Appendix E – Remote Camp Information

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NUNAVUT IMALIRIYIN KATIMAYINGI
OFFICE DES EAUX DU NUNAVUT

EXPLORATION/ REMOTE CAMP SUPPLEMENTARY QUESTIONNAIRE

Applicant: Vale Exploration Canada Inc. Licence No: _____
(For NWB Use Only)

ADMINISTRATIVE INFORMATION

1. Environment Manager: Clare Goddard Tel: 705-682-8462 Fax: 705-682-8243
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2. Project Manager: Jason Rickard Tel: 905-403-2548 Fax: 905-403-2600
Email: Jason.Rickard @vale.com

3. Does the applicant hold the necessary property rights? Yes

4. Is the applicant an 'operator' for another company (i.e., the holder of the property rights)? If so, please provide letter of authorization. No

5. Duration of the Project

☐ One year or less Start and completion dates: ___
X Multi Year:

If Multi-Year indicate proposed schedule of on site activities
Start: April 2012 Completion: December 2017

Program will operate in for 3 three to 4 months a year, predominately in the summer however some winter drilling may occur. These decisions will be made on a yearly basis depending on prospecting results.

CAMP CLASSIFICATION

6. Type of Camp

☐ Mobile (self-propelled)
☐ Temporary
X Seasonally Occupied
☐ Permanent
☐ Other:_____

7. What is the design, maximum and expected average population of the camp?
The maximum 30 people, the average is likely 20

8. Provide history of the site if it has been used in the past.

Recently there has been Government of Canada geological surveys under the GEM program. To the best of Vale's knowledge, those are the only geological surveys that have been conducted in the project area.

CAMP LOCATION

9. Please describe proposed camp location in relation to biogeographical and geomorphological features, and water bodies.

CAM-5 (the preferred camp location) and other proposed camp locations are situated near unnamed waterbodies for which the immediate vicinity is relatively flat and the ground surface is predominately glacial till.

10. How was the location of the camp selected? Was the site previously used? Was assistance from the Regional Inuit Association Land Manager sought? Include maps and/or aerial photographs.

This location was selected because there is an existing airstrip and the site has been previously disturbed. However should this not be possible three other camp locations (Camp1 – 85-27'6"W 68-14'3"N; Camp 2 – 85-47'22"W 68-9'57"N; Camp3 – 85-37'31"N 68-14'18"N) are proposed based on satellite imagery and a final location will be chosen based on field evaluation. Vale will keep the footprint of the camp as compact as possible

11. Is the camp or any aspect of the project located on:

X Crown Lands Permit Number (s)/Expiry Date: Application sent at the same time as water licence application
☐ Commissioners Lands Permit Number (s)/Expiry Date: _____
X Inuit Owned Lands Permit Number (s)/Expiry Date: Application sent at the same time as water licence application

12. Closest Communities (direction and distance in km):

Hall Beach, approximately 182 km east of the Project
Igloolik, approximately 250 km northeast of the Project
Repulse Bay, approximately 172 km southeast of the Project
Kugaaruk, approximately 186 km northwest of the Project.

13. Has the proponent notified and consulted the nearby communities and potentially interested parties about the proposed work?

Vale is planning on corresponding with members of the Hunters and Trappers Association and Hamlet Councils of Hall Beach, Igloolik, Repulse Bay and Kugaaruk prior to the exploration activities in 2012 the Kivalliq and Qikiqtani Inuit Association (KIA and QIA) will also be contacted.

14. Will the project have impacts on traditional water use areas used by the nearby communities? Will the project have impacts on local fish and wildlife habitats?

There will be no impacts on traditional water use areas used by the nearby communities.

Based on Nunavut Planning Commission interactive maps (accessed February 2012) southern claims overlap with WASI caribou calving areas, drilling and other exploration activities will not occur in this area of overlap (see Figure 1, Appendix B) during calving (June) if cows and calves are present within 1 km of project activities. In this area of the barrenlands only small family groups move through the area instead of big herds that are typical further south.

PURPOSE OF THE CAMP

15.
- [X] Mining (includes exploration drilling)
- [ ] Tourism (hunting, fishing, wildlife observation, adventure/expedition, etc.) (Omit questions # 16 to 21)
- [ ] Other _____

16. Activities (check all applicable)

- [X] Preliminary site visit
- [X] Prospecting
- [ ] Geological mapping
- [X] Geophysical survey
- [X] Diamond drilling
- [ ] Reverse circulation drilling
- [ ] Evaluation Drilling/Bulk Sampling (also complete separate questionnaire)
- [ ] Other: _____

17. Type of deposit (exploration focus):

- [ ] Lead Zinc
- [ ] Diamond
- [ ] Gold
- [ ] Uranium
- [X] Other: __Nickel_____

DRILLING INFORMATION

18. Drilling Activities

- [X] Land Based drilling
- [X] Drilling on ice

19. Describe what will be done with drill cuttings?

Vale will direct all drill water and cuttings to a natural depression or sump a minimum of 30 m from any water body. All sumps/natural depressions will be backfilled when drilling the hole is complete.

