

15-101-20639

CHENEY TESTING COMPANY

29-165-27w

P. O. BOX 3

HILL CITY, KANSAS 67642

DRILL-STEM TEST DATA

Company	Abercrombie Drlg. Inc.	Test No.	1
Well Name & Number	Hall #2	Zone Tested	140 ZONE
Company Address	Wichita, Ks.	Date	3-4-82
Comp. Rep.	Steve Frankamp	Tester	Steven Holdren
Contractor	Abercrombie Drlg. Inc.	Elevation	2705 K.B.
Location: Sec. 29 Twp. 16s Rge. 27w Co. Lane State Ks.		Est. Feet of Pay	

Recorder No. 13366 Type AK-1 Range 3850 PSI

Recorder Depth 4151

(A) Initial Hydrostatic Mud 2164 PSI

(B) First Initial Flow Pressure 58 PSI

(C) First Final Flow Pressure 87 PSI

(D) Initial Closed-in Pressure 1187 PSI

(E) Second Initial Flow Pressure 106 PSI

(F) Second Final Flow Pressure 145 PSI

(G) Final Closed-in Pressure 1159 PSI

(H) Final Hydrostatic Mud 2164 PSI

Temperature 106

Mud Weight 9.3 Viscosity 44

Fluid Loss 8.4

Interval Tested 4121-4154

Anchor Length 33'

Top Packer Depth 4116

Bottom Packer Depth 4121

Total Depth 4154

Drill Pipe Size 4 1/2 XH

Wt. Pipe I. D. 2.7 Ft. Run 641

Recovery—Total Feet 496

Recovered 248 Feet Of GAS IN PIPE.

Recovered 124 Feet Of GASSY LIGHT OIL. GRAVITY 37

Recovered 124 Feet Of GASSY OIL CUT MUD. GRING OUT-15% GAS 20% OIL 65% MUD.

Recovered Feet Of

Extra Equipment NONE Price of Job \$750.00

Recorder No. 13224 Type AK-1 Range 4350 PSI

Recorder Depth 4148

Tool Open Before I. S. I. 30 Mins.

Initial Shut-in 45 Mins.

Flow Period 60 Mins.

Final Shut-in 45 Mins.

Surface Choke Size 1"

Bottom Choke Size 3/4"

Main Hole Size 7 7/8"

Rubber Size 6 3/4"

Tool Open @ 3:15 A.M.

Blow 1ST OPEN-FAIR TO STRONG, INCREASING

Remarks BLOW 1/2" DEEP TO BOTTOM OF BUCKET IN

23 MIN.

2ND OPEN-BLOW OFF BOTTOM IN 30 MIN.

