Table 6.1-1: Baseline Water Quality Parameters

Test Analyte/Parameter	Units	Method
BULK PROPERTIES		
pH	pH Units	A4500-H B
Total Dissolved Solids (TDS)	mg/L	A1030 E*, A2540 C
Conductivity	µmhos/cm	A2510B
CATIONS/ANIONS		
Chloride	mg/L	E300.0
Sulfate	mg/L	E300.0
Total Alkalinity (as $CaCO_3$)	mg/L	A2320 B
TRACE METALS		
Arsenic, As	mg/L	E200.8
Iron, Fe	mg/L	E200.7
Lead, Pb	mg/L	E200.8
Manganese, Mn	mg/L	E200.8
Strontium	mg/L	E200.8
Uranium, U	mg/L	E200.8
Vanadium	mg/L	E200.7, E200.8
RADIONUCLIDES		
Gross Alpha=Alpha Particles	pCi/L	E900.0
Gross Beta=Beta Particles and Photons	mRem/Year	E900.0
Radium-226	pCi/L	E903.0
Radon-222	pCi/L	D5072-92

Table adapted from USNRC (2008) Generic Environmental Impact Statement for In-Situ Leach Uranium Milling Facilities-Draft Report for Comment. NUREG-1910. July 2008.
Notes: mg/L = milligrams per liter
µmhos/cm = micromhos per centimeter
pCi/L = picocuries per liter
All metals analyses are for dissolved metals

From Powertech Technical Report

Table 5.7-2: List of Baseline Parameters

Major Ions	Trace and Minor Elements	Radiological Parameters
Alkalinity	Arsenic	Radium 226
Bicarbonate	Barium	Gross Alpha – Total
Carbonate	Boron	Gross Beta – Total
Sulfate	Cadmium	
Chloride	Chromium	
Nitrate	Copper	
Sodium	Fluoride	
Calcium	Iron	
Magnesium	Lead	
Potassium	Manganese	
	Mercury	
Physical Properties	Molybdenum	
Conductivity	Nickel	
pH	Selenium	
Total Dissolved Solids (TDS)	Silver	
	Uranium	
	Vanadium	
	Zinc	

Source: (Powertech, 2011a)

NRC Safety Evaluation Report

Table 7.3-1. Background Water Quality Parameters and Indicators for Operational Groundwater Monitoring*

Test Analyte/Parameter	
Bulk Properties	pH Total Dissolved Solids (TDS) Conductivity
Cations/Anions	Bicarbonate Alkalinity (as $CaCO_3$) Calcium, Ca Carbonate Alkalinity (as $CaCO_3$) Chloride, Cl Magnesium, Mg Nitrate, NO_3^- (as Nitrogen) Potassium, K Sodium, Na Sulfate, SO_4 Total Alkalinity (as $CaCO_3$)
Trace Metals	Arsenic, As Barium, Ba Boron, B Cadmium, Cd Chromium, Cr Copper, Cu Fluoride, F Iron, Fe Lead, Pb Manganese, Mn Mercury, Hg Molybdenum, Mo Nickel, Ni Selenium, Se Silver, Ag Uranium, U Vanadium, V Zinc, Zn
Radionuclides	Gross Alpha=Alpha Particles Gross Beta=Beta Particles and Photons Radium, Ra-226

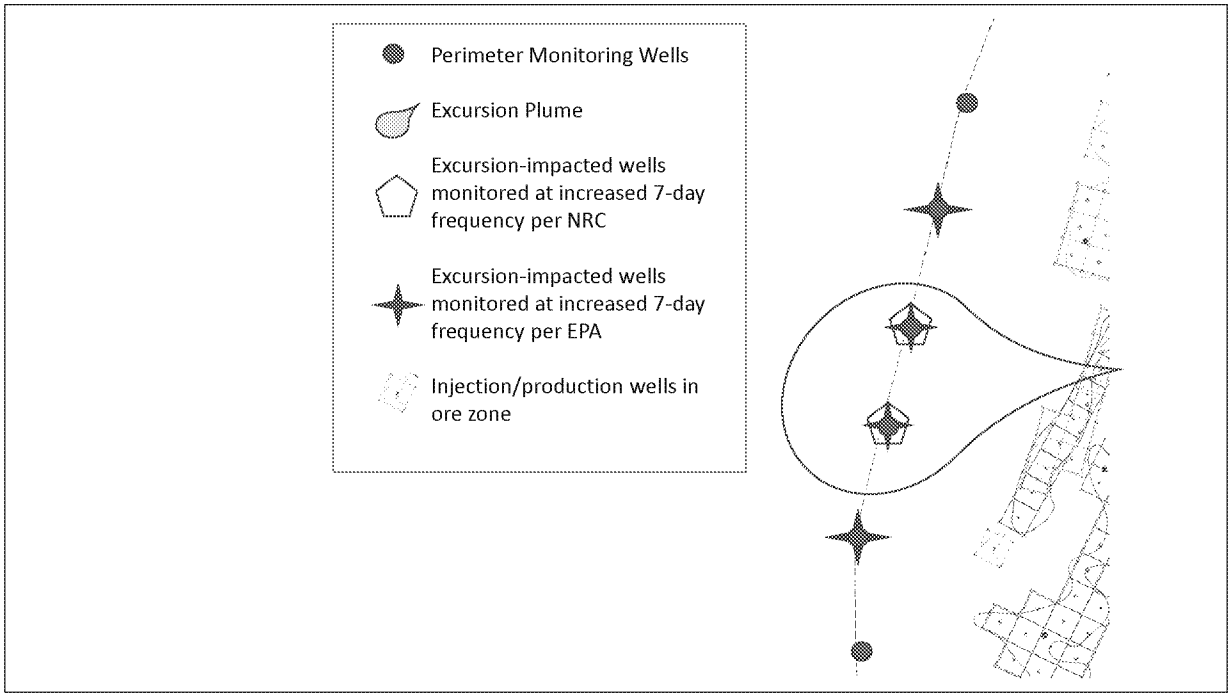
*All metals analyses are for dissolved metals.
Source: NRC (2003); Powertech (2011).

SEIS Volume 2
7.3-1 Background Water Quality Parameters and Indicators for Operational Groundwater Monitoring

Table 5.7-2: List of Baseline Parameters

Major Ions	Trace and Minor Elements	Radio
Alkalinity	Arsenic	Radiu
Bicarbonate	Barium	Gross
Carbonate	Boron	Gross
Sulfate	Cadmium	
Chloride	Chromium	
Nitrate	Copper	
Sodium	Fluoride	
Calcium	Iron	
Magnesium	Lead	
Potassium	Manganese	
	Mercury	
Physical Properties	Molybdenum	
Conductivity	Nickel	
pH	Selenium	
Total Dissolved Solids (TDS)	Silver	
	Uranium	
	Vanadium	
	Zinc	

Source: (Powertech, 2011a)


Perimeter Monitoring Wells
Excursion Plume
Excursion-impacted wells monitored at increased 7-day frequency per NRC
Excursion-impacted wells monitored at increased 7-day frequency per EPA
Injection/production wells in ore zone