

GIS REGISTRY INFORMATION

SITE NAME: MILWAUKEE COAL TARI
 BRRTS # and FID #: BRRTS# 02-41-001092 FID# ~~291309530~~ 291309530
 CLOSURE DATE: 4-7-03, 1-18-05
 STREET ADDRESS: 2931 W. CAMERON ~~YARD~~ Ave.
 CITY: MILWAUKEE

SOURCE PROPERTY GPS COORDINATES (meters in WTM91 projection): X= 686954 Y= 294588

OFF-SOURCE CONTAMINATION (>ES): Yes No

IF YES, STREET ADDRESS 1: _____

GPS COORDINATES (meters in WTM91 projection): X= _____ Y= _____

IF YES, STREET ADDRESS 2: _____

GPS COORDINATES (meters in WTM91 projection): X= _____ Y= _____

CONTAMINATION IN RIGHT OF WAY: Yes No

DOCUMENTS NEEDED:

- Closure Letter, and any conditional closure letter issued
- Copy of most recent deed, including legal description, for all affected properties
- Certified survey map or relevant portion of the recorded plat map (if referenced in the legal description) for all affected properties
- County Parcel ID number, if used for county, for all affected properties
- Location Map which outlines all properties within contaminated site boundaries in sufficient detail to permit the parcels to be located easily (8.5x14" if paper copy) Figure 1
- Detailed Site Map(s) for all affected properties, showing buildings, roads, property boundaries, contaminant sources, utility lines, monitoring wells and potable wells. (8.5x14", if paper copy) Figure 2
- Tables of Soil Contamination Results
- Tables of Latest Groundwater Analytical Results (no shading or cross-hatching)
- Isoconcentration map(s), if available from site investigation (SI) (8.5x14" if paper copy). The isoconcentration map should have flow direction and extent of contamination defined. If not available, include the following 2 types of maps: Figure 7
- Latest groundwater flow/monitoring well location map Figure 3
- Latest extent of contaminant plume map Figure 9
- " " " " Soil map Figure 8
- Geologic cross-sections, if available from SI. (8.5x14" if paper copy) Figure 4 & 5
- RP certified statement that legal descriptions are complete and accurate
- Copies of off-source notification letters (if applicable)
- Letter informing ROW owner of residual contamination (if applicable)
- Copy of (soil or land use) deed restriction(s) or deed notice if any required as a condition of closure.

Figure 1-5
Figure 8-9
Table 1-3
Table 6-8
 } on Disk



State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Jim Doyle, Governor
Scott Hassett, Secretary
Gloria L. McCutcheon, Regional Director

Southeast Region Headquarters
2300 N. Dr. Martin Luther King, Jr. Drive
PO Box 12436
Milwaukee, Wisconsin 53212-0436
Telephone 414-263-8500
FAX 414-263-8606
TTY 711

January 18, 2005

Carrie M. Lewis
City of Milwaukee
841 N. Broadway
Milwaukee, WI 53202

FID# 241309530
BRRTS# 02-41-001092

Subject: Final Case Closure for Cameron Yard, 2931 W. Cameron Avenue, Milwaukee

Dear Ms. Lewis:

On April 7, 2003, you were notified that conditional closure was granted to this case. These conditions were the abandonment of monitoring wells, disposal of any investigation wastes, filing a deed restriction and cap maintenance plan and submission of a GIS packet for soil GIS registry. On January 18, 2005, the Department received correspondence indicating that you have complied with all the conditions of closure. Based on the correspondence and data provided, it appears that your case has been remediated to Department standards in accordance with s. NR 726.05, Wis. Adm. Code. The Department considers this case closed and no further investigation, remediation or other action is required at this time.

Your site will be listed on the DNR Remediation and Redevelopment GIS Registry of Closed Remediation Sites. Information that was submitted with your closure request application will be included on the registry. To review the sites on the GIS Registry web page, visit <http://gomapout.dnr.state.wi.us/org/at/et/geo/gwur/index.htm>

Please be aware that this 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.

The Department appreciates your efforts to restore the environment at this site. If you have any questions regarding this letter, please contact me at (414) 263-8366.

