

Company W. L. Hartman Estate Lease & Well No. #6 Brodie

Elevation --- Formation - Effective Pay --- Ft. Ticket No. 17255

Date 8/ 10 /82 Sec. 25 Twp. 19S Range 12W County Barton State Kansas

Test Approved by R. L. Schmidlapp Western Representative Ray Schwagger

Formation Test No. 1 Interval Tested from 2840 ft. to 2900 ft. Total Depth 2900 ft.

Packer Depth 2835 ft. Size 6 5/8 in. Packer Depth - ft. Size - in.

Packer Depth 2840 ft. Size 6 5/8 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -

Top Recorder Depth (Inside) 2855 ft. Recorder Number 13269 Cap. 4375

Bottom Recorder Depth (Outside) 2858 ft. Recorder Number 13270 Cap. 4375

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

Drilling Contractor Allen Drilg. Rig #4 Drill Collar Length - I. D. - in.

Mud Type starch Viscosity 41 Weight Pipe Length - I. D. - in.

Weight 9.8 Water Loss 11.2 cc. Drill Pipe Length 2819 I. D. 3.8 in.

Chlorides 84,000 P.P.M. Test Tool Length 21 ft. Tool Size 5 1/2 in.

Jars: Make - Serial Number - Anchor Length 60 ft. Size 5 1/2 in.

Did Well Flow? No Reversed Out No Surface Choke Size 5/8 in. Bottom Choke Size 5/8 in.

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

Blow: Initial flow period fair blow building to strong blow. Fair blow building to strong blow on final flow period.

Recovered 190 ft. of gas cut watery mud

Recovered 180 ft. of gas cut muddy water

Recovered 120 ft. of salt water Chlorides 74,000 ppm

Recovered        ft. of       

Recovered        ft. of       

Remarks: Packers did not hold when first set; reset and they held.

Time Set Packer(s) 12:35 ~~P.M.~~ <sup>A.M.</sup> Time Started Off Bottom 4:05 ~~P.M.~~ <sup>A.M.</sup> Maximum Temperature 103°

Initial Hydrostatic Pressure 1521 P.S.I. (A)

Initial Flow Period 30 Minutes (B) 148 P.S.I. to (C) 165 P.S.I.

Initial Closed In Period 33 Minutes (D) 703 P.S.I.

Final Flow Period 125 Minutes (E) 185 P.S.I. to (F) 257 P.S.I.

Final Closed In Period 30 Minutes (G) 659 P.S.I.

Final Hydrostatic Pressure 1510 P.S.I. (H)

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

Date 8/10/82

Test Ticket No. 17255

Recorder No. 69 13269

Capacity 4375

Location 2855 Ft.

Clock No. -- Elevation ---

Well Temperature 103 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1521</u> P.S.I.	Open Tool	<u>12:35A</u>	<u>M</u>
B First Initial Flow Pressure	<u>148</u> P.S.I.	First Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>165</u> P.S.I.	Initial Closed-in Pressure	<u>30</u> Mins.	<u>33</u> Mins.
D Initial Closed-in Pressure	<u>703</u> P.S.I.	Second Flow Pressure	<u>120</u> Mins.	<u>125</u> Mins.
E Second Initial Flow Pressure	<u>185</u> P.S.I.	Final Closed-in Pressure	<u>30</u> Mins.	<u>30</u> Mins.
F Second Final Flow Pressure	<u>257</u> P.S.I.			
G Final Closed-in Pressure	<u>659</u> P.S.I.			
H Final Hydrostatic Mud	<u>1510</u> P.S.I.			

**PRESSURE BREAKDOWN**

Point Mins.	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>11</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.		Second Flow Pressure Breakdown: <u>25</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.		Final Shut-In Breakdown: <u>10</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.	
	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes
P 1	<u>148</u>	<u>0</u>	<u>165</u>	<u>0</u>	<u>185</u>	<u>0</u>	<u>257</u>	<u>0</u>
P 2	<u>148</u>	<u>5</u>	<u>183</u>	<u>3</u>	<u>185</u>	<u>5</u>	<u>346</u>	<u>3</u>
P 3	<u>151</u>	<u>10</u>	<u>269</u>	<u>6</u>	<u>186</u>	<u>10</u>	<u>423</u>	<u>6</u>
P 4	<u>152</u>	<u>15</u>	<u>370</u>	<u>9</u>	<u>169</u>	<u>15</u>	<u>493</u>	<u>9</u>
P 5	<u>156</u>	<u>20</u>	<u>468</u>	<u>12</u>	<u>193</u>	<u>20</u>	<u>537</u>	<u>12</u>
P 6	<u>161</u>	<u>25</u>	<u>537</u>	<u>15</u>	<u>196</u>	<u>25</u>	<u>569</u>	<u>15</u>
P 7	<u>165</u>	<u>30</u>	<u>580</u>	<u>18</u>	<u>200</u>	<u>30</u>	<u>593</u>	<u>18</u>
P 8			<u>617</u>	<u>21</u>	<u>203</u>	<u>35</u>	<u>613</u>	<u>21</u>
P 9			<u>647</u>	<u>24</u>	<u>206</u>	<u>40</u>	<u>630</u>	<u>24</u>
P10			<u>673</u>	<u>27</u>	<u>210</u>	<u>45</u>	<u>645</u>	<u>27</u>
P11			<u>693</u>	<u>30</u>	<u>213</u>	<u>50</u>	<u>659</u>	<u>30</u>
P12			<u>703</u>	<u>33</u>	<u>227</u>	<u>55</u>		
P13					<u>220</u>	<u>60</u>		
P14					<u>223</u>	<u>65</u>		
P15					<u>226</u>	<u>70</u>		
P16					<u>229</u>	<u>75</u>		
P17					<u>232</u>	<u>80</u>		
P18					<u>235</u>	<u>85</u>		
P19					<u>238</u>	<u>90</u>		
P20					<u>241</u>	<u>95</u>		
					<u>244</u>	<u>100</u>		

WESTERN TESTING CO., INC.

