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**Water Licence Application  
Supplementary Questionnaire  
for Advanced Exploration**

- **(Underground drilling, bulk sampling, etc.)**

**Changes to the 2007 questionnaire for the initial underground bulk sampling and exploration program are in red.**

**February 2010**

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## GENERAL

3. Indicate the status of the exploration activity on the date of application.  
(Check the appropriate space.)

Design	_____
Under construction	_____
In operation	<b>Diamond drilling is ongoing</b>
Suspended	_____
Care and Maintenance	_____
Abandoned	_____

4. If a change in the status of the exploration activity is expected, indicate the nature and anticipated date of such change.

**Surface ramp to underground portal will be initiated in July 2007; portal expected to be initiated in October 2007 (Estimated ~11-12 month long program). This program will be conducted concurrently with surface diamond drill programs already permitted.**

**The extension of the underground work will run from 2011 to 2013 inclusive. The existing portal will be used. Underground work will commence once the portal and decline have been reactivated and machinery reconditioned.**

5. Indicate the present (or purposed) schedule for the exploration activity.

Hours per week	<b>168 hrs / drill for diamond drilling</b>
Days per week	<b>7 for drilling</b>
Weeks per year	<b>25 weeks for diamond drilling; 50 for underground program</b>
Number of employees	<b>25 - 35 persons on site for underground program (total of 29 - 50 people for the project)</b>
Number of Inuit employees	<b>9 in 2006; please see Economic Benefits table in the document attached for historic local benefits profile</b>

6. Estimate the term (life) of the exploration activity.

**11-12 months in 2007-08 for underground program (Months / Year)**

**24 – 30 months once the portal and decline have been reactivated and machinery reconditioned.**

7. How will the project effect the traditional uses on Inuit Owned Lands?

**Only to the extent that mutual safety is not compromised.**

8. Have the Elders been consulted on effects to the traditional use on Inuit Owned Land? If so, list them. If not, why not?

**Committee of local elders supervised traditional and local knowledge study as well as study of heritage sites in exploration area (see list in the attached document). Rankin Inlet CLARC updated on the project and proposed plans on March 27, 2007.**

9. Has the proponent consulted Inuit Organizations in the area? If so, list them.  
**Please see chronology of community consultations in the 1995 – 2006 2009 period summarized in the document attached (submitted to Kivalliq Inuit Association). Recent meetings include the KIA Board of Directors, Rankin CLARC, Rankin town hall meeting, and the Kivalliq Chamber of Commerce in March 2007.**

**Further meetings since 2007 with Inuit Organizations are detailed in the attached community consultation chronology.**

10. Has the proponent consulted surrounding communities on traditional water use areas? If so, list them. If not, why not?  
**This is a subject of ongoing discussion and consultation during community meetings. Also, this subject was covered in the Traditional Knowledge Study.**

11. Attach a detailed map drawn to scale showing the relative locations (or proposed locations) of the exploration activity, Sewage and solid waste facilities, and containment areas. The plan should include the water intake and pumphouse, fuel and chemical storage facilities. Ore and waste rock storage piles, piping distribution systems, and transportation access routes around the site. The map also should include elevation contours, water bodies and an indication of drainage patterns for the area.

**Please see Figures 1 – 4 in document attached.**

**Please see Figures 1 to 4 attached.**

12. If applicable, provide a brief history of property development which took place before the present company gained control of the site. Include shafts, audits, mills (give rated capacity, etc.) waste dumps, chemical storage areas, tailings disposal areas and effluent discharge locations. Make references to the detailed map.

**Exploration history of this project is reviewed in Section 5 of the attached document.**

**Exploration history of this project is reviewed in Section 5 of the updated NIRB Part 2 form.**

13. Give a short description of the proposed or current freshwater intake facility, the type and operating capacity of the pumps used, and the intake screen size.

**Exact details on the pump are not known as the underground contract has not been awarded. The system will be very similar to that employed by the diamond drills and will use less water on a daily basis than 1 diamond drill (est. < 10 m<sup>3</sup> water/day). Water from Pump Lake will be used in the winter (does not freeze to bottom). Local ponds such as Peanut Lake will be used in the summer. The intakes on the pumps will be equipped with a screen with a mesh size sufficiently small to prevent any danger to fish. Pump**

volume will be sufficiently low so as to prevent the impingement of fish to the pump intake screen.

