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Critical interaction constants for binary gas mixtures for use in the Redlich-Kwong equation of state

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CRITICAL INTERACTION CONSTANTS
FOR BINARY GAS MIXTURES FOR USE
IN THE REDLICH - KWONG EQUATION OF STATE

BY

WARREN J. BISS

A THESIS

PRESENTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE

OF

MASTER OF SCIENCE IN CHEMICAL ENGINEERING

AT

NEWARK COLLEGE OF ENGINEERING

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NEWARK, NEW JERSEY
1968

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ABSTRACT

In this work, critical interaction constants were used to evaluate the interaction coefficients of the Redlich - Kwong constants for binary gas mixtures. From these constants, the pressure - volume - temperature behavior of the mixtures was calculated using the Redlich - Kwong equation.

The critical interaction constants, T_{12} and P_{12} , were evaluated for binary mixtures by solving, simultaneously, two second degree equations relating terminal slopes for critical pressure loci and the mole fractions of the components present. The feasibility of this method was tested by calculating P-V-T data for binary mixtures and comparing this with values obtained using the standard combination rules of Redlich and Kwong.

Solutions to the second degree equations were obtained for 90 % of the systems tested. Where P-V-T data was available to test these constants, however, the combination rules of Redlich and Kwong were found, generally, to give better results.

INTRODUCTION

Industrial chemical calculations and design work require relationships from which pressure - volume - temperature behavior of fluids may be accurately predicted. For gases at low pressures, this relationship has been represented by:

$$PV = RT \quad (1)$$

which is known as the ideal gas law. Much of the need for P-V-T data, however, is in the range where the gas cannot be considered ideal. Thus, the ideal gas law has a very limited application and breaks down completely when the attractive and repulsive forces between molecules or the volumes of the molecules become significant. Early investigators attempted to modify equation (1) by the introduction of constants which took into account these deviations from ideal gas behavior.

In the present work, these constants were evaluated for binary mixtures from critical interaction temperatures and pressures for use in the Redlich - Kwong equation of state. The critical interaction constants T_{12} and P_{12} , were calculated from expressions relating critical pressure and composition, given by Sutton²⁵ and Joffe and Zudkevitch⁸. P-V-T values calculated with the R-K equation, for

which the constants had been evaluated, were compared with experimental data. These results were also compared with those obtained using the combination rules of Redlich and Kwong²¹ and the critical interaction constants given by Joffe and Zudkevitch⁷.

BACKGROUND

In attempts to correct for deviations from ideal behavior, the ideal gas law has been modified by the introduction of constants which take into account the void volume occupied by gas molecules and the forces exerted during the collision of molecules. The simplest modifications are those equations containing two constants. Among them are the equations proposed by van der Waals, Berthelot, Dieterici⁶, and Redlich and Kwong²¹. Explicit in pressure, they may be written as:

van der Waals

$$P = \frac{RT}{V-b} - \frac{a}{V^2}$$

Berthelot

$$P = \frac{RT}{V-b} - \frac{a}{TV^2}$$

Dieterici

$$P = \frac{RT e^{-a/RVT}}{V-b}$$

Redlich - Kwong

$$P = \frac{RT}{V-b} - \frac{a}{T^{0.5} V(V+b)}$$

Although these two-constant empirical equations have a limited range of application, they are nonetheless accurate enough to warrant their use. Furthermore, because of their simplicity, they may easily be used to derive thermodynamic functions such as enthalpy, entropy, fugacity, etc..

Of these four empirical equations, that of Redlich and Kwong has proven to be the most useful and accurate. First proposed in 1948²¹, it closely resembles the Berthelot equation in form. The coefficients a and b represent the attractive forces between molecules and the limiting volume of the molecules respectively. They were evaluated by Redlich and Kwong who assumed the following conditions to be valid at the critical point :

$$\left(\frac{\partial P}{\partial V}\right)_T = 0 \quad (6)$$

$$\left(\frac{\partial^2 P}{\partial V^2}\right)_T = 0 \quad (7)$$

Solving the resulting derivatives for a and b , yields :

$$a = 0.4278 R^2 T^{2.5} / P \quad (8)$$

$$b = 0.0867 RT/P \quad (9)$$

where R is the universal gas constant, T the critical temperature, and P the critical pressure. Recently it has been proposed by Chueh and Prausnitz³ that the constants in the coefficients (i. e. 0.4278 and 0.0867) of equations (8) and (9), be modified for each compound by fitting the Redlich - Kwong equation to volumetric data of the saturated vapor of that compound.

Redlich and Kwong²¹ stated that their equation may be applied to gaseous mixtures as well, where the constants a and b refer to the

mixture rather than the pure components. From statistical mechanics and the general theory of the second virial coefficient, the constants may be related to those of the pure components and to their mole fraction in the mixture by the following rules :

$$a = \sum_i^n \sum_j^n Y_i Y_j a_{ij} \quad (10)$$

$$b = \sum_i^n \sum_j^n Y_i Y_j b_{ij} \quad (11)$$

In order to calculate a and b for the mixture, it is necessary to evaluate the interaction coefficients a_{ij} and b_{ij} . This may be done by either introducing combination rules relating them to the coefficients of the pure components, or by relating them to the critical interaction constants of the mixture.

In the former method, used by Redlich and Kwong, the interaction coefficient, a_{ij} was somewhat arbitrarily related to the coefficients of the pure components by :

$$a_{ij} = \sqrt{a_i a_j} \quad (12)$$

For b_{ij} , they assumed a linear relationship to exist between b_i and b_j . Thus :

$$b_{ij} = (b_i + b_j) / 2 \quad (13)$$

Introducing these combination rules into equations(10) and (11), results

in the following expressions :

$$\sqrt{a} = \sum_i^n Y_i \sqrt{a_i} \quad (14)$$

$$b = \sum_i^n Y_i b_i \quad (15)$$

The alternative method used by Joffe and Zudkevitch⁷, relates the interaction coefficients to the critical interaction constants of the mixture. Thus, from equations (8) and (9) :

$$a_{ij} = 0.4278 RT_{ij}^{2.5} / P_{ij} \quad (16)$$

$$b_{ij} = 0.0867 RT_{ij} / P_{ij} \quad (17)$$

Substituting equations (8), (9), (16) and (17) into equations (10) and (11), they obtained :

$$T^{2.5} / P = \sum_i^n \sum_j^n Y_i Y_j T_{ij}^{2.5} / P_{ij} \quad (18)$$

$$T / P = \sum_i^n \sum_j^n Y_i Y_j T_{ij} / P_{ij} \quad (19)$$

where T and P were the pseudocritical temperature and pressure of the mixture. For binary mixtures, Joffe and Zudkevitch used the values of the pseudocritical constants obtained by Pitzer and Hultgren, and the critical constants of the pure components to solve for the cri-

tical interaction constants, T_{12} and P_{12} , from equations (18) and (19). Knowing T_{12} and P_{12} , the values of a_{12} and b_{12} were evaluated using equations (16) and (17), and subsequently equations (10) and (11) for the Redlich - Kwong constants, a and b .

DEVELOPMENT OF EQUATIONS

Redlich and Kister²⁰ proposed a shortcut method for predicting the critical locus from the limiting slopes of binary mixtures using the Redlich - Kwong equation. In deriving their expression, they used the combination rules, equations (12) and (13), avoiding evaluation of the interaction constants a_{12} and b_{12} . Their procedure was modified by Joffe and Zudkevitch⁸, who instead used the concept of critical interaction constants from equations (16) and (17) in evaluating the Redlich - Kwong constants. The two expressions which Joffe and Zudkevitch obtained for the limiting slopes along the critical pressure locus were:

$$\begin{aligned} (\ln P/dY_1) = & -2.9065 - 0.38588 Z_{12}/Z_1 + 4.1974 U_{12}^2/U_1^2 \\ & -3.8216 Z_{12}^2/Z_1^2 + 11.3626 Z_{12} U_{12}^2/Z_1 U_1^2 - 8.4461 U_{12}^4/U_1^4 \end{aligned} \quad (20)$$

$$\begin{aligned} (\ln P/dY_2) = & -2.9065 - 0.38588 Z_{12}/Z_2 + 4.1974 U_{12}^2 / U_2^2 \\ & -3.8216 Z_{12}^2 /Z_2^2 + 11.3626 Z_{12} U_{12}^2 /Z_2 U_2^2 - 8.4461 U_{12}^4 /U_2^4 \end{aligned} \quad (21)$$

where $Z_1 = T_1/P_1$, $Z_2 = T_2/P_2$, $Z_{12} = T_{12}/P_{12}$, $U_1 = T_1^{1.25}/P_1^{0.5}$,

$U_2 = T_2^{1.25}/P_2^{0.5}$, and $U_{12} = T_{12}^{1.25}/P_{12}^{0.5}$

Sutton suggested the following equation for binary mixtures correlating the critical pressure and composition:

$$P = Y_1^2 P_1 + Y_2^2 P_2 + Y_1 Y_2 / (A + B (Y_1 - Y_2) + C (Y_1 - Y_2)^2) \quad (22)$$

He evaluated the constants A, B and C for seventy-six mixtures by fitting the equation to critical pressure data. In a few instances (i. e. carbon dioxide - ethane) only two constants were necessary to satisfactorily represent the critical pressure locus.

Using the equations of Joffe, Zudkevitch and Sutton, expressions were obtained from which the critical interaction constants for binary mixtures could be solved for directly. Differentiation of equation (22), first with respect to Y_1 and then with respect to Y_2 yielded two expressions, which when evaluated at $Y_1 = 1$ and $Y_2 = 1$ gives:

$$(dP/dY_1)_{Y_1=1} = 2P_1 - 1/ (A + B + C) \quad (23)$$

$$(dP/dY_2)_{Y_2=1} = 2P_2 - 1/ (A - B + C) \quad (24)$$

Since $d \ln P / dY = (1/P) (dP/dY)$, these equations were rewritten in the form:

$$(d \ln P / dY_1)_{Y_1=1} = (1/P_1) (2P_1 - 1/ (A + B + C)) \quad (25)$$

$$(d \ln P / dY_2)_{Y_2=1} = (1/P_2) (2P_2 - 1/ (A - B + C)) \quad (26)$$

Equating equations (20) with (25) and (21) with (26), resulted in the following two expressions:

$$S_1 = -2.9065 - 0.38588 Z_{12}/Z_1 + 4.1974 W_{12}/W_1 - 3.8216 Z_{12}^2 / Z_1^2 \quad (27)$$

$$+ 11.3626 Z_{12}W_{12}/Z_1W_1 - 8.4461 W_{12}^2 / W_1^2$$

$$S_2 = -2.9065 - 0.38588 Z_{12}/Z_2 + 4.1974 W_{12}/W_2 - 3.8216 Z_{12}^2 / Z_2^2$$

$$+ 11.3626 Z_{12}W_{12}/Z_2W_2 - 8.4461 W_{12}^2 / W_2^2 \quad (28)$$

where S_1 and S_2 represent the quantities on the right hand sides of equations (25) and (26) and the U terms have been replaced by W, with $W_1 = U_1^2$, $W_2 = U_2^2$ and $W_{12} = U_{12}^2$. All of the terms in these two equations, with the exception of Z_{12} and W_{12} , may be evaluated from the critical constants of the pure components or have been tabulated by Sutton²⁵ (i. e. A, B and C). With only these two unknown quantities and two equations, Z_{12} and W_{12} may be calculated. Once known, Z_{12} and W_{12} can be used to calculate the critical interaction constants P_{12} and T_{12} and from equations (16) and (17) a_{12} and b_{12} may be found for use in evaluating the Redlich - Kwong constants for the mixture.

PROCEDURE

In order to calculate Z_{12} and W_{12} , however, it was necessary to solve two simultaneous quadratic equations of the form (fourth degree in U but only second degree in W , thus the reason for introducing W):

$$x^2 + y^2 + xy + x + y = 0 \quad (29)$$

Since a direct solution of two equations of this type was not possible, therefore, it was necessary to resort to a trial-and-error method. The procedure followed was, first, to rearrange equations (27) and (28) in the form of quadratics, with one of the unknowns being treated as a parameter. Z_{12} was chosen as the independent variable, (since, because of its magnitude, this led to a simpler solution), and the two equations were rearranged into the following forms:

$$\left[\frac{8.4461}{W_1^2} \right] W_{12}^2 - \left[\frac{4.1974}{W_1} + \frac{11.3626}{Z_1 W_1} Z_{12} \right] W_{12} + \left[\frac{3.8216}{Z_1^2} Z_{12}^2 + \frac{0.38588}{Z_1} Z_{12} + 2.9065 + S_1 \right] = 0 \quad (30)$$

$$\left[\frac{8.4461}{W_2^2} \right] W_{12}^2 - \left[\frac{4.1974}{W_2} + \frac{11.3626}{Z_2 W_2} Z_{12} \right] W_{12} + \left[\frac{3.8216}{Z_2^2} Z_{12}^2 + \frac{0.38588}{Z_2} Z_{12} + 2.9065 + S_2 \right] = 0 \quad (31)$$

With Z_{12} as the parameter, each of the terms in the brackets became

known quantities. Use was then made of the quadratic formula:

$$W_{12} = \frac{-E \pm \sqrt{E^2 - 4 D F}}{2 D} \quad (32)$$

where D, E and F refer to the quantities enclosed in the first, second and third brackets of equations (30) or (31). Although a trial and error procedure was not avoided, this greatly reduced the task of calculating Z_{12} and W_{12} .

Next, a value of Z_{12} was substituted into equations (30) and (31) and the values of D, E and F were calculated for each equation. First, the values from equation (30) were substituted into equation (32) and two values of W_{12} were calculated. Likewise, values of W_{12} were calculated from the substitution of values of D, E and F from equation (31) into equation (32). If neither of the values of W_{12} calculated from equation (30) agreed with those from equation (31), a new value was assigned to Z_{12} and the entire process repeated. Once the vicinity of a root became known, use of the Newton half-interval method permitted quick convergence on the correct values of Z_{12} and W_{12} . This trial and error procedure of searching for a root was continued until there was either a convergence, or until Z_{12} became equal to 100. The latter value was arbitrarily selected as an upper limit, since the value of Z_{12} would be expected to lie near that of Z_1 or Z_2 which in either case had an upper limit less than 50.

For two simultaneous quadratic equations in two unknowns, there are four possible pairs of solutions. Therefore, it was necessary to find all of the values for Z_{12} and W_{12} over the range of Z_{12} examined.

Once Z_{12} and W_{12} had been found for a particular system, the critical interaction constants were evaluated, enabling calculation of a_{12} and b_{12} by equations (16) and (17) for use in equations (10) and (11). The interaction coefficients a_{12} and b_{12} calculated from the critical interaction constants, were checked by calculating P-V-T values for that particular system and comparing it with experimental data. To test the usefulness of this method, P-V-T values were also calculated using the critical interaction constants given by Joffe and Zudkevitch⁷ and using the combination rules, equations (12) and (13), given by Redlich and Kwong.²¹

In comparing the three methods for evaluating the constants a and b for binary mixtures, the Redlich - Kwong equation was solved for volume. This necessitated the use of either a trial-and-error procedure or the cubic formula in solving the cubic equation in volume. The calculations for both the trial-and-error solution of the simultaneous quadratic equations and the cubic equation for P-V-T data were performed on digital computers.

Using the values of A, B and C given by Sutton, sixty-one binary systems were checked. A listing of these systems, which contained both polar and non-polar gases, may be found in Table 1.

RESULTS

Equation (30) and (31) were solved simultaneously for sixty binary systems, containing both polar and non-polar substances. Values of Z_{12} and W_{12} were obtained for fifty-four of the systems tested, from which T_{12} and P_{12} were evaluated. Although some of the systems yielded two sets of solutions, it should be noted that all possible solutions were not found. Only those solutions for which there was a physical significance, were located. Thus, negative and complex roots to equations (30) and (31) were excluded. Further, the value for Z_{12} was not permitted to exceed 100 since a large value for Z would indicate either an extremely high critical temperature or low critical pressure, or both. Moreover, from the results of Joffe and Zudkevitch⁷, and combination rules, it was anticipated that the critical interaction constants for a binary mixture would fall between the critical constants for the pure components. With this in mind, many of the solutions were discarded. Table I contains a complete listing of the critical interaction constants calculated from equations (30) and (31). The critical constants of the pure components used in calculating T_{12} and P_{12} were taken from Sutton²⁵, Smith and Van Ness²⁴, and Perry.¹³

Upon evaluating the critical interaction constants and comparing them with the critical constants for the pure components, it was found for the reasons mentioned above that only thirty systems were suited for testing

the proposed method. The system of propene - ethane had two answers resulting from two sets of constants A, B, and C given by Sutton²⁵ for equation (22). The critical interaction constants for fourteen of the thirty systems were used in evaluating the Redlich - Kwong constants for subsequent use in calculating P-V-T data. The values of P_{12} and T_{12} which fell within the range of the critical constants for the pure components are denoted by a single asterisk in Table I. The values of P_{12} and T_{12} used in calculating P-V-T data are denoted by a double asterisk.

The fourteen systems were: heptane - butane, toluene - hexane, nitrogen - methane, nitrogen - ethane, hydrogen sulphide - ethane, hydrogen sulphide - propane, hydrogen sulphide - pentane, carbon dioxide - methane, carbon dioxide - ethane, carbon dioxide - propane, carbon dioxide - butane, carbon dioxide - hydrogen sulphide, nitrous oxide - carbon dioxide, and propene - ethane. Results comparing the method of using critical interaction constants with the Redlich - Kwong combination rules may be found in Table II. Table III lists the range of the P-V-T data tested. Only a few of the systems in the present study are the same as those for which Joffe and Zudkevitch⁸ give critical interaction constants. A comparison for these systems is presented in Table IV.

The remaining systems were not tested because there were no P-V-T data for these in the literature. Other systems were not tried

because this study was limited to the systems for which Sutton had supplied constants in equation (22).

It must be concluded after examining the results, that the proposed method of evaluating the critical interaction constants was not successful. For all but five of the systems, the combination rules of Redlich and Kwong²¹ proved to give more satisfactory results than were obtained by using T_{12} and P_{12} . The five systems are :- toluene - hexane, nitrogen - ethane, carbon dioxide - ethane, carbon dioxide - propane, and carbon dioxide - hydrogen sulphide. Further, a comparison of the proposed method with that of Joffe and Zudkevitch as presented in Table IV, shows that the present method gives superior results in two cases, carbon dioxide - propane and nitrogen - ethane.

On the basis of the above-mentioned comparisons, the following critical interaction constants are recommended:-

SYSTEM	P_{12} (ATM.)	T_{12} (DEG. RANKINE)
Toluene - hexane	36.47	1011
Nitrogen - ethane	33.07	312
Carbon dioxide - ethane	50.71	482
Carbon dioxide - propane	44.8	526
Carbon dioxide - hydrogen sulphide	70.28	557
Carbon dioxide - methane	54.8	418
Carbon dioxide - butane	40.4	547

DISCUSSION AND RECOMMENDATIONS

From the results listed in Table II of the Appendix, it was concluded that the critical interaction constants derived in this work did not give, in all cases, improved results over the conventional combination rules of the Redlich - Kwong equation. This, however, does not mean that all of the values for T_{12} and P_{12} are unsuitable. Unfortunately, for the systems of heptane - butane, toluene - hexane, nitrogen - methane, hydrogen sulphide - ethane, hydrogen sulphide - propane, carbon dioxide - hydrogen sulphide, and nitrous oxide - carbon dioxide, P-V-T data was available only for the two-phase region, where the Redlich - Kwong equation breaks down. Better results might have been forthcoming had data been available for the gaseous region where the Redlich - Kwong equation is more applicable.

The poor results then, do not indicate a shortcoming in the use of critical interaction constants, but in the equations used in calculating them. Equation (22), suggested by Sutton²⁵ for relating the dependence of critical pressure of mixtures on composition, was plotted for several systems. Experimental data from literature was plotted for the same systems. From Figures 1 through 5 in the Appendix, the two curves for each mixture were found to be in reasonable agreement. However, from equations (25) and (26), it is seen that only the terminal slopes are of importance in evaluating the critical interaction constants. This, unfortunately, is

the region in which equation (22) fails to accurately reproduce the critical pressure locus. Small changes in the values of the terminal slopes were found to have a marked effect on the values of Z_{12} and W_{12} obtained. This was particularly manifested for the mixture butane - methane where no answers were found for equations (30) and (31). From Figure 1, it was observed that equation (22) failed entirely to represent the methane - rich end of the curve.

Attempts to overcome this difficulty by measuring the slopes of the curves plotted from experimental points were unsatisfactory. Because of the limited data available for the regions near the endpoints (0 - 20% and 80 - 100%), it was possible to construct more than one curve, each with different terminal slopes.

On the basis of these findings, it is recommended that one of the following improvements be made:

1. Modification or substitution of equation (22) by one which can more satisfactorily represent the critical pressure locus, particularly at the two end points.
2. Replacement of expressions correlating critical pressure and composition by ones relating critical temperature and composition. The advantage

of this is that the critical temperature dependency upon composition gives a more regular curve than that of critical pressure and composition. An equation similar to equation (20) was derived by Joffe and Zudkevitch ⁸ :

$$\begin{aligned} \left(\frac{d \ln T}{dy_1} \right)_{Y_1=1} = & -0.16264 + 0.66710 Z_{12}/Z_1 - 0.68497 Z_{12}^2/Z_1 \\ & - 0.34224 U_{12}^2/U_1^2 + 2.03661 Z_{12} U_{12}^2/Z_1 U_1^2 - 1.51385 U_{12}^4/U_1^4 \end{aligned} \quad (33)$$

This may be used in conjunction with an equation similar in form to equation (22), except that the critical pressures have been replaced by critical temperatures, and the constants A, B and C have been evaluated using critical temperature data.

In either case, the two resulting second degree equations, would be solved in the same manner as was done in this thesis.

APPENDIX

NOMENCLATURE

a, b	= constants in Redlich - Kwong equation
A, B, C	= constants for use in equation (22)
D, E, F	= parameters defined in equation (32)
n	= number of components
P	= absolute pressure, critical pressure
R	= gas constant
S	= parameter defined from equations (25) and (26)
T	= absolute temperature, critical temperature
U	= parameter defined in equations (20) and (21)
V	= molar volume
W	= parameter defined in equations (27) and (28)
x, y	= parameters defined in equation (29)
Y	= mole fraction
Z	= parameter defined in equations (20) and (21)

Subscripts

1, 2	= component number one, two
12	= denotes constant of binary system consisting of components 1 and 2.
i, j	= component number i, j
ij	= denotes constant of multicomponent system consisting of components i and j.

FIG. 1 CRITICAL PRESSURE CURVES
FOR BUTANE - METHANE

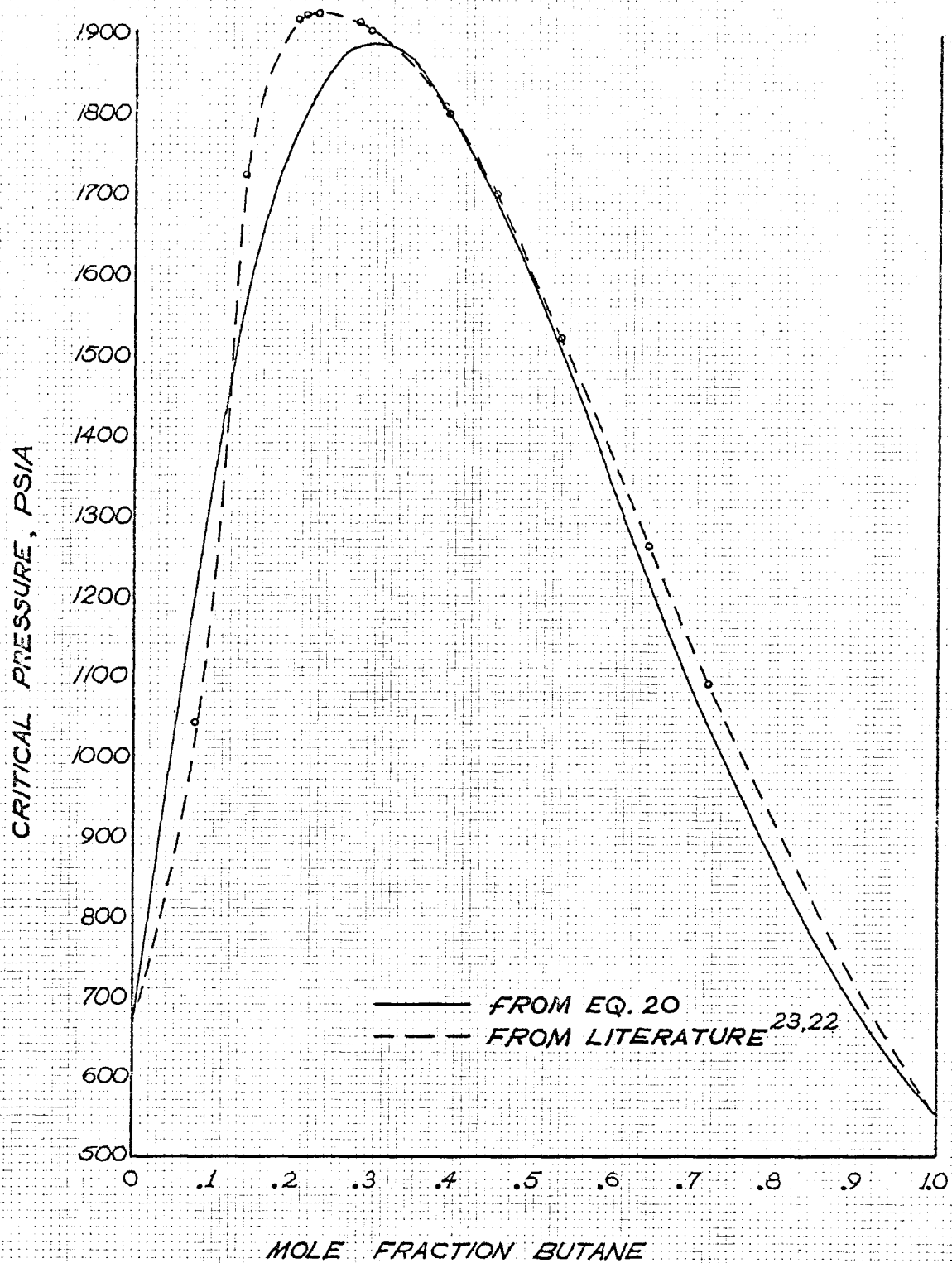


FIG. 2 CRITICAL PRESSURE CURVES
FOR CARBON DIOXIDE - METHANE

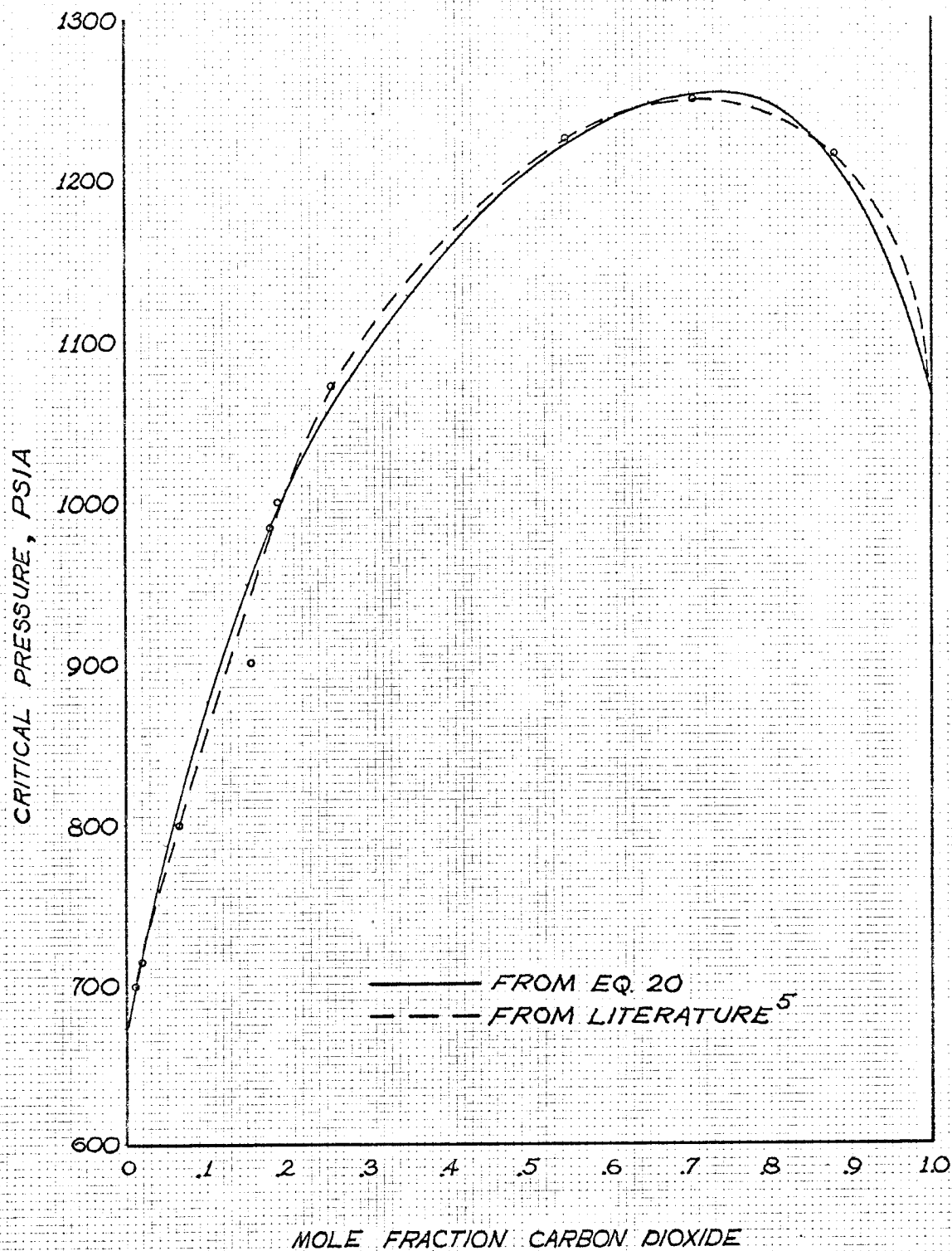


FIG. 3 CRITICAL PRESSURE CURVES
FOR CARBON DIOXIDE - PROPANE

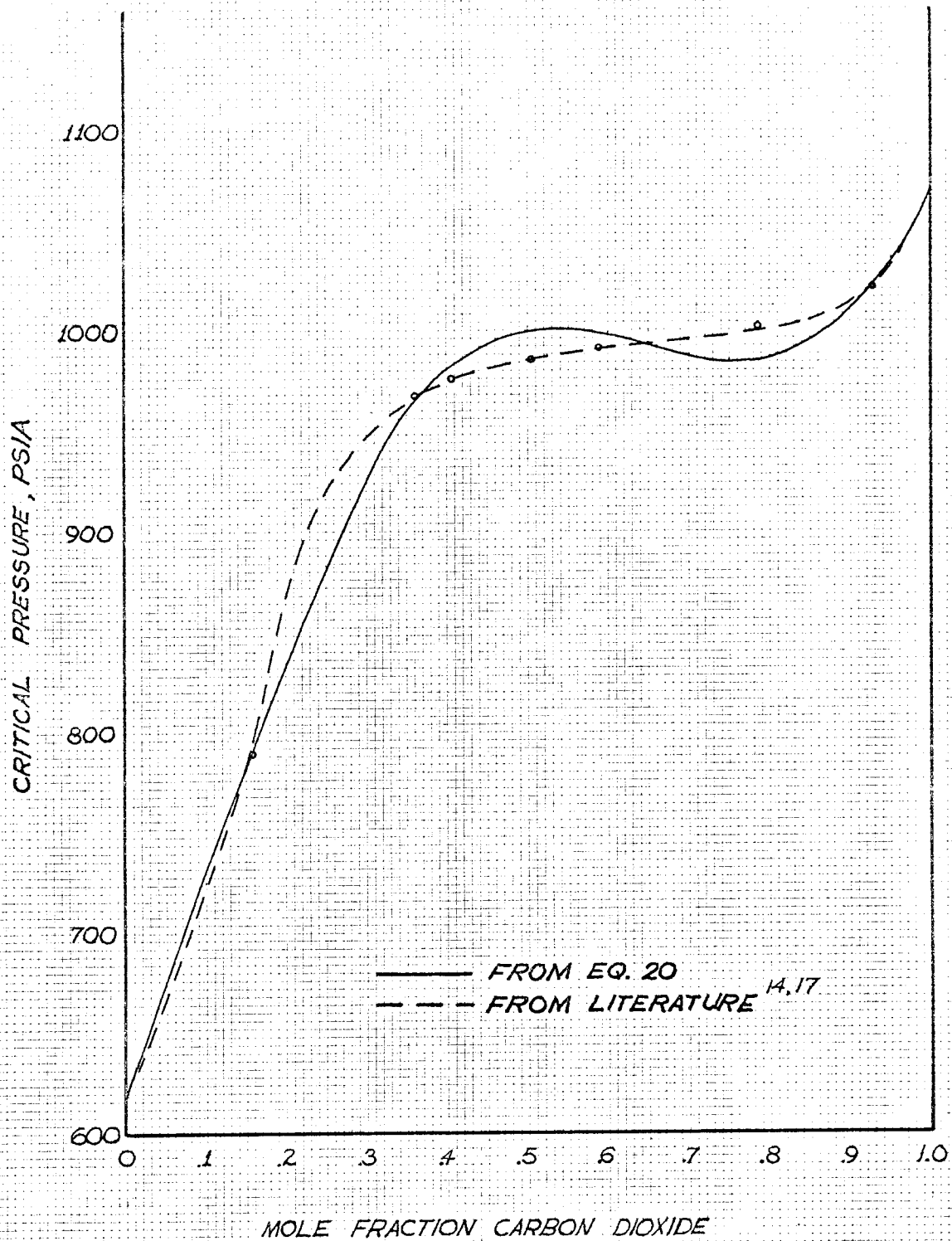
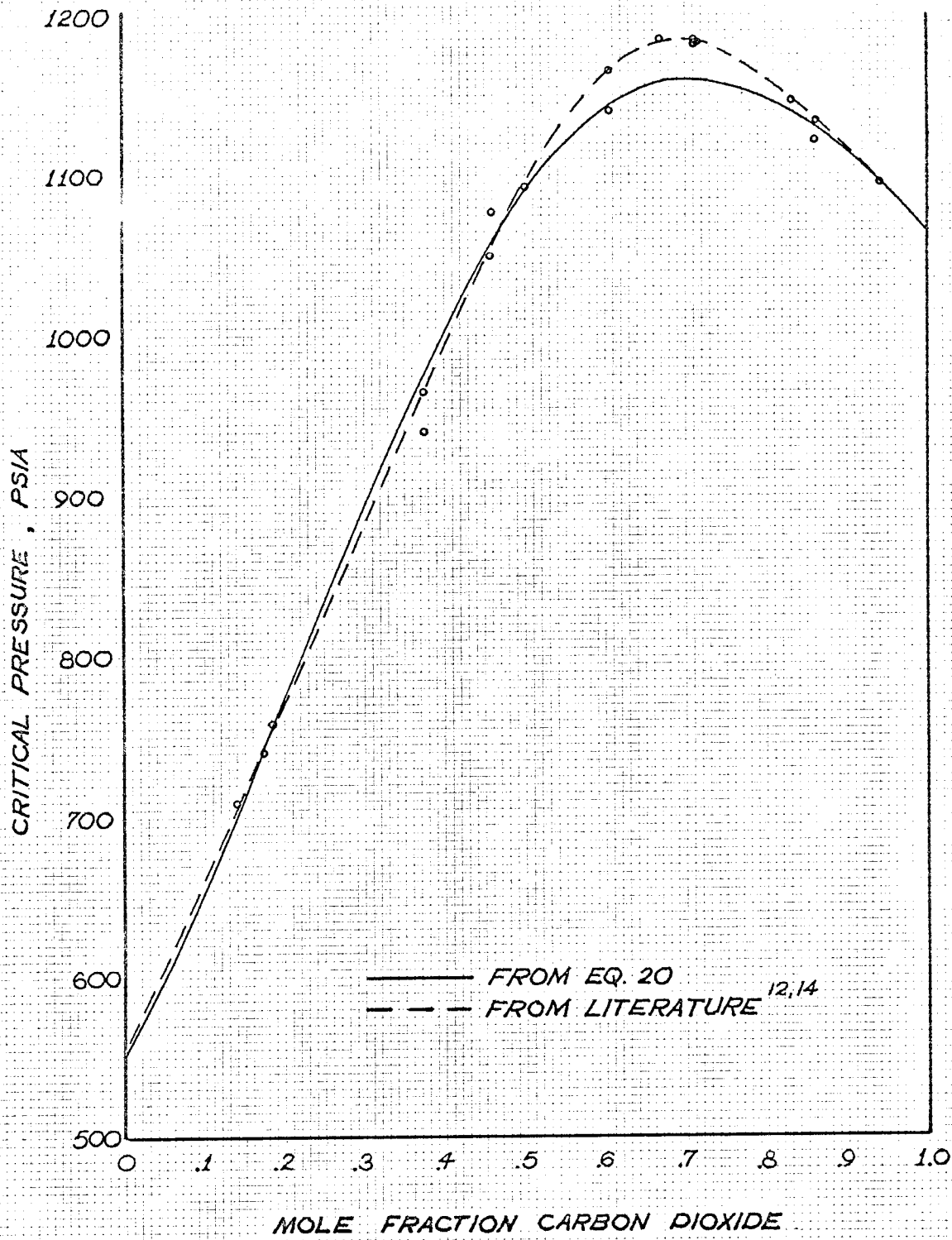
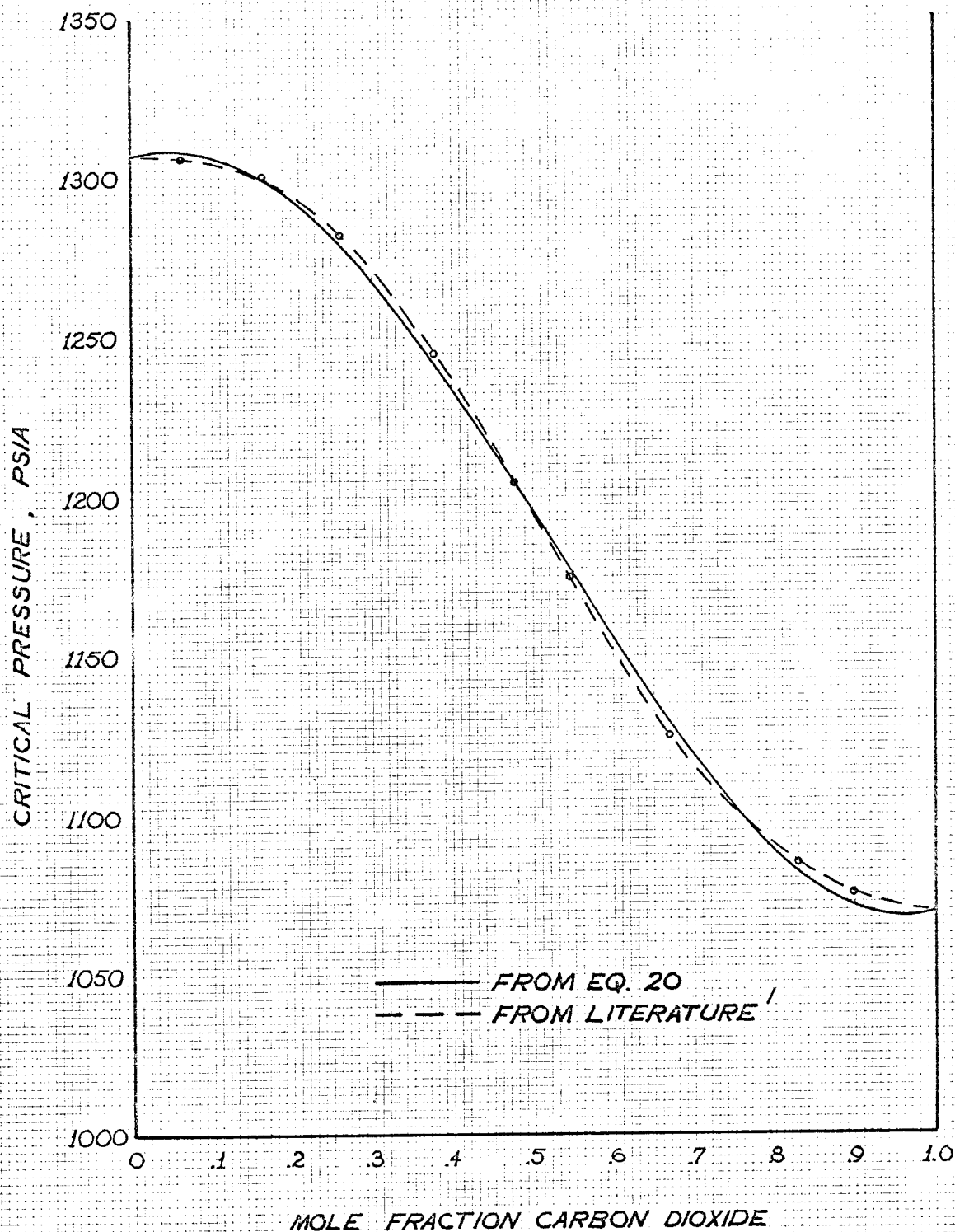


