

FIGURES



DRAFTER: A. WARREN

APPROVED: J. SHILLIDAY

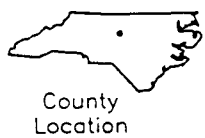
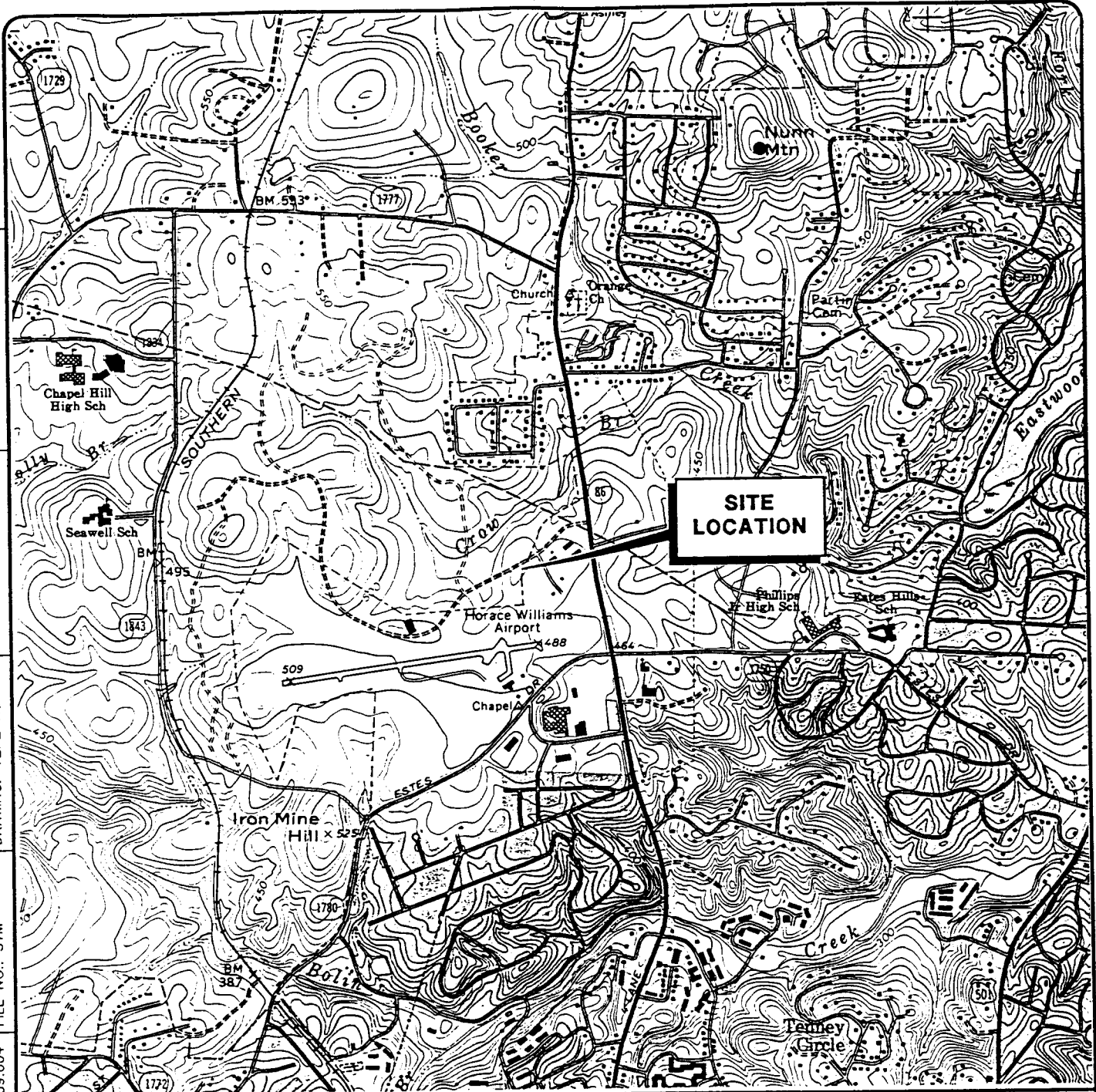
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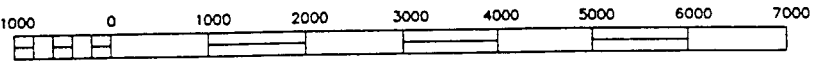
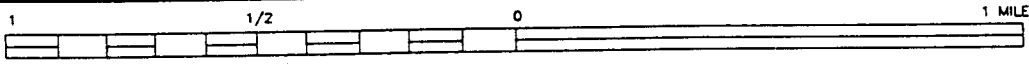
FILE NO.: SYM

PRJCT NO.: NC0239.004

DWG DATE: 080CT96



County Location



SCALE 1:24000

Contour Interval 10 Feet Datum is Mean Sea Level
 U.S.G.S. 7.5 Minute Series Chapel Hill, N.C.
 Topographic Quadrangle. Photorevised 1981.

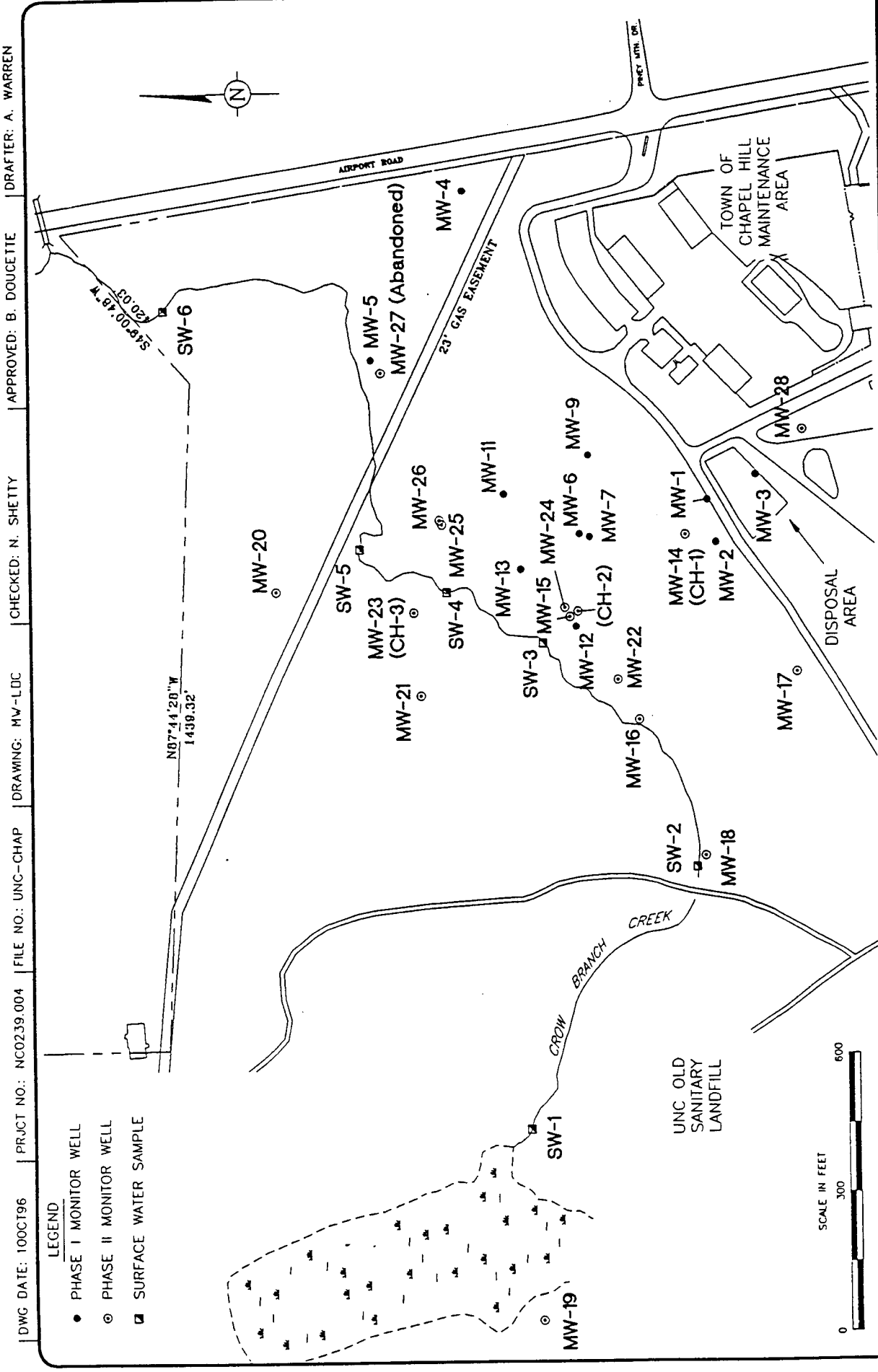


**SITE LOCATION
 TOPOGRAPHIC MAP**

UNC AIRPORT ROAD WASTE DISPOSAL AREA
 THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL
 CHAPEL HILL, NORTH CAROLINA

FIGURE

1-1

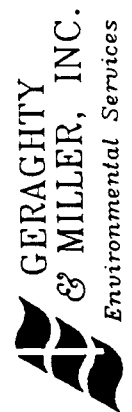


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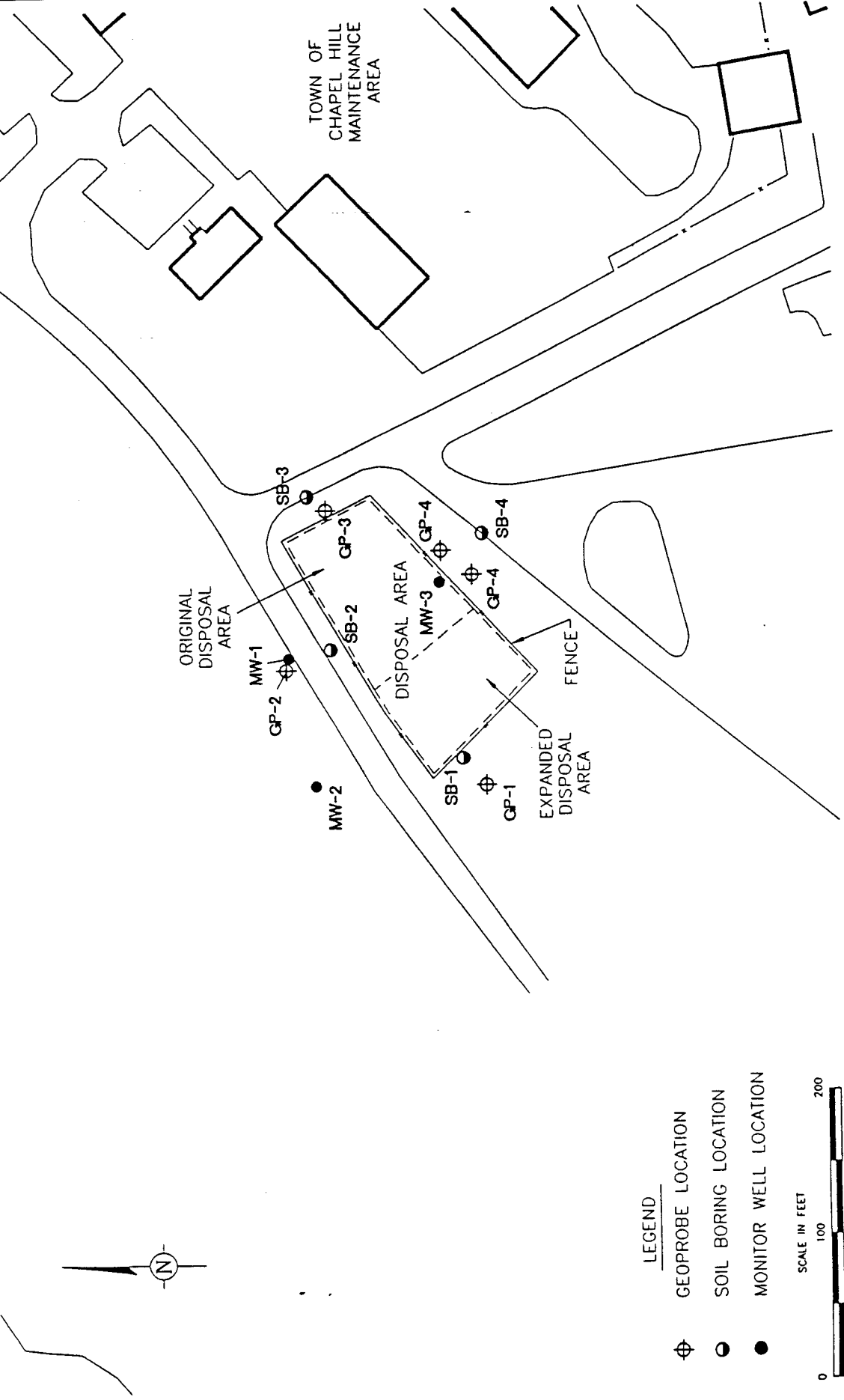
- LEGEND**
- PHASE I MONITOR WELL
 - ⊙ PHASE II MONITOR WELL
 - ▣ SURFACE WATER SAMPLE

FIGURE
2-1

MONITOR WELL AND SURFACE WATER SAMPLE LOCATIONS
 UNC AIRPORT ROAD WASTE DISPOSAL AREA
 THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL
 CHAPEL HILL, NORTH CAROLINA



SCALE IN FEET
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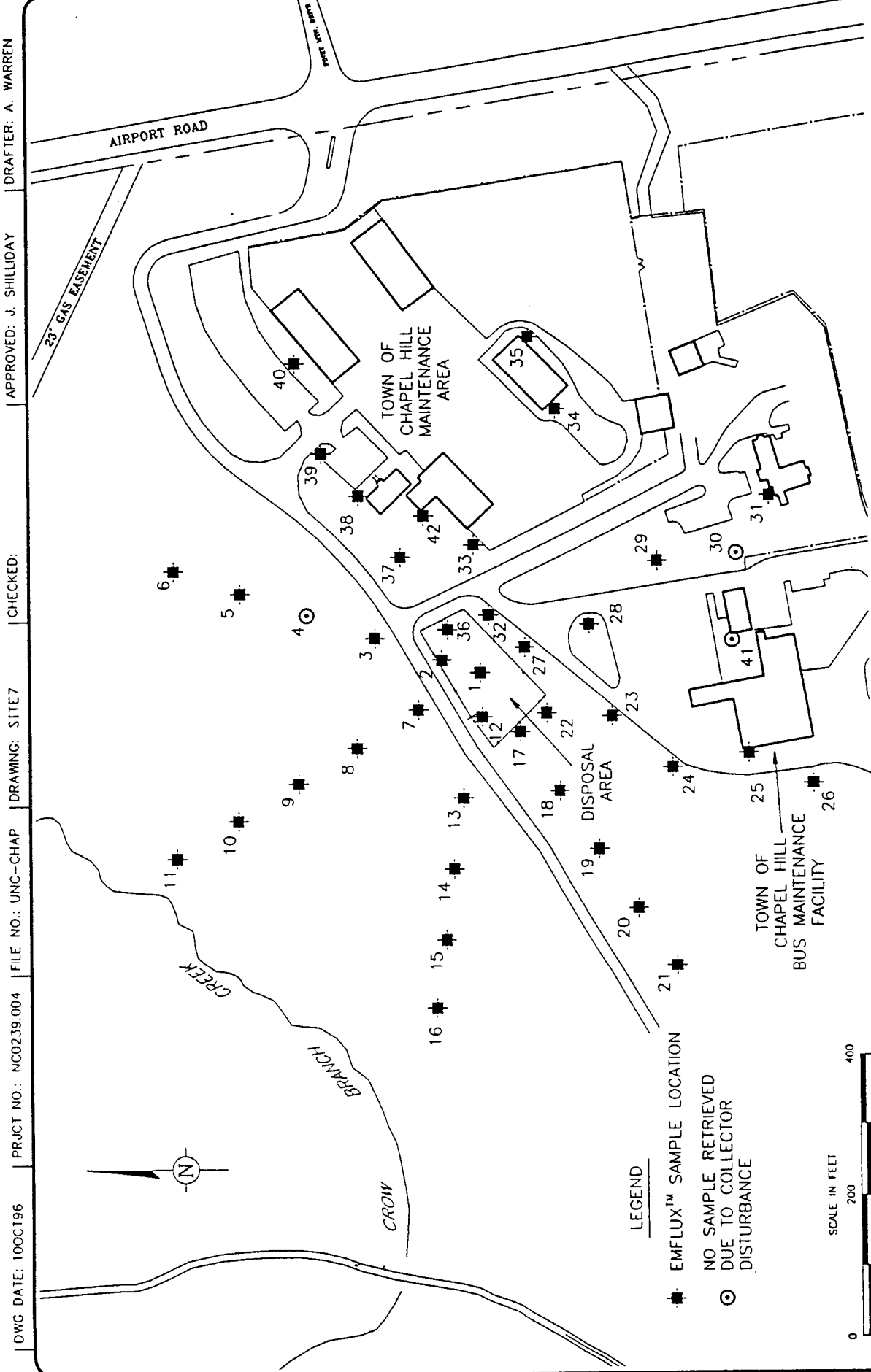


