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|                                                             |                                                    | Date<br>September 27, 1994 |
| Project Title/Work Order<br>Clean Salt Integrated Flowsheet |                                                    | EDT No. 161787             |
|                                                             |                                                    | ECN No. N/A                |

| Name                                 | MSIN  | Text<br>With All<br>Attach. | Text Only | Attach./<br>Appendix<br>Only | EDT/ECN<br>Only |
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| 2. To: (Receiving Organization)<br>Office of Technology<br>Integration (8AA00)                                                             | 3. From: (Originating Organization)<br>Chemical Engineering<br>Laboratory (8A400) | 4. Related EDT No.:<br>N/A                |
| 5. Proj./Prog./Dept./Div.:<br>TTP No. RL4-4-20-02                                                                                          | 6. Cog. Engr.:<br>T. R. Lunsford                                                  | 7. Purchase Order No.:<br>N/A             |
| 8. Originator Remarks:<br>Transmittal of this Document is made to fulfill DOE-RL<br>Milestone 3 in TTP RL4-4-20-02, due September 30, 1994 |                                                                                   | 9. Equip./Component No.:<br>N/A           |
|                                                                                                                                            |                                                                                   | 10. System/Bldg./Facility:<br>N/A         |
| 11. Receiver Remarks:                                                                                                                      |                                                                                   | 12. Major Assm. Dwg. No.:<br>N/A          |
|                                                                                                                                            |                                                                                   | 13. Permit/Permit Application No.:<br>N/A |
|                                                                                                                                            |                                                                                   | 14. Required Response Date:<br>N/A        |

| 15. DATA TRANSMITTED |                          |                     |                    |                                                 | (F)                    | (G)                               | (H)                            | (I)                          |
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| 1                    | WHC-SD-WM-DTR-036        |                     | 0                  | Clean Salt Integrated<br>Flowsheet              | N/A                    | 2                                 |                                |                              |
|                      |                          |                     |                    |                                                 |                        |                                   |                                |                              |
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| 16. KEY                                            |  |                                             |                                                                    |                                                                  |                                                                            |
|----------------------------------------------------|--|---------------------------------------------|--------------------------------------------------------------------|------------------------------------------------------------------|----------------------------------------------------------------------------|
| Approval Designator (F)                            |  | Reason for Transmittal (G)                  |                                                                    | Disposition (H) & (I)                                            |                                                                            |
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## RELEASE AUTHORIZATION

**Document Number:** WHC-SD-WM-DTR-036, REV 0

**Document Title:** Clean Salt Integrated Flowsheet

**Release Date:** 9/27/94

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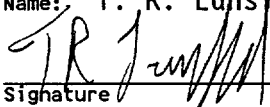


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| 2. Title<br><b>Clean Salt Integrated Flowsheet</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 3. Number<br><b>WHC-SD-WM-DTR-036</b>                                                                                                                                                                                                                                                                                                  | 4. Rev No.<br><b>0</b>                                                                                                                                                                         |
| 5. Key Words<br><b>Clean Salt Process, technical task plan, sodium nitrate, aluminum nitrate</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                        | 6. Author<br>Name: <b>T. R. Lunsford</b><br><br>Signature<br><br>Organization/Charge Code <b>8A400/H2CC1</b> |
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| 7. Abstract<br><br><p>The Clean Salt Process (CSP) is a novel waste management scheme that removes sodium nitrate and aluminum nitrate nonahydrate as decontaminated (low specific activity) salts from Hanford's high-level waste (HLW). The full scale process will separate the bulk of the waste that exists as sodium salts from the small portion of the waste that is by definition radioactive and dangerous. This report presents initial conceptual CSP flowsheets and demonstrates the benefit of integrating the process into the Tank Waste Remediation Systems (TWRS) Reference Flowsheet. Total HLW and low-level (LLW) volumes are reported for two different CSP integration options and are compared to the TWRS Reference Flowsheet values. The results for a single glass option eliminating LLW disposal are also reported. This work was performed for the United States Department of Energy's Efficient Separations and Processing Integrated Program under Technical Task Package RL-4-4-20-02, "Significant Volume Reduction of Tank Waste by Selective Crystallization". This report satisfies Milestone #3, "Complete Optimized Flowsheet".</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                |
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| 9. Impact Level <b>N/A</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                |

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## 1.0 INTRODUCTION

The Clean Salt Process (CSP) is a novel waste management scheme that removes sodium nitrate and aluminum nitrate nonahydrate as decontaminated (low specific activity) salts from Hanford's high-level waste (HLW). The full scale process will separate the bulk of the waste that exists as sodium salts from the small portion of the waste that is by definition radioactive and dangerous. Flowsheet analysis show that the CSP can reduce the amount of low-level waste (LLW) by up to 90 weight percent (wt%).

This report presents flowsheets and demonstrates the benefit of integrating the process into the Tank Waste Remediation Systems (TWRS) Reference Flowsheet. This work was performed for the United States Department of Energy's Efficient Separations and Processing Integrated Program (ESPIP) under Technical Task Package RL-4-4-20-02, "Significant Volume Reduction of Tank Waste by Selective Crystallization". This report satisfies Milestone #3, "Complete Optimized Flowsheet".

Pertinent background information is presented in Section 2.0 of this report. Section 3.0 discusses flowsheet assumptions and flowsheet theory. Total HLW and LLW volumes are reported for two different CSP integration options and are compared to the TWRS Reference Flowsheet values in Section 4.0. The results for a single glass option eliminating LLW disposal are also reported in Section 4.0. Details on future developments are presented in Section 5.0.



## 2.0 BACKGROUND

### 2.1 Hanford High-Level Tank Waste

Hanford HLW is a collection of highly radioactive salts in 177 underground storage tanks. All together the tanks hold 230,000 Metric Tonnes (MT) of chemicals (excluding water) and have approximately 250 megacuries (MCi) of radioactivity (Boomer et al. 1993). Of the total chemical inventory, approximately 90 wt% are inert salts of sodium and aluminum broken down as follows:

- 67,000 MT of sodium
- 4,300 MT of aluminum
- 109,000 MT of nitrate
- 9,500 MT of nitrite
- 15,000 MT of hydroxide
- 25,200 MT other

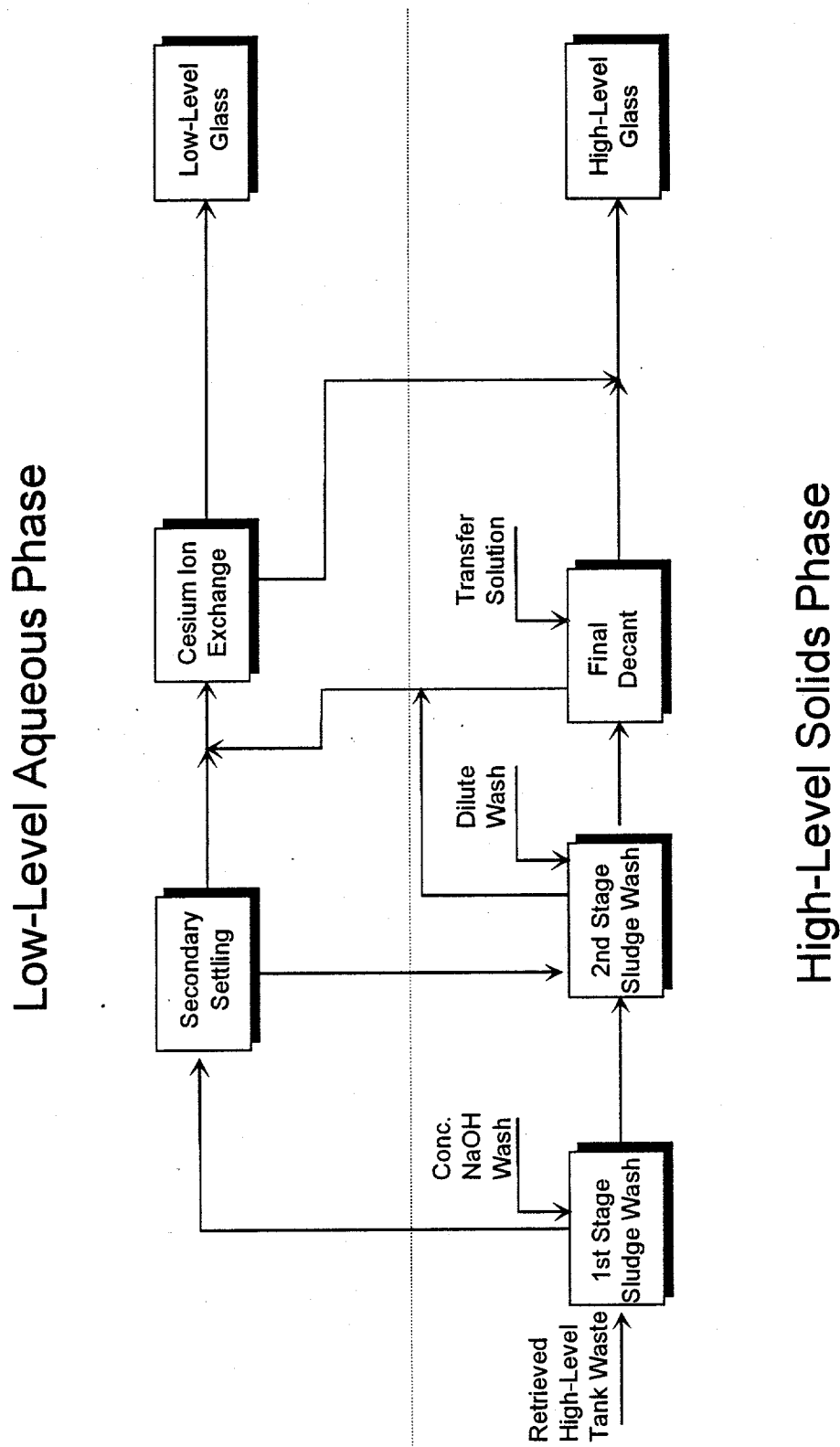
Approximately 101 MCi of the total activity (decayed to December 1990) is due to cesium (Boomer et al. 1993).

### 2.2 TWRS Reference Flowsheet

Hanford's Tank Waste Remediation Systems has established a baseline treatment scheme known as the TWRS Reference Flowsheet. As shown in Figure 2-1, waste treated by this scheme will undergo a series of treatment steps including enhanced sludge washing, cesium ion exchange (CSIX), followed by HLW and LLW stabilization in glass (vitrification). Retrieved waste will be separated into HLW and LLW treatment trains by separating the bulk of the water soluble waste from the mostly insoluble radioactive species. Aluminum, chromium, and phosphate compounds will be solubilized by mixing the waste with a concentrated sodium hydroxide and sodium nitrite solutions. Soluble salts in the waste will be separated from the insoluble species in a series of wash/settle/decant operations using dilute sodium hydroxide and sodium nitrite. The decanted aqueous stream is the LLW stream. Cesium is separated by ion exchange from the LLW stream before vitrification. The cesium joins the insoluble HLW that will be vitrified in another facility.

A baseline material balance has been calculated for the TWRS Reference Flowsheet. The TWRS flowsheet tracks all process streams through all the waste processes to predict total quantities of the final waste volumes including all HLW, LLW, waste waters, and air emissions.

Figure 2-1. Simplified TWRS Reference Flowsheet.



### 2.3 The Clean Salt Process Background

The CSP has been under development for the past two years, most recently being funded by the ESPIP. The process got its start when it was postulated that non-radioactive or decontaminated sodium nitrate could be fractionally crystallized from the aqueous portion of an HLW wash. Further if the dissolved waste were acidified, the dissolved aluminate would be converted to aluminum nitrate, the hydroxide would be neutralized and converted into more sodium nitrate, and the nitrite would be oxidized to nitrate. All of which simplifies the crystallization chemistry. Westinghouse Hanford's Process Chemistry Laboratory (PCL) performed some small scale non-radioactive studies to prove the chemistry would in fact work as planned. Similar studies were also performed by the PCL on actual tank samples and demonstrated that in fact decontaminated sodium nitrate could be recovered from radioactive tank waste with a series of four recrystallizations (Herting 1993).

Under funding from the ESPIP, the study was expanded to explore the process chemistry of the CSP with additional radioactive laboratory studies of crystal growth rate and occlusion rates. In addition, Dr. Alan Randolph of the University of Arizona was contracted in May of 1994 to explore the continuous crystallization process and process scale-up possibilities. Dr. Randolph has been exploring the Mixed Slurry, Mixed Product Reactor crystallizer with fines recovery (Herting 1994).

### 3.0 FLOWSHEET ASSUMPTIONS

The various flowsheets used in this study were created with the ASPEN PLUS<sup>1</sup> steady-state computer modeling program which was used for TWRS Reference Flowsheet. This program required the estimation of operational and certain performance parameters. This section will detail the significant flowsheet assumptions.

#### 3.1 Flowsheet Feed Streams

The feed stream used in this study assumes the entire Hanford HLW tank inventory is a single homogenous feed. The main chemical and radiological constituents of the three feed streams used in the preparation of this study are presented in Table 3-1 in terms of total metric tonnes (MT) and megacuries (MCi). The TWRS reference feed stream was used for each of the flowsheets into which the CSP was integrated. The pre-CSIX and post-CSIX feed streams are intermediate streams from the TWRS Reference Flowsheet that were used for developing the CSP flowsheets.

Table 3-1. Flowsheet Design Feed Streams.

|                             | Feed Stream Compositions |          |           |
|-----------------------------|--------------------------|----------|-----------|
|                             | TWRS Reference           | Pre-CSIX | Post-CSIX |
| Total Mass Flow (MT)        | 7.34E+05                 | 6.28E+05 | 1.07E+06  |
| Aluminum (MT)               | 2.66E+03                 | 4.11E+03 | 4.11E+03  |
| Iron (MT)                   | 9.87E+00                 | 9.85E+00 | 9.85E+00  |
| Chromium (MT)               | 4.16E+01                 | 1.32E+02 | 1.32E+02  |
| Sodium (MT)                 | 6.71E+04                 | 7.61E+04 | 7.84E+04  |
| Silicon (MT)                | 1.34E+01                 | 1.34E+01 | 1.34E+01  |
| Phosphorous (MT)            | 1.20E+03                 | 1.67E+03 | 1.67E+03  |
| Nitrite and Nitrate (MT)    | 1.20E+05                 | 1.20E+05 | 1.21E+05  |
| Cesium and Barium (MCi)     | 8.89E+01                 | 8.88E+01 | 7.00E-01  |
| Strontium and Yttrium (MCi) | 1.40E+00                 | 1.40E+00 | 1.26E+00  |
| Technetium (MCi)            | 3.07E-02                 | 3.06E-02 | 3.06E-02  |
| Total Transuranic (MCi)     | 8.58E-03                 | 8.56E-03 | 8.56E-03  |
| Total Activity (MCi)        | 1.46E+02                 | 1.45E+02 | 4.74E+01  |

1 ASPEN PLUS is a trademark of Aspen Technology, Inc.

### 3.2 TWRS Reference Flowsheet Assumptions

Included in this section is a list of key assumptions used in the TWRS Reference Flowsheet. These assumptions are the ones that are important to the CSP flowsheets and to the integrated flowsheets.

- 1) Settle/Decant/Sludge Wash
  - Decanted to 20 wt% solids
  - 85% of solid aluminum, 75% of solid chromium and 70% of solid phosphate solubilizes
  - Wash solution is made up of three molar sodium hydroxide and sodium nitrite.
  - No additional solubilization occurs other than what happens in the enhanced wash.
  - Aqueous stream is concentrated to 7 molar sodium
- 2) Cesium Ion Exchange
  - Removes 99.2 wt% of cesium, 9.9 wt% strontium and calcium
- 3) LLW Glass Melter/Disposal
  - Concentrates to 10 molar sodium
  - Glass constraints are:
    - sodium oxide no greater than 25 wt%
    - sodium and potassium oxides no greater than 30 wt%
    - aluminum oxide equal to exactly 5 wt%
    - calcium oxide equal to exactly 10 wt%
    - silicon oxide greater than 50 wt%
  - Frit additions are optimized to minimize amount of glass, but still meet all specifications.
  - LLW disposal vaults are 5300 cubic meters
  - Vaults are filled with 60 volume percent (vol%) glass and 40 vol% sulfur cement
- 4) HLW Glass Melter
  - Amounts of glass former added is optimized to meet the specifications listed in Table 3-2 and minimize the amount of HLW glass produced.
  - HLW disposal casks are 10 cubic meters filled to 70 vol%

Table 3-2. High-Level Glass Specifications.

| Component                    | Glass    |       | Glass Former |       |
|------------------------------|----------|-------|--------------|-------|
|                              | Lower    | Upper | Lower        | Upper |
| Al2O3                        | 1.0%     | 11.0% | -            | -     |
| B2O3                         | 7.0%     | 17.0% | 7.0%         | 19.0% |
| CaO                          | -        | 7.0%  | -            | -     |
| Cr2O3                        | -        | 0.5%  | -            | -     |
| Fe2O3                        | -        | 12.0% | -            | -     |
| Li2O                         | 2.0%     | 6.0%  | 5.0%         | 9.0%  |
| MgO                          | -        | 5.0%  | -            | -     |
| Na2O                         | 7.0%     | 12.5% | -            | 11.0% |
| SiO2                         | 46.0%    | 56.0% | 67.0%        | 77.0% |
| SO3                          | -        | 0.5%  | -            | -     |
| ZrO2                         | -        | 10.0% | -            | -     |
| Crystallinity Specifications |          |       |              |       |
| Al2O3+ZrO2                   | <= 14.0% |       |              |       |
| Al2O3+ZrO2+Fe2O3             | <= 21.0% |       |              |       |
| MgO+CaO                      | <= 8.0%  |       |              |       |
| Rh2O3+Ru2O3                  | <= 0.25% |       |              |       |

### 3.3 Clean Salt Process Flowsheet Assumptions

All flowsheets were designed using the same flowsheet assumptions. To be consistent with the work being done in the development of the TWRS Reference Flowsheet, those assumptions were used for the CSP flowsheets where they applied. Other flowsheet assumptions are derived from experimental data and knowledge of crystallization processes. The following is a list of assumptions used in creating the CSP flowsheet.

- 1) Feed stream adjusted to pH = 2
- 2) Solubility of sodium nitrate at 25 °C is 92.1 g per 100 g water
- 3) Solubility of sodium nitrate at 100 °C is 180.1 g per 100 g water
- 4) Nitrite is completely converted to nitrate
- 5) Carbonate is completely converted to carbon dioxide
- 6) Readjust aqueous effluent to pH = 10
- 7) Solids entrainment in evaporator condensate is 0.01 wt% for most

- chemical components
- 8) Solids entrainment in evaporator condensate is 0.1 wt% for total organic carbon, iodide, technetium, cesium, and ruthenium
  - 9) Occlusion percentage is 0.05 wt%
  - 10) Crystallization is a two-step process with crystals grown in the evaporator/crystallizer at 100 °C and in a secondary crystallizer at 25 °C
  - 11) Crystallize to 50 wt% solids exiting secondary crystallizer
  - 12) Solubility of aluminum nitrate at 25 °C is 63.7 g per 100 g water
  - 13) Centrifuges leave 19.7 wt% liquid entrained
  - 14) Solids (particulate) carry-over in aqueous stream is 0.1 wt%
  - 15) Rinse solution is a saturated sodium nitrate solution
  - 16) Rinse solution to solids ratio is approximately one

### 3.4 Clean Salt Flowsheet Design Strategy

Flowsheets were designed to give the optimum performance based on the assumptions. A sensitivity study was performed around the most important flowsheet assumptions to identify which ones had the greatest effect on flowsheet performance. The results of that study are presented in Section 3.5. The CSP flowsheets were designed to maximize sodium recovery while minimizing cesium contamination of the decontaminated salt in the fewest recrystallization steps possible.

Three crystallization stages were determined to be the minimum number required because of cesium contamination carryover due to occlusions (liquid contaminant entrapped in the crystal lattice). The Pre-CSIX stream of the TWRS Reference Flowsheet from Table 3-1 was used as the basis for making this determination. If the total inventory of aluminum ( $4.11\text{E}+03$  MT) and sodium ( $7.61\text{E}+04$  MT) were completely crystallized as their respective nitrate salts, the total quantity of salt would be  $3.34\text{E}+05$  MT ( $5.71\text{E}+04$  MT aluminum nitrate nonahydrate and  $2.81\text{E}+05$  MT sodium nitrate). The total cesium inventory in that stream is 88.8 MCi. So the theoretical cesium contamination in that stream would be  $2.62\text{E}+08$  pCi/g of nitrate salt for this ideal case. With an occlusion rate of 0.05 wt% for each crystallization step, and if contamination carryover were due only to occlusions, cesium contamination would follow the trend shown in Table 3-3. This trend shows that if the treatment objective were below 65.5 pCi/g, three crystallization stages would be required.

Table 3-3. Ideal Cesium Contamination Carryover With Recrystallization.

|                              | Feed              | First Crystallization | Second Crystallization | Third Crystallization |
|------------------------------|-------------------|-----------------------|------------------------|-----------------------|
| Cesium Contamination (pCi/g) | $2.62\text{E}+08$ | $1.31\text{E}+05$     | 65.5                   | $3.28\text{E}-02$     |

In addition to cesium contamination due to occlusion, cesium is carried-over as interstitial liquor (liquid between the crystals). Unlike the occluded cesium which can be removed only by recrystallization, the cesium carried-over as interstitial liquor can be eliminated by a series of wash steps. The number of counter-current wash steps was determined by evaluating how many wash step in each of the crystallization stages were needed to achieve the desired level of cesium decontamination. This evaluation process minimizes the number of wash steps overall and determines the optimum placement of wash steps. For purposes of demonstrating this, the cesium contamination for a single crystallization stage with a series of eight counter-current wash steps was evaluated to show the contribution of cesium contamination due to the interstitial liquor and due to the occlusions. The data in Table 3-4 shows the cesium concentrations of the interstitial liquor and occlusions. After four wash steps the net gain in adding an additional wash step dropped off from approximately 70% cesium removal with each subsequent wash to less than 40%. The final column of Table 3-4 shows the result if 0.05 wt% of the total cesium occludes in the next recrystallization stage. The number of wash steps needed for each of the crystallization stages for each of the CSP flowsheets was evaluated to determine how much occluded cesium was acceptable for the next crystallization and still reach the overall treatment objective after three crystallization stages.

Table 3-4. Cesium Contamination Reductions With Washing.

|                         | Cesium Contamination (pCi/g) |          |          | Occluded Cesium if Recrystallized after Wash Step (pCi/g) |
|-------------------------|------------------------------|----------|----------|-----------------------------------------------------------|
|                         | Interstitial Liquor          | Occluded | Total    |                                                           |
| Initial Crystallization | 8.32E+07                     | 1.79E+05 | 8.33E+07 | 4.17E+05                                                  |
| Wash 1                  | 1.82E+07                     | 1.79E+05 | 1.84E+07 | 9.20E+04                                                  |
| Wash 2                  | 4.04E+06                     | 1.78E+05 | 4.21E+06 | 2.31E+04                                                  |
| Wash 3                  | 9.01E+05                     | 1.79E+05 | 1.08E+06 | 5.40E+03                                                  |
| Wash 4                  | 2.14E+05                     | 1.79E+05 | 3.92E+05 | 1.96E+03                                                  |
| Wash 5                  | 6.33E+04                     | 1.79E+05 | 2.42E+05 | 1.21E+03                                                  |
| Wash 6                  | 3.02E+04                     | 1.79E+05 | 2.09E+05 | 1.05E+03                                                  |
| Wash 7                  | 2.30E+04                     | 1.79E+05 | 2.02E+05 | 1.01E+03                                                  |
| Wash 8                  | 2.14E+04                     | 1.79E+05 | 2.00E+05 | 1.00E+03                                                  |

Finally, the CSP flowsheet was designed with counter-current washing and recycle to maximize the recovery and minimized the cesium contamination of the decontaminated salt. The cleanest salt was washed with the cleanest wash solution and the most contaminated wash solution was recycled for



recrystallization. The decontaminated salts are extracted from the final crystallization step and the contaminated aqueous stream is removed from the first crystallization stage. The counter-current washing and recycle allow the CSP flowsheet to be a closed process with the only chemical additions being an initial pH adjustment to the feed and a final pH adjustment of the reduced LLW stream. Wash solutions are completely recycled since the process uses a fraction of the decontaminated salt to make-up the aqueous wash solution that is ultimately recrystallized. After the optimum number of wash steps, the salt is redissolved in fresh water and recrystallized.

The two CSP flowsheets, Figures 3-1 and 3-2, each had three crystallization stages in combination with the number of wash steps needed to achieve the treatment objective. The first is a baseline CSP flowsheet designed to recover decontaminated salt from the post-CSIX process stream of Table 3-1. It has three crystallization stages with three wash steps after the first crystallization and two wash steps for each of the following crystallization stages, and was used for the Parameter Sensitivity Analysis and for the CSP integrated after the CSIX cases. The other flowsheet is designed for the pre-CSIX process stream of Table 3-1. It has three crystallization stages and due to the relatively high concentration of cesium has a varying number of wash steps for each crystallization stage. The first and second crystallization stages has four wash steps, and the third has three. Aside from the number of wash steps, the two CSP flowsheets have similar designs with the decontaminated salt product coming from the third stage and the remaining portion of the LLW stream exiting the first stage.

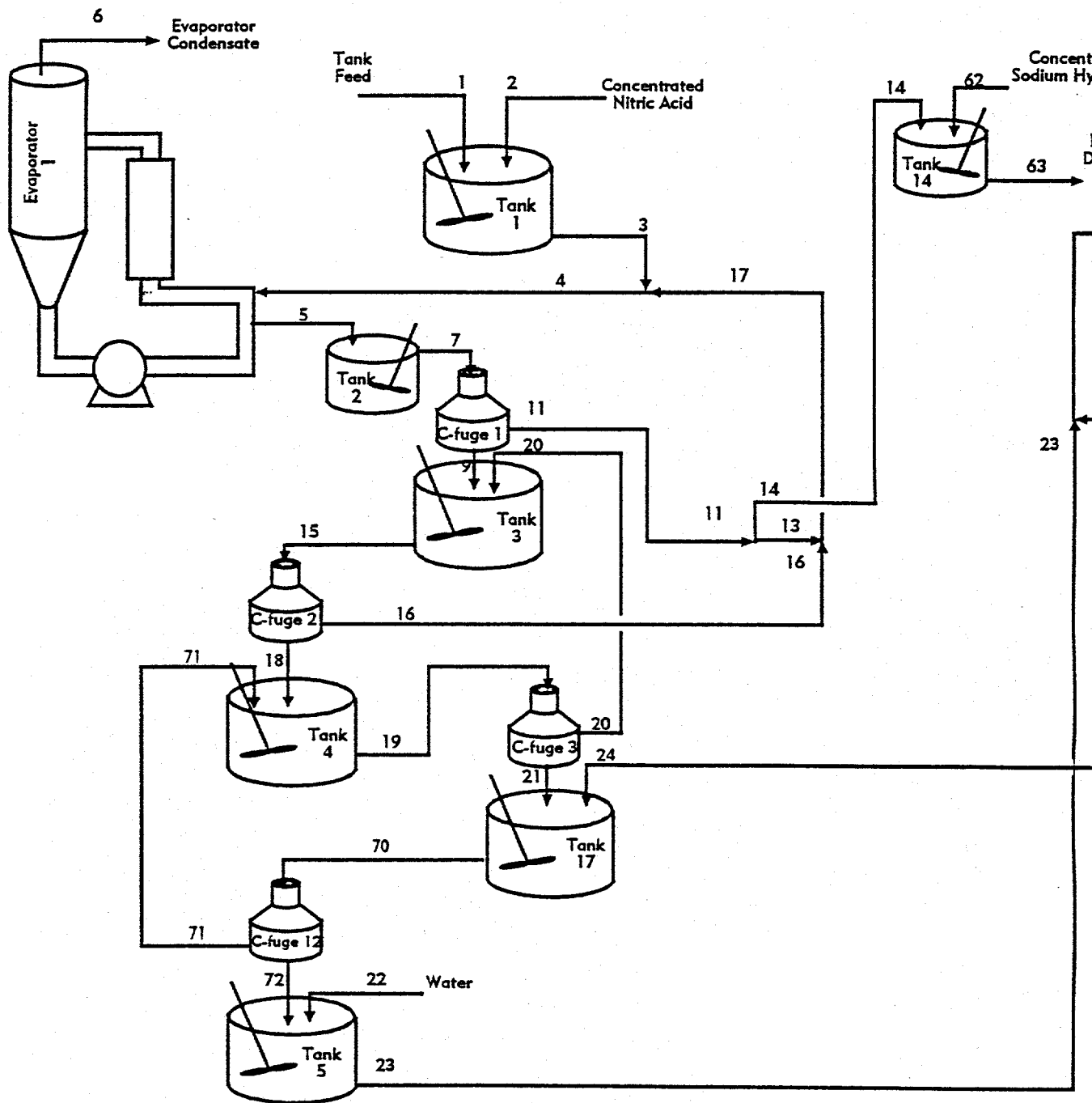
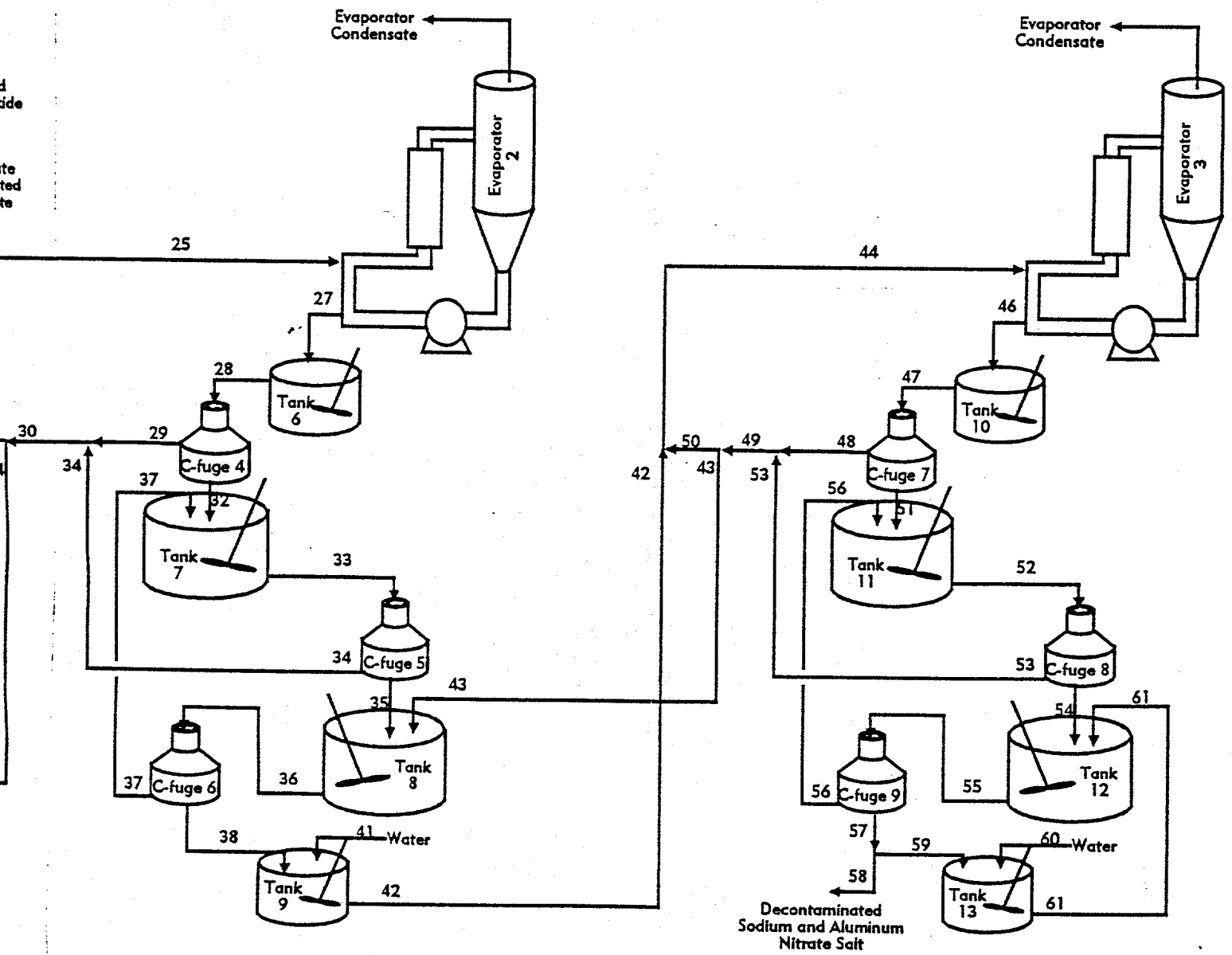
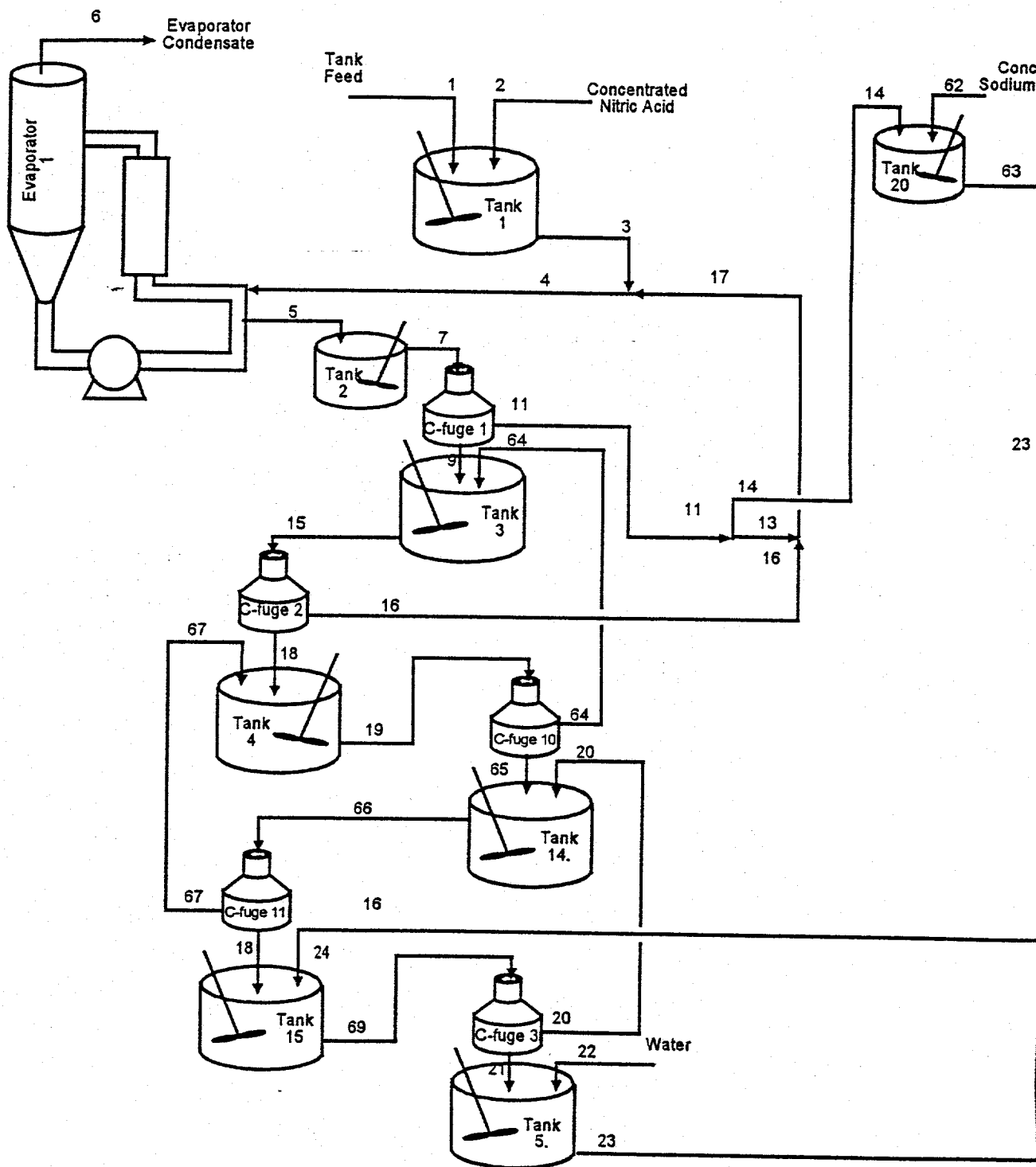
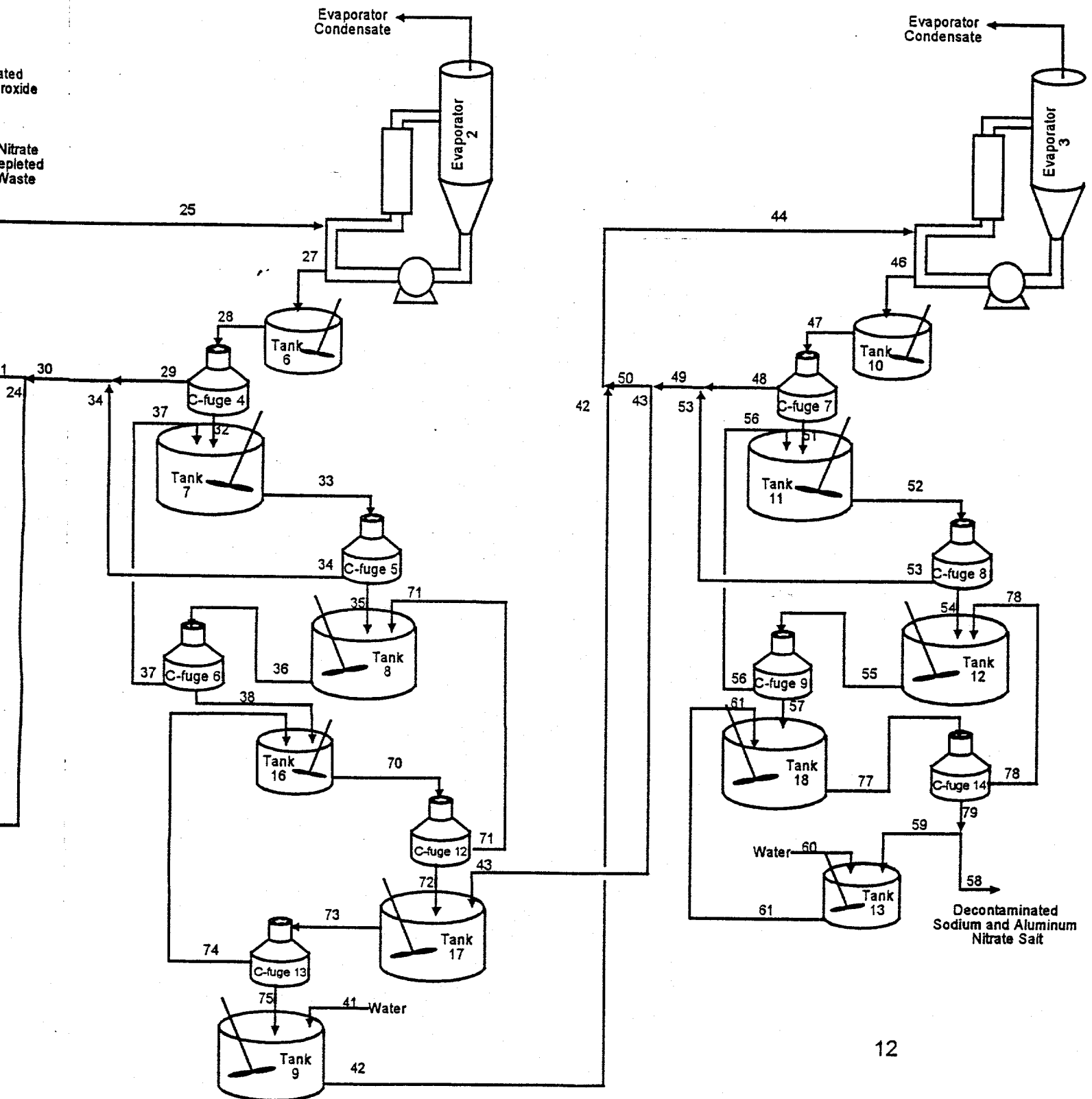


Figure 3-1. Baseline Clean Salt Process Flowsheet.





WHC-SD-WM-DTR-036 REV. 0  
Figure 3-2. Clean Salt Flowsheet Before  
Cesium Ion Exchange



### 3.5 Clean Salt Parameter Sensitivity Analysis

Cesium contamination of the decontaminated salt product was evaluated as a function of various operating parameters for the CSP flowsheet. The flowsheet chosen for this study recovered only sodium nitrate from the LLW stream after CSIX. A baseline cesium contamination was established by running the flowsheet using the assumptions stated in Section 3.3. The following flowsheet assumptions were increased and decreased relative to their baseline values to evaluate their significance in the design of the CSP flowsheet:

- 1) Solid/Liquid Separation Efficiency,
- 2) Sodium Nitrate Solubility in Water at 25 °C,
- 3) Occlusion Percentage,
- 4) Sodium Nitrate Solubility in Water at 100 °C.

A summary of the operating conditions and the resulting level of cesium contamination is presented in Table 3-5. Generally, the results show that solid/liquid separation efficiency had the greatest effect on the resulting cesium contamination of the decontaminated salt product. Increasing or decreasing the amount of interstitial liquor held by the crystals by five percent caused an order of magnitude swing in the cesium contamination in the decontaminated salt. Varying the other parameters had very limited effects on the cesium contamination of the salt product.

Table 3-5. Operating Parameter Variability Study.

|                                                          | Cesium in<br>Recovered<br>Salt<br>(pCi/g) | Percent<br>Change from<br>Baseline | Weight<br>Percent<br>Sodium<br>Recovered |
|----------------------------------------------------------|-------------------------------------------|------------------------------------|------------------------------------------|
| Baseline (listed in Section 3.3)                         | 4.92                                      | ---                                | 71.27                                    |
| Wt% Liquid in Solid Fraction = 15%                       | 0.51                                      | -89.6                              | 71.59                                    |
| Wt% Liquid in Solid Fraction = 25%                       | 34.33                                     | 141.8                              | 71.57                                    |
| Sodium Nitrate Solubility @ 25 °C =<br>80g/100g Water    | 5.32                                      | 8.1                                | 75.25                                    |
| Sodium Nitrate Solubility @ 25 °C =<br>100g/100g Water   | 4.66                                      | -5.3                               | 67.63                                    |
| Occlusion Percentage = 0.1 wt%                           | 6.22                                      | 26.4                               | 71.32                                    |
| Occlusion Percentage = 0.01 wt%                          | 4.01                                      | -18.5                              | 71.50                                    |
| Sodium Nitrate Solubility @ 100 °C =<br>160g/100g Water  | 4.89                                      | -0.6                               | 71.27                                    |
| Sodium Nitrate Solubility @ 100 °C =<br>200 g/100g Water | 4.88                                      | -0.6                               | 71.27                                    |

## 4.0 FLOWSHEETS

Two flowsheets were constructed to demonstrate the feasibility of integrating the CSP flowsheet into the TWRS Reference Flowsheet and to evaluate the potential effect on the total tank waste treatment scheme. Flowsheets were created using processing assumptions mentioned in section 3.0 to achieve the desired processing goals. For the purposes of this study an upper limit of cesium contamination was established at 50 pCi/g. The value was chosen as a conservative estimate of the maximum contamination that would be allowed to still declare the product decontaminated. At this time, de minimus values for the release of decontaminated material do not exist. However, the Department of Energy is actively looking at this issue and the demonstration of the technical viability of this process could drive the de minimus issue to a favorable conclusion.

For this study, two CSP flowsheets were assembled and integrated into the TWRS Reference Flowsheet at various locations. The cases explored were: sodium and aluminum recovery after CSIX, sodium and aluminum recovery before CSIX, and a one glass option (i.e., eliminate LLW glass disposal).

### 4.1 TWRS Reference Flowsheet

The TWRS Reference Flowsheet shown in Figure 2-1 splits retrieved Hanford tank waste into a solids fraction and an aqueous fraction. The flowsheet assumes transuranics and other insoluble species remain in the solids fraction while sodium, aluminum, chromium, and other soluble cations are dissolved into the aqueous stream. Since cesium is highly radioactive and highly soluble it must be removed from the LLW stream before it is vitrified and disposed of as LLW glass. Cesium is returned to the HLW stream after it is removed by a CSIX process. The cesium and the remainder of the HLW are vitrified and stored as HLW glass. The TWRS Reference Flowsheet produces an estimated 43 LLW disposal vaults (228,000 m<sup>3</sup>) and an estimated 1,060 HLW casks (10,600 m<sup>3</sup>).

### 4.2 Clean Salt Flowsheets

Two different clean salt flowsheets were prepared to study the effects of the CSP on the TWRS Reference Flowsheet. The first flowsheet was designed based on a stream feed after the CSIX process in the TWRS Reference Flowsheet shown in Figure 4-1. The second flowsheet was designed for a stream before the CSIX process shown in Figure 4-2.

#### 4.2.1 Clean Salt After Cesium Ion Exchange

The CSP flowsheet treating the LLW stream immediately after the CSIX process (detailed in Table 3-1) used the same flowsheet layout as the Parameter Sensitivity studies, shown in Figure 3-1, with a few modifications to the flowsheet controls: the aluminum was allowed to precipitate as aluminum nitrate nonahydrate and the process controlled the recovery of sodium nitrate

and aluminum nitrate so that the decontaminated salt had a maximum cesium contamination of 50 pCi/g. In addition to allowing the recovery of aluminum, these changes allowed for the recovery of a greater quantity of sodium.

This flowsheet recovered 74,000 MT (94 wt%) of the sodium and 3,200 MT (78 wt%) of the aluminum fed to the flowsheet while maintaining cesium contamination of the recovered salt at 50 pCi/g. The bulk of the LLW stream was reduced by approximately 95 wt%, from 1,070,000 MT to 50,000 MT. A detailed stream report for the post-CSIX CSP flowsheet is presented in Appendix A.

The Post-CSIX CSP flowsheet was integrated into the TWRS Reference Flowsheet by placing it after the CSIX process as shown in Figure 4-1. As a result, the projected number of LLW vaults were 4.5 (24,000 m<sup>3</sup>), over 90% less than that generated by the TWRS Reference Flowsheet. There was no effect on the HLW cask count.

#### 4.2.2 Clean Salt Before Cesium Ion Exchange

The CSP flowsheet treating the Pre-CSIX stream given in Table 3-1 used the more complex process shown in Figure 3-2. As with the Post-CSIX CSP flowsheet, both sodium and aluminum were recovered as their nitrate salts while the cesium contamination was maintained below 50 pCi/g.

This flowsheet recovered 65,500 MT (85 wt%) of the sodium and 1,800 MT (45 wt%) of the aluminum fed to the flowsheet as the decontaminated product. The bulk of the LLW stream is reduced by approximately 84 wt%, from 628,000 MT to 100,500 MT. These values are lower than those reported for Post-CSIX process because of the greater amount of cesium being feed to this CSP flowsheet. As mentioned in Section 3.2, the TWRS Reference Flowsheet assumes the CSIX process removes 99.2 wt% of the cesium fed to the system. The stream report for the pre-CSIX CSP flowsheet is presented in Appendix B.

The Pre-CSIX CSP flowsheet was integrated before the CSIX process of the TWRS Reference Flowsheet as shown in Figure 4-2. The projected number of LLW vaults was reduced by approximately 81%, from 43.8 to 8.5 (45,000 m<sup>3</sup>). The HLW volume was decreased by approximately 35 casks (350 m<sup>3</sup>), from 1,060 to 1,025 (3.5 %). The HLW reduction is due to the reduction in the amount of chemicals needed to regenerate the CSIX resins that would have joined the HLW stream. The better cesium to sodium ratio means the column does not need to be regenerated as often, reducing the amount of waste generated.

#### 4.3 The One Glass Concept

The one glass concept deletes the CSIX process and LLW disposal from the TWRS Reference Flowsheet. Instead what was the LLW stream is treated with the Post-CSIX CSP flowsheet, recovering the decontaminated salts and returning the remaining portion of the waste stream to HLW disposal system as shown in



Figure 4-3. The net effect is that LLW is eliminated entirely and the HLW volume is increased by a factor of seven, from 1,060 casks to 7,307 casks. Although this appears to be a significant increase, the total volume of radioactive waste generated, both LLW and HLW, is reduced by approximately 70 vol%, from 237,000 m<sup>3</sup> to 73,100 m<sup>3</sup>. And although the HLW vitrification facility would have to be increased in size over the baseline plan, the need for a CSIX process, an LLW vitrification process, and LLW disposal vaults would be eliminated entirely.

#### 4.4 Summary of Results

Integration of the CSP into the TWRS Reference Flowsheet has the potential of reducing the amount of radioactive waste generated. This study showed that the quantity of LLW generated could be reduced by greater than 90 vol% and the HLW could be reduced by as much as 5 vol%. Table 4-3 presents a comparison of the CSP integration options explored in this study.

Table 4-1. Summary of Flowsheet Results.

| Flowsheet Option         | Recovered Sodium (MT) | Recovered Aluminum (MT) | HLW Volume (m <sup>3</sup> ) | LLW Volume (m <sup>3</sup> ) |
|--------------------------|-----------------------|-------------------------|------------------------------|------------------------------|
| TWRS Reference Flowsheet | N/A                   | N/A                     | 10,600                       | 228,000                      |
| Post-CSIX                | 74,000                | 3,200                   | 10,600                       | 24,000                       |
| Pre-CSIX                 | 65,500                | 1,800                   | 10,250                       | 45,000                       |
| One Glass                | 65,500                | 1,800                   | 73,100                       | N/A                          |

Figure 4-1. Clean Salt Process Integrated After Cesium Ion Exchange.

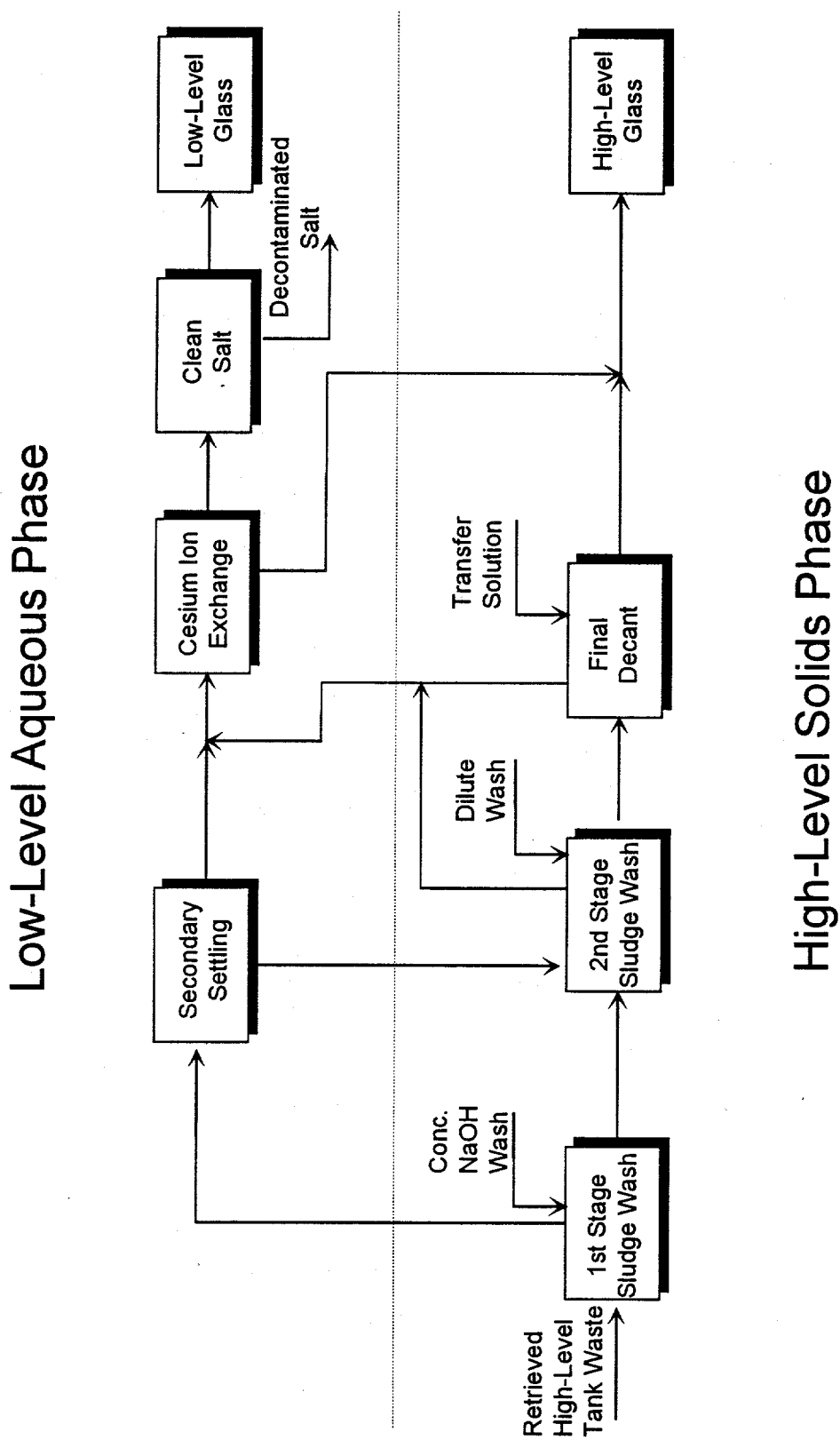


Figure 4-2. Clean Salt Process Integrated Before Cesium Ion Exchange.

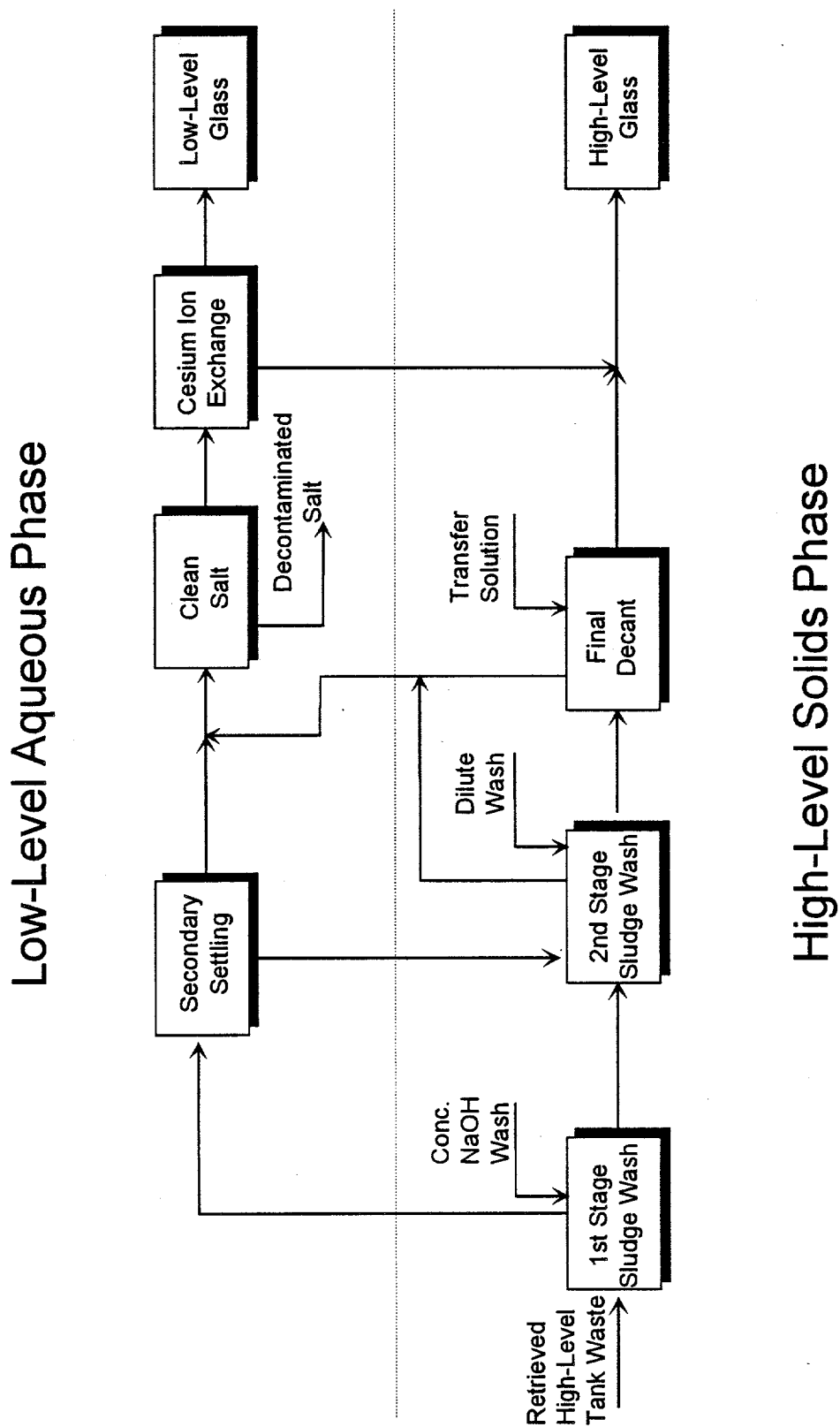
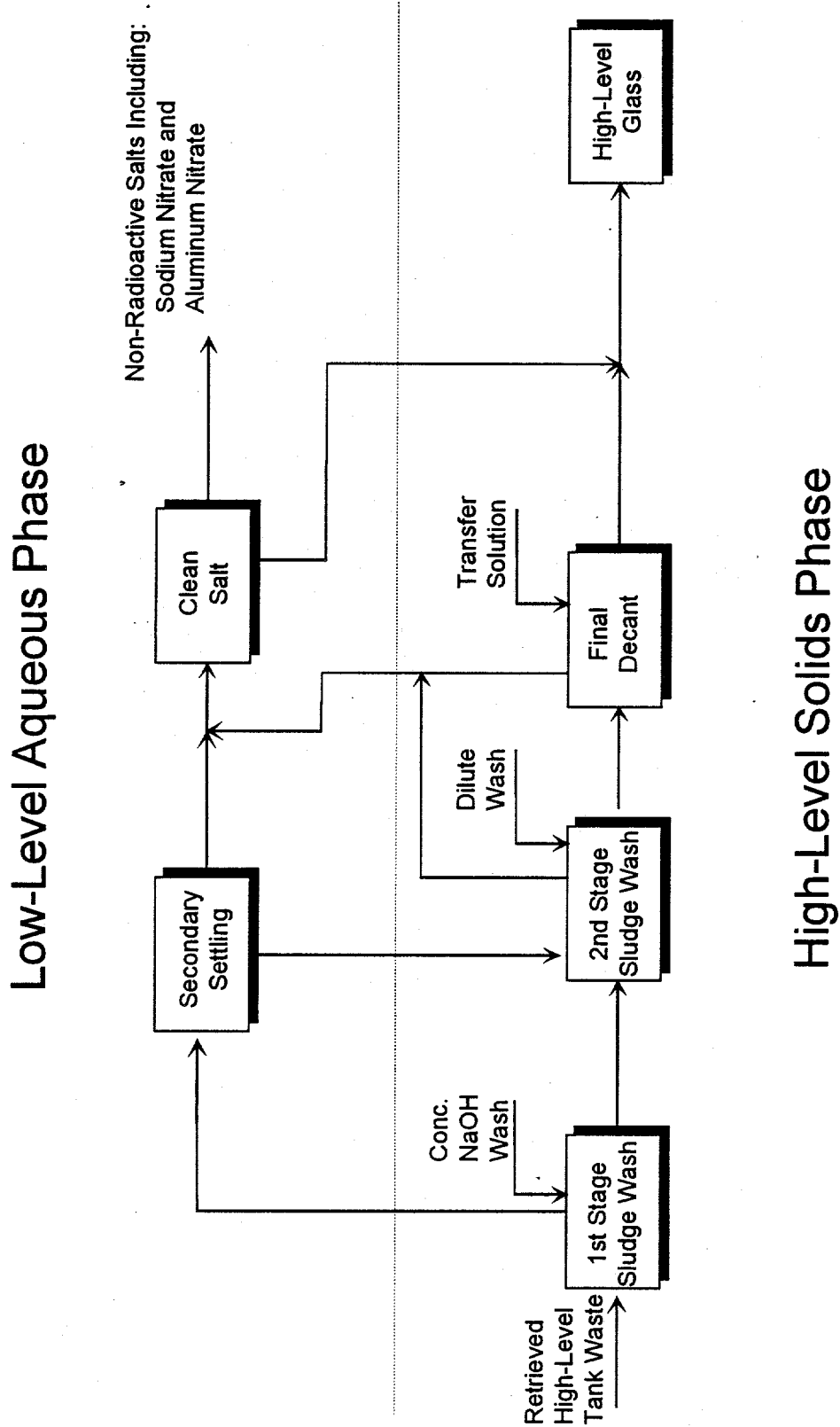


Figure 4-3. The One Glass Concept.



## 5.0 FUTURE DEVELOPMENT

The ESPIP has extended funding for the CSP development into fiscal year 1995. Under this extension, flowsheet development will be supported in several different areas including additional process chemistry developments, vendor demonstrations, and a salt disposal/uses evaluation.

The process chemistry studies will be expanded to look at removal of the aluminum before the solution is acidified to reduce the acid consumption of the process. Also, removal of anions problematic to the glass melter systems such as phosphate, sulfate, and fluoride will be investigated. At the larger scale, Dr. Alan Randolph of the University of Arizona will be investigating Mixed Slurry, Mixed Product Reactor crystallization for simulated Hanford tank waste. These studies will be an extension on the radioactive working being performed at Hanford and will directly support refinement of the CSP flowsheet.

As was shown in Section 3.5 Parameter Sensitivity Analysis, solid/liquid separations have the most dramatic effect on the efficiency of the CSP. A small improvement in separation efficiency had a dramatic effect on the overall process. Therefore, solid/liquid separation will be investigated through a series of vendor demonstrations. These demonstrations will show the solid/liquid system's ability to dewater and wash the crystals. Exact performance criteria will be established early in the next fiscal year.

Finally, a salt disposal/uses document will be prepared. A research entity will be contracted to perform a full evaluation of the disposal/uses options for decontaminated salt recovered from HLW. This study will include a comprehensive presentation of current laws and rules governing the uses/disposal of the decontaminated salt. Also included will be an evaluation of disposal/uses options if de minimus values were established and the decontaminated salt were releasable to the general public.

As a result of these studies, the CSP flowsheet will be revised and refined.

