

Westinghouse
Electric Corporation

Energy Systems



Box 355
Pittsburgh Pennsylvania 15230-0355

AW-97-1097

April 21, 1997

Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, DC 20555

ATTENTION: MR. T. R. QUAY

APPLICATION FOR WITHHOLDING PROPRIETARY
INFORMATION FROM PUBLIC DISCLOSURE

SUBJECT: OUTPUT FOR EX-VESSEL FUEL COOLANT INTERACTIONS ANALYSIS
FOR AP600

Dear Mr. Quay:

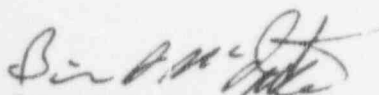
The application for withholding is submitted by Westinghouse Electric Corporation ("Westinghouse") pursuant to the provisions of paragraph (b)(1) of Section 2.790 of the Commission's regulations. It contains commercial strategic information proprietary to Westinghouse and customarily held in confidence.

The proprietary material for which withholding is being requested is identified in the proprietary version of the subject report. In conformance with 10CFR Section 2.790, Affidavit AW-97-1097 accompanies this application for withholding setting forth the basis on which the identified proprietary information may be withheld from public disclosure.

Accordingly, it is respectfully requested that the subject information which is proprietary to Westinghouse be withheld from public disclosure in accordance with 10CFR Section 2.790 of the Commission's regulations.

Correspondence with respect to this application for withholding or the accompanying affidavit should reference AW-97-1097 and should be addressed to the undersigned.

Very truly yours,


Brian A. McIntyre, Manager
Advanced Plant Safety and Licensing

jml

cc: Kevin Bohrer NRC OWFN - MS 12E20

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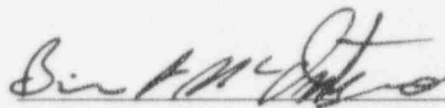
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COMMONWEALTH OF PENNSYLVANIA:

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COUNTY OF ALLEGHENY:

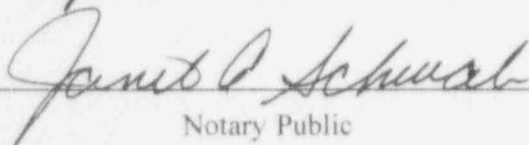
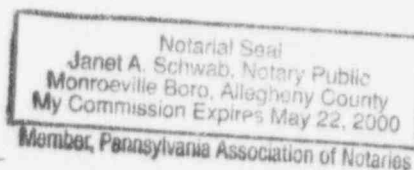
Before me, the undersigned authority, personally appeared Brian A. McIntyre, who, being by me duly sworn according to law, deposes and says that he is authorized to execute this Affidavit on behalf of Westinghouse Electric Corporation ("Westinghouse") and that the averments of fact set forth in this Affidavit are true and correct to the best of his knowledge, information, and belief:



Brian A. McIntyre, Manager

Advanced Plant Safety and Licensing

Sworn to and subscribed

before me this 21 dayof April, 1997
Notary Public

- (1) I am Manager, Advanced Plant Safety And Licensing, in the Advanced Technology Business Area, of the Westinghouse Electric Corporation and as such, I have been specifically delegated the function of reviewing the proprietary information sought to be withheld from public disclosure in connection with nuclear power plant licensing and rulemaking proceedings, and am authorized to apply for its withholding on behalf of the Westinghouse Energy Systems Business Unit.
- (2) I am making this Affidavit in conformance with the provisions of 10CFR Section 2.790 of the Commission's regulations and in conjunction with the Westinghouse application for withholding accompanying this Affidavit.
- (3) I have personal knowledge of the criteria and procedures utilized by the Westinghouse Energy Systems Business Unit in designating information as a trade secret, privileged or as confidential commercial or financial information.
- (4) Pursuant to the provisions of paragraph (b)(4) of Section 2.790 of the Commission's regulations, the following is furnished for consideration by the Commission in determining whether the information sought to be withheld from public disclosure should be withheld.
 - (i) The information sought to be withheld from public disclosure is owned and has been held in confidence by Westinghouse.
 - (ii) The information is of a type customarily held in confidence by Westinghouse and not customarily disclosed to the public. Westinghouse has a rational basis for determining the types of information customarily held in confidence by it and, in that connection, utilizes a system to determine when and whether to hold certain types of information in confidence. The application of that system and the substance of that system constitutes Westinghouse policy and provides the rational basis required.

Under that system, information is held in confidence if it falls in one or more of several types, the release of which might result in the loss of an existing or potential competitive advantage, as follows:

- (a) The information reveals the distinguishing aspects of a process (or component, structure, tool, method, etc.) where prevention of its use by any of Westinghouse's competitors without license from Westinghouse constitutes a competitive economic advantage over other companies.
- (b) It consists of supporting data, including test data, relative to a process (or component, structure, tool, method, etc.), the application of which data secures a competitive economic advantage, e.g., by optimization or improved marketability.
- (c) Its use by a competitor would reduce his expenditure of resources or improve his competitive position in the design, manufacture, shipment, installation, assurance of quality, or licensing a similar product.
- (d) It reveals cost or price information, production capacities, budget levels, or commercial strategies of Westinghouse, its customers or suppliers.
- (e) It reveals aspects of past, present, or future Westinghouse or customer funded development plans and programs of potential commercial value to Westinghouse.
- (f) It contains patentable ideas, for which patent protection may be desirable.

There are sound policy reasons behind the Westinghouse system which include the following:

- (a) The use of such information by Westinghouse gives Westinghouse a competitive advantage over its competitors. It is, therefore, withheld from disclosure to protect the Westinghouse competitive position.
- (b) It is information which is marketable in many ways. The extent to which such information is available to competitors diminishes the Westinghouse ability to sell products and services involving the use of the information.

- (c) Use by our competitor would put Westinghouse at a competitive disadvantage by reducing his expenditure of resources at our expense.
 - (d) Each component of proprietary information pertinent to a particular competitive advantage is potentially as valuable as the total competitive advantage. If competitors acquire components of proprietary information, any one component may be the key to the entire puzzle, thereby depriving Westinghouse of a competitive advantage.
 - (e) Unrestricted disclosure would jeopardize the position of prominence of Westinghouse in the world market, and thereby give a market advantage to the competition of those countries.
 - (f) The Westinghouse capacity to invest corporate assets in research and development depends upon the success in obtaining and maintaining a competitive advantage.
- (iii) The information is being transmitted to the Commission in confidence and, under the provisions of 10CFR Section 2.790, it is to be received in confidence by the Commission.
- (iv) The information sought to be protected is not available in public sources or available information has not been previously employed in the same original manner or method to the best of our knowledge and belief.
- (v) Enclosed is Letter NSD-NRC-97-5078, April 21, 1997 being transmitted by Westinghouse Electric Corporation (W) letter and Application for Withholding Proprietary Information from Public Disclosure, Brian A. McIntyre (W), to Mr. T. R. Quav, Office of NRR. The proprietary information as submitted for use by Westinghouse Electric Corporation is in response to questions concerning the AP600 plant and the associated design certification application and is expected to be applicable in other licensee submittals in response to certain NRC requirements for justification of licensing advanced nuclear power plant designs.

This information is part of that which will enable Westinghouse to:

- (a) Demonstrate the design and safety of the AP600 Passive Safety Systems.
- (b) Establish applicable verification testing methods.
- (c) Design Advanced Nuclear Power Plants that meet NRC requirements.
- (d) Establish technical and licensing approaches for the AP600 that will ultimately result in a certified design.
- (e) Assist customers in obtaining NRC approval for future plants.

Further this information has substantial commercial value as follows:

- (a) Westinghouse plans to sell the use of similar information to its customers for purposes of meeting NRC requirements for advanced plant licenses.
- (b) Westinghouse can sell support and defense of the technology to its customers in the licensing process.

Public disclosure of this proprietary information is likely to cause substantial harm to the competitive position of Westinghouse because it would enhance the ability of competitors to provide similar advanced nuclear power designs and licensing defense services for commercial power reactors without commensurate expenses. Also, public disclosure of the information would enable others to use the information to meet NRC requirements for licensing documentation without purchasing the right to use the information.

The development of the technology described in part by the information is the result of applying the results of many years of experience in an intensive Westinghouse effort and the expenditure of a considerable sum of money.

In order for competitors of Westinghouse to duplicate this information, similar technical programs would have to be performed and a significant manpower effort, having the requisite talent and experience, would have to be expended for developing analytical methods and receiving NRC approval for those methods.

Further the deponent sayeth not.

**Enclosure 1 to Westinghouse
Letter NSD-NRC-97-5078**

April 21, 1997

Enclosure 2 to Westinghouse
Letter NSD-NRC-97-5078

April 21, 1997

OUTPUT FOR EX-VESSEL FUEL COOLANT INTERACTIONS (FCIs) ANALYSIS FOR THE WESTINGHOUSE AP600

The TEXAS-V code was used to quantify an ex-vessel FCI in the AP600 reactor cavity. The peak pressure and impulse loads were quantified for use in a structural assessment of the reactor cavity during such a severe accident event.

A localized failure of the RPV was considered. The failure occurred at the connection between the lower head and the cylindrical portion of the reactor vessel due to a loss of external RPV cooling. It is assumed in this scenario that the failure consists of a small hole in the RPV (3 cm radius) formed by the molten debris. This is assumed to be at the elevation of the cavity water pool. Molten debris flows through the failure and causes the failure to progress longitudinally down the lower head by ablation of the lower head. The total debris release was assumed to be molten metal followed by molten oxide with an initial molten metal superheat of 80°K (1890°K).

However, only the initial pour of molten metal is considered in the FCI since the initial interaction between the water and the debris is the most important. The fuel coolant interaction is assumed to trigger around the time that debris comes in contact with the cavity wall or floor. This occurs within the first few seconds of the scenario. Any debris which enters the pool after the time of the triggering event is not considered in the FCI.

Due to the small localized failure in this scenario, the debris would not be likely to spread over the entire cavity floor area triggering an FCI. The area over which the FCI occurs in this scenario was assumed to be $1/8$ of the octagonal cavity floor area.

The initial conditions and TEXAS-V input deck that were used to generate the enclosed results are attached.

The enclosed results are provided in both tabular and graphical forms. The tabular output was generated by the TEXAS-V code and it includes the void fraction, melt volume fraction and pressure as a function of time and location (pool depth). A figure with the family of pressure histories is also enclosed. Time "zero" in the figure is taken to be when the debris contacted the cavity floor and triggered the explosion.

The pressure impulse was derived for each pool elevation by integrating the area under each of the pressure histories in the figure. The resulting pressure impulses were as follows:

Pressure Impulse

Axial Distance from the Bottom of the Pool (m)	Pressure Impulse (kPa·S)
0.525	2.0
1.125	1.7
1.725	1.4
2.325	1.1
2.925	0.9
3.525	0.5

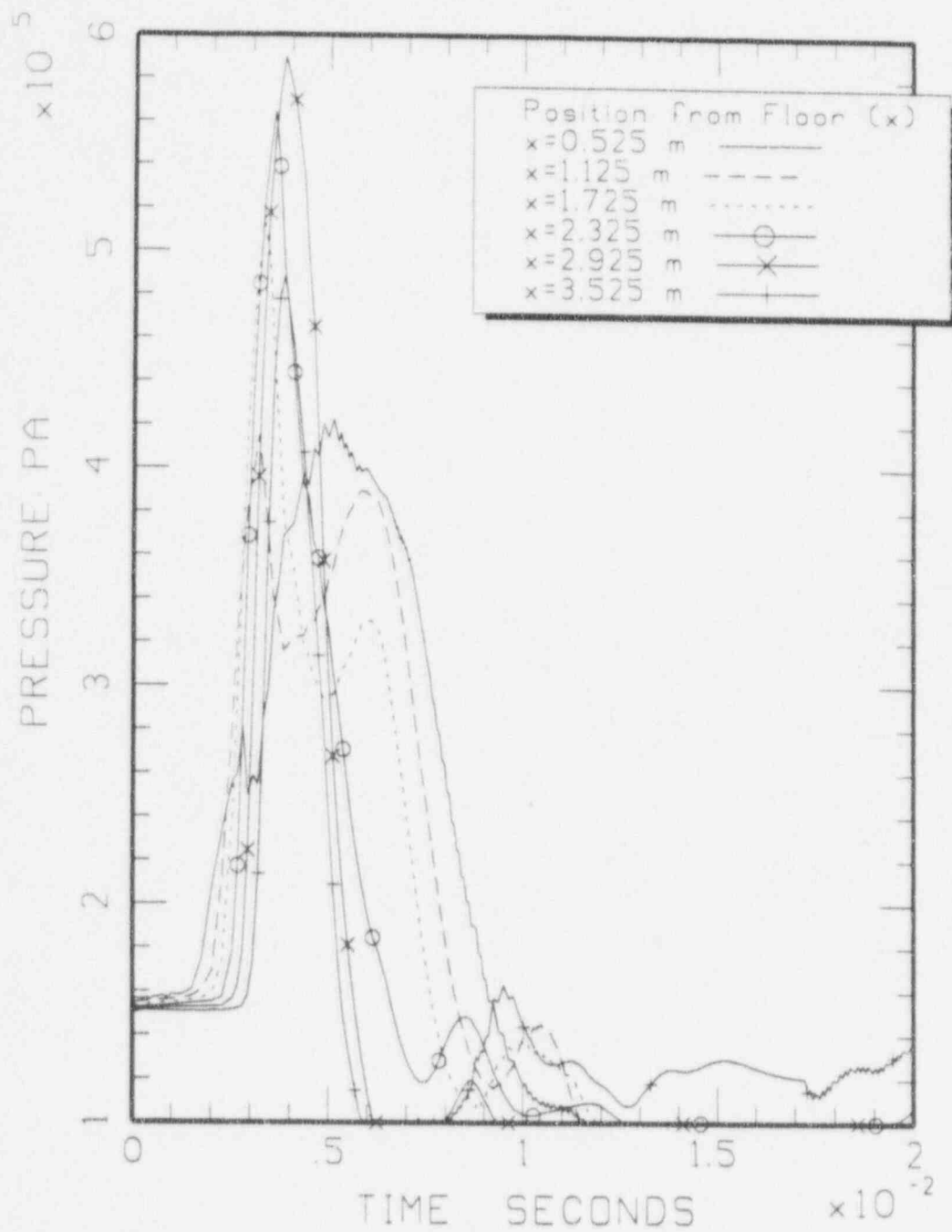


Figure 1 Local Explosion Pressure (3.89 m Pool Depth)

LEGEND FOR TABULAR OUTPUT

<u>Column</u>	<u>Output Quantity</u>
1	Position from floor (m)
2	Gas temperature (K)
3	Void fraction
4	Melt volume fraction
5	Average radius of the fuel (m)
6	Average radius of the fragmented fuel (m)
7	Gas velocity (m/s)
8	Liquid velocity (m/s)
9	Pressure (Pa)