20. Describe what will be done with drill water?

Vale will shall dispose of all drill waste, including water, chips, muds and salts ($CaCl_2$) in any quantity or concentration, from drilling in a properly constructed sump or an appropriate natural depression located at least 30 meters from any adjacent water body.

21. List the brand names and constituents of the drill additives to be used? Includes MSDS sheets and provide confirmation that the additives are non-toxic and biodegradable.

Vale will use salt, $CaCl_2$ and may use bentonite as a drill additive. The MSDS for bentonite can be found in Appendix D.

22. Will any core testing be done on site? Describe.

No.

SPILL CONTINGENCY PLANNING

23. The proponent is required to have a site specific Spill Contingency Plan prepared and submitted with the application This Plan should be prepared in accordance with the *NWT Environmental Protection Act, Spill Contingency Planning and Reporting Regulations, July 22, 1998* and *A Guide to the Spill Contingency Planning and Reporting Regulations, June 2002*. Please include for review.

The Spill Contingency Plan for the project can be found in Appendix D.

24. How many spill kits will be on site and where will they be located?

There will be two spill kits located at the project site each with a sorbent capacity of 205 L. One will be located with the drill and the other at the fuel cache.

25. Please describe the types, quantities, and method of storage of fuel and chemicals on site, and provide MSDS sheets.

MSDS sheets for diesel can be found in Appendix C of the Spill Contingency Plan, which is located in Appendix D of the application.

Material	Storage Container	Normally On-site		Maximum On-site		Storage Location and Uses
		Fuel Cache	At Drill	Fuel Cache	At Drill	
Diesel Fuel	205 L drums	400 drums (82,000 L)	1 drums (615 L)	400 drums (82,000 L)	10 drums (2,050 L)	Fuel cache and adjacent to drill. Diesel will be stored in the fuel cache and daily amounts will be transported as needed with the drill.
Jet Fuel	205 L drums	400 drums (82,000 L)		400 drums (82,000 L)		Fuel cache
Propane	100lbs	5 bottles		60 bottles		Fuel cache
Gasoline	205 L drums	60drums		60drums		Fuel cache

WATER SUPPLY AND TREATMENT

26. Describe the location of water sources.

The water sources for the drill locations have not been identified as the drill locations have not been selected. Water supply for the camps are the unnamed lakes adjacent to the proposed camp locations..

27. Estimated water use (in cubic metres/day):

- X Domestic Use: 5 m^3/day Water Source: unnamed lake adjacent to camp
- X Drilling: 95 m^3/day Water Source: TBD, close to the drill locations.
- ☐ Other: _____ Water Source: _____

28. Describe water intake for camp operations? Is the water intake equipped with a mesh screen to prevent entrapment of fish? (see *DFO 1995, Freshwater Intake End-of-Pipe Fish Screen Guideline*) Describe:

Water will be pumped from the source by a submersible pump fitted with a screen to prevent the entrapment of fish.

29. Will drinking water quality be monitored? What parameters will be analyzed and at what frequency?

30. Drinking water will be tested according to the Guidelines for Canadian Drinking Water Quality during the camp setup. While the results are being processed bottled water will be used.

31. Will drinking water be treated? How?

Drinking water will be treated according to the *Public Health Act.*

32. Will water be stored on site?

Water may be stored on site in plastic containers for domestic purposes, up to a maximum of 5 m^3/day.

WASTE TREATMENT AND DISPOSAL

33. Describe the characteristics, quantities, treatment and disposal methods for:

- X Camp Sewage (blackwater)

Camp sewage will be contained in Pacto toilet and burned in a two stage incinerator. As the treatment system for sewage is attached to the input, the camp sewage will contain only raw sewage. _____

- X Camp Greywater

Camp greywater will be disposed in a natural depression or sump located a minimum of 30 m from any water body. The volume of grey water will equal the volume of water used for domestic purposes in the camp, 5 m^3/day. The camp will use only biodegrable soaps and detergents.