FIG. 4 CRITICAL PRESSURE CURVES FOR CARBON DIOXIDE - BUTANE



7 X 10 INCHES
MADE IN U.S.A.
KEUFFEL & ESSER CO.

FIG. 5 CRITICAL PRESSURE CURVES FOR
CARBON DIOXIDE - HYDROGEN SULPHIDE



C THIS PROGRAM WILL SOLVE TWO SIMULTANEOUS QUADRATIC EQUATIONS FOR Z12 AND
 C AND THEN CALCULATE THE REDLICH-KWONG CONSTANTS FOR BOTH PURE COMPONENTS AND
 C FOR THE BINARY MIXTURE

```
DIMENSION A(65), B(65), C(65), CTK1(65), CTK2(65), CPA1(65),
1 CPA2(65), S1(65), S2(65), NUM(65), CPB1(65), CPB2(65)
```

```
EXPON = 2./3.
```

```
R = 0.7302
```

```
PAT = 0.4278*R*R
```

```
WEBER = 0.0867*R
```

```
TOL = .01
```

```
ZMAX = 100.
```

```
READ 100, N
```

```
READ 101, (A(I), B(I), C(I), NUM(I), I = 1,N)
```

```
PRINT 104, (A(I), B(I), C(I), NUM(I), I = 1,N)
```

```
104 FORMAT (3(F10.4), 1X, I2)
```

```
READ 102, (CPA1(I), CPA2(I), I = 1,N)
```

```
PRINT 102, (CPA1(I), CPA2(I), I = 1,N)
```

```
READ 102, (CTK1(I), CTK2(I), I = 1,N)
```

```
PRINT 103, (CTK1(I), CTK2(I), I = 1,N)
```

```
103 FORMAT (1H, 2F6.2)
```

```
READ 102, (CPB1(I), CPB2(I), I = 1,N)
```

```
PRINT 102, (CPB1(I), CPB2(I), I = 1,N)
```

```
DO 600 I = 1,N
```

```
KEV = 0
```

```
S1(I) = (1./CPB1(I))*((2.*CPB1(I))-(1000./(A(I)+B(I)+.1*C(I))))
```

```
S2(I) = (1./CPB2(I))*((2.*CPB2(I))-(1000./(A(I)-B(I)+.1*C(I))))
```

```
PRINT 401, NUM(I)
```

C CALCULATION OF CONSTANTS TO BE USED

```
CTR1 = 1.8*CTK1(I)
```

```
CTR2 = 1.8*CTK2(I)
```

```
Z1 = CTR1/CPA1(I)
```

```
Z2 = CTR2/CPA2(I)
```

```
W1 = (CTR1**2.5)/CPA1(I)
```

```
W2 = (CTR2**2.5)/CPA2(I)
```

```
IF (Z1-Z2) 700, 700, 94
```

C INTERCHANGING COMPONENTS 1 AND 2 TO AVOID NEGATIVE SQUARE ROOTS

```
94 ZTEMP = Z1
```

```
Z1 = Z2
```

```
Z2 = ZTEMP
```

```
WTEMP = W1
```

```
W1 = W2
```

```
W2 = WTEMP
```

```
STEMP = S1(I)
```

```
S1(I) = S2(I)
```

```
S2(I) = STEMP
```

```
KEV = 1
```

```
PRINT 402
```

```
700 PRINT 900, CTK1(I), CTK2(I), CPA1(I), CPA2(I), S1(I), S2(I),
```

```
1 NUM(I)
```

C CONSTANTS TO BE USED IN THE QUADRATIC FORMULA

```

95 RQS1 = 16.8922/W1
   RQS2 = 16.8922/W2
   QXR1 = (-.0013)/(Z1*Z1)
   QXS1 = 82.3500/Z1
   QXT1 = 80.5762 + 33.7844*S1(I)
   QXR2 = (-.0013)/(Z2*Z2)
   QXS2 = 82.3500/Z2
   QXT2 = 80.5762 + 33.7844*S2(I)
   IPAT = 1
   Z12 = 0.0

```

C THIS SECTION WILL CALCULATE THE SMALLEST VALUE OF Z12 TOLERABLE

```

   SEL = .1
70 QX1 = QXR1*(Z12*Z12) + QXS1*Z12 - QXT1
   IF (QX1) 71,72,72
71 Z12 = Z12 + SEL
   GO TO 70
72 IF (SEL - .1) 73,502,502
502 Z12 = Z12 - SEL
   SEL = .005
   GO TO 70
73 QX2 = QXR2*(Z12*Z12) + QXS2*Z12 - QXT2
   IF (QX2) 504,74,74
504 Z12 = Z12 + SEL
   GO TO 73
74 ZL = Z12
   ZLL = Z12
   JWEB = 1
   CHEK = 0.0
   STEP = 1.0
   PRINT 404, Z1, Z2, ZLL, W1, W2
   TAB = 1.
   TIB = 1.
75 QX1 = QXR1*(Z12*Z12) + QXS1*Z12 - QXT1
   QX2 = QXR2*(Z12*Z12) + QXS2*Z12 - QXT2
76 RXQ1 = 4.1974 + (11.3626*Z12)/Z1
   RXQ2 = 4.1974 + (11.3626*Z12)/Z2
   WP1 = (RXQ1 + TAB*(SQRT(QX1)))/RQS1
   WP2 = (RXQ2 + TIB*(SQRT(QX2)))/RQS2
   IF (JWEB) 78,78,15
78 IF (Z12-ZLL) 69, 15, 11
15 DIFFL = WP1-WP2
   JWEB = 0
   IF (ABS(DIFFL) - TOL) 69,69,25
84 DIFFL = DIFF
   ZL = Z12
25 ZA = Z12
   Z12 = Z12 + STEP
   ZR = Z12
   GO TO 75
11 IF (ABS(WP1-WP2) - TOL) 69,69,33

```



```
33 IF (Z12 - ZA) 510,69,510
510 DIFF = WP1 - WP2
    IF (DIFF*DIFFL) 2, 69, 24
24 IF (CHEK) 90, 90, 91
90 IF (Z12-Z2) 84, 84, 93
93 IF (Z12-ZMAX) 97, 97, 169
97 STEP = 2.0
```

```
    GO TO 84
91 DIFFL = DIFF
    ZL = Z12
    ZA = Z12
    GO TO 27
```

```
2 DIFFR = DIFF
    ZR = Z12
    ZA = Z12
    CHEK = 1.0
```

```
27 Z12 = (ZR + ZL)/2.
    GO TO 75
```

```
169 PRINT 68, Z12, WP1, WP2
```

```
46 IF (IPAT-2) 42,43,44
```

```
42 IPAT = 2
```

```
    TAB = 1.
```

```
    TIB = -1.
```

```
    GO TO 601
```

```
43 IPAT = 3
```

```
    TAB = -1.
```

```
    TIB = -1.
```

```
    GO TO 601
```

```
44 IF (IPAT-4) 45,600,600
```

```
45 IPAT = 4
```

```
    TAB = -1.
```

```
    TIB = 1.
```

```
    GO TO 601
```

```
601 Z12 = ZLL
```

```
    ZL = ZLL
```

```
    ZR = Z2
```

```
    STEP = 1.0
```

```
    JWEB = 0
```

```
    CHEK = 0.0
```

```
    GO TO 75
```

```
69 W12 = (WP1 + WP2)/2.
```

```
380 PRINT 377, Z12, W12
```

```
500 CONTINUE
```

C THIS SECTION CALCULATES THE R-K CONSTANTS FOR THE MIXTURE FROM THE VALUES
C JUST CALCULATED

```
X = W12/Z12
```

```
CTR12 = X**EXPON
```

```
CPA12 = CTR12/Z12
```

```
RKA12 = PAT*W12
```

```
RKB12 = WEBER*Z12
```

C THIS SECTION CALCULATES THE R-K CONSTANTS FOR THE PURE COMPONENTS

```

RKA1 = PAT*W1
RKB1 = WEBER*Z1
RKA2 = PAT*W2
RKB2 = WEBER*Z2
PRINT 419
IF (KEV) 140, 140, 141
140 PRINT 420, RKA12, RKB12, RKA1, RKB1, RKA2, RKB2
GO TO 142
141 PRINT 420, RKA12, RKB12, RKA2, RKB2, RKA1, RKB1
142 PRINT 430, CPA12, CTR12
IF (Z12-ZMAX) 40,40,46
40 Z12 = Z12 + STEP
JWEB = 1
CHEK = 0
GO TO 75
600 CONTINUE
100 FORMAT(I2)
101 FORMAT(3(F10.4),I2)
102 FORMAT(2(F6.2))
900 FORMAT(1H ,25X,4(F8.2),2(F14.6),2X,I2/)
120 FORMAT (I2)
121 FORMAT (4(E14.8,2X))
122 FORMAT (2(E14.8,2X))
401 FORMAT (1H1, 50X, 12H*****SYSTEM(, I2, 6H)*****//)
402 FORMAT(1H ,10X, 57HCOMPONENTS 1 AND 2 FOR THIS SYSTEM HAVE BEEN IN
1TERCHANGED//)
404 FORMAT(1H ,5X,5HZ1 = ,F9.5,5X,5HZ2 = ,F9.5,5X,6HZLL = ,F9.5,7X,
1 SHW1 = ,E14.8,5X,5HW2 = ,E14.8//)
68 FORMAT(1H ,5X,6HZ12 = ,F9.5,5X,6HWP1 = ,E14.8,5X,6HWP2 = ,E14.8)
377 FORMAT(1H ,5X,6HZ12 = ,F9.5,5X,6HW12 = ,E14.8//)
419 FORMAT(1H ,5X,66HTHE REDLICH-KWONG CONSTANTS FOR THE SYSTEM AND PU
1RE COMPONENTS ARE//)
420 FORMAT(1H ,5X,8HRKA12 = ,E14.8,5X,8HRKB12 = ,E14.8//
11H ,5X,7HRKA1 = ,E14.8,5X,7HRKB1 = ,E14.8,5X,
2 7HRKA2 = ,E14.8,5X,7HRKB2 = ,E14.8/)
430 FORMAT(1H ,5X,14HFOR THE SYSTEM//1H ,5X,
1 28HCRITICAL PRESSURE IN ATM. = ,F8.4, 5X,
2 39HCRITICAL TEMPERATURE IN DEG. RANKINE = , F9.4//)
STOP
END

```

C A PROGRAM TO CALCULATE THE SPECIFIC VOLUME OF A BINARY GASEOUS MIXTURE
 C USING THE REDLICH-KWONG EQUATION
 C FIRST, THE VOLUME USING THE R-K CONSTANTS FOR THE MIXTURE WILL BE CAL-
 C CULATED
 C NEXT, THE VOLUME USING THE INTERACTION CONSTANTS OF JOFFE AND
 C ZUDKEVITCH
 C FINALLY, THE VOLUME USING ONLY THE R-K CONSTANTS OF THE PURE COMPO-
 C NENTS USING THE STANDARD R-K METHOD
 C IN EACH INSTANCE, THE PER CENT DEVIATION FROM EXPERIMENTAL VALUES WILL
 C BE CALCULATED
 C THE MAXIMUM, MINIMUM AND AVERAGE DEVIATION OF EACH METHOD WILL ALSO BE
 C CALCULATED

```

    DIMENSION PPSIA(100), TF(200), ADEV(3), DMIN(3), DMAX(3), NUM(10)
    C = 1./3.
    PI = 3.1415927
    R = 0.7302
    READ 804, NOS
    DO 1000 JK = 1, NOS
    READ 809, NUM(JK)
    READ 803, N, NK
    DO 90 K = N, 3, NK
    ADEV(K) = 0.0
    DMIN(K) = 90000.
    90 DMAX(K) = -90000.
    READ 807, RKA1, RKB1, RKA2, RKB2
    READ 805, RKA12, RKB12
    READ 805, RKA12J, RKB12J
    M = 0
    PRINT 406, NUM(JK)
    PRINT 33
    READ 804, LO
    PRINT 701
    IF (N-2) 110, 111, 111
    110 IF (NK-2) 92, 91, 91
    111 PRINT 711
    PRINT 713
    GO TO 94
    91 PRINT 711
    PRINT 712
    GO TO 94
    92 PRINT 700
    PRINT 702
    94 NIT = 0
    36 DO 10 I = 1, LO
    READ 805, TK, Y2
    TR = 1.8*TK
    TF(I) = TR - 459.69
    READ 804, NQ
    DO 10 J = 1, NQ
    READ 805, PPSIA(J), VEXP
  
```

```

M = M + 1
Y1 = 1.-Y2
PATM = PPSIA(J)/14.696
IF (N-2) 40,600,40
40 KOUNT = (-1)
RKA = RKA1*Y1*Y1 + 2.*RKA12*Y1*Y2 + RKA2*Y2*Y2
RKB = RKB1*Y1*Y1 + 2.*RKB12*Y1*Y2 + RKB2*Y2*Y2
GO TO 3000
600 IF (NK-2) 650,602,602
650 KOUNT = 0
RKA = RKA1*Y1*Y1 + 2.*RKA12J*Y1*Y2 + RKA2*Y2*Y2
RKB = RKB1*Y1*Y1 + 2.*RKB12J*Y1*Y2 + RKB2*Y2*Y2
GO TO 3000
602 KOUNT = 1
RKA = (Y1*SQRT(RKA1) + Y2*SQRT(RKA2))**2
RKB = Y1*RKB1 + Y2*RKB2
C EVALUATION OF THE COEFFICIENTS FOR THE CUBIC EQUATION
3000 GAMMA = (-R*TR)/PATM
DELTA = RKA/(PATM*SQRT(TR))
BETA = DELTA + RKB*GAMMA - RKB*RKB
ALPHA = C*(3.*BETA - GAMMA*GAMMA)
ZETA = (1./27.)*(2.*(GAMMA**3) - 9.*GAMMA*BETA + 27.*(-DELTA*RKB))
RHO = (ZETA*ZETA)/4. + (ALPHA*ALPHA*ALPHA)/27.
IF (RHO) 101, 102, 103
C ONE REAL ROOT, TWO CONJUGATE COMPLEX ROOTS
C ONLY THE REAL ROOT WILL BE CALCULATED, SINCE IT IS THE ONE OF INTEREST
103 SIGMA = (-ZETA/2. + SQRT(RHO))
IF (SIGMA) 301,309,302
301 ETA = (-(-SIGMA)**C)
GO TO 200
309 ETA = 0.0
GO TO 200
302 ETA = SIGMA**C
200 TAU = (-ZETA/2. - SQRT(RHO))
IF (TAU) 201,209,202
201 CHI = (-(-TAU)**C)
GO TO 203
209 CHI = 0.0
GO TO 203
202 CHI = TAU**C
203 VOL = ETA + CHI - GAMMA/3.
630 DEV = ((VOL - VEXP)/VEXP)*100.
IF (KOUNT) 501, 502, 503
501 ADEV(1) = ADEV(1) + ABS(DEV)
IF (ABS(DEV) - DMAX(1)) 70, 71, 71
71 DMAX(1) = ABS(DEV)
70 IF (ABS(DEV) - DMIN(1)) 73, 73, 72
73 DMIN(1) = ABS(DEV)
72 VOLB = VOL
DEVB = DEV

```

```

GO TO 600
502 ADEV(2) = ADEV(2) + ABS(DEV)
   IF (ABS(DEV) - DMAX(2)) 74, 75, 75
75 DMAX(2) = ABS(DEV)
74 IF (ABS(DEV) - DMIN(2)) 77, 77, 76
77 DMIN(2) = ABS(DEV)
76 VOLJ = VOL
   DEVJ = DFV
   GO TO 602
503 ADEV(3) = ADEV(3) + ABS(DEV)
   IF (ABS(DEV) - DMAX(3)) 78, 79, 79
79 DMAX(3) = ABS(DEV)
78 IF (ABS(DEV) - DMIN(3)) 81, 81, 80
81 DMIN(3) = ABS(DEV)
80 VOLS = VOL
   DEVS = DEV
   NIT = NIT + 1
   IF (31 - NIT) 30, 30, 31
30 NIT = 1
   PRINT 33
   PRINT 704
   IF (N-2) 120,121,121
120 IF (NK-2) 123,122,122
121 PRINT 711
   PRINT 713
   GO TO 31
122 PRINT 711
   PRINT 712
   GO TO 31
123 PRINT 700
   PRINT 702
31 IF (N-2) 44,46,46
44 IF (NK-2) 42,48,48
42 PRINT 777, TF(I), PPSIA(J), Y2, VEXP, VOLB, DEVB, VOLJ, DEVJ,
   1 VOLS, DEVS
   GO TO 10
46 PRINT 778, TF(I), PPSIA(J), Y2, VEXP, VOLJ, DEVJ, VOLS, DEVS
   GO TO 10
48 PRINT 778, TF(I), PPSIA(J), Y2, VEXP, VOLB, DEVB, VOLS, DEVS
   GO TO 10
C THREE REAL ROOTS, AT LEAST TWO OF THEM EQUAL
102 IF (ZETA) 130,131,132
130 ETA = (-ZETA/2.)*C
   GO TO 133
131 ETA = 0.0
   GO TO 133
132 ETA = -((ZETA/2.)*C)
133 V1 = 2.*ETA - GAMMA/3.
   V2 = (-ETA - GAMMA/3.)
   V3 = V2

```

```

        DIFF1 = ABS(V1 - VEXP)
        DIFF2 = ABS(V2 - VEXP)
        IF (DIFF1 - DIFF2) 620, 620, 622
620 VOL = V1
    GO TO 630
622 VOL = V2
    GO TO 630
C THREE REAL, UNEQUAL ROOTS
101 OMEGA = SQRT(((ZETA*ZETA)/4.)/(-(ALPHA**3)/27.))
    THETA = ATAN(SQRT((1./OMEGA)*(1./OMEGA) - 1.))
    IF (OMEGA) 4, 5, 5
    4 THETA = PI - THETA
    5 IF (ZETA) 6, 6, 7
    6 E = 2.
    GO TO 8
    7 E = (-2.)
    8 V1 = E*SQRT(-ALPHA/3.)*COS(THETA/3.) - GAMMA/3.
    V2 = E*SQRT(-ALPHA/3.)*COS(THETA/3. + PI/3.) - GAMMA/3.
    V3 = E*SQRT(-ALPHA/3.)*COS(THETA/3. + 2.*PI/3.) - GAMMA/3.
    DIFF1 = ABS(V1 - VEXP)
    DIFF2 = ABS(V2 - VEXP)
    DIFF3 = ABS(V3 - VEXP)
    IF (DIFF1 - DIFF2) 640, 640, 642
640 IF (DIFF1 - DIFF3) 660, 660, 662
642 IF (DIFF2 - DIFF3) 680, 680, 662
660 VOL = V1
    GO TO 630
662 VOL = V3
    GO TO 630
680 VOL = V2
    GO TO 630
10 CONTINUE
    CAB = M
    DO 50 K = N,3,NK
    ADEV(K) = ADEV(K)/CAB
50 CONTINUE
    PRINT 33
    IF (N-2) 52,54,52
53 IF (NK-2) 54,56,56
52 PRINT 526
    PRINT 520, ADEV(1), DMAX(1), DMIN(1)
    GO TO 53
54 PRINT 527
    PRINT 520, ADEV(2), DMAX(2), DMIN(2)
56 PRINT 528
    PRINT 520, ADEV(3), DMAX(3), DMIN(3)
1000 CONTINUE
    33 FORMAT (1H1)
    35 FORMAT(1H0)
    801 FORMAT (F14.8)

```

```
803 FORMAT (2I4)
804 FORMAT (I4)
805 FORMAT (2(1X,E14.8))
807 FORMAT(4(1X,E14.8))
808 FORMAT (2F14.8)
809 FORMAT(I2)
406 FORMAT(1H1,35X,12H*****SYSTEM(,I2,6H)*****///)
520 FORMAT(1H ,15X,32HTHE ABSOLUTE AVERAGE DEVIATION =,F8.4,1X,
18HPER CENT//15X,32HTHE ABSOLUTE MAXIMUM DEVIATION =,F8.4,1X,
28HPER CENT//15X,32HTHE ABSOLUTE MINIMUM DEVIATION =,F8.6,1X,
38HPER CENT//)
526 FORMAT(1H , 10X,31HUSING THE METHOD IN THIS THESIS)
527 FORMAT(1H , 10X,40HUSING THE METHOD OF JOFFE AND ZUDKEVITCH)
528 FORMAT(1H ,10X,39HUSING THE STANDARD REDLICH-KWONG METHOD)
701 FORMAT(48X,5HTABLE/)
702 FORMAT(33X,6H(EXP.),5X,6H(BISS),12X,7H(JOFFE),12X,5H(R-K)/)
704 FORMAT(44X,5HTABLE,5X,7H(CONT.)/)
711 FORMAT(1H ,13X,4HTEMP,3X,8HPRESSURE,5X,2HMF,6X,6HVOLUME,10X,
16HVOLUME,4X,3HDEV,11X,6HVOLUME,4X,3HDEV)
700 FORMAT(9X,4HTEMP,2X,8HPRESSURE,4X,2HMF,4X,6HVOLUME,5X,6HVOLUME,
14X,3HDEV,5X,6HVOLUME,4X,3HDEV,5X,6HVOLUME,4X,3HDEV)
712 FORMAT(42X,6H(EXP.),10X,6H(BISS),18X,5H(R-K)/)
713 FORMAT(42X,6H(EXP.),10X,7H(JOFFE),17X,5H(R-K)/)
777 FORMAT(8X,F5.1,1X,F9.3,2X,F6.4,1X,F8.4,3X,3(F8.4,1X,F6.2,3X))
778 FORMAT(1H ,12X,F5.1,2X,F9.3,3X,F6.4,2X,F8.4,8X,F8.4,2X,F6.2,8X,
1F8.4,2X,F6.2)
STOP
END
```

TABLE I
BINARY SYSTEMS TESTED AND RESULTS FOR
THE CRITICAL INTERACTION CONSTANTS,

SYSTEMS	P_{12} (ATM.)	T_{12} (DEG. RANKINE)
Ethane - methane	44.53 *	422.51 *
	9.44	377.60
Propane - methane	70.56	554.39
	17.82	395.05
Propane - ethane	52.35 *	621.77 *
Butane - methane	-----	-----
Butane - ethane	47.45	655.63
Butane - propane	41.08	717.61
Pentane - methane	11.73	442.65
Pentane - ethane	62.21	725.38
	5.64	512.48
Pentane - propane	51.32 *	776.23 *
Pentane - butane	35.11 *	796.41 *
Hexane - propane	35.42 *	773.47 *
Heptane - methane	-----	-----
Heptane - ethane	80.91	868.51
	9.10	551.00

TABLE I (Cont.)

<u>SYSTEM</u>	<u>P₁₂</u> (ATM.)	<u>T₁₂</u> (DEG. RANKINE)
Heptane - propane	47.90 *	851.24 *
Heptane - butane	36.08 **	874.43 **
Octane - propane	79.75	1022.62
Octane - butane	35.41 *	899.00 *
Isopentane - propane	49.63 *	762.35 *
Ethylene - butane	581.95	1170.69
	5.08	466.21
Ethylene - heptane	425.18	1442.26
	10.78	526.67
Propene - ethane	44.76 **	600.03 **
	44.88 **	599.70 **
Propene - ethylene	44.30 *	565.84 *
Acetylene - ethane	-----	-----
Acetylene - propane	16.83	352.76
Acetylene - propene	31.52	393.97
Cyclohexane - ethane	133.13	978.18
	12.40	571.28
Benzene - ethane	75.85	803.88
	17.22	592.73
Benzene - propane	57.21	824.27
	6.44	631.01

TABLE I (Cont.)

SYSTEM	P_{12} (ATM.)	T_{12} (DEG. RANKINE)
Toluene - hexane	46.47 **	1010.63 **
Acetone - ethane	77.87	794.97
	10.28	548.91
Acetone - propane	47.39 *	744.68 *
Acetone - butane	41.83 *	775.29 *
Acetone - pentane	27.07	699.97
Acetone - hexane	-----	-----
Acetone - heptane	-----	-----
Acetone - octane	-----	-----
Nitrogen - methane	38.72 **	271.72 **
	5.76	216.99
Nitrogen - ethane	202.82	538.07
	33.07 **	312.19 **
Hydrogen sulphide - methane	192.15	706.77
	23.57	404.13
Hydrogen sulphide - ethane	58.25 **	562.42 **
Hydrogen sulphide - propane	54.33 **	638.86 **
	21.87	448.98
Hydrogen sulphide - pentane	70.87 **	572.29 **

TABLE I (Cont.)

SYSTEM	P_{12} (ATM.)	T_{12} (DEG. RANKINE)
Hydrogen chloride - ethane	12.81 *	550.75 *
Hydrogen chloride - propane	58.61	573.26
Hydrogen chloride - krypton	112.10	518.24
	10.48	366.04
Carbon monoxide - methane	40.68	281.40
	4.15	221.71
Carbon monoxide - propane	-----	-----
Carbon dioxide - methane	365.63 **	770.73 **
	9.18	339.13
Carbon dioxide - ethane	50.71 **	482.09 **
	23.66	370.53
Carbon dioxide - propane	49.23 **	477.32 **
Carbon dioxide - butane	61.55 **	602.54 **
Carbon dioxide - pentane	4.85	486.16
	10.19	334.15
Carbon dioxide - ethylene	57.95 *	524.51 *
Carbon dioxide - propene	65.44 *	561.12 *
Carbon dioxide - oxygen	349.11	844.68
	14.94	324.25

TABLE I (Cont.)

<u>SYSTEM</u>	<u>P₁₂</u> (ATM.)	<u>T₁₂</u> (DEG. RANKINE)
Carbon dioxide - hydrogen sulphide	70.28 **	557.00 **
Nitrous oxide - ethane	55.06 *	519.31 *
	26.66	385.28
Nitrous oxide - ethylene	24.98	351.57
Nitrous oxide - carbon dioxide	71.02 **	557.70 **
Sulphur dioxide - carbon dioxide	57.89	607.49
	7.40	499.53

* denotes the critical interaction constants which lie within the range of the critical constants of the pure components.

** denotes the critical interaction constants used in calculating P-V-T values

TABLE II
COMPARISON USING CRITICAL INTERACTION CONSTANTS AND
REDLICH - KWONG COMBINATION RULES FOR CALCULATING

SYSTEM	REFERENCE	<u>P-V-T DATA</u>		R-K Combination Rules	
		% Abs. Dev. Avg.	Max.	% Abs. Dev. Avg.	Max.
Heptane - butane	9	5.29	13.46	4.21	27.43
Toluene - hexane	26	9.91	62.29	10.22	59.24
Nitrogen - methane	2	17.55	54.55	5.82	34.87
Nitrogen - ethane	19	1.30	8.16	2.24	4.76
Hydrogen sulphide - propane	10	23.50	124.81	12.17	66.02
Hydrogen sulphide - pentane	18	9.63	61.10	6.21	16.96
Carbon dioxide - methane	15	11.18	57.87	3.41	16.28
Carbon dioxide - ethane	16	1.17	4.67	3.04	8.69
Carbon dioxide - propane	17	2.91	30.12	3.52	43.97
Carbon dioxide - butane	12	6.12	19.62	3.30	21.74

TABLE II (Cont.)

SYSTEM	REFERENCE	From Thesis		R-K Combination Rules	
		% Abs. Avg.	Dev. Max	% Abs. Avg.	Dev. Max.
Carbon dioxide - hydrogen sulphide	1	6.21	36.45	13.94	66.73
Nitrous oxide - carbon dioxide	4	14.66	54.68	9.30	39.69
Propene - ethane	11	4.03	24.83	3.38	24.21
		4.09	24.79		

TABLE III
RANGE OF P - V - T DATA USED

<u>SYSTEM</u>	<u>NO. OF POINTS</u>	<u>TEMPERATURE (DEG. RANKINE)</u>			<u>PRESSURE (ATM.)</u>	<u>REGION</u>
Heptane - butane	129	590	-	954	3 - 40	two-phase
Toluene - hexane	125	900	-	1030	13 - 100	gas
Nitrogen - methane	77	103	-	337	3 - 50	two-phase
Nitrogen - ethane	521	500	-	920	14 - 680	gas
Hydrogen sulphide - propane	53	500	-	670	8 - 79	two-phase
Hydrogen sulphide - pentane	119	560	-	920	14 - 680	gas
Carbon dioxide - methane	700	560	-	920	14 - 680	gas
Carbon dioxide - ethane	595	560	-	920	14 - 680	gas
Carbon dioxide - propane	499	500	-	920	14 - 680	gas
Carbon dioxide - butane	497	560	-	920	14 - 680	gas
Carbon dioxide - hydrogen sulphide	97	495	-	665	15 - 85	two-phase
Nitrous oxide - carbon dioxide	51	527	-	555	52 - 71	critical
Propene - ethane	525	438	-	860	3 - 680	gas

TABLE IV
COMPARISON USING CRITICAL INTERACTION CONSTANTS
FROM THESIS AND FROM JOFFE AND ZUDKEVITCH⁷

<u>SYSTEM</u>	<u>P₁₂</u>	<u>T₁₂</u>	<u>From Thesis</u>		<u>P₁₂</u>	<u>T₁₂</u>	<u>From J-Z</u>	
			<u>% Abs.</u>	<u>Dev.</u>			<u>% Abs.</u>	<u>Dev.</u>
			<u>Avg.</u>	<u>Max.</u>			<u>Avg.</u>	<u>Max.</u>
Carbon dioxide - methane	365.6	770	11.18	57.87	54.8	418	2.87	16.28
Carbon dioxide - ethane	50.7	428	1.17	4.67	52.5	502	1.53	3.44
Carbon dioxide - propane	49.2	477	2.91	30.12	44.8	526	2.07	10.66
Carbon dioxide - butane	61.55	602	6.12	19.62	40.4	547	2.06	10.83
Nitrogen - ethane	33.1	312	1.29	8.16	33.9	318	1.32	7.23

TABLE V - IX

TEMPERATURE	-	Degrees Fahrenheit
PRESSURE	-	lb. /sq. in. absolute
MOLE FRACTION	-	Component 1
VOLUME	-	cu. ft. / lb. mole
DEVIATION	-	Per cent from Experimental

TABLE V

TEMP	PRESSURE	MF	VOLUME (EXP.)	VOLUME (BISS)	DEV	VOLUME (R-K)	DEV
437.0	181.048	0.7000	39.1812	40.7846	-4.09	40.9457	4.50
437.0	205.744	0.7000	35.6811	37.0352	3.79	37.2051	4.27
437.0	220.440	0.7000	32.5604	33.7520	3.66	33.9320	4.21
432.0	191.048	0.7000	43.1573	44.4252	2.94	44.5639	3.26
432.0	205.744	0.7000	39.5825	40.5516	2.45	40.6957	2.81
432.0	220.440	0.7000	36.3946	37.1759	2.15	37.3260	2.56
432.0	242.920	0.7000	24.8895	25.0900	0.81	25.2844	1.59
432.0	267.400	0.7000	17.2989	17.2103	-0.51	17.5074	1.21
500.0	267.400	0.7000	18.5264	18.5369	0.00	18.7814	1.38
500.0	440.880	0.7000	12.9863	12.4570	-4.08	12.9383	-0.37
500.0	514.360	0.7000	7.2272	4.8089	-33.46	5.3649	-25.77
500.0	527.540	0.7000	4.0640	4.3685	7.49	4.6197	13.67
500.0	561.320	0.7000	3.7215	4.1312	11.01	4.3086	15.78
500.0	734.800	0.7000	3.5595	3.9677	11.47	4.1093	15.44
500.0	808.280	0.7000	3.4270	3.8433	12.15	3.9630	15.64
500.0	881.760	0.7000	3.3283	3.7430	12.46	3.8479	15.61
527.0	191.048	0.7000	45.8846	47.8565	4.30	47.9791	4.56
527.0	205.744	0.7000	42.1955	43.8354	3.89	43.9616	4.19
527.0	220.440	0.7000	38.9982	40.3394	3.44	40.4697	3.77
527.0	242.920	0.7000	27.5197	27.9561	1.59	28.1120	2.15
527.0	267.400	0.7000	20.3156	20.2543	-0.30	20.4530	0.68
527.0	440.880	0.7000	15.2247	14.7185	-3.33	15.0055	-1.44
527.0	514.360	0.7000	11.1767	9.8567	-11.81	10.4728	-6.30
527.0	527.540	0.7000	7.5463	5.4755	-27.44	6.1793	-18.11
527.0	561.320	0.7000	5.1389	4.7524	-7.52	5.0518	-1.69
527.0	734.800	0.7000	4.2648	4.4193	3.62	4.6215	8.36
527.0	808.280	0.7000	3.9295	4.2043	6.99	4.3617	11.00
527.0	881.760	0.7000	3.7461	4.0467	8.02	4.1777	11.52
527.0	935.240	0.7000	2.6131	3.9229	8.57	4.0363	11.71
527.0	1028.720	0.7000	3.5094	3.9214	8.89	3.9222	11.76

TABLE V (CONT.)

