



Box 32, Wekweètì, NT X0E 1W0  
 Tel: 867-713-2500 Fax: 867-713-2502  
 (Main Office)

#1-4905 48<sup>th</sup> Street, Yellowknife, NT X1A 3S3  
 Tel: 867-765-4592 Fax: 867-765-4593  
 (BHPB & Diavik)

Application for:  
 New Land Use Permit  Amendment  to \_\_\_\_\_

1. Applicant's name and mailing address: <b>130 King Street West</b> <b>Suite 2120, PO Box 221</b> <b>Toronto Ontario M5X 1C8</b>	Fax number: (416) 363-4567
	Telephone number: (647) 260-1247
2. Head office address: <b>130 King Street West</b> <b>Suite 2120, PO Box 221</b> <b>Toronto Ontario M5X 1C8</b> Field supervisor: To be determined Radiotelephone: To be determined	Fax number: (416) 363-4567
	Telephone number: (647) 260-1247
<b>3. Other personnel (subcontractor, contractors, company staff etc.)</b> <ul style="list-style-type: none"> <li>• Golder Associates Limited (consultants)</li> <li>• Tlicho Logistics and other Tlicho Investment Corporation companies</li> <li>• Merc personnel (project geologist)</li> <li>• Aurora Geosciences (geological technician, field assistants)</li> <li>• Bradley Bros. Ltd./Major Diamond Drilling (drilling personnel)</li> <li>• Discovery Mining Services Ltd. (including camp personnel, caretakers, assistants, etc.)</li> <li>• Great Slave Helicopters (helicopter support for diamond drilling)</li> <li>• 1984 Enterprises Inc. (First Aid equipment and training, camp cook)</li> <li>• Additional subcontractors may be required as the project progresses</li> </ul>	
TOTAL: (Number of persons on site) up to 45; may increase as project moves forward	
<b>4. Eligibility:</b> (Refer to section 18 of the <i>Mackenzie Valley Land Use Regulations</i> ) a)(i)      a)(ii)      a)(iii)      b)(i) X      b)(ii) <ul style="list-style-type: none"> <li>• According to section 18 of the Mackenzie Valley Land Use Regulations, Merc International is eligible to apply for a land use permit under Section 18, subsection a) i)</li> </ul>	
<b>5. a) Summary of operation (Describe purpose, nature and location of all activities.)</b> Operations will be based on remediation (closure and reclamation) of the Spider Lake project site, Chalco Lake project site, Diversified mine site and Damoti Lake project site (the Damoti Lake project site closure and reclamation activities are permitted under the land use permit number W2010C0008 and water license permit number W2010L2-0001). The purpose of reclamation activities is to ensure the sites are compatible with future use by wildlife and humans, to establish chemical and physical stability, and to reduce the need for long term monitoring care and maintenance. These activities are subject to the terms and conditions of the conveyance and reclamation agreement between AANDC and Merc (Appendix A) in accordance with the final closure and reclamation plans to be developed for Spider Lake, Chalco and Diversified.	

Closure and reclamation plans are currently being developed in accordance with the draft document: *Guidelines for the Closure and Reclamation of Advanced Mineral and Exploration and Mine Sites in the Northwest Territories* prepared by AANDC. A remedial options analysis is being conducted by Merc and Golder Associates Ltd. in consultation with stakeholders and the Tlcho Government to determine the most suitable remediation option for each reclamation objective with respect to effectiveness, ease of implementation, duration, feasibility, liability, acceptability and cost. This process is dependent on site conditions and outcomes will vary between sites. For a detailed description of the preliminary remedial options analysis refer to Appendix B. It should be noted that, in accordance with the 2011 AANDC Guidelines, remediation activities will commence before the final Closure and Reclamation plans are complete.

General reclamation objectives include:

- Removal of all waste deemed hazardous or unacceptable to landfill on-site;
- deconstruction of all buildings and structures remaining on-site;
- collection of all metal debris for removal or on-site landfill;
- cleaning, crushing and disposal of fuel drums;
- identification and safe storage of waste rock at risk for acid-generation or metal leaching;
- backfilling of trenches in a manner to ensure physical stability;
- removal or controlled burning of unpainted, non-pressure treated wood; and
- treatment or excavation of contaminated soils.

For further details on the proposed closure and reclamation operations see the following documents:

- Spider Lake Project Site Interim Closure and Reclamation Plan (Appendix C);
- Chalco Lake Project Site Interim Closure and Reclamation Plan (Appendix D);
- Diversified Mine Lake Project Site Interim Closure and Reclamation Plan (Appendix E); and
- Damoti Lake Advanced Exploration Closure and Reclamation Plan (Appendix F).

