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September 13, 2013

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

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

Dear Mr. Hagen:

Aboriginal Affairs and Northern Development Canada (AANDC) was issued a 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 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 the 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,

Tara Kramers for
Adrian Paradis
Regulatory Manager
Giant Mine Remediation Project

Encl. August Report

cc.: Clint Ambrose, AANDC Inspector
Jane Amphlett, AANDC Giant Mine Operations Manager
Distribution List

Canada

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

**WATER LICENCE MV2012L8-0010 – PART B, ITEM 7
SSP COMMUNICATIONS PLAN**

MONTHLY REPORT

August 2013

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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 August 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
August 7, 2013	<ul style="list-style-type: none">• Underground Stabilization Work Plan and Waste Management Plan were submitted to the MVLWB for approval.

- Throughout August - The MVLWB's review of the Field Paste Test Work Plan remained ongoing.

ROASTER COMPLEX DECONSTRUCTION – PROGRESS UPDATE

During the month of August, 2013 the following activities occurred:

- Daily dust suppression activities occurred within the work area.
- Continued transporting waste containers to the temporary waste transfer areas.
- Continued with air monitoring and environmental inspections.
- Personnel received site and project orientation and technical training.
- Continued with abatement work at the AC Roaster including:
 - Removing equipment and debris
 - Removing and disposing of mineral waste
 - Deconstruction of Tank 24 and Tank 25
 - Opening access ports in the northwest corner flue network
- Continued with abatement work at the Cottrell Precipitator Building including:
 - Installing scaffolding and shrink wrapping
 - Removing asbestos and arsenic materials
 - Removing debris and construction materials
 - Removing transite paneling
- Continued with abatement work at the Baghouse including:
 - Cutting out filter bags
 - Containerizing and removing waste bags
 - Decontamination of flue piping
- Continued with abatement work at the Exterior Flues including:
 - Decontamination work
 - Removing aluminum flashing and fiberglass
 - Containerizing and removing waste bags
 - Severing connections to adjacent buildings
- Continued with abatement work at the Arsenic Silo Building including:
 - Completing interior scaffold installation

- Continued deconstruction of the Stack including:
 - Deconstructed Stack to approximately 25 m above ground surface
 - Collecting and containerizing bricks
 - Transporting waste bags to temporary waste storage area
 - Deconstructing sampling shack
 - Commenced removal of sampling shack
- Performed dispersed oil particulate / poly alpha olefin testing to confirm the integrity of all of the HEPA filters in negative air units.
- Completed wet wipe samples in the lunch room and the decontamination units.
- Tested wastewater from treatment plant for disposal into Northwest Tailings pond.
- Continued with 100% arsenic urinalysis monitoring for workers.
- WSCC inspection on August 20, 2013.
- Ongoing site maintenance and cleaning.

UNDERGROUND STABILIZATION – PROGRESS UPDATE

- The procurement process for the underground stabilization was unsuccessful in July, 2013.
- In August, 2013 Golder Associates Ltd. was hired to design the backfilling program and the Interim Construction Manager (Clark Builders) to implement the work.
- The Project has submitted their responses to comments from stakeholders on both the Paste tests, as well as the main Interim Underground Site Stabilization Plan to the MVLWB.
- The drilling contract has been awarded to Tli Cho / McCaw North with drilling to begin in mid-September 2013.

ENGAGEMENT ACTIVITIES

Engagement activities that were carried out during the reporting period are summarized in the table below.

Engagement Activities Completed During the Reporting Period

Engagement Activity/Target	Number	Type
Public Events	2	City Council, working group
Information Distribution	4	Meetings, E-newsletter, e-mails
Site Tours	1	Film maker documenting deconstruction

Media Interactions (Based on # of media involved)	9	Interviews, site tours, email responses
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MONITORING and INSPECTIONS

Health and Safety Inspections

- 0 loss time incidents
- 3 first aid incidents:
 - 1) Worker suffered sprained ankle walking across roof of AC Roaster (August 8, 2013)
 - 2) Worker punctured right palm while moving boards (August 14, 2013)
 - 3) Worker obtained small abrasion striking hand on door hinge (August 19, 2013)

Spill Events

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

There was one case of a waste containment bag leaking at the waste staging area on August 8, 2013. The liquid impacted soil was excavated and containerized and the leaking bag was repaired.

Water Quality Monitoring

Waste water sampling:

- Samples were collected from the holding tank in the decontamination showers on 2013-08-05 and 2013-08-17. All results were Non Detect for oil and grease.

Air Quality Monitoring

A tiered ambient air quality monitoring program made up of three distinct parts has been implemented at the Giant Mine site. The three parts to the air quality program include roaster work area perimeter monitoring, fenceline monitoring and community monitoring.

