

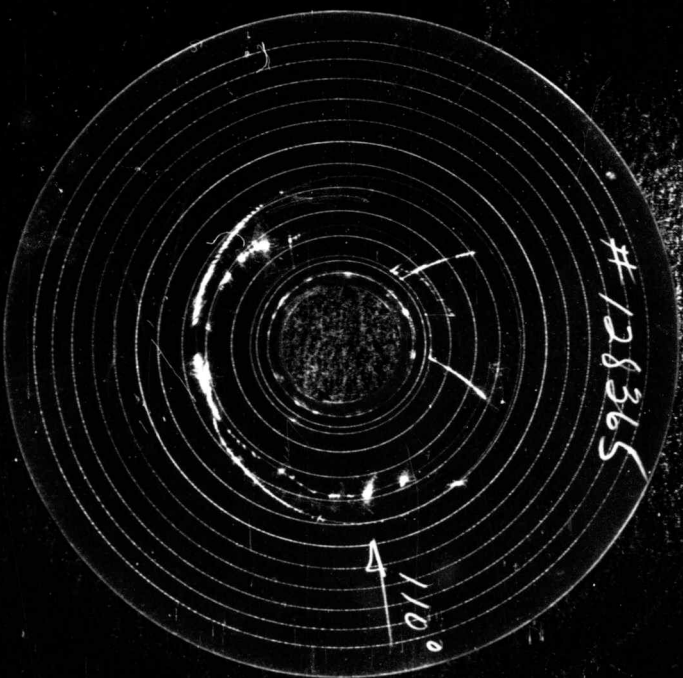
FLUID SAMPLER DATA				Date		Ticket Number	
Sampler Pressure _____ P.S.I.G. at Surface Recovery: Cu. Ft. Gas _____ cc. Oil _____ cc. Water _____ cc. Mud _____ Tot. Liquid cc. _____ Gravity _____ ° API @ _____ ° F. Gas/Oil Ratio _____ cu. ft./bbl.				6-26-69		128365	
Kind of Job Tester Drilling Contractor				OPEN HOLE THOMPSON GABBERT AND JONES		Halliburton District Witness NM	
				AUSTIN			
EQUIPMENT & HOLE DATA							
				Formation Tested			
				Marmenton			
				Elevation _____ Ft.			
				Net Productive Interval 10' _____ Ft.			
				All Depths Measured From Kelly Bushing			
				Total Depth 4935' _____ Ft.			
				Main Hole/Casing Size 7 7/8"			
				Drill Collar Length 360' _____ I.D. 2 1/4"			
				Drill Pipe Length _____ I.D. 3.8			
				Packer Depth(s) 4891' - 4887' _____ Ft.			
				Depth Tester Valve 4867' _____ Ft.			
RESISTIVITY		CHLORIDE CONTENT					
Recovery Water _____ @ _____ ° F. _____ ppm							
Recovery Mud _____ @ _____ ° F. _____ ppm							
Recovery Mud Filtrate _____ @ _____ ° F. _____ ppm							
Mud Pit Sample _____ @ _____ ° F. _____ ppm							
Mud Pit Sample Filtrate 9.6 @ _____ ° F. _____ ppm							
Mud Weight _____ vis 45 cp							
TYPE		AMOUNT		Depth Back		Surface	
Cushion		NONE		Ft. Pres. Valve		NONE	
						Choke 1" Bottom Choke 3/4"	
Recovered 10'		Feet of mud		MAILED JUL 7 1969 Halliburton Company Duncan, Oklahoma			
Recovered		Feet of					
Recovered		Feet of					
Recovered		Feet of					
Recovered		Feet of					
Remarks On bottom @ 5:53 - tool opened @ 5:55 for a 5 minute first flow with a very weak blow. Rotated tool for a 30 minute first closed in pressure. Tool reopened @ 6:30 with no blow - flushed tool @ 6:55 - then closed @ 7:00 for a 30 minute second closed in pressure. Off bottom @ 7:30..							
TEMPERATURE		Gauge No. 1831		Gauge No. 1830		Gauge No.	
		Depth: 4877' Ft.		Depth: 4931' Ft.		Depth: _____ Ft.	
		12 Hour Clock		12 Hour Clock		Hour Clock	
Est. _____ ° F.		Blanked Off NO		Blanked Off YES		Blanked Off	
Actual 110 F.		Pressures		Pressures		Pressures	
		Field Office		Field Office		Field Office	
Initial Hydrostatic		2626 2578		2626 2617			
Flow Initial		9 6		28 36			
Flow Final		38 8		28 40			
Closed in		65 42		65 70			
Flow Initial		9 10		28 47			
Flow Final		28 12		37 52			
Closed in		46 28		46 58			
Flow Initial							
Flow Final							
Closed in							
Final Hydrostatic		2607 2525		2607 2562			

EMERSON
 Lease Name
 A-1
 Well No.
 1
 Test No.
 4891' - 4935'
 Tested Interval
 County
 KIOWA
 State
 KANSAS
 CITIES SERVICE OIL COMPANY
 Lease Owner/Company Name

