General Water Licence Application
(Application for a new Water Licence)

Document Date: May 2011

Application Submission Date:
06/28/2011
Month/Day/Year

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DOCUMENT MANAGEMENT

Original Document Date: April 2010

DOCUMENT AMENDMENTS

	Description	Date
(1)	Updated for public distribution as separate document from NWB Guide 4	June 2010
(2)	Updated NWB logos and reformatted table to allow rows to break across page	May 2011
(3)		
(4)		
(5)		
(6)		
(7)		
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(9)		
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GENERAL WATER LICENCE APPLICATION
(APPLICATION FOR NEW WATER LICENCE)

The applicant is referred to the NWB's Guide 4: *Guide to Completing and Submitting a Water Licence Application for a New Licence* for more information about this application form.

LICENCE NO:
(for NWB use only)

1. APPLICANT (PROPOSED LICENSEE) CONTACT INFORMATION (name, address)

Everett Makela, P.Geo
Vale Exploration Canada Inc.(Vale)
Highway 17 West
Copper Cliff, ON
P0M 1N0

Phone: _705-682-8412_____
Fax: _705-682-8243_____
e-mail: _everett.makela@vale.com_____

2. APPLICANT REPRESENTATIVE CONTACT INFORMATION if different from Block 1 (name, address)

Sarah Gagné, P.Eng
Golder Associates
#300, 10525 – 170 St
Edmonton, AB T5P 4W2

Phone: __780-930-8654_____
Fax: __780-483-1574_____
e-mail: _sarah_gagne@golder.com_____
(Attach authorization letter.)

3. NAME OF PROJECT (including the name of the project location)

Southampton Island Project, Southampton Island, NU

4. LOCATION OF UNDERTAKING

Project Extents

NW:	Latitude: 64°52'26" N	Longitude: 82°59'30" W
NE:	Latitude:64°43'39" N	Longitude: 82°30'26" W
SW:	Latitude: 64°30'28" N	Longitude: 82°59'12" W
SE:	Latitude: 64°30'31" N	Longitude: 82°29'28" W

Camp Location(s)

Latitude: (° ' " N) Longitude: (° ' " W)
Vale plans to have the field crews based out of Coral Harbour in 2011. Depending on the results of the 2011 program, Vale may setup a camp in 2012. If a camp will be setup the location of camp will be provided to NWB

5. MAP - Attach a topographical map, indicating the main components of the undertaking.

See Appendix B.

NTS Map Sheet No.: 46B and 46G Map Name: ____ Map Scale: NTS map scale: 1:250,000. Figures 1 and 2, scale shown on figures.

6. NATURE OF INTEREST IN THE LAND - Check any of the following that are applicable to the proposed undertaking (at least one box under the 'Surface' header must be checked).

Sub-surface

☐ Mineral Lease from Nunavut Tunngavik Incorporated (NTI)
Date (expected date) of issuance: _____ Date of expiry: _____

☐ Mineral Lease from Indian and Northern Affairs Canada (INAC)
Date (expected date) of issuance: _____ Date of expiry: _____

Surface

X Crown Land Use Authorization from Indian and Northern Affairs Canada (INAC)
Date (expected date) of issuance: August 15, 2011 Date of expiry: December 30, 2013

☐ Inuit Owned Land (IOL) Authorization from Kitikmeot Inuit Association (KIA)
Date (expected date) of issuance: August 15, 2011 Date of expiry: December 30, 2013

X IOL Authorization from Kivalliq Inuit Association (KivIA)
Date (expected date) of issuance: August 15, 2011 Date of expiry: December 30, 2013

☐ IOL Authorization from Qikiqtani Inuit Association (QIA)
Date (expected date) of issuance: _____ Date of expiry: _____

☐ Commissioner's Land Use Authorization
Date (expected date) of issuance: _____ Date of expiry: _____

X Other: Prospecting Permits (INAC) 7780, 7781, 7782, 8104 and 8105

7780, 7781, 7782,
Date (expected date) of issuance: Feb 2, 2009 Date of expiry: Feb 2, 2012

8104, 8105
Date (expected date) of issuance: Feb 1, 2011 Date of expiry: Feb 1, 2014

Name of entity(s) holding authorizations:
_____

7. NUNAVUT PLANNING COMMISSION (NPC) DETERMINATION

Indicate the land use planning area in which the project is located.

