



EXPERIMENTAL STUDY OF THE TURBULENT MIXING OF SUBSONIC AXISYMMETRIC GAS STREAMS

D. E. Chriss
ARO, Inc.

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FOREWORD

The work reported herein was sponsored by the USAF Office of Aerospace Research and the Arnold Engineering Development Center (AEDC), Air Force Systems Command (AFSC), Arnold Air Force Station, Tennessee, under Program Element 6144501F, Project 6952, Task 695202.

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This technical report has been reviewed and is approved.

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ABSTRACT

An experimental study of the turbulent mixing of subsonic axisymmetric gas streams was conducted. Hydrogen-air and air-air mixing systems were studied, and the velocity ratio (jet velocity/outer stream velocity) was varied from 2.4 to 6.3. Special emphasis is placed on (1) the centerline decay and radial profile shapes of composition, velocity, and total enthalpy and (2) the relationships between the turbulent transport of mass, momentum, and energy. The major conclusions drawn for this particular set of conditions are (1) for the hydrogen-air system the centerline decay decreases with increasing velocity ratio, (2) profile similarity of composition, velocity, and total enthalpy is a valid assumption, (3) there is a definite relationship between the transport of momentum and energy which is not compatible with a constant Prandtl number, and (4) unity Lewis number is a valid assumption. The experimental data obtained are tabulated for the benefit of other investigators.

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NOMENCLATURE

b	Mixing zone width
$\bar{C}$	Hydrogen mass fraction
C_p	Specific heat at constant pressure
D	Inner nozzle diameter
H	Enthalpy
H_a	Enthalpy of air
H_h	Enthalpy of hydrogen
k	Constant in Prandtl eddy viscosity model
M	Mach number
P	Pressure
P_b	Barometric pressure
P_{TH}	Total pressure in the inner plenum
Pr	Prandtl number
R	Radius
R^*	Radius of control volume
$\bar{R}$	Universal gas constant
$R_{.1}$	Radius at which $u = 0.1 (u_c - u_o) + u_o$
$R_{.9}$	Radius at which $u = 0.9 (u_c - u_o) + u_o$
R_B	$\frac{R - R_{.9}}{R_{.1} - R_{.9}}$
R_i	Radius of the potential core
R_{mc}	Radius at which $C = 0.5 C_c$
R_{mu}	Radius at which $u = 0.5 (u_c - u_o) + u_o$
R_o	Radius of the inner nozzle
T	Temperature
T_{TH}	Total temperature in the inner plenum
u	Velocity in the axial direction
u_{max}	Maximum velocity in Prandtl eddy viscosity model

$u_{\min}$	Minimum velocity in Prandtl eddy viscosity model
v	Velocity in the radial direction
$\dot{W}$	Hydrogen mass flow rate from mass balance
$\dot{W}_j$	Hydrogen mass flow rate from metering orifice measurement
x	Axial distance
x_o	Potential core length
x_{oc}	Potential core length from composition
x_{ou}	Potential core length from velocity
γ	Ratio of specific heats
Δ	Combined boundary-layer thickness
ϵ	Eddy viscosity
λ	Mass flux ratio, $\rho_j u_j / \rho_o u_o$
ρ	Density
ϕ_H	$\frac{H - H_o}{H_j - H_o}$
ϕ_u	$\frac{u - u_o}{u_j - u_o}$
ψ_u	$\frac{u - u_o}{u_c - u_o}$
ω	Molecular weight

SUBSCRIPTS

c	Centerline
j	Jet
o	Outer stream
s	Static
t	Total

SECTION I INTRODUCTION

The turbulent mixing between high-speed coaxial streams is of primary importance in many engineering devices, such as jet pumps, ejectors, and ramjet combustors. The flow in these devices must at best be analyzed by semiempirical techniques because there is no fundamental and complete theory for turbulent flows. Numerous investigations of the turbulent mixing process have been conducted, but they have failed to produce a generalized theory. The main reason for the lack of success in solving this problem is that the turbulent transport properties are a function of the fluid dynamics of the flow system.

The case of a single jet mixing with a quiescent medium has been given considerable attention by a number of investigators. Most of these studies were limited to incompressible flow, and the results are well covered by Schlichting (Ref. 1) and Pai (Ref. 2). One of the first investigations of the case of two coaxial streams mixing together was conducted by Forstall and Shapiro (Ref. 3). An inner stream composed of air with ten percent by volume of helium as a tracer was mixed with an outer stream of air. The gas velocities were in the low subsonic range, and the temperatures were maintained nearly equal. The main conclusions were that (1) momentum is transported less rapidly than mass and (2) the normalized velocity and composition profiles exhibit shape similarity; that is, the nondimensional radial profiles are invariant with axial distance.

Alpinieri (Ref. 4) obtained experimental data on the turbulent mixing between carbon dioxide and hydrogen central jets exhausting into a moving concentric stream of air. The flow velocities were in the low to high subsonic range, and the temperatures of the streams were approximately equal. Radial and axial distributions of composition and velocity were presented. Alpinieri verified Forstall and Shapiro's conclusion that mass is transported more readily than momentum. Also, Alpinieri concluded that the mixing rate does not approach zero when either the velocities or the mass fluxes of the stream are equal. Conclusions contrary to this were suggested by turbulent eddy viscosity models proposed by other investigators such as Prandtl as presented by Schlichting (Ref. 1) and Ferri (Ref. 5). The eddy viscosity models in question are as follows:

1. Eddy viscosity model proposed by Prandtl

$$\epsilon = kb(u_{\max} - u_{\min})$$

2. Eddy viscosity model proposed by Ferri

$$\epsilon = \frac{kb}{\rho} (\rho_o u_o - \rho_c u_c)$$

Zakkay and others (Ref. 6) conducted an experimental investigation to determine the turbulent transport coefficients for hydrogen-, helium-, and argon-air mixing systems. Central jets of hydrogen, helium, and argon at subsonic velocities were injected into an outer stream of air maintained at a constant Mach number of 1.6. The ratio of the inner jet velocity to the outer stream velocity for the hydrogen-air mixing system was varied from 0.768 to 2.42. In addition to turbulent transport coefficients, centerline decay of velocity and composition was presented. A comparison between Zakkay's results and results from the current investigation is given in Section 3.3.

1.1 OBJECTIVE AND JUSTIFICATION

The objective of this experimental investigation was to document the turbulent mixing of subsonic axisymmetric hydrogen and air streams at velocity ratios which have not been previously reported. This is part of a more extensive investigation of turbulent mixing systems. The objective of the overall investigation is to develop empirical data on free turbulent flows over a broad range of conditions, so that more perceptive semiempirical theories can be developed. Special emphasis is placed on (1) determining the effect of velocity ratio and density gradients on the centerline decay of composition, velocity, and total enthalpy, and on the composition, velocity, and total enthalpy profile shapes, and (2) presenting nondimensional composition, velocity, and total enthalpy relationships which are indicative of the turbulent Prandtl, Lewis, and Schmidt numbers.

Integral techniques for solving turbulent mixing problems (Refs. 7 and 8) employ the assumption that composition, velocity, and total enthalpy profiles exhibit shape similarity. Forstall and Shapiro (Ref. 3) listed the following relationships as being representative of their velocity profile shapes:

Cosine curve

$$\frac{u - u_o}{u_c - u_o} = \frac{1}{2} \left(1 + \cos \frac{\pi R}{2 R_{mu}} \right)$$

Three-halves power curve

$$\frac{u - u_o}{u_c - u_o} = \left[1 - 0.293 (R/R_{mu})^{3/2} \right]^2$$

and error curve

$$\frac{u - u_o}{u_c - u_o} = \left[\frac{1}{2} \right]^{(R/R_{mu})^2}$$

If profile shape similarity is a valid assumption, a representative profile curve, the centerline and outer stream velocities, and a characteristic width are sufficient to determine the radial velocity distribution at any axial location.

In most proposed methods for solving turbulent mixing problems, the turbulent Prandtl and Lewis numbers are assumed to be unity to simplify the mathematical procedure. If the Prandtl and Lewis numbers are unity, the Schmidt number must be unity by definition. If the Prandtl and Lewis numbers are unity and the laminar transport coefficients are replaced by the corresponding turbulent values, the boundary-layer equations for axisymmetric flow may be written as follows:

Momentum equation,

$$\rho u \frac{\partial u}{\partial x} + \rho v \frac{\partial u}{\partial R} = \frac{1}{R} \frac{\partial}{\partial R} \left(\rho \epsilon R \frac{\partial u}{\partial R} \right) - \frac{\partial P}{\partial x} \quad (1)$$

Energy equation,

$$\rho u \frac{\partial H}{\partial x} + \rho v \frac{\partial H}{\partial R} = \frac{1}{R} \frac{\partial}{\partial R} \left(\rho \epsilon R \frac{\partial H}{\partial R} \right) \quad (2)$$

Conservation of elemental species,

$$\rho u \frac{\partial C}{\partial x} + \rho v \frac{\partial C}{\partial R} = \frac{1}{R} \frac{\partial}{\partial R} \left(\rho \epsilon R \frac{\partial C}{\partial R} \right) \quad (3)$$

and

Global continuity equation,

$$\frac{\partial (\rho u)}{\partial x} + \frac{1}{R} \frac{\partial (\rho v R)}{\partial R} = 0 \quad (4)$$

For the case of constant pressure mixing of an initially uniform infinite stream, the $\partial P / \partial x$ term in Eq. (1) is zero, and Eqs. (1), (2), and (3) are identical in form. If the reference conditions are constant and the boundary conditions are similar, a linear relation may be obtained between the variables u , H , and C :

$$\frac{u - u_o}{u_j - u_o} = \frac{H - H_o}{H_j - H_o} = \frac{C - C_o}{C_j - C_o} \quad (5)$$

The experimental relationships between the terms of Eq. (5) are presented in this investigation as being indicative of the Prandtl and Lewis number variation.

1.2 APPROACH

In general, turbulent mixing is influenced by the following factors:

1. Velocity ratio between the streams,
2. Density gradients in the mixing region,
3. Axial and radial static pressure gradients, and
4. Initial boundary-layer and free-stream turbulence level.

The approach which has been taken in this investigation is to reduce the effect of initial boundary-layer and static pressure gradients and to concentrate on the effects of velocity ratio and the density field. The initial boundary-layer effect was reduced by designing the nozzle to minimize the boundary-layer thickness at the entrance to the test section. The initial boundary-layer results are discussed in Section 3.6. The static pressure variation was minimized by exhausting to atmosphere as a free jet and maintaining the flows subsonic so that shock waves were not formed. However, the static pressure in the mixing region was measured, and the gradients near the nozzle exit were larger than anticipated. Static pressure data are presented in Section 3.7.

Hydrogen-air and air-air turbulent mixing systems were investigated. The hydrogen-air system was chosen to provide a system with very large density gradients. Also, the high speed of sound of hydrogen makes it possible to attain high velocities while the Mach numbers remain subsonic. Furthermore, hydrogen-air mixtures are frequently used in combustion processes, and the results should be useful when chemically reactive systems are investigated. The air-air system is studied because it provides a system with small density gradients to use for comparison with the high density gradient system.

The approach of this investigation required that a large amount of experimental data be obtained. The experimental measurements are time-mean average values because techniques for measuring the fluctuating quantities are not well developed, especially in the high velocity region.

SECTION II APPARATUS AND PROCEDURE

2.1 FREE-JET MIXING TEST CELL

A schematic diagram of the free-jet mixing test cell is shown in Fig. 1 (Appendix I). Air, which may be heated to 1500°R by an

indirect-fired heater, flows around the inner plenum and nozzle. It then passes through a 3.5-in. -diam subsonic nozzle to form an annulus around the subsonic flow from the inner nozzle. The inner nozzle diameter is 0.5 in., and the thickness of the trailing edge is 0.005 in. The inner nozzle and outer nozzle configuration was designed to produce as small an initial boundary layer at the entrance to the test section as practical. The inner and outer nozzles were aligned to give flow with centerlines which are parallel within less than 0.5 deg. The alignment was checked by means of total pressure measurements in the downstream flow field. The test section is open to the atmosphere, but the gases from the nozzle are removed by a downstream scoop attached to the RTF exhaust system.

2.2 INSTRUMENTATION

A Systems Engineering Laboratory (SEL) 600 data acquisition system was used to record all of the data in millivolts on magnetic tape. The temperatures were measured with copper-constantan and iron-constantan thermocouples, and the pressures were measured with strain-gage-type transducers. The gas composition was measured with a fluid oscillator, which was developed by the RTF Research Branch (Ref. 9). The probe positions were indicated by wire-wound potentiometers mechanically connected to the probe, and the inner stream flow rate was measured with a calibrated choked orifice. Estimates of the accuracy of the measured parameters are presented in Appendix III.

A dual-probe arrangement was used to measure the total pressure, total temperature, gas composition, and static pressure at various stations throughout the flow field. A photograph and a sketch of the dual-probe arrangement are shown in Fig. 2, and a schematic diagram of the probe-related components is shown in Fig. 3. The probe used to measure total pressure, total temperature, and gas composition is operated in two modes. Total temperature and gas composition are recorded on one mode when the probe is aspirated to a vacuum source, and total pressure is recorded on the other mode when there is no flow through the probe. Static pressure is recorded during both modes of operation. The static pressure measurements as recorded are displaced 0.5 in. to one side of the total pressure probe measurements. They are shifted in the data reduction program to align with the total pressure probe measurements.

The dual-probe arrangement is actuated in the flow field by a three-position probe actuator. The probe location and the initial test conditions were monitored on an X-Y-Y plotter and strip-chart recorders.

2.3 TESTING PROCEDURE

In-place calibrations were made on all of the pressure transducers and potentiometers before each test. The temperature channels were calibrated by applying two different millivolt levels. Next, the test conditions were established by setting the total pressure in the inner and outer plenums and the total temperature of the outer airstream. The conditions were allowed to stabilize, and then the probe was set on the vertical centerline of the flow field by the following procedure: The probe was located on the approximate horizontal centerline of the jet by using the peak of the horizontal total pressure profile. Then the probe was moved axially to the decaying region of the jet and actuated vertically. The vertical centerline was taken to be the location of maximum pressure if the jet total pressure was greater than the outer stream total pressure or the minimum pressure if the jet total pressure was below the outer stream pressure. ..

The data were recorded by a data acquisition system which is operated in the following manner: The probe is traversed radially at a fixed axial location until the desired radial location is reached. A single switch starts a sequence which stops the probe and begins to record each data item 300 times per second. The probe is put into the total temperature and gas composition mode of operation, then into the total pressure mode. The time in each mode of operation is indicated by a function signal switch recorded on magnetic tape. The magnetic tape drive is stopped automatically when all data at the radial location have been recorded. The probe drive is engaged automatically to traverse the probe to the next radial data point location selected by the test conductor. The total time required to obtain a data point in a radial survey is approximately 5 sec. After data points have been recorded to give complete profiles at a given axial location, the radial traverse of the probe is stopped, and the probe is moved to another axial location where the next radial profile is obtained.

2.4 DATA REDUCTION PROCEDURE

The data are reduced in three steps with the aid of a digital computer. First, the magnetic tape from the SEL 600 tape system is processed through a data reduction program which uses the calibrations to convert the millivolt signals to engineering units of pressure, temperature, and probe position. The data are averaged over 0.167-sec intervals (50 scans) to obtain the mean values. The data recorded during stabilization of the parameters were discarded. A printout and a tape are made of the resulting engineering units data.

Second, the engineering units tape is reduced by computer to give gas mixture properties at each probe position. The properties obtained are composition, density, velocity, and total enthalpy at the initial stream conditions and at local points in the flow field. The methods of calculating the specific properties are given in Appendix IV. These basic properties are recorded on the tape to be used as the inputs for the final reduction program. The method by which the data are further reduced may change as the knowledge of turbulent mixing increases. For this reason, the basic properties tape is stored so that other methods of data reduction may be applied to it in the future.

Finally, the basic properties tape is reduced to provide profiles of nondimensionalized velocity, composition, and total enthalpy as well as relationships between the transport of mass, momentum, and energy. Also, a hydrogen mass balance is made at each axial station recorded by integrating the hydrogen mass flux ($\rho u C$) over the radial distance to a control volume outside the mixing zone. The mass balance is compared with the hydrogen flow measured with a calibrated choked orifice to give a consistency check. The results of the consistency check are given in Appendix V.

SECTION III DISCUSSION OF RESULTS

3.1 FLOW FIELD DESCRIPTION

The jet gas and the outer stream gas mix in the inner mixing zone as shown schematically in Fig. 4. For all cases investigated, the jet gas used was either hydrogen or air at ambient temperature. Only regimes I and II are considered in this investigation. In regime III, the conditions in the outer stream are a function of the outer stream mixing with the surrounding quiescent air. This provides a problem with different boundary conditions from the problem under consideration. The inner potential core length varies with the test conditions. The inner potential core is defined as the region in which the composition and velocity are constant and equal to the inner nozzle exit conditions.

3.2 EXPERIMENTAL DATA

Experimental data were obtained for nine different test conditions. The velocities, total pressures, and total temperatures for these tests are tabulated in Table I (Appendix II). These data are divided into three

test series. Series I and II are hydrogen-air mixing tests. For the first five test conditions (Series I), the total pressure of the two streams was set to give a range of velocity ratios from 2.4 to 6.3. In Series II, the next three test conditions, the outer stream temperature was raised from 650 to 1050°R. The total pressures were varied to give velocity ratios from 2.5 to 4.6. Series III, the last test condition, was an air-air mixing test at a velocity ratio of 2.4.

In the near field region* the gradients of composition, total pressure, static pressure, and total temperature were very large. Insufficient data were obtained to define the profiles adequately because the increment traveled between radial points was too large. For this reason, much of the data in this region is omitted from the results presented. The main difficulty in using the near field data is that the radial centerline of the flow cannot be accurately determined. The experimental centerline is determined by fitting the center portion of the composition distribution with an exponential curve and using the center of the exponential curve as the centerline of the flow field. When there are insufficient data to define the curve, this procedure gives centerlines which are obviously in error.

The experimental data are presented in tabular form in Appendix VI. A discussion of the probable accuracy of the experimental measurements is presented in Appendix III.

3.3 CENTERLINE DECAY

The centerline decay of composition and velocity for all of the hydrogen-air mixing tests is shown in Figs. 5 and 6, respectively. The composition and the velocity are nondimensionalized in the same manner. However, for the hydrogen-air system, $C_j = 1$ and $C_o = 0$; therefore,

$$C = \frac{C - C_o}{C_j - C_o}$$

These curves indicate that the centerline decay decreases with increasing velocity ratio (u_j/u_o) for systems with approximately the same density ratio (ρ_j/ρ_o). The centerline decay is indicative of the rate at which the streams mix. If the centerline decay decreases, the rate of mixing decreases; also the length of the potential core increases as the

*The region less than two nozzle diameters from the nozzle exit plane.

centerline decay decreases. The length of the potential core was determined by the method suggested by Zakkay and others (Ref. 6). The centerline composition was plotted versus axial distance on logarithmic paper. A curve through the data was extrapolated until it intersected the line corresponding to 100-percent jet gas concentration. It was assumed that the intersection defines the core length. A similar method was used to determine the velocity core lengths. The velocity core lengths were longer than the corresponding composition core lengths, which indicates that the transport of mass is more rapid than the transport of momentum.

It is interesting to note that the result obtained — that the mixing decreases as the velocity ratio increases — is exactly opposite to that predicted by the Prandtl eddy viscosity model presented in Section I.

The density ratio of the inner jet gas to the outer stream gas was increased in Series II by heating the outer stream gas. The density ratio was increased even more in Series III by using air as the jet gas as well as the outer stream gas. Figure 7 presents a comparison of the centerline velocity decay for the three different density ratios at approximately constant velocity ratio. The curves show that the mixing rate decreased with increasing density ratio for constant velocity ratio conditions. Since the mixing rate decreases with increasing velocity ratio and with increasing density ratio, it might appear that there would be a correlation between the mixing rate and the mass flux ratio ($\rho_j u_j / \rho_o u_o$). Another possible reason for considering this correlation is that the eddy viscosity model of Ferri, presented in Section I, is based on mass flux difference. This correlation was attempted using the centerline decay data, but it did not prove to be a valid correlation. In other words, the mixing rate did not decrease monotonically with increasing mass flux ratio.

Zakkay and others (Ref. 6) found the composition decay downstream of the potential core to follow the relationship $C_c = (x/x_{oc})^{-2}$. Figure 8 shows a comparison between Zakkay's results and the data from this investigation. By considering the expression $C_c = (x/x_{oc})^{-n}$, where Zakkay found $n = 2$, the results from this investigation gave $n = 1.7$. Zakkay also presented a generalized expression for potential core length variation with mass flux ratio. Figure 9 shows a comparison between Zakkay's generalized expression and data from this investigation. The dashed curve represents the function $x_o/R_o = 13\sqrt{\lambda}$, and it agrees reasonably well with the experimental data. The slopes of the dashed curve and the solid curve from Zakkay's expression are the same, but the constants differ by 40 percent. Zakkay's generalized expressions

do not seem to apply in this higher velocity ratio regime; however, differences in the initial conditions, such as boundary-layer thickness, may account for the discrepancies.

Figure 10 is a comparison of the centerline decay of composition, velocity, and total enthalpy for representative tests in Series I and II. These curves show that mass and energy are transported more rapidly than momentum.

The composition and total enthalpy decay is approximately equal for all of the tests conducted. This result may be expected in the Series I tests because the enthalpy was a stronger function of composition than of temperature, and the temperature difference between the streams was only 100°R. But, in the Series II tests, the temperature difference was 500°R, and the effect of different turbulent transport properties for heat and mass should be evident. Since nondimensionalized composition and total enthalpy were equal for the Series II tests, the turbulent transport coefficients appear to be equal. Consequently, the turbulent Lewis number is unity.

3.4 PROFILE SHAPES

The nondimensional composition for all of the hydrogen-air tests is plotted versus radial distance in Fig. 11. The composition is nondimensionalized and normalized by dividing by the centerline composition. The nondimensionalized radius is obtained by dividing by the radius at which the composition is one-half of its centerline value. A band representative of the data in Fig. 11 is presented in Fig. 12. Curves obtained from three different mathematical functions (cosine, exponential, and power law) are compared with the experimental data band. Each of the curves presented gives reasonably good agreement with the experimental data.

Nondimensional velocity is plotted versus radial distance in Fig. 13. The parameters were nondimensionalized and normalized in a manner similar to those in Fig. 11. The solid curve, which fits the data well, is the cosine function. The data in Figs. 11 and 13 are representative of all hydrogen-air test conditions and all axial locations in the second regime. The curves indicate that profile similarity is an adequate assumption for engineering calculations in the velocity ratio range considered. The data outside R/R_{mc} and $R/R_{mu} = 2.5$ are not considered because the data in this region have a small hydrogen concentration, a small velocity difference, and consequently, a large uncertainty in the calculated values (see Appendix III). The nondimensionalizing radii for

composition and velocity are presented in Table II so that the actual radii may be obtained from the curves in Figs. 11 and 13.

Figure 14 presents a comparison between typical experimental composition and velocity profiles from the same axial location for two different tests. The nondimensionalized composition and velocity are plotted versus radial distance. The composition profile is slightly wider than the velocity profile in each case.

In the first regime, the statement of profile similarity is

$$\frac{u - u_o}{u_j - u_o} = f\left(\frac{R - R_i}{b}\right)$$

The term (R_i) is the radius of the potential core, and b is the mixing zone width. Since it is very difficult to determine R_i or b accurately, the expression

$$\frac{R - R_o}{R_{.1} - R_o}$$

which is related to

$$\frac{R - R_i}{b}$$

is used in Fig. 15 to illustrate velocity profile similarity. The solid curve is obtained from the cosine expression,

$$\psi_u = \frac{1}{2} \left[1 + \cos \frac{\pi}{1.8} (R_B + 0.4) \right]$$

and agrees quite well with the data.

3.5 MOMENTUM, ENERGY, AND MASS TRANSPORT

In Fig. 16, the nondimensionalized velocity is plotted versus the nondimensionalized total enthalpy for all of the hydrogen-air tests. The velocity was nondimensionalized by using the jet velocity, instead of the centerline velocity, in this case. The dashed curve is the result for unity Prandtl number, and deviation from it is indicative of nonunity Prandtl number. These same parameters are plotted in Fig. 17 for the air-air test, and a distinctly different trend is evident.

There appears to be a definite relationship between the transport of energy and the transport of momentum. However, it is not obvious how to estimate the Prandtl number for this relationship. It is possible that a relationship between the velocity and total enthalpy, such as the ones presented in Figs. 16 and 17, may be more useful for engineering

calculations than the Prandtl number. This is even more probable if the Prandtl number must be treated as a variable.

Composition is plotted versus nondimensionalized total enthalpy in Fig. 18. The solid curve indicates the result for unity Lewis number. The experimental points deviate only slightly from the curve, which indicates that unity Lewis number is a good assumption for these data.

In all hydrogen-air tests, the turbulent transport of mass and total enthalpy is more rapid than the transport of momentum. This result is in agreement with other investigations reported (Refs. 3 and 4).

The data presented in this report are being further reduced to determine the turbulent transport coefficients. This is being done by numerically solving a set of integral equations involving density, velocity, pressure, composition, and enthalpy. The ratio of the transport coefficients will be used to determine the variation in Prandtl number indicated in Figs. 16 and 17. The results of this work will be presented in a future report.

3.6 BOUNDARY-LAYER THICKNESS

Total pressure distributions downstream of the nozzle lip were measured to determine the boundary-layer thickness. The measurements were made with a stainless steel probe of 0.004-in. OD and 0.001-in. wall. The total pressure traverses were made at axial stations less than 0.010 in. downstream of the nozzle lip. Data for one hydrogen-air condition and two air-air conditions are presented in Fig. 19. The combined width of the inner and outer boundary layers (Δ) is approximately 14 percent of the inner nozzle radius. The thickness (Δ) is measured between the 99-percent velocity points in the inner and outer boundary layers and includes the thickness of the nozzle lip.

3.7 STATIC PRESSURE

Typical static pressure distributions are presented in Figs. 20 and 21. The pressure gradients are relatively large in the near field region; however, in a short distance, the gradients are smoothed to less than one-percent variation.

SECTION IV CONCLUSIONS

The primary differences between this investigation and other investigations of turbulent mixing are that (1) the initial boundary-layer effect was reduced by designing the nozzles to minimize the boundary-layer buildup at the entrance to the test section, and (2) the velocity ratio range was higher than that previously reported. The following conclusions may be drawn for subsonic, axisymmetric mixing, from this experimental investigation.

1. For hydrogen-air mixing systems, the centerline decay of composition and velocity decreased with increasing velocity ratio (jet velocity/outer stream velocity). Also, the centerline decay of velocity decreased with increasing density ratio for systems with the same initial velocity ratio.
2. Similarity of composition, velocity, and total enthalpy profiles is a valid assumption for engineering calculations in the velocity ratio range from 2.4 to 6.3 for hydrogen-air mixing systems. The commonly used expressions for the profile shapes, such as the cosine function, the three-halves power law, and the error curve, are representative of the shapes.
3. There appears to be a definite and consistent relationship between the transport of momentum and energy for hydrogen-air and air-air mixing systems. The Prandtl number is not unity, and it is not obvious that it is a constant.
4. Unity Lewis number is a valid assumption in the velocity ratio range considered, at least for streams which have moderate temperature differences (jet gas temperature/outer stream temperature less than 1.0 but greater than 0.5).

The data presented in this report are being further reduced to determine the turbulent transport coefficients. The results of this work will be presented in a future report.

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APPENDIXES

- I. ILLUSTRATIONS**
- II. TABLES**
- III. RELATIVE ERROR ANALYSIS**
- IV. CALCULATION PROCEDURE**
- V. CONSISTENCY CHECK**
- VI. EXPERIMENTAL DATA**

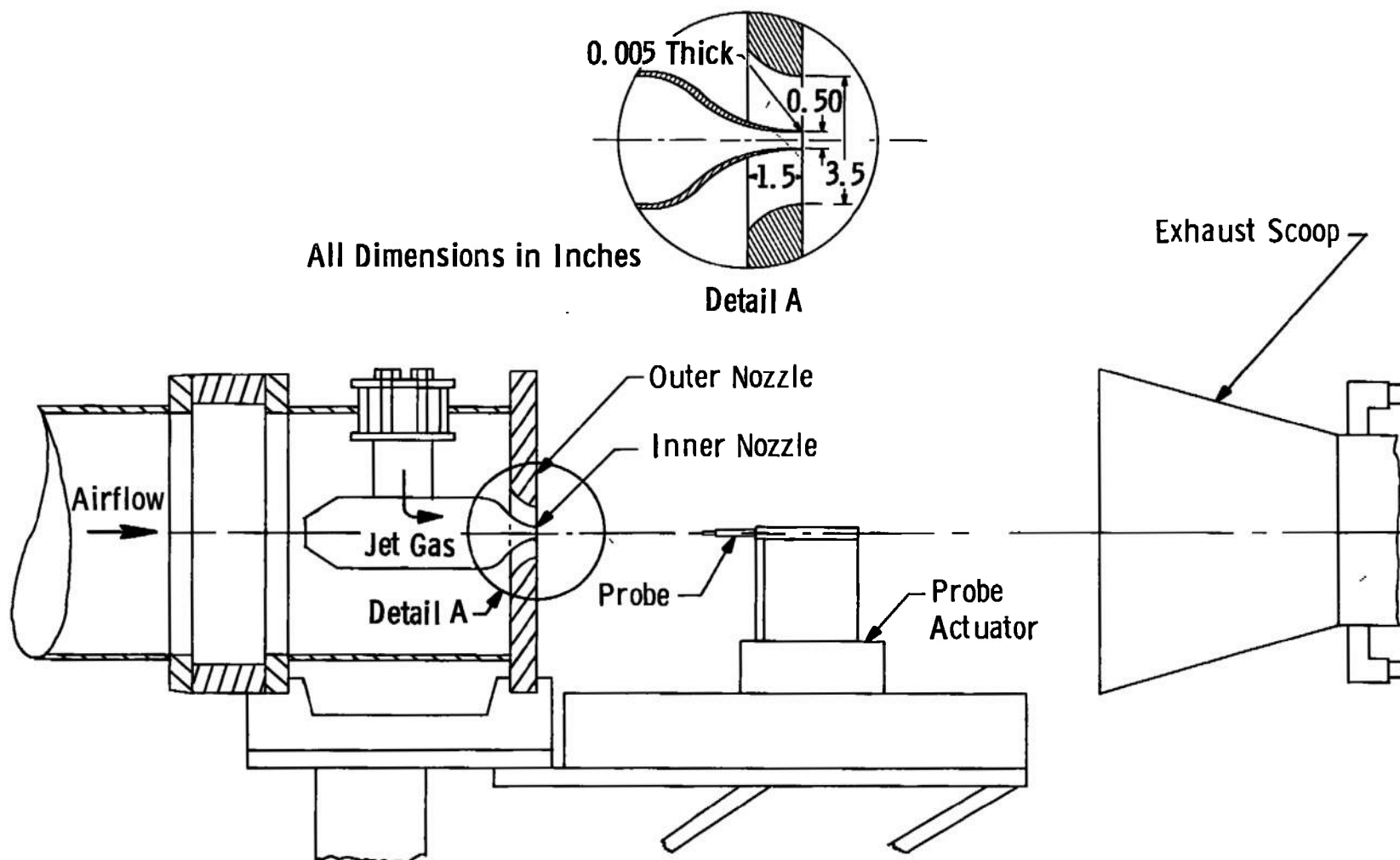


Fig. 1 Schematic Diagram of the Free-Jet Mixing Test Cell

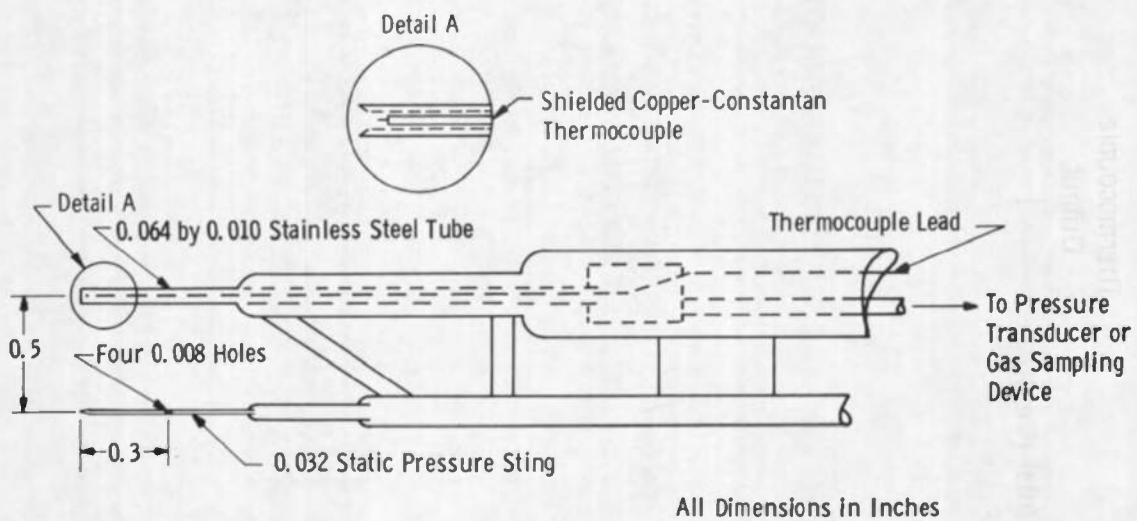
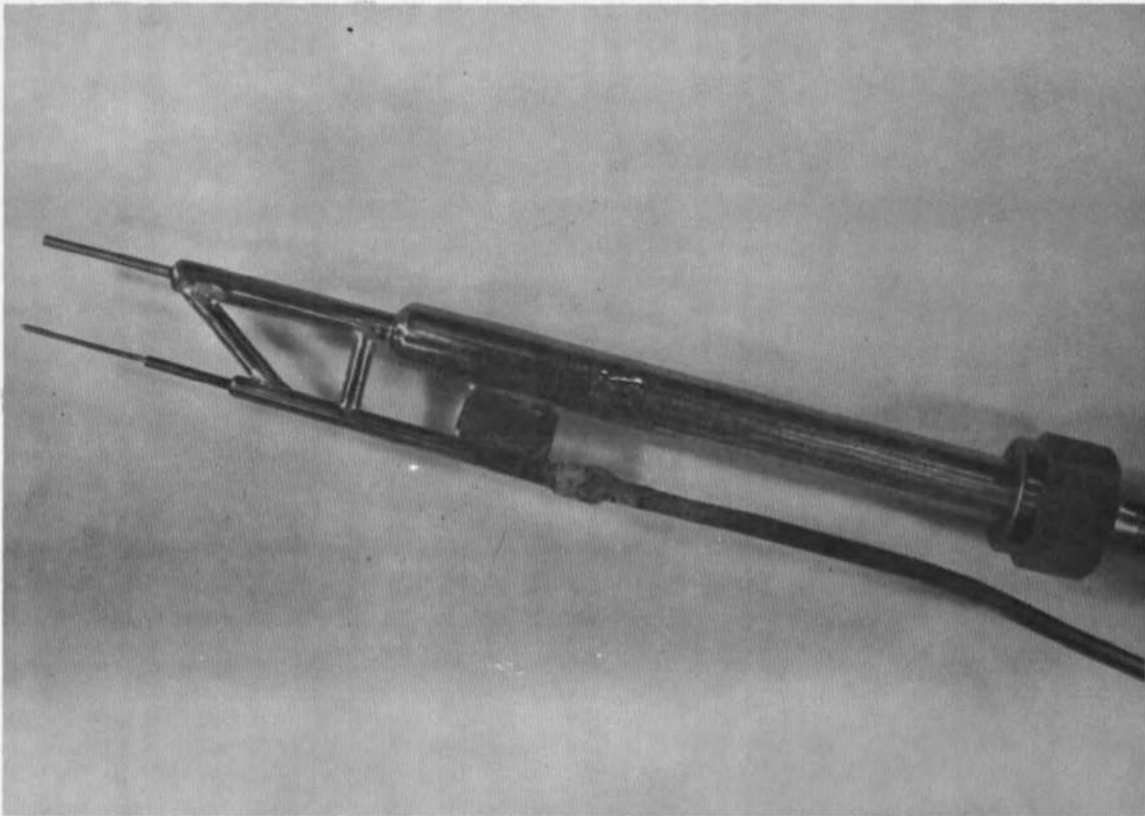