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SOIL BORING AND GEOPROBE SOIL SAMPLE LOCATIONS

UNC AIRPORT ROAD WASTE DISPOSAL AREA
THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL
CHAPEL HILL, NORTH CAROLINA

FIGURE
2-2



DWG DATE: 10OC196 | PRJCT NO.: NC0239.004 | FILE NO.: UNC-CHAP | DRAWING: SITE7 | CHECKED: | APPROVED: J. SHILLIDAY | DRAFTER: A. WARREN

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FIGURE
2-3

EMFLUX™ SAMPLING LOCATIONS

UNC AIRPORT ROAD WASTE DISPOSAL AREA
THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL
CHAPEL HILL, NORTH CAROLINA

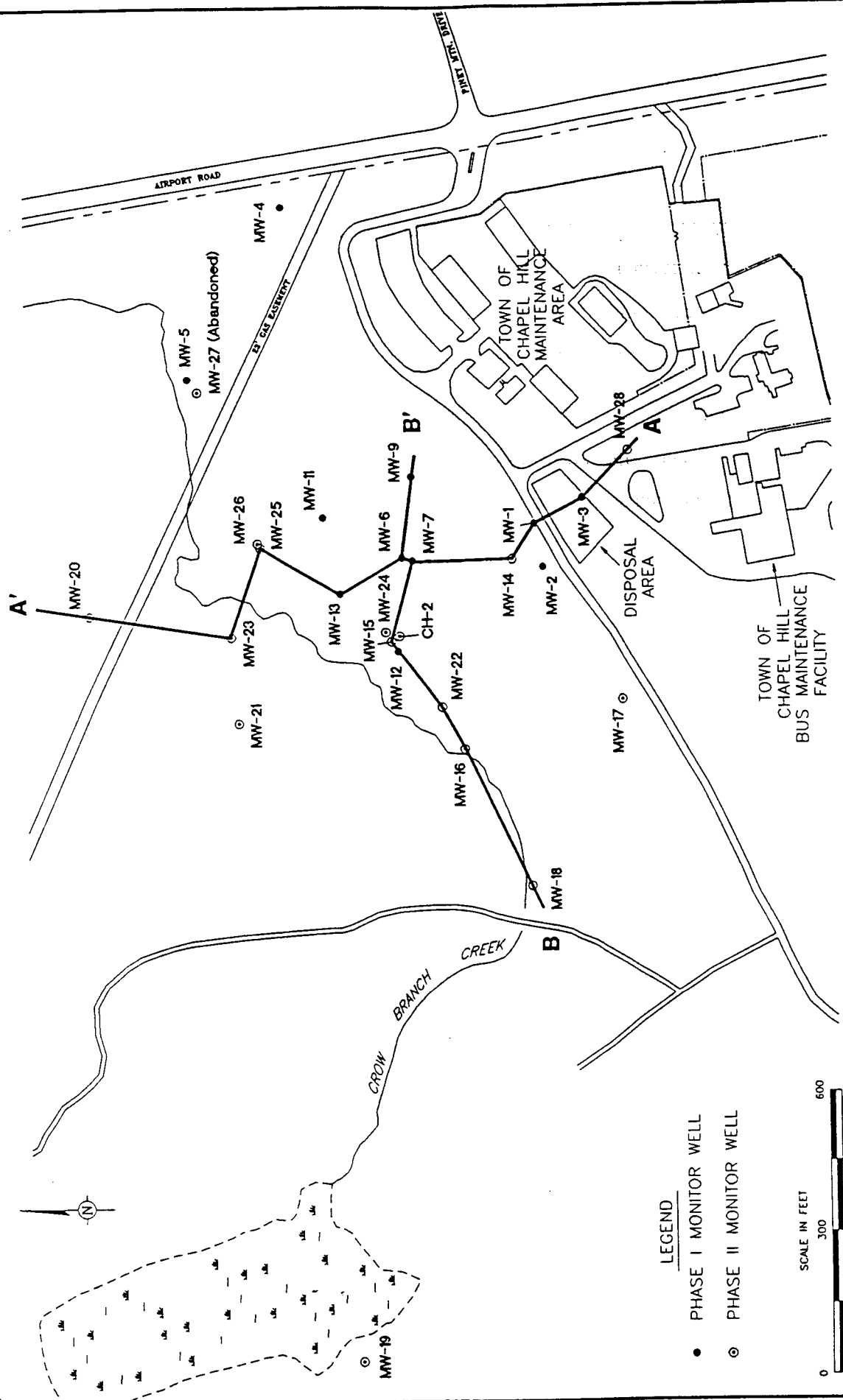
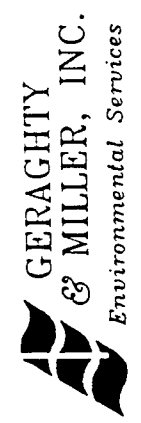
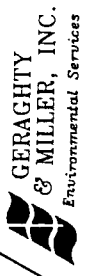
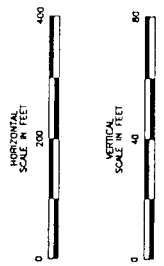
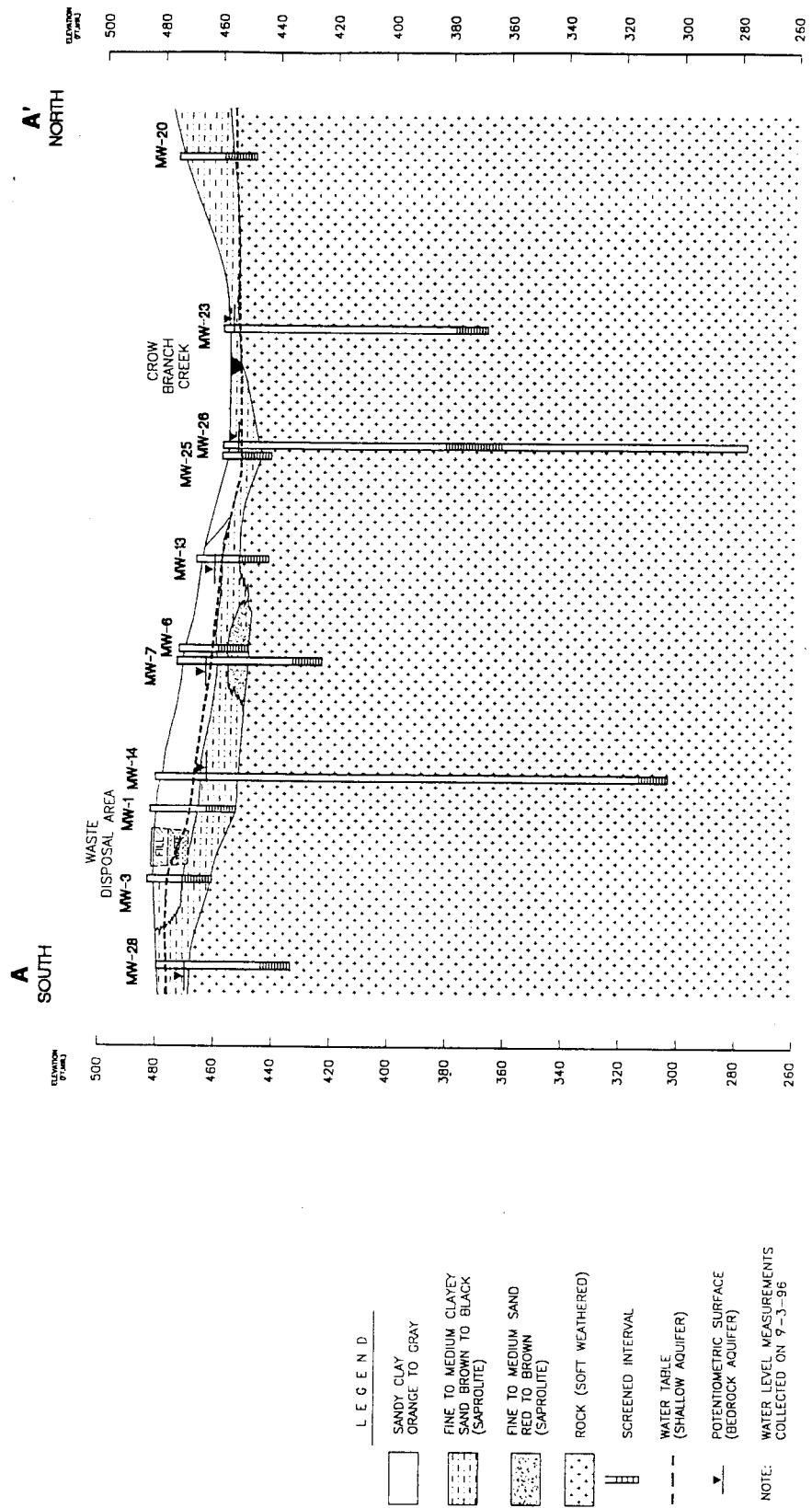


FIGURE 3-1

GEOLOGIC CROSS SECTION LOCATIONS





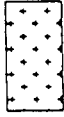

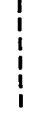

UNC AIRPORT ROAD WASTE DISPOSAL AREA
 THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL
 CHAPEL HILL, NORTH CAROLINA



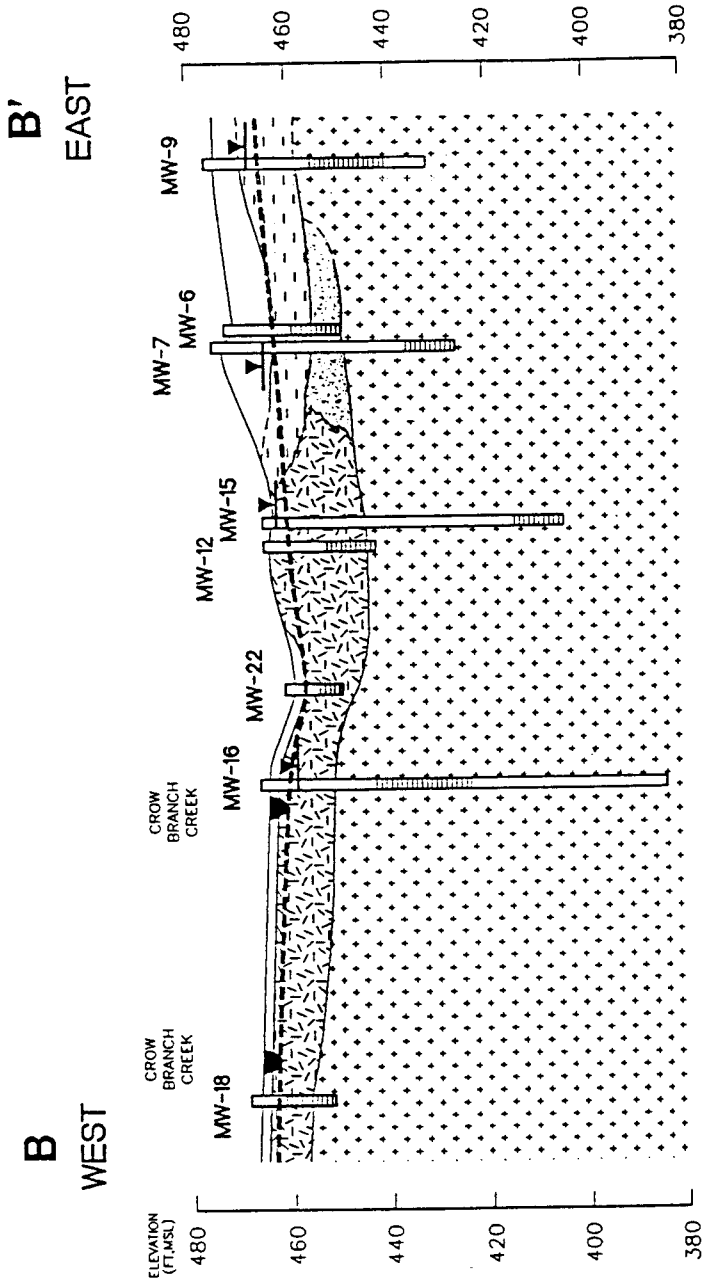
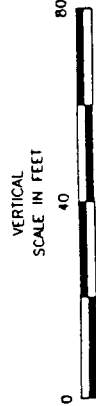
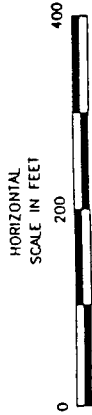


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GEOLOGIC CROSS-SECTION A-A'
 UNC AIRPORT ROAD WASTE DISPOSAL AREA
 THE UNIVERSITY OF CAROLINA AT CHAPEL HILL
 CHAPEL HILL, NORTH CAROLINA

LEGEND

-  SANDY CLAY
ORANGE TO GRAY
-  FINE TO MEDIUM CLAYEY
SAND, BROWN TO BLACK
(SAPROLITE)
-  FINE TO MEDIUM SAND,
RED TO BROWN
(SAPROLITE)
-  WEATHERED BEDROCK
-  ROCK (SOFT WEATHERED)
-  SCREENED INTERVAL
-  WATER TABLE
(SHALLOW AQUIFER)
-  POTENTIOMETRIC SURFACE
(BEDROCK AQUIFER)

NOTE: WATER LEVEL MEASUREMENTS
COLLECTED ON 9-3-96



GEOLOGIC CROSS-SECTION B-B'
UNC AIRPORT ROAD WASTE DISPOSAL AREA
THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL
CHAPEL HILL, NORTH CAROLINA

DWG DATE: 30JUL96 | PRJCT NO.: NC0239.004 | FILE NO.: UNC-CHAP | DRAWING: 2-MILE-A | CHECKED: N. SHETTY | APPROVED: B. DOUCETTE | DRAFTER: A. WARREN



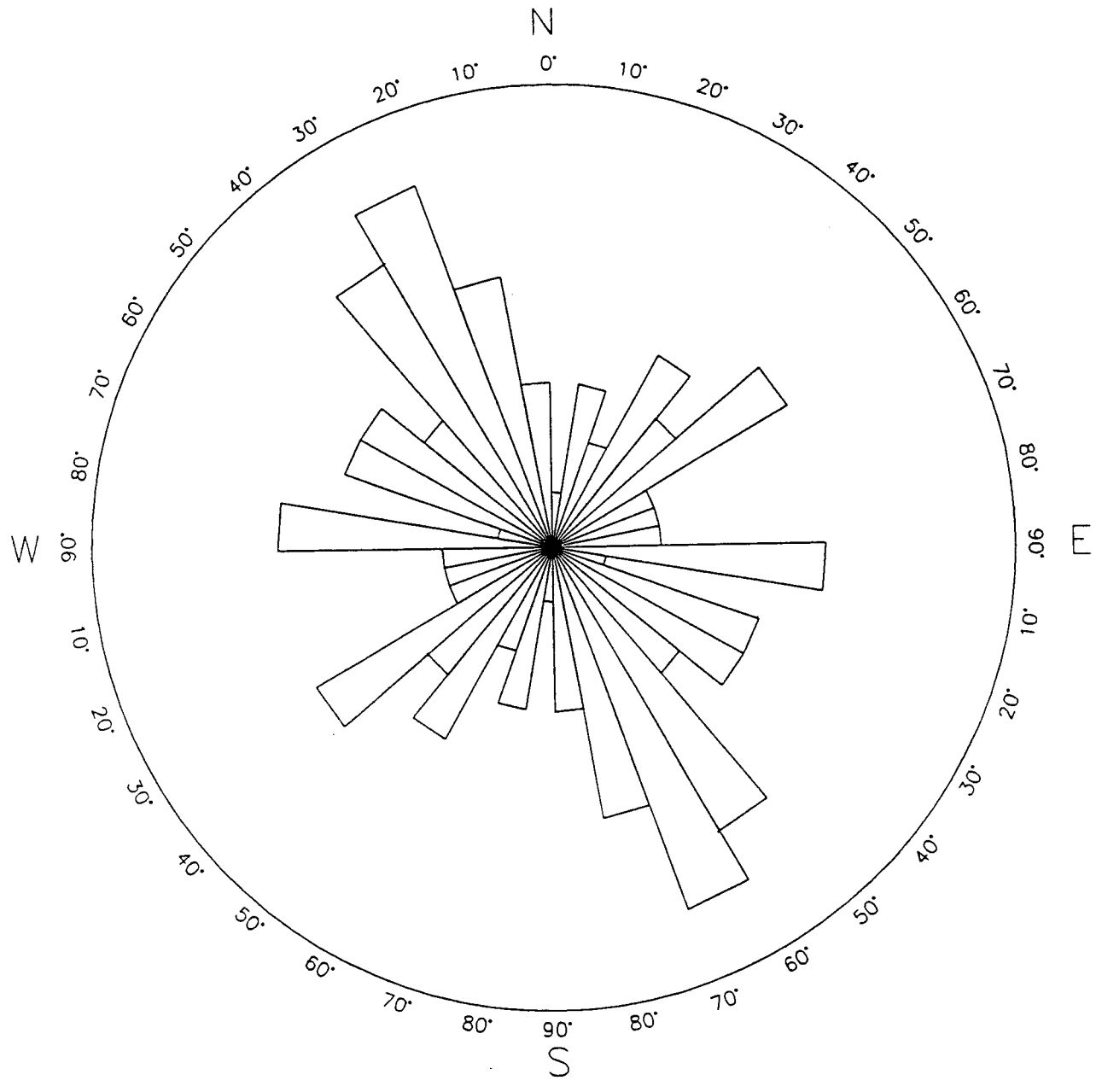
SCALE IN FEET
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**LOCATION OF TOPOGRAPHIC
LINEAR FEATURES**
UNC AIRPORT ROAD WASTE DISPOSAL AREA
THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL
CHAPEL HILL, NORTH CAROLINA