Sincerely,

Brenda H. Boyce, PG
Hydrogeologist
Bureau for Remediation & Redevelopment

c: Erika Pape – Giles Engineering



State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Jim Doyle, Governor
Scott Hassett, Secretary
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PO Box 12436
Milwaukee, Wisconsin 53212-0436
Telephone 414-263-8500
FAX 414-263-8606
TTY 711

April 7, 2003

City of Milwaukee
841 North Broadway
Room 311
Milwaukee, WI 53209

Subject: Closure Request, City of Milwaukee Property, 2931 West Cameron Avenue, Milwaukee, WI FID# 241309530, BRRTS# 02-41-001092

Dear City of Milwaukee:

On April 7, 2003, the Wisconsin Department of Natural Resources (WDNR) reviewed your request for closure of the case described above. After careful review of the closure request, the WDNR has determined that the soil and groundwater contamination on the site from the manufacturing facility appears to have been investigated and remediated to the extent practicable under site conditions. Your case has been remediated to Department standards in accordance with s. NR 726.05, Wis. Adm. Code and will be closed if the following conditions are satisfied:

- The monitoring wells at the site must be properly abandoned in compliance with ch. NR 141, Wis. Adm. Code. Documentation of well abandonment must be submitted to on Form 3300-5B found at www.dnr.state.wi.us/org/water/dgw/gw/ or provided by the Department of Natural Resources.
- Any remaining waste and/or soil piles generated as part of site investigation or remediation activities must be removed from the site and disposed of or treated in accordance with Department of Natural Resources' rules. Please send a letter advising me that any remaining waste and/or soil piles have been removed once that work is completed.
- The Department requires a deed restriction be signed and recorded to address the issue of the remaining soil contamination associated with the site. The purpose of the restriction is to maintain a surface barrier over the remaining soil contamination to prevent it from impacting human health and the environment, and/or require that the owner of the property investigate the degree and extent of residual contamination that is currently inaccessible, if structural impediments that currently exist on the property are removed. You will need to submit a draft deed restriction to me before the document is signed and recorded. You may find a model deed restriction enclosed for your use or visit our web site at www.dnr.state.wi.us/org/rr/. To assist us in our review of the deed restriction, you should submit a copy of the property deed to me along with the draft document. After the Department of Natural Resources has reviewed the draft document for completeness, you should sign it if you own the property, or have the appropriate property owner sign it, and have it recorded by the Milwaukee County Register of Deeds. Then submit a copy of the recorded document, with the recording information stamped on it, to me. Please be aware that if a deed restriction is recorded for the wrong property because of an inaccurate legal description that you have provided, you will be responsible for recording corrected documents at the Register of Deeds Office to correct the problem.
- Section NR 726.05(3)(b)(4)(a-g), Wis. Adm. Code, provides that if soil contamination exceeds generic or site specific residual contaminant levels as determined by NR 720.09, 720.11, and 720.19 at the

time the case is submitted for closure, then the site will be included on the departments GIS Registry for soils.

- A GIS Packet for soils containing GIS Registry information must be submitted with a \$200 fee. Information can be found http://www.dnr.state.wi.us/org/aw/rr/archives/pub_index.html. The DNR Remediation and Redevelopment Program's case closure form required by NR 726, WI Adm.Code. Instructions for filing a complete application for closure for remediation cases. 10/29/2002 [4400-202.pdf](#)

When all of the above bulleted items have been addressed and the site is placed on the GIS Registry **this case will be tracked as closed on the department's tracking.** . A final letter showing that you have met these conditions including a PAL Exemption will be delivered.

Please be aware that 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 to the environment.

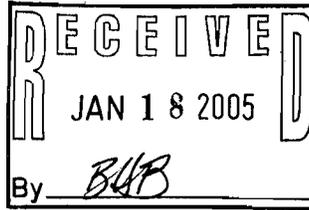
We appreciate your efforts to restore the environment at this site. If you have any questions regarding this letter, please contact me at 414-263-8366.

Sincerely,



Barbara G. Grundl, PG
Hydrogeologist
Bureau for Remediation & Redevelopment

cc: Charley Wang - Giles Engineering Associates
SER Case Files



Department of Public Works
Milwaukee Water Works

Jeffrey J. Mantes
Commissioner of Public Works

James P. Purko
Director of Operations

Carrie M. Lewis
Superintendent of Water Works

January 12, 2005

Wisconsin Department of Natural Resources
2300 North Martin Luther King Jr. Drive
Milwaukee, WI 53212

241 309 530

Attention: Ms. Barbara Grundl, P.G.

Dear Ms. Grundl:

SUBJECT: Deed Restriction and Cap Maintenance Plan
Cameron Yard - 2931 West Cameron Avenue
BRRTS No. 02-41-001092
Giles Project No. 1E-9710012

Enclosed please find the stamped copy of the deed restriction and cap maintenance plan approved by the Department of Natural Resources on April 20, 2004. The deed restriction and plan has been signed notarized by the proper city officials and has been filed with the Register of Deeds at the Milwaukee County Courthouse. We believe this fulfills the requirements for final site closure.

If you have any questions, please contact Ms. Peggy Rau at 414-286-2423.

Very truly yours,

Carrie M. Lewis, Superintendent
Milwaukee Water Works

CML: ps
Attachment

CC: Giles Engineering, 8.01.001
D-34 file

Room 409, Frank P. Zeidler Municipal Building, 841 N. Broadway, Milwaukee, Wisconsin 53202.

