

Health Canada

Comment HC-1: “ Regarding section 36 ... requests that a mine rescue plan be provided to interested parties before the exploration is undertaken.”

Response: Health, safety and mine rescue are under the jurisdiction of the Workers’ Compensation Board of the NWT/Nunavut. The Mines Inspector assigned to this project is Mr. Martin Van Roy. Work will not be allowed to proceed until a mine rescue plan satisfactory to him, and in compliance with the applicable regulations, has been submitted and until the approved arrangements are in place. The contractor is developing this plan and the approved version will be submitted to Health Canada as soon as it is available. See Attachment A for a letter from the underground contractor, J.S. Redpath, to the NIRB on this matter.

Comment HC-2: “Section 58: Health ... requests that, to the extent possible, plastics be included in the non-combustible solid material sent to the Rankin Inlet landfill.”

Response: Comaplex will incorporate a Waste Management Plan (Attachment B) at the Meliadine West camp that includes segregation of plastics, to the extent possible, for disposal in the Rankin Inlet landfill.

Comment HC-3: “Section 3.0: HC is pleased ... Take note that the guidelines are updated on a frequent basis and the current guidelines are available online at Note that the 1993 published documents are now out of date.”

Response: The updated Guidelines dated March 2007 are acknowledged. Thank you.

Environment Canada

Regulatory

Comment EC-1: “ Environment Canada would like ... the Canadian Environmental Protection Act, the Fisheries Act section 36(3), the Species at Risk Act, the Migratory Bird Convention Act and the Migratory Bird Regulation shall apply at all times during mining and camp operations.”

Response: As in previous years, we will continue to follow these acts and regulations.

Comment EC-2: “The proponent shall not deposit, nor permit the deposit of any fuel, drill cuttings, chemicals, wastes or sediment into any water body. According to the Fisheries Act, Section 36(3), the deposition of deleterious substances of any type in water

frequented by fish, or in any place under any conditions where the deleterious substance, or any other deleterious substance that results from the deposit of the deleterious substance, may enter any such water, is prohibited.”

Response: The small lakes near the portal site are less than 1.0 meter deep, commonly dry up in the mid to late summer, and freeze to the bottom every winter. It is not our intention to deposit any fuel, drill cuttings, chemicals, wastes or sediment into these water bodies. As discussed in the application, we will be monitoring and testing these waters on a regular basis. Should there be a risk of exceeding water quality guidelines in the flow that would enter fish bearing waters downstream, there is a plan in place to berm the waters (which only flow sporadically) and treat the water by way of spray irrigation.

Incineration

Comment EC-3: “The proponent should ensure that the installation of an incineration device is capable of meeting the emission limits established under the Canada-wide Standards (CWS) for Dioxins and Furans and the CWS for Mercury Emission (both the Government of Canada and the Government of the Nunavut are signatories to these Standards and are required to implement them according to their respective jurisdictional responsibility).”

Response: Comaplex has recently upgraded its on-site incineration capability by installing a new incinerator at the camp for 2007. The specifications on this incinerator can be found in Attachment C. Comaplex believes a reasonable approach to meeting incinerator emission limits is to restrict what goes into the incinerator; consequently, a Waste Management Plan has been developed for the Meliadine West project which will significantly reduce the potential for dioxins, furans, and mercury in both the ash and in the air going out the stack of the furnace. Please see Attachment B for details on the Waste Plan.

Comment EC-4: “EC is concerned with possible effects of dioxin and furan emissions which can occur due to the incineration of certain types of plastics. Therefore, we request that, to the extent possible, plastics be included in the non combustible solid material sent to the Rankin Inlet landfill.”

Response: Acknowledged. Comaplex will incorporate a Waste Management Plan at the Meliadine West camp where plastics will be segregated, to the extent possible, for disposal in the Rankin Inlet landfill.

Comment EC-5: “EC strongly recommends that used absorbent materials, oily or greasy rags, and equipment servicing wastes (such as used engine oil, antifreeze,

hydraulic oil, lead acid batteries, brake fluid and other lubricants) be safely stored and transported in marked, sealed containers (odor free to prevent animal attraction) and safely transported to a facility that is authorized for the treatment and disposal of industrial hazardous wastes.”

Response: Acknowledged. We have devised a Waste Management Plan that incorporates the handling of hazardous goods (see Attachment B). Used lubricants, oils, etc. will be transported to Rankin Inlet, where a local approved company will accept the oils for re-cycling for heat generation. Batteries, absorbent materials, and oily/greasy rags, etc. will be collected in drums and transported to an approved waste treatment plant in Winnipeg according to the regulations.

Comment EC-6: *“Incineration ash can be contaminated with incineration byproducts (listed above) and therefore should be tested to ensure the ash is suitable for disposal or removed from site and disposed of appropriately.”*

Response: With the new Waste Management Program (Attachment B), the source of incineration by-products will be largely eliminated. Ash from the incinerators will be routinely collected and sent for disposal in the Rankin Inlet landfill site. Spent batteries or other hazardous materials will not be burned in the incinerator.

Comment EC-7: *“An incineration management plan should be developed in consultation with EC. The management plan should include annual reports to provide details on the following:*

- o Initial stack test upon commission of the incinerator*
- o Recycling/segregation waste program*
- o Incineration technology selected*
- o The amount and types of waste incinerated*
- o Operational and maintenance records*
- o Operator training*
- o Emission measurements*
- o Incineration ash disposal “*

Response: Comaplex has developed a Waste Management Plan (Attachment B) for the camp and its contractors. This plan will prevent undesirable material from being incinerated. The incinerator in camp is new. The specification sheet for the furnace is included as Attachment C. The unit is mounted in a “Sea – Can” and is of forced – air design with a 500,000 BTU gun type oil burner enclosed in protective steel. Comaplex has in place a hot-environment work procedure for the incinerator. Operators are trained and are required to wear protective (flame retardant) equipment when working around the incinerator.

