



Initial Closed In Time	-	Minutes	Date	4-19-58	
Tool Open Flow Period	60	Minutes	Ticket No.	140808	
Final Closed In Time	30	Minutes	HOWCO DISTRICT	Hays	
Depth Top Gauge	3464' Ft.	Blanked Off	No	Kind of Job	
BT. P.R.D. No	699	12	Hr. Clock	CONTRACTOR	
Pressure Readings	Field	Office Corrected		Lohman & Johnson	
Initial Hydro Mud Pressure		1938		<b>HOLE &amp; TOOL DATA</b>	
Initial Closed in Pres.				Elevation	1801'
Initial Flow Pres.		16		Total Depth	3500'
Final Flow Pres.		16		Casing or Hole Size	7 7/8"
Final Closed in Pres.		748		Liner or Rathole Size	7 7/8"
Final Hydro Mud Pressure		1883		Casing Perforations	Top Bottom
Depth Center Gauge	3499' Ft.	Blanked Off	Yes	Interval Tested	3467' to 3500'
BT. P.R.D. No	190	12	Hr. Clock	Formation Tested	Stray Sand
Pressure Readings	Field	Office Corrected		Est. Gauge Depth Temp.	100 F°
Initial Hydro Mud Pressure				MUD DATA Weight	9.9
Initial Closed in Pres.				Viscosity	-
Initial Flow Pres.				All depths measured from	Kelly Bushing
Final Flow Pres.				No...Folders Reproduced	5
Final Closed in Pres.				<b>REMARKS:</b> Interval tested from 3467' to 3500'	
Final Hydro Mud Pressure				in the Stray Sand. Tool opened @ 4:00 A. M.	
Depth Bottom Gauge	Ft.	Blanked Off		with weak blow for 12 minutes, closed in pressure	
BT. P.R.D. No		Hr. Clock		taken @ 5:00 A. M., and started off bottom @	
Pressure Readings	Field	Office Corrected		5:30 A. M.	
Initial Hydro Mud Pressure				Recovered	20' Feet of Mud
Initial Closed in Pres.				Recovered	Feet of
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	W. Nowlan
Amount-Type of Cushion	none			Tester	R. I. White

LOCATION

SEC: 14-3-14

FIELD

S.W. Osborne

COUNTY

Osborne

STATE

Kansas

LEASE NAME

WELL NO.

TEST NO.

