

Flow Time	1st 30 Min.	2nd 30 Min.	Date	2-20-66	Ticket Number	398234 S
Closed In Press. Time	1st 30 Min.	2nd 30 Min.	Kind of Job	OPEN HOLE	Halliburton District	ELDORADO
Pressure Readings	Field	Office Corrected	Tester	PARKER	Witness	RIGSBY
Depth Top Gauge	2040 Ft.	no Blanked Off	Drilling Contractor	WHITE & ELLIS		SS
BT. P.R.D. No.	1375	12 Hour Clock	Elevation	1324'	Top Packer	2032'
Initial Hydro Mud Pressure	1015	998	Total Depth	2088'	Bottom Packer	2036'
Initial Closed in Pres.	734	733	Interval Tested	2036' - 2088'	Formation Tested	CATTLEMAN
Initial Flow Pres.	0	1 1	Casing or Hole Size	7 7/8"	Casing Perfs.	Top Bot.
Final Flow Pres.	0	1 3	Surface Choke	1"	Bottom Choke	1"
Final Closed in Pres.	144	158	Size & Kind Drill Pipe	4 1/2" IP	Drill Collars Above Tester	115" I.D. - LENGTH
Final Hydro Mud Pressure	997	976	Mud Weight	9.7	Mud Viscosity	40
Depth Cen. Gauge		Blanked Off	Temperature	100 °F Est.	Anchor Size & Length	ID OD X
BT. P.R.D. No.		Hour Clock	Depths Mea. From	KELLY BUSHING	Depth of Tester Valve	Ft.
Initial Hydro Mud Pres.				TYPE AMOUNT		
Initial Closed in Pres.			Cushion		Depth Back Pres. Valve	Ft.
Initial Flow Pres.	1		Recovered	15 Feet of drilling mud		
Final Flow Pres.	2		Recovered	Feet of		
Final Closed in Pres.	1		Recovered	Feet of		
Final Hydro Mud Pres.	2		Recovered	Feet of		
Depth Bot. Gauge	2084 Ft.	yes Blanked Off	Oil A.P.I. Gravity		Water Spec. Gravity	
BT. P.R.D. No.	310	12 Hour Clock	Gas Gravity		Surface Pressure	psi
Initial Hydro Mud Pres.	1033	1033	Tool Opened	12:52 am	A.M. P.M. Tool Closed	2:22 am A.M. P.M.
Initial Closed in Pres.	770	770	Remarks	Tool opened for 30 minute first flow with weak blow. Closed for 30 minute initial closed in pressure. Reopened for 30 minute second flow with very weak blow for 2 minutes. Closed for 30 minute final closed in pressure.		
Initial Flow Pres.	36	1 33				
Final Flow Pres.	45	1 35				
Final Closed in Pres.	344	193				
Final Hydro Mud Pres.	1015	1013				

Legal Location Sec. - Twp. - Rng. 34-22-10E  
 Lease Name  
 Well No. 1  
 Test No. 1  
 Field Area BERNARD BRANCH  
 County GREENWOOD  
 State KANSAS  
 Lease Owner/Company Name CITIES SERVICE OIL COMPANY  
 Owner's District AUGUSTA 34-22

FORMATION TEST DATA

Gauge No. 1375		Depth 2040'			Clock 12		hour		Ticket No. 398234	
First Flow Period		Initial Closed In Pressure			Second Flow Period		Final 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.	
P <sub>0</sub>	.000	1	.000		3	.000	12	.000		11
P <sub>1</sub>	.210	3	.0191		16	.208	11	.219		158
P <sub>2</sub>			.0382		45					
P <sub>3</sub>			.0573		124					
P <sub>4</sub>			.0764		266					
P <sub>5</sub>			.0955		415					
P <sub>6</sub>			.1146		532					
P <sub>7</sub>			.1337		610					
P <sub>8</sub>			.1528		668					
P <sub>9</sub>			.1719		705					
P <sub>10</sub>			.1910		733					

Gauge No. 310		Depth 2084'			Clock 12		hour			
P <sub>0</sub>	.000	33	.000		35	.000	42	.000		43
P <sub>1</sub>	.208	35	.0197		47	.214	43	.216		193
P <sub>2</sub>			.0394		76					
P <sub>3</sub>			.0591		154					
P <sub>4</sub>			.0788		307					
P <sub>5</sub>			.0985		448					
P <sub>6</sub>			.1182		569					
P <sub>7</sub>			.1379		646					
P <sub>8</sub>			.1576		704					
P <sub>9</sub>			.1773		744					
P <sub>10</sub>			.1970		770					