☐ North Baffin
☐ South Baffin
☐ Akunniq
X Keewatin
☐ Sanikiluaq
☐ West Kitikmeot

Is a land use plan conformity determination required?

X Yes ☐ No

If Yes, indicate date issued and attach copy _

NPC was contacted on June 16, 2011. NPC advice was to carbon copy NPC on the water licence application. This is sufficient information to conduct the conformity check. Once received from NPC, Vale will forward the results of the conformity check to the NWB.

If No, provide written confirmation from NPC confirming that a land use plan conformity review is not required.

8. NUNAVUT IMPACT REVIEW BOARD (NIRB) DETERMINATION

Is an Article 12 Part 4 screening determination required?

☐ Yes **X** No

If Yes, indicate date issued and attach copy _____
If No, provide written confirmation from NIRB confirming that a screening determination is not required.

Vale will forward written confirmation from NIRB to the NWB once it is received.

9. DESCRIPTION OF UNDERTAKING – List and attach plans and drawings or project proposal.

Project Description can be found in Appendix A. Site maps can be found in Appendix B.

10. OPTIONS – Provide a brief explanation of the alternative methods or locations that were considered to carry out the project.

Vale analyzed different methods for waste disopsal and determined that following the Government of Nunavut, Environmental Guideline for Burning and Incineration of Soild Waste would result in the least environmental impact to the site.

11. CLASSIFICATION OF PRIMARY UNDERTAKING - Indicate the primary classification of undertaking by checking one of the following boxes.

☐ Industrial ☐ Agricultural
XMining and Milling (includes exploration/drilling/exploration camps)
☐ Conservation
☐ Municipal (includes camps/lodges) ☐ Recreational
☐ Power ☐ Miscellaneous (describe below):
_____

See Schedule II of *Northwest Territories Waters Regulations* for Description of Undertakings.

Information in accordance with applicable Supplemental Information Guidelines (SIG) must be submitted with a New Water Licence Application. Indicate which SIG(s) are applicable to your application.

☐ Hydrostatic Testing
☐ Tannery
☐ Tourist / Remote Camp
☐ Landfarm & On-Site Storage of Hydrocarbon Contaminated Soil
☐ Onshore Oil and Gas Exploration Drilling
X Mineral Exploration / Remote Camp
☐ Advanced Exploration
☐ Mine Development
☐ Municipal
☐ General Water Works
☐ Power

12. **WATER USE -** Check the appropriate box(s) to indicate the type(s) of water use(s) being applied for.

X To obtain water for camp/ municipal purposes
☐ To obtain water for industrial purposes
☐ To cross a watercourse
☐ To alter the flow of, or store water
☐ To divert a watercourse
☐ To modify the bed or bank of a watercourse
☐ Flood control
X Other: ___Diamond drilling_

13. **QUANTITY AND QUALITY OF WATER INVOLVED -** For each type of water use indicated in Block 12, provide the source of water, the quality of the water source and available capacity, the estimated quantity to be used in cubic meters per day, method of extraction, as well as the quantities and qualities of water to be returned to source.

The water sources for the drill locations and potential camp have not been identified as the drill locations and site of the potential camp have not been selected. An appropriate water source capable of handling water withdrawls for the camp will be part of the selection criteria for the location of the potential camp.

Name of water source(s) (show location(s) on map):
To be determined

Describe the quality of the water source(s) and the available capacity: _____
To be determined

Provide the overall estimated quantity of water to be used:
16 (includes camp and drilling) m^3/day

Provide the estimated quantity(s) of water to be used from each source:
_To be determined

Indicate the estimated quantities to be used for each purpose (camp, drilling, etc.)
_15 m^3/day for drilling and 1 m^3/day for the camp.

Describe the method of extraction(s):
Submersible pump fitted with a screen to prevent the entrapment of fish

Estimated quantity(s) of water returned to source(s) ___0_____ m^3/day

Describe the quality of water(s) returned to source(s): ___N/A_____

14. **WASTE** – Check the appropriate box(s) to indicate the types of waste(s) generated and deposited.