Phone (414) 286-2801 Fax (414) 286-2672

Member, American Water Works Association, American Public Works Association
American Society of Civil Engineers, and Automatic Meter Reading Association.

Exhibit A

21
 1st Rec
 THIS INDENTURE, made by Milwaukee County, a municipal body corporate, organized and existing under and by virtue of the laws of the State of Wisconsin, grantor, of Milwaukee County, Wisconsin, hereby quit claims to the City of Milwaukee, a municipal corporation, grantee, of Milwaukee County, Wisconsin, for the sum of ONE DOLLAR (\$1.00) AND OTHER GOOD AND VALUABLE CONSIDERATIONS, the following tract of land in Milwaukee County, State of Wisconsin:

MAY-13-65 654995 4177

That part of vacated North 30th Street in the Southeast 1/4 of Section 36, Township 8 North, Range 21 East, more particularly described as follows: Commencing at the intersection of the south line of West Cameron Avenue with the west line of Lot 33 in Block 5 in Original North Milwaukee Subdivision No. 1, a recorded subdivision in said 1/4 Section, said point lying 5.00 feet north of the southwest corner of Lot 33 in said Block 5; running thence south along the west lines of Lots 33 through 28 in said Block 5, a distance of 250.00 feet to a point in the west line of said Lot 28; thence southwesterly along a line to a point which is 250.00 feet north of the southeast corner of Block 15 in North Milwaukee Townsite Co's. Addition No. 1, a recorded subdivision in said 1/4 Section; thence north along the east lines of Lots 1 through 11, in said Block 15, a distance of 391.68 feet to a point in the south line of West Cameron Avenue; thence east along the south line of West Cameron Avenue 66.00 feet to the point of commencement.

4177329

REGISTER'S OFFICE
MILWAUKEE COUNTY, WIS.

RECORDED AT 9:01 AM

MAY 13 1965

Reel 246 Image 1561 to 1563 incl

Clyde M. Holmstrom
REGISTER OF DEEDS

FAINT TYPING



DOC.# 08932716

REGISTER'S OFFICE | SS
Milwaukee County, WI

RECORDED 01/11/2005 01:43PM

JOHN LA FAVE
REGISTER OF DEEDS

AMOUNT:23.00

Recording Area

Name and Return Address

Milwaukee Water Works
Water Engineering Section
809 North Broadway, 4th Floor
Milwaukee, WI 53202

207-0746-112-9

Parcel Identification Number (PIN)

Document Number

DEED RESTRICTION

In re: Exhibit A
Wisconsin Transverse Mercator coordinates 686854,294588

STATE OF WISCONSIN)
) ss
COUNTY OF MILWAUKEE)

WHEREAS, the City of Milwaukee is the owner of the above-described property.

WHEREAS, one or more petroleum discharges have occurred on this property, and as of January 15, 1995, when soil samples were collected on this property, petroleum volatile organic compound (PVOC) and polynuclear aromatic hydrocarbon (PAH)-contaminated soil remained on this property in the vicinity of the existing, former tar wells, which are indicated on the attached Figure 8.

WHEREAS, It is the desire and intention of the property owner to impose on the property restrictions which will make it unnecessary to conduct further soil remediation activities on the property at the present time.

NOW THEREFORE, the owner hereby declares that all of the property described above is held and shall be held, conveyed or encumbered, leased, rented, used, occupied and improved subject to the following limitation and restrictions:

The asphaltic concrete surface cover that existed on the above-described property on the date that this restriction was signed forms a barrier that must be maintained in order to prevent direct contact with residual soil contamination that might otherwise pose a threat to human health. This structure is also required in order to minimize the infiltration of water and prevent additional groundwater contamination that would violate the groundwater quality standards in ch. NR 140, Wis. Adm. Code. The asphaltic concrete surface shall be maintained on the above-described property in the location shown on the attached map, labeled "Figure 8. Soil Analytical Results" unless another barrier, with an infiltration rate of 10⁻⁷ cm/sec or less, is installed and maintained in its place. The existing structure, and any replacement barrier with an infiltration rate of 10⁻⁷ cm/sec or less, shall be maintained on the above-described property in compliance with the "Cap Maintenance Plan" dated March 11, 2004, that was submitted to the Wisconsin Department of Natural Resources by the City of Milwaukee, as required by section NR 724.13(2), Wis. Admin. Code (1999), unless another barrier, with an infiltration rate of 10⁻⁷ cm/sec or less, is installed and maintained in its place.