Pressure Data

Date 8/10/82

Test Ticket No. 17255

Recorder No. 13269

Capacity 4375 Location 2855 Ft.

Clock No. -- Elevation ---

Well Temperature 103 °F

Point	Pressure			Time Given	Time Computed
A Initial Hydrostatic Mud	1521 P.S.I.	Open Tool		12:35A	M
B First Initial Flow Pressure	148 P.S.I.	First Flow Pressure		30 Mins	30 Mins.
C First Final Flow Pressure	165 P.S.I.	Initial Closed-in Pressure		30 Mins	33 Mins.
D Initial Closed-in Pressure	703 P.S.I.	Second Flow Pressure		120 Mins	125 Mins.
E Second Initial Flow Pressure	185 P.S.I.	Final Closed-in Pressure		30 Mins	30 Mins.
F Second Final Flow Pressure	257 P.S.I.				
G Final Closed-in Pressure	659 P.S.I.				
H Final Hydrostatic Mud	1510 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: 11 Inc.  
of 3 mins. and a  
final inc. of 0 Min.

Second Flow Pressure  
Breakdown: 25 Inc.  
of 5 mins. and a  
final inc. of 0 Min.

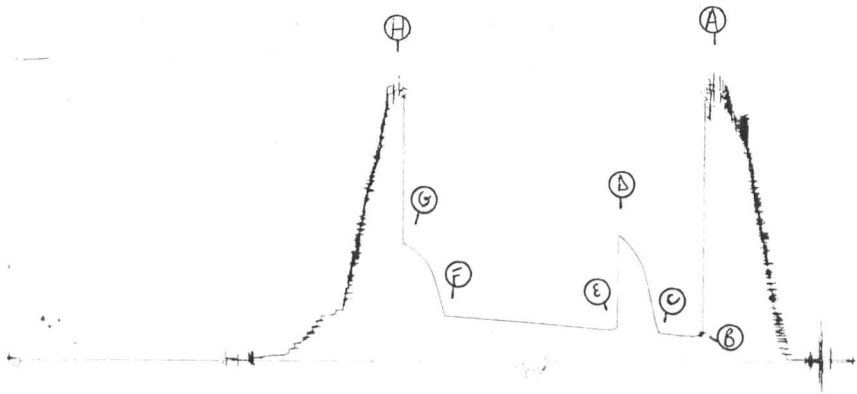
Final Shut-In  
Breakdown: 10 Inc.  
of 3 mins. and a  
final inc. of 0 Min.

Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1				105	248		
P 2				110	251		
P 3				115	253		
P 4				120	255		
P 5				125	257		
P 6							
P 7							
P 8							
P 9							
P10							
P11							
P12							
P13							
P14							
P15							
P16							
P17							
P18							
P19							
P20							

TKT # 17255

I

6  
2  
6  
9



Company W. L. Hartman Estate Lease & Well No. #6 Brodie

Elevation --- Formation Lansing Effective Pay --- Ft. Ticket No. 17256

Date 8/ 11 /82 Sec. 25 Twp. 19S Range 12W County Barton State Kansas

Test Approved by R. L. Schmidlapp Western Representative Ray Schwagger

Formation Test No. 2 Interval Tested from 3077 ft. to 3110 ft. Total Depth 3110 ft.

Packer Depth 3072 ft. Size 6 5/8 in. Packer Depth - ft. Size - in.

Packer Depth 3077 ft. Size 6 5/8 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -

Top Recorder Depth (Inside) 3096 ft. Recorder Number 13269 Cap. 4375

Bottom Recorder Depth (Outside) 3099 ft. Recorder Number 13270 Cap. 4375

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

Drilling Contractor Allen Drlg. Rig #4 Drill Collar Length - I. D. - in.

Mud Type starch Viscosity 47 Weight Pipe Length - I. D. - in.

Weight 9.7 Water Loss 11.2 cc. Drill Pipe Length 3056 I. D. 3.8 in.

Chlorides 56,000 P.P.M. Test Tool Length 21 ft. Tool Size 5 1/2 in.

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

Did Well Flow? No Reversed Out No Surface Choke Size 5/8 in. Bottom Choke Size 5/8 in.

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

Blow: Initial flow period weak blow died in twenty six minutes and flushed tool.

Recovered 210 ft. of mud

Recovered        ft. of       

Recovered        ft. of       

Recovered        ft. of       

Recovered        ft. of       

Recovered        ft. of       

Remarks:       

Packers did not hold when first set; reset and they held.

Time Set Packer(s) 2:45 ~~P.M.~~ <sup>A.M.</sup> Time Started Off Bottom 4:25 ~~P.M.~~ <sup>A.M.</sup> Maximum Temperature 101°

Initial Hydrostatic Pressure 1648 (A) 1648 P.S.I.