.000000E+00	41								
7.500E-02	3.874E+02	1.682E-03	2.262E-03	3.586E-03	3.159E-03	6.554E+00	5.613E-03	1.606E+05	
2.250E-01	3.867E+02	2.445E-03	.000E+00	.000E+00	.000E+00	-1.512E-01	8.382E-03	1.569E+05	
3.750E-01	3.867E+02	5.367E-05	2.952E-04	3.000E-02	.000E+00	1.722E+00	1.000E-02	1.571E+05	
5.250E-01	3.865E+02	4.554E-06	6.433E-06	.000E+00	.000E+00	9.686E-03	9.686E-03	1.560E+05	
6.750E-01	3.864E+02	1.572E-05	.000E+00	.000E+00	.000E+00	1.997E-01	9.575E-03	1.554E+05	
8.250E-01	3.863E+02	1.158E-05	.000E+00	.000E+00	.000E+00	9.551E-03	9.551E-03	1.550E+05	
9.750E-01	3.863E+02	5.865E-06	5.506E-05	.000E+00	.000E+00	2.325E-01	9.614E-03	1.547E+05	
1.125E+00	3.862E+02	2.266E-05	2.465E-04	3.000E-02	.000E+00	6.951E-01	9.937E-03	1.545E+05	
1.275E+00	3.861E+02	1.404E-05	.000E+00	.000E+00	.000E+00	5.187E-01	9.894E-03	1.541E+05	
1.425E+00	3.861E+02	1.627E-05	.000E+00	.000E+00	.000E+00	4.020E-01	9.903E-03	1.537E+05	
1.575E+00	3.860E+02	1.212E-05	.000E+00	.000E+00	.000E+00	1.783E-01	9.939E-03	1.534E+05	
1.725E+00	3.860E+02	2.898E-05	3.016E-04	3.000E-02	.000E+00	1.165E-01	1.065E-02	1.532E+05	
1.875E+00	3.859E+02	8.771E-06	.000E+00	.000E+00	.000E+00	1.069E-02	1.069E-02	1.529E+05	
2.025E+00	3.859E+02	1.378E-05	.000E+00	.000E+00	.000E+00	1.111E-01	1.072E-02	1.527E+05	
2.175E+00	3.858E+02	1.735E-05	.000E+00	.000E+00	.000E+00	1.500E-01	1.072E-02	1.525E+05	
2.325E+00	3.858E+02	2.650E-05	3.016E-04	3.000E-02	.000E+00	4.555E-01	1.131E-02	1.524E+05	
2.475E+00	3.857E+02	1.062E-05	.000E+00	.000E+00	.000E+00	3.919E-01	1.131E-02	1.520E+05	
2.625E+00	3.857E+02	1.582E-05	.000E+00	.000E+00	.000E+00	3.467E-01	1.132E-02	1.518E+05	
2.775E+00	3.856E+02	1.401E-05	.000E+00	.000E+00	.000E+00	2.708E-01	1.134E-02	1.515E+05	
2.925E+00	3.856E+02	3.401E-05	3.016E-04	3.000E-02	.000E+00	1.557E-01	1.205E-02	1.513E+05	
3.075E+00	3.855E+02	4.236E-06	.000E+00	.000E+00	.000E+00	1.209E-02	1.209E-02	1.511E+05	
3.225E+00	3.855E+02	1.348E-05	.000E+00	.000E+00	.000E+00	1.447E-01	1.215E-02	1.509E+05	
3.375E+00	3.854E+02	1.666E-05	.000E+00	.000E+00	.000E+00	6.827E-02	1.228E-02	1.506E+05	
3.525E+00	3.853E+02	2.644E-05	3.016E-04	3.000E-02	.000E+00	1.782E-02	1.194E-02	1.502E+05	
3.675E+00	3.854E+02	2.481E-04	.000E+00	.000E+00	.000E+00	3.066E-02	1.210E-02	1.502E+05	
3.825E+00	3.853E+02	6.372E-02	.000E+00	.000E+00	.000E+00	1.258E-01	3.311E-03	1.501E+05	
3.975E+00	3.854E+02	9.236E-01	.000E+00	.000E+00	.000E+00	1.764E-02	-1.210E+00	1.500E+05	
4.125E+00	3.859E+02	1.000E+00	.000E+00	.000E+00	.000E+00	2.092E-02	2.092E-02	1.500E+05	
4.275E+00	3.856E+02	1.000E+00	.000E+00	.000E+00	.000E+00	2.480E-02	2.480E-02	1.500E+05	
4.425E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	2.782E-02	2.782E-02	1.500E+05	
4.575E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	2.981E-02	2.981E-02	1.500E+05	
4.725E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	3.063E-02	3.063E-02	1.500E+05	
4.875E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	3.058E-02	3.058E-02	1.500E+05	
5.025E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	2.976E-02	2.976E-02	1.500E+05	

5.175E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	2.836E-02	2.836E-02	1.500E+05
5.325E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	2.658E-02	2.658E-02	1.500E+05
5.475E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	2.437E-02	2.437E-02	1.500E+05
5.625E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	2.172E-02	2.172E-02	1.500E+05
5.775E+00	3.855E+02	1.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	1.872E-02	1.872E-02	1.500E+05
5.925E+00	3.855E+02	1.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	1.530E-02	1.530E-02	1.500E+05
2.042000E-03	41								
7.500E-02	3.882E+02	1.765E-03	2.262E-03	3.586E-03	3.159E-03	.000E+00	.000E+00	.000E+00	1.647E+05
2.250E-01	3.905E+02	2.244E-03	.000E+00	.000E+00	.000E+00	-4.821E+01	-8.389E-02		1.769E+05
3.750E-01	3.957E+02	3.413E-04	3.016E-04	3.000E-02	3.000E-02	6.379E+00	3.075E-02		2.083E+05
5.250E-01	3.936E+02	7.509E-06	.000E+00	.000E+00	.000E+00	2.231E-02	2.231E-02		1.948E+05
6.750E-01	3.917E+02	1.342E-05	.000E+00	.000E+00	.000E+00	8.596E-02	1.394E-02		1.838E+05
8.250E-01	3.903E+02	1.035E-05	.000E+00	.000E+00	.000E+00	8.127E-03	8.127E-03		1.756E+05
9.750E-01	3.892E+02	8.574E-06	9.123E-05	.000E+00	.000E+00	9.135E-02	4.409E-03		1.696E+05
1.125E+00	3.883E+02	2.968E-05	2.104E-04	3.000E-02	.000E+00	4.659E-02	7.690E-04		1.651E+05
1.275E+00	3.878E+02	1.340E-05	.000E+00	.000E+00	.000E+00	7.712E-02	-1.161E-03		1.624E+05
1.425E+00	3.874E+02	1.564E-05	.000E+00	.000E+00	.000E+00	1.506E-01	-2.554E-03		1.604E+05
1.575E+00	3.871E+02	1.174E-05	.000E+00	.000E+00	.000E+00	1.707E-01	-3.500E-03		1.589E+05
1.725E+00	3.869E+02	4.279E-05	3.016E-04	3.000E-02	.000E+00	1.733E-01	-3.401E-03		1.576E+05
1.875E+00	3.867E+02	8.652E-06	.000E+00	.000E+00	.000E+00	-3.837E-03	-3.837E-03		1.568E+05
2.025E+00	3.865E+02	1.348E-05	.000E+00	.000E+00	.000E+00	2.054E-01	-4.163E-03		1.560E+05
2.175E+00	3.864E+02	1.704E-05	.000E+00	.000E+00	.000E+00	3.952E-01	-4.397E-03		1.553E+05
2.325E+00	3.863E+02	4.142E-05	3.016E-04	3.000E-02	.000E+00	3.403E-01	-3.469E-03		1.547E+05
2.475E+00	3.861E+02	1.056E-05	.000E+00	.000E+00	.000E+00	1.550E-01	-3.562E-03		1.541E+05
2.625E+00	3.860E+02	1.564E-05	.000E+00	.000E+00	.000E+00	1.610E-01	-3.640E-03		1.535E+05
2.775E+00	3.859E+02	1.388E-05	.000E+00	.000E+00	.000E+00	2.180E-01	-3.700E-03		1.530E+05
2.925E+00	3.858E+02	4.912E-05	3.016E-04	3.000E-02	.000E+00	1.671E-01	-2.688E-03		1.524E+05
3.075E+00	3.857E+02	4.301E-06	.000E+00	.000E+00	.000E+00	-2.744E-03	-2.744E-03		1.520E+05
3.225E+00	3.856E+02	1.339E-05	.000E+00	.000E+00	.000E+00	5.493E-01	-2.860E-03		1.515E+05
3.375E+00	3.856E+02	1.659E-05	.000E+00	.000E+00	.000E+00	2.414E-01	-3.075E-03		1.512E+05
3.525E+00	3.855E+02	3.719E-05	3.016E-04	3.000E-02	.000E+00	1.203E+00	-2.493E-03		1.510E+05
3.675E+00	3.854E+02	2.470E-04	.000E+00	.000E+00	.000E+00	5.478E-01	-3.060E-03		1.503E+05
3.825E+00	3.853E+02	6.366E-02	.000E+00	.000E+00	.000E+00	2.576E-03	-1.680E-02		1.500E+05
3.975E+00	3.853E+02	9.236E-01	.000E+00	.000E+00	.000E+00	-4.805E-03	-1.210E+00		1.500E+05
4.125E+00	3.859E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-3.954E-03	-3.954E-03		1.500E+05

4.275E+00	3.856E+02	1.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	-3.636E-03	-3.636E-03	1.500E+05
4.425E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	-3.470E-03	-3.470E-03	1.500E+05
4.575E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	-3.290E-03	-3.290E-03	1.500E+05
4.725E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	-2.823E-03	-2.823E-03	1.500E+05
4.875E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	-2.244E-03	-2.244E-03	1.500E+05
5.025E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	-1.785E-03	-1.785E-03	1.500E+05
5.175E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	-1.360E-03	-1.360E-03	1.500E+05
5.325E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	-1.035E-03	-1.035E-03	1.500E+05
5.475E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	-7.511E-04	-7.511E-04	1.500E+05
5.625E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	-3.296E-04	-3.296E-04	1.500E+05
5.775E+00	3.855E+02	1.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	1.245E-07	1.245E-07	1.500E+05
5.925E+00	3.856E+02	1.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	7.104E-05	7.104E-05	1.500E+05
4.090000E-03	41								
7.500E-02	3.973E+02	1.803E-03	2.262E-03	3.586E-03	3.159E-03	.000E+00	.000E+00	.000E+00	2.187E+05
2.250E-01	4.154E+02	1.140E-03	.000E+00	.000E+00	.000E+00	-1.136E-01	-7.675E-02	3.692E+05	
3.750E-01	4.158E+02	7.186E-04	3.016E-04	2.998E-02	2.998E-02	-9.494E-02	-1.343E-01	3.742E+05	
5.250E-01	4.145E+02	8.549E-06	.000E+00	.000E+00	.000E+00	4.032E+00	-1.371E-01	3.606E+05	
6.750E-01	4.130E+02	7.392E-06	.000E+00	.000E+00	.000E+00	1.152E+01	-1.411E-01	3.457E+05	
8.250E-01	4.115E+02	5.906E-06	.000E+00	.000E+00	.000E+00	8.524E+00	-1.446E-01	3.317E+05	
9.750E-01	4.105E+02	2.755E-05	1.313E-04	.000E+00	.000E+00	2.725E+00	-1.474E-01	3.218E+05	
1.125E+00	4.102E+02	1.505E-03	1.703E-04	2.997E-02	2.997E-02	-5.881E-01	-1.576E-01	3.189E+05	
1.275E+00	4.102E+02	1.334E-05	.000E+00	.000E+00	.000E+00	-9.653E+00	-1.517E-01	3.193E+05	
1.425E+00	4.114E+02	1.024E-05	.000E+00	.000E+00	.000E+00	-1.890E+01	-1.415E-01	3.305E+05	
1.575E+00	4.139E+02	6.168E-05	.000E+00	.000E+00	.000E+00	-1.922E+01	-1.064E-01	3.542E+05	
1.725E+00	4.162E+02	1.363E-03	3.016E-04	2.997E-02	2.997E-02	-1.301E+01	-7.126E-02	3.782E+05	
1.875E+00	4.177E+02	1.113E-05	.000E+00	.000E+00	.000E+00	-3.624E-01	-5.074E-02	3.945E+05	
2.025E+00	4.197E+02	5.457E-06	.000E+00	.000E+00	.000E+00	-3.552E-02	-2.600E-02	4.160E+05	
2.175E+00	4.221E+02	4.771E-05	.000E+00	.000E+00	.000E+00	-1.436E+01	1.584E-02	4.436E+05	
2.325E+00	4.242E+02	1.361E-03	3.016E-04	2.996E-02	2.996E-02	-1.710E+01	3.358E-02	4.699E+05	
2.475E+00	4.267E+02	1.338E-05	.000E+00	.000E+00	.000E+00	3.137E-02	5.154E-02	5.025E+05	
2.625E+00	4.294E+02	5.183E-06	.000E+00	.000E+00	.000E+00	6.040E-02	6.759E-02	5.386E+05	
2.775E+00	4.315E+02	5.399E-06	.000E+00	.000E+00	.000E+00	-9.873E-02	7.622E-02	5.694E+05	
2.925E+00	4.328E+02	1.676E-03	3.016E-04	2.995E-02	2.995E-02	4.012E-01	3.257E-01	5.888E+05	
3.075E+00	4.309E+02	1.182E-05	.000E+00	.000E+00	.000E+00	3.383E-01	3.322E-01	5.603E+05	
3.225E+00	4.277E+02	4.289E-06	.000E+00	.000E+00	.000E+00	3.468E-01	3.434E-01	5.154E+05	

3.375E+00	4.230E+02	6.094E-06	.000E+00	.000E+00	.000E+00	3.978E-01	3.574E-01	4.547E+05
3.525E+00	4.165E+02	1.611E-03	3.016E-04	2.997E-02	2.997E-02	7.456E-01	7.017E-01	3.815E+05
3.675E+00	4.041E+02	1.837E-04	.000E+00	.000E+00	.000E+00	7.426E-01	7.264E-01	2.679E+05
3.825E+00	3.898E+02	6.131E-02	.000E+00	.000E+00	.000E+00	5.215E-01	-1.014E-03	1.569E+05
3.975E+00	3.854E+02	9.236E-01	.000E+00	.000E+00	.000E+00	7.052E-02	-1.210E+00	1.501E+05
4.125E+00	3.859E+02	1.000E+00	.000E+00	.000E+00	.000E+00	3.128E-02	3.128E-02	1.501E+05
4.275E+00	3.857E+02	1.000E+00	.000E+00	.000E+00	.000E+00	2.613E-03	2.613E-03	1.501E+05
4.425E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-1.373E-02	-1.373E-02	1.501E+05
4.575E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-2.032E-02	-2.032E-02	1.500E+05
4.725E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-2.009E-02	-2.009E-02	1.500E+05
4.875E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-1.432E-02	-1.432E-02	1.500E+05
5.025E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-3.753E-03	-3.753E-03	1.500E+05
5.175E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	9.472E-03	9.472E-03	1.500E+05
5.325E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	2.154E-02	2.154E-02	1.500E+05
5.475E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	2.840E-02	2.840E-02	1.500E+05
5.625E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	3.030E-02	3.030E-02	1.500E+05
5.775E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	3.154E-02	3.154E-02	1.500E+05
5.925E+00	3.855E+02	1.000E+00	.000E+00	.000E+00	.000E+00	3.317E-02	3.317E-02	1.500E+05
6.010000E-03	41							
7.500E-02	4.040E+02	1.838E-03	2.262E-03	3.586E-03	3.159E-03	.000E+00	.000E+00	2.670E+05
2.250E-01	4.175E+02	1.057E-03	.000E+00	.000E+00	.000E+00	-1.660E+00	7.501E-03	3.918E+05
3.750E-01	4.181E+02	4.187E-04	3.016E-04	2.998E-02	2.998E-02	9.365E-01	1.125E-02	3.983E+05
5.250E-01	4.178E+02	3.505E-05	.000E+00	.000E+00	.000E+00	4.796E-01	1.112E-02	3.954E+05
6.750E-01	4.176E+02	6.742E-06	.000E+00	.000E+00	.000E+00	1.058E-01	1.164E-02	3.928E+05
8.250E-01	4.174E+02	5.122E-06	.000E+00	.000E+00	.000E+00	4.914E-02	1.271E-02	3.907E+05
9.750E-01	4.171E+02	1.524E-05	1.704E-04	2.997E-02	2.997E-02	2.855E-01	1.472E-02	3.876E+05
1.125E+00	4.164E+02	6.356E-04	1.312E-04	.000E+00	.000E+00	9.906E-02	-2.221E-02	3.798E+05
1.275E+00	4.152E+02	4.272E-05	.000E+00	.000E+00	.000E+00	1.860E-02	-2.058E-02	3.679E+05
1.425E+00	4.135E+02	1.062E-05	.000E+00	.000E+00	.000E+00	3.753E-02	-2.074E-02	3.509E+05
1.575E+00	4.113E+02	7.343E-05	.000E+00	.000E+00	.000E+00	1.268E-01	-2.049E-02	3.298E+05
1.725E+00	4.081E+02	8.326E-04	3.016E-04	2.997E-02	2.997E-02	3.949E-02	-7.879E-02	3.011E+05
1.875E+00	4.038E+02	4.104E-05	.000E+00	.000E+00	.000E+00	-4.161E-02	-7.099E-02	2.653E+05
2.025E+00	3.989E+02	1.229E-05	.000E+00	.000E+00	.000E+00	-6.671E-03	-6.383E-02	2.295E+05
2.175E+00	3.934E+02	1.580E-04	.000E+00	.000E+00	.000E+00	3.257E-02	-4.476E-02	1.937E+05
2.325E+00	3.866E+02	1.813E-03	3.016E-04	2.996E-02	2.996E-02	8.033E-02	1.739E-02	1.563E+05

