

Flow Time	1st 5	Min.	2nd 60	Min.	Date	12-1-66		Ticket Number	422934 S	
Closed In Press. Time	1st 30	Min.	2nd 30	Min.	Kind of Job	OPEN HOLE		Halliburton District	PRATT	
Pressure Readings	Field		Office Corrected		Tester	MR. HUNTER		Witness	MR. BYRD	
Depth Top Gauge	4943	Ft.	no	Blanked Off	Drilling Contractor	LEBEN DRILLING COMPANY		SS		
BT. P.R.D. No.	1831		12	Hour Clock	Elevation			Top Packer		
Initial Hydro Mud Pressure	2638		2707		Total Depth	4980'		Bottom Packer	4952'	
Initial Closed in Pres.	1733		1761		Interval Tested	4952' - 4980'		Formation Tested	MISSISSIPPI	
Initial Flow Pres.	428	1	501		Casing or Hole Size	7 7/8"		Casing Perfs. {	Top	
Final Flow Pres.	446	2	426		Surface Choke	1"		Bottom Choke	3/4"	
Final Closed in Pres.	1733		1749		Size & Kind Drill Pipe	4 1/2" FH		Drill Collars Above Tester	1200'	
Final Hydro Mud Pressure	2638		2688		Mud Weight	10.2		Mud Viscosity	48	
Depth Cen. Gauge		Ft.		Blanked Off	Temperature	100 4975' @		Anchor Size & Length	ID 3.37" X 23'	
BT. P.R.D. No.				Hour Clock	Depths Mea. From			Depth of Tester Valve	Ft.	
Initial Hydro Mud Pres.					TYPE	AMOUNT		Depth Back Pres. Valve	Ft.	
Initial Closed in Pres.					Cushion	NO RECOVERY		Recovered	Feet of	
Initial Flow Pres.		1			Recovered			Recovered	Feet of	
Final Flow Pres.		2			Recovered			Recovered	Feet of	
Final Closed in Pres.		1			Recovered			Recovered	Feet of	
Final Hydro Mud Pres.		2			Recovered			Recovered	Feet of	
Depth Bot. Gauge	4976	Ft.	yes	Blanked Off	Oil A.P.I. Gravity			Water Spec. Gravity		
BT. P.R.D. No.	1830		12	Hour Clock	Gas Gravity			Surface Pressure	psi	
Initial Hydro Mud Pres.	2688		2720		Tool Opened	6:50 pm	A.M. P.M.	Tool Closed	8:25 pm	A.M. P.M.
Initial Closed in Pres.	1748		1765		Remarks	Tool opened for 5 minute first flow. Closed for 30 minute initial closed in pressure. Reopened for 60 minute second flow with a strong blow, gas to surface in 2 minutes, gauged 4 minutes-1020 MCF; 5 minutes-3120 MCF; 10 minutes-3500 MCF; 15 minutes 3500 MCF. Closed for 30 minute final closed in pressure.				
Initial Flow Pres.	446	1	571							
Final Flow Pres.	465	2	431							
Final Closed in Pres.	465	1	495							
Final Hydro Mud Pres.	2669		2701							

FORMATION TEST DATA

County COMANCHE

State

KANSAS

Owner's District

Legal Location
Sec. - Twp. - Rng. 13-31S-18W

Field Area

Mea. From Tester Valve

State

KANSAS

Owner's District

FILE

Lease Name

1-A

Well No.

Test No.

