FIGURES

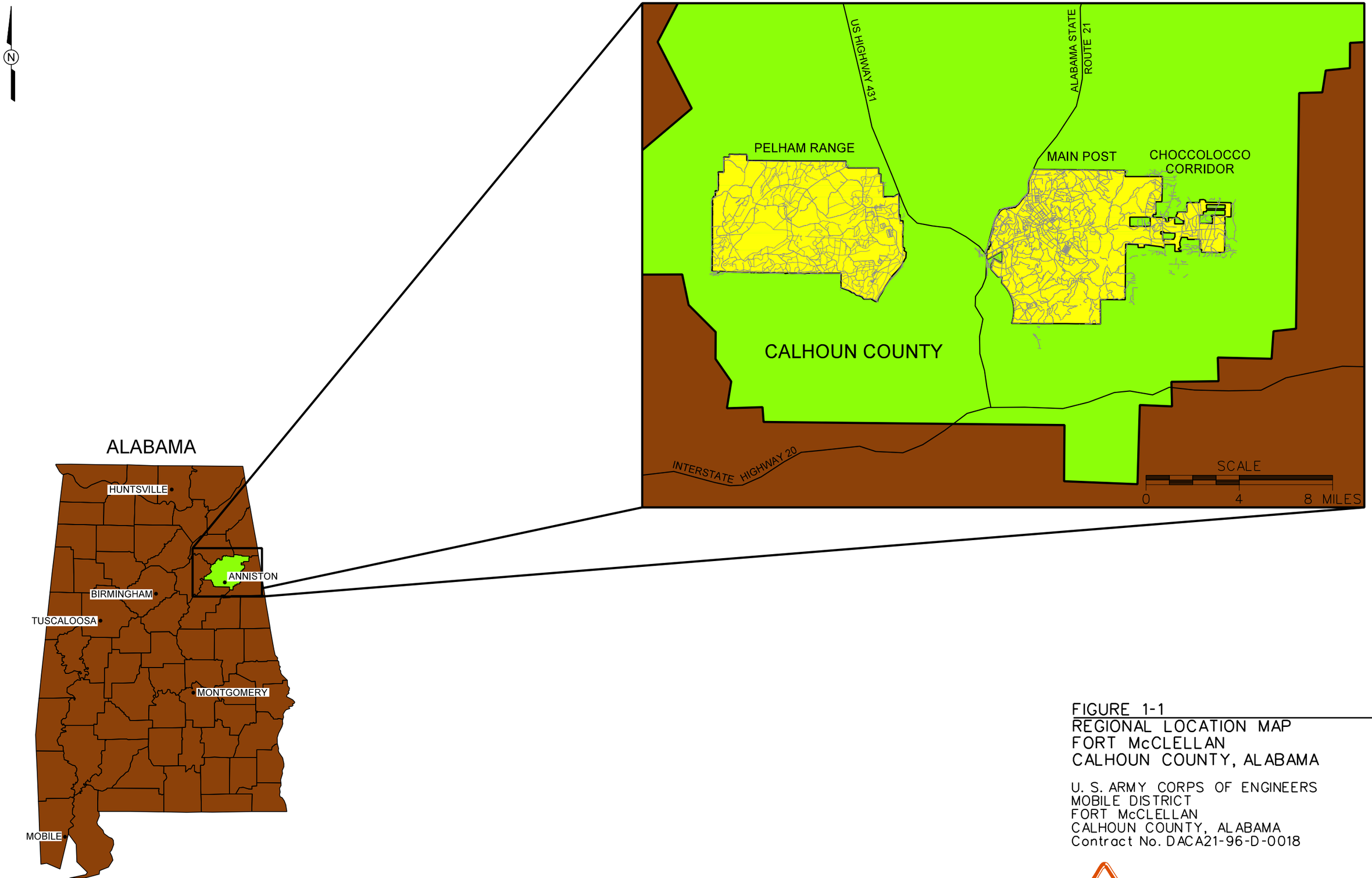

FIGURE 1-1
REGIONAL LOCATION MAP
FORT McCLELLAN
CALHOUN COUNTY, ALABAMA

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

Shaw™ Shaw Environmental, Inc.

STARTING DATE: 06/24/04	DATE LAST REV.:	DRAFT. CHCK. BY:	INITIATOR: T. WINTON	DWG. NO.: ...\796887es.829	
DRAWN BY: D.BOMAR	DRAWN BY:	ENGR. CHCK. BY:	PROJ. MGR.: J. YACOUB	PROJ. NO.: 796887	

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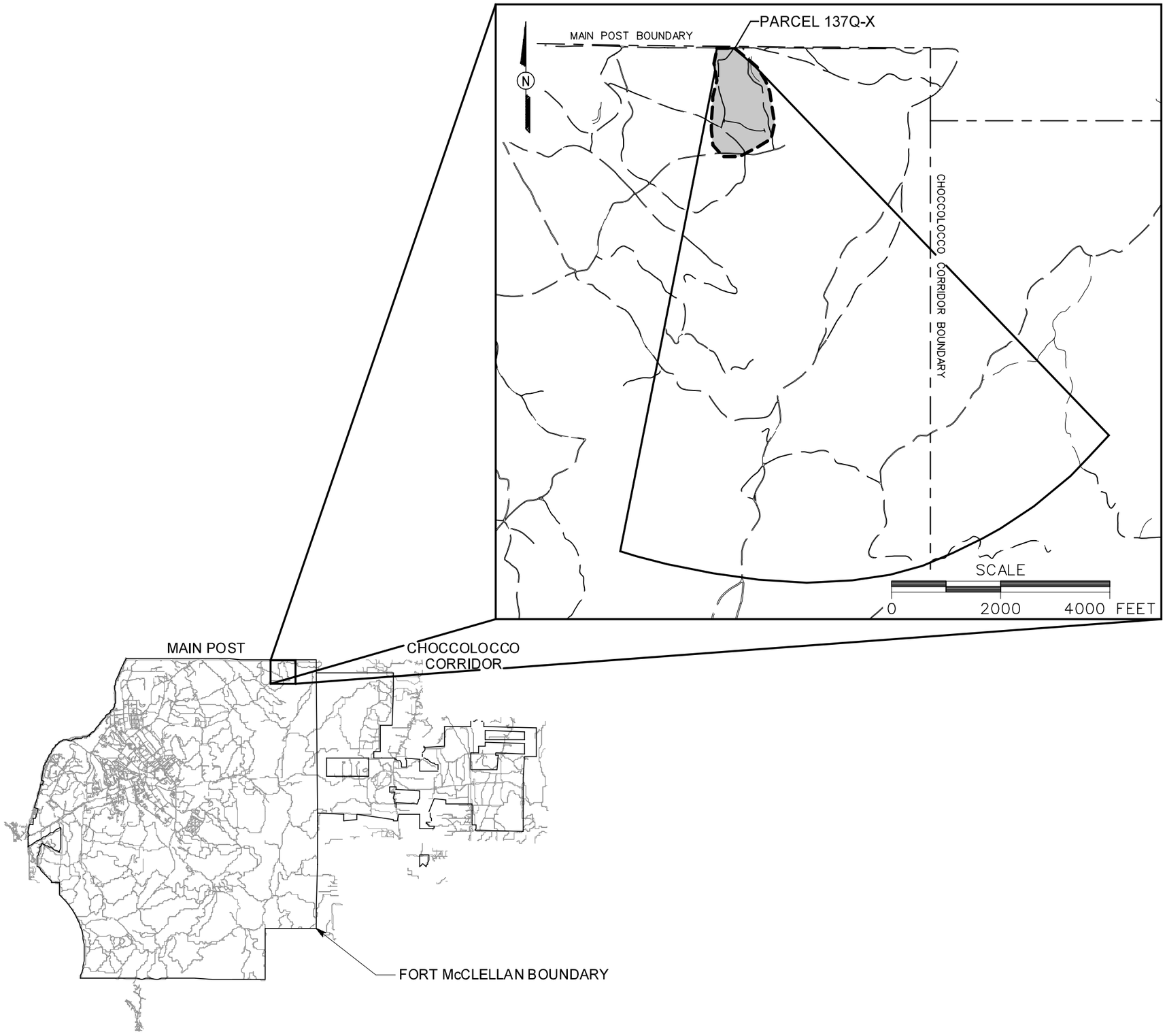

LEGEND

- UNIMPROVED ROAD
- PAVED ROAD
- PARCEL BOUNDARY
- AREA OF INVESTIGATION

FIGURE 1-2
SITE LOCATION MAP
FORMER 81mm MORTAR RANGE
PARCEL 137Q-X

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

Shaw™ Shaw Environmental, Inc.

DWG. NO.: ...\796887es.830	INITIATOR: T. WINTON	DRAFT. CHCK. BY:	DATE LAST REV.:
PROJ. NO.: 796887	PROJ. MGR.: J. YACOUB	ENGR. CHCK. BY: S. MORAN	DRAWN BY:
STARTING DATE: 06/24/04	DRAWN BY: D. BOMAR		

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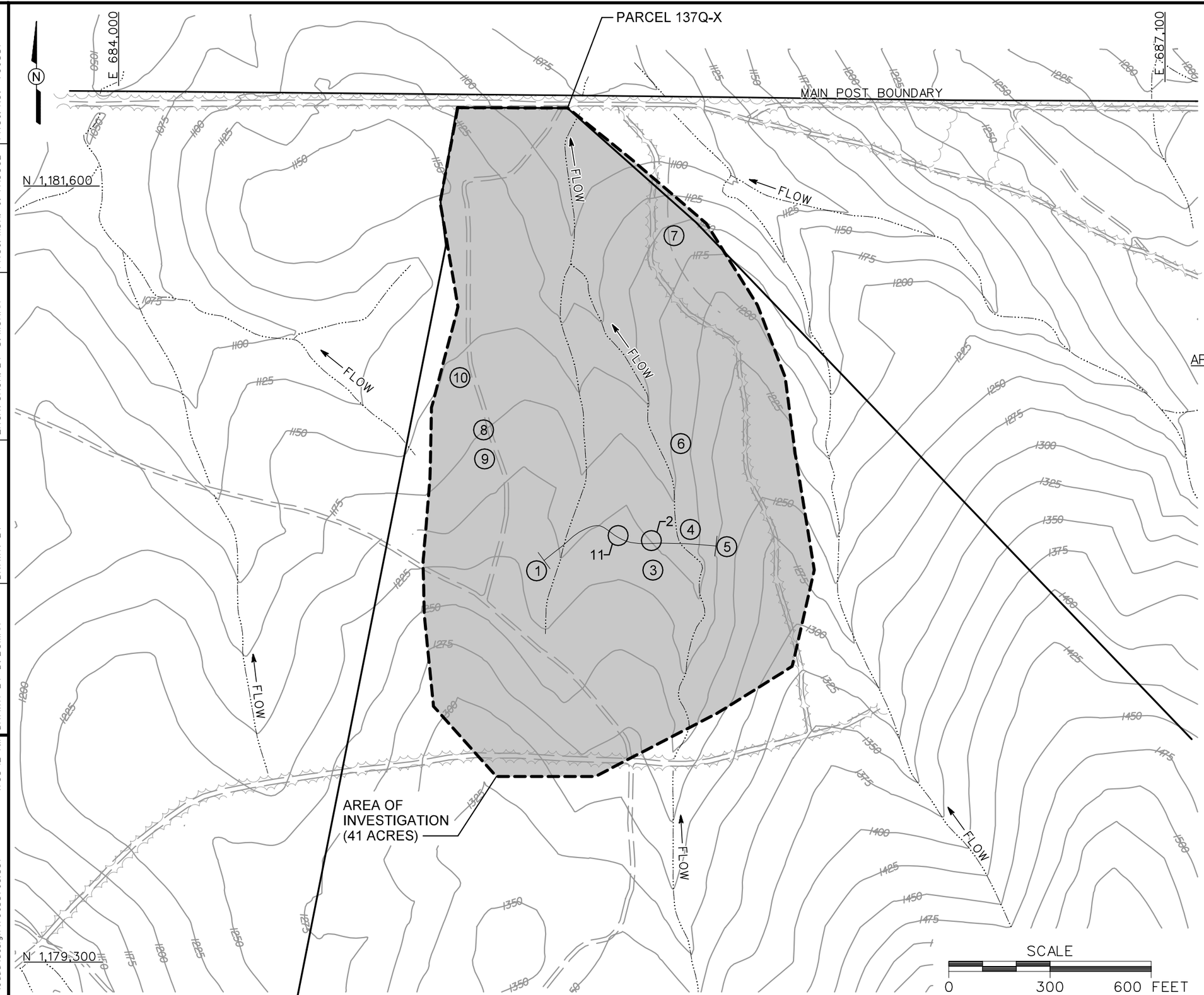