TEMP	PRESSURE	MF	VOLUME (EXP.)	VOLUME (BISS)	DEV	VOLUME (R-K)	DEV
527.0	1102.200	0.7000	3.4292	3.7357	8.94	3.8269	11.60
527.0	1175.600	0.7000	3.3589	3.6616	9.02	3.7454	11.51
527.0	1249.100	0.7000	3.2969	3.5969	9.10	3.6743	11.45
527.0	1322.640	0.7000	3.2499	3.5391	8.90	3.6115	11.13
527.0	1396.120	0.7000	3.2153	3.4873	8.46	3.5553	10.57
572.0	181.048	0.7000	49.6577	51.1387	2.98	51.2490	3.20
572.0	205.744	0.7000	45.7679	46.9580	2.56	47.0709	2.80
572.0	220.440	0.7000	42.4340	43.3279	2.11	43.4436	2.38
572.0	283.920	0.7000	30.5073	30.5363	0.09	30.6690	0.53
572.0	367.400	0.7000	23.0500	22.7205	-1.43	22.8770	-0.75
572.0	440.880	0.7000	17.9277	17.3496	-3.22	17.5423	-2.15
572.0	514.360	0.7000	14.1614	13.3150	-5.98	13.5683	-4.19
572.0	587.840	0.7000	11.1860	10.0381	-10.26	10.4024	-7.01
572.0	661.320	0.7000	8.8049	7.3771	-16.21	7.8645	-10.68
572.0	734.800	0.7000	6.9451	5.8768	-15.38	6.2577	-9.90
572.0	808.280	0.7000	5.7111	5.1873	-9.17	5.4494	-4.58
572.0	881.760	0.7000	4.9465	4.7950	-3.06	4.9922	0.93
572.0	955.240	0.7000	4.4343	4.5320	1.00	4.6912	4.60
572.0	1028.720	0.7000	4.2075	4.3379	3.10	4.4726	6.30
572.0	1102.200	0.7000	3.9973	4.1860	4.72	4.3034	7.66
572.0	1175.600	0.7000	3.8511	4.0620	5.46	4.1667	8.19
572.0	1249.100	0.7000	3.7397	3.9580	5.84	4.0528	8.37
572.0	1322.640	0.7000	3.6408	3.8687	6.26	3.9557	8.65
572.0	1396.120	0.7000	3.5602	3.7906	6.46	3.8714	8.74
437.0	181.048	0.5050	37.8718	40.4422	6.79	40.6383	7.30
437.0	205.744	0.5050	34.3250	36.6706	6.83	36.8783	7.44
432.0	191.048	0.5050	41.9937	44.1291	5.08	44.2970	5.48
432.0	205.744	0.5050	38.3558	40.2413	4.92	40.4163	5.37
432.0	220.440	0.5050	35.2026	36.8498	4.68	37.0327	5.20
432.0	283.920	0.5050	23.5831	24.6458	4.51	24.8889	5.54

TABLE V (CONT.)

TEMP	PRESSURE	MF	VOLUME (EXP.)	VOLUME (GROSS)	DEV	VOLUME (R-K)	DEV
527.0	191.040	0.5050	45.1642	47.5928	5.38	47.7406	5.70
527.0	205.744	0.5050	41.4751	43.5616	5.03	43.7144	5.40
527.0	220.448	0.5050	38.2778	40.0552	4.64	40.2130	5.06
527.0	235.220	0.5050	26.7272	27.6015	3.27	27.7936	3.99
527.0	250.000	0.5050	19.3070	19.7740	2.42	20.0282	3.74
527.0	264.800	0.5050	13.7839	13.9258	1.03	14.3419	4.05
527.0	279.600	0.5050	8.4861	4.7777	-45.00	8.0728	-7.06
527.0	294.400	0.5050	4.1604	4.2750	2.75	4.6215	11.08
527.0	309.200	0.5050	3.5661	4.0309	9.95	4.2613	16.24
527.0	324.000	0.5050	3.4580	3.8672	11.83	4.0470	17.03
527.0	338.800	0.5050	3.3401	3.7440	12.09	3.8944	16.59
527.0	353.600	0.5050	3.2659	3.6454	11.62	3.7762	15.63
527.0	368.400	0.5050	3.1920	3.5625	11.64	3.6801	15.29
527.0	383.200	0.5050	3.1389	3.4934	11.29	3.5993	14.67
527.0	398.000	0.5050	3.0930	3.4324	10.97	3.5297	14.12
527.0	412.800	0.5050	3.0437	3.3783	10.99	3.4688	13.96
527.0	427.600	0.5050	3.0058	3.3300	10.67	3.4146	13.49
527.0	442.400	0.5050	2.9777	3.2862	10.36	3.3660	13.04
527.0	457.200	0.5050	2.9423	3.2463	10.33	3.3219	12.90
572.0	205.744	0.5050	44.3194	46.7113	4.22	46.8474	4.52
572.0	220.448	0.5050	41.4799	43.0735	3.84	43.2132	4.18
572.0	235.220	0.5050	30.9463	30.2346	-1.95	30.3967	-1.46
572.0	250.000	0.5050	23.4718	22.3490	-4.78	22.5441	-3.95
572.0	264.800	0.5050	18.3546	16.8634	-8.12	17.1132	-6.76
572.0	279.600	0.5050	14.4842	12.6032	-12.99	12.9647	-10.49
572.0	294.400	0.5050	11.4120	8.7127	-23.65	9.4157	-17.49
572.0	309.200	0.5050	8.7212	5.6210	-35.54	6.3927	-26.70
572.0	324.000	0.5050	6.3576	4.9189	-24.20	5.2024	-18.17
572.0	338.800	0.5050	4.8757	4.4505	-8.72	4.7095	-3.41
572.0	353.600	0.5050	4.1304	4.2167	2.09	4.4171	6.94

TABLE V (CONT.)

TEMP	PRESSURE	RF	VOLUME (EXP.)	VOLUME (BISS)	DEV	VOLUME (R-K)	DEV
572.0	995.240	0.5050	3.7547	4.0473	7.79	4.2133	12.21
572.0	1025.720	0.5050	3.5511	3.9155	10.26	4.0587	14.29
572.0	1102.200	0.5050	3.4146	3.8082	11.52	3.9350	15.23
572.0	1175.660	0.5050	3.3236	3.7180	11.86	3.8324	15.30
572.0	1248.160	0.5050	3.2435	3.6400	12.24	3.7452	15.47
572.0	1322.640	0.5050	3.1688	3.5725	12.04	3.6696	15.08
572.0	1395.120	0.5050	3.1399	3.5127	11.87	3.6030	14.75
572.0	1469.600	0.5050	3.0959	3.4589	11.72	3.5436	14.46
487.0	205.744	0.3660	33.7638	36.4431	7.94	36.6394	8.52
482.0	205.744	0.3660	37.4718	40.0486	6.88	40.2132	7.32
482.0	220.440	0.3660	34.2861	36.6466	6.88	36.8190	7.39
482.0	223.920	0.3660	25.1645	24.3591	-3.20	24.5934	-2.27
527.0	205.744	0.3660	40.4974	43.3923	7.15	43.5355	7.50
527.0	220.440	0.3660	37.2212	39.8786	7.14	40.0269	7.54
527.0	223.920	0.3660	27.4837	27.3766	-0.39	27.5594	0.28
527.0	367.400	0.3660	20.2291	19.4561	-3.82	19.7053	-2.59
527.0	440.880	0.3660	15.0326	13.3093	-11.46	13.7757	-8.36
527.0	514.360	0.3660	10.7033	4.0363	-62.29	4.3624	-59.24
572.0	205.744	0.3660	43.1514	46.5585	7.90	46.6860	8.19
572.0	220.440	0.3660	39.8227	42.9156	7.77	43.0466	8.10
572.0	223.920	0.3660	29.5281	30.0448	1.75	30.1979	2.27
572.0	267.400	0.3660	22.2666	22.1097	-0.70	22.2968	0.14
572.0	440.880	0.3660	17.2247	16.5355	-4.00	16.7832	-2.56
572.0	514.360	0.3660	13.4082	12.0595	-10.06	12.4565	-7.10
572.0	587.840	0.3660	10.2198	6.4677	-37.33	8.2368	-20.18
572.0	661.320	0.3660	7.5159	4.6739	-37.81	5.1541	-31.42
572.0	734.800	0.3660	4.6401	4.2790	-7.76	4.5507	-1.93
572.0	808.280	0.3660	3.4376	4.0491	17.79	4.2485	23.59
572.0	881.760	0.3660	3.1261	3.8874	24.35	4.0487	29.52
572.0	955.240	0.3660	2.9899	3.7632	25.87	3.9006	30.46

TABLE V (CONT.)

TEMP	PRESSURE	RF	VOLUME (EXP.)	VOLUME (BISS)	DEV	VOLUME (R-K)	DEV
572.0	1028.720	0.3660	2.8839	3.6628	27.01	3.7836	31.20
572.0	1132.200	0.3660	2.8222	3.5798	26.81	3.6672	30.65
572.0	1175.600	0.3660	2.7683	3.5067	26.67	3.6056	30.25
572.0	1249.100	0.3660	2.7206	3.4437	26.58	3.5350	29.93
572.0	1322.640	0.3660	2.6867	3.3879	26.10	3.4728	29.26

TABLE VI

TEMP	PRESSURE	MF	VOLUME (EXP.)	VOLUME (SISS)	DEV	VOLUME (JOFFE)	DEV	VOLUME (R-K)	DEV
40.0	210.000	0.2733	24.6300	24.5543	-0.31	24.5351	-0.30	24.4594	-0.69
40.0	220.000	0.2733	1.2730	1.3768	8.16	1.3650	7.23	1.3107	2.96
40.0	2250.000	0.2733	1.2210	1.3166	7.63	1.3067	7.02	1.2600	3.19
40.0	2300.000	0.2733	1.1730	1.2697	7.53	1.2610	6.59	1.2197	3.10
40.0	2750.000	0.2733	1.1530	1.2316	6.82	1.2235	6.14	1.1866	2.91
40.0	3000.000	0.2733	1.1280	1.1997	6.36	1.1927	5.74	1.1586	2.72
40.0	3200.000	0.2733	1.0980	1.1489	5.59	1.1429	5.05	1.1135	2.34
40.0	4000.000	0.2733	1.0570	1.1095	4.96	1.1043	4.47	1.0781	1.99
40.0	4500.000	0.2733	1.0360	1.0777	4.02	1.0730	3.58	1.0492	1.28
40.0	5000.000	0.2733	1.0130	1.0513	3.78	1.0470	3.36	1.0251	1.19
40.0	6000.000	0.2733	0.9780	1.0094	3.21	1.0057	2.84	0.9865	0.87
100.0	210.000	0.2733	28.3500	28.2791	-0.25	28.2636	-0.30	28.2021	-0.52
100.0	400.000	0.2733	13.2700	13.2302	-0.30	13.2126	-0.43	13.1418	-0.97
100.0	600.000	0.2733	8.1900	8.1935	0.04	8.1733	-0.20	8.0902	-1.22
100.0	800.000	0.2733	5.6400	5.6680	0.50	5.6444	0.08	5.5454	-1.68
100.0	1000.000	0.2733	4.1300	4.1656	0.86	4.1386	0.21	4.0213	-2.63
100.0	1250.000	0.2733	2.9610	3.0280	2.28	2.9995	1.30	2.8695	-3.09
100.0	1500.000	0.2733	2.2990	2.3847	3.73	2.3590	2.61	2.2428	-2.45
100.0	1750.000	0.2733	1.9250	2.0221	5.04	2.0015	3.97	1.9082	-0.87
100.0	2000.000	0.2733	1.7010	1.8033	6.01	1.7868	5.04	1.7116	0.62
100.0	2250.000	0.2733	1.5470	1.6585	5.84	1.6449	4.97	1.5823	0.98
100.0	2500.000	0.2733	1.4710	1.5551	5.72	1.5436	4.93	1.4899	1.28
100.0	2750.000	0.2733	1.4000	1.4768	5.49	1.4666	4.77	1.4196	1.40
100.0	3000.000	0.2733	1.3440	1.4156	5.28	1.4061	4.62	1.3639	1.48
100.0	3500.000	0.2733	1.2630	1.3225	4.71	1.3153	4.14	1.2600	1.34
100.0	4000.000	0.2733	1.2070	1.2555	4.02	1.2493	3.51	1.2187	0.97
100.0	4500.000	0.2733	1.1550	1.2041	3.35	1.1987	2.89	1.1714	0.55
100.0	5000.000	0.2733	1.1280	1.1629	3.09	1.1580	2.66	1.1333	0.47
100.0	6000.000	0.2733	1.0760	1.1003	2.26	1.0962	1.88	1.0750	-0.10
100.0	7000.000	0.2733	1.0370	1.0542	1.66	1.0507	1.32	1.0318	-0.50

TABLE VI (CONT.)

TEMP	PRESSURE	MF	VOLUME (EXP.)	VOLUME (RISS)	DEV	VOLUME (JUFFE)	DEV	VOLUME (R-K)	DEV
100.0	3500.000	0.2733	1.0060	1.0185	1.24	1.0153	0.92	0.9981	-0.78
100.0	3000.000	0.2733	0.9790	0.9896	1.09	0.9868	0.79	0.9709	-0.83
100.0	10000.000	0.2733	0.9570	0.9658	0.92	0.9631	0.64	0.9482	-0.92
160.0	200.000	0.2733	32.0000	31.8640	-0.42	31.8510	-0.47	31.7989	-0.63
160.0	400.000	0.2733	15.3400	15.2393	-0.65	15.2256	-0.75	15.1685	-1.12
160.0	600.000	0.2733	9.7300	9.7044	-0.77	9.6891	-0.93	9.6263	-1.57
160.0	800.000	0.2733	7.0000	6.9482	-0.74	6.9316	-0.98	6.8627	-1.96
160.0	1000.000	0.2733	5.3400	5.3118	-0.53	5.2942	-0.86	5.2191	-2.26
160.0	1250.000	0.2733	4.0400	4.0361	-0.10	4.0174	-0.56	3.9364	-2.56
160.0	1500.000	0.2733	3.2100	3.2309	0.65	3.2122	0.07	3.1294	-2.51
160.0	1750.000	0.2733	2.6660	2.7063	1.51	2.6873	0.80	2.6060	-2.25
160.0	2000.000	0.2733	2.3000	2.3476	2.07	2.3316	1.37	2.2589	-1.79
160.0	2250.000	0.2733	2.0420	2.1004	2.86	2.0862	2.17	2.0212	-1.02
160.0	2500.000	0.2733	1.8650	1.9220	3.06	1.9095	2.39	1.8516	-0.72
160.0	2750.000	0.2733	1.7330	1.7884	3.20	1.7773	2.56	1.7255	-0.43
160.0	3000.000	0.2733	1.6320	1.6848	3.23	1.6749	2.63	1.6281	-0.24
160.0	3250.000	0.2733	1.4870	1.5344	3.19	1.5262	2.64	1.4871	0.01
160.0	4000.000	0.2733	1.3880	1.4297	3.01	1.4226	2.51	1.3891	0.08
160.0	4500.000	0.2733	1.3160	1.3521	2.74	1.3460	2.28	1.3162	0.01
160.0	5000.000	0.2733	1.2600	1.2916	2.51	1.2863	2.09	1.2593	-0.05
160.0	6000.000	0.2733	1.1820	1.2027	1.75	1.1983	1.38	1.1754	-0.55
160.0	7000.000	0.2733	1.1270	1.1395	1.11	1.1357	0.77	1.1156	-1.01
160.0	8000.000	0.2733	1.0840	1.0917	0.71	1.0883	0.40	1.0702	-1.27
160.0	9000.000	0.2733	1.0490	1.0539	0.47	1.0509	0.18	1.0342	-1.41
160.0	10000.000	0.2733	1.0210	1.0231	0.21	1.0203	-0.06	1.0048	-1.59
220.0	200.000	0.2733	35.6000	35.3605	-0.67	35.3493	-0.70	35.3039	-0.83
220.0	400.000	0.2733	17.2000	17.1405	-0.56	17.1286	-0.93	17.0803	-1.21
220.0	600.000	0.2733	11.2100	11.0814	-1.15	11.0689	-1.26	11.0175	-1.72
220.0	800.000	0.2733	8.1600	8.0669	-1.14	8.0538	-1.30	7.9993	-1.97
220.0	1000.000	0.2733	6.3400	6.2745	-1.03	6.2609	-1.25	6.2035	-2.15

TABLE VI (CONT.)

TEMP	REFERENCE	MF	VOLUME (EXP.)	VOLUME (RISS)	DEV	VOLUME (JOFFE)	DEV	VOLUME (R-K)	DEV
220.0	1250.000	0.2733	4.9000	4.8646	-0.72	4.8506	-1.01	4.7904	-2.24
220.0	1500.000	0.2733	3.9700	3.9524	-0.44	3.9383	-0.80	3.8765	-2.35
220.0	1750.000	0.2733	3.3300	3.3283	-0.05	3.3144	-0.47	3.2528	-2.32
220.0	2000.000	0.2733	2.8740	2.8851	0.38	2.8713	-0.08	2.8120	-2.16
220.0	2250.000	0.2733	2.5420	2.5613	0.76	2.5488	0.27	2.4922	-1.96
220.0	2500.000	0.2733	2.2940	2.3195	1.10	2.3157	0.95	2.2539	-1.75
220.0	2750.000	0.2733	2.1070	2.1324	1.21	2.1213	0.70	2.0723	-1.65
220.0	3000.000	0.2733	1.9570	1.9862	1.49	1.9764	0.99	1.9304	-1.36
220.0	3500.000	0.2733	1.7420	1.7729	1.77	1.7645	1.29	1.7248	-0.99
220.0	4000.000	0.2733	1.5950	1.6254	1.91	1.6182	1.46	1.5833	-0.73
220.0	4500.000	0.2733	1.4920	1.5174	1.70	1.5110	1.28	1.4799	-0.81
220.0	5000.000	0.2733	1.4150	1.4345	1.38	1.4288	0.98	1.4007	-1.01
220.0	6000.000	0.2733	1.2990	1.3149	1.23	1.3103	0.87	1.2864	-0.97
220.0	7000.000	0.2733	1.2230	1.2320	0.73	1.2280	0.41	1.2070	-1.30
220.0	8000.000	0.2733	1.1680	1.1704	0.21	1.1669	-0.10	1.1480	-1.71
220.0	9000.000	0.2733	1.1230	1.1225	-0.04	1.1193	-0.33	1.1021	-1.86
220.0	10000.000	0.2733	1.0870	1.0840	-0.28	1.0811	-0.54	1.0650	-2.02
220.0	2000.000	0.2733	39.0500	38.7971	-0.52	38.7872	-0.55	38.7469	-0.65
220.0	4000.000	0.2733	19.1300	18.9729	-0.82	18.9626	-0.88	18.9205	-1.10
220.0	6000.000	0.2733	12.5100	12.3813	-1.03	12.3707	-1.11	12.3266	-1.47
220.0	8000.000	0.2733	9.2000	9.1006	-1.08	9.0896	-1.20	9.0438	-1.70
220.0	10000.000	0.2733	7.2300	7.1465	-1.15	7.1354	-1.31	7.0880	-1.96
220.0	12500.000	0.2733	5.6500	5.6024	-1.02	5.5910	-1.22	5.5421	-2.08
220.0	15000.000	0.2733	4.6400	4.5930	-1.01	4.5816	-1.26	4.5317	-2.33
220.0	17500.000	0.2733	3.9200	3.8909	-0.74	3.8796	-1.03	3.8296	-2.31
220.0	20000.000	0.2733	3.4000	3.3814	-0.55	3.3703	-0.87	3.3209	-2.33
220.0	22500.000	0.2733	3.0100	2.9999	-0.33	2.9893	-0.69	2.9411	-2.29
220.0	25000.000	0.2733	2.7120	2.7072	-0.18	2.6970	-0.55	2.6506	-2.27
220.0	27500.000	0.2733	2.4300	2.4777	-0.09	2.4681	-0.48	2.4237	-2.27
220.0	30000.000	0.2733	2.2570	2.2945	-0.11	2.2855	-0.50	2.2432	-2.34

TABLE VI (CONT.)

TEMP	PRESSURE	MF	VOLUME (EXP.)	VOLUME (MISS)	DEV	VOLUME (JUFFE)	DEV	VOLUME (R-K)	DEV
280.0	3500.000	0.2733	2.0200	2.0229	0.15	2.0149	-0.25	1.9769	-2.13
280.0	4000.000	0.2733	1.8260	1.8332	0.39	1.8260	0.00	1.7918	-1.87
280.0	4500.000	0.2733	1.6870	1.6937	0.40	1.6873	0.02	1.6564	-1.82
280.0	5000.000	0.2733	1.5820	1.5871	0.32	1.5814	-0.04	1.5531	-1.83
280.0	6000.000	0.2733	1.4290	1.4346	0.39	1.4298	0.06	1.4056	-1.64
280.0	7000.000	0.2733	1.3270	1.3302	0.24	1.3261	-0.07	1.3047	-1.68
280.0	8000.000	0.2733	1.2540	1.2536	-0.03	1.2500	-0.32	1.2307	-1.86
280.0	9000.000	0.2733	1.1990	1.1948	-0.35	1.1915	-0.63	1.1738	-2.10
280.0	10000.000	0.2733	1.1540	1.1476	-0.34	1.1448	-0.80	1.1284	-2.22
340.0	200.000	0.2733	42.3000	42.1910	-0.26	42.1822	-0.28	42.1460	-0.36
340.0	400.000	0.2733	20.8800	20.7588	-0.58	20.7498	-0.62	20.7122	-0.80
340.0	600.000	0.2733	13.7300	13.6313	-0.72	13.6220	-0.79	13.5833	-1.07
340.0	800.000	0.2733	10.1600	10.0815	-0.77	10.0721	-0.67	10.0323	-1.26
340.0	1000.000	0.2733	8.0700	7.9643	-0.82	7.9548	-0.94	7.9140	-1.44
340.0	1250.000	0.2733	6.3400	6.2663	-0.85	6.2766	-1.00	6.2349	-1.66
340.0	1500.000	0.2733	5.2300	5.1833	-0.89	5.1736	-1.08	5.1314	-1.89
340.0	1750.000	0.2733	4.4500	4.4097	-0.90	4.4001	-1.12	4.3578	-2.07
340.0	2000.000	0.2733	3.8800	3.8423	-0.97	3.8329	-1.22	3.7907	-2.30
340.0	2250.000	0.2733	3.4500	3.4121	-1.10	3.4029	-1.37	3.3614	-2.57
340.0	2500.000	0.2733	3.1100	3.0775	-1.05	3.0686	-1.33	3.0280	-2.64
340.0	2750.000	0.2733	2.8350	2.8117	-0.82	2.8031	-1.12	2.7637	-2.51
340.0	3000.000	0.2733	2.6150	2.5969	-0.69	2.5887	-1.01	2.5506	-2.46
340.0	3500.000	0.2733	2.2900	2.2738	-0.71	2.2663	-1.03	2.2311	-2.57
340.0	4000.000	0.2733	2.0570	2.0448	-0.60	2.0380	-0.92	2.0055	-2.50
340.0	4500.000	0.2733	1.8950	1.8753	-0.52	1.8691	-0.84	1.8392	-2.43
340.0	5000.000	0.2733	1.7530	1.7453	-0.44	1.7396	-0.76	1.7120	-2.34
340.0	6000.000	0.2733	1.5450	1.5595	-0.35	1.5546	-0.66	1.5325	-2.07
340.0	7000.000	0.2733	1.4390	1.4326	-0.44	1.4308	-0.57	1.4075	-2.19
340.0	8000.000	0.2733	1.3470	1.3409	-0.45	1.3387	-0.62	1.3173	-2.21
340.0	9000.000	0.2733	1.2790	1.2700	-0.71	1.2673	-0.91	1.2491	-2.34

TABLE VI (CONT.)

TEMP	PRESSURE	MF	VOLUME (EXP.)	VOLUME (RISS)	DEV	VOLUME (JUFFE)	DEV	VOLUME (R-K)	DEV
340.0	10000.000	0.2733	1.2240	1.2141	-0.91	1.2112	-1.05	1.2018	-1.81
400.0	2000.000	0.2733	45.7000	45.5535	-0.32	45.5455	-0.34	45.5125	-0.41
400.0	4000.000	0.2733	22.6400	22.5115	-0.57	22.5034	-0.60	22.4695	-0.75
400.0	6000.000	0.2733	14.9700	14.8466	-0.82	14.8383	-0.88	14.8036	-1.11
400.0	8000.000	0.2733	11.1400	11.0269	-1.02	11.0195	-1.09	10.9831	-1.41
400.0	10000.000	0.2733	8.6400	8.7461	-1.06	8.7377	-1.16	8.7017	-1.56
400.0	12500.000	0.2733	7.0200	6.9548	-1.21	6.9263	-1.33	6.8897	-1.86
400.0	15000.000	0.2733	5.8100	5.7401	-1.20	5.7317	-1.35	5.6947	-1.98
400.0	17500.000	0.2733	4.9600	4.8982	-1.25	4.8896	-1.42	4.8528	-2.16
400.0	20000.000	0.2733	4.3300	4.2768	-1.23	4.2685	-1.42	4.2316	-2.27
400.0	22500.000	0.2733	3.8500	3.8022	-1.24	3.7941	-1.45	3.7576	-2.40
400.0	25000.000	0.2733	3.4700	3.4302	-1.15	3.4223	-1.38	3.3863	-2.41
400.0	27500.000	0.2733	3.1700	3.1323	-1.19	3.1246	-1.43	3.0894	-2.54
400.0	30000.000	0.2733	2.9260	2.8895	-1.25	2.8821	-1.50	2.8477	-2.68
400.0	32000.000	0.2733	2.5520	2.5204	-1.24	2.5135	-1.51	2.4811	-2.78
400.0	40000.000	0.2733	2.2210	2.2557	-1.11	2.2493	-1.39	2.2189	-2.72
400.0	45000.000	0.2733	2.0210	2.0580	-1.10	2.0521	-1.39	2.0236	-2.76
400.0	50000.000	0.2733	1.9280	1.9056	-1.16	1.9001	-1.45	1.8734	-2.83
400.0	60000.000	0.2733	1.7240	1.6868	-1.01	1.6821	-1.29	1.6584	-2.67
400.0	70000.000	0.2733	1.5540	1.5376	-1.05	1.5335	-1.32	1.5122	-2.69
400.0	80000.000	0.2733	1.4460	1.4293	-1.15	1.4256	-1.41	1.4053	-2.75
400.0	90000.000	0.2733	1.3640	1.3469	-1.25	1.3436	-1.50	1.3257	-2.81
400.0	100000.000	0.2733	1.3000	1.2620	-1.39	1.2789	-1.62	1.2623	-2.90
460.0	2000.000	0.2733	49.1000	48.8921	-0.42	48.8849	-0.44	48.8544	-0.50
460.0	4000.000	0.2733	24.4500	24.2395	-0.86	24.2322	-0.89	24.2012	-1.02
460.0	6000.000	0.2733	16.2300	16.0366	-1.19	16.0291	-1.24	15.9975	-1.43
460.0	8000.000	0.2733	12.1200	11.9467	-1.43	11.9392	-1.49	11.9071	-1.76
460.0	10000.000	0.2733	9.6600	9.5024	-1.63	9.4949	-1.71	9.4625	-2.04
460.0	12500.000	0.2733	7.6900	7.5584	-1.71	7.5509	-1.61	7.5181	-2.24
460.0	15000.000	0.2733	6.3200	6.2733	-1.67	6.2658	-1.79	6.2327	-2.31

TABLE VI (CONT.)

TEMP	PRESSURE	MF	VOLUME (EXP.)	VOLUME (RISS)	DEV	VOLUME (JUFFE)	DEV	VOLUME (R-K)	DEV
460.0	1750.000	0.2733	5.4600	5.3647	-1.74	5.3573	-1.88	5.3242	-2.49
460.0	2000.000	0.2733	4.7700	4.6910	-1.04	4.6842	-1.80	4.6513	-2.49
460.0	2250.000	0.2733	4.2400	4.1752	-1.53	4.1679	-1.70	4.1352	-2.47
460.0	2500.000	0.2733	3.8300	3.7682	-1.61	3.7611	-1.80	3.7288	-2.64
460.0	2750.000	0.2733	3.5000	3.4407	-1.70	3.4337	-1.89	3.4019	-2.80
460.0	3000.000	0.2733	3.2200	3.1723	-1.48	3.1656	-1.69	3.1343	-2.66
460.0	3250.000	0.2733	2.8200	2.7612	-1.67	2.7549	-1.89	2.7250	-2.96
460.0	3500.000	0.2733	2.5070	2.4635	-1.74	2.4576	-1.97	2.4292	-3.10
460.0	3750.000	0.2733	2.2200	2.2396	-1.77	2.2341	-2.01	2.2072	-3.19
460.0	4000.000	0.2733	2.1020	2.0660	-1.71	2.0608	-1.96	2.0353	-3.17
460.0	4250.000	0.2733	1.8480	1.8155	-1.76	1.8110	-2.00	1.7880	-3.24
460.0	4500.000	0.2733	1.6740	1.6443	-1.77	1.6403	-2.02	1.6194	-3.26
460.0	4750.000	0.2733	1.5510	1.5200	-2.00	1.5164	-2.23	1.4972	-3.47
460.0	5000.000	0.2733	1.4560	1.4256	-2.09	1.4223	-2.32	1.4045	-3.53
460.0	17000.000	0.2733	1.3780	1.3514	-1.93	1.3483	-2.16	1.3317	-3.36
40.0	200.000	0.5244	25.5500	25.5464	-0.01	25.5241	-0.10	25.4369	-0.44
40.0	400.000	0.5244	12.1500	12.1397	-0.08	12.1154	-0.28	12.0186	-1.08
40.0	600.000	0.5244	7.6700	7.6765	0.09	7.6499	-0.26	7.5421	-1.67
40.0	800.000	0.5244	5.4400	5.4578	0.33	5.4289	-0.20	5.3090	-2.41
40.0	1000.000	0.5244	4.1100	4.1476	0.91	4.1167	0.16	3.9854	-3.03
40.0	1250.000	0.5244	3.0800	3.1404	1.96	3.1085	0.93	2.9692	-3.60
40.0	1500.000	0.5244	2.4530	2.5225	2.83	2.4966	1.78	2.3568	-3.92
40.0	1750.000	0.5244	2.0490	2.1305	3.98	2.1032	2.64	1.9821	-3.27
40.0	2000.000	0.5244	1.7290	1.8727	4.10	1.8491	2.79	1.7443	-3.04
40.0	2250.000	0.5244	1.6310	1.6952	3.94	1.6749	2.69	1.5646	-2.85
40.0	2500.000	0.5244	1.5100	1.5669	3.77	1.5493	2.60	1.4706	-2.61
40.0	2750.000	0.5244	1.4160	1.4700	3.82	1.4546	2.73	1.3851	-2.18
40.0	3000.000	0.5244	1.3420	1.3942	3.89	1.3806	2.67	1.3183	-1.77
40.0	3250.000	0.5244	1.2360	1.2826	3.77	1.2715	2.87	1.2198	-1.31
40.0	3500.000	0.5244	1.1660	1.2036	3.23	1.1942	2.42	1.1497	-1.40

TABLE VI (CONT.)

TEMP	EXPENSE	MF	VOLUME (EXP.)	VOLUME (MISS)	DEV	VOLUME (JÜFFE)	DEV	VOLUME (R-K)	DEV
40.0	4500.000	0.5244	1.1100	1.1441	3.08	1.1359	2.33	1.0967	-1.20
40.0	5000.000	0.5244	1.0670	1.0973	2.84	1.0900	2.16	1.0547	-1.15
40.0	6000.000	0.5244	1.0060	1.0276	2.15	1.0216	1.55	0.9918	-1.41
40.0	7000.000	0.5244	0.9640	0.9775	1.40	0.9724	0.87	0.9462	-1.85
40.0	8000.000	0.5244	0.9290	0.9393	1.10	0.9347	0.62	0.9111	-1.92
40.0	9000.000	0.5244	0.9030	0.9059	0.85	0.9048	0.20	0.8831	-2.20
40.0	10000.000	0.5244	0.8790	0.8840	0.56	0.8802	0.14	0.8601	-2.15
100.0	200.000	0.5244	29.1300	29.0701	-0.21	29.0517	-0.27	28.9788	-0.52
100.0	400.000	0.5244	14.1100	14.0704	-0.28	14.0510	-0.42	13.9733	-0.97
100.0	600.000	0.5244	9.1100	9.0857	-0.27	9.0653	-0.49	8.9827	-1.40
100.0	800.000	0.5244	6.6200	6.6094	-0.16	6.5881	-0.48	6.5007	-1.80
100.0	1000.000	0.5244	5.1300	5.1407	0.21	5.1187	-0.22	5.0271	-2.01
100.0	1250.000	0.5244	3.9700	3.9906	0.52	3.9682	-0.05	3.8731	-2.44
100.0	1500.000	0.5244	3.2200	3.2516	0.98	3.2294	0.29	3.1335	-2.69
100.0	1750.000	0.5244	2.7150	2.7498	1.28	2.7285	0.50	2.6350	-2.95
100.0	2000.000	0.5244	2.3560	2.3960	1.70	2.3760	0.85	2.2874	-2.91
100.0	2250.000	0.5244	2.0980	2.1386	1.94	2.1202	1.06	2.0379	-2.87
100.0	2500.000	0.5244	1.9080	1.9462	2.00	1.9293	1.12	1.8535	-2.86
100.0	2750.000	0.5244	1.7630	1.7982	2.00	1.7829	1.13	1.7134	-2.82
100.0	3000.000	0.5244	1.6510	1.6817	1.86	1.6677	1.01	1.6039	-2.85
100.0	3200.000	0.5244	1.4850	1.5109	1.74	1.4991	0.95	1.4447	-2.71
100.0	4000.000	0.5244	1.3640	1.3918	2.04	1.3817	1.30	1.3344	-2.17
100.0	4500.000	0.5244	1.2760	1.3038	2.18	1.2950	1.49	1.2530	-1.80
100.0	5000.000	0.5244	1.2120	1.2359	1.97	1.2281	1.33	1.1903	-1.79
100.0	6000.000	0.5244	1.1230	1.1372	1.27	1.1306	0.69	1.0990	-2.13
100.0	7000.000	0.5244	1.0600	1.0683	0.78	1.0628	0.26	1.0350	-2.36
100.0	8000.000	0.5244	1.0130	1.0168	0.37	1.0120	-0.10	0.9871	-2.55
100.0	9000.000	0.5244	0.9760	0.9766	0.06	0.9723	-0.38	0.9496	-2.70
100.0	10000.000	0.5244	0.9460	0.9442	-0.19	0.9403	-0.60	0.9193	-2.83
160.0	200.000	0.5244	32.0000	32.5154	-0.26	32.4996	-0.31	32.4369	-0.50

TABLE VI (CONT.)

