MELIADINE
WEST
GOLD
PROJECT

APPLICATION TO CONDUCT

UNDERGROUND MINERAL EXPLORATION

And

ASSEMBLE A BULK SAMPLE

SUBMITTED TO:
THE NUNAVUT IMPACT REVIEW BOARD

BY:
COMAPLEX MINERALS CORP.
CALGARY, AB

May 2007

GENERAL

Section 1.0: Name and location of proposed project.

The Meliadine West Gold Project is located on Inuit Owned Land approximately 35 km north west of Rankin Inlet in the Kivalliq Region of Nunavut. The camp serving the exploration program is located at 63° 01' 30" N - 92° 10' 20" W and has operated at this location since May 1997. The exploration site is located approximately 2.5 km west of the camp. The general location of the Project and its site plan are shown on Figures 1, 2 and 3. The Project is owned by Comaplex Minerals Corp. of Calgary (78%) and Resource Capital Funds (22%), a private equity investment firm based in Denver, USA and Perth, Australia.

Section 2.0: Contact information for proponent(s) and other project contacts.

Project Management

The Meliadine West Gold Project is managed by the following personnel:
Project Mailing address:

Meliadine West Gold Project
Comaplex Minerals Corp.
901, 1015 - 4th Street SW
Calgary, AB T2R 1J4

Project Manager: Mark Balog, VP Exploration
Comaplex Minerals Corp.
Calgary, AB
ph. 403 750 2560

Engineering: Tom Morrison, P.Eng., VP Project Development
Comaplex Minerals Corp.
Calgary, AB
Ph. 403 750 2570

Environment: Ben Hubert, M.Sc.*
Calgary, AB
ph. 403 256 0017

* Consultant to Comaplex Minerals Corp.

Field Operations

Surface Development and Services Contractor:
Nuna Logistics Ltd.

Mining Operations: Contractor TBA

Camp Operations: Comaplex Minerals Corp.

Section 3.0: List of Acts, Regulations, and Guidelines that apply to other project activities.

Article 13 - Nunavut Land Claims Agreement
NWB - Water Licensing in Nunavut - Interim Procedures and Information Guide for Applicants
NWB - Interim Rules of Practice and Procedure for Public Hearings
NWTWB - Guidelines for the Discharge of Treated Municipal Wastewater in the NWT
NWTWB - Guidelines for Contingency Planning
DFO - Freshwater Intake End of Pipe Fish Screen Guideline Fisheries Act - s.35
RWED - Environmental Protection - Spill Contingency Regulations
Canadian Drinking Water Quality Guidelines
Public Health Act Camp Sanitation Regulations
Public Health Act Water Supply Regulations
Territorial Land Use Act and Regulations
Canada Mining Regulations

Section 4: List of approvals, permits and licenses required including the authorizing agency, activity to which the authorization applies, and dates.

The underground exploration program proposed for the Meliadine West Gold Project is situated entirely on Inuit Owned Land. The exploration to date has been conducted under land use permits issued by the land owner, Kivalliq Inuit Association (KIA), for land use, and the Nunavut Water Board for water use. Transportation contractors serving the Project have operated under permits issued by KIA allowing transport across KIA land.

The exploration camp, fuel storage, and underground exploration site along with the road connecting these facilities are all situated on lands described in a Commercial Lease issued to Comaplex by KIA. Comaplex has posted a reclamation bond with the KIA in the form of a Letter of Credit for $950,000 for the Meliadine West project. The road connecting the exploration camp and the exploration site was built in March/April 2006 with aggregate materials quarried on Federal Crown Land under a Quarry Permit issued by Indian and Northern Affairs Canada. This road was upgraded (smoothed by filling potholes) and extended to the proposed portal mouth in April 2007 under the existing land use permits and licences from INAC and KIA that are currently in place.

The land use activities proposed by Comaplex and described below (expiry date) will occur entirely on lands owned by the Kivalliq Inuit Association (KIA) and are authorized by:

- KIA Commercial Lease to Comaplex Minerals Corp. KVCL102J168; (July 1, 2009)
- KIA Exploration Land Use License KVL100B195; (Oct 31, 2007)
- KIA Drilling Land Use License KVL302C268; (July 8, 2008)
- KIA Right of Way Land Use Permit KVRW98F149; (Apr 30, 2008)
- Nunavut Water Board Water License # 2BE-MEL0709; (Feb 23, 2009)
- Federal Land Use Permit # N2005C0014; (July 5, 2008)
- Federal Land Use Permit # N2006X0012; (June 27, 2008)
- Federal Land Use Permit # N2005Q0001; (Mar 14, 2008) and
- Federal Land Use Permit # 2006QP0028 (Mar 15, 2008).

Land and water use and related environmental screening and permitting requirements for the underground exploration described in this application are enumerated below.

Kivalliq Inuit Association (KIA) Rankin Inlet, Nunavut; Mr. Luis Manzo, Chief Lands Officer
KIA authorizes surface land use and occupancy for the lands occupied by the Project; granular materials on Inuit Owned Land may be requested by way of a Quarry Permit; access over Inuit Owned Land is required for mobilizing Project materials, fuel, and equipment to the underground exploration site.

Nunavut Planning Commission (NPC) Taloyoak, Nunavut; Mr. Ron Roach, Chair
NPC reviews land use proposals to assess compliance with approved regional land use plans pursuant to NLCA Article 11. The Keewatin Regional Land Use Plan prepared by NPC was approved in June 2000.

Nunavut Impact Review Board (NIRB) Cambridge Bay, Nunavut; Ms. Elizabeth Copland, Chair
NIRB will screen the proposed land use proposal pursuant to NLCA Article 12 "...to determine whether it has significant impact potential....".

Nunavut Water Board (NWB) Gjoa Haven, Nunavut; Mr. Thomas Kabloona, Acting Chair
The NWB regulates and authorizes the use of water and related depositions of waste in Nunavut pursuant to NLCA Article 13. Water use for drilling and camp needs will be subject to a water use licence from the NWB

Indian and Northern Affairs Canada (INAC) Rankin Inlet; Mr. Henry Kablalik
INAC issues the Land Use Permit covering the quarry permit for granular materials from esker islands in Meliadine Lake that are required for road and pad construction for the Project.

Hamlet of Rankin Inlet Mr. Lorne Kusugak, Mayor
Permission from the Hamlet is required to use the municipal disposal site for the Project's non-combustible waste; permission of the Hamlet may be required for non-traditional re-supply routes across municipal lands.

PROJECT INFORMATION

Section 5: History of the site if it has been used in the past.

North Rankin Nickel Mines identified gold mineralization in the area of Meliadine Lake during an exploration program for nickel and copper in the early 1960's. The first mineral claims in the Meliadine area were staked by Comaplex Minerals in 1988. Successive exploration programs by Asamera, Rio Algom, Comaplex, WMC International between 1989 and 2001 identified significant gold mineralization with potential for commercial production.

The Meliadine West Gold Project exploration program was started by Comaplex in 1993 and continued by WMC International in 1995. Comaplex took over the operation again in 2004 and has been actively expanding and re-defining the Tiriganiaq gold deposit. Several significant gold bearing zones within the Tiriganiak Zone have been identified that show very favourable grades

and tonnage that may justify a future mine feasibility study. The camp currently being used for exploration was built in 1997.

Section 6.0: Map of the project site within a regional context indicating the distance to the closest communities.
Figure 1 - Regional Map

Section 7.0: Map of any camp site including locations of camp facilities.
Figure 2 - Campsite

Section 8.0: Map of the project site indicating existing and/or proposed infrastructure, proximity to water bodies and proximity to wildlife and wildlife habitat.
Figure 3 - Site Plan - Claim Group - Wildlife / Wildlife Habitat
Figure 4 - Site Plan - Commercial Lease - Wildlife / Wildlife Habitat

Section 9.0: Describe the type of mineral resource under exploration.
The target commodity of the Meliadine West underground exploration program is gold. The Tiriganiaq gold deposit is typical of gold resources mined in southern Canada and elsewhere and consists principally of gold grains in quartz veins and sediments.

Section 10: Discuss the project need and purpose
The Tiriganiaq gold deposit on the Meliadine West project hosts several significant gold bearing zones that show very favourable gold grades and tonnages that may justify a mine feasibility study. A prerequisite to such a feasibility study is detailed underground exploration and bulk sampling. This is the next logical and accepted step in the exploration process of a deposit to be mined from underground and serves two primary objectives:

- to expose, along strike, the dominant mineralization containing gold to assess its grade, continuity, consistency, and related mining properties by mapping and chip/channel sampling;
- collect a representative sample of mineralized rock ("ore") suitable for metallurgical testing and bulk gold grade determinations.

Section 11: Discuss alternatives to the project and alternatives to project components.
The reliability of a mine feasibility study is based on the quality of the information describing the proposed ore body. While even detailed diamond drilling from surface can provide good general information about the deposit, it is imperative in the case of a potential underground mine to confirm the grade, continuity, and consistency of the gold mineralization in the rock prior to making major monetary and time commitments and applying for permits to construct and operate the mine. This can only be accomplished through an underground exploration program and the collection of a bulk sample of the mineralized rock. This is the next logical step in the exploration of the Tiriganiaq deposit.

The conceptual mine design work completed to date for the Tiriganiaq deposit suggests mining the mineralized structures by means of an underground mine accessed by a system of spiral declines, with ore and waste hauled to surface by trucks. Underground development in combination with small open pits may also be worth consideration in the future. Other possibilities exist for underground mining and these will be evaluated as a part of the feasibility

process. The underground exploration program will be designed to optimize eventual development and mine operation, should that prove feasible. For this reason, the portal and decline will be located and designed to be suitable for future mining operations.

Stripping of the deposit to expose mineralized rock was considered, but because the Tiriganiaq gold deposit is buried under 5-20+ meters of frozen glacial till and is not exposed at surface anywhere along its length, this is not a practical alternative. Such an activity would cause very significant terrain disturbance and contributes little to the project should it advance to the next stage.

Variations of the scope and scale of an underground exploration program have been examined to obtain the best solution to achieve what needs to be done. This included examining all alternatives with respect to the ramp and portal sizes and the slope of the decline. The proposed portal is designed such that it could be used for further development, should a feasibility study prove positive in the future. We have attempted to present a proposal that provides us with the optimum amount of information in a cost effective and timely manner, with minimal impact on the environment.

It is noteworthy to reiterate that the entire proposed underground exploration program will take place within the confines of a Commercial Lease that Comaplex has with the KIA. Comaplex has a posted Letter of Credit of $950,000 on this Lease, on file with the KIA.

Timing of the Underground Exploration Project

The underground contractor will move 150-250 tonnes of equipment and materials to the site and will set up, as a minimum, a workshop, a warehouse, a diesel generator and its associated switchgear, a water supply system, an air compressor, receiver tank, valving and piping, a ventilating fan and duct, a site office and a crew shelter.

It is essential to the success of the project that the underground contractor set up its site facilities in warm weather with long hours of daylight i.e. during the months of July-September. It would be possible, but difficult, to do this in the months of May and October-November. It would be, for practical purposes, impossible during the months of December-April.

The winter road between Rankin Inlet and the site is open between November and May, at best; otherwise, there is no surface access for heavy equipment and supplies to the site. Barge access to Rankin Inlet is possible only during the months of July-September. Using surface access only, the underground contractor would have to mobilize to Rankin Inlet in the summer of 2007, but could not mobilize to the site and set up there until May 2008, a delay of eight months, during which time Comaplex would have to pay for equipment standby in Rankin Inlet. This is the reason for the helicopter lift planned for August 2007.

The helicopter lift is feasible because:

(a) Comaplex has held discussions with VIH Helicopters (based in Vancouver), who have proposed a Kamov KA32 helicopter with a sling-load lifting capacity of 4,990 kilograms.

(b) Comaplex has tendered the underground program by invitation to six underground mining contractors with experience in this type of work. None has expressed any doubt as to the feasibility of the planned helicopter lift.

(c) The Comaplex Vice-President, Project Development, in the capacity of contractor's field superintendent, mobilized an underground exploration program of similar size and scope at Cape Ray, Newfoundland, in 1987, using an Aerospatiale Super Puma with a sling-load lifting capacity of 4,000 kilograms.

The helicopter lift is based on experience and thorough consultation (Nuna Logistics, mining contractors) and is feasible. It is planned for the first week in August, contingent on the receipt of permits by mid-July. If the designated helicopter is temporarily unavailable at the time, for whatever reason, the lift could be postponed for only a short period of time or another machine possibly found.

Mobilization and site set-up by this means will still be possible until late September, but will become increasingly difficult due to weather conditions (freezing rain/sleet) in October-November, and will become impractical in December.