In addition, the following activities are prohibited on any portion of the above-described property where an impervious cap has been placed or where impervious surfaces exist (Figure 8), unless prior written approval has been obtained from the Wisconsin Department of Natural Resources or its successor or assign: (1) Excavating or grading of the land surface; (2) Filling on capped areas and areas with impervious surfaces; (3) Plowing for agricultural cultivation; and (4) Construction or installation of a building or other structure with a foundation that would sit on or be placed within the cap or impervious surface.

This restriction is hereby declared to be a covenant running with the land and shall be fully binding upon all persons acquiring the above-described property whether by descent, devise, purchase or otherwise. This restriction inures to the benefit of and is enforceable by the Wisconsin Department of Natural Resources, its successors or assigns. The Department, its successors or assigns, may initiate proceedings at law or in equity against any person or persons who violate or are proposing to violate this covenant, to prevent the proposed violation or to recover damages for such violation.

Any person who is or becomes owner of the property described above may request that the Wisconsin Department of Natural Resources or its successor issue a determination that one or more of the restrictions set forth in this covenant is no longer required. Upon the receipt of such a request, the Wisconsin Department of Natural Resources shall determine whether or not the restrictions contained herein can be extinguished. If the Department determines that the restrictions can be extinguished, an affidavit, attached to a copy of the Department's written determination, may be recorded by the property owner or other interested party to give notice that this deed restriction, or portions of this deed restriction, are no longer binding.

IN WITNESS WHEREOF, the said City of Milwaukee, has executed this Declaration of Restrictions and caused these presents to be signed by Tom Barrett, its Mayor and Ronald D. Leonhardt, its City Clerk and countersigned by W. Martin Morics, Comptroller, at Milwaukee, Wisconsin, and its corporate seal to be affixed this 27 day of October A.D., 20 04.

Signed and sealed in presence of:

CITY OF MILWAUKEE

Kimberly R. Montgomery By: Tom Barrett
Tom Barrett, Mayor

Kathleen H. Mellica Ronald D. Leonhardt
Ronald D. Leonhardt, City Clerk

COUNTERSIGNED

[Signature]

[Signature] SPECIAL DEPUTY
for ~~W. Martin Morics~~, City Comptroller
John Edgar Dep. City Comptroller

md

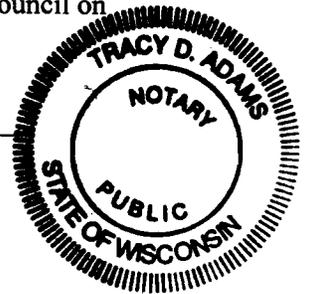
STATE OF WISCONSIN)
) SS
MILWAUKEE COUNTY)

Personally came before me this 27th day of October, 2004,
Tom Barrett, Mayor of the City of Milwaukee, to me known to be the person who executed
the foregoing instrument and to me known to be such Mayor of the City of Milwaukee and acknowledged
that he executed the foregoing instrument as such officer as the deed of the City of Milwaukee, by its
authority, and pursuant to Resolution File Number 040615 adopted by its Common Council on
September 21, 2004.

Tracy P Adams

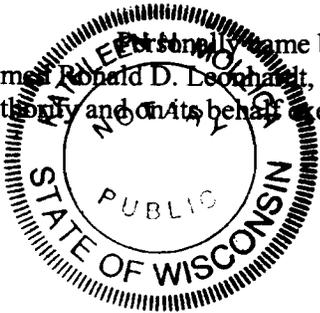
Notary Public, State of Wisconsin

My Commission Expires July 2, 2006



STATE OF WISCONSIN)
) SS
MILWAUKEE COUNTY)

Personally came before me this 2th day of October, 2004, the above-
named Ronald D. Lech, to me known to be the City Clerk of the City of Milwaukee, who by its
authority and on its behalf executed the foregoing instrument and acknowledged the same.



Katherine H. Mollica
Notary Public, State of Wisconsin

My Commission Expires 2-10-08

STATE OF WISCONSIN)
) SS
MILWAUKEE COUNTY)

John Egan Personally came before me this 4th day of November, 2004, the above-named W.
Martin Morics, to me known to be the Comptroller of the City of Milwaukee, who by its authority and on
its behalf executed the foregoing instrument and acknowledged the same.



W. J. Weckelbach
Notary Public, State of Wisconsin

My Commission Expires 10-14-07

This document was drafted by Giles Engineering Associates, Inc. and the City of Milwaukee.

