

GIS Registry Disclaimer

This case was closed by the DNR prior to August 1, 2002, when DNR began adding approved cleanups with residual soil contamination into the GIS Registry. Certain documents that are currently required by ch. NR 726, Wis. Adm. Code may therefore not be included in this packet as they were unavailable at the time the original case was closed.

The information contained in this document was assembled by DNR from a previously closed case file, and added to the GIS Registry to provide the public with information on closed sites with residual soil and/or groundwater contamination remaining above applicable state standards.

GIS REGISTRY

Cover Sheet

March, 2010
(RR 5367)

Source Property Information

BRRTS #:

02-41-000328

ACTIVITY NAME:

CMC HUMBOLDT YARD - ERP

PROPERTY ADDRESS:

1101 E North Ave

MUNICIPALITY:

Milwaukee

PARCEL ID #:

NW 1/4, NE 1/4, S21, T7N, R22E

CLOSURE DATE: Jun 25, 1997

FID #:

241493340

DATCP #:

COMM #:

53212350800

*WTM COORDINATES:

X: 691255

Y: 289521

** Coordinates are in
WTM83, NAD83 (1991)*

WTM COORDINATES REPRESENT:

Approximate Center Of Contaminant Source

Approximate Source Parcel Center

Please check as appropriate: (BRRTS Action Code)

Contaminated Media:

Groundwater Contamination > ES (236)

Contamination in ROW

Off-Source Contamination

*(note: for list of off-source properties
see "Impacted Off-Source Property" form)*

Soil Contamination > *RCL or **SSRCL (232)

Contamination in ROW

Off-Source Contamination

*(note: for list of off-source properties
see "Impacted Off-Source Property" form)*

Land Use Controls:

N/A (Not Applicable)

Soil: maintain industrial zoning (220)

*(note: soil contamination concentrations
between non-industrial and industrial levels)*

Structural Impediment (224)

Site Specific Condition (228)

Cover or Barrier (222)

*(note: maintenance plan for
groundwater or direct contact)*

Vapor Mitigation (226)

Maintain Liability Exemption (230)

*(note: local government unit or economic
development corporation was directed to
take a response action)*

Monitoring Wells:

Are all monitoring wells properly abandoned per NR 141? (234)

Yes No N/A

** Residual Contaminant Level*

***Site Specific Residual Contaminant Level*

This Adobe Fillable form is intended to provide a list of information that is required for evaluation for case closure. It is to be used in conjunction with Form 4400-202, Case Closure Request. The closure of a case means that the Department has determined that no further response is required at that time based on the information that has been submitted to the Department.

NOTICE: Completion of this form is mandatory for applications for case closure pursuant to ch. 292, Wis. Stats. and ch. NR 726, Wis. Adm. Code, including cases closed under ch. NR 746 and ch. NR 726. The Department will not consider, or act upon your application, unless all applicable sections are completed on this form and the closure fee and any other applicable fees, required under ch. NR 749, Wis. Adm. Code, Table 1 are included. It is not the Department's intention to use any personally identifiable information from this form for any purpose other than reviewing closure requests and determining the need for additional response action. The Department may provide this information to requesters as required by Wisconsin's Open Records law [ss. 19.31 - 19.39, Wis. Stats.].

BRRTS #: 02-41-000328 PARCEL ID #: NW 1/4, NE 1/4, S21, T7N, R22E
ACTIVITY NAME: CMC HUMBOLDT YARD - ERP WTM COORDINATES: X: 691222 Y: 289594

CLOSURE DOCUMENTS (the Department adds these items to the final GIS packet for posting on the Registry)

- Closure Letter**
- Maintenance Plan** (if activity is closed with a land use limitation or condition (land use control) under s. 292.12, Wis. Stats.)
- Continuing Obligation Cover Letter** (for property owners affected by residual contamination and/or continuing obligations)
- Conditional Closure Letter**
- Certificate of Completion (COC)** (for VPLE sites)

SOURCE LEGAL DOCUMENTS

- Deed:** The most recent deed as well as legal descriptions, for the **Source Property** (where the contamination originated). Deeds for other, off-source (off-site) properties are located in the **Notification** section.
Note: If a property has been purchased with a land contract and the purchaser has not yet received a deed, a copy of the land contract which includes the legal description shall be submitted instead of the most recent deed. If the property has been inherited, written documentation of the property transfer should be submitted along with the most recent deed.
- Certified Survey Map:** A copy of the certified survey map or the relevant section of the recorded plat map for those properties where the legal description in the most recent deed refers to a certified survey map or a recorded plat map. (lots on subdivided or platted property (e.g. lot 2 of xyz subdivision)).
Figure #: **Title:**
- Signed Statement:** A statement signed by the Responsible Party (RP), which states that he or she believes that the attached legal description accurately describes the correct contaminated property.

MAPS (meeting the visual aid requirements of s. NR 716.15(2)(h))

Maps must be no larger than 11 x 17 inches unless the map is submitted electronically.

- Location Map:** A map outlining all properties within the contaminated site boundaries on a U.S.G.S. topographic map or plat map in sufficient detail to permit easy location of all parcels. If groundwater standards are exceeded, include the location of all potable wells within 1200 feet of the site.
Note: Due to security reasons municipal wells are not identified on GIS Packet maps. However, the locations of these municipal wells must be identified on Case Closure Request maps.
Figure #: 1 **Title: Site Locator Map**
- Detailed Site Map:** A map that shows all relevant features (buildings, roads, individual property boundaries, contaminant sources, utility lines, monitoring wells and potable wells) within the contaminated area. This map is to show the location of all contaminated public streets, and highway and railroad rights-of-way in relation to the source property and in relation to the boundaries of groundwater contamination exceeding a ch. NR 140 Enforcement Standard (ES), and/or in relation to the boundaries of soil contamination exceeding a Residual Contaminant Level (RCL) or a Site Specific Residual Contaminant Levels (SSRCL) as determined under s. NR 720.09, 720.11 and 720.19.
Figure #: **Title: Site Diagram**
- Soil Contamination Contour Map:** For sites closing with residual soil contamination, this map is to show the location of all contaminated soil and a single contour showing the horizontal extent of each area of contiguous residual soil contamination that exceeds a Residual Contaminant Level (RCL) or a Site Specific Residual Contaminant Level (SSRCL) as determined under s. NR 720.09, 720.11 and 720.19.
Figure #: **Title: CMC - Multiple Maps of HA-7 and Tar Area**

BRRTS #: 02-41-000328

ACTIVITY NAME: CMC HUMBOLDT YARD - ERP

MAPS (continued)

- Geologic Cross-Section Map:** A map showing the source location and vertical extent of residual soil contamination exceeding a Residual Contaminant Level (RCL) or a Site Specific Residual Contaminant Level (SSRCL). If groundwater contamination exceeds a ch. NR 140 Enforcement Standard (ES) when closure is requested, show the source location and vertical extent, water table and piezometric elevations, and locations and elevations of geologic units, bedrock and confining units, if any.

Figure #: 3 Title: Site Cross-Section A

Figure #: Title:

- Groundwater Isoconcentration Map:** For sites closing with residual groundwater contamination, this map shows the horizontal extent of all groundwater contamination exceeding a ch. NR140 Preventive Action Limit (PAL) and an Enforcement Standard (ES). Indicate the direction and date of groundwater flow, based on the most recent sampling data.

Note: This is intended to show the total area of contaminated groundwater.

Figure #: Title:

- Groundwater Flow Direction Map:** A map that represents groundwater movement at the site. If the flow direction varies by more than 20° over the history of the site, submit 2 groundwater flow maps showing the maximum variation in flow direction.

Figure #: Title:

Figure #: Title:

TABLES (meeting the requirements of s. NR 716.15(2)(h)(3))

Tables must be no larger than 11 x 17 inches unless the table is submitted electronically. Tables must not contain shading and/or cross-hatching. The use of **BOLD** or *ITALICS* is acceptable.

- Soil Analytical Table:** A table showing remaining soil contamination with analytical results and collection dates.
Note: This is one table of results for the contaminants of concern. Contaminants of concern are those that were found during the site investigation, that remain after remediation. It may be necessary to create a new table to meet this requirement.