Comaplex plans to mobilize the underground contractor to Rankin Inlet in July-August, 2007. Significant delays resulting from permitting will expose Comaplex to considerable standby charges from the contractor. If permits are not granted in time for the contractor to mobilize to site before November, the helicopter lift will be cancelled. Mobilization will then be by winter road and site setup will be delayed many months. This will expose Comaplex to standby charges for the contractor's complete plant, an amount that could be in excess of $1 million.

Section 12: Indicate the type of exploration activity.

Underground exploration program and bulk sample extraction

Section 13: Describe all activities included in this project.

**** The following are brief summaries of the proposed activities. Detailed descriptions of each category are provided later in the application.**

Overburden Removal - The bulk sampling program requires that an access portal and underground ramp (tunnel) be developed. Overburden will be removed from the bedrock surface over an area about 110 meters long by 20 meters wide. The attached Figures 5 and 6 show details of the portal development. Figure 4 shows the location of the portal development, including where the overburden material removed will be stored.

Road Use - About 2.7 kilometres of road is in place to facilitate ongoing exploration at the site (Figure 4). The bulk sampling program anticipates establishing pads for storage of ore, soil, waste rock, and explosive magazines on the margins of the road, within the confines of the Commercial Lease with the KIA.

Camp Use / Construction - The existing exploration camp (Figure 2) is fully permitted and sufficient to complete the program. We anticipate some minor modifications to allow operations to continue through the winter. These upgrades are covered under existing permits and will be

completed during the summer and fall of 2007.

Fuel Transportation and Storage - Fuel is delivered to the site from Rankin by overland transport in the winter under existing permits (Figure 3) and transferred to bulk Enviro fuel tanks or bermed fuel bladders located midway between the camp and the proposed portal site. The fuel is hauled from Rankin Inlet over the winter road by Challenger tracked vehicles towing specially constructed fuel tanks (as per previous years). Fuel handling is in accordance with the Meliadine West Gold Project Environmental Management Plan (Appendix 3).

Explosives Transportation and Storage - Comaplex anticipates the usage of 115,000 kg of explosives for the project. On-site storage facilities (magazines) will be available for about 36,000 kg of explosive (Figure 4). These will consist of 3 Type 9 magazines of 2,000 kilogram capacity for the initial portal development and early underground development. Two Type 4 magazines of 15,000 kg capacity will be mobilized to site from Rankin to hold additional explosives. Re-supply of explosives will be conducted as needed by charter aircraft.

Winter re-supply of explosives and caps will utilize an ice airstrip on Meliadine Lake (Figure 4) or will be delivered to the magazines via the winter road from Rankin. The explosives required for daily operations will be transported from the magazines to the development area in a dedicated vehicle equipped in accordance with regulations.

** At present, the underground contract has not been awarded. It is possible that alternative modes for the storage and transport of the explosives will be provided by the mining contractor at that time. All such plans will be fully permitted and will be approved by the proper authorities.

Chemical Transportation and Storage – In permafrost conditions, such a prevail at Meliadine West, Calcium-chloride (CaCl) is routinely mixed with water to create a drilling brine for dust suppression. Comaplex anticipates using about 68,000 kg of calcium chloride during the underground exploration and bulk sample program for the drilling of blast holes during the construction of the decline and in ore drifts. The CaCl is typically shipped in bags and palletized. The bags are weatherproof and will be stored at the camp or adjacent to the portal on the services pad (Figure 4).

On Site Sample Processing - A total of about 12,860 tonnes of mineralized rock will be brought to surface on a round by round basis. The mineralized rock will pass through a crusher to reduce it to one inch size. The ore will then be run through a sample tower. The sole purpose of the sample tower is to winnow a complete round (75-120 tonnes) down to a representative sample of approximately 60 kilograms. This sample will be sent out for processing at a certified lab in southern Canada to be assayed and to undergo metallurgical testing, the results of which will be compared to those received from the diamond drilling and to the underground channel sample results (Figure 4).

Off Site Sample Processing - A 10 tonne sample, separated into numerous small samples (for each round) will be taken for assaying and metallurgical testing in southern Canada.

Waste Rock Storage - Comaplex intends to use some of the barren mine rock excavated during the portal and ramp development phase of the project as construction material for pads and road

beds. Excess waste rock will be stored on a waste rock pad at the location shown on Figure 4. Existing studies, summarized in Appendix 1, indicate that the waste rock is non-acid generating. ARD testing of waste rock will be done if rock types are encountered that are inconsistent with those expected.

Ore Storage - Ore not transported south for testing will remain on the ore pad adjacent to the ramp portal. This material will be kept separate and available for further sampling during the feasibility study period, and potentially, subsequent processing in a future mill. Monitoring of the ore piles will be ongoing. In the event the project does not go ahead, all ore with acid generating potential will be returned underground and placed in the permafrost zone where any ARD cannot be mobilized by ground water.

Portal and Underground Ramp Construction

The surface program (construction of the ramp through the overburden to the portal opening) will be completed by Nuna Logistics (Edmonton), a very experienced Arctic contractor in this type of work. The underground exploration program will be completed by a mining contractor having satisfactory northern experience and capability. At the time of submission of this application, the mining contractor has not yet been selected. The project has been put out to competitive tender; this selection will occur in mid May. The contractor would be supervised by Comaplex staff.

The Meliadine West Gold Project underground exploration program will include:

- constructing an open ramp to a portal wall. The ramp will be 100 meters long, 7.3 meters wide with a sill going from surface to a depth of 15 metres from surface. Slope angles and setbacks in rock and overburden have been determined by reference to experienced advice.
- with a 5 meter wide berm on each side of the ramp;
- construction of 950 metres of decline at 5.3 meters wide by 5.0 meters high from surface down to 117 metres below surface;
- construction of 285 metres of ore drift on two potential ore zones of 3.5 meters by 3.5 meters at 67 and 117 metres depth;
- mine approximately 11,250 tonnes of mineralized material from 285 metres of horizontal drift in two zones (including slashing as required);
- mine 600 tonnes of mineralized material from two 30-metre raises (one in each mineralized structure to be tested); and
- bring approximately 12,850 tonnes of mineralized material to surface to confirm mineral content and for metallurgical analysis.
- mapping and sampling of all mineralization in the ore drifts and raises.

The general plans for this underground work are shown on Figures 4-13. These plans are subject to minor changes in detail on review by WCB and the mining contractor. Final plans will be filed with all appropriate agencies before any underground work is initiated.

<u>Section 14</u>: Indicate whether any of the following Department of Fisheries and Oceans (DFO) Operational Statement (OS) activities apply to the project proposal.

There are no direct effects on fish habitat. The proposed surface runoff water management plan will address potential water quality effects on Pump Lake.

<u>Section 15</u>: If any of the DFO OS apply to the project proposal, does the Proponent agree to meet the conditions and incorporate the measures to protect fish and fish habitat as outlined in the applicable OS? If yes, please provide a signed statement of confirmation.
Not Applicable.

<u>Section 16</u>: Provide a schedule for the above activities

The proposed schedule for this project is shaped by the scheduling constraints of seasonal marine transportation services to Rankin Inlet, the seasonal development of a winter road between Rankin Inlet and the site, and related logistics. The transportation schedule used in setting the schedule assumes the latest shipping into Rankin Inlet must be completed before October 31. The schedule below shows the milestones that determine the exploration schedule for this program. All activities past the July 10, 2007 date are contingent on project approvals from all pertinent regulatory bodies.

2007

Call for tenders to mining contractors with satisfactory Northern experience and capability	15 March
Submit Project Application to KIA	26 March
Submit Water Use Application to NWB	3 May
Mobilize fuel and surface contractor's equipment to site	15 May completion
Project Certificate from NIRB	10 July
Mobilize explosives to site	16 July onwards
Finalize underground mining contract	16 July
Submit Mining Plan and Design to GN WCB	16 July
Surface contractor breaks ground for ramp excavation	17 July
Mobilise initial mining equipment, fuel, and construction materials to Rankin Inlet	July
Mobilise mining equipment and explosives to site*	August
Underground Contractor starts portal excavation	September
Underground decline construction	October-December

2008

Underground decline construction	January - April
Drifting, crosscuts to ore	January - June
Ore zone drifting / raising in ore	January-June
Crush ore / Assemble bulk sample	January-July
Seal ramp and portal	August
Ship out bulk sample	August
Demobilise and remove equipment**	August

2009

Site rehab and monitoring	July with ongoing monitoring

*Comaplex intends to mobilize equipment for initial portal excavation from Rankin Inlet to the exploration site by heavy-lift helicopter to allow the underground contractor to set up site facilities in favourable weather. Larger equipment will be mobilized to the site overland after

freeze-up.

**On completion of the work, equipment may be airlifted to the road in August 2008 for shipping out on the barge in 2008 to avoid holding charges until the 2009 summer shipping season.

Section 17: Indicate on map the boundary subject to air and/or ground geophysical work.

No geophysics is planned as part of this program.

Section 18: Provide flight altitudes and locations where flight altitudes are below 300m.

No geophysics is planned as part of this program.

DRILLING

**** We have made the assumption that this section refers to drilling for blasting for the underground exploration program. There is no diamond drilling anticipated in the underground program presented here. All surface diamond drilling in the near term is already approved under existing permits.**

Section 19: The number of drill holes and number of meters (provide estimates and maximums where possible).

As required for the drill, blast component of the underground exploration program.

Section 20: Drill additives used.

Calcium chloride. No other additives.

Section 21: Describe method for dealing with drill cuttings.

Drill water will be pumped from the face to an underground sump where the drill cuttings will settle out. Periodically the drill cuttings will be removed to surface by a diesel-powered, rubber-tired LHD and dumped on the waste pile.

Section 22: Describe method for dealing with drill water.

A re-circulating brine system will be used, with gradual loss of water in damp broken rock. The brine system will be re-charged with fresh water every 2-4 days. Make-up water will average 3,000 liters per day. Any accumulation of water underground in the mine will be pumped back to the brine system.

Section 23: Describe how drill equipment will be mobilized.

Drilling equipment will be mobilized by means of a rubber-tired, diesel-powered 2-boom, electric-hydraulic drill jumbo.

Section 24: Describe how drill holes will be abandoned.

Drill holes for blasting will be blasted. Miss-holes will be re-blasted. Bootlegs will be circled with green paint. Drill holes for rock bolting will have rock bolts installed in them.

Section 25: If project proposal involves uranium exploration drilling, consider the

potential for radiation exposure and radiation protection measures. Please refer to the *Canadian Guidelines for Naturally Occurring Radioactive Materials* for more information. Uranium exploration is not a part of this program.

STRIPPING / TRENCHING / PIT EXCAVATION / BULK SAMPLE

Section 26: Discuss methods employed. (i.e. mechanical, manual, hydraulic, blasting, other).

All unfrozen topsoil and the uppermost part of the glacial till (spoil) from the ramp area will be removed by excavator and bulldozer and moved to a separate pile for storage for eventual rehabilitation. Permafrost till underlying the surface layer will be handled by standard drill, blast, load and haul excavation methods and will be pushed back to the sides of the ramp leading to the portal, beyond the 5 meter setback as shown in Figure 4 and 5. The exposed till will be sloped at 2 Horizontal:1 Vertical. The toe of the overburden slope will be set back 5 metres from the edge of the rock cut. The available information provided by drilling indicates that overburden is 4-5 metres deep over the area of the portal cut.

Ramp construction in permafrost bedrock will continue to require drilling and blasting. A portal face with at least 5 meters of bedrock brow over a 5 meter high portal will be exposed (depth of till along the ramp is estimated to be 4-5 meters in depth). At the portal face there will be approximately 5 metres of rock with 5 metres of overlying glacial till.

The rock wall of the portal will be sloped at 1 Horizontal: 8 Vertical and will be supported with rock bolts, wire mesh and shotcrete, as required for safety. See Figures 5 and 6 for scaled drawings of the ramp and portal. Figure 12 shows a schematic drawing of the ramp in long section. The sill of the ramp leading down to the portal will start at UTM coordinates 6988798N, 539938E and descend through 15 m vertically at -15% along a 100 metre ramp length to establish the rock portal at 6988705N, 539901E. See Figure 13.

The majority of the till will be removed to the sides of the portal or to a small pile to the edge of the decline. Bedrock (waste) will be removed and laid down as required to build the underground contractor's laydown area pads and the ore pads. Waste rock not needed for pad construction will be put on a waste rock pile as shown in Figure 4.

Underground Exploration Mapping and Sampling

A critical aspect of the underground exploration program is the mapping and channel/chip sampling of the ore drifts as the underground work progresses. The information gathered from this process will be compared against both the assumptions and interpretations from the previously completed diamond drilling, and against the ore grades obtained from the bulk samples. Continuity of the gold grades and the controlling structures responsible for the presence of the gold must be determined prior to moving the project towards feasibility.

