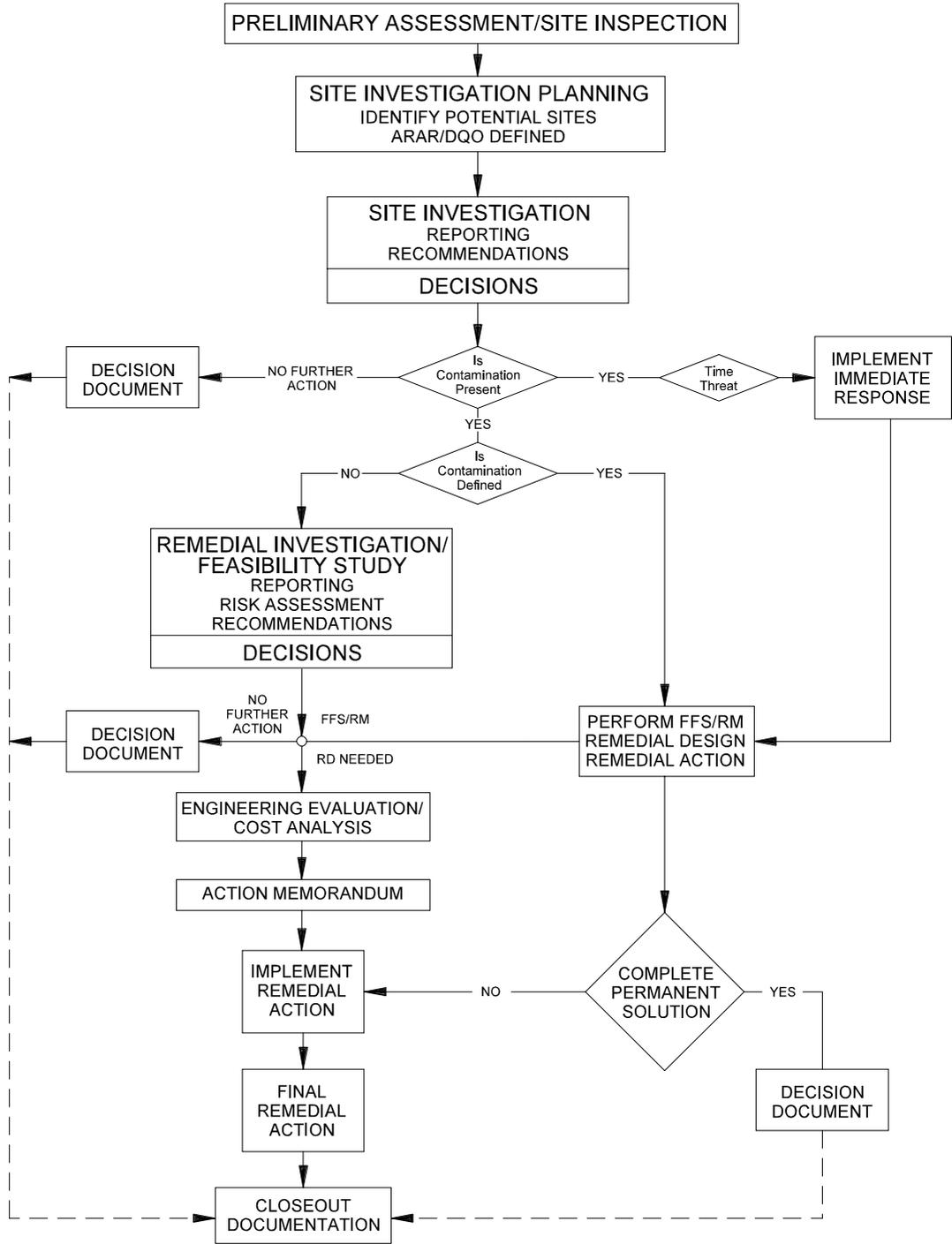


## FIGURES

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 PROJ. NO.: 774645  
 INITIATOR: B. HEDBERG  
 PROJ. MGR.: J. YACOB  
 DRAFT. CHK. BY:  
 ENGR. CHK. BY: S. MORAN  
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 STARTING DATE: 02/27/04  
 DRAWN BY: L. STOUT

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**FIGURE 1-1**  
**INSTALLATION RESTORATION**  
**PROGRAM FLOW CHART**  
**RANGE K - PELHAM RANGE**  
**PARCEL 203(7)**

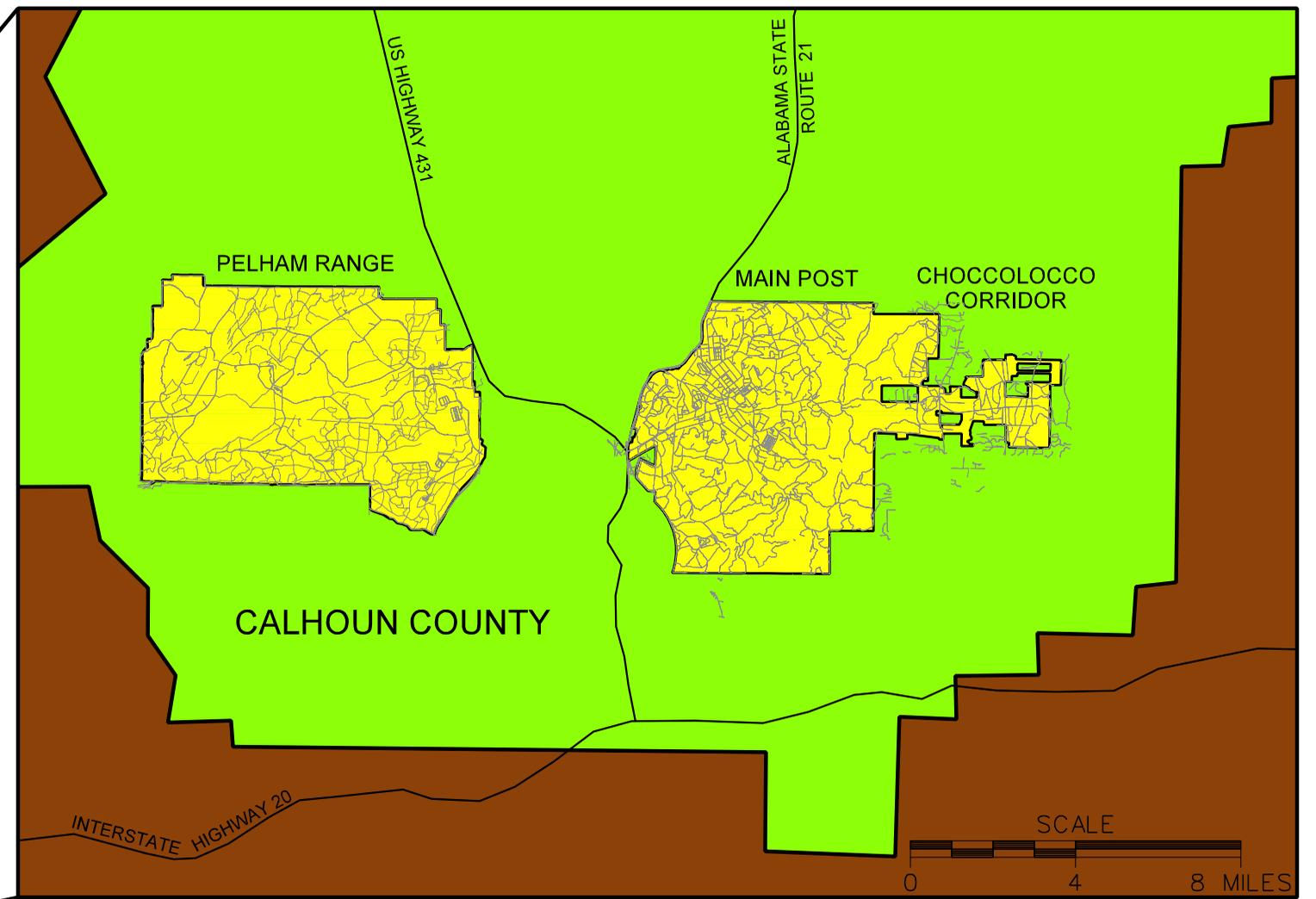
U. S. ARMY CORPS OF ENGINEERS  
 MOBILE DISTRICT  
 FORT McCLELLAN  
 CALHOUN COUNTY, ALABAMA  
 Contract No. DACA21-96-D-0018

**LEGEND:**

- ARAR APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS
- DQO DATA QUALITY OBJECTIVES
- FFS/RM FOCUSED FEASIBILITY STUDY/ REMEDIAL MEASURE
- RD REMEDIAL DESIGN
- RI/FS REMEDIAL INVESTIGATION/ FEASIBILITY STUDY



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 PROJ. MGR.: J. YACOB  
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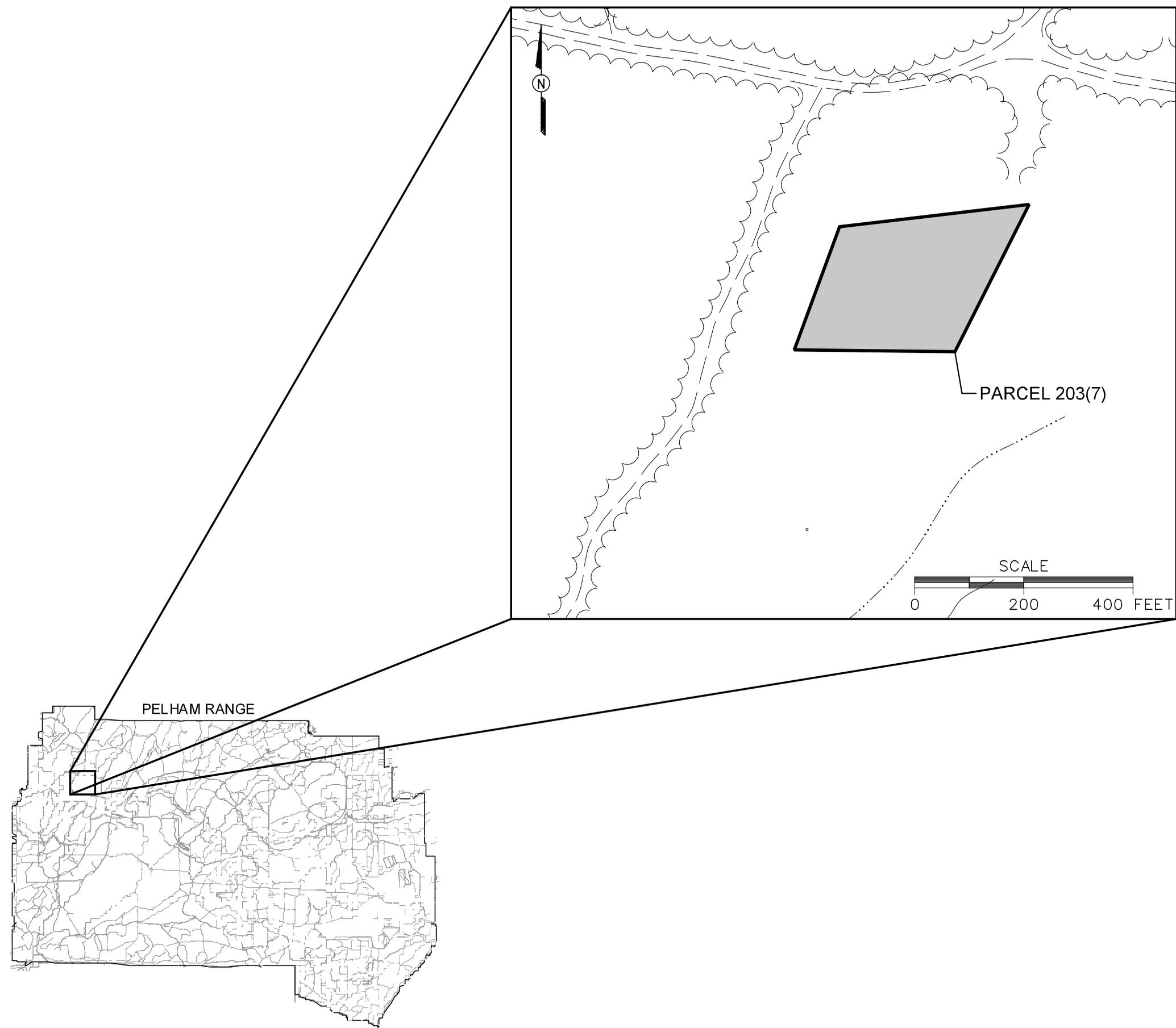


**FIGURE 1-2**  
**REGIONAL LOCATION MAP**  
**FORT McCLELLAN**  
**CALHOUN COUNTY, ALABAMA**

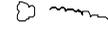
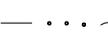
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 FORT McCLELLAN  
 CALHOUN COUNTY, ALABAMA  
 Contract No. DACA21-96-D-0018



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 PROJ. MGR.: J. YACOUB  
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**LEGEND**

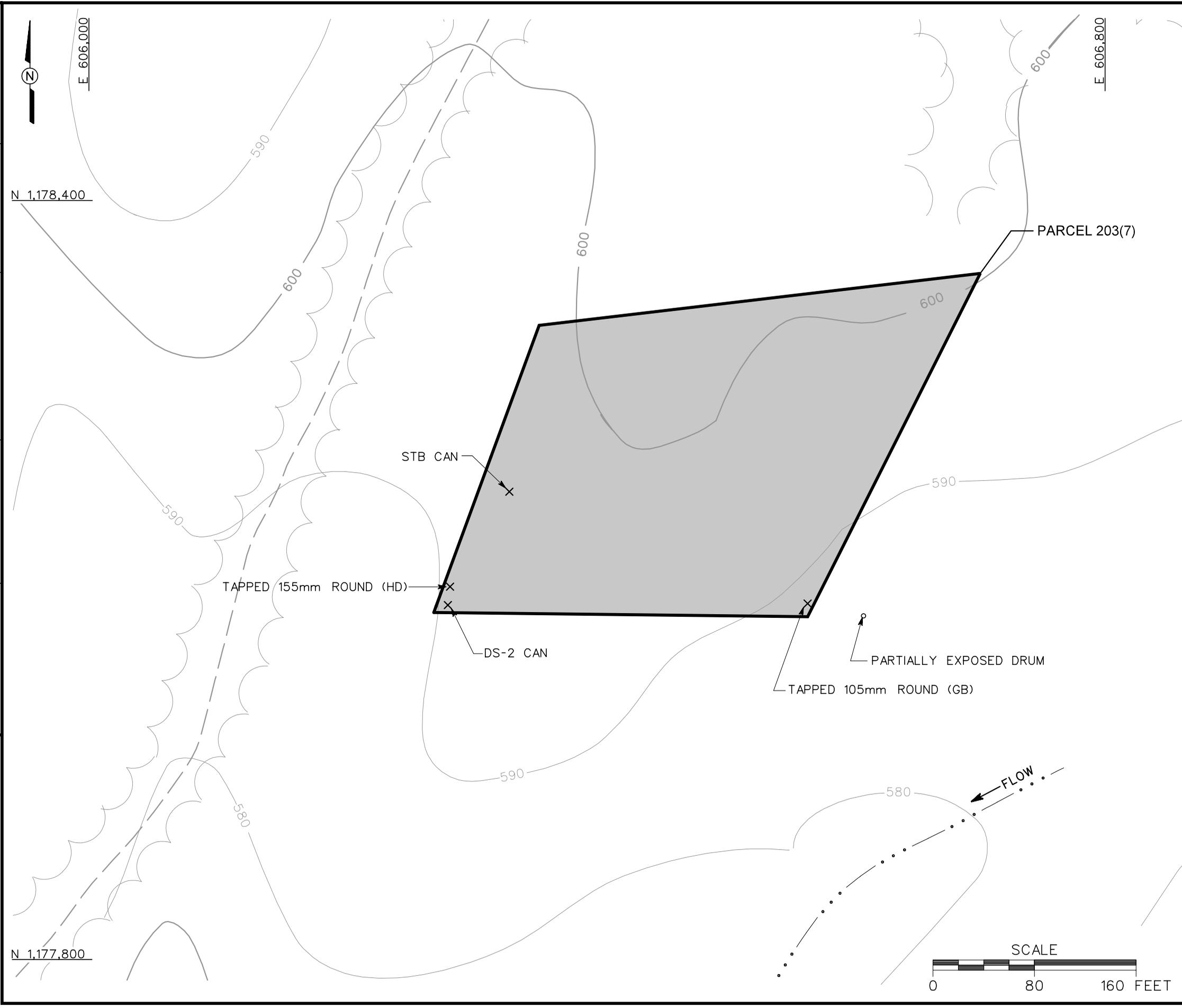
-  UNIMPROVED ROADS
-  TREES / TREELINE
-  PARCEL BOUNDARY
-  SURFACE DRAINAGE / CREEK

**FIGURE 1-3**  
**SITE LOCATION MAP**  
**RANGE K**  
**FORMER AGENT TRAINING AREA**  
**PARCEL 203(7)**

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 MOBILE DISTRICT  
 FORT McCLELLAN  
 CALHOUN COUNTY, ALABAMA  
 Contract No. DACA21-96-D-0018



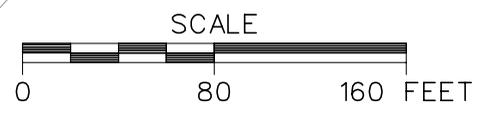
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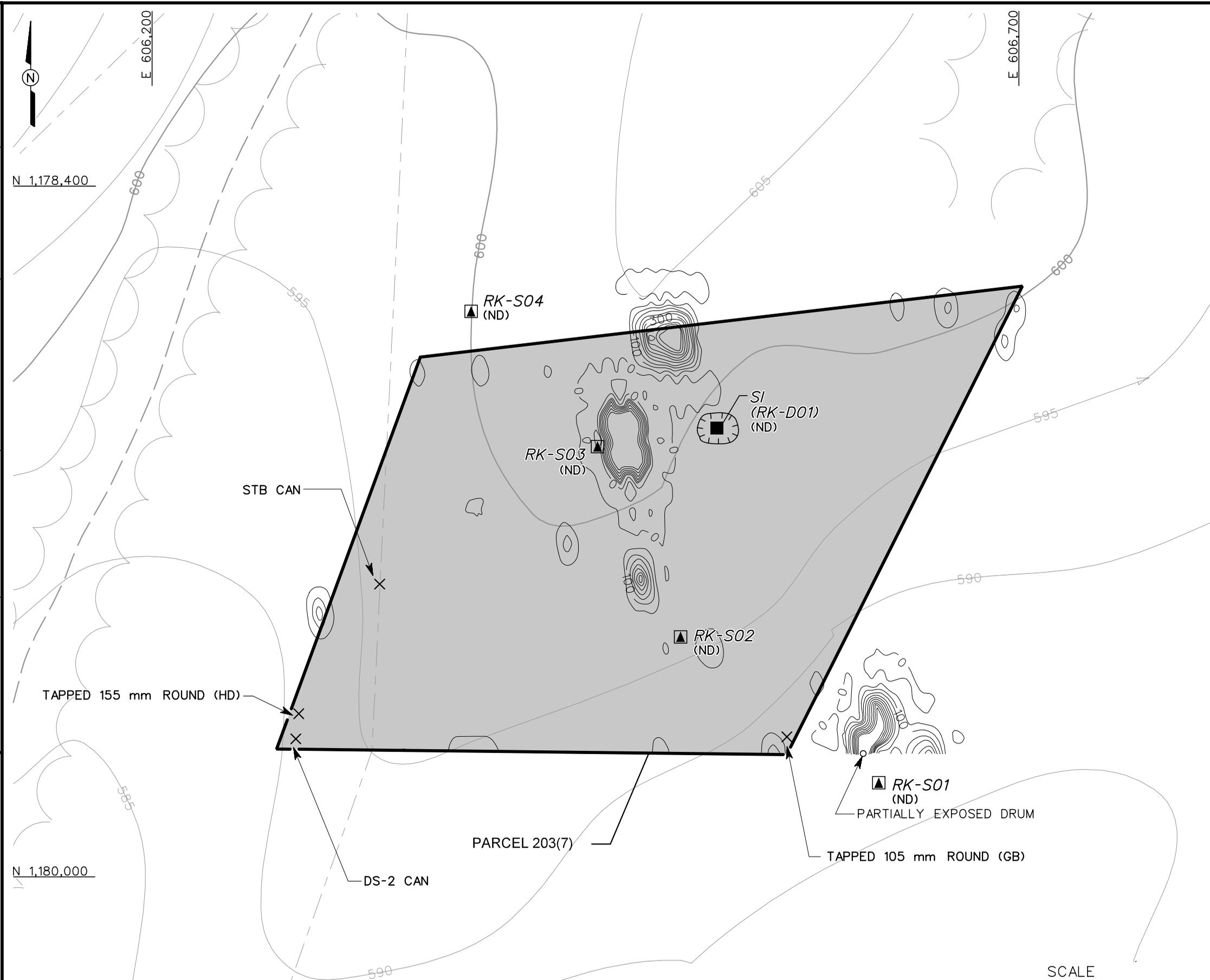
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- UNIMPROVED ROADS
  - 800 TOPOGRAPHIC CONTOURS (CONTOUR INTERVAL - 10 FOOT)
  - ~~~~ TREES / TREELINE
  - ▭ PARCEL BOUNDARY
  - ... SURFACE DRAINAGE / CREEK
  - X SURFACE DEBRIS (USAEC 1992)

**FIGURE 1-4**  
**SITE MAP**  
**RANGE K**  
**FORMER AGENT TRAINING AREA**  
**PARCEL 203(7)**

U. S. ARMY CORPS OF ENGINEERS  
 MOBILE DISTRICT  
 FORT McCLELLAN  
 CALHOUN COUNTY, ALABAMA  
 Contract No. DACA21-96-D-0018



DWG. NO.: \774645aa.034  
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**LEGEND**

- UNIMPROVED ROADS AND PARKING
- 800 TOPOGRAPHIC CONTOURS (CONTOUR INTERVAL - 5 FOOT)
- TREES / TREELINE
- ▭ PARCEL BOUNDARY
- X SURFACE DEBRIS (USAEC 1992)
- TIME DOMAIN ELECTROMAGNETIC SURVEY CONTOURS (mV)
- ▲ APPROXIMATE LOCATION OF SUBSURFACE SOIL SAMPLE (RI SAMPLE, JUNE 1994)
- APPROXIMATE LOCATION OF SEDIMENT SAMPLE (SI SAMPLE, APRIL 1992)
- APPROXIMATE LOCATION OF DEPRESSION AND SAMPLE LOCATION SI (RK-D01) (SAIC, 1992)
- (ND) NOT DETECTED

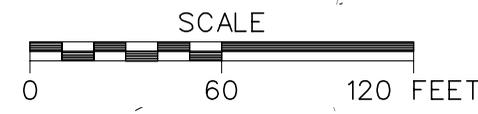
**NOTES:**