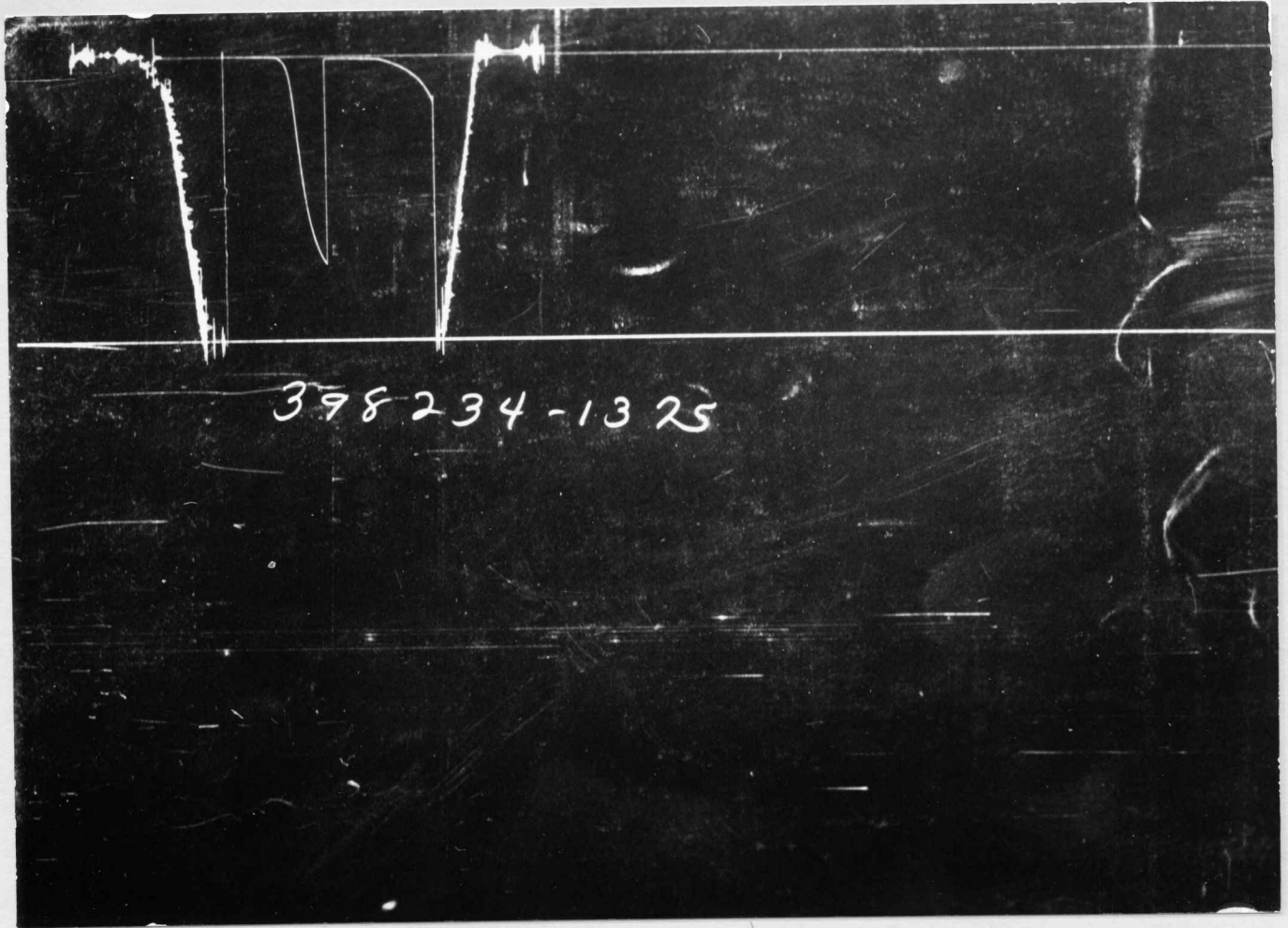
Reading Interval

3

Minutes

REMARKS:

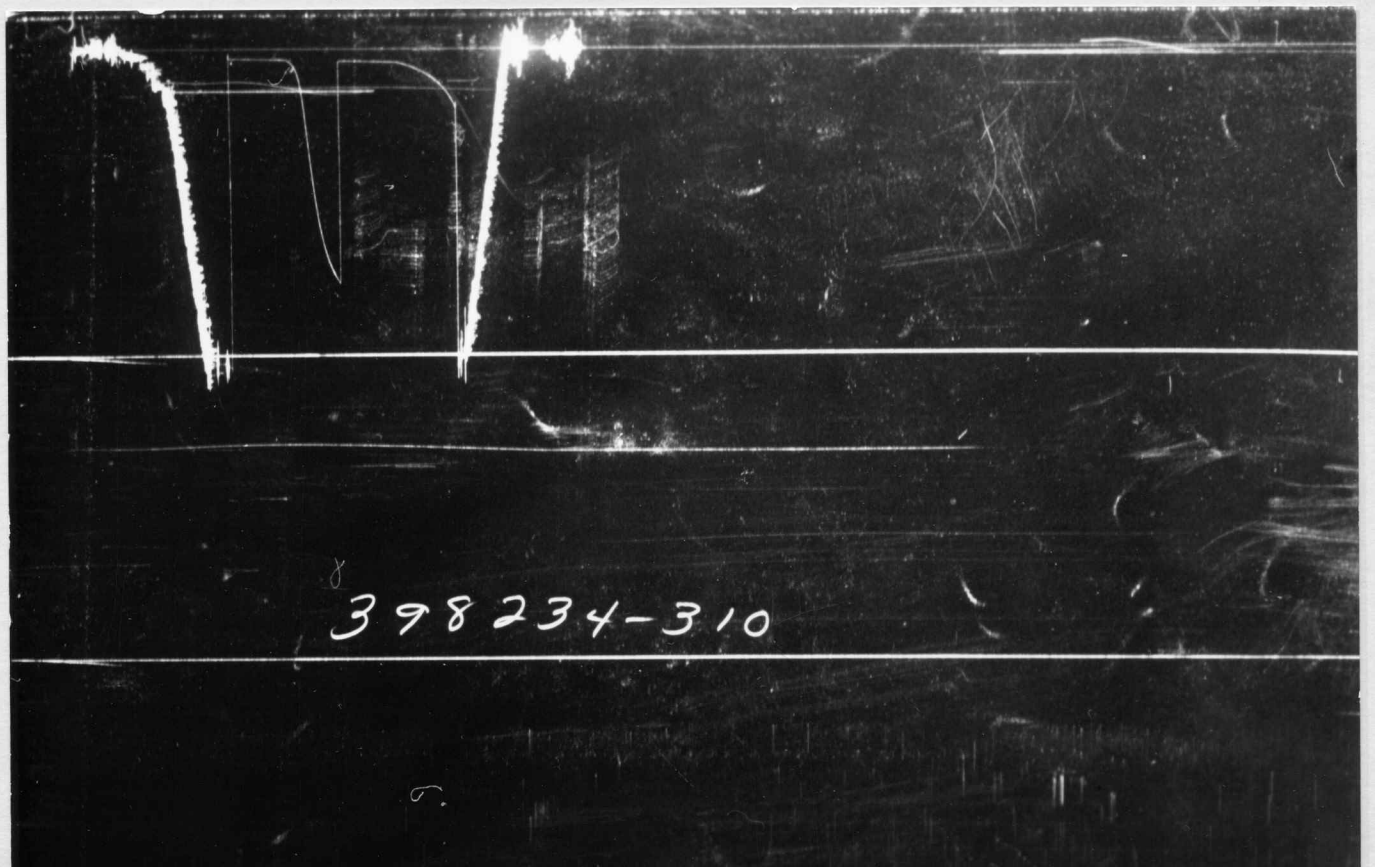
SPECIAL PRESSURE DATA



398234-1325

PRESSURE

TIME



398234-310

PRESSURE

TIME

Flow Time	1st	Min.	2nd	Min.	Date	Ticket Number	398235 S
Closed In Press. Time	1st	30	2nd	30	Kind of Job	OPEN HOLE	Halliburton District ELDORADO
Pressure Readings	Field		Office Corrected		Tester	PARKER	Witness
Depth Top Gauge	2141	Ft.	no	Blanked Off	Drilling Contractor	WHITE & ELLIS	SS
BT. P.R.D. No.	1375		12	Hour Clock	Elevation	1324'	Top Packer 2135'
Initial Hydro Mud Pressure	1079		1084		Total Depth	2160'	Bottom Packer 2139'
Initial Closed in Pres.	607		592		Interval Tested	2139' - 2160'	Formation Tested BARTLESVILLE
Initial Flow Pres.		1	13		Casing or Hole Size	7 7/8"	Casing Perfs. { Top Bot.
	72	2	76				
Final Flow Pres.		1	66		Surface Choke	1"	Bottom Choke
	99	2	95				
Final Closed in Pres.	588		576		Size & Kind Drill Pipe	4 1/2" IF	Drill Collars Above Tester 115' I.D. - LENGTH
Final Hydro Mud Pressure	1070		1079		Mud Weight	9.7	Mud Viscosity 38
Depth Cen. Gauge		Ft.		Blanked Off	Temperature	100 °F Est. °F Actual	Anchor Size & Length ID OD X
BT. P.R.D. No.				Hour Clock	Depths Mea. From	KELLY BUSHING	Depth of Tester Valve Ft.
Initial Hydro Mud Pres.					TYPE	AMOUNT	Depth Back Pres. Valve Ft.
					Cushion	Ft.	
Initial Closed in Pres.					Recovered	299 Feet of gas	Mea. From Tester Valve
Initial Flow Pres.		1		Recovered	40 Feet of free oil		
Final Flow Pres.		1		Recovered	233 Feet of heavy oil & gas cut mud		
Final Closed in Pres.		2		Recovered	Feet of		
Final Hydro Mud Pres.					Oil A.P.I. Gravity	38 @ 53°	Water Spec. Gravity
