

Casing perms. _____ Bottom choke _____ Surf. temp. _____ °F Ticket No. 592102
Gas gravity _____ Oil gravity _____ GOR _____
Spec. gravity _____ Chlorides _____ ppm Res. _____ @ _____ °F

INDICATE TYPE AND SIZE OF GAS MEASURING DEVICE USED.

[illegible]

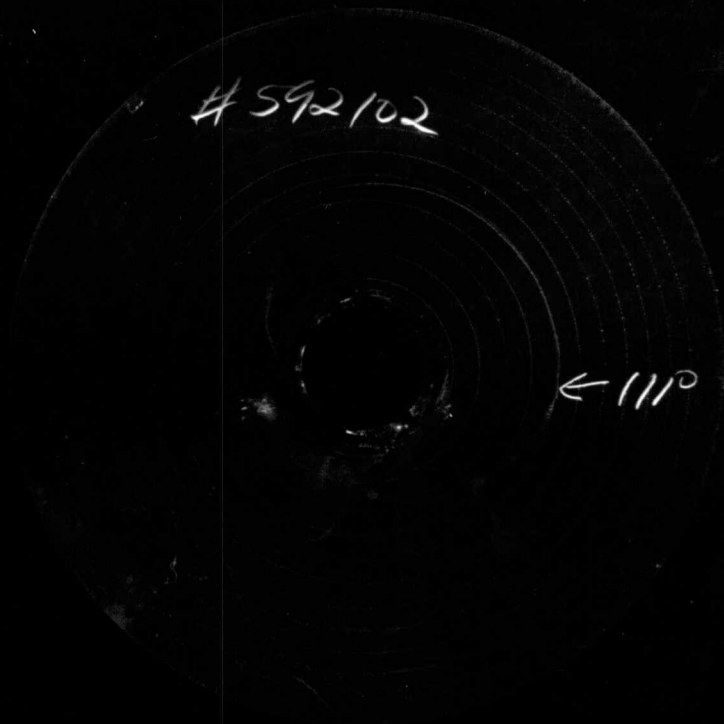
Gauge No. 690			Depth 4386			Clock No. 17416			12 hour		Ticket No. 592102				
First Flow Period			First Closed In Pressure			Second Flow Period		Second Closed In Pressure			Third Flow Period		Third Closed In Pressure		
	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	$\text{Log} \frac{t + \theta}{\theta}$	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	9.1	.0000		11.1	.0000	12.1	.0000		12.1					
1	.1950	11.1	.0199		39.6	.2030	12.1	.0201		17.2					
2			.0398		182.9			.0402		54.8					
3			.0597		359.7			.0603		155.4					
4			.0796		494.9			.0804		283.5					
5			.0995		608.8			.1005		408.5					
6			.1194		706.6			.1206		517.1					
7			.1393		779.2			.1407		599.8					
8			.1592		844.7			.1608		675.4					
9			.1791		894.1			.1809		736.9					
10			.1990		930.4			.2010		793.3					
11															
12															
13															
14															
15															

Gauge No. 228			Depth 4461			Clock No. 13853			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	47.5	.0000		47.5	.0000	50.6	.0000		49.5					
1	.1950	47.5	.0196		76.9	.2070	49.5	.0199		66.7					
2			.0392		208.4			.0398		117.4					
3			.0588		382.5			.0597		220.6					
4			.0784		516.0			.0796		354.2					
5			.0980		636.0			.0995		471.0					
6			.1176		728.0			.1194		573.0					
7			.1372		808.0			.1393		656.0					
8			.1568		871.0			.1592		724.0					
9			.1764		923.0			.1791		784.0					
10			.1960		970.0			.1990		834.0					
11															
12															
13															
14															
15															

Reading Interval		3		3				Minutes	
REMARKS:									

