

Flow Time	1st 6 Min.	2nd 60 Min.	Date	1-8-62	Ticket Number	336509
Closed In Press. Time	1st 30 Min.	2nd 30 Min.	Kind of Job	Open hole test	Halliburton District	Gt. Bend
Pressure Readings	Field	Office Corrected	Tester	Larry Moore	Witness	Steve Powell
Depth Top Gauge	3375 Ft.	No Blanked Off	Drilling Contractor	TOM-KAT INC.		
BT. P.R.D. No.	206	12 Hour Clock	Elevation	1687 K.B.	Top Packer	None
Initial Hydro Mud Pressure		1773	Total Depth	3393	Bottom Packer	3379
Initial Closed in Pres.		1197	Interval Tested	3379- 3393'	Formation Tested	Simpson
Initial Flow Pres.	1 16		Casing or Hole Size	7 7/8"	Casing { Top -	
	2 56				Perfs. { Bot. -	
Final Flow Pres.	1 49		Surface Choke	1"	Bottom Choke	5/8"
	2 184					
Final Closed in Pres.		1004	Size & Kind Drill Pipe	4 1/2" F.H.	Drill Collars Above Tester	I.D. - LENGTH
Final Hydro Mud Pressure		1756	Mud Weight	10.1	Mud Viscosity	40
Depth Cen. Gauge		Blanked Off	Temperature	100 °F Est.	Anchor Size & Length	ID 2 1/4" X 14'
				°F Actual		OD 4 1/2"
BT. P.R.D. No.		Hour Clock	Depths Mea. From	Kelly Bushing	Depth of Tester Valve	3360 Ft.
Initial Hydro Mud Pres.			TYPE	None	Depth Back Pres. Valve	
			AMOUNT			
Initial Closed in Pres.			Cushion			
Initial Flow Pres.	1		Recovered	418 Feet of	Free oil.	
	2		Recovered	55 Feet of	Gassy Muddy Oil.	
Final Flow Pres.	1		Recovered			
	2		Recovered			
Final Closed in Pres.			Recovered			
Final Hydro Mud Pres.			Oil A.P.I. Gravity	44 @ 48°	Water Spec. Gravity	
Depth Bot. Gauge	3393 Ft.	Yes Blanked Off	Gas Gravity		Surface Pressure	psi
BT. P.R.D. No.	375	12 Hour Clock	Tool Opened	9:54 AM A.M.	Tool Closed	11:30 AM A.M.
Initial Hydro Mud Pres.		1781	Remarks	Formation O. H. Test, 3379- 3393. Tool open		
Initial Closed in Pres.		1204		with good blow, tool closed at 10:00 AM, open 10:30		
Initial Flow Pres.	1 31			with good blow, throughout test. 732' gas show		
	2 76			from D. P.		
Final Flow Pres.	1 53					
	2 187					
Final Closed in Pres.		1008				
Final Hydro Mud Pres.		1755				

