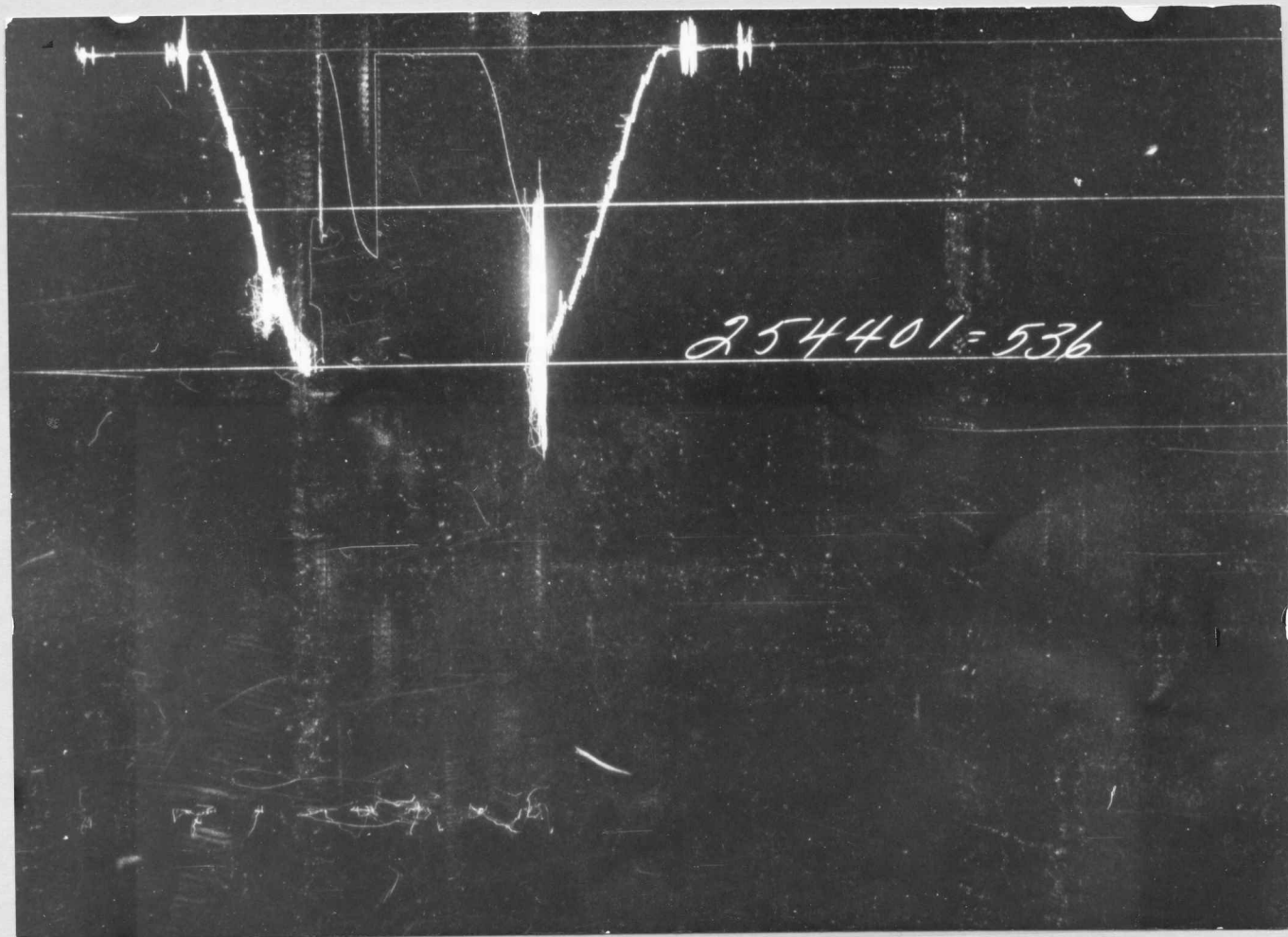


Initial Closed In Time 30 Minutes					Date 8-29-60		LOCATION SE NW SW Sec. 15-25-15 FIELD COUNTY STAFFORD STATE KANSAS
Tool Open 1st Flow Period 5 / 2nd 60 Minutes					Ticket No. 254401		
Final Closed In Time 30 Minutes					HOWCO DISTRICT PRATT		
Depth Top Gauge 3923 Ft. Blanked Off NO					Kind of Job OPEN HOLE		
BT P.R.D. No 536 12 Hr. Clock			CONTRACTOR LEBEN DRILLING COMPANY				
Pressure Readings Field Office Corrected			HOLE & TOOL DATA				
Initial Hydro Mud Pressure 1930 1946			Elevation 2031' D.F.		Top Packer Depth 3932'		
Initial Closed in Pres. 1310 1315			Total Depth 3940'		Bottom Packer Depth -		
Initial Flow Pres. 32 29-34			Casing or Hole Size 7 7/8"		Size & Type Wall Packer 3 1/4" E.S.W.P.		
Final Flow Pres. 50 24-37			Liner or Rathole Size 7 7/8"		Size Bottom Choke 5/8"		
Final Closed in Pres. 1170 1171			Casing Perforations Top Bottom		Size Surface Choke 1"		
Final Hydro Mud Pressure - 1917			Interval Tested 3932'-3940'		ID & Length Air Chamber -		
Depth Center Gauge 3938 Ft. Blanked Off YES			Formation Tested KANSAS CITY		ID & Length Drill Collars -		
BT P.R.D. No 538 12 Hr. Clock			Est. Gauge Depth Temp. Actual 107 F°		Size Drill Pipe 1 1/2" API F.H.		
Pressure Readings Field Office Corrected			MUD DATA Weight 9.2		Viscosity 15		
Initial Hydro Mud Pressure 1965 1946			All depths measured from KELLY RUSHING		No. Folders Reproduced 5		
Initial Closed in Pres. 1330 1310			REMARKS: Opened tool at 9:51 with weak blow.				
Initial Flow Pres. 30 35-27			Closed tool at 9:56 for 30 minute initial				
Final Flow Pres. 45 20-30			closed in pressure. Re-opened tool with				
Final Closed in Pres. 1295 1163			stronger blow. Took 30 minute final closed				
Final Hydro Mud Pressure - 1941			in pressure.				
Depth Bottom Gauge Ft. Blanked Off							
BT P.R.D. No Hr. Clock							
Pressure Readings Field Office Corrected							