UNITED STATES

Lease Owner/Company Name

Owner's District

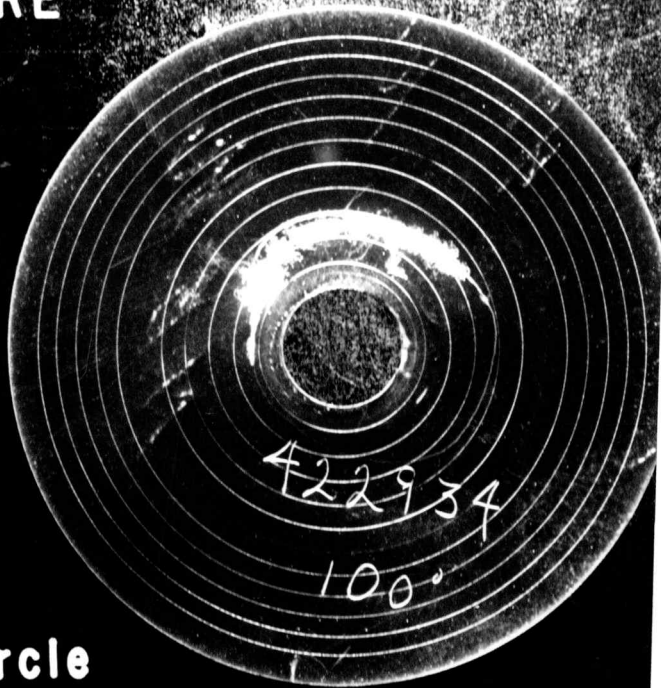
Gauge No. 1831			Depth 4943'			Clock 12 hour		Ticket No. 422934		
First Flow Period			Initial Closed In Pressure			Second Flow Period		Final Closed In Pressure		
	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.
P ₀	.000	501	.000		467	.000	426	.000		489
P ₁	.0048	505*	.0206		1736	.1035	490	.0213		1694
P ₂	.0096	466	.0412		1751	.2070	490	.0426		1720
P ₃	.0144	455	.0618		1756	.3105	486	.0639		1730
P ₄	.0192	464	.0824		1758	.414	489	.0852		1736
P ₅	.024	467	.1030		1759			.1065		1740
P ₆			.1236		1760			.1278		1743
P ₇			.1442		1761			.1491		1746
P ₈			.1648		1761			.1704		1747
P ₉			.1854		1761			.1917		1748
P ₁₀			.206		1761			.213		1749

Gauge No. 1830			Depth 4976'			Clock 12 hour				
P ₀	.000	571	.000		495	.000	431	.000		495
P ₁	.0048	549	.0206		1743	.1038	494	.0213		1704
P ₂	.0096	489	.0412		1756	.2076	494	.0426		1725
P ₃	.0144	489	.0618		1760	.3114	492	.0639		1735
P ₄	.0192	493	.0824		1762	.415	495	.0852		1742
P ₅	.024	495	.1030		1764			.1065		1744
P ₆			.1236		1765			.1278		1748
P ₇			.1442		1765			.1491		1750
P ₈			.1648		1765			.1704		1752
P ₉			.1854		1765			.1917		1753
P ₁₀			.206		1765			.213		1753

Reading Interval 1			3			15		3			Minutes
REMARKS:											

