

WATER TREATMENT SYSTEM INCLUDING REVERSE OSMOSIS



LENMARK
A NEW WAY TO BUY USED

WATER TREATMENT
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Project Advantages:



Accelerated Project

Acquiring existing equipment can reduce procurement lead times, fabrication delays, and shorten overall

Subject to inspection, engineering, and recommissioning requirement.



Flexible Industrial & Operational

The skidded and containerized components can be configured together as a treatment train or integrated into an existing water-treatment

Subject to engineering review and verification of completeness.



Lower Upfront Equipment Cost

Current asking prices for the core equipment

(2) Pumping Stations:

CA\$221,000.00

Core Equipment Package:

CA\$1,774,000.00



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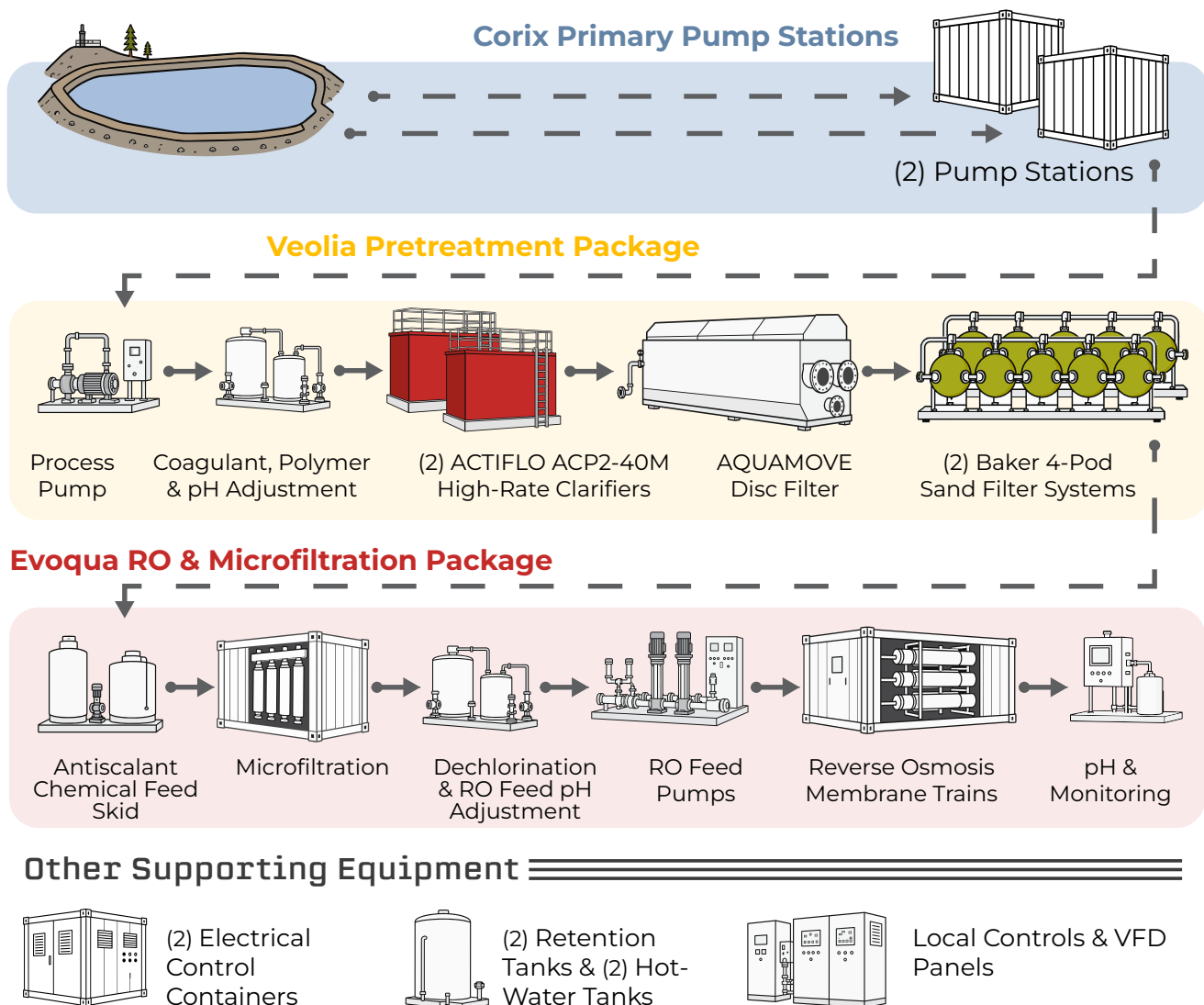
EQUIPMENT HISTORY