Initial Flow Period 75 Minutes (B) 148 P.S.I. to (C) 155 P.S.I.

Initial Closed In Period 30 Minutes (D) 141 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 1648 (H) 1648 P.S.I.

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

Date 8/11/82

Test Ticket No. 17256

Recorder No. 13269

Capacity 4375

Location 3096 Ft.

Clock No. -- Elevation ---

Well Temperature 101 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1648</u>	P.S.I.	<u>2:45A</u>	<u>M</u>
B First Initial Flow Pressure	<u>148</u>	P.S.I.	<u>70</u>	<u>Mins. 75</u> Mins.
C First Final Flow Pressure	<u>155</u>	P.S.I.	<u>30</u>	<u>Mins. 30</u> Mins.
D Initial Closed-in Pressure	<u>151</u>	P.S.I.	<u>--</u>	<u>Mins. --</u> Mins.
E Second Initial Flow Pressure	<u>--</u>	P.S.I.	<u>--</u>	<u>Mins. --</u> Mins.
F Second Final Flow Pressure	<u>--</u>	P.S.I.		
G Final Closed-in Pressure	<u>--</u>	P.S.I.		
H Final Hydrostatic Mud	<u>1648</u>	P.S.I.		

**PRESSURE BREAKDOWN**

**First Flow Pressure**  
Breakdown: 15 Inc.  
of 5 mins. and a  
final inc. of 0 Min.

**Initial Shut-In**  
Breakdown: 10 Inc.  
of 3 mins. and a  
final inc. of 0 Min.

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

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

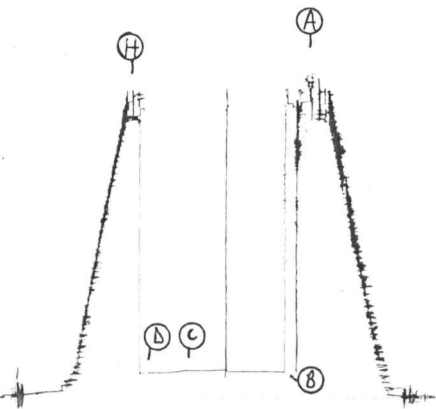
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 <u>0</u>	<u>148</u>	<u>0</u>	<u>155</u>				
P 2 <u>5</u>	<u>148</u>	<u>3</u>	<u>152</u>				
P 3 <u>10</u>	<u>148</u>	<u>6</u>	<u>150</u>				
P 4 <u>15</u>	<u>148</u>	<u>9</u>	<u>148</u>				
P 5 <u>20</u>	<u>148</u>	<u>12</u>	<u>146</u>				
P 6 <u>25</u>	<u>148</u>	<u>15</u>	<u>142</u>				
P 7 <u>30</u>	<u>148</u>	<u>18</u>	<u>141</u>				
P 8 <u>35</u>	<u>149</u>	<u>21</u>	<u>141</u>				
P 9 <u>40</u>	<u>150</u>	<u>24</u>	<u>141</u>				
P10 <u>45</u>	<u>159</u>	<u>27</u>	<u>141</u>				
P11 <u>50</u>	<u>157</u>	<u>30</u>	<u>141</u>				
P12 <u>55</u>	<u>156</u>						
P13 <u>60</u>	<u>155</u>						
P14 <u>65</u>	<u>155</u>						
P15 <u>70</u>	<u>155</u>						
P16 <u>75</u>	<u>155</u>						
P17							
P18							
P19							
P20							

Flushed tool

TKT # 17256

I

13249



Company W. L. Hartman Estate Lease & Well No. #6 Brodie  
 Elevation --- Formation Lansing Effective Pay --- Ft. Ticket No. 17257  
 Date 8/ 11/82 Sec. 25 Twp. 19S Range 12W County Barton State Kansas  
 Test Approved by R. L. Schmidlapp Western Representative Ray Schwagger

Formation Test No. 3 Interval Tested from 3113 ft. to 3155 ft. Total Depth 3155 ft.  
 Packer Depth 3108 ft. Size 6 5/8 in. Packer Depth - ft. Size - in.  
 Packer Depth 3113 ft. Size 6 5/8 in. Packer Depth - ft. Size - in.  
 Depth of Selective Zone Set -

Top Recorder Depth (Inside) 3115 ft. Recorder Number 13269 Cap. 4375  
 Bottom Recorder Depth (Outside) 3118 ft. Recorder Number 13270 Cap. 4375  
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor Allen Drlg. Rig #4 Drill Collar Length - I. D. - in.  
 Mud Type starch Viscosity 50 Weight Pipe Length - I. D. - in.  
 Weight 9.9 Water Loss 5.6 cc. Drill Pipe Length 3092 I. D. 3.8 in.  
 Chlorides 40,000 P.P.M. Test Tool Length 21 ft. Tool Size 5 1/2 in.  
 Jars: Make - Serial Number - Anchor Length 42 ft. Size 5 1/2 in.  
 Did Well Flow? No Reversed Out No Surface Choke Size 5/8 in. Bottom Choke Size 5/8 in.  
 Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 XH in.

Blow: Initial flow period fair blow building to strong blow. Strong blow throughout final flow period.