Bulk Sample

Ore (mineralized rock hosting the gold) will be mined on a round by round basis and each individual round will be brought to surface and placed in a separate pile. The entire round will then be passed through a crusher and sample tower where it will be crushed to -25 mm. The sole purpose of the sample tower is to reduce the 70-120 tonne round to a small representative sample

weighing approximately 60 kilograms. Each representative sample will then be shipped to a certified lab in southern Canada to determine gold grade and for metallurgical work.

The remaining sample will remain on the ore pad near the ramp portal as shown on Figure 4. This material will be kept separate and will be available for sampling during the feasibility study period and subsequent processing in a future mill. Should the project develop into a mine, this material will be processed in the mill. In the event that this does not happen, permanent disposal of ore with acid generating potential will be returned underground and placed in the permafrost zone where any ARD will not be mobilized by ground water.

Section 27: Describe expected dimensions of excavation(s) including depth(s).

Ramp:	100 meters long and 7.3 meters wide.
Exposed bedrock at the portal (incl. the portal):	20 meters wide.
Decline dimensions:	5.3 meters wide by 5.0 meters high; 950 meters in length to 117 meters vertically below the surface.
Drift dimensions in ore:	**3.5 meters wide x 3.5 meters high; 285 meters in length; comprising 125 meters on the -67 meter level below surface and 160 meters on the -117 m level.
Ore Raises:	1.5m x 2.2m raise on the -67m level below surface and also on the -117m level below surface.

** these are proposed dimensions obviously, as the drifts will follow ore widths

Section 28: Show location on a map.

See Figures 4-6 and 13 for locations and dimensions of the portal and all topsoil, till, explosive magazine, waste and ore pad locations.

Section 29: Expected volume material to be removed.

Expected volumes of material removed for the Portal:

	Solid volumes (m^3)	Loose Volumes (m^3)
Overburden / till	11,150	14,500
Waste rock in portal/ramp	2450	3675
Waste rock in decline and drifts	25,700	38,550

Section 30: Discuss methods to determine acid rock drainage (ARD) and metal leaching (ML) potential and results.

The mineralized rock (ore) in this gold deposit is generally rich in sulphide. Sulphides oxidize when newly exposed rock is subject to air and moisture and can generate acidic runoff (acid rock drainage - ARD). Neutralization Potential (NP) tests of 5 ore samples showed acid base accounting (ABA) ratios of 1.0 to 3.4, indicating acid generating potential (see Appendix 1 for lab test results and related analyses).

All dominant rock types (including overburden) that are expected to be handled in this project have been tested for acid generating potential and for metal leachate potential. Glacial till overburden showed a strong neutralization potential (not acid generating) with tests results from

seven samples ranging from 12.4 - 34.8 (see Appendix 1). The waste rock is not acid generating. A thin argillite unit occasionally present in one of the ore zones in the deposit showed potential for generating acid. This argillite makes up an extremely small portion of the rock mass to be brought to surface. The neutralization potential tests from four argillite samples ranged from 0.55 - 12.6 indicating that some (but not all argillite) has a potential for generating acid.

All waste rock excavated will be reassessed as to its potential for generating acid during the course of the project. If rock type(s) are encountered that are significantly different from the rock expected, on the basis of the diamond drill core, fresh analyses will be conducted for neutralization potential and metal leachate. Any rock considered to be potentially acid generating will be encapsulated by rock that will neutralize any drainage. Rock with unacceptable long term leachate properties will be placed so that runoff from this waste rock can be monitored and controlled. See Section 57 for details.

UNDERGROUND ACTIVITIES

Section 31: Describe underground access

The open cut excavation for the decline portal will be excavated through 4-5 meters of overburden and a maximum depth of 10 meters into rock. Comaplex designed the rock and till slopes in accordance with advice received from engineers (SRK, Golders) and contractors (Nuna Logistics) experienced in this type of excavation. Recognizing that the surface layer of the till is likely to thaw and slump during the summer months, Comaplex selected a till slope of 2H:1V and set the toe of the till slope 5 meters back from the edge of the rock cut. It is common practice in Arctic terrain to allow a mobile excavator to clean slumped material from the toe of the till slope. Experienced opinion (SRK, Golders, Nuna) is that these design features will prevent till, thawing during the summer, from falling into the rock cut.

Additionally, a safety fence will be installed along the edge of the rock cut. While this is mainly for personnel safety, it would additionally contain material that had rolled or slumped down the 2H:1V till slope and across the whole 5-metre width of the setback. Comaplex believes that these measures for preventing material from falling into the rock cut are sufficient.

Movement (creep) of thawed till is only believed to have the potential to be a problem in the summer months of 2008. Should it be required, the layback slope will be covered with a geo-textile. This will greatly hinder solar and ambient heating of the till layer. Should this not suffice, a backup to this plan would be to cover the lay back slope with waste rock.

Placing a 1-meter thick mat of rock on top of the layback slope was considered but is not the preferred option as it would either reduce the clearance between the toe of the till slope and the edge of the rock cut, or would require additional till excavation to make room for the 5-metre set back for the toe of the till slope. Both of these are undesirable and, according to experienced opinion, unnecessary.

Comaplex has considered placing a rock berm along the toe of the till slope but, like the rock mat, this would either encroach on the 5-meter setback or would require extra till excavation. Comaplex therefore believes that the existing design is sound and that the suggested modification is undesirable and unnecessary.

Section 32: Describe underground workings and provide a conceptual plan.

Access to the underground workings beyond the portal will be by means of a decline 5.3 metres wide and 5.0 metres high driven at a –15% grade. Extensive diamond drilling from surface has indicated that the decline will pass though 877 meters of unmineralized rock to access the gold bearing structures (see Figure 11). An additional 75-100 metres will be developed for cut-outs off the decline for muck storage and transfer to trucks that will haul the rock or ore to the surface. Cut-outs will also serve as electrical substations and safety bays, and may subsequently be used for future diamond drilling from underground and for continued decline development.

Decline development will produce approximately 25,700 m^3 (solid volume) of unmineralized rock. Ground support will be installed as required including rock bolts, wire mesh, straps, timber or shotcrete as necessary.

This decline is designed to also serve as the main production decline for a future mine. Therefore it is relatively large with a moderate grade to accommodate full-size underground ore trucks during future mine operations.

Cross-cuts, Ore Drifting, and Diamond Drill Drift

The first lateral drift off the decline will access the 1100 lode at about 350 metres down decline from the portal. The decline will terminate after advancing about 950 meters with access to the 1000 lode. At this point, the decline will be about 117 metres vertically below the surface. Drifts in the mineralized zones will be 3.5 meters high x 3.5 meters wide but may be widened or narrowed to take in the width of the mineralized structure being followed. Drifts following the mineralized structures will proceed from the point where a crosscut from the decline intersects the respective mineralized structure. Decline and drift configurations are shown in Figures 7-13.

Decline and drift development (not including the ramp) will produce 25,700 m^3 and 4,100 m^3 solid volume of unmineralized and mineralized rock, respectively.

Drifting in ore will allow the assessment of mineralization continuity and consistency, and evaluation of the mining conditions in the mineralized structures. The faces, walls, and backs of all development will be thoroughly mapped. Drifts on mineralized structures will additionally be sampled for mineral content. Ground support will be installed as required including rock bolts, screen, straps, timber or shotcrete as necessary.

Raises in Mineralized Rock

Further assessment of the mineralized structures is planned with two short raises up the dip of the respective structures from the drifts. The locations of these raises will be set following inspection of the structures during drift development. These raises will be 1.5 metres x 2.2 metres wide, following the angle of mineralization (~60 deg.). The faces and walls of the raises will be thoroughly mapped and sampled to assess the vertical continuity, consistency, and mining conditions of the mineralized structures. A total of 60 meters of raises in mineralized rock are planned, producing roughly 200 m^3 solid volume of rock**.**

Section 33: Show location of underground workings on a map.

See Figures 4-13.

Section 34: Describe ventilation system.

The ventilation requirement for the full underground development is estimated at 100,000 CFM (47 m^3/sec). Ventilation for the decline development will be provided by ducting from surface, with a 150 Hp fan on surface providing sufficient ventilating air to meet regulatory requirements.

As the decline advances and the length of ventilation ducting increases, booster fans will be installed as required to maintain the required volumetric flow rate and quality. The above figures are order-of-magnitude only. The underground contractor will design the ventilation plant to reflect actual equipment used and ventilation duct size and material so as to maintain a proper working environment. Ventilation air will not be heated.

Section 35: Describe the method for dealing with ground ice, groundwater and mine water when encountered.

The underground exploration program proposed in this application is located entirely in permafrost. The decline and underground workings are not expected to generate any mine water. Water production from the melting of the glacial till layer adjacent to the portal is only expected to be possible in the summer of 2008 (frozen the rest of the year). The layback angles of the till layer (2H:1V) and the 5 meter setback planned for the portal access are considered sufficient to control any ground water issues. If required, the layback could be covered with a geo-textile type material to greatly hinder solar and ambient heating of the till layer as much as possible. Should it be required, a backup to this process would be to cover the geo-textile with waste rock to allow the permafrost to creep back up into the till layer.

Within the portal itself, a sump will be built at the base of the ramp where any ground water collecting in the sump will be pumped out of the ramp area, never allowing it to enter the underground decline.

The underground contractor will set up a plant on surface for mixing and pumping brine for dust suppression during the drilling of shot-holes and during mucking of broken rock. Water for this plant will be drawn from local lakes, as required, in the same manner as for the diamond drilling programs of previous years.

The brine solution will be re-circulated to the maximum extend possible. As soon as possible, the contractor will install a sump underground and the mixing plant will be moved there. The contractor will pump water from Pump Lake, using a similar set-up to the existing installation used by Boart Longyear for diamond drilling. Minor amounts of brine sprayed onto the muck pile underground for dust suppression will soak into the muck and be removed with it to surface.

The brine will be re-circulated until it is too thick to use, due to suspended solids. The contractor will add fresh water as required, expected to be only every 2-4 days. Water will be heated as necessary. Drill cuttings deposited in the underground sumps will be periodically removed to surface and dumped on the waste pile.

Water absorbed by blasted rock will freeze during the winter. The amount will be such that, if it

thaws in the summer, it will remain as dampness in the rock pile with minimal runoff, if any. Summer rain, if heavy, could wash some brine into the ground immediately beneath or adjacent to the ore pile, although if this happens, the rainwater would dilute the brine. Monitoring quality of the run-off from the ore and waste pads will be ongoing.

Section 36: Provide a Mine Rescue Plan

The underground contractor's Mine Rescue Plan will comply with the Mine Health & Safety Act, Regulations, Part VIII, Divisions 3, 4 and 5 and will be approved by the chief mine inspector. Comaplex is not currently in a position to provide a detailed Mine Rescue Plan as this will be developed by the underground contractor who has not yet been selected.

WASTE ROCK STORAGE AND TAILINGS DISPOSAL

Section 37: The location and conceptual design of waste rock storage piles(s) and tailings disposal facility. (show on map).

The waste rock excavated during the portal construction by the surface contractor will be used to form the services pad for the underground contractor. This pad will be 60 meter x 60 meters x 1.5 meters thick. Waste rock excavated by the underground contractor during the driving of the decline will be used to form an ore storage pad and for minor road repair. This ore stockpile base or pad will be approximately 100 meter x 120 meters in size x 1.5 meters thick. Excess waste rock not needed for the ore stockpile will be stored in a waste ore pile estimated to be 72 meter square by 5-6 meters in height. See Figure 4.

There are no tailings generated in this program.

Section 38: Anticipated volumes of waste rock and tailings.

	solid (cubic m)	loose (cubic m)
Till:	11,150	14,500
Waste rock (total ramp + decline)	28,150	42,225

Section 39: Discuss methods used to determine acid rock drainage (ARD) and metal leaching (ML) potential and results.

All dominant rock types (including overburden) that are expected to be handled in this project have been tested for acid generating potential and for metal leachate potential. Glacial till overburden showed a strong neutralization potential with tests results from seven samples ranging from 12.4 - 34.8 indicating a strong neutralization potential (see Appendix 1). Waste rock is not acid generating. A thin argillite unit occasionally present in one of the mineralized zones in the deposit showed a potential for generating acid. Argillite makes up a very small portion of the rock mass to be brought to surface. The neutralization potential tests from four argillite samples ranged from 0.55 - 12.6 indicating that some (but not all argillite) has a potential for generating acid.

All waste rock excavated will be reassessed as to its potential for generating acid during the course of the project. If rock type(s) are encountered that are significantly different from the rock expected, on the basis of the diamond drill core in hand, fresh analyses will be conducted as to neutralization potential and metal leachate. Any rock considered to be potentially acid generating will be encapsulated by rock that will neutralize any drainage. Rock with

unacceptable long term leachate properties will be placed so that runoff from this waste rock can be monitored and controlled.