FIGURE
3-4

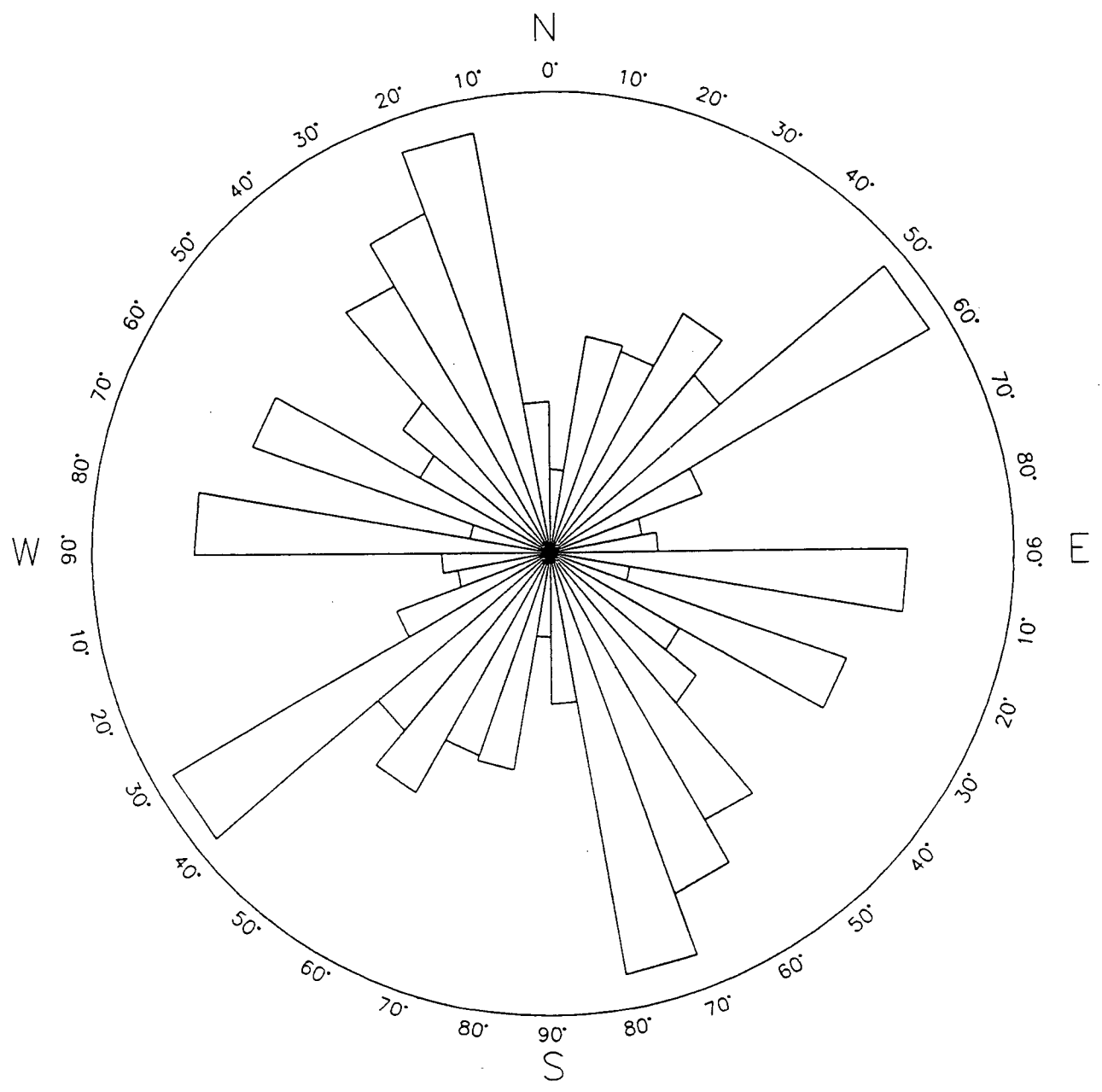
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**ROSE DIAGRAM OF LINEAMENTS
SORTED BY SPATIAL FREQUENCY**
UNC AIRPORT ROAD WASTE DISPOSAL AREA
THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL
CHAPEL HILL, NORTH CAROLINA

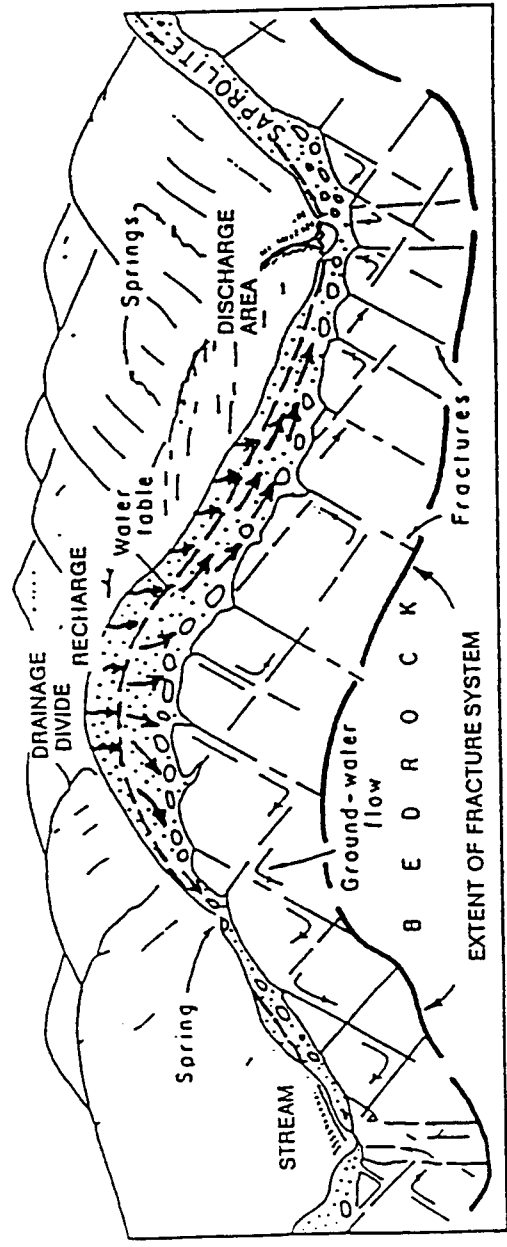
FIGURE
3-5

DWG DATE: 30JUL96 | PRJCT NO.: NC0239.004 | FILE NO.: UNC-CHAP | DRAWING: RDSE-CL | CHECKED: N. SHETTY | APPROVED: C. LOVDAHL | DRAFTER: A. WARREN

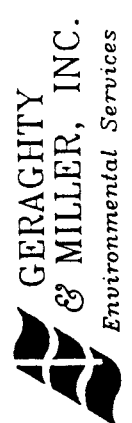


**ROSE DIAGRAM OF LINEAMENTS
SORTED BY CUMULATIVE LENGTH**
UNC AIRPORT ROAD WASTE DISPOSAL AREA
THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL
CHAPEL HILL, NORTH CAROLINA

FIGURE
3-6



SOURCE: HEATH, 1980.

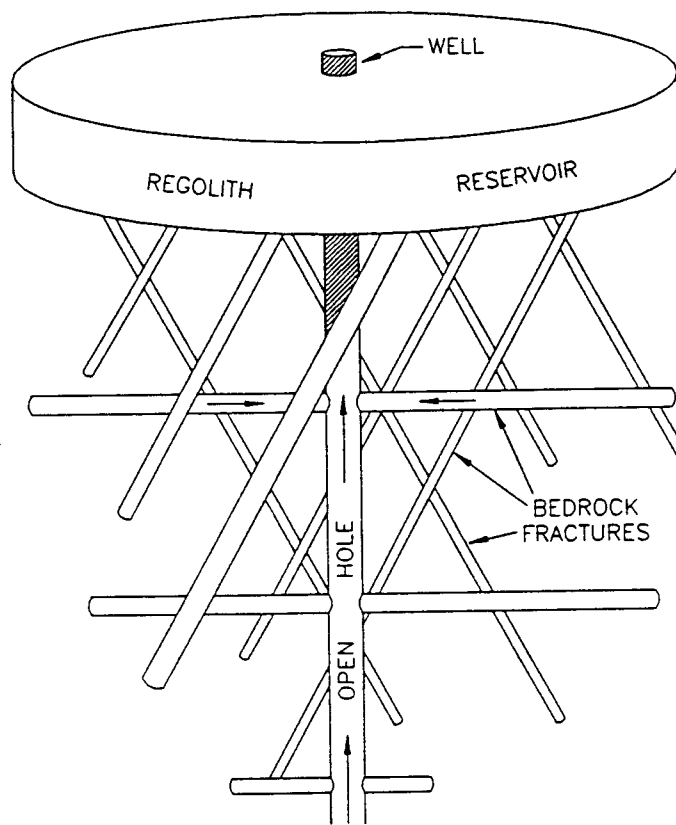


CONCEPTUAL MODEL OF PIEDMONT HYDROGEOLOGIC SYSTEM

UNC AIRPORT ROAD WASTE DISPOSAL AREA
THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL
CHAPEL HILL, NORTH CAROLINA

FIGURE

3-7



SOURCE: HEATH, 1980.



SOURCES OF WATER DERIVED FROM PIEDMONT WELL

UNC AIRPORT ROAD WASTE DISPOSAL AREA
THE UNIVERSITY OF NORTH CAROLINA
CHAPEL HILL, NORTH CAROLINA

FIGURE

3-8

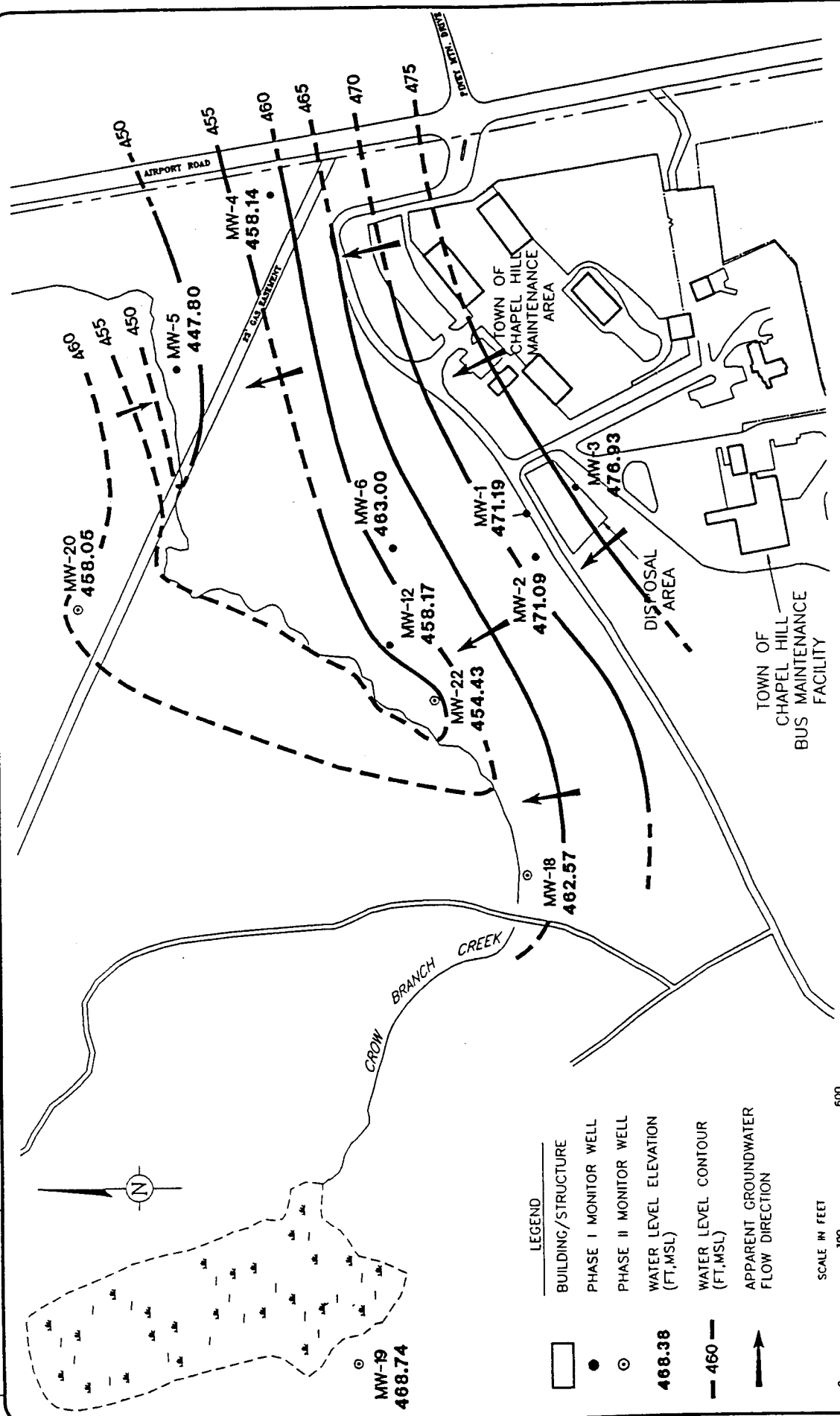
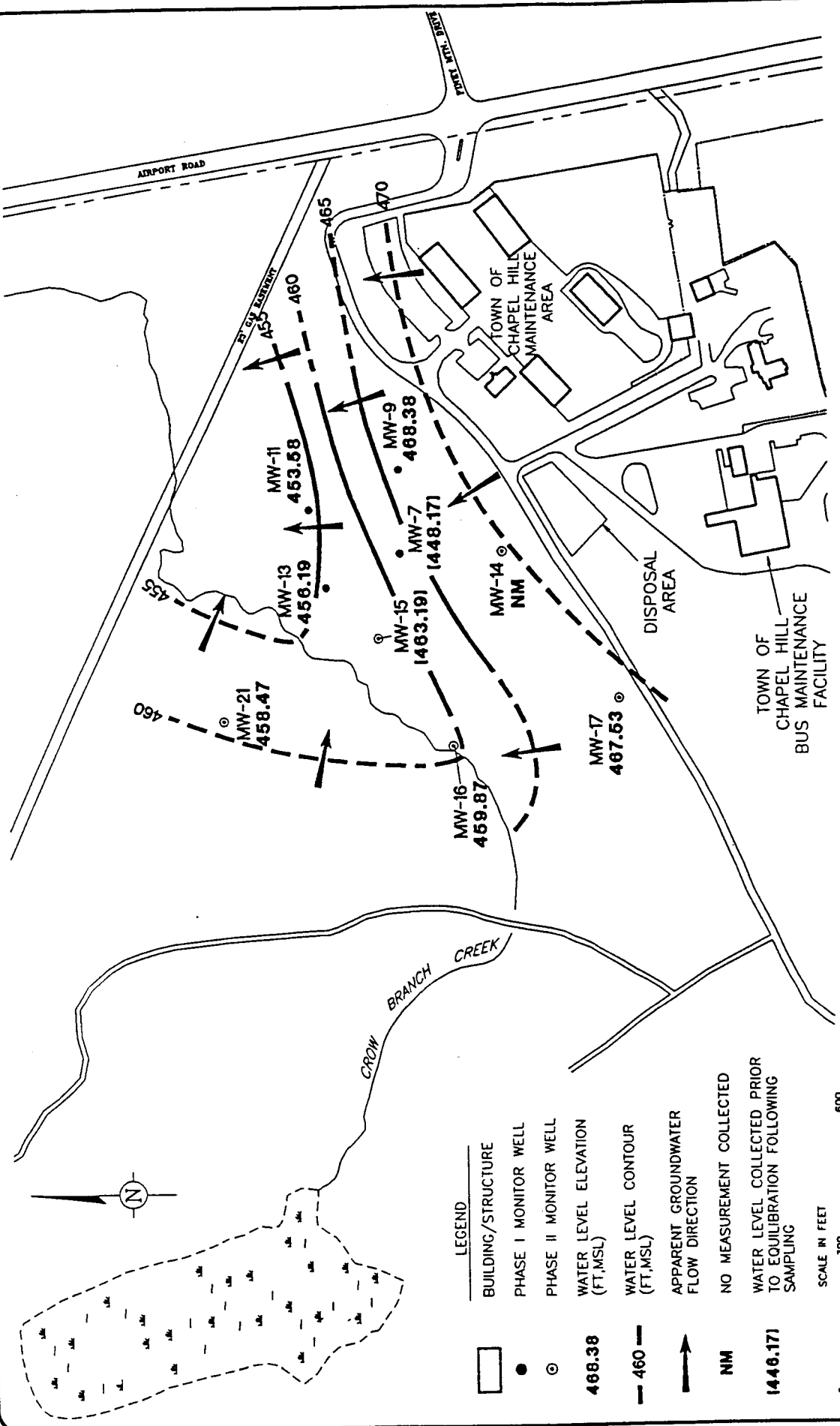