Waste Disposal

Comment EC-8: “EC request clarification if a landfill is being considered for the disposal of non-combustible wastes. EC recommends that all non-combustible wastes and hazardous materials be removed from site and disposed of in an approved facility.”

Response: The reference to burying non-combustible materials in section 4.4.4 of the EMS is an error and will be deleted from the EMS. All non-combustible materials and plastics will be removed from site and transported to the Rankin Inlet landfill site. Hazardous waste will be collected and sent to an approved waste treatment plant in Winnipeg as required.

Comment EC-9: “Any sumps, including those created for the disposal of drill cuttings, shall be located above the high water mark of any water body and in such a manner as to prevent the contents from entering any water body frequented by fish. Further, all sumps shall be backfilled upon completion of the field season and contoured to match the surrounding landscape.”

Response: All drilling in the context of this proposed underground exploration program will be done from underground. The sumps referred to will be located underground in permafrost. As such, they will not be capable of contaminating nearby lakes or drainage. On completion of the work, they will remain underground, where they will freeze solid.

The underground contractor (who was not yet selected at the time of the Application) has informed us that they will not require a surface sump of any kind during the proposed program. Drill cuttings (ground rock) will be collected in a holding tank on surface, until such time that a bay can be excavated underground, at which time the drill cuttings will be collected underground. At that time, the entire drill water re-circulation system will be moved underground. Periodically, the cuttings will be moved to surface to be deposited on the waste pile. This volume of this material is minor compared to the size of the waste pile, but is generally of the same lithological composition.

Comment EC-10: “Sumps should be inspected regularly to ensure there is no erosion or leaching.”

Response: The contractors do not see any need for a sump at surface. See Comment EC-9.

Drilling

Comment EC-11: “The proponent should provide greater details on how drill return-water will be managed in a manner that will not pose a negative impact on the quality of nearby freshwater sources.”

Response: Brine used for drilling is injected into the shot holes, as they are drilled into the rock, for the purposes of drill bit cooling and the suppression of drilling dust. This material drains from the collar of the shot hole being drilled and collects at the foot of the rock face. Consequently, it can easily be collected and recycled.

As explained in Section 35 of the Application, the drill water system operates on a re-cycle basis. No discharge of brine return water takes place to the surface from the drilling area. Once a cut-out is established underground, the entire re-circulation system is moved underground and operates below surface in the permafrost environment.

Brine used for wetting down is sprayed onto the rock pile to suppress dust as the broken rock is excavated from the working face underground. This moisture remains in the broken rock, attached to the surfaces of rock fragments and dust particles. Water or brine in this form is immobile and will freeze after the rock is deposited on surface. The active (thawing) layer in summer is no more than 2.5 meters thick; Comaplex has provided a drawing of the rock disposal piles in the Application, from which it can be seen that only the surface layer of these piles may thaw in summer.

The waters immediately surrounding the planned rock piles are known to have no fish populations because they freeze solid in winter. The nearest fish-bearing water is a minimum of 500 meters distant. The toe of the rock pile will be regularly monitored for exfiltration; observed exfiltrate will be sampled and tested regularly.

Comment EC-12: “Environment Canada would like to inform the proponent that the Canadian Environmental Protection Act has listed CaCl as a toxic substance. The proponent shall therefore ensure that if CaCl is used as a drill additive, all sumps containing CaCl are properly constructed and located in such a manner as to ensure that the contents will not enter any water body.”

Response: There will be no brine sump at surface. A surface run-off sump will be situated at the base of the ramp, on solid rock, to catch any melt water that collects in the portal. This will not receive brine. All other sumps will be located underground, with no possibility of movement of CaCl from these sumps into the surface water bodies.

Comment EC-13: “For section 13 Chemical Transportation and Storage of the Project Description document, CaCl storage shall be located above the high water mark of any water body. EC recommends the use of secondary containment, such as self-supporting insta-berms, when storing fuel and chemicals on-site.”

Response: Comaplex will inform its surface and underground contractors of this requirement. Storage of the CaCl will be above the high water mark of nearby water bodies and will be carefully monitored.

Comment EC-14: “Brine/CaCl should not be used as dust suppression. EC recommends that only water be used as a dust suppressant. EC requires detail on how the proponent plans on to carry out baseline studies, air quality monitoring and mitigation plans.”

Response: Brine will be used for dust suppression in two ways: drilling and wetting down broken rock underground. Calcium chloride is used to depress the freezing point of the water; consequently, in permafrost, brine must be used as water alone will freeze. Other dust-suppression media with low freezing points are more toxic than calcium chloride.

It is essential to the health and safety of the underground work force that a means be used to suppress dust. The EC recommendation that only water be used for dust suppression is impractical in permafrost because the water would freeze. This would result in walking surfaces coated with ice, posing an unacceptable hazard for slipping and falling. Machinery would become coated and/or plugged with ice and would quickly become inoperable.

At the Polaris mine in the High Arctic, no liquids were used to suppress dust, but the rock was limestone with minimal silica content. Here, the use of dry dust collection methods would pose unacceptable silicosis risks. Calcium chloride brine has been used for dust suppression in underground mining in permafrost with no ill effects for decades. Other fluids with low freezing points exist, but they are more toxic than calcium chloride brine.

We refer the regulator to a document entitled ‘Guideline: Dust Suppression’ on the Government of Nunavut Environmental Protection Service website, section 2.2, that lists calcium chloride (CaCl) as an approved dust suppressant in Nunavut.