SPECIAL PRESSURE DATA

**TEMPERATURE
RECORDER
CHART**

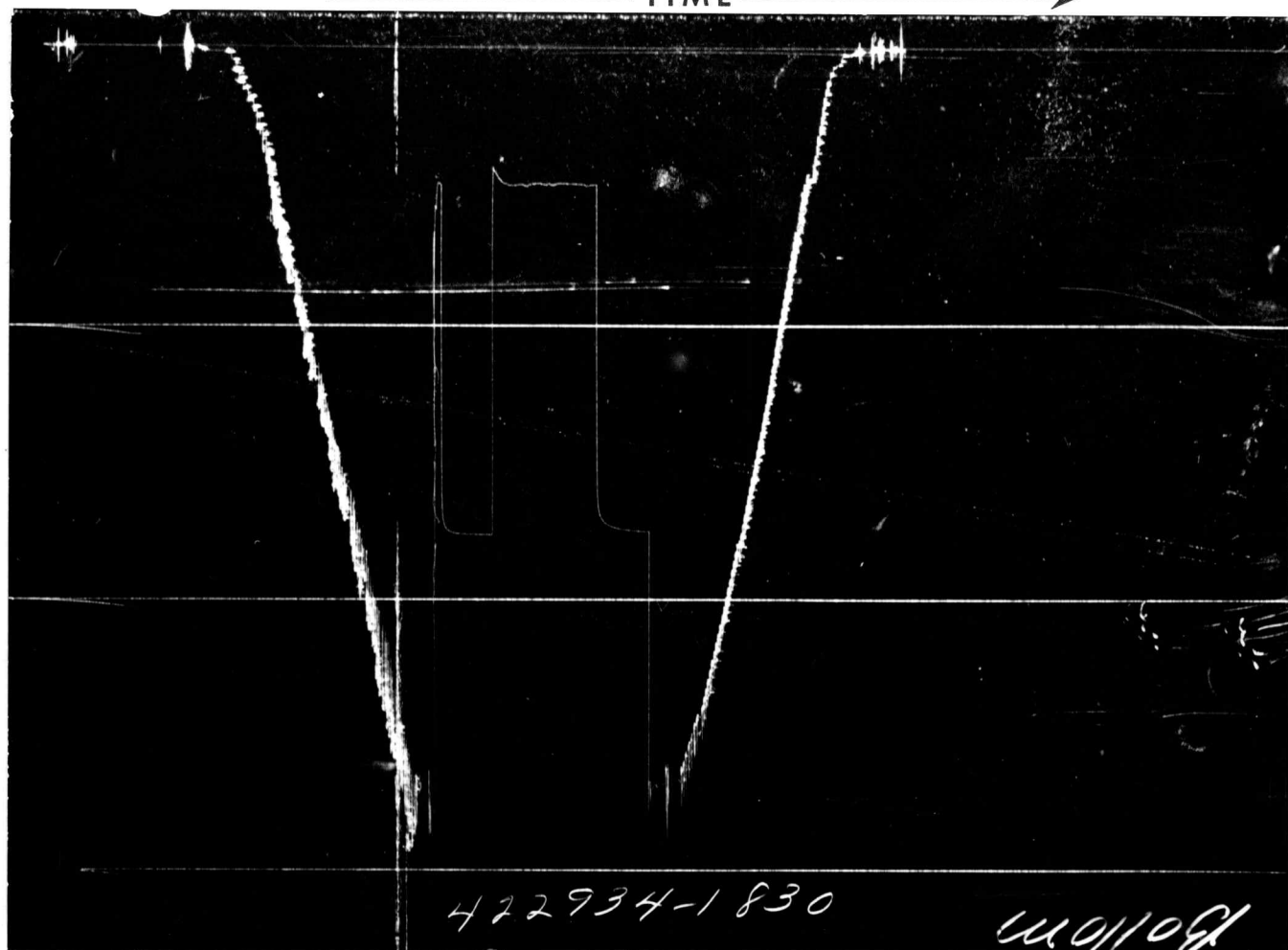


10° each circle

PRESSURE



TIME



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

Flow Time	1st	Min.	2nd	Min.	Date	12-1-66	Ticket Number	422935 - S
Closed In Press. Time	1st	Min.	2nd	Min.	Kind of Job	OPEN HOLE	Halliburton District	PRATT
Pressure Readings	Field		Office Corrected		Tester	MR. HUNTER	Witness	MR. BYRD
Depth Top Gauge	4972 Ft.		Blanked Off NO		Drilling Contractor	LEBEN DRILLING COMPANY TC		
BT. P.R.D. No.	1831		12 Hour Clock		Elevation	-	Top Packer	4976'
Initial Hydro Mud Pressure	2676		2701		Total Depth	4995'	Bottom Packer	4980'
Initial Closed in Pres.	1751		1753		Interval Tested	4980'-4995'	Formation Tested	MISSISSIPPII
Initial Flow Pres.	539		1 552		Casing or Hole Size	7 7/8"	Casing Perfs. { Top Bot.	-
Final Flow Pres.	613		2 598		Surface Choke	1"	Bottom Choke	3/4"
Final Closed in Pres.	613		1 632		Size & Kind Drill Pipe	4 1/2" F.H.	Drill Collars Above Tester	I.D. - LENGTH FLEX WEIGHT-1200'
Final Hydro Mud Pressure	687		2 691		Mud Weight	10.2	Mud Viscosity	48
Depth Cen. Gauge	1732		1737		Temperature	106	Anchor Size & Length	ID 3.37" OD 5.00" X 15'
BT. P.R.D. No.	2657		2671		Depths Mea. From	-	Depth of Tester Valve	4749' Ft.