De Beers submitted the Snap Lake Water Treatment Plant as-built package in September 2018, following the installation of the reverse osmosis module.

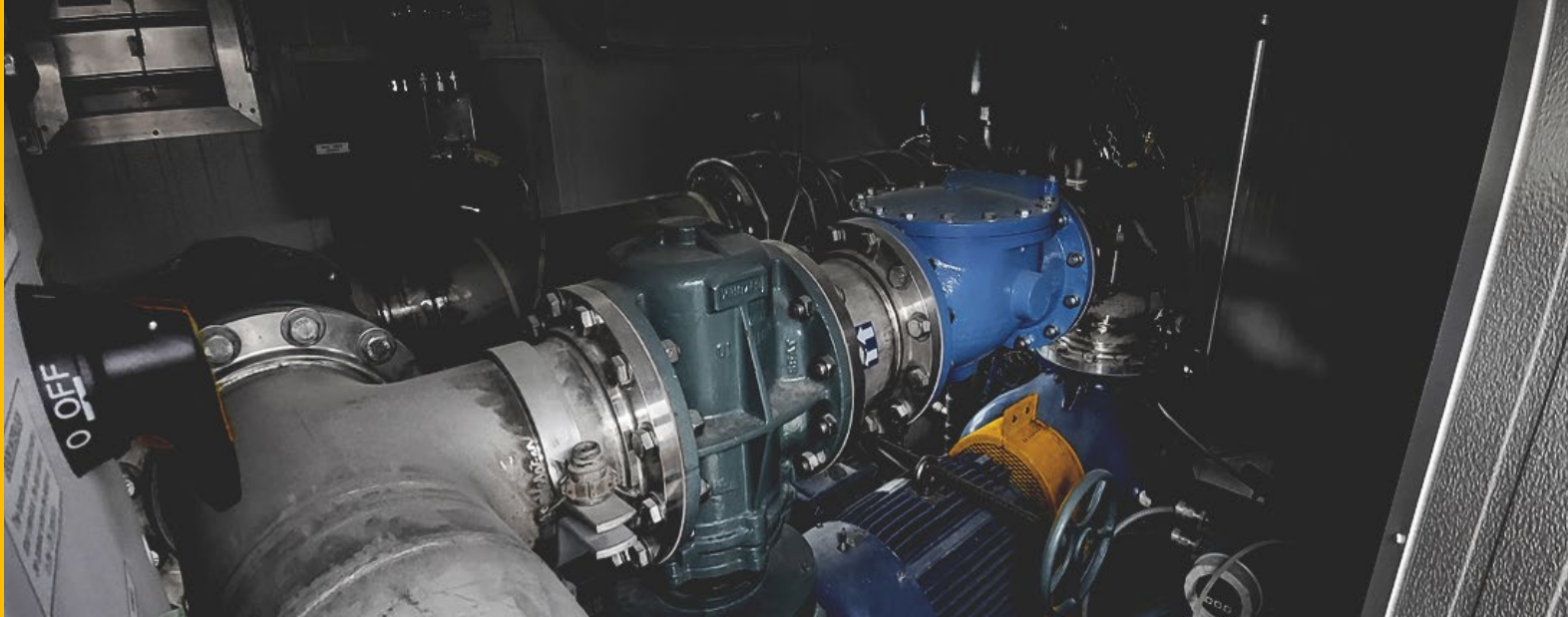
The mine had entered into care and maintenance in December 2015, so the addition of the RO module supported closure-era water management, rather than normal mining production.