Table #: 1 Title: OVA Readings - Multiple Tables

- Groundwater Analytical Table:** Table(s) that show the most recent analytical results and collection dates, for all monitoring wells and any potable wells for which samples have been collected.

Table #: Title:

- Water Level Elevations:** Table(s) that show the previous four (at minimum) water level elevation measurements/dates from all monitoring wells. If present, free product is to be noted on the table.

Table #: Title:

IMPROPERLY ABANDONED MONITORING WELLS

For each monitoring well not properly abandoned according to requirements of s. NR 141.25 include the following documents.

Note: If the site is being listed on the GIS Registry for only an improperly abandoned monitoring well you will only need to submit the documents in this section for the GIS Registry Packet.

- Not Applicable**

- Site Location Map:** A map showing all surveyed monitoring wells with specific identification of the monitoring wells which have not been properly abandoned.

Note: If the applicable monitoring wells are distinctly identified on the Detailed Site Map this Site Location Map is not needed.

Figure #: Title:

- Well Construction Report:** Form 4440-113A for the applicable monitoring wells.

- Deed:** The most recent deed as well as legal descriptions for each property where a monitoring well was not properly abandoned.

- Notification Letter:** Copy of the notification letter to the affected property owner(s).

BRRTS #: 02-41-000328

ACTIVITY NAME: CMC HUMBOLDT YARD - ERP

NOTIFICATIONS

Source Property

Not Applicable

Letter To Current Source Property Owner: If the source property is owned by someone other than the person who is applying for case closure, include a copy of the letter notifying the current owner of the source property that case closure has been requested.

Return Receipt/Signature Confirmation: Written proof of date on which confirmation was received for notifying current source property owner.

Off-Source Property

Group the following information per individual property and label each group according to alphabetic listing on the "Impacted Off-Source Property" attachment.

Not Applicable

Letter To "Off-Source" Property Owners: Copies of all letters sent by the Responsible Party (RP) to owners of properties with groundwater exceeding an Enforcement Standard (ES), and to owners of properties that will be affected by a land use control under s. 292.12, Wis. Stats.

Note: Letters sent to off-source properties regarding residual contamination must contain standard provisions in Appendix A of ch. NR 726.

Number of "Off-Source" Letters:

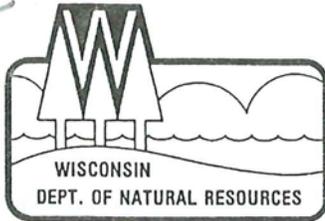
Return Receipt/Signature Confirmation: Written proof of date on which confirmation was received for notifying any off-source property owner.

Deed of "Off-Source" Property: The most recent deed(s) as well as legal descriptions, for all affected deeded **off-source property(ies)**. This does not apply to right-of-ways.

Note: If a property has been purchased with a land contract and the purchaser has not yet received a deed, a copy of the land contract which includes the legal description shall be submitted instead of the most recent deed. If the property has been inherited, written documentation of the property transfer should be submitted along with the most recent deed.

Letter To "Governmental Unit/Right-Of-Way" Owners: Copies of all letters sent by the Responsible Party (RP) to a city, village, municipality, state agency or any other entity responsible for maintenance of a public street, highway, or railroad right-of-way, within or partially within the contaminated area, for contamination exceeding a groundwater Enforcement Standard (ES) and/or soil exceeding a Residual Contaminant Level (RCL) or a Site Specific Residual Contaminant Level (SSRCL).

Number of "Governmental Unit/Right-Of-Way Owner" Letters:



State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Tommy G. Thompson, Governor
George E. Meyer, Secretary
Gloria L. McCutcheon, District Director

Southeast District Annex
4041 N. Richards Street, Box 12436
Milwaukee, WI 53212-0436
TELEPHONE 414-229-0800
FAX 414-229-0810

June 25, 1997

Charles Harrison
CMC Heartland Partners
547 West Jackson Boulevard, Suite 1510
Chicago, IL 60661

Dear Mr. Harrison:

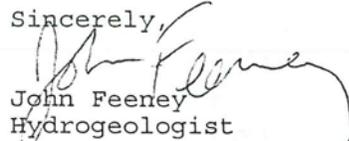
Subject: Case closure, CMC Heartland Partners Humbolt Yard
Property, file reference FID #241493340

Based on the investigative and remedial documentation provided to the department, it appears that the above-named site is in compliance with the requirements of chs. NR 700 to 724, Wis. Adm. Code. Therefore, the department considers the case closed, having determined that no further action is necessary for groundwater or soil at the site at this time. However, the case may be reopened pursuant to s. NR 726.09, Wis. Adm. Code, if additional information regarding site conditions indicates that contamination on or from the site poses a threat to public health, safety or welfare or the environment.

Please have the monitoring wells at the site properly abandoned in accordance with ch. NR141. Have your consultant send the completed well abandonment forms to me.

I have placed the site on the list of abandoned waste disposal sites in Wisconsin. If you have any questions about this letter, call me at 414-229-0850.

Sincerely,


John Feeney
Hydrogeologist

cc: RMT, Inc.
SED File

DEED NOTIFICATION

Affidavit

Property Location: Southeastern corner of North and Humboldt Avenues in the City of Milwaukee, County of Milwaukee, State of Wisconsin (NW¼NE¼ of Section 21, T7N, R22E).

Property Owner: CMC Heartland Partners
Chicago, Illinois

Developer: CMC Heartland Partners
Chicago, Illinois

James G. Righeimer, being first duly sworn, on oath deposes and says:

1. That CMC Heartland Partners is the owner of the property described above.
2. That approval has been given by the Wisconsin Department of Natural Resources for the close-out of an environmental contamination case involving the property described above (letter from Charles J. Krohn at WDNR to Charles Harrison dated July 17, 1996) on the condition that a notification of the existence of residual contamination on the property is recorded at the Office of the Register of Deeds in the County of Milwaukee.
3. That this affidavit is being recorded for the purpose of notifying prospective purchasers and other interested parties that soils contaminated by residual concentrations of heavy chain petroleum hydrocarbons (DRO) exist at two areas on the subject property. The attached drawing shows the locations of these two areas on the property. Approximately 200 cubic yards of low level DRO impacted soils may be present on the western edge of the HA-7 area. Approximately 230 cubic yards of DRO-impacted soil may remain in the tar area. Petroleum contamination remaining in soils are not effecting groundwater quality beneath the property.

Signature: *James G. Righeimer*
 James G. Righeimer
 Vice President - Sales and Property Management
 CMC Heartland Partners

Subscribed and sworn to before me this 7th day of April, 19 97.

Patricia Johnson
 Notary Public, State of Illinois



My Commission Expires: 2-19-2000

CMC HEARTLAND PARTNERS

547 West Jackson Boulevard • Suite 1510 • Chicago, Illinois 60661
Direct Mail To: P.O. Box 6205 • Chicago, Illinois 60680-6205

312•294-0440
FAX 312•663-9397

VIA FEDERAL EXPRESS

June 17, 1997

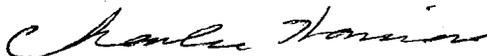
Mr. John Feeney
Hydrogeologist
Department of Natural Resources
4041 N. Richards Street, Box 12436
Milwaukee, Wisconsin 53212 - 0436

RE: CMC Heartland Partners Case Closure Request
Humboldt Yard, Milwaukee, Wisconsin

