



Energizing a clean-air world

OST Site Visit

May 18, 2021



Our Values

- Safety and the Environment
- People
- Integrity
- Excellence



Cameco

Facility Facts

The Crow Butte Mine is located four miles southeast of Crawford, Nebraska, and encompasses 3,300 acres, of which approximately 1,100 acres has been affected by mining activities.

Started commercial production in April 1991

19 Employees currently engaged in restoring groundwater in the mined aquifer.

The facility is designed to produce 800,000 lbs. of uranium annually using In situ recovery (ISR).

All uranium produced is used for power generation.

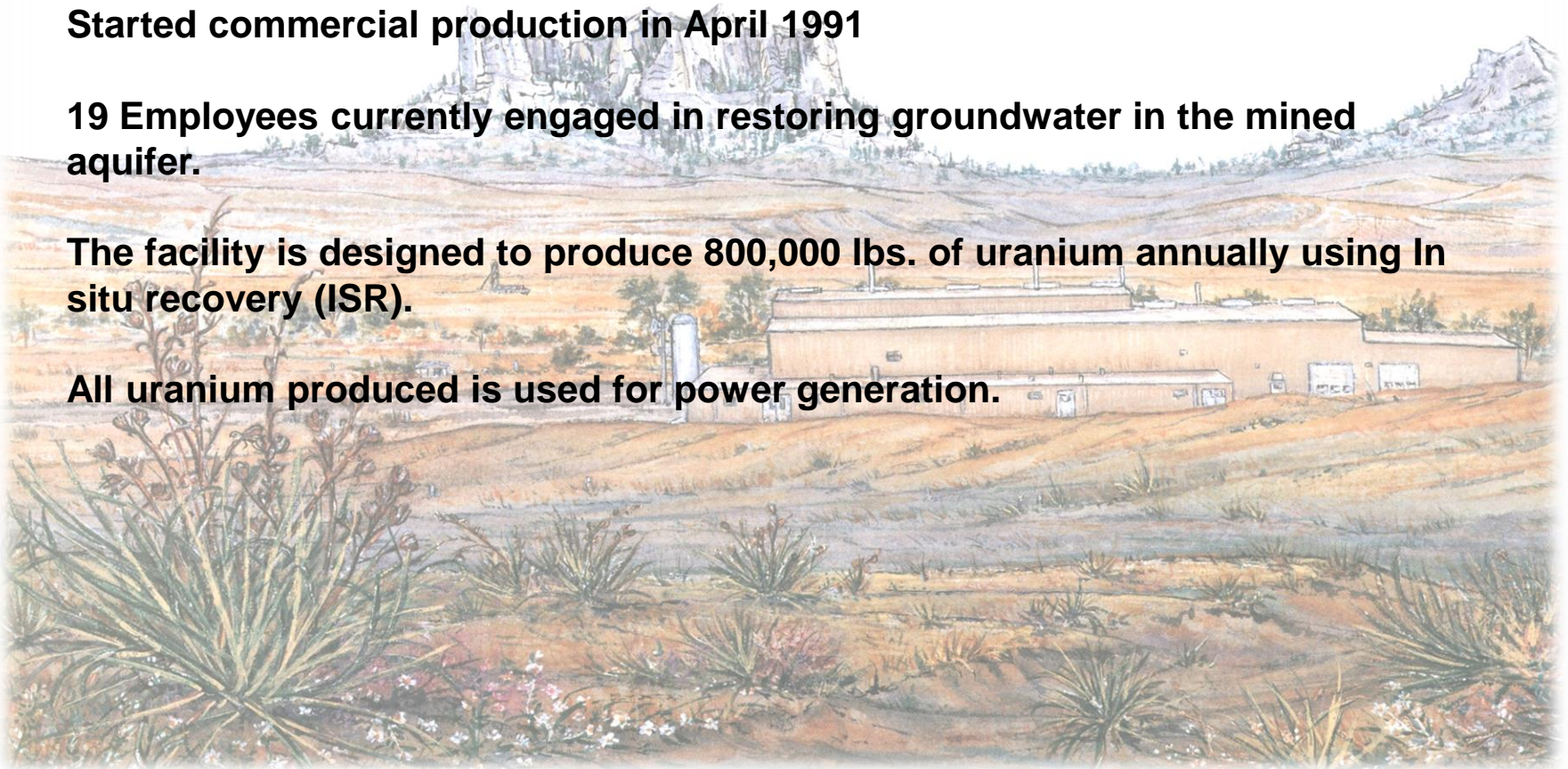
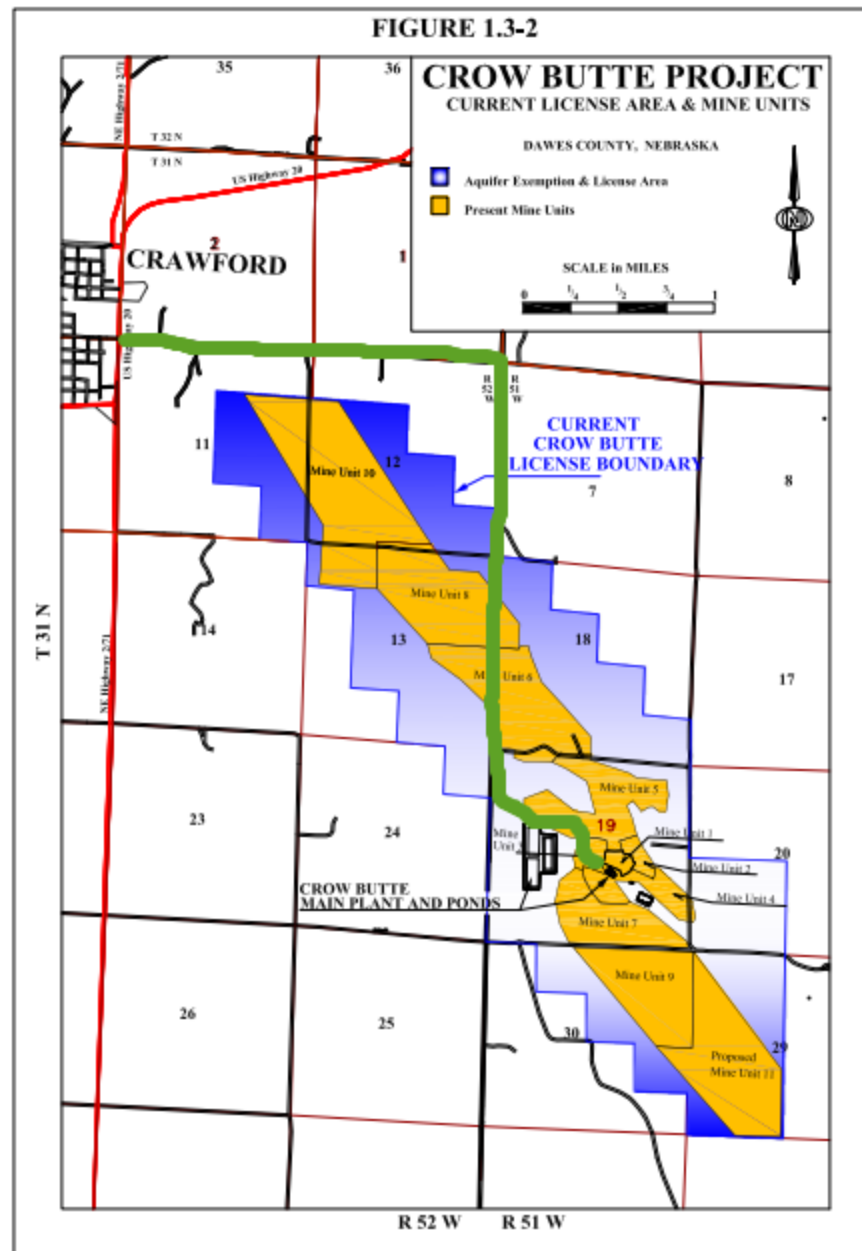