As explained in the Application, baseline studies have already been completed on the project (climate, terrain, hydrology, water quality, fish, fish habitat, vegetation, wildlife, and wildlife habitat). Air quality baseline studies will be completed on finalization of site specific plans for the overall project in the context of a feasibility study, which will be presented to NIRB in the Preliminary Project Description and Draft EIS. Mitigation is also outlined in the Application. In detail, Sections 30, 39, 43, 57 all deal with mitigation of surface and subsurface waters and ARD/ML concerns, Section 35 deals with groundwater, ground ice, and potential mine water issues.

Comment EC-15: “Land based drilling should not occur within 30 m of the high water

mark of any water body.”

Response: The portal site is not located within 30 meters of any water body.

Comment EC-16: “If an artesian flow is encountered, the drill hole shall be immediately plugged and permanently sealed.”

Response: Acknowledged. The area of the proposed underground exploration program is in an area of permafrost that extends at least 400 meters below surface. The exploration drilling to date has not encountered artesian flow in any of the diamond drill holes completed within the permafrost envelope. We believe there is no chance of an artesian flow in such an environment, but should this be encountered, we will deal with it as suggested.

Portal / Waste Rock

Comment EC-17: “The proponent shall not deposit, nor permit the deposit of sediment into any water body. It is recommended that an undisturbed buffer zone of at least 100 meters be maintained between the proposed quarry and borrow pit operation and the normal high water mark of any water body, not 30 m as proposed by the proponent.”

Response: The quarries and borrow pits used by Comaplex on the property have been permitted previously and are not part of this application.

As shown on Figure 4 of the Application, the portal site is within 40-70 meters of three small ponds in the immediate area. The project site is dotted with numerous small, ephemeral water bodies. The portal site was picked to minimize disruption to the environment in the area and to local fish habitat. There will be no material deposited into any of these water bodies. All of the small ponds within a 100 meter radius of the portal are non-fish bearing, freeze to the bottom each winter (<1.0 meters deep), and are dry by mid summer. The closest fish-bearing lake to the portal is over 500 meters away.

Comment EC-18: “The proponent shall apply erosion control measures are applied at all times to ensure that no deleterious substances are entering near by water bodies during quarry activities.”

Response: Acknowledged. Again, we are assuming this is referring to the portal excavation. We will pass this on to the contractors and we expect them to ensure that no materials are deposited in the nearby ponds.

Comment EC-19: "It is recommended that the proponent not use any potentially problematic rock, which is subject to acid rock drainage (ARD) and metal leaching, in the construction of various structures that would be associated with this proposed development. If the proponent wishes to use such materials, EC recommends that the proponent develop a good quality control program for the separation of the rock so that the problematic rock types are not used."

Response: Comaplex plans to excavate an exploration decline in unmineralized rock to investigate mineralized geological structures that have been identified by diamond drilling. Previous studies have shown that the unmineralized rock has no potential for ARD or metal leaching. The locations of rock types with ARD potential that are to be mined and the mining sequence that will bring these to surface are known. No rock, including mineralized rock, with potential for acid rock generation or metal leaching will be used for construction purposes.

Diamond drilling has identified very small, local occurrences of graphitic argillite which may have minor acid-generating potential. If encountered, this material will be placed on the pad and surrounded (encapsulated) by "sweet" or neutralizing rock with the volume recorded and the location determined by differential GPS and recorded. Ore (mineralized rock) with ARD potential will be stored in individual piles on a pad which will be composed of waste rock with a strong neutralizing potential. All of these various rock types are easily identifiable by site management.

Over the past 12 years, the Tiriganiaq deposit has been tested with more than 650 core holes. It is therefore extremely unlikely that rock types will be encountered in mining that have not been described and assayed in the course of exploration drilling. If encountered, these rocks will not be used for construction purposes and will be tested for ARD and metal leaching potential.

Comment EC-20: "Kinetic testing should be part of the environmental assessment work for the ARD/ML potential of waste rock to provide information needed to estimate water quality from development of a waste rock dump and to apply appropriate monitoring and mitigation plans."

Response: Work completed to date on ARD/ML in numerous programs of static testing have all shown that the waste rock is not acid generating nor a concern for metal leaching. Kinetic testing for ARD/ML is planned for the feasibility phase of the project.

Surface Water Quality

Comment EC-21: "The proponent shall ensure that mitigation measures are implemented before potential environmental impacts occur by ensuring there is no surface runoff from the ore storage pad and waste rock pile. The proponent should provide justification for using spray irrigation as a method of handling contaminated

water, and provide complete details on the location of disposal, proximity to water bodies, topography and vegetation cover that would ensure the up take of ammonia.”

Response: Comaplex does not anticipate significant production of ammonia in the waste or ore pads. The primary source of ammonia contamination of mine water is the careless discarding of unused ammonium nitrate explosive, in the form of prills. The prills are soluble and will dissolve in mine ground water, which in some mines is then discharged to surface. The proposed Meliadine underground operation is in permafrost and no mine water will be discharged to surface. It is possible that very minor amounts of ammonium nitrate may be sporadically present in broken rock and transported to surface. On surface, the broken rock will freeze solid and any entrained ammonium nitrate will be immobile.

Permafrost is expected to move up into the ore and waste pads and the road over the winter months. This also will act as a natural barrier to the movement of the ammonia in the short part of the summer when movement of surface waters occur.

With respect to implementing mitigation measures prior to potential environmental impacts occurring, this is rather impractical since it is not known if a problem even exists. Monitoring water quality is much more practical and involves no unnecessary terrain disturbance.

