<table>
<thead>
<tr>
<th>Site Identification</th>
<th>Sample Validity for Annual Period</th>
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<tr>
<td>Site Name</td>
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<tr>
<td>Site ID</td>
<td>IN34</td>
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<tr>
<td>State</td>
<td>IN</td>
</tr>
<tr>
<td>County</td>
<td>Porter</td>
</tr>
<tr>
<td>Operating Agency</td>
<td>NPS</td>
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<tr>
<td>Sponsoring Agency</td>
<td>NPS</td>
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<tr>
<td>Longitude</td>
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<td>Elevation</td>
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<tr>
<td>Number of samples</td>
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<tr>
<td>Valid Samples</td>
<td>47</td>
</tr>
<tr>
<td>with precipitation</td>
<td>45</td>
</tr>
<tr>
<td>with full chemistry**</td>
<td>45</td>
</tr>
<tr>
<td>without chemistry</td>
<td>0</td>
</tr>
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<td>without precipitation</td>
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<tr>
<td>with precipitation</td>
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<td>missing precipitation data</td>
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### Summary Period Information

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<tr>
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<th>Winter</th>
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<th>Summer</th>
<th>Fall</th>
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<tbody>
<tr>
<td>First summary period day</td>
<td>12/30/1997</td>
<td>12/02/1997</td>
<td>03/03/1998</td>
<td>06/02/1998</td>
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<td>91</td>
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<td>90</td>
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<tr>
<td>Measured precipitation (cm)</td>
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<td>17.5</td>
<td>30.7</td>
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<td>16.7</td>
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<tr>
<td>Valid samples with full chemistry**</td>
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<td>12</td>
<td>11</td>
<td>12</td>
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<td>Valid field pH measurements</td>
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### NADP/NTN Completeness Criteria

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<th>Winter</th>
<th>Spring*</th>
<th>Summer</th>
<th>Fall</th>
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</thead>
<tbody>
<tr>
<td>1. Summary period with valid samples (%)</td>
<td>91.8</td>
<td>92.3</td>
<td>84.6</td>
<td>92.4</td>
<td>93.3</td>
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<td>2. Summary period with precip coverage (%)</td>
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<td>92.3</td>
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<td>92.4</td>
<td>100.0</td>
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<tr>
<td>3. Measured precipitation with valid samples (%)</td>
<td>91.0</td>
<td>100.0</td>
<td>74.3</td>
<td>100.0</td>
<td>95.4</td>
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<tr>
<td>4. Collector efficiency (%)</td>
<td>89.8</td>
<td>80.3</td>
<td>87.9</td>
<td>96.9</td>
<td>88.0</td>
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<tr>
<td>Precip with full chemistry and valid field pH (%)</td>
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<td>23.8</td>
<td>37.2</td>
<td>79.5</td>
<td>47.2</td>
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</tbody>
</table>

* = Data do not meet NADP/NTN Completeness Criteria for this period.

** = Valid samples for which all Laboratory Chemical measurements were made (The ONLY samples described by the percentile distributions in the Statistical Summary of Precipitation Chemistry for Valid Samples).

*** = Measured precipitation for sample periods during which precipitation occurred and for which complete valid laboratory chemistry data are available.
### 1998 Annual & Seasonal Data Summary for Site IN34

#### Page 2: Statistical Summary of Precipitation Chemistry for Valid Samples

**Precipitation-Weighted Mean Concentrations**

<table>
<thead>
<tr>
<th></th>
<th>Ca (mg/L)</th>
<th>Mg (mg/L)</th>
<th>K (mg/L)</th>
<th>Na (mg/L)</th>
<th>NH₄ (mg/L)</th>
<th>NO₃ (mg/L)</th>
<th>Cl (mg/L)</th>
<th>SO₄ (mg/L)</th>
<th>H(lab) (pH)</th>
<th>H(fld) (pH)</th>
<th>pH(lab)</th>
<th>pH(fld)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Annual</strong></td>
<td>0.33</td>
<td>0.066</td>
<td>0.032</td>
<td>0.061</td>
<td>0.43</td>
<td>1.71</td>
<td>0.14</td>
<td>2.40</td>
<td>3.07E-02</td>
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<td>4.60</td>
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<tr>
<td><strong>Winter</strong></td>
<td>0.22</td>
<td>0.041</td>
<td>0.018</td>
<td>0.075</td>
<td>0.22</td>
<td>1.58</td>
<td>0.16</td>
<td>1.52</td>
<td>3.05E-02</td>
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<td>4.61</td>
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<tr>
<td><strong>Spring</strong></td>
<td>0.29</td>
<td>0.053</td>
<td>0.028</td>
<td>0.070</td>
<td>0.56</td>
<td>1.91</td>
<td>0.14</td>
<td>2.56</td>
<td>3.11E-02</td>
<td>2.74E-02</td>
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<td>4.56</td>
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<tr>
<td><strong>Summer</strong></td>
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<td>0.081</td>
<td>0.045</td>
<td>0.032</td>
<td>0.37</td>
<td>1.65</td>
<td>0.11</td>
<td>2.58</td>
<td>3.26E-02</td>
<td>2.31E-02</td>
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<tr>
<td><strong>Fall</strong></td>
<td>0.33</td>
<td>0.084</td>
<td>0.029</td>
<td>0.067</td>
<td>0.52</td>
<td>1.70</td>
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<td>2.69E-02</td>
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<td>4.57</td>
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**Deposition**