FIGURE
3-9

**WATER LEVEL ELEVATIONS
IN THE SHALLOW AQUIFER - AUGUST 3, 1995**
 UNC AIRPORT ROAD WASTE DISPOSAL AREA
 THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL
 CHAPEL HILL, NORTH CAROLINA

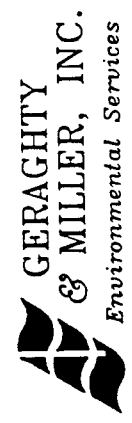
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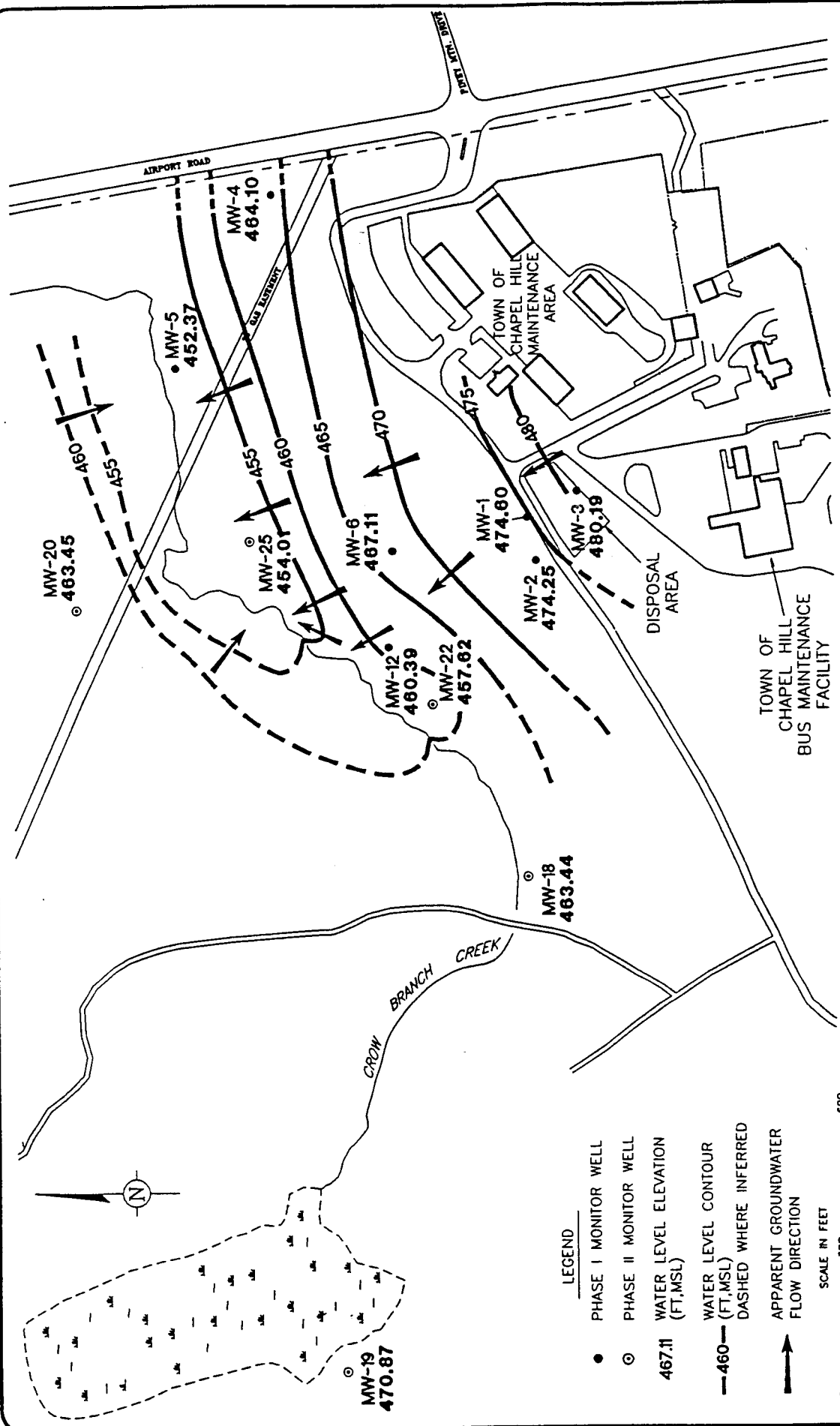


**WATER LEVEL ELEVATIONS
IN THE BEDROCK AQUIFER - AUGUST 3, 1995**

UNC AIRPORT ROAD WASTE DISPOSAL AREA
THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL
CHAPEL HILL, NORTH CAROLINA

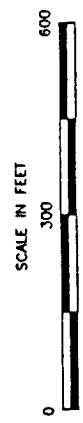
FIGURE
3-10





LEGEND

- PHASE I MONITOR WELL
- ⊙ PHASE II MONITOR WELL
- 467.11 WATER LEVEL ELEVATION (FT.,MSL)
- 460— WATER LEVEL CONTOUR (FT.,MSL) DASHED WHERE INFERRED
- APPARENT GROUNDWATER FLOW DIRECTION



**WATER LEVEL ELEVATIONS
IN THE SHALLOW AQUIFER - APRIL 16, 1996**

UNC AIRPORT ROAD WASTE DISPOSAL AREA
THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL
CHAPEL HILL, NORTH CAROLINA

**GERAGHTY
& MILLER, INC.**
Environmental Services

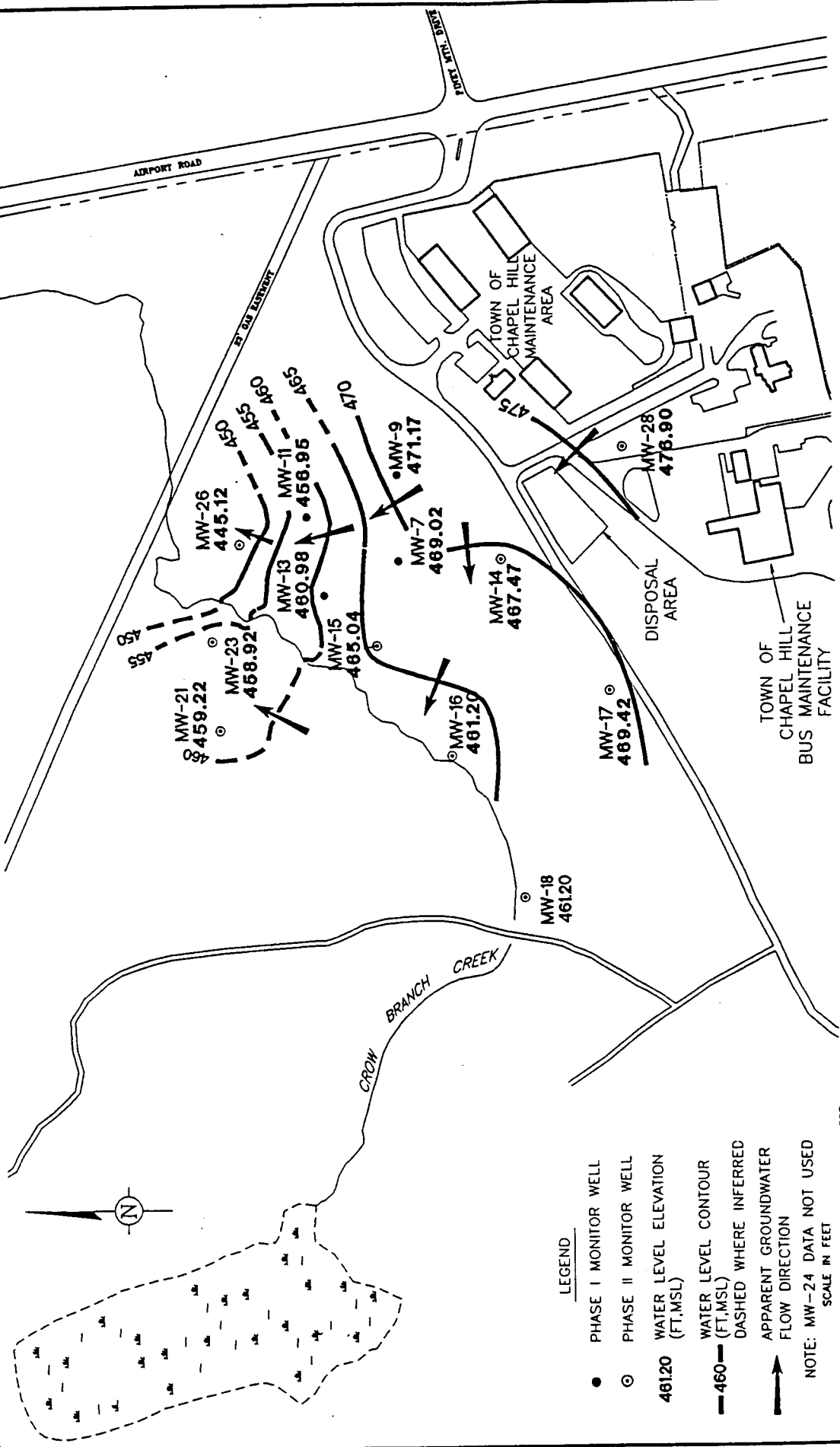
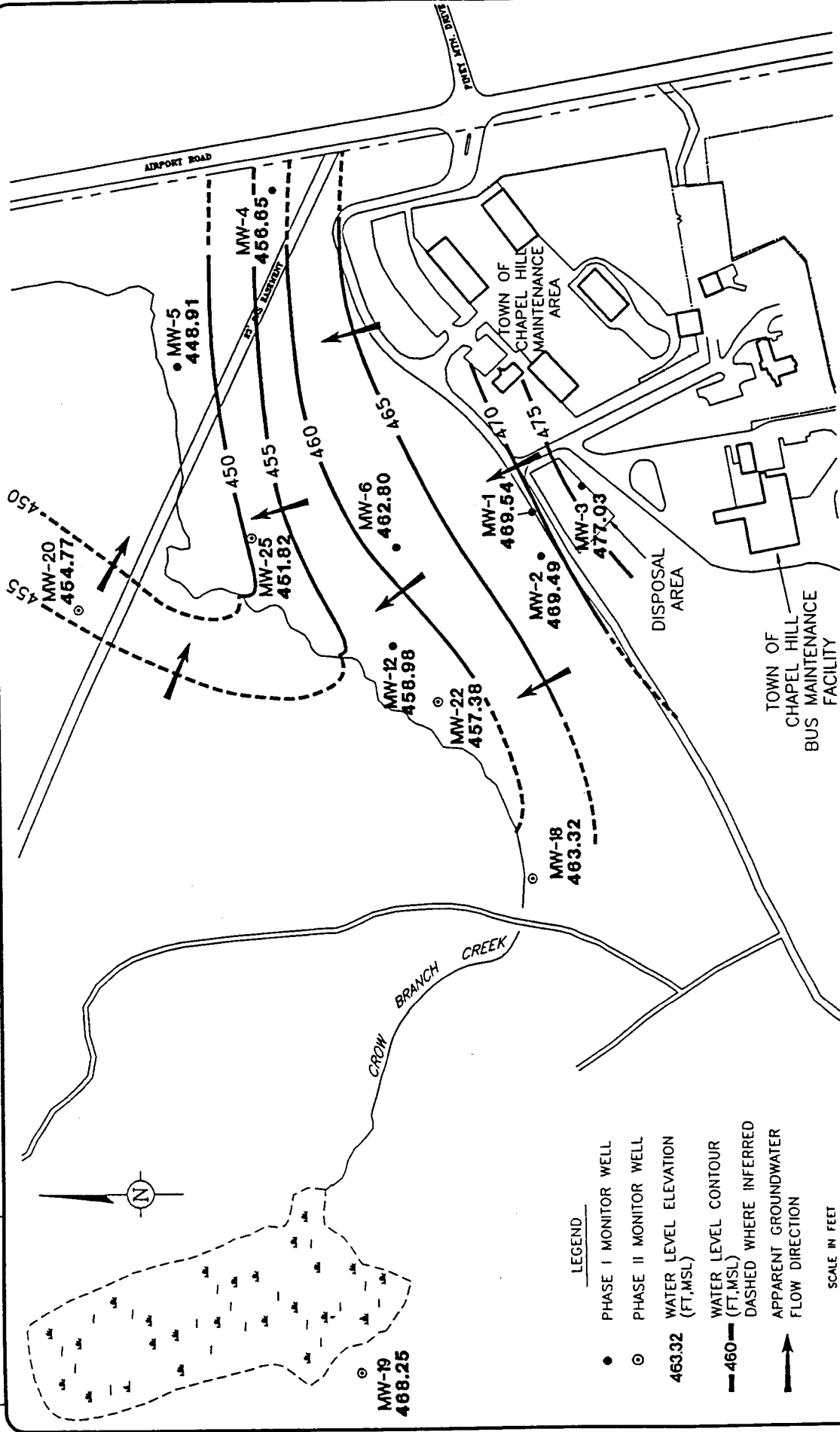


FIGURE 3-12

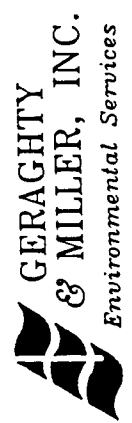
WATER LEVEL ELEVATIONS IN THE BEDROCK AQUIFER - APRIL 16, 1996

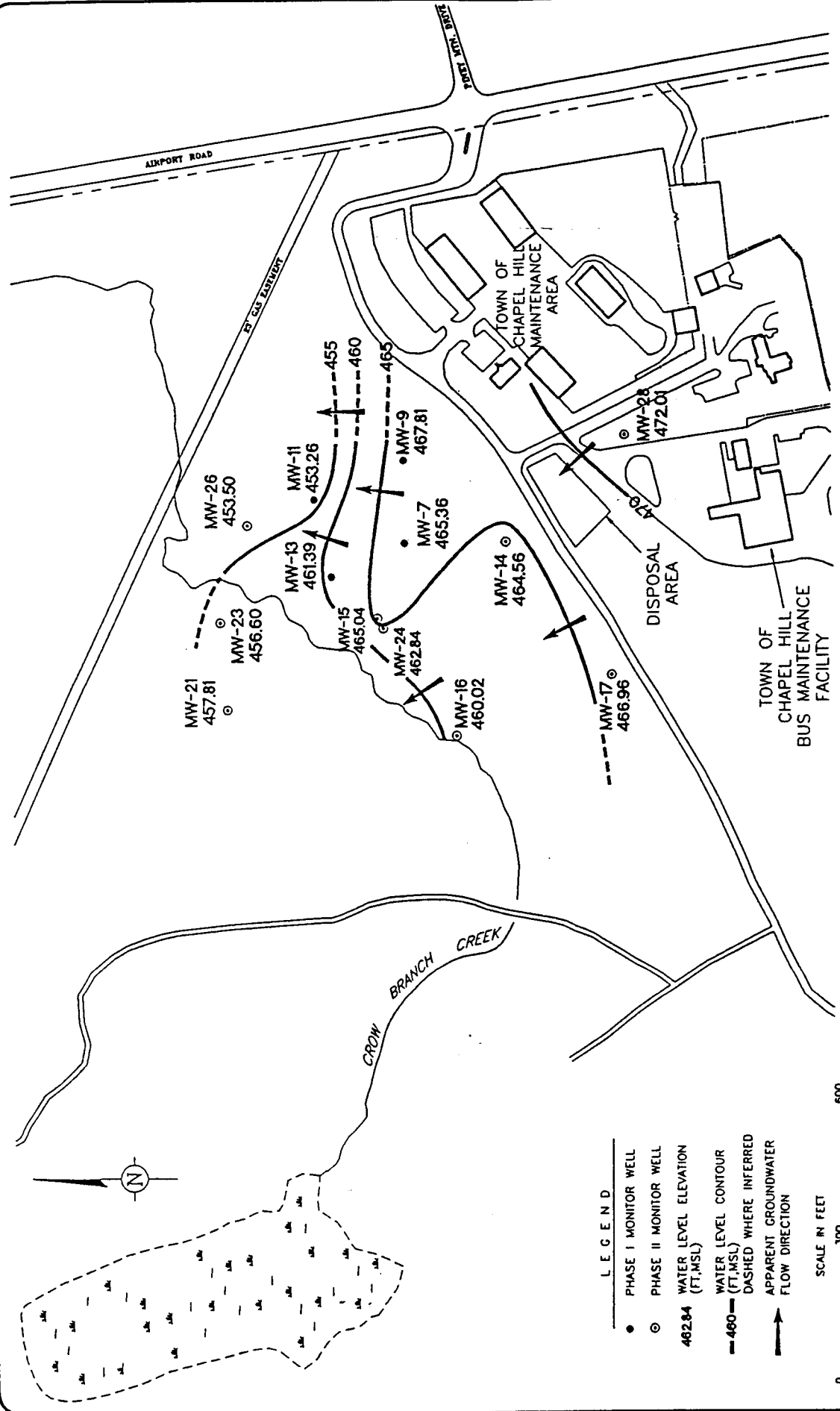
UNC AIRPORT ROAD WASTE DISPOSAL AREA
THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL
CHAPEL HILL, NORTH CAROLINA

