Saltonseaitie

**Crystal Data:** Hexagonal. *Point Group:* $\bar{3}$. As lozenge-shaped and bladed crystals to ~ 10 cm that are composites of parallel-grown \{01\bar{1} \} rhombohedra.

**Physical Properties:** *Cleavage:* Very good on \{110\}. *Tenacity:* Brittle. *Fracture:* Irregular. *Hardness:* $\approx 2.5$ D(meas.) = 2.26(1) D(calc.) = 2.297 Astringent taste. Markedly hygroscopic.

**Optical Properties:** Transparent. *Color:* Colorless; typically appear light orange due to inclusions of akaganéite. *Streak:* White. *Luster:* Vitreous to oily (due to deliquescence). *Optical Class:* Uniaxial (+). $\omega = 1.577(1)$ $\varepsilon = 1.578(1)$

**Cell Data:** Space Group: $R\bar{3}c$. $a = 12.0966(5)$ $c = 13.9555(10)$ $Z = 6$

**X-ray Powder Pattern:** Salton Sea, Imperial County, California, USA. 2.542 (100), 2.851 (68), 2.625 (62), 5.83 (61), 2.689 (32), 1.983 (32), 3.498 (25)

**Chemistry:**

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>K</td>
<td>28.79</td>
<td>28.75</td>
</tr>
<tr>
<td>Na</td>
<td>5.35</td>
<td>5.64</td>
</tr>
<tr>
<td>Mn</td>
<td>13.48</td>
<td>13.47</td>
</tr>
<tr>
<td>Fe</td>
<td>0.24</td>
<td></td>
</tr>
<tr>
<td>Cl</td>
<td>52.19</td>
<td>52.14</td>
</tr>
<tr>
<td>Total</td>
<td>100.05</td>
<td>100.00</td>
</tr>
</tbody>
</table>

(1) Salton Sea, Imperial County, California, USA; average of 5 electron microprobe analyses; corresponds to $K_{3.06}Na_{0.93}Mn^{2+}_{1.00}Fe^{2+}_{0.02}Cl_6$. (2) $K_3NaMn^{2+}Cl_6$.

**Occurrence:** The product of natural evaporation of geothermal (hydrothermal) brines enriched in K, Na, Mn, and Cl.

**Association:** Sylvite, halite, akaganéite.

**Distribution:** From near the southern shoreline, Salton Sea, Imperial County, California, USA.

**Name:** For the body of water adjacent to where the first specimens were collected.

**Type Material:** Natural History Museum of Los Angeles County, Los Angeles, California, USA (23604) and Museum Victoria, Melbourne, Australia (M51615).