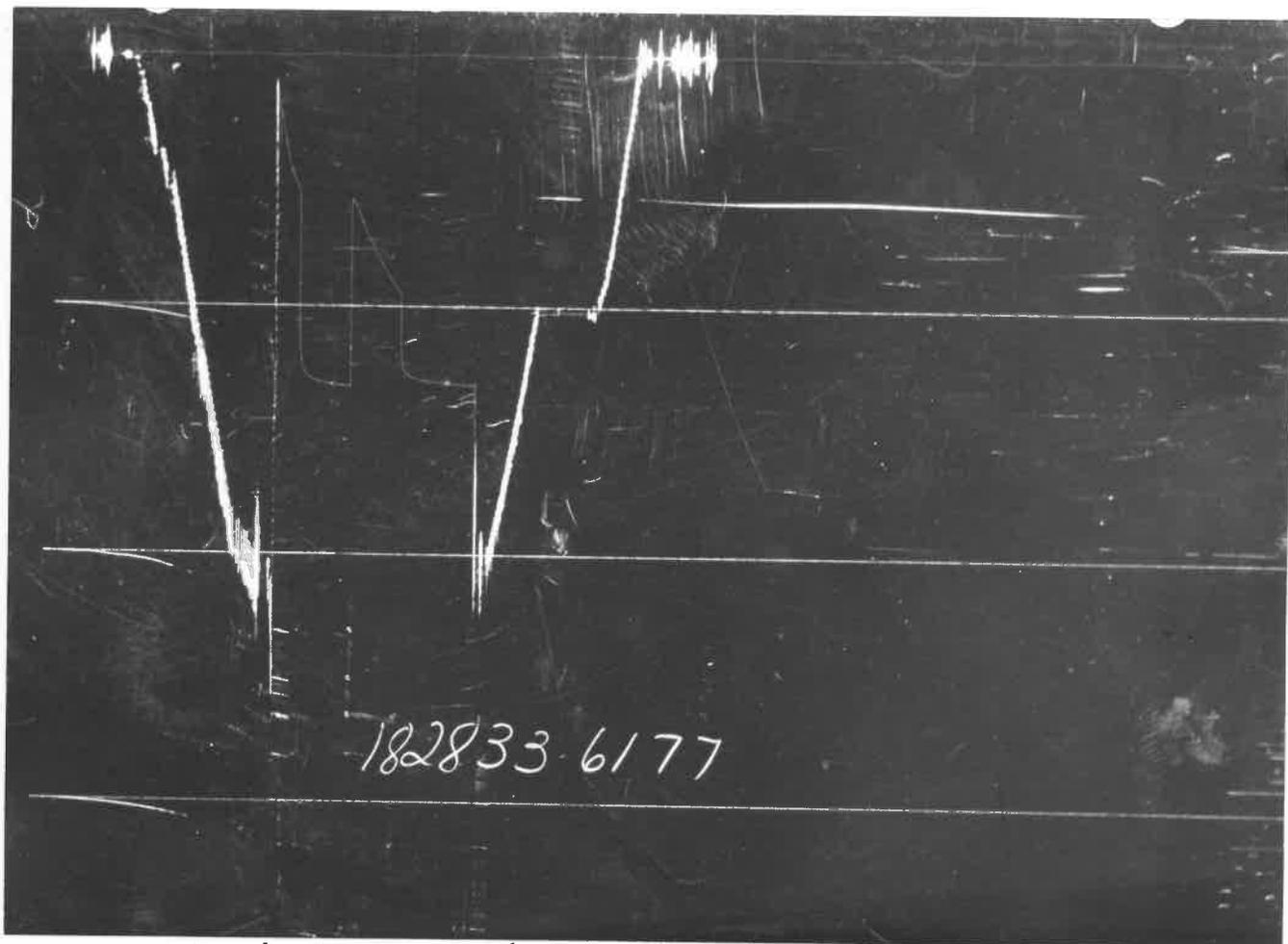
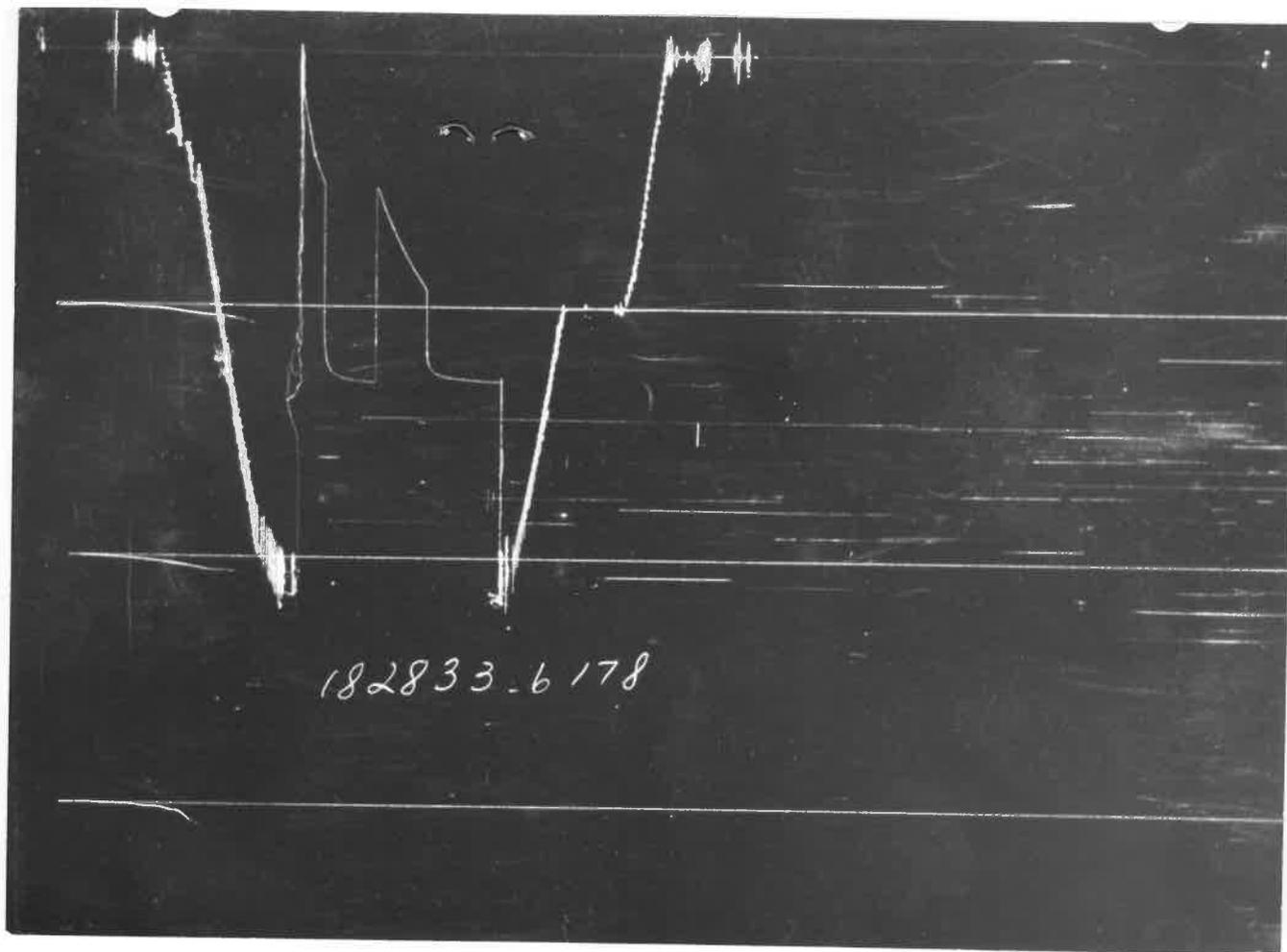