*(note: the closure and reclamation of the Damoti mine site is covered under permit W2010C0008 and water license W2010L2-0001. It is included for reference purposes only.)*

Operations will require ground crews and small machinery to access each site. Base camps for these activities will be established at the Damoti and Colomac sites, and possibly at Diversified. Exploration activities will take place concurrent to remediation activities and overlap (including camp use, winter road use and fuel storage) is anticipated. Information related to camp information and exploration activities are covered under Exploration Land Use Permit submitted Jan 27<sup>th</sup>, 2012 to the WLWB.

For more detailed information regarding Merc's operations and plans in the Indin Lake Region, please refer to Appendix G: Merc Tech Briefing.

**b) Please indicate if a camp is to be set up. (Please provide details on a separate page, if necessary.)**

Two sites are intended for use as camp locations for the anticipated exploration activities: the Damoti Lake project site and the Colomac Mine site. These camp locations will also act as base camps for closure and reclamation activities. Under the same permit additional satellite exploration camps may be set up at or near drill site locations that will be determined in the early stages of exploration, and there is a possibility that a small camp may be set up at Diversified during reclamation activities. *The Damoti camp and satellite camps were approved under the previous permits (W2010C0008 and W2010L2-0001).* Prior to the establishment of any satellite exploration camps or a reclamation camp at Diversified, the Inspector will be provided with camp locations and associated documents.

**6. Summary of potential environmental and resource impacts (describe the effects of the proposed land-use operation on land, water, flora & fauna and related socio-economic impacts). Use separate page if necessary.**

The main objective of the land use activities covered under this permit is the remediation of environmental impacts from past mining and exploration activities. The overall impacts on the environment, wildlife and land use will be positive.

**Environmental Impacts**

Remedial activities will improve the physical and chemical environment of Spider Lake, Chalco and Diversified sites. The following activities will have a positive overall impact:

- Removal or containment of sources of environmental contamination;
- establishment of physical stability through removal of hazards such as unstable structures, trenches and hazardous waste;
- treatment or removal of contaminated soils, with a focus on preventing further contamination;
- collection and disposal of metal and non-hazardous waste on-site; and
- identification and storage of waste rock at risk for acid generation or metal leaching;

Efforts will be made during remediation activities to minimize further disturbances to land, air, environment and wildlife. The following measures will be taken to reduce environmental impact:

- Adherence to Merc's Waste Management Plan (**Appendix H - Attachment H1**) and Incinerator Management Plan (**Appendix H - Attachment H2**) with emphasis on training, mitigation, and enforcement;
- proper closure by Merc of camps not in use (main Damoti camp and satellite exploration camps); and when camps are no longer required, sites will be restored to pre-exploration conditions or to a level approved by the inspector;
- minimize the impact made by visiting crews during site and reclamation activities;
- account for all materials which are transported to sites to ensure they are backhauled; and
- minimize the possibility for fuel spills by adhering to the Spill Contingency Plan and focusing on training, prevention and adherence by all site visitors (including contractors and subcontractors).

The Merc Spill Contingency Plan (**Appendix I**) was designed specifically for the Damoti camp and applies to Merc's exploration activities in the entire Merc land lease area. There is a possibility that a base camp for remediation activities will be set up at other locations (including Colomac), and these camps would follow the same protocols and mitigation measures as those used at the Damoti camp. The use of base camps, fuel storage and road construction are permitted under the exploration Land Use Permit.

A summary of anticipated fuel stores under this permit is included as **Appendix J**. This fuel is to be used for concurrent remediation and exploration activities. The fuel storage will be covered under permit W012C0002. A summary of winter proposed spur roads is included as **Appendix K**.

Further information on remediation activities and practices is available in the accompanying closure and reclamation plans

**Archaeologically Important Sites**

Merc understands that archaeological and heritage resources may also be impacted by camp and remediation activities. Merc has been in consultation with the Cultural Places Program (GNWT, Prince of Wales Northern Heritage Centre) and is aware of known archaeological or heritage sites within the exploration lease area. These areas of archaeological importance will be avoided during land use activities to protect the integrity of the sites. Any suspected archaeological sites (boulder features, lithic scatter, burial sites, etc.) encountered during field activities will be reported to the government of the Northwest Territories and the Canadian Museum of Civilization. Consultation with Government bodies, stakeholders and interest groups will take place to identify concerns or communicate knowledge of the project area. Site visits with elders or consultants is also an option for identifying historic significance.

Should significant discoveries be made during the remediation of the Indin Lake legacy sites, Merc will work with the regulatory agencies, governments and stakeholders to determine land use requirements that are beyond the scope of work outlined in this land use package.

