.S.I.  
 Final Flow Period ..... Minutes 120 (E) 74 P.S.I. to (F) 70 P.S.I.  
 Final Closed In Period ..... Minutes 90 (G) 1049 P.S.I.  
 Final Hydrostatic Pressure ..... (H) 2454 P.S.I.

**WESTERN TESTING CO., INC.**  
**Pressure Data**

Date 1/25/81 Test Ticket No. 9099  
 Recorder No. 5673 Capacity 5400 Location 4861 Ft.  
 Clock No. --- Elevation --- Well Temperature 123 °F

Point	Pressure		Time Given	Time Computed
A. Initial Hydrostatic Mud	<u>2454</u> P.S.I.	Open Tool	<u>12:05A</u> M	
B. First Initial Flow Pressure	<u>60</u> P.S.I.	First Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
C. First Final Flow Pressure	<u>49</u> P.S.I.	Initial Closed-in Pressure	<u>45</u> Mins.	<u>45</u> Mins.
D. Initial Closed-in Pressure	<u>801</u> P.S.I.	Second Flow Pressure	<u>120</u> Mins.	<u>120</u> Mins.
E. Second Initial Flow Pressure	<u>74</u> P.S.I.	Final Closed-in Pressure	<u>90</u> Mins.	<u>90</u> Mins.
F. Second Final Flow Pressure	<u>70</u> P.S.I.			
G. Final Closed-in Pressure	<u>1049</u> P.S.I.			
H. Final Hydrostatic Mud	<u>2454</u> P.S.I.			

**PRESSURE BREAKDOWN**

<b>First Flow Pressure</b> Breakdown: <u>6</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.	<b>Initial Shut-In</b> Breakdown: <u>15</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.	<b>Second Flow Pressure</b> Breakdown: <u>24</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.	<b>Final Shut-In</b> Breakdown: <u>30</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 <u>0</u>	<u>60</u>	<u>0</u>	<u>49</u>	<u>0</u>	<u>74</u>	<u>0</u>	<u>70</u>
P 2 <u>5</u>	<u>49</u>	<u>3</u>	<u>60</u>	<u>5</u>	<u>68</u>	<u>3</u>	<u>70</u>
P 3 <u>10</u>	<u>49</u>	<u>6</u>	<u>82</u>	<u>10</u>	<u>62</u>	<u>6</u>	<u>71</u>
P 4 <u>15</u>	<u>49</u>	<u>9</u>	<u>115</u>	<u>15</u>	<u>60</u>	<u>9</u>	<u>76</u>
P 5 <u>20</u>	<u>51</u>	<u>12</u>	<u>150</u>	<u>20</u>	<u>57</u>	<u>12</u>	<u>78</u>
P 6 <u>25</u>	<u>51</u>	<u>15</u>	<u>199</u>	<u>25</u>	<u>59</u>	<u>15</u>	<u>87</u>
P 7 <u>30</u>	<u>49</u>	<u>18</u>	<u>246</u>	<u>30</u>	<u>62</u>	<u>18</u>	<u>98</u>
P 8		<u>21</u>	<u>295</u>	<u>35</u>	<u>66</u>	<u>21</u>	<u>126</u>
P 9		<u>24</u>	<u>355</u>	<u>40</u>	<u>68</u>	<u>24</u>	<u>169</u>
P10		<u>27</u>	<u>424</u>	<u>45</u>	<u>65</u>	<u>27</u>	<u>216</u>
P11		<u>30</u>	<u>484</u>	<u>50</u>	<u>63</u>	<u>30</u>	<u>257</u>
P12		<u>33</u>	<u>552</u>	<u>55</u>	<u>65</u>	<u>33</u>	<u>301</u>
P13		<u>36</u>	<u>615</u>	<u>60</u>	<u>67</u>	<u>36</u>	<u>350</u>
P14		<u>39</u>	<u>678</u>	<u>65</u>	<u>68</u>	<u>39</u>	<u>396</u>
P15		<u>42</u>	<u>743</u>	<u>70</u>	<u>68</u>	<u>42</u>	<u>445</u>
P16		<u>45</u>	<u>801</u>	<u>75</u>	<u>68</u>	<u>45</u>	<u>492</u>
P17				<u>80</u>	<u>66</u>	<u>48</u>	<u>536</u>
P18				<u>85</u>	<u>67</u>	<u>51</u>	<u>582</u>
P19				<u>90</u>	<u>66</u>	<u>54</u>	<u>626</u>
P20				<u>95</u>	<u>67</u>	<u>57</u>	<u>675</u>
				<u>100</u>	<u>68</u>	<u>60</u>	<u>719</u>

