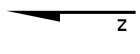
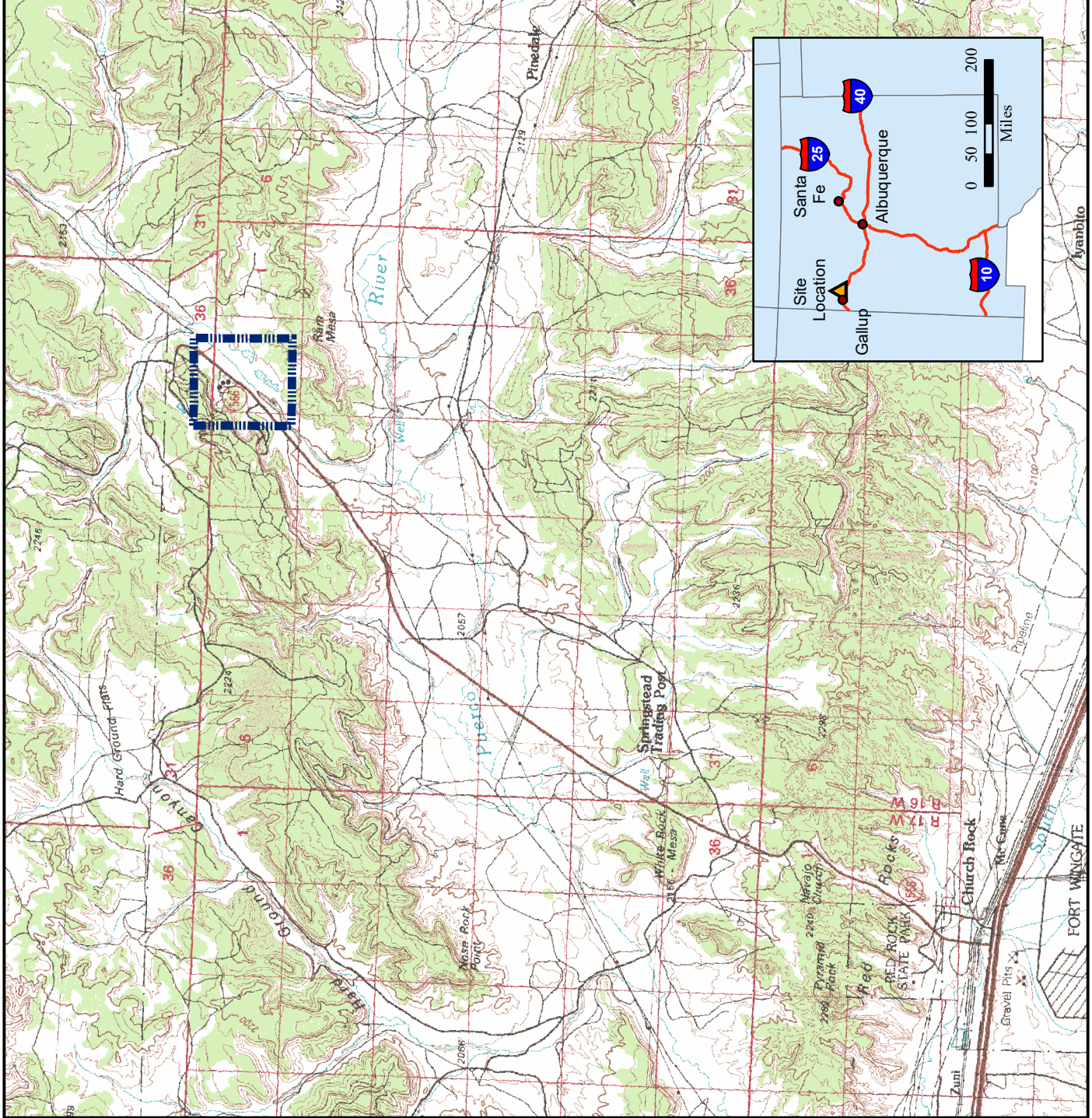





---

# FIGURES



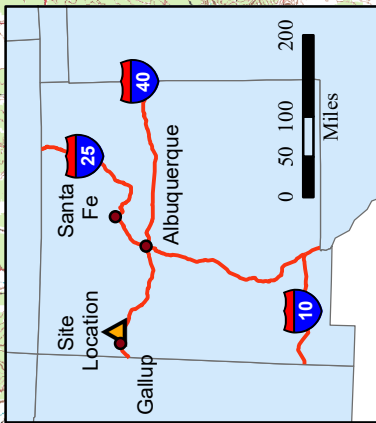
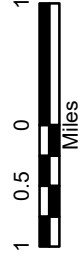
**LEGEND**

-  Approximate Site Location
-  Major City
-  Church Rock Site Location
-  Interstate Highway
-  State Boundary

**NEW MEXICO INSET LEGEND**

**Notes:**

1. Topographic basemap taken from the United States Geologic Survey 30x60 minute, 1:100,000 scale, Gallup, New Mexico Topographic Map, 1981.
2. Data for New Mexico Inset map taken from ESRI Data & Maps 2002 CD-ROM set.

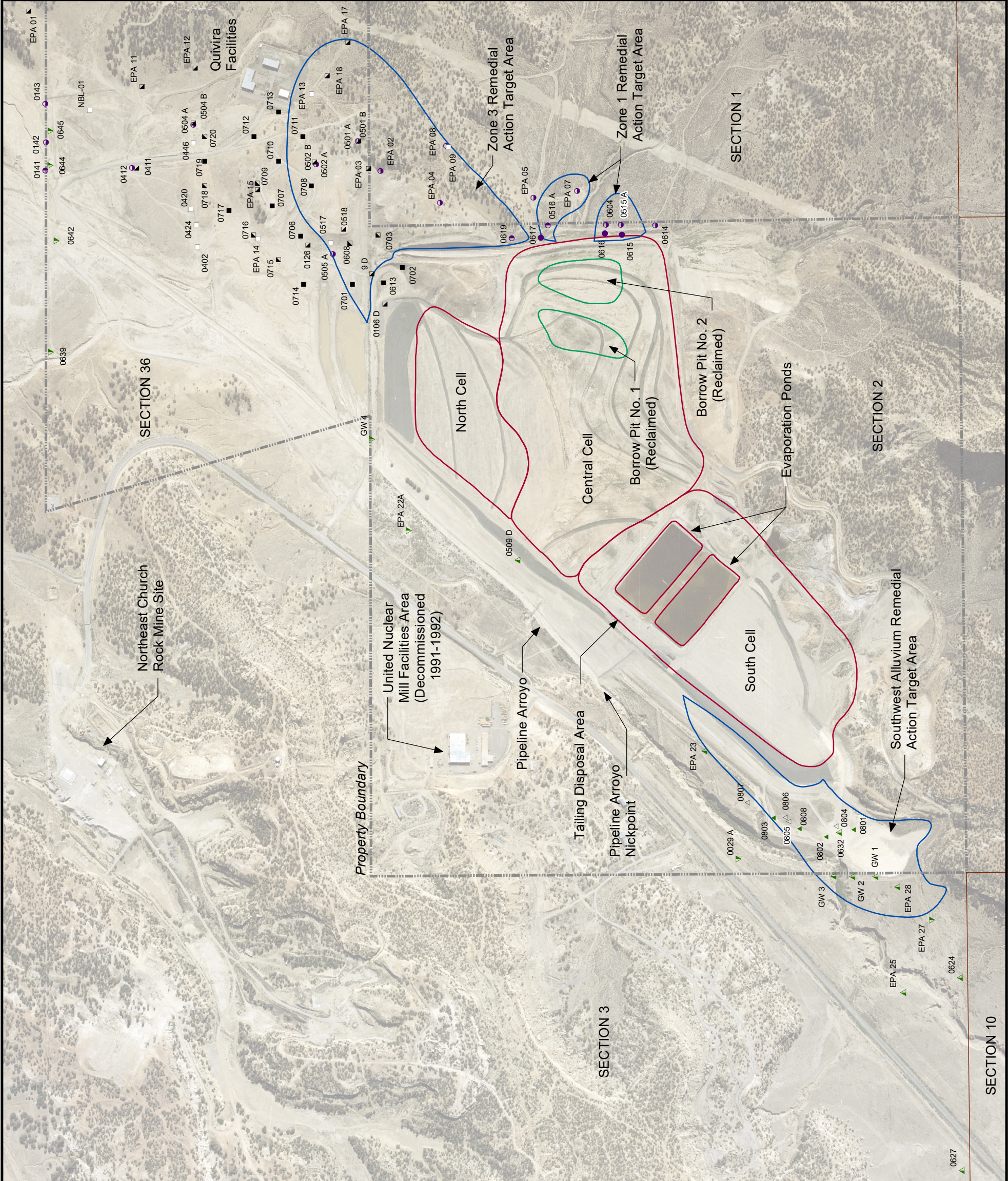


**FIGURE 1**

Site Location Map

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





**Legend**

**Southwest Alluvium**

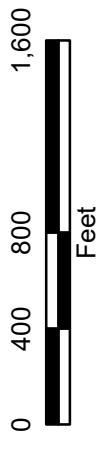
- ▲ Idled Extraction Well
- ▲ Monitoring Well
- △ Water Level Monitoring Well
- ▼ Dry Monitoring Well

**Zone 3**

- Idled Extraction Well Used for Monitoring
- ▣ Decommissioned or Idle Extraction Well
- Monitoring Well
- ▣ Dry or Decommissioned Monitoring Well

**Zone 1**

- Decommissioned Extraction Well
- Decommissioned Monitoring Well
- Monitoring Well

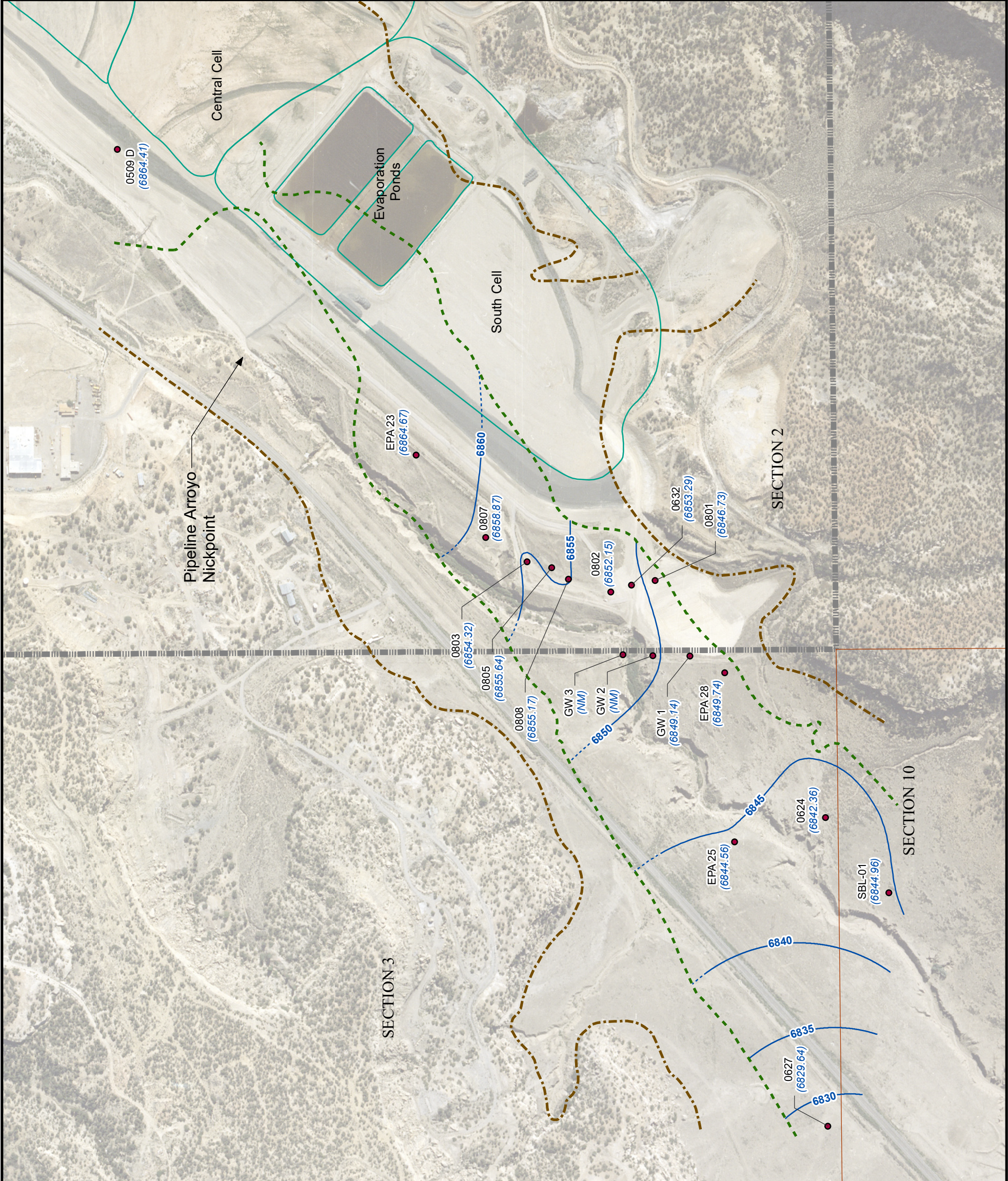


**FIGURE 2**

Site Layout and Performance  
Monitoring Well Locations,  
2018 Operating Year

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





**Legend**

- Southwest Alluvium Monitoring Well
- Groundwater Elevation Contour
- - - Inferred Groundwater Elevation Contour
- - - Approximate Extent of Alluvium
- - - Approximate Extent of Saturated Alluvium
- ▤ Property Boundary
- Section Boundary
- Cell Boundary

**Notes:**

1. Groundwater elevation values are displayed in feet above mean sea level.
2. Well names are displayed with black text.
3. Groundwater elevations are shown with blue text and enclosed in parentheses.
4. Aerial photo taken on August 1, 1996.
5. NM – Not Measured

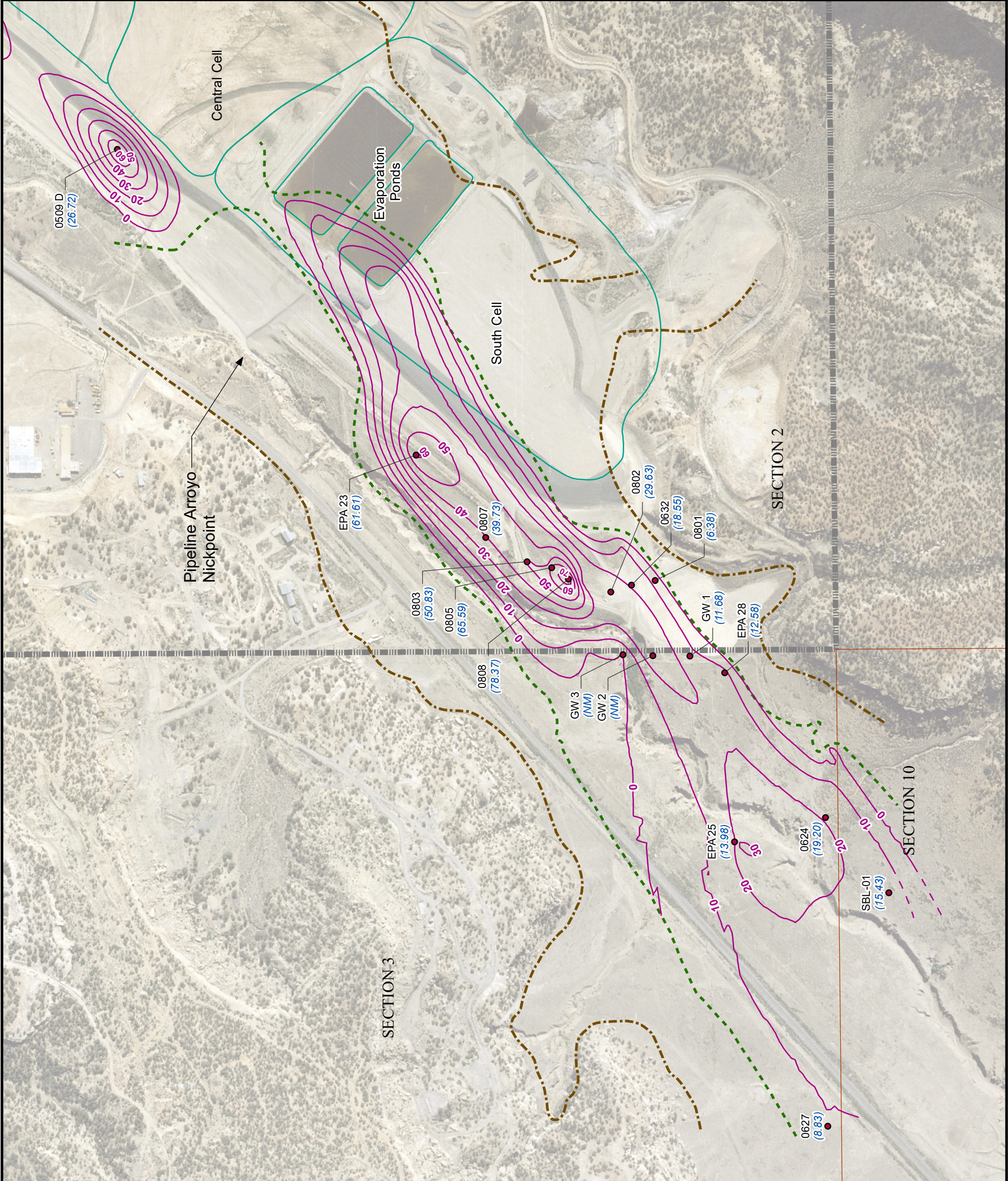


**FIGURE 3A**

Southwest Alluvium  
 Potentiometric Surface Map,  
 October 2018

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





**Legend**

- Southwest Alluvium Monitoring Well
- - - Approximate Extent of Alluvium
- - - Approximate Extent of Saturated Alluvium
- ▬ Property Boundary
- ▬ Section Boundary
- ▬ Cell Boundary
- ▬ Saturated Thickness Contours (feet)
- - - Inferred Saturated Thickness Contours (feet)

