

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

Pool Todd San Andres Formation San Andres County Roosevelt
Initial Retest Annual Special Date of Test December 10, 1964
Company The Atlantic Refining Company Lease State "BA" Well No. 1
Unit A Sec. 34 Twp. 7-S Rge. 35-E Purchaser Presidio Operating Co. (When connected)
Casing 4.5 Wt. 9.5 I.D. 4.090 Set at 4430' Perf. 4129 To 4133
Tubing 2.375 Wt. 4.7 I.D. 1.995 Set at 4180' Perf. 4173 To 4178
Gas Pay: From 4129 To 4178 L 4180 xG 0.750 -GL 3135 Bar.Press. 13.2
Producing Thru: Casing Tubing X Type Well Single
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 12-4-64 Packer TIW Packer Reservoir Temp. 106 F
4086

OBSERVED DATA

Tested Through (Prover) (Choke) (Meter) Type Taps Flange

No.	Flow Data			Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	
SI	3.0 in.	2.0 in.				1031		36 hr. SI
1.	3.0 in.	2.0 in.	55	33	44	620	65	1 hr.
2.	3.0 in.	2.0 in.	49	44	49	458	66	1 hr.
3.	3.0 in.	2.0 in.	49	49	50	341	66	1 hr.
4.	3.0 in.	2.0 in.	49	56	58	209	66	1 hr.
5.								

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_w P_f}$	Pressure psia	Flow Temp. Factor F _t	Gravity Factor F _g	Compress. Factor F _{pv}	Rate of Flow Q-MCFPD @ 15.025 psia
1.	27.52	47.441	68.2	1.0157	0.8944	1.010	1197.9
2.	27.52	52.314	62.2	1.0107	0.8944	1.010	1314.4
3.	27.52	55.207	62.2	1.0098	0.8944	1.010	1385.9
4.	27.52	59.019	62.2	1.0019	0.8944	1.010	1470.0
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio cf/bbl.
Gravity of Liquid Hydrocarbons deg.
P_c 9.936 (1-e^{-s}) 0.194
Specific Gravity Separator Gas
Specific Gravity Flowing Fluid
P_c 1044.2 P_c 1090.4

No.	P _w P _t (psia)	P _t ²	F _c Q	(F _c Q) ²	(F _c Q) ² (1-e ^{-s})	P _w ²	P _c ² -P _w ²	Cal. P _w	P _w P _c
1.	633.2	400.9	11.902	141.658	27.48	428.4	662.0	601.1	601.1
2.	471.2	222.0	13.059	170.537	33.084	255.1	835.3	471.2	471.2
3.	354.2	125.5	13.770	189.613	36.785	162.3	928.1	354.2	354.2
4.	222.2	49.4	14.606	213.335	41.387	90.8	999.6	222.2	222.2
5.									

Absolute Potential: 1550 MCFPD; n 0.43
COMPANY The Atlantic Refining Company
ADDRESS Post Office Box 1978, Roswell, New Mexico
AGENT and TITLE W. P. Tomlinson, District Engineer
WITNESSED
COMPANY

REMARKS

Could not flow below 20/64" due to choke freezing up.
First point was at 20/64".