Initial Hydro Mud Pressure							
Initial Closed in Pres.			Recovered 800 Feet of Gas show from Drill				
Initial Flow Pres.			Recovered 50 Feet of Oil & Gas Cut Mud				
Final Flow Pres.			Recovered Feet of				
Final Closed in Pres.			Recovered Feet of				
Final Hydro Mud Pressure			Witnessed By JERRY JESPERSON				
Amount-Type of Cushion None			Tester LARRY MOORE & M. A. PRESSNALL				

↑
PRESSURE
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← TIME →



Each horizontal line equal to 1000 p.s.i.

		Time	PSI					
Initial Hydro Mud Pressure			1946	Ticket No. 254401				
1st	Initial Flow		29	Lease HART				
	Final Flow	5 Minutes	24					
Initial Closed In Pressure		30 Minutes	1315	Well No. 1 Test No. 1				
2nd	Initial Flow		34	BT No. 536 Depth 3923'				
	Final Flow	60 Minutes	37	12 Hr. Clock No. -				
Final Closed In Pressure		30 Minutes	1171	Temperature Corrected to Actual 107° F				
Final Hydro Mud Pressure			1917					
1st Flow Pressure			Initial CIP		2nd Flow Pressure		Final CIP	
	Time Defl. .000"	PSI Temp. Corr.	Time Defl. .000"	PSI Temp. Corr.	Time Defl. .000"	PSI Temp. Corr.	Time Defl. .000"	PSI Temp. Corr.
PO	.000	29	.000	24	.000	34	.000	37
P1	.030	24	.019	128	.106	37	.021	104
P2			.038	264			.042	183
P3			.057	479			.063	291
P4			.076	765			.084	445
P5			.095	989			.105	623
P6			.114	1134			.126	806
P7			.133	1212			.147	951
P8			.152	1265			.168	1054
P9			.171	1294			.189	1126
P10			.190	1315			.210	1171
	Minute Intervals		Minute Intervals		Minute Intervals		Minute Intervals	
			3				3	

Remarks:

	Time	PSI	
Initial Hydro Mud Pressure		1946	Ticket No. 254401
1st Initial Flow		35	
	5 Minutes	20	
Initial Closed In Pressure	30 Minutes	1310	
2nd Initial Flow		27	Well No. 1 Test No. 1
	60 Minutes	30	BT No. 538 Depth 3938'
Final Closed In Pressure	30 Minutes	1163	12 Hr. Clock No. -
Final Hydro Mud Pressure		1941	Temperature Corrected to Actual 107° F

