ACID MINE DRAINAGE—RELEASING OF CENTRAL BASIN'S TREATED ACID MINE WATER
09 MAY 2014

The Trans Caledon Tunnel Authority (TCTA), a state owned entity under the Department of Water Affairs (DWA), was, in 2011 mandated by government through the Inter-Ministerial Committee (IMC) on Acid Mine Drainage (AMD) to provide a short-term solution to the Acid Mine Drainage (AMD) challenge experienced by the Gauteng province. The IMC comprises of the Ministers of Water and Environmental Affairs, Mineral Resources, Finance, Science and Technology, as well as the Minister in the Presidency responsible for National Planning.

This project is aimed at implementing the short term action plan in the Western, Central and Eastern Basins of the Witwatersrand Goldfields as recommended to the Inter-Ministerial Committee by the Team of Experts (ToE), chaired by the CEO of the Council for GeoScience. The short term action plan is to prevent decant in the Western Basin and breaching of the Environmental Critical Level (ECL) in the Central and Eastern Basins.

The construction of the central basin AMD treatment plant, recently launched by the IMC co-chairpersons, is closely coming to completion. The pumping, treatment and release of the treated AMD for the testing of the plant is planned to commence today on 09 May 2014.

The testing of the plant will be implemented in two phases:
  • One train will be operated, and water released from 09 May, and then progressively,
  • A second train will be put in operation in the following weeks.

As expected the discharge from this plant will have an effect on the Elsburgspruit River, the river into which treated AMD will be released. As such it is necessary to keep downstream users, as well as other interested and affected parties informed of the following:
• The volume of the water that will be released on 9 May 2014 will be 75% of the ultimate 84ML/day, which is about 63ML/day. The full capacity to 84ML/day will be reached on 30 May 2014.
• The treated AMD will not be harmful to the end users.
• The quality of the treated AMD will be as per the table below.

| Water Variable | Quality | Average water quality across all three Basins | HDS plant effluent
<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Sulphates</td>
<td>4344 mg/ℓ</td>
<td>2400 mg/ℓ</td>
<td>6-9</td>
</tr>
<tr>
<td>pH</td>
<td>4</td>
<td>6-9</td>
<td></td>
</tr>
<tr>
<td>Iron</td>
<td>768 mg/ℓ</td>
<td>&lt;1 mg/ℓ</td>
<td></td>
</tr>
<tr>
<td>Aluminium</td>
<td>35 mg/ℓ</td>
<td>&lt;1 mg/ℓ</td>
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<tr>
<td>Manganese</td>
<td>127 mg/ℓ</td>
<td>&lt;3 mg/ℓ</td>
<td></td>
</tr>
<tr>
<td>Uranium</td>
<td>0.2 mg/ℓ</td>
<td>0.05 mg/ℓ</td>
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Celebrating Twenty Years of Water Delivery for Social and Economic Development.

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