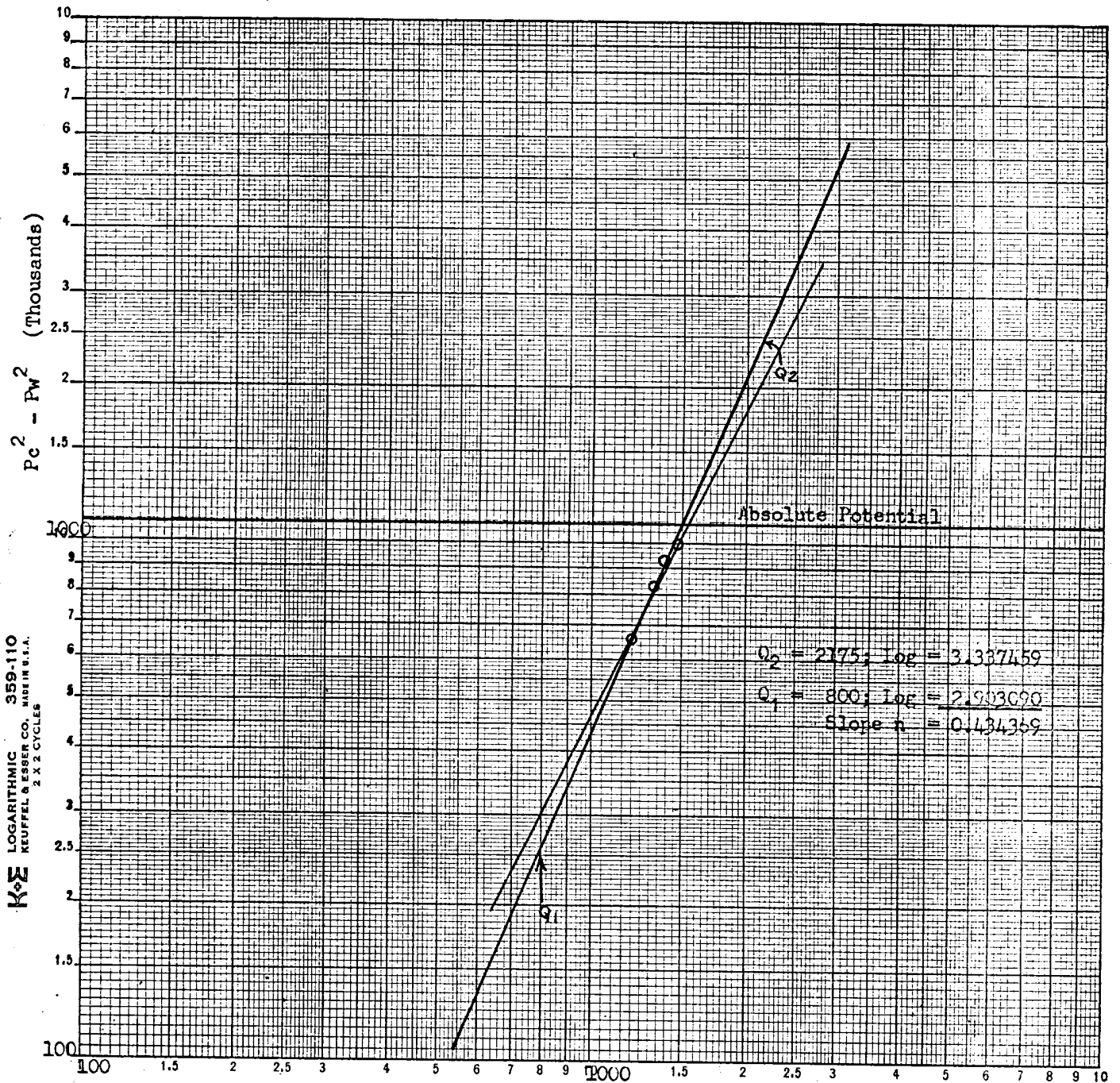
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COMPANY: The Atlantic Refining Company
 WELL: State "BA" No. 1
 LOCATION: A-34-7S-36E
 COUNTY: Roosevelt
 DATE: 12-10-64



Q - MCFD - 15.025 psia.

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NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

Pool Todd San Andres Formation San Andres County Roosevelt
Initial X Annual _____ Special _____ Date of Test Dec. 8, 1964
Company The Atlantic Refining Co. Lease _____ State "BA" Well No. 1
Unit A Sec. 34 Twp. 7-S Rge. 35-E Purchaser Presidio Operating Company (When
Casing 4.5 Wt. 9.5 I.D. 4.090 Set at 4430' Perf. 4129 To 4133 Connected)
Tubing 2.375 Wt. 4.7 I.D. 1.995 Set at 4180' Perf. 4145 To 4148
Gas Pay: From 4129 To 4178 L 4180 xG 0.760 -GL 3177 Bar.Press. 13.2
Producing Thru: Casing _____ Tubing X Type Well Single
Date of Completion: 12-4-64 Packer TIW Packer Reservoir Temp. 106° F
4086

OBSERVED DATA

Tested Through (Prover) (Choke) (Meter) Type Taps Flange

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI	3 in.	2.250 in				860	61	Packer		24 hr. SI
1.	3 in.	2.250 in	54	8	48	654	61	Packer		1 hr.
2.	3 in.	2.250 in	48	12	46	511	61	Packer		1 hr.
3.	3 in.	2.250 in	45	16	49	369	61	Packer		1 hr.
4.	3 in.	2.250 in	45	18	54	171	62	Packer		1 hr.
5.										

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_w P_f}$	Pressure psia	Flow Temp. Factor F _t	Gravity Factor F _g	Compress. Factor F _{pv}	Rate of Flow Q-MCFPD @ 15.025 psia
1.	37.15	23.187	67.2	1.0117	0.8885	1.012	783.6
2.	37.15	27.100	61.2	1.0137	0.8885	1.012	917.6
3.	37.15	30.516	58.2	1.0107	0.8885	1.011	1029.2
4.	37.15	32.367	58.2	1.0058	0.8885	1.011	1086.4
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
P_c 9.936 (1-e^{-s}) 0.196
Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 873.2 P_c 762.5

No.	P _w P _t (psia)	P _c ²	F _c Q	(F _c Q) ²	(F _c Q) ² (1-e ^{-s})	P _w ²	P _c ² -P _w ²	Cal. P _w	P _w P _c
1.	667.2	445.2	7.786	60.62	11.882	457.1	305.4	676.1	76.8
2.	524.2	274.8	9.117	83.12	16.292	291.1	171.4	537.5	59.45
3.	382.2	146.1	10.23	104.65	20.511	166.6	595.9	4	12.9
4.	184.2	33.9	10.79	116.42	22.818	56.7	705.8		19.89
5.									

