B.F.Goodrich

B. F. Goodrich Chemical Company

A DIVISION OF THE B F GOODRICH COMPANY

6100 OAK TREE BOULEVARD • CLEVELAND, OHIO 44131 • PHONE 216-524-0200

INTERNATIONAL DEPARTMENT

VIA AIR MAIL

February 20, 1978

Mr. Robert Fanter
Tenneco Chemicals
A Tenneco Company
Turner Place
Piscataway, NJ 08854

Dear Mr. Fanter:

Enclosed is a copy of the test results for the gas chromatograph VCM desorption test performed on the Tenneco copolymer sample sent to our Avon Lake Technical Center.

In our opinion this resin exhibits relatively good VCM removal properties as compared to other copolymer resins. The 0 - 1 minute slope of -0.246 indicates that the VCM removal above the initial level of 173 ppm VCM would be very rapid. Actually, this slope is comparable to many homopolymer resins in this region, which understandably have better VCM removal properties because of their inherent (lower) porosity. Higher? Yes

If you have any questions regarding the data presented, please let me know and I will try to obtain answers to your questions. Also, I will let you know in the very near future if we will be able to strip a drum of your copolymer slurry in our Brecksville Research Center pilot column. Yes Thank you for your interest in this technology, and I hope to hear from you in the near future.

Sincerely,

Arthur L. Hastings

Arthur L. Hastings

ALH:gac
Enclosure

CABLE ADDRESS • GOODRICHCHEM • TELEX NO. 98-0427

B.F.GOODRICH CHEMICAL COMPANY TECHNICAL REPORT

TITLE

G. C. VCM DESORPTION RATE FOR TENNECO PVC/VAC COPOLYMER

AUTHOR	LOCATION	DATE
P. R. KUMLER	AVON LAKE TECHNICAL CENTER	2/14/78
REQUESTED BY	LOCATION	PROJECT NO
[redacted] L. HASTINGS	CLEVELAND	5471-96

XXXXXXX

A Tenneco sample of PVC/VAC (Shipping No. 3718) was analysed by G. C. Desorption to determine the relative stripping rate of VCM from the copolymer.

The relative desorption rate, designated as the 0 ⟶ 1 minute slope, is the least-squares fit of a straight line encompassing the Log C/C_o values at 0, 0.2, 0.4, 0.6 and 1 minute. (See Figure 1, VCM desorption curve for the Tenneco sample).