Approved as to Contents

Date: 5/26/04

C. Cullen
SUPERINTENDENT, MILWAUKEE WATER WORKS

Approved as to form and Execution

Date:

[Signature]
ASSISTANT CITY ATTORNEY

**CAP MAINTENANCE PLAN
March 11, 2004**

**2931 West Cameron Avenue
Milwaukee, Wisconsin**

**FID No. 241309530
BRRTS No. 02-41-001092**

The City of Milwaukee and its Successors will maintain the existing asphaltic concrete pavement depicted (surrounded in red) on the attached "Figure 8. Soil Analytical Results" to prevent direct-contact exposure due to shallow polynuclear aromatic hydrocarbon (PAH) and benzene contaminated soil and minimize the infiltration of water to prevent groundwater contamination. The pavement will serve as an institutional control as required for case close out under s. NR 726.05 (8)(b), Wis. Adm. Code.

Semiannually, the asphaltic concrete surface will be visually inspected for cracks, settlement, and deterioration. Repairs of the asphaltic concrete cap will be completed as necessary to minimize exposure to contaminated soil and to reduce surface water infiltration.

SE 36-8-21
ATLAS PG. 207

207

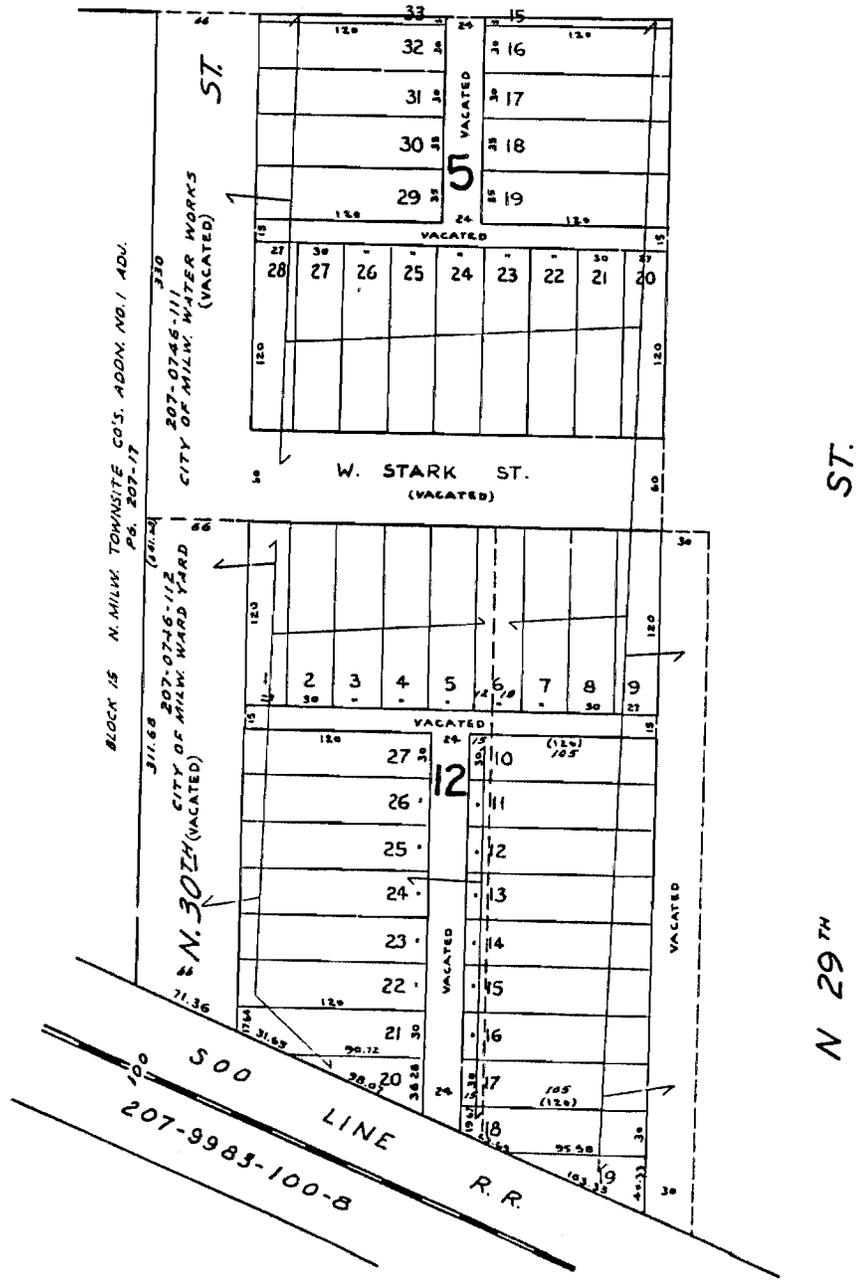
207-14
SCALE 1" = 80'

INDIAN TERRITORY PLAT - STATE

ORIGINAL N. MILW. SUBD. NO. 1

W. CAMERON
*2931-HEAR *2919

AVE.



