

ROBERTS
 Lease Name
 Well No. 1
 Test No. 3
 2633 - 2690'
 MALLONEE - MAHONEY INCORPORATED
 Lease Owner/Company Name

Legal Location Sec. - Twp. - Rng. 15 - 27 12
 Field Area Mea. From Tester Valve
 County PRATT
 State KANSAS

FLUID SAMPLE DATA		Date	5-2-77	Ticket Number	207321
Sampler Pressure _____ P.S.I.G. at Surface	Recovery: Cu. Ft. Gas _____	Kind of Job	OPEN HOLE	Halliburton District	PRATT
cc. Oil _____	cc. Water _____	Tester	LLOYD PARKER	Witness	K. HOLKE
cc. Mud _____	Tot. Liquid cc. _____	Drilling Contractor	GABBERT & JONES DRILLING COMPANY sm		
Gravity _____ ° API @ _____ ° F.	Gas/Oil Ratio _____ cu. ft./bbl.	EQUIPMENT & HOLE DATA			
RESISTIVITY _____	CHLORIDE CONTENT _____	Formation Tested	Indian Cave		
Recovery Water _____ @ _____ ° F. _____ ppm	Recovery Mud _____ @ _____ ° F. _____ ppm	Elevation	1830'	Ft.	
Recovery Mud Filtrate _____ @ _____ ° F. _____ ppm	Mud Pit Sample _____ @ _____ ° F. _____ ppm	Net Productive Interval	50'	Ft.	
Mud Pit Sample Filtrate _____ @ _____ ° F. _____ ppm	Mud Weight 9.7 vis 50 sec	All Depths Measured From	Kelly bushing		
		Total Depth	2690'	Ft.	
		Main Hole/Casing Size	7 7/8"		
		Drill Collar Length	156'	I.D. 2.25"	
		Drill Pipe Length	2439'	I.D. 3.826"	
		Packer Depth(s)	2627-2633' Ft.		
		Depth Tester Valve	2610' Ft.		

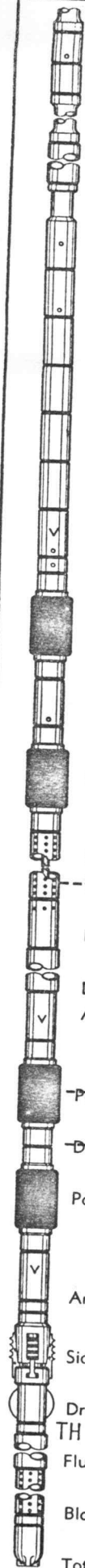
TYPE	AMOUNT	Depth Back Pres. Valve	Surface Choke	Bottom Choke
Cushion			1/4"	3/4"
Recovered	245	Feet of muddy salt water		
Recovered		Feet of		
Recovered		Feet of		
Recovered		Feet of		
Recovered		Feet of		
Remarks	SEE PRODUCTION TEST DATA SHEET			

TEMPERATURE	Gauge No. 698	Gauge No. 697	Gauge No.	TIME
	Depth: 2612 Ft.	Depth: 2687 Ft.	Depth: _____ Ft.	
	12 Hour Clock	12 Hour Clock	Hour Clock	Tool _____ A.M.
Est. _____ ° F.	Blanked Off no	Blanked Off yes	Blanked Off	Opened 11:15 P.M.
Actual 2685				Opened _____ A.M.
106° F.	Pressures	Pressures	Pressures	Bypass 2:45 P.M.