Recovered 180 ft. of muddy water  
 Recovered 780 ft. of salt water Chlorides 80,000 ppm  
 Recovered        ft. of         
 Recovered        ft. of         
 Recovered        ft. of       

Remarks:       

Time Set Packer(s) 5:30 ~~AM~~ P.M. Time Started Off Bottom 8:10 ~~AM~~ P.M. Maximum Temperature 106°  
 Initial Hydrostatic Pressure ..... (A) 1663 P.S.I.  
 Initial Flow Period ..... Minutes 10 (B) 148 P.S.I. to (C) 185 P.S.I.  
 Initial Closed In Period ..... Minutes 30 (D) 469 P.S.I.  
 Final Flow Period ..... Minutes 90 (E) 264 P.S.I. to (F) 453 P.S.I.  
 Final Closed In Period ..... Minutes 36 (G) 478 P.S.I.  
 Final Hydrostatic Pressure ..... (H) 1626 P.S.I.

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

Date 8/11/82 Test Ticket No. 17257  
 Recorder No. 13269 Capacity 4375 Location 3115 Ft.  
 Clock No. -- Elevation --- Well Temperature 106 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	1663 P.S.I.	Open Tool	5:30P	M
B First Initial Flow Pressure	148 P.S.I.	First Flow Pressure	10	Mins. 10
C First Final Flow Pressure	185 P.S.I.	Initial Closed-in Pressure	30	Mins. 20
D Initial Closed-in Pressure	469 P.S.I.	Second Flow Pressure	90	Mins. 90
E Second Initial Flow Pressure	264 P.S.I.	Final Closed-in Pressure	30	Mins. 36
F Second Final Flow Pressure	453 P.S.I.			
G Final Closed-in Pressure	478 P.S.I.			
H Final Hydrostatic Mud	1626 P.S.I.			

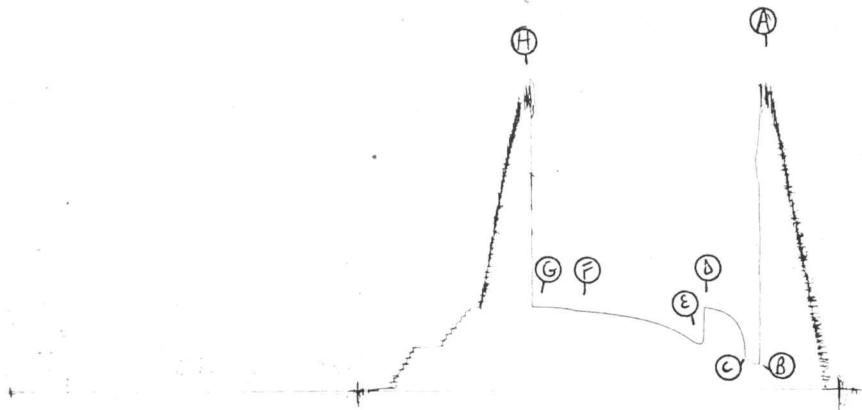
**PRESSURE BREAKDOWN**

First Flow Pressure Breakdown: <u>2</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.		Initial Shut-In Breakdown: <u>10</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>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	148	0	185	0	264	0	453
P 2	5	160	3	337	5	268	3	454
P 3	10	185	6	378	10	291	6	459
P 4			9	406	15	316	9	465
P 5			12	426	20	338	12	468
P 6			15	441	25	356	15	470
P 7			18	449	30	370	18	472
P 8			21	457	35	383	21	473
P 9			24	463	40	394	24	474
P10			27	467	45	403	27	475
P11			30	469	50	412	30	476
P12					55	420	33	477
P13					60	424	36	478
P14					65	431		
P15					70	436		
P16					75	441		
P17					80	445		
P18					85	448		
P19					90	453		
P20								

TKT # 17257

I

69251



Company W. L. Hartman Estate Lease & Well No. #6 Brodie  
 Elevation --- Formation Lansing Effective Pay --- Ft. Ticket No. 17258  
 Date 8/ 12 /82 Sec. 25 Twp. 19S Range 12W County Barton State Kansas  
 Test Approved by R. L. Schmidlapp Western Representative Ray Schwagger

Formation Test No. 4 Interval Tested from 3200 ft. to 3252 ft. Total Depth 3252 ft.  
 Packer Depth 3195 ft. Size 6 5/8 in. Packer Depth - ft. Size - in.  
 Packer Depth 3200 ft. Size 6 5/8 in. Packer Depth - ft. Size - in.  
 Depth of Selective Zone Set -

Top Recorder Depth (Inside) 3207 ft. Recorder Number 13269 Cap. 4375  
 Bottom Recorder Depth (Outside) 3210 ft. Recorder Number 13270 Cap. 4375  
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor Allen Drlg. Rig #4 Drill Collar Length - I. D. - in.  
 Mud Type starch Viscosity 42 Weight Pipe Length - I. D. - in.  
 Weight 9.9 Water Loss 5.6 cc. Drill Pipe Length 4179 I. D. 3.8 in.  
 Chlorides 34,000 P.P.M. Test Tool Length 21 ft. Tool Size 5 1/2 in.  
 Jars: Make - Serial Number - Anchor Length 52 ft. Size 5 1/2 in.  
 Did Well Flow? No Reversed Out No Surface Choke Size 5/8 in. Bottom Choke Size 5/8 in.  
 Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 XH in.