The following sections provide a summary of the fence-line and community air monitoring data collected during the month of August.

- 15-minute average concentrations exceeding the fenceline PM10 RBAL concentration of 159 µg/m³ and the TSP RBAL concentration of 333 µg/m³ were measured a total of thirteen times between August 13th and August 14th at several stations. All exceedances were attributed to regional forest fires as reported by Natural Resources Canada. No exceedances were otherwise recorded.
- There were seven PM2.5 24-hour average concentrations exceeding the Northwest Territories Ambient Air Quality Standard of 30 µg/m³ between August 13th to 15th at the community

monitoring stations All exceedances were attributed to regional forest fires as reported by Natural Resources Canada. No exceedances were otherwise recorded.

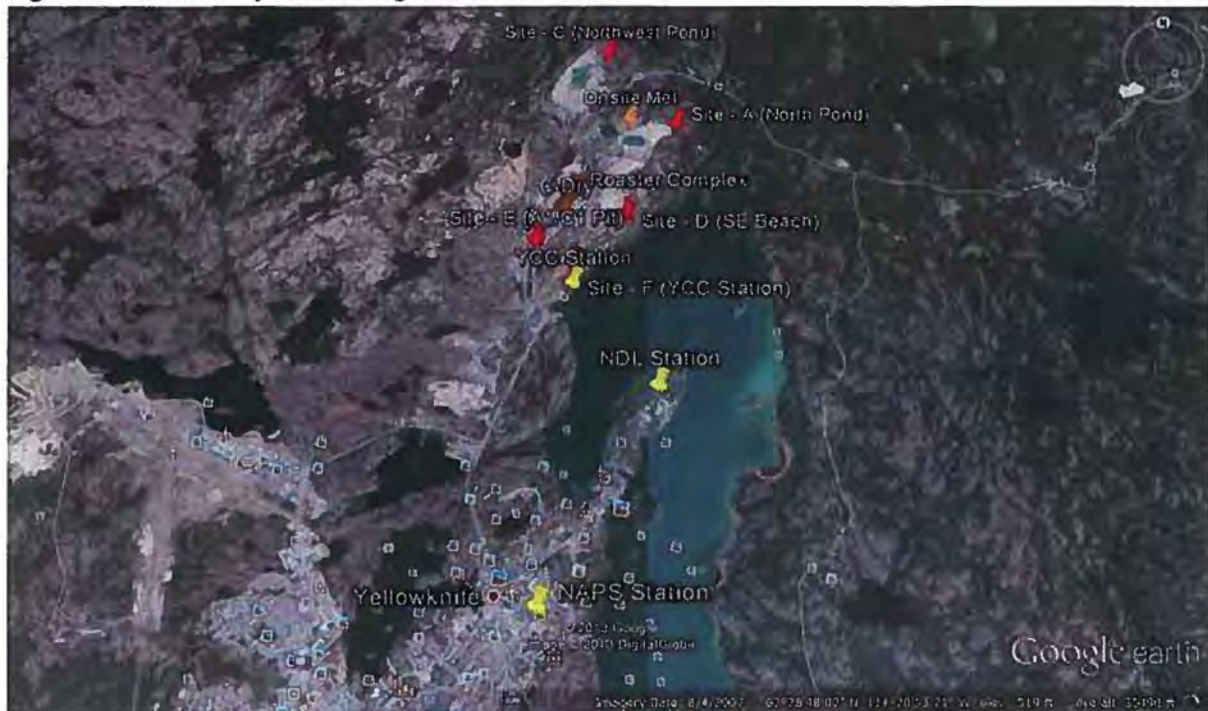
- There were four PM10 24-hour average concentrations exceeding the Ontario Ambient Air Quality Standard of 50 µg/m³ August 13th and 14th at the community monitoring stations. All exceedances were attributed to regional forest fires as reported by Natural Resources Canada. No exceedances were otherwise recorded.

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. Results have been received up to August 8th with no exceedances of any parameter and with the majority of results being below laboratory detection limits and one to several orders below criteria levels.

Figure 1: Fenceline Monitoring Station Locations



Figure 2: Community Monitoring Station Locations



Wildlife Observations and Follow-Up Actions

- Swallows and ravens continue to be observed in the vicinity of the site. The birds were not observed using the roaster complex buildings by the roaster contractor.
- Ravens were observed flocking on the roaster complex buildings during off-hours. The bird deterrents calls in place around the roaster complex were reconfigured and are being monitored to evaluate their effectiveness.
- The American kestrel nest which was identified in mid-July was vacated by 2013-08-07. Once confirmed that the nest was vacated, Parsons received authorization from PWGSC on 2013-08-09 to proceed with abatement work in the area.
- A fox and squirrel have been spotted in the area but tend to stay away from any activity on site.