9-15-86

207-14



Department of City Development

Housing Authority
Redevelopment Authority
City Plan Commission
Historic Preservation Commission

Julie A. Penman
Commissioner

Michal A. Dawson
Deputy Commissioner

I, Gregory J. Shelko, Special Deputy Commissioner of the Department of City Development, state that the City of Milwaukee is the fee owner of the property at 2931 West Cameron Avenue, Milwaukee, Wisconsin. The City acquired the property by In Rem Tax Foreclosure October 18, 1985.

The legal descriptions in this document completely and accurately describe the parcel within the contaminated site boundaries associated with ERP No. 02-41-~~309530~~ ^{001092 ER}

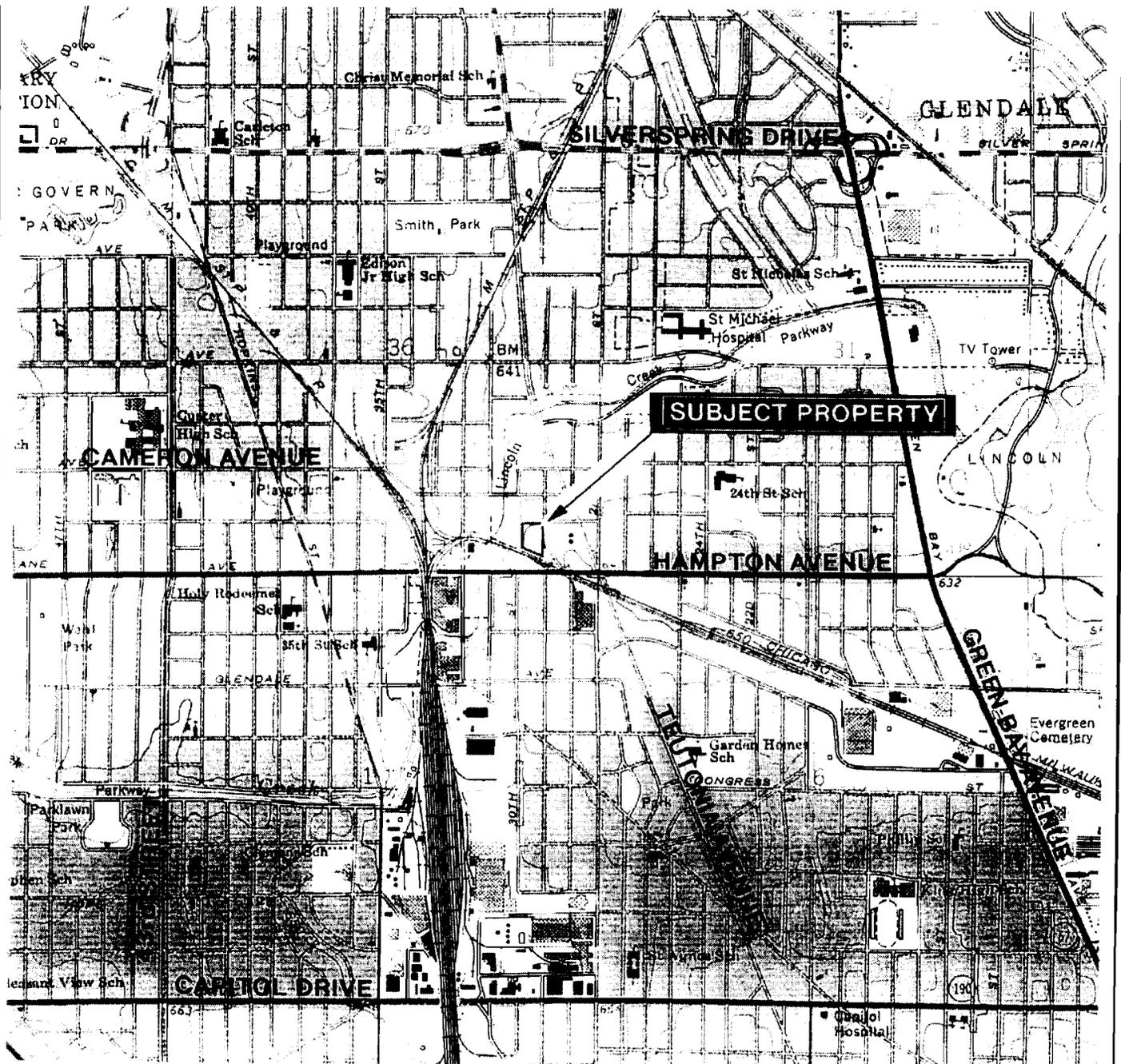
City of Milwaukee

By:

Gregory J. Shelko
Special Deputy Commissioner
Department of City Development

Date:

8-13-03



Source: USGS Milwaukee 7.5 Minute Quadrangle Map
1958; Photorevised 1971

Scale: 1"=2000'



