

FIGURE 49
 Zone 1 pH Over Time
 United Nuclear Corporation, Church Rock Site, Church Rock, New Mexico

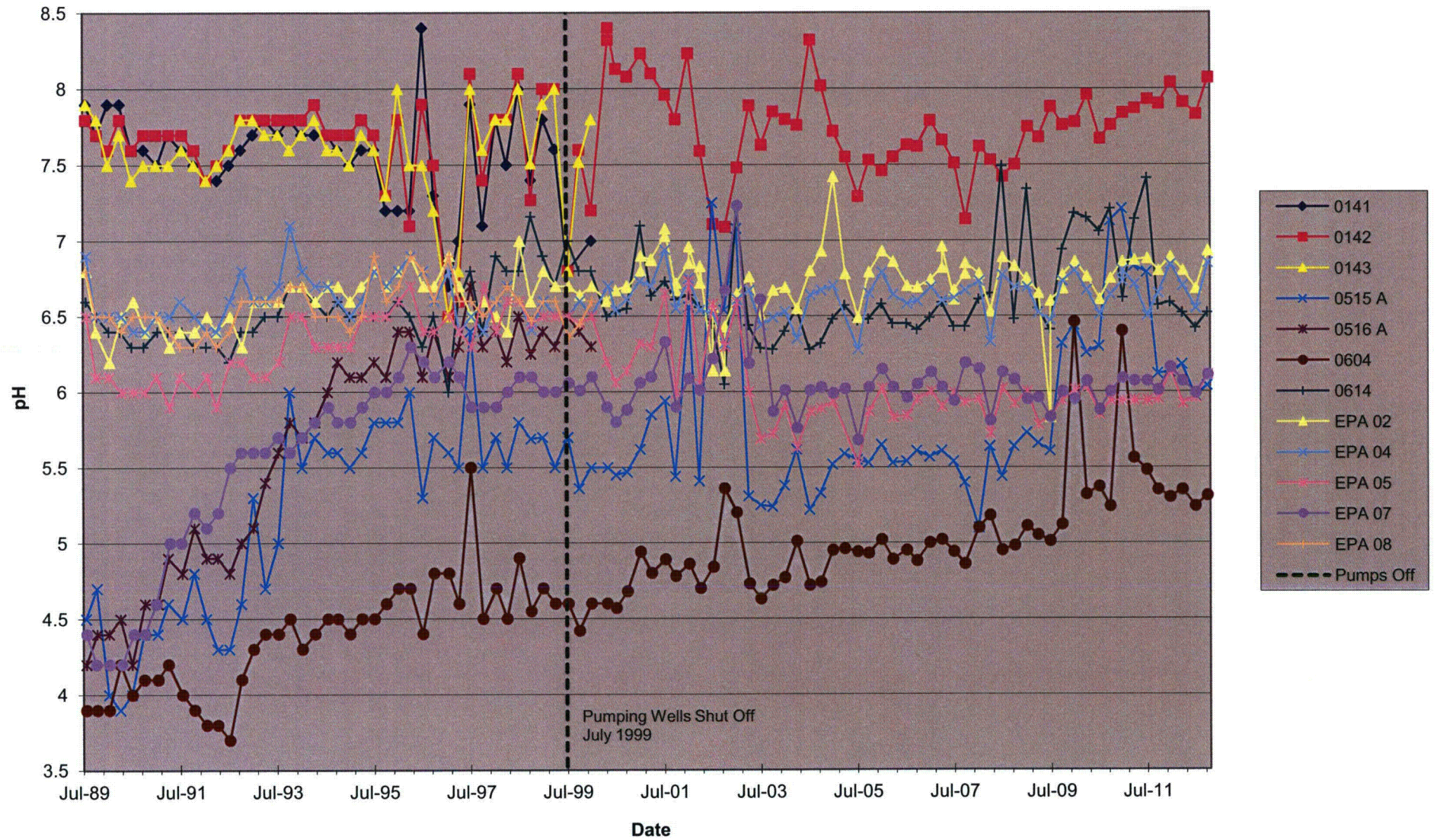
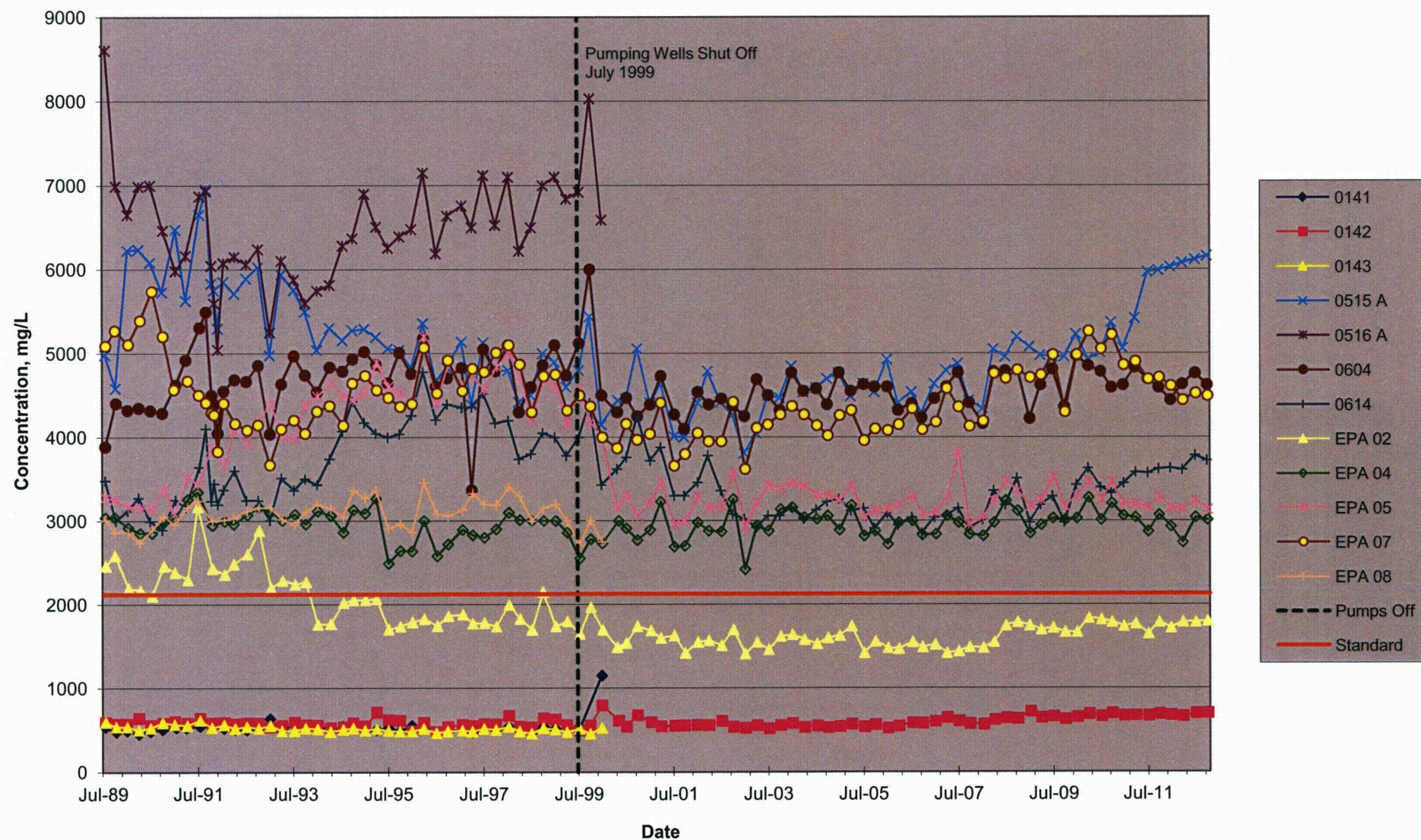
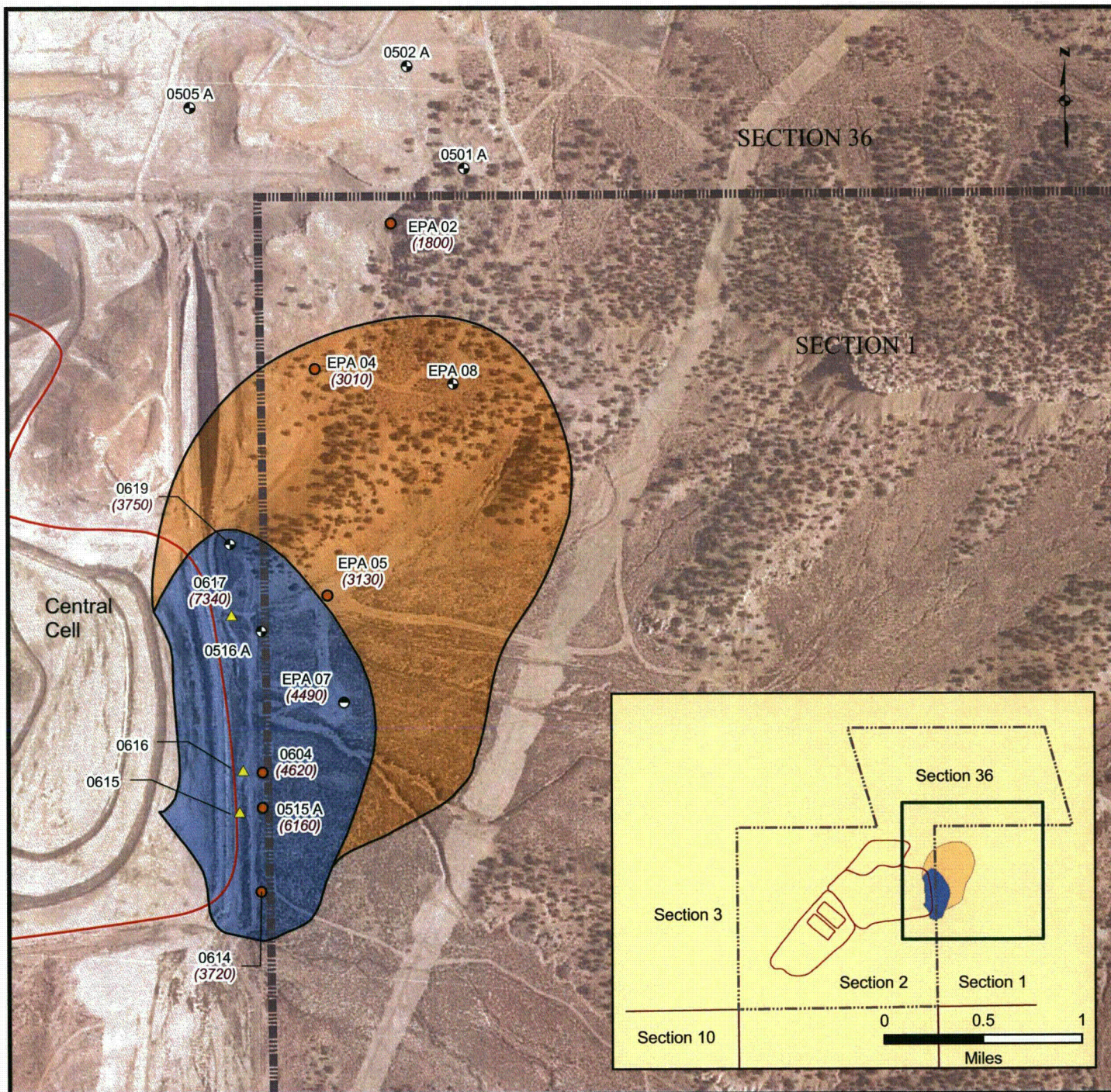


FIGURE 50
 Zone 1 Sulfate Concentrations Over Time
 United Nuclear Corporation, Church Rock Site, Church Rock, New Mexico





Legend

Well Type

- Water Quality and Level Monitoring
- ⊙ Water Level Monitoring
- ⊖ Decommissioned East Pump Back
- ▲ Revised East Pump Back
- Cell Boundary
- ▤ Property Boundary
- Approximate Extent of Zone 1 Seepage Impacts
- Approximate Extent of Sulfate Exceeding 2,125 mg/L

(3720) Sulfate Concentration, mg/L

Notes:

1. Seepage impacts delineated by Chloride detections greater than 50 mg/L.
2. Well names are displayed with black text.
3. Aerial photo taken on August 1, 1996.