2.475E+00	3.833E+02	1.293E-04	.000E+00	.000E+00	.000E+00	1.357E-01	5.144E-02	1.406E+05
2.625E+00	3.801E+02	2.591E-05	.000E+00	.000E+00	.000E+00	5.289E+00	6.730E-02	1.264E+05
2.775E+00	3.767E+02	2.161E-04	.000E+00	.000E+00	.000E+00	9.440E+00	1.029E-01	1.130E+05
2.925E+00	3.731E+02	7.049E-03	3.016E-04	2.992E-02	2.992E-02	2.796E+00	5.531E-01	1.000E+05
3.075E+00	3.722E+02	7.172E-04	.000E+00	.000E+00	.000E+00	1.523E+00	6.476E-01	1.000E+05
3.225E+00	3.718E+02	6.263E-05	.000E+00	.000E+00	.000E+00	4.476E-01	6.621E-01	1.000E+05
3.375E+00	3.719E+02	2.798E-05	.000E+00	.000E+00	.000E+00	-1.212E+00	6.719E-01	1.000E+05
3.525E+00	3.728E+02	6.325E-03	3.016E-04	2.994E-02	2.994E-02	-1.909E+01	9.462E-01	1.000E+05
3.675E+00	3.811E+02	9.735E-04	.000E+00	.000E+00	.000E+00	-3.234E-01	9.580E-01	1.305E+05
3.825E+00	3.936E+02	5.015E-02	.000E+00	.000E+00	.000E+00	4.318E+00	5.145E-01	1.810E+05
3.975E+00	3.856E+02	5.211E-01	.000E+00	.000E+00	.000E+00	6.804E-01	-1.204E+00	1.503E+05
4.125E+00	3.861E+02	1.000E+00	.000E+00	.000E+00	.000E+00	5.108E-01	5.108E-01	1.503E+05
4.275E+00	3.858E+02	1.000E+00	.000E+00	.000E+00	.000E+00	4.629E-01	4.629E-01	1.502E+05
4.425E+00	3.855E+02	1.000E+00	.000E+00	.000E+00	.000E+00	4.686E-01	4.686E-01	1.502E+05
4.575E+00	3.855E+02	1.000E+00	.000E+00	.000E+00	.000E+00	4.514E-01	4.514E-01	1.502E+05
4.725E+00	3.855E+02	1.000E+00	.000E+00	.000E+00	.000E+00	3.785E-01	3.785E-01	1.502E+05
4.875E+00	3.855E+02	1.000E+00	.000E+00	.000E+00	.000E+00	2.757E-01	2.757E-01	1.502E+05
5.025E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	1.797E-01	1.797E-01	1.501E+05
5.175E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	1.090E-01	1.090E-01	1.501E+05
5.325E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	6.391E-02	6.391E-02	1.500E+05
5.475E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	3.816E-02	3.816E-02	1.500E+05
5.625E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	2.430E-02	2.430E-02	1.500E+05
5.775E+00	3.855E+02	1.000E+00	.000E+00	.000E+00	.000E+00	1.698E-02	1.698E-02	1.500E+05
5.925E+00	3.855E+02	1.000E+00	.000E+00	.000E+00	.000E+00	1.294E-02	1.294E-02	1.500E+05
8.026000E-03	41							
7.500E-02	4.060E+02	1.900E-03	2.262E-03	3.586E-03	3.159E-03	1.281E-01	3.389E-02	2.829E+05
2.250E-01	4.046E+02	1.467E-03	.000E+00	.000E+00	.000E+00	2.564E-01	1.139E-01	2.720E+05
3.750E-01	4.021E+02	3.098E-04	3.016E-04	2.998E-02	2.998E-02	2.566E-01	1.264E-01	2.520E+05
5.250E-01	3.996E+02	5.936E-05	.000E+00	.000E+00	.000E+00	2.972E+00	1.428E-01	2.342E+05
6.750E-01	3.967E+02	1.242E-05	.000E+00	.000E+00	.000E+00	6.320E+00	1.555E-01	2.143E+05
8.250E-01	3.937E+02	3.697E-06	.000E+00	.000E+00	.000E+00	6.280E+00	1.682E-01	1.955E+05
9.750E-01	3.908E+02	2.425E-05	2.101E-04	2.997E-02	2.997E-02	6.245E+00	1.812E-01	1.789E+05
1.125E+00	3.883E+02	5.708E-04	9.147E-05	.000E+00	.000E+00	7.105E+00	1.999E-01	1.652E+05
1.275E+00	3.853E+02	1.340E-04	.000E+00	.000E+00	.000E+00	6.313E+00	2.211E-01	1.499E+05
1.425E+00	3.825E+02	2.919E-05	.000E+00	.000E+00	.000E+00	6.480E+00	2.313E-01	1.371E+05

1.575E+00	3.799E+02	1.711E-04	.000E+00	.000E+00	.000E+00	4.631E+00	2.483E-01	1.256E+05
1.725E+00	3.781E+02	7.374E-04	3.07E-04	2.997E-02	2.997E-02	-6.885E-01	2.435E-01	1.184E+05
1.875E+00	3.785E+02	1.678E-04	.000E+00	.000E+00	.000E+00	-4.681E+00	2.473E-01	1.199E+05
2.025E+00	3.805E+02	2.815E-05	.000E+00	.000E+00	.000E+00	-4.571E+00	2.451E-01	1.283E+05
2.175E+00	3.826E+02	2.040E-04	.000E+00	.000E+00	.000E+00	-4.734E+00	2.318E-01	1.372E+05
2.325E+00	3.846E+02	6.606E-04	3.016E-04	2.996E-02	2.996E-02	7.897E+00	1.417E-01	1.465E+05
2.475E+00	3.814E+02	2.143E-04	.000E+00	.000E+00	.000E+00	8.691E+00	1.247E-01	1.321E+05
2.625E+00	3.778E+02	3.639E-05	.000E+00	.000E+00	.000E+00	1.065E+01	1.205E-01	1.170E+05
2.775E+00	3.737E+02	3.716E-04	.000E+00	.000E+00	.000E+00	2.257E+00	1.097E-01	1.019E+05
2.925E+00	3.729E+02	1.261E-02	3.016E-04	2.992E-02	2.992E-02	8.152E-01	5.297E-01	1.000E+05
3.075E+00	3.726E+02	1.983E-03	.000E+00	.000E+00	.000E+00	4.607E-01	6.278E-01	1.000E+05
3.225E+00	3.727E+02	1.849E-04	.000E+00	.000E+00	.000E+00	5.873E-01	6.369E-01	1.000E+05
3.375E+00	3.730E+02	9.231E-05	.000E+00	.000E+00	.000E+00	6.058E-01	6.404E-01	1.000E+05
3.525E+00	3.739E+02	4.744E-03	3.016E-04	2.994E-02	2.994E-02	1.598E-01	2.066E-01	1.028E+05
3.675E+00	3.820E+02	3.117E-03	.000E+00	.000E+00	.000E+00	-7.198E-02	4.891E-01	1.347E+05
3.825E+00	3.889E+02	5.045E-02	.000E+00	.000E+00	.000E+00	5.720E+00	9.604E-01	1.622E+05
3.975E+00	3.857E+02	9.113E-01	.000E+00	.000E+00	.000E+00	1.065E+00	-1.193E+00	1.505E+05
4.125E+00	3.862E+02	1.000E+00	.000E+00	.000E+00	.000E+00	8.655E-01	8.655E-01	1.504E+05
4.275E+00	3.859E+02	1.000E+00	.000E+00	.000E+00	.000E+00	7.989E-01	7.989E-01	1.504E+05
4.425E+00	3.856E+02	1.000E+00	.000E+00	.000E+00	.000E+00	7.289E-01	7.289E-01	1.503E+05
4.575E+00	3.856E+02	1.000E+00	.000E+00	.000E+00	.000E+00	6.910E-01	6.910E-01	1.503E+05
4.725E+00	3.856E+02	1.000E+00	.000E+00	.000E+00	.000E+00	6.768E-01	6.768E-01	1.503E+05
4.875E+00	3.856E+02	1.000E+00	.000E+00	.000E+00	.000E+00	6.391E-01	6.391E-01	1.503E+05
5.025E+00	3.856E+02	1.000E+00	.000E+00	.000E+00	.000E+00	5.738E-01	5.738E-01	1.503E+05
5.175E+00	3.855E+02	1.000E+00	.000E+00	.000E+00	.000E+00	5.124E-01	5.124E-01	1.503E+05
5.325E+00	3.855E+02	1.000E+00	.000E+00	.000E+00	.000E+00	4.661E-01	4.661E-01	1.502E+05
5.475E+00	3.855E+02	1.000E+00	.000E+00	.000E+00	.000E+00	4.131E-01	4.131E-01	1.502E+05
5.625E+00	3.855E+02	1.000E+00	.000E+00	.000E+00	.000E+00	3.293E-01	3.293E-01	1.502E+05
5.775E+00	3.856E+02	1.000E+00	.000E+00	.000E+00	.000E+00	2.115E-01	2.115E-01	1.502E+05
5.925E+00	3.857E+02	1.000E+00	.000E+00	.000E+00	.000E+00	7.349E-02	7.349E-02	1.502E+05
1.001000E-02	41							
7.500E-02	3.786E+02	2.862E-03	2.262E-03	3.586E-03	3.159E-03	1.052E-01	9.936E-02	1.203E+05
2.250E-01	3.784E+02	3.129E-03	.000E+00	.000E+00	.000E+00	2.736E-01	2.636E-01	1.195E+05
3.750E-01	3.778E+02	3.685E-04	3.016E-04	2.998E-02	2.998E-02	2.555E-01	2.611E-01	1.172E+05
5.250E-01	3.787E+02	1.303E-04	.000E+00	.000E+00	.000E+00	-2.999E+00	2.644E-01	1.208E+05

6.750E-01	3.800E+02	2.166E-05	.000E+00	.000E+00	.000E+00	-1.335E+01	2.631E-01	1.260E+05
8.250E-01	3.814E+02	1.467E-05	.000E+00	.000E+00	.000E+00	-1.429E+01	2.596E-01	1.322E+05
9.750E-01	3.830E+02	3.397E-05	2.452E-04	2.997E-02	2.997E-02	-1.370E+01	2.570E-01	1.392E+05
1.125E+00	3.844E+02	2.747E-04	5.638E-05	.000E+00	.000E+00	3.344E+00	2.254E-01	1.455E+05
1.275E+00	3.841E+02	1.474E-04	.000E+00	.000E+00	.000E+00	6.801E+00	2.141E-01	1.440E+05
1.425E+00	3.834E+02	3.258E-05	.000E+00	.000E+00	.000E+00	6.145E+00	2.113E-01	1.409E+05
1.575E+00	3.825E+02	9.457E-05	4.223E-06	.000E+00	.000E+00	8.699E-01	2.065E-01	1.370E+05
1.725E+00	3.812E+02	3.093E-04	2.974E-04	2.997E-02	2.997E-02	1.453E+01	1.956E-01	1.311E+05
1.875E+00	3.790E+02	1.691E-04	.000E+00	.000E+00	.000E+00	2.072E+01	1.994E-01	1.221E+05
2.025E+00	3.768E+02	4.094E-05	.000E+00	.000E+00	.000E+00	2.503E+01	2.035E-01	1.132E+05
2.175E+00	3.742E+02	2.612E-04	.000E+00	.000E+00	.000E+00	1.239E+01	2.059E-01	1.037E+05
2.325E+00	3.730E+02	4.733E-04	3.016E-04	2.996E-02	2.996E-02	1.232E+01	2.092E-01	1.000E+05
2.475E+00	3.717E+02	3.217E-04	.000E+00	.000E+00	.000E+00	5.111E+00	2.236E-01	1.000E+05
2.625E+00	3.712E+02	5.987E-05	.000E+00	.000E+00	.000E+00	6.035E+00	2.299E-01	1.000E+05
2.775E+00	3.705E+02	4.562E-04	.000E+00	.000E+00	.000E+00	7.899E-01	2.561E-01	1.000E+05
2.925E+00	3.690E+02	1.609E-02	3.016E-04	2.992E-02	2.992E-02	3.539E-01	4.167E-01	1.000E+05
3.075E+00	3.749E+02	2.587E-03	.000E+00	.000E+00	.000E+00	3.588E-01	3.674E-01	1.061E+05
3.225E+00	3.800E+02	1.616E-04	.000E+00	.000E+00	.000E+00	3.606E-01	3.727E-01	1.262E+05
3.375E+00	3.840E+02	2.075E-04	.000E+00	.000E+00	.000E+00	3.703E-01	3.884E-01	1.438E+05
3.525E+00	3.877E+02	1.230E-03	3.016E-04	2.994E-02	2.994E-02	3.758E-01	3.740E-01	1.622E+05
3.675E+00	3.885E+02	3.435E-03	.000E+00	.000E+00	.000E+00	2.991E-01	2.710E-01	1.682E+05
3.825E+00	3.841E+02	5.940E-02	.000E+00	.000E+00	.000E+00	4.692E-01	9.631E-01	1.437E+05
3.975E+00	3.855E+02	8.986E-01	.000E+00	.000E+00	.000E+00	4.138E-01	-1.179E+00	1.502E+05
4.125E+00	3.860E+02	1.000E+00	.000E+00	.000E+00	.000E+00	5.363E-01	5.363E-01	1.502E+05
4.275E+00	3.859E+02	1.000E+00	.000E+00	.000E+00	.000E+00	7.628E-01	7.628E-01	1.503E+05
4.425E+00	3.857E+02	1.000E+00	.000E+00	.000E+00	.000E+00	9.311E-01	9.311E-01	1.504E+05
4.575E+00	3.857E+02	1.000E+00	.000E+00	.000E+00	.000E+00	9.964E-01	9.964E-01	1.505E+05
4.725E+00	3.858E+02	1.000E+00	.000E+00	.000E+00	.000E+00	9.615E-01	9.615E-01	1.505E+05
4.875E+00	3.858E+02	1.000E+00	.000E+00	.000E+00	.000E+00	8.623E-01	8.623E-01	1.505E+05
5.025E+00	3.857E+02	1.000E+00	.000E+00	.000E+00	.000E+00	7.357E-01	7.357E-01	1.505E+05
5.175E+00	3.857E+02	1.000E+00	.000E+00	.000E+00	.000E+00	6.087E-01	6.087E-01	1.505E+05
5.325E+00	3.857E+02	1.000E+00	.000E+00	.000E+00	.000E+00	5.009E-01	5.009E-01	1.505E+05
5.475E+00	3.857E+02	1.000E+00	.000E+00	.000E+00	.000E+00	4.191E-01	4.191E-01	1.505E+05
5.625E+00	3.857E+02	1.000E+00	.000E+00	.000E+00	.000E+00	3.551E-01	3.551E-01	1.505E+05
5.775E+00	3.858E+02	1.000E+00	.000E+00	.000E+00	.000E+00	2.967E-01	2.967E-01	1.505E+05