Depth Bot. Gauge	2156	Ft.	yes	Blanked Off	Gas Gravity		Surface Pressure psi
BT. P.R.D. No.	310		12	Hour Clock	Tool Opened	3:32 pm A.M. P.M.	Tool Closed A.M. P.M.
Initial Hydro Mud Pres.	1105		1102		Remarks	Tool opened for 30 minute first flow with	
Initial Closed in Pres.	613		611		good blow, Closed for 30 minute initial closed in		
Initial Flow Pres.	36	1	30		pressure. Reopened for 30 minute second flow with		
	72	2	90		strong blow throughout test. Closed for 30 minute		
Final Flow Pres.	72	1	80		final closed in pressure.		
	100	2	112				
Final Closed in Pres.	586		596				
Final Hydro Mud Pres.	1096		1100				

FORMATION TEST DATA

Legal Location Sec. - Twp. - King. 34-22-10E

UNDERWOOD "B" Lease Name

Well No. 1

Test No. 2

Field Area

CITIES SERVICE OIL COMPANY Lease Owner/Company Name

County GREENWOOD

ATWANTA Owner's District 34-22

State KANSAS

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Gauge No. 1375		Depth 2141'			Clock 12 hour		Ticket No. 398235		
First Flow Period		Initial Closed In Pressure			Second Flow Period		Final 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.
P <sub>0</sub>	.000	13		60	.000	76	.000		95
P <sub>1</sub>	.0408	29	.0196	120	.0412	79	.0205		150
P <sub>2</sub>	.0816	45	.0392	206	.0824	82	.0410		249
P <sub>3</sub>	.1224	59	.0588	359	.1236	86	.0615		385
P <sub>4</sub>	.1632	65	.0784	489	.1648	91	.0820		484
P <sub>5</sub>	.2040	66	.0980	541	.2060	95	.1025		524
P <sub>6</sub>			.1176	562			.1230		545
P <sub>7</sub>			.1372	574			.1435		557
P <sub>8</sub>			.1568	582			.1640		566
P <sub>9</sub>			.1764	588			.1845		572
P <sub>10</sub>			.1960	592			.2050		576

