

EXECUTIVE SUMMARY

Tyhee Development Corp is a publicly traded mining Company engaged in the exploration and development of mineral properties in North America and internationally. Tyhee NWT Corp (Tyhee) is a wholly owned subsidiary of Tyhee Development Corp. Tyhee NWT Corp owns and will construct and operate the Yellowknife Gold Project (YGP).

Proposed Mine Plan

The YGP mine plan is based on mining two deposits (Ormsby and Nicholas Lake) with a feed to a single mill at the Ormsby property. Both deposits will be mined initially by open pit (approximately 3 years) followed by underground operations developed from the bottom of the pits.

The YGP will process approximately 857,000 to 1,225,000 tonnes per year of ore. This will give a milling rate of 2,500 tonnes per day (TPD) to a maximum of 4,000 TPD. The water license application is based on the maximum production rate of 4,000 TPD.

It is currently estimated that approximately 15 million tonnes of waste rock will be produced at the Ormsby deposit and approximately three million tonnes will be produced at the Nicholas Lake deposit. All waste rock not used as construction material will be stored in engineered waste rock storage areas with seepage collection systems. At the Ormsby deposit the seepage from the waste rock storage area will be directed to the Tailings Containment Area or the mill process. At Nicholas Lake the seepage will be treated if necessary and then released to the receiving environment. Only non-acid generating waste will be used as construction materials.

The expected mine life for the YGP will be dependent on final mill throughput, however; at a production rate of 2,500 TPD, mine life would be ~ 13 years and at a production rate of 4,000 TPD, mine life would be ~ 8 years.

Site Preparation and Construction

Site preparation will consist of upgrading the access roads within the property to all weather roads with culverts installed where appropriate. Additional roads will be constructed to the waste disposal area(s), process plant site and explosives magazines.

The estimated quantities of sand and gravel are 75,000 to 100,000 tonnes for buildings, roads and associated structures. The estimated sand and gravel requirements for the tailings containment area at Winter Lake are approximately 25,000 tonnes and, 15,000 tonnes of clay type material, respectively.

Processing

The proposed plant process flow sheet incorporates conventional crushing and grinding. Slurry from the grinding circuit will pass through a gravity concentrator to recover the free gold. Cyclone overflow slurry will then be fed to the flotation circuit to recover native gold and associated sulphide minerals to the flotation concentrate. The gold in the flotation concentrate will be leached and recovered in a conventional carbon-in-leach circuit using dilute cyanide solution. Activated carbon adsorbs the dissolved gold and is recovered by screening. The gold is eluted from carbon conventional carbon stripping technology and recovered by electrowinning onto steel fibre cathodes. The stripped carbon will be regenerated and returned to the carbon-in-leach circuit to recover more gold.

The slurry from the cyanide leach circuit will be treated using the Caro's Acid or Inco SO₂/Air process to detoxify the remaining cyanide. The treated cyanide leach slurry will be added to the uncontaminated flotation tailings and pumped by pipeline to Winter Lake, the proposed tailings containment area. Gold recovered from both the gravity and leach circuits will be smelted on site and shipped as Dore bars for refining.

Tailings

The proposed and preferred location for tailings disposal is Winter Lake. Reclaim water will be optimized from Winter Lake. This area has an estimated storage capacity of approximately 7.9 million cubic metres (13.4 million tonnes). The quantity of tailings that are expected to be produced over the mine life is 12 million tonnes.

All process tailings will be deposited into Winter Lake. All dams constructed at Winter Lake will be impermeable structures. All process tailings will be pumped and initially deposited sub-aqueous into Winter Lake and as the mine matures, sub-aerial tailings deposition may be implemented. Reclaim water will be optimized from Winter Lake and pumped back to the process plant. During the feasibility study and detailed design phases, tailings management strategies will be developed further and included in the projects' overall Environmental Management System (EMS) which will be part of projects' final Developers Assessment Report (DAR).

Solid and Hazardous Waste

Solid wastes generated will be managed in accordance with Canadian regulations and issued licences or permits. In the absence of specific regulations, the project will utilize international guidelines and best management practices.

All solid non-combustible and non-hazardous waste will be disposed of in an approved onsite location. Combustible waste and kitchen refuse will be incinerated. Waste oil will be consumed in a waste oil burner.

Waste disposal of hazardous material will be in an approved manner either on site or in an approved off-site facility specially designed to handle that type of waste.

Sewage

Sewage wastes from the operation will be processed through a packaged sewage treatment plant. Treated sewage will be combined with the mill tailings and deposited into Winter Lake. Alternate disposal practices will be investigated during the feasibility and design phases.