## 6.0 REFERENCES

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**APPENDIX A**

| STREAM NAME<br>LIQUID COMPONENTS              | 1        | 2        | 3        | 4        | 5        | 6        | 7        | 9        | 11       | 13       |
|-----------------------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Total Mass Flow, (MT)                         | 1.07E+06 | 2.10E+05 | 1.28E+06 | 2.44E+06 | 1.14E+06 | 1.07E+06 | 6.83E+05 | 1.71E+05 | 5.12E+05 | 4.71E+05 |
| Al, (MT)                                      | 4.11E+03 |          | 4.11E+03 | 2.89E+04 | 2.89E+04 | 2.89E-01 | 1.50E+04 | 3.74E+03 | 1.12E+04 | 1.03E+04 |
| Fe, (MT)                                      | 9.85E+00 |          | 1.63E+02 | 1.63E+02 | 1.63E+02 | 1.23E-03 | 1.63E+02 | 4.07E+01 | 1.22E+02 | 1.12E+02 |
| Cr, (MT)                                      | 1.32E+02 |          | 1.32E+02 | 2.18E+03 | 2.18E+03 | 2.18E-02 | 2.17E+03 | 5.44E+02 | 1.63E+03 | 1.50E+03 |
| Na, (MT)                                      | 7.84E+04 |          | 7.84E+04 | 2.11E+05 | 1.48E+05 | 2.11E+00 | 7.55E+04 | 1.89E+04 | 5.66E+04 | 5.20E+04 |
| Si, (MT)                                      | 1.34E+01 |          | 1.34E+01 | 2.20E+02 | 2.20E+02 | 2.20E-03 | 2.20E+02 | 5.50E+01 | 1.65E+02 | 1.52E+02 |
| P, (MT)                                       | 1.67E+03 |          | 1.67E+03 | 2.74E+04 | 2.74E+04 | 2.74E-01 | 2.74E+04 | 6.85E+03 | 2.05E+04 | 1.89E+04 |
| NO <sub>2</sub> - and NO <sub>3</sub> -, (MT) | 1.21E+05 | 1.18E+05 | 2.33E+05 | 6.48E+05 | 4.76E+05 | 6.48E+00 | 1.85E+05 | 4.64E+04 | 1.39E+05 | 1.28E+05 |
| Cs and Ba, (MCi)                              | 7.00E-01 |          | 7.00E-01 | 1.15E+01 | 1.15E+01 | 1.15E-03 | 1.15E+01 | 2.88E+00 | 8.62E+00 | 7.92E+00 |
| Sr and Y, (MCi)                               | 1.26E+00 |          | 1.26E+00 | 2.09E+01 | 2.09E+01 | 2.09E-04 | 2.09E+01 | 5.22E+00 | 1.57E+01 | 1.44E+01 |
| Tc, (MCi)                                     | 3.06E-02 |          | 3.06E-02 | 5.03E-01 | 5.03E-01 | 5.03E-05 | 5.03E-01 | 1.26E-01 | 3.77E-01 | 3.47E-01 |
| TRU, (MCi)                                    | 8.56E-03 |          | 8.56E-03 | 1.41E-01 | 1.41E-01 | 1.41E-06 | 1.41E-01 | 3.53E-02 | 1.06E-01 | 9.71E-02 |
| Total MCi                                     | 4.74E+01 |          | 4.74E+01 | 7.84E+02 | 8.98E+02 | 7.84E+02 | 1.96E+02 | 5.88E+02 | 5.40E+02 | 5.40E+02 |
| Ag+, (MT)                                     | 3.23E-02 |          | 3.23E-02 | 5.32E-01 | 5.32E-01 | 5.32E-06 | 5.32E-01 | 1.33E-01 | 3.99E-01 | 3.67E-01 |
| Al <sup>3+</sup> , (MT)                       |          |          | 4.11E+03 | 2.89E+04 | 2.89E+04 | 2.89E-01 | 1.50E+04 | 3.74E+03 | 1.12E+04 | 1.03E+04 |
| Al(CH <sub>3</sub> ) <sub>4</sub> -, (MT)     | 1.45E+04 |          |          |          |          |          |          |          |          |          |
| Am <sup>3+</sup> , (MT)                       | 1.96E-03 |          | 1.96E-03 | 3.23E-02 | 3.23E-02 | 3.23E-07 | 3.23E-02 | 8.07E-03 | 2.42E-02 | 2.22E-02 |
| Ast <sup>5+</sup> , (MT)                      | 1.89E-01 |          | 1.89E-01 | 3.10E+00 | 3.10E+00 | 3.10E-05 | 3.10E+00 | 7.76E-01 | 2.33E+00 | 2.14E+00 |
| B <sup>3+</sup> , (MT)                        | 9.87E-02 |          | 9.87E-02 | 1.63E+00 | 1.63E+00 | 1.63E-05 | 1.63E+00 | 4.07E-01 | 1.22E+00 | 1.12E+00 |
| Ba <sup>2+</sup> , (MT)                       | 3.08E-01 |          | 3.08E-01 | 5.06E+00 | 5.06E+00 | 5.06E-05 | 5.06E+00 | 1.27E+00 | 3.80E+00 | 3.49E+00 |
| Be <sup>2+</sup> , (MT)                       | 7.40E-04 |          | 7.40E-04 | 1.22E-02 | 1.22E-02 | 1.22E-07 | 1.22E-02 | 3.04E-03 | 9.12E-03 | 8.38E-03 |
| Bi <sup>3+</sup> , (MT)                       | 6.40E+01 |          | 6.40E+01 | 1.05E+03 | 1.05E+03 | 1.05E-02 | 1.05E+03 | 2.63E+02 | 7.89E+02 | 7.25E+02 |
| Carbon-14, (MT)                               | 1.10E-03 |          | 1.10E-03 | 1.80E-02 | 1.80E-02 | 1.80E-06 | 1.80E-02 | 4.51E-03 | 1.35E-02 | 1.24E-02 |
| Ca <sup>2+</sup> , (MT)                       | 9.86E+00 |          | 9.86E+00 | 1.62E+02 | 1.62E+02 | 1.62E-03 | 1.62E+02 | 4.06E+01 | 1.22E+02 | 1.12E+02 |
| Cd <sup>2+</sup> , (MT)                       | 2.22E+00 |          | 2.22E+00 | 3.64E+01 | 3.64E+01 | 3.64E-04 | 3.64E+01 | 9.11E+00 | 2.73E+01 | 2.51E+01 |
| Ce <sup>3+</sup> , (MT)                       | 2.36E+00 |          | 2.36E+00 | 3.90E+01 | 3.90E+01 | 3.90E-04 | 3.90E+01 | 9.75E+00 | 2.92E+01 | 2.68E+01 |
| Cl-, (MT)                                     | 4.84E+02 |          | 4.84E+02 | 7.95E+03 | 7.95E+03 | 7.95E-02 | 7.95E+03 | 1.99E+03 | 5.96E+03 | 5.48E+03 |
| Cm <sup>3+</sup> , (MT)                       | 4.16E-07 |          | 4.16E-07 | 6.84E-06 | 6.84E-06 | 6.84E-11 | 6.83E-06 | 1.71E-06 | 5.12E-06 | 4.71E-06 |
| Co <sup>3+</sup> , (MT)                       | 5.14E-02 |          | 5.14E-02 | 8.46E-01 | 8.46E-01 | 8.46E-06 | 8.46E-01 | 2.12E-01 | 6.34E-01 | 5.83E-01 |
| Co <sup>2+</sup> , (MT)                       | 6.65E+02 |          | 1.87E+03 | 1.87E+03 |          | 1.87E+03 |          |          |          |          |
| Co <sup>3+</sup> , (MT)                       | 1.64E+03 |          | 1.90E-01 | 1.90E-01 | 1.90E-01 | 1.90E-06 | 1.89E-01 | 4.74E-02 | 1.42E-01 | 1.31E-01 |
| Cr <sup>3+</sup> , (MT)                       |          |          | 1.32E+02 | 2.18E+03 | 2.18E+03 | 2.18E-02 | 2.17E+03 | 5.44E+02 | 1.63E+03 | 1.50E+03 |
| Cr(CH <sub>3</sub> ) <sub>4</sub> -, (MT)     | 3.05E+02 |          |          |          |          |          |          |          |          |          |
| Cs+, (MT)                                     | 8.53E-03 |          | 8.53E-03 | 1.40E-01 | 1.40E-01 | 1.40E-05 | 1.40E-01 | 3.50E-02 | 1.05E-01 | 9.65E-02 |
| Cr <sup>2+</sup> , (MT)                       | 2.20E-01 |          | 2.20E-01 | 3.61E+00 | 3.61E+00 | 3.61E-05 | 3.61E+00 | 9.03E-01 | 2.71E+00 | 2.49E+00 |
| F-, (MT)                                      | 1.11E+03 |          | 1.11E+03 | 1.82E+04 | 1.82E+04 | 1.82E-01 | 1.82E+04 | 4.55E+03 | 1.36E+04 | 1.25E+04 |
| Fe <sup>3+</sup> , (MT)                       | 7.45E+00 |          | 7.45E+00 | 1.23E+02 | 1.23E+02 | 1.23E-03 | 1.23E+02 | 3.08E+01 | 9.24E+01 | 8.49E+01 |
| FeCN <sub>6</sub> -3, (MT)                    | 3.52E+00 |          | 3.52E+00 | 5.78E+01 | 5.78E+01 |          | 5.78E+01 | 1.45E+01 | 4.33E+01 | 3.98E+01 |
| H+, (MT)                                      |          | 1.90E+03 | 1.08E+02 | 1.77E+03 | 1.77E+03 |          | 1.77E+03 | 4.43E+02 | 1.33E+03 | 1.22E+03 |
| H <sub>2</sub> O, (MT)                        | 8.24E+05 | 9.02E+04 | 9.44E+05 | 1.36E+06 | 3.03E+05 | 1.06E+06 | 2.20E+05 | 5.49E+04 | 1.65E+05 | 1.51E+05 |
| Hg <sup>2+</sup> , (MT)                       | 1.16E+00 |          | 1.16E+00 | 1.90E+01 | 1.90E+01 | 1.90E-04 | 1.90E+01 | 4.76E+00 | 1.43E+01 | 1.31E+01 |
| I-, (MT)                                      | 2.33E-01 |          | 2.33E-01 | 3.82E+00 | 3.82E+00 | 3.82E-04 | 3.82E+00 | 9.55E-01 | 2.86E+00 | 2.63E+00 |
| K+, (MT)                                      | 1.42E+03 |          | 1.42E+03 | 2.33E+04 | 2.33E+04 | 2.33E-01 | 2.33E+04 | 5.82E+03 | 1.74E+04 | 1.60E+04 |
| La <sup>3+</sup> , (MT)                       | 3.25E-01 |          | 3.25E-01 | 5.38E+00 | 5.38E+00 | 5.38E-05 | 5.38E+00 | 1.35E+00 | 4.03E+00 | 3.71E+00 |
| Li+, (MT)                                     | 3.08E-02 |          | 3.08E-02 | 5.06E-01 | 5.06E-01 | 5.06E-06 | 5.06E-01 | 1.27E-01 | 3.79E-01 | 3.49E-01 |
| Mg <sup>2+</sup> , (MT)                       | 5.35E-01 |          | 5.35E-01 | 8.80E+00 | 8.80E+00 | 8.80E-05 | 8.80E+00 | 2.20E+00 | 6.60E+00 | 6.06E+00 |
| MnO <sub>2</sub> , (MT)                       | 2.14E+01 |          | 2.14E+01 | 3.52E+02 | 3.52E+02 | 3.52E-03 | 3.52E+02 | 8.80E+01 | 2.64E+02 | 2.42E+02 |
| Mb <sup>6+</sup> , (MT)                       | 3.26E+00 |          | 3.26E+00 | 5.36E+01 | 5.36E+01 | 5.36E-04 | 5.36E+01 | 1.34E+01 | 4.02E+01 | 3.70E+01 |
| Na+, (MT)                                     | 7.84E+04 |          | 7.84E+04 | 2.11E+05 | 1.48E+05 | 2.11E+00 | 7.55E+04 | 1.89E+04 | 5.66E+04 | 5.20E+04 |
| Ni <sup>3+</sup> , (MT)                       | 5.75E-01 |          | 5.75E-01 | 9.47E+00 | 9.47E+00 | 9.47E-05 | 9.46E+00 | 2.37E+00 | 7.10E+00 | 6.52E+00 |
| NO, (MT)                                      |          |          | 4.62E+03 | 4.62E+03 |          | 4.62E+03 |          |          |          |          |
| NO <sub>2</sub> -, (MT)                       | 1.06E+04 |          | 7.07E-02 | 7.07E-02 | 7.07E-02 |          | 7.07E-02 | 1.77E-02 | 5.30E-02 | 4.87E-02 |
| NO <sub>3</sub> -, (MT)                       | 1.10E+05 | 1.18E+05 | 2.33E+05 | 6.48E+05 | 4.76E+05 | 6.48E+00 | 1.85E+05 | 4.64E+04 | 1.39E+05 | 1.28E+05 |
| Np <sup>4+</sup> , (MT)                       | 4.67E-03 |          | 4.67E-03 | 7.68E-02 | 7.68E-02 | 7.68E-07 | 7.68E-02 | 1.92E-02 | 5.76E-02 | 5.29E-02 |
| OH-, (MT)                                     | 1.61E+04 |          | 1.74E+00 | 1.74E+00 | 1.74E+00 | 1.74E-05 | 1.74E+00 | 4.34E-01 | 1.30E+00 | 1.20E+00 |
| Pb <sup>4+</sup> , (MT)                       | 2.68E+00 |          | 2.68E+00 | 4.41E+01 | 4.41E+01 | 4.41E-04 | 4.41E+01 | 1.10E+01 | 3.31E+01 | 3.04E+01 |
| PO <sub>4</sub> -3, (MT)                      | 5.11E+03 |          | 5.11E+03 | 8.40E+04 | 8.40E+04 | 8.40E-01 | 8.39E+04 | 2.10E+04 | 6.29E+04 | 5.78E+04 |
| Poly, (MT)                                    | 4.38E+01 |          | 4.38E+01 | 7.21E+02 | 7.21E+02 |          | 7.21E+02 | 1.80E+02 | 5.40E+02 | 4.97E+02 |
| Ra <sup>4+</sup> , (MT)                       | 8.08E-03 |          | 8.08E-03 | 1.33E-01 | 1.33E-01 | 1.33E-06 | 1.33E-01 | 3.33E-02 | 9.97E-02 | 9.17E-02 |
| Rb+, (MT)                                     | 6.21E-02 |          | 6.21E-02 | 1.02E+00 | 1.02E+00 | 1.02E-05 | 1.02E+00 | 2.55E-01 | 7.65E-01 | 7.03E-01 |
| Re <sup>7+</sup> , (MT)                       | 4.61E-03 |          | 4.61E-03 | 7.59E-02 | 7.59E-02 | 7.59E-07 | 7.58E-02 | 1.90E-02 | 5.69E-02 | 5.23E-02 |
| Rh <sup>3+</sup> , (MT)                       | 1.21E-02 |          | 1.21E-02 | 2.00E-01 | 2.00E-01 | 2.00E-06 | 2.00E-01 | 5.00E-02 | 1.50E-01 | 1.38E-01 |
| Ru <sup>3+</sup> , (MT)                       | 2.67E-02 |          | 2.67E-02 | 4.39E-01 | 4.39E-01 | 4.39E-05 | 4.39E-01 | 1.10E-01 | 3.29E-01 | 3.02E-01 |
| Sb <sup>5+</sup> , (MT)                       | 5.58E-02 |          | 5.58E-02 | 9.19E-01 | 9.19E-01 | 9.19E-06 | 9.19E-01 | 2.30E-01 | 6.89E-01 | 6.33E-01 |
| Se <sup>6+</sup> , (MT)                       | 5.49E-01 |          | 5.49E-01 | 9.03E+00 | 9.03E+00 | 9.03E-05 | 9.02E+00 | 2.26E+00 | 6.77E+00 | 6.22E+00 |
| Si <sup>4+</sup> , (MT)                       | 1.34E+01 |          | 1.34E+01 | 2.20E+02 | 2.20E+02 | 2.20E-03 | 2.20E+02 | 5.50E+01 | 1.65E+02 | 1.52E+02 |
| Sm <sup>3+</sup> , (MT)                       | 3.09E-04 |          | 3.09E-04 | 5.11E-03 | 5.11E-03 | 5.11E-08 | 5.11E-03 | 1.28E-03 | 3.83E-03 | 3.52E-03 |
| Sn <sup>4+</sup> , (MT)                       | 4.93E-03 |          | 4.93E-03 | 8.12E-02 | 8.12E-02 | 8.12E-07 | 8.11E-02 | 2.03E-02 | 6.08E-02 | 5.59E-02 |
| SO <sub>4</sub> -2, (MT)                      | 1.99E+03 |          | 1.99E+03 | 3.28E+04 | 3.28E+04 | 3.28E-01 | 3.27E+04 | 8.19E+03 | 2.46E+04 | 2.26E+04 |
| Sr <sup>2+</sup> , (MT)                       | 3.35E-01 |          | 3.35E-01 | 5.55E+00 | 5.55E+00 | 5.55E-05 | 5.55E+00 | 1.39E+00 | 4.16E+00 | 3.82E+00 |
| TcO <sub>4</sub> -, (MT)                      | 2.96E+00 |          | 2.96E+00 | 4.85E+01 | 4.85E+01 | 4.85E-03 | 4.85E+01 | 1.21E+01 | 3.64E+01 | 3.34E+01 |
| Te <sup>6+</sup> , (MT)                       | 5.12E-03 |          | 5.12E-03 | 8.44E-02 | 8.44E-02 | 8.44E-07 | 8.44E-02 | 2.11E-02 | 6.33E-02 | 5.81E-02 |
| Th <sup>4+</sup> , (MT)                       | 1.61E-01 |          | 1.61E-01 | 2.66E+00 | 2.66E+00 | 2.66E-05 | 2.66E+00 | 6.65E-01 | 2.00E+00 | 1.83E+00 |
| Ti <sup>4+</sup> , (MT)                       | 6.46E-03 |          | 6.46E-03 | 1.07E-01 | 1.07E-01 | 1.07E-06 | 1.07E-01 | 2.67E-02 | 8.00E-02 | 7.35E-02 |
| Tl <sup>3+</sup> , (MT)                       | 2.97E-01 |          | 2.97E-01 | 4.90E+00 | 4.90E+00 | 4.90E-05 | 4.90E+00 | 1.22E+00 | 3.37E+00 | 3.37E+00 |
| TiC, (MT)                                     | 7.79E+02 |          | 7.79E+02 | 1.28E+04 | 1.28E+04 | 1.28E+00 | 1.28E+04 | 3.20E+03 | 9.59E+03 | 8.81E+03 |
| UO <sub>2</sub> 2, (MT)                       | 9.04E+01 |          | 9.04E+01 | 1.49E+03 | 1.49E+03 | 1.49E-02 | 1.49E+03 | 3.72E+02 | 1.12E+03 | 1.03E+03 |
| V <sup>5+</sup> , (MT)                        | 9.54E-03 |          | 9.54E-03 | 1.57E-01 | 1.57E-01 | 1.57E-06 | 1.57E-01 | 3.93E-02 | 1.18E-01 | 1.08E-01 |
| W <sup>6+</sup> , (MT)                        | 3.26E+00 |          | 3.26E+00 | 5.37E+01 | 5.37E+01 | 5.37E-04 | 5.37E+01 | 1.34E+01 | 4.02E+01 | 3.70E+01 |
| Zn <sup>2+</sup> , (MT)                       | 8.80E-01 |          | 8.80E-01 | 1.45E+01 | 1.45E+01 | 1.45E-04 | 1.45E+01 | 3.62E+00 | 1.09E+01 | 9.97E+00 |
| ZrO <sub>2</sub> ·2H <sub>2</sub> O, (MT)     | 2.33E+01 |          | 2.33E+01 | 3.85E+02 | 3.85E+02 | 3.85E-03 | 3.84E+02 | 9.62E+01 | 2.88E+02 | 2.65E+02 |



| STREAM NAME                                             | 1        | 2 | 3        | 4        | 5        | 6 | 7        | 9        | 11       | 13       |
|---------------------------------------------------------|----------|---|----------|----------|----------|---|----------|----------|----------|----------|
| SOLID COMPONENTS                                        |          |   |          |          |          |   |          |          |          |          |
| Total Mass Flow, (MT)                                   | 7.97E-01 |   | 7.97E-01 | 1.17E+03 | 2.37E+05 |   | 6.97E+05 | 6.97E+05 | 5.13E+02 | 4.71E+02 |
| Al, (MT)                                                | 4.61E-02 |   | 4.61E-02 | 2.34E+01 | 2.34E+01 |   | 1.39E+04 | 1.39E+04 | 1.02E+01 | 9.41E+00 |
| Fe, (MT)                                                | 5.34E-02 |   | 5.34E-02 | 5.36E-02 | 5.36E-02 |   | 1.01E-01 | 1.00E-01 | 7.39E-05 | 6.79E-05 |
| Cr, (MT)                                                | 2.06E-03 |   | 2.06E-03 | 3.46E-03 | 3.46E-03 |   | 8.31E-01 | 8.30E-01 | 6.11E-04 | 5.62E-04 |
| Na, (MT)                                                | 7.70E-02 |   | 7.70E-02 | 2.28E+02 | 6.41E+04 |   | 1.36E+05 | 1.36E+05 | 1.00E+02 | 9.20E+01 |
| Si, (MT)                                                | 3.25E-02 |   | 3.25E-02 | 3.27E-02 | 3.27E-02 |   | 1.16E-01 | 1.16E-01 | 8.56E-05 | 7.86E-05 |
| P, (MT)                                                 | 1.37E-02 |   | 1.37E-02 | 3.12E-02 | 3.12E-02 |   | 1.05E+01 | 1.05E+01 | 4.69E-03 | 7.07E-03 |
| NO <sub>2</sub> - and NO <sub>3</sub> -, (MT)           | 7.18E-02 |   | 7.18E-02 | 7.76E+02 | 1.73E+05 |   | 4.63E+05 | 4.63E+05 | 3.41E+02 | 3.13E+02 |
| Cs and Ba, (MT)                                         | 7.31E-04 |   | 7.31E-04 | 7.39E-04 | 7.39E-04 |   | 5.12E-03 | 5.11E-03 | 3.76E-06 | 3.46E-06 |
| Sr and Y, (MT)                                          | 9.15E-03 |   | 9.15E-03 | 9.18E-03 | 9.18E-03 |   | 1.71E-02 | 1.71E-02 | 1.26E-05 | 1.16E-05 |
| Tc, (MT)                                                | 6.06E-07 |   | 6.06E-07 | 9.28E-07 | 9.28E-07 |   | 1.92E-04 | 1.92E-04 | 1.41E-07 | 1.30E-07 |
| TRU, (MT)                                               | 1.29E-05 |   | 1.29E-05 | 1.30E-05 | 1.30E-05 |   | 6.66E-05 | 6.66E-05 | 4.90E-08 | 4.50E-08 |
| Total MCI                                               | 3.39E-01 |   | 3.39E-01 | 3.40E-01 | 3.40E-01 |   | 6.38E-01 | 6.38E-01 | 4.69E-04 | 4.31E-04 |
| Ag <sup>+</sup> , (MT)                                  | 2.70E-05 |   | 2.70E-05 | 2.74E-05 | 2.74E-05 |   | 2.30E-04 | 2.30E-04 | 1.69E-07 | 1.55E-07 |
| Al <sup>3+</sup> , (MT)                                 | 1.78E-02 |   | 1.78E-02 | 2.33E+01 | 2.33E+01 |   | 1.39E+04 | 1.39E+04 | 1.02E+01 | 9.41E+00 |
| Am <sup>3+</sup> , (MT)                                 | 2.68E-06 |   | 2.68E-06 | 2.70E-06 | 2.70E-06 |   | 1.50E-05 | 1.50E-05 | 1.10E-08 | 1.01E-08 |
| As <sup>5+</sup> , (MT)                                 | 4.30E-05 |   | 4.30E-05 | 4.51E-05 | 4.51E-05 |   | 1.23E-03 | 1.22E-03 | 9.01E-07 | 8.26E-07 |
| B <sup>3+</sup> , (MT)                                  | 1.62E-04 |   | 1.62E-04 | 1.64E-04 | 1.64E-04 |   | 7.82E-04 | 7.82E-04 | 5.75E-07 | 5.29E-07 |
| Ba <sup>2+</sup> , (MT)                                 | 1.35E-04 |   | 1.35E-04 | 1.38E-04 | 1.38E-04 |   | 2.06E-03 | 2.06E-03 | 1.52E-06 | 1.40E-06 |
| Be <sup>2+</sup> , (MT)                                 | 6.07E-07 |   | 6.07E-07 | 6.16E-07 | 6.16E-07 |   | 5.25E-06 | 5.24E-06 | 3.86E-09 | 3.55E-09 |
| Bi <sup>3+</sup> , (MT)                                 | 1.30E-02 |   | 1.30E-02 | 1.37E-02 | 1.37E-02 |   | 4.14E-01 | 4.14E-01 | 3.05E-04 | 2.80E-04 |
| Carbon-14, (MT)                                         |          |   |          | 1.15E-08 | 1.15E-08 |   | 6.87E-06 | 6.86E-06 | 5.05E-09 | 4.64E-09 |
| Ca <sup>2+</sup> , (MT)                                 | 1.01E-02 |   | 1.01E-02 | 1.03E-02 | 1.03E-02 |   | 7.20E-02 | 7.19E-02 | 5.30E-05 | 4.87E-05 |
| Cancrinite, (MT)                                        | 1.78E-01 |   | 1.78E-01 | 1.79E-01 | 1.79E-01 |   | 1.79E-01 | 1.79E-01 | 1.32E-04 | 1.21E-04 |
| Ca <sup>2+</sup> , (MT)                                 | 5.52E-04 |   | 5.52E-04 | 5.76E-04 | 5.76E-04 |   | 1.44E-02 | 1.44E-02 | 1.06E-05 | 9.76E-06 |
| Ca <sup>3+</sup> , (MT)                                 | 1.55E-02 |   | 1.55E-02 | 1.55E-02 | 1.55E-02 |   | 3.03E-02 | 3.03E-02 | 2.23E-05 | 2.05E-05 |
| Cl <sup>-</sup> , (MT)                                  | 1.67E-04 |   | 1.67E-04 | 5.24E-03 | 5.24E-03 |   | 3.03E+00 | 3.03E+00 | 2.23E-03 | 2.05E-03 |
| Cr <sup>3+</sup> , (MT)                                 |          |   |          | 4.36E-12 | 4.36E-12 |   | 2.60E-09 | 2.60E-09 | 1.92E-12 | 1.76E-12 |
| CO <sub>3</sub> , (MT)                                  | 5.03E-05 |   | 5.03E-05 | 5.09E-05 | 5.09E-05 |   | 3.73E-04 | 3.73E-04 | 2.74E-07 | 2.52E-07 |
| CO <sub>3</sub> -2, (MT)                                | 1.15E-02 |   | 1.15E-02 | 1.16E-02 | 1.16E-02 |   | 1.16E-02 | 1.16E-02 | 8.55E-06 | 7.86E-06 |
| Cr <sup>3+</sup> , (MT)                                 | 2.06E-03 |   | 2.06E-03 | 3.46E-03 | 3.46E-03 |   | 8.31E-01 | 8.30E-01 | 6.11E-04 | 5.62E-04 |
| Cs <sup>+</sup> , (MT)                                  | 8.90E-06 |   | 8.90E-06 | 9.01E-06 | 9.01E-06 |   | 6.23E-05 | 6.23E-05 | 4.58E-08 | 4.21E-08 |
| Cur <sup>2+</sup> , (MT)                                | 5.03E-05 |   | 5.03E-05 | 5.27E-05 | 5.27E-05 |   | 1.43E-03 | 1.43E-03 | 1.05E-06 | 9.64E-07 |
| F <sup>-</sup> , (MT)                                   | 3.73E-03 |   | 3.73E-03 | 1.54E-02 | 1.54E-02 |   | 6.94E+00 | 6.93E+00 | 5.10E-03 | 4.69E-03 |
| Fe <sup>3+</sup> , (MT)                                 | 4.78E-02 |   | 4.78E-02 | 4.80E-02 | 4.80E-02 |   | 9.49E-02 | 9.48E-02 | 6.98E-05 | 6.41E-05 |
| H <sub>2</sub> O, (MT)                                  |          |   |          | 1.40E+02 | 1.40E+02 |   | 8.37E+04 | 8.37E+04 | 6.16E+01 | 5.66E+01 |
| Hg <sup>2+</sup> , (MT)                                 | 5.80E-07 |   | 5.80E-07 | 1.27E-05 | 1.27E-05 |   | 7.25E-03 | 7.24E-03 | 5.33E-06 | 4.90E-06 |
| I <sup>-</sup> , (MT)                                   | 1.91E-07 |   | 1.91E-07 | 2.63E-06 | 2.63E-06 |   | 1.46E-03 | 1.45E-03 | 1.07E-06 | 9.84E-07 |
| K <sup>+</sup> , (MT)                                   | 1.11E-03 |   | 1.11E-03 | 1.60E-02 | 1.60E-02 |   | 8.87E+00 | 8.86E+00 | 6.52E-03 | 5.99E-03 |
| La <sup>3+</sup> , (MT)                                 | 2.54E-03 |   | 2.54E-03 | 2.54E-03 | 2.54E-03 |   | 4.59E-03 | 4.59E-03 | 3.38E-06 | 3.10E-06 |
| Li <sup>+</sup> , (MT)                                  | 2.25E-06 |   | 2.25E-06 | 2.57E-06 | 2.57E-06 |   | 1.95E-04 | 1.95E-04 | 1.44E-07 | 1.32E-07 |
| Mg <sup>2+</sup> , (MT)                                 | 3.21E-04 |   | 3.21E-04 | 3.27E-04 | 3.27E-04 |   | 3.67E-03 | 3.67E-03 | 2.70E-06 | 2.48E-06 |
| MnO <sub>2</sub> , (MT)                                 | 1.26E-02 |   | 1.26E-02 | 1.29E-02 | 1.29E-02 |   | 1.47E-01 | 1.47E-01 | 1.08E-04 | 9.92E-05 |
| Mo <sup>6+</sup> , (MT)                                 | 3.40E-04 |   | 3.40E-04 | 3.75E-04 | 3.75E-04 |   | 2.08E-02 | 2.08E-02 | 1.53E-05 | 1.41E-05 |
| Na <sup>+</sup> , (MT)                                  | 4.67E-02 |   | 4.67E-02 | 2.28E+02 | 6.41E+04 |   | 1.36E+05 | 1.36E+05 | 1.00E+02 | 9.20E+01 |
| Ni <sup>3+</sup> , (MT)                                 | 6.59E-04 |   | 6.59E-04 | 6.66E-04 | 6.66E-04 |   | 4.27E-03 | 4.26E-03 | 3.14E-06 | 2.88E-06 |
| Ni <sub>2</sub> FeCO <sub>6</sub> , (MT)                | 3.29E-02 |   | 3.29E-02 | 3.29E-02 | 3.29E-02 |   | 3.29E-02 | 3.29E-02 | 2.42E-05 | 2.23E-05 |
| NO <sub>2</sub> -, (MT)                                 | 4.30E-03 |   | 4.30E-03 | 4.31E-03 | 4.31E-03 |   | 4.34E-03 | 4.33E-03 | 3.19E-06 | 2.93E-06 |
| NO <sub>3</sub> -, (MT)                                 | 6.75E-02 |   | 6.75E-02 | 7.76E+02 | 1.73E+05 |   | 4.63E+05 | 4.63E+05 | 3.41E+02 | 3.13E+02 |
| Np <sup>4+</sup> , (MT)                                 | 2.83E-06 |   | 2.83E-06 | 2.89E-06 | 2.89E-06 |   | 3.21E-05 | 3.21E-05 | 2.36E-08 | 2.17E-08 |
| OH <sup>-</sup> , (MT)                                  | 1.06E-01 |   | 1.06E-01 | 1.06E-01 | 1.06E-01 |   | 1.07E-01 | 1.06E-01 | 7.84E-05 | 7.20E-05 |
| P <sub>2</sub> O <sub>5</sub> :24H <sub>2</sub> O, (MT) | 1.33E-03 |   | 1.33E-03 | 1.33E-03 | 1.33E-03 |   | 1.33E-03 | 1.33E-03 | 9.78E-07 | 8.99E-07 |
| Pb <sup>4+</sup> , (MT)                                 | 1.93E-03 |   | 1.93E-03 | 1.97E-03 | 1.97E-03 |   | 1.88E-02 | 1.87E-02 | 1.38E-05 | 1.27E-05 |
| PO <sub>4</sub> -3, (MT)                                | 4.20E-02 |   | 4.20E-02 | 9.57E-02 | 9.57E-02 |   | 3.20E+01 | 3.20E+01 | 2.36E-02 | 2.17E-02 |
| Poly, (MT)                                              | 4.08E-03 |   | 4.08E-03 | 4.08E-03 | 4.08E-03 |   | 4.08E-03 | 4.08E-03 | 3.00E-06 | 2.76E-06 |
| Ru <sup>4+</sup> , (MT)                                 | 1.64E-05 |   | 1.64E-05 | 1.65E-05 | 1.65E-05 |   | 6.71E-05 | 6.71E-05 | 4.94E-08 | 4.54E-08 |
| Rb <sup>+</sup> , (MT)                                  | 1.72E-07 |   | 1.72E-07 | 8.24E-07 | 8.24E-07 |   | 3.89E-04 | 3.89E-04 | 2.86E-07 | 2.63E-07 |
| Rh <sup>3+</sup> , (MT)                                 | 2.53E-06 |   | 2.53E-06 | 2.59E-06 | 2.59E-06 |   | 3.14E-05 | 3.14E-05 | 2.31E-08 | 2.13E-08 |
| Rh <sup>3+</sup> , (MT)                                 | 2.83E-05 |   | 2.83E-05 | 2.85E-05 | 2.85E-05 |   | 1.05E-04 | 1.04E-04 | 7.69E-08 | 7.06E-08 |
| Ru <sup>3+</sup> , (MT)                                 | 3.47E-05 |   | 3.47E-05 | 3.51E-05 | 3.51E-05 |   | 2.02E-04 | 2.02E-04 | 1.49E-07 | 1.37E-07 |
| Sb <sup>5+</sup> , (MT)                                 | 1.20E-04 |   | 1.20E-04 | 1.20E-04 | 1.20E-04 |   | 4.70E-04 | 4.70E-04 | 3.46E-07 | 3.18E-07 |
| Se <sup>6+</sup> , (MT)                                 | 1.21E-04 |   | 1.21E-04 | 1.27E-04 | 1.27E-04 |   | 3.56E-03 | 3.56E-03 | 2.62E-06 | 2.41E-06 |
| Si <sup>4+</sup> , (MT)                                 | 3.07E-03 |   | 3.07E-03 | 3.22E-03 | 3.22E-03 |   | 8.69E-02 | 8.68E-02 | 6.39E-05 | 5.87E-05 |
| Sn <sup>3+</sup> , (MT)                                 | 2.11E-06 |   | 2.11E-06 | 2.11E-06 | 2.11E-06 |   | 4.06E-06 | 4.06E-06 | 2.99E-09 | 2.74E-09 |
| Sn <sup>4+</sup> , (MT)                                 | 9.62E-07 |   | 9.62E-07 | 1.02E-06 | 1.02E-06 |   | 3.19E-05 | 3.19E-05 | 2.35E-08 | 2.16E-08 |
| SO <sub>4</sub> -2, (MT)                                | 2.60E-03 |   | 2.60E-03 | 2.35E-02 | 2.35E-02 |   | 1.25E+01 | 1.25E+01 | 9.18E-03 | 8.44E-03 |
| Sr <sup>2+</sup> , (MT)                                 | 2.43E-03 |   | 2.43E-03 | 2.44E-03 | 2.44E-03 |   | 4.55E-03 | 4.55E-03 | 3.35E-06 | 3.08E-06 |
| ToO <sub>4</sub> -, (MT)                                | 5.84E-05 |   | 5.84E-05 | 8.95E-05 | 8.95E-05 |   | 1.86E-02 | 1.85E-02 | 1.36E-05 | 1.25E-05 |
| Te <sup>6+</sup> , (MT)                                 | 1.62E-05 |   | 1.62E-05 | 1.63E-05 | 1.63E-05 |   | 4.84E-05 | 4.84E-05 | 3.56E-08 | 3.27E-08 |
| Th <sup>4+</sup> , (MT)                                 | 8.92E-04 |   | 8.92E-04 | 8.95E-04 | 8.95E-04 |   | 1.91E-03 | 1.91E-03 | 1.40E-06 | 1.29E-06 |
| Ti <sup>4+</sup> , (MT)                                 | 2.90E-05 |   | 2.90E-05 | 2.91E-05 | 2.91E-05 |   | 6.97E-05 | 6.96E-05 | 5.12E-08 | 4.71E-08 |
| Tl <sup>3+</sup> , (MT)                                 | 3.43E-04 |   | 3.43E-04 | 3.47E-04 | 3.47E-04 |   | 2.21E-03 | 2.21E-03 | 1.63E-06 | 1.49E-06 |
| TiO <sub>2</sub> , (MT)                                 | 2.19E-03 |   | 2.19E-03 | 1.04E-02 | 1.04E-02 |   | 4.88E+00 | 4.87E+00 | 3.59E-03 | 3.30E-03 |
| UO <sub>2</sub> +2, (MT)                                | 9.58E-02 |   | 9.58E-02 | 9.69E-02 | 9.69E-02 |   | 6.63E-01 | 6.62E-01 | 4.88E-04 | 4.48E-04 |
| V <sup>5+</sup> , (MT)                                  | 2.54E-06 |   | 2.54E-06 | 2.65E-06 | 2.65E-06 |   | 6.23E-05 | 6.23E-05 | 4.59E-08 | 4.21E-08 |
| W <sup>6+</sup> , (MT)                                  |          |   |          | 3.43E-05 | 3.43E-05 |   | 2.05E-02 | 2.04E-02 | 1.50E-05 | 1.38E-05 |
| Zn <sup>2+</sup> , (MT)                                 | 9.67E-05 |   | 9.67E-05 | 1.06E-04 | 1.06E-04 |   | 5.61E-03 | 5.61E-03 | 4.13E-06 | 3.79E-06 |
| ZrO <sub>2</sub> :2H <sub>2</sub> O, (MT)               | 6.36E-02 |   | 6.36E-02 | 6.39E-02 | 6.39E-02 |   | 2.10E-01 | 2.10E-01 | 1.55E-04 | 1.42E-04 |

| STREAM NAME<br>LIQUID COMPONENTS              | 14       | 15       | 16       | 17       | 18       | 19       | 20       | 21       | 22       | 23       |
|-----------------------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Total Mass Flow, (MT)                         | 4.15E+04 | 8.67E+05 | 6.96E+05 | 1.17E+06 | 1.71E+05 | 8.67E+05 | 6.96E+05 | 1.71E+05 | 5.46E+05 | 1.41E+06 |
| Al, (MT)                                      | 9.09E+02 | 1.80E+04 | 1.44E+04 | 2.48E+04 | 3.55E+03 | 1.77E+04 | 1.42E+04 | 3.50E+03 |          | 1.74E+04 |
| Fe, (MT)                                      | 9.88E+00 | 5.08E+01 | 4.08E+01 | 1.53E+02 | 1.00E+01 | 1.26E+01 | 1.01E+01 | 2.48E+00 |          | 7.27E-01 |
| Cr, (MT)                                      | 1.32E+02 | 6.78E+02 | 5.45E+02 | 2.04E+03 | 1.34E+02 | 1.68E+02 | 1.35E+02 | 3.30E+01 |          | 9.15E+00 |
| Na, (MT)                                      | 4.59E+03 | 1.01E+05 | 8.10E+04 | 1.33E+05 | 1.99E+04 | 1.02E+05 | 8.19E+04 | 2.01E+04 |          | 1.56E+05 |
| Si, (MT)                                      | 1.34E+01 | 6.86E+01 | 5.51E+01 | 2.07E+02 | 1.35E+01 | 1.70E+01 | 1.36E+01 | 3.34E+00 |          | 9.28E-01 |
| P, (MT)                                       | 1.67E+03 | 8.55E+03 | 6.86E+03 | 2.57E+04 | 1.69E+03 | 2.11E+03 | 1.70E+03 | 4.16E+02 |          | 1.15E+02 |
| NO <sub>2</sub> - and NO <sub>3</sub> -, (MT) | 1.13E+04 | 3.58E+05 | 2.87E+05 | 4.15E+05 | 7.06E+04 | 3.88E+05 | 3.12E+05 | 7.65E+04 |          | 5.41E+05 |
| Cs and Ba, (MT)                               | 6.99E-01 | 3.59E+00 | 2.88E+00 | 1.08E+01 | 7.08E-01 | 8.88E-01 | 7.13E-01 | 1.75E-01 |          | 4.93E-02 |
| Sr and Y, (MT)                                | 1.27E+00 | 6.53E+00 | 5.24E+00 | 1.96E+01 | 1.29E+00 | 1.62E+00 | 1.30E+00 | 3.20E-01 |          | 9.99E-02 |
| Tc, (MT)                                      | 3.06E-02 | 1.57E-01 | 1.26E-01 | 4.72E-01 | 3.09E-02 | 3.88E-02 | 3.11E-02 | 7.64E-03 |          | 2.12E-03 |
| TRU, (MT)                                     | 8.56E-03 | 4.40E-02 | 3.53E-02 | 1.32E-01 | 8.67E-03 | 1.09E-02 | 8.74E-03 | 2.15E-03 |          | 6.10E-04 |
| Total MCI                                     | 4.76E+01 | 2.45E+02 | 1.97E+02 | 7.37E+02 | 4.83E+01 | 6.10E+01 | 4.89E+01 | 1.20E+01 |          | 3.74E+00 |
| Ag+, (MT)                                     | 3.23E-02 | 1.66E-01 | 1.33E-01 | 5.00E-01 | 3.27E-02 | 4.11E-02 | 3.30E-02 | 8.09E-03 |          | 2.27E-03 |
| Al+3, (MT)                                    | 9.09E+02 | 1.80E+04 | 1.44E+04 | 2.48E+04 | 3.55E+03 | 1.77E+04 | 1.42E+04 | 3.50E+03 |          | 1.74E+04 |
| Al(OH) <sub>4</sub> -, (MT)                   |          |          |          |          |          |          |          |          |          |          |
| Am+3, (MT)                                    | 1.96E-03 | 1.01E-02 | 8.09E-03 | 3.03E-02 | 1.99E-03 | 2.49E-03 | 2.00E-03 | 4.91E-04 |          | 1.39E-04 |
| As+5, (MT)                                    | 1.89E-01 | 9.68E-01 | 7.77E-01 | 2.91E+00 | 1.91E-01 | 2.39E-01 | 1.92E-01 | 4.72E-02 |          | 1.31E-02 |
| B+3, (MT)                                     | 9.88E-02 | 5.07E-01 | 4.07E-01 | 1.53E+00 | 1.00E-01 | 1.26E-01 | 1.01E-01 | 2.48E-02 |          | 7.05E-03 |
| Ba+2, (MT)                                    | 3.08E-01 | 1.58E+00 | 1.27E+00 | 4.76E+00 | 3.11E-01 | 3.90E-01 | 3.13E-01 | 7.70E-02 |          | 2.15E-02 |
| Be+2, (MT)                                    | 7.39E-04 | 3.80E-03 | 3.05E-03 | 1.14E-02 | 7.49E-04 | 9.39E-04 | 7.54E-04 | 1.60E-04 |          | 5.20E-05 |
| Bi+3, (MT)                                    | 6.40E+01 | 3.28E+02 | 2.64E+02 | 9.89E+02 | 6.47E+01 | 8.12E+01 | 6.52E+01 | 1.60E+01 |          | 4.44E+00 |
| Carbon-14, (MT)                               | 1.10E+03 | 5.62E-03 | 4.52E-03 | 1.69E-02 | 1.11E-03 | 1.39E-03 | 1.12E-03 | 2.74E-04 |          | 7.58E-05 |
| Ca+2, (MT)                                    | 9.86E+00 | 5.06E+01 | 4.07E+01 | 1.52E+02 | 9.98E+00 | 1.25E+01 | 1.01E+01 | 2.47E+00 |          | 6.96E-01 |
| Cd+2, (MT)                                    | 2.21E+00 | 1.14E+01 | 9.12E+00 | 3.42E+01 | 2.24E+00 | 2.81E+00 | 2.26E+00 | 5.54E-01 |          | 1.54E-01 |
| Ce+3, (MT)                                    | 2.37E+00 | 1.22E+01 | 9.78E+00 | 3.66E+01 | 2.40E+00 | 3.03E+00 | 2.43E+00 | 5.97E-01 |          | 1.84E-01 |
| Cl-, (MT)                                     | 4.83E+02 | 2.48E+03 | 1.99E+03 | 7.47E+03 | 4.89E+02 | 6.13E+02 | 4.92E+02 | 1.21E+02 |          | 3.34E+01 |
| Cm+3, (MT)                                    | 4.15E-07 | 2.13E-06 | 1.71E-06 | 6.42E-06 | 4.20E-07 | 5.27E-07 | 4.23E-07 | 1.04E-07 |          | 2.87E-08 |
| CO+3, (MT)                                    | 5.14E-02 | 2.64E-01 | 2.12E-01 | 7.95E-01 | 5.20E-02 | 6.53E-02 | 5.24E-02 | 1.29E-02 |          | 3.62E-03 |
| CO <sub>2</sub> , (MT)                        |          |          |          |          |          |          |          |          |          |          |
| CO <sub>3</sub> -2, (MT)                      | 1.15E-02 | 7.35E-02 | 5.90E-02 | 1.90E-01 | 1.45E-02 | 3.25E-02 | 2.61E-02 | 6.41E-03 |          | 1.60E-02 |
| Cr+3, (MT)                                    | 1.32E+02 | 6.78E+02 | 5.45E+02 | 2.04E+03 | 1.34E+02 | 1.68E+02 | 1.35E+02 | 3.30E+01 |          | 9.15E+00 |
| Cr(OH) <sub>4</sub> -, (MT)                   |          |          |          |          |          |          |          |          |          |          |
| Cs+, (MT)                                     | 8.51E-03 | 4.37E-02 | 3.51E-02 | 1.32E-01 | 8.62E-03 | 1.08E-02 | 8.68E-03 | 2.13E-03 |          | 6.01E-04 |
| Cu+2, (MT)                                    | 2.19E-01 | 1.13E+00 | 9.05E-01 | 3.39E+00 | 2.22E-01 | 2.78E-01 | 2.24E-01 | 5.49E-02 |          | 1.53E-02 |
| F-, (MT)                                      | 1.11E+03 | 5.68E+03 | 4.56E+03 | 1.71E+04 | 1.12E+03 | 1.40E+03 | 1.13E+03 | 2.77E+02 |          | 7.65E+01 |
| Fe+3, (MT)                                    | 7.49E+00 | 3.85E+01 | 3.09E+01 | 1.16E+02 | 7.59E+00 | 9.58E+00 | 7.69E+00 | 1.89E+00 |          | 5.81E-01 |
| FeCN <sub>6</sub> -3, (MT)                    | 3.51E+00 | 1.80E+01 | 1.45E+01 | 5.43E+01 | 3.55E+00 | 4.42E+00 | 3.55E+00 | 8.71E-01 |          | 2.14E-01 |
| H+, (MT)                                      | 1.08E+02 | 5.52E+02 | 4.43E+02 | 1.66E+03 | 1.09E+02 | 1.36E+02 | 1.09E+02 | 2.67E+01 |          | 6.56E+00 |
| H <sub>2</sub> O, (MT)                        | 1.33E+04 | 3.31E+05 | 2.66E+05 | 4.17E+05 | 6.53E+04 | 3.44E+05 | 2.76E+05 | 6.79E+04 | 5.46E+05 | 6.96E+05 |
| Hg+2, (MT)                                    | 1.16E+00 | 5.94E+00 | 4.77E+00 | 1.79E+01 | 1.17E+00 | 1.47E+00 | 1.18E+00 | 2.89E-01 |          | 8.00E-02 |
| I-, (MT)                                      | 2.32E-01 | 1.19E+00 | 9.56E-01 | 3.59E+00 | 2.35E-01 | 2.94E-01 | 2.36E-01 | 5.80E-02 |          | 1.61E-02 |
| K+, (MT)                                      | 1.41E+03 | 7.26E+03 | 5.83E+03 | 2.19E+04 | 1.43E+03 | 1.79E+03 | 1.44E+03 | 3.54E+02 |          | 9.78E+01 |
| La+3, (MT)                                    | 3.27E-01 | 1.68E+00 | 1.35E+00 | 5.06E+00 | 3.32E-01 | 4.19E-01 | 3.36E-01 | 8.25E-02 |          | 2.60E-02 |
| Li+, (MT)                                     | 3.07E-02 | 1.58E-01 | 1.27E-01 | 4.75E-01 | 3.11E-02 | 3.90E-02 | 3.13E-02 | 7.69E-03 |          | 2.13E-03 |
| Mg+2, (MT)                                    | 5.35E-01 | 2.75E+00 | 2.20E+00 | 8.26E+00 | 5.41E-01 | 6.79E-01 | 5.45E-01 | 1.34E-01 |          | 3.74E-02 |
| MnO <sub>2</sub> , (MT)                       | 2.14E+01 | 1.10E+02 | 8.82E+01 | 3.31E+02 | 2.17E+01 | 2.71E+01 | 2.18E+01 | 5.35E+00 |          | 1.50E+00 |
| Mo+6, (MT)                                    | 3.26E+00 | 1.67E+01 | 1.34E+01 | 5.04E+01 | 3.30E+00 | 4.13E+00 | 3.32E+00 | 8.15E-01 |          | 2.26E-01 |
| Na+, (MT)                                     | 4.59E+03 | 1.01E+05 | 8.10E+04 | 1.33E+05 | 1.99E+04 | 1.02E+05 | 8.19E+04 | 2.01E+04 |          | 1.56E+05 |
| Ni+3, (MT)                                    | 5.75E-01 | 2.95E+00 | 2.37E+00 | 8.89E+00 | 5.82E-01 | 7.31E-01 | 5.86E-01 | 1.47E-01 |          | 4.07E-02 |
| NO, (MT)                                      |          |          |          |          |          |          |          |          |          |          |
| NO <sub>2</sub> -, (MT)                       | 4.29E-03 | 2.74E-02 | 2.20E-02 | 7.07E-02 | 5.40E-03 | 1.21E-02 | 9.73E-03 | 2.39E-03 |          | 5.98E-03 |
| NO <sub>3</sub> -, (MT)                       | 1.13E+04 | 3.58E+05 | 2.87E+05 | 4.15E+05 | 7.06E+04 | 3.88E+05 | 3.12E+05 | 7.65E+04 |          | 5.41E+05 |
| Np+4, (MT)                                    | 4.67E+03 | 2.40E-02 | 1.92E-02 | 7.22E-02 | 4.72E-03 | 5.92E-03 | 4.76E-03 | 1.17E-03 |          | 3.27E-04 |
| OH-, (MT)                                     | 1.06E-01 | 6.73E-01 | 5.40E-01 | 1.74E+00 | 1.33E-01 | 2.98E-01 | 2.39E-01 | 5.87E-02 |          | 1.47E-01 |
| Pb+4, (MT)                                    | 2.68E+00 | 1.38E+01 | 1.11E+01 | 4.15E+01 | 2.71E+00 | 3.40E+00 | 2.73E+00 | 6.71E-01 |          | 1.88E-01 |
| PO <sub>4</sub> -3, (MT)                      | 5.10E+03 | 2.62E+04 | 2.10E+04 | 7.89E+04 | 5.16E+03 | 6.47E+03 | 5.20E+03 | 1.28E+03 |          | 3.53E+02 |
| Poly, (MT)                                    | 4.38E+01 | 2.25E+02 | 1.80E+02 | 6.77E+02 | 4.43E+01 | 5.51E+01 | 4.43E+01 | 1.09E+01 |          | 2.67E+00 |
| Ru+4, (MT)                                    | 8.08E-03 | 4.15E-02 | 3.33E-02 | 1.25E-01 | 8.19E-03 | 1.03E-02 | 8.25E-03 | 2.03E-03 |          | 5.81E-04 |
| Rb+, (MT)                                     | 6.20E-02 | 3.18E-01 | 2.56E-01 | 9.59E-01 | 6.28E-02 | 7.87E-02 | 6.32E-02 | 1.55E-02 |          | 4.29E-03 |
| Re+7, (MT)                                    | 4.61E-03 | 2.37E-02 | 1.90E-02 | 7.13E-02 | 4.67E-03 | 5.85E-03 | 4.70E-03 | 1.15E-03 |          | 3.22E-04 |
| Rh+3, (MT)                                    | 1.21E-02 | 6.24E-02 | 5.01E-02 | 1.88E-01 | 1.23E-02 | 1.54E-02 | 1.24E-02 | 3.04E-03 |          | 8.77E-04 |
| Ru+3, (MT)                                    | 2.67E-02 | 1.37E-01 | 1.10E-01 | 4.12E-01 | 2.70E-02 | 3.39E-02 | 2.72E-02 | 6.68E-03 |          | 1.89E-03 |
| Sb+5, (MT)                                    | 5.59E-02 | 2.87E-01 | 2.30E-01 | 8.64E-01 | 5.66E-02 | 7.10E-02 | 5.70E-02 | 1.40E-02 |          | 4.02E-03 |
| Se+6, (MT)                                    | 5.48E-01 | 2.82E+00 | 2.26E+00 | 8.48E+00 | 5.55E-01 | 6.96E-01 | 5.59E-01 | 1.37E-01 |          | 3.81E-02 |
| Si+4, (MT)                                    | 1.34E+01 | 6.86E+01 | 5.51E+01 | 2.07E+02 | 1.35E+01 | 1.70E+01 | 1.36E+01 | 3.34E+00 |          | 9.28E-01 |
| Sn+3, (MT)                                    | 3.11E-04 | 1.60E-03 | 1.28E-03 | 4.81E-03 | 3.15E-04 | 3.97E-04 | 3.19E-04 | 7.83E-05 |          | 2.43E-05 |
| Sn+4, (MT)                                    | 4.93E-03 | 2.53E-02 | 2.03E-02 | 7.62E-02 | 4.99E-03 | 6.26E-03 | 5.02E-03 | 1.23E-03 |          | 3.42E-04 |
| SO <sub>4</sub> -2, (MT)                      | 1.99E+03 | 1.02E+04 | 8.20E+03 | 3.08E+04 | 2.01E+03 | 2.52E+03 | 2.03E+03 | 4.98E+02 |          | 1.38E+02 |
| St+2, (MT)                                    | 3.37E-01 | 1.73E+00 | 1.39E+00 | 5.22E+00 | 3.42E-01 | 4.32E-01 | 3.46E-01 | 8.51E-02 |          | 2.65E-02 |
| TcO <sub>4</sub> -, (MT)                      | 2.95E+00 | 1.51E+01 | 1.22E+01 | 4.56E+01 | 2.98E+00 | 3.74E+00 | 3.00E+00 | 7.37E-01 |          | 2.04E-01 |
| Te+6, (MT)                                    | 5.13E-03 | 2.64E-02 | 2.12E-02 | 7.93E-02 | 5.19E-03 | 6.53E-03 | 5.24E-03 | 1.29E-03 |          | 3.76E-04 |
| Th+4, (MT)                                    | 1.62E-01 | 8.31E-01 | 6.67E-01 | 2.50E+00 | 1.64E-01 | 2.07E-01 | 1.66E-01 | 4.07E-02 |          | 1.24E-02 |
| Ti+4, (MT)                                    | 6.48E-03 | 3.33E-02 | 2.68E-02 | 1.00E-01 | 6.57E-03 | 8.27E-03 | 6.64E-03 | 1.63E-03 |          | 4.87E-04 |
| Tl+3, (MT)                                    | 2.97E-01 | 1.53E+00 | 1.23E+00 | 4.60E+00 | 3.01E-01 | 3.78E-01 | 3.03E-01 | 7.45E-02 |          | 2.10E-02 |
| TOC, (MT)                                     | 7.77E+02 | 3.99E+03 | 3.20E+03 | 1.20E+04 | 7.87E+02 | 9.86E+02 | 7.91E+02 | 1.94E+02 |          | 5.38E+01 |
| UO <sub>2</sub> +2, (MT)                      | 9.04E+01 | 4.64E+02 | 3.73E+02 | 1.40E+03 | 9.15E+01 | 1.15E+02 | 9.22E+01 | 2.26E+01 |          | 6.38E+00 |
| V+5, (MT)                                     | 9.53E-03 | 4.90E-02 | 3.93E-02 | 1.47E-01 | 9.65E-03 | 1.21E-02 | 9.71E-03 | 2.39E-03 |          | 6.63E-04 |
| W+6, (MT)                                     | 3.26E+00 | 1.67E+01 | 1.34E+01 | 5.04E+01 | 3.30E+00 | 4.14E+00 | 3.32E+00 | 8.15E-01 |          | 2.26E-01 |
| ZN+2, (MT)                                    | 8.79E-01 | 4.52E+00 | 3.63E+00 | 1.36E+01 | 8.90E-01 | 1.12E+00 | 8.96E-01 | 2.20E-01 |          | 6.10E-02 |
| ZNO <sub>2</sub> :2H <sub>2</sub> O, (MT)     | 2.34E+01 | 1.20E+02 | 9.64E+01 | 3.61E+02 | 2.37E+01 | 2.97E+01 | 2.39E+01 | 5.86E+00 |          | 1.70E+00 |

| STREAM NAME<br>SOLID COMPONENTS                                        | 14       | 15       | 16       | 17       | 18       | 19       | 20       | 21       | 22 | 23       |
|------------------------------------------------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----|----------|
| Total Mass Flow, (MT)                                                  | 4.16E+01 | 6.97E+05 | 6.97E+02 | 1.17E+03 | 6.97E+05 | 6.97E+05 | 6.97E+02 | 6.97E+05 |    | 2.17E-01 |
| Al, (MT)                                                               | 8.30E-01 | 1.39E+04 | 1.39E+01 | 2.33E+01 | 1.39E+04 | 1.39E+04 | 1.39E+01 | 1.39E+04 |    | 2.83E-02 |
| Fe, (MT)                                                               | 5.99E-06 | 1.01E-01 | 1.00E-04 | 1.68E-04 | 1.00E-01 | 1.01E-01 | 1.00E-04 | 1.00E-01 |    | 5.58E-03 |
| Cr, (MT)                                                               | 4.95E-05 | 8.31E-01 | 8.30E-04 | 1.39E-03 | 8.30E-01 | 8.31E-01 | 8.30E-04 | 8.30E-01 |    |          |
| Na, (MT)                                                               | 8.12E+00 | 1.36E+05 | 1.36E+02 | 2.28E+02 | 1.36E+05 | 1.36E+05 | 1.36E+02 | 1.36E+05 |    | 3.04E-02 |
| Si, (MT)                                                               | 6.94E-06 | 1.16E-01 | 1.16E-04 | 1.95E-04 | 1.16E-01 | 1.16E-01 | 1.16E-04 | 1.16E-01 |    | 2.95E-02 |
| P, (MT)                                                                | 6.23E-04 | 1.05E+01 | 1.05E-02 | 1.75E-02 | 1.05E+01 | 1.05E+01 | 1.05E-02 | 1.05E+01 |    | 1.35E-05 |
| NO <sub>2</sub> - and NO <sub>3</sub> -, (MT)                          | 2.76E+01 | 4.63E+05 | 4.63E+02 | 7.76E+02 | 4.63E+05 | 4.63E+05 | 4.63E+02 | 4.63E+05 |    |          |
| Cs and Ba, (MCI)                                                       | 3.05E-07 | 5.12E-03 | 5.11E-06 | 8.57E-06 | 5.11E-03 | 5.12E-03 | 5.11E-06 | 5.11E-03 |    |          |
| Sr and Y, (MCI)                                                        | 1.02E-06 | 1.71E-02 | 1.71E-05 | 2.87E-05 | 1.71E-02 | 1.71E-02 | 1.71E-05 | 1.71E-02 |    |          |
| Tc, (MCI)                                                              | 1.15E-08 | 1.92E-04 | 1.92E-07 | 3.22E-07 | 1.92E-04 | 1.92E-04 | 1.92E-07 | 1.92E-04 |    |          |
| TRU, (MCI)                                                             | 3.97E-09 | 6.66E-05 | 6.66E-08 | 1.12E-07 | 6.66E-05 | 6.66E-05 | 6.66E-08 | 6.66E-05 |    |          |
| Total MCI                                                              | 3.80E-05 | 6.38E-01 | 6.38E-04 | 1.07E-03 | 6.38E-01 | 6.38E-01 | 6.38E-04 | 6.38E-01 |    |          |
| Ag <sup>+</sup> , (MT)                                                 | 1.37E-08 | 2.30E-04 | 2.30E-07 | 3.85E-07 | 2.30E-04 | 2.30E-04 | 2.30E-07 | 2.30E-04 |    |          |
| Al <sup>3+</sup> , (MT)                                                | 8.30E-01 | 1.39E+04 | 1.39E+01 | 2.33E+01 | 1.39E+04 | 1.39E+04 | 1.39E+01 | 1.39E+04 |    |          |
| Am <sup>3+</sup> , (MT)                                                | 8.93E-10 | 1.50E-05 | 1.50E-08 | 2.51E-08 | 1.50E-05 | 1.50E-05 | 1.50E-08 | 1.50E-05 |    |          |
| As <sup>5+</sup> , (MT)                                                | 7.30E-08 | 1.23E-03 | 1.22E-06 | 2.05E-06 | 1.22E-03 | 1.23E-03 | 1.22E-06 | 1.22E-03 |    |          |
| B <sup>3+</sup> , (MT)                                                 | 4.66E-08 | 7.82E-04 | 7.82E-07 | 1.31E-06 | 7.82E-04 | 7.82E-04 | 7.82E-07 | 7.82E-04 |    |          |
| Ba <sup>2+</sup> , (MT)                                                | 1.23E-07 | 2.07E-03 | 2.06E-06 | 3.46E-06 | 2.06E-03 | 2.07E-03 | 2.06E-06 | 2.06E-03 |    |          |
| Be <sup>2+</sup> , (MT)                                                | 3.13E-10 | 5.25E-06 | 5.24E-09 | 8.79E-09 | 5.24E-06 | 5.25E-06 | 5.24E-09 | 5.24E-06 |    |          |
| Bi <sup>3+</sup> , (MT)                                                | 2.47E-05 | 4.14E-01 | 4.14E-04 | 6.94E-04 | 4.14E-01 | 4.14E-01 | 4.14E-04 | 4.14E-01 |    |          |
| Carbon-14, (MT)                                                        | 4.09E-10 | 6.87E-06 | 6.86E-09 | 1.15E-08 | 6.86E-06 | 6.87E-06 | 6.86E-09 | 6.86E-06 |    |          |
| Ca <sup>2+</sup> , (MT)                                                | 4.29E-06 | 7.20E-02 | 7.20E-05 | 1.21E-04 | 7.19E-02 | 7.20E-02 | 7.19E-05 | 7.19E-02 |    |          |
| Concrite, (MT)                                                         | 1.07E-05 | 1.79E-01 | 1.79E-04 | 2.99E-04 | 1.79E-01 | 1.79E-01 | 1.79E-04 | 1.79E-01 |    | 1.79E-01 |
| Co <sup>2+</sup> , (MT)                                                | 8.60E-07 | 1.44E-02 | 1.44E-05 | 2.42E-05 | 1.44E-02 | 1.44E-02 | 1.44E-05 | 1.44E-02 |    |          |
| Ce <sup>3+</sup> , (MT)                                                | 1.81E-04 | 3.03E-02 | 3.03E-05 | 5.08E-05 | 3.03E-02 | 3.03E-02 | 3.03E-05 | 3.03E-02 |    |          |
| Cl <sup>-</sup> , (MT)                                                 | 1.81E-04 | 3.03E+00 | 3.03E-03 | 5.08E-03 | 3.03E+00 | 3.03E+00 | 3.03E-03 | 3.03E+00 |    |          |
| Cm <sup>3+</sup> , (MT)                                                | 1.55E-13 | 2.61E-09 | 2.60E-12 | 4.36E-12 | 2.60E-09 | 2.61E-09 | 2.60E-12 | 2.60E-09 |    |          |
| Co <sup>3+</sup> , (MT)                                                | 2.22E-08 | 3.73E-04 | 3.73E-07 | 6.24E-07 | 3.73E-04 | 3.73E-04 | 3.73E-07 | 3.73E-04 |    |          |
| Co <sup>2+</sup> , (MT)                                                | 6.93E-07 | 1.16E-02 | 1.16E-05 | 1.95E-05 | 1.16E-02 | 1.16E-02 | 1.16E-05 | 1.16E-02 |    |          |
| Cr <sup>3+</sup> , (MT)                                                | 4.95E-05 | 8.31E-01 | 8.30E-04 | 1.39E-03 | 8.30E-01 | 8.31E-01 | 8.30E-04 | 8.30E-01 |    |          |
| Cs <sup>+</sup> , (MT)                                                 | 3.71E-09 | 6.23E-05 | 6.23E-08 | 1.04E-07 | 6.23E-05 | 6.23E-05 | 6.23E-08 | 6.23E-05 |    |          |
| Cu <sup>2+</sup> , (MT)                                                | 8.50E-08 | 1.43E-03 | 1.43E-06 | 2.39E-06 | 1.43E-03 | 1.43E-03 | 1.43E-06 | 1.43E-03 |    |          |
| F <sup>-</sup> , (MT)                                                  | 4.14E-04 | 6.94E+00 | 6.93E-03 | 1.16E-02 | 6.93E+00 | 6.94E+00 | 6.93E-03 | 6.93E+00 |    |          |
| Fe <sup>3+</sup> , (MT)                                                | 5.66E-06 | 9.49E-02 | 9.48E-05 | 1.59E-04 | 9.48E-02 | 9.49E-02 | 9.48E-05 | 9.48E-02 |    |          |
| H <sub>2</sub> O, (MT)                                                 | 4.99E+00 | 8.37E+04 | 8.37E+01 | 1.40E+02 | 8.37E+04 | 8.37E+04 | 8.37E+01 | 8.37E+04 |    |          |
| Hg <sup>2+</sup> , (MT)                                                | 4.32E-07 | 7.25E-03 | 7.25E-06 | 1.21E-05 | 7.24E-03 | 7.25E-03 | 7.24E-06 | 7.24E-03 |    |          |
| I <sup>-</sup> , (MT)                                                  | 8.68E-08 | 1.46E-03 | 1.45E-06 | 2.44E-06 | 1.45E-03 | 1.46E-03 | 1.45E-06 | 1.45E-03 |    |          |
| K <sup>+</sup> , (MT)                                                  | 5.29E-04 | 8.87E+00 | 8.86E-03 | 1.49E-02 | 8.86E+00 | 8.87E+00 | 8.86E-03 | 8.86E+00 |    |          |
| La <sup>3+</sup> , (MT)                                                | 2.74E-07 | 4.59E-03 | 4.59E-06 | 7.69E-06 | 4.59E-03 | 4.59E-03 | 4.59E-06 | 4.59E-03 |    |          |
| Li <sup>+</sup> , (MT)                                                 | 1.16E-08 | 1.95E-04 | 1.95E-07 | 3.27E-07 | 1.95E-04 | 1.95E-04 | 1.95E-07 | 1.95E-04 |    |          |
| Mg <sup>2+</sup> , (MT)                                                | 2.19E-07 | 3.68E-03 | 3.67E-06 | 6.15E-06 | 3.67E-03 | 3.68E-03 | 3.67E-06 | 3.67E-03 |    |          |
| MnO <sub>2</sub> , (MT)                                                | 8.75E-06 | 1.47E-01 | 1.47E-04 | 2.46E-04 | 1.47E-01 | 1.47E-01 | 1.47E-04 | 1.47E-01 |    |          |
| Mo <sup>6+</sup> , (MT)                                                | 1.24E-06 | 2.08E-02 | 2.08E-05 | 3.48E-05 | 2.08E-02 | 2.08E-02 | 2.08E-05 | 2.08E-02 |    |          |
| Na <sup>+</sup> , (MT)                                                 | 8.12E+00 | 1.36E+05 | 1.36E+02 | 2.28E+02 | 1.36E+05 | 1.36E+05 | 1.36E+02 | 1.36E+05 |    |          |
| Ni <sup>3+</sup> , (MT)                                                | 2.54E-07 | 4.27E-03 | 4.26E-06 | 7.15E-06 | 4.26E-03 | 4.27E-03 | 4.26E-06 | 4.26E-03 |    |          |
| Ni <sub>2</sub> Fe <sub>2</sub> Si <sub>2</sub> O <sub>10</sub> , (MT) | 1.96E-06 | 3.29E-02 | 3.29E-05 | 5.52E-05 | 3.29E-02 | 3.29E-02 | 3.29E-05 | 3.29E-02 |    | 3.29E-02 |
| NO <sub>2</sub> -, (MT)                                                | 2.59E-07 | 4.34E-03 | 4.33E-06 | 7.27E-06 | 4.33E-03 | 4.34E-03 | 4.33E-06 | 4.33E-03 |    |          |
| NO <sub>3</sub> -, (MT)                                                | 2.76E+01 | 4.63E+05 | 4.63E+02 | 7.76E+02 | 4.63E+05 | 4.63E+05 | 4.63E+02 | 4.63E+05 |    |          |
| Not <sub>4</sub> , (MT)                                                | 1.91E-09 | 3.21E-05 | 3.21E-08 | 5.38E-08 | 3.21E-05 | 3.21E-05 | 3.21E-08 | 3.21E-05 |    |          |
| OH <sup>-</sup> , (MT)                                                 | 6.35E-06 | 1.07E-01 | 1.06E-04 | 1.78E-04 | 1.06E-01 | 1.07E-01 | 1.06E-04 | 1.06E-01 |    |          |
| P <sub>2</sub> O <sub>5</sub> ·2H <sub>2</sub> O, (MT)                 | 7.92E-08 | 1.33E-03 | 1.33E-06 | 2.23E-06 | 1.33E-03 | 1.33E-03 | 1.33E-06 | 1.33E-03 |    | 1.33E-03 |
| H <sub>2</sub> O <sub>4</sub> , (MT)                                   | 1.12E-06 | 1.88E-02 | 1.87E-05 | 3.14E-05 | 1.87E-02 | 1.88E-02 | 1.87E-05 | 1.87E-02 |    |          |
| FO <sub>4</sub> -3, (MT)                                               | 1.91E-03 | 3.20E+01 | 3.20E-02 | 5.37E-02 | 3.20E+01 | 3.20E+01 | 3.20E-02 | 3.20E+01 |    |          |
| Poly, (MT)                                                             | 2.43E-07 | 4.09E-03 | 4.08E-06 | 6.84E-06 | 4.08E-03 | 4.09E-03 | 4.08E-06 | 4.08E-03 |    | 4.08E-03 |
| Ru <sup>4+</sup> , (MT)                                                | 4.00E-09 | 6.71E-05 | 6.71E-08 | 1.12E-07 | 6.71E-05 | 6.71E-05 | 6.71E-08 | 6.71E-05 |    |          |
| Rb <sup>+</sup> , (MT)                                                 | 2.32E-08 | 3.89E-04 | 3.89E-07 | 6.52E-07 | 3.89E-04 | 3.89E-04 | 3.89E-07 | 3.89E-04 |    |          |
| Re <sup>7+</sup> , (MT)                                                | 1.87E-09 | 3.15E-05 | 3.14E-08 | 5.27E-08 | 3.14E-05 | 3.15E-05 | 3.14E-08 | 3.14E-05 |    |          |
| Rh <sup>3+</sup> , (MT)                                                | 6.23E-09 | 1.05E-04 | 1.04E-07 | 1.75E-07 | 1.04E-04 | 1.05E-04 | 1.04E-07 | 1.04E-04 |    |          |
| Ru <sup>3+</sup> , (MT)                                                | 1.20E-08 | 2.02E-04 | 2.02E-07 | 3.38E-07 | 2.02E-04 | 2.02E-04 | 2.02E-07 | 2.02E-04 |    |          |
| Sb <sup>5+</sup> , (MT)                                                | 2.80E-08 | 4.70E-04 | 4.70E-07 | 7.87E-07 | 4.70E-04 | 4.70E-04 | 4.70E-07 | 4.70E-04 |    |          |
| Se <sup>6+</sup> , (MT)                                                | 2.12E-07 | 3.56E-03 | 3.56E-06 | 5.96E-06 | 3.56E-03 | 3.56E-03 | 3.56E-06 | 3.56E-03 |    |          |
| Si <sup>4+</sup> , (MT)                                                | 5.18E-06 | 8.69E-02 | 8.68E-05 | 1.46E-04 | 8.68E-02 | 8.69E-02 | 8.68E-05 | 8.68E-02 |    |          |
| Sm <sup>3+</sup> , (MT)                                                | 2.42E-10 | 4.06E-06 | 4.06E-09 | 6.80E-09 | 4.06E-06 | 4.06E-06 | 4.06E-09 | 4.06E-06 |    |          |
| Sn <sup>4+</sup> , (MT)                                                | 1.90E-09 | 3.19E-05 | 3.19E-08 | 5.34E-08 | 3.19E-05 | 3.19E-05 | 3.19E-08 | 3.19E-05 |    |          |
| SO <sub>4</sub> -2, (MT)                                               | 7.44E-04 | 1.25E+01 | 1.25E-02 | 2.09E-02 | 1.25E+01 | 1.25E+01 | 1.25E-02 | 1.25E+01 |    |          |
| St <sup>2+</sup> , (MT)                                                | 2.71E-07 | 4.55E-03 | 4.55E-06 | 7.62E-06 | 4.55E-03 | 4.55E-03 | 4.55E-06 | 4.55E-03 |    |          |
| TcO <sub>4</sub> -, (MT)                                               | 1.11E-06 | 1.86E-02 | 1.85E-05 | 3.11E-05 | 1.85E-02 | 1.86E-02 | 1.85E-05 | 1.85E-02 |    |          |
| Te <sup>6+</sup> , (MT)                                                | 2.89E-09 | 4.84E-05 | 4.84E-08 | 8.11E-08 | 4.84E-05 | 4.84E-05 | 4.84E-08 | 4.84E-05 |    |          |
| Th <sup>4+</sup> , (MT)                                                | 1.14E-07 | 1.91E-03 | 1.91E-06 | 3.20E-06 | 1.91E-03 | 1.91E-03 | 1.91E-06 | 1.91E-03 |    |          |
| Ti <sup>4+</sup> , (MT)                                                | 4.15E-09 | 6.97E-05 | 6.96E-08 | 1.17E-07 | 6.96E-05 | 6.97E-05 | 6.96E-08 | 6.96E-05 |    |          |
| Ti <sup>3+</sup> , (MT)                                                | 1.32E-07 | 2.21E-03 | 2.21E-06 | 3.70E-06 | 2.21E-03 | 2.21E-03 | 2.21E-06 | 2.21E-03 |    |          |
| TOC, (MT)                                                              | 2.91E-04 | 4.88E+00 | 4.87E-03 | 8.17E-03 | 4.87E+00 | 4.88E+00 | 4.87E-03 | 4.87E+00 |    |          |
| UD <sub>2</sub> H <sub>2</sub> , (MT)                                  | 3.95E-05 | 6.63E-01 | 6.63E-04 | 1.11E-03 | 6.62E-01 | 6.63E-01 | 6.62E-04 | 6.62E-01 |    |          |
| V <sup>5+</sup> , (MT)                                                 | 3.72E-09 | 6.24E-05 | 6.23E-08 | 1.04E-07 | 6.23E-05 | 6.24E-05 | 6.23E-08 | 6.23E-05 |    |          |
| W <sup>6+</sup> , (MT)                                                 | 1.22E-06 | 2.05E-02 | 2.04E-05 | 3.43E-05 | 2.04E-02 | 2.05E-02 | 2.04E-05 | 2.04E-02 |    |          |
| Zn <sup>2+</sup> , (MT)                                                | 3.35E-07 | 5.61E-03 | 5.61E-06 | 9.40E-06 | 5.61E-03 | 5.61E-03 | 5.61E-06 | 5.61E-03 |    |          |
| ZrO <sub>2</sub> ·2H <sub>2</sub> O, (MT)                              | 1.25E-05 | 2.10E-01 | 2.10E-04 | 3.52E-04 | 2.10E-01 | 2.10E-01 | 2.10E-04 | 2.10E-01 |    |          |

