

*FINAL*  
~~Draft~~ Remedial Investigation Report  
Volume III Part B  
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 IIIb

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PLATE 36 MERCURY

PLATE 37 NICKEL

PLATE 38 POTASSIUM

PLATE 39 SELENIUM

PLATE 40 SILVER

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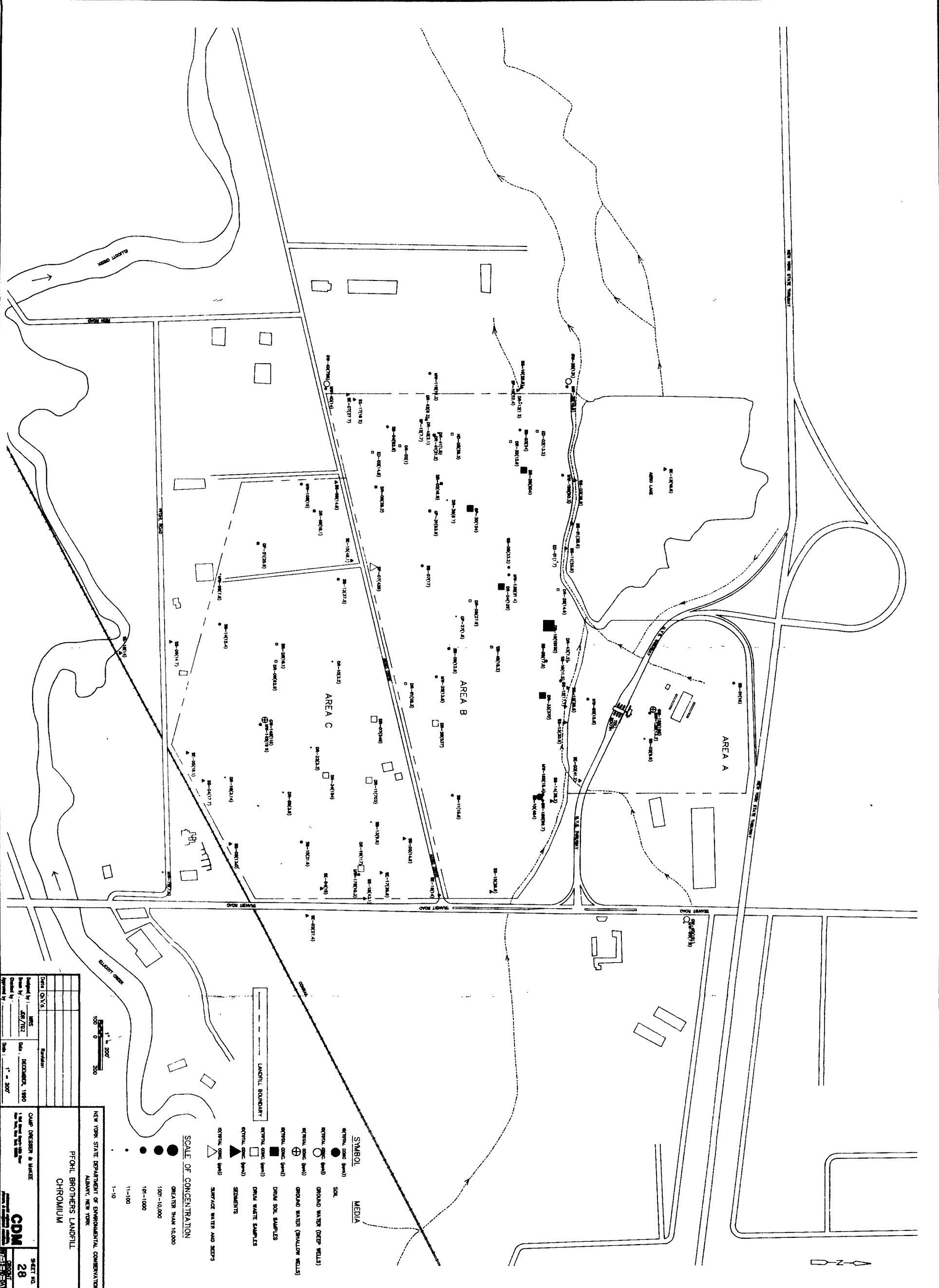
PLATE 42 THALLIUM

PLATE 43 VANADIUM

PLATE 44 ZINC

(pblf5/21)

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: _____



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

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

**SYMBOL MEDIA**  
 SOIL  
 GROUND WATER (DEEP WELLS)  
 GROUND WATER (SHALLOW WELLS)  
 DRUM SOIL SAMPLES  
 DRUM WATER SAMPLES  
 SEMENTERS  
 SURFACE WATER AND SEDS

1" = 200'  
 100' 0' 200'

Date: 01/24/80	Revision:
Designed by: JMS	Checked by: JMS
Drawn by: JMS/TJZ	Date: DECEMBER, 1980
Scale: 1" = 200'	

CDM GROUP DESIGNER & ENGINEER  
 1100 Avenue of the Americas  
 New York, N.Y. 10020  
**CDM**  
 SHEET NO. 28  
 PROJECT NO. 80-21-30-017

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



Date: 01/14/80 Drawn by: J.S./J.E. Checked by: _____ Scale: 1" = 200'	Revision: 1 2 3
Prepared by: _____ Date: DECEMBER, 1980 Scale: 1" = 200'	CMAP DRESSER & WORCESTER 1000 WEST 10TH STREET ALBANY, N.Y. 12206
<b>CDM</b> CONSULTANTS 100 WEST 10TH STREET ALBANY, N.Y. 12206	SHEET NO. <b>29</b>

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
 ALBANY, NEW YORK

**PFOHL BROTHERS LANDFILL  
 COBALT**

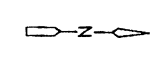
**SYMBOL MEDIA**

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

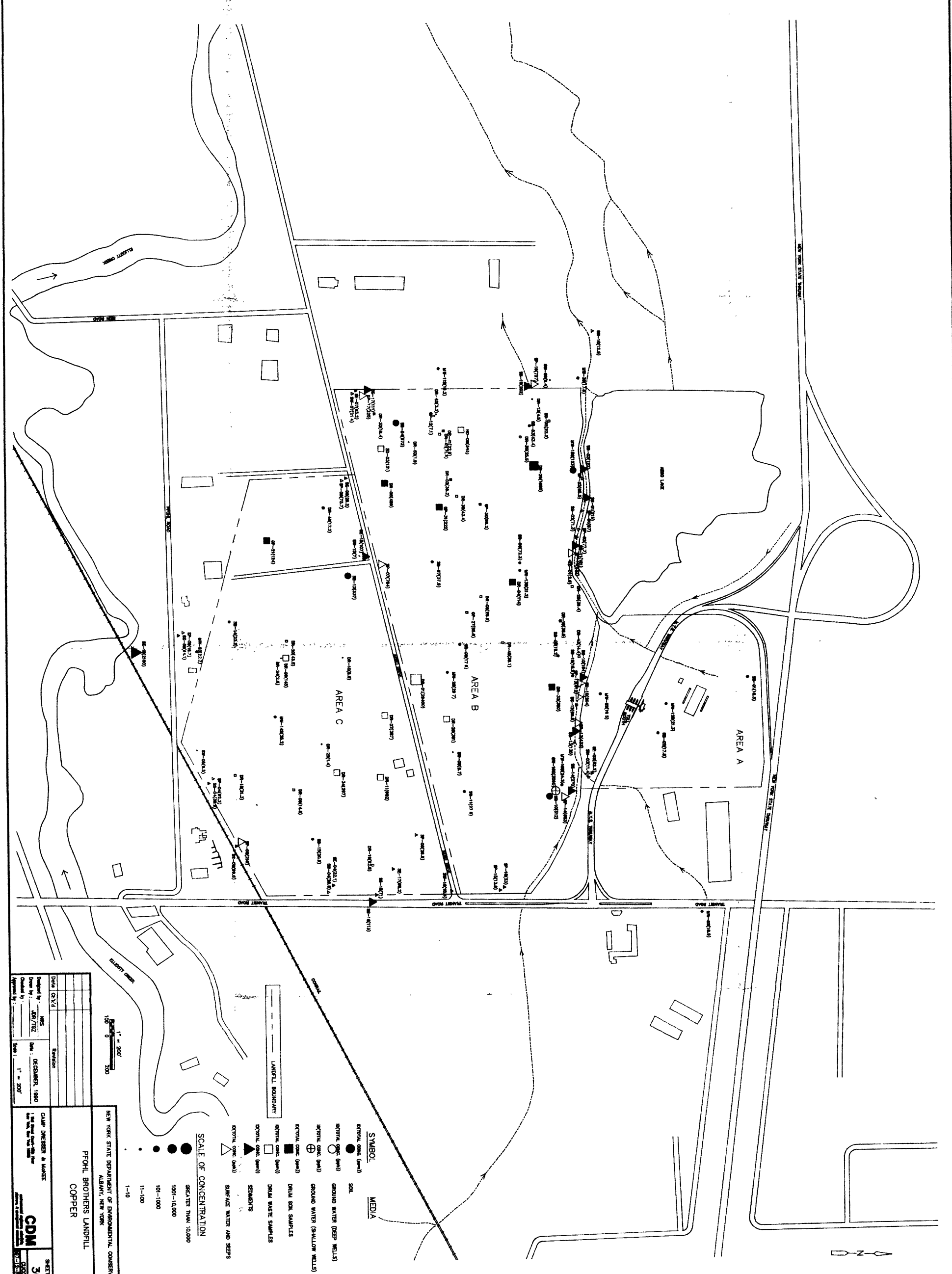
**SCALE OF CONCENTRATION**

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

LANDFILL BOUNDARY



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	Revision:
Drawn by: JMS/7/12	Date: DECEMBER, 1990
Checked by: JMS	Scale: 1" = 300'
Approved by: _____	