NOMENCLATURE

b	= Approximate Radius of Investigation	Feet
b₁	= Approximate Radius of Investigation (Net Pay Zone h ₁)	Feet
D.R.	= Damage Ratio	—
El	= Elevation	Feet
GD	= B.T. Gauge Depth (From Surface Reference)	Feet
h	= Interval Tested	Feet
h₁	= Net Pay Thickness	Feet
K	= Permeability	md
K₁	= Permeability (From Net Pay Zone h ₁)	md
m	= Slope Extrapolated Pressure Plot (Psi ² /cycle Gas)	psi/cycle
OF₁	= Maximum Indicated Flow Rate	MCF/D
OF₂	= Minimum Indicated Flow Rate	MCF/D
OF₃	= Theoretical Open Flow Potential with/Damage Removed Max.	MCF/D
OF₄	= Theoretical Open Flow Potential with/Damage Removed Min.	MCF/D
P_s	= Extrapolated Static Pressure	Psig.
P_f	= Final Flow Pressure	Psig.
P_o	= Potentiometric Surface (Fresh Water *)	Feet
Q	= Average Adjusted Production Rate During Test	bbls/day
Q₁	= Theoretical Production w/Damage Removed	bbls/day
Q_g	= Measured Gas Production Rate	MCF/D
R	= Corrected Recovery	bbls
r_w	= Radius of Well Bore	Feet
t	= Flow Time	Minutes
t_o	= Total Flow Time	Minutes
T	= Temperature Rankine	°R
Z	= Compressibility Factor	—
μ	= Viscosity Gas or Liquid	CP
Log	= Common Log	

* Potentiometric Surface Reference to Rotary Table When Elevation Not Given, Fresh Water Corrected to 100° F.