**Notes:**

1. Well names are displayed with black text.
2. Saturated thicknesses (feet) are shown with blue text and enclosed in parentheses.
3. Aerial photo taken on August 1, 1996.
4. The posted value of saturated thickness at well 0509 D derives from reference to the screen bottom. The alluvium extends as much as 38 feet below this depth in the vicinity of this well.
5. Saturated thickness at SBL-01 estimated due to incomplete well construction information.
6. NM – Not Measured

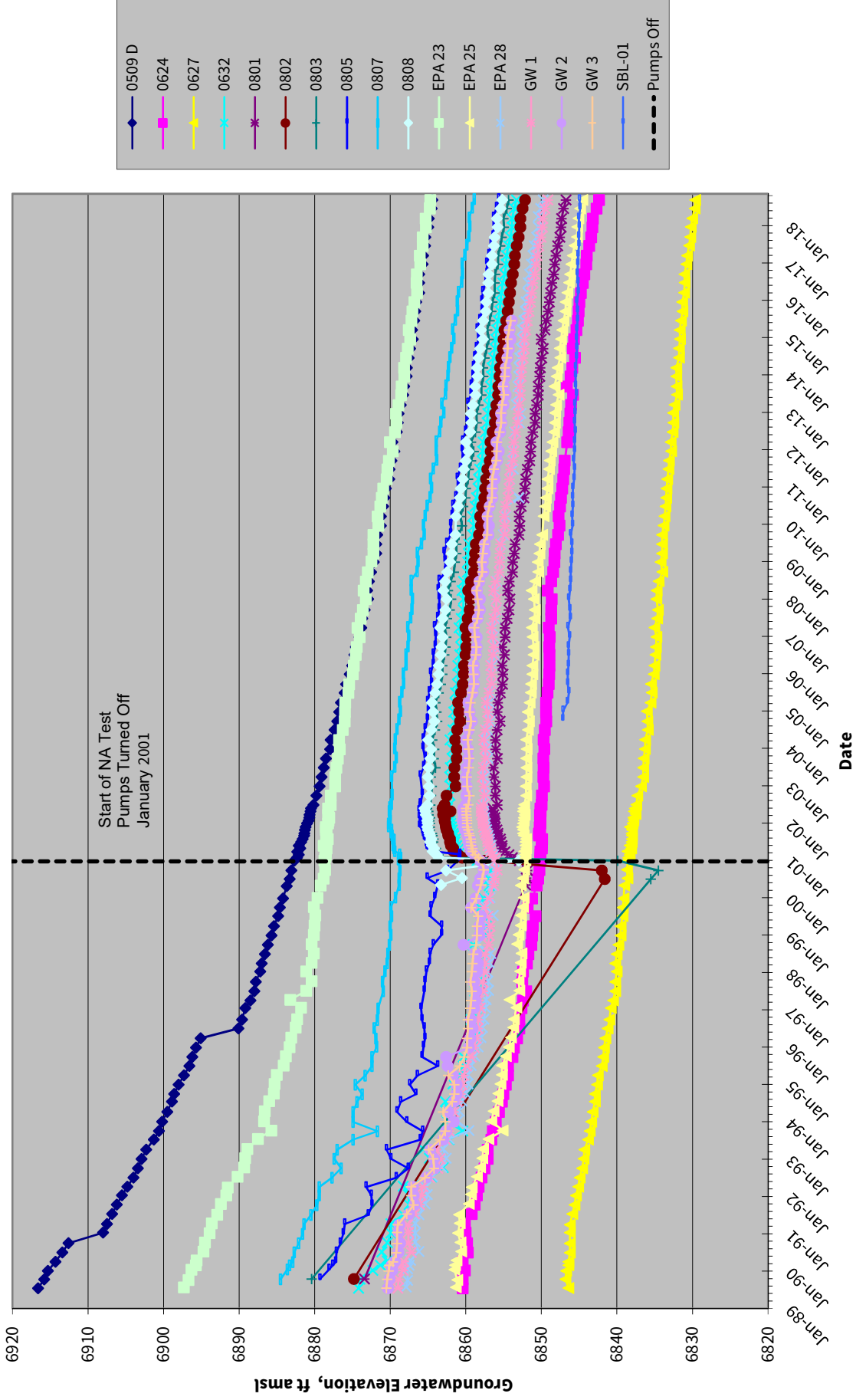
**FIGURE 3B**

Southwest Alluvium  
Saturated Thickness Map,  
October 2018

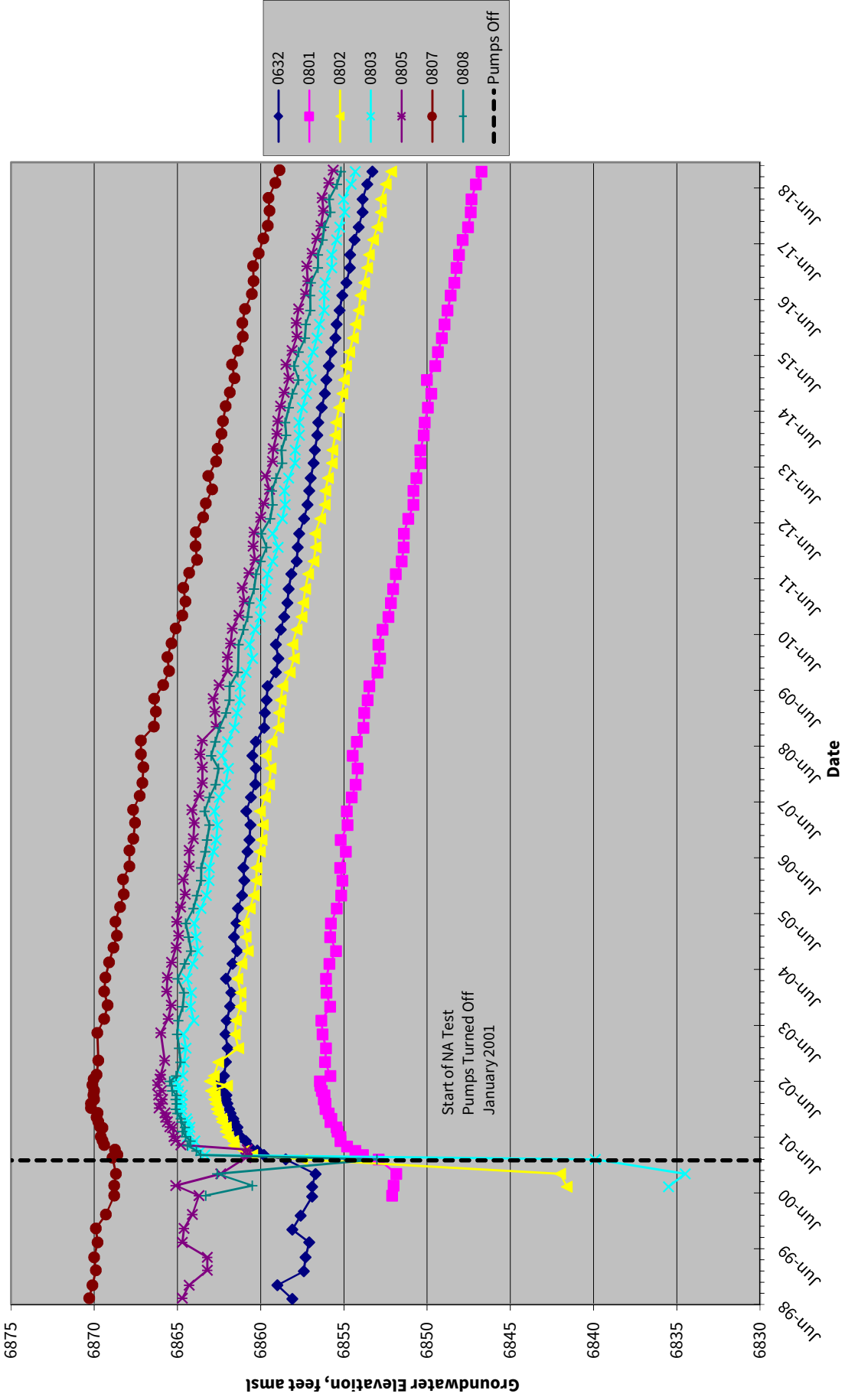
United Nuclear Corporation Church Rock Site,  
Church Rock, New Mexico

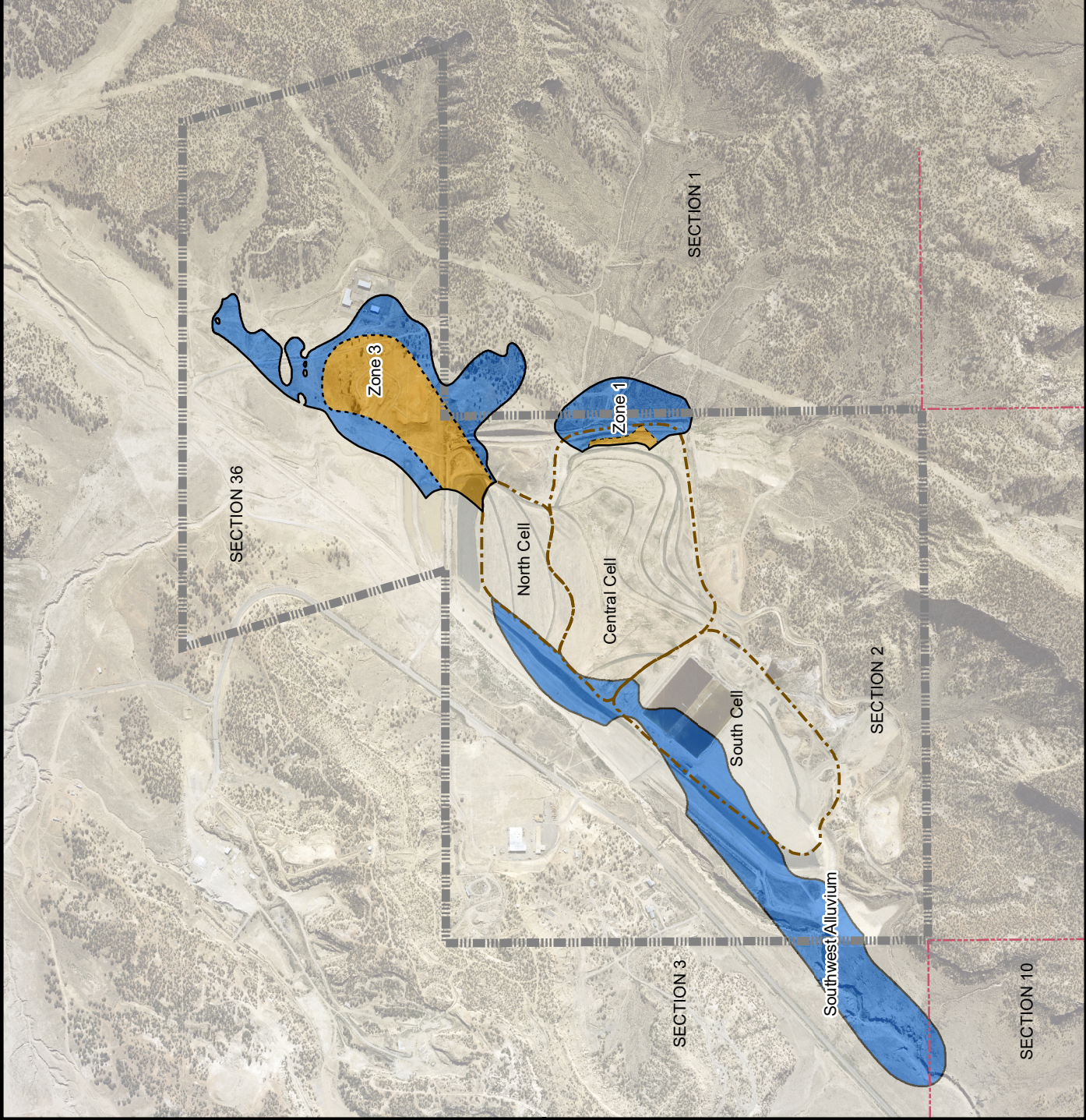


**FIGURE 4**  
 Southwest Alluvium Water Levels Over Time  
 United Nuclear Corporation Church Rock Site, Church Rock New Mexico








**FIGURE 5**  
 Southwest Alluvium Pumping Well Water Levels Over Time  
 United Nuclear Corporation Church Rock Site, Church Rock New Mexico

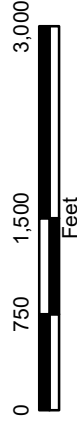




**LEGEND**

-  Section Boundary
-  Property Boundary
-  Tailings Pond
-  Groundwater with pH <= 4
-  Seepage-Impacted Groundwater

Aerial photo taken on August 1, 1996.



**FIGURE 6**

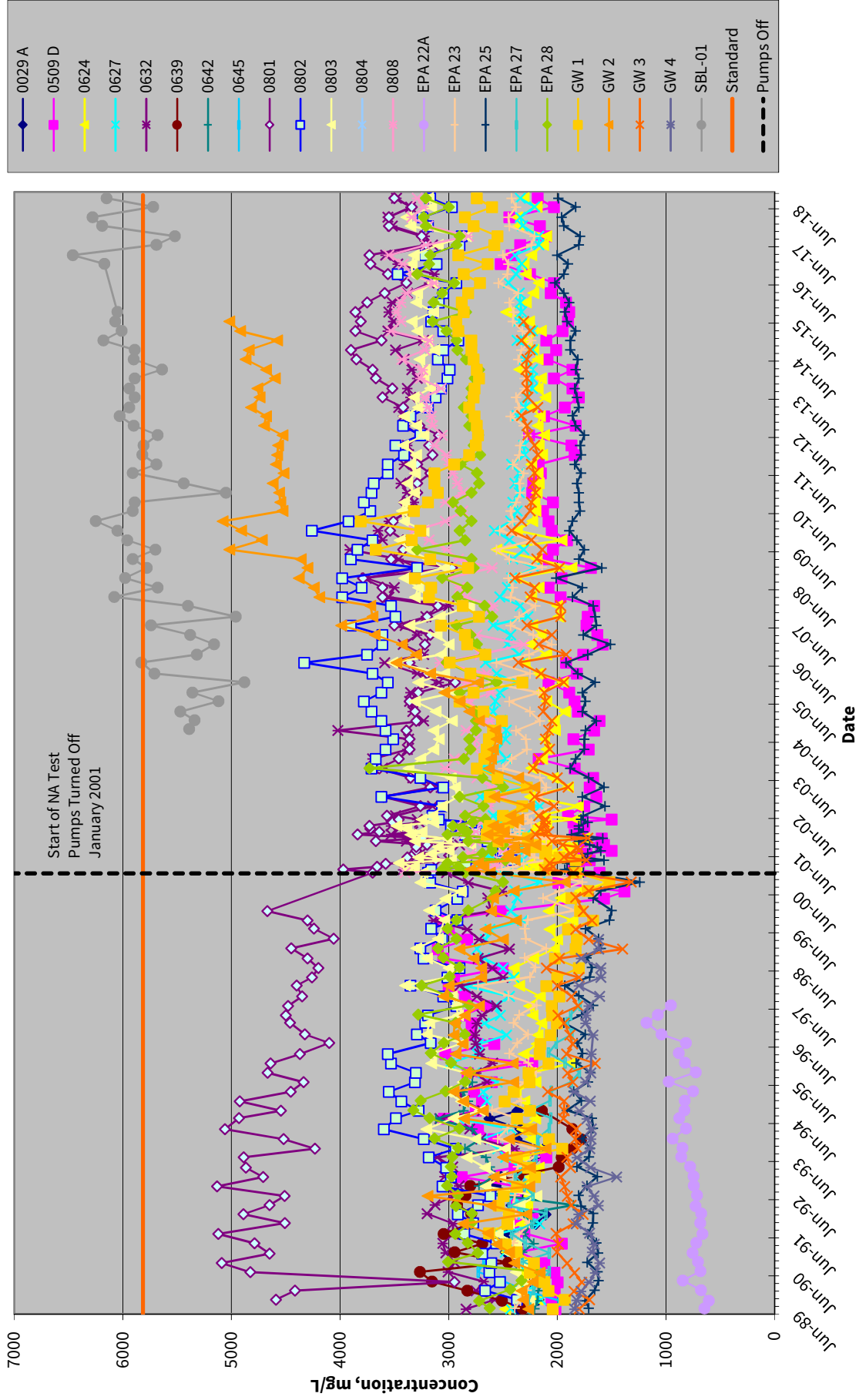
Extent of Seepage-Impacted Groundwater, October 2018