FIGURE 1.3-2





Regulation

Federal and state agencies

US Nuclear Regulatory Commission

NE Department of Environmental Quality

NE Department of Natural Resources

US Environmental Protection Agency

US Occupational Safety and Health Administration

US Department of Transportation



Cameco

In Situ Recovery (ISR)

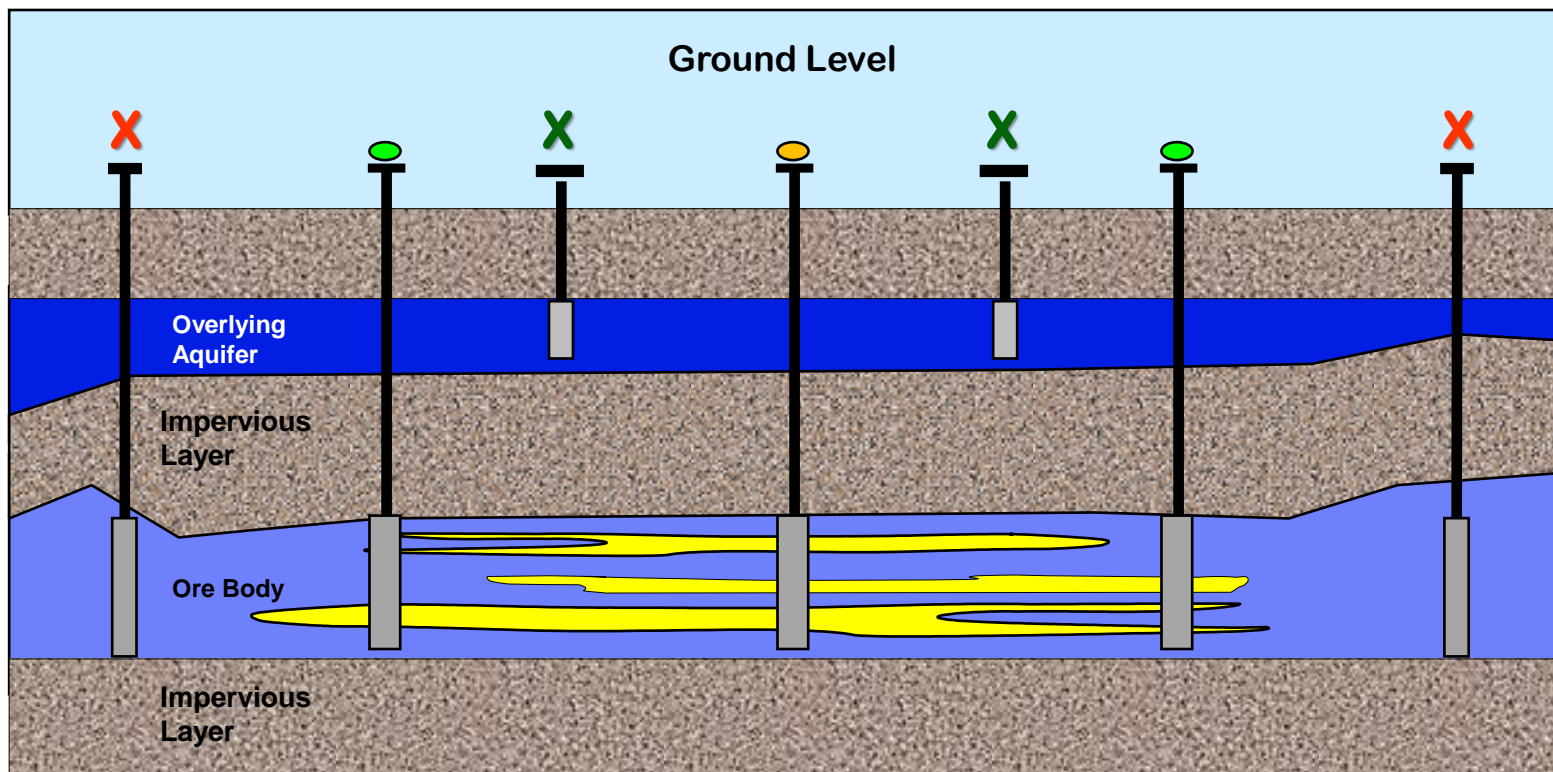
No waste rock or tailings

- ISR mining by recirculating groundwater through ore body to access uranium. Uranium is recovered through ion exchange and water is then returned back to wells to recover additional uranium.
- Water + oxygen and baking soda is used to mobilize uranium so that it can be pumped to the surface facilities for processing.

