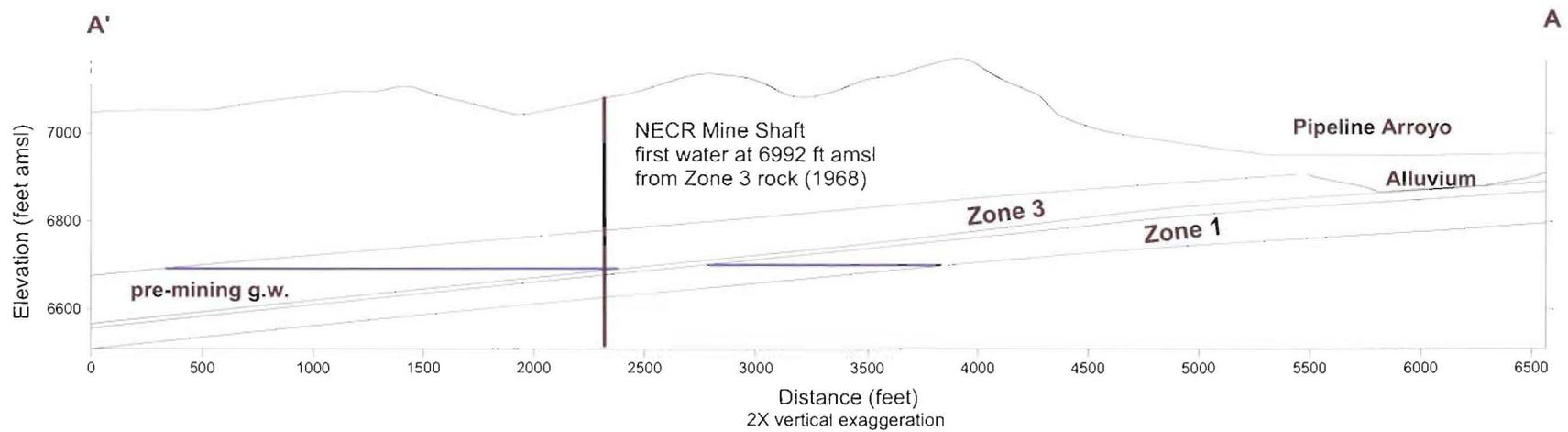


FIGURE 1  
 Map-view image showing schematic depiction of early Zone 3 groundwater flow system, when dominated by infiltration of mine water discharge. This background groundwater entered Zone 3 from the alluvium via the subcrop shown by hatched brown on the map. The background groundwater migrated by gravity drainage toward the pre-mining water table at 6692 ft elevation (based on first water encountered in NECR mine shaft). Structure contours shown for the base of Zone 3.



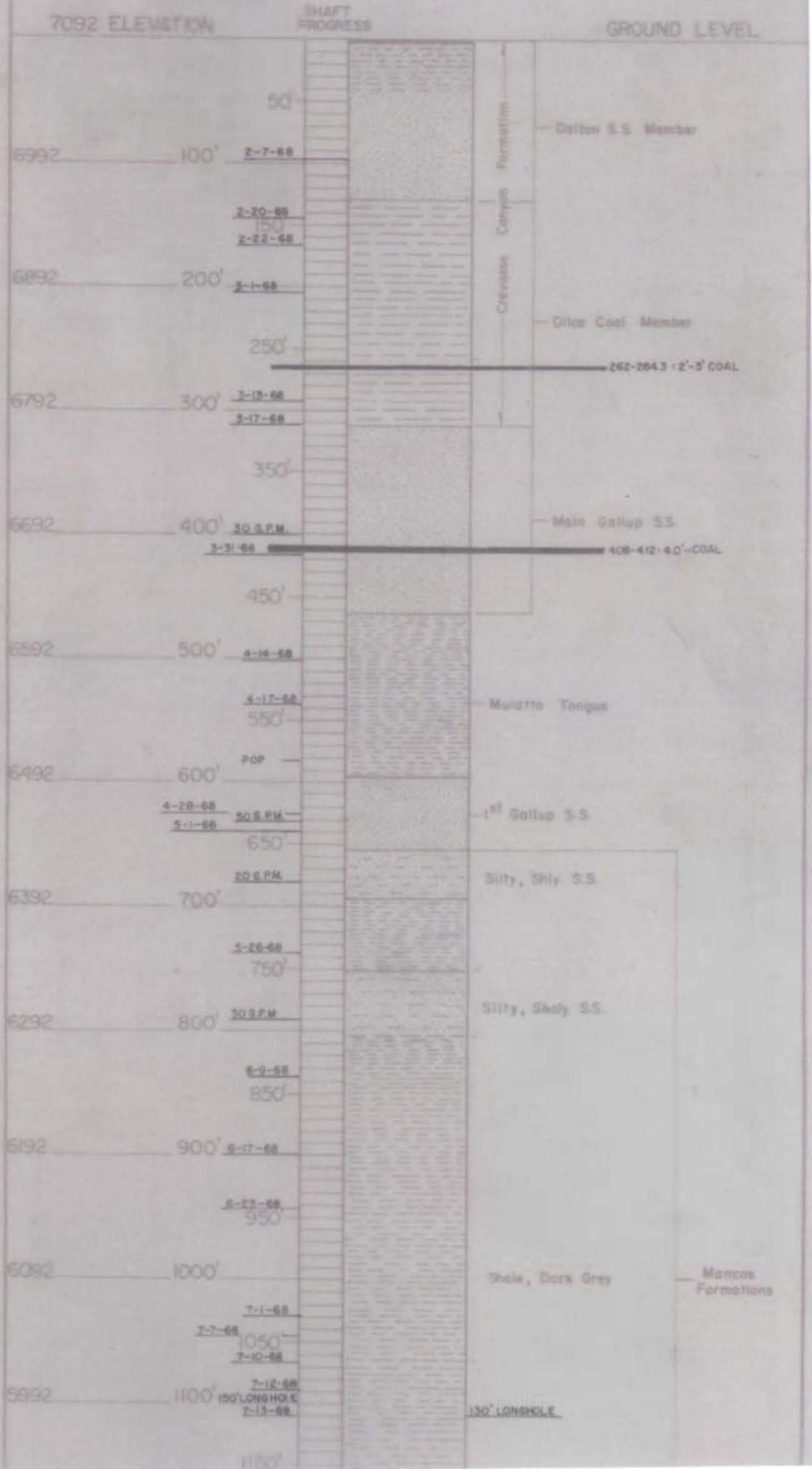
**FIGURE 2**  
**Northeast-looking view of cross section A-A'**