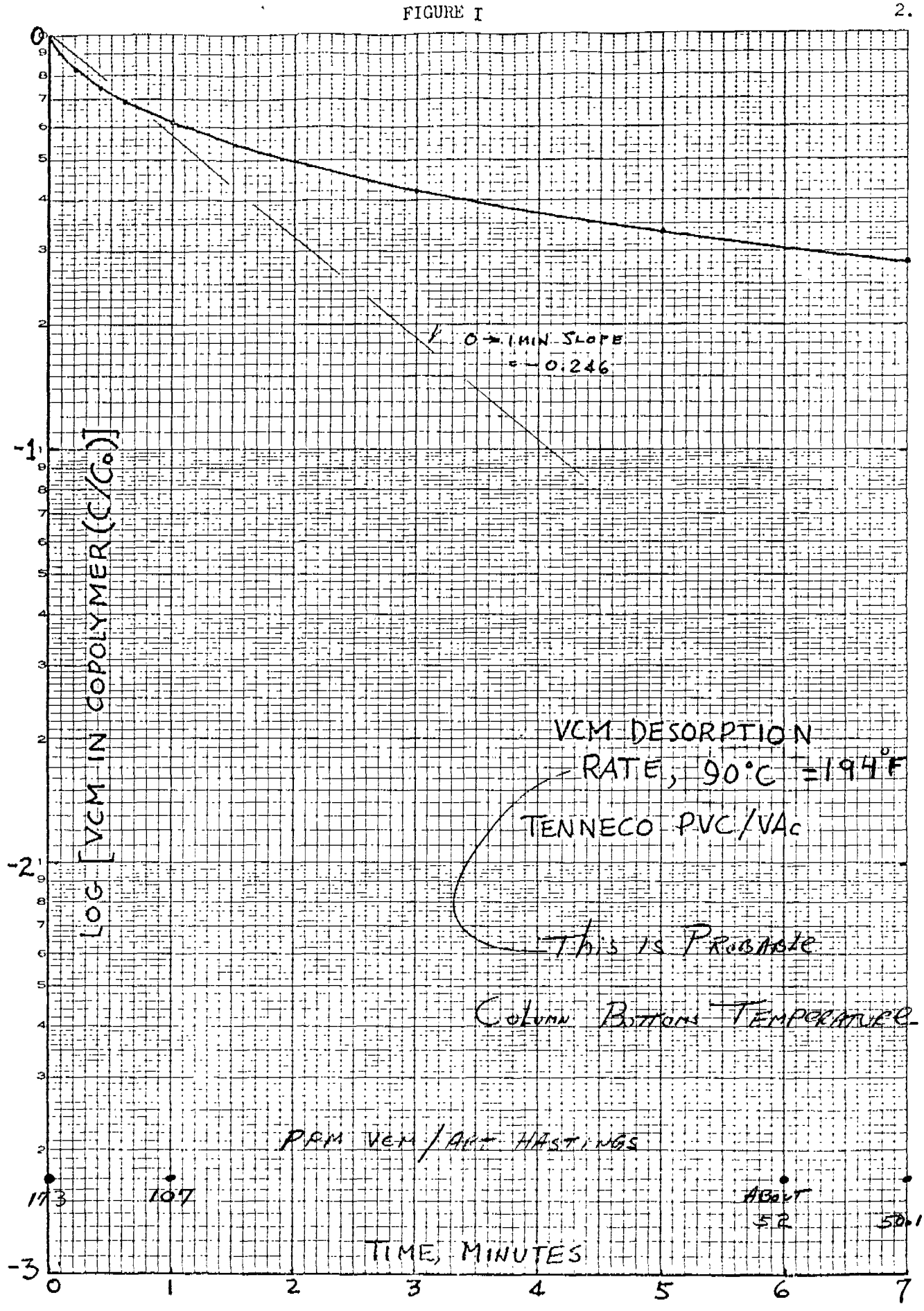
For reference purposes, the Tenneco desorption curve and slope value are compared with those of other PVC/VAC copolymers which have been analysed in the past. These are shown in Figure 2 and in Table I.

P. R. Kumler

PRK/kah

P R Kumler

FIGURE I



EUGENE DIETZGEN CO.
MADE IN U. S. A.