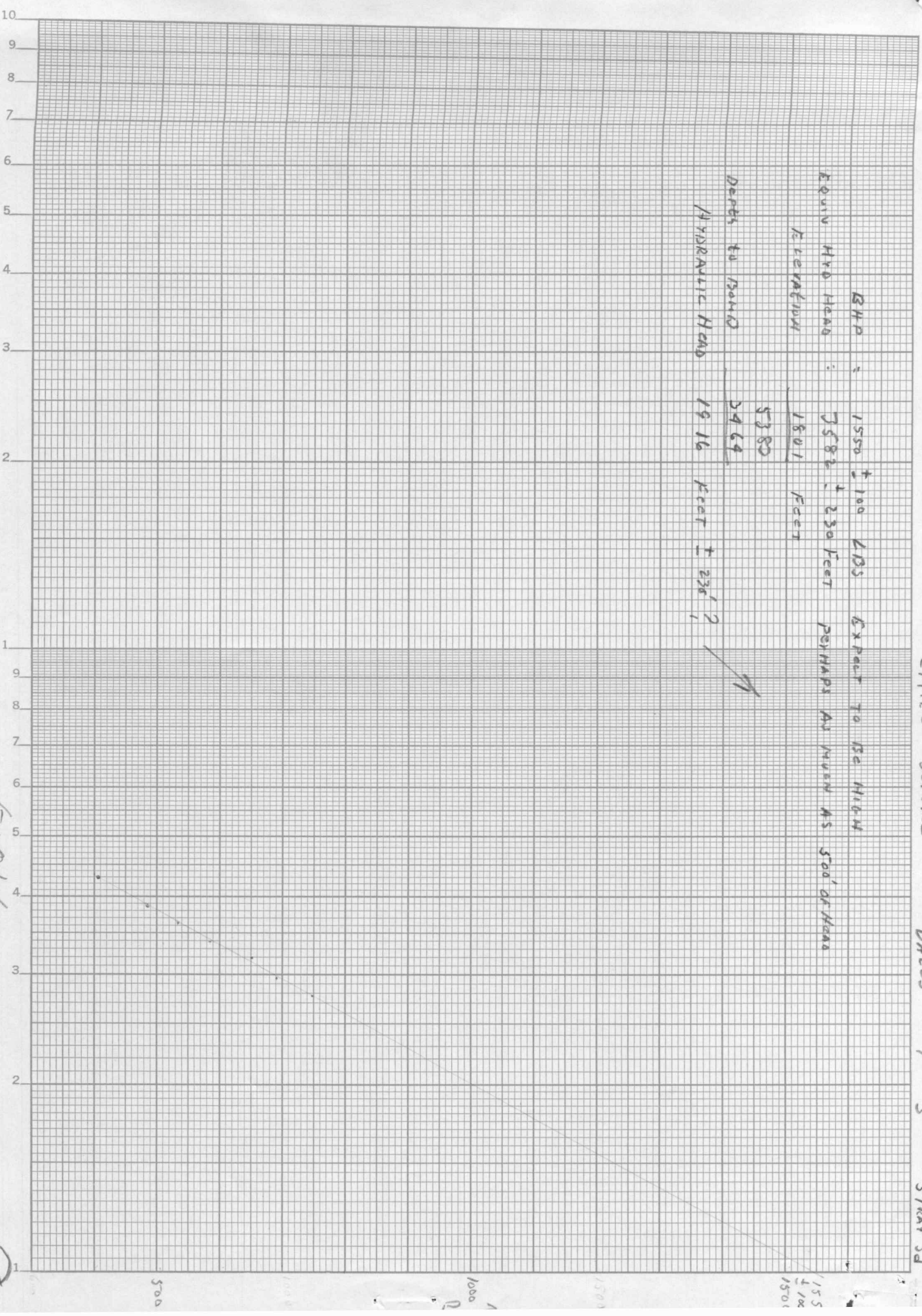
CITIZEN SERVICE OIL COMPANY

LEASE OWNER

OWNERS DISTRICT

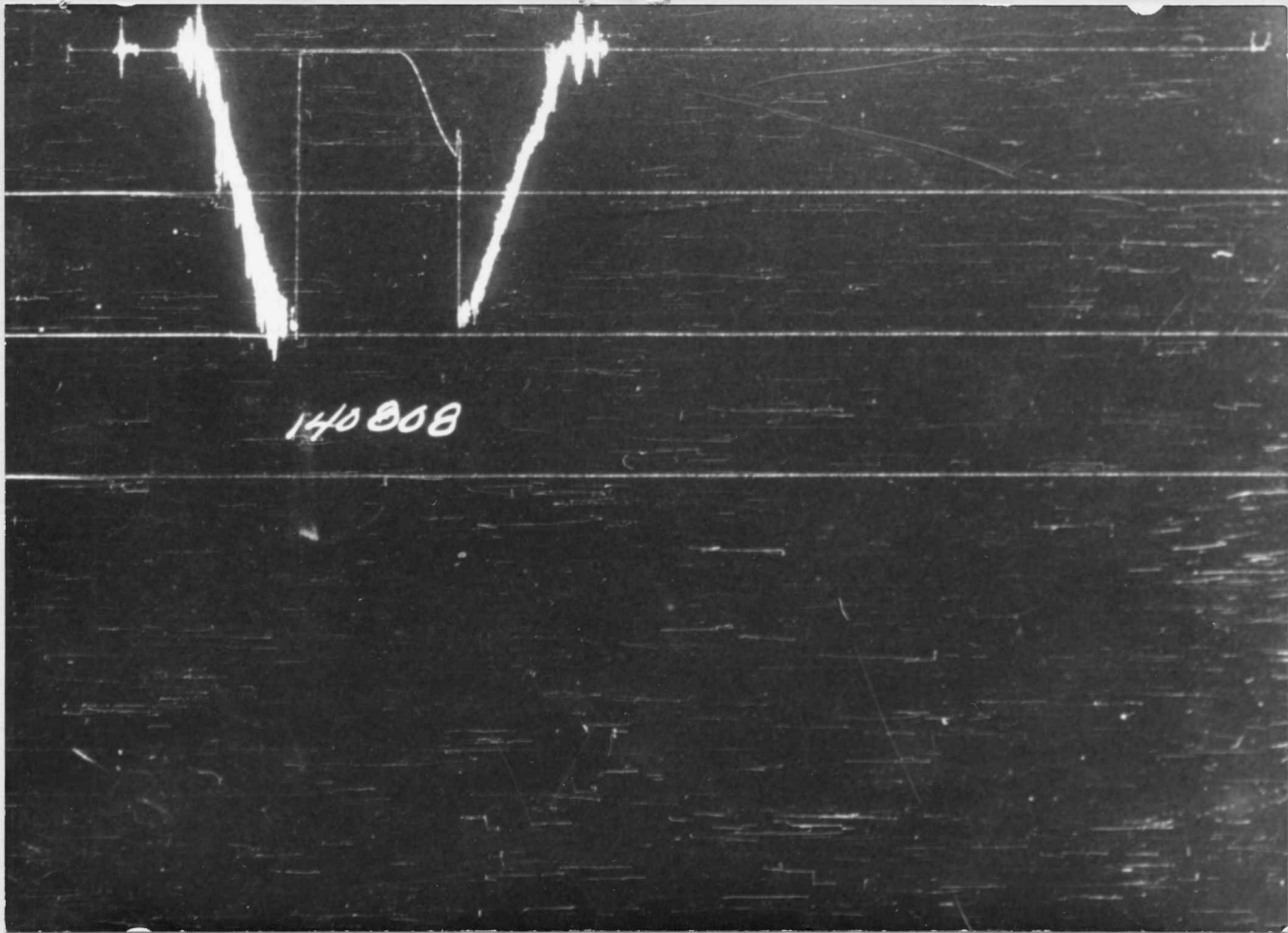
CITIES SERVICE BLES #1 #3 STRAY SD

BHP = 1550 ± 100 LBS EXPACT TO 150 HIGH  
 EQUIV HEAD : 7582 ± 230 Feet PERHAPS AS MUCH AS 500' OF HEAD  
 ACCELERATION 1801 Feet  
 5380  
 2969  
 DEETS TO SOUND  
 HYDRAULIC HEAD 19 16 Feet ± 230' ?



