

**WATER LICENCE INSPECTION FORM**☒ Original
☐ Follow-Up Report

Licensee	Licensee Representative/ Title
Canadian North Resources Inc.	Trevor Boyd, Project Geologist
Licence No. / Expiry	Project
2BE-FER2227/March 1, 2027	Ferguson Lake Project
Land Authorization No. / Expiry	Location
KIA Lease	N62° 53' 35.5" W96° 54' 19.1"
Date of Inspection	Inspector
October 13-14, 2022	WRO K. Amsel
Activities Inspected	
<input checked="" type="checkbox"/> Camp <input checked="" type="checkbox"/> Drilling <input type="checkbox"/> Mining <input type="checkbox"/> Construction <input type="checkbox"/> Reclamation <input checked="" type="checkbox"/> Fuel Storage <input type="checkbox"/> Roads/Hauling <input type="checkbox"/> Other: <input type="checkbox"/> Other:	

SECTION 1	<input checked="" type="checkbox"/> Comments (s. __)	<input type="checkbox"/> Non-Compliance with Act or Licence (s. __)	<input type="checkbox"/> Action Required (s. __)
<p>On October 13 & 14, Water Resource Officer, Kyle Amsel (Inspector) and Resource Management Officer, Christine Wilson of Crown-Indigenous Relations and Northern Affairs Canada conducted a regularly scheduled compliance inspection of water licence no. 2BE-FER2227 (Licence). The Licence is issued to Canadian North Resources Inc. (CNRI) for mining related undertakings at the Ferguson Lake Project. The inspection was conducted to ensure compliance with the <i>Nunavut Waters and Nunavut Surface Rights Tribunal Act</i> and the terms and conditions of the Licence. Accompanying the Inspector was Project Geologist, Trevor Boyd of CNRI.</p> <p>Preliminary Information</p> <p>The 2021 annual report was submitted as required under Part B item 1. A completeness review was conducted of the annual report and the following concerns were noted as it relates to Part B item 1 (appendix 1).</p> <ol style="list-style-type: none"> Total water usage from Crown lands/ Inuit-owned lands must be indicated separately as per section a-c. Only one quantity as an average per day is provided. Waste is indicated to have been incinerated on site, though no quantity is provided as per section d. Waste is indicated to have been backhauled, though not quantity is provided as per section e. No details on sumps and drill holes was found in the annual report as per section k. No details on construction activities or planned construction activities as per section m. No details about the secondary containment is provided as per section n. No consultation/participation of local organization or community members is indicated to have occurred under section o. Notwithstanding the above noted concerns there are no instances of non-compliance with Part B Item 1 of the Licence at this time. <p>Observations</p> <ol style="list-style-type: none"> 29 people are currently working at site. The drilling campaign is complete for the season and the camp is going into seasonal closure. The camp is anticipated to re-open in spring 2023. Camp Site <ol style="list-style-type: none"> Spill no. 2022-436 is located South-south West of the camp at N62° 53' 10.5" W96° 54' 22.5". The spill was reported in August 2022 when a 205L drum of diesel fuel was found spilled to the ground when it was dropped from a helicopters sling. Remediation is underway though further clean-up is required, a sheen and smell of fuel is noted. Follow-up was provided to the Inspector as required by Part H, item 4(c). Waste water from the core shack is released from a pipe located on the side of the building into large garbage pails which are then emptied into a sump located at N62° 53' 35.5" W96° 54' 43.2". The waste water is exclusively from the core cutting saws. Waste water is being spilled to the ground at this location approximately N62° 53' 34.13" W96° 54' 18.2", improvement must be made to ensure proper management of drill waste as prescribed in Part F item 2. (photo 1) The camps grey water sump is located at N62° 53' 32.2" W96° 54' 23.3". Waste water from the kitchen, sinks, laundry and showers are deposited to this location as well as sewage from urinals in accordance with Part D item 9.(photo 2) During the summer months fresh water is withdrawn from Ferguson Lake and pumped into storage tanks inside 			



the camp by conveyance line. During the winter months fresh water is pumped into two holding tanks on a sled and is hauled up to the camp then transferred into the storage tanks. These tanks have a maximum capacity of 24m³ (photo 3), water is metered as consumed from these tanks in accordance with Part B item 4. This method is found to be satisfactory to the Inspector. Water use is recorded daily as required by Part J item 1. Water use records are posted and available for review.(photo 4)

- e. The representative indicated that drip trays are installed underneath equipment when being stored for winter in accordance with Part H item 3.