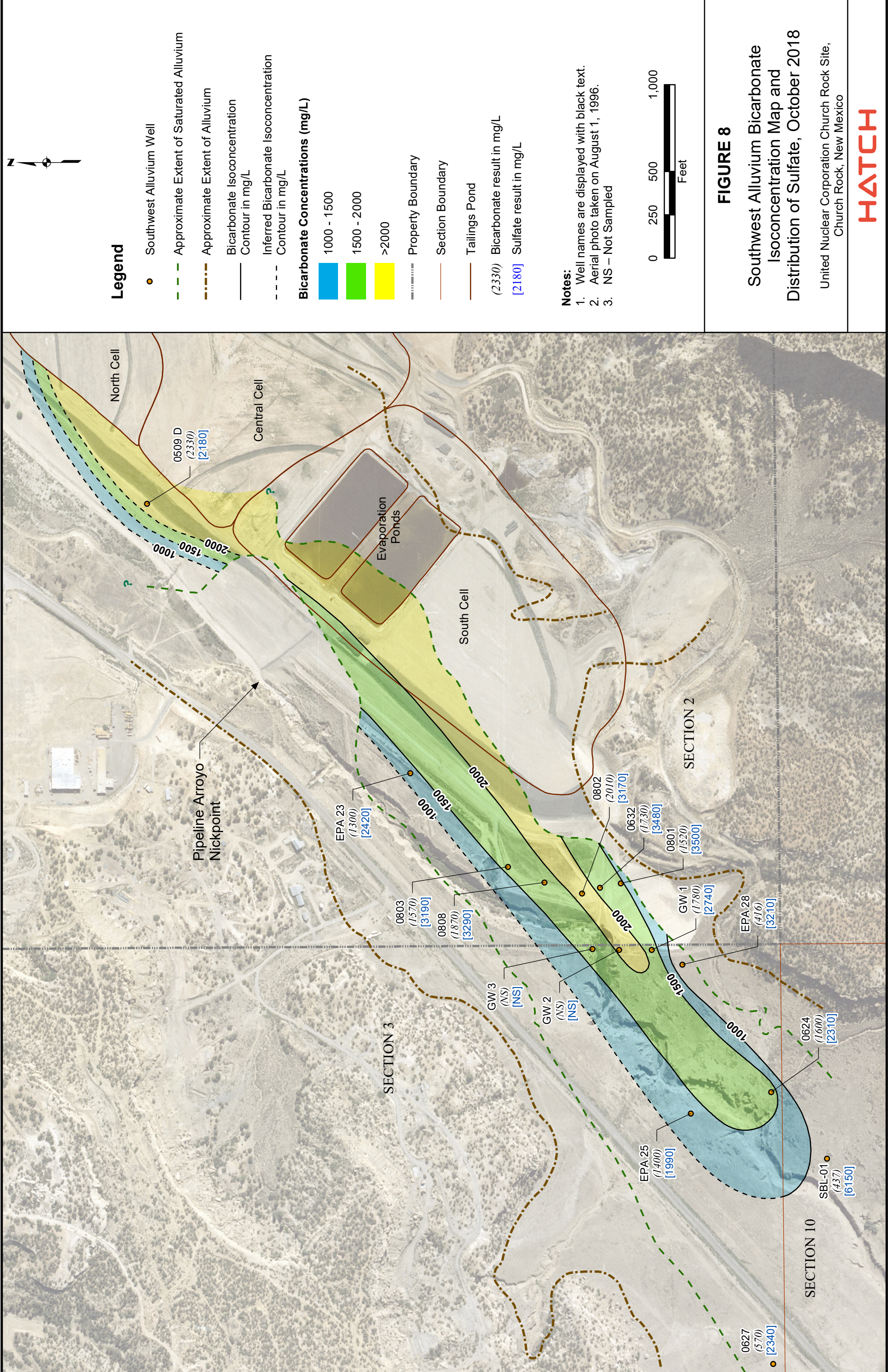
United Nuclear Corporation Church Rock Site  
Church Rock, New Mexico





**FIGURE 7**  
 Southwest Alluvium Sulfate Concentrations Over Time  
 United Nuclear Corporation Church Rock Site, Church Rock, New Mexico





**Legend**

- Southwest Alluvium Well
- - - Approximate Extent of Saturated Alluvium
- - - Approximate Extent of Alluvium
- Bicarbonate Isoconcentration Contour in mg/L
- - - Inferred Bicarbonate Isoconcentration Contour in mg/L

**Bicarbonate Concentrations (mg/L)**

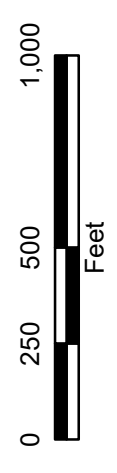
- 1000 - 1500
- 1500 - 2000
- >2000

- - - Property Boundary
- Section Boundary
- Tailings Pond

- (2330) Bicarbonate result in mg/L
- [2180] Sulfate result in mg/L

**Notes:**

1. Well names are displayed with black text.
2. Aerial photo taken on August 1, 1996.
3. NS – Not Sampled



**FIGURE 8**

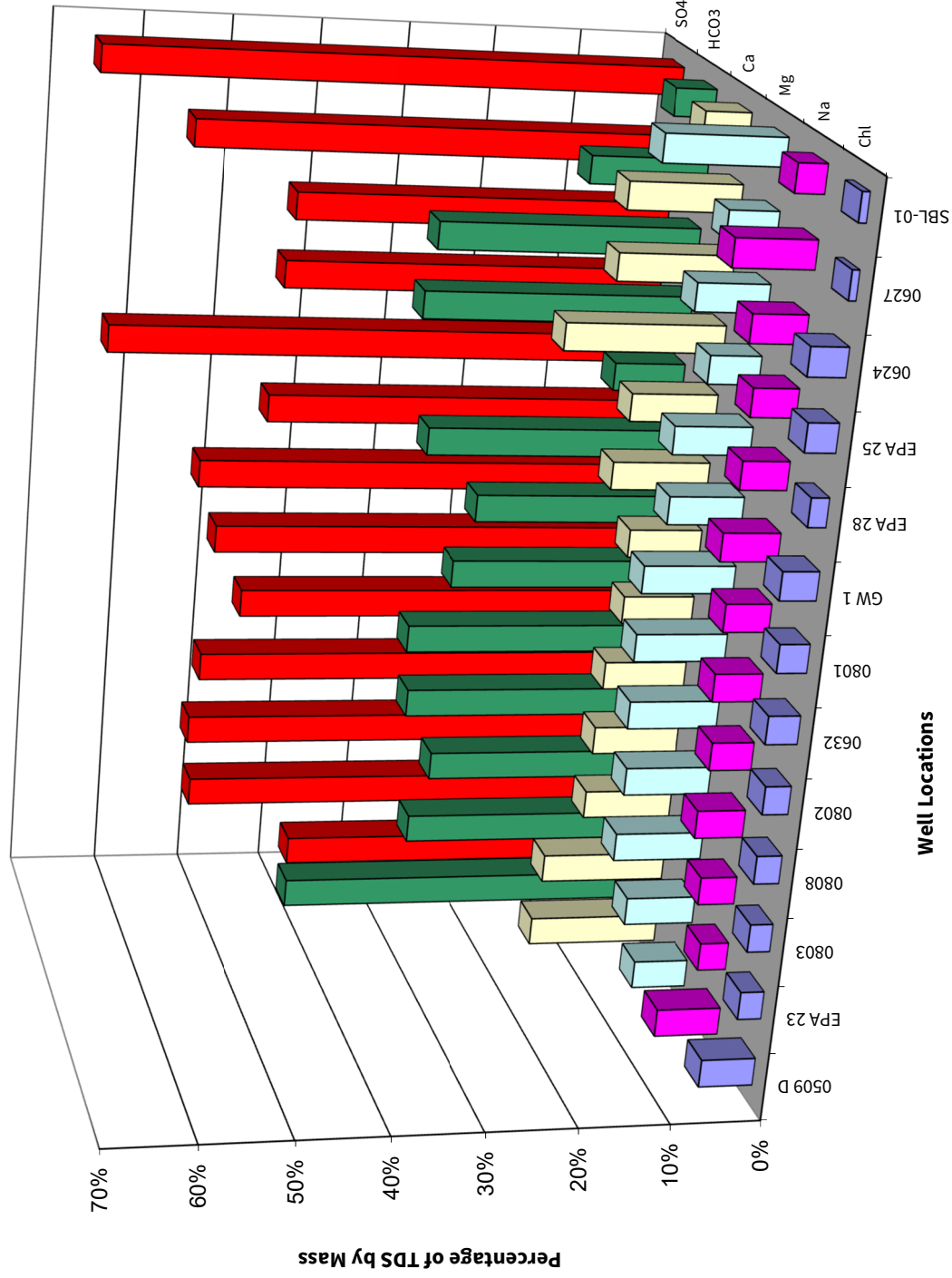
Southwest Alluvium Bicarbonate Isoconcentration Map and Distribution of Sulfate, October 2018

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

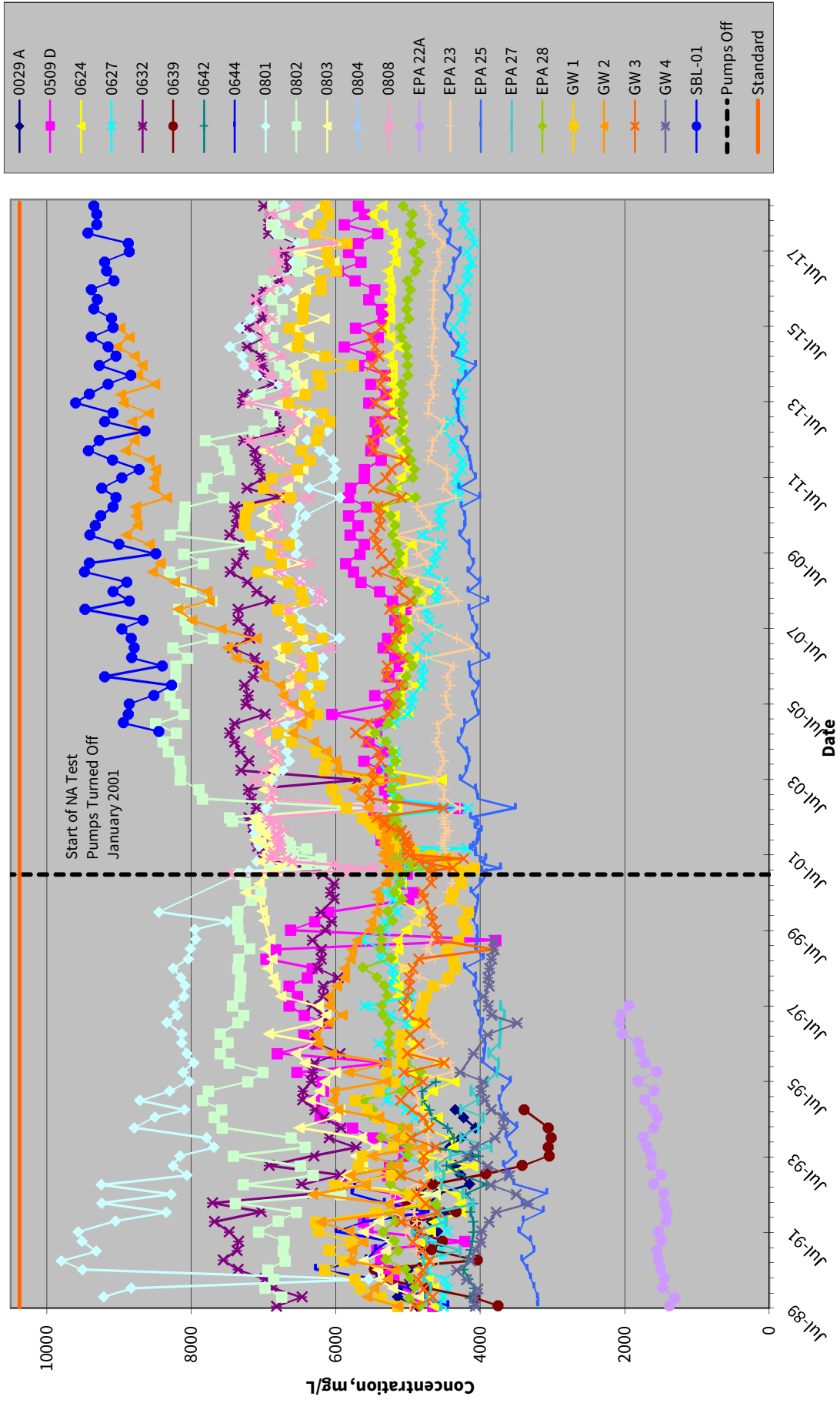


**FIGURE 9**

Primary Components of Total Dissolved Solids in the Southwest Alluvium, October 2018  
United Nuclear Corporation Church Rock Site, Church Rock, New Mexico

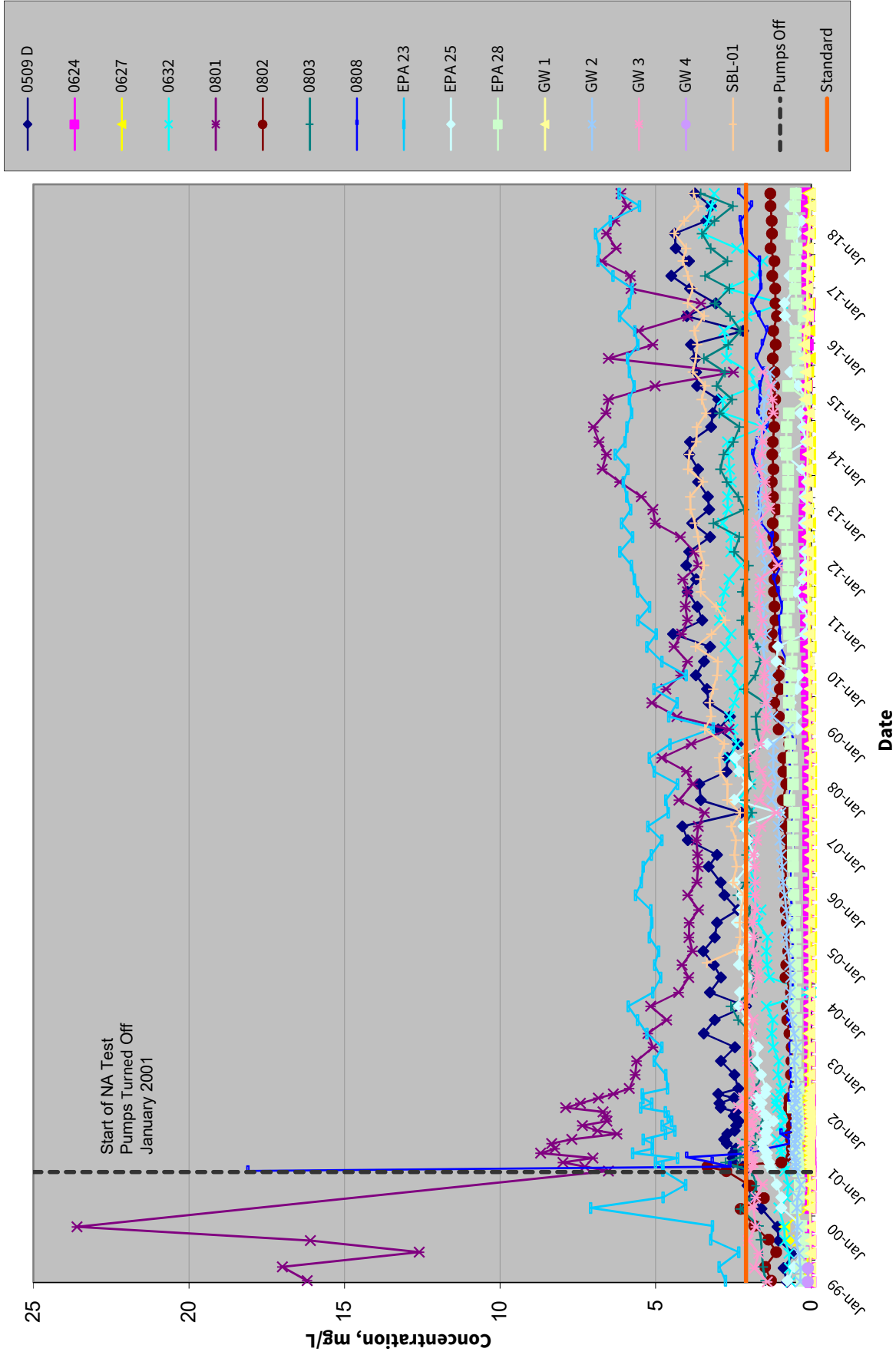


**FIGURE 10**  
 Southwest Alluvium Total Dissolved Solids Concentrations Over Time  
 United Nuclear Corporation Church Rock Site, Church Rock, New Mexico