Drill Collar I. D. - Ft. Run -

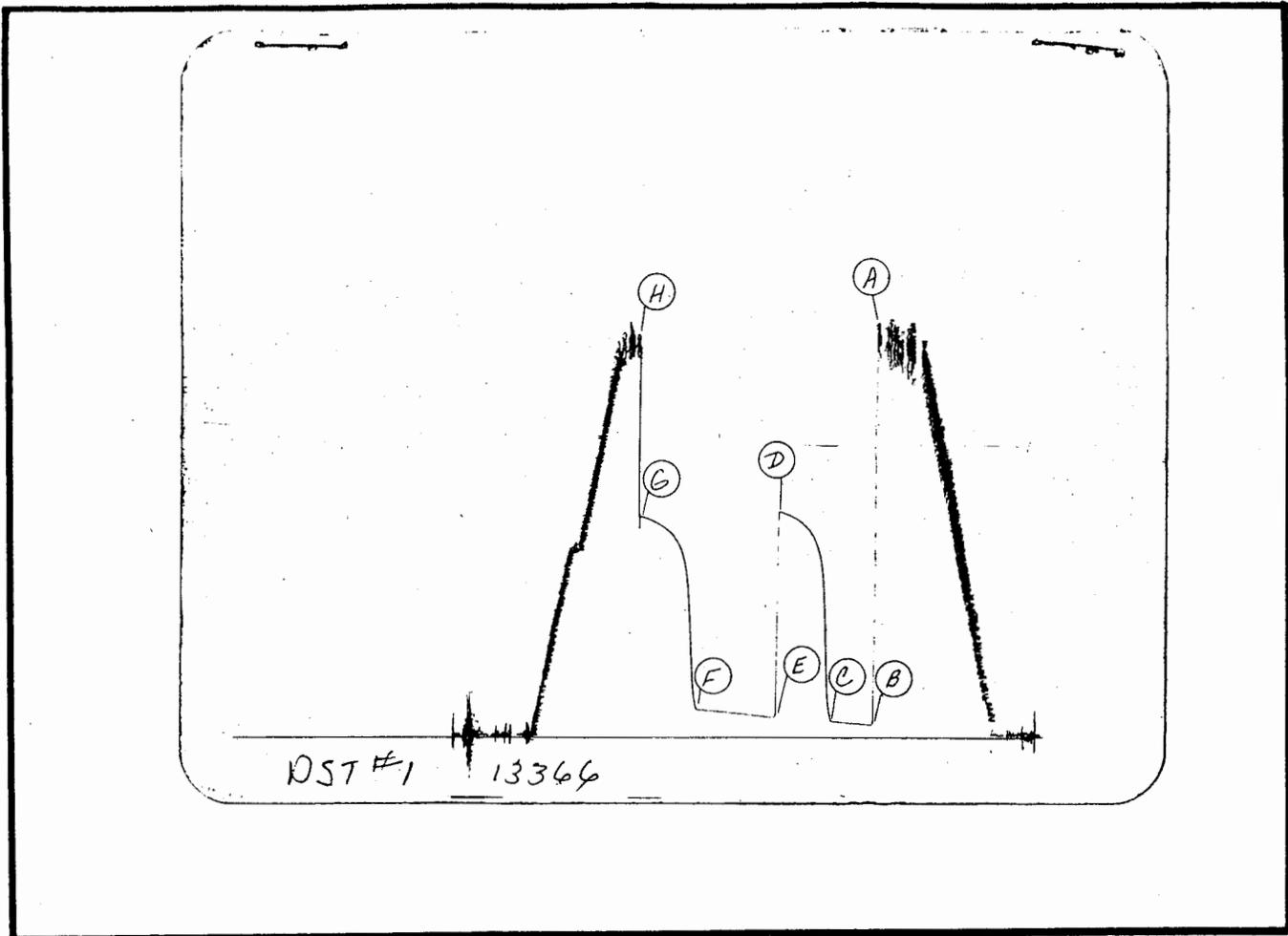
CHENEY TESTING COMPANY
Pressure Data

Date 3-4-82 Test Ticket No. 5678
 Recorder No. 13366 Capacity 3850 Location 4151 Ft.
 Clock No. 19127 Elevation 2705 K.B. Well Temperature 106 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2160</u>	P.S.I.	<u>3:15</u>	<u>A.M.</u>
B First Initial Flow Pressure	<u>67</u>	P.S.I.	<u>30</u>	<u>30</u>
C First Final Flow Pressure	<u>85</u>	P.S.I.	<u>45</u>	<u>45</u>
D Initial Closed-in Pressure	<u>1185</u>	P.S.I.	<u>60</u>	<u>60</u>
E Second Initial Flow Pressure	<u>109</u>	P.S.I.	<u>45</u>	<u>45</u>
F Second Final Flow Pressure	<u>148</u>	P.S.I.		
G Final Closed-in Pressure	<u>1161</u>	P.S.I.		
H Final Hydrostatic Mud	<u>2160</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>9</u> Inc.		Breakdown: <u>12</u> Inc.		Breakdown: <u>9</u> Inc.	
of <u>5</u> mins. and a		of <u>5</u> mins. and a		of <u>5</u> mins. and a		of <u>5</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>0</u>	<u>85</u>	<u>0</u>	<u>109</u>	<u>0</u>	<u>148</u>
P 2	<u>5</u>	<u>5</u>	<u>180</u>	<u>5</u>	<u>110</u>	<u>5</u>	<u>479</u>
P 3	<u>10</u>	<u>10</u>	<u>897</u>	<u>10</u>	<u>114</u>	<u>10</u>	<u>926</u>
P 4	<u>15</u>	<u>15</u>	<u>1028</u>	<u>15</u>	<u>118</u>	<u>15</u>	<u>1022</u>
P 5	<u>20</u>	<u>20</u>	<u>1089</u>	<u>20</u>	<u>122</u>	<u>20</u>	<u>1070</u>
P 6	<u>25</u>	<u>25</u>	<u>1123</u>	<u>25</u>	<u>125</u>	<u>25</u>	<u>1100</u>
P 7	<u>30</u>	<u>30</u>	<u>1147</u>	<u>30</u>	<u>128</u>	<u>30</u>	<u>1123</u>
P 8		<u>35</u>	<u>1165</u>	<u>35</u>	<u>132</u>	<u>35</u>	<u>1140</u>
P 9		<u>40</u>	<u>1179</u>	<u>40</u>	<u>136</u>	<u>40</u>	<u>1154</u>
P10		<u>45</u>	<u>1185</u>	<u>45</u>	<u>139</u>	<u>45</u>	<u>1161</u>
P11				<u>50</u>	<u>142</u>		
P12				<u>55</u>	<u>145</u>		
P13				<u>60</u>	<u>148</u>		
P14							
P15							
P16							
P17							
P18							
P19							
P20							



This is an actual photograph of recorder chart.