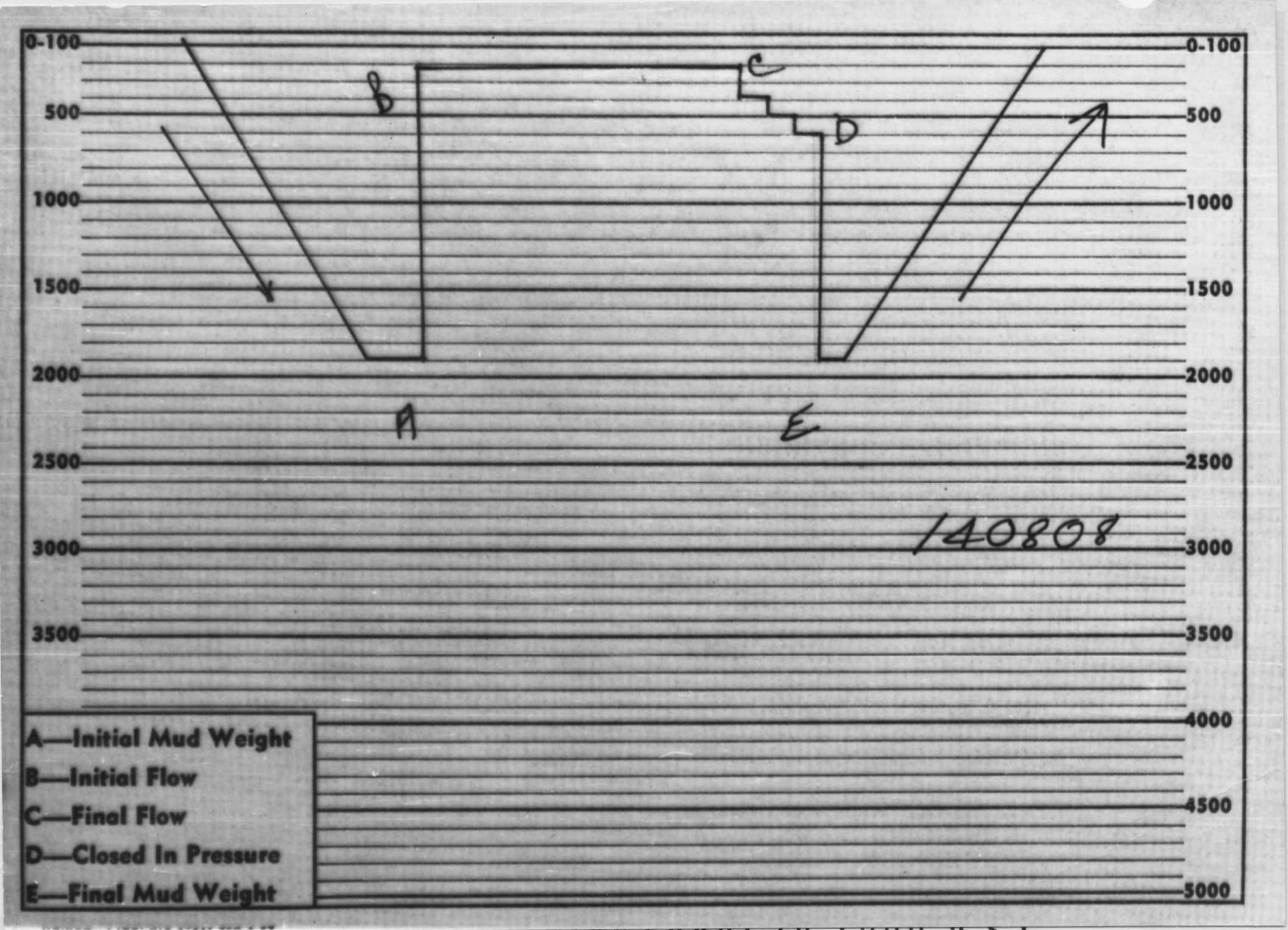
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PRESSURE

TIME



- A—Initial Mud Weight
- B—Initial Flow
- C—Final Flow
- D—Closed In Pressure
- E—Final Mud Weight

... LINE EQUAL TO 1000 P.S.I.