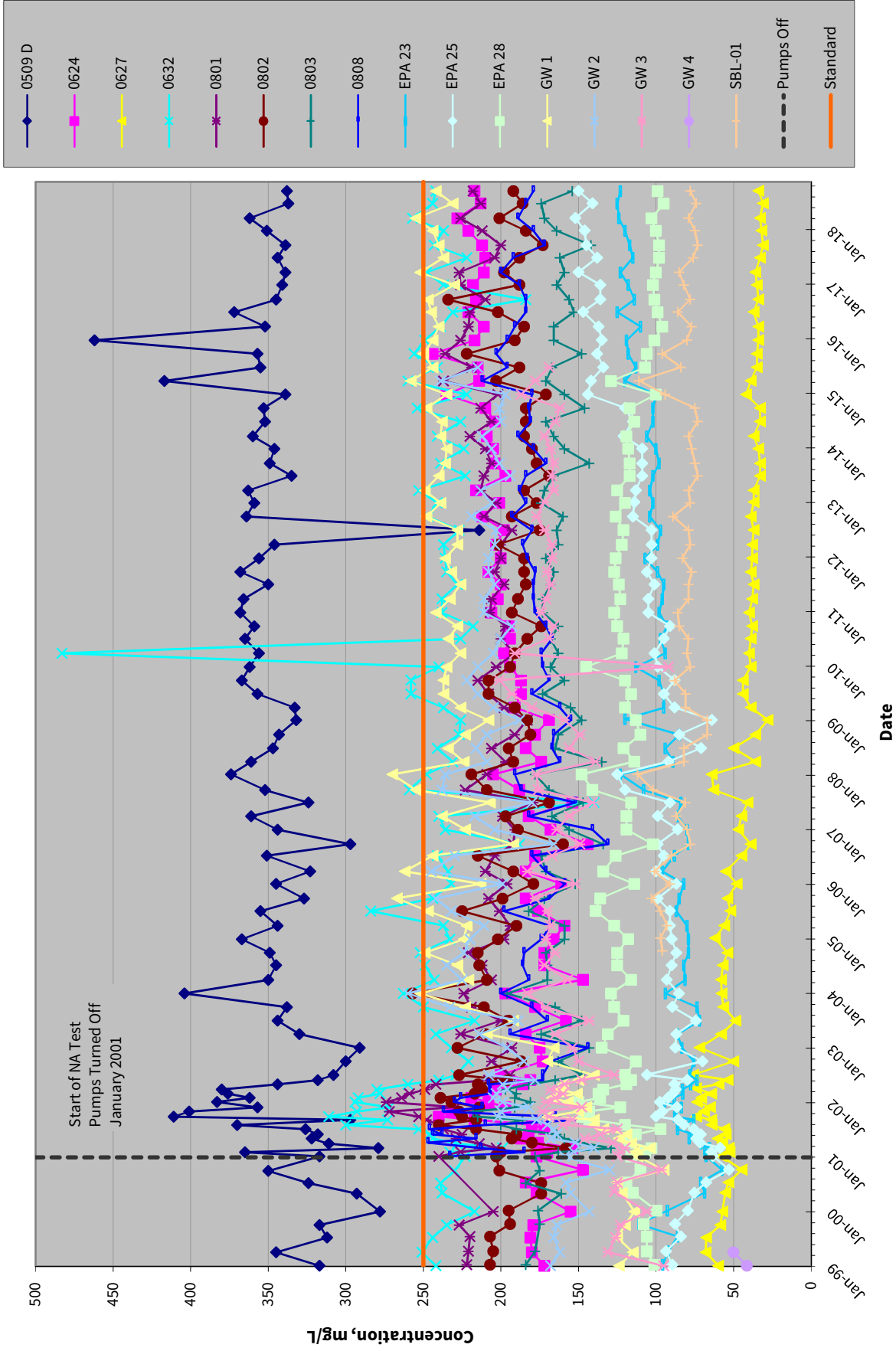


**FIGURE 11**

Southwest Alluvium Manganese Concentrations From 1999 Through October 2018  
United Nuclear Corporation Church Rock Site, Church Rock, New Mexico

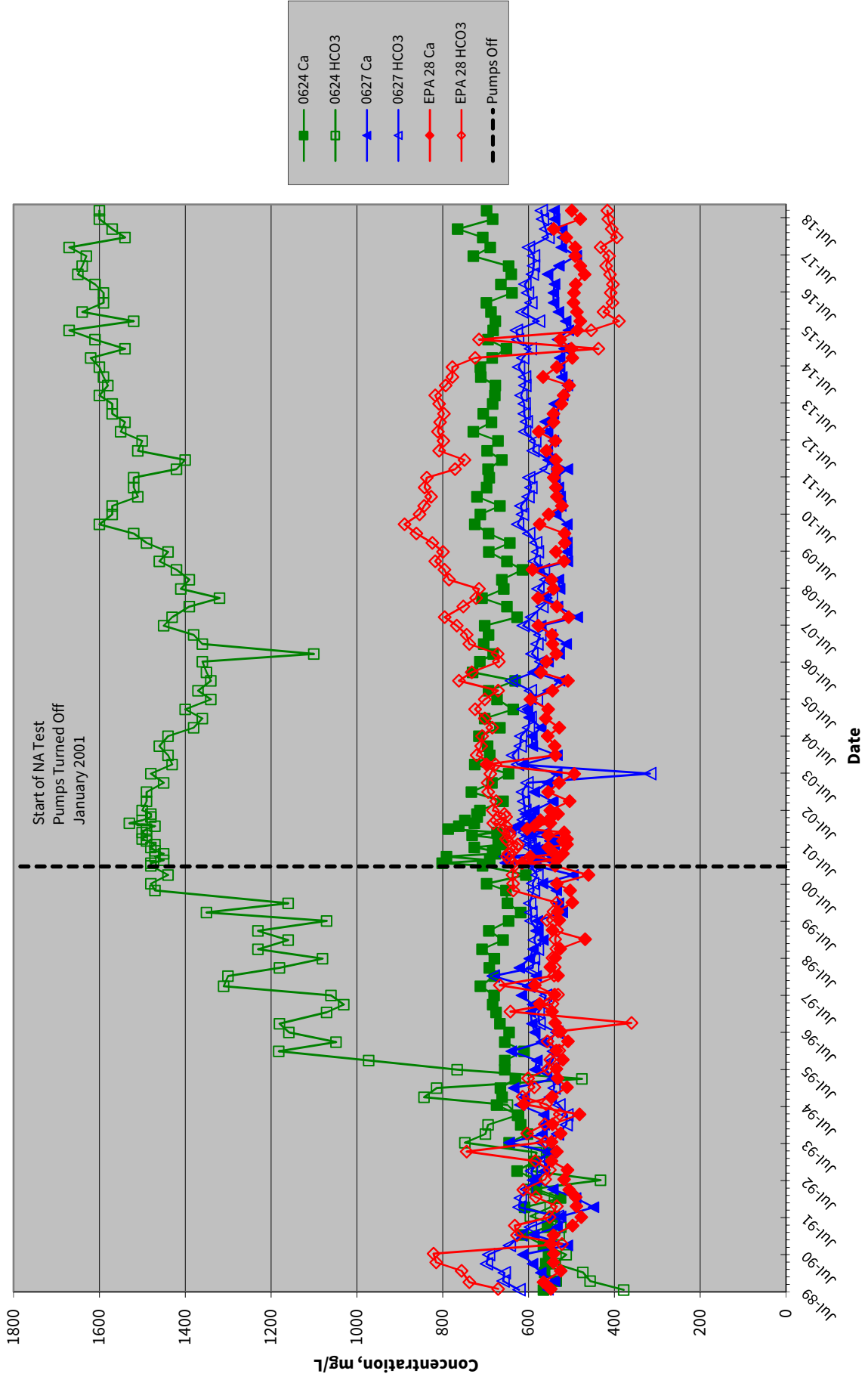


**FIGURE 12**  
 Southwest Alluvium Chloride Concentrations From 1999 Through October 2018  
 United Nuclear Corporation Church Rock Site, Church Rock, New Mexico



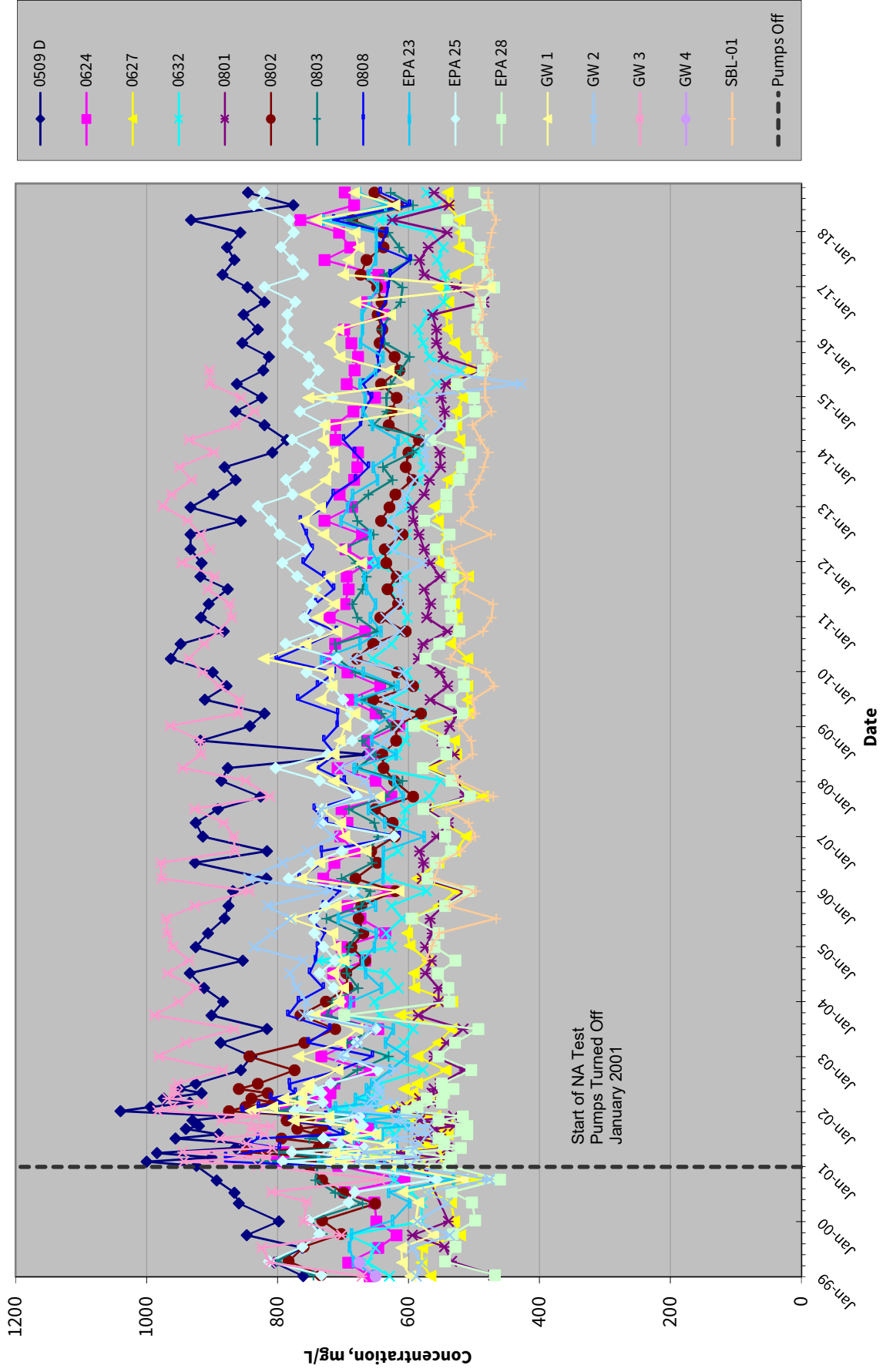
**FIGURE 13**

Calcium and Bicarbonate Concentrations in Selected Background and Seepage-Impacted Wells  
United Nuclear Corporation Church Rock Site, Church Rock, New Mexico



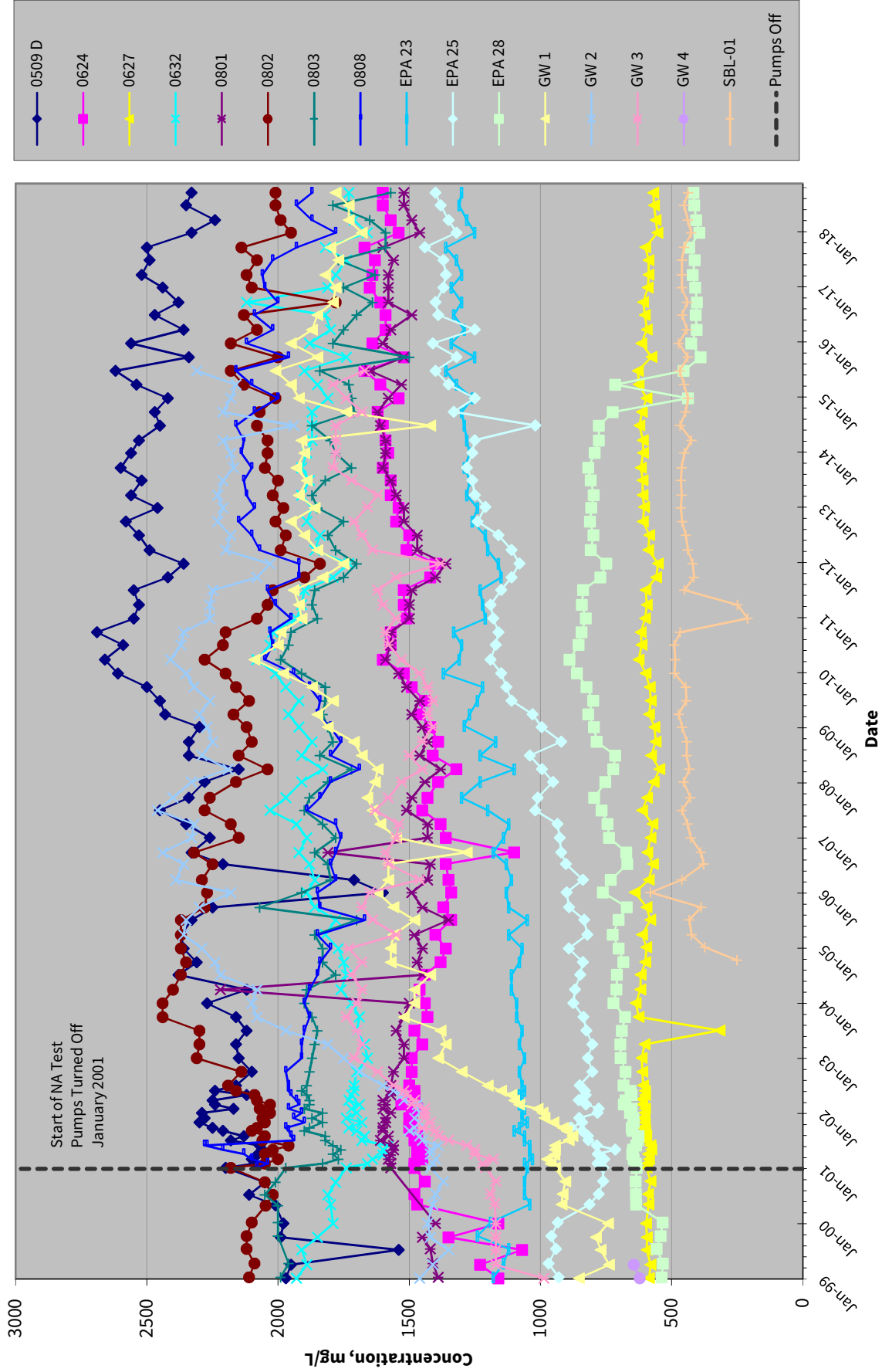
**FIGURE 14**

Southwest Alluvium Calcium Concentrations From 1999 Through October 2018  
United Nuclear Corporation Church Rock Site, Church Rock, New Mexico