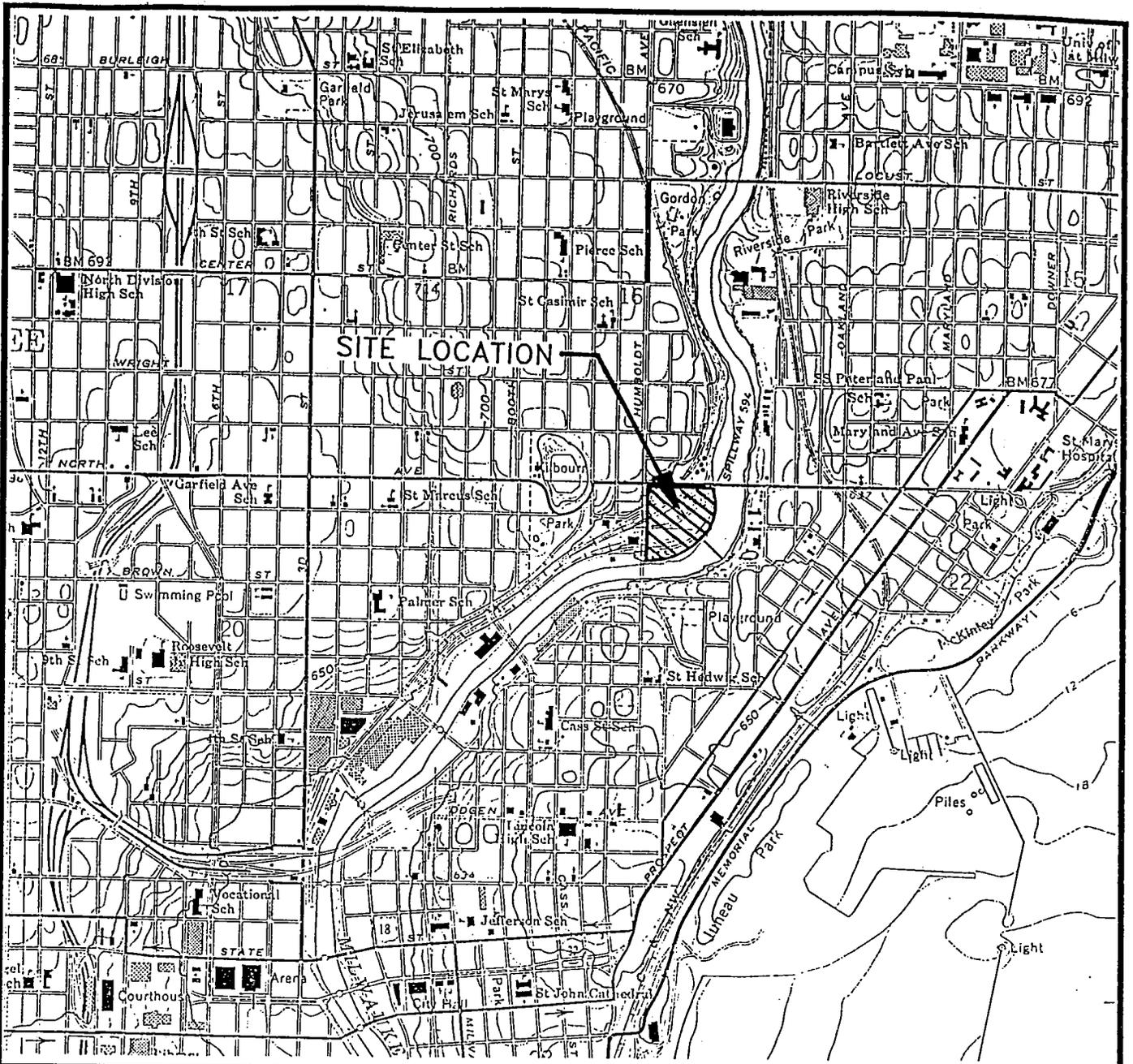
Dear Mr. Feeney:

Per your letter to me of June 13, 1997, enclosed is an original notarized copy of the appropriate deed notification affidavit for the captioned site. I look forward to your closure of this site.

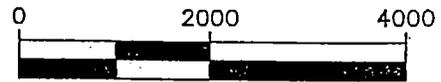
Sincerely,



Charles Harrison
Counsel



STATE LOCATION



SCALE: 1"=2000'



**SITE LOCATOR MAP
CMC
MILWAUKEE, WISCONSIN**

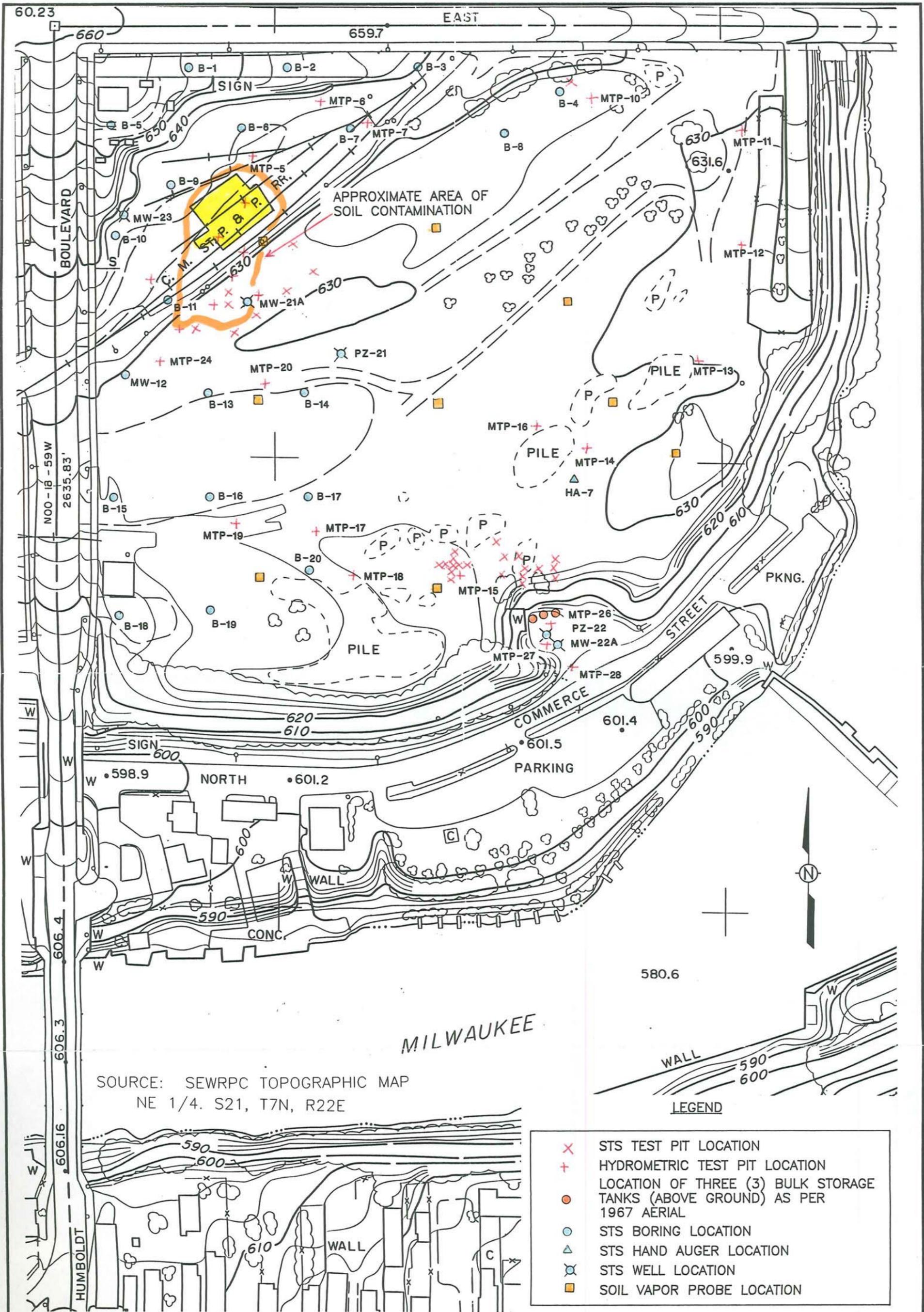
SOURCE: BASE MAP FROM MILWAUKEE, WI
7.5 MINUTE USGS QUADRANGLE.



RMT INC.