**The current freshwater intake facility is located on Lake A8 (Pump Lake). An electric submersible pump is used to deliver freshwater to the underground surface facilities. The water is pumped from the lake in an insulated, heat traced, 2 to 3 inch PVC pipe. The pump runs continuously during the winter period to prevent the freezing of the water line. Any water not directly used is returned to Pond A15, which flows into Lake A8.**

**The mesh size of the screen on the pump is approximately 2mm.**

14. At the rate of intended water usage for the exploration activity, explain water balance inputs and outputs in terms of estimated maximum draw down and recharge capability of the water source from fresh water will be drawn.

**The brine system for the underground blast drilling is a recirculation system that will recycle brine to the maximum extent possible. Recharge of the system is only expected every 2-4 days, as required.**

**From experience in 2007 - 2008, approximately 4 m<sup>3</sup>/day will be directly used for the underground program.**

**The Meliadine Lake watershed covers 586 sq. km. Water for use underground will total less than 10 cubic meters per day. It will be drawn from Meliadine Lake which was estimated by RL&L Limited (now Golder Associates Ltd.) to contain 63.66 million cubic meters below a 2 meter ice cover.**

15. Will any work be done that penetrates regions of permafrost?

**The entire “exploration” component of this program will occur within permafrost. Permafrost is expected to exceed 400 m depth.**

16. If “YES” above, is the permafrost continuous or discontinuous?

**Continuous**

17. Were (or will) any old workings or water bodies (be) dewatered in order to conduct the exploration activity?

**No encroachment on any water body is required to complete this program.**

18. If “YES” above, indicate the name of the water body, the total volume of water to be discharged and the chemical characteristics of the water.

Water body (if unnamed give Latitude/Longitude)\_\_\_\_\_

Total volume \_\_\_\_\_ cubic metres  
Receiving Watercourse \_\_\_\_\_  
Dewatering flow rate into above \_\_\_\_\_ cubic metres / sec

Chemical characteristics of discharge:

T/Pb	_____ mg/L	Total Ammonia	_____ mg/L
T/Cu	_____ mg/L	Suspended solids	_____ mg/L
T/Al	_____ mg/L	Specific conductivity	_____ uhmo/cm
T/HCN	_____ mg/L	pH	_____
T/Hg	_____ mg/L		
T/Zn	_____ mg/L		
T/Cd	_____ mg/L		
T/As	_____ mg/L		
T/Ni	_____ mg/L		
T/Mn	_____ mg/L		

19. Was (or will) the above discharge (be) treated chemically?
20. If “YES” above, describe the applied treatment.
21. Briefly describe what will be done with the camp sewage.  
**No change; incineration as has been the case since 1997.**

## **SECTION 2 :**

### **GEOLOGY AND MINERALOGY**

22. Briefly describe the physical nature of the mineralization, including known dimensions and approximate shape.

**This underground exploration program is intended to confirm the physical dimensions of two parallel gold bearing zones in the Tiriganiaq deposit. The strike length interpreted from diamond drilling is approximately 1.5 km long and the gold bearing rocks dip north at 60°. The veins are 30-80 meters apart and are of variable width. (Please see Figure 8 in Project Application document.)**

Diamond drilling in the last two years (2008, 2009) after the completion of the initial underground program has delineated an area of high grade gold mineralization in the deeper parts of the Tiriganiaq deposit (termed the Western Deeps) that is significantly below what was accessed in the 2007-8 underground program. The purpose of the proposed extension of the underground exploration program is to confirm the results of the surface drilling into what is a structurally complex part of the Tiriganiaq deposit.

23. Briefly describe the host rock in the general vicinity of the mineralization (from the surface to the mineralized zone.)