Initial Closed In Time	30	Minutes		Date	4-21-58	
Tool Open Flow Period	60	Minutes		Ticket No.	184775	
Final Closed In Time	30	Minutes		HOWCO DISTRICT	Russell	
Depth Top Gauge	3638'	Ft.	Blanked Off	no	Kind of Job	Open Hole
BT. P.R.D. No	294		12	Hr. Clock	CONTRACTOR LOHMANN AND JOHNSON DRLG. CO.	
Pressure Readings	Field		Office Corrected		HOLE & TOOL DATA	
Initial Hydro Mud Pressure	2200		2008		Elevation	1801
Initial Closed in Pres.	0		7		Top Packer Depth	3646'
Initial Flow Pres.	0		7		Total Depth	3695'
Final Flow Pres.	0		8		Bottom Packer Depth	-
Final Closed in Pres.	710		690		Casing or Hole Size	7 7/8"
Final Hydro Mud Pressure	2200		1998		Size & Type Wall Packer	6 3/4"
Depth Center Gauge	3691	Ft.	Blanked Off	yes	Liner or Rathole Size	7 7/8"
BT. P.R.D. No	1866		-	Hr. Clock	Size Bottom Choke	5/8"
Pressure Readings	Field		Office Corrected		Casing Perforations	Top Bottom
Initial Hydro Mud Pressure					Interval Tested	3646-3695'
Initial Closed in Pres.					Formation Tested	Conglomerate
Initial Flow Pres.					ID & Length Drill Collars	-
Final Flow Pres.					Est. Gauge Depth Temp.	Calc. 100 F°
Final Closed in Pres.					Size Drill Pipe	1 1/8"
Final Hydro Mud Pressure					MUD DATA Weight	10.3
Depth Bottom Gauge		Ft.	Blanked Off		Viscosity	42
BT. P.R.D. No					All depths measured from	Derrick Floor
Pressure Readings	Field		Office Corrected		No. Folders Reproduced	5
Initial Hydro Mud Pressure					REMARKS: Set packer, opened tool and took a	
Initial Closed in Pres.					30 Minute Initial closed in pressure. (1:18-	
Initial Flow Pres.					1:48) Tool opened with a weak blow which	
Final Flow Pres.					died in 3 Minutes. (1:48-2:48) Closed tool	
Final Closed in Pres.					at 2:48, off bottom at 3:18.	
Final Hydro Mud Pressure						
Initial Closed in Pres.					Recovered	20 Feet of Rotary 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	W.C. Newlin
Amount-Type of Cushion	-				Tester	E.B. Cullum