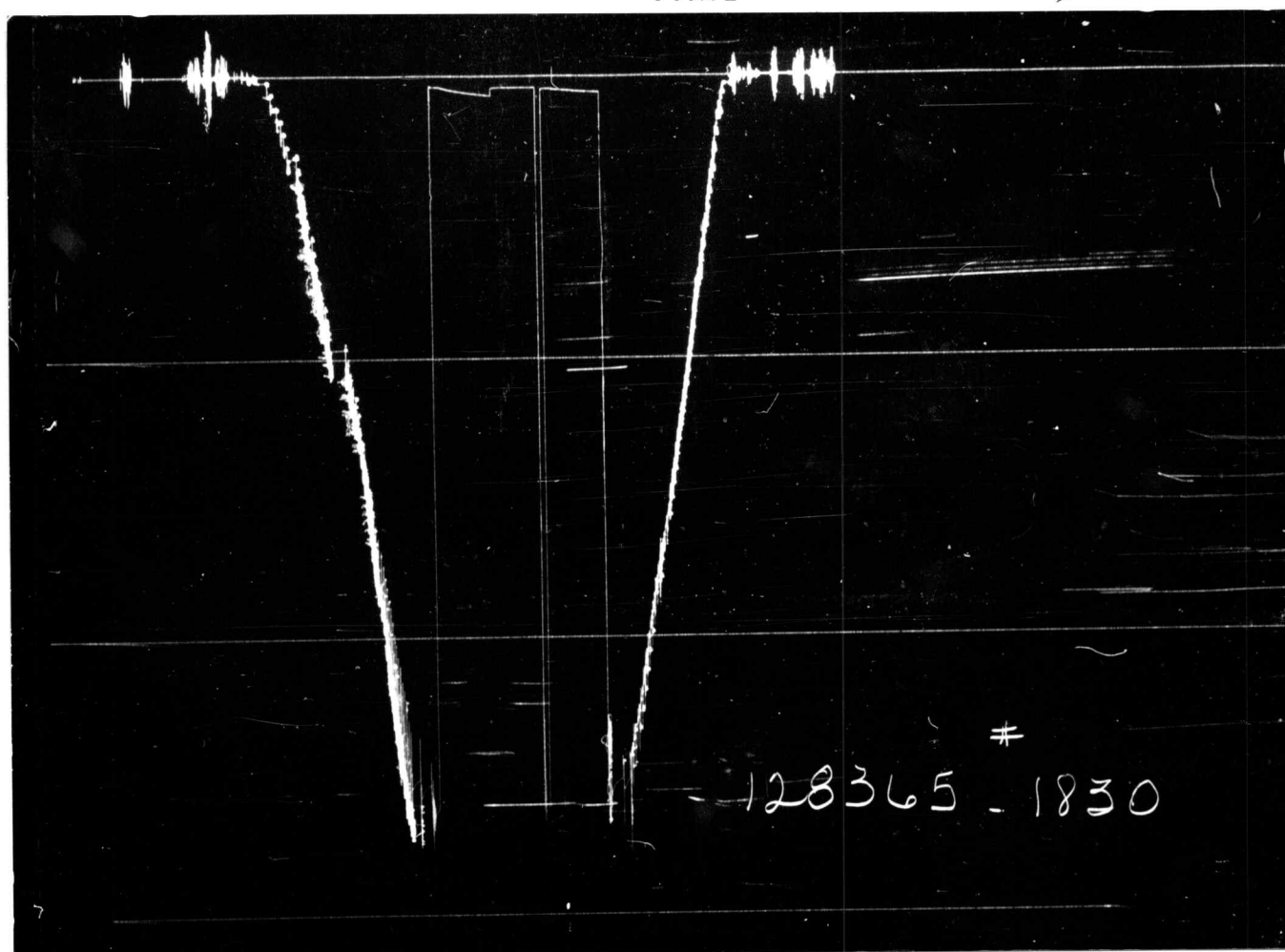
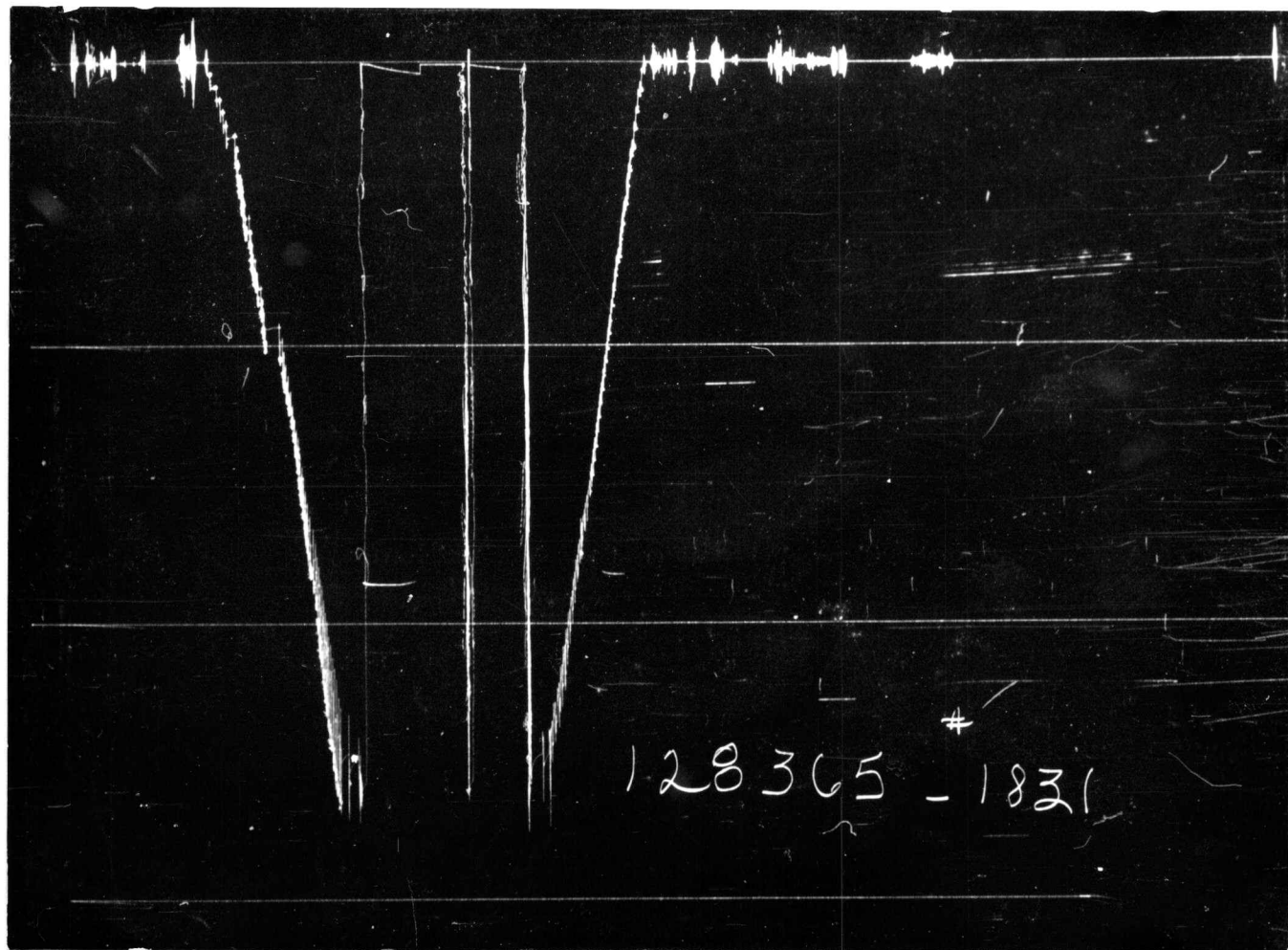
	O. D.	I. D.	LENGTH	DEPTH
Reversing Sub	5 5/8"	2"	1 1/2'	
Water Cushion Valve				
Drill Pipe	4 1/2"	3.828		
Drill Collars	6 1/2"	2 1/4"	630	
Handling Sub & Choke Assembly	5 3/4"	2 1/4"	2 1/2'	
Dual CIP Valve	5"	3/4"	6'	
Dual CIP Sampler				
Hydro-Spring Tester	5"	3/4"	5'	
Multiple CIP Sampler				
Extension Joint				
AP Running Case	5"	2 1/4"	4'	
Hydraulic Jar	5"	3/4"	4'	
VR Safety Joint	5"	1 1/2"	2 1/2'	
Pressure Equalizing Crossover				
Packer Assembly	6 3/4"	1"	4'	
Distributor				
Packer Assembly				
Flush Joint Anchor	5"	2 1/4"	44'	
Pressure Equalizing Tube				
Blanked-Off B.T. Running Case	5"	2 1/2"	4'	
Drill Collars				
Anchor Pipe Safety Joint				
Packer Assembly				
Packer Assembly				
Anchor Pipe Safety Joint				
Side Wall Anchor				
Drill Collars				
Flush Joint Anchor				
Blanked-Off B.T. Running Case				