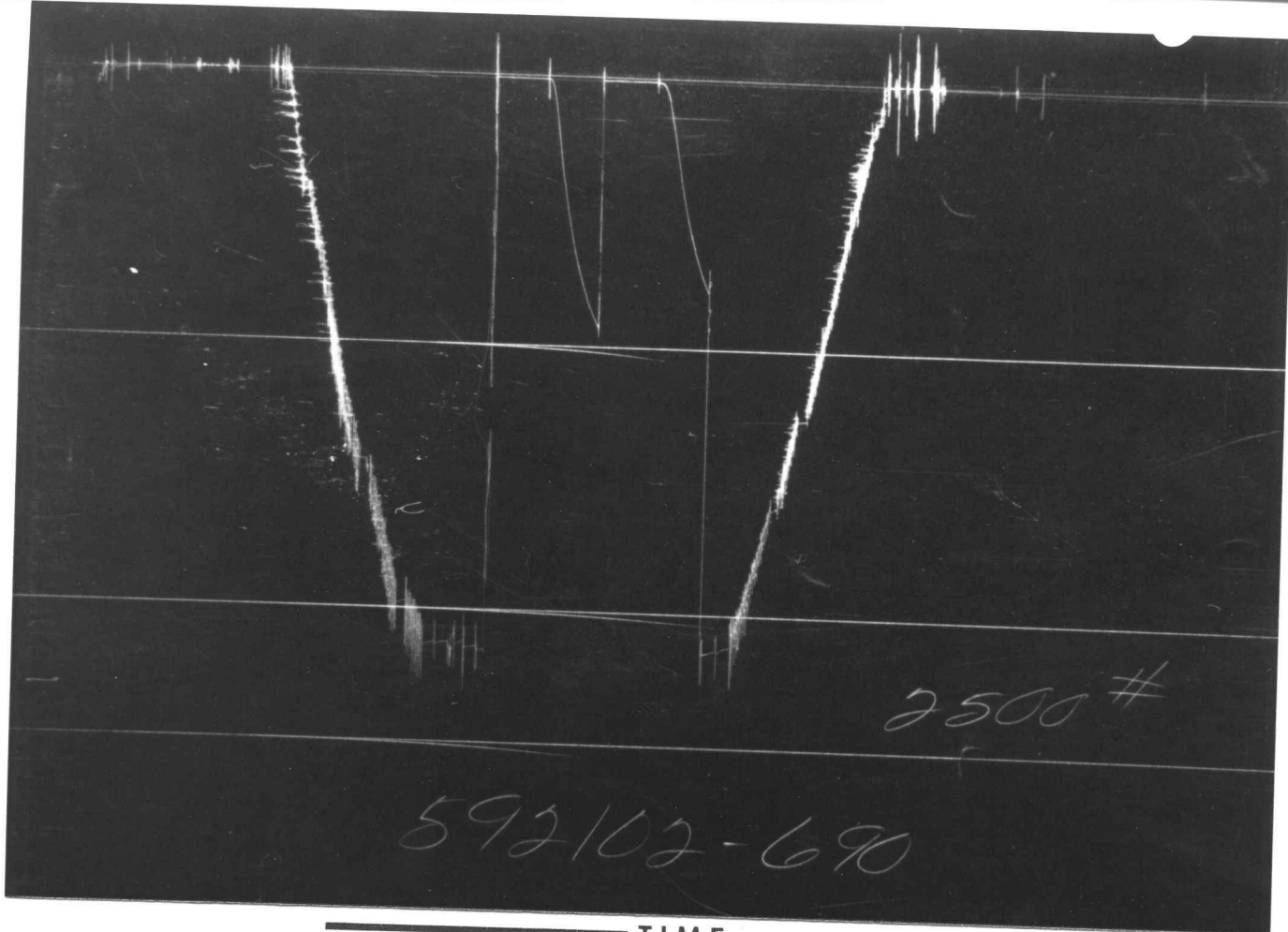
	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing	5.75"	2.75"	1'	4282'
Reversing Sub				
Water Cushion Valve	4.5"	3.826"	4374'	
Drill Pipe	6"	2.25"	31.16'	
Drill Collars				
Handling Sub & Choke Assembly	5"	.87"	6'	4375'
Dual CIP Valve				
Dual CIP Sampler	5"	.75"	5'	4385'
Hydro-Spring Tester				
Multiple CIP Sampler				
Extension Joint				
AP Running Case	5"	3.06"	4'	4386'
Hydraulic Jar				
VR Safety Joint				
Pressure Equalizing Crossover				
Packer Assembly	6.75"	1.53"	6'	4394'
Distributor				
Packer Assembly	6.75"	1.53"	6'	4400'
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"	3.826"	23'	
HT-500	5"	3"	1.5'	4460'
Blanked-Off B.T. Running Case	5"	2.75"	4'	4461'
Total Depth				4465'