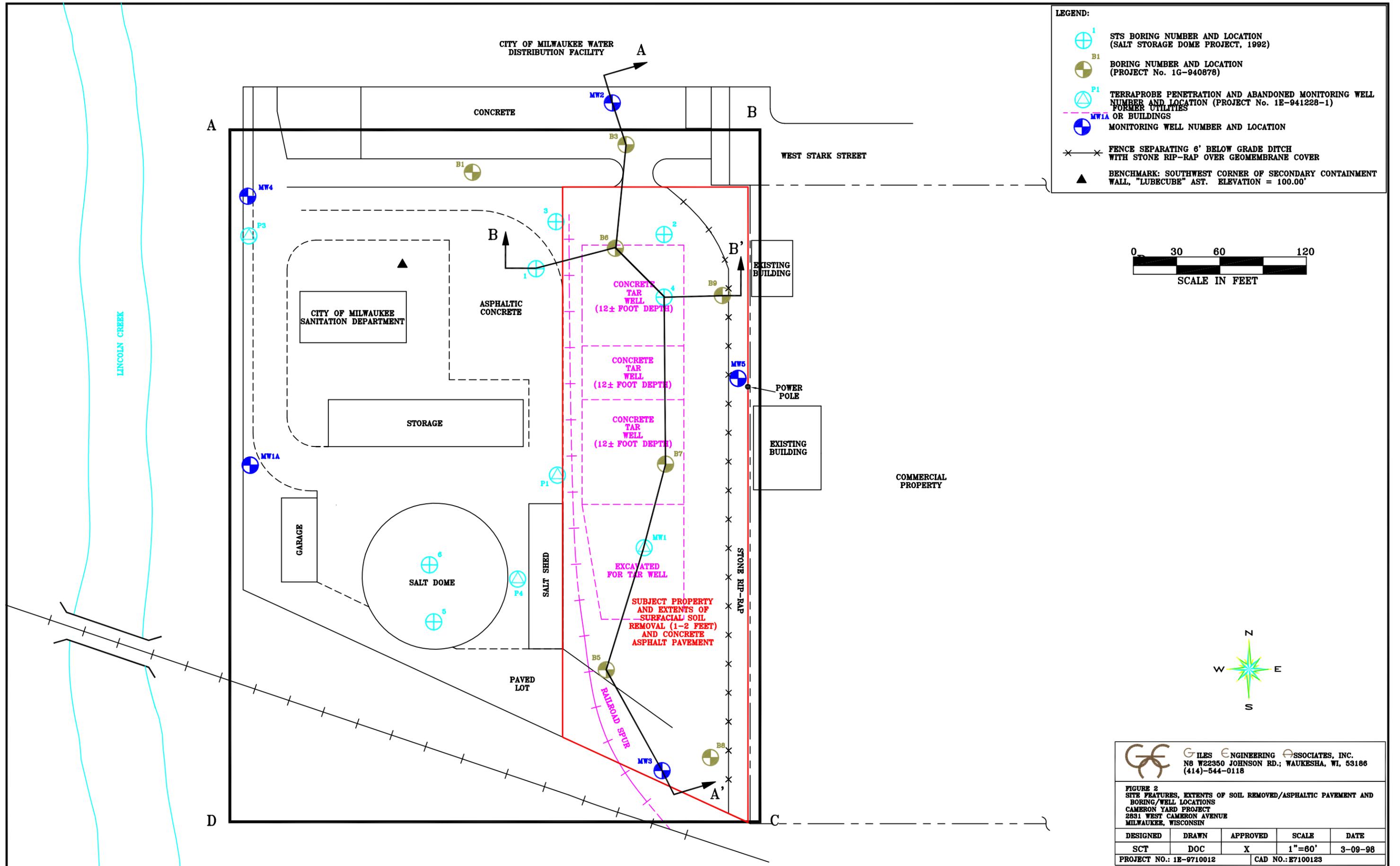
QUADRANGLE LOCATION

FIGURE 1
SITE LOCATION MAP

Cameron Avenue Water Distribution Facility
Yard Project
2931 West Cameron Avenue
Milwaukee, Wisconsin
Project No. 1E-9710012