XSewage
XSolid Waste
☐ Hazardous
☐ Bulky Items/Scrap Metal
☐ Animal Waste
☐ Other (describe): _____

x Waste oil
X Greywater
☐ Sludges
X Contaminated soil and/or water

15. QUANTITY AND QUALITY OF WASTE INVOLVED – For each type of waste indicated in Block 14, describe its composition, quantity in cubic meters/day, method of treatment and method of disposal.

Type of Waste	Composition	Quantity Generated	Treatment Method	Disposal Method
Sewage	Raw sewage	10 people for two to three weeks	Pacto toilet, incineration toilet or equivalent	Discharges from treatment method will be handled as non-combustible waste. Ash from incineration toilet will be disposed with ash from modified burn barrel.
Greywater	Domestic wastewater from camp, excluding sewage	Greywater generated will equal the volume of water used for the camp 1 m^3/day	All soaps and cleaners used in camp will be non-toxic and biodegradable.	All grey water will be directed to a sump or natural depression at a minimum of 30 m from the high water mark of any water body.
Solid waste (combustible)	Combustible solid waste, paper products, paperboard packaging, untreated wood, food wastes and food packaging	10 people for two to three weeks, approximately 1 m^3 for a three week drill program.	Burned in a modified burn-barrel as described in the Environmental Guideline for the Burning and Incineration of Solid Waste (GN, 2010) for a field camp (15 people or less).	Bottom ash from a modified burn barrel is suitable for burial in a designated pit. Vale will locate the designated pit at a minimum of 30 m from the high water mark of any water body.
Solid waste (non-combustible)	Non-combustible waste including bulky items/scrap metal	It is anticipated that very little will be generated 0.5 m^3 for three week program.		Back hauled to Coral Harbour for disposal at the Hamlet of Coral Harbour landfill. All necessary tipping fees and access will be negotiated with the Hamlet prior to disposal.
Waste Oil	Waste oil from drill maintenance	Small quantities <20 L		Waste oil will be packaged in sealed plastic containers, clearly labeled and backhauled to Coral Harbour for disposal.
Contaminated Soil and/or Water	From diesel spills	Hopefully none.		All contaminated soil, snow or water will be collected and stored in empty 205 L drums. The drums will be backhauled to Coral Harbour, depending on the level of contamination may be disposed for treatment at the Hamlet landfill or may be shipped south for disposal at an approved facility.

16. OTHER AUTHORIZATIONS – In addition to the sub-surface and surface land use authorizations provided in Block 6, indicate any other authorizations required in relation to the proposed undertaking. For each provide the following:

Authorization: _None_

Administering Agency: _____

Project Activity: _____

Date (expected date) of issuance: _____ Date of expiry: _____

17. PREDICTED ENVIRONMENTAL IMPACTS OF UNDERTAKING AND PROPOSED MITIGATION MEASURES - Describe direct, indirect, and cumulative impacts related to water and waste.

The proposed Southampton Island project will have minimal environmental impact. Vale has identified the following project activities with the potential to impact the environment: fuel storage, drilling and the potential camp. The potential impacts, mitigation measures and clean up procedures for fuel storage are described in the Spill Contingency Plan (Appendix C).

The potential environmental impacts from drilling include; the improper disposal of drill water, cuttings and used drill additives. The potential impacts to the environment are erosion from drill water and cuttings if they are not directed to a natural depression or sump, increased turbidity in a watercourse if the drill water and cuttings are disposed directly into a water body and potential contamination to the vegetation and soil if toxic drill additives are used.

For the camp, potential environmental impacts include contamination of the soil, vegetation and water from sewage and greywater associated with the camp, solid waste, including food wastes, attracting wildlife and impact on the tundra from the footprint of the camp.

To mitigate potential environmental impacts, Vale will direct all drill water and cuttings to a natural depression or sump a minimum of 30 m from the high water mark of any water body. All sumps/natural depressions will be backfilled when drilling the hole is complete. Vale will use only non-toxic drill additives.

The location of the camp will be selected in consultation with community members from Coral Harbour and the land administrator with the KIA. Vale will keep the footprint of the camp as compact as possible. All food wastes and burnable solid waste will be incinerated as recommended in the Government of Nunavut, Environmental Guideline for Burning and Incinerating Solid Waste (GN, 2010) for a field camp. All non-burnable, non-hazardous solid waste will be packaged and removed from the site to be disposed at the landfill in Coral Harbour. All sewage will be contained on site in either Pacto toilets or incinerator toilets. All grey water generated by a camp will be directed to a sump or natural depression at a minimum of 30 m from a high water mark.