| STREAM NAME<br>LIQUID COMPONENTS              | 24       | 25       | 26       | 27       | 28       | 29       | 30       | 31       | 32       | 33       |
|-----------------------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Total Mass Flow, (MT)                         | 6.96E+05 | 1.82E+06 | 5.60E+05 | 1.04E+06 | 6.30E+05 | 4.76E+05 | 1.10E+06 | 4.02E+05 | 1.54E+05 | 7.76E+05 |
| Al, (MT)                                      | 1.42E+04 | 2.56E+04 | 2.56E-01 | 2.56E+04 | 1.48E+04 | 1.12E+04 | 2.24E+04 | 8.20E+03 | 3.62E+03 | 1.39E+04 |
| Fe, (MT)                                      | 7.27E-01 | 1.15E+00 | 9.18E-06 | 1.15E+00 | 1.15E+00 | 8.67E-01 | 1.15E+00 | 4.20E-01 | 2.80E-01 | 3.49E-01 |
| Cr, (MT)                                      | 9.14E+00 | 1.44E+01 | 1.44E-04 | 1.44E+01 | 1.44E+01 | 1.09E+01 | 1.44E+01 | 5.29E+00 | 3.52E+00 | 4.39E+00 |
| Na, (MT)                                      | 8.22E+04 | 2.04E+05 | 2.04E+00 | 1.46E+05 | 7.48E+04 | 5.66E+04 | 1.30E+05 | 4.76E+04 | 1.83E+04 | 9.13E+04 |
| Si, (MT)                                      | 9.28E-01 | 1.47E+00 | 1.47E-05 | 1.47E+00 | 1.46E+00 | 1.11E+00 | 1.47E+00 | 5.37E-01 | 3.57E-01 | 4.46E-01 |
| P, (MT)                                       | 1.15E+02 | 1.82E+02 | 1.82E-03 | 1.82E+02 | 1.82E+02 | 1.37E+02 | 1.82E+02 | 6.66E+01 | 4.44E+01 | 5.54E+01 |
| NO <sub>2</sub> - and NO <sub>3</sub> -, (MT) | 3.19E+05 | 7.25E+05 | 7.25E+00 | 5.70E+05 | 3.03E+05 | 2.29E+05 | 5.04E+05 | 1.85E+05 | 7.40E+04 | 3.42E+05 |
| Cs and Ba, (MCI)                              | 4.93E-02 | 7.78E-02 | 7.78E-06 | 7.78E-02 | 7.78E-02 | 5.88E-02 | 7.78E-02 | 2.85E-02 | 1.90E-02 | 2.37E-02 |
| Sr and Y, (MCI)                               | 9.98E-02 | 1.58E-01 | 1.58E-06 | 1.58E-01 | 1.58E-01 | 1.19E-01 | 1.58E-01 | 5.77E-02 | 3.84E-02 | 4.80E-02 |
| Tc, (MCI)                                     | 2.11E-03 | 3.34E-03 | 3.34E-07 | 3.34E-03 | 3.34E-03 | 2.52E-03 | 3.34E-03 | 1.22E-03 | 8.14E-04 | 1.02E-03 |
| TRU, (MCI)                                    | 6.09E-04 | 9.62E-04 | 9.62E-09 | 9.62E-04 | 9.62E-04 | 7.27E-04 | 9.62E-04 | 3.52E-04 | 2.35E-04 | 2.93E-04 |
| Total MCI                                     | 3.74E+00 | 5.91E+00 | 6.68E-05 | 5.91E+00 | 5.91E+00 | 4.46E+00 | 5.91E+00 | 2.16E+00 | 1.40E+00 | 1.80E+00 |
| Ag+, (MT)                                     | 2.27E-03 | 3.59E-03 | 3.59E-08 | 3.59E-03 | 3.59E-03 | 2.71E-03 | 3.59E-03 | 1.31E-03 | 8.75E-04 | 1.09E-03 |
| Al+3, (MT)                                    | 1.42E+04 | 2.56E+04 | 2.56E-01 | 2.56E+04 | 1.48E+04 | 1.12E+04 | 2.24E+04 | 8.20E+03 | 3.62E+03 | 1.39E+04 |
| Al(OH) <sub>4</sub> -, (MT)                   | 1.39E-04 | 2.20E-04 | 2.20E-09 | 2.20E-04 | 2.20E-04 | 1.66E-04 | 2.20E-04 | 8.05E-05 | 5.36E-05 | 6.69E-05 |
| Am+3, (MT)                                    | 1.31E-02 | 2.07E-02 | 2.07E-07 | 2.07E-02 | 2.07E-02 | 1.56E-02 | 2.07E-02 | 7.57E-03 | 5.04E-03 | 6.29E-03 |
| As+5, (MT)                                    | 7.05E-03 | 1.11E-02 | 1.11E-07 | 1.11E-02 | 1.11E-02 | 8.40E-03 | 1.11E-02 | 4.07E-03 | 2.71E-03 | 3.39E-03 |
| B+3, (MT)                                     | 2.15E-02 | 3.39E-02 | 3.39E-07 | 3.39E-02 | 3.39E-02 | 2.56E-02 | 3.39E-02 | 1.24E-02 | 8.26E-03 | 1.03E-02 |
| Ba+2, (MT)                                    | 5.19E-03 | 8.20E-05 | 8.20E-10 | 8.20E-05 | 8.20E-05 | 6.20E-05 | 8.20E-05 | 3.00E-05 | 2.00E-05 | 2.50E-05 |
| Bi+3, (MT)                                    | 4.44E+00 | 7.01E+00 | 7.01E-05 | 7.01E+00 | 7.01E+00 | 5.30E+00 | 7.01E+00 | 2.57E+00 | 1.71E+00 | 2.13E+00 |
| Carbon-14, (MT)                               | 7.57E-05 | 1.20E-04 | 1.20E-08 | 1.20E-04 | 1.20E-04 | 9.03E-05 | 1.20E-04 | 4.38E-05 | 2.92E-05 | 3.64E-05 |
| Ca+2, (MT)                                    | 6.95E-01 | 1.10E+00 | 1.10E-05 | 1.10E+00 | 1.10E+00 | 8.29E-01 | 1.10E+00 | 4.02E-01 | 2.68E-01 | 3.34E-01 |
| Cd+2, (MT)                                    | 1.54E-01 | 2.43E-01 | 2.43E-06 | 2.43E-01 | 2.43E-01 | 1.83E-01 | 2.43E-01 | 8.89E-02 | 5.92E-02 | 7.39E-02 |
| Ce+3, (MT)                                    | 1.84E-01 | 2.91E-01 | 2.91E-06 | 2.91E-01 | 2.91E-01 | 2.20E-01 | 2.91E-01 | 1.07E-01 | 7.09E-02 | 8.85E-02 |
| Cl-, (MT)                                     | 3.34E+01 | 5.28E+01 | 5.28E-04 | 5.27E+01 | 5.27E+01 | 3.99E+01 | 5.27E+01 | 1.93E+01 | 1.29E+01 | 1.61E+01 |
| Cm+3, (MT)                                    | 2.87E-08 | 4.53E-08 | 4.53E-13 | 4.53E-08 | 4.53E-08 | 3.43E-08 | 4.53E-08 | 1.66E-08 | 1.11E-08 | 1.38E-08 |
| Co+3, (MT)                                    | 3.62E-03 | 5.72E-03 | 5.72E-08 | 5.72E-03 | 5.71E-03 | 4.32E-03 | 5.72E-03 | 2.09E-03 | 1.40E-03 | 1.74E-03 |
| CO <sub>2</sub> , (MT)                        | 1.60E-02 | 2.53E-02 | 2.53E-07 | 2.53E-02 | 2.53E-02 | 1.91E-02 | 2.53E-02 | 9.27E-03 | 6.17E-03 | 7.70E-03 |
| CO <sub>3</sub> -2, (MT)                      | 9.14E+00 | 1.44E+01 | 1.44E-04 | 1.44E+01 | 1.44E+01 | 1.09E+01 | 1.44E+01 | 5.29E+00 | 3.52E+00 | 4.39E+00 |
| Cr+3, (MT)                                    | 6.00E-04 | 9.48E-04 | 9.48E-08 | 9.48E-04 | 9.47E-04 | 7.16E-04 | 9.48E-04 | 3.47E-04 | 2.31E-04 | 2.89E-04 |
| Cs+, (MT)                                     | 1.52E-02 | 2.41E-02 | 2.41E-07 | 2.41E-02 | 2.41E-02 | 1.82E-02 | 2.41E-02 | 8.81E-03 | 5.87E-03 | 7.33E-03 |
| Cr(OH) <sub>4</sub> -, (MT)                   | 7.65E+01 | 1.21E+02 | 1.21E-03 | 1.21E+02 | 1.21E+02 | 9.12E+01 | 1.21E+02 | 4.42E+01 | 2.95E+01 | 3.68E+01 |
| F-, (MT)                                      | 5.81E-01 | 9.18E-01 | 9.18E-06 | 9.17E-01 | 9.17E-01 | 6.93E-01 | 9.17E-01 | 3.36E-01 | 2.24E-01 | 2.79E-01 |
| Fe+3, (MT)                                    | 2.14E-01 | 3.38E-01 | 3.38E-01 | 3.38E-01 | 3.38E-01 | 2.55E-01 | 3.38E-01 | 1.24E-01 | 8.24E-02 | 1.03E-01 |
| FeCN <sub>6</sub> -3, (MT)                    | 6.55E+00 | 1.04E+01 | 1.04E+01 | 1.04E+01 | 1.04E+01 | 7.82E+00 | 1.03E+01 | 3.79E+00 | 3.15E+00 | 3.15E+00 |
| Ht, (MT)                                      | 2.80E+05 | 8.60E+05 | 5.60E+05 | 3.00E+05 | 2.36E+05 | 1.78E+05 | 4.41E+05 | 1.62E+05 | 5.75E+04 | 3.28E+05 |
| H <sub>2</sub> O, (MT)                        | 7.99E-02 | 1.26E-01 | 1.26E-06 | 1.26E-01 | 1.26E-01 | 9.54E-02 | 1.26E-01 | 4.62E-02 | 3.08E-02 | 3.84E-02 |
| Hg+2, (MT)                                    | 1.60E-02 | 2.53E-02 | 2.53E-07 | 2.53E-02 | 2.53E-02 | 1.91E-02 | 2.53E-02 | 9.27E-03 | 6.17E-03 | 7.70E-03 |
| I-, (MT)                                      | 9.78E+01 | 1.54E+02 | 1.54E-03 | 1.54E+02 | 1.54E+02 | 1.17E+02 | 1.54E+02 | 5.65E+01 | 3.76E+01 | 4.70E+01 |
| K+, (MT)                                      | 2.60E-02 | 4.10E-02 | 4.10E-07 | 4.10E-02 | 4.10E-02 | 3.10E-02 | 4.10E-02 | 1.50E-02 | 1.00E-02 | 1.25E-02 |
| La+3, (MT)                                    | 2.13E-03 | 3.36E-03 | 3.36E-08 | 3.36E-03 | 3.36E-03 | 2.54E-03 | 3.36E-03 | 1.23E-03 | 8.20E-04 | 1.02E-03 |
| Li+, (MT)                                     | 3.74E-02 | 5.90E-02 | 5.90E-07 | 5.90E-02 | 5.90E-02 | 4.46E-02 | 5.90E-02 | 2.16E-02 | 1.44E-02 | 1.80E-02 |
| Mg+2, (MT)                                    | 1.50E+00 | 2.36E+00 | 2.36E-05 | 2.36E+00 | 2.36E+00 | 1.78E+00 | 2.36E+00 | 8.65E-01 | 5.79E-01 | 7.19E-01 |
| Mn+2, (MT)                                    | 2.26E-01 | 3.57E-01 | 3.57E-06 | 3.57E-01 | 3.56E-01 | 2.69E-01 | 3.56E-01 | 1.31E-01 | 8.70E-02 | 1.09E-01 |
| Mo+6, (MT)                                    | 8.22E+04 | 2.04E+05 | 2.04E+00 | 1.46E+05 | 7.48E+04 | 5.66E+04 | 1.30E+05 | 4.76E+04 | 1.83E+04 | 9.13E+04 |
| Nat, (MT)                                     | 4.06E-02 | 6.42E-02 | 6.42E-07 | 6.42E-02 | 6.41E-02 | 4.85E-02 | 6.41E-02 | 2.35E-02 | 1.57E-02 | 1.95E-02 |
| Ni+3, (MT)                                    | NO, (MT) | 5.98E-03 | 9.43E-03 | 9.43E-08 | 9.43E-03 | 9.43E-03 | 7.13E-03 | 9.43E-03 | 3.46E-03 | 2.30E-03 |
| NO <sub>2</sub> -, (MT)                       | 3.19E+05 | 7.25E+05 | 7.25E+00 | 5.70E+05 | 3.03E+05 | 2.29E+05 | 5.04E+05 | 1.85E+05 | 7.40E+04 | 3.42E+05 |
| NO <sub>3</sub> -, (MT)                       | 3.27E-04 | 5.15E-04 | 5.15E-09 | 5.15E-04 | 5.15E-04 | 3.89E-04 | 5.15E-04 | 1.89E-04 | 1.26E-04 | 1.57E-04 |
| Np+4, (MT)                                    | 1.47E-01 | 2.32E-01 | 2.32E-06 | 2.32E-01 | 2.32E-01 | 1.75E-01 | 2.32E-01 | 8.49E-02 | 5.65E-02 | 7.06E-02 |
| OH-, (MT)                                     | 1.88E-01 | 2.97E-01 | 2.97E-06 | 2.97E-01 | 2.97E-01 | 2.24E-01 | 2.97E-01 | 1.09E-01 | 7.24E-02 | 9.04E-02 |
| Pb+4, (MT)                                    | 3.53E+02 | 5.57E+02 | 5.57E-03 | 5.57E+02 | 5.57E+02 | 4.21E+02 | 5.57E+02 | 2.04E+02 | 1.36E+02 | 1.70E+02 |
| PO <sub>4</sub> -3, (MT)                      | 2.67E+00 | 4.21E+00 | 4.21E+00 | 4.21E+00 | 4.21E+00 | 3.18E+00 | 4.21E+00 | 1.54E+00 | 1.03E+00 | 1.28E+00 |
| Poly, (MT)                                    | 5.81E-04 | 9.17E-04 | 9.17E-09 | 9.17E-04 | 9.16E-04 | 6.93E-04 | 9.16E-04 | 3.36E-04 | 2.24E-04 | 2.79E-04 |
| Ru+4, (MT)                                    | 4.29E-03 | 6.77E-03 | 6.77E-08 | 6.77E-03 | 6.77E-03 | 5.12E-03 | 6.77E-03 | 2.48E-03 | 1.65E-03 | 2.06E-03 |
| Rb+, (MT)                                     | 3.22E-04 | 5.09E-04 | 5.09E-09 | 5.09E-04 | 5.08E-04 | 3.84E-04 | 5.08E-04 | 1.86E-04 | 1.24E-04 | 1.55E-04 |
| Re+7, (MT)                                    | 8.77E-04 | 1.38E-03 | 1.38E-08 | 1.38E-03 | 1.38E-03 | 1.05E-03 | 1.38E-03 | 5.07E-04 | 3.38E-04 | 4.22E-04 |
| Rh+3, (MT)                                    | 1.89E-03 | 2.98E-03 | 2.98E-07 | 2.98E-03 | 2.98E-03 | 2.25E-03 | 2.98E-03 | 1.09E-03 | 7.28E-04 | 9.08E-04 |
| Ru+3, (MT)                                    | 4.02E-03 | 6.35E-03 | 6.35E-08 | 6.35E-03 | 6.34E-03 | 4.80E-03 | 6.35E-03 | 2.33E-03 | 1.55E-03 | 1.93E-03 |
| Sb+5, (MT)                                    | 3.81E-02 | 6.01E-02 | 6.01E-07 | 6.01E-02 | 6.01E-02 | 4.54E-02 | 6.01E-02 | 2.20E-02 | 1.47E-02 | 1.83E-02 |
| Se+6, (MT)                                    | 9.28E-01 | 1.47E+00 | 1.47E-05 | 1.47E+00 | 1.46E+00 | 1.11E+00 | 1.47E+00 | 5.37E-01 | 3.57E-01 | 4.46E-01 |
| Si+4, (MT)                                    | 2.43E-05 | 3.83E-05 | 3.83E-10 | 3.83E-05 | 3.83E-05 | 2.90E-05 | 3.83E-05 | 1.40E-05 | 9.35E-06 | 1.17E-05 |
| Sm+3, (MT)                                    | 3.42E-04 | 5.40E-04 | 5.40E-09 | 5.40E-04 | 5.40E-04 | 4.08E-04 | 5.40E-04 | 1.98E-04 | 1.32E-04 | 1.65E-04 |
| Sn+4, (MT)                                    | 1.38E+02 | 2.17E+02 | 2.17E-03 | 2.17E+02 | 2.17E+02 | 1.64E+02 | 2.17E+02 | 7.96E+01 | 5.30E+01 | 6.62E+01 |
| SO <sub>4</sub> -2, (MT)                      | 2.65E-02 | 4.19E-02 | 4.19E-07 | 4.19E-02 | 4.19E-02 | 3.16E-02 | 4.19E-02 | 1.53E-02 | 1.02E-02 | 1.28E-02 |
| Str+2, (MT)                                   | 2.04E-01 | 3.22E-01 | 3.22E-05 | 3.22E-01 | 3.22E-01 | 2.43E-01 | 3.22E-01 | 1.18E-01 | 7.85E-02 | 9.80E-02 |
| TcO <sub>4</sub> -, (MT)                      | 3.76E-04 | 5.94E-04 | 5.94E-09 | 5.94E-04 | 5.93E-04 | 4.49E-04 | 5.94E-04 | 2.17E-04 | 1.45E-04 | 1.81E-04 |
| Te+6, (MT)                                    | 1.24E-02 | 1.95E-02 | 1.95E-07 | 1.95E-02 | 1.95E-02 | 1.47E-02 | 1.95E-02 | 7.15E-03 | 4.76E-03 | 5.94E-03 |
| Th+4, (MT)                                    | 4.87E-04 | 7.68E-04 | 7.68E-09 | 7.68E-04 | 7.68E-04 | 5.80E-04 | 7.68E-04 | 2.81E-04 | 1.87E-04 | 2.34E-04 |
| Ti+4, (MT)                                    | 2.10E-02 | 3.32E-02 | 3.32E-07 | 3.32E-02 | 3.32E-02 | 2.51E-02 | 3.32E-02 | 1.33E-02 | 8.10E-03 | 1.01E-02 |
| Tl+3, (MT)                                    | 5.37E+01 | 8.48E+01 | 8.48E-03 | 8.48E+01 | 8.48E+01 | 6.41E+01 | 8.48E+01 | 3.11E+01 | 2.07E+01 | 2.58E+01 |
| TiO <sub>2</sub> , (MT)                       | 6.38E+00 | 1.01E+01 | 1.01E-04 | 1.01E+01 | 1.01E+01 | 7.61E+00 | 1.01E+01 | 3.69E+00 | 2.46E+00 | 3.07E+00 |
| UO <sub>2</sub> +2, (MT)                      | 6.63E-04 | 1.05E-03 | 1.05E-08 | 1.05E-03 | 1.05E-03 | 7.91E-04 | 1.05E-03 | 3.83E-04 | 2.55E-04 | 3.19E-04 |
| V+5, (MT)                                     | 2.65E-01 | 3.56E-01 | 3.56E-06 | 3.56E-01 | 3.56E-01 | 2.69E-01 | 3.56E-01 | 1.30E-01 | 8.68E-02 | 1.08E-01 |
| W+6, (MT)                                     | 6.09E-02 | 9.62E-02 | 9.62E-07 | 9.62E-02 | 9.62E-02 | 7.27E-02 | 9.62E-02 | 3.52E-02 | 2.35E-02 | 2.93E-02 |
| ZH2, (MT)                                     | 1.70E+00 | 2.68E+00 | 2.68E-05 | 2.68E+00 | 2.68E+00 | 2.03E+00 | 2.68E+00 | 9.83E-01 | 6.54E-01 | 8.17E-01 |
| ZnO2, (MT)                                    | 1.70E+00 | 2.68E+00 | 2.68E-05 | 2.68E+00 | 2.68E+00 | 2.03E+00 | 2.68E+00 | 9.83E-01 | 6.54E-01 | 8.17E-01 |

| STREAM NAME<br>SOLID COMPONENTS                        | 24       | 25       | 26 | 27       | 28       | 29       | 30       | 31       | 32       | 33       |
|--------------------------------------------------------|----------|----------|----|----------|----------|----------|----------|----------|----------|----------|
| Total Mass Flow, (MT)                                  | 6.97E+02 | 4.03E+02 |    | 2.13E+05 | 6.27E+05 | 4.77E+02 | 1.10E+03 | 4.03E+02 | 6.27E+05 | 6.27E+05 |
| Al, (MT)                                               | 1.20E+01 | 6.95E+00 |    | 9.97E+00 | 1.08E+04 | 8.19E+00 | 1.89E+01 | 6.92E+00 | 1.08E+04 | 1.08E+04 |
| Fe, (MT)                                               | 6.71E-06 | 5.58E-03 |    | 5.69E-03 | 6.04E-03 | 4.59E-06 | 1.06E-05 | 3.88E-06 | 6.03E-03 | 6.04E-03 |
| Cr, (MT)                                               | 7.89E-06 | 4.56E-06 |    | 1.71E-03 | 7.10E-03 | 5.40E-06 | 1.25E-05 | 4.56E-06 | 7.10E-03 | 7.10E-03 |
| Na, (MT)                                               | 1.43E+02 | 8.29E+01 |    | 5.76E+04 | 1.29E+05 | 9.81E+01 | 2.26E+02 | 8.29E+01 | 1.29E+05 | 1.29E+05 |
| Si, (MT)                                               | 3.36E-05 | 2.95E-02 |    | 2.97E-02 | 3.02E-02 | 2.30E-05 | 5.30E-05 | 1.94E-05 | 3.02E-02 | 3.02E-02 |
| P, (MT)                                                | 9.94E-05 | 7.10E-05 |    | 2.15E-02 | 8.95E-02 | 6.80E-05 | 1.57E-04 | 5.75E-05 | 8.94E-02 | 8.95E-02 |
| NO <sub>2</sub> - and NO <sub>3</sub> -, (MT)          | 4.69E+02 | 2.71E+02 |    | 1.55E+05 | 4.22E+05 | 3.21E+02 | 7.41E+02 | 2.71E+02 | 4.22E+05 | 4.23E+05 |
| Cs and Ba, (MCI)                                       | 4.25E-08 | 2.46E-08 |    | 9.20E-06 | 3.83E-05 | 2.91E-08 | 6.72E-08 | 2.46E-08 | 3.83E-05 | 3.83E-05 |
| Sr and Y, (MCI)                                        | 8.62E-08 | 4.98E-08 |    | 1.86E-05 | 7.76E-05 | 5.90E-08 | 1.36E-07 | 4.98E-08 | 7.75E-05 | 7.76E-05 |
| Tc, (MCI)                                              | 1.83E-09 | 1.06E-09 |    | 3.95E-07 | 1.64E-06 | 1.25E-09 | 2.88E-09 | 1.06E-09 | 1.64E-06 | 1.64E-06 |
| TRU, (MCI)                                             | 5.25E-10 | 3.04E-10 |    | 1.14E-07 | 4.73E-07 | 3.60E-10 | 8.30E-10 | 3.04E-10 | 4.73E-07 | 4.74E-07 |
| Total MCI                                              | 3.23E-06 | 1.87E-06 |    | 6.99E-04 | 2.91E-03 | 2.21E-06 | 5.10E-06 | 1.87E-06 | 2.91E-03 | 2.91E-03 |
| Ag+, (MT)                                              | 1.96E-09 | 1.13E-09 |    | 4.24E-07 | 1.77E-06 | 1.34E-09 | 3.10E-09 | 1.13E-09 | 1.76E-06 | 1.77E-06 |
| Al+3, (MT)                                             | 1.20E+01 | 6.92E+00 |    | 9.94E+00 | 1.08E+04 | 8.19E+00 | 1.89E+01 | 6.92E+00 | 1.08E+04 | 1.08E+04 |
| Am+3, (MT)                                             | 1.20E-10 | 6.94E-11 |    | 2.60E-08 | 1.08E-07 | 8.22E-11 | 1.90E-10 | 6.94E-11 | 1.08E-07 | 1.08E-07 |
| As+5, (MT)                                             | 1.13E-08 | 6.54E-09 |    | 2.44E-06 | 1.02E-05 | 7.73E-09 | 1.78E-08 | 6.54E-09 | 1.02E-05 | 1.02E-05 |
| B+3, (MT)                                              | 6.08E-09 | 3.52E-09 |    | 1.32E-06 | 5.47E-06 | 4.16E-09 | 9.60E-09 | 3.52E-09 | 5.47E-06 | 5.48E-06 |
| Ba+2, (MT)                                             | 1.85E-08 | 1.07E-08 |    | 4.01E-06 | 1.67E-05 | 1.27E-08 | 2.92E-08 | 1.07E-08 | 1.67E-05 | 1.67E-05 |
| Ba+2, (MT)                                             | 4.48E-11 | 2.59E-11 |    | 9.70E-09 | 4.04E-08 | 3.07E-11 | 7.08E-11 | 2.59E-11 | 4.03E-08 | 4.04E-08 |
| Bi+3, (MT)                                             | 1.83E-09 | 1.06E-09 |    | 3.95E-07 | 1.64E-06 | 1.25E-09 | 2.88E-09 | 1.06E-09 | 1.64E-06 | 1.64E-06 |
| Carbon-14, (MT)                                        | 6.53E-11 | 3.78E-11 |    | 1.41E-08 | 5.88E-08 | 4.47E-11 | 1.03E-10 | 3.78E-11 | 5.88E-08 | 5.89E-08 |
| Ca+2, (MT)                                             | 6.00E-07 | 3.47E-07 |    | 1.30E-04 | 5.40E-04 | 4.11E-07 | 9.47E-07 | 3.47E-07 | 5.40E-04 | 5.40E-04 |
| Cancrinite, (MT)                                       | 1.99E-04 | 1.79E-01 |    | 1.79E-01 | 1.79E-01 | 1.36E-04 | 3.13E-04 | 1.79E-01 | 1.79E-01 | 1.79E-01 |
| CaH <sub>2</sub> , (MT)                                | 1.33E-07 | 7.68E-08 |    | 2.87E-05 | 1.20E-04 | 9.08E-08 | 2.10E-07 | 7.68E-08 | 1.19E-04 | 1.20E-04 |
| Ce+3, (MT)                                             | 1.59E-07 | 9.19E-08 |    | 3.44E-05 | 1.43E-04 | 1.09E-07 | 2.51E-07 | 9.19E-08 | 1.43E-04 | 1.43E-04 |
| Cl-, (MT)                                              | 2.88E-05 | 1.67E-05 |    | 6.24E-03 | 2.60E-02 | 1.97E-05 | 4.55E-05 | 1.67E-05 | 2.59E-02 | 2.60E-02 |
| Cm+3, (MT)                                             | 2.47E-14 | 1.43E-14 |    | 5.35E-12 | 2.23E-11 | 1.70E-14 | 3.91E-14 | 1.43E-14 | 2.23E-11 | 2.23E-11 |
| CO+3, (MT)                                             | 3.13E-09 | 1.81E-09 |    | 6.76E-07 | 2.81E-06 | 2.14E-09 | 4.93E-09 | 1.81E-09 | 2.81E-06 | 2.81E-06 |
| CO <sub>3</sub> -2, (MT)                               | 1.38E-08 | 8.00E-09 |    | 2.99E-06 | 1.25E-05 | 9.46E-09 | 2.18E-08 | 8.00E-09 | 1.24E-05 | 1.25E-05 |
| Cr+3, (MT)                                             | 7.89E-06 | 4.56E-06 |    | 1.71E-03 | 7.10E-03 | 5.40E-06 | 1.25E-05 | 4.56E-06 | 7.10E-03 | 7.10E-03 |
| Cs+, (MT)                                              | 5.18E-10 | 3.00E-10 |    | 1.12E-07 | 4.67E-07 | 3.55E-10 | 8.18E-10 | 3.00E-10 | 4.67E-07 | 4.67E-07 |
| Cu+2, (MT)                                             | 1.32E-08 | 7.61E-09 |    | 2.85E-06 | 1.18E-05 | 9.00E-09 | 2.08E-08 | 7.61E-09 | 1.18E-05 | 1.18E-05 |
| F-, (MT)                                               | 6.60E-05 | 3.82E-05 |    | 1.43E-02 | 5.94E-02 | 4.52E-05 | 1.04E-04 | 3.82E-05 | 5.94E-02 | 5.94E-02 |
| Fe+3, (MT)                                             | 5.02E-07 | 2.90E-07 |    | 1.09E-04 | 4.52E-04 | 3.43E-07 | 7.92E-07 | 2.90E-07 | 4.51E-04 | 4.52E-04 |
| H <sub>2</sub> O, (MT)                                 | 7.20E+01 | 4.16E+01 |    | 7.71E+01 | 6.48E+04 | 4.93E+01 | 1.14E+02 | 4.16E+01 | 6.48E+04 | 6.48E+04 |
| Hg+2, (MT)                                             | 6.90E-08 | 3.99E-08 |    | 1.47E-05 | 6.21E-05 | 4.72E-08 | 1.09E-07 | 3.99E-08 | 6.21E-05 | 6.21E-05 |
| I-, (MT)                                               | 1.39E-08 | 8.01E-09 |    | 3.00E-06 | 1.25E-05 | 9.48E-09 | 2.19E-08 | 8.01E-09 | 1.25E-05 | 1.25E-05 |
| K+, (MT)                                               | 8.44E-05 | 4.88E-05 |    | 1.83E-02 | 7.60E-02 | 5.77E-05 | 1.33E-04 | 4.88E-05 | 7.59E-02 | 7.60E-02 |
| La+3, (MT)                                             | 2.24E-08 | 1.30E-08 |    | 4.85E-06 | 2.02E-05 | 1.53E-08 | 3.54E-08 | 1.30E-08 | 2.02E-05 | 2.02E-05 |
| Li+, (MT)                                              | 1.84E-09 | 1.06E-09 |    | 3.98E-07 | 1.66E-06 | 1.26E-09 | 2.90E-09 | 1.06E-09 | 1.66E-06 | 1.66E-06 |
| Mg+2, (MT)                                             | 3.23E-08 | 1.87E-08 |    | 6.98E-06 | 2.91E-05 | 2.21E-08 | 5.09E-08 | 1.87E-08 | 2.90E-05 | 2.91E-05 |
| MnO <sub>2</sub> , (MT)                                | 1.29E-06 | 7.47E-07 |    | 2.79E-04 | 1.16E-03 | 8.83E-07 | 2.04E-06 | 7.47E-07 | 1.16E-03 | 1.16E-03 |
| Mo+6, (MT)                                             | 1.95E-07 | 1.13E-07 |    | 4.22E-05 | 1.76E-04 | 1.33E-07 | 3.08E-07 | 1.13E-07 | 1.76E-04 | 1.76E-04 |
| Na+, (MT)                                              | 1.43E+02 | 8.29E+01 |    | 5.76E+04 | 1.29E+05 | 9.81E+01 | 2.26E+02 | 8.29E+01 | 1.29E+05 | 1.29E+05 |
| Ni+3, (MT)                                             | 3.51E-08 | 2.03E-08 |    | 7.59E-06 | 3.16E-05 | 2.40E-08 | 5.54E-08 | 2.03E-08 | 3.16E-05 | 3.16E-05 |
| Ni <sub>2</sub> FeO <sub>6</sub> , (MT)                | 3.66E-05 | 3.29E-02 |    | 3.29E-02 | 3.29E-02 | 2.50E-05 | 5.77E-05 | 3.29E-02 | 3.29E-02 | 3.29E-02 |
| NO <sub>2</sub> -, (MT)                                | 5.16E-09 | 2.98E-09 |    | 1.12E-06 | 4.64E-06 | 3.53E-09 | 8.14E-09 | 2.98E-09 | 4.64E-06 | 4.64E-06 |
| NO <sub>3</sub> -, (MT)                                | 4.69E+02 | 2.71E+02 |    | 1.55E+05 | 4.22E+05 | 3.21E+02 | 7.41E+02 | 2.71E+02 | 4.22E+05 | 4.23E+05 |
| Np+4, (MT)                                             | 2.82E-10 | 1.63E-10 |    | 6.10E-08 | 2.54E-07 | 1.93E-10 | 4.45E-10 | 1.63E-10 | 2.54E-07 | 2.54E-07 |
| OH-, (MT)                                              | 1.27E-07 | 7.33E-08 |    | 2.74E-05 | 1.14E-04 | 8.67E-08 | 2.00E-07 | 7.33E-08 | 1.14E-04 | 1.14E-04 |
| P <sub>2</sub> O <sub>5</sub> :2H <sub>2</sub> O, (MT) | 1.48E-06 | 1.33E-03 |    | 1.33E-03 | 1.33E-03 | 1.01E-06 | 2.33E-06 | 8.54E-07 | 1.33E-03 | 1.33E-03 |
| Pb+4, (MT)                                             | 1.62E-07 | 9.38E-08 |    | 3.51E-05 | 1.46E-04 | 1.11E-07 | 2.56E-07 | 9.38E-08 | 1.46E-04 | 1.46E-04 |
| PO <sub>4</sub> -3, (MT)                               | 3.05E-04 | 1.76E-04 |    | 6.59E-02 | 2.74E-01 | 2.08E-04 | 4.81E-04 | 1.76E-04 | 2.74E-01 | 2.74E-01 |
| Poly, (MT)                                             | 4.54E-06 | 4.08E-03 |    | 4.08E-03 | 4.08E-03 | 3.10E-06 | 7.16E-06 | 2.62E-06 | 4.08E-03 | 4.09E-03 |
| Ru+4, (MT)                                             | 5.01E-10 | 2.90E-10 |    | 1.08E-07 | 4.51E-07 | 3.43E-10 | 7.91E-10 | 2.90E-10 | 4.51E-07 | 4.51E-07 |
| Rb+, (MT)                                              | 3.70E-09 | 2.14E-09 |    | 8.01E-07 | 3.33E-06 | 2.53E-09 | 5.84E-09 | 2.14E-09 | 3.33E-06 | 3.33E-06 |
| Ra+7, (MT)                                             | 2.78E-10 | 1.61E-10 |    | 6.01E-08 | 2.50E-07 | 1.90E-10 | 4.39E-10 | 1.61E-10 | 2.50E-07 | 2.50E-07 |
| Rh+3, (MT)                                             | 7.56E-10 | 4.37E-10 |    | 1.64E-07 | 6.81E-07 | 5.18E-10 | 1.20E-09 | 4.37E-10 | 6.81E-07 | 6.82E-07 |
| Ru+3, (MT)                                             | 1.63E-09 | 9.42E-10 |    | 3.53E-07 | 1.47E-06 | 1.12E-09 | 2.57E-09 | 9.42E-10 | 1.47E-06 | 1.47E-06 |
| Sb+5, (MT)                                             | 3.47E-09 | 2.01E-09 |    | 7.51E-07 | 3.12E-06 | 2.38E-09 | 5.48E-09 | 2.01E-09 | 3.12E-06 | 3.13E-06 |
| Se+6, (MT)                                             | 3.29E-08 | 1.90E-08 |    | 7.11E-06 | 2.25E-05 | 5.19E-08 | 1.19E-08 | 1.90E-08 | 2.25E-05 | 2.25E-05 |
| Si+4, (MT)                                             | 8.01E-07 | 4.63E-07 |    | 1.73E-04 | 7.21E-04 | 5.48E-07 | 1.26E-06 | 4.63E-07 | 7.21E-04 | 7.21E-04 |
| Sn+3, (MT)                                             | 2.09E-11 | 1.21E-11 |    | 4.53E-09 | 1.89E-08 | 1.43E-11 | 3.31E-11 | 1.21E-11 | 1.89E-08 | 1.89E-08 |
| Sn+4, (MT)                                             | 2.95E-10 | 1.71E-10 |    | 6.39E-08 | 2.66E-07 | 2.02E-10 | 4.66E-10 | 1.71E-10 | 2.66E-07 | 2.66E-07 |
| SO <sub>4</sub> -2, (MT)                               | 1.19E-04 | 6.87E-05 |    | 2.57E-02 | 1.07E-01 | 8.13E-05 | 1.88E-04 | 6.87E-05 | 1.07E-01 | 1.07E-01 |
| St+2, (MT)                                             | 2.29E-08 | 1.32E-08 |    | 4.95E-06 | 2.06E-05 | 1.57E-08 | 3.61E-08 | 1.32E-08 | 2.06E-05 | 2.06E-05 |
| ToO <sub>4</sub> -, (MT)                               | 1.76E-07 | 1.02E-07 |    | 3.81E-05 | 1.59E-04 | 1.21E-07 | 2.78E-07 | 1.02E-07 | 1.59E-04 | 1.59E-04 |
| Te+6, (MT)                                             | 3.24E-10 | 1.88E-10 |    | 7.02E-08 | 2.92E-07 | 2.22E-10 | 5.12E-10 | 1.88E-10 | 2.92E-07 | 2.92E-07 |
| Th+4, (MT)                                             | 1.07E-08 | 6.17E-09 |    | 2.31E-06 | 9.60E-06 | 7.30E-09 | 1.68E-08 | 6.17E-09 | 9.60E-06 | 9.60E-06 |
| Ti+4, (MT)                                             | 4.20E-10 | 2.43E-10 |    | 9.08E-08 | 3.78E-07 | 2.87E-10 | 6.63E-10 | 2.43E-10 | 3.78E-07 | 3.78E-07 |
| Tl+3, (MT)                                             | 1.82E-08 | 1.05E-08 |    | 3.93E-06 | 1.63E-05 | 1.24E-08 | 2.87E-08 | 1.05E-08 | 1.63E-05 | 1.63E-05 |
| TiO <sub>2</sub> , (MT)                                | 4.64E-05 | 2.68E-05 |    | 1.00E-02 | 4.18E-02 | 3.17E-05 | 7.32E-05 | 2.68E-05 | 4.17E-02 | 4.18E-02 |
| UO <sub>2</sub> +2, (MT)                               | 5.51E-06 | 3.18E-06 |    | 1.19E-03 | 4.96E-03 | 3.77E-06 | 8.69E-06 | 3.18E-06 | 4.96E-03 | 4.96E-03 |
| VH <sub>5</sub> , (MT)                                 | 5.72E-10 | 3.31E-10 |    | 1.24E-07 | 5.15E-07 | 3.91E-10 | 9.03E-10 | 3.31E-10 | 5.15E-07 | 5.15E-07 |
| W+6, (MT)                                              | 1.95E-07 | 1.13E-07 |    | 4.21E-05 | 1.75E-04 | 1.33E-07 | 3.07E-07 | 1.13E-07 | 1.75E-04 | 1.75E-04 |
| Zn+2, (MT)                                             | 5.26E-08 | 3.04E-08 |    | 1.14E-05 | 4.74E-05 | 3.60E-08 | 8.30E-08 | 3.04E-08 | 4.73E-05 | 4.74E-05 |
| ZrO <sub>2</sub> :2H <sub>2</sub> O, (MT)              | 1.47E-06 | 8.48E-07 |    | 3.17E-04 | 1.32E-03 | 1.00E-06 | 2.32E-06 | 8.48E-07 | 1.32E-03 | 1.32E-03 |

| STREAM NAME<br>LIQUID COMPONENTS              | 34       | 35       | 36       | 37       | 38       | 41       | 42       | 43       | 44       | 45       |
|-----------------------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Total Mass Flow, (MT)                         | 6.22E+05 | 1.54E+05 | 7.76E+05 | 6.22E+05 | 1.54E+05 | 5.18E+05 | 1.23E+06 | 6.22E+05 | 1.44E+06 | 4.31E+05 |
| Al, (MT)                                      | 1.12E+04 | 2.76E+03 | 1.29E+04 | 1.03E+04 | 2.55E+03 |          | 1.33E+04 | 1.01E+04 | 1.66E+04 | 1.66E-01 |
| Fe, (MT)                                      | 2.80E-01 | 6.92E-02 | 8.65E-02 | 6.94E-02 | 1.71E-02 |          | 1.76E-02 | 1.73E-02 | 2.32E-02 | 1.87E-07 |
| Cr, (MT)                                      | 3.52E+00 | 8.70E-01 | 1.09E+00 | 8.74E-01 | 2.16E-01 |          | 2.23E-01 | 2.19E-01 | 2.95E-01 | 2.95E-06 |
| Na, (MT)                                      | 7.32E+04 | 1.81E+04 | 9.11E+04 | 7.31E+04 | 1.81E+04 |          | 1.47E+05 | 7.30E+04 | 1.71E+05 | 1.71E+00 |
| Si, (MT)                                      | 3.58E-01 | 8.84E-02 | 1.11E-01 | 8.87E-02 | 2.19E-02 |          | 2.26E-02 | 2.23E-02 | 2.99E-02 | 2.99E-07 |
| P, (MT)                                       | 4.44E+01 | 1.10E+01 | 1.37E+01 | 1.10E+01 | 2.72E+00 |          | 2.81E+00 | 2.76E+00 | 3.71E+00 | 3.71E-05 |
| NO <sub>2</sub> - and NO <sub>3</sub> -, (MT) | 2.74E+05 | 6.78E+04 | 3.34E+05 | 2.68E+05 | 6.62E+04 |          | 4.88E+05 | 2.67E+05 | 5.75E+05 | 5.75E+00 |
| Cs and Ba, (MCl)                              | 1.90E-02 | 4.69E-03 | 5.88E-03 | 4.71E-03 | 1.16E-03 |          | 1.20E-03 | 1.18E-03 | 1.59E-03 | 1.59E-07 |
| Str and Y, (MCl)                              | 3.85E-02 | 9.50E-03 | 1.19E-02 | 9.54E-03 | 2.36E-03 |          | 2.43E-03 | 2.39E-03 | 3.22E-03 | 3.22E-08 |
| Tc, (MCl)                                     | 8.15E-04 | 2.01E-04 | 2.52E-04 | 2.02E-04 | 4.99E-05 |          | 5.16E-05 | 5.07E-05 | 6.81E-05 | 6.81E-09 |
| TRU, (MCl)                                    | 2.35E-04 | 5.80E-05 | 7.26E-05 | 5.82E-05 | 1.44E-05 |          | 1.49E-05 | 1.46E-05 | 1.96E-05 | 1.96E-10 |
| Total MCl                                     | 1.44E+00 | 3.56E-01 | 4.46E-01 | 3.58E-01 | 8.84E-02 |          | 9.13E-02 | 8.97E-02 | 1.21E-01 | 1.36E-06 |
| Ag+, (MT)                                     | 8.76E-04 | 2.16E-04 | 2.71E-04 | 2.17E-04 | 5.36E-05 |          | 5.54E-05 | 5.45E-05 | 7.32E-05 | 7.32E-10 |
| Al+3, (MT)                                    | 1.12E+04 | 2.76E+03 | 1.29E+04 | 1.03E+04 | 2.55E+03 |          | 1.33E+04 | 1.01E+04 | 1.66E+04 | 1.66E-01 |
| Al(OH) <sub>4</sub> -, (MT)                   |          |          |          |          |          |          |          |          |          |          |
| Am+3, (MT)                                    | 5.36E-05 | 1.33E-05 | 1.66E-05 | 1.33E-05 | 3.29E-06 |          | 3.39E-06 | 3.34E-06 | 4.48E-06 | 4.48E-11 |
| As+5, (MT)                                    | 5.05E-03 | 1.25E-03 | 1.56E-03 | 1.25E-03 | 3.09E-04 |          | 3.19E-04 | 3.14E-04 | 4.22E-04 | 4.22E-09 |
| B+3, (MT)                                     | 2.72E-03 | 6.71E-04 | 8.40E-04 | 6.73E-04 | 1.66E-04 |          | 1.72E-04 | 1.69E-04 | 2.27E-04 | 2.27E-09 |
| Ba+2, (MT)                                    | 8.27E-03 | 2.04E-03 | 2.56E-03 | 2.05E-03 | 5.07E-04 |          | 5.23E-04 | 5.15E-04 | 6.91E-04 | 6.91E-09 |
| Be+2, (MT)                                    | 2.00E-05 | 4.95E-06 | 6.19E-06 | 4.97E-06 | 1.23E-06 |          | 1.27E-06 | 1.25E-06 | 1.67E-06 | 1.67E-11 |
| Bi+3, (MT)                                    | 1.71E+00 | 4.23E-01 | 5.29E-01 | 4.24E-01 | 1.05E-01 |          | 1.08E-01 | 1.07E-01 | 1.43E-01 | 1.43E-06 |
| Carbon-14, (MT)                               | 2.92E-05 | 7.21E-06 | 9.03E-06 | 7.24E-06 | 1.79E-06 |          | 1.85E-06 | 1.82E-06 | 2.44E-06 | 2.44E-10 |
| Ce+2, (MT)                                    | 2.68E-01 | 6.62E-02 | 8.29E-02 | 6.65E-02 | 1.64E-02 |          | 1.70E-02 | 1.67E-02 | 2.24E-02 | 2.24E-07 |
| Cd+2, (MT)                                    | 5.93E-02 | 1.46E-02 | 1.83E-02 | 1.47E-02 | 3.63E-03 |          | 3.75E-03 | 3.69E-03 | 4.95E-03 | 4.95E-08 |
| Ce+3, (MT)                                    | 7.10E-02 | 1.75E-02 | 2.20E-02 | 1.76E-02 | 4.35E-03 |          | 4.49E-03 | 4.42E-03 | 5.93E-03 | 5.93E-08 |
| Cl-, (MT)                                     | 1.29E+01 | 3.18E+00 | 3.98E+00 | 3.19E+00 | 7.89E-01 |          | 8.15E-01 | 8.01E-01 | 1.08E+00 | 1.08E-05 |
| Cm+3, (MT)                                    | 1.11E-08 | 2.73E-09 | 3.42E-09 | 2.74E-09 | 6.77E-10 |          | 7.00E-10 | 6.86E-10 | 9.23E-10 | 9.23E-15 |
| Co+3, (MT)                                    | 1.40E-03 | 3.45E-04 | 4.32E-04 | 3.46E-04 | 8.55E-05 |          | 8.83E-05 | 8.69E-05 | 1.17E-04 | 1.17E-09 |
| CO <sub>2</sub> , (MT)                        |          |          |          |          |          |          |          |          |          |          |
| CO <sub>3</sub> -2, (MT)                      | 6.18E-03 | 1.53E-03 | 1.91E-03 | 1.53E-03 | 3.78E-04 |          | 3.91E-04 | 3.84E-04 | 5.16E-04 | 5.16E-09 |
| Cr+3, (MT)                                    | 3.52E+00 | 8.70E-01 | 1.09E+00 | 8.74E-01 | 2.16E-01 |          | 2.23E-01 | 2.19E-01 | 2.95E-01 | 2.95E-06 |
| Cr(OH) <sub>4</sub> -, (MT)                   |          |          |          |          |          |          |          |          |          |          |
| Cst, (MT)                                     | 2.31E-04 | 5.72E-05 | 7.16E-05 | 5.74E-05 | 1.42E-05 |          | 1.46E-05 | 1.44E-05 | 1.93E-05 | 1.93E-09 |
| Cu+2, (MT)                                    | 5.88E-03 | 1.45E-03 | 1.82E-03 | 1.46E-03 | 3.60E-04 |          | 3.72E-04 | 3.66E-04 | 4.91E-04 | 4.91E-09 |
| F-, (MT)                                      | 2.95E+01 | 7.28E+00 | 9.12E+00 | 7.31E+00 | 1.81E+00 |          | 1.87E+00 | 1.83E+00 | 2.46E+00 | 2.46E-05 |
| Fe+3, (MT)                                    | 2.24E-01 | 5.53E-02 | 6.93E-02 | 5.56E-02 | 1.37E-02 |          | 1.42E-02 | 1.39E-02 | 1.79E-02 | 1.87E-07 |
| FeCN <sub>6</sub> -3, (MT)                    | 8.23E-02 | 2.03E-02 | 2.53E-02 | 2.03E-02 | 5.00E-03 |          | 5.00E-03 | 4.92E-03 | 6.61E-03 |          |
| H+, (MT)                                      | 2.52E+00 | 6.23E-01 | 7.74E-01 | 6.21E-01 | 1.53E-01 |          | 1.53E-01 | 1.51E-01 | 2.03E-01 |          |
| H <sub>2</sub> O, (MT)                        | 2.63E+05 | 6.50E+04 | 3.38E+05 | 2.71E+05 | 6.69E+04 | 5.18E+05 | 5.84E+05 | 2.73E+05 | 6.73E+05 | 4.31E+05 |
| Hg+2, (MT)                                    | 3.08E-02 | 7.61E-03 | 9.53E-03 | 7.64E-03 | 1.89E-03 |          | 1.95E-03 | 1.92E-03 | 2.58E-03 | 2.58E-08 |
| I-, (MT)                                      | 6.18E-03 | 1.53E-03 | 1.91E-03 | 1.53E-03 | 3.79E-04 |          | 3.91E-04 | 3.85E-04 | 5.17E-04 | 5.17E-08 |
| K+, (MT)                                      | 3.77E+01 | 9.31E+00 | 1.17E+01 | 9.34E+00 | 2.31E+00 |          | 2.38E+00 | 2.34E+00 | 3.15E+00 | 3.15E-05 |
| La+3, (MT)                                    | 1.00E-02 | 2.47E-03 | 3.09E-03 | 2.48E-03 | 6.13E-04 |          | 6.33E-04 | 6.23E-04 | 8.36E-04 | 8.36E-09 |
| Li+, (MT)                                     | 8.21E-04 | 2.03E-04 | 2.54E-04 | 2.04E-04 | 5.03E-05 |          | 5.19E-05 | 5.11E-05 | 6.86E-05 | 6.86E-10 |
| Mg+2, (MT)                                    | 1.44E-02 | 3.56E-03 | 4.46E-03 | 3.57E-03 | 8.83E-04 |          | 9.12E-04 | 8.97E-04 | 1.21E-03 | 1.21E-08 |
| MnO <sub>2</sub> , (MT)                       | 5.77E-01 | 1.42E-01 | 1.78E-01 | 1.43E-01 | 3.53E-02 |          | 3.65E-02 | 3.59E-02 | 4.82E-02 | 4.82E-07 |
| Mn+6, (MT)                                    | 8.71E-02 | 2.15E-02 | 2.69E-02 | 2.16E-02 | 5.33E-03 |          | 5.51E-03 | 5.42E-03 | 7.28E-03 | 7.28E-08 |
| Nat, (MT)                                     | 7.32E+04 | 1.81E+04 | 9.11E+04 | 7.31E+04 | 1.81E+04 |          | 1.47E+05 | 7.30E+04 | 1.71E+05 | 1.71E+00 |
| Ni+3, (MT)                                    | 1.57E-02 | 3.87E-03 | 4.84E-03 | 3.88E-03 | 9.60E-04 |          | 9.91E-04 | 9.75E-04 | 1.31E-03 | 1.31E-08 |
| NO, (MT)                                      |          |          |          |          |          |          |          |          |          |          |
| NO <sub>2</sub> -, (MT)                       | 2.30E-03 | 5.69E-04 | 7.12E-04 | 5.71E-04 | 1.41E-04 |          | 1.46E-04 | 1.43E-04 | 1.93E-04 | 1.93E-09 |
| NO <sub>3</sub> -, (MT)                       | 2.74E+05 | 6.78E+04 | 3.34E+05 | 2.68E+05 | 6.62E+04 |          | 4.88E+05 | 2.67E+05 | 5.75E+05 | 5.75E+00 |
| Np+4, (MT)                                    | 1.26E-04 | 3.11E-05 | 3.89E-05 | 3.12E-05 | 7.71E-06 |          | 7.96E-06 | 7.83E-06 | 1.05E-05 | 1.05E-10 |
| OH-, (MT)                                     | 5.66E-02 | 1.40E-02 | 1.75E-02 | 1.40E-02 | 3.47E-03 |          | 3.58E-03 | 3.52E-03 | 4.73E-03 | 4.73E-08 |
| Pb+4, (MT)                                    | 7.25E-02 | 1.79E-02 | 2.24E-02 | 1.80E-02 | 4.44E-03 |          | 4.58E-03 | 4.51E-03 | 6.06E-03 | 6.06E-08 |
| PO <sub>4</sub> -3, (MT)                      | 1.36E+02 | 3.36E+01 | 4.21E+01 | 3.37E+01 | 8.33E+00 |          | 8.61E+00 | 8.46E+00 | 1.14E+01 | 1.14E-04 |
| Poly, (MT)                                    | 1.03E+00 | 2.54E-01 | 3.15E-01 | 2.53E-01 | 6.24E-02 |          | 6.24E-02 | 6.14E-02 | 8.24E-02 |          |
| Ru+4, (MT)                                    | 2.24E-04 | 5.53E-05 | 6.92E-05 | 5.55E-05 | 1.37E-05 |          | 1.42E-05 | 1.39E-05 | 1.87E-05 | 1.87E-10 |
| Rb+, (MT)                                     | 1.65E-03 | 4.08E-04 | 5.11E-04 | 4.10E-04 | 1.01E-04 |          | 1.05E-04 | 1.03E-04 | 1.38E-04 | 1.38E-09 |
| Re+7, (MT)                                    | 1.24E-04 | 3.07E-05 | 3.84E-05 | 3.08E-05 | 7.61E-06 |          | 7.86E-06 | 7.73E-06 | 1.04E-05 | 1.04E-10 |
| Rh+3, (MT)                                    | 3.38E-04 | 8.35E-05 | 1.05E-04 | 8.38E-05 | 2.07E-05 |          | 2.14E-05 | 2.10E-05 | 2.83E-05 | 2.83E-10 |
| Ru+3, (MT)                                    | 7.28E-04 | 1.80E-04 | 2.25E-04 | 1.81E-04 | 4.46E-05 |          | 4.61E-05 | 4.53E-05 | 6.09E-05 | 6.09E-09 |
| Sb+5, (MT)                                    | 1.55E-03 | 3.83E-04 | 4.79E-04 | 3.84E-04 | 9.49E-05 |          | 9.81E-05 | 9.64E-05 | 1.30E-04 | 1.30E-09 |
| Se+6, (MT)                                    | 1.47E-02 | 3.63E-03 | 4.54E-03 | 3.64E-03 | 8.99E-04 |          | 9.29E-04 | 9.13E-04 | 1.23E-03 | 1.23E-08 |
| Si+4, (MT)                                    | 3.58E-01 | 8.84E-02 | 1.11E-01 | 8.87E-02 | 2.19E-02 |          | 2.26E-02 | 2.23E-02 | 2.99E-02 | 2.99E-07 |
| Sm+3, (MT)                                    | 9.35E-06 | 2.31E-06 | 2.89E-06 | 2.32E-06 | 5.73E-07 |          | 5.92E-07 | 5.82E-07 | 7.82E-07 | 7.82E-12 |
| Sn+4, (MT)                                    | 1.32E-04 | 3.26E-05 | 4.08E-05 | 3.27E-05 | 8.08E-06 |          | 8.35E-06 | 8.21E-06 | 1.10E-05 | 1.10E-10 |
| SO <sub>4</sub> -2, (MT)                      | 5.30E+01 | 1.31E+01 | 1.64E+01 | 1.32E+01 | 3.25E+00 |          | 3.36E+00 | 3.30E+00 | 4.43E+00 | 4.43E-05 |
| Str+2, (MT)                                   | 1.02E-02 | 2.53E-03 | 3.16E-03 | 2.54E-03 | 6.26E-04 |          | 6.47E-04 | 6.36E-04 | 8.55E-04 | 8.55E-09 |
| TcO <sub>4</sub> -, (MT)                      | 7.86E-02 | 1.94E-02 | 2.43E-02 | 1.95E-02 | 4.82E-03 |          | 4.97E-03 | 4.89E-03 | 6.57E-03 | 6.57E-07 |
| Te+6, (MT)                                    | 1.45E-04 | 3.58E-05 | 4.48E-05 | 3.59E-05 | 8.88E-06 |          | 9.17E-06 | 9.02E-06 | 1.21E-05 | 1.21E-10 |
| Th+4, (MT)                                    | 4.76E-03 | 1.18E-03 | 1.47E-03 | 1.18E-03 | 2.92E-04 |          | 3.01E-04 | 2.96E-04 | 3.98E-04 | 3.98E-09 |
| Ti+4, (MT)                                    | 1.88E-04 | 4.63E-05 | 5.80E-05 | 4.65E-05 | 1.15E-05 |          | 1.19E-05 | 1.17E-05 | 1.57E-05 | 1.57E-10 |
| Tl+3, (MT)                                    | 8.11E-03 | 2.00E-03 | 2.51E-03 | 2.01E-03 | 4.97E-04 |          | 5.13E-04 | 5.04E-04 | 6.77E-04 | 6.77E-09 |
| TOC, (MT)                                     | 2.07E+01 | 5.12E+00 | 6.41E+00 | 5.14E+00 | 1.27E+00 |          | 1.31E+00 | 1.29E+00 | 1.73E+00 | 1.73E-04 |
| UD+2, (MT)                                    | 2.46E+00 | 6.07E-01 | 7.60E-01 | 6.10E-01 | 1.51E-01 |          | 1.56E-01 | 1.53E-01 | 2.06E-01 | 2.06E-06 |
| V+5, (MT)                                     | 2.56E-04 | 6.31E-05 | 7.90E-05 | 6.34E-05 | 1.57E-05 |          | 1.62E-05 | 1.59E-05 | 2.14E-05 | 2.14E-10 |
| W+6, (MT)                                     | 8.69E-02 | 2.15E-02 | 2.69E-02 | 2.16E-02 | 5.33E-03 |          | 5.50E-03 | 5.41E-03 | 7.26E-03 | 7.26E-08 |
| Zn+2, (MT)                                    | 2.35E-02 | 5.80E-03 | 7.27E-03 | 5.83E-03 | 1.44E-03 |          | 1.49E-03 | 1.46E-03 | 1.96E-03 | 1.96E-08 |
| ZrO <sub>2</sub> -2H <sub>2</sub> O, (MT)     | 6.55E-01 | 1.62E-01 | 2.03E-01 | 1.62E-01 | 4.01E-02 |          | 4.15E-02 | 4.08E-02 | 5.48E-02 | 5.48E-07 |



| STREAM NAME                                   | 34       | 35       | 36       | 37       | 38       | 41 | 42       | 43       | 44       | 45 |
|-----------------------------------------------|----------|----------|----------|----------|----------|----|----------|----------|----------|----|
| SOLID COMPONENTS                              |          |          |          |          |          |    |          |          |          |    |
| Total Mass Flow, (MT)                         | 6.23E+02 | 6.27E+05 | 6.27E+05 | 6.23E+02 | 6.27E+05 |    | 6.48E+04 | 6.23E+02 | 6.50E+04 |    |
| Al, (MT)                                      | 1.07E+01 | 1.08E+04 | 1.08E+04 | 1.07E+01 | 1.08E+04 |    | 2.83E+02 | 5.35E+00 | 1.77E+00 |    |
| Fe, (MT)                                      | 6.00E-06 | 6.03E-03 | 6.04E-03 | 6.00E-06 | 6.03E-03 |    | 5.58E-03 | 6.49E-06 | 5.58E-03 |    |
| Cs, (MT)                                      | 7.06E-06 | 7.10E-03 | 7.10E-03 | 7.05E-06 | 7.09E-03 |    |          | 1.64E-07 | 5.36E-08 |    |
| Na, (MT)                                      | 1.28E+02 | 1.29E+05 | 1.29E+05 | 1.28E+02 | 1.29E+05 |    | 3.04E-02 | 1.28E+02 | 4.18E+01 |    |
| Si, (MT)                                      | 3.00E-05 | 3.02E-02 | 3.02E-02 | 3.00E-05 | 3.02E-02 |    | 2.95E-02 | 3.42E-05 | 2.95E-02 |    |
| P, (MT)                                       | 8.89E-05 | 8.94E-02 | 8.94E-02 | 8.89E-05 | 8.93E-02 |    | 1.35E-05 | 2.08E-06 | 1.42E-05 |    |
| NO <sub>2</sub> - and NO <sub>3</sub> -, (MT) | 4.20E+02 | 4.22E+05 | 4.22E+05 | 4.20E+02 | 4.22E+05 |    |          | 3.82E+02 | 1.25E+02 |    |
| Cs and Ba, (MT)                               | 3.80E-08 | 3.83E-05 | 3.83E-05 | 3.80E-08 | 3.82E-05 |    |          | 8.84E-10 | 2.89E-10 |    |
| Sr and Y, (MT)                                | 7.70E-08 | 7.75E-05 | 7.75E-05 | 7.70E-08 | 7.74E-05 |    |          | 1.79E-09 | 5.85E-10 |    |
| Tc, (MT)                                      | 1.63E-09 | 1.64E-06 | 1.64E-06 | 1.63E-09 | 1.64E-06 |    |          | 3.80E-11 | 1.24E-11 |    |
| TRU, (MT)                                     | 4.70E-10 | 4.73E-07 | 4.73E-07 | 4.70E-10 | 4.73E-07 |    |          | 1.09E-11 | 3.57E-12 |    |
| Total MCI                                     | 2.89E-06 | 2.91E-03 | 2.91E-03 | 2.89E-06 | 2.90E-03 |    |          | 6.71E-08 | 2.19E-08 |    |
| Ag+, (MT)                                     | 1.75E-09 | 1.76E-06 | 1.76E-06 | 1.75E-09 | 1.76E-06 |    |          | 4.08E-11 | 1.33E-11 |    |
| Al+3, (MT)                                    | 1.07E+01 | 1.08E+04 | 1.08E+04 | 1.07E+01 | 1.08E+04 |    |          | 5.35E+00 | 1.75E+00 |    |
| Am+3, (MT)                                    | 1.07E-10 | 1.08E-07 | 1.08E-07 | 1.07E-10 | 1.08E-07 |    |          | 2.50E-12 | 8.15E-13 |    |
| As+5, (MT)                                    | 1.01E-08 | 1.02E-05 | 1.02E-05 | 1.01E-08 | 1.02E-05 |    |          | 2.35E-10 | 7.67E-11 |    |
| B+3, (MT)                                     | 5.44E-09 | 5.47E-06 | 5.47E-06 | 5.43E-09 | 5.46E-06 |    |          | 1.26E-10 | 4.12E-11 |    |
| Ba+2, (MT)                                    | 1.66E-08 | 1.67E-05 | 1.67E-05 | 1.65E-08 | 1.66E-05 |    |          | 3.85E-10 | 1.26E-10 |    |
| Be+2, (MT)                                    | 4.01E-11 | 4.03E-08 | 4.03E-08 | 4.00E-11 | 4.03E-08 |    |          | 9.32E-13 | 3.04E-13 |    |
| Bi+3, (MT)                                    | 3.43E-06 | 3.45E-03 | 3.45E-03 | 3.42E-06 | 3.44E-03 |    |          | 7.98E-08 | 2.60E-08 |    |
| Carbon-14, (MT)                               | 5.85E-11 | 5.88E-08 | 5.88E-08 | 5.83E-11 | 5.87E-08 |    |          | 1.36E-12 | 4.43E-13 |    |
| Cat2, (MT)                                    | 5.37E-07 | 5.40E-04 | 5.40E-04 | 5.36E-07 | 5.39E-04 |    |          | 1.25E-08 | 4.08E-09 |    |
| Cancrinite, (MT)                              | 1.78E-04 | 1.79E-01 | 1.79E-01 | 1.78E-04 | 1.79E-01 |    | 1.79E-01 | 2.07E-04 | 1.79E-01 |    |
| Ca+2, (MT)                                    | 1.19E-07 | 1.19E-04 | 1.19E-04 | 1.19E-07 | 1.19E-04 |    |          | 2.76E-09 | 9.01E-10 |    |
| Ce+3, (MT)                                    | 1.42E-07 | 1.43E-04 | 1.43E-04 | 1.42E-07 | 1.43E-04 |    |          | 3.31E-09 | 1.08E-09 |    |
| Cl-, (MT)                                     | 2.58E-05 | 2.59E-02 | 2.59E-02 | 2.58E-05 | 2.59E-02 |    |          | 6.00E-07 | 1.96E-07 |    |
| Cm+3, (MT)                                    | 2.22E-14 | 2.23E-11 | 2.23E-11 | 2.21E-14 | 2.23E-11 |    |          |          |          |    |
| CO+3, (MT)                                    | 2.80E-09 | 2.81E-06 | 2.81E-06 | 2.79E-09 | 2.81E-06 |    |          | 6.50E-11 | 2.12E-11 |    |
| CO3-2, (MT)                                   | 1.24E-08 | 1.24E-05 | 1.24E-05 | 1.24E-08 | 1.24E-05 |    |          | 2.88E-10 | 9.39E-11 |    |
| Cr+3, (MT)                                    | 7.06E-06 | 7.10E-03 | 7.10E-03 | 7.05E-06 | 7.09E-03 |    |          | 1.64E-07 | 5.36E-08 |    |
| Cs+, (MT)                                     | 4.63E-10 | 4.66E-07 | 4.66E-07 | 4.63E-10 | 4.66E-07 |    |          | 1.08E-11 | 3.52E-12 |    |
| Cr+2, (MT)                                    | 1.18E-08 | 1.18E-05 | 1.18E-05 | 1.18E-08 | 1.18E-05 |    |          | 2.73E-10 | 8.92E-11 |    |
| F-, (MT)                                      | 5.90E-05 | 5.94E-02 | 5.94E-02 | 5.90E-05 | 5.93E-02 |    |          | 1.37E-06 | 4.48E-07 |    |
| Fe+3, (MT)                                    | 4.49E-07 | 4.51E-04 | 4.51E-04 | 4.48E-07 | 4.51E-04 |    |          | 1.04E-08 | 3.41E-09 |    |
| H2O, (MT)                                     | 6.44E+01 | 6.48E+04 | 6.48E+04 | 6.44E+01 | 6.48E+04 |    | 6.48E+04 | 1.07E+02 | 6.48E+04 |    |
| Hg+2, (MT)                                    | 6.17E-08 | 6.21E-05 | 6.21E-05 | 6.16E-08 | 6.20E-05 |    |          | 1.43E-09 | 4.68E-10 |    |
| I-, (MT)                                      | 1.24E-08 | 1.25E-05 | 1.25E-05 | 1.24E-08 | 1.24E-05 |    |          | 2.88E-10 | 9.39E-11 |    |
| K+, (MT)                                      | 7.55E-05 | 7.59E-02 | 7.59E-02 | 7.54E-05 | 7.58E-02 |    |          | 1.76E-06 | 5.73E-07 |    |
| La+3, (MT)                                    | 2.00E-08 | 2.02E-05 | 2.02E-05 | 2.00E-08 | 2.01E-05 |    |          | 4.66E-10 | 1.52E-10 |    |
| Li+, (MT)                                     | 1.64E-09 | 1.65E-06 | 1.65E-06 | 1.64E-09 | 1.65E-06 |    |          | 3.82E-11 | 1.25E-11 |    |
| Mg+2, (MT)                                    | 2.89E-08 | 2.90E-05 | 2.90E-05 | 2.88E-08 | 2.90E-05 |    |          | 6.71E-10 | 2.19E-10 |    |
| MnO2, (MT)                                    | 1.15E-06 | 1.16E-03 | 1.16E-03 | 1.15E-06 | 1.16E-03 |    |          | 2.69E-08 | 8.77E-09 |    |
| Mn+6, (MT)                                    | 1.74E-07 | 1.75E-04 | 1.75E-04 | 1.74E-07 | 1.75E-04 |    |          | 4.06E-09 | 1.32E-09 |    |
| Nat, (MT)                                     | 1.28E+02 | 1.29E+05 | 1.29E+05 | 1.28E+02 | 1.29E+05 |    |          | 1.28E+02 | 4.18E+01 |    |
| Ni+3, (MT)                                    | 3.14E-08 | 3.16E-05 | 3.16E-05 | 3.13E-08 | 3.15E-05 |    |          | 7.29E-10 | 2.38E-10 |    |
| Ni2FeCN6, (MT)                                | 3.27E-05 | 3.29E-02 | 3.29E-02 | 3.27E-05 | 3.29E-02 |    | 3.29E-02 | 3.82E-05 | 3.29E-02 |    |
| NO2-, (MT)                                    | 4.61E-09 | 4.64E-06 | 4.64E-06 | 4.61E-09 | 4.64E-06 |    |          | 1.07E-10 | 3.50E-11 |    |
| NO3-, (MT)                                    | 4.20E+02 | 4.22E+05 | 4.22E+05 | 4.20E+02 | 4.22E+05 |    |          | 3.82E+02 | 1.25E+02 |    |
| Np+4, (MT)                                    | 2.52E-10 | 2.54E-07 | 2.54E-07 | 2.52E-10 | 2.53E-07 |    |          | 5.86E-12 | 1.91E-12 |    |
| OH-, (MT)                                     | 1.13E-07 | 1.14E-04 | 1.14E-04 | 1.13E-07 | 1.14E-04 |    |          | 2.64E-09 | 8.60E-10 |    |
| P2O5-2H2O, (MT)                               | 1.32E-06 | 1.33E-03 | 1.33E-03 | 1.32E-06 | 1.33E-03 |    | 1.33E-03 | 1.54E-06 | 1.33E-03 |    |
| Pb+4, (MT)                                    | 1.45E-07 | 1.46E-04 | 1.46E-04 | 1.45E-07 | 1.46E-04 |    |          | 3.37E-09 | 1.10E-09 |    |
| PO4-3, (MT)                                   | 2.72E-04 | 2.74E-01 | 2.74E-01 | 2.72E-04 | 2.74E-01 |    |          | 6.34E-06 | 2.07E-06 |    |
| Poly, (MT)                                    | 4.06E-06 | 4.08E-03 | 4.09E-03 | 4.06E-06 | 4.08E-03 |    | 4.08E-03 | 4.74E-06 | 4.08E-03 |    |
| Ru+4, (MT)                                    | 4.48E-10 | 4.51E-07 | 4.51E-07 | 4.47E-10 | 4.50E-07 |    |          | 1.04E-11 | 3.40E-12 |    |
| Rb+, (MT)                                     | 3.31E-09 | 3.33E-06 | 3.33E-06 | 3.31E-09 | 3.33E-06 |    |          | 7.70E-11 | 2.51E-11 |    |
| Re+7, (MT)                                    | 2.49E-10 | 2.50E-07 | 2.50E-07 | 2.48E-10 | 2.50E-07 |    |          | 5.78E-12 | 1.89E-12 |    |
| Rh+3, (MT)                                    | 6.77E-10 | 6.81E-07 | 6.81E-07 | 6.76E-10 | 6.80E-07 |    |          | 1.57E-11 | 5.13E-12 |    |
| Ru+3, (MT)                                    | 1.46E-09 | 1.47E-06 | 1.47E-06 | 1.46E-09 | 1.47E-06 |    |          | 3.39E-11 | 1.11E-11 |    |
| Sb+5, (MT)                                    | 3.10E-09 | 3.12E-06 | 3.12E-06 | 3.10E-09 | 3.12E-06 |    |          | 7.21E-11 | 2.35E-11 |    |
| Se+6, (MT)                                    | 2.94E-08 | 2.96E-05 | 2.96E-05 | 2.94E-08 | 2.95E-05 |    |          | 6.83E-10 | 2.23E-10 |    |
| Si+4, (MT)                                    | 7.16E-07 | 7.21E-04 | 7.21E-04 | 7.16E-07 | 7.20E-04 |    |          | 1.67E-08 | 5.44E-09 |    |
| Sn+3, (MT)                                    | 1.87E-11 | 1.88E-08 | 1.88E-08 | 1.87E-11 | 1.88E-08 |    |          | 4.35E-13 | 1.42E-13 |    |
| Sn+4, (MT)                                    | 2.64E-10 | 2.66E-07 | 2.66E-07 | 2.64E-10 | 2.65E-07 |    |          | 6.14E-12 | 2.00E-12 |    |
| SO4-2, (MT)                                   | 1.06E-04 | 1.07E-01 | 1.07E-01 | 1.06E-04 | 1.07E-01 |    |          | 2.47E-06 | 8.07E-07 |    |
| Str+2, (MT)                                   | 2.05E-08 | 2.06E-05 | 2.06E-05 | 2.05E-08 | 2.06E-05 |    |          | 4.76E-10 | 1.55E-10 |    |
| TaO4-, (MT)                                   | 1.57E-07 | 1.58E-04 | 1.58E-04 | 1.57E-07 | 1.58E-04 |    |          | 3.66E-09 | 1.19E-09 |    |
| Ta+6, (MT)                                    | 2.90E-10 | 2.92E-07 | 2.92E-07 | 2.90E-10 | 2.92E-07 |    |          | 6.75E-12 | 2.20E-12 |    |
| Ti+4, (MT)                                    | 9.54E-09 | 9.60E-06 | 9.60E-06 | 9.52E-09 | 9.59E-06 |    |          | 2.22E-10 | 7.24E-11 |    |
| Ti+4, (MT)                                    | 3.76E-10 | 3.78E-07 | 3.78E-07 | 3.75E-10 | 3.77E-07 |    |          | 8.73E-12 | 2.85E-12 |    |
| Tl+3, (MT)                                    | 1.62E-08 | 1.63E-05 | 1.63E-05 | 1.62E-08 | 1.63E-05 |    |          | 3.77E-10 | 1.23E-10 |    |
| TOC, (MT)                                     | 4.15E-05 | 4.17E-02 | 4.17E-02 | 4.14E-05 | 4.17E-02 |    |          | 9.65E-07 | 3.15E-07 |    |
| UC2+2, (MT)                                   | 4.92E-06 | 4.95E-03 | 4.95E-03 | 4.92E-06 | 4.95E-03 |    |          | 1.15E-07 | 3.74E-08 |    |
| VH5, (MT)                                     | 5.12E-10 | 5.15E-07 | 5.15E-07 | 5.11E-10 | 5.14E-07 |    |          | 1.19E-11 | 3.88E-12 |    |
| W+6, (MT)                                     | 1.74E-07 | 1.75E-04 | 1.75E-04 | 1.74E-07 | 1.75E-04 |    |          | 4.05E-09 | 1.32E-09 |    |
| Zn+2, (MT)                                    | 4.70E-08 | 4.73E-05 | 4.73E-05 | 4.70E-08 | 4.73E-05 |    |          | 1.09E-09 | 3.57E-10 |    |
| ZrO2-2H2O, (MT)                               | 1.31E-06 | 1.32E-03 | 1.32E-03 | 1.31E-06 | 1.32E-03 |    |          | 3.05E-08 | 9.96E-09 |    |