**WESTERN TESTING CO., INC.**

**Pressure Data**

Date 1/25/81

Test Ticket No. 9099

Recorder No. 5673

Capacity 5400

Location 4861 Ft.

Clock No. --- Elevation ---

Well Temperature 123 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2454</u> P.S.I.	Open Tool	<u>12:05A</u> M	
B First Initial Flow Pressure	<u>60</u> P.S.I.	First Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>49</u> P.S.I.	Initial Closed-in Pressure	<u>45</u> Mins.	<u>45</u> Mins.
D Initial Closed-in Pressure	<u>801</u> P.S.I.	Second Flow Pressure	<u>120</u> Mins.	<u>120</u> Mins.
E Second Initial Flow Pressure	<u>74</u> P.S.I.	Final Closed-in Pressure	<u>90</u> Mins.	<u>90</u> Mins.
F Second Final Flow Pressure	<u>70</u> P.S.I.			
G Final Closed-in Pressure	<u>1049</u> P.S.I.			
H Final Hydrostatic Mud	<u>2454</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: 15 Inc.  
of 3 mins. and a  
final inc. of 0 Min.

**Second Flow Pressure**  
Breakdown: 24 Inc.  
of 5 mins. and a  
final inc. of 0 Min.

**Final Shut-In**  
Breakdown: 30 Inc.  
of 3 mins. and a  
final inc. of 0 Min.

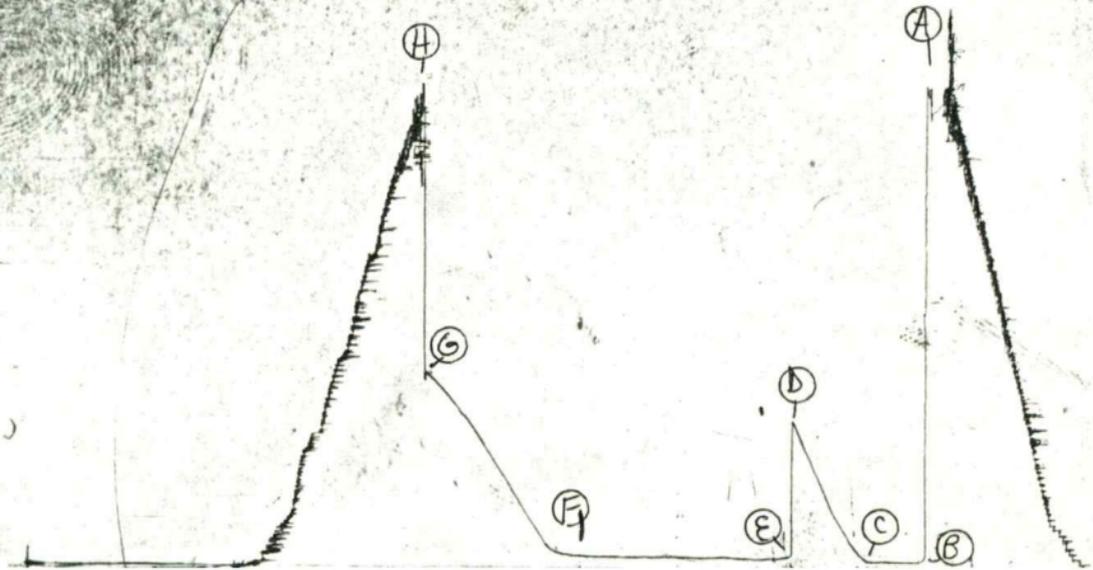
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1				105	67	63	763
P 2				110	67	66	801
P 3				115	67	69	828
P 4				120	70	72	866
P 5						75	904
P 6						78	937
P 7						81	973
P 8						84	1000
P 9						87	1030
P10						90	1049
P11							
P12							
P13							
P14							
P15							
P16							
P17							
P18							
P19							
P20							