LEGEND

- UNIMPROVED ROAD
- PAVED ROAD
- TOPOGRAPHIC CONTOUR (CONTOUR INTERVAL - 25 FOOT)
- TREES / TREELINE
- PARCEL BOUNDARY
- AREA OF INVESTIGATION
- SURFACE DRAINAGE / CREEK
- TRENCH

APPROXIMATE LOCATION OF OBSERVED FEATURES

1. RUSTED TRUCK WITH BULLET HOLES
2. TRENCH WITH EMPTY RUSTED STB DRUMS AND FOXHOLE
3. SEVERAL RUSTED 1-5 GALLON DRUMS (POSSIBLE GAS CANS AND STB DRUMS)
4. 2 SURFACE DEPRESSIONS
5. SURFACE DEPRESSION WITH RUSTED METAL SHEET IN BOTTOM
6. DISTURBED AREA
7. OLD ROAD
8. 4 RUSTED DRUMS IN DIRT MOUND
9. RUSTED DRUM
10. RUSTED TRUCK BED AND DISTURBED AREA WITH MOUNDS AND DEPRESSIONS
11. PIT WITH METAL IN BOTTOM

FIGURE 1-3
SITE MAP
FORMER 81mm MORTAR RANGE
PARCEL 137Q-X

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

Shaw™ Shaw Environmental, Inc.

DWG. NO.: ...\796887es.831	PROJ. NO.: 796887
INITIATOR: B. HEDBERG	PROJ. MGR.: J. YACOUB
DRAFT. CHCK. BY:	ENGR. CHCK. BY: S. MORAN
DATE LAST REV.:	DRAWN BY:
STARTING DATE: 06/16/04	DRAWN BY: D. BOMAR
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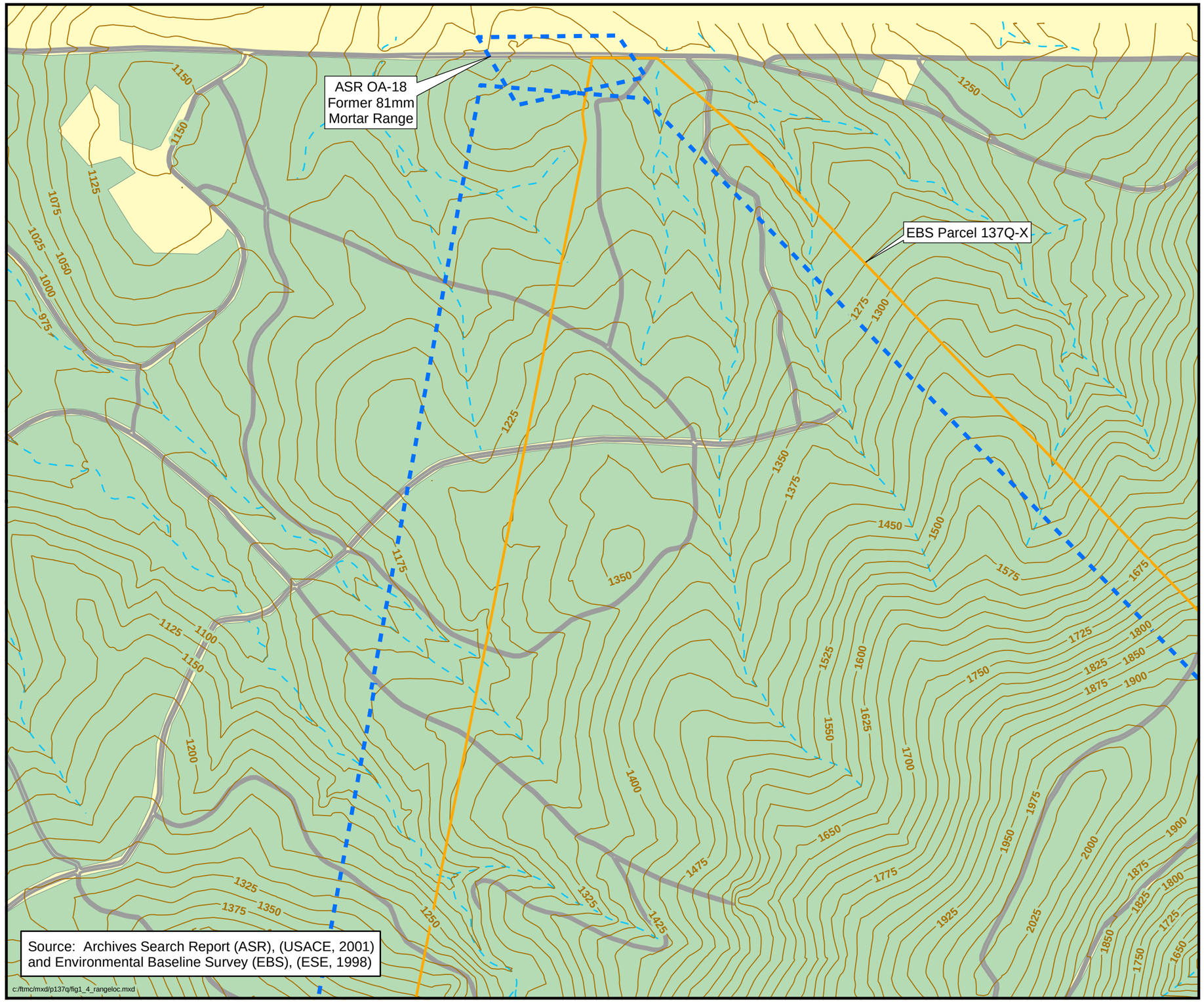
Figure 1-4

Range Location Map, ASR Plate 6

Former 81mm Mortar Range,
Parcel 137 Q-X
Fort McClellan, Alabama



Source: Archives Search Report (ASR), (USACE, 2001) and Environmental Baseline Survey (EBS), (ESE, 1998)

c:/ftmc/mxd/p137q/fig1_4_rangeloc.mxd

Legend

- ASR OA-18 Former 81mm Mortar Range
- EBS Parcel
- Wooded
- Not Wooded
- Roads
- Surface Drainage Feature (Dashed where Intermittent)
- Topographic Contour (5-foot interval)

500 0 500 Feet

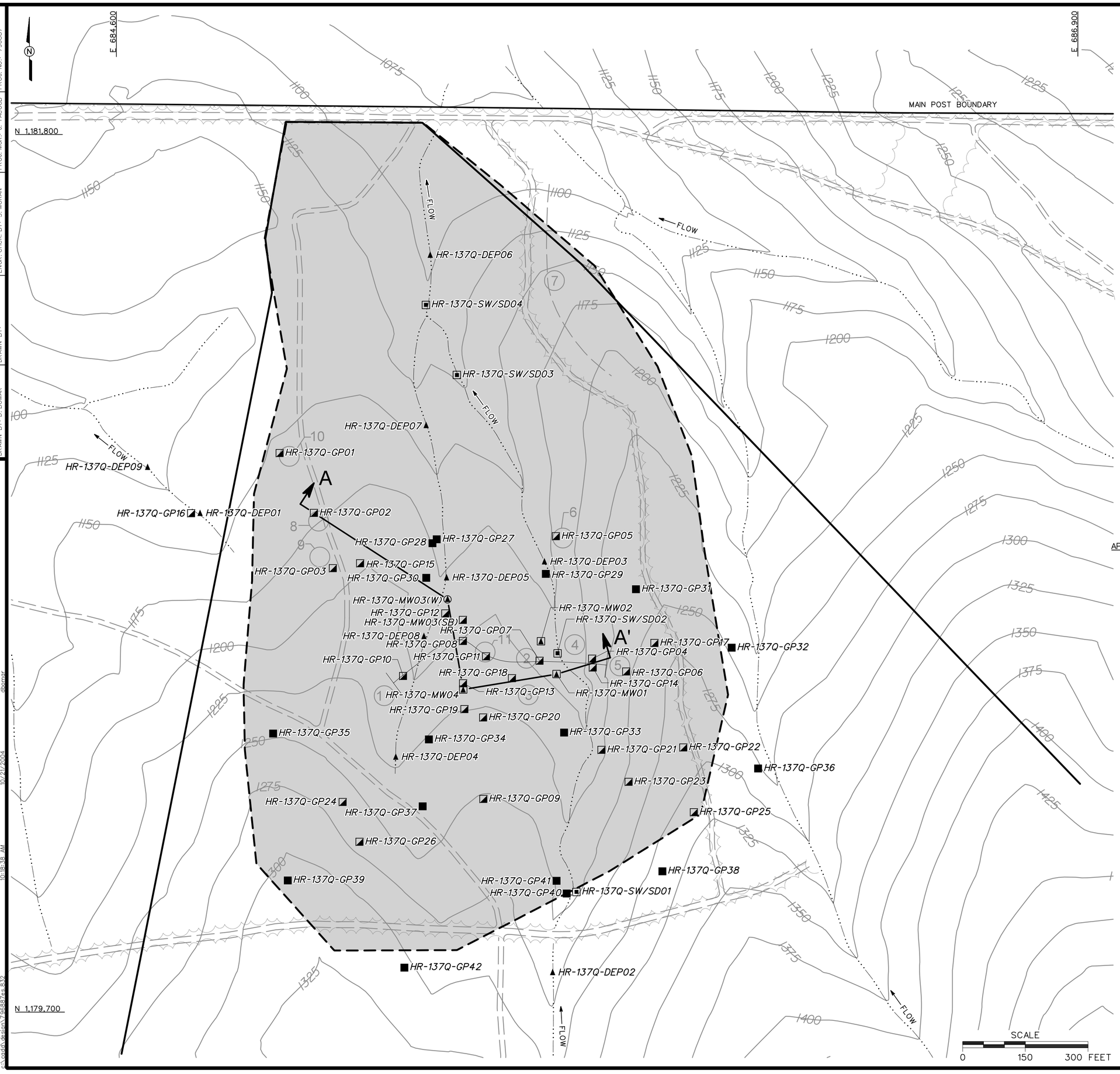
NAD83 State Plane Coordinates

N

Shaw Environmental, Inc.