X Solid Waste

Camp combustible solid waste, paper products, paperboard packaging, untreated wood, food wastes and food packaging will be burned in a two stage incinerator at camp (Environmental Guideline for the Burning and Incineration of Solid Waste GN, 2010) and the ash will be back hauled to Hall Beach or Repulse Bay.

X Bulky Items/Scrap Metal

Camp non-combustible waste including bulky items/scrap metal will be back hauled to Hall Beach/ or Repulse Bay for disposal at the Hamlet landfill. All necessary tipping fees and access will be negotiated with the Hamlet prior to disposal (not anticipated).

X Waste Oil/Hazardous Waste

Waste oil will be packaged in sealed plastic containers, clearly labeled and backhauled to approved facility (Yellowknife).

X Empty Barrels/Fuel Drums

Empty fuel drums will be backhauled to Hall Beach or Repulse Bay, for disposal at an appropriate facility.

☐ Other:

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34. Please describe incineration system if used on site. What types of wastes will be incinerated?

Combustible solid waste, paper products, paperboard packaging, untreated wood, food wastes and food packaging will be burned in a two stage incinerator at camp (Environmental Guideline for the Burning and Incineration of Solid Waste GN, 2010)

35. Where and how will non-combustible waste be disposed of? If in a municipality in Nunavut, has authorization been granted?

Non-combustible waste including bulky items/scrap metal will be backhauled to Hall Beach or Repulse Bay for disposal at the Hamlet landfill. All necessary tipping fees and access will be negotiated with the Hamlet prior to disposal.

36. Describe location (relative to water bodies and camp facilities) dimensions and volume, and freeboard for all sumps (if applicable).

Locations of sumps/natural depressions to be used for disposal of greywater and drill cuttings/water have not been selected at this time. All sumps/natural depressions used during the project will be located a minimum of 30 m from the high water mark of any water body and the locations of all sumps will be recorded and photographs taken according to the Closure and Restoration Plan.

37. Will leachate monitoring be done? What parameters will be sampled and analyzed, and at what frequency?

No.

OPERATION AND MAINTENANCE

38. Have the water supply and waste treatment and disposal methods been used and proven in cold climate? What known O&M problems may occur? What contingency plans are in place?

Yes, all the water supply and waste treatment and disposal methods have been used and proven in the North. The technologies have been used in the North under similar conditions as the project is proposing, remote mineral exploration project.

ABANDONMENT AND RESTORATION

39. Provide a detailed description of progressive and final abandonment and restoration activities at the site.

The project Closure and Restoration Plan can be found in Appendix D of the application documents.

BASELINE DATA

40. Has or will any baseline information be collected as part of this project? Provide bibliography.

No baseline information has been collected. There are no plans to collect baseline information at this time.

- ☐ Physical Environment (Landscape and Terrain, Air, Water, etc.)
- ☐ Biological Environment (Vegetation, Wildlife, Birds, Fish and Other Aquatic Organisms, etc.)
- ☐ Socio-Economic Environment (Archaeology, Land and Resources Use,
- ☐ Demographics, Social and Culture Patterns, etc.)
- ☐ Other: _____

REGULATORY INFORMATION

41. At a minimum, you should ensure you have a copy of and consult the documents below for compliance with existing regulatory requirements:

- ✓ ARTICLE 13 – *NCLA -Nunavut Land Claims Agreement*
- ✓ NWNSRTA – *The Nunavut Waters and Nunavut Surface Rights Tribunal Act, 2002*
- ✓ *Northwest Territories Waters Regulations, 1993*
- ✓ NWB - Water Licensing in Nunavut - Interim Procedures and Information Guide for Applicants
- ✓ NWB - Interim Rules of Practice and Procedure for Public Hearings
- ✓ RWED – *Environmental Protection Act, R-068-93- Spill Contingency Planning and Reporting Regulations, 1993*
- ✓ RWED A Guide to the Spill Contingency Planning and Reporting Regulations, 2002
- ✓ NWTWB - Guidelines for Contingency Planning
- ✓ *Canadian Environmental Protection Act, 1999 (CEPA)*
- ✓ *Fisheries Act, RS 1985* - s.34, 35, 36 and 37
- ✓ DFO - Freshwater Intake End of Pipe Fish Screen Guideline
- ✓ NWTWB - Guidelines for the Discharge of Treated Municipal Wastewater in the NWT
- ✓ Canadian Council for Ministers of the Environment (CCME); Canadian Drinking Water Quality Guidelines, 1987
- ✓ Public Health Act - Camp Sanitation Regulations
- ✓ Public Health Act - Water Supply Regulations
- ✓ *Territorial Lands Act* and *Territorial Land Use Regulations*; Updated 2000