0 250 500 1,000
Feet

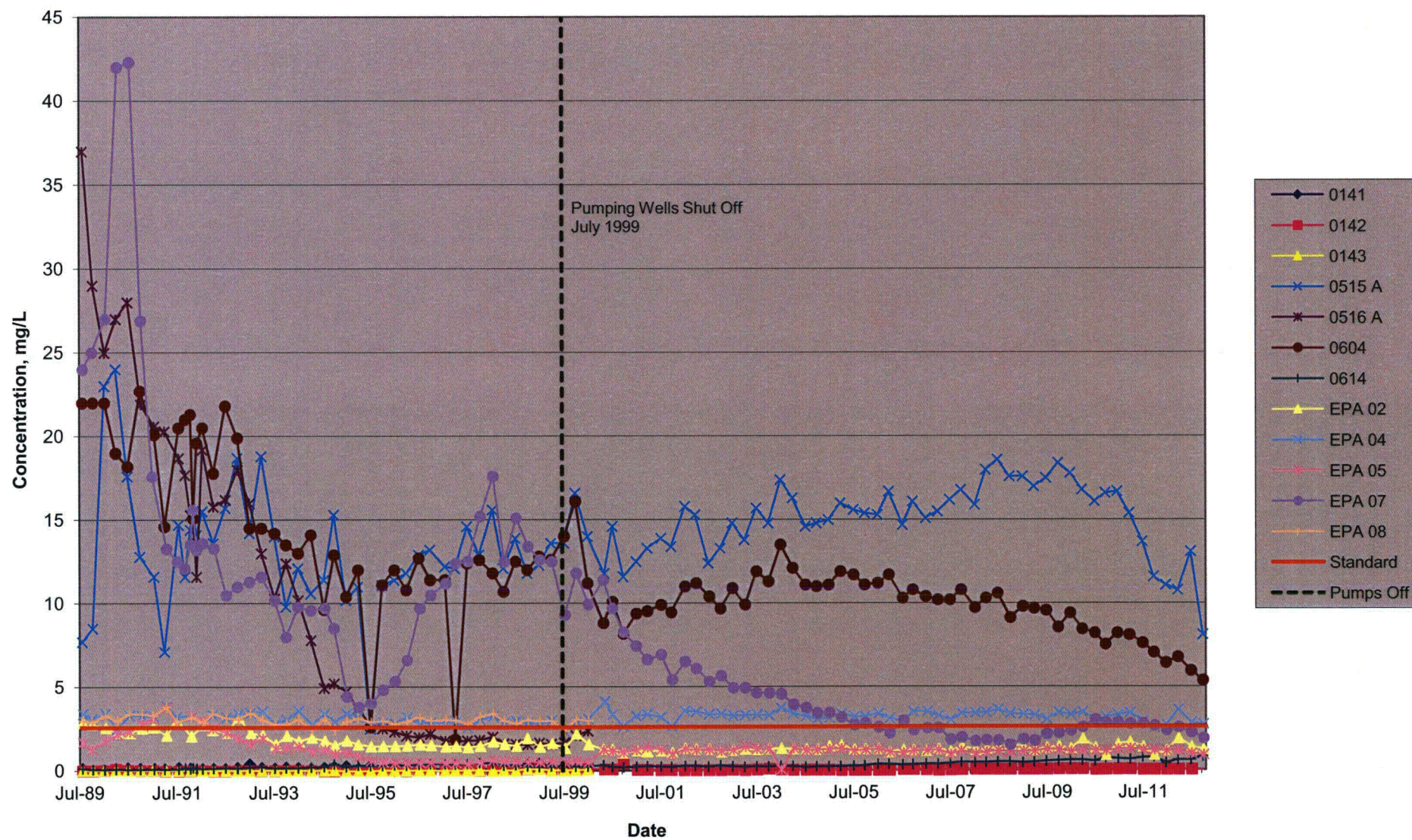
FIGURE 51

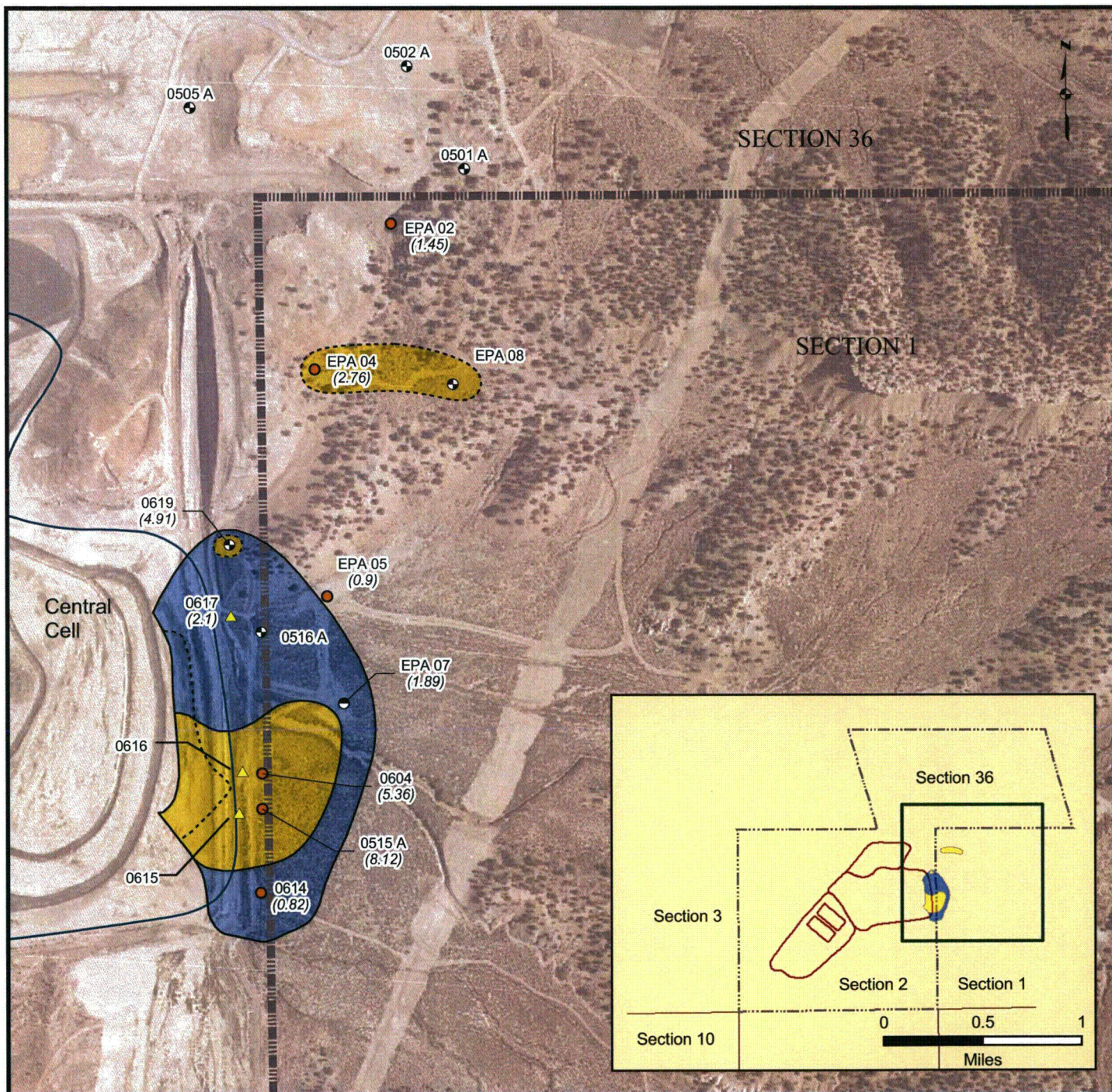
Zone 1 Approximate Extent of
Sulfate Exceeding 2,125 mg/L,
October 2012

United Nuclear Corporation Church Rock Site,
Church Rock, New Mexico



FIGURE 52
Zone 1 Manganese Concentrations Over Time
 United Nuclear Corporation, Church Rock Site, Church Rock, New Mexico





Legend

Well Type

- Water Quality and Water Level Monitoring
- ⊕ Water Level Monitoring
- ⊖ Decommissioned East Pump Back
- ▲ Revised East Pump Back (Inactive)

— Cell Boundary

▬▬▬▬ Property Boundary

■ Approximate Extent of Zone 1 Seepage Impacts

■ Approximate Extent of Manganese Exceeding 2.60 mg/L

(3.43) Manganese values in mg/L

Notes:

1. Seepage impacts delineated by chloride detections greater than 50 mg/L.
2. Aerial photo taken on August 1, 1996.

0 250 500 1,000
Feet

FIGURE 53

Zone 1 Approximate Extent of Manganese Exceeding 2.6 mg/L, October 2012

United Nuclear Corporation Church Rock Site, Church Rock, New Mexico



FIGURE 54
 Zone 1 Bicarbonate Concentrations Over Time
 United Nuclear Corporation, Church Rock Site, Church Rock, New Mexico