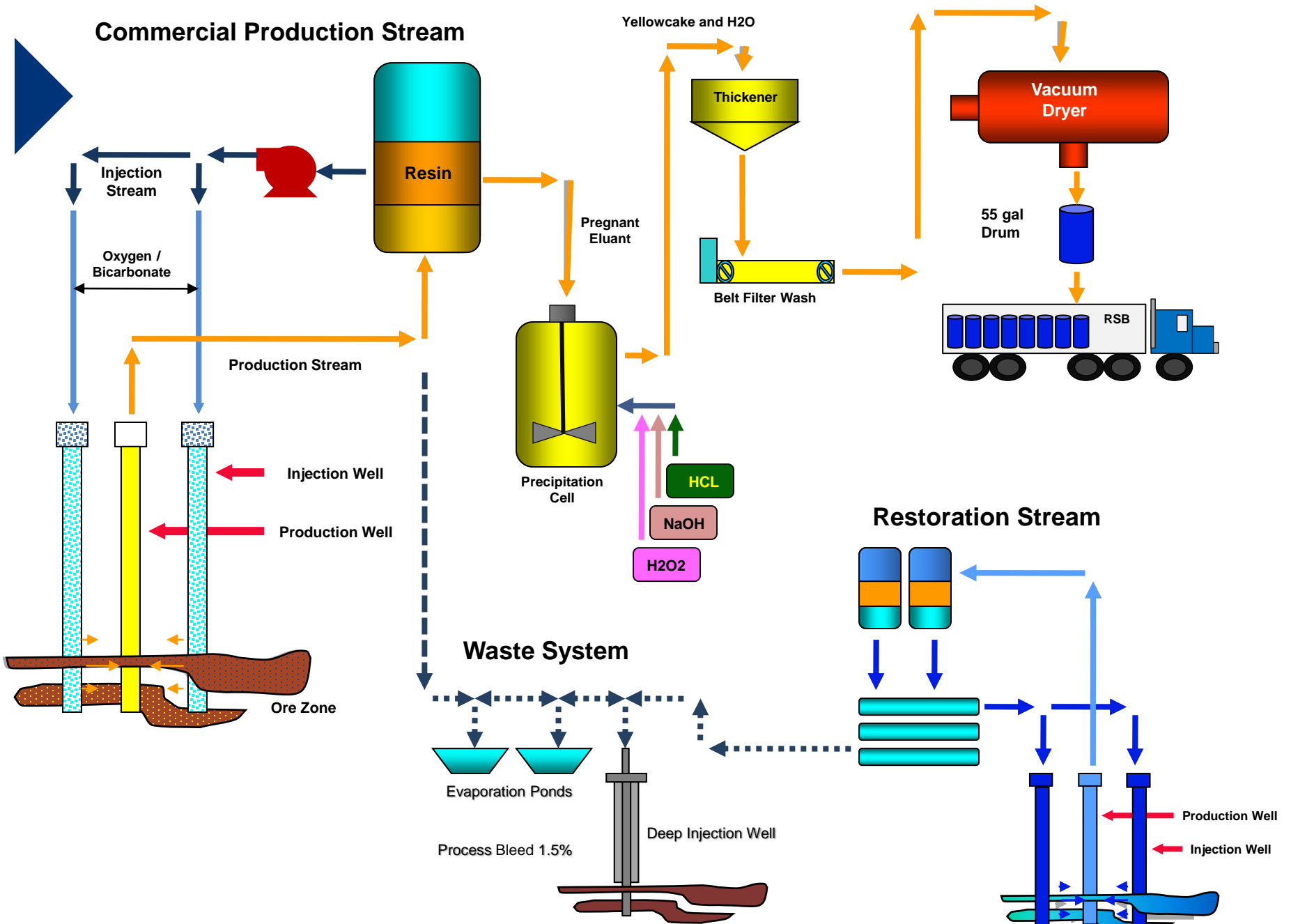


Protecting and Restoring Groundwater

- Tap only non-drinking water aquifers
- Water is continually recycled in process
- Monitor wells are installed around and above mining activities
- Groundwater is restored to similar water quality as to before mining



Commercial Production Stream



Previously Identified Cultural Resources

**Table 2.4-1: Summary of Cultural Resources Identified During the 1982 and 1987 Investigations
Crow Butte Project, Dawes County, Nebraska**

Site Number	Description and Temporal Assignment	Topographical Location	Area (m ²)	Field Investigation
1982				
25DW111 (Harvey Homestead)	surface; glass, ceramic, metal; bone debris; Euro-American; late 19th century (?)	top and slope of small knoll	1,000	survey, sketch map, photographs
25DW112/00-17 (Wulf/Daniels Place)	surface/buried; abandoned farmstead (house, depression, 11 outbuildings); Euro-American late 19th/early 20th century	broad terrace; Squaw Creek	6,000	survey, sketch plan, photographs
25DW113 (Fiandt Homestead)	surface/buried; glass, ceramic, metal, wood, leather debris (25 to 40 cm S.D.); 4 depressions; Euro-American; late 19th century (?)	broad terrace; Squaw Creek	9,000	survey, transit map, soil probe/shovel test, photographs
25DW114	surface; chipped stone tools, flaking debris, trade goods, bone, primary component is Middle Archaic, although Paleo-Indian, Late Archaic, Late Prehistoric and Historic components are also present.	broad terrace; Squaw Creek	150,000	survey, transit map, controlled surface collection, photographs
25DW115 (School Dist. 25)	surface; glass, brick debris; former location of First Presbyterian Church and public school; Euro-American; late 19th century	small rise on upper slope	900	survey, sketch map
25DW116	Surface; chipped stone flaking debris; unassigned Native American	terrace slope; Squaw Creek	2	survey, sketch map, photographs
25DW117 (Fleming Homestead)	surface; windmill, cistern, stock tank complex; Euro-American (possibly associated with Fleming homestead); late 19th century (?)	terrace slope; Squaw Creek	250	survey, sketch plan, photographs
FN-1	1 chipped stone flake; unassigned Native American	terrace slope; Squaw Creek	1	survey
FN-2	buried; bone, charcoal; unknown cultural association	eroding cutbank; Squaw Creek	50 (length)	survey, controlled bank profile/collection, sketch map, photographs
FN-3	Crow Butte Cemetery; Euro-American; 1880 through 1971	level ridge top	2,700	survey, sketch plan, photographs