U.S. Army Corps of Engineers Mobile District

Contract No. DACA21-96-D-0018



LEGEND

- UNIMPROVED ROAD
- PAVED ROAD
- TOPOGRAPHIC CONTOUR (CONTOUR INTERVAL - 25 FOOT)
- TREES / TREELINE
- PARCEL BOUNDARY
- AREA OF INVESTIGATION
- SURFACE DRAINAGE / CREEK
- TRENCH
- MONITORING WELL / GROUNDWATER, SURFACE AND SUBSURFACE SOIL SAMPLE LOCATION
- MONITORING WELL / GROUNDWATER SAMPLE LOCATION
- SURFACE WATER/SEDIMENT SAMPLE LOCATION
- SURFACE AND SUBSURFACE SOIL SAMPLE LOCATION
- SURFACE SOIL SAMPLE LOCATION
- DEPOSITIONAL SOIL SAMPLE LOCATION
- (SB) SOIL BORING LOCATION
- (W) MONITORING WELL LOCATION
- A A' GEOLOGIC CROSS SECTION LOCATION

APPROXIMATE LOCATION OF OBSERVED FEATURES

1. RUSTED TRUCK WITH BULLET HOLES
2. TRENCH WITH EMPTY RUSTED STB DRUMS AND FOXHOLE
3. SEVERAL RUSTED 1-5 GALLON DRUMS (POSSIBLE GAS CANS AND STB DRUMS)
4. 2 SURFACE DEPRESSIONS
5. SURFACE DEPRESSION WITH RUSTED METAL SHEET IN BOTTOM
6. DISTURBED AREA
7. OLD ROAD
8. 4 RUSTED DRUMS IN DIRT MOUOND
9. RUSTED DRUM
10. RUSTED TRUCK BED AND DISTURBED AREA WITH MOUNDS AND DEPRESSIONS
11. PIT WITH METAL IN BOTTOM

FIGURE 2-1
SAMPLE LOCATION MAP
FORMER 81mm MORTAR RANGE
PARCEL 137Q-X

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

Shaw™ Shaw Environmental, Inc.

STARTING DATE: 06/18/04	DATE LAST REV.:	DRAFT. CHCK. BY:	INITIATOR: T. WINTON
DRAWN BY: D. BOMAR	DRAWN BY:	ENGR. CHCK. BY: S. MORAN	PROJ. MGR.: J. YACOUB
			DWG. NO.: V796887es832
			PROJ. NO.: 796887

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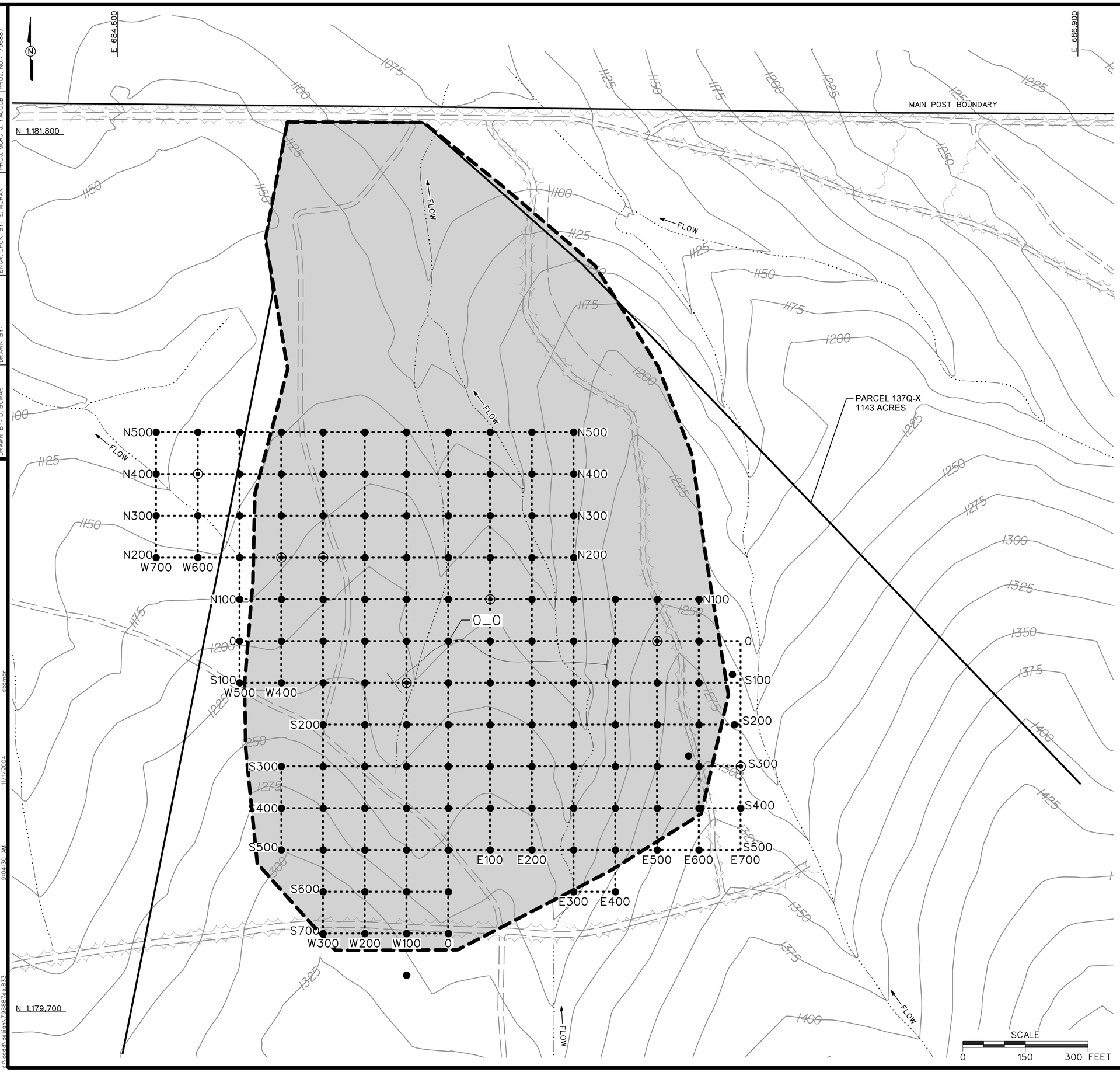

LEGEND

- UNIMPROVED ROAD
- PAVED ROAD
- TOPOGRAPHIC CONTOUR (CONTOUR INTERVAL - 25 FOOT)
- TREES / TREELINE
- AREA OF INVESTIGATION
- SURFACE DRAINAGE / CREEK
- TRENCH
- XRF SAMPLE LOCATION
- XRF CONFIRMATION SAMPLE LOCATION
- XRF SAMPLE GRID (100 ft x 100 ft)

NOTE:

1. GRID NODES ARE LABELED BY DISTANCE AND DIRECTION FROM CENTER POINT OF GRID (0_0). FOR EXAMPLE, N100_W100 REFERS TO A LOCATION 100 FEET NORTH AND 100 FEET WEST OF THE CENTER POINT.

FIGURE 2-2
XRF SAMPLE LOCATION MAP
FORMER 81mm MORTAR RANGE
PARCEL 137Q-X

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

Shaw™ Shaw Environmental, Inc.

STARTING DATE: 06/18/04 | DATE LAST REV.: | DRAFT. CHCK. BY: | INITIATOR: T. WINTON | DWG. NO.: ...\796887es.833
DRAWN BY: D. BOMAR | DRAWN BY: | ENGR. CHCK. BY: S. MORAN | PROJ. MGR.: J. YACOUB | PROJ. NO.: 796887

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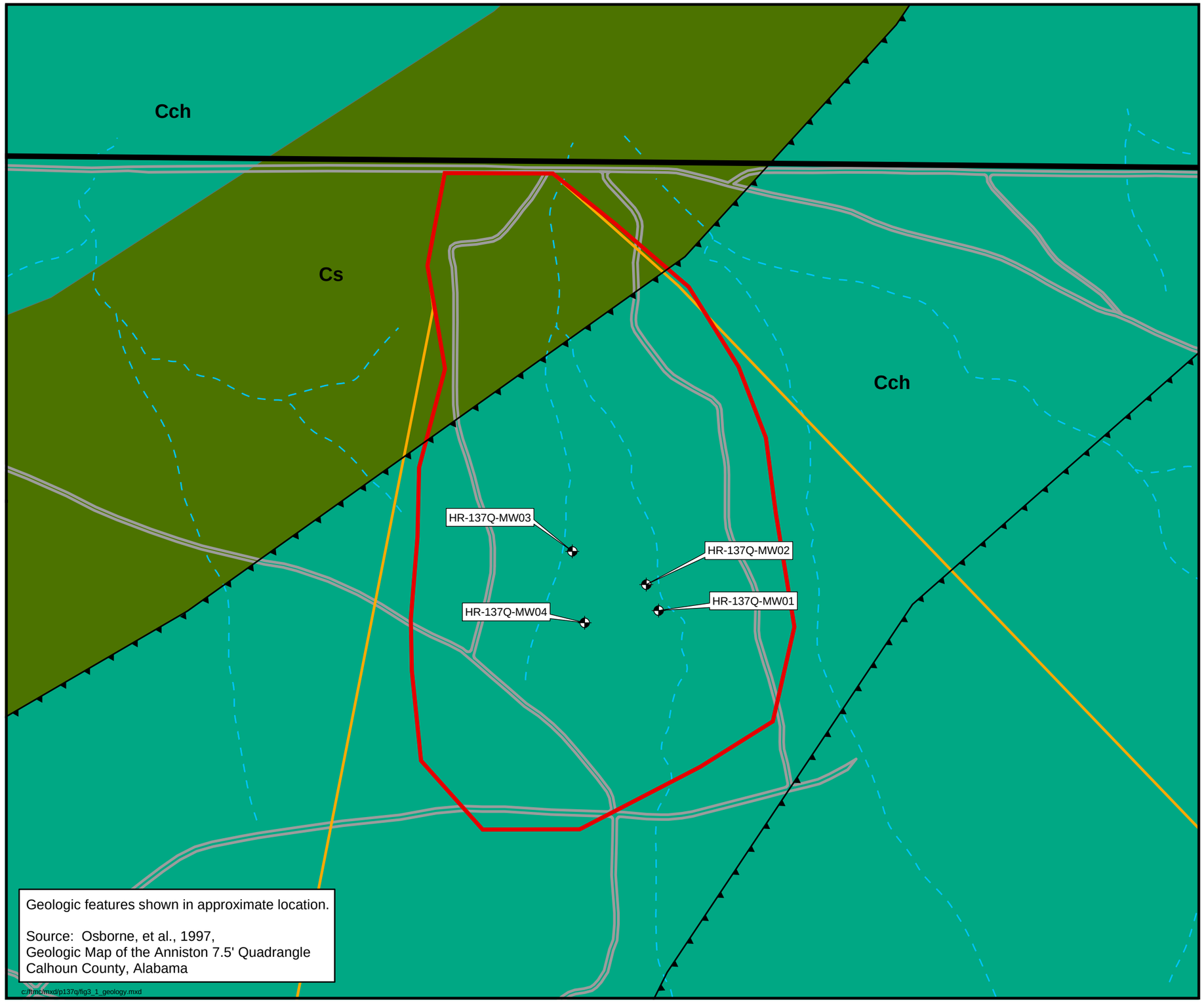