1. SUBSURFACE SOIL SAMPLES COLLECTED AT APPROXIMATELY TWO FEET BELOW GROUND SURFACE.
2. SOIL AND SEDIMENT SAMPLES ANALYZED FOR CWM BREAKDOWN PRODUCTS AND EXPLOSIVES.
3. CWM BREAKDOWN PRODUCTS AND EXPLOSIVES NOT DETECTED IN SAMPLES.
4. GEOPHYSICAL CONTOUR DATA SUPPLIED BY SAIC. LOCATIONS ARE APPROXIMATE.
5. TOPOGRAPHIC DATA SUPPLIED BY USACE AND IS NOT CONFIRMED BY FIELD SURVEY.

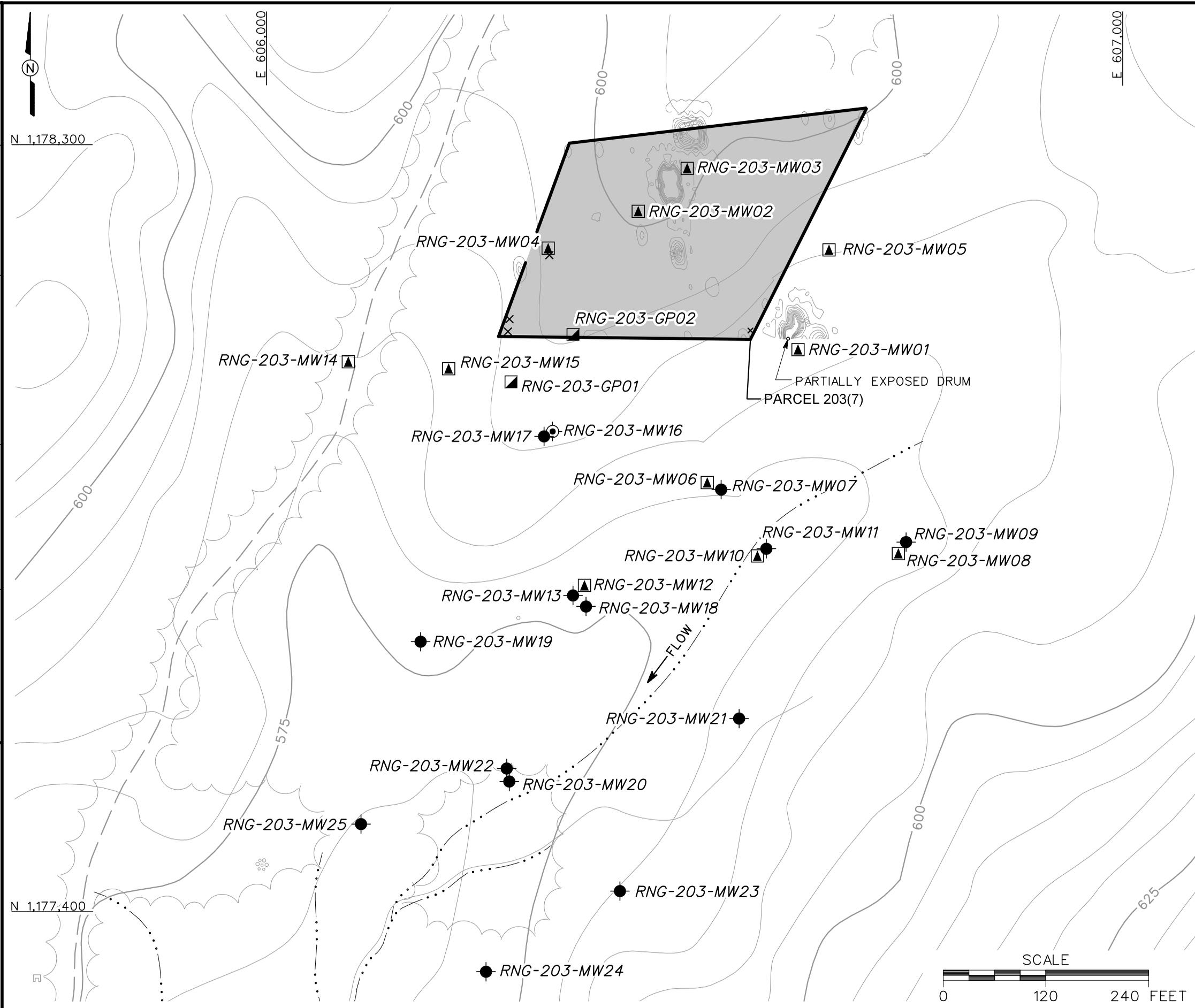
**FIGURE 1-5**  
**SAMPLE LOCATIONS AND**  
**GEOPHYSICAL DATA MAP**  
**SAIC INVESTIGATIONS**  
**RANGE K**  
**FORMER AGENT TRAINING AREA**  
**PARCEL 203(7)**

U. S. ARMY CORPS OF ENGINEERS  
 MOBILE DISTRICT  
 FORT McCLELLAN  
 CALHOUN COUNTY, ALABAMA  
 Contract No. DACA21-96-D-0018

SOURCE: SCIENCE APPLICATIONS INTERNATIONAL CORPORATION (SAIC), 2000  
 "REMEDIAL INVESTIGATION/BASELINE RISK ASSESSMENT, FORT McCLELLAN, ALABAMA", JULY.



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 INITIATOR: B. HEDBERG  
 PROJ. MGR.: J. YACOUB  
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- ### LEGEND
- UNIMPROVED ROADS
  - TOPOGRAPHIC CONTOURS (CONTOUR INTERVAL - 5 FOOT)
  - TREES / TREELINE
  - PARCEL BOUNDARY
  - SURFACE DEBRIS (USAEC 1992)
  - TIME DOMAIN ELECTROMAGNETIC SURVEY CONTOURS (mV)
  - SURFACE DRAINAGE / CREEK
  - RESIDUUM MONITORING WELL / SURFACE AND SUBSURFACE SOIL SAMPLE LOCATION
  - BEDROCK MONITORING WELL LOCATION
  - RESIDUUM/BEDROCK MONITORING WELL
  - SURFACE AND SUBSURFACE SOIL SAMPLE LOCATION

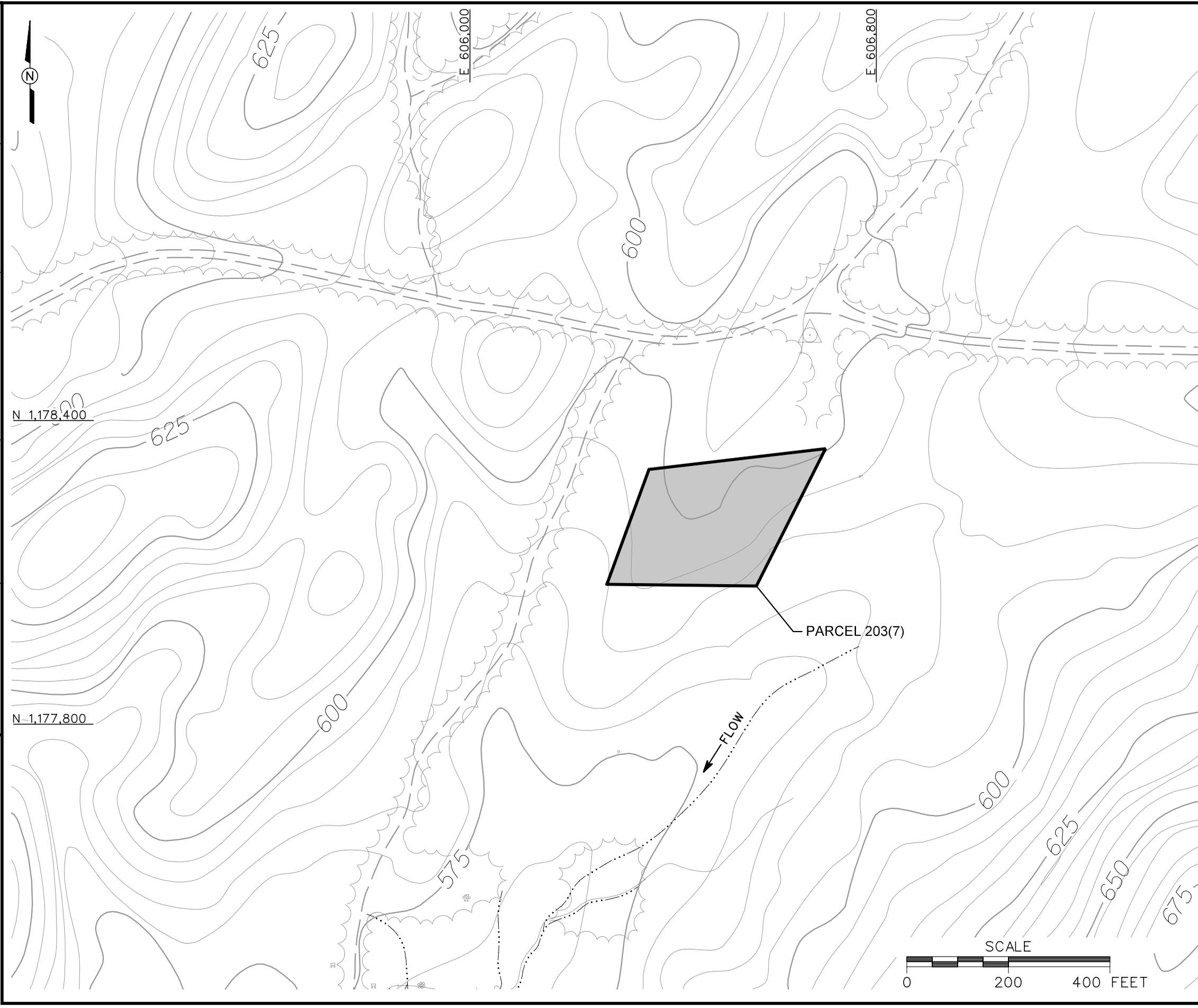
- ### NOTES:
1. GEOPHYSICAL CONTOUR DATA SUPPLIED BY SAIC. LOCATIONS ARE APPROXIMATE. SAIC, 2000, REMEDIAL INVESTIGATION/BASELINE RISK ASSESSMENT, FORT McCLELLAN, ALABAMA, JULY.
  2. TOPOGRAPHIC DATA SUPPLIED BY USACE AND IS NOT CONFIRMED BY FIELD SURVEY.

**FIGURE 2-1**  
**SAMPLE LOCATION MAP**  
**RANGE K**  
**FORMER AGENT TRAINING AREA**  
**PARCEL 203(7)**

U. S. ARMY CORPS OF ENGINEERS  
 MOBILE DISTRICT  
 FORT McCLELLAN  
 CALHOUN COUNTY, ALABAMA  
 Contract No. DACA21-96-D-0018



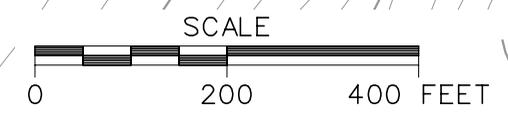
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LEGEND	
	UNIMPROVED ROADS
	TOPOGRAPHIC CONTOURS (CONTOUR INTERVAL - 5 FOOT)
	TREES / TREELINE
	PARCEL BOUNDARY
	SURFACE DRAINAGE / CREEK

**FIGURE 3-1**  
**TOPOGRAPHIC MAP**  
**RANGE K**  
**FORMER AGENT TRAINING AREA**  
**PARCEL 203(7)**

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 FORT McCLELLAN  
 CALHOUN COUNTY, ALABAMA  
 Contract No. DACA21-96-D-0018



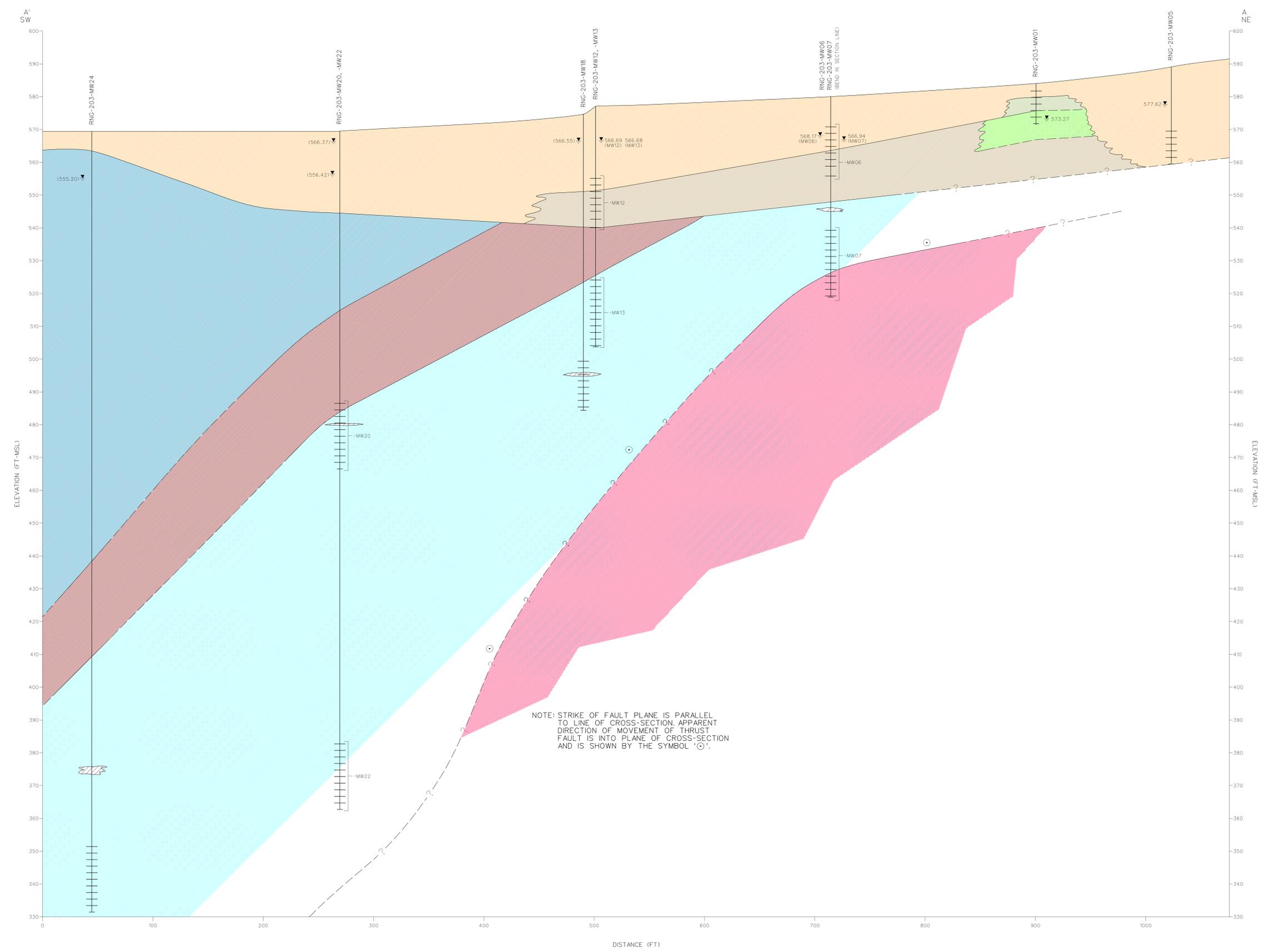
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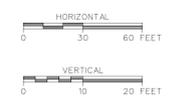


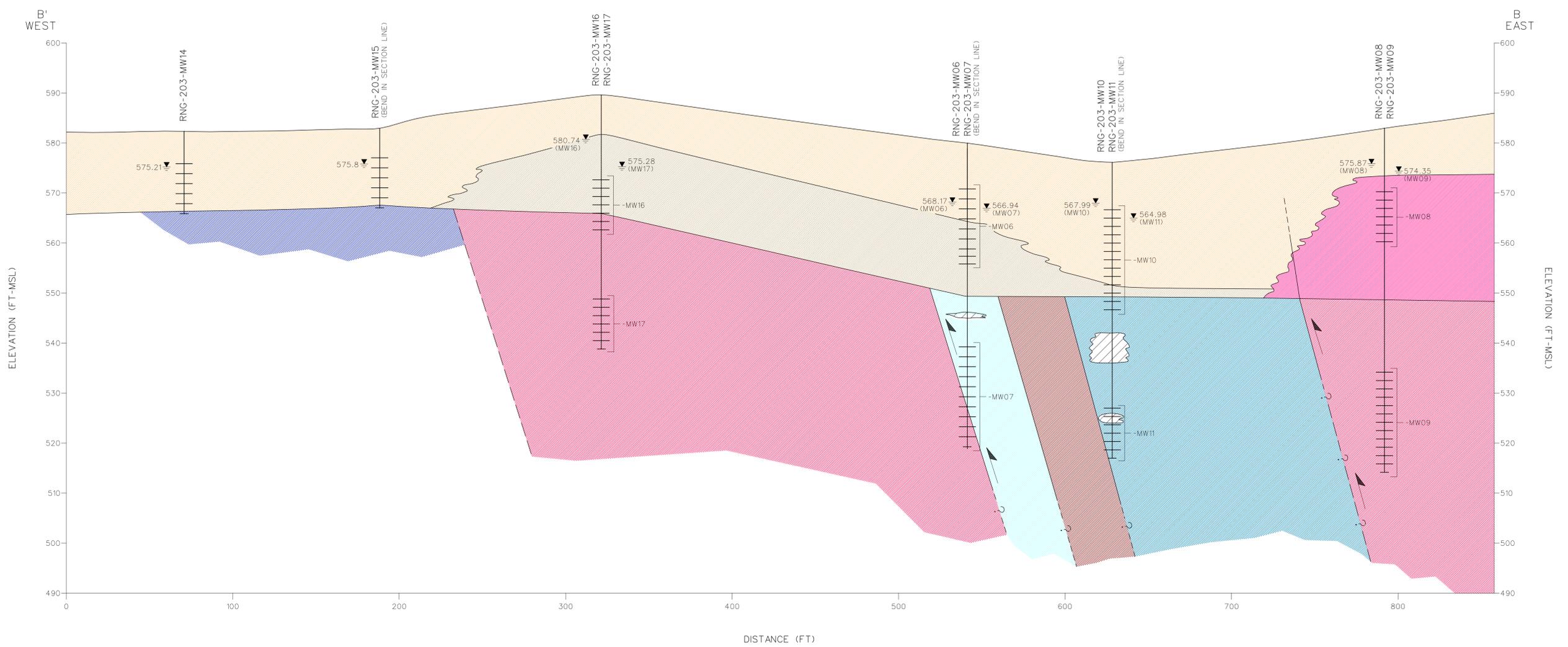
- LEGEND:**
- SCREEN INTERVAL
  - WATER TABLE
  - GROUNDWATER ELEVATION (FT MSL) (OCTOBER 13, 2003)
  - CONTACT DASHED WHERE INFERRRED
  - VOID
  - CLAY
  - CLAY WITH WEATHERED SHALE FRAGMENTS
  - SILT
  - SILT WITH WEATHERED SHALE FRAGMENTS
  - SHALE, BLACK, CARBONACEOUS, FRACTURED, CONTORTED, CALCITE VEINS, SLICKENSIDES
  - SHALE, AS ABOVE; AND SHALE AND LIMESTONE INTERBEDDED
  - LIMESTONE, GRAY-BLACK, MICROCRYSTALLINE, FRACTURED, VOIDS, CALCITE VEINS
  - LIMESTONE, LIGHT TO MEDIUM DARK, MICROCRYSTALLINE, FRACTURED, FOSSILIFEROUS IN PART, CALCITE VEINS

- NOTES:**
1. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988.
  2. CROSS-SECTION LOCATION SHOWN ON FIGURE 3-4.

**FIGURE 3-2**  
 GEOLOGIC CROSS-SECTION A-A'  
 RANGE K  
 FORMER AGENT TRAINING AREA  
 PARCEL 203(7)

U. S. ARMY CORPS OF ENGINEERS  
 MOBILE DISTRICT  
 FORT MCLELLAN  
 CALHOUN COUNTY, ALABAMA  
 Contract No. DACA21-96-D-0018



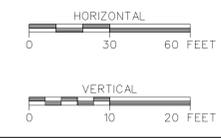


- LEGEND:**
- SCREEN INTERVAL
  - WATER TABLE
  - GROUNDWATER ELEVATION (FT MSL) (OCTOBER 13, 2003)
  - CONTACT DASHED WHERE INFERRED
  - RELATIVE MOVEMENT OF THRUST FAULT
  - VOID
  - CLAY
  - CLAY WITH WEATHERED SHALE FRAGMENTS
  - SHALE, HIGHLY WEATHERED WITH INTERBEDS OF SANDSTONE, SHALE AND LIMESTONE
  - SHALE, BLACK, CARBONACEOUS, FRACTURED CONTORTED, CALCITE VEINS, SLICKENSIDES
  - SHALE, AS ABOVE AND SHALE AND LIMESTONE INTERBEDDED
  - LIMESTONE, GRAY-BLACK, MICROCRYSTALLINE, FRACTURED, VOIDS, CALCITE VEINS
  - LIMESTONE, LIGHT TO DARK GRAY, MICROCRYSTALLINE, FRACTURED, FOSSILIFEROUS IN PART, CALCITE VEINS
  - LIMESTONE, BLACK

- NOTES:**
1. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988.