3. Drilling

- a. Three (3) drills were operated during the 2022 campaign. All the drilling is currently completed at this time.
- b. Drill casing are still present at a number of drill sites. As authorized in Part I item 11 the Licensee may leave drill casings in place at drill holes which are to be re-evaluated for up to two (2) years. The drill casing is to be appropriately signed to ensure public safety.
- c. Historical drill casing and anchors are observed at a number of locations in the west exploration area. These locations need to be remediated immediately as prescribed in Part I item 10.
- d. At the drill sites a wooden stake is placed to indicating 31 meters from the highwater mark of nearby water bodies. Some of the drill cutting sumps appear to have cutting in a location which could enter water (photo 5). The Licensee is reminded to ensure that cuttings are deposited over 31 meters from the high water mark of any water body as required by Part F Item 2. The representative indicated that they had experienced heavy precipitation (snow melt) in the week prior to the inspection. Locations that were once dry had water accumulation.
- e. Fresh water is withdrawn from sources proximal to the drills. Water usage at the drills is based on the maximum quantity the pump is capable of pumping per hour. This method is found to be unsuitable to the Inspector and does not meet the minimum requirements prescribed in Part B item 4.
- f. Water use records for drilling is available for review but is incomplete. The representatives indicated that the flow meters had broken during the spring campaign and no new device was installed. This is a failure to comply with Part J item 1.

4. Drill Laydown

- a. This site is located at N62° 52' 12.3" W96° 55' 24.2". The site is unkept and majority of the structure are in poor condition. The representative has removed some of the materials (e.g.: drilling equipment, structures and hazardous waste) and relocated them to camp. The Licensee is reminded that progressive reclamation of any components that are no longer required is required as prescribed in Part I item 3. (photo 6). A detailed plan for reclamation should be contemplated before the term of the next inspection.
- b. In 2020 a spill was observed at N62° 52' 9.768" W96° 55' 29" of a number unknown materials (e.g.: drilling grease, calcium chloride, soaps and hazardous waste) when a bear entered the structures. All of the materials of concern have been removed from the site and returned to the camp for disposal. The spill site has not been reclaimed and is still observed on the ground.

5. Historic Bulk Sample Location

- a. An area of concern in relation to acid rock drainage was noted in the 2020 and 2021 inspection report. This area is at a historic bulk sample site. The representative indicated that measure have been taken to prevent further weathering of the rock including monitoring of the run off water, capping of the location and installation of a silt curtain (photo 7).
- b. Field measurements for pH collected in nearby pooled water indicated a pH level of 3-4. Additional measurements collected at the nearby creek (above and below the area of concern) indicated a pH of 5. The representative indicated that baseline samples are available for review and would provide that information to the Inspector upon request.

6. Fuel Containment Area (FCA)

- a. The FCA is secondary containment berm is located at N62° 53' 31.3" W96° 54' 03.0" and is used to store hazardous waste and fuel.
- b. The HDPE liner is damaged in several locations (photo 8). The Licensee indicated that improvements would be made to the FCA during 2023.
- c. No water will be discharged from the FCA in 2022.

7. Waste Management

- a. Garbage is disposed of by incineration (photo 9) as permitted under Part D item 3.
- b. Waste will be backhauled in marine shipping containers from the camp to Baker Lake overland this winter. The waste will then be sent out for appropriate disposal on sealift in the future. The Licensee is reminded of the



- requirements under Part D item 5 regarding waste disposal in in Nunavut as well as requirements to record backhauled materials as prescribed in Part D item 8. These records will be requested during the next inspection.
- c. The representative indicated that empty fuel drums are backhauled by air to Yellowknife, NWT though no precise records are currently available for review. The Licensee is reminded to record all backhaul of waste as required by Part D item 8.