Fig. 2 Dual-Probe Arrangement

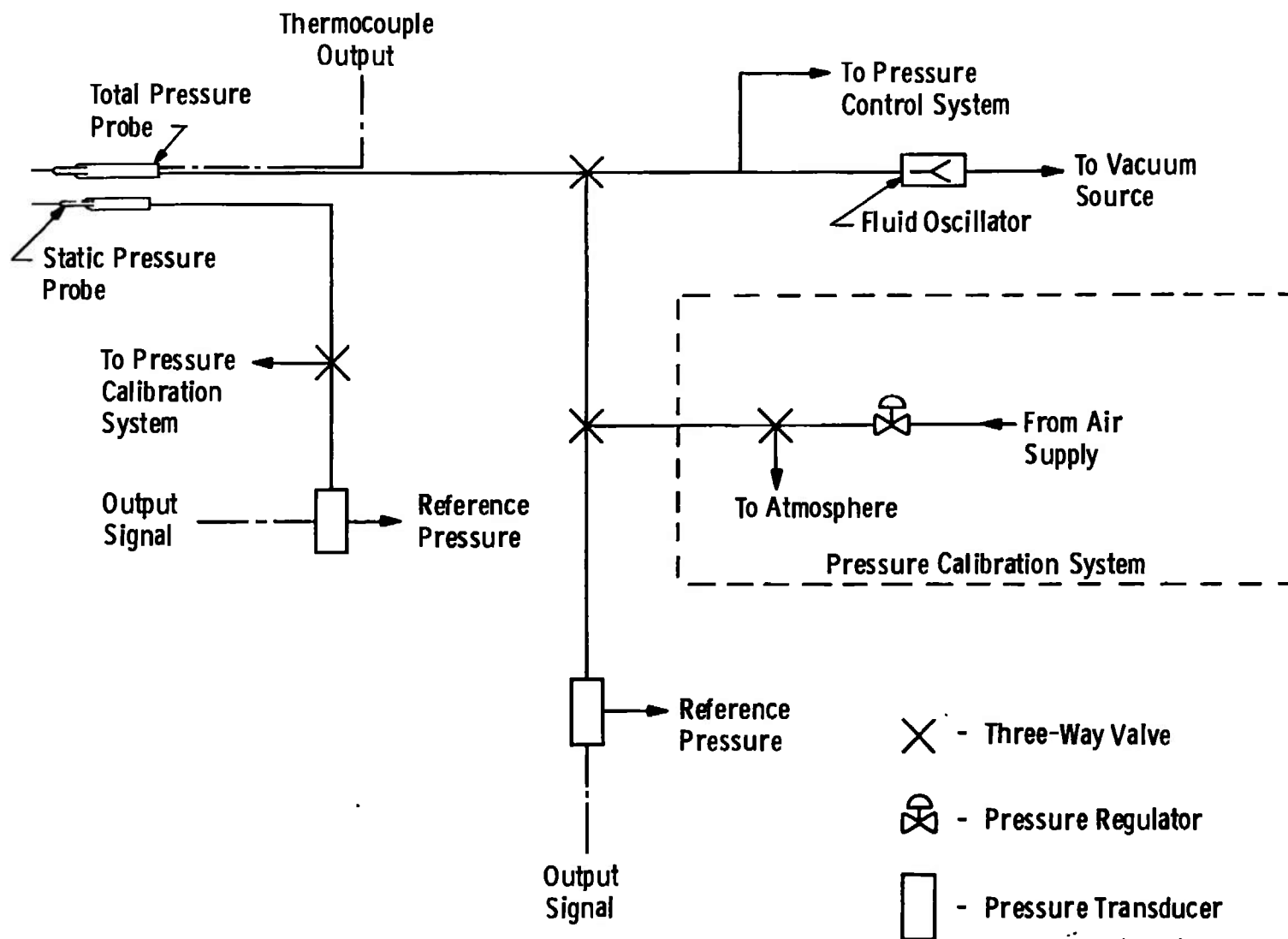


Fig. 3 Probe-Related Components

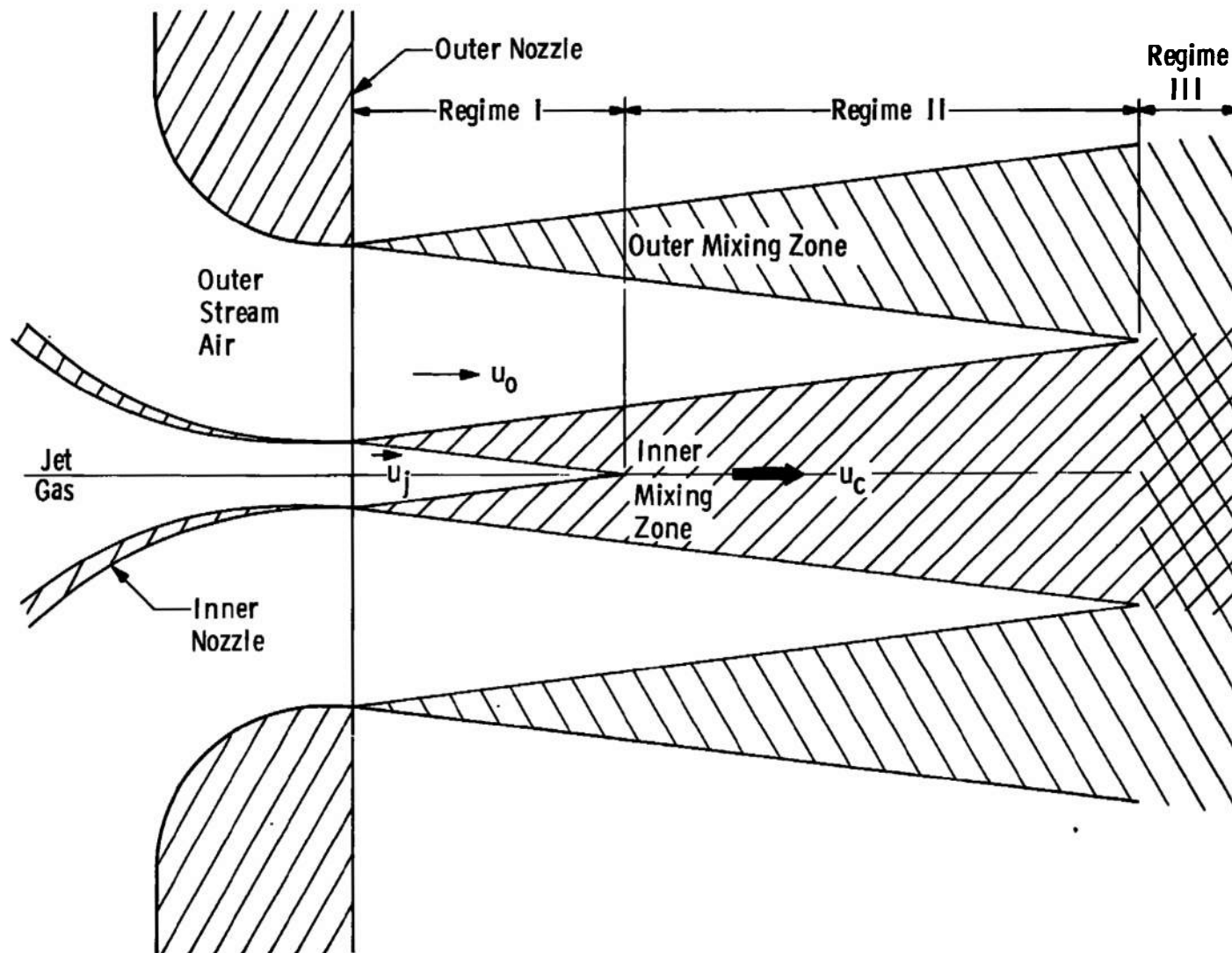


Fig. 4 Free-Jet Mixing Configuration

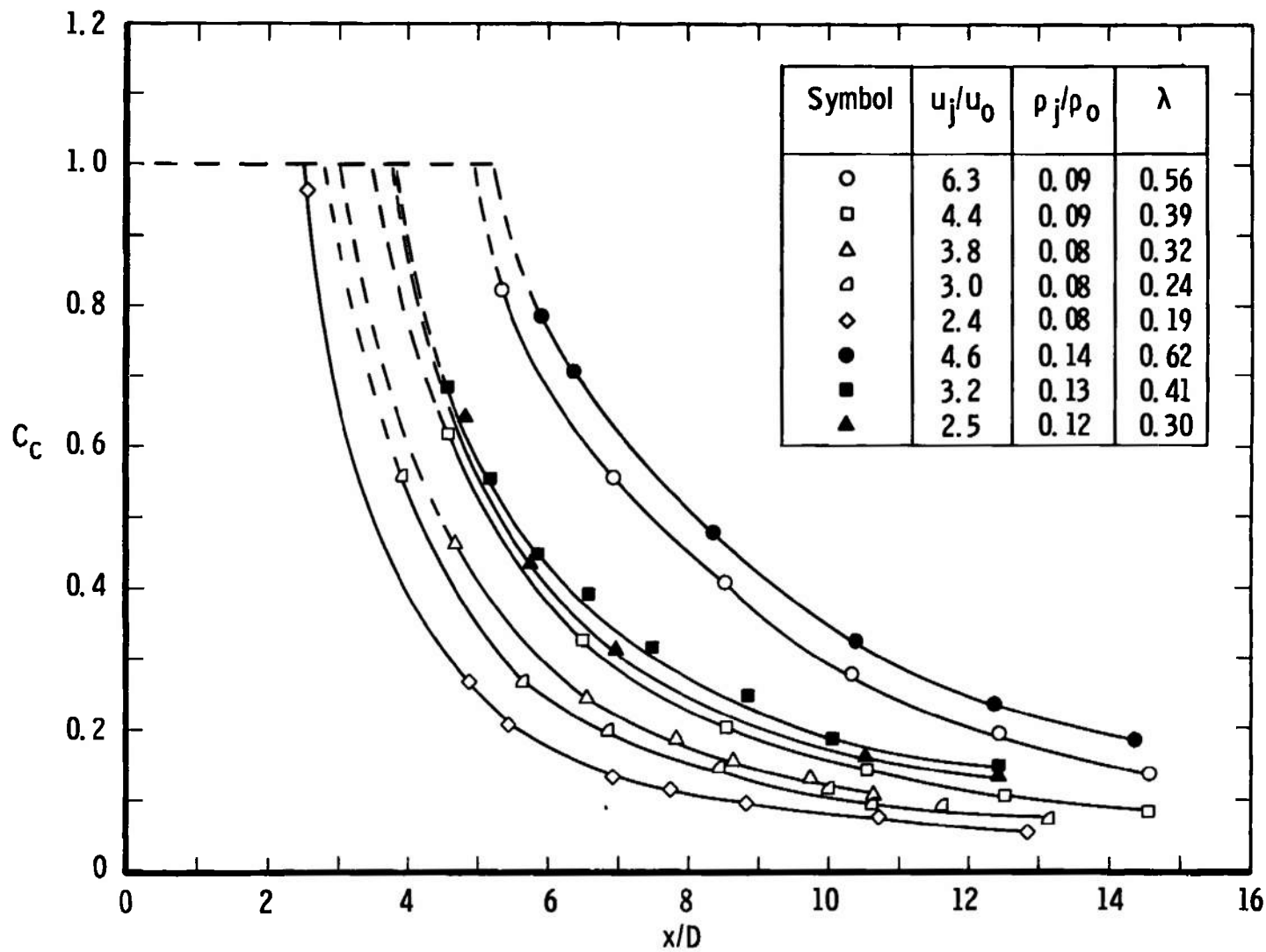


Fig. 5 Centerline Composition Decay for the Hydrogen-Air Tests

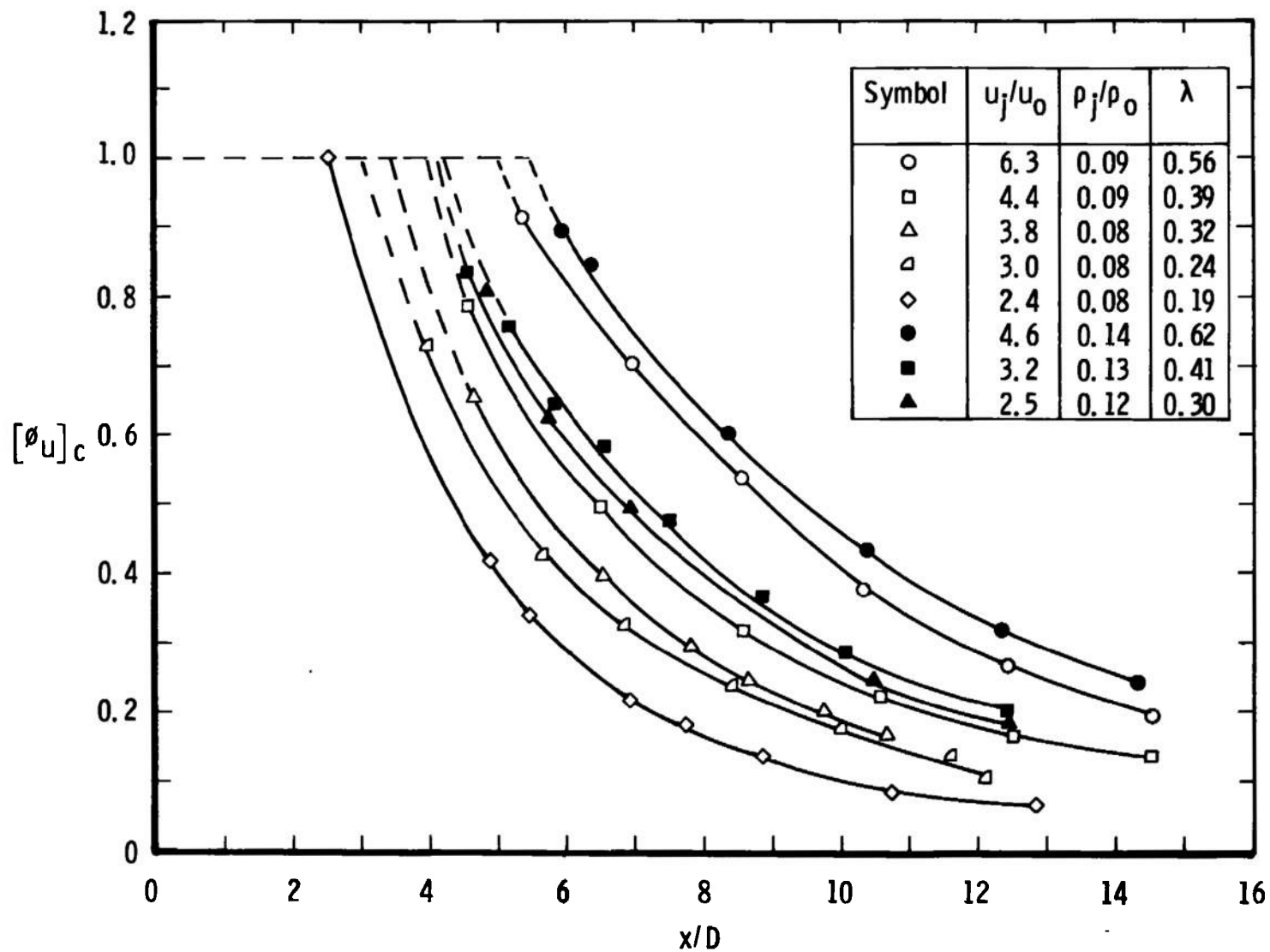


Fig. 6 Centerline Velocity Decay for the Hydrogen-Air Tests

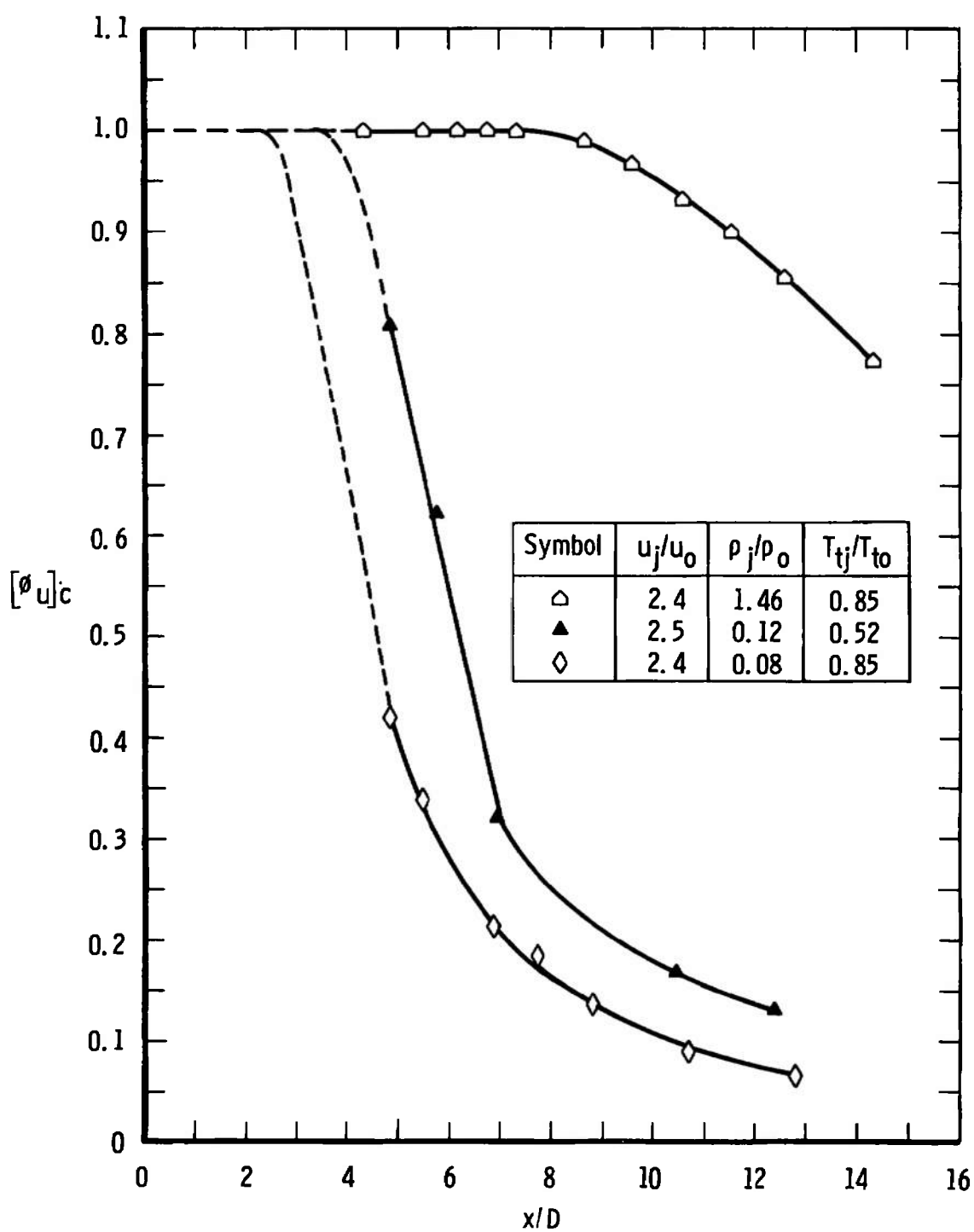


Fig. 7 Centerline Velocity Decay for Systems with the Same Initial Velocity Ratio

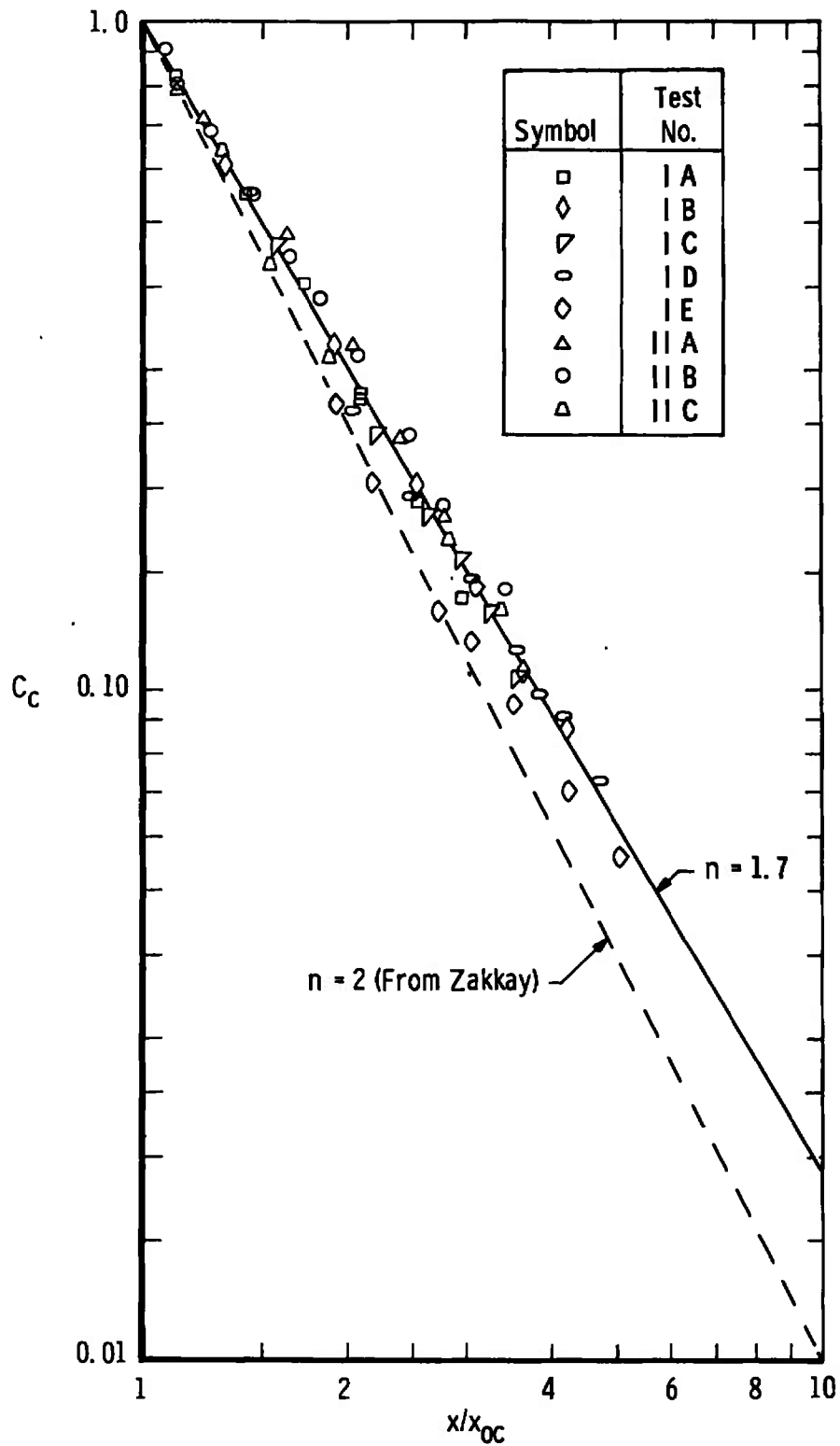


Fig. 8 Centerline Composition Decay, Comparison with Zakkay's Results

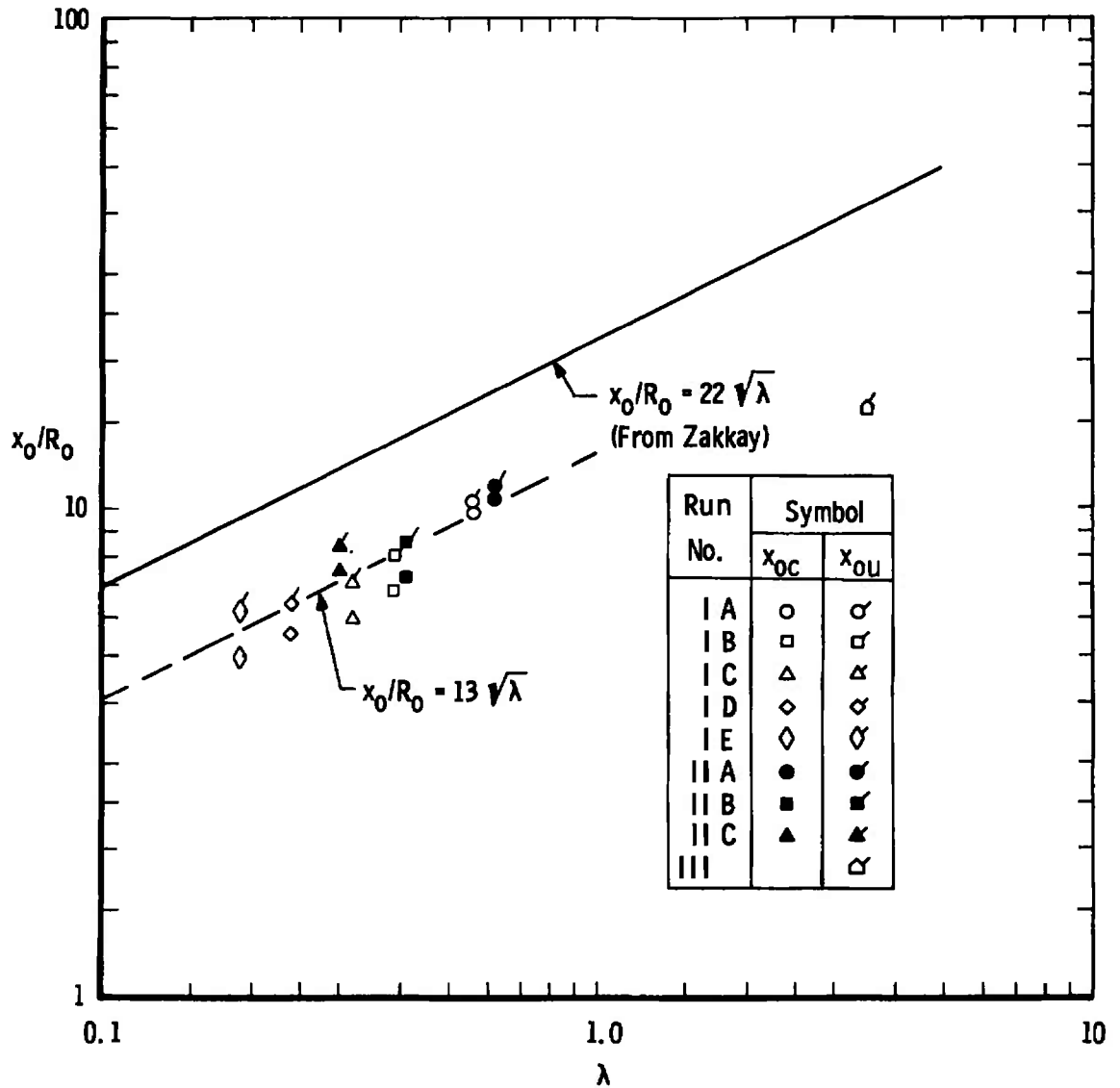
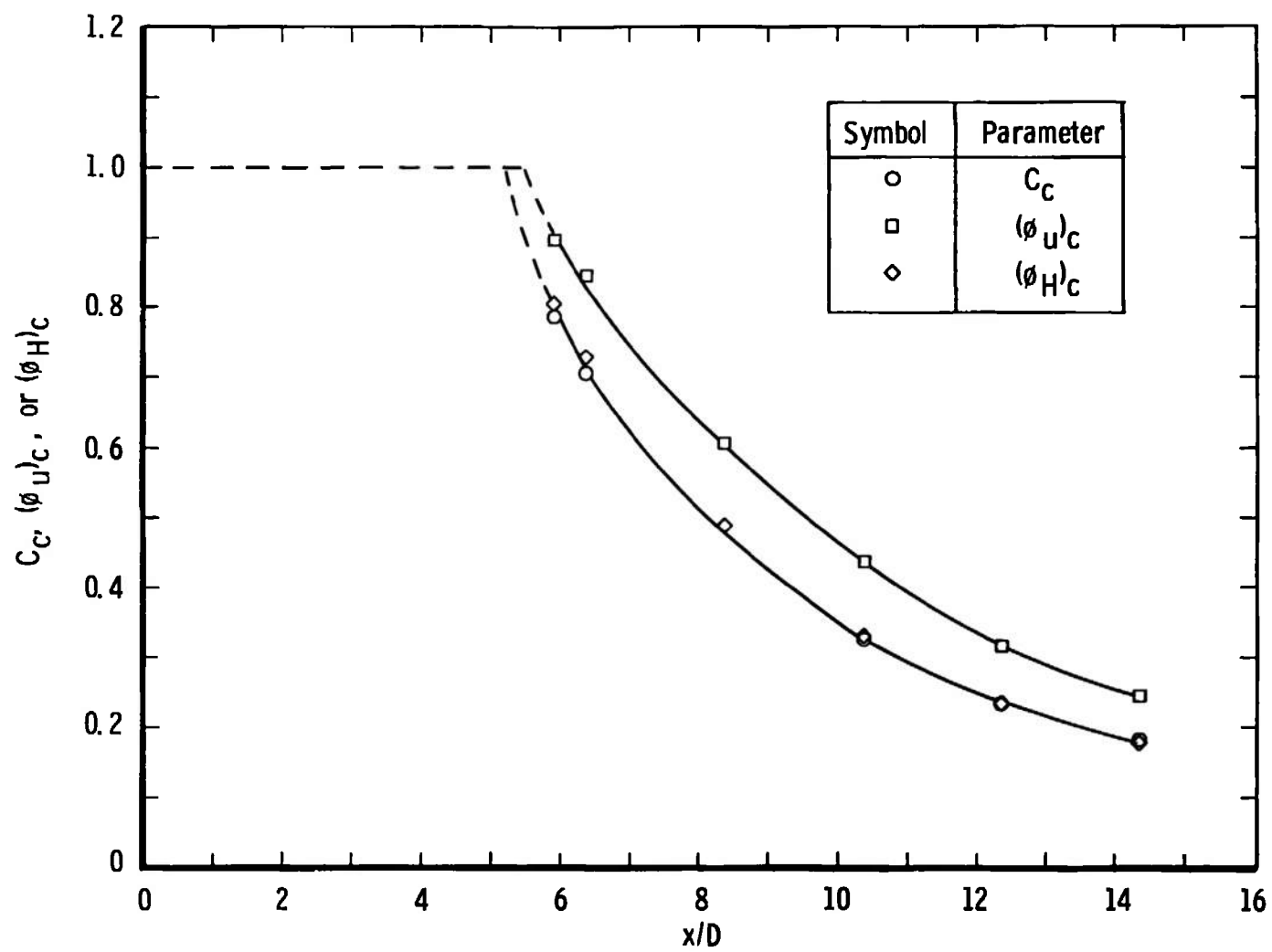
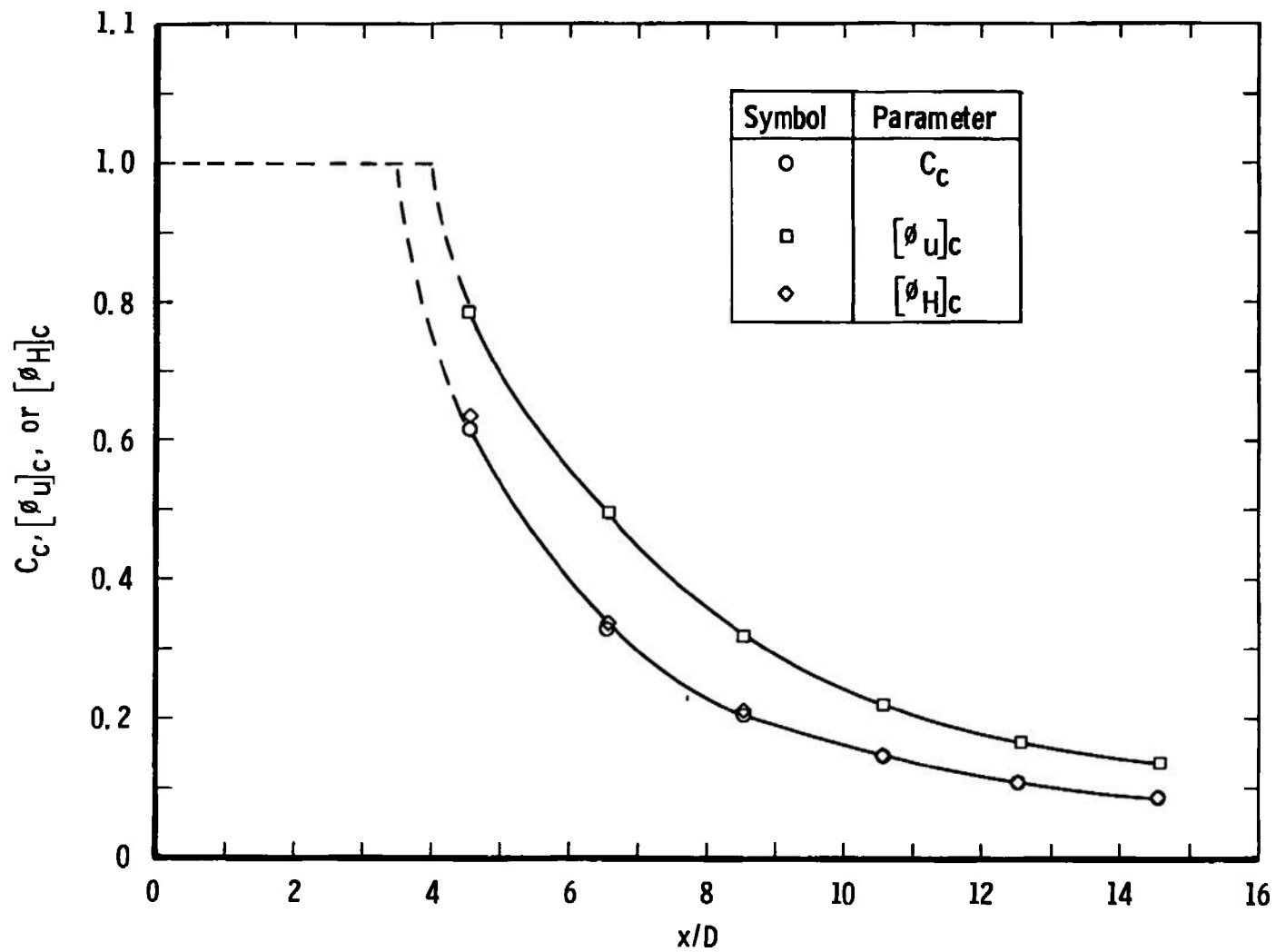


Fig. 9 Potential Core Length versus Mass Flux Ratio



a. Test II A

Fig. 10 Relative Centerline Decay of Composition, Velocity, and Total Enthalpy



b. Test I B

Fig. 10 Concluded

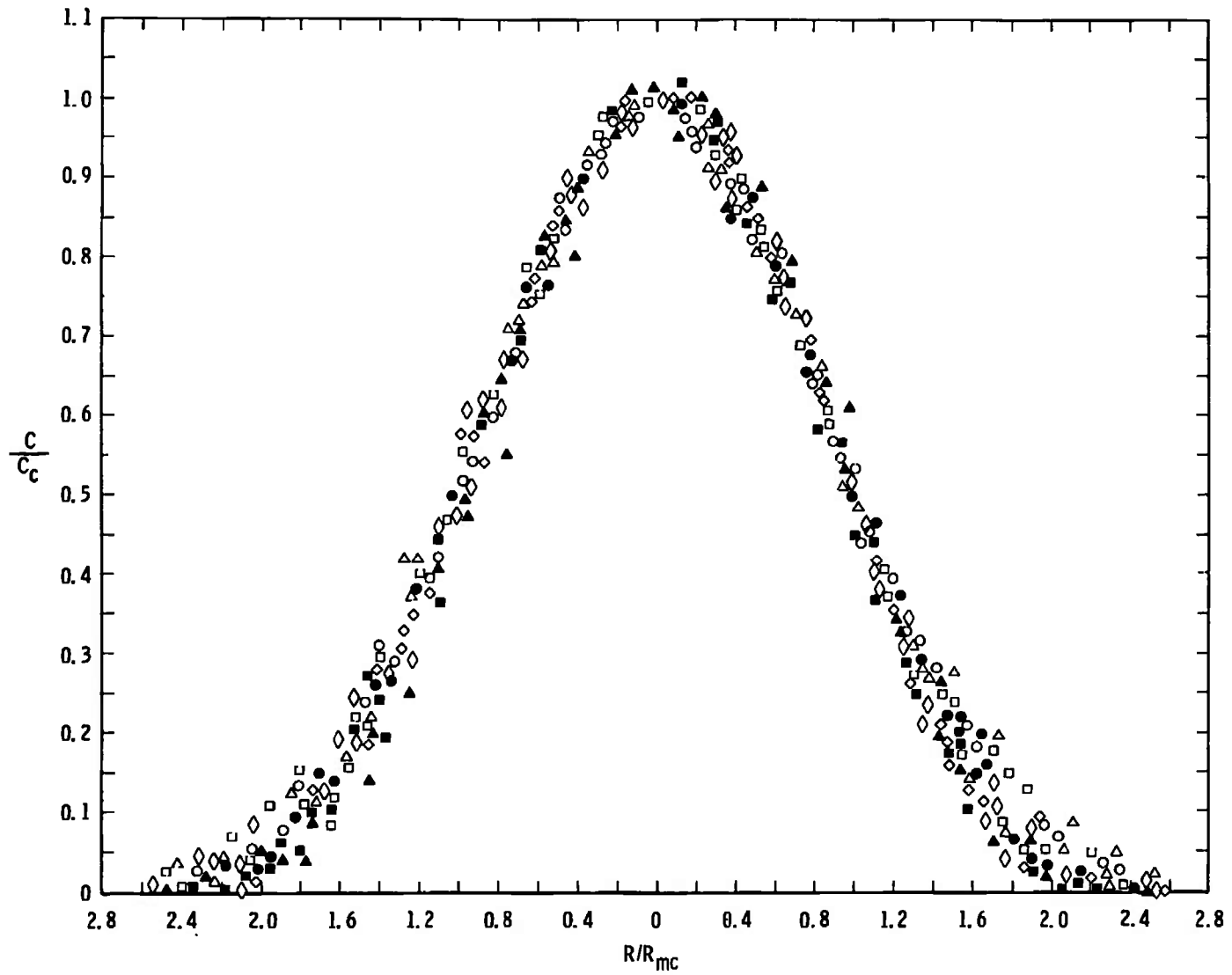


Fig. 11 Composite Second Regime Radial Composition Profile for All Hydrogen-Air Tests

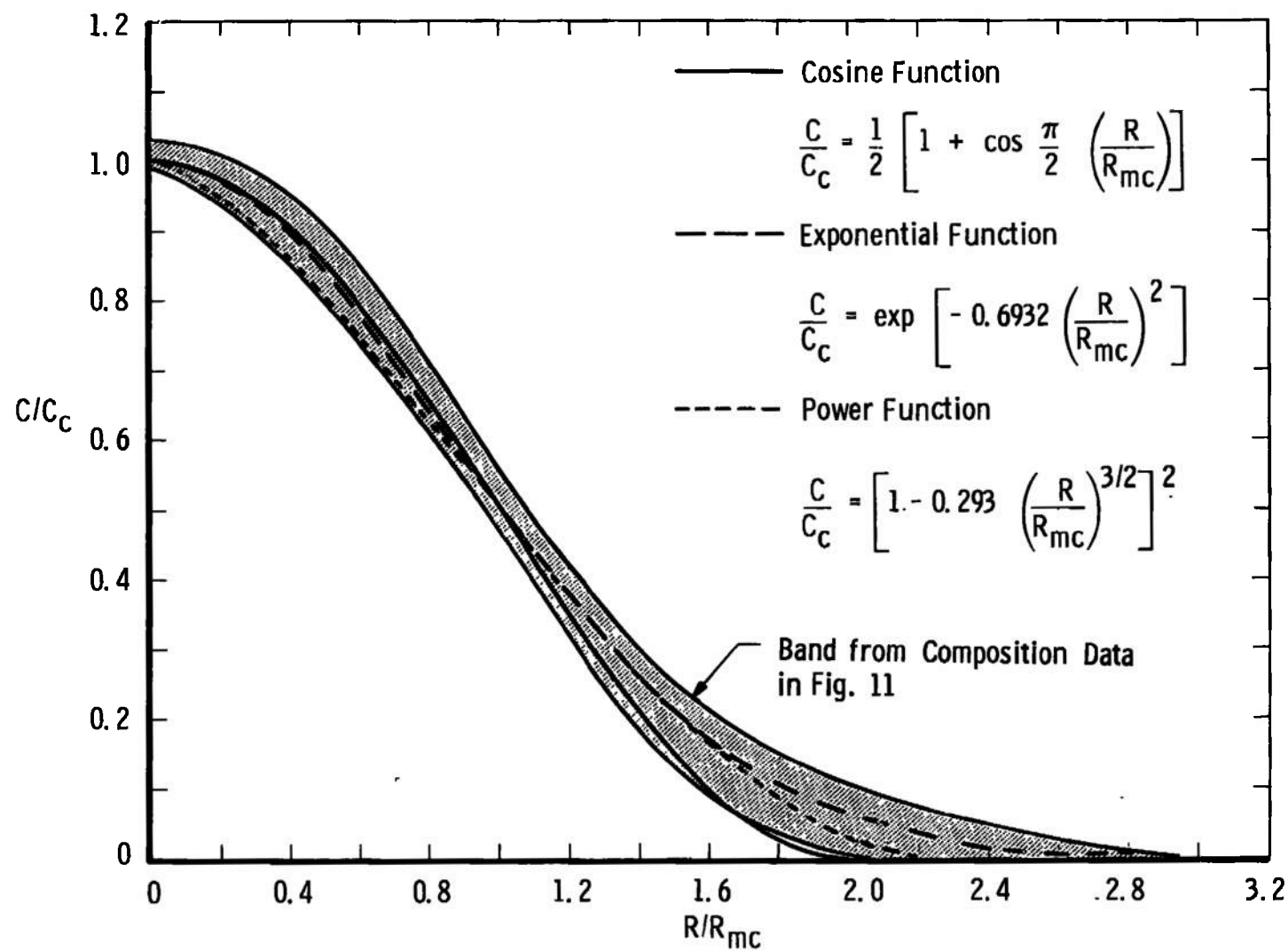


Fig. 12 Radial Composition Profile, Comparison with Mathematical Functions

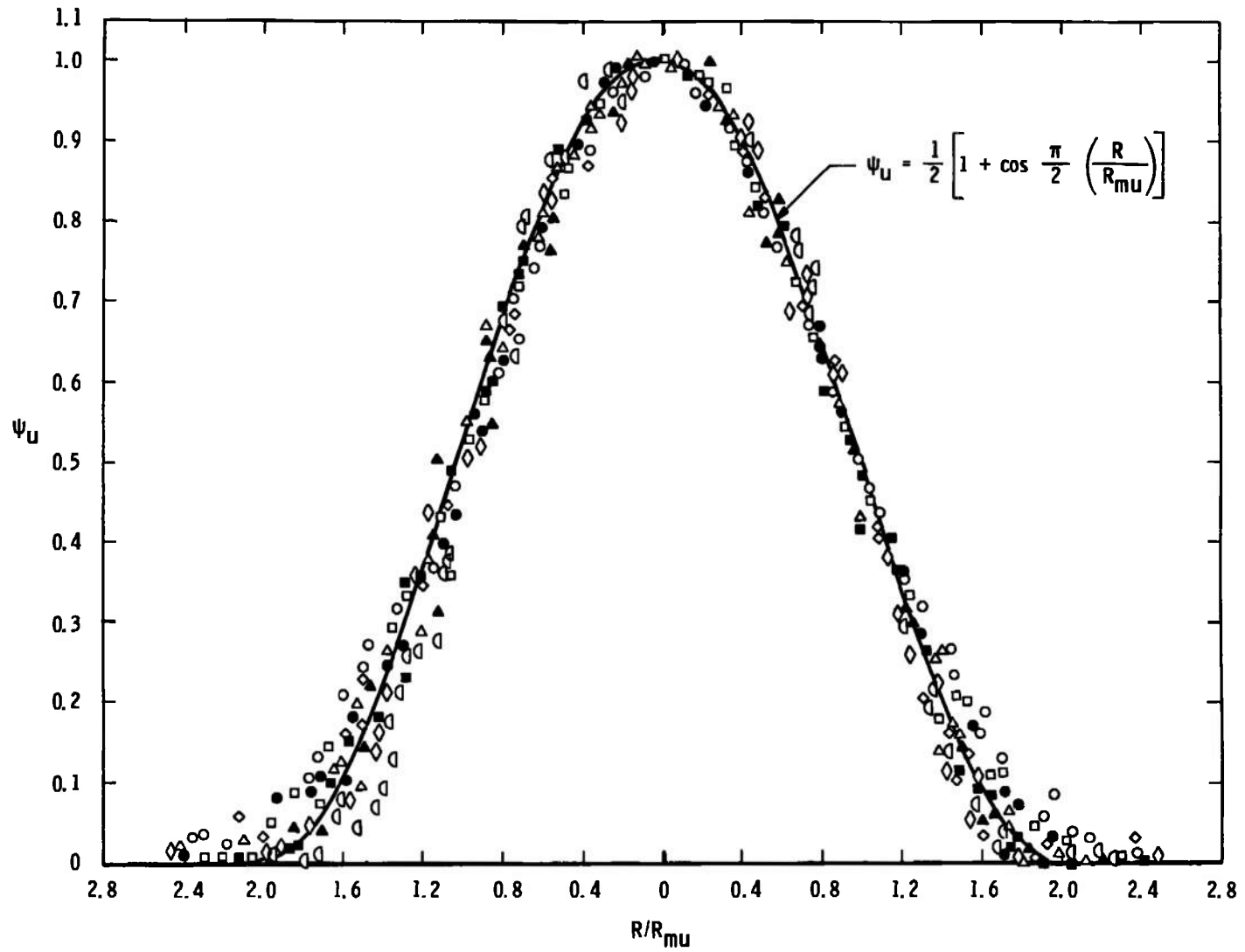


Fig. 13 Composite Second Regime Radial Velocity Profile for All Hydrogen-Air Tests

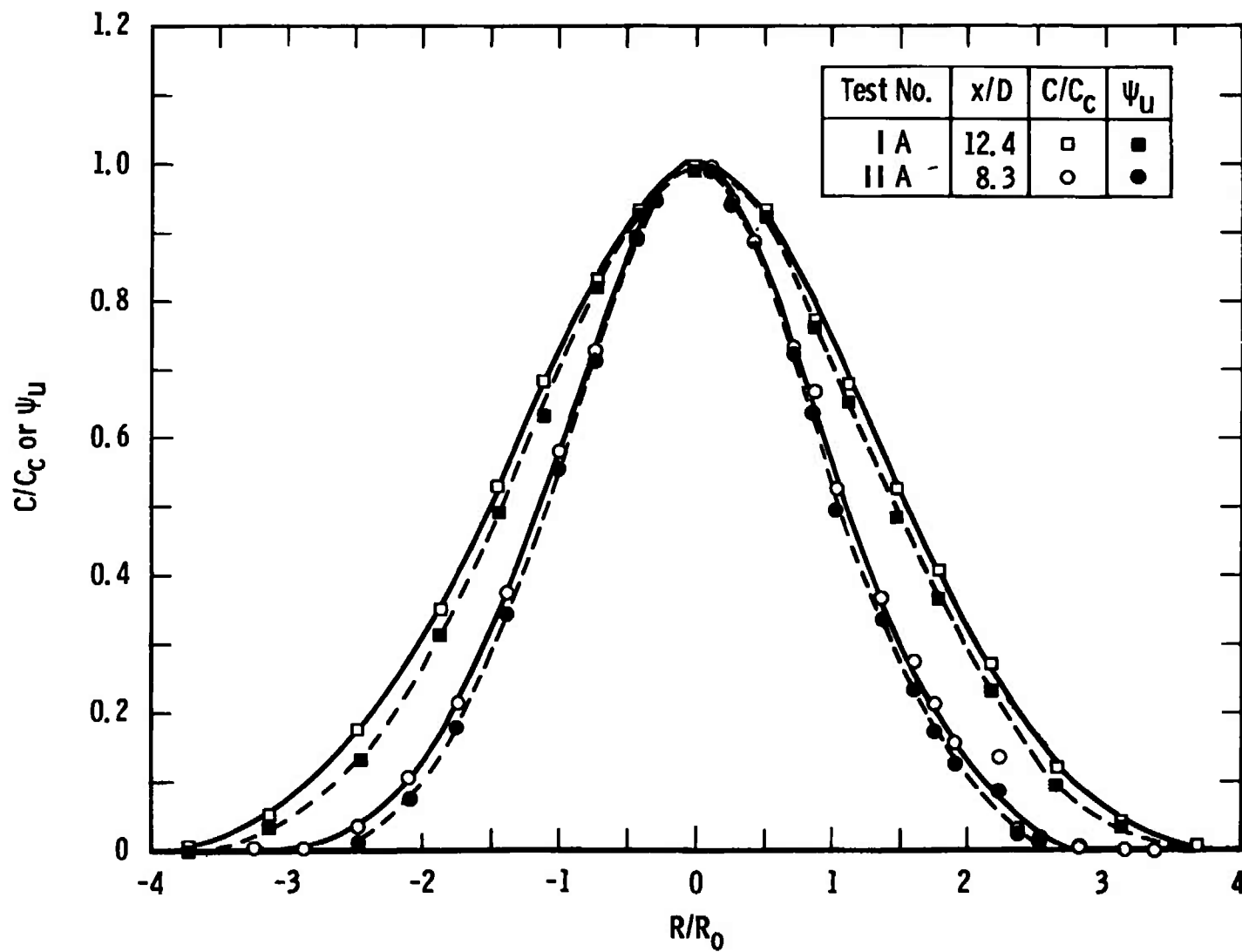


Fig. 14 Typical Radial Composition and Velocity Profiles

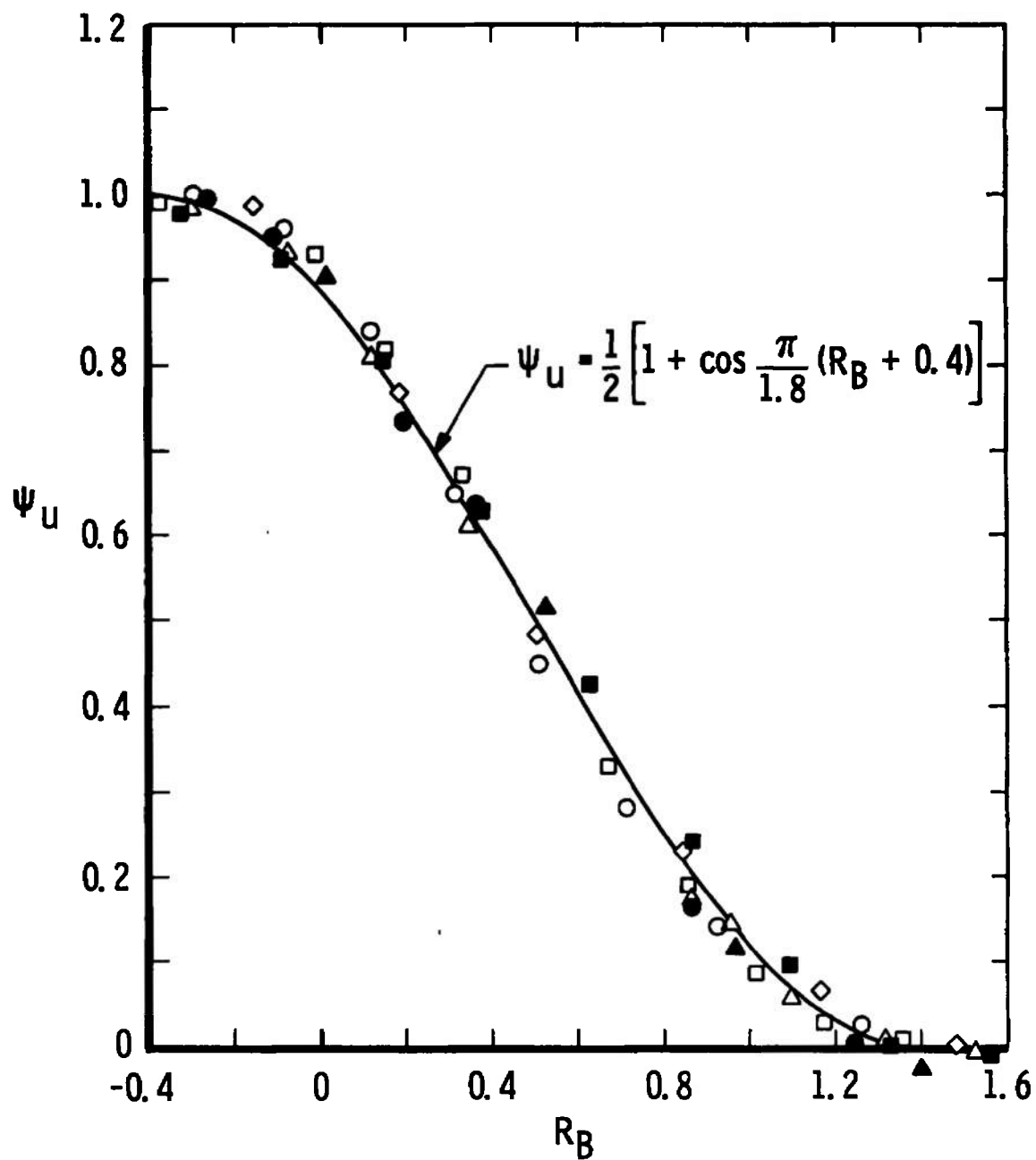


Fig. 15 Composite First Regime Radial Velocity Profile for All Hydrogen-Air Tests