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

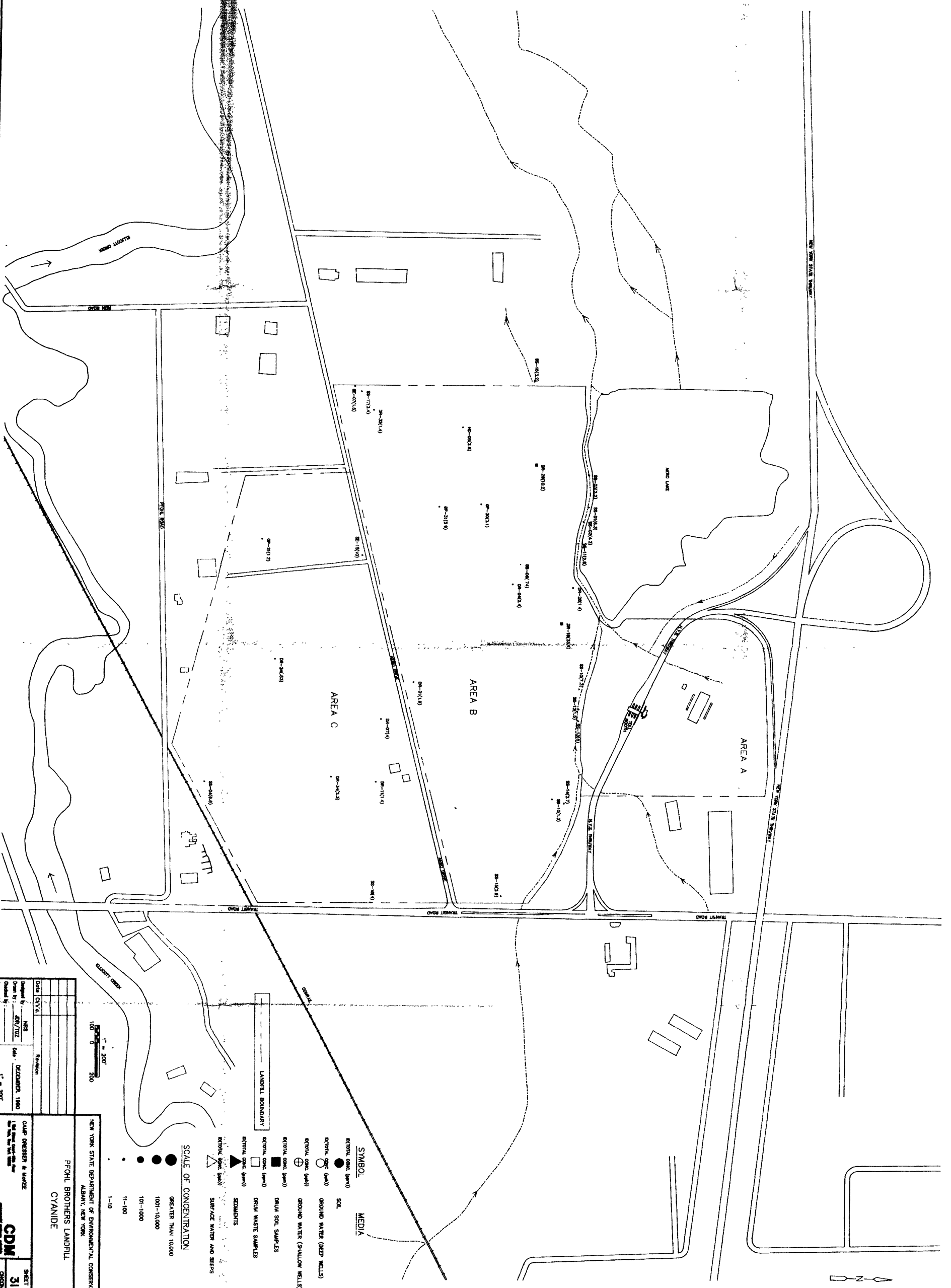
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
ALBANY, NEW YORK

**FROHL BROTHERS LANDFILL  
COPPER**

CAMP DWIGGS & WARD  
140 West 14th Street  
New York, N.Y. 10011

**CDM**  
30  
SHEET NO.

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: 12/1/80	Revision:
Designed by: JES/TJZ	Drawn: DECEMBER, 1980
Checked by: JES	Scale: 1" = 200'
Approved by: _____	

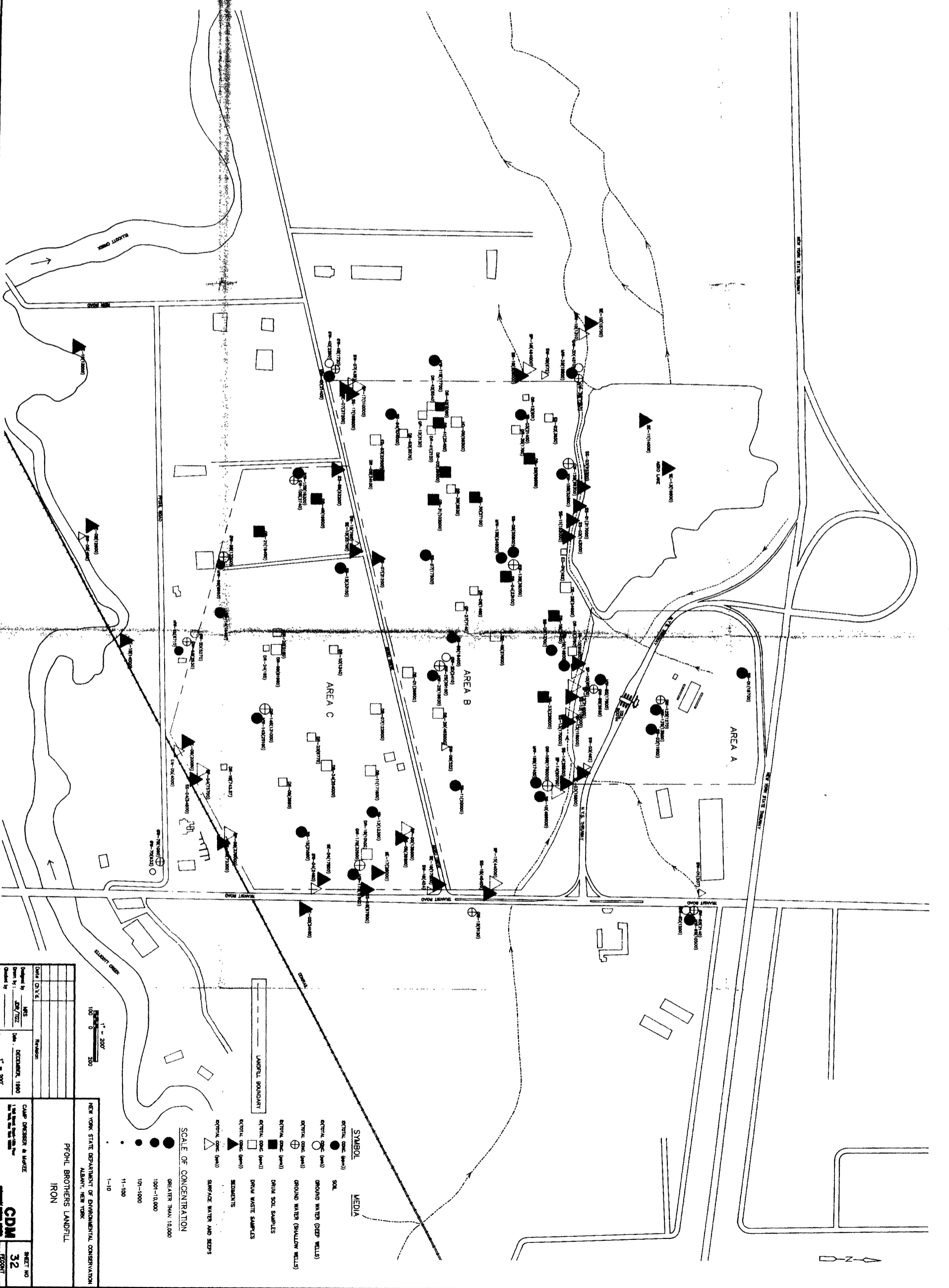
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
ALBANY, NEW YORK