| STREAM NAME                                   | 46       | 47       | 48       | 49       | 50       | 51       | 52       | 53       | 54       | 55       |
|-----------------------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| LIQUID COMPONENTS                             |          |          |          |          |          |          |          |          |          |          |
| Total Mass Flow, (MT)                         | 8.11E+05 | 5.34E+05 | 4.02E+05 | 8.25E+05 | 2.03E+05 | 1.32E+05 | 5.55E+05 | 4.24E+05 | 1.32E+05 | 5.72E+05 |
| Al, (MT)                                      | 1.66E+04 | 1.20E+04 | 9.03E+03 | 1.34E+04 | 3.30E+03 | 2.96E+03 | 5.72E+03 | 4.36E+03 | 1.36E+03 | 3.73E+03 |
| Fe, (MT)                                      | 2.32E-02 | 2.32E-02 | 1.75E-02 | 2.29E-02 | 5.64E-03 | 5.73E-03 | 7.15E-03 | 5.45E-03 | 1.70E-03 | 1.91E-03 |
| Cr, (MT)                                      | 2.94E-01 | 2.94E-01 | 2.22E-01 | 2.91E-01 | 7.15E-02 | 7.27E-02 | 9.06E-02 | 6.91E-02 | 2.15E-02 | 2.42E-02 |
| Na, (MT)                                      | 1.18E+05 | 6.05E+04 | 4.56E+04 | 9.68E+04 | 2.38E+04 | 1.49E+04 | 6.72E+04 | 5.13E+04 | 1.60E+04 | 7.06E+04 |
| Si, (MT)                                      | 2.99E-02 | 2.99E-02 | 2.25E-02 | 2.95E-02 | 7.26E-03 | 7.38E-03 | 9.20E-03 | 7.02E-03 | 2.18E-03 | 2.46E-03 |
| P, (MT)                                       | 3.71E+00 | 3.71E+00 | 2.79E+00 | 3.66E+00 | 9.01E-01 | 9.15E-01 | 1.14E+00 | 8.71E-01 | 2.71E-01 | 3.05E-01 |
| NO <sub>2</sub> - and NO <sub>3</sub> -, (MT) | 4.34E+05 | 2.46E+05 | 1.85E+05 | 3.54E+05 | 8.70E+04 | 6.07E+04 | 2.21E+05 | 1.68E+05 | 5.24E+04 | 2.16E+05 |
| Cs and Ba, (MCI)                              | 1.59E-03 | 1.59E-03 | 1.20E-03 | 1.57E-03 | 3.86E-04 | 3.92E-04 | 4.88E-04 | 3.73E-04 | 1.16E-04 | 1.31E-04 |
| Sr and Y, (MCI)                               | 3.22E-03 | 3.21E-03 | 2.42E-03 | 3.18E-03 | 7.81E-04 | 7.93E-04 | 9.89E-04 | 7.55E-04 | 2.35E-04 | 2.65E-04 |
| Tc, (MCI)                                     | 6.81E-05 | 6.81E-05 | 5.13E-05 | 6.72E-05 | 1.65E-05 | 1.68E-05 | 2.10E-05 | 1.60E-05 | 4.97E-06 | 5.60E-06 |
| TRU, (MCI)                                    | 1.96E-05 | 1.96E-05 | 1.48E-05 | 1.94E-05 | 4.77E-06 | 4.84E-06 | 6.04E-06 | 4.61E-06 | 1.43E-06 | 1.62E-06 |
| Total MCI                                     | 1.21E-01 | 1.21E-01 | 9.08E-02 | 1.19E-01 | 2.93E-02 | 2.97E-02 | 3.71E-02 | 2.83E-02 | 8.80E-03 | 9.92E-03 |
| Ag+, (MT)                                     | 7.32E-05 | 7.32E-05 | 5.51E-05 | 7.23E-05 | 1.78E-05 | 1.81E-05 | 2.25E-05 | 1.72E-05 | 5.34E-06 | 6.02E-06 |
| Al+3, (MT)                                    | 1.66E+04 | 1.20E+04 | 9.03E+03 | 1.34E+04 | 3.30E+03 | 2.96E+03 | 5.72E+03 | 4.36E+03 | 1.36E+03 | 3.73E+03 |
| Al(OH) <sub>4</sub> -, (MT)                   |          |          |          |          |          |          |          |          |          |          |
| Am+3, (MT)                                    | 4.48E-06 | 4.48E-06 | 3.38E-06 | 4.43E-06 | 1.09E-06 | 1.11E-06 | 1.38E-06 | 1.05E-06 | 3.27E-07 | 3.69E-07 |
| As+5, (MT)                                    | 4.22E-04 | 4.22E-04 | 3.18E-04 | 4.17E-04 | 1.03E-04 | 1.04E-04 | 1.30E-04 | 9.90E-05 | 3.08E-05 | 3.47E-05 |
| B+3, (MT)                                     | 2.27E-04 | 2.27E-04 | 1.71E-04 | 2.24E-04 | 5.51E-05 | 5.60E-05 | 6.98E-05 | 5.33E-05 | 1.66E-05 | 1.87E-05 |
| Bat+2, (MT)                                   | 6.91E-04 | 6.91E-04 | 5.20E-04 | 6.82E-04 | 1.68E-04 | 1.71E-04 | 2.13E-04 | 1.62E-04 | 5.04E-05 | 5.68E-05 |
| Be+2, (MT)                                    | 1.67E-06 | 1.67E-06 | 1.26E-06 | 1.65E-06 | 4.07E-07 | 4.13E-07 | 5.15E-07 | 3.93E-07 | 1.22E-07 | 1.38E-07 |
| Bi+3, (MT)                                    | 1.43E-01 | 1.43E-01 | 1.08E-01 | 1.41E-01 | 3.48E-02 | 3.53E-02 | 4.40E-02 | 3.36E-02 | 1.04E-02 | 1.18E-02 |
| Carbon-14, (MT)                               | 2.44E-06 | 2.44E-06 | 1.84E-06 | 2.41E-06 | 5.93E-07 | 6.02E-07 | 7.50E-07 | 5.72E-07 | 1.78E-07 | 2.01E-07 |
| Cat+2, (MT)                                   | 2.24E-02 | 2.24E-02 | 1.69E-02 | 2.21E-02 | 5.44E-03 | 5.53E-03 | 6.89E-03 | 5.26E-03 | 1.63E-03 | 1.84E-03 |
| Cd+2, (MT)                                    | 4.95E-03 | 4.95E-03 | 3.73E-03 | 4.89E-03 | 1.20E-03 | 1.22E-03 | 1.52E-03 | 1.16E-03 | 3.62E-04 | 4.08E-04 |
| Ce+3, (MT)                                    | 5.93E-03 | 5.93E-03 | 4.47E-03 | 5.86E-03 | 1.44E-03 | 1.46E-03 | 1.83E-03 | 1.39E-03 | 4.33E-04 | 4.88E-04 |
| Cl-, (MT)                                     | 1.08E+00 | 1.08E+00 | 8.10E-01 | 1.06E+00 | 2.62E-01 | 2.66E-01 | 3.31E-01 | 2.53E-01 | 7.85E-02 | 8.85E-02 |
| Cm+3, (MT)                                    | 9.23E-10 | 9.23E-10 | 6.95E-10 | 9.11E-10 | 2.24E-10 | 2.28E-10 | 2.84E-10 | 2.16E-10 | 6.73E-11 | 7.56E-11 |
| Co+3, (MT)                                    | 1.17E-04 | 1.17E-04 | 8.78E-05 | 1.15E-04 | 2.83E-05 | 2.88E-05 | 3.59E-05 | 2.74E-05 | 8.51E-06 | 9.60E-06 |
| CoO <sub>2</sub> , (MT)                       |          |          |          |          |          |          |          |          |          |          |
| CoO-2, (MT)                                   | 5.16E-04 | 5.16E-04 | 3.89E-04 | 5.10E-04 | 1.25E-04 | 1.27E-04 | 1.59E-04 | 1.21E-04 | 3.77E-05 | 4.25E-05 |
| Cr+3, (MT)                                    | 2.94E-01 | 2.94E-01 | 2.22E-01 | 2.91E-01 | 7.15E-02 | 7.27E-02 | 9.06E-02 | 6.91E-02 | 2.15E-02 | 2.42E-02 |
| Cr(OH) <sub>4</sub> -, (MT)                   |          |          |          |          |          |          |          |          |          |          |
| Cs+, (MT)                                     | 1.93E-05 | 1.93E-05 | 1.46E-05 | 1.91E-05 | 4.70E-06 | 4.77E-06 | 5.95E-06 | 4.54E-06 | 1.41E-06 | 1.59E-06 |
| Cu+2, (MT)                                    | 4.91E-04 | 4.91E-04 | 3.70E-04 | 4.85E-04 | 1.19E-04 | 1.21E-04 | 1.51E-04 | 1.15E-04 | 3.58E-05 | 4.04E-05 |
| F-, (MT)                                      | 2.46E+00 | 2.46E+00 | 1.86E+00 | 2.43E+00 | 5.99E-01 | 6.08E-01 | 7.58E-01 | 5.78E-01 | 1.80E-01 | 2.03E-01 |
| Fe+3, (MT)                                    | 1.87E-02 | 1.87E-02 | 1.41E-02 | 1.85E-02 | 4.55E-03 | 4.62E-03 | 5.76E-03 | 4.39E-03 | 1.37E-03 | 1.54E-03 |
| FeO <sub>4</sub> -3, (MT)                     | 6.61E-03 | 6.61E-03 | 4.98E-03 | 6.53E-03 | 1.61E-03 | 1.63E-03 | 2.03E-03 | 1.55E-03 | 4.82E-04 | 5.42E-04 |
| Hf, (MT)                                      | 2.03E-01 | 2.03E-01 | 1.53E-01 | 2.00E-01 | 4.92E-02 | 5.00E-02 | 6.23E-02 | 4.75E-02 | 1.48E-02 | 1.66E-02 |
| H <sub>2</sub> O, (MT)                        | 2.43E+05 | 2.15E+05 | 1.62E+05 | 3.61E+05 | 8.89E+04 | 5.31E+04 | 2.61E+05 | 1.99E+05 | 6.20E+04 | 2.81E+05 |
| Hg+2, (MT)                                    | 2.58E-03 | 2.57E-03 | 1.94E-03 | 2.54E-03 | 6.26E-04 | 6.35E-04 | 7.92E-04 | 6.04E-04 | 1.88E-04 | 2.12E-04 |
| I-, (MT)                                      | 5.17E-04 | 5.17E-04 | 3.89E-04 | 5.10E-04 | 1.26E-04 | 1.28E-04 | 1.59E-04 | 1.21E-04 | 3.77E-05 | 4.25E-05 |
| K+, (MT)                                      | 3.15E+00 | 3.15E+00 | 2.37E+00 | 3.11E+00 | 7.65E-01 | 7.77E-01 | 9.69E-01 | 7.39E-01 | 2.30E-01 | 2.59E-01 |
| La+3, (MT)                                    | 8.36E-04 | 8.36E-04 | 6.30E-04 | 8.26E-04 | 2.06E-04 | 2.07E-04 | 2.57E-04 | 1.96E-04 | 6.10E-05 | 6.88E-05 |
| Li+, (MT)                                     | 6.86E-05 | 6.86E-05 | 5.16E-05 | 6.77E-05 | 1.67E-05 | 1.69E-05 | 2.11E-05 | 1.61E-05 | 5.01E-06 | 5.64E-06 |
| Mg+2, (MT)                                    | 1.20E-03 | 1.20E-03 | 9.07E-04 | 1.19E-03 | 2.93E-04 | 2.97E-04 | 3.71E-04 | 2.83E-04 | 8.79E-05 | 9.91E-05 |
| MnO <sub>2</sub> , (MT)                       | 4.82E-02 | 4.82E-02 | 3.63E-02 | 4.76E-02 | 1.17E-02 | 1.19E-02 | 1.48E-02 | 1.13E-02 | 3.52E-03 | 3.96E-03 |
| Mo+6, (MT)                                    | 7.27E-03 | 7.27E-03 | 5.48E-03 | 7.18E-03 | 1.77E-03 | 1.80E-03 | 2.24E-03 | 1.71E-03 | 5.31E-04 | 5.98E-04 |
| Nat, (MT)                                     | 1.18E+05 | 6.05E+04 | 4.56E+04 | 9.68E+04 | 2.38E+04 | 1.49E+04 | 6.72E+04 | 5.13E+04 | 1.60E+04 | 7.06E+04 |
| Ni+3, (MT)                                    | 1.31E-03 | 1.31E-03 | 9.86E-04 | 1.29E-03 | 3.18E-04 | 3.23E-04 | 4.03E-04 | 3.07E-04 | 9.55E-05 | 1.08E-04 |
| NO, (MT)                                      |          |          |          |          |          |          |          |          |          |          |
| NO <sub>2</sub> -, (MT)                       | 1.93E-04 | 1.92E-04 | 1.45E-04 | 1.90E-04 | 4.68E-05 | 4.75E-05 | 5.92E-05 | 4.52E-05 | 1.41E-05 | 1.58E-05 |
| NO <sub>3</sub> -, (MT)                       | 4.34E+05 | 2.46E+05 | 1.85E+05 | 3.54E+05 | 8.70E+04 | 6.07E+04 | 2.21E+05 | 1.68E+05 | 5.24E+04 | 2.16E+05 |
| Np+4, (MT)                                    | 1.05E-05 | 1.05E-05 | 7.92E-06 | 1.04E-05 | 2.56E-06 | 2.60E-06 | 3.24E-06 | 2.47E-06 | 7.67E-07 | 8.65E-07 |
| OH-, (MT)                                     | 4.73E-03 | 4.73E-03 | 3.56E-03 | 4.67E-03 | 1.15E-03 | 1.17E-03 | 1.46E-03 | 1.11E-03 | 3.45E-04 | 3.89E-04 |
| Pb+4, (MT)                                    | 6.05E-03 | 6.05E-03 | 4.56E-03 | 5.98E-03 | 1.47E-03 | 1.49E-03 | 1.86E-03 | 1.42E-03 | 4.42E-04 | 4.98E-04 |
| PO <sub>4</sub> -3, (MT)                      | 1.14E+01 | 1.14E+01 | 8.56E+00 | 1.12E+01 | 2.76E+00 | 2.80E+00 | 3.50E+00 | 2.67E+00 | 8.29E-01 | 9.35E-01 |
| Poly, (MT)                                    | 8.24E-02 | 8.24E-02 | 6.21E-02 | 8.14E-02 | 2.00E-02 | 2.04E-02 | 2.54E-02 | 1.93E-02 | 6.01E-03 | 6.76E-03 |
| Pu+4, (MT)                                    | 1.87E-05 | 1.87E-05 | 1.41E-05 | 1.85E-05 | 4.55E-06 | 4.62E-06 | 5.75E-06 | 4.39E-06 | 1.37E-06 | 1.54E-06 |
| Rb+, (MT)                                     | 1.38E-04 | 1.38E-04 | 1.04E-04 | 1.36E-04 | 3.36E-05 | 3.41E-05 | 4.25E-05 | 3.24E-05 | 1.01E-05 | 1.14E-05 |
| Rf+7, (MT)                                    | 1.04E-05 | 1.04E-05 | 7.81E-06 | 1.03E-05 | 2.52E-06 | 2.56E-06 | 3.19E-06 | 2.44E-06 | 7.57E-07 | 8.54E-07 |
| Rh+3, (MT)                                    | 2.82E-05 | 2.82E-05 | 2.13E-05 | 2.79E-05 | 6.86E-06 | 6.97E-06 | 8.69E-06 | 6.63E-06 | 2.06E-06 | 2.32E-06 |
| Ru+3, (MT)                                    | 6.09E-05 | 6.08E-05 | 4.58E-05 | 6.01E-05 | 1.48E-05 | 1.50E-05 | 1.87E-05 | 1.43E-05 | 4.44E-06 | 5.01E-06 |
| Sb+5, (MT)                                    | 1.30E-04 | 1.30E-04 | 9.75E-05 | 1.28E-04 | 3.15E-05 | 3.20E-05 | 3.99E-05 | 3.04E-05 | 9.45E-06 | 1.07E-05 |
| Se+6, (MT)                                    | 1.23E-03 | 1.23E-03 | 9.24E-04 | 1.21E-03 | 2.98E-04 | 3.03E-04 | 3.77E-04 | 2.88E-04 | 8.95E-05 | 1.01E-04 |
| Si+4, (MT)                                    | 2.99E-02 | 2.99E-02 | 2.25E-02 | 2.95E-02 | 7.26E-03 | 7.38E-03 | 9.20E-03 | 7.02E-03 | 2.18E-03 | 2.46E-03 |
| Sm+3, (MT)                                    | 7.82E-07 | 7.81E-07 | 5.89E-07 | 7.72E-07 | 1.90E-07 | 1.93E-07 | 2.41E-07 | 1.84E-07 | 5.70E-08 | 6.43E-08 |
| Sn+4, (MT)                                    | 1.10E-05 | 1.10E-05 | 8.30E-06 | 1.09E-05 | 2.68E-06 | 2.72E-06 | 3.39E-06 | 2.59E-06 | 8.04E-07 | 9.07E-07 |
| SO <sub>4</sub> -2, (MT)                      | 4.43E+00 | 4.43E+00 | 3.34E+00 | 4.38E+00 | 1.08E+00 | 1.09E+00 | 1.36E+00 | 1.04E+00 | 3.24E-01 | 3.65E-01 |
| Str+2, (MT)                                   | 8.54E-04 | 8.54E-04 | 6.43E-04 | 8.44E-04 | 2.08E-04 | 2.11E-04 | 2.63E-04 | 2.01E-04 | 6.24E-05 | 7.03E-05 |
| TcO <sub>4</sub> -, (MT)                      | 6.57E-03 | 6.57E-03 | 4.95E-03 | 6.49E-03 | 1.60E-03 | 1.62E-03 | 2.02E-03 | 1.54E-03 | 4.79E-04 | 5.40E-04 |
| Te+6, (MT)                                    | 1.21E-05 | 1.21E-05 | 9.12E-06 | 1.20E-05 | 2.94E-06 | 2.99E-06 | 3.73E-06 | 2.84E-06 | 8.84E-07 | 9.96E-07 |
| Th+4, (MT)                                    | 3.98E-04 | 3.98E-04 | 3.00E-04 | 3.93E-04 | 9.67E-05 | 9.82E-05 | 1.23E-04 | 9.34E-05 | 2.91E-05 | 3.27E-05 |
| Ti+4, (MT)                                    | 1.57E-05 | 1.57E-05 | 1.18E-05 | 1.55E-05 | 3.81E-06 | 3.87E-06 | 4.82E-06 | 3.68E-06 | 1.14E-06 | 1.29E-06 |
| Tl+3, (MT)                                    | 6.77E-04 | 6.77E-04 | 5.10E-04 | 6.69E-04 | 1.65E-04 | 1.67E-04 | 2.08E-04 | 1.59E-04 | 4.94E-05 | 5.57E-05 |
| UO <sub>2</sub> , (MT)                        | 1.73E+00 | 1.73E+00 | 1.30E+00 | 1.71E+00 | 4.21E-01 | 4.27E-01 | 5.32E-01 | 4.06E-01 | 1.26E-01 | 1.42E-01 |
| UO <sub>2</sub> +2, (MT)                      | 2.05E-01 | 2.05E-01 | 1.55E-01 | 2.03E-01 | 4.99E-02 | 5.07E-02 | 6.32E-02 | 4.82E-02 | 1.50E-02 | 1.69E-02 |
| V+5, (MT)                                     | 2.14E-05 | 2.13E-05 | 1.61E-05 | 2.11E-05 | 5.19E-06 | 5.27E-06 | 6.57E-06 | 5.01E-06 | 1.56E-06 | 1.76E-06 |
| W+6, (MT)                                     | 7.26E-03 | 7.26E-03 | 5.47E-03 | 7.17E-03 | 1.77E-03 | 1.79E-03 | 2.24E-03 | 1.71E-03 | 5.30E-04 | 5.98E-04 |
| Zn+2, (MT)                                    | 1.96E-03 | 1.96E-03 | 1.48E-03 | 1.94E-03 | 4.77E-04 | 4.84E-04 | 6.04E-04 | 4.61E-04 | 1.43E-04 | 1.62E-04 |
| ZrO <sub>2</sub> .2H <sub>2</sub> O, (MT)     | 5.47E-02 | 5.47E-02 | 4.12E-02 | 5.41E-02 | 1.33E-02 | 1.35E-02 | 1.68E-02 | 1.29E-02 | 4.00E-03 | 4.50E-03 |



| STREAM NAME                                   | 46       | 47       | 48       | 49       | 50       | 51       | 52       | 53       | 54       | 55       |
|-----------------------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| SOLID COMPONENTS                              |          |          |          |          |          |          |          |          |          |          |
| Total Mass Flow, (MT)                         | 2.59E+05 | 5.37E+05 | 4.02E+02 | 8.26E+02 | 2.03E+02 | 5.37E+05 | 5.37E+05 | 4.24E+02 | 5.37E+05 | 6.05E+05 |
| Al, (MT)                                      | 4.88E+00 | 4.61E+03 | 3.45E+00 | 7.10E+00 | 1.75E+00 | 4.61E+03 | 4.61E+03 | 3.64E+00 | 4.61E+03 | 4.61E+03 |
| Fe, (MT)                                      | 5.59E-03 | 5.59E-03 | 4.19E-06 | 8.60E-06 | 2.12E-06 | 5.59E-03 | 5.59E-03 | 4.42E-06 | 5.59E-03 | 9.72E-03 |
| Cr, (MT)                                      | 5.52E-05 | 1.42E-04 | 1.06E-07 | 2.18E-07 | 5.36E-08 | 1.42E-04 | 1.42E-04 | 1.12E-07 | 1.42E-04 | 1.42E-04 |
| Na, (MT)                                      | 5.26E+04 | 1.10E+05 | 8.26E+01 | 1.70E+02 | 4.18E+01 | 1.10E+05 | 1.10E+05 | 8.71E+01 | 1.10E+05 | 1.10E+05 |
| Si, (MT)                                      | 2.95E-02 | 2.95E-02 | 2.21E-05 | 4.54E-05 | 1.12E-05 | 2.95E-02 | 2.95E-02 | 2.33E-05 | 2.95E-02 | 5.13E-02 |
| P, (MT)                                       | 7.09E-04 | 1.80E-03 | 1.35E-06 | 2.76E-06 | 6.80E-07 | 1.80E-03 | 1.80E-03 | 1.42E-06 | 1.80E-03 | 1.81E-03 |
| NO <sub>2</sub> - and NO <sub>3</sub> -, (MT) | 1.42E+05 | 3.30E+05 | 2.47E+02 | 5.07E+02 | 1.25E+02 | 3.29E+05 | 3.30E+05 | 2.60E+02 | 3.29E+05 | 3.29E+05 |
| Cs and Ba, (MCI)                              | 2.98E-07 | 7.63E-07 | 5.72E-10 | 1.17E-09 | 2.89E-10 | 7.63E-07 | 7.63E-07 | 6.02E-10 | 7.63E-07 | 7.63E-07 |
| Sr and Y, (MCI)                               | 6.03E-07 | 1.55E-06 | 1.16E-09 | 2.38E-09 | 5.85E-10 | 1.55E-06 | 1.55E-06 | 1.22E-09 | 1.55E-06 | 1.55E-06 |
| Tc, (MCI)                                     | 1.28E-08 | 3.27E-08 | 2.45E-11 | 5.04E-11 | 1.24E-11 | 3.27E-08 | 3.27E-08 | 2.58E-11 | 3.27E-08 | 3.27E-08 |
| TRU, (MCI)                                    | 3.68E-09 | 9.44E-09 | 7.07E-12 | 1.45E-11 | 3.57E-12 | 9.43E-09 | 9.44E-09 | 7.45E-12 | 9.43E-09 | 9.43E-09 |
| Total MCI                                     | 2.26E-05 | 5.80E-05 | 4.34E-08 | 8.92E-08 | 2.19E-08 | 5.79E-05 | 5.80E-05 | 4.58E-08 | 5.79E-05 | 5.79E-05 |
| Ag+, (MT)                                     | 1.37E-08 | 3.52E-08 | 2.64E-11 | 5.41E-11 | 1.33E-11 | 3.52E-08 | 3.52E-08 | 2.78E-11 | 3.52E-08 | 3.52E-08 |
| Al+3, (MT)                                    | 4.86E+00 | 4.61E+03 | 3.45E+00 | 7.10E+00 | 1.75E+00 | 4.61E+03 | 4.61E+03 | 3.64E+00 | 4.61E+03 | 4.61E+03 |
| Am+3, (MT)                                    | 8.41E-10 | 2.16E-09 | 1.61E-12 | 3.32E-12 | 8.15E-13 | 2.15E-09 | 2.16E-09 | 1.70E-12 | 2.15E-09 | 2.15E-09 |
| As+5, (MT)                                    | 7.91E-08 | 2.03E-07 | 1.52E-10 | 3.12E-10 | 7.67E-11 | 2.03E-07 | 2.03E-07 | 1.60E-10 | 2.03E-07 | 2.03E-07 |
| B+3, (MT)                                     | 4.26E-08 | 1.09E-07 | 8.17E-11 | 1.68E-10 | 4.12E-11 | 1.09E-07 | 1.09E-07 | 8.61E-11 | 1.09E-07 | 1.09E-07 |
| Ba+2, (MT)                                    | 1.30E-07 | 3.32E-07 | 2.49E-10 | 5.11E-10 | 1.26E-10 | 3.32E-07 | 3.32E-07 | 2.62E-10 | 3.32E-07 | 3.32E-07 |
| Be+2, (MT)                                    | 3.14E-10 | 8.05E-10 | 6.03E-13 | 1.24E-12 | 3.04E-13 | 8.04E-10 | 8.05E-10 | 6.35E-13 | 8.04E-10 | 8.04E-10 |
| Bi+3, (MT)                                    | 2.68E-05 | 6.88E-05 | 5.15E-08 | 1.06E-07 | 2.60E-08 | 6.87E-05 | 6.88E-05 | 5.43E-08 | 6.87E-05 | 6.87E-05 |
| Carbon-14, (MT)                               | 4.57E-10 | 1.17E-09 | 8.78E-13 | 1.80E-12 | 4.43E-13 | 1.17E-09 | 1.17E-09 | 9.26E-13 | 1.17E-09 | 1.17E-09 |
| Ce+2, (MT)                                    | 4.20E-06 | 1.08E-05 | 8.07E-09 | 1.66E-08 | 4.08E-09 | 1.08E-05 | 1.08E-05 | 8.50E-09 | 1.08E-05 | 1.08E-05 |
| Cecondinite, (MT)                             | 1.79E-01 | 1.79E-01 | 1.34E-04 | 2.75E-04 | 6.76E-05 | 1.79E-01 | 1.79E-01 | 1.41E-04 | 1.79E-01 | 3.11E-01 |
| Cd+2, (MT)                                    | 9.29E-07 | 2.38E-06 | 1.78E-09 | 3.66E-09 | 9.01E-10 | 2.38E-06 | 2.38E-06 | 1.88E-09 | 2.38E-06 | 2.38E-06 |
| Ce+3, (MT)                                    | 1.11E-06 | 2.85E-06 | 2.14E-09 | 4.39E-09 | 1.08E-09 | 2.85E-06 | 2.85E-06 | 2.25E-09 | 2.85E-06 | 2.85E-06 |
| Cl-, (MT)                                     | 2.02E-04 | 5.18E-04 | 3.88E-07 | 7.96E-07 | 1.96E-07 | 5.17E-04 | 5.18E-04 | 4.09E-07 | 5.17E-04 | 5.17E-04 |
| Cm+3, (MT)                                    |          |          |          |          |          |          |          |          |          |          |
| CO+3, (MT)                                    | 2.19E-08 | 5.61E-08 | 4.20E-11 | 8.63E-11 | 2.12E-11 | 5.61E-08 | 5.61E-08 | 4.43E-11 | 5.61E-08 | 5.61E-08 |
| CO-2, (MT)                                    | 9.68E-08 | 2.48E-07 | 1.86E-10 | 3.82E-10 | 9.39E-11 | 2.48E-07 | 2.48E-07 | 1.96E-10 | 2.48E-07 | 2.48E-07 |
| Cs+3, (MT)                                    | 5.52E-05 | 1.42E-04 | 1.06E-07 | 2.18E-07 | 5.36E-08 | 1.42E-04 | 1.42E-04 | 1.12E-07 | 1.42E-04 | 1.42E-04 |
| Cs+, (MT)                                     | 3.63E-09 | 9.30E-09 | 6.96E-12 | 1.43E-11 | 3.52E-12 | 9.29E-09 | 9.30E-09 | 7.34E-12 | 9.29E-09 | 9.29E-09 |
| Cu+2, (MT)                                    | 9.21E-08 | 2.36E-07 | 1.77E-10 | 3.63E-10 | 8.92E-11 | 2.36E-07 | 2.36E-07 | 1.86E-10 | 2.36E-07 | 2.36E-07 |
| F-, (MT)                                      | 4.62E-04 | 1.19E-03 | 8.87E-07 | 1.82E-06 | 4.48E-07 | 1.19E-03 | 1.19E-03 | 9.35E-07 | 1.19E-03 | 1.19E-03 |
| Fe+3, (MT)                                    | 3.51E-06 | 9.00E-06 | 6.74E-09 | 1.38E-08 | 3.41E-09 | 9.00E-06 | 9.00E-06 | 7.10E-09 | 9.00E-06 | 9.00E-06 |
| H <sub>2</sub> O, (MT)                        | 6.49E+04 | 9.26E+04 | 6.94E+01 | 1.43E+02 | 3.51E+01 | 9.26E+04 | 9.27E+04 | 7.31E+01 | 9.26E+04 | 1.61E+05 |
| Hg+2, (MT)                                    | 4.83E-07 | 1.24E-06 | 9.27E-10 | 1.90E-09 | 4.68E-10 | 1.24E-06 | 1.24E-06 | 9.77E-10 | 1.24E-06 | 1.24E-06 |
| I-, (MT)                                      | 9.69E-08 | 2.49E-07 | 1.86E-10 | 3.82E-10 | 9.39E-11 | 2.49E-07 | 2.49E-07 | 1.96E-10 | 2.49E-07 | 2.49E-07 |
| K+, (MT)                                      | 5.91E-04 | 1.51E-03 | 1.13E-06 | 2.33E-06 | 5.73E-07 | 1.51E-03 | 1.51E-03 | 1.20E-06 | 1.51E-03 | 1.51E-03 |
| La+3, (MT)                                    | 1.57E-07 | 4.02E-07 | 3.01E-10 | 6.18E-10 | 1.52E-10 | 4.02E-07 | 4.02E-07 | 3.17E-10 | 4.02E-07 | 4.02E-07 |
| Li+, (MT)                                     | 1.29E-08 | 3.30E-08 | 2.47E-11 | 5.07E-11 | 1.25E-11 | 3.30E-08 | 3.30E-08 | 2.60E-11 | 3.30E-08 | 3.30E-08 |
| Mg+2, (MT)                                    | 2.26E-07 | 5.79E-07 | 4.34E-10 | 8.91E-10 | 2.19E-10 | 5.79E-07 | 5.79E-07 | 4.57E-10 | 5.79E-07 | 5.79E-07 |
| MnO <sub>2</sub> , (MT)                       | 9.03E-06 | 2.32E-05 | 1.74E-08 | 3.56E-08 | 8.77E-09 | 2.32E-05 | 2.32E-05 | 1.83E-08 | 2.32E-05 | 2.32E-05 |
| Mn+6, (MT)                                    | 1.36E-06 | 3.50E-06 | 2.62E-09 | 5.38E-09 | 1.32E-09 | 3.50E-06 | 3.50E-06 | 2.76E-09 | 3.50E-06 | 3.50E-06 |
| Nat, (MT)                                     | 5.26E+04 | 1.10E+05 | 8.26E+01 | 1.70E+02 | 4.18E+01 | 1.10E+05 | 1.10E+05 | 8.71E+01 | 1.10E+05 | 1.10E+05 |
| Ni+3, (MT)                                    | 2.46E-07 | 6.30E-07 | 4.71E-10 | 9.68E-10 | 2.38E-10 | 6.29E-07 | 6.30E-07 | 4.97E-10 | 6.29E-07 | 6.29E-07 |
| Ni <sub>2</sub> FeO <sub>6</sub> , (MT)       | 3.29E-02 | 3.29E-02 | 2.47E-05 | 5.07E-05 | 1.25E-05 | 3.29E-02 | 3.29E-02 | 2.60E-05 | 3.29E-02 | 5.73E-02 |
| NO <sub>2</sub> -, (MT)                       | 3.61E-08 | 9.26E-08 | 6.93E-11 | 1.42E-10 | 3.50E-11 | 9.25E-08 | 9.26E-08 | 7.31E-11 | 9.25E-08 | 9.25E-08 |
| NO <sub>3</sub> -, (MT)                       | 1.42E+05 | 3.30E+05 | 2.47E+02 | 5.07E+02 | 1.25E+02 | 3.29E+05 | 3.30E+05 | 2.60E+02 | 3.29E+05 | 3.29E+05 |
| Np+4, (MT)                                    | 1.97E-09 | 5.06E-09 | 3.79E-12 | 7.78E-12 | 1.91E-12 | 5.05E-09 | 5.06E-09 | 3.99E-12 | 5.05E-09 | 5.05E-09 |
| OH-, (MT)                                     | 8.87E-07 | 2.27E-06 | 1.70E-09 | 3.50E-09 | 8.60E-10 | 2.27E-06 | 2.27E-06 | 1.79E-09 | 2.27E-06 | 2.27E-06 |
| E2O5.2AH2O, (MT)                              | 1.33E-03 | 1.33E-03 | 9.95E-07 | 2.04E-06 | 5.03E-07 | 1.33E-03 | 1.33E-03 | 1.05E-06 | 1.33E-03 | 2.31E-03 |
| Hb+4, (MT)                                    | 1.14E-06 | 2.91E-06 | 2.18E-09 | 4.48E-09 | 1.10E-09 | 2.91E-06 | 2.91E-06 | 2.30E-09 | 2.91E-06 | 2.91E-06 |
| FO4-3, (MT)                                   | 2.13E-03 | 5.47E-03 | 4.09E-06 | 8.41E-06 | 2.07E-06 | 5.46E-03 | 5.47E-03 | 4.31E-06 | 5.46E-03 | 5.46E-03 |
| Poly, (MT)                                    | 4.08E-03 | 4.08E-03 | 3.06E-06 | 6.28E-06 | 1.55E-06 | 4.08E-03 | 4.08E-03 | 3.22E-06 | 4.08E-03 | 7.10E-03 |
| Ru+4, (MT)                                    | 3.51E-09 | 9.00E-09 | 6.74E-12 | 1.38E-11 | 3.40E-12 | 8.99E-09 | 9.00E-09 | 7.10E-12 | 8.99E-09 | 8.99E-09 |
| Rb+, (MT)                                     | 2.59E-08 | 6.65E-08 | 4.98E-11 | 1.02E-10 | 2.51E-11 | 6.64E-08 | 6.65E-08 | 5.24E-11 | 6.64E-08 | 6.64E-08 |
| Re+7, (MT)                                    | 1.95E-09 | 4.99E-09 | 3.74E-12 | 7.67E-12 | 1.89E-12 | 4.99E-09 | 4.99E-09 | 3.94E-12 | 4.99E-09 | 4.99E-09 |
| Rh+3, (MT)                                    | 5.30E-09 | 1.36E-08 | 1.02E-11 | 2.09E-11 | 5.13E-12 | 1.36E-08 | 1.36E-08 | 1.07E-11 | 1.36E-08 | 1.36E-08 |
| Ru+3, (MT)                                    | 1.14E-08 | 2.93E-08 | 2.19E-11 | 4.50E-11 | 1.11E-11 | 2.93E-08 | 2.93E-08 | 2.31E-11 | 2.92E-08 | 2.92E-08 |
| Sb+5, (MT)                                    | 2.43E-08 | 6.23E-08 | 4.66E-11 | 9.58E-11 | 2.35E-11 | 6.22E-08 | 6.23E-08 | 4.92E-11 | 6.22E-08 | 6.22E-08 |
| Se+6, (MT)                                    | 2.30E-07 | 5.90E-07 | 4.42E-10 | 9.07E-10 | 2.23E-10 | 5.90E-07 | 5.90E-07 | 4.66E-10 | 5.90E-07 | 5.90E-07 |
| Si+4, (MT)                                    | 5.61E-06 | 1.44E-05 | 1.08E-08 | 2.21E-08 | 5.44E-09 | 1.44E-05 | 1.44E-05 | 1.13E-08 | 1.44E-05 | 1.44E-05 |
| Sm+3, (MT)                                    | 1.47E-10 | 3.76E-10 | 2.81E-13 | 5.78E-13 | 1.42E-13 | 3.76E-10 | 3.76E-10 | 2.97E-13 | 3.76E-10 | 3.76E-10 |
| Sn+4, (MT)                                    | 2.07E-09 | 5.30E-09 | 3.97E-12 | 8.15E-12 | 2.00E-12 | 5.30E-09 | 5.30E-09 | 4.18E-12 | 5.30E-09 | 5.30E-09 |
| SO4-2, (MT)                                   | 8.31E-04 | 2.13E-03 | 1.60E-06 | 3.28E-06 | 8.07E-07 | 2.13E-03 | 2.13E-03 | 1.68E-06 | 2.13E-03 | 2.13E-03 |
| Sr+2, (MT)                                    | 1.60E-07 | 4.11E-07 | 3.08E-10 | 6.32E-10 | 1.55E-10 | 4.11E-07 | 4.11E-07 | 3.24E-10 | 4.11E-07 | 4.11E-07 |
| ToO4-, (MT)                                   | 1.23E-06 | 3.16E-06 | 2.37E-09 | 4.86E-09 | 1.19E-09 | 3.16E-06 | 3.16E-06 | 2.49E-09 | 3.16E-06 | 3.16E-06 |
| Te+6, (MT)                                    | 2.27E-09 | 5.83E-09 | 4.36E-12 | 8.96E-12 | 2.20E-12 | 5.82E-09 | 5.83E-09 | 4.60E-12 | 5.82E-09 | 5.82E-09 |
| Th+4, (MT)                                    | 7.47E-08 | 1.91E-07 | 1.43E-10 | 2.94E-10 | 7.24E-11 | 1.91E-07 | 1.91E-07 | 1.51E-10 | 1.91E-07 | 1.91E-07 |
| Ti+4, (MT)                                    | 2.94E-09 | 7.54E-09 | 5.64E-12 | 1.16E-11 | 2.85E-12 | 7.53E-09 | 7.54E-09 | 5.95E-12 | 7.53E-09 | 7.53E-09 |
| Tl+3, (MT)                                    | 1.27E-07 | 3.26E-07 | 2.44E-10 | 5.01E-10 | 1.23E-10 | 3.26E-07 | 3.26E-07 | 2.57E-10 | 3.26E-07 | 3.26E-07 |
| TOC, (MT)                                     | 3.25E-04 | 8.32E-04 | 6.23E-07 | 1.28E-06 | 3.15E-07 | 8.32E-04 | 8.32E-04 | 6.57E-07 | 8.32E-04 | 8.32E-04 |
| UO2+2, (MT)                                   | 3.85E-05 | 9.88E-05 | 7.40E-08 | 1.52E-07 | 3.74E-08 | 9.87E-05 | 9.88E-05 | 7.80E-08 | 9.87E-05 | 9.87E-05 |
| V+5, (MT)                                     | 4.00E-09 | 1.03E-08 | 7.69E-12 | 1.58E-11 | 3.88E-12 | 1.03E-08 | 1.03E-08 | 8.10E-12 | 1.03E-08 | 1.03E-08 |
| W+6, (MT)                                     | 1.36E-06 | 3.49E-06 | 2.62E-09 | 5.37E-09 | 1.32E-09 | 3.49E-06 | 3.49E-06 | 2.76E-09 | 3.49E-06 | 3.49E-06 |
| Zn+2, (MT)                                    | 3.68E-07 | 9.44E-07 | 7.07E-10 | 1.45E-09 | 3.57E-10 | 9.43E-07 | 9.44E-07 | 7.45E-10 | 9.43E-07 | 9.43E-07 |
| ZrO2.2H2O, (MT)                               | 1.03E-05 | 2.63E-05 | 1.97E-08 | 4.05E-08 | 9.96E-09 | 2.63E-05 | 2.63E-05 | 2.08E-08 | 2.63E-05 | 2.63E-05 |

| STREAM NAME<br>LIQUID COMPONENTS              | 56       | 57       | 58       | 59       | 60       | 61       | 62       | 63       | 70       | 71       |
|-----------------------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Total Mass Flow, (MT)                         | 4.24E+05 | 1.48E+05 | 8.52E+04 | 6.31E+04 | 1.88E+05 | 4.40E+05 | 8.57E+03 | 5.01E+04 | 8.67E+05 | 6.96E+05 |
| Al, (MT)                                      | 2.76E+03 | 9.67E+02 | 5.56E+02 | 4.12E+02 |          | 2.37E+03 |          | 9.09E+02 | 1.77E+04 | 1.42E+04 |
| Fe, (MT)                                      | 1.41E-03 | 4.96E-04 | 2.85E-04 | 2.11E-04 |          | 2.15E-04 |          | 9.88E+00 | 3.21E+00 | 2.58E+00 |
| Cr, (MT)                                      | 1.79E-02 | 6.28E-03 | 3.61E-03 | 2.67E-03 |          | 2.73E-03 |          | 1.32E+02 | 4.22E+01 | 3.39E+01 |
| Na, (MT)                                      | 5.23E+04 | 1.83E+04 | 1.05E+04 | 7.80E+03 |          | 5.47E+04 | 2.47E+03 | 7.05E+03 | 1.02E+05 | 8.22E+04 |
| Si, (MT)                                      | 1.82E-03 | 6.38E-04 | 3.67E-04 | 2.71E-04 |          | 2.78E-04 |          | 1.34E+01 | 4.27E+00 | 3.43E+00 |
| P, (MT)                                       | 2.26E-01 | 7.92E-02 | 4.55E-02 | 3.37E-02 |          | 3.44E-02 |          | 1.67E+03 | 5.32E+02 | 4.27E+02 |
| NO <sub>2</sub> - and NO <sub>3</sub> -, (MT) | 1.60E+05 | 5.61E+04 | 3.22E+04 | 2.39E+04 |          | 1.64E+05 |          | 1.13E+04 | 3.96E+05 | 3.18E+05 |
| Cs and Ba, (MCI)                              | 9.67E-05 | 3.39E-05 | 1.95E-05 | 1.44E-05 |          | 1.47E-05 |          | 6.99E-01 | 2.24E-01 | 1.80E-01 |
| Sr and Y, (MCI)                               | 1.96E-04 | 6.86E-05 | 3.94E-05 | 2.92E-05 |          | 2.99E-05 |          | 1.27E+00 | 4.20E-01 | 3.37E-01 |
| Tc, (MCI)                                     | 4.15E-06 | 1.45E-06 | 8.35E-07 | 6.18E-07 |          | 6.32E-07 |          | 3.06E-02 | 9.76E-03 | 7.83E-03 |
| TRU, (MCI)                                    | 1.20E-06 | 4.19E-07 | 2.41E-07 | 1.78E-07 |          | 1.82E-07 |          | 8.56E-03 | 2.76E-03 | 2.21E-03 |
| Total MCI                                     | 7.34E-03 | 2.57E-03 | 1.48E-03 | 1.10E-03 |          | 1.12E-03 |          | 4.76E+01 | 1.58E+01 | 1.27E+01 |
| Ag+, (MT)                                     | 4.46E-06 | 1.56E-06 | 8.97E-07 | 6.65E-07 |          | 6.79E-07 |          | 3.23E-02 | 1.04E-02 | 8.32E-03 |
| Al <sup>3+</sup> , (MT)                       | 2.76E+03 | 9.67E+02 | 5.56E+02 | 4.12E+02 |          | 2.37E+03 |          | 9.09E+02 | 1.77E+04 | 1.42E+04 |
| Al(OH) <sub>4</sub> -, (MT)                   |          |          |          |          |          |          |          |          |          |          |
| Am <sup>3+</sup> , (MT)                       | 2.73E-07 | 9.57E-08 | 5.50E-08 | 4.07E-08 |          | 4.16E-08 |          | 1.96E-03 | 6.30E-04 | 5.06E-04 |
| As <sup>5+</sup> , (MT)                       | 2.57E-05 | 9.00E-06 | 5.17E-06 | 3.83E-06 |          | 3.92E-06 |          | 1.89E-01 | 6.02E-02 | 4.84E-02 |
| B <sup>3+</sup> , (MT)                        | 1.38E-05 | 4.84E-06 | 2.78E-06 | 2.06E-06 |          | 2.11E-06 |          | 9.88E-02 | 3.18E-02 | 2.58E-02 |
| Ba <sup>2+</sup> , (MT)                       | 4.21E-05 | 1.48E-05 | 8.47E-06 | 6.28E-06 |          | 6.42E-06 |          | 3.08E-01 | 9.84E-02 | 7.90E-02 |
| Be <sup>2+</sup> , (MT)                       | 1.02E-07 | 3.57E-08 | 2.05E-08 | 1.52E-08 |          | 1.55E-08 |          | 7.39E-02 | 2.37E-04 | 1.90E-04 |
| Bi <sup>3+</sup> , (MT)                       | 8.71E-03 | 3.05E-03 | 1.75E-03 | 1.30E-03 |          | 1.33E-03 |          | 6.40E+01 | 2.04E+01 | 1.64E+01 |
| Carbon-14, (MT)                               | 1.49E-07 | 5.21E-08 | 2.99E-08 | 2.22E-08 |          | 2.27E-08 |          | 1.10E-03 | 3.50E-04 | 2.81E-04 |
| Ca <sup>2+</sup> , (MT)                       | 1.36E-03 | 4.78E-04 | 2.75E-04 | 2.03E-04 |          | 2.08E-04 |          | 9.86E+00 | 3.16E+00 | 2.54E+00 |
| Cd <sup>2+</sup> , (MT)                       | 3.02E-04 | 1.06E-04 | 6.07E-05 | 4.50E-05 |          | 4.60E-05 |          | 2.21E+00 | 7.07E-01 | 5.68E-01 |
| Ce <sup>3+</sup> , (MT)                       | 3.61E-04 | 1.27E-04 | 7.27E-05 | 5.39E-05 |          | 5.51E-05 |          | 2.37E+00 | 7.81E-01 | 6.27E-01 |
| Cl-, (MT)                                     | 6.56E-02 | 2.30E-02 | 1.32E-02 | 9.77E-03 |          | 9.99E-03 |          | 4.83E+02 | 1.54E+02 | 1.24E+02 |
| Cm <sup>3+</sup> , (MT)                       | 5.58E-11 | 1.96E-11 | 1.13E-11 | 8.35E-12 |          | 8.32E-12 |          | 4.15E-07 | 1.33E-07 | 1.06E-07 |
| Co <sup>3+</sup> , (MT)                       | 7.11E-06 | 2.49E-06 | 1.43E-06 | 1.06E-06 |          | 1.08E-06 |          | 5.14E-02 | 1.65E-02 | 1.32E-02 |
| CO <sub>2</sub> , (MT)                        |          |          |          |          |          |          |          |          |          |          |
| CO <sub>3</sub> <sup>2-</sup> , (MT)          | 3.14E-05 | 1.10E-05 | 6.33E-06 | 4.69E-06 |          | 4.79E-06 |          | 1.15E-02 | 2.24E-02 | 1.80E-02 |
| Cr <sup>3+</sup> , (MT)                       | 1.79E-02 | 6.28E-03 | 3.61E-03 | 2.67E-03 |          | 2.73E-03 |          | 1.32E+02 | 4.22E+01 | 3.39E+01 |
| Cr(OH) <sub>4</sub> -, (MT)                   |          |          |          |          |          |          |          |          |          |          |
| Cs+, (MT)                                     | 1.18E-06 | 4.13E-07 | 2.37E-07 | 1.76E-07 |          | 1.80E-07 |          | 8.51E-03 | 2.73E-03 | 2.19E-03 |
| Cu <sup>2+</sup> , (MT)                       | 2.99E-05 | 1.05E-05 | 6.02E-06 | 4.46E-06 |          | 4.56E-06 |          | 2.19E-01 | 7.01E-02 | 5.63E-02 |
| F-, (MT)                                      | 1.50E-01 | 5.26E-02 | 3.02E-02 | 2.24E-02 |          | 2.29E-02 |          | 1.11E+03 | 3.53E+02 | 2.83E+02 |
| Fe <sup>3+</sup> , (MT)                       | 1.14E-03 | 4.00E-04 | 2.30E-04 | 1.70E-04 |          | 1.74E-04 |          | 7.49E+00 | 2.47E+00 | 1.98E+00 |
| FeCN <sub>6</sub> <sup>3-</sup> , (MT)        | 4.01E-04 | 1.41E-04 | 8.08E-05 | 5.98E-05 |          | 5.98E-05 |          | 3.51E+00 | 1.09E+00 | 8.71E-01 |
| Ht, (MT)                                      | 1.23E-02 | 4.31E-03 | 2.48E-03 | 1.83E-03 |          | 1.83E-03 |          | 3.33E+01 | 3.33E+01 | 2.67E+01 |
| H <sub>2</sub> O, (MT)                        | 2.08E+05 | 7.30E+04 | 4.19E+04 | 3.11E+04 | 1.88E+05 | 2.19E+05 | 4.29E+03 | 1.96E+04 | 3.48E+05 | 2.79E+05 |
| Hg <sup>2+</sup> , (MT)                       | 1.57E-04 | 5.50E-05 | 3.16E-05 | 2.34E-05 |          | 2.39E-05 |          | 1.16E+00 | 3.69E-01 | 2.96E-01 |
| I-, (MT)                                      | 3.15E-05 | 1.10E-05 | 6.34E-06 | 4.69E-06 |          | 4.80E-06 |          | 2.32E-01 | 7.41E-02 | 5.95E-02 |
| Kt, (MT)                                      | 1.92E-01 | 6.72E-02 | 3.86E-02 | 2.86E-02 |          | 2.92E-02 |          | 1.41E+03 | 4.51E+02 | 3.62E+02 |
| La <sup>3+</sup> , (MT)                       | 5.09E-05 | 1.78E-05 | 1.03E-05 | 7.59E-06 |          | 7.76E-06 |          | 3.27E-01 | 1.09E-01 | 8.71E-02 |
| Li+, (MT)                                     | 4.18E-06 | 1.46E-06 | 8.41E-07 | 6.23E-07 |          | 6.37E-07 |          | 3.07E-02 | 9.82E-03 | 7.88E-03 |
| Mg <sup>2+</sup> , (MT)                       | 7.34E-05 | 2.57E-05 | 1.48E-05 | 1.09E-05 |          | 1.12E-05 |          | 5.35E-01 | 1.71E-01 | 1.37E-01 |
| MnO <sub>2</sub> , (MT)                       | 2.93E-03 | 1.03E-03 | 5.91E-04 | 4.38E-04 |          | 4.47E-04 |          | 2.14E+01 | 6.85E+00 | 5.50E+00 |
| Mn <sup>2+</sup> , (MT)                       | 4.43E-04 | 1.55E-04 | 8.92E-05 | 6.61E-05 |          | 6.75E-05 |          | 3.26E+00 | 1.04E+00 | 8.36E-01 |
| Na+, (MT)                                     | 5.23E+04 | 1.83E+04 | 1.05E+04 | 7.80E+03 |          | 5.47E+04 | 2.47E+03 | 7.05E+03 | 1.02E+05 | 8.22E+04 |
| Ni <sup>3+</sup> , (MT)                       | 7.97E-05 | 2.79E-05 | 1.61E-05 | 1.19E-05 |          | 1.22E-05 |          | 5.75E-01 | 1.85E-01 | 1.48E-01 |
| NO, (MT)                                      |          |          |          |          |          |          |          |          |          |          |
| NO <sub>2</sub> -, (MT)                       | 1.17E-05 | 4.11E-06 | 2.36E-06 | 1.75E-06 |          | 1.79E-06 |          | 4.29E-03 | 8.37E-03 | 6.72E-03 |
| NO <sub>3</sub> -, (MT)                       | 1.60E+05 | 5.61E+04 | 3.22E+04 | 2.39E+04 |          | 1.64E+05 |          | 1.13E+04 | 3.96E+05 | 3.18E+05 |
| Np <sup>4+</sup> , (MT)                       | 6.41E-07 | 2.25E-07 | 1.29E-07 | 9.55E-08 |          | 9.76E-08 |          | 4.67E-03 | 1.49E-03 | 1.20E-03 |
| OH-, (MT)                                     | 2.88E-04 | 1.01E-04 | 5.80E-05 | 4.29E-05 |          | 4.39E-05 | 1.82E+03 | 6.04E+00 | 2.05E-01 | 1.65E-01 |
| Pb <sup>4+</sup> , (MT)                       | 3.69E-04 | 1.29E-04 | 7.42E-05 | 5.50E-05 |          | 5.62E-05 |          | 2.68E+00 | 8.59E-01 | 6.90E-01 |
| PO <sub>4</sub> <sup>3-</sup> , (MT)          | 6.92E-01 | 2.43E-01 | 1.39E-01 | 1.03E-01 |          | 1.06E-01 |          | 5.10E+03 | 1.63E+03 | 1.31E+03 |
| Poly, (MT)                                    | 5.01E-03 | 1.75E-03 | 1.01E-03 | 7.46E-04 |          | 7.46E-04 |          | 4.38E+01 | 1.35E+01 | 1.09E+01 |
| Rb <sup>4+</sup> , (MT)                       | 1.14E-06 | 3.99E-07 | 2.29E-07 | 1.70E-07 |          | 1.74E-07 |          | 8.08E-03 | 2.61E-03 | 2.09E-03 |
| Rb+, (MT)                                     | 8.42E-06 | 2.95E-06 | 1.69E-06 | 1.26E-06 |          | 1.28E-06 |          | 6.20E-02 | 1.98E-02 | 1.59E-02 |
| Re <sup>7+</sup> , (MT)                       | 6.32E-07 | 2.21E-07 | 1.27E-07 | 9.42E-08 |          | 9.63E-08 |          | 4.61E-03 | 1.48E-03 | 1.19E-03 |
| Rh <sup>3+</sup> , (MT)                       | 1.72E-06 | 6.03E-07 | 3.46E-07 | 2.57E-07 |          | 2.62E-07 |          | 1.21E-02 | 3.92E-03 | 3.15E-03 |
| Ru <sup>3+</sup> , (MT)                       | 3.71E-06 | 1.30E-06 | 7.46E-07 | 5.53E-07 |          | 5.65E-07 |          | 2.67E-02 | 8.57E-03 | 6.88E-03 |
| Sb <sup>5+</sup> , (MT)                       | 7.89E-06 | 2.76E-06 | 1.59E-06 | 1.18E-06 |          | 1.20E-06 |          | 5.59E-02 | 1.80E-02 | 1.45E-02 |
| Se <sup>6+</sup> , (MT)                       | 7.47E-05 | 2.62E-05 | 1.50E-05 | 1.11E-05 |          | 1.14E-05 |          | 5.48E-01 | 1.75E-01 | 1.41E-01 |
| Si <sup>4+</sup> , (MT)                       | 1.82E-03 | 6.38E-04 | 3.67E-04 | 2.71E-04 |          | 2.78E-04 |          | 1.34E+01 | 4.27E+00 | 3.43E+00 |
| Sm <sup>3+</sup> , (MT)                       | 4.76E-08 | 1.67E-08 | 9.59E-09 | 7.10E-09 |          | 7.26E-09 |          | 3.11E-04 | 1.03E-04 | 8.24E-05 |
| Sn <sup>4+</sup> , (MT)                       | 6.71E-07 | 2.35E-07 | 1.35E-07 | 1.00E-07 |          | 1.02E-07 |          | 4.93E-03 | 1.58E-03 | 1.27E-03 |
| SO <sub>4</sub> <sup>2-</sup> , (MT)          | 2.70E-01 | 9.46E-02 | 5.44E-02 | 4.03E-02 |          | 4.12E-02 |          | 1.99E+03 | 6.35E+02 | 5.10E+02 |
| Str <sup>2+</sup> , (MT)                      | 5.21E-05 | 1.82E-05 | 1.05E-05 | 7.76E-06 |          | 7.93E-06 |          | 3.37E-01 | 1.12E-01 | 8.96E-02 |
| TcO <sub>4</sub> -, (MT)                      | 4.00E-04 | 1.40E-04 | 8.05E-05 | 5.97E-05 |          | 6.10E-05 |          | 2.95E+00 | 9.41E-01 | 7.56E-01 |
| Te <sup>6+</sup> , (MT)                       | 7.38E-07 | 2.59E-07 | 1.49E-07 | 1.10E-07 |          | 1.13E-07 |          | 5.13E-03 | 1.66E-03 | 1.34E-03 |
| Th <sup>4+</sup> , (MT)                       | 2.43E-05 | 8.50E-06 | 4.88E-06 | 3.62E-06 |          | 3.70E-06 |          | 1.62E-01 | 5.31E-02 | 4.26E-02 |
| Ti <sup>4+</sup> , (MT)                       | 9.55E-07 | 3.35E-07 | 1.92E-07 | 1.42E-07 |          | 1.46E-07 |          | 6.48E-03 | 2.12E-03 | 1.70E-03 |
| Tl <sup>3+</sup> , (MT)                       | 4.13E-05 | 1.45E-05 | 8.31E-06 | 6.15E-06 |          | 6.29E-06 |          | 7.77E-01 | 9.55E-02 | 7.67E-02 |
| TOC, (MT)                                     | 1.05E-01 | 3.69E-02 | 2.12E-02 | 1.57E-02 |          | 1.61E-02 |          | 7.77E+02 | 2.48E+02 | 1.99E+02 |
| UC <sub>2</sub> <sup>2+</sup> , (MT)          | 1.25E-02 | 4.39E-03 | 2.52E-03 | 1.87E-03 |          | 1.91E-03 |          | 9.04E+01 | 2.90E+01 | 2.33E+01 |
| V <sup>5+</sup> , (MT)                        | 1.30E-06 | 4.56E-07 | 2.62E-07 | 1.94E-07 |          | 1.98E-07 |          | 1.33E-03 | 3.05E-03 | 2.45E-03 |
| W <sup>6+</sup> , (MT)                        | 4.42E-04 | 1.55E-04 | 8.91E-05 | 6.60E-05 |          | 6.74E-05 |          | 3.26E+00 | 1.04E+00 | 8.36E-01 |
| Zn <sup>2+</sup> , (MT)                       | 1.20E-04 | 4.19E-05 | 2.41E-05 | 1.78E-05 |          | 1.82E-05 |          | 8.79E-01 | 2.81E-01 | 2.26E-01 |
| ZrO <sub>2</sub> ·2H <sub>2</sub> O, (MT)     | 3.33E-03 | 1.17E-03 | 6.71E-04 | 4.97E-04 |          | 5.08E-04 |          | 2.34E+01 | 7.56E+00 | 6.07E+00 |

| STREAM NAME                                   | 56       | 57        | 58       | 59       | 60 | 61       | 62 | 63       | 70       | 71       |
|-----------------------------------------------|----------|-----------|----------|----------|----|----------|----|----------|----------|----------|
| SOLID COMPONENTS                              |          |           |          |          |    |          |    |          |          |          |
| Total Mass Flow, (MT)                         | 4.24E+02 | 6.05E+05  | 3.48E+05 | 2.57E+05 |    | 6.85E+04 |    | 4.16E+01 | 6.97E+05 | 6.97E+02 |
| Al, (MT)                                      | 3.23E+00 | 4.61E+03  | 2.65E+03 | 1.96E+03 |    | 2.09E-02 |    | 8.30E-01 | 1.39E+04 | 1.39E+01 |
| Fe, (MT)                                      | 6.81E-06 | 9.71E-03  | 5.58E-03 | 4.13E-03 |    | 4.13E-03 |    | 5.99E-06 | 1.00E-01 | 1.00E-04 |
| Cr, (MT)                                      | 9.91E-08 | 1.41E-04  | 8.12E-05 | 6.02E-05 |    |          |    | 4.95E-06 | 8.30E-01 | 8.29E-04 |
| Na, (MT)                                      | 7.72E+01 | 1.10E+05  | 6.33E+04 | 4.69E+04 |    | 2.25E-02 |    | 8.12E+00 | 1.36E+05 | 1.36E+02 |
| Si, (MT)                                      | 3.59E-05 | 5.12E-02  | 2.94E-02 | 2.18E-02 |    | 2.18E-02 |    | 6.94E-06 | 1.16E-01 | 1.16E-04 |
| P, (MT)                                       | 1.27E-06 | 1.81E-03  | 1.04E-03 | 7.68E-04 |    | 9.96E-06 |    | 6.23E-04 | 1.05E+01 | 1.04E-02 |
| NO <sub>2</sub> - and NO <sub>3</sub> -, (MT) | 2.31E+02 | 3.29E+05  | 1.89E+05 | 1.40E+05 |    |          |    | 2.76E+01 | 4.63E+05 | 4.63E+02 |
| Cs and Ba, (MT)                               | 5.34E-10 | 7.62E-07  | 4.38E-07 | 3.24E-07 |    |          |    | 3.05E-07 | 5.11E-03 | 5.11E-06 |
| Sr and Y, (MT)                                | 1.08E-09 | 1.54E-06  | 8.87E-07 | 6.57E-07 |    |          |    | 1.02E-06 | 1.71E-02 | 1.71E-05 |
| Tc, (MT)                                      | 2.29E-11 | 3.27E-08  | 1.88E-08 | 1.39E-08 |    |          |    | 1.15E-08 | 1.92E-04 | 1.92E-07 |
| TRU, (MT)                                     | 6.60E-12 | 9.43E-09  | 5.42E-09 | 4.01E-09 |    |          |    | 3.97E-09 | 6.66E-05 | 6.65E-08 |
| Total MCI                                     | 4.05E-08 | 5.79E-05  | 3.33E-05 | 2.46E-05 |    |          |    | 3.80E-05 | 6.38E-01 | 6.37E-04 |
| Ag <sup>+</sup> , (MT)                        | 2.46E-11 | 3.51E-08  | 2.02E-08 | 1.50E-08 |    |          |    | 1.37E-08 | 2.30E-04 | 2.29E-07 |
| Al <sup>3+</sup> , (MT)                       | 3.23E+00 | 4.61E+03  | 2.65E+03 | 1.96E+03 |    |          |    | 8.30E-01 | 1.39E+04 | 1.39E+01 |
| Am <sup>3+</sup> , (MT)                       | 1.51E-12 | 2.15E-09  | 1.24E-09 | 9.16E-10 |    |          |    | 8.93E-10 | 1.50E-05 | 1.50E-08 |
| As <sup>5+</sup> , (MT)                       | 1.42E-10 | 2.03E-07  | 1.16E-07 | 8.62E-08 |    |          |    | 7.30E-08 | 1.22E-03 | 1.22E-06 |
| B <sup>3+</sup> , (MT)                        | 7.63E-11 | 1.09E-07  | 6.26E-08 | 4.64E-08 |    |          |    | 4.66E-08 | 7.82E-04 | 7.81E-07 |
| Ba <sup>2+</sup> , (MT)                       | 2.32E-10 | 3.32E-07  | 1.91E-07 | 1.41E-07 |    |          |    | 1.23E-07 | 2.06E-03 | 2.06E-06 |
| Be <sup>2+</sup> , (MT)                       | 5.62E-13 | 8.03E-10  | 4.62E-10 | 3.42E-10 |    |          |    | 3.13E-10 | 5.24E-06 | 5.24E-09 |
| Bi <sup>3+</sup> , (MT)                       | 4.81E-08 | 6.87E-05  | 3.95E-05 | 2.92E-05 |    |          |    | 2.47E-05 | 4.14E-01 | 4.14E-04 |
| Carbon-14, (MT)                               | 8.20E-13 | 1.17E-09  | 6.73E-10 | 4.98E-10 |    |          |    | 4.09E-10 | 6.86E-06 | 6.86E-09 |
| Ca <sup>2+</sup> , (MT)                       | 7.54E-09 | 1.08E-05  | 6.18E-06 | 4.58E-06 |    |          |    | 4.29E-06 | 7.19E-02 | 7.19E-05 |
| Cancrinite, (MT)                              | 2.18E-04 | 3.11E-01  | 1.78E-01 | 1.32E-01 |    | 1.32E-01 |    | 1.07E-05 | 1.79E-01 | 1.79E-04 |
| Cd <sup>2+</sup> , (MT)                       | 1.67E-09 | 2.38E-06  | 1.37E-06 | 1.01E-06 |    |          |    | 8.60E-07 | 1.44E-02 | 1.44E-05 |
| Ce <sup>3+</sup> , (MT)                       | 1.99E-09 | 2.85E-06  | 1.64E-06 | 1.21E-06 |    |          |    | 1.81E-06 | 3.03E-02 | 3.03E-05 |
| Cl <sup>-</sup> , (MT)                        | 3.62E-07 | -5.17E-04 | 2.97E-04 | 2.20E-04 |    |          |    | 1.81E-04 | 3.03E+00 | 3.03E-03 |
| Cm <sup>3+</sup> , (MT)                       |          |           |          |          |    |          |    |          | 2.60E-09 | 2.60E-12 |
| CO <sub>2</sub> , (MT)                        | 3.92E-11 | 5.60E-08  | 3.22E-08 | 2.38E-08 |    |          |    | 2.22E-08 | 3.73E-04 | 3.72E-07 |
| CO <sub>2</sub> -2, (MT)                      | 1.74E-10 | 2.48E-07  | 1.42E-07 | 1.05E-07 |    |          |    | 6.93E-07 | 1.16E-02 | 1.16E-05 |
| Cr <sup>3+</sup> , (MT)                       | 9.91E-08 | 1.41E-04  | 8.12E-05 | 6.02E-05 |    |          |    | 4.95E-06 | 8.30E-01 | 8.29E-04 |
| Cs <sup>+</sup> , (MT)                        | 6.50E-12 | 9.29E-09  | 5.34E-09 | 3.95E-09 |    |          |    | 3.71E-09 | 6.23E-05 | 6.22E-08 |
| Cu <sup>2+</sup> , (MT)                       | 1.65E-10 | 2.36E-07  | 1.35E-07 | 1.00E-07 |    |          |    | 8.50E-08 | 1.43E-03 | 1.42E-06 |
| F <sup>-</sup> , (MT)                         | 8.29E-07 | 1.18E-03  | 6.80E-04 | 5.03E-04 |    |          |    | 4.14E-04 | 6.93E+00 | 6.93E-03 |
| Fe <sup>3+</sup> , (MT)                       | 6.30E-09 | 8.99E-06  | 5.16E-06 | 3.83E-06 |    |          |    | 5.66E-06 | 9.48E-02 | 9.47E-05 |
| H <sub>2</sub> O, (MT)                        | 1.13E+02 | 1.61E+05  | 9.25E+04 | 6.85E+04 |    | 6.85E+04 |    | 4.99E+00 | 8.37E+04 | 8.37E+01 |
| Hg <sup>2+</sup> , (MT)                       | 8.66E-10 | 1.24E-06  | 7.10E-07 | 5.26E-07 |    |          |    | 4.32E-07 | 7.24E-03 | 7.24E-06 |
| I <sup>-</sup> , (MT)                         | 1.74E-10 | 2.48E-07  | 1.43E-07 | 1.06E-07 |    |          |    | 8.68E-08 | 1.45E-03 | 1.45E-06 |
| K <sup>+</sup> , (MT)                         | 1.06E-06 | 1.51E-03  | 8.69E-04 | 6.43E-04 |    |          |    | 5.29E-04 | 8.86E+00 | 8.85E-03 |
| La <sup>3+</sup> , (MT)                       | 2.81E-10 | 4.02E-07  | 2.31E-07 | 1.71E-07 |    |          |    | 2.74E-07 | 4.59E-03 | 4.58E-06 |
| Li <sup>+</sup> , (MT)                        | 2.31E-11 | 3.29E-08  | 1.89E-08 | 1.40E-08 |    |          |    | 1.16E-08 | 1.95E-07 | 1.95E-10 |
| Mg <sup>2+</sup> , (MT)                       | 4.05E-10 | 5.78E-07  | 3.32E-07 | 2.46E-07 |    |          |    | 2.19E-07 | 3.67E-03 | 3.67E-06 |
| MnO <sub>2</sub> , (MT)                       | 1.62E-08 | 2.31E-05  | 1.33E-05 | 9.84E-06 |    |          |    | 8.75E-06 | 1.47E-01 | 1.47E-04 |
| Mo <sup>6+</sup> , (MT)                       | 2.45E-09 | 3.49E-06  | 2.01E-06 | 1.49E-06 |    |          |    | 1.24E-06 | 2.08E-02 | 2.07E-05 |
| Nat, (MT)                                     | 7.72E+01 | 1.10E+05  | 6.33E+04 | 4.69E+04 |    |          |    | 8.12E+00 | 1.36E+05 | 1.36E+02 |
| Ni <sup>3+</sup> , (MT)                       | 4.40E-10 | 6.29E-07  | 3.61E-07 | 2.67E-07 |    |          |    | 2.54E-07 | 4.26E-03 | 4.26E-06 |
| Ni <sub>2</sub> FeCoN <sub>6</sub> , (MT)     | 4.01E-05 | 5.72E-02  | 3.29E-02 | 2.44E-02 |    | 2.44E-02 |    | 1.96E-06 | 3.29E-02 | 3.29E-05 |
| NO <sub>2</sub> -, (MT)                       | 6.48E-11 | 9.24E-08  | 5.31E-08 | 3.93E-08 |    |          |    | 2.59E-07 | 4.33E-03 | 4.33E-06 |
| NO <sub>3</sub> -, (MT)                       | 2.31E+02 | 3.29E+05  | 1.89E+05 | 1.40E+05 |    |          |    | 2.76E+01 | 4.63E+05 | 4.63E+02 |
| NO <sub>4</sub> -, (MT)                       | 3.54E-12 | 5.05E-09  | 2.90E-09 | 2.15E-09 |    |          |    | 1.91E-09 | 3.21E-05 | 3.21E-08 |
| OH <sup>-</sup> , (MT)                        | 1.59E-09 | 2.27E-06  | 1.30E-06 | 9.66E-07 |    |          |    | 6.35E-06 | 1.06E-01 | 1.06E-04 |
| P2O5:24H2O, (MT)                              | 1.62E-06 | 2.31E-03  | 1.33E-03 | 9.83E-04 |    | 9.83E-04 |    | 7.92E-08 | 1.33E-03 | 1.33E-06 |
| Pb <sup>4+</sup> , (MT)                       | 2.04E-09 | 2.91E-06  | 1.67E-06 | 1.24E-06 |    |          |    | 1.12E-06 | 1.87E-02 | 1.87E-05 |
| PO <sub>4</sub> -3, (MT)                      | 3.83E-06 | 5.46E-03  | 3.14E-03 | 2.32E-03 |    |          |    | 1.91E-03 | 3.20E+01 | 3.20E-02 |
| Poly, (MT)                                    | 4.97E-06 | 7.10E-03  | 4.08E-03 | 3.02E-03 |    | 3.02E-03 |    | 2.43E-07 | 4.09E-03 | 4.08E-06 |
| Ru <sup>4+</sup> , (MT)                       | 6.29E-12 | 8.98E-09  | 5.16E-09 | 3.82E-09 |    |          |    | 4.00E-09 | 6.71E-05 | 6.70E-08 |
| Rb <sup>+</sup> , (MT)                        | 4.64E-11 | 6.64E-08  | 3.81E-08 | 2.82E-08 |    |          |    | 2.32E-08 | 3.89E-04 | 3.89E-07 |
| Re <sup>7+</sup> , (MT)                       | 3.49E-12 | 4.98E-09  | 2.86E-09 | 2.12E-09 |    |          |    | 1.87E-09 | 3.14E-05 | 3.14E-08 |
| Rh <sup>3+</sup> , (MT)                       | 9.49E-12 | 1.36E-08  | 7.79E-09 | 5.77E-09 |    |          |    | 6.23E-09 | 1.04E-04 | 1.04E-07 |
| Ru <sup>3+</sup> , (MT)                       | 2.05E-11 | 2.92E-08  | 1.68E-08 | 1.24E-08 |    |          |    | 1.20E-08 | 2.02E-04 | 2.02E-07 |
| Sb <sup>5+</sup> , (MT)                       | 4.35E-11 | 6.22E-08  | 3.57E-08 | 2.65E-08 |    |          |    | 2.80E-08 | 4.70E-04 | 4.69E-07 |
| Se <sup>6+</sup> , (MT)                       | 4.12E-10 | 5.89E-07  | 3.38E-07 | 2.51E-07 |    |          |    | 2.12E-07 | 3.56E-03 | 3.55E-06 |
| Si <sup>4+</sup> , (MT)                       | 1.01E-08 | 1.44E-05  | 8.25E-06 | 6.11E-06 |    |          |    | 5.18E-06 | 8.68E-02 | 8.67E-05 |
| Sm <sup>3+</sup> , (MT)                       | 2.63E-13 | 3.75E-10  | 2.16E-10 | 1.60E-10 |    |          |    | 2.42E-10 | 4.06E-06 | 4.05E-09 |
| Sn <sup>4+</sup> , (MT)                       | 3.71E-12 | 5.29E-09  | 3.04E-09 | 2.25E-09 |    |          |    | 1.90E-09 | 3.19E-05 | 3.18E-08 |
| SO <sub>4</sub> -2, (MT)                      | 1.49E-06 | 2.13E-03  | 1.22E-03 | 9.06E-04 |    |          |    | 7.44E-04 | 1.25E+01 | 1.25E-02 |
| Sr <sup>2+</sup> , (MT)                       | 2.87E-10 | 4.10E-07  | 2.36E-07 | 1.75E-07 |    |          |    | 2.71E-07 | 4.55E-03 | 4.54E-06 |
| ToO <sub>4</sub> -, (MT)                      | 2.21E-09 | 3.15E-06  | 1.81E-06 | 1.34E-06 |    |          |    | 1.11E-06 | 1.85E-02 | 1.85E-05 |
| Tet <sup>6</sup> , (MT)                       | 4.07E-12 | 5.82E-09  | 3.34E-09 | 2.48E-09 |    |          |    | 2.89E-09 | 4.84E-05 | 4.83E-08 |
| Th <sup>4+</sup> , (MT)                       | 1.34E-10 | 1.91E-07  | 1.10E-07 | 8.13E-08 |    |          |    | 1.14E-07 | 1.91E-03 | 1.90E-06 |
| Ti <sup>4+</sup> , (MT)                       | 5.27E-12 | 7.53E-09  | 4.32E-09 | 3.20E-09 |    |          |    | 4.15E-09 | 6.96E-05 | 6.96E-08 |
| Tl <sup>3+</sup> , (MT)                       | 2.28E-10 | 3.25E-07  | 1.87E-07 | 1.38E-07 |    |          |    | 1.32E-07 | 2.21E-03 | 2.21E-06 |
| TCC, (MT)                                     | 5.82E-07 | 8.31E-04  | 4.77E-04 | 3.54E-04 |    |          |    | 2.91E-04 | 4.87E+00 | 4.87E-03 |
| UO <sub>2</sub> +2, (MT)                      | 6.92E-08 | 9.87E-05  | 5.67E-05 | 4.20E-05 |    |          |    | 3.95E-05 | 6.62E-01 | 6.62E-04 |
| V <sup>5+</sup> , (MT)                        | 7.18E-12 | 1.03E-08  | 5.89E-09 | 4.36E-09 |    |          |    | 3.72E-09 | 6.23E-05 | 6.22E-08 |
| W <sup>6+</sup> , (MT)                        | 2.44E-09 | 3.49E-06  | 2.00E-06 | 1.48E-06 |    |          |    | 1.22E-06 | 2.04E-02 | 2.04E-05 |
| Zn <sup>2+</sup> , (MT)                       | 6.60E-10 | 9.43E-07  | 5.42E-07 | 4.01E-07 |    |          |    | 3.35E-07 | 5.61E-03 | 5.60E-06 |
| ZrO <sub>2</sub> :2H <sub>2</sub> O, (MT)     | 1.84E-08 | 2.63E-05  | 1.51E-05 | 1.12E-05 |    |          |    | 1.25E-05 | 2.10E-01 | 2.10E-04 |

| STREAM NAME                                                          | 72       |
|----------------------------------------------------------------------|----------|
| LIQUID COMPONENTS                                                    |          |
| Total Mass Flow, (MT)                                                | 1.71E+05 |
| Al, (MT)                                                             | 3.49E+03 |
| Fe, (MT)                                                             | 6.33E-01 |
| Cr, (MT)                                                             | 8.32E+00 |
| Na, (MT)                                                             | 2.02E+04 |
| Si, (MT)                                                             | 8.42E-01 |
| P, (MT)                                                              | 1.05E+02 |
| NO <sub>2</sub> <sup>-</sup> and NO <sub>3</sub> <sup>-</sup> , (MT) | 7.80E+04 |
| Cs and Ba, (MT)                                                      | 4.42E-02 |
| Sr and Y, (MT)                                                       | 8.28E-02 |
| Tc, (MT)                                                             | 1.92E-03 |
| TRU, (MT)                                                            | 5.43E-04 |
| Total MT                                                             | 3.11E+00 |
| Ag <sup>+</sup> , (MT)                                               | 2.04E-03 |
| Al <sup>3+</sup> , (MT)                                              | 3.49E+03 |
| Al(CH <sub>3</sub> ) <sub>4</sub> <sup>-</sup> , (MT)                |          |
| Am <sup>3+</sup> , (MT)                                              | 1.24E-04 |
| As <sup>5+</sup> , (MT)                                              | 1.19E-02 |
| B <sup>3+</sup> , (MT)                                               | 6.27E-03 |
| Ba <sup>2+</sup> , (MT)                                              | 1.94E-02 |
| Be <sup>2+</sup> , (MT)                                              | 4.67E-05 |
| Bi <sup>3+</sup> , (MT)                                              | 4.03E+00 |
| Carbon-14, (MT)                                                      | 6.89E-05 |
| Ca <sup>2+</sup> , (MT)                                              | 6.24E-01 |
| Cd <sup>2+</sup> , (MT)                                              | 1.40E-01 |
| Ce <sup>3+</sup> , (MT)                                              | 1.54E-01 |
| Cl <sup>-</sup> , (MT)                                               | 3.04E+01 |
| Cm <sup>3+</sup> , (MT)                                              | 2.61E-08 |
| Co <sup>3+</sup> , (MT)                                              | 3.25E-03 |
| CO <sub>2</sub> , (MT)                                               |          |
| CO <sub>3</sub> <sup>2-</sup> , (MT)                                 | 4.42E-03 |
| Cr <sup>3+</sup> , (MT)                                              | 8.32E+00 |
| Cr(CH <sub>3</sub> ) <sub>4</sub> <sup>-</sup> , (MT)                |          |
| Cs <sup>+</sup> , (MT)                                               | 5.39E-04 |
| Cu <sup>2+</sup> , (MT)                                              | 1.38E-02 |
| F <sup>-</sup> , (MT)                                                | 6.96E+01 |
| Fe <sup>3+</sup> , (MT)                                              | 4.87E-01 |
| FeCN <sub>6</sub> <sup>3-</sup> , (MT)                               | 2.14E-01 |
| H <sup>+</sup> , (MT)                                                | 6.56E+00 |
| H <sub>2</sub> O, (MT)                                               | 6.85E+04 |
| Hg <sup>2+</sup> , (MT)                                              | 7.27E-02 |
| I <sup>-</sup> , (MT)                                                | 1.46E-02 |
| K <sup>+</sup> , (MT)                                                | 8.90E+01 |
| La <sup>3+</sup> , (MT)                                              | 2.14E-02 |
| Li <sup>+</sup> , (MT)                                               | 1.94E-03 |
| Mg <sup>2+</sup> , (MT)                                              | 3.37E-02 |
| MnO <sub>2</sub> , (MT)                                              | 1.35E+00 |
| Mo <sup>6+</sup> , (MT)                                              | 2.05E-01 |
| Na <sup>+</sup> , (MT)                                               | 2.02E+04 |
| Ni <sup>3+</sup> , (MT)                                              | 3.64E-02 |
| NO, (MT)                                                             |          |
| NO <sub>2</sub> <sup>-</sup> , (MT)                                  | 1.65E-03 |
| NO <sub>3</sub> <sup>-</sup> , (MT)                                  | 7.80E+04 |
| Np <sup>4+</sup> , (MT)                                              | 2.95E-04 |
| OH <sup>-</sup> , (MT)                                               | 4.05E-02 |
| Pb <sup>4+</sup> , (MT)                                              | 1.69E-01 |
| PO <sub>4</sub> <sup>3-</sup> , (MT)                                 | 3.21E+02 |
| Poly, (MT)                                                           | 2.67E+00 |
| Pu <sup>4+</sup> , (MT)                                              | 5.14E-04 |
| Rb <sup>+</sup> , (MT)                                               | 3.90E-03 |
| Rf <sup>7+</sup> , (MT)                                              | 2.91E-04 |
| Rh <sup>3+</sup> , (MT)                                              | 7.73E-04 |
| Ru <sup>3+</sup> , (MT)                                              | 1.69E-03 |
| Sb <sup>5+</sup> , (MT)                                              | 3.55E-03 |
| Se <sup>6+</sup> , (MT)                                              | 3.46E-02 |
| Si <sup>4+</sup> , (MT)                                              | 8.42E-01 |
| Sm <sup>3+</sup> , (MT)                                              | 2.02E-05 |
| Sn <sup>4+</sup> , (MT)                                              | 3.11E-04 |
| SO <sub>4</sub> <sup>2-</sup> , (MT)                                 | 1.25E+02 |
| Sr <sup>2+</sup> , (MT)                                              | 2.20E-02 |
| TcO <sub>4</sub> <sup>-</sup> , (MT)                                 | 1.86E-01 |
| Te <sup>6+</sup> , (MT)                                              | 3.28E-04 |
| Th <sup>4+</sup> , (MT)                                              | 1.05E-02 |
| Ti <sup>4+</sup> , (MT)                                              | 4.17E-04 |
| Tl <sup>3+</sup> , (MT)                                              | 1.88E-02 |
| TOC, (MT)                                                            | 4.89E+01 |
| UO <sub>2</sub> H <sub>2</sub> , (MT)                                | 5.72E+00 |
| V <sup>5+</sup> , (MT)                                               | 6.01E-04 |
| W <sup>6+</sup> , (MT)                                               | 2.05E-01 |
| Zn <sup>2+</sup> , (MT)                                              | 5.54E-02 |
| ZrO <sub>2</sub> ·2H <sub>2</sub> O, (MT)                            | 1.49E+00 |

| STREAM NAME                                             | 72       |
|---------------------------------------------------------|----------|
| SOLID COMPONENTS                                        |          |
| Total Mass Flow, (MT)                                   | 6.97E+05 |
| Al, (MT)                                                | 1.39E+04 |
| Fe, (MT)                                                | 1.00E-01 |
| Cr, (MT)                                                | 8.29E-01 |
| Na, (MT)                                                | 1.36E+05 |
| Si, (MT)                                                | 1.16E-01 |
| P, (MT)                                                 | 1.04E+01 |
| NO <sub>2</sub> - and NO <sub>3</sub> -, (MT)           | 4.63E+05 |
| Cs and Ba, (MCl)                                        | 5.11E-03 |
| Sr and Y, (MCl)                                         | 1.71E-02 |
| Tc, (MCl)                                               | 1.92E-04 |
| TRU, (MCl)                                              | 6.65E-05 |
| Total MCl                                               | 6.37E-01 |
| Ag+, (MT)                                               | 2.29E-04 |
| Al+3, (MT)                                              | 1.39E+04 |
| Am+3, (MT)                                              | 1.50E-05 |
| As+5, (MT)                                              | 1.22E-03 |
| B+3, (MT)                                               | 7.81E-04 |
| Ba+2, (MT)                                              | 2.06E-03 |
| Be+2, (MT)                                              | 5.24E-06 |
| Bi+3, (MT)                                              | 4.13E-01 |
| Carbon-14, (MT)                                         | 6.86E-06 |
| Ca+2, (MT)                                              | 7.19E-02 |
| Cancrinite, (MT)                                        | 1.79E-01 |
| Cd+2, (MT)                                              | 1.44E-02 |
| Ce+3, (MT)                                              | 3.03E-02 |
| Cl-, (MT)                                               | 3.03E+00 |
| Cm+3, (MT)                                              | 2.60E-09 |
| CO+3, (MT)                                              | 3.72E-04 |
| CO <sub>3</sub> -2, (MT)                                | 1.16E-02 |
| Cr+3, (MT)                                              | 8.29E-01 |
| Cs+, (MT)                                               | 6.22E-05 |
| Cu+2, (MT)                                              | 1.42E-03 |
| F-, (MT)                                                | 6.93E+00 |
| Fe+3, (MT)                                              | 9.47E-02 |
| H <sub>2</sub> O, (MT)                                  | 8.36E+04 |
| Hg+2, (MT)                                              | 7.24E-03 |
| I-, (MT)                                                | 1.45E-03 |
| K+, (MT)                                                | 8.85E+00 |
| La+3, (MT)                                              | 4.58E-03 |
| Li+, (MT)                                               | 1.95E-04 |
| Mg+2, (MT)                                              | 3.67E-03 |
| MnO <sub>2</sub> , (MT)                                 | 1.47E-01 |
| Mo+6, (MT)                                              | 2.07E-02 |
| Na+, (MT)                                               | 1.36E+05 |
| Ni+3, (MT)                                              | 4.26E-03 |
| Ni <sub>2</sub> FeCN <sub>6</sub> , (MT)                | 3.29E-02 |
| NO <sub>2</sub> -, (MT)                                 | 4.33E-03 |
| NO <sub>3</sub> -, (MT)                                 | 4.63E+05 |
| Np+4, (MT)                                              | 3.21E-05 |
| OH-, (MT)                                               | 1.06E-01 |
| P <sub>2</sub> O <sub>5</sub> :24H <sub>2</sub> O, (MT) | 1.33E-03 |
| Rb+4, (MT)                                              | 1.87E-02 |
| FO <sub>4</sub> -3, (MT)                                | 3.20E+01 |
| Poly, (MT)                                              | 4.08E-03 |
| Pu+4, (MT)                                              | 6.70E-05 |
| Rb+, (MT)                                               | 3.89E-04 |
| Re+7, (MT)                                              | 3.14E-05 |
| Rh+3, (MT)                                              | 1.04E-04 |
| Ru+3, (MT)                                              | 2.02E-04 |
| Sb+5, (MT)                                              | 4.69E-04 |
| Se+6, (MT)                                              | 3.55E-03 |
| Si+4, (MT)                                              | 8.67E-02 |
| Sm+3, (MT)                                              | 4.05E-06 |
| Sn+4, (MT)                                              | 3.18E-05 |
| SO <sub>4</sub> -2, (MT)                                | 1.25E+01 |
| Sr+2, (MT)                                              | 4.54E-03 |
| TcO <sub>4</sub> -, (MT)                                | 1.85E-02 |
| Te+6, (MT)                                              | 4.83E-05 |
| Th+4, (MT)                                              | 1.90E-03 |
| Ti+4, (MT)                                              | 6.96E-05 |
| Tl+3, (MT)                                              | 2.21E-03 |
| TOC, (MT)                                               | 4.87E+00 |
| UC <sub>2</sub> +2, (MT)                                | 6.62E-01 |
| V+5, (MT)                                               | 6.22E-05 |
| W+6, (MT)                                               | 2.04E-02 |
| ZN+2, (MT)                                              | 5.60E-03 |
| ZrO <sub>2</sub> :2H <sub>2</sub> O, (MT)               | 2.10E-01 |