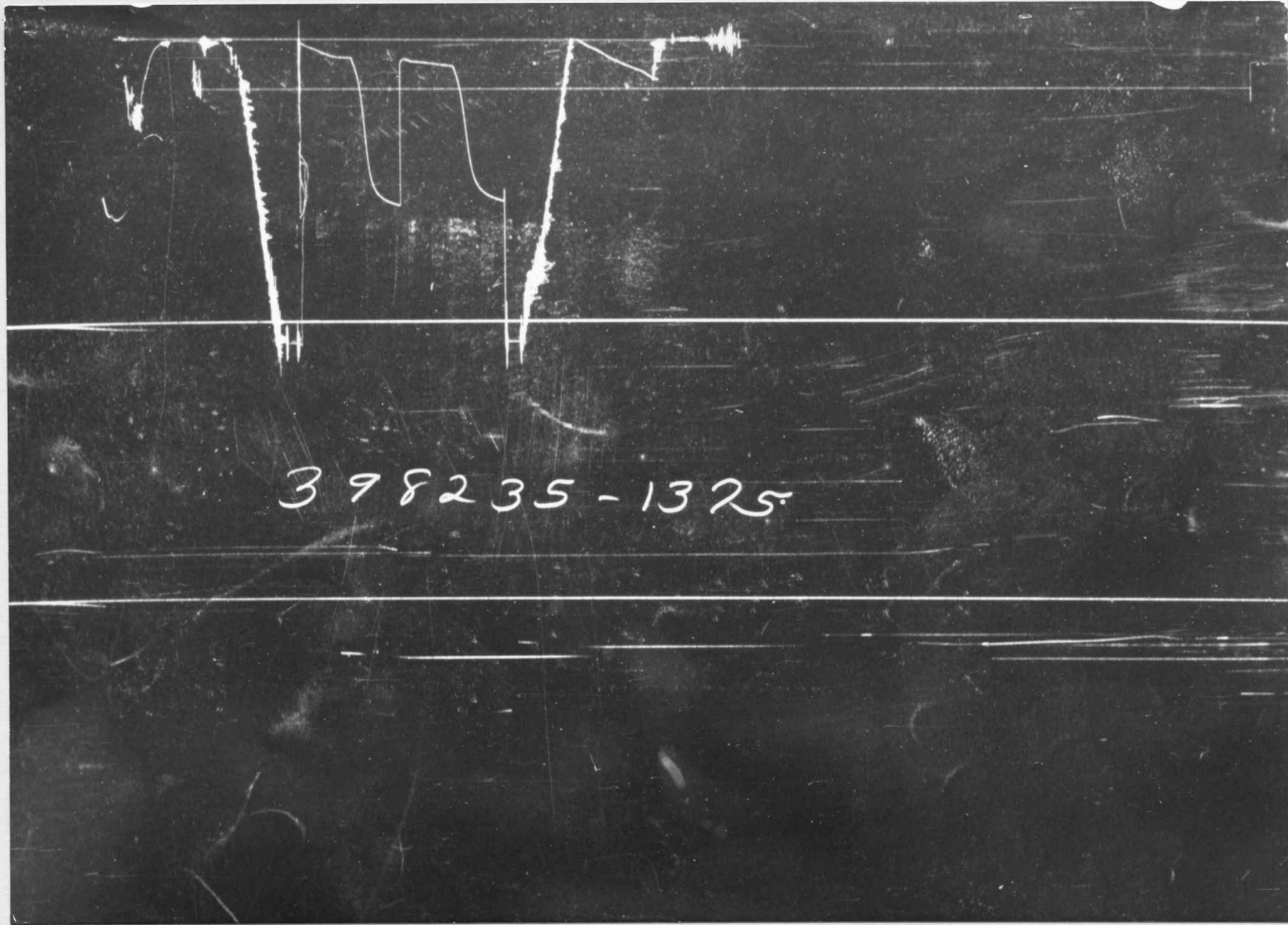
Gauge No. 310		Depth 2156'			Clock 12 hour				
Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.
P <sub>0</sub>	.000	30		82	.000	90	.000		112
P <sub>1</sub>	.042	45	.020	130	.0422	95	.0207		170
P <sub>2</sub>	.084	61	.040	216	.0844	98	.0414		273
P <sub>3</sub>	.126	75	.060	375	.1266	103	.0621		417
P <sub>4</sub>	.168	81	.080	514	.1688	108	.0828		507
P <sub>5</sub>	.210	82	.100	559	.211	112	.1035		546
P <sub>6</sub>			.120	580			.1242		566
P <sub>7</sub>			.140	593			.1449		578
P <sub>8</sub>			.160	602			.1656		586
P <sub>9</sub>			.180	607			.1863		592
P <sub>10</sub>			.200	611			.2070		596

