

Denison Closed Mines Community Newsletter

2020-2021 Update – Elliot Lake

Image: Bird in Grass, Mosse Lake Settling Pond

Serpent River Watershed Health and Safety



Following the end of mining in the 1990's, the Elliot Lake mining areas were decommissioned. The decommissioned mining areas are owned by Rio Algom and Denison Mines. Every five years, the two companies collaborate on a large study to evaluate the safety and stability of the decommissioned sites and surrounding areas (watersheds). The latest study results were compiled in 2020.

The review of the monitoring program and the monitoring results is performed by the Elliot Lake Joint Review Group (JRG) on a five-year cycle as part of the State of the Environment (SOE) reporting process. The JRG includes representatives of the federal regulators such as the Canadian Nuclear Safety Commission (CNSC) and provincial regulators such as the Ontario Ministry of the Environment Conservation and Parks (MECP). Since the closure of the mines, the monitoring program has gone through five review cycles, and is currently in the fifth cycle.

The latest study of the tailings management areas (TMAs) surface water, pore water and ground water data indicate that the TMAs are performing as predicted in the environmental assessment, with improving final effluent water quality. Water moving downstream of the TMAs is treated in the effluent treatment plants (ETPs). The effluent then travels through settling ponds where contaminants (such as radium) separate out from the effluent before it is released into the environment. The water released from the Denison/Stanrock sites continues to meet regulatory limits and quality standards. Water quality in Quirke Lake and further downstream in the Serpent River Watershed has recovered from past mining influence – the water quality resembles baseline (pre-mining) quality and meets surface water quality guidelines for the protection of aquatic life. There are no radiation safety concerns for the public.

The Facts: Denison Site

- Tailings: 2 water-covered tailings management areas, TMA-1 and TMA-2. 63 million tonnes of tailings covering an area of 280 hectares
- Effluent Treatment Plants: 2 ETPs (water treatment) built in 1992 with a capacity for treatment of peak flow at 600 litres per seconds (L/s) and a current maximum capacity of about 200L/s
- Mining: Operations started in 1957 and ended in 1992
- Production: 63 million tonnes of uranium ore

The Facts: Stanrock Site (owned by Denison)

- Tailings: 1 dry-cover tailings management area. 5.7 million tonnes of tailings covering an area of 52 hectares
- Effluent Treatment Plants: 1 ETP constructed in 1999, with a capacity of treatment for peak flow at 200L/s
- Mining: Operations started in 1958 and ended in 1990
- Production: 6.4 million tonnes of uranium ore



Ongoing regulatory compliance



~ 250 water samples/year on DMI sites



~ 300 km/day travelled on average by environmental staff collectively



697,121 hours worked without a lost time injury by Denison employees as of July 31, 2021. Congrats to the team for achieving this safety milestone.



~ 4,500 million litres of water treated annually depending on weather and treatment plant operation



5 year study rotation of fish, benthics (clams, worms, etc.), and aquatic plants



Diverse inspections throughout the year, including:

- 7-8 dam and facility inspections mostly during snow free conditions
- Quarterly plant health and safety inspections
- Annual culverts and shaft cap inspections
- Biennial (every two years) pole line inspections

In the Community

Denison values education and in that spirit has provided scholarships to local students. For the past two years, there were two scholarship recipients from the Serpent River First Nation School and two more from École Secondaire Villa Française des jeunes. We congratulate these students on their accomplishments so far and wish them all the best as they continue their studies.

Regulatory Oversight Report

The Canadian Nuclear Safety Commission reports on the safety performance of Canadian uranium mines and mills with a focus on radiation protection, environment, and health and safety.

The regulatory oversight report (ROR) is issued every two years for decommissioned mines.

For more information on the upcoming ROR visit the CNSC website at <https://nuclearsafety.gc.ca/eng/resources/publications/reports/regulatory-oversight-reports/uranium-mines-and-mills.cfm>

Satisfactory ratings at last ROR



Congratulations!

Although there are no longer hundreds of people working with Denison in Elliot Lake, there are still many local people employed. Jody Stefanich celebrated his 20th year of employment with Denison this year. Congratulations, Jody, on your 20 years of service, and thank you for your ongoing dedication!

And there are some who after decades of work have retired. This summer Don Rheaume retired from Denison after 35 years of service. Thank you very much Don for all that you have done over the years, it just won't be the same without you. Enjoy your well-deserved retirement!

Good to Know!

Over torquing vehicle wheels can lead to serious incidents. When changing from summer to winter tires or changing a flat tire, be sure to use the proper tools. Make sure you know the proper wheel nut torque level for your vehicle (check owner's manual) for safe operation. Use a torque wrench, which is designed to ensure you tighten the nut/stud to the right torque level and not beyond. Loose wheels are hazards for other vehicles and pedestrians on the road, in addition, of course, to the fact that losing a wheel would leave your vehicle on three wheels only!

Denison's team advice is: Do not over torque your wheels!

Denison in Saskatchewan

In addition to its activities in Elliot Lake, Denison also has uranium exploration and development projects in the Athabasca Basin region of northern Saskatchewan. Denison owns an effective 95% interest in the Wheeler River development project, which includes a proposed in-situ recovery (ISR) uranium mining operation, and a 22.5% interest in the McClean Lake Joint Venture, which operates the only active uranium mill in Canada.

You can learn more about Denison's activities in Canada and its latest news at www.denisonmines.com

Proceed with Caution



Access to the former Elliot Lake mine sites is restricted. Although some areas may look like nice walking trails, please remember that these are decommissioned sites that could present some industrial hazards. For your safety and that of our employees, please obey all signs and do not use the trails. These paths are restricted accesses for Denison's employees to perform their monitoring of the sites.

Contact Us

Due to the COVID-19 pandemic, we have changed our office hours and we now restrict in-person visits within our office. We are happy to chat over the phone or schedule an in-person visit.

Who do you call?

The following individuals can assist you or answer your questions:

Cheryl Ferguson Administrative Assistant

Call or email Cheryl in our Elliot Lake office if you have general questions or are not sure who to talk to.

Tel: 705.848.9191

Email: cferguson@denisonmines.com

Joshua Bowerman Operations Superintendent

Joshua is based in our Elliot Lake office and looks after the day-to-day performance of the operations.

Tel: 705.848.9191

Email: jbowerman@denisonmines.com