Aboriginal Affairs and Northern Development Canada | Affaires autochtones et Développement du Nord Canada

WATER LICENCE / LAND USE INSPECTION FORM

☒ Original
☐ Follow-Up Report

Licensee	Licensee Representative
Hornby Bay Mineral Exploration Ltd.	-
Licence No. / Expiry	**Representative's Title**
2BE-MOU1419	-
Land / Other Authorizations	**Land / Other Authorizations**
N2011C0007	
Date of Inspection	**Inspector**
13/07/2014	Eva Paul

Activities Inspected

☒ Camp ☒ Drilling ☐ Mining ☐ Construction ☐ Reclamation ☒ Fuel Storage
☐ Roads/Hauling ☐ Other: ☐ Other:

Conditions: A - Acceptable C - Concern U - Unacceptable NA – Not Applicable NI – Not Inspected

Water Use	Condition	Comment	Site Conditions	Condition	Comment	Haz/Mat Management	Condition	Comment
Intake/Screen	NI		Water Management Structures	U	2	Storage	U	2
Flow Measure. Device	NI		Culverts / Bridges	NA		Spills	U	4
Source: Mouse Lake	A		Drainage	A		Spill Plan	A	
Water Use:	NA		Erosion / Sediment	A				
Recirculation (y / n)	NA		Mitigation Measures	U	2	**Administrative**		
			Reclamation Activities	U	3	Records	NI	
			Materials Storage	U	1	Reports	A	
Waste Disposal			Signage	NA		Plans	A	
Waste Water	A					Notifications	A	
Solid Waste	U	1	**Monitoring**			**Other**		
Hazardous Waste	U	2	Sample Collection / Analysis	NA				

**The number in the comments field will correspond with specific comments provided below.*

Samples taken by Inspector:	Location(s):
☐ Yes ☒ No	

SECTION 1 ☒ **Comments** (s.1) ☒ **Non-Compliance with Act or Licence** (s.2) ☒ **Action Required** (s.3)

July 13 2014 was my first visit to Hornby Bay's Mouse Lake project. This project is not currently active, but work was done on the main camp in 2013. Three sites were visited: (A) Fuel Cache: N66°42'04.8 W115°45'37.9, (B) Fuel Cache and drill setup: N67°01'10.2" W115°54'19.3" and (C) Camp: N67°05'59.2" W115°44'17.7". These coordinates were provided by the company. A third fuel cache (D) at N67°13'35.0" W117°28'05.0" was inspected by RMO Baba Pedersen on August 8 2014. The findings are as follows:

1. Waste issues have resulted from improper materials storage and insufficient site management. At the drill site (B), a drill setup remains on site, and an emergency shack. The emergency shack has been ripped apart by bears, and supplies are strewn across the tundra. A pile of drill timbers were noted at approximately N67°03'12" W115°49'40", 5 km from the drill site en-route to camp. At the camp, litter is accumulating in the kitchen sump. With respect to materials storage, there are pallets and core boxes stored at the dock (at camp), and a shack also on the immediate bank of the lake within the high water mark. Propane tanks are stored by the shack.