Initial Hydro Mud Pres.	-		-		Cushion	-	Depth Back Pres. Valve	- Ft.
Initial Closed in Pres.	1		2		Recovered	1	Feet of Condensate	Med. From Tester Valve
Initial Flow Pres.	1		2		Recovered		Feet of	
Final Flow Pres.	1		2		Recovered		Feet of	
Final Closed in Pres.	1		2		Recovered		Feet of	
Final Hydro Mud Pres.	-		-		Oil A.P.I. Gravity	-	Water Spec. Gravity	-
Depth Bot. Gauge	4991 Ft.		YES Blanked Off		Gas Gravity	-	Surface Pressure	psi
BT. P.R.D. No.	1830		12 Hour Clock		Tool Opened	10:35 AM	Tool Closed	12:10 PM
Initial Hydro Mud Pres.	2688		2710		Remarks	Opened tool for 5 minute 1st flow. Closed		
Initial Closed in Pres.	1748		1749		tool for 30 minute initial closed in pressure.			
Initial Flow Pres.	557		1 581		Reopened tool for 60 minute 2nd flow with a strong			
Final Flow Pres.	631		2 619		blow; gas to surface. Gauged in 2 minutes at 3500			
Final Closed in Pres.	631		1 644		MCF, 5 minutes at 3700 MCF, 10 minutes at 5023 MCF, 15 minutes at 5594 MCF, and 20 minutes at 5690 MCF and stabilized. Closed tool for 30 minute final closed			
Final Hydro Mud Pres.	705		2 702		in pressure.			

FORMATION TEST DATA

in pressure.

Legal Location
Sec. - Twp. - Rng.

SEC. 13 - 31 - 18 S-W

1-A
Well No.