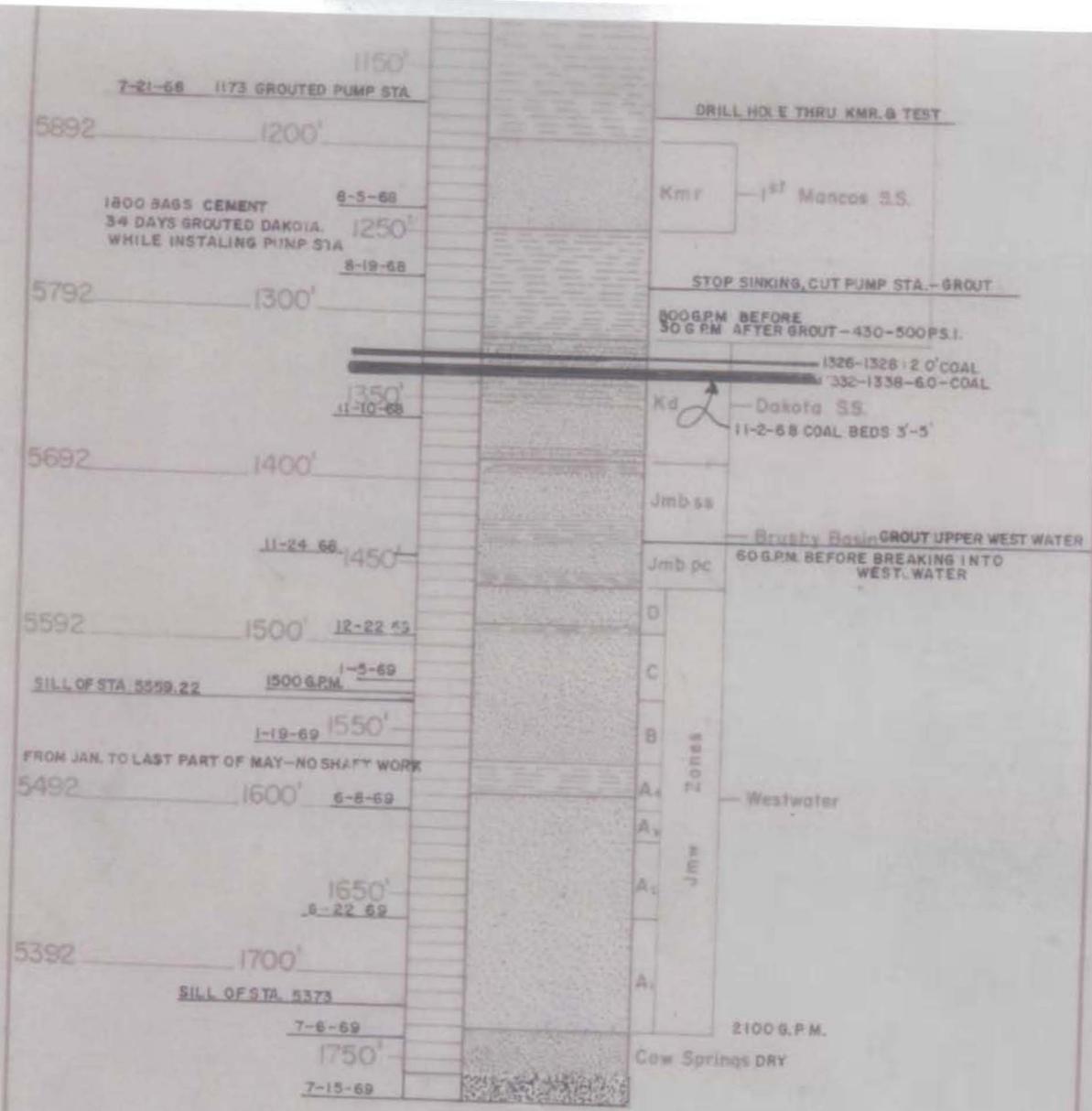
Pre-mining water table shown in Zone 3 where encountered in NECR mine shaft in 1968 (at elevation 6992 ft amsl). Elevation of pre-mining water table shown in Zone 1 is interpreted by analogy, but is also consistent with monitoring sample data from Zone 1 monitoring wells.

# COLUMNAR SECTION

AT HOLE — 35-2425

SCALE 1" = 100'