Blow: Initial flow period weak blow building to strong blow. Strong blow throughout final flow period. Gas to surface in seventy-eight minutes. See attached sheet for gas measurements.

Recovered 45 ft. of slightly oil and gas cut mud  
 Recovered 120 ft. of oil and gas cut mud  
 Recovered 115 ft. of muddy oil  
 Recovered 5 ft. of clean oil

Remarks: \_\_\_\_\_

Time Set Packer(s) 1:30 ~~AM~~ P.M. Time Started Off Bottom 4:10 ~~AM~~ P.M. Maximum Temperature 100°  
 Initial Hydrostatic Pressure ..... (A) 1710 P.S.I.  
 Initial Flow Period ..... Minutes 10 (B) 52 P.S.I. to (C) 54 P.S.I.  
 Initial Closed In Period ..... Minutes 33 (D) 617 P.S.I.  
 Final Flow Period ..... Minutes 95 (E) 84 P.S.I. to (F) 125 P.S.I.  
 Final Closed In Period ..... Minutes 30 (G) 587 P.S.I.  
 Final Hydrostatic Pressure ..... (H) 1710 P.S.I.

## GAS FLOW REPORT

Date 8/12/82 Ticket 17258 Company W. L. Hartman Estate  
 Well Name and No. Brodie #6 Dst No. 4 Interval Tested 3200'-3252'  
 County Barton State Kansas Sec. 25 Twp 19S Rg. 12W

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
<b>PRE FLOW</b>					

Gas to surface in seventy-eight minutes **SECOND FLOW**

80 min.	22" of water	1/2" orifice			29,400 CFPD
85 min.	---				Too weak to gauge.

### GAS BOTTLE

Serial No. ---- Date Bottle Filled ----- Date to be Invoiced 8/12/82

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 W. L. Hartman Estate  
 Authorized by R. L. Schmidlapp

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

Date 8/12/82 Test Ticket No. 17258  
 Recorder No. 13269 Capacity 4375 Location 3207 Ft.  
 Clock No. -- Elevation -- Well Temperature 100 °F

Point	Pressure			Time Given	Time Computed
				1:30P	M
A Initial Hydrostatic Mud	1710	P.S.I.	Open Tool	10	10
B First Initial Flow Pressure	52	P.S.I.	First Flow Pressure	30	33
C First Final Flow Pressure	54	P.S.I.	Initial Closed-in Pressure	90	95
D Initial Closed-in Pressure	617	P.S.I.	Second Flow Pressure	30	30
E Second Initial Flow Pressure	84	P.S.I.	Final Closed-in Pressure		
F Second Final Flow Pressure	125	P.S.I.			
G Final Closed-in Pressure	587	P.S.I.			
H Final Hydrostatic Mud	1710	P.S.I.			

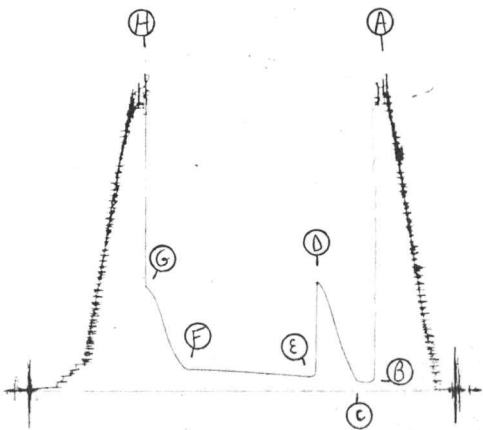
**PRESSURE BREAKDOWN**

Point Mins.	First Flow Pressure Breakdown: <u>2</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.		Initial Shut-In Breakdown: <u>11</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.		Second Flow Pressure Breakdown: <u>19</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.		Final Shut-In Breakdown: <u>10</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.	
	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes
P 1	52	0	54	0	84	0	125	0
P 2	52	5	62	3	84	5	149	3
P 3	54	10	106	6	86	10	181	6
P 4			154	9	89	15	221	9
P 5			209	12	92	20	274	12
P 6			273	15	95	25	351	15
P 7			344	18	98	30	425	18
P 8			427	21	101	35	495	21
P 9			502	24	104	40	543	24
P10			559	27	107	45	574	27
P11			617	30	110	50	587	30
P12				33	113	55		
P13					115	60		
P14					117	65		
P15					119	70		
P16					120	75		
P17					121	80		
P18					122	85		
P19					123	90		
P20					125	95		

TKT #17258

I

13269



Company W. L. Hartman Estate Lease & Well No. #6 Brodie  
 Elevation --- Formation Kansas City Effective Pay --- Ft. Ticket No. 17259  
 Date 8/ 13/82 Sec. 25 Twp. 19S Range 12W County Barton State Kansas  
 Test Approved by R. L. Schmidlapp Western Representative Ray Schwagger

Formation Test No. 5 Interval Tested from 3268 ft. to 3316 ft. Total Depth 3316 ft.  
 Packer Depth 3263 ft. Size 6 5/8 in. Packer Depth - ft. Size - in.  
 Packer Depth 3268 ft. Size 6 5/8 in. Packer Depth - ft. Size - in.  
 Depth of Selective Zone Set -

Top Recorder Depth (Inside) 3271 ft. Recorder Number 13269 Cap. 4375  
 Bottom Recorder Depth (Outside) 3274 ft. Recorder Number 13270 Cap. 4375  
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor Allen Drlg. Rig #4 Drill Collar Length - I. D. - in.  
 Mud Type starch Viscosity 42 Weight Pipe Length - I. D. - in.  
 Weight 9.9 Water Loss 5.6 cc. Drill Pipe Length 3247 I. D. 3.8 in.  
 Chlorides 34,000 P.P.M. Test Tool Length 21 ft. Tool Size 5 1/2 in.  
 Jars: Make - Serial Number - Anchor Length 48 ft. Size 5 1/2 in.  
 Did Well Flow? No Reversed Out No Surface Choke Size 5/8 in. Bottom Choke Size 5/8 in.  
 Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 XH in.