2
Test No.

CITIES SERVICE OIL COMPANY
Lease Owner/Company Name

County

COMANCHE

State

KANSAS

Owner's District

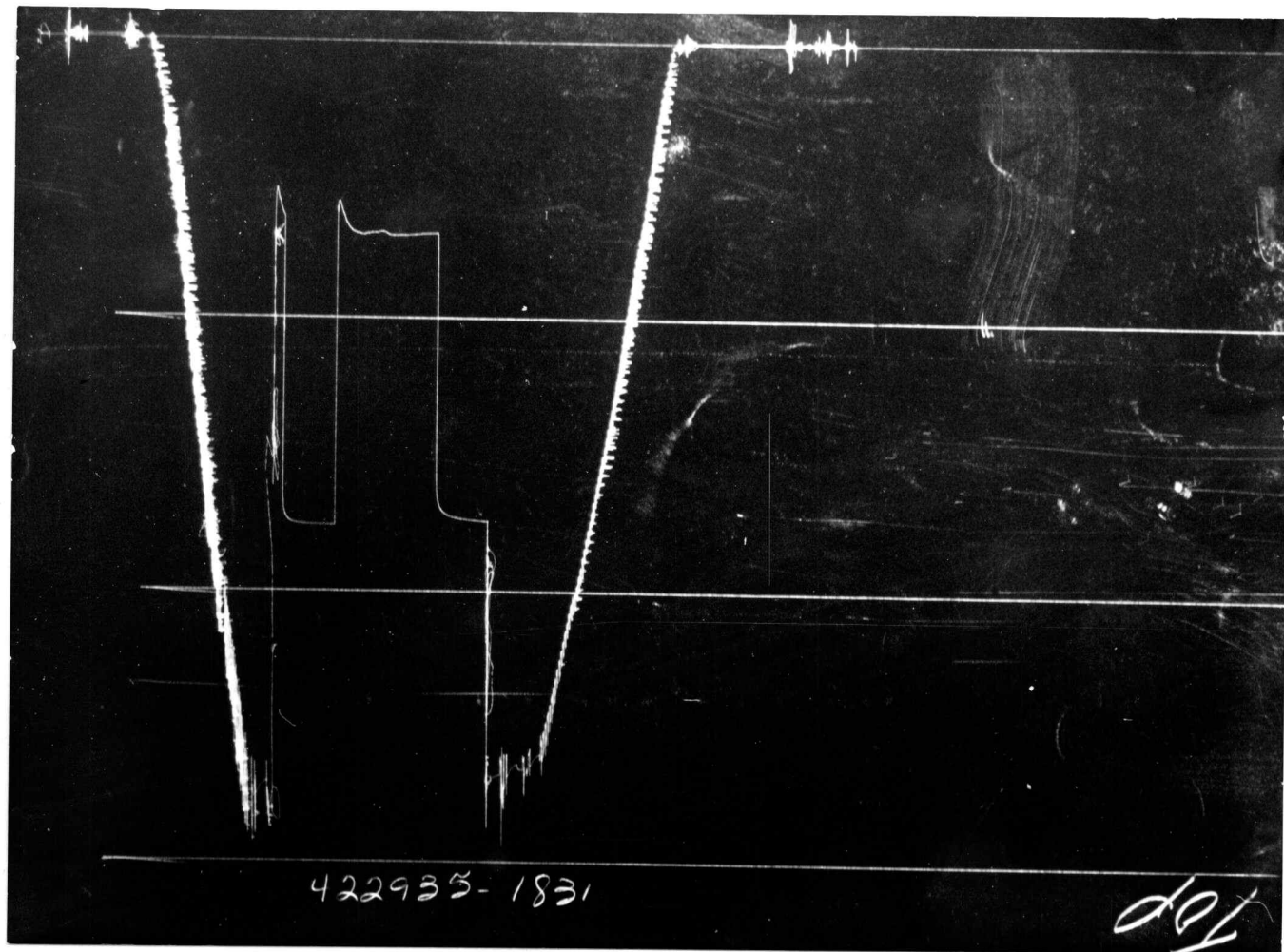
Gauge No.		1831		Depth		4972'		Clock		12 hour		Ticket No.		422935	
First Flow Period			Initial Closed In Pressure			Second Flow Period			Final Closed In Pressure						
	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t+\phi}{\phi}$	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t+\phi}{\phi}$	PSIG Temp. Corr.					
P ₀	.000	552	.000		632	.000	598	.000		691					
P ₁	.0072	545	.0211		1731	.1005	697	.0211		1689					
P ₂	.0144	573	.0422		1744	.2010	694	.0422		1711					
P ₃	.0216	600	.0633		1748	.3015	697	.0633		1719					
P ₄	.0288	618	.0844		1750	.4020	691	.0844		1725					
P ₅	.0360	632	.1055		1751			.1055		1728					
P ₆			.1266		1752			.1266		1731					
P ₇			.1477		1753			.1477		1733					
P ₈			.1688		1753			.1688		1734					
P ₉			.1899		1753			.1899		1736					
P ₁₀			.2110		1753			.2110		1737					