GERAGHTY & MILLER, INC.
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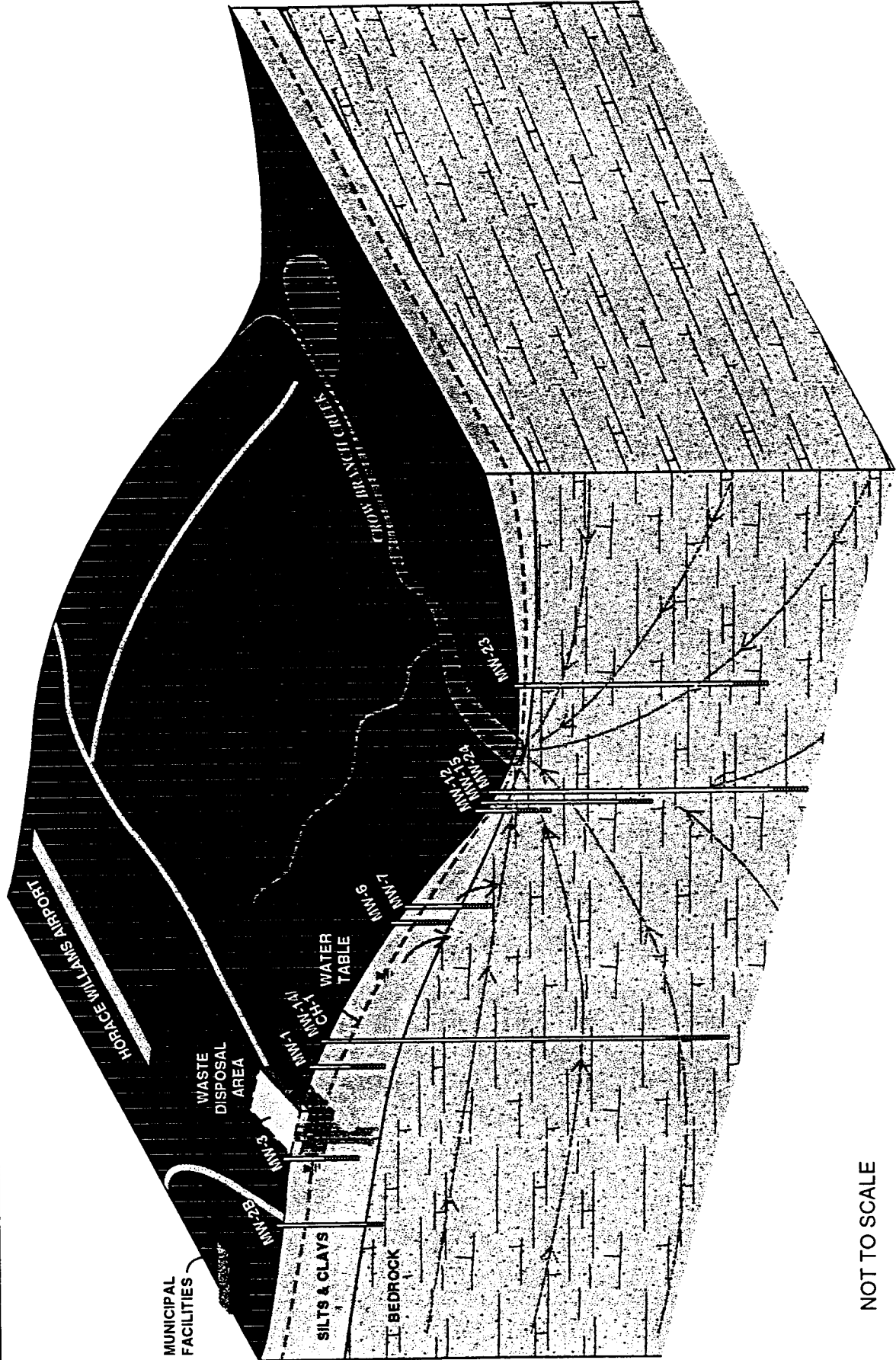
WATER LEVEL ELEVATIONS IN THE SHALLOW AQUIFER - SEPTEMBER 3, 1996
 UNC AIRPORT ROAD WASTE DISPOSAL AREA
 THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL
 CHAPEL HILL, NORTH CAROLINA





**WATER LEVEL ELEVATIONS
IN THE BEDROCK AQUIFER - SEPTEMBER 3, 1996**
 UNC AIRPORT ROAD WASTE DISPOSAL AREA
 THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL
 CHAPEL HILL, NORTH CAROLINA

GERAGHTY & MILLER, INC.
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NOT TO SCALE

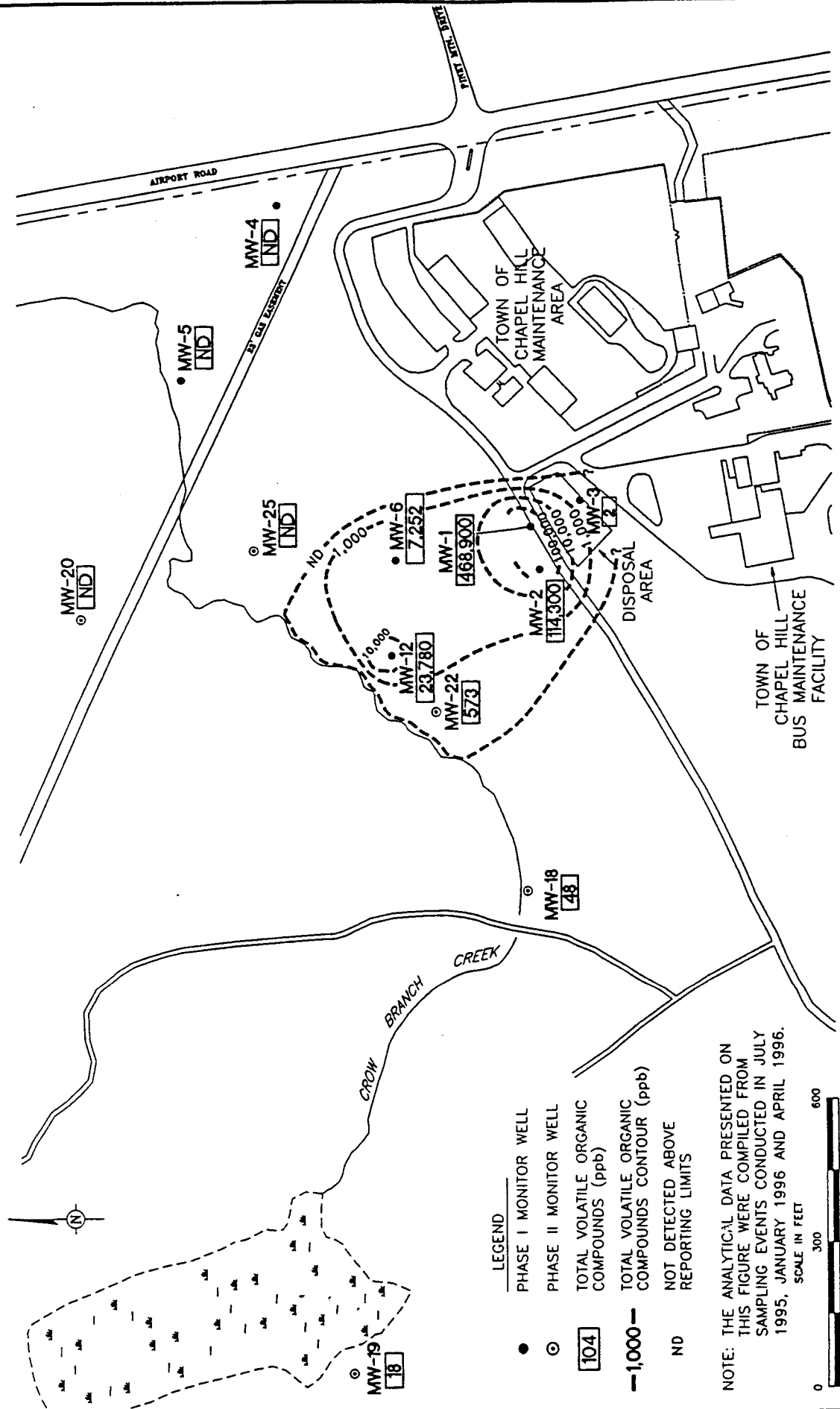


CONCEPTUAL SITE MODEL - GEOLOGY AND GROUNDWATER HYDROLOGY

UNC AIRPORT ROAD WASTE DISPOSAL AREA
 THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL
 CHAPEL HILL, NORTH CAROLINA

FIGURE

3-15

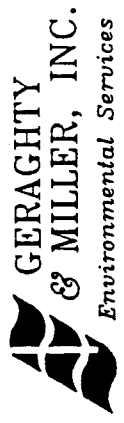


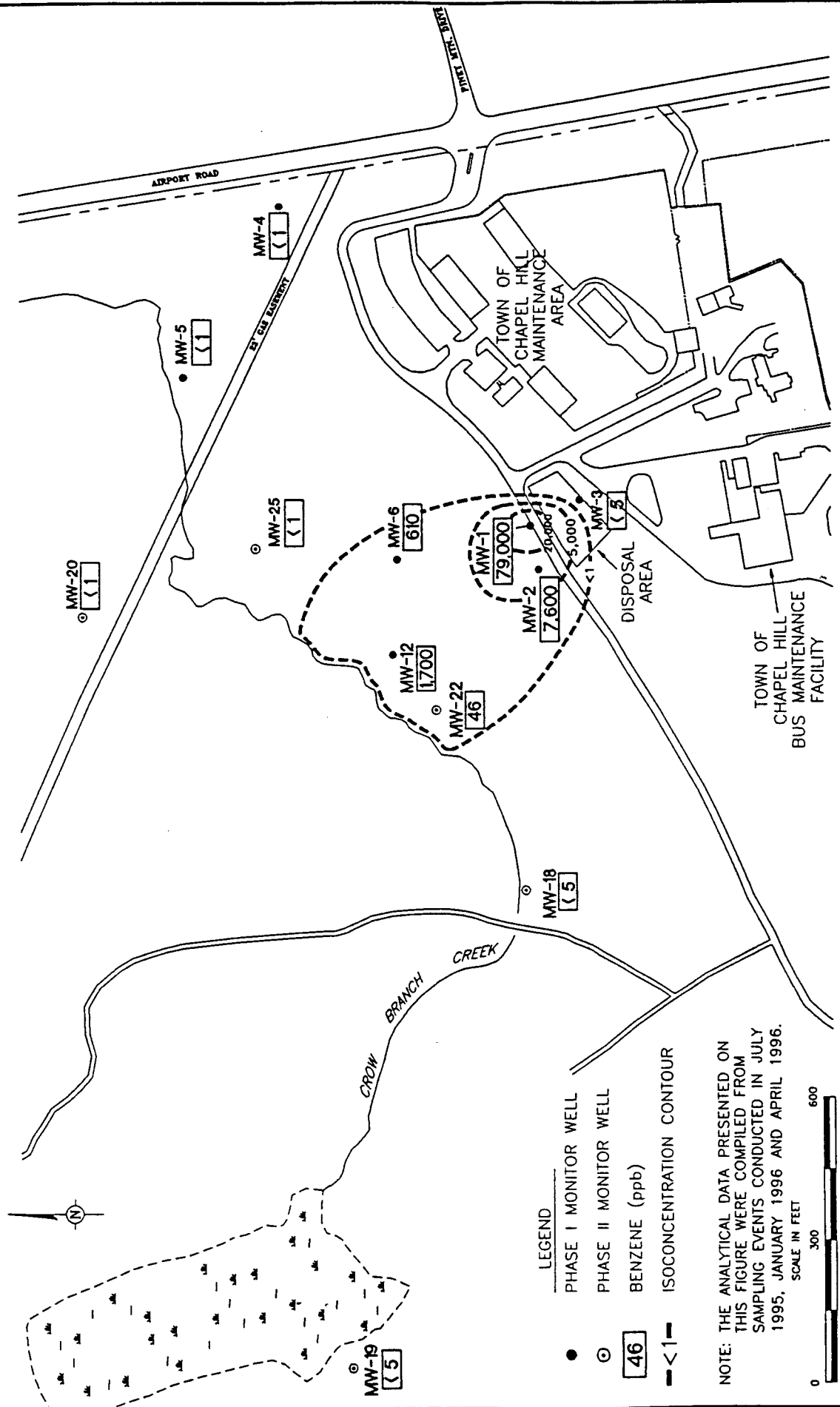
FIGURE

4-1

**TOTAL VOLATILE ORGANIC COMPOUNDS (ppb)
ISOCONCENTRATION CONTOUR MAP - SHALLOW MONITOR WELLS**

UNC AIRPORT ROAD WASTE DISPOSAL AREA
THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL
CHAPEL HILL, NORTH CAROLINA

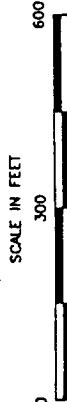




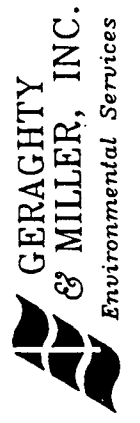
LEGEND

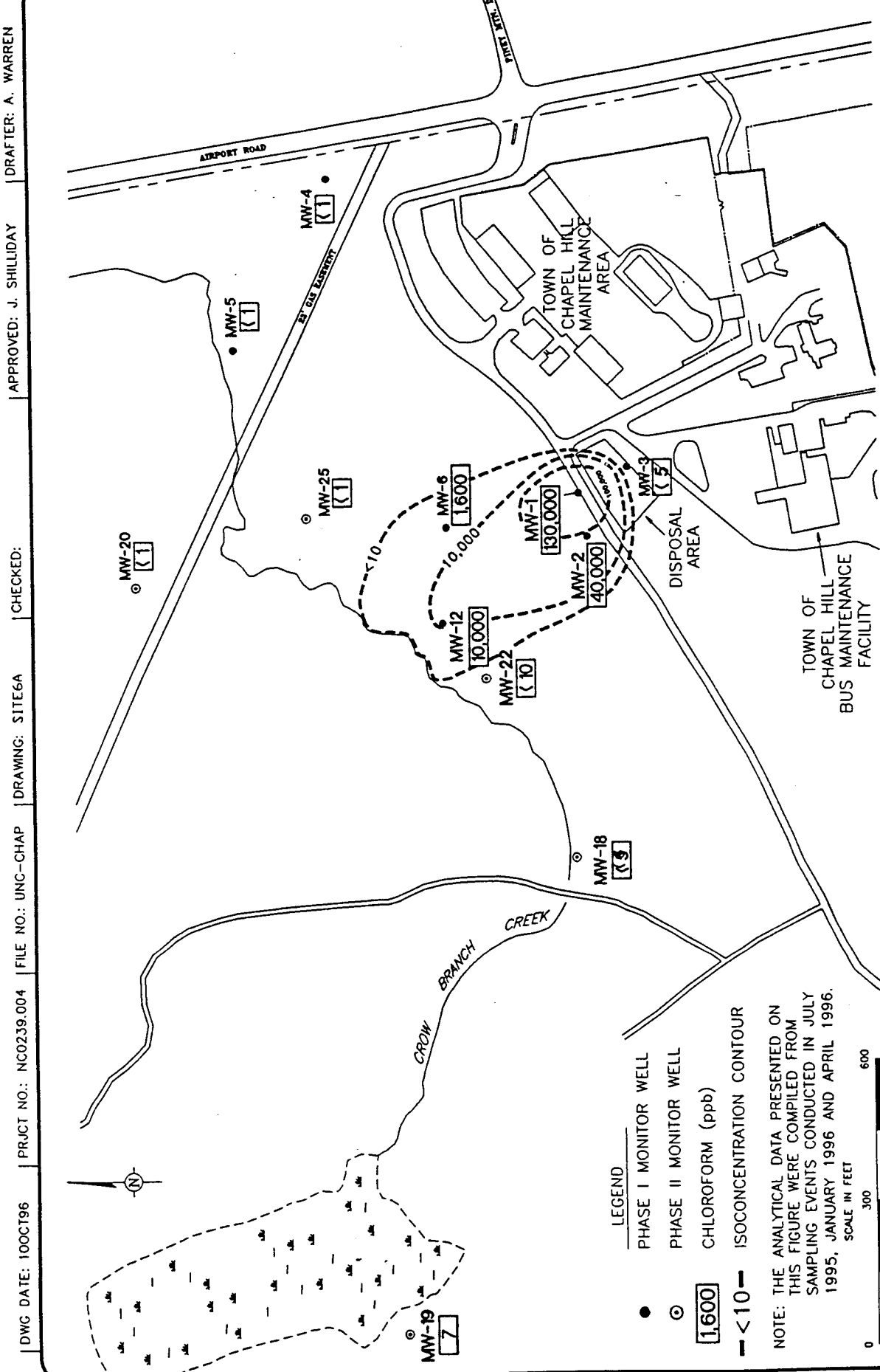
- PHASE I MONITOR WELL
- PHASE II MONITOR WELL
- 46 [] BENZENE (ppb)
- <1- ISOCONCENTRATION CONTOUR

NOTE: THE ANALYTICAL DATA PRESENTED ON THIS FIGURE WERE COMPILED FROM SAMPLING EVENTS CONDUCTED IN JULY 1995, JANUARY 1996 AND APRIL 1996.