OWN. BY:	TCP
APPROVED BY:	
DATE:	JULY 1996
PROJ. #	4120.01
FILE #	41200101

FIGURE 1

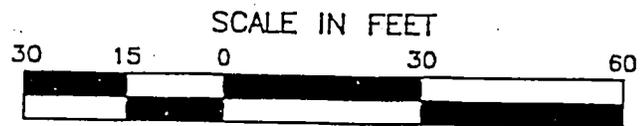
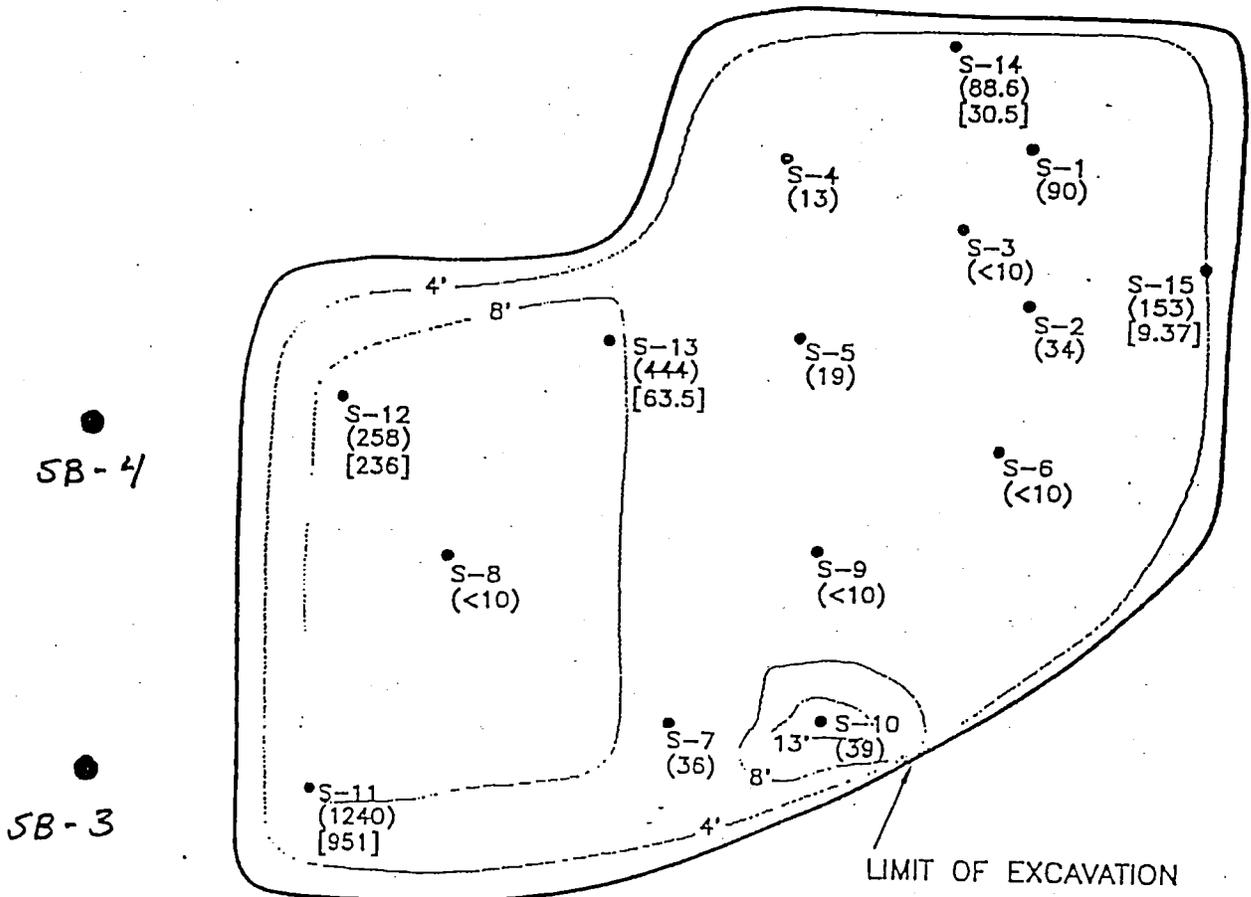


STS CONSULTANTS, LTD.
Consulting Engineers

83302XD
1" = 100'
2

SITE DIAGRAM
CMC
MILWAUKEE, WISCONSIN

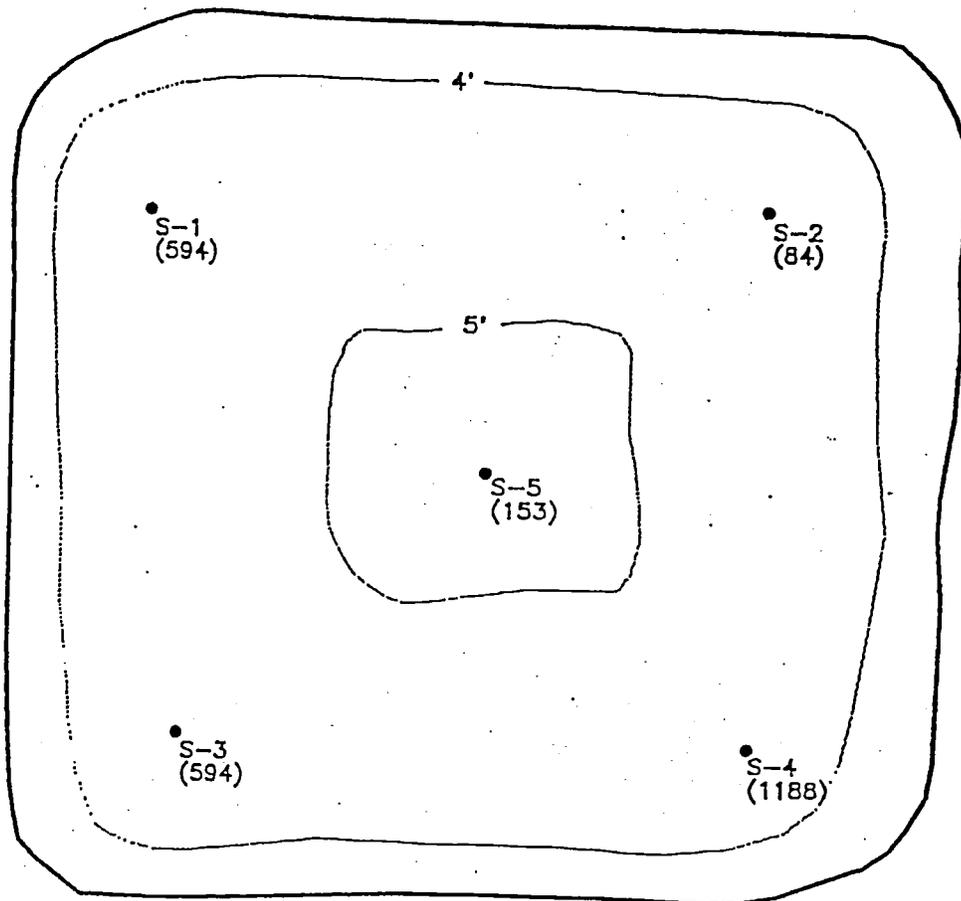
DRAWN BY	J.M.I.	AUTOCAD FILE	83302XD1.DWG
DATE	4/28/92		
CHK. BY	T.D.S.		
APPROVED BY	K.R.H.		
		DATE	BY
			REVISION



LEGEND	
• S-10	SOIL SAMPLE LOCATION
(<10)	TRPH RESULT, mg/kg
[10]	DRO RESULT, mg/kg
- - - 8'	CONTOUR
————	LIMIT OF EXCAVATION

Figure 3. Boring locations to define the western edge of soil impacts near the HA-7 Area