**The host rock for this underground program is predominantly barren, neutral sediments and occasional gabbro dikes rock with high neutralizing potential and a low potential for metal leachates. Figure 12 in the Project Application document shows the geological profile of the proposed underground workings. Appendix 1 describes the chemical properties of the rock that will be handled.**

**Figure 8 shows the geological profile and planned extension of the decline.**

24. Provide a geological description of the mineralized zone. (If possible, include the percentage of metals.)

**The mineralized gold-bearing areas consist of multiple, parallel, north-dipping zones that average about 3 meters in width. They consist of quartz veins with mostly free gold accompanied by 2-5% pyrrhotite and arsenopyrite. The zones are concentrated within an area that measures about 50 meters wide by about 1.5 kilometers long.**

25. Describe the geochemical tests which have been (or will be) performed on the ore, host rock, and waste rock to determine their relative acid generation and contaminant leaching potential. Outline methods used (or to be used) and provide test results in an attached report (ie. static tests, kinetic tests.)

**Appendix 1 of the accompanying report summarizes the acid-base accounting and metal leaching testing done on the ore, host, and waste rocks. In general, potentially acid generating rocks are rare and the neutralizing potential of most of the rocks in the deposit is high. Some ores will require care in handling and disposal to mitigate the limited potential for acid generation.**

**Please see the attached geochemistry report, “Interim Static Test Report for Waste Rock from the Tiriganiaq Deposit, Meliadine West Gold Project, Nunavut, April 2009”. Kinetic testing is presently underway with the report expected in 2010.**

26. Estimate the percentage of sulphide in the mineralization:

pyrite	_____
pyrrhotite	<u>2</u>
pyrite / pyrrhotite mixture	_____
arsenopyrite	<u>5</u>

### **SECTION 3 :**



## EXPLORATION OPERATION

27. Check off the type (or proposed type) of exploration operation that will be used on the property and briefly describe the method in more detail.

- |    |   |              |
|----|---|--------------|
| a) | Reverse circulation to obtain bulk sample   | _____        |
| b) | Trenching                                   | _____        |
| c) | Conventional open pit                       | _____        |
| d) | Decline                                     | <u>  X  </u> |
| e) | Conventional underground                    | <u>  X  </u> |
| f) | Strip mining activity                       | _____        |
| g) | Other Exploration activity (please explain) | _____        |

**This underground exploration program will use conventional mining methods in order to assess two important aspects of the ore body that are required for a mine feasibility study:**

- **to expose and map along the strike of mineralized rock formations containing gold to assess its continuity, consistency, and related mining properties;**
- **collect a representative sample of mineralized rock (“ore”) for testing how much is present (for comparison to the drill hole results) and to determine if the gold can be recovered by standard methods in a future mill (metallurgical testing).**

**Please also see application document.**

28. Indicate the size and number of samples that will be obtained.

    ~12,860    22,000     tonnes of mineralized rock  
    ~102    ~150     number of samples

**Each blasted round is approximately 120-140 tonnes of rock. Each round is considered one sample and will be segregated on surface.**

Please note if smaller samples are to be taken from different areas (note location) to form one large bulk sample.

**Each round will be crushed and run through a sample tower. The purpose of the sample tower is to reduce each ~ 120 tonne sample to a representative sample of less than 60 kg. The 60 kg representative sample will be sent south for assaying and metallurgical work. Remaining sample will remain separated on the ore storage pad.**

29. Indicate the present or proposed average rate of exploratory production from all mineralized sources on the property:

**variable, but estimated at 120-200** tonnes ore / day

30. Outline the water usage (or proposed water usage) in the exploration activity, indicate the source and volume of water for each use.

	<u>Source</u>	<u>Use</u>	<u>Volume (m<sup>3</sup> / day)</u>
1.	Pump Lake	u/g drilling, wash rock	less than 10 <b>4</b>
2.	Pump Lake	washing face for mapping	less than 1

Water will be collected in brine sumps and recycled in the brine recirculation system.

31. If applicable, indicate or estimate the volume of natural ground water presently gaining access to the mine workings.

**Nil at these relatively shallow depths (in permafrost)**      m<sup>3</sup> / day

The maximum depth of the decline extension will be approximately 400 m and should remain within permafrost.

