

NWB Annual Report

Year being reported: ▼

2023

License No: Issued Date:
 Expiry Date:

Project Name:

Licensee:

Mailing Address:

Name of Company filing Annual Report (if different from Name of Licensee please clarify relationship between the two entities, if applicable):

General Background Information on the Project (*optional):

Licence Requirements: the licensee must provide the following information in accordance with

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A summary report of water use and waste disposal activities, including, but not limited to: methods of obtaining water; sewage and greywater management; drill waste management; solid and hazardous waste management.

Water Source(s):	<input type="text" value="Aston River & tributaries"/>	
Water Quantity:	<input type="text" value="10 m<sup>3</sup>/day"/>	Quantity Allowable Domestic (cu.m)
	<input type="text" value="1.50 m<sup>3</sup>/day (average) = 154.22 m<sup>3</sup>"/>	Actual Quantity Used Domestic (cu.m)
	<input type="text" value="289 m<sup>3</sup>/day"/>	Quantity Allowable Drilling (cu.m)
	<input type="text" value="10 m<sup>3</sup>/day (average) = 322.03 m<sup>3</sup>"/>	Total Quantity Used Drilling (cu.m)

Waste Management and/or Disposal

- Solid Waste Disposal
- Sewage
- Drill Waste
- Greywater
- Hazardous
- Other:

Additional Details:

Camp water was drawn from the Aston River for cooking and cleaning. Drinking water was purchased and flown in from Yellowknife/Resolute in 5 gallon jugs. A filtering system was added for the summer program to use the local water for drinking.

During the spring program, the Aston River was frozen through, so water could not be drawn. Water was instead drawn from a lake above the camp, at approximate coordinates 73°40'05" N latitude and 94°27'17" W longitude. A mesh screen was in place at all times over the pump intake to ensure fish were not entrained. Water was only taken from this location so long as the Aston River was frozen through, and camp supply was drawn from the Aston River for the whole of the summer program. A total of 66.25 m³ of water were drawn from the lake and flown to the camp in the spring between April 11 and May 28, 2023, averaging 1.38 m³ per day.

A total of 87.97 m³ of water was drawn from the Aston River for camp use between July 7 and August 25, 2023, averaging 1.59 m³ per day . During this time running water, laundry and showers were available in camp. Water was drawn from the river using a 5.5 HP gas powered pump or an electric trash pump. The pump intake hose was equipped with a mesh screen to ensure fish were not entrained. When in use, during fueling or in transit, the pump was placed in a plastic spill tray. When not in use, the pump was stored in camp within secondary containment. No fuel was stored at the pump site and all fueling was completed in camp. Water volumes were measured using markings on the water storage tanks at 50-gallon increments. The volumes were recorded in a daily log by the camp foreman (Appendix 4 in 2023 CIRNAC Annual Report).

Grey water from the kitchen and each dry was piped to excavated sumps behind the buildings and over 100 m from the nearest water body. A grease trap was used for the kitchen sump. The trap was emptied as needed and the contents were sealed in 5 gal. The grease trap was removed from site at the end of the 2022 program. No leaks or overflows were observed in any of the sumps.

All combustible wastes were incinerated on site using a batch feed dual-chamber controlled air incinerator. Any residual waste (ash) was sealed in 5-gallon metal pails. Pacto toilets were used to collect sewage. All pacto bags were incinerated on site using a batch feed dual-chamber controlled air incinerator.

Water for the drill was drawn from a tributary of the Aston River. The drill was equipped with a flow meter to monitor water use. Approximately 10 m³ of water was used per day at the drill between July 10 and August 11, totalling 322.03 m³. The pump intake hose was equipped with a mesh screen to ensure fish were not ensnared.

Recirculation was used to minimize the amount of water used and cuttings deposited. Cuttings were allowed to settle in tanks prior to deposition. Water was syphoned off and reused, and cuttings were shovelled out of the tanks. All drill cuttings collected were placed in natural sumps as solids or, when possible, back down the open drill hole. Any drill casings that could not be removed were cut

down the open drill hole. Any drill casings that could not be removed were cut down to ground level and sealed. No artesian flow was encountered.

A list of unauthorized discharges and a summary of follow-up actions taken.