STOCKPILES

Section 40: The location and conceptual design of stockpile(s). (show on map).

There will be four separate types of stockpiles associated with this proposal. See Figure 4. Topsoil will be stripped off first and pushed to a small stockpile to the side of the portal. Unfrozen and frozen till will be pushed to the edges of the portal as previously discussed. This material will be segregated for future rehabilitation purposes.

The waste rock excavated during the portal construction by the surface contractor will be used to form the services pad for the underground contractor. This pad will be 60 meter x 60 meters x 1.5 meters thick. Waste rock excavated by the underground contractor during the driving of the decline will be used to form an ore stockpile pad and for minor road repair. This ore stockpile base or pad will be approximately 100 meter x 120 meters in size x 1.5 meters thick. Excess waste rock not needed for the ore stockpile will be stored in a waste ore pile estimated to be 30 meter square by 7-8 meters in height.

Ore will be excavated from underground on a round by round basis with each round passing through the crusher and sample tower. About 95% of each round will remain on the property in separate, segregated piles. The individual ore piles and the crusher/sample tower machines are the reason for the size of the ore stockpile pad.

Section 41: Describe the types of material to be stockpiled. (i.e. ore, overburden)

Topsoil:	topsoil and tundra (minimal material, if any)
Till:	glacial till material
Waste:	predominantly greywacke and siltstones, minor gabbro dikes
Ore Material:	gold bearing quartz veins hosted in iron formations and sericitized siltstones.

Section 42: Anticipated volumes of types of material to be stockpiled.

	solid (cubic m)	loose (cubic m)
Top Soil Pad:	600	600
Till:	11,170	14,250
Waste from the portal cut (contractors pad)	2450	3575
Waste (ore pad)	12,000	18,000
Waste Pad (excess)	13,700	20,500
Ore on pads	4300	6450

Section 43: Discuss methods used to determine acid rock drainage (ARD) and metal leaching (ML) potential and results.

The mineralized rock (ore) in this gold deposit is generally rich in sulphide. Sulphides oxidize when newly exposed rock is subject to air and moisture and can generate acidic runoff (acid rock drainage - ARD). Neutralization Potential (NP) tests of 5 ore samples showed acid base accounting (ABA) ratios of 1.0 to 3.4, indicating acid generating potential (see Appendix 1 for lab test results and related analyses).

All dominant rock types (including overburden) that are expected to be handled in this project have been tested for acid generating potential and for metal leachate potential. Glacial till overburden showed a strong neutralization potential (not acid generating) with tests results from seven samples ranging from 12.4 - 34.8 (see Appendix 1). Waste rock is not acid generating. A thin argillite unit occasionally present in one of the ore zones in the deposit showed potential for generating acid. This argillite makes up a very, very small portion of the rock mass to be brought to surface. The neutralization potential tests from four argillite samples ranged from 0.55 - 12.6 indicating that some (but not all argillite) has a potential for generating acid.

All waste rock excavated will be reassessed as to its potential for generating acid during the course of the project. If rock type(s) are encountered that are significantly different from the rock expected, on the basis of the diamond drill core, fresh analyses will be conducted as to neutralization potential and metal leachate. Any rock considered to be potentially acid generating will be encapsulated by rock that will neutralize any drainage. Rock with unacceptable long term leachate properties will be placed so that runoff from this waste rock can be monitored and controlled. See Section 57 for details.

TRANSPORTATION

Section 44: Describe how the site will be accessed and how supplies will be brought to site. (show route on map)

Annual access to the exploration area for the re-supply of bulk supplies has been by way of a winter overland route from Rankin Inlet. The equipment and materials required to excavate the overburden in the ramp and the blast, load and haul bedrock to expose the portal face that cannot be airlifted will be mobilized overland to the site prior to 2007 spring break-up. This will include local equipment available in Rankin Inlet and equipment currently on other local exploration projects.

Underground mining equipment and bulk supplies will be shipped to Rankin Inlet by barge or ship following break-up in early summer 2007. Comaplex is considering initial equipment mobilization to the work site by heavy-lift helicopter so that the underground contractor can set up and winterize its plant while weather conditions are still mild. Following freeze-up in November, further equipment and materials may be transported overland from Rankin Inlet to the site by using low PSI type mobile equipment as surface conditions permit.

Throughout the winter, transportation of materials, personnel and supplies will be carried out overland by locally owned and operated Cat and Bombardier equipment or fixed wing charter aircraft. After the spring thaw, personnel, materials, and camp supplies will be transported by helicopter.

Overland transport vehicle specifications:

Bombardier:	3,000 kg loaded GVW; 1.2 psi loaded ground pressure
Cat Challenger:	8 – 10 psi ground pressure
Foremost Delta:	16.6 psi loaded ground pressure

Please see Figure 3 for the winter re-supply transportation routes used to date.

Section 45: If an airstrip is being used or constructed provide a description and its location. (show location on map)
There is no summer air strip on site. In the winter, fixed wing aircraft can land on the ice of Meliadine Lake. See Figure 4.

Section 46: Describe expected flight altitudes.
Wherever and whenever possible, travel between Rankin Inlet and camp by both helicopter and fixed wing aircraft will be at an elevation of all least 200 meters, avoiding known cabins, communities, and wildlife areas. Local helicopter flights over the Meliadine West property are commonly below this level.

CAMP SITE

Section 47: A list of existing and proposed camp structures and infrastructure.
1 core tent (several tents together)
1 kitchen-mess tent
12 four man sleeping tents
1 dry (laundry, shower, toilet, and washing facility)
1 trailer housing the power plants (electricity)
1 equipment tent
2 twelve man sleepers
1 three man sleeping trailer
1 entertainment tent
1 storage tent
1 office tent
2 incinerators (housed in sea-cans)
1 drill foreman's tent
3 storage-supply sea-cans for drilling equipment

Section 48: Describe the type of camp.
The Meliadine West camp is a temporary seasonal exploration camp previously in operation from early March to late September, and closed for the fall and winter months. For the duration of the underground program, the camp will remain open through the winter of 2007-2008. It has been at this location since the spring of 1997. If the project proceeds to commercial production, this camp would be replaced and the site would be rehabilitated.

Section 49: Maximum number of people expected on site.
It is expected that number of personnel on site will vary between 35 and 50 people over the term of the work. Numbers could fluctuate up to a maximum of 60 people for short times during summer overlap periods with surface programs or with short term visitors. Personnel estimates for the Meliadine West camp for the term of this program are summarized monthly in Table 1 below.

It is expected that there will only be a slight overlap of the surface contractors (portal construction) with the underground contractor (decline and drift development). The surface contractor will have several people on site during the underground program for snow removal

and site services.

Table One: Estimated Personnel at Meliadine West camp

	2007										2008								
	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Supervision	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Geology	5	5	5	5	5	5	5	2	2	2	2	2	5	5	5	5	5	5	5
Support	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Kitchen	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Drilling	16	16	16	14	14	14	14						12	12	12	14	14	14	14
Surface		5				10	2	2	2	2	2	2	2	2	2	2	2	2	2
Mining							18	18	18	18	18	18	18	18	18	18	18	15	5
Other						3													
Total	**31**	**36**	**31**	**29**	**29**	**42**	**49**	**32**	**32**	**32**	**32**	**32**	**47**	**47**	**47**	**49**	**49**	**46**	**36**

Section 50: Describe the source of power for the camp.
The camp electric power is provided by 2 Perkins 53kW diesel generators running in parallel. Generators are exchanged once a week for servicing. These generators un at 40-50% of nameplate load. A new 53kW generator was installed in camp in 2007 to run the core logging and cutting facilities.

EQUIPMENT

Section 51: A list of equipment indicating uses and approximate dimensions.
The equipment required for ramp excavation to be moved to the site is enumerated in the table below.

Description	Function	Number of Units	Source
Air Track Drill	Drilling ramp permafrost and bedrock	1	Surface development contractor
Trucks	Haul and dump ramp spoil	2	Surface development contractor
Fuel truck	Re-fueling equipment	1	Surface development contractor
Excavator	Ramp spoil excavation and loading	1	Surface development contractor
Dozer	Spoil and waste rock levelling on pad	1	Surface development contractor
Loader	Loading till and blast rock	1	Surface development contractor
Van	Personnel transfer between site and camp	1	Local contractor

The mining equipment required for portal, decline and drift development is summarized below.

Description	Function	Number of Units
Drill Jumbo	face drilling	1
LHD (u/g scoop)	moving broken rock underground	2
U/G Rock Truck	hauling muck to surface	2
Scissor Lift Truck	service vehicle	1
Tractor	service vehicle	1
4 wd Truck	fuel truck	1
4 wd Truck	powder truck	1
4 wd Truck	water delivery to drills	1
Fans – Variety 30-100 Hp	ventilation	6

The surface contractor or underground contractor will have a loader or Cat on site at all times that will be suitable for road maintenance and snow removal as required.

Section 52: If possible, provide digital photos of equipment.
The equipment described is generic. It is not possible to supply photographs of actual equipment as the underground contractor has not yet been selected.

Section 53: Method of moving equipment within the project site.
Movement of men and materials within the project site will occur on a ~2 km long all season road constructed between the camp and the portal location (Figure 4). All fuel depots (fuel truck), explosive magazines (powder or mixer truck) and the sample tower machinery are located along this road. Movement of these vehicles, plus all additional trucks and personnel vans, will be restricted to the road with no movement of vehicles over the tundra. In the winter, overland movement of supplies, personnel, etc. will take place as in previous years, as required. This generally involves Challenger and Bombardier vehicles pulling komatiks.

WATER

Section 54: Location of water source(s) (show on map).
Water for the camp is supplied from Meliadine Lake. Water for the underground exploration program will be sourced from Pump Lake in the winter, with smaller local ponds used in the summer months as available. See Figure 4.

Section 55: The estimated rate of water consumption (L/d).
Water estimates for all activities on the project are included below.

	cubic meters/day	liters/day
camp	10	10,000
blast hole drilling	10	10,000
diamond drilling	40-75	40-75,000
	60-95	60-95,000

Section 56: Describe water intakes. Describe methods for the prevention of fish entrapment.
The intakes on the water pumps will be equipped with a screen with a mesh size sufficiently

small to prevent any danger to fish. Pumping rates will be sufficiently low so as to prevent the impingement of fish onto the pump intake screen.

Section 57: If applicable, discuss how surface water and underground water will be managed.

Surface Water:

Surface runoff entering by way of the ramp will be intercepted in a sump and returned to surface by pumps. Surface water for the camp will be drawn from Meliadine Lake as it has since 1997 with the intake as shown by Figure 4.

Surface runoff from the area of the pads and waste rock may carry sediments, dissolved blasting residue and other substances that may be deleterious to aquatic organisms in down stream environments. The first year-round water body downstream from the portal site is Pump Lake.

Pre-development water quality monitoring: Water quality will be monitored in the small ponds below the portal site beginning in July 2007 to establish a baseline for pre-portal conditions. Samples will be analyzed for water quality parameters important to aquatic life as set out in the *Canadian Water Quality Guidelines for the Protection of Aquatic Life* for metals and ammonium nitrate.

Exploration phase water quality monitoring: Samples will again be collected from these ponds in September 2007 (or within 4 weeks of construction start-up if during the open water season) for analyses of the same water quality parameters. This will be repeated in June 2008.

If analyses show that the water quality conditions have deteriorated so that they do not meet the Canadian Water Quality Guidelines for the Protection of Aquatic Life, the contaminated runoff will be intercepted by the placement of Aquadams (portable heavy plastic 1 meter x 30 meter tubes that are filled with water and so become dykes) that will hold the water so that it can be disposed of on the surrounding upland by spray irrigation (Figure 4). The Aquadams and the pumps necessary to deploy them are on site. Spray apparatus will be procured.

Underground Waters

The contractor will pump water from local ponds in the summer and Pump Lake in the winter (see Figure 4), using a recirculation system similar to that used by Boart Longyear for diamond drilling in previous years. The underground contractor will set up a plant on surface near the portal for mixing and pumping brine for dust suppression. Drilling operations will recycle brine to the maximum extent possible keeping the need for fresh make-up water to a minimum.

As soon as possible, the contractor will install a sump underground and the mixing plant will be moved there. Some brine will be sprayed onto the muck pile for dust suppression. This brine will soak into the muck and be removed with it to surface. The brine will be re-circulated until it is too thick to use due to suspended solids. The contractor will add fresh water as required - this will take place only every 2-4 days. Water will be heated as necessary.