Blow: Initial flow period very weak blow died in eighteen minutes. Flushed tool - no help.

Recovered 5 ft. of mud with few oil specks  
 Recovered     ft. of      
 Recovered     ft. of      
 Recovered     ft. of      
 Recovered     ft. of    

Remarks:    

Time Set Packer(s) 7:30 ~~P.M.~~ <sup>A.M.</sup> Time Started Off Bottom 9:00 ~~P.M.~~ <sup>A.M.</sup> Maximum Temperature 103°  
 Initial Hydrostatic Pressure 1724 P.S.I. (A)  
 Initial Flow Period 60 Minutes (B) 34 P.S.I. to (C) 33 P.S.I.  
 Initial Closed In Period 36 Minutes (D) 36 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 1717 P.S.I. (H)

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

Date 8/13/82 Test Ticket No. 17259  
 Recorder No. 13269 Capacity 4375 Location 3271 Ft.  
 Clock No. -- Elevation --- Well Temperature 103 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1724</u> P.S.I.	Open Tool	<u>7:30A</u>	<u>M</u>
B First Initial Flow Pressure	<u>34</u> P.S.I.	First Flow Pressure	<u>60</u> Mins.	<u>6-</u> Mins.
C First Final Flow Pressure	<u>33</u> P.S.I.	Initial Closed-in Pressure	<u>30</u> Mins.	<u>36</u> Mins.
D Initial Closed-in Pressure	<u>36</u> P.S.I.	Second Flow Pressure	<u>--</u> Mins.	<u>--</u> Mins.
E Second Initial Flow Pressure	<u>--</u> P.S.I.	Final Closed-in Pressure	<u>--</u> Mins.	<u>--</u> Mins.
F Second Final Flow Pressure	<u>--</u> P.S.I.			
G Final Closed-in Pressure	<u>--</u> P.S.I.			
H Final Hydrostatic Mud	<u>1717</u> P.S.I.			

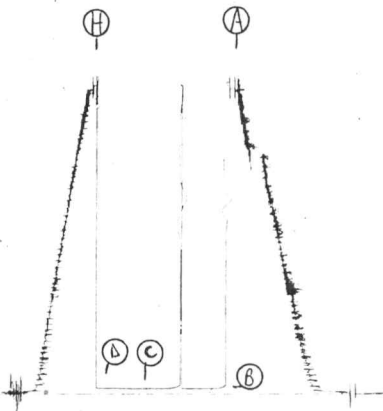
**PRESSURE BREAKDOWN**

First Flow Pressure Breakdown: <u>12</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.		Initial Shut-In Breakdown: <u>12</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.		Second Flow Pressure Breakdown: <u>0</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.		Final Shut-In Breakdown: <u>0</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 <u>0</u>	<u>34</u>	<u>0</u>	<u>33</u>				
P 2 <u>5</u>	<u>34</u>	<u>3</u>	<u>33</u>				
P 3 <u>10</u>	<u>34</u>	<u>6</u>	<u>33</u>				
P 4 <u>15</u>	<u>34</u>	<u>9</u>	<u>33</u>				
P 5 <u>20</u>	<u>34</u>	<u>12</u>	<u>34</u>				
P 6 <u>25</u>	<u>34</u>	<u>15</u>	<u>35</u>				
P 7 <u>30</u>	<u>34</u> Flushed tool	<u>18</u>	<u>36</u>				
P 8 <u>35</u>	<u>47</u>	<u>21</u>	<u>36</u>				
P 9 <u>40</u>	<u>36</u>	<u>24</u>	<u>36</u>				
P10 <u>45</u>	<u>34</u>	<u>27</u>	<u>36</u>				
P11 <u>50</u>	<u>33</u>	<u>30</u>	<u>36</u>				
P12 <u>55</u>	<u>33</u>	<u>33</u>	<u>36</u>				
P13 <u>60</u>	<u>33</u>	<u>36</u>	<u>36</u>				
P14 _____	_____	_____	_____				
P15 _____	_____	_____	_____				
P16 _____	_____	_____	_____				
P17 _____	_____	_____	_____				
P18 _____	_____	_____	_____				
P19 _____	_____	_____	_____				
P20 _____	_____	_____	_____				

TKT # 17259

I

63461



Company W. L. Hartman Estate Lease & Well No. #6 Brodie  
 Elevation --- Formation ---- Effective Pay --- Ft. Ticket No. 17260  
 Date 8/ 13 /82 Sec. 25 Twp. 19S Range 12W County Barton State Kansas  
 Test Approved by R. L. Schmidlapp Western Representative Ray Schwagger