	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing	5.75"	1.50"	1'	
Reversing Sub				
Water Cushion Valve	4.50"	3.826"	4058'	
Drill Pipe				
Drill Collars				
Handling Sub & Choke Assembly	5"	.87"	5'	4059'
Dual CIP Valve				
Dual CIP Sampler	5"	.75"	5'	4064'
Hydro-Spring Tester				
Multiple CIP Sampler				
Extension Joint				
AP Running Case	5"	3.06'	4'	4065'
Hydraulic Jar	5"	1.75"	5'	
VR Safety Joint	5"	1"	3'	
Pressure Equalizing Crossover				
Packer Assembly	6.75"	1.53"	4'	4079'
Distributor				
Packer Assembly				
Flush Joint Anchor				
Pressure Equalizing Tube				
Blanked-Off B.T. Running Case				
Drill Collars				
Anchor Pipe Safety Joint				
Packer Assembly				
Distributor				
Packer Assembly				
Anchor Pipe Safety Joint				
Side Wall Anchor				
Drill Collars				
Flush Joint Anchor	5"	3.82"	41½'	
Blanked-Off B.T. Running Case	5"	2.44"	4'	4122'
Total Depth				4126'



Each Horizontal Line Equal to 1000 p.s.i.

TEMPERATURE
RECORDER
CHART



10° each circle

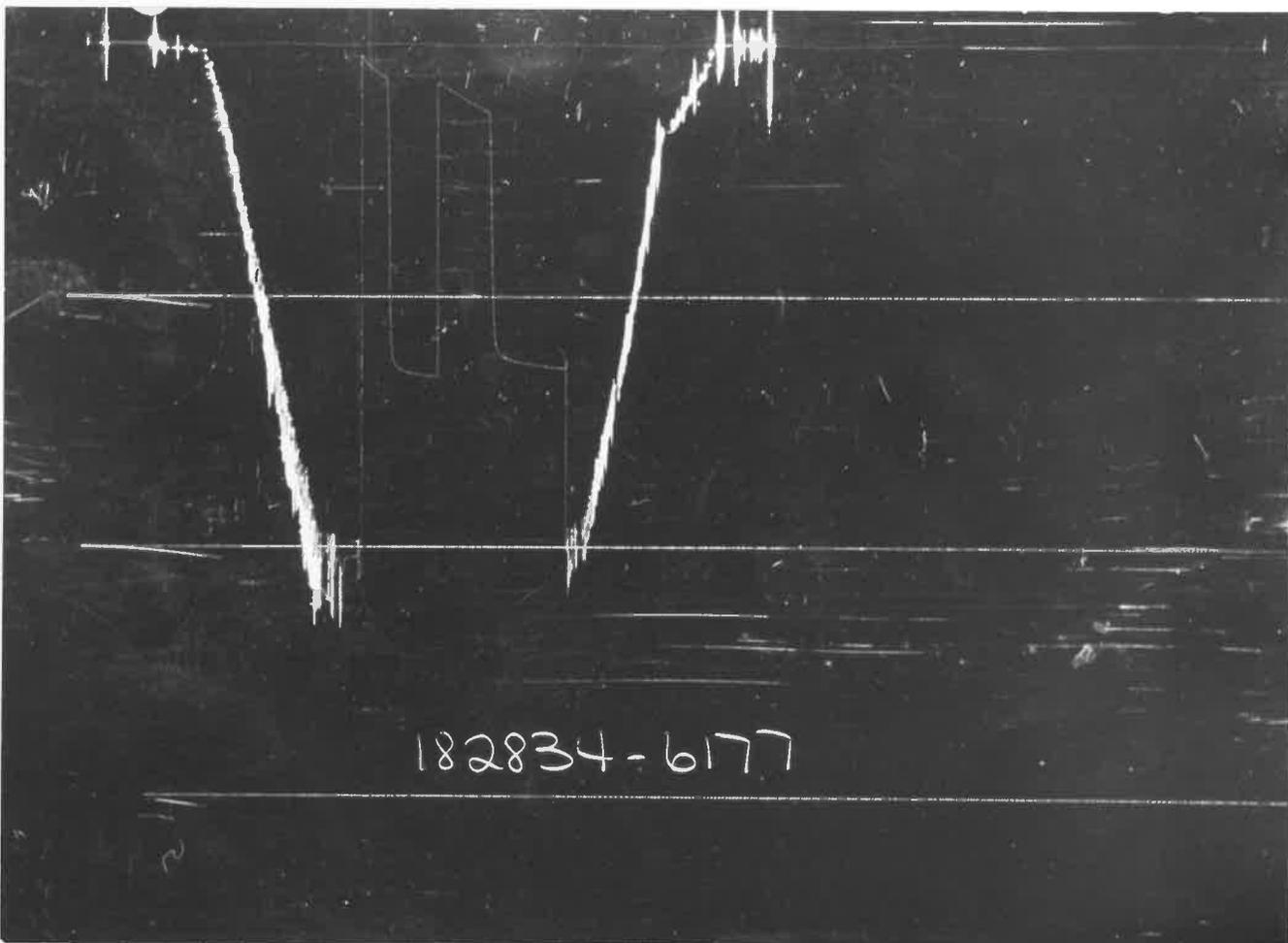
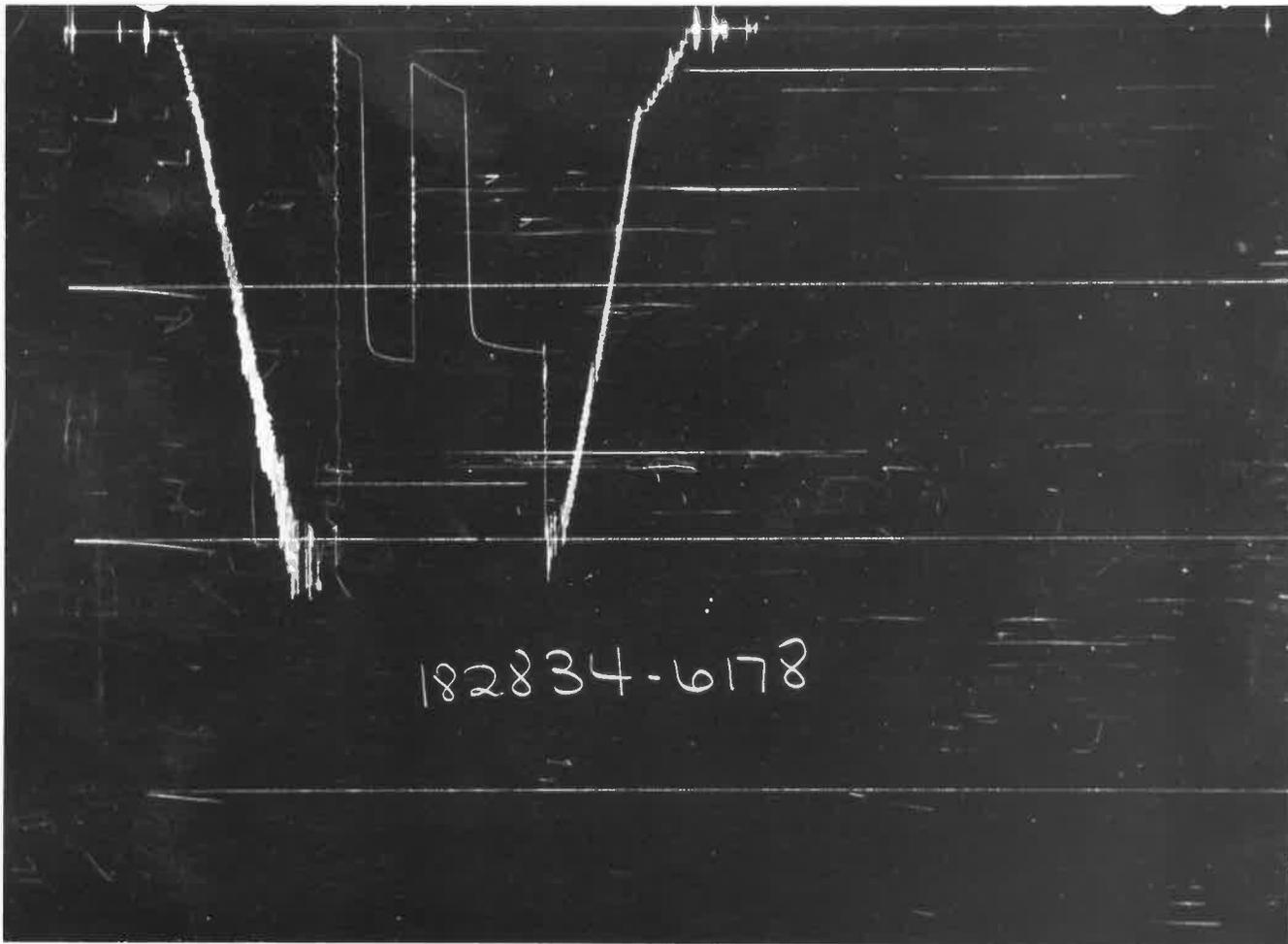
Gauge No. 6178			Depth 4222'				Clock No. 3577			12 hour		Ticket No. 182834			
First Flow Period			First Closed In Pressure			Second Flow Period		Second Closed In Pressure			Third Flow Period		Third Closed In Pressure		
	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t + \theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t + \theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t + \theta}{\theta}$	PSIG Temp. Corr.
0	.000	21	.000		110	.000	132	.000		244					
1	.0200	45	.0136		894	.0347	147	.0203		1132					
2	.0400	66	.0272		1227	.0693	171	.0405		1201					
3	.0600	83	.0408		1252	.1040	190	.0608		1215					
4	.0800	97	.0544		1262	.1387	212	.0811		1223					
5	.1000	110	.0680		1268	.1734	227	.1014		1229					
6			.0816		1273	.2080	244	.1216		1234					
7			.0952		1276			.1419		1238					
8			.1088		1279			.1622		1242					
9			.1224		1280			.1824		1245					
10			.1360		1284			.2027		1248					
11			.1496		1286			.2230		1250					
12			.1632		1288			.2432		1253					
13			.1768		1289			.2635		1254					
14			.1904		1290			.2838		1256					
15			.2040		1291			.3040		1258					