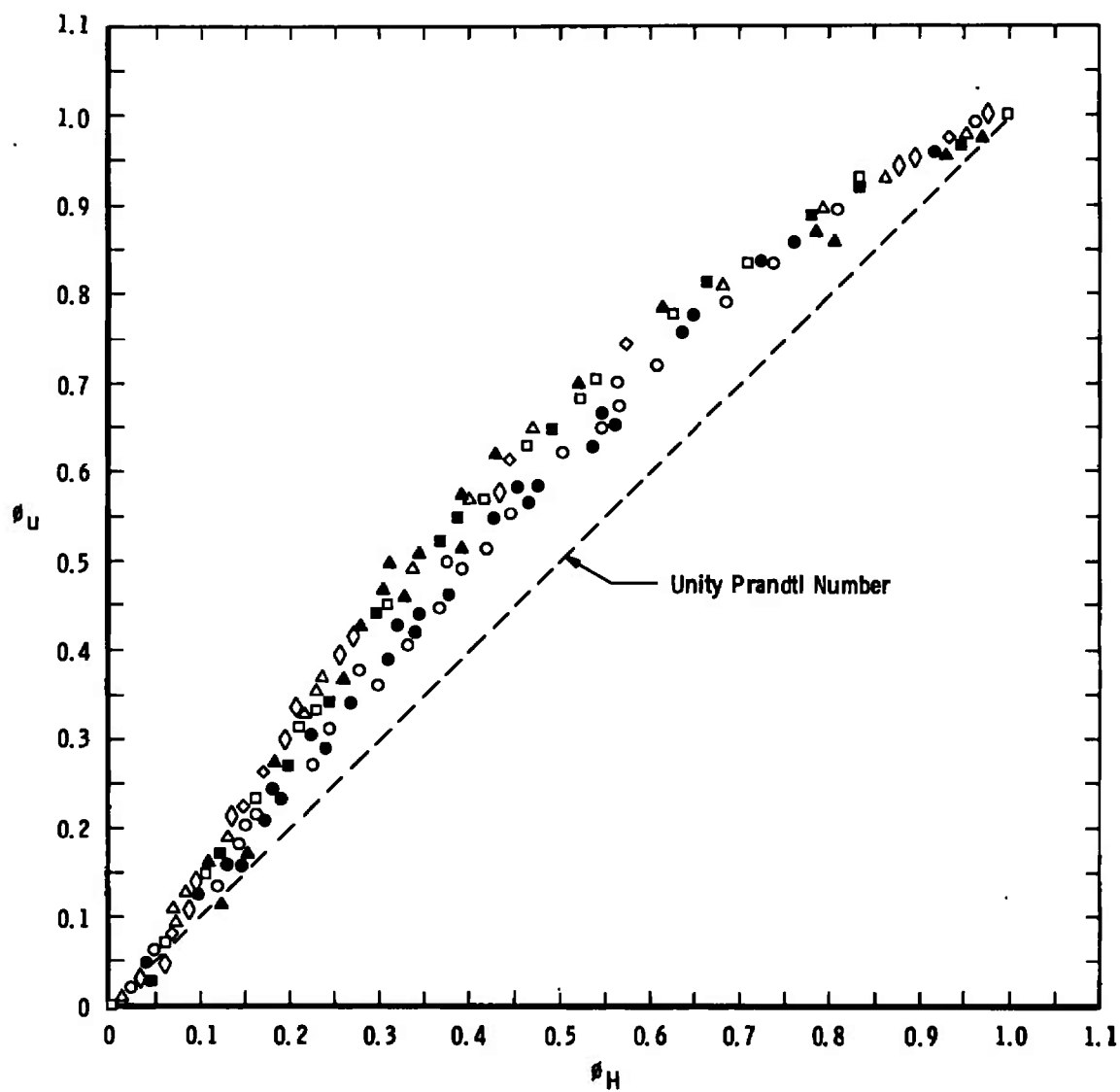


Fig. 16 Velocity-Enthalpy Relationship for the Hydrogen-Air Tests

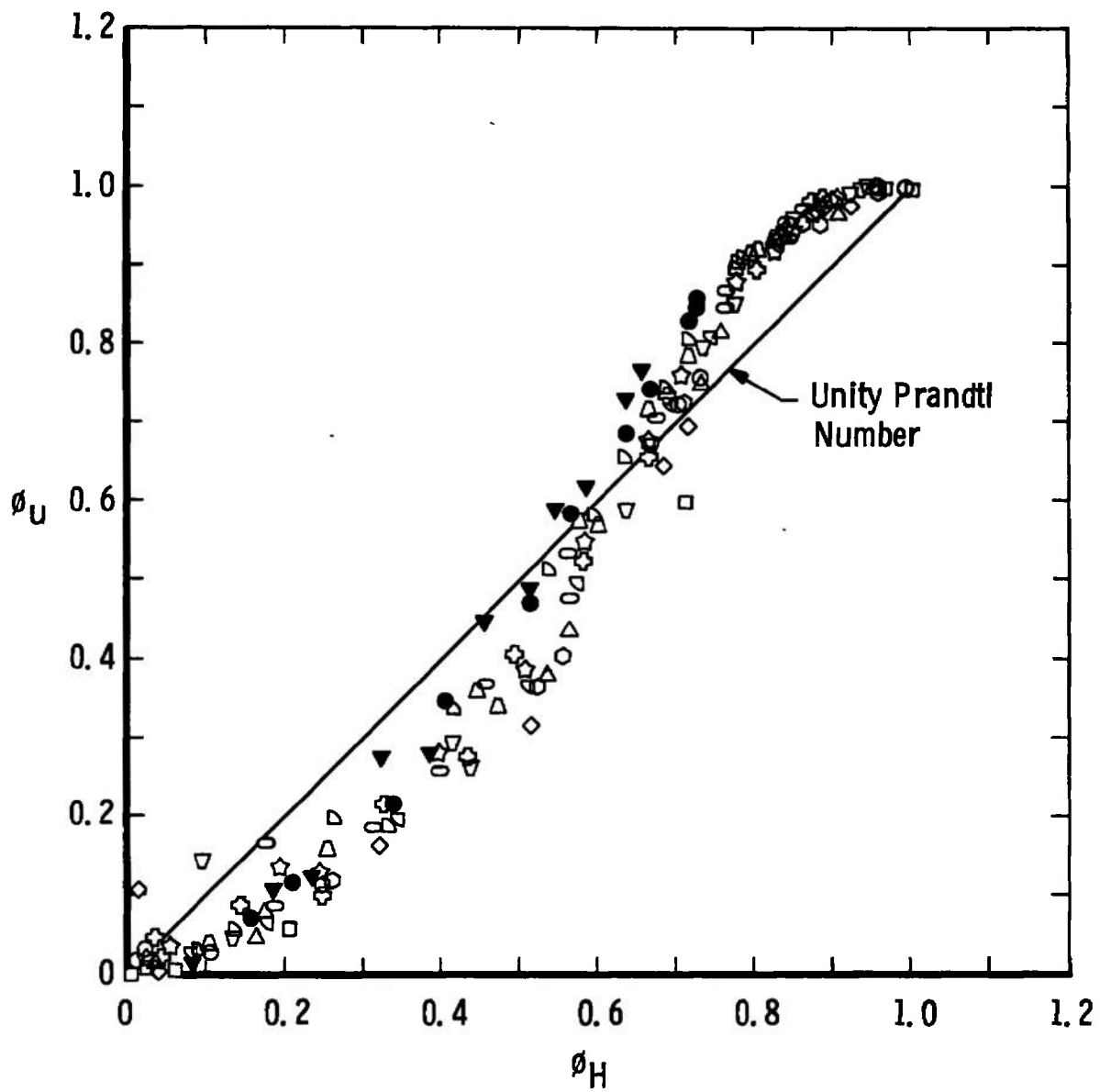


Fig. 17 Velocity-Enthalpy Relationship for the Air-Air Tests

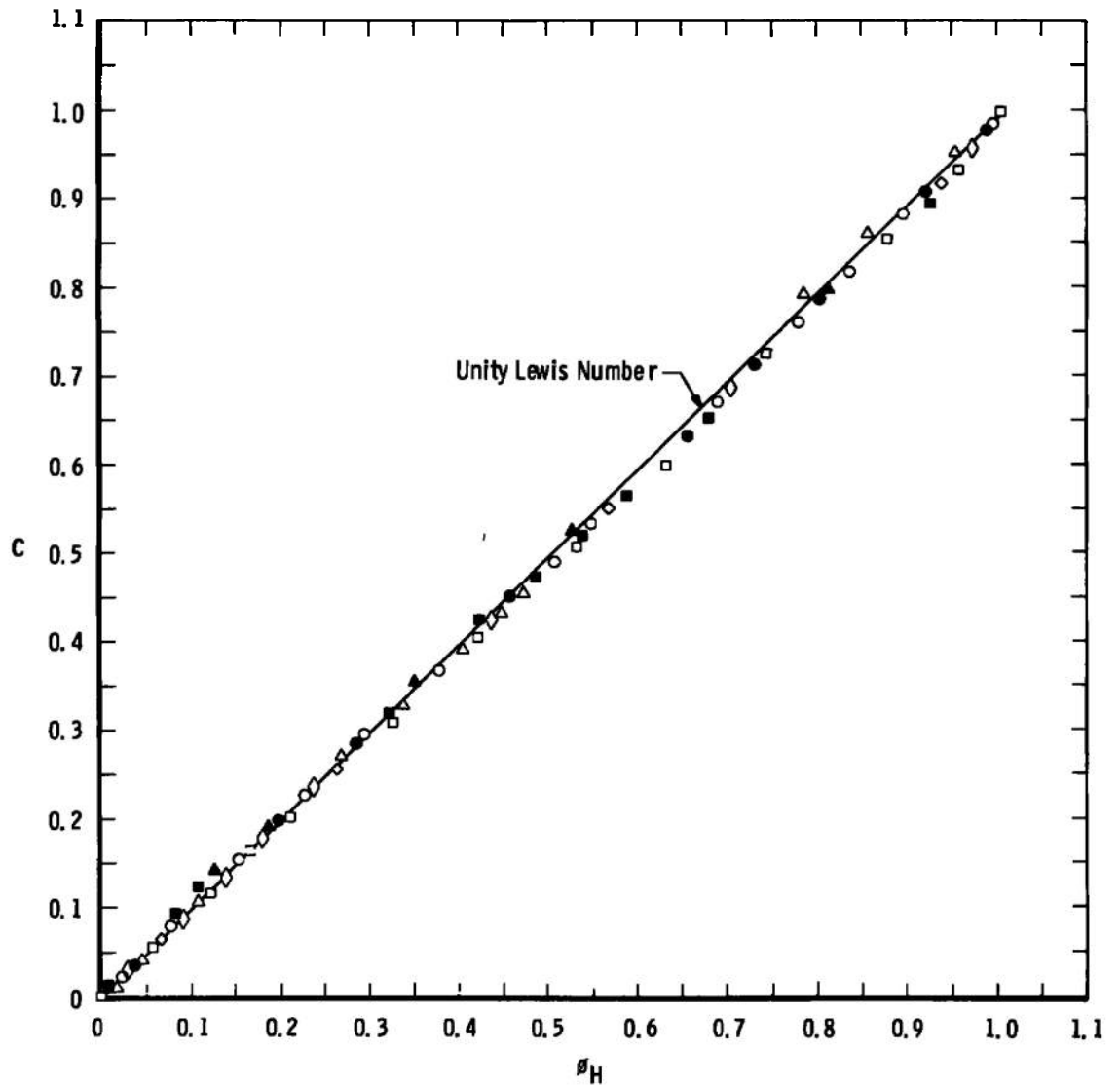


Fig. 18 Composition-Enthalpy Relationship for All of the Hydrogen-Air Tests

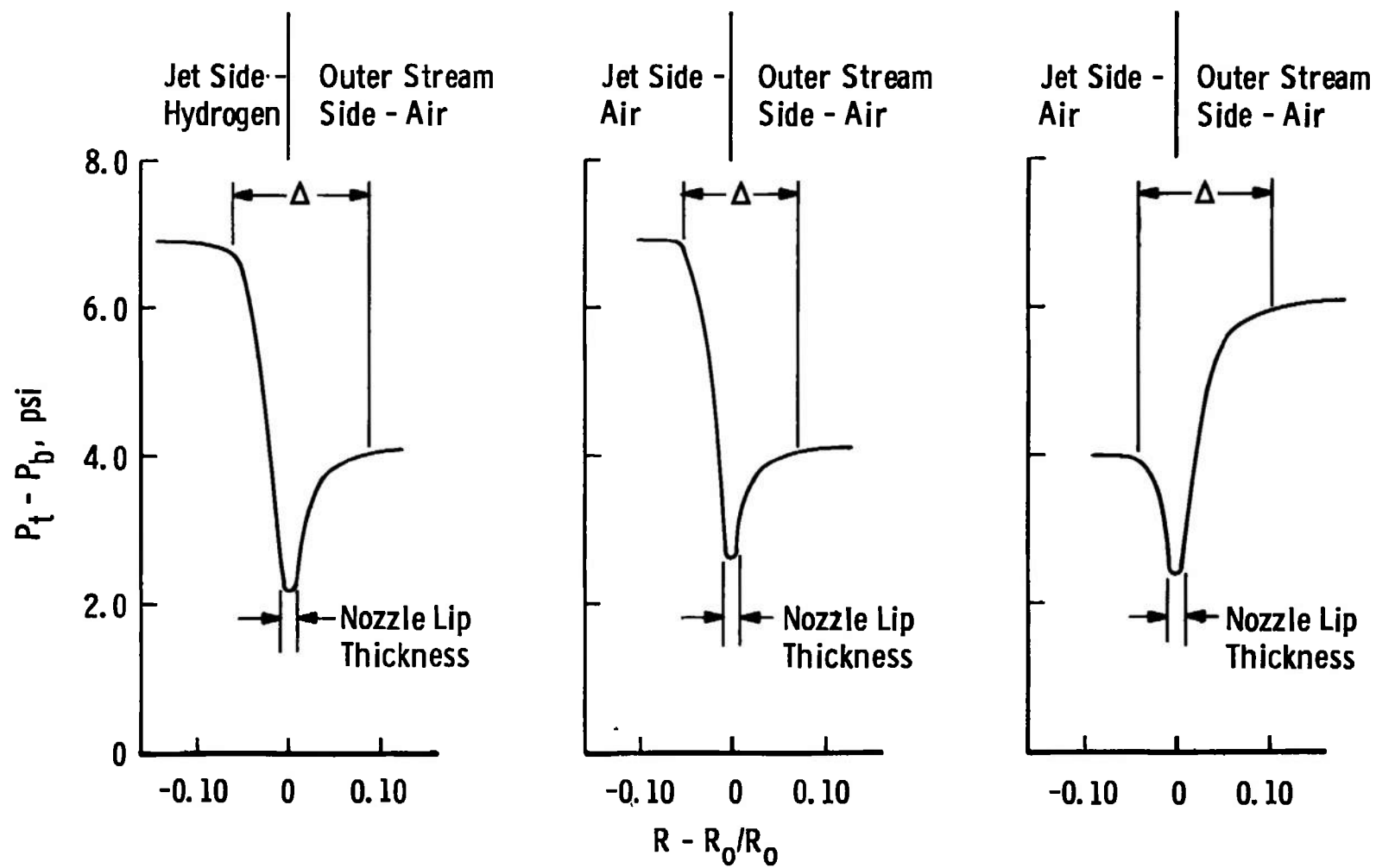


Fig. 19 Boundary-Layer Thickness

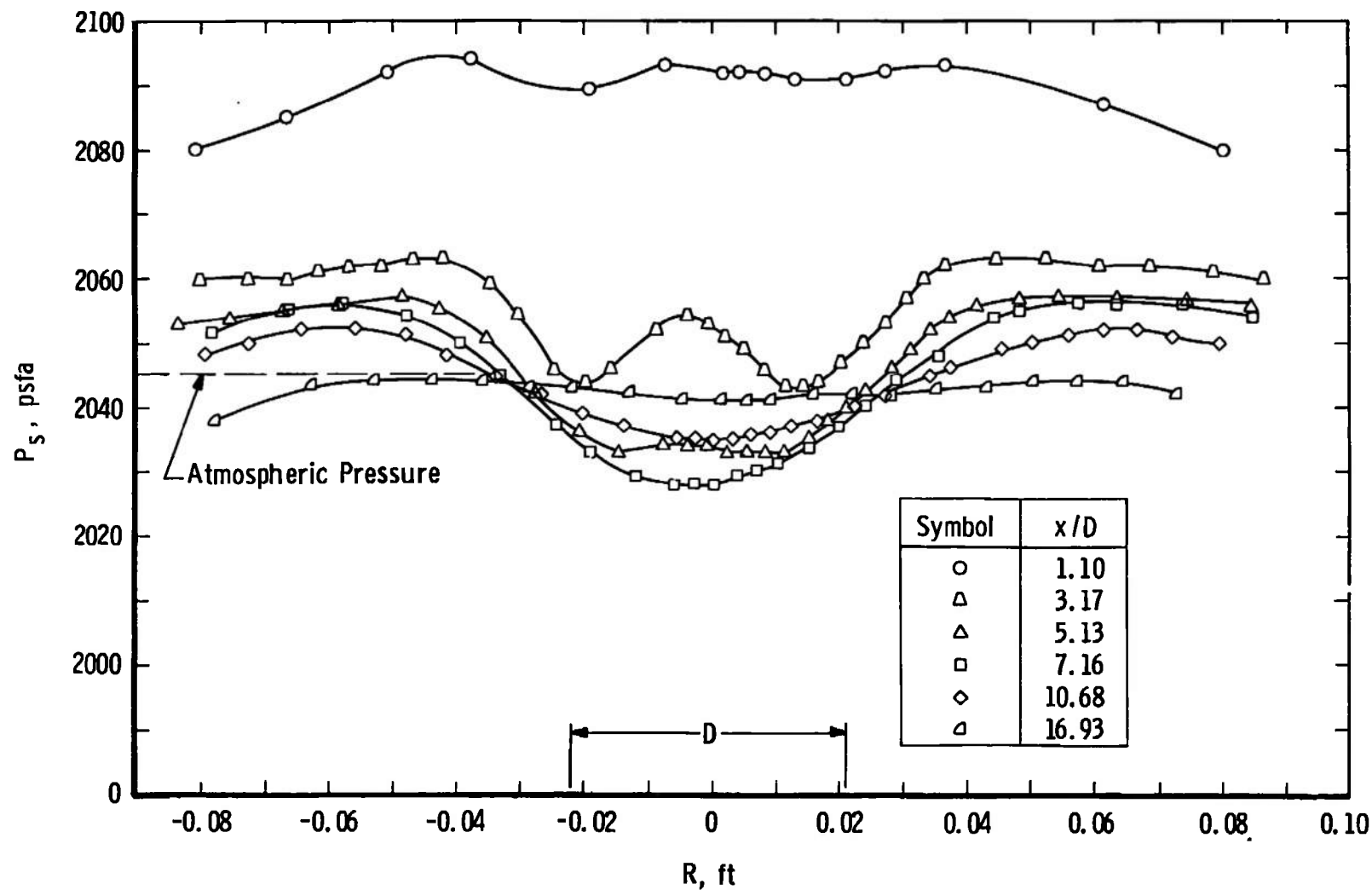


Fig. 20 Static Pressure Profiles for Test II B

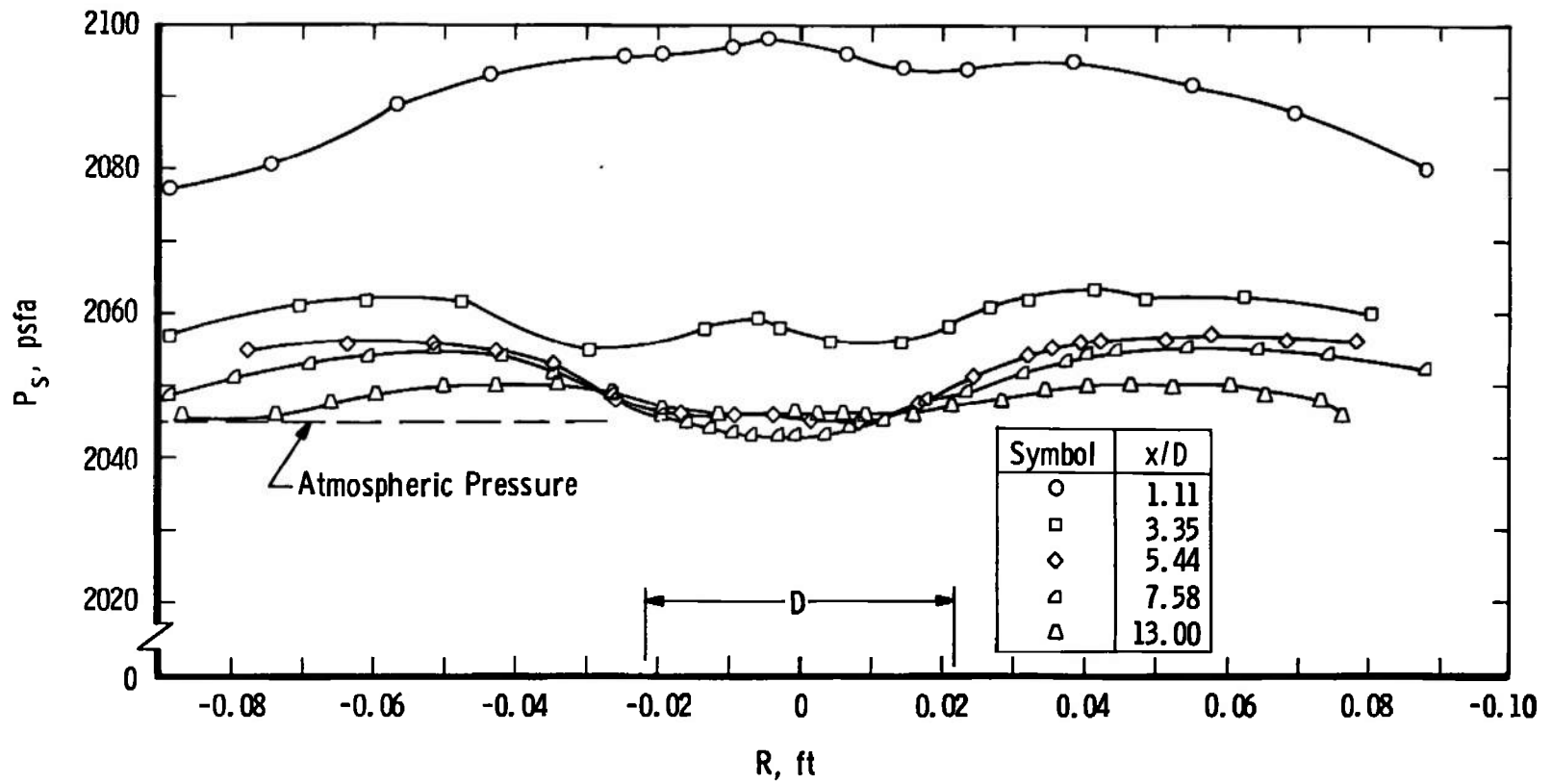


Fig. 21 Static Pressure Profiles for Test II C

TABLE I
TEST CONDITIONS

Test No.	Jet Gas	Outer Stream Gas	u_j/u_o	u_j , ft/sec	P_{tj} , psfa	P_{to} , psfa	T_{tj} , °R	T_{to} , °R
I A	Hydrogen	Air	6.3	3300	3080	2325	550	650
I B	Hydrogen	Air	4.4	3200	3050	2610	550	650
I C	Hydrogen	Air	3.8	3050	2925	2760	550	650
I D	Hydrogen	Air	3.0	2400	2540	2765	550	650
I E	Hydrogen	Air	2.4	1900	2350	2760	550	650
II A	Hydrogen	Air	4.6	3100	2880	2325	550	1050
II B	Hydrogen	Air	3.2	2450	2530	2430	550	1050
II C	Hydrogen	Air	2.5	1950	2330	2435	550	1050
III	Air	Air	2.4	940	3395	2185	550	650

TABLE II
NONDIMENSIONALIZING RADII

Test Number	x, ft	R _{mc} , ft	R _{mu} , ft
I A ↓	0.2224	0.0173	0.0187
	0.2907	0.0196	0.0197
	0.3556	0.0223	0.0220
	0.4292	0.0262	0.0253
	0.5172	0.0321	0.0302
	0.6081	0.0430	0.0344
I B ↓	0.1896	0.0162	0.0177
	0.2710	0.0220	0.0213
	0.3577	0.0273	0.0255
	0.4403	0.0331	0.0306
	0.5212	0.0365	0.0333
	0.6047	0.0400	0.0367
I C ↓	0.1936	0.0147	0.0154
	0.2735	0.0217	0.0201
	0.3252	0.0250	0.0230
	0.3619	0.0266	0.0240
	0.4060	0.0291	0.0260
	0.4452	0.0309	0.0273
I D ↓	0.1208	0.0142	0.0162
	0.1659	0.0178	0.0143
	0.2343	0.0185	0.0172
	0.2859	0.0207	0.0186
	0.3521	0.0241	0.0212
	0.4168	0.0273	0.0281
	0.4445	0.0286	0.0246
	0.4847	0.0295	0.0258
	0.5489	0.0307	0.0267
I E ↓	0.2028	0.0143	0.0132
	0.2283	0.0176	0.0152
	0.2876	0.0196	0.0162
	0.3213	0.0217	0.0177
	0.3689	0.0229	0.0172
	0.4478	0.0245	0.0199
	0.5337	0.0276	0.0200

TABLE II (Concluded)

Test Number	x, ft	R _{mc} , ft	R _{mu} , ft
II A ↓	0.1911	0.0198	0.0216
	0.2460	0.0202	0.0203
	0.2644	0.0210	0.0211
	0.3473	0.0237	0.0226
	0.4332	0.0286	0.0264
	0.5158	0.0320	0.0297
	0.5992	0.0340	0.0318
II B ↓	0.1705	0.0169	0.0196
	0.1890	0.0182	0.0196
	0.2161	0.0192	0.0192
	0.2451	0.0215	0.0200
	0.2735	0.0231	0.0208
	0.3128	0.0241	0.0217
	0.3694	0.0273	0.0243
	0.4191	0.0297	0.0258
	0.5178	0.0332	0.0282
II C ↓	0.2019	0.0172	0.0178
	0.2397	0.0195	0.0180
	0.2906	0.0221	0.0187
	0.4377	0.0270	0.0232
	0.5178	0.0275	0.0228
III ↓	0.2826	N/A ↓	0.0251
	0.3055		0.0262
	0.3323		0.0266
	0.3608		0.0269
	0.4002		0.0269
	0.4413		0.0273
	0.4822		0.0280
	0.5248		0.0288
	0.5972		0.0315

APPENDIX III RELATIVE ERROR ANALYSIS

The measured parameters are listed in Table III-I with an estimate of the measuring accuracy.

In the following error equations*, γ is assumed to be a constant. This assumption is justified by considering that the maximum deviation of γ is from 1.4 to 1.7 percent. This deviation was obtained when the outer airstream was heated to 1050°R.

The relative error equation for enthalpy is

$$\frac{dH}{H} = \frac{C}{\left[C + (1 - C) \frac{H_a}{H_h} \right]} \frac{dH_h}{H_h} + \frac{(H_h - H_a)}{\left[H_h + (1 - C) \frac{H_a}{C} \right]} \frac{dC}{C} + \frac{(1 - C)}{\left[\frac{CH_h}{H_a} + (1 - C) \right]} \frac{dH_a}{H_a}$$

The relative error equation for density is

$$\frac{d\rho}{\rho} = \frac{-dT_t}{T_t} + \frac{\gamma - 1}{\gamma} \frac{dP_t}{P_t} + \frac{1}{\gamma} \frac{dP_s}{P_s} - \frac{(\omega_o - \omega_j) C}{(\omega_o - \omega_j)C + \omega_j} \frac{dC}{C}$$

The relative error equation for velocity is

$$\frac{du}{u} = \frac{1}{2} \frac{dT_t}{T_t} + \left[\frac{T_t}{T_s \gamma M^2} - \frac{\gamma - 1}{2\gamma} \right] \frac{dP_t}{P_t} + \frac{\gamma (\omega_o - \omega_j) C}{(\omega_o - \omega_j) C + \omega_j} \frac{dC}{C} + \left[\frac{\gamma - 1}{2\gamma} - \frac{1}{\gamma M^2} \frac{T_t}{T_s} \right] \frac{dP_s}{P_s}$$

These equations are written for the mixing flow field conditions. They are applicable for the plenum conditions if the appropriate measured quantities are used.

The terms (R_{mc} , R_{mu} , and R_B) are selected from curve fits and do not depend on the accuracy of the measurement of a single point. It is estimated that they are accurate within ± 3 percent.

The relative error equation for ψ_u is

$$\frac{d\psi_u}{\psi_u} = \frac{u}{u - u_o} \frac{du}{u} - \frac{u_c}{u_c - u_o} \frac{du_c}{u_c} + \frac{u_o (u - u_c)}{(u - u_o) (u_c - u_o)} \frac{du_o}{u_o}$$

*To obtain these equations, the equation for the parameter in question is differentiated, and the result is divided by the original expression. The equations for enthalpy, density, and velocity are contained in Appendix IV.

The parameter (ψ_u) is susceptible to large inaccuracies when u approaches u_o near the outer edge of the mixing zone. For this reason, the uncertainty of the data for $R/R_{mu} > \pm 2.5$ is very large, and the data are omitted from the curves presented. The same situation is true for the composition data. The low composition measurements, which have large measurement uncertainty, occur at the outer edge of the mixing zone. Consequently, the data for $R/R_{mc} > \pm 2.5$ are omitted.

TABLE III-I
MEASUREMENT ACCURACY

Parameter	Estimate of Measurement Accuracy, Percent of Absolute Value	Range
P_s	± 1	All Considered
P_t	± 1	All Considered
P_{tj}	± 1	All Considered
P_{to}	± 1	All Considered
T_t	± 0.5	All Considered
T_{tj}	± 0.5	All Considered
T_{to}	± 0.5	All Considered
R	± 2	All Considered
x	± 2	All Considered
C	± 2	>0.05 to 1.0
C	± 10	>0.02 to 0.05
C	± 50	>0.01 to 0.02
C	Uncertain	0.0 to 0.01

APPENDIX IV CALCULATION PROCEDURE

Gas mixture properties were calculated from the measured parameters by using the relationships listed below. Tables of specific heat and enthalpy for air and hydrogen over a temperature range from 500 to 1500°R were put into the computer program. The information was taken from gas tables (Ref. 10).

Jet Mass Flow

$$\dot{W}_j = K_j \frac{P_{TH}}{\sqrt{T_{TH}}}$$

where K_j , a dimensional proportionality constant, is furnished from the orifice calibration.

Total Enthalpy

$$H = CH_h + (1 - C) H_a$$

where H_h and H_a are obtained from the enthalpy table for the measured total temperature.

$$\omega = \frac{\omega_j \omega_o}{C(\omega_o - \omega_j) + \omega_j}$$

Specific Heat

$$C_p = C(C_{pj}) + (1 - C) C_{po}$$

where C_{pj} and C_{po} are selected from the table of specific heats for the measured total temperature.

Ratio of Specific Heats

$$\gamma = \frac{C_p \omega}{C_p \omega - R}$$

Mach Number

$$M^2 = \frac{2}{\gamma - 1} \left[\frac{P_s}{P_t} \frac{\gamma - 1}{\gamma} \right] - 1$$

Static Temperature

$$T_s = T_t \left(1 + \frac{\gamma - 1}{2} M^2 \right)^{-1}$$

Density

$$\rho = \frac{P_s \omega}{R T_s}$$

Velocity

$$u = \sqrt{\gamma (P_s / \rho) M^2}$$

APPENDIX V CONSISTENCY CHECK

The hydrogen mass flow was calculated at each axial station where data were obtained. The mass flux was numerically integrated to a specified control volume. The expression for the calculation is

$$\dot{W} = 2\pi \int_0^{R^*} \rho u C R dR$$

Numerous control volume sizes were tested. As long as the control volume was large enough to extend to a location where the hydrogen concentration was negligible, its size had little effect on the value obtained from the integration. The ratio of the values obtained from the integration ($\dot{W}$) to the hydrogen flow measured by metering orifice ($\dot{W}_j$) is shown in Figs. V-1 and V-2. The results are reasonably good, considering that the hydrogen mass flow is only from 0.4 to 1.7 percent of the total mass flow in the mixing system.

A possible reason for the low calculated mass flow is that the probe was not on the vertical centerline when the data were recorded. There was no fixed reference point from which the vertical position measurements were made; therefore, only vertical position data recorded during the same test run may be compared. The data for tests I A and I D were recorded during the same test run; the vertical position variations of tests I A and I D were 0.050 and 0.070 in., respectively. Test I A gave good agreement on the consistency check, but test I D gave low values of mass flow calculated by the integration technique.

The following calculation was made to get an estimate of the effect of probe position error: The data from test I A were assumed to be on the true vertical centerline, and the integration was made for a traverse 0.060 in. below the centerline. The calculated change attributable to the assumed probe alignment is from 2 to 5 percent, which is too small to account for the low values obtained during test I D.

The tests in Series II showed a trend toward high values of integrated mass flow near the nozzle exit plane; then the values decreased with increasing axial distance. The reason for this result is not known.

Even though the consistency check does give poor results for some tests on an absolute basis, the repeatability of the data is very good. All other data from tests which gave poor consistency checks agree well with the results for tests which gave good consistency checks. This fact is illustrated by the figures which present data for more than one test. The data appear to be better than the consistency check indicates.

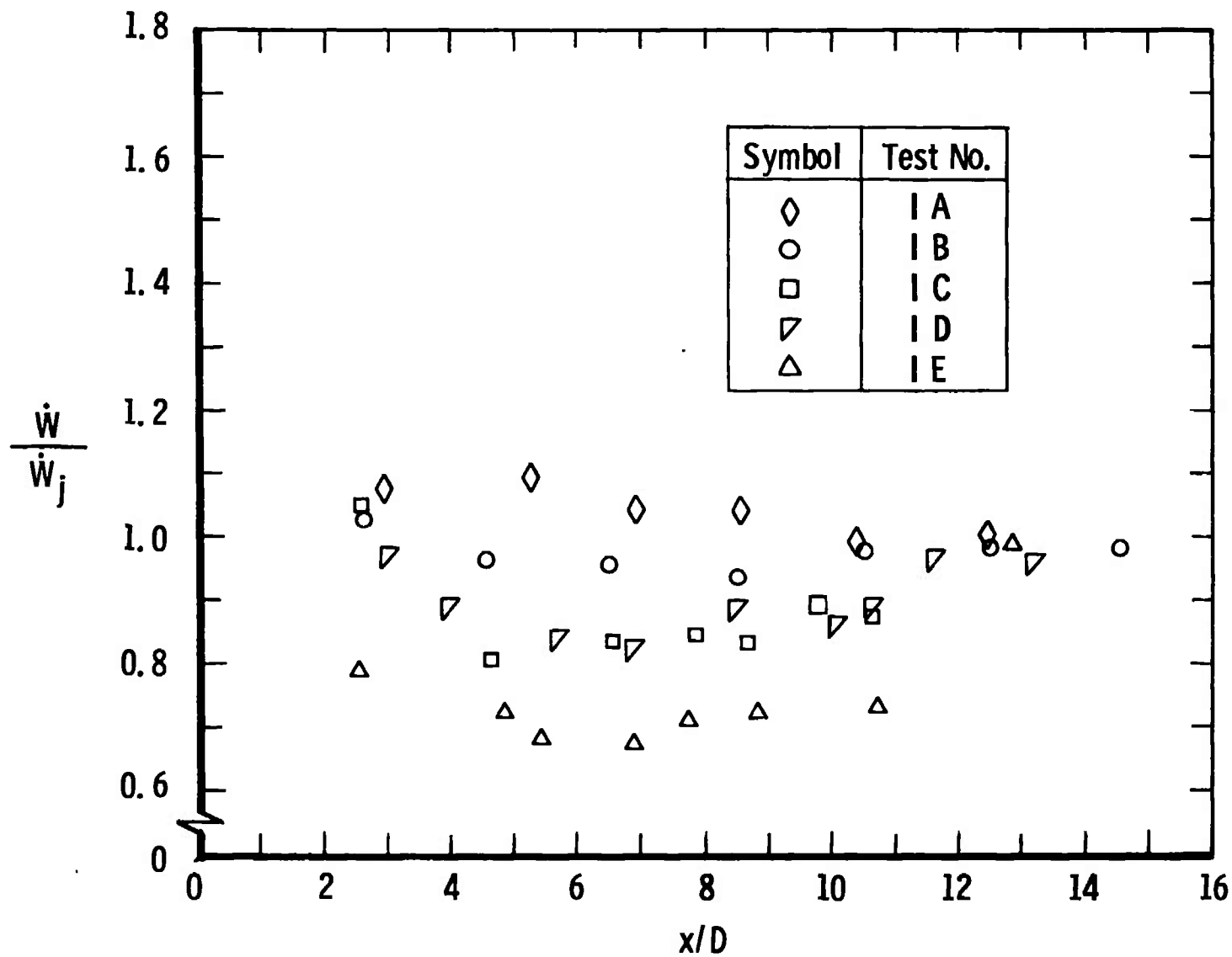


Fig. V-1 Consistency Check for Series I Tests

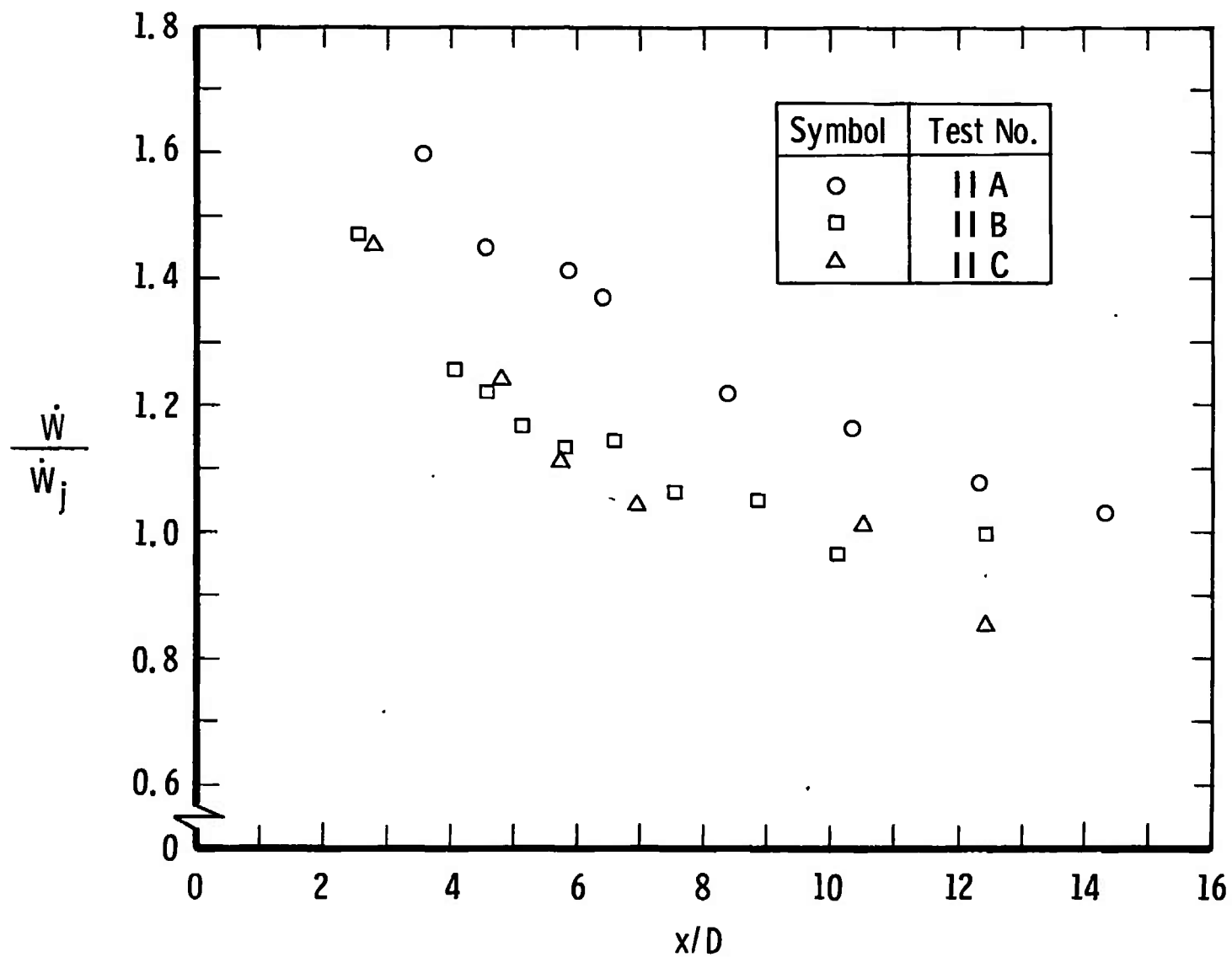


Fig. V-2 Consistency Check for Series II Tests

APPENDIX VI EXPERIMENTAL DATA

Nomenclature for Tabulated Experimental Data

C	Mass fraction of jet gas
CP	Specific heat at constant pressure
CPJ	Constant pressure specific heat of jet gas
CPO	Constant pressure specific heat of outer stream gas
GAM	Ratio of specific heats
GAMJ	Ratio of specific heats of jet gas
GAMO	Ratio of specific heats of outer stream gas
H	Total enthalpy
HJ	Total enthalpy of jet gas
HO	Total enthalpy of outer stream gas
MW	Molecular weight
MWJ	Molecular weight of jet gas
PS	Static pressure
PT	Total pressure
PTJ	Total pressure of jet gas
PTO	Total pressure of outer stream gas
R	Radial distance
RHO	Density
RHOJ	Density of jet gas
RHOO	Density of outer stream gas
RS	Control volume radius
TS	Static temperature
TSJ	Static temperature of jet gas
TSO	Static temperature of outer stream gas
TT	Total temperature
TTJ	Total temperature of jet gas
TTO	Total temperature of outer stream gas

U	Velocity
UJ	Velocity of jet gas
UO	Velocity of outer stream gas
WJ	Jet mass flow as measured by a choked orifice
X	Axial distance