32. If applicable, outline methods used underground or on surface to decrease mine water flow. (For example: recycling)

**Water collected at the face will be immediately pumped back into the brine recirculation system. Recharge of the brine system with freshwater is estimated to be required every 2-4 days. Surface runoff will be intercepted by a collection sump at the base of the portal ramp to prevent inflow in to the decline. No mine water is anticipated due to the permafrost conditions that persist to more than 400 meters below surface.**

33. List the brand names and constituents of the drill additives to be used.

## **SECTION 4 :**

### **THE MILL OR PROCESSING PLANT**

**Only dry crushing of ore in preparation for processing through the sample tower is required. The sole purpose of the sample tower is to obtain a representative sample of each ore round. The sample tower will produce a 60 kg sample from a 120 tonne round of ore.**

34. Is there (or will there be) a portable mill processing plant be operating on the property in conjunction with the exploration activity ?

\_\_\_\_\_ Yes                      **X** \_\_\_\_\_ No

35. If “yes” indicate the proposed point of discharge for the mill or process plant water and the volume of the discharge.

Point of discharge \_\_\_\_\_

Volume of discharge \_\_\_\_\_ m<sup>3</sup> / day

36. Attach a copy of the portable mill or processing plant flow sheet. Indicate the points of addition of all the various reagents (chemicals) that are (or will be) used.
37. Indicate the proposed rate of milling.  
 \_\_\_\_\_ not applicable (check) or \_\_\_\_\_ tonnes / day
38. List the types and quantities of all reagents used in the mill or processing plant (in kg/tonne ore milled.)  
 Reagent:\_\_\_\_\_ Amount in kg/tonne ore milled:\_\_\_\_\_
39. If applicable, is the (proposed) milling circuit based on autogenous grinding ?  
 Yes \_\_\_\_\_ No \_\_\_\_\_ Partially \_\_\_\_\_
40. Based on present production or bench test results, describe the chemical and physical characteristics of liquid mill or processing plant wastes directed to the tailing deposition area.

T/Cu _____ mg/L	Total Ammonia _____ mg/L
T/Pb _____ mg/L	Suspended solids _____ mg/L
T/Zn _____ mg/L	Specific conductivity _____ uhmo/cm
T/Ag _____ mg/L	pH _____
T/Mn _____ mg/L	Alkalinity _____ CaCO <sub>3</sub> /L
T/Ni _____ mg/L	Hardness _____ mg/L
T/Fe _____ mg/L	Total cyanide _____ mg/L
T/Hg _____ mg/L	Oil and Grease _____ mg/L
T/As _____ g/L	
T/Cd _____ mg/L	
T/Cr _____ mg/L	
T/Al _____ mg/L	

41. Provide a geochemical description of the solid fraction of the tailings.

Cu _____ mg/g	Al _____ mg/g
Pb _____ mg/g	Fe _____ mg/g
Zn _____ mg/g	Hg _____ mg/g
Ag _____ mg/g	Ni _____ mg/g
Mn _____ mg/g	As _____ mg/g
Cr _____ mg/g	CN _____ mg/g
Cd _____ mg/g	

## **SECTION 5 :**

### **THE CONTAINMENT AREAS**

42. What is the (Proposed) method of disposal of the mine water, mill or process plant tailings (ie. sump, subaqueous, surface tailings pond, settling pond) ?

**No tailings will be produced.**

**No mine water discharge is expected so no containment area is required.**

**Water losses from underground are expected by way of broken rock and “ore”.**

**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.**

**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 downstream 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.

**See figure 10 Water Quality Sampling Locations. This figure shows the sampling locations downstream of the portal and pad area. Monitoring results are included in the monthly reports to the KIA and the NWB.**

**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.

**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 (attached document) for possible Aquadam locations.**

**All construction will be within the existing water basin of the 2007 development, and within the primary containment area. See figure 5 for configuration of the pad extension and the additional ore stockpiles.**

43. Attach detailed scale plan drawings of the proposed (or present) containment area. The drawings must include the following:
- a) details of pond size and elevation;
  - b) details of all retaining structures (length, width, height, materials of construction, etc.);
  - c) details of the drainage basin;
  - d) details of all decant, siphon mechanisms etc., including water treatment plant facilities;
  - e) details with regard to the direction and route followed by the flow of wastes and / or waste water from the area; and
  - f) indicate of the distance to nearby major watercourses.

