



# FORD URANIUM MILLSITE DECOMMISSIONING

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Waste Management, Office of Radiation Protection  
June 2023



**Project Area**

**City of  
Spokane**





## Legend



**DMC  
Millsite**



**Midnite  
Mine**



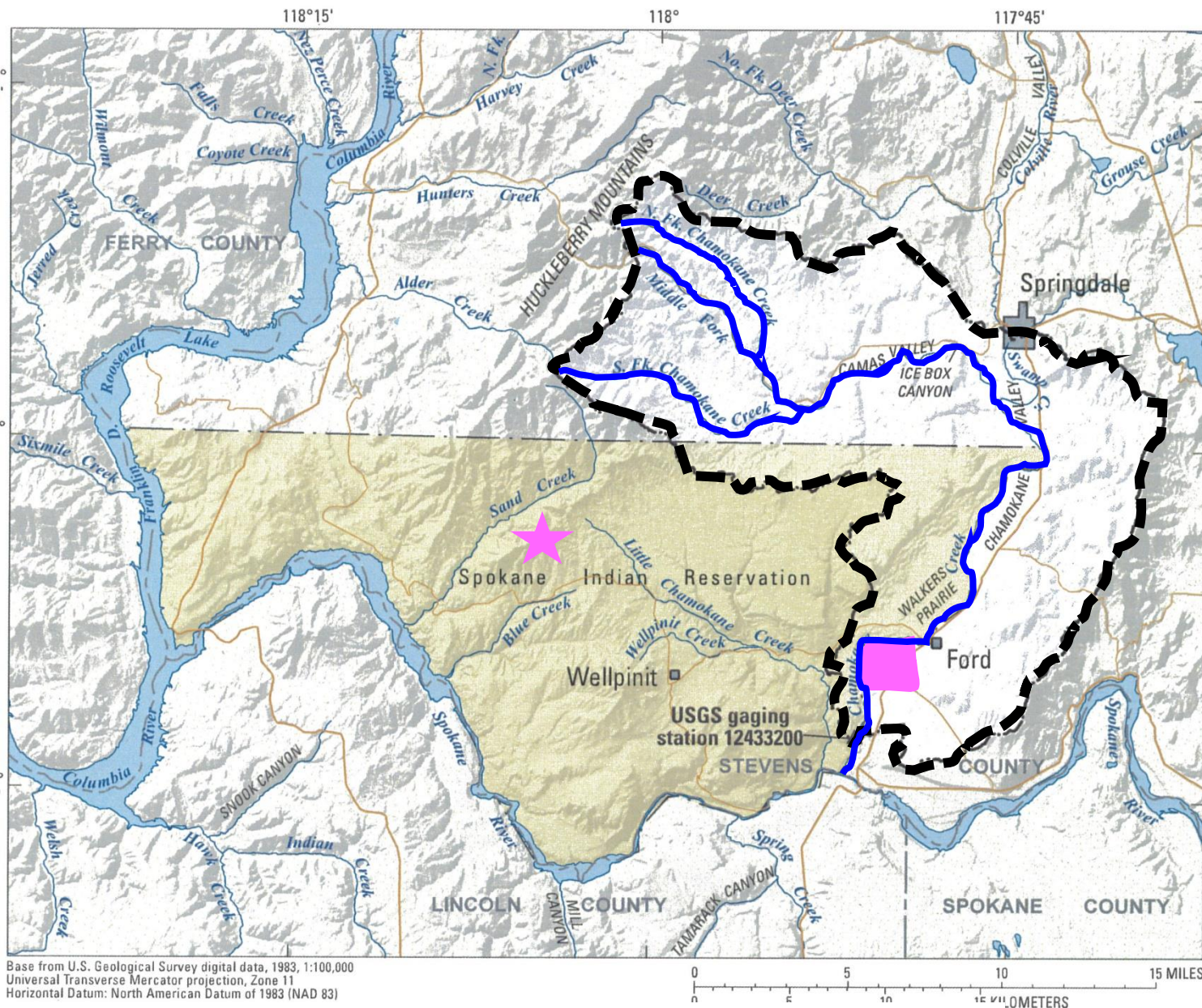
**Chamokane  
Creek**



**Spokane Indian  
Reservation**



**Drainage basin  
boundary**



# DMC Millsite Location

Adapted from Kahle et al, 2010  
USGS Scientific Investigations Report 2010-5165





**DMC Millsite  
1979**



# ELS and 1995 Approved Closure Plan

- Groundwater corrective action to address contamination from unlined tailings disposal areas
- Process water evaporation
- Demolition, soil cleanup and waste disposal
- Surface reclamation (contour, cover and revegetate waste)







