

## **Figures**

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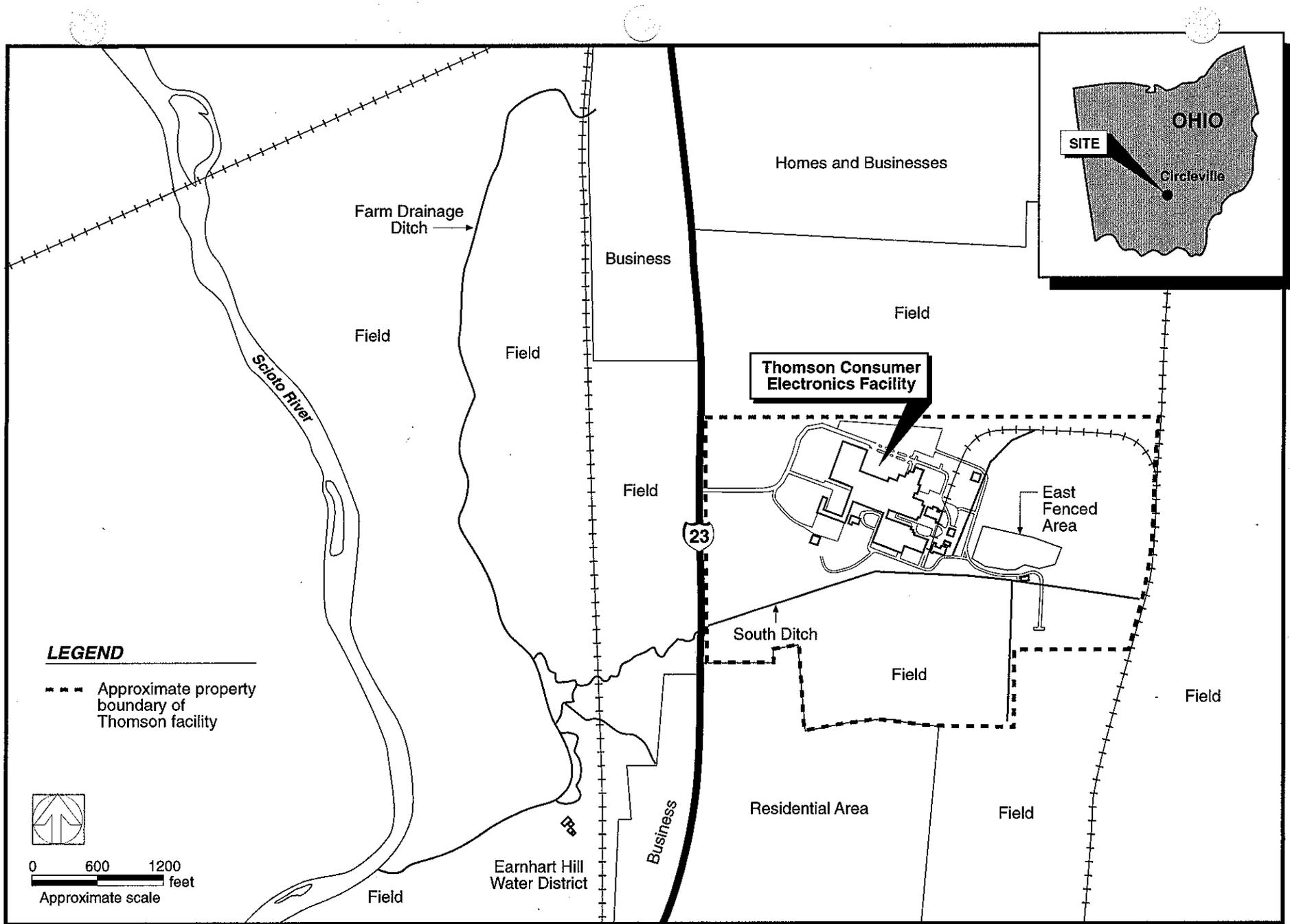


Figure 1-1. Site location.

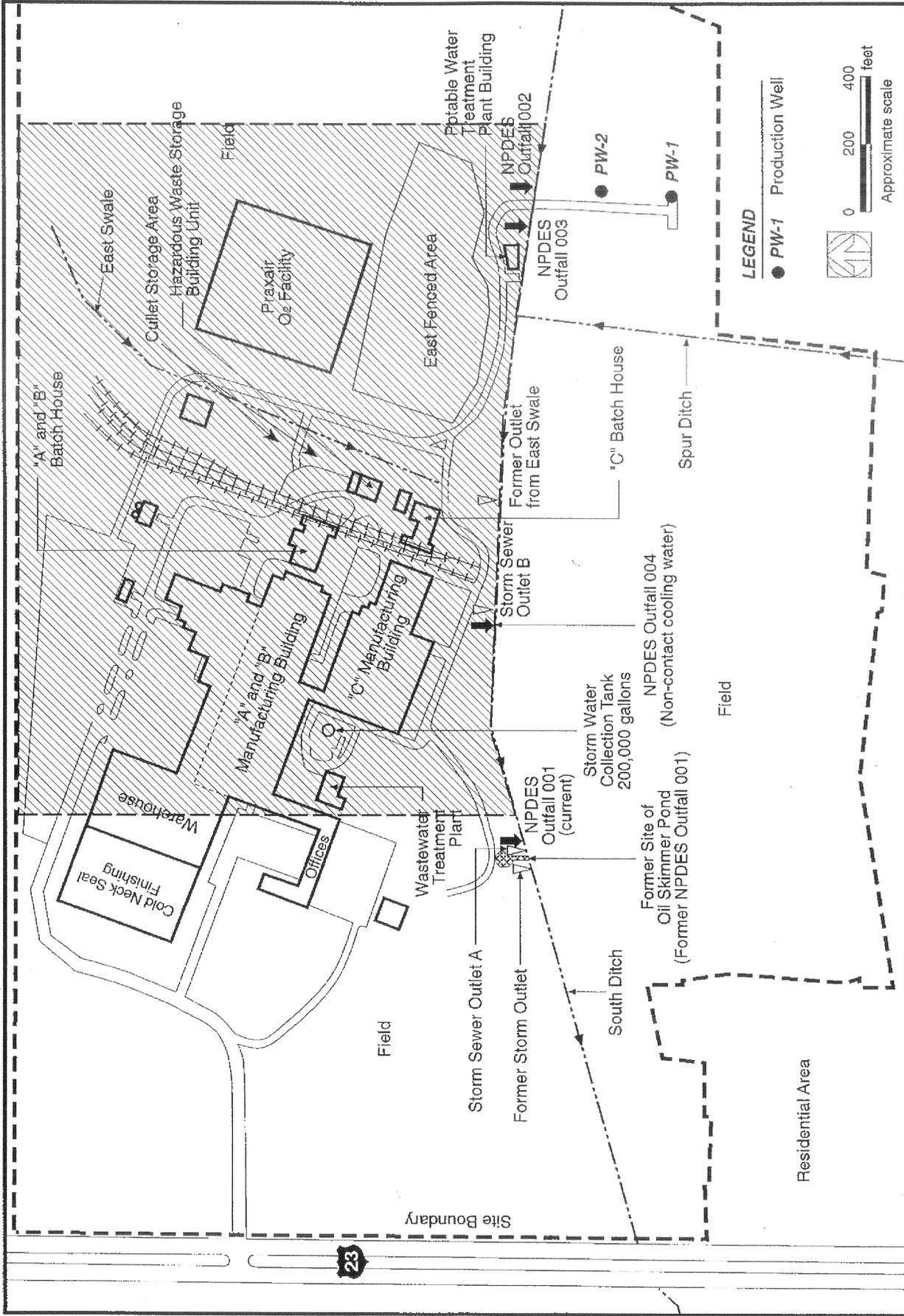


Figure 1-2. Site features.

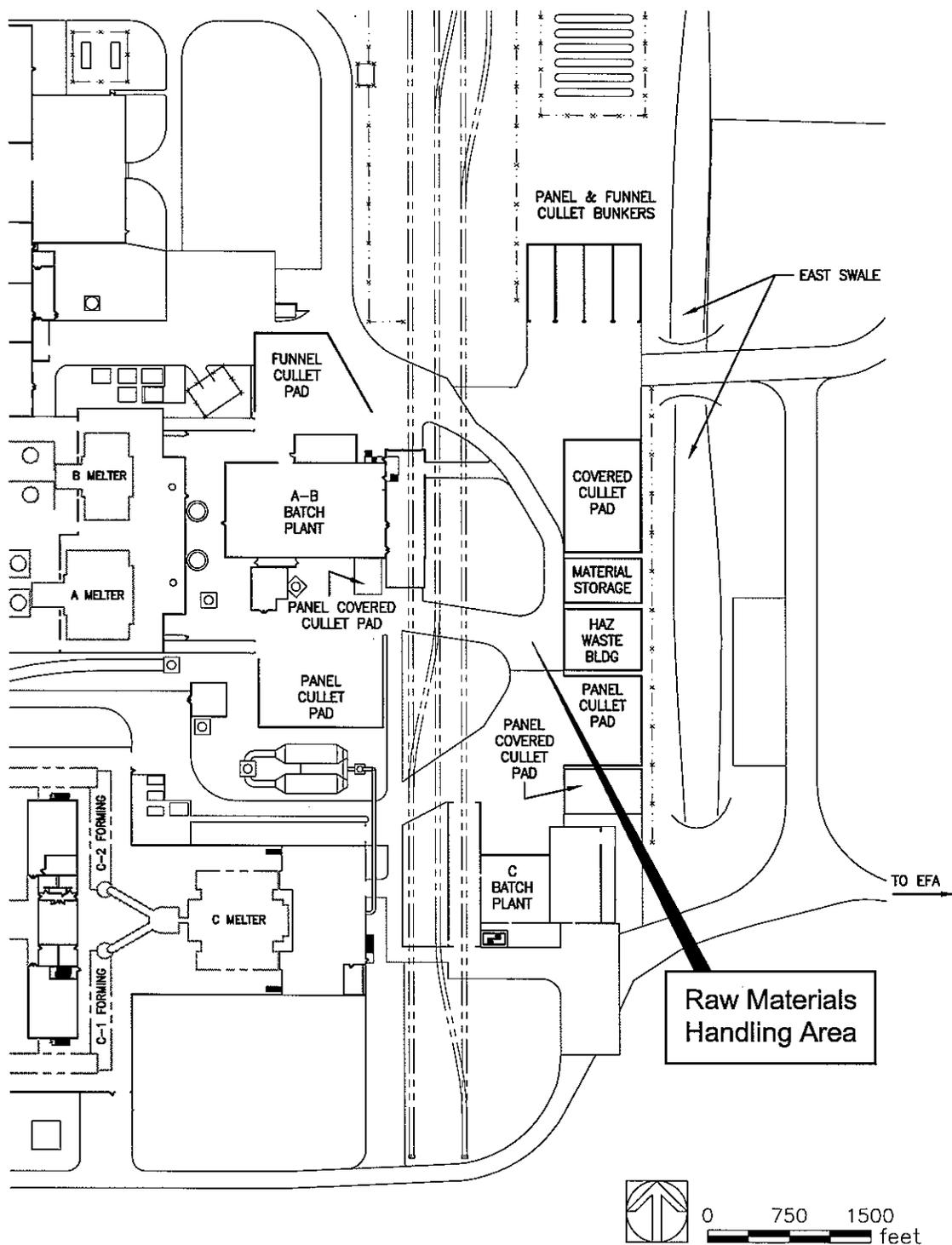
 = Approximate limits of proposed Environmental Restrictive Covenant.  
 (Southern boundary on south bank of South Ditch; other boundaries as shown.)

**LEGEND**

- PW-1 Production Well



0 200 400 feet  
 Approximate scale



Source: Thomson DWG File No. PE-1A-0027 12/06/99

Exponent

Figure 1-3. Raw Materials Handling Area.

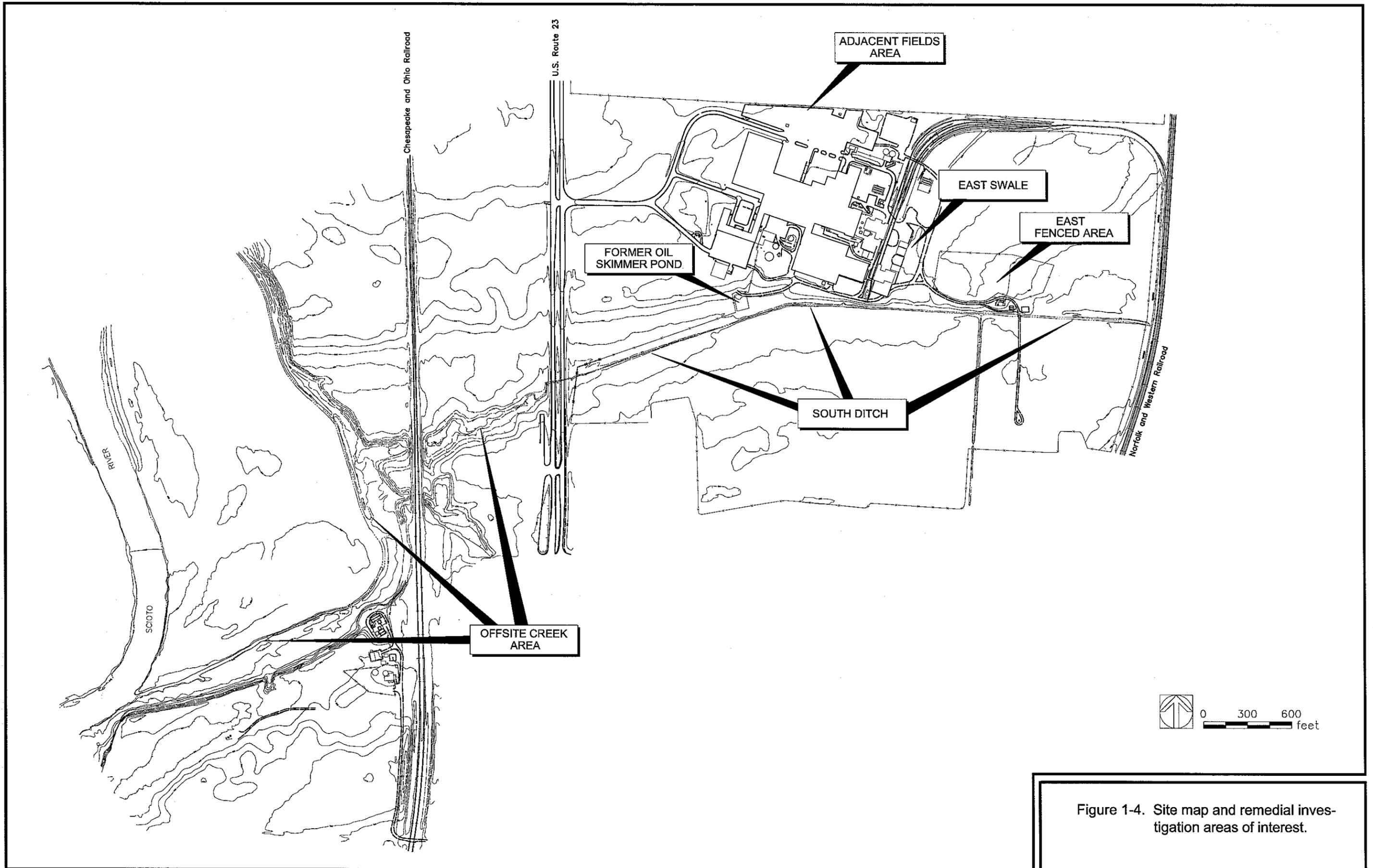


Figure 1-4. Site map and remedial investigation areas of interest.

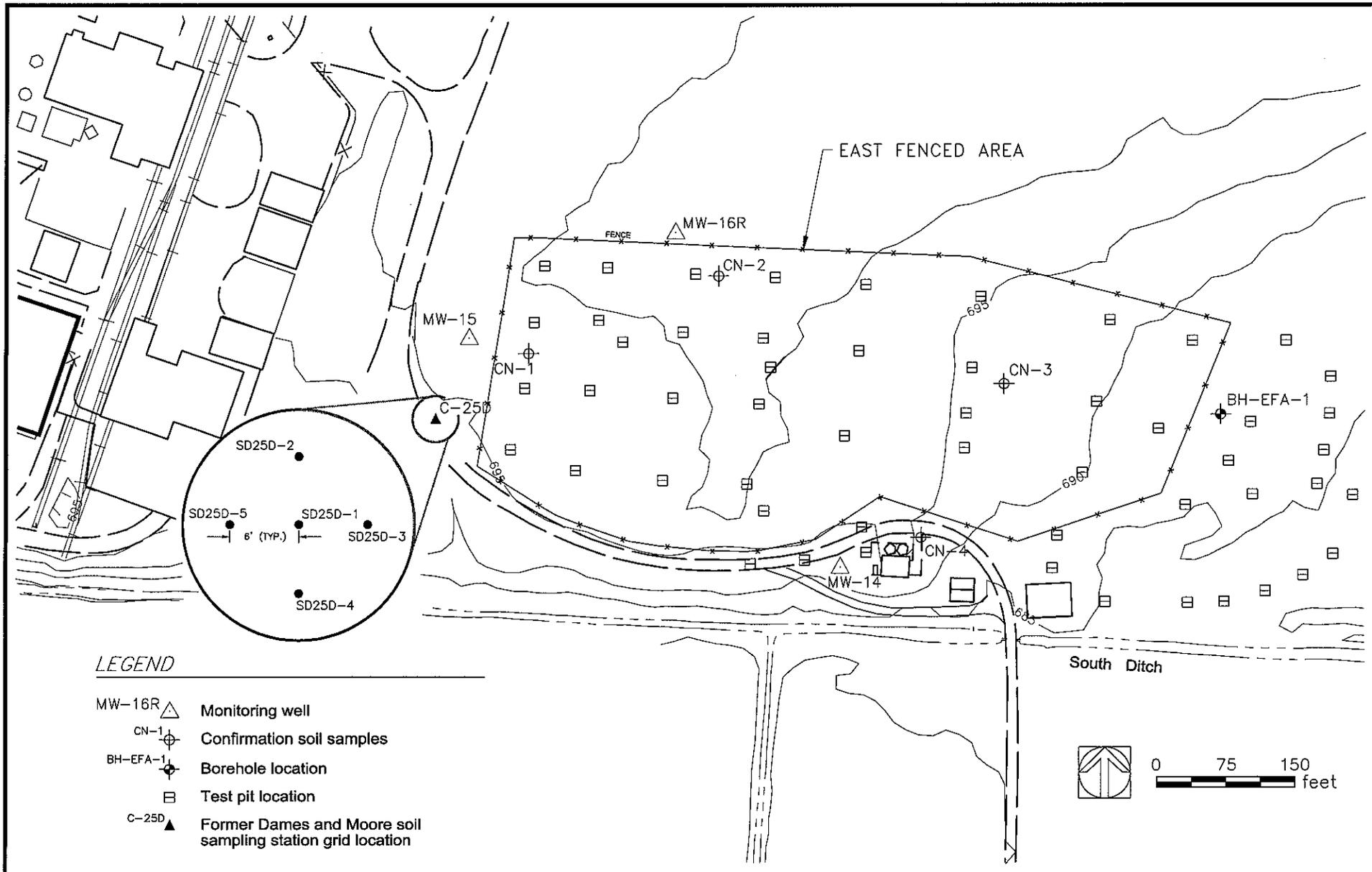


Figure 2-1. East Fenced Area features and remedial investigation components.

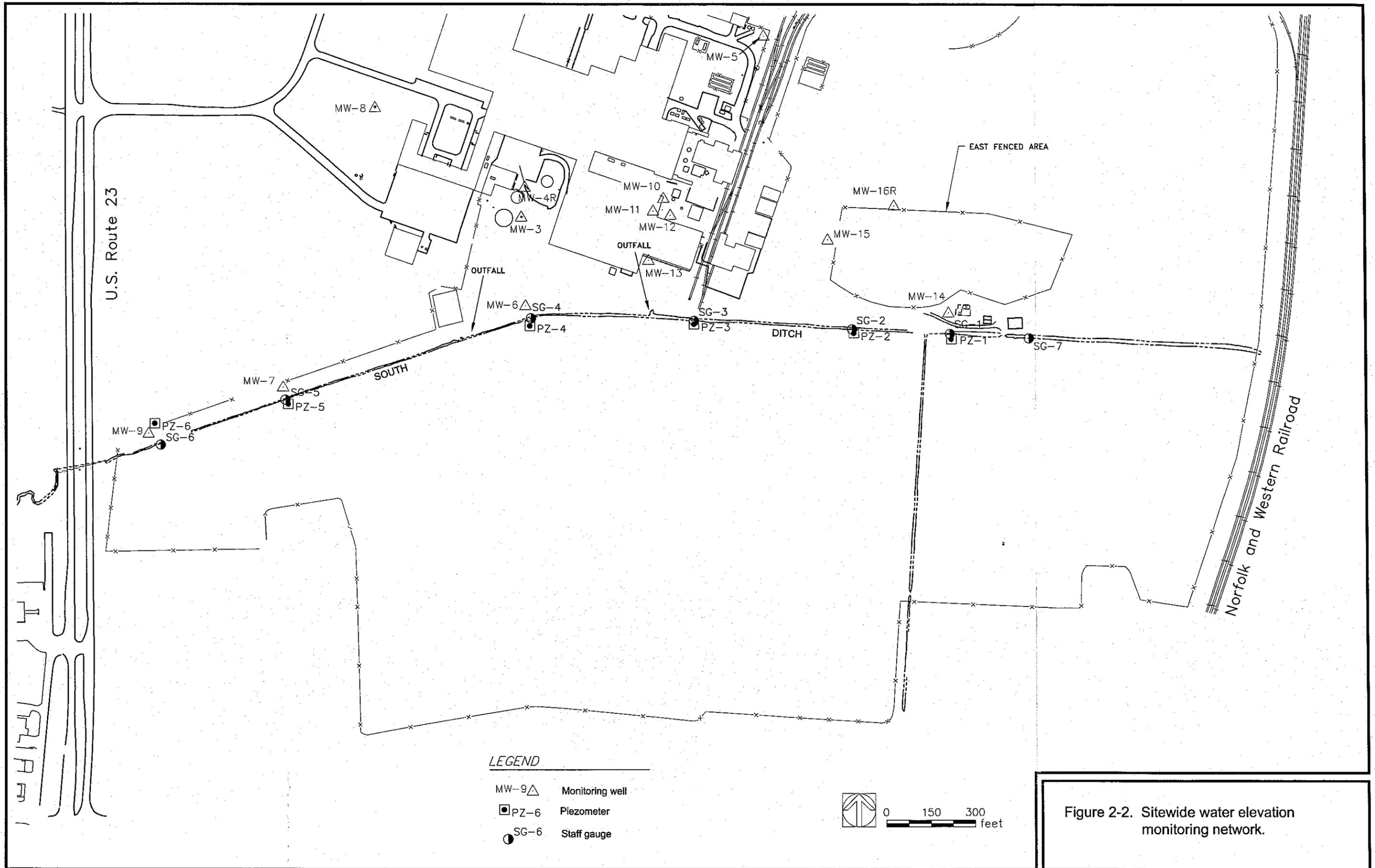


Figure 2-2. Sitewide water elevation monitoring network.

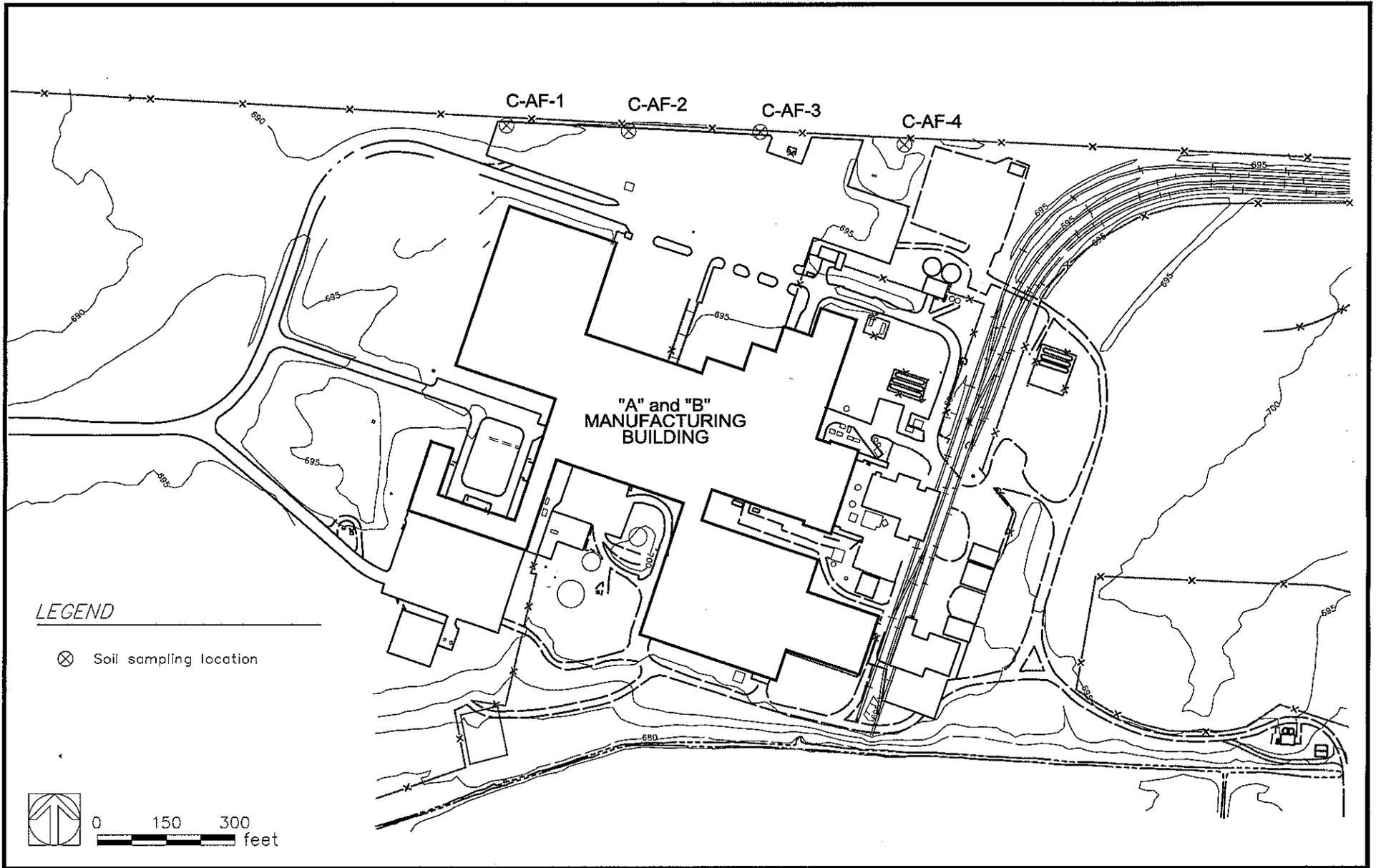


Figure 2-3. Adjacent Fields soil sampling locations.