The project is located in an area identified as high density denning area for polar bears, according to the Nunavut Wildlife Resource and Habitat Values Report, prepared by Jacques Whitford in October 2008, for the Nunavut Planning Commission. Pregnant female polar bears den in the fall and emerge between February and April with cubs. It is assumed that den fidelity is high (re-using the same den year after year).

As Vale plans to conduct a geophysical survey and potentially drilling in the fall of 2011, the following mitigation measures are proposed:

- Vale is planning on meeting with members of the Hunters and Trappers Association in Coral Harbour in the summer of 2011 prior to the exploration activities in 2011. At that time, Vale would like to discuss the project as well as discuss polar bear use of the project area.
- Vale will have a local (preferably from Coral Harbour) wildlife monitor on site at all times. The wildlife monitor will check in the vicinity of the drill sites for evidence of polar bear dens before drilling begins.

18. WATER RIGHTS OF EXISTING AND OTHER USERS OF WATER

Provide the names, addresses and nature of use for any known persons or properties that may be adversely affected by the proposed undertaking, including those that hold licences for water use in precedent to the application, domestic users, in-stream users, authorized waste depositors, owners of property, occupiers of property, and/or holders of outfitting concessions, registered trapline holders, and holders of other rights of a similar nature.

Advise the Board if compensation has been paid and/or agreement(s) for compensation have been reached with any existing or other users.

No other known persons or properties may be adversely affected by the proposed undertaking.

19. INUIT WATER RIGHTS

Advise the Board of any substantial affect of the quality, quantity or flow of waters flowing through Inuit Owned Land (IOL), and advise the Board if negotiations have commenced or an agreement to pay compensation for any loss or damage has been reached with one or more Designated Inuit Organization (DIO).

No substantial affect to the quality or quantity of flow of waters through Inuit Owned Land will result from the Project. A portion of the property is located on Inuit Owned Land, therefore Vale is currently applying to access land and use water on IOL.

20. CONSULTATION – Provide a summary of any consultation meetings including when the meetings were held, where and with whom. Include a list of concerns expressed and measures to address concerns.

Vale is planning community engagement meetings for the summer of 2011 with the Coral Harbour Hunters and Trappers Association, Hamlet Council of Coral Harbour and the Kivalliq Inuit Association (KIA) in Rankin Inlet. Vale will forward the results of the community meetings to the NWB once they are complete.

21. SECURITY INFORMATION

Provide an estimate of the total financial security for final reclamation equal to the total outstanding reclamation liability for land and water combined sufficient to cover the highest liability over the life of the undertaking. Estimates of reclamation costs must be based on the cost of having the necessary reclamation work done by a third party contractor if the operator defaults. The estimate must also include contingency factors appropriate to the particular work to be undertaken.

Where applicable, the financial security assessment should be prepared in a manner consistent with the principals respecting mine site reclamation and implementation found in the *Mine Site Reclamation Policy for Nunavut,* Indian and Northern Affairs Canada, 2002.

Vale estimates the financial security for the project to be $150,000.

22. FINANCIAL INFORMATION

Provide a statement of financial responsibility.

If the applicant is a business entity, provide a list of the officers of the company.

Caroline Thomas and Rodrigo Quental.

If the applicant is a business entity attach a copy of the Certificate of Incorporation or evidence of registration of the company name.

The evidence of registration of the company name can be found in Appendix E.

23. STUDIES UNDERTAKEN TO DATE - List and attach copies of studies, reports, research, etc.

There has been Government of Canada geological surveys in the area in 1967, 1972 – 1975, 2007 and 2008.

24. PROPOSED TIME SCHEDULE – Indicate the proposed start and completion dates for each applicable phase of development (construction, operation, closure, and post closure).

Construction
Proposed Start Date: _____ (month/year) Proposed Completion Date: _____ (month/year)

Operation
Proposed Start Date: _____ (month/year) Proposed Completion Date: _____ (month/year)

Closure
Proposed Start Date: _____ (month/year) Proposed Completion Date: _____ (month/year)

Post - Closure
Proposed Start Date: _____ (month/year) Proposed Completion Date: _____ (month/year)

For each applicable phase of development indicate which season(s) activities occur.