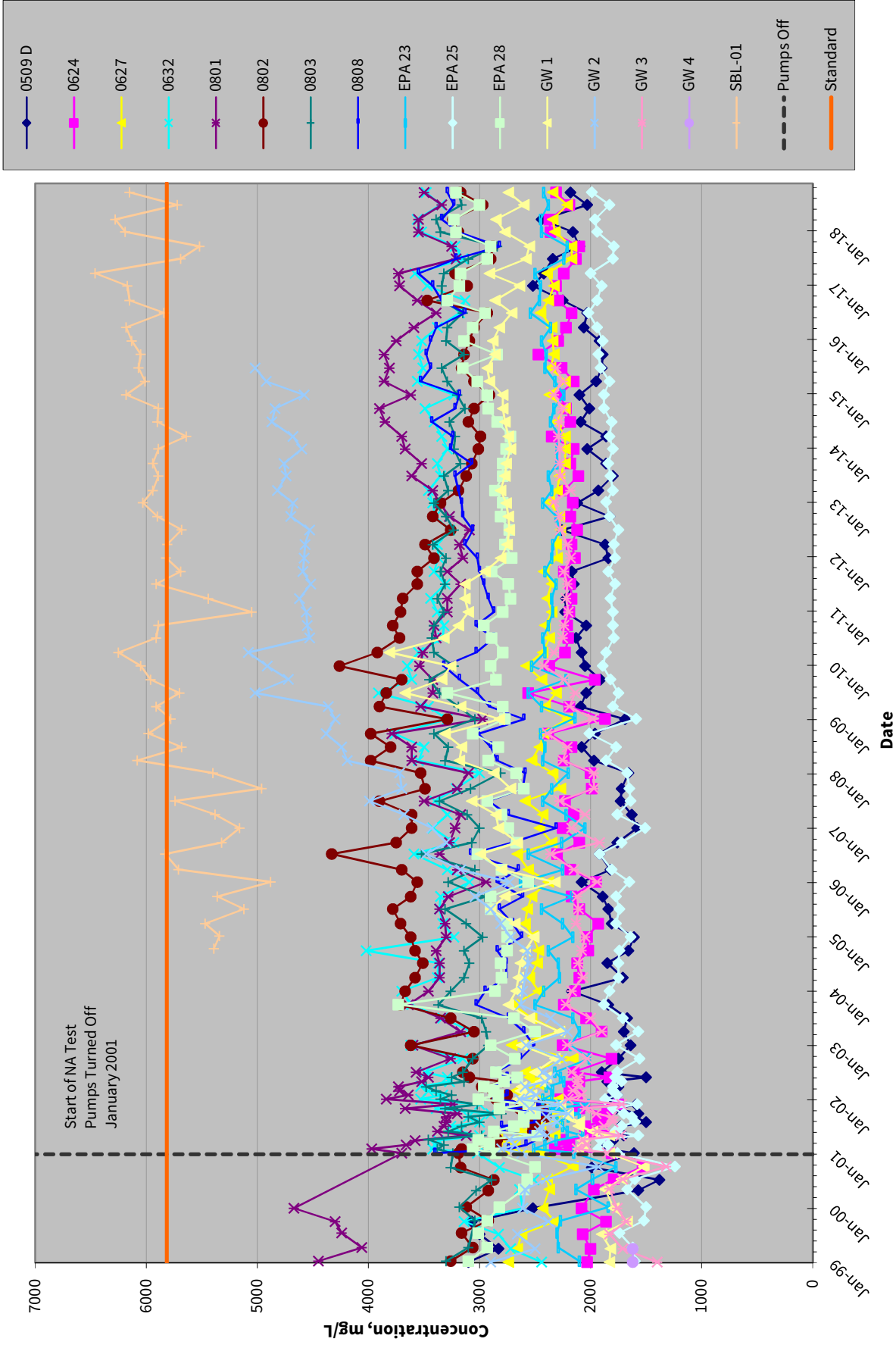




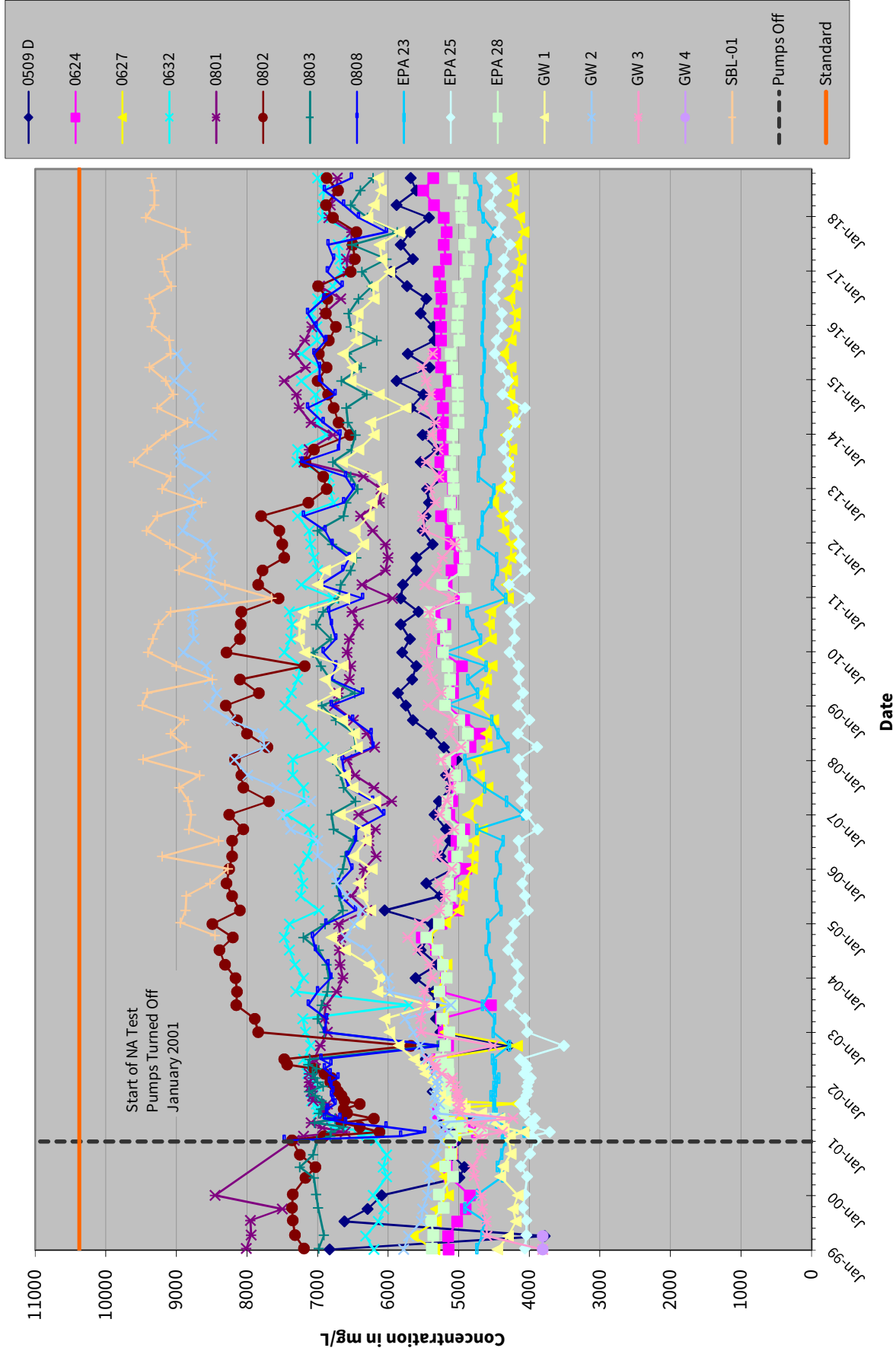
**FIGURE 15**  
 Southwest Alluvium Bicarbonate Concentrations From 1999 Through October 2018  
 United Nuclear Corporation Church Rock Site, Church Rock, New Mexico



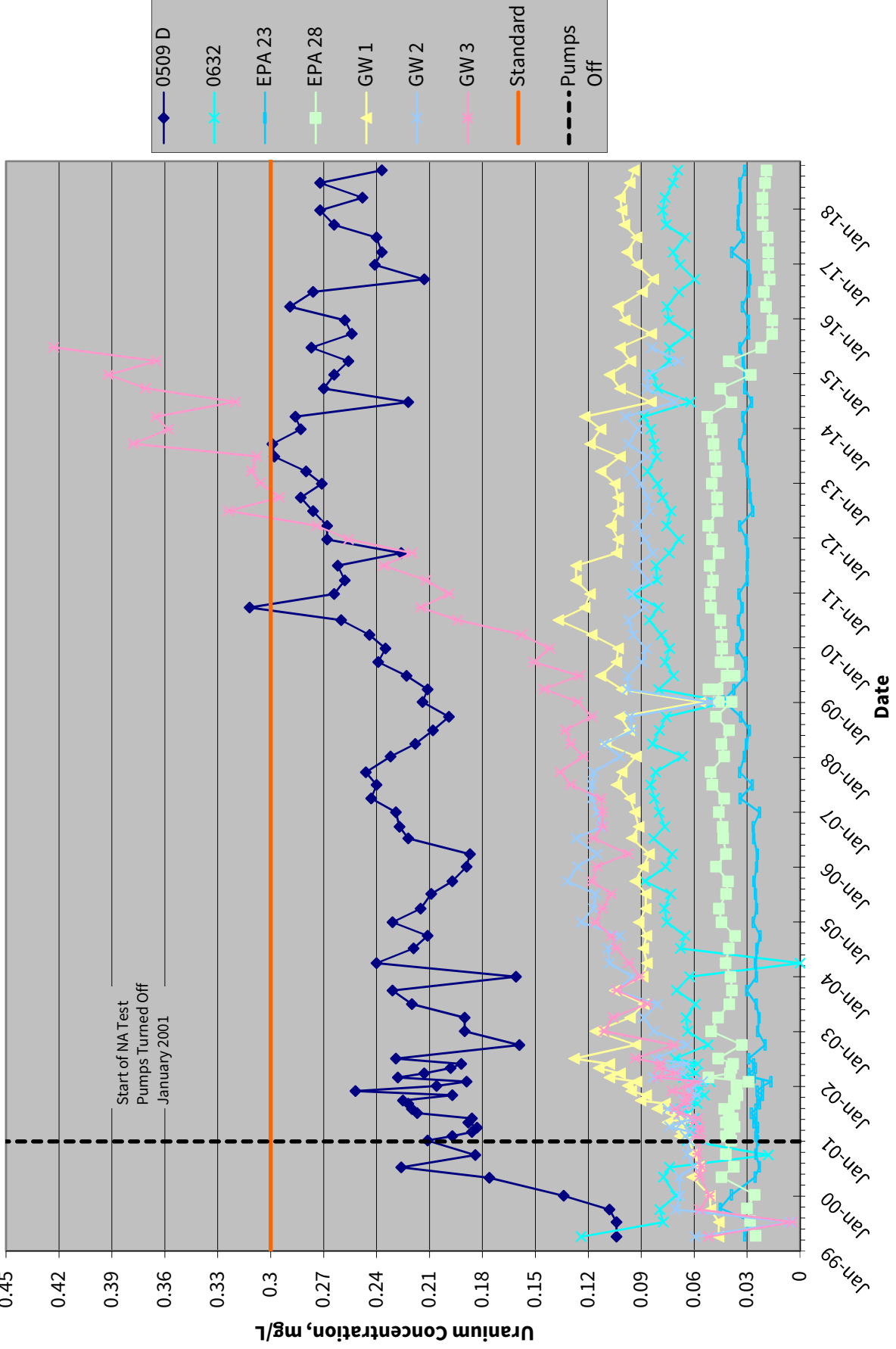
**FIGURE 16**  
 Southwest Alluvium Sulfate Concentrations From 1999 Through October 2018  
 United Nuclear Corporation Church Rock Site, Church Rock, New Mexico



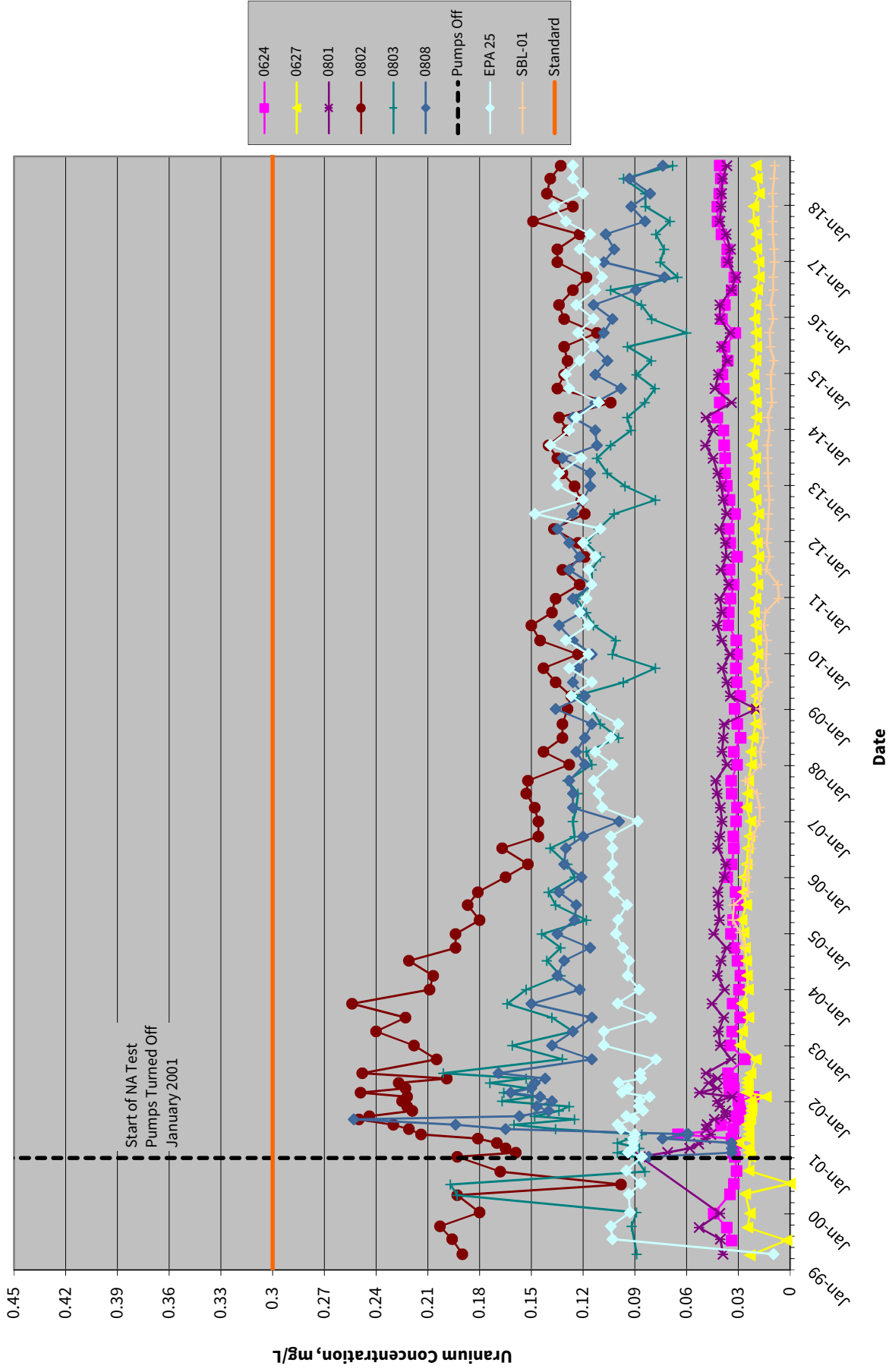
**FIGURE 17**  
 Southwest Alluvium Total Dissolved Solids Concentrations From 1999 Through October 2018  
 United Nuclear Corporation Church Rock Site, Church Rock, New Mexico



**FIGURE 18**  
 Uranium Concentrations in Selected Southwest Alluvium Wells  
 United Nuclear Corporation Church Rock Site, Church Rock, New Mexico

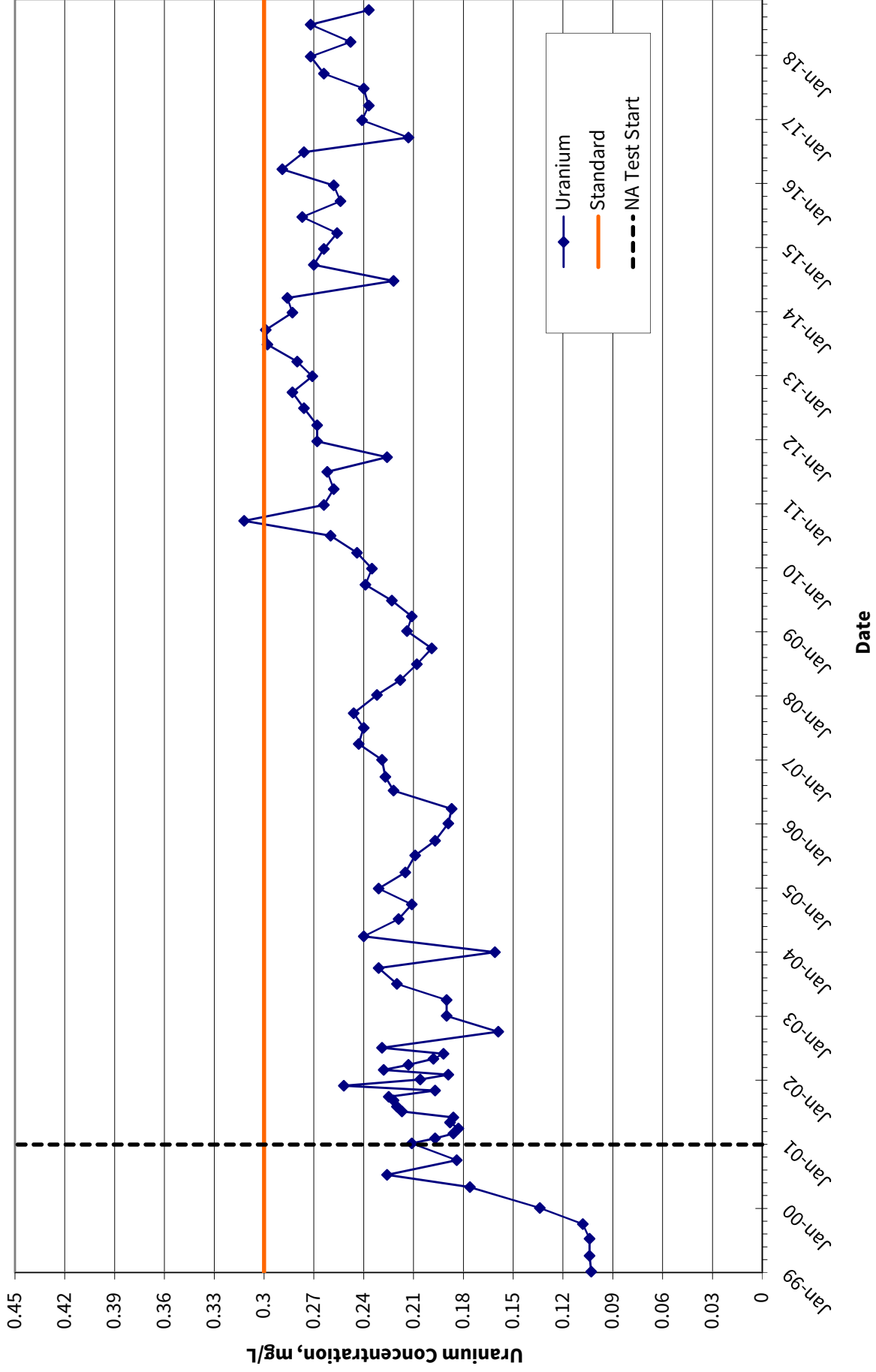


**FIGURE 19**  
 Uranium Concentrations in Selected Southwest Alluvium Wells  
 United Nuclear Corporation Church Rock Site, Church Rock, New Mexico