1788.17

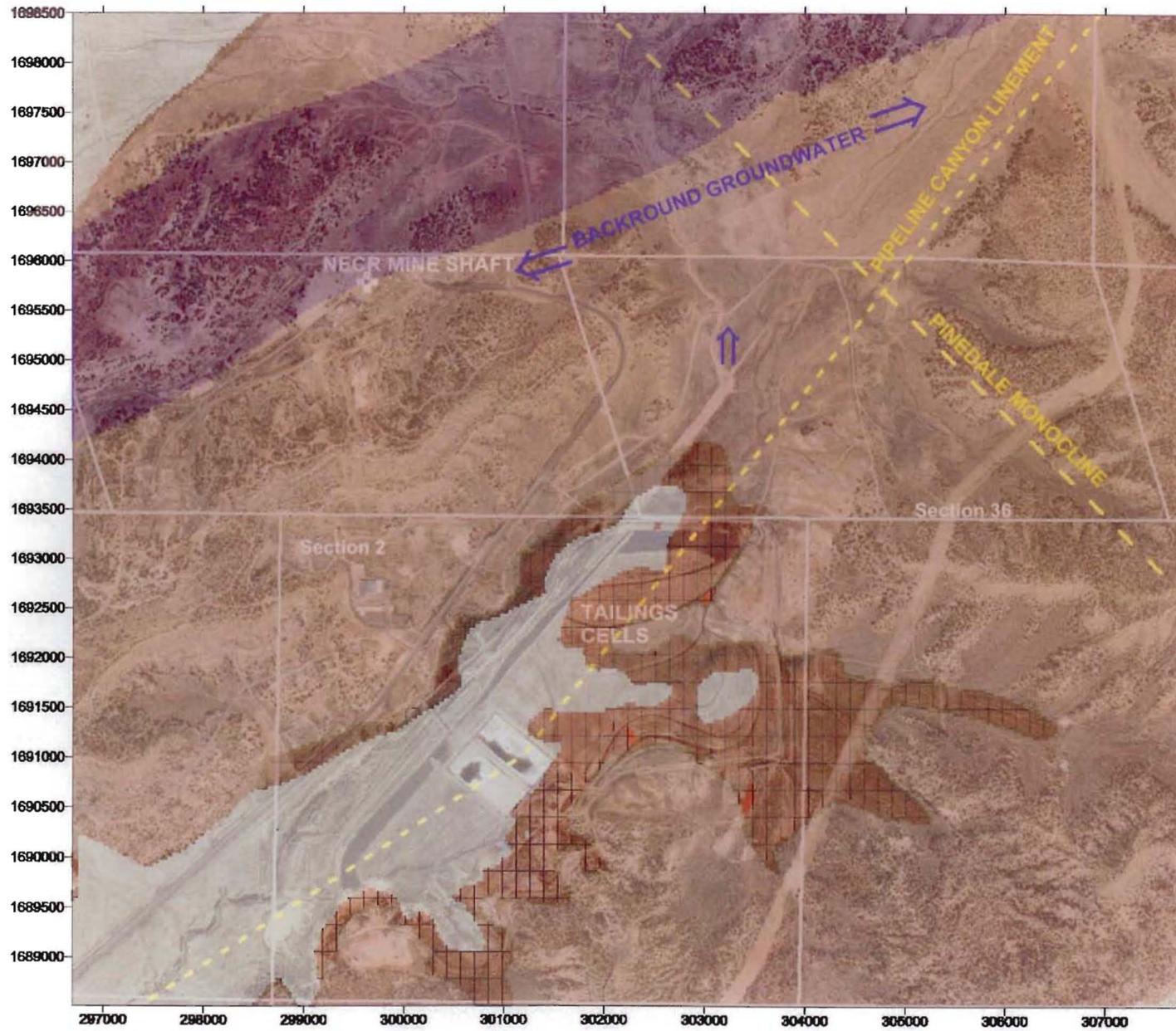


FIGURE 4  
 Map-view image showing schematic depiction of later Zone 3 groundwater flow system, when dominated by lateral spreading of background groundwater with northward drainage of residual anthropogenic (background & tailings impacted) groundwater. Interpretation of little or no displacement of pre-mining groundwater by background groundwater based on Zone 1 monitoring data which demonstrate little or no displacement of pre-mining quality water.

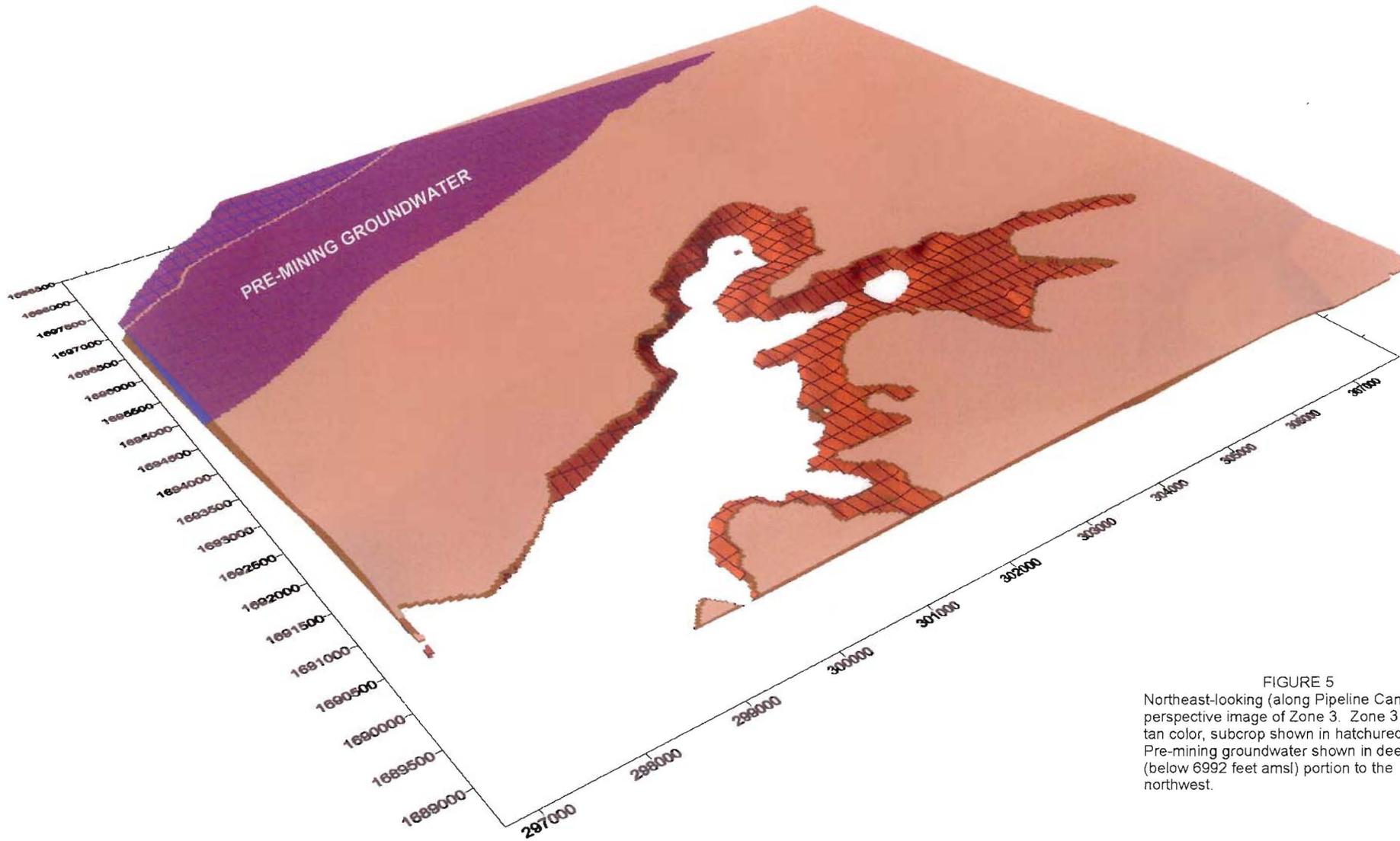


FIGURE 5  
 Northeast-looking (along Pipeline Canyon)  
 perspective image of Zone 3. Zone 3 top in  
 tan color, subcrop shown in hatched brown.  
 Pre-mining groundwater shown in deeper  
 (below 6992 feet amsl) portion to the  
 northwest.