**APPENDIX B**

| STREAM NAME                                   | 1        | 2        | 3        | 4        | 5        | 6        | 7        | 9        | 11       | 13       |
|-----------------------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| LIQUID COMPONENTS                             |          |          |          |          |          |          |          |          |          |          |
| Total Mass Flow, (MT)                         | 6.28E+05 | 1.96E+05 | 8.24E+05 | 1.71E+06 | 9.32E+05 | 5.88E+05 | 5.55E+05 | 1.40E+05 | 4.15E+05 | 3.20E+05 |
| Al, (MT)                                      | 4.11E+03 |          | 4.11E+03 | 2.34E+04 | 2.34E+04 | 2.34E+01 | 1.31E+04 | 3.30E+03 | 7.53E+03 | 7.53E+03 |
| Fe, (MT)                                      | 9.85E+00 |          | 9.85E+00 | 5.80E+01 | 5.80E+01 | 4.40E+04 | 5.80E+01 | 1.46E+01 | 4.33E+01 | 3.34E+01 |
| Cr, (MT)                                      | 1.32E+02 |          | 1.32E+02 | 7.76E+02 | 7.75E+02 | 7.76E+03 | 7.75E+02 | 1.96E+02 | 5.79E+02 | 4.47E+02 |
| Na, (MT)                                      | 7.61E+04 |          | 7.61E+04 | 1.81E+05 | 1.29E+05 | 1.81E+00 | 6.59E+04 | 1.66E+04 | 4.92E+04 | 3.80E+04 |
| Si, (MT)                                      | 1.34E+01 |          | 1.34E+01 | 7.85E+01 | 7.84E+01 | 7.85E+04 | 7.83E+01 | 1.98E+01 | 5.86E+01 | 4.52E+01 |
| P, (MT)                                       | 1.67E+03 |          | 1.67E+03 | 9.77E+03 | 9.77E+03 | 9.78E+02 | 9.76E+03 | 2.47E+03 | 7.30E+03 | 5.63E+03 |
| NO <sub>2</sub> - and NO <sub>3</sub> -, (MT) | 1.20E+05 | 1.10E+05 | 2.23E+05 | 5.90E+05 | 4.48E+05 | 5.90E+00 | 2.07E+05 | 5.23E+04 | 1.55E+05 | 1.20E+05 |
| Cs and Ba, (MCl)                              | 8.88E+01 |          | 8.88E+01 | 5.21E+02 | 5.20E+02 | 5.21E+02 | 5.20E+02 | 1.31E+02 | 3.89E+02 | 3.00E+02 |
| Sr and Y, (MCl)                               | 1.40E+00 |          | 1.40E+00 | 8.26E+00 | 8.26E+00 | 8.26E+05 | 8.25E+00 | 2.08E+00 | 6.17E+00 | 4.76E+00 |
| Tc, (MCl)                                     | 3.06E-02 |          | 3.06E-02 | 1.80E-01 | 1.79E-01 | 1.80E+05 | 1.79E-01 | 4.53E-02 | 1.34E-01 | 1.04E-01 |
| TRU, (MCl)                                    | 8.56E-03 |          | 8.56E-03 | 5.03E-02 | 5.02E-02 | 5.03E-07 | 5.02E-02 | 1.27E-02 | 3.75E-02 | 2.90E-02 |
| Total MCl                                     | 1.45E+02 |          | 1.45E+02 | 8.55E+02 | 8.54E+02 | 5.80E-02 | 8.53E+02 | 1.62E+02 | 6.38E+02 | 4.92E+02 |
| Ag+, (MT)                                     | 3.23E-02 |          | 3.23E-02 | 1.90E-01 | 1.90E-01 | 1.90E-06 | 1.90E-01 | 4.79E-02 | 1.42E-01 | 1.09E-01 |
| Al+3, (MT)                                    |          |          | 4.11E+03 | 2.34E+04 | 2.34E+04 | 2.34E-01 | 1.31E+04 | 3.30E+03 | 9.76E+03 | 7.53E+03 |
| Al(OH) <sub>4</sub> -, (MT)                   | 1.45E+04 |          |          |          |          |          |          |          |          |          |
| Am+3, (MT)                                    | 1.96E-03 |          | 1.96E-03 | 1.15E-02 | 1.15E-02 | 1.15E-07 | 1.15E-02 | 2.90E-03 | 8.60E-03 | 6.63E-03 |
| Ast+5, (MT)                                   | 1.89E-01 |          | 1.89E-01 | 1.11E+00 | 1.11E+00 | 1.11E-05 | 1.11E+00 | 2.79E-01 | 8.26E-01 | 6.38E-01 |
| B+3, (MT)                                     | 9.87E-02 |          | 9.87E-02 | 5.80E-01 | 5.79E-01 | 5.80E-06 | 5.79E-01 | 1.46E-01 | 4.33E-01 | 3.34E-01 |
| Ba+2, (MT)                                    | 3.08E-01 |          | 3.08E-01 | 1.81E+00 | 1.81E+00 | 1.81E-05 | 1.80E+00 | 4.56E-01 | 1.35E+00 | 1.04E+00 |
| Ba+2, (MT)                                    | 7.40E-04 |          | 7.40E-04 | 4.34E-03 | 4.34E-03 | 4.34E-08 | 4.34E-03 | 1.10E-03 | 3.24E-03 | 2.50E-03 |
| Bi+3, (MT)                                    | 6.40E+01 |          | 6.40E+01 | 3.76E+02 | 3.75E+02 | 3.76E-03 | 3.75E+02 | 9.47E+01 | 2.80E+02 | 2.16E+02 |
| Carbon-14, (MT)                               | 1.10E-03 |          | 1.10E-03 | 6.44E-03 | 6.43E-03 | 6.44E-07 | 6.43E-03 | 1.62E-03 | 4.81E-03 | 3.71E-03 |
| Ca+2, (MT)                                    | 1.09E+01 |          | 1.09E+01 | 6.43E+01 | 6.42E+01 | 6.43E-04 | 6.42E+01 | 1.62E+01 | 4.80E+01 | 3.70E+01 |
| Ca+2, (MT)                                    | 2.22E+00 |          | 2.22E+00 | 1.30E+01 | 1.30E+01 | 1.30E-04 | 1.30E+01 | 3.28E+00 | 9.70E+00 | 7.49E+00 |
| Ce+3, (MT)                                    | 2.36E+00 |          | 2.36E+00 | 1.39E+01 | 1.39E+01 | 1.39E-04 | 1.39E+01 | 3.51E+00 | 1.04E+01 | 8.01E+00 |
| Cl-, (MT)                                     | 4.84E+02 |          | 4.84E+02 | 2.84E+03 | 2.83E+03 | 2.84E-02 | 2.83E+03 | 7.15E+02 | 2.12E+03 | 1.63E+03 |
| Cm+3, (MT)                                    | 4.16E-07 |          | 4.16E-07 | 2.45E-06 | 2.45E-06 | 2.45E-11 | 2.44E-06 | 6.17E-07 | 1.83E-06 | 1.41E-06 |
| CO+3, (MT)                                    | 5.14E-02 |          | 5.14E-02 | 3.02E-01 | 3.02E-01 | 3.02E-06 | 3.01E-01 | 7.61E-02 | 2.25E-01 | 1.74E-01 |
| CO <sub>2</sub> , (MT)                        |          |          | 1.87E+03 | 1.87E+03 | 1.87E+03 |          |          |          |          |          |
| CO <sub>3</sub> -2, (MT)                      | 2.55E+03 |          |          | 6.77E-02 | 6.76E-02 | 6.77E-07 | 6.76E-02 | 1.71E-02 | 5.05E-02 | 3.90E-02 |
| Cr+3, (MT)                                    |          |          | 1.32E+02 | 7.76E+02 | 7.75E+02 | 7.76E-03 | 7.75E+02 | 1.96E+02 | 5.79E+02 | 4.47E+02 |
| Cr(OH) <sub>4</sub> -, (MT)                   | 3.05E+02 |          |          |          |          |          |          |          |          |          |
| Cst-, (MT)                                    | 1.08E+00 |          | 1.08E+00 | 6.34E+00 | 6.33E+00 | 6.34E-04 | 6.33E+00 | 1.60E+00 | 4.73E+00 | 3.65E+00 |
| Cr+2, (MT)                                    | 2.20E-01 |          | 2.20E-01 | 1.29E+00 | 1.29E+00 | 1.29E-05 | 1.29E+00 | 3.25E-01 | 9.62E-01 | 7.42E-01 |
| F-, (MT)                                      | 1.11E+03 |          | 1.11E+03 | 6.49E+03 | 6.49E+03 | 6.49E-02 | 6.48E+03 | 1.64E+03 | 4.85E+03 | 3.74E+03 |
| Fe+3, (MT)                                    | 7.45E+00 |          | 7.45E+00 | 4.40E+01 | 4.39E+01 | 4.40E-04 | 4.39E+01 | 1.11E+01 | 3.28E+01 | 2.53E+01 |
| FeCN <sub>6</sub> -3, (MT)                    | 3.52E+00 |          | 3.52E+00 | 2.06E+01 | 2.06E+01 |          | 2.06E+01 | 5.20E+00 | 1.54E+01 | 1.19E+01 |
| H+, (MT)                                      | 6.51E-08 | 1.77E+03 | 6.07E+01 | 3.56E+02 | 3.56E+02 |          | 3.56E+02 | 8.98E+01 | 2.05E+02 | 2.05E+02 |
| H <sub>2</sub> O, (MT)                        | 3.90E+05 | 8.41E+04 | 5.03E+05 | 8.46E+05 | 2.64E+05 | 5.81E+05 | 2.02E+05 | 5.10E+04 | 1.51E+05 | 1.17E+05 |
| Hg+2, (MT)                                    | 1.16E+00 |          | 1.16E+00 | 6.79E+00 | 6.79E+00 | 6.79E-05 | 6.78E+00 | 1.71E+00 | 5.07E+00 | 3.91E+00 |
| I-, (MT)                                      | 2.33E-01 |          | 2.33E-01 | 1.36E+00 | 1.36E+00 | 1.36E-04 | 1.36E+00 | 3.44E-01 | 1.02E+00 | 7.86E-01 |
| K+, (MT)                                      | 1.42E+03 |          | 1.42E+03 | 8.30E+03 | 8.29E+03 | 8.30E-02 | 8.29E+03 | 2.09E+03 | 6.20E+03 | 4.78E+03 |
| La+3, (MT)                                    | 3.25E-01 |          | 3.25E-01 | 1.92E+00 | 1.92E+00 | 1.92E-05 | 1.92E+00 | 4.84E-01 | 1.43E+00 | 1.11E+00 |
| Li+, (MT)                                     | 3.08E-02 |          | 3.08E-02 | 1.81E-01 | 1.80E-01 | 1.81E-06 | 1.80E-01 | 4.55E-02 | 1.35E-01 | 1.04E-01 |
| Mg+2, (MT)                                    | 5.35E-01 |          | 5.35E-01 | 3.14E+00 | 3.14E+00 | 3.14E-05 | 3.14E+00 | 7.91E-01 | 2.34E+00 | 1.81E+00 |
| MnO <sub>2</sub> , (MT)                       | 2.14E+01 |          | 2.14E+01 | 1.26E+02 | 1.25E+02 | 1.26E-03 | 1.25E+02 | 3.17E+01 | 9.37E+01 | 7.23E+01 |
| Mb+6, (MT)                                    | 3.26E+00 |          | 3.26E+00 | 1.91E+01 | 1.91E+01 | 1.91E-04 | 1.91E+01 | 4.83E+00 | 1.43E+01 | 1.10E+01 |
| Nat, (MT)                                     | 7.61E+04 |          | 7.61E+04 | 1.81E+05 | 1.29E+05 | 1.81E+00 | 6.59E+04 | 1.66E+04 | 4.92E+04 | 3.80E+04 |
| Ni+3, (MT)                                    | 5.75E-01 |          | 5.75E-01 | 3.38E+00 | 3.37E+00 | 3.38E-05 | 3.37E+00 | 8.51E-01 | 2.52E+00 | 1.95E+00 |
| NO, (MT)                                      |          |          | 4.62E+03 | 4.62E+03 | 4.62E+03 |          |          |          |          |          |
| NO <sub>2</sub> -, (MT)                       | 1.06E+04 | 1.10E+05 | 2.52E-02 | 2.52E-02 | 2.52E-02 | 2.52E-07 | 2.52E-02 | 6.36E-03 | 1.88E-02 | 1.45E-02 |
| NO <sub>3</sub> -, (MT)                       | 1.09E+05 |          | 2.23E+05 | 5.90E+05 | 4.48E+05 | 5.90E+00 | 2.07E+05 | 5.23E+04 | 1.55E+05 | 1.20E+05 |
| Npt+4, (MT)                                   | 4.67E-03 |          | 4.67E-03 | 2.74E-02 | 2.74E-02 | 2.74E-07 | 2.74E-02 | 6.91E-03 | 2.05E-02 | 1.58E-02 |
| OH-, (MT)                                     | 1.42E+04 |          |          | 6.20E-01 | 6.19E-01 | 6.20E-06 | 6.19E-01 | 1.56E-01 | 4.63E-01 | 3.57E-01 |
| Pb+4, (MT)                                    | 2.68E+00 |          | 2.68E+00 | 1.57E+01 | 1.57E+01 | 1.57E-04 | 1.57E+01 | 3.97E+00 | 1.18E+01 | 9.07E+00 |
| PO <sub>4</sub> -3, (MT)                      | 5.11E+03 |          | 5.11E+03 | 3.00E+04 | 2.99E+04 | 3.00E-01 | 2.99E+04 | 7.55E+03 | 2.24E+04 | 1.73E+04 |
| Poly, (MT)                                    | 4.38E+01 |          | 4.38E+01 | 2.57E+02 | 2.57E+02 |          | 2.57E+02 | 6.48E+01 | 1.92E+02 | 1.48E+02 |
| Rut+4, (MT)                                   | 8.08E-03 |          | 8.08E-03 | 4.75E-02 | 4.74E-02 | 4.75E-07 | 4.74E-02 | 1.20E-02 | 3.54E-02 | 2.73E-02 |
| Rut+4, (MT)                                   | 6.21E-02 |          | 6.21E-02 | 3.64E-01 | 3.64E-01 | 3.64E-06 | 3.64E-01 | 9.18E-02 | 2.72E-01 | 2.10E-01 |
| Rut+7, (MT)                                   | 4.61E-03 |          | 4.61E-03 | 2.71E-02 | 2.70E-02 | 2.71E-07 | 2.70E-02 | 6.82E-03 | 2.02E-02 | 1.56E-02 |
| Rut+3, (MT)                                   | 1.21E-02 |          | 1.21E-02 | 7.13E-02 | 7.12E-02 | 7.13E-07 | 7.12E-02 | 1.80E-02 | 5.32E-02 | 4.11E-02 |
| Rut+3, (MT)                                   | 2.67E-02 |          | 2.67E-02 | 1.57E-01 | 1.57E-01 | 1.57E-05 | 1.57E-01 | 3.95E-02 | 1.17E-01 | 9.03E-02 |
| Sb+5, (MT)                                    | 5.58E-02 |          | 5.58E-02 | 3.28E-01 | 3.28E-01 | 3.28E-06 | 3.28E-01 | 8.27E-02 | 2.45E-01 | 1.89E-01 |
| Se+6, (MT)                                    | 5.49E-01 |          | 5.49E-01 | 3.22E+00 | 3.22E+00 | 3.22E-05 | 3.22E+00 | 8.12E-01 | 2.40E+00 | 1.86E+00 |
| Si+4, (MT)                                    | 1.34E+01 |          | 1.34E+01 | 7.85E+01 | 7.84E+01 | 7.85E-04 | 7.83E+01 | 1.98E+01 | 5.86E+01 | 4.52E+01 |
| Sm+3, (MT)                                    | 3.09E-04 |          | 3.09E-04 | 1.82E-03 | 1.82E-03 | 1.82E-08 | 1.82E-03 | 4.60E-04 | 1.36E-03 | 1.05E-03 |
| Sn+4, (MT)                                    | 4.93E-03 |          | 4.93E-03 | 2.90E-02 | 2.89E-02 | 2.90E-07 | 2.89E-02 | 7.30E-03 | 2.16E-02 | 1.67E-02 |
| SO <sub>4</sub> -2, (MT)                      | 1.99E+03 |          | 1.99E+03 | 1.17E+04 | 1.17E+04 | 1.17E-01 | 1.17E+04 | 2.95E+03 | 8.72E+03 | 6.73E+03 |
| Str+2, (MT)                                   | 3.72E-01 |          | 3.72E-01 | 2.20E+00 | 2.19E+00 | 2.20E-05 | 2.19E+00 | 5.54E-01 | 1.64E+00 | 1.27E+00 |
| TcO <sub>4</sub> -, (MT)                      | 2.96E+00 |          | 2.96E+00 | 1.73E+01 | 1.73E+01 | 1.73E-03 | 1.73E+01 | 4.37E+00 | 1.29E+01 | 9.98E+00 |
| Tet+6, (MT)                                   | 5.12E-03 |          | 5.12E-03 | 3.01E-02 | 3.01E-02 | 3.01E-07 | 3.01E-02 | 7.59E-03 | 2.25E-02 | 1.74E-02 |
| Th+4, (MT)                                    | 1.61E-01 |          | 1.61E-01 | 9.49E-01 | 9.48E-01 | 9.49E-06 | 9.48E-01 | 2.39E-01 | 7.09E-01 | 5.47E-01 |
| Ti+4, (MT)                                    | 6.46E-03 |          | 6.46E-03 | 3.81E-02 | 3.80E-02 | 3.81E-07 | 3.80E-02 | 9.60E-03 | 2.84E-02 | 2.19E-02 |
| Tl+3, (MT)                                    | 2.97E-01 |          | 2.97E-01 | 1.75E+00 | 1.75E+00 | 1.75E-05 | 1.74E+00 | 4.41E-01 | 1.30E+00 | 1.01E+00 |
| TOC, (MT)                                     | 7.79E+02 |          | 7.79E+02 | 4.57E+03 | 4.56E+03 | 4.57E-01 | 4.56E+03 | 1.15E+03 | 3.41E+03 | 2.63E+03 |
| UO <sub>2</sub> +2, (MT)                      | 9.04E+01 |          | 9.04E+01 | 5.31E+02 | 5.31E+02 | 5.31E-03 | 5.30E+02 | 1.43E+02 | 3.06E+02 | 3.06E+02 |
| V+5, (MT)                                     | 9.54E-03 |          | 9.54E-03 | 5.60E-02 | 5.59E-02 | 5.60E-07 | 5.59E-02 | 1.41E-02 | 4.18E-02 | 3.23E-02 |
| W+6, (MT)                                     | 3.26E+00 |          | 3.26E+00 | 1.92E+01 | 1.91E+01 | 1.92E-04 | 1.91E+01 | 4.83E+00 | 1.43E+01 | 1.10E+01 |
| Zn+2, (MT)                                    | 8.80E-01 |          | 8.80E-01 | 5.16E+00 | 5.16E+00 | 5.16E-05 | 5.16E+00 | 1.30E+00 | 3.80E+00 | 2.98E+00 |
| ZnO <sub>2</sub> .2H <sub>2</sub> O, (MT)     | 2.33E+01 |          | 2.33E+01 | 1.37E+02 | 1.37E+02 | 1.37E-03 | 1.37E+02 | 3.46E+01 | 1.02E+02 | 7.90E+01 |

| STREAM NAME                                            | 1        | 2 | 3        | 4        | 5        | 6 | 7        | 9        | 11       | 13       |
|--------------------------------------------------------|----------|---|----------|----------|----------|---|----------|----------|----------|----------|
| SOLID COMPONENTS                                       |          |   |          |          |          |   |          |          |          |          |
| Total Mass Flow, (MT)                                  | 7.97E-01 |   | 7.97E-01 | 8.91E+02 | 1.95E+05 |   | 5.72E+05 | 5.71E+05 | 4.15E+02 | 3.20E+02 |
| Al, (MT)                                               | 4.61E-02 |   | 4.61E-02 | 1.62E+01 | 3.97E+01 |   | 1.04E+04 | 1.04E+04 | 7.55E+00 | 5.82E+00 |
| Fe, (MT)                                               | 5.34E-02 |   | 5.34E-02 | 5.36E-02 | 9.76E-02 |   | 1.14E-01 | 1.14E-01 | 8.30E-05 | 6.40E-05 |
| Cr, (MT)                                               | 2.06E-03 |   | 2.06E-03 | 3.74E-03 | 7.80E-01 |   | 1.07E+00 | 1.07E+00 | 7.80E-04 | 6.02E-04 |
| Na, (MT)                                               | 7.70E-02 |   | 7.70E-02 | 1.80E+02 | 5.24E+04 |   | 1.15E+05 | 1.15E+05 | 8.36E+01 | 6.47E+01 |
| Si, (MT)                                               | 3.25E-02 |   | 3.25E-02 | 3.27E-02 | 1.11E-01 |   | 1.41E-01 | 1.41E-01 | 1.02E-04 | 7.90E-05 |
| P, (MT)                                                | 1.37E-02 |   | 1.37E-02 | 3.48E-02 | 9.81E+00 |   | 1.35E+01 | 1.35E+01 | 9.82E-03 | 7.58E-03 |
| NO <sub>2</sub> - and NO <sub>3</sub> -, (MT)          | 7.18E-02 |   | 7.18E-02 | 5.97E+02 | 1.42E+05 |   | 3.83E+05 | 3.83E+05 | 2.78E+02 | 2.15E+02 |
| Cs and Ba, (MT)                                        | 7.31E-04 |   | 7.31E-04 | 1.85E-03 | 5.22E-01 |   | 7.19E-01 | 7.19E-01 | 5.23E-04 | 4.03E-04 |
| Sr and Y, (MT)                                         | 9.15E-03 |   | 9.15E-03 | 9.18E-03 | 1.74E-02 |   | 2.06E-02 | 2.06E-02 | 1.49E-05 | 1.15E-05 |
| Tc, (MT)                                               | 6.06E-07 |   | 6.06E-07 | 9.93E-07 | 1.81E-04 |   | 2.49E-04 | 2.48E-04 | 1.81E-07 | 1.39E-07 |
| TRU, (MT)                                              | 1.29E-05 |   | 1.29E-05 | 1.30E-05 | 6.33E-05 |   | 8.24E-05 | 8.23E-05 | 5.98E-08 | 4.62E-08 |
| Total MT                                               | 3.39E-01 |   | 3.39E-01 | 3.41E-01 | 1.20E+00 |   | 1.52E+00 | 1.52E+00 | 1.10E-03 | 8.52E-04 |
| Ag+, (MT)                                              | 2.70E-05 |   | 2.70E-05 | 2.74E-05 | 2.17E-04 |   | 2.89E-04 | 2.89E-04 | 2.10E-07 | 1.62E-07 |
| Al+3, (MT)                                             | 1.78E-02 |   | 1.78E-02 | 1.62E+01 | 3.96E+01 |   | 1.04E+04 | 1.04E+04 | 7.55E+00 | 5.82E+00 |
| Am+3, (MT)                                             | 2.68E-06 |   | 2.68E-06 | 2.70E-06 | 1.42E-05 |   | 1.86E-05 | 1.86E-05 | 1.35E-08 | 1.04E-08 |
| As+5, (MT)                                             | 4.30E-05 |   | 4.30E-05 | 4.55E-05 | 1.15E-03 |   | 1.57E-03 | 1.57E-03 | 1.14E-06 | 8.81E-07 |
| B+3, (MT)                                              | 1.62E-04 |   | 1.62E-04 | 1.64E-04 | 7.44E-04 |   | 9.63E-04 | 9.63E-04 | 7.00E-07 | 5.40E-07 |
| Ba+2, (MT)                                             | 1.35E-04 |   | 1.35E-04 | 1.39E-04 | 1.95E-03 |   | 2.63E-03 | 2.63E-03 | 1.91E-06 | 1.47E-06 |
| Be+2, (MT)                                             | 6.07E-07 |   | 6.07E-07 | 6.18E-07 | 4.96E-06 |   | 6.60E-06 | 6.60E-06 | 4.80E-09 | 3.70E-09 |
| Bi+3, (MT)                                             | 1.30E-02 |   | 1.30E-02 | 1.38E-02 | 3.89E-01 |   | 5.32E-01 | 5.31E-01 | 3.86E-04 | 2.98E-04 |
| Carbon-14, (MT)                                        | 7.26E-10 |   | 7.26E-10 | 1.46E-08 | 6.45E-06 |   | 8.89E-06 | 8.88E-06 | 6.46E-09 | 4.98E-09 |
| Ca+2, (MT)                                             | 1.01E-02 |   | 1.01E-02 | 1.03E-02 | 7.46E-02 |   | 9.89E-02 | 9.88E-02 | 7.18E-05 | 5.54E-05 |
| Cancrinite, (MT)                                       | 1.78E-01 |   | 1.78E-01 | 1.79E-01 | 1.79E-01 |   | 1.79E-01 | 1.79E-01 | 1.30E-04 | 1.00E-04 |
| Cd+2, (MT)                                             | 5.52E-04 |   | 5.52E-04 | 5.81E-04 | 1.36E-02 |   | 1.85E-02 | 1.85E-02 | 1.34E-05 | 1.04E-05 |
| Ce+3, (MT)                                             | 1.55E-02 |   | 1.55E-02 | 1.55E-02 | 2.94E-02 |   | 3.47E-02 | 3.47E-02 | 2.52E-05 | 1.94E-05 |
| Cl-, (MT)                                              | 1.67E-04 |   | 1.67E-04 | 6.27E-03 | 2.84E+00 |   | 3.92E+00 | 3.91E+00 | 2.85E-03 | 2.20E-03 |
| Cm+3, (MT)                                             | 1.54E-09 |   | 1.54E-09 | 1.55E-09 | 4.00E-09 |   | 4.92E-09 | 4.92E-09 | 3.58E-12 | 2.76E-12 |
| Co+3, (MT)                                             | 5.03E-05 |   | 5.03E-05 | 5.10E-05 | 3.53E-04 |   | 4.67E-04 | 4.67E-04 | 3.39E-07 | 2.62E-07 |
| CO <sub>3</sub> -2, (MT)                               | 1.15E-02 |   | 1.15E-02 | 1.16E-02 | 1.16E-02 |   | 1.17E-02 | 1.16E-02 | 8.46E-06 | 6.53E-06 |
| Cr+3, (MT)                                             | 2.06E-03 |   | 2.06E-03 | 3.74E-03 | 7.80E-01 |   | 1.07E+00 | 1.07E+00 | 7.80E-04 | 6.02E-04 |
| Cs+, (MT)                                              | 8.90E-06 |   | 8.90E-06 | 2.26E-05 | 6.36E-03 |   | 8.76E-03 | 8.76E-03 | 6.37E-06 | 4.91E-06 |
| Cu+2, (MT)                                             | 5.03E-05 |   | 5.03E-05 | 5.31E-05 | 1.34E-03 |   | 1.83E-03 | 1.83E-03 | 1.33E-06 | 1.03E-06 |
| F-, (MT)                                               | 3.73E-03 |   | 3.73E-03 | 1.77E-02 | 6.51E+00 |   | 8.97E+00 | 8.96E+00 | 6.52E-03 | 5.03E-03 |
| Fe+3, (MT)                                             | 4.78E-02 |   | 4.78E-02 | 4.80E-02 | 9.20E-02 |   | 1.09E-01 | 1.09E-01 | 7.89E-05 | 6.09E-05 |
| H <sub>2</sub> O, (MT)                                 |          |   |          | 9.75E+01 | 3.62E+02 |   | 6.26E+04 | 6.26E+04 | 4.55E+01 | 3.51E+01 |
| Hg+2, (MT)                                             | 5.80E-07 |   | 5.80E-07 | 1.52E-05 | 6.80E-03 |   | 9.37E-03 | 9.37E-03 | 6.81E-06 | 5.25E-06 |
| I-, (MT)                                               | 1.91E-07 |   | 1.91E-07 | 3.12E-06 | 1.37E-03 |   | 1.88E-03 | 1.88E-03 | 1.37E-06 | 1.06E-06 |
| K+, (MT)                                               | 1.11E-03 |   | 1.11E-03 | 1.90E-02 | 8.32E+00 |   | 1.15E+01 | 1.15E+01 | 8.33E-03 | 6.43E-03 |
| La+3, (MT)                                             | 2.54E-03 |   | 2.54E-03 | 2.55E-03 | 4.46E-03 |   | 5.19E-03 | 5.19E-03 | 3.77E-06 | 2.91E-06 |
| Li+, (MT)                                              | 2.25E-06 |   | 2.25E-06 | 2.64E-06 | 1.83E-04 |   | 2.52E-04 | 2.51E-04 | 1.83E-07 | 1.41E-07 |
| Mg+2, (MT)                                             | 3.21E-04 |   | 3.21E-04 | 3.28E-04 | 3.47E-03 |   | 4.66E-03 | 4.65E-03 | 3.38E-06 | 2.61E-06 |
| MnO <sub>2</sub> , (MT)                                | 1.26E-02 |   | 1.26E-02 | 1.29E-02 | 1.39E-01 |   | 1.86E-01 | 1.86E-01 | 1.35E-04 | 1.04E-04 |
| Mo+6, (MT)                                             | 3.40E-04 |   | 3.40E-04 | 3.82E-04 | 1.95E-02 |   | 2.68E-02 | 2.67E-02 | 1.94E-05 | 1.50E-05 |
| Na+, (MT)                                              | 4.67E-02 |   | 4.67E-02 | 1.80E+02 | 5.24E+04 |   | 1.15E+05 | 1.15E+05 | 8.36E+01 | 6.47E+01 |
| Ni+3, (MT)                                             | 6.59E-04 |   | 6.59E-04 | 6.67E-04 | 4.04E-03 |   | 5.32E-03 | 5.32E-03 | 3.87E-06 | 2.98E-06 |
| Ni <sub>2</sub> FeO <sub>6</sub> , (MT)                | 3.29E-02 |   | 3.29E-02 | 3.29E-02 | 3.29E-02 |   | 3.29E-02 | 3.29E-02 | 2.39E-05 | 1.85E-05 |
| NO <sub>2</sub> -, (MT)                                | 4.30E-03 |   | 4.30E-03 | 4.31E-03 | 4.34E-03 |   | 4.34E-03 | 4.34E-03 | 3.16E-06 | 2.44E-06 |
| NO <sub>3</sub> -, (MT)                                | 6.75E-02 |   | 6.75E-02 | 5.97E+02 | 1.42E+05 |   | 3.83E+05 | 3.83E+05 | 2.78E+02 | 2.15E+02 |
| Np+4, (MT)                                             | 2.83E-06 |   | 2.83E-06 | 2.90E-06 | 3.03E-05 |   | 4.07E-05 | 4.06E-05 | 2.96E-08 | 2.28E-08 |
| OH-, (MT)                                              | 1.06E-01 |   | 1.06E-01 | 1.06E-01 | 1.07E-01 |   | 1.07E-01 | 1.07E-01 | 7.75E-05 | 5.98E-05 |
| P <sub>2</sub> O <sub>5</sub> :2H <sub>2</sub> O, (MT) | 1.33E-03 |   | 1.33E-03 | 1.33E-03 | 1.33E-03 |   | 1.33E-03 | 1.33E-03 | 9.66E-07 | 7.45E-07 |
| Rb+4, (MT)                                             | 1.93E-03 |   | 1.93E-03 | 1.97E-03 | 1.77E-02 |   | 2.37E-02 | 2.37E-02 | 1.72E-05 | 1.33E-05 |
| PO <sub>4</sub> -3, (MT)                               | 4.20E-02 |   | 4.20E-02 | 1.07E-01 | 3.01E+01 |   | 4.14E+01 | 4.14E+01 | 3.01E-02 | 2.32E-02 |
| Poly, (MT)                                             | 4.08E-03 |   | 4.08E-03 | 4.08E-03 | 4.08E-03 |   | 4.08E-03 | 4.08E-03 | 2.97E-06 | 2.29E-06 |
| Ru+4, (MT)                                             | 1.64E-05 |   | 1.64E-05 | 1.65E-05 | 6.40E-05 |   | 8.19E-05 | 8.19E-05 | 5.95E-08 | 4.59E-08 |
| Rb+, (MT)                                              | 1.72E-07 |   | 1.72E-07 | 9.55E-07 | 3.65E-04 |   | 5.03E-04 | 5.03E-04 | 3.65E-07 | 2.82E-07 |
| Re+7, (MT)                                             | 2.53E-06 |   | 2.53E-06 | 2.60E-06 | 2.97E-05 |   | 3.99E-05 | 3.99E-05 | 2.90E-08 | 2.24E-08 |
| Rh+3, (MT)                                             | 2.83E-05 |   | 2.83E-05 | 2.85E-05 | 9.98E-05 |   | 1.27E-04 | 1.27E-04 | 9.21E-08 | 7.11E-08 |
| Ru+3, (MT)                                             | 3.47E-05 |   | 3.47E-05 | 3.51E-05 | 1.92E-04 |   | 2.51E-04 | 2.51E-04 | 1.83E-07 | 1.41E-07 |
| Sb+5, (MT)                                             | 1.20E-04 |   | 1.20E-04 | 1.20E-04 | 4.48E-04 |   | 5.73E-04 | 5.72E-04 | 4.16E-07 | 3.21E-07 |
| Se+6, (MT)                                             | 1.21E-04 |   | 1.21E-04 | 1.28E-04 | 3.35E-03 |   | 4.57E-03 | 4.56E-03 | 3.32E-06 | 2.56E-06 |
| Si+4, (MT)                                             | 3.07E-03 |   | 3.07E-03 | 3.25E-03 | 8.17E-02 |   | 1.11E-01 | 1.11E-01 | 8.09E-05 | 6.25E-05 |
| Sm+3, (MT)                                             | 2.11E-06 |   | 2.11E-06 | 2.12E-06 | 3.94E-06 |   | 4.63E-06 | 4.63E-06 | 3.36E-09 | 2.60E-09 |
| Sn+4, (MT)                                             | 9.62E-07 |   | 9.62E-07 | 1.03E-06 | 3.00E-05 |   | 4.09E-05 | 4.09E-05 | 2.97E-08 | 2.30E-08 |
| SO <sub>4</sub> -2, (MT)                               | 2.60E-03 |   | 2.60E-03 | 2.77E-02 | 1.17E+01 |   | 1.61E+01 | 1.61E+01 | 1.17E-02 | 9.05E-03 |
| St+2, (MT)                                             | 2.43E-03 |   | 2.43E-03 | 2.44E-03 | 4.64E-03 |   | 5.47E-03 | 5.46E-03 | 3.97E-06 | 3.07E-06 |
| TcO <sub>4</sub> -, (MT)                               | 5.84E-05 |   | 5.84E-05 | 9.58E-05 | 1.74E-02 |   | 2.40E-02 | 2.40E-02 | 1.74E-05 | 1.35E-05 |
| Te+6, (MT)                                             | 1.62E-05 |   | 1.62E-05 | 1.63E-05 | 4.64E-05 |   | 5.78E-05 | 5.78E-05 | 4.20E-08 | 3.24E-08 |
| Th+4, (MT)                                             | 8.92E-04 |   | 8.92E-04 | 8.95E-04 | 1.85E-03 |   | 2.20E-03 | 2.20E-03 | 1.60E-06 | 1.24E-06 |
| Ti+4, (MT)                                             | 2.90E-05 |   | 2.90E-05 | 2.91E-05 | 6.72E-05 |   | 8.16E-05 | 8.15E-05 | 5.93E-08 | 4.57E-08 |
| Tl+3, (MT)                                             | 3.43E-04 |   | 3.43E-04 | 3.48E-04 | 2.09E-03 |   | 2.76E-03 | 2.75E-03 | 2.00E-06 | 1.55E-06 |
| TOC, (MT)                                              | 2.19E-03 |   | 2.19E-03 | 1.20E-02 | 4.58E+00 |   | 6.31E+00 | 6.30E+00 | 4.58E-03 | 3.54E-03 |
| UD <sub>2</sub> +2, (MT)                               | 9.58E-02 |   | 9.58E-02 | 9.71E-02 | 6.28E-01 |   | 8.29E-01 | 8.28E-01 | 6.02E-04 | 4.65E-04 |
| V+5, (MT)                                              | 2.54E-06 |   | 2.54E-06 | 2.67E-06 | 5.87E-05 |   | 7.99E-05 | 7.98E-05 | 5.80E-08 | 4.48E-08 |
| W+6, (MT)                                              |          |   |          | 4.12E-05 | 1.92E-02 |   | 2.64E-02 | 2.64E-02 | 1.92E-05 | 1.48E-05 |
| Zn+2, (MT)                                             | 9.67E-05 |   | 9.67E-05 | 1.08E-04 | 5.27E-03 |   | 7.23E-03 | 7.22E-03 | 5.25E-06 | 4.05E-06 |
| ZrO <sub>2</sub> :2H <sub>2</sub> O, (MT)              | 6.36E-02 |   | 6.36E-02 | 6.40E-02 | 2.01E-01 |   | 2.53E-01 | 2.53E-01 | 1.84E-04 | 1.42E-04 |



| STREAM NAME<br>LIQUID COMPONENTS              | 14       | 15       | 16       | 17       | 18       | 19       | 20       | 21       | 22       | 23       |
|-----------------------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Total Mass Flow, (MT)                         | 9.47E+04 | 7.09E+05 | 5.69E+05 | 8.89E+05 | 1.40E+05 | 7.09E+05 | 5.69E+05 | 1.40E+05 | 4.63E+05 | 1.17E+06 |
| Al, (MT)                                      | 2.23E+03 | 1.47E+04 | 1.18E+04 | 1.93E+04 | 2.90E+03 | 1.42E+04 | 1.13E+04 | 2.78E+03 |          | 1.32E+04 |
| Fe, (MT)                                      | 9.89E+00 | 1.84E+01 | 1.47E+01 | 4.82E+01 | 3.63E+00 | 4.66E+00 | 3.62E-01 | 8.91E-02 |          | 1.98E-01 |
| Cr, (MT)                                      | 1.32E+02 | 2.45E+02 | 1.97E+02 | 6.44E+02 | 4.84E+01 | 6.17E+01 | 4.34E+00 | 1.07E+00 |          | 2.14E+00 |
| Na, (MT)                                      | 1.12E+04 | 8.34E+04 | 6.70E+04 | 1.05E+05 | 1.65E+04 | 8.33E+04 | 6.68E+04 | 1.64E+04 |          | 1.32E+05 |
| Si, (MT)                                      | 1.34E+01 | 2.48E+01 | 1.99E+01 | 6.51E+01 | 4.90E+00 | 6.24E+00 | 4.42E-01 | 1.09E-01 |          | 2.20E-01 |
| P, (MT)                                       | 1.67E+03 | 3.09E+03 | 2.48E+03 | 8.11E+03 | 6.10E+02 | 7.77E+02 | 5.46E+01 | 1.35E+01 |          | 2.69E+01 |
| NO <sub>2</sub> - and NO <sub>3</sub> -, (MT) | 3.54E+04 | 3.08E+05 | 2.47E+05 | 3.66E+05 | 6.08E+04 | 3.18E+05 | 2.58E+05 | 6.35E+04 |          | 4.46E+05 |
| Cs and Ba, (MCI)                              | 8.87E+01 | 1.64E+02 | 1.32E+02 | 4.32E+02 | 3.25E+01 | 4.14E+01 | 2.91E+00 | 7.16E-01 |          | 1.43E+00 |
| Sr and Y, (MCI)                               | 1.41E+00 | 2.62E+00 | 2.10E+00 | 6.86E+00 | 5.18E-01 | 6.71E-01 | 5.82E-02 | 1.43E-02 |          | 3.49E-02 |
| Tc, (MCI)                                     | 3.06E-02 | 5.68E-02 | 4.55E-02 | 1.49E-01 | 1.12E-02 | 1.43E-02 | 1.00E-03 | 2.47E-04 |          | 4.95E-04 |
| TRU, (MCI)                                    | 8.57E-03 | 1.59E-02 | 1.28E-02 | 4.17E-02 | 3.14E-03 | 4.02E-03 | 2.98E-04 | 7.34E-05 |          | 1.56E-04 |
| Total MCI                                     | 1.46E+02 | 2.70E+02 | 2.17E+02 | 7.09E+02 | 5.34E+01 | 6.85E+01 | 5.22E+00 | 1.29E+00 |          | 2.80E+00 |
| Ag+, (MT)                                     | 3.24E-02 | 6.00E-02 | 4.82E-02 | 1.58E-01 | 1.19E-02 | 1.51E-02 | 1.10E-03 | 2.70E-04 |          | 5.59E-04 |
| Al+3, (MT)                                    | 2.23E+03 | 1.47E+04 | 1.18E+04 | 1.93E+04 | 2.90E+03 | 1.42E+04 | 1.13E+04 | 2.78E+03 |          | 1.32E+04 |
| Al(OH) <sub>4</sub> -, (MT)                   |          |          |          |          |          |          |          |          |          |          |
| Am+3, (MT)                                    | 1.96E-03 | 3.64E-03 | 2.92E-03 | 9.56E-03 | 7.20E-04 | 9.20E-04 | 6.79E-05 | 1.67E-05 |          | 3.53E-05 |
| As+5, (MT)                                    | 1.89E-01 | 3.50E-01 | 2.81E-01 | 6.91E-01 | 6.91E-02 | 6.91E-02 | 6.24E-03 | 1.54E-03 |          | 3.11E-03 |
| B+3, (MT)                                     | 9.88E-02 | 1.83E-01 | 1.47E-01 | 4.81E-01 | 3.62E-02 | 4.64E-02 | 3.45E-03 | 5.81E-04 |          | 1.81E-03 |
| Ba+2, (MT)                                    | 3.08E-01 | 5.71E-01 | 4.58E-01 | 1.50E+00 | 1.13E-01 | 1.44E-01 | 1.03E-02 | 2.53E-03 |          | 5.15E-03 |
| Be+2, (MT)                                    | 7.40E-04 | 1.37E-03 | 1.10E-03 | 3.60E-03 | 2.71E-04 | 3.46E-04 | 2.51E-05 | 6.47E-06 |          | 1.28E-05 |
| Bi+3, (MT)                                    | 6.40E+01 | 1.19E+02 | 9.52E+01 | 3.12E+02 | 2.35E+01 | 2.99E+01 | 2.12E+00 | 5.21E-01 |          | 1.05E+00 |
| Carbon-14, (MT)                               | 1.10E-03 | 2.03E-03 | 1.63E-03 | 5.34E-03 | 4.02E-04 | 5.12E-04 | 3.60E-05 | 8.85E-06 |          | 1.77E-05 |
| Ce+3, (MT)                                    | 1.10E+01 | 2.03E+01 | 1.63E+01 | 5.33E+01 | 4.01E+00 | 5.13E+00 | 3.72E-01 | 9.17E-02 |          | 1.90E-01 |
| Co+2, (MT)                                    | 2.22E+00 | 4.11E+00 | 3.30E+00 | 1.08E+01 | 8.11E-01 | 1.03E+00 | 7.33E-02 | 1.81E-02 |          | 3.65E-02 |
| Ce+3, (MT)                                    | 2.37E+00 | 4.41E+00 | 3.54E+00 | 1.16E+01 | 8.72E-01 | 1.13E+00 | 9.81E-02 | 2.42E-02 |          | 5.88E-02 |
| Cl-, (MT)                                     | 4.84E+02 | 8.96E+02 | 7.19E+02 | 2.35E+03 | 1.77E+02 | 2.26E+02 | 1.59E+01 | 3.90E+00 |          | 7.81E+00 |
| Cm+3, (MT)                                    | 4.17E-07 | 7.75E-07 | 6.22E-07 | 2.03E-06 | 1.53E-07 | 1.97E-07 | 1.57E-08 | 3.87E-09 |          | 8.78E-09 |
| Co+3, (MT)                                    | 5.14E-02 | 9.54E-02 | 7.66E-02 | 2.50E-01 | 1.89E-02 | 2.41E-02 | 1.75E-03 | 4.32E-04 |          | 8.98E-04 |
| Co+2, (MT)                                    |          |          |          |          |          |          |          |          |          |          |
| Co+2, (MT)                                    | 1.15E-02 | 3.58E-02 | 2.87E-02 | 6.77E-02 | 7.06E-03 | 2.33E-02 | 1.56E-02 | 3.85E-03 |          | 1.55E-02 |
| Cr+3, (MT)                                    | 1.32E+02 | 2.45E+02 | 1.97E+02 | 6.44E+02 | 4.84E+01 | 6.17E+01 | 4.34E+00 | 1.07E+00 |          | 2.14E+00 |
| Cr(OH) <sub>4</sub> -, (MT)                   |          |          |          |          |          |          |          |          |          |          |
| Cst, (MT)                                     | 1.08E+00 | 2.00E+00 | 1.61E+00 | 5.26E+00 | 3.96E-01 | 5.04E-01 | 3.54E-02 | 8.72E-03 |          | 1.75E-02 |
| Cr+2, (MT)                                    | 2.20E-01 | 4.07E-01 | 3.27E-01 | 1.07E+00 | 8.04E-02 | 1.03E-01 | 7.26E-03 | 1.79E-03 |          | 3.62E-03 |
| F-, (MT)                                      | 1.11E+03 | 2.05E+03 | 1.65E+03 | 5.39E+03 | 4.05E+02 | 5.16E+02 | 3.63E+01 | 8.93E+00 |          | 1.79E+01 |
| Fe+3, (MT)                                    | 7.50E+00 | 1.40E+01 | 1.12E+01 | 3.65E+01 | 2.76E+00 | 3.57E+00 | 3.09E-01 | 7.61E-02 |          | 1.85E-01 |
| FeCN6-3, (MT)                                 | 3.51E+00 | 6.48E+00 | 5.20E+00 | 1.71E+01 | 1.28E+00 | 1.60E+00 | 7.76E-02 | 1.91E-02 |          | 1.91E-02 |
| H+, (MT)                                      | 6.07E+01 | 1.12E+02 | 8.98E+01 | 2.95E+02 | 2.21E+01 | 2.76E+01 | 1.34E+00 | 3.30E-01 |          | 3.30E-01 |
| H2O, (MT)                                     | 3.45E+04 | 2.82E+05 | 2.27E+05 | 3.43E+05 | 5.58E+04 | 2.88E+05 | 2.33E+05 | 5.73E+04 | 4.63E+05 | 5.83E+05 |
| Hg+2, (MT)                                    | 1.16E+00 | 2.14E+00 | 1.72E+00 | 5.63E+00 | 4.24E-01 | 5.40E-01 | 3.79E-02 | 9.34E-03 |          | 1.87E-02 |
| I-, (MT)                                      | 2.32E-01 | 4.31E-01 | 3.46E-01 | 1.13E+00 | 8.51E-02 | 1.08E-01 | 7.62E-03 | 1.68E-03 |          | 3.76E-03 |
| K+, (MT)                                      | 1.42E+03 | 2.62E+03 | 2.10E+03 | 6.89E+03 | 5.18E+02 | 6.60E+02 | 4.64E+01 | 1.14E+01 |          | 2.29E+01 |
| La+3, (MT)                                    | 3.27E-01 | 6.10E-01 | 4.89E-01 | 1.60E+00 | 1.21E-01 | 1.57E-01 | 1.41E-02 | 3.47E-03 |          | 8.65E-03 |
| Li+, (MT)                                     | 3.08E-02 | 5.71E-02 | 4.58E-02 | 1.50E-01 | 1.13E-02 | 1.44E-02 | 1.01E-03 | 2.49E-04 |          | 5.00E-04 |
| Mg+2, (MT)                                    | 5.35E-01 | 9.92E-01 | 7.96E-01 | 2.60E+00 | 1.96E-01 | 2.50E-01 | 1.80E-02 | 4.42E-03 |          | 9.07E-03 |
| Mn+2, (MT)                                    | 2.14E+01 | 3.97E+01 | 3.19E+01 | 1.04E+02 | 7.84E+00 | 1.00E+01 | 7.18E-01 | 1.77E-01 |          | 3.63E-01 |
| Mb+6, (MT)                                    | 3.26E+00 | 6.05E+00 | 4.85E+00 | 1.59E+01 | 1.20E+00 | 1.52E+00 | 1.07E-01 | 2.64E-02 |          | 5.32E-02 |
| Nat, (MT)                                     | 1.12E+04 | 8.34E+04 | 6.70E+04 | 1.05E+05 | 1.65E+04 | 8.33E+04 | 6.68E+04 | 1.64E+04 |          | 1.32E+05 |
| Ni+3, (MT)                                    | 5.76E-01 | 1.07E+00 | 8.57E-01 | 2.80E+00 | 2.11E-01 | 2.70E-01 | 1.97E-02 | 4.86E-03 |          | 1.02E-02 |
| NO, (MT)                                      |          |          |          |          |          |          |          |          |          |          |
| NO <sub>2</sub> -, (MT)                       | 4.30E-03 | 1.33E-02 | 1.07E-02 | 2.52E-02 | 2.63E-03 | 8.69E-03 | 5.83E-03 | 1.44E-03 |          | 5.77E-03 |
| NO <sub>3</sub> -, (MT)                       | 3.54E+04 | 3.08E+05 | 2.47E+05 | 3.66E+05 | 6.08E+04 | 3.18E+05 | 2.58E+05 | 6.35E+04 |          | 4.46E+05 |
| Np+4, (MT)                                    | 4.67E-03 | 8.66E-03 | 6.95E-03 | 2.27E-02 | 1.71E-03 | 2.18E-03 | 1.57E-04 | 3.86E-05 |          | 7.92E-05 |
| OH-, (MT)                                     | 1.06E-01 | 3.28E-01 | 2.63E-01 | 6.20E-01 | 6.47E-02 | 2.13E-01 | 1.43E-01 | 3.52E-02 |          | 1.42E-01 |
| Rb+4, (MT)                                    | 2.68E+00 | 4.98E+00 | 3.99E+00 | 1.31E+01 | 9.83E-01 | 1.26E+00 | 9.05E-02 | 2.23E-02 |          | 4.59E-02 |
| PO <sub>4</sub> -3, (MT)                      | 5.11E+03 | 9.46E+03 | 7.59E+03 | 2.49E+04 | 1.87E+03 | 2.38E+03 | 1.67E+02 | 4.12E+01 |          | 8.25E+01 |
| Poly, (MT)                                    | 4.38E+01 | 8.08E+01 | 6.48E+01 | 2.13E+02 | 1.60E+01 | 1.99E+01 | 9.68E-01 | 2.38E-01 |          | 2.38E-01 |
| Ru+4, (MT)                                    | 8.09E-03 | 1.50E-02 | 1.21E-02 | 3.94E-02 | 2.97E-03 | 3.80E-03 | 2.87E-04 | 7.06E-05 |          | 1.52E-04 |
| Rb+2, (MT)                                    | 6.21E-02 | 1.15E-01 | 9.23E-02 | 3.02E-01 | 2.27E-02 | 2.90E-02 | 2.03E-03 | 5.01E-04 |          | 1.00E-03 |
| Ru+7, (MT)                                    | 4.61E-03 | 8.55E-03 | 6.86E-03 | 2.25E-02 | 1.69E-03 | 2.16E-03 | 1.55E-04 | 3.81E-05 |          | 7.79E-05 |
| Ru+3, (MT)                                    | 1.22E-02 | 2.26E-02 | 1.81E-02 | 5.92E-02 | 4.46E-03 | 5.71E-03 | 4.36E-04 | 1.07E-04 |          | 2.34E-04 |
| Ru+3, (MT)                                    | 2.67E-02 | 4.96E-02 | 3.98E-02 | 1.30E-01 | 9.79E-03 | 1.25E-02 | 9.21E-04 | 2.27E-04 |          | 4.78E-04 |
| Sb+5, (MT)                                    | 5.59E-02 | 1.04E-01 | 8.33E-02 | 2.72E-01 | 2.05E-02 | 2.63E-02 | 1.99E-03 | 4.90E-04 |          | 1.06E-03 |
| Se+6, (MT)                                    | 5.49E-01 | 1.02E+00 | 8.17E-01 | 2.67E+00 | 2.01E-01 | 2.56E-01 | 1.82E-02 | 4.47E-03 |          | 9.03E-03 |
| Si+4, (MT)                                    | 1.34E+01 | 2.48E+01 | 1.99E+01 | 6.51E+01 | 4.90E+00 | 6.24E+00 | 4.42E-01 | 1.09E-01 |          | 2.20E-01 |
| Sm+3, (MT)                                    | 3.11E-04 | 5.79E-04 | 4.65E-04 | 1.52E-03 | 1.14E-04 | 1.48E-04 | 1.30E-05 | 3.20E-06 |          | 7.82E-06 |
| Sn+4, (MT)                                    | 4.93E-03 | 9.15E-03 | 7.34E-03 | 2.40E-02 | 1.81E-03 | 2.30E-03 | 1.63E-04 | 4.01E-05 |          | 8.10E-05 |
| SO <sub>4</sub> -2, (MT)                      | 1.99E+03 | 3.69E+03 | 2.96E+03 | 9.69E+03 | 7.29E+02 | 9.29E+02 | 6.53E+01 | 1.61E+01 |          | 3.22E+01 |
| Sr+2, (MT)                                    | 3.74E-01 | 6.97E-01 | 5.59E-01 | 1.82E+00 | 1.38E-01 | 1.78E-01 | 1.55E-02 | 3.81E-03 |          | 9.27E-03 |
| Ta+4, (MT)                                    | 2.95E+00 | 5.48E+00 | 4.39E+00 | 1.44E+01 | 1.08E+00 | 1.38E+00 | 9.69E-02 | 2.39E-02 |          | 4.78E-02 |
| Tet+6, (MT)                                   | 5.13E-03 | 9.53E-03 | 7.65E-03 | 2.50E-02 | 1.88E-03 | 2.42E-03 | 1.90E-04 | 4.67E-05 |          | 1.04E-04 |
| Th+4, (MT)                                    | 1.62E-01 | 3.01E-01 | 2.42E-01 | 7.88E-01 | 5.95E-02 | 7.69E-02 | 6.48E-03 | 1.60E-03 |          | 3.80E-03 |
| Ti+4, (MT)                                    | 6.49E-03 | 1.21E-02 | 9.68E-03 | 3.16E-02 | 2.38E-03 | 3.07E-03 | 2.51E-04 | 6.18E-05 |          | 1.43E-04 |
| Tl+3, (MT)                                    | 2.98E-01 | 5.52E-01 | 4.43E-01 | 1.45E+00 | 1.09E-01 | 1.39E-01 | 1.02E-02 | 2.51E-03 |          | 5.27E-03 |
| TCC, (MT)                                     | 7.78E+02 | 1.44E+03 | 1.16E+03 | 3.79E+03 | 2.85E+02 | 3.63E+02 | 2.55E+01 | 6.28E+00 |          | 1.26E+01 |
| UO <sub>2</sub> +2, (MT)                      | 9.05E+01 | 1.68E+02 | 1.35E+02 | 4.41E+02 | 3.32E+01 | 4.24E+01 | 3.09E+00 | 7.61E-01 |          | 1.59E+00 |
| V+5, (MT)                                     | 9.54E-03 | 1.77E-02 | 1.42E-02 | 4.65E-02 | 3.50E-03 | 4.46E-03 | 3.16E-04 | 7.78E-05 |          | 1.58E-04 |
| W+6, (MT)                                     | 3.26E+00 | 6.05E+00 | 4.85E+00 | 1.59E+01 | 1.20E+00 | 1.52E+00 | 1.07E-01 | 2.63E-02 |          | 5.27E-02 |
| Zn+2, (MT)                                    | 8.80E-01 | 1.63E+00 | 1.31E+00 | 4.28E+00 | 3.22E-01 | 4.11E-01 | 2.90E-02 | 7.13E-03 |          | 1.44E-02 |
| ZrO <sub>2</sub> ·2H <sub>2</sub> O, (MT)     | 2.34E+01 | 4.34E+01 | 3.48E+01 | 1.14E+02 | 8.58E+00 | 1.10E+01 | 8.50E-01 | 2.09E-01 |          | 4.62E-01 |