PFOHL BROTHERS LANDFILL  
CYANIDE

CAMP ENGINEER & ARCHITECT  
100 WEST 10TH STREET  
ALBANY, NEW YORK 12207

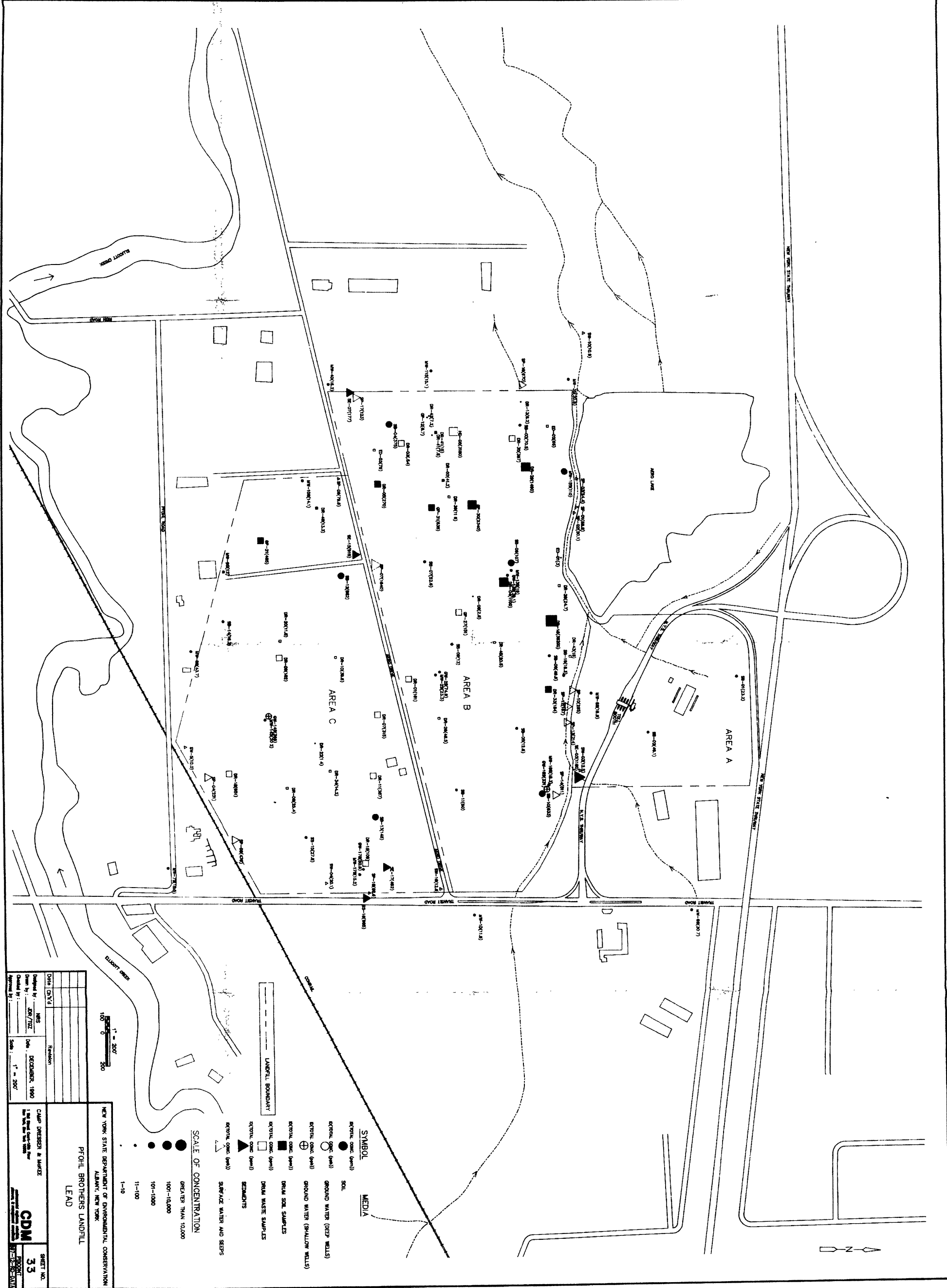
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ARCHITECTURAL		STRUCTURAL		ELECTRICAL		INSTRUMENTATION		HVAC		PLUMBING		PROJECT ENGINEER	PROJECT MANAGER



Date: 03/14 Drawn by: JMS Checked by: JMS Scale: 1" = 200'	Revision 1 2 3	NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION ALBANY, NEW YORK <b>PROHL BROTHERS LANDFILL          IRON</b>	CDM PROJECT SHEET NO <b>32</b>
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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						



**SCALE OF CONCENTRATION**

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

**SYMBOL MEDIA**

- SOIL
- GROUND WATER (DEEP WELLS)
- ⊕ GROUND WATER (SHALLOW WELLS)
- DRUM SOLE SAMPLES
- ◻ DRUM WASTE SAMPLES
- ▲ SEDIMENTS
- △ SURFACE WATER AND SEEPS

**SCALE**

1" = 200'  
0 100 200

**REVISIONS**

NO.	DATE	REVISION
1	12/14/90	ISSUED FOR PERMIT
2	12/14/90	REVISED TO SHOW MONITORING WELLS

**NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION**  
ALBANY, NEW YORK

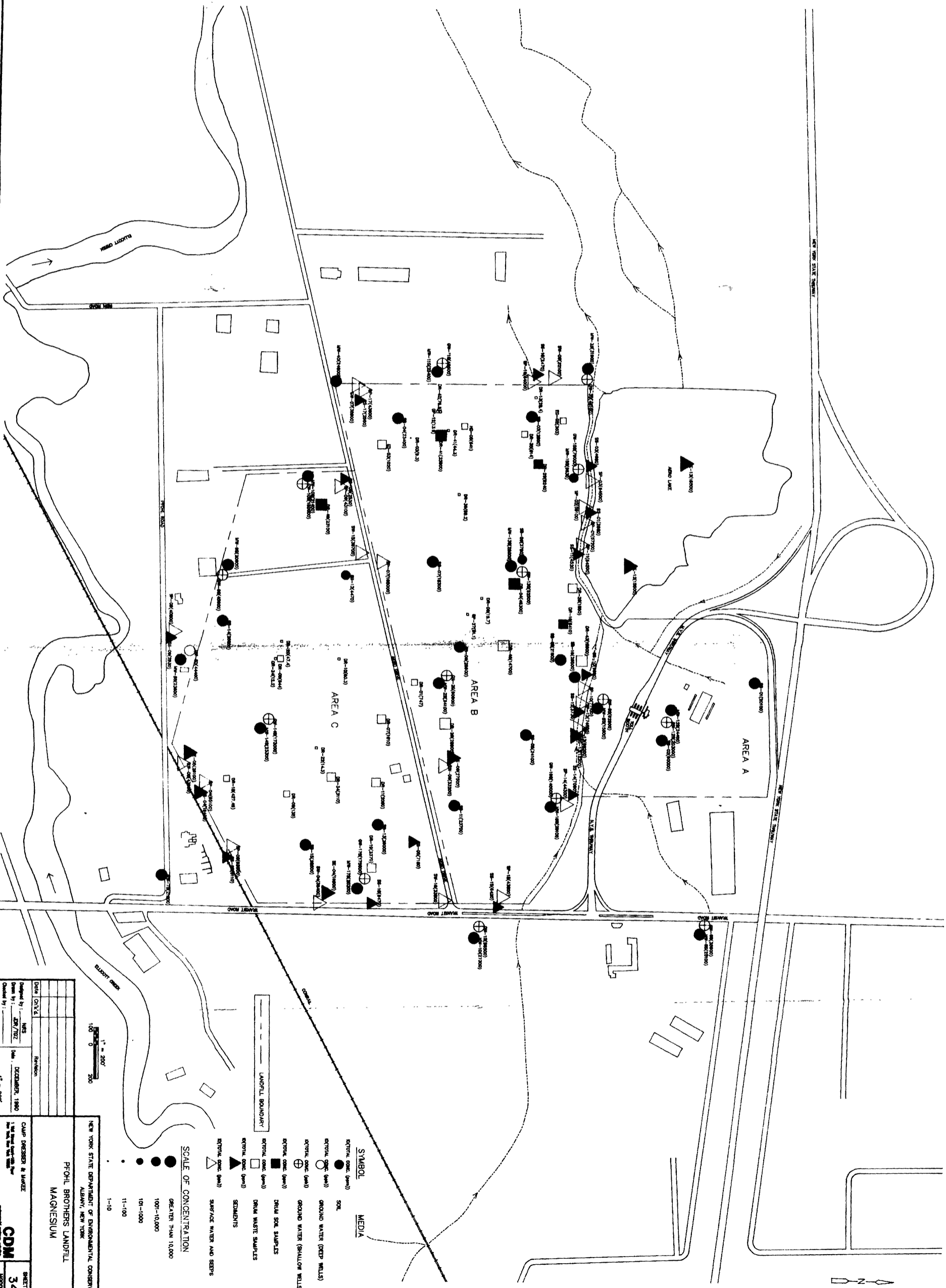
**PFOHL BROTHERS LANDFILL LEAD**

**CDM**  
33  
SHEET NO.

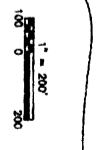
DESIGNED BY: \_\_\_\_\_  
CHECKED BY: \_\_\_\_\_  
DATE: \_\_\_\_\_  
SCALE: 1" = 200'