Drill cuttings deposited in the underground sumps will be periodically removed to surface and dumped on the waste pile. Due to the small amount of water used and the re-circulation system, there will be no need for a settling pond on surface. Water absorbed by blasted rock will freeze

during the winter. The amount will be such that, if it thaws in the summer, it will remain as dampness in the rock pile with minimal runoff, if any. Summer rain, if heavy, could wash some brine into the ground immediately beneath or adjacent to the rock pile, although if this happens, the rainwater would dilute the brine. This will be monitored. A contingency plan is in place (see Surface Waters above). The underground exploration program will take place entirely within the level of permafrost (permafrost to >400m depth). As such, the underground program will not produce any mine water.

WASTE (GREY WATER, SEWAGE, OTHER)

Section 58: Describe the characteristics, quantities, treatment, storage, transportation, and disposal methods for the following:

Sewage: Pacto toilets; waste incinerated on site.

Camp Grey Water: Low domestic water consumption in camp will be achieved with low-flow shower heads and waterless ablution systems in place. The result is the low output of grey water at the camp that has performed since 1997. The sump is located approximately 30 meters east of the camp, about 50 meters from Meliadine Lake.

Combustible Solid Material: Incinerated in an incinerator on site.

Non Combustible Solid Material: removed from site overland or by helicopter to the Rankin Inlet land fill site (have an agreement with the Municipality – fee based).

Bulk Items: removed from site overland or by helicopter to the Rankin Inlet land fill site (have an agreement with the Municipality – fee based).

Waste Oil/Hazardous Waste: All potential hazardous waste such as batteries, aerosol cans, paint cans, etc. are routinely collected and shipped for proper disposal in southern Canada. Waste oil will be incinerated.

Contaminated Soils: Substances in use during the program that are a potential source of contaminated soil would be hydrocarbon compounds such as lubricants and fuel. Contaminated soils from altered terrain (shop, pads, road) will be identified and the appropriate response reviewed with KIA in the context of final site closure and abandonment. Solutions could include burial underground with material with ARD potential, treatment with topsoil, peat and fertilizer, or removal.

Contaminated soils in undisturbed tundra will be assessed and in consultation with KIA either treated in situ with topsoil, peat and fertilizer to avoid terrain disturbance, or removed to be handled like contaminated materials from altered terrain.

Empty Barrels: Sent back to Rankin for transport south for deposit refund.

Section 59: If project proposal includes a landfill and/or land farm, describe the location (show on map), conceptual design, and management.

Not required at site for this level of activity.

FUEL

Section 60: The types, quantities (number of containers, type of containers and capacity of containers), method of storage, method of containment, location of storage (show on map) and uses.

Fuel oil storage capacity on site:

14 - 50,000 liter double walled steel Enviro fuel tanks (diesel)
3 – 50,000 liter double walled steel Enviro fuel tanks (Jet A)
2 - 113,000 liter self berming "bladders"

All fuel storage tanks and bladders are located within the Commercial Lease that Comaplex has with the KIA. See Figures 2 and 4.

It is estimated that approximately 1,900,000 liters of diesel will be consumed in the August 2007 to July 2008 period. As of spring break-up in May 2007, there will be 900,000 liters of diesel in onsite storage**.** Additional tankage may be required and mobilized to camp in 2008. Additional fuel for the 2008 season will be brought in by barge late in the fall of 2007 to re-supply the tanks in camp will take place by overland transport in the winter months of 2008.

Incidental requirements for gasoline to run small pumps and portable generators will be stored in 45 gallon (205 litre) drums. The drums will be stored laying down in rows, away from water bodies, with the bungs horizontal, as per the Regulations. Damaged drums will be checked for leaks and transferred to better drums if required.

Helicopter fuel (Jet A) will continue to be stored in the Enviro tanks (3 - 50,000 liter) on the hill above the exploration camp. Approximately 150,000 liters of Jet A will be on site by early May 2007, with re-supply as required in the winter months of 2008, as per previous years.

Section 61: Describe secondary containment measures including the type of material or system used. If no secondary containment is required, please provide justification.

All of the 50,000 liter tanks are double walled fuel storage vaults and therefore provide their own secondary containment with no requirement for external berms. The two fuel bladders are totally contained in self supported berms of a type common to, and approved for Arctic operations.

Section 62: Describe the method of fuel transfer and the method of refueling.

The surface and underground contractors are responsible for the transport of fuel from the bulk storage containers on site to the portal and decline. They will be responsible for supplying and maintaining a fuel truck for this purpose. The bulk fuel tanks are connected to a metered gas powered pump with hose to fill the fuel truck as required. The trucks and tanks will be electrically grounded during fuel transfer. The pumping mechanism for both the Jet A and diesel bulk fuel tanks has been in place and used for over 5 years without incident.

Gasoline in 205 liter drums will be transferred to the equipment using manual or battery/electric powered pumps. Absorbent matting will be available at camp or near the re-fueling stations as a precautionary measure. Fuel handling and storage will be in accordance with the Meliadine West Gold Project Environmental Management Plan (see Appendices 3 and 4).

CHEMICALS AND HAZARDOUS MATERIALS

Section 63: The types, quantities (number of containers, the type of container and capacity of containers), method of storage, method of containment, location of storage (show on map), and uses.

It is anticipated that the only chemicals required and stored on site will be calcium chloride (CaCl). This material is the same as that used on the property for diamond drilling for the last 15 years. It is generally transported and stored in bags on pallets. The pallets are tarped over to protect them from the weather. The CaCl will be stored near the portal site as determined by the contractor. It is estimated that 68,000 kilograms of CaCl will be required. The CaCl for the decline and ramp will be stored on the services pad near the portal. See Figure 4.

Section 64: Describe any secondary containment measures including the type of material or system.

Monitoring of the stockpile of CaCl will be done on a regular basis and leaking bags, if any, will be re-bagged and the spillage cleaned up.

Section 65: Describe the method of chemical transfer.

The CaCl generally comes in by barge in the fall. An amount needed for the surface work will likely be brought in by heavy lift helicopter in the fall of 2007. The bulk of the material will be stored in Rankin Inlet in one of the surface contractors trailers or lots and then brought in overland in the early winter. Minimal movement of the CaCl is anticipated as the brine re-circulation system will likely be located close to the portal. The CaCl will be moved underground by one of the contractor's vehicles once the brine system is moved underground.

EXPLOSIVES

Section 66: Describe the explosive type(s), hazard class, volumes, uses, location of storage (show on map), method of storage.

Explosives will be brought to the site and used for the excavation of frozen overburden and rock. Explosive types will comprise ANFO and cartridged emulsions. Initiation will be by detonating cord and nonel blasting caps. The detonating cord will be initiated electrically. Hazard classes are 1.1 and 1.5.

In the course of the project, total explosives consumption is anticipated to be of the order of 115,000 kg (approximately 25,000 kg ANFO for the surface work and 90,000 kg of ANFO for the underground work). Comaplex has applied to the WCB for the storage of a total of 36,000 kg on site in approved and permitted magazines.

Two empty type 9 explosive magazines (2000 kg capacity each) will be brought to the site in early May 2007. A third Type 9 magazine will be barged in to Rankin in the summer along with two additional Type 4 magazines (capacity 15,000 kg each). All three magazines will be mobilized to site in the late fall/early winter of 2007, when conditions permit. See Figure 4 for the proposed locations of the explosive magazines.

Explosives for surface excavation will be flown from Yellowknife to Rankin Inlet and flown by

helicopter to the site without intermediate storage in Rankin Inlet. In detail, fixed wing flights of explosives will be mobilized to Rankin every 10 days (3600 kilograms of ANFO). The ANFO will be offloaded and immediately moved to a location on the road west of town where a helicopter will transport the explosive to the magazines at camp. In the winter months, the explosives may be taken to the magazines by overland transport or the plane will land on the ice at camp for transfer of the materials to the magazines.

While it is possible to conduct the portal cut and early underground work with explosive re-supply flights to the two Type 9 magazines, the method of supplying explosives to the underground excavation is not yet confirmed because the underground contractor has not yet been selected. Comaplex does not have control over the off-site storage and movement of explosives by the contractor.

Details on the final plan for the movement of explosives to the site and their storage will be forwarded once the contract is awarded in mid May 2007.

PUBLIC INVOLVEMENT / TRADITIONAL KNOWLEGDE

Section 67: Describe the level of public involvement, a summary of public involvement measures, a summary of concerns expressed, and methods of addressing the concerns.
The Meliadine West Gold Project has conducted an active consultation program throughout the current exploration program which began in 1995. The consultation program included the community of Chesterfield Inlet as the lands affected fall within the area of influence (as determined by the Keewatin Regional Land Use Plan) for that community. A chronology of consultation activities is enumerated below.

Chronology of community consultation events hosted by the Meliadine West Gold Project

DATE	PLACE	PARTIES PRESENT AND SUBJECTS OF MEETING
1995		
1 May	Rankin Inlet	KIA, WMC, Cumberland, Comaplex; history of exploration and prospect of WMC entering the Project on western lands.
1996		
10 January	Rankin Inlet	KIA, WMC, Cumberland, Comaplex; Project status report and notice of manpower needs
29-31 Mar.	Rankin Inlet	Nunavut Mining Forum; Project status report; Project booth at trade fair
1 April	Chesterfield Inlet	public, KIA, Hamlet, HTO, CLARC; Project status report and notice of manpower needs
2 April	Rankin Inlet	public, KIA, CLARC, HTO's, Fed. & Ter. govt, WMC; day long review of environmental studies

2 December	Chesterfield Inlet	public, KIA, CLARC, Hamlet, HTO; Project status report and notice of manpower needs
3 December	Rankin Inlet	public, KIA, CLARC, HTO; Project status report and notice of manpower needs
1997		
21-23 Mar.	Rankin Inlet	Kivalliq Mining Round Table; Project status and emphasis on mine readiness training
25 March	Rankin Inlet	public, CLARC, KIA Board
19-20 April	Iqaluit	Nunavut Mining Conference; Project status report
13 May	Rankin Inlet	public, KIA, CLARC, HTO; current year exploration program and manpower needs
14 May	Chesterfield Inlet	public, KIA, Hamlet, HTO, CLARC; current year exploration program and manpower needs
11 June	Coral Harbour	briefing KIA Board of Directors on regional demography research and how it relates to mine work force needs
28 June	Rankin Inlet	public reception for Sir Arvi Parbo, Chair to WMC Limited Board.
28 August	Rankin Inlet	public reception with WMC senior management visiting from Australia.
23 October	Rankin Inlet	inaugural dinner meeting with Elder's Steering Committee for Traditional Knowledge.
6 November	Rankin Inlet	Project briefing to Keewatin Wildlife Fed. executive committee.
9 December	Rankin Inlet	meeting #2 of the Elder's Steering Committee for Traditional Knowledge.
1998		
7 January	Rankin Inlet	public, Hamlet, KIA, HTO, CLARC; Project status report
8 January	Chesterfield Inlet	public, KIA, Hamlet, CLARC; Project status report
28 March	Cambridge Bay	Nunavut Mining Symposium; Project status report
2 April	Rankin Inlet	HTO's for Rankin and Chesterfield, KIA, CLARC, DFO, DRWED; review environmental baseline studies.