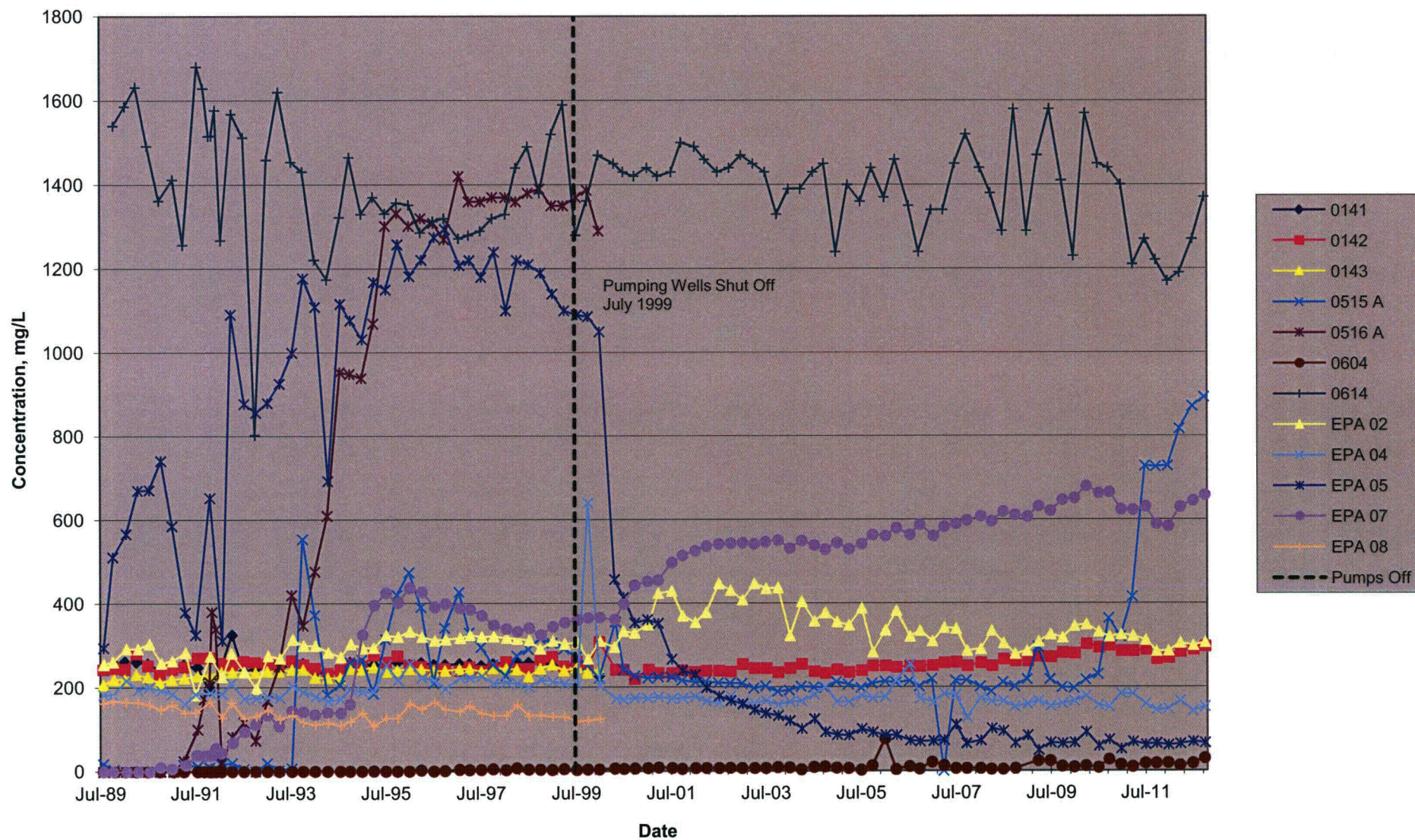