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: 01/15/80	REVISION:
DESIGNED BY: JST/TEZ	DATE: DECEMBER, 1980
CHECKED BY: _____	SCALE: 1" = 200'
APPROVED BY: _____	



NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
ALBANY, NEW YORK

PROHL BROTHERS LANDFILL  
MAGNESIUM

SCALE OF CONCENTRATION  
GREATER THAN 10,000  
100-10,000  
10-1,000  
1-100

- SYMBOL MEDIA**
- SURFACE WATER AND SEEPS
  - SOIL
  - ⊕ GROUND WATER (DEEP WELLS)
  - ⊙ GROUND WATER (SHALLOW WELLS)
  - ⊠ DRINK WATER SAMPLES
  - ⊡ SEDIMENTS
- LANDFILL BOUNDARY**
- SCALE OF CONCENTRATION**
- GREATER THAN 10,000
  - 100-10,000
  - ⊕ 10-1,000
  - ⊙ 1-100

CDM SHEET NO. 34

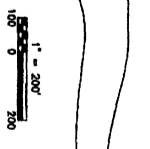
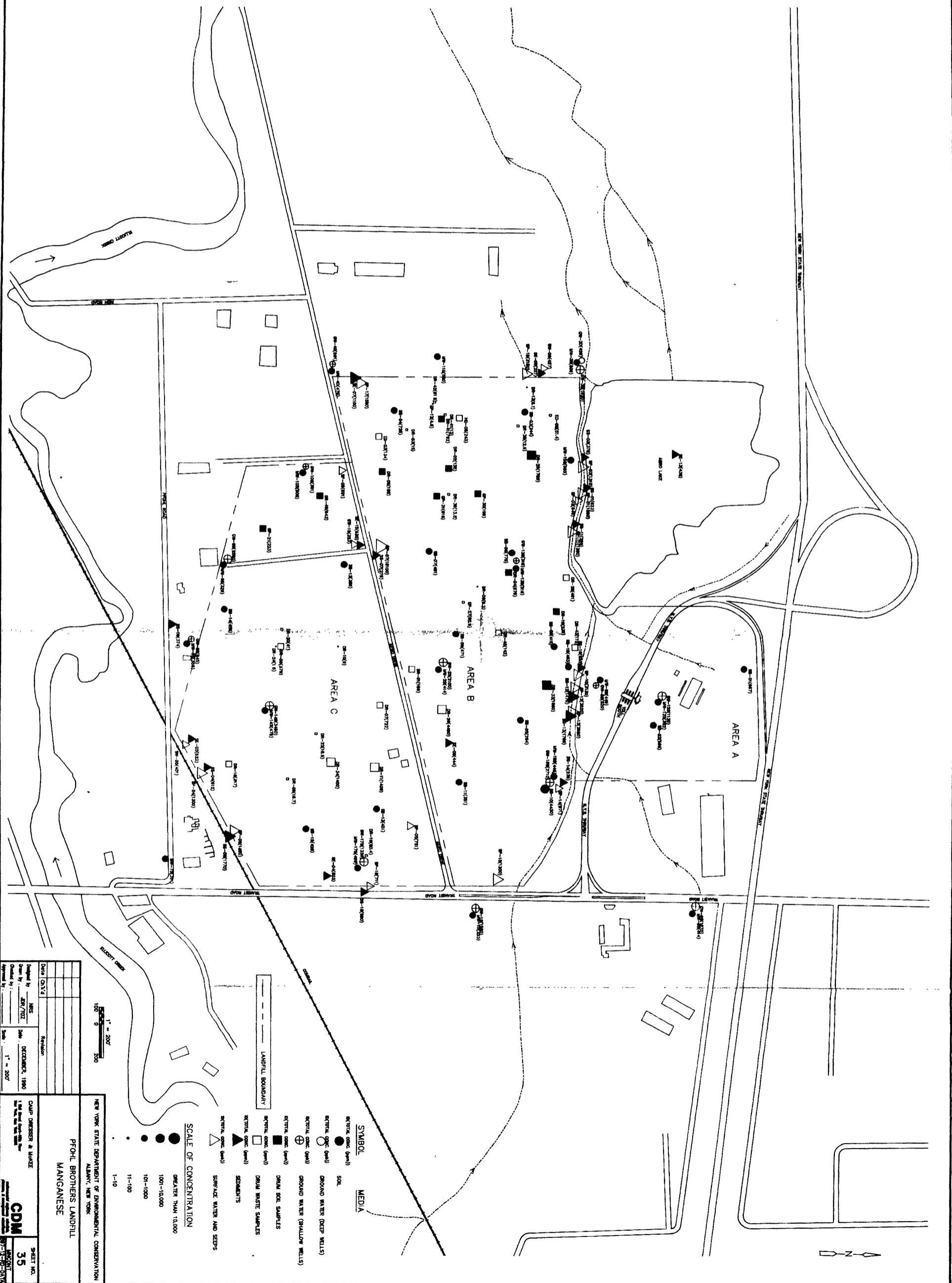
DATE: DECEMBER, 1980

SCALE: 1" = 200'

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
ALBANY, NEW YORK

PROHL BROTHERS LANDFILL  
MAGNESIUM

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: _____



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

- SYMBOL MEDIA**
- SOIL
  - GROUND WATER (DEEP WELLS)
  - ⊕ GROUND WATER (SHALLOW WELLS)
  - DRILL SOIL SAMPLES
  - ⊠ DRILL WASTE SAMPLES
  - △ SEDIMENTS
  - ▽ SURFACE WATER AND SEEPS