NO. 341-L310 DIETZGEN GRAPH PAPER
SEMI-LOGARITHMIC
3 CYCLES X 10 DIVISIONS PER INCH

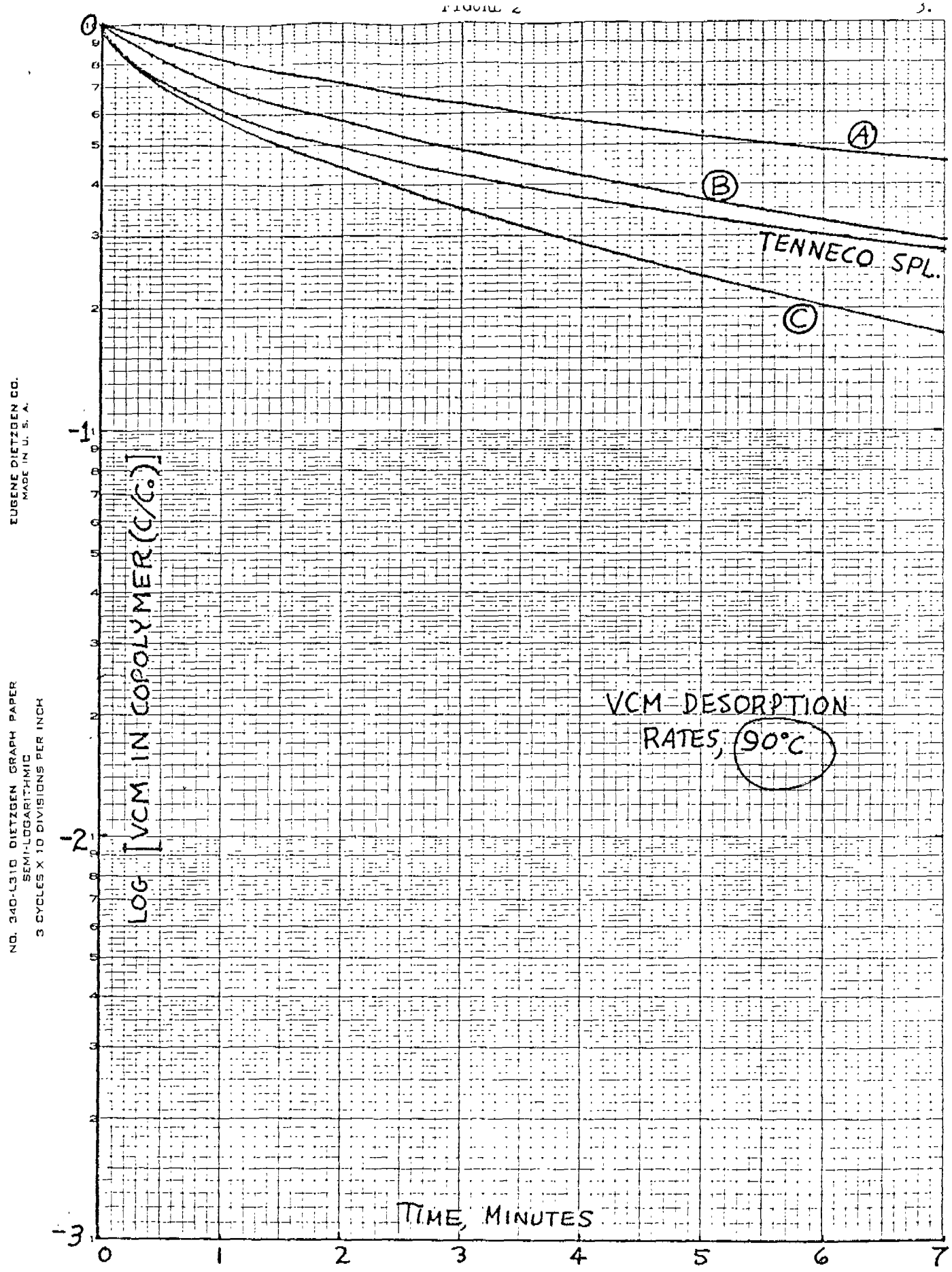


TABLE I

COMPARATIVE VCM DESORPTION RATES AT 90°C; PVC/VAc COPOLYMERS

Sample	0 → 1 Min. Slope Log C/C_o $(Time)^{-1}$	G. C. Chart N°	G. C. Spl. Ref.
Tenneco (Shipping No. 3718)	-0.246	777	752-3-106-1
A	-0.0827	549	752-3-46-1
B	-0.170	368	752-3-1-10
C	-0.246	367	752-3-24-1

In comparison of these samples, Tenneco, with a slope value of -0.246, is a fast desorber (for a copolymer) and its initial desorption rate is equivalent to that of Sample "C". Sample "A" and "B" show slower VCM desorption rates.

BFG ACCT HASTINGS 2/22/78

173 PPM

7 min → 50.17 PPM

.1 ppm with DRYER FOR BOTTLE RESIN

MINUTES		
0	173	ppm
1	107	
2		
3		
4		
5		
6	52.17	ppm
7	50.17	PPM

STRIP ... 3 time as good

15 to 30 MIN ... Coleman ... to 15

STRIP @ 180°F 170

2/13/78

Phone Conversation:

Art Hastings of B.F.G.

1) Samples: Lab Work Complete
Report To Be issued in 5-10 DAYS.

2) BFG is Building A Copolymer Column For A U.S. Producer who is Presently using Columns For Homo. Column Designed For 300 ppm/Customer.

3) Art says Process is Diffusion Controlled "once you gets to the Surface it is Easily Removed"

4) With a 300 ppm Design ~~For Starter Column~~ You Could Slow it Down To Get Down To 100 ppm.

R.F.F.

GoodRich

CONTINUOUS Copolymer Stripping

Art [illegible] (216 [illegible]-0200

SIZE: 15,000 lbs/h [illegible] = 120,000,000 lbs/YR [illegible]

20,000 lbs/h = 170,400,000 lbs/YR [illegible] 113,360,000

[illegible]

[illegible] TO: ⊢—⊣ PPM [illegible] to [illegible]

FROM: ⊢—⊣ PPM

GUARANTEE: No

COST OF TECHNOLOGY: [illegible]

Copolymer [illegible] on 15 % VA Resins

Will You STRIP RESIN without Permit

6" [illegible]

N- As good as on Homo. (1/6)

300 ppm

ATTN: [illegible]

[illegible]

PO [illegible]

Moore [illegible]

Avon Lake, Ohio

[illegible]

Decide [illegible]