23 June	Rankin Inlet	joint meeting of the Rankin Inlet and Chesterfield Inlet CLARCs to review underground exploration application (since withdrawn); public meeting in afternoon and evening to brief Rankin Inlet businesses and residents of underground exploration application
25 June	Chesterfield Inlet	project briefing to Chesterfield Inlet Hamlet Council; evening meeting to brief Chesterfield resident on underground exploration application (since withdrawn).
6 July	Rankin Inlet	brief Rankin Inlet Hamlet Council on underground exploration program and need to store fuel in barge overwintering in Melvin Bay (plans since cancelled).
8 July	Meliadine Camp	overall project briefing to DIAND Minister, the Hon. Stewart and Nunavut leadership- Josie Karetak-Lindell MP for Nunavut; NWT Finance Minister and MLA for Rankin Inlet, the Hon. John Todd.
5 August	Rankin Inlet	dinner meeting #3 of the Elder's Steering Committee for Traditional Knowledge; review Project and proposed archaeological survey of proposed test pit area.
2 October	Rankin Inlet	dinner meeting #4 of the Elder's Steering Committee for Traditional Knowledge; review Project and results of archaeological survey of proposed test pit area.
21 October	Rankin Inlet	meeting with Hamlet Coordinating Committee (reps. of all the service agencies in Rankin Inlet) to review Project and its current effects on the social fabric of the community.
1999		
13 January	Rankin Inlet	KIA,CLARC, public; review Project results for 1998 and plans for 1999.
14 January	Chesterfield Inlet	KIA,CLARC, public; review Project results for 1998 and plans for 1999.
14 April	Rankin Inlet	workshop with stakeholders from Rankin Inlet, Chesterfield 1997. Inlet and Kivalliq region plus relevant government agencies to review environmental study results of 1998 studies and plans for 1999.
11 April	Arviat	review regional gold exploration program for 1999 with Hamlet Council and HTO.
14 Sept.	Rankin Inlet	meeting #5 of the Elder's Steering Committee for Traditional Knowledge; review Project and receive final

		report on completed Traditional Knowledge Study of Project area.
2000		
7 January	Rankin Inlet	KIA,CLARC, public; review Project results for 1999 and plans for 2000.
22 May	Arviat	review regional gold exploration program for 1999 with Hamlet Council and HTO.
23 May	Rankin Inlet	workshop with stakeholders from Rankin Inlet, Chesterfield Inlet and Kivalliq region plus relevant government agencies to review environmental study results of 1998 studies and plans for 1999
.		
23 May	Chesterfield Inlet	KIA, CLARC, public; review Project results for 1999 and plans for 2000.
13 November	Rankin Inlet	Nunavut Mining Symposium public talk on the need for mine related training; Project update to symposium delegates.
2001		
10 April	Rankin Inlet	workshop with stakeholders from Rankin Inlet, Chesterfield Inlet and Kivalliq region plus relevant government agencies to review environmental study results of 2000 studies and plans for 2001; public meeting to review Project results for 2000 and plans for 2001.
2002		
7 January	Rankin Inlet	KIA, CLARC, public meeting to review 2001 work and project status;
8 January	Chesterfield Inlet	KIA, CLARC, public meeting to review 2001 work and project status
27 June	Rankin Inlet	KIA commercial lease signing
26 Nov.	Chesterfield Inlet	KIA, CLARC, public meeting to review 2002 work and project status
28 Nov.	Rankin Inlet	KIA, CLARC, public meeting to review 2001 work and project status including camp closure.
2003		
12 May	Rankin Inlet	KIA, CLARC, public meeting to review project status focusing on impending sale of project.
13 May	Chesterfield Inlet	KIA, CLARC, public meeting to review project status focusing on impending sale of project.

16 July	Rankin Inlet	teleconference from KIA between Rankin Inlet, Chesterfield Inlet, Denver (WMC), and Calgary (Comaplex) to announce and discuss Comaplex/WMC agreement on sale of WMC Canadian interests to Comaplex.
3 Nov.	Rankin Inlet	KIA, CLARC, public review of new directions of project under Comaplex control.
2004		
July 27	Rankin Inlet	brief KIA on status of the project.
October 21	Rankin Inlet	presentation on project status to KIA Board of Directors with a request for a proposal of motion to support a future road from Rankin to the Tiriganiaq deposit site.
October 21	Rankin Inlet	town hall public meeting presenting the results of the 2004 exploration program and the proposed plans for 2005.
2005		
June 3	Rankin Inlet	presenting the plans for the 2005 exploration program.
July 29	Rankin Inlet	present project update to the KIA.
2006		
July 30	Rankin Inlet	presentation to the Rankin Inlet town council on the project.
March 27	Rankin Inlet	town hall public meeting on the plans for the 2006 exploration program.
2007		
March 26	Chesterfield Inlet	presentation to the KIA Board of Directors on the proposed underground program and 2007 Meliadine West exploration plans. Verbal Motion of Support from the Board.
March 27	Rankin Inlet	presentation of the proposed 2007 Meliadine West exploration program to the Rankin Inlet CLARC.
March 28	Rankin Inlet	presentation of the proposed 2007 Meliadine West exploration program to the Kivalliq Chamber of Commerce.
March 28	Rankin Inlet	town hall meeting - presentation of the proposed 2007 Meliadine West exploration program.

Public Issues and Concerns

The public meetings hosted by the Project have focused on the exploration program and a hypothetical mine that may be developed in due course. The issues below are a capsule of those that emerged in discussions during the community consultations from 1995 – 2006 regarding the

overall Meliadine West Gold Project.

HELICOPTER OVERFLIGHTS

The effects of over flights on both people and wildlife were raised at the first meeting. Project managers responded with an operating guideline to be followed (weather conditions permitting) that advises pilots to avoid passing over cabins and tents and also to maintain specified altitude over areas occupied by wildlife. This has not been a perfect solution and ongoing reminders to pilots have been necessary. The subject continues to be raised informally indicating it to be an issue of ongoing public concern.

WATER QUALITY

The peculiar drainage configuration for Meliadine Lake was reviewed with the HTO and Elders' Committee who recognised that both major drainages in the Rankin could be at risk of contamination in the event of disaster or bad practice. The Project's environmental baseline studies established a data base line for a comprehensive water quality monitoring program; standard industry diamond drilling practice has been modified to remove all solids from drilling fluids before discharging these when drilling from lake ice platforms. In summer, sumps are developed to prevent drill cuttings from entering water bodies or water courses. These practises are a standard routine as prescribed in the Project Environmental Management System filed with KIA.

BUSINESS AND EMPLOYMENT OPPORTUNITIES

A recurring theme in discussion with leaders and elders was the need for employment for "our young people". The Project has hired all unskilled help from the region and has provided on the job training as required. Long term labour force development will require a major upgrading and training effort in partnership with government.

FUEL SPILLS

Fuel management and threat of contamination to the environment is an ongoing public concern. The Project EMS implements a rigorous inspection routine of all fuel storage vessels including ULC approved double walled fuel vaults for bulk diesel and turbo fuel storage.

UNDERGROUND BLASTING EFFECTS ON LAKES AND FISH

This issue was raised in Chesterfield Inlet as a concern if mining were to go ahead. The physical effects of blasting on the surrounding rock and water at surface is controlled by the placement, sequence, and volume of explosive. This is planned to ensure that the maximum energy from the blast is released into the immediate area of the explosive and not into non-target areas as provided in usage guidelines for explosives. The effects of underground blasting on water bodies has not been a problem reported in the area of other operating mines; e.g. Giant and Con at Yellowknife and Lupin near Contwoyto Lake.

ARE THERE OPPORTUNITIES FOR WOMEN?

Both communities have a tremendous interest in the opportunities for employment in all aspects of Project work. The Project is an equal opportunity employer.

IS THERE EXPLORATION IN THE AREA OF PEOPLES' CAMPS?

To date there has been very little drilling in the immediate vicinity of existing cabins or camps.

Efforts are made to review the work with the persons at the campsite to learn if the exploration schedule can be adjusted so that disturbance and inconvenience can be avoided.

WORK ROTATION

Time spent away from families is a concern for persons living at the camp for extended periods. While no rigid work rotation has been in place to date, rotations for local workers are flexible to meet both the work load and the individual needs of the employee. The preferred rotation for local employees is 20 days in and 10 days out. The hours accumulated in the 20 days includes considerable overtime and so provides more income than regular hours per month in many seasonal community based jobs in the region.

EFFECTS ON CARIBOU

Public concerns for wildlife are focused on caribou. Caribou are not regularly abundant in the area of the exploration program in any season. The Project initiated a program of satellite telemetry in which five collars were put on female caribou to learn the calving ground affinity of the caribou in the area during winter. Are they of the Qamanirjuaq herd or a herd north of Chesterfield Inlet? Telemetry data showed that the caribou overwintering in the area of the exploration program in 1997 / 98 were from at least two different calving areas - the Qamanirjuaq Lake calving ground to the southwest of Meliadine Lake, and a calving area north of Chesterfield Inlet. This cooperative program was officially suspended as of December 31, 2001.

In general, the Project has received support and encouragement for its work at Meliadine West from both Rankin Inlet and Chesterfield Inlet and has enjoyed a cooperative working relationship with the landlord, KIA.

In addition to the consultation meetings, annual Project Status Reports (in Inuktitut and English) have been prepared and provided at public meetings.

3.0 DESCRIPTION OF THE EXISTING ENVIRONMENT

Physical Environment

Geology

The Meliadine area is underlain by an Archean age package of rocks termed ‘greenstones’ in what is referred to as the Rankin Inlet Group. A major regional fault, the Pyke Fault, is present in the Meliadine area from Hudson Bay in the east to Peter Lake some 90 kms inland to the west. Iron rich rock (iron formation) and sediments are associated and deformed by the Pyke Fault and are associated with the presence of gold. Several gold bearing zones have been identified on the Meliadine property. The “ore” zone in this underground exploration program, the Tiriganiak Zone, is in a shear splay off of the Pyke Fault. This gold deposit includes a complicated series of mineralized sheets of varying thickness dipping north and plunging east and west. The minerals in these zones include both carbonate rock (basic) and sulphide (acidic) rock.

Archean ‘greenstone’ geological settings host many gold mining camps throughout Canada including Timmins, Rouyn-Noranda, and Yellowknife.

Climate
The climate of the area is characterized by short cool summers and long cold winters. Brisk wind is a common feature in all seasons of the year. Precipitation is roughly divided evenly between rain during a short summer and fall (predominantly in late summer), and snow which can fall in any month but is most common between October and April. Surface waters are usually frozen by early October and remain frozen until early June. The land is usually snow free by late June. Historic climate data sets are available for Chesterfield Inlet, 80 km northeast of the camp and Rankin Inlet, 30 km south. The periods of record are 48 years and 16 respectively (AGRA, 1998).

An automatic weather station operated at the Meliadine West Gold Project camp from May 1997 through June 2002. It recorded data on the following climate parameters:

- air temperature;
- ground temperature at -5 cm;
- relative humidity;
- precipitation (summer only);
- wind speed and direction; and
- net radiation.

The climatic conditions recorded at the camp as well as those from the historic data sets for nearby communities are not significantly different from the conditions of gold mines operating now, or in the past, in arctic and sub arctic Canada (Cullaton Lake, Lupin, Giant, Con, Colomac).

Terrain
The terrain in the area of the Meliadine West Gold Project is of glacial and marine origins. Post glacial uplift is ongoing. The landscape is shaped by drumlinoid relief on a till plain (Aylsworth, et al, 1984). Low lying areas are poorly drained due to a low slope in the landscape generally with numerous shallow ponds and lakes connected by intermittent streams. Soils are generally sandy and silty clay with unsorted aggregate materials. All uplands are underlain by permafrost of an undetermined thickness. The surface active layer of annual freeze / thaw is 1 - 2 meters thick depending on cover type. It is expected that a talik (permafrost absent) of considerable depth underlies Meliadine Lake. Similarly, taliks should be expected under all water bodies that do not freeze solid.

A sealed sensor cable for determining the annual soil temperature profile from the surface through the zone of permafrost was placed into ddh Mel98-195 in June 1998. Permafrost depth in the Meliadine West project area extends to -450 m with minimum temperatures of -8 to -9 deg. C at ~ -10 meters. Temperatures of the permafrost at depths below -10 m did not show seasonal amplitude.

Aerial photography necessary to prepare a digital terrain model (DTM) was flown in July 1997. Maps of the project area at a 1:5,000 scale with a 1 meter contour interval have been prepared.

Hydrology
The Meliadine Lake watershed covers 586 square kms (AGRA, 1998). The northeast basin of Meliadine Lake from which water for this underground exploration program and camp will be drawn is assumed (for planning purposes) to be isolated from the main lake in late winter due to

ice thickness. The residual water volume of the basin below the ice (at 2 m thickness) has been calculated to be 63.66 million cubic meters (RL&L Ltd., 1998).

The hydrometric study at Meliadine West set up water level and flow monitoring stations to document the annual hydrologic regime in the project area. Results of the four year study (1997 - 2000) include both "dry" and "wet" years and show the expected precipitation and run off patterns that is typical for tundra watersheds. One unusual feature of the overall Meliadine watershed is that Meliadine Lake has two outlets, the Meliadine River carries about 80% of the flow, and an outlet to Peter Lake on the Diana River takes the balance (AGRA, 1998).The domestic water supply of Rankin Inlet is not situated on either of these two major watersheds. The water balance study on the Meliadine system showed the long-term average annual precipitation at Rankin Inlet was 297 mm. In a hydrologic year of historic low precipitation (172 mm in1996-97) the yield was 78 mm or 45%; whereas in a hydrologic year with historic high precipitation (385 mm in 1998-99), the yield was 239 mm for 62%. The water balance study included monitoring an evaporation pan set up for the summer period. In general, it showed that summer evaporation was roughly equivalent to summer precipitation with little if any net input from summer rain. The net input to the annual water balance of the Meliadine River watershed comes from spring run off which recharges the lakes and ponds in the sub-basins above Meliadine Lake. The streams draining these water bodies usually run dry after the spring run off, but before the late summer rains.

Aquatic Environments

Water Quality

The Meliadine River watershed has to date not hosted ongoing commercial or industrial activity. The water quality should therefore be close to its pristine condition. Aquatic environment studies for the Meliadine West Gold Project have established a comprehensive baseline on water quality conditions in the Project area. Parameters for analyses included metals, simple hydrocarbons, and levels of exotic airborne pollutants deposited by long range atmospheric transport. Analytical data includes water samples from winter, spring, and summer collections. The sampling network established includes a "control" area outside the basins under active exploration.

