

FINAL

***Draft Remedial Investigation Report
Volume III Part A
Appendices***

Pfohl Brothers Landfill

***Cheektowaga, New York
Site Number 9-15-043***



Prepared For:

***New York State
Department Of Environmental Conservation
50 Wolf Road, Albany, New York 12233***

***Thomas C. Jorling
Commissioner***

Division Of Hazardous Waste Remediation

***Michael J. O'Toole, Jr., P.E.
Director***

***Camp Dresser & McKee
New York, New York***

January, 1991

PFOHL BROTHERS LANDFILL

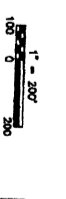
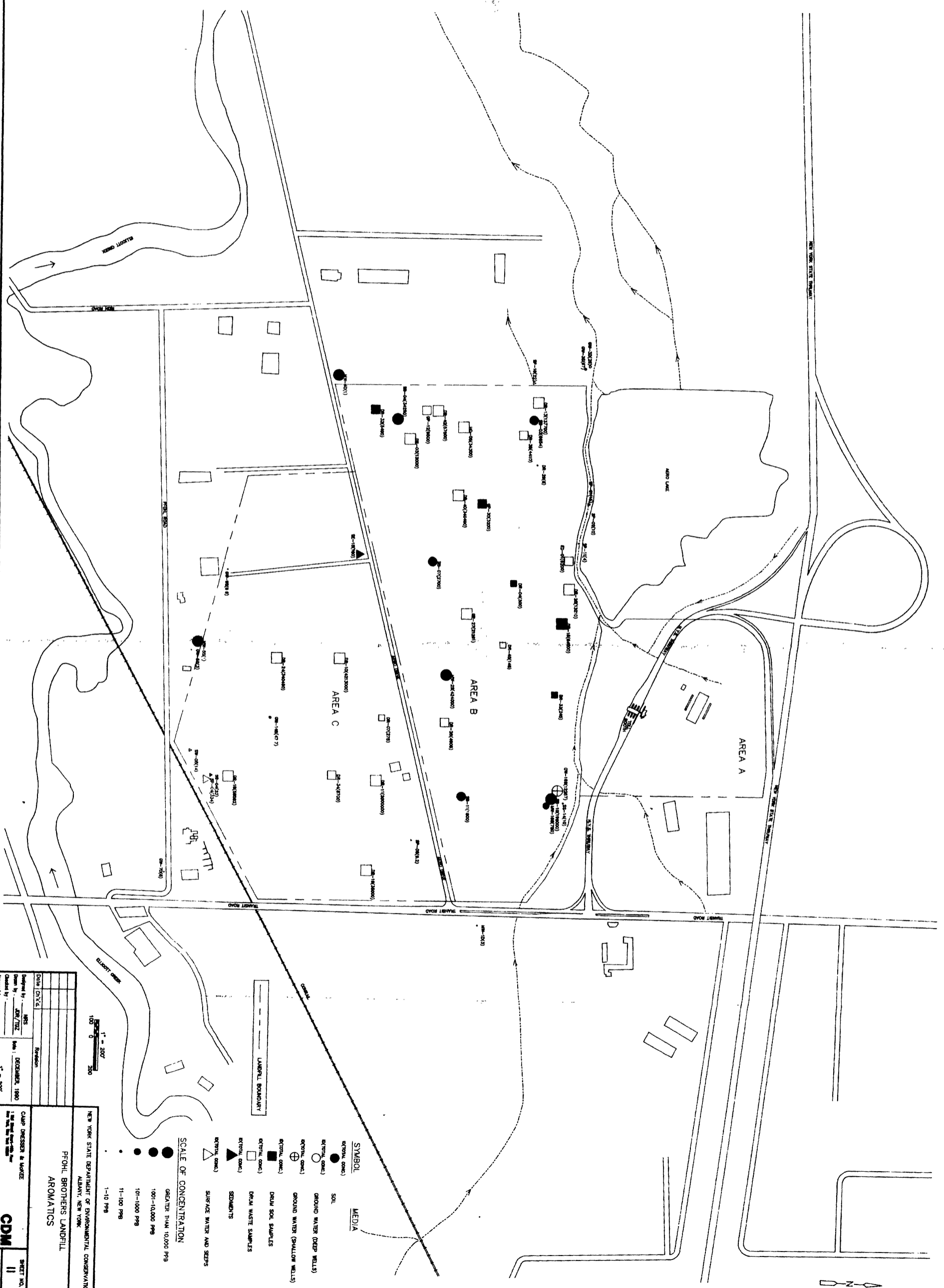
APPENDICES

VOLUME IIIa

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- PLATE 13 POLYCYCLIC AROMATIC HYDROCARBONS
- PLATE 14 HALOGENATED HYDROCARBONS
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- PLATE 26 CADMIUM
- PLATE 27 CALCIUM

(pblf5/19)

APPROVED BY: ARCHITECTURAL	APPROVED BY: STRUCTURAL	APPROVED BY: ELECTRICAL	APPROVED BY: INSTRUMENTATION	APPROVED BY: HVAC	APPROVED BY: PLUMBING	APPROVED BY: PROJECT ENGINEER	APPROVED BY: PROJECT MANAGER
Date:	Date:	Date:	Date:	Date:	Date:	Date:	Date:



SCALE OF CONCENTRATION

- GREATER THAN 10,000 PPS
- 100-10,000 PPS
- 10-100 PPS
- 1-10 PPS

- SYMBOL**
- SOIL
 - GROUND WATER (DEEP WELLS)
 - ⊕ GROUND WATER (SHALLOW WELLS)
 - DEQU SOIL SAMPLES
 - DEQU WASTE SAMPLES
 - ▲ SEDIMENTS
 - △ SURFACE WATER AND SEEPS
- MEDIA**
- SOIL
 - GROUND WATER (DEEP WELLS)
 - ⊕ GROUND WATER (SHALLOW WELLS)
 - DEQU SOIL SAMPLES
 - DEQU WASTE SAMPLES
 - ▲ SEDIMENTS
 - △ SURFACE WATER AND SEEPS
- LANDFILL BOUNDARY**

DATE: 02/14/80	REVISION:
DESIGNED BY: MRS.	
DRAWN BY: J.S.P./T.Z.	
CHECKED BY:	
APPROVED BY:	
DATE: 12/15/80	SCALE: 1" = 200'

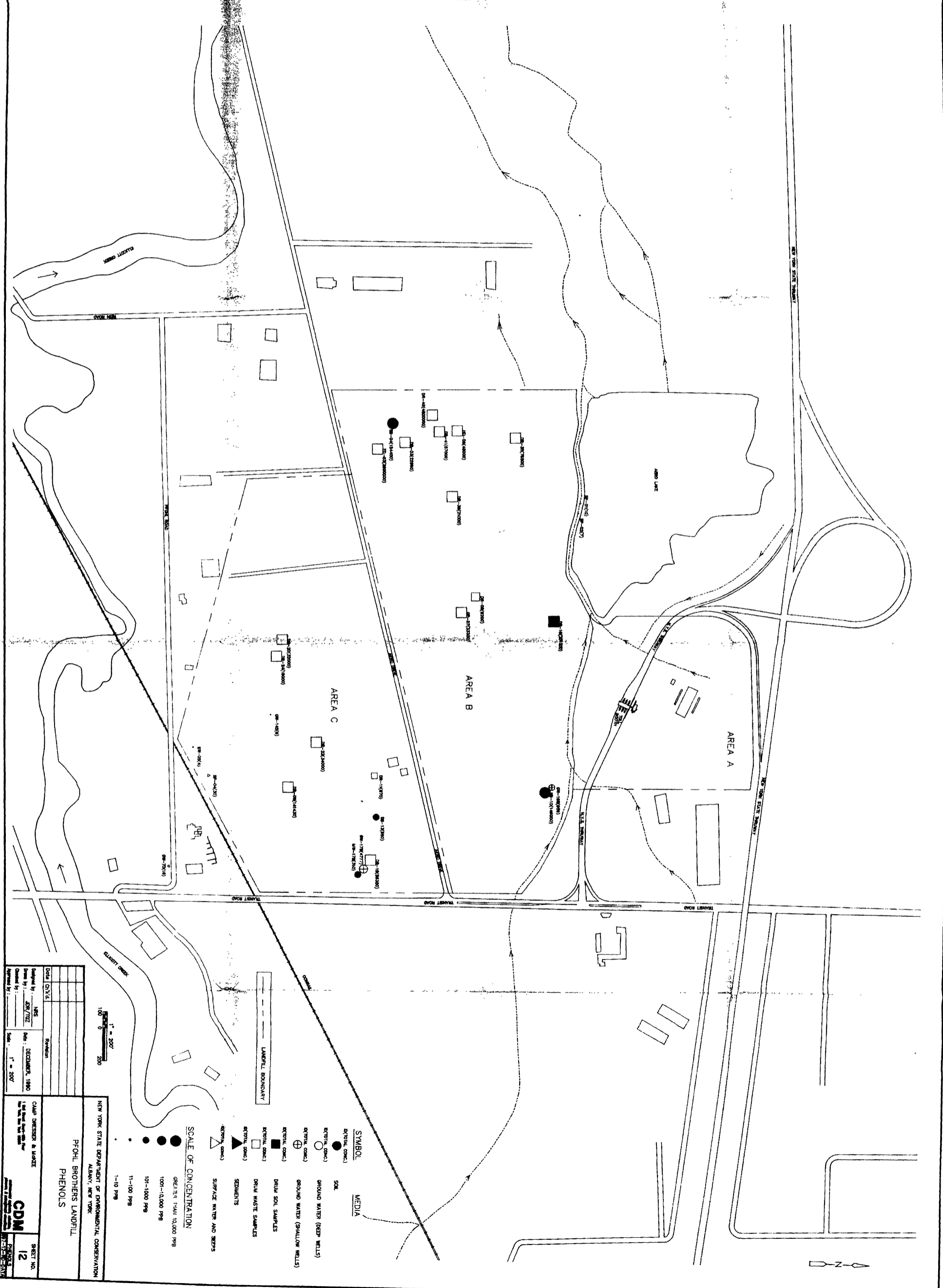
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
ALBANY, NEW YORK