POINT	PRESSURE		PSI
	Field Reading	Office Reading	
(A) Initial Hydrostatic Mud	2164	2160	PSI
(B) First Initial Flow Pressure	58	67	PSI
(C) First Final Flow Pressure	87	85	PSI
(D) Initial Closed-in Pressure	1187	1185	PSI
(E) Second Initial Flow Pressure	106	109	PSI
(F) Second Final Flow Pressure	145	148	PSI
(G) Final Closed-in Pressure	1159	1161	PSI
(H) Final Hydrostatic Mud	2164	2160	PSI

CHENEY TESTING COMPANY

P. O. BOX 3 HILL CITY, KANSAS 67642

DRILL-STEM TEST DATA

Company	Abercrombie Drlg. Inc.	Test No.	2
Well Name & Number	Hall #2	Zone Tested	
Company Address	Wichita, Ks.	Date	3-4-82
Comp. Rep.	Steve Frankamp	Tester	Steven Holdren
Contractor	Abercrombie Drlg. Inc.	Elevation	2705 K. B.
Location: Sec. 29 Twp. 16s Rge. 27w Co. Lane	State	Est. Feet of Pay	Ks.

Recorder No. 13366 Type AK-1 Range 3850 PSI
 Recorder Depth 4202
 (A) Initial Hydrostatic Mud 2183 PSI
 (B) First Initial Flow Pressure 19 PSI
 (C) First Final Flow Pressure 67 PSI
 (D) Initial Closed-in Pressure 870 PSI
 (E) Second Initial Flow Pressure 77 PSI
 (F) Second Final Flow Pressure 125 PSI
 (G) Final Closed-in Pressure 861 PSI
 (H) Final Hydrostatic Mud 2126 PSI
 Temperature 112
 Mud Weight 9.4 Viscosity 50
 Fluid Loss 12.0
 Interval Tested 4137-4205
 Anchor Length 18'
 Top Packer Depth 4182
 Bottom Packer Depth 4187
 Total Depth 4205
 Drill Pipe Size 4 1/2 XH
 Wt. Pipe I. D. 2.7 Ft. Run 641
 Recovery—Total Feet 372
 Recovered 124 Feet Of GAS IN PIPE.
 Recovered 15 Feet Of FREE OIL.
 Recovered 109 Feet Of GASSY OIL CUT MUD. GRIND OUT-8% GAS 20% OIL 72% MUD.
 Recovered 124 Feet Of GASSY OIL SPECKED MUDDY SALT WATER. 6% GAS 3% OIL 91% MUDDY SALT WATER.
 Extra Equipment NONE Price of Job \$750.00

Recorder No. 13224 Type AK-1 Range 4350 PSI
 Recorder Depth 4199
 Tool Open Before I. S. I. 30 Mins.
 Initial Shut-in 45 Mins.
 Flow Period 60 Mins.
 Final Shut-in 45 Mins.
 Surface Choke Size 1"
 Bottom Choke Size 3/4"
 Main Hole Size 7 1/8"
 Rubber Size 6 3/4"
 Tool Open @ 9:47 P.M.
 Blow 1ST OPEN-WEAK. SURFACE BLOW DUE TO
 Remarks MANIFOLD BEING FROZEN.
2ND OPEN-STRONG. INCREASING BLOW 1/2" TO 10"
DEEP.
 Drill Collar I. D. - Ft. Run -