Previously Identified Cultural Resources

Site Number	Description and Temporal Assignment	Topographical Location	Area (m ²)	Field Investigation
1987				
25DW191 (Dougherty/Smith)	surface/buried; outbuilding; 2 depressions; farm machinery; Euro-American; late 19th century	foot of Pine Ridge colluvial slope	50,000	survey, sketch map, photographs
25DW192 (Stetson/Roby)	surface/buried; glass and metal debris; 2 depressions, 2 foundations; Euro-American; late 19th century	top and slope of small knoll overlooking Squaw Creek tributary	1,000	survey, sketch map, uncontrolled surface collection, photographs
25DE196	surface; chipped stone tool, flaking debris, bone; unassigned Native American	upland ridge divide between Squaw and English Creeks	80,000	survey, transit map, uncontrolled surface collection, controlled test (4), photographs
25DW197	surface; chipped stone tools, flaking debris, bone; unassigned Native American	upland ridge divide between Squaw and English Creeks	150,000	survey, sketch map, uncontrolled surface collection, photographs
25DW198	surface/buried; chipped stone tools and flaking debris; unassigned Native American	saddle and adjacent knolls on divide between English and White Clay Creeks	30,000	survey, transit map, uncontrolled surface collection, controlled test (3), photographs
25DW199 (Crawford Ice House)	surface/buried; foundation, pond; Euro-American; early to mid 20th century	narrow terrace, White Clay Creek	2,000	survey, sketch map, photographs
25DW00-25 (Stetson Place)	surface/buried; occupied farmstead (house, 8 outbuildings, corral); Euro-American late 19th century to present	broad terrace, Squaw Creek	18,000	survey, sketch plan, photographs
25DW00-26 (Gibbons/Ehlers Place)	surface/buried; occupied farmstead (house, 11 outbuildings, corral); Euro-American; early 20th century to present	broad terrace, Squaw Creek	25,000	survey, sketch plan, photographs





Protecting Wildlife and the Land

Once mining is complete, the land will be returned to its natural state





Facility Safety & Protocols

- Meet at Crow Butte Office at 1pm on May 18, 2021
- COVID-19 Survey and Site Hazard Assessment form will need to be signed by each person
- OST identify areas of interest on map
- Proceed in vehicles to areas of interest
- Return to CBO Office area
- OST Departs site



Cameco Corporation COVID-19 Cameco Resources Access Questionnaire

Updated as of 6/18/2020

The safety of our employees, suppliers, contractors, customers, families and visitors remain Cameco's overriding priority. As the coronavirus disease 2019 (COVID-19) outbreak continues to evolve and spreads globally, Cameco is monitoring the situation closely and will periodically update company guidance. At this time, only critical visitors, suppliers and contractors will be permitted at any Cameco facilities as determined by management. Cameco is following the guidance of the CDC to ensure that we are taking all steps necessary to keep people safe.

To prevent the spread of COVID-19 and reduce the potential risk of exposure to our workforce and communities, we are conducting a simple screening questionnaire. Your participation is important to help us take precautionary measures to protect you and our employees and is **required** before you will be allowed to access our sites.

Cameco respects your privacy and is collecting this personal information from you only to the extent required to manage its workplace. Only those individuals with a need to know will be provided with your personal information such as site management and human resources personnel. Thank you for your time.

Name:	Personal Phone Number (mobile/home):
Company/Organization (if not a Cameco employee):	Name of Cameco Host/Sponsor/Contact (if not a Cameco employee):
Mine Site Name:	

Self-Declaration	
1	Do you have any of the following symptoms: Fever (100.0 F) or chills, cough, shortness of breath or difficulty breathing, fatigue, muscle or body aches, new loss of taste or smell, sore throat, nausea or vomiting, diarrhea? Yes <input type="checkbox"/> No <input type="checkbox"/>
2	Have you been traveling outside of the United States? Yes <input type="checkbox"/> No <input type="checkbox"/> If yes, did you complete 14 days of isolation since returning?
3	Have you had close contact with someone diagnosed with or being investigated for COVID-19 or, following the guidance of a medical professional, are you yourself or your dependents self-isolating for a period of 14 days? Yes <input type="checkbox"/> No <input type="checkbox"/>

If the answer is "yes" to Question 1 or 2 then you need to speak to site HR or the GM of US Operations to determine whether you should have access to the site. If you answer "yes" to Question 3, access to the site will be denied and self-isolation is required

Signature (visitor): _____ Date: _____

Note: if you are on-site for consecutive days, please immediately advise your supervisor or Cameco host/contact if any of your responses change. The information collected on this form will be used to determine any access restrictions to Cameco facilities. Any questions should be directed to site HR.