PROHL BROTHERS LANDFILL
AROMATICS

CDM
CONSULTANTS AND ENGINEERS

SHEET NO. 11

ARCHITECTURAL	STRUCTURAL	ELECTRICAL	INSTRUMENTATION	HVAC	PLUMBING	PROJECT ENGINEER	PROJECT MANAGER
Approved by: _____ Date: _____	Approved by: _____ Date: _____	Approved by: _____ Date: _____	Approved by: _____ Date: _____	Approved by: _____ Date: _____	Approved by: _____ Date: _____	Approved by: _____ Date: _____	Approved by: _____ Date: _____



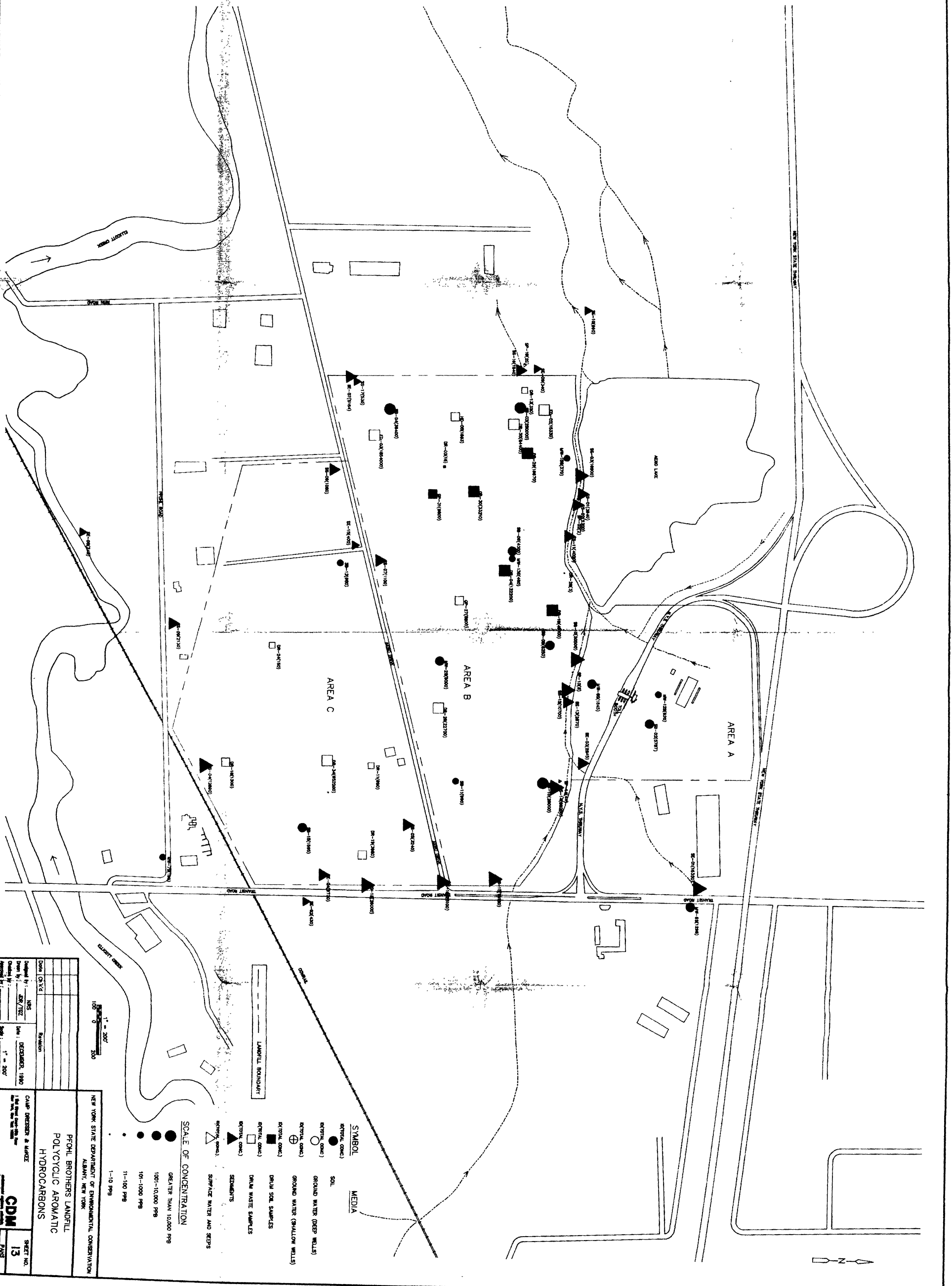
Date: 01/11/90 Prepared by: JDN/TJZ Checked by: _____ Approved by: _____	Revision: 1 2 3	NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION ALBANY, NEW YORK PFOHL BROTHERS LANDFILL PHENOLS CLAMP PRESSURE & BUCKLE CDM 12 SHEET NO.
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1" = 200'
 0 200
 SCALE OF CONCENTRATION
 GROUND WATER (DEEP WELLS)
 1001-10,000 PPB
 101-1,000 PPB
 11-100 PPB
 1-10 PPB
 GROUND WATER (SHALLOW WELLS)
 1001-10,000 PPB
 101-1,000 PPB
 11-100 PPB
 1-10 PPB
 SOIL
 DRILL SOIL SAMPLES
 DRILL WASTE SAMPLES
 SURFACE WATER AND SEEPS
 LANDFILL BOUNDARY
 LANDFILL BOUNDARY

SYMBOL
 ○ (ACTIVE COME)
 ○ (PASSIVE COME)
 ⊕ (GROUND WATER (SHALLOW WELLS))
 ⊕ (GROUND WATER (DEEP WELLS))
 ⊕ (DRILL SOIL SAMPLES)
 ⊕ (DRILL WASTE SAMPLES)
 ⊕ (SURFACE WATER AND SEEPS)

MEDIA
 ○ (ACTIVE COME)
 ○ (PASSIVE COME)
 ⊕ (GROUND WATER (SHALLOW WELLS))
 ⊕ (GROUND WATER (DEEP WELLS))
 ⊕ (DRILL SOIL SAMPLES)
 ⊕ (DRILL WASTE SAMPLES)
 ⊕ (SURFACE WATER AND SEEPS)

APPROVED BY: _____	DATE: _____	APPROVED BY: _____	DATE: _____	APPROVED BY: _____	DATE: _____	APPROVED BY: _____	DATE: _____	APPROVED BY: _____	DATE: _____	APPROVED BY: _____	DATE: _____	APPROVED BY: _____	DATE: _____
ARCHITECTURAL		STRUCTURAL		ELECTRICAL		INSTRUMENTATION		HVAC		PLUMBING		PROJECT ENGINEER	PROJECT MANAGER



<p>NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION ALBANY, NEW YORK</p> <p>PFOHL BROTHERS LANDFILL POLYCYCLIC AROMATIC HYDROCARBONS</p> <p>CAMP DRESBACH & LADNER 1340 ROUTE 28, WEST ALBANY, NEW YORK 12243</p>	<p>DATE: DECEMBER, 1989</p> <p>SCALE: 1" = 200'</p>	<p>DESIGNED BY: NYS</p> <p>DRAWN BY: J.M. / J.E.</p> <p>CHECKED BY: J.M. / J.E.</p> <p>DATE: DECEMBER, 1989</p> <p>SCALE: 1" = 200'</p>	<p>CONCENTRATION</p> <p>GREATER THAN 10,000 PPG</p> <p>100-10,000 PPG</p> <p>10-1,000 PPG</p> <p>1-100 PPG</p> <p>1-10 PPG</p>
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- SYMBOL MEDIA**
- SOIL
 - GROUND WATER (DEEP WELLS)
 - GROUND WATER (SHALLOW WELLS)
 - DRINK SOIL SAMPLES
 - DRINK WASTE SAMPLES
 - SEDIMENTS
 - SURFACE WATER AND SEDS
- SYMBOL MEDIA**
- SOIL
 - GROUND WATER (DEEP WELLS)
 - GROUND WATER (SHALLOW WELLS)
 - DRINK SOIL SAMPLES
 - DRINK WASTE SAMPLES
 - SEDIMENTS
 - SURFACE WATER AND SEDS

