



Telephone: 867-767-9187 ex. 24198  
Fax: 867-873-6230

September 25, 2023

Northwest Territories Power Corporation  
Box 2250  
Yellowknife, NT X1A 2P7

**Attention: Matt Miller**

<b>File Number</b>	<b>MV2019L1-0001</b>
<b>Type of Operation</b>	<b>CLASS A - INDUSTRIAL</b>
<b>Location</b>	<b>Jackfish Lake, NT</b>

Dear Mr. Matt Miller,

An inspection of the above noted operation was conducted on August 9, 2023 by Water Resource Officer Meaghan MacIntyre-Newell. Enclosed is a copy of the Industrial Water Use Inspection Report.

If you have any questions, please contact me at 867-767-9187 ex. 24198.

Sincerely,

Meaghan MacIntyre-Newell  
Water Resource Officer  
Environment and Climate Change  
North Slave Region

Cc: Scott Stewart – North Slave Regional Superintendent – ECC  
Wendy Bidwell – Senior Water Resource Officer – ECC  
Rick Walbourne – Water Regulatory Manager – ECC  
Tyree Mullaney – Tyree Mullaney – MVLWB



## INDUSTRIAL WATER USE INSPECTION REPORT

<b>LICENCE #:</b>	<b>MV2019L1-0001</b>	<b>EXPIRY DATE:</b>	<b>October 17, 2044</b>
<b>LICENCEE:</b>	<b>Northwest Territories Power Corporation</b>	<b>PREVIOUS INSPECTION:</b>	<b>September 1, 2022</b>
<b>COMPANY REP:</b>	<b>Matt Miller</b>	<b>INSPECTION DATE:</b>	<b>August 09, 2023</b>

### WATER SUPPLY

Source:	Jackfish Lake	Quantity Used:	>50,000 m <sup>3</sup> /day
Owner/Operator:	Northwest Territories Power Corporation	Meter Reading:	N/I

Indicate:     **A - Acceptable**     **U - Unacceptable**     **N/A - Not Applicable**     **N/I - Not Inspected**

Intake Facilities	A	Storage Structures	N/A	Treatment Systems	N/A	Recycling	N/A
Flow Meas. Device	A	Conveyance Lines	A	Pumping Stations	A	Chem. Storage	A
						Modifications	N/A

### **Water Supply Comments:**

Water at the Jackfish Diesel Power Plant is used to cool the diesel generators and is used in a closed-loop system. Due to low water levels in 2023, Jackfish has been required to supply more power than average years. Northwest Territories Power Corporation (NTPC) reports water use on a monthly basis. Flow meters have been installed for all water pumps to ensure water volumes are recorded accurately (Figure 1). Reported volumes in 2023 have not exceeded the maximum water use indicated in the Licence.

NTPC has purchased an additional diesel generator to support future power needs in low water years. The Inspectors will work with NTPC to ensure Licence requirements continue to be met.

### FUEL STORAGE

Indicate:     **A - Acceptable**     **U - Unacceptable**     **N/A - Not Applicable**     **N/I - Not Inspected**

Owner:	NTPC	Operator:	NTPC	Condition of tanks:	A
Berms & Liners	A	Water within Berm:	N/A	Evidence of Leaks:	N/A

Drainage Pipes	N/A	Pump Station and Catchment Berm	A	Runoff Diversion	A
Pipeline Condition	A				



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### Fuel Storage Comments:

Jackfish has to store large volumes of diesel to operate the diesel generators as needed. The bulk fuel storage tank was inspected, and no concerns were noted. There was no evidence of leaks, no water within the storage berm, and appropriate spill supplies were present at refueling locations (Figure 2 & Figure 3)

### SURVEILLANCE NETWORK PROGRAM

Samples Collected Licencee	No
Samples Collected ENR	No

Signs Posted: SNP	Yes*	Warning	Yes
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### Surveillance Network Program Comments:

NTPC reports SNP sampling results on a monthly basis and there has not been any exceedances recorded in 2023. It is noted that there are some groundwater wells that do not have appropriate caps (Figure 4). Groundwater wells are capped to prevent any potential contaminants from entering groundwater and to ensure when the well is sampled, it is representative of conditions of the groundwater. The Inspector recommends checking all groundwater wells and ensuring each well on the property has an appropriate cap.

\*The Inspector notes that groundwater monitoring wells have appropriate signage. Flow measurement devices are not labelled as SNP stations. The Inspector recommends adding appropriate signage to these SNP stations where flow is measured to ensure the SNP stations are easy to locate, especially when there is turnover in personnel.

### GENERAL CONDITIONS/REPORTS/PLANS

Indicate:      **A - Acceptable**      **U - Unacceptable**      **N/A - Not Applicable**      **N/I - Not Inspected**

C &R Plan	N/A	Records & Reporting	A	Final Report	N/A
Geotechnical Inspection	N/A	Posting, Signage	A	Contingency Plan	A
Restorations Activities	A	Spills	N/A	O&M Plan	A
Maintenance	A	Modifications	N/A	Annual Report	A

### General Condition Comments:

No concerns were noted with regards to compliance with general conditions, reports, and plans.



## INDUSTRIAL WATER USE INSPECTION REPORT

### INSPECTION IMAGES

Figure 1 - Example of flow meter to measure water use







## INDUSTRIAL WATER USE INSPECTION REPORT

Figure 2 - Bulk fuel storage tank





### INDUSTRIAL WATER USE INSPECTION REPORT

Figure 3 - Spill supplies near bulk fuel storage







### INDUSTRIAL WATER USE INSPECTION REPORT

Figure 4 - Groundwater monitoring well without cap