2. Salt has been stored without sufficient protection from the elements, both at the drill site (B) and at the main camp. At the drill site, the salt is almost completely dissolved and has resulted in a large salt-burned area where the vegetation has died. Salt-impacted areas are difficult to remediate. There is evidence that this process is beginning at the camp as well, as vegetation is dying off near the salt stacks. All fuel at the site is expired; as old as 2008. Expired fuel is also considered hazardous waste, and this has not been removed from site. Fuel is not being monitored, contrary to the Licence and LUP. Remote fuel caches have no secondary containment, contrary to the LUP, and it is only by luck that the barrels have not leaked. Approximately 65 full barrels (mixture of Jet B, P50 and Diesel) were found at (A), 11 barrels of P50 and a red 'tidy tank' at (B), and 3 berms with an unknown number of full barrels at the camp (C). At site (D) Mr. Pedersen found 10 full and 7 empty barrels. While the barrels at the camp were found within secondary containment, the cap on the central berm's port was left off, therefore nullifying the containment. Berm covers are now ripped by wind and weather, allowing water to accumulate (and leak out the open port). I could not tell whether there have been any leaks within the berm, however, I capped the port prior to departure. Another item of concern is the heating oil system. Heating oil is contained in two single-walled 1100L tanks in the middle of the camp. These tanks (which currently contain fuel) have no secondary containment, and are built into tall, narrow structures that could easily be pushed over by bears. The hard piping coming off the tanks could also be broken off, or broken at any point in the network of pipes that runs throughout the camp. I understand that this system was implemented due to frequent spills associated with individual barrel stands; however I don't think an ideal solution has been reached. While the system is not large enough to trigger Environment Canada's *Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations*, I don't believe that due diligence has been exercised to prevent incidents when this system has been left unattended, particularly with fuel in it. Only one small spill kit was noted on-site.

3. The licence requires that the Licensee undertake progressive reclamation of components no longer required. Fuel caches (particularly expired fuel) and damaged facilities should be removed to prevent further spreading of waste or future spills.
4. Unprotected salt (CaCl) storage and lack of monitoring at the drill setup has resulted in a spill impacting the tundra. The Spill Contingency Plan has not been activated.

SECTION 2 ☐ **Comments** ☒ **Non-Compliance with Act, Licence, or LUP** ☐ **Action Required**

Water Licence 2BE-MOU1419

Part D Item 6: Failure to backhaul and dispose of hazardous waste.

Part E Item 1: Materials are stored on the immediate banks of the lake.

Part H Item 4: Failure to inspect fuel caches with sufficient frequency.

Part H Item 5: Failure to examine all fuel and chemical storage containers with sufficient frequency.

Part H Item 4: Failure to carry out progressive reclamation of the project components no longer required.

Land Use Permit N2011C0007

Item 22: Failure to maintain the land use area in a clean state.

Item 60: Failure to provide secondary containment for all fuels associated with this LUP.

Item 66: Failure to examine all fuel storage containers daily.

Item 67: Failure to mark all fuel storage facilities with flags or other warning signs.

SECTION 3 ☐ **Comments** ☐ **Non-Compliance with Act or Licence** ☒ **Action Required**

1. Removal of expired fuels from all fuel caches, and any other hazardous waste on-site.
2. Drill salt is to be moved into water- and weather-proof containment or removed from site.
3. A cleanup of the drill/cache site (B), and removal of the heavily salt-contaminated soil to prevent further spreading. Backfill the hole with clean material. The spill and waste disposal measures are to be documented and reported as per the Spill Contingency Plan.
4. Removal of all materials stored within 31m of the high water mark of Mouse Lake.
5. **Items 1-5 are to be carried out by November 15** and a report with photos of the completed work submitted to the Inspector by **November 30, 2014**.
6. Camp heating oil system is to be made compliant with the LUP. At a minimum, secondary containment or double-walled tanks are to be incorporated, and the system should be drained when not in use. **This work is to be undertaken by July 15, 2015**.
7. The Spill Contingency Plan, and Abandonment and Restoration Plan are to be modified to include preventive measures for the heating fuel system (for temporary shut-down and preventing spills). These Addenda are to be submitted by **March 31, 2015** with the 2014 Annual Report.

Licensee or Representative	**Inspector's Name**
Not in attendance	Eva Paul
Signature	**Signature**
-	Sent electronically
Date	**Date**
-	12/09/2014

APPENDICES: ☒ **Inspection Photos** ☐ **Sample Results** ☐ **Other:**_____

Office Use Only: Follow-up report to be issued by Inspector ☐ Yes ☐ No

CC: Phyllis Beaulieu, Manager of Licensing, NWB
Erik Allain, Manager of Field Operations, AANDC
Tracey McCaie, Manager of Land Administration, AANDC
Baba Pedersen, Resource Management Officer, Kitikmeot Region, AANDC