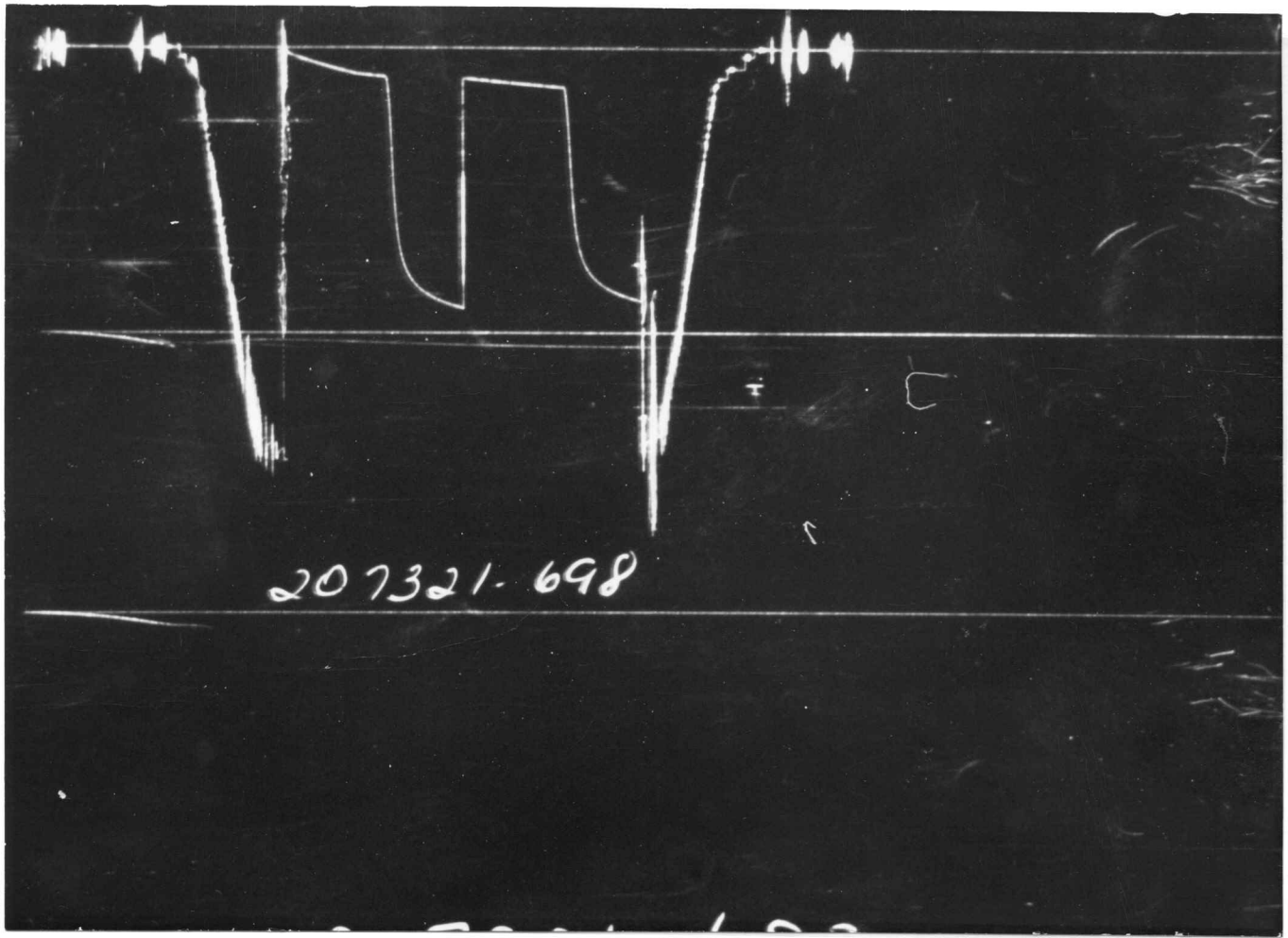
		Field		Office		Reported Minutes	Computed Minutes
		Field	Office	Field	Office		
Initial Hydrostatic			1394	1455	1456		
First Period	Flow Initial		12	60	61		
	Flow Final		102	140	141	60	60
	Closed in		915	951	958	45	45
Second Period	Flow Initial		109	140	153		
	Flow Final		139	170	178	60	60
	Closed in		890	941	933	45	45
Third Period	Flow Initial						
	Flow Final						
	Closed in						
Final Hydrostatic			1386	1445	1430		