Sediment quality samples were collected from naturally occurring sediment traps: the deepest locations in Meliadine Lake downstream of the outfall of the streams draining the sub-basin hosting the Tiriganiaq Zone as shown by bathymetric mapping. Marine sediments were also collected in Prairie Bay beyond the mouth of Meliadine River.

The analytical results of all water and sediment sample testing are reported in appendices to the yearly data reports received. Water quality results were assessed against values published by Health Canada (1993) for drinking water, and the Canadian Council of Ministers for the Environment (CCME, 1999) for the protection of aquatic life. Values that did not meet the standard of the published guidelines are indicated in the data sets submitted by R.L. & L. in 1998, 1999, 2000, and 2001. Elevated values for cadmium, copper, iron, lead, manganese, and zinc in pre- development baseline conditions at some water quality sampling sites were observed.

Fish

Fish populations were studied in Meliadine Lake, Meliadine River and many ponds and lakes above Meliadine Lake. Nine fish species were identified: lake trout, Arctic char, round

whitefish, Arctic grayling, cisco, three- and ninespine stickleback, burbot and sculpin. Seasonal distribution of fish was studied by deploying fyke nets which allowed live capture and release of tagged fish. Radio telemetry was also used to monitor the distribution of lake trout and char. Arctic char and lake trout are important resources for the local domestic fishery. A significant stratification of species was noted between Meliadine Lake and the water bodies above it. The distribution of lake trout (all cohorts) was generally restricted to Meliadine Lake with occasional individuals captured in the first water body above Meliadine Lake. Round whitefish, like trout, were generally restricted to Meliadine Lake. The remaining species, with the exception of Arctic char, were generally found throughout the basins above Meliadine Lake.

Arctic char are anadromous and their distribution and movements were documented by live capture and tagging with both floy tags and telemetry radios. Like lake trout, they were rarely found beyond the first lake above Meliadine. One of the lakes above Meliadine (D1) may be extra-ordinary summer habitat in that non migratory char seemed to congregate there (and not in other similarly situated lakes) in the summer prior to their spawning. The overall significance of this to the Meliadine char population remains to be determined.

A fish fence was set up near the mouth of the Meliadine River in 1997, 1998 and 1999 to capture, measure and tag char returning from the ocean. A reward program offering $5 per floy tag and $25 per telemetry radio was established to provide local incentive to return tags collected from fish harvested. This program was initiated in the fall of 1997 and was terminated at the end of December 2001. A total of 2543 char were tagged; more than 850 tags were recovered from local fishers and 656 tagged char were recaptured either at the Meliadine fish fence or by net during the normal course of the study. The distribution of char as shown by telemetry data suggest that char may spawn at numerous locations in Meliadine Lake. Also, telemetry data show that the migration of char from Meliadine Lake to Hudson Bay is via both Meliadine River and Peter Lake / Diana River.

Fish population studies also included developing a baseline on fish tissue quality. Samples of char and lake trout were collected to assay metal and organic contaminant levels. Due to lake trout longevity, a data set for lake trout tissue quality was also taken from Parallel Lake that is intended to serve as a “control”. All fish population data were reported in yearly data reports by R.L. & L. Ltd in 1998, 1999, 2000 and 2001. No “species at risk” was found in the fish studies in the Project area.

Fish Habitat

Fish habitat studies focused on physical and biological parameters of the lakes and streams in the Project area. Physical parameter studies documented the shorelines and stream habitats that may be at risk of alteration during the construction and operations of a gold mine. These investigations included preliminary examination of water crossings that would be required by an all-weather road from Rankin Inlet to a conceptual mine site near Bud Lake. The bathymetric profiles mapped numerous lakes and ponds including parts of Meliadine Lake. Biological parameter studies documented winter oxygen levels in several ponds and lakes as well as the relative abundance of primary and secondary producers in the aquatic ecosystem of the Project area. Although winter oxygen levels in the lakes above Meliadine were very low, several species of fish were found to overwinter there, including Arctic Grayling. The diversity of primary and secondary producers found was typical for sub-arctic aquatic systems. As a cost saving measure,

not all the samples of benthic invertebrates collected were analyzed and reported; 136 preserved benthos samples remain in secure storage with R.L. & L. Ltd. in Edmonton (now a division of Golder Associates Ltd.).

Terrestrial Environments

Vegetation and wildlife habitat

Vegetation studies were conducted in 1998 by Page Burt of Rankin Inlet. A comprehensive list of plant species and a description of their habitats was prepared including a map of habitats over the exploration area (Burt, 1999). The dominant factor shaping the distribution of habitat types seems to be the amount of moisture available, with wetter areas having much more vegetation and the ridge tops the least. The greatest species diversity was documented in the transition zone between the wet meadows and well drained communities on drumlin slopes.

No plant species at risk of extinction were found in the Project area. No critical habitat for any local wildlife species has been identified in the course of completed baseline studies in the project area. No critical wildlife habitat was identified by the Nunavut Planning Commission in its preparation of the Keewatin Regional Land Use Plan (NPC 2000). Also, there are no known caribou calving grounds in the general area that will be affected by the proposed underground exploration project. With the exception of the immediate area of the portal and camp there will be no risk of wildlife habitat disturbance.

All of these areas except the waste rock dumps can be revegetated with local plants by the careful application of peat and fertilizer to disturbed sites with a suitable soil base. It will be many years for the areas built up with rock and natural aggregate to become vegetated.

Wildlife

The area of the project is within the ranges of 40 bird species (Godfrey, 1966) and 17 mammal species (Banfield, 1977). The wildlife species inventory of the region was developed from published compendia of birds and mammals and from the field observations of the staff of the project as recorded in the camp wildlife log.

Wildlife studies on the caribou herds using the Project area were initiated in the fall of 1997 when the Project collaborated with the Wildlife Service of the then Government of the Northwest Territories in the deployment of satellite telemetry collars on female caribou. Systematic studies of wildlife generally in the Project area started in the spring of 1998 when Arc Wildlife Services Ltd. of Calgary began systematic studies of bird and mammal studies in the area. These studies continued through the summer of 2000. Annual data reports were submitted for 1998, 1999 and 2000 (Jalkotzy 1999, 2000a, 2000b).

The normal assemblage of bird and mammal species expected for sub-arctic tundra ecosystems was found. The most common of the large birds like sand hill cranes, loons, and tundra swans were studied in more detail than other water fowl and passerines. Swans exhibit traditional nest site selection habits. Raptors (rough-legged hawks and peregrine falcons) were noted but no nests were located within the active exploration area of the Project. Mammals present include lemming, ground squirrel, red fox, and caribou. Aerial surveys combined with telemetry data showed the Project area is marginal to the overall range of two caribou herds. Portions of the Qaminirjuaq herd may pass through the Project area very quickly in summer, but linger in some

years from late October through March. It is at this time of year that most caribou harvesting by Rankin Inlet hunters is done. Telemetry data also showed that the caribou present in the fall of 1997 included females that traveled north of Chesterfield Inlet for calving in the spring of 1998 and so may belong to the herd(s) calving in the Lorillard River / Wager Bay area.

4.0: IDENTIFICATION OF IMPACTS

Table 1: Identification of Environmental Impacts

THE NUNAVUT IMPACT REVIEW BOARD

SCREENING PART 2 FORMS

TABLE 1: IDENTIFICATION OF ENVIRONMENTAL IMPACTS

NIRB	ENVIRONMENTAL COMPONENTS	PHYSICAL	Designated Environmental Areas (Parks, Wildlife Protected Areas etc)	Ground Stability	Permafrost	Hydrology / Limnology	Water Quality	Climate Conditions	Eskers and Other Unique or Fragile Landscapes	Surface and Bedrock Geology	Sediment and Soil Quality	Tidal Processes and Bathymetry	Air Quality	Noise Levels	other VEC:	other VEC:	other VEC:	BIOLOGICAL	Vegetation	Wildlife, including habitat and migration patterns	Birds, including habitat and migration patterns	Aquatic species, incl. habitat and migration, spawning	Wildlife Protected Areas	other VEC:	other VEC:	other VEC:	SOCIO-ECONOMIC	Archaeological and Cultural/Historic Sites	Employment	Community Wellness	Community Infrastructure	Human Health	other VEC:
PROJECT ACTIVITIES																																
CONSTRUCTION	**Project Overall**																															
	Camp operations																		M	M									P	P			
	Resupply																												P	P			
	Overland																																
	Air													M						M													
	Portal and Underground mining						M							M					M	M									P	P			
	Blasting Pads, waste rock, ore piles						M							M					N														
	Assembling bulk sample												M	M															P	P			
	Decommissioning																												P	P			
OPERATION																																	
DECOMMISSIONING																																	

NOTE: P - positive, N - negative and non-mitigatable, M - negative and mitigatable, U - unknown, if no impact then please leave cell blank

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4.2 Discuss the impacts identified in the above table.

Camp Operations

This camp has operated every year since 1997.

The potential impacts on water quality, vegetation and terrain have been successfully mitigated by the following measures;

- sewage is avoided by the use of Pacto toilets and the incineration of waste;
- grey water passes through a sump before it seeps into a meadow;
- camp kitchen wastes are incinerated to avoid attracting scavenging wildlife.

Re-supply

Re-supply of bulk supplies like fuel occurs in the late fall and winter when the ground is frozen and snow covered with no significant effects on terrain and vegetation.

Transport of personnel and provisions occurs by air (helicopter) in summer or bombardier in winter. Helicopter pilots are instructed to avoid cabins and wildlife to mitigate potential effects and disturbance.

Portal and Underground Mining

Excavating the ramp and portal and mining underground will use standard drill, blast, load and haul methods resulting in construction of pads and storage piles. Approximately 3.6 ha of tundra will be covered by excavation and mined materials. There is a risk of blast residue (ammonium nitrate) and dissolved metals from rock entering runoff from these piles. Runoff water quality will be monitored. Elevated levels of ammonium nitrate (a form of fertilizer) and/or metals in runoff will be mitigated by controlling runoff by placing Aquadams in the downstream watercourse below the pads and waste piles and pumping the accumulated water onto adjacent uplands by way of spray irrigation.

The effects of blasting will be mitigated by abiding by all rules and regulations that apply as well as ensuring that no wildlife are at risk of disturbance or injury from fly rock at the time of a blast.

Assembling Bulk Sample

Assembling the bulk sample will involve crushing the mineralized rock and taking numerous samples of crushed rock. Dust will be suppressed by moisture in the rock from mining; additional moisture can be added to control excessive dust. Noise suppression protective devices will used by workers as necessary.

Decommissioning

The site will closed and abandoned only in the event that the Project does not meet economic feasibility standards. No incremental environmental effects will be incurred from closure activities.

4.3 Discuss potential socioeconomic impacts, including human health.

Please see the table below that provides the historic economic input by the Meliadine West Gold Project to the local economy.

Expenditures in the Kivalliq Region by the Meliadine West Gold Project: 1995 to 2006

Activity	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997	1996	1995
local people employed	9	11	11	14	8	12	27	26	45	30	21	6
wages	$108,360	$122,980	$181,263	$130,615	$76,941	$236,406	$268,256	$233,303	$386,265	$205,000	$80,000	$40,000
freight / expediting	$232,323	$130,065	$164,815	$150,088	$66,839	$176,349	$270,215	$152,533	$476,744	$385,200	$183,000	$42,000
fuel	$343,930	$235,760	$253,000	$62,643	$9,391	$184,094	$31,847	$81,080	$647,107	$27,000	$120,000	$80,000
equipment / supplies	$23,700	$12,831	$11,000	$1,203	$2,328	$15,153	$55,740	$5,609	$77,484	$150,000	$10,000	$10,000
food / lodging	$142,000	$119,500	$23,312	$18,781	$8,850	$77,582	$104,302	$128,388	$280,366	$263,000	$100,000	$43,000
construction	$141,900	$22,410	$8,503	$57,494	$0	$45,041	$51,088	$29,778	$82,045	$0	$57,000	$10,000
drilling	$1,500	$51,129	$74,182	$45,589	$0	$0	$17,913	$86,456	$150,836	$160,000	$0	$0
community/gov	$93,298	$97,226	$63,680	$97,719	$208,254	$90,259	$384,597	$69,303	$229,948	$42,000	$0	$0
environment	$8,800	$0	$8,500	$2,150	$0	$0	$0	$16,806	$16,650	$0	$0	$0
other (air, etc)	$47,945	$95,315	$24,400	$10,116	$2,944	$13,180	$18,573	$25,732	$30,680	$0	$0	$0
Total (Kivalliq)	$1,143,756	$887,216	$812,655	$576,398	$375,547	$838,064	$1,202,531	$828,988	$2,378,125	$1,232,200	$550,000	$225,000
% local of total	17	17	25	18	8	13	15	12	17	11	11	12
Total (Program)	$6,739,004	$5,167,550	$3,300,027	$3,150,493	$4,778,824	$6,302,757	$7,854,865	$7,207,958	$14,402,262	$10,887,000	$5,063,000	$1,907,000
Cumulative (Kivalliq)	$11,050,480	$9,906,724	$9,019,508	$8,206,853	$7,630,455	$7,254,908	$6,416,844	$5,214,313	$4,385,325	$2,007,200	$775,000	$225,000
Cumulative (Program)	$76,760,740	$70,021,736	$64,854,186	$61,554,159	$58,403,666	$53,624,842	$47,322,085	$39,467,220	$32,259,262	$17,857,000	$6,970,000	$1,907,000

There are no human health issues related to this Project that go beyond workplace health and safety issues.