FORMATION TEST DATA

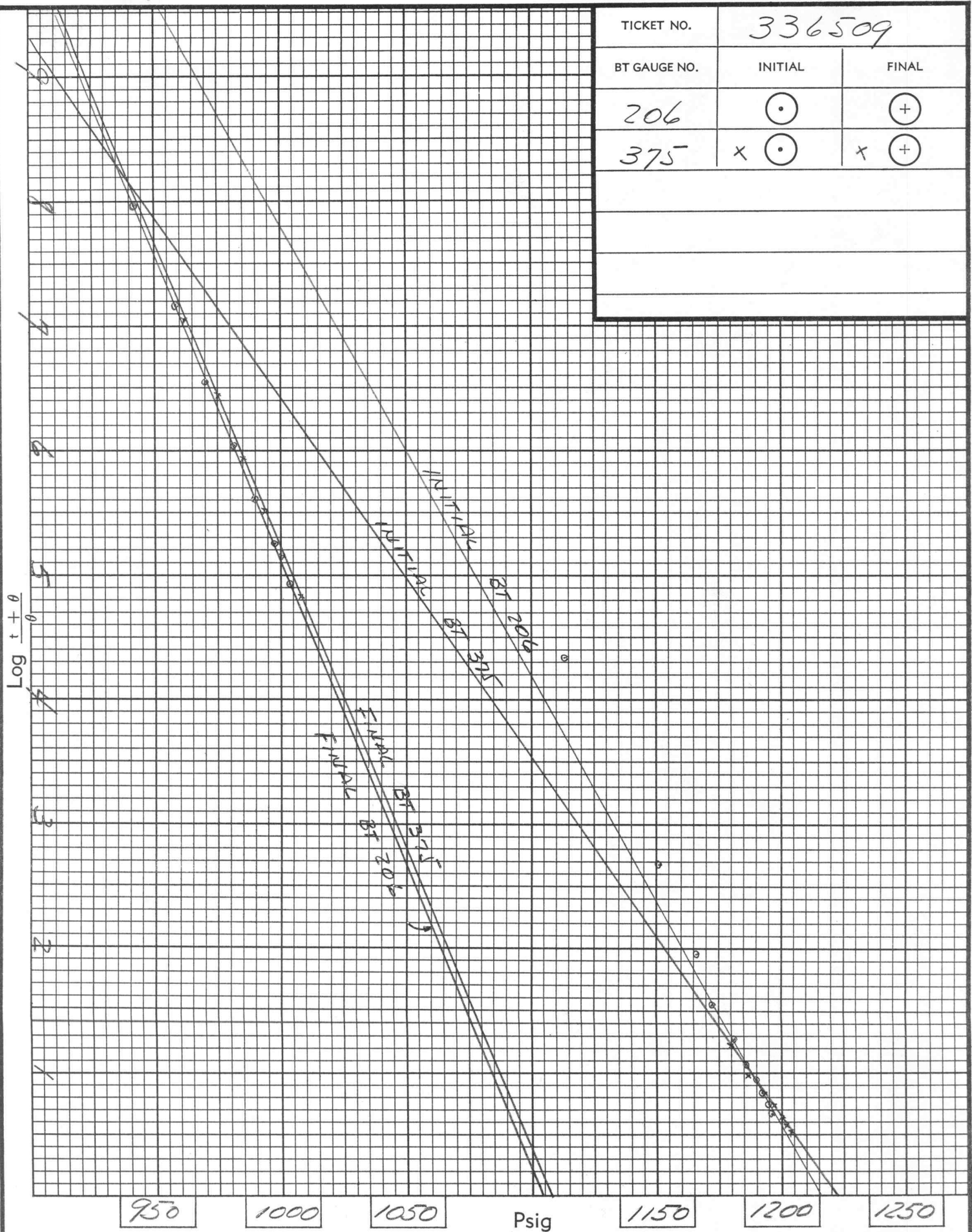
SCHOEPFELIN
 Lease Name
 17-21-9
 Well No.
 DST #1
 TOM PALMER
 Lease Owner/Company Name
 WILDCAT
 County
 RICE
 State
 KANSAS
 Owner's District
 17-2

Gauge No. 206			Depth 3375'			Clock 12 hour		Ticket No. 336509		
First Flow Period			Initial Closed In Pressure			Second Flow Period		Final Closed In Pressure		
	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t+\phi}{\phi}$	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t+\phi}{\phi}$	PSIG Temp. Corr.
P ₀	.000	16	.000	---	49	.000	56	.000	---	184
P ₁	.0062	18	.0216	.433	1114	.1013	99	.0209	1.35	831
P ₂	.0124	26	.0432	.269	1151	.2026	127	.0418	1.06	888
P ₃	.0186	33	.0648	.196	1166	.3039	157	.0628	.906	919
P ₄	.0248	38	.0864	.155	1173	.405	184	.0836	.798	942
P ₅	.0310	45	.1080	.128	1181			.1045	.718	958
P ₆	.037	49	.1296	.109	1186			.1254	.656	970
P ₇			.1512	.095	1190			.1463	.604	981
P ₈			.1728	.084	1193			.1672	.562	990
P ₉			.1944	.076	1195			.1881	.525	998
P ₁₀			.216	.069	1197			.209	.493	1004