Gauge No.		698		Depth		2612'		Clock No.		14285		12 hour		Ticket No.		207321	
First Flow Period		Closed In Pressure		Second Flow Period		Closed In Pressure		Second Flow Period		Closed In Pressure		Third Flow Period		Closed In Pressure		Third Flow Period	
Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	$\text{Log} \frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	$\text{Log} \frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	$\text{Log} \frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	$\text{Log} \frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	$\text{Log} \frac{t+\theta}{\theta}$	PSIG Temp. Corr.	
0	.0000	12		102	.0000		109	.0000		139	.0000		139	.0000			
1	.0673	34		326	.0660		113	.0203		361	.0203		361	.0203			
2	.1347	54		614	.1320		118	.0405		609	.0405		609	.0405			
3	.2020	72		731	.1980		123	.0608		713	.0608		713	.0608			
4	.2693	86		784	.2640		129	.0811		765	.0811		765	.0811			
5	.3367	95		815	.3300		134	.1014		795	.1014		795	.1014			
6	.4040	102		837	.3960		139	.1216		815	.1216		815	.1216			
7				854				.1419		830	.1419		830	.1419			
8				866				.1622		844	.1622		844	.1622			
9				876				.1824		853	.1824		853	.1824			
10				885				.2027		861	.2027		861	.2027			
11				893				.2230		869	.2230		869	.2230			
12				900				.2432		875	.2432		875	.2432			
13				905				.2635		882	.2635		882	.2635			
14				910				.2838		886	.2838		886	.2838			
15				915				.3040		890	.3040		890	.3040			

Gauge No.		697		Depth		2687'		Clock No.		3004 X		12 hour		Minutes		
First Flow Period		Closed In Pressure		Second Flow Period		Closed In Pressure		Second Flow Period		Closed In Pressure		Third Flow Period		Closed In Pressure		
Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	$\text{Log} \frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	$\text{Log} \frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	$\text{Log} \frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	$\text{Log} \frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	$\text{Log} \frac{t+\theta}{\theta}$	
0	.0000	61		141	.0000		153	.0000		178	.0000		178	.0000		
1	.0673	77		379	.0663		153	.0203		403	.0203		403	.0203		
2	.1347	95		675	.1327		159	.0405		660	.0405		660	.0405		
3	.2020	111		781	.1990		164	.0608		763	.0608		763	.0608		
4	.2693	127		830	.2653		169	.0811		809	.0811		809	.0811		
5	.3367	135		861	.3317		174	.1014		837	.1014		837	.1014		
6	.4040	141		882	.3980		178	.1216		858	.1216		858	.1216		
7				897				.1419		873	.1419		873	.1419		
8				911				.1622		886	.1622		886	.1622		
9				920				.1824		896	.1824		896	.1824		
10				929				.2027		904	.2027		904	.2027		
11				936				.2230		912	.2230		912	.2230		
12				943				.2432		918	.2432		918	.2432		
13				947				.2635		923	.2635		923	.2635		
14				953				.2838		929	.2838		929	.2838		
15				958				.3040		933	.3040		933	.3040		
Reading Interval		10														
REMARKS:																