  2. CROSS-SECTION LOCATION SHOWN ON FIGURE 3-4.

**FIGURE 3-3**  
 GEOLOGIC CROSS-SECTION B-B'  
 RANGE K  
 FORMER AGENT TRAINING AREA  
 PARCEL 203(7)

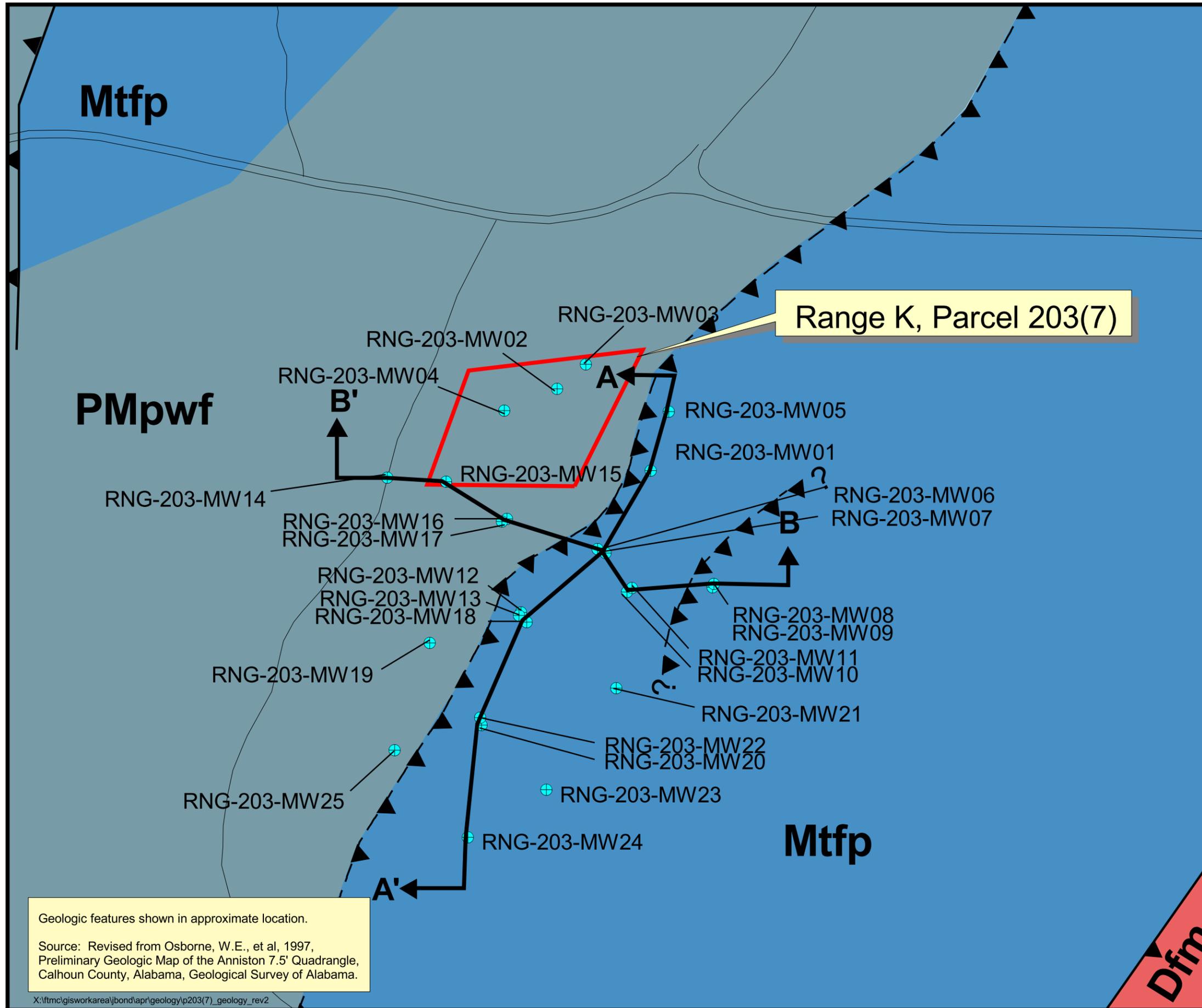
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 FORT MCLELLAN  
 CALHOUN COUNTY, ALABAMA  
 Contract No. DACA21-96-D-0018



# Figure 3-4

## Site Geologic Map

Range K, Parcel 203(7),  
Pelham Range,  
Fort McClellan, Alabama

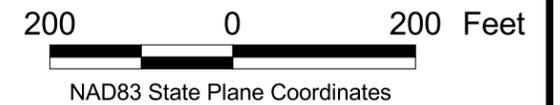


Geologic features shown in approximate location.  
Source: Revised from Osborne, W.E., et al, 1997, Preliminary Geologic Map of the Anniston 7.5' Quadrangle, Calhoun County, Alabama, Geological Survey of Alabama.

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### Legend

- Parcel Boundary
  - Roads
  - Monitoring Well
- Geology**
- PMpwf Pennsylvanian/Mississippian - Parkwood & Floyd Shale, undifferentiated
  - Mtp Mississippian - Tuscumbia Limestone & Fort Payne Chert, undifferentiated
  - Dfm Devonian - Frog Mtn. Sandstone
  - Thrust Fault (dashed where inferred; barbs on upper plate)
  - Cross Section Location

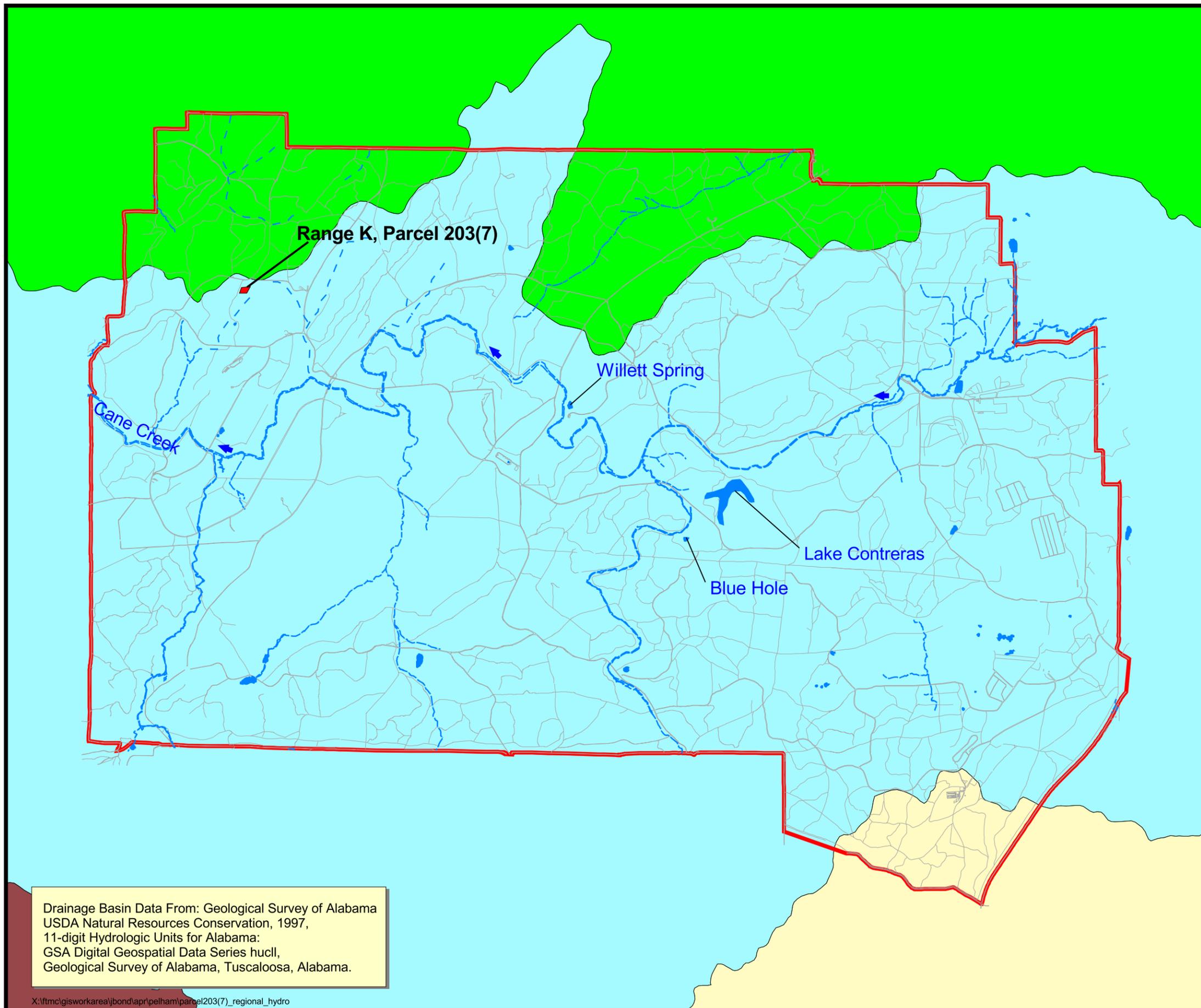


Contract No. DACA21-96-D-0018

# Figure 3-5

## Surface Water Hydrology and Drainage Basins, Pelham Range

Range K, Parcel 203(7)  
Fort McClellan, Alabama



### Legend

- Pelham Range Boundary
- Roads
- Streams (dashed where intermittent)
- Surface Water Flow Direction
- Lakes/Ponds
- Cane Creek Drainage Basin
- Tallaseehatchee Creek Drainage Basin
- Choccolocco Creek Drainage Basin
- Blue Eye Creek Drainage Basin

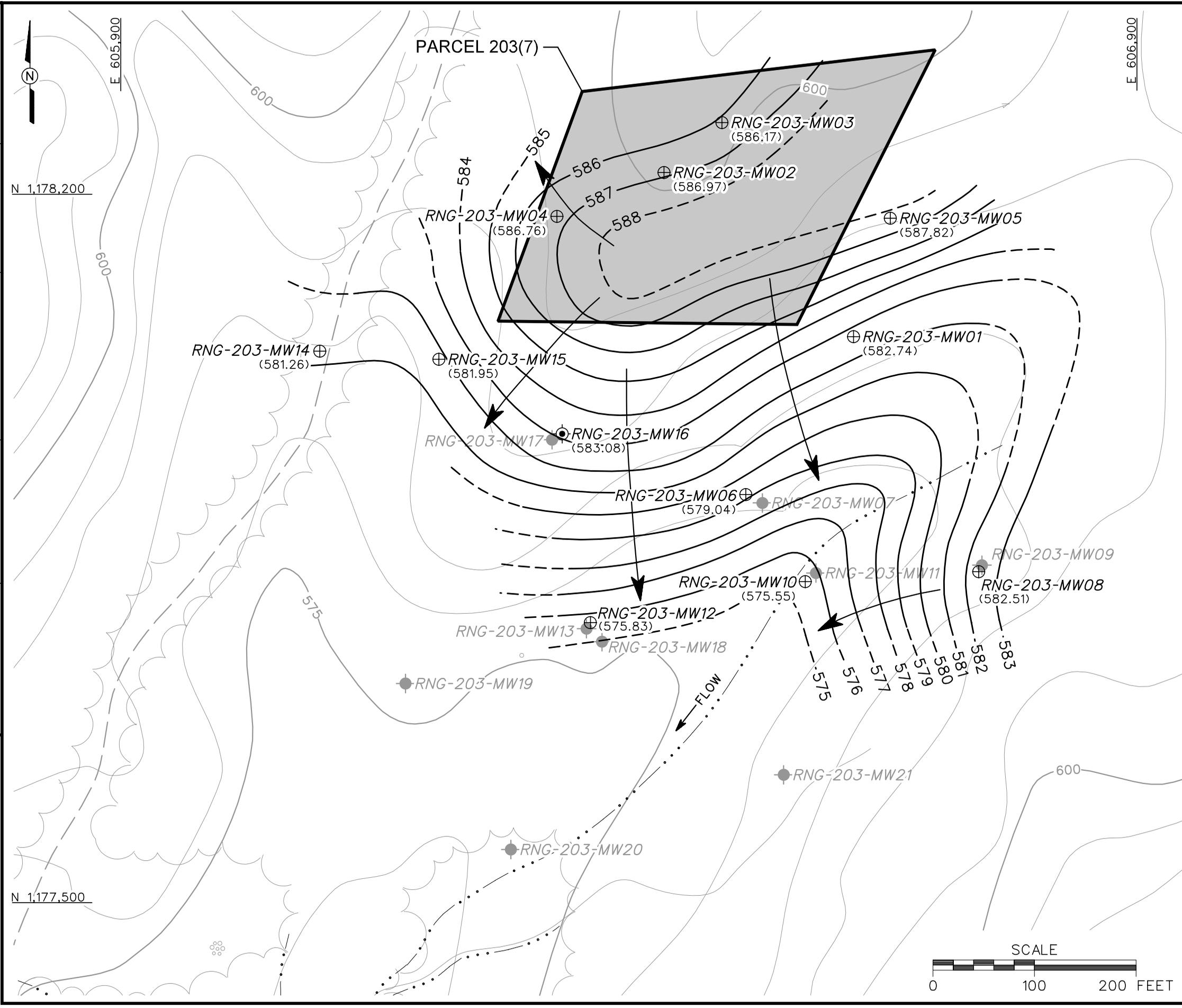
Drainage Basin Data From: Geological Survey of Alabama  
USDA Natural Resources Conservation, 1997,  
11-digit Hydrologic Units for Alabama:  
GSA Digital Geospatial Data Series hucll,  
Geological Survey of Alabama, Tuscaloosa, Alabama.

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Shaw Environmental, Inc.

U.S. Army Corps of Engineers  
Mobile District

DWG. NO.: ... \774645aa.039  
 PROJ. NO.: 774645  
 INITIATOR: B. HEDBERG  
 PROJ. MGR.: J. YACOUB  
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 ENGR. CHK. BY: S. MORAN  
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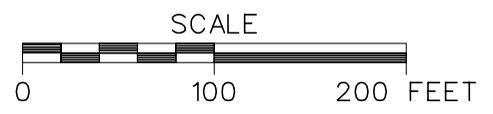
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- UNIMPROVED ROADS
  - 600 TOPOGRAPHIC CONTOURS (CONTOUR INTERVAL - 5 FOOT)
  - 580 GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED)
  - (587.82) GROUNDWATER ELEVATION (FT MSL) (FEBRUARY 13, 2003)
  - ← GROUNDWATER FLOW DIRECTION
  - Trees / TREELINE
  - ▭ PARCEL BOUNDARY
  - SURFACE DRAINAGE / CREEK
  - ⊕ RESIDUUM/BEDROCK MONITORING WELL LOCATION
  - ⊕ RESIDUUM MONITORING WELL LOCATION
  - BEDROCK MONITORING WELL LOCATION

**NOTE:**

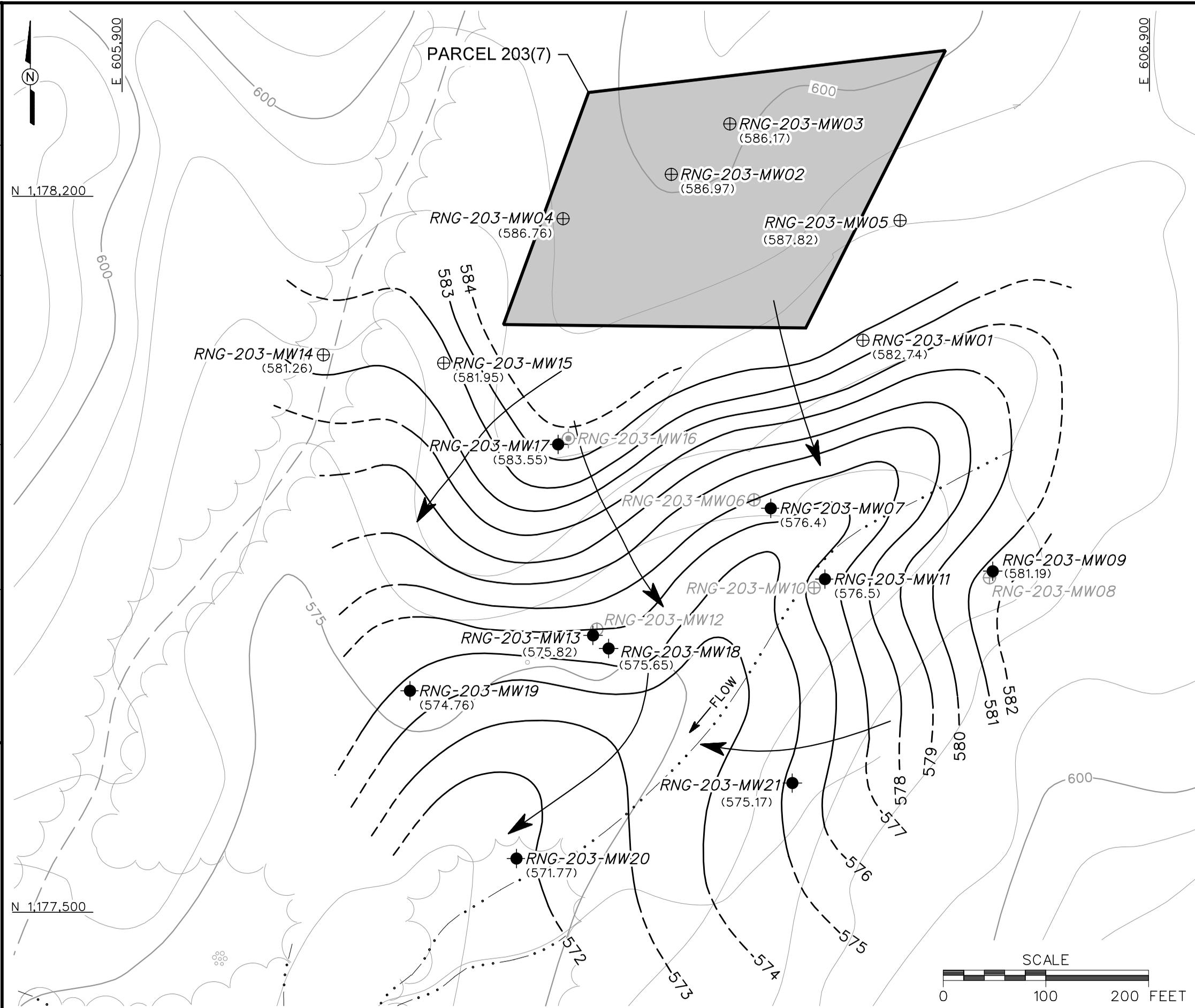
1. TOPOGRAPHIC DATA SUPPLIED BY USACE AND IS NOT CONFIRMED BY FIELD SURVEY.

**FIGURE 3-6**  
**GROUNDWATER ELEVATION MAP**  
**RESIDUUM MONITORING WELLS**  
**RANGE K (FEBRUARY 2003)**  
**FORMER AGENT TRAINING AREA**  
**PARCEL 203(7)**

U. S. ARMY CORPS OF ENGINEERS  
 MOBILE DISTRICT  
 FORT McCLELLAN  
 CALHOUN COUNTY, ALABAMA  
 Contract No. DACA21-96-D-0018



DWG. NO.: 1774645aa.040  
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 PROJ. MGR.: J. YACOUB  
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- LEGEND**
- UNIMPROVED ROADS
  - 600 TOPOGRAPHIC CONTOURS (CONTOUR INTERVAL - 5 FOOT)
  - 580 GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED)
  - (587.82) GROUNDWATER ELEVATION (FT MSL) (FEBRUARY 13, 2003)
  - ← GROUNDWATER FLOW DIRECTION
  - Trees / TREELINE
  - ▭ PARCEL BOUNDARY
  - SURFACE DRAINAGE / CREEK
  - ⊕ RESIDUUM/BEDROCK MONITORING WELL LOCATION
  - ⊕ RESIDUUM MONITORING WELL LOCATION
  - BEDROCK MONITORING WELL LOCATION

**NOTE:**