LOCATION 14-8-11

FIELD WIDDCAT

COUNTY OSBORNE

STATE KANSAS

LEASE NAME HALPS

WELL NO. 1

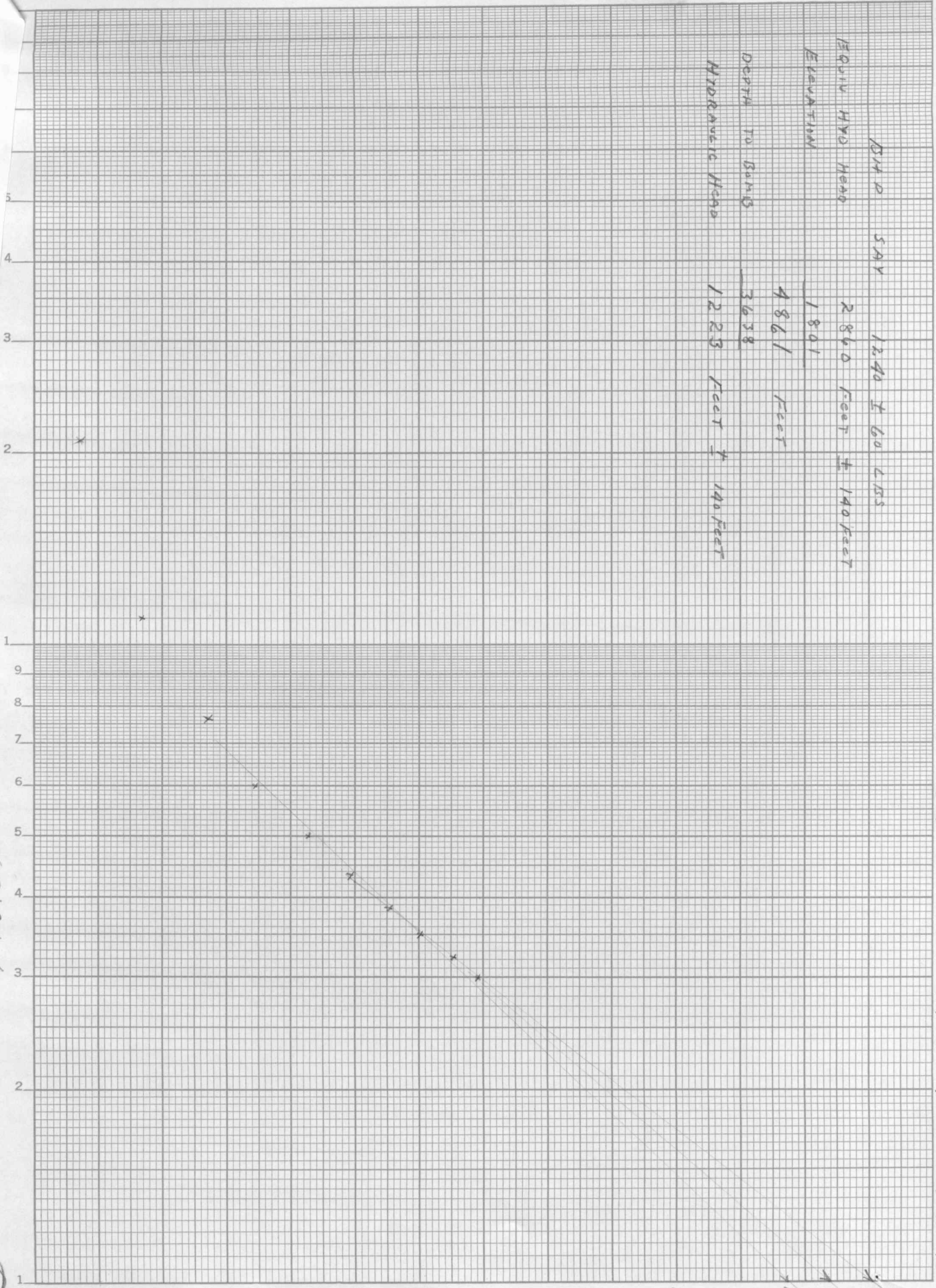
TEST NO. 4

CITIES SERVICE OIL COMPANY  
LEASE OWNER

RUSSELL  
OWNERS DISTRICT

CITIES Service Bases # 1 # 4 CONCENTRATE

BMD 591 1240 ± 60 LBS  
 EQUIV HYD HEAD 2840 FEET ± 140 FEET  
 ELEVATION 1801  
 4861 FEET  
 DEPTH TO BMD 3638  
 HYDRAULIC HEAD 1223 FEET ± 140 FEET



KE SEMI-LOGARITHMIC  
 KEUFFEL & ESSER CO.  
 MADE IN U.S.A.  
 2 CYCLES X 140 DIVISIONS

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Company **CITIES SERVICE OIL COMPANY**