### **Wildlife Impacts**

The area of land that the Indin Lake land package encompasses is significant and Merc is aware of potential impacts to wildlife. Merc is committed to preserving the environment and will take steps to ensure that disturbances are minimized through consultations with government bodies, stakeholders and interest groups, knowledge and training of staff, by adhering to company policies, and through mitigation efforts.

Various species at risk or species of socio-economic importance may be present within the lease area including: rusty blackbird (*Euphagus carolinus*), grizzly bear (*Ursus arctos*), Wolverine (*Gulo gulo*), short-eared owl (*Asio flammeus*), caribou (*Rangifer tarandus*), moose (*Alces alces*), black bear (*Ursus americanus*), red fox (*Vulpes vulpes*), lynx (*Lynx canadensis*) and wolf (*Canis lupus*). A wildlife monitoring log (**Appendix L**) will be used to record noteworthy sightings of wildlife during exploration activities. Data collected using the wildlife monitoring log can be a useful tool for supporting baseline knowledge of wildlife abundance and distribution in the area, supplementing traditional knowledge and overall understanding of the project area.

In order to reduce disturbance to wildlife the following mitigation measures will be employed:

- Wildlife will not be directly disturbed by persons on foot or with equipment.
- Disturbances to known wildlife habitat (eskers, nests, etc) will be avoided as necessary.
- If caribou are observed during operations, non-critical work (e.g., aircraft departure, ground transportation) will cease until the animals have moved beyond the area of work.

Merc's Incinerator Management Plan will be used to control garbage in camps and at work sites to prevent attracting wildlife.

### **Resource Impacts**

Direct resource impacts with regard to the remediation program will be positive at both the community and individual level. The number of personnel involved including Merc, contractors and sub-contractors is anticipated to be between 25-45 individuals, therefore the number of individuals involved that will have direct resource benefits will be low. However, the development of the Wekweëti winter road for 2012 will provide community members with road access and there are several opportunities for involvement by Tlicho Investment Corporation companies.

In addition, there may be salvageable equipment and materials at the remedial sites that may be useful to nearby communities. An assessment of items eligible for reuse will be completed with consideration towards health and safety, feasibility and cost. Consultations will be made with these communities to determine interest in the acquisition and use of these items.

Merc engaged the Tlicho Government, the Kwe Beh working group, the North Slave Métis Alliance, the Wek'èezhii Renewable Resources Board, and the Prince of Wales Northern Heritage Centre during the pre-submission process. A summary of meeting findings, a record of the emails, phone conversations, and meetings is included as **Appendix M**.

### **7. Proposed restoration plan (please use a separate page if necessary).**

Four legacy sites are described within this Closure and Reclamation permit applications. The restoration plan for each site has been developed following the guidelines from the Government of Canada (AANDC) and the Wek'èezhii Land and Water Board. The restoration plans have been improved through consultation with Tlicho representatives, the North Slave Metis Alliance and the Wek'èezhii Renewable Resource Board.

For greater detail regarding the restoration of the legacy sites, please refer to the attached closure and reclamation plans:

- Spider Lake Project Site Interim Closure and Reclamation Plan (**Appendix C**);
- Chalco Lake Project Site Interim Closure and Reclamation Plan (**Appendix D**);
- Diversified Mine Lake Project Site Interim Closure and Reclamation Plan (**Appendix E**); and
- Damoti Lake Advanced Exploration Closure and Reclamation Plan (**Appendix F**).

*(note: the closure and reclamation of the Damoti mine site is covered under permit W2010C0008 and water license W2010L2-0001. It is included for reference purposes only.)*

### **8. Other rights, licences or permits related to this permit application (mineral rights, timber permits, water licences, etc.)**

- Exploration and closure and reclamation of the Damoti Lake mine site is covered under the existing Land Use Permit W2010C0008 and Water License W2010L2-0001
- Activities such as the exploration of the Indin Lake area, the development of a winter road and spur roads and the establishment of Colomac and Damoti as base camps are covered under

Maps of the Merc Land Leases are included as **Appendix N – Attachments N1 and N2**. The location of legacy sites and a comparison of existing and new Land Leases are included as **Appendix N – Attachment N3**.

### **Roads:**

- Is this to be a pioneered road?
  - Short spur roads may need to be constructed in order to facilitate reclamation activities. A map of these potential roads is included in **Appendix K**.
- Has the route been laid out or ground truthed?
  - Proposed routes for spur winter access roads have been developed. There is a 3 km portage on the spur road to Spider Lake which would need to be ground truthed should the road be required.

**9. Proposed disposal methods.**

Waste management and disposal for the reclamation activities within the Merc mineral leases will be completed in accordance with proposed disposal methods outlined for Damoti Lake. For additional information on the proposed disposal methods, refer to the Merc Waste Management Plan (**Appendix H - Attachment H1**). Overburden (organic soils, waste material, etc) will be managed as per Water License Number W2010L2-0001. Site specific waste management procedures have been developed for all restoration and camp activities. For all restoration activity waste management, please refer to the closure and reclamation plans.