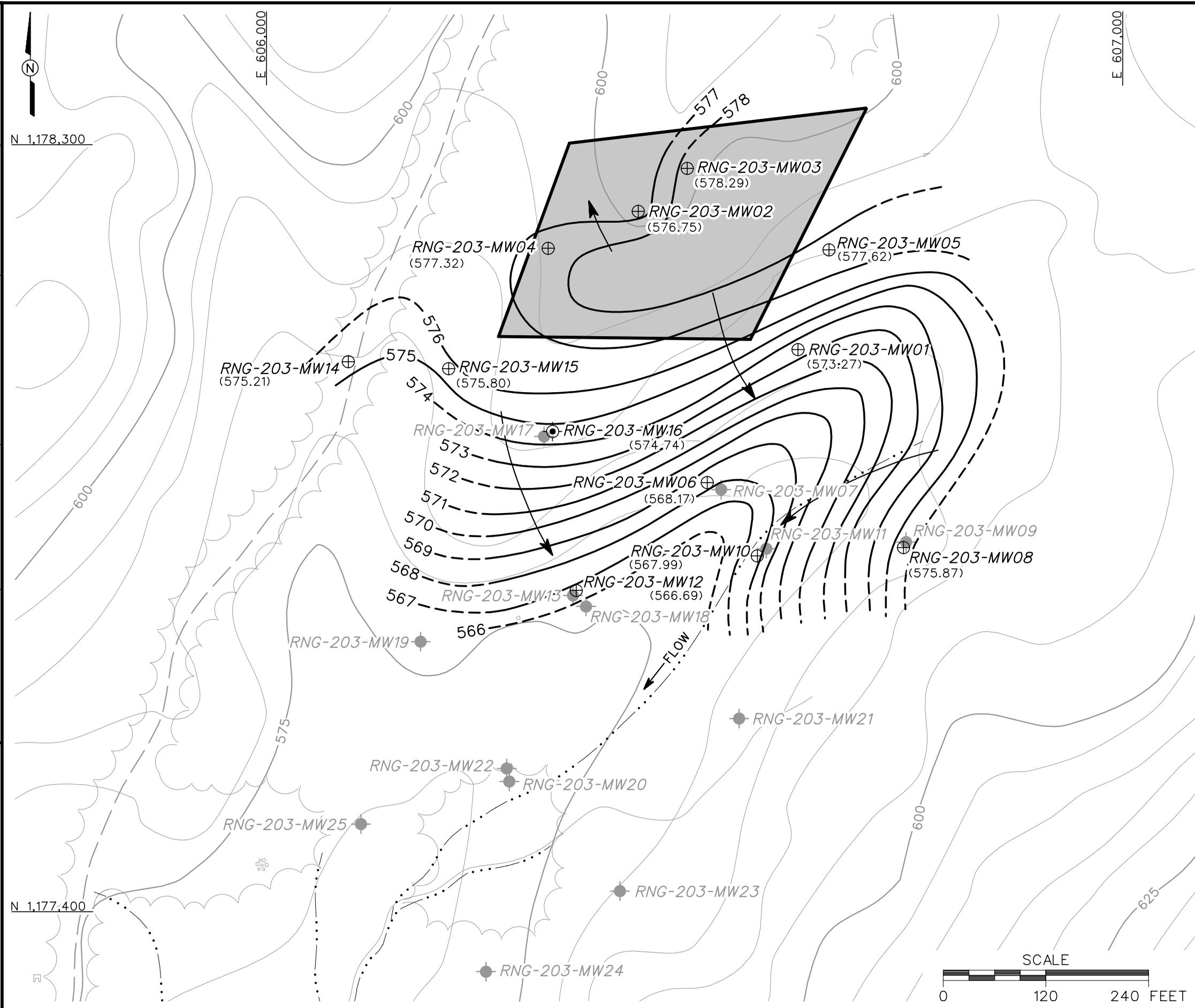
1. TOPOGRAPHIC DATA SUPPLIED BY USACE AND IS NOT CONFIRMED BY FIELD SURVEY.

**FIGURE 3-7**  
**GROUNDWATER ELEVATION MAP**  
**BEDROCK MONITORING WELLS**  
**RANGE K (FEBRUARY 2003)**  
**FORMER AGENT TRAINING AREA**  
**PARCEL 203(7)**

U. S. ARMY CORPS OF ENGINEERS  
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 FORT McCLELLAN  
 CALHOUN COUNTY, ALABAMA  
 Contract No. DACA21-96-D-0018



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 PROJ. MGR.: J. YACOUB  
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- ### LEGEND
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  - GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED)
  - (577.62) GROUNDWATER ELEVATION (FT MSL) (OCTOBER 13, 2003)
  - GROUNDWATER FLOW DIRECTION
  - TREES / TREELINE
  - PARCEL BOUNDARY
  - SURFACE DRAINAGE / CREEK
  - RESIDUUM/BEDROCK MONITORING WELL LOCATION
  - RESIDUUM MONITORING WELL LOCATION
  - BEDROCK MONITORING WELL LOCATION

**NOTE:**

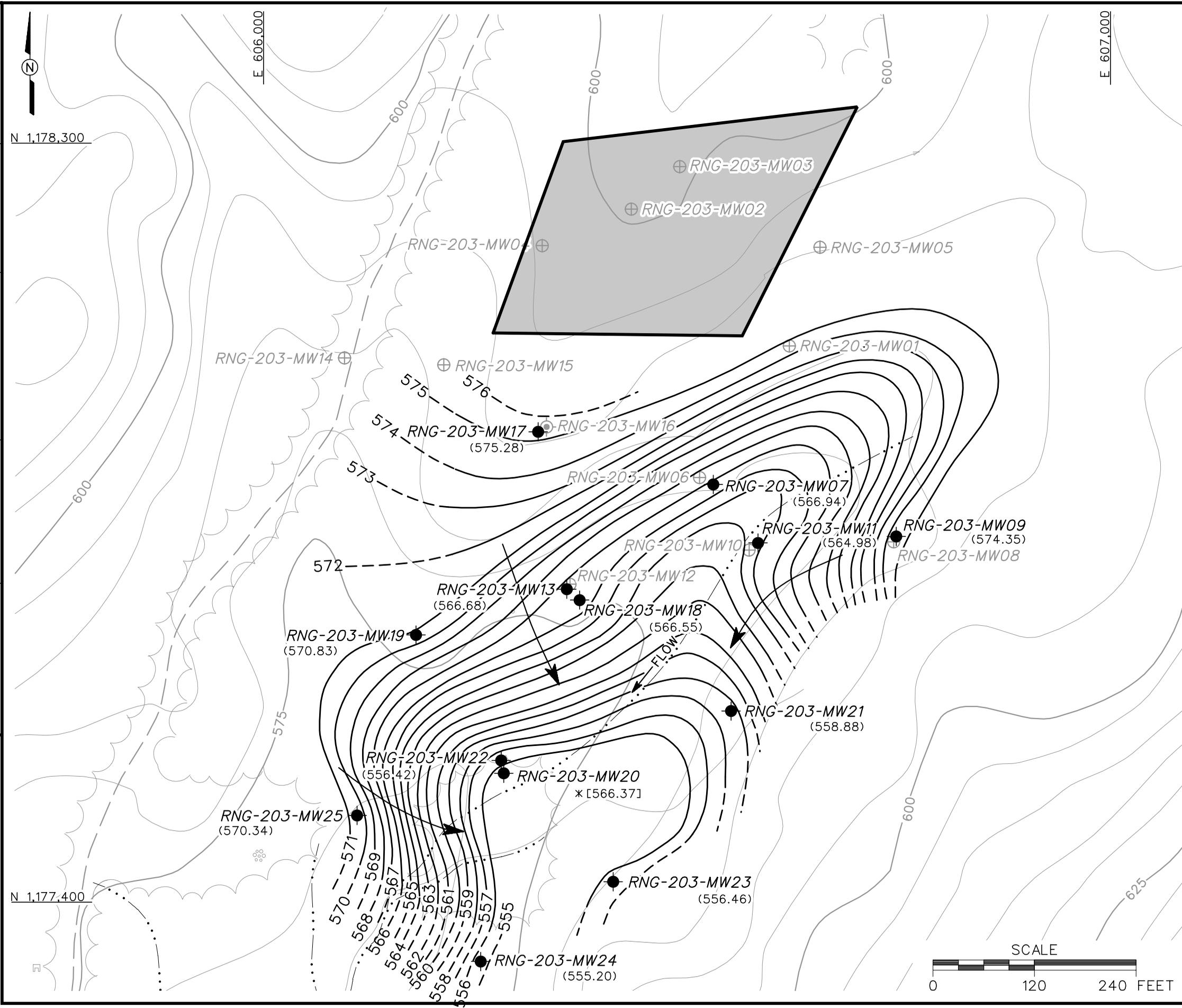
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**FIGURE 3-8**  
**GROUNDWATER ELEVATION MAP**  
**RESIDUUM MONITORING WELLS**  
**RANGE K (OCTOBER 2003)**  
**FORMER AGENT TRAINING AREA**  
**PARCEL 203(7)**

U. S. ARMY CORPS OF ENGINEERS  
 MOBILE DISTRICT  
 FORT McCLELLAN  
 CALHOUN COUNTY, ALABAMA  
 Contract No. DACA21-96-D-0018



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 PROJ. MGR.: J. YACOUB  
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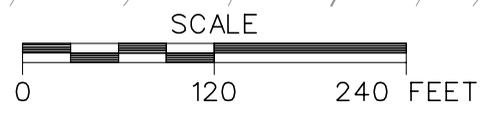
- ### LEGEND
- UNIMPROVED ROADS
  - 600 TOPOGRAPHIC CONTOURS (CONTOUR INTERVAL - 5 FOOT)
  - 580 GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED)
  - (574.35) GROUNDWATER ELEVATION (FT MSL) (OCTOBER 13, 2003)
  - \* [566.37] VALUE ANOMALOUS DUE TO PROBABLE ARTESIAN CONDITION
  - ← GROUNDWATER FLOW DIRECTION
  - Trees / TREELINE
  - ▭ PARCEL BOUNDARY
  - SURFACE DRAINAGE / CREEK
  - ⊕ RESIDUUM/BEDROCK MONITORING WELL LOCATION
  - ⊕ RESIDUUM MONITORING WELL LOCATION
  - BEDROCK MONITORING WELL LOCATION

**NOTE:**

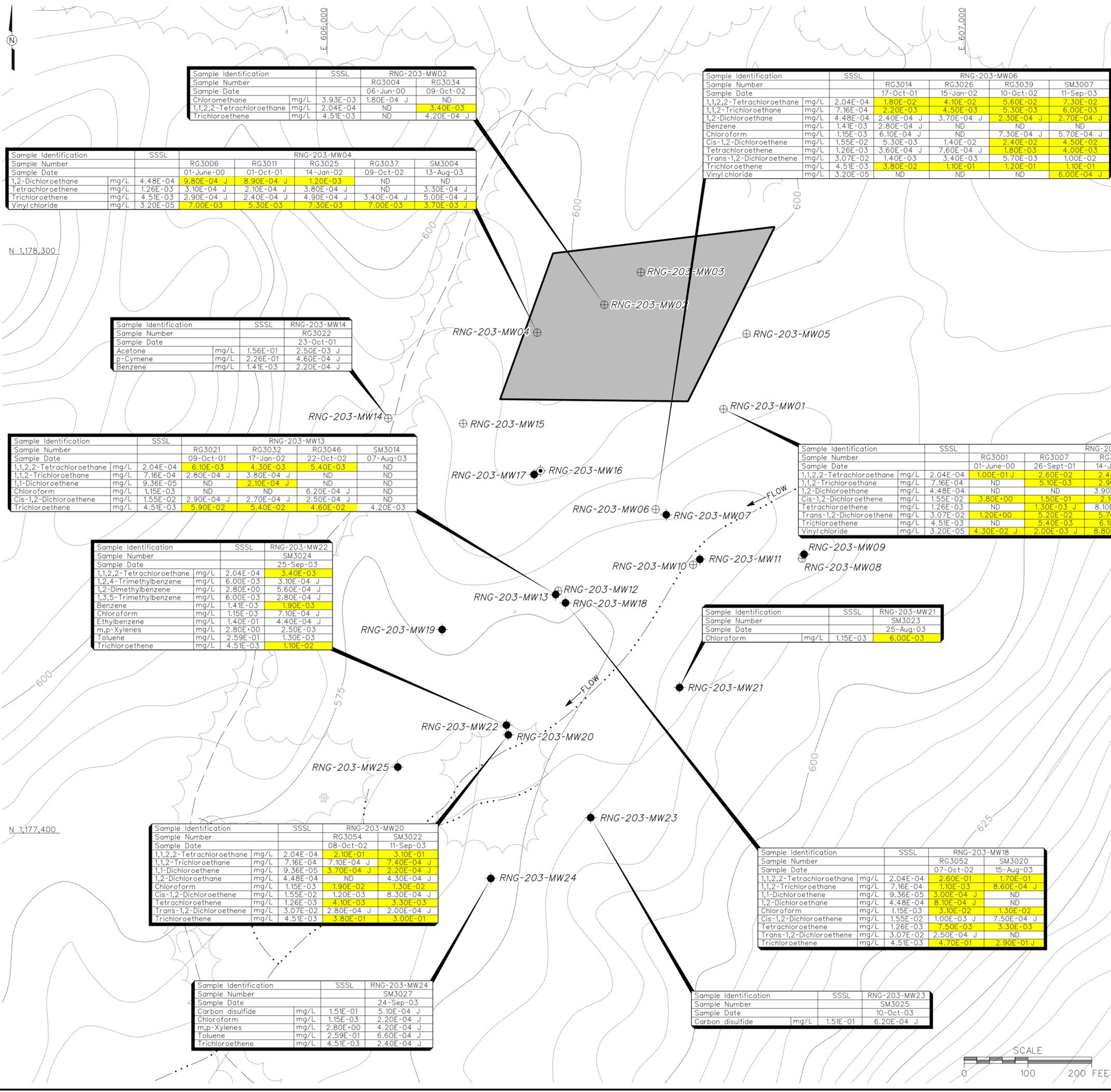
1. TOPOGRAPHIC DATA SUPPLIED BY USACE AND IS NOT CONFIRMED BY FIELD SURVEY.

**FIGURE 3-9**  
**GROUNDWATER ELEVATION MAP**  
**BEDROCK MONITORING WELLS**  
**RANGE K (OCTOBER 2003)**  
**FORMER AGENT TRAINING AREA**  
**PARCEL 203(7)**

U. S. ARMY CORPS OF ENGINEERS  
 MOBILE DISTRICT  
 FORT McCLELLAN  
 CALHOUN COUNTY, ALABAMA  
 Contract No. DACA21-96-D-0018



INITIATOR: B. HEDBERG DWG. NO.: 177464500.043  
 PROJ. MGR.: J. YAKOUBI  
 DRAFT, CHECK BY: ENGR. CHECK BY: S. MORAN  
 DATE LAST REV.: 03/03/04 DRAWN BY: D. BOMAR  
 STARTING DATE: 03/03/04  
 3/16/2004  
 4:34:19 PM  
 dbomar



**LEGEND**

- UNIMPROVED ROADS AND PARKING
- 600 TOPOGRAPHIC CONTOURS (CONTOUR INTERVAL - 10 FOOT)
- TREES / TREELINE
- ▭ PARCEL BOUNDARY
- SURFACE DRAINAGE / CREEK
- ⊕ RESIDUUM/BEDROCK MONITORING WELL LOCATION
- ⊕ RESIDUUM MONITORING WELL LOCATION
- BEDROCK MONITORING WELL LOCATION
- J COMPOUND WAS POSITIVELY IDENTIFIED; REPORTED VALUE IS AN ESTIMATED CONCENTRATION
- mg/L MILLIGRAMS PER LITER
- SSSL SITE-SPECIFIC SCREENING LEVEL
- ND NOT DETECTED
- CONCENTRATION EXCEEDING SSSL

Sample Identification	SSSL	RNG-203-MW02	
Sample Number		RG3004	RG3034
Sample Date		06-Jun-00	09-Oct-02
Chloromethane	mg/L 3.93E-03	1.80E-04 J	ND
1,1,2,2-Tetrachloroethane	mg/L 2.04E-04	ND	3.40E-03
Trichloroethene	mg/L 4.51E-03	ND	4.20E-04 J

Sample Identification	SSSL	RG3014	RG3026	RG3039	SM3007
Sample Number		17-Oct-01	15-Jan-02	10-Oct-02	11-Sep-03
Sample Date					
1,1,2,2-Tetrachloroethane	mg/L 2.04E-04	1.80E-02	4.10E-02	5.60E-02	7.30E-02
1,1,2-Trichloroethane	mg/L 7.16E-04	2.20E-03	4.50E-03	5.30E-03	6.00E-03
1,2-Dichloroethane	mg/L 4.48E-04	2.40E-04 J	3.70E-04 J	2.30E-04 J	2.70E-04 J
Benzene	mg/L 1.41E-03	2.80E-04 J	ND	ND	ND
Chloroform	mg/L 1.15E-03	6.10E-04 J	ND	7.30E-04 J	5.70E-04 J
Cis-1,2-Dichloroethene	mg/L 1.55E-02	5.30E-03	1.40E-02	2.40E-02	4.50E-02
Tetrachloroethene	mg/L 1.26E-03	3.60E-04 J	7.60E-04 J	1.80E-03	4.00E-03
Trans-1,2-Dichloroethene	mg/L 3.07E-02	1.40E-03	3.40E-03	5.70E-03	1.00E-02
Trichloroethene	mg/L 4.51E-03	3.80E-02	1.10E-01	1.20E-01	1.10E-01
Vinyl chloride	mg/L 3.20E-05	ND	ND	ND	6.00E-04 J

Sample Identification	SSSL	RG3006	RG3011	RG3025	RG3037	SM3004
Sample Number						
Sample Date		01-June-00	01-Oct-01	14-Jan-02	09-Oct-02	13-Aug-03
1,2-Dichloroethane	mg/L 4.48E-04	9.80E-04 J	8.90E-04 J	1.20E-03	ND	ND
Tetrachloroethene	mg/L 1.26E-03	3.10E-04 J	2.10E-04 J	3.80E-04 J	ND	3.30E-04 J
Trichloroethene	mg/L 4.51E-03	2.90E-04 J	2.40E-04 J	4.90E-04 J	3.40E-04 J	5.00E-04 J
Vinyl chloride	mg/L 3.20E-05	7.00E-03	5.30E-03	7.30E-03	7.00E-03	3.70E-03 J

Sample Identification	SSSL	RNG-203-MW14	
Sample Number		RG3022	
Sample Date		23-Oct-01	
Acetone	mg/L 1.56E-01	2.50E-03 J	
p-Cymene	mg/L 2.26E-01	4.60E-04 J	
Benzene	mg/L 1.41E-03	2.20E-04 J	

Sample Identification	SSSL	RG3021	RG3032	RG3046	SM3014
Sample Number					
Sample Date		09-Oct-01	17-Jan-02	22-Oct-02	07-Aug-03
1,1,2,2-Tetrachloroethane	mg/L 2.04E-04	6.10E-03	4.30E-03	5.40E-03	ND
1,1,2-Trichloroethane	mg/L 7.16E-04	2.80E-04 J	3.80E-04 J	ND	ND
1,1-Dichloroethane	mg/L 9.36E-05	ND	2.10E-04 J	ND	ND
Chloroform	mg/L 1.15E-03	ND	ND	6.20E-04 J	ND
Cis-1,2-Dichloroethene	mg/L 1.55E-02	2.90E-04 J	2.70E-04 J	2.50E-04 J	ND
Trichloroethene	mg/L 4.51E-03	5.90E-02	5.40E-02	4.60E-02	4.20E-03

Sample Identification	SSSL	RG3001	RG3007	RG3024	RG3033	SM3001
Sample Number						
Sample Date		01-June-00	26-Sept-01	14-Jan-02	08-Oct-02	11-Aug-03
1,1,2,2-Tetrachloroethane	mg/L 2.04E-04	1.00E-01 J	2.60E-02	2.40E-02	1.40E-02	1.60E-03
1,1,2-Trichloroethane	mg/L 7.16E-04	ND	5.30E-03	2.30E-03	1.70E-03	3.50E-04 J
1,2-Dichloroethane	mg/L 4.48E-04	ND	ND	3.90E-04 J	ND	2.20E-04 J
Cis-1,2-Dichloroethene	mg/L 1.55E-02	3.80E+00	1.50E-01	2.10E-01	1.30E-01	1.00E-01
Tetrachloroethene	mg/L 1.26E-03	ND	1.30E-03 J	8.10E-04 J	7.00E-04 J	4.00E-04 J
Trans-1,2-Dichloroethene	mg/L 3.07E-02	1.20E+00	5.20E-02	5.70E-02	3.80E-02	3.20E-02
Trichloroethene	mg/L 4.51E-03	ND	5.40E-03	6.10E-03	3.10E-03	1.80E-03
Vinyl chloride	mg/L 3.20E-05	4.30E-02 J	2.00E-03 J	8.80E-04 J	ND	1.90E-03

Sample Identification	SSSL	RNG-203-MW22	
Sample Number		SM3024	
Sample Date		25-Sep-03	
1,1,2,2-Tetrachloroethane	mg/L 2.04E-04	3.40E-03	
1,2,4-Trimethylbenzene	mg/L 6.00E-03	3.10E-04 J	
1,2-Dimethylbenzene	mg/L 2.80E+00	5.60E-04 J	
1,3,5-Trimethylbenzene	mg/L 6.00E-03	2.80E-04 J	
Benzene	mg/L 1.41E-03	1.90E-03	
Chloroform	mg/L 1.15E-03	7.10E-04 J	
Ethylbenzene	mg/L 1.40E-01	4.40E-04 J	
m,p-Xylenes	mg/L 2.80E+00	2.50E-03	
Toluene	mg/L 2.59E-01	1.30E-03	
Trichloroethene	mg/L 4.51E-03	1.10E-02	

Sample Identification	SSSL	RNG-203-MW21	
Sample Number		SM3023	
Sample Date		25-Aug-03	
Chloroform	mg/L 1.15E-03	6.00E-03	

Sample Identification	SSSL	RNG-203-MW20	
Sample Number		RG3054	SM3022
Sample Date		08-Oct-02	11-Sep-03
1,1,2,2-Tetrachloroethane	mg/L 2.04E-04	2.10E-01	3.10E-01
1,1,2-Trichloroethane	mg/L 7.16E-04	7.10E-04 J	7.40E-04 J
1,1-Dichloroethane	mg/L 9.36E-05	3.70E-04 J	2.20E-04 J
1,2-Dichloroethane	mg/L 4.48E-04	ND	4.30E-04 J
Chloroform	mg/L 1.15E-03	1.90E-02	1.30E-02
Cis-1,2-Dichloroethene	mg/L 1.55E-02	1.20E-03	8.30E-04 J
Tetrachloroethene	mg/L 1.26E-03	4.10E-03	3.30E-03
Trans-1,2-Dichloroethene	mg/L 3.07E-02	2.80E-04 J	2.00E-04 J
Trichloroethene	mg/L 4.51E-03	3.80E-01	3.00E-01

Sample Identification	SSSL	RNG-203-MW18	
Sample Number		RG3052	SM3020
Sample Date		07-Oct-02	15-Aug-03
1,1,2,2-Tetrachloroethane	mg/L 2.04E-04	2.60E-01	1.70E-01
1,1,2-Trichloroethane	mg/L 7.16E-04	1.10E-03	8.60E-04 J
1,1-Dichloroethane	mg/L 9.36E-05	3.00E-04 J	ND
1,2-Dichloroethane	mg/L 4.48E-04	8.10E-04 J	ND
Chloroform	mg/L 1.15E-03	3.10E-02	1.30E-02
Cis-1,2-Dichloroethene	mg/L 1.55E-02	1.00E-03 J	7.50E-04 J
Tetrachloroethene	mg/L 1.26E-03	7.50E-03	3.30E-03
Trans-1,2-Dichloroethene	mg/L 3.07E-02	2.50E-04 J	ND
Trichloroethene	mg/L 4.51E-03	4.70E-01	2.90E-01 J

Sample Identification	SSSL	RNG-203-MW24	
Sample Number		SM3027	
Sample Date		24-Sep-03	
Carbon disulfide	mg/L 1.51E-01	5.10E-04 J	
Chloroform	mg/L 1.15E-03	2.20E-04 J	
m,p-Xylenes	mg/L 2.80E+00	4.20E-04 J	
Toluene	mg/L 2.59E-01	6.60E-04 J	
Trichloroethene	mg/L 4.51E-03	2.40E-04 J	

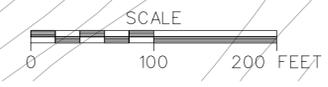
Sample Identification	SSSL	RNG-203-MW23	
Sample Number		SM3025	
Sample Date		10-Oct-03	
Carbon disulfide	mg/L 1.51E-01	6.20E-04 J	

**NOTES:**

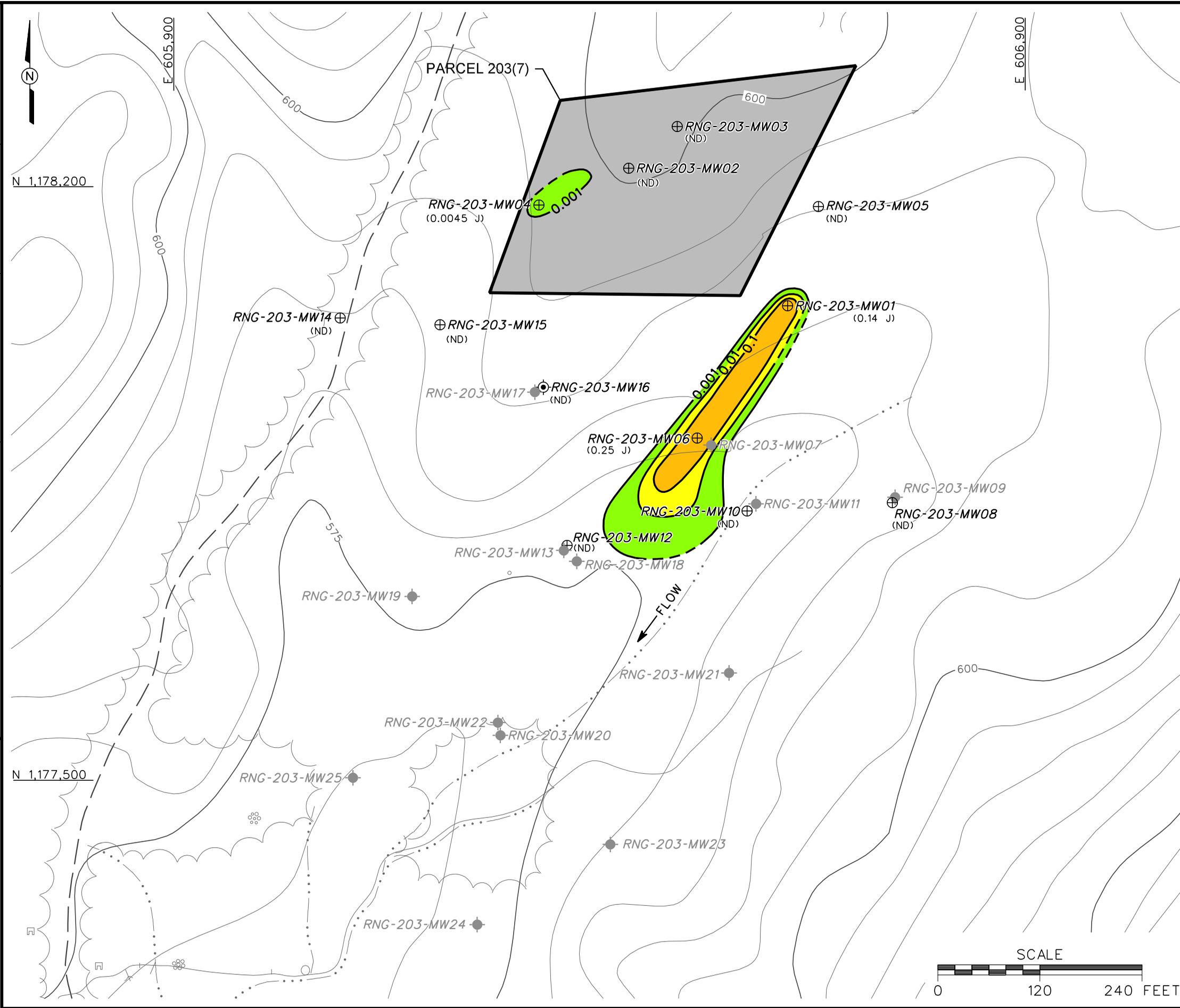
1. TOPOGRAPHIC DATA SUPPLIED BY USACE AND IS NOT CONFIRMED BY FIELD SURVEY.
2. "B"-FLAGGED DATA NOT SHOWN.

