



Supplementary Information

Presentation from Orano Canada Inc.

In the Matter of the

Orano Canada Inc., Cluff Lake Project

Request to Revoke the Current Licence and
Release the Cluff Lake Project to the
Institutional Control Program

Commission Public Hearing

March 1, 2023

Renseignements supplémentaires

Présentation d' Orano Canada Inc.

À l'égard de

Orano Canada Inc., Projet de Cluff Lake

Demande visant à révoquer le permis pour le
projet de Cluff Lake et à transférer la propriété
au Programme de contrôle institutionnel

Audience publique de la Commission

1 mars 2023

Presentation to the Canadian Nuclear Safety Commission

Application to Revoke the Cluff Lake Project Mine Licence

March 1, 2023

Overview of Presentation

- Orano Overview
- Cluff Lake Project
- Licence Term – Accomplishments & Key Safety Control Areas
- Summary of Licence Request
- Institutional Control Program
- Engagement
- Other Regulatory Matters - Financial Assurance
- Conclusion

Orano Canada

- A **leader** in uranium exploration & processing
- Over **55** years in northern Saskatchewan; including uranium exploration, mining, milling and decommissioning
- **420** employees
- Corporate Office located in **Saskatoon** Saskatchewan
- Subsidiary of the Orano Group employing 16,000 worldwide



Decommissioned Cluff Lake Project

- located on Treaty 8 Territory and within the Homeland of the Métis
- site is remote, with unrestricted access
- primary, potential future use of the site is resource development and traditional land use
- discovered in mid '60's
- operated from 1980 – 2002
- majority of decommissioning occurred 2004 – 2006
- 2019 – regulators accept that the decommissioning objectives have been achieved



During licence term: Major Accomplishments

- Oct 2019: provided updated ecological risk and human health risk assessments, and Long Term Monitoring and Maintenance Plan (LTMMP)
- 2020: commence review of LTMMP with Indigenous leadership
- Progressive optimization of monitoring plan
- Jan 2020: reduction of surface lease
- Feb 2020: request to revoke licence
- May 2021: acceptance of LTMMP by MOE
- Jan 2022: acceptance of LTMMP by CNSC
- Annual environmental monitoring
- Bi-annual geotechnical inspections (2020 and 2022)
- October 2022: submission of End State Report
- Sept 2022: regulatory inspection and site tour



Safety Control Areas

- Key SCA's:
 - Radiation Protection
 - Conventional Health & Safety
 - Environmental Protection



Over the licence term Orano has received satisfactory ratings for the Cluff Lake Project SCA's from the CNSC staff

SCA: Radiation Protection

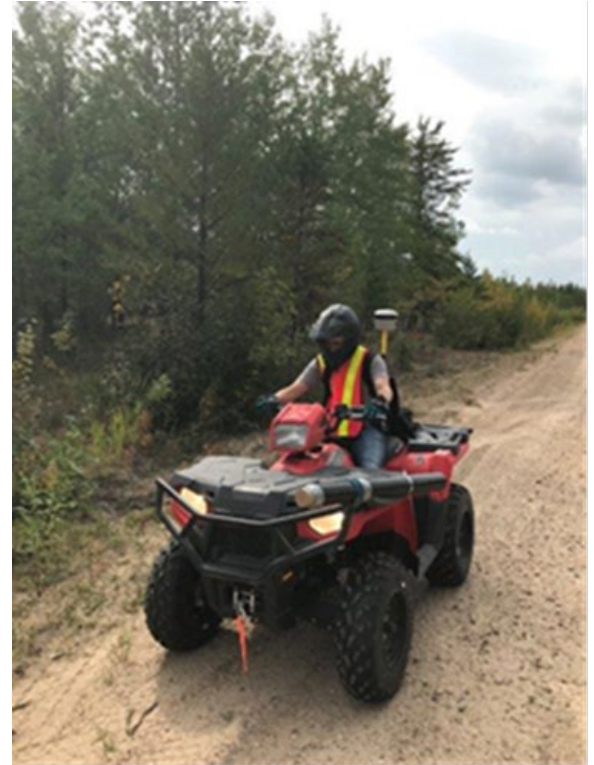
- Radiation sources have been removed or managed
- Site is at background levels
- Worker exposure has been at background for several years
- Dosimetry ceased in 2013



Radiation doses to workers or casual users of the site are well below the public dose limit of 1 mSv/year

SCA: Conventional Health & Safety

- Environmental field work conducted in compliance with Orano safety program and expectations.
- Program is reflective a low risk and unique challenges of a remote and isolated site
- 0 recordable injuries