Individual equipment manufacture dates vary

WHAT'S INCLUDED?



Simplified reconstruction of the historic Snap Lake treatment process. Not to scale. Intermediate tanks, recycle streams and waste-handling systems are omitted for clarity.



Pump Stations

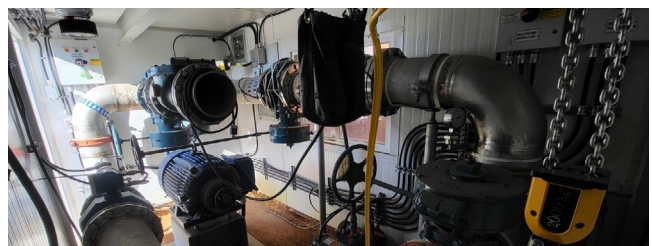
[2] CORIX 100 HP Primary Pump-Station Packages

Two weatherproof CORIX primary pump-station packages are available separately for upstream water transfer. Both are housed in insulated, heated and ventilated enclosures with separate electrical/control and mechanical rooms designed for all-weather service.



Pump Station 1

This 100HP Pump Station Package is complete with a weather-proof, all-temperature enclosure for before your treatment train.



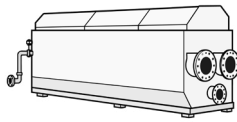
Pump Station 2

Includes the weatherproof enclosure, 100 HP motor, VFD, controls and associated components, but the main pump is not included.

Key Assets: Veolia Pretreatment Package

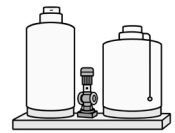
Aquamove Disc Filter

The Kruger/Hydrotech disc filter removes suspended solids by passing water through woven filter media mounted on rotating discs. Captured solids are automatically removed through a backwash system, allowing filtration to continue during cleaning.



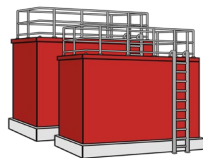
Chemical Dosing

The Veolia pretreatment containers include coagulant, polymer and sodium-hydroxide dosing equipment. In the historic membrane process, antiscalant was added ahead of microfiltration, while sodium-bisulfite dechlorination and pH conditioning occurred between MF and RO.



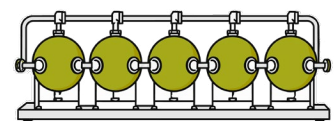
ACTIFLO High-Rate Clarifiers

Two ACP2-40M units combine coagulation, micro-sand-assisted flocculation and lamella settling to remove suspended solids before downstream filtration.



Sand Media Filter Systems

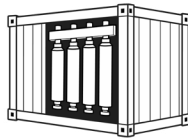
The two Baker four-pod systems use sand media to remove remaining organic and inorganic suspended solids. Each skid is designed for automatic backwashing and is rated for flows up to 1,000 GPM.



Key Assets: Evoqua RO & Microfiltration

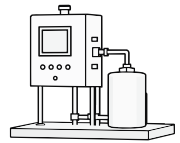
Microfiltration

The containerized Pall Aria microfiltration system uses 0.1 µm hollow-fibre membranes to remove precipitated manganese and remaining suspended solids before the RO stage.



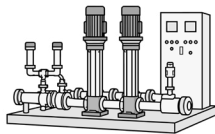
Antiscalant Chemical Feed Skid

The included chemical feed skid doses antiscalant into the treatment stream to help reduce mineral scale formation and protect the RO membranes during operation.



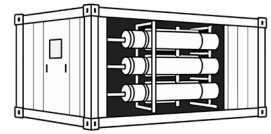
Duplex RO Feed Pumps

The included duplex booster-pump skid appears consistent with the historic RO feed-pump stage between the MF filtrate tank and the RO container. Exact pump duty, motor data and equipment tags should be verified from the nameplates and supplied documentation.