TEMP	PRESSURE	MF	VOLUME (EXP.)	VOLUME (PISS)	DEV	VOLUME (JUFFE)	DEV	VOLUME (R-K)	DEV
160.0	400.000	0.5244	15.9200	15.9111	-0.49	15.8948	-0.60	15.8294	-1.00
160.0	500.000	0.5244	13.4500	13.3930	-0.55	13.3763	-0.71	13.3083	-1.36
160.0	600.000	0.5244	7.6800	7.6490	-0.40	7.6319	-0.63	7.5616	-1.54
160.0	1000.000	0.5244	6.0400	6.0160	-0.39	5.9993	-0.67	5.9271	-1.87
160.0	1250.000	0.5244	4.7400	4.7288	-0.24	4.7114	-0.60	4.6375	-2.16
160.0	1500.000	0.5244	3.9000	3.8899	-0.28	3.8715	-0.73	3.7972	-2.64
160.0	1750.000	0.5244	3.3100	3.3056	-0.13	3.2888	-0.64	3.2151	-2.87
160.0	2000.000	0.5244	2.8790	2.8832	0.15	2.8668	-0.42	2.7950	-2.92
160.0	2250.000	0.5244	2.5590	2.5670	0.31	2.5514	-0.30	2.4822	-3.00
160.0	2500.000	0.5244	2.3120	2.3242	0.53	2.3094	-0.11	2.2434	-2.97
160.0	2750.000	0.5244	2.1210	2.1336	0.59	2.1197	-0.06	2.0571	-3.01
160.0	3000.000	0.5244	1.9670	1.9810	0.71	1.9680	0.05	1.9090	-2.95
160.0	3500.000	0.5244	1.7420	1.7539	0.68	1.7425	0.03	1.6904	-2.96
160.0	4000.000	0.5244	1.5830	1.5956	0.50	1.5854	0.15	1.5373	-2.89
160.0	4500.000	0.5244	1.4680	1.4762	0.56	1.4673	-0.05	1.4251	-2.92
160.0	5000.000	0.5244	1.3780	1.3856	0.55	1.3775	-0.03	1.3392	-2.82
160.0	5500.000	0.5244	1.2510	1.2552	0.33	1.2485	-0.20	1.2159	-2.81
160.0	7000.000	0.5244	1.1650	1.1654	0.03	1.1597	-0.46	1.1311	-2.91
160.0	8000.000	0.5244	1.1040	1.0994	-0.41	1.0943	-0.87	1.0687	-3.20
160.0	9000.000	0.5244	1.0560	1.0485	-0.71	1.0440	-1.14	1.0206	-3.36
160.0	10000.000	0.5244	1.0150	1.0080	-0.69	1.0040	-1.08	0.9820	-3.25
220.0	200.000	0.5244	35.1000	35.9087	-0.53	35.8950	-0.57	35.8399	-0.72
220.0	400.000	0.5244	17.8100	17.6954	-0.64	17.6815	-0.72	17.6247	-1.04
220.0	600.000	0.5244	11.7300	11.6403	-0.76	11.6261	-0.89	11.5679	-1.38
220.0	800.000	0.5244	8.7000	8.6261	-0.35	8.6117	-1.02	8.5523	-1.70
220.0	1000.000	0.5244	6.8800	6.8292	-0.74	6.8147	-0.95	6.7543	-1.83
220.0	1250.000	0.5244	5.4500	5.4059	-0.81	5.3914	-1.07	5.3303	-2.20
220.0	1500.000	0.5244	4.5000	4.4709	-0.55	4.4566	-0.97	4.3952	-2.33
220.0	1750.000	0.5244	3.8400	3.8153	-0.84	3.8012	-1.01	3.7402	-2.60
220.0	2000.000	0.5244	3.3500	3.3343	-0.47	3.3205	-0.88	3.2604	-2.67

TABLE VI (CONT.)

TEMP	PRESSURE	MF	VOLUME (EXP.)	VOLUME (PISS)	DEV	VOLUME (JGFF)	DEV	VOLUME (R-K)	DEV
220.0	2250.000	0.5244	2.9930	2.9693	-0.46	2.9560	-0.91	2.8972	-2.88
220.0	2500.000	0.5244	2.6930	2.6849	-0.30	2.6721	-0.77	2.6152	-2.89
220.0	2750.000	0.5244	2.4620	2.4587	-0.14	2.4464	-0.63	2.3914	-2.87
220.0	3000.000	0.5244	2.2760	2.2753	-0.03	2.2636	-0.54	2.2108	-2.87
220.0	3500.000	0.5244	2.0040	1.9994	-0.28	1.9879	-0.61	1.9393	-3.23
220.0	4000.000	0.5244	1.8070	1.8010	-0.33	1.7915	-0.86	1.7471	-3.32
220.0	4500.000	0.5244	1.6610	1.6542	-0.41	1.6456	-0.93	1.6048	-3.38
220.0	5000.000	0.5244	1.5470	1.5410	-0.39	1.5331	-0.90	1.4956	-3.32
220.0	5500.000	0.5244	1.3960	1.3793	-0.56	1.3717	-1.03	1.3392	-3.38
220.0	7000.000	0.5244	1.2740	1.2669	-0.56	1.2611	-1.01	1.2340	-3.14
220.0	8000.000	0.5244	1.1970	1.1854	-0.97	1.1804	-1.39	1.1556	-3.46
220.0	9000.000	0.5244	1.1360	1.1232	-1.13	1.1186	-1.53	1.0959	-3.53
220.0	10000.000	0.5244	1.0950	1.0737	-1.04	1.0696	-1.42	1.0477	-3.44
280.0	200.000	0.5244	39.4000	39.2658	-0.34	39.2537	-0.37	39.2044	-0.50
280.0	400.000	0.5244	19.5500	19.4420	-0.55	19.4297	-0.62	19.3795	-0.87
280.0	600.000	0.5244	12.9500	12.8486	-0.78	12.8362	-0.88	12.7851	-1.27
280.0	800.000	0.5244	9.6500	9.5635	-0.90	9.5511	-1.03	9.4923	-1.56
280.0	1000.000	0.5244	7.6000	7.6023	-1.01	7.5899	-1.17	7.5376	-1.85
280.0	1250.000	0.5244	6.1100	6.0450	-1.06	6.0325	-1.27	5.9799	-2.13
280.0	1500.000	0.5244	5.0700	5.0177	-1.03	5.0054	-1.27	4.9527	-2.31
280.0	1750.000	0.5244	4.3400	4.2935	-1.07	4.2813	-1.35	4.2289	-2.56
280.0	2000.000	0.5244	3.8000	3.7585	-1.09	3.7466	-1.41	3.6948	-2.77
280.0	2250.000	0.5244	3.3800	3.3494	-0.90	3.3379	-1.25	3.2869	-2.75
280.0	2500.000	0.5244	3.0500	3.0282	-1.04	3.0170	-1.41	2.9671	-3.04
280.0	2750.000	0.5244	2.7960	2.7705	-0.91	2.7596	-1.30	2.7110	-3.04
280.0	3000.000	0.5244	2.5850	2.5600	-0.97	2.5495	-1.37	2.5022	-3.20
280.0	3500.000	0.5244	2.2640	2.2387	-1.12	2.2291	-1.54	2.1848	-3.50
280.0	4000.000	0.5244	2.0280	2.0070	-1.03	1.9981	-1.47	1.9568	-3.51
280.0	4500.000	0.5244	1.8520	1.8332	-1.01	1.8250	-1.46	1.7864	-3.54
280.0	5000.000	0.5244	1.7150	1.6985	-0.96	1.6910	-1.40	1.6549	-3.50

TABLE VI (CONT.)

TEMP	PRESSURE	RF	VOLUME (EXP.)	VOLUME (RISS)	DEV	VOLUME (JUFFE)	DEV	VOLUME (R-K)	DEV
280.0	5000.000	0.5244	1.5240	1.5042	-1.30	1.4977	-1.73	1.4659	-3.81
280.0	7000.000	0.5244	1.3870	1.3710	-1.15	1.3653	-1.56	1.3369	-3.61
280.0	8000.000	0.5244	1.2900	1.2740	-1.24	1.2689	-1.63	1.2432	-3.63
280.0	9000.000	0.5244	1.2180	1.2001	-1.47	1.1955	-1.85	1.1718	-3.80
280.0	10000.000	0.5244	1.1570	1.1417	-1.33	1.1375	-1.69	1.1154	-3.59
340.0	2000.000	0.5244	42.7000	42.5967	-0.24	42.5859	-0.27	42.5413	-0.37
340.0	3000.000	0.5244	21.2500	21.1617	-0.56	21.1507	-0.61	21.1055	-0.82
340.0	4000.000	0.5244	14.1300	14.0297	-0.71	14.0187	-0.79	13.9730	-1.11
340.0	5000.000	0.5244	10.5600	10.4739	-0.82	10.4629	-0.92	10.4168	-1.36
340.0	6000.000	0.5244	8.4200	8.3486	-0.85	8.3378	-0.98	8.2914	-1.53
340.0	7000.000	0.5244	6.7200	6.6584	-0.92	6.6475	-1.08	6.6009	-1.77
340.0	8000.000	0.5244	5.6000	5.5405	-1.06	5.5297	-1.26	5.4832	-2.09
340.0	9000.000	0.5244	4.8000	4.7497	-1.05	4.7390	-1.27	4.6928	-2.23
340.0	10000.000	0.5244	4.2100	4.1631	-1.11	4.1527	-1.36	4.1069	-2.45
340.0	12000.000	0.5244	3.7500	3.7126	-1.26	3.7024	-1.53	3.6572	-2.73
340.0	13000.000	0.5244	3.4000	3.3571	-1.26	3.3471	-1.56	3.3027	-2.86
340.0	14000.000	0.5244	3.1200	3.0703	-1.59	3.0606	-1.90	3.0170	-3.30
340.0	15000.000	0.5244	2.8700	2.8349	-1.43	2.8254	-1.76	2.7829	-3.24
340.0	16000.000	0.5244	2.5900	2.4730	-1.43	2.4642	-1.79	2.4237	-3.40
340.0	17000.000	0.5244	2.2410	2.2097	-1.40	2.2015	-1.76	2.1632	-3.47
340.0	18000.000	0.5244	2.0390	2.0108	-1.38	2.0031	-1.76	1.9669	-3.54
340.0	19000.000	0.5244	1.8800	1.8558	-1.29	1.8486	-1.67	1.8144	-3.49
340.0	20000.000	0.5244	1.6590	1.6311	-1.68	1.6248	-2.06	1.5942	-3.91
340.0	21000.000	0.5244	1.4970	1.4767	-1.36	1.4711	-1.73	1.4433	-3.59
340.0	22000.000	0.5244	1.3850	1.3641	-1.51	1.3591	-1.87	1.3337	-3.71
340.0	23000.000	0.5244	1.2950	1.2784	-1.28	1.2738	-1.63	1.2503	-3.45
340.0	24000.000	0.5244	1.2310	1.2109	-1.63	1.2067	-1.97	1.1848	-3.76
400.0	2000.000	0.5244	46.1000	45.9081	-0.42	45.8982	-0.44	45.8574	-0.53
400.0	4000.000	0.5244	23.0000	22.8616	-0.60	22.8517	-0.64	22.8106	-0.82
400.0	6000.000	0.5244	15.3200	15.1911	-0.64	15.1813	-0.91	15.1398	-1.18

TABLE VI (CONT.)

TEMP	PLASTICITY	MF	VOLUME (EXP.)	VOLUME (MISS)	DEV	VOLUME (JUFFE)	DFV	VOLUME (R-K)	DEV
400.0	1000.000	0.5244	11.4800	11.3648	-1.00	11.3549	-1.09	11.3132	-1.45
400.0	1000.000	0.5244	9.1800	9.0762	-1.13	9.0664	-1.24	9.0245	-1.69
400.0	1250.000	0.5244	7.3400	7.2536	-1.18	7.2436	-1.31	7.2019	-1.88
400.0	1500.000	0.5244	6.1200	6.0460	-1.21	6.0364	-1.37	5.9946	-2.05
400.0	1750.000	0.5244	5.2600	5.1899	-1.33	5.1804	-1.51	5.1389	-2.30
400.0	2000.000	0.5244	4.6100	4.5533	-1.23	4.5439	-1.43	4.5028	-2.33
400.0	2250.000	0.5244	4.1200	4.0628	-1.59	4.0537	-1.61	4.0129	-2.60
400.0	2500.000	0.5244	3.7300	3.6745	-1.49	3.6655	-1.73	3.6254	-2.81
400.0	2750.000	0.5244	3.4100	3.3602	-1.46	3.3514	-1.72	3.3119	-2.88
400.0	3000.000	0.5244	3.1500	3.1013	-1.55	3.0927	-1.82	3.0539	-3.05
400.0	3250.000	0.5244	2.7500	2.7013	-1.77	2.6932	-2.06	2.6560	-3.42
400.0	3500.000	0.5244	2.4530	2.4084	-1.82	2.4008	-2.13	2.3652	-3.58
400.0	3750.000	0.5244	2.2240	2.1859	-1.71	2.1787	-2.04	2.1447	-3.56
400.0	4000.000	0.5244	2.0440	2.0117	-1.58	2.0049	-1.91	1.9726	-3.49
400.0	4250.000	0.5244	1.7890	1.7580	-1.73	1.7519	-2.07	1.7225	-3.72
400.0	4500.000	0.5244	1.6120	1.5828	-1.81	1.5774	-2.15	1.5504	-3.82
400.0	4750.000	0.5244	1.4830	1.4550	-1.89	1.4501	-2.22	1.4252	-3.90
400.0	5000.000	0.5244	1.3840	1.3576	-1.91	1.3531	-2.23	1.3300	-3.90
400.0	5250.000	0.5244	1.3030	1.2810	-1.69	1.2768	-2.01	1.2551	-3.67
460.0	1000.000	0.5244	49.5900	49.2043	-0.80	49.1953	-0.62	49.1576	-0.69
460.0	1250.000	0.5244	24.6800	24.5466	-0.54	24.5376	-0.58	24.4997	-0.73
460.0	1500.000	0.5244	16.4600	16.3377	-0.74	16.3287	-0.80	16.2906	-1.03
460.0	1750.000	0.5244	12.3500	12.2411	-0.88	12.2322	-0.95	12.1940	-1.26
460.0	2000.000	0.5244	9.8900	9.7895	-1.02	9.7805	-1.11	9.7423	-1.49
460.0	2250.000	0.5244	7.9200	7.8352	-1.07	7.8263	-1.18	7.7881	-1.66
460.0	2500.000	0.5244	6.6100	6.5388	-1.08	6.5301	-1.21	6.4920	-1.79
460.0	2750.000	0.5244	5.6800	5.6183	-1.09	5.6096	-1.24	5.5718	-1.91
460.0	3000.000	0.5244	4.9900	4.9325	-1.15	4.9240	-1.32	4.8864	-2.08
460.0	3250.000	0.5244	4.4600	4.4030	-1.23	4.3947	-1.46	4.3575	-2.30
460.0	3500.000	0.5244	4.0500	3.9829	-1.86	3.9747	-1.56	3.9380	-2.77

TABLE VI (CONT.)

TEMP	PRESSURE	MF	VOLUME (EXP.)	VOLUME (RISS)	DEV	VOLUME (JUFFE)	DEV	VOLUME (R-K)	DEV
460.0	2750.000	0.5244	3.7000	3.6421	-1.57	3.6341	-1.78	3.5979	-2.76
460.0	3000.000	0.5244	3.4200	3.3606	-1.74	3.3528	-1.97	3.3171	-3.01
460.0	3500.000	0.5244	2.9840	2.9243	-2.00	2.9168	-2.25	2.8823	-3.41
460.0	4000.000	0.5244	2.6590	2.6032	-2.10	2.5961	-2.37	2.5629	-3.61
460.0	4500.000	0.5244	2.4050	2.3582	-1.95	2.3514	-2.23	2.3196	-3.55
460.0	5000.000	0.5244	2.2050	2.1657	-1.78	2.1593	-2.07	2.1288	-3.46
460.0	6000.000	0.5244	1.9230	1.8841	-2.02	1.8784	-2.32	1.8502	-3.79
460.0	7000.000	0.5244	1.7220	1.6839	-1.92	1.6837	-2.22	1.6576	-3.74
460.0	8000.000	0.5244	1.5810	1.5462	-2.20	1.5414	-2.51	1.5171	-4.04
460.0	9000.000	0.5244	1.4720	1.4373	-2.36	1.4329	-2.66	1.4102	-4.20
460.0	10000.000	0.5244	1.3820	1.3516	-2.20	1.3475	-2.49	1.3262	-4.04
40.0	200.000	0.7318	26.0700	26.1284	0.15	26.1117	0.08	26.0463	-0.17
40.0	400.000	0.7318	12.7100	12.7428	0.26	12.7255	0.12	12.6570	-0.42
40.0	600.000	0.7318	8.2700	8.2977	0.33	8.2798	0.12	8.2085	-0.74
40.0	800.000	0.7318	6.0600	6.0906	0.50	6.0723	0.20	5.9986	-1.01
40.0	1000.000	0.7318	4.7500	4.7811	0.36	4.7626	0.27	4.6870	-1.33
40.0	1250.000	0.7318	3.7200	3.7526	0.68	3.7343	0.38	3.6577	-1.68
40.0	1500.000	0.7318	3.0600	3.0870	0.68	3.0688	0.29	2.9927	-2.20
40.0	1750.000	0.7318	2.5980	2.6289	1.19	2.6114	0.52	2.5374	-2.33
40.0	2000.000	0.7318	2.2660	2.3001	1.50	2.2836	0.78	2.2129	-2.34
40.0	2250.000	0.7318	2.0190	2.0562	1.84	2.0408	1.08	1.9742	-2.22
40.0	2500.000	0.7318	1.8370	1.8794	1.82	1.8561	1.04	1.7939	-2.35
40.0	2750.000	0.7318	1.6950	1.7253	1.79	1.7120	1.01	1.6568	-2.25
40.0	3000.000	0.7318	1.5800	1.6095	1.87	1.5974	1.10	1.5436	-2.30
40.0	3500.000	0.7318	1.4140	1.4379	1.69	1.4271	0.93	1.3805	-2.37
40.0	4000.000	0.7318	1.2980	1.3165	1.42	1.3073	0.72	1.2665	-2.43
40.0	4500.000	0.7318	1.2130	1.2260	1.12	1.2186	0.46	1.1823	-2.53
40.0	5000.000	0.7318	1.1470	1.1573	0.90	1.1502	0.28	1.1174	-2.58
40.0	6000.000	0.7318	1.0530	1.0568	0.36	1.0509	-0.20	1.0234	-2.81
40.0	7000.000	0.7318	0.9980	0.9869	-0.12	0.9819	-0.62	0.9580	-3.04

TABLE VI (CONT.)

TEMP	PRESSURE	MF	VOLUME (EXP.)	VOLUME (PISS)	DEV	VOLUME (JUFFE)	DEV	VOLUME (R-K)	DEV
40.0	5000.000	0.7318	0.9460	0.9351	-0.52	0.9307	-0.98	0.9094	-3.25
40.0	6000.000	0.7318	0.9030	0.8949	-0.90	0.8911	-1.32	0.8717	-3.47
40.0	10000.000	0.7318	0.8710	0.8630	-0.91	0.8591	-1.37	0.8413	-3.40
100.0	200.000	0.7318	29.5200	29.5400	0.07	29.5260	0.02	29.4706	-0.17
100.0	400.000	0.7318	14.5300	14.5456	0.11	14.5313	0.01	14.4744	-0.38
100.0	500.000	0.7318	9.5500	9.5631	0.14	9.5486	-0.01	9.4904	-0.62
100.0	700.000	0.7318	7.0900	7.0850	0.07	7.0704	-0.14	7.0112	-0.97
100.0	1000.000	0.7318	5.6000	5.6097	0.17	5.5950	-0.09	5.5351	-1.16
100.0	1250.000	0.7318	4.4300	4.4433	0.30	4.4287	-0.03	4.3684	-1.39
100.0	1500.000	0.7318	3.6700	3.6791	0.25	3.6648	-0.14	3.6049	-1.77
100.0	1750.000	0.7318	3.1300	3.1450	0.48	3.1310	0.03	3.0721	-1.85
100.0	2000.000	0.7318	2.7420	2.7544	0.45	2.7409	-0.04	2.6836	-2.13
100.0	2250.000	0.7318	2.4480	2.4589	0.44	2.4460	-0.08	2.3906	-2.34
100.0	2500.000	0.7318	2.2200	2.2293	0.42	2.2170	-0.13	2.1640	-2.52
100.0	2750.000	0.7318	2.0380	2.0470	0.44	2.0354	-0.13	1.9848	-2.61
100.0	3000.000	0.7318	1.8900	1.8995	0.50	1.8885	-0.08	1.8404	-2.63
100.0	3500.000	0.7318	1.6660	1.6770	0.66	1.6673	0.08	1.6238	-2.53
100.0	4000.000	0.7318	1.5090	1.5184	0.62	1.5097	0.04	1.4704	-2.56
100.0	4500.000	0.7318	1.3760	1.4001	0.30	1.3923	-0.26	1.3567	-2.81
100.0	5000.000	0.7318	1.3100	1.3088	-0.09	1.3018	-0.63	1.2692	-3.11
100.0	6000.000	0.7318	1.1810	1.1770	-0.34	1.1711	-0.84	1.1433	-3.19
100.0	7000.000	0.7318	1.0950	1.0861	-0.81	1.0811	-1.27	1.0569	-3.48
100.0	8000.000	0.7318	1.0330	1.0195	-1.30	1.0151	-1.73	0.9937	-3.80
100.0	9000.000	0.7318	0.9840	0.9684	-1.59	0.9644	-1.90	0.9446	-4.01
100.0	10000.000	0.7318	0.9440	0.9277	-1.73	0.9241	-2.11	0.9058	-4.04
160.0	200.000	0.7318	32.9500	32.9040	-0.14	32.8919	-0.18	32.8439	-0.32
160.0	400.000	0.7318	16.3300	16.2985	-0.19	16.2863	-0.27	16.2375	-0.57
160.0	600.000	0.7318	10.7200	10.7772	0.53	10.7650	0.42	10.7155	-0.04
160.0	800.000	0.7318	8.0400	8.0276	-0.15	8.0153	-0.31	7.9654	-0.93
160.0	1000.000	0.7318	6.4000	6.3870	-0.20	6.3748	-0.39	6.3246	-1.18

TABLE VI (CONT.)

TEMP	REFSQUFL	RF	VOLUME (EXP.)	VOLUME (PISS)	DEV	VOLUME (JUFFE)	DEV	VOLUME (R-K)	DEV
160.0	1250.000	0.7318	5.1000	5.0853	-0.29	5.0732	-0.53	5.0230	-1.51
160.0	1300.000	0.7318	4.2400	4.2276	-0.29	4.2157	-0.57	4.1659	-1.75
160.0	1750.000	0.7318	3.6300	3.6235	-0.18	3.6119	-0.50	3.5627	-1.85
160.0	2000.000	0.7318	3.1900	3.1778	-0.38	3.1665	-0.74	3.1183	-2.25
160.0	2250.000	0.7318	2.8510	2.8373	-0.48	2.8264	-0.86	2.7794	-2.51
160.0	2500.000	0.7318	2.5780	2.5701	-0.31	2.5596	-0.72	2.5139	-2.48
160.0	2750.000	0.7318	2.3630	2.3558	-0.30	2.3457	-0.73	2.3015	-2.60
160.0	3000.000	0.7318	2.1870	2.1808	-0.23	2.1711	-0.73	2.1285	-2.67
160.0	3500.000	0.7318	1.9210	1.9136	-0.38	1.9049	-0.84	1.8654	-2.89
160.0	4000.000	0.7318	1.7280	1.7209	-0.41	1.7128	-0.88	1.6764	-2.99
160.0	4500.000	0.7318	1.5860	1.5760	-0.63	1.5686	-1.10	1.5349	-3.22
160.0	5000.000	0.7318	1.4760	1.4636	-0.64	1.4568	-1.30	1.4255	-3.42
160.0	5500.000	0.7318	1.3160	1.3086	-1.16	1.2950	-1.60	1.2678	-3.67
160.0	7000.000	0.7318	1.2070	1.1888	-1.51	1.1838	-1.92	1.1596	-3.93
160.0	8000.000	0.7318	1.1270	1.1070	-1.78	1.1025	-2.17	1.0807	-4.11
160.0	9000.000	0.7318	1.0680	1.0444	-2.21	1.0404	-2.59	1.0205	-4.45
160.0	10000.000	0.7318	1.0180	0.9949	-2.27	0.9912	-2.63	0.9728	-4.44
220.0	200.000	0.7318	36.3000	36.2357	-0.18	36.2251	-0.21	36.1826	-0.32
220.0	400.000	0.7318	18.0700	18.0186	-0.28	18.0080	-0.34	17.9651	-0.58
220.0	600.000	0.7318	12.0000	11.9582	-0.35	11.9476	-0.44	11.9044	-0.80
220.0	800.000	0.7318	8.9700	8.9373	-0.36	8.9267	-0.48	8.8834	-0.97
220.0	1000.000	0.7318	7.1600	7.1324	-0.39	7.1219	-0.53	7.0785	-1.14
220.0	1250.000	0.7318	5.7200	5.6970	-0.40	5.6866	-0.58	5.6434	-1.34
220.0	1500.000	0.7318	4.7700	4.7481	-0.46	4.7379	-0.67	4.6950	-1.57
220.0	1750.000	0.7318	4.1000	4.0770	-0.56	4.0670	-0.81	4.0246	-1.84
220.0	2000.000	0.7318	3.6000	3.5794	-0.57	3.5696	-0.84	3.5279	-2.00
220.0	2250.000	0.7318	3.2200	3.1971	-0.71	3.1876	-1.01	3.1467	-2.28
220.0	2500.000	0.7318	2.9170	2.8954	-0.74	2.8862	-1.06	2.8462	-2.43
220.0	2750.000	0.7318	2.6740	2.6520	-0.62	2.6431	-1.16	2.6041	-2.61
220.0	3000.000	0.7318	2.4740	2.4521	-0.68	2.4435	-1.23	2.4056	-2.77

TABLE VI (CONT.)

TEMP	PRESSURE	MF	VOLUME (EXP.)	VOLUME (MISS)	DEV	VOLUME (JUFFE)	DEV	VOLUME (R-K)	DEV
220.0	3500.000	0.7318	2.1660	2.1446	-0.99	2.1366	-1.36	2.1009	-3.01
220.0	4000.000	0.7318	1.9420	1.9205	-1.11	1.9130	-1.49	1.8795	-3.22
220.0	4500.000	0.7318	1.7730	1.7508	-1.25	1.7439	-1.64	1.7125	-3.41
220.0	5000.000	0.7318	1.6390	1.6184	-1.25	1.6120	-1.65	1.5825	-3.45
220.0	5500.000	0.7318	1.4510	1.4259	-1.73	1.4203	-2.11	1.3941	-3.92
220.0	7000.000	0.7318	1.3210	1.2931	-2.11	1.2882	-2.48	1.2646	-4.27
220.0	8000.000	0.7318	1.2240	1.1961	-2.28	1.1917	-2.64	1.1702	-4.40
220.0	9000.000	0.7318	1.1510	1.1220	-2.52	1.1180	-2.86	1.0983	-4.58
220.0	10000.000	0.7318	1.0930	1.0636	-2.69	1.0599	-3.03	1.0416	-4.70
280.0	200.000	0.7318	39.6000	39.5446	-0.14	39.5351	-0.16	39.4970	-0.26
280.0	400.000	0.7318	19.7700	19.7158	-0.27	19.7064	-0.32	19.6680	-0.52
280.0	600.000	0.7318	13.1600	13.1166	-0.33	13.1072	-0.40	13.0688	-0.69
280.0	800.000	0.7318	9.8700	9.8249	-0.46	9.8155	-0.55	9.7771	-0.94
280.0	1000.000	0.7318	7.9000	7.8562	-0.55	7.8469	-0.67	7.8085	-1.16
280.0	1250.000	0.7318	6.3300	6.2823	-0.66	6.2792	-0.80	6.2410	-1.41
280.0	1500.000	0.7318	5.2900	5.2496	-0.76	5.2406	-0.93	5.2027	-1.65
280.0	1750.000	0.7318	4.5500	4.5131	-0.81	4.5043	-1.01	4.4668	-1.83
280.0	2000.000	0.7318	4.0000	3.9653	-0.87	3.9566	-1.08	3.9197	-2.01
280.0	2250.000	0.7318	3.5700	3.5431	-0.75	3.5347	-0.99	3.4984	-2.01
280.0	2500.000	0.7318	3.2400	3.2086	-0.97	3.2004	-1.22	3.1648	-2.32
280.0	2750.000	0.7318	2.9720	2.9378	-1.15	2.9299	-1.42	2.8950	-2.59
280.0	3000.000	0.7318	2.7490	2.7146	-1.25	2.7066	-1.53	2.6727	-2.78
280.0	3250.000	0.7318	2.4020	2.3693	-1.56	2.3620	-1.66	2.3295	-3.02
280.0	4000.000	0.7318	2.1470	2.1160	-1.44	2.1092	-1.76	2.0783	-3.20
280.0	4500.000	0.7318	1.9550	1.9232	-1.63	1.9168	-1.96	1.8875	-3.45
280.0	5000.000	0.7318	1.8020	1.7720	-1.57	1.7659	-2.00	1.7382	-3.54
280.0	5500.000	0.7318	1.5840	1.5510	-2.08	1.5457	-2.42	1.5206	-4.00
280.0	7000.000	0.7318	1.4320	1.3980	-2.37	1.3933	-2.70	1.3704	-4.30
280.0	8000.000	0.7318	1.3190	1.2860	-2.50	1.2817	-2.82	1.2608	-4.42
280.0	9000.000	0.7318	1.2340	1.2006	-2.71	1.1967	-3.03	1.1772	-4.60

TABLE VI (CONT.)

TEMP	PRESSURE	PF	VOLUME (EXP.)	VOLUME (MISS)	DEV	VOLUME (JUFFE)	DEV	VOLUME (R-K)	DEV
280.0	1000.000	0.7318	1.1670	1.1332	-2.90	1.1296	-3.21	1.1114	-4.76
340.0	200.000	0.7316	42.9000	42.8367	-0.15	42.8232	-0.17	42.7935	-0.25
340.0	400.000	0.7318	21.4000	21.3964	-0.39	21.3880	-0.43	21.3533	-0.59
340.0	600.000	0.7318	14.3300	14.2587	-0.50	14.2503	-0.56	14.2156	-0.80
340.0	800.000	0.7318	10.7600	10.6966	-0.59	10.6882	-0.67	10.6536	-0.99
340.0	1000.000	0.7318	8.6700	8.5647	-0.76	8.5564	-0.85	8.5219	-1.25
340.0	1250.000	0.7316	6.9200	6.8651	-0.79	6.8570	-0.91	6.8226	-1.41
340.0	1500.000	0.7316	5.7900	5.7375	-0.91	5.7295	-1.05	5.6954	-1.63
340.0	1750.000	0.7316	4.9000	4.9366	-0.87	4.9287	-1.03	4.8950	-1.71
340.0	2000.000	0.7318	4.3900	4.3397	-0.92	4.3319	-1.10	4.2987	-1.86
340.0	2250.000	0.7318	3.9200	3.8788	-1.06	3.8711	-1.25	3.8383	-2.08
340.0	2500.000	0.7316	3.5800	3.5125	-1.06	3.5052	-1.26	3.4729	-2.17
340.0	2750.000	0.7316	3.2600	3.2154	-1.37	3.2082	-1.59	3.1765	-2.56
340.0	3000.000	0.7316	3.0100	2.9698	-1.34	2.9627	-1.57	2.9317	-2.60
340.0	3500.000	0.7316	2.6300	2.5886	-1.58	2.5819	-1.83	2.5521	-2.96
340.0	4000.000	0.7316	2.3480	2.3076	-1.72	2.3012	-1.99	2.2727	-3.21
340.0	4500.000	0.7316	2.1340	2.0927	-1.94	2.0867	-2.22	2.0594	-3.50
340.0	5000.000	0.7316	1.9640	1.9236	-2.06	1.9179	-2.35	1.8918	-3.68
340.0	6000.000	0.7316	1.7140	1.6754	-2.25	1.6704	-2.55	1.6464	-3.94
340.0	7000.000	0.7316	1.5490	1.5029	-2.98	1.4983	-3.27	1.4763	-4.70
340.0	8000.000	0.7316	1.4140	1.3763	-2.67	1.3721	-2.96	1.3517	-4.40
340.0	9000.000	0.7316	1.3180	1.2796	-2.92	1.2757	-3.21	1.2567	-4.65
340.0	10000.000	0.7316	1.2390	1.2033	-2.88	1.1998	-3.17	1.1819	-4.61
400.0	200.000	0.7316	46.2000	46.1162	-0.18	46.1085	-0.20	46.0767	-0.27
400.0	400.000	0.7316	23.1600	23.0647	-0.41	23.0570	-0.44	23.0252	-0.58
400.0	600.000	0.7316	15.4900	15.3897	-0.59	15.3811	-0.64	15.3493	-0.84
400.0	800.000	0.7316	11.6400	11.5565	-0.72	11.5490	-0.78	11.5173	-1.05
400.0	1000.000	0.7316	9.3400	9.2610	-0.84	9.2543	-0.92	9.2228	-1.25
400.0	1250.000	0.7316	7.5000	7.4311	-0.92	7.4238	-1.02	7.3925	-1.43
400.0	1500.000	0.7316	6.2900	6.2153	-1.03	6.2080	-1.15	6.1770	-1.64

TABLE VI (CONT.)