SCALE OF CONCENTRATION

GREATER THAN 10,000 PPG

100-10,000 PPG

10-1,000 PPG

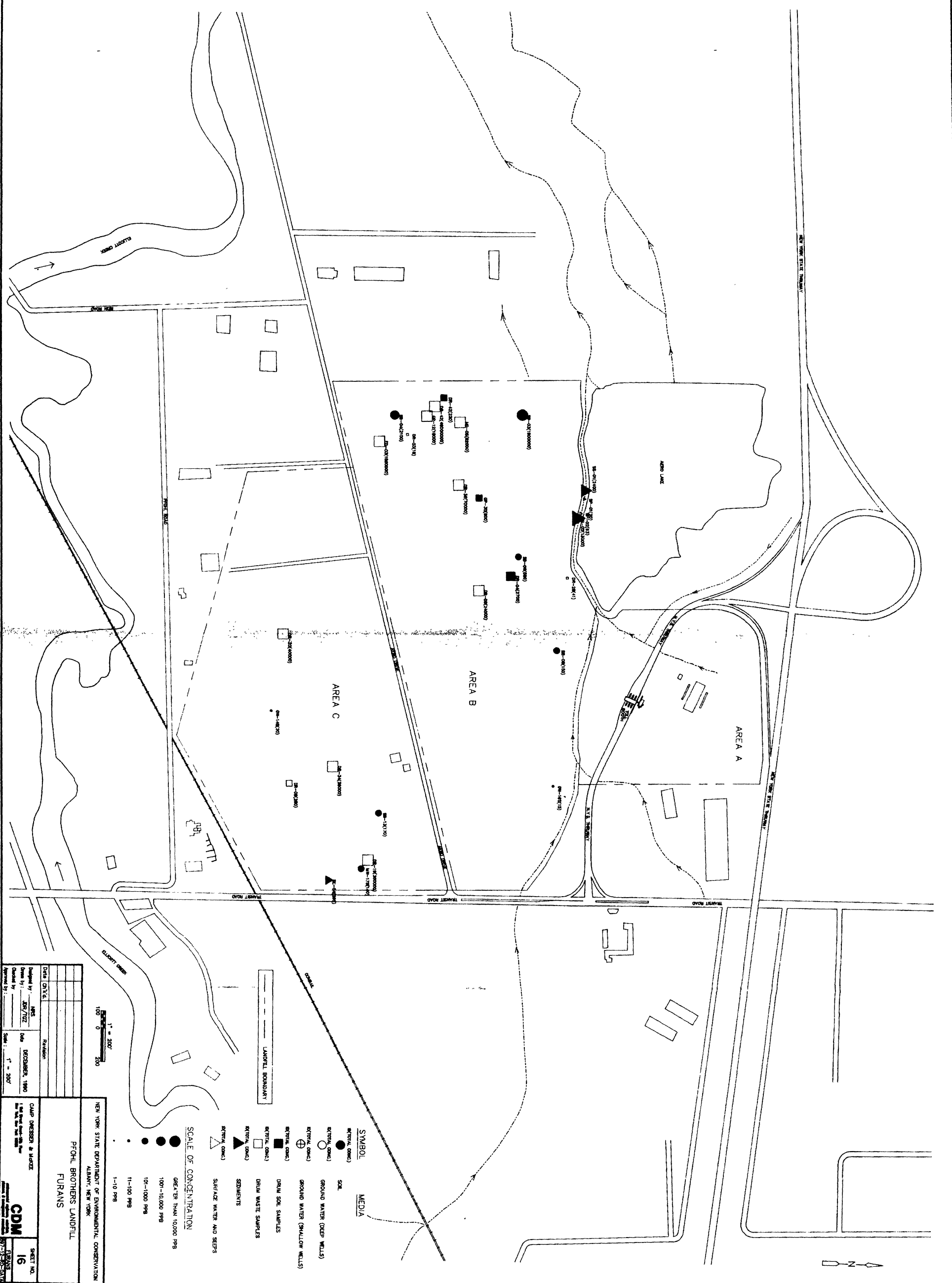
1-100 PPG

1-10 PPG

CDM

SHEET NO. 13

APPROVED BY: _____	DATE: _____	APPROVED BY: _____	DATE: _____	APPROVED BY: _____	DATE: _____	APPROVED BY: _____	DATE: _____	APPROVED BY: _____	DATE: _____	APPROVED BY: _____	DATE: _____	APPROVED BY: _____	DATE: _____
ARCHITECTURAL		STRUCTURAL		ELECTRICAL		INSTRUMENTATION		HVAC		PLUMBING		PROJECT ENGINEER	PROJECT MANAGER



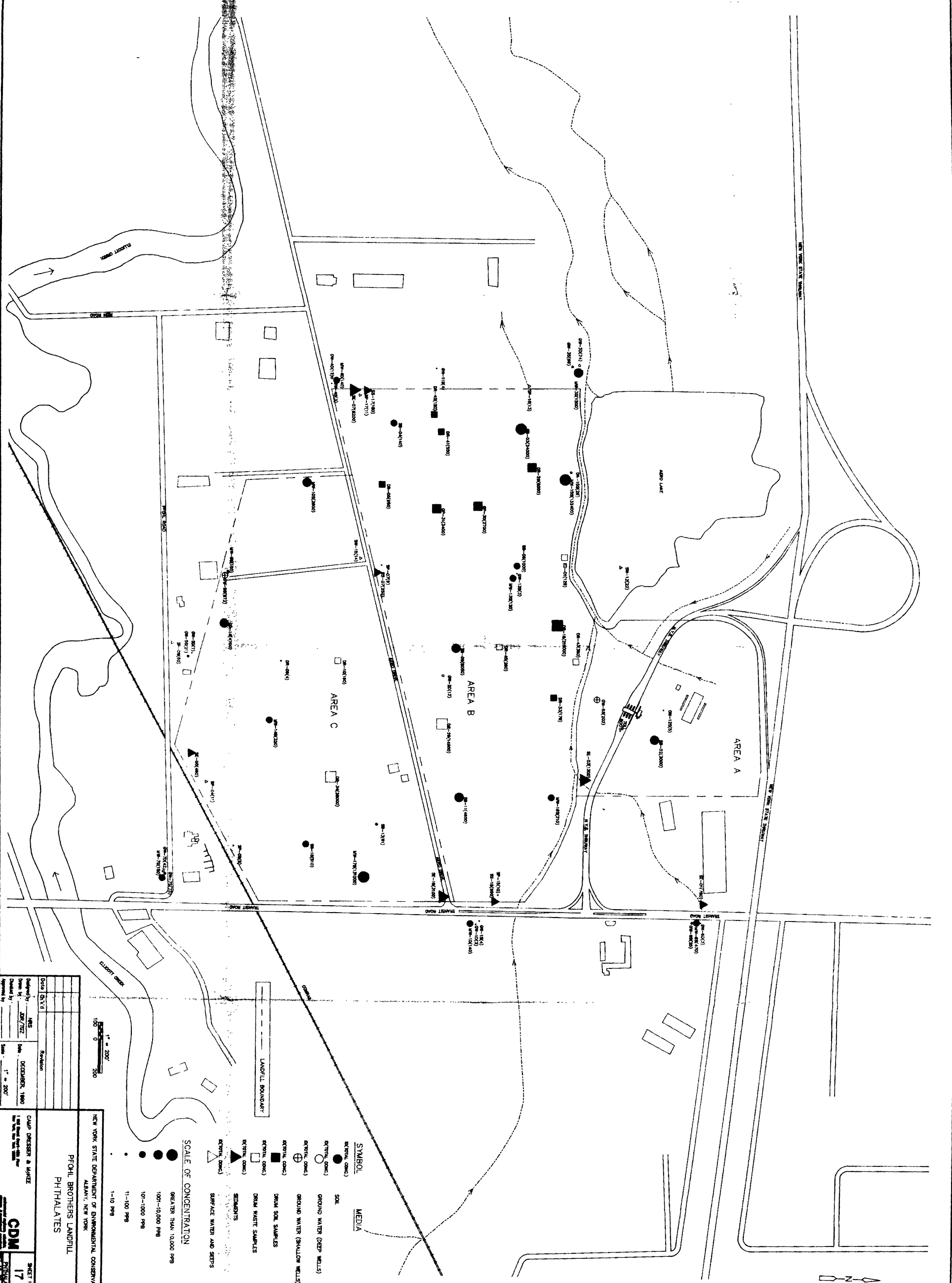
Date: 01/14/02 Drawn by: JAC/TC Checked by: JAC/TC Approved by: JAC/TC	Revision: 1 DECEMBER, 1993 1" = 200'	CAMP DESIGNER & MONITOR CDM 16 1000 WEST 10TH AVENUE DENVER, CO 80202	SHEET NO. 16 OF 16
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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
 ALBANY, NEW YORK

**PFOHL BROTHERS LANDFILL
 FURANS**

- SCALE OF CONCENTRATION**
- GREATER THAN 10,000 PPS
 - 101-10,000 PPS
 - 101-1,000 PPS
 - 11-100 PPS
 - 1-10 PPS
- SYMBOL**
- SURFACE WATER AND SEEPS
 - ⊕ DEEP WELLS
 - ⊕ SHALLOW WELLS
 - ⊕ SOIL SAMPLES
 - ⊕ DEEP WASTE SAMPLES
 - ⊕ SEDIMENTS
 - ⊕ SURFACE WATER AND SEEPS
- MEDIA**
- SOIL
 - GROUND WATER (DEEP WELLS)
 - GROUND WATER (SHALLOW WELLS)
 - DRINK SOIL SAMPLES
 - DEEP WASTE SAMPLES
 - SEDIMENTS
 - SURFACE WATER AND SEEPS