Water Use

The expected fresh water requirements for the operation are:

Mill	240,000	m ³ /year (make up water)
Camp	13,700	m ³ /year
Mine	365,000	m ³ /year

The water source for both process and potable water will be Giauque Lake. Any mine water pumped from the Ormsby open pit or underground will be pumped to the TCA. The use of reclaim water from the tailings containment area will be optimized. Nicholas Lake minewater will be pumped to a minewater settling pond and if necessary, treated and discharged to the receiving environment, subject to land use permit and water licence terms and conditions.

Water Releases

It is planned to release water from the Winter Lake Tailings Containment Area to the downstream environment on an annual basis. Any water released from the tailings containment area would meet MMER discharge criteria. Any operational waste streams at Nicholas Lake will be discharged to the receiving environment as approved in the projects water licence.

Power Plant

The average power is estimated at 8 MW with a peak demand of 10 MW. Power will be generated on site using diesel powered generating units. The power plant will be strategically located to deliver power requirements to the operation.

Airstrip

Tyhee has used the existing Discovery airstrip during their advanced exploration activities and geotechnical studies have indicated that an upgraded design would allow the continued use of this airstrip without compromising the underlying tailings cap that was placed by INAC – CARD. Discussions with INAC –CARD will continue over the project review period to ensure any activities by Tyhee and concerns are included in the long term use of this airstrip.

Change house, Compressor House, Offices, Warehouse and Maintenance Shops

A Change house, for use by all personnel to shower and change into street clothes, will be located close to the mine operations for easy access. The mine maintenance shop, mine warehouse, fuel tank (for the mine and other facilities) and main offices will be located in close proximity to mine operations.

Fuel Storage

The YGPs' annual fuel storage requirements are estimated at between 16 – 20 million litres (Ormsby ~ 16 M Litres and Nicholas Lake ~ 4M litres) . All fuel tanks (welded in place) will be placed in an engineered and lined enclosure capable of holding 110% of the capacity of the largest tank. Appropriate spill response equipment will be stored at the tank farm facility.

Explosives Storage

The explosives storage facility with a current estimate of 600,000 kilograms will be placed in facilities that comply with the Table of Distances designated in the NWT, WCB regulations and any requirements by Natural Resources Canada (NRCan).

Roads

The present road layout at the site will be utilized and additional roads developed to provide access to the surface facilities. Quarried rock or clean NAG crushed waste rock will be used in roadway construction with finer dressing material possibly coming from local eskers.

Camp

The camp will be located in proximity to mine operations. The Ormsby camp will be sized to accommodate approximately 100 - 150 persons, dependent on final design. At Nicholas Lake, the camp will be designed to accommodate 50 persons subject to final design.

Winter Road

Tyhee plans to utilize the current winter road access to the YGP area from Prosperous Lake. The existing winter road will be constructed between the Ormsby Deposit and the Nicholas Lake Deposit to re-supply the Nicholas Lake Deposit and to haul the planned production of ore from that site to the mill at the Ormsby Deposit (9 km).

Human Resources

The total mine workforce to be employed is estimated from 161 to 191 depending on the final production rate (2,500 to 4,000 TPD). It is anticipated that the mine will operate 350 days per year and the process plant 365 days per year. The crew schedule will be 2 weeks on and 2 weeks off, working 12 hour shifts. Management and technical personnel may be on a varied schedule.

Project Schedule

Further engineering and Pre-feasibility studies will be completed by September, 2009. The plant construction commences in the winter of 2010/2011 for completion by March 2012. It is anticipated that the Yellowknife Gold project will be in production by the winter of 2012/2013.

Existing Environment

The YGP study area (~14,475 ha) is located within the Tazin Lake Upland Ecoregion of the Western Taiga Shield Ecozone. It is characterized by cool summers and cold winters and has a sub-humid, high boreal ecoclimate. Upland areas are dominated by bedrock exposures, while lowlands are covered by organic deposits. Dystric Brunisols are the dominant upland soils and Organic Cryosols are found in poorly drained, peat-filled depressions. Trembling aspen, jack pine, and white and black spruce dominate upland areas, while stands of tamarack and black spruce dominate poorly drained fens and bogs.

Ecological Land Classification

From baseline data collected in 2004 twenty-two ecosystem types were classified within the Yellowknife Gold Project (YGP) study area. Fourteen of these were naturally vegetated, three were classified as water, four were anthropogenic and one was cloud. Spruce-lichen (SL) was the dominant ecosystem type covering 33% of the YGP study area. Jack pine-lichen was second covering 19.5%. Treed bog was the most dominant wetland type covering 8.5%. There were eight naturally vegetated ecosystem types of restricted distribution, each covering less than 1% of the area. Dry Coniferous Woodland was the most abundant broad unit, with Burns second in abundance.