**DMC Millsite**  
**2005**



**2012**



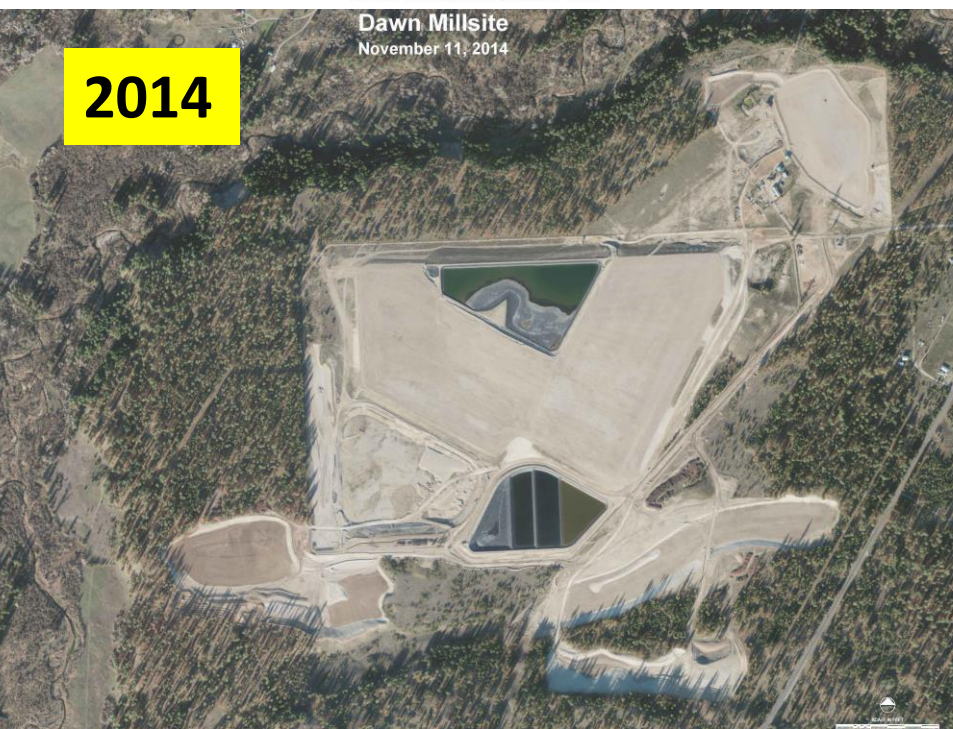
Dawn Millsite December 2012

**2013**



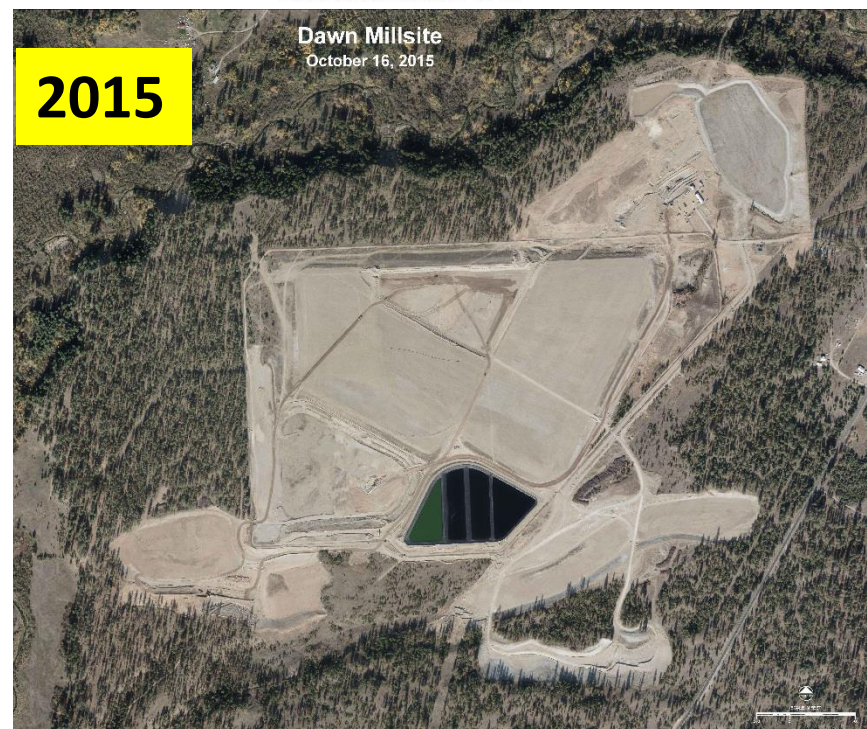
Dawn Millsite October 2013

**2014**



Dawn Millsite  
November 11, 2014

**2015**



Dawn Millsite  
October 16, 2015



# Final Radon Barrier / ET Cover

- Design guided by regulation (radon emanation, groundwater protection, waste isolation, self-sustaining vegetation)
  - Borrow source on-site
  - Average thickness about 10 ft (< 2 – 15 ft)
  - Contoured to minimize run-on, run-off and surface ponding