Construction
☐ Winter ☐ Spring ☐ Summer ☐ Fall ☐ All season

Operation
☐ Winter ☐ Spring ☐ Summer ☐ Fall ☐ All season

Closure
☐ Winter ☐ Spring ☐ Summer ☐ Fall ☐ All season

Post - Closure
☐ Winter ☐ Spring ☐ Summer ☐ Fall ☐ All season

Vale propose to mobilize to the site in early September 2011, conduct the geophysical surveys and drilling in mid-September and do a seasonal shutdown immediately following the program as per the Closure and Restoration Plan.

The schedule for 2012 will depend on the results of the 2011 program.

25. PROPOSED TERM OF LICENCE

Number of years (maximum of 25 years): _____3_____ years

Requested Date of Issuance: September / 2011_ (month/year) Requested Expiry Date:___December/2014___ (month/year)

(The requested date of issuance must be at least three (3) months from the date of application for a type B water licence and at least one (1) year from the date of application for a type A water licence, to allow for processing of the water licence application. These timeframes are approximate and do not account for the time to complete any pre-licensing land use planning or development impact requirements, time for the applicant to prepare and submit a water licence application in accordance with any project specific guidelines issued by the NWB, or the time for the applicant to respond to requests for additional information. See the NWB's *Guide 5: Processing Water Licence Applications* for more information)

26. **ANNUAL REPORTING –** If not using the NWB's *Standardized Form for Annual Reporting*, provide details regarding the content of annual reports and a proposed outline or template of the annual report.

Vale will use the NWB Standardized Form for Annual Reporting.

27. **CHECKLIST –** The following must be included with the application for the water licensing process to begin.

Written confirmation from the NPC confirming that NPC's requirements regarding land use plan conformity have been addressed.

☐ Yes X No If no, date expected _____July 2011_____

Written confirmation from the NIRB confirming that NIRB's requirements regarding development impact assessment have been addressed.

☐ Yes X No If no, date expected ____July 2011_____

Completed General Water Licence Application form.

X Yes ☐ No If no, date expected _____

Information addressing Supplemental Information Guideline (SIG) , where applicable (see Block 11)

X Yes ☐ No If no, date expected _____

English Summary of Application.

X Yes ☐ No If no, date expected _____

Inuktitut and/or Inuinnaqtun Summary of Application.

X Yes ☐ No If no, date expected _____

Application Fee of $30.00 CDN (Payee Receiver General for Canada).

X Yes ☐ No If no, date expected _____

Water Use Fee Deposit of $30.00 CDN (Payee Receiver General for Canada). The actual water use fee will be calculated by the NWB based upon the amount of water authorized for use in

accordance with the Regulations at the time of issuance of the licence.

X Yes ☐ No If no, date expected _____

28. SIGNATURE

Name (Print)	Title (Print)	Signature	Date
Danielle Léger	Administrative Supervisor	Danielle Léger	June 29, 2011

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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
E-mail:clare.goddard@vale.com

2. Project Manager: Everett Makela Tel: 705-682-8412 Fax: 705-682-8243
Email: everett.makela@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: September 2011 Completion: December 2014

Fall 2011 for two to three weeks from late August to early September, depending if/when water licence, land use permits are issued. 2012 to be determined based on 2011 program

CAMP CLASSIFICATION

6. Type of Camp

☐ Mobile (self-propelled)
☐ Temporary
X Seasonally Occupied: No camp in 2011. Potential for camp in 2012, depending on the results of the 2011 program, camp would be occupied in summer.
☐ Permanent
☐ Other:_____

7. What is the design, maximum and expected average population of the camp?
10 people

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

There has been Government of Canada geological surveys in the area in 1967, 1972 – 1975, 2007 and 2008. To the best of Vale's knowledge, those are the only geological surveys that have been conducted at the site.

CAMP LOCATION

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

There will be no camp built in the fall of 2011. A camp may be built in 2012 depending on the results of the 2011 program. The location of the camp has not been selected. If a camp will be built, Vale will notify the NWB, KIA and INAC of the proposed camp location.

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.

See above

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):

Coral Harbour, approximately 65 km southwest of the Project.