Gauge No. 6177			Depth 4276'				Clock No. 2820			12 hour					
0	.000	47	.000		136	.000	154	.000		270					
1	.0198	70	.0135		916	.0342	171	.0201		1140					
2	.0396	93	.0269		1251	.0683	194	.0401		1224					
3	.0594	110	.0404		1276	.1025	214	.0602		1237					
4	.0792	122	.0539		1286	.1367	235	.0803		1245					
5	.0990	136	.0674		1293	.1709	251	.1004		1252					
6			.0808		1297	.2050	270	.1204		1257					
7			.0943		1300			.1405		1261					
8			.1078		1303			.1606		1265					
9			.1212		1305			.1806		1267					
10			.1347		1307			.2007		1270					
11			.1482		1309			.2208		1273					
12			.1616		1311			.2408		1275					
13			.1751		1312			.2609		1278					
14			.1886		1313			.2810		1280					
15			.2020		1314			.3010		1282					

Reading Interval 3 2 5 3 Minutes

REMARKS:

	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing	5.75"	1.50"	1'	
Reversing Sub				
Water Cushion Valve	4.50"	3.826"	3417'	
Drill Pipe	4.50"	2.764"	792.13'	
Drill Collars				
Weight Pipe				
Handling Sub & Choke Assembly	5.0"	.87"	5'	4209'
Dual CIP Valve				
Dual CIP Sampler	5.0"	.75"	5'	4214'
Hydro-Spring Tester				
Multiple CIP Sampler				
Extension Joint				
AP Running Case				
Hydraulic Jar				
VR Safety Joint	5.0"	1.00"	3'	
Pressure Equalizing Crossover				
Packer Assembly				
Distributor				
Packer Assembly	6.75"	1.53"	4'	4220'
Flush Joint Anchor				
Pressure Equalizing Tube				
Blanked-Off B.T. Running Case	5.0"	3.04"	4'	4222'
Drill Collars				
Anchor Pipe Safety Joint				
Packer Assembly				
Distributor				
Packer Assembly				
Anchor Pipe Safety Joint	5.0"	3.82"	15'	
Side Wall Anchor				
Drill Collars	4.5"	2.764"	33'	
Weight Pipe				
Flush Joint Anchor	5.0"	3.82"	2½'	
Blanked-Off B.T. Running Case	5.0"	2.44"	4'	4276'
Total Depth				4280'



Each Horizontal Line Equal to 1000 p.s.i.