Absolute Potential: 1240 MCFPD; n 0.40
COMPANY THE ATLANTIC REFINING COMPANY
ADDRESS Post Office Box 1978, Roswell, New Mexico
AGENT and TITLE W. P. Tomlinson, District Engineer
WITNESSED _____
COMPANY _____

REMARKS

Cannot flow below 16/64" due to choke freezing up.
First point was at 16/64".

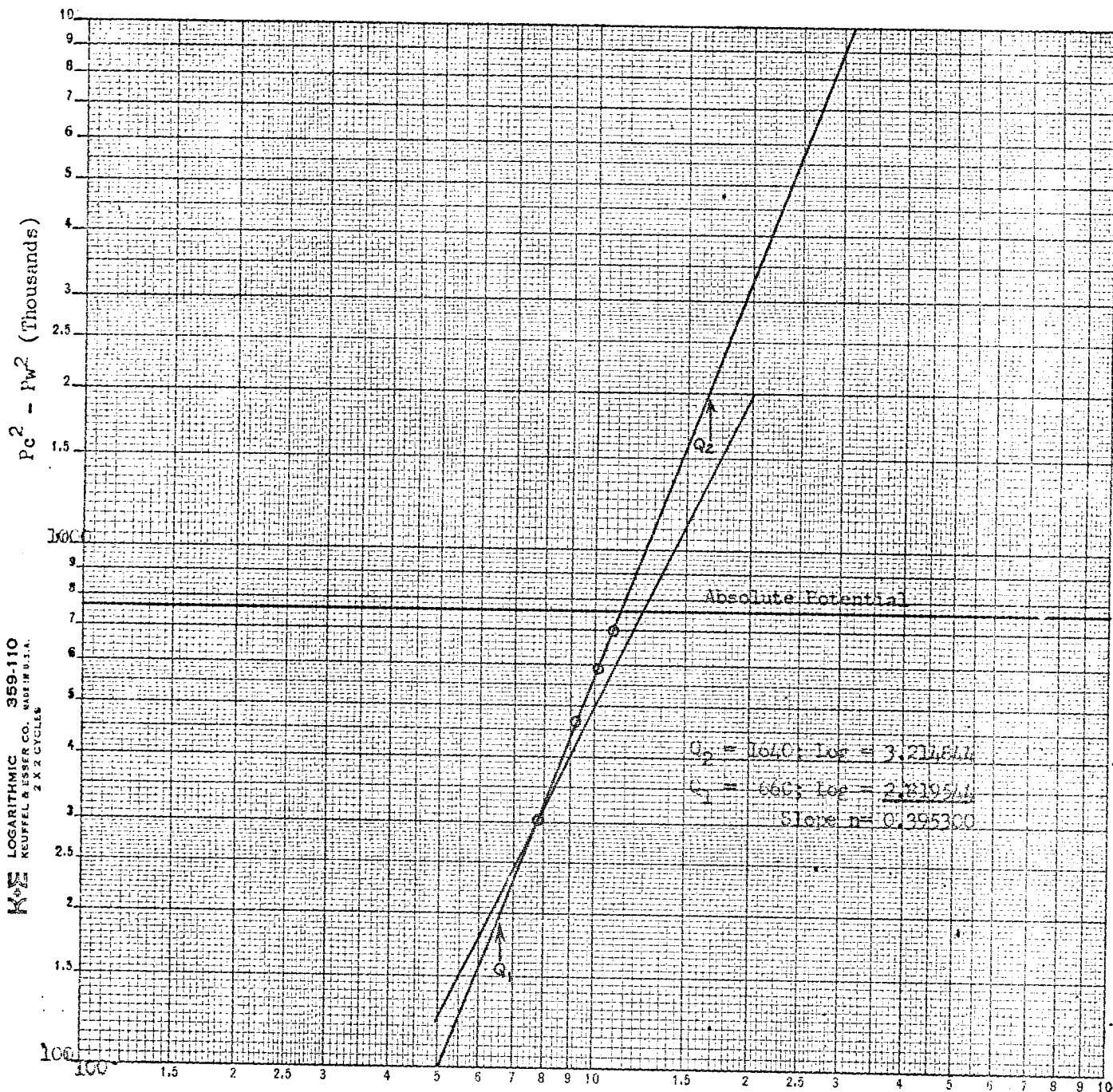
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COMPANY: The Atlantic Refining Company
 WELL: State "BA" No. 1
 LOCATION: A-34-7S-36E
 COUNTY: Roosevelt
 DATE: 12-8-64



Q - MCFD - 15.025 psia.

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