5.925E+00	3.858E+02	1.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	2.428E-01	2.428E-01	1.504E+05
1.199400E-02	41								
7.500E-02	3.731E+02	4.025E-03	2.262E-03	3.586E-03	3.159E-03	6.932E-01	8.590E-02	1.000E+05	
2.250E-01	3.729E+02	4.666E-03	.000E+00	.000E+00	.000E+00	-3.535E-01	1.755E-01	1.000E+05	
3.750E-01	3.730E+02	2.244E-04	3.016E-04	2.998E-02	2.998E-02	7.091E-01	1.795E-01	1.000E+05	
5.250E-01	3.728E+02	1.578E-04	.000E+00	.000E+00	.000E+00	6.149E-01	1.855E-01	1.000E+05	
6.750E-01	3.727E+02	3.155E-05	.000E+00	.000E+00	.000E+00	3.607E-01	1.894E-01	1.000E+05	
6.250E-01	3.726E+02	2.324E-05	.000E+00	.000E+00	.000E+00	2.665E-02	1.934E-01	1.000E+05	
9.750E-01	3.727E+02	5.315E-05	2.737E-04	2.997E-02	2.997E-02	-7.516E-02	1.989E-01	1.000E+05	
1.125E+00	3.728E+02	2.741E-04	2.788E-05	.000E+00	.000E+00	7.515E-01	2.083E-01	1.000E+05	
1.275E+00	3.727E+02	2.295E-04	.000E+00	.000E+00	.000E+00	6.870E-02	2.191E-01	1.000E+05	
1.425E+00	3.727E+02	5.035E-05	.000E+00	.000E+00	.000E+00	2.418E-01	2.231E-01	1.000E+05	
1.575E+00	3.723E+02	5.623E-05	2.052E-05	.000E+00	.000E+00	1.999E-01	2.238E-01	1.000E+05	
1.725E+00	3.725E+02	1.886E-04	2.811E-04	2.997E-02	2.997E-02	1.650E-01	2.247E-01	1.000E+05	
1.875E+00	3.741E+02	2.014E-04	.000E+00	.000E+00	.000E+00	1.926E-01	2.357E-01	1.033E+05	
2.025E+00	3.749E+02	4.768E-05	.000E+00	.000E+00	.000E+00	1.463E-01	2.388E-01	1.061E+05	
2.175E+00	3.754E+02	2.478E-04	.000E+00	.000E+00	.000E+00	4.416E-01	2.424E-01	1.080E+05	
2.325E+00	3.748E+02	2.449E-04	3.016E-04	2.996E-02	2.996E-02	2.547E-01	2.275E-01	1.058E+05	
2.475E+00	3.745E+02	3.886E-04	.000E+00	.000E+00	.000E+00	2.660E-01	2.221E-01	1.048E+05	
2.625E+00	3.733E+02	9.189E-05	.000E+00	.000E+00	.000E+00	4.111E-01	2.210E-01	1.005E+05	
2.775E+00	3.729E+02	9.913E-04	.000E+00	.000E+00	.000E+00	-7.298E-01	2.616E-01	1.000E+05	
2.925E+00	3.734E+02	1.643E-02	3.016E-04	2.992E-02	2.992E-02	-2.478E+00	1.948E-01	1.007E+05	
3.075E+00	3.744E+02	2.553E-03	.000E+00	.000E+00	.000E+00	-3.854E+00	2.270E-01	1.043E+05	
3.225E+00	3.760E+02	1.887E-04	.000E+00	.000E+00	.000E+00	-1.603E+00	2.318E-01	1.102E+05	
3.375E+00	3.779E+02	2.819E-04	.000E+00	.000E+00	.000E+00	1.659E-01	2.378E-01	1.175E+05	
3.525E+00	3.796E+02	6.470E-04	3.016E-04	2.994E-02	2.994E-02	2.233E-01	2.117E-01	1.246E+05	
3.675E+00	3.799E+02	4.484E-03	.000E+00	.000E+00	.000E+00	-3.204E-01	2.655E-01	1.258E+05	
3.825E+00	3.843E+02	6.596E-02	.000E+00	.000E+00	.000E+00	-5.064E-01	8.237E-01	1.453E+05	
3.975E+00	3.855E+02	8.876E-01	.000E+00	.000E+00	.000E+00	4.067E-01	-1.172E+00	1.503E+05	
4.125E+00	3.861E+02	1.000E+00	.000E+00	.000E+00	.000E+00	3.131E-01	3.131E-01	1.504E+05	
4.275E+00	3.859E+02	1.000E+00	.000E+00	.000E+00	.000E+00	1.058E-01	1.058E-01	1.503E+05	
4.425E+00	3.856E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-3.351E-02	-3.351E-02	1.503E+05	
4.575E+00	3.856E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-7.898E-02	-7.898E-02	1.503E+05	
4.725E+00	3.856E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-7.483E-02	-7.483E-02	1.503E+05	
4.875E+00	3.856E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-1.707E-02	-1.707E-02	1.503E+05	

5.025E+00	3.856E+02	1.000E+00	.000E+00	.000E+00	.000E+00	1.002E-01	1.002E-01	1.504E+05
5.175E+00	3.857E+02	1.000E+00	.000E+00	.000E+00	.000E+00	2.516E-01	2.516E-01	1.504E+05
5.325E+00	3.857E+02	1.000E+00	.000E+00	.000E+00	.000E+00	3.908E-01	3.908E-01	1.505E+05
5.475E+00	3.858E+02	1.000E+00	.000E+00	.000E+00	.000E+00	4.794E-01	4.794E-01	1.506E+05
5.625E+00	3.859E+02	1.000E+00	.000E+00	.000E+00	.000E+00	5.002E-01	5.002E-01	1.506E+05
5.775E+00	3.859E+02	1.000E+00	.000E+00	.000E+00	.000E+00	4.585E-01	4.585E-01	1.507E+05
5.925E+00	3.860E+02	1.000E+00	.000E+00	.000E+00	.000E+00	3.758E-01	3.758E-01	1.507E+05
1.404200E-02	41							
7.500E-02	3.731E+02	5.059E-03	2.262E-03	3.586E-03	3.159E-03	1.243E+00	7.307E-02	1.000E+05
2.250E-01	3.728E+02	5.763E-03	.000E+00	.000E+00	.000E+00	2.846E-01	1.552E-01	1.000E+05
3.750E-01	3.728E+02	3.120E-04	3.016E-04	2.998E-02	2.998E-02	6.017E-01	1.634E-01	1.000E+05
5.250E-01	3.727E+02	2.215E-04	.000E+00	.000E+00	.000E+00	4.247E-01	1.685E-01	1.000E+05
6.750E-01	3.727E+02	4.503E-05	.000E+00	.000E+00	.000E+00	3.309E-01	1.708E-01	1.000E+05
8.250E-01	3.726E+02	3.333E-05	.000E+00	.000E+00	.000E+00	2.884E-01	1.729E-01	1.000E+05
9.750E-01	3.726E+02	1.040E-04	2.935E-04	2.997E-02	2.997E-02	2.342E-01	1.784E-01	1.000E+05
1.125E+00	3.726E+02	3.811E-04	8.103E-06	.000E+00	.000E+00	-7.847E-02	1.879E-01	1.000E+05
1.275E+00	3.727E+02	3.204E-04	.000E+00	.000E+00	.000E+00	-1.539E-01	1.956E-01	1.000E+05
1.425E+00	3.727E+02	6.677E-05	.000E+00	.000E+00	.000E+00	-1.490E-01	1.978E-01	1.000E+05
1.575E+00	3.728E+02	6.130E-05	4.759E-05	.000E+00	.000E+00	-1.234E-01	1.998E-01	1.000E+05
1.725E+00	3.729E+02	2.225E-04	2.540E-04	2.997E-02	2.997E-02	-9.470E-02	2.043E-01	1.000E+05
1.875E+00	3.729E+02	2.378E-04	.000E+00	.000E+00	.000E+00	-7.326E-02	2.069E-01	1.000E+05
2.025E+00	3.730E+02	5.516E-05	.000E+00	.000E+00	.000E+00	-4.947E-02	2.077E-01	1.000E+05
2.175E+00	3.730E+02	2.795E-04	.000E+00	.000E+00	.000E+00	6.073E-01	2.094E-01	1.000E+05
2.325E+00	3.730E+02	2.034E-04	3.016E-04	2.996E-02	2.996E-02	4.968E-01	2.133E-01	1.000E+05
2.475E+00	3.729E+02	4.418E-04	.000E+00	.000E+00	.000E+00	7.040E-01	2.183E-01	1.000E+05
2.625E+00	3.728E+02	1.082E-04	.000E+00	.000E+00	.000E+00	4.751E-01	2.211E-01	1.000E+05
2.775E+00	3.726E+02	1.395E-03	.000E+00	.000E+00	.000E+00	3.234E-01	2.546E-01	1.000E+05
2.925E+00	3.709E+02	1.511E-02	3.016E-04	2.992E-02	2.992E-02	5.783E-02	1.301E-01	1.000E+05
3.075E+00	3.743E+02	2.658E-03	.000E+00	.000E+00	.000E+00	7.797E-02	9.791E-02	1.041E+05
3.225E+00	3.770E+02	1.887E-04	.000E+00	.000E+00	.000E+00	7.290E-02	9.794E-02	1.141E+05
3.375E+00	3.795E+02	2.805E-04	.000E+00	.000E+00	.000E+00	7.616E-02	9.986E-02	1.239E+05
3.525E+00	3.814E+02	2.843E-04	3.016E-04	2.994E-02	2.994E-02	3.197E-02	7.972E-02	1.321E+05
3.675E+00	3.836E+02	4.346E-03	.000E+00	.000E+00	.000E+00	-1.538E-01	5.356E-02	1.420E+05
3.825E+00	3.843E+02	7.346E-02	.000E+00	.000E+00	.000E+00	-6.479E-01	6.449E-01	1.449E+05
3.975E+00	3.856E+02	8.783E-01	.000E+00	.000E+00	.000E+00	9.246E-03	-1.172E+00	1.504E+05

4.125E+00	3.862E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-1.493E-02	-1.493E-02	1.504E+05
4.275E+00	3.859E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-3.530E-02	-3.530E-02	1.504E+05
4.425E+00	3.857E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-5.877E-02	-5.877E-02	1.504E+05
4.575E+00	3.857E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-8.016E-02	-8.016E-02	1.504E+05
4.725E+00	3.857E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-8.011E-02	-8.011E-02	1.504E+05
4.875E+00	3.857E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-7.599E-02	-7.599E-02	1.505E+05
5.025E+00	3.857E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-1.041E-01	-1.041E-01	1.505E+05
5.175E+00	3.857E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-1.613E-01	-1.613E-01	1.505E+05
5.325E+00	3.857E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-2.096E-01	-2.096E-01	1.504E+05
5.475E+00	3.856E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-2.141E-01	-2.141E-01	1.504E+05
5.625E+00	3.856E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-1.603E-01	-1.603E-01	1.504E+05
5.775E+00	3.857E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-4.779E-02	-4.779E-02	1.503E+05
5.925E+00	3.858E+02	1.000E+00	.000E+00	.000E+00	.000E+00	1.098E-01	1.098E-01	1.503E+05
1.602600E-02	41							
7.500E-02	3.731E+02	5.849E-03	2.262E-03	3.586E-03	3.159E-03	1.444E-01	5.546E-02	1.000E+05
2.250E-01	3.730E+02	6.779E-03	.000E+00	.000E+00	.000E+00	2.046E-01	1.367E-01	1.000E+05
3.750E-01	3.730E+02	4.199E-04	3.016E-04	2.998E-02	2.998E-02	3.246E-01	1.452E-01	1.000E+05
5.250E-01	3.730E+02	2.704E-04	.000E+00	.000E+00	.000E+00	2.985E-01	1.500E-01	1.000E+05
6.750E-01	3.730E+02	5.692E-05	.000E+00	.000E+00	.000E+00	2.427E-01	1.519E-01	1.000E+05
8.250E-01	3.730E+02	4.187E-05	.000E+00	.000E+00	.000E+00	2.220E-01	1.537E-01	1.000E+05
9.750E-01	3.730E+02	1.577E-04	3.007E-04	2.997E-02	2.997E-02	2.595E-01	1.591E-01	1.000E+05
1.125E+00	3.730E+02	4.772E-04	9.117E-07	.000E+00	.000E+00	-3.212E-03	1.677E-01	1.000E+05
1.275E+00	3.730E+02	3.962E-04	.000E+00	.000E+00	.000E+00	-5.696E-03	1.746E-01	1.000E+05
1.425E+00	3.730E+02	8.085E-05	.000E+00	.000E+00	.000E+00	-1.194E-02	1.767E-01	1.000E+05
1.575E+00	3.730E+02	7.623E-05	8.108E-05	.000E+00	.000E+00	3.160E-03	1.788E-01	1.000E+05
1.725E+00	3.730E+02	2.700E-04	2.205E-04	2.997E-02	2.997E-02	5.592E-03	1.835E-01	1.000E+05
1.875E+00	3.730E+02	2.661E-04	.000E+00	.000E+00	.000E+00	5.959E-02	1.867E-01	1.000E+05
2.025E+00	3.730E+02	6.113E-05	.000E+00	.000E+00	.000E+00	8.035E-02	1.878E-01	1.000E+05
2.175E+00	3.730E+02	3.048E-04	.000E+00	.000E+00	.000E+00	3.782E-01	1.910E-01	1.000E+05
2.325E+00	3.730E+02	2.485E-04	3.016E-04	2.996E-02	2.996E-02	3.934E-01	1.957E-01	1.000E+05
2.475E+00	3.730E+02	5.055E-04	.000E+00	.000E+00	.000E+00	4.700E-01	2.025E-01	1.000E+05
2.625E+00	3.730E+02	1.361E-04	.000E+00	.000E+00	.000E+00	2.362E-01	2.060E-01	1.000E+05
2.775E+00	3.730E+02	2.001E-03	.000E+00	.000E+00	.000E+00	-1.305E+00	2.554E-01	1.000E+05
2.925E+00	3.736E+02	1.215E-02	3.016E-04	2.992E-02	2.992E-02	-5.337E+00	-5.665E-02	1.015E+05
3.075E+00	3.756E+02	2.472E-03	.000E+00	.000E+00	.000E+00	-5.506E+00	-4.674E-02	1.029E+05

3.225E+00	3.778E+02	1.87E-04	.000E+00	.000E+00	.000E+00	-4.800E+00	-4.449E-02	1.170E+05
3.375E+00	3.798E+02	2.789E-04	.000E+00	.000E+00	.000E+00	-5.742E+00	-4.247E-02	1.250E+05
3.525E+00	3.821E+02	1.554E-04	3.016E-04	2.994E-02	2.994E-02	-2.904E+00	-4.573E-02	1.350E+05
3.675E+00	3.833E+02	4.574E-03	.000E+00	.000E+00	.000E+00	-4.166E-01	-3.864E-03	1.407E+05
3.825E+00	3.848E+02	7.995E-02	.000E+00	.000E+00	.000E+00	-5.870E-01	4.929E-01	1.463E+05
3.975E+00	3.857E+02	8.715E-01	.000E+00	.000E+00	.000E+00	-8.318E-02	-1.174E+00	1.505E+05
4.125E+00	3.862E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-1.075E-01	-1.075E-01	1.505E+05
4.275E+00	3.860E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-1.134E-01	-1.134E-01	1.505E+05
4.425E+00	3.857E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-9.874E-02	-9.874E-02	1.504E+05
4.575E+00	3.857E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-6.270E-02	-6.270E-02	1.504E+05
4.725E+00	3.856E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-1.024E-02	-1.024E-02	1.504E+05
4.875E+00	3.856E+02	1.000E+00	.000E+00	.000E+00	.000E+00	4.870E-02	4.870E-02	1.504E+05
5.025E+00	3.856E+02	1.000E+00	.000E+00	.000E+00	.000E+00	1.022E-01	1.022E-01	1.503E+05
5.175E+00	3.856E+02	1.000E+00	.000E+00	.000E+00	.000E+00	1.346E-01	1.386E-01	1.503E+05
5.325E+00	3.856E+02	1.000E+00	.000E+00	.000E+00	.000E+00	1.533E-01	1.533E-01	1.503E+05
5.475E+00	3.856E+02	1.000E+00	.000E+00	.000E+00	.000E+00	1.543E-01	1.543E-01	1.503E+05
5.625E+00	3.856E+02	1.000E+00	.000E+00	.000E+00	.000E+00	1.504E-01	1.504E-01	1.503E+05
5.775E+00	3.857E+02	1.000E+00	.000E+00	.000E+00	.000E+00	1.407E-01	1.407E-01	1.503E+05
5.925E+00	3.858E+02	1.000E+00	.000E+00	.000E+00	.000E+00	1.201E-01	1.201E-01	1.504E+05
1.807400E-02	41							
7.500E-02	3.732E+02	6.453E-03	2.262E-03	3.586E-03	3.159E-03	1.460E+00	3.717E-02	1.003E+05
2.250E-01	3.729E+02	7.824E-03	.000E+00	.000E+00	.000E+00	2.452E-01	1.173E-01	1.000E+05
3.750E-01	3.729E+02	5.356E-04	3.016E-04	2.998E-02	2.998E-02	4.252E-01	1.260E-01	1.000E+05
5.250E-01	3.729E+02	3.200E-04	.000E+00	.000E+00	.000E+00	2.934E-01	1.305E-01	1.000E+05
6.750E-01	3.729E+02	6.898E-05	.000E+00	.000E+00	.000E+00	2.233E-01	1.322E-01	1.000E+05
8.250E-01	3.728E+02	5.032E-05	.000E+00	.000E+00	.000E+00	1.927E-01	1.337E-01	1.000E+05
9.750E-01	3.728E+02	2.162E-04	3.007E-04	2.997E-02	2.997E-02	2.433E-01	1.391E-01	1.000E+05
1.125E+00	3.728E+02	5.718E-04	9.052E-07	.000E+00	.000E+00	-1.207E-02	1.471E-01	1.000E+05
1.275E+00	3.728E+02	4.717E-04	.000E+00	.000E+00	.000E+00	-5.596E-02	1.537E-01	1.000E+05
1.425E+00	3.729E+02	9.516E-05	.000E+00	.000E+00	.000E+00	-6.378E-02	1.555E-01	1.000E+05
1.575E+00	3.729E+02	9.650E-05	1.204E-04	.000E+00	.000E+00	-1.502E-02	1.580E-01	1.000E+05
1.725E+00	3.729E+02	3.236E-04	1.812E-04	2.997E-02	2.997E-02	2.075E-02	1.629E-01	1.000E+05
1.875E+00	3.729E+02	3.010E-04	.000E+00	.000E+00	.000E+00	1.131E-01	1.664E-01	1.000E+05
2.025E+00	3.729E+02	6.937E-05	.000E+00	.000E+00	.000E+00	1.980E-01	1.677E-01	1.000E+05
2.175E+00	3.729E+02	3.426E-04	.000E+00	.000E+00	.000E+00	3.682E-01	1.717E-01	1.000E+05