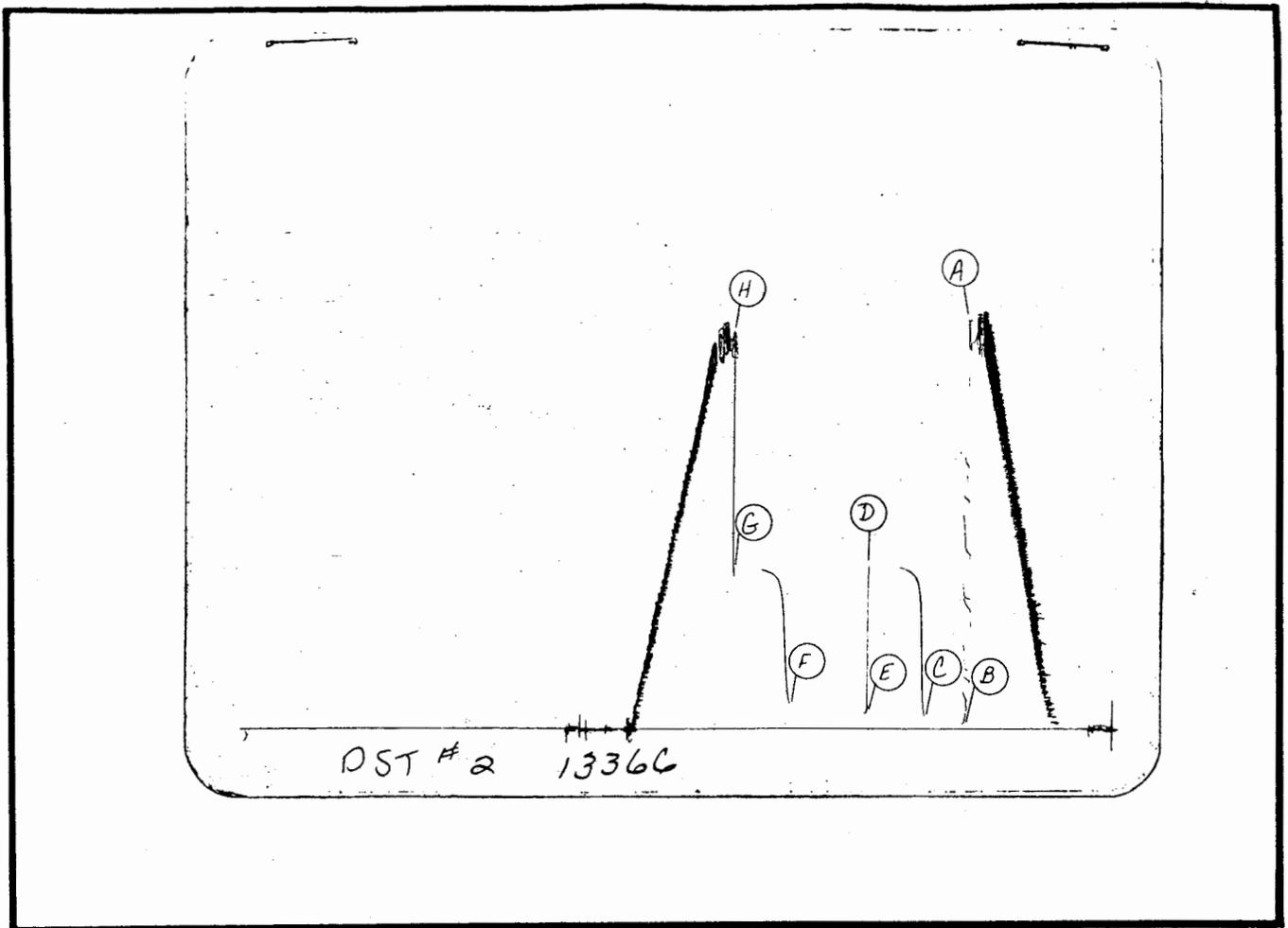
CHENEY TESTING COMPANY
Pressure Data

Date 3-4-82 Test Ticket No. 5679
 Recorder No. 13366 Capacity 3850 Location 4202 Ft.
 Clock No. 19127 Elevation 2705 K.B. Well Temperature 112 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2179</u> P.S.I.	Open Tool	<u>9:47</u> P.M.	
B First Initial Flow Pressure	<u>30</u> P.S.I.	First Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>65</u> P.S.I.	Initial Closed-in Pressure	<u>45</u> Mins.	<u>45</u> Mins.
D Initial Closed-in Pressure	<u>875</u> P.S.I.	Second Flow Pressure	<u>60</u> Mins.	<u>60</u> Mins.
E Second Initial Flow Pressure	<u>82</u> P.S.I.	Final Closed-in Pressure	<u>45</u> Mins.	<u>45</u> Mins.
F Second Final Flow Pressure	<u>129</u> P.S.I.			
G Final Closed-in Pressure	<u>862</u> P.S.I.			
H Final Hydrostatic Mud	<u>2122</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>9</u> Inc.		Breakdown: <u>12</u> Inc.		Breakdown: <u>9</u> Inc.	
of <u>5</u> mins. and a		of <u>5</u> mins. and a		of <u>5</u> mins. and a		of <u>5</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>0</u>	<u>65</u>	<u>0</u>	<u>82</u>	<u>0</u>	<u>129</u>
P 2	<u>5</u>	<u>5</u>	<u>751</u>	<u>5</u>	<u>82</u>	<u>5</u>	<u>565</u>