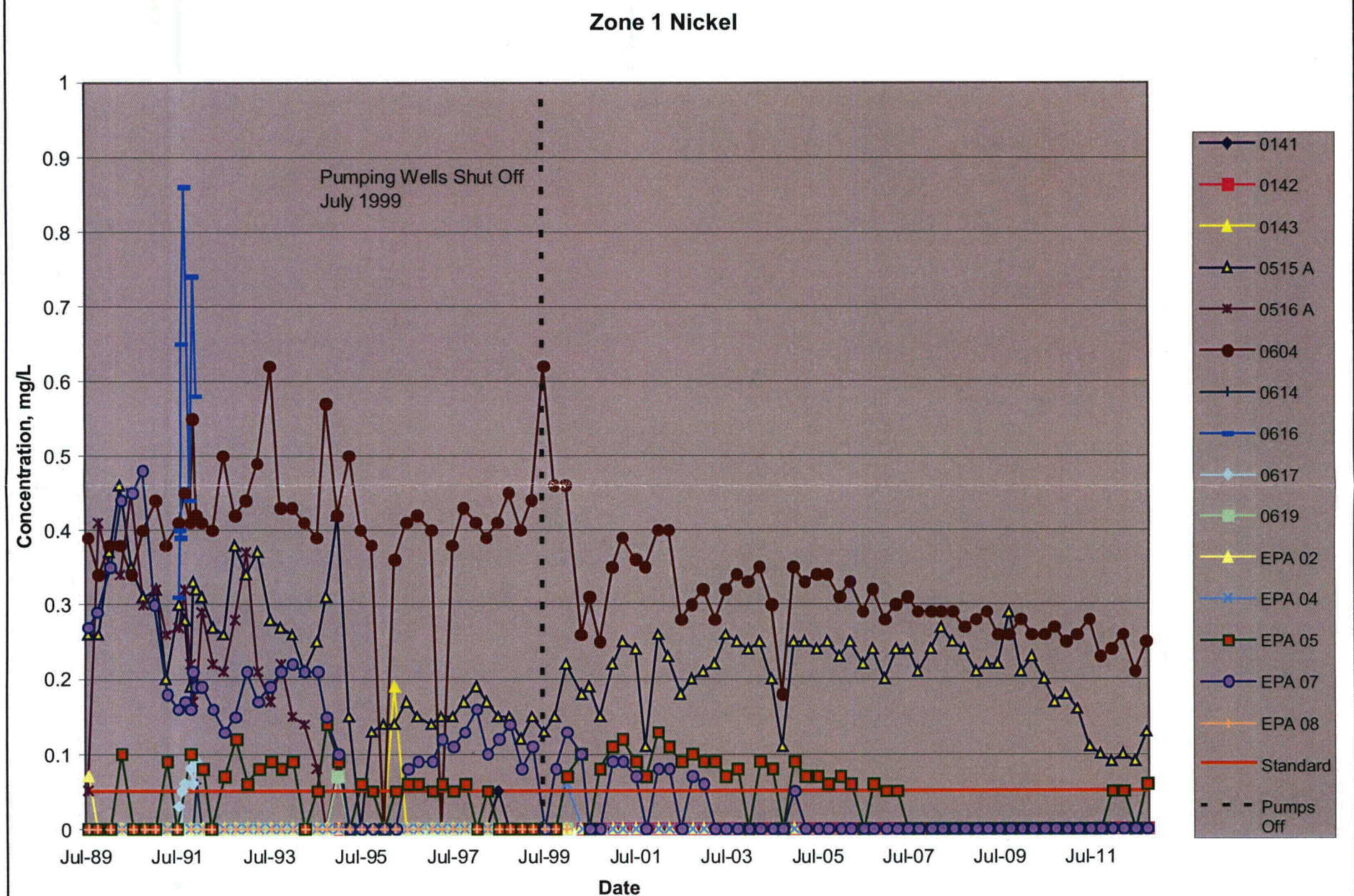
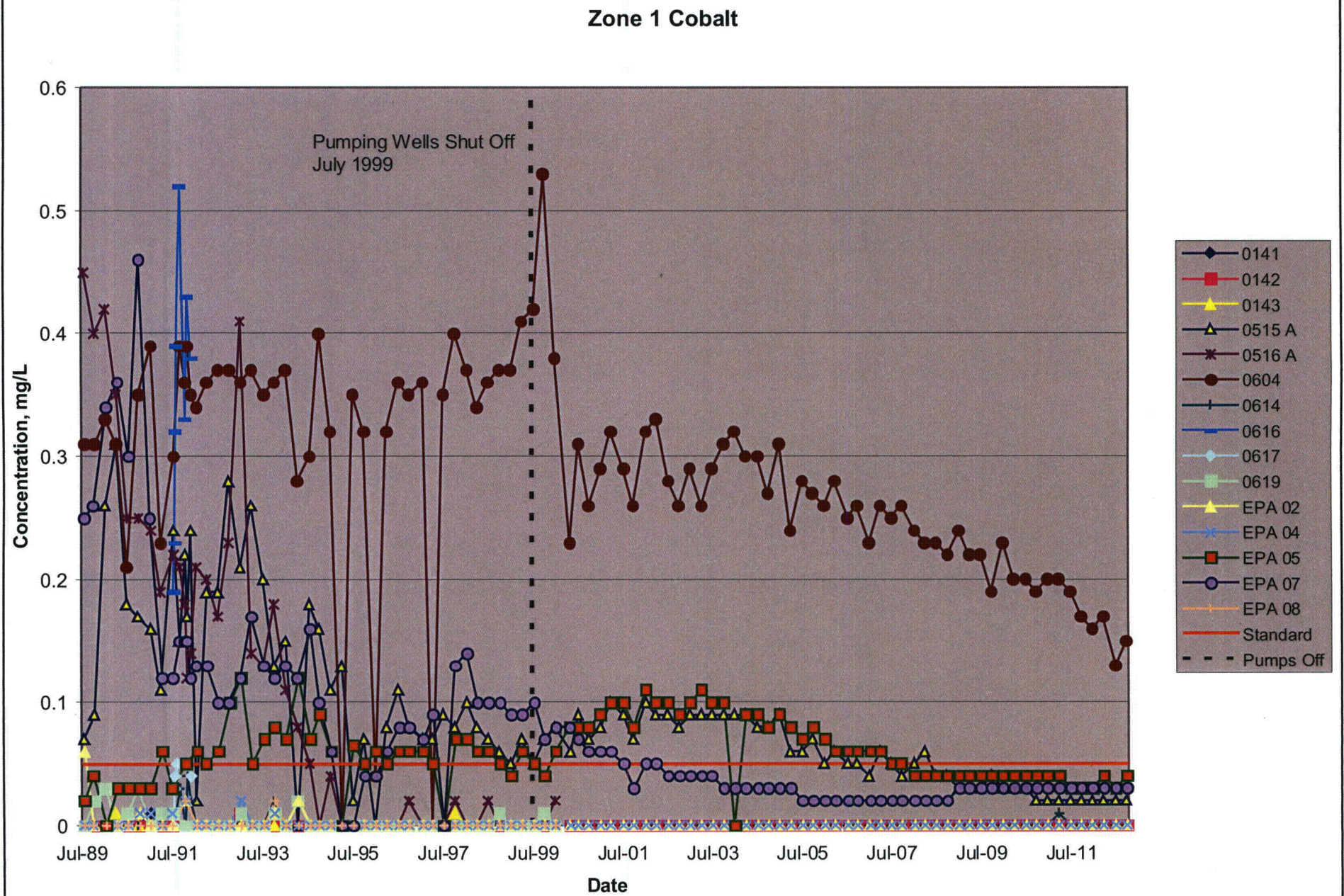