2.325E+00	3.729E+02	3.071E-04	3.016E-04	2.996E-02	2.996E-02	4.478E-01	1.772E-01	1.000E+05
2.475E+00	3.728E+02	5.912E-04	.000E+00	.000E+00	.000E+00	4.900E-01	1.852E-01	1.000E+05
2.625E+00	3.728E+02	1.708E-04	.000E+00	.000E+00	.000E+00	5.727E-01	1.887E-01	1.000E+05
2.775E+00	3.727E+02	2.728E-03	.000E+00	.000E+00	.000E+00	2.319E-01	2.368E-01	1.000E+05
2.925E+00	3.725E+02	7.097E-03	3.016E-04	2.992E-02	2.992E-02	-2.469E-01	-1.643E-01	1.000E+05
3.075E+00	3.742E+02	2.555E-03	.000E+00	.000E+00	.000E+00	-1.952E-01	-1.689E-01	1.036E+05
3.225E+00	3.763E+02	1.986E-04	.000E+00	.000E+00	.000E+00	-1.958E-01	-1.749E-01	1.115E+05
3.375E+00	3.784E+02	1.851E-04	1.486E-06	.000E+00	.000E+00	-2.189E-01	-1.955E-01	1.195E+05
3.525E+00	3.800E+02	1.264E-04	3.001E-04	2.994E-02	2.994E-02	-2.468E-01	-2.024E-01	1.259E+05
3.675E+00	3.823E+02	5.279E-03	.000E+00	.000E+00	.000E+00	-5.708E-01	-1.543E-01	1.361E+05
3.825E+00	3.846E+02	8.621E-02	.000E+00	.000E+00	.000E+00	-5.922E-01	3.631E-01	1.466E+05
3.975E+00	3.855E+02	8.662E-01	.000E+00	.000E+00	.000E+00	-7.471E-02	-1.175E+00	1.503E+05
4.125E+00	3.861E+02	1.000E+00	.000E+00	.000E+00	.000E+00	3.199E-02	3.199E-02	1.503E+05
4.275E+00	3.858E+02	1.000E+00	.000E+00	.000E+00	.000E+00	1.115E-01	1.115E-01	1.503E+05
4.425E+00	3.856E+02	1.000E+00	.000E+00	.000E+00	.000E+00	1.576E-01	1.576E-01	1.503E+05
4.575E+00	3.856E+02	1.000E+00	.000E+00	.000E+00	.000E+00	1.731E-01	1.731E-01	1.503E+05
4.725E+00	3.856E+02	1.000E+00	.000E+00	.000E+00	.000E+00	1.668E-01	1.668E-01	1.504E+05
4.875E+00	3.856E+02	1.000E+00	.000E+00	.000E+00	.000E+00	1.502E-01	1.502E-01	1.504E+05
5.025E+00	3.856E+02	1.000E+00	.000E+00	.000E+00	.000E+00	1.331E-01	1.331E-01	1.504E+05
5.175E+00	3.856E+02	1.000E+00	.000E+00	.000E+00	.000E+00	1.196E-01	1.196E-01	1.504E+05
5.325E+00	3.856E+02	1.000E+00	.000E+00	.000E+00	.000E+00	1.101E-01	1.101E-01	1.504E+05
5.475E+00	3.856E+02	1.000E+00	.000E+00	.000E+00	.000E+00	1.020E-01	1.020E-01	1.503E+05
5.625E+00	3.856E+02	1.000E+00	.000E+00	.000E+00	.000E+00	9.347E-02	9.347E-02	1.503E+05
5.775E+00	3.857E+02	1.000E+00	.000E+00	.000E+00	.000E+00	8.541E-02	8.541E-02	1.503E+05
5.925E+00	3.858E+02	1.000E+00	.000E+00	.000E+00	.000E+00	7.910E-02	7.910E-02	1.503E+05
1.999400E-02	41							
7.500E-02	3.733E+02	6.765E-03	2.262E-03	3.586E-03	3.159E-03	7.305E-01	1.663E-02	1.006E+05
2.250E-01	3.730E+02	8.846E-03	.000E+00	.000E+00	.000E+00	1.545E-01	9.896E-02	1.000E+05
3.750E-01	3.730E+02	6.463E-04	3.016E-04	2.998E-02	2.998E-02	2.575E-01	1.076E-01	1.000E+05
5.250E-01	3.730E+02	3.659E-04	.000E+00	.000E+00	.000E+00	2.331E-01	1.120E-01	1.000E+05
6.750E-01	3.730E+02	8.016E-05	.000E+00	.000E+00	.000E+00	1.839E-01	1.136E-01	1.000E+05
8.250E-01	3.730E+02	5.801E-05	.000E+00	.000E+00	.000E+00	1.590E-01	1.149E-01	1.000E+05
9.750E-01	3.730E+02	2.735E-04	3.007E-04	2.997E-02	2.997E-02	2.192E-01	1.203E-01	1.000E+05
1.125E+00	3.730E+02	6.583E-04	9.052E-07	.000E+00	.000E+00	1.073E-02	1.281E-01	1.000E+05
1.275E+00	3.730E+02	5.413E-04	.000E+00	.000E+00	.000E+00	-1.529E-02	1.344E-01	1.000E+05

1.425E+00	3.730E+02	1.086E-04	.000E+00	.000E+00	.000E+00	-1.655E-02	1.362E-01	1.000E+05
1.575E+00	3.730E+02	1.203E-04	1.591E-04	2.997E-02	2.997E-02	5.848E-02	1.389E-01	1.000E+05
1.725E+00	3.730E+02	3.765E-04	1.425E-04	.000E+00	.000E+00	4.715E-02	1.439E-01	1.000E+05
1.875E+00	3.730E+02	3.374E-04	.000E+00	.000E+00	.000E+00	1.532E-01	1.476E-01	1.000E+05
2.025E+00	3.730E+02	7.845E-05	.000E+00	.000E+00	.000E+00	1.836E-01	1.490E-01	1.000E+05
2.175E+00	3.730E+02	3.840E-04	.000E+00	.000E+00	.000E+00	1.441E-01	1.531E-01	1.000E+05
2.325E+00	3.731E+02	3.697E-04	3.016E-04	2.996E-02	2.996E-02	7.216E-02	1.586E-01	1.000E+05
2.475E+00	3.731E+02	6.704E-04	.000E+00	.000E+00	.000E+00	1.157E-01	1.612E-01	1.000E+05
2.625E+00	3.740E+02	1.933E-04	.000E+00	.000E+00	.000E+00	1.119E-01	1.591E-01	1.029E+05
2.775E+00	3.752E+02	2.922E-03	.000E+00	.000E+00	.000E+00	4.228E-02	8.832E-02	1.072E+05
2.925E+00	3.821E+02	2.083E-03	3.016E-04	2.992E-02	2.992E-02	-1.704E-01	-2.147E-01	1.350E+05
3.075E+00	3.805E+02	2.092E-03	.000E+00	.000E+00	.000E+00	-3.356E-01	-2.906E-01	1.283E+05
3.225E+00	3.813E+02	1.687E-04	.000E+00	.000E+00	.000E+00	-3.333E-01	-2.961E-01	1.317E+05
3.375E+00	3.820E+02	6.381E-05	9.986E-06	.000E+00	.000E+00	-3.470E-01	-3.027E-01	1.345E+05
3.525E+00	3.827E+02	1.246E-04	2.916E-04	2.994E-02	2.994E-02	-3.767E-01	-3.097E-01	1.379E+05
3.675E+00	3.841E+02	5.934E-03	.000E+00	.000E+00	.000E+00	-3.341E-01	-2.640E-01	1.445E+05
3.825E+00	3.850E+02	9.238E-02	.000E+00	.000E+00	.000E+00	-2.970E-01	2.562E-01	1.472E+05
3.975E+00	3.855E+02	8.626E-01	.000E+00	.000E+00	.000E+00	-3.471E-01	-1.175E+00	1.502E+05
4.125E+00	3.860E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-4.026E-01	-4.026E-01	1.502E+05
4.275E+00	3.857E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-4.033E-01	-4.033E-01	1.501E+05
4.425E+00	3.855E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-3.451E-01	-3.451E-01	1.502E+05
4.575E+00	3.855E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-2.644E-01	-2.644E-01	1.502E+05
4.725E+00	3.855E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-1.838E-01	-1.838E-01	1.502E+05
4.875E+00	3.855E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-1.090E-01	-1.090E-01	1.502E+05
5.025E+00	3.856E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-4.108E-02	-4.108E-02	1.503E+05
5.175E+00	3.856E+02	1.000E+00	.000E+00	.000E+00	.000E+00	1.658E-02	1.658E-02	1.503E+05
5.325E+00	3.856E+02	1.000E+00	.000E+00	.000E+00	.000E+00	6.058E-02	6.058E-02	1.503E+05
5.475E+00	3.856E+02	1.000E+00	.000E+00	.000E+00	.000E+00	8.875E-02	8.875E-02	1.503E+05
5.625E+00	3.856E+02	1.000E+00	.000E+00	.000E+00	.000E+00	1.011E-01	1.011E-01	1.504E+05
5.775E+00	3.857E+02	1.000E+00	.000E+00	.000E+00	.000E+00	1.007E-01	1.007E-01	1.504E+05
5.925E+00	3.858E+02	1.000E+00	.000E+00	.000E+00	.000E+00	9.203E-02	9.203E-02	1.504E+05
2.204200E-02	41							
7.500E-02	3.714E+02	6.813E-03	2.262E-03	3.586E-03	3.159E-03	.000E+00	.000E+00	1.000E+05
2.250E-01	3.730E+02	9.913E-03	.000E+00	.000E+00	.000E+00	1.343E-01	7.894E-02	1.000E+05
3.750E-01	3.729E+02	7.728E-04	3.016E-04	2.998E-02	2.998E-02	1.882E-01	8.812E-02	1.000E+05

5.250E-01	3.729E+02	4.138E-04	.000E+00	.000E+00	.000E+00	1.913E-01	9.224E-02	1.000E+05
6.750E-01	3.729E+02	9.192E-05	.000E+00	.000E+00	.000E+00	1.943E-01	9.368E-02	1.000E+05
8.250E-01	3.729E+02	6.606E-05	.000E+00	.000E+00	.000E+00	1.813E-01	9.491E-02	1.000E+05
9.750E-01	3.729E+02	3.367E-04	3.007E-04	2.997E-02	2.997E-02	2.726E-01	1.004E-01	1.000E+05
1.125E+00	3.729E+02	7.495E-04	9.052E-07	.000E+00	.000E+00	1.866E-01	1.080E-01	1.000E+05
1.275E+00	3.729E+02	6.163E-04	.000E+00	.000E+00	.000E+00	2.505E-01	1.148E-01	1.000E+05
1.425E+00	3.729E+02	1.247E-04	.000E+00	.000E+00	.000E+00	1.243E-01	1.170E-01	1.000E+05
1.575E+00	3.727E+02	1.354E-04	1.998E-04	2.997E-02	2.997E-02	8.412E-02	1.114E-01	1.000E+05
1.725E+00	3.741E+02	3.578E-04	1.018E-04	.000E+00	.000E+00	4.224E-02	7.753E-02	1.034E+05
1.875E+00	3.797E+02	2.938E-04	.000E+00	.000E+00	.000E+00	2.878E-03	4.301E-02	1.246E+05
2.025E+00	3.857E+02	6.507E-05	.000E+00	.000E+00	.000E+00	-1.932E+01	2.652E-02	1.521E+05
2.175E+00	3.914E+02	1.934E-04	7.105E-07	.000E+00	.000E+00	-1.651E+01	-2.198E-02	1.823E+05
2.325E+00	3.946E+02	1.117E-04	3.009E-04	2.996E-02	2.996E-02	-1.144E+01	-4.599E-02	2.012E+05
2.475E+00	3.970E+02	3.218E-04	.000E+00	.000E+00	.000E+00	-7.921E+00	-7.606E-02	2.163E+05
2.625E+00	3.986E+02	1.542E-04	.000E+00	.000E+00	.000E+00	-5.067E+00	-8.501E-02	2.272E+05
2.775E+00	3.997E+02	1.400E-03	.000E+00	.000E+00	.000E+00	1.724E+00	-1.384E-01	2.345E+05
2.925E+00	3.993E+02	4.979E-04	3.016E-04	2.992E-02	2.992E-02	1.046E+01	-1.683E-01	2.318E+05
3.075E+00	3.971E+02	1.272E-03	.000E+00	.000E+00	.000E+00	1.000E+01	-2.031E-01	2.168E+05
3.225E+00	3.949E+02	1.442E-04	.000E+00	.000E+00	.000E+00	1.249E+01	-2.004E-01	2.027E+05
3.375E+00	3.921E+02	2.532E-05	2.632E-05	.000E+00	.000E+00	6.055E+00	-2.028E-01	1.858E+05
3.525E+00	3.890E+02	4.421E-05	2.753E-04	2.994E-02	2.994E-02	-1.710E-01	-2.087E-01	1.688E+05
3.675E+00	3.857E+02	6.278E-03	.000E+00	.000E+00	.000E+00	1.164E+00	-2.955E-01	1.519E+05
3.825E+00	3.871E+02	9.851E-02	.000E+00	.000E+00	.000E+00	-7.149E-01	1.782E-01	1.505E+05
3.975E+00	3.854E+02	8.600E-01	.000E+00	.000E+00	.000E+00	-5.444E-01	-1.177E+00	1.501E+05
4.125E+00	3.860E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-4.083E-01	-4.083E-01	1.501E+05
4.275E+00	3.857E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-3.630E-01	-3.630E-01	1.502E+05
4.425E+00	3.855E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-3.596E-01	-3.596E-01	1.502E+05
4.575E+00	3.855E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-3.675E-01	-3.675E-01	1.502E+05
4.725E+00	3.855E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-3.812E-01	-3.812E-01	1.502E+05
4.875E+00	3.855E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-4.012E-01	-4.012E-01	1.502E+05
5.025E+00	3.855E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-4.188E-01	-4.188E-01	1.502E+05
5.175E+00	3.855E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-4.171E-01	-4.171E-01	1.502E+05
5.325E+00	3.855E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-3.847E-01	-3.847E-01	1.502E+05
5.475E+00	3.855E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-3.202E-01	-3.202E-01	1.502E+05
5.625E+00	3.855E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-2.233E-01	-2.233E-01	1.502E+05

