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January 24, 2014

Mr. Willard Hagen, Chair
Mackenzie Valley Land and Water Board
7TH FLOOR – 4910 50TH AVENUE
YELLOWKNIFE, NT X1A 2P6

Dear Mr. Hagen;

RE: December 2013 Monthly Report for Water Licence, MV2012L8-0010, Part B, Item 7

Aboriginal Affairs and Northern Development Canada (AANDC) was issued Water Licence MV2012L8-0010 (the Licence) on March 28, 2013 for water use and waste disposal associated with roaster complex deconstruction and underground stabilization at the Giant Mine. Part B, Item 7 of the Licence requires that the commitments made in the *Communications Plan for Duration of Site Stabilization Activities* (SSP Communications Plan) be fulfilled. One of the commitments in the SSP Communications Plan is to provide monthly updates to the Mackenzie Valley Land and Water Board and identified Parties during active operations.

If you have any questions or concerns, please contact the undersigned at (867)669-2425 or adrian.paradis@aandc-aadnc.gc.ca.

Sincerely,

Adrian Paradis
A/ Manager
Giant Mine Remediation Plan

c.c.: Nahum Lee, AANDC Inspector
Anne-Marie Guedon, AANDC Inspector
Jane Amphlett, AANDC Giant Mine Operations Manager
Distribution List

**GIANT MINE ROASTER COMPLEX DECONSTRUCTION
AND UNDERGROUND STABILIZATION**

WATER LICENCE MV2012L8-0010 – PART B, ITEM 7

SSP COMMUNICATIONS PLAN

MONTHLY REPORT

December 2013

TABLE OF CONTENTS

INTRODUCTION	2
REGULATORY MILESTONES	3
ROASTER COMPLEX DECONSTRUCTION – PROGRESS UPDATE	3
UNDERGROUND STABILIZATION – PROGRESS UPDATE	3
ENGAGEMENT ACTIVITIES	4
MONITORING and INSPECTIONS.....	4
Health and Safety Inspections.....	4
Spill Events	4
Water Quality Monitoring.....	5
Sanitary Waste Management.....	5
Air Quality Monitoring	5
Wildlife Observations and Follow-Up Actions.....	6

INTRODUCTION

Water Licence MV2012L8-0010 (the Licence) was issued to Aboriginal Affairs and Northern Development Canada (AANDC) on March 28, 2013 for water use and waste disposal associated with roaster complex deconstruction and underground stabilization at the Giant Mine. Part B, Item 7 of the Licence requires that the commitments made in the *Communications Plan for Duration of Site Stabilization Activities* (SSP Communications Plan) be fulfilled. One of the commitments in the SSP Communications Plan is to provide monthly updates to the Mackenzie Valley Land and Water Board and identified Parties¹ during active operations.

The SSP Communications Plan requires that the monthly updates include the following items:

- Progress/status update of the work
- Summary of outcomes from environmental and health and safety related inspections
- Summary of outcomes from air and water quality monitoring

This report has been prepared for the Licence and describes activities that took place in December 2013.

¹ Parties identified in the SSP Communications Plan include the following:

Residents of Yellowknife, N'Dilo and Dettah	North Slave Métis Alliance
Yellowknives Dene First Nation	Lutsel K'e First Nation
Giant Mine Advisory Committee	NWT Métis Nation
Tlicho First Nation	City of Yellowknife
Back Bay Community Association	Alternatives North
Ecology North	Workers Safety & Compensation Commission
City Emergency Services	Media
Members of the NWT Legislature	Giant Mine Community Alliance
Federal and territorial government agencies and inspection agencies, including Government of the Northwest Territories, Fisheries and Oceans and Environment Canada	

REGULATORY MILESTONES

A list of major regulatory milestones and activities is provided in the table below for reference purposes.

DATE	DESCRIPTION OF LICENSING ACTIVITY
December 17, 2013	<ul style="list-style-type: none">Application to MVLWB for tarping insert added to the winter containment procedures for arsenic impacted waste described in the approved Roaster Complex Deconstruction Waste Management Plan (WMP).

ROASTER COMPLEX DECONSTRUCTION – PROGRESS UPDATE

During the month of December 2013 the following activities occurred:

- Deconstruction and decontamination activities were completed for the construction season during November 2013.
- Three site inspections were conducted on December 6, 17, and 24, 2013. The inspections were completed by Parsons, AECOM and Nahanni personnel. The buildings were inspected for tears and gaps in the poly cover and shrink wrap on critical barriers. Maintenance issues that were identified in early December were addressed in early December. Additional gaps and tearing were noted in later inspections and will be addressed during in early January. No concerns were noted in the Material Storage Area during the inspections.
- Land Inspector was present on site on December 20, 2013 and requested the non-hazardous steel debris that was stored on site be transferred to Material Storage Area. This was completed by December 21, 2013.
- In addition to the inspections completed above, Nahanni has also been conducting ongoing periodical inspections and reporting.