Spray irrigation is an accepted and effective method of dispersing ammonia out of water. A study by Microbial Technologies (Sept 2003) for spray irrigation dispersal of ammonia from mine water at the Jericho Mine was reviewed. The volume of water Jericho proposed to treat on an annual basis was between 600,000 and one million cubic meters. The study indicated this would require 5 hectares of land over a three month spray period. While water balance studies are proposed for the Meliadine West project in the future, no data currently exists; however, a comparison here is justified for perspective. The study for Jericho is for a full scale, open pit mine operating year round. The proposed project at Meliadine is for a 9 month underground operation that will not produce mine water, the only source of ammonia is moisture on waste and ore rocks, and there is an absolute minimum surface of over 12 hectares at the Meliadine site on which we could spray irrigate. None of the ponds in the immediate area are fish-bearing and at worst, the spray irrigation will provide nutrients to the tundra. Testing downstream as proposed would allow re-analysis to confirm the process is working (see Attachment E).

Fuel Storage / Spill Contingency Plan

Comment EC-22: “All fuel caches shall be located above the high water mark of any water body.”

Response: All of the fuel caches on the Meliadine West property are located above the high water mark of water bodies in the area.

Comment EC-23: “EC recommends that the double-wall storage tank and fuel bladders be placed entirely within a dyked area, with an impermeable barrier in the floor of the containment area. EC requests that this be incorporated as a term and condition of the NWB water license as a preventive and safety measure for spill containment.”

Response: The double walled steel enviro tanks and the bladders with the self contained berms are all situated in areas where potential spills can be contained. We continuously monitor the tanks for spills and leaks and use absorbent mats or spill trays as required.

No additional fuel storage is planned for this proposed program. All fuel storage is presently in compliance with the terms of the lease between Comaplex and the KIA, the owner of the lands on which the project is situated. The construction of a lined pad to hold all of the fuel tanks, then the movement of these tanks onto the pad, and the subsequent movement of the tanks off of the pad, should the project not progress, will cause significant terrain disturbance. Should the project advance to the production, these tanks will almost certainly be replaced with larger fuel vaults, which would be placed in lined berms.

Comment EC-24: “Drip pans, or other similar preventative measures, shall be used when refueling equipment on site. Further, EC recommends the use of secondary containment, such as self-supporting insta-berms, when storing barreled fuel on location.”

Response: Absorbent pads and drip pans are routinely used with re-fueling activities as required on the project and will continue to be used. The project has largely switched to bulk fuel and there are only 47 drums of fuel left on the site at present. These will likely be used up this season. The barrels are stored as per the current regulations and are routinely checked by for possible leaks by both ourselves and the KIA.

Comment EC-25: “All releases of harmful substances, regardless of quantity, are immediately reportable where the release...”

Response: Acknowledged. This has been our policy in the past and will continue in the future.

Transport Canada

Comment TC-1: “It appears that the proponent proposes to operate an ice strip on Meliadine Lake during the winter months. If so, the proponent is required to comply with the regulatory requirements under the Aeronautics Act, CARs 301.”

Response: Comaplex has reviewed the sections of the Aeronautics Act referred to in the comments from Transport Canada. We will ensure that we incorporate those regulations applicable to the ice strip, should it be used next winter. We will notify Transport Canada should the location of the airstrip change.

Comment TC-2: “...If the two water lines have not been previously reviewed and assessed by Transport Canada, then the proponent should submit Navigable Waters Protection Act Applications to the NWPP for their review.”

Response: On closer review, there is only one water line that extends into the water (not two as mentioned in the Application). It extends no more than 7 meters into the lake and is weighted down to lie on the lake floor. It is located on a narrow bay along the shoreline of Meliadine Lake, away from the main navigable channels. As such, it poses little hazard to navigation on Meliadine Lake. Comaplex will apply to the NWPP so they can review the line themselves.

Natural Resource Canada

Comment NRC-1: “Natural Resources Canada (NRCan) has reviewed aspects of the submitted documents and has determined that it is not a department with jurisdictional authority under Canada’s Explosives Act for this proposed project. As indicated in the supporting documentation, Comaplex requires an explosives magazine license from the territorial Government.”

Response: We agree. The rules governing the use of explosives and their storage are very strict and well understood. Our surface and underground contractors are in the process of arranging for these permits and will not be allowed to begin the project until the Territorial Mines Inspector has approved the plans.

Government of Nunavut – Department of Environment

Water Quality

Comment GN-1: “To predict ARD, it is recommended that both static tests such as acid base accounting (ABA) tests, and kinetic tests are performed. Appendix I of the “Acid Base Accounting and Metals Leaching Analyses” document indicated that some samples from mine walls and waste rock were classified as acid generating or potentially acid generating. The DOE therefore recommends further testing such as kinetic tests be performed to ensure ARD will not be an issue in the long term in the field.”

Response: Comaplex plans to excavate an exploration decline in unmineralized rock to investigate mineralized geological structures that have been identified by diamond drilling. Previous studies have shown that the unmineralized rock has no potential for ARD or metal leaching. The locations of rock types with ARD potential that are to be mined and the mining sequence that will bring these to surface are known. No rock, including mineralized rock, with potential for acid rock generation or metal leaching will be used for construction purposes.

Diamond drilling has identified very small, local occurrences of graphitic argillite which may have minor acid-generating potential. If encountered, this material will be placed on the pad and surrounded (encapsulated) by "sweet" or neutralizing rock with the volume recorded and the location determined by differential GPS and recorded. Ore (mineralized rock) with ARD potential will be stored in individual piles on a pad which will be composed of waste rock with a strong neutralizing potential. All of these various rock types are easily identifiable by site management.

Over the past 12 years, the Tiriganiaq deposit has been tested with more than 650 core holes. It is therefore extremely unlikely that rock types will be encountered in mining that have not been described and assayed in the course of exploration drilling. If encountered, these rocks will not be used for construction purposes and will be tested for ARD and metal leaching potential.

Kinetic testing for ARD is planned to be completed in association with a Project feasibility study. Should the project not advance to production, all rock classified as acid generating or potentially acid generating will be returned back underground, where it will be neutralized by the country rock and remain frozen (no potential for movement of fluids).