P 3	<u>10</u>	<u>10</u>	<u>828</u>	<u>10</u>	<u>87</u>	<u>10</u>	<u>797</u>
P 4	<u>15</u>	<u>15</u>	<u>849</u>	<u>15</u>	<u>91</u>	<u>15</u>	<u>828</u>
P 5	<u>20</u>	<u>20</u>	<u>860</u>	<u>20</u>	<u>95</u>	<u>20</u>	<u>840</u>
P 6	<u>25</u>	<u>25</u>	<u>865</u>	<u>25</u>	<u>100</u>	<u>25</u>	<u>851</u>
P 7	<u>30</u>	<u>30</u>	<u>869</u>	<u>30</u>	<u>104</u>	<u>30</u>	<u>856</u>
P 8		<u>35</u>	<u>871</u>	<u>35</u>	<u>109</u>	<u>35</u>	<u>860</u>
P 9		<u>40</u>	<u>873</u>	<u>40</u>	<u>114</u>	<u>40</u>	<u>862</u>
P10		<u>45</u>	<u>875</u>	<u>45</u>	<u>119</u>	<u>45</u>	<u>862</u>
P11				<u>50</u>	<u>123</u>		
P12				<u>55</u>	<u>126</u>		
P13				<u>60</u>	<u>129</u>		
P14							
P15							
P16							
P17							
P18							
P19							
P20							



This is an actual photograph of recorder chart.

POINT	PRESSURE		
	Field Reading	Office Reading	
(A) Initial Hydrostatic Mud	2183	2179	PSI
(B) First Initial Flow Pressure	19	30	PSI
(C) First Final Flow Pressure	67	65	PSI
(D) Initial Closed-in Pressure	870	875	PSI
(E) Second Initial Flow Pressure	77	82	PSI
(F) Second Final Flow Pressure	125	129	PSI
(G) Final Closed-in Pressure	861	862	PSI
(H) Final Hydrostatic Mud	2126	2122	PSI