Figure 3-1

Site Geologic Map

Former 81mm Mortar Range,
Parcel 137Q-X
Fort McClellan, Alabama

Legend

- Monitoring Well
- Area of Investigation
- Parcel Boundary/Range Fan
- Roads
- Surface Drainage Feature (Dashed where Intermittent)
- FTMC Boundary

Geology

- Cs — Cambrian - Shady Dolomite
- Cch — Cambrian - Chilhowee Group, Undifferentiated
- Thrust Fault (dashed where inferred; barbs on upper plate)

300 0 300 Feet

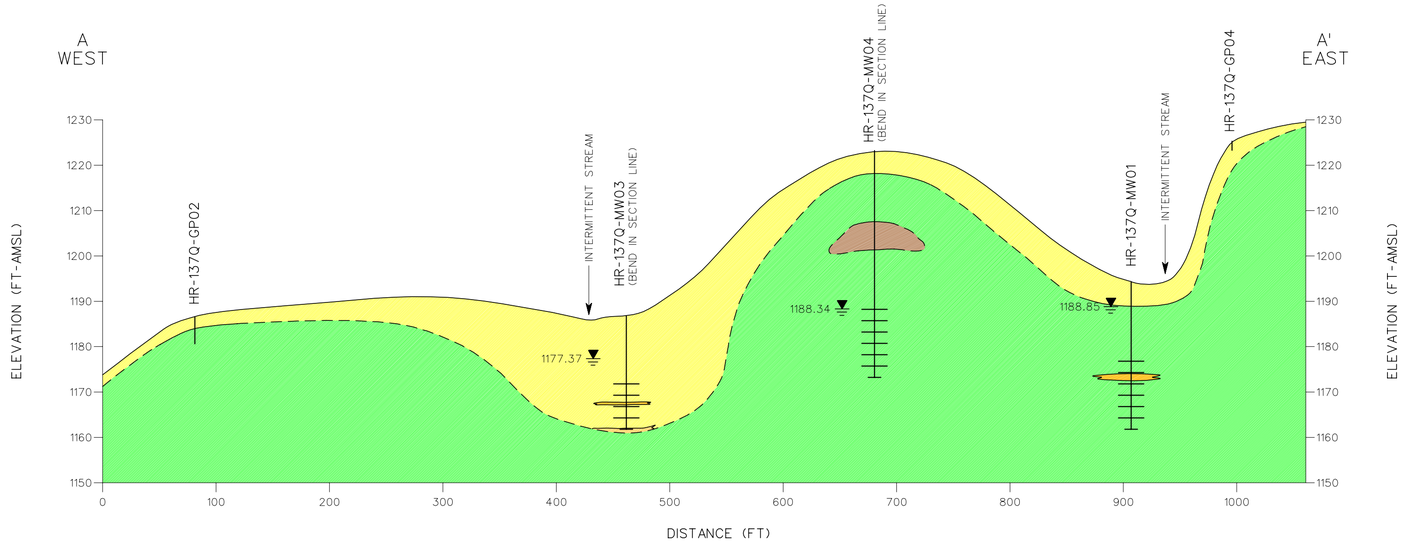
NAD83 State Plane Coordinates

N

Shaw Environmental, Inc.

U.S. Army Corps of Engineers Mobile District

Contract No. DACA21-96-D-0018



LEGEND:

- SCREEN INTERVAL
- WATER TABLE
- 1177.37 GROUNDWATER ELEVATION (FT AMSL) (JUNE 23, 2003)
- CONTACT INFERRED
- SILT AND SAND WITH GRAVEL
- SAND AND SILT
- SANDSTONE GRAVEL
- CLAY WITH SAND, SILT, AND/OR GRAVEL

NOTES:

1. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988.
2. SEE FIGURE 2-1 FOR CROSS SECTION LOCATION.

HORIZONTAL
0 80 160 FEET

VERTICAL
0 20 40 FEET

FIGURE 3-2
GEOLOGIC CROSS SECTION A-A'
FORMER 81mm MORTAR RANGE
PARCEL 137Q-X

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

Shaw™ Shaw Environmental, Inc.

STARTING DATE: 06/17/04 | DATE LAST REV.: | DRAFT. CHCK. BY: | INITIATOR: B. HEDBERG | DWG. NO.: ...\796887es.820
DRAWN BY: D. BOMAR | DRAWN BY: | ENGR. CHCK. BY: S. MORAN | PROJ. MGR.: J. YACOUB | PROJ. NO.: 796887

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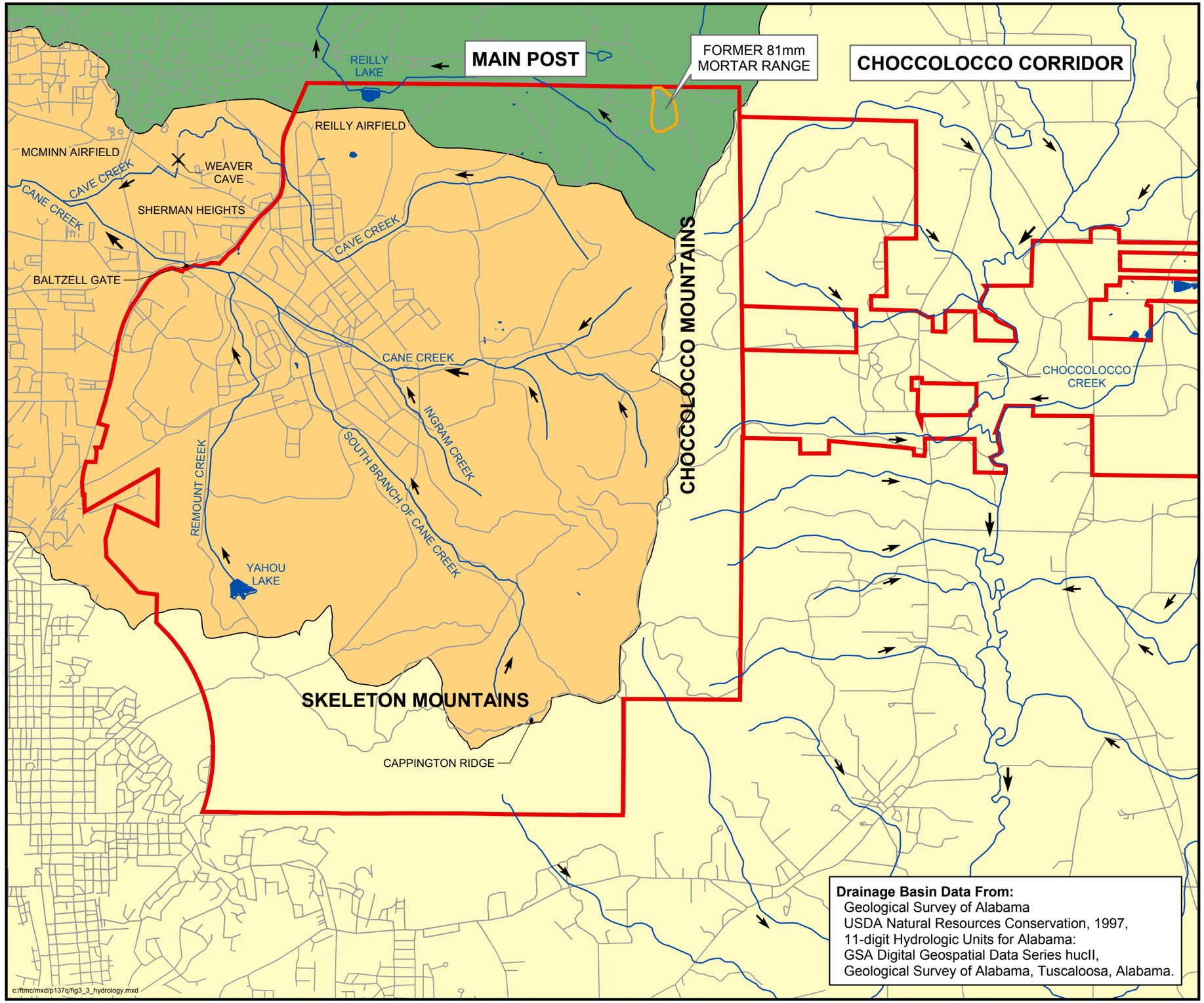
Figure 3-3

Surface Water Hydrology and Drainage Basins Map

Fort McClellan, Alabama



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

Legend

- Surface Water Flow Direction
- Cave
- Roads
- Surface Drainage Feature
- Main Post and Choccolocco Corridor Boundaries
- Area of Investigation
- Ponds and Lakes
- Cane Creek Drainage Basin
- Tallasseehatchee Creek Drainage Basin
- Choccolocco Creek Drainage Basin