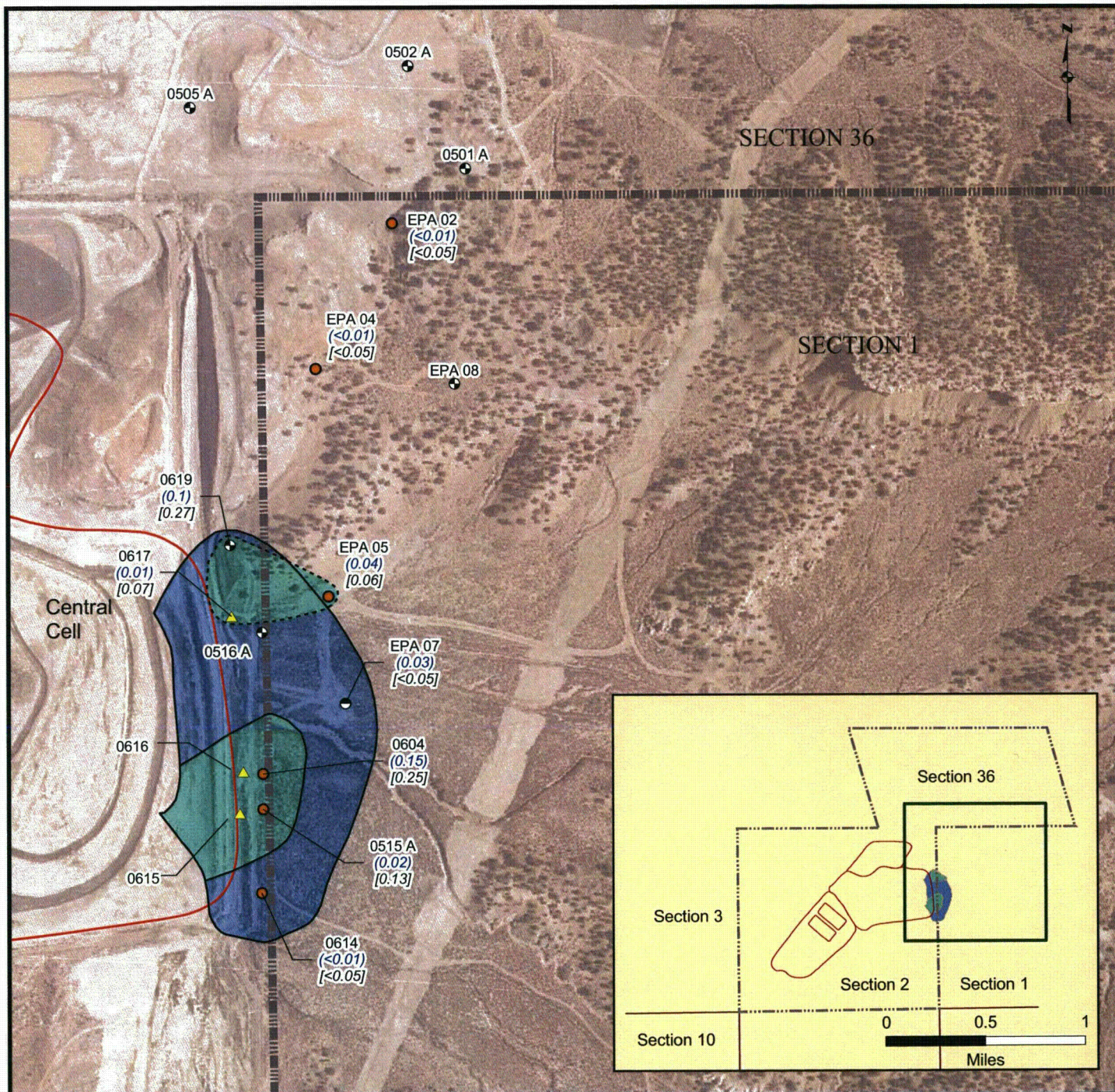