RO Membrane Trains

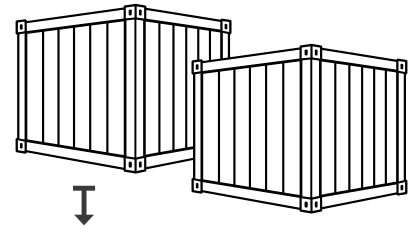
The package contains two Evoqua Vantage M84 reverse-osmosis units. RO separates the feed into treated permeate and concentrated reject. The 2018 Snap Lake design basis shows approximately 1,948 m³/day of permeate and 757 m³/day of concentrate.



PUMPING & PROCESSING DETAILS

Primary Pumping

3,400 GPM (Per Pump)
772 m³/hour (Rated Flow)



Water Treatment Plant Inlet

3,000 m³/day
139 m³/hour (Instant Operating Flow)

Water Treatment Output

2,800 m³/day
130 m³/hour (Instant Operating Flow)

RO Feed

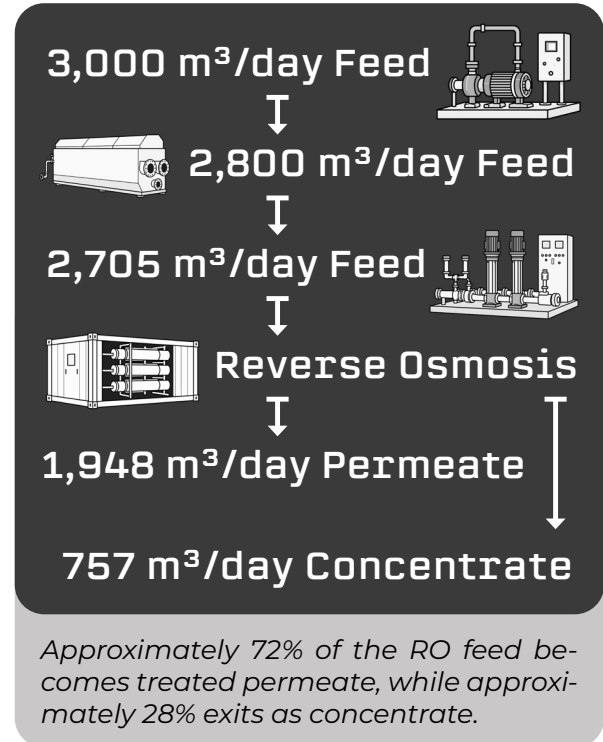
2,705 m³/day
126 m³/hour (Instant Operating Flow)

Treated Water / RO Permeate

1,948 m³/day
Approximately 72% Recovery

Concentrate / Reject

757 m³/day
Approximately 28% of RO Feed



Pretreatment & RO Feed Pumping

The existing upstream pretreatment equipment had a higher rated flow capacity than the RO design flow. For the 2018 installation, the overall plant was designed around a 3,000 m³/day average-flow basis, with approximately 2,705 m³/day delivered to the reverse-osmosis system after filtration, backwashing and other process losses.

Aquamove
Mobile Water Solutions



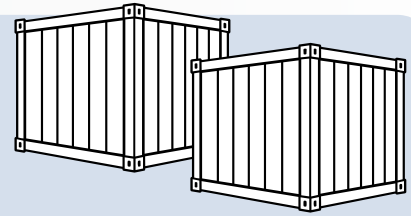
* These design values are taken from the 2018 Snap Lake record drawings. They are historical figures and do not represent or guarantee current equipment performance.