4,500 0 4,500 Feet

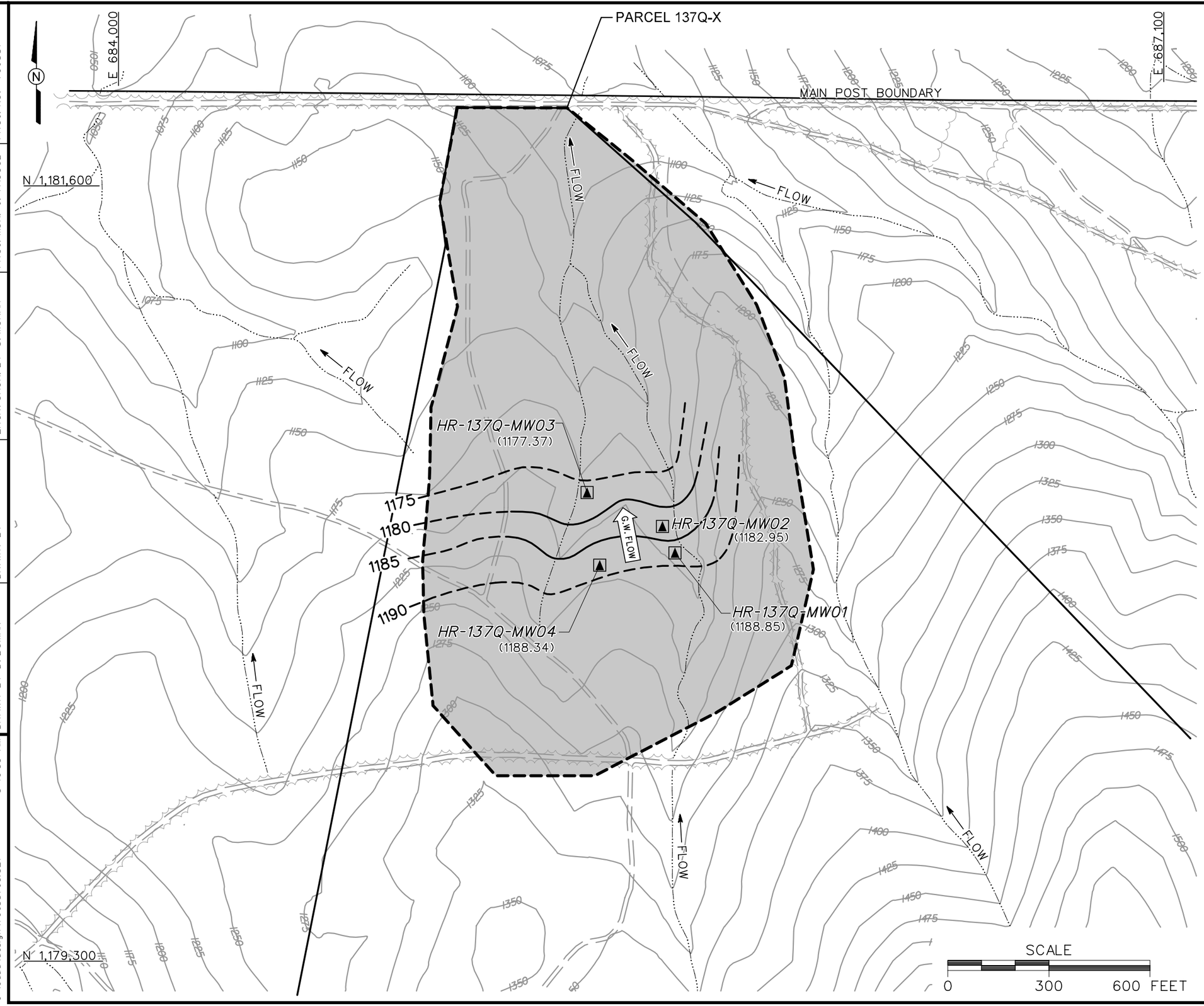
NAD83 State Plane feet

N

Shaw Environmental, Inc.

U.S. Army Corps of Engineers Mobile District

Contract No. DACA21-96-D-0018



LEGEND

- UNIMPROVED ROAD
- PAVED ROAD
- TOPOGRAPHIC CONTOUR (CONTOUR INTERVAL - 25 FOOT)
- GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED)
- (1177.37) GROUNDWATER ELEVATION (FT AMSL) (JUNE 23, 2003)
- G.W. FLOW GROUNDWATER FLOW DIRECTION
- TREES / TREELINE
- AREA OF INVESTIGATION
- SURFACE DRAINAGE / CREEK
- MONITORING WELL LOCATION

FIGURE 3-4
GROUNDWATER ELEVATION MAP
FORMER 81mm MORTAR RANGE
PARCEL 137Q-X

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

Shaw Environmental, Inc.

DWG. NO.: ...\796887es.821
PROJ. NO.: 796887
INITIATOR: B. HEDBERG
PROJ. MGR.: J. YACOUB
DRAFT. CHCK. BY:
ENGR. CHCK. BY: S. MORAN
STARTING DATE: 06/16/04
DRAWN BY: D. BOMAR
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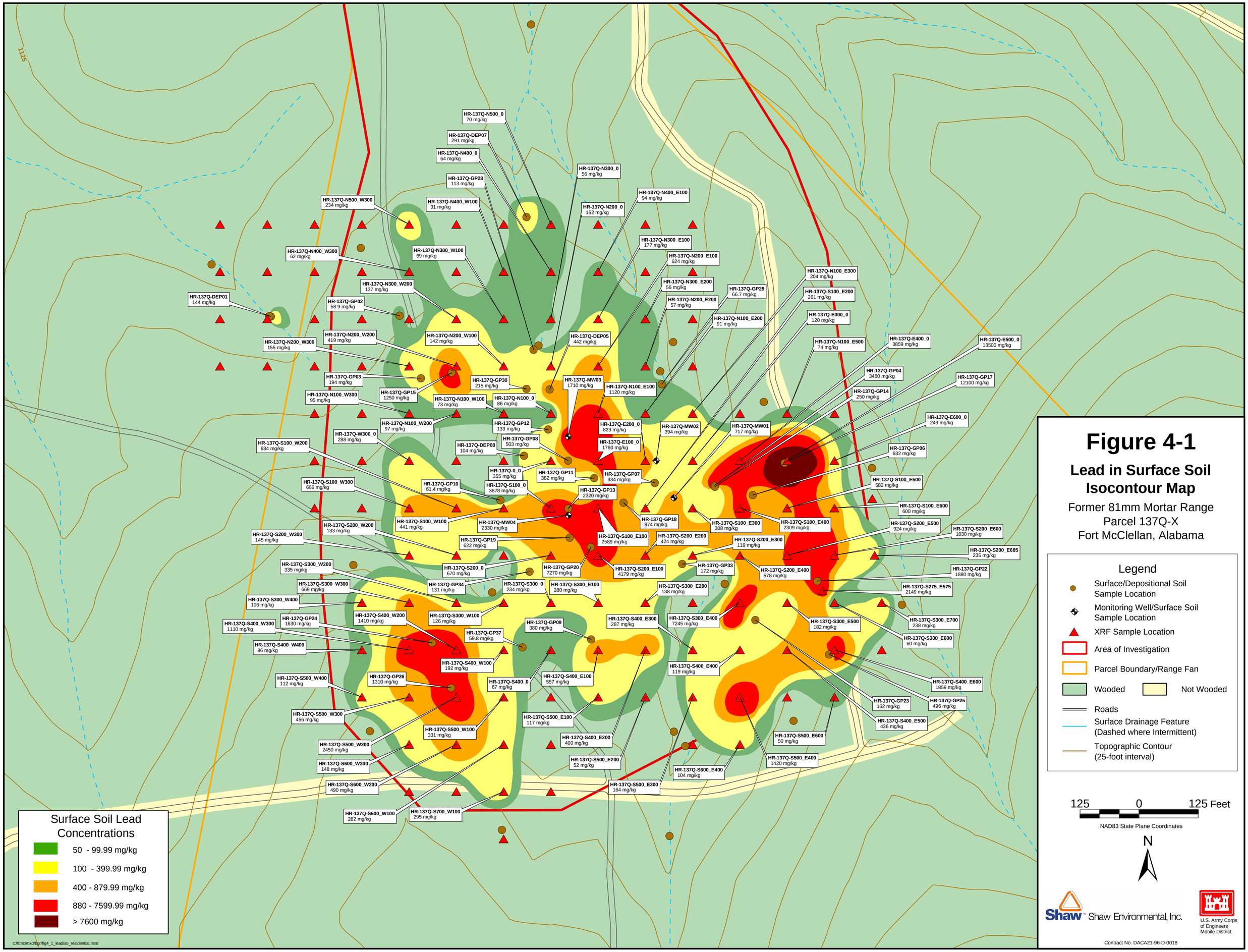
1125
HR-137Q-N500_0 70 mg/kg
HR-137Q-DEP07 291 mg/kg
HR-137Q-N400_0 64 mg/kg
HR-137Q-GP28 113 mg/kg
HR-137Q-N300_0 56 mg/kg
HR-137Q-N500_W300 234 mg/kg
HR-137Q-N400_W100 91 mg/kg
HR-137Q-N200_0 152 mg/kg
HR-137Q-N400_E100 94 mg/kg
HR-137Q-N400_W300 62 mg/kg
HR-137Q-N300_W100 69 mg/kg
HR-137Q-N300_E100 177 mg/kg
HR-137Q-N200_E100 624 mg/kg
HR-137Q-N100_E300 204 mg/kg
HR-137Q-N300_W200 137 mg/kg
HR-137Q-N300_E200 56 mg/kg
HR-137Q-GP29 66.7 mg/kg
HR-137Q-S100_E200 261 mg/kg
HR-137Q-DEP01 144 mg/kg
HR-137Q-GP02 58.9 mg/kg
HR-137Q-N200_E200 57 mg/kg
HR-137Q-E300_0 120 mg/kg
HR-137Q-N100_E200 91 mg/kg
HR-137Q-N200_W200 419 mg/kg
HR-137Q-N200_W100 142 mg/kg
HR-137Q-DEP05 442 mg/kg
HR-137Q-N100_E500 74 mg/kg
HR-137Q-E400_0 3859 mg/kg
HR-137Q-E500_0 13500 mg/kg
HR-137Q-N200_W300 155 mg/kg
HR-137Q-GP04 3460 mg/kg
HR-137Q-GP03 194 mg/kg
HR-137Q-GP30 215 mg/kg
HR-137Q-MW03 1710 mg/kg
HR-137Q-N100_E100 1120 mg/kg
HR-137Q-GP17 12100 mg/kg
HR-137Q-GP15 1250 mg/kg
HR-137Q-GP14 250 mg/kg
HR-137Q-N100_W300 95 mg/kg
HR-137Q-N100_W100 73 mg/kg
HR-137Q-N100_0 86 mg/kg
HR-137Q-E600_0 249 mg/kg
HR-137Q-N100_W200 97 mg/kg
HR-137Q-GP12 133 mg/kg
HR-137Q-E200_0 823 mg/kg
HR-137Q-MW02 394 mg/kg
HR-137Q-MW01 717 mg/kg
HR-137Q-W300_0 288 mg/kg
HR-137Q-GP08 503 mg/kg
HR-137Q-S100_W200 634 mg/kg
HR-137Q-DEP08 104 mg/kg
HR-137Q-E100_0 1760 mg/kg
HR-137Q-GP06 632 mg/kg
HR-137Q-0_0 355 mg/kg
HR-137Q-GP11 382 mg/kg
HR-137Q-GP07 334 mg/kg
HR-137Q-S100_W300 666 mg/kg
HR-137Q-GP10 61.4 mg/kg
HR-137Q-S100_0 3878 mg/kg
HR-137Q-GP13 2320 mg/kg
HR-137Q-S100_E500 582 mg/kg
HR-137Q-S100_E600 600 mg/kg
HR-137Q-S100_W100 441 mg/kg
HR-137Q-MW04 2330 mg/kg
HR-137Q-GP18 874 mg/kg
HR-137Q-S100_E300 308 mg/kg
HR-137Q-S100_E400 2309 mg/kg
HR-137Q-S200_W200 133 mg/kg
HR-137Q-S200_E500 924 mg/kg
HR-137Q-S200_E600 1030 mg/kg
HR-137Q-S200_W300 145 mg/kg
HR-137Q-GP19 622 mg/kg
HR-137Q-S100_E100 2589 mg/kg
HR-137Q-S200_E200 424 mg/kg
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HR-137Q-S200_E685 235 mg/kg
HR-137Q-S300_W200 335 mg/kg
HR-137Q-S200_0 670 mg/kg
HR-137Q-GP20 7270 mg/kg
HR-137Q-S200_E100 4179 mg/kg
HR-137Q-GP33 172 mg/kg
HR-137Q-S200_E400 578 mg/kg
HR-137Q-GP22 1880 mg/kg
HR-137Q-S300_W300 669 mg/kg
HR-137Q-GP34 131 mg/kg
HR-137Q-S300_0 234 mg/kg
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HR-137Q-S300_W400 106 mg/kg
HR-137Q-S400_W200 1410 mg/kg
HR-137Q-S300_W100 126 mg/kg
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HR-137Q-S300_E700 238 mg/kg
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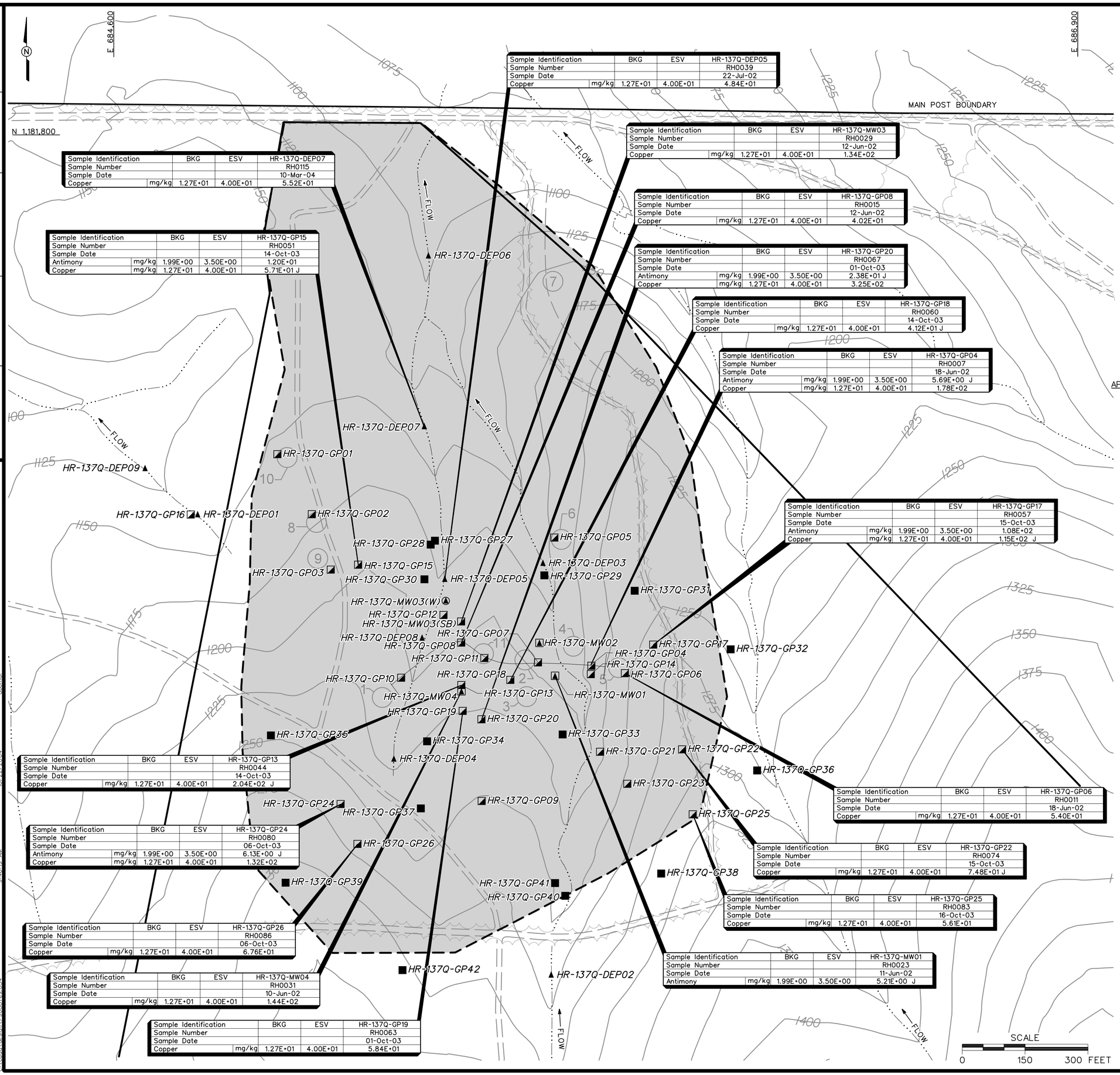
HR-137Q-GP37 59.8 mg/kg
HR-137Q-S300_E600 60 mg/kg
HR-137Q-S400_W400 86 mg/kg
HR-137Q-S400_W100 192 mg/kg
HR-137Q-S400_E400 119 mg/kg
HR-137Q-S500_W400 112 mg/kg
HR-137Q-GP26 1310 mg/kg
HR-137Q-S400_0 67 mg/kg
HR-137Q-S400_E100 557 mg/kg
HR-137Q-S400_E600 1859 mg/kg
HR-137Q-GP23 162 mg/kg
HR-137Q-GP25 496 mg/kg
HR-137Q-S500_W300 456 mg/kg
HR-137Q-S500_E100 117 mg/kg
HR-137Q-S400_E500 436 mg/kg
HR-137Q-S500_W100 331 mg/kg
HR-137Q-S400_E200 400 mg/kg
HR-137Q-S500_E600 50 mg/kg
HR-137Q-S500_W200 2450 mg/kg
HR-137Q-S500_E200 52 mg/kg
HR-137Q-S500_E400 1420 mg/kg
HR-137Q-S600_W300 148 mg/kg
HR-137Q-S600_E400 104 mg/kg
HR-137Q-S600_W200 490 mg/kg
HR-137Q-S500_E300 164 mg/kg
HR-137Q-S600_W100 282 mg/kg
HR-137Q-S700_W100 295 mg/kg
Surface Soil Lead Concentrations
50 - 99.99 mg/kg
100 - 399.99 mg/kg
400 - 879.99 mg/kg
880 - 7599.99 mg/kg
> 7600 mg/kg
c:/ftmc/mxd/bgr/fig4_1_leadiso_residential.mxd
Figure 4-1
Lead in Surface Soil Isocontour Map
Former 81mm Mortar Range
Parcel 137Q-X
Fort McClellan, Alabama
Legend
Surface/Depositional Soil Sample Location
Monitoring Well/Surface Soil Sample Location
XRF Sample Location
Area of Investigation
Parcel Boundary/Range Fan
Wooded
Not Wooded
Roads
Surface Drainage Feature (Dashed where Intermittent)
Topographic Contour (25-foot interval)
125 0 125 Feet
NAD83 State Plane Coordinates
N
Shaw Shaw Environmental, Inc.
U.S. Army Corps of Engineers Mobile District
Contract No. DACA21-96-D-0018