  - ET cover (2-inches infiltration with grass)
- Performance Monitoring 2018 – 2025
  - Settlement, erosion, vegetative cover



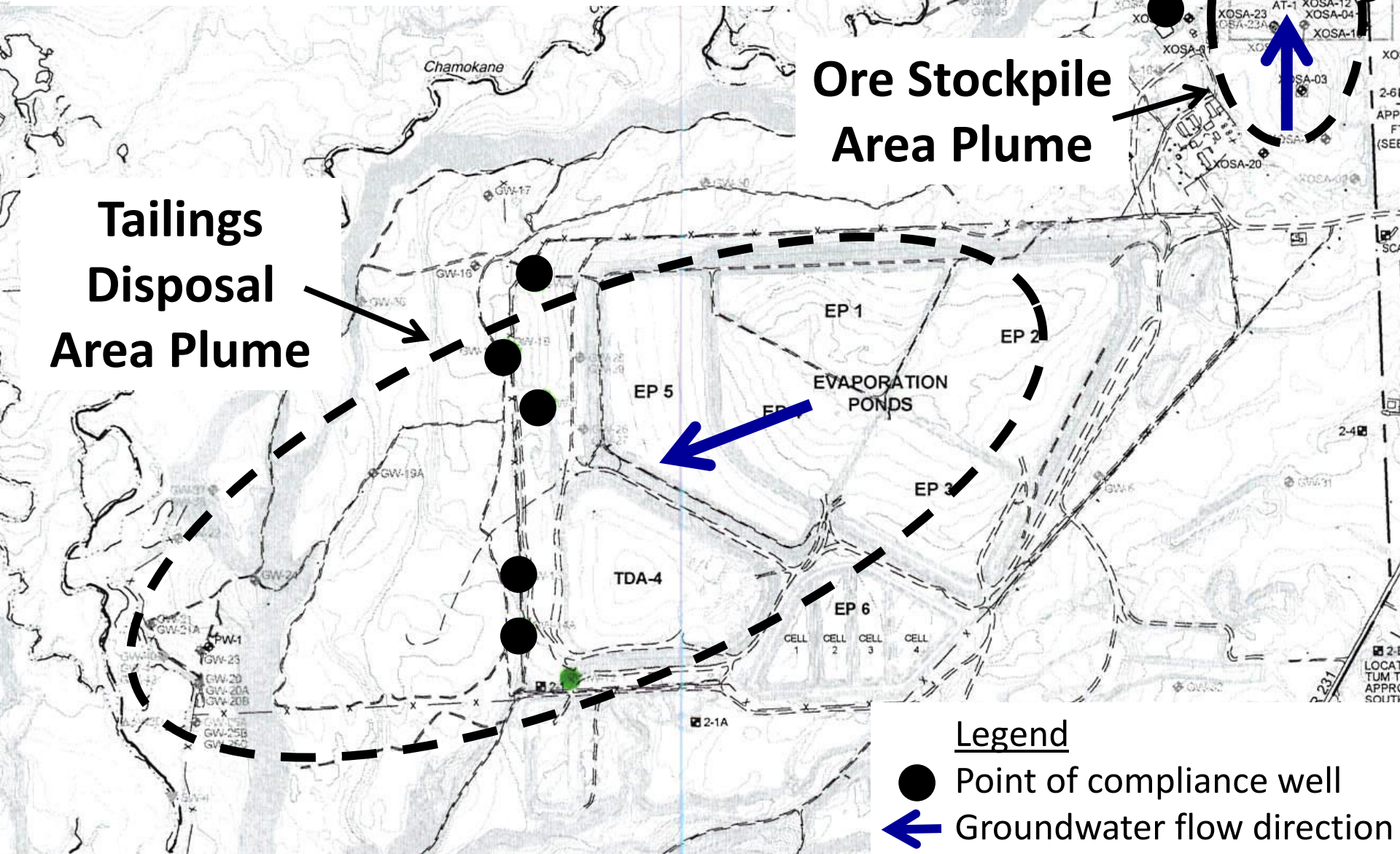








# DMC Millsite Groundwater Contamination





# ACL Application

- 2018: DMC's initial ACL application
- 2019: DMC's ACL application Rev 1
- 2022: WA detailed review comments
- 2023: DMC performing field work and additional assessments
- WA is collaborating with the Spokane Tribe of Indians during this review process
- Anticipate Supplemental EIS with decision