	1st Flow Pressure		Initial CIP		2nd Flow Pressure		Final CIP	
	Time Defl. .000"	PSI Temp. Corr.	Time Defl. .000"	PSI Temp. Corr.	Time Defl. .000"	PSI Temp. Corr.	Time Defl. .000"	PSI Temp. Corr.
PO	.000	35	.000	20	.000	27	.000	30
P1	.028	20	.0215	114	.455	30	.0215	91
P2			.043	245			.043	170
P3			.0645	474			.0645	271
P4			.086	747			.086	423
P5			.1075	997			.1075	602
P6			.129	1137			.129	786
P7			.1505	1215			.1505	933
P8			.172	1267			.172	1035
P9			.1935	1294			.1935	1111
P10			.215	1310			.215	1163
	Minute Intervals		3	Minute Intervals	Minute Intervals		3	Minute Intervals

Remarks:

Initial Closed In Time 30 Minutes					Date 8-31-60	
Tool Open 1st 5 / 2nd 60 Minutes					Ticket No. 254402	
Final Closed In Time 30 Minutes					HOWCO DISTRICT PRATT	
Depth Top Gauge 4198 Ft. Blanked Off No					Kind of Job OEPN HOLE TEST	
BT. P.R.D. No 536 12 Hr. Clock			CONTRACTOR LEBEN DRILLING COMPANY			
Pressure Readings Field Office Corrected			HOLE & TOOL DATA			
Initial Hydro Mud Pressure 2106 2067			Elevation 2031 D.F.		Top Packer Depth -	
Initial Closed in Pres. 635 619			Total Depth 4220		Bottom Packer Depth 4194	
Initial Flow Pres. 35 23-18			Casing or Hole Size 7 7/8		Size & Type Wall Packer 6 3/4" ESWP	
Final Flow Pres. 35 16-15			Liner or Rothole Size 7 7/8		Size Bottom Choke 5/8"	
Final Closed in Pres. 940 936			Casing Perforations Top Bottom		Size Surface Choke 1"	
Final Hydro Mud Pressure 2060 2064			Interval Tested 4194-4220		ID & Length Air Chamber Dual CIP.	
Depth Center Gauge 4214 Ft. Blanked Off Yes			Formation Tested MISSISSIPPI		ID & Length Drill Collars -	
BT. P.R.D. No 538 12 Hr. Clock			Est. Gauge Depth Temp. A 112 F°		Size Drill Pipe 4 1/2" FH	
Pressure Readings Field Office Corrected			MUD DATA Weight 9.1		Viscosity 53#	
Initial Hydro Mud Pressure 2130 2080			All depths measured from KELLY BUSHING		No...Folders Reproduced 5	
Initial Closed in Pres. 650 634			REMARKS: On bottom at 10:22. Tool open at			
Initial Flow Pres. 30 36-32			10:26 with a good blow. Closed at 10:31 for			
Final Flow Pres. 30 30-26			initial closed in pressure. Reopen at 11:01 with			
Final Closed in Pres. 954 941			a strong blow. Closed at 12:01 for final			
Final Hydro Mud Pressure 2085 2074			closed in pressure. Out of hole at 12:31PM.			
Depth Bottom Gauge Ft. Blanked Off						
BT. P.R.D. No Hr. Clock						
Pressure Readings Field Office Corrected						
Initial Hydro Mud Pressure						
Initial Closed in Pres.			Recovered 25 Feet of Drlg. Mud.			
Initial Flow Pres.			Recovered Feet of			
Final Flow Pres.			Recovered Feet of			
Final Closed in Pres.			Recovered Feet of			
Final Hydro Mud Pressure			Witnessed By JERRY JESPERSEN			
Amount-Type of Cushion			Tester LARRY MOORE			

HART
LEASE NAME
LOCATION 15-25-15 SE-NW-SW

WELL NO. 1

FIELD 2

TEST NO.