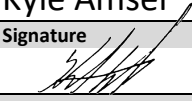
SECTION 2 ☐ **Comments (s. __)** ☒ **Non-Compliance with Act or Licence (s.2)** ☐ **Action Required (s. __)**

Non-compliance as it relates to the conditions of water licence no. 2BE-FER2227:

- Part B item 4: Failure to have suitable measuring device on fresh water intake at drill
- Part D item 8: Failure to maintain records of backhauled waste
- Part J item 1: Failure to record quantity of water used at the drills
- Part F item 2: Concern related to the management of drill waste at the core shack

SECTION 3 ☐ **Comments (s. __)** ☐ **Non-Compliance with Act or Licence, (s. __)** ☒ **Action Required (s.3)**

- The Licensee shall review the requirements for the Annual Report found in PART B item 1 (appendix 1) and establish an internal plan to gather/ record the necessary data during operations to meet those requirements 2023.
- The Licensee shall progressively remediate parts of the project which are no longer required for operation. This includes the drill laydown and the historical drill casing/anchors observed during the inspection.
- The Licensee shall install and maintain appropriate measuring devices for fresh water usage at the drills before any water is used in 2023.
- The Licensee shall record and develop a plan to maintain water usage records appropriately before any water is used in 2023 as required by Part J item 1.
- A follow-up inspection will be conducted to specifically ensure compliance with Part B item 4 and Part J item 1 during the 2023 spring drilling campaign.

Licensee or Representative	Inspector's Name
Trevor Boyd	Kyle Amsel
Signature	Signature
	
Date	Date
October 20, 2022	October 20, 2022

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



PHOTO LOG

Date:	Authorization Number:	Camera/Model:	Inspector
October 13-14, 2022	2BE-FER2227	Sony DSC-HX50V	WRO K Amsel
Photo No.	Lat/Long (DD.MM.SS.SS, NAD83)		
1	62° 53' 34.13"N 96° 54' 18.02"W		



Description:

Waste from Core Cutting saws outside core shack.



Photo No.

2

Lat/Long (DD.MM.SS.SS, NAD83)

Not available



Description:

Grey water sump



Photo No.

3

Lat/Long (DD.MM.SS.SS, NAD83)

Not available



Description:

Freshwater storage inside main camp



Photo No.	Lat/Long (DD.MM.SS.SS, NAD83)
4	Not available

Date	Tank	Usage
06	9.43 m³	4.33
07	24.74	1.79
08	22.95	4.95
09	18.00	2.95
10	15.05	3.32
11	11.73	2.30
12	9.43	1.53
13	24.48	4.33
14	22.95	1.53
15	18.62	4.33
Total	24.48	1.53

Description:
Water usage records of camp. Left most column is date, middle is volume inside tanks, right is usage for the day.



Photo No.	Lat/Long (DD.MM.SS.SS, NAD83)
5	62° 52' 22.54"N 96° 56' 8.56"W
 <p>14 10 2022</p>	
Description: Drill cuttings deposited at drill location.	



Photo No.

6

Lat/Long (DD.MM.SS.SS, NAD83)

62° 52' 11.42"N 96° 55' 24.28"W



Description:

Drill Laydown.



Photo No.

7

Lat/Long (DD.MM.SS.SS, NAD83)

62° 52' 13.31"N 96° 55' 23.88W



Description:

Silt curtain installed near historic bulk sample.



Photo No.

8

Lat/Long (DD.MM.SS.SS, NAD83)

62° 53' 31.73"N 96° 54' 2.75W



Description:

Fuel Containment Area, HDPE Liner exposed and torn in some locations



Photo No.

9

Lat/Long (DD.MM.SS.SS, NAD83)

62° 53' 30.36"N 96° 54' 11.34"W



Description:

Incinerator used to dispose of combustible garbage.