SB-1



SB-2

LIMIT OF EXCAVATION

LEGEND

- S-10 SOIL SAMPLE LOCATION
- (< 10) TRPH RESULT, mg/kg
- 4' - CONTOUR
- LIMIT OF EXCAVATION

SCALE IN FEET

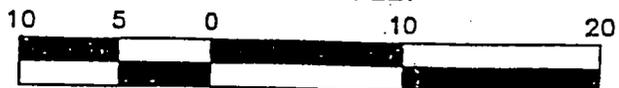
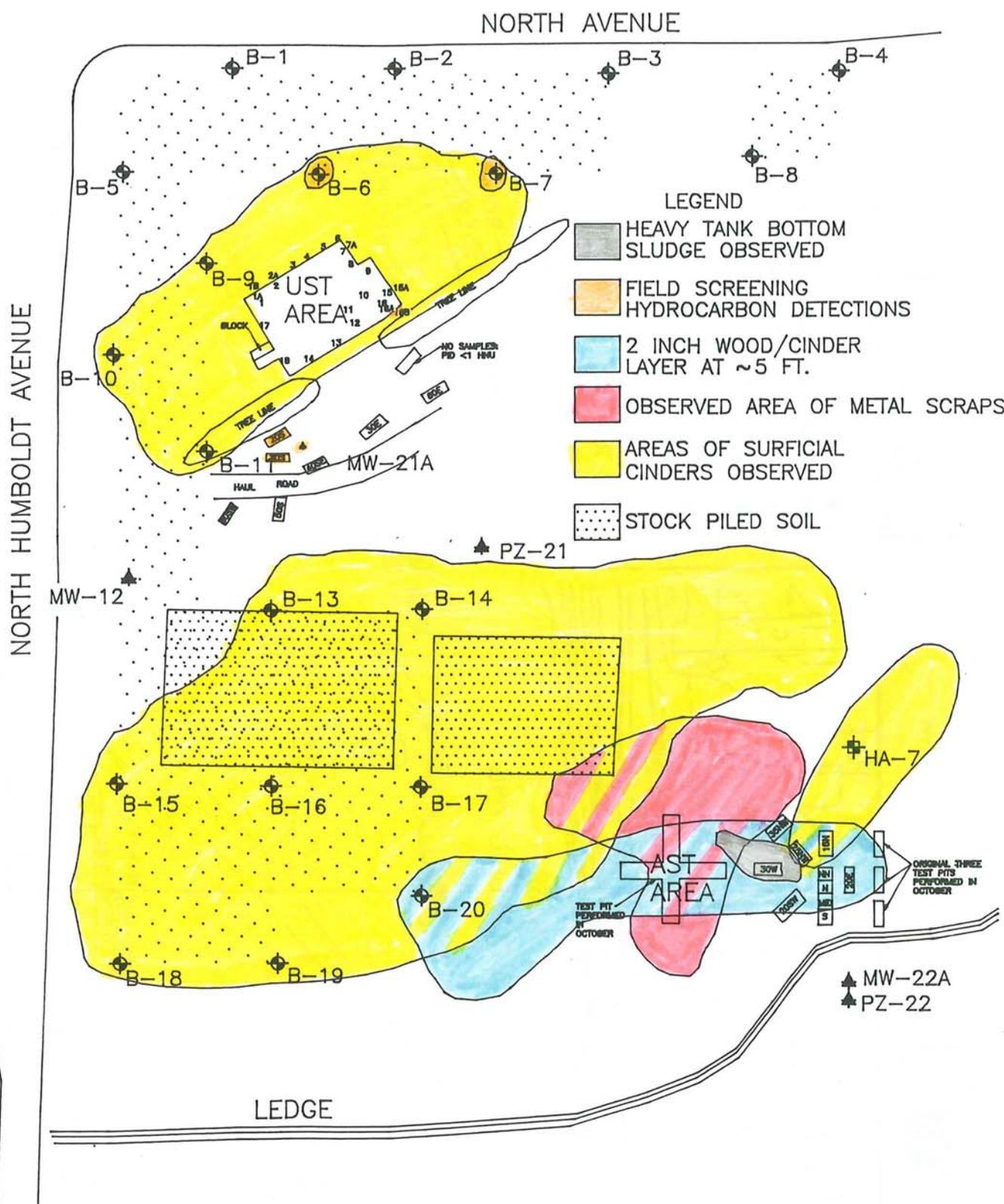


Figure 4. Boring locations to define the limit of DRO impacts near the Tar Area.



LEGEND

- HEAVY TANK BOTTOM SLUDGE OBSERVED
- FIELD SCREENING HYDROCARBON DETECTIONS
- 2 INCH WOOD/CINDER LAYER AT ~5 FT.
- OBSERVED AREA OF METAL SCRAPS
- AREAS OF SURFICIAL CINDERS OBSERVED
- STOCK PILED SOIL



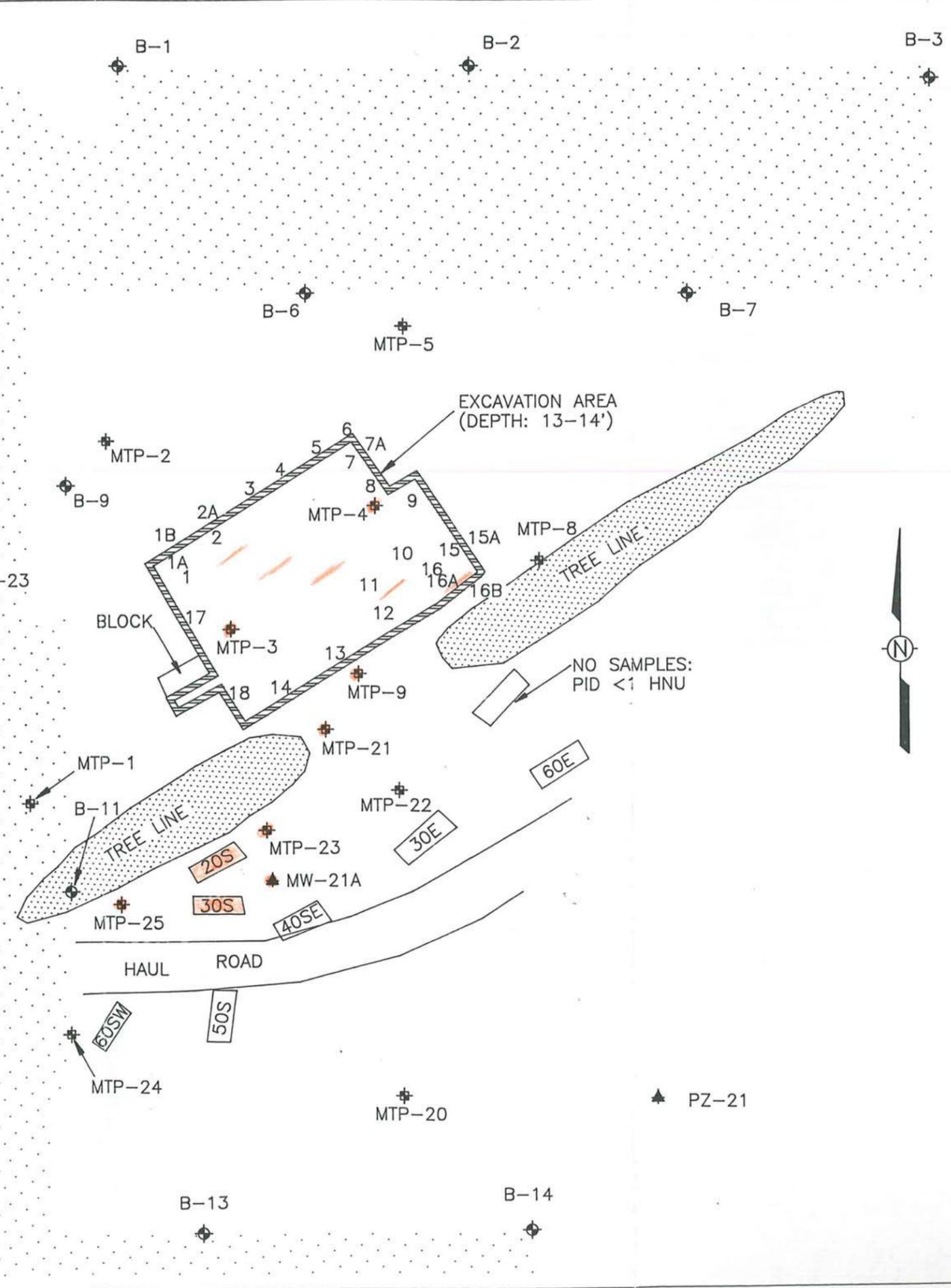
PROJECT/CLIENT
 AREAS OF INVESTIGATION
 CMC
 MILWAUKEE, WISCONSIN

DRAWN BY	J.M.I.	12/2/91
CHECKED BY	T.D.S.	12/2/91
APPROVED BY	K.R.H.	12/2/91
SCALE	~1" = 100'	FIGURE NO. 4
CADFILE	83302ARA.DWG	STS PROJECT NO. 83302XC