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<tr>
<th></th>
<th>Ca (mg/L)</th>
<th>Mg (mg/L)</th>
<th>K (mg/L)</th>
<th>Na (mg/L)</th>
<th>NH₄ (mg/L)</th>
<th>NO₃ (mg/L)</th>
<th>Cl (mg/L)</th>
<th>SO₄ (mg/L)</th>
<th>H(lab) (pH)</th>
<th>H(fld) (pH)</th>
<th>pH(lab)</th>
<th>pH(fld)</th>
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<tbody>
<tr>
<td><strong>Annual</strong></td>
<td>3.22</td>
<td>0.646</td>
<td>0.313</td>
<td>0.597</td>
<td>4.20</td>
<td>16.73</td>
<td>1.39</td>
<td>23.51</td>
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<td>2.46E-01</td>
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<tr>
<td><strong>Winter</strong></td>
<td>0.39</td>
<td>0.072</td>
<td>0.031</td>
<td>0.131</td>
<td>0.38</td>
<td>2.76</td>
<td>0.28</td>
<td>2.65</td>
<td>5.32E-02</td>
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<tr>
<td><strong>Spring</strong></td>
<td>0.91</td>
<td>0.163</td>
<td>0.086</td>
<td>0.215</td>
<td>1.74</td>
<td>5.88</td>
<td>0.44</td>
<td>7.86</td>
<td>9.56E-02</td>
<td>8.41E-02</td>
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<tr>
<td><strong>Summer</strong></td>
<td>1.26</td>
<td>0.240</td>
<td>0.133</td>
<td>0.095</td>
<td>1.09</td>
<td>4.88</td>
<td>0.32</td>
<td>7.64</td>
<td>9.65E-02</td>
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<td><strong>Fall</strong></td>
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**Weekly Sample Concentrations**

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<tr>
<th></th>
<th>Ca (mg/L)</th>
<th>Mg (mg/L)</th>
<th>K (mg/L)</th>
<th>Na (mg/L)</th>
<th>NH₄ (mg/L)</th>
<th>NO₃ (mg/L)</th>
<th>Cl (mg/L)</th>
<th>SO₄ (mg/L)</th>
<th>H(lab) (pH)</th>
<th>H(fld) (pH)</th>
<th>pH(lab)</th>
<th>pH(fld)</th>
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</thead>
<tbody>
<tr>
<td><strong>Minimum</strong></td>
<td>0.04</td>
<td>0.008</td>
<td>0.003</td>
<td>0.014</td>
<td>0.05</td>
<td>0.53</td>
<td>0.04</td>
<td>0.73</td>
<td>3.89E-04</td>
<td>2.45E-04</td>
<td>3.94</td>
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<tr>
<td><strong>Percentile 10</strong></td>
<td>0.10</td>
<td>0.019</td>
<td>0.010</td>
<td>0.017</td>
<td>0.13</td>
<td>0.93</td>
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<td>1.06</td>
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<tr>
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<td>0.032</td>
<td>0.015</td>
<td>0.023</td>
<td>0.20</td>
<td>1.20</td>
<td>0.09</td>
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<td>4.41</td>
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<tr>
<td><strong>Percentile 50</strong></td>
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<td>0.029</td>
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<tr>
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<td>0.134</td>
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<td>0.87</td>
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<td>0.375</td>
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<td><strong>Arithmetic mean</strong></td>
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<td>0.099</td>
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**Other Parameters**

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<th>Measured Precipitation*** cm</th>
<th>Conduc-tivity uS/cm</th>
<th>Equivalent Ratios</th>
<th>SO₄ NO₃</th>
<th>SO₄+NO₃ H</th>
<th>Cation Anion</th>
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<td><strong>Percentile 10</strong></td>
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<td>1.12</td>
<td>1.48</td>
<td>0.88</td>
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</tr>
<tr>
<td><strong>Percentile 25</strong></td>
<td>0.63</td>
<td>15.1</td>
<td>1.45</td>
<td>1.75</td>
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<tr>
<td><strong>Percentile 50</strong></td>
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<td>1.70</td>
<td>2.91</td>
<td>0.97</td>
<td></td>
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<tr>
<td><strong>Percentile 75</strong></td>
<td>2.86</td>
<td>28.0</td>
<td>2.03</td>
<td>5.71</td>
<td>0.99</td>
<td></td>
</tr>
<tr>
<td><strong>Percentile 90</strong></td>
<td>4.57</td>
<td>38.1</td>
<td>2.79</td>
<td>45.22</td>
<td>1.05</td>
<td></td>
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<tr>
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**Annual and Seasonal Equivalence Ratios**

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<th>SO₄+NO₃ H</th>
<th>Cation Anion</th>
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</thead>
<tbody>
<tr>
<td><strong>Annual</strong></td>
<td>1.82</td>
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<td><strong>Winter</strong></td>
<td>1.24</td>
<td>1.87</td>
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<tr>
<td><strong>Spring</strong></td>
<td>1.73</td>
<td>2.70</td>
<td>0.97</td>
</tr>
<tr>
<td><strong>Summer</strong></td>
<td>2.02</td>
<td>2.46</td>
<td>1.00</td>
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<tr>
<td><strong>Fall</strong></td>
<td>1.97</td>
<td>3.03</td>
<td>0.96</td>
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*Please see page 1 for footnotes.*