**Please refer to Figure 5 attached.**

44. Justify your choice of location for the containment area design by rationalizing rejection of other options. Consider the following criteria in your comparisons: subsurface strata permeability, abandonment, recycling/reclaiming waters, and assessment of runoff into basins. Attach a brief summation. **N/A**

**The program will use the existing portal, site buildings, and roads and is basically a continuation of the previous program to greater depths in the gold deposit. As proposed, the additional impacts to the area will be minimal. These include an addition to the waste rock and ore pads (behind existing containment – see figure 5), widening of the roads accessing the pads, a cover over the portal, and an increased requirement for fuel storage or year round access to fuel from Rankin Inlet. For now, fuel storage is to be increased and would be consolidated in the current area as much as possible.**

**Waste rock and ore pads will be situated behind existing primary containment in the same watersheds as the first program. The rock being extracted is largely identical to that already accessed and processed. Existing surface buildings and shops will be used (the current buildings will be repaired and upgraded, with minor additional buildings likely required to accommodate more underground equipment). The current bulk sample water license is sufficient for the proposed underground exploration extension. All work will continue to take place on the Commercial Lease Comaplex has under a Letter of Credit with the Kivalliq Inuit Association. The existing Letter of Credit required by the Lease will be maintained.**

The existing exploration camp at Meliadine Lake will be used for housing the workers. An increase in capacity of the camp from its existing 50-60 man capacity to approximately 80 men is proposed. Many of the additional sleeping and kitchen tents will be obtained from the demobilization of the Meliadine East camp, which Complex recently consolidated into the project. Upgrades in the waste water treatment plant, wash cars, etc. at the Meliadine Lake camp in 2009 should be able to accommodate the increased capacity. This is considered the lowest impact alternative.

45. The average depth of the existing or proposed containment area is dependent on the volume of water encountered metres. **N/A**

At an elevation of 67.6 m, the depth of containment area varies to a maximum depth of 1.6 m with the contours shown on Figure 5. The volume of the containment area is 21,000 m<sup>3</sup> at an elevation of 67.6.

46. Indicate the total capacity for the existing or proposed containment area by using water balance and stage volume calculations and curves. (Attach a description of inputs and outputs along with volume calculations.) **N/A**

Area of Primary containment – 14.2 hectares

Average yield – 100 mm

Estimated runoff volume – 14,400 m<sup>3</sup>

Storage capacity of proposed containment area to an elevation of 67.6 – 21,000 m<sup>3</sup>

47. Has any evaporation and/or precipitation data been collected at the site ? \_\_\_\_\_ if so, please include the data. **N/A**

Please see data in the attached Aquatic Synthesis Report. This report compiles **all** data collected for the Meliadine Gold Project from 1997 to 2009 inclusive. It is attached on CD.

48. Will the present or proposed containment area contain the entire production from the mill or processing plant complex for the life of the project? **N/A**

49. Will the proposed tailings deposition area engulf or otherwise disturb any existing watercourse? **N/A**

50. If “Yes”, attach all pertinent details (Name of watercourse, present average flow, direction of flow, proposed diversions, etc.)

51. Describe the proposed or present operation, maintenance and monitoring of the containment area. **N/A; see explanation (#42)**

The containment area holds all drainage from the upstream water basin. This includes runoff from the pad made of waste rock and ore stockpiled on the pad. The water is held to allow the oxidation of ammonia and the settling of suspended solids before being released downstream.

As shown in figure 5, the road serves as a dyke to hold the water and its width is to be increased. The extra width will assist in holding the water for a longer time period as permafrost is expected to move up into the road bed and act as a dam.

The water quality in the containment area and water bodies downstream are monitored monthly over the open water season with the monthly results sent to NWB and KIA.

## **SECTION 6 :**

### **WATER TREATMENT**

52. If applicable, will the minewater, mill or process plant water be chemically treated before being discharged to the containment area ? If so, explain the treatment process (Attach flow sheet if available).

NA. There is no discharge expected from the underground work.