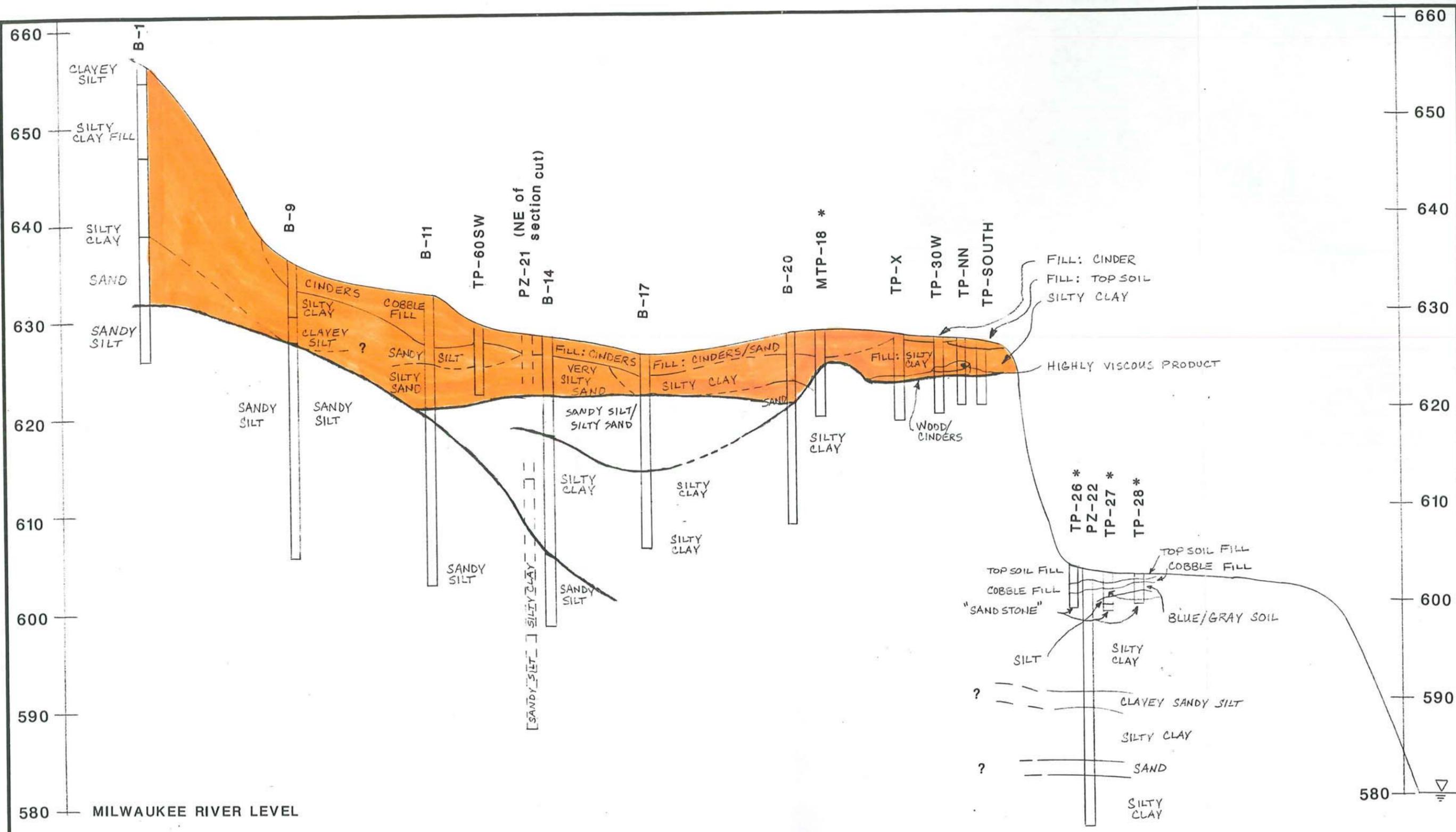
Sample Location	Depth	PID Reading (HNU units)	Analysis	Results	Detection Limit
TP-30 South	6'	60	TPH(DRO),PVOC+N	131 ug/g DRO 0.44 ug/g Naphthalene	5 ug/g .05 ug/g
TP-50 South	6'	12	TPH(DRO),PVOC+N	ND DRO ND PVOC+N	5 ug/g * ug/g
TP-60 SWest	6'	1	TPH(DRO),PVOC+N	ND DRO ND PVOC+N	5 ug/g * ug/g
TP-40 SEast	8'	<1	TPH(D&G)	ND DRO ND GRO	5 ug/g 5 ug/g
Wall #1A-bottom	13-14'	3	TPH(D&G),PVOC+N PNA	ND DRO/GRO ND PVOC+N ND PNAs	5 ug/g * ug/g ** ug/g
Wall #1B	13'	10	TPH(DRO),PVOC+N PNA	ND DRO ND PVOC+N ND PNAs	5 ug/g * ug/g ** ug/g
Wall #5	9'	<1	TPH(DRO),PVOC+N	ND DRO ND PVOC+N	5 ug/g * ug/g
Wall #7	3'	12	PNAs	3.37 ug/g PNAs	** ug/g
Wall #7A	4'	1	TPH(DRO),PVOC+N	ND DRO ND PVOC+N	5 ug/g * ug/g
Wall #13	13'	1	TPH(DRO),PVOC+N	ND DRO ND PVOC+N	5 ug/g * ug/g
Wall #14	9'	1	TPH(DRO),PVOC+N	ND DRO ND PVOC+N	5 ug/g * ug/g
Wall #15B	4'	10	TPH(DRO),PVOC+N	ND DRO ND PVOC+N	5 ug/g * ug/g
Wall #16A	13'	120	TPH(DRO),PVOC+N	230 ug/g DRO 0.11 ug/g 1,2,4Trimethylbenzene 0.15 ug/g 1,3,5Trimethylbenzene 0.87 ug/g Naphthalene	5 ug/g * ug/g * ug/g .05 ug/g
Wall #18A	13'	1	TPH(DRO),PVOC+N	ND DRO ND PVOC+N	5 ug/g * ug/g
Wall #18	9'	1	PNAs	ND	
West Trench	10'	10	TPH(D&G)	ND DRO ND GRO	5 ug/g 5 ug/g
MW 21A-Sample 4	7.5-9'	45	TPH(D&G),PVOC+N	138 ug/g DRO ND GRO 1.0 ug/g Naphthalene	5 ug/g 5 ug/g 0.05 ug/g
MW 21A-Sample 7	15-16.5'	1	TPH(D&G),PVOC+N	ND DRO/GRO ND PVOC+N	5 ug/g * ug/g
PZ 21-Sample 1	0-1.5'	<1	TPH (DRO,GRO)	92.8 ug/g DRO ND GRO	6.1 ug/g 6.1 ug/g
PZ 21-Sample 5	10-11.5'	<1	TPH (DRO,GRO)	ND DRO	6.1 ug/g
MW 12A	8.0-15'	N/A	TPH(D&G),PVOC+N	ND(DRO/GRO) 10 ug/l Naphthalene	0.2 mg/l 10 ug/l
PZ 21	35-40'	N/A	TPH(D&G),PVOC+N	ND(DRO/GRO) ND PVOC+N	0.2 mg/l * ug/l
MW 21A	8.0-15'	N/A	TPH(D&G),PVOC+N	0.45 mg/l DRO 12 ug/l Methyl t-butyl eth	0.2 mg/l 5 ug/l
UST Excavation	13'	N/A	TPH(D&G),PVOC+N	1.1 mg/l DRO 1 ug/l Ethylbenzene 1 ug/l 1,2,4 Trimethylbenz 2 ug/l Xylenes	0.2 mg/l 1 ug/l 1 ug/l 1 ug/l

NOTES: ** - Each individual volatile organic compound (VOC) has a unique detection limit.
 "TPH" - Total Petroleum Hydrocarbons
 "DRO" - Diesel Range Organics
 "GRO" - Gasoline Range Organics
 "PVOC + N" - Petroleum VOCs with a Naphthalene standard added
 "PNAs" - Polynuclear Aromatic Hydrocarbons (semi-volatile organics)
 "AST" - Aboveground Storage Tanks
 "***" - The detection limit for Total PNAs varies per sample.