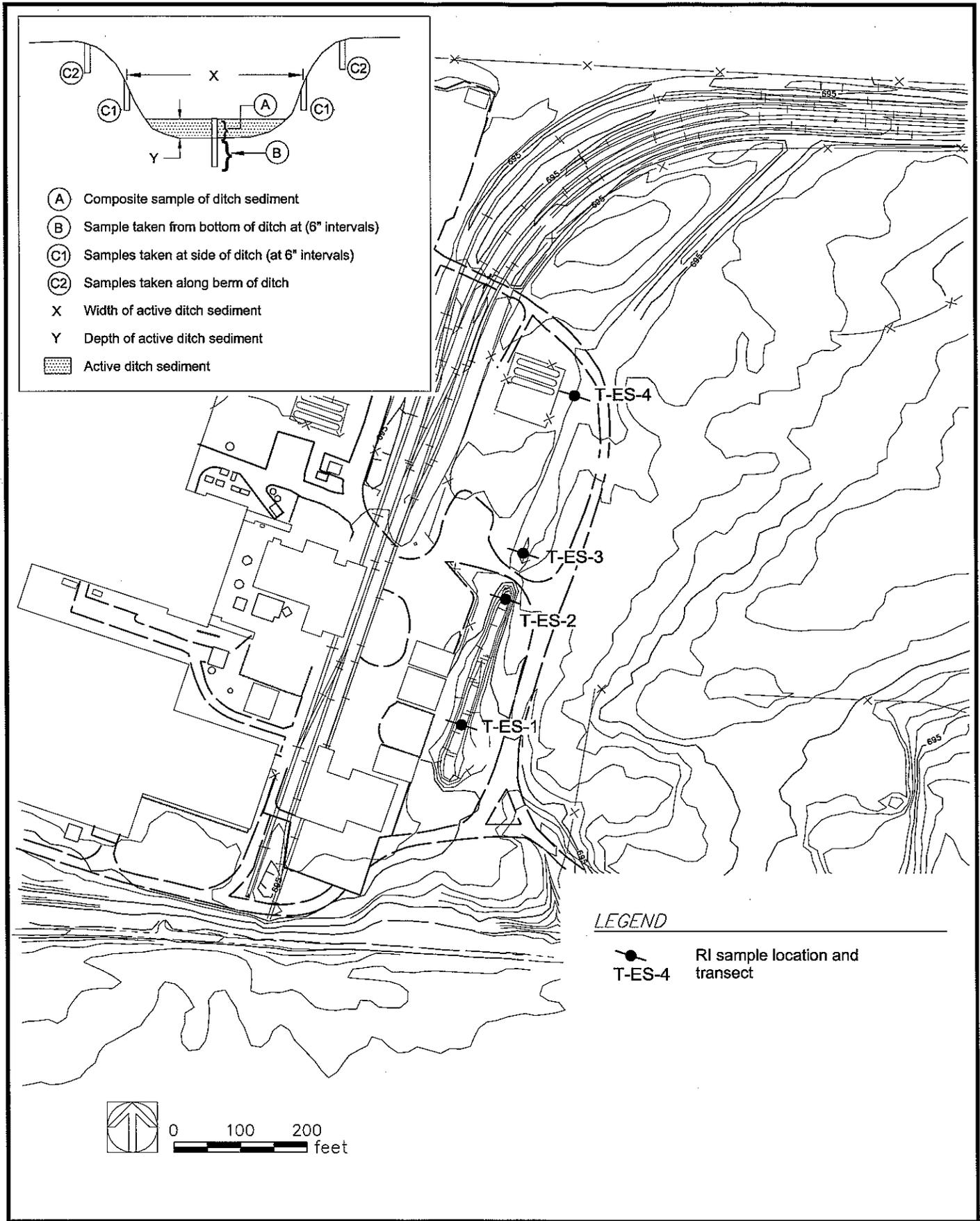


Figure 2-4. East Swale sampling locations.

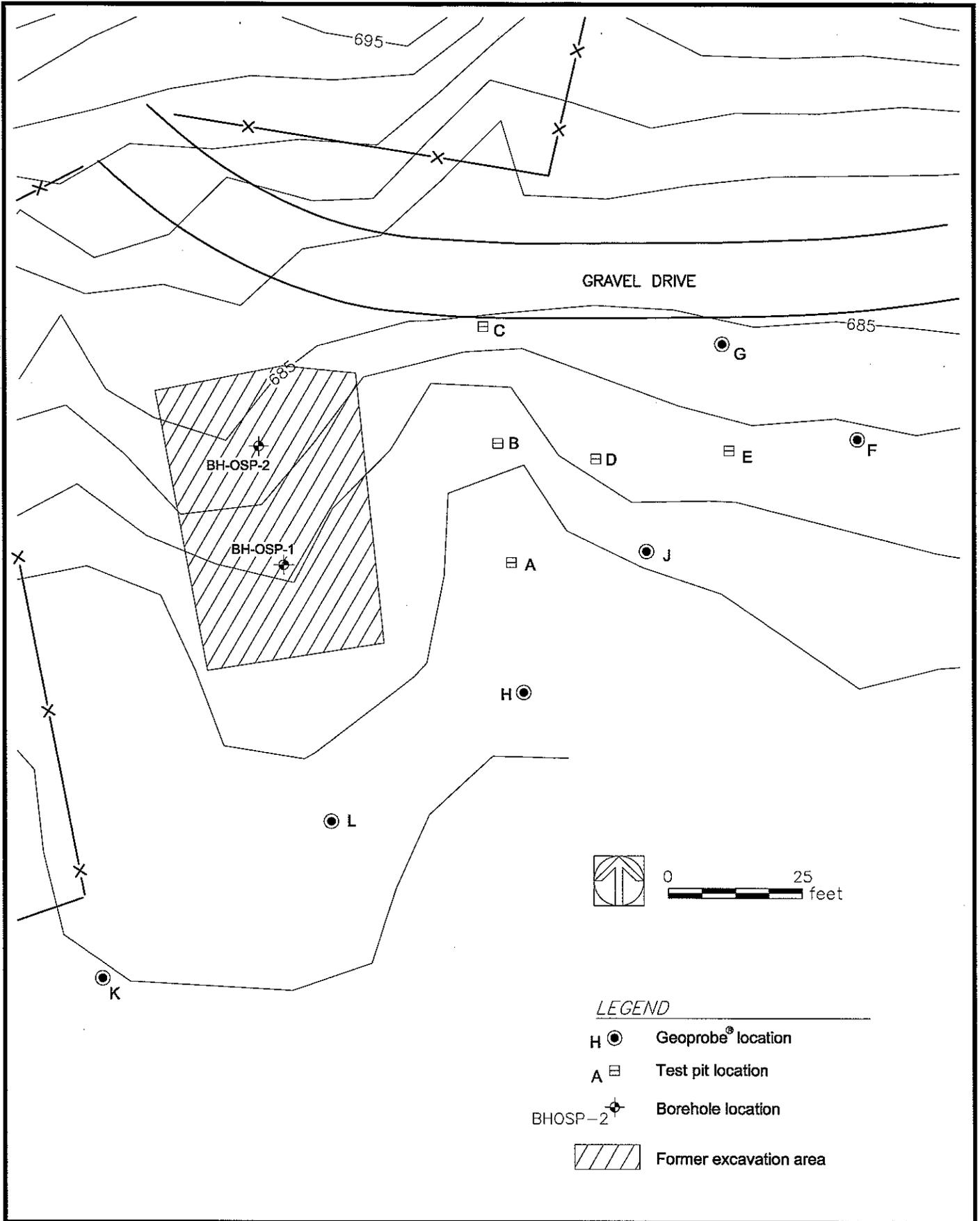


Figure 2-5. Borehole and Geoprobe® sampling locations in the vicinity of the former Oil Skimmer Pond.



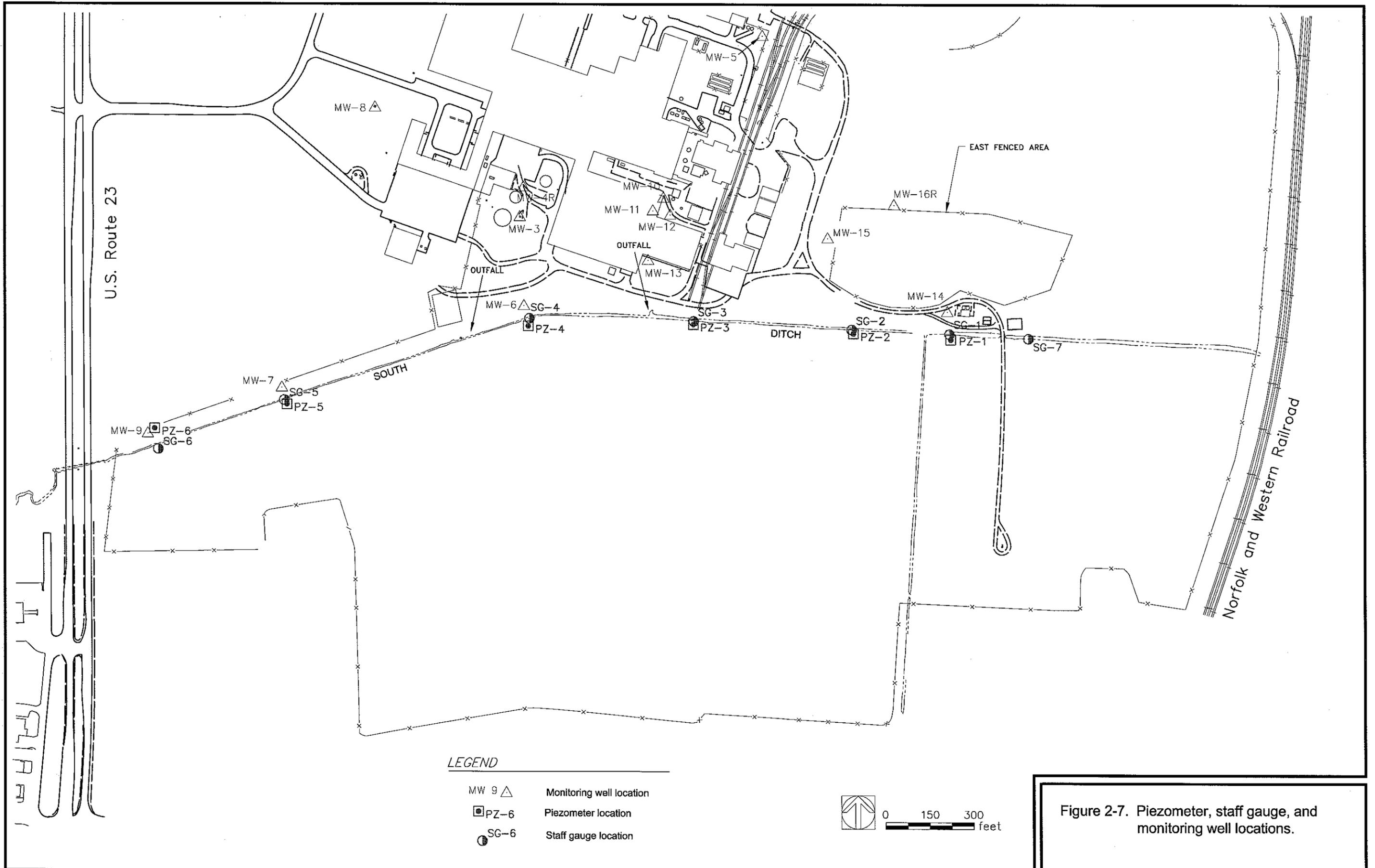


Figure 2-7. Piezometer, staff gauge, and monitoring well locations.



**LEGEND**

- SS0-213 ● Historical grab sample or core station
- T-2 ● Historical transect location



0 200 400 feet

Source: PTI Environmental Services

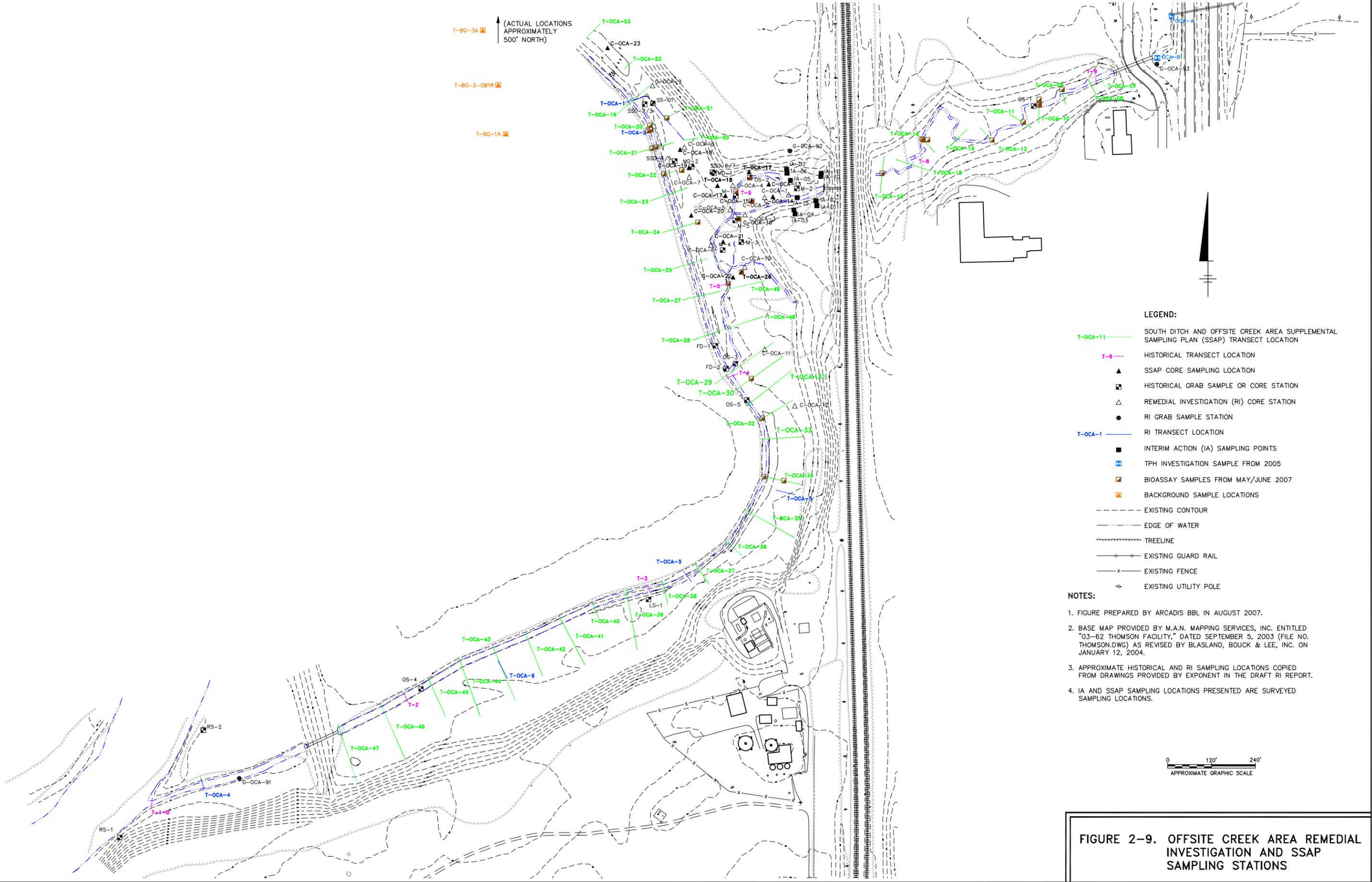
**Figure 2-8. Offsite Creek Area historical sampling stations.**

(ACTUAL LOCATIONS  
APPROXIMATELY  
500' NORTH)