BENZENE (ppb) ISOCONCENTRATION CONTOUR MAP
SHALLOW MONITOR WELLS
 UNC AIRPORT ROAD WASTE DISPOSAL AREA
 THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL
 CHAPEL HILL, NORTH CAROLINA





DWG DATE: 10OCT96 | PRJCT NO.: NC0239.004 | FILE NO.: UNC-CHAP | DRAWING: SITE6A | CHECKED: | APPROVED: J. SHILLIDAY | DRAFTER: A. WARREN

LEGEND

- PHASE I MONITOR WELL
- ⊙ PHASE II MONITOR WELL
- [1,600] CHLOROFORM (ppb)
- < 10 - ISOCONCENTRATION CONTOUR

NOTE: THE ANALYTICAL DATA PRESENTED ON THIS FIGURE WERE COMPILED FROM SAMPLING EVENTS CONDUCTED IN JULY 1995, JANUARY 1996 AND APRIL 1996.

SCALE IN FEET

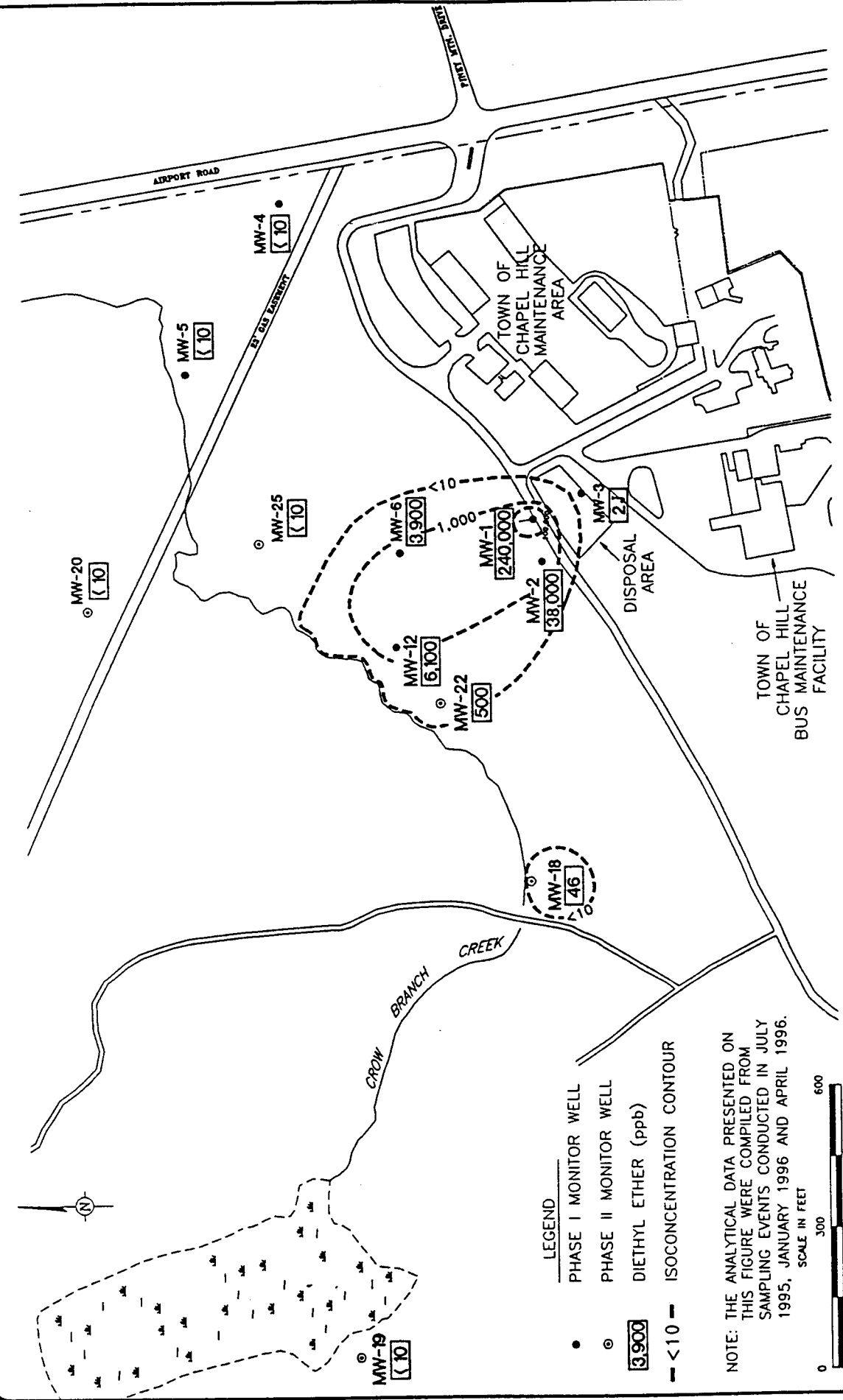
CHLOROFORM (ppb) ISOCONCENTRATION CONTOUR MAP SHALLOW MONITOR WELLS

UNC AIRPORT ROAD WASTE DISPOSAL AREA
THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL
CHAPEL HILL, NORTH CAROLINA

FIGURE

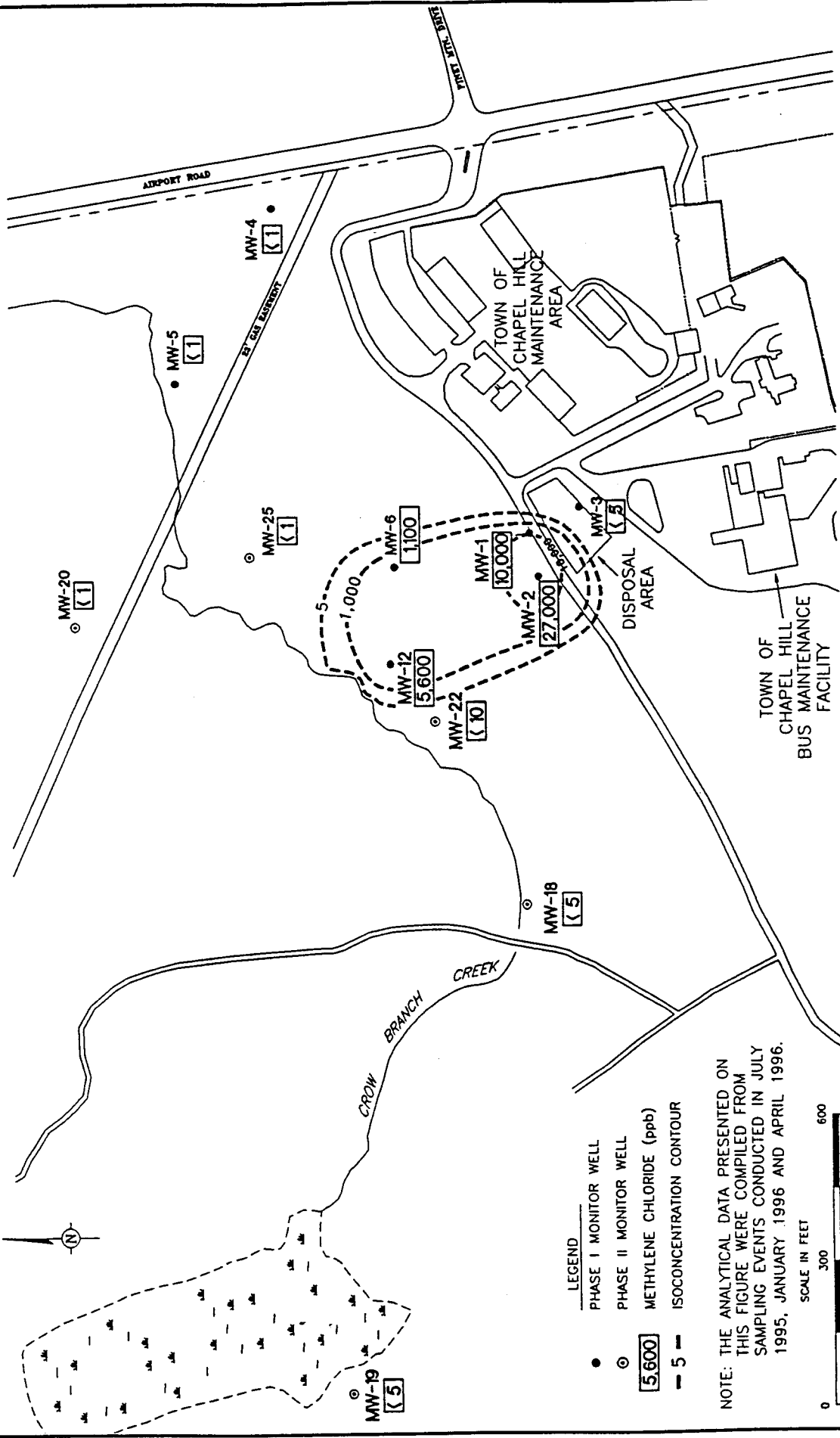
4-3

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DIETHYL ETHER (ppb) ISOCONCENTRATION CONTOUR MAP
SHALLOW MONITOR WELLS
 UNC AIRPORT ROAD WASTE DISPOSAL AREA
 THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL
 CHAPEL HILL, NORTH CAROLINA





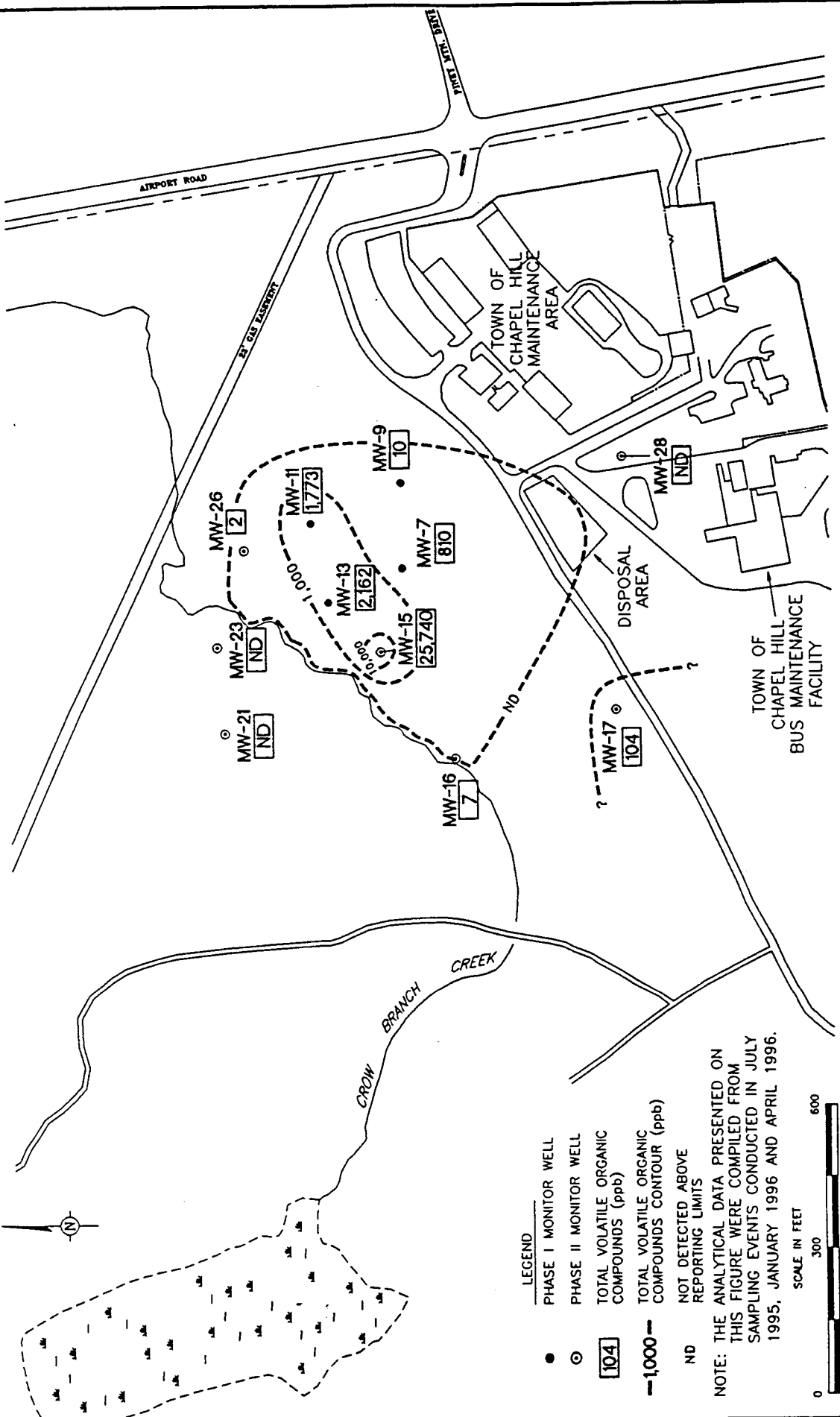
NOTE: THE ANALYTICAL DATA PRESENTED ON THIS FIGURE WERE COMPILED FROM SAMPLING EVENTS CONDUCTED IN JULY 1995, JANUARY 1996 AND APRIL 1996.

- LEGEND**
- PHASE I MONITOR WELL
 - ⊙ PHASE II MONITOR WELL
 - [5,600] METHYLENE CHLORIDE (ppb)
 - - - ISOCENTRATION CONTOUR

**METHYLENE CHLORIDE (ppb) ISOCONCENTRATION CONTOUR MAP
SHALLOW MONITOR WELLS**

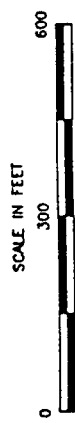
UNC AIRPORT ROAD WASTE DISPOSAL AREA
THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL
CHAPEL HILL, NORTH CAROLINA





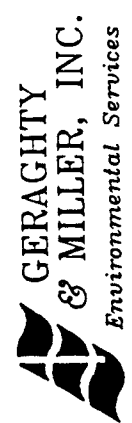
- LEGEND**
- PHASE I MONITOR WELL
 - ⊙ PHASE II MONITOR WELL
 - [104] TOTAL VOLATILE ORGANIC COMPOUNDS (ppb)
 - 1,000--- TOTAL VOLATILE ORGANIC COMPOUNDS CONTOUR (ppb)
 - ND NOT DETECTED ABOVE REPORTING LIMITS

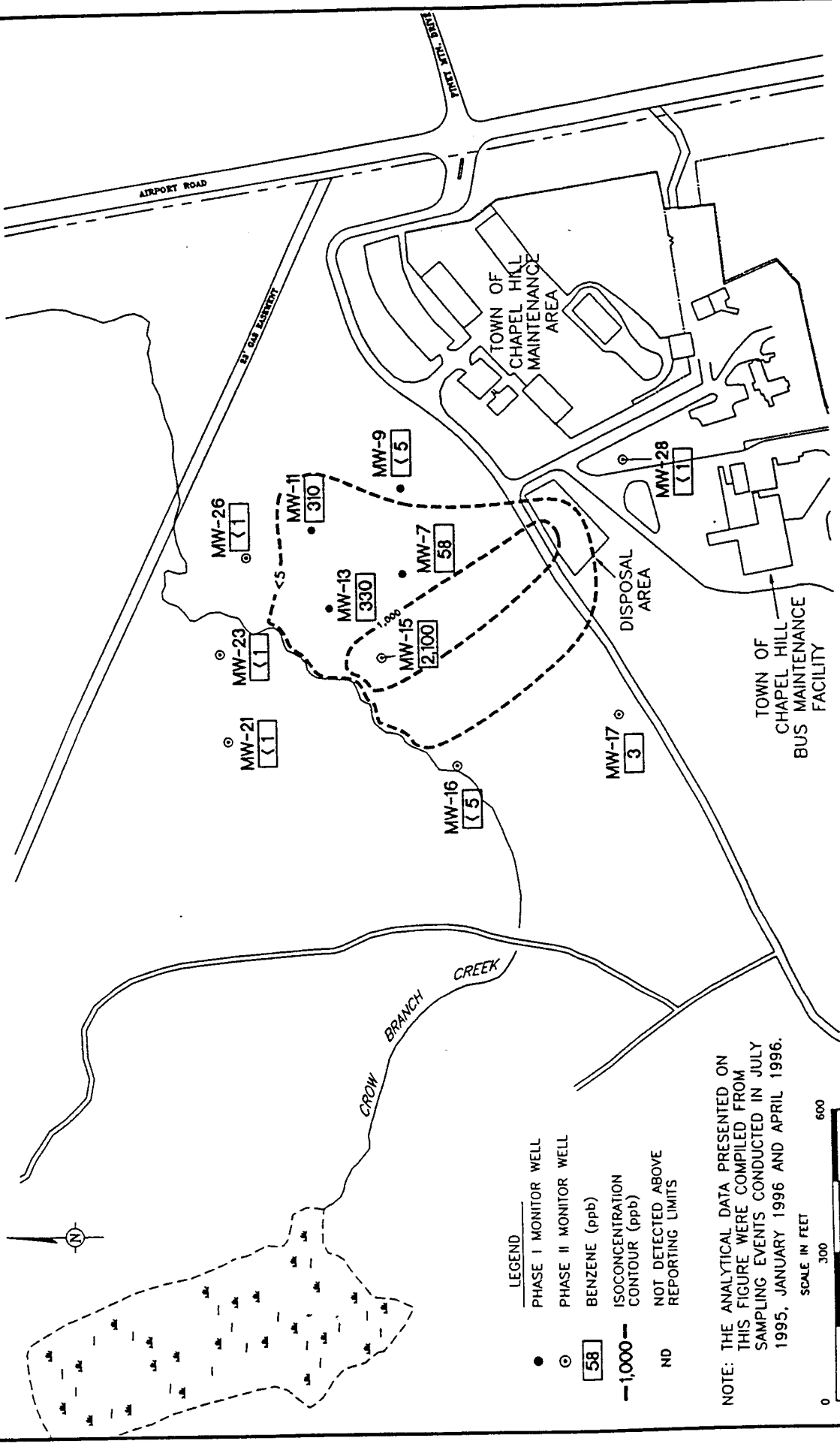
NOTE: THE ANALYTICAL DATA PRESENTED ON THIS FIGURE WERE COMPILED FROM SAMPLING EVENTS CONDUCTED IN JULY 1995, JANUARY 1996 AND APRIL 1996.