TEST NUMBER - I A

Jet Gas - Hydrogen
Outer Stream Gas - Air

Q1E1	Q1E2	Q1E3	Q1E4	Q1E5	Q1E6	Q1E7	Q1E8	Q1E9	Q1E10	Q1E11	Q1E12	Q1E13	Q1E14	Q1E15	Q1E16	Q1E17	Q1E18	Q1E19	Q1E20	Q1E21	Q1E22	Q1E23	Q1E24	Q1E25	Q1E26	Q1E27	Q1E28	Q1E29	Q1E30	Q1E31	Q1E32	Q1E33	Q1E34	Q1E35	Q1E36	Q1E37	Q1E38	Q1E39	Q1E40	Q1E41	Q1E42	Q1E43	Q1E44	Q1E45	Q1E46	Q1E47	Q1E48	Q1E49	Q1E50	Q1E51	Q1E52	Q1E53	Q1E54	Q1E55	Q1E56	Q1E57	Q1E58	Q1E59	Q1E60	Q1E61	Q1E62	Q1E63	Q1E64	Q1E65	Q1E66	Q1E67	Q1E68	Q1E69	Q1E70	Q1E71	Q1E72	Q1E73	Q1E74	Q1E75	Q1E76	Q1E77	Q1E78	Q1E79	Q1E80	Q1E81	Q1E82	Q1E83	Q1E84	Q1E85	Q1E86	Q1E87	Q1E88	Q1E89	Q1E90	Q1E91	Q1E92	Q1E93	Q1E94	Q1E95	Q1E96	Q1E97	Q1E98	Q1E99	Q1E100	Q1E101	Q1E102	Q1E103	Q1E104	Q1E105	Q1E106	Q1E107	Q1E108	Q1E109	Q1E110	Q1E111	Q1E112	Q1E113	Q1E114	Q1E115	Q1E116	Q1E117	Q1E118	Q1E119	Q1E120	Q1E121	Q1E122	Q1E123	Q1E124	Q1E125	Q1E126	Q1E127	Q1E128	Q1E129	Q1E130	Q1E131	Q1E132	Q1E133	Q1E134	Q1E135	Q1E136	Q1E137	Q1E138	Q1E139	Q1E140	Q1E141	Q1E142	Q1E143	Q1E144	Q1E145	Q1E146	Q1E147	Q1E148	Q1E149	Q1E150	Q1E151	Q1E152	Q1E153	Q1E154	Q1E155	Q1E156	Q1E157	Q1E158	Q1E159	Q1E160	Q1E161	Q1E162	Q1E163	Q1E164	Q1E165	Q1E166	Q1E167	Q1E168	Q1E169	Q1E170	Q1E171	Q1E172	Q1E173	Q1E174	Q1E175	Q1E176	Q1E177	Q1E178	Q1E179	Q1E180	Q1E181	Q1E182	Q1E183	Q1E184	Q1E185	Q1E186	Q1E187	Q1E188	Q1E189	Q1E190	Q1E191	Q1E192	Q1E193	Q1E194	Q1E195	Q1E196	Q1E197	Q1E198	Q1E199	Q1E200	Q1E201	Q1E202	Q1E203	Q1E204	Q1E205	Q1E206	Q1E207	Q1E208	Q1E209	Q1E210	Q1E211	Q1E212	Q1E213	Q1E214	Q1E215	Q1E216	Q1E217	Q1E218	Q1E219	Q1E220	Q1E221	Q1E222	Q1E223	Q1E224	Q1E225	Q1E226	Q1E227	Q1E228	Q1E229	Q1E230	Q1E231	Q1E232	Q1E233	Q1E234	Q1E235	Q1E236	Q1E237	Q1E238	Q1E239	Q1E240	Q1E241	Q1E242	Q1E243	Q1E244	Q1E245	Q1E246	Q1E247	Q1E248	Q1E249	Q1E250	Q1E251	Q1E252	Q1E253	Q1E254	Q1E255	Q1E256	Q1E257	Q1E258	Q1E259	Q1E260	Q1E261	Q1E262	Q1E263	Q1E264	Q1E265	Q1E266	Q1E267	Q1E268	Q1E269	Q1E270	Q1E271	Q1E272	Q1E273	Q1E274	Q1E275	Q1E276	Q1E277	Q1E278	Q1E279	Q1E280	Q1E281	Q1E282	Q1E283	Q1E284	Q1E285	Q1E286	Q1E287	Q1E288	Q1E289	Q1E290	Q1E291	Q1E292	Q1E293	Q1E294	Q1E295	Q1E296	Q1E297	Q1E298	Q1E299	Q1E300	Q1E301	Q1E302	Q1E303	Q1E304	Q1E305	Q1E306	Q1E307	Q1E308	Q1E309	Q1E310	Q1E311	Q1E312	Q1E313	Q1E314	Q1E315	Q1E316	Q1E317	Q1E318	Q1E319	Q1E320	Q1E321	Q1E322	Q1E323	Q1E324	Q1E325	Q1E326	Q1E327	Q1E328	Q1E329	Q1E330	Q1E331	Q1E332	Q1E333	Q1E334	Q1E335	Q1E336	Q1E337	Q1E338	Q1E339	Q1E340	Q1E341	Q1E342	Q1E343	Q1E344	Q1E345	Q1E346	Q1E347	Q1E348	Q1E349	Q1E350	Q1E351	Q1E352	Q1E353	Q1E354	Q1E355	Q1E356	Q1E357	Q1E358	Q1E359	Q1E360	Q1E361	Q1E362	Q1E363	Q1E364	Q1E365	Q1E366	Q1E367	Q1E368	Q1E369	Q1E370	Q1E371	Q1E372	Q1E373	Q1E374	Q1E375	Q1E376	Q1E377	Q1E378	Q1E379	Q1E380	Q1E381	Q1E382	Q1E383	Q1E384	Q1E385	Q1E386	Q1E387	Q1E388	Q1E389	Q1E390	Q1E391	Q1E392	Q1E393	Q1E394	Q1E395	Q1E396	Q1E397	Q1E398	Q1E399	Q1E400	Q1E401	Q1E402	Q1E403	Q1E404	Q1E405	Q1E406	Q1E407	Q1E408	Q1E409	Q1E410	Q1E411	Q1E412	Q1E413	Q1E414	Q1E415	Q1E416	Q1E417	Q1E418	Q1E419	Q1E420	Q1E421	Q1E422	Q1E423	Q1E424	Q1E425	Q1E426	Q1E427	Q1E428	Q1E429	Q1E430	Q1E431	Q1E432	Q1E433	Q1E434	Q1E435	Q1E436	Q1E437	Q1E438	Q1E439	Q1E440	Q1E441	Q1E442	Q1E443	Q1E444	Q1E445	Q1E446	Q1E447	Q1E448	Q1E449	Q1E450	Q1E451	Q1E452	Q1E453	Q1E454	Q1E455	Q1E456	Q1E457	Q1E458	Q1E459	Q1E460	Q1E461	Q1E462	Q1E463	Q1E464	Q1E465	Q1E466	Q1E467	Q1E468	Q1E469	Q1E470	Q1E471	Q1E472	Q1E473	Q1E474	Q1E475	Q1E476	Q1E477	Q1E478	Q1E479	Q1E480	Q1E481	Q1E482	Q1E483	Q1E484	Q1E485	Q1E486	Q1E487	Q1E488	Q1E489	Q1E490	Q1E491	Q1E492	Q1E493	Q1E494	Q1E495	Q1E496	Q1E497	Q1E498	Q1E499	Q1E500	Q1E501	Q1E502	Q1E503	Q1E504	Q1E505	Q1E506	Q1E507	Q1E508	Q1E509	Q1E510	Q1E511	Q1E512	Q1E513	Q1E514	Q1E515	Q1E516	Q1E517	Q1E518	Q1E519	Q1E520	Q1E521	Q1E522	Q1E523	Q1E524	Q1E525	Q1E526	Q1E527	Q1E528	Q1E529	Q1E530	Q1E531	Q1E532	Q1E533	Q1E534	Q1E535	Q1E536	Q1E537	Q1E538	Q1E539	Q1E540	Q1E541	Q1E542	Q1E543	Q1E544	Q1E545	Q1E546	Q1E547	Q1E548	Q1E549	Q1E550	Q1E551	Q1E552	Q1E553	Q1E554	Q1E555	Q1E556	Q1E557	Q1E558	Q1E559	Q1E560	Q1E561	Q1E562	Q1E563	Q1E564	Q1E565	Q1E566	Q1E567	Q1E568	Q1E569	Q1E570	Q1E571	Q1E572	Q1E573	Q1E574	Q1E575	Q1E576	Q1E577	Q1E578	Q1E579	Q1E580	Q1E581	Q1E582	Q1E583	Q1E584	Q1E585	Q1E586	Q1E587	Q1E588	Q1E589	Q1E590	Q1E591	Q1E592	Q1E593	Q1E594	Q1E595	Q1E596	Q1E597	Q1E598	Q1E599	Q1E600	Q1E601	Q1E602	Q1E603	Q1E604	Q1E605	Q1E606	Q1E607	Q1E608	Q1E609	Q1E610	Q1E611	Q1E612	Q1E613	Q1E614	Q1E615	Q1E616	Q1E617	Q1E618	Q1E619	Q1E620	Q1E621	Q1E622	Q1E623	Q1E624	Q1E625	Q1E626	Q1E627	Q1E628	Q1E629	Q1E630	Q1E631	Q1E632	Q1E633	Q1E634	Q1E635	Q1E636	Q1E637	Q1E638	Q1E639	Q1E640	Q1E641	Q1E642	Q1E643	Q1E644	Q1E645	Q1E646	Q1E647	Q1E648	Q1E649	Q1E650	Q1E651	Q1E652	Q1E653	Q1E654	Q1E655	Q1E656	Q1E657	Q1E658	Q1E659	Q1E660	Q1E661	Q1E662	Q1E663	Q1E664	Q1E665	Q1E666	Q1E667	Q1E668	Q1E669	Q1E670	Q1E671	Q1E672	Q1E673	Q1E674	Q1E675	Q1E676	Q1E677	Q1E678	Q1E679	Q1E680	Q1E681	Q1E682	Q1E683	Q1E684	Q1E685	Q1E686	Q1E687	Q1E688	Q1E689	Q1E690	Q1E691	Q1E692	Q1E693	Q1E694	Q1E695	Q1E696	Q1E697	Q1E698	Q1E699	Q1E700	Q1E701	Q1E702	Q1E703	Q1E704	Q1E705	Q1E706	Q1E707	Q1E708	Q1E709	Q1E710	Q1E711	Q1E712	Q1E713	Q1E714	Q1E715	Q1E716	Q1E717	Q1E718	Q1E719	Q1E720	Q1E721	Q1E722	Q1E723	Q1E724	Q1E725	Q1E726	Q1E727	Q1E728	Q1E729	Q1E730	Q1E731	Q1E732	Q1E733	Q1E734	Q1E735	Q1E736	Q1E737	Q1E738	Q1E739	Q1E740	Q1E741	Q1E742	Q1E743	Q1E744	Q1E745	Q1E746	Q1E747	Q1E748	Q1E749	Q1E750	Q1E751	Q1E752	Q1E753	Q1E754	Q1E755	Q1E756	Q1E757	Q1E758	Q1E759	Q1E760	Q1E761	Q1E762	Q1E763	Q1E764	Q1E765	Q1E766	Q1E767	Q1E768	Q1E769	Q1E770	Q1E771	Q1E772	Q1E773	Q1E774	Q1E775	Q1E776	Q1E777	Q1E778	Q1E779	Q1E780	Q1E781	Q1E782	Q1E783	Q1E784	Q1E785	Q1E786	Q1E787	Q1E788	Q1E789	Q1E790	Q1E791	Q1E792	Q1E793	Q1E794	Q1E795	Q1E796	Q1E797	Q1E798	Q1E799	Q1E800	Q1E801	Q1E802	Q1E803	Q1E804	Q1E805	Q1E806	Q1E807	Q1E808	Q1E809	Q1E810	Q1E811	Q1E812	Q1E813	Q1E814	Q1E815	Q1E816	Q1E817	Q1E818	Q1E819	Q1E820	Q1E821	Q1E822	Q1E823	Q1E824	Q1E825	Q1E826	Q1E827	Q1E828	Q1E829	Q1E830	Q1E831	Q1E832	Q1E833	Q1E834	Q1E835	Q1E836	Q1E837	Q1E838	Q1E839	Q1E840	Q1E841	Q1E842	Q1E843	Q1E844	Q1E845	Q1E846	Q1E847	Q1E848	Q1E849	Q1E850	Q1E851	Q1E852	Q1E853	Q1E854	Q1E855	Q1E856	Q1E857	Q1E858	Q1E859	Q1E860	Q1E861	Q1E862	Q1E863	Q1E864	Q1E865	Q1E866	Q1E867	Q1E868	Q1E869	Q1E870	Q1E871	Q1E872	Q1E873	Q1E874	Q1E875	Q1E876	Q1E877	Q1E878	Q1E879	Q1E880	Q1E881	Q1E882	Q1E883	Q1E884	Q1E885	Q1E886	Q1E887	Q1E888	Q1E889	Q1E890	Q1E891	Q1E892	Q1E893	Q1E894	Q1E895	Q1E896	Q1E897	Q1E898	Q1E899	Q1E900	Q1E901	Q1E902	Q1E903	Q1E904	Q1E905	Q1E906	Q1E907	Q1E908	Q1E909	Q1E910	Q1E911	Q1E912	Q1E913	Q1E914	Q1E915	Q1E916	Q1E917	Q1E918	Q1E919	Q1E920	Q1E921	Q1E922	Q1E923	Q1E924	Q1E925	Q1E926	Q1E927	Q1E928	Q1E929	Q1E930	Q1E931	Q1E932	Q1E933	Q1E934	Q1E935	Q1E936	Q1E937	Q1E938	Q1E939	Q1E940	Q1E941	Q1E942	Q1E943	Q1E944	Q1E945	Q1E946	Q1E947	Q1E948	Q1E949	Q1E950	Q1E951	Q1E952	Q1E953	Q1E954	Q1E955	Q1E956	Q1E957	Q1E958	Q1E959	Q1E960	Q1E961	Q1E962	Q1E963	Q1E964	Q1E965	Q1E966	Q1E967	Q1E968	Q1E969	Q1E970	Q1E971	Q1E972	Q1E973	Q1E974	Q1E975	Q1E976	Q1E977	Q1E978	Q1E979	Q1E980	Q1E981	Q1E982	Q1E983	Q1E984	Q1E985	Q1E986	Q1E987	Q1E988	Q1E989	Q1E990	Q1E991	Q1E992	Q1E993	Q1E994	Q1E995	Q1E996	Q1E997	Q1E998	Q1E999	Q1E1000	Q1E1001	Q1E1002	Q1E1003	Q1E1004	Q1E1005	Q1E1006	Q1E1007	Q1E1008	Q1E1009	Q1E1010	Q1E1011	Q1E1012	Q1E1013	Q1E1014	Q1E1015	Q1E1016	Q1E1017	Q1E1018	Q1E1019	Q1E1020	Q1E1021	Q1E1022	Q1E1023	Q1E1024	Q1E1025	Q1E1026	Q1E1027	Q1E1028	Q1E1029	Q1E1030	Q1E1031	Q1E1032	Q1E1033	Q1E1034	Q1E1035	Q1E1036	Q1E1037	Q1E1038	Q1E1039	Q1E1040	Q1E1041	Q1E1042	Q1E1043	Q1E1044	Q1E1045	Q1E1046	Q1E1047	Q1E1048	Q1E1049	Q1E1050	Q1E1051	Q1E1052	Q1E1053	Q1E1054	Q1E1055	Q1E1056	Q1E1057	Q1E1058	Q1E1059	Q1E1060	Q1E1061	Q1E1062	Q1E1063	Q1E1064	Q1E1065	Q1E1066	Q1E1067	Q1E1068	Q1E1069	Q1E1070	Q1E1071	Q1E1072	Q1E1073	Q1E1074	Q1E1075	Q1E1076	Q1E1077	Q1E1078	Q1E1079	Q1E1080	Q1E1081	Q1E1082	Q1E1083	Q1E1084	Q1E1085	Q1E1086	Q1E1087	Q1E1088	Q1E1089	Q1E1090	Q1E1091	Q1E1092	Q1E1093	Q1E1094	Q1E1095	Q1E1096	Q1E1097	Q1E1098	Q1E1099	Q1E1100	Q1E1101	Q1E1102	Q1E1103	Q1E1104	Q1E1105	Q1E1106	Q1E1107	Q1E1108	Q1E1109	Q1E1110	Q1E1111
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017T1	C	CPIOTUP#	B1	GAN	AM	PSEPS#	1514	AMH/AM/F#	31	U1T/35EC	M(AM/31)	Y1R1	PYR#								
6.574E-02	1.6400E-04	2.6414E-01	1.198E	0	2.887E	01	2.051E	03	6.221E	02	6.169E	02	2.200E	02	6.432E	02	2.802E	00			
7.117E-02	2.510E-04	2.6410E-01	1.198E	0	2.887E	01	2.055E	03	6.257E	02	6.162E	02	2.240E	02	1.950E	02	6.459E	02	2.830E	00	
6.934E-02	6.640E-04	2.6494E-01	1.198E	0	2.890E	01	2.055E	03	6.216E	02	6.120E-02	2.24AE	02	1.961E	02	6.442E	02	2.930E	00		
6.104E-02	2.644E-03	2.6484E-01	1.198E	0	2.805E	01	2.053E	03	6.159E	02	6.052E-02	6.00SE	02	1.976E	02	6.164E	02	2.880E	00		
6.858E-02	1.547E-02	2.6499E-01	1.199E	0	2.641E	01	2.046E	03	5.921E	02	5.170E-02	5.00AE	02	1.964E	02	6.142E	02	2.926E	00		
6.3054E-02	4.005E-02	3.995E-01	1.401E	0	1.710E	U	2.039E	03	5.950E	02	4.053E	02	6.461E	02	2.328E	02	8.842E	02	2.804E	03	
2.213E-02	1.005E-01	5.007E-01	1.402E	0	1.236E	U	2.031E	03	5.451E	02	2.995E-02	8.89E	02	1.970E	02	6.743E	02	2.691E	00		
2.571E-02	1.781E-01	5.013E-01	1.403E	0	8.613E	00	2.020E	03	5.327E	02	2.114E-02	1.167E	01	4.477E	02	6.651E	02	2.687E	00		
1.974E-02	2.768E-01	1.122E	0	1.403E	0	6.153E	00	2.011E	05	5.215E	02	1.547E	02	1.967E	02	6.204E	02	2.611E	02	2.677E	00
1.140E-02	4.171E-01	1.640E	00	1.403E	0	2.700E	00	2.000E	03	4.781E-02	1.070E	03	6.927E	02	6.927E	02	2.616E	00			
5.964E-01	3.981E-01	1.942E	00	1.403E	0	3.477E	00	2.001E	03	5.091E	02	4.944E-01	2.24AE	01	1.007E	03	6.824E	02	2.804E	00	
5.964E-01	3.321E-01	1.945E	00	1.403E	0	1.570E	00	1.494E	03	5.040E	02	9.145E-02	2.385E	01	1.070E	05	5.427E	02	6.925E	00	
2.689E-01	5.623E-01	2.031E	00	1.403E	0	3.401E	00	1.602E	03	5.020E	02	8.716E-01	2.462E	03	1.124E	05	6.930E	02	2.904E	00	
5.974E-04	5.974E-01	2.016E	00	1.401E	0	3.425E	00	1.992E	03	5.012E	02	8.616E-01	2.497E	03	1.514E	03	5.630E	02	2.604E	03	
5.267E-01	5.644E-01	2.006E	00	1.403E	0	3.444E	00	1.997E	03	4.013E	02	8.957E-01	2.478E	03	1.109E	03	5.624E	02	2.672E	03	
6.264E-01	4.284E-01	1.924E	00	1.403E	0	1.590E	00	1.993E	03	5.030E	02	4.208E-01	2.160E	05	1.063E	03	5.818E	02	6.920E	03	
1.603E-02	3.610E-01	1.885E	00	1.403E	0	4.642E	00	2.002E	03	5.114E	02	1.177E-02	1.907E	01	8.163E	02	6.607E	02	2.747E	00	
2.217E-02	2.6410E-01	1.010E	00	1.403E	0	6.714E	00	2.011E	03	5.234E	02	1.680E-02	1.944E	01	5.642E	02	5.613E	02	2.561E	00	
2.273E-02	1.590E-01	8.789E-01	1.402E	0	1.016E	01	2.022E	03	5.167E	02	2.479E-02	1.970E	02	1.907E	02	6.870E	02	2.644E	00		
3.746E-02	6.212E-02	2.010E	00	1.403E	0	1.595E	00	1.994E	03	5.030E	02	4.208E-01	2.160E	05	1.063E	03	5.818E	02	6.920E	03	
5.964E-01	3.981E-01	1.942E	00	1.403E	0	3.477E	00	2.001E	03	5.091E	02	4.944E-01	2.24AE	01	1.007E	03	6.824E	02	2.804E	00	
5.964E-01	3.321E-01	1.945E	00	1.403E	0	1.570E	00	1.494E	03	5.040E	02	9.145E-02	2.385E	01	1.070E	05	5.427E	02	6.925E	00	
2.689E-01	5.623E-01	2.031E	00	1.403E	0	3.401E	00	1.602E	03	5.020E	02	8.716E-01	2.462E	03	1.124E	05	6.930E	02	2.904E	00	
5.974E-04	5.974E-01	2.016E	00	1.401E	0	3.425E	00	1.992E	03	5.012E	02	8.616E-01	2.497E	03	1.514E	03	5.630E	02	2.604E	03	
5.267E-01	5.644E-01	2.006E	00	1.403E	0	3.444E	00	1.997E	03	4.013E	02	8.957E-01	2.478E	03	1.109E	03	5.624E	02	2.672E	03	
6.264E-01	4.284E-01	1.924E	00	1.403E	0	1.590E	00	1.993E	03	5.030E	02	4.208E-01	2.160E	05	1.063E	03	5.818E	02	6.920E	03	
1.603E-02	3.610E-01	1.885E	00	1.403E	0	4.642E	00	2.002E	03	5.114E	02	1.177E-02	1.907E	01	8.163E	02	6.607E	02	2.747E	00	
2.217E-02	2.6410E-01	1.010E	00	1.403E	0	6.714E	00	2.011E	03	5.234E	02	1.680E-02	1.944E	01	5.642E	02	5.613E	02	2.561E	00	
2.273E-02	1.590E-01	8.789E-01	1.402E	0	1.016E	01	2.022E	03	5.167E	02	2.479E-02	1.970E	02	1.907E	02	6.870E	02	2.644E	00		
3.746E-02	6.212E-02	2.010E	00	1.403E	0	1.595E	00	1.994E	03	5.030E	02	4.208E-01	2.160E	05	1.063E	03	5.818E	02	6.920E	03	
5.964E-01	3.981E-01	1.942E	00	1.403E	0	3.477E	00	2.001E	03	5.091E	02	4.944E-01	2.24AE	01	1.007E	03	6.824E	02	2.804E	00	
5.964E-01	3.321E-01	1.945E	00	1.403E	0	1.570E	00	1.494E	03	5.040E	02	9.145E-02	2.385E	01	1.070E	05	5.427E	02	6.925E	00	
2.689E-01	5.623E-01	2.031E	00	1.403E	0	3.401E	00	1.602E	03	5.020E	02	8.716E-01	2.462E	03	1.124E	05	6.930E	02	2.904E	00	
5.974E-04	5.974E-01	2.016E	00	1.401E	0	3.425E	00	1.992E	03	5.012E	02	8.616E-01	2.497E	03	1.514E	03	5.630E	02	2.604E	03	
5.267E-01	5.644E-01	2.006E	00	1.403E	0	3.444E	00	1.997E	03	4.013E	02	8.957E-01	2.478E	03	1.109E	03	5.624E	02	2.672E	03	
6.264E-01	4.284E-01	1.924E	00	1.403E	0	1.590E	00	1.993E	03	5.030E	02	4.208E-01	2.160E	05	1.063E	03	5.818E	02	6.920E	03	
1.603E-02	3.610E-01	1.885E	00	1.403E	0	4.642E	00	2.002E	03	5.114E	02	1.177E-02	1.907E	01	8.163E	02	6.607E	02	2.747E	00	
2.217E-02	2.6410E-01	1.010E	00	1.403E	0	6.714E	00	2.011E	03	5.234E	02	1.680E-02	1.944E	01	5.642E	02	5.613E	02	2.561E	00	
2.273E-02	1.590E-01	8.789E-01	1.402E	0	1.016E	01	2.022E	03	5.167E	02	2.479E-02	1.970E	02	1.907E	02	6.870E	02	2.644E	00		
3.746E-02	6.212E-02	2.010E	00	1.403E	0	1.595E	00	1.994E	03	5.030E	02	4.208E-01	2.160E	05	1.063E	03	5.818E	02	6.920E	03	
5.964E-01	3.981E-01	1.942E	00	1.403E	0	3.477E	00	2.001E	03	5.091E	02	4.944E-01	2.24AE	01	1.007E	03	6.824E	02	2.804E	00	
5.964E-01	3.321E-01	1.945E	00	1.403E	0	1.570E	00	1.494E	03	5.040E	02	9.145E-02	2.385E	01	1.070E	05	5.427E	02	6.925E	00	
2.689E-01	5.623E-01	2.031E	00	1.403E	0	3.401E	00	1.602E	03	5.020E	02	8.716E-01	2.462E	03	1.124E	05	6.930E	02	2.904E	00	
5.974E-04	5.974E-01	2.016E	00	1.401E	0	3.425E	00	1.992E	03	5.012E	02	8.616E-01	2.497E	03	1.514E	03	5.630E	02	2.604E	03	
5.267E-01	5.644E-01	2.006E	00	1.403E	0	3.444E	00	1.997E	03	4.013E	02	8.957E-01	2.478E	03	1.109E	03	5.624E	02	2.672E	03	
6.264E-01	4.284E-01	1.924E	00	1.403E	0	1.590E	00	1.993E	03	5.030E	02	4.208E-01	2.160E	05	1.063E	03	5.818E	02	6.920E	03	
1.603E-02	3.610E-01	1.885E	00	1.403E	0	4.642E	00	2.002E	03	5.114E	02	1.177E-02	1.907E	01	8.163E	02	6.607E	02	2.747E	00	
2.217E-02	2.6410E-01	1.010E	00	1.403E	0	6.714E	00	2.011E	03	5.234E	02	1.680E-02	1.944E	01	5.642E	02	5.613E	02	2.561E	00	
2.273E-02	1.590E-01	8.789E-01	1.402E	0	1.016E	01	2.022E	03	5.167E	02	2.479E-02	1.970E	02	1.907E	02	6.870E	02	2.644E	00		
3.746E-02	6.212E-02	2.010E	00	1.403E	0	1.595E	00	1.994E	03	5.030E	02	4.208E-01	2.160E	05	1.063E	03	5.818E	02	6.920E	03	
5.964E-01	3.981E-01	1.942E	00	1.403E	0	3.477E	00	2.001E	03	5.091E	02	4.944E-01	2.24AE	01	1.007E	03	6.824E	02	2.804E	00	
5.964E-01	3.321E-01	1.945E	00	1.403E	0	1.570E	00	1.494E	03	5.040E	02	9.145E-02	2.385E	01	1.070E	05	5.427E	02	6.925E	00	
2.689E-01	5.623E-01	2.031E	00	1.403E	0	3.401E	00	1.602E	03	5.020E	02	8.716E-01	2.462E	03	1.124E	05	6.930E	02	2.904E	00	
5.974E-04	5.974E-01	2.016E	00	1.401E	0	3.425E	00	1.992E	03	5.012E	02	8.616E-01	2.497E	03	1.514E	03	5.630E	02	2.604E	03	
5.267E-01	5.644E-01	2.006E	00	1.403E	0	3.444E	00	1.997E	03	4.013E	02	8.957E-01	2.478E	03	1.109E	03	5.624E	02	2.672E	03	
6.264E-01	4.284E-01	1.924E	00	1.403E	0	1.590E	00	1.993E	03	5.030E	02	4.208E-01	2.160E	05	1.063E	03	5.818E	02	6.920E	03	
1.603E-02	3.610E-01	1.885E	00	1.403E	0	4.642E	00	2.002E	03	5.114E	02	1.177E-02	1.907E	01	8.163E	02	6.607E	02	2.747E	00	
2.217E-02	2.6410E-01	1.010E	00	1.403E	0	6.714E	00	2.011E	03	5.234E	02	1.680E-02	1.944E	01	5.642E	02	5.613E	02	2.561E	00	
2.273E-02	1.590E-01	8.789E-01	1.402E	0	1.016E	01	2.022E	03	5.167E	02	2.479E-02	1.970E	02	1.907E	02	6.870E	02	2.644E	00		
3.746E-02	6.212E-02	2.010E	00	1.403E	0	1.595E	00	1.994E	03	5.030E	02										

[illegible][illegible][illegible][illegible]

01PT1	031PT1	04PT1/06C1	040101/06C1	07T101	07T101E1	07T101E2	07T101E3	07T101E4	07T101E5	07T101E6	07T101E7	07T101E8	07T101E9	07T101E10	07T101E11	07T101E12	07T101E13	07T101E14	07T101E15	07T101E16	07T101E17	07T101E18	07T101E19	07T101E20	07T101E21	07T101E22	07T101E23	07T101E24	07T101E25	07T101E26	07T101E27	07T101E28	07T101E29	07T101E30	07T101E31	07T101E32	07T101E33	07T101E34	07T101E35	07T101E36	07T101E37	07T101E38	07T101E39	07T101E40	07T101E41	07T101E42	07T101E43	07T101E44	07T101E45	07T101E46	07T101E47	07T101E48	07T101E49	07T101E50	07T101E51	07T101E52	07T101E53	07T101E54	07T101E55	07T101E56	07T101E57	07T101E58	07T101E59	07T101E60	07T101E61	07T101E62	07T101E63	07T101E64	07T101E65	07T101E66	07T101E67	07T101E68	07T101E69	07T101E70	07T101E71	07T101E72	07T101E73	07T101E74	07T101E75	07T101E76	07T101E77	07T101E78	07T101E79	07T101E80	07T101E81	07T101E82	07T101E83	07T101E84	07T101E85	07T101E86	07T101E87	07T101E88	07T101E89	07T101E90	07T101E91	07T101E92	07T101E93	07T101E94	07T101E95	07T101E96	07T101E97	07T101E98	07T101E99	07T101E100	07T101E101	07T101E102	07T101E103	07T101E104	07T101E105	07T101E106	07T101E107	07T101E108	07T101E109	07T101E110	07T101E111	07T101E112	07T101E113	07T101E114	07T101E115	07T101E116	07T101E117	07T101E118	07T101E119	07T101E120	07T101E121	07T101E122	07T101E123	07T101E124	07T101E125	07T101E126	07T101E127	07T101E128	07T101E129	07T101E130	07T101E131	07T101E132	07T101E133	07T101E134	07T101E135	07T101E136	07T101E137	07T101E138	07T101E139	07T101E140	07T101E141	07T101E142	07T101E143	07T101E144	07T101E145	07T101E146	07T101E147	07T101E148	07T101E149	07T101E150	07T101E151	07T101E152	07T101E153	07T101E154	07T101E155	07T101E156	07T101E157	07T101E158	07T101E159	07T101E160	07T101E161	07T101E162	07T101E163	07T101E164	07T101E165	07T101E166	07T101E167	07T101E168	07T101E169	07T101E170	07T101E171	07T101E172	07T101E173	07T101E174	07T101E175	07T101E176	07T101E177	07T101E178	07T101E179	07T101E180	07T101E181	07T101E182	07T101E183	07T101E184	07T101E185	07T101E186	07T101E187	07T101E188	07T101E189	07T101E190	07T101E191	07T101E192	07T101E193	07T101E194	07T101E195	07T101E196	07T101E197	07T101E198	07T101E199	07T101E200	07T101E201	07T101E202	07T101E203	07T101E204	07T101E205	07T101E206	07T101E207	07T101E208	07T101E209	07T101E210	07T101E211	07T101E212	07T101E213	07T101E214	07T101E215	07T101E216	07T101E217	07T101E218	07T101E219	07T101E220	07T101E221	07T101E222	07T101E223	07T101E224	07T101E225	07T101E226	07T101E227	07T101E228	07T101E229	07T101E230	07T101E231	07T101E232	07T101E233	07T101E234	07T101E235	07T101E236	07T101E237	07T101E238	07T101E239	07T101E240	07T101E241	07T101E242	07T101E243	07T101E244	07T101E245	07T101E246	07T101E247	07T101E248	07T101E249	07T101E250	07T101E251	07T101E252	07T101E253	07T101E254	07T101E255	07T101E256	07T101E257	07T101E258	07T101E259	07T101E260	07T101E261	07T101E262	07T101E263	07T101E264	07T101E265	07T101E266	07T101E267	07T101E268	07T101E269	07T101E270	07T101E271	07T101E272	07T101E273	07T101E274	07T101E275	07T10
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REF1	REF2	WJ10M/SECF	WJ10M/MOLEF	TJ101	PTJ101	CP1010/6 R1	GAM2	WJ10M/PT 31	WJ10M/SECF
2.7100E-01	2.7100E-02	2.2720E-02	2.0100E 00	5.2900E 02	3.0500E 03	3.4121E 00	6.4090E 00	5.9270E-02	3.2904E 03
WJ10M/PT 31	TS101	TS101	WJ10M/PT 31	TJ101	PTJ101	CP1010/6 R1	GAM2	WJ10M/PT 31	WJ10M/SECF
1.7010E 01	4.6070E 02	5.9950E 02	1.5300E 02	6.4240E 02	2.6001E 03	2.4040E-01	1.3900E 00	6.3927E-02	7.1972E 02
REF1	C	CP1010/6 R1	GAM	WJ10M/PT 31	TS101	WJ10M/PT 31	WJ10M/PT 31	WJ10M/PT 31	PTJ101
8.4927E-02	7.566E-04	2.432E-01	1.700E 00	2.860E 03	2.044E 01	5.952E 02	6.376E-02	7.285E 02	1.147E 02
6.934E-02	1.611E-05	2.406E-01	1.700E 00	2.860E 03	2.044E 01	5.952E 02	6.400E-02	7.252E 02	1.147E 02
6.025E-02	1.052E-06	2.411E-01	1.700E 00	2.860E 03	2.044E 01	5.952E 02	6.433E-02	7.246E 02	1.147E 02
5.666E-02	2.145E-03	2.476E-01	1.700E 00	2.860E 03	2.044E 01	5.952E 02	6.290E-02	7.309E 02	1.147E 02
4.997E-02	5.581E-01	2.565E-01	1.700E 00	2.860E 03	2.044E 01	5.952E 02	6.405E-02	7.311E 02	1.147E 02
4.369E-02	1.469E-02	2.946E-01	1.700E 00	2.860E 03	2.044E 01	5.952E 02	5.505E-02	7.534E 02	1.147E 02
3.893E-02	5.002E-02	3.997E-01	1.700E 00	2.860E 03	2.044E 01	5.952E 02	4.202E-02	8.616E 02	2.295E 02
3.176E-02	7.946E-02	4.950E-01	1.700E 00	2.860E 03	2.044E 01	5.952E 02	3.449E-02	9.779E 02	2.789E 02
2.445E-02	1.164E-01	6.177E-01	1.700E 00	2.860E 03	2.044E 01	5.952E 02	2.798E-02	1.132E 03	3.436E 02
2.171E-02	1.040E-01	7.626E-01	1.700E 00	2.860E 03	2.044E 01	5.952E 02	2.246E-02	1.318E 03	4.214E 02
1.717E-02	1.114E-01	9.111E-01	1.700E 00	2.860E 03	2.044E 01	5.952E 02	1.921E-02	1.514E 03	5.034E 02
1.064E-02	2.764E-01	1.111E 00	1.700E 00	2.860E 03	2.044E 01	5.952E 02	1.964E-02	1.772E 03	6.146E 02
6.181E-01	1.944E-01	1.228E 00	1.700E 00	2.860E 03	2.044E 01	5.952E 02	1.445E-02	1.812E 03	6.759E 02
5.111E-01	1.273E-01	1.475E 00	1.700E 00	2.860E 03	2.044E 01	5.952E 02	1.188E-02	1.906E 03	7.054E 02
2.164E-01	1.717E-01	1.700E 00	1.700E 00	2.860E 03	2.044E 01	5.952E 02	1.401E-02	1.949E 03	6.645E 02
4.940E-01	1.183E-01	1.247E 00	1.700E 00	2.860E 03	2.044E 01	5.952E 02	1.420E-02	1.918E 03	6.877E 02
4.184E-01	2.947E-01	1.177E 00	1.700E 00	2.860E 03	2.044E 01	5.952E 02	1.402E-02	1.816E 03	6.464E 02
1.744E-02	2.070E-01	6.971E-01	1.700E 00	2.860E 03	2.044E 01	5.952E 02	1.410E-02	1.947E 03	6.958E 02
2.314E-02	1.405E-01	7.207E-01	1.700E 00	2.860E 03	2.044E 01	5.952E 02	2.408E-02	1.287E 03	3.896E 02
2.047E-02	1.045E-01	5.658E-01	1.700E 00	2.860E 03	2.044E 01	5.952E 02	2.935E-02	1.047E 03	1.275E 03
1.494E-02	4.946E-02	3.710E-01	1.700E 00	2.860E 03	2.044E 01	5.952E 02	4.487E-02	2.277E 03	2.155E 02
4.362E-02	2.136E-02	3.971E-01	1.700E 00	2.860E 03	2.044E 01	5.952E 02	3.305E-02	7.625E 02	1.844E 02
4.572E-02	2.001E-01	4.447E-01	1.700E 00	2.860E 03	2.044E 01	5.952E 02	5.924E-02	7.294E 02	1.879E 02
5.404E-02	1.735E-03	2.477E-01	1.700E 00	2.860E 03	2.044E 01	5.952E 02	6.315E-02	7.145E 02	1.554E 02
5.456E-02	1.050E-04	2.437E-01	1.700E 00	2.860E 03	2.044E 01	5.952E 02	6.390E-02	7.215E 02	1.565E 02
6.140E-02	6.570E-04	2.437E-01	1.700E 00	2.860E 03	2.044E 01	5.952E 02	6.387E-02	7.254E 02	1.567E 02
7.816E-02	1.182E-04	2.411E-01	1.700E 00	2.860E 03	2.044E 01	5.952E 02	6.448E-02	7.221E 02	1.532E 02
7.844E-02	1.413E-04	2.412E-01	1.700E 00	2.860E 03	2.044E 01	5.952E 02	6.445E-02	7.212E 02	1.512E 02
6.144E-02	4.761E-04	2.427E-01	1.700E 00	2.860E 03	2.044E 01	5.952E 02	6.417E-02	7.217E 02	1.516E 02
REF1	REF2	WJ10M/SECF	WJ10M/MOLEF	TJ101	PTJ101	CP1010/6 R1	GAMJ	WJ10M/PT 31	WJ10M/SECF
3.4776E-01	6.7931E-02	2.2783E-02	2.0100E 00	5.2900E 02	3.0500E 03	3.4121E 00	1.4090E 00	5.9464E-02	6.2227E 02
WJ10M/PT 31	TS101	TS101	WJ10M/PT 31	TJ101	PTJ101	CP1010/6 R1	GAMJ	WJ10M/PT 31	WJ10M/SECF
1.7010E 01	4.6070E 02	5.9950E 02	1.5300E 02	6.4240E 02	2.6001E 03	2.4040E-01	1.3900E 00	6.3701E-02	7.2651E 02
REF1	C	CP1010/6 R1	GAM	WJ10M/PT 31	TS101	WJ10M/PT 31	WJ10M/PT 31	WJ10M/PT 31	PTJ101
8.210E-02	7.571E-04	2.411E-01	1.700E 00	2.860E 03	2.044E 01	5.966E 02	6.169E-02	7.363E 02	1.540E 02
7.445E-02	6.357E-04	2.426E-01	1.700E 00	2.860E 03	2.044E 01	5.966E 02	6.199E-02	7.397E 02	1.548E 02
6.842E-02	1.177E-03	2.444E-01	1.700E 00	2.860E 03	2.044E 01	5.966E 02	6.121E-02	7.370E 02	1.551E 02
5.976E-02	2.493E-03	2.493E-01	1.700E 00	2.860E 03	2.044E 01	5.966E 02	6.241E-02	7.353E 02	1.568E 02
4.702E-02	1.888E-02	2.917E-01	1.700E 00	2.860E 03	2.044E 01	5.966E 02	5.481E-02	7.439E 02	1.772E 02
4.416E-02	3.481E-02	3.516E-01	1.700E 00	2.860E 03	2.044E 01	5.966E 02	4.697E-02	8.154E 02	2.000E 02
1.227E-02	7.644E-02	4.610E-01	1.700E 00	2.860E 03	2.044E 01	5.966E 02	3.491E-02	9.747E 02	2.745E 02
2.404E-02	1.204E-01	6.237E-01	1.700E 00	2.860E 03	2.044E 01	5.966E 02	2.761E-02	1.151E 03	3.491E 02
1.090E-02	1.405E-01	6.579E-01	1.700E 00	2.860E 03	2.044E 01	5.966E 02	2.413E-02	1.240E 03	3.188E 02
1.511E-02	1.654E-01	7.085E-01	1.700E 00	2.860E 03	2.044E 01	5.966E 02	1.517E-02	7.261E 02	1.364E 02
1.104E-02	1.404E-01	8.144E-01	1.700E 00	2.860E 03	2.044E 01	5.966E 02	2.113E-02	1.406E 03	4.934E 02
4.246E-03	1.495E-01	6.451E-01	1.700E 00	2.860E 03	2.044E 01	5.966E 02	2.062E-02	1.657E 02	4.701E 02
4.377E-03	2.005E-01	6.732E-01	1.700E 00	2.860E 03	2.044E 01	5.966E 02	1.791E-02	1.494E 03	4.873E 02
1.112E-03	1.013E-01	4.735E-01	1.700E 00	2.860E 03	2.044E 01	5.966E 02	1.964E-02	1.510E 03	4.344E 02
7.047E-02	1.354E-01	6.440E-01	1.700E 00	2.860E 03	2.044E 01	5.966E 02	2.014E-02	1.464E 03	4.402E 02
1.149E-02	1.404E-01	7.794E-01	1.700E 00	2.860E 03	2.044E 01	5.966E 02	2.227E-02	1.376E 03	4.414E 02
2.232E-02	1.273E-01	6.456E-01	1.700E 00	2.860E 03	2.044E 01	5.966E 02	2.657E-02	1.183E 03	3.613E 02
2.013E-02	1.070E-01	5.633E-01	1.700E 00	2.860E 03	2.044E 01	5.966E 02	3.027E-02	1.069E 03	3.191E 02
1.173E-02	1.407E-02	6.915E-01	1.700E 00	2.860E 03	2.044E 01	5.966E 02	3.389E-02	6.891E 02	2.442E 02
4.127E-02	6.775E-02	4.100E-01	1.700E 00	2.860E 03	2.044E 01	5.966E 02	4.367E-02	2.225E 02	5.569E 02
4.413E-02	2.207E-02	1.194E-01	1.700E 00	2.860E 03	2.044E 01	5.966E 02	5.231E-02	7.670E 02	1.854E 02
4.572E-02	7.927E-03	2.649E-01	1.700E 00	2.860E 03	2.044E 01	5.966E 02	6.642E-02	2.229E 02	5.626E 02
4.541E-02	1.717E-01	4.443E-01	1.700E 00	2.860E 03	2.044E 01	5.966E 02	6.325E-02	7.269E 02	1.557E 02
7.704E-02	4.954E-04	2.422E-01	1.700E 00	2.860E 03	2.044E 01	5.966E 02	6.411E-02	7.254E 02	1.542E 02
4.023E-02	3.670E-05	2.411E-01	1.700E 00	2.860E 03	2.044E 01	5.966E 02	6.436E-02	7.244E 02	1.571E 02
9.374E-02	1.247E-04	2.412E-01	1.700E 00	2.860E 03	2.044E 01	5.966E 02	6.471E-02	7.240E 02	1.531E 02
REF1	REF2	WJ10M/SECF	WJ10M/MOLEF	TJ101	PTJ101	CP1010/6 R1	GAMJ	WJ10M/PT 31	WJ10M/SECF
4.4046E-01	9.7843E-02	2.2781E-02	2.0100E 00	5.2910E 02	3.0500E 03	3.4121E 00	1.4050E 00	5.9498E-02	3.1990E 03
WJ10M/PT 31	TS101	TS101	WJ10M/PT 31	TJ101	PTJ101	CP1010/6 R1	GAMJ	WJ10M/PT 31	WJ10M/SECF
1.7010E 01	4.6070E 02	5.9950E 02	1.5300E 02	6.4240E 02	2.6001E 03	2.4040E-01	1.3970E 00	6.3702E-02	7.2550E 02
REF1	C	CP1010/6 R1	GAM	WJ10M/PT 31	TS101	WJ10M/PT 31	WJ10M/PT 31	WJ10M/PT 31	PTJ101
6.860E-02	3.786E-04	2.419E-01	1.700E 00	2.860E 03	2.044E 01	5.937E 02	6.397E-02	7.277E 02	1.437E 02
7.677E-02	2.151E-04	2.427E-01	1.700E 00	2.860E 03	2.044E 01	5.937E 02	6.366E-02	7.300E 02	1.504E 02
6.724E-02	2.960E-03	2.501E-01	1.700E 00	2.860E 03	2.044E 01	5.937E 02	6.223E-02	7.349E 02	1.574E 02
5.704E-02	1.143E-02	2.774E-01	1.700E 00	2.860E 03	2.044E 01	5.937E 02	5.735E-02	7.511E 02	1.740E 02
4.944E-02	2.247E-02	1.134E-01	1.700E 00	2.860E 03	2.044E 01	5.937E 02	5.177E-02	7.872E 02	1.876E 02
1.651E-02	5.610E-02	4.016E-01	1.700E 00	2.860E 03	2.044E 01	5.937E 02	4.154E-02	8.820E 02	2.326E 02
2.904E-02	4.201E-02	5.042E-01	1.700E 00	2.860E 03	2.044E 01	5.937E 02	3.367E-02	8.007E 02	2.865E 02
2.074E-02	1.037E-01	5.537E-01	1.700E 00	2.860E 03	2.044E 01	5.937E 02	2.925E-02	1.120E 03	3.710E 02
1.413E-02	1.239E-01	6.508E-01	1.700E 00	2.860E 03	2.044E 01	5.937E 02	2.642E-02	1.202E 03	3.855E 02
1.004E-02	1.394E-01	6.710E-01	1.700E 00	2.860E 03	2.044E 01	5.937E 02	2.460E-02	1.216E 03	3.780E 02
5.105E-03	1.467E-01	6.907E-01	1.700E 00	2.860E 03	2.044E 01	5.937E 02	2.476E-02	1.248E 03	3.910E 02
7.074E-03	1.440E-01	6.979E-01	1.700E 00	2.860E 03	2.044E 01	5.937E 02	2.472E-02	1.272E 03	3.919E 02
4.413E-03	1.419E-01	6.979E-01	1.700E 00	2.860E 03	2.044E 01	5.937E 02	2.491E-02	1.262E 03	3.847E 02
1.602E-02	1.340E-01	5.737E-01	1.700E 00	2.860E 03	2.044E 01	5.937E 02	2.455E-02	1.228E 03	3.744E 02
1.467E-02	1.240E-01	6.412E-01	1.700E 00	2.860E 03	2.044E 01	5.937E 02	2.677E-02	1.182E 03	3.610E 02
2.015E-02	1.134E-01	5.942E-01	1.700E 00	2.860E 03	2.044E 01	5.937E 02			