T-BG-3A

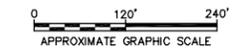
T-BG-2-0B1R

T-BG-1A



- LEGEND:**
- T-OCA-11 SOUTH DITCH AND OFFSITE CREEK AREA SUPPLEMENTAL SAMPLING PLAN (SSAP) TRANSECT LOCATION
  - T-9 HISTORICAL TRANSECT LOCATION
  - ▲ SSAP CORE SAMPLING LOCATION
  - HISTORICAL GRAB SAMPLE OR CORE STATION
  - △ REMEDIAL INVESTIGATION (RI) CORE STATION
  - RI GRAB SAMPLE STATION
  - T-OCA-1 RI TRANSECT LOCATION
  - INTERIM ACTION (IA) SAMPLING POINTS
  - TPH INVESTIGATION SAMPLE FROM 2005
  - BIOASSAY SAMPLES FROM MAY/JUNE 2007
  - BACKGROUND SAMPLE LOCATIONS
  - EXISTING CONTOUR
  - - - - - EDGE OF WATER
  - ~~~~~ TREELINE
  - EXISTING GUARD RAIL
  - x— EXISTING FENCE
  - x— EXISTING UTILITY POLE

- NOTES:**
1. FIGURE PREPARED BY ARCADIS BBL IN AUGUST 2007.
  2. BASE MAP PROVIDED BY M.A.N. MAPPING SERVICES, INC. ENTITLED "03-62 THOMSON FACILITY," DATED SEPTEMBER 5, 2003 (FILE NO. THOMSON.DWG) AS REVISED BY BLASLAND, BOUCK & LEE, INC. ON JANUARY 12, 2004.
  3. APPROXIMATE HISTORICAL AND RI SAMPLING LOCATIONS COPIED FROM DRAWINGS PROVIDED BY EXPONENT IN THE DRAFT RI REPORT.
  4. IA AND SSAP SAMPLING LOCATIONS PRESENTED ARE SURVEYED SAMPLING LOCATIONS.

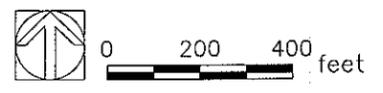


**FIGURE 2-9. OFFSITE CREEK AREA REMEDIAL INVESTIGATION AND SSAP SAMPLING STATIONS**



**LEGEND**

- Surface water sampling station  
 SW-OCA-1 (low water level)
  
- Surface water sampling station  