LEGEND	
(RED)	POINTS INDICATING SUBSTANTIVE CONTAMINATION
▲	MONITORING WELL INSTALLED BY STS
□	TEST PIT EXCAVATIONS PERFORMED BY STS
(#'S)	EXCAVATION SIDEWALL SAMPLES COLLECTED BY STS
⊕	TEST PIT EXCAVATIONS PERFORMED BY HYDROMETRICS



AUTOCAD FILE 833021R.DWG	
DRAWN BY T.J.J.	DATE 4/28/92
CHK BY T.D.S.	APPROVED BY K.R.H.
INVESTIGATION RESULTS NORTHWEST AREA CMC MILWAUKEE, WISCONSIN	
 STS Consultants, Ltd. Consulting Engineers	
STS PROJECT NUMBER 83302XC	
STS PROJECT FILE	
SCALE 1"=40'	
SHEET NUMBER 5	



660
650
640
630
620
610
600
590
580

660
650
640
630
620
610
600
590
580

MILWAUKEE RIVER LEVEL

HORIZONTAL SCALE: 1"=100'
VERTICAL SCALE: 1"=10'

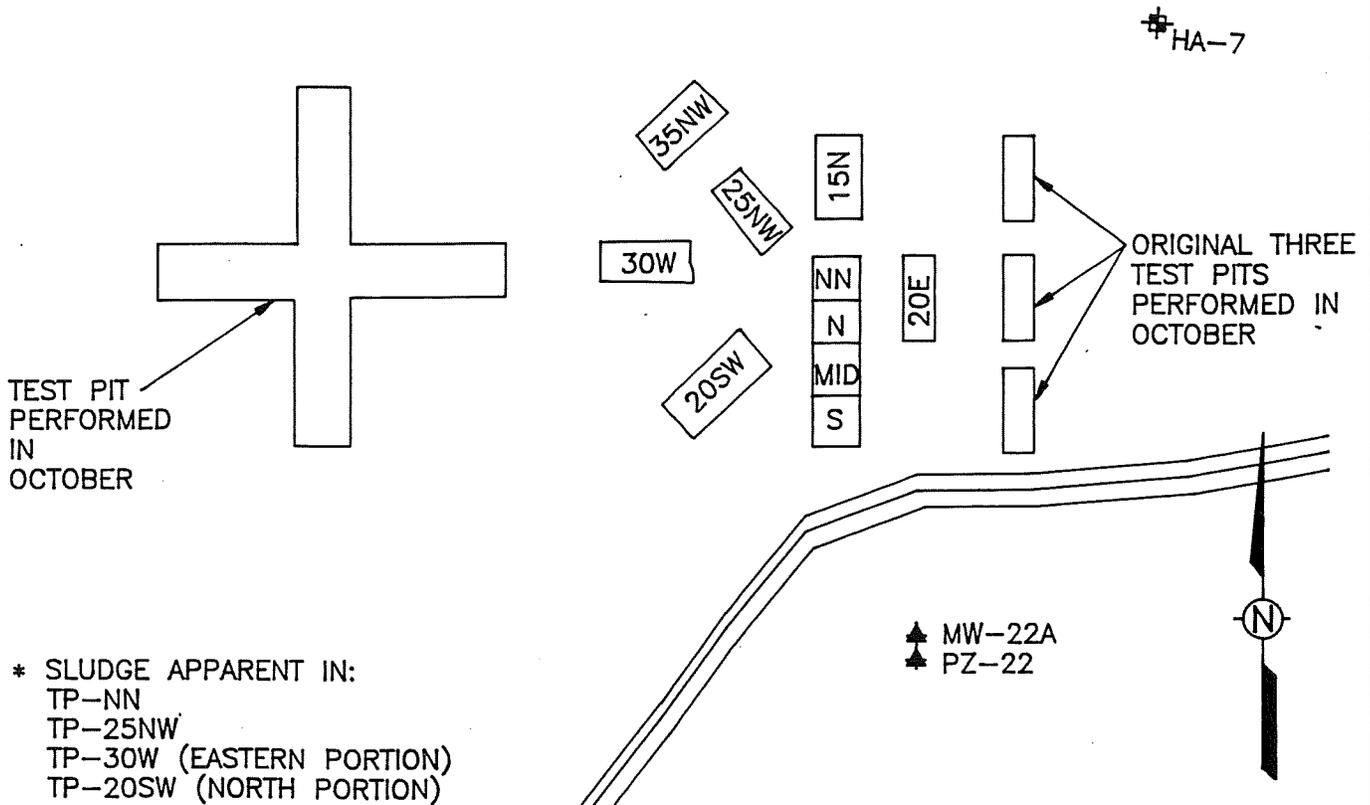
FILL AREA

NOTE: TEST PITS PREVIOUSLY PERFORMED BY HYDROMETRICS *

DRAWN BY	D.A.D.	DATE	12/16/91
CHECKED BY	T.D.S.	DATE	12/16/91
APPROVED BY	K.R.H.	DATE	12/16/91
CADFILE			
SITE CROSS-SECTION A			
CMC			
MILWAUKEE, WISCONSIN			
STS Consultants Ltd. Consulting Engineers			
STS PROJECT NO. 83302XC			
STS PROJECT FILE			
SCALE AS SHOWN			
SHEET NO. 3			

BRUNING. 543802

Sample Location	Depth	PID Reading (HNU units)	Analysis	Results	Detection Limit
PZ 22-Sample 11	25-26.5'	<1	TPH(D&G),PVOC+N	ND GRO ND DRO ND PVOC+N	6.1 ug/g 5 ug/g * ug/g
MW 22A-Sample 1	5-6.5'	2	TPH,PVOC+N,PNAs	ND DRO/GRO ND PVOC+N ND PNAs	5 ug/g * ug/g ** ug/g
MW 22A-Sample 4	20-21.5'	<1	TPH,PVOC+N,PNAs	ND DRO/GRO ND PVOC+N ND PNAs	5 ug/g * ug/g ** ug/g
TP-North, N. Wall	4'	6	PNAs	ND PNAs	10,000x dilution
Wood Sample	3-5'	N/A	PNAs, Cresols	ND PNAs ND Cresols	
TP-25 NWest	4-5'	1	PNAs	15.03 ug/g PNAs	
TP-30 West	4-5'	1	PNAs	ND PNAs	
TP 7 - Sample 1	0.5-1'	<1	PNAs	9.00 ug/g PNAs	** ug/g
TP 7 - Sample 2	1.5-2'	<1	PNAs	10.9 ug/g PNAs	** ug/g
PZ 22	21.5-26.5'	N/A	TPH,metals,PNAs	ND(DRO/GRO) 0.2 mg/l Barium ND(PNAs)	0.2 mg/l 0.02 mg/l ** ug/l
MW 22A	13-20'	N/A	TPH(D&G),PVOC+N	ND(DRO/GRO) 3 ug/l Toluene 2 ug/l Xylenes	0.2 mg/l 1 ug/l 1 ug/l



STS Consultants, Ltd.