APPROVED BY: _____	DATE: _____	APPROVED BY: _____	DATE: _____	APPROVED BY: _____	DATE: _____	APPROVED BY: _____	DATE: _____	APPROVED BY: _____	DATE: _____	APPROVED BY: _____	DATE: _____	APPROVED BY: _____	DATE: _____	APPROVED BY: _____	DATE: _____
ARCHITECTURAL		STRUCTURAL		ELECTRICAL		INSTRUMENTATION		HVAC		PLUMBING		PROJECT ENGINEER		PROJECT MANAGER	



DESIGNED BY: _____	DATE: _____
CHECKED BY: _____	DATE: _____
APPROVED BY: _____	DATE: _____

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
ALBANY, NEW YORK

SCALE OF CONCENTRATION
 GREATER THAN 10,000 PPH
 1001-10,000 PPH
 101-1000 PPH
 11-100 PPH
 1-10 PPH

SYMBOL
 SOIL
 GROUND WATER (DEEP WELLS)
 GROUND WATER (SHALLOW WELLS)
 DRINK SOIL SAMPLES
 DRINK WASTE SAMPLES
 SEDIMENTS
 SURFACE WATER AND SEEPS

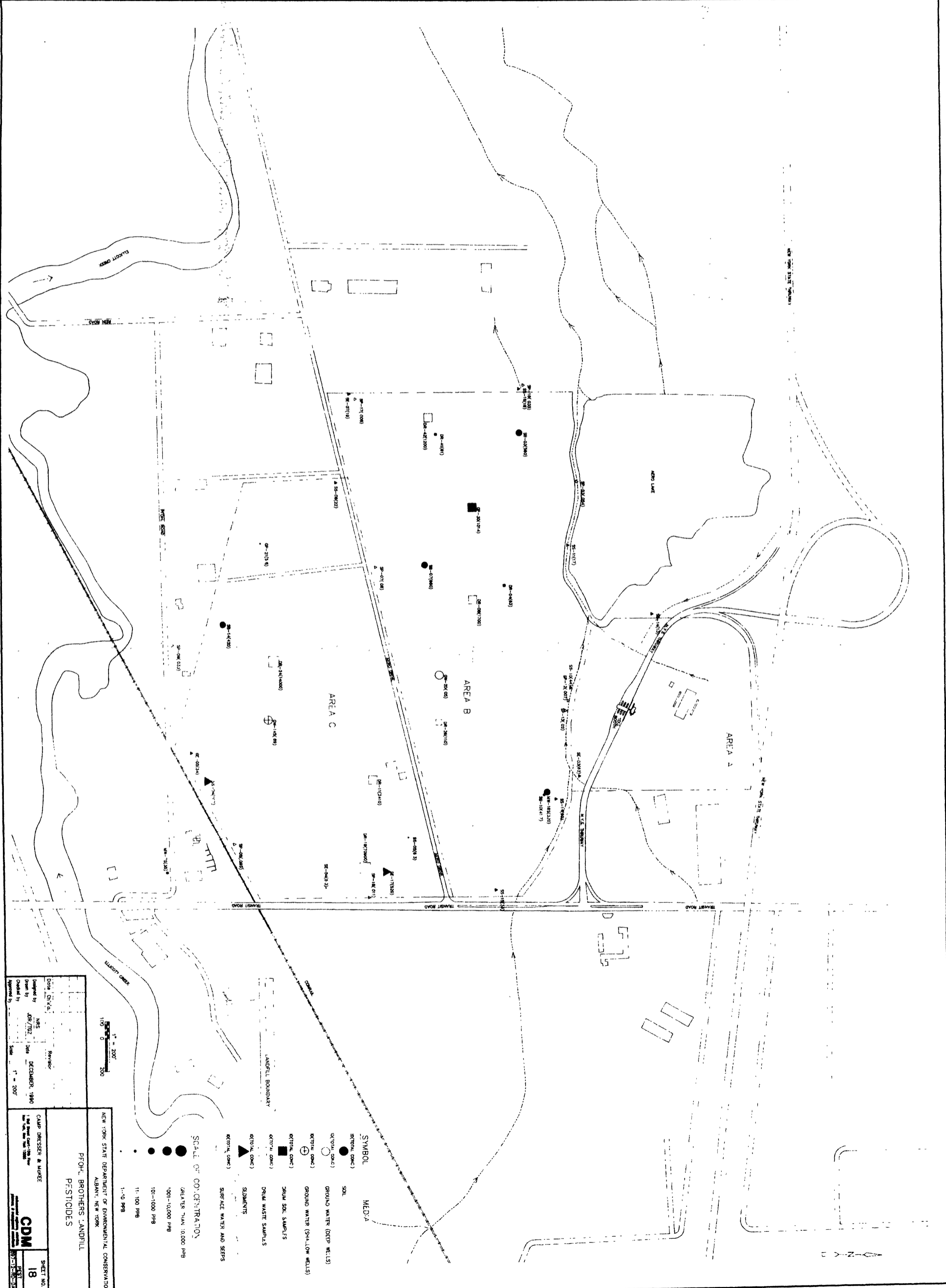
LANDFILL BOUNDARY

AREA A
 AREA B
 AREA C

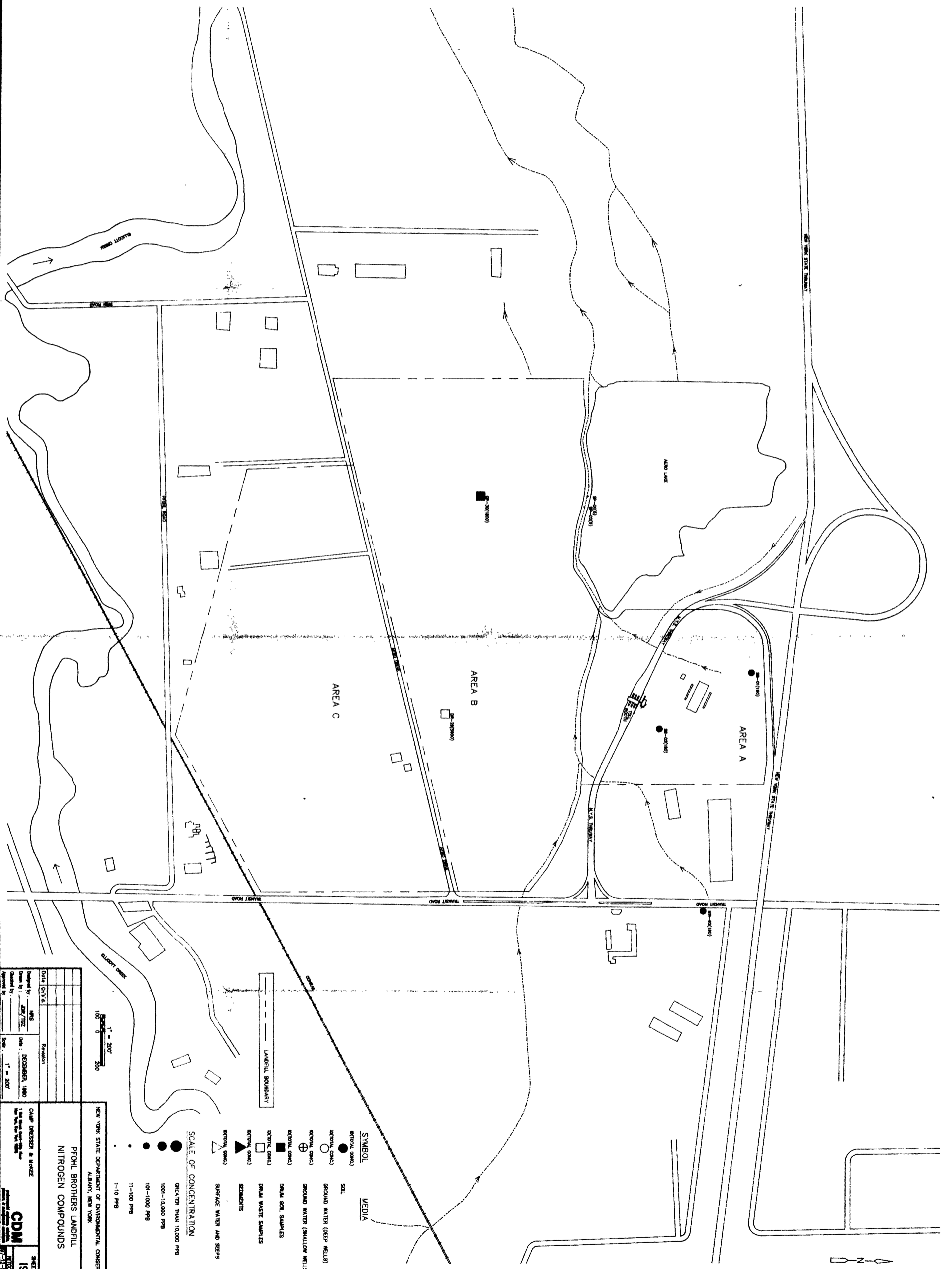
LAKE

TRAVEL ROAD
 CLAYTON ROAD

CDM
 SHEET NO. 17



ARCHITECTURAL	STRUCTURAL	ELECTRICAL	INSTRUMENTATION	HVAC	PLUMBING	PROJECT ENGINEER	PROJECT MANAGER
Approved by: _____ Date: _____	Approved by: _____ Date: _____	Approved by: _____ Date: _____	Approved by: _____ Date: _____	Approved by: _____ Date: _____	Approved by: _____ Date: _____	Approved by: _____ Date: _____	Approved by: _____ Date: _____