TEMPERATURE
RECORDER
CHART



182834

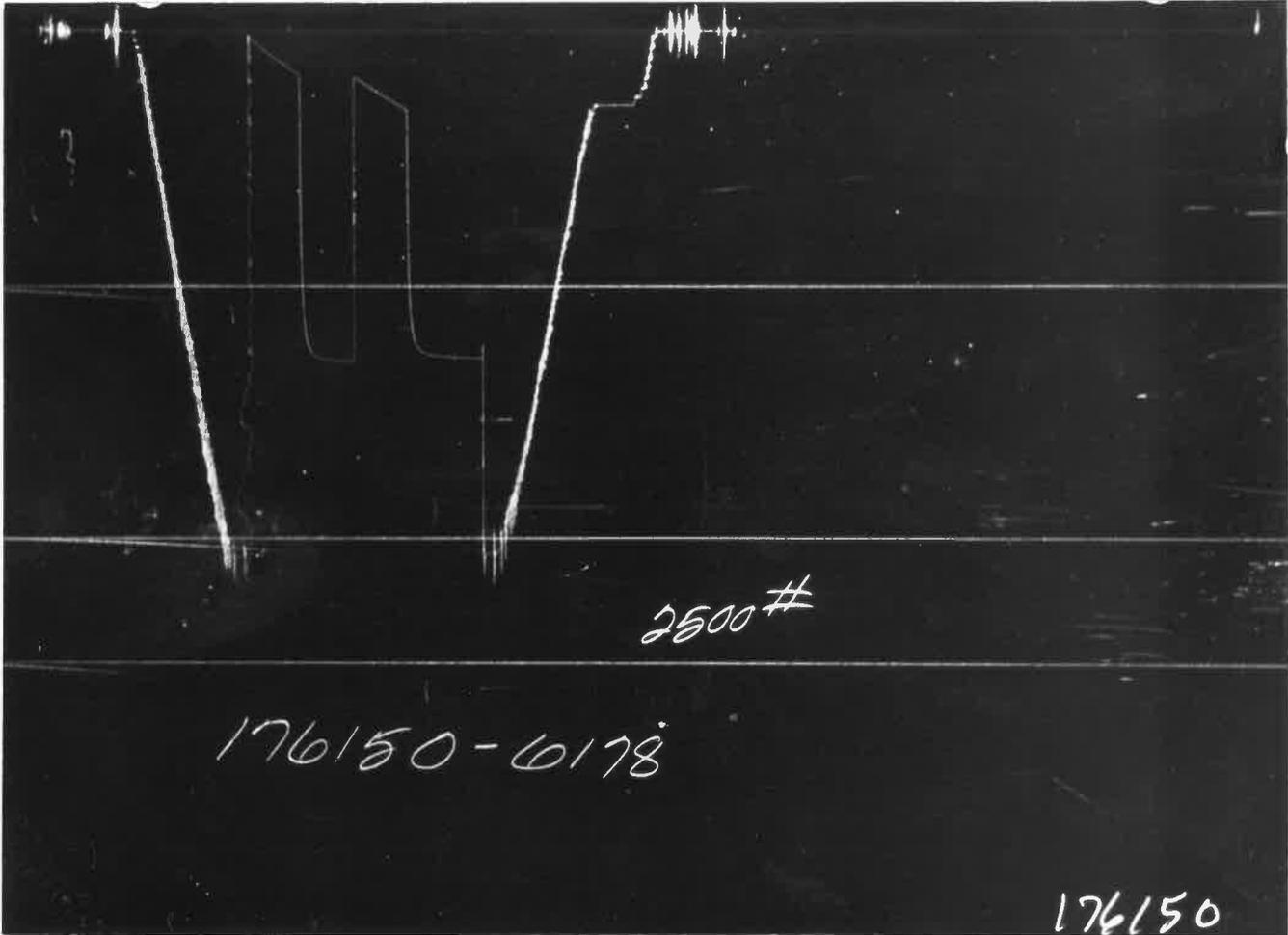
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Gauge No. 6178			Depth 4266				Clock No. 3577			12 hour		Ticket No. 176150		
First Flow Period		First Closed In Pressure			Second Flow Period		Second Closed In Pressure			Third Flow Period		Third Closed In Pressure		
Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	$\text{Log } \frac{t + \theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	$\text{Log } \frac{t + \theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	$\text{Log } \frac{t + \theta}{\theta}$	PSIG Temp. Corr.
0	.0000	22		.0000	174		.0000	185		.0000	310			
1	.0340	48		.0266*	1213		.0410**	207		.0136***	1105			
2	.0680	79		.0399	1250		.0752	227		.0340	1228			
3	.1020	104		.0532	1269		.1094	249		.0544	1254			
4	.1360	127		.0666	1278		.1436	271		.0747	1265			
5	.1700	151		.0799	1284		.1778	291		.0951	1274			
6	.2040	174		.0932	1288		.2120	310		.1155	1274			
7				.1065	1290					.1359	1276			
8				.1198	1292					.1563	1278			
9				.1331	1294					.1766	1279			
10				.1464	1295					.1970	1280			
11				.1597	1296					.2174	1283			
12				.1703	1297					.2378	1283			
13				.1863	1297					.2582	1284			
14				.1997	1298					.2785	1284			
15				.2130	1299					.2900	1285			