Gauge No.		1830		Depth		4991'		Clock		12 hour	
P ₀	.000	581	.000		644	.000	619	.000		702	
P ₁	.0076	553	.0206		1729	.100	706	.0205		1695	
P ₂	.0152	581	.0412		1741	.200	704	.0410		1712	
P ₃	.0228	609	.0618		1744	.300	707	.0615		1718	
P ₄	.0304	627	.0824		1746	.400	702	.0820		1723	
P ₅	.0380	644	.1030		1747			.1025		1727	
P ₆			.1236		1748			.1230		1728	
P ₇			.1442		1749			.1435		1731	
P ₈			.1648		1749			.1640		1733	
P ₉			.1854		1749			.1845		1734	
P ₁₀			.2060		1749			.2050		1735	

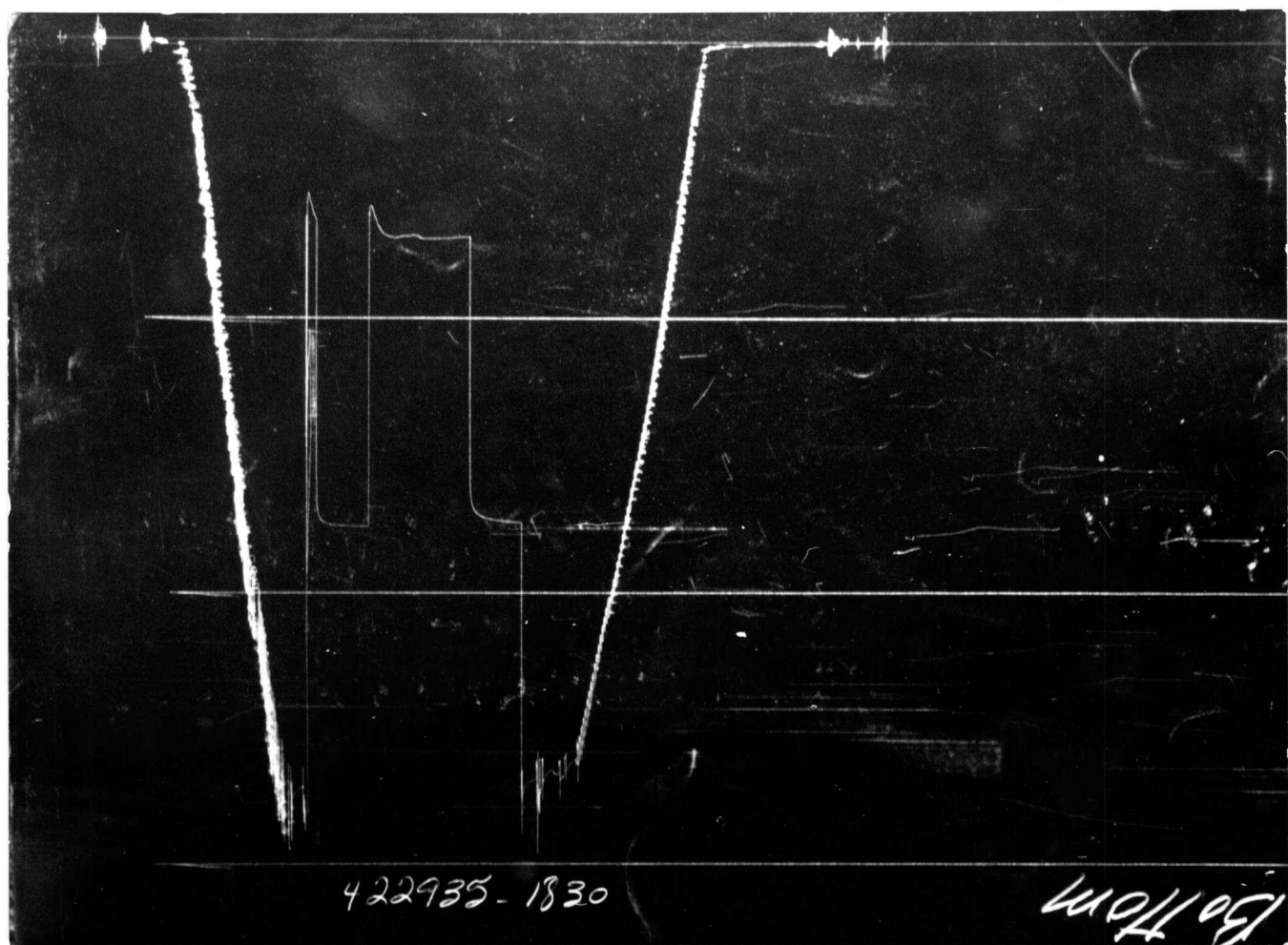
Reading Interval	1	3	15	3	Minutes
REMARKS:					