**FIGURE 4-1**  
 VOCs DETECTED IN GROUNDWATER RANGE K FORMER AGENT TRAINING AREA PARCEL 203(7)

U. S. ARMY CORPS OF ENGINEERS  
 MOBILE DISTRICT  
 FORT McCLELLAN  
 CALHOUN COUNTY, ALABAMA  
 Contract No. DACA21-96-D-0018



DWG. NO.: 774645a.045  
 PROJ. NO.: 774645  
 INITIATOR: B. HEDBERG  
 PROJ. MGR.: J. YACOB  
 DRAFT. CHK. BY:  
 ENGR. CHK. BY: S. MORAN  
 DATE LAST REV.:  
 DRAWN BY:  
 STARTING DATE: 02/25/04  
 DRAWN BY: D. BOWAR  
 8/21/2004  
 11:10:10 AM  
 N 1,178,200  
 E 605,900  
 N 1,177,500  
 E 606,900  
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 c:\cadd\design\774645a.045



**LEGEND**

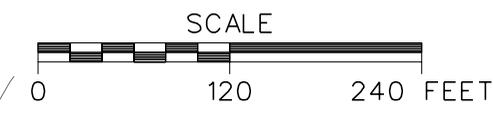
- UNIMPROVED ROAD
- 800 TOPOGRAPHIC CONTOUR (CONTOUR INTERVAL - 5 FOOT)
- Trees / TREELINE
- ▭ PARCEL BOUNDARY
- SURFACE DRAINAGE / CREEK
- ⊙ RESIDUUM/BEDROCK MONITORING WELL LOCATION
- ⊕ RESIDUUM MONITORING WELL LOCATION
- BEDROCK MONITORING WELL LOCATION
- (0.14 J) TOTAL CHLORINATED VOC CONCENTRATION (mg/L)
- 0.1 CONCENTRATION IN MILLIGRAMS PER LITER (mg/L) (DASHED WHERE INFERRED)
- ND NOT DETECTED
- J COMPOUND WAS POSITIVELY IDENTIFIED; REPORTED VALUE IS AN ESTIMATED CONCENTRATION
- mg/L MILLIGRAMS PER LITER

**NOTE:**

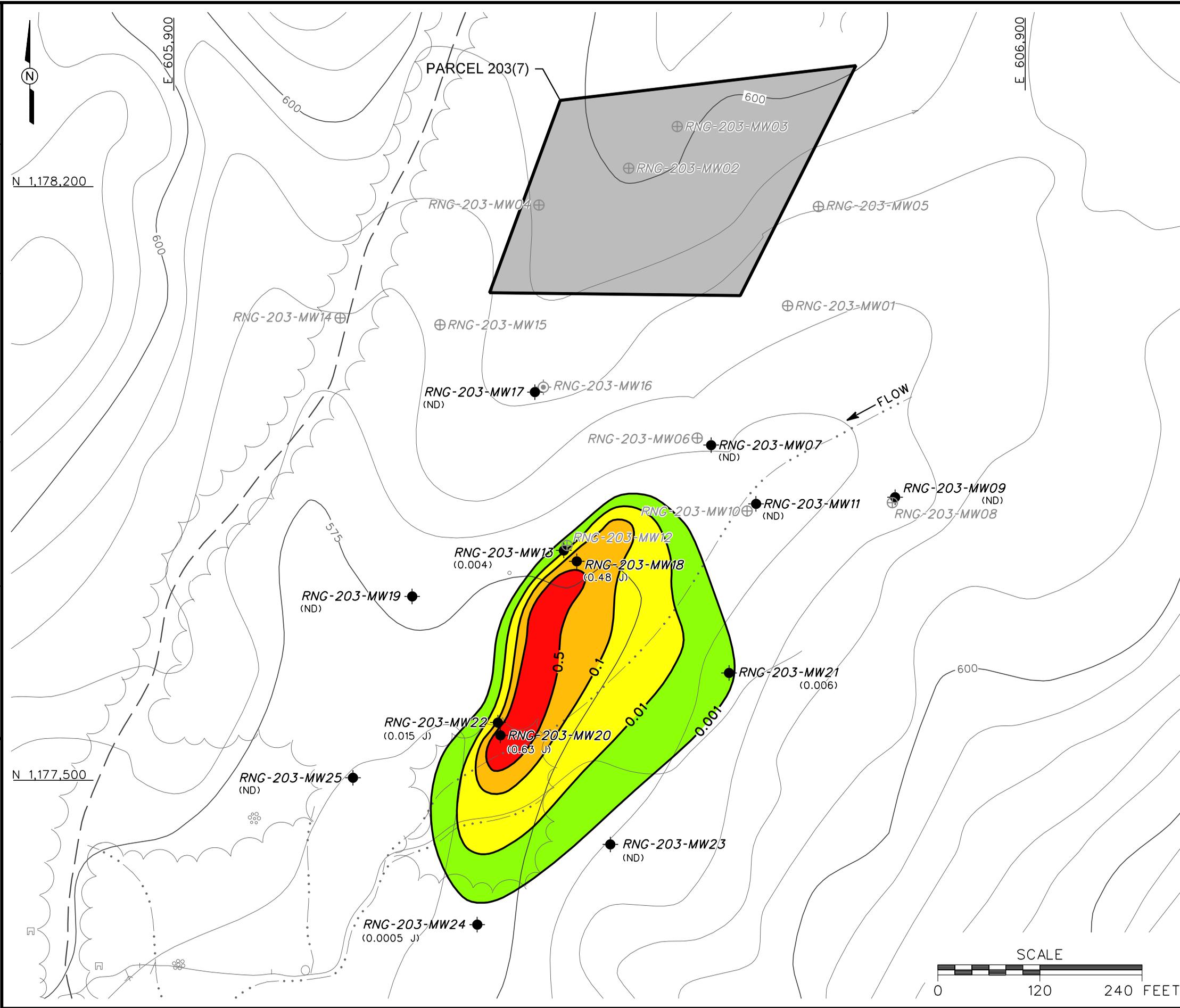
1. COMMON LABORATORY CONTAMINANTS METHYLENE CHLORIDE, ACETONE AND ANY OTHER "B"-QUALIFIED DATA EXCLUDED.

**FIGURE 4-2**  
**TOTAL CHLORINATED VOCs**  
**ISOPLETH MAP**  
**RESIDUUM WELLS (2003)**  
**RANGE K**  
**FORMER AGENT TRAINING AREA**  
**PARCEL 203(7)**

U. S. ARMY CORPS OF ENGINEERS  
 MOBILE DISTRICT  
 FORT McCLELLAN  
 CALHOUN COUNTY, ALABAMA  
 Contract No. DACA21-96-D-0018



DWG. NO.: \774645a.04  
 PROJ. NO.: 774645  
 INITIATOR: B. HEDBERG  
 PROJ. MGR.: J. YACOUB  
 DRAFT. CHK. BY:  
 ENGR. CHK. BY: S. MORAN  
 DATE LAST REV.:  
 DRAWN BY:  
 STARTING DATE: 02/25/04  
 DRAWN BY: D. BOWAR  
 8/23/2004 10:36:17 AM  
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- ### LEGEND
- UNIMPROVED ROAD
  - 800 TOPOGRAPHIC CONTOUR (CONTOUR INTERVAL - 5 FOOT)
  - Trees / TREELINE
  - ▭ PARCEL BOUNDARY
  - SURFACE DRAINAGE / CREEK
  - ⊕ RESIDUUM/BEDROCK MONITORING WELL LOCATION
  - ⊕ RESIDUUM MONITORING WELL LOCATION
  - BEDROCK MONITORING WELL LOCATION
  - (0.006) TOTAL CHLORINATED VOC CONCENTRATION (mg/L)
  - 0.5 CONCENTRATION IN MILLIGRAMS PER LITER (mg/L)
  - ND NOT DETECTED
  - J COMPOUND WAS POSITIVELY IDENTIFIED; REPORTED VALUE IS AN ESTIMATED CONCENTRATION
  - mg/L MILLIGRAMS PER LITER

**NOTE:**

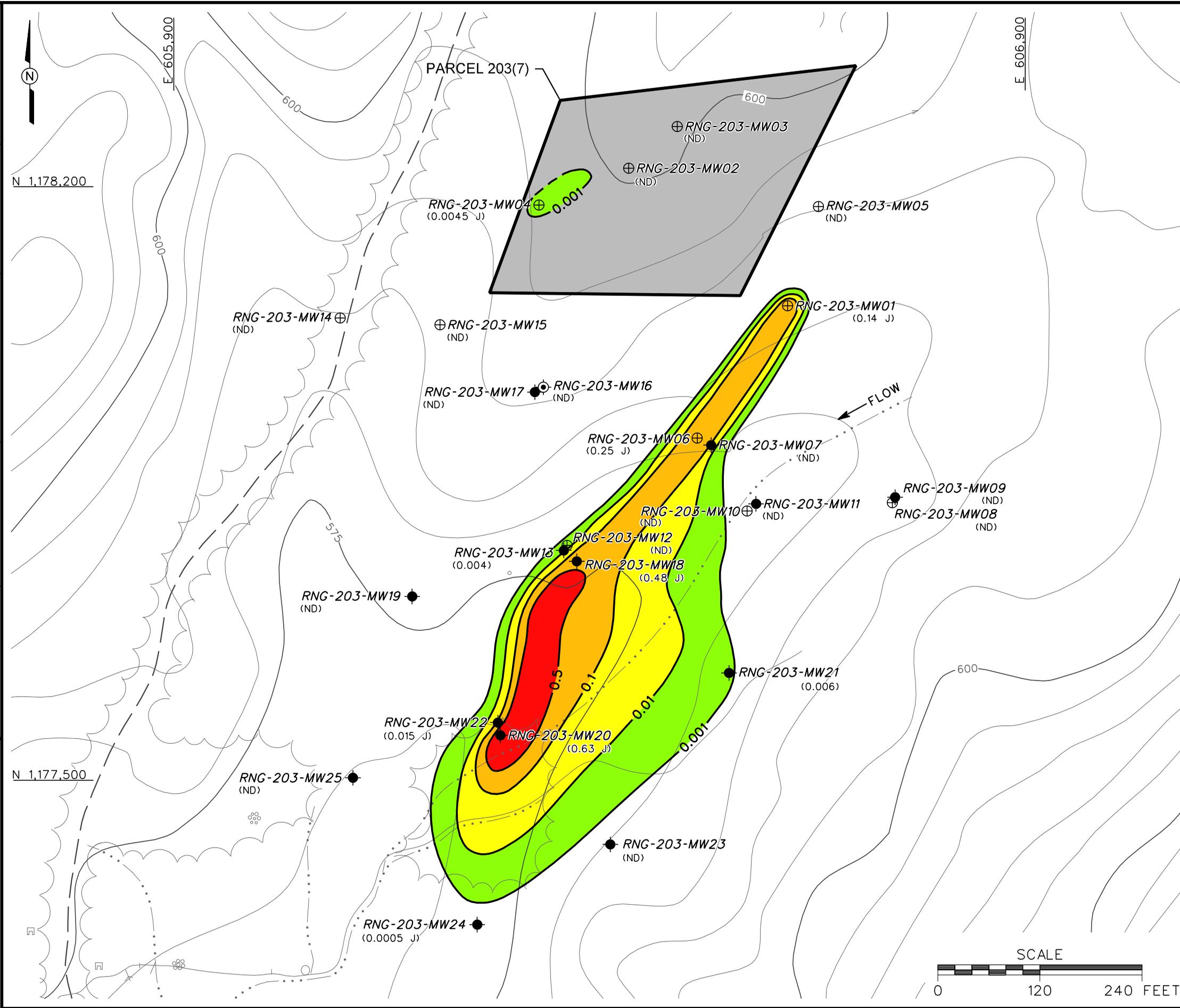
- COMMON LABORATORY CONTAMINANTS METHYLENE CHLORIDE, ACETONE AND ANY OTHER "B"-QUALIFIED DATA EXCLUDED.

**FIGURE 4-3**  
**TOTAL CHLORINATED VOCs**  
**ISOPLETH MAP**  
**BEDROCK WELLS (2003)**  
**RANGE K**  
**FORMER AGENT TRAINING AREA**  
**PARCEL 203(7)**

U. S. ARMY CORPS OF ENGINEERS  
 MOBILE DISTRICT  
 FORT McCLELLAN  
 CALHOUN COUNTY, ALABAMA  
 Contract No. DACA21-96-D-0018



DWG. NO.: 774645a.047  
 PROJ. NO.: 774645  
 INITIATOR: B. HEDBERG  
 PROJ. MGR.: J. YACOUB  
 DRAFT. CHK. BY:  
 ENGR. CHK. BY: S. MORAN  
 DATE LAST REV.:  
 DRAWN BY:  
 STARTING DATE: 02/25/04  
 DRAWN BY: D. BOWAR  
 8/21/2004  
 11:07:37 AM  
 c:\cadd\design\774645a.047



**LEGEND**

- UNIMPROVED ROAD
- 800 TOPOGRAPHIC CONTOUR (CONTOUR INTERVAL - 5 FOOT)
- TREES / TREELINE
- ▭ PARCEL BOUNDARY
- SURFACE DRAINAGE / CREEK
- ⊕ RESIDUUM/BEDROCK MONITORING WELL LOCATION
- ⊕ RESIDUUM MONITORING WELL LOCATION
- ⊕• BEDROCK MONITORING WELL LOCATION
- (0.63 J) TOTAL CHLORINATED VOC CONCENTRATION (mg/L)
- 0.5 CONCENTRATION IN MILLIGRAMS PER LITER (mg/L) (DASHED WHERE INFERRED)
- ND NOT DETECTED
- J COMPOUND WAS POSITIVELY IDENTIFIED; REPORTED VALUE IS AN ESTIMATED CONCENTRATION
- mg/L MILLIGRAMS PER LITER

**NOTE:**

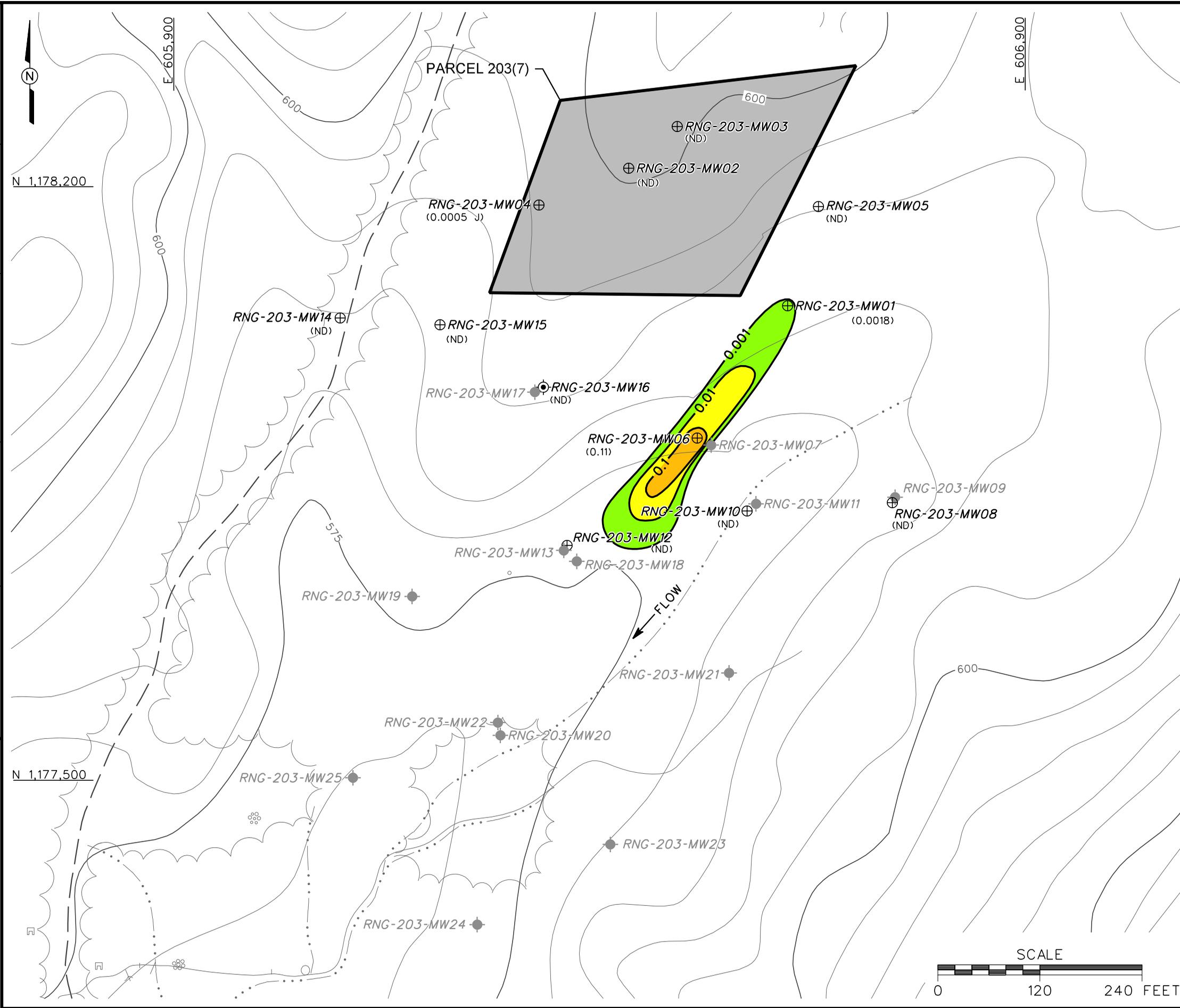
1. COMMON LABORATORY CONTAMINANTS METHYLENE CHLORIDE, ACETONE AND ANY OTHER "B"-QUALIFIED DATA EXCLUDED.

**FIGURE 4-4**  
 TOTAL CHLORINATED VOCs  
 ISOPLETH MAP  
 RESIDUUM AND BEDROCK  
 WELLS (2003)  
 RANGE K  
 FORMER AGENT TRAINING AREA  
 PARCEL 203(7)

U. S. ARMY CORPS OF ENGINEERS  
 MOBILE DISTRICT  
 FORT McCLELLAN  
 CALHOUN COUNTY, ALABAMA  
 Contract No. DACA21-96-D-0018



DWG. NO.: 774645a.04  
 PROJ. NO.: 774645  
 INITIATOR: B. HEDBERG  
 PROJ. MGR.: J. YACOUB  
 DRAFT. CHK. BY:  
 ENGR. CHK. BY: S. MORAN  
 DATE LAST REV.:  
 DRAWN BY:  
 STARTING DATE: 02/27/04  
 DRAWN BY: D. BOWAR  
 8/21/2004 11:13:21 AM  
 dbomar  
 c:\cadd\design\774645a.048



**LEGEND**

- UNIMPROVED ROAD
- 600 TOPOGRAPHIC CONTOUR (CONTOUR INTERVAL - 5 FOOT)
- Trees / TREELINE
- ▭ PARCEL BOUNDARY
- SURFACE DRAINAGE / CREEK
- ⊕ RESIDUUM/BEDROCK MONITORING WELL LOCATION
- ⊕ RESIDUUM MONITORING WELL LOCATION
- BEDROCK MONITORING WELL LOCATION
- (0.0018) TRICHLOROETHENE CONCENTRATION (mg/L)
- 0.1 CONCENTRATION IN MILLIGRAMS PER LITER (mg/L)
- ND NOT DETECTED
- J COMPOUND WAS POSITIVELY IDENTIFIED; REPORTED VALUE IS AN ESTIMATED CONCENTRATION
- mg/L MILLIGRAMS PER LITER

**NOTE:**