Comment GN-2: "If test results indicate that ARD is an issue, proposed mitigation measures using nearby carbonate rock to neutralize the acid, should be submitted in details to demonstrate this approach would work in perpetuity. The mitigation and management plan should include information such as the amount of rock to be neutralized, rock locations of concerns, engineered drainage plans for the pits and waste storage areas, the amount and ability of calcareous rock to buffer the run-off, and effluent monitoring plans."

Response: Appendix One of the Application provides the ARD results for a variety of rock types from the Tiriganiaq deposit. This clearly shows that the rocks with ARD potential are the exception, rather than the rule. It also shows the Neutralizing Potential (NP) as kilograms of carbonate equivalent. The proposed program will see a total of 6450 cubic meters (loose) of ore brought to surface and over 42,000 cubic meters (loose) of waste put in pads on surface. The mitigation plan is to place the ore (the rocks with potential for acid generation) on pads composed of carbonate rich neutralizing waste

rock, which has no ARD potential. All pads will be composed of this type of waste rock. Similar neutralizing rock underlies the overburden in the project area. No ore will be put directly on the tundra. Pad locations are shown in Figure 4 of the Application.

In the context of this proposed underground exploration program, the potentially ARD generating rocks are not required to be buffered “in perpetuity”. If the project goes ahead, the ore rocks will be run through a future mill. If the project does not go ahead, the mineralized rocks (ore) with ARD potential will be returned back to the permafrost environment underground where ARD is not possible. As mentioned in GN-1, this is one of the reasons for keeping track of the location and volume of each ore round coming out of the decline.

With respect to engineered drainage plans, Figure 4 in the Application and Attachment E show that the proposed portal and decline is located in the flat lying headwaters of a series of small, non-fish-bearing, ephemeral ponds. Previous water studies of the area indicate all drainage from the area of the pads is to the south. The distance for water to likely travel from the ore pads to the first fish bearing lake is at least 1.3 kilometers.

There are no rock locations of concern as all bedrock and overburden in the area of the decline are neutralizing in nature.

Comment GN-3: “Furthermore, the proponent should also outline adaptive management measures and triggers that would be used if mitigation measures prove ineffective.”

Response: As stated in Section 57 of the Application, adaptive management or mitigative measures involve water quality sampling and monitoring prior to, and during, the portal excavation and decline work at points downstream of the project area. Adverse results from this water sampling would trigger the need to deploy Aquadams (portable heavy plastic 1 meter by 30 meter tubes that are filled with water and become dikes) to intercept and contain the contaminated run-off. Spray irrigation of the contaminated water is one option to effectively deal with contaminants. Ongoing monitoring will demonstrate the effectiveness of the procedure.

Comment GN-4: “...The DOE therefore recommends that the proponent use Price’s screening criteria as a safeguard to protect the environment from potential impacts of ARD.”

Response: Screening criteria for ARD rock types can be helpful; however, in this project, all rock types expected in the course of this project have been tested for ARD, with results presented in Appendix One of the Application. The results clearly show the preponderance of rock with strong neutralizing potential, with all NP:AP ratios positive,

and most greater than 3:1. Further tests, including kinetic testing, will be conducted during the feasibility study phase of the project.

Metal Leaching

Comment GN-5: “The DOE believes the results submitted are inconclusive, and further kinetic testing as recommended by the proponent themselves should be submitted for review to ensure ML will not be a concern in the future.”

Response: Kinetic testing is planned in the future in association with a Project feasibility study. Should the project not advance to production, all rock classified as acid generating or metal leaching will be returned back underground, where it will be neutralized by the country rock and remain frozen (no potential for movement of fluids or metals).

The sediments to be excavated, and that are proposed for pad construction, are the same sedimentary rocks that outcrop throughout the area on a regional scale and that form the dominant land forms of the region. For this reason, plus the results of the initial test work, we do not see a significant risk of metal leaching. Additional metal leaching test work will be completed as the project moves toward feasibility.

Comment GN-6: “If testing demonstrates that ML is a concern, appropriate mitigation management and monitoring plans should be submitted by the proponent for review. The proponent should confirm ML potential before using any waste rock for construction purposes as proposed in the project description.”

Response: As stated in Section 57 of the Application, adaptive management or mitigative measures involve water quality sampling and monitoring prior to, and during, the portal excavation and decline work at points downstream of the project area. Adverse results from this water sampling would trigger the need to deploy Aquadams (portable heavy plastic 1 meter by 30 meter tubes that are filled with water and become dikes) to intercept and contain the contaminated run-off. Ongoing monitoring will demonstrate the effectiveness of the procedure.

No mineralized rocks, including iron formation, will be used for construction purposes. The sediments proposed for construction purposes are the same sedimentary rocks that outcrop regionally throughout the Rankin peninsula. Movement of permafrost up into the waste and ore pads will restrict movement of metals for most of the year.

In the spring and early summer, waters entering Pump Lake (the Receiving Waters) will be a blend of snow-melt, rain, surface run-off from the ore and waste pads (2.2 Ha) and surface run-off from the remaining ‘Peanut Lake Sub-basin’ (123 Ha). The amount of dilution expected prior to water entering the Receiving Waters is proportional to the surface areas and will be extremely significant. We estimate the results will be well

within the CCME guidelines. The mitigation plan proposed will allow verification of this.

Ammonia Run-Off

Comment GN-7: "...the proponent should demonstrate effectiveness of this methodology through modeling and/or case studies at other sites. Information such as suitability of the site for spray irrigation, volume of run-off, expected concentrations of ammonia, the amount of tundra area needed to absorb the run-off and sensitivity of local water courses, should be provided by the proponent. Finally, results of monitoring as proposed should comply with the Canadian Council of Ministers of the Environment (CCME) guidelines for receiving water quality."