When small ground crews visit legacy sites, they will gather and remove all waste that has been brought in with them. Any fuel containers and other materials necessary for reclamation brought back to base camp as soon as possible. Any waste generated during site visits will be returned to the base camp and dealt with in accordance with the waste management plan.

**10. Equipment (includes drills, pumps, etc.) (Please use separate page if necessary.)**

**\*Note: all equipment types and numbers are estimated as of January 2012; any modifications will be subject to authorization by an Inspector. A full equipment list will be provided by the contractor as required.**

Type & number	Size	Proposed use
2 Small to Medium Sized Excavators	Cat 320 or equivalent, operating weight of approximately 15,000 kgs.	Breaking concrete foundations, digging out soil and debris, reshaping the wasterock pile, destruction of buildings
1 Backhoe	Operating weight of approximately 10,000 kgs	Waste debris collection and building demolition
1 Bobcat	Approximately 2000 kgs	Waste debris collection and material movement
1 Bulldozer	Operating weight of approximately 16,000 kgs	Material movement
1 Drum Crusher		Crushing of cleaned legacy fuel drums
1 Welding/cutting unit	Approximately 100 kg	For on site repairs and to cut various large pieces into workable unit
1 Walk-behind compactor	610 kg	Compacting wasterock piles after regarding
Up to 2 Generator sets	5.0 m x 2.0 m	Electricity generation
1 Dumptruck or all-terrain Rocktruck	Operating weight of approximately 10,000 kg	Transporting contaminated soil and/or waste rock
1 Concrete mixer	2,100 kg	Prepare concrete for capping of mine opening
Quads (one on site, more to be rented)		Transport personnel in and around camp, moving equipment
Snowmobiles (several)		Transport personnel in and around camp
Manitowoc Model 4000W liftcrane (left by crown at Colomac)		Movement of equipment

11. Fuels	( )	Number of containers	Capacity of containers	Location
Diesel	See attached – <b>Appendix J : Summary of Fuel</b>			
Gasoline				
Aviation fuel				
Propane				
Other (Enviro-Tanks)				
<b>12. Containment fuel spill contingency plans.</b>				
<p>A spill contingency plan for the Damoti Winter road and exploration spur winter roads is attached as <b>Appendix I</b>. This document stems from the original Damoti Lake Spills Contingency Plan (Spill Contingency Plan issued June 2010 included in Supplementary Report in Support of Water Licence and Land Use Permit Applications for the Damoti Lake Project, Damoti Lake, NWT, dated December, 2010) and has been amended to include potential spur winter roads.</p> <p>The spill contingency plan covers all fuel types to be used, preventative measures and spill action plans/procedures with respect to applicable guidelines. Site specific planning will be developed during the remedial options analysis process with respect to legacy site fuel and fuel containers. As these plans are developed the spill contingency plan will be updated.</p>				
<b>13. Methods of fuel transfer (to other tanks, vehicles, etc.)</b>				
<ul style="list-style-type: none"> <li>• Wobble pumps to transfer fuel from drums</li> <li>• Gasoline pumps to fuel tanks</li> </ul>				
<b>14. Period of operation (includes time to cover all phases of project work applied for, including restoration)</b>				
<ul style="list-style-type: none"> <li>• 5 years</li> </ul>				
<b>15. Period of permit (up to five years, with maximum of two years of extension).</b>				
<ul style="list-style-type: none"> <li>• 5 years, to facilitate the process of restoration, performance assessment and short term monitoring.</li> </ul>				
<b>16. Location of activities by map co-ordinates (see attached maps and sketches in Appendix N)</b>				
Minimum latitude (degrees, minutes, seconds) 64° 8' 0" N		Maximum latitude (degrees, minutes, seconds) 64° 29' 35.16"N		
Minimum longitude (degrees, minutes, seconds) 115°12'36.00"W		Maximum longitude (degrees, minutes, seconds) 115° 7'0" W		
NAD 83		Map Sheet no. 86b		
<b>17. Applicant</b>				
Print name in full				
David Wiley		Signature		Date: Feb 3 <sup>rd</sup> , 2012
<b>18. Fees</b>				
An estimate of the anticipated Land Use is included in <b>Appendix O</b> .				

Type A - \$150.00 \*\*

Type B - \$150.00 \*\* (\*\*Application Fees are Non-Refundable\*\*)

Land use fee: 10 hectares @ \$50.00/hectare \$ 500.00  
Assignment fee \$ 150.00

Total application and land use fees \$ 650.00

***Please make all cheques payable to "Receiver General of Canada"***