 SW-OCA-2 (high water level)



**Figure 2-10. Offsite Creek Area remedial investigation surface water sampling stations.**

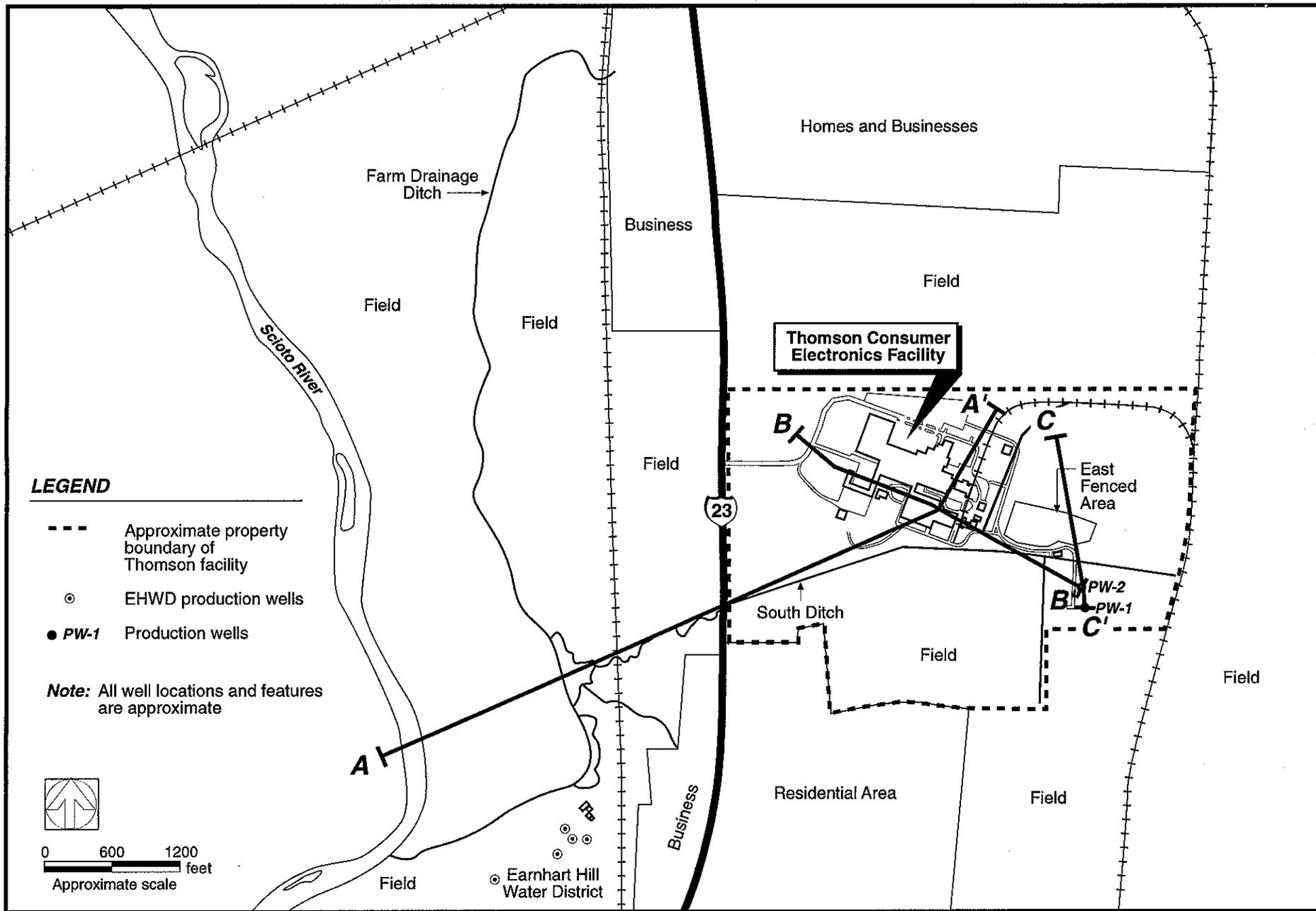


Figure 3-1. Regional cross-section locations.



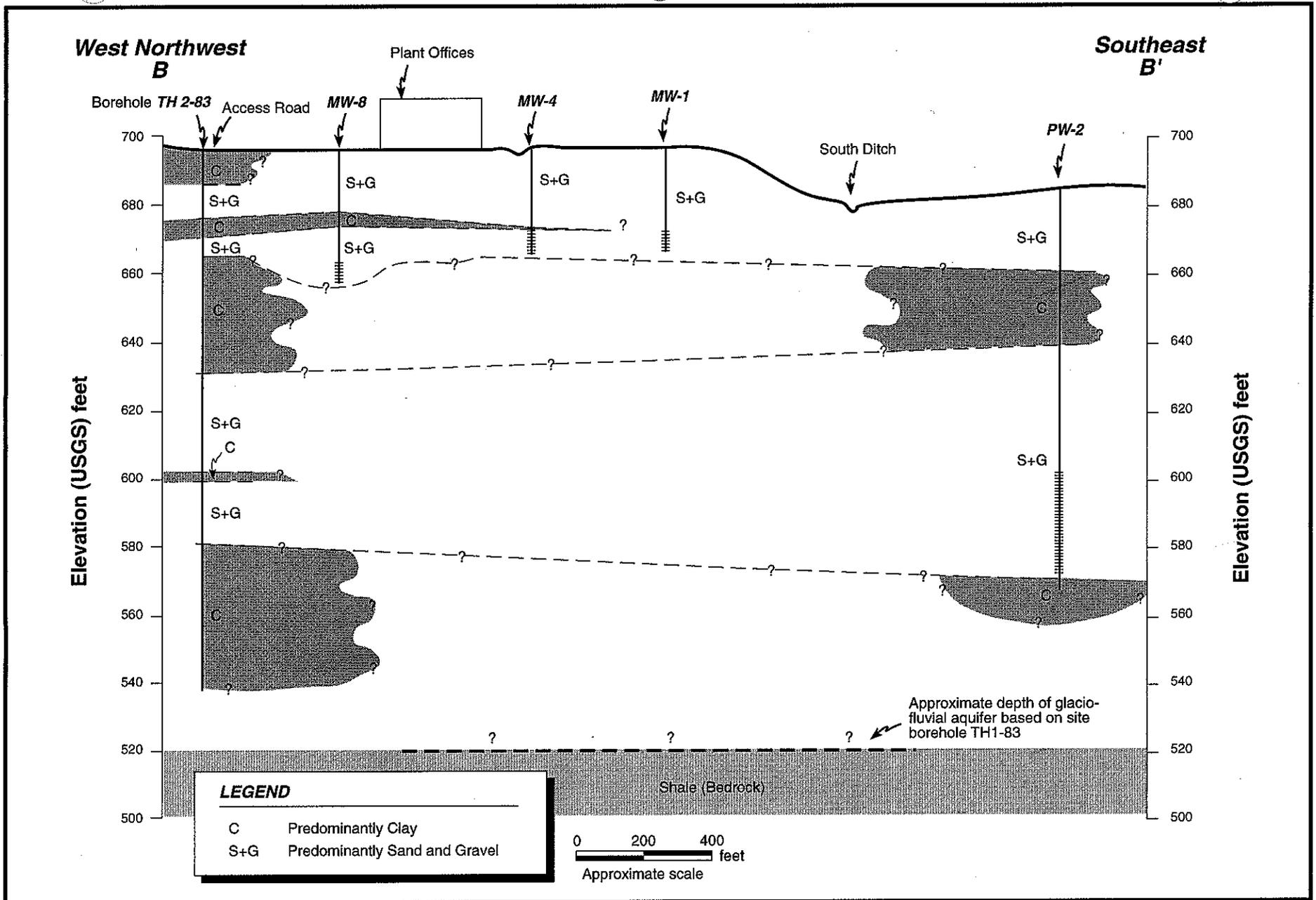


Figure 3-3. Site geology – west northwest/southeast cross section.

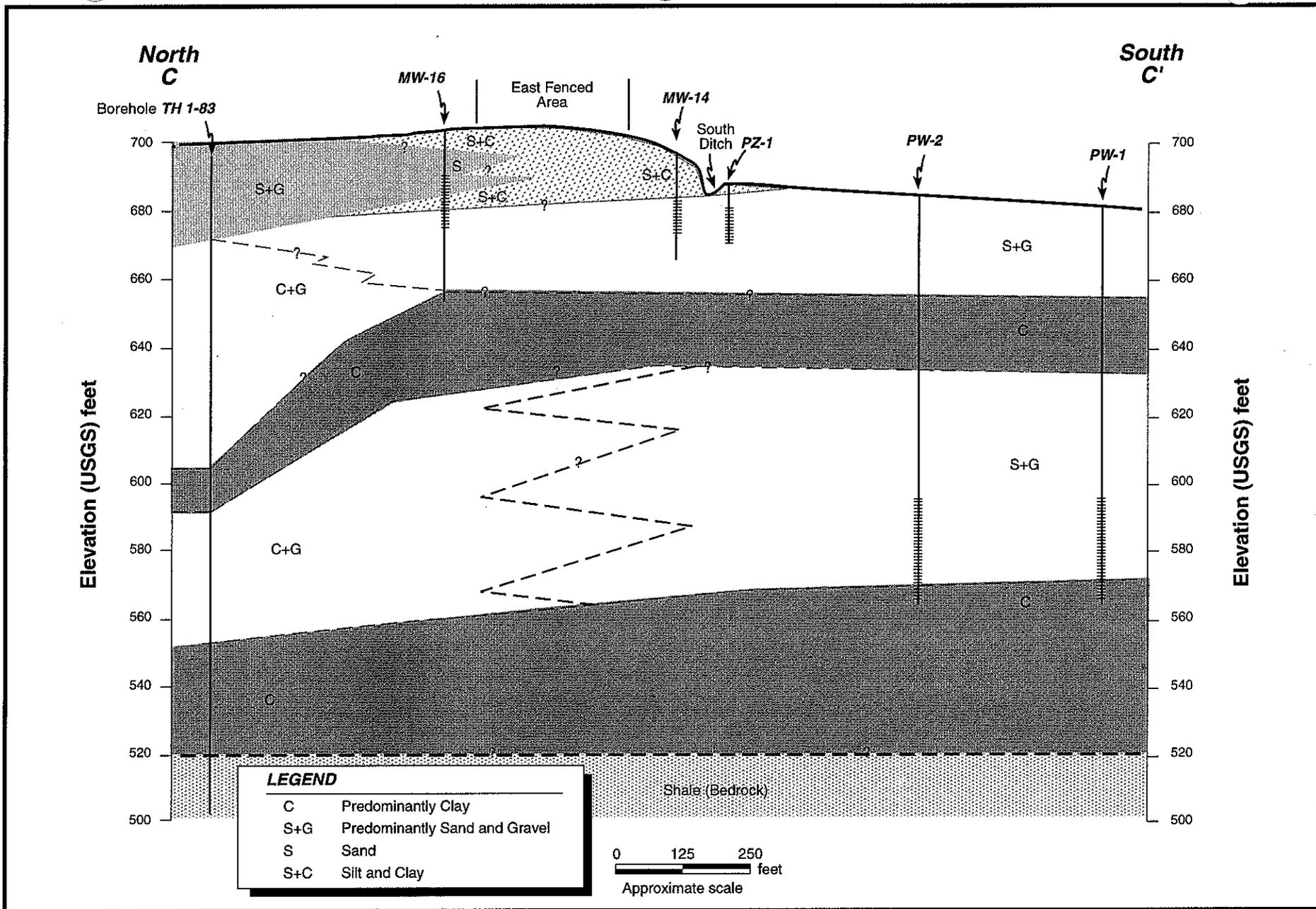


Figure 3-4. Site geology – north/south cross section.

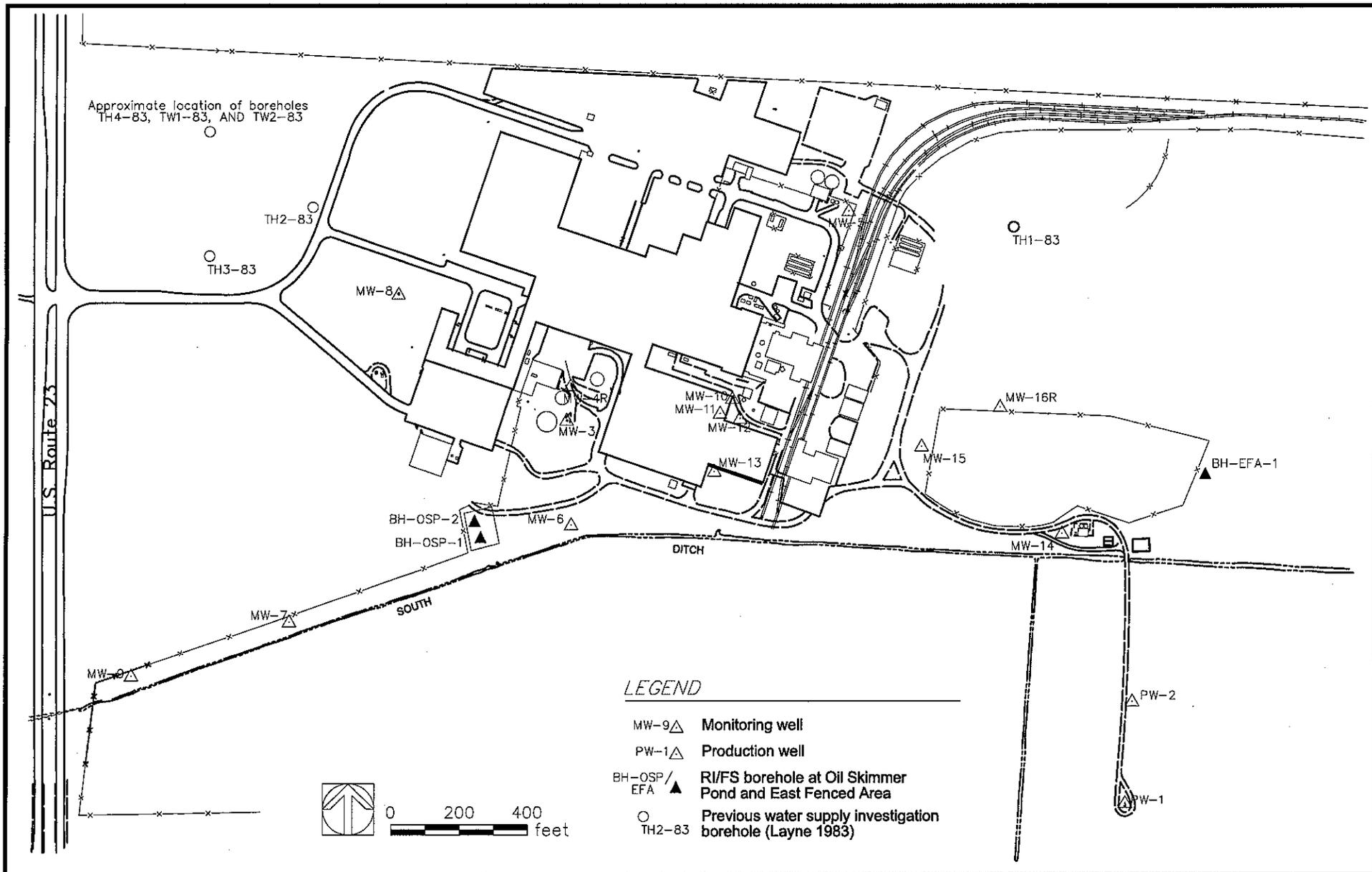


Figure 3-5. Existing and historical borehole and well locations.

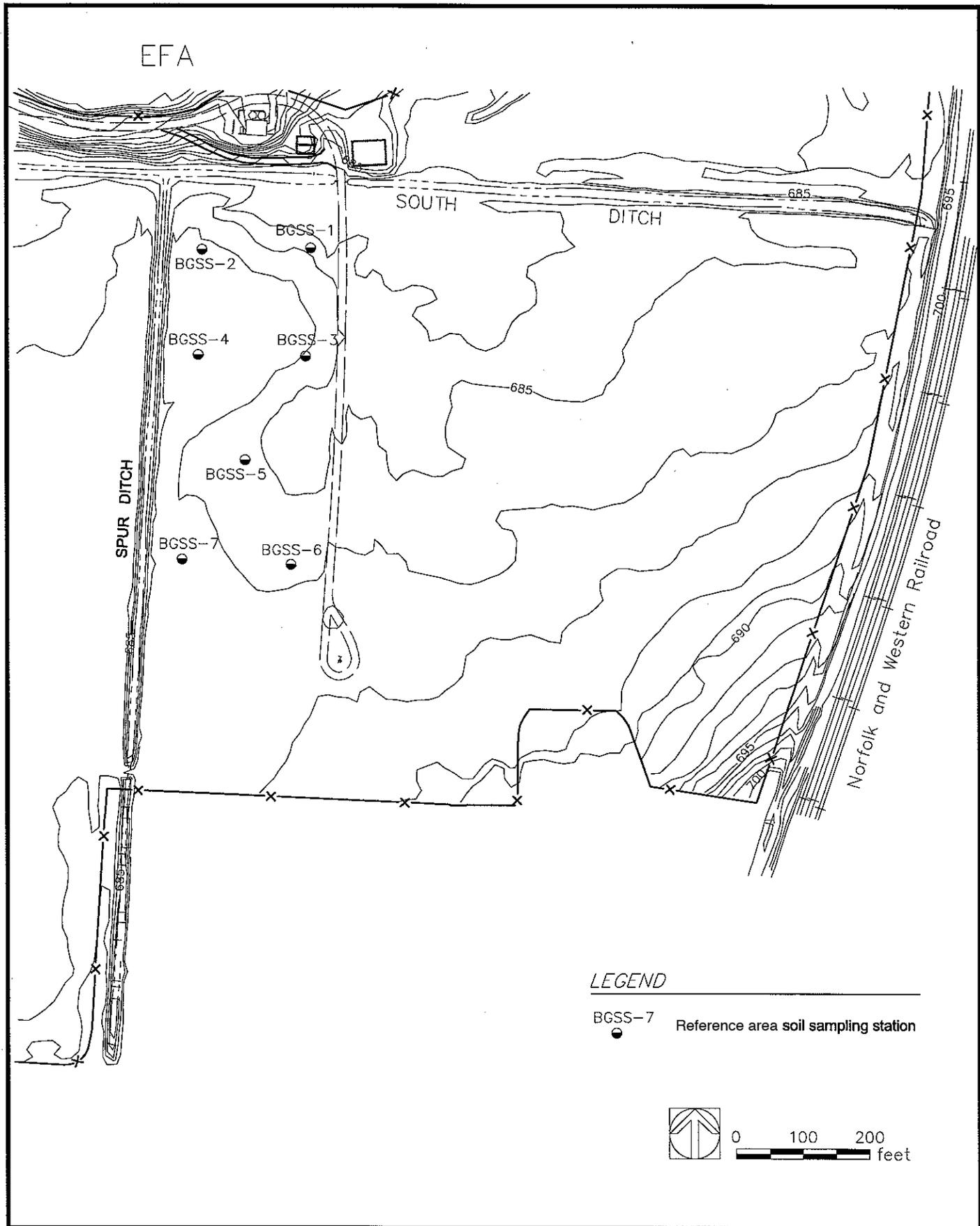


Figure 3-6. Reference area soil sampling locations.

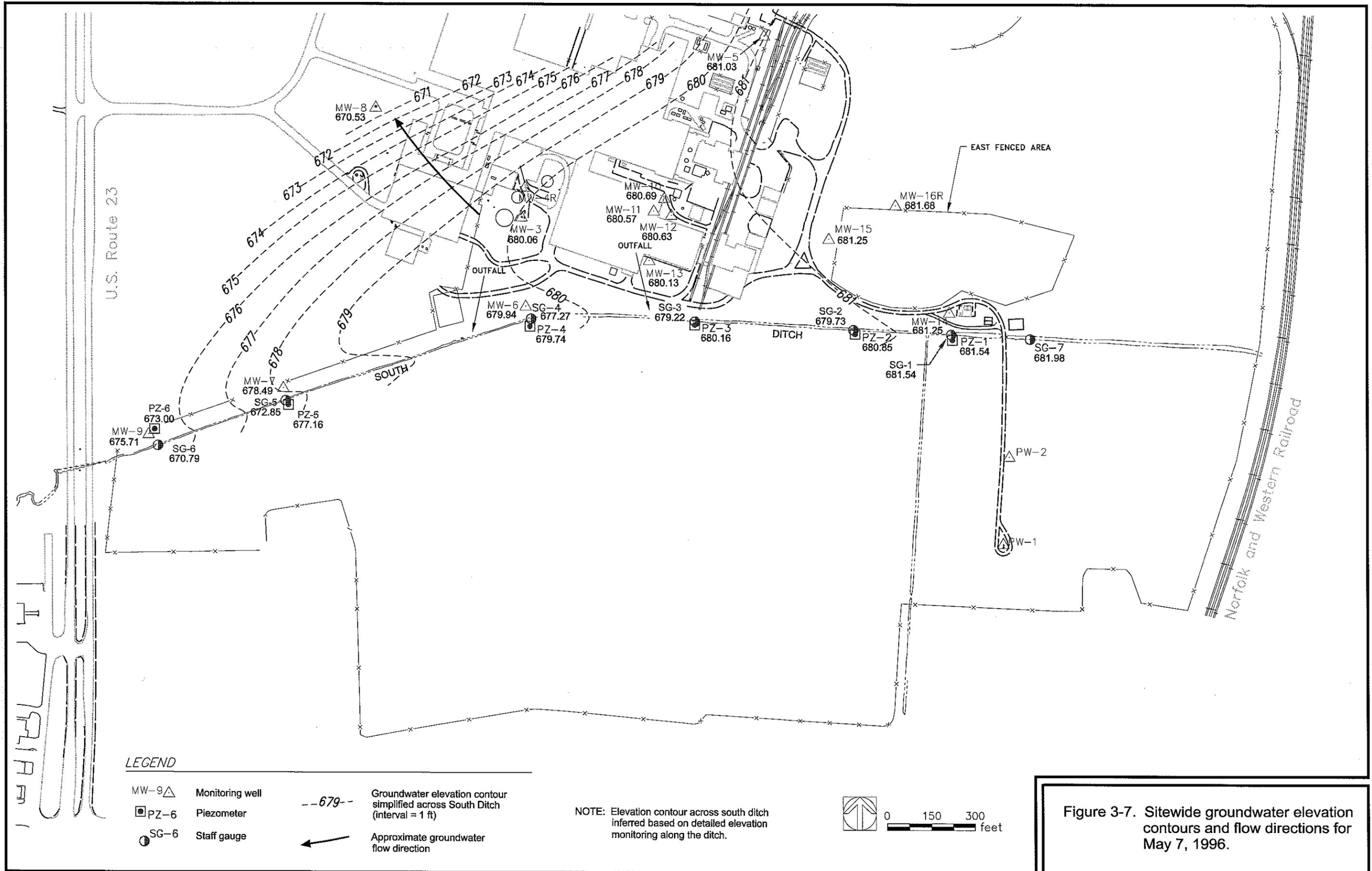


Figure 3-7. Sitewide groundwater elevation contours and flow directions for May 7, 1996.

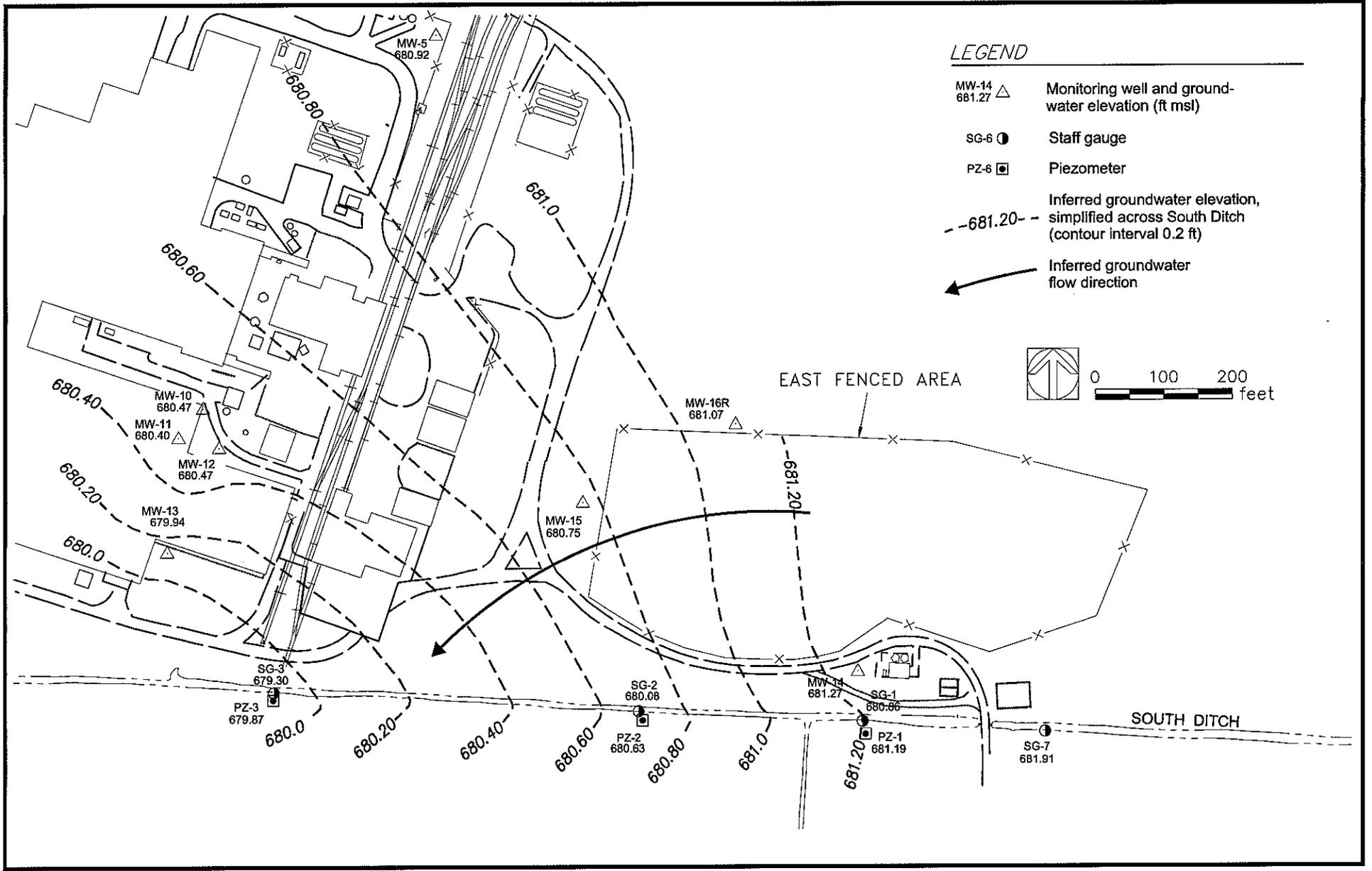


Figure 3-8. Groundwater elevation contours - first quarter (July 1996) groundwater sampling at East Fenced Area.

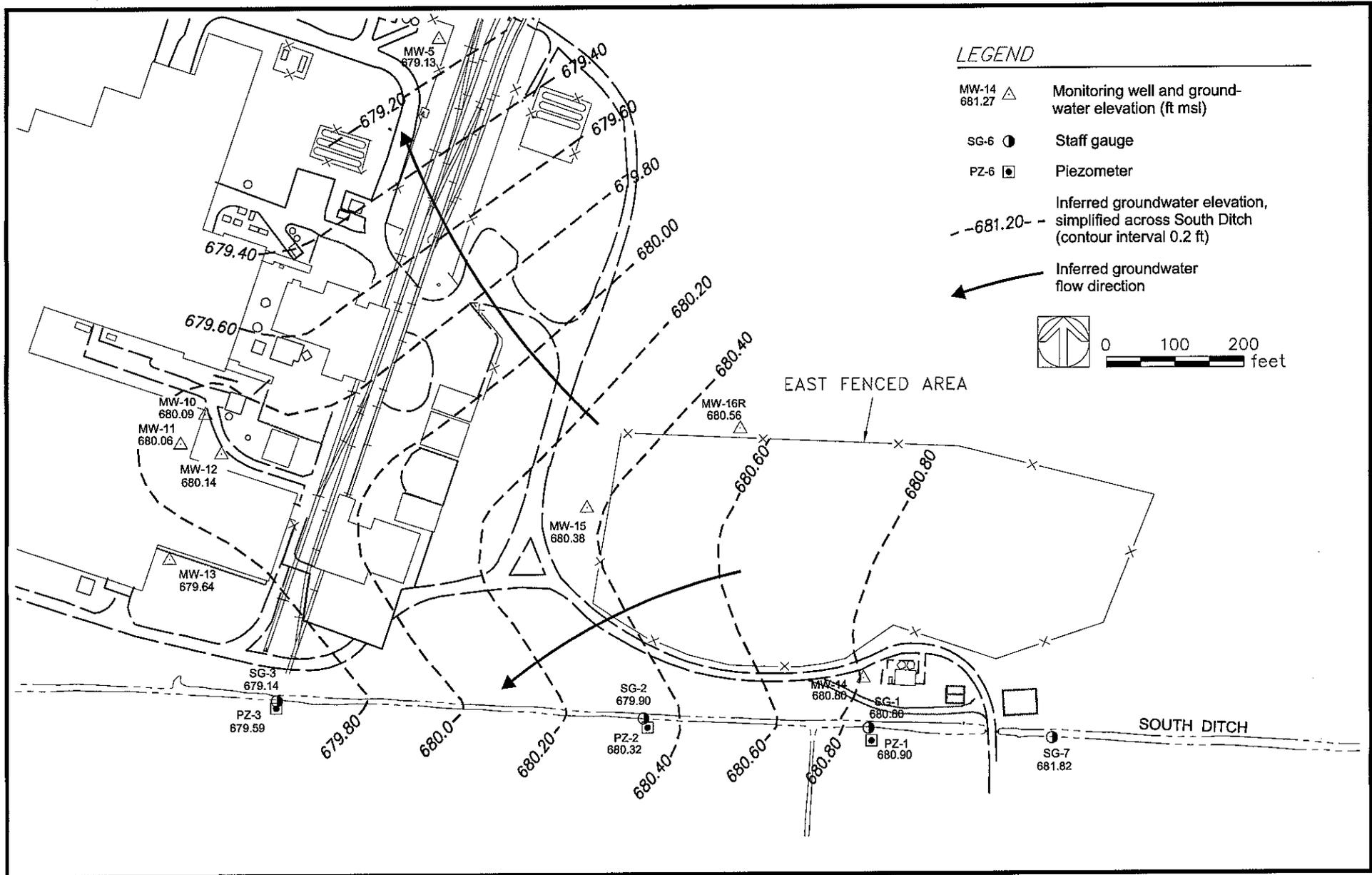


Figure 3-9. Groundwater elevation contours - second quarter (October 1996) groundwater sampling at East Fenced Area.

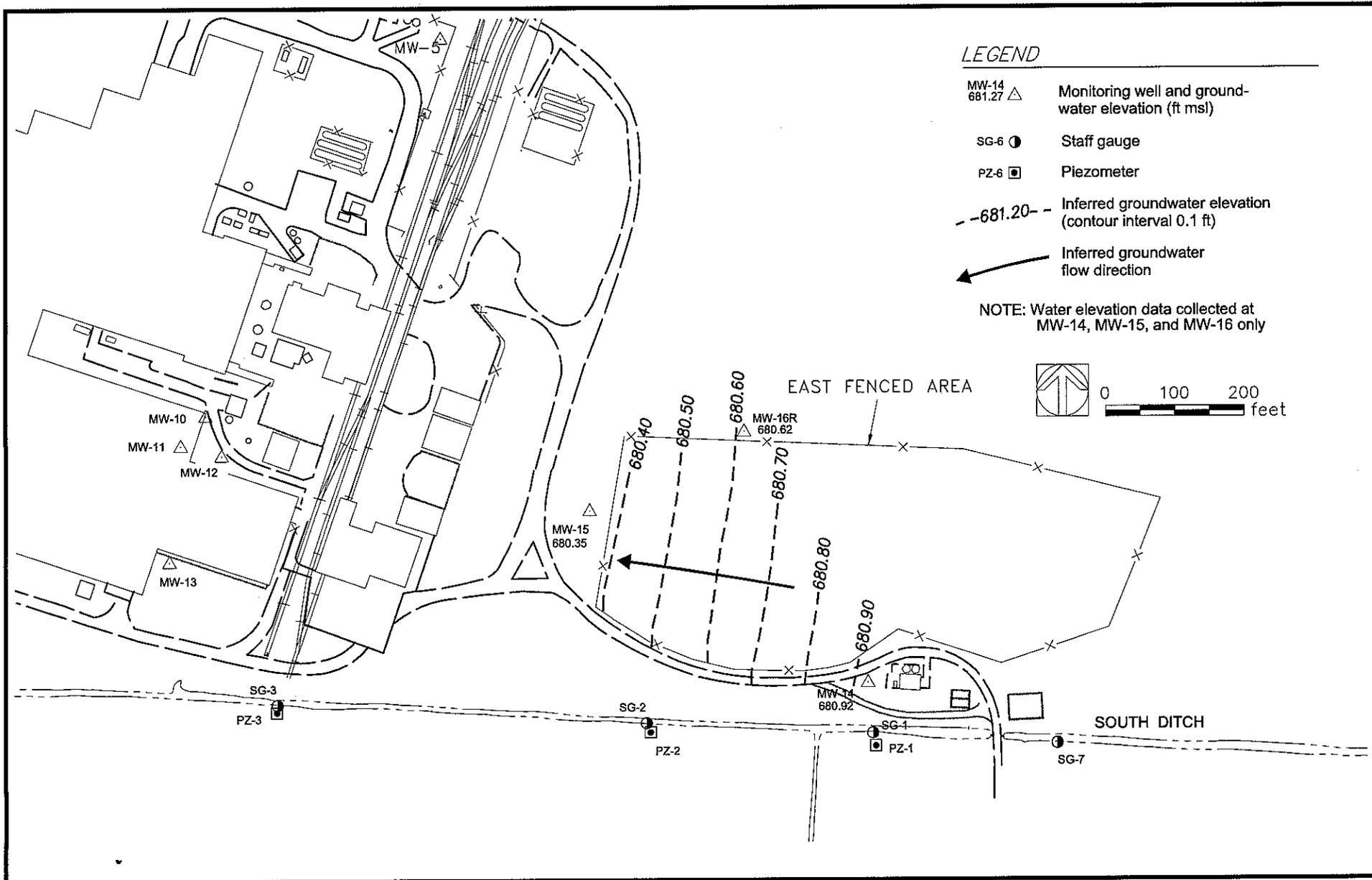


Figure 3-10. Groundwater elevation contours - third quarter (February 1997) groundwater sampling at East Fenced Area.

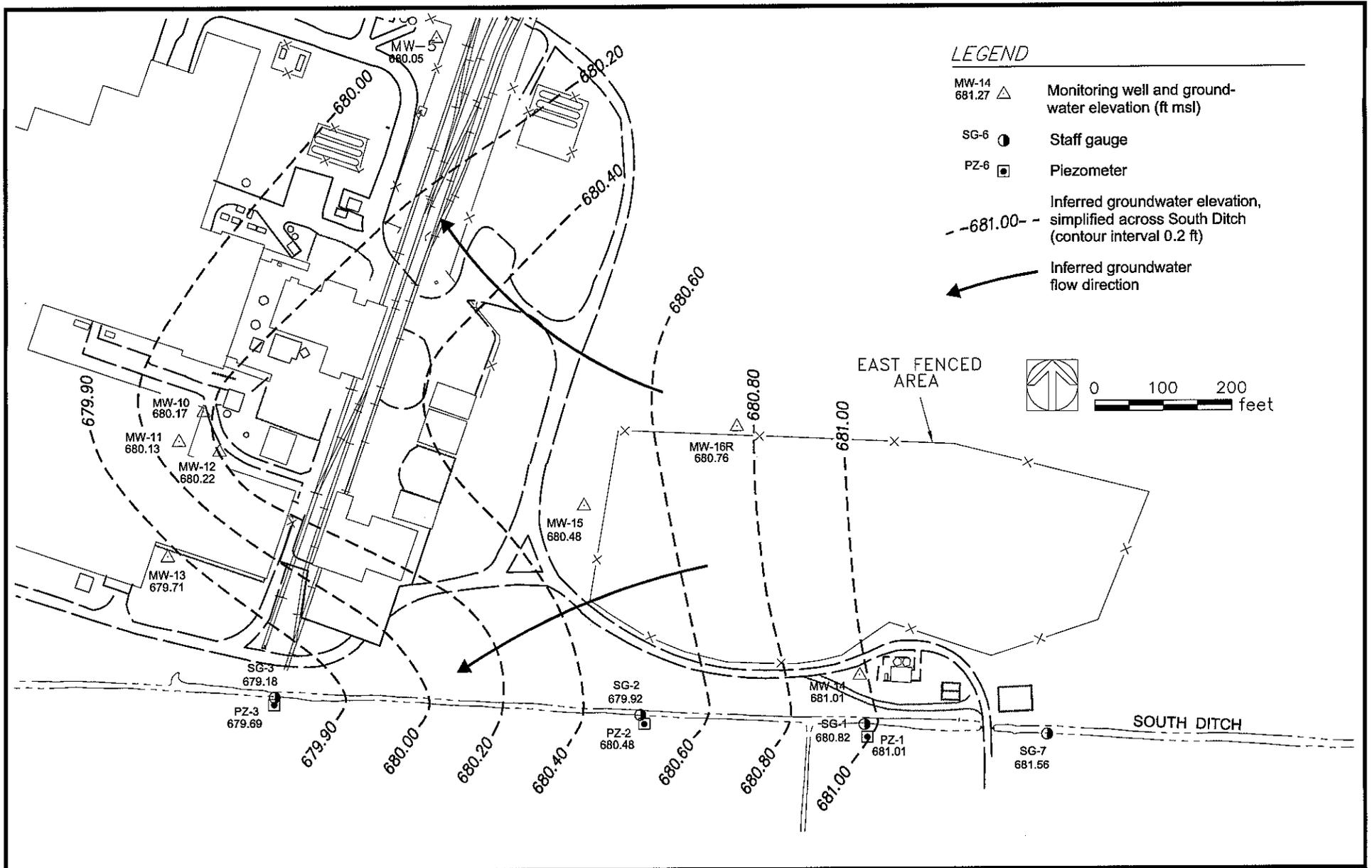


Figure 3-11. Groundwater elevation contours - fourth quarter (April 1997) groundwater sampling at East Fenced Area.