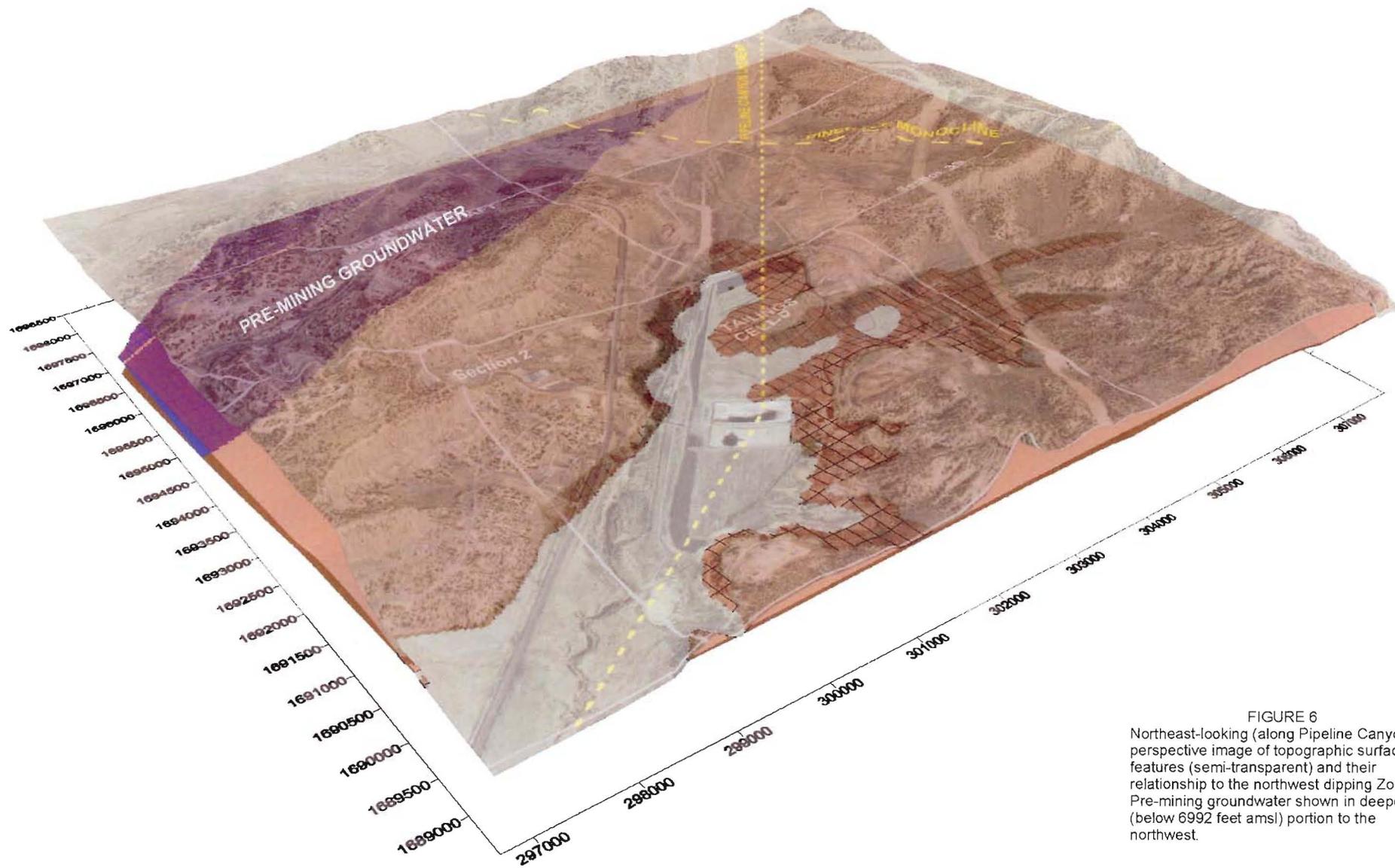
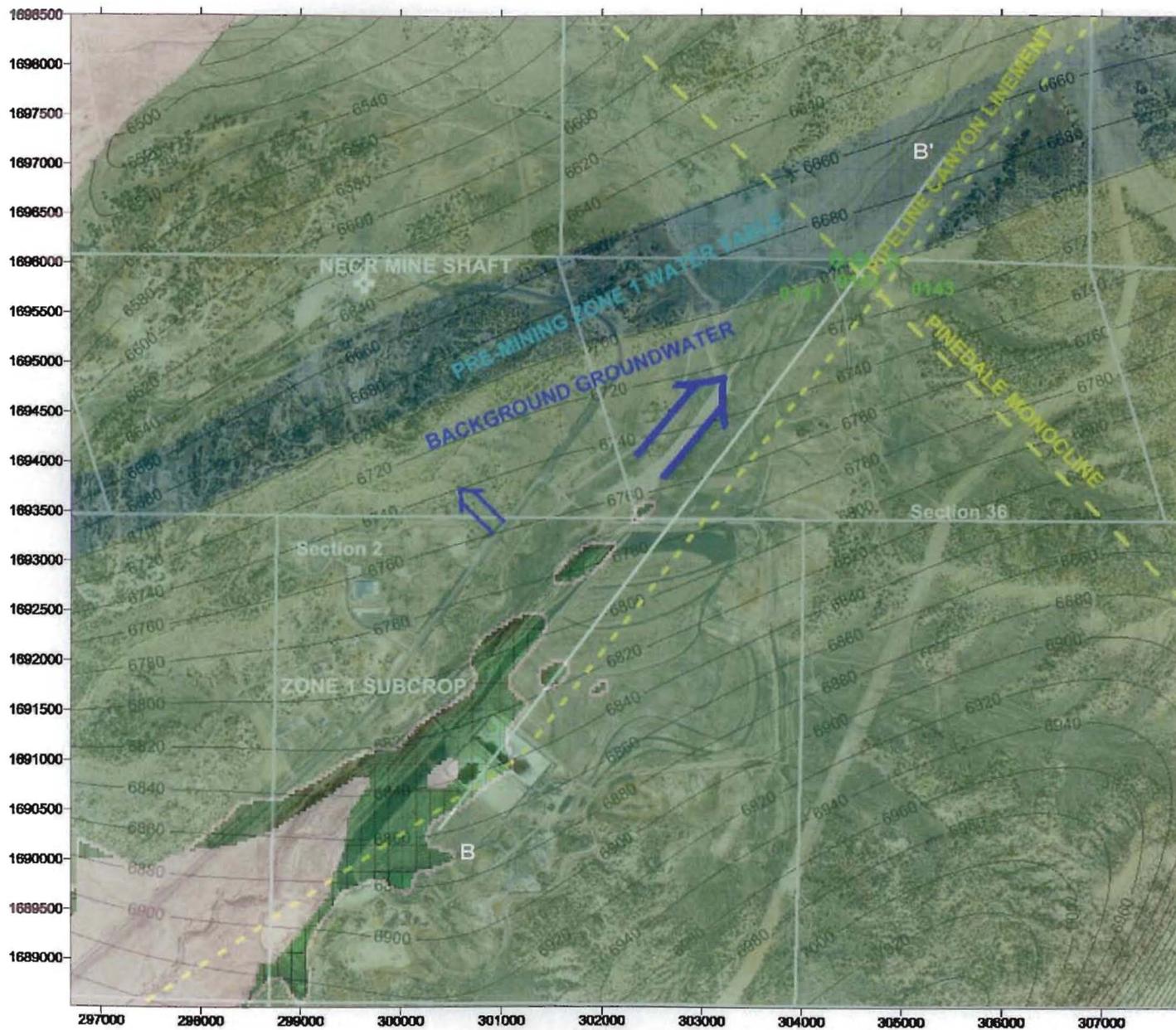
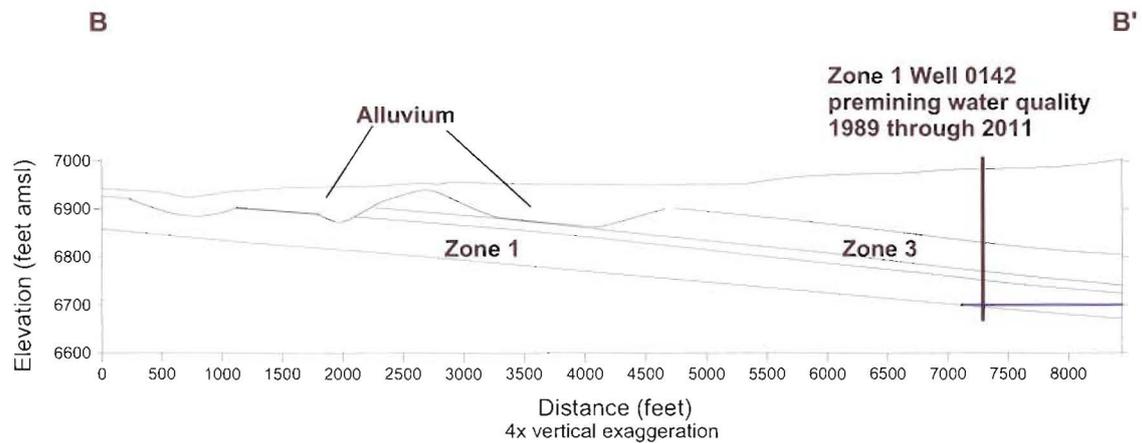