TOTAL VOLATILE ORGANIC COMPOUNDS (ppb) ISOCONCENTRATION CONTOUR MAP - BEDROCK MONITOR WELLS

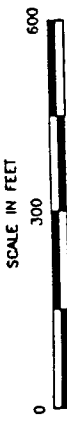
UNC AIRPORT ROAD WASTE DISPOSAL AREA
 THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL
 CHAPEL HILL, NORTH CAROLINA





- LEGEND**
- PHASE I MONITOR WELL
 - ⊙ PHASE II MONITOR WELL
 - 58 [] BENZENE (ppb)
 - 1,000 [] ISOCONCENTRATION CONTOUR (ppb)
 - ND NOT DETECTED ABOVE REPORTING LIMITS

NOTE: THE ANALYTICAL DATA PRESENTED ON THIS FIGURE WERE COMPILED FROM SAMPLING EVENTS CONDUCTED IN JULY 1995, JANUARY 1996 AND APRIL 1996.

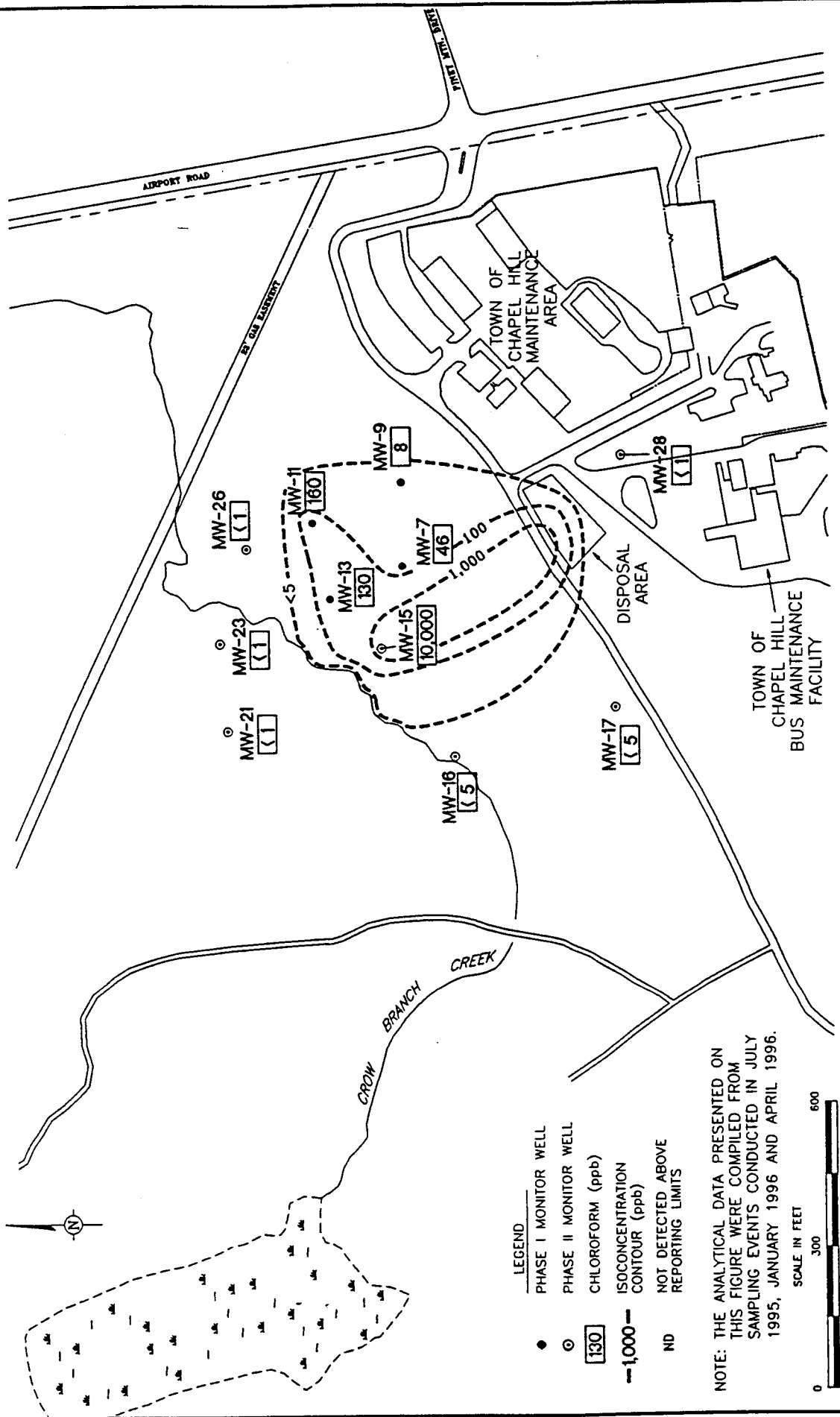


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FIGURE 4-7

BENZENE (ppb) ISOCONCENTRATION CONTOUR MAP
BEDROCK MONITOR WELLS

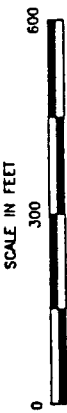
UNC AIRPORT ROAD WASTE DISPOSAL AREA
THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL
CHAPEL HILL, NORTH CAROLINA



LEGEND

- PHASE I MONITOR WELL
- ⊙ PHASE II MONITOR WELL
- [130] CHLOROFORM (ppb)
- 1,000--- ISOCONCENTRATION CONTOUR (ppb)
- ND NOT DETECTED ABOVE REPORTING LIMITS

NOTE: THE ANALYTICAL DATA PRESENTED ON THIS FIGURE WERE COMPILED FROM SAMPLING EVENTS CONDUCTED IN JULY 1995, JANUARY 1996 AND APRIL 1996.

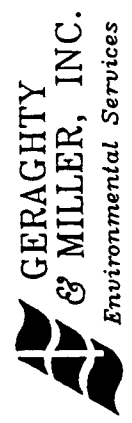


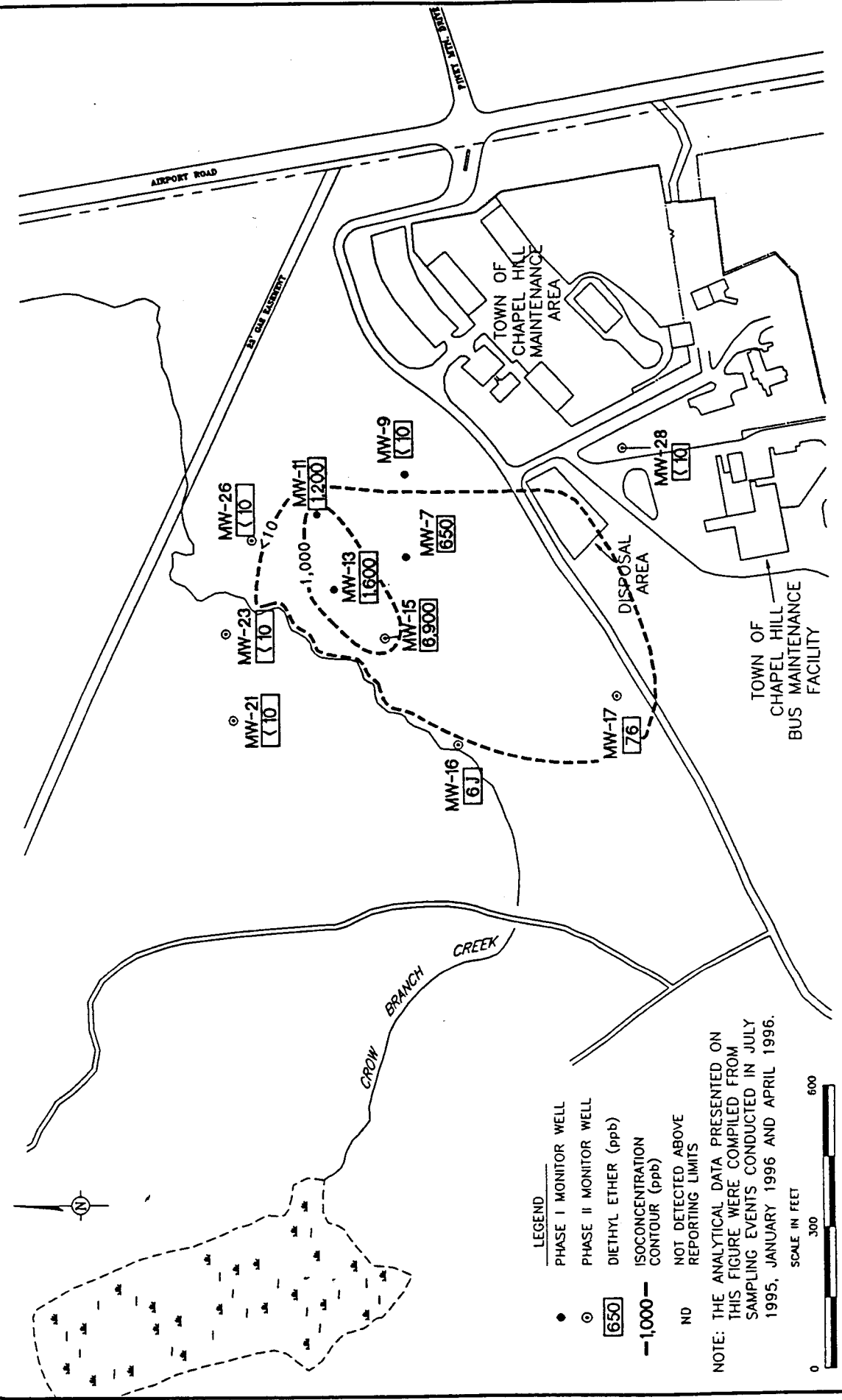
FIGURE

4-8

**CHLOROFORM (ppb) ISOCONCENTRATION CONTOUR MAP
BEDROCK MONITOR WELLS**

UNC AIRPORT ROAD WASTE DISPOSAL AREA
THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL
CHAPEL HILL, NORTH CAROLINA





- LEGEND**
- PHASE I MONITOR WELL
 - ⊙ PHASE II MONITOR WELL
 - [650] DIETHYL ETHER (ppb)
 - 1,000- ISOCONCENTRATION CONTOUR (ppb)
 - ND NOT DETECTED ABOVE REPORTING LIMITS

NOTE: THE ANALYTICAL DATA PRESENTED ON THIS FIGURE WERE COMPILED FROM SAMPLING EVENTS CONDUCTED IN JULY 1995, JANUARY 1996 AND APRIL 1996.

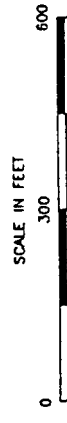
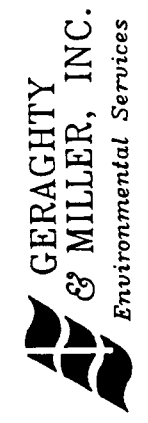
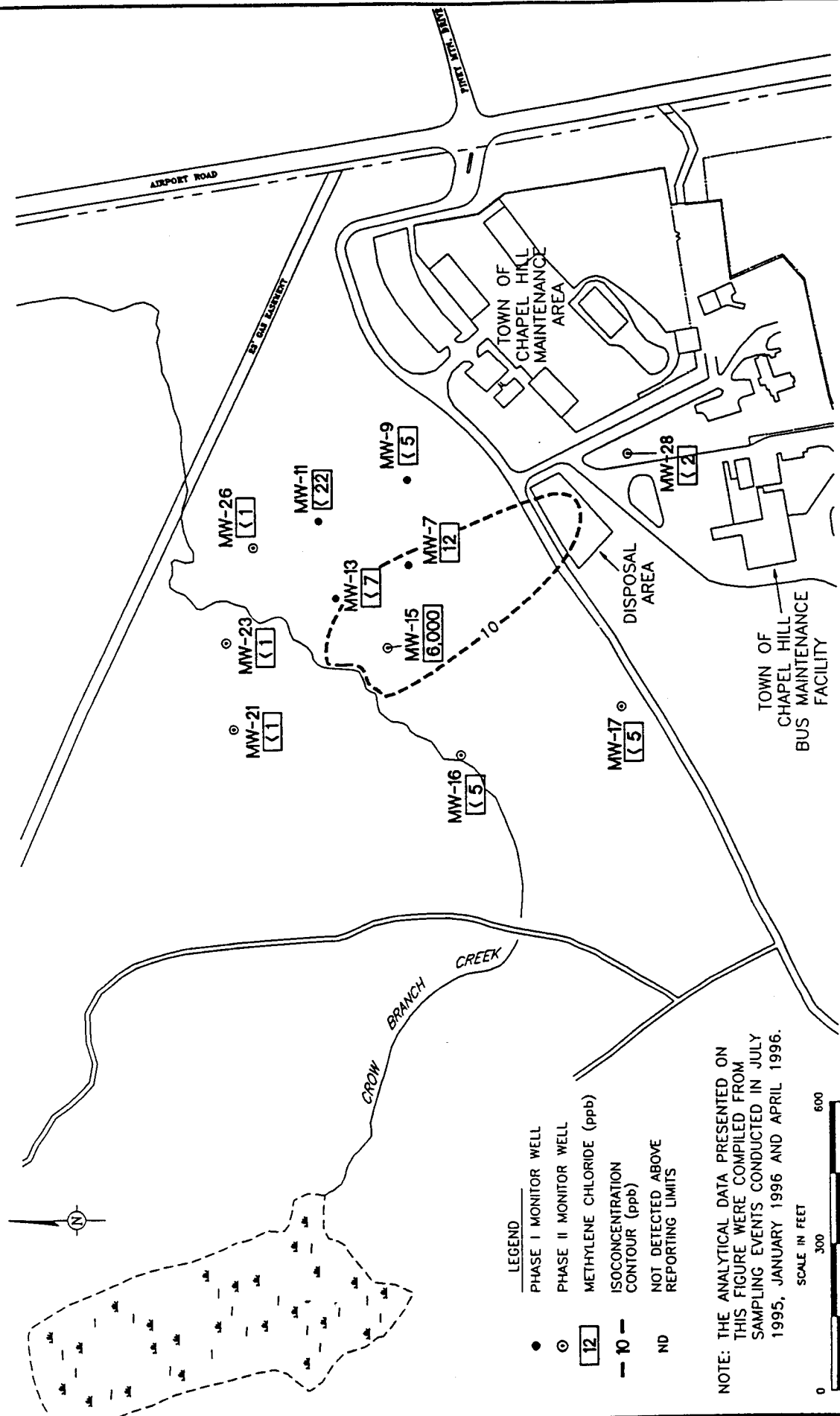


FIGURE
4-9

DIETHYL ETHER (ppb) ISOCONCENTRATION CONTOUR MAP
BEDROCK MONITOR WELLS

UNC AIRPORT ROAD WASTE DISPOSAL AREA
THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL
CHAPEL HILL, NORTH CAROLINA