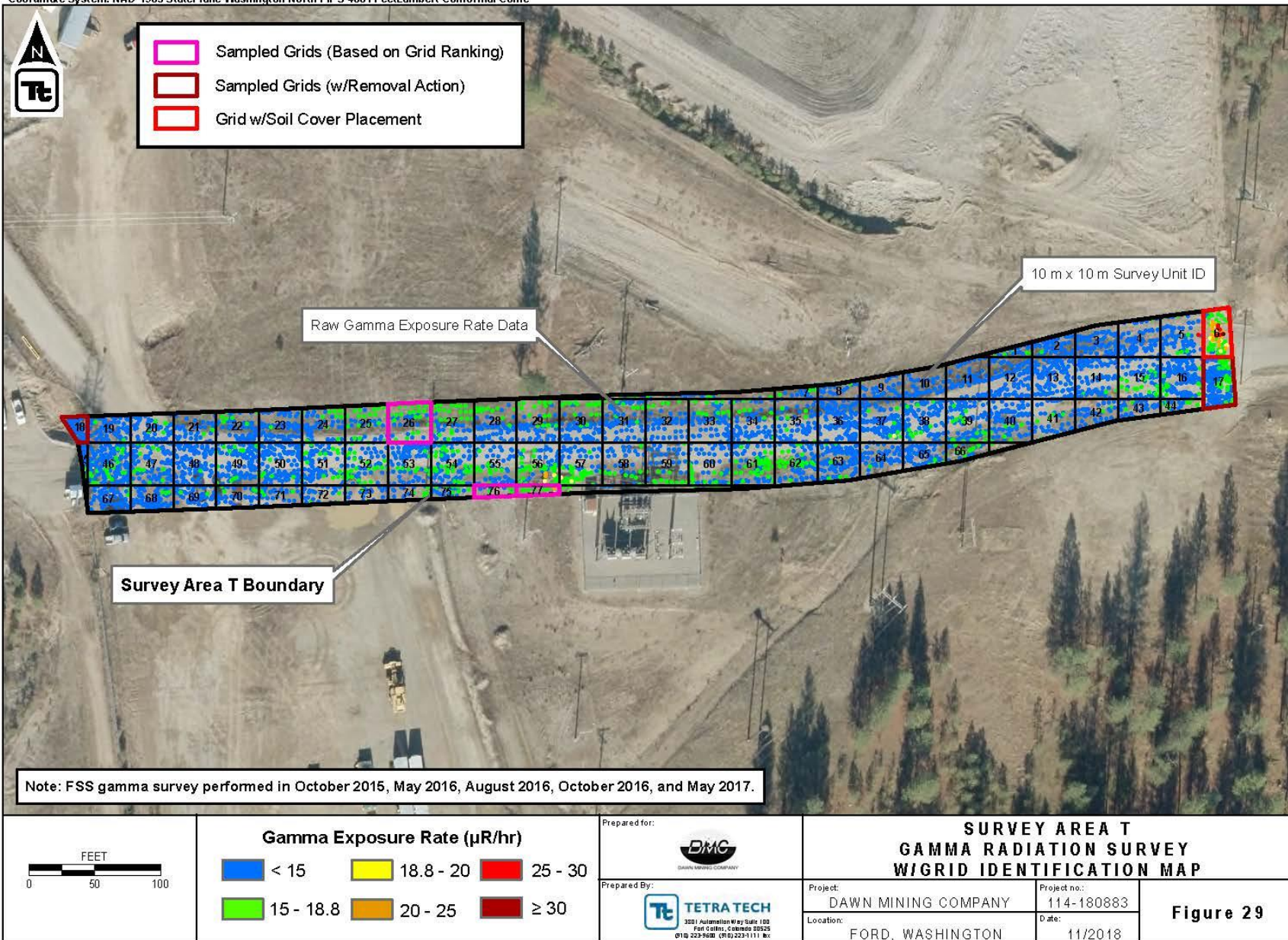
# Final Status Survey

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- U-nat, Ra-226, Th-230 and Th-232
- Gamma – Ra-226 correlation to establish gamma exposure rate screening of 18.8 uR/hr
- 100 % GPS gamma survey at 2 m spacing
- 450+ soil samples from highest gamma grids
- Phase 1 Completion Report submitted 2022
- WA review comments to DMC this week