Sample Identification		BKG	ESV	HR-137Q-DEP05
Sample Number				RH0039
Sample Date				22-Jul-02
Copper	mg/kg	1.27E+01	4.00E+01	4.84E+01

Sample Identification		BKG	ESV	HR-137Q-MW03
Sample Number				RH0029
Sample Date				12-Jun-02
Copper	mg/kg	1.27E+01	4.00E+01	1.34E+02

Sample Identification		BKG	ESV	HR-137Q-DEP07
Sample Number				RH0115
Sample Date				10-Mar-04
Copper	mg/kg	1.27E+01	4.00E+01	5.52E+01

Sample Identification		BKG	ESV	HR-137Q-GP08
Sample Number				RH0015
Sample Date				12-Jun-02
Copper	mg/kg	1.27E+01	4.00E+01	4.02E+01

Sample Identification		BKG	ESV	HR-137Q-GP15
Sample Number				RH0051
Sample Date				14-Oct-03
Antimony	mg/kg	1.99E+00	3.50E+00	1.20E+01
Copper	mg/kg	1.27E+01	4.00E+01	5.71E+01 J

Sample Identification		BKG	ESV	HR-137Q-GP20
Sample Number				RH0067
Sample Date				01-Oct-03
Antimony	mg/kg	1.99E+00	3.50E+00	2.38E+01 J
Copper	mg/kg	1.27E+01	4.00E+01	3.25E+02

Sample Identification		BKG	ESV	HR-137Q-GP18
Sample Number				RH0060
Sample Date				14-Oct-03
Copper	mg/kg	1.27E+01	4.00E+01	4.12E+01 J

Sample Identification		BKG	ESV	HR-137Q-GP04
Sample Number				RH0007
Sample Date				18-Jun-02
Antimony	mg/kg	1.99E+00	3.50E+00	5.69E+00 J
Copper	mg/kg	1.27E+01	4.00E+01	1.78E+02

Sample Identification		BKG	ESV	HR-137Q-GP17
Sample Number				RH0057
Sample Date				15-Oct-03
Antimony	mg/kg	1.99E+00	3.50E+00	1.08E+02
Copper	mg/kg	1.27E+01	4.00E+01	1.15E+02 J

Sample Identification		BKG	ESV	HR-137Q-GP13
Sample Number				RH0044
Sample Date				14-Oct-03
Copper	mg/kg	1.27E+01	4.00E+01	2.04E+02 J

Sample Identification		BKG	ESV	HR-137Q-GP06
Sample Number				RH0011
Sample Date				18-Jun-02
Copper	mg/kg	1.27E+01	4.00E+01	5.40E+01

Sample Identification		BKG	ESV	HR-137Q-GP24
Sample Number				RH0080
Sample Date				06-Oct-03
Antimony	mg/kg	1.99E+00	3.50E+00	6.13E+00 J
Copper	mg/kg	1.27E+01	4.00E+01	1.32E+02

Sample Identification		BKG	ESV	HR-137Q-GP22
Sample Number				RH0074
Sample Date				15-Oct-03
Copper	mg/kg	1.27E+01	4.00E+01	7.48E+01 J

Sample Identification		BKG	ESV	HR-137Q-GP25
Sample Number				RH0083
Sample Date				16-Oct-03
Copper	mg/kg	1.27E+01	4.00E+01	5.61E+01

Sample Identification		BKG	ESV	HR-137Q-GP26
Sample Number				RH0086
Sample Date				06-Oct-03
Copper	mg/kg	1.27E+01	4.00E+01	6.76E+01

Sample Identification		BKG	ESV	HR-137Q-MW01
Sample Number				RH0023
Sample Date				11-Jun-02
Antimony	mg/kg	1.99E+00	3.50E+00	5.21E+00 J

Sample Identification		BKG	ESV	HR-137Q-MW04
Sample Number				RH0031
Sample Date				10-Jun-02
Copper	mg/kg	1.27E+01	4.00E+01	1.44E+02

Sample Identification		BKG	ESV	HR-137Q-GP19
Sample Number				RH0063
Sample Date				01-Oct-03
Copper	mg/kg	1.27E+01	4.00E+01	5.84E+01

LEGEND

- UNIMPROVED ROAD
- PAVED ROAD
- TOPOGRAPHIC CONTOUR (CONTOUR INTERVAL - 25 FOOT)
- TREES / TREELINE
- PARCEL BOUNDARY
- AREA OF INVESTIGATION
- SURFACE DRAINAGE / CREEK
- TRENCH
- MONITORING WELL / GROUNDWATER, SURFACE AND SUBSURFACE SOIL SAMPLE LOCATION
- MONITORING WELL / GROUNDWATER SAMPLE LOCATION
- SURFACE AND SUBSURFACE SOIL SAMPLE LOCATION
- SURFACE SOIL SAMPLE LOCATION
- DEPOSITIONAL SOIL SAMPLE LOCATION
- (SB) SOIL BORING LOCATION
- (W) MONITORING WELL LOCATION
- ESV ECOLOGICAL SCREENING VALUE
- BKG BACKGROUND VALUE
- J METAL WAS POSITIVELY IDENTIFIED; REPORTED VALUE IS AN ESTIMATED CONCENTRATION
- mg/kg MILLIGRAMS PER KILOGRAM

APPROXIMATE LOCATION OF OBSERVED FEATURES

1. RUSTED TRUCK WITH BULLET HOLES
2. TRENCH WITH EMPTY RUSTED STB DRUMS (3), AND ONE FOXHOLE
3. SEVERAL RUSTED 1-5 GALLON DRUMS (POSSIBLE GAS CANS AND STB DRUMS)
4. 2 SURFACE DEPRESSIONS
5. SURFACE DEPRESSION WITH RUSTED METAL SHEET IN BOTTOM
6. DISTURBED AREA
7. OLD ROAD
8. 4 RUSTED DRUMS
9. RUSTED DRUM
10. RUSTED TRUCK BED AND DISTURBED AREA WITH MOUNDS AND DEPRESSIONS
11. PIT WITH METAL IN BOTTOM

NOTE:

1. "B"-FLAGGED DATA NOT SHOWN.