TEMP	PRESSURE	MF	VOLUME (EXP.)	VOLUME (MISS)	DEV	VOLUME (JUFFE)	DEV	VOLUME (K-K)	DEV
400.0	1750.000	0.7316	5.4100	5.3500	-1.10	5.3435	-1.23	5.3128	-1.80
400.0	2000.000	0.7318	4.7400	4.7054	-1.15	4.6984	-1.29	4.6680	-1.93
400.0	2250.000	0.7316	4.2600	4.2062	-1.26	4.1993	-1.42	4.1694	-2.13
400.0	2500.000	0.7316	3.8600	3.8092	-1.32	3.8025	-1.49	3.7730	-2.25
400.0	2750.000	0.7316	3.5300	3.4864	-1.24	3.4796	-1.42	3.4508	-2.25
400.0	3000.000	0.7318	3.2700	3.2191	-1.56	3.2126	-1.75	3.1841	-2.63
400.0	3250.000	0.7318	2.8550	2.8031	-1.82	2.7970	-2.03	2.7694	-3.00
400.0	3500.000	0.7316	2.5470	2.4955	-2.02	2.4896	-2.25	2.4630	-3.30
400.0	4000.000	0.7318	2.3090	2.2594	-2.15	2.2538	-2.39	2.2283	-3.50
400.0	5000.000	0.7316	2.1220	2.0731	-2.30	2.0678	-2.55	2.0432	-3.71
400.0	6000.000	0.7318	1.8440	1.7987	-2.45	1.7939	-2.72	1.7712	-3.95
400.0	7000.000	0.7316	1.6510	1.6072	-2.65	1.6028	-2.92	1.5817	-4.20
400.0	8000.000	0.7316	1.5090	1.4664	-2.82	1.4624	-3.09	1.4426	-4.40
400.0	9000.000	0.7318	1.4020	1.3587	-3.09	1.3550	-3.36	1.3364	-4.68
400.0	10000.000	0.7318	1.3140	1.2737	-3.07	1.2702	-3.33	1.2527	-4.66
460.0	200.000	0.7318	49.5000	49.3859	-0.23	49.3789	-0.24	49.3495	-0.30
460.0	400.000	0.7318	24.8000	24.7234	-0.31	24.7164	-0.34	24.6870	-0.46
460.0	600.000	0.7318	16.5000	16.5094	-0.43	16.5024	-0.47	16.4732	-0.64
460.0	800.000	0.7316	12.4700	12.4075	-0.50	12.4006	-0.56	12.3714	-0.79
460.0	1000.000	0.7318	10.0100	9.9503	-0.60	9.9435	-0.66	9.9145	-0.95
460.0	1250.000	0.7318	8.0400	7.9890	-0.63	7.9823	-0.72	7.9535	-1.08
460.0	1500.000	0.7318	6.7300	6.6854	-0.66	6.6788	-0.76	6.6502	-1.19
460.0	1750.000	0.7316	5.8000	5.7575	-0.73	5.7510	-0.85	5.7227	-1.33
460.0	2000.000	0.7318	5.1100	5.0643	-0.89	5.0579	-1.02	5.0300	-1.57
460.0	2250.000	0.7316	4.5900	4.5275	-1.15	4.5212	-1.29	4.4936	-1.89
460.0	2500.000	0.7318	4.1500	4.1001	-1.20	4.0939	-1.35	4.0667	-2.01
460.0	2750.000	0.7316	3.8100	3.7521	-1.52	3.7460	-1.69	3.7192	-2.38
460.0	3000.000	0.7316	3.5200	3.4636	-1.00	3.4577	-1.77	3.4312	-2.52
460.0	3500.000	0.7316	3.0700	3.0138	-1.83	3.0081	-2.02	2.9824	-2.85
460.0	4000.000	0.7318	2.7400	2.6802	-2.19	2.6747	-2.38	2.6499	-3.29

TABLE VI (CONT.)

TEMP	PRESSURE	MF	VOLUME (EXP.)	VOLUME (PISS)	DEV	VOLUME (JUFFE)	DEV	VOLUME (R-K)	DEV
460.0	4000.000	0.7310	2.4760	2.4230	-2.12	2.4184	-2.33	2.3944	-3.30
460.0	5000.000	0.7310	2.2700	2.2200	-2.17	2.2156	-2.39	2.1924	-3.42
460.0	6000.000	0.7310	1.9699	1.9209	-2.44	1.9163	-2.68	1.8946	-3.78
460.0	7000.000	0.7310	1.7570	1.7109	-2.62	1.7067	-2.86	1.6864	-4.02
460.0	8000.000	0.7310	1.6020	1.5562	-2.86	1.5524	-3.10	1.5333	-4.29
460.0	9000.000	0.7310	1.4530	1.4377	-3.05	1.4341	-3.30	1.4161	-4.51
460.0	10000.000	0.7310	1.3260	1.3441	-3.02	1.3407	-3.27	1.3236	-4.50

TABLE VII

TEMP	PRESSURE	MF	VOLUME (EXP.)	VOLUME (BISS)	DEV	VOLUME (JOFFE)	DEV	VOLUME (R-K)	DEV
100.	14.696	.17770	406.9900	406.8647	-.03	406.8170	-.04	406.7353	-.06
100.	200.000	.17770	28.2300	28.1479	-.29	28.0949	-.48	28.0033	-.80
100.	14.696	.33130	406.9500	406.7915	-.04	406.7192	-.06	406.5953	-.09
100.	200.000	.33130	28.1700	28.0723	-.35	27.9915	-.63	27.8514	-1.13
100.	14.696	.51320	406.8500	406.6429	-.05	406.5613	-.07	406.4215	-.11
100.	200.000	.51320	28.0400	27.9129	-.45	27.8209	-.78	27.6610	-1.35
100.	14.696	.67630	406.6700	406.4523	-.05	406.3806	-.07	406.2581	-.10
100.	200.000	.67630	27.8300	27.7039	-.45	27.6222	-.75	27.4801	-1.26
100.	14.696	.82800	406.4400	406.2262	-.05	406.1796	-.06	406.0997	-.08
100.	200.000	.82800	27.5700	27.4509	-.43	27.3969	-.63	27.3031	-.97
160.	14.696	.17770	451.1200	451.0101	-.02	450.9694	-.03	450.8992	-.05
160.	200.000	.17770	31.8100	31.7362	-.23	31.6925	-.37	31.6164	-.61
160.	14.696	.33130	451.0800	450.9530	-.03	450.8913	-.04	450.7848	-.07
160.	200.000	.33130	31.7600	31.6792	-.25	31.6127	-.46	31.4968	-.83
160.	14.696	.51320	450.9900	450.8321	-.04	450.7625	-.05	450.6424	-.08
160.	200.000	.51320	31.6700	31.5543	-.37	31.4789	-.60	31.3471	-1.02
160.	14.696	.67630	450.8600	450.6747	-.04	450.6136	-.05	450.5083	-.08
160.	200.000	.67630	31.5200	31.3884	-.42	31.3217	-.63	31.2052	-1.00
160.	14.696	.82800	450.6700	450.4865	-.04	450.4468	-.05	450.3782	-.06
160.	200.000	.82800	31.3200	31.1870	-.42	31.1432	-.56	31.0667	-.81
220.	14.696	.17770	495.2200	495.0830	-.03	495.0478	-.03	494.9866	-.05
220.	200.000	.17770	35.3200	35.2344	-.24	35.1973	-.35	35.1325	-.53
220.	400.000	.17770	17.0650	16.9922	-.43	16.9531	-.66	16.8838	-1.06
220.	600.000	.17770	10.9780	10.9076	-.64	10.8662	-1.02	10.7920	-1.69
220.	800.000	.17770	7.9300	7.8643	-.83	7.8203	-1.38	7.7405	-2.39
220.	1000.000	.17770	6.1050	6.0397	-1.07	5.9930	-1.83	5.9070	-3.24
220.	1250.000	.17770	4.6480	4.5862	-1.33	4.5362	-2.41	4.4420	-4.43
220.	1500.000	.17770	3.6860	3.6300	-1.52	3.5773	-2.95	3.4755	-5.71
220.	1750.000	.17770	3.0100	2.9668	-1.43	2.9131	-3.22	2.8068	-6.75
220.	2000.000	.17770	2.5220	2.4955	-1.05	2.4432	-3.12	2.3382	-7.29

TABLE VII (CONT.)

TEMP	PRESSURE	MF	VOLUME (EXP.)	VOLUME (BISS)	DEV	VOLUME (JOFFE)	DEV	VOLUME (R-K)	DEV
220.	2250.000	.17770	2.1640	2.1574	-.30	2.1091	-2.53	2.0114	-7.05
220.	2500.000	.17770	1.8977	1.9132	.82	1.8703	-1.44	1.7832	-6.03
220.	2750.000	.17770	1.7029	1.7341	1.83	1.6969	-.35	1.6208	-4.82
220.	3000.000	.17770	1.5591	1.5998	2.61	1.5677	.55	1.5015	-3.69
220.	3500.000	.17770	1.3688	1.4147	3.36	1.3904	1.58	1.3393	-2.16
220.	4000.000	.17770	1.2468	1.2938	3.77	1.2749	2.25	1.2337	-1.05
220.	4500.000	.17770	1.1647	1.2083	3.74	1.1930	2.43	1.1587	-.51
220.	5000.000	.17770	1.1048	1.1440	3.55	1.1314	2.41	1.1021	-.25
220.	6000.000	.17770	1.0234	1.0528	2.88	1.0436	1.98	1.0209	-.24
220.	7000.000	.17770	.9694	.9901	2.14	.9831	1.41	.9645	-.51
220.	8000.000	.17770	.9299	.9436	1.47	.9380	.87	.9223	-.82
220.	9000.000	.17770	.8964	.9073	1.22	.9028	.71	.8891	-.82
220.	10000.000	.17770	.8685	.8781	1.10	.8743	.67	.8621	-.73
220.	14.696	.33130	495.1600	495.0384	-.02	494.9850	-.04	494.8922	-.05
220.	200.000	.33130	35.2700	35.1910	-.22	35.1348	-.38	35.0362	-.66
220.	400.000	.33130	17.0140	16.9508	-.37	16.8913	-.72	16.7856	-1.34
220.	600.000	.33130	10.9250	10.8690	-.51	10.8059	-1.09	10.6921	-2.13
220.	800.000	.33130	7.8770	7.8294	-.60	7.7624	-1.45	7.6395	-3.02
220.	1000.000	.33130	6.0540	6.0099	-.73	5.9390	-1.90	5.8062	-4.09
220.	1250.000	.33130	4.6040	4.5654	-.84	4.4900	-2.48	4.3445	-5.64
220.	1500.000	.33130	3.6500	3.6214	-.78	3.5431	-2.93	3.3875	-7.19
220.	1750.000	.33130	2.9870	2.9734	-.46	2.8953	-3.07	2.7367	-8.38
220.	2000.000	.33130	2.5110	2.5182	.29	2.4444	-2.65	2.2930	-8.68
220.	2250.000	.33130	2.1705	2.1947	1.11	2.1281	-1.95	1.9916	-8.24
220.	2500.000	.33130	1.9211	1.9614	2.10	1.9032	-.93	1.7841	-7.13
220.	2750.000	.33130	1.7387	1.7896	2.93	1.7394	.04	1.6364	-5.88
220.	3000.000	.33130	1.6016	1.6597	3.63	1.6164	.92	1.5270	-4.66
220.	3500.000	.33130	1.4193	1.4781	4.14	1.4453	1.83	1.3758	-3.06
220.	4000.000	.33130	1.3015	1.3575	4.30	1.3317	2.32	1.2755	-2.00
220.	4500.000	.33130	1.2211	1.2710	4.09	1.2501	2.38	1.2031	-1.47

TABLE VII (CONT.)

TEMP	PRESSURE	MF	VOLUME (EXP.)	VOLUME (BISS)	DEV	VOLUME (JOFFE)	DEV	VOLUME (R-K)	DEV
220.	5000.000	.33130	1.1633	1.2056	3.63	1.1882	2.14	1.1478	-1.33
220.	6000.000	.33130	1.0802	1.1118	2.92	1.0991	1.75	1.0676	-1.17
220.	7000.000	.33130	1.0238	1.0468	2.24	1.0371	1.30	1.0111	-1.24
220.	8000.000	.33130	.9828	.9984	1.59	.9907	.80	.9686	-1.44
220.	9000.000	.33130	.9501	.9606	1.10	.9543	.44	.9351	-1.58
220.	10000.000	.33130	.9230	.9300	.76	.9248	.19	.9077	-1.66
220.	14.696	.51320	495.0700	494.9393	-.03	494.8790	-.04	494.7742	-.06
220.	200.000	.51320	35.1700	35.0910	-.22	35.0274	-.41	34.9155	-.72
220.	400.000	.51320	16.9180	16.8504	-.40	16.7827	-.80	16.6620	-1.51
220.	600.000	.51320	10.8240	10.7689	-.51	10.6968	-1.18	10.5660	-2.38
220.	800.000	.51320	7.7770	7.7309	-.59	7.6540	-1.58	7.5118	-3.41
220.	1000.000	.51320	5.9490	5.9149	-.57	5.8333	-1.95	5.6787	-4.54
220.	1250.000	.51320	4.4940	4.4786	-.34	4.3921	-2.27	4.2226	-6.04
220.	1500.000	.51320	3.5570	3.5486	-.24	3.4601	-2.72	3.2815	-7.74
220.	1750.000	.51320	2.9120	2.9203	.29	2.8347	-2.66	2.6590	-8.69
220.	2000.000	.51320	2.4589	2.4878	1.18	2.4097	-2.00	2.2493	-8.52
220.	2250.000	.51320	2.1361	2.1857	2.32	2.1176	-.87	1.9780	-7.40
220.	2500.000	.51320	1.9076	1.9700	3.27	1.9118	.22	1.7924	-6.04
220.	2750.000	.51320	1.7440	1.8114	3.86	1.7617	1.02	1.6594	-4.85
220.	3000.000	.51320	1.6232	1.6909	4.17	1.6483	1.55	1.5597	-3.91
220.	3500.000	.51320	1.4528	1.5207	4.67	1.4885	2.45	1.4194	-2.30
220.	4000.000	.51320	1.3504	1.4058	4.10	1.3805	2.23	1.3242	-1.94
220.	4500.000	.51320	1.2781	1.3224	3.46	1.3018	1.85	1.2544	-1.85
220.	5000.000	.51320	1.2218	1.2585	3.00	1.2414	1.60	1.2005	-1.75
220.	6000.000	.51320	1.1389	1.1660	2.38	1.1535	1.28	1.1213	-1.55
220.	7000.000	.51320	1.0828	1.1011	1.69	1.0915	.81	1.0650	-1.65
220.	8000.000	.51320	1.0412	1.0525	1.09	1.0449	.36	1.0222	-1.83
220.	9000.000	.51320	1.0080	1.0143	.63	1.0082	.02	.9883	-1.96
220.	10000.000	.51320	.9804	.9833	.29	.9782	-.22	.9605	-2.03
220.	14.696	.67630	494.9600	494.8077	-.03	494.7548	-.04	494.6630	-.06

TABLE VII (CONT.)

TEMP	PRESSURE	MF	VOLUME (EXP.)	VOLUME (BISS)	DEV	VOLUME (JOFFE)	DEV	VOLUME (R-K)	DEV
220.	200.000	.67630	35.0400	34.9560	-.24	34.8998	-.40	34.8012	-.68
220.	400.000	.67630	16.7810	16.7117	-.41	16.6516	-.77	16.5444	-1.41
220.	600.000	.67630	10.6780	10.6271	-.48	10.5625	-1.08	10.4454	-2.18
220.	800.000	.67630	7.6240	7.5870	-.48	7.5177	-1.39	7.3892	-3.08
220.	1000.000	.67630	5.8010	5.7713	-.51	5.6972	-1.79	5.5565	-4.21
220.	1250.000	.67630	4.3580	4.3409	-.39	4.2622	-2.20	4.1079	-5.74
220.	1500.000	.67630	3.4270	3.4257	-.04	3.3465	-2.35	3.1869	-7.01
220.	1750.000	.67630	2.8010	2.8211	.72	2.7471	-1.93	2.5963	-7.31
220.	2000.000	.67630	2.3718	2.4164	1.88	2.3517	-.85	2.2197	-6.41
220.	2250.000	.67630	2.0787	2.1400	2.95	2.0855	.33	1.9739	-5.04
220.	2500.000	.67630	1.8785	1.9451	3.54	1.8994	1.11	1.8054	-3.89
220.	2750.000	.67630	1.7329	1.8020	3.99	1.7636	1.77	1.6834	-2.86
220.	3000.000	.67630	1.6240	1.6930	4.25	1.6603	2.23	1.5908	-2.04
220.	3500.000	.67630	1.4787	1.5376	3.98	1.5129	2.31	1.4586	-1.36
220.	4000.000	.67630	1.3812	1.4312	3.62	1.4118	2.21	1.3673	-1.00
220.	4500.000	.67630	1.3120	1.3530	3.12	1.3372	1.92	1.2996	-.95
220.	5000.000	.67630	1.2577	1.2925	2.76	1.2793	1.72	1.2467	-.87
220.	6000.000	.67630	1.1789	1.2038	2.11	1.1942	1.30	1.1684	-.89
220.	7000.000	.67630	1.1253	1.1410	1.39	1.1336	.74	1.1122	-1.17
220.	8000.000	.67630	1.0841	1.0935	.86	1.0877	.33	1.0693	-1.37
220.	9000.000	.67630	1.0516	1.0559	.41	1.0512	-.04	1.0351	-1.57
220.	10000.000	.67630	1.0254	1.0252	-.02	1.0214	-.39	1.0070	-1.80
220.	14.696	.82800	494.8100	494.6490	-.03	494.6146	-.04	494.5548	-.05
220.	200.000	.82800	34.8900	34.7910	-.28	34.7542	-.39	34.6896	-.57
220.	400.000	.82800	16.6180	16.5396	-.47	16.4998	-.71	16.4291	-1.14
220.	600.000	.82800	10.5150	10.4478	-.64	10.4046	-1.05	10.3266	-1.79
220.	800.000	.82800	7.4620	7.4016	-.81	7.3546	-1.44	7.2681	-2.60
220.	1000.000	.82800	5.6320	5.5824	-.88	5.5316	-1.78	5.4360	-3.48
220.	1250.000	.82800	4.1930	4.1561	-.88	4.1021	-2.17	3.9972	-4.67
220.	1500.000	.82800	3.2720	3.2599	-.37	3.2068	-1.99	3.1011	-5.22

TABLE VII (CONT.)

TEMP	PRESSURE	MF	VOLUME (EXP.)	VOLUME (BISS)	DEV	VOLUME (JOFFE)	DEV	VOLUME (R-K)	DEV
220.	1750.000	.82800	2.6680	2.6881	.75	2.6408	-1.02	2.5455	-4.59
220.	2000.000	.82800	2.2726	2.3196	2.07	2.2802	.34	2.2002	-3.19
220.	2250.000	.82800	2.0142	2.0743	2.98	2.0422	1.39	1.9760	-1.90
220.	2500.000	.82800	1.8353	1.9028	3.68	1.8765	2.25	1.8212	-.77
220.	2750.000	.82800	1.7101	1.7769	3.91	1.7550	2.62	1.7079	-.13
220.	3000.000	.82800	1.6150	1.6804	4.05	1.6618	2.90	1.6210	.37
220.	3500.000	.82800	1.4881	1.5412	3.57	1.5272	2.63	1.4951	.47
220.	4000.000	.82800	1.4036	1.4444	2.91	1.4334	2.12	1.4071	.25
220.	4500.000	.82800	1.3409	1.3723	2.35	1.3634	1.68	1.3410	.01
220.	5000.000	.82800	1.2918	1.3160	1.87	1.3085	1.29	1.2890	-.21
220.	6000.000	.82800	1.2195	1.2324	1.06	1.2270	.61	1.2115	-.66
220.	7000.000	.82800	1.1675	1.1725	.43	1.1683	.07	1.1554	-1.04
220.	8000.000	.82800	1.1276	1.1268	-.07	1.1235	-.36	1.1124	-1.35
220.	9000.000	.82800	1.0955	1.0904	-.47	1.0878	-.71	1.0780	-1.60
220.	10000.000	.82800	1.0688	1.0605	-.77	1.0584	-.97	1.0496	-1.79
280.	14.696	.17770	539.2800	539.1039	-.03	539.0729	-.04	539.0189	-.05
280.	200.000	.17770	38.8000	38.6718	-.33	38.6399	-.41	38.5835	-.56
280.	400.000	.17770	18.9450	18.8306	-.60	18.7975	-.78	18.7385	-1.09
280.	600.000	.17770	12.3260	12.2205	-.86	12.1862	-1.13	12.1244	-1.64
280.	800.000	.17770	9.0180	8.9199	-1.09	8.8844	-1.48	8.8197	-2.20
280.	1000.000	.17770	7.0370	6.9449	-1.31	6.9081	-1.83	6.8406	-2.79
280.	1250.000	.17770	5.4580	5.3735	-1.55	5.3355	-2.25	5.2644	-3.55
280.	1500.000	.17770	4.4150	4.3373	-1.76	4.2983	-2.64	4.2242	-4.32
280.	1750.000	.17770	3.6810	3.6103	-1.92	3.5709	-2.99	3.4948	-5.06
280.	2000.000	.17770	3.1420	3.0796	-1.99	3.0406	-3.23	2.9640	-5.67
280.	2250.000	.17770	2.7330	2.6821	-1.86	2.6443	-3.25	2.5690	-6.00
280.	2500.000	.17770	2.4183	2.3790	-1.62	2.3431	-3.11	2.2709	-6.10
280.	2750.000	.17770	2.1719	2.1446	-1.26	2.1111	-2.80	2.0432	-5.93
280.	3000.000	.17770	1.9774	1.9608	-.84	1.9301	-2.39	1.8672	-5.57
280.	3500.000	.17770	1.6963	1.6969	.03	1.6717	-1.45	1.6188	-4.57

TABLE VII (CONT.)

TEMP	PRESSURE	MF	VOLUME (EXP.)	VOLUME (BISS)	DEV	VOLUME (JOFFE)	DEV	VOLUME (R-K)	DEV
280.	4000.000	.17770	1.5085	1.5204	.79	1.4998	-.58	1.4555	-3.52
280.	4500.000	.17770	1.3827	1.3956	.93	1.3785	-.30	1.3410	-3.02
280.	5000.000	.17770	1.2897	1.3029	1.02	1.2886	-.09	1.2562	-2.60
280.	6000.000	.17770	1.1622	1.1740	1.02	1.1635	.11	1.1384	-2.05
280.	7000.000	.17770	1.0803	1.0879	.70	1.0798	-.04	1.0594	-1.94
280.	8000.000	.17770	1.0226	1.0256	.30	1.0192	-.33	1.0020	-2.02
280.	9000.000	.17770	.9781	.9780	-.01	.9728	-.54	.9579	-2.06
280.	10000.000	.17770	.9416	.9402	-.14	.9359	-.60	.9228	-2.00
280.	14.696	.33130	539.2100	539.0692	-.03	539.0223	-.03	538.9403	-.05
280.	200.000	.33130	38.7300	38.6389	-.24	38.5904	-.36	38.5048	-.58
280.	400.000	.33130	18.8770	18.8001	-.41	18.7498	-.67	18.6599	-1.15
280.	600.000	.33130	12.2660	12.1929	-.60	12.1408	-1.02	12.0465	-1.79
280.	800.000	.33130	8.9610	8.8959	-.73	8.8419	-1.33	8.7430	-2.43
280.	1000.000	.33130	6.9890	6.9251	-.91	6.8694	-1.71	6.7660	-3.19
280.	1250.000	.33130	5.4200	5.3602	-1.10	5.3028	-2.16	5.1941	-4.17
280.	1500.000	.33130	4.3860	4.3316	-1.24	4.2733	-2.57	4.1605	-5.14
280.	1750.000	.33130	3.6570	3.6134	-1.19	3.5551	-2.79	3.4403	-5.92
280.	2000.000	.33130	3.1260	3.0922	-1.08	3.0353	-2.90	2.9213	-6.55
280.	2250.000	.33130	2.7270	2.7041	-.84	2.6498	-2.83	2.5396	-6.87
280.	2500.000	.33130	2.4202	2.4096	-.44	2.3589	-2.53	2.2550	-6.83
280.	2750.000	.33130	2.1835	2.1826	-.04	2.1360	-2.18	2.0398	-6.58
280.	3000.000	.33130	1.9991	2.0047	.28	1.9624	-1.84	1.8743	-6.24
280.	3500.000	.33130	1.7312	1.7486	1.00	1.7141	-.99	1.6411	-5.20
280.	4000.000	.33130	1.5531	1.5760	1.47	1.5478	-.34	1.4870	-4.26
280.	4500.000	.33130	1.4268	1.4527	1.82	1.4295	.19	1.3779	-3.43
280.	5000.000	.33130	1.3354	1.3604	1.88	1.3409	.41	1.2964	-2.92
280.	6000.000	.33130	1.2121	1.2309	1.55	1.2165	.37	1.1818	-2.50
280.	7000.000	.33130	1.1305	1.1434	1.14	1.1324	.17	1.1040	-2.35
280.	8000.000	.33130	1.0719	1.0798	.73	1.0710	-.08	1.0470	-2.33
280.	9000.000	.33130	1.0281	1.0309	.27	1.0238	-.42	1.0029	-2.45

TABLE VII (CONT.)

TEMP	PRESSURE	MF	VOLUME (EXP.)	VOLUME (BISS)	DEV	VOLUME (JOFFE)	DEV	VOLUME (R-K)	DEV
280.	10000.000	.33130	.9923	.9919	-.04	.9861	-.63	.9676	-2.49
280.	14.696	.51320	539.1200	538.9874	-.02	538.9346	-.03	538.8420	-.05
280.	200.000	.51320	38.6400	38.5579	-.21	38.5030	-.35	38.4060	-.61
280.	400.000	.51320	18.7840	18.7204	-.34	18.6633	-.64	18.5612	-1.19
280.	600.000	.51320	12.1730	12.1153	-.47	12.0560	-.96	11.9483	-1.85
280.	800.000	.51320	8.8690	8.8211	-.54	8.7597	-1.23	8.6464	-2.51
280.	1000.000	.51320	6.8990	6.8544	-.65	6.7910	-1.57	6.6723	-3.29
280.	1250.000	.51320	5.3350	5.2964	-.72	5.2312	-1.95	5.1064	-4.28
280.	1500.000	.51320	4.3120	4.2770	-.81	4.2112	-2.34	4.0825	-5.32
280.	1750.000	.51320	3.5980	3.5701	-.78	3.5052	-2.58	3.3758	-6.18
280.	2000.000	.51320	3.0770	3.0617	-.50	2.9994	-2.52	2.8732	-6.62
280.	2250.000	.51320	2.6880	2.6869	-.04	2.6286	-2.21	2.5097	-6.63
280.	2500.000	.51320	2.3942	2.4052	.46	2.3516	-1.78	2.2415	-6.38
280.	2750.000	.51320	2.1679	2.1894	.99	2.1412	-1.23	2.0408	-5.86
280.	3000.000	.51320	1.9939	2.0210	1.36	1.9778	-.81	1.8871	-5.35
280.	3500.000	.51320	1.7471	1.7788	1.82	1.7442	-.16	1.6701	-4.41
280.	4000.000	.51320	1.5837	1.6149	1.97	1.5869	.20	1.5253	-3.69
280.	4500.000	.51320	1.4688	1.4970	1.92	1.4739	.35	1.4217	-3.21
280.	5000.000	.51320	1.3821	1.4080	1.87	1.3886	.47	1.3435	-2.79
280.	6000.000	.51320	1.2642	1.2818	1.39	1.2676	.27	1.2322	-2.53
280.	7000.000	.51320	1.1864	1.1956	.78	1.1847	-.14	1.1557	-2.59
280.	8000.000	.51320	1.1289	1.1324	.31	1.1238	-.45	1.0991	-2.64
280.	9000.000	.51320	1.0843	1.0836	-.07	1.0766	-.71	1.0551	-2.69
280.	10000.000	.51320	1.0468	1.0445	-.22	1.0387	-.77	1.0197	-2.59
280.	14.696	.67630	539.0200	538.8764	-.03	538.8301	-.04	538.7490	-.05
280.	200.000	.67630	38.5200	38.4460	-.19	38.3978	-.32	38.3124	-.54
280.	400.000	.67630	18.6730	18.6080	-.35	18.5576	-.62	18.4673	-1.10
280.	600.000	.67630	12.0620	12.0031	-.49	11.9505	-.92	11.8549	-1.72
280.	800.000	.67630	8.7610	8.7102	-.58	8.6554	-1.21	8.5544	-2.36
280.	1000.000	.67630	6.7900	6.7461	-.65	6.6894	-1.48	6.5832	-3.05

TABLE VII (CONT.)

TEMP	PRESSURE	MF	VOLUME (EXP.)	VOLUME (BISS)	DEV	VOLUME (JOFFE)	DEV	VOLUME (R-K)	DEV
280.	1250.000	.67630	5.2300	5.1939	-.69	5.1356	-1.80	5.0240	-3.94
280.	1500.000	.67630	4.2130	4.1837	-.69	4.1252	-2.08	4.0106	-4.80
280.	1750.000	.67630	3.5070	3.4893	-.50	3.4323	-2.13	3.3186	-5.37
280.	2000.000	.67630	3.0010	2.9958	-.17	2.9420	-1.96	2.8333	-5.59
280.	2250.000	.67630	2.6290	2.6366	.29	2.5852	-1.66	2.4867	-5.41
280.	2500.000	.67630	2.3491	2.3698	.88	2.3257	-1.00	2.2344	-4.88
280.	2750.000	.67630	2.1361	2.1673	1.46	2.1281	-.37	2.0462	-4.21
280.	3000.000	.67630	1.9722	2.0101	1.92	1.9755	.17	1.9022	-3.55
280.	3500.000	.67630	1.7446	1.7846	2.29	1.7573	.73	1.6980	-2.67
280.	4000.000	.67630	1.5952	1.6315	2.27	1.6096	.90	1.5605	-2.17
280.	4500.000	.67630	1.4901	1.5207	2.05	1.5028	.85	1.4611	-1.94
280.	5000.000	.67630	1.4119	1.4365	1.74	1.4216	.68	1.3855	-1.87
280.	6000.000	.67630	1.3016	1.3161	1.11	1.3051	.27	1.2768	-1.91
280.	7000.000	.67630	1.2256	1.2330	.61	1.2247	-.08	1.2013	-1.98
280.	8000.000	.67630	1.1699	1.1716	.14	1.1650	-.42	1.1451	-2.12
280.	9000.000	.67630	1.1260	1.1239	-.19	1.1185	-.66	1.1011	-2.21
280.	10000.000	.67630	1.0914	1.0854	-.55	1.0811	-.95	1.0656	-2.36
280.	14.696	.82800	538.9000	538.7413	-.03	538.7112	-.04	538.6584	-.04
280.	200.000	.82800	38.4100	38.3083	-.26	38.2767	-.35	38.2209	-.49
280.	400.000	.82800	18.5540	18.4678	-.46	18.4346	-.64	18.3753	-.96
280.	600.000	.82800	11.9420	11.8612	-.68	11.8263	-.97	11.7631	-1.50
280.	800.000	.82800	8.6440	8.5677	-.88	8.5312	-1.31	8.4641	-2.08
280.	1000.000	.82800	6.6750	6.6048	-1.05	6.5668	-1.62	6.4960	-2.68
280.	1250.000	.82800	5.1200	5.0577	-1.22	5.0186	-1.98	4.9441	-3.44
280.	1500.000	.82800	4.1050	4.0577	-1.15	4.0187	-2.10	3.9426	-3.95
280.	1750.000	.82800	3.4100	3.3785	-.92	3.3410	-2.02	3.2668	-4.20
280.	2000.000	.82800	2.9170	2.9035	-.46	2.8690	-1.65	2.7994	-4.03
280.	2250.000	.82800	2.5610	2.5638	.11	2.5330	-1.09	2.4699	-3.56
280.	2500.000	.82800	2.2989	2.3150	.70	2.2880	-.48	2.2318	-2.92
280.	2750.000	.82800	2.1038	2.1280	1.15	2.1044	.03	2.0546	-2.34

TABLE VII (CONT.)

TEMP	PRESSURE	MF	VOLUME (EXP.)	VOLUME (BISS)	DEV	VOLUME (JOFFE)	DEV	VOLUME (R-K)	DEV
280.	3000.000	.82800	1.9555	1.9837	1.44	1.9631	.39	1.9189	-1.87
280.	3500.000	.82800	1.7496	1.7768	1.55	1.7609	.64	1.7254	-1.39
280.	4000.000	.82800	1.6101	1.6358	1.60	1.6231	.81	1.5938	-1.01
280.	4500.000	.82800	1.5123	1.5331	1.38	1.5228	.69	1.4979	-.95
280.	5000.000	.82800	1.4395	1.4546	1.05	1.4459	.45	1.4243	-1.05
280.	6000.000	.82800	1.3358	1.3411	.40	1.3348	-.07	1.3177	-1.35
280.	7000.000	.82800	1.2646	1.2620	-.20	1.2572	-.58	1.2431	-1.70
280.	8000.000	.82800	1.2110	1.2030	-.66	1.1993	-.97	1.1872	-1.96
280.	9000.000	.82800	1.1689	1.1569	-1.02	1.1539	-1.28	1.1434	-2.18
280.	10000.000	.82800	1.1334	1.1196	-1.21	1.1172	-1.43	1.1078	-2.26
340.	14.696	.17770	583.2900	583.0861	-.03	583.0587	-.04	583.0104	-.05
340.	200.000	.17770	42.2100	42.0661	-.34	42.0382	-.41	41.9884	-.52
340.	400.000	.17770	20.7540	20.6204	-.64	20.5918	-.78	20.5404	-1.03
340.	600.000	.17770	13.6060	13.4787	-.94	13.4494	-1.15	13.3964	-1.54
340.	800.000	.17770	10.0350	9.9143	-1.20	9.8843	-1.50	9.8297	-2.05
340.	1000.000	.17770	7.8930	7.7819	-1.41	7.7514	-1.79	7.6953	-2.50
340.	1250.000	.17770	6.1850	6.0848	-1.62	6.0538	-2.12	5.9959	-3.06
340.	1500.000	.17770	5.0560	4.9632	-1.84	4.9319	-2.45	4.8726	-3.63
340.	1750.000	.17770	4.2560	4.1723	-1.97	4.1409	-2.71	4.0807	-4.12
340.	2000.000	.17770	3.6680	3.5893	-2.15	3.5582	-2.99	3.4978	-4.64
340.	2250.000	.17770	3.2160	3.1460	-2.18	3.1156	-3.12	3.0557	-4.99
340.	2500.000	.17770	2.8620	2.8012	-2.12	2.7718	-3.15	2.7130	-5.21
340.	2750.000	.17770	2.5810	2.5281	-2.05	2.5000	-3.14	2.4431	-5.34
340.	3000.000	.17770	2.3541	2.3088	-1.93	2.2821	-3.06	2.2276	-5.37
340.	3500.000	.17770	2.0137	1.9833	-1.51	1.9599	-2.67	1.9114	-5.08
340.	4000.000	.17770	1.7789	1.7582	-1.16	1.7381	-2.30	1.6951	-4.71
340.	4500.000	.17770	1.6078	1.5958	-.74	1.5786	-1.82	1.5409	-4.16
340.	5000.000	.17770	1.4820	1.4743	-.52	1.4595	-1.52	1.4263	-3.76
340.	6000.000	.17770	1.3117	1.3054	-.48	1.2942	-1.33	1.2679	-3.34
340.	7000.000	.17770	1.2003	1.1937	-.55	1.1850	-1.28	1.1633	-3.08

TABLE VII (CONT.)