TEMPERATURE
RECORDER
CHART

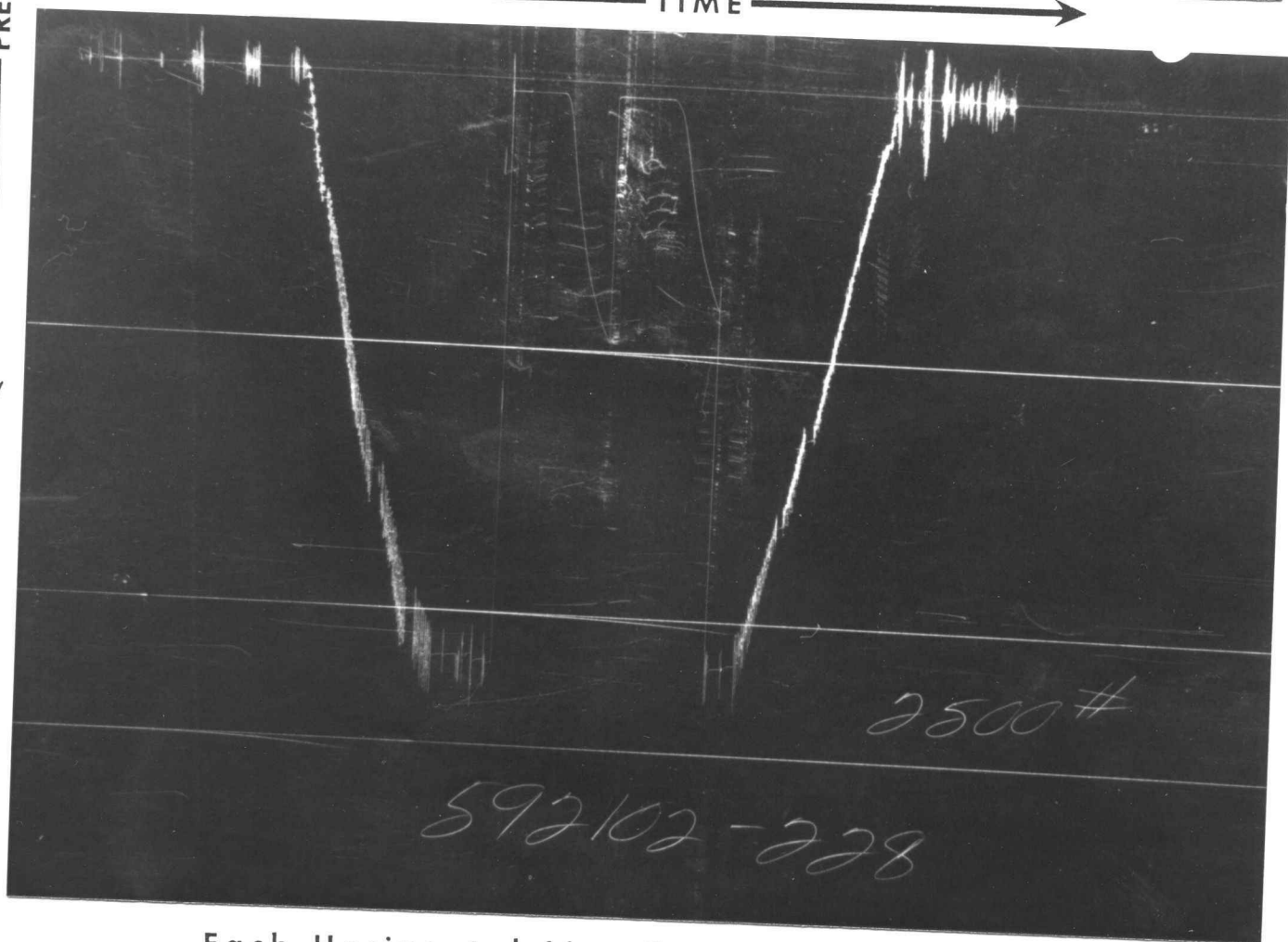


10° each circle

PRESSURE



TIME



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

COHOON A-1 4520 - 4528'
Legal Location Sec. - Twp. - Rng. 31 21 S 25 W
Lease Name Well No. 2
Test No. 2
Tested Interval
County HODGEMAN
State KANSAS
HALLIBURTON OIL PRODUCING COMPANY
Lease Owner/Company Name

FLUID SAMPLE DATA				Date 3-13-79		Ticket Number 592103			
Sampler Pressure _____ P.S.I.G. at Surface				Kind of Job OPEN HOLE		Halliburton District NESS CITY			
Recovery: Cu. Ft. Gas _____				Tester MR. CLANTON		Witness MR. LEWELLYN			
cc. Oil _____				Drilling Contractor MERCKLE DRILLING COMPANY SM					
cc. Water _____				EQUIPMENT & HOLE DATA					
cc. Mud _____				Formation Tested Mississippi					
Tot. Liquid cc. _____				Elevation 2493' Kelly bushing Ft.					
Gravity _____ ° API @ _____ °F.				Net Productive Interval - Ft.					
Gas/Oil Ratio _____ cu. ft./bbl.				All Depths Measured From Kelly bushing					
RESISTIVITY _____ CHLORIDE CONTENT _____				Total Depth 4528' Ft.					
Recovery Water @ _____ °F. _____ ppm				Main Hole/Casing Size 7 7/8"					
Recovery Mud @ _____ °F. _____ ppm				Drill Collar Length - I.D.					
Recovery Mud Filtrate @ _____ °F. _____ ppm				Drill Pipe Length 4490' I.D. 3.826"					
Mud Pit Sample @ _____ °F. _____ ppm				Packer Depth(s) 4513-4519.5 Ft.					
Mud Pit Sample Filtrate @ _____ °F. _____ ppm				Depth Tester Valve 4500' Ft.					
Mud Weight 9.3 vis 44 sec									
TYPE		AMOUNT		Depth Back		Surface		Bottom	
Cushion				Ft. Pres. Valve		Choke .25"		Choke .75"	
Recovered		12		Feet of slightly oil cut mud					
Recovered				Feet of					
Recovered				Feet of					
Recovered				Feet of					
Recovered				Feet of					
Remarks		SEE PRODUCTION TEST DATA SHEET							
TEMPERATURE		Gauge No. 690		Gauge No. 228		Gauge No.		TIME	
Depth:		4505 Ft.		4524 Ft.		Depth: Ft.			
Est. 115 °F.		12 Hour Clock		12 Hour Clock		Hour Clock		Tool A.M.	
Blanked Off no		Blanked Off yes		Blanked Off				Opened 0910 P.M.	
Actual °F.		Pressures		Pressures		Pressures		Opened A.M.	
		Field Office		Field Office		Field Office		Bypass 1110 P.M.	
Initial Hydrostatic		2200.6		2186.3		2211.1		Reported Minutes	
Flow Initial		5.0		8.1		16.1		Computed Minutes	
Flow Final		8.1		10.2		18.2		30 32	
Closed in		1127.0		1126.3		1136.2		30 29	
Flow Initial		13.2		10.2		29.3		30 32	
Flow Final		10.9		10.2		22.2		30 27	
Closed in		173.7		162.0		192.3			
Flow Initial									
Flow Final									
Closed in									
Final Hydrostatic		2180.4		2174.4		2192.2			