RIPTI	PSIPTI	WJIAW/SECI	WJIAW/MOLEI	YJIAI	PTIIPSP	CPJIBTU/A	RI	GAMJ	RMJIAW/PT	SI	UIPT/SECI		
5.2122E-01	1.0799E-01	2.2790E-02	2.0160E-00	5.2991E-02	5.0510E-03	5.4121E-00	1.4059E-00	3.6079E-05	5.1690E-03				
MJIBTU/A	TSJIAI	TSJINI	MJIBTU/A	YJIAI	PTIIPSP	CPJIBTU/A	RI	GAMJ	RMJIAW/PT	SI	UIPT/SECI		
1.7811E-03	6.7048E-02	9.4935E-02	1.5351E-02	6.4340E-02	2.6054E-03	2.4081E-01	1.3979E-00	6.3542E-02	7.2914E-02				
RIPTI	C	CPJIBTU/A	RI	GAM	W	PSIIPSP	TSIPI	RMJIAW/PT	SI	UIPT/SECI	MJIBTU/A	YJIAI	PTIIPSP
7.773E-02	1.496E-05	2.455E-01	1.394E-00	2.040E-01	2.051E-05	5.418E-02	6.509E-02	7.533E-02	1.550E-02	6.355E-02	2.609E-05		
6.735E-02	5.099E-03	2.569E-01	1.394E-00	2.712E-01	2.031E-03	5.058E-02	6.086E-02	7.427E-02	1.604E-02	6.286E-02	2.602E-05		
6.815E-02	2.918E-02	3.131E-01	1.400E-00	2.044E-01	2.031E-03	5.605E-02	4.488E-02	8.100E-02	1.944E-02	5.997E-02	2.574E-03		
4.407E-02	1.703E-01	3.545E-01	1.400E-00	1.438E-01	2.031E-03	5.452E-02	4.488E-02	6.394E-02	2.110E-02	4.965E-02	2.570E-03		
3.559E-02	5.710E-02	4.224E-01	1.401E-00	1.443E-01	2.031E-03	5.457E-02	5.947E-02	9.112E-02	2.444E-02	5.450E-02	2.588E-03		
2.435E-02	7.343E-02	4.764E-01	1.401E-00	1.462E-01	2.024E-03	5.397E-02	5.556E-02	9.755E-02	7.718E-02	5.797E-02	2.604E-03		
1.417E-02	9.094E-02	4.304E-01	1.402E-00	1.307E-01	2.025E-03	5.354E-02	5.149E-02	1.047E-01	1.020E-02	5.747E-02	2.623E-03		
8.612E-03	1.044E-01	5.747E-01	1.402E-00	1.204E-01	2.022E-03	5.319E-02	2.967E-02	1.118E-01	1.253E-02	5.752E-02	2.659E-03		
-2.504E-03	1.046E-01	5.869E-01	1.402E-00	1.141E-01	2.022E-03	5.312E-02	2.910E-02	1.139E-01	1.324E-02	5.747E-02	2.661E-03		
-1.227E-02	1.022E-01	5.641E-01	1.402E-00	1.224E-01	2.024E-03	5.311E-02	3.004E-02	1.078E-01	1.216E-02	5.757E-02	2.645E-03		
-2.522E-02	5.461E-02	4.132E-01	1.401E-00	1.351E-01	2.027E-03	5.176E-02	3.277E-02	1.014E-01	2.429E-02	5.740E-02	2.611E-03		
-3.517E-02	6.004E-02	4.318E-01	1.401E-00	1.407E-01	2.033E-03	5.461E-02	3.872E-02	7.172E-02	2.497E-02	5.850E-02	2.585E-03		
-6.955E-02	3.441E-02	3.514E-01	1.401E-00	1.977E-01	2.033E-03	5.471E-02	4.441E-02	4.202E-02	2.073E-02	5.945E-02	2.571E-03		
-9.461E-02	1.491E-02	2.945E-01	1.399E-00	2.363E-01	2.033E-03	5.717E-02	5.448E-02	7.552E-02	1.784E-02	6.107E-02	2.576E-03		
-6.744E-02	1.141E-02	2.803E-01	1.399E-00	2.477E-01	2.045E-03	5.946E-02	6.053E-02	7.127E-02	1.620E-02	6.247E-02	2.596E-03		
-9.224E-02	1.459E-03	2.400E-01	1.395E-00	2.814E-01	2.042E-03	5.933E-02	6.315E-02	7.259E-02	1.554E-02	6.341E-02	2.607E-03		
RIPTI	PSIPTI	WJIAW/SECI	WJIAW/MOLEI	YJIAI	PTIIPSP	CPJIBTU/A	RI	GAMJ	RMJIAW/PT	SI	UIPT/SECI		
6.0479E-01	1.1757E-01	2.2783E-02	2.0160E-00	5.2971E-02	5.0505E-03	5.4121E-00	1.4059E-00	5.6178E-05	5.1736E-03				
MJIBTU/A	TSJIAI	TSJINI	MJIBTU/A	YJIAI	PTIIPSP	CPJIBTU/A	RI	GAMJ	RMJIAW/PT	SI	UIPT/SECI		
1.7808E-03	6.7072E-02	9.4902E-02	1.5351E-02	6.4340E-02	2.6059E-03	2.4082E-01	1.3975E-00	6.5629E-02	7.2578E-02				
RIPTI	C	CPJIBTU/A	RI	GAM	W	PSIIPSP	TSIPI	RMJIAW/PT	SI	UIPT/SECI	MJIBTU/A	YJIAI	PTIIPSP
9.139E-02	8.369E-04	2.433E-01	1.395E-00	2.085E-01	2.036E-03	5.881E-02	6.420E-02	7.013E-02	1.520E-02	6.245E-02	2.610E-03		
7.435E-02	3.466E-03	2.517E-01	1.396E-00	2.769E-01	2.036E-03	5.869E-02	6.217E-02	7.272E-02	1.572E-02	6.289E-02	2.594E-03		
6.941E-02	7.014E-03	2.659E-01	1.399E-00	2.620E-01	2.036E-03	5.811E-02	5.441E-02	7.402E-02	1.643E-02	6.273E-02	2.588E-03		
5.942E-02	1.547E-02	2.902E-01	1.399E-00	2.394E-01	2.036E-03	5.714E-02	5.526E-02	7.604E-02	1.761E-02	6.116E-02	2.575E-03		
4.534E-02	2.504E-02	5.511E-01	1.400E-00	1.973E-01	2.035E-03	5.574E-02	4.676E-02	4.279E-02	2.074E-02	5.944E-02	2.578E-03		
5.445E-02	5.305E-02	4.097E-01	1.401E-00	1.495E-01	2.032E-03	5.483E-02	4.064E-02	4.011E-02	2.342E-02	5.874E-02	2.592E-03		
2.273E-02	7.104E-02	4.649E-01	1.401E-00	1.486E-01	2.029E-03	5.414E-02	3.602E-02	4.767E-02	2.687E-02	5.824E-02	2.614E-03		
9.441E-03	8.349E-02	5.159E-01	1.401E-00	1.344E-01	2.027E-03	5.382E-02	3.277E-02	1.019E-01	2.954E-02	5.800E-02	2.631E-03		
6.954E-04	4.777E-02	5.262E-01	1.401E-00	1.333E-01	2.027E-03	5.385E-02	3.246E-02	1.047E-01	2.982E-02	5.906E-02	2.636E-03		
-1.279E-02	4.361E-02	5.059E-01	1.401E-00	1.366E-01	2.024E-03	5.394E-02	3.327E-02	1.024E-01	2.904E-02	5.909E-02	2.623E-03		
-2.627E-02	7.161E-02	4.649E-01	1.401E-00	1.479E-01	2.030E-03	5.441E-02	3.979E-02	9.714E-02	2.703E-02	5.935E-02	2.608E-03		
-3.946E-02	5.064E-02	4.020E-01	1.401E-00	1.727E-01	2.035E-03	5.515E-02	4.125E-02	6.459E-02	2.344E-02	5.905E-02	2.584E-03		
-6.595E-02	1.431E-02	3.479E-01	1.400E-00	1.984E-01	2.034E-03	5.401E-02	4.474E-02	8.249E-02	2.075E-02	5.949E-02	2.577E-03		
-5.763E-02	1.404E-02	2.932E-01	1.399E-00	2.834E-01	2.041E-03	5.714E-02	5.395E-02	7.445E-02	1.804E-02	6.109E-02	2.580E-03		
-6.735E-02	9.421E-03	2.661E-01	1.399E-00	2.494E-01	2.042E-03	5.612E-02	5.904E-02	7.319E-02	1.445E-02	6.219E-02	2.580E-03		
-7.374E-02	4.421E-03	2.546E-01	1.399E-00	2.735E-01	2.041E-03	5.875E-02	6.151E-02	7.240E-02	1.590E-02	6.245E-02	2.587E-03		
-7.431E-02	2.476E-03	2.492E-01	1.399E-00	2.797E-01	2.039E-03	5.849E-02	6.264E-02	7.244E-02	1.563E-02	6.312E-02	2.594E-03		

[illegible]

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RTPT	RTPT	MJ10M/SEC1	MJ10M/MJL01	YTJ01	PTJ1P3F1	CPJ10M/PT 31	GAMJ	MJ10M/PT 31	MJ10M/PT 31	MJ10M/PT 31	
1.2095E-01	1.4005E-02	1.4229E-02	2.0160E 00	1.4005E 02	2.5400E 05	5.4190E 00	1.4040E 00	5.2099E-00	2.3090E 03		
MJ10M/01	TSJ01	TSJ01	MJ10M/01	TSJ01	PTJ1P3F1	CPJ10M/PT 31	GAMJ	MJ10M/PT 31	MJ10M/PT 31	MJ10M/PT 31	
1.3327E 03	1.1331E 02	5.0771E 02	1.5550E 01	6.4999E 02	2.7774E 03	2.6000E-01	1.3977E 00	6.4900E-02	7.9441E 02		
RTPT	C	CPJ10M/PT 31	GAM	MJ	PTJ1P3F1	TSJ01	MJ10M/PT 31	UJ1P7/SEC1	MJ10M/01	YTJ01	PTJ1P3F1
6.930E-02	1.600E-03	2.400E-01	1.399E 00	2.0360 01	2.047E 03	9.944E 02	6.379E-02	6.056E 02	1.502E 02	6.4750 02	2.703E 03
4.763E-02	1.000E-05	2.409E-01	1.399E 00	2.047E 01	2.040E 03	5.934E 02	6.529E-02	7.995E 02	1.547E 02	6.407E 02	2.702E 03
5.470E-02	2.015E-03	2.498E-01	1.399E 00	2.792E 01	2.041E 03	5.075E 02	6.330E-02	6.002E 02	1.594E 02	6.187E 02	2.763E 03
2.639E-02	4.542E-02	3.053E-01	1.400E 00	1.002E 01	2.0520 03	5.550E 02	4.333E-02	6.459E 02	2.257E 02	5.920E 02	2.572E 03
2.126E-02	1.450E-01	7.049E-01	1.402E 00	9.024E 00	2.047E 03	5.174E 02	2.422E-02	1.114E 03	3.970E 02	5.726E 02	2.553E 03
1.339E-02	5.130E-01	1.074E 00	1.404E 00	3.686E 00	2.044E 03	5.224E 02	9.318E-05	1.066E 03	1.031E 05	5.394E 02	2.595E 03
5.550E-01	6.212E-01	3.172E 00	1.404E 00	2.175E 00	2.048E 03	5.105E 02	5.501E-03	2.146E 03	1.725E 03	5.311E 02	2.584E 03
4.064E-04	9.507E-01	5.265E 00	1.404E 00	2.113E 00	2.049E 03	5.191E 02	5.399E-03	2.175E 03	1.777E 03	5.359E 02	2.561E 05
-2.646E-05	9.184E-01	5.165E 00	1.404E 00	2.180E 00	2.091E 03	5.195E 02	5.572E-03	2.342E 03	1.724E 03	5.541E 02	2.566E 03
-1.333E-02	2.911E-01	1.168E 00	1.403E 00	5.922E 00	2.051E 03	5.289E 02	1.487E-02	1.460E 03	6.448E 02	5.693E 02	2.587E 03
-2.675E-02	1.602E-02	2.918E-01	1.495E 00	2.386E 00	2.043E 03	5.766E 02	5.497E-02	7.453E 02	1.794E 02	6.199E 02	2.645E 03
-4.617E-02	3.680E-03	2.537E-01	1.398E 00	2.750E 01	2.065E 03	5.961E 02	6.146E-02	6.193E 02	1.634E 02	6.480E 02	2.702E 03
-4.687E-02	2.715E-03	2.494E-01	1.398E 00	2.796E 01	2.049E 03	5.966E 02	6.275E-02	6.121E 02	1.605E 02	6.493E 02	2.704E 05
-9.141E-02	3.422E-03	2.510E-01	1.398E 00	2.770E 01	2.049E 03	5.954E 02	6.231E-02	6.176E 02	1.621E 02	6.484E 02	2.701E 03
RTPT	RTPT	MJ10M/SEC1	MJ10M/MJL01	YTJ01	PTJ1P3F1	CPJ10M/PT 31	GAMJ	MJ10M/PT 31	MJ10M/PT 31	MJ10M/PT 31	
1.6507E-01	1.6599E-00	1.4024E-02	2.0160E 00	6.4034E 02	2.5341E 03	3.4203E 00	1.4040E 00	6.1505E-03	2.6090E 03		
MJ10M/01	TSJ01	TSJ01	MJ10M/01	TSJ01	PTJ1P3F1	CPJ10M/PT 31	GAMJ	MJ10M/PT 31	MJ10M/PT 31	MJ10M/PT 31	
1.6444E 03	5.1462E 02	3.0754E 02	1.5532E 02	6.4925E 02	2.7591E 03	2.4089E-01	1.3978E 00	6.4900E-02	7.9441E 02		
RTPT	C	CPJ10M/PT 31	GAM	MJ	PTJ1P3F1	TSJ01	MJ10M/PT 31	UJ1P7/SEC1	MJ10M/01	YTJ01	PTJ1P3F1
8.644E-02	7.162E-04	2.432E-01	1.399E 00	2.870E 01	2.040E 03	5.959E 02	6.442E-02	7.944E 02	1.502E 02	6.4750 02	2.703E 03
7.119E-02	6.685E-03	2.409E-01	1.399E 00	2.659E 01	2.062E 05	5.961E 02	5.953E-02	6.274E 02	1.684E 02	6.482E 02	2.767E 03
6.290E-02	5.005E-01	2.555E-01	1.399E 00	2.680E 01	2.042E 03	5.959E 02	6.020E-02	6.222E 02	1.668E 02	6.679E 02	2.766E 03
5.008E-02	4.007E-03	2.537E-01	1.398E 00	2.750E 01	2.041E 03	5.946E 02	6.170E-02	6.132E 02	1.628E 02	6.678E 02	2.768E 03
4.033E-02	6.372E-03	2.526E-01	1.399E 00	2.761E 01	2.059E 03	5.931E 02	6.206E-02	6.082E 02	1.616E 02	6.447E 02	2.760E 05
3.147E-02	1.354E-02	2.030E-01	1.395E 00	2.453E 01	2.052E 03	5.765E 02	5.652E-02	7.503E 02	1.747E 02	6.204E 02	2.654E 03
2.842E-02	2.893E-02	3.320E-01	1.400E 00	2.059E 01	2.049E 03	5.659E 02	4.894E-02	6.029E 02	1.993E 02	6.045E 02	2.592E 03
2.537E-02	5.101E-02	4.121E-01	1.401E 00	1.685E 01	2.040E 03	5.561E 02	4.013E-02	6.372E 02	2.611E 02	5.917E 02	2.542E 03
2.232E-02	9.950E-02	5.260E-01	1.401E 00	1.318E 01	2.043E 03	5.474E 02	3.184E-02	6.527E 02	3.023E 02	5.820E 02	2.929E 03
1.924E-02	1.374E-01	6.794E-01	1.402E 00	1.019E 01	2.040E 03	5.408E 02	2.488E-02	1.099E 03	3.463E 02	5.743E 02	2.547E 03
1.510E-02	1.593E-01	8.754E-01	1.402E 00	7.904E 00	2.038E 03	5.357E 02	1.947E-02	1.272E 05	4.937E 02	5.726E 02	2.570E 03
7.814E-03	4.344E-01	1.242E 00	1.403E 00	4.255E 00	2.036E 03	5.267E 02	1.064E-02	1.780E 03	6.034E 02	5.565E 02	2.607E 03
4.771E-03	5.086E-01	1.060E 00	1.403E 00	5.714E 00	2.034E 03	5.250E 02	9.314E-01	1.405E 03	1.031E 03	5.639E 02	2.609E 05
1.603E-03	5.445E-01	2.033E 00	1.403E 00	3.349E 00	2.034E 03	5.241E 02	8.514E-03	1.991E 03	1.128E 03	5.629E 02	2.608E 05
-1.501E-03	5.531E-01	2.002E 00	1.403E 00	3.451E 00	2.035E 03	5.247E 02	8.642E-03	1.967E 03	1.109E 03	5.632E 02	2.604E 05
-0.470E-03	4.053E-01	1.532E 00	1.403E 00	4.513E 00	2.035E 03	5.273E 02	1.127E-02	1.723E 03	6.925E 02	5.659E 02	2.603E 03
-1.511E-02	2.645E-01	1.083E 00	1.403E 00	6.385E 00	2.036E 03	5.311E 02	1.394E-02	1.346E 03	6.060E 02	5.691E 02	2.590E 03
-1.516E-02	1.592E-01	7.477E-01	1.402E 00	9.261E 00	2.039E 03	5.170E 02	2.276E-02	1.167E 03	4.225E 02	5.734E 02	2.593E 03
-2.112E-02	8.974E-02	5.265E-01	1.401E 00	1.317E 01	2.043E 03	5.403E 02	3.187E-02	4.654E 02	3.024E 02	5.917E 02	2.543E 03
-2.814E-02	4.178E-02	1.717E-01	1.400E 00	1.039E 01	2.047E 03	5.397E 02	4.401E-02	5.366E 02	2.208E 02	5.964E 02	2.566E 03
-3.611E-02	7.210E-03	2.635E-01	1.399E 00	2.642E 01	2.050E 03	5.385E 02	5.909E-02	7.956E 02	1.680E 02	5.640E 02	2.713E 03
-4.340E-02	6.101E-03	2.575E-01	1.398E 00	2.792E 01	2.051E 03	5.331E 02	6.273E-02	6.074E 02	1.601E 02	6.454E 02	2.766E 03
-5.375E-02	7.014E-03	2.631E-01	1.398E 00	2.644E 01	2.042E 03	5.945E 02	9.947E-02	6.701E 02	1.689E 02	6.467E 02	2.772E 03
-6.762E-02	6.121E-03	2.603E-01	1.398E 00	2.678E 01	2.062E 03	5.946E 02	6.011E-02	6.274E 02	1.672E 02	6.471E 02	2.775E 05
-7.941E-02	5.512E-03	2.513E-01	1.398E 00	2.654E 01	2.060E 03	5.940E 02	6.055E-02	6.258E 02	1.659E 02	6.467E 02	2.776E 05
-1.003E-01	4.222E-03	2.576E-01	1.398E 00	2.708E 01	2.056E 03	5.933E 02	6.075E-02	6.216E 02	1.650E 02	6.456E 02	2.767E 05
-1.330E-01	3.710E-03	2.513E-01	1.398E 00	2.774E 01	2.056E 03	5.856E 02	6.305E-02	7.594E 02	1.578E 02	6.314E 02	2.676E 03
RTPT	RTPT	MJ10M/SEC1	MJ10M/MJL01	YTJ01	PTJ1P3F1	CPJ10M/PT 31	GAMJ	MJ10M/PT 31	MJ10M/PT 31	MJ10M/PT 31	
2.3437E-01	6.5437E-02	1.4062E-02	2.0160E 00	1.4054E 00	2.5303E 03	3.4204E 00	1.4040E 00	5.1505E-03	2.6107E 00		
MJ10M/01	TSJ01	TSJ01	MJ10M/01	TSJ01	PTJ1P3F1	CPJ10M/PT 31	GAMJ	MJ10M/PT 31	MJ10M/PT 31	MJ10M/PT 31	
1.6481E 05	5.1433E 02	5.9740E 02	1.5543E 02	6.4969E 02	2.7644E 03	2.4090E-01	1.3977E 00	6.4922E-02	7.9443E 02		
RTPT	C	CPJ10M/PT 31	GAM	MJ	PTJ1P3F1	TSJ01	MJ10M/PT 31	UJ1P7/SEC1	MJ10M/01	YTJ01	PTJ1P3F1
6.909E-02	1.160E-04	2.412E-01	1.398E 00	2.8920 01	2.055E 03	5.952E 02	6.446E-02	6.007E 02	1.553E 02	6.402E 02	2.774E 03
8.210E-02	3.285E-03	2.514E-01	1.398E 00	2.775E 01	2.047E 03	5.952E 02	6.208E-02	6.167E 02	1.617E 02	6.402E 02	2.775E 05
7.515E-02	1.000E-05	2.409E-01	1.398E 00	2.857E 01	2.050E 03	5.957E 02	6.403E-02	7.946E 02	1.551E 02	6.401E 02	2.775E 03
6.380E-02	7.202E-04	2.432E-01	1.398E 00	2.869E 01	2.050E 03	5.952E 02	6.425E-02	6.021E 02	1.565E 02	6.400E 02	2.776E 05
5.429E-02	6.487E-04	2.429E-01	1.398E 00	2.872E 01	2.050E 03	5.947E 02	6.435E-02	5.010E 02	1.562E 02	6.475E 02	2.775E 03
4.649E-02	3.303E-03	2.514E-01	1.398E 00	2.774E 01	2.050E 03	5.933E 02	6.230E-02	6.118E 02	1.611E 02	6.456E 02	2.770E 03
4.027E-02	6.745E-03	2.623E-01	1.398E 00	2.657E 01	2.056E 03	5.972E 02	6.022E-02	6.129E 02	1.660E 02	6.575E 02	2.743E 03
3.641E-02	1.180E-03	2.785E-01	1.399E 00	2.509E 01	2.054E 03	5.975E 02	5.745E-02	7.934E 02	1.723E 02	6.236E 02	2.673E 05
2.946E-02	3.563E-03	2.542E-01	1.400E 00	1.962E 01	2.048E 03	5.611E 02	4.630E-02	6.286E 02	2.104E 02	6.001E 02	2.570E 03
2.692E-02	9.480E-02	4.155E-01	1.401E 00	1.671E 01	2.046E 03	5.545E 02	1.980E-02	5.700E 02	2.424E 02	5.910E 02	2.534E 03
2.344E-02	9.111E-02	4.491E-01	1.401E 00	1.590E 01	2.043E 03	5.444E 02	3.345E-02	9.424E 02	2.481E 02	5.850E 02	2.545E 05
2.095E-02	1.094E-01	5.814E-01	1.402E 00	1.177E 01	2.041E 03	5.444E 02	2.554E-02	1.030E 03	3.736E 02	5.805E 02	2.591E 03
1.904E-02	1.673E-01	7.737E-01	1.402E 00	8.951E 00	2.036E 03	5.386E 02	2.190E-02	1.217E 03	4.394E 02	5.764E 02	2.581E 05
6.523E-03	2.275E-01	9.657E-01	1.402E 00	7.167E 00	2.072E 03	5.341E 02	1.765E-02	1.391E 03	5.440E 02	5.741E 02	2.614E 03
3.489E-03	2.559E-01	1.056E 00	1.402E 00	6.552E 00	2.031E 03	5.320E 02	1.616E-02	1.477E 03	5.966E 02	5.740E 02	2.633E 05
-2.519E-03	2.631E-01	1.079E 00	1.402E 00	6.412E 00	2.031E 03	5.327E 02	1.583E-02	1.492E 03	5.891E 02	5.734E 02	2.632E 05
-8.603E-03	2.310E-01	9.749E-01	1.402E 00	7.053E 00	2.033E 03	5.341E 02	1.745E-02	1.394E 03	5.919E 02	5.719E 02	2.611E 05
-1.148E-02	1.980E-01	8.743E-01	1.402E 00	7.918E 00	2.036E 03	5					

06P23	06P23	0210M/SEC1	MU10M/MU10	2E101	P210P51	CP010TU/0 01	GAM	MU010M/PT 01	MU010M/SEC1		
4.44030-01	0.04030-01	1.41340-02	2.01600 00	0.47510 02	2.04200 00	0.42010 00	1.40040 00	0.10040-03	2.04710 01		
MU10M/01	TS101	TS0101	MU10M/01	TS0101	P201P51	CP010TU/0 01	GAM	MU010M/PT 01	MU010M/SEC1		
1.44340 01	0.14200 02	0.04030 02	1.44340 01	0.14200 02	2.04200 05	2.44000-01	1.40040 00	0.10040-03	0.04240 02		
01P21	C	CP10TU/0 01	GAM	MU	P51P51	TS101	MU010M/PT 01	U1P2/SEC1	MU010M/01	TS101	P21P51
9.0550-02	1.2770-03	2.4640-01	1.3900 00	2.0320 01	2.0410 03	0.5220 02	0.3120-02	0.0710 02	1.5700 02	0.4450 02	2.7850 03
2.6720-02	1.6970-04	2.4140-01	1.3900 00	2.0400 03	2.0450 03	0.5400 02	0.4530-02	0.0540 02	1.5530 02	0.4700 02	2.7240 03
5.5700-01	1.5700-04	2.4370-01	1.3900 00	2.0430 03	2.0420 03	0.5170 02	0.4400-02	0.0640 02	1.5660 02	0.4700 02	2.7700 03
5.0070-02	0.5210-01	2.5530-01	1.3900 00	2.7320 01	2.0530 03	0.5240 02	0.1270-02	0.1010 02	1.6340 02	0.4470 02	2.7030 03
6.9500-02	7.1240-03	2.0350-01	1.3900 00	2.0450 01	2.0530 03	0.5050 02	0.0010-02	0.0740 02	1.6410 02	0.3500 02	2.7200 03
4.1000-02	1.4070-02	2.9200-01	1.3900 00	2.3050 01	2.0510 03	0.5700 02	0.5400-02	0.1400 02	1.7900 02	0.2100 02	2.6750 03
3.5700-02	2.9450-02	3.3440-01	1.4000 00	2.0700 01	2.0490 03	0.5400 02	0.4930-02	0.4400 02	2.0240 02	0.1000 02	2.6620 03
2.0710-02	0.5070-02	4.0090-01	1.4000 00	1.7330 01	2.0470 03	0.5000 02	0.4100-02	0.0220 02	2.3760 02	0.5930 02	2.6100 03
2.3400-02	0.4090-02	4.4500-01	1.4000 00	1.5600 01	2.0450 03	0.5500 02	1.7210-02	0.4000 02	2.6150 02	0.5470 02	2.6030 03
1.7340-02	7.9400-02	4.9410-01	1.4000 00	1.4040 01	2.0440 03	0.5200 02	1.3450-02	0.0550 02	2.0840 02	0.4470 02	2.5900 03
1.0910-02	0.5570-02	4.4540-01	1.4000 00	1.2720 01	2.0420 03	0.5450 02	1.0600-02	0.0500 02	2.0500 02	0.5840 02	2.5970 03
4.0640-03	1.0770-01	5.4010-01	1.4000 00	1.2210 03	2.0420 03	0.4030 02	2.9400-02	0.0500 03	3.2930 02	0.5740 02	2.9000 00
-1.5320-03	0.5900-02	5.5220-01	1.4000 00	1.2400 01	2.0420 03	0.5450 02	2.9830-02	0.0400 03	3.2480 02	0.5870 02	2.5570 03
-0.0400-03	0.4310-02	5.4700-01	1.4000 00	1.2840 01	2.0420 03	0.5000 02	3.0430-02	0.0350 03	3.1840 02	0.5910 02	2.5950 03
-1.9900-02	0.6100-02	5.2140-01	1.4000 00	1.1300 01	2.0440 03	0.5140 02	3.1900-02	0.0040 03	3.0300 02	0.5940 02	2.5900 03
-2.1700-02	0.6070-02	4.6020-01	1.4000 00	1.5000 01	2.0440 03	0.5320 02	3.5970-02	0.4920 02	2.7020 02	0.5430 02	2.5950 03
-2.0530-02	0.4350-02	3.9800-01	1.4000 00	1.7450 01	2.0480 03	0.5100 02	4.1240-02	0.5110 02	2.3680 02	0.5100 02	2.5900 03
-3.6130-02	3.5500-02	3.7800-01	1.4000 00	1.9900 01	2.0500 03	0.5370 02	4.6770-02	0.8240 02	2.1000 02	0.5100 02	2.6430 03
-0.4440-02	1.4700-02	2.9430-01	1.3900 00	2.3680 01	2.0520 03	0.5710 02	5.4200-02	0.5200 02	1.0250 02	0.5270 02	2.6520 03
-5.3120-02	1.5250-02	2.8400-01	1.3900 00	2.4540 01	2.0530 03	0.5770 02	5.5450-02	0.5120 02	1.7900 02	0.5300 02	2.7400 03
-0.1510-02	1.5320-02	2.8400-01	1.3900 00	2.4040 01	2.0530 03	0.5710 02	5.5990-02	0.7800 02	1.0520 02	0.4850 02	2.7820 03
-2.1070-02	0.6450-03	2.4210-01	1.3900 00	2.4810 01	2.0500 03	0.5300 02	5.9320-02	0.4920 02	1.4020 02	0.4850 02	2.7820 03
-2.6410-02	0.6060-03	2.0140-01	1.3900 00	2.4490 01	2.0490 03	0.5420 02	5.9720-02	0.5700 02	1.6750 02	0.5400 02	2.7800 03
-0.4370-02	1.0370-02	1.7602-01	1.3900 00	2.9440 01	2.0440 03	0.5140 02	5.6430-02	0.5490 02	1.7530 02	0.4520 02	2.7600 03
-1.0030-03	7.0090-03	4.9110-01	1.3900 00	2.4300 01	2.0440 03	0.5400 02	5.9140-02	0.2100 02	1.6420 02	0.3940 02	2.7350 03
01.0030-01	1.0500-02	2.9450-01	1.3900 00	2.3390 01	2.0440 03	0.5450 02	1.3420-02	2.5730 02	1.0340 02	0.2800 02	2.5000 03
01P21	01P21	MU10M/SEC1	MU10M/MU10	2E101	P21P51	CP10TU/0 01	GAM	MU010M/PT 01	MU010M/SEC1		
4.04730-01	0.04730-01	1.42130-02	2.01600 00	0.44000 02	2.04400 00	0.41900 00	1.40040 00	0.10040-03	2.04710 01		
MU10M/01	TS101	TS0101	MU10M/01	TS0101	P201P51	CP10TU/0 01	GAM	MU010M/PT 01	MU010M/SEC1		
1.44340 01	0.14200 02	0.04030 02	1.44340 01	0.14200 02	2.04200 05	2.44000-01	1.40040 00	0.10040-03	0.04240 02		
01P21	C	CP10TU/0 01	GAM	MU	P51P51	TS101	MU010M/PT 01	U1P2/SEC1	MU010M/01	TS101	P21P51
9.0750-01	2.0420-03	2.4910-01	1.3900 00	2.7400 01	2.0240 03	0.5010 02	0.2540-02	0.0620 02	1.9650 02	0.3270 02	2.6420 03
9.3400-02	2.9120-03	2.9010-01	1.3900 00	2.7800 01	2.0340 03	0.5000 02	0.2390-02	0.0640 02	1.9910 02	0.4040 02	2.7350 03
9.7300-02	2.3770-03	2.4960-01	1.3900 00	2.7950 01	2.0440 03	0.5200 02	0.5020-02	0.1020 02	1.8000 02	0.4500 02	2.7700 03
6.2470-02	2.6620-03	2.4570-01	1.3900 00	2.8050 01	2.0510 03	0.5100 02	0.4300-02	0.1340 02	1.5910 02	0.4410 02	2.7750 03
9.0430-02	0.0970-03	2.5440-01	1.3900 00	2.7100 01	2.0520 03	0.5430 02	0.4150-02	0.0490 02	1.4210 02	0.4370 02	2.7350 03
4.5100-02	1.1700-02	2.7930-01	1.3900 00	2.9030 01	2.0510 03	0.5700 02	0.7390-02	0.1400 02	1.7300 02	0.2850 02	2.7040 03
5.0310-02	2.4100-02	3.1700-01	1.3900 00	2.1500 01	2.0440 03	0.5620 02	0.1000-02	0.1900 02	1.6300 02	0.2850 02	2.8560 03
2.9150-02	4.7430-02	3.9100-01	1.4000 00	1.7730 01	2.0470 03	0.5400 02	0.4120-02	0.0460 02	2.3300 02	0.6130 02	2.0200 03
2.2520-02	0.5400-02	4.4300-01	1.4000 00	1.5670 01	2.0450 03	0.5030 02	3.7290-02	0.5400 02	2.0110 02	0.5440 02	2.6090 03
3.6400-02	7.6300-02	4.7800-01	1.4000 00	1.4500 01	2.0440 03	0.5440 02	3.4620-02	0.7950 02	2.0070 02	0.5380 02	2.6030 03
1.0610-02	0.2300-02	5.0310-01	1.4000 00	1.3700 01	2.0430 03	0.5420 02	3.3040-02	1.0000 03	0.2450 02	0.5170 02	2.5040 03
5.7070-03	0.6060-02	5.2140-01	1.4000 00	1.3310 01	2.0430 03	0.5310 02	3.1930-02	1.0150 03	0.3040 02	0.4900 02	2.6000 03
0.2260-04	0.1310-02	5.3100-01	1.4000 00	1.3040 01	2.0430 03	0.5030 02	3.3340-02	1.0290 03	0.5010 02	0.4600 03	2.6000 03
-2.5210-03	0.1060-02	5.3100-01	1.4000 00	1.3040 01	2.0430 03	0.5050 02	3.1390-02	0.0270 03	0.3030 02	0.5020 02	2.6090 03
-5.4990-03	0.0100-02	5.2500-01	1.4000 00	1.3210 01	2.0430 03	0.5130 02	3.1700-02	1.0130 03	0.3090 02	0.5030 02	2.5940 03
-0.9150-03	0.4520-02	5.1010-01	1.4000 00	1.3400 01	2.0440 03	0.5190 02	3.2600-02	1.0010 03	0.2970 02	0.5110 02	2.5980 03
-1.2040-02	0.0910-02	4.9840-01	1.4000 00	1.3520 01	2.0440 03	0.5200 02	3.3350-02	0.9180 02	2.9110 02	0.5140 02	2.6010 03
-1.9340-02	7.6710-02	4.6320-01	1.4000 00	1.4300 01	2.0450 03	0.5260 02	3.4280-02	0.9160 02	2.9380 02	0.5220 02	2.5950 03
-1.9400-02	7.0440-02	4.4350-01	1.4000 00	1.4920 01	2.0460 03	0.5430 02	3.5620-02	0.8170 02	2.7310 02	0.5420 02	2.6050 03
-2.7100-02	5.2670-02	4.0860-01	1.4000 00	1.7000 01	2.0480 03	0.5830 02	4.0380-02	0.0950 02	2.4190 02	0.5870 02	2.6150 03
-9.9490-02	3.1870-02	3.4230-01	1.4000 00	2.0310 01	2.0500 03	0.6640 02	4.7560-02	0.9280 02	2.0040 02	0.5910 02	2.5930 03
-4.3320-02	1.6660-02	5.0310-01	1.3900 00	2.3490 01	2.0510 03	0.5750 02	4.4850-02	0.2020 02	1.0100 02	0.2130 02	2.8810 03
-9.1890-02	2.1140-02	5.2140-01	1.3900 00	2.3950 01	2.0520 03	0.5830 02	4.5430-02	0.4700 02	1.0300 02	0.3320 02	2.7200 03
-0.0400-02	0.1090-02	2.7000-01	1.3900 00	2.5020 01	2.0520 03	0.5130 02	5.7000-02	0.4100 02	1.7240 02	0.4370 02	2.7660 03
-0.6140-02	0.3150-03	2.4110-01	1.3900 00	2.8710 01	2.0500 03	0.5150 02	5.9730-02	0.3830 02	1.7550 02	0.4800 02	2.7590 03
-7.7140-02	1.1000-02	2.0470-01	1.3900 00	2.4490 01	2.0450 03	0.5070 02	5.4140-02	0.2850 02	1.0250 02	0.4400 02	2.8030 03
-5.2970-02	1.1770-02	2.7840-01	1.3900 00	2.5040 01	2.0450 03	0.5010 02	5.5120-02	0.5540 02	1.7740 02	0.4250 02	2.7490 03
-1.0440-01	0.6600-02	2.7100-01	1.3900 00	2.5720 01	2.0460 03	0.5040 02	5.7750-02	0.1370 02	1.7090 02	0.3960 02	2.6040 03
-1.3190-01	0.6090-02	2.6190-01	1.3900 00	2.6590 01	2.0460 03	0.5020 02	6.0180-02	0.5700 02	1.5010 02	0.1550 02	2.4700 03
01P21	01P21	MU10M/SEC1	MU10M/MU10	2E101	P21P51	CP10TU/0 01	GAM	MU010M/PT 01	MU010M/SEC1		
0.40900-01	0.40900-01	1.41100-02	2.01600 00	0.47920 02	2.04130 03	0.44000 00	1.40040 00	0.10040-03	2.04710 01		
MU10M/01	TS101	TS0101	MU10M/01	TS0101	P201P51	CP10TU/0 01	GAM	MU010M/PT 01	MU010M/SEC1		
1.44340 01	0.14440 02	0.04030 02	1.44340 01	0.14440 02	2.04200 05	2.44000-01	1.40040 00	0.10040-03	0.04240 02		
01P21	C	CP10TU/0 01	GAM	MU	P51P51	TS101	MU010M/PT 01	U1P2/SEC1	MU010M/01	TS101	P21P51
9.1000-02	2.2700-04	2.4370-01	1.3900 00	2.0420 01	2.0330 03	0.5000 02	0.3960-02	0.0950 02	1.5490 02	0.4450 02	2.7230 03
9.4570-02	2.1920-04	2.4750-01	1.3900 00	2.0130 01	2.0430 03	0.5170 02	0.2900-02	0.1130 02	1.5870 02	0.4500 02	2.7850 03
9.0730-02	2.0930-03	2.4940-01	1.3900 00	2.7940 01	2.0470 03	0.5000 02	0.2710-02	0.1350 02	1.5540 02	0.4380 02	2.6700 03
9.1990-02	0.5010-03	2.6310-01	1.3900 00	2.4500 01	2.0490 03	0.5060 02	0.0710-02	0.2500 02	1.4720 02	0.4400 02	2.6050 03
9.1040-02											

[illegible]

81E1	85E1	WJ104/SEC1	WJ104/MOLE1	TT101	PT10P1	CP10TU/8 01	GAMJ	WJ104/PT 31	WJ104/SEC1		
2.2046E-01	6.7836E-02	1.0019E-02	2.0160E 00	5.4105E 02	2.3422E 03	3.4123E 00	1.4050E 00	0.117E-03	1.9005E 03		
WJ10TU/81	TS101	WJ10TU/81	TT101	PT10P1	CP10TU/8 01	GAMJ	WJ104/PT 31	WJ104/SEC1			
1.0194E 05	5.1940E 02	5.955E 02	1.5475E 02	6.4680E 02	2.7259E 03	2.4086E-01	1.3970E 00	6.4472E-02	7.7086E 02		
81E1	C	CP10TU/8 01	GAM	WJ	PS10P1	TS101	WJ104/PT 31	WJ104/SEC1	TT101	PT10P1	
6.074E-02	2.150E-04	2.415E-01	1.190E 00	2.899E 01	2.051E 03	5.935E 02	6.442E-02	7.852E 02	1.546E 02	6.444E 02	2.739E 03
6.094E-02	2.019E-04	2.409E-01	1.194E 00	2.897E 01	2.051E 03	5.929E 02	6.448E-02	7.824E 02	1.540E 02	6.436E 02	2.737E 03
4.994E-02	1.000E-05	2.408E-01	1.198E 00	2.897E 01	2.051E 03	5.926E 02	6.449E-02	7.788E 02	1.538E 02	6.429E 02	2.730E 03
4.174E-02	1.000E-05	2.408E-01	1.198E 00	2.897E 01	2.051E 03	5.917E 02	6.449E-02	7.740E 02	1.536E 02	6.414E 02	2.722E 03
3.864E-02	5.354E-04	2.425E-01	1.199E 00	2.876E 01	2.051E 03	5.907E 02	6.470E-02	7.737E 02	1.540E 02	6.595E 02	2.712E 03
3.554E-02	2.594E-03	2.490E-01	1.199E 00	2.800E 01	2.051E 03	5.863E 02	6.340E-02	7.662E 02	1.594E 02	6.533E 02	2.690E 03
2.644E-02	2.644E-02	5.271E-01	1.400E 00	2.049E 01	2.050E 03	5.828E 02	4.927E-02	7.610E 02	1.970E 02	5.977E 02	2.591E 03
1.944E-02	6.243E-02	5.046E-01	1.401E 00	1.374E 01	2.045E 03	5.462E 02	3.329E-02	6.774E 02	2.974E 02	5.769E 02	2.471E 03
1.129E-02	1.544E-01	7.442E-01	1.402E 00	9.289E 00	2.041E 03	5.383E 02	2.279E-02	1.057E 03	4.174E 02	5.682E 02	2.464E 03
6.714E-05	1.944E-01	6.511E-01	1.403E 00	7.942E 00	2.040E 03	5.355E 02	1.970E-02	1.139E 03	4.622E 02	5.655E 02	2.464E 03
6.854E-04	2.051E-01	6.941E-01	1.403E 00	7.721E 00	2.039E 03	5.372E 02	1.896E-02	1.141E 03	5.007E 02	5.675E 02	2.464E 03
-1.464E-01	2.012E-01	6.612E-01	1.403E 00	7.452E 00	2.034E 03	5.375E 02	1.927E-02	1.154E 03	4.724E 02	5.677E 02	2.465E 03
-5.044E-03	1.457E-01	6.127E-01	1.402E 00	6.311E 00	2.034E 03	5.385E 02	2.037E-02	1.122E 03	4.965E 02	5.646E 02	2.465E 03
-1.351E-02	1.245E-01	6.471E-01	1.402E 00	1.047E 01	2.042E 03	5.440E 02	2.641E-02	9.770E 02	3.607E 02	5.719E 02	2.460E 03
-2.142E-02	4.044E-02	4.333E-01	1.401E 00	1.602E 01	2.046E 03	5.532E 02	3.824E-02	9.312E 02	2.909E 02	5.857E 02	2.467E 03
-2.844E-02	2.305E-02	3.140E-01	1.409E 00	2.715E 01	2.044E 03	5.668E 02	5.182E-02	7.891E 02	1.881E 02	6.002E 02	2.505E 03
-5.107E-02	1.017E-03	2.632E-01	1.194E 00	2.649E 01	2.052E 03	5.867E 02	5.995E-02	7.449E 02	1.654E 02	6.334E 02	2.685E 03
-9.965E-02	2.111E-03	2.643E-01	1.194E 00	2.638E 01	2.051E 03	5.935E 02	5.906E-02	6.134E 02	1.687E 02	6.455E 02	2.726E 03
-7.944E-02	1.914E-03	2.490E-01	1.193E 00	2.836E 01	2.053E 03	6.145E 02	7.595E 02	7.595E 02	1.574E 02	6.444E 02	2.755E 03
-4.475E-02	1.727E-03	2.463E-01	1.193E 00	2.832E 01	2.053E 03	6.138E 02	7.421E 02	7.421E 02	1.576E 02	6.449E 02	2.759E 03
-1.941E-02	2.341E-03	2.466E-01	1.199E 00	2.808E 01	2.050E 03	6.429E 02	6.284E-02	7.467E 02	1.594E 02	6.439E 02	2.739E 03
81E1	85E1	WJ104/SEC1	WJ104/MOLE1	TT101	PT10P1	CP10TU/8 01	GAMJ	WJ104/PT 31	WJ104/SEC1		
2.0746E-01	2.5766E-02	1.0024E-02	2.0160E 00	5.4143E 02	2.3440E 03	3.4175E 00	1.4090E 00	0.1100E-03	1.9104E 03		
WJ10TU/81	TS101	WJ10TU/81	TT101	PT10P1	CP10TU/8 01	GAMJ	WJ104/PT 31	WJ104/SEC1			
1.4214E 05	5.2013E 02	5.9335E 02	1.5464E 02	6.4443E 02	2.7606E 03	2.4085E-01	1.3970E 00	6.4224E-02	7.7506E 02		
81E1	C	CP10TU/8 01	GAM	WJ	PS10P1	TS101	WJ104/PT 31	WJ104/SEC1	TT101	PT10P1	
6.094E-02	1.560E-04	2.454E-01	1.196E 00	2.834E 01	2.050E 03	5.919E 02	6.362E-02	8.040E 02	1.573E 02	6.446E 02	2.763E 03
6.364E-02	1.942E-04	2.421E-01	1.194E 00	2.842E 01	2.050E 03	5.921E 02	6.458E-02	8.027E 02	1.552E 02	6.492E 02	2.773E 03
5.551E-02	1.000E-05	2.408E-01	1.198E 00	2.897E 01	2.050E 03	5.914E 02	6.500E-02	8.000E 02	1.542E 02	6.645E 02	2.774E 03
4.244E-02	1.000E-05	2.408E-01	1.198E 00	2.897E 01	2.050E 03	5.904E 02	6.508E-02	7.940E 02	1.556E 02	6.429E 03	2.763E 03
4.077E-02	4.503E-04	2.422E-01	1.194E 00	2.880E 01	2.050E 03	5.879E 02	6.494E-02	7.820E 02	1.936E 02	6.395E 02	2.737E 03
5.285E-02	1.119E-02	2.763E-01	1.199E 00	2.520E 01	2.050E 03	5.744E 02	5.821E-02	7.803E 02	1.694E 02	6.184E 02	2.651E 03
2.164E-02	2.770E-02	3.288E-01	1.400E 00	2.114E 01	2.050E 03	5.918E 02	4.993E-02	7.875E 02	1.951E 02	5.996E 02	2.522E 03
2.664E-02	4.144E-02	3.737E-01	1.400E 00	1.861E 01	2.048E 03	5.944E 02	4.432E-02	8.081E 02	2.185E 02	5.914E 02	2.533E 03
1.951E-02	4.964E-02	4.621E-01	1.401E 00	1.591E 01	2.045E 03	5.891E 02	3.819E-02	8.705E 02	2.655E 02	5.821E 02	2.903E 03
1.427E-02	9.794E-02	5.527E-01	1.402E 00	1.254E 01	2.044E 03	5.947E 02	3.045E-02	9.448E 02	3.167E 02	5.799E 02	2.497E 03
6.255E-03	1.251E-01	1.584E-01	1.402E 00	1.044E 01	2.041E 03	5.422E 02	2.642E-02	1.015E 03	5.619E 02	5.743E 02	2.495E 03
1.175E-05	1.534E-01	6.695E-01	1.402E 00	1.039E 01	2.040E 03	5.421E 02	2.510E-02	1.036E 03	5.776E 02	5.742E 02	2.494E 03
-3.842E-03	1.514E-01	6.708E-01	1.402E 00	1.033E 01	2.040E 03	5.422E 02	2.515E-02	1.041E 03	5.800E 02	5.744E 02	2.495E 03
-8.917E-03	1.140E-01	6.191E-01	1.402E 00	1.119E 01	2.041E 03	5.444E 02	2.717E-02	9.976E 02	5.520E 02	5.764E 02	2.495E 03
-1.534E-02	9.021E-02	5.280E-01	1.401E 00	1.513E 01	2.043E 03	5.403E 02	3.168E-02	9.157E 02	5.024E 02	5.902E 02	2.491E 03
-2.142E-02	5.894E-02	4.289E-01	1.401E 00	1.920E 01	2.046E 03	5.553E 02	3.863E-02	4.481E 02	2.444E 02	5.889E 02	2.511E 03
-2.744E-02	5.527E-02	3.224E-01	1.403E 00	2.154E 01	2.043E 03	5.694E 02	9.045E-02	6.026E 02	1.938E 02	6.004E 02	2.599E 03
-3.270E-02	1.760E-02	2.941E-01	1.194E 00	2.350E 01	2.049E 03	5.724E 02	5.447E-02	7.920E 02	1.805E 02	6.146E 02	2.651E 03
-4.374E-02	5.041E-02	2.549E-01	1.194E 00	2.714E 01	2.051E 03	5.894E 02	4.119E-02	8.108E 02	1.432E 02	6.549E 02	2.747E 03
-5.204E-02	5.442E-03	2.479E-01	1.194E 00	2.603E 01	2.051E 03	5.919E 02	5.462E-02	8.372E 02	1.711E 02	6.549E 02	2.761E 03
-9.901E-02	4.375E-03	2.544E-01	1.194E 00	2.747E 01	2.041E 03	5.917E 02	6.140E-02	8.219E 02	1.690E 02	6.445E 02	2.770E 03
-9.944E-02	9.477E-03	2.712E-01	1.194E 00	2.571E 01	2.049E 03	5.912E 02	5.764E-02	8.504E 02	1.733E 02	6.444E 02	2.733E 03
-8.347E-02	6.199E-03	2.413E-01	1.194E 00	2.469E 01	2.045E 03	5.898E 02	5.987E-02	8.364E 02	1.640E 02	6.453E 02	2.733E 03
81E1	85E1	WJ104/SEC1	WJ104/MOLE1	TT101	PT10P1	CP10TU/8 01	GAMJ	WJ104/PT 31	WJ104/SEC1		
6.2137E-01	7.7157E-02	1.0024E-02	2.0160E 00	5.4099E 02	2.3421E 03	3.4175E 00	1.4090E 00	0.1213E-03	1.9001E 03		
WJ10TU/81	TS101	WJ10TU/81	TT101	PT10P1	CP10TU/8 01	GAMJ	WJ104/PT 31	WJ104/SEC1			
1.5195E 05	5.1992E 02	5.9624E 02	1.5472E 02	6.4476E 02	2.7291E 03	2.4086E-01	1.3970E 00	6.4452E-02	7.8044E 02		
81E1	C	CP10TU/8 01	GAM	WJ	PS10P1	TS101	WJ104/PT 31	WJ104/SEC1	TT101	PT10P1	
7.015E-02	1.000E-05	2.409E-01	1.198E 00	2.897E 01	2.049E 03	5.947E 02	6.460E-02	7.853E 02	1.544E 02	6.455E 02	2.733E 03
6.842E-02	1.000E-05	2.409E-01	1.198E 00	2.897E 01	2.049E 03	5.955E 02	6.472E-02	7.814E 02	1.541E 02	6.441E 02	2.731E 03
5.456E-02	3.600E-05	2.409E-01	1.198E 00	2.897E 01	2.049E 03	5.945E 02	6.464E-02	7.797E 02	1.542E 02	6.467E 02	2.722E 03
4.442E-02	1.991E-03	2.412E-01	1.198E 00	2.822E 01	2.049E 03	5.926E 02	6.335E-02	7.813E 02	1.576E 02	6.419E 02	2.713E 03
4.144E-02	1.945E-03	2.535E-01	1.194E 00	2.751E 01	2.049E 03	5.871E 02	6.214E-02	7.624E 02	1.599E 02	6.255E 02	2.703E 03
3.820E-02	4.784E-03	2.559E-01	1.194E 00	2.725E 01	2.049E 02	5.830E 02	6.195E-02	7.612E 02	1.597E 02	6.282E 02	2.663E 03
8.510E-02	3.017E-02	2.740E-01	1.194E 00	2.550E 01	2.049E 03	5.771E 02	5.893E-02	7.634E 02	1.479E 02	6.147E 02	2.630E 03
2.591E-02	4.303E-02	3.177E-01	1.400E 00	1.419E 01	2.046E 03	5.562E 02	4.561E-02	8.042E 02	2.214E 02	5.926E 02	2.519E 03
1.617E-02	5.544E-02	3.140E-01	1.401E 00	1.344E 01	2.043E 03	5.574E 02	3.254E-02	8.069E 02	2.943E 02	5.747E 02	2.490E 03
8.884E-03	1.117E-01	5.965E-01	1.402E 00	1.127E 01	2.041E 03	5.497E 02	2.818E-02	9.704E 02	1.927E 02	5.793E 02	2.434E 03
1.910E-04	1.200E-01	6.224E-01	1.402E 00	1.112E 01	2.041E 03	5.494E 02	2.849E-02	9.878E 02	1.940E 02	5.793E 02	2.434E 03
-2.842E-03	1.111E-01	5.944E-01	1.402E 00	1.164E 01	2.041E 03	5.494E 02	2.820E-02	9.704E 02	1.944E 02	5.775E 02	2.434E 03
-1.154E-02	9.947E-02	5.947E-01	1.401E 00	1.244E 01	2.042E 03	5.470E 02	3.041E-02	9.370E 02	1.140E 02	5.799E 02	2.490E 03
-2.839E-02	4.077E-02	4.336E-01	1.401E 00	1.401E 01	2.045E 03	5.551E 02	3.817E-02	8.419E 02	2.519E 02	5.477E 02	2.497E 03
-2.842E-02	2.749E-02	3.282E-01	1.400E 00	2.119E 01	2.044E 03	5.577E 02	4.964E-02	7.744E 02	1.956E 02	6.022E 02	2.595E 03
-4.161E-02	1.944E-03	2.653E-01	1.194E 00	2.627E 01	2.051E						