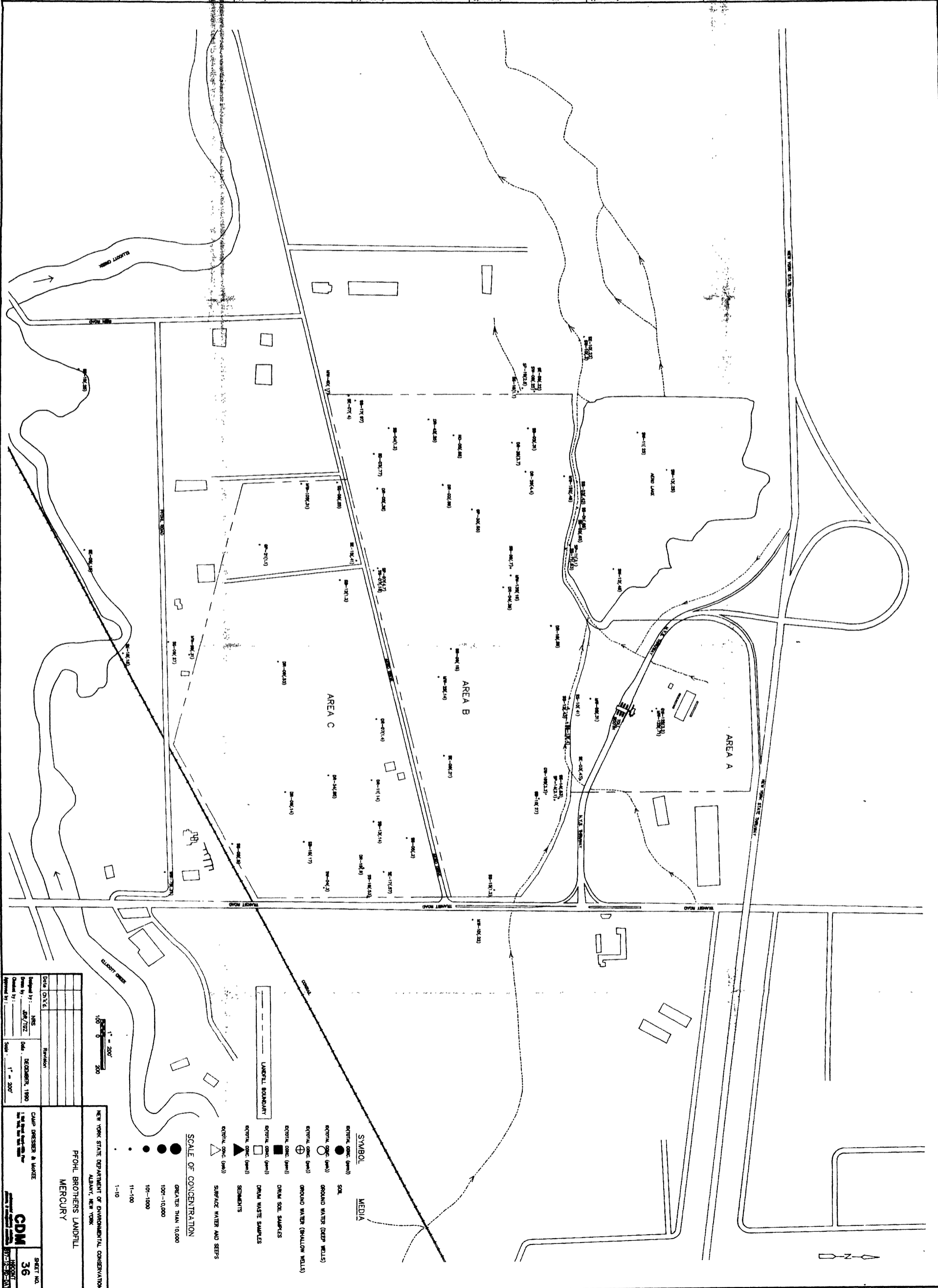
Date: 01/14	Revision:
Designed by: JNY/TJZ	Date: DECEMBER, 1980
Drawn by:	Scale: 1" = 200'
Checked by:	
Approved by:	

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
 ALBANY, NEW YORK

**FOHL BROTHERS LANDFILL  
 MANGANESE**

CDM  
 SHEET NO. 35

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						

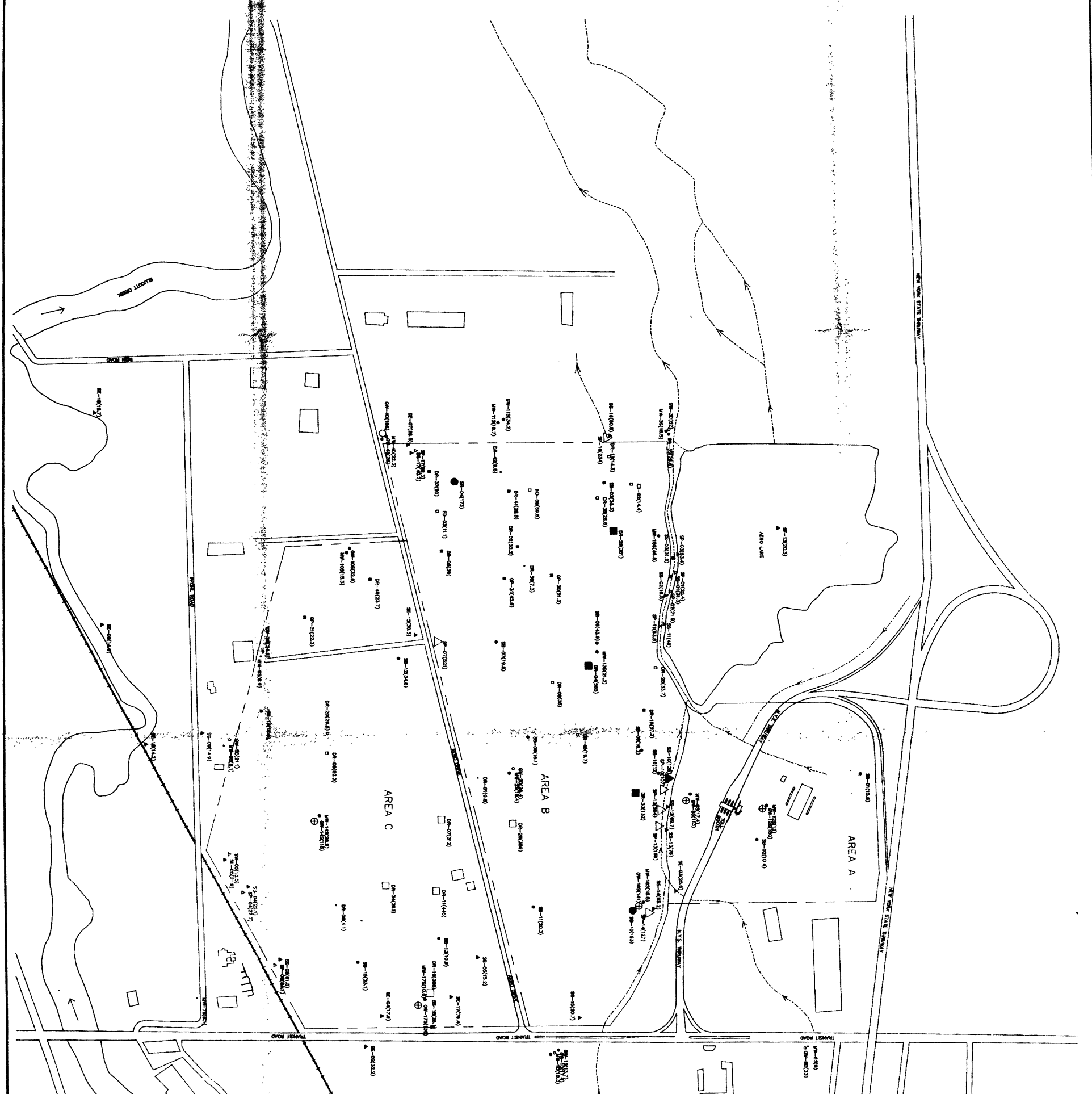


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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION ALBANY, NEW YORK <b>FOHL BROTHERS LANDFILL          MERCURY</b>	
CAMP DRESSER & WALKER 1000 W. 10th Street New York, N.Y. 10014	SHEET NO. <b>36</b> PROJECT NO. 87-23-20-20-1A

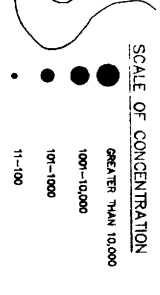
SCALE OF CONCENTRATION  
 GREATER THAN 10,000  
 1001-10,000  
 101-1000  
 11-100  
 1-10

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

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:



Date: 07/15/10	Revision:
Drawn by: JMN/TZT	Date: DECEMBER, 1990
Checked by:	Scale: 1" = 200'
Approved by:	