Casing perms. _____ Bottom choke _____ Surf. temp. _____ °F Ticket No. 592103
 Gas gravity _____ Oil gravity _____ GOR _____
 Spec. gravity _____ Chlorides _____ ppm Res. _____ @ _____ °F

INDICATE TYPE AND SIZE OF GAS MEASURING DEVICE USED _____

Date Time	a.m. p.m.	Choke Size	Surface Pressure psi	Gas Rate MCF	Liquid Rate BPD	Remarks
0510						Called out, ready now
0610						On location, rig pulled drill pipe
0710						Picked up and made up tool
0730						Set tools in table
0735						Rig started drill pipe
0906						Tool on bottom
0910						Opened tool with a weak blow for
						approximately one minute then died.
						(Called Bob Lewellyn)
0940						Closed tool
1010						Reopened tool and flushed (at Mr.
						Lewellyns advise) tool with a weak
						blow. (Mr. Lewellyn advised short test.)
1040						Closed tool
1110						Tool off bottom
1300						Tool back thru table
1311						Tool laid down -read charts
1330						Job complete

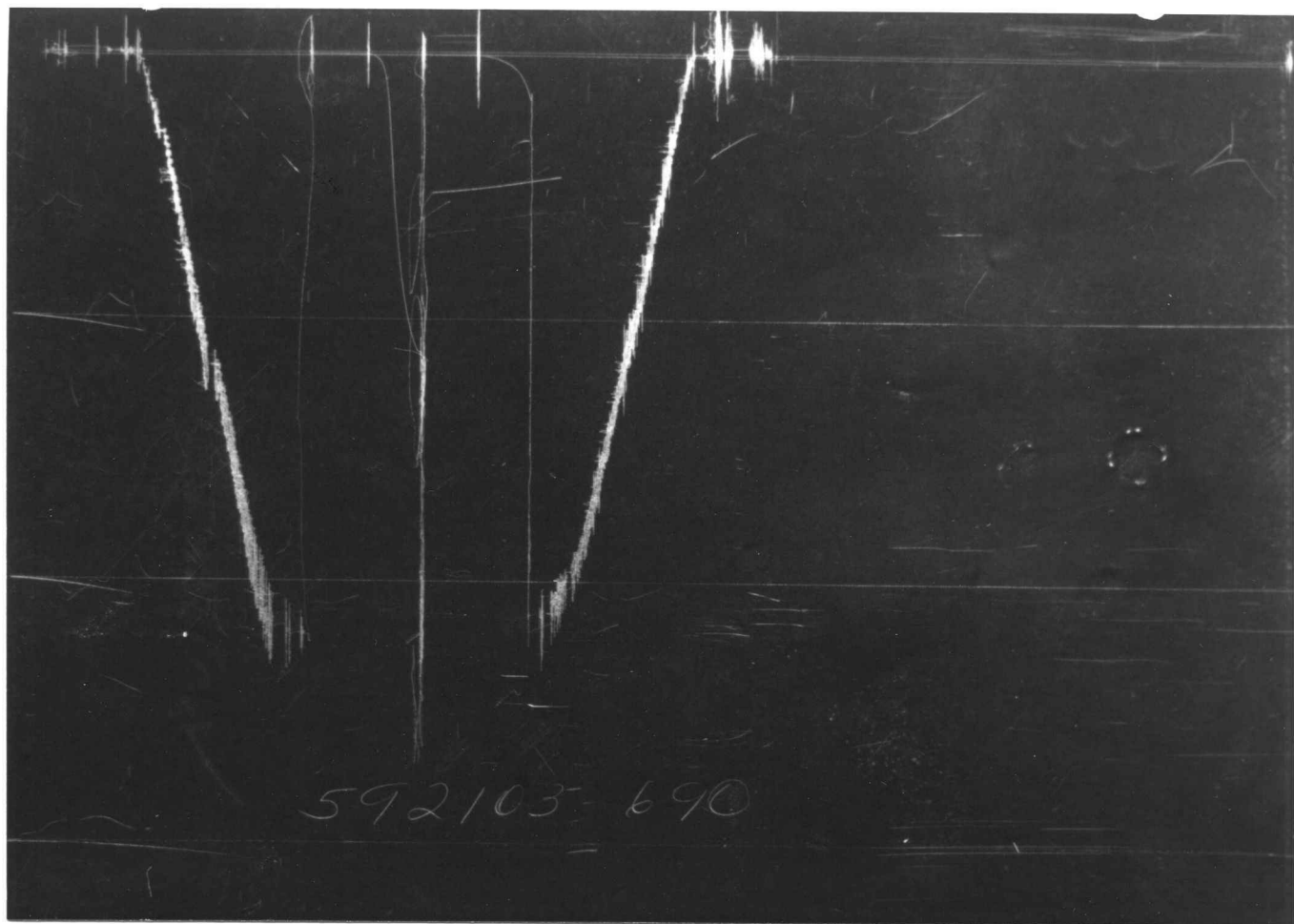
Gauge No. 690			Depth 4505'			Clock No. 17416			12 hour	Ticket No. 592103					
First Flow Period			First Closed In Pressure			Second Flow Period		Second Closed In Pressure			Third Flow Period		Third Closed In Pressure		
	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t + \theta}{\theta}$	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	.0000	5.0	.0000		8.1	.0000	13.2	.0000		10.1					
1	.2110	8.1	.0137*		10.1	.0040BB	11.1	.1960		173.7					
2			.0343		20.3	.0040EB	11.1								
3			.0549		49.7	.2100	10.1								
4			.0755		169.7										
5			.0961		510.1										
6			.1167		769.3										
7			.1373		932.4										
8			.1579		1039.3										
9			.1784		1106.8										
10			.1990		1127.0										
11															
12															
13															
14															
15															