With respect to community wellness generally, this exploration project represents a significant step toward assessing the feasibility of a long term employer for the community of Rankin Inlet. It is therefore a source of hope which is a positive factor that can contribute to community wellness.

Camp Operations
Camp operations have provided employment for local residents as shown in the table showing historic economic benefits to the Kivalliq region by the Meliadine West Gold Project. This level of participation by residents of Rankin Inlet is expected to continue and could increase.

Re-supply
Winter re-supply and overland transport is contracted to local firms for significant dollar inputs to the local economy.

Portal and Underground Mining
Local manpower will be recruited to the maximum extent possible.

Assembling Bulk Sample
Local manpower will be recruited to the maximum extent possible.

Decommissioning
The site will closed and abandoned only in the event that the Project does not meet economic feasibility standards. If decommissioning is undertaken, it will be done by a local contractor.

4.4 Discuss potential for trans-boundary effects related to the project.
There are no potential trans-boundary effects associated with this proposed underground exploration and bulk sample project.

4.5 Identify any potentially adverse effects of the project proposal on species listed under the Species at Risk Act (SARA) and their critical habitats or residences, what measures will be taken to avoid or lessen those effects and how the effects will be monitored.
The Project is located in a region of Nunavut for which no Schedule 1 and 2 species have been identified (as shown by the SARA website on April 30, 2007). Two bird species on Schedule 3, the Tundra Peregrine and Short-eared Owl occur in the region but neither have been observed to nest in the Project area (within 2 km).

5.0 MITIGATION OF IMPACTS

Air

The mining contractor will be encouraged to operate and maintain engines, especially power generators, in accordance with manufacturer's specifications.

Water

The waste rock excavated from the decline has a low potential for acid generation. As well, the glacial till in the area has a high neutralization potential. Tests show that ore and some of the thin argillite bands occasionally associated with the ore in storage at surface have potential for acid generation. Waters from the ore pad will be monitored for contaminants and if required, will be treated (Aquadam restriction, collection, and aeration) before release. No residual impacts on the natural water bodies and water courses in the project area are expected.

Fish

No direct interaction with fish and fish habitat is required by the project and no residual impacts are expected.

Terrain

The primary interaction between the proposed program and the terrain in the area will be the disturbance required to establish a portal (the opening of the ground surface to enter the underground workings) and to store the rock that comes up from underground exploration. A total of 3.6 ha of terrain will be covered with natural aggregate and development rock. Preliminary estimates of the area of incremental disturbance are as follows:

Ramp and layback area	0.3 ha
Top soil pad	0.06 ha
Waste rock pad	0.54 ha
Till / Overburden pad	0.53 ha
Explosives storage	0.5 ha
Maintenance shop pad	0.37 ha
"Ore" pad	1.2 ha
Total area of new disturbance	**3.6 ha**

All altered surfaces will be contoured and sloped to reduce the opportunity for natural erosion to the maximum extent possible.

Soil

All earth works will be designed to avoid contributing to surface erosion.

No residual impacts on soil, other than the disturbance in the immediate area of the portal and quarry (s) are expected.

All combustible waste will be incinerated with the residue deposited in the municipal dump at Rankin Inlet.

Non-combustible waste will be placed in the municipal dump at Rankin Inlet.

Contaminated soils will be handled in consultation with the KIA at the time of closure and abandonment by disposal underground, treatment, or removal.

Vegetation

No residual impacts on vegetation other than the disturbance in the immediate area of the portal and associated surface developments are expected.

Wildlife

Hunting by staff while at the site will not be allowed.

No ongoing interaction with wildlife and wildlife habitat is required by the project and so no residual impacts are expected.

6.0 CUMULATIVE EFFECTS

No sustained industrial or commercial activity has been conducted on the Meliadine River drainage in the past; therefore, no environmental effects of past activities are evident. Some of the effects of diamond drilling conducted during the course of the historic exploration program can be observed on the aerial photographs. Many of these drill sites have already re-vegetated, while the others will be re-vegetated over time and so fade as observable effects of surface mineral exploration over the next 5 - 10 years.

A comprehensive environmental assessment and environmental monitoring plan will accompany a project application in the event that commercial feasibility is demonstrated. It will have the benefit of completed environmental baseline studies and so be able to address the subject of cumulative effects in a comprehensive and systematic manner.

A successful underground exploration program that confirms continuous and consistent gold mineralization in the Tiriganiaq zone at Meliadine West will be a significant milestone in determining the overall technical and commercial feasibility of a gold mine here. An active gold mine would require related infrastructure and services that will be incremental to existing current facilities including:

- a multi-million litre fuel oil tank farm at Rankin Inlet;
- an all season road from Rankin Inlet to Meliadine West;
- an active mine and mill operation at Meliadine West;
- secure and permanent mine waste storage.

If a comprehensive feasibility study shows that a gold mine at Meliadine West can be technically and commercially feasible the potential environmental effects of these facilities and related activities will be reviewed as required by the NLCA.

7.0 SUPPORTING DOCUMENTS

Abandonment and Decommissioning Plan

If on completion on a feasibility study it is found that the Meliadine West Gold Project is not commercially feasible, the camp and site will be decommissioned, reclaimed and abandoned.

Final abandonment plans will be developed with KIA that are based on the following conceptual closure plan:

- everything with salvage value will be removed from the site;
- all combustible materials with no salvage value will be burned and the residue removed to the Rankin Inlet dump;
- all non-combustible waste and scrap will be removed to the Rankin Inlet dump;
- all waste rock piles will be contoured to complement the natural features of the landscape;
- all rock with long term risk of acid generation and / or hazardous metal leachate release will be returned underground;
- all disturbed areas with a suitable substrate for revegetation will be reclaimed with the aid of peat and fertilizer;
- contaminated soils will be removed or treated;
- the portal will be permanently closed and sealed to prevent ongoing slumping of ramp fill down the decline. This would probably be done by backfilling the portal with waste rock. This will be followed by returning the spoil from the layback area around the ramp to the exposed till slope of the ramp above bedrock.

It is unlikely that the entire ramp will be backfilled and so over time the remaining depression will fill with water from surface runoff.

Details on the reclamation of the camp are covered in the existing documentation concerning the surface exploration of the camp.

Existing Site Photos with Descriptions

See following pages.

Emergency Response and Spill Contingency Plan

All work done to date have been completed in accordance with the Meliadine West Gold Project Environmental Management Plan on file with the Kivalliq Inuit Association (Appendix 3 on the CD version of this application). Likewise, the Meliadine West Gold Project Fuel Transport Contingency Plan is on file with the Kivalliq Inuit Association (Appendix 4 on the CD version of this application). No other hazardous goods are expected to be used other than explosives which will be handled in compliance with relevant laws, permits and licences issued to the respective contractor. All contingency plans will be filed with KIA on receipt from the contractor.

Monitoring Plan

Runoff water management

Surface runoff from the area of the pads and waste rock may carry sediments, dissolved blasting residue and other substances that may be deleterious to aquatic organisms in down stream environments. The first year-round water body downstream from the portal site is Pump Lake.

Pre-development water quality monitoring
Water quality will be monitored in the small ponds below the portal site beginning in July 2007 to establish a baseline for pre portal conditions. Samples will be analyzed for water quality parameters important to aquatic life as set out in the *Canadian Water Quality Guidelines for the Protection of Aquatic Life* for metals and ammonia.

Construction phase water quality monitoring
Samples will again be collected from these ponds in September 2007 (or within 4 weeks of construction start-up if during the open water season) for analyses of the same water quality parameters. This will be repeated in June 2008 and as required.

If analyses show that the water quality conditions have deteriorated so that they do not meet the Canadian Water Quality Guidelines for the Protection of Aquatic Life, the contaminated runoff will be intercepted by the placement of Aquadams (portable heavy plastic 1 meter x 30 meter tubes that are filled with water and so become dykes) that will hold the water so that it can be disposed of on the surrounding upland by spray irrigation. The Aquadams and pumps necessary to deploy them are on site; spray apparatus will be procured. See Figure 4 for proposed locations for water quality monitoring points and Aquadams, should they be required.

Plate 1: Camp, Sept. 2006, Looking South

Plate 2: Camp and Road, Sept. 2006, Looking South

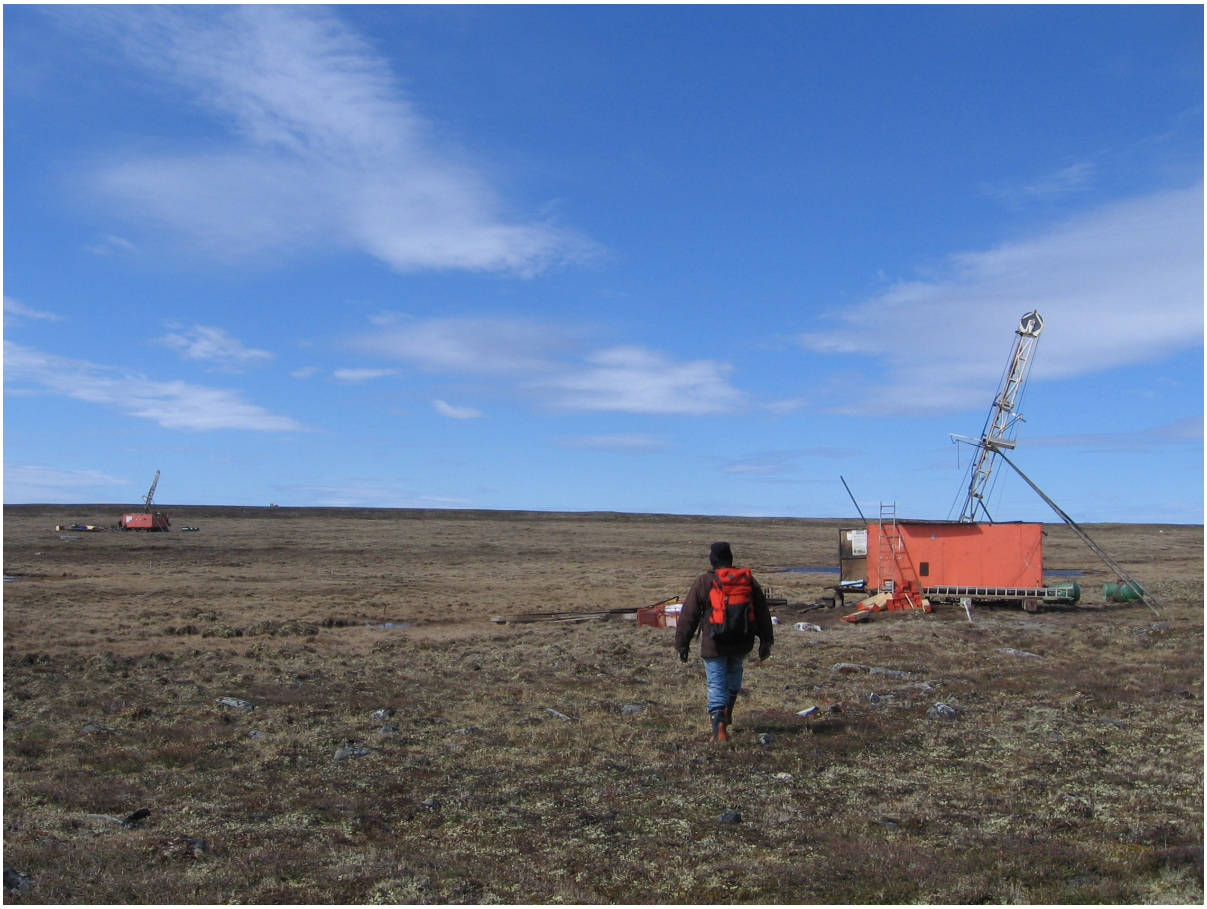

Plate 3: Portal Area, Summer 2006, Looking South

Plate 4: Portal Area, April 2007, Looking South