FLUID SAMPLER DATA

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.

	RESISTIVITY	CHLORIDE CONTENT
Recovery Water	_____ @ _____ °F.	_____ ppm
Recovery Mud	_____ @ _____ °F.	
Recovery Mud Filtrate	_____ @ _____ °F.	_____ ppm
Mud Pit Sample	_____ @ _____ °F.	
Mud Pit Sample Filtrate	_____ @ _____ °F.	_____ ppm
Mud Weight	10.4 vis 44	cp

Date 6-29-69 Ticket Number 066497
Kind of Job OPEN HOLE Halliburton District HAYS
Tester MR. WALHMEIER Witness MR. MORGAN
Drilling Contractor RED TIGER DRILLING COMPANY IC S

EQUIPMENT & HOLE DATA

Formation Tested Arbuckle
Elevation 2112' K.B. Ft.
Net Productive Interval 6' Ft.
All Depths Measured From Kelly Bushings
Total Depth 3615' Ft.
Main Hole/Casing Size 7 7/8"
Drill Collar Length 1233' I.D. 2.76"
Drill Pipe Length WP 2328' I.D. 3.82"
Packer Depth(s) 3575' - 3580' Ft.
Depth Tester Valve 3570' Ft.

Cushion TYPE - AMOUNT - Ft. Depth Back Pres. Valve - Surface Choke 1/4" Bottom Choke 3/4"

Recovered 5 Feet of Drilling mud
Recovered Feet of
Recovered Feet of
Recovered Feet of
Recovered Feet of

Mea. From Tester Valve

Remarks Opened tool for 5 minute first flow with a very weak blow. Closed tool for 58 minute initial closed in pressure. Reopened tool for 34 minute second flow with no blow; flushed tool and reopened with no blow; flushed tool again and reopened with no blow. Closed tool for 58 minute second closed in pressure.

TEMPERATURE	Gauge No. 738		Gauge No. 272		Gauge No.		TIME	
	Depth: 3584' Ft.		Depth: 3612' Ft.		Depth: Ft.			
	12 Hour Clock		12 Hour Clock		Hour Clock		Tool Opened 7:00 P.M.	
Est. °F.	Blanked Off NO		Blanked Off YES		Blanked Off			
3611' @ Actual 106 °F.	Pressures		Pressures		Pressures		Tool Closed 9:45 P.M.	
	Field	Office	Field	Office	Field	Office	Reported Minutes	Computed Minutes
Initial Hydrostatic	-	2002	2053	2018				
First Period Flow Initial	-	19	36	38			———	———
First Period Flow Final	-	21	37	41			5	5
First Period Closed in	-	367	369	386			60	58
Second Period Flow Initial	-	27	39	46			———	———
Second Period Flow Final	-	30	37	45			30	34
Second Period Closed in	-	147	160	162			60	58
Third Period Flow Initial							———	———
Third Period Flow Final								
Third Period Closed in								
Final Hydrostatic	-	1985	2017	1998			———	———

Legal Location Sec. - Twp. - Rng. 29 - 11 - 17
Lease Name HADLEY
Well No. B-9
Test No. 4
Field Area BEMIS - SCHUTTS
Tested Interval 3580' - 3615'
County ELLIS
State KANSAS
Lease Owner/Company Name CHAMPLIN PETROLEUM COMPANY

Gauge No.	738	Depth	3584'	Clock No.	3227	12 hour	Ticket No.	066497

	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	19	.000		21	.000	27	.000		30					
1	.031	21	.0416		74	.231	30	.0413		49					
2			.0832		125			.0826		64					
3			.1248		168			.1238		76					
4			.1663		211			.1651		88					
5			.2079		247			.2064		99					
6			.2495		279			.2477		110					
7			.2911		306			.2889		120					
8			.3327		332			.3302		131					
9			.3743		356			.3715		141					
10			.4020		367*			.3990		147*					
11															
12															
13															
14															
15															

Gauge No.	272	Depth	3612'	Clock No.	2800	12 hour

0	.000	38	.000		41	.000	46	.000		45					
1	.036	41	.0414		94	.235	45	.0413		65					
2			.0828		143			.0826		79					
3			.1243		190			.1238		92					
4			.1657		230			.1651		103					
5			.2071		265			.2064		114					
6			.2485		296			.2477		126					
7			.2899		324			.2889		135					
8			.3314		349			.3302		146					
9			.3728		372			.3715		157					
10			.4010		386*			.3990		162*					
11															
12															
13															
14															
15															
Reading Interval			6					6							Minutes

REMARKS: *Last interval equal to 4 minutes.