Date **4-21-58**

Lease **BALES**

Well No. **1**

Test No. **4**

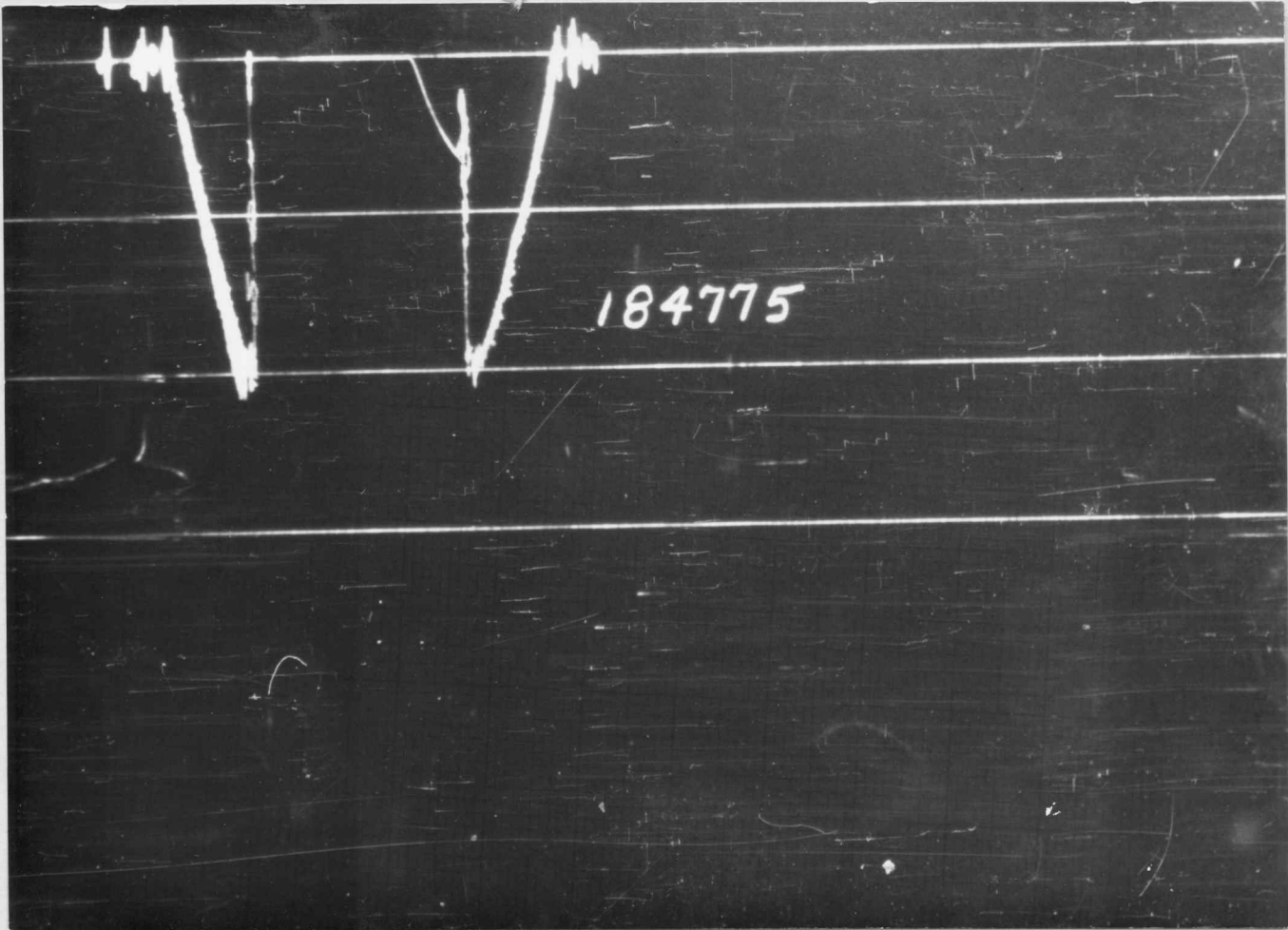
Ticket No. **184775**

	Time	PSI
Initial Hydro Mud Pressure		2008
Initial Closed In Pressure	30 Minutes	7
Initial Flow		7
Final Flow	60 Minutes	8
Final Closed In Pressure	30 Minutes	690
Final Hydro Mud Pressure		1998

Total Depth **3695'**  
 Packer Depth **3646'**  
 BT No. **294** Depth **3638'**  
 12 Hr. Clock No. **-**  
 Temperature Corrected to **Calc. 100** F