Aquatic Life

Fish were collected from Eclipse Lake, Nicholas Lake, Brien Lake and Narrow Lake. No fish were collected in Round Lake or Winter Lake. Northern pike was the most widely distributed species in the study area. Lake whitefish was the most abundant species with the collection of 5 fish from Eclipse Lake and 74 fish from Narrow Lake. The collection of lake trout was limited to Eclipse Lake (11 fish) and Nicholas Lake (9 fish). Other species collected in nets included three lake cisco in Eclipse Lake and two burbot, one from both Eclipse and Nicholas Lakes.

The six lakes surveyed within the YGP study area ranged in size from 11.5 ha to 258 ha and had a bathymetric depth ranging between 1.5 m (Winter Lake) to 55 m (Eclipse Lake) in depth. Round Lake and Winter Lake were shallow with large sections of the

lakes freezing to the bottom during winter. Eclipse Lake and Nicholas Lake were observed to support a complex diversity of habitat types, including steep and vegetated shorelines, rocky shoals and islands, deep water, boulder fields and multiple embayments. Both lakes provided important habitat attributes for the spawning, rearing and over-wintering of northern pike, lake trout and lake whitefish. Brien Lake and Narrow Lake were limited in their habitat availability for fish and were primarily comprised of a single elongated basin supporting a single deep lake section and extensive shed wetland vegetation, at both ends of each of the lakes.

Samples of composite tissue collected from fish within the YGP study area resulted in the highest values of mercury and arsenic observed in tissue from a large trout captured in Eclipse Lake. The trout (age 34+ years) was observed to contain mercury levels (4.09 mg/kg), eight times the Health and Welfare Canada restrictive consumption level of 0.5 ppm. The highest mean levels of arsenic occurred in fish captured in Eclipse Lake. High levels of selenium were observed from Lake Trout in Nicholas Lake. Northern Pike from Brien Lake showed the highest mean concentrations of copper of all fish collected within the YGP study area. Levels for cadmium, chromium, lead, nickel, silver and zinc were all found in fish tissue samples at levels below detection limits.

Sampling was also conducted on the six lakes for zooplankton and benthic invertebrate communities.

Sediments within Round Lake were shown to have higher values for arsenic, copper, nickel, zinc and phosphorus, in comparison to all other lakes sampled. Brien Lake showed the highest concentration of mercury in sediments, followed by the second highest concentrations of copper and arsenic. Sediment samples collected from Narrow Lake indicated the highest concentrations of chromium of all lakes and supported the second highest concentrations of mercury, nickel, zinc and phosphorus. Levels for chromium were found elevated within all lakes sampled in the study area. Winter Lake was found to have the lowest concentrations of arsenic and phosphorus, and the second lowest concentrations of chromium, mercury and zinc. Eclipse Lake was observed to support the lowest concentrations of mercury and copper in sediments, while Nicholas Lake supported the lowest concentrations of nickel and zinc.

2005 Fisheries Studies - Winter and Narrow Lakes

During the summer 2005 an intensive fisheries survey of Winter and Narrow Lakes was conducted to determine the fisheries habitat capability of Winter Lake. The only fish species collected from Winter Lake were northern pike (10 juveniles). These individuals were seasonal inhabitants of the lake. Winter Lake fish habitat was found to be limited largely due to its shallow morphology.

An underwater survey of Winter Lake confirmed that bottom substrates in the lake are dominated by organics and silt, with cobbles and boulders at sporadic locations along the shoreline. Emergent and submergent vegetation occur in localized near-shore locations. Significantly, no fish or clams, or any signs of these biota, were observed on any of the twelve underwater transects surveyed in Winter Lake.

The surveys confirmed that Winter Lake provides poor habitat conditions for aquatic life.

Water Quality

The water quality of Nicholas, Eclipse and Brien Lakes is reflective of most natural surface waters in the region. The chemical characteristics for the lakes sampled were typically low, and generally consistent with natural background values for the region. Water quality is slightly acidic and very soft with low electrical conductivity. Physical parameters such as pH, turbidity and electrical conductivity were within the typical norms of Canadian Shield lakes. Excursions of the CCME guidelines were limited and explainable.