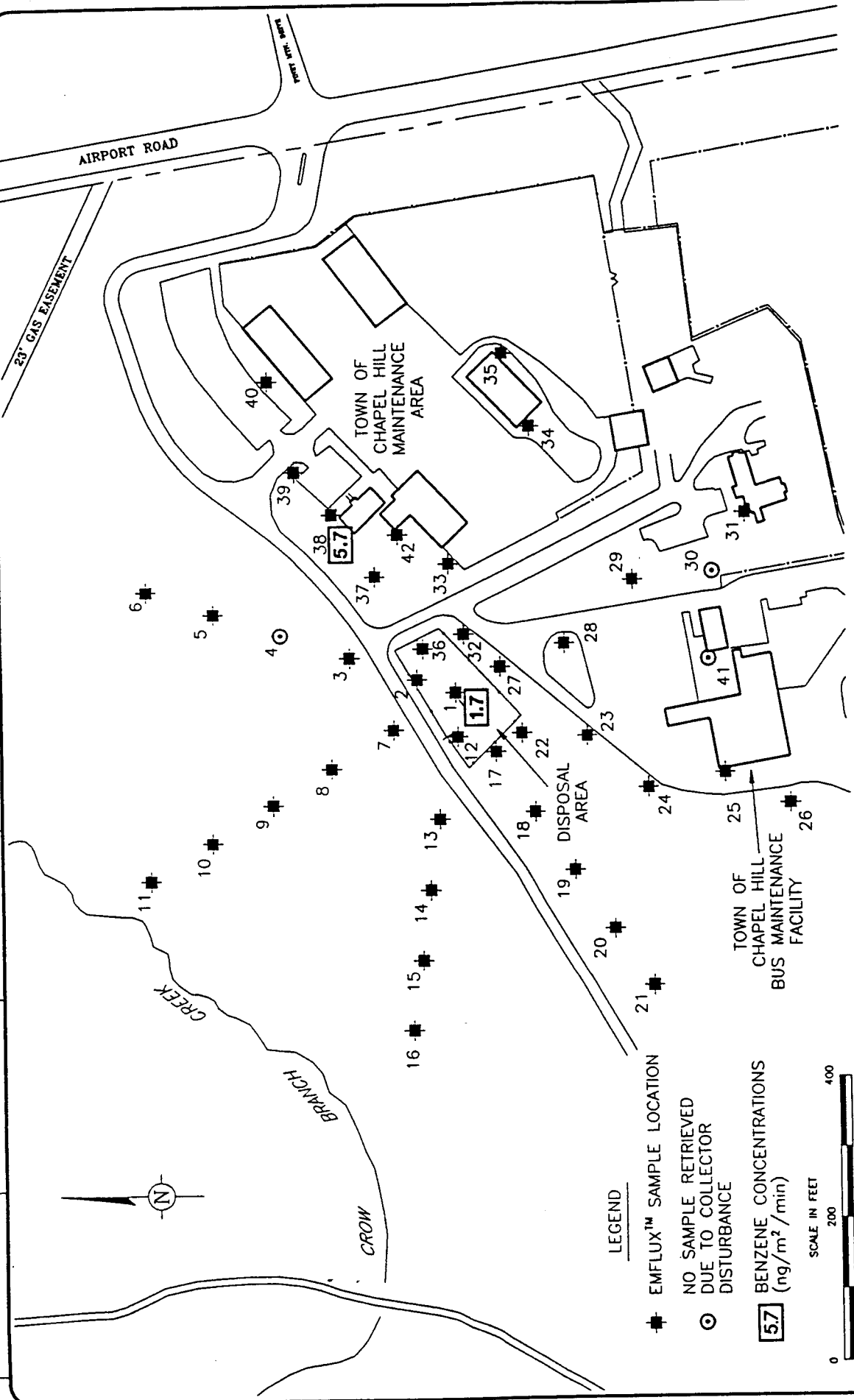


METHYLENE CHLORIDE (ppb) ISOCONCENTRATION CONTOUR MAP
BEDROCK MONITOR WELLS
 UNC AIRPORT ROAD WASTE DISPOSAL AREA
 THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL
 CHAPEL HILL, NORTH CAROLINA

FIGURE
4-10



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LEGEND

- EMFLUX™ SAMPLE LOCATION
- ⊙ NO SAMPLE RETRIEVED DUE TO COLLECTOR DISTURBANCE
- 5.7 BENZENE CONCENTRATIONS (ng/m²/min)

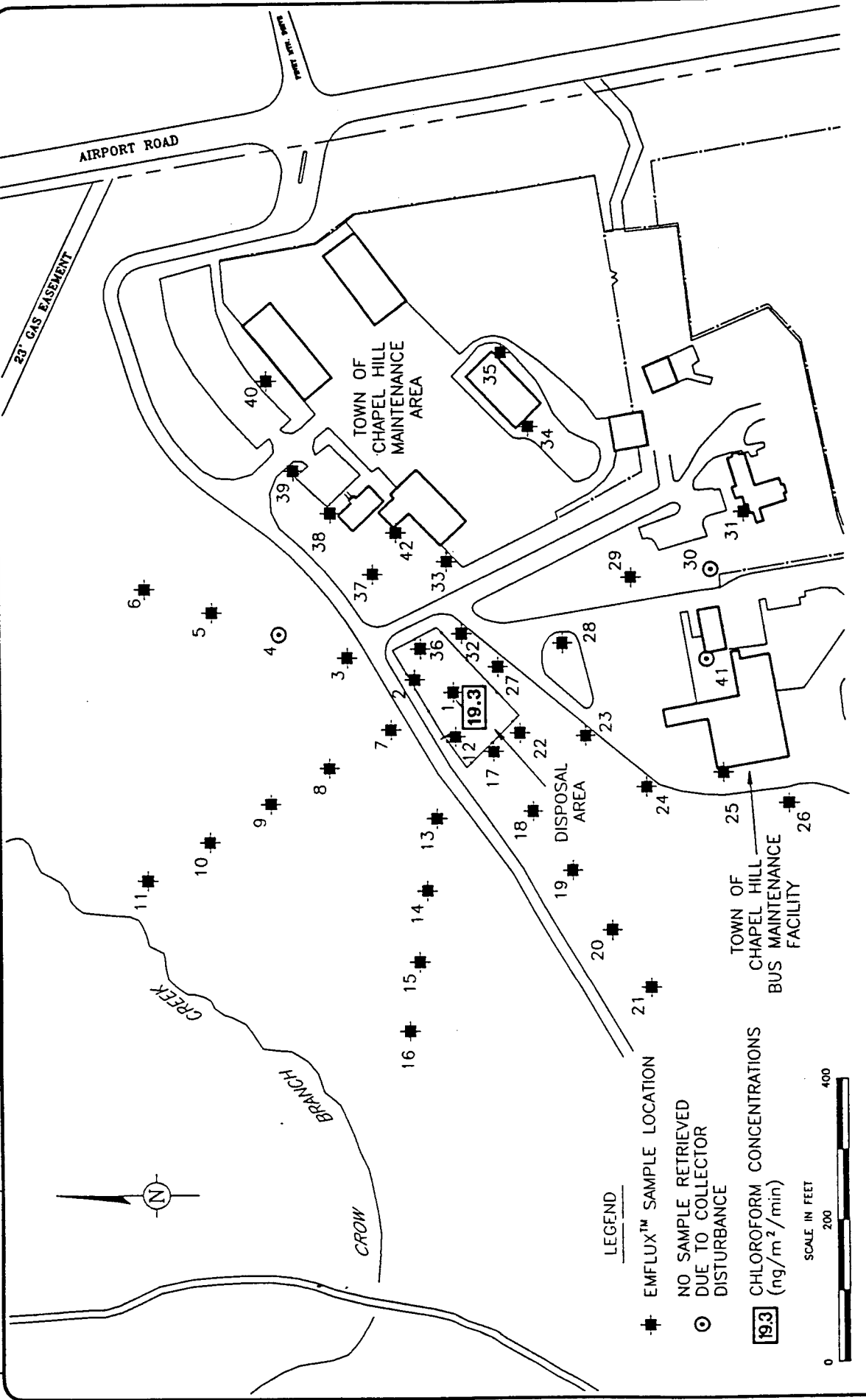
SCALE IN FEET
0 200 400

GERAGHTY & MILLER, INC.
Environmental Services

EMFLUX™ BENZENE CONCENTRATIONS (ng/m²/min)

UNC AIRPORT ROAD WASTE DISPOSAL AREA
THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL
CHAPEL HILL, NORTH CAROLINA

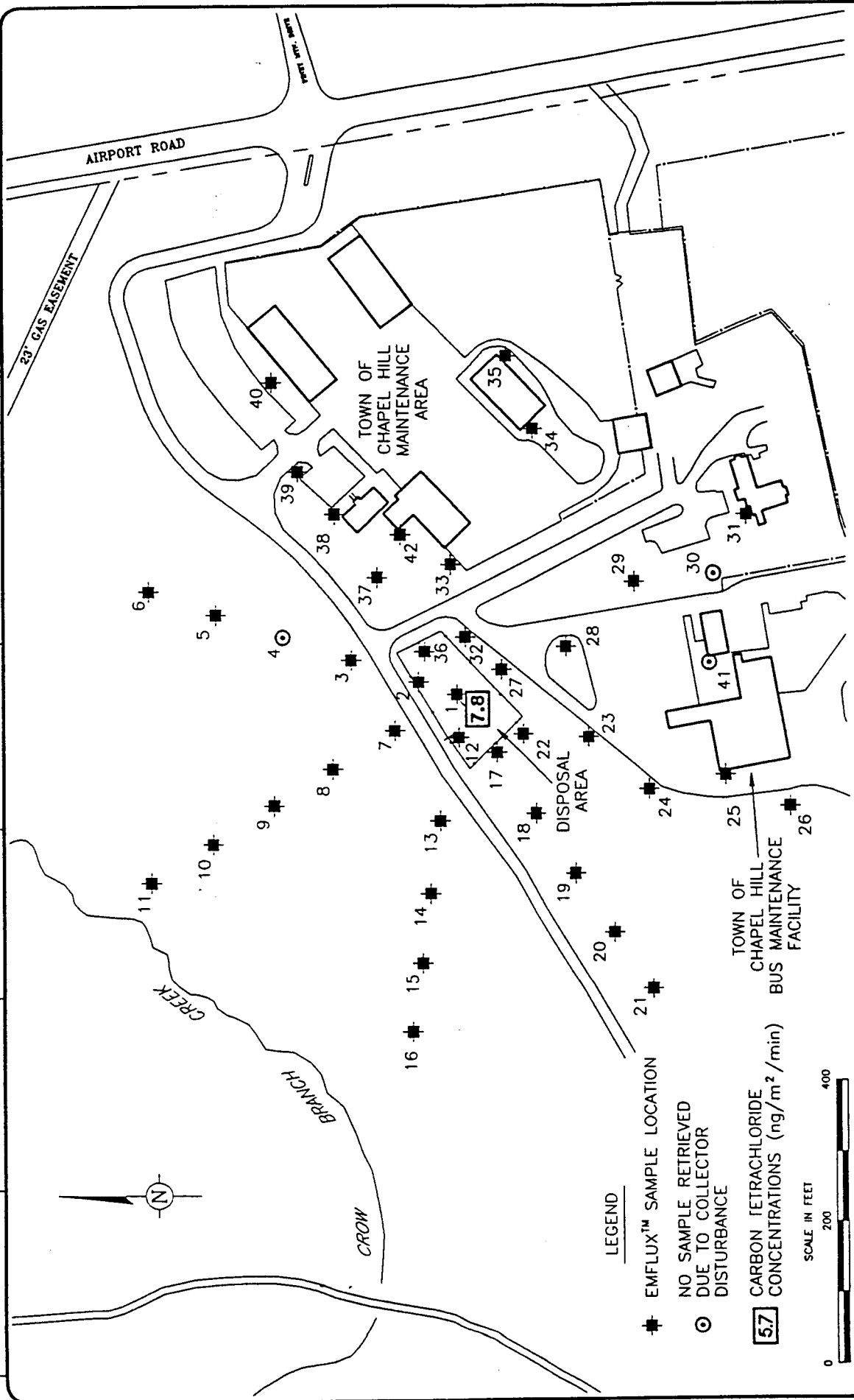
FIGURE 4-11



- LEGEND**
- EMFLUX™ SAMPLE LOCATION
 - NO SAMPLE RETRIEVED DUE TO COLLECTOR DISTURBANCE
 - 19.3 CHLOROFORM CONCENTRATIONS (ng/m²/min)

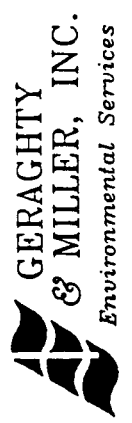
EMFLUX™ CHLOROFORM CONCENTRATIONS (ng/m²/min)
 UNC AIRPORT ROAD WASTE DISPOSAL AREA
 THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL
 CHAPEL HILL, NORTH CAROLINA





EMFLUX™ CARBON TETRACHLORIDE CONCENTRATIONS (ng/m²/min)

UNC AIRPORT ROAD WASTE DISPOSAL AREA
 THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL
 CHAPEL HILL, NORTH CAROLINA



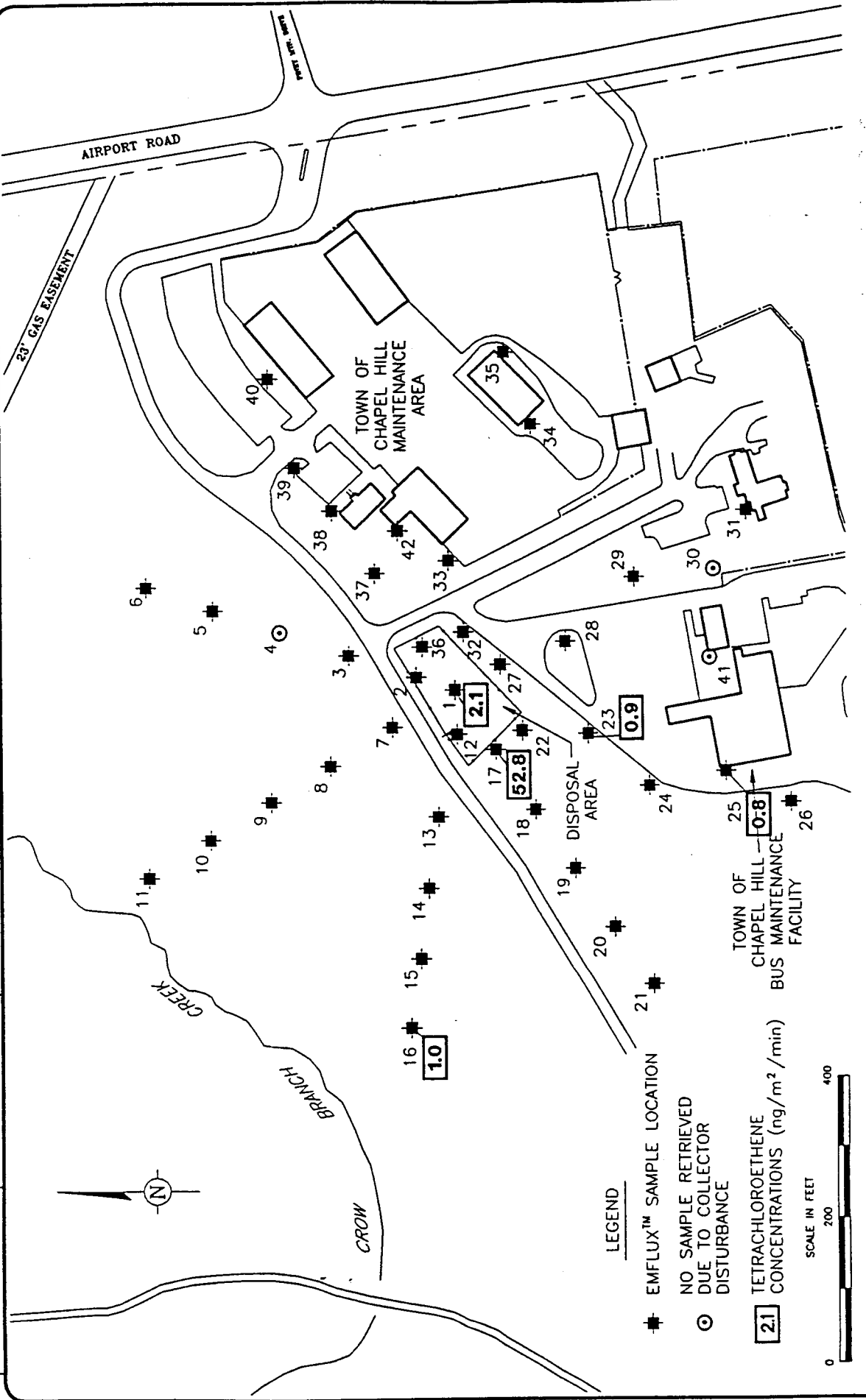


FIGURE 4-14

EMFLUX™ TETRACHLOROETHENE CONCENTRATIONS (ng/m²/min)

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THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL
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