Response: Comaplex does not anticipate significant production of ammonia in the waste or ore pads. The primary source of ammonia contamination of mine water is the careless discarding of unused ammonium nitrate explosive, in the form of prills. The prills are soluble and will dissolve in mine ground water, which in some mines is then discharged to surface. The proposed Meliadine underground operation is in permafrost, so no mine water will be discharged to surface. It is possible that very minor amounts of ammonium nitrate may be sporadically present in broken rock and transported to surface. On surface, the broken rock will freeze solid and any entrained ammonium nitrate will be immobile.

The historic water cycle in this area has shown that the streams below the portal site dry up within about three weeks of the end of the snowmelt runoff and re-charge again in late August to a much lower level. Little to no movement of water takes place for the other nine months. As shown on Figure 4 of the Application and in Attachment E, there are two possible routes for water to travel from the project area. The eastern drainage is by far the more likely path for water in contact with the ore and waste pads, due to the small rise in the land at the portal site. The drainage of waters in this catchment basin is to the south with the minimum distance to the nearest fish-bearing water body at Pump Lake being 1.3 kilometers.

A study by Microbial Technologies (Sept 2003) for spray irrigation dispersal of ammonia from mine water at the Jericho Mine was reviewed. The volume of water Jericho proposed to treat on an annual basis was between 600,000 and one million cubic meters. The study indicated this would require 5 hectares of land over a three month spray period. While water balance modeling is proposed for the Meliadine West project in the future, no data currently exists; however, a comparison here is justified for perspective. The study for Jericho is for a full scale, open pit mine operating year round. The proposed project at Meliadine is for a 9 month underground exploration project that will not produce mine water, the only source of ammonia is moisture on waste and ore rocks, and there is an absolute minimum surface of over 12 hectares at the Meliadine site on which we could spray irrigate. None of the ponds in the immediate area are fish-bearing and at

worst, the spray irrigation will provide nutrients to the tundra. Testing downstream as proposed would allow re-analysis to confirm the process is working.

Comaplex will implement mitigation procedures if water quality monitoring indicates that ammonia levels are elevated and that there is significant risk that CCME Guidelines for ammonia may be exceeded.

Spill Contingency Plan

Comment GN-8: “All fuel tanks, connectors and associated plumbing should be installed in a manner that meets current acceptable codes for the installation of such appliances. Fuel tanks should be situated on solid platforms, on a stable base, and should be inspected on a regular basis for leaks and movement (shifting). Flex connectors, if used, should be installed as per manufacturer's instructions and should be inspected regularly. It should be noted that many spills in Nunavut result from improperly installed and maintained heating fuel tanks and especially improperly-installed flex connectors.”

Response: Acknowledged. All of the fuel tanks and connections are regularly inspected and checked. Changes in the position of tanks (settling) are corrected as soon as possible. Comaplex has maintained bulk fuel storage on the site in full compliance with the applicable regulations for many years and will continue to comply as required.

Comment GN-9: “For overland transportation of fuel, the following standards are recommended...”

Response: Acknowledged. We will pass these recommendations to our contractors.

Comment GN-10: “A detailed description of the spill response training that will be delivered to Comaplex’s emergency responders should be included with the plan. The qualifications and background of the instructor(s) as well as a course outline should also be provided. This information is useful to regulatory agencies in that it allows them to determine how well-prepared the proponent is to deal with hazardous materials spills.”

Response: Find enclosed Attachment D, the Environmental Procedures Manual for Nuna / M&T Services Ltd., which includes a Spill Contingency Plan. These two companies will be in charge of all fuel mobilization and transport/road work on the project. Nuna is the most experienced company working in Canada’s North and is involved in almost every major northern mining project at this time. As stated under the title of ‘Training’ in their manual, Nuna employees are all required to undergo WHMIS, Transportation of Dangerous Goods, and spill prevention and spill handling training. On enquiry, Nuna

informed us that each project is different with respect to what equipment is available, manpower, disposal options, etc.; therefore, Nuna draws up a plan for each specific project, employees are then trained in the plan by the project supervisor, the safety officer, or training personnel. Considering the experience of our contractors, Comaplex is confident that the training provided will be current and applicable.

The underground contractor, J. S. Redpath, was selected for its experience with northern operations dating back nearly fifty years and for its excellent safety and environmental record. Redpath will provide their spill contingency plan as soon as it is available. Spill prevention and preparedness will be a part of their employee site induction. The site induction will be delivered by an appropriately qualified instructor.

Comment GN-11: “The NWT-Nunavut spill report form has been updated, and can be obtained from the Spill Line.”

Response: Acknowledged. We will incorporate it into our reporting procedures.

Comment GN-12: “The DOE monitors the movement of hazardous wastes, from generators, carriers to receivers of the wastes, through the use of a tracking document known as a Waste Manifest. A Waste Manifest must accompany all movements, and all parties must register at the DOE with Robert Eno at (867)975-7748 or reno@gov.nu.ca.”

Response: Comaplex has contacted a company based in Winnipeg who deal with hazardous goods and who will accept our hazardous waste from the Meliadine site. In addition, Mr. Eno has been contacted and we have received the appropriate documentation. Comaplex will ensure that all hazardous materials will be properly manifested.