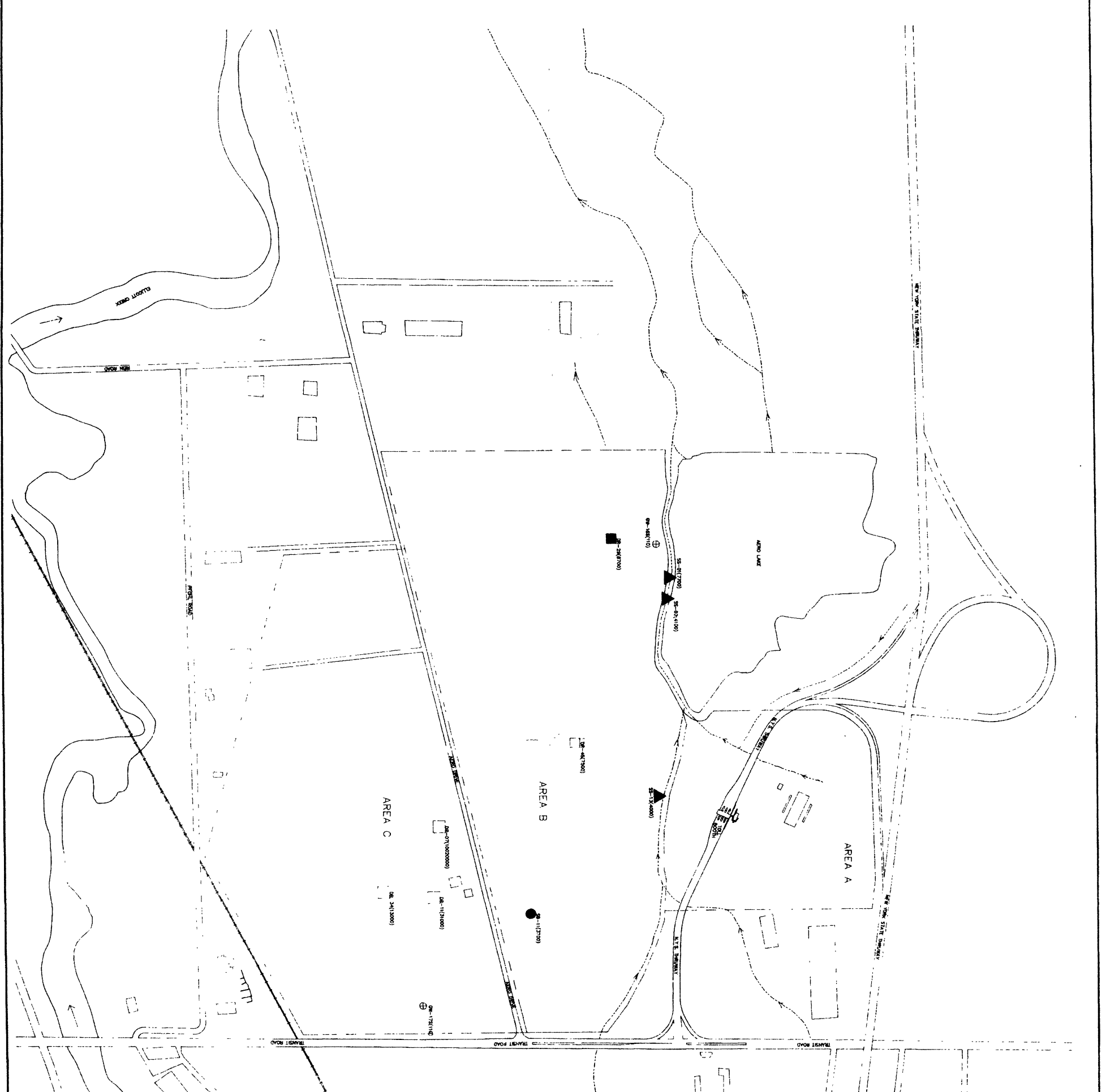
Date: OCT 2, 1980	Revision:
Designed by: JMS	
Drawn by: JMS/TJZ	
Checked by: JMS	
Approved by: JMS	

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
 ALBANY, NEW YORK

**PFOHL BROTHERS LANDFILL
 NITROGEN COMPOUNDS**

CDM
 SHEET NO. 19

ARCHITECTURAL	STRUCTURAL	ELECTRICAL	INSTRUMENTATION	HVAC	PLUMBING	PROJECT ENGINEER	PROJECT MANAGER
Approved by _____ Date _____	Approved by _____ Date _____	Approved by _____ Date _____	Approved by _____ Date _____	Approved by _____ Date _____	Approved by _____ Date _____	Approved by _____ Date _____	Approved by _____ Date _____



Date: 01/14/80	Revision:
Designed by: JMS	
Drawn by: JMS/TKZ	Date: DECEMBER, 1980
Checked by:	Scale: 1" = 200'
Reviewed by:	

1" = 200'

0 100 200

SCALE OF CONCENTRATION:

- GREATER THAN 10,000 PPM
- 1001-10,000 PPM
- 101-1000 PPM
- 11-100 PPM
- 1-10 PPM

SYMBOL MEDIA

- SOIL
- GROUND WATER (DEEP WELLS)
- ⊕ GROUND WATER (SHALLOW WELLS)
- DRUM SOIL SAMPLES
- ▲ DRUM WASTE SAMPLES
- ▲ SCUMENTS
- ▲ SURFACE WATER AND SEEPS

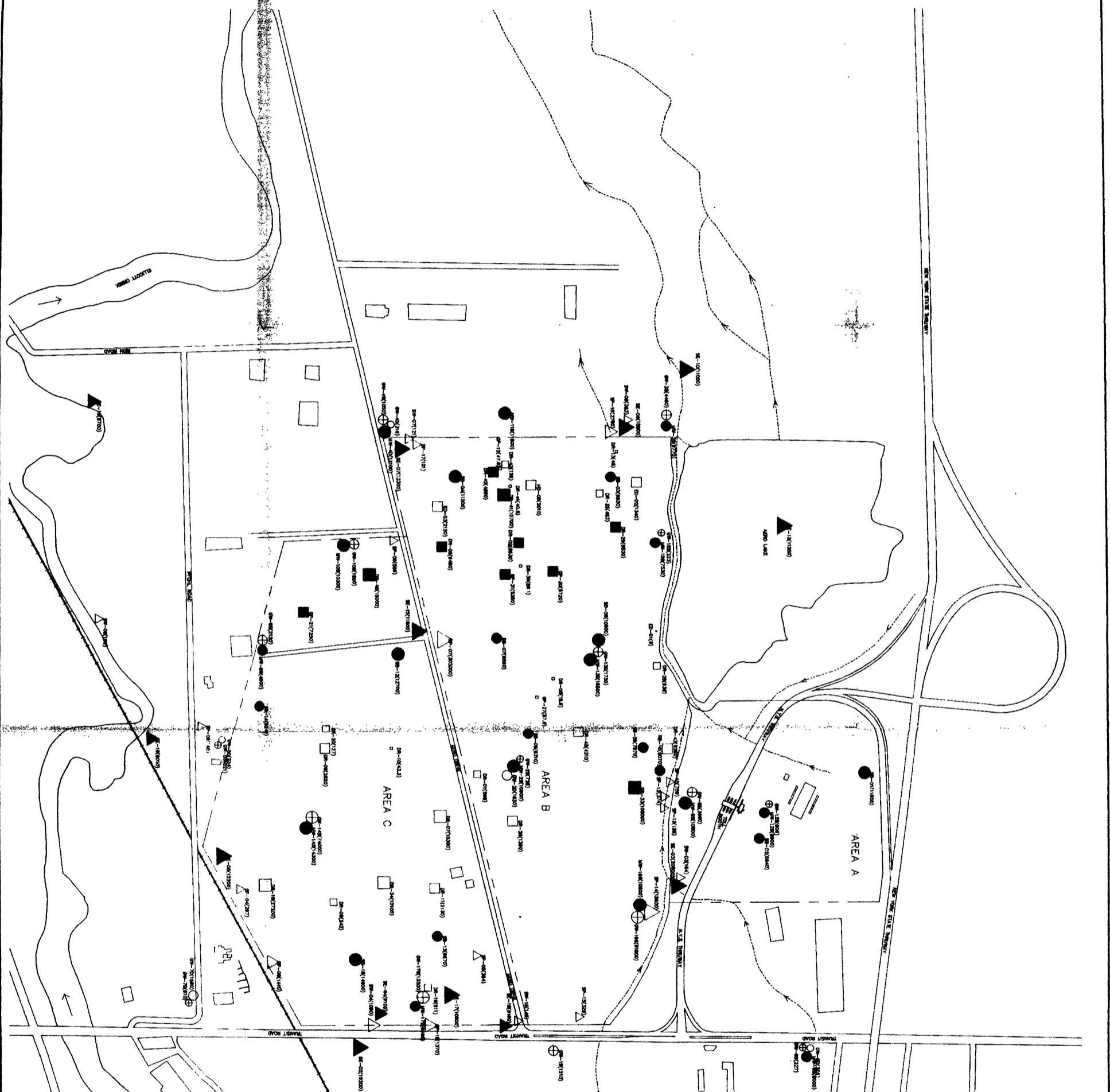
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
ALBANY, NEW YORK