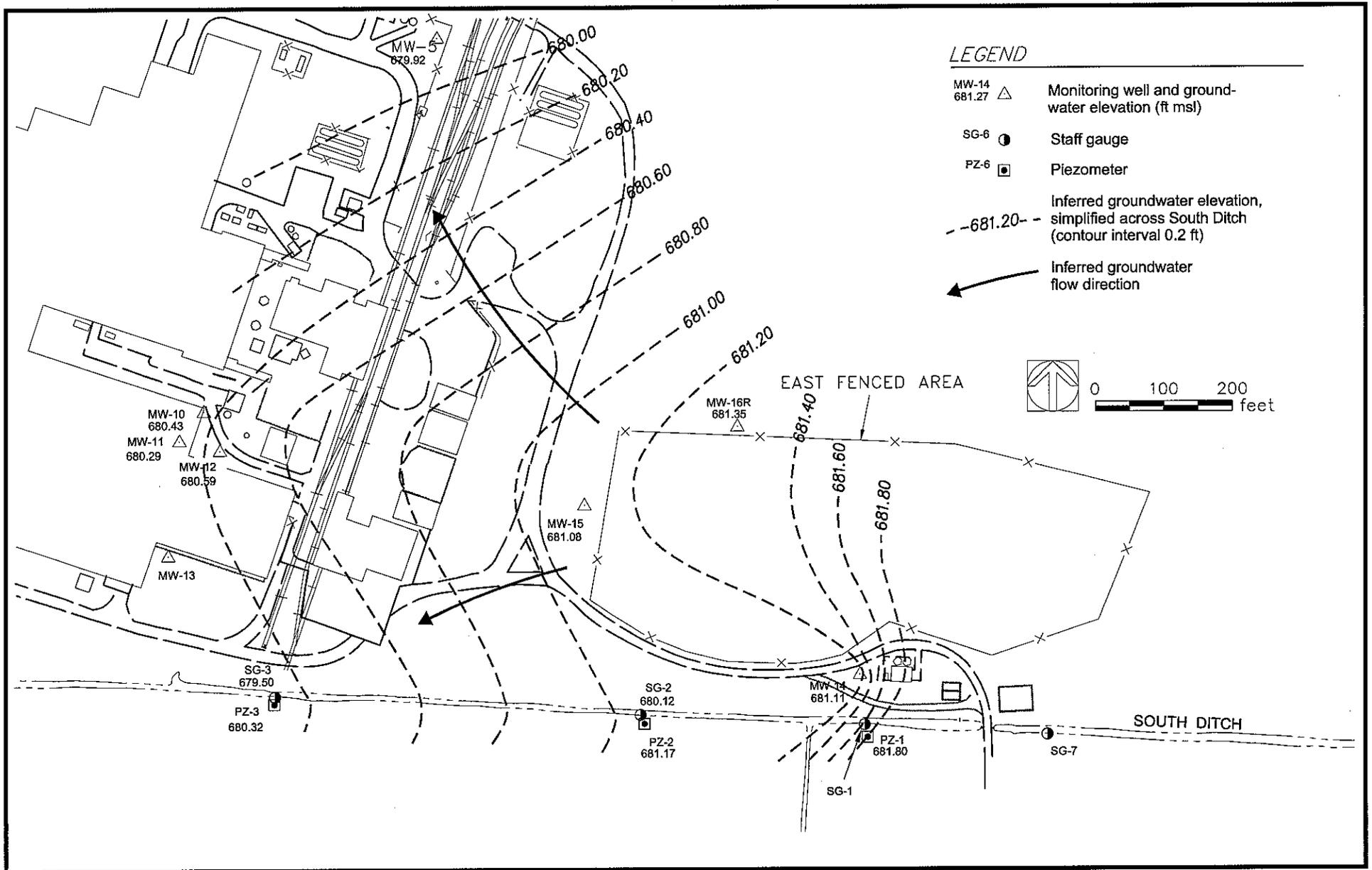


Figure 3-12. Groundwater elevation contours - fifth quarter (August 1997) groundwater sampling at East Fenced Area.

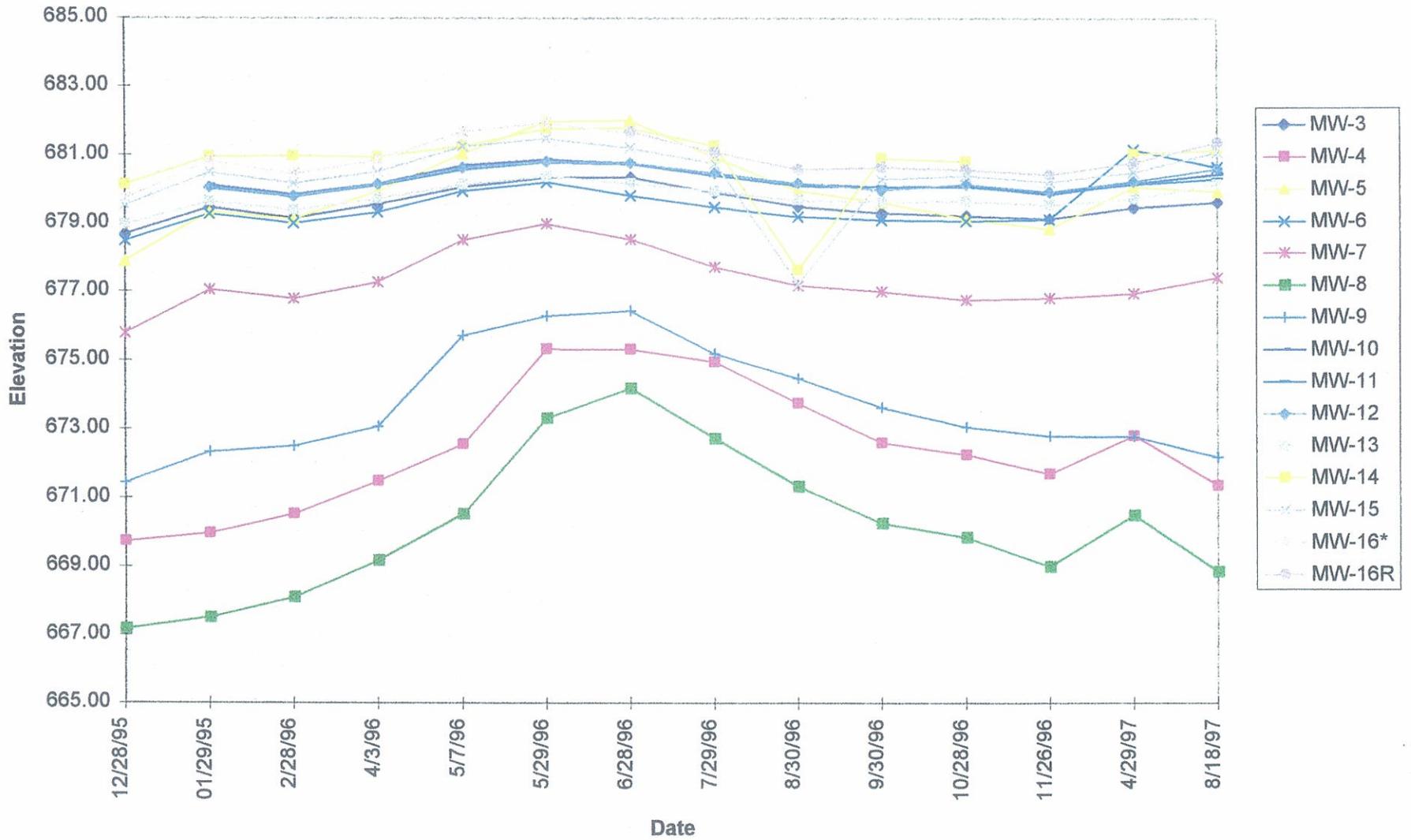


Figure 3-13. Groundwater elevations.

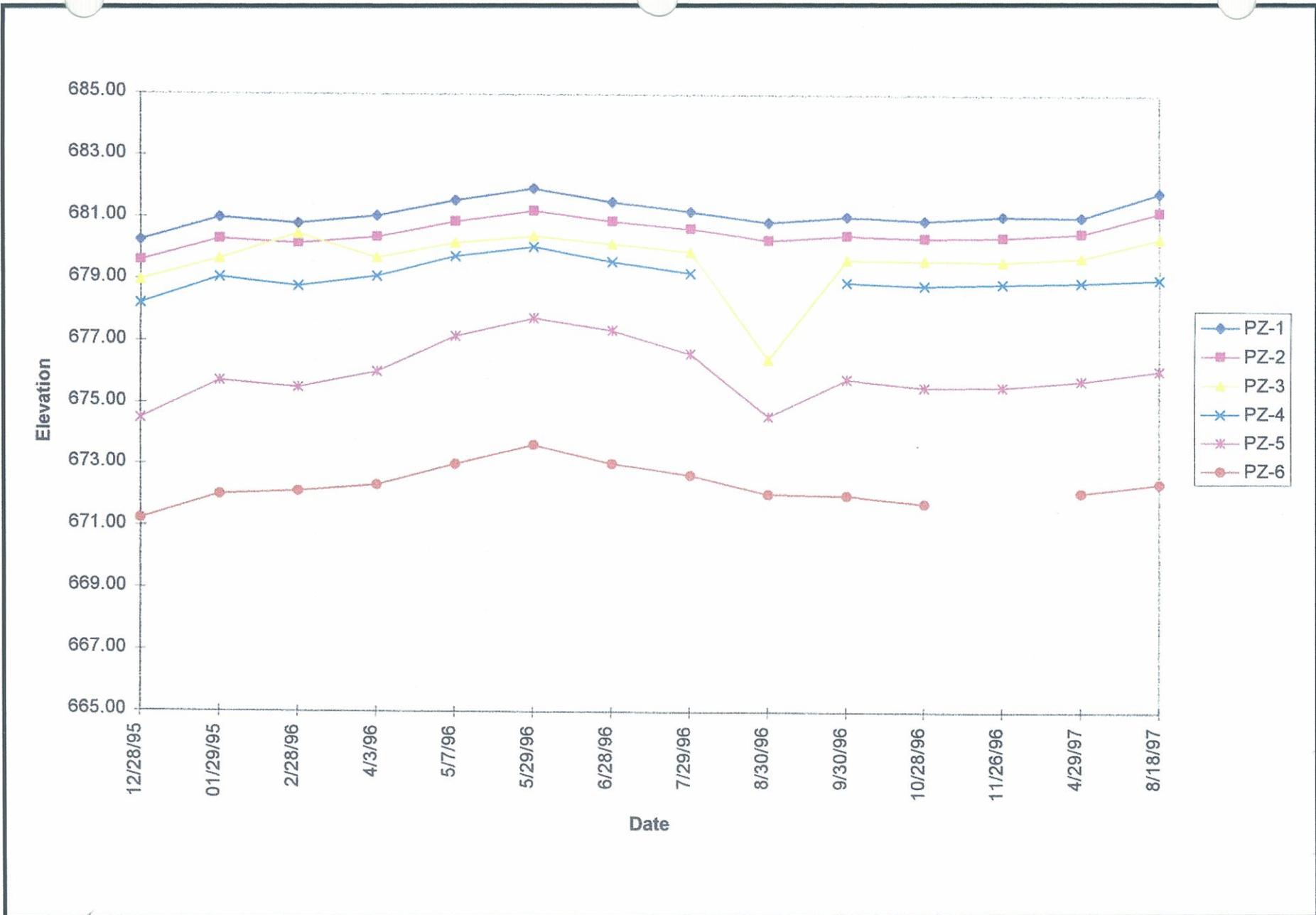


Figure 3-14. Piezometer elevations.

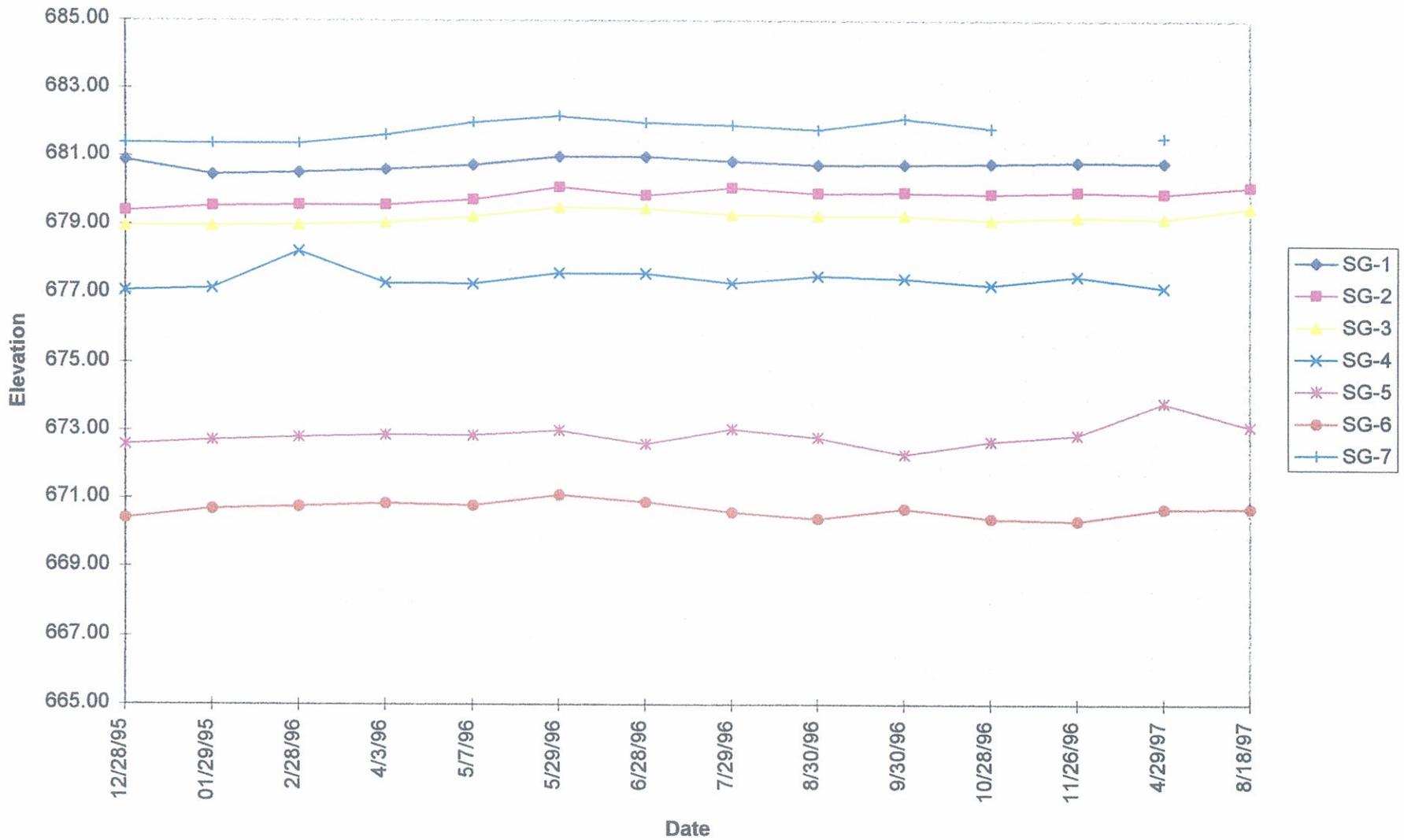
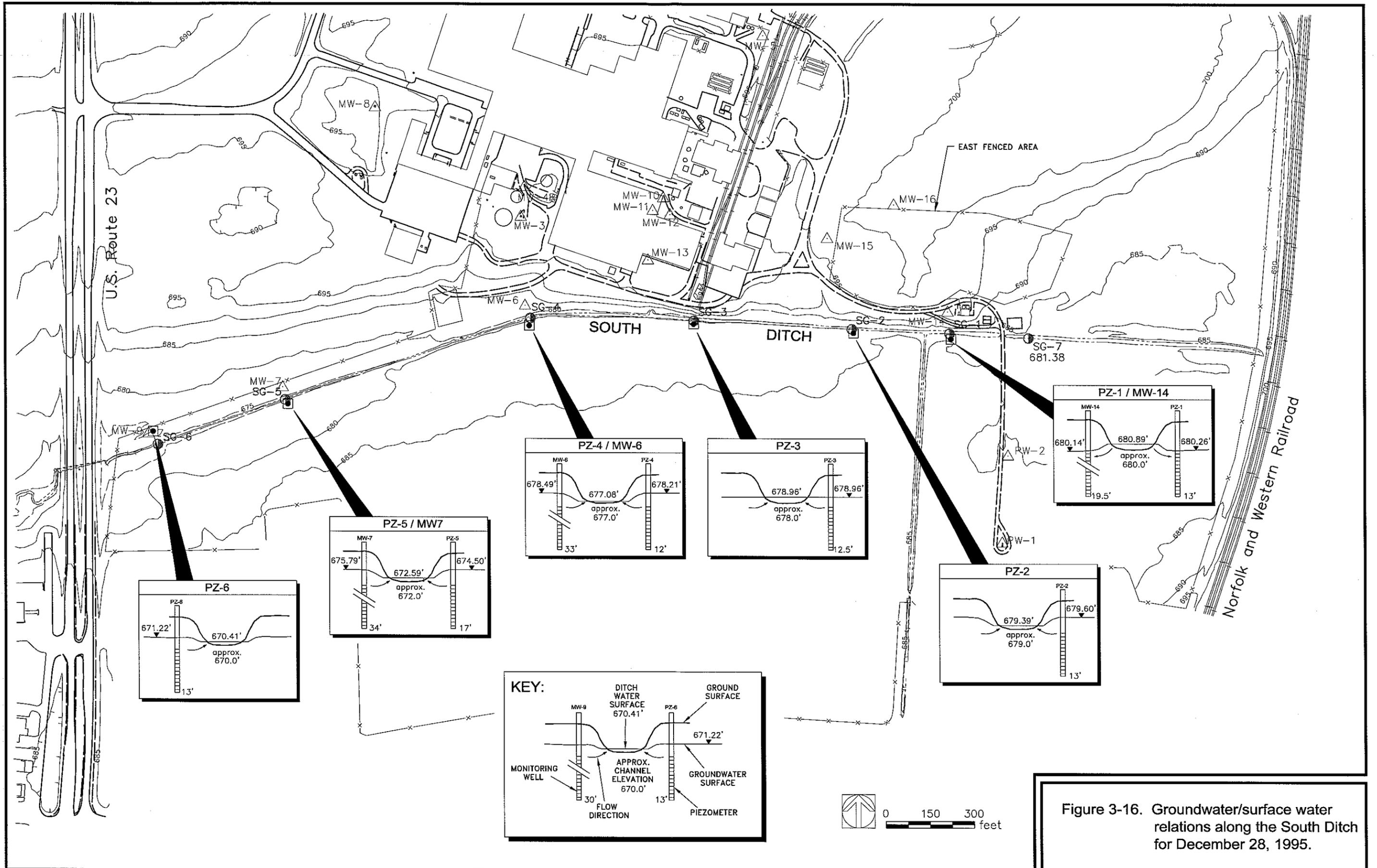
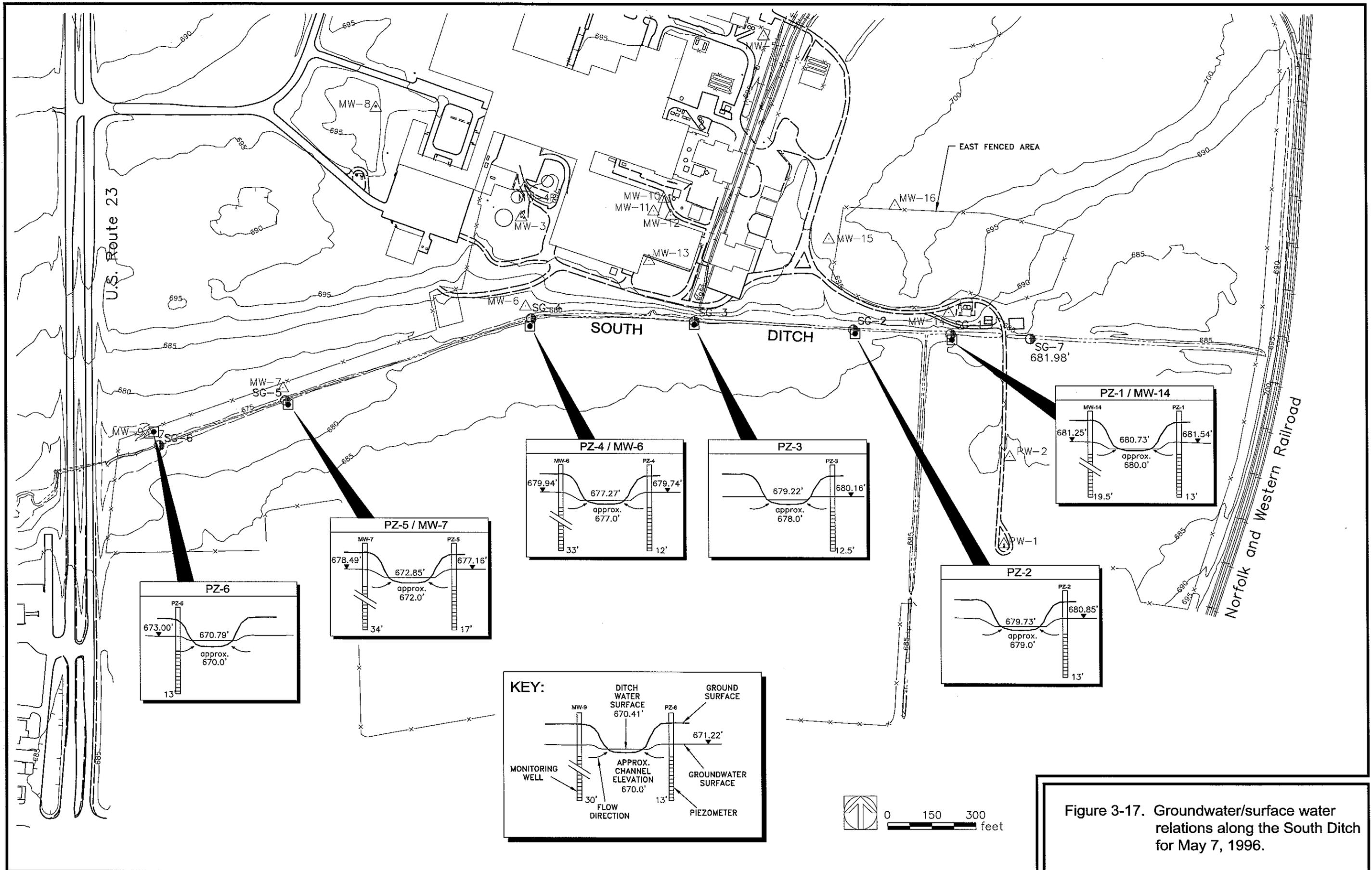
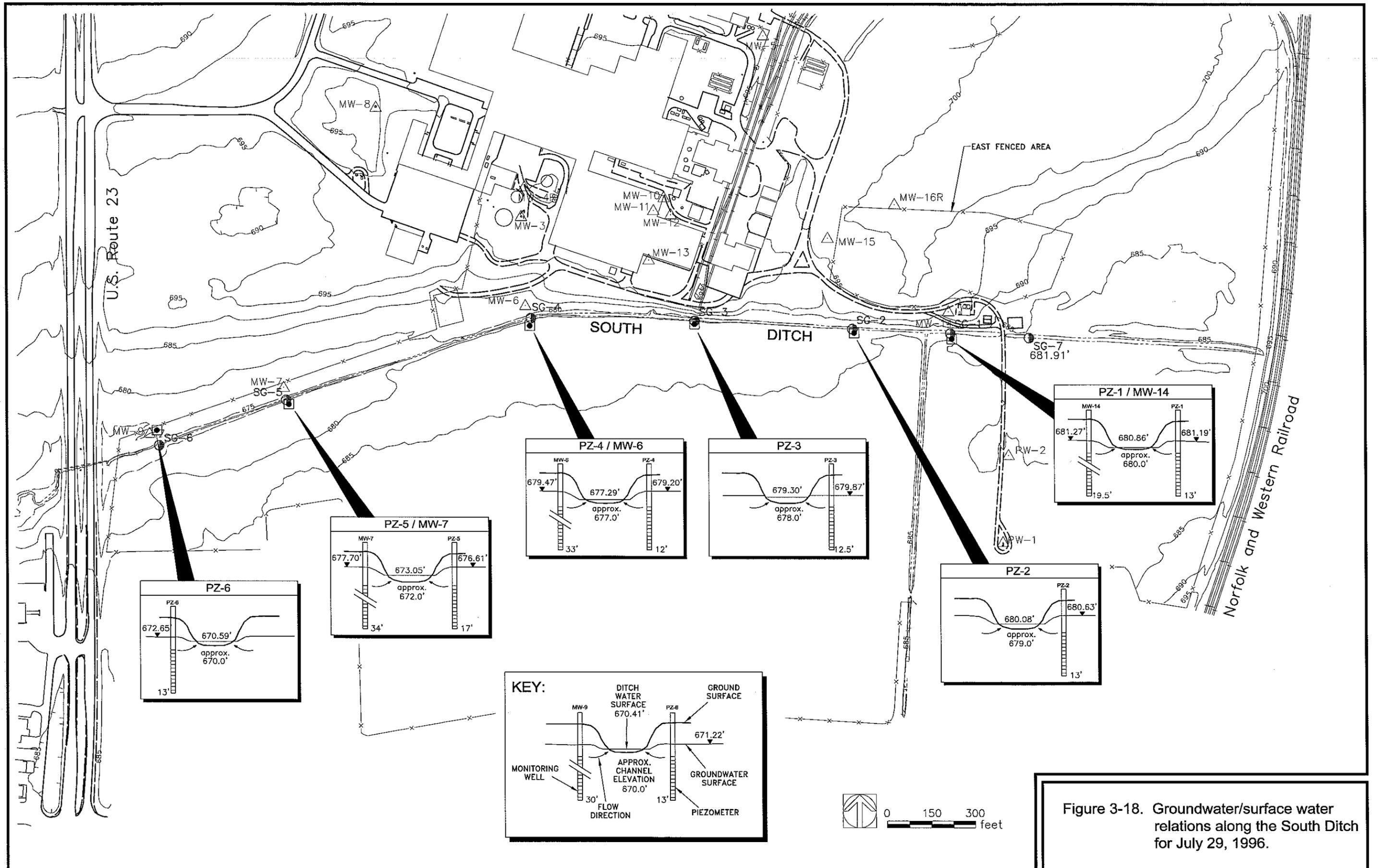


Figure 3-15. Staff gauge elevations.







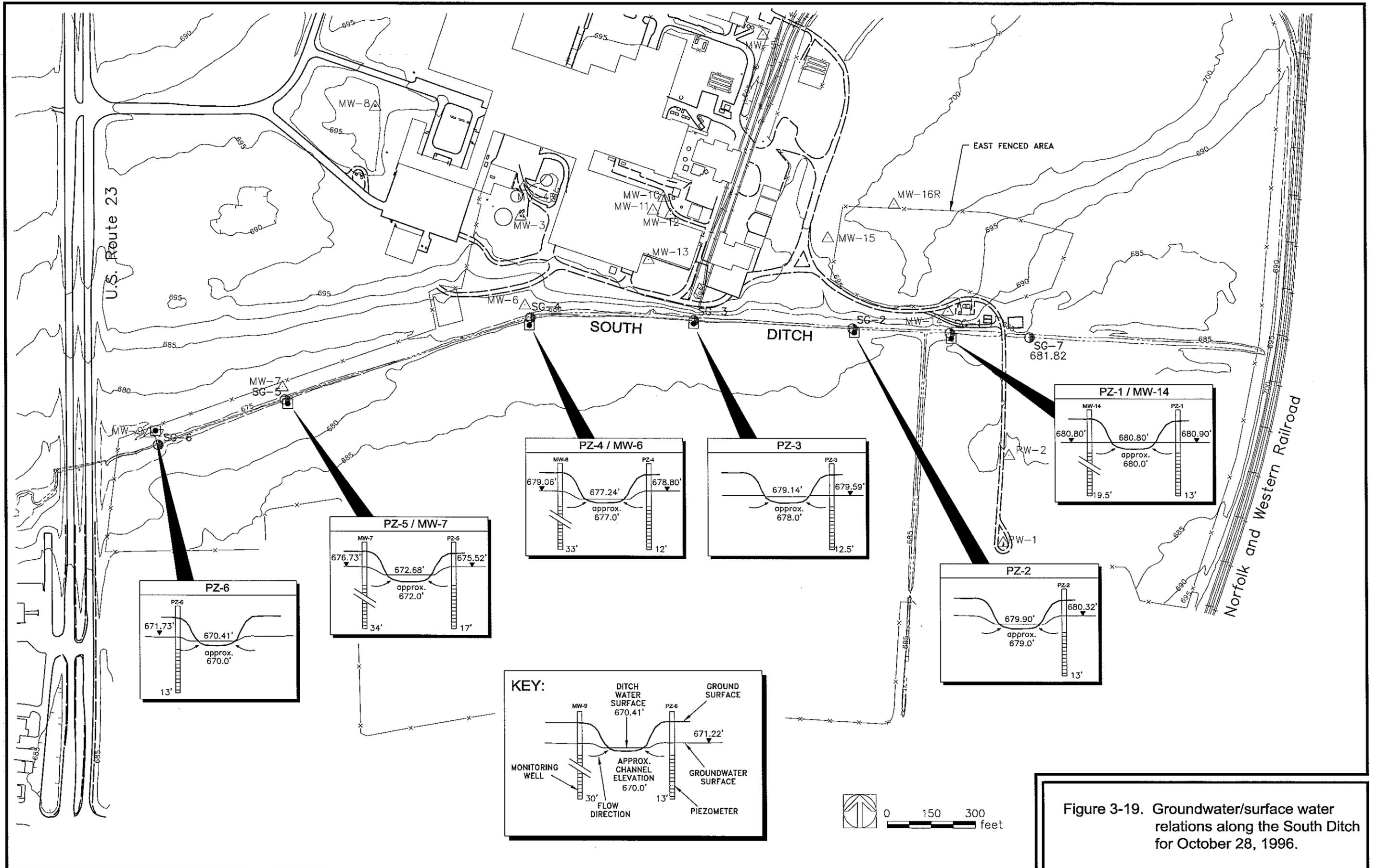
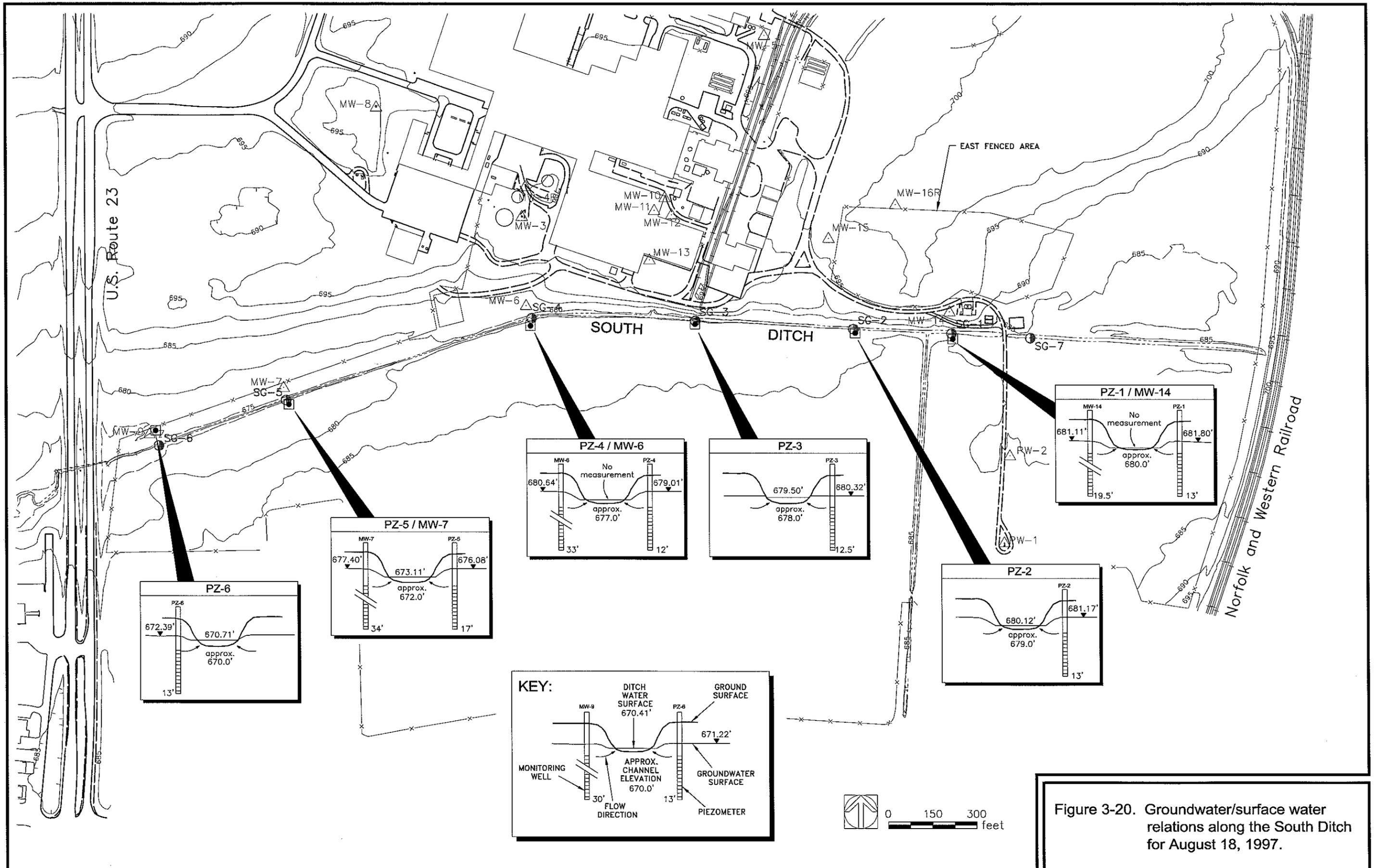


Figure 3-19. Groundwater/surface water relations along the South Ditch for October 28, 1996.



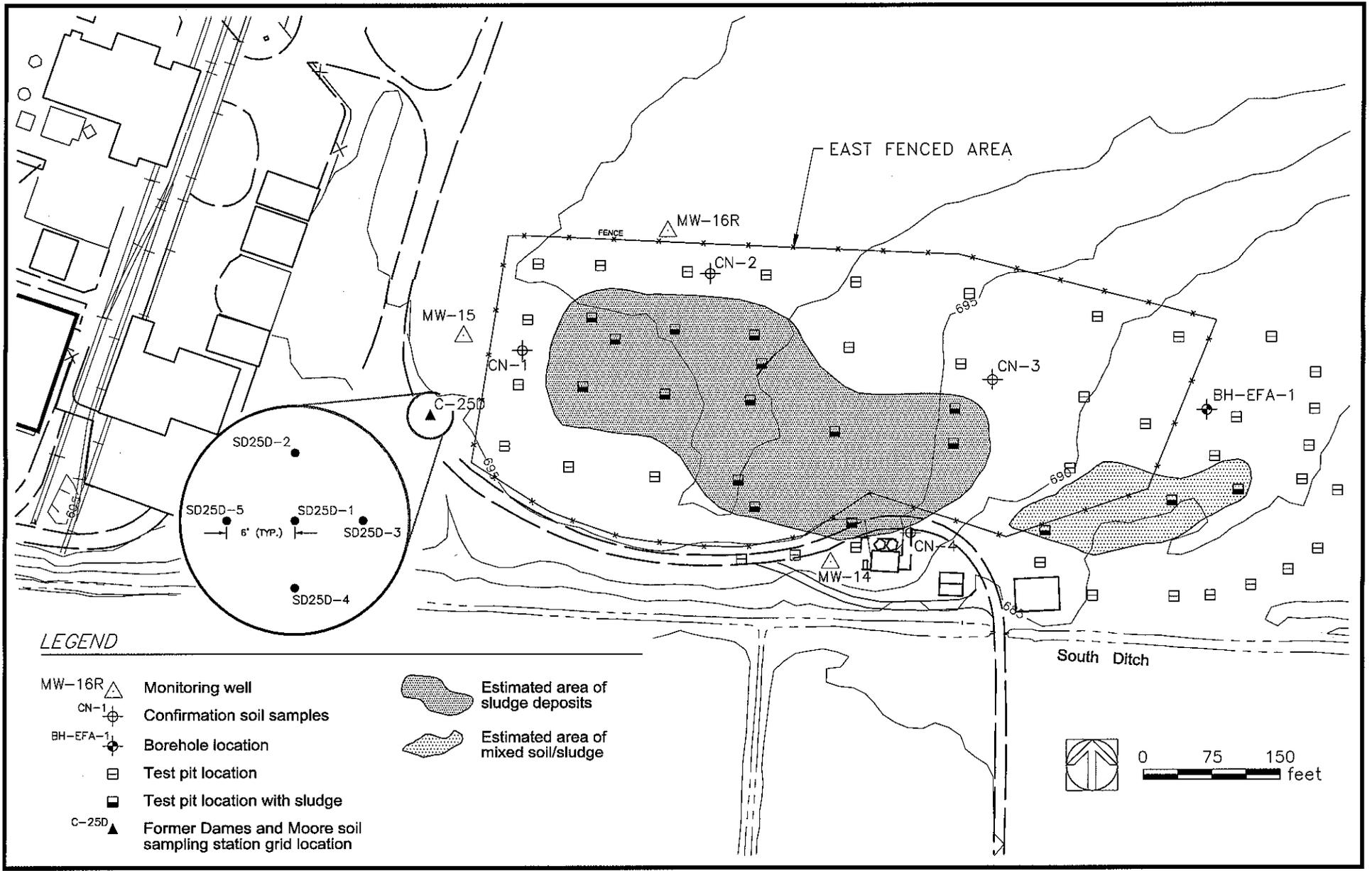


Figure 4-1. Extent of sludge at the East Fenced Area.

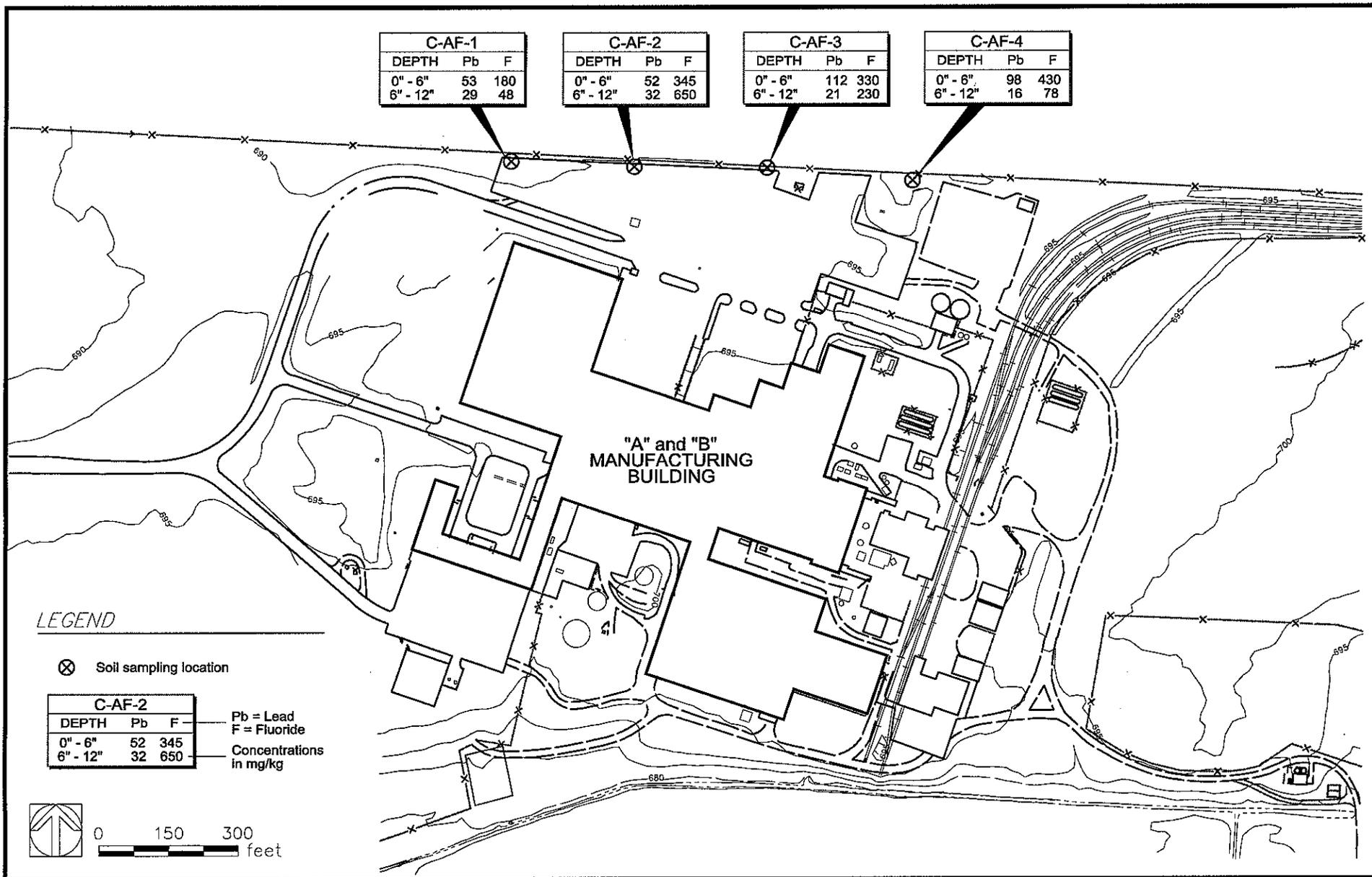


Figure 4-2. Adjacent Fields soil sampling locations and results.

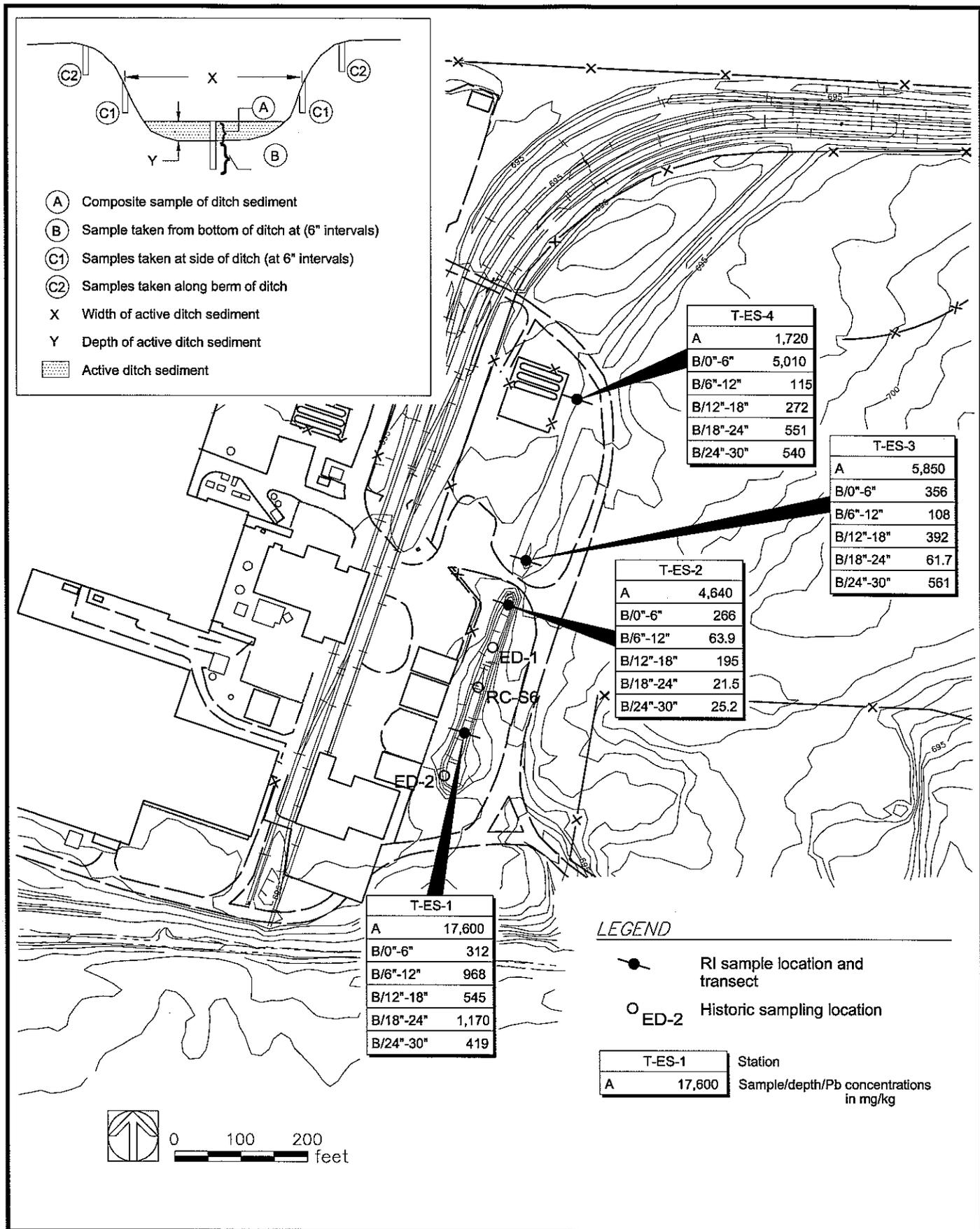


Figure 4-3. East Swale sampling locations and remedial investigation lead concentrations along central swale.

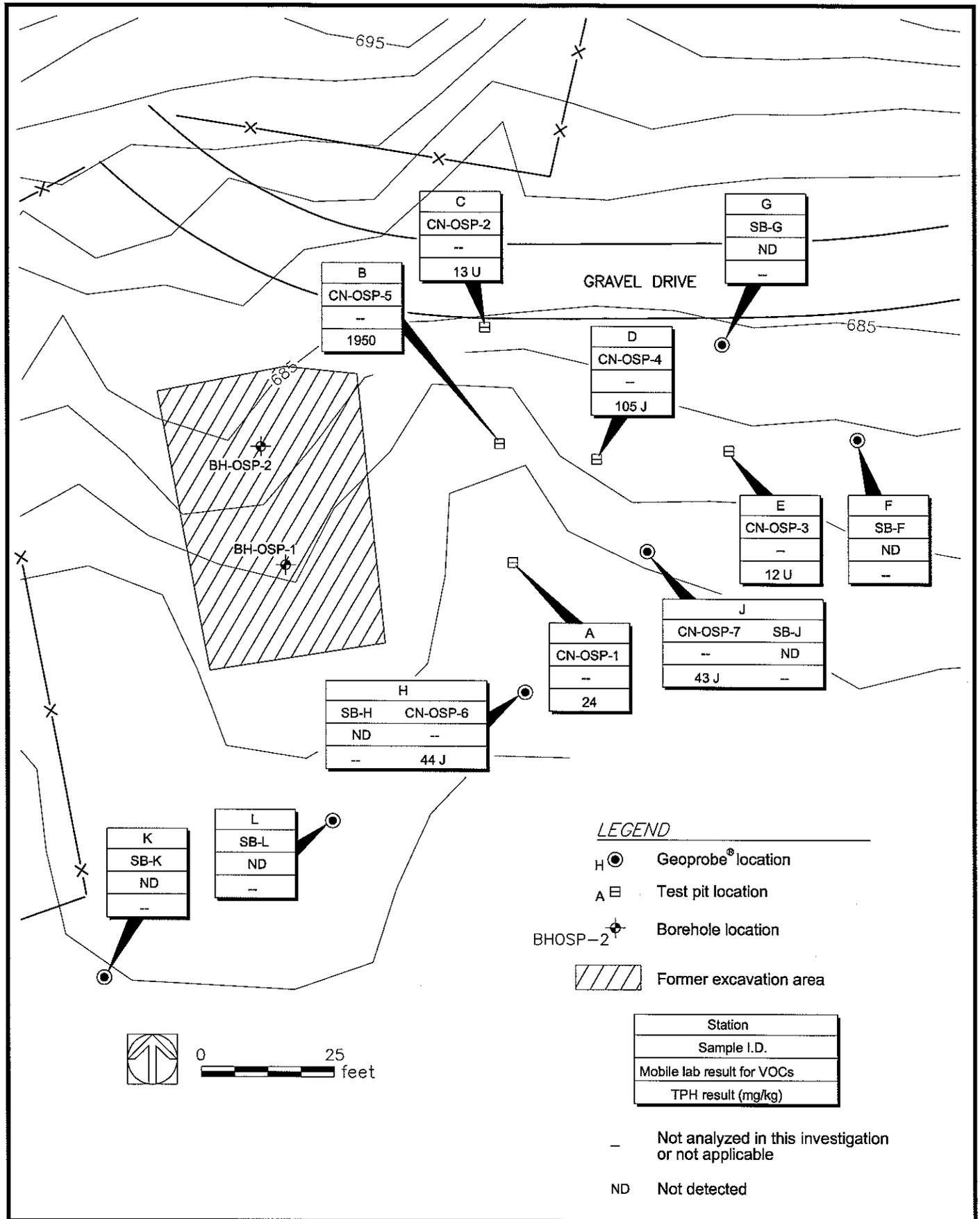
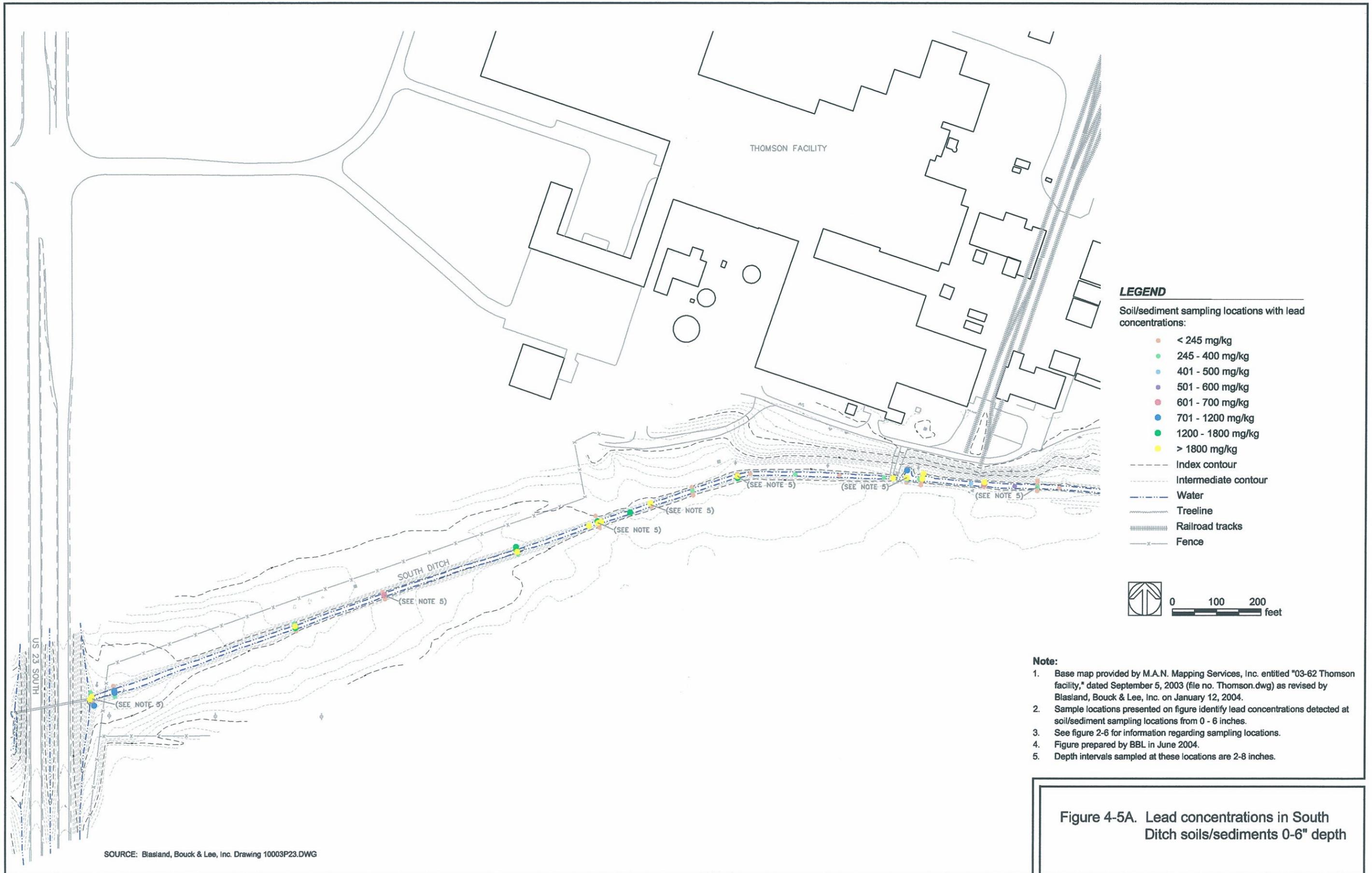
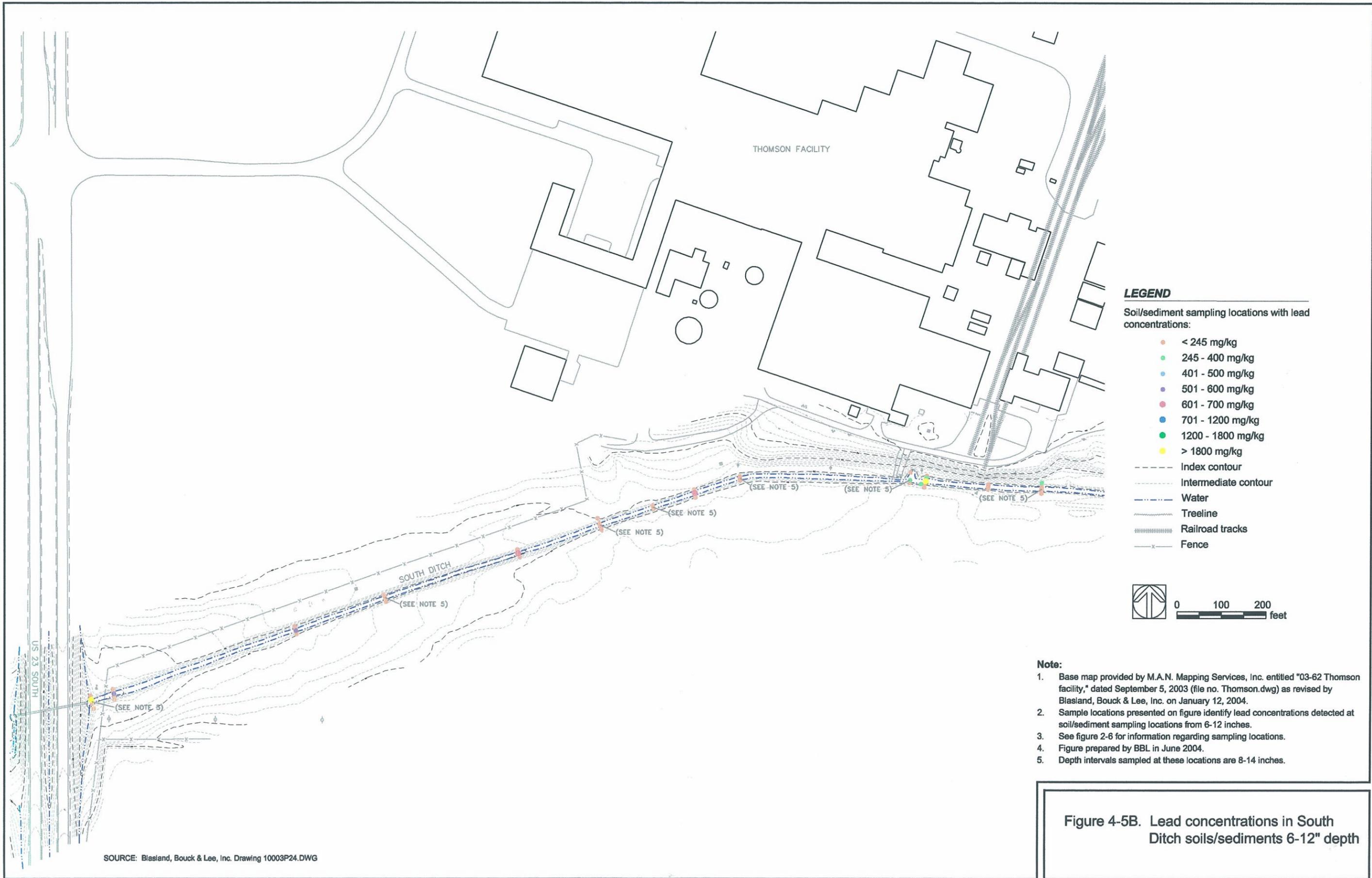


Figure 4-4. Borehole sampling locations and selected results for test pit/ Geoprobe sampling in the vicinity of the former Oil Skimmer Pond.



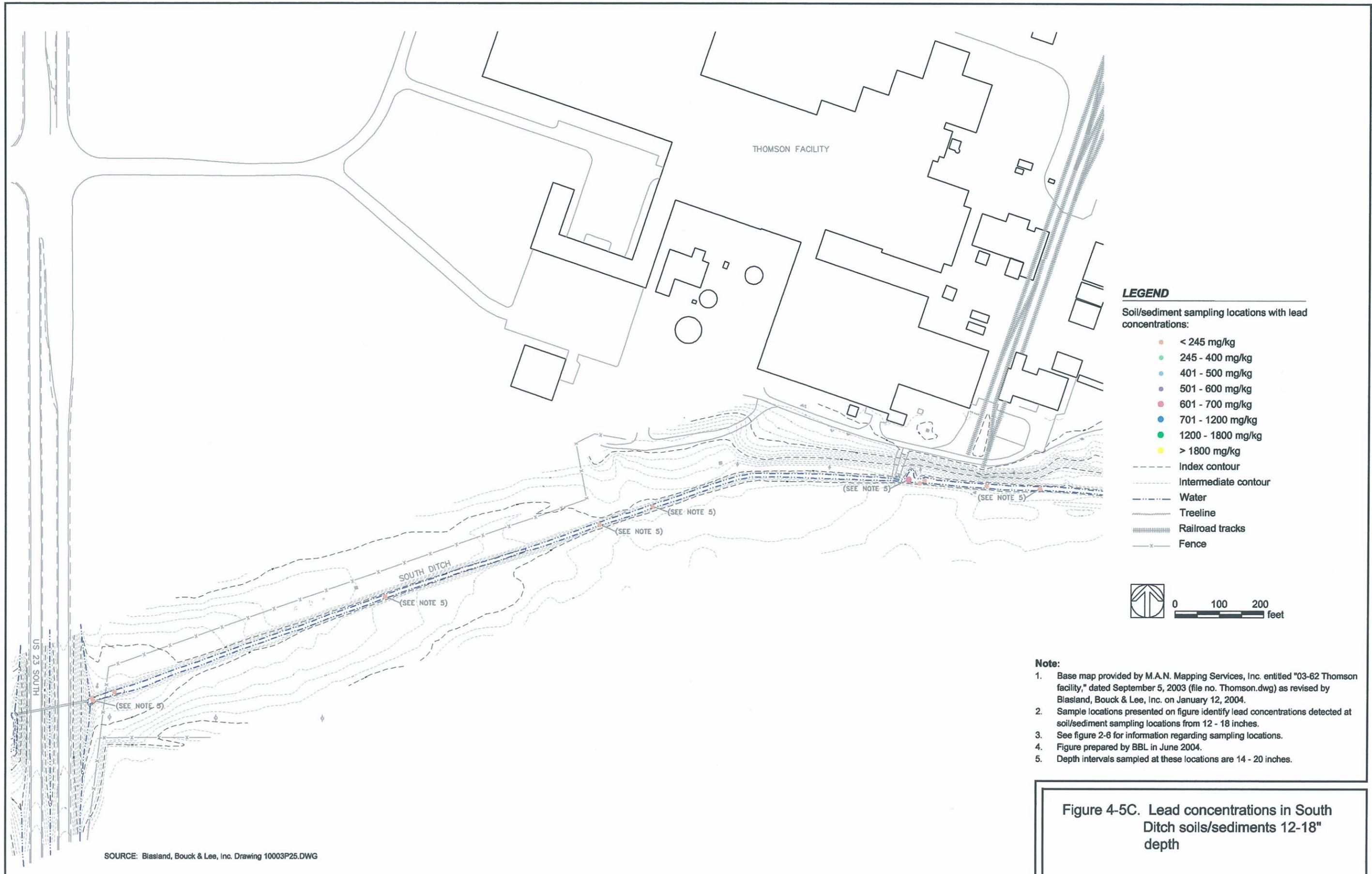