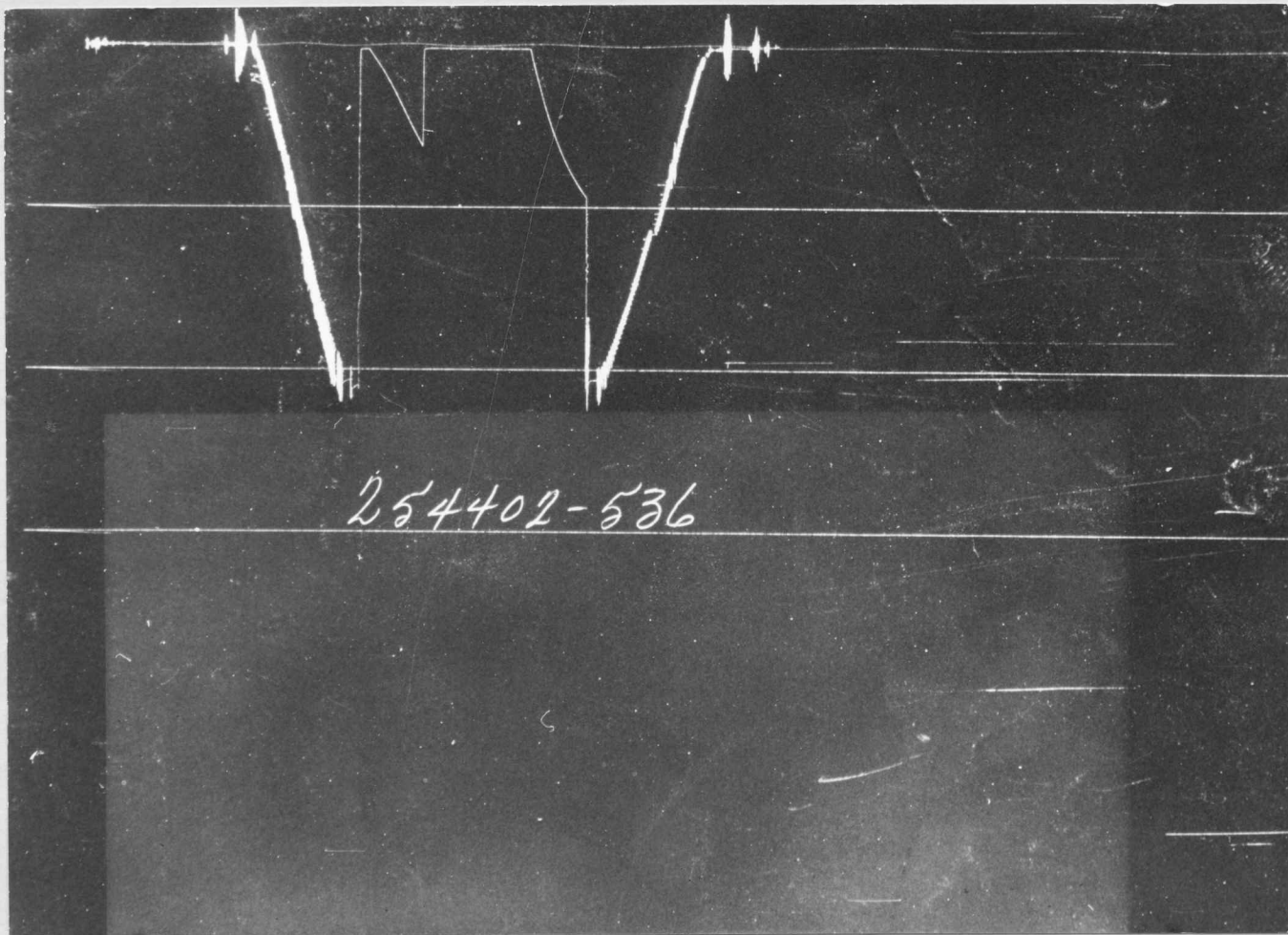
NATIONAL COOPERATIVE REFINERY
LEASE OWNER
ASSN.