Formation Test No. 6 Interval Tested from 3320 ft. to 3370 ft. Total Depth 3370 ft.  
 Packer Depth 3315 ft. Size 6 5/8 in. Packer Depth - ft. Size - in.  
 Packer Depth 3320 ft. Size 6 5/8 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -  
 Top Recorder Depth (Inside) 3323 ft. Recorder Number 13269 Cap. 4375  
 Bottom Recorder Depth (Outside) 3326 ft. Recorder Number 13270 Cap. 4375  
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor Allen Drlg. Rig #4 Drill Collar Length - I. D. - in.  
 Mud Type starch Viscosity 47 Weight Pipe Length - I. D. - in.  
 Weight 9.6 Water Loss 4.8 cc. Drill Pipe Length 3299 I. D. 3.8 in.  
 Chlorides 60,000 P.P.M. Test Tool Length 21 ft. Tool Size 5 1/2 in.  
 Jars: Make - Serial Number - Anchor Length 50 ft. Size 5 1/8  
 Did Well Flow? No Reversed Out No Surface Choke Size 5/8 Bottom Choke Size 5/8 in.  
 Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 in.

Blow: Initial flow period weak blow building to strong blow in forty minutes.

Recovered 45 ft. of clean oil  
 Recovered 360 ft. of muddy gassy oil 5% mud;10% water;15% gas;70% oil  
 Recovered     ft. of      
 Recovered     ft. of      
 Recovered     ft. of    

Remarks:    

Time Set Packer(s) 12:40 ~~P.M.~~ <sup>A.M.</sup> Time Started Off Bottom 3:10 ~~P.M.~~ <sup>A.M.</sup> Maximum Temperature 108°  
 Initial Hydrostatic Pressure 1732 P.S.I. (A)  
 Initial Flow Period 125 Minutes (B) 46 P.S.I. to (C) 185 P.S.I.  
 Initial Closed In Period 30 Minutes (D) 876 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 1732 P.S.I. (H)

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

Date 8/13/82 Test Ticket No. 12760  
 Recorder No. 13269 Capacity 4375 Location 3323 Ft.  
 Clock No. --- Elevation ---- Well Temperature 108 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	1732 P.S.I.	Open Tool	12:40A	M
B First Initial Flow Pressure	46 P.S.I.	First Flow Pressure	120	Mins. 125 Mins.
C First Final Flow Pressure	185 P.S.I.	Initial Closed-in Pressure	30	Mins. 30 Mins.
D Initial Closed-in Pressure	876 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	1732 P.S.I.			

**PRESSURE BREAKDOWN**

First Flow Pressure Breakdown:		Initial Shut-In Breakdown:		Second Flow Pressure Breakdown:		Final Shut-In Breakdown:	
25 Inc.		10 Inc.		0 Inc.		0 Inc.	
of 5 mins. and a final inc. of 0 Min.		of 3 mins. and a final inc. of 0 Min.		of 5 mins. and a final inc. of 0 Min.		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	0	185				
P 2	5	3	714				
P 3	10	6	746				
P 4	15	9	765				
P 5	20	12	785				
P 6	25	15	810				
P 7	30	18	829				
P 8	35	21	844				
P 9	40	24	858				
P10	45	27	869				
P11	50	30	876				
P12	55						
P13	60						
P14	65						
P15	70						
P16	75						
P17	80						
P18	85						
P19	90						
P20	95						
WTC	100						
	165						

WESTERN TESTING CO., INC.

Pressure Data

Date 8/13/82 Recorder No. 13269 Capacity 4375 Test Ticket No. 12760 Location 3323 Ft. 108  
 Clock No. --- Elevation ---- Well Temperature --- °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	1732	P.S.I.	12:40A	M
B First Initial Flow Pressure	46	P.S.I.	120	Mins. 125 Mins.
C First Final Flow Pressure	185	P.S.I.	30	Mins. 30 Mins.
D Initial Closed-in Pressure	876	P.S.I.	--	Mins. -- Mins.
E Second Initial Flow Pressure	--	P.S.I.	--	Mins. -- Mins.
F Second Final Flow Pressure	--	P.S.I.		
G Final Closed-in Pressure	--	P.S.I.		
H Final Hydrostatic Mud	1732	P.S.I.		

PRESSURE BREAKDOWN

First Flow Pressure  
 Breakdown: 25 Inc.  
 of 5 mins. and a  
 final inc. of 0 Min.

Initial Shut-In  
 Breakdown: 10 Inc.  
 of 3 mins. and a  
 final inc. of 0 Min.

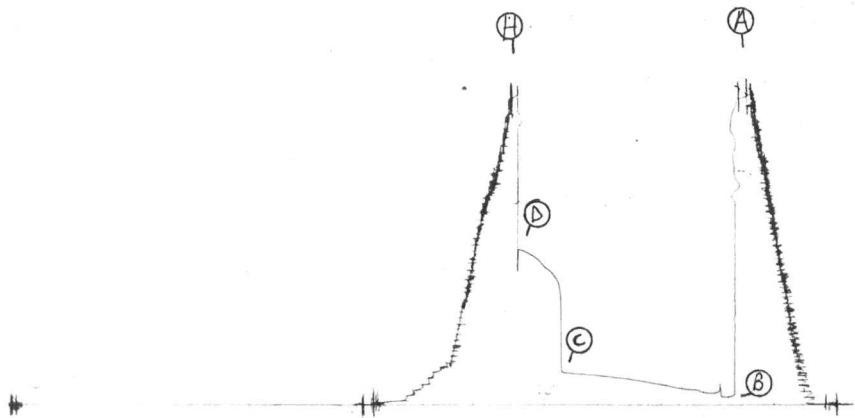
Second Flow Pressure  
 Breakdown: 0 Inc.  
 of 5 mins. and a  
 final inc. of 0 Min.