TEMPERATURE
RECORDER
CHART

10° each circle



PRESSURE
↓



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

FLUID SAMPLER DATA				Date		Ticket Number	
Sampler Pressure _____ P.S.I.G. at Surface Recovery: Cu. Ft. Gas _____ cc. Oil _____ cc. Water _____ cc. Mud _____ Tot. Liquid cc. _____ Gravity _____ ° API @ _____ ° F. Gas/Oil Ratio _____ cu. ft./bbl.				6-28-69		128366	
Kind of Job Tester Drilling Contractor				OPEN HOLE THOMPSON GABBERT AND JONES		Halliburton District Witness NM S	
				PRATT		AUSTIN	
EQUIPMENT & HOLE DATA							
Formation Tested				Mississippi			
Elevation				_____ Ft.			
Net Productive Interval				12' _____ Ft.			
All Depths Measured From				Kelly Bushing			
Total Depth				5080' _____ Ft.			
Main Hole/Casing Size				7 7/8"			
Drill Collar Length				640'		I.D. 2 1/4"	
Drill Pipe Length				4400'		I.D. 3.818	
Packer Depth(s)				5032' - 5028' _____ Ft.			
Depth Tester Valve				5008' _____ Ft.			
TYPE		AMOUNT		Depth Back		Surface	
Cushion		NONE		Ft. Pres. Valve		NONE	
						Choke 1" Bottom Choke 3/4"	
Recovered		300'		Feet of		mud	
Recovered				Feet of			
Recovered				Feet of			
Recovered				Feet of			
Recovered				Feet of			
MAILED JUL 7 1969 Halliburton Company Duncan, Oklahoma							
Remarks							
Tool opened for a 12 minute first flow. Rotated tool for a 29 minute							
first closed in pressure. Tool reopened for a 57 minute second flow							
period. Took a 27 minute second closed in pressure.							
TEMPERATURE		Gauge No. 1831		Gauge No. 1830		Gauge No.	
		Depth: 5018' Ft.		Depth: 5076' Ft.		Depth: _____ Ft.	
		12 Hour Clock		12 Hour Clock		Hour Clock	
Est. _____ ° F.		Blanked Off NO		Blanked Off YES		Blanked Off	
5074'						Tool _____	
Actual 118° ° F.		Pressures		Pressures		Pressures	
		Field Office		Field Office		Field Office	
Initial Hydrostatic		2676 2664		2626 2736			
First Period	Flow Initial	176 158		176 289			
	Flow Final	176 169		176 202			
	Closed in	890 863		890 889			
Second Period	Flow Initial	176 167		176 219			
	Flow Final	194 169		194 199			
	Closed in	862 843		862 866			
Third Period	Flow Initial						
	Flow Final						
	Closed in						
Final Hydrostatic		2607 2633		2607 2677			