KANSAS
OWNERS DISTRICT

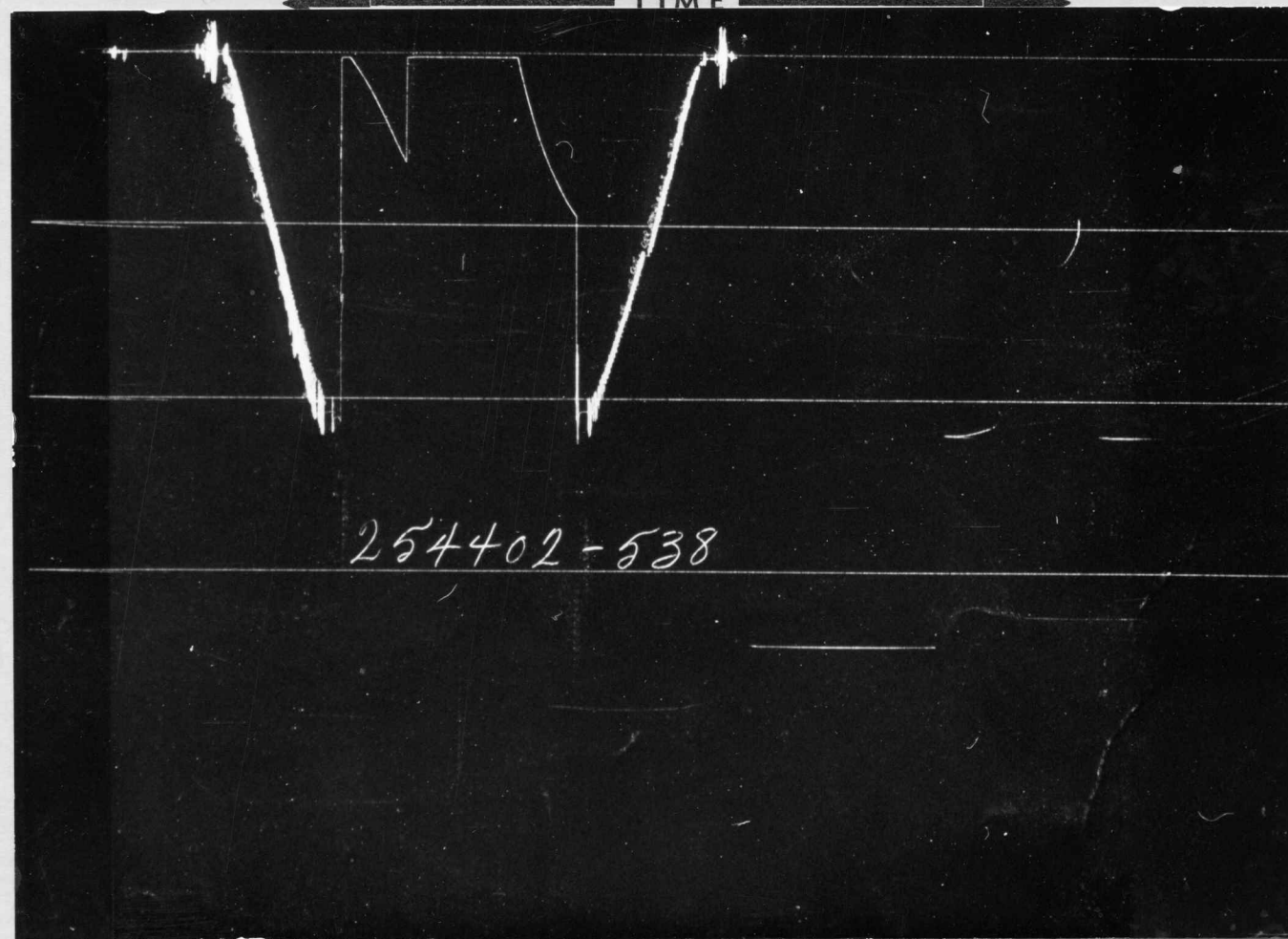
COUNTY STAFFORD

STATE KANSAS

↑
PRESSURE
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← TIME →



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

	Time	PSI	
Initial Hydro Mud Pressure		2067	Ticket No. 254402
1st Initial Flow		23	
1st Final Flow	5 Mins.	16	Lease HART
Initial Closed In Pressure	30 Mins.	619	Well No. 1 Test No. 2
2nd Initial Flow		18	BT No. 536 Depth 4198'
2nd Final Flow	60 Mins.	15	12 Hr. Clock No.
Final Closed In Pressure	30 Mins.	936	Temperature A-112 ° F
Final Hydro Mud Pressure		2064	Corrected to _____ ° F

	1st Flow Pressure		Initial CIP		2nd Flow Pressure		Final CIP	
	Time Defl. .000"	PSI Temp. Corr.	Time Defl. .000"	PSI Temp. Corr.	Time Defl. .000"	PSI Temp. Corr.	Time Defl. .000"	PSI Temp. Corr.
P0	.000	23	.000	16	.000	18	.000	15
P1	.031	16	.021	65	.413	15	.022	160
P2			.042	113			.044	294
P3			.063	168			.066	413
P4			.084	228			.088	521
P5			.105	291			.110	613
P6			.126	358			.132	695
P7			.147	424			.154	767
P8			.168	492			.176	830
P9			.189	558			.198	884
P10			.210	619			.220	936
	Minute Intervals	3	Minute Intervals		Minute Intervals	3	Minute Intervals	

Remarks:

	Time	PSI		
Initial Hydro Mud Pressure		2080	Ticket No. <u>254402</u>	
1st Initial Flow		36		
	Final Flow	5 Mins.		30
Initial Closed In Pressure	30 Mins.	634		Lease <u>HART</u>
2nd Initial Flow		32		Well No. <u>1</u> Test No. <u>2</u>
	Final Flow	60 Mins.		26
Final Closed In Pressure	30 Mins.	941	<u>12</u> Hr. Clock No.	
Final Hydro Mud Pressure		2074	Temperature Corrected to <u>A-112</u> ° F	