5.775E+00	3.856E+02	1.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	-7.282E-02	-7.282E-02	1.502E+05
5.925E+00	3.856E+02	1.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	1.451E-01	1.451E-01	1.502E+05
2.409000E-02	41								
7.500E-02	3.736E+02	6.796E-03	2.262E-03	3.586E-03	3.159E-03	5.046E+00	6.380E-04	1.017E+05	
2.250E-01	3.731E+02	1.084E-02	.000E+00	.000E+00	.000E+00	-1.365E+01	5.730E-02	1.000E+05	
3.750E-01	3.749E+02	7.680E-04	3.016E-04	2.998E-02	2.998E-02	-8.646E+00	2.523E-02	1.062E+05	
5.250E-01	3.777E+02	3.802E-04	.000E+00	.000E+00	.000E+00	-2.341E-01	-4.822E-03	1.166E+05	
6.750E-01	3.828E+02	7.447E-05	.000E+00	.000E+00	.000E+00	-8.115E-02	-1.893E-02	1.382E+05	
8.250E-01	3.878E+02	6.817E-05	.000E+00	.000E+00	.000E+00	-3.238E+01	-3.057E-02	1.627E+05	
9.750E-01	3.923E+02	1.786E-04	3.007E-04	2.997E-02	2.997E-02	-3.152E+01	-6.267E-02	1.874E+05	
1.125E+00	3.952E+02	2.530E-04	9.052E-07	.000E+00	.000E+00	-5.474E+00	-1.050E-01	2.052E+05	
1.275E+00	3.958E+02	2.898E-04	.000E+00	.000E+00	.000E+00	4.454E-03	-1.279E-01	2.085E+05	
1.425E+00	3.958E+02	6.250E-05	.000E+00	.000E+00	.000E+00	-5.820E-01	-1.342E-01	2.084E+05	
1.575E+00	3.958E+02	5.111E-05	2.370E-04	2.997E-02	2.997E-02	-9.492E-01	-1.368E-01	2.087E+05	
1.725E+00	3.959E+02	1.015E-04	6.458E-05	.000E+00	.000E+00	2.125E-01	-1.372E-01	2.092E+05	
1.875E+00	3.958E+02	1.716E-04	.000E+00	.000E+00	.000E+00	-6.322E-01	-1.311E-01	2.090E+05	
2.025E+00	3.959E+02	5.343E-05	.000E+00	.000E+00	.000E+00	-1.390E-01	-1.249E-01	2.096E+05	
2.175E+00	3.960E+02	9.982E-05	1.184E-05	.000E+00	.000E+00	-1.453E-01	-1.220E-01	2.098E+05	
2.325E+00	3.963E+02	7.197E-05	2.898E-04	2.996E-02	2.996E-02	-1.271E-01	-1.168E-01	2.119E+05	
2.475E+00	3.966E+02	3.169E-04	.000E+00	.000E+00	.000E+00	-8.769E-02	-1.032E-01	2.139E+05	
2.625E+00	3.964E+02	1.725E-04	.000E+00	.000E+00	.000E+00	-7.767E-02	-9.481E-02	2.129E+05	
2.775E+00	3.961E+02	1.492E-03	.000E+00	.000E+00	.000E+00	-2.019E-02	-5.893E-02	2.106E+05	
2.925E+00	3.949E+02	3.266E-04	3.016E-04	2.992E-02	2.992E-02	-5.136E-02	-6.447E-02	2.027E+05	
3.075E+00	3.944E+02	1.293E-03	.000E+00	.000E+00	.000E+00	-1.428E-02	-3.661E-02	1.999E+05	
3.225E+00	3.929E+02	2.514E-04	.000E+00	.000E+00	.000E+00	-1.195E-02	-2.674E-02	1.907E+05	
3.375E+00	3.915E+02	3.182E-05	4.885E-05	.000E+00	.000E+00	-2.026E-02	-2.545E-02	1.828E+05	
3.525E+00	3.904E+02	3.111E-05	2.527E-04	2.994E-02	2.994E-02	-1.375E-02	-2.524E-02	1.763E+05	
3.675E+00	3.893E+02	5.000E-03	.000E+00	.000E+00	.000E+00	-8.265E-02	-9.526E-02	1.706E+05	
3.825E+00	3.857E+02	1.030E-01	.000E+00	.000E+00	.000E+00	-8.938E-02	1.414E-01	1.496E+05	
3.975E+00	3.856E+02	8.581E-01	.000E+00	.000E+00	.000E+00	-4.753E-02	-1.180E+00	1.503E+05	
4.125E+00	3.861E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-9.729E-02	-9.729E-02	1.503E+05	
4.275E+00	3.858E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-1.188E-01	-1.188E-01	1.503E+05	
4.425E+00	3.856E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-1.394E-01	-1.394E-01	1.502E+05	
4.575E+00	3.855E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-1.644E-01	-1.644E-01	1.502E+05	
4.725E+00	3.855E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-1.795E-01	-1.795E-01	1.502E+05	

4.875E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	-1.722E-01	-1.722E-01	1.501E+05
5.025E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	-1.438E-01	-1.438E-01	1.501E+05
5.175E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	-1.066E-01	-1.066E-01	1.501E+05
5.325E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	-7.282E-02	-7.282E-02	1.500E+05
5.475E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	-4.758E-02	-4.758E-02	1.500E+05
5.625E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	-3.031E-02	-3.031E-02	1.500E+05
5.775E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	-2.197E-02	-2.197E-02	1.500E+05
5.925E+00	3.855E+02	1.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	-2.206E-02	-2.206E-02	1.500E+05
2.613800E-02	41								
7.500E-02	3.759E+02	6.783E-03	2.262E-03	3.586E-03	3.159E-03	.000E+00	.000E+00	.000E+00	1.100E+05
2.250E-01	3.789E+02	9.301E-03	.000E+00	.000E+00	.000E+00	.000E+00	-9.477E+00	-2.224E-01	1.216E+05
3.750E-01	3.798E+02	3.091E-04	3.016E-04	2.998E-02	2.998E-02	.000E+00	-8.213E-01	-2.265E-01	1.253E+05
5.250E-01	3.799E+02	3.186E-04	.000E+00	.000E+00	.000E+00	.000E+00	-2.563E-01	-2.158E-01	1.258E+05
6.750E-01	3.806E+02	8.268E-05	.000E+00	.000E+00	.000E+00	.000E+00	-2.363E-01	-2.091E-01	1.287E+05
8.250E-01	3.815E+02	9.135E-05	.000E+00	.000E+00	.000E+00	.000E+00	-6.271E+00	-2.008E-01	1.326E+05
9.750E-01	3.826E+02	1.651E-04	3.007E-04	2.997E-02	2.997E-02	.000E+00	-7.757E+00	-1.904E-01	1.376E+05
1.125E+00	3.835E+02	2.085E-04	9.052E-07	.000E+00	.000E+00	.000E+00	-3.615E+00	-1.800E-01	1.414E+05
1.275E+00	3.839E+02	3.984E-04	.000E+00	.000E+00	.000E+00	.000E+00	-5.212E+00	-1.574E-01	1.432E+05
1.425E+00	3.845E+02	8.749E-05	.000E+00	.000E+00	.000E+00	.000E+00	-5.329E+00	-1.480E-01	1.459E+05
1.575E+00	3.851E+02	5.691E-05	2.681E-04	2.997E-02	2.997E-02	.000E+00	-1.244E+00	-1.395E-01	1.488E+05
1.725E+00	3.854E+02	6.198E-05	3.352E-05	.000E+00	.000E+00	.000E+00	-1.735E-01	-1.352E-01	1.506E+05
1.875E+00	3.859E+02	2.251E-04	.000E+00	.000E+00	.000E+00	.000E+00	-1.516E-01	-1.206E-01	1.528E+05
2.025E+00	3.860E+02	7.379E-05	.000E+00	.000E+00	.000E+00	.000E+00	-1.029E-01	-1.126E-01	1.535E+05
2.175E+00	3.859E+02	9.033E-05	3.439E-05	.000E+00	.000E+00	.000E+00	-1.033E-01	-1.098E-01	1.530E+05
2.325E+00	3.860E+02	7.319E-05	2.672E-04	2.996E-02	2.996E-02	.000E+00	-1.002E-01	-1.064E-01	1.531E+05
2.475E+00	3.861E+02	4.224E-04	.000E+00	.000E+00	.000E+00	.000E+00	-7.999E-02	-9.308E-02	1.537E+05
2.625E+00	3.857E+02	2.404E-04	.000E+00	.000E+00	.000E+00	.000E+00	-7.241E-02	-8.540E-02	1.519E+05
2.775E+00	3.853E+02	2.035E-03	.000E+00	.000E+00	.000E+00	.000E+00	2.037E-02	-4.508E-02	1.499E+05
2.925E+00	3.846E+02	2.721E-04	3.016E-04	2.992E-02	2.992E-02	.000E+00	-4.682E-02	-5.166E-02	1.468E+05
3.075E+00	3.848E+02	1.680E-03	.000E+00	.000E+00	.000E+00	.000E+00	-1.920E-02	-2.064E-02	1.477E+05
3.225E+00	3.849E+02	3.545E-04	.000E+00	.000E+00	.000E+00	.000E+00	-4.755E-02	-1.321E-02	1.479E+05
3.375E+00	3.850E+02	3.106E-05	7.621E-05	.000E+00	.000E+00	.000E+00	-1.780E-02	-1.297E-02	1.486E+05
3.525E+00	3.853E+02	3.721E-05	2.254E-04	2.994E-02	2.994E-02	.000E+00	-3.277E-02	-1.073E-02	1.499E+05
3.675E+00	3.855E+02	4.973E-03	.000E+00	.000E+00	.000E+00	.000E+00	2.670E-02	1.899E-02	1.511E+05
3.825E+00	3.857E+02	1.047E-01	.000E+00	.000E+00	.000E+00	.000E+00	-4.463E-02	1.158E-01	1.501E+05

3.975E+00	3.855E+02	8.565E-01	.000E+00	.000E+00	.000E+00	1.331E-01	-1.170E+00	1.503E+05
4.125E+00	3.860E+02	1.000E+00	.000E+00	.000E+00	.000E+00	1.634E-01	1.634E-01	1.502E+05
4.275E+00	3.858E+02	1.000E+00	.000E+00	.000E+00	.000E+00	2.166E-01	2.166E-01	1.502E+05
4.425E+00	3.855E+02	1.000E+00	.000E+00	.000E+00	.000E+00	2.567E-01	2.567E-01	1.502E+05
4.575E+00	3.855E+02	1.000E+00	.000E+00	.000E+00	.000E+00	2.801E-01	2.801E-01	1.502E+05
4.725E+00	3.855E+02	1.000E+00	.000E+00	.000E+00	.000E+00	2.875E-01	2.875E-01	1.502E+05
4.875E+00	3.855E+02	1.000E+00	.000E+00	.000E+00	.000E+00	2.810E-01	2.810E-01	1.501E+05
5.025E+00	3.855E+02	1.000E+00	.000E+00	.000E+00	.000E+00	2.623E-01	2.623E-01	1.501E+05
5.175E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	2.330E-01	2.330E-01	1.501E+05
5.325E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	1.961E-01	1.961E-01	1.501E+05
5.475E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	1.559E-01	1.559E-01	1.501E+05
5.625E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	1.167E-01	1.167E-01	1.501E+05
5.775E+00	3.855E+02	1.000E+00	.000E+00	.000E+00	.000E+00	8.133E-02	8.133E-02	1.500E+05
5.925E+00	3.855E+02	1.000E+00	.000E+00	.000E+00	.000E+00	5.027E-02	5.027E-02	1.500E+05
2.799400E-02	41							
7.500E-02	3.794E+02	6.794E-03	2.262E-03	3.586E-03	3.159E-03	.000E+00	.000E+00	1.234E+05
2.250E-01	3.871E+02	7.098E-03	.000E+00	.000E+00	.000E+00	6.405E-02	-1.321E-01	1.589E+05
3.750E-01	3.850E+02	1.641E-04	3.016E-04	2.998E-02	2.998E-02	1.805E+00	-1.463E-01	1.486E+05
5.250E-01	3.837E+02	2.802E-04	.000E+00	.000E+00	.000E+00	4.070E+00	-1.531E-01	1.423E+05
6.750E-01	3.819E+02	8.424E-05	.000E+00	.000E+00	.000E+00	4.290E+00	-1.589E-01	1.343E+05
8.250E-01	3.801E+02	9.608E-05	.000E+00	.000E+00	.000E+00	4.415E+00	-1.671E-01	1.264E+05
9.750E-01	3.782E+02	1.071E-04	3.007E-04	2.997E-02	2.997E-02	6.021E+00	-1.810E-01	1.188E+05
1.125E+00	3.757E+02	1.271E-04	9.052E-07	.000E+00	.000E+00	6.760E+00	-2.004E-01	1.093E+05
1.275E+00	3.730E+02	6.664E-04	.000E+00	.000E+00	.000E+00	2.907E-01	-1.907E-01	1.000E+05
1.425E+00	3.729E+02	1.514E-04	.000E+00	.000E+00	.000E+00	-4.257E-01	-1.849E-01	1.000E+05
1.575E+00	3.729E+02	7.602E-05	2.885E-04	2.997E-02	2.997E-02	-2.776E-01	-1.798E-01	1.000E+05
1.725E+00	3.729E+02	6.018E-05	1.308E-05	.000E+00	.000E+00	1.407E-01	-1.767E-01	1.000E+05
1.875E+00	3.729E+02	3.767E-04	.000E+00	.000E+00	.000E+00	-7.290E-01	-1.655E-01	1.000E+05
2.025E+00	3.730E+02	1.156E-04	.000E+00	.000E+00	.000E+00	-1.435E+00	-1.635E-01	1.000E+05
2.175E+00	3.735E+02	6.230E-05	6.241E-05	.000E+00	.000E+00	-7.562E-01	-1.670E-01	1.013E+05
2.325E+00	3.738E+02	7.136E-05	2.392E-04	2.996E-02	2.996E-02	-1.058E+00	-1.690E-01	1.021E+05
2.475E+00	3.741E+02	6.066E-04	.000E+00	.000E+00	.000E+00	-3.780E+00	-1.551E-01	1.034E+05
2.625E+00	3.756E+02	3.556E-04	.000E+00	.000E+00	.000E+00	-3.442E+00	-1.416E-01	1.087E+05
2.775E+00	3.769E+02	2.589E-03	.000E+00	.000E+00	.000E+00	-1.753E+00	-8.602E-02	1.138E+05
2.925E+00	3.776E+02	1.593E-04	3.016E-04	2.992E-02	2.992E-02	-1.618E-01	-9.876E-02	1.165E+05