| STREAM NAME                                   | 14       | 15       | 16       | 17       | 18       | 19       | 20       | 21       | 22 | 23       |
|-----------------------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----|----------|
| SOLID COMPONENTS                              |          |          |          |          |          |          |          |          |    |          |
| Total Mass Flow, (MT)                         | 9.48E+01 | 5.72E+05 | 5.70E+02 | 8.90E+02 | 5.71E+05 | 5.72E+05 | 5.70E+02 | 5.71E+05 |    | 2.17E-01 |
| Al, (MT)                                      | 1.72E+00 | 1.04E+04 | 1.04E+01 | 1.62E+01 | 1.04E+04 | 1.04E+04 | 1.04E+01 | 1.04E+04 |    | 2.83E-02 |
| Fe, (MT)                                      | 1.89E-05 | 1.14E-01 | 1.14E-04 | 1.78E-04 | 1.14E-01 | 1.14E-01 | 1.14E-04 | 1.14E-01 |    | 5.58E-03 |
| Cr, (MT)                                      | 1.78E-04 | 1.07E+00 | 1.07E-03 | 1.67E-03 | 1.07E+00 | 1.07E+00 | 1.07E-03 | 1.07E+00 |    |          |
| Na, (MT)                                      | 1.91E+01 | 1.15E+05 | 1.15E+02 | 1.80E+02 | 1.15E+05 | 1.15E+05 | 1.15E+02 | 1.15E+05 |    | 3.04E-02 |
| Si, (MT)                                      | 2.34E-05 | 1.41E-01 | 1.40E-04 | 2.19E-04 | 1.41E-01 | 1.41E-01 | 1.40E-04 | 1.41E-01 |    | 2.95E-02 |
| P, (MT)                                       | 2.24E-03 | 1.35E+01 | 1.35E-02 | 2.10E-02 | 1.35E+01 | 1.35E+01 | 1.35E-02 | 1.35E+01 |    | 1.35E-05 |
| NO <sub>2</sub> - and NO <sub>3</sub> -, (MT) | 6.35E+01 | 3.83E+05 | 3.82E+02 | 5.97E+02 | 3.83E+05 | 3.83E+05 | 3.82E+02 | 3.83E+05 |    |          |
| Cs and Ba, (MCi)                              | 1.19E-04 | 7.20E-01 | 7.17E-04 | 1.12E-03 | 7.19E-01 | 7.20E-01 | 7.16E-04 | 7.18E-01 |    |          |
| Sr and Y, (MCi)                               | 3.41E-06 | 2.06E-02 | 2.05E-05 | 3.20E-05 | 2.06E-02 | 2.06E-02 | 2.05E-05 | 2.05E-02 |    |          |
| Tc, (MCi)                                     | 4.12E-08 | 2.49E-04 | 2.48E-07 | 3.87E-07 | 2.48E-04 | 2.49E-04 | 2.48E-07 | 2.48E-04 |    |          |
| TRU, (MCi)                                    | 1.37E-08 | 8.24E-05 | 8.21E-08 | 1.28E-07 | 8.23E-05 | 8.24E-05 | 8.20E-08 | 8.22E-05 |    |          |
| Total MCI                                     | 2.52E-04 | 1.52E+00 | 1.51E-03 | 2.37E-03 | 1.52E+00 | 1.52E+00 | 1.51E-03 | 1.52E+00 |    |          |
| Ag+, (MT)                                     | 4.80E-08 | 2.89E-04 | 2.88E-07 | 4.50E-07 | 2.89E-04 | 2.89E-04 | 2.88E-07 | 2.89E-04 |    |          |
| Al+3, (MT)                                    | 1.72E+00 | 1.04E+04 | 1.04E+01 | 1.62E+01 | 1.04E+04 | 1.04E+04 | 1.04E+01 | 1.04E+04 |    |          |
| Am+3, (MT)                                    | 3.08E-09 | 1.86E-05 | 1.85E-08 | 2.89E-08 | 1.86E-05 | 1.86E-05 | 1.85E-08 | 1.86E-05 |    |          |
| As+5, (MT)                                    | 2.61E-07 | 1.57E-03 | 1.57E-06 | 2.45E-06 | 1.57E-03 | 1.57E-03 | 1.56E-06 | 1.57E-03 |    |          |
| B+3, (MT)                                     | 1.60E-07 | 9.64E-04 | 9.60E-07 | 1.50E-06 | 9.63E-04 | 9.64E-04 | 9.59E-07 | 9.62E-04 |    |          |
| Ba+2, (MT)                                    | 4.36E-07 | 2.63E-03 | 2.62E-06 | 4.09E-06 | 2.63E-03 | 2.63E-03 | 2.62E-06 | 2.62E-03 |    |          |
| Be+2, (MT)                                    | 1.10E-09 | 6.61E-06 | 6.58E-09 | 1.03E-08 | 6.60E-06 | 6.61E-06 | 6.57E-09 | 6.59E-06 |    |          |
| Bi+3, (MT)                                    | 8.82E-05 | 5.32E-01 | 5.30E-04 | 8.28E-04 | 5.31E-01 | 5.32E-01 | 5.29E-04 | 5.31E-01 |    |          |
| Carbon-14, (MT)                               | 1.47E-09 | 8.89E-06 | 8.86E-09 | 1.38E-08 | 8.88E-06 | 8.89E-06 | 8.85E-09 | 8.87E-06 |    |          |
| Ca+2, (MT)                                    | 1.64E-05 | 9.89E-02 | 9.85E-05 | 1.54E-04 | 9.88E-02 | 9.89E-02 | 9.84E-05 | 9.87E-02 |    |          |
| Cancrinite, (MT)                              | 2.96E-05 | 1.79E-01 | 1.78E-04 | 2.78E-04 | 1.79E-01 | 1.79E-01 | 1.78E-04 | 1.79E-01 |    | 1.79E-01 |
| Ca+2, (MT)                                    | 3.07E-06 | 1.85E-02 | 1.84E-05 | 2.88E-05 | 1.85E-02 | 1.85E-02 | 1.84E-05 | 1.85E-02 |    |          |
| Ce+3, (MT)                                    | 5.75E-06 | 3.47E-02 | 3.46E-05 | 5.40E-05 | 3.47E-02 | 3.47E-02 | 3.45E-05 | 3.46E-02 |    |          |
| Cl-, (MT)                                     | 6.50E-04 | 3.92E+00 | 3.90E-03 | 6.10E-03 | 3.91E+00 | 3.92E+00 | 3.90E-03 | 3.91E+00 |    |          |
| Cm+3, (MT)                                    | 8.16E-13 | 4.92E-09 | 4.90E-12 | 7.66E-12 | 4.92E-09 | 4.92E-09 | 4.90E-12 | 4.91E-09 |    |          |
| CO+3, (MT)                                    | 7.75E-08 | 4.67E-04 | 4.66E-07 | 7.27E-07 | 4.67E-04 | 4.67E-04 | 4.65E-07 | 4.66E-04 |    |          |
| CO3-2, (MT)                                   | 1.93E-06 | 1.17E-02 | 1.16E-05 | 1.81E-05 | 1.16E-02 | 1.17E-02 | 1.16E-05 | 1.16E-02 |    |          |
| Cr+3, (MT)                                    | 1.78E-04 | 1.07E+00 | 1.07E-03 | 1.67E-03 | 1.07E+00 | 1.07E+00 | 1.07E-03 | 1.07E+00 |    |          |
| Cs+, (MT)                                     | 1.45E-06 | 8.77E-03 | 8.73E-06 | 1.36E-05 | 8.76E-03 | 8.77E-03 | 8.72E-06 | 8.75E-03 |    |          |
| Cur+2, (MT)                                   | 3.03E-07 | 1.83E-03 | 1.82E-06 | 2.85E-06 | 1.83E-03 | 1.83E-03 | 1.82E-06 | 1.83E-03 |    |          |
| F-, (MT)                                      | 1.49E-03 | 8.97E+00 | 8.94E-03 | 1.40E-02 | 8.96E+00 | 8.97E+00 | 8.93E-03 | 8.95E+00 |    |          |
| Fe+3, (MT)                                    | 1.80E-05 | 1.09E-01 | 1.08E-04 | 1.69E-04 | 1.09E-01 | 1.09E-01 | 1.08E-04 | 1.08E-01 |    |          |
| H2O, (MT)                                     | 1.04E+01 | 6.26E+04 | 6.24E+01 | 9.75E+01 | 6.26E+04 | 6.26E+04 | 6.24E+01 | 6.25E+04 |    |          |
| Hg+2, (MT)                                    | 1.55E-06 | 9.37E-03 | 9.34E-06 | 1.46E-05 | 9.37E-03 | 9.37E-03 | 9.33E-06 | 9.36E-03 |    |          |
| I-, (MT)                                      | 3.12E-07 | 1.88E-03 | 1.88E-06 | 2.93E-06 | 1.88E-03 | 1.88E-03 | 1.88E-06 | 1.88E-03 |    |          |
| K+, (MT)                                      | 1.90E-03 | 1.15E+01 | 1.14E-02 | 1.79E-02 | 1.15E+01 | 1.15E+01 | 1.14E-02 | 1.14E+01 |    |          |
| La+3, (MT)                                    | 8.61E-07 | 5.19E-03 | 5.17E-06 | 8.08E-06 | 5.19E-03 | 5.19E-03 | 5.17E-06 | 5.18E-03 |    |          |
| Li+, (MT)                                     | 4.17E-08 | 2.52E-04 | 2.51E-07 | 3.92E-07 | 2.51E-04 | 2.52E-04 | 2.50E-07 | 2.51E-04 |    |          |
| Mg+2, (MT)                                    | 7.72E-07 | 4.66E-03 | 4.64E-06 | 7.25E-06 | 4.65E-03 | 4.66E-03 | 4.63E-06 | 4.65E-03 |    |          |
| MnO2, (MT)                                    | 3.09E-05 | 1.86E-01 | 1.85E-04 | 2.90E-04 | 1.86E-01 | 1.86E-01 | 1.85E-04 | 1.86E-01 |    |          |
| Mo+6, (MT)                                    | 4.44E-06 | 2.68E-02 | 2.67E-05 | 4.17E-05 | 2.67E-02 | 2.68E-02 | 2.66E-05 | 2.67E-02 |    |          |
| Na+, (MT)                                     | 1.91E+01 | 1.15E+05 | 1.15E+02 | 1.80E+02 | 1.15E+05 | 1.15E+05 | 1.15E+02 | 1.15E+05 |    |          |
| Ni+3, (MT)                                    | 8.83E-07 | 5.32E-03 | 5.30E-06 | 8.29E-06 | 5.32E-03 | 5.32E-03 | 5.30E-06 | 5.31E-03 |    |          |
| Ni2FeO4, (MT)                                 | 5.46E-06 | 3.29E-02 | 3.28E-05 | 5.13E-05 | 3.29E-02 | 3.29E-02 | 3.28E-05 | 3.29E-02 |    | 3.29E-02 |
| NO2-, (MT)                                    | 7.21E-07 | 4.35E-03 | 4.33E-06 | 6.77E-06 | 4.34E-03 | 4.35E-03 | 4.33E-06 | 4.34E-03 |    |          |
| NO3-, (MT)                                    | 6.35E+01 | 3.83E+05 | 3.82E+02 | 5.97E+02 | 3.83E+05 | 3.83E+05 | 3.82E+02 | 3.83E+05 |    |          |
| Np+4, (MT)                                    | 6.75E-09 | 4.07E-05 | 4.05E-08 | 6.33E-08 | 4.06E-05 | 4.07E-05 | 4.05E-08 | 4.06E-05 |    |          |
| OH-, (MT)                                     | 1.77E-05 | 1.07E-01 | 1.06E-04 | 1.66E-04 | 1.07E-01 | 1.07E-01 | 1.06E-04 | 1.07E-01 |    |          |
| P2O5.24H2O, (MT)                              | 2.21E-07 | 1.33E-03 | 1.33E-06 | 2.07E-06 | 1.33E-03 | 1.33E-03 | 1.33E-06 | 1.33E-03 |    | 1.33E-03 |
| Pb+4, (MT)                                    | 3.93E-06 | 2.37E-02 | 2.36E-05 | 3.69E-05 | 2.37E-02 | 2.37E-02 | 2.36E-05 | 2.36E-02 |    |          |
| PO4-3, (MT)                                   | 6.87E-03 | 4.14E+01 | 4.13E-02 | 6.45E-02 | 4.14E+01 | 4.14E+01 | 4.12E-02 | 4.13E+01 |    |          |
| Poly, (MT)                                    | 6.77E-07 | 4.09E-03 | 4.07E-06 | 6.36E-06 | 4.08E-03 | 4.09E-03 | 4.07E-06 | 4.08E-03 |    | 4.08E-03 |
| Ru+4, (MT)                                    | 1.36E-08 | 8.20E-05 | 8.17E-08 | 1.28E-07 | 8.19E-05 | 8.20E-05 | 8.16E-08 | 8.18E-05 |    |          |
| Rb+, (MT)                                     | 8.34E-08 | 5.03E-04 | 5.01E-07 | 7.83E-07 | 5.03E-04 | 5.03E-04 | 5.01E-07 | 5.02E-04 |    |          |
| Re+7, (MT)                                    | 6.62E-09 | 3.99E-05 | 3.98E-08 | 6.21E-08 | 3.99E-05 | 3.99E-05 | 3.97E-08 | 3.98E-05 |    |          |
| Rh+3, (MT)                                    | 2.10E-08 | 1.27E-04 | 1.26E-07 | 1.97E-07 | 1.27E-04 | 1.27E-04 | 1.26E-07 | 1.27E-04 |    |          |
| Ru+3, (MT)                                    | 4.17E-08 | 2.51E-04 | 2.50E-07 | 3.91E-07 | 2.51E-04 | 2.51E-04 | 2.50E-07 | 2.51E-04 |    |          |
| Sb+5, (MT)                                    | 9.50E-08 | 5.73E-04 | 5.71E-07 | 8.92E-07 | 5.72E-04 | 5.73E-04 | 5.70E-07 | 5.72E-04 |    |          |
| Se+6, (MT)                                    | 7.58E-07 | 4.57E-03 | 4.55E-06 | 7.11E-06 | 4.56E-03 | 4.57E-03 | 4.55E-06 | 4.56E-03 |    |          |
| Si+4, (MT)                                    | 1.85E-05 | 1.11E-01 | 1.11E-04 | 1.73E-04 | 1.11E-01 | 1.11E-01 | 1.11E-04 | 1.11E-01 |    |          |
| Sm+3, (MT)                                    | 7.68E-10 | 4.63E-06 | 4.61E-09 | 7.21E-09 | 4.63E-06 | 4.63E-06 | 4.61E-09 | 4.62E-06 |    |          |
| Sn+4, (MT)                                    | 6.79E-09 | 4.09E-05 | 4.08E-08 | 6.37E-08 | 4.09E-05 | 4.09E-05 | 4.08E-08 | 4.09E-05 |    |          |
| SO4-2, (MT)                                   | 2.68E-03 | 1.61E+01 | 1.61E-02 | 2.51E-02 | 1.61E+01 | 1.61E+01 | 1.61E-02 | 1.61E+01 |    |          |
| Str+2, (MT)                                   | 9.07E-07 | 5.47E-03 | 5.45E-06 | 8.51E-06 | 5.46E-03 | 5.47E-03 | 5.44E-06 | 5.46E-03 |    |          |
| TcO4-, (MT)                                   | 3.98E-06 | 2.40E-02 | 2.39E-05 | 3.74E-05 | 2.40E-02 | 2.40E-02 | 2.39E-05 | 2.39E-02 |    |          |
| Ta+6, (MT)                                    | 9.59E-09 | 5.78E-05 | 5.76E-08 | 9.00E-08 | 5.78E-05 | 5.78E-05 | 5.76E-08 | 5.77E-05 |    |          |
| Th+4, (MT)                                    | 3.66E-07 | 2.20E-03 | 2.20E-06 | 3.43E-06 | 2.20E-03 | 2.20E-03 | 2.19E-06 | 2.20E-03 |    |          |
| Ti+4, (MT)                                    | 1.35E-08 | 8.16E-05 | 8.13E-08 | 1.27E-07 | 8.15E-05 | 8.16E-05 | 8.12E-08 | 8.14E-05 |    |          |
| Ti+3, (MT)                                    | 4.57E-03 | 2.76E-03 | 2.75E-06 | 4.29E-06 | 2.75E-03 | 2.76E-03 | 2.74E-06 | 2.75E-03 |    |          |
| TCC, (MT)                                     | 1.05E-03 | 6.31E+00 | 6.29E-03 | 9.82E-03 | 6.30E+00 | 6.31E+00 | 6.28E-03 | 6.30E+00 |    |          |
| UC2+2, (MT)                                   | 1.38E-04 | 8.29E-01 | 8.26E-04 | 1.29E-03 | 8.28E-01 | 8.29E-01 | 8.25E-04 | 8.27E-01 |    |          |
| V+5, (MT)                                     | 1.32E-08 | 7.99E-05 | 7.96E-08 | 1.24E-07 | 7.98E-05 | 7.99E-05 | 7.95E-08 | 7.97E-05 |    |          |
| W+6, (MT)                                     | 4.39E-06 | 2.64E-02 | 2.63E-05 | 4.12E-05 | 2.64E-02 | 2.64E-02 | 2.63E-05 | 2.64E-02 |    |          |
| Zn+2, (MT)                                    | 1.20E-06 | 7.23E-03 | 7.20E-06 | 1.13E-05 | 7.22E-03 | 7.23E-03 | 7.19E-06 | 7.21E-03 |    |          |
| ZrO2.2H2O, (MT)                               | 4.20E-05 | 2.53E-01 | 2.52E-04 | 3.94E-04 | 2.53E-01 | 2.53E-01 | 2.52E-04 | 2.53E-01 |    |          |

| STREAM NAME                                   | 24       | 25       | 26       | 27       | 28       | 29       | 30       | 31       | 32       | 33       |
|-----------------------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| LIQUID COMPONENTS                             |          |          |          |          |          |          |          |          |          |          |
| Total Mass Flow, (MT)                         | 5.69E+05 | 1.49E+06 | 4.74E+05 | 8.25E+05 | 5.07E+05 | 3.82E+05 | 8.88E+05 | 3.19E+05 | 1.26E+05 | 6.32E+05 |
| Al, (MT)                                      | 1.13E+04 | 1.95E+04 | 1.95E-01 | 1.95E+04 | 1.18E+04 | 8.89E+03 | 1.76E+04 | 6.32E+03 | 2.92E+03 | 1.09E+04 |
| Fe, (MT)                                      | 1.98E-01 | 3.08E-01 | 2.88E-06 | 3.08E-01 | 3.08E-01 | 2.32E-01 | 3.08E-01 | 1.11E-01 | 7.62E-02 | 9.53E-02 |
| Cr, (MT)                                      | 2.14E+00 | 3.34E+00 | 3.34E-05 | 3.34E+00 | 3.34E+00 | 2.51E+00 | 3.34E+00 | 1.20E+00 | 8.26E-01 | 1.03E+00 |
| Na, (MT)                                      | 6.68E+04 | 1.69E+05 | 1.69E+00 | 1.17E+05 | 5.96E+04 | 4.48E+04 | 1.04E+05 | 3.74E+04 | 1.47E+04 | 7.41E+04 |
| Si, (MT)                                      | 2.20E-01 | 3.44E-01 | 3.44E-06 | 3.43E-01 | 3.43E-01 | 2.58E-01 | 3.44E-01 | 1.23E-01 | 8.49E-02 | 1.06E-01 |
| P, (MT)                                       | 2.69E+01 | 4.21E+01 | 4.21E-04 | 4.20E+01 | 4.20E+01 | 3.16E+01 | 4.21E+01 | 1.51E+01 | 1.04E+01 | 1.30E+01 |
| NO <sub>2</sub> - and NO <sub>3</sub> -, (MT) | 2.58E+05 | 5.91E+05 | 5.91E+00 | 4.49E+05 | 2.43E+05 | 1.83E+05 | 4.03E+05 | 1.45E+05 | 6.00E+04 | 2.75E+05 |
| Cs and Ba, (MCI)                              | 1.43E+00 | 2.24E+00 | 2.24E-04 | 2.24E+00 | 2.24E+00 | 1.68E+00 | 2.24E+00 | 8.04E-01 | 5.53E-01 | 6.92E-01 |
| Str and Y, (MCI)                              | 3.49E-02 | 5.44E-02 | 5.44E-07 | 5.44E-02 | 5.44E-02 | 4.09E-02 | 5.44E-02 | 1.96E-02 | 1.35E-02 | 1.68E-02 |
| Tc, (MCI)                                     | 4.95E-04 | 7.73E-04 | 7.73E-08 | 7.73E-04 | 7.73E-04 | 5.82E-04 | 7.73E-04 | 2.78E-04 | 1.91E-04 | 2.39E-04 |
| TRU, (MCI)                                    | 1.56E-04 | 2.43E-04 | 2.43E-09 | 2.43E-04 | 2.43E-04 | 1.83E-04 | 2.43E-04 | 8.72E-05 | 6.00E-05 | 7.51E-05 |
| Total MCI                                     | 2.80E+00 | 4.37E+00 | 2.56E-04 | 4.37E+00 | 4.37E+00 | 3.29E+00 | 4.37E+00 | 1.75E+00 | 1.08E+00 | 1.35E+00 |
| Ag+, (MT)                                     | 5.59E-04 | 8.72E-04 | 8.72E-09 | 8.72E-04 | 8.71E-04 | 6.56E-04 | 8.72E-04 | 3.13E-04 | 2.16E-04 | 2.70E-04 |
| Al+3, (MT)                                    | 1.13E+04 | 1.95E+04 | 1.95E-01 | 1.95E+04 | 1.18E+04 | 8.89E+03 | 1.76E+04 | 6.32E+03 | 2.92E+03 | 1.09E+04 |
| Al(OH) <sub>4</sub> -, (MT)                   |          |          |          |          |          |          |          |          |          |          |
| Am+3, (MT)                                    | 3.53E-05 | 5.50E-05 | 5.50E-10 | 5.50E-05 | 5.50E-05 | 4.14E-05 | 5.50E-05 | 1.98E-05 | 1.36E-05 | 1.70E-05 |
| As+5, (MT)                                    | 3.11E-03 | 4.85E-03 | 4.85E-08 | 4.85E-03 | 4.85E-03 | 3.65E-03 | 4.85E-03 | 1.74E-03 | 1.20E-03 | 1.50E-03 |
| B+3, (MT)                                     | 1.81E-03 | 2.83E-03 | 2.83E-08 | 2.83E-03 | 2.83E-03 | 2.13E-03 | 2.83E-03 | 1.02E-03 | 6.99E-04 | 8.75E-04 |
| Bat+2, (MT)                                   | 5.15E-03 | 8.04E-03 | 8.04E-08 | 8.04E-03 | 8.04E-03 | 6.05E-03 | 8.04E-03 | 2.89E-03 | 1.99E-03 | 2.49E-03 |
| Be+2, (MT)                                    | 1.28E-05 | 1.99E-05 | 1.99E-10 | 1.99E-05 | 1.99E-05 | 1.50E-05 | 1.99E-05 | 7.16E-06 | 4.93E-06 | 6.16E-06 |
| Bi+3, (MT)                                    | 1.05E+00 | 1.64E+00 | 1.64E-05 | 1.64E+00 | 1.64E+00 | 1.23E+00 | 1.64E+00 | 5.90E-01 | 4.06E-01 | 5.07E-01 |
| Carbon-14, (MT)                               | 1.77E-05 | 2.77E-05 | 2.77E-09 | 2.77E-05 | 2.77E-05 | 2.08E-05 | 2.77E-05 | 9.94E-06 | 6.84E-06 | 8.55E-06 |
| Cat+2, (MT)                                   | 1.90E-01 | 2.97E-01 | 2.97E-06 | 2.97E-01 | 2.97E-01 | 2.24E-01 | 2.97E-01 | 1.07E-01 | 7.35E-02 | 9.19E-02 |
| Ch+2, (MT)                                    | 3.65E-02 | 5.70E-02 | 5.70E-07 | 5.70E-02 | 5.70E-02 | 4.29E-02 | 5.70E-02 | 2.05E-02 | 1.41E-02 | 1.76E-02 |
| Cet+3, (MT)                                   | 5.88E-02 | 9.17E-02 | 9.17E-07 | 9.17E-02 | 9.17E-02 | 6.90E-02 | 9.17E-02 | 3.30E-02 | 2.27E-02 | 2.84E-02 |
| Cl-, (MT)                                     | 7.81E+00 | 1.22E+01 | 1.22E-04 | 1.22E+01 | 1.22E+01 | 9.17E+00 | 1.22E+01 | 4.38E+00 | 3.02E+00 | 3.77E+00 |
| Cm+3, (MT)                                    | 8.77E-09 | 1.37E-08 | 1.37E-13 | 1.37E-08 | 1.37E-08 | 1.03E-08 | 1.37E-08 | 4.92E-09 | 3.39E-09 | 4.23E-09 |
| COH+3, (MT)                                   | 8.98E-04 | 1.40E-03 | 1.40E-08 | 1.40E-03 | 1.40E-03 | 1.05E-03 | 1.40E-03 | 5.04E-04 | 3.47E-04 | 4.33E-04 |
| CO <sub>2</sub> , (MT)                        |          |          |          |          |          |          |          |          |          |          |
| CO <sub>3</sub> -2, (MT)                      | 1.55E-02 | 2.42E-02 | 2.42E-07 | 2.42E-02 | 2.41E-02 | 1.82E-02 | 2.42E-02 | 8.68E-03 | 5.97E-03 | 7.47E-03 |
| Cr+3, (MT)                                    | 2.14E+00 | 3.34E+00 | 3.34E-05 | 3.34E+00 | 3.34E+00 | 2.51E+00 | 3.34E+00 | 1.20E+00 | 8.26E-01 | 1.03E+00 |
| Cr(OH) <sub>4</sub> -, (MT)                   |          |          |          |          |          |          |          |          |          |          |
| Cs+, (MT)                                     | 1.75E-02 | 2.73E-02 | 2.73E-06 | 2.73E-02 | 2.73E-02 | 2.05E-02 | 2.73E-02 | 9.80E-03 | 6.74E-03 | 8.43E-03 |
| Cur+2, (MT)                                   | 3.61E-03 | 5.64E-03 | 5.64E-08 | 5.64E-03 | 5.64E-03 | 4.24E-03 | 5.64E-03 | 2.03E-03 | 1.40E-03 | 1.74E-03 |
| F-, (MT)                                      | 1.79E+01 | 2.79E+01 | 2.79E-04 | 2.79E+01 | 2.79E+01 | 2.10E+01 | 2.79E+01 | 1.00E+01 | 6.90E+00 | 8.63E+00 |
| Fe+3, (MT)                                    | 1.85E-01 | 2.88E-01 | 2.88E-06 | 2.88E-01 | 2.88E-01 | 2.17E-01 | 2.88E-01 | 1.04E-01 | 7.12E-02 | 8.90E-02 |
| FeCN6-3, (MT)                                 | 1.91E-02 | 2.98E-02 | 2.98E-07 | 2.98E-02 | 2.98E-02 | 2.25E-02 | 2.98E-02 | 1.07E-02 | 7.38E-03 | 9.21E-03 |
| H+, (MT)                                      | 3.30E-01 | 5.15E-01 | 5.15E-05 | 5.15E-01 | 5.15E-01 | 3.88E-01 | 5.15E-01 | 1.85E-01 | 1.28E-01 | 1.59E-01 |
| H <sub>2</sub> O, (MT)                        | 2.33E+05 | 7.13E+05 | 4.74E+05 | 2.39E+05 | 1.93E+05 | 1.45E+05 | 3.63E+05 | 1.31E+05 | 4.78E+04 | 2.72E+05 |
| Hg+2, (MT)                                    | 1.87E-02 | 2.92E-02 | 2.92E-07 | 2.92E-02 | 2.92E-02 | 2.19E-02 | 2.92E-02 | 1.05E-02 | 7.21E-03 | 9.02E-03 |
| I-, (MT)                                      | 3.75E-03 | 5.86E-03 | 5.86E-07 | 5.86E-03 | 5.86E-03 | 4.41E-03 | 5.86E-03 | 2.11E-03 | 1.45E-03 | 1.81E-03 |
| K+, (MT)                                      | 2.29E+01 | 3.57E+01 | 3.57E-04 | 3.57E+01 | 3.57E+01 | 2.68E+01 | 3.57E+01 | 1.28E+01 | 8.82E+00 | 1.10E+01 |
| La+3, (MT)                                    | 8.65E-03 | 1.35E-02 | 1.35E-07 | 1.35E-02 | 1.35E-02 | 1.02E-02 | 1.35E-02 | 4.85E-03 | 3.34E-03 | 4.17E-03 |
| Li+, (MT)                                     | 5.00E-04 | 7.81E-04 | 7.81E-09 | 7.81E-04 | 7.80E-04 | 5.87E-04 | 7.81E-04 | 2.81E-04 | 1.93E-04 | 2.41E-04 |
| Mg+2, (MT)                                    | 9.07E-03 | 1.42E-02 | 1.42E-07 | 1.42E-02 | 1.42E-02 | 1.07E-02 | 1.42E-02 | 5.09E-03 | 3.50E-03 | 4.38E-03 |
| MnO <sub>2</sub> , (MT)                       | 3.63E-01 | 5.66E-01 | 5.66E-06 | 5.66E-01 | 5.66E-01 | 4.26E-01 | 5.66E-01 | 2.03E-01 | 1.40E-01 | 1.75E-01 |
| Mn+6, (MT)                                    | 5.31E-02 | 8.30E-02 | 8.30E-07 | 8.29E-02 | 8.29E-02 | 6.24E-02 | 8.30E-02 | 2.98E-02 | 2.05E-02 | 2.57E-02 |
| Nat, (MT)                                     | 6.68E+04 | 1.69E+05 | 1.69E+00 | 1.17E+05 | 5.96E+04 | 4.48E+04 | 1.04E+05 | 3.74E+04 | 1.47E+04 | 7.41E+04 |
| Ni+3, (MT)                                    | 1.02E-02 | 1.59E-02 | 1.59E-07 | 1.59E-02 | 1.59E-02 | 1.19E-02 | 1.59E-02 | 5.70E-03 | 3.93E-03 | 4.91E-03 |
| NO, (MT)                                      |          |          |          |          |          |          |          |          |          |          |
| NO <sub>2</sub> -, (MT)                       | 5.77E-03 | 9.01E-03 | 9.01E-08 | 9.01E-03 | 9.00E-03 | 6.78E-03 | 9.01E-03 | 3.24E-03 | 2.23E-03 | 2.79E-03 |
| NO <sub>3</sub> -, (MT)                       | 2.58E+05 | 5.91E+05 | 5.91E+00 | 4.49E+05 | 2.43E+05 | 1.83E+05 | 4.03E+05 | 1.45E+05 | 6.00E+04 | 2.75E+05 |
| Np+4, (MT)                                    | 7.92E-05 | 1.24E-04 | 1.24E-09 | 1.24E-04 | 1.24E-04 | 9.30E-05 | 1.24E-04 | 4.44E-05 | 3.06E-05 | 3.82E-05 |
| OH-, (MT)                                     | 1.42E-01 | 2.21E-01 | 2.21E-06 | 2.21E-01 | 2.21E-01 | 1.66E-01 | 2.21E-01 | 7.95E-02 | 5.47E-02 | 6.84E-02 |
| Hb+4, (MT)                                    | 4.59E-02 | 7.17E-02 | 7.17E-07 | 7.17E-02 | 7.16E-02 | 5.39E-02 | 7.17E-02 | 2.58E-02 | 1.77E-02 | 2.22E-02 |
| FO4-3, (MT)                                   | 8.25E+01 | 1.29E+02 | 1.29E-03 | 1.29E+02 | 1.29E+02 | 9.69E+01 | 1.29E+02 | 4.63E+01 | 3.19E+01 | 3.98E+01 |
| Poly, (MT)                                    | 2.38E-01 | 3.72E-01 |          | 3.72E-01 | 3.72E-01 | 2.80E-01 | 3.72E-01 | 1.34E-01 | 9.20E-02 | 1.15E-01 |
| Ru+4, (MT)                                    | 1.52E-04 | 2.38E-04 | 2.38E-09 | 2.38E-04 | 2.38E-04 | 1.79E-04 | 2.38E-04 | 8.55E-05 | 5.88E-05 | 7.36E-05 |
| Rb+, (MT)                                     | 1.00E-03 | 1.57E-03 | 1.57E-08 | 1.57E-03 | 1.57E-03 | 1.18E-03 | 1.57E-03 | 5.63E-04 | 3.87E-04 | 4.84E-04 |
| Re+7, (MT)                                    | 7.79E-05 | 1.22E-04 | 1.22E-09 | 1.22E-04 | 1.22E-04 | 9.14E-05 | 1.22E-04 | 4.37E-05 | 3.01E-05 | 3.76E-05 |
| Rh+3, (MT)                                    | 2.34E-04 | 3.65E-04 | 3.65E-09 | 3.65E-04 | 3.65E-04 | 2.75E-04 | 3.65E-04 | 1.31E-04 | 9.02E-05 | 1.13E-04 |
| Ru+3, (MT)                                    | 4.77E-04 | 7.45E-04 | 7.45E-08 | 7.45E-04 | 7.45E-04 | 5.61E-04 | 7.45E-04 | 2.68E-04 | 1.84E-04 | 2.30E-04 |
| Sb+5, (MT)                                    | 1.06E-03 | 1.66E-03 | 1.66E-08 | 1.66E-03 | 1.66E-03 | 1.25E-03 | 1.66E-03 | 5.95E-04 | 4.10E-04 | 5.12E-04 |
| Se+6, (MT)                                    | 9.03E-03 | 1.41E-02 | 1.41E-07 | 1.41E-02 | 1.41E-02 | 1.06E-02 | 1.41E-02 | 5.06E-03 | 3.48E-03 | 4.36E-03 |
| Si+4, (MT)                                    | 2.20E-01 | 3.44E-01 | 3.44E-06 | 3.43E-01 | 3.43E-01 | 2.58E-01 | 3.44E-01 | 1.23E-01 | 8.49E-02 | 1.06E-01 |
| Sm+3, (MT)                                    | 7.82E-06 | 1.22E-05 | 1.22E-10 | 1.22E-05 | 1.22E-05 | 9.18E-06 | 1.22E-05 | 4.38E-06 | 3.02E-06 | 3.77E-06 |
| Sn+4, (MT)                                    | 8.10E-05 | 1.26E-04 | 1.26E-09 | 1.26E-04 | 1.26E-04 | 9.51E-05 | 1.26E-04 | 4.54E-05 | 3.13E-05 | 3.91E-05 |
| SO4-2, (MT)                                   | 3.22E+01 | 5.02E+01 | 5.02E-04 | 5.02E+01 | 5.02E+01 | 3.78E+01 | 5.02E+01 | 1.80E+01 | 1.24E+01 | 1.55E+01 |
| Str+2, (MT)                                   | 9.27E-03 | 1.45E-02 | 1.45E-07 | 1.45E-02 | 1.45E-02 | 1.09E-02 | 1.45E-02 | 5.20E-03 | 3.58E-03 | 4.47E-03 |
| TcO4-, (MT)                                   | 4.78E-02 | 7.46E-02 | 7.46E-06 | 7.46E-02 | 7.46E-02 | 5.61E-02 | 7.46E-02 | 2.68E-02 | 1.84E-02 | 2.31E-02 |
| Tet+6, (MT)                                   | 1.04E-04 | 1.63E-04 | 1.63E-09 | 1.63E-04 | 1.63E-04 | 1.23E-04 | 1.63E-04 | 5.86E-05 | 4.03E-05 | 5.04E-05 |
| Th+4, (MT)                                    | 3.80E-03 | 5.93E-03 | 5.93E-08 | 5.92E-03 | 5.92E-03 | 4.46E-03 | 5.93E-03 | 2.13E-03 | 1.47E-03 | 1.83E-03 |
| Ti+4, (MT)                                    | 1.43E-04 | 2.24E-04 | 2.24E-09 | 2.24E-04 | 2.23E-04 | 1.68E-04 | 2.24E-04 | 8.03E-05 | 5.03E-05 | 6.91E-05 |
| Tl+3, (MT)                                    | 5.26E-03 | 8.22E-03 | 8.22E-08 | 8.22E-03 | 8.21E-03 | 6.18E-03 | 8.22E-03 | 2.95E-03 | 2.03E-03 | 2.54E-03 |
| UO <sub>2</sub> , (MT)                        |          |          |          |          |          |          |          |          |          |          |
| UO <sub>2</sub> +2, (MT)                      | 1.26E+01 | 1.96E+01 | 1.96E-03 | 1.96E+01 | 1.96E+01 | 1.48E+01 | 1.96E+01 | 7.05E+00 | 4.85E+00 | 6.07E+00 |
| VH5, (MT)                                     | 1.59E+00 | 2.48E+00 | 2.48E-05 | 2.48E+00 | 2.48E+00 | 1.87E+00 | 2.48E+00 | 8.91E-01 | 6.13E-01 | 7.67E-01 |
| VH5, (MT)                                     | 1.58E-04 | 2.46E-04 | 2.46E-09 | 2.46E-04 | 2.46E-04 | 1.85E-04 | 2.46E-04 | 8.83E-05 | 6.08E-05 | 7.60E-05 |
| WH6, (MT)                                     | 5.27E-02 | 8.23E-02 | 8.23E-07 | 8.23E-02 | 8.23E-02 | 6.19E-02 | 8.23E-02 | 2.96E-02 | 2.04E-02 | 2.54E-02 |
| ZH+2, (MT)                                    | 1.44E-02 | 2.24E-02 | 2.24E-07 | 2.24E-02 | 2.24E-02 | 1.68E-02 | 2.24E-02 | 8.05E-03 | 5.54E-03 | 6.92E-03 |
| ZrO <sub>2</sub> :2H <sub>2</sub> O, (MT)     | 4.62E-01 | 7.21E-01 | 7.21E-06 | 7.21E-01 | 7.21E-01 | 5.42E-01 | 7.21E-01 | 2.59E-01 | 1.78E-01 | 2.23E-01 |

| STREAM NAME                                             | 24       | 25       | 26 | 27       | 28       | 29       | 30       | 31       | 32       | 33       |
|---------------------------------------------------------|----------|----------|----|----------|----------|----------|----------|----------|----------|----------|
| SOLID COMPONENTS                                        |          |          |    |          |          |          |          |          |          |          |
| Total Mass Flow, (MT)                                   | 5.70E+02 | 3.20E+02 |    | 1.95E+05 | 5.12E+05 | 3.82E+02 | 8.89E+02 | 3.19E+02 | 5.12E+05 | 5.12E+05 |
| Al, (MT)                                                | 8.53E+00 | 4.81E+00 |    | 7.50E+00 | 7.67E+03 | 5.72E+00 | 1.33E+01 | 4.78E+00 | 7.67E+03 | 7.67E+03 |
| Fe, (MT)                                                | 6.37E-06 | 5.58E-03 |    | 5.62E-03 | 5.72E-03 | 4.27E-06 | 9.94E-06 | 3.57E-06 | 5.72E-03 | 5.73E-03 |
| Cr, (MT)                                                | 1.82E-06 | 1.02E-06 |    | 4.62E-04 | 1.63E-03 | 1.22E-06 | 2.83E-06 | 1.02E-06 | 1.63E-03 | 1.63E-03 |
| Na, (MT)                                                | 1.22E+02 | 6.84E+01 |    | 5.27E+04 | 1.10E+05 | 8.18E+01 | 1.90E+02 | 6.84E+01 | 1.10E+05 | 1.10E+05 |
| Si, (MT)                                                | 3.30E-05 | 2.95E-02 |    | 2.95E-02 | 2.96E-02 | 2.21E-05 | 5.15E-05 | 1.85E-05 | 2.96E-02 | 2.97E-02 |
| P, (MT)                                                 | 2.29E-05 | 2.63E-05 |    | 5.84E-03 | 2.06E-02 | 1.54E-05 | 3.57E-05 | 1.28E-05 | 2.06E-02 | 2.06E-02 |
| NO <sub>2</sub> - and NO <sub>3</sub> -, (MT)           | 3.88E+02 | 2.18E+02 |    | 1.42E+05 | 3.49E+05 | 2.60E+02 | 6.05E+02 | 2.18E+02 | 3.49E+05 | 3.49E+05 |
| Cs and Ba, (MT)                                         | 1.22E-06 | 6.82E-07 |    | 3.10E-04 | 1.09E-03 | 8.17E-07 | 1.90E-06 | 6.82E-07 | 1.09E-03 | 1.09E-03 |
| Sr and Y, (MT)                                          | 2.96E-08 | 1.66E-08 |    | 7.54E-06 | 2.66E-05 | 1.99E-08 | 4.62E-08 | 1.66E-08 | 2.66E-05 | 2.66E-05 |
| Tc, (MT)                                                | 4.20E-10 | 2.36E-10 |    | 1.07E-07 | 3.78E-07 | 2.82E-10 | 6.56E-10 | 2.36E-10 | 3.78E-07 | 3.78E-07 |
| TRU, (MT)                                               | 1.32E-10 | 7.39E-11 |    | 3.36E-08 | 1.19E-07 | 8.86E-11 | 2.06E-10 | 7.39E-11 | 1.19E-07 | 1.19E-07 |
| Total MCI                                               | 2.38E-06 | 1.33E-06 |    | 6.06E-04 | 2.14E-03 | 1.60E-06 | 3.71E-06 | 1.33E-06 | 2.14E-03 | 2.14E-03 |
| Ag <sup>+</sup> , (MT)                                  | 4.73E-10 | 2.65E-10 |    | 1.21E-07 | 4.26E-07 | 3.18E-10 | 7.40E-10 | 2.65E-10 | 4.26E-07 | 4.26E-07 |
| Al <sup>3+</sup> , (MT)                                 | 8.53E+00 | 4.78E+00 |    | 7.47E-07 | 7.67E+03 | 5.72E+00 | 1.33E+01 | 4.78E+00 | 7.67E+03 | 7.67E+03 |
| Am <sup>3+</sup> , (MT)                                 | 2.99E-11 | 1.68E-11 |    | 7.62E-09 | 2.69E-08 | 2.01E-11 | 4.67E-11 | 1.68E-11 | 2.69E-08 | 2.69E-08 |
| As <sup>5+</sup> , (MT)                                 | 2.63E-09 | 1.48E-09 |    | 6.71E-07 | 2.37E-06 | 1.77E-09 | 4.11E-09 | 1.48E-09 | 2.37E-06 | 2.37E-06 |
| B <sup>3+</sup> , (MT)                                  | 1.54E-09 | 8.62E-10 |    | 3.92E-07 | 1.38E-06 | 2.40E-09 | 2.40E-09 | 8.62E-10 | 1.38E-06 | 1.38E-06 |
| Ba <sup>2+</sup> , (MT)                                 | 4.37E-09 | 2.45E-09 |    | 1.11E-06 | 3.93E-06 | 2.93E-09 | 6.82E-09 | 2.45E-09 | 3.93E-06 | 3.93E-06 |
| Be <sup>2+</sup> , (MT)                                 | 1.08E-11 | 6.06E-12 |    | 2.76E-09 | 9.74E-09 | 7.27E-12 | 1.69E-11 | 6.06E-12 | 9.74E-09 | 9.74E-09 |
| Bi <sup>3+</sup> , (MT)                                 | 8.92E-07 | 5.00E-07 |    | 2.27E-04 | 8.02E-04 | 5.99E-07 | 1.39E-06 | 5.00E-07 | 8.02E-04 | 8.02E-04 |
| Carbon-14, (MT)                                         | 1.50E-11 | 8.42E-12 |    | 3.83E-09 | 1.35E-08 | 1.01E-11 | 2.35E-11 | 8.42E-12 | 1.35E-08 | 1.35E-08 |
| Ca <sup>2+</sup> , (MT)                                 | 1.62E-07 | 9.06E-08 |    | 4.12E-05 | 1.45E-04 | 1.08E-07 | 2.52E-07 | 9.06E-08 | 1.45E-04 | 1.45E-04 |
| Cancrinite, (MT)                                        | 1.99E-04 | 1.79E-01 |    | 1.79E-01 | 1.79E-01 | 1.33E-04 | 3.10E-04 | 1.12E-04 | 1.79E-01 | 1.79E-01 |
| Cd <sup>2+</sup> , (MT)                                 | 3.10E-08 | 1.74E-08 |    | 7.89E-06 | 2.79E-05 | 2.08E-08 | 4.84E-08 | 1.74E-08 | 2.79E-05 | 2.79E-05 |
| Ce <sup>3+</sup> , (MT)                                 | 4.99E-08 | 2.80E-08 |    | 1.27E-05 | 4.48E-05 | 3.35E-08 | 7.78E-08 | 2.80E-08 | 4.48E-05 | 4.49E-05 |
| Cl <sup>-</sup> , (MT)                                  | 6.63E-06 | 3.72E-06 |    | 1.69E-03 | 5.96E-03 | 4.45E-06 | 1.04E-05 | 3.72E-06 | 5.96E-03 | 5.96E-03 |
| Cm <sup>3+</sup> , (MT)                                 | 7.43E-15 | 4.17E-15 |    | 1.89E-12 | 6.69E-12 | 5.00E-15 | 1.16E-14 | 4.17E-15 | 6.69E-12 | 6.69E-12 |
| CO <sub>3</sub> , (MT)                                  | 7.62E-10 | 4.27E-10 |    | 1.94E-07 | 6.85E-07 | 5.11E-10 | 1.19E-09 | 4.27E-10 | 6.85E-07 | 6.85E-07 |
| CO <sub>3</sub> -2, (MT)                                | 1.31E-08 | 7.37E-09 |    | 3.35E-06 | 1.18E-05 | 8.81E-09 | 2.05E-08 | 7.37E-09 | 1.18E-05 | 1.18E-05 |
| Cr <sup>3+</sup> , (MT)                                 | 1.82E-06 | 1.02E-06 |    | 4.62E-04 | 1.63E-03 | 1.22E-06 | 2.83E-06 | 1.02E-06 | 1.63E-03 | 1.63E-03 |
| Cs <sup>+</sup> , (MT)                                  | 1.48E-08 | 8.31E-09 |    | 3.78E-06 | 1.33E-05 | 9.95E-09 | 2.31E-08 | 8.31E-09 | 1.33E-05 | 1.33E-05 |
| Cur <sup>2</sup> , (MT)                                 | 3.07E-09 | 1.72E-09 |    | 7.81E-07 | 2.76E-06 | 2.06E-09 | 4.79E-09 | 1.72E-09 | 2.76E-06 | 2.76E-06 |
| F <sup>-</sup> , (MT)                                   | 1.52E-05 | 8.51E-06 |    | 3.87E-03 | 1.36E-02 | 1.02E-05 | 2.37E-05 | 8.51E-06 | 1.36E-02 | 1.37E-02 |
| Fe <sup>3+</sup> , (MT)                                 | 1.57E-07 | 8.78E-08 |    | 3.99E-05 | 1.41E-04 | 1.05E-07 | 2.44E-07 | 8.78E-08 | 1.41E-04 | 1.41E-04 |
| H <sub>2</sub> O, (MT)                                  | 5.13E+01 | 2.88E+01 |    | 6.18E-07 | 4.61E+04 | 3.44E+01 | 8.01E+01 | 2.88E+01 | 4.61E+04 | 4.61E+04 |
| Hg <sup>2+</sup> , (MT)                                 | 1.59E-08 | 8.89E-09 |    | 4.04E-06 | 1.43E-05 | 1.06E-08 | 2.48E-08 | 8.89E-09 | 1.43E-05 | 1.43E-05 |
| I <sup>-</sup> , (MT)                                   | 3.19E-09 | 1.79E-09 |    | 8.12E-07 | 2.86E-06 | 2.14E-09 | 4.97E-09 | 1.79E-09 | 2.86E-06 | 2.87E-06 |
| K <sup>+</sup> , (MT)                                   | 1.94E-05 | 1.09E-05 |    | 4.94E-03 | 1.74E-02 | 3.03E-05 | 3.03E-05 | 1.09E-05 | 1.74E-02 | 1.74E-02 |
| La <sup>3+</sup> , (MT)                                 | 7.34E-09 | 4.11E-09 |    | 1.87E-06 | 6.60E-06 | 4.93E-09 | 1.15E-08 | 4.11E-09 | 6.60E-06 | 6.60E-06 |
| Li <sup>+</sup> , (MT)                                  | 4.24E-10 | 2.38E-10 |    | 1.08E-07 | 3.82E-07 | 2.85E-10 | 6.62E-10 | 2.38E-10 | 3.82E-07 | 3.82E-07 |
| Mg <sup>2+</sup> , (MT)                                 | 7.69E-09 | 4.32E-09 |    | 1.96E-06 | 6.92E-06 | 5.16E-09 | 1.20E-08 | 4.32E-09 | 6.92E-06 | 6.92E-06 |
| MnO <sub>2</sub> , (MT)                                 | 3.08E-07 | 1.73E-07 |    | 7.84E-05 | 2.77E-04 | 2.06E-07 | 4.80E-07 | 1.73E-07 | 2.77E-04 | 2.77E-04 |
| Mo <sup>6+</sup> , (MT)                                 | 4.51E-08 | 2.53E-08 |    | 1.15E-05 | 4.05E-05 | 3.03E-08 | 7.04E-08 | 2.53E-08 | 4.05E-05 | 4.06E-05 |
| Na <sup>+</sup> , (MT)                                  | 1.22E+02 | 6.84E+01 |    | 5.27E+04 | 1.10E+05 | 8.18E+01 | 1.90E+02 | 6.84E+01 | 1.10E+05 | 1.10E+05 |
| Ni <sup>3+</sup> , (MT)                                 | 8.63E-09 | 4.84E-09 |    | 2.20E-07 | 7.76E-06 | 5.79E-09 | 1.35E-08 | 4.84E-09 | 7.76E-06 | 7.76E-06 |
| Ni <sub>2</sub> Fe <sub>2</sub> ON <sub>6</sub> , (MT)  | 3.66E-05 | 3.29E-02 |    | 3.29E-02 | 3.29E-02 | 2.46E-05 | 5.72E-05 | 2.05E-05 | 3.29E-02 | 3.29E-02 |
| NO <sub>2</sub> -, (MT)                                 | 4.90E-09 | 2.75E-09 |    | 1.25E-06 | 4.40E-06 | 3.29E-09 | 7.64E-09 | 2.75E-09 | 4.40E-06 | 4.40E-06 |
| NO <sub>3</sub> -, (MT)                                 | 3.88E+02 | 2.18E+02 |    | 1.42E+05 | 3.49E+05 | 2.60E+02 | 6.05E+02 | 2.18E+02 | 3.49E+05 | 3.49E+05 |
| Np <sup>4+</sup> , (MT)                                 | 6.71E-11 | 3.76E-11 |    | 1.71E-08 | 6.04E-08 | 4.51E-11 | 1.05E-10 | 3.76E-11 | 6.04E-08 | 6.05E-08 |
| OH <sup>-</sup> , (MT)                                  | 1.20E-07 | 6.75E-08 |    | 3.06E-05 | 1.08E-04 | 8.07E-08 | 1.88E-07 | 6.75E-08 | 1.08E-04 | 1.08E-04 |
| P <sub>2</sub> O <sub>5</sub> :24H <sub>2</sub> O, (MT) | 1.48E-06 | 1.33E-03 |    | 1.33E-03 | 1.33E-03 | 9.92E-07 | 2.31E-06 | 8.29E-07 | 1.33E-03 | 1.33E-03 |
| Pb <sup>4+</sup> , (MT)                                 | 3.90E-08 | 2.19E-08 |    | 9.92E-06 | 3.50E-05 | 2.62E-08 | 6.08E-08 | 2.19E-08 | 3.50E-05 | 3.50E-05 |
| PO <sub>4</sub> -3, (MT)                                | 7.00E-05 | 3.93E-05 |    | 1.78E-02 | 6.30E-02 | 4.70E-05 | 1.09E-04 | 3.93E-05 | 6.30E-02 | 6.30E-02 |
| Poly, (MT)                                              | 4.54E-06 | 4.08E-03 |    | 4.08E-03 | 4.08E-03 | 3.05E-06 | 7.09E-06 | 2.55E-06 | 4.08E-03 | 4.09E-03 |
| Ru <sup>4+</sup> , (MT)                                 | 1.29E-10 | 7.24E-11 |    | 3.29E-08 | 1.16E-07 | 8.68E-11 | 2.02E-10 | 7.24E-11 | 1.16E-07 | 1.16E-07 |
| Rb <sup>+</sup> , (MT)                                  | 8.51E-10 | 4.77E-10 |    | 2.17E-07 | 7.65E-07 | 5.71E-10 | 1.33E-09 | 4.77E-10 | 7.65E-07 | 7.65E-07 |
| Re <sup>7+</sup> , (MT)                                 | 6.60E-11 | 3.70E-11 |    | 1.68E-08 | 5.94E-08 | 4.44E-11 | 1.03E-10 | 3.70E-11 | 5.94E-08 | 5.94E-08 |
| Rh <sup>3+</sup> , (MT)                                 | 1.98E-10 | 1.11E-10 |    | 5.05E-08 | 1.78E-07 | 1.33E-10 | 3.10E-10 | 1.11E-10 | 1.78E-07 | 1.78E-07 |
| Ru <sup>3+</sup> , (MT)                                 | 4.05E-10 | 2.27E-10 |    | 1.03E-07 | 3.64E-07 | 2.72E-10 | 6.32E-10 | 2.27E-10 | 3.64E-07 | 3.64E-07 |
| Sb <sup>5+</sup> , (MT)                                 | 9.00E-10 | 5.04E-10 |    | 2.29E-07 | 8.10E-07 | 6.05E-10 | 1.41E-09 | 5.04E-10 | 8.09E-07 | 8.10E-07 |
| Se <sup>6+</sup> , (MT)                                 | 7.66E-09 | 4.30E-09 |    | 1.95E-06 | 6.89E-06 | 5.14E-09 | 1.20E-08 | 4.30E-09 | 6.89E-06 | 6.89E-06 |
| Si <sup>4+</sup> , (MT)                                 | 1.87E-07 | 1.05E-07 |    | 4.76E-05 | 1.68E-04 | 1.25E-07 | 2.92E-07 | 1.05E-07 | 1.68E-04 | 1.68E-04 |
| Sm <sup>3+</sup> , (MT)                                 | 6.63E-12 | 3.72E-12 |    | 1.69E-09 | 5.96E-09 | 4.45E-12 | 1.04E-11 | 3.72E-12 | 5.96E-09 | 5.97E-09 |
| Sr <sup>4+</sup> , (MT)                                 | 6.86E-11 | 3.85E-11 |    | 1.75E-08 | 6.18E-08 | 4.61E-11 | 1.07E-10 | 3.85E-11 | 6.18E-08 | 6.18E-08 |
| SO <sub>4</sub> -2, (MT)                                | 2.73E-05 | 1.53E-05 |    | 6.96E-03 | 2.46E-02 | 1.83E-05 | 4.26E-05 | 1.53E-05 | 2.46E-02 | 2.46E-02 |
| Sr <sup>2+</sup> , (MT)                                 | 7.86E-09 | 4.41E-09 |    | 2.00E-06 | 7.07E-06 | 5.28E-09 | 1.23E-08 | 4.41E-09 | 7.07E-06 | 7.07E-06 |
| TcO <sub>4</sub> -, (MT)                                | 4.06E-08 | 2.27E-08 |    | 1.03E-05 | 3.65E-05 | 2.72E-08 | 6.33E-08 | 2.27E-08 | 3.65E-05 | 3.65E-05 |
| Te <sup>6+</sup> , (MT)                                 | 8.85E-11 | 4.96E-11 |    | 2.26E-08 | 7.97E-08 | 5.95E-11 | 1.38E-10 | 4.96E-11 | 7.97E-08 | 7.97E-08 |
| Th <sup>4+</sup> , (MT)                                 | 3.22E-09 | 1.81E-09 |    | 8.21E-07 | 2.90E-06 | 2.16E-09 | 5.03E-09 | 1.81E-09 | 2.89E-06 | 2.90E-06 |
| Ti <sup>4+</sup> , (MT)                                 | 1.21E-10 | 6.81E-11 |    | 3.10E-08 | 1.09E-07 | 8.16E-11 | 1.90E-10 | 6.81E-11 | 1.09E-07 | 1.09E-07 |
| Tl <sup>3+</sup> , (MT)                                 | 4.47E-09 | 2.51E-09 |    | 1.14E-06 | 4.02E-06 | 3.00E-09 | 6.97E-09 | 2.51E-09 | 4.02E-06 | 4.02E-06 |
| TCC, (MT)                                               | 1.07E-05 | 5.99E-06 |    | 2.72E-03 | 9.60E-03 | 7.16E-06 | 1.67E-05 | 5.99E-06 | 9.60E-03 | 9.60E-03 |
| UO <sub>2</sub> +2, (MT)                                | 1.35E-06 | 7.56E-07 |    | 3.43E-04 | 1.21E-03 | 9.05E-07 | 2.10E-06 | 7.56E-07 | 1.21E-03 | 1.21E-03 |
| V <sup>5+</sup> , (MT)                                  | 1.33E-10 | 7.48E-11 |    | 3.41E-08 | 1.20E-07 | 8.97E-11 | 2.09E-10 | 7.48E-11 | 1.20E-07 | 1.20E-07 |
| W <sup>6+</sup> , (MT)                                  | 4.47E-08 | 2.51E-08 |    | 1.14E-05 | 4.02E-05 | 3.00E-08 | 6.98E-08 | 2.51E-08 | 4.02E-05 | 4.02E-05 |
| Zn <sup>2+</sup> , (MT)                                 | 1.22E-08 | 6.83E-09 |    | 3.10E-06 | 1.10E-05 | 8.17E-09 | 1.90E-08 | 6.83E-09 | 1.10E-05 | 1.10E-05 |
| ZnO:2H <sub>2</sub> O, (MT)                             | 3.92E-07 | 2.20E-07 |    | 9.98E-05 | 3.52E-04 | 2.63E-07 | 6.12E-07 | 2.20E-07 | 3.52E-04 | 3.53E-04 |

| STREAM NAME<br>LIQUID COMPONENTS              | 34       | 35       | 36       | 37       | 38       | 41       | 42       | 43       | 44       | 45       |
|-----------------------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Total Mass Flow, (MT)                         | 5.06E+05 | 1.26E+05 | 6.32E+05 | 5.06E+05 | 1.26E+05 | 4.40E+05 | 1.03E+06 | 5.06E+05 | 1.25E+06 | 3.90E+05 |
| Al, (MT)                                      | 8.69E+03 | 2.16E+03 | 9.89E+03 | 7.92E+03 | 1.97E+03 |          | 9.56E+03 | 7.68E+03 | 1.28E+04 | 1.28E-01 |
| Fe, (MT)                                      | 7.64E-02 | 1.89E-02 | 2.38E-02 | 1.91E-02 | 4.73E-03 |          | 4.74E-04 | 4.72E-04 | 6.75E-04 | 6.48E-09 |
| Cr, (MT)                                      | 8.27E-01 | 2.05E-01 | 2.58E-01 | 2.07E-01 | 5.13E-02 |          | 5.28E-03 | 5.25E-03 | 7.51E-03 | 7.51E-08 |
| Na, (MT)                                      | 5.94E+04 | 1.47E+04 | 7.41E+04 | 5.93E+04 | 1.47E+04 |          | 1.24E+05 | 5.93E+04 | 1.50E+05 | 1.50E+00 |
| Si, (MT)                                      | 8.51E-02 | 2.11E-02 | 2.65E-02 | 2.13E-02 | 5.27E-03 |          | 5.43E-04 | 5.40E-04 | 7.73E-04 | 7.73E-09 |
| P, (MT)                                       | 1.04E+01 | 2.58E+00 | 3.25E+00 | 2.60E+00 | 6.46E-01 |          | 6.65E-02 | 6.61E-02 | 9.46E-02 | 9.46E-07 |
| NO <sub>2</sub> - and NO <sub>3</sub> -, (MT) | 2.20E+05 | 5.46E+04 | 2.68E+05 | 2.15E+05 | 5.33E+04 |          | 4.01E+05 | 2.13E+05 | 4.92E+05 | 4.92E+00 |
| Cs and Ba, (MCl)                              | 5.54E-01 | 1.38E-01 | 1.73E-01 | 1.39E-01 | 3.44E-02 |          | 3.54E-03 | 3.52E-03 | 5.04E-03 | 5.04E-07 |
| Sr and Y, (MCl)                               | 1.35E-02 | 3.34E-03 | 4.21E-03 | 3.37E-03 | 8.36E-04 |          | 8.60E-05 | 8.56E-05 | 1.23E-04 | 1.23E-09 |
| Tc, (MCl)                                     | 1.92E-04 | 4.75E-05 | 5.97E-05 | 4.79E-05 | 1.19E-05 |          | 1.22E-06 | 1.22E-06 | 1.74E-06 | 1.74E-10 |
| TRU, (MCl)                                    | 6.02E-05 | 1.49E-05 | 1.88E-05 | 1.50E-05 | 3.73E-06 |          | 3.84E-07 | 3.82E-07 | 5.46E-07 | 5.46E-12 |
| Total MCl                                     | 1.08E+00 | 2.69E-01 | 3.38E-01 | 2.71E-01 | 6.71E-02 |          | 6.91E-03 | 6.88E-03 | 9.84E-03 | 5.77E-07 |
| Ag+, (MT)                                     | 2.16E-04 | 5.36E-05 | 6.74E-05 | 5.40E-05 | 1.34E-05 |          | 1.38E-06 | 1.37E-06 | 1.96E-06 | 1.96E-11 |
| Al+3, (MT)                                    | 8.69E+03 | 2.16E+03 | 9.89E+03 | 7.92E+03 | 1.97E+03 |          | 9.56E+03 | 7.68E+03 | 1.28E+04 | 1.28E-01 |
| Al(OH) <sub>4</sub> -, (MT)                   |          |          |          |          |          |          |          |          |          |          |
| Am+3, (MT)                                    | 1.36E-05 | 3.38E-06 | 4.25E-06 | 3.41E-06 | 8.45E-07 |          | 8.70E-08 | 8.65E-08 | 1.24E-07 | 1.24E-12 |
| As+5, (MT)                                    | 1.20E-03 | 2.98E-04 | 3.74E-04 | 3.00E-04 | 7.44E-05 |          | 7.66E-06 | 7.62E-06 | 1.09E-05 | 1.09E-10 |
| B+3, (MT)                                     | 7.01E-04 | 1.74E-04 | 2.19E-04 | 1.75E-04 | 4.34E-05 |          | 4.47E-06 | 4.45E-06 | 6.37E-06 | 6.37E-11 |
| Ba+2, (MT)                                    | 1.99E-03 | 4.94E-04 | 6.21E-04 | 4.98E-04 | 1.24E-04 |          | 1.27E-05 | 1.27E-05 | 1.81E-05 | 1.81E-10 |
| Be+2, (MT)                                    | 4.94E-06 | 1.22E-06 | 1.54E-06 | 1.23E-06 | 3.06E-07 |          | 3.15E-08 | 3.13E-08 | 4.48E-08 | 4.48E-13 |
| Bi+3, (MT)                                    | 4.07E-01 | 1.01E-01 | 1.27E-01 | 1.02E-01 | 2.52E-02 |          | 2.59E-03 | 2.58E-03 | 3.69E-03 | 3.69E-08 |
| Carbon-14, (MT)                               | 6.85E-06 | 1.70E-06 | 2.14E-06 | 1.71E-06 | 4.25E-07 |          | 4.37E-08 | 4.35E-08 | 6.22E-08 | 6.22E-12 |
| Ca+2, (MT)                                    | 7.36E-02 | 1.83E-02 | 2.30E-02 | 1.84E-02 | 4.56E-03 |          | 4.70E-04 | 4.67E-04 | 6.69E-04 | 6.69E-09 |
| Cd+2, (MT)                                    | 1.41E-02 | 3.50E-03 | 4.40E-03 | 3.53E-03 | 8.75E-04 |          | 9.01E-05 | 8.96E-05 | 1.28E-04 | 1.28E-09 |
| Ce+3, (MT)                                    | 2.27E-02 | 5.64E-03 | 7.09E-03 | 5.68E-03 | 1.41E-03 |          | 1.45E-04 | 1.44E-04 | 2.06E-04 | 2.06E-09 |
| Cl-, (MT)                                     | 3.02E+00 | 7.49E-01 | 9.42E-01 | 7.55E-01 | 1.87E-01 |          | 1.93E-02 | 1.92E-02 | 2.74E-02 | 2.74E-07 |
| Co+3, (MT)                                    | 3.39E-09 | 8.41E-10 | 1.06E-09 | 8.46E-10 | 2.10E-10 |          | 2.16E-11 | 2.14E-11 | 3.07E-11 | 3.07E-16 |
| CO+3, (MT)                                    | 3.47E-04 | 8.61E-05 | 1.08E-04 | 8.68E-05 | 2.15E-05 |          | 2.22E-06 | 2.20E-06 | 3.15E-06 | 3.15E-11 |
| CO <sub>2</sub> , (MT)                        |          |          |          |          |          |          |          |          |          |          |
| CO <sub>3</sub> -2, (MT)                      | 5.98E-03 | 1.48E-03 | 1.87E-03 | 1.50E-03 | 3.71E-04 |          | 3.82E-05 | 3.80E-05 | 5.44E-05 | 5.44E-10 |
| Cr+3, (MT)                                    | 8.27E-01 | 2.05E-01 | 2.58E-01 | 2.07E-01 | 5.13E-02 |          | 5.28E-03 | 5.25E-03 | 7.51E-03 | 7.51E-08 |
| Cr(OH) <sub>4</sub> -, (MT)                   |          |          |          |          |          |          |          |          |          |          |
| Cst, (MT)                                     | 6.75E-03 | 1.68E-03 | 2.11E-03 | 1.69E-03 | 4.19E-04 |          | 4.31E-05 | 4.29E-05 | 6.13E-05 | 6.13E-09 |
| Cu+2, (MT)                                    | 1.40E-03 | 3.47E-04 | 4.36E-04 | 3.49E-04 | 8.66E-05 |          | 8.92E-06 | 8.87E-06 | 1.27E-05 | 1.27E-10 |
| F-, (MT)                                      | 6.92E+00 | 1.72E+00 | 2.16E+00 | 1.73E+00 | 4.29E-01 |          | 4.41E-02 | 4.39E-02 | 6.28E-02 | 6.28E-07 |
| Fe+3, (MT)                                    | 7.14E-02 | 1.77E-02 | 2.23E-02 | 1.78E-02 | 4.42E-03 |          | 4.55E-04 | 4.53E-04 | 6.48E-04 | 6.48E-09 |
| FeCN <sub>6</sub> -3, (MT)                    | 7.38E-03 | 1.83E-03 | 2.28E-03 | 1.83E-03 | 4.54E-04 |          | 2.79E-05 | 2.77E-05 | 3.97E-05 | 3.97E-10 |
| Ht, (MT)                                      | 1.28E-01 | 3.16E-02 | 3.95E-02 | 3.16E-02 | 7.84E-03 |          | 4.81E-04 | 4.79E-04 | 6.85E-04 | 6.85E-09 |
| H <sub>2</sub> O, (MT)                        | 2.18E+05 | 5.40E+04 | 2.80E+05 | 2.24E+05 | 5.56E+04 | 4.40E+05 | 4.96E+05 | 2.26E+05 | 5.92E+05 | 3.90E+05 |
| Hg+2, (MT)                                    | 7.23E-03 | 1.79E-03 | 2.25E-03 | 1.81E-03 | 4.48E-04 |          | 4.61E-05 | 4.59E-05 | 6.57E-05 | 6.57E-10 |
| I-, (MT)                                      | 1.45E-03 | 3.60E-04 | 4.53E-04 | 3.63E-04 | 9.00E-05 |          | 9.26E-06 | 9.22E-06 | 1.32E-05 | 1.32E-09 |
| K+, (MT)                                      | 8.84E+00 | 2.19E+00 | 2.76E+00 | 2.21E+00 | 5.48E-01 |          | 5.64E-02 | 5.61E-02 | 8.03E-02 | 8.03E-07 |
| La+3, (MT)                                    | 3.34E-03 | 8.29E-04 | 1.04E-03 | 8.36E-04 | 2.07E-04 |          | 2.13E-05 | 2.12E-05 | 3.04E-05 | 3.04E-10 |
| Li+, (MT)                                     | 1.93E-04 | 4.80E-05 | 6.03E-05 | 4.83E-05 | 1.20E-05 |          | 1.23E-06 | 1.23E-06 | 1.76E-06 | 1.76E-11 |
| Mg+2, (MT)                                    | 3.51E-03 | 8.70E-04 | 1.09E-03 | 7.65E-04 | 2.17E-04 |          | 2.24E-05 | 2.23E-05 | 3.19E-05 | 3.19E-10 |
| MnO <sub>2</sub> , (MT)                       | 1.40E-01 | 3.48E-02 | 4.37E-02 | 3.50E-02 | 8.69E-03 |          | 8.94E-04 | 8.90E-04 | 1.27E-03 | 1.27E-08 |
| Mo+6, (MT)                                    | 2.06E-02 | 5.10E-03 | 6.41E-03 | 5.14E-03 | 1.27E-03 |          | 1.31E-04 | 1.31E-04 | 1.87E-04 | 1.87E-09 |
| Na+, (MT)                                     | 5.94E+04 | 1.47E+04 | 7.41E+04 | 5.93E+04 | 1.47E+04 |          | 1.24E+05 | 5.93E+04 | 1.50E+05 | 1.50E+00 |
| Ni+3, (MT)                                    | 3.93E-03 | 9.75E-04 | 1.23E-03 | 9.83E-04 | 2.44E-04 |          | 2.51E-05 | 2.50E-05 | 3.57E-05 | 3.57E-10 |
| NO, (MT)                                      |          |          |          |          |          |          |          |          |          |          |
| NO <sub>2</sub> -, (MT)                       | 2.23E-03 | 5.53E-04 | 6.96E-04 | 5.58E-04 | 1.38E-04 |          | 1.42E-05 | 1.42E-05 | 2.03E-05 | 2.03E-10 |
| NO <sub>3</sub> -, (MT)                       | 2.20E+05 | 5.46E+04 | 2.68E+05 | 2.15E+05 | 5.33E+04 |          | 4.01E+05 | 2.13E+05 | 4.92E+05 | 4.92E+00 |
| Np+4, (MT)                                    | 3.06E-05 | 7.60E-06 | 9.55E-06 | 7.65E-06 | 1.90E-06 |          | 1.95E-07 | 1.94E-07 | 2.78E-07 | 2.78E-12 |
| OH-, (MT)                                     | 5.48E-02 | 1.36E-02 | 1.71E-02 | 1.37E-02 | 3.40E-03 |          | 3.50E-04 | 3.48E-04 | 4.94E-04 | 4.94E-09 |
| Pb+4, (MT)                                    | 1.78E-02 | 4.40E-03 | 5.54E-03 | 4.44E-03 | 1.10E-03 |          | 1.13E-04 | 1.13E-04 | 1.61E-04 | 1.61E-09 |
| PO <sub>4</sub> -3, (MT)                      | 3.19E+01 | 7.91E+00 | 9.95E+00 | 7.98E+00 | 1.98E+00 |          | 2.04E-01 | 2.03E-01 | 2.90E-01 | 2.90E-06 |
| Poly, (MT)                                    | 9.20E-02 | 2.28E-02 | 2.85E-02 | 2.28E-02 | 5.66E-03 |          | 3.47E-04 | 3.46E-04 | 4.95E-04 | 4.95E-09 |
| Ru+4, (MT)                                    | 5.89E-05 | 1.46E-05 | 1.84E-05 | 1.47E-05 | 3.65E-06 |          | 3.76E-07 | 3.74E-07 | 5.35E-07 | 5.35E-12 |
| Rb+, (MT)                                     | 3.88E-04 | 9.62E-05 | 1.21E-04 | 9.69E-05 | 2.40E-05 |          | 2.47E-06 | 2.46E-06 | 3.52E-06 | 3.52E-11 |
| Rf+7, (MT)                                    | 3.01E-05 | 7.47E-06 | 9.39E-06 | 7.53E-06 | 1.87E-06 |          | 1.92E-07 | 1.91E-07 | 2.74E-07 | 2.74E-12 |
| Rh+3, (MT)                                    | 9.04E-05 | 2.24E-05 | 2.82E-05 | 2.26E-05 | 5.60E-06 |          | 5.77E-07 | 5.74E-07 | 8.21E-07 | 8.21E-12 |
| Ru+3, (MT)                                    | 1.85E-04 | 4.58E-05 | 5.76E-05 | 4.61E-05 | 1.14E-05 |          | 1.18E-06 | 1.17E-06 | 1.68E-06 | 1.68E-10 |
| Sb+5, (MT)                                    | 4.11E-04 | 1.02E-04 | 1.28E-04 | 1.03E-04 | 2.54E-05 |          | 2.62E-06 | 2.61E-06 | 3.73E-06 | 3.73E-11 |
| Se+6, (MT)                                    | 3.49E-03 | 8.66E-04 | 1.09E-03 | 8.72E-04 | 2.16E-04 |          | 2.23E-05 | 2.22E-05 | 3.17E-05 | 3.17E-10 |
| Si+4, (MT)                                    | 8.51E-02 | 2.11E-02 | 2.65E-02 | 2.13E-02 | 5.27E-03 |          | 5.43E-04 | 5.40E-04 | 7.73E-04 | 7.73E-09 |
| Sn+3, (MT)                                    | 3.02E-06 | 7.50E-07 | 9.43E-07 | 7.55E-07 | 1.87E-07 |          | 1.93E-08 | 1.92E-08 | 2.75E-08 | 2.75E-13 |
| Sn+4, (MT)                                    | 3.13E-05 | 7.77E-06 | 9.77E-06 | 7.83E-06 | 1.94E-06 |          | 2.00E-07 | 1.99E-07 | 2.85E-07 | 2.85E-12 |
| SO <sub>4</sub> -2, (MT)                      | 1.24E+01 | 3.09E+00 | 3.88E+00 | 3.11E+00 | 7.71E-01 |          | 7.94E-02 | 7.90E-02 | 1.13E-01 | 1.13E-06 |
| Str+2, (MT)                                   | 3.58E-03 | 8.89E-04 | 1.12E-03 | 8.96E-04 | 2.22E-04 |          | 2.29E-05 | 2.28E-05 | 3.26E-05 | 3.26E-10 |
| TcO <sub>4</sub> -, (MT)                      | 1.85E-02 | 4.58E-03 | 5.76E-03 | 4.62E-03 | 1.15E-03 |          | 1.18E-04 | 1.17E-04 | 1.68E-04 | 1.68E-08 |
| Te+6, (MT)                                    | 4.04E-05 | 1.00E-05 | 1.26E-05 | 1.01E-05 | 2.50E-06 |          | 2.58E-07 | 2.56E-07 | 3.67E-07 | 3.67E-12 |
| Th+4, (MT)                                    | 1.47E-03 | 3.64E-04 | 4.58E-04 | 3.67E-04 | 9.10E-05 |          | 9.36E-06 | 9.32E-06 | 1.33E-05 | 1.33E-10 |
| Ti+4, (MT)                                    | 5.54E-05 | 1.37E-05 | 1.73E-05 | 1.38E-05 | 3.43E-06 |          | 3.53E-07 | 3.52E-07 | 5.03E-07 | 5.03E-12 |
| Tl+3, (MT)                                    | 2.04E-03 | 5.05E-04 | 6.35E-04 | 5.09E-04 | 1.26E-04 |          | 1.30E-05 | 1.29E-05 | 1.85E-05 | 1.85E-10 |
| TOC, (MT)                                     | 4.86E+00 | 1.21E+00 | 1.52E+00 | 1.22E+00 | 3.01E-01 |          | 3.10E-02 | 3.09E-02 | 4.42E-02 | 4.42E-06 |
| UO <sub>2</sub> +2, (MT)                      | 6.14E-01 | 1.52E-01 | 1.92E-01 | 1.54E-01 | 3.81E-02 |          | 3.92E-03 | 3.90E-03 | 5.58E-03 | 5.58E-08 |
| V+5, (MT)                                     | 6.09E-05 | 1.51E-05 | 1.90E-05 | 1.52E-05 | 3.78E-06 |          | 3.89E-07 | 3.87E-07 | 5.53E-07 | 5.53E-12 |
| W+6, (MT)                                     | 2.04E-02 | 5.06E-03 | 6.36E-03 | 5.09E-03 | 1.26E-03 |          | 1.30E-04 | 1.29E-04 | 1.85E-04 | 1.85E-09 |
| Zn+2, (MT)                                    | 5.55E-03 | 1.38E-03 | 1.73E-03 | 1.39E-03 | 3.44E-04 |          | 3.54E-05 | 3.52E-05 | 5.04E-05 | 5.04E-10 |
| ZrO <sub>2</sub> .2H <sub>2</sub> O, (MT)     | 1.79E-01 | 4.43E-02 | 5.57E-02 | 4.46E-02 | 1.11E-02 |          | 1.14E-03 | 1.13E-03 | 1.62E-03 | 1.62E-08 |