Legal Location Sec. - Twp. - Rng. 27 - 30 - 18W
 Lease Name EMERSON
 Well No. A-1
 Test No. 3
 Field Area WILDCAT
 Tested Interval 5032' - 5080'
 County KANSAS
 State KANSAS
 City CITIES SERVICE OIL COMPANY
 Lease Owner/Company Name

Gauge No. 1831		Depth		5018'		Clock No. ???		12 hour		Ticket No. 128366	
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"	$\text{Log } \frac{t + \theta}{\theta}$	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	$\text{Log } \frac{t + \theta}{\theta}$	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	$\text{Log } \frac{t + \theta}{\theta}$
0 .000	158	.000		.000	167	.000					
1 .0132	176	.0209		.0711	166	.0221					
2 .0264	179	.0418		.1422	166	.0442					
3 .0396	183	.0627		.2133	166	.0663					
4 .0528	175	.0836		.2844	168	.0884					
5 .0660	169	.1045		.3555	169	.1105					
6 .079	169	.1254		.405	169**	.1326					
7		.1463				.1547					
8		.1672				.1768					
9		.1881				.199					
10		.202									
11											
12											
13											
14											
15											

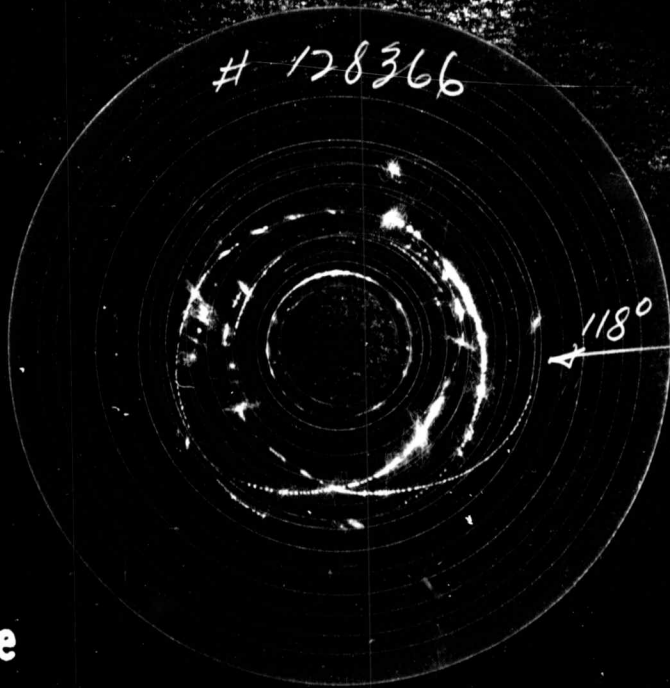
Gauge No. 1830		Depth		5076'		Clock No. ???		hour 12	
Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	$\text{Log } \frac{t + \theta}{\theta}$	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	$\text{Log } \frac{t + \theta}{\theta}$	Time Defl. .000"	PSIG Temp. Corr.
0 .000	289	.000		.000	219	.000			199
1 .0145	238	.0220		.0749	196	.0224			324
2 .0290	216	.0440		.1498	197	.0448			422
3 .0435	218	.0660		.2247	197	.0672			506
4 .0580	207	.0880		.2996	198	.0896			581
5 .0725	203	.1100		.3745	199	.1120			649
6 .087	202	.1320		.427	199**	.1344			711
7		.1540				.1568			766
8		.1760				.1792			817
9		.1980				.202			866
10		.213							
11									
12									
13									
14									
15									
Reading Interval 2		3		10		3		Minutes	

REMARKS: * INTERVAL = 2 MINUTES. ** INTERVAL = 7 MINUTES.