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

Vale is planning community engagement meetings for the summer of 2011 with the Coral Harbour Hunters and Trappers Association, Hamlet Council of Coral Harbour and the Kivalliq Inuit Association (KIA) in Rankin Inlet. Vale will forward the results of the community meetings to the NWB once they are complete.

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.

The project is located in an area identified as a high density denning area for polar bears, according to the Nunavut Wildlife Resource and Habitat Values Report, prepared by Jacques Whitford in October 2008, for the Nunavut Planning Commission. Pregnant female polar bears den in the fall and emerge between February and April with cubs. It is assumed that den fidelity is high (re-using the same den year after year).

As Vale plans to conduct a geophysical survey and potentially drilling in the fall of 2011, the following mitigation measures are proposed:
• Vale is planning on meeting with members of the Hunters and Trappers Association in Coral Harbour in the summer of 2011 prior to the exploration activities in 2011. At that time, Vale would like to discuss the project as well as discuss polar bear use of the project area.
• Vale will have a local (preferably from Coral Harbour) wildlife monitor on site at all times. The wildlife monitor will check in the vicinity of the drill sites for evidence of polar bear dens before drilling begins.

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

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 may use bentonite as a drill additive. The MSDS for bentonite can be found in Appendix C.

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 C.

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 C 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	10 drums (2,050 L)	3 drums (615 L)	15 drums (3,075 L)	5 drums (1,025 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.

WATER SUPPLY AND TREATMENT

26. Describe the location of water sources.

The water sources for the drill locations and potential camp have not been identified as the drill locations and site of the potential camp have not been selected. An appropriate water source capable of handling water withdrawals for the camp will be part of the selection criteria for the location of the potential camp.

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

X Domestic Use: 1 m^3/day Water Source: TBD

X Drilling: 15 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?

Drinking water will likely be brought in as bottled water and camp water will be used for other domestic purposes but not drinking water.

30. Will drinking water be treated? How?

N/A.

31. Will water be stored on site?

Water may be stored on site in plastic containers for domestic purposes, up to a maximum of 1 m^3/day.

WASTE TREATMENT AND DISPOSAL

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

X Camp Sewage (blackwater)

If there is a camp in 2012, camp sewage will be contained either in Pacto toilet, incineration toilets or equivalent. As the treatment system for sewage is attached to the input, the camp sewage will contain only raw sewage.

_____

X Camp Greywater

If there is a camp in 2012, camp greywater wil be disposed in a natural depression or sump located a minimum of 30 m for the high water mark of any water body. The volume of grey water will equal the volume of water used for domestic purposes in the camp, 1 m3/day. The camp will use only biodegrable soaps and detergents.

X Solid Waste

If there is a camp in 2012, combustible solid waste, paper products, paperboard packaging, untreated wood, food wastes and food packaging will be burned in a modified burn-barrel as described in the Envrionmental Guideline for the Burning and Incineration of Solid Waste (GN, 2010) for a field camp (15 people or less).

X Bulky Items/Scrap Metal

If there is a camp in 2012, non-combustible waste including bulky items/scrap metal will be back hauled to Coral Harbour for disposal at the Hamlet of Coral Harbour landfill. All necessary tipping fees and access will be negotiated with the Hamlet prior to disposal.

X Waste Oil/Hazardous Waste

Waste oil will be packaged in sealed plastic containers, clearly labeled and backhauled to Coral Harbour for disposal.

X Empty Barrels/Fuel Drums

Empty fuel drums will be backhauled to Coral Harbour, for disposal at an appropriate facility.

☐ Other:

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33. 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 modified burn-barrel as described in the Envrionmental Guideline for the Burning and Incineration of Solid Waste (GN, 2010) for a field camp (15 people or less).

34. 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 back hauled to Coral Harbour for disposal at the Hamlet of Coral Harbour landfill. All necessary tipping fees and access will be negotiated with the Hamlet prior to disposal.

35. 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.

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

No.

OPERATION AND MAINTENANCE

37. 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. If the modified burn barrel does not work as designed, all non-hazardous solid waste may be hauled to Coral Harbour for disposal at the Hamlet landfill. Vale would discuss these plans with the Hamlet prior to hauling any waste off the site.

ABANDONMENT AND RESTORATION

38. 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 C of the application documents.

BASELINE DATA

39. 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

40. 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