TEMP	PRESSURE	MF	VOLUME (EXP.)	VOLUME (BISS)	DEV	VOLUME (JOFFE)	DEV	VOLUME (R-K)	DEV
340.	8000.000	.17770	1.1227	1.1139	-.78	1.1069	-1.40	1.0886	-3.03
340.	9000.000	.17770	1.0641	1.0537	-.97	1.0480	-1.51	1.0322	-2.99
340.	10000.000	.17770	1.0172	1.0065	-1.05	1.0018	-1.52	.9878	-2.89
340.	14.696	.33130	583.2200	583.0595	-.03	583.0180	-.03	582.9448	-.05
340.	200.000	.33130	42.1500	42.0415	-.26	41.9991	-.36	41.9235	-.54
340.	400.000	.33130	20.7010	20.5983	-.50	20.5548	-.71	20.4767	-1.08
340.	600.000	.33130	13.5560	13.4593	-.71	13.4149	-1.04	13.3342	-1.64
340.	800.000	.33130	9.9880	9.8980	-.90	9.8527	-1.35	9.7695	-2.19
340.	1000.000	.33130	7.8540	7.7693	-1.08	7.7232	-1.67	7.6376	-2.76
340.	1250.000	.33130	6.1570	6.0772	-1.30	6.0305	-2.06	5.9423	-3.49
340.	1500.000	.33130	5.0330	4.9612	-1.43	4.9143	-2.36	4.8243	-4.15
340.	1750.000	.33130	4.2420	4.1764	-1.55	4.1297	-2.65	4.0389	-4.79
340.	2000.000	.33130	3.6570	3.5998	-1.56	3.5540	-2.82	3.4634	-5.29
340.	2250.000	.33130	3.2120	3.1631	-1.52	3.1186	-2.91	3.0296	-5.68
340.	2500.000	.33130	2.8650	2.8244	-1.42	2.7819	-2.90	2.6956	-5.91
340.	2750.000	.33130	2.5890	2.5571	-1.23	2.5168	-2.79	2.4342	-5.98
340.	3000.000	.33130	2.3681	2.3429	-1.07	2.3051	-2.66	2.2268	-5.97
340.	3500.000	.33130	2.0387	2.0255	-.65	1.9928	-2.25	1.9239	-5.63
340.	4000.000	.33130	1.8141	1.8056	-.47	1.7778	-2.00	1.7177	-5.31
340.	4500.000	.33130	1.6497	1.6465	-.19	1.6228	-1.63	1.5704	-4.81
340.	5000.000	.33130	1.5240	1.5268	.18	1.5064	-1.15	1.4604	-4.17
340.	6000.000	.33130	1.3559	1.3591	.24	1.3438	-.89	1.3073	-3.59
340.	7000.000	.33130	1.2475	1.2472	-.02	1.2353	-.98	1.2052	-3.39
340.	8000.000	.33130	1.1699	1.1667	-.27	1.1572	-1.08	1.1318	-3.26
340.	9000.000	.33130	1.1121	1.1057	-.58	1.0979	-1.27	1.0759	-3.26
340.	10000.000	.33130	1.0659	1.0576	-.78	1.0512	-1.38	1.0317	-3.21
340.	14.696	.51320	583.1400	582.9918	-.03	582.9450	-.03	582.8624	-.05
340.	200.000	.51320	42.0700	41.9754	-.22	41.9274	-.34	41.8420	-.54
340.	400.000	.51320	20.6150	20.5342	-.39	20.4850	-.63	20.3964	-1.06
340.	600.000	.51320	13.4710	13.3979	-.54	13.3475	-.92	13.2558	-1.60

TABLE VII (CONT.)

TEMP	PRESSURE	MF	VOLUME (EXP.)	VOLUME (BISS)	DEV	VOLUME (JOFFE)	DEV	VOLUME (R-K)	DEV
340.	800.000	.51320	9.9060	9.8398	-.67	9.7885	-1.19	9.6937	-2.14
340.	1000.000	.51320	7.7790	7.7149	-.82	7.6627	-1.49	7.5652	-2.75
340.	1250.000	.51320	6.0850	6.0287	-.93	5.9759	-1.79	5.8756	-3.44
340.	1500.000	.51320	4.9680	4.9197	-.97	4.8669	-2.03	4.7648	-4.09
340.	1750.000	.51320	4.1850	4.1428	-1.01	4.0907	-2.25	3.9882	-4.70
340.	2000.000	.51320	3.6090	3.5749	-.94	3.5242	-2.35	3.4231	-5.15
340.	2250.000	.51320	3.1730	3.1471	-.81	3.0986	-2.35	3.0003	-5.44
340.	2500.000	.51320	2.8360	2.8174	-.65	2.7715	-2.27	2.6775	-5.59
340.	2750.000	.51320	2.5680	2.5586	-.37	2.5157	-2.04	2.4268	-5.50
340.	3000.000	.51320	2.3576	2.3520	-.24	2.3123	-1.92	2.2291	-5.45
340.	3500.000	.51320	2.0455	2.0474	.09	2.0138	-1.55	1.9418	-5.07
340.	4000.000	.51320	1.8289	1.8368	.43	1.8085	-1.12	1.7465	-4.50
340.	4500.000	.51320	1.6758	1.6841	.49	1.6602	-.93	1.6065	-4.14
340.	5000.000	.51320	1.5609	1.5688	.50	1.5484	-.80	1.5013	-3.82
340.	6000.000	.51320	1.4005	1.4063	.41	1.3910	-.68	1.3537	-3.34
340.	7000.000	.51320	1.2956	1.2968	.09	1.2850	-.82	1.2543	-3.19
340.	8000.000	.51320	1.2233	1.2175	-.47	1.2081	-1.24	1.1820	-3.38
340.	9000.000	.51320	1.1658	1.1570	-.75	1.1494	-1.41	1.1267	-3.35
340.	10000.000	.51320	1.1190	1.1091	-.89	1.1028	-1.45	1.0827	-3.24
340.	14.696	.67630	583.0500	582.8976	-.03	582.8567	-.03	582.7842	-.05
340.	200.000	.67630	41.9800	41.8817	-.23	41.8396	-.33	41.7644	-.51
340.	400.000	.67630	20.5220	20.4415	-.39	20.3982	-.60	20.3200	-.98
340.	600.000	.67630	13.3810	13.3068	-.55	13.2623	-.89	13.1812	-1.49
340.	800.000	.67630	9.8180	9.7511	-.68	9.7056	-1.15	9.6216	-2.00
340.	1000.000	.67630	7.6900	7.6294	-.79	7.5831	-1.39	7.4965	-2.52
340.	1250.000	.67630	6.0010	5.9485	-.87	5.9017	-1.65	5.8126	-3.14
340.	1500.000	.67630	4.8920	4.8465	-.93	4.7999	-1.88	4.7095	-3.73
340.	1750.000	.67630	4.1160	4.0781	-.92	4.0323	-2.03	3.9422	-4.22
340.	2000.000	.67630	3.5500	3.5198	-.85	3.4758	-2.09	3.3876	-4.57
340.	2250.000	.67630	3.1230	3.1023	-.66	3.0606	-2.00	2.9759	-4.71

TABLE VII (CONT.)

TEMP	PRESSURE	MF	VOLUME (EXP.)	VOLUME (BISS)	DEV	VOLUME (JOFFE)	DEV	VOLUME (R-K)	DEV
340.	2500.000	.67630	2.7940	2.7829	-.40	2.7440	-1.79	2.6640	-4.65
340.	2750.000	.67630	2.5390	2.5338	-.20	2.4980	-1.62	2.4233	-4.56
340.	3000.000	.67630	2.3352	2.3362	.04	2.3034	-1.36	2.2342	-4.32
340.	3500.000	.67630	2.0372	2.0465	.45	2.0192	-.88	1.9604	-3.77
340.	4000.000	.67630	1.8321	1.8468	.80	1.8243	-.43	1.7740	-3.17
340.	4500.000	.67630	1.6873	1.7020	.87	1.6831	-.25	1.6398	-2.82
340.	5000.000	.67630	1.5810	1.5924	.72	1.5764	-.29	1.5385	-2.69
340.	6000.000	.67630	1.4327	1.4371	.31	1.4252	-.52	1.3952	-2.62
340.	7000.000	.67630	1.3321	1.3317	-.03	1.3225	-.72	1.2977	-2.58
340.	8000.000	.67630	1.2609	1.2548	-.48	1.2476	-1.06	1.2265	-2.73
340.	9000.000	.67630	1.2059	1.1959	-.83	1.1900	-1.32	1.1716	-2.84
340.	10000.000	.67630	1.1626	1.1489	-1.18	1.1441	-1.59	1.1278	-2.99
340.	14.696	.82800	582.9500	582.7817	-.03	582.7550	-.03	582.7079	-.04
340.	200.000	.82800	41.8700	41.7651	-.25	41.7376	-.32	41.6886	-.43
340.	400.000	.82800	20.4240	20.3248	-.49	20.2964	-.62	20.2452	-.88
340.	600.000	.82800	13.2810	13.1906	-.68	13.1613	-.90	13.1080	-1.30
340.	800.000	.82800	9.7220	9.6363	-.88	9.6063	-1.19	9.5509	-1.76
340.	1000.000	.82800	7.6020	7.5172	-1.11	7.4866	-1.52	7.4294	-2.27
340.	1250.000	.82800	5.9180	5.8415	-1.29	5.8105	-1.82	5.7516	-2.81
340.	1500.000	.82800	4.8190	4.7470	-1.49	4.7161	-2.13	4.6565	-3.37
340.	1750.000	.82800	4.0500	3.9882	-1.52	3.9582	-2.27	3.8992	-3.72
340.	2000.000	.82800	3.4950	3.4414	-1.53	3.4128	-2.35	3.3556	-3.99
340.	2250.000	.82800	3.0730	3.0361	-1.20	3.0094	-2.07	2.9552	-3.83
340.	2500.000	.82800	2.7530	2.7290	-.87	2.7045	-1.76	2.6539	-3.60
340.	2750.000	.82800	2.5020	2.4915	-.42	2.4692	-1.31	2.4226	-3.17
340.	3000.000	.82800	2.3069	2.3045	-.11	2.2843	-.98	2.2415	-2.83
340.	3500.000	.82800	2.0293	2.0318	.12	2.0154	-.68	1.9795	-2.46
340.	4000.000	.82800	1.8441	1.8446	.03	1.8312	-.70	1.8007	-2.35
340.	4500.000	.82800	1.7069	1.7087	.11	1.6976	-.55	1.6714	-2.08
340.	5000.000	.82800	1.6049	1.6056	.04	1.5962	-.54	1.5733	-1.97

TABLE VII (CONT.)

TEMP	PRESSURE	MF	VOLUME (EXP.)	VOLUME (BISS)	DEV	VOLUME (JOFFE)	DEV	VOLUME (R-K)	DEV
340.	6000.000	.82800	1.4656	1.4586	-.48	1.4517	-.95	1.4336	-2.18
340.	7000.000	.82800	1.3691	1.3581	-.80	1.3528	-1.19	1.3379	-2.28
340.	8000.000	.82800	1.2987	1.2844	-1.10	1.2802	-1.43	1.2674	-2.41
340.	9000.000	.82800	1.2458	1.2275	-1.47	1.2241	-1.74	1.2130	-2.64
340.	10000.000	.82800	1.2036	1.1820	-1.80	1.1792	-2.03	1.1693	-2.85
400.	14.696	.1777 0	627.2600	627.0389	-.04	627.0146	-.04	626.9710	-.05
400.	200.000	.1777 0	45.5900	45.4288	-.35	45.4040	-.41	45.3596	-.51
400.	400.000	.1777 0	22.5300	22.3758	-.68	22.3506	-.80	22.3052	-1.00
400.	600.000	.1777 0	14.8450	14.6995	-.98	14.6740	-1.15	14.6276	-1.46
400.	800.000	.1777 0	11.0010	10.8684	-1.21	10.8426	-1.44	10.7952	-1.87
400.	1000.000	.1777 0	8.7030	8.5761	-1.46	8.5500	-1.76	8.5018	-2.31
400.	1250.000	.1777 0	6.8700	6.7504	-1.74	6.7241	-2.12	6.6750	-2.84
400.	1500.000	.1777 0	5.6560	5.5419	-2.02	5.5156	-2.48	5.4658	-3.36
400.	1750.000	.1777 0	4.7910	4.6869	-2.17	4.6607	-2.72	4.6106	-3.77
400.	2000.000	.1777 0	4.1500	4.0537	-2.32	4.0278	-2.95	3.9776	-4.15
400.	2250.000	.1777 0	3.6560	3.5688	-2.39	3.5433	-3.08	3.4935	-4.45
400.	2500.000	.1777 0	3.2670	3.1880	-2.42	3.1632	-3.18	3.1141	-4.68
400.	2750.000	.1777 0	2.9550	2.8831	-2.43	2.8591	-3.25	2.8110	-4.87
400.	3000.000	.1777 0	2.7010	2.6350	-2.44	2.6119	-3.30	2.5652	-5.03
400.	3500.000	.1777 0	2.3121	2.2599	-2.26	2.2390	-3.16	2.1957	-5.03
400.	4000.000	.1777 0	2.0369	1.9941	-2.10	1.9754	-3.02	1.9359	-4.96
400.	4500.000	.1777 0	1.8338	1.7987	-1.91	1.7822	-2.82	1.7465	-4.76
400.	5000.000	.1777 0	1.6792	1.6505	-1.71	1.6359	-2.58	1.6037	-4.50
400.	6000.000	.1777 0	1.4650	1.4427	-1.52	1.4313	-2.30	1.4049	-4.10
400.	7000.000	.1777 0	1.3233	1.3048	-1.40	1.2958	-2.08	1.2737	-3.75
400.	8000.000	.1777 0	1.2248	1.2068	-1.47	1.1994	-2.07	1.1806	-3.61
400.	9000.000	.1777 0	1.1512	1.1333	-1.55	1.1273	-2.08	1.1109	-3.50
400.	10000.000	.1777 0	1.0931	1.0760	-1.56	1.0710	-2.03	1.0565	-3.34
400.	14.696	.33130	627.2000	627.0190	-.03	626.9821	-.03	626.9161	-.05
400.	200.000	.33130	45.5400	45.4109	-.28	45.3733	-.37	45.3059	-.51

TABLE VII (CONT.)

TEMP	PRESSURE	MF	VOLUME (EXP.)	VOLUME (BISS)	DEV	VOLUME (JOFFE)	DEV	VOLUME (R-K)	DEV
400.	400.000	.33130	22.4800	22.3602	-.53	22.3221	-.70	22.2530	-1.01
400.	600.000	.33130	14.7970	14.6866	-.75	14.6479	-1.01	14.5773	-1.48
400.	800.000	.33130	10.9650	10.8582	-.97	10.8192	-1.33	10.7471	-1.99
400.	1000.000	.33130	8.6670	8.5689	-1.13	8.5296	-1.59	8.4563	-2.43
400.	1250.000	.33130	6.8410	6.7474	-1.37	6.7079	-1.95	6.6333	-3.04
400.	1500.000	.33130	5.6310	5.5433	-1.56	5.5039	-2.26	5.4284	-3.60
400.	1750.000	.33130	4.7770	4.6930	-1.76	4.6539	-2.58	4.5782	-4.16
400.	2000.000	.33130	4.1410	4.0645	-1.85	4.0262	-2.77	3.9507	-4.59
400.	2250.000	.33130	3.6540	3.5844	-1.90	3.5470	-2.93	3.4725	-4.97
400.	2500.000	.33130	3.2710	3.2083	-1.92	3.1721	-3.02	3.0992	-5.25
400.	2750.000	.33130	2.9640	2.9078	-1.90	2.8731	-3.07	2.8023	-5.46
400.	3000.000	.33130	2.7140	2.6638	-1.85	2.6307	-3.07	2.5625	-5.58
400.	3500.000	.33130	2.3340	2.2958	-1.64	2.2662	-2.90	2.2038	-5.58
400.	4000.000	.33130	2.0641	2.0353	-1.39	2.0092	-2.66	1.9529	-5.39
400.	4500.000	.33130	1.8684	1.8437	-1.32	1.8208	-2.55	1.7704	-5.25
400.	5000.000	.33130	1.7194	1.6981	-1.24	1.6780	-2.41	1.6327	-5.04
400.	6000.000	.33130	1.5083	1.4929	-1.02	1.4773	-2.05	1.4404	-4.50
400.	7000.000	.33130	1.3689	1.3559	-.95	1.3435	-1.85	1.3128	-4.10
400.	8000.000	.33130	1.2720	1.2579	-1.11	1.2479	-1.90	1.2216	-3.96
400.	9000.000	.33130	1.2000	1.1840	-1.33	1.1758	-2.01	1.1530	-3.92
400.	10000.000	.33130	1.1436	1.1262	-1.52	1.1194	-2.12	1.0992	-3.89
400.	14.696	.51320	627.1300	626.9630	-.03	626.9213	-.03	626.8470	-.05
400.	200.000	.51320	45.4600	45.3567	-.23	45.3143	-.32	45.2381	-.49
400.	400.000	.51320	22.4060	22.3085	-.44	22.2654	-.63	22.1872	-.98
400.	600.000	.51320	14.7280	14.6376	-.61	14.5939	-.91	14.5139	-1.45
400.	800.000	.51320	10.8950	10.8124	-.76	10.7683	-1.16	10.6865	-1.91
400.	1000.000	.51320	8.6070	8.5267	-.93	8.4823	-1.45	8.3991	-2.42
400.	1250.000	.51320	6.7840	6.7101	-1.09	6.6656	-1.74	6.5811	-2.99
400.	1500.000	.51320	5.5790	5.5117	-1.21	5.4674	-2.00	5.3821	-3.53
400.	1750.000	.51320	4.7260	4.6675	-1.24	4.6239	-2.16	4.5386	-3.97

TABLE VII (CONT.)

TEMP	PRESSURE	MF	VOLUME (EXP.)	VOLUME (BISS)	DEV	VOLUME (JOFFE)	DEV	VOLUME (R-K)	DEV
400.	2000.000	.51320	4.0960	4.0455	-1.23	4.0030	-2.27	3.9185	-4.33
400.	2250.000	.51320	3.6160	3.5721	-1.21	3.5309	-2.35	3.4481	-4.64
400.	2500.000	.51320	3.2410	3.2026	-1.19	3.1631	-2.40	3.0828	-4.88
400.	2750.000	.51320	2.9420	2.9085	-1.14	2.8710	-2.41	2.7937	-5.04
400.	3000.000	.51320	2.7000	2.6707	-1.09	2.6352	-2.40	2.5613	-5.14
400.	3500.000	.51320	2.3358	2.3133	-.96	2.2822	-2.30	2.2157	-5.14
400.	4000.000	.51320	2.0780	2.0613	-.80	2.0342	-2.11	1.9751	-4.95
400.	4500.000	.51320	1.8889	1.8762	-.67	1.8527	-1.92	1.8001	-4.70
400.	5000.000	.51320	1.7467	1.7354	-.65	1.7150	-1.82	1.6681	-4.50
400.	6000.000	.51320	1.5472	1.5364	-.70	1.5208	-1.71	1.4828	-4.16
400.	7000.000	.51320	1.4161	1.4028	-.94	1.3905	-1.81	1.3589	-4.04
400.	8000.000	.51320	1.3225	1.3066	-1.20	1.2967	-1.95	1.2697	-3.99
400.	9000.000	.51320	1.2513	1.2338	-1.40	1.2257	-2.05	1.2022	-3.93
400.	10000.000	.51320	1.1945	1.1765	-1.51	1.1698	-2.07	1.1490	-3.81
400.	14.696	.67630	627.0500	626.8827	-.03	626.8462	-.03	626.7810	-.04
400.	200.000	.67630	45.3800	45.2777	-.23	45.2405	-.31	45.1735	-.46
400.	400.000	.67630	22.3250	22.2312	-.42	22.1933	-.59	22.1244	-.90
400.	600.000	.67630	14.6540	14.5624	-.63	14.5239	-.89	14.4533	-1.37
400.	800.000	.67630	10.8230	10.7399	-.77	10.7010	-1.13	10.6288	-1.79
400.	1000.000	.67630	8.5340	8.4574	-.90	8.4182	-1.36	8.3447	-2.22
400.	1250.000	.67630	6.7170	6.6457	-1.06	6.6064	-1.65	6.5317	-2.76
400.	1500.000	.67630	5.5150	5.4529	-1.13	5.4140	-1.83	5.3388	-3.20
400.	1750.000	.67630	4.6680	4.6152	-1.13	4.5770	-1.95	4.5021	-3.55
400.	2000.000	.67630	4.0460	4.0003	-1.13	3.9633	-2.05	3.8895	-3.87
400.	2250.000	.67630	3.5740	3.5343	-1.11	3.4987	-2.11	3.4269	-4.12
400.	2500.000	.67630	3.2060	3.1723	-1.05	3.1385	-2.11	3.0694	-4.26
400.	2750.000	.67630	2.9140	2.8856	-.98	2.8538	-2.07	2.7878	-4.33
400.	3000.000	.67630	2.6760	2.6546	-.80	2.6249	-1.91	2.5624	-4.25
400.	3500.000	.67630	2.3247	2.3096	-.65	2.2839	-1.75	2.2285	-4.14
400.	4000.000	.67630	2.0766	2.0675	-.44	2.0455	-1.50	1.9967	-3.85

TABLE VII (CONT.)

TEMP	PRESSURE	MF	VOLUME (EXP.)	VOLUME (BISS)	DEV	VOLUME (JOFFE)	DEV	VOLUME (R-K)	DEV
400.	4500.000	.67630	1.8944	1.8901	-.23	1.8712	-1.23	1.8282	-3.49
400.	5000.000	.67630	1.7585	1.7552	-.19	1.7389	-1.11	1.7007	-3.29
400.	6000.000	.67630	1.5721	1.5642	-.50	1.5518	-1.29	1.5210	-3.25
400.	7000.000	.67630	1.4469	1.4353	-.80	1.4257	-1.47	1.4000	-3.24
400.	8000.000	.67630	1.3576	1.3421	-1.14	1.3344	-1.71	1.3125	-3.32
400.	9000.000	.67630	1.2895	1.2712	-1.42	1.2649	-1.91	1.2458	-3.39
400.	10000.000	.67630	1.2363	1.2151	-1.71	1.2100	-2.13	1.1931	-3.50
400.	14.696	.82800	626.9700	626.7826	-.03	626.7588	-.03	626.7165	-.04
400.	200.000	.82800	45.3000	45.1781	-.27	45.1538	-.32	45.1101	-.42
400.	400.000	.82800	22.2440	22.1326	-.50	22.1078	-.61	22.0628	-.81
400.	600.000	.82800	14.5710	14.4654	-.72	14.4402	-.90	14.3939	-1.22
400.	800.000	.82800	10.7440	10.6451	-.92	10.6195	-1.16	10.5721	-1.60
400.	1000.000	.82800	8.4600	8.3656	-1.12	8.3398	-1.42	8.2914	-1.99
400.	1250.000	.82800	6.6470	6.5587	-1.33	6.5328	-1.72	6.4837	-2.46
400.	1500.000	.82800	5.4530	5.3720	-1.49	5.3464	-1.96	5.2970	-2.86
400.	1750.000	.82800	4.6170	4.5415	-1.64	4.5165	-2.18	4.4675	-3.24
400.	2000.000	.82800	4.0000	3.9347	-1.63	3.9106	-2.24	3.8626	-3.43
400.	2250.000	.82800	3.5330	3.4772	-1.58	3.4543	-2.23	3.4080	-3.54
400.	2500.000	.82800	3.1740	3.1241	-1.57	3.1025	-2.25	3.0583	-3.65
400.	2750.000	.82800	2.8880	2.8459	-1.46	2.8258	-2.15	2.7840	-3.60
400.	3000.000	.82800	2.6590	2.6232	-1.35	2.6045	-2.05	2.5652	-3.53
400.	3500.000	.82800	2.3182	2.2924	-1.11	2.2766	-1.79	2.2422	-3.28
400.	4000.000	.82800	2.0828	2.0580	-1.19	2.0484	-1.65	2.0182	-3.10
400.	4500.000	.82800	1.9119	1.8929	-.99	1.8816	-1.59	1.8553	-2.96
400.	5000.000	.82800	1.7825	1.7647	-1.00	1.7550	-1.54	1.7317	-2.85
400.	6000.000	.82800	1.6017	1.5827	-1.18	1.5755	-1.64	1.5568	-2.81
400.	7000.000	.82800	1.4838	1.4594	-1.64	1.4538	-2.02	1.4382	-3.07
400.	8000.000	.82800	1.3962	1.3698	-1.89	1.3653	-2.21	1.3521	-3.16
400.	9000.000	.82800	1.3292	1.3013	-2.10	1.2977	-2.37	1.2861	-3.24
400.	10000.000	.82800	1.2773	1.2470	-2.37	1.2441	-2.60	1.2338	-3.41

TABLE VII (CONT.)

TEMP	PRESSURE	MF	VOLUME (EXP.)	VOLUME (BISS)	DEV	VOLUME (JOFFE)	DEV	VOLUME (R-K)	DEV
460.	14.696	.17770	671.2100	670.9692	-.04	670.9473	-.04	670.9078	-.05
460.	200.000	.17770	48.9500	48.7674	-.37	48.7452	-.42	48.7052	-.50
460.	400.000	.17770	24.2760	24.1057	-.70	24.0833	-.79	24.0426	-.96
460.	600.000	.17770	16.0550	15.8935	-1.01	15.8710	-1.15	15.8296	-1.40
460.	800.000	.17770	11.9480	11.7943	-1.29	11.7717	-1.48	11.7298	-1.83
460.	1000.000	.17770	9.4880	9.3409	-1.55	9.3182	-1.79	9.2758	-2.24
460.	1250.000	.17770	7.5230	7.3856	-1.83	7.3629	-2.13	7.3201	-2.70
460.	1500.000	.17770	6.2190	6.0896	-2.08	6.0670	-2.44	6.0239	-3.14
460.	1750.000	.17770	5.2920	5.1709	-2.29	5.1484	-2.71	5.1052	-3.53
460.	2000.000	.17770	4.5980	4.4884	-2.38	4.4662	-2.87	4.4231	-3.80
460.	2250.000	.17770	4.0640	3.9636	-2.47	3.9418	-3.01	3.8989	-4.06
460.	2500.000	.17770	3.6410	3.5493	-2.52	3.5280	-3.10	3.4857	-4.27
460.	2750.000	.17770	3.2990	3.2155	-2.53	3.1948	-3.16	3.1532	-4.42
460.	3000.000	.17770	3.0200	2.9421	-2.58	2.9220	-3.24	2.8813	-4.59
460.	3500.000	.17770	2.5920	2.5240	-2.62	2.5055	-3.34	2.4670	-4.82
460.	4000.000	.17770	2.2837	2.2230	-2.66	2.2061	-3.40	2.1703	-4.97
460.	4500.000	.17770	2.0501	1.9986	-2.51	1.9833	-3.26	1.9502	-4.87
460.	5000.000	.17770	1.8716	1.8265	-2.41	1.8127	-3.15	1.7822	-4.78
460.	6000.000	.17770	1.6157	1.5823	-2.07	1.5711	-2.76	1.5454	-4.35
460.	7000.000	.17770	1.4491	1.4190	-2.08	1.4099	-2.70	1.3881	-4.21
460.	8000.000	.17770	1.3300	1.3027	-2.06	1.2953	-2.61	1.2762	-4.04
460.	9000.000	.17770	1.2398	1.2156	-1.95	1.2064	-2.70	1.1928	-3.79
460.	10000.000	.17770	1.1683	1.1480	-1.73	1.1428	-2.18	1.1280	-3.45
460.	14.696	.33130	671.1700	670.9549	-.03	670.9217	-.04	670.8618	-.05
460.	200.000	.33130	48.9100	48.7550	-.32	48.7215	-.39	48.6606	-.51
460.	400.000	.33130	24.2380	24.0955	-.59	24.0617	-.73	23.9998	-.98
460.	600.000	.33130	16.0210	15.8857	-.84	15.8516	-1.06	15.7888	-1.45
460.	800.000	.33130	11.9160	11.7890	-1.07	11.7548	-1.35	11.6912	-1.89
460.	1000.000	.33130	9.4600	9.3382	-1.29	9.3039	-1.65	9.2396	-2.33
460.	1250.000	.33130	7.5020	7.3864	-1.54	7.3522	-2.00	7.2873	-2.86

TABLE VII (CONT.)

TEMP	PRESSURE	MF	VOLUME (EXP.)	VOLUME (BISS)	DEV	VOLUME (JOFFE)	DEV	VOLUME (R-K)	DEV
460.	1500.000	.33130	6.2020	6.0940	-1.74	6.0600	-2.29	5.9948	-3.34
460.	1750.000	.33130	5.2790	5.1790	-1.89	5.1454	-2.53	5.0802	-3.77
460.	2000.000	.33130	4.5940	4.5003	-2.04	4.4673	-2.76	4.4024	-4.17
460.	2250.000	.33130	4.0640	3.9792	-2.09	3.9470	-2.88	3.8829	-4.46
460.	2500.000	.33130	3.6440	3.5686	-2.07	3.5373	-2.93	3.4743	-4.66
460.	2750.000	.33130	3.3070	3.2384	-2.07	3.2081	-2.99	3.1465	-4.85
460.	3000.000	.33130	3.0320	2.9683	-2.10	2.9391	-3.06	2.8792	-5.04
460.	3500.000	.33130	2.6090	2.5561	-2.03	2.5295	-3.05	2.4735	-5.19
460.	4000.000	.33130	2.3047	2.2600	-1.94	2.2359	-2.98	2.1843	-5.23
460.	4500.000	.33130	2.0791	2.0393	-1.91	2.0178	-2.95	1.9704	-5.23
460.	5000.000	.33130	1.9037	1.8700	-1.77	1.8507	-2.78	1.8075	-5.06
460.	6000.000	.33130	1.6620	1.6292	-1.97	1.6138	-2.90	1.5776	-5.08
460.	7000.000	.33130	1.4969	1.4675	-1.96	1.4551	-2.79	1.4247	-4.82
460.	8000.000	.33130	1.3787	1.3518	-1.95	1.3416	-2.69	1.3152	-4.61
460.	9000.000	.33130	1.2924	1.2649	-2.13	1.2564	-2.79	1.2332	-4.58
460.	10000.000	.33130	1.2251	1.1970	-2.29	1.1899	-2.87	1.1694	-4.55
460.	14.696	.51320	671.1000	670.9087	-.03	670.8711	-.03	670.8037	-.04
460.	200.000	.51320	48.8400	48.7108	-.26	48.6729	-.34	48.6042	-.48
460.	400.000	.51320	24.1740	24.0537	-.50	24.0155	-.66	23.9456	-.94
460.	600.000	.51320	15.9600	15.8466	-.71	15.8081	-.95	15.7371	-1.40
460.	800.000	.51320	11.8590	11.7529	-.89	11.7143	-1.22	11.6423	-1.83
460.	1000.000	.51320	9.4020	9.3053	-1.03	9.2667	-1.44	9.1939	-2.21
460.	1250.000	.51320	7.4470	7.3578	-1.20	7.3194	-1.71	7.2460	-2.70
460.	1500.000	.51320	6.1520	6.0702	-1.33	6.0321	-1.95	5.9585	-3.15
460.	1750.000	.51320	5.2350	5.1602	-1.43	5.1227	-2.15	5.0493	-3.55
460.	2000.000	.51320	4.5520	4.4866	-1.44	4.4499	-2.24	4.3773	-3.84
460.	2250.000	.51320	4.0290	3.9707	-1.45	3.9351	-2.33	3.8637	-4.10
460.	2500.000	.51320	3.6160	3.5654	-1.40	3.5310	-2.35	3.4612	-4.28
460.	2750.000	.51320	3.2860	3.2402	-1.39	3.2072	-2.40	3.1394	-4.46
460.	3000.000	.51320	3.0160	2.9750	-1.36	2.9435	-2.40	2.8780	-4.58

TABLE VII (CONT.)

TEMP	PRESSURE	MF	VOLUME (EXP.)	VOLUME (BISS)	DEV	VOLUME (JOFFE)	DEV	VOLUME (R-K)	DEV
460.	3500.000	.51320	2.6060	2.5717	-1.32	2.5433	-2.41	2.4829	-4.72
460.	4000.000	.51320	2.3131	2.2830	-1.30	2.2577	-2.40	2.2026	-4.78
460.	4500.000	.51320	2.0979	2.0684	-1.41	2.0460	-2.48	1.9960	-4.86
460.	5000.000	.51320	1.9336	1.9038	-1.54	1.8840	-2.57	1.8386	-4.91
460.	6000.000	.51320	1.6983	1.6696	-1.69	1.6540	-2.61	1.6164	-4.82
460.	7000.000	.51320	1.5392	1.5119	-1.77	1.4994	-2.59	1.4676	-4.65
460.	8000.000	.51320	1.4260	1.3986	-1.92	1.3884	-2.64	1.3610	-4.56
460.	9000.000	.51320	1.3416	1.3130	-2.13	1.3046	-2.76	1.2807	-4.54
460.	10000.000	.51320	1.2760	1.2460	-2.35	1.2390	-2.90	1.2178	-4.56
460.	14.696	.67630	671.0300	670.8400	-.03	670.8072	-.03	670.7481	-.04
460.	200.000	.67630	48.7800	48.6438	-.28	48.6105	-.35	48.5503	-.47
460.	400.000	.67630	24.1130	23.9887	-.52	23.9552	-.65	23.8937	-.91
460.	600.000	.67630	15.8970	15.7839	-.71	15.7501	-.92	15.6876	-1.32
460.	800.000	.67630	11.7980	11.6929	-.89	11.6590	-1.18	11.5956	-1.72
460.	1000.000	.67630	9.3480	9.2484	-1.07	9.2144	-1.43	9.1503	-2.11
460.	1250.000	.67630	7.3960	7.3053	-1.23	7.2714	-1.68	7.2068	-2.56
460.	1500.000	.67630	6.1040	6.0224	-1.34	5.9890	-1.88	5.9243	-2.94
460.	1750.000	.67630	5.1920	5.1177	-1.43	5.0849	-2.06	5.0205	-3.30
460.	2000.000	.67630	4.5150	4.4496	-1.45	4.4177	-2.15	4.3543	-3.56
460.	2250.000	.67630	3.9980	3.9395	-1.46	3.9087	-2.23	3.8466	-3.79
460.	2500.000	.67630	3.5920	3.5400	-1.45	3.5104	-2.27	3.4501	-3.95
460.	2750.000	.67630	3.2640	3.2205	-1.33	3.1924	-2.19	3.1341	-3.98
460.	3000.000	.67630	3.0000	2.9608	-1.31	2.9341	-2.20	2.8782	-4.06
460.	3500.000	.67630	2.5990	2.5676	-1.21	2.5439	-2.12	2.4930	-4.08
460.	4000.000	.67630	2.3143	2.2875	-1.16	2.2666	-2.06	2.2206	-4.05
460.	4500.000	.67630	2.1034	2.0799	-1.12	2.0616	-1.99	2.0202	-3.95
460.	5000.000	.67630	1.9428	1.9210	-1.12	1.9049	-1.95	1.8676	-3.87
460.	6000.000	.67630	1.7162	1.6949	-1.24	1.6824	-1.97	1.6517	-3.76
460.	7000.000	.67630	1.5658	1.5423	-1.50	1.5324	-2.13	1.5065	-3.79
460.	8000.000	.67630	1.4576	1.4323	-1.74	1.4252	-2.22	1.4021	-3.81

TABLE VII (CONT.)