	O. D.	I. D.	LENGTH	DEPTH
Reversing Sub	5 5/8"	2"	1 1/2	
Water Cushion Valve				
Drill Pipe	4 1/2	3.878		
Drill Collars	6 1/2	2 1/4"	150	
Handling Sub & Choke Assembly	5 3/4"	2 1/4"	2 1/4	
Dual CIP Valve	5"	3/4"	6	
Dual CIP Sampler				
Hydro-Spring Tester	5"	3/4"	5'	
Multiple CIP Sampler				
Extension Joint				
AP Running Case	5"	2 1/4"	4'	
Hydraulic Jar	5"	2 1/4"	4'	
VR Safety Joint	5"	3/4"	4'	
Pressure Equalizing Crossover				
Packer Assembly	6 3/4"	1"	4'	
Distributor				
Packer Assembly				
Flush Joint Anchor	5"	2 1/4"	48'	
Pressure Equalizing Tube				
Blanked-Off B.T. Running Case	5"	2 1/2"	4'	
Drill Collars				
Anchor Pipe Safety Joint				
Packer Assembly				
Packer Assembly				
Anchor Pipe Safety Joint				
Side Wall Anchor				
Drill Collars				
Flush Joint Anchor				
Blanked-Off B.T. Running Case				

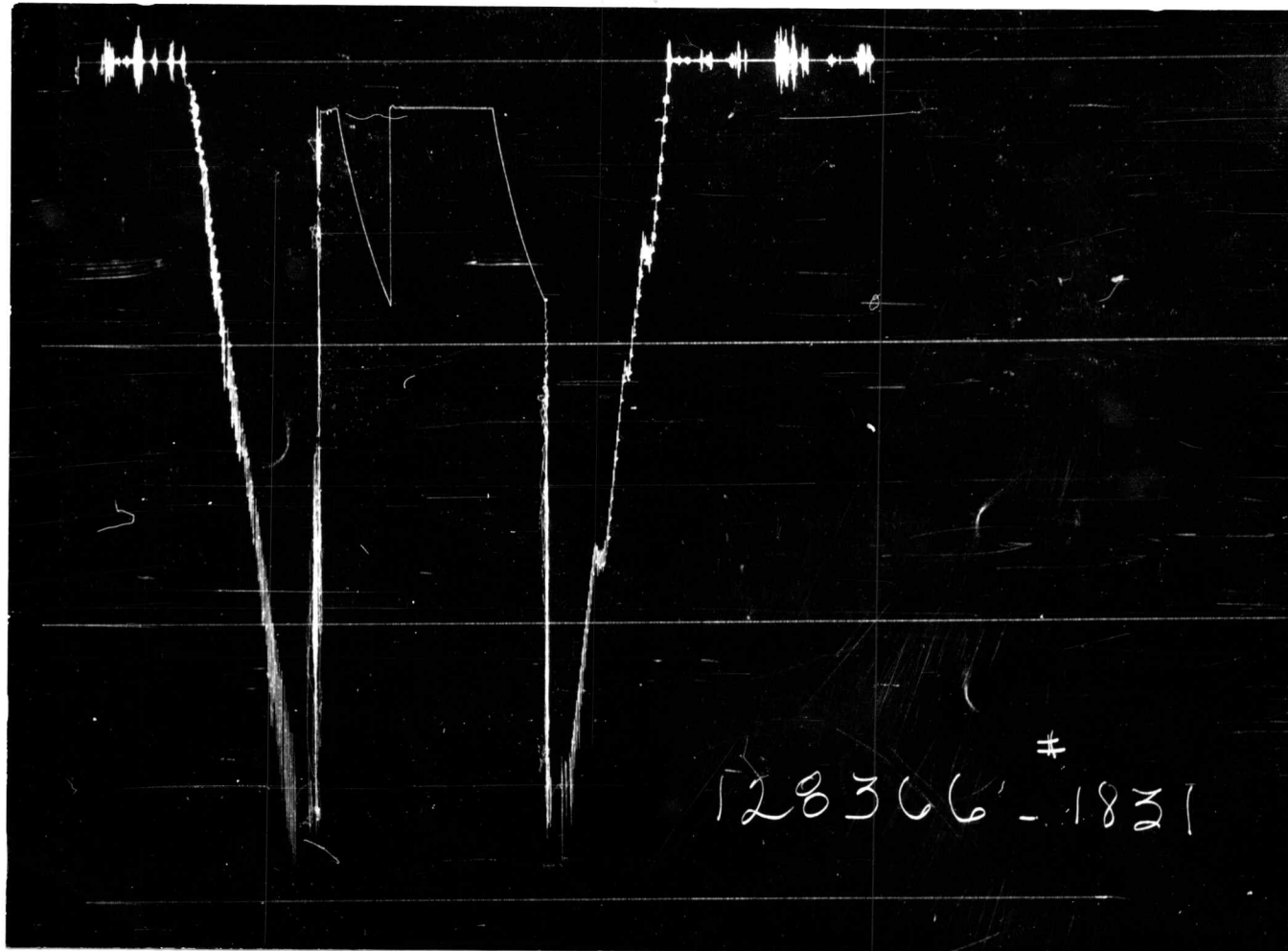
TEMPERATURE
RECORDER
CHART

128366

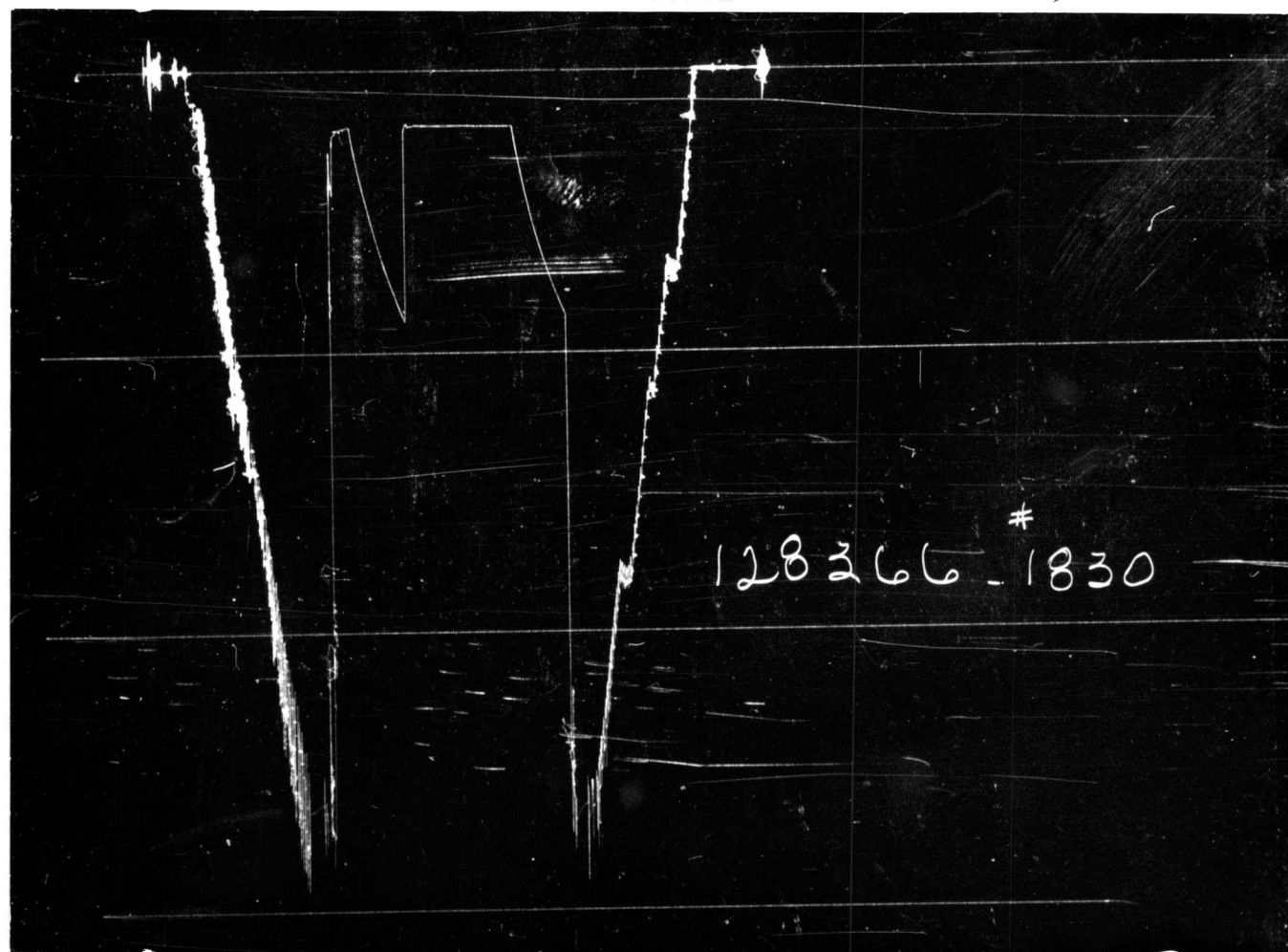


10° each circle

↑ PRESSURE ↓

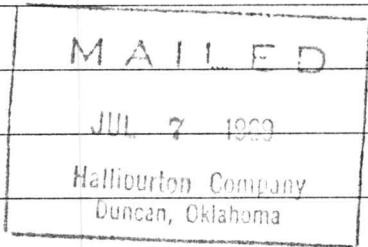


TIME →



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

FLUID SAMPLER DATA				Date 6-28-69		Ticket Number 128367	
Sampler Pressure _____ P.S.I.G. at Surface Recovery: Cu. Ft. Gas _____ cc. Oil _____ cc. Water _____ cc. Mud _____ Tot. Liquid cc. _____ Gravity _____ ° API @ _____ °F. Gas/Oil Ratio _____ cu. ft./bbl.				Kind of Job OPEN HOLE		Halliburton District PRATT	
				Tester MR. THOMPSON		Witness MR. AUSTIN	
				Drilling Contractor GABBERT & JONES		IC	
EQUIPMENT & HOLE DATA							
				Formation Tested Mississippi			
				Elevation _____ Ft.			
				Net Productive Interval 10' _____ Ft.			
				All Depths Measured From Kelly Bushings			
				Total Depth 5102' _____ Ft.			