Camp Incinerator

Comment GN-13: “the proponent shall apply appropriate technologies to ensure complete combustion of wastes, and the use of a dual chamber, forced-air incinerator is recommended. The proponent shall make determined efforts to achieve compliance with the CWS. Efforts should include the implementation of a comprehensive waste management strategy (especially waste segregation) that is designed to reduce and control the volumes of wastes produced, transported, and disposed of. The Waste Management Strategy should consider and include:

- *Purchasing policies that focus on reduced packaging,*
- *On-site diversion and segregation programs (i.e. the separation of non-food waste items suitable for storage and subsequent transport and disposal or recycling).*

- *If incineration is required, ensure diligent operation and maintenance of the incineration device and provide appropriate training to the personnel operating and maintaining the incinerator.”*

Response: Comaplex has been able to achieve complete combustion of wastes in the past using a single chamber Westland Environmental Services Cyclonator Incinerator. This unit was replaced with a new incinerator this past fall and the spec sheet on the unit is available in Attachment C. The unit is mounted in a “Sea – Can” and is of forced-air design with a 500,000 BTU gun type oil burner enclosed in protective steel. Comaplex has in place a hot environment work procedure for the incinerator and operators are required to wear protective (flame retardant) equipment when working near the incinerator.

Comaplex has developed a Waste Management Plan for the project (Attachment B). The Plan acknowledges the impact that purchasing policies can have on the ultimate waste load in a project such as ours and efforts will be made in this regard.

We will be implementing a program to segregate wastes into:

- a) non-combustible, solid inert materials destined for the Rankin Inlet landfill site (plastics, preserved wood, electrical wire, building wastes, etc.);
- b) hazardous wastes (batteries, grease and oil soaked rags, etc.) that will be stored at site and sent as required, with the proper manifests, to a registered waste treatment facility;
- c) used oil and greases, which will also be stored at site and transported to Rankin to a company that uses the fluids for heat generation.

The Waste Management Plan should significantly decrease the potential for harmful substances in the incineration process.

Comment GN-14: “Waste wood treated with preservatives such as creosote, pentachlorophenol or heavy metal solutions should not be burned. Additionally, plastics, electrical wire, asbestos and building demolition wastes (except clean wood) are wastes likely to produce dioxins and furans when burned and should be excluded from incineration. Furthermore, hazardous wastes such as waste oil managed via incineration is not recommended; if this is carried out as proposed in the project proposal, the proponent should demonstrate compliance with the CWS.”

Response: As per our Waste Management Plan (Attachment B), materials listed above such as preserved wood, plastics, electrical wire, or building wastes will not be burned in the incinerator, but will be sorted and either taken to the Rankin Inlet landfill site or treated as hazardous. Hazardous materials will be collected on site and transported, as required, to a waste treatment facility in Winnipeg. Waste oil will be shipped to Rankin Inlet where a company recycles the oil into heat generation.

Abandonment & Restoration

Comment GN-15: “Drill holes should be backfilled or capped at the end of project. The sumps should only be used for inert drilling fluids, not any other materials or substances, and be located at least 30 meters from the high water mark of any water bodies. The sumps should be properly closed out at the end of a project.”

Response: In the context of the proposed Application, there is no surface diamond drilling planned. All drilling being completed for the underground exploration and bulk sampling program is for blasting. There will be no sumps on surface.

Comment GN-16: “Soil contaminated by fuel (e.g., soils under an old storage tank) should be treated on site or removed to an approved disposal site and replaced with new soil. Soils in the vicinity of fuel and/or chemical storage should be tested and disposed off if necessary.”

Response: Acknowledged. The GN guidelines for the treatment of contaminated soil will be used in consultation with the KIA.

Comment GN-17: “In the case where exploration will not proceed to a mine, the proponent indicated that a final abandonment & reclamation plan will then be developed in consultation with the KIA to restore the project site. The DOE recommends the plan be submitted for review to relevant regulators, and must be developed in the context of the results of further testing of acid rock drainage and metal leaching potential as described above.”

Response: Final abandonment plans will be subject to the licenses and permits from various regulators, including the NWB. It is expected that the plans will be supported by additional data on future water quality sampling from the immediate vicinity of the underground exploration site to ensure long term compliance. Clearly, all concerns over water quality and reclamation will need to be addressed as these are to be covered by the \$925,000 Letter of Credit that the KIA holds for the Commercial Lease on which all of this work will be conducted.

Wildlife

Comment GN-18: “The DOE therefore asks the proponent records all wildlife observations in a ‘wildlife log’, and maps the location of any sensitive wildlife sites such as denning sites, calving areas, caribou crossing sites, and raptor nests. The timing of critical life history events (i.e., calving, mating, denning and nesting) should also be identified. Additionally, the proponent should indicate potential impacts from the project,

and ensure that operational activities are managed and modified to avoid impacts on wildlife and sensitive sites; the log and maps will be a useful tool to achieve this.”

Response: Comaplex has re-established a program for the recording of bird, mammal and fish observations. This data was collected rigorously between 1997 and 2000 with comprehensive field based programs and these records are incorporated into the library of baseline data for the project. The ungulate and bird work, including radio monitoring of caribou migration patterns, was conducted by Arc Wildlife Services Ltd. (now Golder). Fish data, including radio monitoring of migration patterns, was collected by RL&L Environmental Services Ltd. (now Golder). Informal records were maintained between 2001 and 2006.

Comment GN-19: “During the period of May 15 to July 15 when caribou are observed calving in the area, the proponent should suspend all operations, particularly blasting, low-altitude over flights by aircraft, and the use of snowmobiles and ATV’s (all-terrain vehicles) outside the immediate vicinity of the camp. All personnel should remain quietly in camp or should be removed from the site who are not required for the maintenance and protection of the camp facilities and equipment. The proponent may resume activities prior to July 15 if the caribou cows have ceased to use the area for calving or post-calving.”

Response: The Qamanirjuaq Caribou herd typically calves well inland of Rankin Inlet and the Meliadine project area. Should caribou with calves be observed in the project area during these times, Comaplex will work with GN to accommodate the caribou herd.

Comment GN-20: “During migration of caribou, the proponent shall not locate and operate so as to block or cause substantial diversion to migrating caribou. The proponent shall cease activities that may interfere with migration, such as airborne geophysics surveys or movement of equipment, until the migrating caribou have passed.”