	1st Flow Pressure		Initial CIP		2nd Flow Pressure		Final CIP	
	Time Defl. .000"	PSI Temp. Corr.	Time Defl. .000"	PSI Temp. Corr.	Time Defl. .000"	PSI Temp. Corr.	Time Defl. .000"	PSI Temp. Corr.
P0	.000	36	.000	30	.000	32	.000	26
P1	.033	30	.0219	77	.428	26	.023	168
P2			.0438	126			.046	302
P3			.0657	179			.069	423
P4			.0876	236			.092	526
P5			.1095	300			.115	617
P6			.1314	365			.138	697
P7			.1533	433			.161	769
P8			.1752	506			.184	835
P9			.1971	574			.207	892
P10			.2190	634			.230	941
	Minute Intervals		3	Minute Intervals	Minute Intervals		3	Minute Intervals

Remarks:

HART

LEASE NAME

WELL NO.

TEST NO.

NATIONAL COOPERATIVE REFINERY ASSN.
LEASE OWNER
OWNERS DISTRICT

KANSAS

LOCATION 15-25-15 SE NW SW

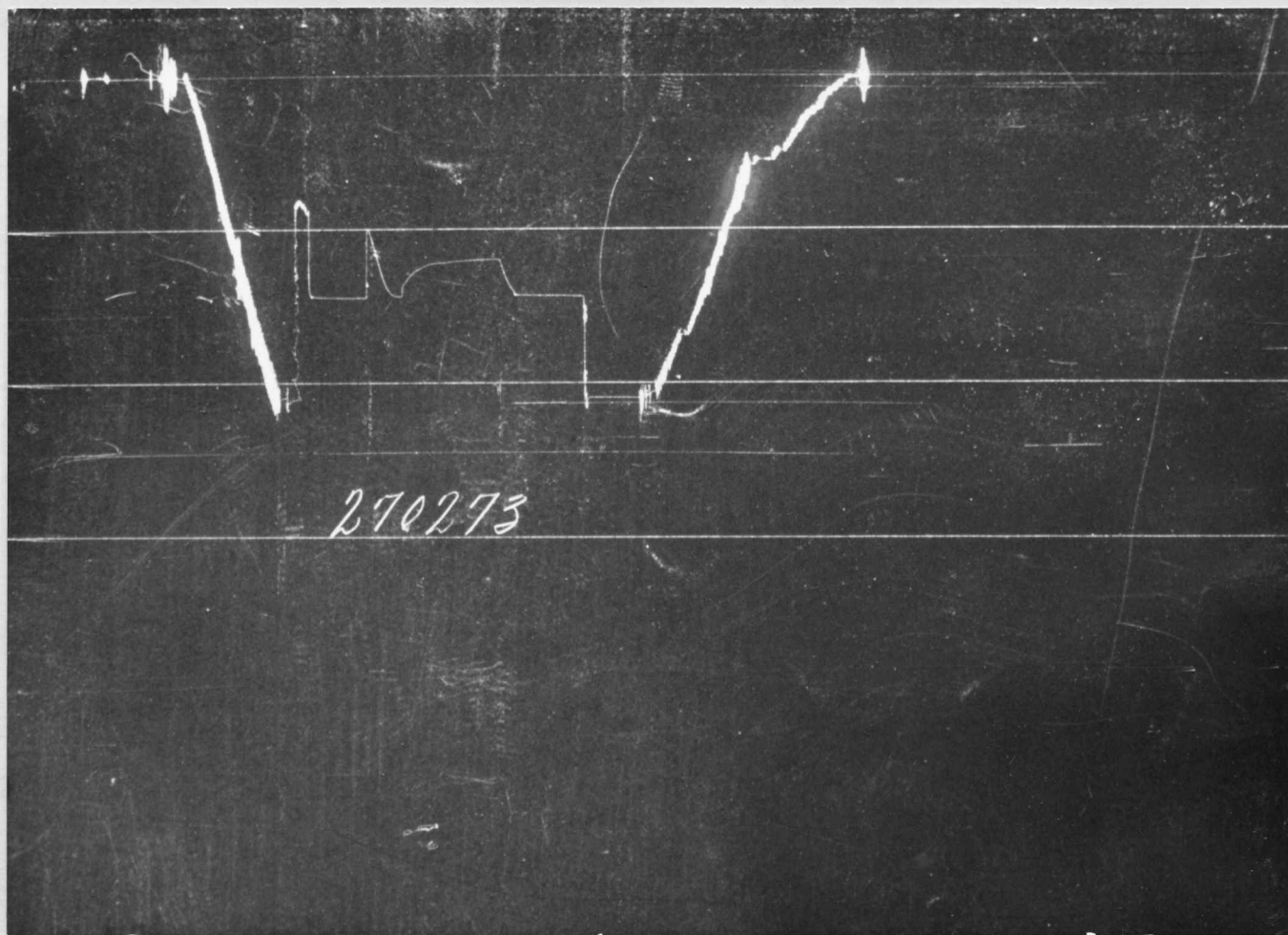
FIELD

COUNTY STAFFORD

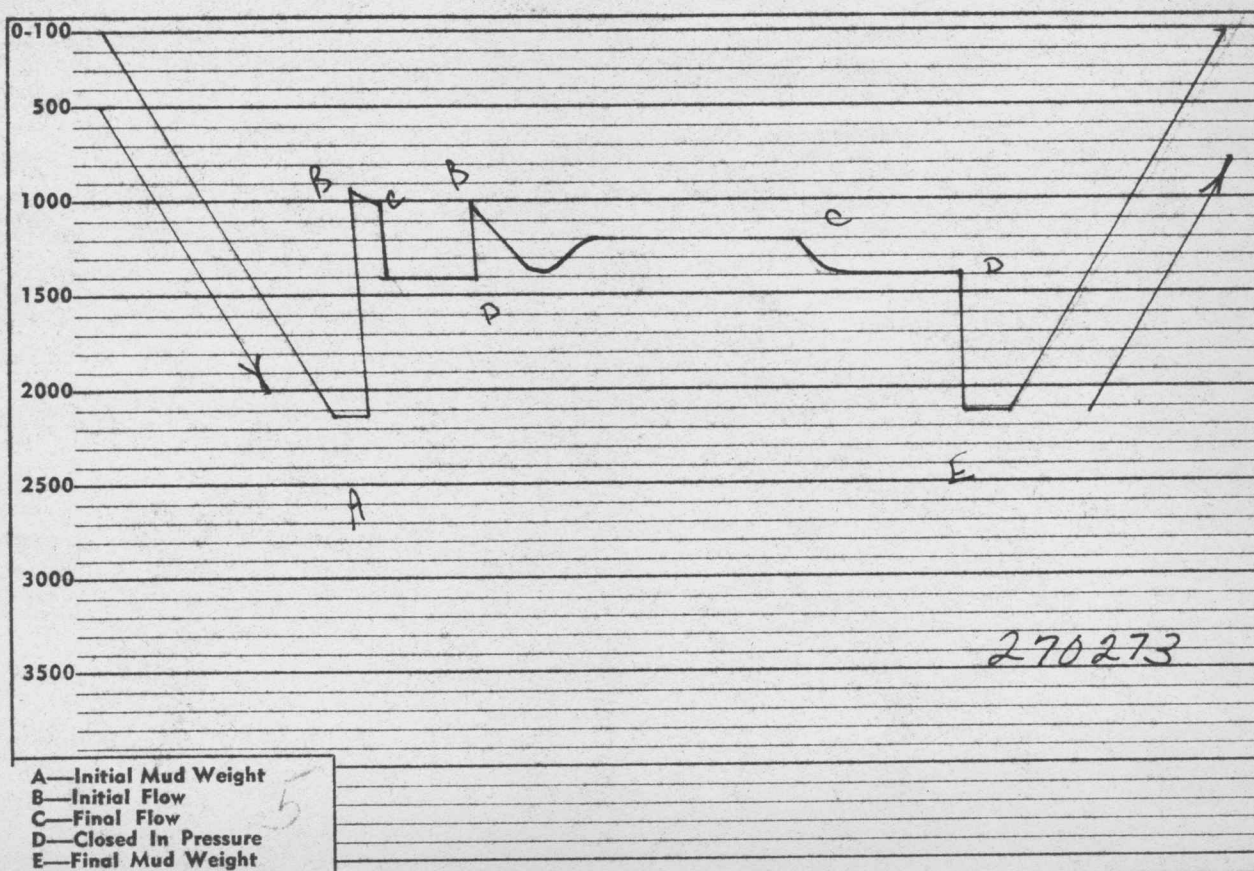
STATE KANSAS

Initial Closed In Time 30 Minutes			Date 9-1-60	
Tool Open 1st 5 / 2nd 60* Minutes			Ticket No. 270273	
Final Closed In Time 30* Minutes			HOWCO DISTRICT PRATT, KANSAS	
Depth Top Gauge 4238 Ft. Blanked Off No			Kind of Job OPEN HOLE TEST	
BT. P.R.D. No 200 12 Hr. Clock		CONTRACTOR E BEN DRILLING COMPANY		
Pressure Readings Field Office Corrected		HOLE & TOOL DATA		
Initial Hydro Mud Pressure 2160 2095		Elevation 2031		Top Packer Depth -
Initial Closed in Pres. 1438 1442		Total Depth 4280		Bottom Packer Depth 4235
Initial Flow Pres. 1003 858-1000		Casing or Hole Size 7 7/8"		Size & Type Wall Packer 6 3/4 ESWP