				Main Hole/Casing Size 7 7/8"			
				Drill Collar Length _____ I.D. _____			
				Drill Pipe Length 4950' _____ I.D. 3.828"			
				Packer Depth(s) 5064' - 5068' _____ Ft.			
				Depth Tester Valve 5044' _____ Ft.			
		RESISTIVITY		CHLORIDE CONTENT			
Recovery Water		_____ @ _____ °F. _____ ppm					
Recovery Mud		_____ @ _____ °F. _____ ppm					
Recovery Mud Filtrate		_____ @ _____ °F. _____ ppm					
Mud Pit Sample		_____ @ _____ °F. _____ ppm					
Mud Pit Sample Filtrate		_____ @ _____ °F. _____ ppm					
Mud Weight		9.6 vis 46 cp					
Cushion		TYPE AMOUNT		Depth Back Pres. Valve		Surface Choke Bottom Choke	
		- -		- -		1" 3/4"	
Recovered		900 Feet of Gas in pipe		MAILED JUL 7 1969 Halliburton Company Duncan, Oklahoma			
Recovered		30 Feet of Gas cut mud					
Recovered		Feet of					
Recovered		Feet of					
Recovered		Feet of					
Remarks Opened tool for 5 minute first flow. Closed tool for 30 minute initial closed in pressure. Reopened tool for 60 minute second flow. Closed tool for 30 minute second closed in pressure.							
TEMPERATURE		Gauge No. 1831 Depth: 5053' Ft.		Gauge No. 1830 Depth: 5098' Ft.		Gauge No. _____ Depth: _____ Ft.	
Est. - °F.		12 Hour Clock		12 Hour Clock		Hour Clock	
5096' @		Blanked Off NO		Blanked Off YES		Blanked Off	
Actual 112 °F.		Pressures		Pressures		Pressures	
		Field Office		Field Office		Field Office	
Initial Hydrostatic		2726 2591		2720 2624			
Flow Initial		19 12		19 33			
Flow Final		19 13		19 31			
Closed in		324 309		324 324			
Flow Initial		19 12		19 33			
Flow Final		28 15		28 35			
Closed in		426 419		426 430			
Flow Initial							
Flow Final							
Closed in							
Final Hydrostatic		2701 2584		2701 2614			