SCA: Environmental Protection

- Program was optimized during the licence period to reflect the status of the site, i.e. decommissioning objectives have been met
- Decommissioning Surface Water Quality Objectives continue to be met
- Groundwater monitoring ceased in 2021
- Program resembles activities to be conducted by the province under the Long-Term Monitoring and Maintenance Plan (LTMMP)



Summary of Licence Request

1. Revoke the Cluff Lake Mine licence UML-MINEMILL-CLUFF.00/2024
2. Exempt the Province of Saskatchewan from requiring a licence

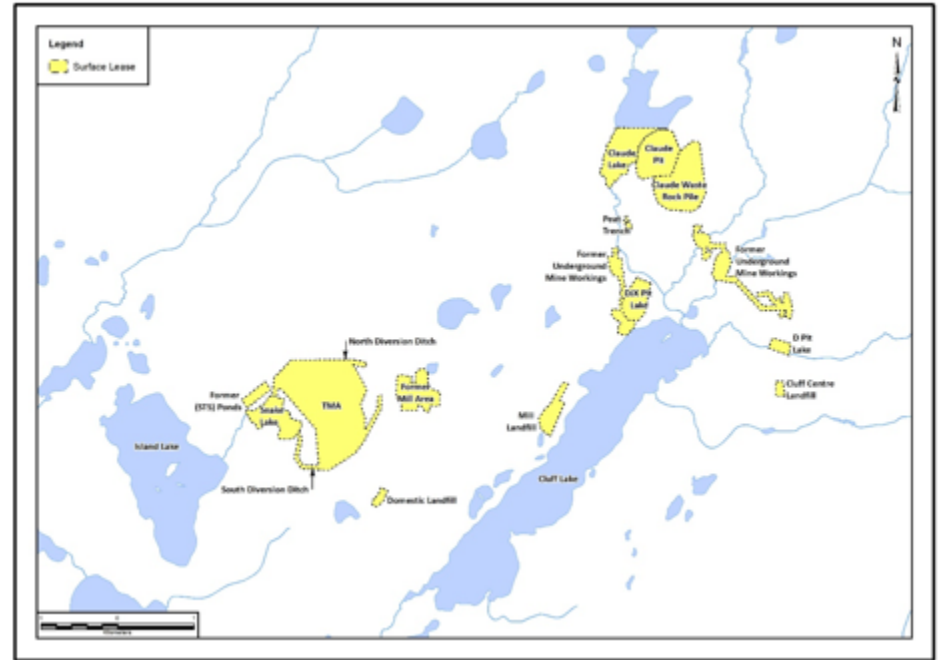
Enabling:

- the transfer of responsibilities to possess, manage, store radioactive waste at the decommissioned project to the Province of Saskatchewan
- relinquishment of the land lease by Orano with corresponding transfer of the property into the Province of Saskatchewan's Institutional Control Program

Decommissioning is Complete

Decommissioning Objectives

1. Achievement of surface water quality objectives (now and long-term) ✓
2. Levels of gamma, radon, and long-lived radioactive dust (LLRD) that pose no unacceptable risk to traditional land uses ✓
3. Reduction of infiltration rates around covered tailings and waste rock ✓
4. A site similar in appearance and land capability to that which existed prior to mining ✓
5. No unreasonable risk to humans or the environment ✓



Regulatory acceptance that decommissioning objectives have been achieved

Feb 2019: MOE

March 2019: CNSC Staff CMD 19-H3

July 2019: Commission Record of Decision

D-Pit Mining Area



Claude Mining Area



DJ Mining Area



Milling Area



TMA



Cluff Lake – Fall 2022



Cluff Lake – Fall 2022



Institutional Control Program

- Established by legislation in the Province of Saskatchewan
 - Reclaimed Industrial Sites Act
 - Reclaimed Industrial Sites Regulations
- Allows for the **transfer** of a decommissioned site, or portions of, back to the **Province** (as land owner)
- Ensures that the government has **adequate funds & site knowledge** to administer decommissioned sites
- Orano to provide:
 - Long-term monitoring and maintenance plan
 - Funding for the LTMMP
 - Funding for unforeseen events

Long-Term Monitoring and Maintenance

- **Long-term Monitoring and Maintenance Fund**
 - Administered by the Province of Saskatchewan
 - Program costs well understood
 - Funds provided by Orano
- **Environmental Monitoring**
 - Validate site is performing as predicted
 - Surface water quality is primary indicator of sustained decommissioning success
- **Geotechnical Inspections**
 - Ensure site is physically safe
 - Confirm stability of surface features