Final Flow Pres. 1178 895-1196		Liner or Rathole Size 7 7/8"		Size Bottom Choke 5/8"
Final Closed in Pres. 1421 1435		Casing Perforations Top Bottom		Size Surface Choke 1"
Final Hydro Mud Pressure 2160 2095		Interval Tested 4235-4280		ID & Length Air Chamber Dual CIP
Depth Center Gauge 4279 Ft. Blanked Off Yes		Formation Tested Viola		ID & Length Drill Collars -
BT. P.R.D. No 1981 24 Hr. Clock		Est. Gauge Depth Temp. Actual 112		Size Drill Pipe 4 1/2" FH
Pressure Readings Field Office Corrected		MUD DATA Weight 9.3		Viscosity 44
Initial Hydro Mud Pressure 2175		All depths measured from KELLY BUSHING		No...Folders Reproduced 5
Initial Closed in Pres. 1435		REMARKS: Opened tool at 1:55 with strong		
Initial Flow Pres. 1025		blow - gas to surface in 3 minutes. Closed		
Final Flow Pres. 1200		tool for 30 minute initial closed in pressure.		
Final Closed in Pres. 1420		Re-opened tool - valve plugged with loss		
Final Hydro Mud Pressure -		circulation material - valve unplugged in		
Depth Bottom Gauge Ft. Blanked Off		20 minutes - flowed immediately - oil cut mud.		
BT. P.R.D. No Hr. Clock		In 22 minutes - flowed clean oil and gas.		
Pressure Readings Field Office Corrected		Tool open 60 minutes. Closed tool for 30		
Initial Hydro Mud Pressure		*Time may minute final closed in pressure. fluxuate due		
Initial Closed in Pres.		to trouble with closed in pressure valve. Recovered 1080 Feet of Gasey Oil.		
Initial Flow Pres.		Recovered Feet of		
Final Flow Pres.		Recovered Feet of		