SOURCE: Blasland, Bouck & Lee, Inc. Drawing 10003P23.DWG

Figure 4-5A. Lead concentrations in South Ditch soils/sediments 0-6" depth



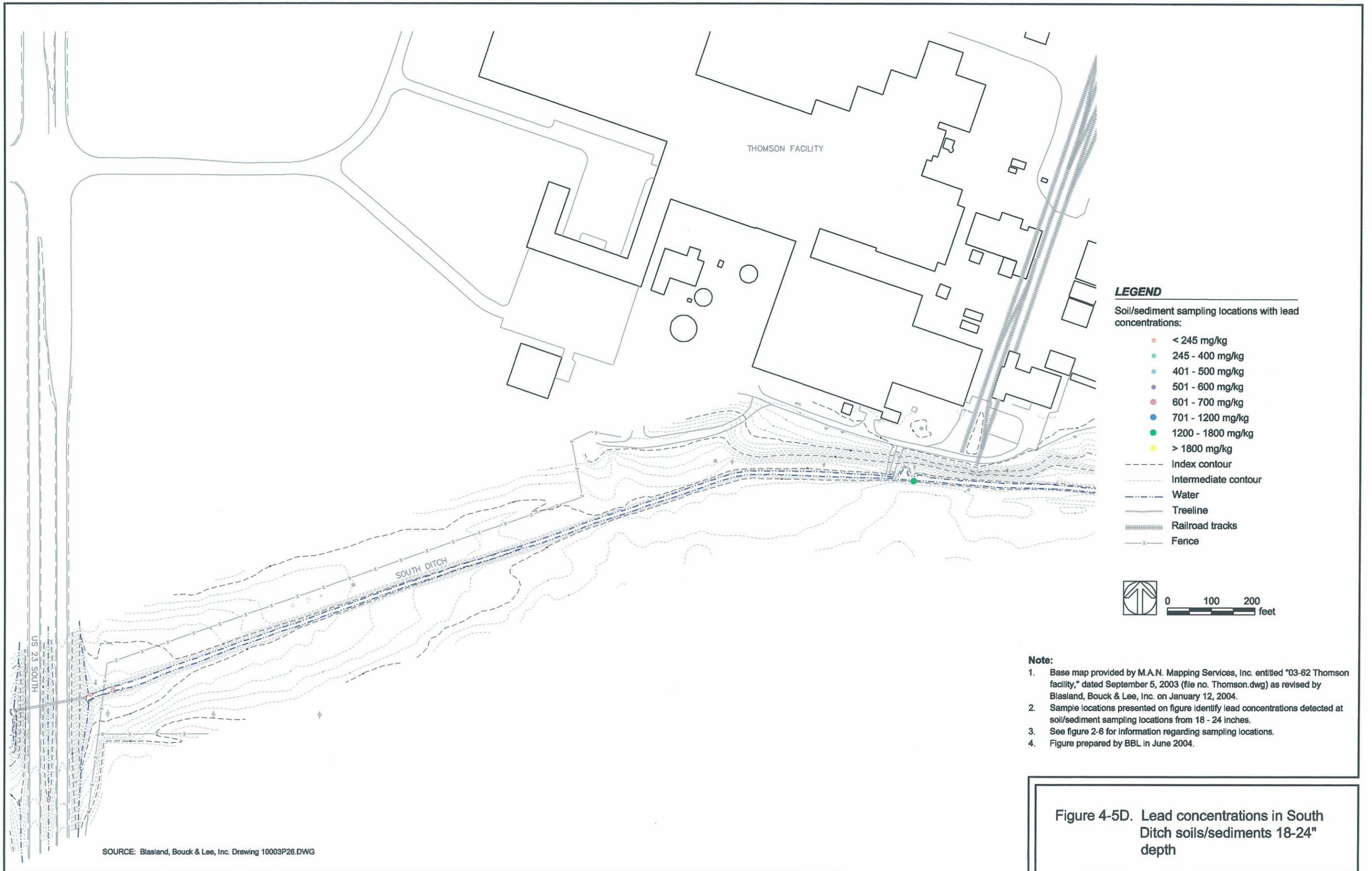
SOURCE: Blasland, Bouck & Lee, Inc. Drawing 10003P24.DWG

**Figure 4-5B. Lead concentrations in South Ditch soils/sediments 6-12" depth**



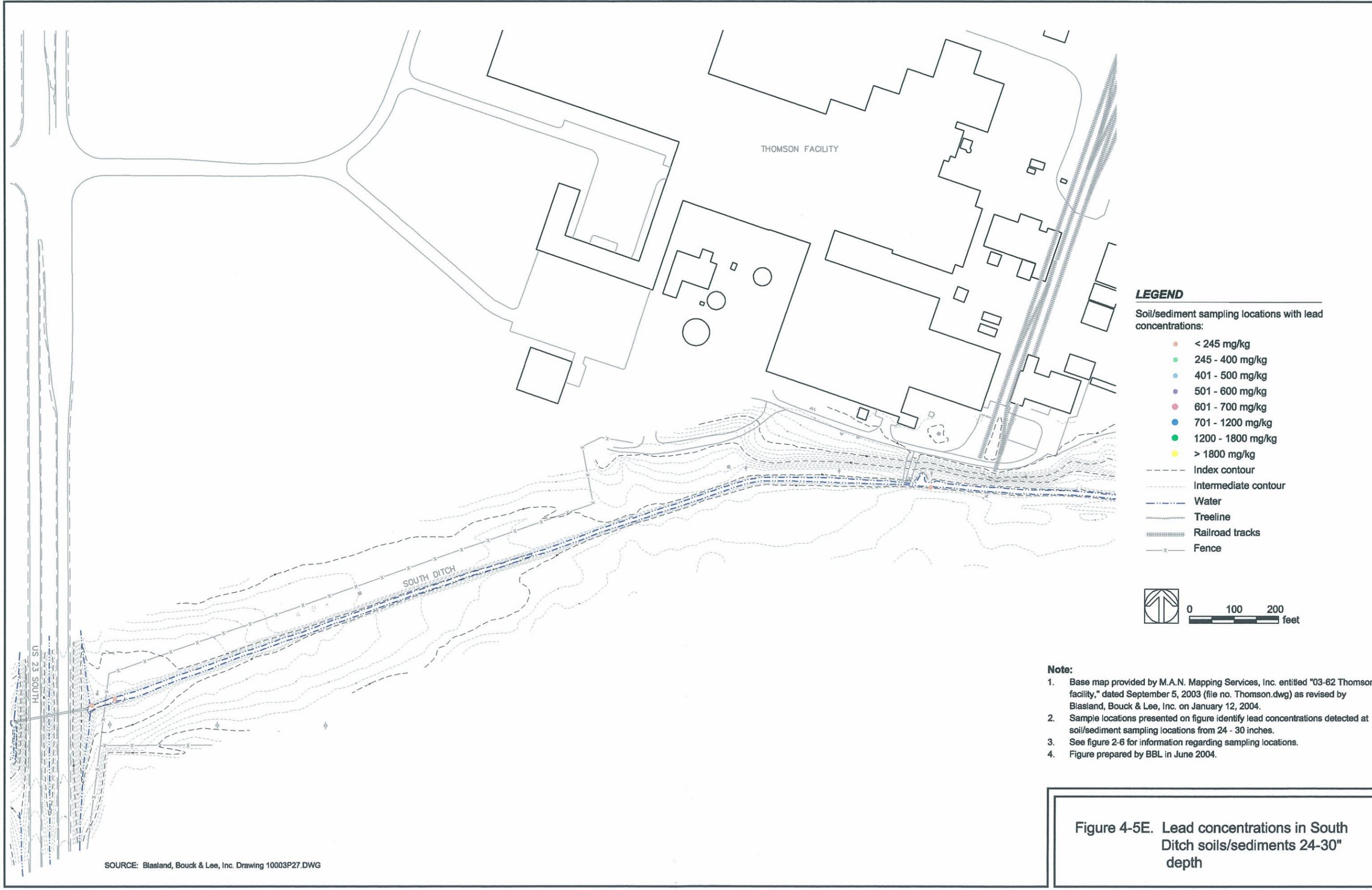
SOURCE: Blasland, Bouck & Lee, Inc. Drawing 10003P25.DWG

Figure 4-5C. Lead concentrations in South Ditch soils/sediments 12-18" depth



SOURCE: Blasland, Bouck & Lee, Inc. Drawing 10003P26.DWG

Figure 4-5D. Lead concentrations in South Ditch soils/sediments 18-24" depth



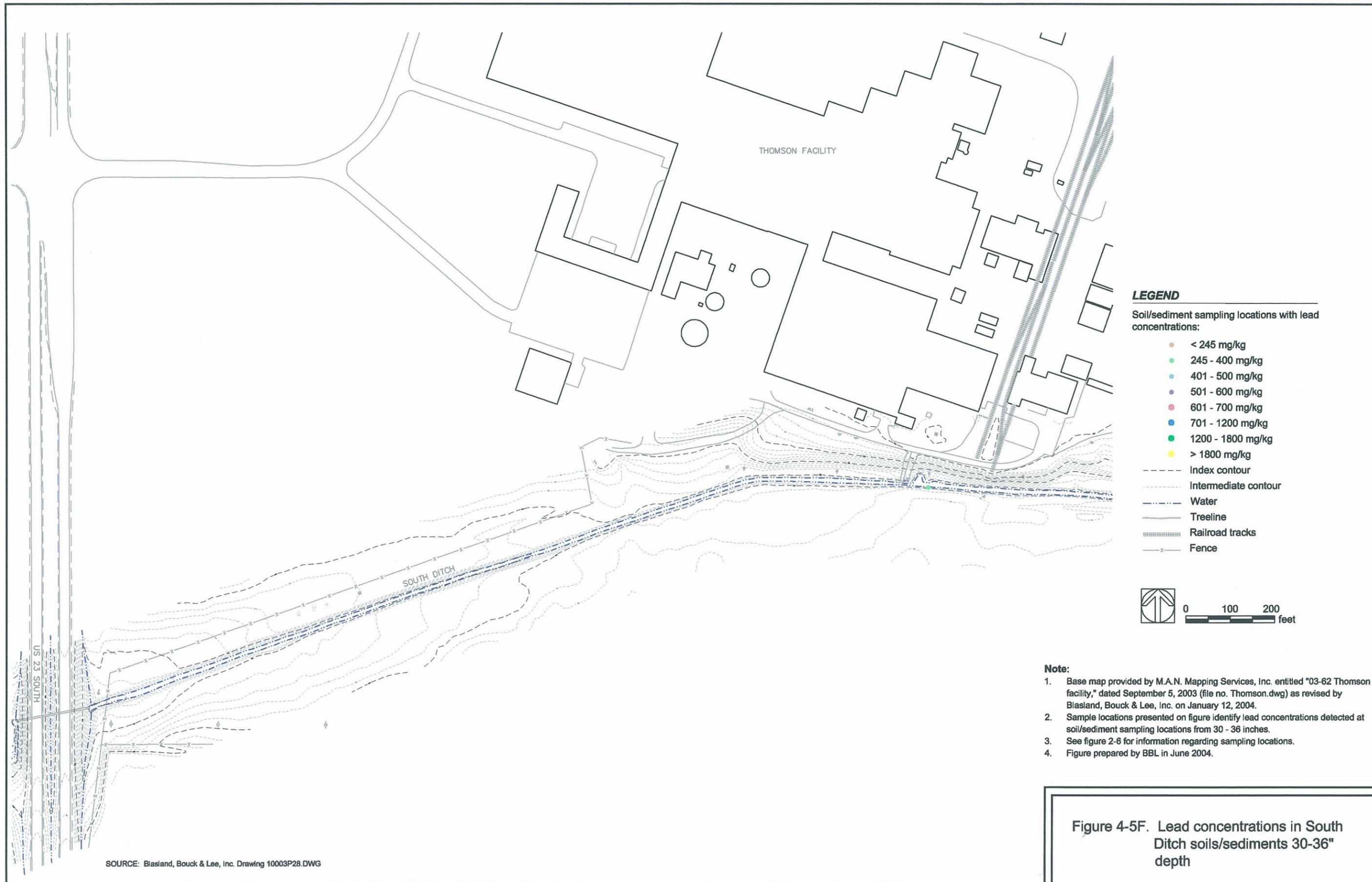
- LEGEND**
- Soil/sediment sampling locations with lead concentrations:
- < 245 mg/kg
  - 245 - 400 mg/kg
  - 401 - 500 mg/kg
  - 501 - 600 mg/kg
  - 601 - 700 mg/kg
  - 701 - 1200 mg/kg
  - 1200 - 1800 mg/kg
  - > 1800 mg/kg
- Index contour
  - Intermediate contour
  - Water
  - Treeline
  - Railroad tracks
  - Fence



- Note:**
1. Base map provided by M.A.N. Mapping Services, Inc. entitled "03-62 Thomson facility," dated September 5, 2003 (file no. Thomson.dwg) as revised by Blasland, Bouck & Lee, Inc. on January 12, 2004.
  2. Sample locations presented on figure identify lead concentrations detected at soil/sediment sampling locations from 24 - 30 inches.
  3. See figure 2-6 for information regarding sampling locations.