Response: The Qamanirjuaq caribou herd periodically traverses the area but typically caribou sightings are rare and limited to individual animals or small groups. Comaplex will record all sightings of caribou within our area of operations. Our standard operating procedure is that caribou always have right of way and will not be blocked or deterred. Low-level flying over caribou, and all other wildlife, is prohibited.

Comment GN-21: “The proponent shall not construct any camp, cache any fuel or conduct blasting within 10 km, or conduct any diamond drilling operation within 5 km, of important caribou crossings.”

Response: Important caribou crossings have not been documented in the area.

Comment GN-22: “*Low-level over flights of less 610 m in altitude should be avoided when one encounters concentrations of caribou.*”

Response: Acknowledged. Low-level flying over caribou is prohibited.

Raptor Nesting Areas

Comment GN-23: “*...Take care not to disturb nesting raptors from 15 April to 1 September by staying at least 1.5 km away from them when in transit by aircraft, and to avoid approaching them closely while on foot.*”

Response: Acknowledged. Nesting raptors have not been reported within the proposed project area. Employees, contractors, and guests are aware they are not to disturb any wildlife at any time.

Comment GN-24: “*... All disturbances to nests during the early part of the nesting cycle must be avoided (avoid nest sites from late May through to mid-July).*”

Response: Acknowledged. Nesting raptors have not been reported within the proposed project area. Employees, contractors, and guests are aware they are not to disturb any wildlife at any time.

Comment GN-25: “*... All activity within 100m of a nest site during the latter part of the nest stage (10-20 August for peregrine falcons in this region) must be avoided.*”

Response: Acknowledged. Nesting raptors have not been reported within the proposed project area. Employees, contractors, and guests are aware they are not to disturb any wildlife at any time.

Furbearers

Comment GN-26: “*... All possible efforts to avoid human-wildlife encounters must be made. The proponent must plan to*

- *avoid human-wildlife conflict*
- *have a deterrent strategy*

- *have a human safety strategy*
- *have a waste management strategy”*

Response: All employees, consultants and guests to the Meliadine project area are briefed regarding policies towards wildlife encounters and procedures for reacting to potentially dangerous wildlife encounters. These policies and procedures are incorporated into the Meliadine West Gold Project induction for all personnel and in the emergency procedures manual.

Comaplex strictly prohibits the feeding of wildlife. Comaplex maintains procedures in the event that a potentially dangerous wildlife-human encounter occurs. Critical elements of these procedures are the distribution of firearms to certain personnel trained in their use and the maintenance of reliable 24 hour communications.

Comaplex has always maintained a high efficiency incinerator at its Meliadine Lake campsite (replaced in 2007) and fully combusts all human and kitchen wastes daily. This waste management practice and the prohibition on wildlife food conditioning are the cornerstones of an effective avoidance and deterrence policy.

Comment GN-27: “All camp members should be fully aware and trained in the human-wildlife encounter avoidance plans and be aware that feeding of wildlife is prohibited.”

Response: All employees, consultants, and guests to the Meliadine project area are briefed regarding policies towards wildlife encounters and procedures for reacting to potentially dangerous wildlife encounters. These policies and procedures are incorporated into the Meliadine West Gold Project induction for all personnel and into the emergency procedures manual displayed at key locations in the camp.

Comment GN-28: “The proponent must discourage food conditioning of all wildlife species negative reinforcement is encouraged.”

Response: Acknowledged. Comaplex strictly prohibits the feeding of wildlife and this policy will made clear to all employees, contractors, and guests on site.

Comment GN-29: “Also, if a defense kill does occur, the proponent must record the location of the carcass. If required, specimens such as the skull must be submitted to the Conservation Officer as soon as possible.”

Response: Comaplex is familiar with rules regarding defense kills and acknowledges our obligations should such an event occur.

Aircraft Disturbance

Comment GN-30: “Unless there is a specific requirement for low level flights, aircraft activities should maintain a minimum altitude of 610 meters above ground level in places where there are occurrences of wildlife. In areas where there are observed large concentrations of birds, flight level is restricted to 1,000 meters vertical distance and 1,500 meters horizontal distance from the birds. These guidelines are provided as a general standard, and exceptions may arise on a case-by-case basis. As a good practice, it is recommended to avoid critical and sensitive wildlife areas at all times by choosing alternate flight corridors.”

Response: Typically, there is no requirement for low level flights outside of the Meliadine West project area. Our standard operating practice is to maintain minimum altitudes of 1500 feet above land surface. This will be revised to 610 meters, or to 1000 meters should large accumulations of birds be present, as suggested above. It is noted that there are no large swampy areas between Rankin Inlet and the camp site and large accumulations of birds have not been observed in this flight path. Rarely, weather conditions or the slinging of materials from Rankin Inlet to the camp necessitate flights below 610 meters. The pilots are well versed in alternate flight paths to avoid disturbances to both wildlife and people.

Recording Wildlife Observations and Critical Habitat

Comment GN-31: “The DOE requests the proponent reports these observations annually to a Regional Wildlife Biologist and the nearest Conservation Officer at the end of the operational season to assist the government with collection of wildlife data. Documentation should include location (i.e., latitude and longitude), species, number of animals, a description of the animal activity, and a description of the gender and age of animals if possible. It is useful to record the presence and number of animals as well as any young observed.”

Response: Acknowledged. Comaplex will submit the wildlife logs on an annual basis.

Government of Nunavut – Airports

Comment GNN-1: “Will transportation of fuel have any impact on Rankin Inlet and Chesterfield Airport land?”

Response: Comaplex has been moving fuel to the Meliadine West project for many years with no impact on the local airport land. We envision no impact on the Rankin Inlet or Chesterfield Airport land from the proposed work.