53. Will (treated) effluent be discharged directly to a natural water body or will polishing or settling ponds be employed? Describe location, control structures, and process of water retention and transfer. Attach any relevant design drawings.

54. Name the first major watercourse the discharge flow enters after it leaves the area of company operations. **Lake A8 (Pump Lake)**

## **SECTION 7 :**

### **ENVIRONMENTAL MONITORING PROGRAM**

55. Has Traditional Knowledge in the area been considered? If so, how? If not, why not?

**A traditional and local knowledge study was completed under the supervision of a committee of local elders. It determined that the project area was largely an area of passage in historic times rather than an area of active traditional land use.**

**Additional Inuit Qaujimajatuqangit is presently planned in support of the upcoming draft EIS. A contract to do this work has been let to Golder Associates.**

56. Has any baseline data been collected for the main water bodies in the area prior to development?

**Baseline water conditions are described in the reports enumerated below:**

- 1998. AGRA Earth and Environmental. WMC International Limited Meliadine West Gold Project water balance study ; 1997 data report. Appendices appear in a second volume with same title.**
- 1999. AGRA Earth and Environmental. WMC International Limited Meliadine West Gold Project water balance study ; 1998 data report. Appendices appear in a second volume with same title.**
- 1999. AGRA Earth and Environmental. WMC International Limited Meliadine West Gold Project water balance study ; 1999 data report. Appendices appear in a second volume with same title.**
- 2001. AMEC Earth & Environmental Limited. WMC International Ltd. Meliadine West Gold Project Water Balance Study 2000 Data Report.**

**The attached Aquatic Synthesis Report contains all aquatic data collected from 1997 to 2009 inclusive. It is on the attached CD.**

57. If “Yes”, include all data gathered on the physical, biotic and chemical characteristics at each sampling location. Identify sampling locations on a map.

**Please see data on CD labeled “Hydrology”.**

**Please see Aquatic Synthesis Report on the attached CD.**

58. Provide an inventory of hazardous materials on the property and storage locations.

**No quantities of hazardous materials other than fuel and explosives are, or will be, in use. 1,900,000 liters of diesel fuel will be used in the course of this underground exploration program.**

**115,000 kg of explosives (ANFO) are expected to be used.**

**Please see fuel and explosives storage locations on Figure 4 in the attached document.**

**It is anticipated that the proposed underground program will use a total of 7.6 million litres of fuel over the life of the project. Please refer to figure 5 for the location of fuel storage.**

**Comaplex anticipates requiring approximately 212,000 kilograms of explosives for the decline extension, including 142,000 kilograms between winter resupply in early 2012 and winter resupply in early 2013. There are currently ten Type 4 magazines on the site with a total capacity of 90,000 kilograms of explosives, allowing two magazines for the storage of blasting caps. Comaplex proposes to mobilize an additional five Type 4 magazines to Rankin Inlet in the summer of 2011 for movement to site in early 2012. These magazines will be incorporated into the existing plan with Nunavut and NWT Mines Safety. See Figure 5 for location of the magazines.**



59. Provide a conceptual abandonment and restoration plan for the site, detailing the costs to carry out the plan, and a proposal for a financial assurance which covers the costs to carry out the plan.

**A preliminary closure plan is described in the attached application document. It is covered by a \$950,000 Letter of Credit (Declaration Bond) held by KIA on whose lands the entire program is located. The security deposit is a requirement of the Commercial Lease entered into between Comaplex Minerals Corp. and the Kivalliq Inuit Association. All of the proposed underground exploration work will be conducted entirely within the confines of the Commercial Lease.**

**The Abandonment and Restoration Plan was updated in 2009 and is attached on CD.**

## **SECTION 8 :**

### **ENVIRONMENTAL ASSESSMENT AND SCREENING**

60. Has this project ever undergone an initial environmental review? If yes, by whom and when.

**An Application to Conduct Underground Exploration and Assemble a Bulk Sample was submitted to Kivalliq Inuit Association as required by the Nunavut Land Claim Agreement.**

**The initial underground program was screened by NIRB, file 07EN044. NIRB Part 1 and Part 2 Forms were updated from 2007 and are attached on CD.**

61. Has any baseline data collection and evaluation been undertaken with respect to the various biophysical components of the environment potentially affected by the project (eg. Wildlife, soils, air quality), ie. In addition to water treated information requested in this questionnaire ?