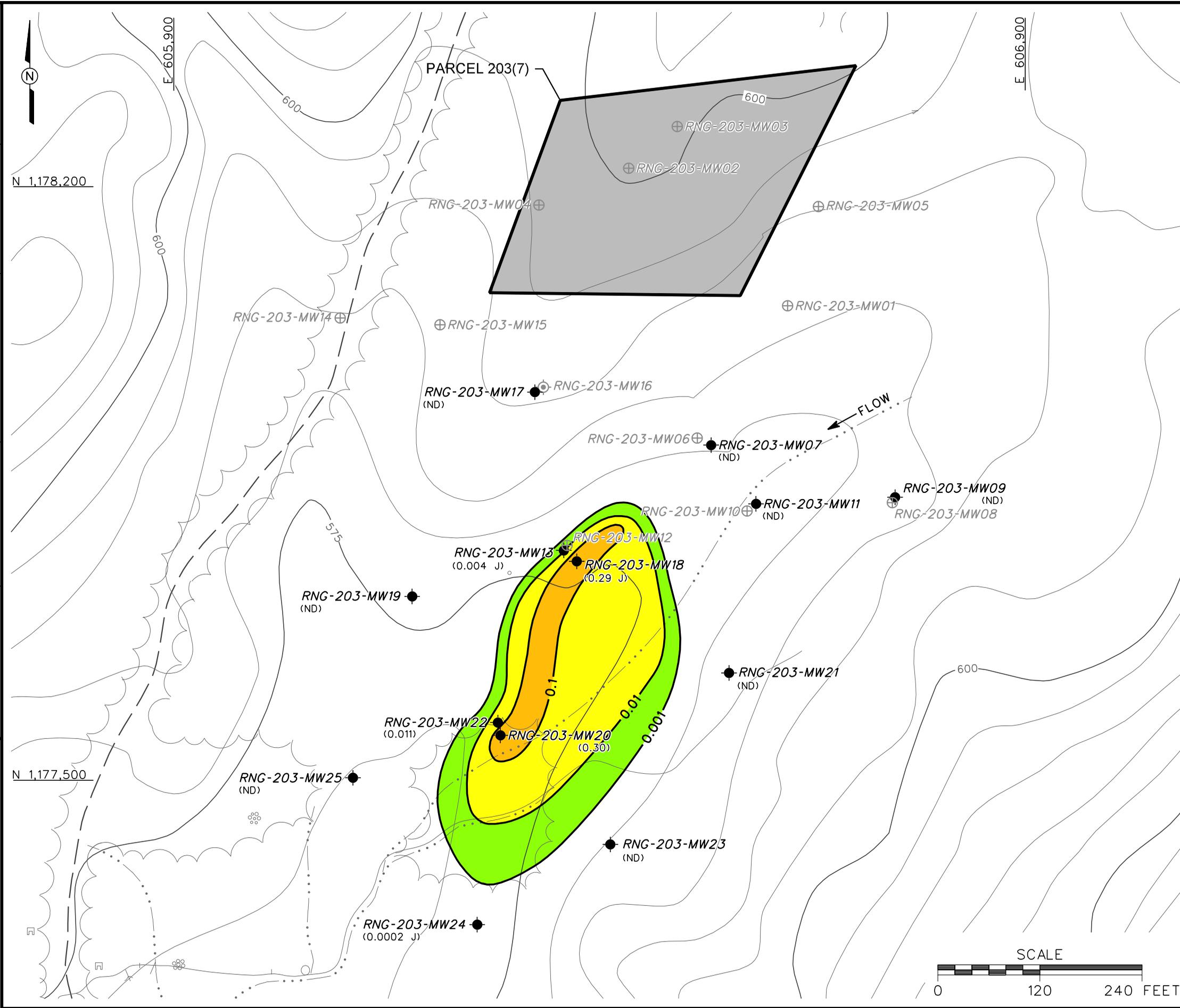
1. COMMON LABORATORY CONTAMINANTS METHYLENE CHLORIDE, ACETONE AND ANY OTHER "B"-QUALIFIED DATA EXCLUDED.

**FIGURE 4-5**  
**TRICHLOROETHENE ISOPLETH MAP**  
**RESIDUUM WELLS (2003)**  
**RANGE K**  
**FORMER AGENT TRAINING AREA**  
**PARCEL 203(7)**

U. S. ARMY CORPS OF ENGINEERS  
 MOBILE DISTRICT  
 FORT McCLELLAN  
 CALHOUN COUNTY, ALABAMA  
 Contract No. DACA21-96-D-0018



DWG. NO.: \774645a.04  
 PROJ. NO.: 774645  
 INITIATOR: B. HEDBERG  
 PROJ. MGR.: J. YACOUB  
 DRAFT. CHK. BY:  
 ENGR. CHK. BY: S. MORAN  
 DATE LAST REV.:  
 DRAWN BY:  
 STARTING DATE: 02/27/04  
 DRAWN BY: D. BOWAR  
 8/21/2004  
 11:22:13 AM  
 N 1,178,200  
 N 1,177,500  
 dbomar  
 c:\cadd\design\774645a.049



**LEGEND**

- UNIMPROVED ROAD
- 800 TOPOGRAPHIC CONTOUR (CONTOUR INTERVAL - 5 FOOT)
- Trees / TREELINE
- ▭ PARCEL BOUNDARY
- SURFACE DRAINAGE / CREEK
- ⊕ RESIDUUM/BEDROCK MONITORING WELL LOCATION
- ⊕ RESIDUUM MONITORING WELL LOCATION
- BEDROCK MONITORING WELL LOCATION
- (0.30) TRICHLOROETHENE CONCENTRATION (mg/L)
- 0.1 CONCENTRATION IN MILLIGRAMS PER LITER (mg/L)
- ND NOT DETECTED
- J COMPOUND WAS POSITIVELY IDENTIFIED; REPORTED VALUE IS AN ESTIMATED CONCENTRATION
- mg/L MILLIGRAMS PER LITER

**NOTE:**

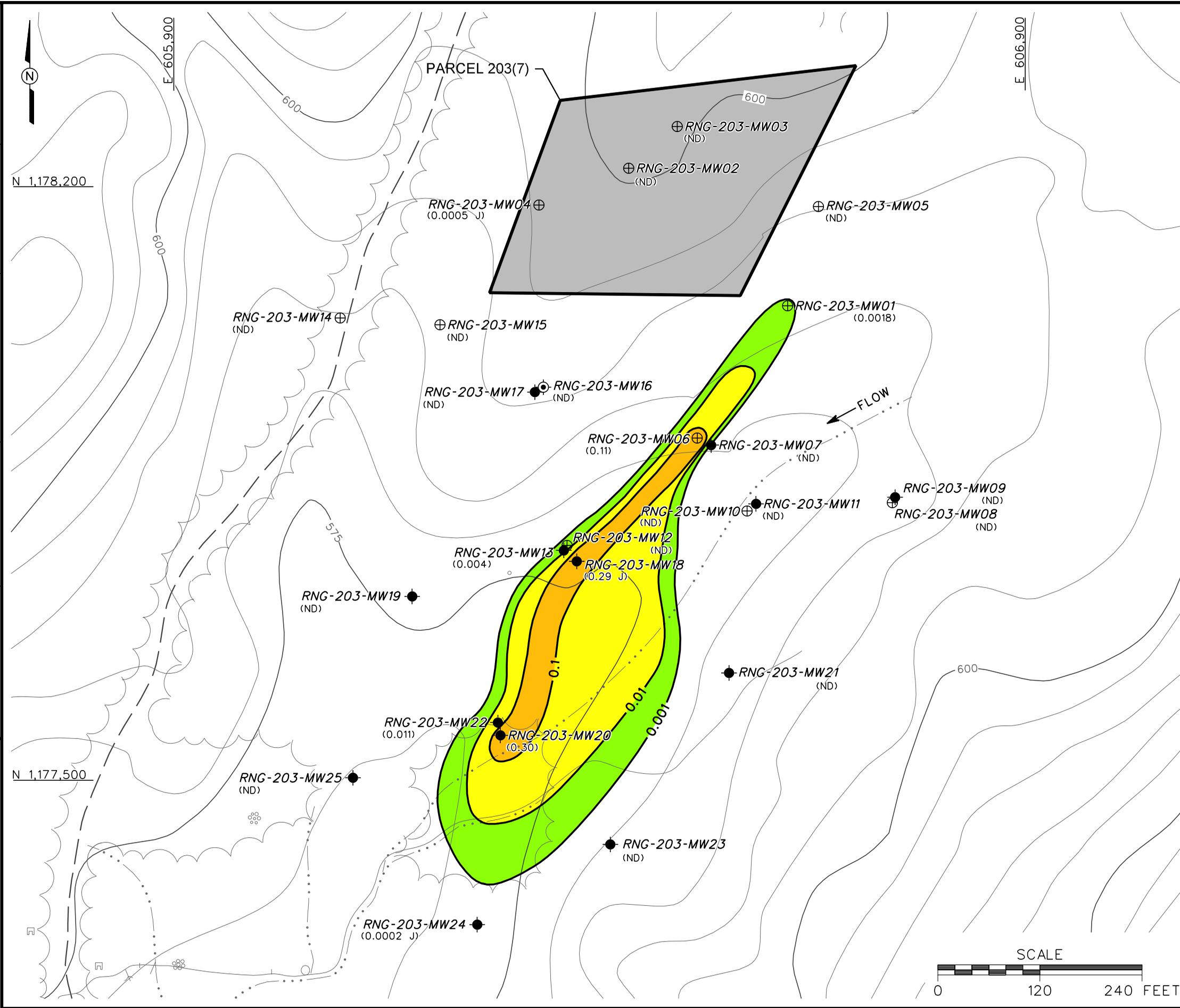
1. COMMON LABORATORY CONTAMINANTS METHYLENE CHLORIDE, ACETONE AND ANY OTHER "B"-QUALIFIED DATA EXCLUDED.

**FIGURE 4-6**  
**TRICHLOROETHENE ISOPLETH MAP**  
**BEDROCK WELLS (2003)**  
**RANGE K**  
**FORMER AGENT TRAINING AREA**  
**PARCEL 203(7)**

U. S. ARMY CORPS OF ENGINEERS  
 MOBILE DISTRICT  
 FORT McCLELLAN  
 CALHOUN COUNTY, ALABAMA  
 Contract No. DACA21-96-D-0018



DWG. NO.: \774645a.050  
 PROJ. NO.: 774645  
 INITIATOR: B. HEDBERG  
 PROJ. MGR.: J. YACOUB  
 DRAFT. CHK. BY:  
 ENGR. CHK. BY: S. MORAN  
 DATE LAST REV.:  
 DRAWN BY:  
 STARTING DATE: 03/01/04  
 DRAWN BY: D. BOWAR  
 8/21/2004  
 11:39:10 AM  
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 E 605,900  
 E 606,900  
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**LEGEND**

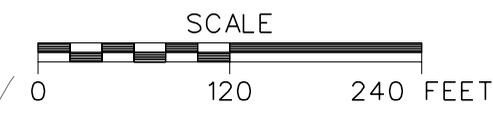
- UNIMPROVED ROAD
- 800 TOPOGRAPHIC CONTOUR (CONTOUR INTERVAL - 5 FOOT)
- Trees / TREELINE
- ▭ PARCEL BOUNDARY
- SURFACE DRAINAGE / CREEK
- ⊕ RESIDUUM/BEDROCK MONITORING WELL LOCATION
- ⊕ RESIDUUM MONITORING WELL LOCATION
- BEDROCK MONITORING WELL LOCATION
- (0.30) TRICHLOROETHENE CONCENTRATION (mg/L)
- 0.1 CONCENTRATION IN MILLIGRAMS PER LITER (mg/L)
- ND NOT DETECTED
- J COMPOUND WAS POSITIVELY IDENTIFIED; REPORTED VALUE IS AN ESTIMATED CONCENTRATION
- mg/L MILLIGRAMS PER LITER

**NOTE:**

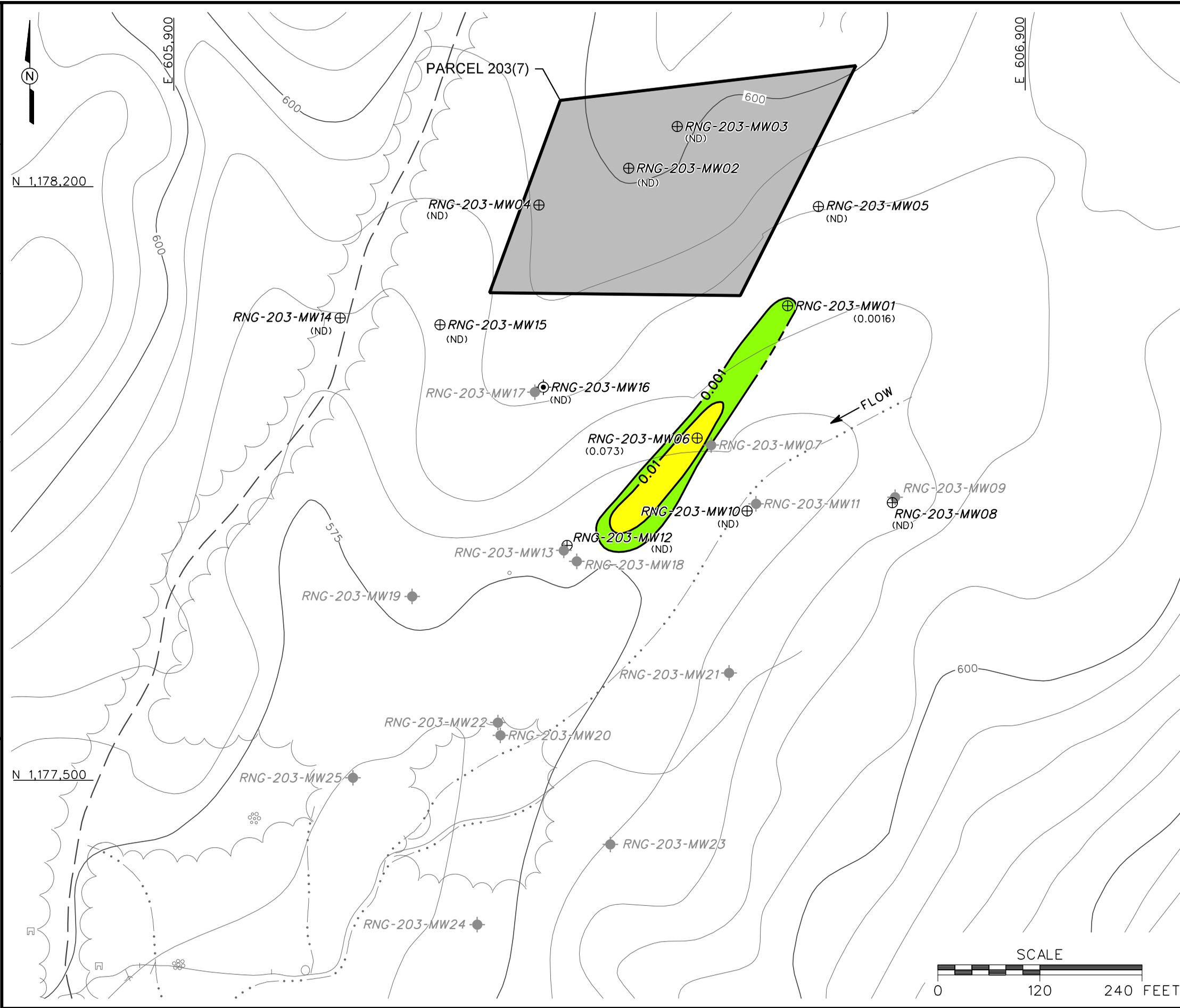
1. COMMON LABORATORY CONTAMINANTS METHYLENE CHLORIDE, ACETONE AND ANY OTHER "B"-QUALIFIED DATA EXCLUDED.

**FIGURE 4-7**  
 TRICHLOROETHENE ISOPLETH MAP  
 RESIDUUM AND BEDROCK  
 WELLS (2003)  
 RANGE K  
 FORMER AGENT TRAINING AREA  
 PARCEL 203(7)

U. S. ARMY CORPS OF ENGINEERS  
 MOBILE DISTRICT  
 FORT McCLELLAN  
 CALHOUN COUNTY, ALABAMA  
 Contract No. DACA21-96-D-0018



DWG. NO.: \774645a.051  
 PROJ. NO.: 774645  
 INITIATOR: B. HEDBERG  
 PROJ. MGR.: J. YACOUB  
 DRAFT. CHK. BY:  
 ENGR. CHK. BY: S. MORAN  
 DATE LAST REV.:  
 DRAWN BY:  
 STARTING DATE: 02/27/04  
 DRAWN BY: D. BOWAR  
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### LEGEND

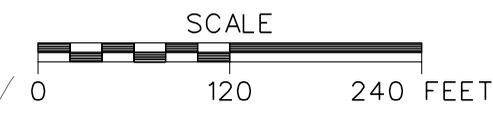
- UNIMPROVED ROAD
- TOPOGRAPHIC CONTOUR (CONTOUR INTERVAL - 5 FOOT)
- TREES / TREELINE
- PARCEL BOUNDARY
- SURFACE DRAINAGE / CREEK
- RESIDUUM/BEDROCK MONITORING WELL LOCATION
- RESIDUUM MONITORING WELL LOCATION
- BEDROCK MONITORING WELL LOCATION
- (0.0016) 1,1,2,2-TETRACHLOROETHANE CONCENTRATION (mg/L)
- (0.01) CONCENTRATION IN MILLIGRAMS PER LITER (mg/L) (DASHED WHERE INFERRED)
- ND NOT DETECTED
- mg/L MILLIGRAMS PER LITER

**NOTE:**

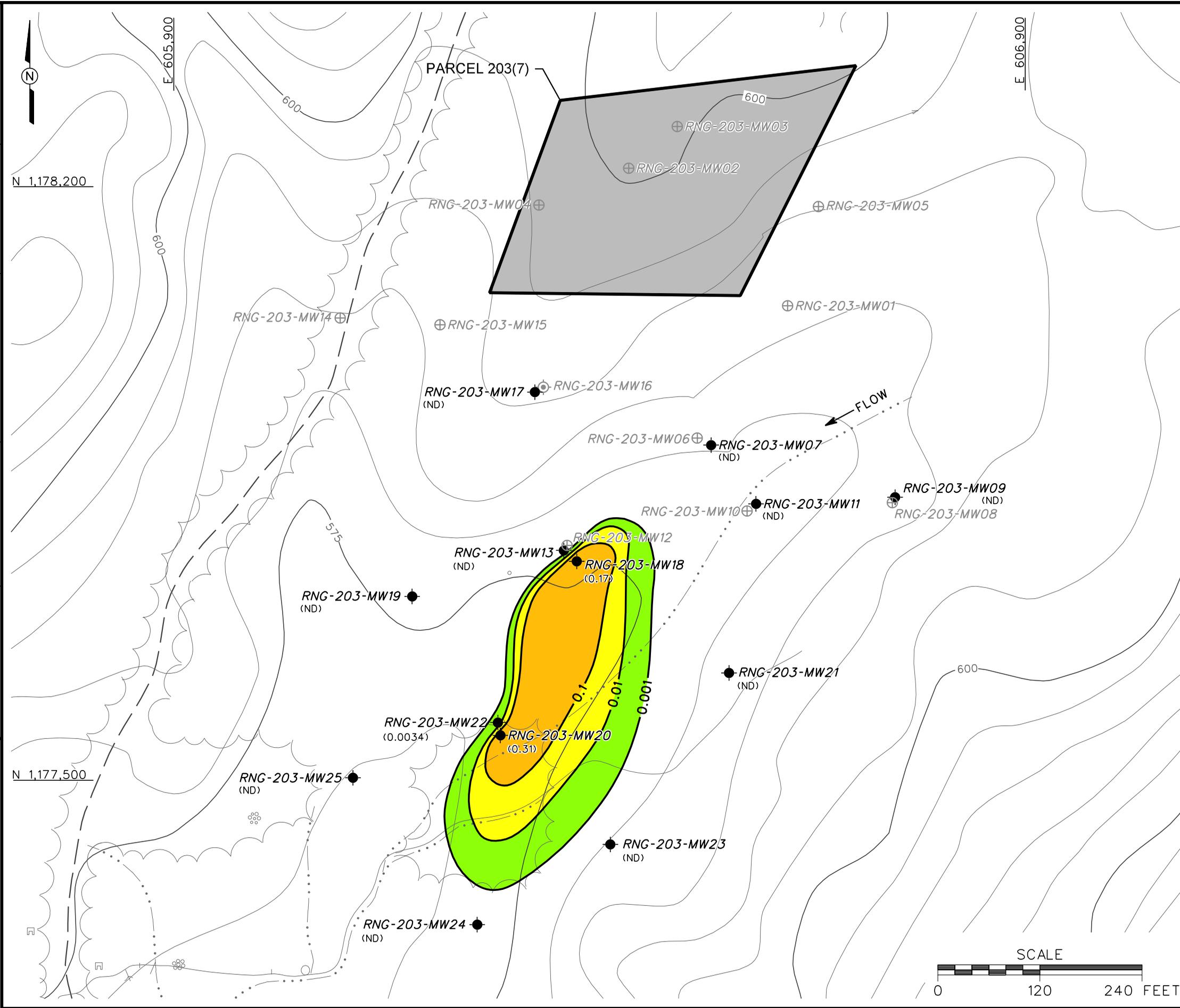
- COMMON LABORATORY CONTAMINANTS METHYLENE CHLORIDE, ACETONE AND ANY OTHER "B"-QUALIFIED DATA EXCLUDED.

**FIGURE 4-8**  
**1,1,2,2-TETRACHLOROETHANE**  
**ISOPLETH MAP**  
**RESIDUUM WELLS (2003)**  
**RANGE K**  
**FORMER AGENT TRAINING AREA**  
**PARCEL 203(7)**

U. S. ARMY CORPS OF ENGINEERS  
 MOBILE DISTRICT  
 FORT McCLELLAN  
 CALHOUN COUNTY, ALABAMA  
 Contract No. DACA21-96-D-0018



DWG. NO.: \774645a.052  
 PROJ. NO.: 774645  
 INITIATOR: B. HEDBERG  
 PROJ. MGR.: J. YACOB  
 DRAFT. CHK. BY:  
 ENGR. CHK. BY: S. MORAN  
 DATE LAST REV.:  
 DRAWN BY:  
 STARTING DATE: 02/27/04  
 DRAWN BY: D. BOWAR  
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- LEGEND**
- UNIMPROVED ROAD
  - 800 TOPOGRAPHIC CONTOUR (CONTOUR INTERVAL - 5 FOOT)
  - Trees / TREELINE
  - ▭ PARCEL BOUNDARY
  - SURFACE DRAINAGE / CREEK
  - ⊕ RESIDUUM/BEDROCK MONITORING WELL LOCATION
  - ⊕ RESIDUUM MONITORING WELL LOCATION
  - BEDROCK MONITORING WELL LOCATION
  - (0.17) 1,1,2,2-TETRACHLOROETHANE CONCENTRATION (mg/L)
  - 0.1 CONCENTRATION IN MILLIGRAMS PER LITER (mg/L)
  - ND NOT DETECTED
  - mg/L MILLIGRAMS PER LITER

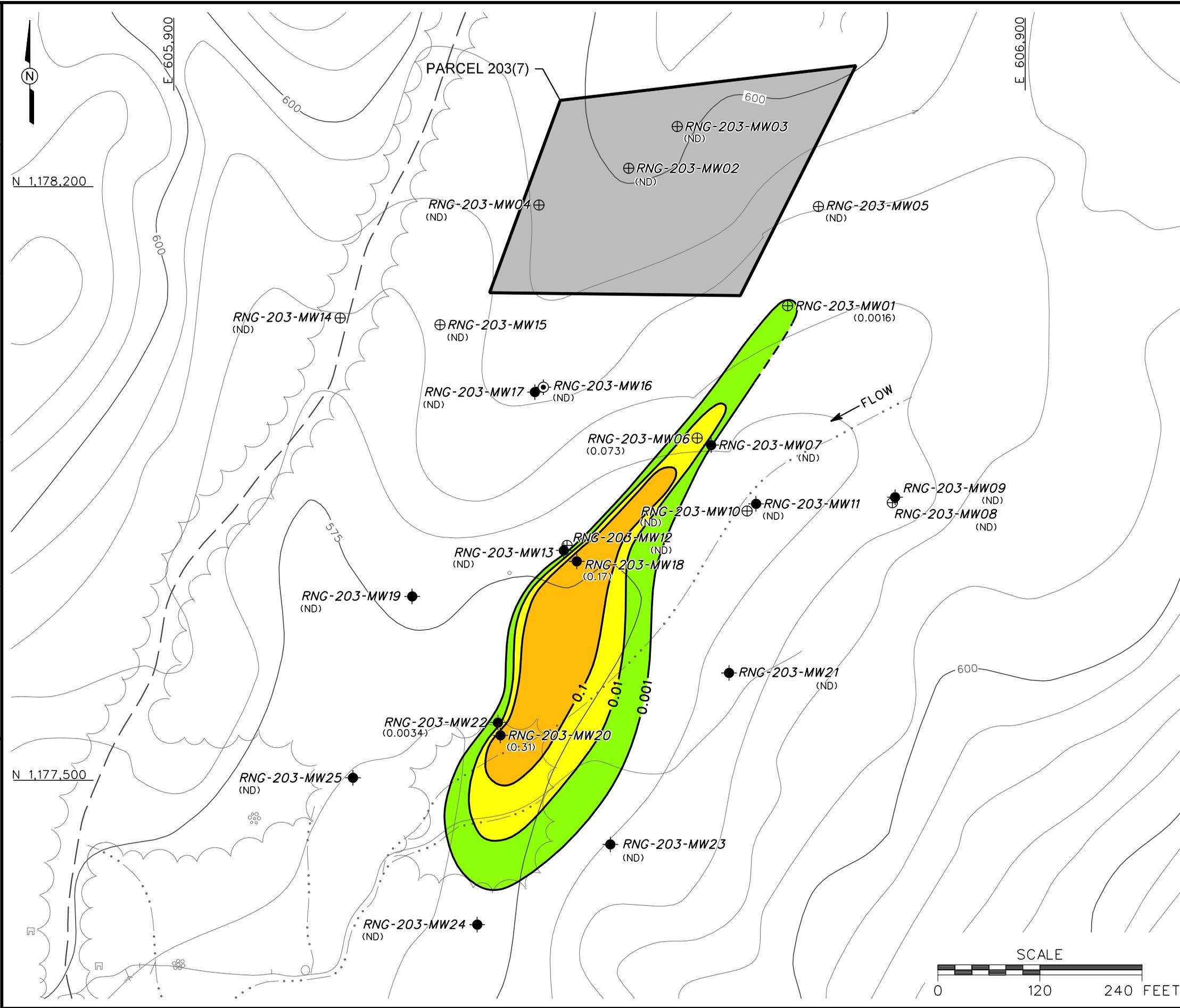
**NOTE:**