Round, Winter and Narrow Lakes flow into each other with Round Lake on the upstream end of the chain. Round Lake has also been the recipient of untreated tailings from the Historic Discovery mine and presently is the recipient of surface runoff from these tailings. This could be noted in the higher metal concentrations in Round Lake with a noticeable gradient in the metals as sampling proceeded downstream through Winter to Narrow Lakes. It should be noted that Round and Winter Lakes were mesotrophic in trophic state, while Narrow Lake was on the verge of being mesotrophic. All other lakes sampled were oligotrophic. In the case of trophic state, the impact of the tailings deposition was limited and a higher trophic state (mesotrophic) was related to the morphometric and vegetative characteristics of the lake.

The dissolved oxygen profiles in Winter Lake, confirms that the lake would not support a fish population over the winter period. All other lakes sampled had dissolved oxygen above the critical level (>6 mg/l) during the winter sampling.

Wildlife

The YGP study area lies within the boreal forest of the Taiga Shield Ecozone; however, both boreal and tundra animal species frequent the area. Twenty-six species of mammals may frequent this region. Tundra species, such as barren-ground caribou (*Rangifer tarandus groenlandicus*) are typically found within this ecoregion during the winter months, spending the summers on the tundra proper. Other species, such as gray wolf (*Canis lupus*) and wolverine (*Gulo gulo*) are residents of both tundra and boreal forest,

and frequent the transitional ecoregion to the north throughout the year. Boreal species such as mink (*Mustela vison*) and beaver (*Castor canadensis*) are also found in the area.

During the 2005 survey season, aerial caribou surveys were conducted on February 4, March 7 and April 18. In February, the caribou density estimate was 92 ± 40 caribou; in March, the density estimate was 492 ± 340 caribou; and in April, the density estimate was 196 ± 90 caribou for the entire survey area.

During the wildlife field studies, moose populations were estimated to be 1 moose per 27 km². This was considered to be typical for the area. Wildlife observations did not note any endangered species or species of concern in the area.

Fifty-eight breeding bird point count plots were completed from June 8 to 16, 2005. A total of 187 birds were documented within the sample plots, representing 34 different species. Blackpoll Warbler, White-crowned Sparrow, Chipping Sparrow, Palm Warbler and Ruby-crowned Kinglet were the most common species.

Two main eskers are located near the south of the Project area. A series of surveys were conducted of the eskers in April, July, and August, 2005. One unoccupied fox den was found on the first esker and evidence of black bear, wolf and fox were recorded on both eskers. Based on the observations obtained from these three surveys and from other incidental observations recorded during other surveys, wildlife use of the eskers appears to be generally similar to that found elsewhere in the study area in terms of species diversity or number of observations.

Environmental Effects

A preliminary assessment of the environmental effects indicates that the development of the YGP could meet all applicable federal and territorial environmental regulations and guidelines including:

- *Fisheries Act, Metal Mining Effluent Regulation, No Net Loss Policy and Schedule II listing.*
- *Chapter E-23 Environmental Protection Act, Asphalt Paving Industry Emission Regulations*
- GNWT Guideline for Dust Suppression
- Guideline for Ambient Air Quality Standards in the Northwest Territories.

Archaeology

Archaeological assessments were conducted of specific proposed development areas identified on a conceptual plan in 2004 and 2005 as follows:

- Ground reconnaissance in the vicinities of the Ormsby and Nicholas Lake portals,
- The surrounding area of the proposed tailings containment area,
- An esker east of the former Discovery mine site,
- Helicopter over-flights of the general road corridor between the two sites, the northern portion of the existing winter road to Yellowknife, and;
- An esker complex north of Nicholas Lake.
- A proposed tailings containment area and associated facilities at Winter Lake;
- Potential all weather road route connecting Ormsby with Nicholas Lake;
- Existing winter road route from Yellowknife (Prosperous Lake) to the YGP area;
- Alternative locations for processing plant and camp;
- Preliminary assessment of a possible esker airstrip.

Heritage resources found were all associated with past mining activities, with one possible exception. Some camp remains found on the south side of Round Lake may relate to aboriginal hunting activities, but this site did not appear to contain any evidence suggestive of a date older than 50 years. Additional archaeological assessments will be required when locations of all ancillary developments have been finalized.

Public Consultation

Throughout the baseline data collection programs, there has been a concerted effort to keep the public, affected First Nations and regulators informed of the project and the development activities. This has included meetings with the Yellowknife Dene Chiefs and their Land and Environment Committee, meetings with the North Slave Métis Alliance Land and Environment Committee, the NWT Métis Nation and the regulators Mineral Development Advisory Group (MDAG). Information packages on the field activities and seasonal work updates have also been provided to First Nations and regulators.

To date, no issues have been raised that cannot be dealt with during the design phase of the project. Consultation will continue throughout the construction and life of the project.