Reading Interval 6 3 6 3 Minutes

REMARKS:

SPECIAL PRESSURE DATA

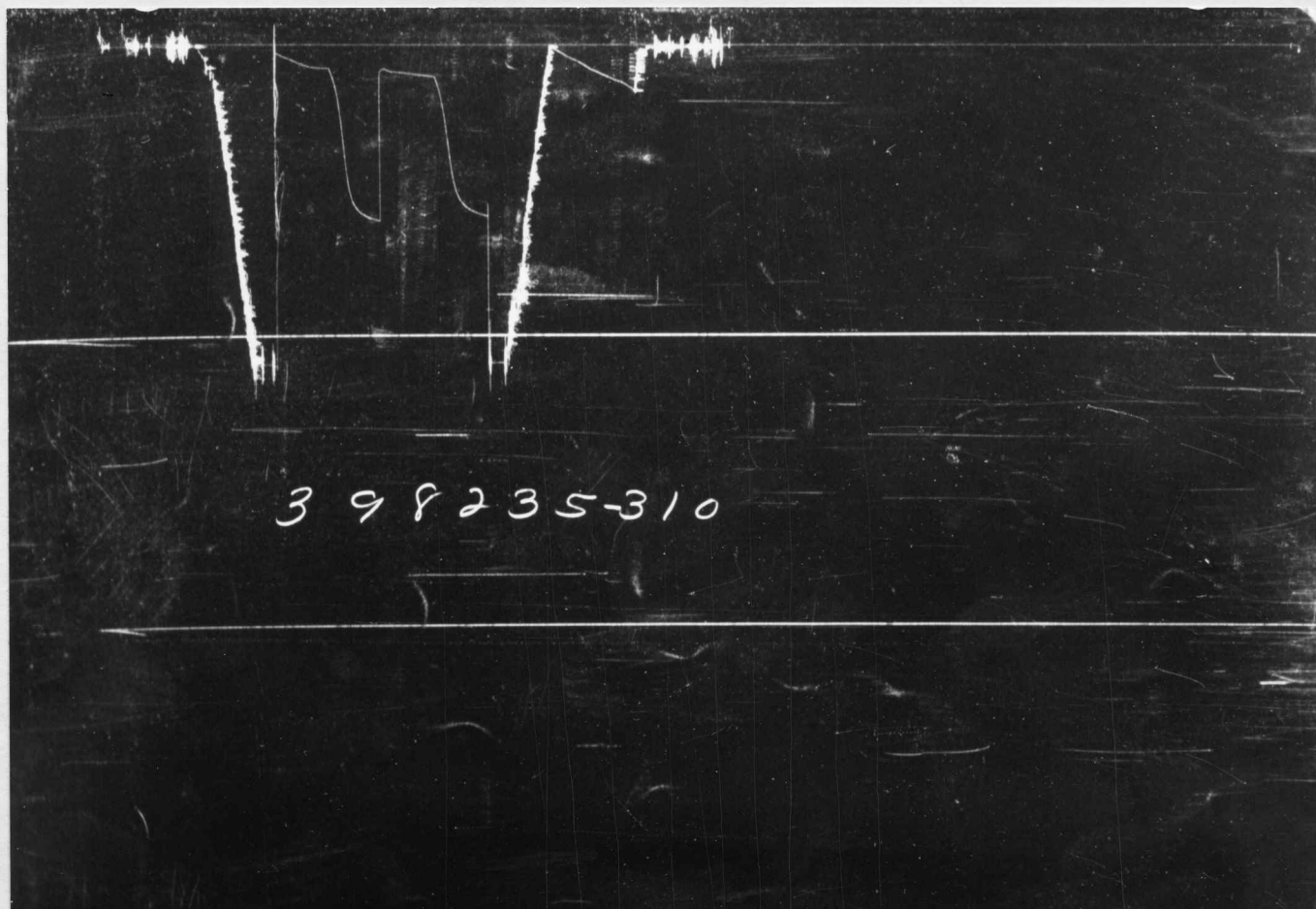
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398235-1325

PRESSURE

TIME



398235-310