PROHIBITED BROTHERS LANDFILL
PCBS

CAMP DRESSER & MOORE
New York State Office Building
120 West State Street
Albany, New York 12242

CDM
PCBS
SHEET NO. 20

ARCHITECTURAL	STRUCTURAL	ELECTRICAL	INSTRUMENTATION	HYAC	PLUMBING	PROJECT ENGINEER	PROJECT MANAGER
Approved by: _____ Date: _____	Approved by: _____ Date: _____	Approved by: _____ Date: _____	Approved by: _____ Date: _____	Approved by: _____ Date: _____	Approved by: _____ Date: _____	Approved by: _____ Date: _____	Approved by: _____ Date: _____



Date: 01/14/80	Revision:
Drawn by: JBY/TJZ	Date: DECEMBER, 1980
Checked by: _____	Scale: 1" = 200'
Approved by: _____	

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
ALBANY, NEW YORK

PFOAL BROTHERS LANDFILL
ALUMINUM

CAMP DRESSER & HUNDE
Environmental Engineers & Scientists
1000 West 12th Street
Albany, New York 12203

CDM
SHEET NO. 21

1" = 200'

100' 0' 200'

LANDFILL BOUNDARY

SYMBOL

MEDIA

SOIL

GROUND WATER (DEEP WELLS)

GROUND WATER (SHALLOW WELLS)

DETAILED SOIL SAMPLES

DETAILED WASTE SAMPLES

SEDIMENTS

SURFACE WATER AND SEEPS

SCALE OF CONCENTRATION

GREATER THAN 10,000

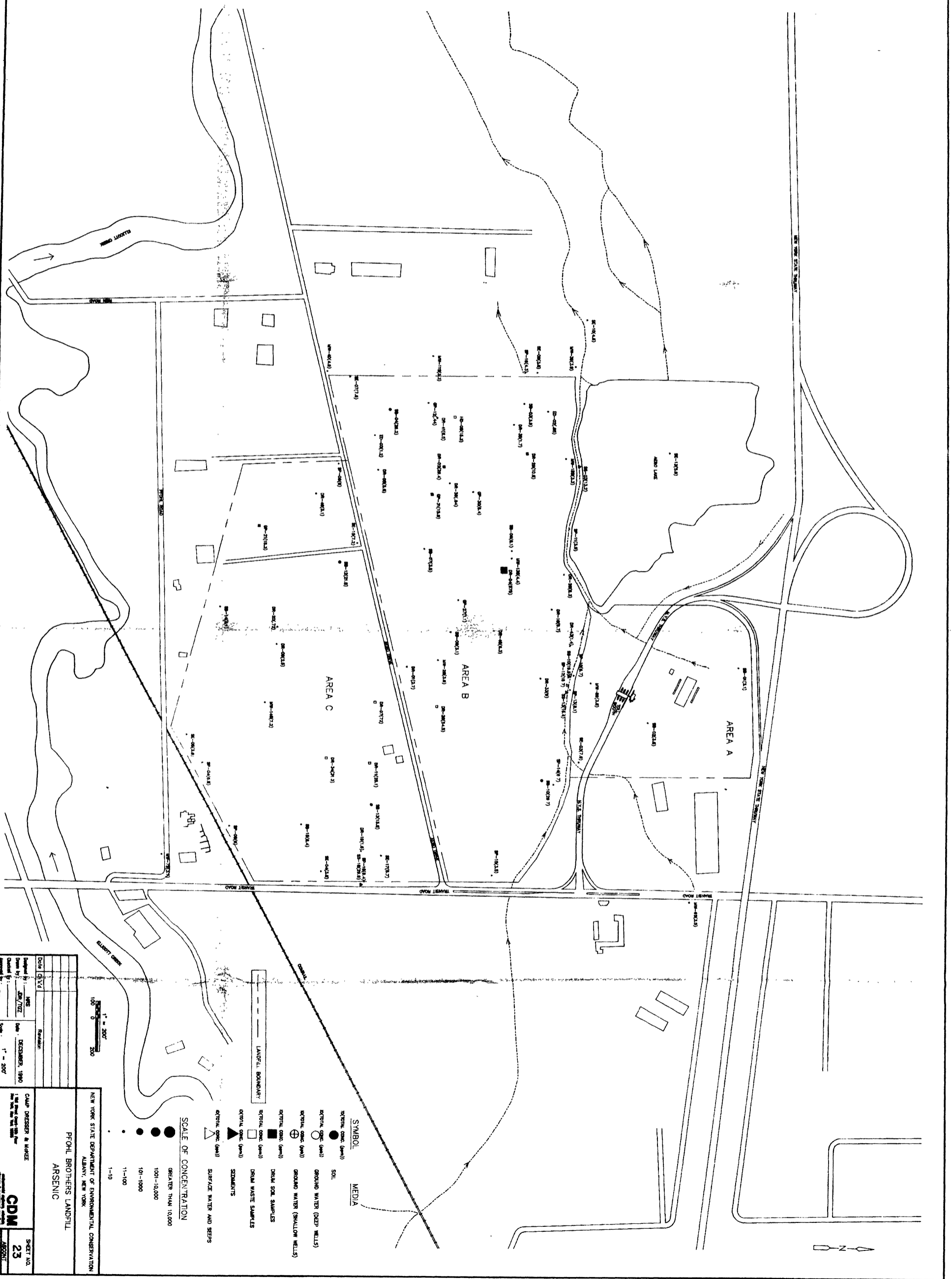
100-10,000

10-1,000

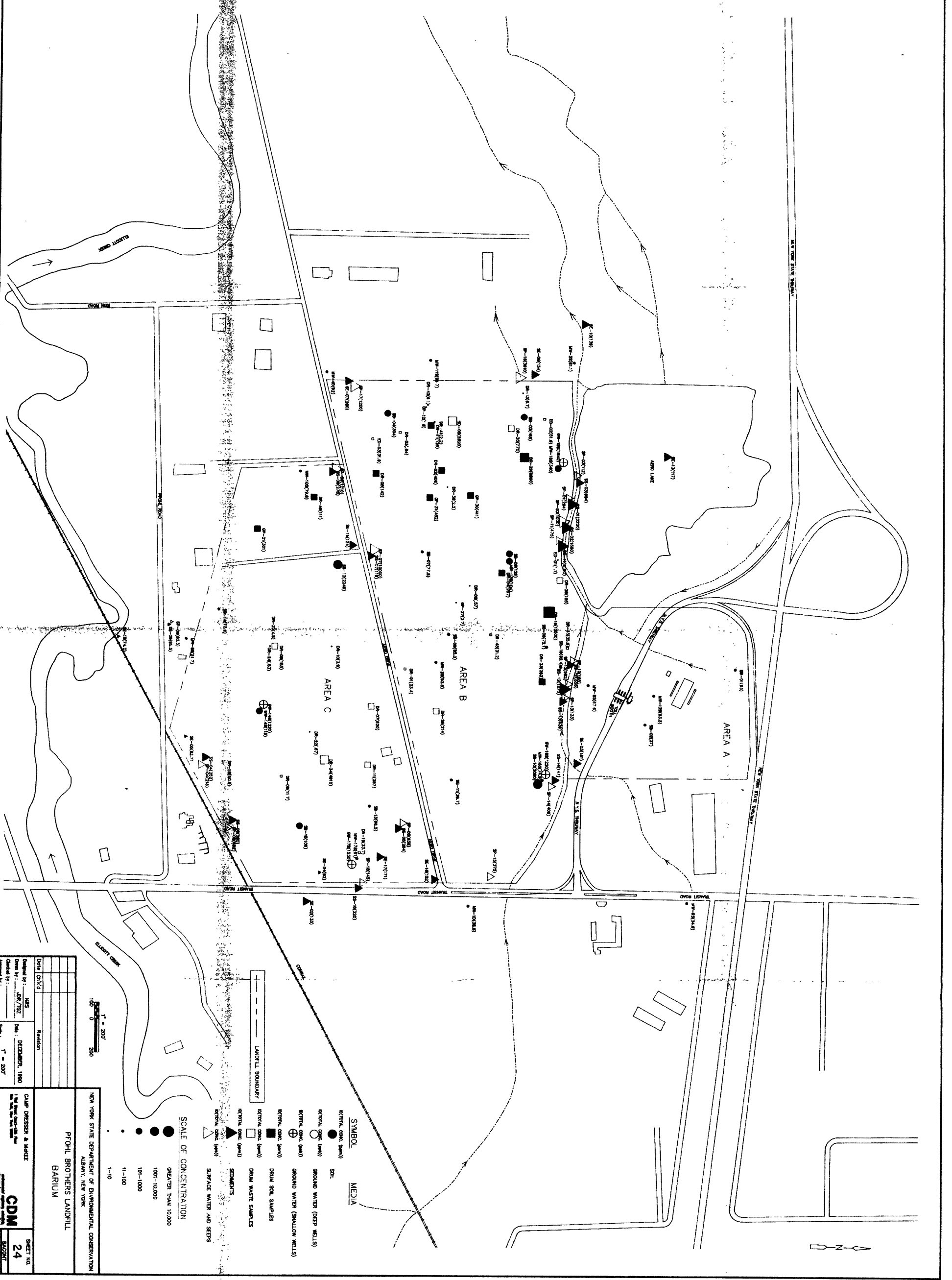
1-100

1-10

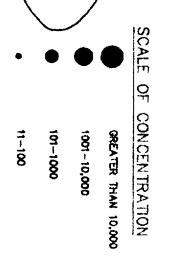
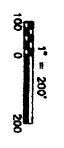
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ARCHITECTURAL		STRUCTURAL		ELECTRICAL		INSTRUMENTATION		HYDRO		PLUMBING		PROJECT ENGINEER	PROJECT MANAGER