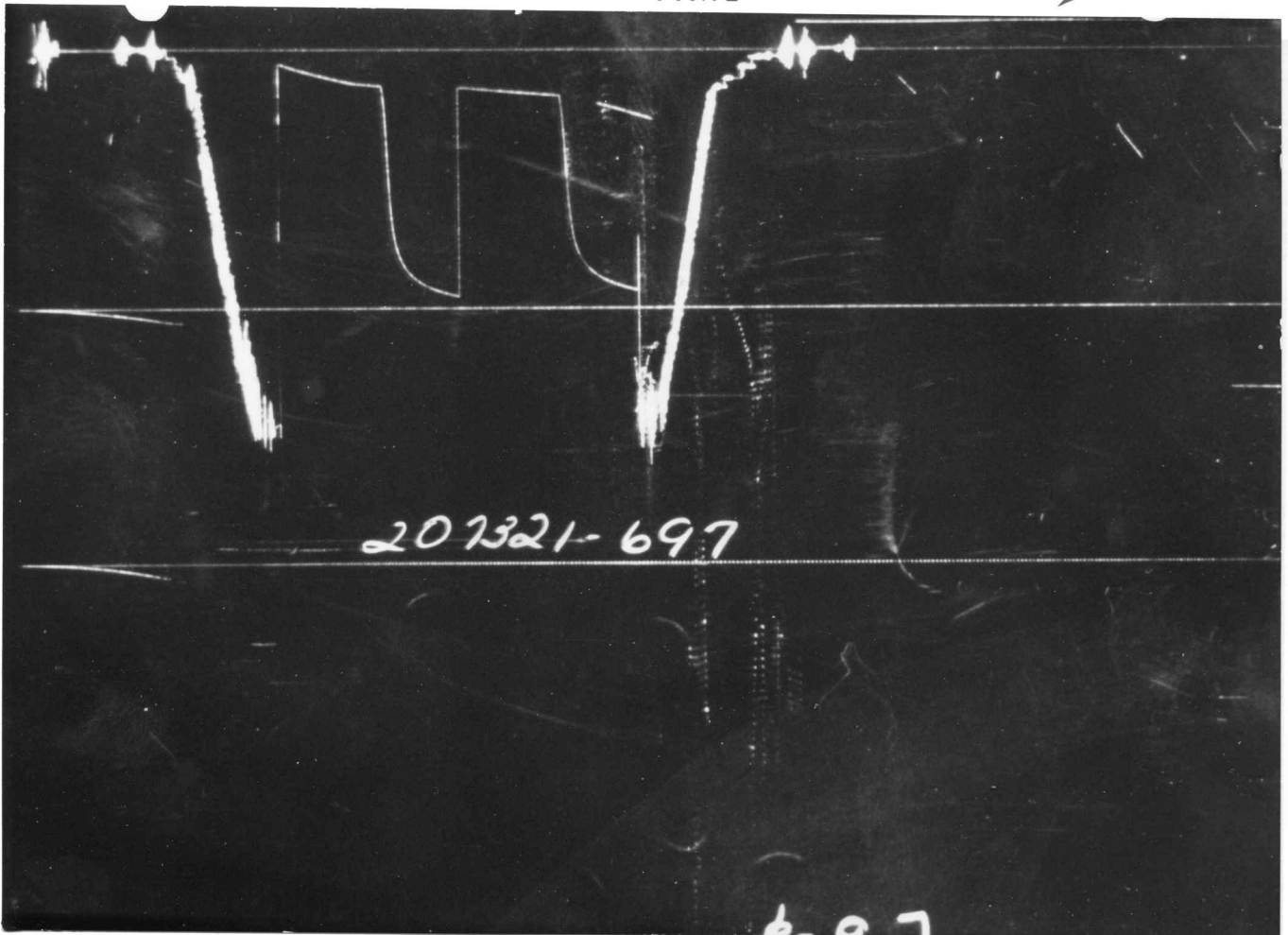


	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing				
Reversing Sub	5 3/4"	2 3/4"	1	
Water Cushion Valve				
Drill Pipe	4 1/2"	3.826"	2439'	
Drill Collars	6"	2.25"	156'	
Handling Sub & Choke Assembly	5 3/4"	3 3/4"	5'	
Dual CIP Valve	5"	.87"	5'	2605'
Dual CIP Sampler				
Hydro-Spring Tester	5"	.75"	5'	2610'
Multiple CIP Sampler				
Extension Joint				
AP Running Case	5"	3.06"	4'	2612'
Hydraulic Jar	5"	1.75"	5'	
VR Safety Joint	5"	1"	3'	
Pressure Equalizing Crossover				
Packer Assembly	6 3/4"	1.53"	6'	2627'
Distributor				
Packer Assembly	6 3/4"	1.53"	6'	2633'
Flush Joint Anchor	5"	2.37"	16'	
Pressure Equalizing Tub	5"	2.25"	1'	
Change over sub				
Blanked-Off B.T. Running Case				
Drill Collars	6"	2.25"	30'	
Anchor Pipe Safety Joint				
Packer Assembly Double pin. sub.	5 3/4"	2.25"	1'	
Distributor Change over sub	5"	2.25"	1'	
Packer Assembly				
Anchor Pipe Safety Joint				
Side Wall Anchor				
Drill Collars				
TH 500 temp recorder	5"	2.44"	2'	2685'
Flush Joint Anchor				
Blanked-Off B.T. Running Case	5"	2.44"	4'	2687'
Total Depth				2690'



PRESSURE

TIME



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

TEMPERATURE RECORDER CHART



10° each circle

- OF₄ = 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
- 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.