3.075E+00	3.801E+02	1.929E-03	.000E+00	.000E+00	.000E+00	-1.316E-01	-7.988E-02	1.265E+05
3.225E+00	3.812E+02	3.913E-04	.000E+00	.000E+00	.000E+00	-1.238E-01	-7.604E-02	1.314E+05
3.375E+00	3.824E+02	1.631E-05	1.040E-04	.000E+00	.000E+00	-9.119E-01	-7.642E-02	1.364E+05
3.525E+00	3.838E+02	4.303E-05	1.976E-04	2.994E-02	2.994E-02	-2.742E+00	-7.472E-02	1.426E+05
3.675E+00	3.848E+02	5.506E-03	.000E+00	.000E+00	.000E+00	-1.078E+00	-1.635E-02	1.478E+05
3.825E+00	3.854E+02	1.058E-01	.000E+00	.000E+00	.000E+00	-2.316E-01	9.451E-02	1.498E+05
3.975E+00	3.854E+02	8.553E-01	.000E+00	.000E+00	.000E+00	-2.074E-02	-1.161E+00	1.500E+05
4.125E+00	3.859E+02	1.000E+00	.000E+00	.000E+00	.000E+00	2.590E-02	2.590E-02	1.500E+05
4.275E+00	3.856E+02	1.000E+00	.000E+00	.000E+00	.000E+00	6.282E-02	6.282E-02	1.500E+05
4.425E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	1.006E-01	1.006E-01	1.501E+05
4.575E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	1.490E-01	1.490E-01	1.501E+05
4.725E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	2.001E-01	2.001E-01	1.501E+05
4.875E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	2.404E-01	2.404E-01	1.501E+05
5.025E+00	3.855E+02	1.000E+00	.000E+00	.000E+00	.000E+00	2.639E-01	2.639E-01	1.501E+05
5.175E+00	3.855E+02	1.000E+00	.000E+00	.000E+00	.000E+00	2.691E-01	2.691E-01	1.501E+05
5.325E+00	3.855E+02	1.000E+00	.000E+00	.000E+00	.000E+00	2.572E-01	2.572E-01	1.502E+05
5.475E+00	3.855E+02	1.000E+00	.000E+00	.000E+00	.000E+00	2.323E-01	2.323E-01	1.502E+05
5.625E+00	3.855E+02	1.000E+00	.000E+00	.000E+00	.000E+00	1.990E-01	1.990E-01	1.502E+05
5.775E+00	3.856E+02	1.000E+00	.000E+00	.000E+00	.000E+00	1.591E-01	1.591E-01	1.502E+05
5.925E+00	3.857E+02	1.000E+00	.000E+00	.000E+00	.000E+00	1.149E-01	1.149E-01	1.502E+05
3.004200E-02	41							
7.500E-02	3.827E+02	6.803E-03	2.262E-03	3.586E-03	3.159E-03	.000E+00	.000E+00	1.379E+05
2.250E-01	3.933E+02	5.848E-03	.000E+00	.000E+00	.000E+00	1.856E-01	-5.990E-02	1.933E+05
3.750E-01	3.928E+02	6.641E-05	3.016E-04	2.998E-02	2.998E-02	1.114E+00	-6.740E-02	1.904E+05
5.250E-01	3.922E+02	2.154E-04	.000E+00	.000E+00	.000E+00	1.703E+00	-7.588E-02	1.865E+05
6.750E-01	3.914E+02	6.665E-05	.000E+00	.000E+00	.000E+00	1.777E+00	-8.076E-02	1.822E+05
8.250E-01	3.906E+02	7.006E-05	.000E+00	.000E+00	.000E+00	1.667E+00	-8.588E-02	1.778E+05
9.750E-01	3.899E+02	4.064E-05	3.007E-04	2.997E-02	2.997E-02	2.134E+00	-9.116E-02	1.737E+05
1.125E+00	3.889E+02	3.002E-05	9.052E-07	.000E+00	.000E+00	2.981E+00	-9.694E-02	1.685E+05
1.275E+00	3.877E+02	4.194E-04	.000E+00	.000E+00	.000E+00	3.870E+00	-1.097E-01	1.618E+05
1.425E+00	3.860E+02	1.153E-04	.000E+00	.000E+00	.000E+00	3.497E+00	-1.154E-01	1.534E+05
1.575E+00	3.845E+02	4.341E-05	2.999E-04	2.997E-02	2.997E-02	3.605E+00	-1.223E-01	1.460E+05
1.725E+00	3.829E+02	2.656E-05	1.659E-06	.000E+00	.000E+00	4.346E+00	-1.304E-01	1.386E+05
1.875E+00	3.811E+02	3.321E-04	.000E+00	.000E+00	.000E+00	5.307E+00	-1.549E-01	1.307E+05
2.025E+00	3.788E+02	1.029E-04	.000E+00	.000E+00	.000E+00	4.748E+00	-1.659E-01	1.213E+05

2.175E+00	3.768E+02	3.786E-05	9.921E-05	.000E+00	.000E+00	4.971E+00	-1.747E-01	1.133E+05
2.325E+00	3.747E+02	6.875E-05	2.024E-04	2.996E-02	2.996E-02	3.439E+00	-1.841E-01	1.055E+05
2.475E+00	3.733E+02	6.248E-04	.000E+00	.000E+00	.000E+00	-3.638E-01	-1.879E-01	1.004E+05
2.625E+00	3.733E+02	4.111E-04	.000E+00	.000E+00	.000E+00	-8.442E-01	-1.887E-01	1.006E+05
2.775E+00	3.736E+02	2.853E-03	.000E+00	.000E+00	.000E+00	-3.105E+00	-2.072E-01	1.015E+05
2.925E+00	3.747E+02	6.423E-05	3.016E-04	2.992E-02	2.992E-02	-2.621E-01	-2.114E-01	1.056E+05
3.075E+00	3.761E+02	2.146E-03	.000E+00	.000E+00	.000E+00	-2.529E-01	-2.075E-01	1.105E+05
3.225E+00	3.780E+02	4.188E-04	.000E+00	.000E+00	.000E+00	-2.648E-01	-2.075E-01	1.178E+05
3.375E+00	3.802E+02	7.528E-06	1.367E-04	.000E+00	.000E+00	-4.134E+00	-2.080E-01	1.268E+05
3.525E+00	3.829E+02	1.479E-04	1.649E-04	2.994E-02	2.994E-02	-3.703E+00	-1.967E-01	1.388E+05
3.675E+00	3.844E+02	6.696E-03	.000E+00	.000E+00	.000E+00	-2.148E+00	-8.839E-02	1.455E+05
3.825E+00	3.852E+02	1.074E-01	.000E+00	.000E+00	.000E+00	-3.858E-01	6.542E-02	1.495E+05
3.975E+00	3.853E+02	8.544E-01	.000E+00	.000E+00	.000E+00	-1.717E-01	-1.160E+00	1.500E+05
4.125E+00	3.858E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-1.668E-01	-1.668E-01	1.500E+05
4.275E+00	3.856E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-1.702E-01	-1.702E-01	1.500E+05
4.425E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-1.768E-01	-1.768E-01	1.500E+05
4.575E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-1.835E-01	-1.835E-01	1.500E+05
4.725E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-1.847E-01	-1.847E-01	1.500E+05
4.875E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-1.773E-01	-1.773E-01	1.501E+05
5.025E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-1.622E-01	-1.622E-01	1.501E+05
5.175E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-1.409E-01	-1.409E-01	1.501E+05
5.325E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-1.11E-01	-1.11E-01	1.501E+05
5.475E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-7.114E-02	-7.114E-02	1.501E+05
5.625E+00	3.855E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-2.163E-02	-2.163E-02	1.501E+05
5.775E+00	3.856E+02	1.000E+00	.000E+00	.000E+00	.000E+00	3.238E-02	3.238E-02	1.502E+05
5.925E+00	3.856E+02	1.000E+00	.000E+00	.000E+00	.000E+00	8.621E-02	8.621E-02	1.502E+05

3.209000E-02

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7.500E-02	3.858E+02	6.817E-03	2.262E-03	3.586E-03	3.159E-03	.000E+00	.000E+00	1.523E+05
2.250E-01	3.980E+02	5.093E-03	.000E+00	.000E+00	.000E+00	7.521E-01	-5.098E-02	2.231E+05
3.750E-01	3.979E+02	6.221E-05	3.016E-04	2.998E-02	2.998E-02	1.566E+00	-5.144E-02	2.225E+05
5.250E-01	3.976E+02	1.840E-04	.000E+00	.000E+00	.000E+00	2.353E+00	-5.540E-02	2.201E+05
6.750E-01	3.970E+02	5.823E-05	.000E+00	.000E+00	.000E+00	3.338E-01	-5.706E-02	2.167E+05
8.250E-01	3.964E+02	5.946E-05	.000E+00	.000E+00	.000E+00	-3.243E-02	-5.823E-02	2.125E+05
9.750E-01	3.957E+02	2.533E-05	3.007E-04	2.997E-02	2.997E-02	-4.945E-02	-5.913E-02	2.080E+05
1.125E+00	3.950E+02	9.750E-06	9.052E-07	.000E+00	.000E+00	-2.590E-02	-5.972E-02	2.036E+05

1.275E+00	3.943E+02	3.425E-04	.000E+00	.000E+00	.000E+00	-1.561E-02	-5.830E-02	1.992E+05
1.425E+00	3.934E+02	9.587E-05	.000E+00	.000E+00	.000E+00	-2.867E-02	-5.702E-02	1.939E+05
1.575E+00	3.926E+02	2.566E-05	3.007E-04	2.997E-02	2.997E-02	-4.854E-02	-5.647E-02	1.881E+05
1.725E+00	3.914E+02	7.586E-06	9.190E-07	.000E+00	.000E+00	-2.746E-02	-5.592E-02	1.819E+05
1.875E+00	3.901E+02	2.481E-04	.000E+00	.000E+00	.000E+00	-1.628E-02	-5.244E-02	1.750E+05
2.025E+00	3.884E+02	8.101E-05	.000E+00	.000E+00	.000E+00	-3.086E-02	-4.975E-02	1.658E+05
2.175E+00	3.865E+02	1.461E-05	1.395E-04	.000E+00	.000E+00	-4.068E-02	-4.862E-02	1.557E+05
2.325E+00	3.844E+02	2.842E-05	1.621E-04	2.996E-02	2.996E-02	-2.505E-02	-4.818E-02	1.454E+05
2.475E+00	3.822E+02	4.561E-04	.000E+00	.000E+00	.000E+00	-2.622E-02	-4.648E-02	1.358E+05
2.625E+00	3.809E+02	3.349E-04	.000E+00	.000E+00	.000E+00	-5.920E-02	-5.994E-02	1.298E+05
2.775E+00	3.811E+02	1.207E-03	5.271E-06	.000E+00	.000E+00	-2.526E-01	-2.858E-01	1.307E+05
2.925E+00	3.796E+02	4.523E-05	2.963E-04	2.992E-02	2.992E-02	4.761E+00	-2.961E-01	1.245E+05
3.075E+00	3.786E+02	1.961E-03	.000E+00	.000E+00	.000E+00	-5.152E+00	-3.294E-01	1.202E+05
3.225E+00	3.795E+02	3.815E-04	.000E+00	.000E+00	.000E+00	-5.003E+00	-3.351E-01	1.241E+05
3.375E+00	3.808E+02	1.315E-05	1.700E-04	2.994E-02	2.994E-02	-3.563E-01	-3.342E-01	1.294E+05
3.525E+00	3.815E+02	2.096E-04	1.316E-04	.000E+00	.000E+00	-3.882E-01	-3.378E-01	1.325E+05
3.675E+00	3.835E+02	8.648E-03	.000E+00	.000E+00	.000E+00	-2.312E-01	-1.996E-01	1.415E+05
3.825E+00	3.851E+02	1.097E-01	.000E+00	.000E+00	.000E+00	-1.728E-01	2.723E-02	1.491E+05
3.975E+00	3.854E+02	8.538E-01	.000E+00	.000E+00	.000E+00	-3.182E-01	-1.165E+00	1.500E+05
4.125E+00	3.859E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-3.484E-01	-3.484E-01	1.500E+05
4.275E+00	3.856E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-3.776E-01	-3.776E-01	1.500E+05
4.425E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-3.774E-01	-3.774E-01	1.500E+05
4.575E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-3.602E-01	-3.602E-01	1.500E+05
4.725E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-3.393E-01	-3.393E-01	1.500E+05
4.875E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-3.148E-01	-3.148E-01	1.500E+05
5.025E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-2.843E-01	-2.843E-01	1.500E+05
5.175E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-2.479E-01	-2.479E-01	1.500E+05
5.325E+00	3.853E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-2.069E-01	-2.069E-01	1.500E+05
5.475E+00	3.853E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-1.615E-01	-1.615E-01	1.500E+05
5.625E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-1.095E-01	-1.095E-01	1.500E+05
5.775E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-5.231E-02	-5.231E-02	1.500E+05
5.925E+00	3.855E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-6.303E-03	-6.303E-03	1.500E+05
3.401000E-02	41							
7.500E-02	3.885E+02	6.825E-03	2.262E-03	3.586E-03	3.159E-03	.000E+00	.000E+00	1.659E+05
2.250E-01	4.000E+02	4.759E-03	.000E+00	.000E+00	.000E+00	2.595E-01	1.137E-02	2.367E+05

3.750E-01	3.989E+02	6.321E-05	3.016E-04	2.998E-02	2.998E-02	1.335E+00	9.464E-03	2.289E+05
5.250E-01	3.980E+02	1.793E-04	.000E+00	.000E+00	.000E+00	1.392E+00	7.450E-03	2.232E+05
6.750E-01	3.973E+02	6.088E-05	.000E+00	.000E+00	.000E+00	1.477E-01	4.329E-03	2.186E+05
8.250E-01	3.969E+02	5.838E-05	.000E+00	.000E+00	.000E+00	2.988E-02	-1.694E-03	2.158E+05
9.750E-01	3.968E+02	2.174E-05	3.007E-04	2.997E-02	2.997E-02	-7.101E-02	-8.828E-03	2.154E+05
1.125E+00	3.971E+02	4.051E-06	9.052E-07	.000E+00	.000E+00	-1.029E-01	-1.798E-02	2.168E+05
1.275E+00	3.977E+02	3.095E-04	.000E+00	.000E+00	.000E+00	-1.298E-01	-4.893E-02	2.209E+05
1.425E+00	3.988E+02	8.430E-05	.000E+00	.000E+00	.000E+00	-1.084E-01	-6.354E-02	2.287E+05
1.575E+00	3.999E+02	1.848E-05	3.007E-04	2.997E-02	2.997E-02	-8.341E-02	-7.223E-02	2.363E+05
1.725E+00	4.008E+02	3.465E-06	9.190E-07	.000E+00	.000E+00	-1.385E-01	-7.787E-02	2.426E+05
1.875E+00	4.014E+02	1.791E-04	.000E+00	.000E+00	.000E+00	-2.055E-01	-8.478E-02	2.469E+05
2.025E+00	4.015E+02	5.650E-05	.000E+00	.000E+00	.000E+00	-6.954E-02	-9.012E-02	2.477E+05
2.175E+00	4.016E+02	1.065E-05	1.780E-04	2.996E-02	2.996E-02	-7.195E-01	-9.596E-02	2.482E+05
2.325E+00	4.019E+02	1.374E-05	1.236E-04	.000E+00	.000E+00	-1.708E+00	-1.049E-01	2.505E+05
2.475E+00	4.025E+02	2.553E-04	.000E+00	.000E+00	.000E+00	-2.744E+00	-1.279E-01	2.555E+05
2.625E+00	4.036E+02	1.820E-04	.000E+00	.000E+00	.000E+00	-2.233E+00	-1.419E-01	2.639E+05
2.775E+00	4.045E+02	2.818E-04	2.079E-05	.000E+00	.000E+00	-1.595E-01	-1.696E-01	2.708E+05
2.925E+00	4.044E+02	2.060E-05	2.808E-04	2.992E-02	2.992E-02	6.416E-01	-1.738E-01	2.700E+05
3.075E+00	4.041E+02	8.971E-04	.000E+00	.000E+00	.000E+00	5.931E+00	-1.992E-01	2.675E+05
3.225E+00	4.014E+02	2.327E-04	.000E+00	.000E+00	.000E+00	9.058E+00	-2.013E-01	2.471E+05
3.375E+00	3.971E+02	2.082E-05	2.007E-04	2.994E-02	2.994E-02	1.229E+01	-2.002E-01	2.173E+05
3.525E+00	3.919E+02	1.001E-04	1.009E-04	.000E+00	.000E+00	1.694E+01	-2.077E-01	1.847E+05
3.675E+00	3.851E+02	9.967E-03	.000E+00	.000E+00	.000E+00	-3.710E-01	-2.889E-01	1.491E+05
3.825E+00	3.853E+02	1.127E-01	.000E+00	.000E+00	.000E+00	-4.426E-01	-1.524E-02	1.493E+05
3.975E+00	3.853E+02	8.537E-01	.000E+00	.000E+00	.000E+00	-3.390E-01	-1.171E+00	1.500E+05
4.125E+00	3.859E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-3.239E-01	-3.239E-01	1.500E+05
4.275E+00	3.856E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-2.985E-01	-2.985E-01	1.500E+05
4.425E+00	3.853E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-2.682E-01	-2.682E-01	1.500E+05
4.575E+00	3.853E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-2.352E-01	-2.352E-01	1.500E+05
4.725E+00	3.853E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-2.040E-01	-2.040E-01	1.500E+05
4.875E+00	3.853E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-1.866E-01	-1.866E-01	1.499E+05
5.025E+00	3.853E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-1.902E-01	-1.902E-01	1.499E+05
5.175E+00	3.853E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-2.105E-01	-2.105E-01	1.499E+05
5.325E+00	3.853E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-2.368E-01	-2.368E-01	1.499E+05
5.475E+00	3.853E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-2.581E-01	-2.581E-01	1.500E+05