PROJECT/CLIENT

INVESTIGATION RESULTS
 SOUTH AREA
 CMC
 MILWAUKEE, WISCONSIN

DRAWN BY	J.M.I.	12/2/91
CHECKED BY	T.D.S.	12/2/91
APPROVED BY	K.R.H.	12/2/91
SCALE	1" = 40'	FIGURE NO.
CADFILE	83302-IR.DWG	6
		STS PROJECT NO.
		83302XC

TABLE 1 OVA READINGS AND SOIL ANALYSES (Hydrometrics)

SITE	DEPTH (ft)	OVA (ppm)	-----ANALYSIS-----				
			TPH	610	PCB	VOC	METALS
MDH-1	0-21	NR					
MDH-2	0-4.5 4.5-12	Diesel odor 21					
MDH-3	0-12.5	NR					
MTP-1	0-11	NR					
MTP-2	0-10.5	NR					
MTP-3	@1	250 E	X	X	X	X	X
MTP-4	0-1 1-12	120 270	X	X		X	X
MTP-5	0-10	NR					
MTP-6	0-11	NR					
MTP-7	0-11	NR					
MTP-8	0-11	NR					
MTP-9	0-10	5.2 BACKGROUND 12	X	X	X	X	X
MTP-10	0-10	NR					
MTP-11	0-9	NR					
MTP-12	0-10	NR					
MTP-13	0-4 4-8	4.8 BACKGROUND 5.2 NR	X X	X X	X	X X	X X
MTP-14	0-10	NR					
MTP-15	0-11	10					
MTP-16	0-9	NR					
MTP-17	0-10	NR					
MTP-18	0-9	NR					
MTP-19	0-8.5	NR					
MTP-20	0-8	NR					
MTP-21	0-9 @ 7	70 SATURATED	X				X
MTP-22	0-10 @ 8	NR SATURATED					
MTP-23	0-8	70					
MTP-24	0-9	NR					
MTP-25	0-9	21					

NR = no response = ambient background value
ambient background = 7 ppm (average)

E = Value estimated.

TABLE 2 ANALYTICAL RESULTS ABOVE DETECTABLE LIMITS: SOILS (Hydrometrics)

SAMPLE NO.	LAB	SAMPLE INTERVAL (FT.)	TFH (ppm)	DETECTED ORGANIC PARAMETER (ppb)
MTP-3-1	CBC	1-2		ALPHA BHC = 69 DELTA BHC = 210 ENDOSULFAN I = 630 HEPTACHLOR EPOXIDE = 81
	IP	1-2	34 Diesel #1	TOLUENE = 1500 ETHYLBENZENE = 1900 XYLENE = 3600
MTP-4-1	IP	6-8		ETHYLBENZENE = 370
MTP-9-1	CBC	4-8	41 Diesel #1	DELTA BHC = 230 ENDOSULFAN I = 1500
MTP-13-1	CBC	0-3		ALPHA BHC = 66 DELTA BHC = 200 HEPTACHLOR EPOXIDE = 120
	IP	0-3		* METHYLENE CHLORIDE = 140
MTP-13-2 (REPLICATE OF 13-1)	CBC	0-3		ALPHA BHC = 60 DELTA BHC = 270 HEPTACHLOR EPOXIDE = 98
MTP-13-3	IP	4-8		* METHYLENE CHLORIDE = 180
MTP-21-1	IP	7-9	47 Kerosene	

NOTES: IF LEFT BLANK VALUE IS BELOW DETECTABLE LIMITS
 * DETECTION LIMIT FOR METHYLENE CHLORIDE = 120 ppb
 INTERPOL LABS SAYS THESE VALUES ARE INSIGNIFICANT
 COMPARED TO THE AMOUNT ABOVE DETECTION LIMIT AND
 IS MOST LIKELY DUE TO METHYLENE CHLORIDE
 CONTAMINATION IN THE LABORATORY.

TABLE 3

Water Table Well Water Levels
 CMC City Crossing
 STS Project No. 83302XC

<u>Well Designation</u>	<u>TPVC Elev.* (ft)</u>	<u>Date</u>	<u>Depth to Water (ft)</u>	<u>Water Level Elev. (ft)</u>
MW-12	50.17	3-30-92	10.00	40.17
		4-9-92	10.25	39.92
		4-28-92	10.3	39.9
MW-21A	49.83	3-30-92	7.84	41.99
		4-9-92	8.22	41.61
		4-28-92	8.2	41.6
MW-23	58.40	3-30-92	17.63	40.77
		4-9-92	17.75	40.65
		4-28-92	17.7	40.7
PZ-21	50.7	4-28-92	9.0	41.7
PZ-22	25.5	4-28-92	14.9	10.6
PZ-22A	25.5	4-28-92	14.9	10.6

* Milwaukee City Datum

Benchmark: Top of northwest bolt of fire hydrant on east side of N. Humboldt Avenue near Garfield Avenue. Elevation 56.50 feet.

Note: Despite the apparent presence of a groundwater gradient, as indicated by the difference in the water table levels, it must be noted that given the nature and heterogeneity of the fill soils, a definite water level flow and direction cannot be easily determined.

TABLE 4

Soil Analytical Results
Waste Characterization Analysis
CMC - City Crossing
STS Project No. 83302XC

Parameter	Site Surficial Soils	Excavated Soils	Sludge/Soil Material	TCLP Regulated Level	Detection Limit
TCLP Metals (mg/l)					
Arsenic	ND	ND	ND	5.0	0.002
Barium	0.47	1.3	7.7	100.0	0.1
Cadmium	ND	ND	ND	1.0	0.02
Chromium	ND	0.02	ND	5.0	0.02
Lead	0.88	ND	0.24	5.0	0.05
Mercury	0.0015	0.0022	0.0013	0.2	0.001
Selenium	ND	ND	ND	1.0	0.002
Silver	ND	ND	ND	5.0	0.05
Copper	---	---	?	---	---
Nickel	---	---	?	---	---
Zinc	---	---	?	---	---
TCLP Semi-Volatiles (ug/l)					
Cresols, Total	ND	ND	ND	200.0	0.4
2,4-Dinitrotoluene	ND	ND	ND	0.13	0.1
Hexachlorobenzene	ND	ND	ND	0.13	0.1
Hexachloro-1,3-butadiene	ND	ND	ND	0.5	0.4
Hexachloroethane	ND	ND	ND	3.0	0.4
Nitrobenzene	ND	ND	ND	2.0	0.4
Pentachlorophenol	ND	ND	ND	100.0	0.4
Pyridine	ND	ND	ND	5.0	5.0
2,4,5-Trichlorophenol	ND	ND	ND	400.0	0.4
2,4,6-Trichlorophenol	ND	ND	ND	2.0	0.4
Phenols	--	--	?	--	--
TCLP Volatiles	--	--	?	--	--
TCLP Pesticides/Herbicides	--	--	?	--	--
TPH (DRO) (mg/l)	--	ND	--	--	5.0
TPH (GRO) (ug/l)	--	ND	--	--	5.0
Percent Chlorine	--	--	ND	--	0.01
Cyanides, reactive (ppm)	--	--	ND	--	0.06
Sulfides, reactive (ppm)	--	--	ND	--	0.3
pH	--	--	7.42	<2.0 (or) >12.5	--
Flashpoint (°F)	--	--	>140°F	140°F	--
Total PCBs (ppm)	--	--	ND	--	5.0

ND - not detected

--- not applicable

? - Analysis not complete

TABLE 1
HA-7 EXCAVATION AREA RESULTS
CMC CITY CROSSING

<u>Sample</u>	<u>TRPH. mg/kg</u>	<u>DRO mg/kg</u>	<u>Soil Description</u>
S-1	90	--	-
S-2	34	--	-
S-3	40	--	-
S-4	13	--	-
S-5	19	--	-
S-6	40	--	-
S-7	36	--	-
S-8	40	--	-
S-9	40	--	-
S-10	39	--	-
S-11	1,240	951	Silty Fine Sand, Little Gravel - Black - No Odor
S-12	258	236	Silty Fine Sand, Trace Gravel - Dark Brown - No Odor
S-13	444	63.5	Silty Fine Sand - Dark Brown - No Odor
S-14	88.6	30.5	Silty Fine Sand - Light Brown - No Odor
S-15	153	9.37	Silty Clay (Natural) - Light Brown - No Odor

-Data Not Available
--Not Tested

TABLE 2
TAR AREA EXCAVATION RESULTS
CMC CITY CROSSING

<u>Sample</u>	<u>TRPH. mg/kg</u>	<u>Soil Description</u>
S-1	594	Silty Clay
S-2	84	Silty Clay
S-3	594	Silty Clay
S-4	1,188	Silty Clay
S-5	153	Silty Clay

KLB/dc-m11/Tables 1 & 2 84114XO