UNDERGROUND STABILIZATION – PROGRESS UPDATE

During the month of December 2013 the following activities occurred for the Underground Stabilization:

B1-18 Stope Paste Back Filling Program

- 11,000 of an estimated 15,000 cubic meters of paste has been delivered to date, significantly reducing the risk of ground surface collapse at B1-18, as well as stopes under or in the vicinity of Baker Creek. Work finished for the season on 20-Dec-13.

Drilling

- All required drilling of paste delivery and monitoring holes have been completed for Stope B1-18

- The drillers are continuing to drill paste delivery and monitoring holes at Stope B3-06 and C5-09.
- The contract for the balance of drilling requirements for the UG has been awarded to McCaw North Drilling. This drilling is required to inform the design of the paste production and delivery program for FY 14/15 and 15/16.

Paste Testing

- All paste testing with cement and tailings has been completed for the voids in and around Stope B1-18.
- Expanding foam testing has also taken place and the resulting data has been logged for future use.
 - The remaining paste testing was completed the week of 17-Dec-13, which included all of the various binders.

ENGAGEMENT ACTIVITIES

Engagement Activity/Target	Number	Type
Public Events	0	City Council, Working Group, GMCA
Information Distribution	7	Meetings, E-newsletter, e-mails
Site Tours	1	YKDFN
Media Interactions (based on # of media involved)	8	Interviews, site tour, emailed responses

MONITORING and INSPECTIONS

Health and Safety Inspections

- 0 loss time incidents
- 0 first aid incidents
- 0 Property Damage

Spill Events

No spills of a reportable volume occurred during the reporting period.

Water Quality Monitoring

No waste water sampling was conducted during this reporting period.

Sanitary Waste Management

There were no discharges in the month of December. The following table presents a summary of all the project discharges during the 2013 construction season.

Sanitary Wastewater Discharged to Date to the Dettah Sewage Lagoon

Date	Volume (Liters)
July 25, 2013	3,000
August 9, 2013	3,785
August 16, 2013	2,650
August 23, 2013	3,785
August 30, 2013	3,040
September 6, 2013	4,921
September 13, 2013	4,543
September 18, 2013	5,300
September 27, 2013	4,921
October 4, 2013	5,300
October 11, 2013	5,300
October 18, 2013	5,300
October 25, 2013	4,164
November 1, 2013	3,785
November 8, 2013	3,785
November 15, 2013	3,785
Total for Project	67,364

Air Quality Monitoring

Air Quality Monitoring was not conducted for the roaster work area perimeter for the month of December due to no construction activities occurring during this reporting period.

Air Quality Monitoring continued for the fenceline and community programs during the month of December.

The following provides a summary of the fenceline monitoring data collected for the month of December:

- There were 17 (seventeen) 15-minute average concentrations exceeding the fenceline PM10 RBAL concentration of 159 µg/m³ and there were 4 (four) 15-minute average concentrations exceeding the fenceline TSP RBAL concentration of 333 µg/m³. On December 12, 2013 exceedances were attributed to an ice fog event. There were no on-site activities reported in the area of the monitors at the time and weather conditions included cold temperatures and visible ice fog. On December 13, 2013 exceedances were also attributed to ice fog, however heavy truck traffic may have contributed to the PM10 concentrations at Site C as well (SLR, Dec 2013).
- Fenceline monitoring ended December 14, 2013.

The following provides a summary of the community air monitoring data collected for the month of December:

- There were no PM2.5 24-hour average concentrations exceeding the Northwest Territories Ambient Air Quality Standard of 30 µg/m³
- There were no PM10 24-hour average concentrations exceeding the Ontario Ambient Air Quality Standard of 50 µg/m³
- Sampling for TSP (high volumetric air flow), PM10 (high volumetric air flow), asbestos, total inorganics (trace metals), and arsenic for a twenty-four hour period is conducted every three (3) days. Sampling of these parameters has been ongoing since June 24th, 2013. There were no exceedances of any parameter for the month of December. Analytical data is available up to and including December 15, 2013 for TSP, PM10, total inorganics (trace metals), arsenic and asbestos. Results are one to several orders below criteria or below laboratory detection limits.

Community monitoring and sampling continues throughout the winter months. Hi-vol 24-hour sampling has been reduced from a 3 to 6 day cycle during the inactive construction season.

Wildlife Observations and Follow-Up Actions

There were no wildlife observations during this reporting period.