Yes   **X**   No            Unknown           

62. If “Yes” please attach copies of reports or cite titles, authors and dates.

**Titles, authors and dates for baseline study reports are cited below.**

#### **Fish Populations and Water Quality**

1994. Dillon Consultants. Meliadine Project - baseline surface water and lake sampling.

1996. Hubert and Assoc. Ltd. Preliminary water quality and fish habitat investigations at the Meliadine West Gold Project.

1998. R L & L Ltd. Annotated bibliography on Arctic biota; Meliadine West baseline Aquatic Studies.

1998. R L & L Ltd. Meliadine West baseline aquatic studies; 1997 data report.
1999. R L & L Ltd. Meliadine West baseline aquatic studies; 1998 data report.
2000. R L & L Ltd. Meliadine West baseline aquatic studies; 1999 data report.
2001. R.L.&L. Environmental Services Ltd. Meliadine West Baseline Aquatic Studies 2000 Data Report.
2004. Golder Associates Ltd. Fish habitat assessment at a proposed road crossing near Meliadine West exploration camp.

#### **Hydrology**

1998. AGRA Earth and Environmental. WMC International Limited Meliadine West Gold Project water balance study ; 1997 data report. Appendices appear in a second volume with same title.
1999. AGRA Earth and Environmental. WMC International Limited Meliadine West Gold Project water balance study ; 1998 data report. Appendices appear in a second volume with same title.
1999. AGRA Earth and Environmental. WMC International Limited Meliadine West Gold Project water balance study ; 1999 data report. Appendices appear in a second volume with same title.
2001. AMEC Earth & Environmental Limited. WMC International Ltd. Meliadine West Gold Project Water Balance Study 2000 Data Report.

#### **Wildlife**

1999. Jalkotzy, M.G. (Arc Wildlife Services Ltd.) The potential effects of development on wildlife: a selected annotated bibliography.
1999. Jalkotzy, M. G. (Arc Wildlife Services Ltd.) Baseline Studies of wildlife populations in the Meliadine River Basin, Nunavut; May - December 1998.
2000. Jalkotzy, M. G. (Arc Wildlife Services Ltd.) Baseline Studies of wildlife populations in the Meliadine River Basin, Nunavut; May - December 1999.
2000. Jalkotzy, M.G. (Arc Wildlife Services Ltd.) Baseline Studies of Wildlife Populations in the Meliadine River Basin, Nunavut: 2000.

#### **Vegetation**

1999. Burt, Page M. (Outcrop) 1998 vegetation baseline studies; WMC International Limited Meliadine West Project.

#### **Archaeology**

1998. Hart, Elisa. Report of the Meliadine West Gold Project archaeological survey and impact assessment.

#### **Demography**

1997. The Nexus Group. Labour force profile; Kivalliq Region.

#### **Traditional Knowledge**

1999. Nanuk Enterprises Ltd. Traditional ecological knowledge study; WMC International Limited Meliadine West Gold Project.

The Aquatic Synthesis Report and Terrestrial Synthesis Report contain all biophysical data collected for the Meliadine Gold Project and are attached on CD. The synthesis reports compiled all the data collected over previous years, 1997 to 2009 inclusive.

63. If no, are such studies being planned? \_\_\_\_\_

Briefly describe the proposals.

64. Has authorization been obtained or sought from the Department of Fisheries and Oceans for dewatering or using any waterbodies for containment of waste?

**No such action is contemplated by this underground exploration program.**

65. Has a socio-economic impact assessment or evaluation of this project been undertaken ? (this would include a review of any public concerns, land, water and cultural uses of the area, implications of land claims, compensation, local employment opportunities, etc.)