CHENEY TESTING COMPANY

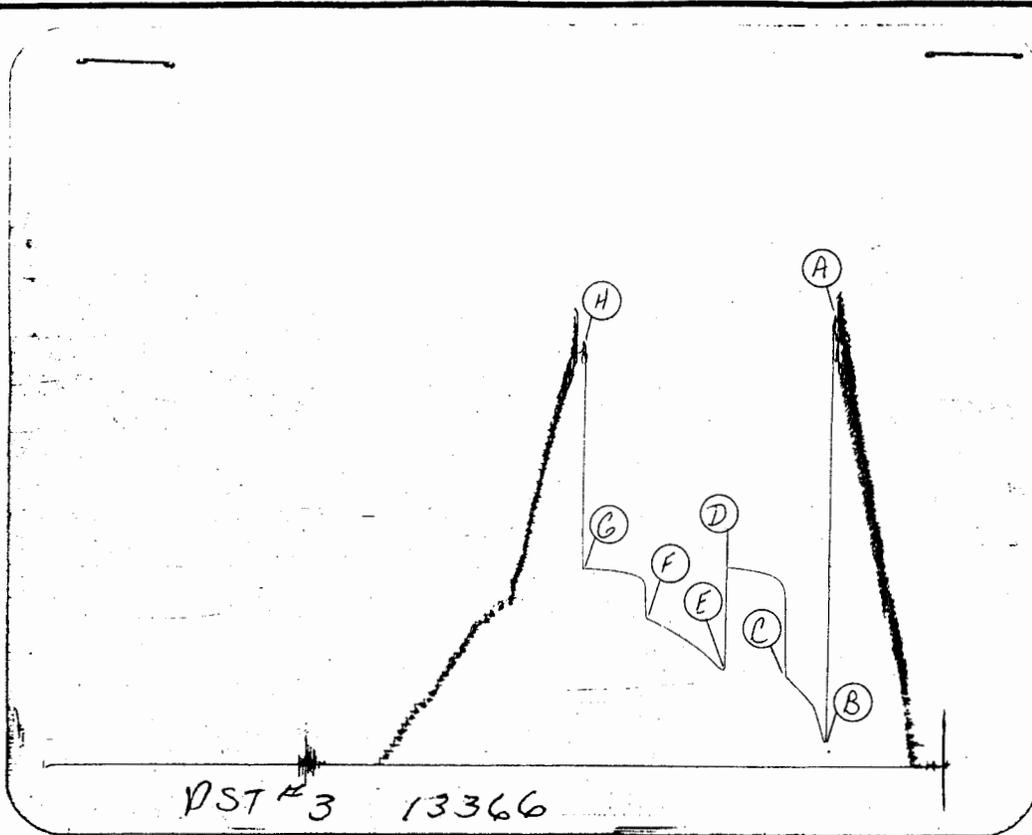
Pressure Data

Date 3-5-82 Test Ticket No. 5680
 Recorder No. 13366 Capacity 3850 Location 4241 Ft.
 Clock No. 19127 Elevation 2705 K.B. Well Temperature 117 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2333</u> P.S.I.	Open Tool	<u>1:25 P.</u>	<u>M</u>
B First Initial Flow Pressure	<u>127</u> P.S.I.	First Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>453</u> P.S.I.	Initial Closed-in Pressure	<u>45</u> Mins.	<u>45</u> Mins.
D Initial Closed-in Pressure	<u>992</u> P.S.I.	Second Flow Pressure	<u>60</u> Mins.	<u>60</u> Mins.
E Second Initial Flow Pressure	<u>484</u> P.S.I.	Final Closed-in Pressure	<u>45</u> Mins.	<u>45</u> Mins.
F Second Final Flow Pressure	<u>735</u> P.S.I.			
G Final Closed-in Pressure	<u>982</u> P.S.I.			
H Final Hydrostatic Mud	<u>2227</u> P.S.I.			