| STREAM NAME                                             | 34       | 35       | 36       | 37       | 38       | 41 | 42       | 43       | 44       | 45 |
|---------------------------------------------------------|----------|----------|----------|----------|----------|----|----------|----------|----------|----|
| SOLID COMPONENTS                                        |          |          |          |          |          |    |          |          |          |    |
| Total Mass Flow, (MT)                                   | 5.07E+02 | 5.12E+05 | 5.12E+05 | 5.07E+02 | 5.12E+05 |    | 4.61E+04 | 5.07E+02 | 4.63E+04 |    |
| Al, (MT)                                                | 7.59E+00 | 7.66E+03 | 7.67E+03 | 7.59E+00 | 7.66E+03 |    | 2.83E-02 | 3.18E+00 | 1.38E+00 |    |
| Fe, (MT)                                                | 5.66E-06 | 5.72E-03 | 5.73E-03 | 5.67E-06 | 5.72E-03 |    | 5.58E-03 | 6.25E-06 | 5.58E-03 |    |
| Cr, (MT)                                                | 1.62E-06 | 1.63E-03 | 1.63E-03 | 1.62E-06 | 1.63E-03 |    |          | 4.02E-09 | 1.71E-09 |    |
| Na, (MT)                                                | 1.09E+02 | 1.10E+05 | 1.10E+05 | 1.09E+02 | 1.10E+05 |    | 3.04E-02 | 1.11E+02 | 4.73E+01 |    |
| Si, (MT)                                                | 2.93E-05 | 2.96E-02 | 2.97E-02 | 2.93E-05 | 2.96E-02 |    | 2.95E-02 | 3.30E-05 | 2.95E-02 |    |
| P, (MT)                                                 | 2.04E-05 | 2.06E-02 | 2.06E-02 | 2.04E-05 | 2.06E-02 |    | 1.35E-05 | 6.58E-08 | 1.35E-05 |    |
| NO <sub>2</sub> - and NO <sub>3</sub> -, (MT)           | 3.45E+02 | 3.48E+05 | 3.49E+05 | 3.45E+02 | 3.48E+05 |    |          | 3.22E+02 | 1.37E+02 |    |
| Cs and Ba, (MT)                                         | 1.08E-06 | 1.09E-03 | 1.09E-03 | 1.08E-06 | 1.09E-03 |    |          | 2.69E-09 | 1.15E-09 |    |
| Sr and Y, (MT)                                          | 2.63E-08 | 2.66E-05 | 2.66E-05 | 2.63E-08 | 2.66E-05 |    |          | 6.55E-11 | 2.79E-11 |    |
| Tc, (MT)                                                | 3.74E-10 | 3.78E-07 | 3.78E-07 | 3.74E-10 | 3.78E-07 |    |          | 9.29E-13 | 3.96E-13 |    |
| TRU, (MT)                                               | 1.18E-10 | 1.19E-07 | 1.19E-07 | 1.17E-10 | 1.19E-07 |    |          | 2.92E-13 | 1.24E-13 |    |
| Total MCI                                               | 2.12E-06 | 2.14E-03 | 2.14E-03 | 2.12E-06 | 2.14E-03 |    |          | 5.26E-09 | 2.24E-09 |    |
| Ag <sup>+</sup> , (MT)                                  | 4.22E-10 | 4.26E-07 | 4.26E-07 | 4.21E-10 | 4.26E-07 |    |          | 1.05E-12 | 4.46E-13 |    |
| Al <sup>3+</sup> , (MT)                                 | 7.59E+00 | 7.66E+03 | 7.67E+03 | 7.59E+00 | 7.66E+03 |    |          | 3.18E+00 | 1.38E+00 |    |
| Am <sup>3+</sup> , (MT)                                 | 2.66E-11 | 2.69E-08 | 2.69E-08 | 2.66E-11 | 2.69E-08 |    |          | 6.61E-14 | 2.82E-14 |    |
| As <sup>5+</sup> , (MT)                                 | 2.34E-09 | 2.37E-06 | 2.37E-06 | 2.34E-09 | 2.37E-06 |    |          | 5.83E-12 | 2.48E-12 |    |
| B <sup>3+</sup> , (MT)                                  | 1.37E-09 | 1.38E-06 | 1.38E-06 | 1.37E-09 | 1.38E-06 |    |          | 3.40E-12 | 1.45E-12 |    |
| Ba <sup>2+</sup> , (MT)                                 | 3.89E-09 | 3.93E-06 | 3.93E-06 | 3.89E-09 | 3.93E-06 |    |          | 9.67E-12 | 4.12E-12 |    |
| Be <sup>2+</sup> , (MT)                                 | 9.63E-12 | 9.73E-09 | 9.74E-09 | 9.62E-12 | 9.73E-09 |    |          | 2.39E-14 | 1.02E-14 |    |
| Bi <sup>3+</sup> , (MT)                                 | 7.94E-07 | 8.02E-04 | 8.02E-04 | 7.94E-07 | 8.02E-04 |    |          | 1.98E-09 | 8.40E-10 |    |
| Carbon-14, (MT)                                         | 1.34E-11 | 1.35E-08 | 1.35E-08 | 1.34E-11 | 1.35E-08 |    |          | 3.32E-14 | 1.42E-14 |    |
| Cat <sup>2+</sup> , (MT)                                | 1.44E-07 | 1.45E-04 | 1.45E-04 | 1.44E-07 | 1.45E-04 |    |          | 3.58E-10 | 1.52E-10 |    |
| Cancrinite, (MT)                                        | 1.77E-04 | 1.79E-01 | 1.79E-01 | 1.77E-04 | 1.79E-01 |    | 1.79E-01 | 2.00E-04 | 1.79E-01 |    |
| Cd <sup>2+</sup> , (MT)                                 | 2.76E-08 | 2.78E-05 | 2.79E-05 | 2.76E-08 | 2.78E-05 |    |          | 6.85E-11 | 2.92E-11 |    |
| Ce <sup>3+</sup> , (MT)                                 | 4.44E-08 | 4.48E-05 | 4.49E-05 | 4.44E-08 | 4.48E-05 |    |          | 1.10E-10 | 4.70E-11 |    |
| Cl <sup>-</sup> , (MT)                                  | 5.90E-06 | 5.96E-03 | 5.96E-03 | 5.90E-06 | 5.96E-03 |    |          | 1.47E-08 | 6.26E-09 |    |
| Cr <sup>3+</sup> , (MT)                                 | 6.62E-15 | 6.69E-12 | 6.69E-12 | 6.61E-15 | 6.69E-12 |    |          | 6.13E-28 | 7.01E-30 |    |
| CO <sup>3+</sup> , (MT)                                 | 6.78E-10 | 6.84E-07 | 6.85E-07 | 6.78E-10 | 6.84E-07 |    |          | 1.69E-12 | 7.18E-13 |    |
| CO <sub>3</sub> -2, (MT)                                | 1.17E-08 | 1.18E-05 | 1.18E-05 | 1.17E-08 | 1.18E-05 |    |          | 2.91E-11 | 1.24E-11 |    |
| Cr <sup>3+</sup> , (MT)                                 | 1.62E-06 | 1.63E-03 | 1.63E-03 | 1.62E-06 | 1.63E-03 |    |          | 4.02E-09 | 1.71E-09 |    |
| Cst <sup>+</sup> , (MT)                                 | 1.32E-08 | 1.33E-05 | 1.33E-05 | 1.32E-08 | 1.33E-05 |    |          | 3.28E-11 | 1.40E-11 |    |
| Cu <sup>2+</sup> , (MT)                                 | 2.73E-09 | 2.76E-06 | 2.76E-06 | 2.73E-09 | 2.76E-06 |    |          | 6.78E-12 | 2.89E-12 |    |
| F <sup>-</sup> , (MT)                                   | 1.35E-05 | 1.36E-02 | 1.37E-02 | 1.35E-05 | 1.36E-02 |    |          | 3.36E-08 | 1.43E-08 |    |
| Fe <sup>3+</sup> , (MT)                                 | 1.39E-07 | 1.41E-04 | 1.41E-04 | 1.39E-07 | 1.41E-04 |    |          | 3.47E-10 | 1.48E-10 |    |
| H <sub>2</sub> O, (MT)                                  | 4.56E+01 | 4.61E+04 | 4.61E+04 | 4.56E+01 | 4.61E+04 |    | 4.61E+04 | 7.09E+01 | 4.61E+04 |    |
| Hg <sup>2+</sup> , (MT)                                 | 1.41E-08 | 1.43E-05 | 1.43E-05 | 1.41E-08 | 1.43E-05 |    |          | 3.51E-11 | 1.49E-11 |    |
| I <sup>-</sup> , (MT)                                   | 2.84E-09 | 2.86E-06 | 2.87E-06 | 2.83E-09 | 2.86E-06 |    |          | 7.05E-12 | 3.00E-12 |    |
| K <sup>+</sup> , (MT)                                   | 1.73E-05 | 1.74E-02 | 1.74E-02 | 1.73E-05 | 1.74E-02 |    |          | 4.30E-08 | 1.83E-08 |    |
| La <sup>3+</sup> , (MT)                                 | 6.53E-09 | 6.59E-06 | 6.60E-06 | 6.53E-09 | 6.59E-06 |    |          | 1.62E-11 | 6.92E-12 |    |
| Li <sup>+</sup> , (MT)                                  | 3.78E-10 | 3.81E-07 | 3.82E-07 | 3.78E-10 | 3.81E-07 |    |          | 9.39E-13 | 4.00E-13 |    |
| Mg <sup>2+</sup> , (MT)                                 | 6.85E-09 | 6.91E-06 | 6.92E-06 | 6.85E-09 | 6.91E-06 |    |          | 1.70E-11 | 7.25E-12 |    |
| MnO <sub>2</sub> , (MT)                                 | 2.74E-07 | 2.76E-04 | 2.77E-04 | 2.74E-07 | 2.76E-04 |    |          | 6.81E-10 | 2.90E-10 |    |
| Mn <sup>2+</sup> , (MT)                                 | 4.01E-08 | 4.05E-05 | 4.06E-05 | 4.01E-08 | 4.05E-05 |    |          | 9.97E-11 | 4.25E-11 |    |
| Nat <sup>+</sup> , (MT)                                 | 1.09E+02 | 1.10E+05 | 1.10E+05 | 1.09E+02 | 1.10E+05 |    |          | 1.11E+02 | 4.73E+01 |    |
| Ni <sup>3+</sup> , (MT)                                 | 7.68E-09 | 7.75E-06 | 7.76E-06 | 7.68E-09 | 7.75E-06 |    |          | 1.91E-11 | 8.13E-12 |    |
| Ni <sub>2</sub> FeO <sub>6</sub> , (MT)                 | 3.26E-05 | 3.29E-02 | 3.29E-02 | 3.26E-05 | 3.29E-02 |    | 3.29E-02 | 3.69E-05 | 3.29E-02 |    |
| NO <sub>2</sub> -, (MT)                                 | 4.36E-09 | 4.40E-06 | 4.40E-06 | 4.36E-09 | 4.40E-06 |    |          | 1.09E-11 | 4.62E-12 |    |
| NO <sub>3</sub> -, (MT)                                 | 3.45E+02 | 3.48E+05 | 3.49E+05 | 3.45E+02 | 3.48E+05 |    |          | 3.22E+02 | 1.37E+02 |    |
| Np <sup>4+</sup> , (MT)                                 | 5.98E-11 | 6.04E-08 | 6.05E-08 | 5.97E-11 | 6.04E-08 |    |          | 1.49E-13 | 6.33E-14 |    |
| OH <sup>-</sup> , (MT)                                  | 1.07E-07 | 1.08E-04 | 1.08E-04 | 1.07E-07 | 1.08E-04 |    |          | 2.67E-10 | 1.14E-10 |    |
| P <sub>2</sub> O <sub>5</sub> :24H <sub>2</sub> O, (MT) | 1.32E-06 | 1.33E-03 | 1.33E-03 | 1.32E-06 | 1.33E-03 |    | 1.33E-03 | 1.49E-06 | 1.33E-03 |    |
| Rb <sup>+</sup> , (MT)                                  | 3.47E-08 | 3.50E-05 | 3.50E-05 | 3.47E-08 | 3.50E-05 |    |          | 8.62E-11 | 3.67E-11 |    |
| RO <sub>4</sub> -3, (MT)                                | 6.23E-05 | 6.29E-02 | 6.30E-02 | 6.23E-05 | 6.29E-02 |    |          | 1.55E-07 | 6.61E-08 |    |
| Poly, (MT)                                              | 4.04E-06 | 4.08E-03 | 4.09E-03 | 4.04E-06 | 4.08E-03 |    | 4.08E-03 | 4.57E-06 | 4.08E-03 |    |
| Ru <sup>4+</sup> , (MT)                                 | 1.15E-10 | 1.16E-07 | 1.16E-07 | 1.15E-10 | 1.16E-07 |    |          | 2.86E-13 | 1.22E-13 |    |
| Rb <sup>+</sup> , (MT)                                  | 7.57E-10 | 7.65E-07 | 7.65E-07 | 7.57E-10 | 7.65E-07 |    |          | 1.88E-12 | 8.02E-13 |    |
| Re <sup>7+</sup> , (MT)                                 | 5.88E-11 | 5.94E-08 | 5.94E-08 | 5.87E-11 | 5.94E-08 |    |          | 1.46E-13 | 6.22E-14 |    |
| Rh <sup>3+</sup> , (MT)                                 | 1.77E-10 | 1.78E-07 | 1.78E-07 | 1.76E-10 | 1.78E-07 |    |          | 4.39E-13 | 1.87E-13 |    |
| Ru <sup>3+</sup> , (MT)                                 | 3.61E-10 | 3.64E-07 | 3.64E-07 | 3.60E-10 | 3.64E-07 |    |          | 8.96E-13 | 3.82E-13 |    |
| Sb <sup>5+</sup> , (MT)                                 | 8.01E-10 | 8.09E-07 | 8.10E-07 | 8.01E-10 | 8.09E-07 |    |          | 1.99E-12 | 8.49E-13 |    |
| Se <sup>6+</sup> , (MT)                                 | 6.82E-09 | 6.88E-06 | 6.89E-06 | 6.82E-09 | 6.88E-06 |    |          | 1.69E-11 | 7.21E-12 |    |
| Si <sup>4+</sup> , (MT)                                 | 1.66E-07 | 1.68E-04 | 1.68E-04 | 1.66E-07 | 1.68E-04 |    |          | 4.14E-10 | 1.76E-10 |    |
| Sm <sup>3+</sup> , (MT)                                 | 5.90E-12 | 5.96E-09 | 5.97E-09 | 5.90E-12 | 5.96E-09 |    |          | 1.47E-14 | 6.25E-15 |    |
| Sn <sup>4+</sup> , (MT)                                 | 6.11E-11 | 6.17E-08 | 6.18E-08 | 6.10E-11 | 6.17E-08 |    |          | 1.52E-13 | 6.47E-14 |    |
| SO <sub>4</sub> -2, (MT)                                | 2.43E-05 | 2.45E-02 | 2.46E-02 | 2.43E-05 | 2.45E-02 |    |          | 6.05E-08 | 2.58E-08 |    |
| Sr <sup>2+</sup> , (MT)                                 | 7.00E-09 | 7.07E-06 | 7.07E-06 | 7.00E-09 | 7.07E-06 |    |          | 1.74E-11 | 7.41E-12 |    |
| TcO <sub>4</sub> -, (MT)                                | 3.61E-08 | 3.64E-05 | 3.65E-05 | 3.61E-08 | 3.64E-05 |    |          | 8.97E-11 | 3.82E-11 |    |
| Tet <sup>6+</sup> , (MT)                                | 7.88E-11 | 7.96E-08 | 7.97E-08 | 7.87E-11 | 7.96E-08 |    |          | 1.96E-13 | 8.34E-14 |    |
| Th <sup>4+</sup> , (MT)                                 | 2.87E-09 | 2.89E-06 | 2.90E-06 | 2.86E-09 | 2.89E-06 |    |          | 7.13E-12 | 3.04E-12 |    |
| Ti <sup>4+</sup> , (MT)                                 | 1.08E-10 | 1.09E-07 | 1.09E-07 | 1.08E-10 | 1.09E-07 |    |          | 2.69E-13 | 1.15E-13 |    |
| Tl <sup>3+</sup> , (MT)                                 | 3.98E-09 | 4.01E-06 | 4.02E-06 | 3.97E-09 | 4.01E-06 |    |          | 9.88E-12 | 4.21E-12 |    |
| TOC, (MT)                                               | 9.50E-06 | 9.59E-03 | 9.60E-03 | 9.50E-06 | 9.59E-03 |    |          | 2.37E-08 | 1.01E-08 |    |
| UO <sub>2</sub> +2, (MT)                                | 1.20E-06 | 1.21E-03 | 1.21E-03 | 1.20E-06 | 1.21E-03 |    |          | 2.99E-09 | 1.27E-09 |    |
| V <sup>5+</sup> , (MT)                                  | 1.19E-10 | 1.20E-07 | 1.20E-07 | 1.19E-10 | 1.20E-07 |    |          | 2.96E-13 | 1.26E-13 |    |
| W <sup>6+</sup> , (MT)                                  | 3.98E-08 | 4.02E-05 | 4.02E-05 | 3.98E-08 | 4.02E-05 |    |          | 9.89E-11 | 4.21E-11 |    |
| Zn <sup>2+</sup> , (MT)                                 | 1.08E-08 | 1.09E-05 | 1.10E-05 | 1.08E-08 | 1.09E-05 |    |          | 2.69E-11 | 1.15E-11 |    |
| ZrO <sub>2</sub> :2H <sub>2</sub> O, (MT)               | 3.49E-07 | 3.52E-04 | 3.53E-04 | 3.49E-07 | 3.52E-04 |    |          | 8.68E-10 | 3.69E-10 |    |



| STREAM NAME                                   | 46       | 47       | 48       | 49       | 50       | 51       | 52       | 53       | 54       | 55       |
|-----------------------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| LIQUID COMPONENTS                             |          |          |          |          |          |          |          |          |          |          |
| Total Mass Flow, (MT)                         | 6.68E+05 | 4.51E+05 | 3.40E+05 | 7.22E+05 | 2.16E+05 | 1.11E+05 | 4.93E+05 | 3.82E+05 | 1.11E+05 | 4.93E+05 |
| Al, (MT)                                      | 1.28E+04 | 9.99E+03 | 7.53E+03 | 1.09E+04 | 3.27E+03 | 2.46E+03 | 4.40E+03 | 3.41E+03 | 9.90E+02 | 2.51E+03 |
| Fe, (MT)                                      | 6.75E-04 | 6.75E-04 | 5.09E-04 | 6.73E-04 | 2.01E-04 | 1.66E-04 | 2.12E-04 | 1.64E-04 | 4.76E-05 | 5.90E-05 |
| Cr, (MT)                                      | 7.51E-03 | 7.51E-03 | 5.66E-03 | 7.49E-03 | 2.24E-03 | 1.85E-03 | 2.36E-03 | 1.83E-03 | 5.30E-04 | 6.56E-04 |
| Na, (MT)                                      | 9.86E+04 | 5.04E+04 | 3.80E+04 | 8.46E+04 | 2.53E+04 | 1.24E+04 | 6.01E+04 | 4.66E+04 | 1.35E+04 | 6.16E+04 |
| Si, (MT)                                      | 7.73E-04 | 7.73E-04 | 5.83E-04 | 7.70E-04 | 2.30E-04 | 1.90E-04 | 2.43E-04 | 1.88E-04 | 5.45E-05 | 6.75E-05 |
| P, (MT)                                       | 9.46E-02 | 9.46E-02 | 7.13E-02 | 9.43E-02 | 2.82E-02 | 2.33E-02 | 2.97E-02 | 2.30E-02 | 6.68E-03 | 8.27E-03 |
| NO <sub>2</sub> - and NO <sub>3</sub> -, (MT) | 3.55E+05 | 2.05E+05 | 1.55E+05 | 3.04E+05 | 9.07E+04 | 5.04E+04 | 1.93E+05 | 1.49E+05 | 4.33E+04 | 1.83E+05 |
| Cs and Ba, (MCl)                              | 5.03E-03 | 5.03E-03 | 3.79E-03 | 5.02E-03 | 1.50E-03 | 1.24E-03 | 1.58E-03 | 1.22E-03 | 3.55E-04 | 4.40E-04 |
| Sr and Y, (MCl)                               | 1.23E-04 | 1.22E-04 | 9.23E-05 | 1.22E-04 | 3.65E-05 | 3.01E-05 | 3.84E-05 | 2.98E-05 | 8.64E-06 | 1.07E-05 |
| Tc, (MCl)                                     | 1.74E-06 | 1.74E-06 | 1.31E-06 | 1.73E-06 | 5.18E-07 | 4.28E-07 | 5.46E-07 | 4.23E-07 | 1.23E-07 | 1.52E-07 |
| TRU, (MCl)                                    | 5.46E-07 | 5.46E-07 | 4.12E-07 | 5.45E-07 | 1.63E-07 | 1.34E-07 | 1.71E-07 | 1.33E-07 | 3.86E-08 | 4.77E-08 |
| Total MCl                                     | 9.84E-03 | 9.83E-03 | 7.41E-03 | 9.81E-03 | 2.93E-03 | 2.42E-03 | 3.09E-03 | 2.39E-03 | 6.94E-04 | 8.60E-04 |
| Ag+, (MT)                                     | 1.96E-06 | 1.96E-06 | 1.48E-06 | 1.96E-06 | 5.84E-07 | 4.83E-07 | 6.15E-07 | 4.77E-07 | 1.38E-07 | 1.71E-07 |
| Al+3, (MT)                                    | 1.28E+04 | 9.99E+03 | 7.53E+03 | 1.09E+04 | 3.27E+03 | 2.46E+03 | 4.40E+03 | 3.41E+03 | 9.90E+02 | 2.51E+03 |
| Al(OH) <sub>4</sub> -, (MT)                   | 1.24E-07 | 1.24E-07 | 9.33E-08 | 1.23E-07 | 3.69E-08 | 3.05E-08 | 3.88E-08 | 3.01E-08 | 8.74E-09 | 1.08E-08 |
| Am+3, (MT)                                    | 1.09E-05 | 1.09E-05 | 8.22E-06 | 1.09E-05 | 3.25E-06 | 2.68E-06 | 3.42E-06 | 2.65E-06 | 7.70E-07 | 9.53E-07 |
| As+5, (MT)                                    | 6.36E-06 | 6.36E-06 | 4.80E-06 | 6.34E-06 | 1.90E-06 | 1.57E-06 | 2.00E-06 | 1.55E-06 | 4.49E-07 | 5.56E-07 |
| Ba+2, (MT)                                    | 1.81E-05 | 1.81E-05 | 1.36E-05 | 1.80E-05 | 5.39E-06 | 4.45E-06 | 5.68E-06 | 4.40E-06 | 1.28E-06 | 1.58E-06 |
| Be+2, (MT)                                    | 4.48E-08 | 4.48E-08 | 3.38E-08 | 4.47E-08 | 1.33E-08 | 1.10E-08 | 1.41E-08 | 1.09E-08 | 3.16E-09 | 3.92E-09 |
| Bi+3, (MT)                                    | 3.69E-03 | 3.69E-03 | 2.78E-03 | 3.68E-03 | 1.10E-03 | 9.08E-04 | 1.16E-03 | 8.98E-04 | 2.61E-04 | 3.23E-04 |
| Carbon-14, (MT)                               | 6.22E-08 | 6.22E-08 | 4.69E-08 | 6.20E-08 | 1.85E-08 | 1.53E-08 | 1.95E-08 | 1.51E-08 | 4.39E-09 | 5.44E-09 |
| Cat+2, (MT)                                   | 6.69E-04 | 6.68E-04 | 5.04E-04 | 6.66E-04 | 1.99E-04 | 1.65E-04 | 2.10E-04 | 1.63E-04 | 4.72E-05 | 5.84E-05 |
| Ca+2, (MT)                                    | 1.28E-04 | 1.28E-04 | 9.67E-05 | 1.28E-04 | 3.82E-05 | 3.16E-05 | 4.02E-05 | 3.12E-05 | 9.05E-06 | 1.12E-05 |
| Ce+3, (MT)                                    | 2.06E-04 | 2.06E-04 | 1.56E-04 | 2.06E-04 | 6.14E-05 | 5.08E-05 | 6.48E-05 | 5.02E-05 | 1.46E-05 | 1.80E-05 |
| Cl-, (MT)                                     | 2.74E-02 | 2.74E-02 | 2.07E-02 | 2.74E-02 | 8.17E-03 | 6.75E-03 | 8.61E-03 | 6.67E-03 | 1.94E-03 | 2.40E-03 |
| Cm+3, (MT)                                    | 3.07E-11 | 3.07E-11 | 2.31E-11 | 3.05E-11 | 9.10E-12 | 7.55E-12 | 9.55E-12 | 7.40E-12 | 2.15E-12 | 2.59E-12 |
| CO+3, (MT)                                    | 3.15E-06 | 3.15E-06 | 2.38E-06 | 3.14E-06 | 9.39E-07 | 7.76E-07 | 9.89E-07 | 7.67E-07 | 2.23E-07 | 2.76E-07 |
| CO <sub>2</sub> , (MT)                        | 5.43E-05 | 5.43E-05 | 4.10E-05 | 5.42E-05 | 1.62E-05 | 1.34E-05 | 1.71E-05 | 1.32E-05 | 3.84E-06 | 4.75E-06 |
| Co+2, (MT)                                    | 7.51E-03 | 7.51E-03 | 5.66E-03 | 7.49E-03 | 2.24E-03 | 1.85E-03 | 2.36E-03 | 1.83E-03 | 5.30E-04 | 6.56E-04 |
| Cr(OH) <sub>4</sub> -, (MT)                   | 6.13E-05 | 6.13E-05 | 4.62E-05 | 6.11E-05 | 1.83E-05 | 1.51E-05 | 1.92E-05 | 1.49E-05 | 4.33E-06 | 5.36E-06 |
| Cs+, (MT)                                     | 1.27E-05 | 1.27E-05 | 9.57E-06 | 1.27E-05 | 3.78E-06 | 3.12E-06 | 3.98E-06 | 3.09E-06 | 8.96E-07 | 1.11E-06 |
| Cu+2, (MT)                                    | 6.28E-02 | 6.28E-02 | 4.73E-02 | 6.26E-02 | 1.87E-02 | 1.55E-02 | 1.97E-02 | 1.53E-02 | 4.43E-03 | 5.49E-03 |
| F-, (MT)                                      | 6.48E-04 | 6.48E-04 | 4.88E-04 | 6.46E-04 | 1.93E-04 | 1.59E-04 | 2.03E-04 | 1.58E-04 | 4.57E-05 | 5.66E-05 |
| Fe+3, (MT)                                    | 3.97E-05 | 3.97E-05 | 2.99E-05 | 3.96E-05 | 1.18E-05 | 9.76E-06 | 1.24E-05 | 9.64E-06 | 2.80E-06 | 3.46E-06 |
| FeCN6-3, (MT)                                 | 6.85E-04 | 6.85E-04 | 5.17E-04 | 6.83E-04 | 2.04E-04 | 1.69E-04 | 2.15E-04 | 1.67E-04 | 4.84E-05 | 5.97E-05 |
| Hf, (MT)                                      | 2.02E+05 | 1.85E+05 | 1.40E+05 | 3.23E+05 | 9.64E+04 | 4.56E+04 | 2.36E+05 | 1.83E+05 | 5.31E+04 | 2.46E+05 |
| Hg+2, (MT)                                    | 6.56E-05 | 6.56E-05 | 4.95E-05 | 6.54E-05 | 1.95E-05 | 1.62E-05 | 2.06E-05 | 1.60E-05 | 4.63E-06 | 5.74E-06 |
| I-, (MT)                                      | 1.32E-05 | 1.32E-05 | 9.94E-06 | 1.31E-05 | 3.92E-06 | 3.24E-06 | 4.14E-06 | 3.21E-06 | 9.30E-07 | 1.15E-06 |
| K+, (MT)                                      | 8.03E-02 | 8.02E-02 | 6.05E-02 | 8.00E-02 | 2.39E-02 | 1.97E-02 | 2.52E-02 | 1.95E-02 | 5.66E-03 | 7.01E-03 |
| La+3, (MT)                                    | 3.04E-05 | 3.04E-05 | 2.29E-05 | 3.03E-05 | 9.04E-06 | 7.47E-06 | 9.53E-06 | 7.38E-06 | 2.14E-06 | 2.65E-06 |
| Li+, (MT)                                     | 1.76E-06 | 1.76E-06 | 1.32E-06 | 1.75E-06 | 5.23E-07 | 4.32E-07 | 5.51E-07 | 4.27E-07 | 1.24E-07 | 1.54E-07 |
| Mg+2, (MT)                                    | 3.18E-05 | 3.18E-05 | 2.40E-05 | 3.17E-05 | 9.48E-06 | 7.83E-06 | 9.99E-06 | 7.74E-06 | 2.25E-06 | 2.78E-06 |
| MnO <sub>2</sub> , (MT)                       | 1.27E-03 | 1.27E-03 | 9.59E-04 | 1.27E-03 | 3.79E-04 | 3.13E-04 | 3.99E-04 | 3.10E-04 | 8.98E-05 | 1.11E-04 |
| Mo+6, (MT)                                    | 1.87E-04 | 1.87E-04 | 1.41E-04 | 1.86E-04 | 5.56E-05 | 4.59E-05 | 5.86E-05 | 4.54E-05 | 1.32E-05 | 1.63E-05 |
| Na+, (MT)                                     | 9.86E+04 | 5.04E+04 | 3.80E+04 | 8.46E+04 | 2.53E+04 | 1.24E+04 | 6.01E+04 | 4.66E+04 | 1.35E+04 | 6.16E+04 |
| Ni+3, (MT)                                    | 3.57E-05 | 3.57E-05 | 2.69E-05 | 3.56E-05 | 1.06E-05 | 8.79E-06 | 1.12E-05 | 8.69E-06 | 2.52E-06 | 3.12E-06 |
| NO, (MT)                                      | 2.03E-05 | 2.03E-05 | 1.53E-05 | 2.02E-05 | 6.04E-06 | 4.99E-06 | 6.36E-06 | 4.93E-06 | 1.43E-06 | 1.77E-06 |
| NO <sub>2</sub> -, (MT)                       | 3.55E+05 | 2.05E+05 | 1.55E+05 | 3.04E+05 | 9.07E+04 | 5.04E+04 | 1.93E+05 | 1.49E+05 | 4.33E+04 | 1.83E+05 |
| NO <sub>3</sub> -, (MT)                       | 2.78E-07 | 2.78E-07 | 2.10E-07 | 2.77E-07 | 8.28E-08 | 6.84E-08 | 8.73E-08 | 6.76E-08 | 1.96E-08 | 2.43E-08 |
| Np+4, (MT)                                    | 4.98E-04 | 4.98E-04 | 3.75E-04 | 4.96E-04 | 1.48E-04 | 1.23E-04 | 1.56E-04 | 1.21E-04 | 3.51E-05 | 4.35E-05 |
| OH-, (MT)                                     | 1.61E-04 | 1.61E-04 | 1.22E-04 | 1.61E-04 | 4.80E-05 | 3.97E-05 | 5.06E-05 | 3.92E-05 | 1.14E-05 | 1.41E-05 |
| Pb+4, (MT)                                    | 2.90E-01 | 2.90E-01 | 2.18E-01 | 2.89E-01 | 8.63E-02 | 7.13E-02 | 9.09E-02 | 7.05E-02 | 2.05E-02 | 2.53E-02 |
| Poly, (MT)                                    | 4.95E-04 | 4.95E-04 | 3.73E-04 | 4.93E-04 | 1.47E-04 | 1.22E-04 | 1.55E-04 | 1.20E-04 | 3.49E-05 | 4.31E-05 |
| Ru+4, (MT)                                    | 5.35E-07 | 5.35E-07 | 4.03E-07 | 5.34E-07 | 1.59E-07 | 1.32E-07 | 1.68E-07 | 1.30E-07 | 3.78E-08 | 4.68E-08 |
| Rb+, (MT)                                     | 3.52E-06 | 3.52E-06 | 2.66E-06 | 3.51E-06 | 1.05E-06 | 8.67E-07 | 1.11E-06 | 8.57E-07 | 2.49E-07 | 3.08E-07 |
| Re+7, (MT)                                    | 2.74E-07 | 2.73E-07 | 2.06E-07 | 2.73E-07 | 8.14E-08 | 6.73E-08 | 8.58E-08 | 6.65E-08 | 1.93E-08 | 2.39E-08 |
| Rh+3, (MT)                                    | 8.21E-07 | 8.21E-07 | 6.19E-07 | 8.18E-07 | 2.44E-07 | 2.02E-07 | 2.58E-07 | 2.00E-07 | 5.79E-08 | 7.17E-08 |
| Ru+3, (MT)                                    | 1.68E-06 | 1.68E-06 | 1.26E-06 | 1.67E-06 | 4.99E-07 | 4.12E-07 | 5.26E-07 | 4.08E-07 | 1.18E-07 | 1.47E-07 |
| Sb+5, (MT)                                    | 3.73E-06 | 3.73E-06 | 2.81E-06 | 3.72E-06 | 1.11E-06 | 9.17E-07 | 1.17E-06 | 9.06E-07 | 2.63E-07 | 3.26E-07 |
| Se+6, (MT)                                    | 3.17E-05 | 3.17E-05 | 2.39E-05 | 3.16E-05 | 9.44E-06 | 7.80E-06 | 9.95E-06 | 7.71E-06 | 2.24E-06 | 2.77E-06 |
| Si+4, (MT)                                    | 7.73E-04 | 7.73E-04 | 5.83E-04 | 7.70E-04 | 2.30E-04 | 1.90E-04 | 2.43E-04 | 1.88E-04 | 5.45E-05 | 6.75E-05 |
| Sm+3, (MT)                                    | 2.75E-08 | 2.74E-08 | 2.07E-08 | 2.74E-08 | 8.17E-09 | 6.75E-09 | 8.61E-09 | 6.67E-09 | 1.94E-09 | 2.40E-09 |
| Sn+4, (MT)                                    | 2.84E-07 | 2.84E-07 | 2.14E-07 | 2.84E-07 | 8.47E-08 | 7.00E-08 | 8.92E-08 | 6.92E-08 | 2.01E-08 | 2.49E-08 |
| SO <sub>4</sub> -2, (MT)                      | 1.13E-01 | 1.13E-01 | 8.52E-02 | 1.13E-01 | 3.36E-02 | 2.78E-02 | 3.55E-02 | 2.75E-02 | 7.97E-03 | 9.87E-03 |
| Sr+2, (MT)                                    | 3.26E-05 | 3.25E-05 | 2.45E-05 | 3.24E-05 | 9.69E-06 | 8.01E-06 | 1.02E-05 | 7.91E-06 | 2.30E-06 | 2.84E-06 |
| TcO <sub>4</sub> -, (MT)                      | 1.68E-04 | 1.68E-04 | 1.27E-04 | 1.67E-04 | 5.00E-05 | 4.13E-05 | 5.26E-05 | 4.08E-05 | 1.18E-05 | 1.47E-05 |
| Te+6, (MT)                                    | 3.67E-07 | 3.67E-07 | 2.76E-07 | 3.66E-07 | 1.09E-07 | 9.02E-08 | 1.15E-07 | 8.92E-08 | 2.59E-08 | 3.20E-08 |
| Th+4, (MT)                                    | 1.33E-05 | 1.33E-05 | 1.01E-05 | 1.33E-05 | 3.97E-06 | 3.28E-06 | 4.18E-06 | 3.24E-06 | 9.41E-07 | 1.17E-06 |
| Ti+4, (MT)                                    | 5.03E-07 | 5.03E-07 | 3.79E-07 | 5.01E-07 | 1.50E-07 | 1.24E-07 | 1.58E-07 | 1.22E-07 | 3.55E-08 | 4.39E-08 |
| Tl+3, (MT)                                    | 1.85E-05 | 1.85E-05 | 1.39E-05 | 1.84E-05 | 5.50E-06 | 4.55E-06 | 5.80E-06 | 4.50E-06 | 1.31E-06 | 1.62E-06 |
| UO <sub>2</sub> -, (MT)                       | 4.42E-02 | 4.41E-02 | 3.33E-02 | 4.40E-02 | 1.32E-02 | 1.09E-02 | 1.39E-02 | 1.07E-02 | 3.12E-03 | 3.86E-03 |
| UO <sub>2</sub> +2, (MT)                      | 5.58E-03 | 5.58E-03 | 4.21E-03 | 5.56E-03 | 1.66E-03 | 1.37E-03 | 1.75E-03 | 1.36E-03 | 3.94E-04 | 4.87E-04 |
| V+5, (MT)                                     | 5.53E-07 | 5.53E-07 | 4.17E-07 | 5.52E-07 | 1.65E-07 | 1.36E-07 | 1.74E-07 | 1.35E-07 | 3.90E-08 | 4.83E-08 |
| W+6, (MT)                                     | 1.85E-04 | 1.85E-04 | 1.40E-04 | 1.85E-04 | 5.51E-05 | 4.56E-05 | 5.81E-05 | 4.50E-05 | 1.31E-05 | 1.62E-05 |
| Zn+2, (MT)                                    | 5.04E-05 | 5.04E-05 | 3.80E-05 | 5.02E-05 | 1.50E-05 | 1.24E-05 | 1.58E-05 | 1.23E-05 | 3.56E-06 | 4.40E-06 |
| ZrO <sub>2</sub> .2H <sub>2</sub> O, (MT)     | 1.62E-03 | 1.62E-03 | 1.22E-03 | 1.62E-03 | 4.83E-04 | 3.99E-04 | 5.09E-04 | 3.94E-04 | 1.15E-04 | 1.42E-04 |

| STREAM NAME                                   | 46       | 47       | 48       | 49       | 50       | 51       | 52       | 53       | 54       | 55       |
|-----------------------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| SOLID COMPONENTS                              |          |          |          |          |          |          |          |          |          |          |
| Total Mass Flow, (MT)                         | 2.35E+05 | 4.52E+05 | 3.40E+02 | 7.23E+02 | 2.16E+02 | 4.52E+05 | 4.52E+05 | 3.83E+02 | 4.52E+05 | 4.52E+05 |
| Al, (MT)                                      | 4.03E+00 | 2.84E+03 | 2.13E+00 | 4.53E+00 | 1.35E+00 | 2.84E+03 | 2.84E+03 | 2.40E+00 | 2.84E+03 | 2.84E+03 |
| Fe, (MT)                                      | 5.58E-03 | 5.58E-03 | 4.20E-06 | 8.92E-06 | 2.66E-06 | 5.58E-03 | 5.58E-03 | 4.72E-06 | 5.58E-03 | 5.59E-03 |
| Cr, (MT)                                      | 1.55E-06 | 3.59E-06 | 2.70E-09 | 5.74E-09 | 1.71E-09 | 3.59E-06 | 3.59E-06 | 3.04E-09 | 3.59E-06 | 3.59E-06 |
| Na, (MT)                                      | 5.10E+04 | 9.92E+04 | 7.46E+01 | 1.58E+02 | 4.73E+01 | 9.91E+04 | 9.92E+04 | 8.38E+01 | 9.91E+04 | 9.92E+04 |
| Si, (MT)                                      | 2.95E-02 | 2.95E-02 | 2.22E-05 | 4.71E-05 | 1.41E-05 | 2.95E-02 | 2.95E-02 | 2.49E-05 | 2.95E-02 | 2.95E-02 |
| P, (MT)                                       | 3.30E-05 | 5.87E-05 | 4.41E-08 | 9.38E-08 | 2.80E-08 | 5.87E-05 | 5.87E-05 | 4.96E-08 | 5.87E-05 | 5.87E-05 |
| NO <sub>2</sub> - and NO <sub>3</sub> -, (MT) | 1.38E+05 | 2.87E+05 | 2.16E+02 | 4.59E+02 | 1.37E+02 | 2.87E+05 | 2.87E+05 | 2.43E+02 | 2.87E+05 | 2.87E+05 |
| Cs and Ba, (MCI)                              | 1.04E-06 | 2.41E-06 | 1.81E-09 | 3.85E-09 | 1.15E-09 | 2.41E-06 | 2.41E-06 | 2.04E-09 | 2.41E-06 | 2.41E-06 |
| Sr and Y, (MCI)                               | 2.53E-08 | 5.86E-08 | 4.40E-11 | 9.35E-11 | 2.79E-11 | 5.85E-08 | 5.86E-08 | 4.95E-11 | 5.85E-08 | 5.86E-08 |
| Tc, (MCI)                                     | 3.59E-10 | 8.32E-10 | 6.25E-13 | 1.33E-12 | 3.96E-13 | 8.31E-10 | 8.32E-10 | 7.03E-13 | 8.31E-10 | 8.32E-10 |
| TRU, (MCI)                                    | 1.13E-10 | 2.61E-10 | 1.96E-13 | 4.17E-13 | 1.24E-13 | 2.61E-10 | 2.61E-10 | 2.21E-13 | 2.61E-10 | 2.61E-10 |
| Total MCI                                     | 2.03E-06 | 4.70E-06 | 3.54E-09 | 7.51E-09 | 2.24E-09 | 4.70E-06 | 4.70E-06 | 3.98E-09 | 4.70E-06 | 4.70E-06 |
| Ag+, (MT)                                     | 4.05E-10 | 9.38E-10 | 7.05E-13 | 1.50E-12 | 4.46E-13 | 9.37E-10 | 9.38E-10 | 7.93E-13 | 9.37E-10 | 9.38E-10 |
| Al+3, (MT)                                    | 4.00E+00 | 2.84E+03 | 2.13E+00 | 4.53E+00 | 1.35E+00 | 2.84E+03 | 2.84E+03 | 2.40E+00 | 2.84E+03 | 2.84E+03 |
| Am+3, (MT)                                    | 2.56E-11 | 5.92E-11 | 4.45E-14 | 9.45E-14 | 2.82E-14 | 5.91E-11 | 5.92E-11 | 5.00E-14 | 5.91E-11 | 5.92E-11 |
| As+5, (MT)                                    | 2.25E-09 | 5.21E-09 | 3.92E-12 | 8.33E-12 | 2.48E-12 | 5.21E-09 | 5.21E-09 | 4.41E-12 | 5.21E-09 | 5.21E-09 |
| B+3, (MT)                                     | 1.32E-09 | 3.04E-09 | 2.29E-12 | 4.86E-12 | 1.45E-12 | 3.04E-09 | 3.04E-09 | 2.57E-12 | 3.04E-09 | 3.04E-09 |
| Ba+2, (MT)                                    | 3.74E-09 | 8.65E-09 | 6.51E-12 | 1.38E-11 | 4.12E-12 | 8.65E-09 | 8.65E-09 | 7.32E-12 | 8.65E-09 | 8.65E-09 |
| Be+2, (MT)                                    | 9.25E-12 | 2.14E-11 | 1.61E-14 | 3.42E-14 | 1.02E-14 | 2.14E-11 | 2.14E-11 | 1.81E-14 | 2.14E-11 | 2.14E-11 |
| Bi+3, (MT)                                    | 7.63E-07 | 1.77E-06 | 1.33E-09 | 2.82E-09 | 8.40E-10 | 1.76E-06 | 1.77E-06 | 1.49E-09 | 1.76E-06 | 1.77E-06 |
| Carbon-14, (MT)                               | 1.28E-11 | 2.97E-11 | 2.24E-14 | 4.75E-14 | 1.42E-14 | 2.97E-11 | 2.97E-11 | 2.52E-14 | 2.97E-11 | 2.97E-11 |
| Ce+2, (MT)                                    | 1.38E-07 | 3.20E-07 | 2.40E-10 | 5.11E-10 | 1.52E-10 | 3.19E-07 | 3.20E-07 | 2.70E-10 | 3.19E-07 | 3.20E-07 |
| Concrite, (MT)                                | 1.79E-01 | 1.79E-01 | 1.34E-04 | 2.85E-04 | 8.52E-05 | 1.79E-01 | 1.79E-01 | 1.51E-04 | 1.79E-01 | 1.79E-01 |
| Cd+2, (MT)                                    | 2.65E-08 | 6.13E-08 | 4.61E-11 | 9.79E-11 | 2.92E-11 | 6.13E-08 | 6.13E-08 | 5.19E-11 | 6.13E-08 | 6.13E-08 |
| Ce+3, (MT)                                    | 4.26E-08 | 9.87E-08 | 7.42E-11 | 1.58E-10 | 4.70E-11 | 9.86E-08 | 9.87E-08 | 8.34E-11 | 9.86E-08 | 9.87E-08 |
| Cl-, (MT)                                     | 5.67E-06 | 1.31E-05 | 9.86E-09 | 2.10E-08 | 6.26E-09 | 1.31E-05 | 1.31E-05 | 1.11E-08 | 1.31E-05 | 1.31E-05 |
| Cm+3, (MT)                                    |          |          |          | 4.31E-32 | 7.01E-30 | 4.59E-29 | 4.59E-29 | 3.88E-32 | 4.59E-29 | 1.57E-28 |
| CO+3, (MT)                                    | 6.51E-10 | 1.51E-09 | 1.13E-12 | 2.41E-12 | 7.18E-13 | 1.51E-09 | 1.51E-09 | 1.28E-12 | 1.51E-09 | 1.51E-09 |
| CO <sub>3</sub> -2, (MT)                      | 1.12E-08 | 2.60E-08 | 1.95E-11 | 4.15E-11 | 1.24E-11 | 2.60E-08 | 2.60E-08 | 2.20E-11 | 2.60E-08 | 2.60E-08 |
| Cr+3, (MT)                                    | 1.55E-06 | 3.59E-06 | 2.70E-09 | 5.74E-09 | 1.71E-09 | 3.59E-06 | 3.59E-06 | 3.04E-09 | 3.59E-06 | 3.59E-06 |
| Cs+, (MT)                                     | 1.27E-08 | 2.93E-08 | 2.21E-11 | 4.68E-11 | 1.40E-11 | 2.93E-08 | 2.93E-08 | 2.48E-11 | 2.93E-08 | 2.93E-08 |
| Cu+2, (MT)                                    | 2.62E-09 | 6.07E-09 | 4.56E-12 | 9.69E-12 | 2.89E-12 | 6.07E-09 | 6.07E-09 | 5.13E-12 | 6.07E-09 | 6.07E-09 |
| F-, (MT)                                      | 1.30E-05 | 3.00E-05 | 2.26E-08 | 4.80E-08 | 1.43E-08 | 3.00E-05 | 3.00E-05 | 2.54E-08 | 3.00E-05 | 3.00E-05 |
| Fe+3, (MT)                                    | 1.34E-07 | 3.10E-07 | 2.33E-10 | 4.95E-10 | 1.48E-10 | 3.10E-07 | 3.10E-07 | 2.62E-10 | 3.10E-07 | 3.10E-07 |
| H <sub>2</sub> O, (MT)                        | 4.62E+04 | 6.33E+04 | 4.76E+01 | 1.01E+02 | 3.02E+01 | 6.33E+04 | 6.33E+04 | 5.35E+01 | 6.33E+04 | 6.33E+04 |
| Hg+2, (MT)                                    | 1.36E-08 | 3.14E-08 | 2.36E-11 | 5.01E-11 | 1.49E-11 | 3.14E-08 | 3.14E-08 | 2.65E-11 | 3.14E-08 | 3.14E-08 |
| I-, (MT)                                      | 2.72E-09 | 6.30E-09 | 4.74E-12 | 1.01E-11 | 3.00E-12 | 6.30E-09 | 6.30E-09 | 5.33E-12 | 6.30E-09 | 6.30E-09 |
| K+, (MT)                                      | 1.66E-05 | 3.84E-05 | 2.89E-08 | 6.13E-08 | 1.83E-08 | 3.84E-05 | 3.84E-05 | 3.25E-08 | 3.84E-05 | 3.84E-05 |
| La+3, (MT)                                    | 6.27E-09 | 1.45E-08 | 1.09E-11 | 2.32E-11 | 6.92E-12 | 1.45E-08 | 1.45E-08 | 1.23E-11 | 1.45E-08 | 1.45E-08 |
| Li+, (MT)                                     | 3.63E-10 | 8.40E-10 | 6.31E-13 | 1.34E-12 | 4.00E-13 | 8.39E-10 | 8.40E-10 | 7.10E-13 | 8.39E-10 | 8.40E-10 |
| Mg+2, (MT)                                    | 6.58E-09 | 1.52E-08 | 1.15E-11 | 2.43E-11 | 7.25E-12 | 1.52E-08 | 1.52E-08 | 1.29E-11 | 1.52E-08 | 1.52E-08 |
| MnO <sub>2</sub> , (MT)                       | 2.63E-07 | 6.09E-07 | 4.58E-10 | 9.72E-10 | 2.90E-10 | 6.08E-07 | 6.09E-07 | 5.15E-10 | 6.08E-07 | 6.09E-07 |
| Mn+6, (MT)                                    | 3.86E-08 | 8.92E-08 | 6.71E-11 | 1.43E-10 | 4.25E-11 | 8.92E-08 | 8.92E-08 | 7.55E-11 | 8.92E-08 | 8.92E-08 |
| Nat, (MT)                                     | 5.10E+04 | 9.92E+04 | 7.46E+01 | 1.58E+02 | 4.73E+01 | 9.91E+04 | 9.92E+04 | 8.38E+01 | 9.91E+04 | 9.92E+04 |
| Ni+3, (MT)                                    | 7.38E-09 | 1.71E-08 | 1.28E-11 | 2.73E-11 | 8.13E-12 | 1.71E-08 | 1.71E-08 | 1.44E-11 | 1.71E-08 | 1.71E-08 |
| Ni <sub>2</sub> FeO <sub>6</sub> , (MT)       | 3.29E-02 | 3.29E-02 | 2.48E-05 | 5.26E-05 | 1.57E-05 | 3.29E-02 | 3.29E-02 | 2.78E-05 | 3.29E-02 | 3.29E-02 |
| NO <sub>2</sub> -, (MT)                       | 4.19E-09 | 9.69E-09 | 7.29E-12 | 1.55E-11 | 4.62E-12 | 9.69E-09 | 9.69E-09 | 8.20E-12 | 9.69E-09 | 9.69E-09 |
| NO <sub>3</sub> -, (MT)                       | 1.38E+05 | 2.87E+05 | 2.16E+02 | 4.59E+02 | 1.37E+02 | 2.87E+05 | 2.87E+05 | 2.43E+02 | 2.87E+05 | 2.87E+05 |
| Np+4, (MT)                                    | 5.74E-11 | 1.33E-10 | 1.00E-13 | 2.12E-13 | 6.33E-14 | 1.33E-10 | 1.33E-10 | 1.12E-13 | 1.33E-10 | 1.33E-10 |
| OH-, (MT)                                     | 1.03E-07 | 2.38E-07 | 1.79E-10 | 3.80E-10 | 1.14E-10 | 2.38E-07 | 2.38E-07 | 2.01E-10 | 2.38E-07 | 2.38E-07 |
| PZOS:24H <sub>2</sub> O, (MT)                 | 1.33E-03 | 1.33E-03 | 9.99E-07 | 2.12E-06 | 6.34E-07 | 1.33E-03 | 1.33E-03 | 1.12E-06 | 1.33E-03 | 1.33E-03 |
| Rb+4, (MT)                                    | 3.33E-08 | 7.71E-08 | 5.80E-11 | 1.23E-10 | 3.67E-11 | 7.70E-08 | 7.71E-08 | 6.52E-11 | 7.70E-08 | 7.71E-08 |
| FO <sub>4</sub> -3, (MT)                      | 5.99E-05 | 1.39E-04 | 1.04E-07 | 2.21E-07 | 6.61E-08 | 1.39E-04 | 1.39E-04 | 1.17E-07 | 1.39E-04 | 1.39E-04 |
| Poly, (MT)                                    | 4.08E-03 | 4.08E-03 | 3.07E-06 | 6.52E-06 | 1.95E-06 | 4.08E-03 | 4.08E-03 | 3.45E-06 | 4.08E-03 | 4.09E-03 |
| Ru+4, (MT)                                    | 1.10E-10 | 2.56E-10 | 1.92E-13 | 4.09E-13 | 1.22E-13 | 2.56E-10 | 2.56E-10 | 2.16E-13 | 2.56E-10 | 2.56E-10 |
| Rb+, (MT)                                     | 7.28E-10 | 1.68E-09 | 1.27E-12 | 2.69E-12 | 8.02E-13 | 1.68E-09 | 1.68E-09 | 1.42E-12 | 1.68E-09 | 1.68E-09 |
| Ra+7, (MT)                                    | 5.64E-11 | 1.31E-10 | 9.83E-14 | 2.09E-13 | 6.22E-14 | 1.31E-10 | 1.31E-10 | 1.11E-13 | 1.31E-10 | 1.31E-10 |
| Rh+3, (MT)                                    | 1.69E-10 | 3.92E-10 | 2.95E-13 | 6.27E-13 | 1.87E-13 | 3.92E-10 | 3.92E-10 | 3.32E-13 | 3.92E-10 | 3.92E-10 |
| Ru+3, (MT)                                    | 3.46E-10 | 8.02E-10 | 6.03E-13 | 1.28E-12 | 3.82E-13 | 8.01E-10 | 8.02E-10 | 6.78E-13 | 8.01E-10 | 8.02E-10 |
| Sb+5, (MT)                                    | 7.70E-10 | 1.78E-09 | 1.34E-12 | 2.85E-12 | 8.49E-13 | 1.78E-09 | 1.78E-09 | 1.51E-12 | 1.78E-09 | 1.78E-09 |
| Se+6, (MT)                                    | 6.55E-09 | 1.52E-08 | 1.14E-11 | 2.42E-11 | 7.21E-12 | 1.52E-08 | 1.52E-08 | 1.28E-11 | 1.52E-08 | 1.52E-08 |
| Si+4, (MT)                                    | 1.60E-07 | 3.70E-07 | 2.78E-10 | 5.90E-10 | 1.76E-10 | 3.69E-07 | 3.70E-07 | 3.13E-10 | 3.69E-07 | 3.70E-07 |
| Sm+3, (MT)                                    | 5.67E-12 | 1.31E-11 | 9.86E-15 | 2.10E-14 | 6.25E-15 | 1.31E-11 | 1.31E-11 | 1.11E-14 | 1.31E-11 | 1.31E-11 |
| Sn+4, (MT)                                    | 5.87E-11 | 1.36E-10 | 1.02E-13 | 2.17E-13 | 6.47E-14 | 1.36E-10 | 1.36E-10 | 1.15E-13 | 1.36E-10 | 1.36E-10 |
| SO <sub>4</sub> -2, (MT)                      | 2.33E-05 | 5.40E-05 | 4.06E-08 | 8.63E-08 | 2.58E-08 | 5.40E-05 | 5.40E-05 | 4.57E-08 | 5.40E-05 | 5.40E-05 |
| Str+2, (MT)                                   | 6.72E-09 | 1.56E-08 | 1.17E-11 | 2.49E-11 | 7.41E-12 | 1.56E-08 | 1.56E-08 | 1.32E-11 | 1.56E-08 | 1.56E-08 |
| ToO <sub>4</sub> -, (MT)                      | 3.47E-08 | 8.02E-08 | 6.03E-11 | 1.28E-10 | 3.82E-11 | 8.02E-08 | 8.02E-08 | 6.78E-11 | 8.02E-08 | 8.02E-08 |
| Tet+6, (MT)                                   | 7.57E-11 | 1.75E-10 | 1.32E-13 | 2.80E-13 | 8.34E-14 | 1.75E-10 | 1.75E-10 | 1.48E-13 | 1.75E-10 | 1.75E-10 |
| Th+4, (MT)                                    | 2.75E-09 | 6.37E-09 | 4.79E-12 | 1.02E-11 | 3.04E-12 | 6.37E-09 | 6.38E-09 | 5.39E-12 | 6.37E-09 | 6.37E-09 |
| Ti+4, (MT)                                    | 1.04E-10 | 2.41E-10 | 1.81E-13 | 3.84E-13 | 1.15E-13 | 2.40E-10 | 2.41E-10 | 2.03E-13 | 2.40E-10 | 2.41E-10 |
| Tl+3, (MT)                                    | 3.82E-09 | 8.84E-09 | 6.65E-12 | 1.41E-11 | 4.21E-12 | 8.83E-09 | 8.84E-09 | 7.48E-12 | 8.83E-09 | 8.84E-09 |
| UO <sub>2</sub> (MT)                          | 9.12E-06 | 2.11E-05 | 1.59E-08 | 3.37E-08 | 1.01E-08 | 2.11E-05 | 2.11E-05 | 1.79E-08 | 2.11E-05 | 2.11E-05 |
| UC <sub>2</sub> +2, (MT)                      | 1.15E-06 | 2.67E-06 | 2.01E-09 | 4.26E-09 | 1.27E-09 | 2.67E-06 | 2.67E-06 | 2.26E-09 | 2.67E-06 | 2.67E-06 |
| VH <sub>5</sub> , (MT)                        | 1.14E-10 | 2.65E-10 | 1.99E-13 | 4.23E-13 | 1.26E-13 | 2.64E-10 | 2.65E-10 | 2.24E-13 | 2.64E-10 | 2.65E-10 |
| W <sub>6</sub> , (MT)                         | 3.83E-08 | 8.85E-08 | 6.66E-11 | 1.41E-10 | 4.21E-11 | 8.85E-08 | 8.85E-08 | 7.49E-11 | 8.85E-08 | 8.85E-08 |
| Zn+2, (MT)                                    | 1.04E-08 | 2.41E-08 | 1.81E-11 | 3.85E-11 | 1.15E-11 | 2.41E-08 | 2.41E-08 | 2.04E-11 | 2.41E-08 | 2.41E-08 |
| ZrO <sub>2</sub> :2H <sub>2</sub> O, (MT)     | 3.35E-07 | 7.76E-07 | 5.83E-10 | 1.24E-09 | 3.69E-10 | 7.75E-07 | 7.76E-07 | 6.56E-10 | 7.75E-07 | 7.76E-07 |



| STREAM NAME                                   | 56       | 57       | 58       | 59       | 60       | 61       | 62       | 63       | 64       | 65       |
|-----------------------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| LIQUID COMPONENTS                             |          |          |          |          |          |          |          |          |          |          |
| Total Mass Flow, (MT)                         | 3.82E+05 | 1.11E+05 | 6.95E+04 | 5.32E+04 | 1.72E+05 | 3.94E+05 | 4.88E+03 | 9.96E+04 | 5.69E+05 | 1.40E+05 |
| Al, (MT)                                      | 1.94E+03 | 5.64E+02 | 2.76E+02 | 2.11E+02 |          | 2.23E+03 |          | 1.44E+03 | 1.14E+04 | 2.80E+03 |
| Fe, (MT)                                      | 4.57E-05 | 1.33E-05 | 2.06E-06 | 1.58E-06 |          | 1.71E-06 |          | 9.89E+00 | 3.74E+00 | 9.21E-01 |
| Cr, (MT)                                      | 5.09E-04 | 1.48E-04 | 2.30E-05 | 1.76E-05 |          | 1.91E-05 |          | 1.32E+02 | 4.95E+01 | 1.22E+01 |
| Na, (MT)                                      | 4.77E+04 | 1.38E+04 | 8.73E+03 | 6.68E+03 |          | 4.96E+04 | 1.40E+03 | 1.2E+04  | 6.68E+04 | 1.65E+04 |
| Si, (MT)                                      | 5.23E-05 | 1.52E-05 | 2.36E-06 | 1.81E-06 |          | 1.97E-06 |          | 1.34E+01 | 5.01E+00 | 1.23E+00 |
| P, (MT)                                       | 6.41E-03 | 1.86E-03 | 2.89E-04 | 2.21E-04 |          | 2.41E-04 |          | 1.67E+03 | 6.24E+02 | 1.54E+02 |
| NO <sub>2</sub> - and NO <sub>3</sub> -, (MT) | 1.42E+05 | 4.12E+04 | 2.55E+04 | 1.95E+04 |          | 1.44E+05 |          | 3.54E+04 | 2.55E+05 | 6.29E+04 |
| Cs and Ba, (MCI)                              | 3.41E-04 | 9.89E-05 | 1.54E-05 | 1.18E-05 |          | 1.28E-05 |          | 8.87E+01 | 3.32E+01 | 8.18E+00 |
| Sr and Y, (MCI)                               | 8.29E-06 | 2.41E-06 | 3.74E-07 | 2.86E-07 |          | 3.12E-07 |          | 1.41E+00 | 5.39E-01 | 1.33E-01 |
| Tc, (MCI)                                     | 1.18E-07 | 3.42E-08 | 5.32E-09 | 4.07E-09 |          | 4.43E-09 |          | 3.06E-02 | 1.15E-02 | 2.82E-03 |
| TRU, (MCI)                                    | 3.70E-08 | 1.07E-08 | 1.67E-09 | 1.28E-09 |          | 1.39E-09 |          | 8.57E-03 | 3.23E-03 | 7.94E-04 |
| Total MCI                                     | 6.66E-04 | 1.93E-04 | 3.01E-05 | 2.30E-05 |          | 2.50E-05 |          | 1.46E+02 | 5.49E+01 | 1.35E+01 |
| Ag+, (MT)                                     | 1.33E-07 | 3.86E-08 | 6.00E-09 | 4.59E-09 |          | 4.99E-09 |          | 3.24E-02 | 1.22E-02 | 2.99E-03 |
| Al <sup>3+</sup> , (MT)                       | 1.94E+03 | 5.64E+02 | 2.76E+02 | 2.11E+02 |          | 1.44E+03 |          | 2.23E+03 | 1.14E+04 | 2.80E+03 |
| Al(OH) <sub>4</sub> -, (MT)                   |          |          |          |          |          |          |          |          |          |          |
| Am <sup>3+</sup> , (MT)                       | 8.38E-09 | 2.43E-09 | 3.78E-10 | 2.89E-10 |          | 3.14E-10 |          | 1.96E-03 | 7.38E-04 | 1.82E-04 |
| As <sup>5+</sup> , (MT)                       | 7.38E-07 | 2.14E-07 | 3.33E-08 | 2.55E-08 |          | 2.78E-08 |          | 2.78E-08 | 7.07E-02 | 1.74E-02 |
| B <sup>3+</sup> , (MT)                        | 4.31E-07 | 1.25E-07 | 1.95E-08 | 1.49E-08 |          | 1.62E-08 |          | 9.88E-02 | 3.72E-02 | 9.16E-03 |
| Bat <sup>2</sup> , (MT)                       | 1.23E-06 | 3.56E-07 | 5.53E-08 | 4.23E-08 |          | 4.61E-08 |          | 3.08E-01 | 1.15E-01 | 2.84E-02 |
| Be <sup>2+</sup> , (MT)                       | 3.03E-09 | 8.81E-10 | 1.37E-10 | 1.05E-10 |          | 1.14E-10 |          | 7.40E-04 | 2.78E-04 | 6.84E-05 |
| Bi <sup>3+</sup> , (MT)                       | 2.50E-04 | 7.26E-05 | 1.13E-05 | 8.63E-06 |          | 9.40E-06 |          | 6.40E+01 | 2.40E+01 | 5.91E+00 |
| Carbon-14, (MT)                               | 4.21E-09 | 1.22E-09 | 1.90E-10 | 1.46E-10 |          | 1.58E-10 |          | 1.10E-03 | 4.11E-04 | 1.01E-04 |
| Cat <sup>2</sup> , (MT)                       | 4.53E-05 | 1.31E-05 | 2.04E-06 | 1.56E-06 |          | 1.70E-06 |          | 1.10E+01 | 4.11E+00 | 1.01E+00 |
| Cd <sup>2+</sup> , (MT)                       | 8.68E-06 | 2.52E-06 | 3.92E-07 | 3.00E-07 |          | 3.26E-07 |          | 2.22E+00 | 8.30E-01 | 2.04E-01 |
| Cet <sup>3+</sup> , (MT)                      | 1.40E-05 | 4.06E-06 | 6.31E-07 | 4.83E-07 |          | 5.25E-07 |          | 2.37E+00 | 9.06E-01 | 2.23E-01 |
| Cl-, (MT)                                     | 1.86E-03 | 5.39E-04 | 8.38E-05 | 6.42E-05 |          | 6.98E-05 |          | 4.84E+02 | 1.81E+02 | 4.46E+01 |
| Cm <sup>3+</sup> , (MT)                       | 2.00E-12 | 5.82E-13 | 8.01E-14 | 6.13E-14 |          | 1.31E-15 |          | 4.17E-07 | 1.58E-07 | 3.89E-08 |
| Co <sup>3+</sup> , (MT)                       | 2.14E-07 | 6.20E-08 | 9.64E-09 | 7.37E-09 |          | 8.02E-09 |          | 5.14E-02 | 1.93E-02 | 4.76E-03 |
| CO <sub>2</sub> , (MT)                        |          |          |          |          |          |          |          |          |          |          |
| CO <sub>3</sub> -2, (MT)                      | 3.68E-06 | 1.07E-06 | 1.66E-07 | 1.27E-07 |          | 1.38E-07 |          | 1.15E-02 | 1.87E-02 | 4.60E-03 |
| Cu <sup>3+</sup> , (MT)                       | 5.09E-04 | 1.48E-04 | 2.30E-05 | 1.76E-05 |          | 1.91E-05 |          | 1.32E+02 | 4.95E+01 | 1.22E+01 |
| Cr(OH) <sub>4</sub> -, (MT)                   |          |          |          |          |          |          |          |          |          |          |
| Cs+, (MT)                                     | 4.15E-06 | 1.21E-06 | 1.87E-07 | 1.43E-07 |          | 1.56E-07 |          | 1.08E+00 | 4.05E-01 | 9.96E-02 |
| Cu <sup>2+</sup> , (MT)                       | 8.60E-07 | 2.50E-07 | 3.88E-08 | 2.97E-08 |          | 3.23E-08 |          | 2.20E-01 | 8.23E-02 | 2.03E-02 |
| F-, (MT)                                      | 4.25E-03 | 1.23E-03 | 1.92E-04 | 1.47E-04 |          | 1.60E-04 |          | 1.11E+02 | 4.14E+02 | 1.02E+02 |
| Fe <sup>3+</sup> , (MT)                       | 4.39E-05 | 1.27E-05 | 1.98E-06 | 1.52E-06 |          | 1.65E-06 |          | 7.50E+00 | 2.87E+00 | 7.06E-01 |
| FeO <sub>16</sub> -3, (MT)                    | 2.68E-06 | 7.77E-07 | 1.20E-07 | 9.15E-08 |          | 9.15E-08 |          | 3.51E+00 | 1.28E+00 | 3.15E-01 |
| H+, (MT)                                      | 4.63E-05 | 1.34E-05 | 2.07E-06 | 1.58E-06 |          | 1.58E-06 |          | 2.21E+01 | 5.45E+00 | 5.45E+00 |
| H <sub>2</sub> O, (MT)                        | 1.90E+05 | 5.52E+04 | 3.50E+04 | 2.68E+04 | 1.72E+05 | 1.99E+05 | 2.44E+03 | 3.80E+04 | 2.31E+05 | 5.69E+04 |
| Hg <sup>2+</sup> , (MT)                       | 4.44E-06 | 1.29E-06 | 2.01E-07 | 1.54E-07 |          | 1.67E-07 |          | 1.16E+00 | 4.33E-01 | 1.07E-01 |
| I-, (MT)                                      | 8.93E-07 | 2.59E-07 | 4.03E-08 | 3.08E-08 |          | 3.36E-08 |          | 2.32E-01 | 8.70E-02 | 2.14E-02 |
| K+, (MT)                                      | 5.44E-03 | 1.58E-03 | 2.45E-04 | 1.88E-04 |          | 2.04E-04 |          | 1.42E+03 | 5.30E+02 | 1.30E+02 |
| La <sup>3+</sup> , (MT)                       | 2.06E-06 | 5.97E-07 | 9.28E-08 | 7.10E-08 |          | 7.73E-08 |          | 3.27E-01 | 1.26E-01 | 3.09E-02 |
| Li+, (MT)                                     | 1.19E-07 | 3.45E-08 | 5.37E-09 | 4.11E-09 |          | 4.47E-09 |          | 3.08E-02 | 1.15E-02 | 2.84E-03 |
| Mg <sup>2+</sup> , (MT)                       | 2.16E-06 | 6.26E-07 | 9.73E-08 | 7.45E-08 |          | 8.11E-08 |          | 5.35E-01 | 2.01E-01 | 4.94E-02 |
| MnO <sub>2</sub> , (MT)                       | 8.62E-05 | 2.50E-05 | 3.89E-06 | 2.98E-06 |          | 3.24E-06 |          | 2.14E+01 | 8.03E+00 | 1.98E+00 |
| Mb <sup>6+</sup> , (MT)                       | 1.26E-05 | 3.67E-06 | 5.70E-07 | 4.36E-07 |          | 4.75E-07 |          | 3.26E+00 | 1.22E+00 | 3.01E-01 |
| Nat, (MT)                                     | 4.77E+04 | 1.38E+04 | 8.73E+03 | 6.68E+03 |          | 4.96E+04 | 1.40E+03 | 1.2E+04  | 6.68E+04 | 1.65E+04 |
| Ni <sup>3+</sup> , (MT)                       | 2.42E-06 | 7.02E-07 | 1.09E-07 | 8.35E-08 |          | 9.09E-08 |          | 5.76E-01 | 2.16E-01 | 5.33E-02 |
| NO, (MT)                                      |          |          |          |          |          |          |          |          |          |          |
| NO <sub>2</sub> -, (MT)                       | 1.37E-06 | 3.98E-07 | 6.20E-08 | 4.74E-08 |          | 5.16E-08 |          | 4.30E-03 | 6.97E-03 | 1.72E-03 |
| NO <sub>3</sub> -, (MT)                       | 1.42E+05 | 4.12E+04 | 2.55E+04 | 1.95E+04 |          | 1.44E+05 |          | 3.54E+04 | 2.55E+05 | 6.29E+04 |
| Np <sup>4+</sup> , (MT)                       | 1.88E-08 | 5.47E-09 | 8.50E-10 | 6.50E-10 |          | 7.05E-10 |          | 4.67E-03 | 1.75E-03 | 4.31E-04 |
| OH-, (MT)                                     | 3.37E-05 | 9.79E-06 | 1.52E-06 | 1.16E-06 |          | 1.27E-06 | 1.04E+03 | 1.20E+01 | 1.71E-01 | 4.22E-02 |
| Pb <sup>4+</sup> , (MT)                       | 1.09E-05 | 3.17E-06 | 4.93E-07 | 3.77E-07 |          | 4.10E-07 |          | 2.68E+00 | 1.01E+00 | 2.48E-01 |
| PO <sub>4</sub> -3, (MT)                      | 1.96E-02 | 5.70E-03 | 8.86E-04 | 6.78E-04 |          | 7.38E-04 |          | 5.11E+03 | 1.91E+03 | 4.71E+02 |
| Poly, (MT)                                    | 3.34E-05 | 9.70E-06 | 1.49E-06 | 1.14E-06 |          | 1.14E-06 |          | 4.38E+01 | 1.60E+01 | 3.93E+00 |
| Put <sup>4</sup> , (MT)                       | 3.62E-08 | 1.05E-08 | 1.64E-09 | 1.25E-09 |          | 1.36E-09 |          | 8.09E-03 | 3.05E-03 | 7.51E-04 |
| Rb+, (MT)                                     | 2.39E-07 | 6.92E-08 | 1.08E-08 | 8.24E-09 |          | 8.96E-09 |          | 6.21E-02 | 2.32E-02 | 5.72E-03 |
| Rer <sup>7</sup> , (MT)                       | 1.85E-08 | 5.38E-09 | 8.36E-10 | 6.40E-10 |          | 6.95E-10 |          | 4.61E-03 | 1.73E-03 | 4.26E-04 |
| Rh <sup>3+</sup> , (MT)                       | 5.56E-08 | 1.61E-08 | 2.51E-09 | 1.92E-09 |          | 2.09E-09 |          | 1.22E-02 | 4.58E-03 | 1.13E-03 |
| Ru <sup>3+</sup> , (MT)                       | 1.14E-07 | 3.30E-08 | 5.12E-09 | 3.92E-09 |          | 4.27E-09 |          | 2.67E-02 | 1.00E-02 | 2.47E-03 |
| Sb <sup>5+</sup> , (MT)                       | 2.52E-07 | 7.33E-08 | 1.14E-08 | 8.72E-09 |          | 9.49E-09 |          | 5.59E-02 | 2.11E-02 | 5.19E-03 |
| Set <sup>6</sup> , (MT)                       | 2.15E-06 | 6.23E-07 | 9.69E-08 | 7.41E-08 |          | 8.07E-08 |          | 5.49E-01 | 2.06E-01 | 5.06E-02 |
| Si <sup>4+</sup> , (MT)                       | 5.23E-05 | 1.52E-05 | 2.36E-06 | 1.81E-06 |          | 1.97E-06 |          | 1.34E+01 | 5.01E+00 | 1.23E+00 |
| Sm <sup>3+</sup> , (MT)                       | 1.86E-09 | 5.39E-10 | 8.38E-11 | 6.41E-11 |          | 6.96E-11 |          | 3.11E-04 | 1.19E-04 | 2.93E-05 |
| Sr <sup>4+</sup> , (MT)                       | 1.93E-08 | 5.59E-09 | 8.69E-10 | 6.65E-10 |          | 7.23E-10 |          | 4.93E-03 | 1.85E-03 | 4.55E-04 |
| SO <sub>4</sub> -2, (MT)                      | 7.65E-03 | 2.22E-03 | 3.45E-04 | 2.64E-04 |          | 2.88E-04 |          | 1.99E+03 | 7.46E+02 | 1.84E+02 |
| Sr <sup>2+</sup> , (MT)                       | 2.20E-06 | 6.40E-07 | 9.95E-08 | 7.61E-08 |          | 8.28E-08 |          | 3.74E-01 | 1.43E-01 | 3.53E-02 |
| TcO <sub>4</sub> -, (MT)                      | 1.14E-05 | 3.30E-06 | 5.13E-07 | 3.92E-07 |          | 4.27E-07 |          | 2.95E+00 | 1.11E+00 | 2.72E-01 |
| Tet <sup>6</sup> , (MT)                       | 2.48E-08 | 7.21E-09 | 1.12E-09 | 8.57E-10 |          | 9.32E-10 |          | 5.13E-03 | 1.94E-03 | 4.78E-04 |
| Tht <sup>4</sup> , (MT)                       | 9.03E-07 | 2.62E-07 | 4.07E-08 | 3.12E-08 |          | 3.39E-08 |          | 1.62E-01 | 6.17E-02 | 1.52E-02 |
| Ti <sup>4+</sup> , (MT)                       | 3.41E-08 | 9.89E-09 | 1.54E-09 | 1.18E-09 |          | 1.28E-09 |          | 6.49E-03 | 2.47E-03 | 6.07E-04 |
| Tl <sup>3+</sup> , (MT)                       | 1.25E-06 | 3.63E-07 | 5.65E-08 | 4.32E-08 |          | 4.71E-08 |          | 2.98E-01 | 1.12E-01 | 2.76E-02 |
| TCC, (MT)                                     | 2.99E-03 | 8.68E-04 | 1.35E-04 | 1.03E-04 |          | 1.12E-04 |          | 7.78E+02 | 2.91E+02 | 7.18E+01 |
| UC <sub>2</sub> +2, (MT)                      | 3.78E-04 | 1.10E-04 | 1.71E-05 | 1.31E-05 |          | 1.42E-05 |          | 9.05E+01 | 3.40E+01 | 8.37E+00 |
| V <sup>4+</sup> , (MT)                        | 3.75E-08 | 1.09E-08 | 1.69E-09 | 1.29E-09 |          | 1.41E-09 |          | 9.54E-03 | 3.58E-03 | 8.80E-04 |
| W <sup>6+</sup> , (MT)                        | 1.25E-05 | 3.64E-06 | 5.66E-07 | 4.33E-07 |          | 4.71E-07 |          | 3.26E+00 | 1.22E+00 | 3.01E-01 |
| Zn <sup>2+</sup> , (MT)                       | 3.41E-06 | 9.90E-07 | 1.54E-07 | 1.18E-07 |          | 1.28E-07 |          | 8.80E-01 | 3.30E-01 | 8.12E-02 |
| ZrO <sub>2</sub> .2H <sub>2</sub> O, (MT)     | 1.10E-04 | 3.19E-05 | 4.96E-06 | 3.79E-06 |          | 4.13E-06 |          | 2.34E+01 | 8.83E+00 | 2.17E+00 |