Universal Operations Ltd on Collins Road London E9 6JH  
http://127.0.0.1:8080/RECURSIVE/Algebra/Algebra.html  
Figure 20: Algebra Results - 11/23/18 NABOS.mxd December 2018; danielmowkmal





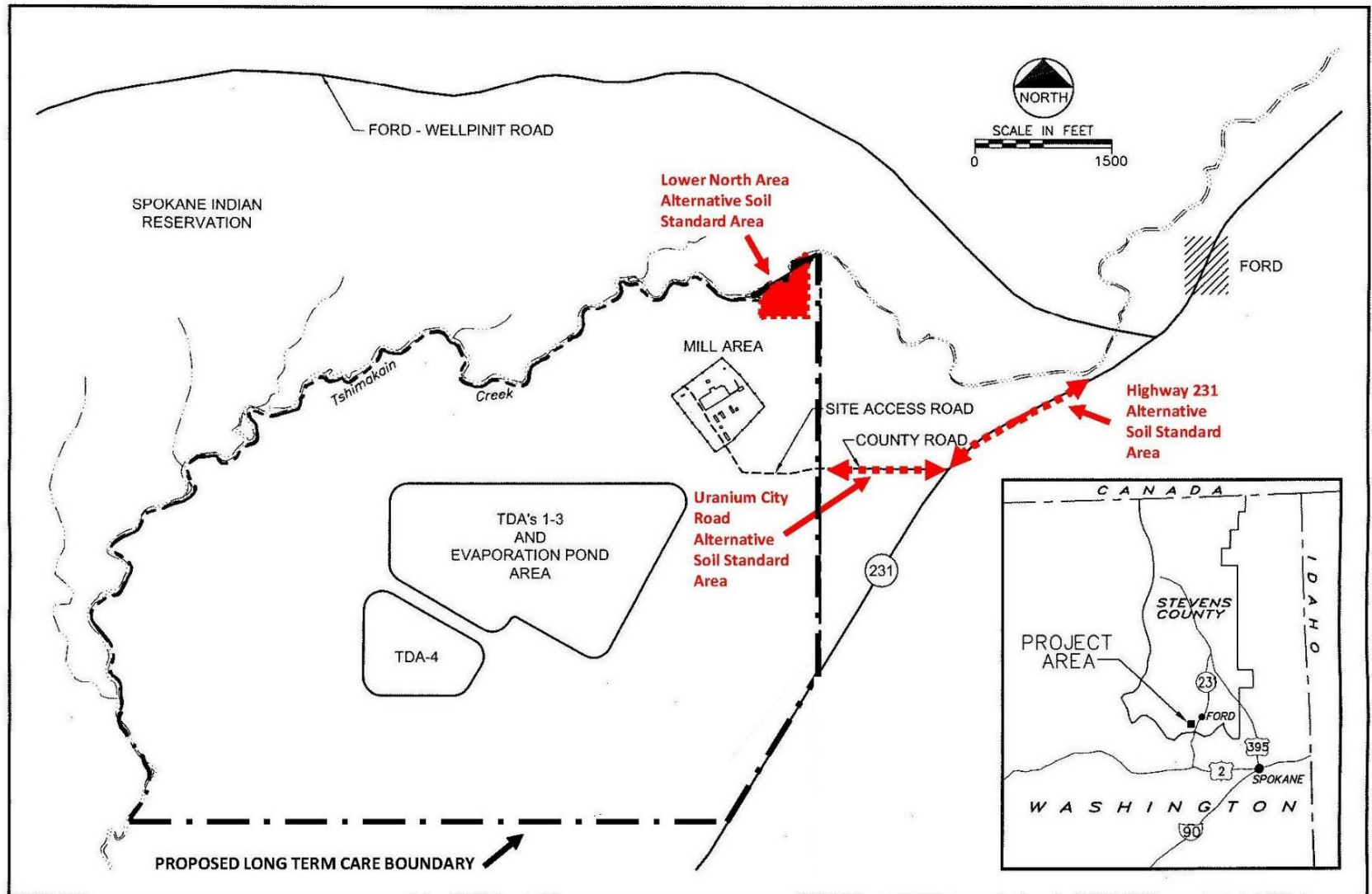








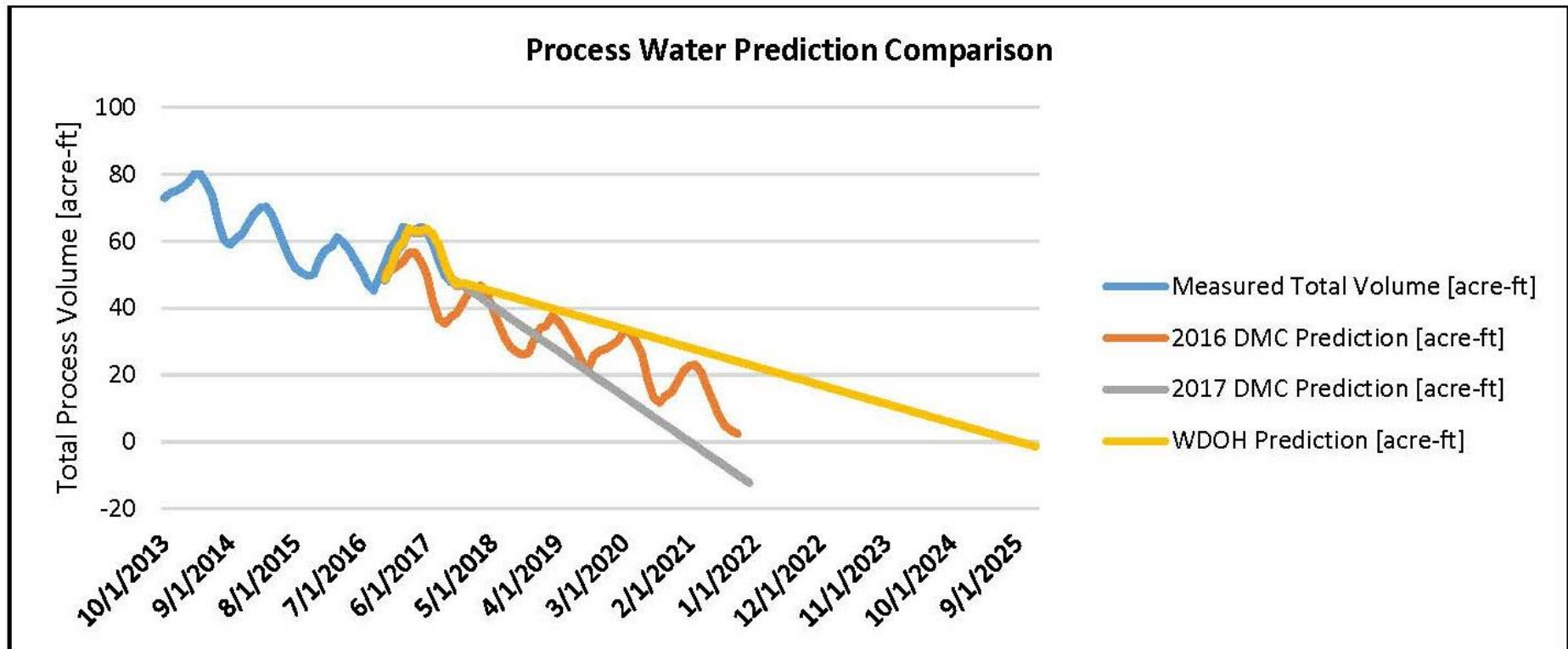
# Alternative Soil Standards Areas





# Process Water Evaporation

- DMC initially predicted evaporation would be complete by 2014
- 550 acre-feet (1996) to 18.6 acre-feet (2023)





# EVAPORATION POND 6 (EP-6)

Cell 2

Cell 3

Cell 4

Cell 1

800 feet

N





# **EVAPORATION POND 6 (EP-6)**

## **Cell 4 Floating Cover**





# Financial Assurance / Surety

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- WA performs annual closure cost review
- 2023 closure cost estimate is \$81.5 million
- Primary cost is process water disposal
- Standby Trust and Corporate Guarantee
- Some decommissioning costs deferred:
  - Verification of soil cleanup
  - ACL and SEPA processes, including potential groundwater corrective action



# Closure Status

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- Surface reclamation almost complete
- Ongoing activities
  - Monitoring stability and revegetation
  - Groundwater corrective actions / ACL Process
  - Final Status Survey (soil cleanup)
  - Process water evaporation
  - Surety review
- License termination tentatively in 2028



Questions?







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