5673

DST #3

TKT. #9099

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Company Rupe Oil Company, Inc. Lease & Well No. Achenbach #1  
 Elevation ---- Formation Mississippi Effective Pay -- Ft. Ticket No. 9100  
 Date 1/25/80 Sec. 9 Twp. 35S Range 12W County Barber State Kansas  
 Test Approved by Martha T. Kopper Western Representative Jeff Piotrowski-Mark Auzat

Formation Test No. 4 Interval Tested from 4885 ft. to 4899 ft. Total Depth 4899 ft.  
 Packer Depth 4880 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.  
 Packer Depth 4885 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.  
 Depth of Selective Zone Set -

Top Recorder Depth (Inside) 4894 ft. Recorder Number 5673 Cap. 5400  
 Bottom Recorder Depth (Outside) 4899 ft. Recorder Number 1565 Cap. 4900  
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor Union Drilling Drill Collar Length 479 I. D. 2.2 in.  
 Mud Type chemical Viscosity 50 Weight Pipe Length - I. D. - in.  
 Weight 9.3+ Water Loss 10.2 cc. Drill Pipe Length 4426 I. D. 3.8 in.  
 Chlorides 42,000 P.P.M. Test Tool Length 30 ft. Tool Size 5 1/2 OD in.  
 Jars: Make WTC Serial Number 405 Anchor Length 14 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: Weak, building to fair throughout test.

Recovered 120 ft. of gas and oil cut mud 20% oil; 70% mud; 10% gas  
 Recovered      ft. of            
 Recovered      ft. of            
 Recovered      ft. of            
 Recovered      ft. of          

Remarks:     

Time Set Packer(s) 8:20 AM. Time Started Off Bottom 1:05 AM. Maximum Temperature 123°  
P.M. P.M.  
 Initial Hydrostatic Pressure 2461 P.S.I. (A)  
 Initial Flow Period 30 Minutes (B) 55 P.S.I. to (C) 46 P.S.I.  
 Initial Closed In Period 42 Minutes (D) 1274 P.S.I.  
 Final Flow Period 120 Minutes (E) 74 P.S.I. to (F) 79 P.S.I.  
 Final Closed In Period 84 Minutes (G) 1290 P.S.I.  
 Final Hydrostatic Pressure 2461 P.S.I. (H)