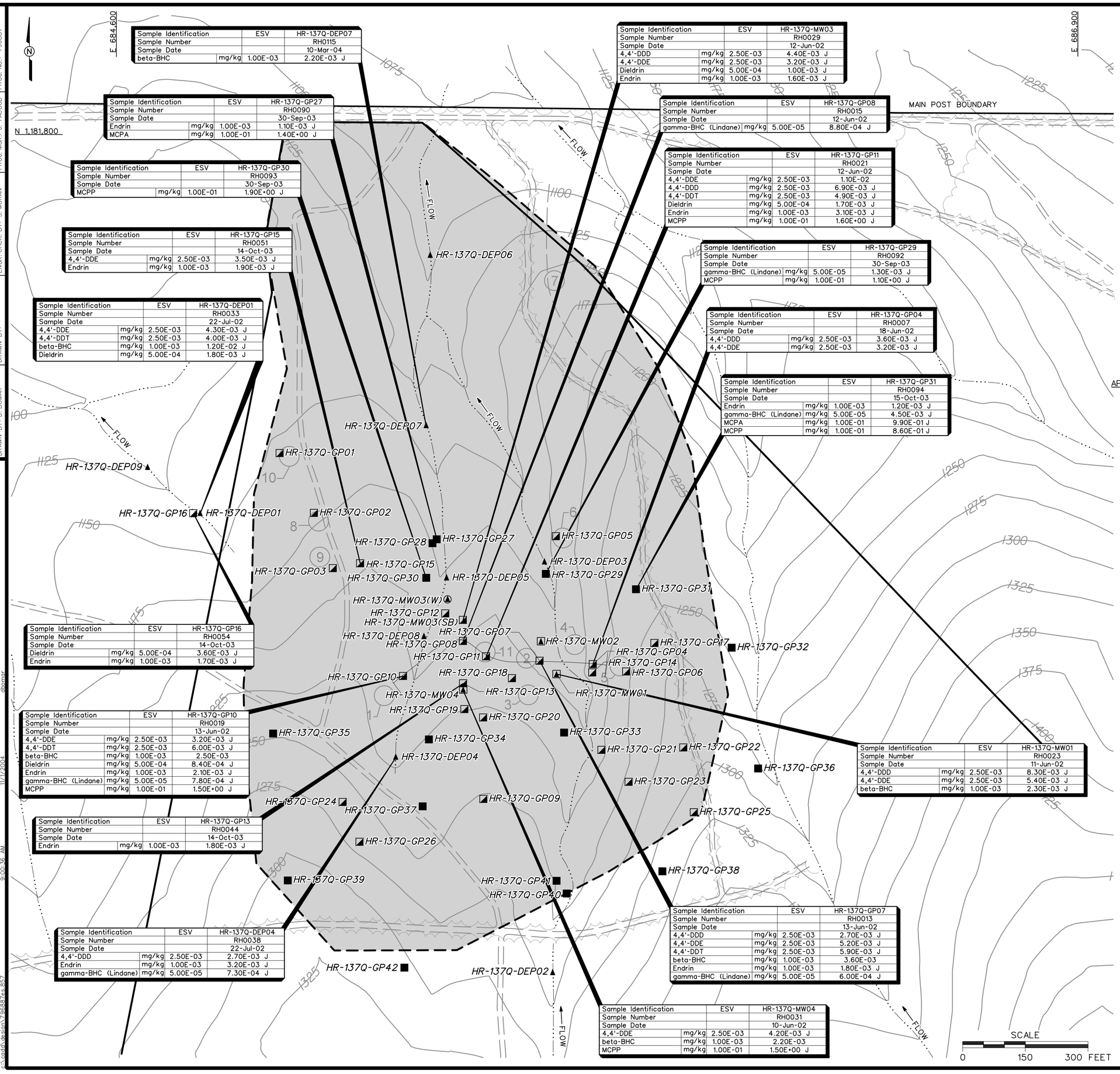
FIGURE 4-2
ANTIMONY AND COPPER RESULTS EXCEEDING ESVs AND BACKGROUND IN SURFACE SOIL FORMER 81mm MORTAR RANGE PARCEL 137Q-X

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

Shaw™ Shaw Environmental, Inc.

DWG. NO.:	796887es834
PROJ. NO.:	796887
INITIATOR:	T. WINTON
PROJ. MGR.:	J. YACOUB
DRAFT. CHCK. BY:	
ENGR. CHCK. BY:	S. MORAN
DATE LAST REV.:	
DRAWN BY:	
STARTING DATE:	06/22/04
DRAWN BY:	D. BOMAR

dbomar 10/22/2004 9:46:19 AM
c:\cadd\design\796887es834



Sample Identification		ESV	HR-137Q-DEP07
Sample Number			RH0115
Sample Date			10-Mar-04
beta-BHC	mg/kg	1.00E-03	2.20E-03 J

Sample Identification		ESV	HR-137Q-GP27
Sample Number			RH0090
Sample Date			30-Sep-03
Endrin	mg/kg	1.00E-03	1.10E-03 J
MCPA	mg/kg	1.00E-01	1.40E+00 J

Sample Identification		ESV	HR-137Q-GP30
Sample Number			RH0093
Sample Date			30-Sep-03
MCPP	mg/kg	1.00E-01	1.90E+00 J

Sample Identification		ESV	HR-137Q-GP15
Sample Number			RH0051
Sample Date			14-Oct-03
4,4'-DDE	mg/kg	2.50E-03	3.50E-03 J
Endrin	mg/kg	1.00E-03	1.90E-03 J

Sample Identification		ESV	HR-137Q-DEP01
Sample Number			RH0033
Sample Date			22-Jul-02
4,4'-DDE	mg/kg	2.50E-03	4.30E-03 J
4,4'-DDT	mg/kg	2.50E-03	4.00E-03 J
beta-BHC	mg/kg	1.00E-03	1.20E-02 J
Dieldrin	mg/kg	5.00E-04	1.80E-03 J

Sample Identification		ESV	HR-137Q-GP16
Sample Number			RH0054
Sample Date			14-Oct-03
Dieldrin	mg/kg	5.00E-04	3.60E-03 J
Endrin	mg/kg	1.00E-03	1.70E-03 J

Sample Identification		ESV	HR-137Q-GP10
Sample Number			RH0019
Sample Date			13-Jun-02
4,4'-DDE	mg/kg	2.50E-03	3.20E-03 J
4,4'-DDT	mg/kg	2.50E-03	6.00E-03 J
beta-BHC	mg/kg	1.00E-03	2.50E-03
Dieldrin	mg/kg	5.00E-04	8.40E-04 J
Endrin	mg/kg	1.00E-03	2.10E-03 J
gamma-BHC (Lindane)	mg/kg	5.00E-05	7.80E-04 J
MCPP	mg/kg	1.00E-01	1.50E+00 J

Sample Identification		ESV	HR-137Q-GP13
Sample Number			RH0044
Sample Date			14-Oct-03
Endrin	mg/kg	1.00E-03	1.80E-03 J

Sample Identification		ESV	HR-137Q-DEP04
Sample Number			RH0038
Sample Date			22-Jul-02
4,4'-DDD	mg/kg	2.50E-03	2.70E-03 J
Endrin	mg/kg	1.00E-03	3.20E-03 J
gamma-BHC (Lindane)	mg/kg	5.00E-05	7.30E-04 J

Sample Identification		ESV	HR-137Q-MW03
Sample Number			RH0029
Sample Date			12-Jun-02
4,4'-DDD	mg/kg	2.50E-03	4.40E-03 J
4,4'-DDE	mg/kg	2.50E-03	3.20E-03 J
Dieldrin	mg/kg	5.00E-04	1.00E-03 J
Endrin	mg/kg	1.00E-03	1.60E-03 J

Sample Identification		ESV	HR-137Q-GP08
Sample Number			RH0015
Sample Date			12-Jun-02
gamma-BHC (Lindane)	mg/kg	5.00E-05	8.80E-04 J

Sample Identification		ESV	HR-137Q-GP11
Sample Number			RH0021
Sample Date			12-Jun-02
4,4'-DDE	mg/kg	2.50E-03	1.10E-02
4,4'-DDD	mg/kg	2.50E-03	6.90E-03 J
4,4'-DDT	mg/kg	2.50E-03	4.90E-03 J
Dieldrin	mg/kg	5.00E-04	1.70E-03 J
Endrin	mg/kg	1.00E-03	3.10E-03 J
MCPP	mg/kg	1.00E-01	1.60E+00 J

Sample Identification		ESV	HR-137Q-GP29
Sample Number			RH0092
Sample Date			30-Sep-03
gamma-BHC (Lindane)	mg/kg	5.00E-05	1.30E-03 J
MCPP	mg/kg	1.00E-01	1.10E+00 J

Sample Identification		ESV	HR-137Q-GP04
Sample Number			RH0007
Sample Date			18-Jun-02
4,4'-DDD	mg/kg	2.50E-03	3.60E-03 J
4,4'-DDE	mg/kg	2.50E-03	3.20E-03 J

Sample Identification		ESV	HR-137Q-GP31
Sample Number			RH0094
Sample Date			15-Oct-03
Endrin	mg/kg	1.00E-03	1.20E-03 J
gamma-BHC (Lindane)	mg/kg	5.00E-05	4.50E-03 J
MCPA	mg/kg	1.00E-01	9.90E-01 J
MCPP	mg/kg	1.00E-01	8.60E-01 J

Sample Identification		ESV	HR-137Q-MW01
Sample Number			RH0023
Sample Date			11-Jun-02
4,4'-DDD	mg/kg	2.50E-03	8.30E-03 J
4,4'-DDE	mg/kg	2.50E-03	5.40E-03 J
beta-BHC	mg/kg	1.00E-03	2.30E-03 J

Sample Identification		ESV	HR-137Q-GP07
Sample Number			RH0013
Sample Date			13-Jun-02
4,4'-DDD	mg/kg	2.50E-03	2.70E-03 J
4,4'-DDE	mg/kg	2.50E-03	5.20E-03 J
4,4'-DDT	mg/kg	2.50E-03	5.90E-03 J
beta-BHC	mg/kg	1.00E-03	3.60E-03
Endrin	mg/kg	1.00E-03	1.80E-03 J
gamma-BHC (Lindane)	mg/kg	5.00E-05	6.00E-04 J