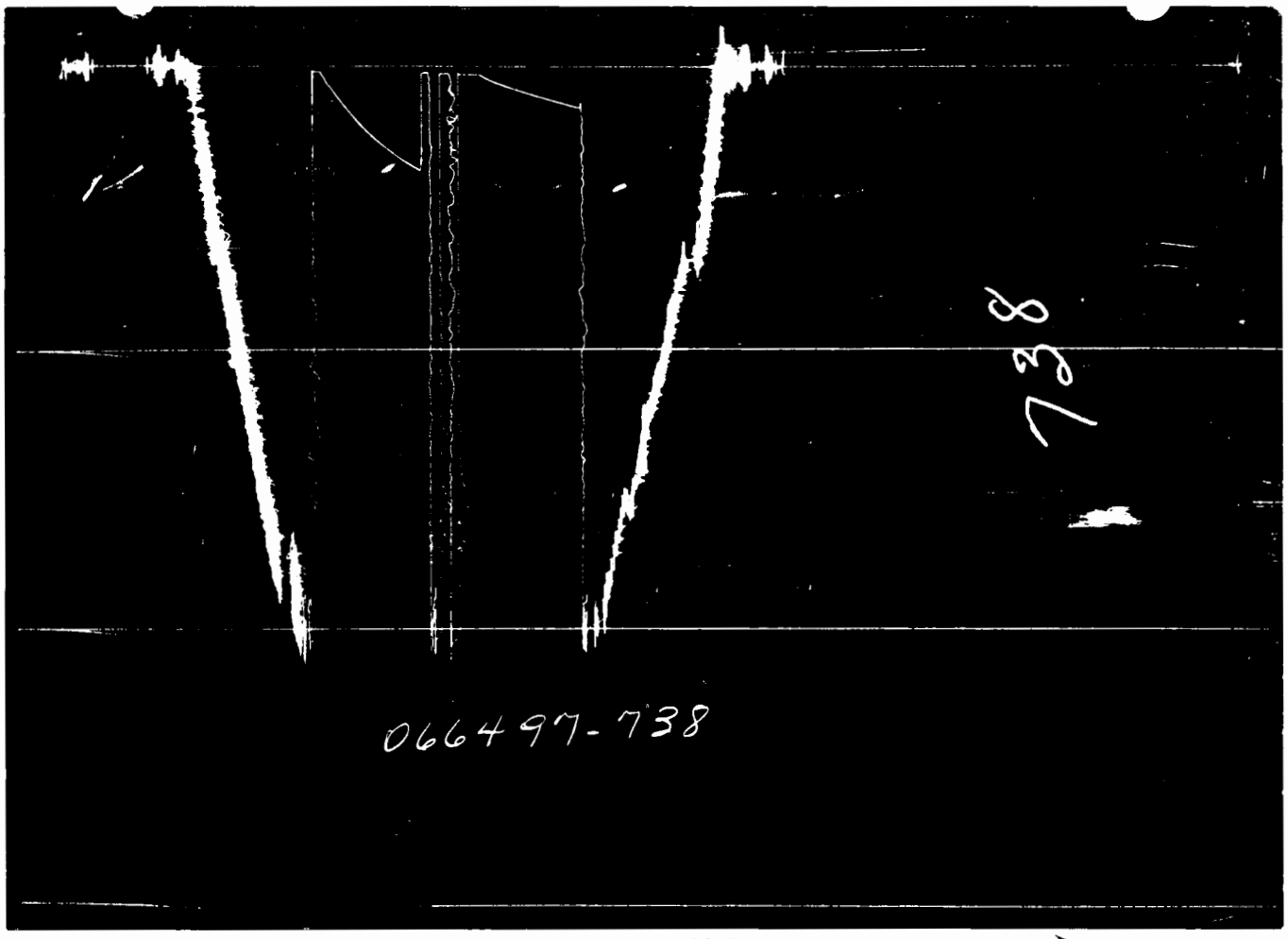
SPECIAL PRESSURE DATA

LITTLE'S 83428 10M 4/69—13, 14-13

066497

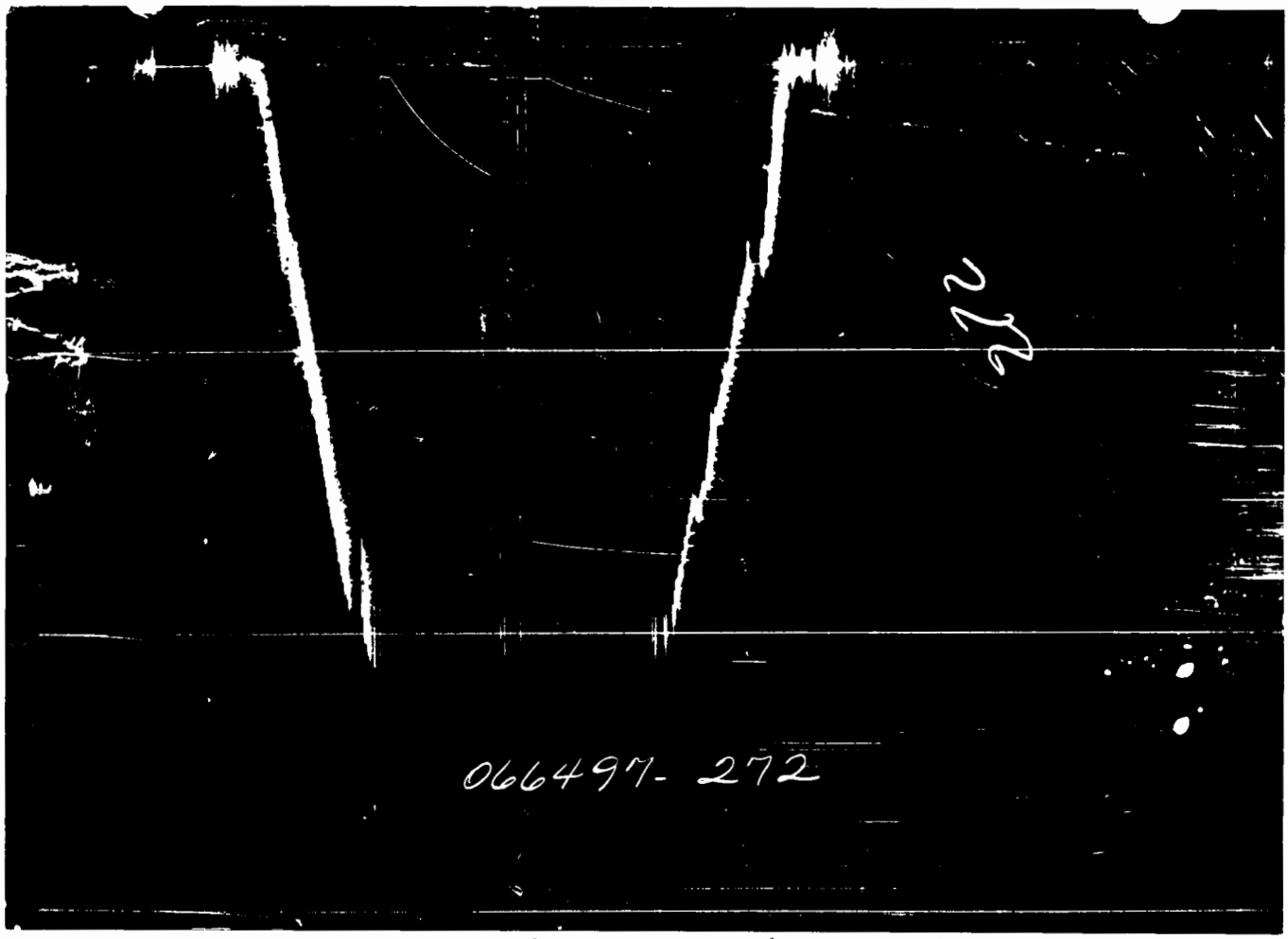


	O. D.	I. D.	LENGTH	DEPTH
Reversing Sub	5"	3.82"	1'	128 ABOVE
Water Cushion Valve				CIP VALVE
Drill Pipe	4 1/2"	3.82"	2328'	
~~Drill Collars~~ W.P.	4 1/2"	2.76"	1233'	
Handling Sub & Choke Assembly				
Dual CIP Valve	5"	3/4"	5'	
Dual CIP Sampler				
Hydro-Spring Tester	5"	3/4"	5'	3570'
Multiple CIP Sampler				
Extension Joint				
AP Running Case	5"	3.82"	4'	3584'
Hydraulic Jar				
VR Safety Joint				
Pressure Equalizing Crossover				
Packer Assembly	6 3/4"	1.68"	5'	3575'
Distributor				
Packer Assembly	6 3/4"	1.68"	5'	3580'
Flush Joint Anchor	5"	3.82"	35'	
Pressure Equalizing Tube				
Blanked-Off B.T. Running Case	5"		3'	3612'
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				