Gauge No. 228			Depth 4524'			Clock No. 13853			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	16.1	.0000		18.2	.0000	29.3	.0000		22.2					
1	.2160	18.2	.0135*		23.2	.0050BB	23.2	.1830		193.3					
2			.0338		38.4	.0060EB	21.2								
3			.0541		73.8	.2220	22.2								
4			.0744		196.3										
5			.0946		517.0										
6			.1149		759.0										
7			.1352		938.0										
8			.1555		1044.1										
9			.1758		1115.2										
10			.1960		1136.2										
11															
12															
13															
14															
15															
Reading Interval			3												Minutes

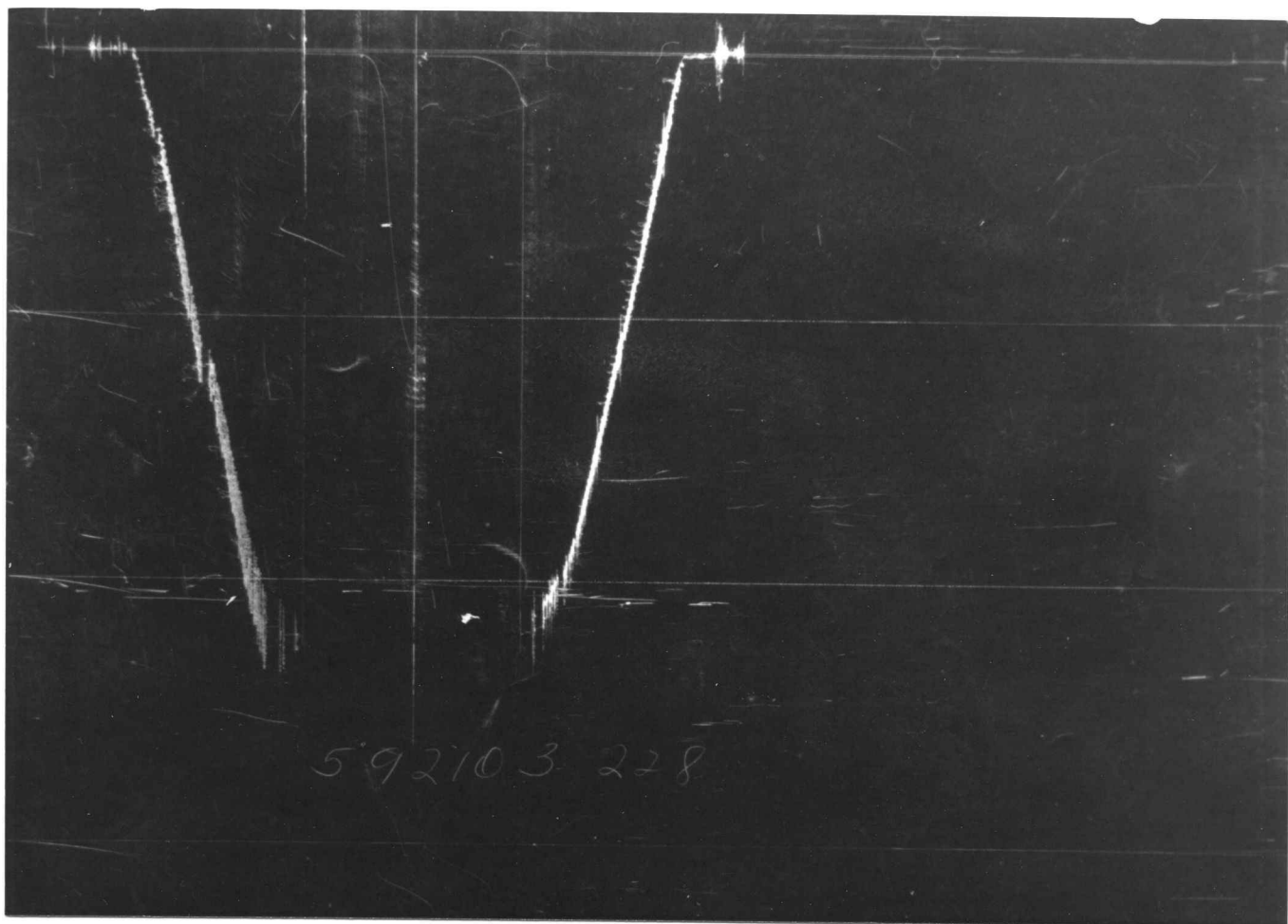
REMARKS: *First interval is equal to 2 minutes. BB = beginning of bypass EB = end of bypass