TEMP	PRESSURE	MF	VOLUME (EXP.)	VOLUME (BISS)	DEV	VOLUME (JOFFE)	DEV	VOLUME (R-K)	DEV
460.	9000.000	.67630	1.3771	1.3490	-2.04	1.3424	-2.52	1.3230	-3.93
460.	10000.000	.67630	1.3134	1.2835	-2.27	1.2803	-2.52	1.2608	-4.00
460.	14.696	.82800	670.9600	670.7532	-.03	670.7318	-.03	670.6933	-.04
460.	200.000	.82800	48.7000	48.5581	-.29	48.5364	-.34	48.4971	-.42
460.	400.000	.82800	24.0410	23.9047	-.57	23.8827	-.66	23.8426	-.83
460.	600.000	.82800	15.8300	15.7019	-.81	15.6798	-.95	15.6389	-1.21
460.	800.000	.82800	11.7340	11.6134	-1.03	11.5911	-1.22	11.5496	-1.57
460.	1000.000	.82800	9.2860	9.1718	-1.23	9.1495	-1.47	9.1075	-1.92
460.	1250.000	.82800	7.3380	7.2331	-1.43	7.2109	-1.73	7.1686	-2.31
460.	1500.000	.82800	6.0480	5.9554	-1.53	5.9335	-1.89	5.8911	-2.59
460.	1750.000	.82800	5.1410	5.0564	-1.65	5.0350	-2.06	4.9930	-2.88
460.	2000.000	.82800	4.4710	4.3946	-1.71	4.3738	-2.17	4.3326	-3.10
460.	2250.000	.82800	3.9620	3.8911	-1.79	3.8712	-2.29	3.8310	-3.31
460.	2500.000	.82800	3.5630	3.4982	-1.82	3.4792	-2.35	3.4404	-3.44
460.	2750.000	.82800	3.2430	3.1853	-1.78	3.1674	-2.33	3.1302	-3.48
460.	3000.000	.82800	2.9870	2.9320	-1.84	2.9151	-2.41	2.8796	-3.60
460.	3500.000	.82800	2.5980	2.5504	-1.83	2.5357	-2.40	2.5037	-3.63
460.	4000.000	.82800	2.3247	2.2801	-1.92	2.2673	-2.47	2.2387	-3.70
460.	4500.000	.82800	2.1234	2.0806	-2.02	2.0695	-2.54	2.0438	-3.75
460.	5000.000	.82800	1.9675	1.9280	-2.01	1.9184	-2.50	1.8954	-3.66
460.	6000.000	.82800	1.7473	1.7111	-2.07	1.7037	-2.49	1.6849	-3.57
460.	7000.000	.82800	1.5997	1.5637	-2.25	1.5586	-2.57	1.5428	-3.55
460.	8000.000	.82800	1.4958	1.4584	-2.50	1.4538	-2.81	1.4402	-3.72
460.	9000.000	.82800	1.4179	1.3778	-2.83	1.3740	-3.09	1.3622	-3.93
460.	10000.000	.82800	1.3578	1.3163	-3.05	1.3112	-3.44	1.3006	-4.21

TABLE VIII

TEMP	PRESSURE	MF	VOLUME (EXP.)	VOLUME (BISS)	DEV	VOLUME (JOFFE)	DEV	VOLUME (R-K)	DEV
40.	200.000	.20640	23.7300	24.2414	2.15	23.8515	.51	23.6138	-.49
100.	200.000	.20640	27.7600	28.0128	.91	27.7131	-.17	27.5279	-.84
100.	400.000	.20640	12.5800	12.9021	2.56	12.5571	-.18	12.3296	-1.99
100.	600.000	.20640	7.3400	7.7734	5.91	7.3524	.17	7.0403	-4.08
100.	800.000	.20640	4.4600	5.0985	14.32	4.5110	1.14	3.8595	-13.46
100.	200.000	.41160	27.0100	27.5028	1.82	27.0437	.12	26.7550	-.94
100.	400.000	.41160	11.6600	12.3134	5.60	11.7470	.75	11.3486	-2.67
100.	200.000	.59830	26.0300	26.7002	2.57	26.2192	.73	25.9133	-.45
100.	200.000	.80380	24.4800	25.3666	3.62	25.0196	2.20	24.7977	1.30
160.	200.000	.20640	31.5000	31.6278	.41	31.3873	-.36	31.2356	-.84
160.	400.000	.20640	14.8200	14.9663	.99	14.7066	-.77	14.5348	-1.92
160.	600.000	.20640	9.1900	9.3848	2.12	9.1009	-.97	8.9011	-3.14
160.	800.000	.20640	6.4200	6.5712	2.36	6.2567	-2.54	6.0151	-6.31
160.	1000.000	.20640	4.5700	4.8650	6.46	4.5128	-1.25	4.2045	-8.00
160.	1250.000	.20640	3.1600	3.4888	10.40	3.0934	-2.11	2.6655	-15.65
160.	1500.000	.20640	2.2320	2.5966	16.33	2.2376	.25	1.8715	-16.15
160.	1750.000	.20640	1.7140	2.0451	19.32	1.8119	5.71	1.5809	-7.77
160.	2000.000	.20640	1.4680	1.7291	17.78	1.5954	8.68	1.4359	-2.18
160.	2250.000	.20640	1.3390	1.5418	15.14	1.4652	9.42	1.3445	.41
160.	2500.000	.20640	1.2590	1.4199	12.78	1.3765	9.33	1.2795	1.63
160.	2750.000	.20640	1.2030	1.3336	10.86	1.3109	8.97	1.2297	2.22
160.	3000.000	.20640	1.1630	1.2686	9.08	1.2596	8.31	1.1898	2.31
160.	3500.000	.20640	1.1040	1.1756	6.49	1.1835	7.20	1.1288	2.24
160.	4000.000	.20640	1.0590	1.1108	4.90	1.1283	6.54	1.0833	2.29
160.	4500.000	.20640	1.0240	1.0622	3.73	1.0857	6.03	1.0474	2.29
160.	5000.000	.20640	.9990	1.0238	2.49	1.0515	5.26	1.0182	1.92
160.	6000.000	.20640	.9610	.9662	.54	.9990	3.96	.9726	1.20
160.	7000.000	.20640	.9310	.9242	-.73	.9600	3.12	.9380	.76
160.	8000.000	.20640	.9060	.8917	-1.57	.9294	2.59	.9107	.52
160.	9000.000	.20640	.8850	.8656	-2.19	.9046	2.21	.8882	.36

TABLE VIII (CONT.)

TEMP	PRESSURE	MF	VOLUME (EXP.)	VOLUME (BISS)	DEV	VOLUME (JOFFE)	DEV	VOLUME (R-K)	DEV
160.	10000.000	.20640	.8660	.8440	-2.55	.8838	2.06	.8693	.38
160.	200.000	.41160	30.9000	31.2221	1.04	30.8586	-.13	30.6263	-.89
160.	400.000	.41160	14.2000	14.5293	2.32	14.1240	-.54	13.8461	-2.49
160.	600.000	.41160	8.4800	8.9085	5.05	8.4434	-.43	8.0876	-4.63
160.	800.000	.41160	5.5400	6.0456	9.13	5.4901	-.90	4.9653	-10.37
160.	1000.000	.41160	3.6400	4.2822	17.64	3.6018	-1.05	2.6380	-27.53
160.	1250.000	.41160	2.2080	2.8730	30.12	2.2986	4.10	1.8232	-17.43
160.	1500.000	.41160	1.6940	2.1291	25.69	1.8729	10.56	1.6200	-4.37
160.	1750.000	.41160	1.5200	1.7932	17.97	1.6820	10.66	1.5094	-.70
160.	2000.000	.41160	1.4210	1.6145	13.62	1.5668	10.26	1.4350	.98
160.	2250.000	.41160	1.3560	1.5012	10.70	1.4867	9.64	1.3795	1.73
160.	2500.000	.41160	1.3110	1.4209	8.39	1.4263	8.80	1.3357	1.89
160.	2750.000	.41160	1.2770	1.3601	6.50	1.3784	7.94	1.2998	1.79
160.	3000.000	.41160	1.2490	1.3117	5.02	1.3390	7.21	1.2695	1.64
160.	3500.000	.41160	1.2030	1.2383	2.93	1.2771	6.16	1.2206	1.46
160.	4000.000	.41160	1.1690	1.1842	1.30	1.2300	5.22	1.1823	1.13
160.	4500.000	.41160	1.1410	1.1421	.10	1.1923	4.50	1.1510	.87
160.	5000.000	.41160	1.1160	1.1079	-.73	1.1612	4.05	1.1247	.78
160.	6000.000	.41160	1.0790	1.0551	-2.22	1.1123	3.08	1.0827	.35
160.	7000.000	.41160	1.0490	1.0155	-3.19	1.0750	2.47	1.0501	.11
160.	8000.000	.41160	1.0250	.9844	-3.97	1.0452	1.97	1.0238	-.12
160.	9000.000	.41160	1.0050	.9589	-4.58	1.0207	1.56	1.0019	-.31
160.	10000.000	.41160	.9880	.9377	-5.09	1.0000	1.22	.9833	-.48
160.	200.000	.59830	30.2000	30.5882	1.29	30.2152	.05	29.9748	-.75
160.	400.000	.59830	13.3000	13.8115	3.85	13.3705	.53	13.0586	-1.82
160.	600.000	.59830	7.3900	8.0621	9.10	7.4915	1.37	6.9978	-5.31
160.	800.000	.59830	4.0500	4.9756	22.85	4.0344	-.38	2.2692	-43.97
160.	200.000	.80380	29.1600	29.5615	1.38	29.3028	.49	29.1351	-.09
160.	400.000	.80380	11.8200	12.5284	5.99	12.1780	3.03	11.9221	.86
220.	200.000	.20640	35.1000	35.1453	.13	34.9472	-.44	34.8189	-.80

TABLE VIII (CONT.)

TEMP	PRESSURE	MF	VOLUME (EXP.)	VOLUME (BISS)	DEV	VOLUME (JOFFE)	DEV	VOLUME (R-K)	DEV
220.	400.000	.20640	16.8700	16.9004	.18	16.6938	-1.04	16.5546	-1.87
220.	600.000	.20640	10.7600	10.8131	.49	10.5974	-1.51	10.4453	-2.92
220.	800.000	.20640	7.6900	7.7672	1.00	7.5423	-1.92	7.3748	-4.10
220.	1000.000	.20640	5.8400	5.9406	1.72	5.7074	-2.27	5.5220	-5.45
220.	1250.000	.20640	4.3600	4.4862	2.89	4.2467	-2.60	4.0373	-7.40
220.	1500.000	.20640	3.3800	3.5324	4.51	3.2974	-2.44	3.0705	-9.16
220.	1750.000	.20640	2.7190	2.8768	5.80	2.6634	-2.04	2.4403	-10.25
220.	2000.000	.20640	2.2580	2.4184	7.11	2.2426	-.68	2.0463	-9.37
220.	2250.000	.20640	1.9480	2.0966	7.63	1.9633	.78	1.8006	-7.56
220.	2500.000	.20640	1.7300	1.8686	8.01	1.7727	2.47	1.6392	-5.25
220.	2750.000	.20640	1.5760	1.7034	8.08	1.6369	3.87	1.5257	-3.19
220.	3000.000	.20640	1.4720	1.5802	7.35	1.5357	4.33	1.4413	-2.09
220.	3500.000	.20640	1.3390	1.4100	5.30	1.3942	4.12	1.3226	-1.23
220.	4000.000	.20640	1.2460	1.2980	4.17	1.2989	4.25	1.2416	-.35
220.	4500.000	.20640	1.1820	1.2179	3.04	1.2294	4.01	1.1817	-.03
220.	5000.000	.20640	1.1360	1.1572	1.87	1.1758	3.50	1.1350	-.09
220.	6000.000	.20640	1.0710	1.0703	-.07	1.0973	2.46	1.0658	-.48
220.	7000.000	.20640	1.0220	1.0098	-1.19	1.0416	1.92	1.0160	-.58
220.	8000.000	.20640	.9840	.9647	-1.97	.9995	1.57	.9779	-.62
220.	9000.000	.20640	.9530	.9292	-2.49	.9660	1.37	.9474	-.58
220.	10000.000	.20640	.9280	.9005	-2.96	.9387	1.15	.9223	-.61
220.	200.000	.41160	34.7000	34.8139	.33	34.5169	-.53	34.3225	-1.09
220.	400.000	.41160	16.4000	16.5565	.95	16.2413	-.97	16.0237	-2.29
220.	600.000	.41160	10.2700	10.4564	1.81	10.1209	-1.45	9.8727	-3.87
220.	800.000	.41160	7.1600	7.3985	3.33	7.0415	-1.66	6.7528	-5.69
220.	1000.000	.41160	5.3000	5.5632	4.97	5.1875	-2.12	4.8473	-8.54
220.	1250.000	.41160	3.8100	4.1094	7.86	3.7312	-2.07	3.3343	-12.49
220.	1500.000	.41160	2.8880	3.1810	10.15	2.8522	-1.24	2.4852	-13.95
220.	1750.000	.41160	2.3150	2.5830	11.58	2.3455	1.32	2.0676	-10.69
220.	2000.000	.41160	1.9830	2.2015	11.02	2.0498	3.37	1.8426	-7.08

TABLE VIII (CONT.)

TEMP	PRESSURE	MF	VOLUME (EXP.)	VOLUME (BISS)	DEV	VOLUME (JOFFE)	DEV	VOLUME (R-K)	DEV
220.	2250.000	.41160	1.7820	1.9533	9.62	1.8626	4.53	1.7015	-4.52
220.	2500.000	.41160	1.6460	1.7840	8.38	1.7336	5.32	1.6029	-2.62
220.	2750.000	.41160	1.5530	1.6620	7.02	1.6384	5.50	1.5288	-1.56
220.	3000.000	.41160	1.4830	1.5697	5.85	1.5647	5.51	1.4705	-.84
220.	3500.000	.41160	1.3900	1.4383	3.47	1.4564	4.77	1.3829	-.51
220.	4000.000	.41160	1.3240	1.3479	1.80	1.3792	4.17	1.3191	-.37
220.	4500.000	.41160	1.2740	1.2809	.54	1.3206	3.65	1.2697	-.34
220.	5000.000	.41160	1.2340	1.2287	-.43	1.2739	3.24	1.2298	-.34
220.	6000.000	.41160	1.1760	1.1514	-2.10	1.2034	2.33	1.1687	-.62
220.	7000.000	.41160	1.1330	1.0959	-3.27	1.1518	1.66	1.1231	-.87
220.	8000.000	.41160	1.0970	1.0536	-3.96	1.1119	1.35	1.0875	-.87
220.	9000.000	.41160	1.0710	1.0199	-4.77	1.0797	.81	1.0585	-1.17
220.	10000.000	.41160	1.0490	.9922	-5.42	1.0530	.38	1.0343	-1.40
220.	200.000	.59830	34.1000	34.2959	.57	33.9946	-.31	33.7961	-.89
220.	400.000	.59830	15.7700	16.0017	1.47	15.6724	-.62	15.4402	-2.09
220.	600.000	.59830	9.5100	9.8583	3.66	9.4931	-.18	9.2100	-3.15
220.	800.000	.59830	6.3700	6.7519	6.00	6.3430	-.42	5.9771	-6.17
220.	1000.000	.59830	4.5100	4.8714	8.01	4.4266	-1.85	3.9423	-12.59
220.	1250.000	.59830	3.0400	3.4127	12.26	3.0349	-.17	2.6007	-14.45
220.	1500.000	.59830	2.3190	2.6058	12.37	2.4028	3.61	2.1368	-7.86
220.	1750.000	.59830	1.9780	2.1901	10.72	2.0998	6.16	1.9199	-2.94
220.	2000.000	.59830	1.8010	1.9557	8.59	1.9223	6.73	1.7876	-.75
220.	2250.000	.59830	1.6880	1.8054	6.96	1.8027	6.80	1.6952	.43
220.	2500.000	.59830	1.6110	1.6993	5.48	1.7150	6.46	1.6255	.90
220.	2750.000	.59830	1.5540	1.6193	4.20	1.6469	5.98	1.5701	1.04
220.	3000.000	.59830	1.5090	1.5562	3.13	1.5919	5.49	1.5246	1.04
220.	3500.000	.59830	1.4390	1.4613	1.55	1.5072	4.74	1.4533	.99
220.	4000.000	.59830	1.3880	1.3923	.31	1.4440	4.03	1.3989	.79
220.	4500.000	.59830	1.3510	1.3389	-.90	1.3943	3.20	1.3556	.34
220.	5000.000	.59830	1.3200	1.2959	-1.82	1.3537	2.56	1.3198	-.01

TABLE VIII (CONT.)

TEMP	PRESSURE	MF	VOLUME (EXP.)	VOLUME (BISS)	DEV	VOLUME (JOFFE)	DEV	VOLUME (R-K)	DEV
220.	6000.000	.59830	1.2670	1.2301	-2.91	1.2908	1.88	1.2636	-.27
220.	7000.000	.59830	1.2260	1.1813	-3.65	1.2436	1.43	1.2209	-.42
220.	8000.000	.59830	1.1940	1.1431	-4.26	1.2063	1.03	1.1868	-.60
220.	9000.000	.59830	1.1700	1.1122	-4.94	1.1759	.50	1.1588	-.96
220.	10000.000	.59830	1.1490	1.0864	-5.45	1.1504	.12	1.1353	-1.20
220.	200.000	.80380	33.3000	33.4669	.50	33.2620	-.11	33.1263	-.52
220.	400.000	.80380	14.7700	15.0668	2.01	14.8291	.40	14.6585	-.76
220.	600.000	.80380	8.2500	8.7678	6.28	8.4741	2.72	8.2322	-.22
220.	800.000	.80380	4.8000	5.4216	12.95	5.0233	4.65	4.5738	-4.71
220.	1000.000	.80380	3.0100	3.3515	11.35	3.0516	1.38	2.6969	-10.40
220.	1250.000	.80380	2.1560	2.4174	12.13	2.3617	9.54	2.2105	2.53
220.	1500.000	.80380	1.9150	2.1056	9.96	2.1048	9.91	2.0088	4.90
220.	1750.000	.80380	1.7890	1.9384	8.35	1.9571	9.40	1.8861	5.43
220.	2000.000	.80380	1.7160	1.8283	6.54	1.8564	8.18	1.7997	4.88
220.	2250.000	.80380	1.6630	1.7478	5.10	1.7811	7.10	1.7339	4.26
220.	2500.000	.80380	1.6210	1.6852	3.96	1.7218	6.22	1.6811	3.71
220.	2750.000	.80380	1.5840	1.6344	3.18	1.6732	5.63	1.6374	3.37
220.	3000.000	.80380	1.5500	1.5920	2.71	1.6322	5.31	1.6004	3.25
220.	3500.000	.80380	1.4930	1.5244	2.10	1.5664	4.92	1.5401	3.16
220.	4000.000	.80380	1.4510	1.4721	1.45	1.5151	4.42	1.4927	2.87
220.	4500.000	.80380	1.4210	1.4298	.62	1.4734	3.69	1.4539	2.32
220.	5000.000	.80380	1.3970	1.3947	-.16	1.4386	2.98	1.4213	1.74
220.	6000.000	.80380	1.3570	1.3391	-1.32	1.3832	1.93	1.3691	.89
220.	7000.000	.80380	1.3260	1.2964	-2.23	1.3405	1.10	1.3286	.20
220.	8000.000	.80380	1.2990	1.2622	-2.83	1.3063	.56	1.2960	-.23
220.	9000.000	.80380	1.2740	1.2340	-3.14	1.2779	.31	1.2688	-.41
220.	10000.000	.80380	1.2520	1.2101	-3.34	1.2539	.15	1.2458	-.49
280.	200.000	.20640	38.6000	38.5975	-.01	38.4313	-.44	38.3205	-.72
280.	400.000	.20640	18.7800	18.7554	-.13	18.5858	-1.03	18.4687	-1.66
280.	600.000	.20640	12.1700	12.1447	-.21	11.9720	-1.63	11.8480	-2.65

TABLE VIII (CONT.)

TEMP	PRESSURE	MF	VOLUME (EXP.)	VOLUME (BISS)	DEV	VOLUME (JOFFE)	DEV	VOLUME (R-K)	DEV
280.	800.000	.20640	8.8400	8.8439	.04	8.6688	-1.94	8.5375	-3.42
280.	1000.000	.20640	6.8500	6.8690	.28	6.6927	-2.30	6.5539	-4.32
280.	1250.000	.20640	5.2400	5.2990	1.13	5.1236	-2.22	4.9759	-5.04
280.	1500.000	.20640	4.1900	4.2654	1.80	4.0951	-2.26	3.9407	-5.95
280.	1750.000	.20640	3.4600	3.5429	2.40	3.3828	-2.23	3.2261	-6.76
280.	2000.000	.20640	2.9430	3.0186	2.57	2.8741	-2.34	2.7211	-7.54
280.	2250.000	.20640	2.5610	2.6289	2.65	2.5042	-2.22	2.3607	-7.82
280.	2500.000	.20640	2.2680	2.3346	2.94	2.2312	-1.62	2.1009	-7.37
280.	2750.000	.20640	2.0410	2.1090	3.33	2.0265	-.71	1.9102	-6.41
280.	3000.000	.20640	1.8690	1.9336	3.45	1.8698	.04	1.7667	-5.47
280.	3500.000	.20640	1.6410	1.6835	2.59	1.6493	.51	1.5678	-4.46
280.	4000.000	.20640	1.4850	1.5170	2.15	1.5029	1.20	1.4368	-3.24
280.	4500.000	.20640	1.3770	1.3990	1.60	1.3986	1.57	1.3436	-2.42
280.	5000.000	.20640	1.3010	1.3111	.78	1.3201	1.47	1.2733	-2.13
280.	6000.000	.20640	1.1950	1.1882	-.57	1.2089	1.17	1.1731	-1.83
280.	7000.000	.20640	1.1220	1.1053	-1.49	1.1328	.96	1.1040	-1.61
280.	8000.000	.20640	1.0720	1.0450	-2.52	1.0766	.43	1.0526	-1.81
280.	9000.000	.20640	1.0320	.9987	-3.23	1.0330	.10	1.0125	-1.89
280.	10000.000	.20640	.9990	.9617	-3.73	.9980	-.10	.9800	-1.90
280.	200.000	.41160	38.2000	38.3220	.32	38.0741	-.33	37.9074	-.77
280.	400.000	.41160	18.4000	18.4760	.41	18.2207	-.97	18.0407	-1.95
280.	600.000	.41160	11.7800	11.8625	.70	11.6003	-1.53	11.4052	-3.18
280.	800.000	.41160	8.4600	8.5606	1.19	8.2931	-1.97	8.0812	-4.48
280.	1000.000	.41160	6.4600	6.5875	1.97	6.3179	-2.20	6.0884	-5.75
280.	1250.000	.41160	4.8600	5.0252	3.40	4.7609	-2.04	4.5123	-7.15
280.	1500.000	.41160	3.8500	4.0082	4.11	3.7623	-2.28	3.5067	-8.92
280.	1750.000	.41160	3.1600	3.3120	4.81	3.0993	-1.92	2.8565	-9.61
280.	2000.000	.41160	2.6890	2.8228	4.98	2.6526	-1.35	2.4378	-9.34
280.	2250.000	.41160	2.3500	2.4731	5.24	2.3459	-.17	2.1630	-7.96
280.	2500.000	.41160	2.1070	2.2186	5.29	2.1289	1.04	1.9743	-6.30

TABLE VIII (CONT.)

TEMP	PRESSURE	MF	VOLUME (EXP.)	VOLUME (BISS)	DEV	VOLUME (JOFFE)	DEV	VOLUME (R-K)	DEV
280.	2750.000	.41160	1.9340	2.0290	4.91	1.9695	1.84	1.8378	-4.97
280.	3000.000	.41160	1.8090	1.8842	4.16	1.8481	2.16	1.7344	-4.12
280.	3500.000	.41160	1.6400	1.6795	2.41	1.6752	2.15	1.5871	-3.22
280.	4000.000	.41160	1.5230	1.5421	1.25	1.5571	2.24	1.4859	-2.44
280.	4500.000	.41160	1.4390	1.4431	.28	1.4705	2.19	1.4109	-1.95
280.	5000.000	.41160	1.3780	1.3678	-.74	1.4037	1.86	1.3526	-1.85
280.	6000.000	.41160	1.2900	1.2599	-2.34	1.3059	1.24	1.2663	-1.84
280.	7000.000	.41160	1.2280	1.1850	-3.50	1.2368	.72	1.2046	-1.91
280.	8000.000	.41160	1.1800	1.1294	-4.29	1.1846	.39	1.1575	-1.91
280.	9000.000	.41160	1.1440	1.0859	-5.08	1.1434	-.05	1.1200	-2.10
280.	10000.000	.41160	1.1140	1.0508	-5.68	1.1098	-.37	1.0893	-2.22
280.	200.000	.59830	37.7000	37.8893	.50	37.6397	-.16	37.4707	-.61
280.	400.000	.59830	17.9000	18.0272	.71	17.7658	-.75	17.5785	-1.80
280.	600.000	.59830	11.2400	11.3980	1.41	11.1247	-1.03	10.9147	-2.89
280.	800.000	.59830	7.9000	8.0828	2.31	7.7994	-1.27	7.5622	-4.28
280.	1000.000	.59830	5.9200	6.1020	3.07	5.8147	-1.78	5.5480	-6.28
280.	1250.000	.59830	4.3800	4.5464	3.80	4.2744	-2.41	3.9839	-9.04
280.	1500.000	.59830	3.3900	3.5647	5.15	3.3409	-1.45	3.0687	-9.48
280.	1750.000	.59830	2.7810	2.9345	5.52	2.7778	-.11	2.5550	-8.12
280.	2000.000	.59830	2.3920	2.5265	5.62	2.4304	1.60	2.2548	-5.74
280.	2250.000	.59830	2.1450	2.2546	5.11	2.2026	2.68	2.0620	-3.87
280.	2500.000	.59830	1.9730	2.0648	4.65	2.0428	3.54	1.9271	-2.33
280.	2750.000	.59830	1.8480	1.9256	4.20	1.9243	4.13	1.8265	-1.16
280.	3000.000	.59830	1.7570	1.8192	3.54	1.8322	4.28	1.7479	-.52
280.	3500.000	.59830	1.6410	1.6662	1.53	1.6973	3.43	1.6314	-.59
280.	4000.000	.59830	1.5580	1.5602	.14	1.6016	2.80	1.5477	-.66
280.	4500.000	.59830	1.4900	1.4814	-.58	1.5292	2.63	1.4836	-.43
280.	5000.000	.59830	1.4380	1.4199	-1.26	1.4719	2.36	1.4325	-.38
280.	6000.000	.59830	1.3660	1.3288	-2.72	1.3860	1.46	1.3549	-.81
280.	7000.000	.59830	1.3140	1.2636	-3.83	1.3235	.72	1.2980	-1.22

TABLE VIII (CONT.)

TEMP	PRESSURE	MF	VOLUME (EXP.)	VOLUME (BISS)	DEV	VOLUME (JOFFE)	DEV	VOLUME (R-K)	DEV
280.	8000.000	.59830	1.27 10	1.2139	-4.49	1.27 54	.34	1.2537	-1.36
280.	9000.000	.59830	1.2350	1.17 44	-4.90	1.2368	.15	1.2180	-1.37
280.	10000.000	.59830	1.2070	1.1421	-5.38	1.2051	-.16	1.1885	-1.53
280.	200.000	.80380	37.1000	37.2005	.27	37.0328	-.18	36.9186	-.49
280.	400.000	.80380	17.1600	17.2898	.76	17.1085	-.30	16.9765	-1.07
280.	600.000	.80380	10.4600	10.6051	1.39	10.4077	-.50	10.2506	-2.00
280.	800.000	.80380	7.0600	7.2321	2.44	7.0188	-.58	6.8265	-3.31
280.	1000.000	.80380	5.0200	5.2102	3.79	4.9943	-.51	4.7640	-5.10
280.	1250.000	.80380	3.6000	3.6967	2.69	3.5358	-1.78	3.3187	-7.81
280.	1500.000	.80380	2.7410	2.8990	5.77	2.8225	2.97	2.6706	-2.57
280.	1750.000	.80380	2.3390	2.4825	6.13	2.4571	5.05	2.3499	.47
280.	2000.000	.80380	2.1150	2.2380	5.82	2.2388	5.86	2.1577	2.02
280.	2250.000	.80380	1.97 80	2.07 63	4.97	2.0915	5.74	2.0266	2.46
280.	2500.000	.80380	1.8820	1.9600	4.14	1.9837	5.40	1.9297	2.53
280.	2750.000	.80380	1.80 90	1.87 11	3.43	1.9002	5.04	1.8540	2.49
280.	3000.000	.80380	1.7530	1.8002	2.69	1.8330	4.57	1.7927	2.26
280.	3500.000	.80380	1.667 0	1.6930	1.56	1.7302	3.79	1.6980	1.86
280.	4000.000	.80380	1.60 10	1.6143	.83	1.6540	3.31	1.6272	1.63
280.	4500.000	.80380	1.5520	1.5532	.08	1.5944	2.73	1.5714	1.25
280.	5000.000	.80380	1.5140	1.5039	-.67	1.5460	2.11	1.5259	.79
280.	6000.000	.80380	1.4510	1.4282	-1.57	1.47 13	1.40	1.4552	.29
280.	7000.000	.80380	1.40 30	1.37 20	-2.21	1.4155	.89	1.4021	-.06
280.	8000.000	.80380	1.3660	1.3281	-2.78	1.37 17	.41	1.3602	-.42
280.	9000.000	.80380	1.3340	1.2925	-3.11	1.3361	.15	1.3261	-.60
280.	10000.000	.80380	1.30 30	1.2628	-3.08	1.3064	.26	1.2975	-.42
340.	200.000	.20640	42.0000	42.0034	.01	41.8622	-.33	41.7649	-.56
340.	400.000	.20640	20.6000	20.557 8	-.20	20.4158	-.89	20.3147	-1.39
340.	600.000	.20640	13.4600	13.4164	-.32	13.27 40	-1.38	13.1690	-2.16
340.	800.000	.20640	9.9000	9.8526	-.48	9.7105	-1.91	9.6016	-3.01
340.	1000.000	.20640	7.7600	7.7212	-.50	7.5803	-2.32	7.4678	-3.77

TABLE VIII (CONT.)

TEMP	PRESSURE	MF	VOLUME (EXP.)	VOLUME (BISS)	DEV	VOLUME (JOFFE)	DEV	VOLUME (R-K)	DEV
340.	1250.000	.20640	6.0400	6.0259	-.23	5.8880	-2.52	5.7715	-4.45
340.	1500.000	.20640	4.9100	4.9070	-.06	4.7742	-2.77	4.6547	-5.20
340.	1750.000	.20640	4.1100	4.1194	.23	3.9940	-2.82	3.8734	-5.76
340.	2000.000	.20640	3.5200	3.5407	.59	3.4249	-2.70	3.3054	-6.10
340.	2250.000	.20640	3.0900	3.1024	.40	2.9981	-2.97	2.8820	-6.73
340.	2500.000	.20640	2.7490	2.7630	.51	2.6715	-2.82	2.5609	-6.84
340.	2750.000	.20640	2.4840	2.4957	.47	2.4175	-2.68	2.3139	-6.85
340.	3000.000	.20640	2.2710	2.2820	.48	2.2168	-2.39	2.1205	-6.63
340.	3500.000	.20640	1.9530	1.9671	.72	1.9253	-1.42	1.8439	-5.59
340.	4000.000	.20640	1.7390	1.7506	.67	1.7274	-.66	1.6588	-4.61
340.	4500.000	.20640	1.5920	1.5950	.19	1.5859	-.39	1.5275	-4.05
340.	5000.000	.20640	1.4840	1.4786	-.36	1.4799	-.28	1.4296	-3.66
340.	6000.000	.20640	1.3340	1.3166	-1.31	1.3316	-.18	1.2928	-3.09
340.	7000.000	.20640	1.2380	1.2089	-2.35	1.2321	-.48	1.2008	-3.00
340.	8000.000	.20640	1.1680	1.1316	-3.12	1.1600	-.69	1.1340	-2.91
340.	9000.000	.20640	1.1120	1.0731	-3.50	1.1049	-.64	1.0827	-2.63
340.	10000.000	.20640	1.0700	1.0269	-4.02	1.0612	-.82	1.0419	-2.63
340.	200.000	.41160	41.7000	41.7716	.17	41.5618	-.33	41.4161	-.68
340.	400.000	.41160	20.2900	20.3263	.18	20.1143	-.87	19.9606	-1.62
340.	600.000	.41160	13.1500	13.1864	.28	12.9732	-1.34	12.8112	-2.58
340.	800.000	.41160	9.5900	9.6255	.37	9.4127	-1.85	9.2424	-3.62
340.	1000.000	.41160	7.4600	7.4990	.52	7.2887	-2.30	7.1105	-4.69
340.	1250.000	.41160	5.7500	5.8130	1.10	5.6100	-2.44	5.4237	-5.67
340.	1500.000	.41160	4.6400	4.7074	1.45	4.5172	-2.65	4.3271	-6.74
340.	1750.000	.41160	3.8600	3.9375	2.01	3.7659	-2.44	3.5782	-7.30
340.	2000.000	.41160	3.3100	3.3803	2.12	3.2320	-2.36	3.0531	-7.76
340.	2250.000	.41160	2.9010	2.9662	2.25	2.8436	-1.98	2.6784	-7.67
340.	2500.000	.41160	2.5970	2.6522	2.13	2.5552	-1.61	2.4059	-7.36
340.	2750.000	.41160	2.3630	2.4099	1.99	2.3364	-1.13	2.2029	-6.77
340.	3000.000	.41160	2.1760	2.2196	2.00	2.1667	-.43	2.0477	-5.90

TABLE VIII (CONT.)

TEMP	PRESSURE	MF	VOLUME (EXP.)	VOLUME (BISS)	DEV	VOLUME (JOFFE)	DEV	VOLUME (R-K)	DEV
340.	3500.000	.41160	1.9210	1.9442	1.21	1.9234	.12	1.8279	-4.85
340.	4000.000	.41160	1.7480	1.7573	.53	1.7583	.59	1.6800	-3.89
340.	4500.000	.41160	1.6280	1.6229	-.32	1.6389	.67	1.5731	-3.37
340.	5000.000	.41160	1.5390	1.5216	-1.13	1.5483	.60	1.4918	-3.07
340.	6000.000	.41160	1.4120	1.3787	-2.36	1.4185	.46	1.3750	-2.62
340.	7000.000	.41160	1.3280	1.2817	-3.48	1.3291	.08	1.2938	-2.57
340.	8000.000	.41160	1.2690	1.2109	-4.58	1.2629	-.48	1.2334	-2.81
340.	9000.000	.41160	1.2190	1.1565	-5.13	1.2115	-.61	1.1862	-2.69
340.	10000.000	.41160	1.1780	1.1130	-5.52	1.1701	-.67	1.1480	-2.55
340.	200.000	.59830	41.3400	41.4046	.16	41.1944	-.35	41.0475	-.71
340.	400.000	.59830	19.8900	19.9534	.32	19.7390	-.76	19.5813	-1.55
340.	600.000	.59830	12.7400	12.8093	.54	12.5919	-1.16	12.4224	-2.49
340.	800.000	.59830	9.1700	9.2470	.84	9.0289	-1.54	8.8469	-3.52
340.	1000.000	.59830	7.0400	7.1230	1.18	6.9081	-1.87	6.7142	-4.63
340.	1250.000	.59830	5.3600	5.4481	1.64	5.2452	-2.14	5.0409	-5.95
340.	1500.000	.59830	4.2900	4.3649	1.75	4.1849	-2.45	3.9804	-7.22
340.	1750.000	.59830	3.5500	3.6292	2.23	3.4818	-1.92	3.2899	-7.33
340.	2000.000	.59830	3.0500	3.1153	2.14	3.0042	-1.50	2.8335	-7.10
340.	2250.000	.59830	2.6860	2.7484	2.32	2.6715	-.54	2.5239	-6.04
340.	2500.000	.59830	2.4290	2.4803	2.11	2.4321	.13	2.3053	-5.09
340.	2750.000	.59830	2.2410	2.2792	1.71	2.2538	.57	2.1443	-4.32
340.	3000.000	.59830	2.0930	2.1244	1.50	2.1164	1.12	2.0209	-3.45
340.	3500.000	.59830	1.8940	1.9028	.47	1.9185	1.30	1.8436	-2.66
340.	4000.000	.59830	1.7590	1.7522	-.39	1.7823	1.32	1.7211	-2.15
340.	4500.000	.59830	1.6600	1.6425	-1.05	1.6819	1.32	1.6305	-1.78
340.	5000.000	.59830	1.5860	1.5586	-1.72	1.6042	1.15	1.5600	-1.64
340.	6000.000	.59830	1.4810	1.4376	-2.93	1.4905	.64	1.4561	-1.68
340.	7000.000	.59830	1.4060	1.3532	-3.76	1.4101	.29	1.3821	-1.70
340.	8000.000	.59830	1.3520	1.2902	-4.57	1.3495	-.18	1.3259	-1.93
340.	9000.000	.59830	1.3090	1.2410	-5.20	1.3018	-.55	1.2814	-2.11

TABLE VIII(CONT.)