Final Closed in Pres.		Recovered Feet of		
Final Hydro Mud Pressure		Witnessed By J. JESPERSON		
Amount-Type of Cushion NONE		Tester E. THOMPSON & M. A. PRESSNALL		

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PRESSURE
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← TIME →



HOWCO 1363—LITTLE'S 59248 5M 5/59

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

	Time	PSI	
Initial Hydro Mud Pressure		2095	Ticket No. 270273
1st Initial Flow		858	
1st Final Flow	5 Minutes	895	
Initial Closed In Pressure	30 Minutes	1442	Lease HART
2nd Initial Flow		1000	Well No. 1 Test No. 3
2nd Final Flow	*60 Minutes	1196	BT No. 200 Depth 4238'
Final Closed In Pressure	*30 Minutes	1435	12 Hr. Clock No. -
Final Hydro Mud Pressure		2095	Temperature Corrected to Actual 112.0 F

	1st Flow Pressure		Initial CIP		2nd Flow Pressure		Final CIP	
	Time Defl. .000"	PSI Temp. Corr.	Time Defl. .000"	PSI Temp. Corr.	Time Defl. .000"	PSI Temp. Corr.	Time Defl. .000"	PSI Temp. Corr.
PO	.000	858	.000	895	.000	1000	.000	1196
P1	.048	895	.0216	1437	.1232	1435	.0315	1441
P2			.0432	1439	.2464	1224	.063	1425
P3			.0648	1441	.3696	1203	.0945	1427
P4			.0864	1442	.4928	1196	.126	1428
P5			.108	1442			.1575	1428
P6			.1296	1442			.189	1428
P7			.1512	1442			.2205	1430
P8			.1728	1442			.252	1430
P9			.1944	1442			.2835	1434
P10			.216	1442			.315	1435
	Minute Intervals		3 Minute Intervals		15 Minute Intervals		3 Minute Intervals	

Remarks: * See note on data sheet.