Access to facility (circle one): Approved Denied

CAMECO RESOURCES CROW BUTTE OPERATION



HAZARD RECOGNITION/SAFETY ORIENTATION

Contract workers that have received hazard recognition training may perform certain tasks without escort.

Hazard Recognition and Avoidance

- Electrical Hazards** – Do not work on or touch energized electrical circuits. Lockout rules are strictly enforced at Crow Butte. Always be aware of overhead power lines before erecting equipment or moving loads overhead.
- Chemical Hazards** – Various hazardous chemicals are used in the production of uranium. All tanks are posted with the NFPA hazard information and protective equipment requirements. Correct PPE must be worn at all times. Chemical Delivery Drivers must notify Plant Operator of all spills immediately. *Do not rinse equipment onto the ground.* Rinse all equipment into the supplied rinse bucket. You **MUST** return the rinse bucket containing the rinse water to the Plant Operator upon completion. Notify Plant Operator before leaving. Safety Data Sheets are available in the Safety Office. Follow instructions given by CBO employees. Avoid unnecessary exposure to chemicals. *Obey all warning signs.*
- Radiation Hazards** – Certain areas contain radioactive materials. Obey all signs regarding radiation. Persons entering the restricted area must perform a contamination survey before exiting the area. (You will receive instruction on surveying if your work requires you to enter the restricted area). All equipment, materials, and tools used in the restricted area must be surveyed by a member of the radiation safety staff before removal from the site. Visitors to the restricted area should not touch any equipment. Eating, drinking and the use of tobacco products not allowed in restricted areas. Contract workers whose tasks require them to enter the restricted area will receive training from the radiation safety staff.
- Personal Protective Equipment** – Hardhats, steel toe safety boots, and safety glasses are required in all areas except the office area. (Safety shoe requirements may be waived for accompanied tour groups). Obey all signs or instructions concerning other personal protective equipment requirements.
- Traffic and Heavy Equipment** – Heavy equipment may be in operation at any time at the mine site. Obey posted speed limits. Speed limit around the main plant and RO Building is 15 mph. In all other areas, the speed limit is 25 mph. Repeat violators may be denied access to the mine.

Emergency Procedures

- Report ALL injuries and accidents to the nearest CBO employee *at once*. First aid supplies and trained CBO employees are available for assistance. Report *any* fire, spill, equipment malfunction, or other unusual event including near misses to a CBO employee *at once*. In case of emergency, follow instructions given to you by an authorized CBO employee for appropriate response actions.

Safe Work Procedures

- Understand the job and the hazards before starting. If you do not, ask a CBO employee. *ALWAYS* wear all required personal protective equipment. Contractors are required to provide their own safety equipment.
- Smoking is prohibited in all CBO buildings and CBO owned vehicles.
- The use or possession of alcohol and controlled substances is not allowed on mine property.
- All tires must be taken off site to be repaired. Removal of split rim tires shall only be performed by a trained person.

Safety, Health, Environment Policy

- Preventing injury, ill health and pollution
- Fulfilling compliance obligations
- Keeping risks at levels as low as reasonably achievable, taking into account economic and societal factors
- Ensuring quality of processes, products and services
- Continually improving our overall performance

Failure to comply with these safety rules will result in the loss of work or site access privileges.

Signature _____ Date _____

Printed Name _____ Company _____

Briefing conducted by: _____



Directions to Crow Butte Office

From the intersection of Hwy 20 and Hwy 2 – 71 in Crawford, NE, go about ½ mile north of the Cenex convenience store. There is a grey steel sided building with equipment around it (east side of highway). Turn right on gravel county road (West Ash Creek Rd). Go east two miles to a crossroad. Take a right at the intersection, onto Squaw Creek Road. Follow this road south about 2-1/4 miles to the “Crow Butte Project” sign, then take a left into plant road.