	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing	5.75 "	2.75"	1'	4432'
Reversing Sub				
Water Cushion Valve				
Drill Pipe	4.5"	3.826"	4490'	
Drill Collars				
Handling Sub & Choke Assembly				
Dual CIP Valve	5"	.87"	6'	4494'
Dual CIP Sampler				
Hydro-Spring Tester	5"	.75"	5'	4500'
Multiple CIP Sampler				
Extension Joint				
AP Running Case	5"	3.06"	4'	4505'
Hydraulic Jar				
VR Safety Joint				
Pressure Equalizing Crossover				
Packer Assembly	6.75"	1.53"	6'	4513'
Distributor				
Packer Assembly	6.75"	1.53"	6'	4519.5'
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"	3.84"	3'	
Blanked-Off B.T. Running Case	5"	2.75"	4'	4524'
Total Depth				4528'

PRESSURE



TIME



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

COHOON

Lease Name

A-1

Well No.

3

Test No.

4528' - 4578'

Tested Interval

HALLIBURTON OIL PRODUCING COMPANY

Lease Owner/Company Name

Legal Location
Sec. - Twp. - Rng.

31 - 21 S - 25 W

Field
Area

County

HODGEMAN

State

KANSAS

FLUID SAMPLE DATA				Date 3-14-79		Ticket Number 592104	
Sampler Pressure _____ P.S.I.G. at Surface				Kind of Job OPEN HOLE TEST		Halliburton District NESS CITY	
Recovery: Cu. Ft. Gas _____				Tester B.L. CLANTON		Witness B. LEWELLYN	
cc. Oil _____				Drilling Contractor MERCKLE DRILLING COMPANY pw			
cc. Water _____				EQUIPMENT & HOLE DATA			
cc. Mud _____				Formation Tested Mississippi			
Tot. Liquid cc. _____				Elevation 2493' K.B. Ft.			
Gravity _____ ° API @ _____ ° F.				Net Productive Interval _____ Ft.			
Gas/Oil Ratio _____ cu. ft./bbl.				All Depths Measured From Kelly Bushing			
RESISTIVITY _____ CHLORIDE CONTENT _____				Total Depth 4578' Ft.			
Recovery Water _____ @ _____ ° F. _____ ppm				Main Hole/Casing Size 7 7/8"			
Recovery Mud _____ @ _____ ° F. _____ ppm				Drill Collar Length _____ I.D. _____			
Recovery Mud Filtrate _____ @ _____ ° F. _____ ppm				Drill Pipe Length 4502' I.D. 3.826"			
Mud Pit Sample _____ @ _____ ° F. _____ ppm				Packer Depth(s) 4522' - 4528' Ft.			
Mud Pit Sample Filtrate _____ @ _____ ° F. _____ ppm				Depth Tester Valve 4509' Ft.			
Mud Weight 9.3 vis 41 sec							
Cushion		TYPE	AMOUNT	Depth Back Pres. Valve	Surface Choke	Bottom Choke	
				Ft.	.25"	.75"	
Recovered		12	Feet of mud.				
Recovered			Feet of				
Recovered			Feet of				
Recovered			Feet of				
Recovered			Feet of				
Remarks		- SEE PRODUCTION TEST DATA SHEET -					
TEMPERATURE		Gauge No. 690	Gauge No. 228	Gauge No.	TIME		
Depth: 4514 Ft.		Depth: 4574 Ft.	Depth:				
Est. _____ ° F.		12 Hour Clock	12 Hour Clock	Hour Clock		Tool Opened 425 A.M.	
Blanked Off No		Blanked Off Yes	Blanked Off		Opened 425 P.M.		
4573' @						Opened A.M.	
Actual 113 ° F.						Bypass 655 P.M.	
		Pressures		Pressures		Pressures	
		Field	Office	Field	Office	Field	Office
Initial Hydrostatic			2211.7	2246.1	2249.0		
First Period	Flow Initial		12.1	40.5	43.5		
	Flow Final		12.1	60.8	44.5		
	Closed in		926.4	954.0	964.0		
Second Period	Flow Initial		12.1	40.5	54.6		
	Flow Final		13.2	48.6	46.5		
	Closed in		850.8	866.0	885.0		
Third Period	Flow Initial						
	Flow Final						
	Closed in						
Final Hydrostatic			2194.5	2226.1	2229.0		

Casing perms. _____ Bottom choke _____ Surf. temp _____ °F Ticket No. 592104
Gas gravity _____ Oil gravity _____ GOR _____
Spec. gravity _____ Chlorides _____ ppm Res. _____ @ _____ °F
INDICATE TYPE AND SIZE OF GAS MEASURING DEVICE USED

INDICATE TYPE AND SIZE OF GAS MEASURING DEVICE USED.