| STREAM NAME                                            | 56       | 57       | 58       | 59       | 60 | 61       | 62 | 63       | 64       | 65       |
|--------------------------------------------------------|----------|----------|----------|----------|----|----------|----|----------|----------|----------|
| SOLID COMPONENTS                                       |          |          |          |          |    |          |    |          |          |          |
| Total Mass Flow, (MT)                                  | 3.83E+02 | 4.52E+05 | 2.83E+05 | 2.17E+05 |    | 4.83E+04 |    | 9.48E+01 | 5.70E+02 | 5.71E+05 |
| Al, (MT)                                               | 2.40E+00 | 2.84E+03 | 1.61E+03 | 1.23E+03 |    | 2.16E+02 |    | 1.72E+00 | 1.04E+01 | 1.04E+04 |
| Fe, (MT)                                               | 4.72E-06 | 5.58E-03 | 5.57E-03 | 4.27E-03 |    | 4.27E-03 |    | 1.89E-05 | 1.14E-04 | 1.14E-01 |
| Cr, (MT)                                               | 3.04E-09 | 3.59E-06 | 2.03E-06 | 1.56E-06 |    |          |    | 1.78E-04 | 1.07E-03 | 1.07E+00 |
| Na, (MT)                                               | 8.38E+01 | 9.91E+04 | 5.61E+04 | 4.29E+04 |    | 2.32E-02 |    | 1.91E+01 | 1.15E+02 | 1.15E+05 |
| Si, (MT)                                               | 2.49E-05 | 2.95E-02 | 2.94E-02 | 2.25E-02 |    | 2.25E-02 |    | 2.34E-05 | 1.40E-04 | 1.41E-01 |
| P, (MT)                                                | 4.96E-08 | 5.87E-05 | 3.90E-05 | 2.99E-05 |    | 1.03E-05 |    | 2.24E-03 | 1.35E-02 | 1.35E+01 |
| NO <sub>2</sub> - and NO <sub>3</sub> -, (MT)          | 2.43E+02 | 2.87E+05 | 1.62E+05 | 1.24E+05 |    |          |    | 6.35E+01 | 3.82E+02 | 3.83E+05 |
| Cs and Ba, (MCi)                                       | 2.03E-09 | 2.41E-06 | 1.36E-06 | 1.04E-06 |    |          |    | 1.19E-04 | 7.17E-04 | 7.19E-01 |
| Sr and Y, (MCi)                                        | 4.94E-11 | 5.85E-08 | 3.31E-08 | 2.53E-08 |    |          |    | 3.41E-06 | 2.05E-05 | 2.06E-02 |
| Tc, (MCi)                                              | 7.01E-13 | 8.31E-10 | 4.70E-10 | 3.60E-10 |    |          |    | 4.12E-08 | 2.48E-07 | 2.48E-04 |
| TRU, (MCi)                                             | 2.20E-13 | 2.61E-10 | 1.48E-10 | 1.13E-10 |    |          |    | 1.37E-08 | 8.21E-08 | 8.23E-05 |
| Total MCi                                              | 3.97E-09 | 4.70E-06 | 2.66E-06 | 2.04E-06 |    |          |    | 2.52E-04 | 1.51E-03 | 1.52E+00 |
| Ag+, (MT)                                              | 7.91E-13 | 9.37E-10 | 5.31E-10 | 4.06E-10 |    |          |    | 4.80E-08 | 2.88E-07 | 2.89E-04 |
| Al+3, (MT)                                             | 2.40E+00 | 2.84E+03 | 1.61E+03 | 1.23E+03 |    |          |    | 1.72E+00 | 1.04E+01 | 1.04E+04 |
| Am+3, (MT)                                             | 4.99E-14 | 5.91E-11 | 3.35E-11 | 2.56E-11 |    |          |    | 3.08E-09 | 1.85E-08 | 1.86E-05 |
| As+5, (MT)                                             | 4.40E-12 | 5.21E-09 | 2.95E-09 | 2.26E-09 |    |          |    | 2.61E-07 | 1.57E-06 | 1.57E-03 |
| B+3, (MT)                                              | 2.57E-12 | 3.04E-09 | 1.72E-09 | 1.32E-09 |    |          |    | 1.60E-07 | 9.60E-07 | 9.63E-04 |
| Ba+2, (MT)                                             | 7.30E-12 | 8.65E-09 | 4.89E-09 | 3.74E-09 |    |          |    | 4.36E-07 | 2.62E-06 | 2.63E-03 |
| Be+2, (MT)                                             | 1.81E-14 | 2.14E-11 | 1.21E-11 | 9.27E-12 |    |          |    | 1.10E-09 | 6.58E-09 | 6.60E-06 |
| Bi+3, (MT)                                             | 1.49E-09 | 1.76E-06 | 9.99E-07 | 7.64E-07 |    |          |    | 8.82E-05 | 5.30E-04 | 5.31E-01 |
| Carbon-14, (MT)                                        | 2.51E-14 | 2.97E-11 | 1.68E-11 | 1.29E-11 |    |          |    | 1.47E-09 | 8.86E-09 | 8.88E-06 |
| Ca+2, (MT)                                             | 2.70E-10 | 3.19E-07 | 1.81E-07 | 1.38E-07 |    |          |    | 1.64E-05 | 9.85E-05 | 9.88E-02 |
| Concrite, (MT)                                         | 1.51E-04 | 1.79E-01 | 1.78E-01 | 1.37E-01 |    | 1.37E-01 |    | 2.96E-05 | 1.78E-04 | 1.79E-01 |
| Cd+2, (MT)                                             | 5.17E-11 | 6.13E-08 | 3.47E-08 | 2.65E-08 |    |          |    | 3.07E-06 | 1.84E-05 | 1.85E-02 |
| Ce+3, (MT)                                             | 8.33E-11 | 9.86E-08 | 5.58E-08 | 4.27E-08 |    |          |    | 5.75E-06 | 3.46E-05 | 3.47E-02 |
| Cl-, (MT)                                              | 1.11E-08 | 1.31E-05 | 7.42E-06 | 5.68E-06 |    |          |    | 6.50E-04 | 3.90E-03 | 3.91E+00 |
| Cm+3, (MT)                                             | 4.59E-29 | 1.57E-28 | 8.89E-29 | 6.80E-29 |    |          |    | 8.16E-13 | 4.90E-12 | 4.92E-09 |
| CO+3, (MT)                                             | 1.27E-12 | 1.51E-09 | 8.53E-10 | 6.53E-10 |    |          |    | 7.75E-08 | 4.66E-07 | 4.67E-04 |
| CO <sub>3</sub> -2, (MT)                               | 2.20E-11 | 2.60E-08 | 1.47E-08 | 1.13E-08 |    |          |    | 1.93E-06 | 1.16E-05 | 1.16E-02 |
| Cr+3, (MT)                                             | 3.04E-09 | 3.59E-06 | 2.03E-06 | 1.56E-06 |    |          |    | 1.78E-04 | 1.07E-03 | 1.07E+00 |
| Cs+, (MT)                                              | 2.47E-11 | 2.93E-08 | 1.66E-08 | 1.27E-08 |    |          |    | 1.45E-06 | 8.73E-06 | 8.76E-03 |
| Cu+2, (MT)                                             | 5.12E-12 | 6.06E-09 | 3.43E-09 | 2.63E-09 |    |          |    | 3.03E-07 | 1.82E-06 | 1.83E-03 |
| F-, (MT)                                               | 2.54E-08 | 3.00E-05 | 1.70E-05 | 1.30E-05 |    |          |    | 1.49E-03 | 8.94E-03 | 8.96E+00 |
| Fe+3, (MT)                                             | 2.62E-10 | 3.10E-07 | 1.75E-07 | 1.34E-07 |    |          |    | 1.80E-05 | 1.08E-04 | 1.09E-01 |
| H <sub>2</sub> O, (MT)                                 | 5.35E+01 | 6.32E+04 | 6.32E+04 | 4.83E+04 |    | 4.83E+04 |    | 1.04E+01 | 6.24E+01 | 6.26E+04 |
| Hg+2, (MT)                                             | 2.65E-11 | 3.14E-08 | 1.78E-08 | 1.36E-08 |    |          |    | 1.55E-06 | 9.34E-06 | 9.37E-03 |
| I-, (MT)                                               | 5.32E-12 | 6.30E-09 | 3.57E-09 | 2.73E-09 |    |          |    | 3.12E-07 | 1.88E-06 | 1.88E-03 |
| K+, (MT)                                               | 3.24E-08 | 3.84E-05 | 2.17E-05 | 1.66E-05 |    |          |    | 1.90E-03 | 1.14E-02 | 1.15E+01 |
| La+3, (MT)                                             | 1.23E-11 | 1.45E-08 | 8.21E-09 | 6.29E-09 |    |          |    | 8.61E-07 | 5.17E-06 | 5.19E-03 |
| Li+, (MT)                                              | 7.08E-13 | 8.39E-10 | 4.75E-10 | 3.64E-10 |    |          |    | 4.17E-08 | 2.51E-07 | 2.51E-04 |
| Mg+2, (MT)                                             | 1.28E-11 | 1.52E-08 | 8.61E-09 | 6.59E-09 |    |          |    | 7.72E-07 | 4.64E-06 | 4.65E-03 |
| MnO <sub>2</sub> , (MT)                                | 5.14E-10 | 6.08E-07 | 3.44E-07 | 2.63E-07 |    |          |    | 3.09E-05 | 1.85E-04 | 1.86E-01 |
| Mn+6, (MT)                                             | 7.53E-11 | 8.92E-08 | 5.05E-08 | 3.86E-08 |    |          |    | 4.44E-06 | 2.67E-05 | 2.67E-02 |
| Nat, (MT)                                              | 8.38E+01 | 9.91E+04 | 5.61E+04 | 4.29E+04 |    |          |    | 1.91E+01 | 1.15E+02 | 1.15E+05 |
| Ni+3, (MT)                                             | 1.44E-11 | 1.71E-08 | 9.66E-09 | 7.39E-09 |    | 2.52E-02 |    | 8.83E-07 | 5.30E-06 | 5.32E-03 |
| Ni <sub>2</sub> FeCN <sub>6</sub> , (MT)               | 2.79E-05 | 3.29E-02 | 3.29E-02 | 2.52E-02 |    |          |    | 5.46E-06 | 3.28E-05 | 3.29E-02 |
| NO <sub>2</sub> -, (MT)                                | 8.19E-12 | 9.69E-09 | 5.48E-09 | 4.20E-09 |    |          |    | 7.21E-07 | 4.33E-06 | 4.34E-03 |
| NO <sub>3</sub> -, (MT)                                | 2.43E+02 | 2.87E+05 | 1.62E+05 | 1.24E+05 |    |          |    | 6.35E+01 | 3.82E+02 | 3.83E+05 |
| Np+4, (MT)                                             | 1.12E-13 | 1.33E-10 | 7.52E-11 | 5.75E-11 |    |          |    | 6.75E-09 | 4.05E-08 | 4.06E-05 |
| OH-, (MT)                                              | 2.01E-10 | 2.38E-07 | 1.35E-07 | 1.03E-07 |    |          |    | 1.77E-05 | 1.06E-04 | 1.07E-01 |
| P <sub>2</sub> O <sub>5</sub> ·2H <sub>2</sub> O, (MT) | 1.12E-06 | 1.33E-03 | 1.33E-03 | 1.02E-03 |    | 1.02E-03 |    | 2.21E-07 | 1.33E-06 | 1.33E-03 |
| Pb+4, (MT)                                             | 6.50E-11 | 7.70E-08 | 4.36E-08 | 3.34E-08 |    |          |    | 3.93E-06 | 2.36E-05 | 2.37E-02 |
| PO <sub>4</sub> -3, (MT)                               | 1.17E-07 | 1.39E-04 | 7.84E-05 | 6.00E-05 |    |          |    | 6.87E-03 | 4.13E-02 | 4.14E+01 |
| Poly, (MT)                                             | 3.45E-06 | 4.08E-03 | 4.08E-03 | 3.12E-03 |    | 3.12E-03 |    | 6.77E-07 | 4.07E-06 | 4.08E-03 |
| Ru+4, (MT)                                             | 2.16E-13 | 2.56E-10 | 1.45E-10 | 1.11E-10 |    |          |    | 1.36E-08 | 8.17E-08 | 8.19E-05 |
| Rb+, (MT)                                              | 1.42E-12 | 1.68E-09 | 9.53E-10 | 7.29E-10 |    |          |    | 8.34E-08 | 5.01E-07 | 5.03E-04 |
| Re+7, (MT)                                             | 1.10E-13 | 1.31E-10 | 7.39E-11 | 5.66E-11 |    |          |    | 6.62E-09 | 3.98E-08 | 3.99E-05 |
| Rh+3, (MT)                                             | 3.31E-13 | 3.92E-10 | 2.22E-10 | 1.70E-10 |    |          |    | 2.10E-08 | 1.26E-07 | 1.27E-04 |
| Ru+3, (MT)                                             | 6.76E-13 | 8.01E-10 | 4.53E-10 | 3.47E-10 |    |          |    | 4.17E-08 | 2.50E-07 | 2.51E-04 |
| Sb+5, (MT)                                             | 1.50E-12 | 1.78E-09 | 1.01E-09 | 7.71E-10 |    |          |    | 9.50E-08 | 5.71E-07 | 5.72E-04 |
| Se+6, (MT)                                             | 1.28E-11 | 1.52E-08 | 8.57E-09 | 6.56E-09 |    |          |    | 7.58E-07 | 4.55E-06 | 4.56E-03 |
| Si+4, (MT)                                             | 3.12E-10 | 3.69E-07 | 2.09E-07 | 1.60E-07 |    |          |    | 1.85E-05 | 1.11E-04 | 1.11E-01 |
| Sn+3, (MT)                                             | 1.11E-14 | 1.31E-11 | 7.42E-12 | 5.68E-12 |    |          |    | 7.68E-10 | 4.61E-09 | 4.63E-06 |
| Sn+4, (MT)                                             | 1.15E-13 | 1.36E-10 | 7.69E-11 | 5.88E-11 |    |          |    | 6.79E-09 | 4.08E-08 | 4.09E-05 |
| SO <sub>4</sub> -2, (MT)                               | 4.57E-08 | 5.40E-05 | 3.06E-05 | 2.34E-05 |    |          |    | 2.68E-03 | 1.61E-02 | 1.61E+01 |
| Sr+2, (MT)                                             | 1.31E-11 | 1.56E-08 | 8.80E-09 | 6.74E-09 |    |          |    | 9.07E-07 | 5.45E-06 | 5.46E-03 |
| TcO <sub>4</sub> -, (MT)                               | 6.77E-11 | 8.02E-08 | 4.54E-08 | 3.47E-08 |    |          |    | 3.98E-06 | 2.39E-05 | 2.40E-02 |
| Te+6, (MT)                                             | 1.48E-13 | 1.75E-10 | 9.91E-11 | 7.58E-11 |    |          |    | 9.59E-09 | 5.76E-08 | 5.78E-05 |
| Th+4, (MT)                                             | 5.38E-12 | 6.37E-09 | 3.61E-09 | 2.76E-09 |    |          |    | 3.66E-07 | 2.20E-06 | 2.20E-03 |
| Ti+4, (MT)                                             | 2.03E-13 | 2.40E-10 | 1.36E-10 | 1.04E-10 |    |          |    | 1.35E-08 | 8.13E-08 | 8.15E-05 |
| Tl+3, (MT)                                             | 7.46E-12 | 8.83E-09 | 5.00E-09 | 3.83E-09 |    |          |    | 4.57E-07 | 2.75E-06 | 2.75E-03 |
| TCC, (MT)                                              | 1.79E-08 | 2.11E-05 | 1.19E-05 | 9.14E-06 |    |          |    | 1.05E-03 | 6.29E-03 | 6.30E+00 |
| UO <sub>2</sub> +2, (MT)                               | 2.25E-09 | 2.67E-06 | 1.51E-06 | 1.16E-06 |    |          |    | 1.38E-04 | 8.26E-04 | 8.28E-01 |
| V+5, (MT)                                              | 2.23E-13 | 2.64E-10 | 1.50E-10 | 1.15E-10 |    |          |    | 1.32E-08 | 7.96E-08 | 7.98E-05 |
| W+6, (MT)                                              | 7.47E-11 | 8.85E-08 | 5.01E-08 | 3.83E-08 |    |          |    | 4.39E-06 | 2.63E-05 | 2.64E-02 |
| Yb+2, (MT)                                             | 2.03E-11 | 2.41E-08 | 1.36E-08 | 1.04E-08 |    |          |    | 1.20E-06 | 7.20E-06 | 7.22E-03 |
| ZnO <sub>2</sub> ·2H <sub>2</sub> O, (MT)              | 6.55E-10 | 7.75E-07 | 4.39E-07 | 3.36E-07 |    |          |    | 4.20E-05 | 2.52E-04 | 2.53E-01 |

| STREAM NAME<br>LIQUID COMPONENTS              | 66       | 67       | 68       | 69       | 70       | 71       | 72       | 73       | 74       | 75       |
|-----------------------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Total Mass Flow, (MT)                         | 7.09E+05 | 5.69E+05 | 1.40E+05 | 7.09E+05 | 6.32E+05 | 5.06E+05 | 1.26E+05 | 6.32E+05 | 5.06E+05 | 1.26E+05 |
| Al, (MT)                                      | 1.41E+04 | 1.13E+04 | 2.78E+03 | 1.40E+04 | 9.65E+03 | 7.73E+03 | 1.92E+03 | 9.59E+03 | 7.69E+03 | 1.91E+03 |
| Fe, (MT)                                      | 1.28E+00 | 1.03E+00 | 2.53E-01 | 4.51E-01 | 6.08E-03 | 4.87E-03 | 1.21E-03 | 1.68E-03 | 1.35E-03 | 3.34E-04 |
| Cr, (MT)                                      | 1.65E+01 | 1.33E+01 | 3.27E+00 | 5.40E+00 | 6.60E-02 | 5.29E-02 | 1.31E-02 | 1.84E-02 | 1.47E-02 | 3.65E-03 |
| Na, (MT)                                      | 8.32E+04 | 6.68E+04 | 1.64E+04 | 8.32E+04 | 7.40E+04 | 5.93E+04 | 1.47E+04 | 7.40E+04 | 5.93E+04 | 1.47E+04 |
| Si, (MT)                                      | 1.68E+00 | 1.34E+00 | 3.31E-01 | 5.51E-01 | 6.79E-03 | 5.44E-03 | 1.35E-03 | 1.89E-03 | 1.51E-03 | 3.75E-04 |
| P, (MT)                                       | 2.08E+02 | 1.67E+02 | 4.11E+01 | 6.81E+01 | 8.31E-01 | 6.66E-01 | 1.65E-01 | 2.31E-01 | 1.85E-01 | 4.59E-02 |
| NO <sub>2</sub> - and NO <sub>3</sub> -, (MT) | 3.21E+05 | 2.57E+05 | 6.34E+04 | 3.21E+05 | 2.66E+05 | 2.13E+05 | 5.29E+04 | 2.66E+05 | 2.13E+05 | 5.28E+04 |
| Cs and Ba, (MCI)                              | 1.11E+01 | 8.89E+00 | 2.19E+00 | 3.62E+00 | 4.42E-02 | 3.54E-02 | 8.79E-03 | 1.23E-02 | 9.86E-03 | 2.45E-03 |
| Sr and Y, (MCI)                               | 1.91E-01 | 1.53E-01 | 3.77E-02 | 7.26E-02 | 1.08E-03 | 8.62E-04 | 2.14E-04 | 2.99E-04 | 2.40E-04 | 5.95E-05 |
| Tc, (MCI)                                     | 3.83E-03 | 3.07E-03 | 7.56E-04 | 1.25E-03 | 1.53E-05 | 1.22E-05 | 3.04E-06 | 4.25E-06 | 3.41E-06 | 8.45E-07 |
| TRU, (MCI)                                    | 1.09E-03 | 8.76E-04 | 2.16E-04 | 3.71E-04 | 4.80E-06 | 3.84E-06 | 9.53E-07 | 1.34E-06 | 1.07E-06 | 2.65E-07 |
| Total MCI                                     | 1.88E+01 | 1.50E+01 | 3.71E+00 | 6.51E+00 | 8.64E-02 | 6.92E-02 | 1.72E-02 | 2.40E-02 | 1.93E-02 | 4.78E-03 |
| Ag+, (MT)                                     | 4.09E-03 | 3.28E-03 | 8.08E-04 | 1.37E-03 | 1.72E-05 | 1.38E-05 | 3.42E-06 | 4.79E-06 | 3.84E-06 | 9.53E-07 |
| Al+3, (MT)                                    | 1.41E+04 | 1.13E+04 | 2.78E+03 | 1.40E+04 | 9.65E+03 | 7.73E+03 | 1.92E+03 | 9.59E+03 | 7.69E+03 | 1.91E+03 |
| Al(OH) <sub>4</sub> -, (MT)                   |          |          |          |          |          |          |          |          |          |          |
| Am+3, (MT)                                    | 2.50E-04 | 2.00E-04 | 4.93E-05 | 8.46E-05 | 1.09E-06 | 8.71E-07 | 2.16E-07 | 3.03E-07 | 2.42E-07 | 6.01E-08 |
| As+5, (MT)                                    | 2.36E-02 | 1.90E-02 | 4.67E-03 | 7.78E-03 | 9.58E-05 | 7.67E-05 | 1.90E-05 | 2.76E-05 | 2.14E-05 | 5.28E-06 |
| B+3, (MT)                                     | 1.26E-02 | 1.01E-02 | 2.49E-03 | 4.31E-03 | 5.59E-05 | 4.48E-05 | 1.11E-05 | 1.56E-05 | 1.25E-05 | 3.09E-06 |
| Ba+2, (MT)                                    | 3.87E-02 | 3.10E-02 | 7.64E-03 | 1.28E-02 | 1.59E-04 | 1.27E-04 | 3.16E-05 | 4.42E-05 | 3.54E-05 | 8.79E-06 |
| Be+2, (MT)                                    | 9.35E-05 | 7.50E-05 | 1.85E-05 | 3.12E-05 | 3.94E-07 | 3.15E-07 | 7.82E-08 | 1.10E-07 | 8.78E-08 | 2.18E-08 |
| Bi+3, (MT)                                    | 8.02E+00 | 6.44E+00 | 1.59E+00 | 2.64E+00 | 3.24E-02 | 2.60E-02 | 6.44E-03 | 9.02E-03 | 7.23E-03 | 1.79E-03 |
| Carbon-14, (MT)                               | 1.37E-04 | 1.10E-04 | 2.71E-05 | 4.48E-05 | 5.47E-07 | 4.38E-07 | 1.09E-07 | 1.52E-07 | 1.22E-07 | 3.02E-08 |
| Cat-2, (MT)                                   | 1.39E+00 | 1.11E+00 | 2.74E-01 | 4.64E-01 | 5.87E-03 | 4.70E-03 | 1.17E-03 | 1.63E-03 | 1.31E-03 | 3.25E-04 |
| Cd+2, (MT)                                    | 2.78E-01 | 2.23E-01 | 5.49E-02 | 9.14E-02 | 1.13E-03 | 9.02E-04 | 2.24E-04 | 3.13E-04 | 2.51E-04 | 6.23E-05 |
| Ce+3, (MT)                                    | 3.21E-01 | 2.58E-01 | 6.35E-02 | 1.22E-01 | 1.81E-03 | 1.45E-03 | 3.60E-04 | 5.04E-04 | 4.04E-04 | 1.00E-04 |
| Cl-, (MT)                                     | 6.04E+01 | 4.85E+01 | 1.19E+01 | 1.98E+01 | 2.41E-01 | 1.93E-01 | 4.79E-02 | 6.71E-02 | 5.37E-02 | 1.33E-02 |
| Cm+3, (MT)                                    | 5.46E-08 | 4.38E-08 | 1.08E-08 | 1.96E-08 | 2.70E-10 | 2.16E-10 | 5.37E-11 | 7.50E-11 | 6.00E-11 | 1.49E-11 |
| CO+3, (MT)                                    | 6.51E-03 | 5.22E-03 | 1.29E-03 | 2.18E-03 | 2.77E-05 | 2.22E-05 | 5.50E-06 | 7.71E-06 | 6.17E-06 | 1.53E-06 |
| CO <sub>2</sub> , (MT)                        |          |          |          |          |          |          |          |          |          |          |
| CO <sub>3</sub> -2, (MT)                      | 2.02E-02 | 1.62E-02 | 4.00E-03 | 1.95E-02 | 4.77E-04 | 3.82E-04 | 9.48E-05 | 1.33E-04 | 1.06E-04 | 2.64E-05 |
| Cr+3, (MT)                                    | 1.65E+01 | 1.33E+01 | 3.27E+00 | 5.40E+00 | 6.60E-02 | 5.29E-02 | 1.31E-02 | 1.84E-02 | 1.47E-02 | 3.65E-03 |
| Cr(OH) <sub>4</sub> -, (MT)                   |          |          |          |          |          |          |          |          |          |          |
| Cst-, (MT)                                    | 1.35E-01 | 1.08E-01 | 2.67E-02 | 4.42E-02 | 5.39E-04 | 4.32E-04 | 1.07E-04 | 1.50E-04 | 1.20E-04 | 2.98E-05 |
| Cr+2, (MT)                                    | 2.75E-02 | 2.21E-02 | 5.44E-03 | 9.05E-03 | 1.12E-04 | 8.93E-05 | 2.22E-05 | 3.10E-05 | 2.49E-05 | 6.16E-06 |
| F-, (MT)                                      | 1.38E+02 | 1.11E+02 | 2.73E+01 | 4.52E+01 | 5.52E-01 | 4.42E-01 | 1.10E-01 | 1.54E-01 | 1.23E-01 | 3.05E-02 |
| Fe+3, (MT)                                    | 1.02E+00 | 8.14E-01 | 2.01E-01 | 3.85E-01 | 5.69E-03 | 4.56E-03 | 1.13E-03 | 1.58E-03 | 1.27E-03 | 3.15E-04 |
| FeCN <sub>6</sub> -3, (MT)                    | 3.93E-01 | 3.15E-01 | 7.76E-02 | 9.67E-02 | 5.66E-04 | 4.54E-04 | 1.13E-04 | 1.40E-04 | 1.12E-04 | 2.79E-05 |
| H+, (MT)                                      | 6.79E+00 | 5.45E+00 | 1.34E+00 | 1.67E+00 | 9.78E-03 | 7.84E-03 | 1.94E-03 | 2.42E-03 | 1.94E-03 | 4.81E-04 |
| H <sub>2</sub> O, (MT)                        | 2.90E+05 | 2.32E+05 | 5.72E+04 | 2.90E+05 | 2.82E+05 | 2.26E+05 | 5.60E+04 | 2.82E+05 | 2.26E+05 | 5.61E+04 |
| Hg+2, (MT)                                    | 1.45E-01 | 1.16E-01 | 2.86E-02 | 4.73E-02 | 5.76E-04 | 4.62E-04 | 1.15E-04 | 1.60E-04 | 1.29E-04 | 3.19E-05 |
| I-, (MT)                                      | 2.90E-02 | 2.33E-02 | 5.74E-03 | 9.49E-03 | 1.16E-04 | 9.28E-05 | 2.30E-05 | 3.22E-05 | 2.58E-05 | 6.40E-06 |
| K+, (MT)                                      | 1.77E+02 | 1.42E+02 | 3.49E+01 | 5.78E+01 | 7.05E-01 | 5.65E-01 | 1.40E-01 | 1.96E-01 | 1.57E-01 | 3.90E-02 |
| La+3, (MT)                                    | 4.50E-02 | 3.61E-02 | 8.89E-03 | 1.75E-02 | 2.67E-04 | 2.14E-04 | 5.30E-05 | 7.42E-05 | 5.95E-05 | 1.48E-05 |
| Li+, (MT)                                     | 3.85E-03 | 3.09E-03 | 7.61E-04 | 1.26E-03 | 1.54E-05 | 1.24E-05 | 3.07E-06 | 4.29E-06 | 3.44E-06 | 8.53E-07 |
| Mg+2, (MT)                                    | 6.74E-02 | 5.41E-02 | 1.33E-02 | 2.24E-02 | 2.80E-04 | 2.24E-04 | 5.56E-05 | 7.78E-05 | 6.24E-05 | 1.55E-05 |
| Mn+2, (MT)                                    | 2.70E+00 | 2.16E+00 | 5.32E-01 | 8.95E-01 | 1.12E-02 | 8.96E-03 | 2.22E-03 | 3.11E-03 | 2.49E-03 | 6.18E-04 |
| Mb+6, (MT)                                    | 4.08E-01 | 3.27E-01 | 8.06E-02 | 1.34E-01 | 1.64E-03 | 1.31E-03 | 3.26E-04 | 4.56E-04 | 3.66E-04 | 9.06E-05 |
| Nat, (MT)                                     | 8.32E+04 | 6.68E+04 | 1.64E+04 | 8.32E+04 | 7.40E+04 | 5.93E+04 | 1.47E+04 | 7.40E+04 | 5.93E+04 | 1.47E+04 |
| Ni+3, (MT)                                    | 7.30E-02 | 5.86E-02 | 1.44E-02 | 2.46E-02 | 3.14E-04 | 2.51E-04 | 6.23E-05 | 8.73E-05 | 6.99E-05 | 1.74E-05 |
| NO, (MT)                                      |          |          |          |          |          |          |          |          |          |          |
| NO <sub>2</sub> -, (MT)                       | 7.54E-03 | 6.05E-03 | 1.49E-03 | 7.26E-03 | 1.78E-04 | 1.43E-04 | 3.54E-05 | 4.95E-05 | 3.97E-05 | 9.84E-06 |
| NO <sub>3</sub> -, (MT)                       | 3.21E+05 | 2.57E+05 | 6.34E+04 | 3.21E+05 | 2.66E+05 | 2.13E+05 | 5.29E+04 | 2.66E+05 | 2.13E+05 | 5.28E+04 |
| Np+4, (MT)                                    | 5.88E-04 | 4.72E-04 | 1.16E-04 | 1.95E-04 | 2.44E-06 | 1.96E-06 | 4.85E-07 | 6.80E-07 | 5.45E-07 | 1.35E-07 |
| OH-, (MT)                                     | 1.85E-01 | 1.49E-01 | 3.66E-02 | 1.78E-01 | 4.37E-03 | 3.50E-03 | 8.69E-04 | 1.22E-03 | 9.75E-04 | 2.42E-04 |
| Pb+4, (MT)                                    | 3.38E-01 | 2.72E-01 | 6.69E-02 | 1.13E-01 | 1.42E-03 | 1.14E-03 | 2.81E-04 | 3.94E-04 | 3.16E-04 | 7.83E-05 |
| PO <sub>4</sub> -3, (MT)                      | 6.38E+02 | 5.12E+02 | 1.26E+02 | 2.09E+02 | 2.55E+00 | 2.04E+00 | 5.06E-01 | 7.08E-01 | 5.68E-01 | 1.41E-01 |
| Poly, (MT)                                    | 4.90E+00 | 3.93E+00 | 9.68E-01 | 1.21E+00 | 7.06E-03 | 5.66E-03 | 1.40E-03 | 1.75E-03 | 1.40E-03 | 3.47E-04 |
| Ru+4, (MT)                                    | 1.04E-03 | 8.33E-04 | 2.05E-04 | 3.57E-04 | 4.70E-06 | 3.77E-06 | 9.34E-07 | 1.31E-06 | 1.05E-06 | 2.60E-07 |
| Rb+, (MT)                                     | 7.76E-03 | 6.22E-03 | 1.53E-03 | 2.54E-03 | 3.09E-05 | 2.48E-05 | 6.15E-06 | 8.61E-06 | 6.90E-06 | 1.71E-06 |
| Re+7, (MT)                                    | 5.81E-04 | 4.66E-04 | 1.15E-04 | 1.93E-04 | 2.40E-06 | 1.93E-06 | 4.77E-07 | 6.68E-07 | 5.36E-07 | 1.33E-07 |
| Rh+3, (MT)                                    | 1.56E-03 | 1.26E-03 | 3.09E-04 | 5.43E-04 | 7.21E-06 | 5.78E-06 | 1.43E-06 | 2.01E-06 | 1.61E-06 | 3.99E-07 |
| Ru+3, (MT)                                    | 3.39E-03 | 2.72E-03 | 6.71E-04 | 1.15E-03 | 1.47E-05 | 1.18E-05 | 2.93E-06 | 4.10E-06 | 3.28E-06 | 8.14E-07 |
| Sb+5, (MT)                                    | 7.12E-03 | 5.76E-03 | 1.42E-03 | 2.48E-03 | 3.27E-05 | 2.62E-05 | 6.51E-06 | 9.11E-06 | 7.30E-06 | 1.81E-06 |
| Se+6, (MT)                                    | 6.88E-02 | 5.52E-02 | 1.36E-02 | 2.26E-02 | 2.78E-04 | 2.23E-04 | 5.53E-05 | 7.75E-05 | 6.21E-05 | 1.54E-05 |
| Si+4, (MT)                                    | 1.68E+00 | 1.34E+00 | 3.31E-01 | 5.51E-01 | 6.79E-03 | 5.44E-03 | 1.35E-03 | 1.89E-03 | 1.51E-03 | 3.75E-04 |
| Sm+3, (MT)                                    | 4.23E-05 | 3.39E-05 | 8.35E-06 | 1.62E-05 | 2.41E-07 | 1.93E-07 | 4.79E-08 | 6.71E-08 | 5.38E-08 | 1.33E-08 |
| Sn+4, (MT)                                    | 6.18E-04 | 4.96E-04 | 1.22E-04 | 2.03E-04 | 2.50E-06 | 2.00E-06 | 4.96E-07 | 6.95E-07 | 5.57E-07 | 1.38E-07 |
| SO <sub>4</sub> -2, (MT)                      | 2.49E+02 | 2.00E+02 | 4.92E+01 | 8.13E+01 | 9.92E-01 | 7.95E-01 | 1.97E-01 | 2.76E-01 | 2.21E-01 | 5.49E-02 |
| Sn+2, (MT)                                    | 5.07E-02 | 4.07E-02 | 1.00E-02 | 1.93E-02 | 2.86E-04 | 2.29E-04 | 5.68E-05 | 7.96E-05 | 6.37E-05 | 1.58E-05 |
| TcO <sub>4</sub> -, (MT)                      | 3.69E-01 | 2.96E-01 | 7.29E-02 | 1.21E-01 | 1.47E-03 | 1.18E-03 | 2.93E-04 | 4.10E-04 | 3.29E-04 | 8.15E-05 |
| Te+6, (MT)                                    | 6.68E-04 | 5.36E-04 | 1.32E-04 | 2.36E-04 | 3.22E-06 | 2.58E-06 | 6.40E-07 | 8.96E-07 | 7.18E-07 | 1.78E-07 |
| Th+4, (MT)                                    | 2.17E-02 | 1.74E-02 | 4.28E-03 | 8.08E-03 | 1.17E-04 | 9.38E-05 | 2.33E-05 | 3.26E-05 | 2.61E-05 | 6.47E-06 |
| Ti+4, (MT)                                    | 8.58E-04 | 6.88E-04 | 1.70E-04 | 3.13E-04 | 4.42E-06 | 3.54E-06 | 8.78E-07 | 1.23E-06 | 9.85E-07 | 2.44E-07 |
| Tl+3, (MT)                                    | 3.78E-02 | 3.03E-02 | 7.46E-03 | 1.27E-02 | 1.62E-04 | 1.30E-04 | 3.23E-05 | 4.52E-05 | 3.62E-05 | 8.98E-06 |
| TCC, (MT)                                     | 9.73E+01 | 7.80E+01 | 1.92E+01 | 3.18E+01 | 3.88E-01 | 3.11E-01 | 7.71E-02 | 1.08E-01 | 8.65E-02 | 2.15E-02 |
| UD <sub>2</sub> H <sub>2</sub> , (MT)         | 1.15E+01 | 9.20E+00 | 2.27E+00 | 3.85E+00 | 4.90E-02 | 3.93E-02 | 9.74E-03 | 1.30E-02 | 1.07E-02 | 2.71E-03 |
| VH <sub>5</sub> , (MT)                        | 1.20E-03 | 9.60E-04 | 2.36E-04 | 3.94E-04 | 4.86E-06 | 3.89E-06 | 9.65E-07 | 1.35E-06 | 1.08E-06 | 2.69E-07 |
| W+6, (MT)                                     | 4.08E-01 | 3.27E-01 | 8.06E-02 | 1.33E-01 | 1.63E-03 | 1.30E-03 | 3.23E-04 | 4.53E-04 | 3.63E-04 | 8.99E-05 |
| ZN+2, (MT)                                    | 1.10E-01 | 8.84E-02 | 2.18E-02 | 3.61E-02 | 4.42E-04 | 3.55E-04 | 8.79E-05 | 1.23E-04 | 9.87E-05 | 2.45E-05 |
| ZnO <sub>2</sub> .2H <sub>2</sub> O, (MT)     | 3.03E+00 | 2.43E+00 | 5.98E-01 | 1.06E+00 | 1.43E-02 | 1.14E-02 | 2.83E-03 | 3.97E-03 | 3.18E-03 | 7.88E-04 |

| STREAM NAME<br>SOLID COMPONENTS                         | 66       | 67       | 68       | 69       | 70       | 71       | 72       | 73       | 74       | 75       |
|---------------------------------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Total Mass Flow, (MT)                                   | 5.72E+05 | 5.70E+02 | 5.71E+05 | 5.72E+05 | 5.12E+05 | 5.07E+02 | 5.12E+05 | 5.12E+05 | 5.07E+02 | 5.12E+05 |
| Al, (MT)                                                | 1.04E+04 | 1.04E+01 | 1.04E+04 | 1.04E+04 | 7.67E+03 | 7.59E+00 | 7.66E+03 | 7.66E+03 | 7.58E+00 | 7.66E+03 |
| Fe, (MT)                                                | 1.14E-01 | 1.14E-04 | 1.14E-01 | 1.14E-01 | 5.73E-03 | 5.67E-06 | 5.72E-03 | 5.73E-03 | 5.67E-06 | 5.72E-03 |
| Cr, (MT)                                                | 1.07E+00 | 1.07E-03 | 1.07E+00 | 1.07E+00 | 1.63E-03 | 1.62E-06 | 1.63E-03 | 1.63E-03 | 1.61E-06 | 1.63E-03 |
| Na, (MT)                                                | 1.15E+05 | 1.15E+02 | 1.15E+05 | 1.15E+05 | 1.10E+05 | 1.09E+02 | 1.10E+05 | 1.10E+05 | 1.09E+02 | 1.10E+05 |
| Si, (MT)                                                | 1.41E-01 | 1.40E-04 | 1.41E-01 | 1.41E-01 | 2.97E-02 | 2.93E-05 | 2.96E-02 | 2.97E-02 | 2.93E-05 | 2.96E-02 |
| P, (MT)                                                 | 1.35E+01 | 1.35E-02 | 1.35E+01 | 1.35E+01 | 2.06E-02 | 2.04E-05 | 2.06E-02 | 2.06E-02 | 2.03E-05 | 2.05E-02 |
| NO <sub>2</sub> - and NO <sub>3</sub> -, (MT)           | 3.83E+05 | 3.82E+02 | 3.83E+05 | 3.83E+05 | 3.49E+05 | 3.45E+02 | 3.48E+05 | 3.49E+05 | 3.45E+02 | 3.48E+05 |
| Cs and Ba, (MCl)                                        | 7.20E-01 | 7.17E-04 | 7.19E-01 | 7.19E-01 | 1.09E-03 | 1.08E-06 | 1.09E-03 | 1.09E-03 | 1.08E-06 | 1.09E-03 |
| Sr and Y, (MCl)                                         | 2.06E-02 | 2.05E-05 | 2.06E-02 | 2.06E-02 | 2.66E-05 | 2.63E-08 | 2.66E-05 | 2.66E-05 | 2.63E-08 | 2.66E-05 |
| Tc, (MCl)                                               | 2.49E-04 | 2.48E-07 | 2.48E-04 | 2.48E-04 | 3.78E-07 | 3.74E-10 | 3.78E-07 | 3.78E-07 | 3.74E-10 | 3.77E-07 |
| TRU, (MCl)                                              | 8.24E-05 | 8.21E-08 | 8.23E-05 | 8.23E-05 | 1.19E-07 | 1.17E-10 | 1.19E-07 | 1.19E-07 | 1.17E-10 | 1.19E-07 |
| Total MCl                                               | 1.52E+00 | 1.51E-03 | 1.52E+00 | 1.52E+00 | 2.14E-03 | 2.12E-06 | 2.14E-03 | 2.14E-03 | 2.11E-06 | 2.13E-03 |
| Ag, (MT)                                                | 2.89E-04 | 2.88E-07 | 2.89E-04 | 2.89E-04 | 4.26E-07 | 4.21E-10 | 4.26E-07 | 4.26E-07 | 4.21E-10 | 4.25E-07 |
| Al+3, (MT)                                              | 1.04E+04 | 1.04E+01 | 1.04E+04 | 1.04E+04 | 7.67E+03 | 7.59E+00 | 7.66E+03 | 7.66E+03 | 7.58E+00 | 7.66E+03 |
| Am+3, (MT)                                              | 1.86E-05 | 1.85E-08 | 1.86E-05 | 1.86E-05 | 2.69E-08 | 2.66E-11 | 2.69E-08 | 2.69E-08 | 2.66E-11 | 2.69E-08 |
| As+5, (MT)                                              | 1.57E-03 | 1.57E-06 | 1.57E-03 | 1.57E-03 | 2.37E-06 | 2.34E-09 | 2.37E-06 | 2.37E-06 | 2.34E-09 | 2.37E-06 |
| B+3, (MT)                                               | 9.64E-04 | 9.60E-07 | 9.63E-04 | 9.63E-04 | 1.38E-06 | 1.37E-09 | 1.38E-06 | 1.38E-06 | 1.37E-09 | 1.38E-06 |
| Ba+2, (MT)                                              | 2.63E-03 | 2.62E-06 | 2.63E-03 | 2.63E-03 | 3.93E-06 | 3.89E-09 | 3.93E-06 | 3.93E-06 | 3.89E-09 | 3.92E-06 |
| Be+2, (MT)                                              | 6.61E-06 | 6.58E-09 | 6.60E-06 | 6.60E-06 | 9.74E-09 | 9.62E-12 | 9.73E-09 | 9.73E-09 | 9.61E-12 | 9.72E-09 |
| Bi+3, (MT)                                              | 5.32E-01 | 5.30E-04 | 5.31E-01 | 5.31E-01 | 8.02E-04 | 7.94E-07 | 8.02E-04 | 8.02E-04 | 7.93E-07 | 8.01E-04 |
| Carbon-14, (MT)                                         | 8.89E-06 | 8.86E-09 | 8.88E-06 | 8.88E-06 | 1.35E-08 | 1.34E-11 | 1.35E-08 | 1.35E-08 | 1.33E-11 | 1.35E-08 |
| Ca+2, (MT)                                              | 9.89E-02 | 9.85E-05 | 9.88E-02 | 9.88E-02 | 1.45E-04 | 1.44E-07 | 1.45E-04 | 1.45E-04 | 1.44E-07 | 1.45E-04 |
| Cancrinite, (MT)                                        | 1.79E-01 | 1.78E-04 | 1.79E-01 | 1.79E-01 | 1.79E-01 | 1.77E-04 | 1.79E-01 | 1.79E-01 | 1.77E-04 | 1.79E-01 |
| Ca+2, (MT)                                              | 1.85E-02 | 1.84E-05 | 1.85E-02 | 1.85E-02 | 2.79E-05 | 2.76E-08 | 2.78E-05 | 2.78E-05 | 2.75E-08 | 2.78E-05 |
| Ce+3, (MT)                                              | 3.47E-02 | 3.46E-05 | 3.47E-02 | 3.47E-02 | 4.49E-05 | 4.44E-08 | 4.48E-05 | 4.48E-05 | 4.43E-08 | 4.48E-05 |
| Cl-, (MT)                                               | 3.92E+00 | 3.90E-03 | 3.91E+00 | 3.91E+00 | 5.96E-03 | 5.90E-06 | 5.96E-03 | 5.96E-03 | 5.89E-06 | 5.95E-03 |
| Clm+3, (MT)                                             | 4.92E-09 | 4.90E-12 | 4.92E-09 | 4.92E-09 | 6.61E-12 | 6.61E-15 | 6.69E-12 | 6.69E-12 | 6.61E-15 | 6.68E-12 |
| CO+3, (MT)                                              | 4.67E-04 | 4.66E-07 | 4.67E-04 | 4.67E-04 | 6.85E-07 | 6.78E-10 | 6.84E-07 | 6.84E-07 | 6.77E-10 | 6.84E-07 |
| CO <sub>3</sub> -2, (MT)                                | 1.17E-02 | 1.16E-05 | 1.16E-02 | 1.16E-02 | 1.18E-05 | 1.17E-08 | 1.18E-05 | 1.18E-05 | 1.17E-08 | 1.18E-05 |
| Cr+3, (MT)                                              | 1.07E+00 | 1.07E-03 | 1.07E+00 | 1.07E+00 | 1.63E-03 | 1.62E-06 | 1.63E-03 | 1.63E-03 | 1.61E-06 | 1.63E-03 |
| Cst-, (MT)                                              | 8.77E-03 | 8.73E-06 | 8.76E-03 | 8.76E-03 | 1.33E-05 | 1.32E-08 | 1.33E-05 | 1.33E-05 | 1.32E-08 | 1.33E-05 |
| Cr+2, (MT)                                              | 1.83E-03 | 1.82E-06 | 1.83E-03 | 1.83E-03 | 2.76E-06 | 2.73E-09 | 2.76E-06 | 2.76E-06 | 2.73E-09 | 2.75E-06 |
| F-, (MT)                                                | 8.97E+00 | 8.94E-03 | 8.96E+00 | 8.96E+00 | 1.37E-02 | 1.35E-05 | 1.36E-02 | 1.36E-02 | 1.35E-05 | 1.36E-02 |
| Fe+3, (MT)                                              | 1.09E-01 | 1.08E-04 | 1.09E-01 | 1.09E-01 | 1.41E-04 | 1.39E-07 | 1.41E-04 | 1.41E-04 | 1.39E-07 | 1.41E-04 |
| H <sub>2</sub> O, (MT)                                  | 6.26E+04 | 6.24E+01 | 6.26E+04 | 6.26E+04 | 4.61E+04 | 4.56E+01 | 4.61E+04 | 4.61E+04 | 4.57E+01 | 4.61E+04 |
| Hg+2, (MT)                                              | 9.37E-03 | 9.34E-06 | 9.37E-03 | 9.37E-03 | 1.43E-05 | 1.41E-08 | 1.43E-05 | 1.43E-05 | 1.41E-08 | 1.42E-05 |
| I-, (MT)                                                | 1.88E-03 | 1.88E-06 | 1.88E-03 | 1.88E-03 | 2.87E-06 | 2.83E-09 | 2.86E-06 | 2.86E-06 | 2.83E-09 | 2.86E-06 |
| K+, (MT)                                                | 1.15E+01 | 1.14E-02 | 1.15E+01 | 1.15E+01 | 1.74E-02 | 1.73E-05 | 1.74E-02 | 1.74E-02 | 1.72E-05 | 1.74E-02 |
| La+3, (MT)                                              | 5.19E-03 | 5.17E-06 | 5.19E-03 | 5.19E-03 | 6.60E-06 | 6.53E-09 | 6.59E-06 | 6.59E-06 | 6.52E-09 | 6.59E-06 |
| Li+, (MT)                                               | 2.52E-04 | 2.51E-07 | 2.51E-04 | 2.51E-04 | 3.82E-07 | 3.78E-10 | 3.81E-07 | 3.81E-07 | 3.77E-10 | 3.81E-07 |
| Mg+2, (MT)                                              | 4.66E-03 | 4.64E-06 | 4.65E-03 | 4.65E-03 | 6.92E-06 | 6.85E-09 | 6.91E-06 | 6.91E-06 | 6.84E-09 | 6.91E-06 |
| MnO <sub>2</sub> , (MT)                                 | 1.86E-01 | 1.85E-04 | 1.86E-01 | 1.86E-01 | 2.77E-04 | 2.74E-07 | 2.76E-04 | 2.76E-04 | 2.73E-07 | 2.76E-04 |
| Mo+6, (MT)                                              | 2.68E-02 | 2.67E-05 | 2.67E-02 | 2.67E-02 | 4.06E-05 | 4.01E-08 | 4.05E-05 | 4.05E-05 | 4.01E-08 | 4.05E-05 |
| Nat, (MT)                                               | 1.15E+05 | 1.15E+02 | 1.15E+05 | 1.15E+05 | 1.10E+05 | 1.09E+02 | 1.10E+05 | 1.10E+05 | 1.09E+02 | 1.10E+05 |
| Ni+3, (MT)                                              | 5.32E-03 | 5.30E-06 | 5.32E-03 | 5.32E-03 | 7.76E-06 | 7.68E-09 | 7.75E-06 | 7.75E-06 | 7.67E-09 | 7.75E-06 |
| Ni <sub>2</sub> FeCN <sub>6</sub> , (MT)                | 3.29E-02 | 3.28E-05 | 3.29E-02 | 3.29E-02 | 3.29E-02 | 3.26E-05 | 3.29E-02 | 3.29E-02 | 3.26E-05 | 3.29E-02 |
| NO <sub>2</sub> -, (MT)                                 | 4.35E-03 | 4.33E-06 | 4.34E-03 | 4.34E-03 | 4.40E-06 | 4.36E-09 | 4.40E-06 | 4.40E-06 | 4.35E-09 | 4.40E-06 |
| NO <sub>3</sub> -, (MT)                                 | 3.83E+05 | 3.82E+02 | 3.83E+05 | 3.83E+05 | 3.49E+05 | 3.45E+02 | 3.48E+05 | 3.49E+05 | 3.45E+02 | 3.48E+05 |
| Not+4, (MT)                                             | 4.07E-05 | 4.05E-08 | 4.06E-05 | 4.06E-05 | 6.05E-08 | 5.97E-11 | 6.04E-08 | 6.04E-08 | 5.97E-11 | 6.03E-08 |
| OH-, (MT)                                               | 1.07E-01 | 1.06E-04 | 1.07E-01 | 1.07E-01 | 1.08E-04 | 1.07E-07 | 1.08E-04 | 1.08E-04 | 1.07E-07 | 1.08E-04 |
| P <sub>2</sub> O <sub>5</sub> ·24H <sub>2</sub> O, (MT) | 1.33E-03 | 1.33E-06 | 1.33E-03 | 1.33E-03 | 1.33E-03 | 1.32E-06 | 1.33E-03 | 1.33E-03 | 1.32E-06 | 1.33E-03 |
| Pb+4, (MT)                                              | 2.37E-02 | 2.36E-05 | 2.37E-02 | 2.37E-02 | 3.50E-05 | 3.47E-08 | 3.50E-05 | 3.50E-05 | 3.46E-08 | 3.50E-05 |
| PO <sub>4</sub> -3, (MT)                                | 4.14E+01 | 4.13E-02 | 4.14E+01 | 4.14E+01 | 6.30E-02 | 6.23E-05 | 6.29E-02 | 6.29E-02 | 6.23E-05 | 6.29E-02 |
| Poly, (MT)                                              | 4.09E-03 | 4.07E-06 | 4.08E-03 | 4.09E-03 | 4.09E-03 | 4.04E-06 | 4.08E-03 | 4.09E-03 | 4.04E-06 | 4.08E-03 |
| Ru+4, (MT)                                              | 8.20E-05 | 8.17E-08 | 8.19E-05 | 8.19E-05 | 1.16E-07 | 1.15E-10 | 1.16E-07 | 1.16E-07 | 1.15E-10 | 1.16E-07 |
| Rb+, (MT)                                               | 5.03E-04 | 5.01E-07 | 5.03E-04 | 5.03E-04 | 7.65E-07 | 7.57E-10 | 7.65E-07 | 7.65E-07 | 7.56E-10 | 7.64E-07 |
| Re+7, (MT)                                              | 3.99E-05 | 3.98E-08 | 3.99E-05 | 3.99E-05 | 5.94E-08 | 5.87E-11 | 5.94E-08 | 5.94E-08 | 5.87E-11 | 5.93E-08 |
| Rh+3, (MT)                                              | 1.27E-04 | 1.26E-07 | 1.27E-04 | 1.27E-04 | 1.78E-07 | 1.76E-10 | 1.78E-07 | 1.78E-07 | 1.76E-10 | 1.78E-07 |
| Ru+3, (MT)                                              | 2.51E-04 | 2.50E-07 | 2.51E-04 | 2.51E-04 | 3.64E-07 | 3.60E-10 | 3.64E-07 | 3.64E-07 | 3.60E-10 | 3.64E-07 |
| Sb+5, (MT)                                              | 5.73E-04 | 5.71E-07 | 5.72E-04 | 5.72E-04 | 8.10E-07 | 8.01E-10 | 8.09E-07 | 8.09E-07 | 8.00E-10 | 8.08E-07 |
| Se+6, (MT)                                              | 4.57E-03 | 4.55E-06 | 4.56E-03 | 4.56E-03 | 6.89E-06 | 6.82E-09 | 6.88E-06 | 6.88E-06 | 6.81E-09 | 6.88E-06 |
| Si+4, (MT)                                              | 1.11E-01 | 1.11E-04 | 1.11E-01 | 1.11E-01 | 1.68E-04 | 1.66E-07 | 1.68E-04 | 1.68E-04 | 1.66E-07 | 1.68E-04 |
| Sn+3, (MT)                                              | 4.63E-06 | 4.61E-09 | 4.63E-06 | 4.63E-06 | 5.97E-09 | 5.90E-12 | 5.96E-09 | 5.96E-09 | 5.89E-12 | 5.95E-09 |
| Sn+4, (MT)                                              | 4.09E-05 | 4.08E-08 | 4.09E-05 | 4.09E-05 | 6.18E-08 | 6.10E-11 | 6.17E-08 | 6.17E-08 | 6.10E-11 | 6.17E-08 |
| SO <sub>4</sub> -2, (MT)                                | 1.61E+01 | 1.61E-02 | 1.61E+01 | 1.61E+01 | 2.46E-02 | 2.43E-05 | 2.45E-02 | 2.45E-02 | 2.43E-05 | 2.45E-02 |
| St+2, (MT)                                              | 5.47E-03 | 5.45E-06 | 5.46E-03 | 5.46E-03 | 7.07E-06 | 7.00E-09 | 7.07E-06 | 7.07E-06 | 6.99E-09 | 7.06E-06 |
| TcO <sub>4</sub> -, (MT)                                | 2.40E-02 | 2.39E-05 | 2.40E-02 | 2.40E-02 | 3.65E-05 | 3.61E-08 | 3.64E-05 | 3.64E-05 | 3.60E-08 | 3.64E-05 |
| Te+6, (MT)                                              | 5.78E-05 | 5.76E-08 | 5.78E-05 | 5.78E-05 | 7.97E-08 | 7.87E-11 | 7.96E-08 | 7.96E-08 | 7.86E-11 | 7.95E-08 |
| Th+4, (MT)                                              | 2.20E-03 | 2.20E-06 | 2.20E-03 | 2.20E-03 | 2.90E-06 | 2.87E-09 | 2.89E-06 | 2.89E-06 | 2.86E-09 | 2.89E-06 |
| Ti+4, (MT)                                              | 8.16E-05 | 8.13E-08 | 8.15E-05 | 8.15E-05 | 1.09E-07 | 1.08E-10 | 1.09E-07 | 1.09E-07 | 1.08E-10 | 1.09E-07 |
| Tl+3, (MT)                                              | 2.76E-03 | 2.75E-06 | 2.75E-03 | 2.75E-03 | 4.02E-06 | 3.97E-09 | 4.01E-06 | 4.01E-06 | 3.97E-09 | 4.01E-06 |
| TCC, (MT)                                               | 6.31E+00 | 6.29E-03 | 6.30E+00 | 6.30E+00 | 9.60E-03 | 9.50E-06 | 9.59E-03 | 9.59E-03 | 9.49E-06 | 9.58E-03 |
| UO <sub>2</sub> +2, (MT)                                | 8.29E-01 | 8.26E-04 | 8.28E-01 | 8.28E-01 | 1.21E-03 | 1.20E-06 | 1.21E-03 | 1.21E-03 | 1.20E-06 | 1.21E-03 |
| V+5, (MT)                                               | 7.99E-05 | 7.96E-08 | 7.98E-05 | 7.98E-05 | 1.20E-07 | 1.19E-10 | 1.20E-07 | 1.20E-07 | 1.19E-10 | 1.20E-07 |
| W+6, (MT)                                               | 2.64E-02 | 2.63E-05 | 2.64E-02 | 2.64E-02 | 4.02E-05 | 3.98E-08 | 4.02E-05 | 4.02E-05 | 3.98E-08 | 4.02E-05 |
| ZH <sub>2</sub> , (MT)                                  | 7.23E-06 | 7.20E-09 | 7.22E-06 | 7.22E-06 | 1.10E-05 | 1.08E-08 | 1.09E-05 | 1.09E-05 | 1.08E-08 | 1.09E-05 |
| ZrO <sub>2</sub> ·2H <sub>2</sub> O, (MT)               | 2.53E-01 | 2.52E-04 | 2.53E-01 | 2.53E-01 | 3.53E-04 | 3.49E-07 | 3.52E-04 | 3.52E-04 | 3.48E-07 | 3.52E-04 |

| STREAM NAME                                   | 77       | 78       | 79       |
|-----------------------------------------------|----------|----------|----------|
| LIQUID COMPONENTS                             |          |          |          |
| Total Mass Flow, (MT)                         | 5.05E+05 | 3.82E+05 | 1.23E+05 |
| Al, (MT)                                      | 2.00E+03 | 1.52E+03 | 4.87E+02 |
| Fe, (MT)                                      | 1.50E-05 | 1.13E-05 | 3.64E-06 |
| Cr, (MT)                                      | 1.67E-04 | 1.26E-04 | 4.05E-05 |
| Na, (MT)                                      | 6.34E+04 | 4.80E+04 | 1.54E+04 |
| Si, (MT)                                      | 1.72E-05 | 1.30E-05 | 4.17E-06 |
| P, (MT)                                       | 2.10E-03 | 1.59E-03 | 5.10E-04 |
| NO <sub>2</sub> - and NO <sub>3</sub> -, (MT) | 1.85E+05 | 1.40E+05 | 4.50E+04 |
| Cs and Ba, (Mci)                              | 1.12E-04 | 8.46E-05 | 2.72E-05 |
| Sr and Y, (Mci)                               | 2.72E-06 | 2.06E-06 | 6.61E-07 |
| Tc, (Mci)                                     | 3.86E-08 | 2.92E-08 | 9.38E-09 |
| TRU, (Mci)                                    | 1.21E-08 | 9.17E-09 | 2.95E-09 |
| Total MCI                                     | 2.18E-04 | 1.65E-04 | 5.31E-05 |
| Ag <sup>+</sup> , (MT)                        | 4.35E-08 | 3.30E-08 | 1.06E-08 |
| Al+3, (MT)                                    | 2.00E+03 | 1.52E+03 | 4.87E+02 |
| Al(OH) <sub>4</sub> -, (MT)                   |          |          |          |
| Am+3, (MT)                                    | 2.75E-09 | 2.08E-09 | 6.67E-10 |
| As+5, (MT)                                    | 2.42E-07 | 1.83E-07 | 5.88E-08 |
| B+3, (MT)                                     | 1.41E-07 | 1.07E-07 | 3.43E-08 |
| Ba+2, (MT)                                    | 4.02E-07 | 3.04E-07 | 9.76E-08 |
| Be+2, (MT)                                    | 9.95E-10 | 7.53E-10 | 2.42E-10 |
| Bi+3, (MT)                                    | 8.20E-05 | 6.20E-05 | 1.99E-05 |
| Carbon-14, (MT)                               | 1.38E-09 | 1.05E-09 | 3.36E-10 |
| Ce+2, (MT)                                    | 1.48E-05 | 1.12E-05 | 3.61E-06 |
| Cd+2, (MT)                                    | 2.85E-06 | 2.16E-06 | 6.92E-07 |
| Ce+3, (MT)                                    | 4.58E-06 | 3.47E-06 | 1.11E-06 |
| Cl-, (MT)                                     | 6.09E-04 | 4.61E-04 | 1.48E-04 |
| Cm+3, (MT)                                    | 5.82E-13 | 4.39E-13 | 1.41E-13 |
| Co+3, (MT)                                    | 7.00E-08 | 5.30E-08 | 1.70E-08 |
| CO <sub>2</sub> , (MT)                        |          |          |          |
| CO <sub>3</sub> -2, (MT)                      | 1.21E-06 | 9.13E-07 | 2.93E-07 |
| Cr+3, (MT)                                    | 1.67E-04 | 1.26E-04 | 4.05E-05 |
| Cr(OH) <sub>4</sub> -, (MT)                   |          |          |          |
| Cs+, (MT)                                     | 1.36E-06 | 1.03E-06 | 3.31E-07 |
| Cu+2, (MT)                                    | 2.82E-07 | 2.13E-07 | 6.85E-08 |
| F-, (MT)                                      | 1.39E-03 | 1.06E-03 | 3.39E-04 |
| Fe+3, (MT)                                    | 1.44E-05 | 1.09E-05 | 3.50E-06 |
| FeCN <sub>6</sub> -3, (MT)                    | 8.69E-07 | 6.58E-07 | 2.11E-07 |
| H <sup>+</sup> , (MT)                         | 1.50E-05 | 1.14E-05 | 3.65E-06 |
| H <sub>2</sub> O, (MT)                        | 2.54E+05 | 1.93E+05 | 6.18E+04 |
| Hg+2, (MT)                                    | 1.46E-06 | 1.10E-06 | 3.54E-07 |
| I-, (MT)                                      | 2.93E-07 | 2.22E-07 | 7.11E-08 |
| K+, (MT)                                      | 1.78E-03 | 1.35E-03 | 4.33E-04 |
| La+3, (MT)                                    | 6.74E-07 | 5.10E-07 | 1.64E-07 |
| Li+, (MT)                                     | 3.90E-08 | 2.95E-08 | 9.48E-09 |
| Mg+2, (MT)                                    | 7.07E-07 | 5.35E-07 | 1.72E-07 |
| MnO <sub>2</sub> , (MT)                       | 2.83E-05 | 2.14E-05 | 6.87E-06 |
| Mb+6, (MT)                                    | 4.14E-06 | 3.14E-06 | 1.01E-06 |
| Na+, (MT)                                     | 6.34E+04 | 4.80E+04 | 1.54E+04 |
| Ni+3, (MT)                                    | 7.93E-07 | 6.00E-07 | 1.93E-07 |
| NO, (MT)                                      |          |          |          |
| NO <sub>2</sub> -, (MT)                       | 4.50E-07 | 3.41E-07 | 1.09E-07 |
| NO <sub>3</sub> -, (MT)                       | 1.85E+05 | 1.40E+05 | 4.50E+04 |
| Np+4, (MT)                                    | 6.17E-09 | 4.67E-09 | 1.50E-09 |
| OH-, (MT)                                     | 1.11E-05 | 8.37E-06 | 2.69E-06 |
| Pb+4, (MT)                                    | 3.58E-06 | 2.71E-06 | 8.70E-07 |
| PO <sub>4</sub> -3, (MT)                      | 6.43E-03 | 4.87E-03 | 1.56E-03 |
| Poly, (MT)                                    | 1.08E-05 | 8.20E-06 | 2.63E-06 |
| Ru+4, (MT)                                    | 1.19E-08 | 8.99E-09 | 2.89E-09 |
| Rb+, (MT)                                     | 7.82E-08 | 5.92E-08 | 1.90E-08 |
| Rer+7, (MT)                                   | 6.07E-09 | 4.60E-09 | 1.48E-09 |
| Rh+3, (MT)                                    | 1.82E-08 | 1.38E-08 | 4.43E-09 |
| Ru+3, (MT)                                    | 3.72E-08 | 2.82E-08 | 9.04E-09 |
| Sb+5, (MT)                                    | 8.28E-08 | 6.26E-08 | 2.01E-08 |
| Se+6, (MT)                                    | 7.04E-07 | 5.33E-07 | 1.71E-07 |
| Si+4, (MT)                                    | 1.72E-05 | 1.30E-05 | 4.17E-06 |
| Sm+3, (MT)                                    | 6.09E-10 | 4.60E-10 | 1.48E-10 |
| Sn+4, (MT)                                    | 6.31E-09 | 4.78E-09 | 1.53E-09 |
| SO <sub>4</sub> -2, (MT)                      | 2.51E-03 | 1.90E-03 | 6.10E-04 |
| Sr+2, (MT)                                    | 7.23E-07 | 5.47E-07 | 1.76E-07 |
| ToO <sub>4</sub> -, (MT)                      | 3.73E-06 | 2.82E-06 | 9.05E-07 |
| Tet+6, (MT)                                   | 8.14E-09 | 6.16E-09 | 1.98E-09 |
| Ti+4, (MT)                                    | 2.96E-07 | 2.24E-07 | 7.19E-08 |
| Ti+4, (MT)                                    | 1.12E-08 | 8.45E-09 | 2.71E-09 |
| Tl+3, (MT)                                    | 4.10E-07 | 3.11E-07 | 9.97E-08 |
| TCC, (MT)                                     | 9.80E-04 | 7.42E-04 | 2.38E-04 |
| UO <sub>2</sub> +2, (MT)                      | 1.24E-04 | 9.37E-05 | 3.01E-05 |
| V+5, (MT)                                     | 1.23E-08 | 9.30E-09 | 2.98E-09 |
| W+6, (MT)                                     | 4.11E-06 | 3.11E-06 | 9.99E-07 |
| Zn+2, (MT)                                    | 1.12E-06 | 8.47E-07 | 2.72E-07 |
| ZrO <sub>2</sub> .2H <sub>2</sub> O, (MT)     | 3.60E-05 | 2.73E-05 | 8.75E-06 |

| STREAM NAME                                             | 77       | 78       | 79       |
|---------------------------------------------------------|----------|----------|----------|
| SOLID COMPONENTS                                        |          |          |          |
| Total Mass Flow, (MT)                                   | 5.00E+05 | 3.83E+02 | 5.00E+05 |
| Al, (MT)                                                | 2.84E+03 | 2.17E+00 | 2.83E+03 |
| Fe, (MT)                                                | 9.85E-03 | 7.53E-06 | 9.84E-03 |
| Cr, (MT)                                                | 3.59E-06 | 2.74E-09 | 3.59E-06 |
| Na, (MT)                                                | 9.91E+04 | 7.57E+01 | 9.90E+04 |
| Si, (MT)                                                | 5.20E-02 | 3.97E-05 | 5.19E-02 |
| P, (MT)                                                 | 6.90E-05 | 5.27E-08 | 6.89E-05 |
| NO <sub>2</sub> - and NO <sub>3</sub> -, (MT)           | 2.87E+05 | 2.19E+02 | 2.87E+05 |
| Cs and Ba, (MCl)                                        | 2.41E-06 | 1.83E-09 | 2.40E-06 |
| Sr and Y, (MCl)                                         | 5.85E-08 | 4.47E-11 | 5.85E-08 |
| Tc, (MCl)                                               | 8.31E-10 | 6.34E-13 | 8.30E-10 |
| TRU, (MCl)                                              | 2.61E-10 | 1.99E-13 | 2.61E-10 |
| Total MCl                                               | 4.70E-06 | 3.59E-09 | 4.70E-06 |
| Ag <sup>+</sup> , (MT)                                  | 9.37E-10 | 7.15E-13 | 9.36E-10 |
| Al+3, (MT)                                              | 2.84E+03 | 2.17E+00 | 2.83E+03 |
| Am+3, (MT)                                              | 5.91E-11 | 4.51E-14 | 5.91E-11 |
| As+5, (MT)                                              | 5.21E-09 | 3.97E-12 | 5.21E-09 |
| B+3, (MT)                                               | 3.04E-09 | 2.32E-12 | 3.04E-09 |
| Ba+2, (MT)                                              | 8.65E-09 | 6.59E-12 | 8.64E-09 |
| Ba+2, (MT)                                              | 2.14E-11 | 1.63E-14 | 2.14E-11 |
| Bi+3, (MT)                                              | 1.76E-06 | 1.35E-09 | 1.76E-06 |
| Carbon-14, (MT)                                         | 2.97E-11 | 2.27E-14 | 2.97E-11 |
| Cat2, (MT)                                              | 3.19E-07 | 2.44E-10 | 3.19E-07 |
| Cancrinite, (MT)                                        | 3.15E-01 | 2.41E-04 | 3.15E-01 |
| Cd+2, (MT)                                              | 6.13E-08 | 4.67E-11 | 6.12E-08 |
| Ce+3, (MT)                                              | 9.86E-08 | 7.53E-11 | 9.85E-08 |
| Cl-, (MT)                                               | 1.31E-05 | 1.00E-08 | 1.31E-05 |
| Cm+3, (MT)                                              | 1.57E-28 | 1.11E-28 | 1.57E-28 |
| Co+3, (MT)                                              | 1.51E-09 | 1.15E-12 | 1.51E-09 |
| CO <sub>3</sub> -2, (MT)                                | 2.60E-08 | 1.98E-11 | 2.60E-08 |
| Cr+3, (MT)                                              | 3.59E-06 | 2.74E-09 | 3.59E-06 |
| Csr, (MT)                                               | 2.93E-08 | 2.24E-11 | 2.93E-08 |
| Cr+2, (MT)                                              | 6.06E-09 | 4.63E-12 | 6.06E-09 |
| F-, (MT)                                                | 3.00E-05 | 2.29E-08 | 3.00E-05 |
| Fet3, (MT)                                              | 3.10E-07 | 2.36E-10 | 3.09E-07 |
| H <sub>2</sub> O, (MT)                                  | 1.12E+05 | 8.53E+01 | 1.12E+05 |
| Hg+2, (MT)                                              | 3.14E-08 | 2.39E-11 | 3.13E-08 |
| I-, (MT)                                                | 6.30E-09 | 4.80E-12 | 6.29E-09 |
| K+, (MT)                                                | 3.84E-05 | 2.93E-08 | 3.83E-05 |
| La+3, (MT)                                              | 1.45E-08 | 1.11E-11 | 1.45E-08 |
| Li+, (MT)                                               | 8.39E-10 | 6.40E-13 | 8.39E-10 |
| Mg+2, (MT)                                              | 1.52E-08 | 1.16E-11 | 1.52E-08 |
| MnO <sub>2</sub> , (MT)                                 | 6.08E-07 | 4.65E-10 | 6.08E-07 |
| Mb+6, (MT)                                              | 8.92E-08 | 6.80E-11 | 8.91E-08 |
| Nat, (MT)                                               | 9.91E+04 | 7.57E+01 | 9.90E+04 |
| Ni+3, (MT)                                              | 1.71E-08 | 1.30E-11 | 1.71E-08 |
| Ni <sub>2</sub> FeCN <sub>6</sub> , (MT)                | 5.81E-02 | 4.44E-05 | 5.80E-02 |
| NO <sub>2</sub> -, (MT)                                 | 9.69E-09 | 7.40E-12 | 9.68E-09 |
| NO <sub>3</sub> -, (MT)                                 | 2.87E+05 | 2.19E+02 | 2.87E+05 |
| Np+4, (MT)                                              | 1.33E-10 | 1.01E-13 | 1.33E-10 |
| OH-, (MT)                                               | 2.38E-07 | 1.82E-10 | 2.38E-07 |
| P <sub>2</sub> O <sub>5</sub> :24H <sub>2</sub> O, (MT) | 2.34E-03 | 1.79E-06 | 2.34E-03 |
| Pb+4, (MT)                                              | 7.70E-08 | 5.88E-11 | 7.70E-08 |
| PO <sub>4</sub> -3, (MT)                                | 1.39E-04 | 1.06E-07 | 1.38E-04 |
| Poly, (MT)                                              | 7.20E-03 | 5.51E-06 | 7.20E-03 |
| Ru+4, (MT)                                              | 2.56E-10 | 1.95E-13 | 2.55E-10 |
| Rb+, (MT)                                               | 1.68E-09 | 1.28E-12 | 1.68E-09 |
| Re+7, (MT)                                              | 1.31E-10 | 9.96E-14 | 1.31E-10 |
| Rh+3, (MT)                                              | 3.92E-10 | 2.99E-13 | 3.92E-10 |
| Ru+3, (MT)                                              | 8.01E-10 | 6.11E-13 | 8.00E-10 |
| Sb+5, (MT)                                              | 1.78E-09 | 1.36E-12 | 1.78E-09 |
| Se+6, (MT)                                              | 1.52E-08 | 1.16E-11 | 1.51E-08 |
| Si+4, (MT)                                              | 3.69E-07 | 2.82E-10 | 3.69E-07 |
| Sn+3, (MT)                                              | 1.31E-11 | 1.00E-14 | 1.31E-11 |
| Sn+4, (MT)                                              | 1.36E-10 | 1.04E-13 | 1.36E-10 |
| SO <sub>4</sub> -2, (MT)                                | 5.40E-05 | 4.13E-08 | 5.39E-05 |
| Sr+2, (MT)                                              | 1.56E-08 | 1.19E-11 | 1.55E-08 |
| TcO <sub>4</sub> -, (MT)                                | 8.02E-08 | 6.11E-11 | 8.01E-08 |
| Te+6, (MT)                                              | 1.75E-10 | 1.34E-13 | 1.75E-10 |
| Th+4, (MT)                                              | 6.37E-09 | 4.86E-12 | 6.36E-09 |
| Ti+4, (MT)                                              | 2.40E-10 | 1.83E-13 | 2.40E-10 |
| Tl+3, (MT)                                              | 8.83E-09 | 6.74E-12 | 8.83E-09 |
| TCC, (MT)                                               | 2.11E-05 | 1.61E-08 | 2.11E-05 |
| UO <sub>2</sub> +2, (MT)                                | 2.67E-06 | 2.04E-09 | 2.66E-06 |
| V+5, (MT)                                               | 2.64E-10 | 2.02E-13 | 2.64E-10 |
| W+6, (MT)                                               | 8.85E-08 | 6.75E-11 | 8.84E-08 |
| Zn+2, (MT)                                              | 2.41E-08 | 1.84E-11 | 2.41E-08 |
| ZrO <sub>2</sub> :2H <sub>2</sub> O, (MT)               | 7.75E-07 | 5.91E-10 | 7.75E-07 |