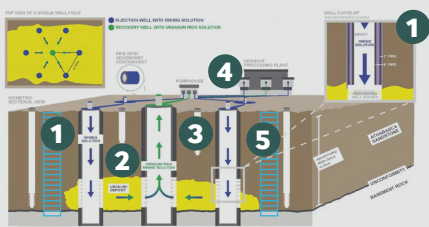


## Denison's Guiding Principles

- Denison recognizes and is deeply respectful of the fact that the Wheeler River project is located within the boundaries of Treaty 10, and is in the heart of the traditional territory of the English River First Nation, and in the homeland of the Métis of Saskatchewan
- Denison has the utmost respect for Indigenous communities, Indigenous Rights, and Indigenous knowledge
- We wish to share the land and to work in partnership
- Denison understands the importance of protecting the area in which we are working

## Key Components for the Project: In Situ Recovery (ISR) Mining *Introducing a proven mining technique to the Athabasca region*



## ISR is an Established Mining Method

- In Situ Recovery ("ISR") was first used in the 1960s and ISR produces more than half the world's uranium

### How Does ISR Work?

1. A mining solution is injected into the orebody using an Injection Well
2. Uranium is dissolved "in situ" (or, in place) as the mining solution travels through the orebody
3. The same solution carrying dissolved uranium is pumped to surface using a Recovery Well
4. The dissolved uranium is extracted from the solution on surface at a Processing Plant
5. The mining solution is returned to the Injection Wells for further production in a closed loop system

## The Wheeler River Project: Location and Proposed Infrastructure

### Site Location

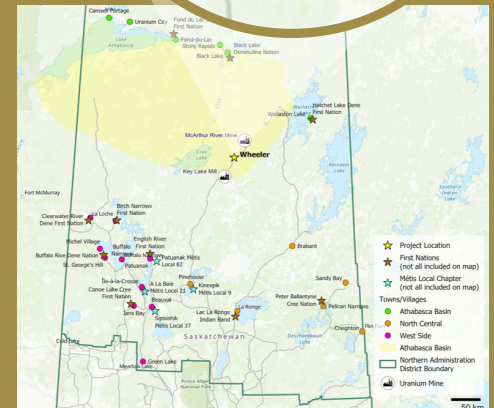
- 35 km north-northeast of the Key Lake mill and 35 km southwest of the McArthur River uranium mine in the south eastern portion of the Athabasca Basin region

### Planned Site Infrastructure

- ~7km site road connection to Highway 914 outlined in Project Description
- Powerline connection to SaskPower transmission line along Highway 914
- Airstrip (1600m) and associated site road to allow for transport of staff

### Key Site Elements:

- ~150 person Camp Facility
- Site Operations Centre
- In Situ Recovery (ISR) Mining Wellfield
- Freeze Plants
- Processing Plant / Water Treatment Plant
- Warehousing and Fuel Storage Facilities
- Back-up Power Generators
- Wash Bay, Scanning and Weight Scale Facilities



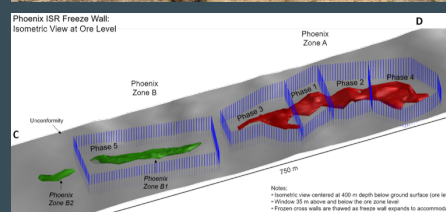
## ISR mining: A progressive approach to mining uranium in the region

### How is ISR Different?

- All activities occur at surface; there are no traditional underground workings
- No open pits or major earthworks
- There is no tailings production, no large waste rock piles

### 10-metre-thick Freeze Wall separates mining areas from surrounding groundwater

- Circulation of low-temperature brine solution through cased pipes will freeze groundwater in sandstone surrounding the deposit – same technology as at Cigar Lake and McArthur River
- The ore body is more than 400m below the lakes and river systems (almost height of CN Tower)
- The groundwater in the sandstone around the ore body is not directly connected to surface water
- Research shows that groundwater stays at depth; doesn't move upward and moves very slowly at depth
- The freeze wall is the ultimate contingency method to contain mining solution within mining area



## Wheeler River / Phoenix ISR:

*Different mining method and a different type of operation<sup>(1)</sup>*

### Advantages of ISR mining compared to existing uranium mining in Canada:

- ✓ Small surface footprint
- ✓ Lower water consumption
- ✓ Lower energy consumption
- ✓ Lower CO<sub>2</sub> emissions
- ✓ Small volume treated effluent released to surface water bodies
- ✓ Potential for lower radiation doses to workers
- ✓ No tailings production; storage of precipitated by-products
- ✓ Very small volumes of clean waste rock (sandstone core from wellfield development)



### Socioeconomic Considerations:

*Relatively small operation with opportunity to build on existing talent*

#### Denison is committed to maximizing opportunities

- Up to 300 jobs during 2 years of construction and about 100 jobs during 6 years of operations
- Approximately 100 jobs during operation for 6 years
- Targeted efforts on Communities of Interest, with a broad focus on northern Saskatchewan and Indigenous communities
- Similar job types to those at existing uranium operations
- Specific ISR training will be provided
- Pre-requisite training will include Process Operation Tech. available at SIIT in Meadow Lake or Chemical Tech. at Sask. Polytechnic.
- Construction and operation targeted to Northern Saskatchewan / Indigenous-owned businesses

## Environment Assessment Technical studies to understand the Project interactions with human and biophysical environment

### Baseline Studies

- Environmental baseline studies have been ongoing since 2012

### Environmental Assessment (EA)

- Initiated the EA processes in May 2019 with acceptance of the Wheeler River Project Description
  - **Lead federal regulator:**  
Canadian Nuclear Safety Commission
  - **Lead provincial regulator:**  
Saskatchewan Ministry of Environment, Environmental Assessment Branch



## Valued Components (VCs) Understanding effects on the things that are important



### VC's form the basis of the environmental assessment.

- Gain an understanding of what is important to the people who use the area and people who may be affected by project activities.
- Monitoring and reporting of changes to VC's ongoing during all phases of the project into decommissioning and post closure.