Gauge No. 6177			Depth 4316				Clock No. 2820			12 hour				
Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	$\text{Log } \frac{t + \theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	$\text{Log } \frac{t + \theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	$\text{Log } \frac{t + \theta}{\theta}$	PSIG Temp. Corr.
0	.0000	47		.0000	194		.0000	207		.0000	333			
1	.0338	73		.0265*	1237		.0403**	228		.0135***	1124			
2	.0677	102		.0398	1272		.0738	249		.0338	1245			
3	.1015	126		.0530	1293		.1073	271		.0540	1274			
4	.1353	149		.0663	1301		.1409	292		.0743	1285			
5	.1692	172		.0795	1306		.1744	313		.0945	1291			
6	.2030	194		.0928	1309		.2080	333		.1148	1294			
7				.1060	1311					.1350	1297			
8				.1193	1313					.1553	1298			
9				.1325	1315					.1755	1299			
10				.1458	1316					.1958	1300			
11				.1590	1316					.2160	1301			
12				.1728	1317					.2363	1302			
13				.1855	1318					.2565	1303			
14				.1988	1318					.2768	1304			
15				.2120	1319					.2970	1304			
Reading Interval	5		2		5		3							Minutes

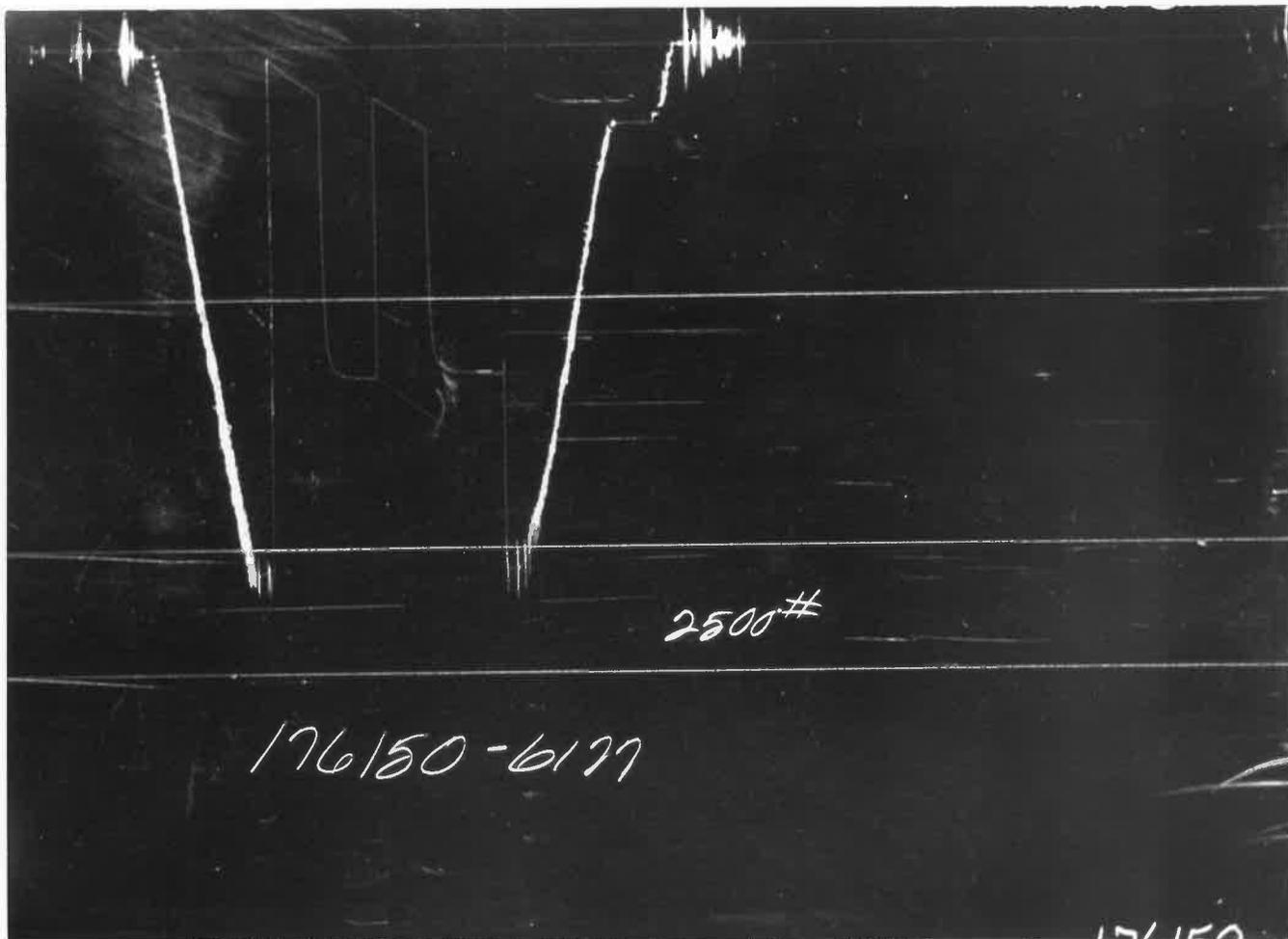
REMARKS:

	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing				
Reversing Sub	5.75"	2.75"	12"	
Water Cushion Valve				
XXXXXXXXXX Weight Pipe	4.50"	2.764"	791.59'	
XXXXXXXXXX Drill Pipe	4.50"	3.826"	3452'	
Handling Sub & Choke Assembly				
Dual CIP Valve	5"	.87"	65"	4249'
Dual CIP Sampler				
Hydro-Spring Tester	5"	.75"	60"	4254'
Multiple CIP Sampler				
Extension Joint				
AP Running Case				
Hydraulic Jar				
VR Safety Joint	5"	1"	33" +	
Pressure Equalizing Crossover				
Packer Assembly	6.75"	1.53"	54"	4260'
Distributor				
Packer Assembly	6.75"	1.53"	54"	4264'
Flush Joint Anchor				
Pressure Equalizing Tube				
Blanked-Off B.T. Running Case	5"	3.06"	48" +	4266'
Drill Collars				
Anchor Pipe Safety Joint				
Packer Assembly				
Distributor				
Packer Assembly				
Anchor Pipe Safety Joint				
Side Wall Anchor				
XXXXXXXXXX Weight Pipe	4.50"	2.764"	31.90'	
Flush Joint Anchor	5"	3.84"	16.04'	
Blanked-Off B.T. Running Case	5"	2.44"	48.06"	4316'
Total Depth				4320'



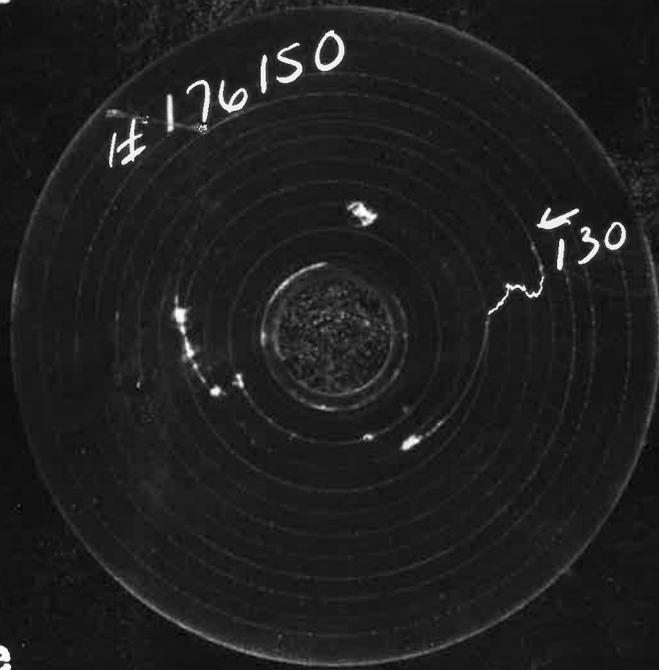
↑ PRESSURE ↓

← TIME →



Each horizontal line equal to 1000 p.s.i.

TEMPERATURE
RECORDER
CHART



10° each circle