1. COMMON LABORATORY CONTAMINANTS METHYLENE CHLORIDE, ACETONE AND ANY OTHER "B"-QUALIFIED DATA EXCLUDED.

**FIGURE 4-9**  
**1,1,2,2-TETRACHLOROETHANE**  
**ISOPLETH MAP**  
**BEDROCK WELLS (2003)**  
**RANGE K**  
**FORMER AGENT TRAINING AREA**  
**PARCEL 203(7)**

U. S. ARMY CORPS OF ENGINEERS  
 MOBILE DISTRICT  
 FORT McCLELLAN  
 CALHOUN COUNTY, ALABAMA  
 Contract No. DACA21-96-D-0018

DWG. NO.: \774645a.053  
 PROJ. NO.: 774645  
 INITIATOR: B. HEDBERG  
 PROJ. MGR.: J. YACOUB  
 DRAFT. CHK. BY:  
 ENGR. CHK. BY: S. MORAN  
 DATE LAST REV.:  
 DRAWN BY:  
 STARTING DATE: 03/01/04  
 DRAWN BY: D. BOWAR  
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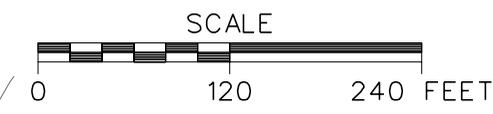
- LEGEND**
- UNIMPROVED ROAD
  - 800 TOPOGRAPHIC CONTOUR (CONTOUR INTERVAL - 5 FOOT)
  - TREES / TREELINE
  - ▭ PARCEL BOUNDARY
  - SURFACE DRAINAGE / CREEK
  - ⊕ RESIDUUM/BEDROCK MONITORING WELL LOCATION
  - ⊕ RESIDUUM MONITORING WELL LOCATION
  - BEDROCK MONITORING WELL LOCATION
  - (0.0016) 1,1,2,2-TETRACHLOROETHANE CONCENTRATION (mg/L)
  - 0.1 CONCENTRATION IN MILLIGRAMS PER LITER (mg/L) (DASHED WHERE INFERRED)
  - ND NOT DETECTED
  - mg/L MILLIGRAMS PER LITER

**NOTE:**

1. COMMON LABORATORY CONTAMINANTS METHYLENE CHLORIDE, ACETONE AND ANY OTHER "B"-QUALIFIED DATA EXCLUDED.

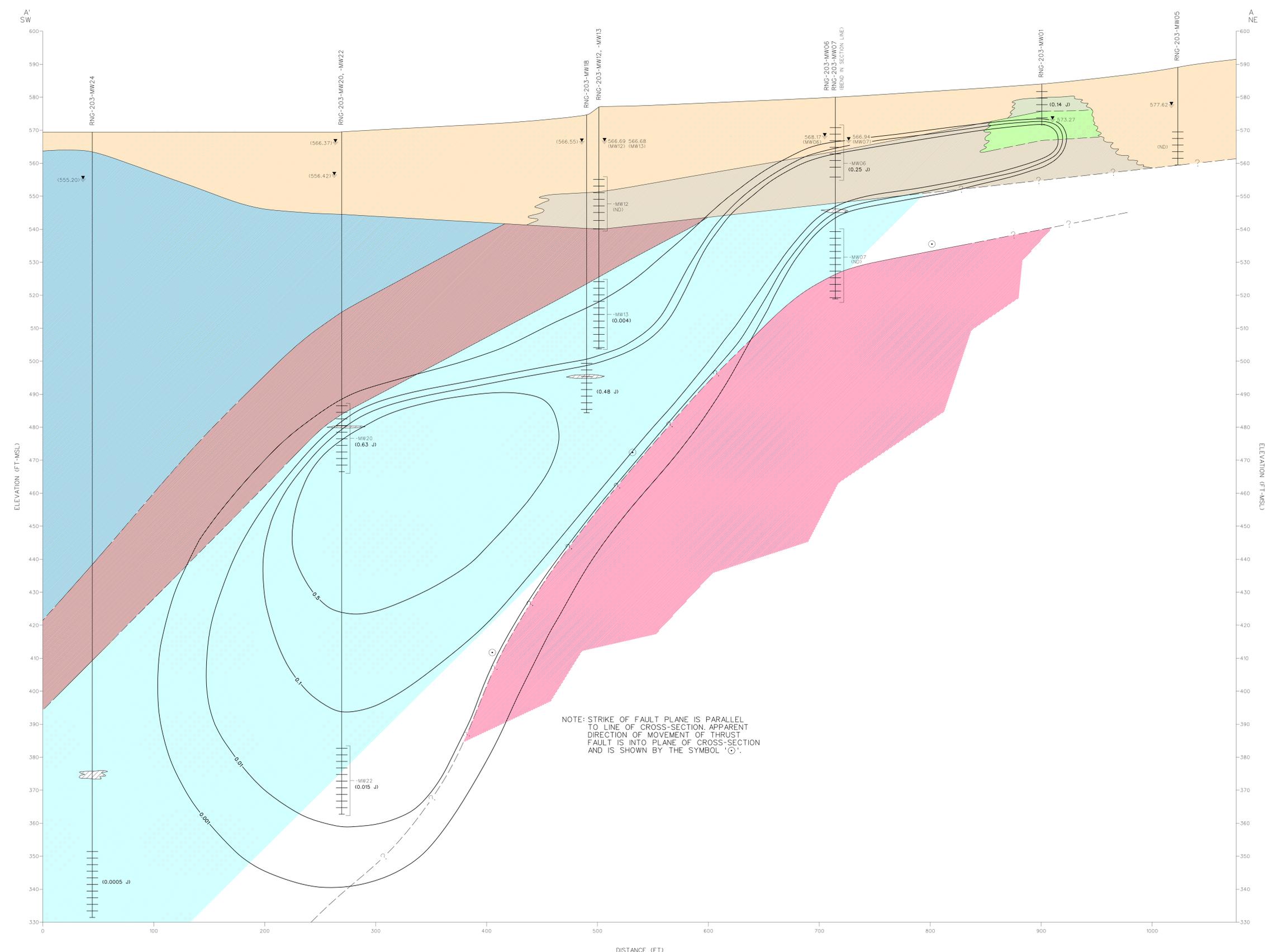
**FIGURE 4-10**  
 1,1,2,2-TETRACHLOROETHANE  
 ISOPLETH MAP  
 RESIDUUM AND BEDROCK  
 WELLS (2003)  
 RANGE K  
 FORMER AGENT TRAINING AREA  
 PARCEL 203(7)

U. S. ARMY CORPS OF ENGINEERS  
 MOBILE DISTRICT  
 FORT McCLELLAN  
 CALHOUN COUNTY, ALABAMA  
 Contract No. DACA21-96-D-0018



STARTING DATE: 04/02/03 DATE LAST REV.: DRAFT CHECK BY: S. MORAN  
 DRAWN BY: D. BOMAR ENGR. CHECK BY: J. YACOB PROJ. NO.: 774645a.04-4

INITIATOR: B. HEDBERG DWG. NO.: 774645a.04-4  
 DRAFT CHECK BY: S. MORAN ENGR. CHECK BY: J. YACOB PROJ. NO.: 774645  
 8/21/2004 10:58:00 AM  
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NOTE: STRIKE OF FAULT PLANE IS PARALLEL TO LINE OF CROSS-SECTION. APPARENT DIRECTION OF MOVEMENT OF THRUST FAULT IS INTO PLANE OF CROSS-SECTION AND IS SHOWN BY THE SYMBOL 'O'.

LEGEND:

- SCREEN INTERVAL
- WATER TABLE
- 556.42 GROUNDWATER ELEVATION (FT MSL) (OCTOBER 13, 2003)
- 0.5 TOTAL CHLORINATED VOC CONCENTRATION IN GROUNDWATER (mg/L)
- (0.004) CONCENTRATION IN MILLIGRAMS PER LITER (mg/L)
- (ND) NOT DETECTED
- J COMPOUND WAS POSITIVELY IDENTIFIED; REPORTED VALUE IS AN ESTIMATED CONCENTRATION
- - ? - - CONTACT DASHED WHERE INFERRED
- VOID
- CLAY
- CLAY WITH WEATHERED SHALE FRAGMENTS
- SILT
- SILT WITH WEATHERED SHALE FRAGMENTS
- SHALE, BLACK, CARBONACEOUS, FRACTURED, CONTORTED, CALCITE VEINS, SLICKENSIDES
- SHALE, AS ABOVE; AND SHALE AND LIMESTONE INTERBEDDED
- LIMESTONE, GRAY-BLACK, MICROCRYSTALLINE, FRACTURED, VOIDS, CALCITE VEINS
- LIMESTONE, LIGHT TO MEDIUM DARK, MICROCRYSTALLINE, FRACTURED, FOSSILIFEROUS IN PART, CALCITE VEINS

- NOTES:
- ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988.
  - CROSS-SECTION LOCATION SHOWN ON FIGURE 3-4.

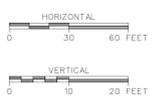
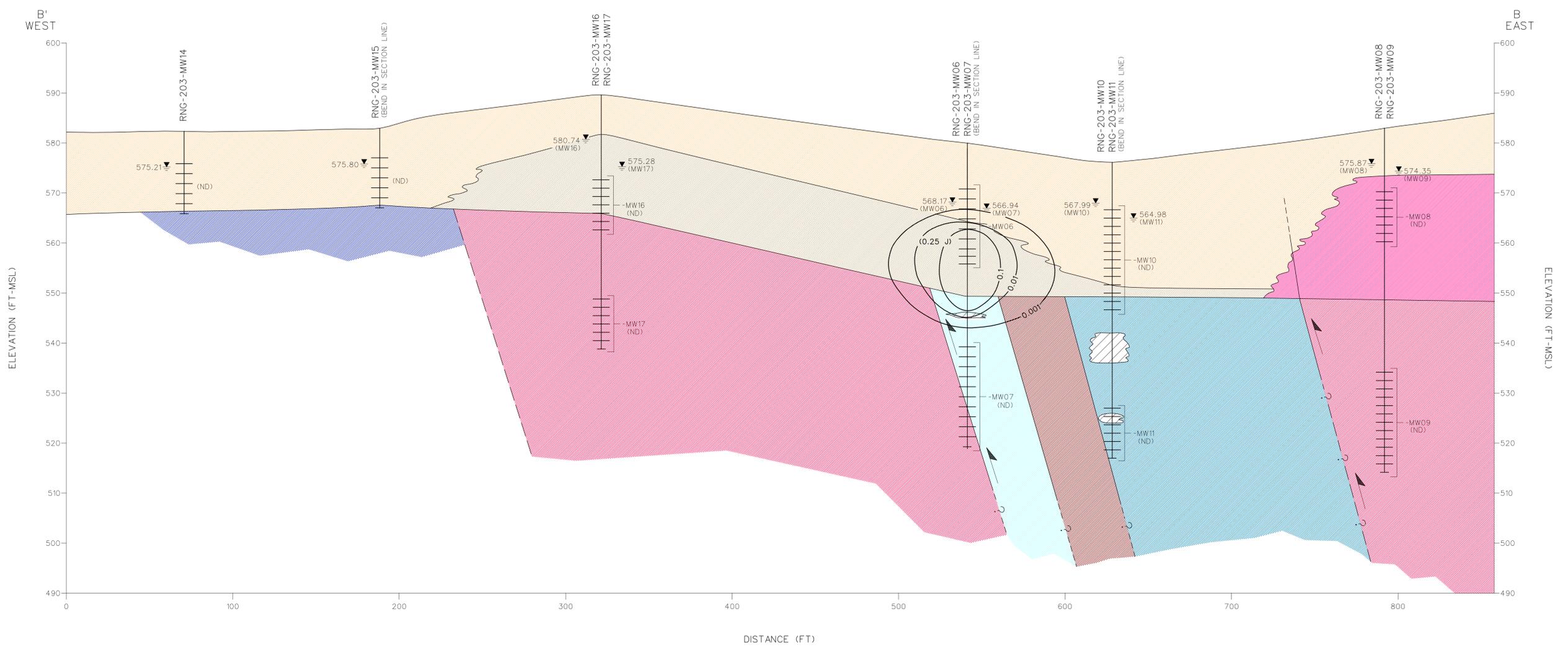


FIGURE 5-1  
 GEOLOGIC CROSS-SECTION A-A'  
 TOTAL CHLORINATED VOCs (2003)  
 RANGE K  
 FORMER AGENT TRAINING AREA  
 PARCEL 203(7)  
 U. S. ARMY CORPS OF ENGINEERS  
 MOBILE DISTRICT  
 FORT MCLELLAN  
 CALHOUN COUNTY, ALABAMA  
 Contract No. DACA21-96-D-0018





**LEGEND:**

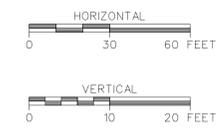
	SCREEN INTERVAL		CLAY
	WATER TABLE		CLAY WITH WEATHERED SHALE FRAGMENTS
575.21	GROUNDWATER ELEVATION (FT MSL) (OCTOBER 13, 2003)		SHALE, HIGHLY WEATHERED WITH INTERBEDS OF SANDSTONE, SHALE AND LIMESTONE
	TOTAL CHLORINATED VOC CONCENTRATION IN GROUNDWATER (mg/L)		SHALE, BLACK, CARBONACEOUS, FRACTURED CONTORTED, CALCITE VEINS, SLICKENSIDES
(0.25)	CONCENTRATION IN MILLIGRAMS PER LITER (mg/L)		SHALE, AS ABOVE; AND SHALE AND LIMESTONE INTERBEDDED
(ND)	NOT DETECTED		LIMESTONE, GRAY-BLACK, MICROCRYSTALLINE, FRACTURED, VOIDS, CALCITE VEINS
J	COMPOUND WAS POSITIVELY IDENTIFIED; REPORTED VALUE IS AN ESTIMATED CONCENTRATION		LIMESTONE, LIGHT TO DARK GRAY, MICROCRYSTALLINE, FRACTURED, FOSSILIFEROUS IN PART, CALCITE VEINS
- - ? - -	CONTACT DASHED WHERE INFERRED		LIMESTONE, BLACK
	RELATIVE MOVEMENT OF THRUST FAULT		
	VOID		

**NOTES:**

- ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988.
- CROSS-SECTION LOCATION SHOWN ON FIGURE 3-4.

**FIGURE 5-2**  
 GEOLOGIC CROSS-SECTION B-B'  
 TOTAL CHLORINATED VOCs (2003)  
 RANGE K  
 FORMER AGENT TRAINING AREA  
 PARCEL 203(7)

U. S. ARMY CORPS OF ENGINEERS  
 MOBILE DISTRICT  
 FORT McLELLAN  
 CALHOUN COUNTY, ALABAMA  
 Contract No. DACA21-96-D-0018



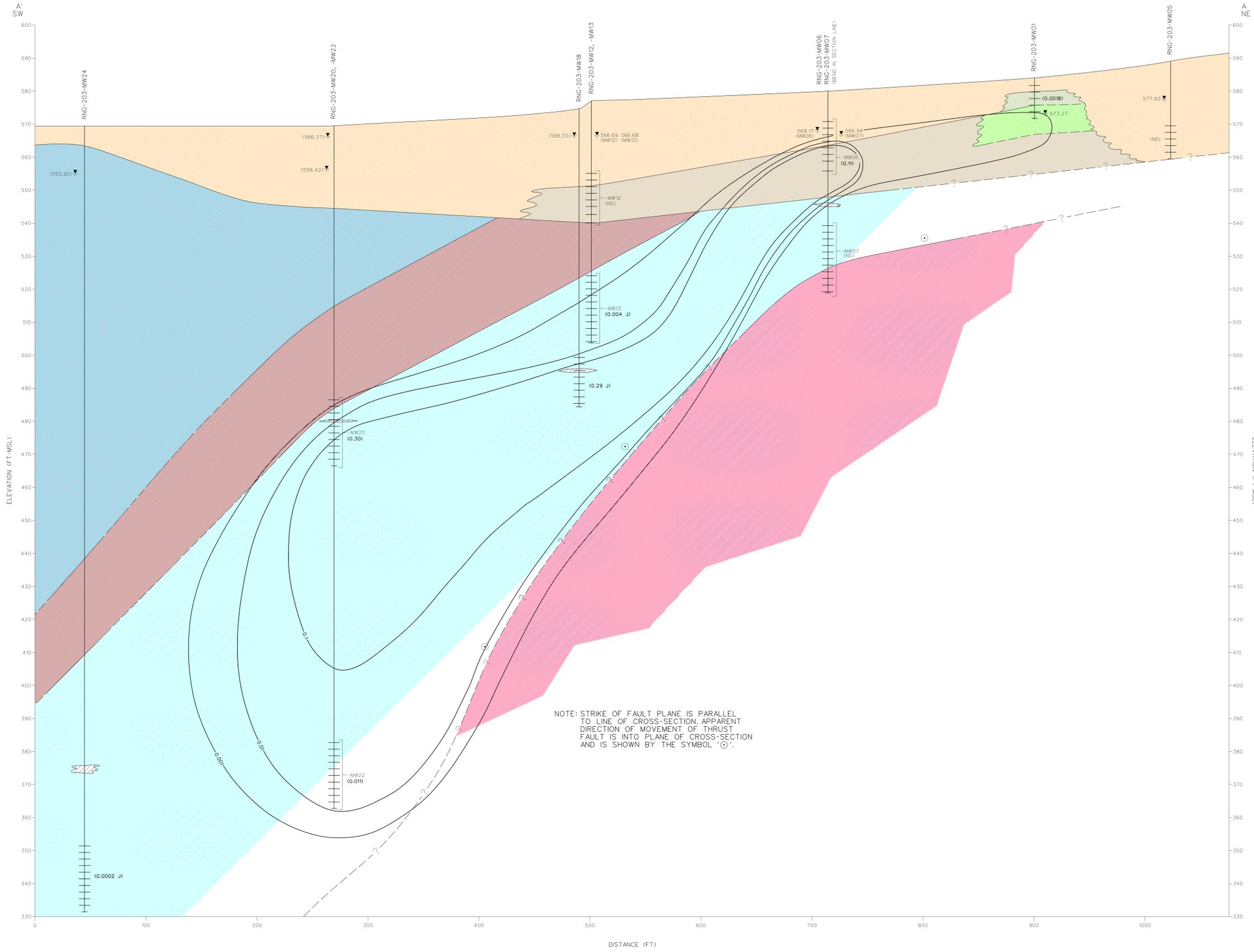
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 DRAWN BY: D. BOMAR ENGR. CHK. BY: S. MORAN PROJ. NO.: 774645

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NOTE: STRIKE OF FAULT PLANE IS PARALLEL TO LINE OF CROSS-SECTION. APPARENT DIRECTION OF MOVEMENT OF THRUST FAULT IS INTO PLANE OF CROSS-SECTION AND IS SHOWN BY THE SYMBOL 'O'.

LEGEND:

- SCREEN INTERVAL
- WATER TABLE
- GROUNDWATER ELEVATION (FT MSL) (OCTOBER 13, 2003)
- TRICHLOROETHENE CONCENTRATION IN GROUNDWATER (mg/L)
- CONCENTRATION IN MILLIGRAMS PER LITER (mg/L)
- NOT DETECTED
- COMPOUND WAS POSITIVELY IDENTIFIED; REPORTED VALUE IS AN ESTIMATED CONCENTRATION
- CONTACT DASHED WHERE INFERRED
- VOID
- CLAY
- CLAY WITH WEATHERED SHALE FRAGMENTS
- SILT
- SILT WITH WEATHERED SHALE FRAGMENTS
- SHALE, BLACK, CARBONACEOUS, FRACTURED, CONTORTED, CALCITE VEINS, SLICKENSIDES
- SHALE, AS ABOVE; AND SHALE AND LIMESTONE INTERBEDDED
- LIMESTONE, GRAY-BLACK, MICROCRYSTALLINE, FRACTURED, VOIDS, CALCITE VEINS
- LIMESTONE, LIGHT TO MEDIUM DARK, MICROCRYSTALLINE, FRACTURED, FOSSILIFEROUS IN PART, CALCITE VEINS

- NOTES:
- ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988.
  - CROSS-SECTION LOCATION SHOWN ON FIGURE 3-4.