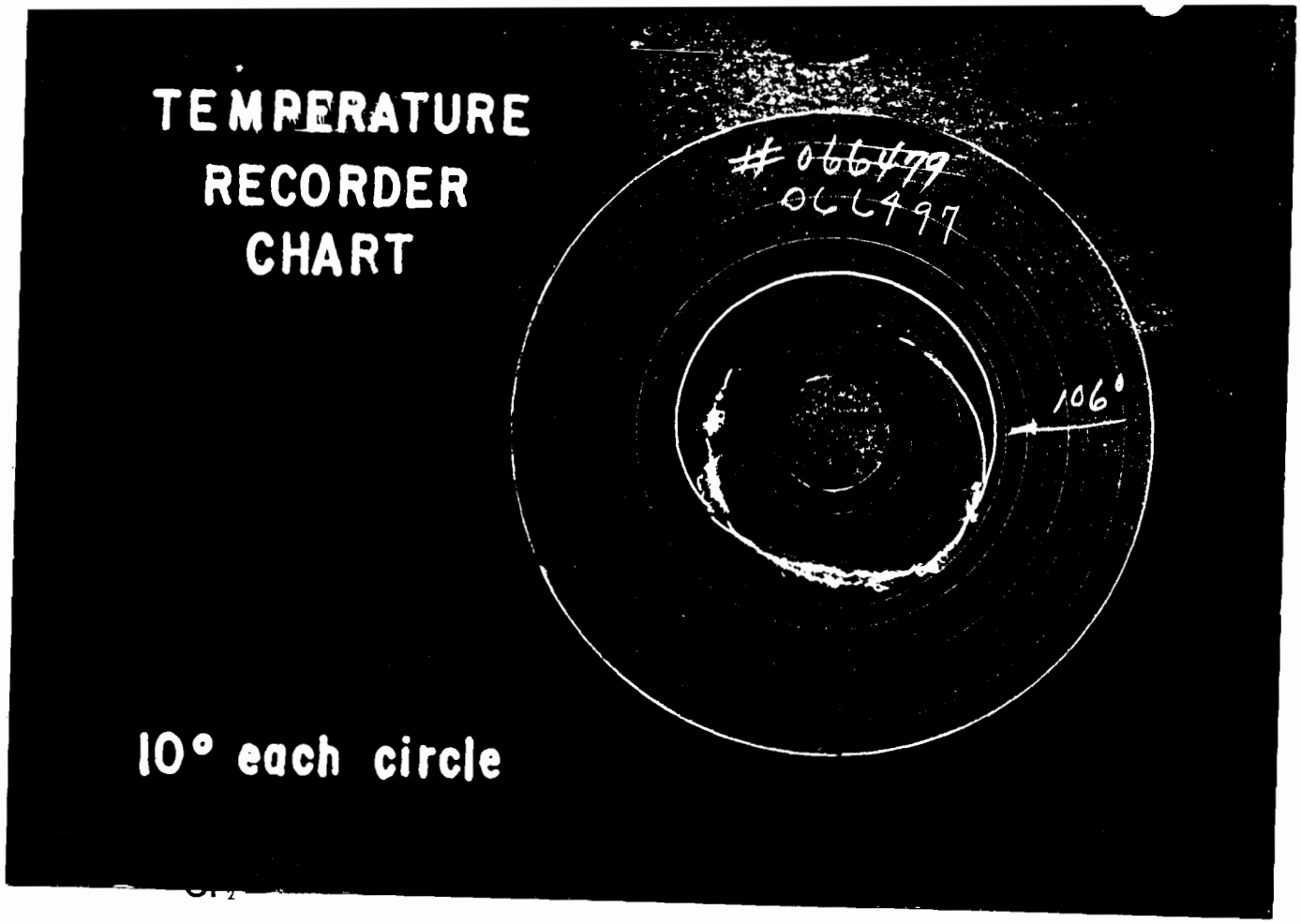


PRESSURE

TIME



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



OF_3 = Theoretical Open Flow Potential with/Damage Removed Max. . . . . MCF/D

OF_4 = Theoretical Open Flow Potential with/Damage Removed Min. . . . . MCF/D

P_s = Extrapolated Static Pressure . . . . . Psig.

P_F = Final Flow Pressure . . . . . Psig.

P_{ot} = Potentiometric Surface (Fresh Water *) . . . . . Feet

Q = Average Adjusted Production Rate During Test . . . . . bbls/day

Q_1 = 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.