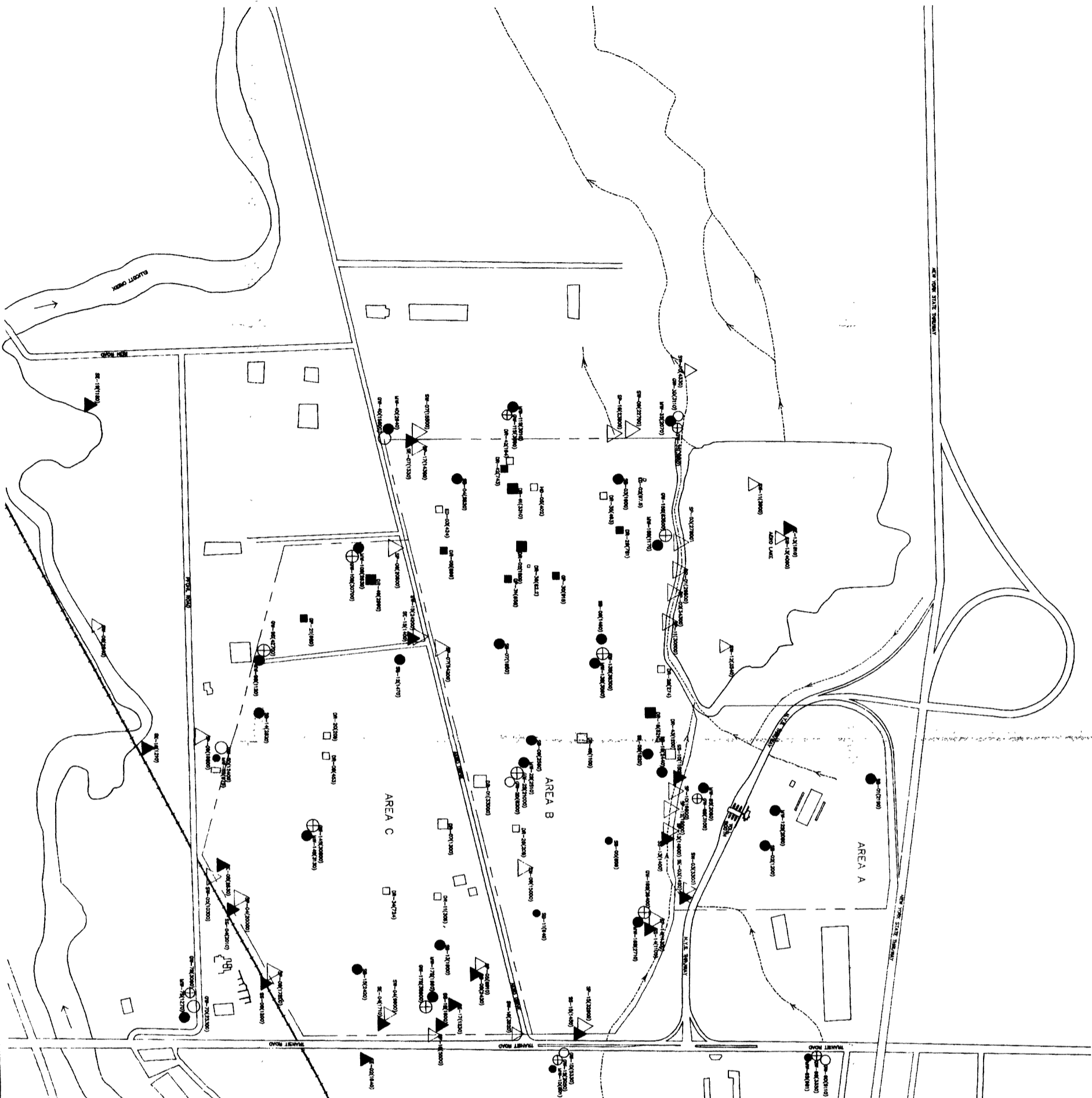


- SYMBOL MEDIA**
- SOIL
  - GROUND WATER (DEEP WELLS)
  - GROUND WATER (SHALLOW WELLS)
  - DRINK SOIL SAMPLES
  - DRINK WASTE SAMPLES
  - ▲ SEDIMENTS
  - ▲ SURFACE WATER AND SEDS

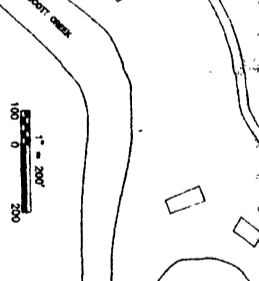
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
ALBANY, NEW YORK

**PFOHL BROTHERS LANDFILL  
NICKEL**

CDM  
37  
SHEET NO.



Drawn by: J.M. G. / J.S.	Checked by: J.M. G. / J.S.
Project No: 1000000000	Revision: 1
Date: DECEMBER, 1980	Scale: 1" = 200'



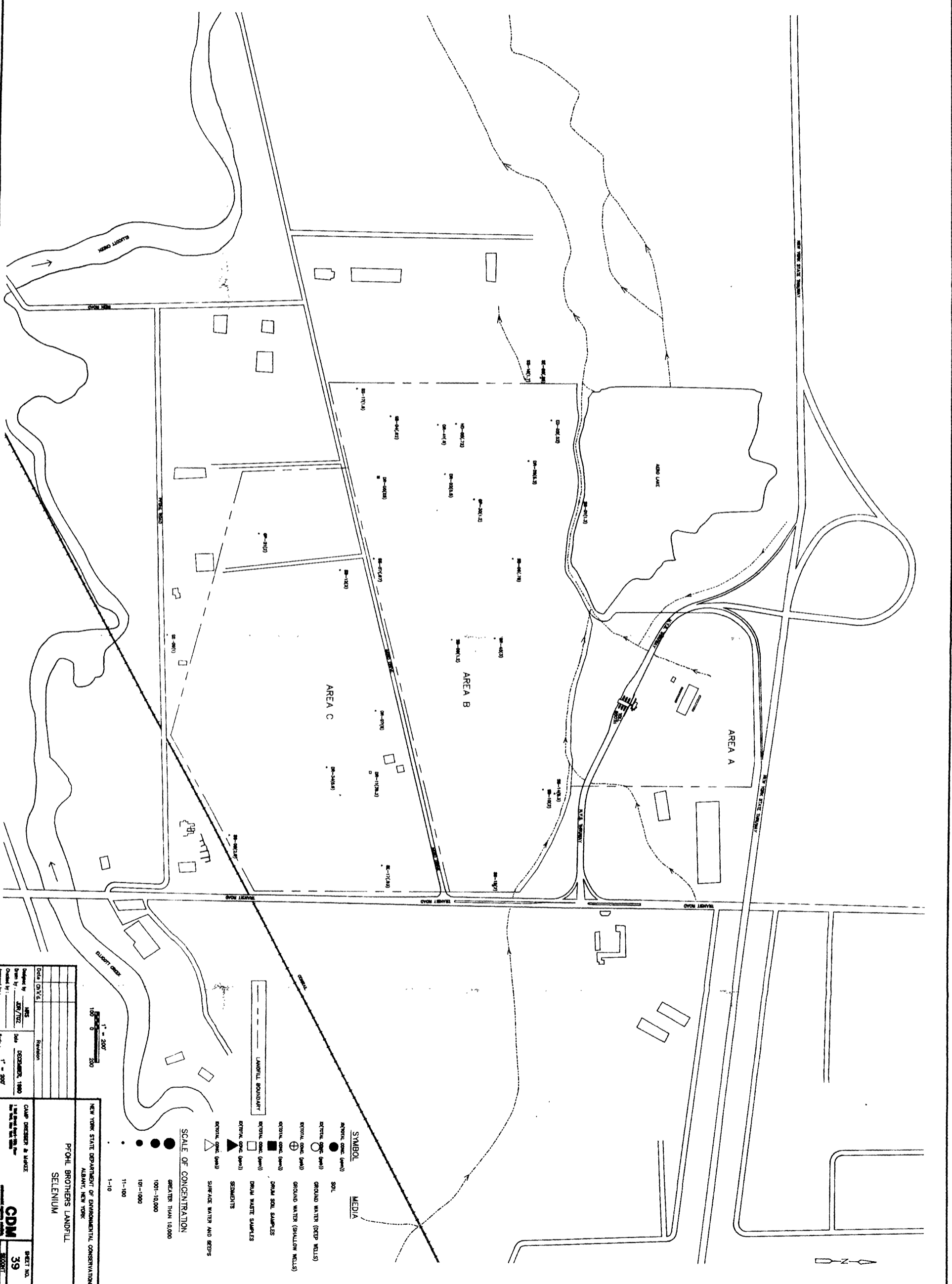
- SCALE OF CONCENTRATION**
- GREATER THAN 10,000
  - 1001-10,000
  - 101-1000
  - 1-100
  - 1-10
- SYMBOL MEDIA**
- SOIL
  - GROUND WATER (DEEP WELLS)
  - GROUND WATER (SHALLOW WELLS)
  - DRILL SOIL SAMPLES
  - DRUM WASTE SAMPLES
  - SCUMMETS
  - SURFACE WATER AND SEDITS

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
ALBANY, NEW YORK

**PFOHL BROTHERS LANDFILL  
POTASSIUM**

CAMP DRESSER & BUCKER  
1000000000  
SHEET NO. 38

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	12/1/80
Drawn by	WJS
Checked by	JW/TZ
Approved by	
Scale	1" = 200'



