# 1935

 Burwash Yellowknife Mines Ltd. stakes 21 claims, including the future Giant Mine

### 1937

 Yellowknife Gold Mines Ltd. acquires Burwash's assets, which become part of a subsidiary – Giant Yellowknife Gold Mines Ltd. (GYGML)

# 1948

- June 3: first gold brick is poured
- · Tailings deposited into Back Bay

## 1949-1951

• Airborne arsenic emissions estimated at 7,500 kg/day

### 1950

• GYGML initiates first studies into arsenic in surrounding environment, leading to revised operations

### 1951

- Cold Cottrell Electrostatic Precipitator (ESP) installed to remove arsenic trioxide from roaster gases
- Arsenic emissions drop to 5,500 kg/day
- Arsenic trioxide dust pumped into mined-out storage chambers 80-250 feet below surface in permafrost

## 1952

• Mill processes 400 to 700 tons of ore per day

### 1953

Tailings dam construction marks beginning of engineered tailings disposal

### 1055

· Hot Cottrell ESP installed to capture gold-bearing arsenic dust



Giant YK Mine/NWT Archives/N-2001-014

# 1957

- Tailings dam #2 is built
- Arsenic removal from tailings effluent commences

# 1958

- Mill processing rate increases to 1,000 tons per day
- Dracco baghouse facility constructed to collect arsenic trioxide dust

### 1959

• Airborne arsenic emissions drop to 200 – 300 kg/day

## 1962

 Arsenic trioxide storage moves to mined-out stopes located in permafrost zone

#### 1967

· Improved tailings effluent treatment circuit commissioned

### 1970

 Commissioner's Lands Act proclaims surface land transfers to the Government of the Northwest Territories (GNWT), including Giant Mine site

# 1974

· Open pit mining begins

### 1981

• New tailings effluent treatment plant commences operation

# 1981-1986

- Koppers Corp. of Georgia, U.S.A. purchases 6,700 tons of arsenic trioxide dust from Giant Mine until the price drops ending Koppers Corp's purchases
- Regular inspection of storage chambers begins

### 1987

· Northwest Tailings Pond built to accommodate re-processed tailings

### 1990

 Royal Oak Resources Ltd. gains control of Giant Yellowknife Gold Mines Ltd.

### 1991

· Royal Oak Mines Inc. formed



Black & white photos courtesy of the Prince of Wales Northern Heritage Centre

Aerial overview picture courtesy of Paul Vescei

### 1992

• Explosion during labour strike results in deaths of nine miners

# 1997

 Indian and Northern Affairs Canada (INAC) along with Royal Oak Mines, Environment Canada, the GNWT and the City of Yellowknife, co-host a technical workshop to discuss management of arsenic trioxide at Giant Mine

### 1999

- Royal Oak Mines goes into receivership and Giant Mine is transferred to INAC
- INAC starts work on action plan to manage arsenic trioxide dust stored underground
- INAC sells Giant Mine assets to Miramar Giant Mine Ltd., a division
  of Miramar Mining Corporation. INAC takes on role of caretaker for
  pre-existing environmental liabilities on the property, including arsenic
  trioxide dust stored underground

# 2000

 SRK Consulting wins international competition to become lead technical advisor to INAC on the management of arsenic trioxide dust

## 2001

- Technical advisor completes report "Study of Management Alternatives – Giant Mine Arsenic Trioxide Dust"
- Public technical workshop held to review report
- Remediation work completed on former Back Bay tailings beach
- Miramar Giant Mine Ltd. submits an abandonment and restoration plan to the Mackenzie Valley Land and Water Board

# 2002

- INAC and community stakeholders appoint Independent Peer Review Panel to assess options for long-term management of arsenic trioxide dust
- Tier 2 human health and ecological risk assessments conducted to assess risks of current arsenic releases from the mine site, as well as potential future releases under various arsenic trioxide management alternatives
- Field testing initiated of deep thermosyphon

# 2003

- Independent Peer Review Panel tables its review of technical advisor's final report
- Technical advisor tables its final report "Arsenic Trioxide Management Alternatives – Giant Mine" at a public workshop in January
- INAC initiates extensive public communications campaign regarding management alternatives for Giant Mine
- Giant Mine Community Alliance is established and holds its first meeting
- The Giant Mine Remediation Project teams hosts a workshop in May
- INAC seeks approval to proceed with project description

# 2004

 INAC announces decision to proceed with the Frozen Block Method as the preferred long-term management alternative for storage of arsenic trioxide dust

### 2005

- INAC and the GNWT sign a Cooperation Agreement to work together on surface and subsurface remediation of Giant Mine
- Miramar terminates its obligations under the Reclamation Security Agreement. Giant Mine becomes an abandoned mine site
- Deton' Cho Nuna Joint Venture wins a contract to assume responsibility for interim care and maintenance of Giant Mine

## 2006

 A Remediation Plan for the immediate and long-term cleanup of the mine is developed by INAC's technical advisors and reviewed by independent experts

# 2007

- INAC submits the Remediation Plan along with a water license application to the Mackenzie Valley Land and Water Board
- Deton'Cho Nuna Joint Venture is awarded a multi-year contract for care and maintenance at Giant Mine



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