5.625E+00	3.853E+02	1.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	-2.711E-01	-2.711E-01	1.500E+05
5.775E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	-2.792E-01	-2.792E-01	1.500E+05
5.925E+00	3.855E+02	1.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	-2.832E-0	-2.832E-01	1.500E+05
3.612200E-02	41								
7.500E-02	3.912E+02	6.835E-03	2.262E-03	3.586E-03	3.159E-03	.000E+00	.000E+00	.000E+00	1.811E+05
2.250E-01	4.015E+02	4.055E-03	1.643E-06	.000E+00	.000E+00	-6.483E+00	-1.338E-01	2.476E+05	
3.750E-01	4.021E+02	3.528E-05	2.999E-04	2.998E-02	2.998E-02	-1.651E-01	-1.355E-01	2.525E+05	
5.250E-01	4.032E+02	1.519E-04	.000E+00	.000E+00	.000E+00	-1.668E-01	-1.315E-01	2.607E+05	
6.750E-01	4.042E+02	4.956E-05	.000E+00	.000E+00	.000E+00	-3.302E+00	-1.270E-01	2.686E+05	
8.250E-01	4.051E+02	4.675E-05	.000E+00	.000E+00	.000E+00	-5.502E+00	-1.218E-01	2.752E+05	
9.750E-01	4.057E+02	1.845E-05	3.007E-04	2.997E-02	2.997E-02	-3.484E+00	-1.159E-01	2.805E+05	
1.125E+00	4.061E+02	6.969E-06	9.052E-07	.000E+00	.000E+00	-1.880E+00	-1.095E-01	2.841E+05	
1.275E+00	4.064E+02	2.375E-04	.000E+00	.000E+00	.000E+00	1.348E+00	-9.650E-02	2.859E+05	
1.425E+00	4.062E+02	6.818E-05	.000E+00	.000E+00	.000E+00	3.311E+00	-8.690E-02	2.845E+05	
1.575E+00	4.058E+02	1.937E-05	3.007E-04	2.997E-02	2.997E-02	4.657E+00	-7.789E-02	2.810E+05	
1.725E+00	4.051E+02	2.570E-06	9.190E-07	.000E+00	.000E+00	6.520E+00	-6.974E-02	2.757E+05	
1.875E+00	4.043E+02	1.595E-04	.000E+00	.000E+00	.000E+00	8.279E+00	-5.700E-02	2.692E+05	
2.025E+00	4.033E+02	5.914E-05	.000E+00	.000E+00	.000E+00	4.667E-01	-4.619E-02	2.613E+05	
2.175E+00	4.021E+02	1.347E-05	2.164E-04	2.996E-02	2.996E-02	-3.527E-02	-3.863E-02	2.520E+05	
2.325E+00	4.007E+02	1.045E-05	8.317E-05	.000E+00	.000E+00	-1.603E-02	-3.256E-02	2.423E+05	
2.475E+00	3.994E+02	2.630E-04	.000E+00	.000E+00	.000E+00	3.103E-03	-2.024E-02	2.327E+05	
2.625E+00	3.977E+02	2.164E-04	.000E+00	.000E+00	.000E+00	1.507E-02	-9.242E-03	2.214E+05	
2.775E+00	3.959E+02	1.937E-04	4.735E-05	.000E+00	.000E+00	3.805E-03	-1.140E-02	2.094E+05	
2.925E+00	3.945E+02	3.950E-05	2.542E-04	2.992E-02	2.992E-02	6.271E-03	-8.102E-03	2.007E+05	
3.075E+00	3.934E+02	1.123E-03	.000E+00	.000E+00	.000E+00	2.766E-02	6.200E-03	1.935E+05	
3.225E+00	3.919E+02	3.649E-04	.000E+00	.000E+00	.000E+00	3.082E-02	1.449E-02	1.850E+05	
3.375E+00	3.907E+02	4.298E-05	2.321E-04	2.994E-02	2.994E-02	2.322E-02	1.537E-02	1.784E+05	
3.525E+00	3.899E+02	5.227E-05	6.950E-05	.000E+00	.000E+00	2.290E-02	1.259E-02	1.735E+05	
3.675E+00	3.893E+02	7.994E-03	.000E+00	.000E+00	.000E+00	-9.362E-02	-1.062E-01	1.703E+05	
3.825E+00	3.856E+02	1.153E-01	.000E+00	.000E+00	.000E+00	-2.329E-02	-3.908E-02	1.500E+05	
3.975E+00	3.854E+02	8.538E-01	.000E+00	.000E+00	.000E+00	-1.084E-01	-1.168E+00	1.501E+05	
4.125E+00	3.859E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-9.841E-02	-9.841E-02	1.500E+05	
4.275E+00	3.856E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-1.285E-01	-1.285E-01	1.500E+05	
4.425E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-1.772E-01	-1.772E-01	1.500E+05	
4.575E+00	3.853E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-2.301E-01	-2.301E-01	1.500E+05	

4.725E+00	3.853E+02	1.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	-2.757E-01	-2.757E-01	1.500E+05
4.875E+00	3.853E+02	1.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	-3.094E-01	-3.094E-01	1.500E+05
5.025E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	-3.317E-01	-3.317E-01	1.500E+05
5.175E+00	3.853E+02	1.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	-3.455E-01	-3.455E-01	1.500E+05
5.325E+00	3.853E+02	1.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	-3.528E-01	-3.528E-01	1.500E+05
5.475E+00	3.853E+02	1.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	-3.557E-01	-3.557E-01	1.500E+05
5.625E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	-3.564E-01	-3.564E-01	1.500E+05
5.775E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	-3.565E-01	-3.565E-01	1.500E+05
5.925E+00	3.855E+02	1.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	-3.566E-01	-3.566E-01	1.500E+05
3.804200E-02	41								
7.500E-02	3.936E+02	6.847E-03	2.262E-03	3.586E-03	3.159E-03	.000E+00	.000E+00	.000E+00	1.948E+05
2.250E-01	4.003E+02	2.438E-03	1.395E-05	.000E+00	.000E+00	4.269E-02	-7.614E-02	2.394E+05	
3.750E-01	3.990E+02	9.881E-05	2.876E-04	2.998E-02	2.998E-02	2.674E+00	-7.178E-02	2.297E+05	
5.250E-01	3.979E+02	1.712E-04	.000E+00	.000E+00	.000E+00	4.081E+00	-6.597E-02	2.224E+05	
6.750E-01	3.964E+02	6.469E-05	.000E+00	.000E+00	.000E+00	-1.489E-03	-6.217E-02	2.125E+05	
8.250E-01	3.948E+02	6.088E-05	.000E+00	.000E+00	.000E+00	-4.014E-02	-5.930E-02	2.022E+05	
9.750E-01	3.930E+02	2.737E-05	3.007E-04	2.997E-02	2.997E-02	-5.038E-02	-5.774E-02	1.915E+05	
1.125E+00	3.913E+02	6.781E-06	9.052E-07	.000E+00	.000E+00	-2.892E-02	-5.670E-02	1.817E+05	
1.275E+00	3.897E+02	3.692E-04	.000E+00	.000E+00	.000E+00	-1.570E-02	-5.271E-02	1.724E+05	
1.425E+00	3.883E+02	1.190E-04	.000E+00	.000E+00	.000E+00	-2.224E-02	-4.933E-02	1.650E+05	
1.575E+00	3.871E+02	3.365E-05	3.007E-04	2.997E-02	2.997E-02	-4.087E-02	-4.769E-02	1.590E+05	
1.725E+00	3.863E+02	2.779E-06	9.190E-07	.000E+00	.000E+00	-2.053E-02	-4.568E-02	1.550E+05	
1.875E+00	3.856E+02	2.675E-04	.000E+00	.000E+00	.000E+00	-1.573E-03	-3.788E-02	1.516E+05	
2.025E+00	3.853E+02	1.007E-04	.000E+00	.000E+00	.000E+00	-2.350E-02	-3.292E-02	1.502E+05	
2.175E+00	3.853E+02	2.785E-05	2.509E-04	2.996E-02	2.996E-02	-4.779E-01	-2.925E-02	1.502E+05	
2.325E+00	3.855E+02	1.420E-05	5.071E-05	.000E+00	.000E+00	-9.552E-01	-2.614E-02	1.507E+05	
2.475E+00	3.857E+02	3.823E-04	.000E+00	.000E+00	.000E+00	-1.404E+00	-1.285E-02	1.517E+05	
2.625E+00	3.860E+02	3.065E-04	.000E+00	.000E+00	.000E+00	-2.345E+00	-1.674E-03	1.532E+05	
2.775E+00	3.865E+02	1.581E-04	7.795E-05	.000E+00	.000E+00	-1.591E+00	-1.384E-03	1.557E+05	
2.925E+00	3.868E+02	4.376E-05	2.236E-04	2.992E-02	2.992E-02	-1.927E+00	2.588E-03	1.574E+05	
3.075E+00	3.872E+02	1.303E-03	.000E+00	.000E+00	.000E+00	4.881E-01	2.972E-02	1.592E+05	
3.225E+00	3.871E+02	4.473E-04	.000E+00	.000E+00	.000E+00	5.522E-01	4.039E-02	1.588E+05	
3.375E+00	3.870E+02	4.899E-05	2.572E-04	2.994E-02	2.994E-02	5.752E-01	4.214E-02	1.582E+05	
3.525E+00	3.869E+02	3.615E-05	4.441E-05	.000E+00	.000E+00	8.061E-01	4.230E-02	1.576E+05	
3.675E+00	3.867E+02	7.485E-03	.000E+00	.000E+00	.000E+00	5.981E+00	5.103E-02	1.569E+05	

3.825E+00	3.859E+02	1.152E-01	.000E+00	.000E+00	.000E+00	6.601E-01	-4.991E-02	1.509E+05
3.975E+00	3.856E+02	8.539E-01	.000E+00	.000E+00	.000E+00	6.011E-02	-1.143E+00	1.503E+05
4.125E+00	3.860E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-5.057E-02	-5.057E-02	1.501E+05
4.275E+00	3.857E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-9.189E-02	-9.189E-02	1.501E+05
4.425E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-1.115E-01	-1.115E-01	1.501E+05
4.575E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-1.308E-01	-1.308E-01	1.501E+05
4.725E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-1.554E-01	-1.554E-01	1.501E+05
4.875E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-1.828E-01	-1.828E-01	1.501E+05
5.025E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-2.116E-01	-2.116E-01	1.501E+05
5.175E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-2.410E-01	-2.410E-01	1.501E+05
5.325E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-2.704E-01	-2.704E-01	1.501E+05
5.475E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-2.981E-01	-2.981E-01	1.500E+05
5.625E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-3.216E-01	-3.216E-01	1.500E+05
5.775E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-3.389E-01	-3.389E-01	1.500E+05
5.925E+00	3.855E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-3.479E-01	-3.479E-01	1.500E+05
4.002600E-02	41							
7.500E-02	3.885E+02	6.887E-03	2.262E-03	3.586E-03	3.159E-03	.000E+00	1.236E-02	1.662E+05
2.250E-01	3.889E+02	1.780E-03	3.722E-05	.000E+00	.000E+00	5.107E-01	-3.811E-02	1.680E+05
3.750E-01	3.884E+02	1.091E-04	2.644E-04	2.998E-02	2.998E-02	5.465E-01	-3.221E-02	1.655E+05
5.250E-01	3.882E+02	2.251E-04	.000E+00	.000E+00	.000E+00	-4.193E-01	-2.500E-02	1.644E+05
6.750E-01	3.883E+02	8.304E-05	.000E+00	.000E+00	.000E+00	-3.887E-01	-1.977E-02	1.652E+05
8.250E-01	3.886E+02	7.200E-05	.000E+00	.000E+00	.000E+00	-3.044E-01	-1.476E-02	1.670E+05
9.750E-01	3.889E+02	3.005E-05	3.007E-04	2.997E-02	2.997E-02	1.519E-01	-1.102E-02	1.680E+05
1.125E+00	3.887E+02	3.751E-06	9.052E-07	.000E+00	.000E+00	4.450E-01	-9.317E-03	1.675E+05
1.275E+00	3.885E+02	3.736E-04	.000E+00	.000E+00	.000E+00	5.514E-01	-4.955E-03	1.662E+05
1.425E+00	3.882E+02	1.255E-04	.000E+00	.000E+00	.000E+00	4.853E-01	-2.937E-03	1.645E+05
1.575E+00	3.879E+02	2.943E-05	3.007E-04	2.997E-02	2.997E-02	4.925E-01	-2.353E-03	1.628E+05
1.725E+00	3.874E+02	1.535E-06	9.190E-07	.000E+00	.000E+00	6.456E-01	-2.089E-03	1.603E+05
1.875E+00	3.869E+02	2.535E-04	.000E+00	.000E+00	.000E+00	8.128E-01	-2.503E-03	1.578E+05
2.025E+00	3.863E+02	1.011E-04	.000E+00	.000E+00	.000E+00	8.777E-01	-3.437E-03	1.548E+05
2.175E+00	3.856E+02	2.657E-05	2.776E-04	2.996E-02	2.996E-02	1.023E+00	-4.609E-03	1.514E+05
2.325E+00	3.847E+02	7.677E-06	2.395E-05	.000E+00	.000E+00	1.360E+00	-5.902E-03	1.470E+05
2.475E+00	3.836E+02	4.045E-04	.000E+00	.000E+00	.000E+00	1.658E+00	-9.697E-03	1.420E+05
2.625E+00	3.823E+02	3.442E-04	.000E+00	.000E+00	.000E+00	4.944E-01	-1.577E-02	1.361E+05
2.775E+00	3.820E+02	8.914E-05	1.138E-04	.000E+00	.000E+00	1.338E+00	-2.441E-02	1.347E+05

2.925E+00	3.809E+02	4.805E-05	1.878E-04	2.992E-02	2.992E-02	1.480E-01	-2.976E-02	1.298E+05
3.075E+00	3.904E+02	1.594E-03	.000E+00	.000E+00	.000E+00	-1.354E-01	-2.810E-02	1.279E+05
3.225E+00	3.812E+02	5.293E-04	.000E+00	.000E+00	.000E+00	-1.454E-01	-2.655E-02	1.311E+05
3.375E+00	3.827E+02	3.485E-05	2.782E-04	2.994E-02	2.994E-02	-6.810E-01	-3.018E-02	1.377E+05
3.525E+00	3.841E+02	5.094E-05	2.338E-05	.000E+00	.000E+00	-1.027E+00	-3.136E-02	1.441E+05
3.675E+00	3.852E+02	8.057E-03	.000E+00	.000E+00	.000E+00	-7.345E-01	4.579E-02	1.493E+05
3.825E+00	3.854E+02	1.144E-01	.000E+00	.000E+00	.000E+00	5.293E-01	-5.452E-12	1.504E+05
3.975E+00	3.856E+02	8.540E-01	.000E+00	.000E+00	.000E+00	1.024E-01	-1.110E-09	1.504E+05
4.125E+00	3.860E+02	1.000E+00	.000E+00	.000E+00	.000E+00	4.984E-02	4.984E-02	1.502E+05
4.275E+00	3.857E+02	1.000E+00	.000E+00	.000E+00	.000E+00	4.962E-02	4.962E-02	1.502E+05
4.425E+00	3.855E+02	1.000E+00	.000E+00	.000E+00	.000E+00	4.132E-02	4.132E-02	1.502E+05
4.575E+00	3.855E+02	1.000E+00	.000E+00	.000E+00	.000E+00	1.867E-02	1.867E-02	1.502E+05
4.725E+00	3.855E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-4.408E-03	-4.408E-03	1.502E+05
4.875E+00	3.855E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-2.850E-02	-2.850E-02	1.502E+05
5.025E+00	3.855E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-5.210E-02	-5.210E-02	1.501E+05
5.175E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-6.865E-02	-6.865E-02	1.501E+05
5.325E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-7.502E-02	-7.502E-02	1.501E+05
5.475E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-7.389E-02	-7.389E-02	1.501E+05
5.625E+00	3.854E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-6.954E-02	-6.954E-02	1.501E+05
5.775E+00	3.855E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-6.539E-02	-6.539E-02	1.500E+05
5.925E+00	3.855E+02	1.000E+00	.000E+00	.000E+00	.000E+00	-6.262E-02	-6.262E-02	1.500E+05

Summary of TEXAS Input

Input Quantity	Input Value
Melt Flow Rate	3.8 kg/s
Melt Superheat	80°K
Melt Temperature	1890°K
Melt Density	7800 kg/m ³
Coherent Jet Diameter	0.06 m
Number of Coherent Jets	1
Jet Velocity	0.17 m/s ⁽¹⁾
Nominal Pool Depth	3.89 m
Nominal Pool Area(2)	2.5 m ²

⁽¹⁾Based on continuity for the given melt flow rate and coherent jet diameter,

$$V = \frac{\dot{m}}{\rho \pi r^2}$$

⁽²⁾1/8 of octagonal cavity floor area.

TEXAS-V INPUT DECK

1
AP600 Ex-vessel FCI Simulations

(a, c)

TEXAS-V INPUT DECK
(Continued)

(a, c)