**SCALE OF CONCENTRATION**

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

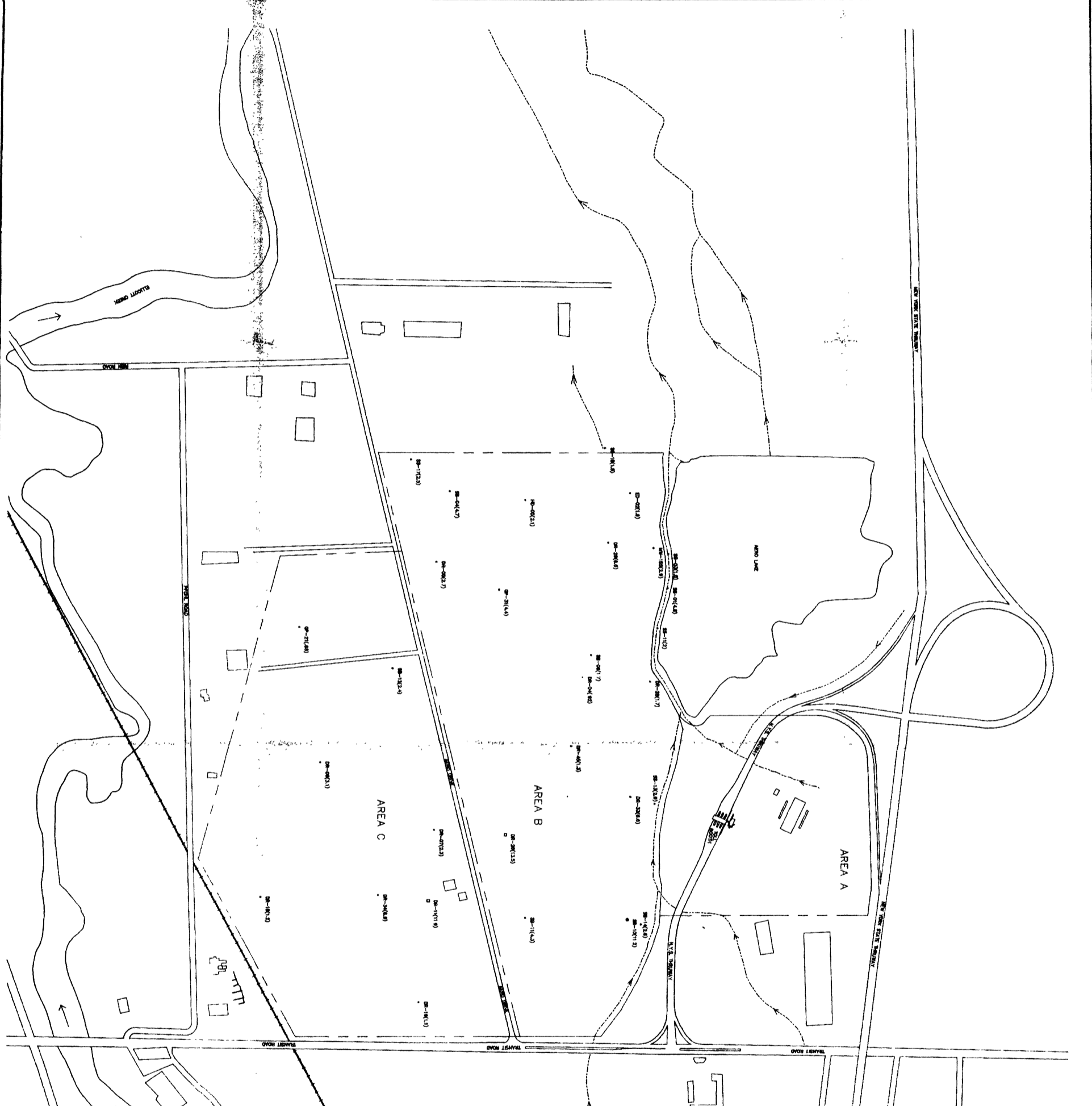
- SYMBOL MEDIA**
- SOIL
  - GROUND WATER (DEEP WELLS)
  - ⊕ GROUND WATER (SHALLOW WELLS)
  - DRUM WASTE SAMPLES
  - DRUM WASTE SAMPLES
  - ▲ SEDIMENTS
  - △ SURFACE WATER AND BEERS
- LANDFILL BOUNDARY**
- LANDFILL BOUNDARY

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
ALBANY, NEW YORK

**PROHL BROTHERS LANDFILL  
SELENIUM**

CDM 39

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	



**SCALE OF CONCENTRATION**

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

**SYMBOL MEDIA**

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

1" = 200'

0 100 200

DATE: \_\_\_\_\_

DESIGNED BY: NBS

DRAWN BY: JAV/TJZ

CHECKED BY: \_\_\_\_\_

APPROVED BY: \_\_\_\_\_

DATE: \_\_\_\_\_

SCALE: 1" = 200'

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
ALBANY, NEW YORK

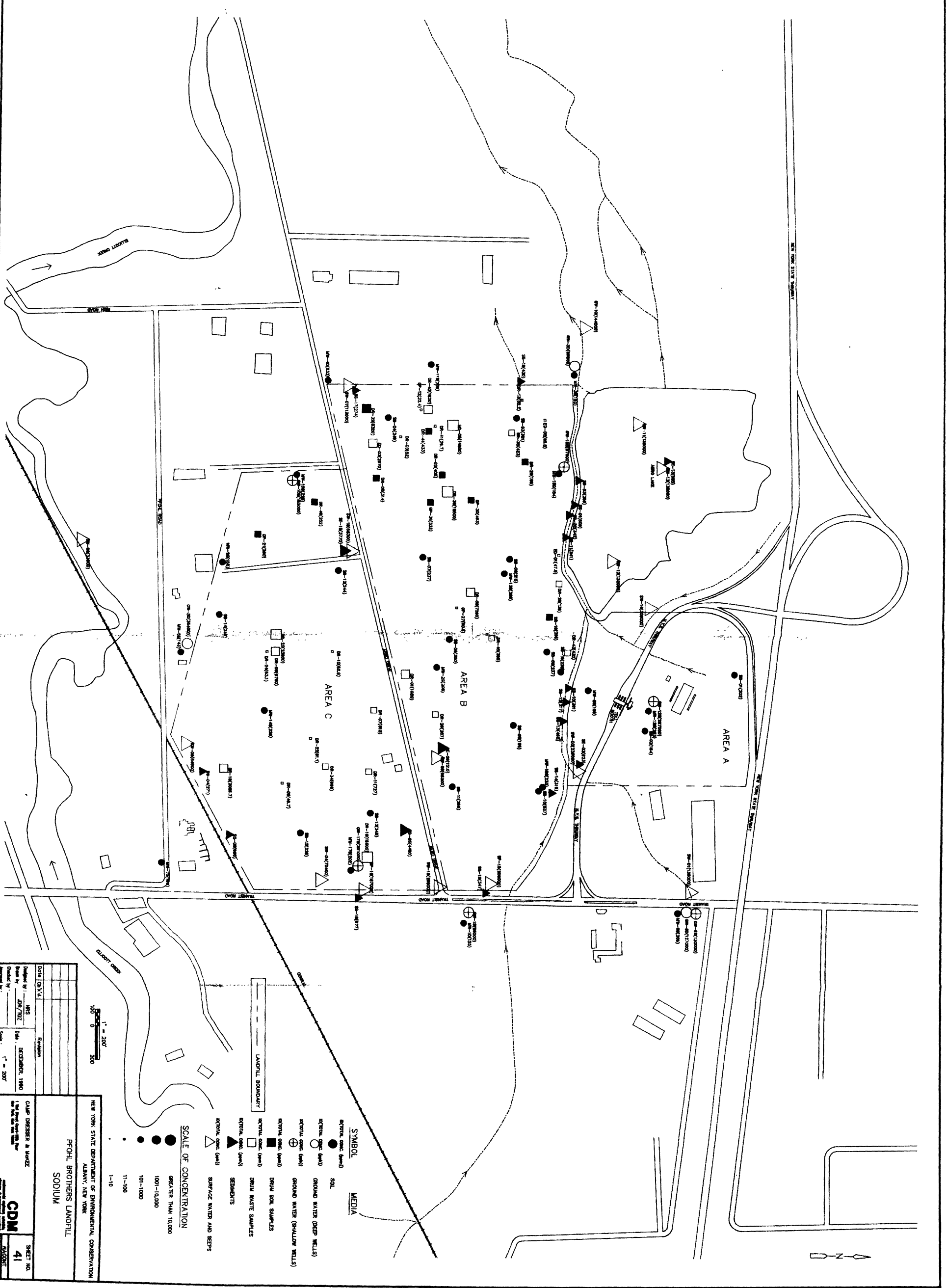
**PFOHL BROTHERS LANDFILL**

SILVER

CAMP DRESSER & HUBER  
100 West 125th Street  
New York, N.Y. 10032

**CDM** SHEET NO. 40

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



DATE: 03/14	REVISION:
DESIGNED BY: WBS	DATE: DECEMBER, 1990
DRAWN BY: JNY/TJC	SCALE: 1" = 200'
CHECKED BY:	
APPROVED BY:	

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
ALBANY, NEW YORK

**PFOHL BROTHERS LANDFILL  
SODIUM**

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

**SYMBOL MEDIA**

- SOIL
- GROUND WATER (DEEP WELLS)
- GROUND WATER (SHALLOW WELLS)
- DRINK SOIL SAMPLES
- DRINK WASTE SAMPLES
- SEDIMENTS
- SURFACE WATER AND SEDS