SPECIAL PRESSURE DATA

↑
PRESSURE
↓



TIME →



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

Flow Time	1st Min. 5	2nd Min. 60	Date	12-3-66	Ticket Number	422936 - S
Closed In Press. Time	1st Min. 30	2nd Min. 30	Kind of Job	OPEN HOLE	Halliburton District	PRATT
Pressure Readings	Field	Office Corrected	Tester	MR. HUNTER	Witness	MR. AUSTIN
Depth Top Gauge	4991 Ft.	Blanked Off NO	Drilling Contractor	LEBEN DRILLING COMPANY	TC	
BT. P.R.D. No.	1831	12 Hour Clock	Elevation	-	Top Packer	-
Initial Hydro Mud Pressure	2619	2607	Total Depth	5049'	Bottom Packer	4995'
Initial Closed in Pres.	1902	1894*	Interval Tested	4995'-5049'	Formation Tested	MISSISSIPPI
Initial Flow Pres.	130	1	111	Casing or Hole Size	7 7/8"	Casing } Top Perfs. } Bot. -
Final Flow Pres.	149	2	196	Surface Choke	1"	Bottom Choke 3/4"
Final Closed in Pres.	1751	1753	Size & Kind Drill Pipe	4 1/2" F.H.	Drill Collars Above Tester	I.D. - LENGTH FLEX WT. 1200'
Final Hydro Mud Pressure	2581	2563	Mud Weight	10.1	Mud Viscosity	48
Depth Cen. Gauge	Ft.	Blanked Off	Temperature	5044' @ 100	Anchor Size & Length	ID 3.37" X OD 5.00" 54'
BT. P.R.D. No.		Hour Clock	Depths Mea. From	-	Depth of Tester Valve	4974' Ft.
Initial Hydro Mud Pres.			TYPE	AMOUNT	Depth Back Pres. Valve	- Ft.
Initial Closed in Pres.			Cushion	-	Recovered	388 Feet of Heavy gas cut mud
Initial Flow Pres.	1		Recovered	315	Feet of	Gas & distillate cut mud
Final Flow Pres.	1		Recovered	189	Feet of	Slightly distillate cut saltwater
Final Closed in Pres.	2		Recovered	189	Feet of	Slightly gas cut saltwater
Final Hydro Mud Pres.			Oil A.P.I. Gravity	-	Water Spec. Gravity	-
Depth Bot. Gauge	5045 Ft.	Blanked Off YES	Gas Gravity	-	Surface Pressure	- psi
BT. P.R.D. No.	1830	12 Hour Clock	Tool Opened	3:39 PM	A.M. P.M. Tool Closed	5:44 PM A.M. P.M.
Initial Hydro Mud Pres.	2612	2639	Remarks	Opened tool for 5 minute 1st flow. Closed tool for 30 minute initial closed in pressure.		
Initial Closed in Pres.	1898	1921*	Reopened tool for 60 minute 2nd flow with gas to surface in 4 minutes. Gauged in 5 minutes at 240,000 MCF, 10 minutes-270,000 MCF, 15 minutes-349,000 MCF, 20 minutes-391,000 MCF, 30 minutes-481,000 MCF, 40 minutes-537,000 MCF, 50 minutes-577,000 MCF, and in 60 minutes 588,000 MCF. Closed tool for 30 minute final closed in pressure. *Questionable			
Initial Flow Pres.	130	1	141			
Final Flow Pres.	167	2	222			
Final Flow Pres.	167	1	178			
Final Flow Pres.	372	2	379			
Final Closed in Pres.	1785	1778				
Final Hydro Mud Pres.	2574	2593				

FORMATION TEST DATA

Legal Location
Sec. - Twp. - Range.