Equipment Package

(2) Corix 100hp Primary Pump-Stations

One (1) Missing Main Pump for 100 hp Motor

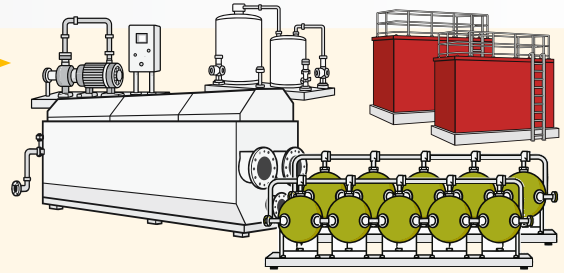
CA\$221,000.00



Veolia Pretreatment Package

**Includes: (2) Actiflo High-Performance Clarifiers, Dual-Valve pumping Manifold Isolation Assembly, Aquamove Disc Filter System, (s) Chemical & Electrical Control Containers, (2) Sand Filter Systems*

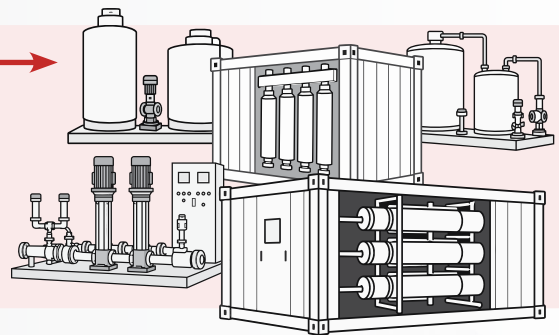
CA\$924,000.00



Evoqua RO & Microfiltration Package

**Includes: (2) Vantage M84 Reverse Osmosis Containers, Pall Aria Microfiltration Container, Distribution & Automation Control Skid, VFD Control Stand Skid, Duplex Pressure Booster Pump Skid, Frame-Mounted Centrifugal Pump Assembly, Secondary RO Antiscalant Feed System, Skid-Mounted Filtration System*

CA\$850,000.00



Available Engineering Documentation
INCLUDED WITH PURCHASE

Replacement RO Membrane Allowance
\$100,000

Installation & Labour
Site-specific quote required

Project Assumptions & Conditions

- Equipment is offered used, as-is and subject to prior sale.
- Scope is limited to the confirmed equipment and accessories listed or photographed.
- The main control enclosure shown in the original project documentation is not included.
- A complete standalone pH-adjustment and monitoring package is not separately confirmed in the current inventory.
- Buyers are responsible for verifying condition, completeness, operating specifications, preservation history and suitability for the intended application.



Pump Stations

CORIX 100 HP Primary Pump-Station Package 1

100HP Pump Station Package is with a weather-proof, all-temp enclosure.

CORIX 100 HP Primary Pump-Station Package 2

100HP Pump Station Package is with a weather-proof, all-temp enclosure. Does not include main pump.

Veolia Pretreatment Package

Aquamove Disc Filter

Removes suspended solids using rotating cloth-media filter discs.



ACTIFLO ACP2-40M Clarifier 1

Removes solids through flocculation and lamella settling.

ACTIFLO ACP2-40M Clarifier 2

Second ACP2-40M high-rate clarifier unit.

Sand Media Filter System 1

Removes remaining solids using sand media.

Sand Media Filter System 2

Provides a second automatic-backwash filtration skid.

Chemical & Electrical Control Container 1

Houses chemical dosing equipment, tanks and controls.

Chemical & Electrical Control Container 2

Second container housing chemical dosing equipment, tanks and controls.

Frame-Mounted Centrifugal Pump Assembly

Nameplate-rated process pump; exact original service to be confirmed.

Dual-Valve Piping Manifold Isolation Assembly

Controls and isolates flow between system sections.

Evoqua RO & Microfiltration

Pall Aria Microfiltration Container

Uses 0.1 µm membranes to protect the RO system.



Evoqua Vantage M84 Reverse Osmosis Container

Separates feed water into treated permeate and concentrated reject.

Skid-Mounted Filtration System

Removes suspended solids before downstream treatment.

Duplex Pressure Booster Pump Skid

Raises microfiltered water pressure ahead of the RO units.

Antiscalant Chemical Feed Skid

Doses antiscalant upstream of microfiltration.

Distribution & Automation Control Skid

Supports process distribution and automated operation.

VFD Control Stand Skid

Controls pump speed and electrical operation.



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