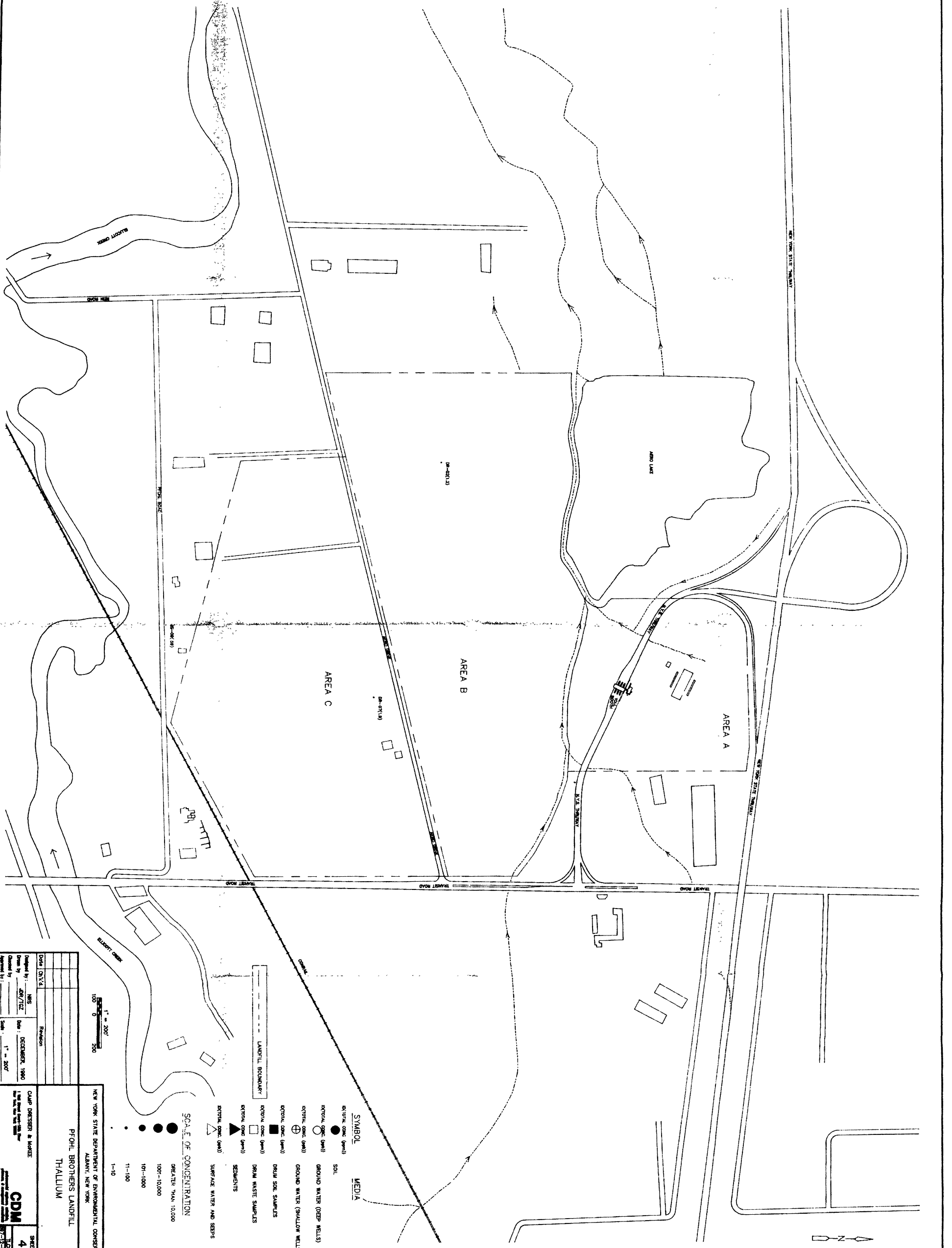
**LANDFILL BOUNDARY**

**CDM**  
CONSULTANTS  
INCORPORATED

SHEET NO. 41

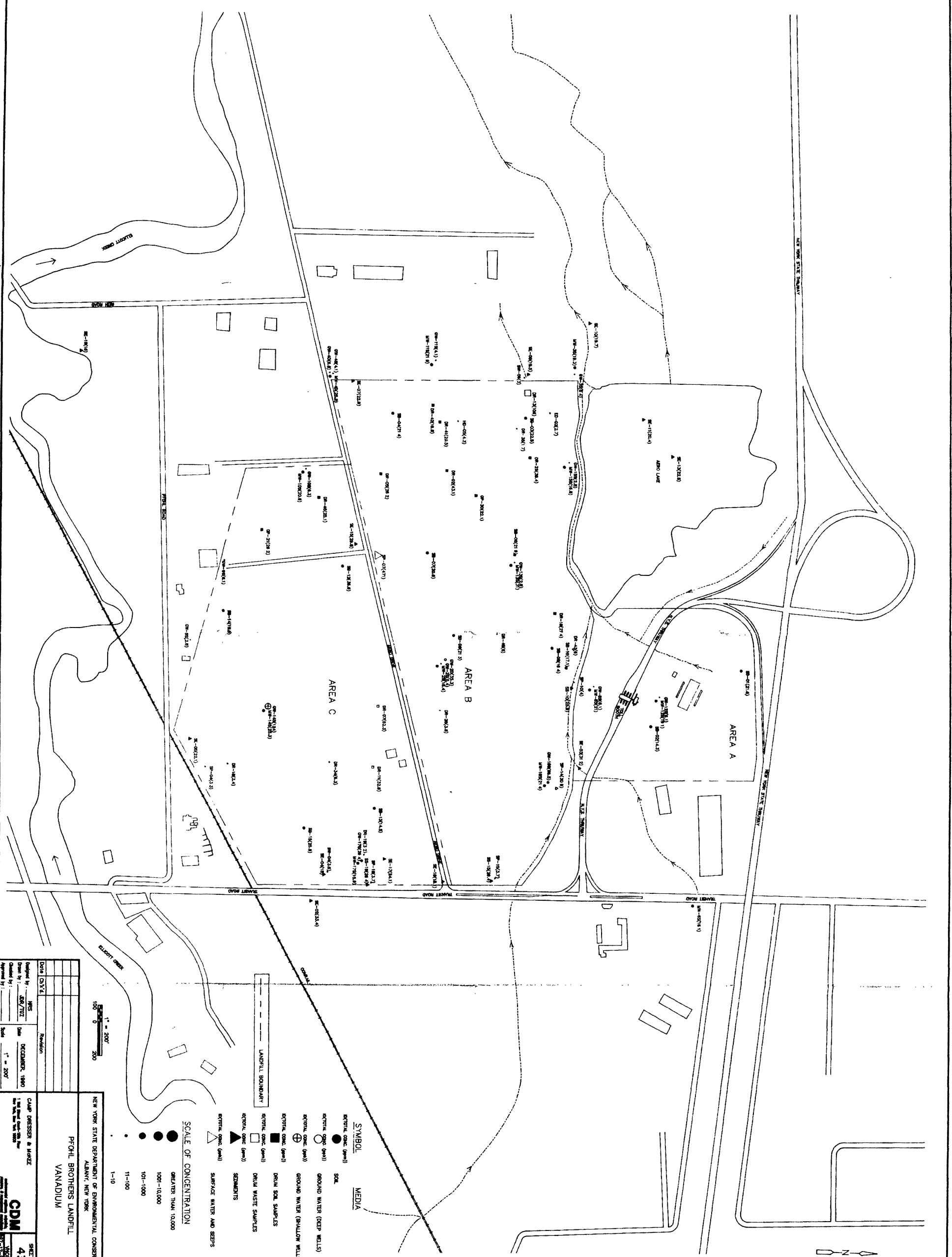


ARCHITECTURAL	STRUCTURAL	ELECTRICAL	INSTRUMENTATION	HVAC	PLUMBING	PROJECT ENGINEER	PROJECT MANAGER
Approved by: _____ Date: _____	Approved by: _____ Date: _____	Approved by: _____ Date: _____	Approved by: _____ Date: _____	Approved by: _____ Date: _____	Approved by: _____ Date: _____	Approved by: _____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



Drawn by: <b>ANS</b> Date: <b>DECEMBER 1980</b> Checked by: <b>DM/T/CZ</b> Scale: <b>1" = 200'</b>	Revision _____ _____ _____
<b>NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION</b> ALBANY, NEW YORK	
<b>PFOHL BROTHERS LANDFILL</b> <b>THALLIUM</b>	
CAMP DRESSER & MCKER 100 West Street, New York, N.Y. 10038 <b>CDM</b> 42 SHEET NO.	1" = 200' 0 100 200

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: _____	REVISION:
DRAWN BY: _____	DATE: _____	
CHECKED BY: _____	DATE: _____	
APPROVED BY: _____	DATE: _____	

SCALE: 1" = 200'

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
ALBANY, NEW YORK

PFOHL BROTHERS LANDFILL  
VANADIUM

CAMP DRESSER & MCKER  
1000 ROUTE 90  
ALBANY, NEW YORK 12204

**CDM**  
43

SHEET NO. 43

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