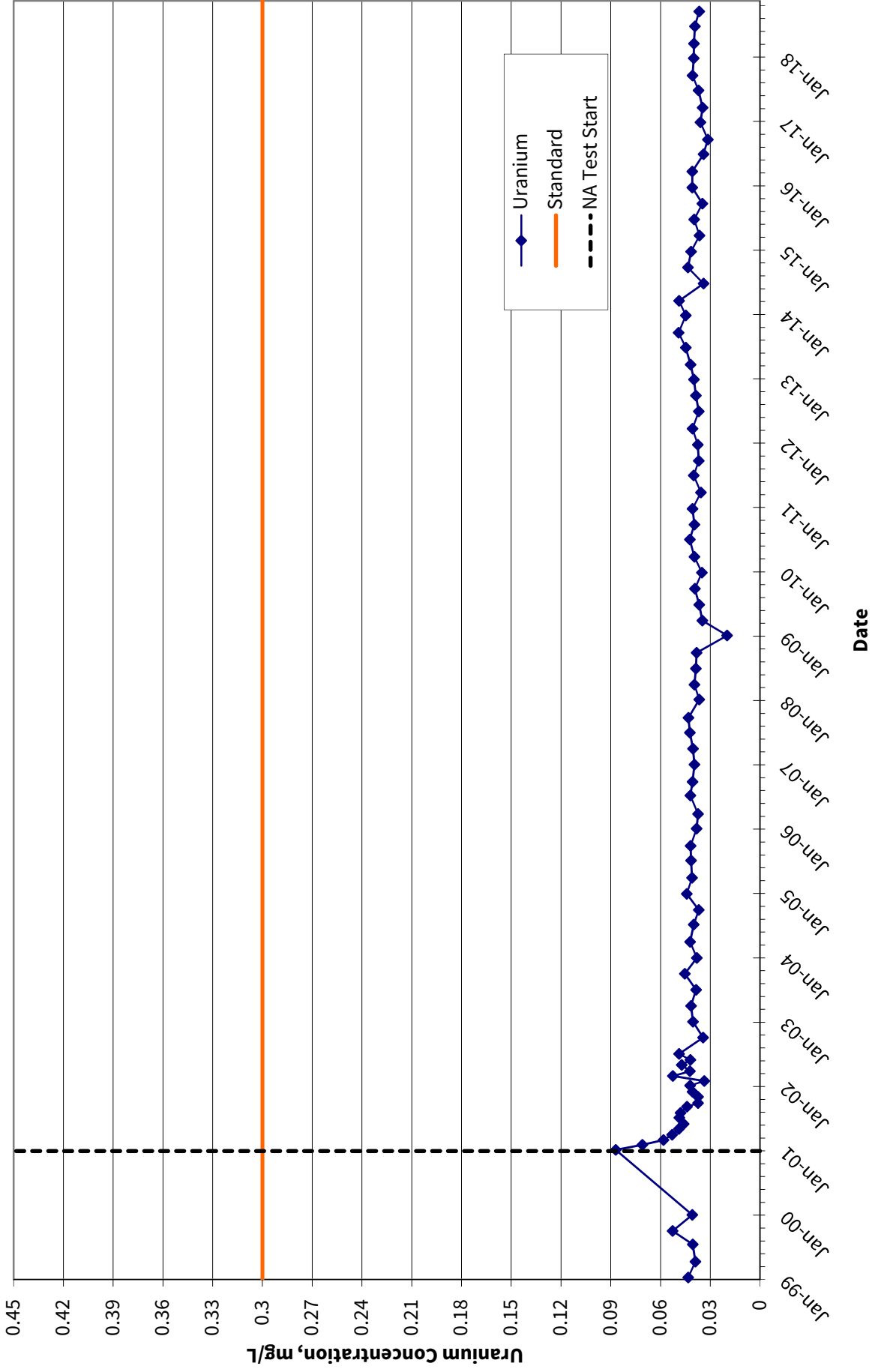


**FIGURE 20**

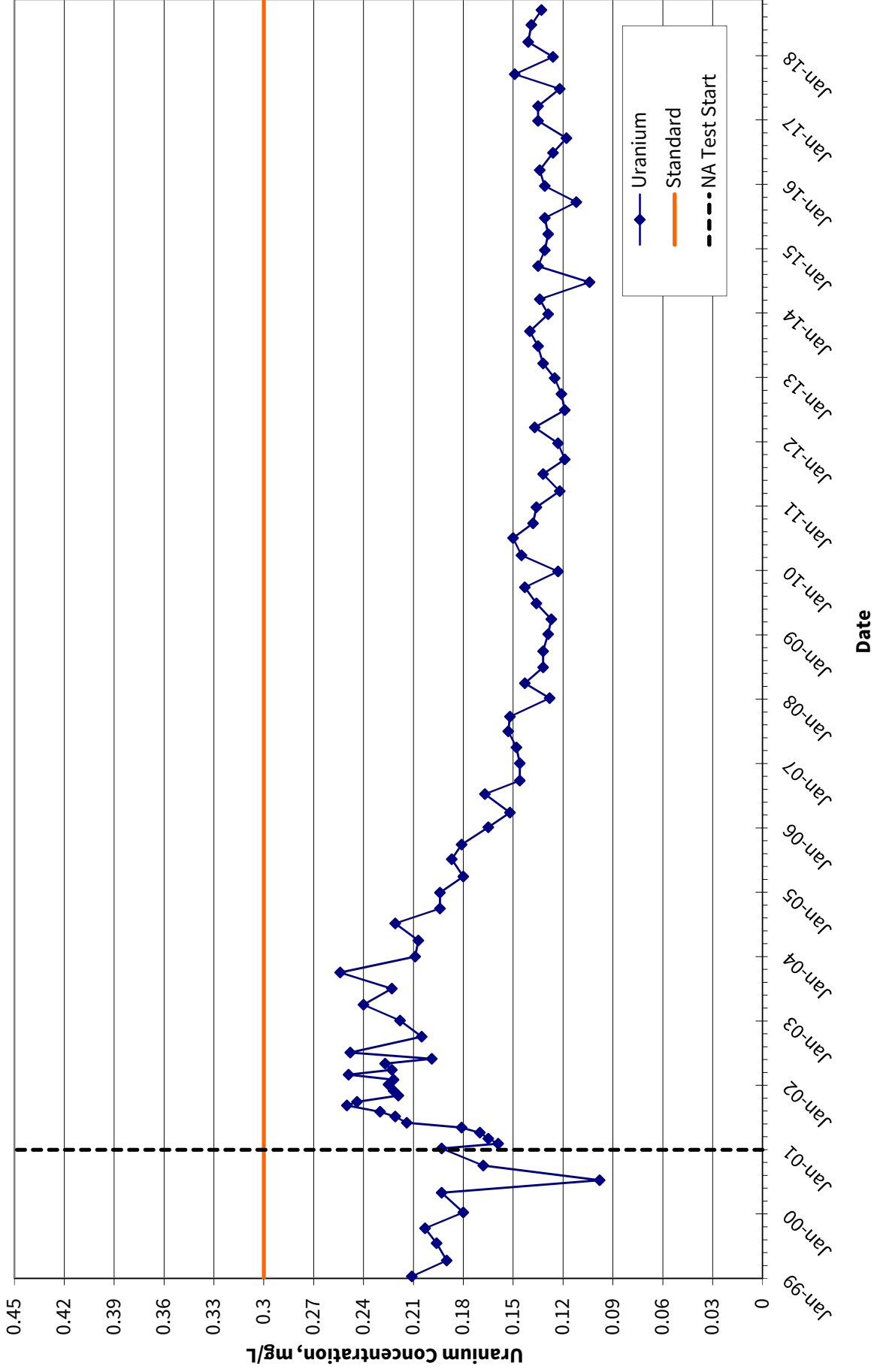
Uranium Concentrations in Well 509 D  
United Nuclear Corporation Church Rock Site, Church Rock, New Mexico



**FIGURE 21**  
 Uranium Concentrations in Well 801  
 United Nuclear Corporation Church Rock Site, Church Rock, New Mexico



**FIGURE 22**  
 Uranium Concentrations in Well 802  
 United Nuclear Corporation Church Rock Site, Church Rock, New Mexico