ARCHITECTURAL	STRUCTURAL	ELECTRICAL	INSTRUMENTATION	HVAC	PLUMBING	PROJECT ENGINEER	PROJECT MANAGER
Approved by: _____ Date: _____	Approved by: _____ Date: _____	Approved by: _____ Date: _____	Approved by: _____ Date: _____	Approved by: _____ Date: _____	Approved by: _____ Date: _____	Approved by: _____ Date: _____	Approved by: _____ Date: _____



Date	Checked by	Approved by
12/1/80	JDR/702	JDR/702
12/1/80	JDR/702	JDR/702
12/1/80	JDR/702	JDR/702



- SYMBOL**
- SOIL
 - GROUND WATER (DEEP WELLS)
 - GROUND WATER (SHALLOW WELLS)
 - DRILL SOIL SAMPLES
 - DRILL WASTE SAMPLES
 - SEWERS
 - SURFACE WATER AND SEEPS
- MEDIA**
- ELECTRICAL CONC. (p=1)
 - ELECTRICAL CONC. (p=2)
 - ELECTRICAL CONC. (p=3)
 - ELECTRICAL CONC. (p=4)
 - ELECTRICAL CONC. (p=5)
 - ELECTRICAL CONC. (p=6)
 - ELECTRICAL CONC. (p=7)
 - ELECTRICAL CONC. (p=8)
 - ELECTRICAL CONC. (p=9)
 - ELECTRICAL CONC. (p=10)
 - ELECTRICAL CONC. (p=11)
 - ELECTRICAL CONC. (p=12)
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 - ELECTRICAL CONC. (p=20)

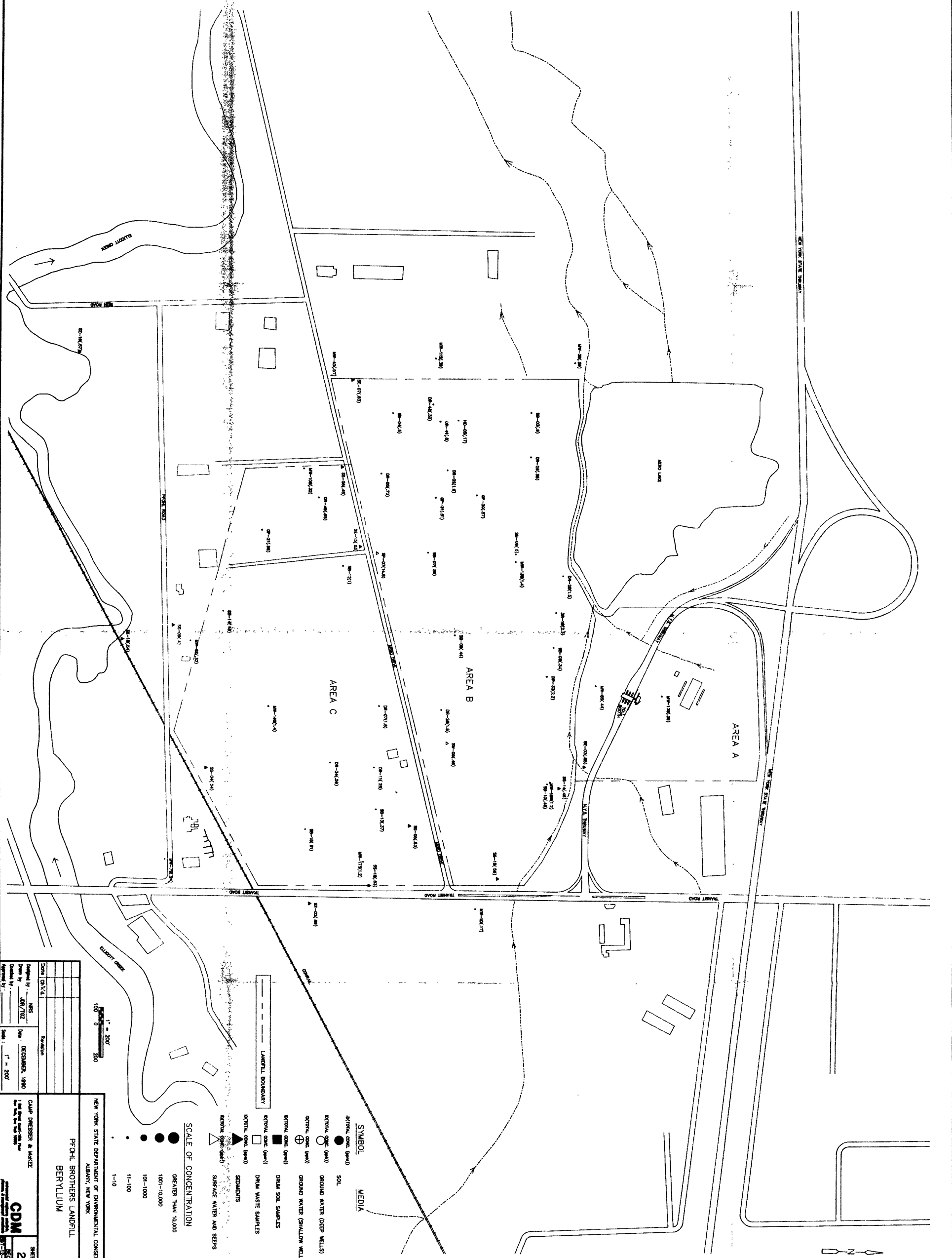
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
ALBANY, NEW YORK

PROHL BROTHERS LANDFILL
BARIUM

CAMP DRESSER & WATZ
100 WEST 30TH STREET
NEW YORK, N.Y. 10001

CDM 24
SHEET NO.

APPROVED BY: _____ DATE: _____	APPROVED BY: _____ DATE: _____	APPROVED BY: _____ DATE: _____	APPROVED BY: _____ DATE: _____	APPROVED BY: _____ DATE: _____	APPROVED BY: _____ DATE: _____	APPROVED BY: _____ DATE: _____	APPROVED BY: _____ DATE: _____	APPROVED BY: _____ DATE: _____
ARCHITECTURAL	STRUCTURAL	ELECTRICAL	INSTRUMENTATION	HVAC	PLUMBING	PROJECT ENGINEER	PROJECT MANAGER	



1" = 200'
 0 100 200
 100' 0' 200'

SCALE OF CONCENTRATION
 GREATER THAN 10,000
 1001-10,000
 101-1000
 11-100
 1-10

SYMBOL
 SOL
 GROUND WATER (DEEP WELLS)
 GROUND WATER (SHALLOW WELLS)
 DRINK SOIL SAMPLES
 DRINK WASTE SAMPLES
 SEDIMENTS
 SURFACE WATER AND SEEPS

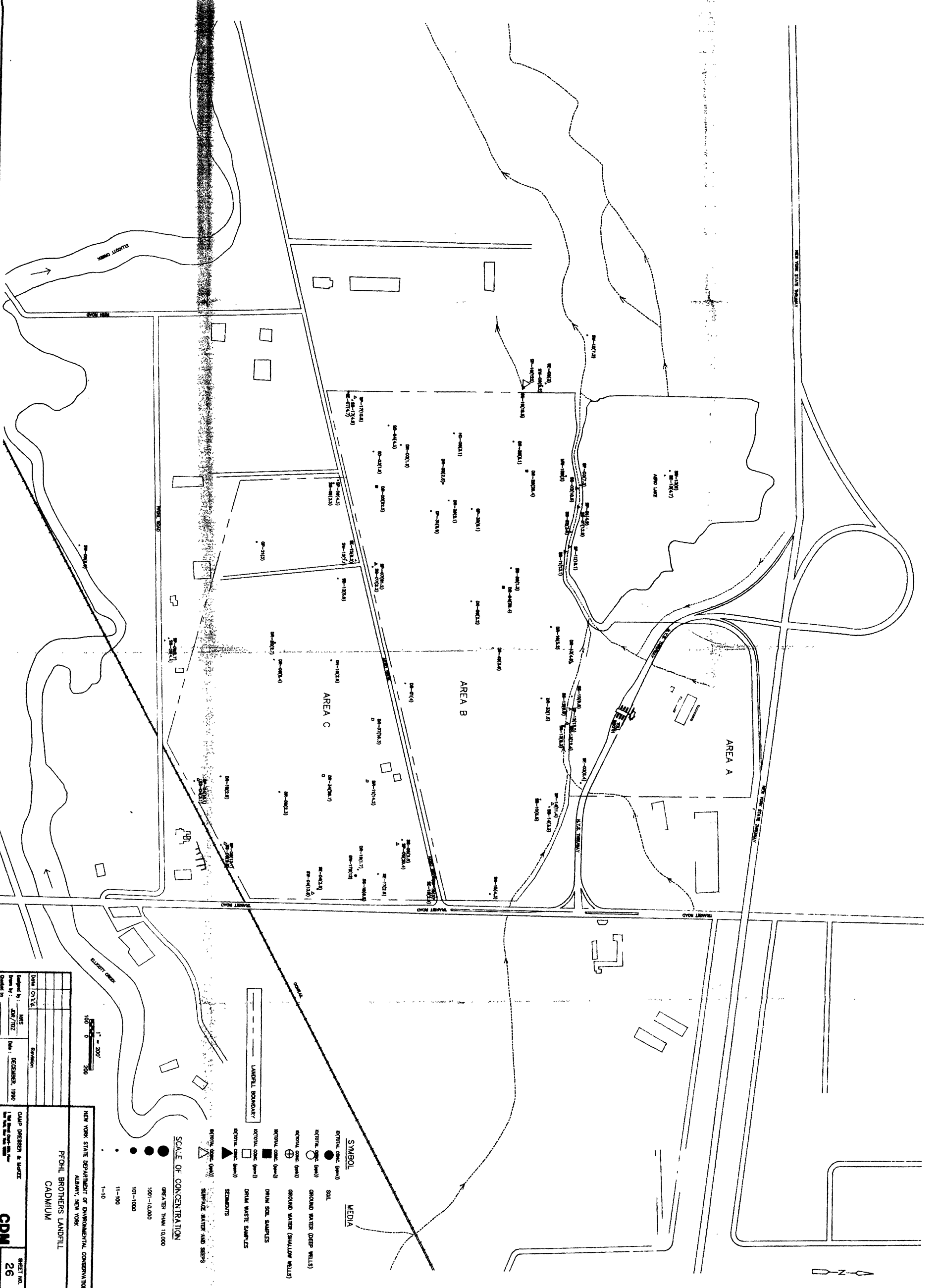
MEDIA
 SOIL
 GROUND WATER (DEEP WELLS)
 GROUND WATER (SHALLOW WELLS)
 DRINK SOIL SAMPLES
 DRINK WASTE SAMPLES
 SEDIMENTS
 SURFACE WATER AND SEEPS