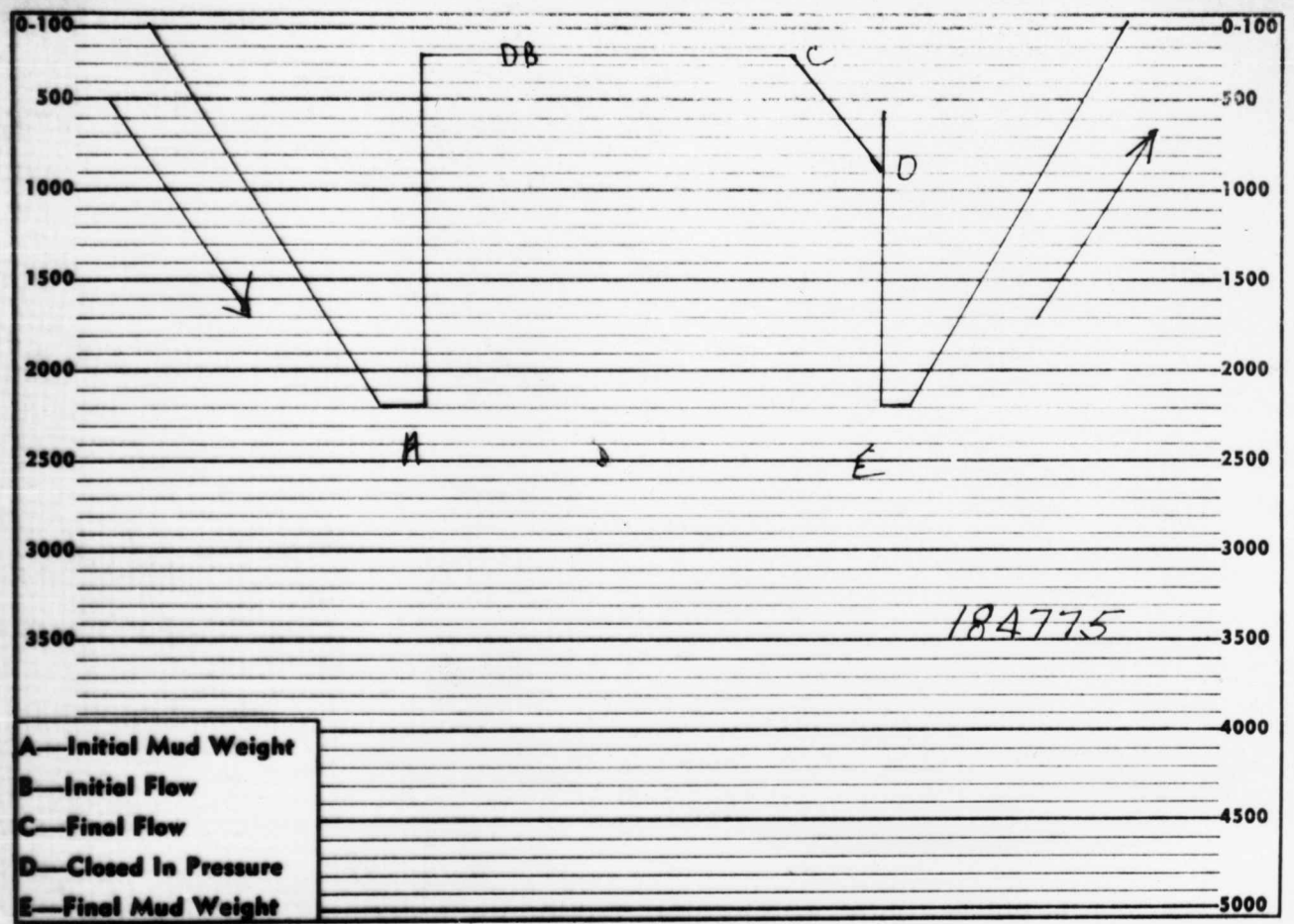
	Initial CIP		Flow Pressure		Final CIP	
	Time Defl. .000"	PSI Temp. Corr.	Time Defl. .000"	PSI Temp. Corr.	Time Defl. .000"	PSI Temp. Corr.
P0					.000	8
P1					.020	71
P2					.040	169
P3					.060	271
P4					.080	347
P5					.100	429
P6					.120	493
P7					.140	551
P8					.160	603
P9					.180	651
P10					.200	690
	Minute Intervals		Minute Intervals		3 Minute Intervals	

Remarks: \_\_\_\_\_



↑  
PRESSURE  
↓

← TIME →



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