Spill No.: (as reported to the Spill Hot-line)

Date of Spill:

Date of Notification to an Inspector:

Additional Details: (impacts to water, mitigation measures, short/long term monitoring, etc)

During the annual inspection in 2020, a spill was identified by the CIRNAC Water Resources Officer. The spill was from a single 5-gallon container of non-hazardous, non-toxic drilling additive manufactured by AMC called CR 650. The spill was contained within the berm. Due to the remote location, difficulty accessing the site, time of year and the fact that the spill was contained within the berm, the cleanup was performed during the 2021 exploration program. All of the liquid within the berm was pumped into empty drums and allowed to settle. The water was then siphoned out into a natural sump and the settled drill fluids were burned on site in the incinerator. Photos are included in Appendix 3 of the 2021 CIRNAC Annual Report.

Revisions to the Spill Contingency Plan

Additional Details:

The Aston Bay Spill Prevention and Response plan was updated for the submission of the Water Licence renewal/amendment application on July 16, 2020.

Revisions to the Abandonment and Restoration Plan

Additional Details:

The Aston Bay Abandonment and Reclamation Plan was updated for the submission of the Water Licence renewal/amendment application on July, 16 2020.

Progressive Reclamation Work Undertaken

Additional Details (i.e., work completed and future works proposed)

Progressive reclamation included keeping work areas clean and removing wastes from work sites daily. All wastes were stored in appropriate containers for later incineration or removal. The same was inspected by the site supervisors for

incineration or removal. The camp was inspected by the site supervisors for cleanliness and any sign of contamination prior to the close of the field program. All sites were deemed acceptable.

Results of the Monitoring Program including:

The GPS Co-ordinates (in degrees, minutes and seconds of latitude and longitude) of each location where sources of water are utilized;

Additional Details:

See attached "GPS Coordinates" sheet

The GPS Co-ordinates (in degrees, minutes and seconds of latitude and longitude) of each location where wastes associated with the licence are deposited;

Additional Details:

See attached "GPS Coordinates" sheet.

Results of any additional sampling and/or analysis that was requested by an Inspector

Additional Details: (date of request, analysis of results, data attached, etc)

Any other details on water use or waste disposal requested by the Board by November 1 of the year being reported.

Additional Details: (Attached or provided below)

Any responses or follow-up actions on inspection/compliance reports

Additional Details: (Dates of Report, Follow-up by the Licensee)

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Any additional comments or information for the Board to consider

See attached "2023 CIRNAC Land Use Annual Report" for additional details
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Date Submitted:	March 27, 2024
Submitted/Prepared by:	Chris Livingstone
Contact Information:	Tel: 778-847-7450
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GPS Coordinates for water sources utilized

Source Description	Latitude			Longitude		
	° Deg	' Min	'' Sec	° Deg	' Min	'' Sec
Aston River tributary (drill)	73	38	38	94	11	33
Aston River tributary (drill)	73	40	53	94	11	24
Aston River tributary (camp)*	73	40	5	94	27	17
Aston River (camp)	73	39	31.5	94	27	11.5

GPS Locations of areas of waste disposal

Location Description (type)	Latitude			Longitude		
	° Deg	' Min	'' Sec	° Deg	' Min	'' Sec
Camp grey water sumps (4)	73	39	23.8	94	27	5.2
Drillhole ST23-01 (cuttings)	73	39	32.7	94	7	14.7
Drillhole ST23-02 (cuttings)	73	39	45.6	94	8	18.5
Drillhole ST23-03 (cuttings)	73	38	43.6	94	6	18.5
Drillhole ST23-04 (cuttings)	73	39	11.2	94	10	8.5
Drillhole SM23-01 (cuttings)	73	38	44.6	94	4	31.3
Drillhole SM23-02 (cuttings)	73	39	30.2	94	6	50.4
Drillhole SM23-03 (cuttings)	73	39	27.9	94	6	57.8

*During the spring program, the Aston River was frozen through. Water was instead drawn from a lake above the camp. A mesh screen was used on the pump intake at all times. Water was only taken from this location while the Aston River was frozen. Water was drawn from the Aston River for the whole of the Summer program.