[illegible]

Gauge No. 690			Depth 4514'			Clock No. 17416			12 hour		Ticket No. 592104				
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	12.1	.000		12.1	.000	12.1	.000		13.2					
1	.222	12.1	.0420		68.0*	.210	13.2	.0482		96.5**					
2			.0700		193.0			.0757		213.4					
3			.0980		330.2			.1033		330.2					
4			.1260		454.2			.1308		435.9					
5			.1540		562.5			.1583		527.2					
6			.1820		655.2			.1858		609.8					
7			.2100		735.8			.2134		683.4					
8			.2380		808.4			.2409		746.9					
9			.2660		872.9			.2684		801.4					
10			.2940		926.4			.2960		850.8					
11															
12															
13															
14															
15															

Gauge No.		228		Depth 4574'		Clock No.13853		12 hour						
0	.000	43.5	.000	44.5	.000	54.6	.000	46.5						
1	.2270	44.5	.0411	113.3*	.212	46.5	.0475	137.6**						
2			.0686	240.8			.0747	257.0						
3			.0960	376.5			.1019	374.4						
4			.1234	494.9			.1290	477.7						
5			.1509	601.0			.1562	568.0						
6			.1783	693.0			.1833	649.0						
7			.2057	773.0			.2105	718.0						
8			.2332	846.0			.2377	779.0						
9			.2606	908.0			.2648	836.0						
10			.2880	964.0			.2920	885.0						
11														
12														
13														
14														
15														
Reading Interval		4				4				Minute				

REMARKS: * = 6 minute interval; ** = 7 minute interval.

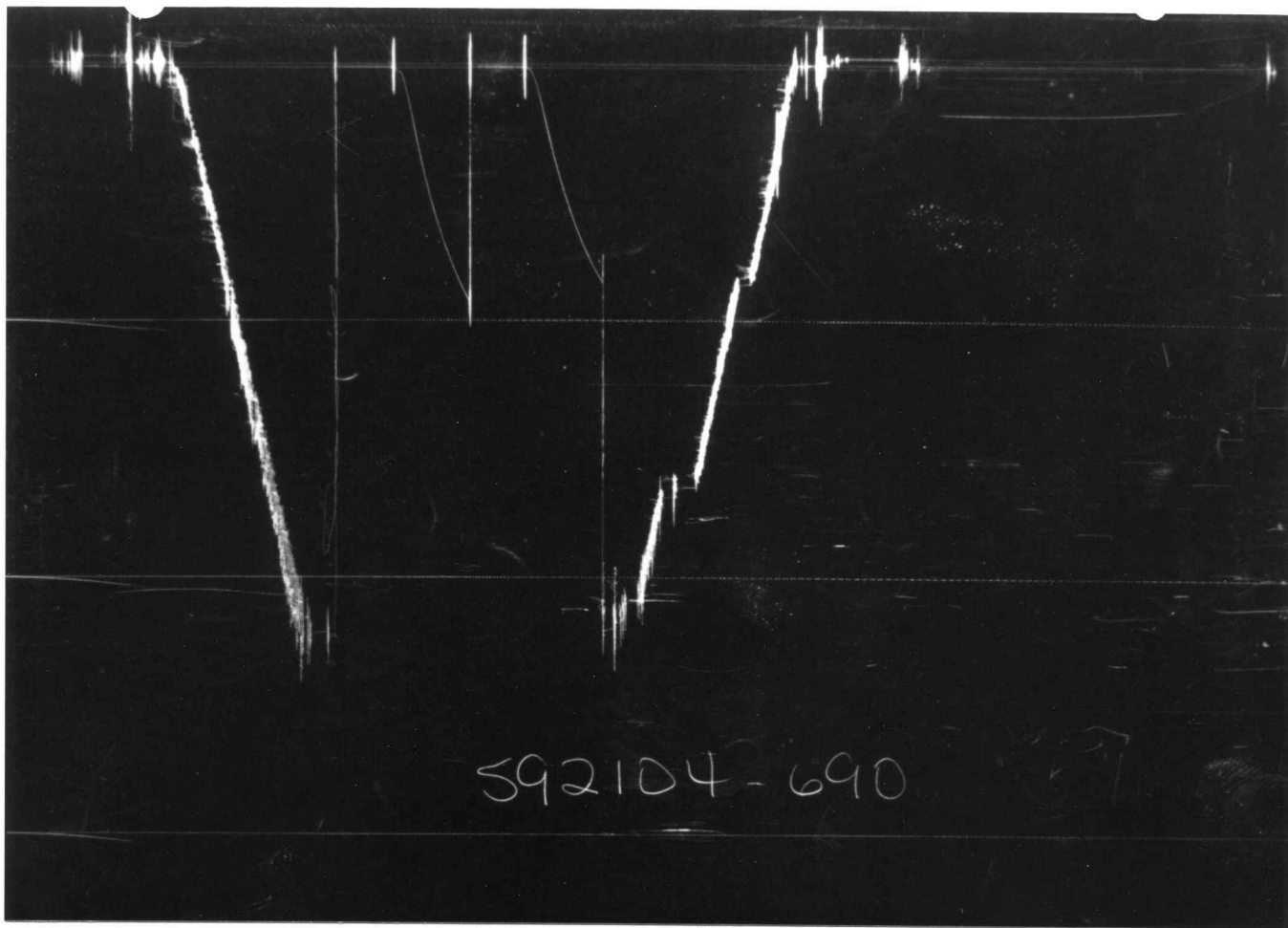
	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing	5.75"	2.75"	1.0'	4440'
Reversing Sub				
Water Cushion Valve	4.5"	3.826"	4502'	
Drill Pipe				
Drill Collars				
Handling Sub & Choke Assembly	5.0"	.87"	6.0'	4503'
Dual CIP Valve				
Dual CIP Sampler	5.0"	.75"	5.0'	4509'
Hydro-Spring Tester				
Multiple CIP Sampler				
Extension Joint				
AP Running Case	5.0"	3.06"	4.0'	4514'
Hydraulic Jar				
VR Safety Joint				
Pressure Equalizing Crossover				
Packer Assembly	6.75"	1.53"	6.0'	4522'
Distributor				
Packer Assembly	6.75"	1.53"	6.0'	4528'
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 D.P. In Anchor	4.5"	3.826"	30'	
Flush Joint Anchor	5.0"	3.84"	13'	
Temp. Case	5.0"	3.0"	1.5'	4573'
Blanked-Off B.T. Running Case	5.0"	2.75"	4.0'	4574'
Total Depth				4578'