FIGURE 6  
 Northeast-looking (along Pipeline Canyon) perspective image of topographic surface features (semi-transparent) and their relationship to the northwest dipping Zone 3. Pre-mining groundwater shown in deeper (below 6992 feet amsl) portion to the northwest.



**FIGURE 7**  
 Map-view image showing schematic depiction of early Zone 1 groundwater flow system, when dominated by infiltration of mine water discharge. This background groundwater entered Zone 1 from the alluvium via the subcrop shown by hatchured green on the map. The background groundwater migrated by gravity drainage toward the pre-mining water table at approximately 6700 ft elevation. Structure contours shown for the base of Zone 1.



**FIGURE 8**  
**Northwest-looking view of cross section B-B'**

Zone 1 pre-mining water table depicted by blue line is consistent with early sample data from Zone 1 monitoring wells 0141, 0142, and 0143. These wells sample from the base of Zone 1. The persistence of pre-mining water quality in these wells (through 2011 in 0142) demonstrates little or no displacement of pre-mining groundwater by background groundwater.

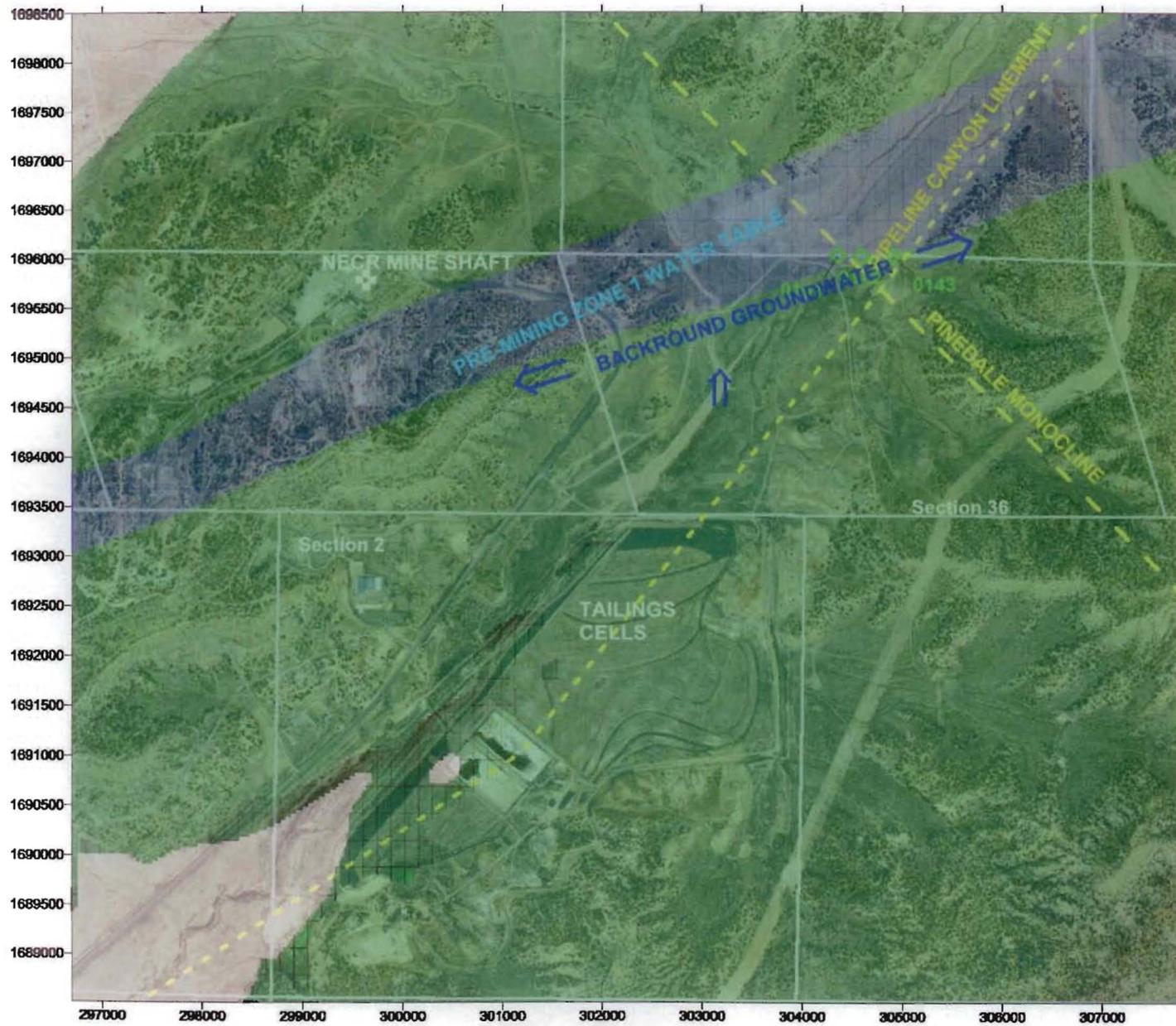


FIGURE 9  
 Map-view image showing schematic depiction of later Zone 1 groundwater flow system, when dominated by lateral spreading of background groundwater with northward drainage of residual anthropogenic (background & tailings impacted) groundwater. Monitoring data indicate little or no displacement of pre-mining groundwater by background groundwater.

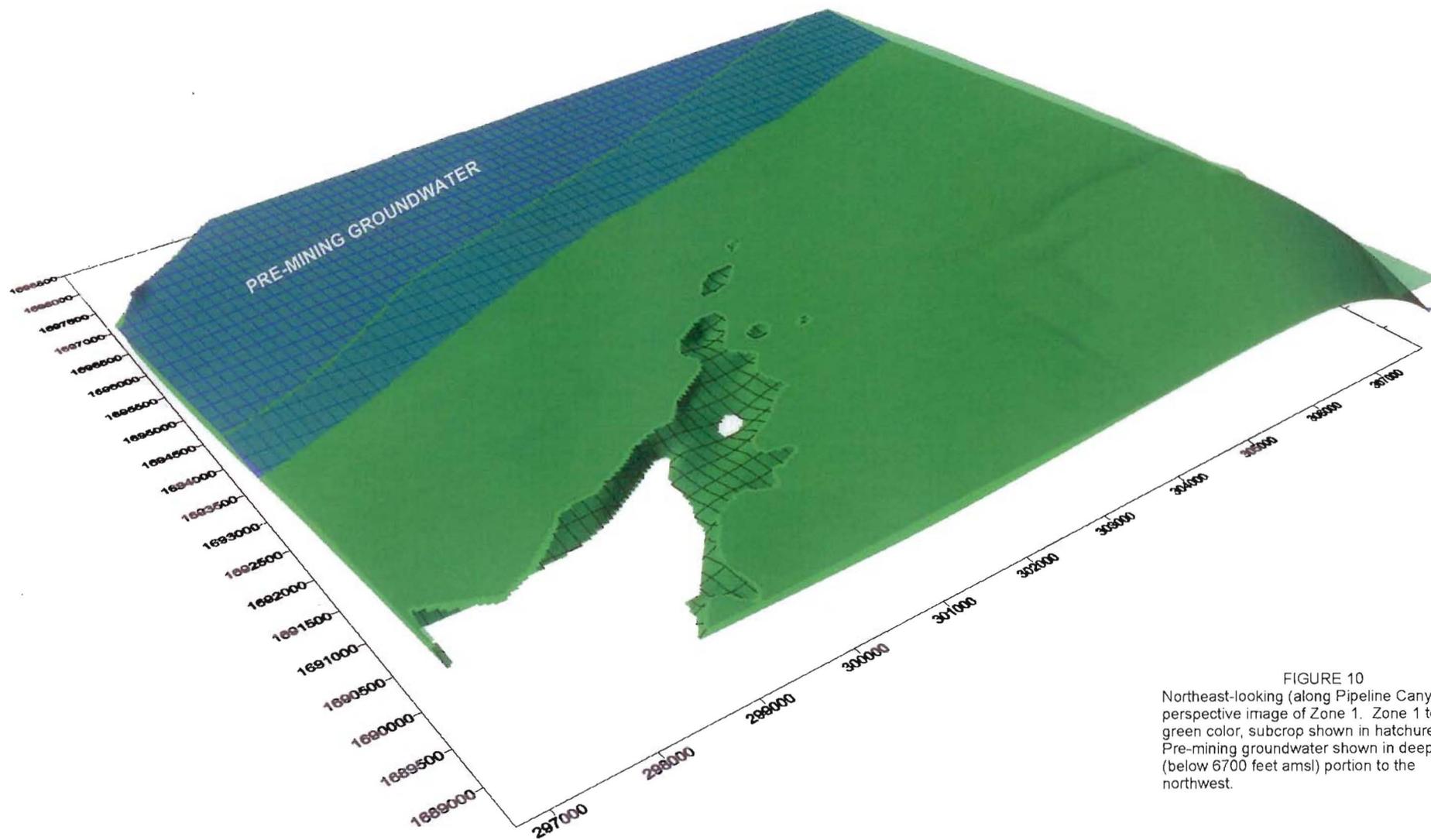


FIGURE 10  
 Northeast-looking (along Pipeline Canyon)  
 perspective image of Zone 1. Zone 1 top in  
 green color, subcrop shown in hatchured green.  
 Pre-mining groundwater shown in deeper  
 (below 6700 feet amsl) portion to the  
 northwest.