LANDFILL BOUNDARY
 CROFT CREEK
 CROFT LAKE

DESIGNED BY: JDF/7/92
 DRAWN BY: JDF/7/92
 CHECKED BY: JDF/7/92
 DATE: DECEMBER, 1990
 SCALE: 1" = 200'
 SHEET NO. 25
 CDM

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
 ALBANY, NEW YORK
 PFOHL BROTHERS LANDFILL
 BERYLLIUM

APPROVED BY: _____	DATE: _____	APPROVED BY: _____	DATE: _____	APPROVED BY: _____	DATE: _____	APPROVED BY: _____	DATE: _____	APPROVED BY: _____	DATE: _____	APPROVED BY: _____	DATE: _____	APPROVED BY: _____	DATE: _____	APPROVED BY: _____	DATE: _____
ARCHITECTURAL		STRUCTURAL		ELECTRICAL		INSTRUMENTATION		HVAC		PLUMBING		PROJECT ENGINEER		PROJECT MANAGER	



DESIGNED BY: _____	DATE: _____	DESIGNED BY: _____	DATE: _____
CHECKED BY: _____	DATE: _____	CHECKED BY: _____	DATE: _____
APPROVED BY: _____	DATE: _____	APPROVED BY: _____	DATE: _____

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
ALBANY, NEW YORK

**PFOHL BROTHERS LANDFILL
CADMIUM**

SCALE OF CONCENTRATION

- GREATER THAN 10,000
- 1001-10,000
- 101-1000
- 11-100
- 1-10

SYMBOL

- SOIL
- GROUND WATER (DEEP WELLS)
- ⊕ GROUND WATER (SHALLOW WELLS)
- DRINK SOIL SAMPLES
- ⊠ DRINK WASTE SAMPLES
- ▲ SEWAGES
- ▽ SURFACE WATER AND SEEPS

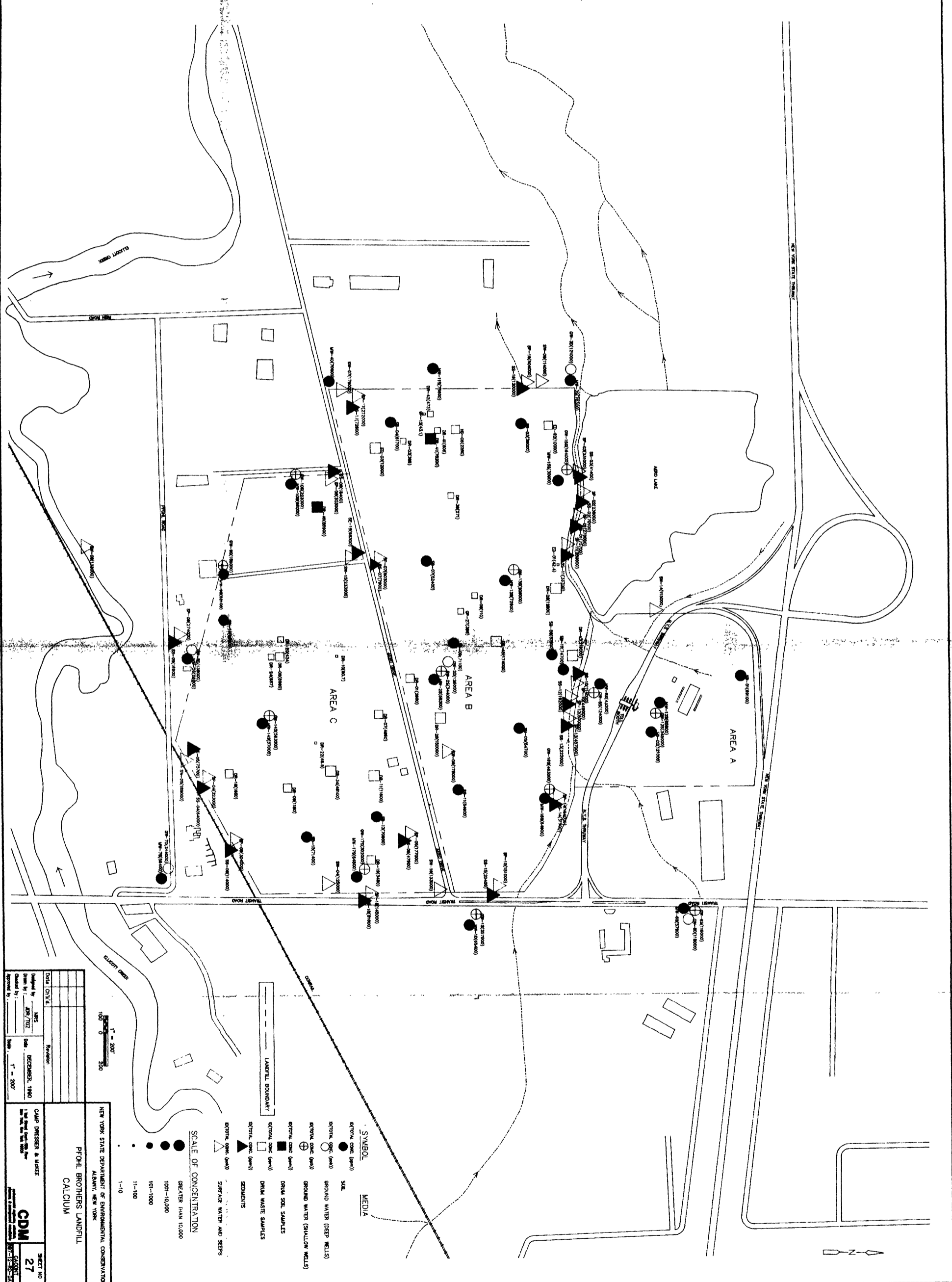
MEDIA

- SOIL
- GROUND WATER (DEEP WELLS)
- ⊕ GROUND WATER (SHALLOW WELLS)
- DRINK SOIL SAMPLES
- ⊠ DRINK WASTE SAMPLES
- ▲ SEWAGES
- ▽ SURFACE WATER AND SEEPS

LANDFILL BOUNDARY

CDM
SHEET NO. 26

ARCHITECTURAL	STRUCTURAL	ELECTRICAL	INSTRUMENTATION	HVAC	PLUMBING	PROJECT ENGINEER	PROJECT MANAGER
Approved by: _____ Date: _____	Approved by: _____ Date: _____	Approved by: _____ Date: _____	Approved by: _____ Date: _____	Approved by: _____ Date: _____	Approved by: _____ Date: _____	Approved by: _____ Date: _____	Approved by: _____ Date: _____



DESIGNED BY: JMS	DATE: DECEMBER, 1980
CHECKED BY: JMS	SCALE: 1" = 200'
APPROVED BY: _____	

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
ALBANY, NEW YORK

PFOHL BROTHERS LANDFILL
CALCIUM

CAMP DWIGGINS & BURKE
110 West Street, Albany, New York 12242
PH: 518-862-3333

CDM 27
SHEET NO. 27 OF 27

SCALE OF CONCENTRATION
GREATER THAN 10,000
1001-10,000
101-1000
11-100

SYMBOL MEDIA
SOIL
GROUND WATER (DEEP WELLS)
GROUND WATER (SHALLOW WELLS)
DRUM SOIL SAMPLES
DRUM WASTE SAMPLES
SEDIMENTS
SURFACE WATER AND SEEPS