Lease Name
PYLE

Well No.
A-1

Test No.
3

County
COMANCHE

State
KANSAS

Owner's District
OWNER'S DISTRICT

Owner's Name
CITIES SERVICE OIL COMPANY

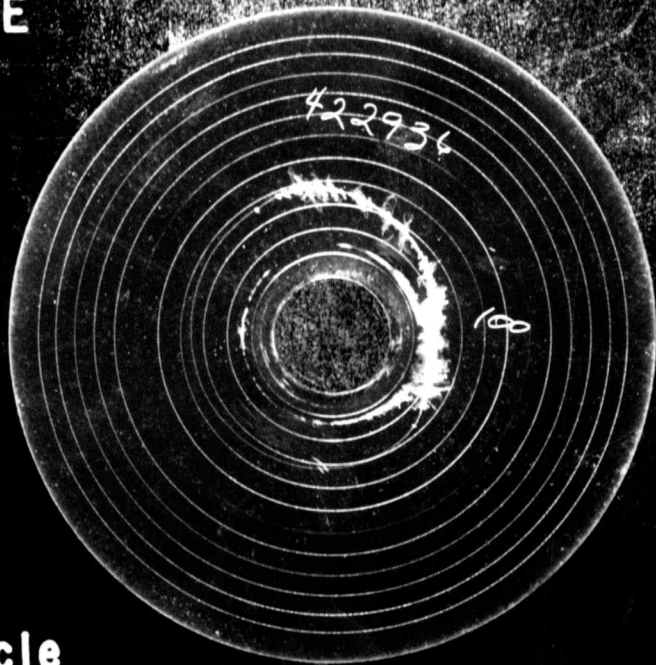
Gauge No. 1831			Depth 4991'			Clock 12 hour		Ticket No. 422936		
First Flow Period			Initial Closed In Pressure			Second Flow Period		Final Closed In Pressure		
	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.
P ₀	.000	111	.000		151	.000	196	.000		354
P ₁	.008	138	.206		1894*	.0665	212	.0223		1742
P ₂	.016	132				.1330	246	.0446		1747
P ₃	.024	147				.1995	279	.0669		1749
P ₄	.032	146				.2660	306	.0892		1750
P ₅	.040	151				.3325	331	.1115		1751
P ₆						.3990	354	.1338		1751
P ₇								.1561		1752
P ₈								.1784		1753
P ₉								.2007		1753
P ₁₀								.2230		1753

Gauge No. 1830			Depth 5045'			Clock 12 hour				
P ₀	.000	141	.000		178	.000	222	.000		379
P ₁	.0078	164	.209		1921*	.0667	238	.0225		1766
P ₂	.0156	161				.1334	272	.0450		1772
P ₃	.0234	173				.2001	305	.0675		1773
P ₄	.0312	172				.2668	331	.0900		1774
P ₅	.0390	178				.3335	356	.1125		1775
P ₆						.4000	379	.1350		1776
P ₇								.1575		1777
P ₈								.1800		1778
P ₉								.2025		1778
P ₁₀								.2250		1778
Reading Interval 1						10		3 Minutes		

REMARKS: *Questionable

SPECIAL PRESSURE DATA

TEMPERATURE
RECORDER
CHART



10° each circle

PRESSURE

TIME

422936-1831

10/

422936-1830

4/20/88

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