Emerson
 Lease Name
 Well No. A-1
 Test No. 4
 Field Area WILDCAT
 County KIOWA
 State KANSAS
 Legal Location Sec. - Twp. - Rng. 27 - 30 - 18W
 Tested Interval 5068' - 5102'
 Lessee Owner/Company Name CITIES SERVICE OIL COMPANY



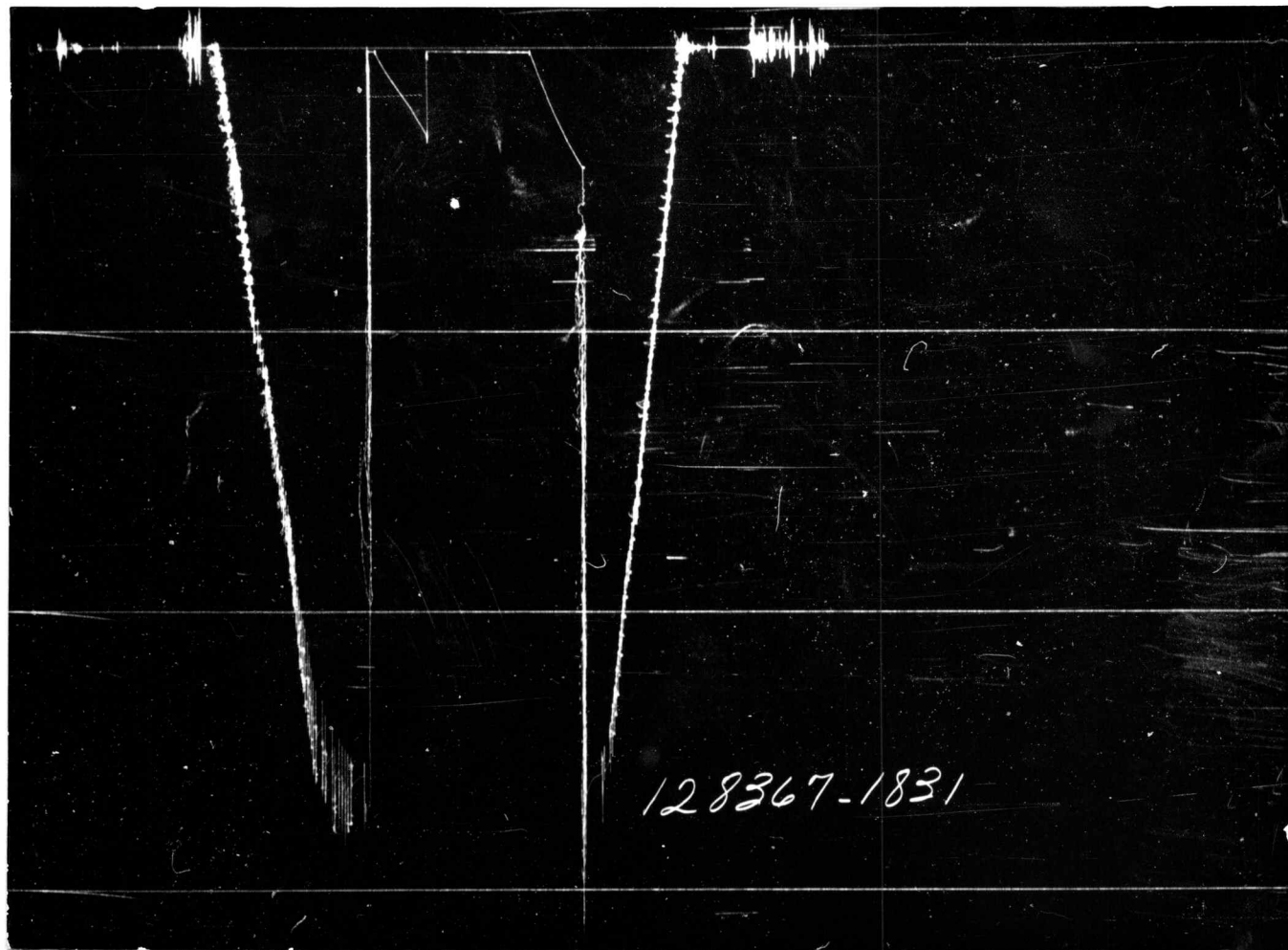
	O. D.	I. D.	LENGTH	DEPTH
Reversing Sub	5 5/8"	2"	1 1/2'	
Water Cushion Valve				
Drill Pipe	4 1/2"	3.828"		
Drill Collars	5 1/2"	2 1/4"	150'	
Handling Sub & Choke Assembly	5 3/4"	2 1/4"	2 1/4'	
Dual CIP Valve	5"	3/4"	6'	
Dual CIP Sampler				
Hydro-Spring Tester	5"	3/4"	5'	
Multiple CIP Sampler				
Extension Joint				
AP Running Case	5"	2 1/4"	4'	
Hydraulic Jar	5"	2 1/4"	4'	
VR Safety Joint	5"	3/4"	4'	
Pressure Equalizing Crossover				
Packer Assembly	6 3/4"		4'	
Distributor				
Packer Assembly				
Flush Joint Anchor	5"	2 1/4"	34'	
Pressure Equalizing Tube				
Blanked-Off B.T. Running Case	5"	2 1/2"	4'	
Drill Collars				
Anchor Pipe Safety Joint				
Packer Assembly				
Packer Assembly				
Anchor Pipe Safety Joint				
Side Wall Anchor				
Drill Collars				
Flush Joint Anchor				
Blanked-Off B.T. Running Case				