[illegible]

TEST NUMBER - II A

Jet Gas - Hydrogen
Outer Stream Gas - Air

RIFT1	51FT1	WJ10M/SEC1	WJ10M/WK1	TJ101	PT10P5F1	CP10RTU/R1	GAMJ	AM10M/PT1	WJ10P/SEC1
2.0433P-02	6.4042E-02	2.0410E-02	2.0160E-02	5.8474E-02	2.8705F-03	3.4336E-00	1.4022E-00	5.8295E-03	3.0349E-03
WJ10T0/R1	TJ101	5101R1	WJ10M/SEC1	TJ101	PT10P5F1	CP10RTU/R1	GAMJ	AM10M/PT1	WJ10P/SEC1
1.9844E-03	5.3631E-02	1.0295E-03	2.5611E-02	1.0606E-03	3.3163E-03	2.3043E-01	1.3749E-00	3.7843E-03	6.2361E-02
RIFT1	C	CP10RTU/R1	GAM	WJ	PS10P5F1	TJ101	AM10M/PT1	WJ10P/SEC1	PT10P5F1
1.414E-02	3.061E-04	2.514E-01	1.377E-00	2.885E-01	2.073E-03	1.022E-03	3.7901E-02	6.519E-02	3.549E-02
6.562E-02	6.706E-04	2.526E-01	1.177E-00	2.871E-01	2.075E-03	1.020E-03	3.748E-02	6.461E-02	3.587E-02
9.604E-02	9.406E-04	2.527E-01	1.377E-00	2.877E-01	2.077E-03	1.020E-03	3.7603E-02	6.461E-02	3.581E-02
4.103E-02	5.260E-04	2.517E-01	1.378E-00	2.877E-01	2.079E-03	1.017E-03	3.8043E-02	6.365E-02	3.581E-02
2.847E-02	5.657E-01	1.129E-00	1.402E-00	4.009E-00	2.079E-03	1.017E-03	3.8043E-02	6.365E-02	3.581E-02
2.104E-02	9.863E-01	1.387E-00	1.403E-00	2.042E-00	2.075E-03	1.020E-03	3.7901E-02	6.519E-02	3.549E-02
1.164E-02	1.004E-00	3.486E-00	1.402E-00	2.009E-00	2.065E-03	1.020E-03	3.748E-02	6.461E-02	3.587E-02
8.501E-03	9.99E-01	3.629E-00	1.402E-00	2.019E-00	2.065E-03	1.020E-03	3.748E-02	6.461E-02	3.587E-02
5.121E-03	9.84E-01	3.388E-00	1.402E-00	2.043E-00	2.067E-03	1.020E-03	3.748E-02	6.461E-02	3.587E-02
3.041E-03	9.82E-01	3.396E-00	1.402E-00	2.038E-00	2.069E-03	1.020E-03	3.748E-02	6.461E-02	3.587E-02
-8.664E-05	6.642E-01	3.421E-00	1.402E-00	2.023E-00	2.073E-03	1.020E-03	3.748E-02	6.461E-02	3.587E-02
-1.906E-02	6.57E-01	3.420E-00	1.402E-00	2.024E-00	2.075E-03	1.020E-03	3.748E-02	6.461E-02	3.587E-02
-2.363E-02	9.09E-01	3.424E-00	1.402E-00	2.024E-00	2.075E-03	1.020E-03	3.748E-02	6.461E-02	3.587E-02
-2.594E-02	9.23E-01	3.424E-00	1.402E-00	2.024E-00	2.075E-03	1.020E-03	3.748E-02	6.461E-02	3.587E-02
-4.40E-02	9.24E-01	3.424E-00	1.402E-00	2.024E-00	2.075E-03	1.020E-03	3.748E-02	6.461E-02	3.587E-02
-6.27E-02	9.37E-01	3.424E-00	1.402E-00	2.024E-00	2.075E-03	1.020E-03	3.748E-02	6.461E-02	3.587E-02
-7.41E-02	1.004E-01	3.424E-00	1.402E-00	2.024E-00	2.075E-03	1.020E-03	3.748E-02	6.461E-02	3.587E-02
RIFT1	51FT1	WJ10M/SEC1	WJ10M/WK1	TJ101	PT10P5F1	CP10RTU/R1	GAMJ	AM10M/PT1	WJ10P/SEC1
1.1424E-01	5.3424E-02	2.0406E-02	2.0160E-02	1.8970E-02	2.8781E-03	3.4336E-00	1.4022E-00	4.9819E-03	3.0606E-03
WJ10T0/R1	TJ101	5101R1	WJ10M/SEC1	TJ101	PT10P5F1	CP10RTU/R1	GAMJ	AM10M/PT1	WJ10P/SEC1
1.9862E-03	3.3454E-02	1.0277E-03	2.5639E-02	1.0616E-03	3.3163E-03	2.3043E-01	1.3749E-00	3.7843E-03	6.2361E-02
RIFT1	C	CP10RTU/R1	GAM	WJ	PS10P5F1	TJ101	AM10M/PT1	WJ10P/SEC1	PT10P5F1
9.814E-02	5.717E-04	2.521E-01	1.377E-00	2.875E-01	2.075E-03	1.020E-03	3.7901E-02	6.519E-02	3.549E-02
7.836E-02	6.016E-04	2.526E-01	1.177E-00	2.875E-01	2.075E-03	1.020E-03	3.748E-02	6.461E-02	3.587E-02
9.604E-02	9.406E-04	2.527E-01	1.377E-00	2.877E-01	2.077E-03	1.020E-03	3.7603E-02	6.461E-02	3.581E-02
4.103E-02	5.260E-04	2.517E-01	1.378E-00	2.877E-01	2.079E-03	1.017E-03	3.8043E-02	6.365E-02	3.581E-02
3.244E-03	2.061E-01	6.010E-01	1.400E-00	7.713E-00	2.054E-03	6.156E-02	1.656E-02	1.058E-03	5.649E-02
2.607E-03	6.690E-01	1.740E-00	1.401E-00	3.994E-00	2.044E-03	5.656E-02	1.656E-02	1.058E-03	5.649E-02
2.293E-03	5.773E-01	2.084E-00	1.402E-00	3.323E-00	2.039E-03	5.656E-02	1.656E-02	1.058E-03	5.649E-02
1.964E-02	7.107E-01	2.574E-00	1.402E-00	2.683E-00	2.034E-03	5.656E-02	1.656E-02	1.058E-03	5.649E-02
1.655E-02	8.551E-01	3.005E-00	1.402E-00	2.104E-00	2.033E-03	5.656E-02	1.656E-02	1.058E-03	5.649E-02
1.31E-02	9.622E-01	3.320E-00	1.402E-00	2.093E-00	2.033E-03	5.656E-02	1.656E-02	1.058E-03	5.649E-02
1.001E-02	9.753E-01	3.403E-00	1.402E-00	2.014E-00	2.035E-03	5.656E-02	1.656E-02	1.058E-03	5.649E-02
6.04E-03	9.33E-01	3.419E-00	1.402E-00	2.025E-00	2.035E-03	5.656E-02	1.656E-02	1.058E-03	5.649E-02
-2.123E-03	9.662E-01	3.423E-00	1.402E-00	2.023E-00	2.035E-03	5.656E-02	1.656E-02	1.058E-03	5.649E-02
-8.13E-03	9.665E-01	3.423E-00	1.402E-00	2.023E-00	2.035E-03	5.656E-02	1.656E-02	1.058E-03	5.649E-02
-8.244E-03	9.665E-01	3.423E-00	1.402E-00	2.023E-00	2.035E-03	5.656E-02	1.656E-02	1.058E-03	5.649E-02
-1.651E-02	7.015E-01	2.082E-00	1.402E-00	2.791E-00	2.032E-03	5.656E-02	1.656E-02	1.058E-03	5.649E-02
-2.27E-02	3.744E-01	1.439E-00	1.401E-00	4.824E-00	2.032E-03	5.656E-02	1.656E-02	1.058E-03	5.649E-02
-3.37E-02	2.343E-02	1.232E-01	1.399E-00	2.194E-00	2.022E-03	4.783E-02	3.316E-02	4.939E-02	2.871E-02
-6.25E-02	2.27E-01	2.473E-01	1.178E-00	2.812E-01	2.058E-03	1.013E-03	3.316E-02	4.939E-02	2.871E-02
-8.01E-02	1.622E-01	2.555E-01	1.177E-00	2.837E-01	2.060E-03	1.025E-03	3.316E-02	4.939E-02	2.871E-02
-7.05E-02	1.472E-01	2.546E-01	1.177E-00	2.846E-01	2.060E-03	1.025E-03	3.316E-02	4.939E-02	2.871E-02
-8.54E-02	1.166E-01	2.540E-01	1.178E-00	2.853E-01	2.059E-03	1.019E-03	3.316E-02	4.939E-02	2.871E-02
-1.131E-01	9.01E-04	2.526E-01	1.377E-00	2.875E-01	2.075E-03	1.020E-03	3.7901E-02	6.519E-02	3.549E-02
RIFT1	51FT1	WJ10M/SEC1	WJ10M/WK1	TJ101	PT10P5F1	CP10RTU/R1	GAMJ	AM10M/PT1	WJ10P/SEC1
1.4019E-01	5.6819E-02	2.0413E-02	2.0160E-02	5.8953E-02	2.8706E-03	3.4336E-00	1.4022E-00	4.9752E-03	3.0902E-03
WJ10T0/R1	TJ101	5101R1	WJ10M/SEC1	TJ101	PT10P5F1	CP10RTU/R1	GAMJ	AM10M/PT1	WJ10P/SEC1
1.9845E-03	3.3173E-02	1.0281E-03	2.5642E-02	1.0627E-03	3.3163E-03	2.3043E-01	1.3749E-00	3.7843E-03	6.2361E-02
RIFT1	C	CP10RTU/R1	GAM	WJ	PS10P5F1	TJ101	AM10M/PT1	WJ10P/SEC1	PT10P5F1
6.094E-02	6.757E-04	2.525E-01	1.177E-00	2.871E-01	2.072E-03	1.021E-03	3.741E-02	6.740E-02	3.575E-02
6.284E-02	6.246E-04	2.524E-01	1.177E-00	2.873E-01	2.073E-03	1.023E-03	3.738E-02	6.740E-02	3.575E-02
4.222E-02	6.754E-04	2.524E-01	1.178E-00	2.871E-01	2.074E-03	1.017E-03	3.7503E-02	6.674E-02	3.581E-02
3.976E-02	2.204E-02	3.161E-01	1.370E-00	2.236E-01	2.055E-03	8.454E-02	3.522E-02	6.730E-02	3.707E-02
3.117E-03	1.734E-01	1.980E-01	1.399E-00	6.718E-00	2.050E-03	6.336E-02	1.823E-02	1.049E-03	5.145E-02
2.909E-02	9.941E-03	2.051E-00	1.402E-00	3.639E-00	2.034E-03	5.656E-02	1.656E-02	1.058E-03	5.649E-02
1.71E-02	6.24E-01	2.26E-00	1.402E-00	3.092E-00	2.030E-03	5.656E-02	1.656E-02	1.058E-03	5.649E-02
1.103E-02	8.749E-01	3.034E-00	1.402E-00	2.251E-00	2.025E-03	5.656E-02	1.656E-02	1.058E-03	5.649E-02
1.637E-03	9.501E-01	3.303E-00	1.402E-00	2.046E-00	2.026E-03	5.656E-02	1.656E-02	1.058E-03	5.649E-02
4.75E-03	9.734E-01	3.349E-00	1.402E-00	2.067E-00	2.030E-03	5.656E-02	1.656E-02	1.058E-03	5.649E-02
-2.644E-03	9.811E-01	3.374E-00	1.402E-00	2.052E-00	2.037E-03	5.656E-02	1.656E-02	1.058E-03	5.649E-02
-3.56E-03	9.804E-01	3.367E-00	1.402E-00	2.038E-00	2.052E-03	5.656E-02	1.656E-02	1.058E-03	5.649E-02
-1.675E-02	7.615E-01	2.679E-00	1.402E-00	2.591E-00	2.030E-03	5.656E-02	1.656E-02	1.058E-03	5.649E-02
-1.803E-02	6.288E-01	2.241E-00	1.402E-00	3.063E-00	2.027E-03	5.656E-02	1.656E-02	1.058E-03	5.649E-02
-2.112E-02	8.895E-01	3.107E-00	1.401E-00	1.937E-00	2.077E-03	5.656E-02	1.656E-02	1.058E-03	5.649E-02
-2.421E-02	9.33E-01	3.183E-00	1.401E-00	3.018E-00	2.031E-03	5.656E-02	1.656E-02	1.058E-03	5.649E-02
-2.760E-02	9.44E-01	3.183E-00	1.403E-00	2.744E-00	2.017E-03	5.656E-02	1.656E-02	1.058E-03	5.649E-02
-3.062E-02	1.34E-01	7.362E-01	1.399E-00	6.544E-00	2.042E-03	6.123E-02	1.809E-02	1.042E-03	4.952E-02
-3.402E-02	9.545E-02	1.162E-01	1.377E-00	1.349E-01	2.049E-03	7.203E-02	2.494E-02	1.809E-02	4.952E-02
-3.673E-02	4.029E-02	3.741E-01	1.370E-00	1.883E-01	2.051E-03	8.141E-02	3.071E-02	2.706E-02	3.040E-02
-4.011E-02	1.327E-02	2.701E-01	1.345E-00	2.460E-01	2.054E-03	9.250E-02	3.516E-02	3.770E-02	2.712E-02
-4.631E-02	1.402E-03	2.54E-01	1.114E-00	2.441E-01	2.057E-03	1.016E-03	3.722E-02	6.777E-02	2.564E-02
-5.803E-02	1.053E-03	2.539E-01	1.177E-00	2.855E-01	2.057E-03	1.024E-03	3.712E-02	6.718E-02	2.553E-02
-6.11E-02	7.81E-04	2.529E-01	1.177E-00	2.876E-01	2.057E-03	1.021E-03	3.731E-02	6.694E-02	2.577E-02
-8.42E-02	1.040E-03	2.517E-01	1.177E-00	2.876E-01	2.056E-03	1.024E-03	3.717E-02	6.708E-02	2.550E-02
-1.53E-02	9.63E-04	2.525E-01	1.177E-00	2.841E-01	2.050E-03	1.024E-03	3.716E-02	6.726E-02	2.549E-02
-4.961E-04	9.63E-04	2.563E-01	1.178E-00	2.876E-01	2.054E-03	1.017E-03	3.741E-02	6.727E-02	2.577E-02
-1.11E-01	7.48E-04	2.524E-01	1.178E-00	2.876E-01	2.054E-03	1.017E-03	3.741E-02	6.727E-02	2.577E-02

[illegible]

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01PT1	054PT1	0110M/SEC1	0110M/MOL1	TT101	PT10P1	CP10T0/0 01	GAMJ	0110M/PT 31	0110T/SEC1		
1.0000-01	0.0000-02	1.0750E-02	2.0160E 00	9.0120E 02	2.9300E 03	3.4310E 00	1.4027E 00	0.0010E-03	2.0000E 03		
0110T/01	TT101	TT0101	0110T/01	TT0101	PT01P1	CP01T0/0 01	GAMJ	0110M/PT 31	0110T/SEC1		
1.0170E 03	0.0500E 02	0.9972E 02	2.9247E 02	1.0461E 03	2.4272E 03	2.4990E-01	1.3770E 00	0.0500E-02	7.0220E 02		
01PT1	C	CP10T0/0 01	GAM	MJ	PT10P1	TT101	0110M/PT 31	0110T/SEC1	0110T/01	TT101	PT10P1
0.437E-02	2.445E-04	2.504E-01	1.370E 00	2.047E 01	2.050E 03	9.999E 02	3.643E-02	7.750E 02	2.516E 02	1.047E 03	2.439E 03
7.042E-02	3.665E-04	2.313E-01	1.370E 00	2.047E 01	2.050E 03	9.999E 02	3.643E-02	7.750E 02	2.516E 02	1.047E 03	2.439E 03
0.390E-02	2.010E-04	2.500E-01	1.370E 00	2.047E 01	2.050E 03	9.999E 02	3.643E-02	7.750E 02	2.516E 02	1.047E 03	2.439E 03
0.440E-02	2.040E-04	2.500E-01	1.370E 00	2.047E 01	2.050E 03	9.999E 02	3.643E-02	7.750E 02	2.516E 02	1.047E 03	2.439E 03
4.023E-02	3.321E-04	2.313E-01	1.370E 00	2.047E 01	2.050E 03	9.999E 02	3.643E-02	7.750E 02	2.516E 02	1.047E 03	2.439E 03
4.136E-02	3.311E-04	2.502E-01	1.370E 00	2.047E 01	2.050E 03	9.999E 02	3.643E-02	7.750E 02	2.516E 02	1.047E 03	2.439E 03
3.704E-02	2.295E-02	2.104E-01	1.391E 00	2.217E 01	2.050E 03	9.999E 02	3.643E-02	7.750E 02	2.516E 02	1.047E 03	2.439E 03
3.451E-02	2.244E-02	4.111E-01	1.395E 00	1.702E 01	2.052E 03	7.662E 02	3.020E-02	7.931E 02	3.146E 02	7.707E 02	2.363E 03
3.127E-02	7.7361E-02	3.952E-01	1.398E 00	1.257E 01	2.049E 03	6.925E 02	2.407E-02	4.907E 02	3.304E 02	7.212E 02	2.361E 03
2.014E-02	1.529E-01	7.340E-01	1.399E 00	4.746E 00	2.046E 03	6.914E 02	1.924E-02	1.021E 03	4.910E 02	6.707E 02	2.375E 03
2.043E-02	2.124E-01	9.217E-01	1.400E 00	7.943E 00	2.046E 03	6.908E 02	1.924E-02	1.021E 03	4.910E 02	6.707E 02	2.375E 03
2.194E-02	2.079E-01	1.009E 00	1.400E 00	6.323E 00	2.040E 03	6.130E 02	1.362E-02	1.355E 03	6.971E 02	6.443E 02	2.454E 03
1.644E-02	1.322E 00	1.000E 00	1.400E 00	3.254E 00	2.037E 03	6.005E 02	1.134E-02	1.444E 03	6.257E 02	6.364E 02	2.497E 03
1.504E-02	4.043E-01	1.941E 00	1.401E 00	4.474E 00	2.033E 03	5.914E 02	9.968E-03	1.724E 03	9.910E 02	6.294E 02	2.533E 03
1.194E-02	4.040E-01	1.005E 00	1.401E 00	3.043E 00	2.031E 03	5.924E 02	0.863E-03	1.890E 03	1.102E 03	6.220E 02	2.557E 03
0.707E-03	9.168E-01	2.027E 00	1.401E 00	3.409E 00	2.033E 03	5.774E 02	7.731E-03	2.017E 03	1.235E 03	6.170E 02	2.564E 03
5.179E-03	4.440E-01	2.100E 00	1.401E 00	3.015E 00	2.033E 03	5.742E 02	6.907E-03	2.142E 03	1.395E 03	6.140E 02	2.490E 03
2.394E-03	4.885E-01	2.374E 00	1.401E 00	2.913E 00	2.033E 03	5.741E 02	6.601E-03	2.173E 03	1.432E 03	6.139E 02	2.367E 03
-0.407E-04	0.222E-01	2.422E 00	1.401E 00	2.462E 00	2.036E 03	5.745E 02	6.607E-03	2.191E 03	1.459E 03	6.140E 02	2.367E 03
-0.390E-03	0.414E-01	2.324E 00	1.401E 00	2.464E 00	2.034E 03	5.740E 02	6.622E-03	2.150E 03	1.403E 03	6.156E 02	2.567E 03
-7.022E-03	0.044E-01	2.174E 00	1.401E 00	1.154E 00	2.036E 03	5.740E 02	7.261E-03	2.001E 03	1.319E 03	6.177E 02	2.566E 03
-1.437E-02	0.049E-01	1.925E 00	1.401E 00	4.512E 00	2.033E 03	5.710E 02	1.001E-02	1.720E 03	9.537E 02	6.117E 02	2.537E 03
-2.040E-02	2.054E-01	1.091E 00	1.400E 00	6.350E 00	2.036E 03	6.141E 02	1.346E-02	1.773E 03	9.900E 02	6.464E 02	2.454E 03
-2.744E-02	1.634E-01	7.010E-01	1.399E 00	4.929E 00	2.042E 03	6.002E 02	1.968E-02	1.021E 03	4.754E 02	6.094E 02	2.342E 03
-3.409E-02	4.455E-02	3.871E-01	1.394E 00	1.016E 01	2.051E 03	7.822E 02	3.061E-02	7.904E 02	2.007E 02	0.814E 02	2.366E 03
-4.225E-02	7.212E-01	2.712E-01	1.393E 00	2.442E 01	2.055E 02	9.400E 02	3.740E-02	7.642E 02	2.492E 02	0.920E 02	2.413E 03
-4.084E-02	0.075E-04	2.020E-01	1.370E 00	2.042E 01	2.057E 03	9.927E 02	3.056E-02	7.707E 02	2.527E 02	1.035E 03	2.424E 03
-5.072E-02	4.022E-04	2.510E-01	1.370E 00	2.074E 01	2.055E 03	9.967E 02	2.630E-02	7.757E 02	2.540E 02	1.044E 03	2.428E 03
-6.742E-02	4.240E-04	2.511E-01	1.370E 00	2.081E 01	2.055E 03	9.966E 02	1.639E-02	7.724E 02	2.538E 02	1.044E 03	2.434E 03
-7.536E-02	4.073E-04	2.512E-01	1.370E 00	2.061E 01	2.044E 03	9.961E 02	1.936E-02	7.760E 02	2.436E 02	1.064E 03	2.430E 03
-8.344E-02	5.467E-04	2.517E-01	1.370E 00	2.076E 01	2.053E 03	9.944E 02	1.941E-02	7.750E 02	2.034E 02	1.064E 03	2.430E 03
-9.368E-02	7.809E-04	2.522E-01	1.370E 00	2.049E 01	2.053E 03	9.930E 02	1.636E-02	7.746E 02	2.736E 02	1.061E 03	2.036E 03
-1.204E-01	4.410E-01	2.504E-01	1.360E 00	2.800E 01	2.053E 03	9.880E 02	0.956E-02	7.964E 02	2.496E 02	1.064E 03	2.439E 03
01PT1	C	CP10T0/0 01	GAM	MJ	PT10P1	TT101	0110M/PT 31	0110T/SEC1	0110T/01	TT101	PT10P1
0.100E-02	2.726E-04	2.506E-01	1.370E 00	2.046E 01	2.054E 03	9.951E 02	3.657E-02	7.745E 02	2.526E 02	1.043E 03	2.437E 03
0.074E-02	1.020E-04	2.004E-01	1.370E 00	2.046E 01	2.054E 03	9.927E 02	3.656E-02	7.745E 02	2.526E 02	1.043E 03	2.437E 03
0.097E-02	1.509E-04	2.006E-01	1.370E 00	2.046E 01	2.054E 03	1.001E 03	3.643E-02	7.745E 02	2.510E 02	1.049E 03	2.440E 03
3.091E-02	3.311E-04	2.311E-01	1.370E 00	2.001E 01	2.057E 03	9.976E 02	3.846E-02	7.745E 02	2.316E 02	1.043E 03	2.430E 03
3.234E-02	4.042E-04	2.311E-01	1.370E 00	2.001E 01	2.057E 03	9.902E 02	3.913E-02	8.770E 02	2.526E 02	1.041E 03	2.365E 03
4.304E-02	2.046E-02	2.554E-01	1.360E 00	2.414E 01	2.054E 03	9.722E 02	3.647E-02	7.676E 02	2.923E 02	1.016E 03	2.431E 03
3.614E-02	2.944E-02	3.202E-01	1.391E 00	2.141E 01	2.052E 03	8.209E 02	3.484E-02	7.601E 02	2.734E 02	0.956E 02	2.383E 03
3.227E-02	0.515E-02	5.137E-01	1.397E 00	1.353E 01	2.049E 03	7.077E 02	2.439E-02	6.703E 02	3.736E 02	7.370E 02	2.363E 03
2.612E-02	1.750E-01	0.091E-01	1.399E 00	0.646E 00	2.043E 03	6.442E 02	1.773E-02	1.107E 03	5.337E 02	6.744E 02	2.401E 03
2.294E-02	2.220E-01	0.950E-01	1.400E 00	7.202E 00	2.041E 03	6.260E 02	1.532E-02	1.227E 03	6.190E 02	6.490E 02	2.420E 03
2.004E-02	2.044E-01	1.094E 00	1.400E 00	4.351E 00	2.038E 03	6.168E 02	1.599E-02	1.374E 03	6.994E 02	6.417E 02	2.405E 03
1.431E-02	1.611E-01	1.419E 00	1.400E 00	4.892E 00	2.034E 03	5.991E 02	1.075E-02	1.644E 03	8.877E 02	6.371E 02	2.522E 03
1.141E-02	4.190E-01	1.982E 00	1.401E 00	4.308E 00	2.032E 03	6.910E 02	9.731E-03	1.700E 03	9.602E 02	6.314E 02	2.347E 03
0.454E-00	4.714E 00	1.730E 00	1.401E 00	3.965E 00	2.031E 03	5.571E 02	0.879E-03	1.893E 03	2.076E 02	6.279E 02	2.504E 03
9.120E-04	9.166E-01	1.495E 00	1.401E 00	3.662E 00	2.030E 03	9.654E 02	0.222E-03	1.943E 03	1.164E 03	9.264E 02	2.578E 03
2.151E-03	9.044E-01	2.047E 00	1.401E 00	3.190E 00	2.030E 03	5.521E 02	7.641E-02	2.065E 02	1.232E 01	6.237E 02	2.364E 03
-9.439E-04	5.572E-01	2.024E 00	1.401E 00	3.424E 00	2.030E 03	5.628E 02	7.730E-02	2.052E 02	1.239E 02	6.241E 02	2.502E 03
-3.082E-03	5.479E-01	1.994E 00	1.401E 00	3.440E 00	2.030E 03	5.632E 02	7.729E-02	2.036E 03	1.222E 01	6.240E 02	2.501E 02
-1.010E-02	4.420E-01	1.650E 00	1.401E 00	4.192E 00	2.031E 03	5.920E 02	9.300E-02	1.637E 03	1.029E 03	6.332E 02	2.561E 03
-1.325E-02	2.077E-01	1.480E 00	1.400E 00	4.664E 00	2.031E 03	5.973E 02	1.027E-02	1.716E 03	9.301E 02	6.367E 02	2.360E 03
-2.150E-02	2.473E-01	1.034E 00	1.400E 00	6.727E 00	2.031E 03	6.221E 02	1.422E-02	1.317E 03	6.675E 02	6.576E 02	2.459E 03
-2.702E-02	1.000E-01	7.220E-01	1.399E 00	9.630E 00	2.042E 03	6.610E 02	1.927E-02	1.054E 03	4.914E 02	6.917E 02	2.394E 03
-3.536E-02	5.726E-02	4.272E-01	1.395E 00	1.441E 01	2.049E 03	7.544E 02	2.685E-02	6.173E 02	3.300E 02	7.647E 02	2.364E 03
-4.147E-02	1.689E-02	2.976E-01	1.397E 00	2.189E 01	2.054E 03	8.944E 02	3.991E-02	7.636E 02	2.684E 02	9.234E 02	2.398E 03
-6.006E-02	2.097E-02	2.506E-01	1.390E 00	2.410E 01	2.044E 03	7.764E 02	3.940E-02	7.700E 02	2.434E 02	1.023E 03	2.432E 03
-9.250E-02	2.311E-04	2.505E-01	1.370E 00	2.000E 01	2.056E 03	9.904E 02	3.881E-02	7.710E 02	2.512E 02	1.030E 03	2.637E 03
-5.049E-02	3.014E-04	2.508E-01	1.370E 00	2.045E 01	2.055E 03	9.944E 02	3.541E-02	7.721E 02	2.524E 02	1.042E 03	2.437E 03
-4.105E-02	3.057E-04	2.911E-01	1.370E 00	2.043E 01	2.049E 03	9.944E 02	3.940E-02	7.776E 02	2.939E 02	1.049E 03	2.441E 03
-6.036E-02	2.955E-04	2.507E-01	1.370E 00	2.040E 01	2.049E 03	9.908E 02	3.953E-02	7.737E 02	2.529E 02	1.044E 03	2.436E 03
-8.213E-02	9.207E-04	2.529E-01	1.370E 00	2.042E 01	2.054E 03	9.956E 02	0.822E-02	7.704E 02	2.549E 02	1.043E 03	2.430E 03
-9.369E-02	1.021E-03	2.531E-01	1.370E 00	2.050E 01	2.054E 03	9.921E 02	3.931E-02	7.789E 02	2.543E 02	1.040E 03	2.430E 03
-1.139E-01	2.710E-04	2.502E-01	1.370E 00	2.047E 01	2.054E 03	9.794E 02	3.919E-02	7.748E 02	2.441E 02	1.026E 03	2.433E 03

01P21	00P01	MJ01/SAC1	MJ01/MO1/1	ETJ01	PTJ0P5P1	CP0107U/0 01	GAM1	MM0104/P2 21	MJ01P5/SEC1
1.1304E-01	7.1304E-02	1.4794E-02	2.0160E 00	0.0145E 02	2.0160E 03	1.3914E 00	1.4027E 00	4.0920E 00	0.3760E 05
MJ012U/01	TJ011	E0403	MJ012U/01	TJ010	PT01P5P1	CP0107U/0 01	GAM1	MM0104/P2 21	MJ01P5/SEC1
1.0379E 03	5.1377E 00	0.0949E 02	1.2354E 02	1.0433E 02	2.4275E 03	2.4099E-01	1.1372E 00	1.0556E-02	7.6207E 02
01E11	C	CP0107U/0 01	GAM1	MM0104/P2 21	MJ01P5/SEC1	MJ012U/01	TJ011	PTJ0P5P1	
0.070E-02	5.221E-04	2.0171E-01	1.0700 00	2.0770E 01	2.0320E 03	0.946E 02	2.032E-02	7.709E 02	2.639E 02
0.021E-02	1.214E-04	2.510E-01	1.270E 00	2.0790E 01	2.0320E 03	0.946E 02	2.032E-02	7.709E 02	2.639E 02
2.114E-02	4.350E-04	2.519E-01	1.370E 00	2.0790E 01	2.0320E 03	0.946E 02	2.032E-02	7.709E 02	2.639E 02
0.097E-02	0.346E-04	2.519E-01	1.370E 00	2.0790E 01	2.0320E 03	0.946E 02	2.032E-02	7.709E 02	2.639E 02
5.212E-02	2.519E-02	2.519E-01	1.370E 00	2.0790E 01	2.0320E 03	0.946E 02	2.032E-02	7.709E 02	2.639E 02
0.047E-02	0.346E-03	2.519E-01	1.370E 00	2.0790E 01	2.0320E 03	0.946E 02	2.032E-02	7.709E 02	2.639E 02
4.214E-02	2.254E-02	2.519E-01	1.370E 00	2.0790E 01	2.0320E 03	0.946E 02	2.032E-02	7.709E 02	2.639E 02
1.104E-02	0.344E-02	2.519E-01	1.370E 00	2.0790E 01	2.0320E 03	0.946E 02	2.032E-02	7.709E 02	2.639E 02
2.047E-02	1.040E-01	2.519E-01	1.370E 00	2.0790E 01	2.0320E 03	0.946E 02	2.032E-02	7.709E 02	2.639E 02
2.331E-02	1.401E-01	2.519E-01	1.370E 00	2.0790E 01	2.0320E 03	0.946E 02	2.032E-02	7.709E 02	2.639E 02
2.315E-02	1.356E-01	2.519E-01	1.370E 00	2.0790E 01	2.0320E 03	0.946E 02	2.032E-02	7.709E 02	2.639E 02
1.990E-02	0.337E-01	2.519E-01	1.370E 00	2.0790E 01	2.0320E 03	0.946E 02	2.032E-02	7.709E 02	2.639E 02
1.313E-02	2.049E-01	2.519E-01	1.370E 00	2.0790E 01	2.0320E 03	0.946E 02	2.032E-02	7.709E 02	2.639E 02
7.347E-02	2.042E-01	2.519E-01	1.370E 00	2.0790E 01	2.0320E 03	0.946E 02	2.032E-02	7.709E 02	2.639E 02
2.049E-02	1.317E-01	2.519E-01	1.370E 00	2.0790E 01	2.0320E 03	0.946E 02	2.032E-02	7.709E 02	2.639E 02
2.339E-03	1.140E-01	2.519E-01	1.370E 00	2.0790E 01	2.0320E 03	0.946E 02	2.032E-02	7.709E 02	2.639E 02
7.131E-03	2.070E-01	2.519E-01	1.370E 00	2.0790E 01	2.0320E 03	0.946E 02	2.032E-02	7.709E 02	2.639E 02
-1.437E-02	2.491E-01	2.519E-01	1.370E 00	2.0790E 01	2.0320E 03	0.946E 02	2.032E-02	7.709E 02	2.639E 02
-2.071E-02	1.970E-01	2.519E-01	1.370E 00	2.0790E 01	2.0320E 03	0.946E 02	2.032E-02	7.709E 02	2.639E 02
-2.719E-02	1.027E-01	2.519E-01	1.370E 00	2.0790E 01	2.0320E 03	0.946E 02	2.032E-02	7.709E 02	2.639E 02
-2.207E-02	7.031E-02	2.519E-01	1.370E 00	2.0790E 01	2.0320E 03	0.946E 02	2.032E-02	7.709E 02	2.639E 02
-4.194E-02	2.966E-02	2.519E-01	1.370E 00	2.0790E 01	2.0320E 03	0.946E 02	2.032E-02	7.709E 02	2.639E 02
-6.094E-02	0.024E-03	2.519E-01	1.370E 00	2.0790E 01	2.0320E 03	0.946E 02	2.032E-02	7.709E 02	2.639E 02
-5.807E-02		2.519E-01	1.370E 00	2.0790E 01	2.0320E 03	0.946E 02	2.032E-02	7.709E 02	2.639E 02
-6.941E-02	1.314E-04	2.519E-01	1.370E 00	2.0790E 01	2.0320E 03	0.946E 02	2.032E-02	7.709E 02	2.639E 02
-7.931E-02	4.689E-04	2.519E-01	1.370E 00	2.0790E 01	2.0320E 03	0.946E 02	2.032E-02	7.709E 02	2.639E 02
-9.414E-02	6.918E-04	2.519E-01	1.370E 00	2.0790E 01	2.0320E 03	0.946E 02	2.032E-02	7.709E 02	2.639E 02
-1.040E-01	5.490E-04	2.519E-01	1.370E 00	2.0790E 01	2.0320E 03	0.946E 02	2.032E-02	7.709E 02	2.639E 02
-1.202E-01	5.722E-04	2.519E-01	1.370E 00	2.0790E 01	2.0320E 03	0.946E 02	2.032E-02	7.709E 02	2.639E 02
01P71	00P71	MJ01P5/SEC1	MJ01/MO1/1	TJ011	PTJ0P5P1	CP0107U/0 01	GAM1	MM0104/P2 21	MJ01P5/SEC1
3.6949E-01	7.0949E-02	0.0793E-02	2.0160E 00	1.0205E 02	0.0307E 03	1.4397E 00	1.4029E 00	1.0409E-03	6.6210E 03
MJ012U/01	TJ011	TJ010	MJ012U/01	TJ010	PT01P5P1	CP0107U/0 01	GAM1	MM0104/P2 21	MJ01P5/SEC1
1.0413E 02	6.6302E 03	0.9002E 03	0.3249E 02	1.7042E 03	2.6231E 03	2.4990E-01	1.1370E 00	1.3914E 00	7.6365E 02
01E21	C	CP0107U/0 01	GAM1	MM0104/P2 21	MJ01P5/SEC1	MJ012U/01	TJ011	PTJ0P5P1	
0.136E-02	3.354E-04	0.0195E-01	1.370E 00	2.396E 01	2.051E 03	0.946E 02	2.032E-02	7.709E 02	2.639E 02
0.172E-02	3.727E-04	0.021E-01	1.370E 00	2.396E 01	2.051E 03	0.946E 02	2.032E-02	7.709E 02	2.639E 02
0.616E-02	2.680E-04	0.040E-01	1.370E 00	2.396E 01	2.051E 03	0.946E 02	2.032E-02	7.709E 02	2.639E 02
0.961E-02	1.041E-03	0.029E-01	1.370E 00	2.396E 01	2.051E 03	0.946E 02	2.032E-02	7.709E 02	2.639E 02
5.222E-02	2.724E-03	0.307E-01	1.370E 00	2.740E 01	2.051E 03	0.946E 02	2.032E-02	7.709E 02	2.639E 02
4.892E-02	1.962E-02	2.946E-01	1.280E 00	2.296E 01	2.031E 03	0.779E 02	2.032E-02	7.709E 02	2.639E 02
0.037E-02	6.129E-02	2.767E-01	1.344E 00	1.067E 01	2.040E 03	7.335E 02	1.130E-02	0.141E 02	2.207E 02
0.147E-02	0.147E-01	0.348E-01	1.397E 00	1.102E 01	2.040E 03	7.008E 02	2.431E-02	0.373E 02	7.408E 02
2.519E-02	1.355E-01	0.685E-01	1.399E 00	1.031E 01	2.040E 03	6.730E 02	2.022E-02	1.001E 03	6.949E 02
1.789E-02	1.480E-01	0.470E-01	1.399E 00	0.219E 01	2.037E 03	6.444E 02	1.681E-02	1.213E 03	5.952E 02
0.427E-03	2.203E-01	0.070E-01	1.400E 00	7.041E 00	2.034E 03	6.309E 02	1.466E-02	1.260E 03	6.642E 02
2.101E-04	2.401E-01	0.111E 00	1.400E 00	0.091E 00	2.032E 03	0.282E 02	1.441E-02	1.390E 03	6.613E 02
0.662E-02	2.662E-01	0.011E-01	1.400E 00	6.019E 00	2.035E 03	6.443E 02	1.500E-02	1.180E 03	6.776E 02
-1.387E-02	2.039E-01	0.041E-01	1.396E 00	0.055E 00	2.035E 03	6.423E 02	1.500E-02	1.180E 03	6.776E 02
-2.187E-02	1.571E-01	7.433E-01	1.394E 00	0.436E 00	2.030E 03	6.605E 02	1.360E-02	1.110E 03	6.102E 02
-2.904E-02	1.104E-01	9.971E-01	1.196E 00	1.149E 00	2.042E 03	6.949E 02	2.221E-02	0.431E 02	2.294E 02
-0.637E-02	0.259E-02	0.444E-01	1.399E 00	1.977E 01	2.047E 03	7.120E 02	2.778E-02	0.619E 02	2.331E 02
-4.429E-02	2.495E-02	0.266E-01	1.390E 00	2.181E 01	2.050E 03	8.127E 02	3.395E-02	7.042E 02	2.831E 02
-5.272E-02	3.077E-23	0.267E-01	1.338E 00	2.681E 01	2.031E 03	0.975E 02	2.742E-02	7.748E 02	2.502E 02
-6.600E-02	4.962E-04	2.916E-01	1.370E 00	2.070E 01	2.058E 03	9.327E 02	3.832E-02	7.800E 02	2.940E 02
-0.501E-02	0.627E-03	2.902E-01	1.370E 00	2.049E 01	2.031E 03	0.985E 02	3.849E-02	7.749E 02	2.529E 02
-0.330E-02	0.424E-04	2.912E-01	1.370E 00	2.041E 01	2.051E 03	0.935E 02	3.549E-02	7.793E 02	2.529E 02
-0.941E-02	1.650E-04	2.490E-01	1.376E 00	2.037E 01	2.051E 03	0.782E 02	0.924E-02	7.612E 02	2.346E 02
-1.122E-01	2.795E-04	2.494E-01	1.362E 00	2.082E 01	2.031E 03	0.616E 02	0.267E-02	7.283E 02	2.346E 02
01P11	01E21	MJ01P5/SEC1	MJ01/MO1/1	ETJ01	PTJ0P5P1	CP0107U/0 01	GAM1	MM0104/P2 21	MJ01P5/SEC1
6.1919E-01	6.1919E-02	1.6754E-02	2.0160E 00	0.0193E 02	2.1304E 02	3.4319E 00	1.4029E 00	0.0970E-03	6.4208E 03
01P11	C	CP0107U/0 01	GAM1	MM0104/P2 21	MJ01P5/SEC1	MJ012U/01	TJ011	PTJ0P5P1	
1.9999E 03	5.4465E 02	0.0004E 02	2.2234E 02	1.0464E 03	2.6200E 03	2.4999E-01	1.1370E 00	1.3914E 00	7.1668E 02
01E71	C	CP0107U/0 01	GAM1	MM0104/P2 21	MJ01P5/SEC1	MJ012U/01	TJ011	PTJ0P5P1	
0.631E-02	1.000E-05	2.630E-01	1.390E 00	2.0937E 01	2.040E 03	0.930E 02	3.694E-02	7.597E 02	2.623E 02
7.612E-02	1.000E-05	2.698E-01	1.370E 00	2.0870E 01	2.050E 03	0.904E 02	1.301E-02	7.759E 02	2.509E 02
7.212E-02	1.000E-05	2.446E-01	1.370E 00	2.0870E 01	0.031E 03	0.984E 02	3.071E-02	0.749E 02	2.913E 02
3.647E-02	1.000E-05	2.499E-01	1.370E 00	2.0870E 01	0.052E 03	0.657E 02	3.664E-02	7.768E 02	2.319E 02
3.913E-02	0.470E-04	2.221E-01	1.070E 00	2.083E 01	2.052E 03	0.901E 02	3.083E-02	7.689E 02	2.948E 02
0.241E-02	0.680E-03	2.613E-01	1.381E 00	2.134E 01	0.051E 03	0.930E 02	3.012E-02	7.749E 02	2.804E 02
3.014E-02	0.271E-02	2.078E-01	1.390E 00	2.070E 01	0.070E 03	0.986E 02	3.694E-02	7.759E 02	2.509E 02
4.326E-02	0.334E-02	0.207E-01	1.390E 00	2.208E 01	0.049E 03	0.802E 02	3.432E-02	7.057E 02	2.787E 02
3.731E-02	2.294E-02	0.135E-01	1.393E 00	1.646E 01	2.046E 03	7.004E 02	2.039E-02	0.803E 02	2.240E 02
5.410E-02	7.002E-02	0.480E-01	1.396E 00	1.466E 01	0.043E 03	7.265E 02	2.078E-02	0.632E 02	3.350E 02
2.780E-02	0.039E-01	0.021E-01	1.390E 00	1.194E 01	0.062E 03	0.970E 02	2.275E-02	0.654E 02	4.179E 02
2.236E-02	0.112E-01	0.626E-01	1.399E 00	1.052E 01	2.040E 03	0.764E 02	2.054E-02	1.059E 03	4.427E 02
1.620E-02	1.527E-01	7.137E-01	1.396E 00	0.632E 00	2.038E 03	0.615E 02	1.098E-02	1.131E 03	5.009E 02
1.297E-02	1.674E-01	7.374E-01	1.399E 00	0.970E 00	2.037E 03	0.639E 02	1.191E-02	1.167E 03	3.227E 02
0.982E-02	1.770E-01	3.117E-01	1.399E 00	0.979E 00	2.034E 03	0.649E 02	1.740E-02	1.210E 03	3.707E 02
0.783E-02	1.043E-01	0.325E-01	1.390E 00	0.364E 00	2.034E 03	0.679E 02	1.701E-02	1.230E 03	3.934E 02
0.715E-02	1.000E-01	0.399E-01	1.399E 00	0.284E 00	2.039E 03	0.693E 02	1.692E-02	1.241E 03	3.829E 02
0.193E-04	1.000E-01	0.306E-01	1.390E 00	0.393E 00	2.039E 03	0.689E 02	1.671E-02	1.199E 03	3.832E 02
-2.370E-01	1.002E-01	0.513E-01	1.399E 00	0.170E 00	2.039E 03	0.650E 02	0.088E-02	1.243E 03	3.705E 02