TEMPERATURE
RECORDER
CHART

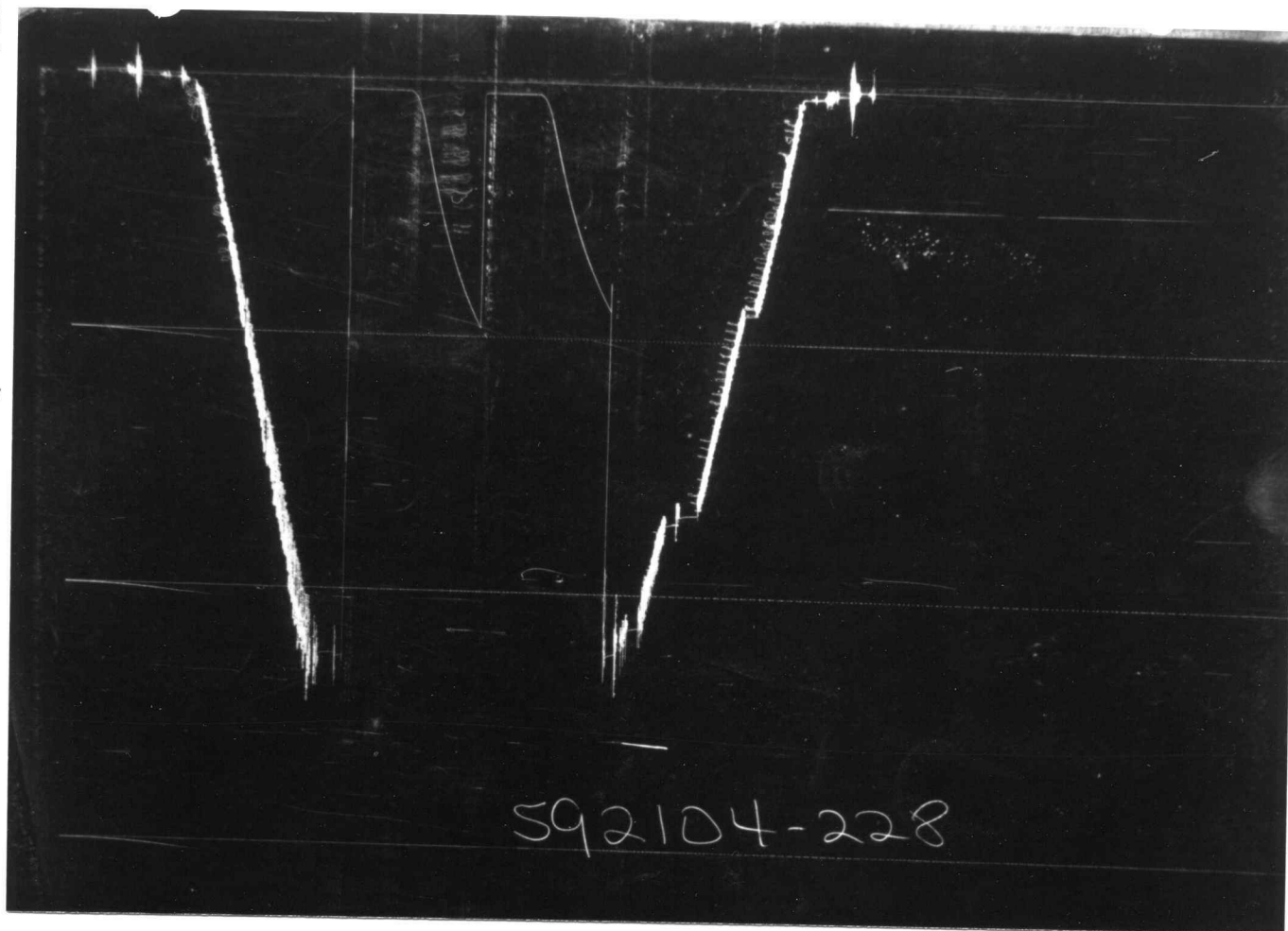


10° each circle

↑ PRESSURE ↓



TIME →



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