Sample Identification		ESV	HR-137Q-MW04
Sample Number			RH0031
Sample Date			10-Jun-02
4,4'-DDE	mg/kg	2.50E-03	4.20E-03 J
beta-BHC	mg/kg	1.00E-03	2.20E-03
MCPP	mg/kg	1.00E-01	1.50E+00 J

LEGEND

- UNIMPROVED ROAD
- PAVED ROAD
- TOPOGRAPHIC CONTOUR (CONTOUR INTERVAL - 25 FOOT)
- TREES / TREELINE
- AREA OF INVESTIGATION
- SURFACE DRAINAGE / CREEK
- TRENCH
- MONITORING WELL / GROUNDWATER, SURFACE AND SUBSURFACE SOIL SAMPLE LOCATION
- MONITORING WELL / GROUNDWATER SAMPLE LOCATION
- SURFACE AND SUBSURFACE SOIL SAMPLE LOCATION
- SURFACE SOIL SAMPLE LOCATION
- DEPOSITIONAL SOIL SAMPLE LOCATION
- (SB) SOIL BORING LOCATION
- (W) MONITORING WELL LOCATION
- ESV ECOLOGICAL SCREENING VALUE
- J COMPOUND WAS POSITIVELY IDENTIFIED; REPORTED VALUE IS AN ESTIMATED CONCENTRATION
- mg/kg MILLIGRAMS PER KILOGRAM

APPROXIMATE LOCATION OF OBSERVED FEATURES

1. RUSTED TRUCK WITH BULLET HOLES
2. TRENCH WITH EMPTY RUSTED STB DRUMS (3), AND ONE FOXHOLE
3. SEVERAL RUSTED 1-5 GALLON DRUMS (POSSIBLE GAS CANS AND STB DRUMS)
4. 2 SURFACE DEPRESSIONS
5. SURFACE DEPRESSION WITH RUSTED METAL SHEET IN BOTTOM
6. DISTURBED AREA
7. OLD ROAD
8. 4 RUSTED DRUMS
9. RUSTED DRUM
10. RUSTED TRUCK BED AND DISTURBED AREA WITH MOUNDS AND DEPRESSIONS
11. PIT WITH METAL IN BOTTOM

FIGURE 4-3
PESTICIDE AND HERBICIDE RESULTS EXCEEDING ESVs IN SURFACE SOIL FORMER 81mm MORTAR RANGE PARCEL 137Q-X

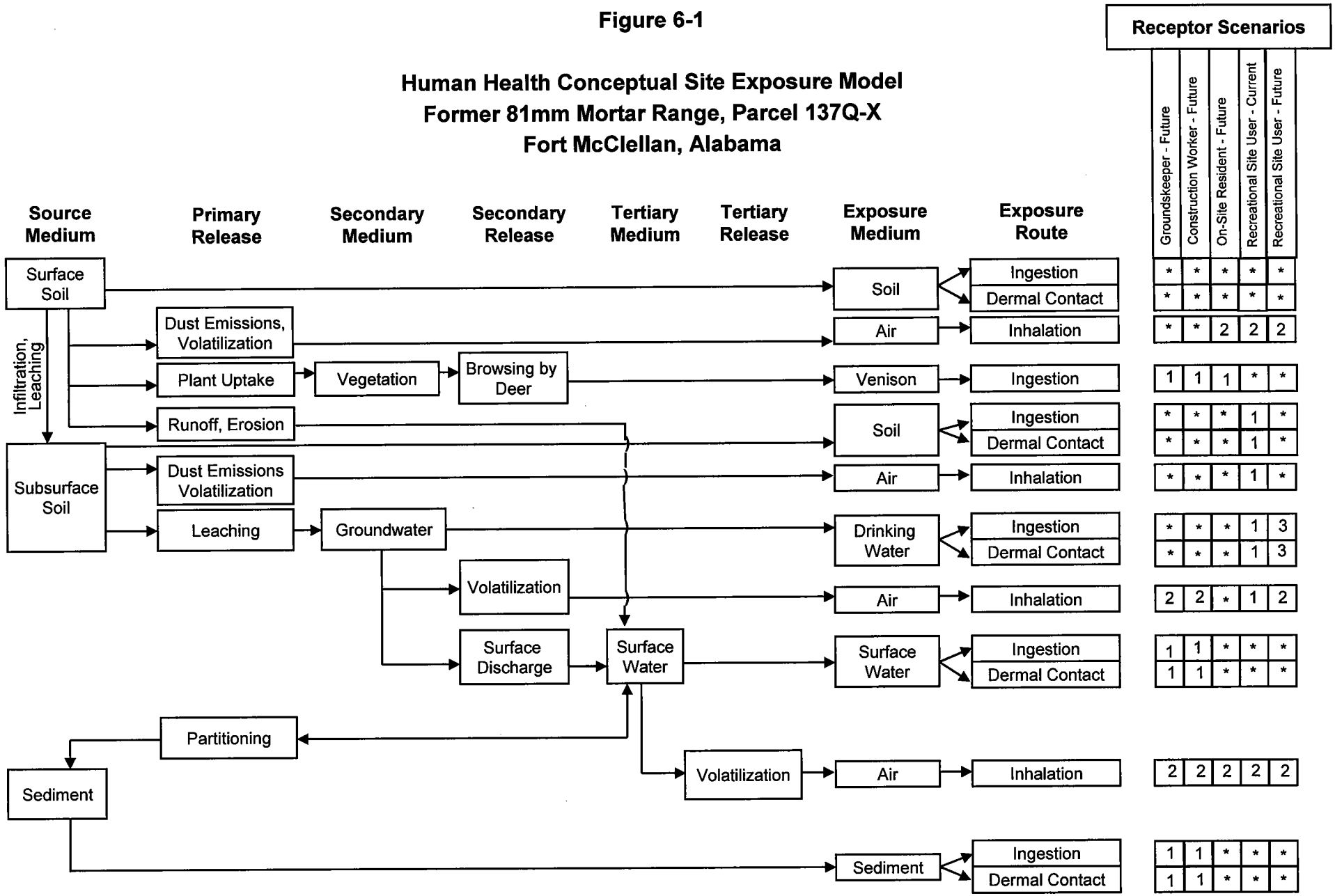
U. S. ARMY CORPS OF ENGINEERS
MOBILE DISTRICT
FORT McCLELLAN
CALHOUN COUNTY, ALABAMA
Contract No. DACA21-96-D-0018

Shaw™ Shaw Environmental, Inc.

DWG. NO.: 796887es857
FRO.#: NO.: 796887
INITIATOR: T. WINTON
FRO.#: MGR.: J. YACOUB
DRAFT. CHCK. BY:
ENGR. CHCK. BY: S. MORAN
DATE LAST REV.:
DRAWN BY:
STARTING DATE: 10/21/04
DRAWN BY: D. BOMAR
dbomar
11/1/2004
9:00:36 AM
es\cadd\design\796887es857

Figure 6-1

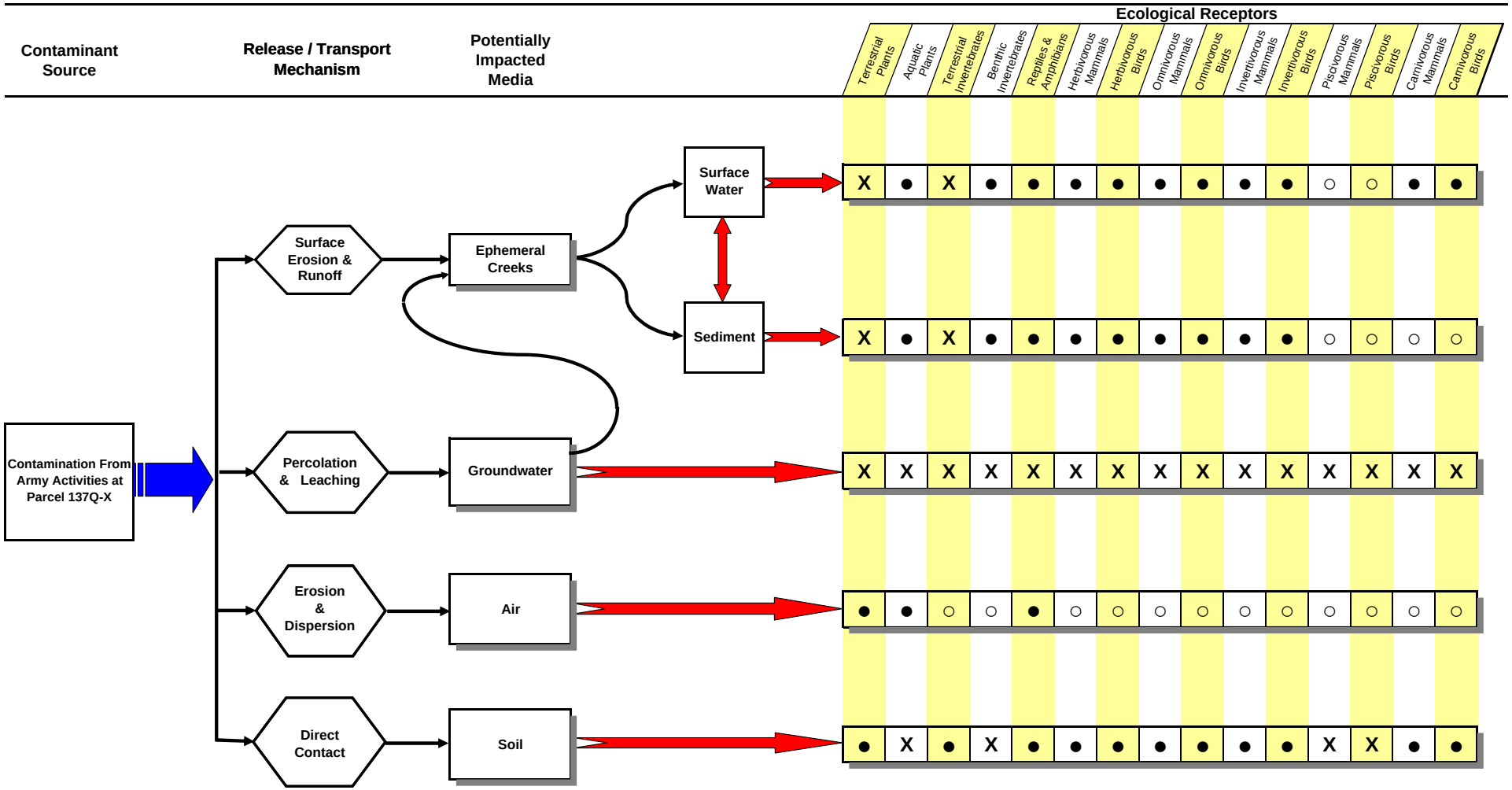
Human Health Conceptual Site Exposure Model
Former 81mm Mortar Range, Parcel 137Q-X
Fort McClellan, Alabama



* = 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.
3 = Although this pathway is complete it is not quantified because other receptor evaluations (e.g., resident, groundskeeper) provide a more conservative assessment.

Figure 7-1

Ecological Site Conceptual Model
Former 81mm Mortar Range, Parcel 137Q-X
Fort McClellan, Alabama



Key To Potential Exposure Routes

- ● - Potentially complete exposure pathway
- X - Incomplete exposure pathway
- ○ - Potentially complete exposure pathway but insignificant