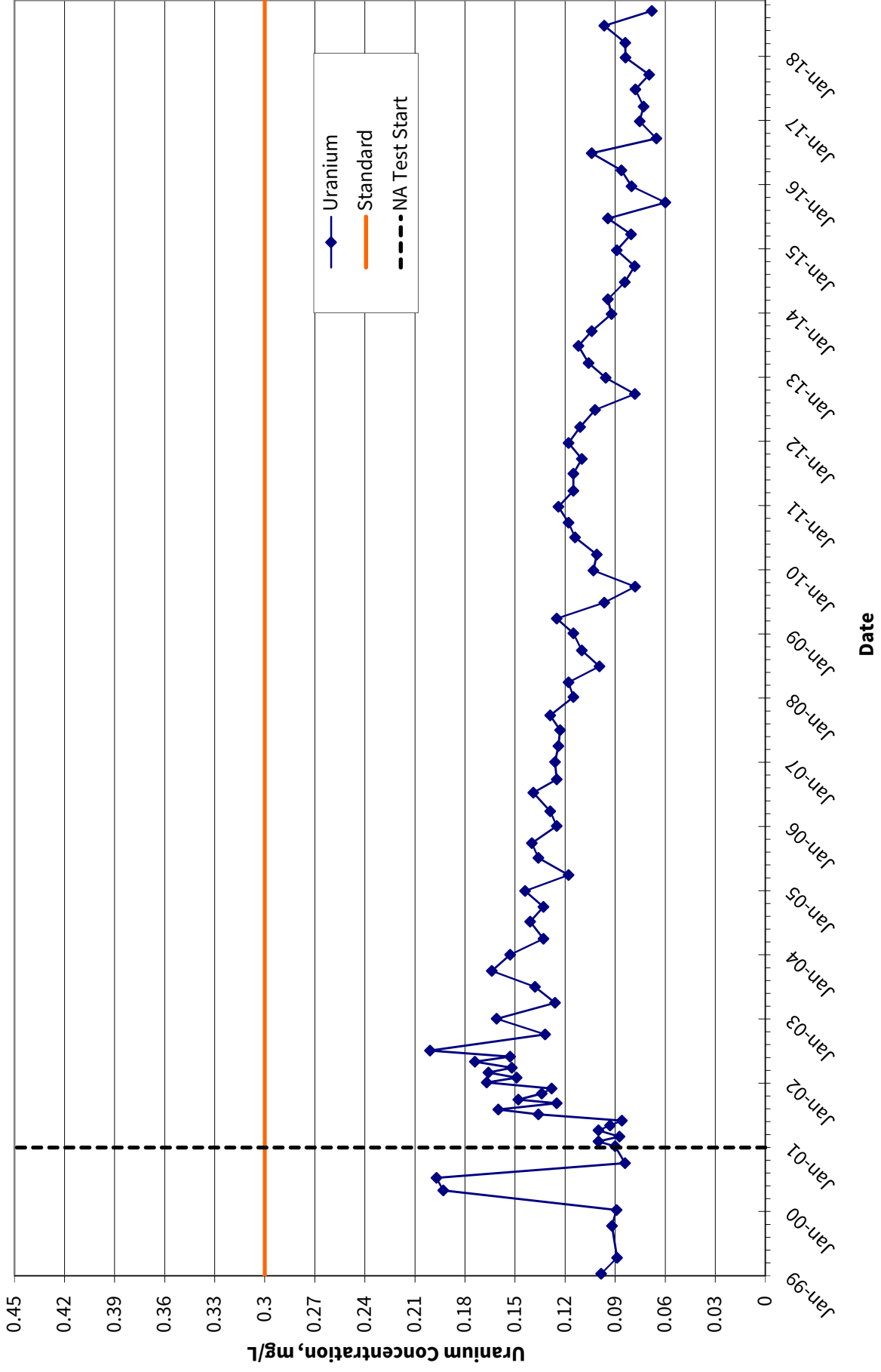




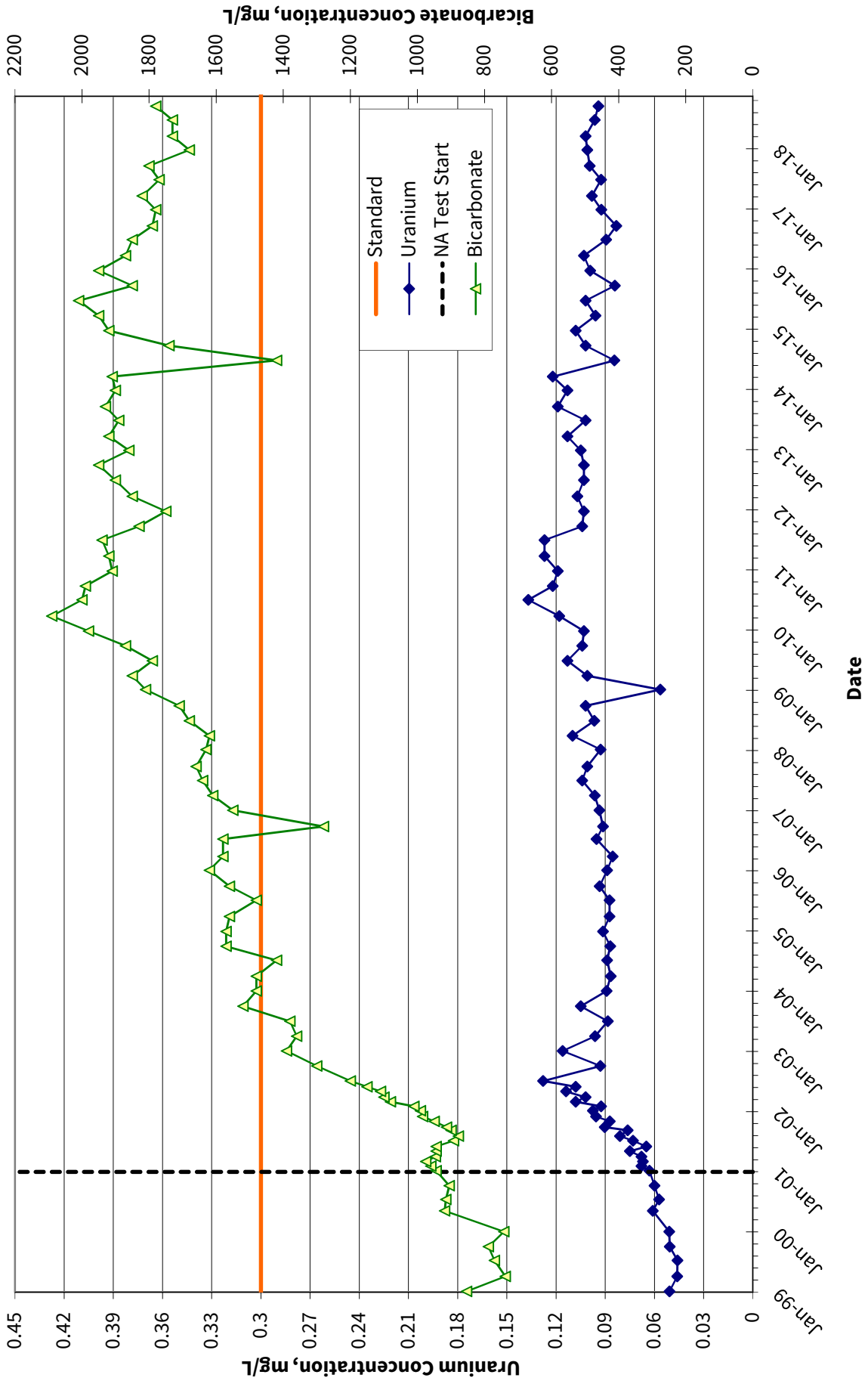
**FIGURE 23**

Uranium Concentrations in Well 803

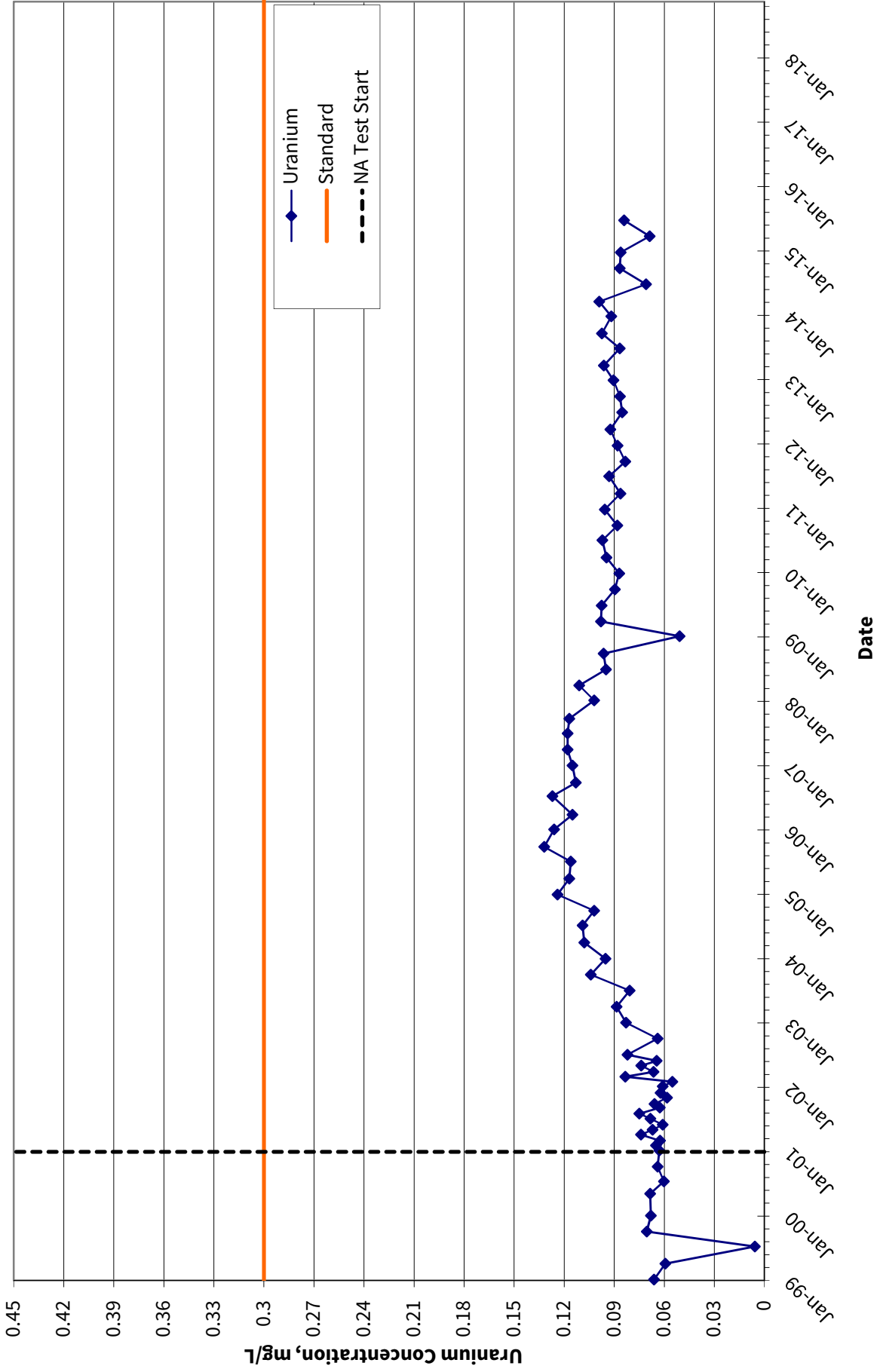
United Nuclear Corporation Church Rock Site, Church Rock, New Mexico



**FIGURE 24**  
 Uranium and Bicarbonate Concentrations in Well GW 1  
 United Nuclear Corporation Church Rock Site, Church Rock, New Mexico

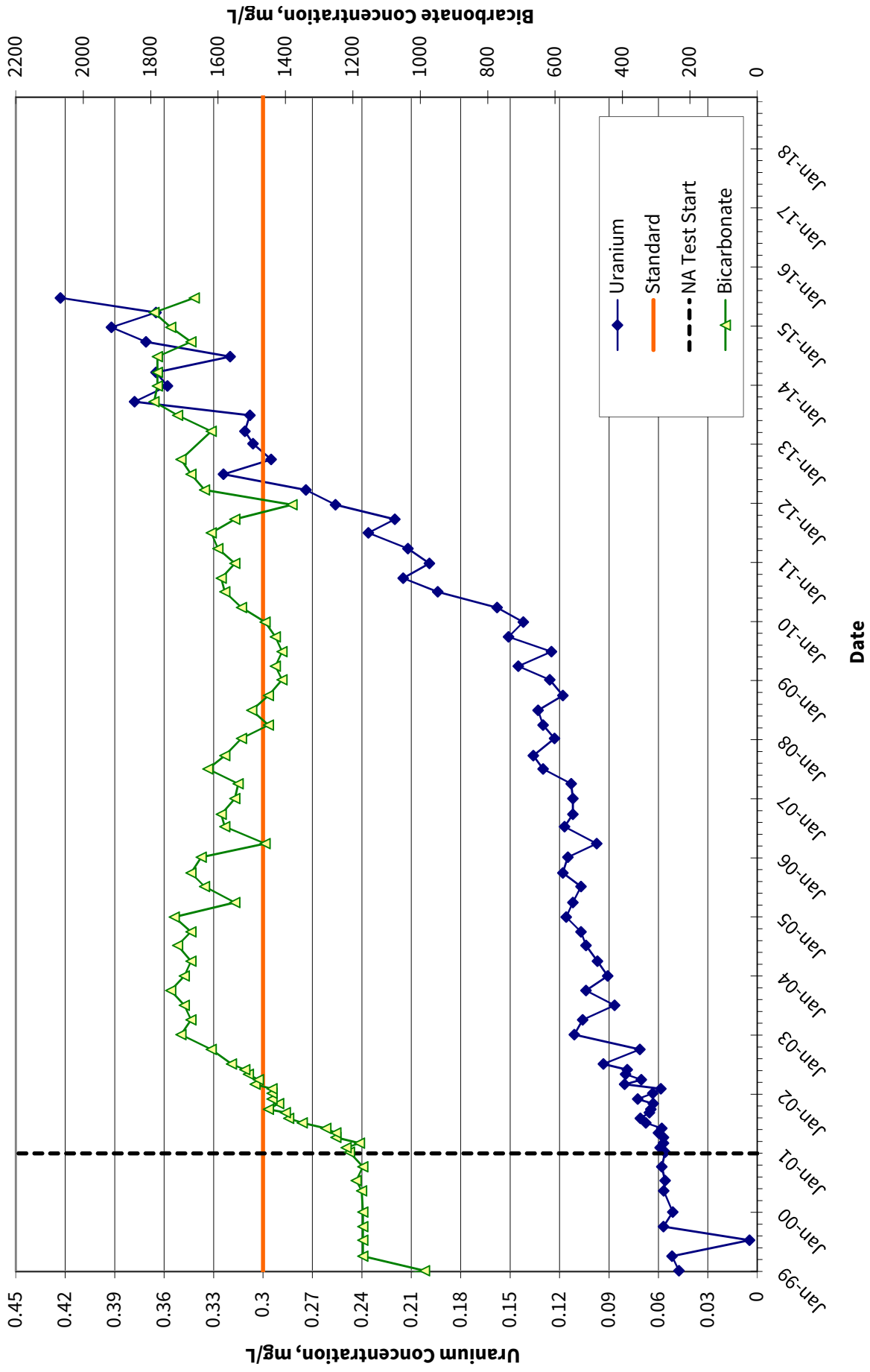


**FIGURE 25**  
 Uranium Concentrations in Well GW 2  
 United Nuclear Corporation Church Rock Site, Church Rock, New Mexico

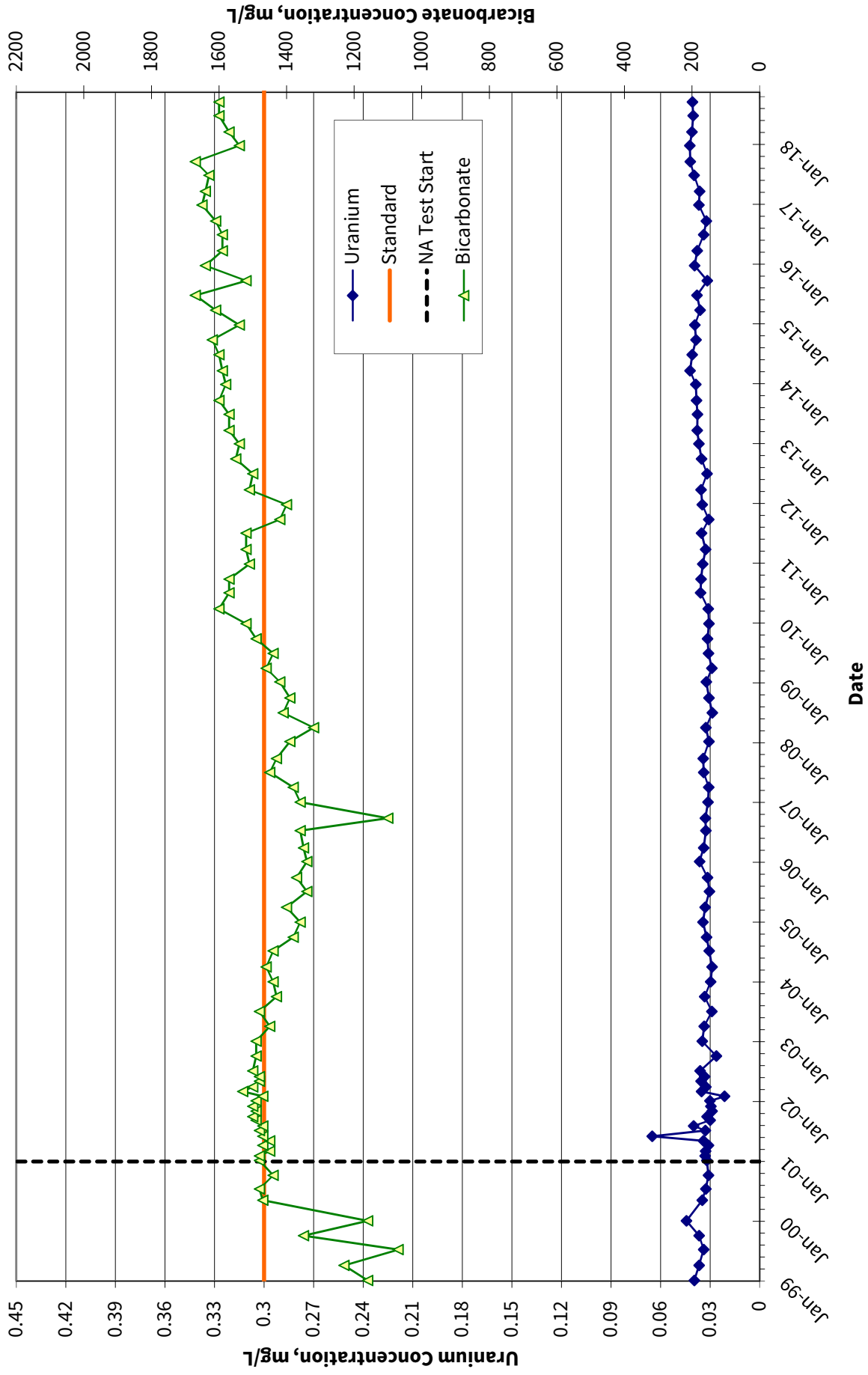


**FIGURE 26**

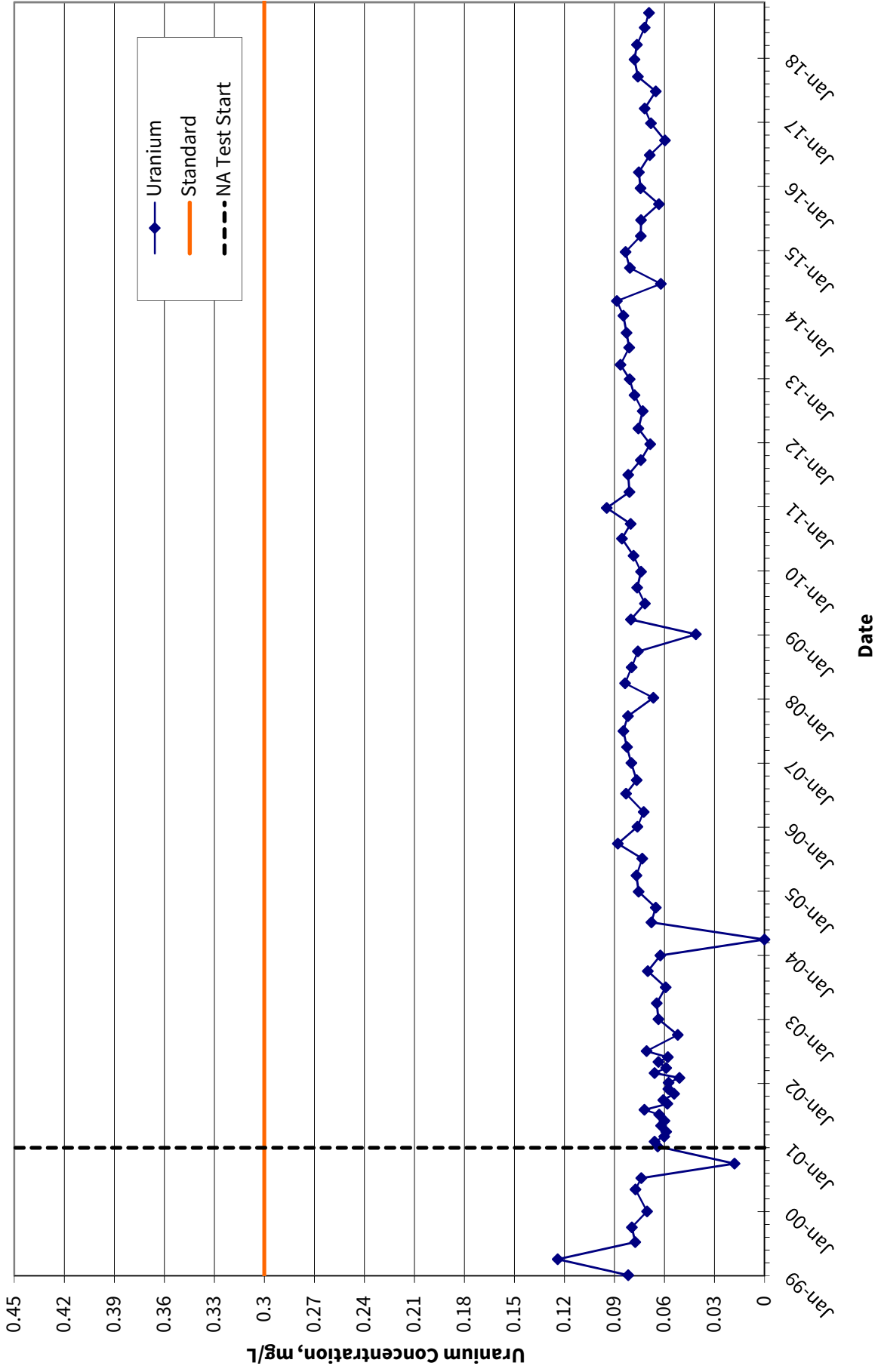
Uranium and Bicarbonate Concentrations in Well GW 3  
United Nuclear Corporation Church Rock Site, Church Rock, New Mexico



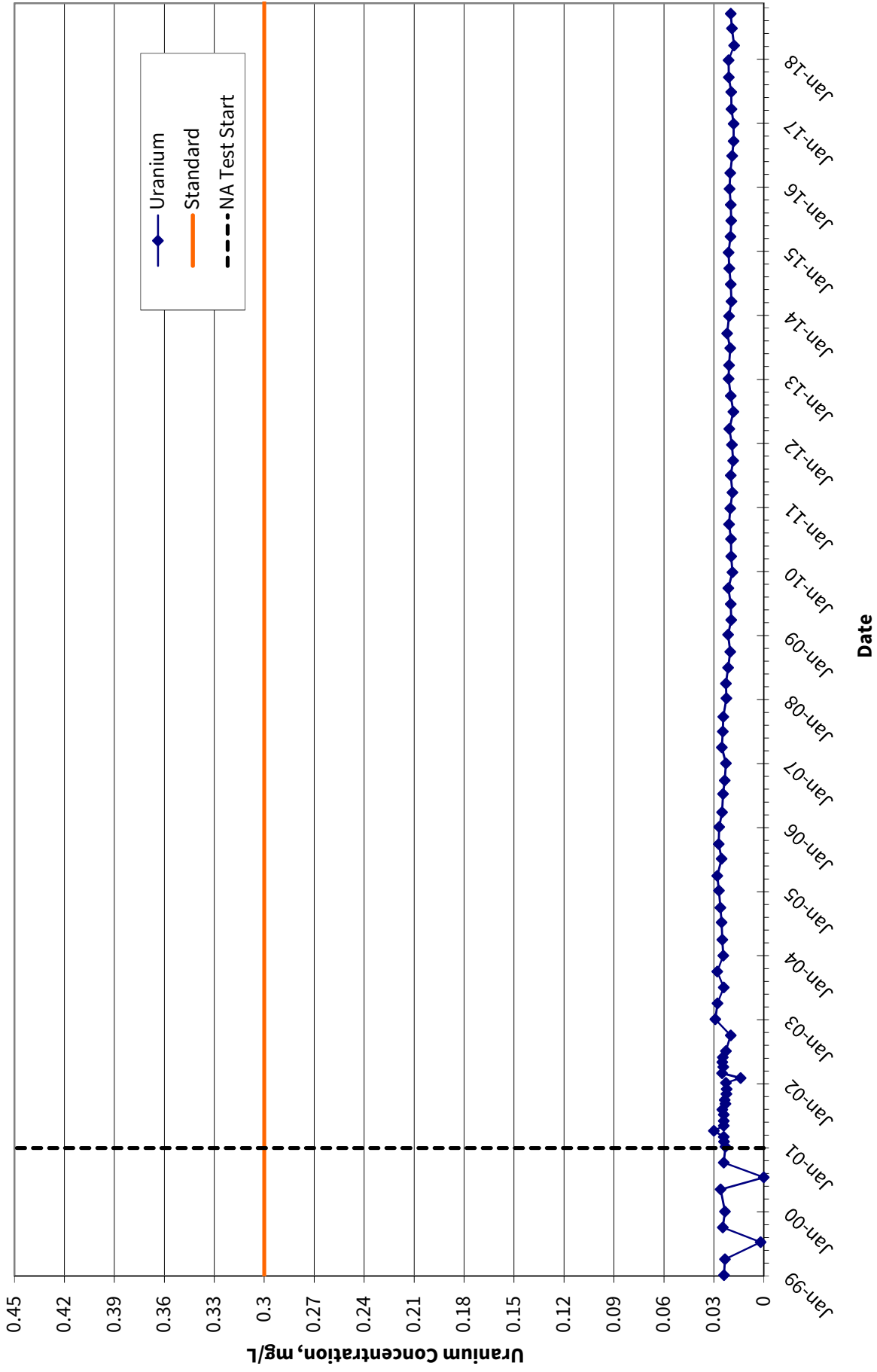
**FIGURE 27**  
 Uranium and Bicarbonate Concentrations in Well 624  
 United Nuclear Corporation Church Rock Site, Church Rock, New Mexico