Final Shut-In  
 Breakdown: 0 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>169</u>						
P 2 <u>110</u>	<u>173</u>						
P 3 <u>115</u>	<u>175</u>						
P 4 <u>120</u>	<u>177</u>						
P 5 <u>125</u>	<u>185</u>						
P 6							
P 7							
P 8							
P 9							
P10							
P11							
P12							
P13							
P14							
P15							
P16							
P17							
P18							
P19							
P20							

TKT # 17260

H



13269

Company W. L. Hartman Estate Lease & Well No. #6 Brodie  
 Elevation --- Formation ---- Effective Pay --- Ft. Ticket No. 17261  
 Date 8/14/82 Sec. 25 Twp. 19S Range 12W County Barton State Kansas  
 Test Approved by R. L. Schmidlapp Western Representative Ray Schwagger

Formation Test No. 7 Interval Tested from 3376 ft. to 3391 ft. Total Depth 3391 ft.  
 Packer Depth 3371 ft. Size 6 5/8 in. Packer Depth - ft. Size - in.  
 Packer Depth 3376 ft. Size 6 5/8 in. Packer Depth - ft. Size - in.  
 Depth of Selective Zone Set -

Top Recorder Depth (Inside) 3379 ft. Recorder Number 13269 Cap. 4375  
 Bottom Recorder Depth (Outside) 3382 ft. Recorder Number 13270 Cap. 4375  
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor Allen Drlg. Rig #4 Drill Collar Length - I. D. - in.  
 Mud Type starch Viscosity 52 Weight Pipe Length - I. D. - in.  
 Weight 9.6 Water Loss 5.4 cc. Drill Pipe Length 3355 I. D. 3.8 in.  
 Chlorides 58,000 P.P.M. Test Tool Length 21 ft. Tool Size 5 1/2 in.  
 Jars: Make - Serial Number - Anchor Length 15 ft. Size 5 1/2 in.  
 Did Well Flow? No Reversed Out No Surface Choke Size 5/8 in. Bottom Choke Size 5/8 in.  
 Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 XH in.

Blow: Initial flow period weak blow building to strong blow in eight minutes.

Recovered 300 ft. of clean oil  
 Recovered 300 ft. of slightly muddy gassy oil  
 Recovered 120 ft. of muddy gassy oil  
 Recovered 80 ft. of watery cut muddy gassy oil  
 Recovered 40 ft. of salt water

Remarks: \_\_\_\_\_

Time Set Packer(s) 4:35 <sup>AM.</sup> P.M. Time Started Off Bottom 6:35 <sup>AM.</sup> P.M. Maximum Temperature 92°  
 Initial Hydrostatic Pressure ..... (A) 1757 P.S.I.  
 Initial Flow Period ..... Minutes 95 (B) 67 P.S.I. to (C) 356 P.S.I.  
 Initial Closed In Period ..... Minutes 33 (D) 923 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) 1745 P.S.I.

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

Date 8/14/82 Test Ticket No. 17261  
 Recorder No. 13269 Capacity 4375 Location 3379 Ft.  
 Clock No. -- Elevation --- Well Temperature 92 °F

Point	Pressure			Time Given	Time Computed
A Initial Hydrostatic Mud	1757	P.S.I.	Open Tool	4:35P	M
B First Initial Flow Pressure	67	P.S.I.	First Flow Pressure	90	95 Mins.
C First Final Flow Pressure	356	P.S.I.	Initial Closed-in Pressure	30	33 Mins.
D Initial Closed-in Pressure	923	P.S.I.	Second Flow Pressure	--	-- Mins.
E Second Initial Flow Pressure	--	P.S.I.	Final Closed-in Pressure	--	-- Mins.
F Second Final Flow Pressure	--	P.S.I.			
G Final Closed-in Pressure	--	P.S.I.			
H Final Hydrostatic Mud	1745	P.S.I.			

**PRESSURE BREAKDOWN**

First Flow Pressure Breakdown:		Initial Shut-In Breakdown:		Second Flow Pressure Breakdown:		Final Shut-In Breakdown:	
19 Inc.		11 Inc.		0 Inc.		0 Inc.	
of 5 mins. and a		of 3 mins. and a		of 5 mins. and a		of 3 mins. and a	
final inc. of 0 Min.		final inc. of 0 Min.		final inc. of 0 Min.		final inc. of 0 Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 0	67	0	356				
P 2 5	72	3	776				
P 3 10	90	6	814				
P 4 15	109	9	836				
P 5 20	130	12	854				
P 6 25	151	15	870				
P 7 30	172	18	882				
P 8 35	192	21	892				
P 9 40	211	24	902				
P10 45	228	27	911				
P11 50	244	30	919				
P12 55	259	33	923				
P13 60	272						
P14 65	285						
P15 70	299						
P16 75	311						
P17 80	324						
P18 85	336						
P19 90	346						
P20 95	356						

TKT # 17261

I

13267