Gauge No. 375			Depth 3393'			Clock 12 hour				
P ₀	.000	31	.000	---	53	.000	76	.000	---	187
P ₁	.0047	34	.0217	.359	1118	.1005	104	.021	1.33	835
P ₂	.0094	36	.0434	.216	1157	.2010	132	.042	1.05	893
P ₃	.0141	40	.0651	.155	1172	.3015	161	.063	.894	924
P ₄	.0188	44	.0868	.121	1180	.402	187	.084	.787	945
P ₅	.0235	49	.1085	.100	1187			.105	.707	962
P ₆	.028	53	.1302	.085	1193			.126	.645	975
P ₇			.1519	.073	1197			.147	.594	985
P ₈			.1736	.065	1200			.168	.551	994
P ₉			.1953	.058	1202			.189	.515	1001
P ₁₀			.217	.053	1204			.210	.484	1008
Reading Interval		1			3	15				3
										Minutes
REMARKS:										

SPECIAL PRESSURE DATA

TICKET NO.	336509	
BT GAUGE NO.	INITIAL	FINAL
206	⊙	⊕
375	x ⊙	x ⊕



EXTRAPOLATED PRESSURE GRAPH

Liquid Production

B.T. Gauge Numbers		206	375	Ticket Number		336509
Initial Hydrostatic		PRESSURE 1773	PRESSURE 1781	Elevation		1687 ft.
Final Hydrostatic		1756	1755	Indicated Production		1st Flow 38.0 bbls. day
1st Flow	Initial	Time -----	16	31	Total Flow	53.3 bbls. day
	Final	6	49	53		
Initial Closed In Pressure		30	1197	1204	Drill Collar Length 153 ft.	
Initial		-----	56	76	Drill Collar I.D. 2.25 in.	
2nd Flow	Initial	-----	56	76	Drill Pipe Factor .0142 bbls. ft.	
	Final	60	184	187	Hole Size 7.875 in.	
Final Closed In Pressure		30	1004	1008	Footage Tested 14 ft.	
Extrapolated Static Pressure		Initial	1216	1223	Mud Weight 10.1 lbs. gal.	
		Final	1106	1110	Viscosity, Oil or Water 2.1 cp	
Slope psi/cycle P10		Initial	938	853	Oil API Gravity 45 —	
		Final	895	898	Water Specific Gravity —	

Remarks:

SUMMARY

Gauge No. 206
Depth 3375

Gauge No. 375
Depth 3393

Product	Equation	Initial	Final	Initial	Final	Units
Production	$Q = \frac{1440 R}{t}$	38.0	55.6	38.0	53.3	bbls. day
Transmissability	$\frac{Kh}{\mu} = \frac{162.6 Q}{m}$	22.2	42.8	16.7	40.9	md. ft. cp
Indicated Flow Capacity	$Kh = \frac{Kh}{\mu} \mu$	46.6	90.0	35.0	85.8	md. ft.
Average Effective Permeability	$K = \frac{Kh}{h}$	3.33	6.43	2.50	6.13	md.
	$K_r = \frac{Kh}{h_r}$					md.
Damage Ratio	$DR = .183 \frac{P_s - P_f}{m}$	0.77	0.80	0.58	0.80	—
Theoretical Potential w/Damage Removed	$Q_1 = Q DR$	37.9	55.6	37.9	53.3	bbls. day
Approx. Radius of Investigation	$b \approx \sqrt{Kt}$ or $\sqrt{Kt_0}$	4.47	20.6	3.87	20.1	ft.
	$b_1 \approx \sqrt{K_1 t}$ or $\sqrt{K_1 t_0}$					ft.
Potentiometric Surface *	$Pot. = EI - GD + 2.319 P_s$	1131.9	876.8	1130.1	868.1	ft.

NOTICE: These calculations are based upon information furnished by you and taken from Drill Stem Test pressure charts, and are furnished you for your information. In furnishing such calculations and evaluations based thereon, Halliburton is merely expressing its opinion. You agree that Halliburton makes no warranty express or implied as to the accuracy of such calculations or opinions, and that Halliburton shall not be liable for any loss or damage, whether due to negligence or otherwise, in connection with such calculations and opinions.

INTERPRETATIONS AND CALCULATIONS

↑ PRESSURE ↓