  4. Figure prepared by BBL in June 2004.

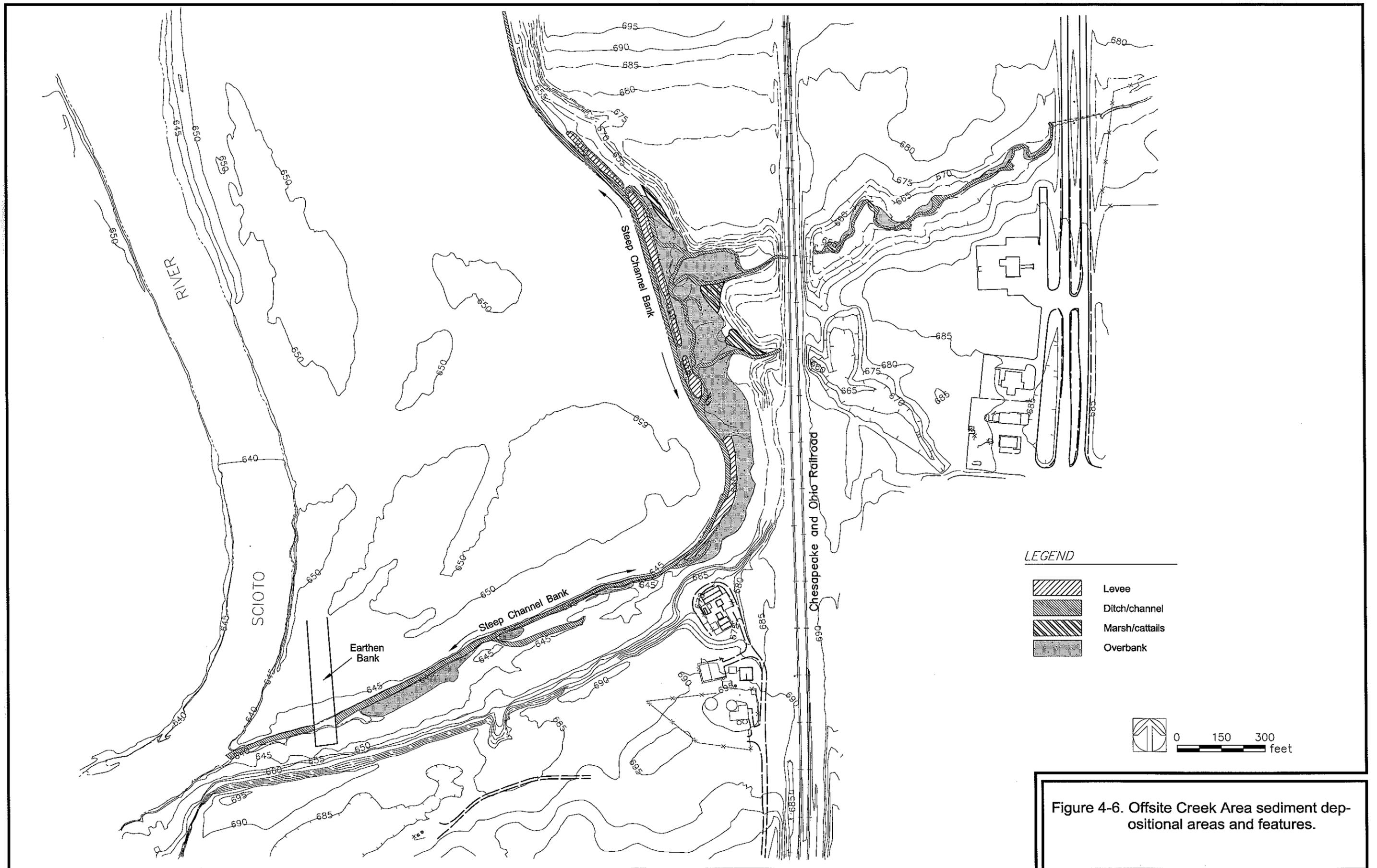
**Figure 4-5E. Lead concentrations in South Ditch soils/sediments 24-30" depth**

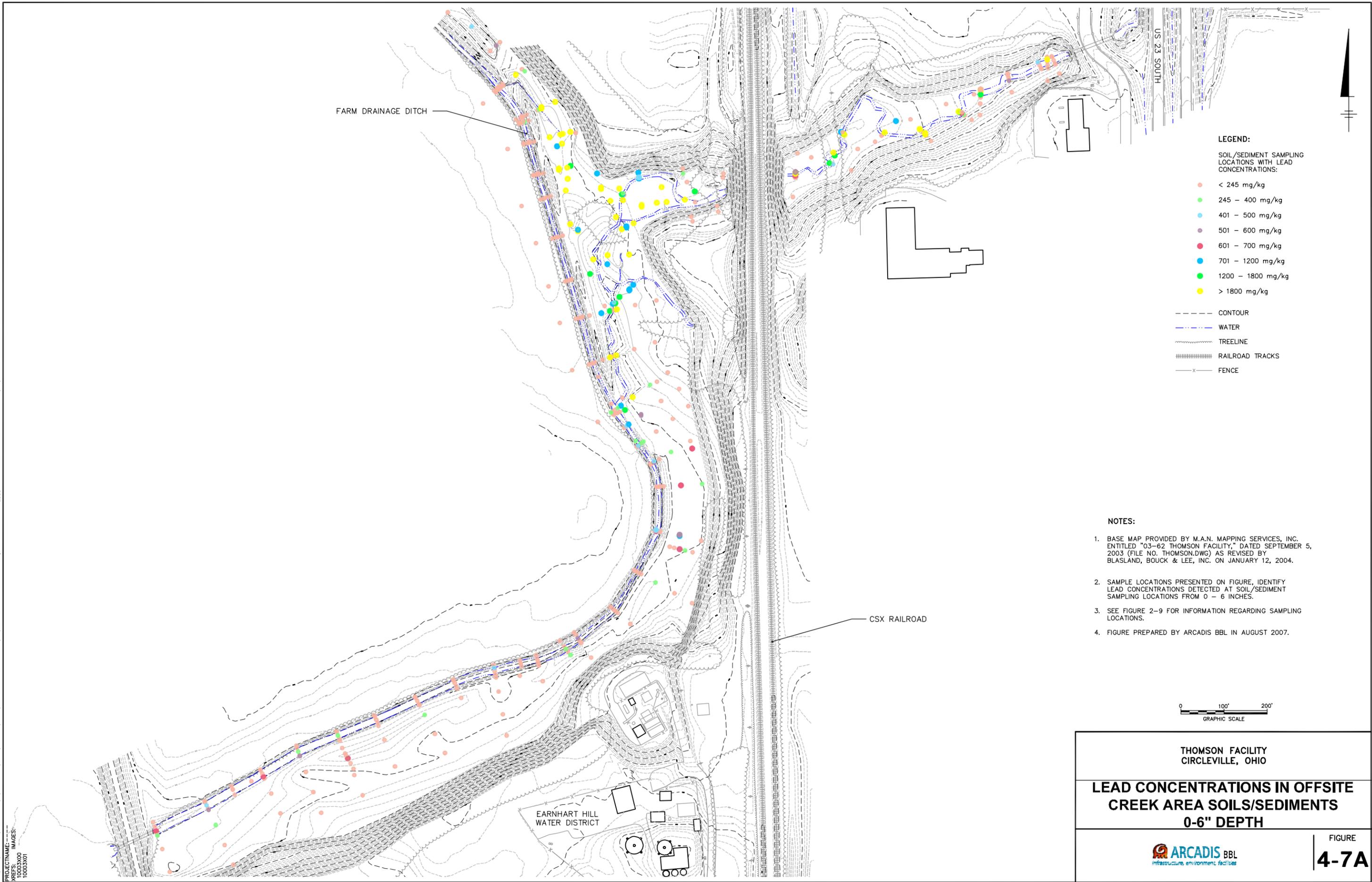
SOURCE: Blasland, Bouck & Lee, Inc. Drawing 10003P27.DWG



SOURCE: Blasland, Bouck & Lee, Inc. Drawing 10003P28.DWG

Figure 4-5F. Lead concentrations in South Ditch soils/sediments 30-36" depth



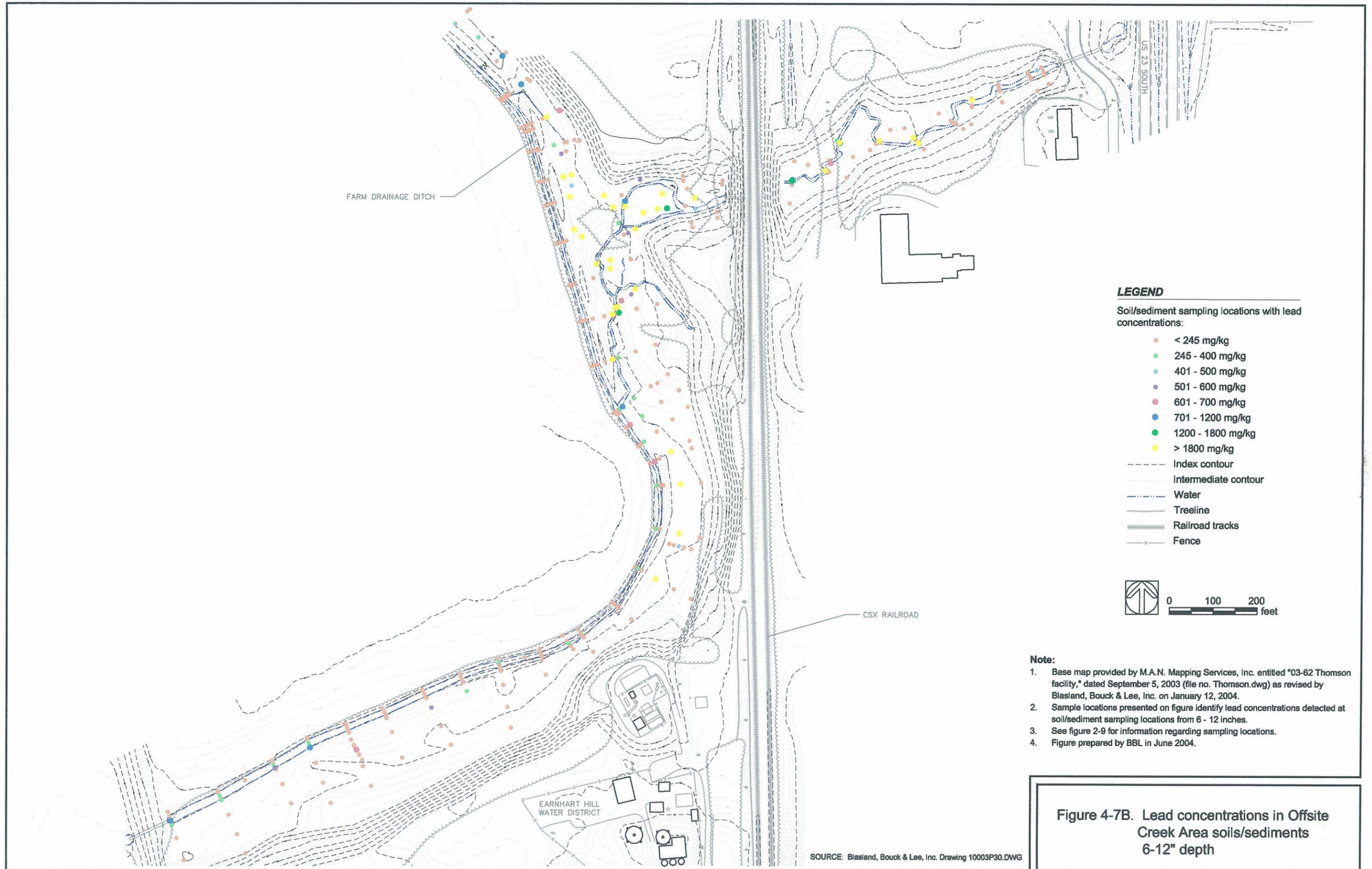


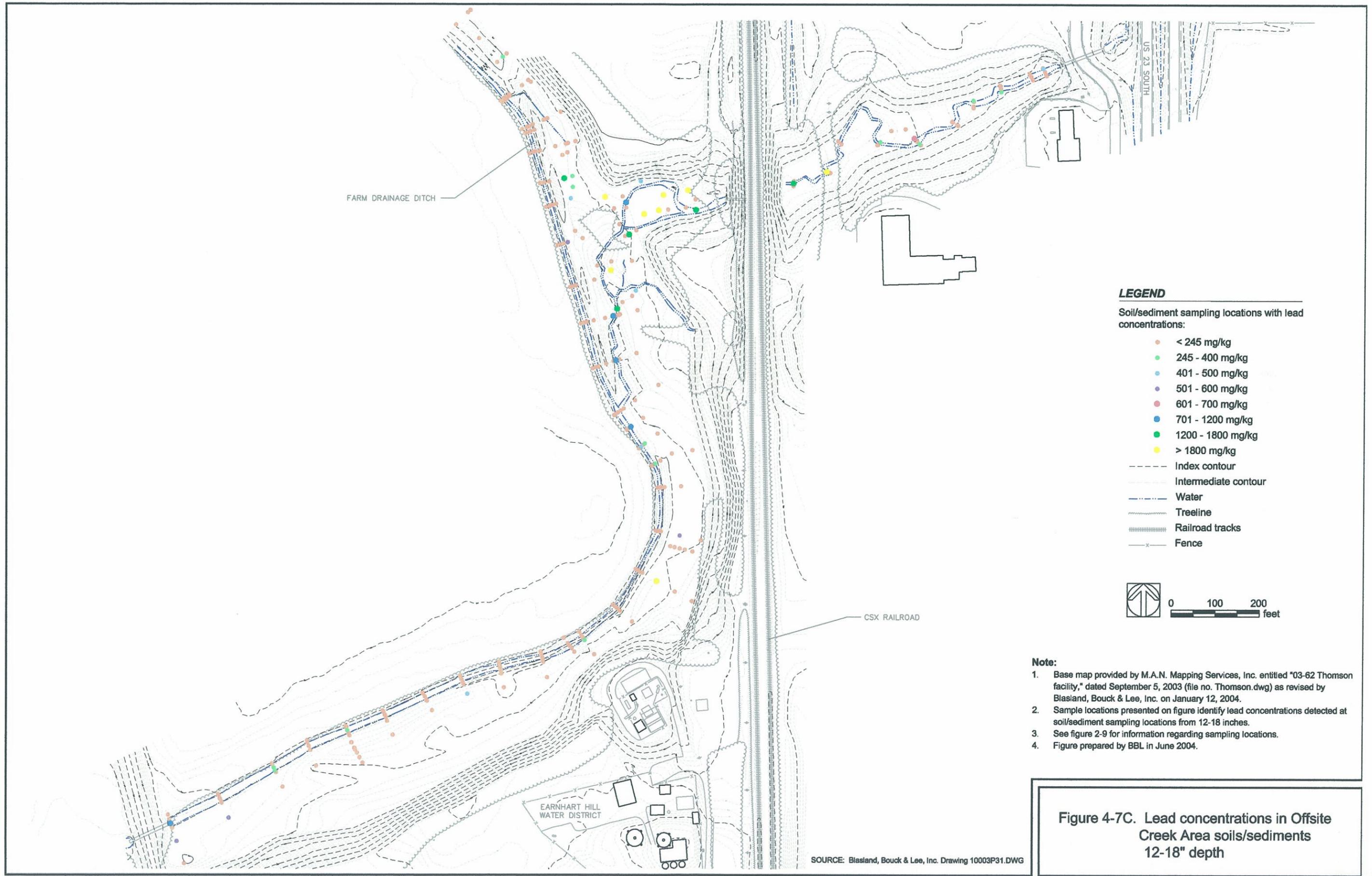
**THOMSON FACILITY  
 CIRCLEVILLE, OHIO**

**LEAD CONCENTRATIONS IN OFFSITE  
 CREEK AREA SOILS/SEDIMENTS  
 0-6" DEPTH**

**ARCADIS BBL**  
*infrastructure, environment, facilities*

FIGURE  
**4-7A**





**LEGEND**

Soil/sediment sampling locations with lead concentrations:

- < 245 mg/kg
- 245 - 400 mg/kg
- 401 - 500 mg/kg
- 501 - 600 mg/kg
- 601 - 700 mg/kg
- 701 - 1200 mg/kg
- 1200 - 1800 mg/kg
- > 1800 mg/kg

- Index contour
- Intermediate contour
- Water
- Treeline
- Railroad tracks
- Fence

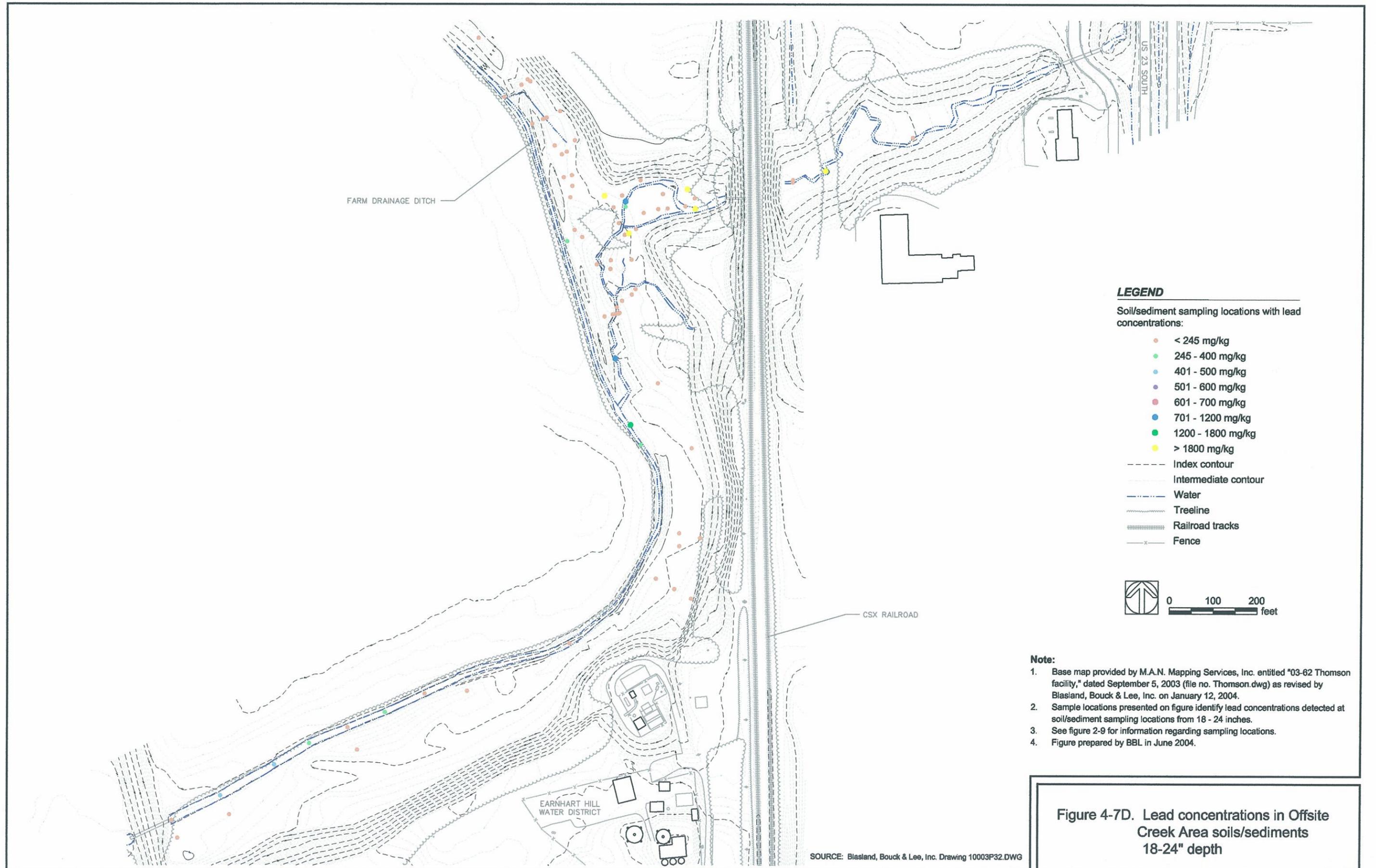


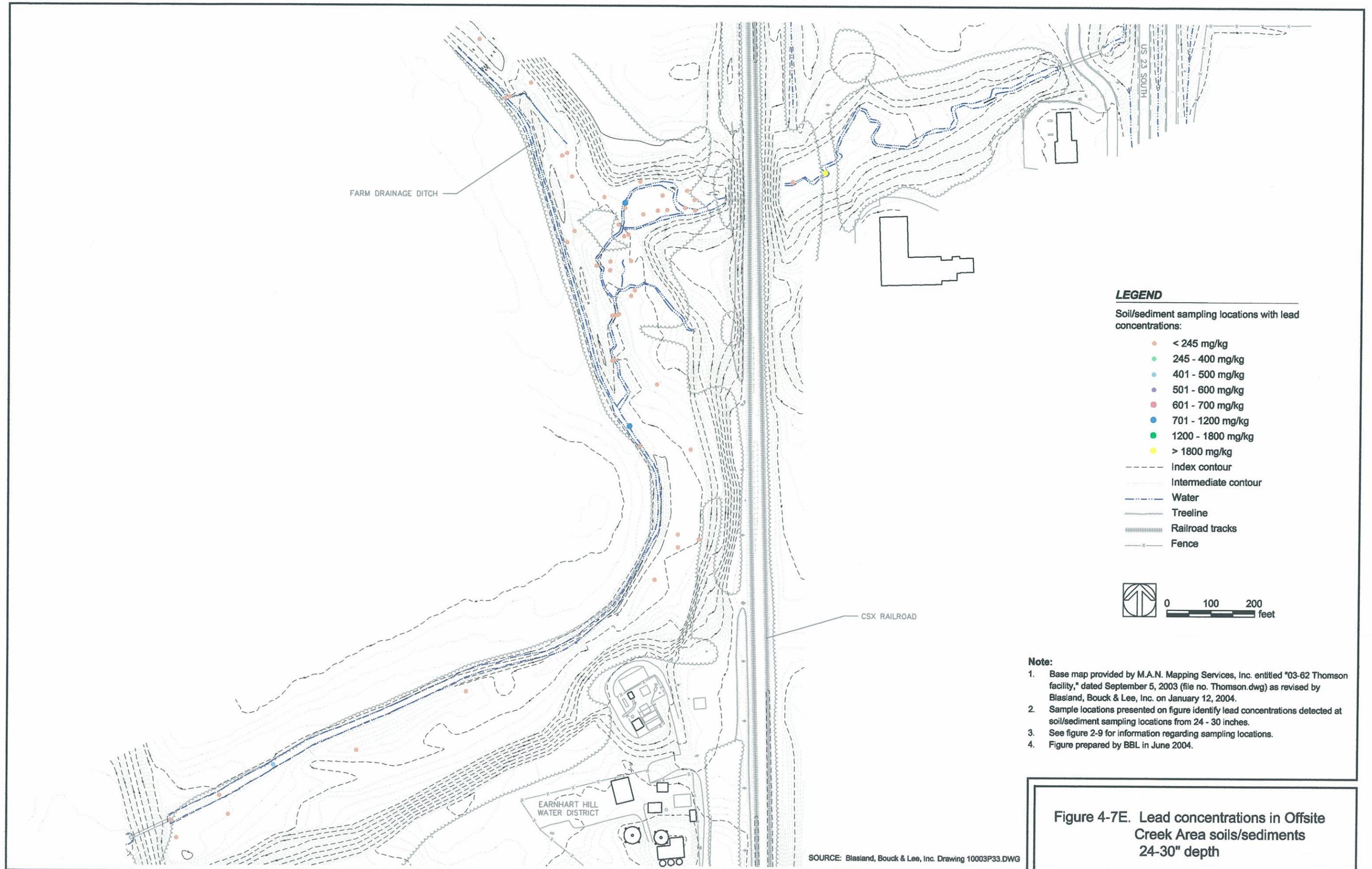
**Note:**

1. Base map provided by M.A.N. Mapping Services, Inc. entitled "03-62 Thomson facility," dated September 5, 2003 (file no. Thomson.dwg) as revised by Blasland, Bouck & Lee, Inc. on January 12, 2004.
2. Sample locations presented on figure identify lead concentrations detected at soil/sediment sampling locations from 12-18 inches.