Yes \_\_\_\_\_ No **X** \_\_\_\_\_ Unknown \_\_\_\_\_

66. If “Yes” please describe the proposal briefly.

67. If “No” is such a study being planned ? Yes \_\_\_\_\_ No \_\_\_\_\_

**A comprehensive social and economic assessment of the communities affected by a mine development would be completed in the context of a positive feasibility study and proposal to develop and operate a gold mine at Meliadine West. What is proposed in this application is part of the exploration process.**

**Socioeconomic baseline information is presently being collected in support of the upcoming draft EIS for the Meliadine Gold Project.**

68. Describe any cumulative impacts the project may create?

**The Cumulative Impacts section of the application document is copied below.**

## **6. IDENTIFICATION OF CUMULATIVE ENVIRONMENTAL 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. These drill sites 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 marine dock at Rankin Inlet~~; **No longer planned. The existing Hamlet's facilities should prove sufficient.**
- a **20 to 25** ~~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. **Inert, non hazardous, non-recyclable waste will be disposed of in the Rankin Inlet landfill.**

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.

69. Does the project alter the quantity or quality or flow of waters through Inuit Owned Lands?

**No.**

70. If yes, has the applicant entered into an agreement with the Designated Inuit Organization to pay compensation for any loss or damage that may be caused by the alteration.

71. If no compensation arrangement has been made, how will compensation be determined?

**A comprehensive Inuit Impact and Benefit Agreement as contemplated by Article 26 of the NLCA will be negotiated in the context of an application for mine development and operations on Inuit Owned Land, the results of this exploration program and a future feasibility study are positive.**

## COMMUNITY CONSULTATION CHRONOLOGY

DATE	PLACE	PARTIES PRESENT AND SUBJECTS OF MEETING
<b>1995</b>		
1 May	Rankin Inlet	KIA, WMC, Cumberland, Comaplex; history of exploration and prospect of WMC entering the Project on western lands.
<b>1996</b>		
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
<b>1997</b>		
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.
<b>1998</b>		
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.
<b>1999</b>		
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.
<b>2000</b>		
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.
<b>2001</b>		
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.
<b>2002</b>		
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.
<b>2003</b>		
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.
<b>2004</b>		
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.
<b>2005</b>		
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.

Addition:**2008**

March 26	Rankin Inlet	presentation to the KIA personnel and the Rankin Inlet CLARC on progress at Meliadine West.
March 27	Rankin Inlet	presentation of the Meliadine West project progress to the Kivalliq Chamber of Commerce at their AGM.
April 8	Iqaluit	Nunavut Mining Symposium; presentation to industry and all regulatory boards with project update.
April 10	camp	Kivalliq Outreach Program (Kevin Sanquine); 8 kids, 3 elders into camp by snowmobile for a visit.
July 8	Rankin Inlet	Presentation to the KIA on the project and discussion of KIA thinking on environmental and regulatory issues.
July 16	camp	Elders tour to the Meliadine West project site. People who attended were Moses Aliyak, Robert Tatty, Remi Nakokti, Paul Kanuyak, John Hickey. All were taken underground for a full tour.
August 25	Rankin	Meeting with KIA
August 26	camp	Underground tour for L. Manzo (KIA director), L. Kusugak (Rankin Inlet mayor), T. Manernaluk, H. Tatty.
August 28	Rankin	Town hall update meeting.
Sept 11	Rankin	meeting with the KIA



**2009**

Mar 30-Apr 30	Iqaluit	Nunavut Mining Symposium; presentation to industry and all regulatory boards with project update.
May 6-8	Rankin Inlet	MDAG: all regulatory groups in attendance. Present project and meet regulators.
May 21	Rankin Inlet	Town hall update meeting. 13 people.
June 17	Rankin Inlet	Presentation to the CLARC on the project. Attendees: Hamish Tatti, Celestino Mukpah, Jack Karitok, Jerome Tattuinee, Paul Kanayok.
June 17	Rankin Inlet	Meeting with EDC (Robert Connelly) and Nunavut Transport (Alan Johnson) regarding proposal to access federal infrastructure money for the Meliadine River bridge and Comaplex fund the road. Visit to the bridge site.
June 18	Rankin Inlet	Discussion with Rankin mayor John Hicks, the SAO, and several council member. Project update and proposed application for road and bridge funding.
Oct 3	Rankin Inlet	Presentation of the current project to the Social Economic Monitoring Committee.