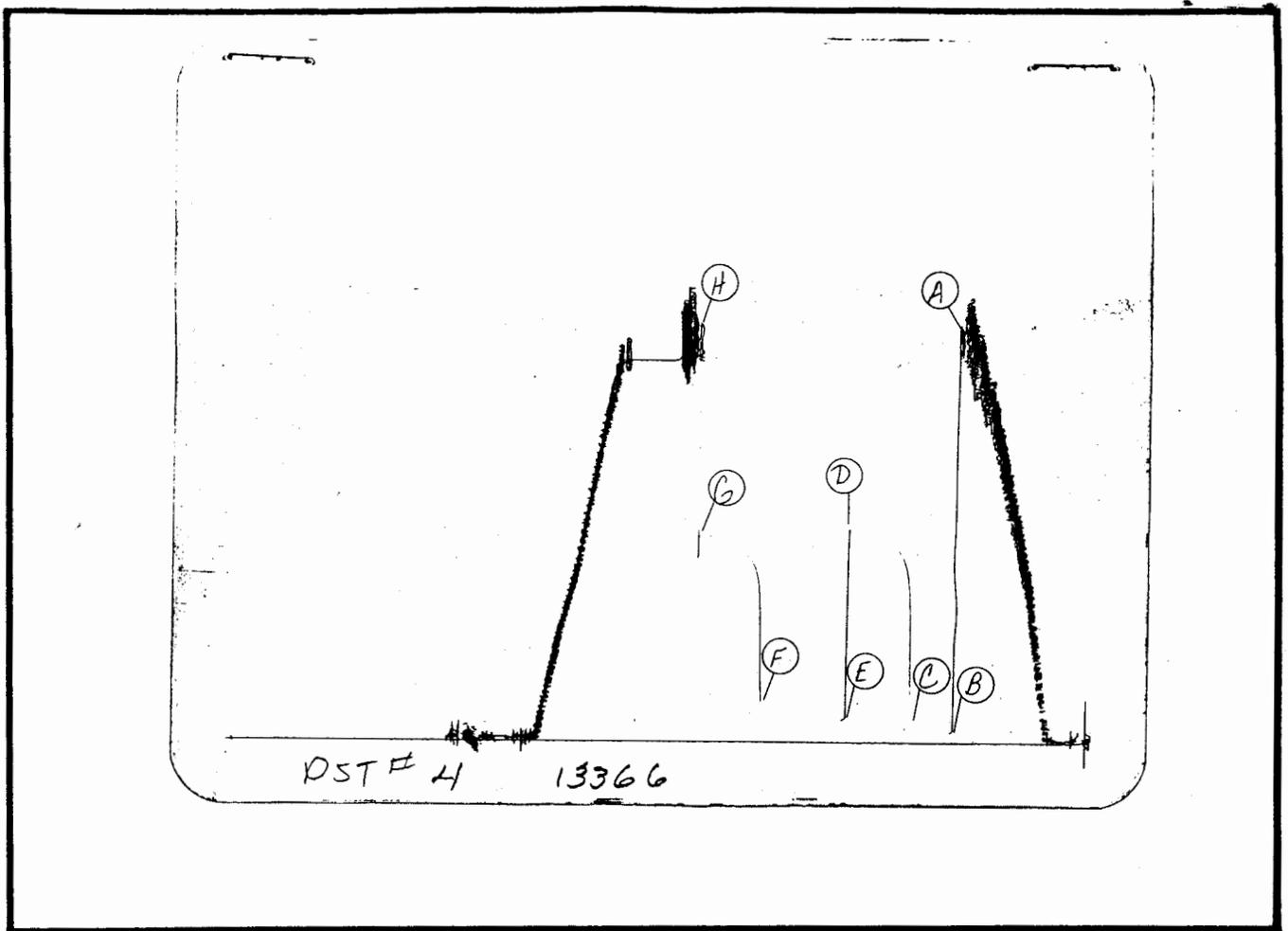
PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>6</u> Inc.		Breakdown: <u>9</u> Inc.		Breakdown: <u>12</u> Inc.		Breakdown: <u>9</u> Inc.	
of <u>5</u> mins. and a		of <u>5</u> mins. and a		of <u>5</u> mins. and a		of <u>5</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>127</u>	<u>0</u>	<u>453</u>	<u>0</u>	<u>484</u>	<u>0</u>	<u>735</u>
P 2 <u>5</u>	<u>220</u>	<u>5</u>	<u>927</u>	<u>5</u>	<u>497</u>	<u>5</u>	<u>940</u>
P 3 <u>10</u>	<u>314</u>	<u>10</u>	<u>951</u>	<u>10</u>	<u>532</u>	<u>10</u>	<u>952</u>
P 4 <u>15</u>	<u>352</u>	<u>15</u>	<u>965</u>	<u>15</u>	<u>562</u>	<u>15</u>	<u>962</u>
P 5 <u>20</u>	<u>389</u>	<u>20</u>	<u>972</u>	<u>20</u>	<u>588</u>	<u>20</u>	<u>968</u>
P 6 <u>25</u>	<u>423</u>	<u>25</u>	<u>979</u>	<u>25</u>	<u>612</u>	<u>25</u>	<u>972</u>
P 7 <u>30</u>	<u>453</u>	<u>30</u>	<u>985</u>	<u>30</u>	<u>635</u>	<u>30</u>	<u>975</u>
P 8 _____		<u>35</u>	<u>988</u>	<u>35</u>	<u>635</u>	<u>35</u>	<u>978</u>
P 9 _____		<u>40</u>	<u>992</u>	<u>40</u>	<u>674</u>	<u>40</u>	<u>980</u>
P10 _____		<u>45</u>	<u>992</u>	<u>45</u>	<u>693</u>	<u>45</u>	<u>982</u>
P11 _____				<u>50</u>	<u>710</u>		
P12 _____				<u>55</u>	<u>725</u>		
P13 _____				<u>60</u>	<u>735</u>		
P14 _____							
P15 _____							
P16 _____							
P17 _____							
P18 _____							
P19 _____							
P20 _____							