TEMPERATURE
RECORDER
CHART

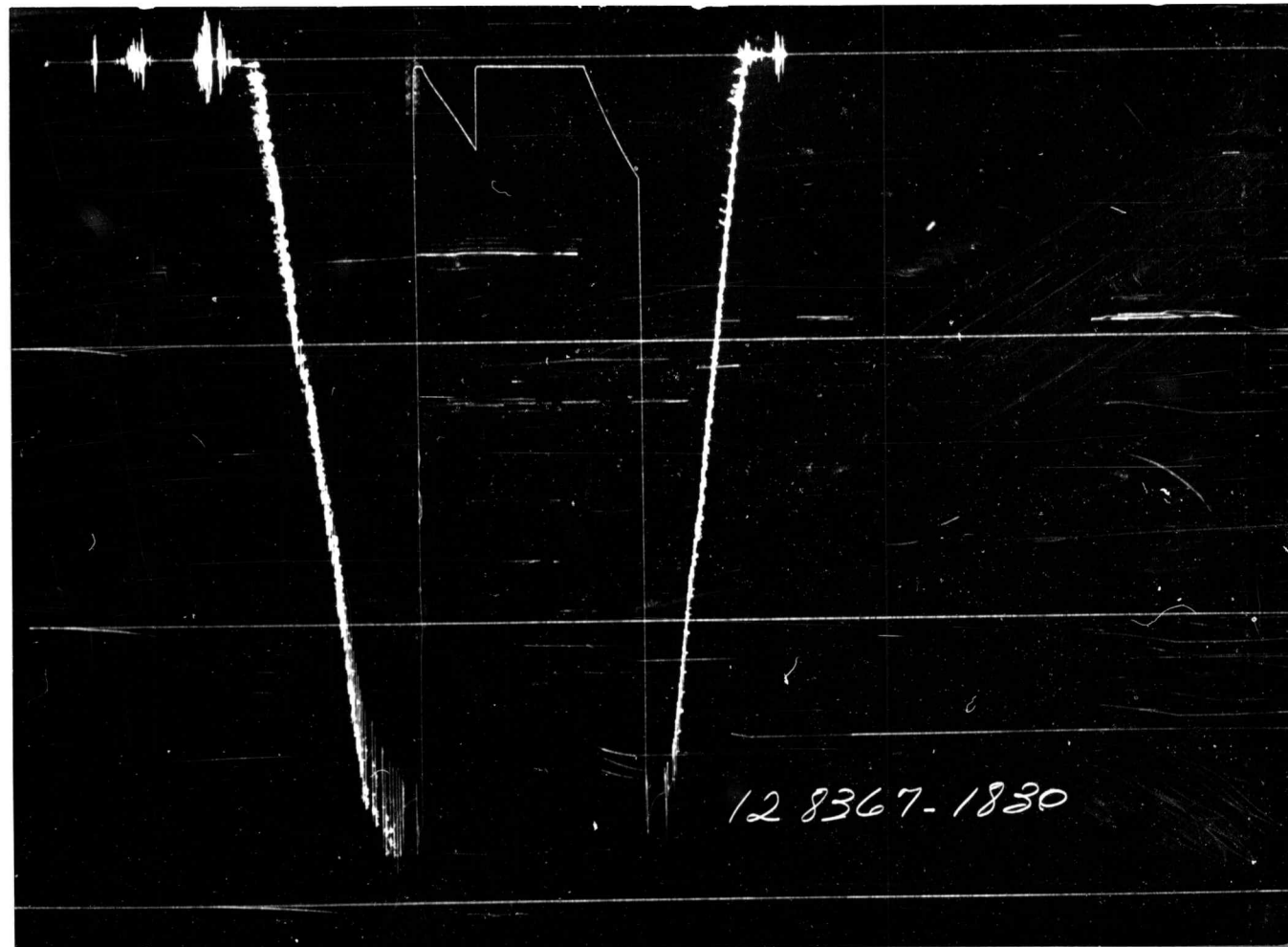


10° each circle

PRESSURE
↓



TIME →



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