Ecological and Human Health Risk

Ecological Risk Assessment confirms Environmental Assessment conclusions:

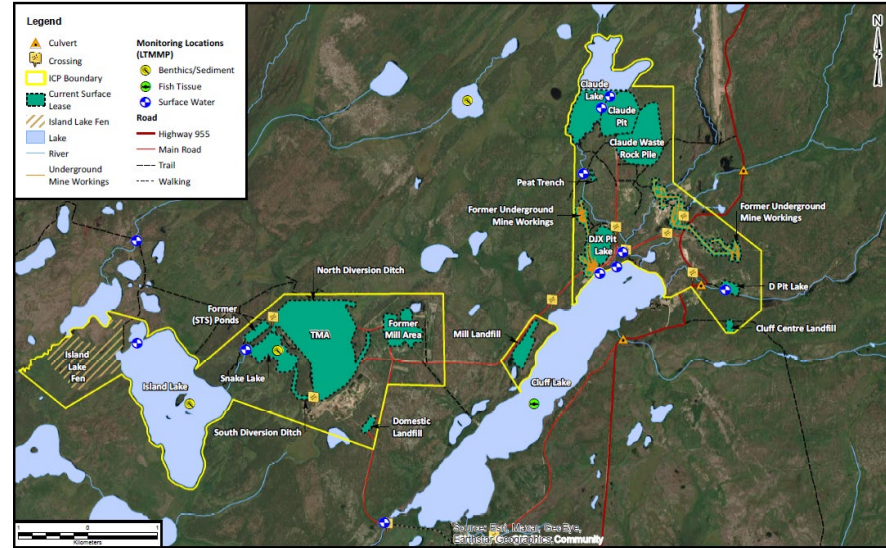
- that the effects of decommissioning are largely positive and the potential adverse effects are not significant
- potential adverse effects are moderate, localized, temporary, with recovery occurring over several generations
- no downstream impacts

Human Health Risk Assessment confirms:

- radiation doses will remain well below the CNSC dose limit of 1 mSv/year for members of the public
- continued safe use of the area for traditional land use, e.g. safe for hunting/harvesting, fishing, gathering, etc.

Land Use

- **No restrictions on traditional use of the land;**
- **No restrictions on consumption of water or fish at or near the Cluff Lake site**
- Orano recommends that the Province prevent land disturbance of decommissioning features (e.g. Tailings Management Area and Waste Rock Pile covers).
- Orano recommends that the Province restrict full time residency and industrial activities on areas transferred to Institutional Control Program



Public Information Program



Communication Events

Cluff Lake ERA Factsheet

Cluff Lake Then and Now Video (translated to Dene, and Michif)

Radio (translated to Dene, and Michif)

Social Media

Virtual Public Information Session



2020

2021

2022

2023

Indigenous Engagement

Regulatory Process

2019 Licence renewal (May 2019)

Updated Ecological & Human Health Risk Assessment (ERA/HHRA; Oct 2019)

Request to Revoke Licence (Feb 2020)

LTMMMP Development and Engagement (2020-2023)

End State Report (Oct 2022)

Public hearing

2020

- Engagement actions arising from 2019 Licence Renewal
- Engagement on the Request to Revoke Licence
- Results of October 2019 ERA and HHRA

2020-Q4/2021

- Introduction of LTMMMP and Monitoring locations sent with request to meet to discuss
- Request for co-develop 2021 Engagement plan

2022- Q1

- LTMMMP and Monitoring locations sent with request to meet to discuss (late 2021)- request for feedback by Jan 30, 2022
- Request for co-develop 2022 Engagement and communication plan

2022- Q2-Q4

- Capacity funding provided to number of rightsholders
- LTMMMP and Monitoring locations review by Indigenous communities (Q3 2022)
- Share CNSC Participant funding opportunity

2023

- Meeting as requested with rightsholders to respond to feedback

Rightsholder Engagement

Financial Assurance

- Upon revocation of the licence and transfer of property to ICP, the existing financial guarantees held by the Province of Saskatchewan will no longer be required



Conclusion

- **End-state decommissioning objectives have been met, and will continue to be met**
- **Province of Saskatchewan is prepared to accept the property into ICP**
- **Adequate funds will be provided by Orano to the Province to manage long-term monitoring and maintenance**





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Giving nuclear energy its full value