TEMP	PRESSURE	MF	VOLUME (EXP.)	VOLUME (BISS)	DEV	VOLUME (JOFFE)	DEV	VOLUME (R-K)	DEV
340.	10000.000	.59830	1.2710	1.2011	-5.50	1.2629	-.64	1.2450	-2.04
340.	200.000	.80380	40.8000	40.8214	.05	40.6813	-.29	40.5827	-.53
340.	400.000	.80380	19.3200	19.3481	.15	19.2026	-.61	19.0939	-1.17
340.	600.000	.80380	12.1500	12.1833	.27	12.0330	-.96	11.9123	-1.96
340.	800.000	.80380	8.5500	8.6051	.64	8.4526	-1.14	8.3183	-2.71
340.	1000.000	.80380	6.4100	6.4764	1.04	6.3271	-1.29	6.1799	-3.59
340.	1250.000	.80380	4.7800	4.8245	.93	4.6932	-1.82	4.5390	-5.04
340.	1500.000	.80380	3.7800	3.8080	.74	3.7113	-1.82	3.5690	-5.58
340.	1750.000	.80380	3.1300	3.1737	1.39	3.1155	-.46	2.9968	-4.26
340.	2000.000	.80380	2.7100	2.7687	2.17	2.7411	1.15	2.6452	-2.39
340.	2250.000	.80380	2.4370	2.4978	2.49	2.4910	2.22	2.4129	-.99
340.	2500.000	.80380	2.2530	2.3062	2.36	2.3134	2.68	2.2483	-.21
340.	2750.000	.80380	2.1220	2.1638	1.97	2.1803	2.75	2.1249	.14
340.	3000.000	.80380	2.0200	2.0535	1.66	2.0764	2.79	2.0284	.41
340.	3500.000	.80380	1.8750	1.8923	.92	1.9232	2.57	1.8854	.56
340.	4000.000	.80380	1.7760	1.7789	.16	1.8141	2.15	1.7832	.40
340.	4500.000	.80380	1.6990	1.6936	-.32	1.7315	1.92	1.7053	.37
340.	5000.000	.80380	1.6410	1.6265	-.88	1.6661	1.53	1.6434	.15
340.	6000.000	.80380	1.5520	1.5264	-1.65	1.5679	1.03	1.5501	-.13
340.	7000.000	.80380	1.4910	1.4542	-2.47	1.4966	.38	1.4819	-.61
340.	8000.000	.80380	1.4430	1.3989	-3.05	1.4418	-.08	1.4293	-.95
340.	9000.000	.80380	1.4020	1.3548	-3.36	1.3979	-.29	1.3871	-1.07
340.	10000.000	.80380	1.3680	1.3186	-3.61	1.3618	-.46	1.3522	-1.16
400.	200.000	.20640	45.4000	45.3753	-.05	45.2543	-.32	45.1678	-.51
400.	400.000	.20640	22.3900	22.3230	-.30	22.2024	-.84	22.1136	-1.23
400.	600.000	.20640	14.7200	14.6475	-.49	14.5279	-1.31	14.4368	-1.92
400.	800.000	.20640	10.8800	10.8173	-.58	10.6992	-1.66	10.6060	-2.52
400.	1000.000	.20640	8.5900	8.5263	-.74	8.4103	-2.09	8.3151	-3.20
400.	1250.000	.20640	6.7600	6.7025	-.85	6.5901	-2.51	6.4930	-3.95
400.	1500.000	.20640	5.5400	5.4964	-.79	5.3887	-2.73	5.2904	-4.51

TABLE VIII (CONT.)

TEMP	PRESSURE	MF	VOLUME (EXP.)	VOLUME (BISS)	DEV	VOLUME (JOFFE)	DEV	VOLUME (R-K)	DEV
400.	1750.000	.20640	4.6700	4.6443	-.55	4.5426	-2.73	4.4439	-4.84
400.	2000.000	.20640	4.0300	4.0143	-.39	3.9197	-2.74	3.8217	-5.17
400.	2250.000	.20640	3.5500	3.5330	-.48	3.4464	-2.92	3.3503	-5.62
400.	2500.000	.20640	3.1700	3.1561	-.44	3.0783	-2.89	2.9851	-5.83
400.	2750.000	.20640	2.8720	2.8552	-.59	2.7866	-2.97	2.6971	-6.09
400.	3000.000	.20640	2.6360	2.6112	-.94	2.5518	-3.19	2.4667	-6.42
400.	3500.000	.20640	2.2630	2.2440	-.84	2.2023	-2.68	2.1266	-6.03
400.	4000.000	.20640	2.0020	1.9852	-.84	1.9588	-2.16	1.8925	-5.47
400.	4500.000	.20640	1.8160	1.7958	-1.11	1.7819	-1.88	1.7239	-5.07
400.	5000.000	.20640	1.6800	1.6524	-1.64	1.6486	-1.87	1.5977	-4.90
400.	6000.000	.20640	1.4840	1.4515	-2.19	1.4620	-1.48	1.4218	-4.19
400.	7000.000	.20640	1.3560	1.3181	-2.80	1.3376	-1.36	1.3049	-3.77
400.	8000.000	.20640	1.2660	1.2229	-3.40	1.2483	-1.39	1.2210	-3.56
400.	9000.000	.20640	1.1990	1.1514	-3.97	1.1809	-1.51	1.1575	-3.46
400.	10000.000	.20640	1.1490	1.0954	-4.66	1.1278	-1.85	1.1074	-3.62
400.	200.000	.41160	45.2000	45.1787	-.05	44.9992	-.44	44.8701	-.73
400.	400.000	.41160	22.1200	22.1288	.04	21.9498	-.77	21.8158	-1.38
400.	600.000	.41160	14.4400	14.4567	.12	14.2792	-1.11	14.1404	-2.07
400.	800.000	.41160	10.6200	10.6311	.10	10.4562	-1.54	10.3129	-2.89
400.	1000.000	.41160	8.3300	8.3458	.19	8.1750	-1.86	8.0277	-3.63
400.	1250.000	.41160	6.5200	6.5312	.17	6.3679	-2.33	6.2169	-4.65
400.	1500.000	.41160	5.3200	5.3364	.31	5.1835	-2.57	5.0309	-5.43
400.	1750.000	.41160	4.4800	4.4979	.40	4.3581	-2.72	4.2066	-6.10
400.	2000.000	.41160	3.8600	3.8834	.61	3.7591	-2.61	3.6117	-6.43
400.	2250.000	.41160	3.4000	3.4190	.56	3.3118	-2.59	3.1709	-6.74
400.	2500.000	.41160	3.0500	3.0599	.32	2.9701	-2.62	2.8378	-6.96
400.	2750.000	.41160	2.7680	2.7768	.32	2.7042	-2.30	2.5827	-6.69
400.	3000.000	.41160	2.5400	2.5502	.40	2.4937	-1.82	2.3805	-6.28
400.	3500.000	.41160	2.2090	2.2146	.25	2.1855	-1.07	2.0902	-5.38
400.	4000.000	.41160	1.9930	1.9817	-.56	1.9736	-.97	1.8932	-5.01

TABLE VIII (CONT.)

TEMP	PRESSURE	MF	VOLUME (EXP.)	VOLUME (BISS)	DEV	VOLUME (JOFFE)	DEV	VOLUME (R-K)	DEV
400.	4500.000	.41160	1.8340	1.8127	-1.16	1.8201	-.76	1.7514	-4.51
400.	5000.000	.41160	1.7160	1.6850	-1.81	1.7039	-.71	1.6444	-4.17
400.	6000.000	.41160	1.5510	1.5052	-2.95	1.5393	-.75	1.4930	-3.74
400.	7000.000	.41160	1.4420	1.3844	-3.99	1.4275	-1.00	1.3900	-3.61
400.	8000.000	.41160	1.3610	1.2972	-4.69	1.3460	-1.10	1.3146	-3.41
400.	9000.000	.41160	1.3020	1.2308	-5.47	1.2834	-1.43	1.2565	-3.50
400.	10000.000	.41160	1.2520	1.1784	-5.88	1.2335	-1.48	1.2100	-3.35
400.	200.000	.59830	44.8000	44.8640	.14	44.6849	-.26	44.5552	-.55
400.	400.000	.59830	21.7800	21.8135	.15	21.6340	-.67	21.4977	-1.30
400.	600.000	.59830	14.1100	14.1426	.23	13.9640	-1.03	13.8210	-2.05
400.	800.000	.59830	10.2800	10.3203	.39	10.1445	-1.32	9.9949	-2.77
400.	1000.000	.59830	8.0100	8.0410	.39	7.8703	-1.74	7.7150	-3.68
400.	1250.000	.59830	6.2200	6.2384	.30	6.0782	-2.28	5.9182	-4.85
400.	1500.000	.59830	5.0500	5.0613	.22	4.9166	-2.64	4.7560	-5.82
400.	1750.000	.59830	4.2400	4.2460	.14	4.1213	-2.80	3.9652	-6.48
400.	2000.000	.59830	3.6500	3.6594	.26	3.5575	-2.54	3.4104	-6.56
400.	2250.000	.59830	3.2200	3.2257	.18	3.1470	-2.27	3.0121	-6.46
400.	2500.000	.59830	2.8960	2.8979	.07	2.8412	-1.89	2.7193	-6.10
400.	2750.000	.59830	2.6430	2.6415	-.06	2.6078	-1.33	2.4986	-5.46
400.	3000.000	.59830	2.4440	2.4468	.11	2.4256	-.75	2.3278	-4.75
400.	3500.000	.59830	2.1610	2.1583	-.12	2.1619	.04	2.0827	-3.63
400.	4000.000	.59830	1.9800	1.9609	-.96	1.9810	.05	1.9154	-3.26
400.	4500.000	.59830	1.8500	1.8178	-1.74	1.8490	-.05	1.7937	-3.04
400.	5000.000	.59830	1.7460	1.7093	-2.10	1.7482	.13	1.7005	-2.60
400.	7000.000	.59830	1.5120	1.4489	-4.17	1.5028	-.61	1.4727	-2.60
400.	6000.000	.59830	1.6110	1.5547	-3.49	1.6032	-.48	1.5662	-2.78
400.	8000.000	.59830	1.4400	1.3712	-4.78	1.4283	-.81	1.4030	-2.57
400.	9000.000	.59830	1.3880	1.3112	-5.53	1.3703	-1.27	1.3486	-2.84
400.	10000.000	.59830	1.3460	1.2632	-6.15	1.3237	-1.66	1.3046	-3.07
400.	200.000	.80380	44.3000	44.3635	.14	44.2447	-.12	44.1582	-.32

TABLE VIII (CONT.)

TEMP	PRESSURE	MF	VOLUME (EXP.)	VOLUME (BISS)	DEV	VOLUME (JOFFE)	DEV	VOLUME (R-K)	DEV
400.	400.000	.80380	21.3100	21.3045	-.03	21.1843	-.59	21.0916	-1.03
400.	600.000	.80380	13.6400	13.6279	-.09	13.5074	-.97	13.4081	-1.70
400.	800.000	.80380	9.8100	9.8047	-.05	9.6859	-1.27	9.5800	-2.34
400.	1000.000	.80380	7.5400	7.5315	-.11	7.4174	-1.63	7.3058	-3.11
400.	1250.000	.80380	5.7600	5.7504	-.17	5.6478	-1.95	5.5324	-3.95
400.	1500.000	.80380	4.6300	4.6129	-.37	4.5285	-2.19	4.4153	-4.64
400.	1750.000	.80380	3.8700	3.8537	-.42	3.7916	-2.03	3.6869	-4.73
400.	2000.000	.80380	3.3500	3.3325	-.52	3.2925	-1.72	3.1999	-4.48
400.	2250.000	.80380	2.9680	2.9650	-.10	2.9438	-.81	2.8636	-3.52
400.	2500.000	.80380	2.6910	2.6979	.26	2.6915	.02	2.6222	-2.56
400.	2750.000	.80380	2.4890	2.4974	.34	2.5021	.53	2.4419	-1.89
400.	3000.000	.80380	2.3370	2.3422	.22	2.3551	.78	2.3024	-1.48
400.	3500.000	.80380	2.1200	2.1180	-.09	2.1418	1.03	2.1000	-.94
400.	4000.000	.80380	1.9790	1.9634	-.79	1.9935	.73	1.9593	-1.00
400.	4500.000	.80380	1.8720	1.8494	-1.21	1.8836	.62	1.8547	-.93
400.	5000.000	.80380	1.7880	1.7614	-1.49	1.7981	.57	1.7732	-.83
400.	6000.000	.80380	1.6710	1.6329	-2.28	1.6726	.09	1.6531	-1.07
400.	7000.000	.80380	1.5890	1.5424	-2.94	1.5835	-.34	1.5676	-1.35
400.	8000.000	.80380	1.5310	1.4743	-3.71	1.5163	-.96	1.5028	-1.84
400.	9000.000	.80380	1.4810	1.4207	-4.07	1.4632	-1.20	1.4516	-1.99
400.	10000.000	.80380	1.4380	1.3773	-4.22	1.4199	-1.26	1.4097	-1.97
460.	200.000	.20640	48.8000	48.7216	-.16	48.6171	-.37	48.5395	-.53
460.	400.000	.20640	24.1600	24.0608	-.41	23.9575	-.84	23.8784	-1.17
460.	600.000	.20640	15.9500	15.8496	-.63	15.7479	-1.27	15.6674	-1.77
460.	800.000	.20640	11.8400	11.7515	-.75	11.6518	-1.59	11.5702	-2.28
460.	1000.000	.20640	9.3800	9.2994	-.86	9.2021	-1.90	9.1195	-2.78
460.	1250.000	.20640	7.4100	7.3460	-.86	7.2524	-2.13	7.1688	-3.26
460.	1500.000	.20640	6.1000	6.0522	-.78	5.9629	-2.25	5.8789	-3.63
460.	1750.000	.20640	5.1800	5.1359	-.85	5.0516	-2.48	4.9677	-4.10
460.	2000.000	.20640	4.5100	4.4560	-1.20	4.3774	-2.94	4.2942	-4.78

TABLE VIII (CONT.)

TEMP	PRESSURE	MF	VOLUME (EXP.)	VOLUME (BISS)	DEV	VOLUME (JOFFE)	DEV	VOLUME (R-K)	DEV
460.	2250.000	.20640	3.9900	3.9340	-1.40	3.8616	-3.22	3.7797	-5.27
460.	2500.000	.20640	3.5800	3.5228	-1.60	3.4570	-3.44	3.3770	-5.67
460.	2750.000	.20640	3.2500	3.1921	-1.78	3.1331	-3.60	3.0555	-5.98
460.	3000.000	.20640	2.9760	2.9217	-1.82	2.8697	-3.57	2.7949	-6.08
460.	3500.000	.20640	2.5580	2.5098	-1.89	2.4713	-3.39	2.4028	-6.07
460.	4000.000	.20640	2.2590	2.2144	-1.97	2.1884	-3.13	2.1265	-5.86
460.	4500.000	.20640	2.0390	1.9951	-2.16	1.9797	-2.91	1.9243	-5.63
460.	5000.000	.20640	1.8700	1.8272	-2.29	1.8209	-2.63	1.7712	-5.29
460.	6000.000	.20640	1.6360	1.5895	-2.84	1.5969	-2.39	1.5566	-4.85
460.	7000.000	.20640	1.4790	1.4307	-3.27	1.4473	-2.14	1.4140	-4.39
460.	8000.000	.20640	1.3730	1.3175	-4.04	1.3404	-2.38	1.3123	-4.42
460.	9000.000	.20640	1.2930	1.2330	-4.64	1.2599	-2.56	1.2358	-4.43
460.	10000.000	.20640	1.2310	1.1664	-5.25	1.1970	-2.76	1.1759	-4.47
460.	200.000	.41160	48.6000	48.5538	-.10	48.3991	-.41	48.2835	-.65
460.	400.000	.41160	23.9100	23.8965	-.06	23.7437	-.70	23.6250	-1.19
460.	600.000	.41160	15.7100	15.6895	-.13	15.5395	-1.09	15.4179	-1.86
460.	800.000	.41160	11.6100	11.5965	-.12	11.4501	-1.38	11.3260	-2.45
460.	1000.000	.41160	9.1600	9.1503	-.11	9.0084	-1.66	8.8822	-3.03
460.	1250.000	.41160	7.2200	7.2055	-.20	7.0707	-2.07	6.9429	-3.84
460.	1500.000	.41160	5.9400	5.9215	-.31	5.7955	-2.43	5.6673	-4.59
460.	1750.000	.41160	5.0400	5.0163	-.47	4.9007	-2.76	4.7734	-5.29
460.	2000.000	.41160	4.3700	4.3486	-.49	4.2645	-2.87	4.1198	-5.73
460.	2250.000	.41160	3.8700	3.8396	-.79	3.7480	-3.15	3.6272	-6.27
460.	2500.000	.41160	3.4700	3.4417	-.81	3.3630	-3.08	3.2474	-6.42
460.	2750.000	.41160	3.1600	3.1246	-1.12	3.0586	-3.21	2.9490	-6.68
460.	3000.000	.41160	2.9060	2.8676	-1.32	2.8140	-3.17	2.7107	-6.72
460.	3500.000	.41160	2.5220	2.4807	-1.64	2.4495	-2.88	2.3590	-6.46
460.	4000.000	.41160	2.2480	2.2072	-1.82	2.1944	-2.38	2.1158	-5.88
460.	4500.000	.41160	2.0540	2.0060	-2.34	2.0077	-2.25	1.9393	-5.58
460.	5000.000	.41160	1.9010	1.8529	-2.53	1.8663	-1.82	1.8060	-5.00

TABLE VIII (CONT.)

TEMP	PRESSURE	MF	VOLUME (EXP.)	VOLUME (BISS)	DEV	VOLUME (JOFFE)	DEV	VOLUME (R-K)	DEV
460.	6000.000	.41160	1.6920	1.6366	-3.28	1.6659	-1.54	1.6182	-4.36
460.	7000.000	.41160	1.5570	1.4915	-4.21	1.5307	-1.69	1.4917	-4.19
460.	8000.000	.41160	1.4630	1.3871	-5.19	1.4328	-2.06	1.4001	-4.30
460.	9000.000	.41160	1.3890	1.3083	-5.81	1.3583	-2.21	1.3303	-4.23
460.	10000.000	.41160	1.3270	1.2463	-6.08	1.2994	-2.08	1.2749	-3.92
460.	200.000	.59830	48.3000	48.2817	-.04	48.1278	-.36	48.0119	-.60
460.	400.000	.59830	23.6400	23.6267	-.06	23.4744	-.70	23.3544	-1.21
460.	600.000	.59830	15.4400	15.4235	-.11	15.2739	-1.08	15.1499	-1.88
460.	800.000	.59830	11.3500	11.3358	-.12	11.1903	-1.41	11.0627	-2.53
460.	1000.000	.59830	8.9100	8.8967	-.15	8.7568	-1.72	8.6263	-3.18
460.	1250.000	.59830	6.9900	6.9636	-.38	6.8330	-2.25	6.7004	-4.14
460.	1500.000	.59830	5.7300	5.6946	-.62	5.5760	-2.69	5.4433	-5.00
460.	1750.000	.59830	4.8400	4.8073	-.68	4.7031	-2.83	4.5729	-5.52
460.	2000.000	.59830	4.2000	4.1599	-.95	4.0717	-3.06	3.9464	-6.04
460.	2250.000	.59830	3.7100	3.6730	-1.00	3.6013	-2.93	3.4828	-6.12
460.	2500.000	.59830	3.3300	3.2979	-.96	3.2425	-2.63	3.1321	-5.94
460.	2750.000	.59830	3.0300	3.0034	-.88	2.9632	-2.20	2.8611	-5.57
460.	3000.000	.59830	2.8000	2.7681	-1.14	2.7417	-2.08	2.6479	-5.43
460.	3500.000	.59830	2.4590	2.4201	-1.58	2.4161	-1.74	2.3373	-4.95
460.	4000.000	.59830	2.2190	2.1781	-1.84	2.1908	-1.27	2.1240	-4.28
460.	4500.000	.59830	2.0480	2.0019	-2.25	2.0263	-1.06	1.9691	-3.85
460.	5000.000	.59830	1.9210	1.8680	-2.76	1.9012	-1.03	1.8515	-3.62
460.	6000.000	.59830	1.7430	1.6783	-3.71	1.7226	-1.17	1.6837	-3.40
460.	7000.000	.59830	1.6210	1.5497	-4.40	1.6005	-1.27	1.5688	-3.22
460.	8000.000	.59830	1.5310	1.4562	-4.88	1.5109	-1.31	1.4844	-3.05
460.	9000.000	.59830	1.4650	1.3847	-5.48	1.4420	-1.57	1.4192	-3.13
460.	10000.000	.59830	1.4080	1.3279	-5.69	1.3870	-1.50	1.3670	-2.91
460.	200.000	.80380	47.9000	47.8479	-.11	47.7462	-.32	47.6692	-.48
460.	400.000	.80380	23.2400	23.1918	-.21	23.0907	-.64	23.0098	-.99
460.	600.000	.80380	15.0500	14.9901	-.40	14.8907	-1.06	14.8059	-1.62

TABLE VIII (CONT.)

TEMP	PRESSURE	MF	VOLUME (EXP.)	VOLUME (BISS)	DEV	VOLUME (JOFFE)	DEV	VOLUME (R-K)	DEV
460.	800.000	.80380	10.9700	10.9078	-.57	10.8114	-1.45	10.7231	-2.25
460.	1000.000	.80380	8.5400	8.4786	-.72	8.3871	-1.79	8.2959	-2.86
460.	1250.000	.80380	6.6300	6.5656	-.97	6.4830	-2.22	6.3901	-3.62
460.	1500.000	.80380	5.3900	5.3259	-1.19	5.2555	-2.49	5.1634	-4.20
460.	1750.000	.80380	4.5400	4.4764	-1.40	4.4205	-2.63	4.3322	-4.58
460.	2000.000	.80380	3.9200	3.8726	-1.21	3.8319	-2.25	3.7498	-4.34
460.	2250.000	.80380	3.4600	3.4315	-.82	3.4052	-1.58	3.3306	-3.74
460.	2500.000	.80380	3.1300	3.1017	-.90	3.0876	-1.35	3.0205	-3.50
460.	2750.000	.80380	2.8680	2.8483	-.69	2.8451	-.80	2.7850	-2.89
460.	3000.000	.80380	2.6730	2.6500	-.86	2.6553	-.66	2.6015	-2.68
460.	3500.000	.80380	2.3870	2.3615	-1.07	2.3790	-.34	2.3353	-2.17
460.	4000.000	.80380	2.1920	2.1628	-1.33	2.1880	-.18	2.1518	-1.84
460.	4500.000	.80380	2.0540	2.0176	-1.77	2.0478	-.30	2.0171	-1.80
460.	5000.000	.80380	1.9490	1.9065	-2.18	1.9401	-.46	1.9135	-1.82
460.	6000.000	.80380	1.7980	1.7465	-2.86	1.7842	-.77	1.7635	-1.92
460.	7000.000	.80380	1.6880	1.6358	-3.09	1.6756	-.74	1.6586	-1.74
460.	8000.000	.80380	1.6090	1.5537	-3.44	1.5946	-.89	1.5804	-1.78
460.	9000.000	.80380	1.5490	1.4898	-3.82	1.5315	-1.13	1.5193	-1.92
460.	10000.000	.80380	1.4980	1.4385	-3.97	1.4806	-1.16	1.4698	-1.88

TABLE IX

YEAR	PROSPECT	RF	VOLUME (EXP.)	VOLUME (BTSS)	DEV	VOLUME (R-K)	DEV
53.1	222.440	0.9370	20.8397	21.6164	3.73	21.5755	3.53
73.1	292.920	0.9370	15.6135	16.2411	4.02	16.1988	3.75
93.7	367.460	0.9370	12.3900	12.9280	4.34	12.8838	3.99
113.6	440.260	0.9370	10.1900	10.6628	4.64	10.6160	4.18
116.2	514.360	0.9370	9.6034	9.0198	4.84	8.9699	4.26
127.6	567.340	0.9370	7.2853	7.7563	5.02	7.7025	4.29
136.1	661.320	0.9370	6.4072	6.7550	5.43	6.6964	4.51
147.6	734.360	0.9370	5.6070	5.9370	5.89	5.8723	4.73
156.2	807.260	0.9370	4.9502	5.2512	6.08	5.1785	4.61
164.3	881.760	0.9370	4.3899	4.6641	6.24	4.5805	4.34
172.1	955.240	0.9370	3.9091	4.1457	6.05	4.0462	3.51
179.2	1029.720	0.9370	3.4764	3.6765	5.76	3.5506	2.14
175.6	1132.260	0.9370	3.0758	3.2392	5.31	3.0596	-0.53
172.6	1175.660	0.9370	2.6911	2.8065	4.29	1.2605	-53.16
177.7	1249.160	0.9370	2.1785	2.2897	5.10	1.3105	-39.84
46.6	220.440	0.8386	20.6443	21.3573	3.45	21.2619	2.99
65.6	293.920	0.8386	15.4913	16.0530	3.63	15.9545	2.99
81.6	367.460	0.8386	12.2941	12.7859	4.00	12.6829	3.16
95.6	440.260	0.8386	10.2115	10.5603	3.42	10.4516	2.35
107.2	514.360	0.8386	8.4933	8.9260	5.09	8.8098	3.73
116.4	567.340	0.8386	7.2740	7.6673	5.41	7.5416	3.68
127.6	661.320	0.8386	6.2965	6.6661	5.87	6.5283	3.68
136.6	734.360	0.8386	5.4958	5.8535	6.51	5.7004	3.72
145.2	807.260	0.8386	4.8537	5.1783	6.69	5.0053	3.12
153.6	881.760	0.8386	4.2934	4.6003	7.15	4.3996	2.47
159.2	955.240	0.8386	3.8122	4.0912	7.29	3.8479	0.91
166.2	1029.720	0.8386	3.3863	3.6296	7.35	3.3074	-2.16
172.7	1132.260	0.8386	2.9795	3.1914	7.11	1.1734	-60.62
176.1	1175.660	0.8386	2.6113	2.7601	5.70	1.2076	-53.75
182.6	1249.160	0.8386	2.1623	2.2440	3.76	1.2284	-43.19

TABLE IX (CONT.)

Rate	PLASSA-B	PF	VOLUME (EXP.)	VOLUME (BISS)	DEV	VOLUME (R-K)	DEV
36.5	225.400	0.7392	25.2531	21.0645	3.50	20.9260	2.81
57.2	293.920	0.7392	15.2561	15.8084	3.62	15.6648	2.68
72.0	367.400	0.7392	12.0623	12.5713	4.22	12.4206	2.97
86.0	440.880	0.7392	9.9120	10.3713	4.65	10.2119	3.03
97.6	514.360	0.7392	8.3607	8.7615	4.79	8.5908	2.75
106.5	587.840	0.7392	7.1611	7.5276	5.12	7.3425	2.53
117.3	661.320	0.7392	6.2304	6.5475	5.09	6.3440	1.82
125.7	734.800	0.7392	5.4618	5.7480	5.24	5.5209	1.08
133.5	808.280	0.7392	4.8059	5.0796	5.70	4.8203	0.30
141.2	881.760	0.7392	4.2442	4.5050	6.10	4.1991	-1.06
147.5	955.240	0.7392	3.7319	3.9970	7.13	3.6106	-3.25
151.9	1028.720	0.7392	3.2835	3.4484	5.02	1.0924	-66.73
152.4	1102.200	0.7392	2.8832	2.8674	-0.54	1.0982	-61.91
159.4	1175.680	0.7392	2.4991	1.5883	-36.45	1.1094	-55.61
166.5	1249.160	0.7392	2.0023	2.1554	7.65	1.1805	-41.04
40.0	293.920	0.6241	14.9628	15.4762	3.85	15.2959	2.64
61.7	367.400	0.6241	11.8220	12.2990	4.03	12.1094	2.43
74.5	440.880	0.6241	9.7082	10.1310	4.36	9.9300	2.28
85.0	514.360	0.6241	8.1682	8.5535	4.72	8.3370	2.07
95.7	587.840	0.6241	7.0014	7.3403	4.84	7.1043	1.47
104.7	661.320	0.6241	6.0537	6.3766	5.33	6.1154	1.02
112.9	734.800	0.6241	5.3025	5.5883	5.39	5.2932	-0.17
120.3	808.280	0.6241	4.6620	4.9235	5.61	4.5792	-1.78
127.1	881.760	0.6241	4.1171	4.3491	5.63	3.9249	-4.67
133.5	955.240	0.6241	3.4764	3.8410	10.51	3.2449	-6.66
139.1	1028.720	0.6241	3.2039	3.3817	5.55	1.0938	-65.86
144.5	1102.200	0.6241	2.8632	2.9287	4.48	1.1154	-60.21
146.7	1175.680	0.6241	2.4185	2.4821	2.63	1.1342	-53.10
36.0	293.920	0.5272	14.6290	15.1820	3.78	14.9855	2.44
53.1	367.400	0.5272	11.6333	12.0795	3.84	11.8726	2.06

TABLE IX (CONT.)

TEMP	PROSSORF	CF	VOLUME (EXP.)	VOLUME (BISS)	DEV	VOLUME (R-K)	DEV
65.2	443.360	0.5272	9.5295	9.9300	4.20	9.7089	1.88
75.2	514.360	0.5272	8.0259	8.3616	4.19	8.1226	1.21
85.2	587.340	0.5272	6.8714	7.1617	4.23	6.8992	0.40
94.2	661.320	0.5272	5.9635	6.2112	4.15	5.9182	-0.76
102.2	734.300	0.5272	5.2210	5.4363	4.12	5.1020	-2.28
109.2	808.280	0.5272	4.5975	4.7905	4.20	4.3966	-4.37
116.2	881.760	0.5272	4.0523	4.2378	4.58	3.7454	-7.57
122.2	955.240	0.5272	3.5402	3.7473	5.25	2.9859	-15.66
127.2	1028.720	0.5272	3.0755	3.2529	5.77	1.0873	-64.65
131.2	1102.200	0.5272	2.6269	2.7474	4.59	1.0985	-58.18
135.2	1175.680	0.5272	2.0824	2.1784	4.61	1.1068	-46.85
32.2	587.400	0.3341	10.8889	11.4295	4.96	11.2275	3.11
44.1	440.160	0.3341	8.9527	9.3716	4.67	9.1538	2.24
54.2	514.360	0.3341	7.5136	7.8724	4.78	7.6344	1.61
64.1	587.340	0.3341	6.3921	6.7246	5.20	6.4599	1.06
72.2	661.320	0.3341	5.5101	5.8090	5.42	5.5074	-0.05
80.4	734.300	0.3341	4.7575	5.0569	6.29	4.7009	-1.19
87.7	808.280	0.3341	4.1326	4.4236	7.05	3.9776	-3.75
94.2	881.760	0.3341	3.5555	3.8773	9.05	3.2155	-9.56
100.2	955.240	0.3341	3.0437	3.3897	11.37	1.0632	-65.07
105.2	1028.720	0.3341	2.5949	2.8846	11.17	1.0855	-58.17
110.2	1102.200	0.3341	2.1144	2.3469	11.00	1.1047	-47.75
40.2	514.360	0.1708	7.1283	7.5523	5.95	7.3911	3.69
50.2	587.340	0.1708	6.0383	6.4370	6.60	6.2568	3.62
53.2	661.320	0.1708	5.1904	5.5485	6.90	5.3424	2.93
60.2	734.300	0.1708	4.4696	4.8155	7.74	4.5709	2.27
74.1	808.280	0.1708	3.8603	4.1921	8.58	3.8830	0.58
80.2	881.760	0.1708	3.3314	3.6461	9.45	3.1910	-4.21
87.2	955.240	0.1708	2.8190	3.1466	11.60	1.1136	-60.50
92.2	1028.720	0.1708	2.3227	2.6209	12.84	1.1464	-50.64

TABLE IX (CONT.)

TEMP	PERCENT	MF	VOLUME (EXP.)	VOLUME (SISS)	DEV	VOLUME (R-K)	DEV
86.2	514.860	0.0991	7.0170	7.4726	6.49	7.3703	5.03
88.4	567.840	0.0991	5.9597	6.3690	6.88	6.2559	4.97
88.0	561.320	0.0991	5.0935	5.4882	7.75	5.3587	5.21
92.8	704.800	0.0991	4.3888	4.7602	8.40	4.6081	5.00
75.2	505.200	0.0991	3.7803	4.1417	9.56	3.9539	4.59
77.1	541.700	0.0991	3.2522	3.6027	10.70	3.3489	2.97
83.8	605.240	0.0991	2.7391	3.0992	13.15	2.5614	-6.49

REFERENCES

- 1 Bierlein, J.A., Kay, W.B., Ind. Eng. Chem. 45, 618 (1953)
- 2 Bloomer, O.T., Parent, J.D., Chem. Eng. Prog. 49,
Symposium Series No. 6, p. 18
- 3 Chueh, P.L., Prausnitz, J.M., Ind. Eng. Chem. Fundamen-
tals 6, 492 (1967)
- 4 Cook, D., Proc. Roy. Soc. A 219, 245 (1953)
- 5 Donnelly, H.G., Katz, D.L., Ind. Eng. Chem. 46, 511 (1954)
- 6 Hirschfelder, J.O., Curtiss, C.F., Bird, R.B., "Molecular
Theory of Gases and Liquids", p 250 - 253, John Wiley, New
York, 1967
- 7 Joffe, J., Zudkevitch, D., Ind. Eng. Chem. Fundamentals,
5 455 (1966)
- 8 Joffe, J., Zudkevitch, D., Chem. Eng. Prog. Symposium
Series 63, 43 (1967)
- 9 Kay, W.B., Ind. Eng. Chem. 33, 590 (1941)
- 10 Kay, W.B., Rambosek, G.M., Ibid., 45, 221 (1953)
- 11 Lu, H., Hewitt, D.M., Ruhemann, M., Proc. Roy. Soc.
A 178, 506 (1941)
- 12 Olds, R.H., Reamer, H.H., Sage, B.H., Lacey, W.N.,
Ind. Eng. Chem. 41, 475 (1949)
- 13 Perry, J.H., Chilton, C.H., Kirkpatrick, S.D., "Perry's
Chemical Engineer's Handbook," p. 3.100, McGraw Hill,

New York, 1963

- 14 Poettman, F.H., Katz, D.L., Ind. Eng. Chem, 37, 847 (1945)
- 15 Reamer, H.H., Olds, R.H., Sage, B.H., Lacey, W.N., Ibid.,
36, 88 (1944)
- 16 Reamer, H.H., Olds, R.H., Sage, B.H. Lacey, W.N., Ibid.,
34, 688 (1945)
- 17 Reamer, H.H., Sager, B.H., Lacey, W.N., Ibid., 43, 2515
(1951)
- 18 Reamer, H.H., Sage, B.H., Lacey, W.N., Ibid., 45, 1806
(1953)
- 19 Reamer, H.H., Selleck, F.T., Sage, B.H., Lacey, W.N., Ibid.,
44, 198 (1952)
- 20 Redlich, O., Kister, A.T., J. Chem. Phys. 36, 2002 (1962)
- 21 Redlich, O., Kwong, J.N.S., Chem. Revs. 44, 233 (1949)
- 22 Roberts, L.R., Wang, R.H., Azarnoosh, A., McKetta, J.J.,
J. Chem. Eng. Data I, 484 (1962)
- 23 Sage, B.H., Hicks, B.L., Lacey, W.N., Ind. Eng. Chem. 32,
1085 (1940)
- 24 Smith, J.M., Van Ness, N.C., " Introduction to Chemical
Engineering Thermodynamics, " p. 97, McGraw Hill, New York,
1959
- 25 Sutton, J.R., Third Symposium on Thermophysical Properties,

Heat Transfer Div., A.S.M.E., Purdue Univ. (March 22-25,
1965)

- 26 Watson, L.M., Dodge, B.F., Chem. Eng. Prog. 48, Symposium
Series No. 3, p. 73