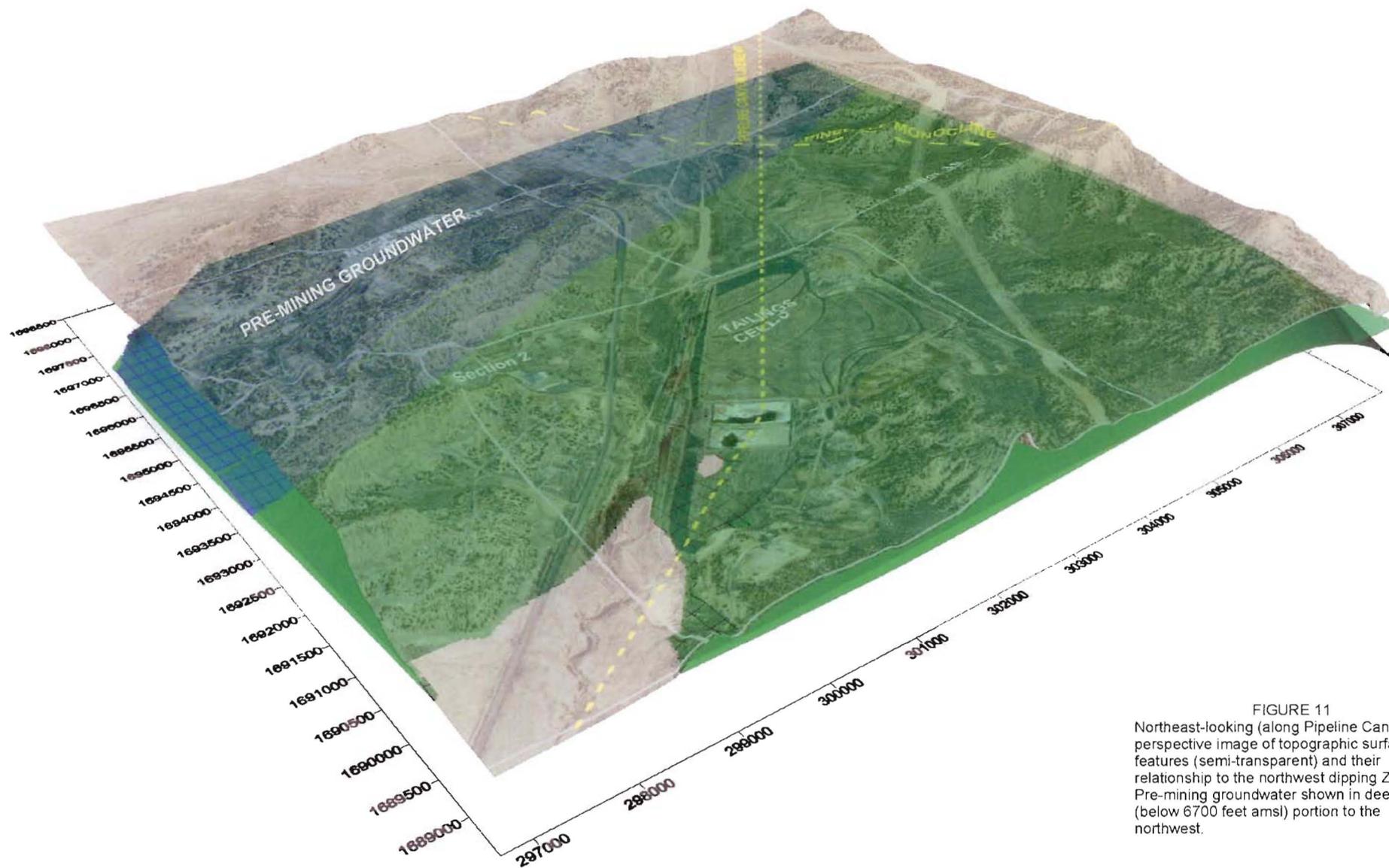
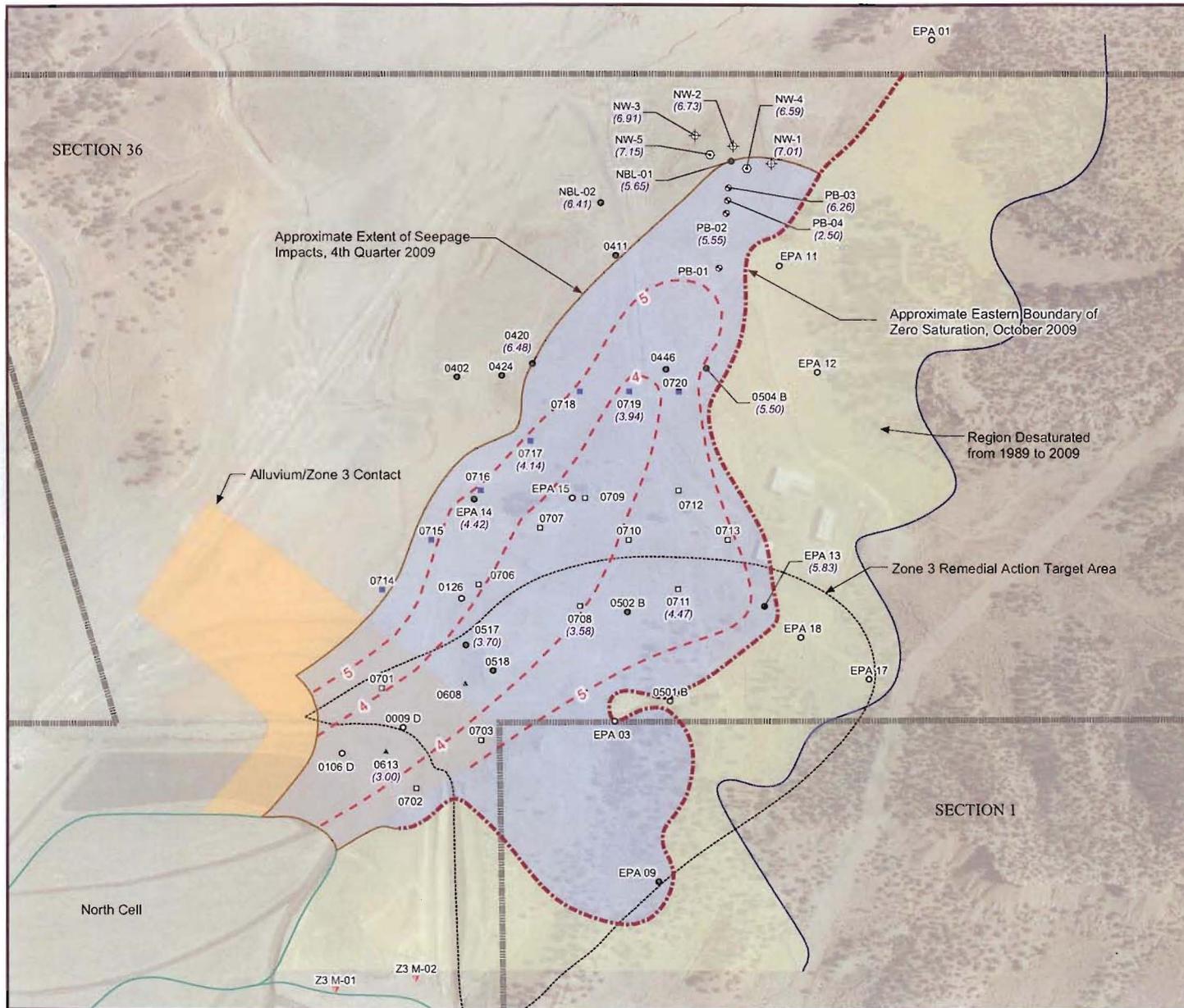