3. See figure 2-9 for information regarding sampling locations.
4. Figure prepared by BBL in June 2004.

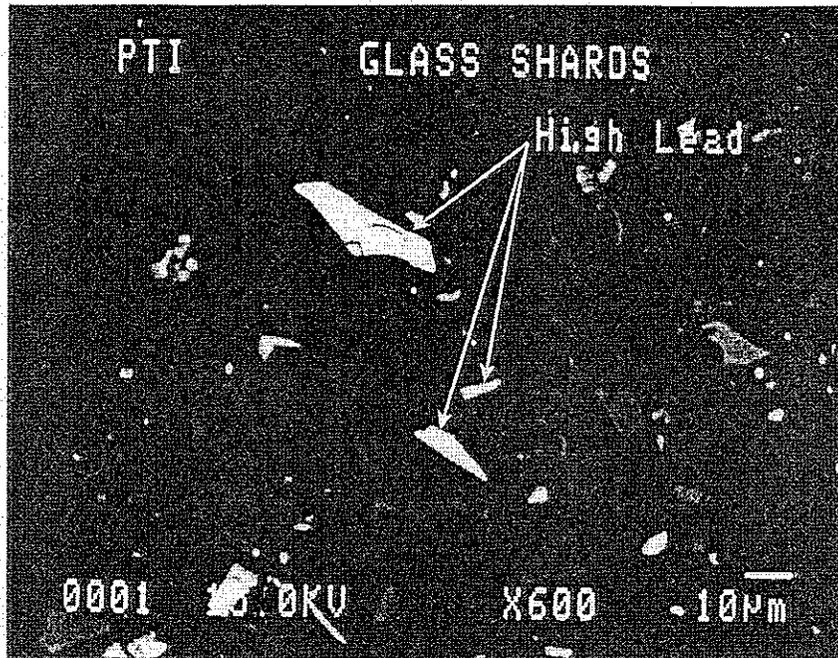
**Figure 4-7C. Lead concentrations in Offsite Creek Area soils/sediments 12-18" depth**

SOURCE: Blasland, Bouck & Lee, Inc. Drawing 10003P31.DWG





a.



b.

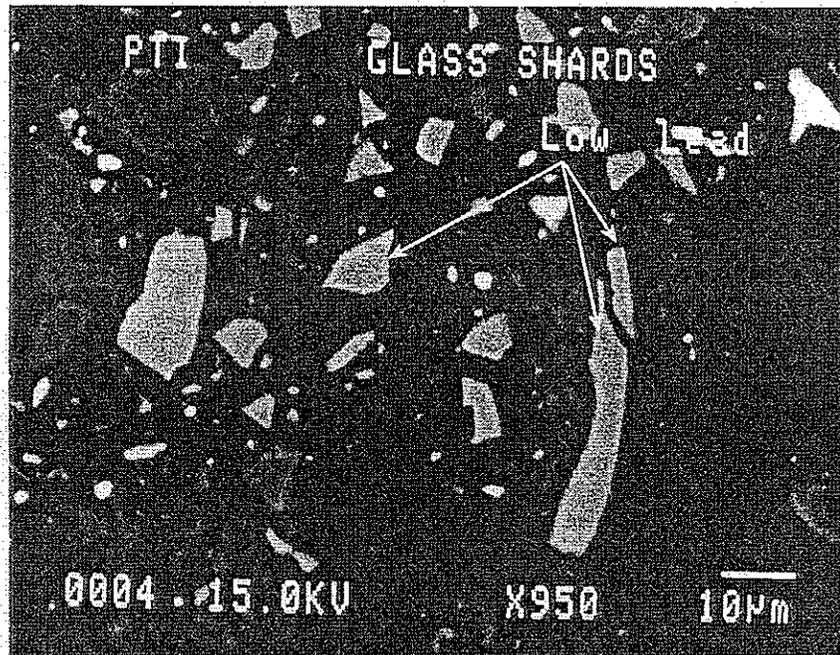


Figure 4-8. Photomicrograph showing (a) high-lead glass shards in sample C-OCA-2 6-12 and (b) low-lead glass shards in glass C-OCA-6-12

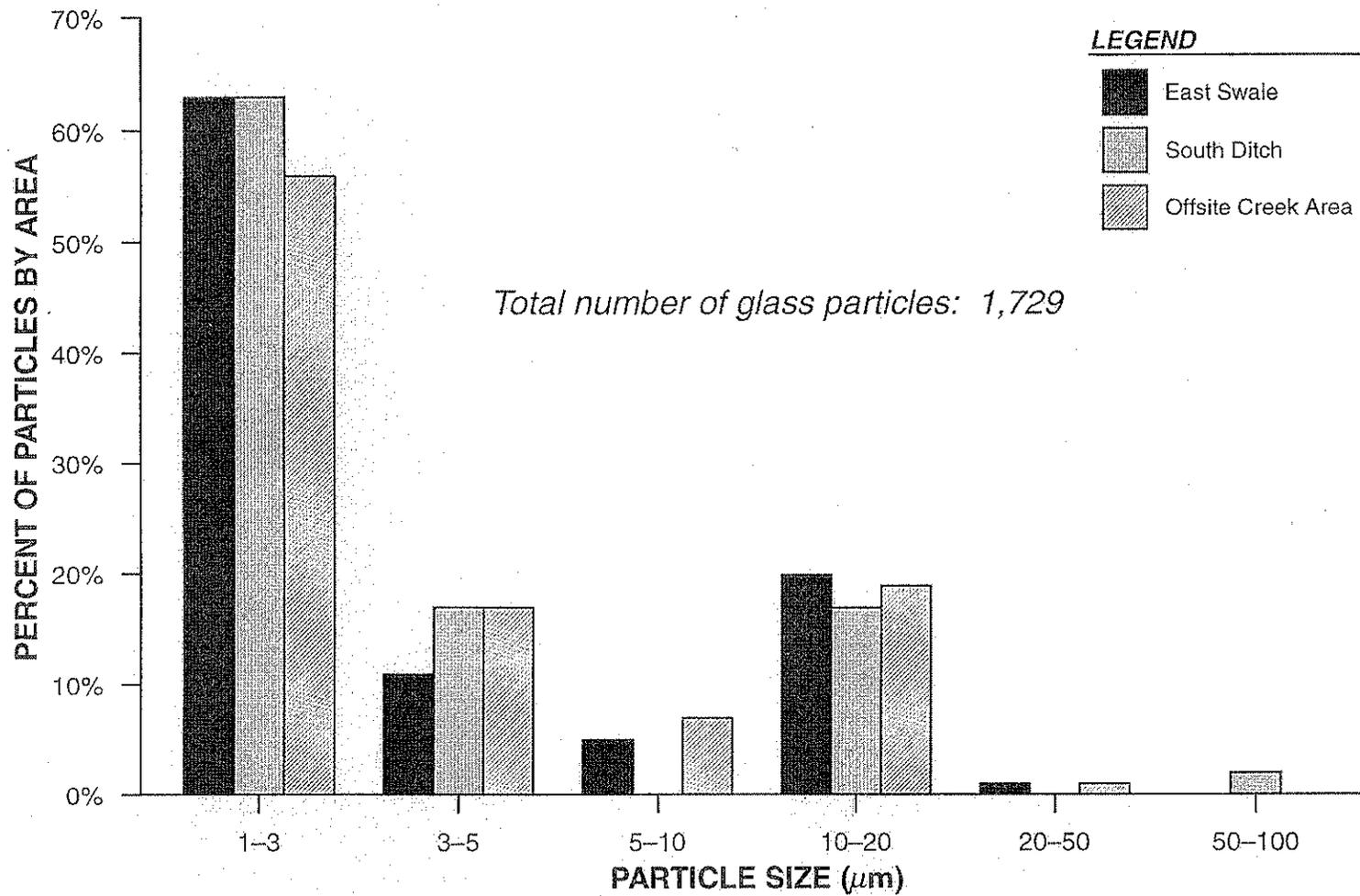
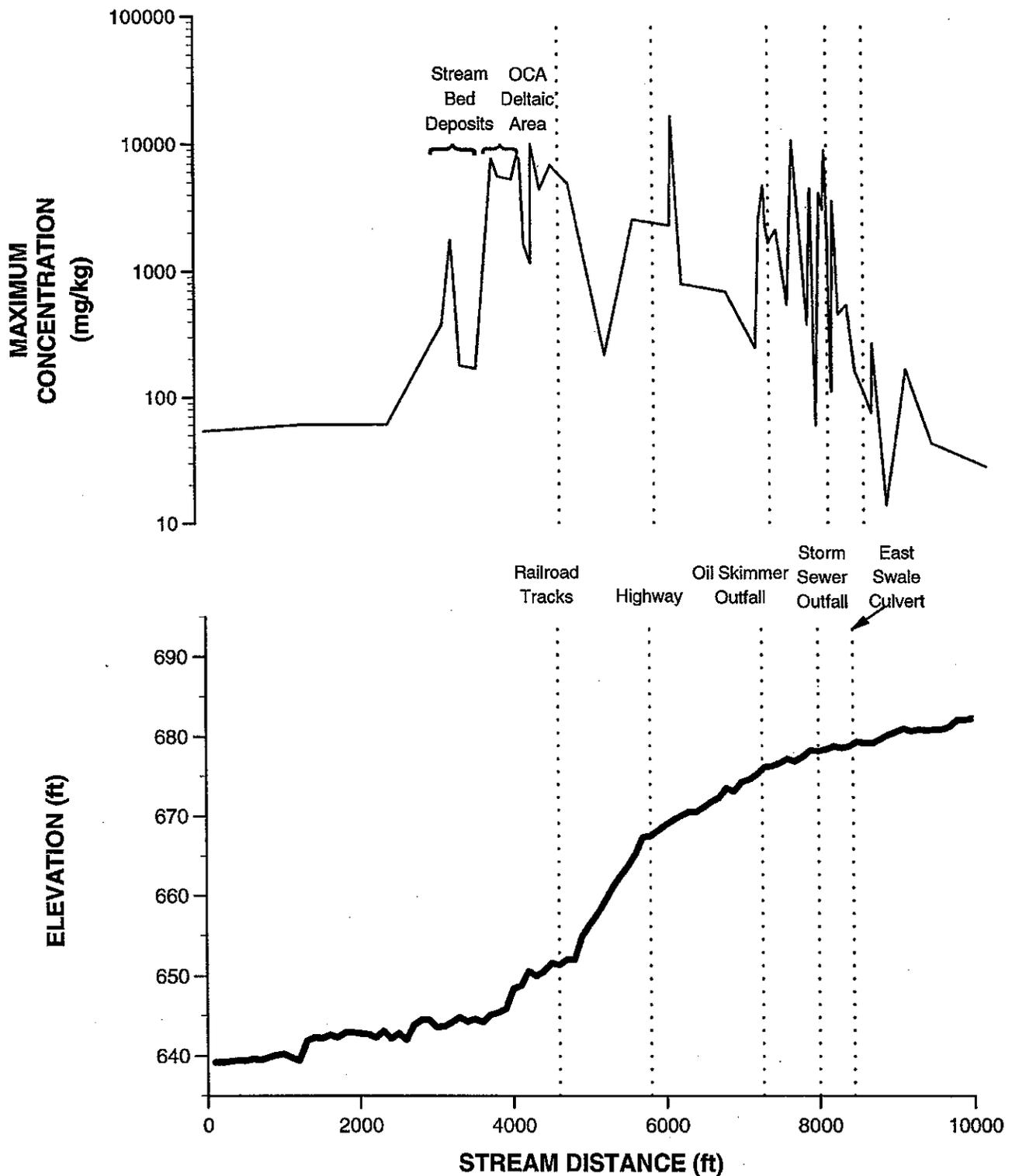


Figure 4-9. Size and distribution of both low- and high-lead glass particles.



Note: Maximum concentration observed at each location including surface sediments, core and blank samples. Chart represents data collected prior to supplemental sampling in 2003.

Figure 5-1. A comparison between the maximum lead concentration observed in the South Ditch and OCA sediments and the stream elevation at the center of the channel.

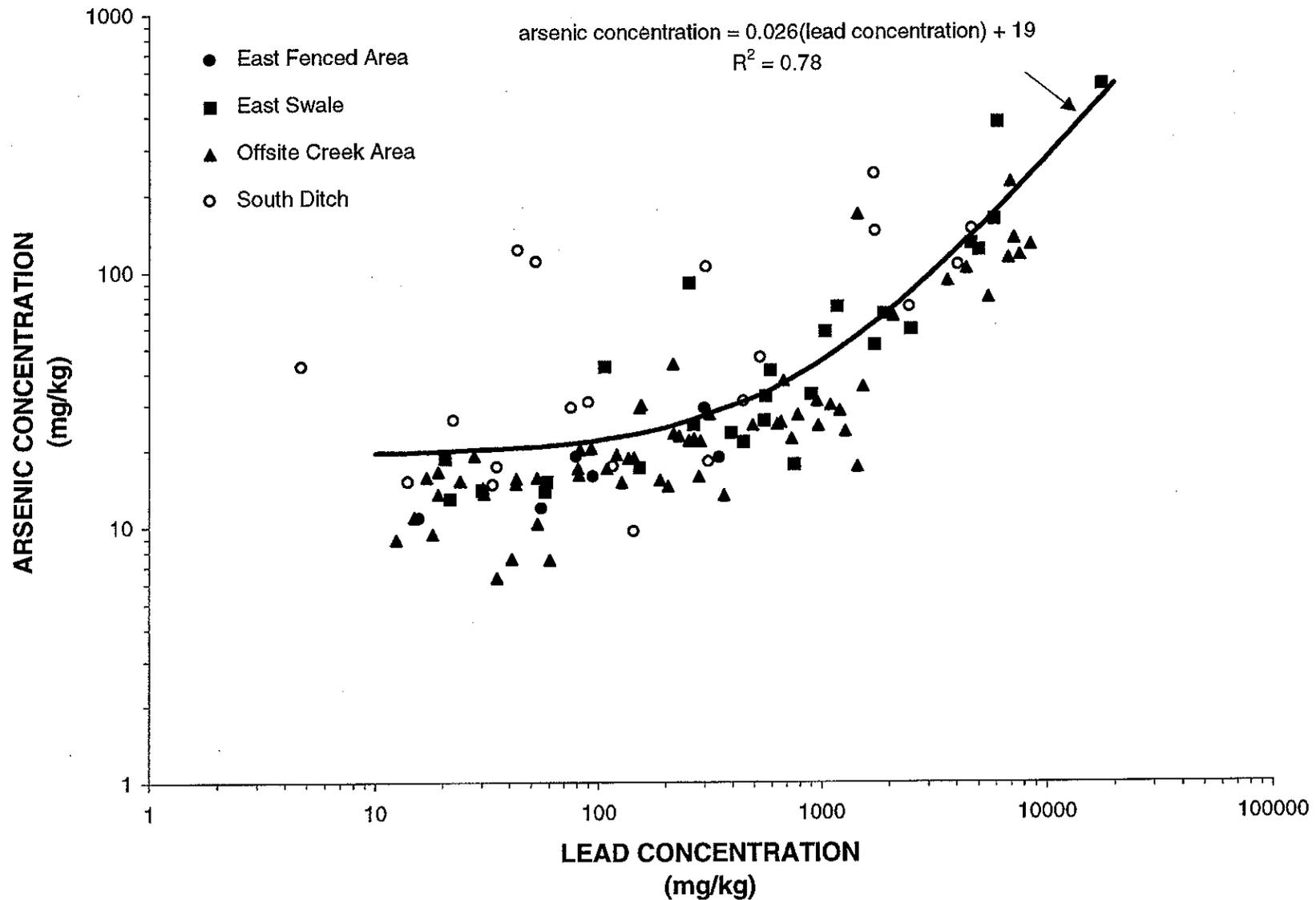


Figure 5-2. Comparison between lead and arsenic concentrations in EFA soils and ditch-system sediments.

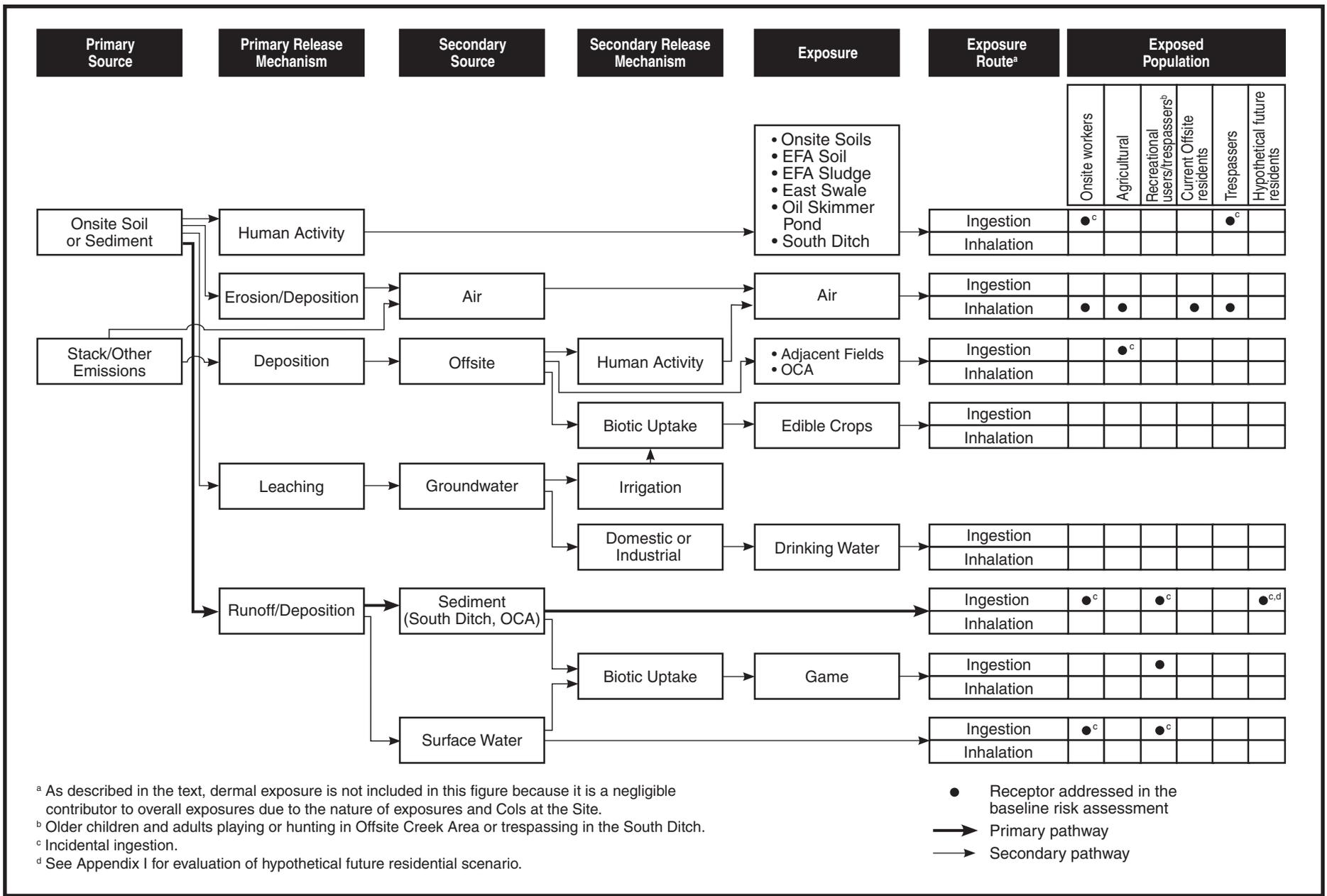


Figure 6-1. Conceptual site model for potential human exposure pathways considered in the HHRA

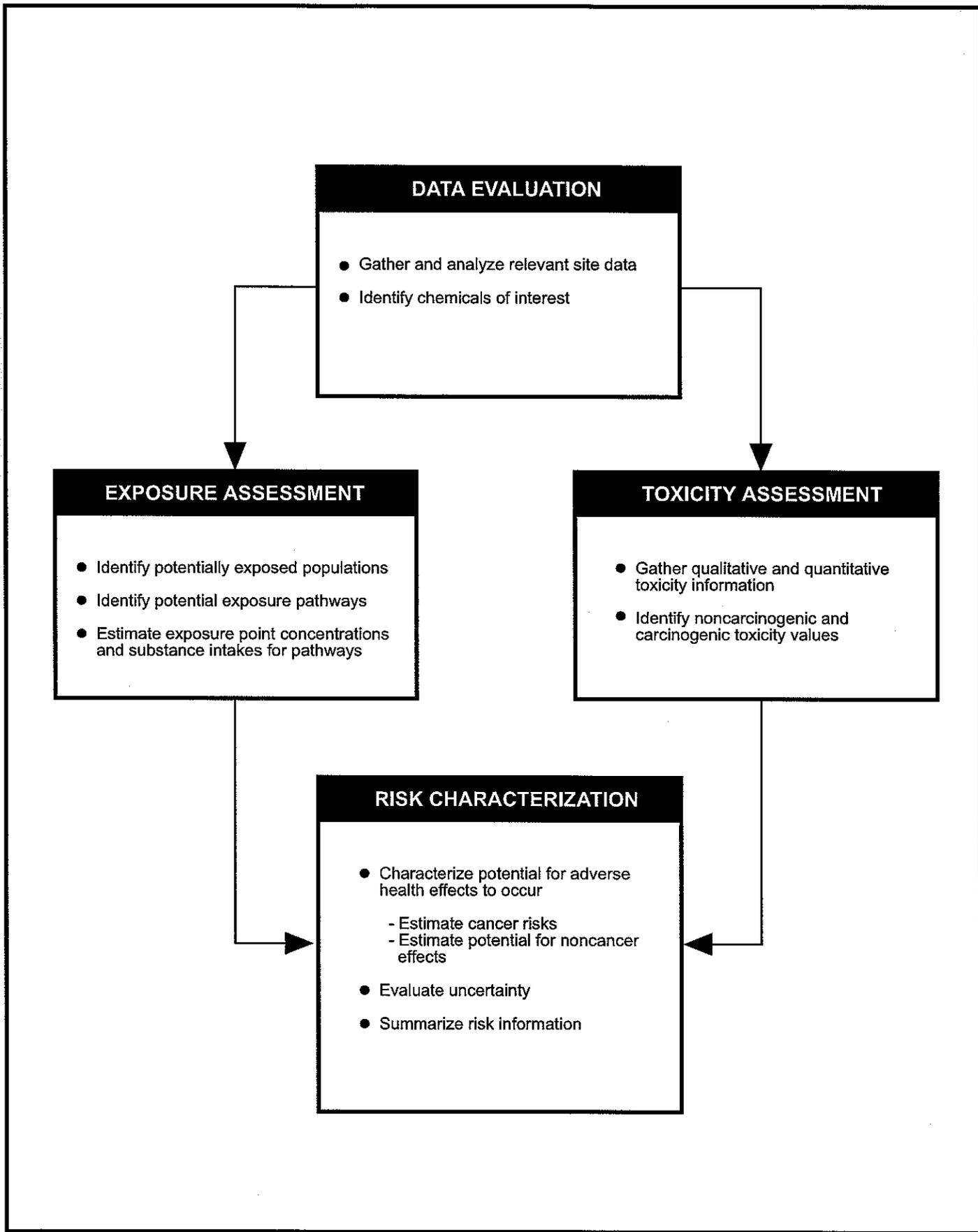


Figure 6-2. Steps in a human health risk assessment.