**WESTERN TESTING CO., INC.**  
**Pressure Data**

Date 1/25/81 Test Ticket No. 9100  
 Recorder No. 5673 Capacity 5400 Location 4894 Ft.  
 Clock No. - Elevation - Well Temperature 123 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2461</u>	P.S.I.	<u>8:20P</u>	<u>M</u>
B First Initial Flow Pressure	<u>55</u>	P.S.I.	<u>30</u>	<u>30</u>
C First Final Flow Pressure	<u>46</u>	P.S.I.	<u>45</u>	<u>42</u>
D Initial Closed-in Pressure	<u>1274</u>	P.S.I.	<u>120</u>	<u>120</u>
E Second Initial Flow Pressure	<u>74</u>	P.S.I.	<u>90</u>	<u>84</u>
F Second Final Flow Pressure	<u>79</u>	P.S.I.		
G Final Closed-in Pressure	<u>1290</u>	P.S.I.		
H Final Hydrostatic Mud	<u>2461</u>	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.
	of <u>6</u>	mins. and a	of <u>14</u>	mins. and a	of <u>24</u>	mins. and a	of <u>28</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>55</u>	<u>0</u>	<u>46</u>	<u>0</u>	<u>74</u>	<u>0</u>	<u>79</u>	
P 2 <u>5</u>	<u>51</u>	<u>3</u>	<u>55</u>	<u>5</u>	<u>60</u>	<u>3</u>	<u>87</u>	
P 3 <u>10</u>	<u>51</u>	<u>6</u>	<u>77</u>	<u>10</u>	<u>57</u>	<u>6</u>	<u>101</u>	
P 4 <u>15</u>	<u>51</u>	<u>9</u>	<u>112</u>	<u>15</u>	<u>57</u>	<u>9</u>	<u>120</u>	
P 5 <u>20</u>	<u>51</u>	<u>12</u>	<u>169</u>	<u>20</u>	<u>57</u>	<u>12</u>	<u>142</u>	
P 6 <u>25</u>	<u>44</u>	<u>15</u>	<u>249</u>	<u>25</u>	<u>57</u>	<u>15</u>	<u>169</u>	
P 7 <u>30</u>	<u>46</u>	<u>18</u>	<u>363</u>	<u>30</u>	<u>57</u>	<u>18</u>	<u>199</u>	
P 8		<u>21</u>	<u>514</u>	<u>35</u>	<u>59</u>	<u>21</u>	<u>243</u>	
P 9		<u>24</u>	<u>710</u>	<u>40</u>	<u>61</u>	<u>24</u>	<u>295</u>	
P10		<u>27</u>	<u>877</u>	<u>45</u>	<u>62</u>	<u>27</u>	<u>361</u>	
P11		<u>30</u>	<u>991</u>	<u>50</u>	<u>64</u>	<u>30</u>	<u>443</u>	
P12		<u>33</u>	<u>1092</u>	<u>55</u>	<u>65</u>	<u>33</u>	<u>546</u>	
P13		<u>36</u>	<u>1165</u>	<u>60</u>	<u>66</u>	<u>36</u>	<u>639</u>	
P14		<u>39</u>	<u>1220</u>	<u>65</u>	<u>67</u>	<u>39</u>	<u>721</u>	
P15		<u>42</u>	<u>1274</u>	<u>70</u>	<u>67</u>	<u>42</u>	<u>803</u>	
P16		<u>45</u>		<u>75</u>	<u>68</u>	<u>45</u>	<u>874</u>	
P17				<u>80</u>	<u>69</u>	<u>48</u>	<u>932</u>	
P18				<u>85</u>	<u>70</u>	<u>51</u>	<u>983</u>	
P19				<u>90</u>	<u>71</u>	<u>54</u>	<u>1024</u>	
P20				<u>95</u>	<u>72</u>	<u>57</u>	<u>1062</u>	
				<u>100</u>	<u>73</u>	<u>60</u>	<u>1098</u>	

**WESTERN TESTING CO., INC.**

**Pressure Data**

Date 1/25/81 Test Ticket No. 9100  
 Recorder No. 5673 Capacity 5400 Location 4894 Ft.  
 Clock No. - Elevation - Well Temperature 123 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2461</u> P.S.I.	Open Tool	<u>8:20P</u> M	
B First Initial Flow Pressure	<u>55</u> P.S.I.	First Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>46</u> P.S.I.	Initial Closed-in Pressure	<u>45</u> Mins.	<u>42</u> Mins.
D Initial Closed-in Pressure	<u>1274</u> P.S.I.	Second Flow Pressure	<u>120</u> Mins.	<u>120</u> Mins.
E Second Initial Flow Pressure	<u>74</u> P.S.I.	Final Closed-in Pressure	<u>90</u> Mins.	<u>84</u> Mins.
F Second Final Flow Pressure	<u>79</u> P.S.I.			
G Final Closed-in Pressure	<u>1290</u> P.S.I.			
H Final Hydrostatic Mud	<u>2461</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: 14 Inc.  
 of 3 mins. and a  
 final inc. of 0 Min.

**Second Flow Pressure**  
 Breakdown: 24 Inc.  
 of 5 mins. and a  
 final inc. of 0 Min.

**Final Shut-In**  
 Breakdown: 28 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>105</u>	<u>74</u>	<u>63</u>	<u>1127</u>
P 2				<u>110</u>	<u>75</u>	<u>66</u>	<u>1154</u>
P 3				<u>115</u>	<u>77</u>	<u>69</u>	<u>1182</u>
P 4				<u>120</u>	<u>79</u>	<u>72</u>	<u>1206</u>
P 5						<u>75</u>	<u>1230</u>
P 6						<u>78</u>	<u>1249</u>
P 7						<u>81</u>	<u>1271</u>
P 8						<u>84</u>	<u>1290</u>
P 9							
P10							
P11							
P12							
P13							
P14							
P15							
P16							
P17							
P18							
P19							
P20							

0673  
DST #4

JKA # 9100  
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