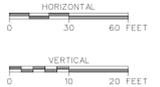
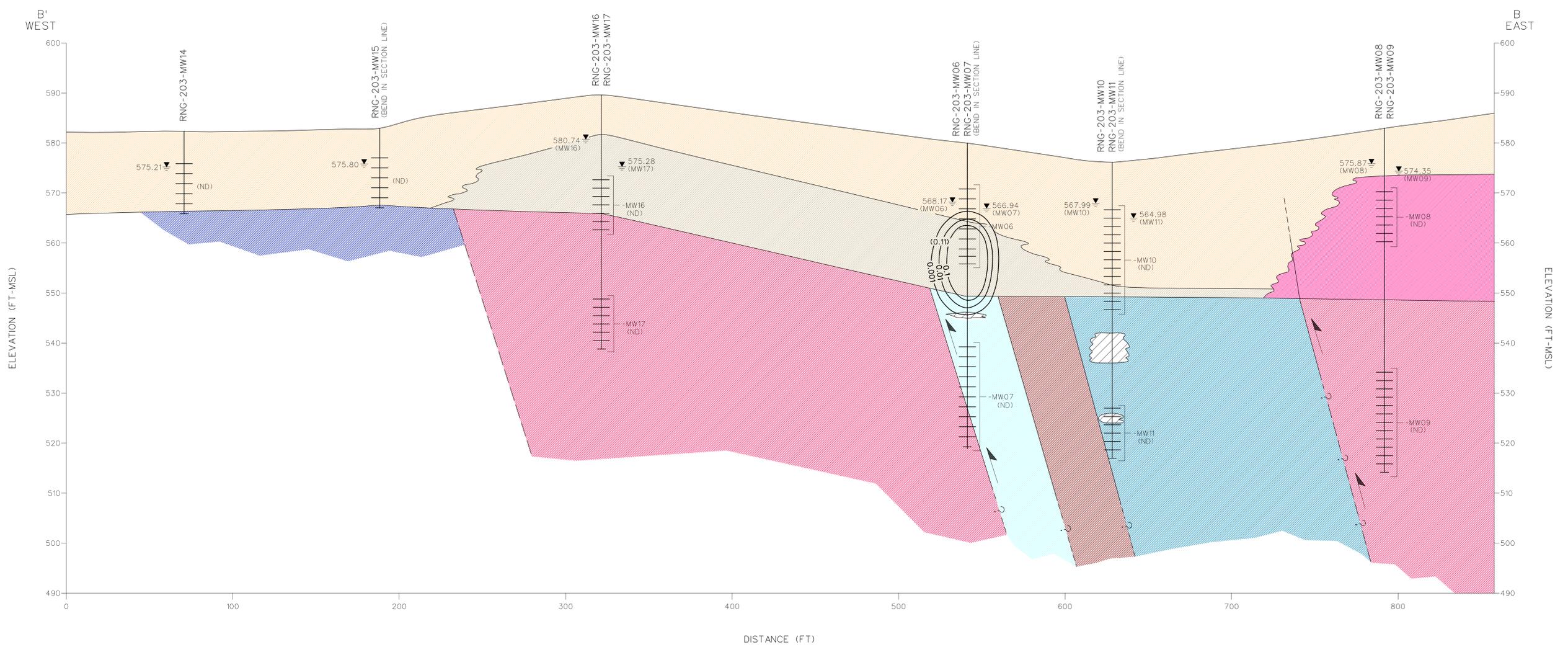


FIGURE 5-3  
 GEOLOGIC CROSS-SECTION A-A'  
 TRICHLOROETHENE (2003)  
 RANGE K  
 FORMER AGENT TRAINING AREA  
 PARCEL 203(7)  
 U. S. ARMY CORPS OF ENGINEERS  
 MOBILE DISTRICT  
 FORT MCLELLAN  
 CALHOUN COUNTY, ALABAMA  
 Contract No. DACA21-96-D-0018





**LEGEND:**

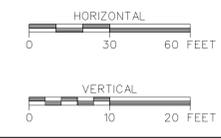
	SCREEN INTERVAL		CLAY
	WATER TABLE		CLAY WITH WEATHERED SHALE FRAGMENTS
575.21	GROUNDWATER ELEVATION (FT MSL) (OCTOBER 13, 2003)		SHALE, HIGHLY WEATHERED WITH INTERBEDS OF SANDSTONE, SHALE AND LIMESTONE
	TRICHLOROETHENE CONCENTRATION IN GROUNDWATER (mg/L)		SHALE, BLACK, CARBONACEOUS, FRACTURED
(0.11)	CONCENTRATION IN MILLIGRAMS PER LITER (mg/L)		SHALE, AS ABOVE; AND SHALE AND LIMESTONE INTERBEDDED
(ND)	NOT DETECTED		LIMESTONE, GRAY-BLACK, MICROCRYSTALLINE, FRACTURED, VOIDS, CALCITE VEINS
	CONTACT DASHED WHERE INFERRED		LIMESTONE, LIGHT TO DARK GRAY, MICROCRYSTALLINE, FRACTURED, FOSSILIFEROUS IN PART, CALCITE VEINS
	RELATIVE MOVEMENT OF THRUST FAULT (DASHED WHERE INFERRED)		LIMESTONE, BLACK
	VOID		

**NOTES:**

- ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988.
- CROSS-SECTION LOCATION SHOWN ON FIGURE 3-4.

**FIGURE 5-4**  
 GEOLOGIC CROSS-SECTION B-B'  
 TRICHLOROETHENE (2003)  
 RANGE K  
 FORMER AGENT TRAINING AREA  
 PARCEL 203(7)

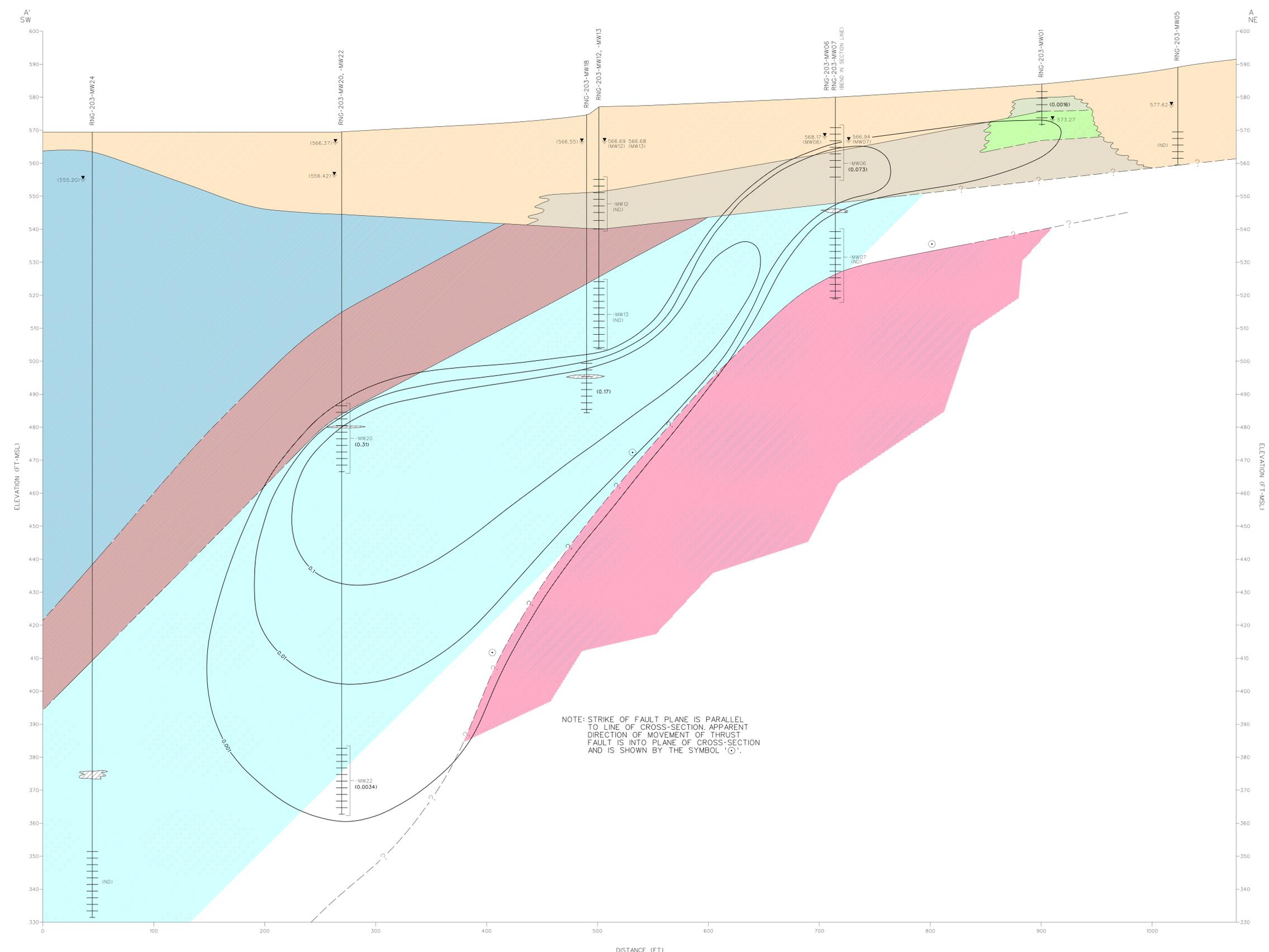
U. S. ARMY CORPS OF ENGINEERS  
 MOBILE DISTRICT  
 FORT McLELLAN  
 CALHOUN COUNTY, ALABAMA  
 Contract No. DACA21-96-D-0018



STARTING DATE: 04/02/03 DATE LAST REV.: DRAFT CHECK BY: S. MORAN  
 DRAWN BY: D. BOMAR ENGR. CHECK BY: J. YACUB PROJ. NO.: 774645a.056

8/19/2004 3:19:08 PM dbomar

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**LEGEND:**

SCREEN INTERVAL

WATER TABLE

556.42 GROUNDWATER ELEVATION (FT MSL) (OCTOBER 13, 2003)

0.1 1,1,2,2-TETRACHLOROETHANE CONCENTRATION IN GROUNDWATER (mg/L)

(0.0034) CONCENTRATION IN MILLIGRAMS PER LITER (mg/L)

(ND) NOT DETECTED

J COMPOUND WAS POSITIVELY IDENTIFIED; REPORTED VALUE IS AN ESTIMATED CONCENTRATION

-- ? -- CONTACT DASHED WHERE INFERRED

VOID

CLAY

CLAY WITH WEATHERED SHALE FRAGMENTS

SILT

SILT WITH WEATHERED SHALE FRAGMENTS

SHALE, BLACK, CARBONACEOUS, FRACTURED, CONTORTED, CALCITE VEINS, SLICKENSIDES

SHALE, AS ABOVE; AND SHALE AND LIMESTONE INTERBEDDED

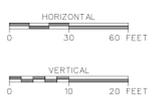
LIMESTONE, GRAY-BLACK, MICROCRYSTALLINE, FRACTURED, VOIDS, CALCITE VEINS

LIMESTONE, LIGHT TO MEDIUM DARK, MICROCRYSTALLINE, FRACTURED, FOSSILIFEROUS IN PART, CALCITE VEINS

**NOTES:**

1. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988.

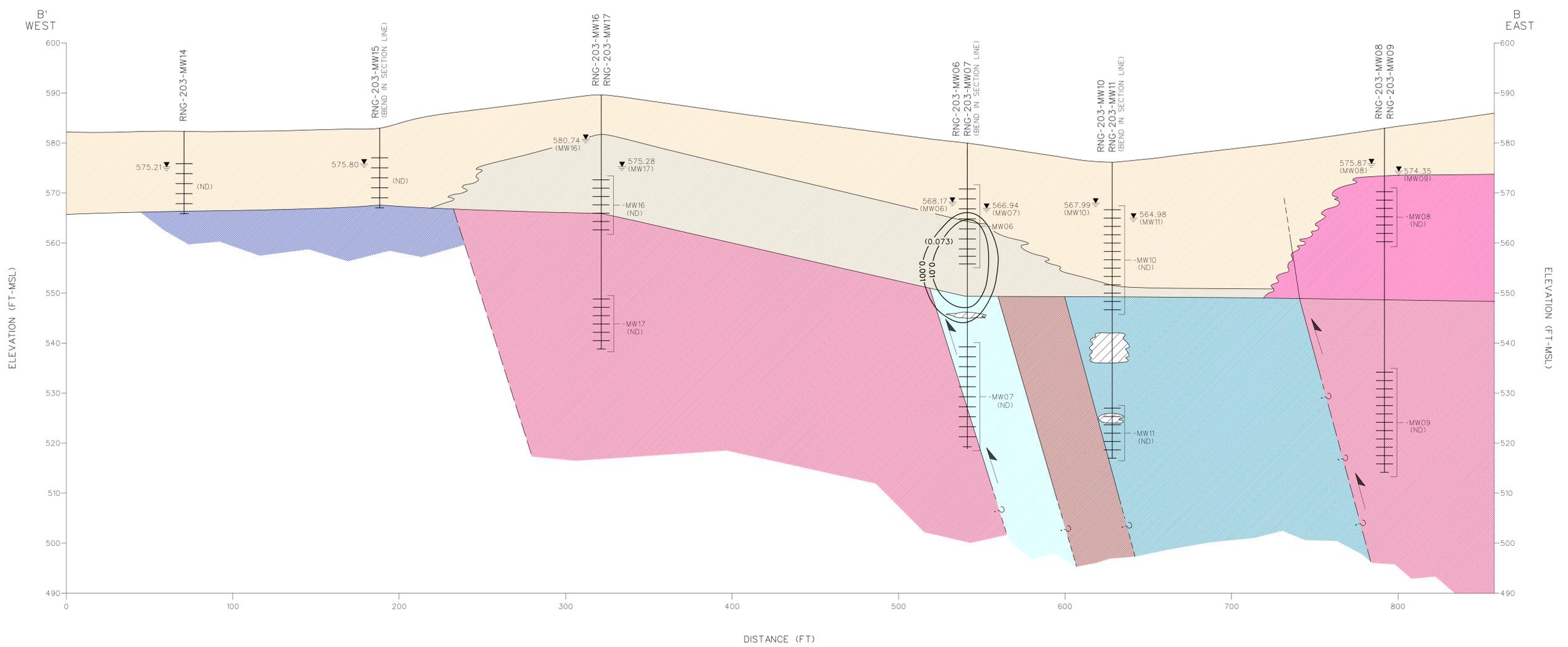
2. CROSS-SECTION LOCATION SHOWN ON FIGURE 3-4.



**FIGURE 5-5**  
 GEOLOGIC CROSS-SECTION A-A'  
 1,1,2,2-TETRACHLOROETHANE (2003)  
 RANGE K  
 FORMER AGENT TRAINING AREA  
 PARCEL 203(7)

U. S. ARMY CORPS OF ENGINEERS  
 MOBILE DISTRICT  
 FORT MCLELLAN  
 CALHOUN COUNTY, ALABAMA  
 Contract No. DACA21-96-D-0018



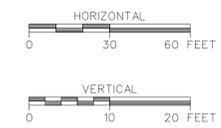


**LEGEND:**

	SCREEN INTERVAL		CLAY
	WATER TABLE		CLAY WITH WEATHERED SHALE FRAGMENTS
575.21	GROUNDWATER ELEVATION (FT MSL) (OCTOBER 13, 2003)		SHALE, HIGHLY WEATHERED WITH INTERBEDS OF SANDSTONE, SHALE AND LIMESTONE
0.073	1,1,2,2-TETRACHLOROETHANE CONCENTRATION IN GROUNDWATER (mg/L)		SHALE, BLACK, CARBONACEOUS, FRACTURED CONTORTED, CALCITE VEINS, SLICKENSIDES
(0.073)	CONCENTRATION IN MILLIGRAMS PER LITER (mg/L)		SHALE, AS ABOVE; AND SHALE AND LIMESTONE INTERBEDDED
(ND)	NOT DETECTED		LIMESTONE, GRAY-BLACK, MICROCRYSTALLINE, FRACTURED, VOIDS, CALCITE VEINS
- - ? - -	CONTACT DASHED WHERE INFERRED		LIMESTONE, LIGHT TO DARK GRAY, MICROCRYSTALLINE, FRACTURED, FOSSILIFEROUS IN PART, CALCITE VEINS
	RELATIVE MOVEMENT OF THRUST FAULT (DASHED WHERE INFERRED)		LIMESTONE, BLACK
	VOID		

**NOTES:**

- ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988.
- CROSS-SECTION LOCATION SHOWN ON FIGURE 3-4.



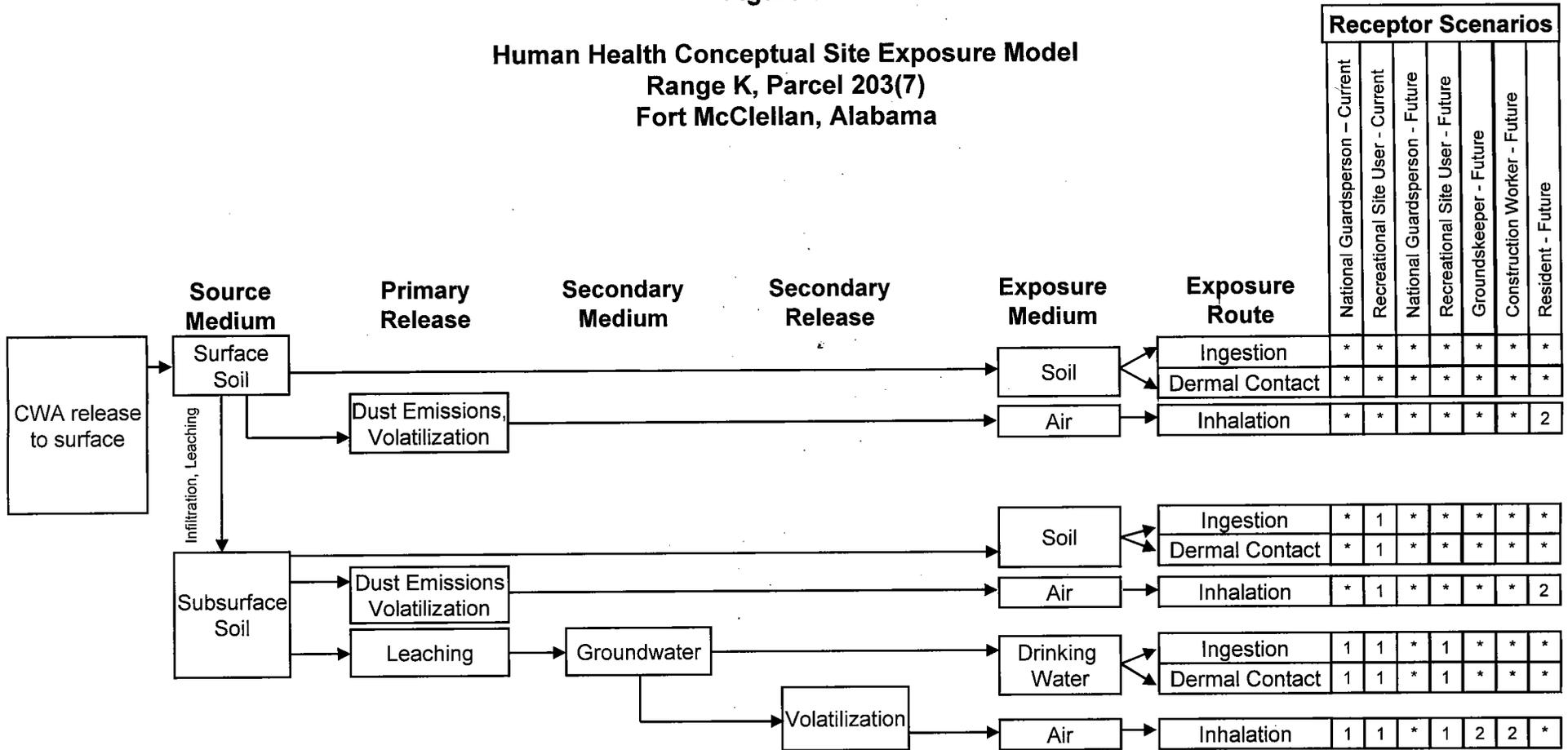
**FIGURE 5-6**  
 GEOLOGIC CROSS-SECTION B-B'  
 1,1,2,2-TETRACHLOROETHANE (2003)  
 RANGE K  
 FORMER AGENT TRAINING AREA  
 PARCEL 203(7)

U. S. ARMY CORPS OF ENGINEERS  
 MOBILE DISTRICT  
 FORT McLELLAN  
 CALHOUN COUNTY, ALABAMA  
 Contract No. DACA21-96-D-0018

**Shaw** Shaw Environmental, Inc.

Figure 6-1

Human Health Conceptual Site Exposure Model  
 Range K, Parcel 203(7)  
 Fort McClellan, Alabama



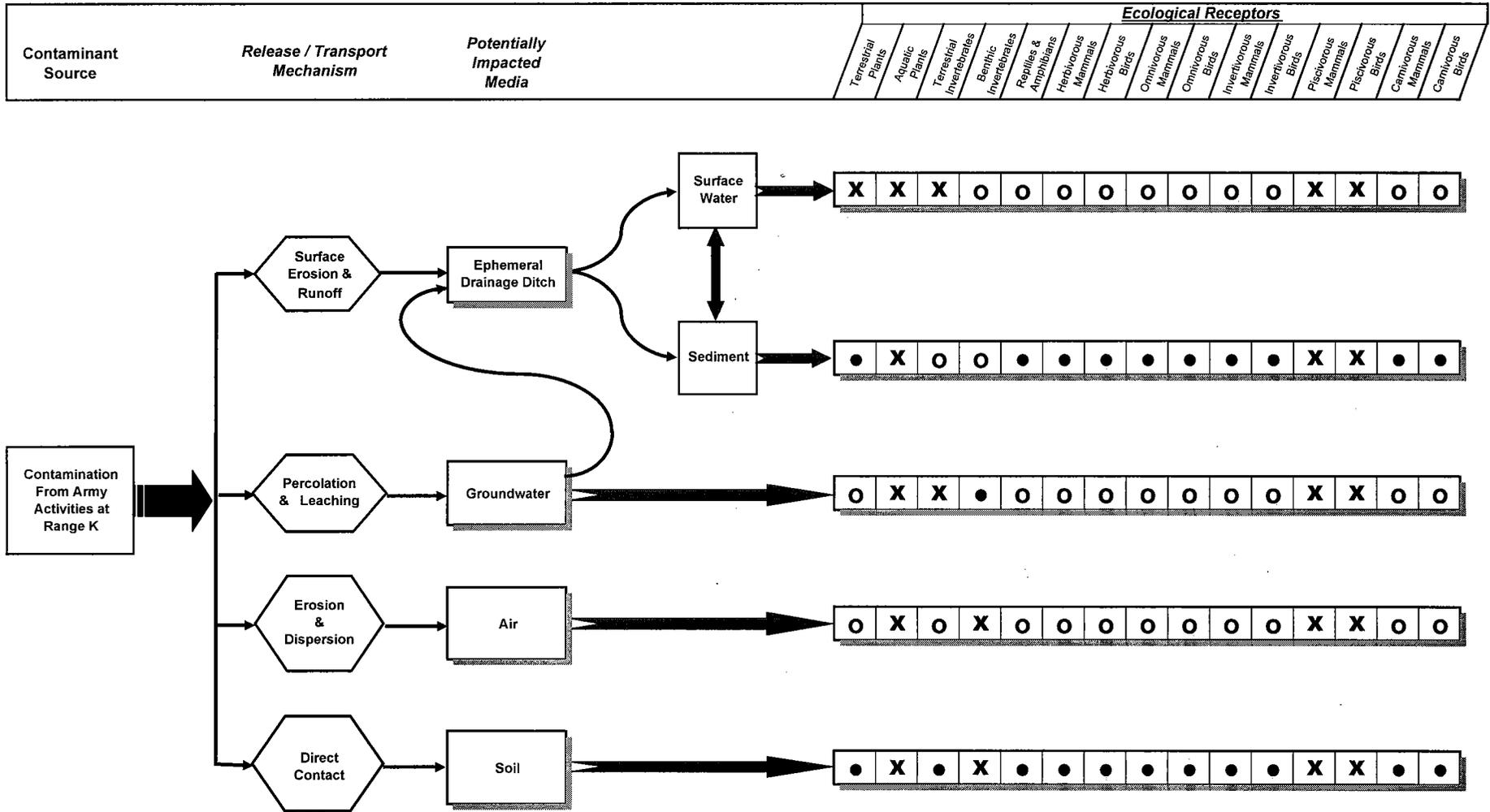
CWA = chemical warfare agent

\* = Complete exposure pathway evaluated in the streamlined risk assessment.

1 = Incomplete exposure pathway.

2 = Although theoretically complete, this pathway is judged to be insignificant and is not evaluated in the streamlined risk assessment.

**Figure 7-1**  
**Site Conceptual Model**  
**Range K, Parcel 203(7)**  
**Fort McClellan, Calhoun County, Alabama**



**Key To Potential Exposure Routes**

- - Potentially complete exposure pathway
- X - Incomplete exposure pathway
- O - Potentially complete exposure pathway but insignificant