24711	C	CF107U/01	Mu	P31P5F1	70181	RM0104/77.31	U107/3EC1	M107U/01	ET101	P71P5F1		
24742-02	5.677E-03	2.624E-01	1.3033	00	2.730E 01	2.0423 03	2.249E 02	3.002E-02	1.731E 02	2.472E 02	0.6073 02	2.6163 03
24743-02	0.9077E-03	2.748E-01	1.309F	00	0.6010 01	2.044E 03	0.125E 02	1.770E-02	7.713F 02	2.547E 02	0.556F 02	2.614E 03
24744-02	1.6004E-02	2.902E-01	1.307E	00	2.305E 01	2.044E 03	0.641F 02	3.569E-02	7.929F 02	2.647F 02	0.742F 02	2.6183 03
24745-00	2.304E-02	3.3027E-01	1.300E	00	2.142E 01	2.044E 03	0.602F 02	3.372E-02	0.605E 02	2.645E 02	0.7973 02	2.6073 03
24746-02	3.8503E-03	3.6043E-01	1.302E	00	1.913E 01	2.043E 03	0.694F 02	3.123E-02	6.413F 02	3.066E 02	0.842E 02	2.608E 03
24747-02	5.6103E-03	3.195E-01	1.304E	01	1.670E 01	2.043E 03	7.715E-02	2.720E-02	0.626E 02	3.366E 02	0.816F 02	2.608E 03
24748-02	3.304E-02	3.195E-01	1.305E	01	1.670E 01	2.043E 03	7.715E-02	2.720E-02	0.626E 02	3.366E 02	0.816F 02	2.608E 03
24749-02	7.0004E-02	4.939E-01	1.306F	01	1.411E 01	2.0423 03	7.423E 02	2.524F-02	0.548E 02	3.700E 02	1.700F 02	2.617E 03
24750-02	0.2477E-02	0.879E-01	1.306E	01	1.373F 01	2.042E 03	7.351E 02	2.477E-02	0.542E 02	3.750F 02	1.712E 02	2.618E 03
24751-03	0.6049E-02	0.335E-01	1.306E	01	1.311E 01	2.041E 03	7.274F 02	2.481F-02	0.634E 02	4.005E 02	2.708E 02	2.623E 03
24752-03	0.508E-01	5.494E-01	1.307E	01	1.271E 01	2.041E 03	7.184F 02	2.338F-02	0.940E 02	4.077E 02	2.743F 02	2.624E 03
24753-03	0.405E-02	5.405E-01	1.307E	01	1.270E 01	2.041E 03	7.197E 02	2.349F-02	0.920E 02	4.050E 02	2.750F 02	2.623E 03
24754-03	0.300E-02	5.601E-01	1.307E	01	1.203E 01	2.041E 03	7.210E 02	2.393E-02	0.924F 02	4.052E 02	2.750E 02	2.625E 03
24755-03	0.200E-02	5.601E-01	1.307E	01	1.203E 01	2.041E 03	7.210E 02	2.393E-02	0.924F 02	4.052E 02	2.750E 02	2.625E 03
24756-02	0.8043E-02	3.270E-01	1.306F	01	1.327E 01	2.042E 03	7.294F 02	2.405E-02	0.716E 02	3.965F 02	2.554E 02	2.623E 03
24757-02	7.849E-02	4.933E-01	1.308F	01	1.415E 01	2.043F 03	7.604F 02	2.523F-02	0.740E 02	3.781E 02	2.746E 02	2.616E 03
24758-02	0.3033E-02	0.608E-01	1.303F	01	1.563E 01	2.043F 03	7.679E 02	2.692F-02	0.7033 02	3.547E 02	0.604E 02	2.640E 03
24759-02	0.608E-02	0.303E-01	1.303F	01	1.709E 01	2.044E 03	7.604F 02	2.697E-02	0.553F 02	3.201E 02	0.276E 02	2.604E 03
24760-02	3.304E-02	3.503E-01	1.192E	01	1.9923 01	2.044E 03	0.243F 02	3.198F-02	0.279E 02	2.997F 02	0.629E 02	2.606F 03
24761-02	1.020F-02	3.051E-01	1.308E	01	2.220E 01	2.044F 03	0.780E 02	3.510F-02	7.930E 02	2.740F 02	0.192E 02	2.608E 03
24762-02	0.200E-02	3.270E-01	1.306F	01	2.043E 03	0.141F 02	3.727E-02	0.703E 02	2.506F 02	0.673E 02	0.200E 02	2.608E 03
24763-02	2.767E-03	2.570E-01	1.302F	01	2.744E 01	2.043E 03	0.112E 02	3.712E-02	0.712E 02	2.314E 02	0.200E 02	2.608E 03
24764-02	0.405E-04	2.405E-01	1.304E</									

TEST NUMBER - II C

Jet Gas - Hydrogen
Outer Stream Gas - Air

RIFFI	C	CP10TU/0 B1	GAM	HW	PI10PFI	FIRI	RM010/FF B1	UIF7/SEC1	HM0TU/01	TTIRI	PT(PWF)
2.144E-02	4.6159E-02	1.0272E-02	6.0109E-02	6.1009E-02	2.3312E-03	3.4302E-03	1.4016E-03	4.6336E-03	1.7709E-03		
RIFFI	C	CP10TU/0 B1	GAM	HW	PI10PFI	FIRI	RM010/FF B1	UIF7/SEC1	HM0TU/01	TTIRI	PT(PWF)
8.051E-02	2.120E-04	2.510E-01	1.377E-00	2.849E-01	2.000E-03	1.013E-03	3.840E-02	7.556E-02	2.902E-02	1.0580E-03	2.4410E-03
6.967E-02	1.000E-03	2.504E-01	1.377E-00	2.849E-01	2.000E-03	1.015E-03	1.855E-02	7.512E-02	2.501E-02	1.000E-03	2.4462E-03
5.910E-02	1.000E-03	2.504E-01	1.377E-00	2.849E-01	2.002E-03	1.014E-03	3.840E-02	7.419E-02	2.554E-02	1.058E-03	2.442E-03
3.892E-02	1.000E-03	2.490E-01	1.380E-00	2.897E-01	2.040E-03	9.724E-02	4.030E-02	7.177E-02	2.444E-02	1.014E-03	2.436E-03
2.345E-02	9.837E-01	3.383E-01	1.402E-00	2.047E-00	2.045E-03	5.753E-02	8.822E-02	1.750E-03	1.969E-01	5.930E-02	2.334E-03
1.672E-02	9.936E-01	3.410E-00	1.402E-00	2.020E-00	2.094E-03	5.833E-02	4.711E-03	1.777E-03	2.018E-03	8.010E-02	2.334E-03
9.843E-03	9.969E-01	3.420E-00	1.402E-00	2.024E-00	2.094E-03	5.899E-02	4.649E-03	1.782E-03	2.044E-03	6.032E-02	2.334E-03
-2.433E-03	9.981E-01	3.434E-00	1.401E-00	2.019E-00	2.093E-03	5.950E-02	4.807E-03	1.784E-03	2.043E-03	8.152E-02	2.334E-03
-9.523E-03	9.944E-01	3.220E-00	1.402E-00	2.147E-00	2.097E-03	5.913E-02	4.927E-03	1.726E-03	1.930E-03	6.090E-02	2.334E-03
-1.917E-02	9.037E-01	2.810E-00	1.401E-00	2.484E-00	2.096E-03	6.013E-02	5.567E-03	1.626E-03	1.707E-03	8.201E-02	2.331E-03
-2.493E-02	1.275E-03	2.510E-00	1.380E-00	2.897E-01	2.094E-03	9.724E-02	4.030E-02	7.177E-02	2.444E-02	1.014E-03	2.436E-03
-2.32E-02	2.244E-03	2.504E-01	1.377E-00	2.849E-01	2.002E-03	1.014E-03	3.840E-02	7.419E-02	2.554E-02	1.058E-03	2.442E-03
-5.490E-02	1.000E-03	2.507E-01	1.374E-00	2.847E-01	2.009E-03	1.022E-03	3.840E-02	7.510E-02	2.570E-02	1.067E-03	2.445E-03
-7.617E-02	1.000E-03	2.504E-01	1.377E-00	2.847E-01	2.041E-03	1.019E-03	3.810E-02	7.444E-02	2.574E-02	1.066E-03	2.445E-03
-8.374E-02	1.070E-03	2.504E-01	1.377E-00	2.837E-01	2.077E-03	1.015E-03	3.833E-02	7.592E-02	2.561E-02	1.060E-03	2.441E-03
-1.098E-01	1.000E-03	2.502E-01	1.377E-00	2.847E-01	2.077E-03	1.007E-03	3.844E-02	7.545E-02	2.543E-02	1.053E-03	2.443E-03
-1.242E-01	1.000E-03	2.501E-01	1.374E-00	2.847E-01	2.077E-03	1.004E-03	3.873E-02	7.592E-02	2.515E-02	1.050E-03	2.443E-03
RIFFI	C	CP10TU/0 B1	GAM	HW	PI10PFI	FIRI	RM010/FF B1	UIF7/SEC1	HM0TU/01	TTIRI	PT(PWF)
1.1478E-01	5.3478E-02	1.0272E-02	2.0100E-00	6.0900E-02	2.3201E-03	3.4302E-03	1.4016E-03	4.6300E-03	1.9109E-03		
RIFFI	C	CP10TU/0 B1	GAM	HW	PI10PFI	FIRI	RM010/FF B1	UIF7/SEC1	HM0TU/01	TTIRI	PT(PWF)
8.009E-02	1.643E-03	3.951E-01	1.377E-00	2.849E-01	2.000E-03	1.000E-03	3.840E-02	7.556E-02	2.902E-02	1.058E-03	2.441E-03
6.251E-02	1.266E-03	2.504E-01	1.377E-00	2.849E-01	2.002E-03	1.013E-03	3.840E-02	7.419E-02	2.554E-02	1.058E-03	2.442E-03
4.845E-02	1.116E-03	2.538E-01	1.378E-00	2.854E-01	2.004E-03	1.006E-03	3.787E-02	7.288E-02	2.582E-02	1.054E-03	2.446E-03
4.177E-02	2.052E-03	2.567E-01	1.378E-00	2.820E-01	2.063E-03	1.001E-03	3.761E-02	7.009E-02	2.599E-02	1.048E-03	2.442E-03
3.241E-02	6.777E-03	2.782E-01	1.394E-00	2.567E-01	2.042E-03	8.939E-02	3.825E-02	7.379E-02	2.532E-02	9.330E-02	2.404E-03
2.667E-02	1.463E-01	7.104E-01	1.399E-00	9.802E-00	2.041E-03	6.614E-02	1.974E-02	9.001E-02	4.780E-02	4.844E-02	2.320E-03
2.101E-02	4.124E-01	1.562E-00	1.401E-00	4.444E-00	2.054E-03	6.078E-02	9.744E-03	1.322E-03	3.671E-02	6.312E-02	2.349E-03
1.444E-02	8.344E-01	2.904E-00	1.402E-00	2.386E-00	2.058E-03	5.824E-02	4.551E-03	1.801E-03	1.722E-03	6.047E-02	2.344E-03
4.905E-03	9.543E-01	3.792E-00	1.402E-00	2.105E-00	2.058E-03	5.888E-02	4.759E-03	1.879E-03	1.969E-03	6.102E-02	2.329E-03
-2.407E-03	9.346E-01	3.187E-00	1.401E-00	2.047E-00	2.053E-03	5.934E-02	4.590E-03	1.904E-03	2.041E-03	6.148E-02	2.329E-03
-3.677E-03	9.634E-01	3.322E-00	1.401E-00	2.087E-00	2.059E-03	5.937E-02	4.644E-03	1.887E-03	2.003E-03	6.151E-02	2.330E-03
-1.914E-02	7.310E-01	2.773E-00	1.401E-00	2.501E-00	2.058E-03	5.934E-02	3.613E-03	1.762E-03	1.874E-03	6.158E-02	2.341E-03
-2.947E-02	1.929E-01	4.393E-01	1.390E-00	9.094E-00	2.050E-03	6.661E-02	1.667E-02	1.012E-03	5.655E-02	6.699E-02	2.332E-03
-4.774E-02	7.235E-04	2.521E-01	1.379E-00	2.869E-01	2.062E-03	7.099E-02	3.697E-02	7.692E-02	2.514E-02	1.060E-03	2.339E-03
-6.069E-02	1.262E-03	2.604E-01	1.378E-00	2.717E-01	2.050E-03	7.002E-02	3.999E-02	7.999E-02	2.514E-02	1.060E-03	2.339E-03
-7.054E-02	1.930E-03	2.531E-01	1.378E-00	2.806E-01	2.051E-03	7.005E-02	3.995E-02	7.995E-02	2.508E-02	1.051E-03	2.441E-03
-8.940E-02	2.500E-03	2.500E-01	1.378E-00	2.997E-01	2.057E-03	6.994E-02	3.840E-02	7.735E-02	2.528E-02	1.047E-03	2.439E-03
-1.094E-01	2.345E-03	2.574E-01	1.379E-00	2.806E-01	2.057E-03	6.951E-02	3.789E-02	7.358E-02	2.594E-02	1.043E-03	2.441E-03
-1.136E-01	2.115E-03	2.544E-01	1.375E-00	2.817E-01	2.057E-03	6.966E-02	3.802E-02	7.312E-02	2.564E-02	1.034E-03	2.441E-03
RIFFI	C	CP10TU/0 B1	GAM	HW	PI10PFI	FIRI	RM010/FF B1	UIF7/SEC1	HM0TU/01	TTIRI	PT(PWF)
2.0194E-01	6.2194E-02	1.0272E-02	2.0100E-00	6.0900E-02	2.3277E-03	3.4301E-03	1.4016E-03	4.6301E-03	1.9531E-03		
RIFFI	C	CP10TU/0 B1	GAM	HW	PI10PFI	FIRI	RM010/FF B1	UIF7/SEC1	HM0TU/01	TTIRI	PT(PWF)
7.494E-02	1.000E-05	2.501E-01	1.378E-00	2.8970E-01	2.056E-03	1.000E-03	3.854E-02	7.794E-02	2.531E-02	1.049E-03	2.443E-03
6.801E-02	1.097E-04	2.505E-01	1.378E-00	2.8930E-01	2.056E-03	1.002E-03	3.841E-02	7.781E-02	2.540E-02	1.031E-03	2.441E-03
5.805E-02	4.433E-03	2.504E-01	1.378E-00	2.834E-01	2.057E-03	9.9470E-02	3.952E-02	9.727E-02	2.938E-02	1.050E-03	2.696E-03
3.150E-02	3.360E-03	2.502E-01	1.378E-00	2.895E-01	2.056E-03	5.990E-02	3.578E-02	7.781E-02	2.330E-02	1.047E-03	2.443E-03
6.294E-02	5.573E-04	2.511E-01	1.379E-00	2.879E-01	2.056E-03	9.884E-02	3.877E-02	7.728E-02	2.514E-02	1.034E-03	2.539E-03
3.920E-02	4.570E-03	2.532E-01	1.382E-00	2.730E-01	2.056E-03	9.495E-02	3.826E-02	7.691E-02	2.540E-02	9.940E-02	2.429E-03
3.582E-02	1.740E-02	2.038E-01	1.384E-00	2.336E-01	2.055E-03	8.710E-02	3.567E-02	7.589E-02	2.532E-02	1.088E-02	2.180E-03
2.916E-02	4.347E-02	2.531E-01	1.384E-00	2.879E-01	2.056E-03	9.947E-02	3.952E-02	9.727E-02	2.938E-02	1.047E-03	2.443E-03
2.444E-02	1.815E-01	1.394E-00	1.378E-00	2.911E-00	2.051E-03	6.614E-02	1.789E-02	9.770E-02	2.526E-02	6.858E-02	2.329E-03
1.635E-02	3.401E-01	1.330E-00	1.400E-00	5.223E-00	2.047E-03	6.211E-02	1.114E-02	1.317E-03	8.444E-02	6.471E-02	2.363E-03
9.234E-01	2.644E-01	1.127E-00	1.401E-00	6.324E-00	2.045E-03	6.050E-02	7.801E-03	1.539E-03	1.193E-03	6.315E-02	2.378E-03
1.804E-01	4.007E-01	2.292E-00	1.401E-00	3.024E-00	2.045E-03	6.018E-02	6.863E-03	1.727E-03	1.410E-03	6.277E-02	2.371E-03
-1.694E-01	6.150E-01	2.209E-00	1.401E-00	3.141E-00	2.046E-03	6.051E-02	6.874E-03	1.704E-03	1.368E-03	6.314E-02	2.373E-03
-9.430E-01	4.836E-01	1.790E-00	1.401E-00	3.830E-00	2.046E-03	6.127E-02	8.888E-03	1.545E-03	1.122E-03	6.193E-02	2.374E-03
-1.641E-02	3.180E-01	1.260E-00	1.400E-00	5.516E-00	2.046E-03	6.239E-02	1.162E-02	1.299E-03	8.107E-02	6.556E-02	2.367E-03
-2.522E-02	6.180E-01	7.004E-01	1.398E-00	9.951E-00	2.048E-03	6.270E-02	1.941E-02	9.420E-02	4.853E-02	7.049E-02	2.329E-03
-3.475E-02	3.374E-02	3.711E-01	1.426E-00	1.998E-01	2.053E-03	8.820E-02	3.229E-02	7.684E-02	2.962E-02	8.554E-02	2.365E-03
-4.260E-02	2.944E-03	2.564E-01	1.180E-00	2.737E-01	2.055E-03	6.988E-02	3.823E-02	7.752E-02	2.545E-02	1.014E-03	2.435E-03
-5.10E-02	1.128E-04	2.504E-01	1.378E-00	2.893E-01	2.056E-03	1.000E-03	3.849E-02	7.782E-02	2.534E-02	1.053E-03	2.440E-03
-6.372E-02	4.065E-03	2.503E-01	1.377E-00	2.895E-01	2.056E-03	1.005E-03	3.836E-02	7.813E-02	2.544E-02	1.053E-03	2.441E-03
-7.732E-02	2.931E-03	2.503E-01	1.377E-00	2.888E-01	2.056E-03	1.000E-03	3.832E-02	7.809E-02	2.544E-02	1.053E-03	2.441E-03
-9.134E-02	2.914E-03	2.502E-01	1.378E-00	2.895E-01	2.056E-03	1.000E-03	3.832E-02	7.797E-02	2.533E-02	1.049E-03	2.441E-03
-1.797E-01	1.090E-02	2.502E-01	1.378E-00	2.877E-01	2.054E-03	9.950E-02	3.846E-02	7.794E-02	2.521E-02	1.044E-03	2.443E-03
-1.797E-01	1.090E-02	2.502E-01	1.378E-00	2.877E-01	2.054E-03	9.950E-02	3.846E-02	7.794E-02	2.521E-02	1.044E-03	2.443E-03

[illegible]

TEST NUMBER - III

Jet Gas - Hydrogen
Outer Stream Gas - Air

X(FT)	R5(FT)	WJ(M/SEC)	MW(M/MOLE)	TF(JR)	PTJ(P5F)	CPJ(8TU/# R)	GAMJ	RHOJ(M/FT 3)	UJ(FT/SEC)		
2.0795E-02	4.4017E-02	1.0142E-01	2.8970E 01	5.3486E 02	3.3812E 03	2.3980E-01	1.4003E 00	8.2553E-02	9.3214E 02		
MJ(8TU/#)	TS(JR)	TSO(JR)	MO(8TU/#)	TTO(JR)	PTO(P5F)	CPO(8TU/# R)	GAMO	RHOJ(M/FT 3)	UJ(FT/SEC)		
1.2783E 02	4.6245E 02	6.6954E 02	1.6286E 02	6.8055E 02	2.1855E 03	2.4132E-01	1.3945E 00	5.7701E-02	3.5486E 02		
RIFT	C	CP(8TU/# R)	GAM	MW	PS(P5F)	TS(R)	RHO(M/FT 3)	U(FT/SEC)	H(8TU/#)	TT(R)	PT(P5F)
1.010E-01	2.267E-02	2.413E-01	1.397E 00	2.897E 01	2.053E 03	6.650E 02	5.788E-02	3.642E 02	1.621E 02	6.773E 02	2.188E 03
8.711E-02	1.220E-02	2.413E-01	1.397E 00	2.897E 01	2.056E 03	6.666E 02	5.780E-02	3.631E 02	1.624E 02	6.788E 02	2.188E 03
7.491E-02	9.485E-03	2.413E-01	1.397E 00	2.897E 01	2.058E 03	6.675E 02	5.781E-02	3.626E 02	1.625E 02	6.792E 02	2.188E 03
6.838E-02	1.302E-02	2.413E-01	1.397E 00	2.897E 01	2.061E 03	6.673E 02	5.792E-02	3.710E 02	1.624E 02	6.787E 02	2.188E 03
3.397E-02	1.146E-02	2.413E-01	1.397E 00	2.897E 01	2.065E 03	6.646E 02	5.823E-02	3.658E 02	1.619E 02	6.760E 02	2.188E 03
2.717E-02	1.079E-02	2.411E-01	1.397E 00	2.897E 01	2.068E 03	6.538E 02	5.909E-02	3.655E 02	1.591E 02	6.649E 02	2.186E 03
1.870E-02	1.002E-02	2.398E-01	1.400E 00	2.897E 01	2.038E 03	6.624E 02	5.824E-02	3.631E 02	1.278E 02	5.346E 02	3.385E 03
9.695E-03	9.921E-02	2.398E-01	1.400E 00	2.897E 01	2.036E 03	6.635E 02	5.834E-02	3.634E 02	1.281E 02	5.360E 02	3.385E 03
-2.865E-05	9.856E-01	2.398E-01	1.400E 00	2.897E 01	2.036E 03	6.643E 02	5.823E-02	3.641E 02	1.283E 02	5.370E 02	3.385E 03
-1.381E-02	9.63E-01	2.398E-01	1.400E 00	2.897E 01	2.047E 03	6.679E 02	5.820E-02	3.619E 02	1.291E 02	5.402E 02	3.384E 03
-2.312E-02	7.056E-01	2.401E-01	1.400E 00	2.897E 01	2.057E 03	6.674E 02	5.812E-02	3.619E 02	1.381E 02	5.778E 02	2.831E 03
-3.076E-02	6.667E-02	2.412E-01	1.397E 00	2.897E 01	2.060E 03	6.594E 02	5.855E-02	3.637E 02	1.605E 02	6.709E 02	2.186E 03
-4.267E-02	1.311E-02	2.413E-01	1.397E 00	2.897E 01	2.061E 03	6.673E 02	5.793E-02	3.708E 02	1.624E 02	6.796E 02	2.188E 03
-6.448E-02	1.000E-05	2.413E-01	1.397E 00	2.897E 01	2.059E 03	6.697E 02	5.764E-02	3.764E 02	1.631E 02	6.916E 02	2.189E 03
-9.071E-02	1.895E-03	2.413E-01	1.397E 00	2.897E 01	2.059E 03	6.739E 02	5.778E-02	3.832E 02	1.628E 02	6.793E 02	2.189E 03
-1.221E-01	3.647E-02	2.413E-01	1.397E 00	2.897E 01	2.059E 03	6.635E 02	5.807E-02	3.838E 02	1.616E 02	6.735E 02	2.188E 03
-1.252E-01	3.389E-02	2.412E-01	1.397E 00	2.897E 01	2.055E 03	6.636E 02	5.806E-02	3.812E 02	1.617E 02	6.756E 02	2.189E 03
-1.2E-01	3.498E-02	2.412E-01	1.397E 00	2.897E 01	2.055E 03	6.635E 02	5.807E-02	3.839E 02	1.616E 02	6.755E 02	2.189E 03
X(FT)	R5(FT)	WJ(M/SEC)	MW(M/MOLE)	TF(JR)	PTJ(P5F)	CPJ(8TU/# R)	GAMJ	RHOJ(M/FT 3)	UJ(FT/SEC)		
7.9097E-02	4.9810E-02	1.0152E-01	2.8970E 01	5.3505E 02	3.3908E 03	2.3980E-01	1.4003E 00	8.2294E-02	9.3762E 02		
MJ(8TU/#)	TS(JR)	TSO(JR)	MO(8TU/#)	TTO(JR)	PTO(P5F)	CPO(8TU/# R)	GAMO	RHOJ(M/FT 3)	UJ(FT/SEC)		
1.2783E 02	4.6189E 02	6.7545E 02	1.6457E 02	6.8762E 02	2.1846E 03	2.4142E-01	1.3945E 00	5.6993E-02	3.8042E 02		
RIFT	C	CP(8TU/# R)	GAM	MW	PS(P5F)	TS(R)	RHO(M/FT 3)	U(FT/SEC)	H(8TU/#)	TT(R)	PT(P5F)
7.671E-02	1.198E-02	2.414E-01	1.397E 00	2.897E 01	2.052E 03	6.735E 02	5.714E-02	3.861E 02	1.641E 02	6.958E 02	2.188E 03
6.399E-02	9.975E-03	2.414E-01	1.397E 00	2.897E 01	2.054E 03	6.739E 02	5.713E-02	3.848E 02	1.642E 02	6.961E 02	2.188E 03
5.039E-02	1.441E-02	2.414E-01	1.397E 00	2.897E 01	2.054E 03	6.732E 02	5.720E-02	3.850E 02	1.640E 02	6.954E 02	2.188E 03
3.952E-02	2.532E-02	2.414E-01	1.397E 00	2.897E 01	2.054E 03	6.715E 02	5.735E-02	3.849E 02	1.636E 02	6.838E 02	2.189E 03
3.225E-02	3.535E-02	2.413E-01	1.397E 00	2.897E 01	2.053E 03	6.699E 02	5.745E-02	3.856E 02	1.633E 02	6.822E 02	2.188E 03
2.382E-02	7.113E-01	2.401E-01	1.400E 00	2.897E 01	2.043E 03	6.372E 02	5.712E-02	3.710E 02	1.385E 02	5.742E 02	2.658E 03
1.644E-02	9.938E-01	2.398E-01	1.400E 00	2.897E 01	2.029E 03	6.431E 02	5.821E-02	3.861E 02	1.291E 02	5.360E 02	3.385E 03
5.889E-03	9.803E-01	2.398E-01	1.400E 00	2.897E 01	2.027E 03	6.446E 02	5.818E-02	3.934E 02	1.286E 02	5.381E 02	3.387E 03
-5.564E-03	9.856E-01	2.398E-01	1.400E 00	2.897E 01	2.027E 03	6.466E 02	5.817E-02	4.010E 02	1.291E 02	5.403E 02	3.386E 03
-1.354E-02	9.553E-01	2.398E-01	1.400E 00	2.897E 01	2.029E 03	6.466E 02	5.810E-02	4.007E 02	1.291E 02	5.402E 02	3.386E 03
-2.575E-02	2.266E-01	2.410E-01	1.398E 00	2.897E 01	2.051E 03	6.472E 02	5.889E-02	4.104E 02	1.570E 02	6.525E 02	2.212E 03
-3.937E-02	1.138E-02	2.414E-01	1.397E 00	2.897E 01	2.054E 03	6.723E 02	5.727E-02	3.815E 02	1.633E 02	6.844E 02	2.188E 03
-4.635E-02	9.518E-03	2.414E-01	1.397E 00	2.897E 01	2.053E 03	6.741E 02	5.711E-02	3.817E 02	1.642E 02	6.862E 02	2.185E 03
-5.465E-02	4.366E-03	2.414E-01	1.397E 00	2.897E 01	2.053E 03	6.749E 02	5.703E-02	3.817E 02	1.644E 02	6.870E 02	2.185E 03
-6.719E-02	6.72E-04	2.414E-01	1.397E 00	2.897E 01	2.052E 03	6.754E 02	5.697E-02	3.835E 02	1.645E 02	6.875E 02	2.185E 03
-7.710E-02	1.331E-03	2.414E-01	1.397E 00	2.897E 01	2.052E 03	6.752E 02	5.697E-02	3.842E 02	1.645E 02	6.874E 02	2.185E 03
-9.025E-02	6.794E-03	2.414E-01	1.397E 00	2.897E 01	2.052E 03	6.743E 02	5.705E-02	3.849E 02	1.643E 02	6.866E 02	2.186E 03
-1.122E-01	1.988E-02	2.414E-01	1.397E 00	2.897E 01	2.052E 03	6.722E 02	5.723E-02	3.869E 02	1.639E 02	6.846E 02	2.186E 03
X(FT)	R5(FT)	WJ(M/SEC)	MW(M/MOLE)	TF(JR)	PTJ(P5F)	CPJ(8TU/# R)	GAMJ	RHOJ(M/FT 3)	UJ(FT/SEC)		
1.7983E-01	5.9983E-02	1.0146E-01	2.8970E 01	5.3510E 02	3.3921E 03	2.3980E-01	1.4003E 00	8.2206E-02	9.3926E 02		
MJ(8TU/#)	TS(JR)	TSO(JR)	MO(8TU/#)	TTO(JR)	PTO(P5F)	CPO(8TU/# R)	GAMO	RHOJ(M/FT 3)	UJ(FT/SEC)		
1.2789E 02	4.6168E 02	6.7720E 02	1.6500E 02	6.8941E 02	2.1825E 03	2.4144E-01	1.3955E 00	5.6762E-02	3.8300E 02		
RIFT	C	CP(8TU/# R)	GAM	MW	PS(P5F)	TS(R)	RHO(M/FT 3)	U(FT/SEC)	H(8TU/#)	TT(R)	PT(P5F)
8.249E-02	1.229E-02	2.414E-01	1.397E 00	2.897E 01	2.049E 03	6.750E 02	5.692E-02	3.887E 02	1.645E 02	6.875E 02	2.186E 03
8.246E-02	1.175E-02	2.414E-01	1.397E 00	2.897E 01	2.050E 03	6.753E 02	5.693E-02	3.881E 02	1.646E 02	6.876E 02	2.185E 03
4.755E-02	1.693E-02	2.414E-01	1.397E 00	2.897E 01	2.050E 03	6.745E 02	5.690E-02	3.858E 02	1.644E 02	6.868E 02	2.185E 03
3.530E-02	1.354E-01	2.411E-01	1.397E 00	2.897E 01	2.047E 03	6.553E 02	5.857E-02	4.000E 02	1.600E 02	6.686E 02	2.196E 03
2.022E-02	5.131E-01	2.404E-01	1.399E 00	2.897E 01	2.041E 03	6.538E 02	5.555E-02	5.574E 02	1.458E 02	6.096E 02	2.375E 03
2.327E-02	1.169E-01	2.401E-01	1.400E 00	2.897E 01	2.032E 03	5.297E 02	7.192E-02	7.692E 02	1.384E 02	5.789E 02	2.773E 03
1.542E-02	9.262E-01	2.399E-01	1.400E 00	2.897E 01	2.024E 03	4.752E 02	7.985E-02	9.263E 02	1.306E 02	5.465E 02	3.302E 03
1.222E-02	9.611E-01	2.399E-01	1.400E 00	2.897E 01	2.022E 03	4.679E 02	8.104E-02	9.379E 02	1.293E 02	5.411E 02	3.363E 03
9.095E-03	3.695E-01	2.398E-01	1.400E 00	2.897E 01	2.022E 03	4.660E 02	8.139E-02	9.421E 02	1.290E 02	5.398E 02	3.384E 03
4.930E-04	9.626E-01	2.398E-01	1.400E 00	2.897E 01	2.024E 03	4.649E 02	8.129E-02	9.432E 02	1.293E 02	5.409E 02	3.377E 03
-2.637E-03	9.611E-01	2.398E-01	1.400E 00	2.897E 01	2.024E 03	4.670E 02	8.126E-02	9.437E 02	1.293E 02	5.411E 02	3.380E 03
-1.168E-02	9.448E-01	2.398E-01	1.400E 00	2.897E 01	2.023E 03	4.681E 02	8.104E-02	9.429E 02	1.296E 02	5.421E 02	3.381E 03
-1.569E-02	9.378E-01	2.398E-01	1.400E 00	2.897E 01	2.025E 03	4.812E 02	7.890E-02	9.253E 02	1.321E 02	5.525E 02	3.253E 03
-2.352E-02	6.840E-01	2.402E-01	1.399E 00	2.897E 01	2.036E 03	5.343E 02	7.093E-02	7.411E 02	1.396E 02	5.840E 02	2.700E 03
-3.051E-02	3.272E-01	2.408E-01	1.398E 00	2.897E 01	2.047E 03	6.202E 02	6.188E-02	4.762E 02	1.529E 02	6.390E 02	2.273E 03
-3.610E-02	4.265E-02	2.413E-01	1.397E 00	2.897E 01	2.049E 03	6.705E 02	5.731E-02	3.845E 02	1.634E 02	6.929E 02	2.185E 03
-4.260E-02	1.511E-02	2.414E-01	1.397E 00	2.897E 01	2.050E 03	6.709E 02	5.729E-02	4.422E 02	1.644E 02	6.971E 02	2.220E 03
-5.112E-02	1.215E-02	2.414E-01	1.397E 00	2.897E 01	2.049E 03	6.752E 02	5.692E-02	3.887E 02	1.646E 02	6.875E 02	2.185E 03
-5.390E-02	2.870E-03	2.414E-01	1.396E 00	2.897E 01	2.049E 03	6.765E 02	5.679E-02	3.943E 02	1.649E 02	6.890E 02	2.185E 03
-7.039E-02	4.050E-03	2.414E-01	1.396E 00	2.897E 01	2.049E 03	6.762E 02	5.680E-02	3.903E 02	1.649E 02	6.888E 02	2.186E 03
-8.173E-02	1.172E-02	2.414E-01	1.397E 00	2.897E 01	2.049E 03	6.749E 02	5.689E-02	3.919E 02	1.646E 02	6.876E 02	2.187E 03
-9.699E-02	1.833E-02	2.414E-01	1.397E 00	2.897E 01	2.047E 03	6.740E 02	5.695E-02	3.905E 02	1.643E 02	6.866E 02	2.185E 03
-1.147E-01	3.042E-02	2.414E-01	1.397E 00	2.897E 01	2.047E 03	6.721E 02	5.711E-02	3.904E 02	1.639E 02	6.847E 02	2.185E 03
-1.292E-01	1.252E-01	2.412E-01	1.397E 00	2.897E 01	2.047E 03	6.590E 02	5.825E-02				

X(FT)	R(FT)	MJ(100/SEC)	MJ(100/SEC)	TJ(100)	PT(100)	CP(100/SEC)	R(100)	GAM	RH(100/SEC)	U(100/SEC)	Y(100)	PT(100)
2.3008E-01	2.5008E-02	1.0159E-01	2.970E-01	5.3518E-02	3.3933E-03	2.3780E-01	1.4003E-03	8.2132E-02	9.4039E-02			
MJ(100/SEC)	TJ(100)	Y(100)	PT(100)	CP(100/SEC)	R(100)	GAM	RH(100/SEC)	U(100/SEC)	Y(100)	PT(100)		
1.2790E-02	4.6150E-02	6.7851E-02	1.6532E-02	6.6072E-02	2.1924E-03	2.4146E-01	1.3964E-03	5.6640E-02	3.8430E-02			
R(FT)	C	CP(100/SEC)	GAM	MW	PS(100/SEC)	TJ(100)	RH(100/SEC)	U(100/SEC)	M(100/SEC)	Y(100)	PT(100)	
7.957E-02	1.590E-02	2.414E-01	1.397E-03	2.897E-01	2.049E-03	6.757E-02	5.685E-02	3.898E-02	1.647E-02	6.983E-02	2.186E-03	
6.570E-02	1.219E-02	2.414E-01	1.396E-03	2.897E-01	2.050E-03	6.764E-02	5.692E-02	3.877E-02	1.649E-02	6.880E-02	2.185E-03	
5.921E-02	1.202E-02	2.414E-01	1.397E-03	2.897E-01	2.050E-03	6.762E-02	5.693E-02	3.895E-02	1.649E-02	6.878E-02	2.186E-03	
4.759E-02	1.900E-02	2.414E-01	1.397E-03	2.897E-01	2.050E-03	6.755E-02	5.690E-02	3.957E-02	1.646E-02	6.878E-02	2.184E-03	
4.186E-02	1.876E-02	2.414E-01	1.397E-03	2.897E-01	2.049E-03	6.721E-02	5.715E-02	3.909E-02	1.639E-02	6.878E-02	2.187E-03	
3.690E-02	1.764E-01	2.411E-01	1.397E-03	2.897E-01	2.046E-03	6.840E-02	5.618E-02	4.284E-02	1.587E-02	6.834E-02	2.220E-03	
2.935E-02	5.363E-01	2.404E-01	1.397E-03	2.897E-01	2.038E-03	5.780E-02	6.011E-02	5.950E-02	1.453E-02	6.074E-02	2.425E-03	
2.179E-02	7.123E-01	2.401E-01	1.400E-03	2.897E-01	2.029E-03	5.242E-02	7.254E-02	7.964E-02	1.379E-02	5.769E-02	2.837E-03	
1.639E-02	9.070E-01	2.399E-01	1.400E-03	2.897E-01	2.022E-03	4.794E-02	7.007E-02	9.199E-02	1.314E-02	5.497E-02	3.263E-03	
4.303E-03	7.691E-01	2.398E-01	1.400E-03	2.897E-01	2.022E-03	4.660E-02	6.136E-02	9.427E-02	1.291E-02	5.400E-02	3.385E-03	
1.002E-03	9.632E-01	2.396E-01	1.400E-03	2.897E-01	2.022E-03	4.666E-02	6.126E-02	9.439E-02	1.293E-02	5.408E-02	3.388E-03	
-7.645E-03	9.566E-01	2.398E-01	1.400E-03	2.897E-01	2.021E-03	4.678E-02	6.132E-02	9.436E-02	1.295E-02	5.419E-02	3.381E-03	
-1.827E-02	7.983E-01	2.401E-01	1.400E-03	2.897E-01	2.029E-03	5.143E-02	7.393E-02	9.390E-02	1.369E-02	5.729E-02	2.958E-03	
-2.521E-02	5.700E-01	2.403E-01	1.399E-03	2.897E-01	2.035E-03	5.699E-02	6.698E-02	9.218E-02	1.440E-02	6.022E-02	2.470E-03	
-3.946E-02	1.615E-01	2.411E-01	1.397E-03	2.897E-01	2.045E-03	6.517E-02	5.884E-02	9.114E-02	1.593E-02	6.657E-02	2.204E-03	
-4.106E-02	2.273E-02	2.414E-01	1.397E-03	2.897E-01	2.049E-03	6.745E-02	5.695E-02	9.469E-02	1.645E-02	6.472E-02	2.185E-03	
-5.033E-02	7.049E-02	2.414E-01	1.396E-03	2.897E-01	2.049E-03	6.771E-02	5.676E-02	9.384E-02	1.651E-02	6.896E-02	2.184E-03	
-6.303E-02	5.735E-04	2.414E-01	1.396E-03	2.897E-01	2.049E-03	6.748E-02	5.694E-02	9.325E-02	1.645E-02	6.873E-02	2.185E-03	
-7.849E-02	5.417E-03	2.415E-01	1.396E-03	2.897E-01	2.048E-03	6.772E-02	5.670E-02	9.311E-02	1.651E-02	6.899E-02	2.186E-03	
-9.397E-02	2.004E-02	2.414E-01	1.397E-03	2.897E-01	2.048E-03	6.750E-02	5.696E-02	9.308E-02	1.645E-02	6.876E-02	2.184E-03	
-1.134E-01	4.400E-02	2.414E-01	1.397E-03	2.897E-01	2.048E-03	6.715E-02	5.718E-02	9.375E-02	1.637E-02	6.839E-02	2.184E-03	
X(FT)	R(FT)	MJ(100/SEC)	MJ(100/SEC)	TJ(100)	PT(100)	CP(100/SEC)	R(100)	GAM	RH(100/SEC)	U(100/SEC)	Y(100)	PT(100)
2.5809E-01	6.7933E-02	1.0159E-01	2.8970E-01	5.3521E-02	3.3934E-03	2.3981E-01	1.4003E-03	8.2114E-02	9.4062E-02			
MJ(100/SEC)	TJ(100)	Y(100)	PT(100)	CP(100/SEC)	R(100)	GAM	RH(100/SEC)	U(100/SEC)	Y(100)	PT(100)		
1.2791E-02	4.6157E-02	6.7953E-02	1.6562E-02	6.6198E-02	2.1645E-03	2.4146E-01	1.3964E-03	5.6543E-02	3.8912E-02			
R(FT)	C	CP(100/SEC)	GAM	MW	PS(100/SEC)	TJ(100)	RH(100/SEC)	U(100/SEC)	M(100/SEC)	Y(100)	PT(100)	
7.709E-02	9.099E-03	2.415E-01	1.399E-03	2.897E-01	2.049E-03	6.779E-02	5.667E-02	3.918E-02	1.635E-02	6.906E-02	2.187E-03	
6.342E-02	1.081E-02	2.415E-01	1.396E-03	2.897E-01	2.049E-03	6.775E-02	5.672E-02	3.942E-02	1.652E-02	6.903E-02	2.189E-03	
5.209E-02	1.439E-02	2.415E-01	1.396E-03	2.897E-01	2.049E-03	6.771E-02	5.676E-02	3.916E-02	1.651E-02	6.897E-02	2.188E-03	
4.363E-02	2.980E-02	2.414E-01	1.397E-03	2.897E-01	2.049E-03	6.748E-02	5.694E-02	3.925E-02	1.645E-02	6.873E-02	2.185E-03	
3.500E-02	2.935E-01	2.409E-01	1.395E-03	2.897E-01	2.049E-03	6.355E-02	6.032E-02	4.500E-02	1.591E-02	6.523E-02	2.240E-03	
2.797E-02	5.524E-01	2.404E-01	1.399E-03	2.897E-01	2.043E-03	5.746E-02	6.650E-02	4.121E-02	1.448E-02	6.055E-02	2.451E-03	
1.964E-02	7.325E-01	2.401E-01	1.400E-03	2.897E-01	2.027E-03	5.231E-02	7.264E-02	9.048E-02	1.390E-02	5.773E-02	2.861E-03	
1.228E-02	5.853E-01	2.399E-01	1.400E-03	2.897E-01	2.022E-03	4.829E-02	7.850E-02	9.163E-02	1.321E-02	5.528E-02	3.244E-03	
5.875E-03	5.569E-01	2.398E-01	1.400E-03	2.897E-01	2.021E-03	4.883E-02	8.088E-02	9.391E-02	1.295E-02	5.420E-02	3.363E-03	
2.718E-03	9.458E-01	2.398E-01	1.400E-03	2.897E-01	2.022E-03	4.677E-02	8.134E-02	9.427E-02	1.295E-02	5.417E-02	3.379E-03	
-4.529E-04	5.587E-01	2.398E-01	1.400E-03	2.897E-01	2.022E-03	4.675E-02	8.129E-02	9.441E-02	1.295E-02	5.417E-02	3.385E-03	
-3.374E-03	5.988E-01	2.398E-01	1.400E-03	2.897E-01	2.022E-03	4.675E-02	8.129E-02	9.443E-02	1.295E-02	5.417E-02	3.393E-03	
-6.455E-03	5.554E-01	2.398E-01	1.400E-03	2.897E-01	2.021E-03	4.691E-02	8.098E-02	9.439E-02	1.296E-02	5.422E-02	3.381E-03	
-1.416E-02	5.682E-01	2.398E-01	1.400E-03	2.897E-01	2.022E-03	4.681E-02	7.998E-02	9.182E-02	1.319E-02	5.594E-02	3.234E-03	
-2.086E-02	7.120E-01	2.401E-01	1.400E-03	2.897E-01	2.025E-03	4.283E-02	7.144E-02	7.985E-02	1.389E-02	5.805E-02	2.808E-03	
-2.785E-02	5.243E-01	2.404E-01	1.399E-03	2.897E-01	2.034E-03	5.809E-02	6.573E-02	1.912E-02	1.459E-02	6.099E-02	2.416E-03	
-3.357E-02	2.661E-01	2.409E-01	1.399E-03	2.897E-01	2.045E-03	6.335E-02	6.053E-02	4.503E-02	1.556E-02	6.503E-02	2.242E-03	
-4.060E-02	3.726E-02	2.414E-01	1.397E-03	2.897E-01	2.049E-03	6.732E-02	5.706E-02	3.956E-02	1.642E-02	6.942E-02	2.191E-03	
-4.635E-02	1.604E-02	2.414E-01	1.396E-03	2.897E-01	2.049E-03	6.767E-02	5.678E-02	3.957E-02	1.650E-02	6.895E-02	2.190E-03	
-5.310E-02	1.326E-02	2.415E-01	1.396E-03	2.897E-01	2.049E-03	6.771E-02	5.674E-02	3.934E-02	1.651E-02	6.899E-02	2.155E-03	
-6.442E-02	5.963E-03	2.415E-01	1.396E-03	2.897E-01	2.045E-03	6.783E-02	5.662E-02	3.933E-02	1.654E-02	6.911E-02	2.187E-03	
-7.960E-02	1.109E-02	2.415E-01	1.396E-03	2.897E-01	2.047E-03	6.774E-02	5.666E-02	3.940E-02	1.652E-02	6.903E-02	2.187E-03	
-8.672E-02	1.223E-02	2.415E-01	1.396E-03	2.897E-01	2.047E-03	6.774E-02	5.668E-02	3.920E-02	1.652E-02	6.901E-02	2.185E-03	
-1.008E-01	2.070E-02	2.414E-01	1.397E-03	2.897E-01	2.047E-03	6.762E-02	5.676E-02	3.894E-02	1.648E-02	6.888E-02	2.184E-03	
-1.171E-01	6.303E-02	2.415E-01	1.397E-03	2.897E-01	2.047E-03	6.702E-02	5.727E-02	3.798E-02	1.632E-02	6.821E-02	2.178E-03	
X(FT)	R(FT)	MJ(100/SEC)	MJ(100/SEC)	TJ(100)	PT(100)	CP(100/SEC)	R(100)	GAM	RH(100/SEC)	U(100/SEC)	Y(100)	PT(100)
2.8267E-01	7.0267E-02	1.0159E-01	2.8970E-01	5.3522E-02	3.3955E-03	2.3981E-01	1.4003E-03	8.2125E-02	9.4159E-02			
MJ(100/SEC)	TJ(100)	Y(100)	PT(100)	CP(100/SEC)	R(100)	GAM	RH(100/SEC)	U(100/SEC)	Y(100)	PT(100)		
1.2791E-02	4.6143E-02	6.7979E-02	1.6565E-02	6.6220E-02	2.1839E-03	2.4146E-01	1.3964E-03	5.6515E-02	3.8752E-02			
R(FT)	C	CP(100/SEC)	GAM	MW	PS(100/SEC)	TJ(100)	RH(100/SEC)	U(100/SEC)	M(100/SEC)	Y(100)	PT(100)	
9.405E-02	9.648E-03	2.415E-01	1.396E-03	2.897E-01	2.047E-03	6.780E-02	5.661E-02	3.941E-02	1.654E-02	6.909E-02	2.187E-03	
7.864E-02	1.000E-05	2.415E-01	1.396E-03	2.897E-01	2.048E-03	6.800E-02	5.649E-02	3.925E-02	1.655E-02	6.927E-02	2.187E-03	
6.472E-02	1.000E-05	2.415E-01	1.396E-03	2.897E-01	2.049E-03	6.801E-02	5.650E-02	3.910E-02	1.659E-02	6.927E-02	2.187E-03	
5.531E-02	5.536E-04	2.415E-01	1.396E-03	2.897E-01	2.049E-03	6.794E-02	5.655E-02	3.915E-02	1.657E-02	6.921E-02	2.187E-03	
4.383E-02	9.018E-03	2.415E-01	1.396E-03	2.897E-01	2.048E-03	6.781E-02	5.664E-02	3.928E-02	1.653E-02	6.908E-02	2.187E-03	
4.023E-02	9.569E-02	2.413E-01	1.397E-03	2.897E-01	2.047E-03	6.599E-02	5.823E-02	4.681E-02	1.621E-02	6.772E-02	2.252E-03	
3.136E-02	4.136E-01	2.408E-01	1.398E-03	2.897E-01	2.040E-03	6.017E-02	6.356E-02	5.487E-02	1.499E-02	6.267E-02	2.353E-03	
2.201E-02	6.748E-01	2.402E-01	1.399E-03	2.897E-01	2.029E-03	5.385E-02	7.066E-02	7.559E-02	1.402E-02	5.964E-02	2.735E-03	
1.672E-02	7.776E-01	2.400E-01	1.400E-03	2.897E-01	2.025E-03	5.098E-02	7.463E-02	8.594E-02	1.363E-02	5.702E-02	3.018E-03	
1.270E-02	8.569E-01	2.400E-01	1.400E-03	2.897E-01	2.022E-03	4.900E-02	7.737E-02	9.043E-02	1.334E-02	5.581E-02	3.187E-03	
6.595E-03	2.233E-01	2.399E-01	1.402E-03	2.897E-01	2.021E-03	4.743E-02	7.989E-02	9.370E-02	1.308E-02	5.473E-02	3.336E-03	
2												