FIGURE 55
Zone 1 Cobalt and Nickel Concentrations over Time
 United Nuclear Corporation Church Rock Site, Church Rock, New Mexico





Legend

Well Type

- Water Quality and Level Monitoring
- ⊕ Water Level Monitoring
- ⊖ Decommissioned East Pump Back
- ▲ Revised East Pump Back

— Cell Boundary

▬ Property Boundary

■ Approximate Extent of Zone 1 Seepage Impacts

■ Approximate Extent of Cobalt and/or Nickel Exceeding 0.05 mg/l

(<0.01) Cobalt Concentration, mg/L

[<0.05] Nickel Concentration, mg/L

Notes:

1. Seepage impacts delineated by chloride detections greater than 50 mg/L.
2. Well names are displayed with black text.
3. Aerial photo taken on August 1, 1996.

0 250 500 1,000
Feet

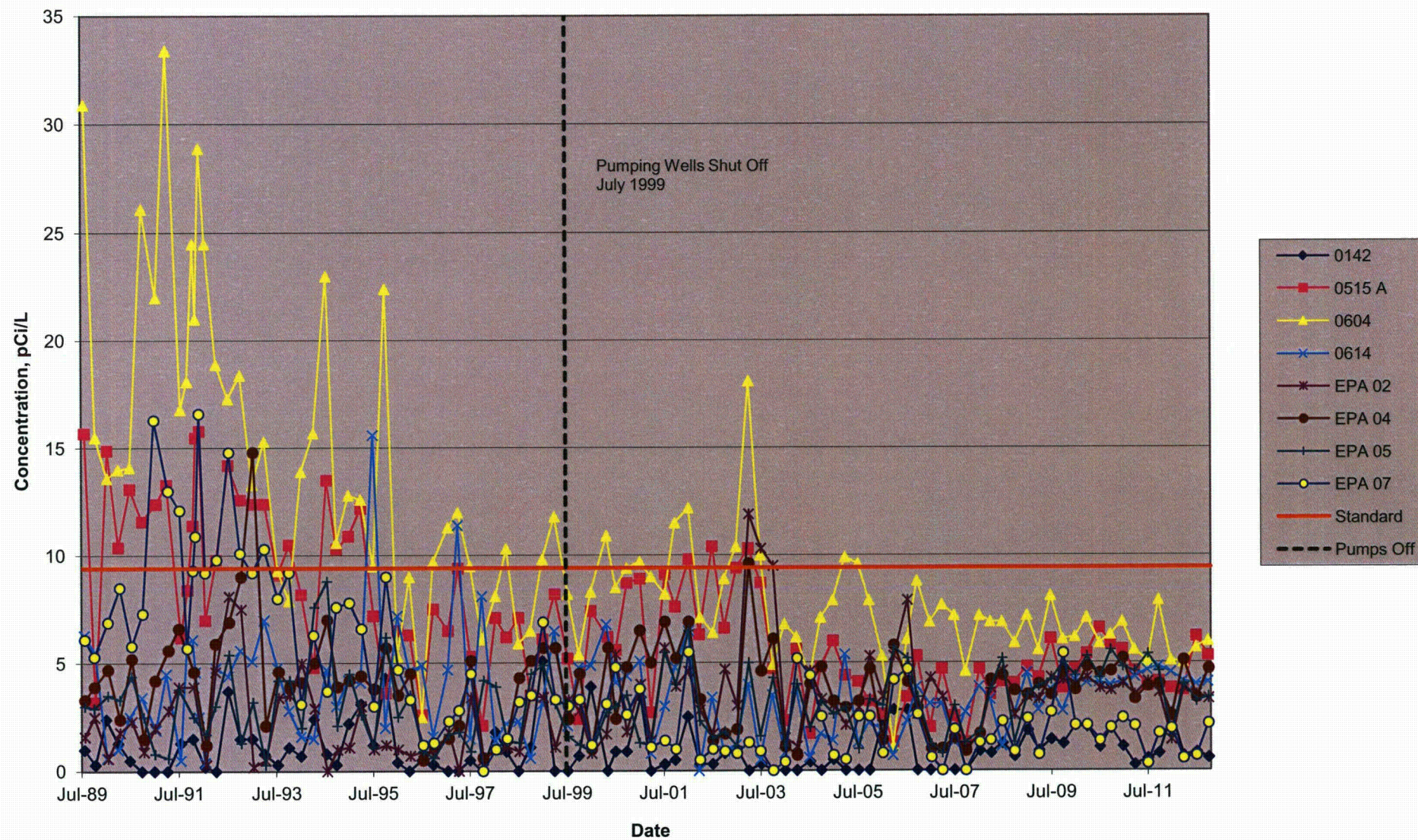
FIGURE 56

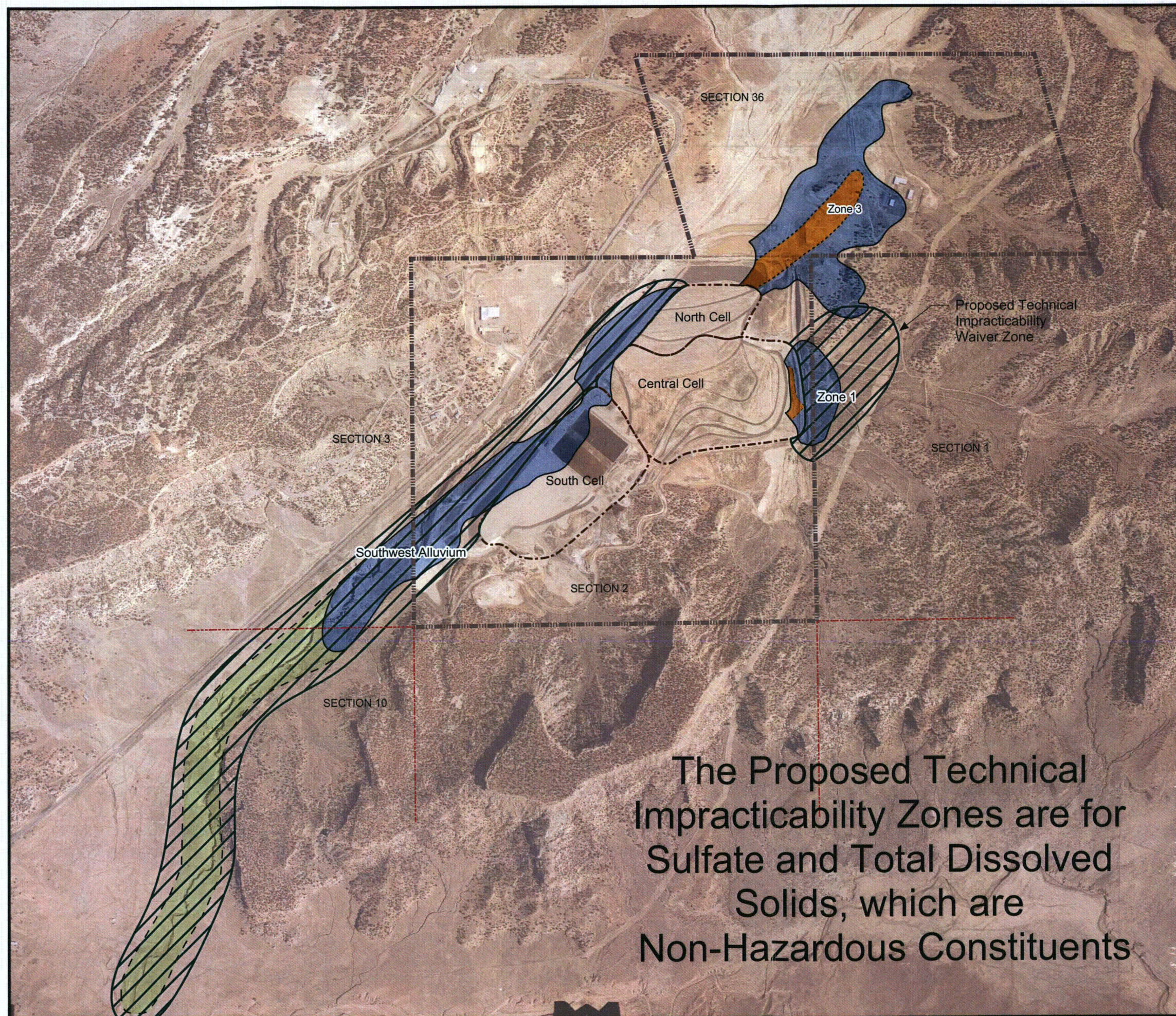
Zone 1 Extent of Cobalt and Nickel Exceeding 0.05 mg/L, October 2012

United Nuclear Corporation Church Rock Site, Church Rock, New Mexico



FIGURE 57
 Zone 1 Combined Radium-226 and Radium-228 Over Time
 United Nuclear Corporation, Church Rock Site, Church Rock, New Mexico





Legend

- Section Boundary
- Property Boundary
- Tailings Pond
- Groundwater with pH ≤ 4
- Seepage-Impacted Groundwater
- Proposed Technical Impracticability Waiver Zone
- Seepage Impact in 2204
- Extrapolated Extent of Seepage Impact in Southwest Alluvium in 2204

Notes:

1. Extrapolated Extent of Southwest Alluvium Seepage Impact in 2204 based upon an average annual seepage impact advance of 30 feet per year.
2. Aerial photo taken on August 1, 1996.

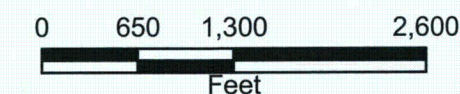


FIGURE 58

Proposed TI Waiver for Zone 1 and Extrapolated Extent of Southwest Alluvium Seepage Impact in 2204

United Nuclear Corporation Church Rock Site
Church Rock, New Mexico