FIGURE 11  
 Northeast-looking (along Pipeline Canyon)  
 perspective image of topographic surface  
 features (semi-transparent) and their  
 relationship to the northwest dipping Zone 1.  
 Pre-mining groundwater shown in deeper  
 (below 6700 feet amsl) portion to the  
 northwest.

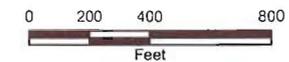


**Legend**

- ▬ Property Boundary
  - ⋯ Zone 3 Target Remedial Action Area
  - Section Boundary
  - Cell Boundary
  - Approximate Area Impacted by Tailings Seepage
- Well Type**
- Monitoring
  - ⊕ Northernmost Pumping Wells
  - ⊙ Northernmost Pumping Wells (Off)
  - Dry Monitoring
  - Stage I Extraction
  - Stage II Extraction
  - ⊗ Plume Boundary
  - ▲ Northeast Pump-Back
  - ▼ Piezometer
  - Approximate Eastern Boundary of Zero Saturation
  - - - pH contour

**Notes:**

1. Well names are displayed with black text.
2. Values for field measured pH are shown with purple text and enclosed in parentheses.
3. Aerial photo taken on August 1, 1996.
4. October 2009 sample from well PB-04 not obtained; pH of 2.50 is from July 2009.

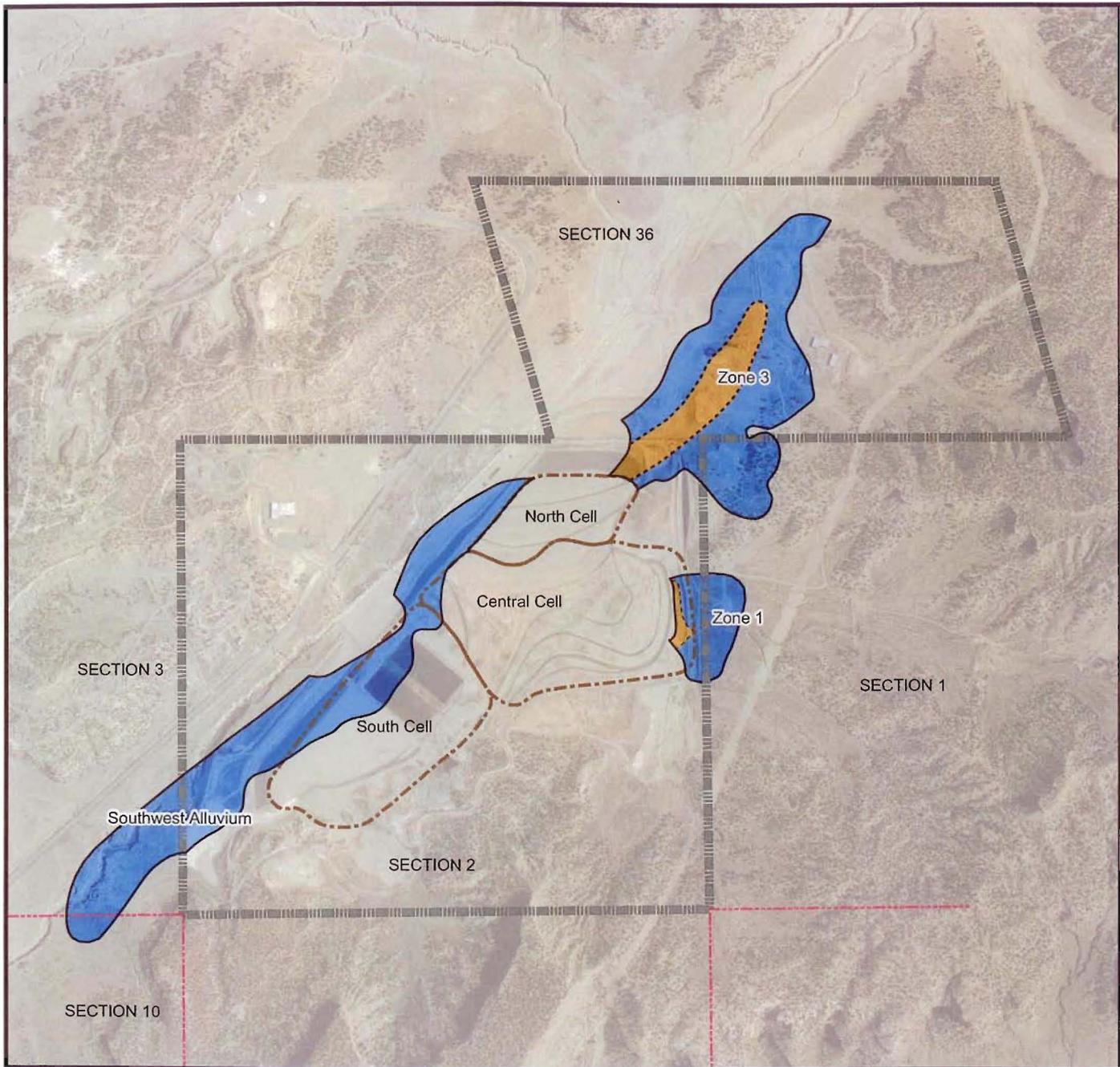


**FIGURE 35**

Zone 3 Approximate Extent of Seepage Impacts, October 2009

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.

0      750      1,500      3,000  
Feet

**FIGURE 6**  
Extent of Seepage-Impacted  
Groundwater, October 2009

United Nuclear Corporation Church Rock Site  
Church Rock, New Mexico

**CHESTER  
ENGINEERS**