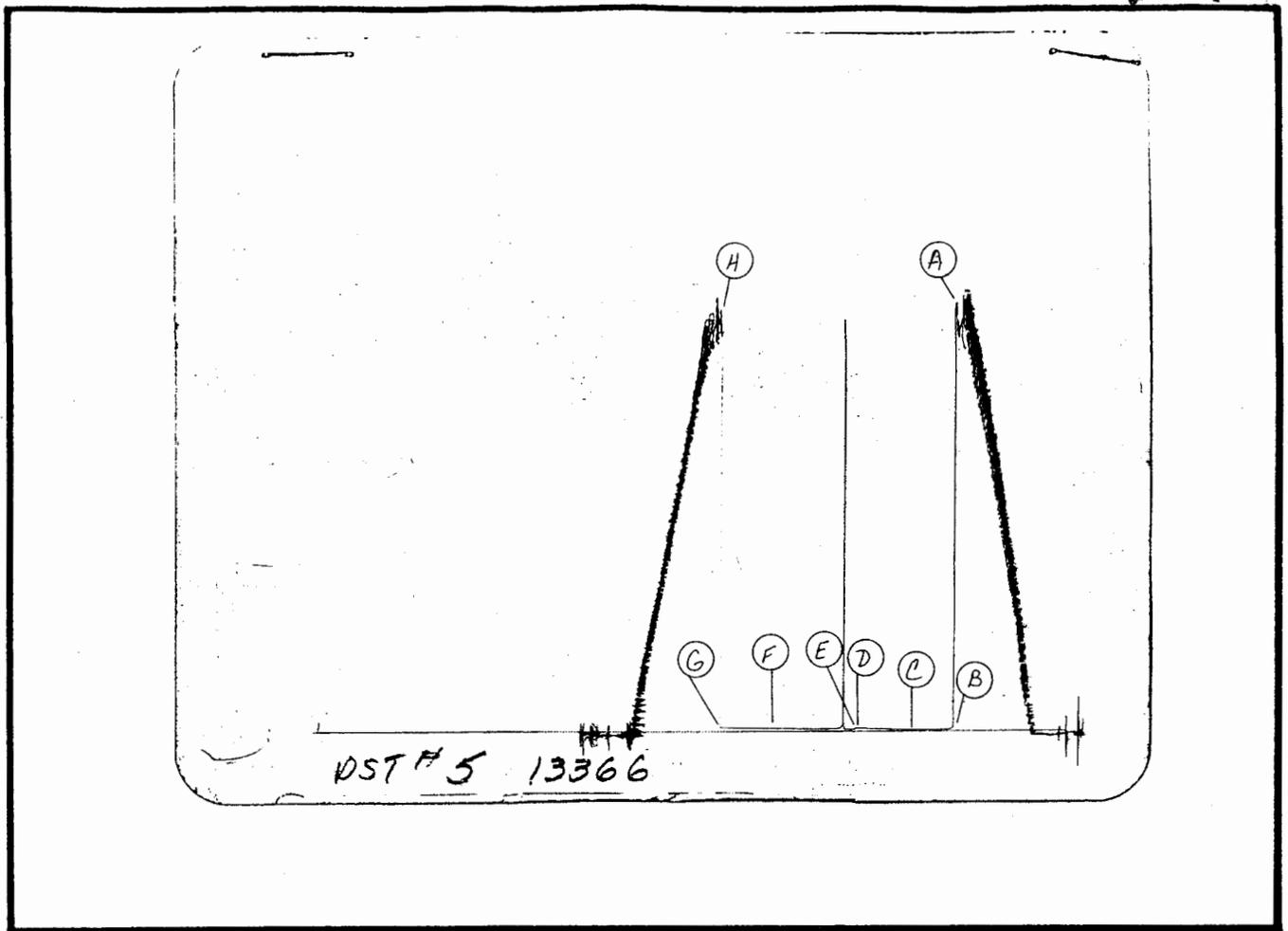
This is an actual photograph of recorder chart.

POINT	PRESSURE		
	Field Reading	Office Reading	
(A) Initial Hydrostatic Mud	2337	2333	PSI
(B) First Initial Flow Pressure	125	127	PSI
(C) First Final Flow Pressure	445	453	PSI
(D) Initial Closed-in Pressure	986	992	PSI
(E) Second Initial Flow Pressure	474	484	PSI
(F) Second Final Flow Pressure	735	735	PSI
(G) Final Closed-in Pressure	976	982	PSI
(H) Final Hydrostatic Mud	2231	2227	PSI



This is an actual photograph of recorder chart.

POINT	PRESSURE	
	Field Reading	Office Reading
(A) Initial Hydrostatic Mud	2308	PSI
(B) First Initial Flow Pressure	48	PSI
(C) First Final Flow Pressure	96	PSI
(D) Initial Closed-in Pressure	1130	PSI
(E) Second Initial Flow Pressure	106	PSI
(F) Second Final Flow Pressure	203	PSI
(G) Final Closed-in Pressure	1101	PSI
(H) Final Hydrostatic Mud	2346	PSI



This is an actual photograph of recorder chart.

POINT	PRESSURE		PSI
	Field Reading	Office Reading	
(A) Initial Hydrostatic Mud	2289		PSI
(B) First Initial Flow Pressure	9		PSI
(C) First Final Flow Pressure	9		PSI
(D) Initial Closed-in Pressure	19		PSI
(E) Second Initial Flow Pressure	9		PSI
(F) Second Final Flow Pressure	9		PSI
(G) Final Closed-in Pressure	19		PSI
(H) Final Hydrostatic Mud	2270		PSI