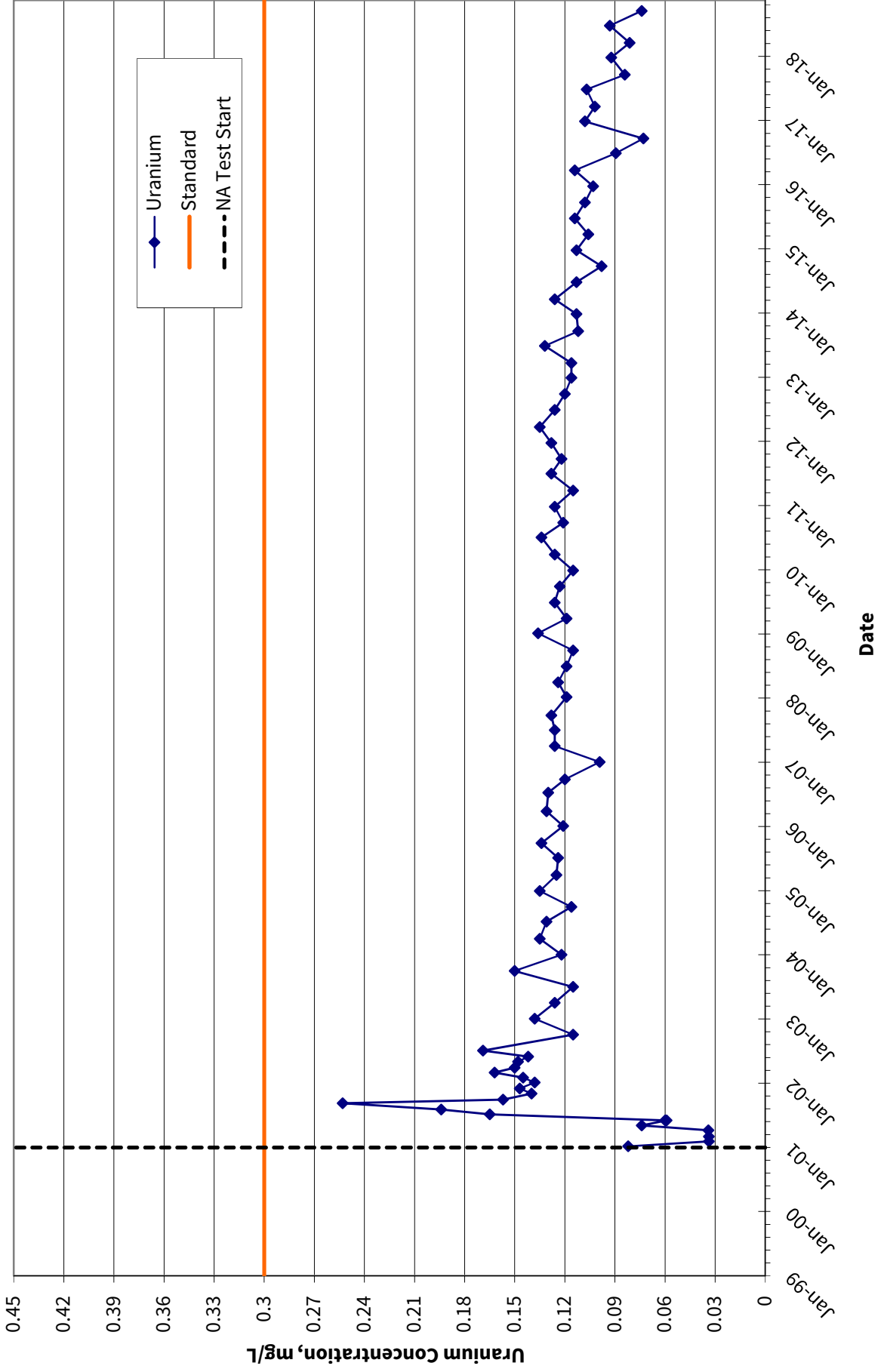
**FIGURE 28**  
 Uranium Concentrations in Well 632  
 United Nuclear Corporation Church Rock Site, Church Rock, New Mexico



**FIGURE 29**  
 Uranium Concentrations in Well 627  
 United Nuclear Corporation Church Rock Site, Church Rock, New Mexico



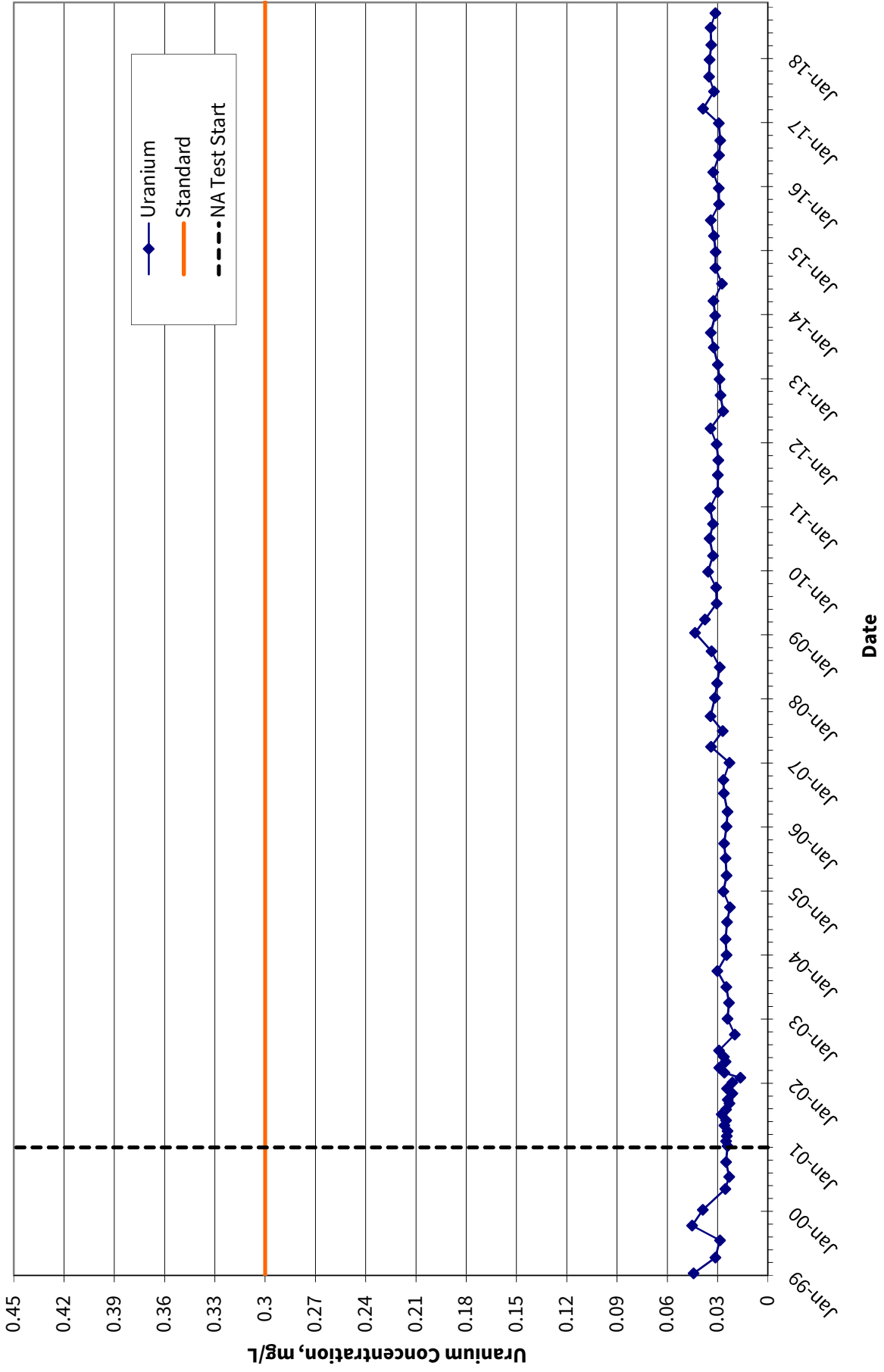
**FIGURE 30**  
 Uranium Concentrations in Well 808  
 United Nuclear Corporation Church Rock Site, Church Rock, New Mexico



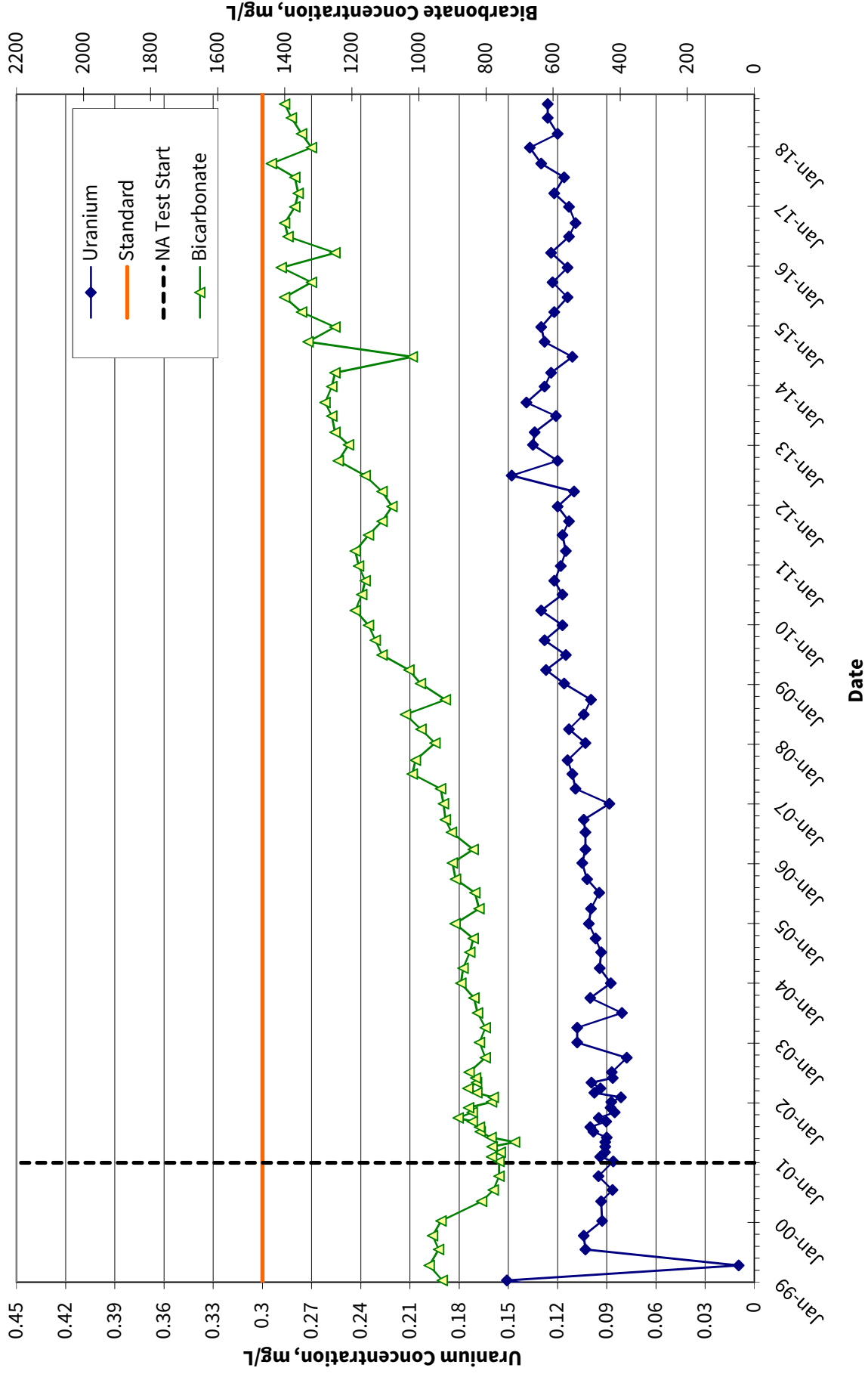


**FIGURE 31**

Uranium Concentrations in Well EPA 23  
United Nuclear Corporation Church Rock Site, Church Rock, New Mexico

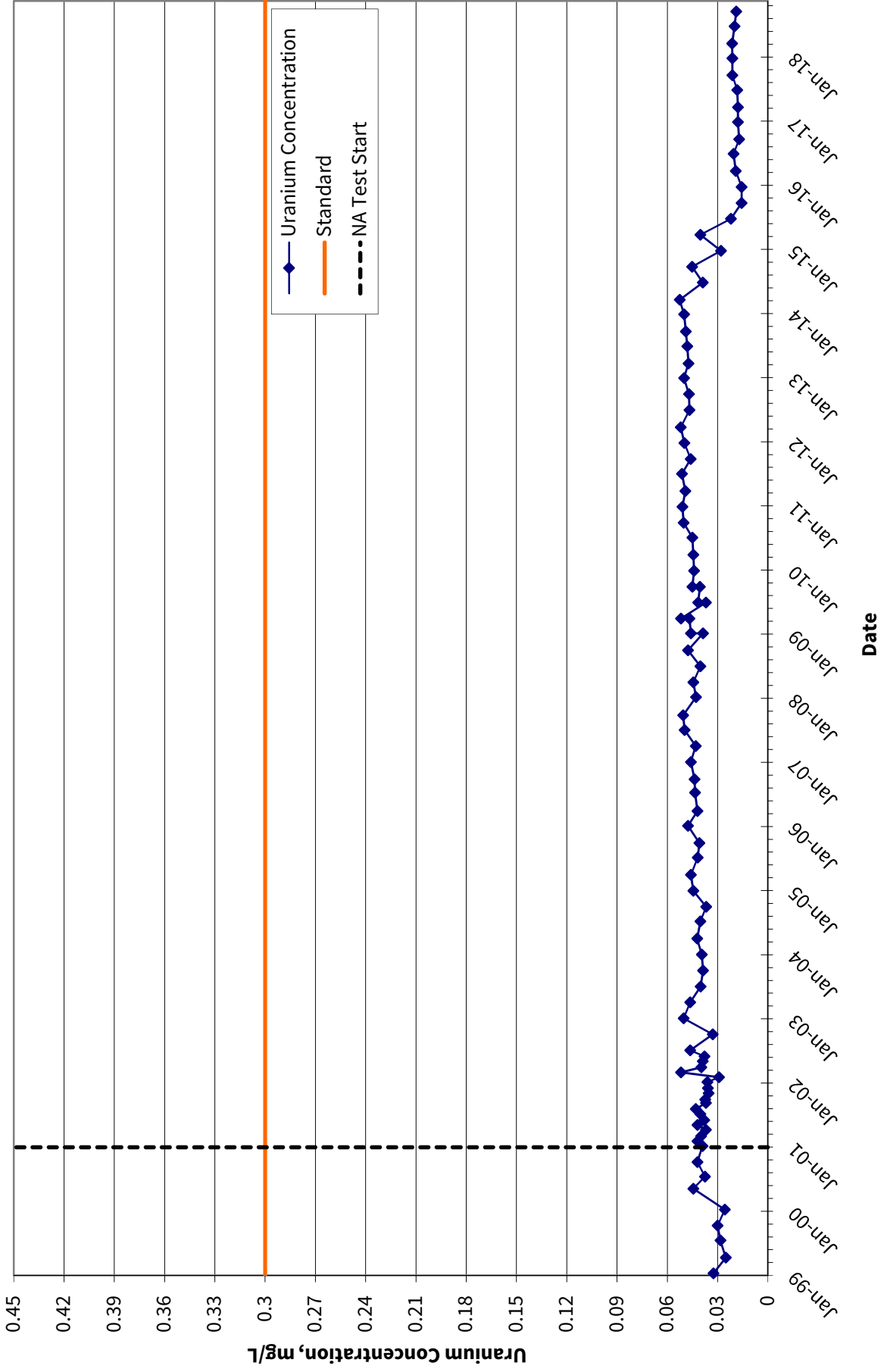


**FIGURE 32**  
 Uranium and Bicarbonate Concentrations in Well EPA 25  
 United Nuclear Corporation Church Rock Site, Church Rock, New Mexico



**FIGURE 33**

Uranium Concentrations in Well EPA 28  
United Nuclear Corporation Church Rock Site, Church Rock, New Mexico



**FIGURE 34**

Uranium Concentrations in Well SBL-01  
United Nuclear Corporation Church Rock Site, Church Rock, New Mexico