RIFT	ASIF71	MJ(87U/8) 75JIR	750IR	MJ(87U/8) 750IR	TT0IR	PT0IR	CP0IR	GAM	RH0IR	U0IR	PT(PSF)
3.0250E-01	7.2556E-02	1.0164E-01	2.8970E-01	5.3523E-02	3.3967E-03	2.1951E-01	1.4003E-00	8.2114E-02	9.4203E-02		
RIFT	C	CP0IR/8 R1	GAM	MJ	PT0IR	TSIR	RH0IR/8 R1	U0IR/8 R1	TTIR	PT(PSF)	
8.993E-02	3.305E-02	2.415E-01	1.396E-00	2.897E-01	2.047E-03	6.770E-02	5.670E-02	3.995E-02	1.652E-02	6.902E-02	2.191E-03
7.233E-02	1.165E-02	2.415E-01	1.396E-00	2.897E-01	2.047E-03	6.405E-02	5.645E-02	3.943E-02	1.660E-02	6.936E-02	2.191E-03
5.906E-02	1.052E-02	2.415E-01	1.396E-00	2.897E-01	2.049E-03	6.405E-02	5.645E-02	3.949E-02	1.661E-02	6.938E-02	2.191E-03
5.150E-02	1.838E-02	2.415E-01	1.396E-00	2.897E-01	2.049E-03	6.795E-02	5.655E-02	3.971E-02	1.658E-02	6.925E-02	2.191E-03
4.205E-02	1.453E-02	2.415E-01	1.397E-00	2.897E-01	2.047E-03	6.693E-02	5.744E-02	4.048E-02	1.632E-02	6.820E-02	2.199E-03
3.433E-02	3.419E-01	2.415E-01	1.399E-00	2.897E-01	2.042E-03	6.199E-02	5.178E-02	5.023E-02	1.533E-02	6.408E-02	2.295E-03
2.534E-02	5.745E-01	2.403E-01	1.399E-00	2.897E-01	2.043E-03	5.697E-02	6.730E-02	6.658E-02	1.443E-02	6.035E-02	2.536E-03
2.037E-02	5.958E-01	2.402E-01	1.398E-00	2.897E-01	2.043E-03	5.323E-02	7.143E-02	7.890E-02	1.396E-02	5.841E-02	2.806E-03
1.201E-02	3.362E-01	2.400E-01	1.400E-00	2.897E-01	2.022E-03	4.940E-02	7.675E-02	9.007E-02	1.342E-02	5.915E-02	3.166E-03
5.544E-03	9.330E-01	2.399E-01	1.400E-00	2.897E-01	2.021E-03	4.734E-02	8.005E-02	9.373E-02	1.305E-02	5.865E-02	3.340E-03
2.249E-03	9.358E-01	2.395E-01	1.402E-00	2.897E-01	2.021E-03	4.716E-02	8.034E-02	9.417E-02	1.304E-02	5.844E-02	3.360E-03
-9.453E-04	9.429E-01	2.399E-01	1.400E-00	2.897E-01	2.020E-03	4.703E-02	8.055E-02	9.435E-02	1.301E-02	5.844E-02	3.371E-03
-9.792E-03	5.401E-01	2.399E-01	1.400E-00	2.897E-01	2.020E-03	4.709E-02	8.045E-02	9.430E-02	1.302E-02	5.840E-02	3.367E-03
-6.971E-03	9.255E-01	2.399E-01	1.400E-00	2.897E-01	2.020E-03	4.737E-02	7.997E-02	9.401E-02	1.305E-02	5.872E-02	3.347E-03
-1.007E-02	3.924E-01	2.399E-01	1.400E-00	2.897E-01	2.020E-03	4.810E-02	7.922E-02	9.299E-02	1.321E-02	5.925E-02	3.292E-03
-1.779E-02	7.033E-01	2.401E-01	1.400E-00	2.897E-01	2.020E-03	5.117E-02	7.319E-02	8.371E-02	1.379E-02	5.769E-02	2.939E-03
-2.817E-02	5.151E-01	2.394E-01	1.399E-00	2.897E-01	2.017E-03	5.147E-02	6.542E-02	8.543E-02	1.466E-02	6.132E-02	2.818E-03
-3.175E-02	1.395E-01	2.411E-01	1.397E-00	2.897E-01	2.046E-03	6.447E-02	5.901E-02	8.332E-02	1.592E-02	6.654E-02	2.223E-03
-4.458E-02	2.891E-01	2.415E-01	1.396E-00	2.897E-01	2.047E-03	6.778E-02	5.673E-02	8.649E-02	1.654E-02	6.909E-02	2.191E-03
-5.451E-02	5.122E-03	2.415E-01	1.396E-00	2.897E-01	2.048E-03	6.915E-02	5.636E-02	8.889E-02	1.603E-02	6.947E-02	2.191E-03
-6.313E-02	5.128E-03	2.415E-01	1.396E-00	2.897E-01	2.048E-03	6.914E-02	5.636E-02	8.900E-02	1.603E-02	6.947E-02	2.191E-03
-7.520E-02	4.410E-03	2.415E-01	1.396E-00	2.897E-01	2.047E-03	6.820E-02	5.637E-02	9.047E-02	1.603E-02	6.947E-02	2.197E-03
-9.535E-02	2.251E-02	2.415E-01	1.396E-00	2.897E-01	2.047E-03	6.731E-02	5.654E-02	9.019E-02	1.657E-02	6.922E-02	2.192E-03
-9.564E-02	2.259E-02	2.415E-01	1.396E-00	2.897E-01	2.047E-03	6.733E-02	5.654E-02	9.047E-02	1.657E-02	6.919E-02	2.194E-03
-1.001E-01	4.993E-02	2.414E-01	1.397E-00	2.897E-01	2.047E-03	6.746E-02	5.689E-02	9.354E-02	1.645E-02	6.875E-02	2.188E-03
-1.236E-01	1.761E-01	2.411E-01	1.397E-00	2.897E-01	2.047E-03	6.561E-02	5.850E-02	9.605E-02	1.597E-02	6.673E-02	2.173E-03
RIFT	ASIF71	MJ(87U/8) 75JIR	750IR	MJ(87U/8) 750IR	TT0IR	PT0IR	CP0IR	GAM	RH0IR	U0IR	PT(PSF)
3.0250E-01	7.2556E-02	1.0174E-01	2.8970E-01	5.3525E-02	3.3962E-03	2.1991E-01	1.4003E-00	9.2102E-02	9.4268E-02		
RIFT	C	CP0IR/8 R1	GAM	MJ	PT0IR	TSIR	RH0IR/8 R1	U0IR/8 R1	TTIR	PT(PSF)	
9.022E-02	1.000E-05	2.415E-01	1.396E-00	2.897E-01	2.047E-03	6.793E-02	5.649E-02	3.925E-02	1.656E-02	6.921E-02	2.185E-03
7.811E-02	1.000E-05	2.415E-01	1.396E-00	2.897E-01	2.046E-03	6.811E-02	5.638E-02	3.919E-02	1.661E-02	6.938E-02	2.186E-03
6.369E-02	1.000E-05	2.415E-01	1.396E-00	2.897E-01	2.049E-03	6.819E-02	5.635E-02	3.921E-02	1.663E-02	6.946E-02	2.187E-03
5.627E-02	1.000E-05	2.415E-01	1.396E-00	2.897E-01	2.049E-03	6.811E-02	5.641E-02	3.914E-02	1.661E-02	6.939E-02	2.188E-03
4.394E-02	1.000E-05	2.415E-01	1.396E-00	2.897E-01	2.045E-03	6.795E-02	5.652E-02	3.930E-02	1.657E-02	6.923E-02	2.187E-03
4.466E-02	2.890E-02	2.414E-01	1.397E-00	2.897E-01	2.047E-03	5.725E-02	5.707E-02	3.948E-02	1.641E-02	6.958E-02	2.192E-03
3.558E-02	1.921E-01	2.410E-01	1.397E-00	2.897E-01	2.044E-03	6.627E-02	5.963E-02	4.835E-02	1.580E-02	6.605E-02	2.250E-03
3.266E-02	3.939E-01	2.406E-01	1.398E-00	2.897E-01	2.040E-03	6.642E-02	6.327E-02	5.305E-02	1.505E-02	6.274E-02	2.346E-03
2.523E-02	5.872E-01	2.403E-01	1.397E-00	2.897E-01	2.037E-03	6.595E-02	6.810E-02	6.238E-02	1.433E-02	5.993E-02	2.506E-03
1.865E-02	7.065E-01	2.401E-01	1.400E-00	2.897E-01	2.026E-03	6.744E-02	7.218E-02	8.102E-02	1.399E-02	5.308E-02	2.852E-03
1.194E-02	8.233E-01	2.400E-01	1.400E-00	2.897E-01	2.022E-03	6.915E-02	7.641E-02	8.951E-02	1.345E-02	5.627E-02	3.163E-03
7.864E-03	8.755E-01	2.399E-01	1.400E-00	2.897E-01	2.021E-03	6.838E-02	7.831E-02	9.214E-02	1.325E-02	5.544E-02	3.255E-03
2.633E-03	9.181E-01	2.399E-01	1.400E-00	2.897E-01	2.020E-03	6.746E-02	7.951E-02	9.210E-02	1.310E-02	5.480E-02	3.341E-03
-7.431E-04	9.241E-01	2.399E-01	1.400E-00	2.897E-01	2.020E-03	6.731E-02	8.005E-02	9.206E-02	1.307E-02	5.467E-02	3.350E-03
-3.723E-03	9.194E-01	2.399E-01	1.400E-00	2.897E-01	2.019E-03	6.725E-02	7.955E-02	9.200E-02	1.309E-02	5.477E-02	3.344E-03
-6.505E-03	9.024E-01	2.399E-01	1.400E-00	2.897E-01	2.019E-03	6.777E-02	7.924E-02	9.347E-02	1.315E-02	5.504E-02	3.315E-03
-1.657E-02	7.755E-01	2.400E-01	1.400E-00	2.897E-01	2.022E-03	6.955E-02	7.479E-02	9.719E-02	1.363E-02	5.732E-02	3.051E-03
-2.050E-02	5.654E-01	2.402E-01	1.399E-00	2.897E-01	2.047E-03	6.390E-02	7.052E-02	7.608E-02	1.404E-02	5.315E-02	2.735E-03
-2.757E-02	5.071E-01	2.404E-01	1.399E-00	2.897E-01	2.047E-03	6.417E-02	6.861E-02	8.018E-02	1.403E-02	5.110E-02	2.430E-03
-1.550E-02	2.401E-01	2.409E-01	1.399E-00	2.897E-01	2.044E-03	6.356E-02	6.300E-02	8.552E-02	1.562E-02	6.531E-02	2.249E-03
-4.237E-02	5.245E-02	2.413E-01	1.397E-00	2.897E-01	2.047E-03	6.848E-02	5.744E-02	4.096E-02	1.332E-02	6.921E-02	2.201E-03
-5.127E-02	1.003E-05	2.415E-01	1.396E-00	2.897E-01	2.048E-03	6.805E-02	5.644E-02	3.924E-02	1.659E-02	6.932E-02	2.187E-03
-6.345E-02	1.000E-05	2.415E-01	1.396E-00	2.897E-01	2.048E-03	6.822E-02	5.625E-02	3.954E-02	1.664E-02	6.951E-02	2.183E-03
-7.396E-02	1.000E-05	2.415E-01	1.396E-00	2.897E-01	2.047E-03	6.811E-02	5.635E-02	3.902E-02	1.661E-02	6.940E-02	2.184E-03
-8.480E-02	1.000E-05	2.415E-01	1.396E-00	2.897E-01	2.047E-03	6.807E-02	5.639E-02	3.976E-02	1.661E-02	6.938E-02	2.189E-03
-1.008E-01	1.000E-05	2.415E-01	1.396E-00	2.897E-01	2.047E-03	6.778E-02	5.663E-02	3.946E-02	1.653E-02	6.908E-02	2.187E-03
-1.163E-01	7.469E-02	2.413E-01	1.397E-00	2.897E-01	2.047E-03	6.665E-02	5.759E-02	3.842E-02	1.624E-02	6.797E-02	2.182E-03
RIFT	ASIF71	MJ(87U/8) 75JIR	750IR	MJ(87U/8) 750IR	TT0IR	PT0IR	CP0IR	GAM	RH0IR	U0IR	PT(PSF)
3.5098E-01	7.8098E-02	1.0173E-01	2.8970E-01	5.3524E-02	3.3960E-03	2.3981E-01	1.4003E-00	8.2094E-02	9.4275E-02		
RIFT	C	CP0IR/8 R1	GAM	MJ	PT0IR	TSIR	RH0IR/8 R1	U0IR/8 R1	TTIR	PT(PSF)	
8.737E-02	2.551E-02	2.415E-01	1.396E-00	2.897E-01	2.047E-03	6.797E-02	5.647E-02	4.014E-02	1.659E-02	6.930E-02	2.192E-03
7.167E-02	1.285E-02	2.415E-01	1.396E-00	2.897E-01	2.049E-03	6.819E-02	5.634E-02	4.006E-02	1.664E-02	6.951E-02	2.192E-03
6.164E-02	1.285E-02	2.415E-01	1.396E-00	2.897E-01	2.049E-03	6.819E-02	5.634E-02	4.006E-02	1.664E-02	6.951E-02	2.192E-03
5.515E-02	1.597E-02	2.415E-01	1.396E-00	2.897E-01	2.049E-03	6.819E-02	5.638E-02	3.966E-02	1.663E-02	6.946E-02	2.191E-03
4.247E-02	4.155E-02	2.415E-01	1.396E-00	2.897E-01	2.047E-03	6.770E-02	5.670E-02	4.027E-02	1.653E-02	6.904E-02	2.194E-03
4.191E-02	1.634E-01	2.412E-01	1.397E-00	2.897E-01	2.042E-03	6.574E-02	5.829E-02	4.407E-02	1.681E-02	6.843E-02	2.301E-03
3.619E-02	3.272E-01	2.408E-01	1.398E-00	2.897E-01	2.042E-03	6.226E-02	6.147E-02	5.098E-02	1.541E-02	6.443E-02	2.444E-03
3.013E-02	6.948E-01	2.405E-01	1.399E-00	2.897E-01	2.039E-03	5.849E-02	6.747E-02	6.801E-02	1.443E-02	6.033E-02	2.580E-03
2.594E-02	5.905E-01	2.403E-01	1.399E-00	2.897E-01	2.032E-03	5.350E-02	7.135E-02	7.871E-02	1.399E-02	5.853E-02	2.622E-03
1.911E-02	6.917E-01	2.402E-01	1.399E-00	2.897E-01	2.026E-03	5.325E-02	7.564E-02	8.843E-02	1.353E-02	5.662E-02	3.099E-03
1.203E-02	8.053E-01	2.400E-01	1.400E-00	2.897E-01	2.022E-03	5.912E-02	7.964E-02	9.125E-02	1.339E-02	5.600E-02	3.208E-03
8.453E-03	9.472E-01										

RIPT	C	CP(OTU/B #1)	GAM	MW	PS(PSF)	TS(1)	BH(OTU/PT 3)	UI(FT/SEC)	H(OTU/PT 3)	Y(1)	PT(PSF)
0.900E-02	4.332E-02	2.615E-01	1.396E-00	2.897E-01	2.046E-03	6.773E-02	5.665E-02	3.902E-02	1.653E-02	6.904E-02	2.189E-03
7.553E-02	1.707E-02	2.615E-01	1.396E-00	2.897E-01	2.046E-03	6.822E-02	5.628E-02	4.017E-02	1.685E-02	6.935E-02	2.192E-03
6.594E-02	1.800E-02	2.615E-01	1.396E-00	2.897E-01	2.046E-03	6.824E-02	5.628E-02	4.016E-02	1.685E-02	6.935E-02	2.192E-03
5.537E-02	1.459E-02	2.615E-01	1.396E-00	2.897E-01	2.046E-03	6.826E-02	5.628E-02	4.012E-02	1.685E-02	6.935E-02	2.192E-03
5.242E-02	1.375E-02	2.615E-01	1.396E-00	2.897E-01	2.046E-03	6.791E-02	5.654E-02	4.028E-02	1.657E-02	6.925E-02	2.194E-03
4.730E-02	1.344E-02	2.614E-01	1.397E-00	2.897E-01	2.047E-03	6.724E-02	5.708E-02	4.111E-02	1.643E-02	6.864E-02	2.201E-03
3.992E-02	1.560E-01	2.611E-01	1.397E-00	2.897E-01	2.043E-03	6.517E-02	5.900E-02	4.451E-02	1.590E-02	6.831E-02	2.230E-03
3.646E-02	1.160E-01	2.609E-01	1.398E-00	2.897E-01	2.041E-03	6.263E-02	6.112E-02	4.939E-02	1.548E-02	6.690E-02	2.287E-03
3.069E-02	4.537E-01	2.606E-01	1.398E-00	2.897E-01	2.037E-03	5.950E-02	6.420E-02	5.960E-02	1.493E-02	6.244E-02	2.414E-03
2.537E-02	5.643E-01	2.604E-01	1.399E-00	2.897E-01	2.032E-03	5.671E-02	6.720E-02	6.879E-02	1.450E-02	6.044E-02	2.571E-03
1.981E-02	6.755E-01	2.602E-01	1.399E-00	2.897E-01	2.027E-03	5.371E-02	7.075E-02	7.843E-02	1.406E-02	5.833E-02	2.787E-03
1.165E-02	7.691E-01	2.601E-01	1.400E-00	2.897E-01	2.023E-03	5.100E-02	7.436E-02	8.701E-02	1.370E-02	5.730E-02	3.040E-03
5.357E-03	8.614E-01	2.600E-01	1.400E-00	2.897E-01	2.021E-03	4.825E-02	7.892E-02	9.955E-02	1.341E-02	5.612E-02	3.190E-03
2.929E-03	9.580E-01	2.600E-01	1.400E-00	2.897E-01	2.020E-03	4.680E-02	7.762E-02	9.205E-02	1.335E-02	5.585E-02	3.240E-03
4.265E-05	9.677E-01	2.399E-01	1.400E-00	2.897E-01	2.020E-03	4.659E-02	7.796E-02	9.243E-02	1.331E-02	5.569E-02	3.257E-03
-2.945E-03	8.641E-01	2.600E-01	1.400E-00	2.897E-01	2.019E-03	4.651E-02	7.789E-02	9.259E-02	1.332E-02	5.575E-02	3.261E-03
-5.903E-03	8.432E-01	2.600E-01	1.400E-00	2.897E-01	2.019E-03	4.600E-02	7.789E-02	9.111E-02	1.339E-02	5.601E-02	3.225E-03
-1.284E-02	7.609E-01	2.601E-01	1.400E-00	2.897E-01	2.016E-03	4.384E-02	7.971E-02	9.221E-02	1.330E-02	5.611E-02	3.210E-03
-1.833E-02	6.180E-01	2.602E-01	1.399E-00	2.897E-01	2.026E-03	5.387E-02	7.077E-02	7.642E-02	1.405E-02	5.878E-02	2.786E-03
-2.542E-02	5.551E-01	2.604E-01	1.399E-00	2.897E-01	2.033E-03	5.705E-02	6.693E-02	6.567E-02	1.450E-02	6.063E-02	2.517E-03
-3.272E-02	4.003E-01	2.607E-01	1.398E-00	2.897E-01	2.040E-03	6.091E-02	6.240E-02	5.347E-02	1.514E-02	6.331E-02	2.337E-03
-4.078E-02	1.660E-01	2.612E-01	1.397E-00	2.897E-01	2.045E-03	6.513E-02	5.847E-02	4.880E-02	1.606E-02	6.710E-02	2.271E-03
-5.943E-02	3.064E-02	2.615E-01	1.396E-00	2.897E-01	2.047E-03	6.790E-02	5.847E-02	4.039E-02	1.659E-02	6.933E-02	2.194E-03
-5.843E-02	9.604E-03	2.616E-01	1.396E-00	2.897E-01	2.047E-03	6.835E-02	5.617E-02	4.025E-02	1.688E-02	6.968E-02	2.191E-03
-6.707E-02	1.051E-02	2.615E-01	1.396E-00	2.897E-01	2.047E-03	6.834E-02	5.616E-02	3.990E-02	1.687E-02	6.966E-02	2.190E-03
-7.655E-02	1.078E-02	2.615E-01	1.396E-00	2.897E-01	2.046E-03	6.835E-02	5.614E-02	3.972E-02	1.687E-02	6.965E-02	2.187E-03
-8.565E-02	1.938E-02	2.615E-01	1.396E-00	2.897E-01	2.046E-03	6.825E-02	5.622E-02	3.949E-02	1.684E-02	6.954E-02	2.186E-03
-1.307E-01	5.473E-02	2.614E-01	1.397E-00	2.897E-01	2.046E-03	6.710E-02	5.670E-02	3.825E-02	1.650E-02	6.845E-02	2.184E-03
-1.173E-01	1.705E-02	2.612E-01	1.397E-00	2.897E-01	2.046E-03	6.627E-02	5.790E-02	3.633E-02	1.612E-02	6.718E-02	2.170E-03
RIPT	C	CP(OTU/B #1)	GAM	MW	PS(PSF)	TS(1)	BH(OTU/PT 3)	UI(FT/SEC)	H(OTU/PT 3)	Y(1)	PT(PSF)
4.136E-01	8.613E-02	1.017E-01	2.897E-01	5.352E-02	3.399E-02	2.398E-01	1.400E-00	9.219E-02	9.420E-02		
MJ(OTU/PT 3)	TS(1)	TS(1)	MJ(OTU/PT 3)	TS(1)	PT(PSF)	CP(OTU/B #1)	GAM	RH(OTU/PT 3)	UI(FT/SEC)	<td></td>	
1.279E-02	4.612E-02	6.852E-02	1.672E-02	6.906E-02	2.190E-03	2.615E-01	1.396E-00	5.599E-02	4.022E-02		
RIPT	C	CP(OTU/B #1)	GAM	MW	PS(PSF)	TS(1)	BH(OTU/PT 3)	UI(FT/SEC)	H(OTU/PT 3)	Y(1)	PT(PSF)
8.424E-02	5.453E-02	2.614E-01	1.396E-00	2.897E-01	2.046E-03	6.701E-02	5.874E-02	4.053E-02	1.651E-02	6.897E-02	2.195E-03
7.435E-02	1.752E-02	2.615E-01	1.396E-00	2.897E-01	2.047E-03	6.823E-02	5.626E-02	4.029E-02	1.685E-02	6.957E-02	2.193E-03
6.341E-02	1.553E-02	2.615E-01	1.396E-00	2.897E-01	2.048E-03	6.826E-02	5.626E-02	4.036E-02	1.684E-02	6.961E-02	2.194E-03
5.444E-02	2.919E-02	2.615E-01	1.396E-00	2.897E-01	2.044E-03	6.804E-02	5.643E-02	4.032E-02	1.651E-02	6.938E-02	2.194E-03
4.715E-02	1.075E-01	2.613E-01	1.397E-00	2.897E-01	2.046E-03	6.646E-02	5.971E-02	4.221E-02	1.630E-02	6.811E-02	2.210E-03
3.940E-02	2.553E-01	2.610E-01	1.398E-00	2.897E-01	2.042E-03	6.369E-02	6.013E-02	4.929E-02	1.572E-02	6.570E-02	2.278E-03
3.150E-02	4.411E-01	2.606E-01	1.398E-00	2.897E-01	2.037E-03	5.973E-02	6.394E-02	5.948E-02	1.499E-02	6.267E-02	2.410E-03
2.345E-02	5.804E-01	2.603E-01	1.399E-00	2.897E-01	2.030E-03	5.619E-02	6.776E-02	7.112E-02	1.444E-02	6.039E-02	2.614E-03
1.748E-02	6.717E-01	2.602E-01	1.399E-00	2.897E-01	2.026E-03	5.370E-02	7.075E-02	7.910E-02	1.405E-02	5.890E-02	2.801E-03
1.007E-02	7.633E-01	2.601E-01	1.400E-00	2.897E-01	2.022E-03	5.107E-02	7.425E-02	8.723E-02	1.372E-02	5.740E-02	3.044E-03
5.366E-03	8.090E-01	2.600E-01	1.400E-00	2.897E-01	2.021E-03	4.990E-02	7.582E-02	8.959E-02	1.354E-02	5.685E-02	3.135E-03
2.074E-03	9.236E-01	2.600E-01	1.400E-00	2.897E-01	2.020E-03	4.961E-02	7.635E-02	9.042E-02	1.345E-02	5.641E-02	3.167E-03
-1.105E-03	9.287E-01	2.600E-01	1.400E-00	2.897E-01	2.020E-03	4.950E-02	7.652E-02	9.054E-02	1.346E-02	5.633E-02	3.176E-03
-4.019E-03	8.197E-01	2.600E-01	1.400E-00	2.897E-01	2.020E-03	4.967E-02	7.624E-02	9.045E-02	1.350E-02	5.644E-02	3.166E-03
-7.016E-03	7.937E-01	2.601E-01	1.400E-00	2.897E-01	2.020E-03	5.024E-02	7.539E-02	9.196E-02	1.359E-02	5.602E-02	3.108E-03
-1.373E-02	7.164E-01	2.601E-01	1.399E-00	2.897E-01	2.021E-03	5.254E-02	7.220E-02	8.254E-02	1.391E-02	5.820E-02	2.890E-03
-2.179E-02	6.015E-01	2.603E-01	1.399E-00	2.897E-01	2.030E-03	5.545E-02	6.814E-02	7.104E-02	1.436E-02	6.004E-02	2.616E-03
-2.927E-02	4.711E-01	2.605E-01	1.399E-00	2.897E-01	2.037E-03	5.929E-02	6.442E-02	5.509E-02	1.467E-02	6.218E-02	2.408E-03
-3.675E-02	3.022E-01	2.609E-01	1.399E-00	2.897E-01	2.042E-03	6.283E-02	6.093E-02	4.905E-02	1.551E-02	6.492E-02	2.279E-03
-4.375E-02	1.294E-01	2.613E-01	1.397E-00	2.897E-01	2.046E-03	6.625E-02	5.790E-02	4.263E-02	1.621E-02	6.775E-02	2.214E-03
-4.963E-02	4.041E-02	2.615E-01	1.396E-00	2.897E-01	2.047E-03	6.771E-02	5.669E-02	4.051E-02	1.653E-02	6.907E-02	2.196E-03
-5.836E-02	1.586E-02	2.615E-01	1.396E-00	2.897E-01	2.047E-03	6.827E-02	5.623E-02	4.020E-02	1.666E-02	6.960E-02	2.192E-03
-7.030E-02	1.558E-02	2.615E-01	1.396E-00	2.897E-01	2.047E-03	6.926E-02	5.622E-02	4.038E-02	1.666E-02	6.961E-02	2.193E-03
-8.284E-02	2.291E-02	2.615E-01	1.396E-00	2.897E-01	2.047E-03	6.814E-02	5.632E-02	4.037E-02	1.653E-02	6.944E-02	2.193E-03
-7.01E-02	6.095E-02	2.614E-01	1.397E-00	2.897E-01	2.047E-03	6.754E-02	5.680E-02	3.976E-02	1.644E-02	6.887E-02	2.190E-03
-1.120E-01	1.490E-01	2.612E-01	1.397E-00	2.897E-01	2.047E-03	6.627E-02	5.790E-02	3.794E-02	1.616E-02	6.746E-02	2.178E-03
RIPT	C	CP(OTU/B #1)	GAM	MW	PS(PSF)	TS(1)	BH(OTU/PT 3)	UI(FT/SEC)	H(OTU/PT 3)	Y(1)	PT(PSF)
4.922E-01	9.022E-02	1.018E-01	2.897E-01	5.351E-02	3.400E-02	2.390E-01	1.400E-00	9.214E-02	9.420E-02		
MJ(OTU/PT 3)	TS(1)	TS(1)	MJ(OTU/PT 3)	TS(1)	PT(PSF)	CP(OTU/B #1)	GAM	RH(OTU/PT 3)	UI(FT/SEC)	<td></td>	
1.279E-02	4.611E-02	6.852E-02	1.672E-02	6.906E-02	2.190E-03	2.615E-01	1.396E-00	5.600E-02	4.027E-02		
RIPT	C	CP(OTU/B #1)	GAM	MW	PS(PSF)	TS(1)	BH(OTU/PT 3)	UI(FT/SEC)	H(OTU/PT 3)	Y(1)	PT(PSF)
6.865E-02	2.031E-02	2.615E-01	1.396E-00	2.897E-01	2.047E-03	6.819E-02	5.600E-02	4.032E-02	1.684E-02	6.953E-02	2.193E-03
6.162E-02	2.181E-02	2.615E-01	1.396E-00	2.897E-01	2.048E-03	6.813E-02	5.636E-02	4.083E-02	1.684E-02	6.950E-02	2.197E-03
5.474E-02	3.974E-02	2.615E-01	1.396E-00	2.897E-01	2.047E-03	6.783E-02	5.659E-02	4.091E-02	1.657E-02	6.921E-02	2.190E-03
5.823E-02	2.825E-02	2.613E-01	1.397E-00	2.897E-01	2.045E-03	6.680E-02	5.741E-02	4.230E-02	1.634E-02	6.828E-02	2.209E-03
3.859E-02	2.652E-02	2.610E-01	1.398E-00	2.897E-01	2.041E-03	6.341E-02	6.036E-02	5.070E-02	1.568E-02	6.554E-02	2.242E-03
3.219E-02	4.174E-01	2.606E-01	1.398E-00	2.897E-01	2.037E-03	6.021E-02	6.345E-02	5.850E-02	1.508E-02	6.305E-02	2.395E-03
2.514E-02	5.340E-01	2.604E-01	1.399E-00	2.897E-01	2.032E-03	5.724E-02	6.654E-02	5.828E-02	1.462E-02	6.113E-02	2.556E-03
1.836E-02	6.357E-01	2.603E-01	1.399E-00	2.897E-01	2.027E-03	5.472E-02	6.947E-02	5.722E-02			

X(F7)	RS(F7)	WJ(M/SEC)	MWJ(M/SEC)	77J(R)	PTJ(P5F)	CPJ(8TU/8 R)	GAMJ	RHOJ(M/FT 3)	UJ(F7/SEC)		
5.2487E-01	9.4487E-02	1.0182E-01	2.8970E 01	5.3517E 02	3.4011E 03	2.3980E-01	1.4003E 00	9.2176E-02	9.4276E 02		
MJ(8TU/8)	TSJ(R)	750(R)	MO(8TU/8)	770(R)	P70(P5F)	CP0(8TU/8 R)	GAM0	RHO0(M/FT 3)	U0(F7/SEC)		
1.2790E 02	4.6119E 02	6.8510E 02	1.6722E 02	6.9865E 02	2.1911E 03	2.4150E-01	1.3962E 00	5.5984E-02	4.0430E 02		
R(F7)	C	CP(8TU/8 R)	GAM	MW	PS(P5F)	TS(R)	RHO(M/FT 3)	U(F7/SEC)	M(8TU/8)	77(R)	PT(P5F)
8.074E-02	5.750E-02	2.414E-01	1.396E 00	2.897E 01	2.045E 03	6.762E 02	5.672E-02	3.979E 02	1.650E 02	6.892E 02	2.188E 03
7.095E-02	3.896E-02	2.415E-01	1.396E 00	2.897E 01	2.047E 03	6.788E 02	5.654E-02	4.033E 02	1.657E 02	6.923E 02	2.193E 03
6.226E-02	2.670E-02	2.415E-01	1.396E 00	2.897E 01	2.047E 03	6.807E 02	5.638E-02	4.050E 02	1.662E 02	6.943E 02	2.194E 03
5.366E-02	6.835E-02	2.414E-01	1.397E 00	2.897E 01	2.046E 03	6.732E 02	5.699E-02	4.153E 02	1.645E 02	6.875E 02	2.203E 03
4.314E-02	2.089E-01	2.411E-01	1.397E 00	2.897E 01	2.042E 03	6.466E 02	5.922E-02	4.460E 02	1.590E 02	6.846E 02	2.249E 03
3.245E-02	4.026E-01	2.407E-01	1.398E 00	2.897E 01	2.037E 03	6.062E 02	6.321E-02	5.886E 02	1.514E 02	6.329E 02	2.398E 03
2.177E-02	5.608E-01	2.404E-01	1.399E 00	2.897E 01	2.030E 03	5.642E 02	6.746E-02	7.144E 02	1.452E 02	6.071E 02	2.624E 03
1.309E-02	6.672E-01	2.402E-01	1.399E 00	2.897E 01	2.025E 03	5.360E 02	7.085E-02	8.039E 02	1.410E 02	5.897E 02	2.830E 03
3.176E-03	7.266E-01	2.401E-01	1.400E 00	2.897E 01	2.022E 03	5.183E 02	7.314E-02	8.615E 02	1.387E 02	5.500E 02	2.998E 03
1.740E-04	7.297E-01	2.401E-01	1.400E 00	2.897E 01	2.021E 03	5.172E 02	7.328E-02	8.655E 02	1.385E 02	5.795E 02	3.010E 03
-2.992E-03	7.313E-01	2.401E-01	1.400E 00	2.897E 01	2.021E 03	5.171E 02	7.328E-02	8.640E 02	1.385E 02	5.792E 02	3.006E 03
-6.345E-03	7.198E-01	2.401E-01	1.400E 00	2.897E 01	2.022E 03	5.215E 02	7.269E-02	8.467E 02	1.389E 02	5.911E 02	2.953E 03
-1.543E-02	6.345E-01	2.402E-01	1.399E 00	2.897E 01	2.025E 03	5.451E 02	6.968E-02	7.731E 02	1.422E 02	5.947E 02	2.749E 03
-2.541E-02	5.156E-01	2.405E-01	1.399E 00	2.897E 01	2.033E 03	5.781E 02	6.593E-02	6.575E 02	1.468E 02	6.140E 02	2.511E 03
-3.451E-02	3.355E-01	2.408E-01	1.398E 00	2.897E 01	2.040E 03	6.213E 02	6.158E-02	5.225E 02	1.540E 02	6.439E 02	2.313E 03
-4.570E-02	1.566E-01	2.412E-01	1.397E 00	2.897E 01	2.044E 03	6.570E 02	5.834E-02	4.409E 02	1.611E 02	6.731E 02	2.224E 03
-5.516E-02	4.551E-02	2.415E-01	1.396E 00	2.897E 01	2.046E 03	6.774E 02	5.644E-02	4.049E 02	1.654E 02	6.912E 02	2.197E 03
-6.974E-02	1.911E-02	2.415E-01	1.396E 00	2.897E 01	2.045E 03	6.819E 02	5.624E-02	4.050E 02	1.665E 02	6.955E 02	2.192E 03
-7.620E-02	2.594E-02	2.415E-01	1.396E 00	2.897E 01	2.045E 03	6.808E 02	5.632E-02	4.052E 02	1.662E 02	6.944E 02	2.192E 03
-9.250E-02	7.281E-02	2.414E-01	1.397E 00	2.897E 01	2.044E 03	6.736E 02	5.690E-02	3.989E 02	1.644E 02	6.967E 02	2.188E 03
-1.098E-01	1.882E-01	2.412E-01	1.397E 00	2.897E 01	2.044E 03	6.597E 02	5.809E-02	3.722E 02	1.605E 02	6.712E 02	2.172E 03
-1.254E-01	2.702E-01	2.410E-01	1.398E 00	2.897E 01	2.044E 03	6.452E 02	5.940E-02	3.345E 02	1.565E 02	6.546E 02	2.150E 03
X(F7)	RS(F7)	WJ(M/SEC)	MWJ(M/SEC)	77J(R)	PTJ(P5F)	CPJ(8TU/8 R)	GAMJ	RHOJ(M/FT 3)	UJ(F7/SEC)		
5.9722E-01	1.0172E-01	1.0172E-01	2.8970E 01	5.3509E 02	3.4006E 03	2.3980E-01	1.4003E 00	9.2249E-02	9.4163E 02		
MJ(8TU/8)	TSJ(R)	750(R)	MO(8TU/8)	770(R)	P70(P5F)	CP0(8TU/8 R)	GAM0	RHO0(M/FT 3)	U0(F7/SEC)		
1.2789E 02	4.6127E 02	6.8444E 02	1.6722E 02	6.9860E 02	2.1917E 03	2.4159E-01	1.3962E 00	5.6001E-02	4.1399E 02		
R(F7)	C	CP(8TU/8 R)	GAM	MW	PS(P5F)	TS(R)	RHO(M/FT 3)	U(F7/SEC)	M(8TU/8)	77(R)	PT(P5F)
8.339E-02	1.093E-01	2.413E-01	1.397E 00	2.897E 01	2.044E 03	6.681E 02	5.737E-02	3.947E 02	1.630E 02	6.810E 02	2.186E 03
7.349E-02	6.662E-02	2.414E-01	1.397E 00	2.897E 01	2.045E 03	6.745E 02	5.656E-02	4.032E 02	1.646E 02	6.877E 02	2.190E 03
6.487E-02	5.547E-02	2.414E-01	1.396E 00	2.897E 01	2.045E 03	6.758E 02	5.675E-02	4.074E 02	1.650E 02	6.896E 02	2.194E 03
5.487E-02	9.807E-02	2.413E-01	1.397E 00	2.897E 01	2.044E 03	6.679E 02	5.739E-02	4.219E 02	1.634E 02	6.826E 02	2.207E 03
4.403E-02	1.890E-01	2.411E-01	1.397E 00	2.897E 01	2.042E 03	6.503E 02	5.957E-02	4.681E 02	1.599E 02	6.684E 02	2.249E 03
3.673E-02	3.265E-01	2.408E-01	1.395E 00	2.897E 01	2.035E 03	6.193E 02	6.169E-02	5.605E 02	1.544E 02	6.453E 02	2.355E 03
2.837E-02	4.534E-01	2.408E-01	1.398E 00	2.897E 01	2.033E 03	5.896E 02	6.468E-02	5.494E 02	1.494E 02	6.266E 02	2.489E 03
1.930E-02	5.452E-01	2.404E-01	1.399E 00	2.897E 01	2.029E 03	5.660E 02	6.721E-02	7.245E 02	1.455E 02	6.086E 02	2.631E 03
9.438E-03	5.315E-01	2.403E-01	1.399E 00	2.897E 01	2.025E 03	5.425E 02	6.998E-02	7.945E 02	1.424E 02	5.955E 02	2.807E 03
4.251E-03	6.393E-01	2.402E-01	1.399E 00	2.897E 01	2.024E 03	5.386E 02	7.346E-02	9.174E 02	1.420E 02	5.941E 02	2.894E 03
3.113E-03	6.555E-01	2.402E-01	1.399E 00	2.897E 01	2.023E 03	5.357E 02	7.052E-02	8.191E 02	1.414E 02	5.915E 02	2.862E 03
1.822E-04	6.587E-01	2.402E-01	1.399E 00	2.897E 01	2.023E 03	5.349E 02	7.093E-02	8.219E 02	1.413E 02	5.910E 02	2.870E 03
-2.952E-03	6.553E-01	2.402E-01	1.399E 00	2.897E 01	2.023E 03	5.355E 02	7.054E-02	8.209E 02	1.414E 02	5.916E 02	2.867E 03
-5.857E-03	6.419E-01	2.402E-01	1.399E 00	2.897E 01	2.024E 03	5.408E 02	7.017E-02	7.955E 02	1.423E 02	5.938E 02	2.808E 03
-1.514E-02	5.836E-01	2.403E-01	1.399E 00	2.897E 01	2.027E 03	5.581E 02	6.411E-02	7.379E 02	1.443E 02	6.033E 02	2.664E 03
-2.211E-02	5.176E-01	2.405E-01	1.399E 00	2.897E 01	2.032E 03	5.761E 02	6.066E-02	6.717E 02	1.469E 02	6.141E 02	2.533E 03
-3.275E-02	3.794E-01	2.407E-01	1.399E 00	2.897E 01	2.039E 03	6.105E 02	5.241E-02	5.821E 02	1.492E 02	6.367E 02	2.363E 03
-4.262E-02	2.364E-01	2.410E-01	1.397E 00	2.897E 01	2.043E 03	6.408E 02	5.079E-02	4.620E 02	1.579E 02	6.601E 02	2.267E 03
-5.361E-02	8.620E-02	2.414E-01	1.397E 00	2.897E 01	2.044E 03	6.701E 02	5.725E-02	4.186E 02	1.633E 02	6.866E 02	2.206E 03
-5.952E-02	4.003E-02	2.415E-01	1.396E 00	2.897E 01	2.046E 03	6.778E 02	5.650E-02	4.152E 02	1.656E 02	6.921E 02	2.202E 03
-6.690E-02	3.514E-02	2.415E-01	1.396E 00	2.897E 01	2.045E 03	6.785E 02	5.653E-02	4.176E 02	1.658E 02	6.929E 02	2.203E 03
-8.476E-02	9.213E-02	2.414E-01	1.397E 00	2.897E 01	2.043E 03	6.679E 02	5.734E-02	4.354E 02	1.636E 02	6.836E 02	2.217E 03
-1.018E-01	1.999E-01	2.411E-01	1.397E 00	2.897E 01	2.043E 03	6.531E 02	5.966E-02	4.171E 02	1.597E 02	6.675E 02	2.206E 03
-1.192E-01	2.929E-01	2.409E-01	1.399E 00	2.897E 01	2.043E 03	6.381E 02	6.004E-02	3.917E 02	1.557E 02	6.508E 02	2.190E 03

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13. ABSTRACT An experimental study of the turbulent mixing of subsonic axisymmetric gas streams was conducted. Hydrogen-air and air-air mixing systems were studied, and the velocity ratio (jet velocity/outer stream velocity) was varied from 2.4 to 6.3. Special emphasis is placed on (1) the centerline decay and radial profile shapes of composition, velocity, and total enthalpy and (2) the relationships between the turbulent transport of mass, momentum, and energy. The major conclusions drawn for this particular set of conditions are (1) for the hydrogen-air system the centerline decay decreases with increasing velocity ratio, (2) profile similarity of composition, velocity, and total enthalpy is a valid assumption, (3) there is a definite relationship between the transport of momentum and energy which is not compatible with a constant Prandtl number, and (4) unity Lewis number is a valid assumption. The experimental data obtained are tabulated for the benefit of other investigators.			

14. KEY WORDS	LINK A		LINK B		LINK C	
	ROLE	WT	ROLE	WT	ROLE	WT
gas streams turbulent mixing subsonic flow <u>hydrogen-air mixing</u> air-air mixing velocity ratio variations 2. Gases - mixing 4 - 11						