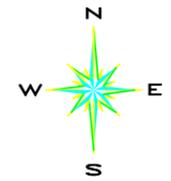
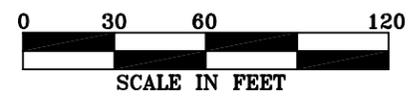
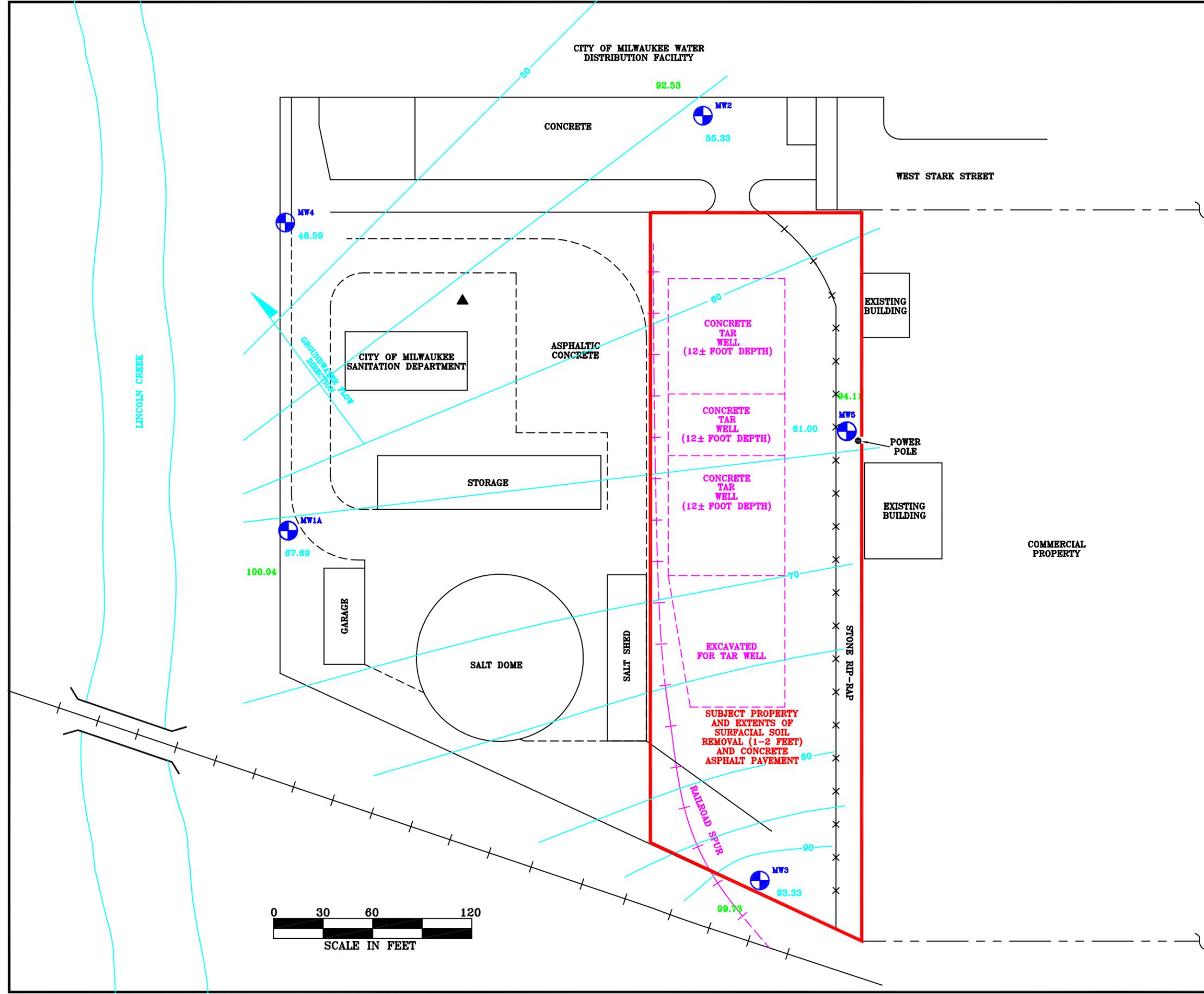


GILES
ENGINEERING ASSOCIATES, INC.



LEGEND:

- 61.00 GROUNDWATER ELEVATION
- 100.04 GRADE ELEVATION
- MW1A MONITORING WELL NUMBER AND LOCATION
- ✕✕ FENCE SEPARATING 6' BELOW GRADE DITCH WITH STONE RIP-RAP OVER GEOMEMBRANE COVER
- FORMER UTILITIES OR BUILDINGS
- ▲ BENCHMARK: SOUTHWEST CORNER OF SECONDARY CONTAINMENT WALL, "LUBECUBE" AST. ELEVATION = 100.00'



GILES ENGINEERING ASSOCIATES, INC.
 N8 W22350 JOHNSON RD.; WAUKESHA, WI, 53186
 (414)-544-0118

FIGURE 3
 GROUNDWATER ELEVATION AND FLOW DIRECTION (DECEMBER 6, 1997)
 CAMERON YARD PROJECT
 2831 WEST CAMERON AVENUE
 MILWAUKEE, WISCONSIN

DESIGNED	DRAWN	APPROVED	SCALE	DATE
SCT	DOC	X	1"=60'	3-09-98

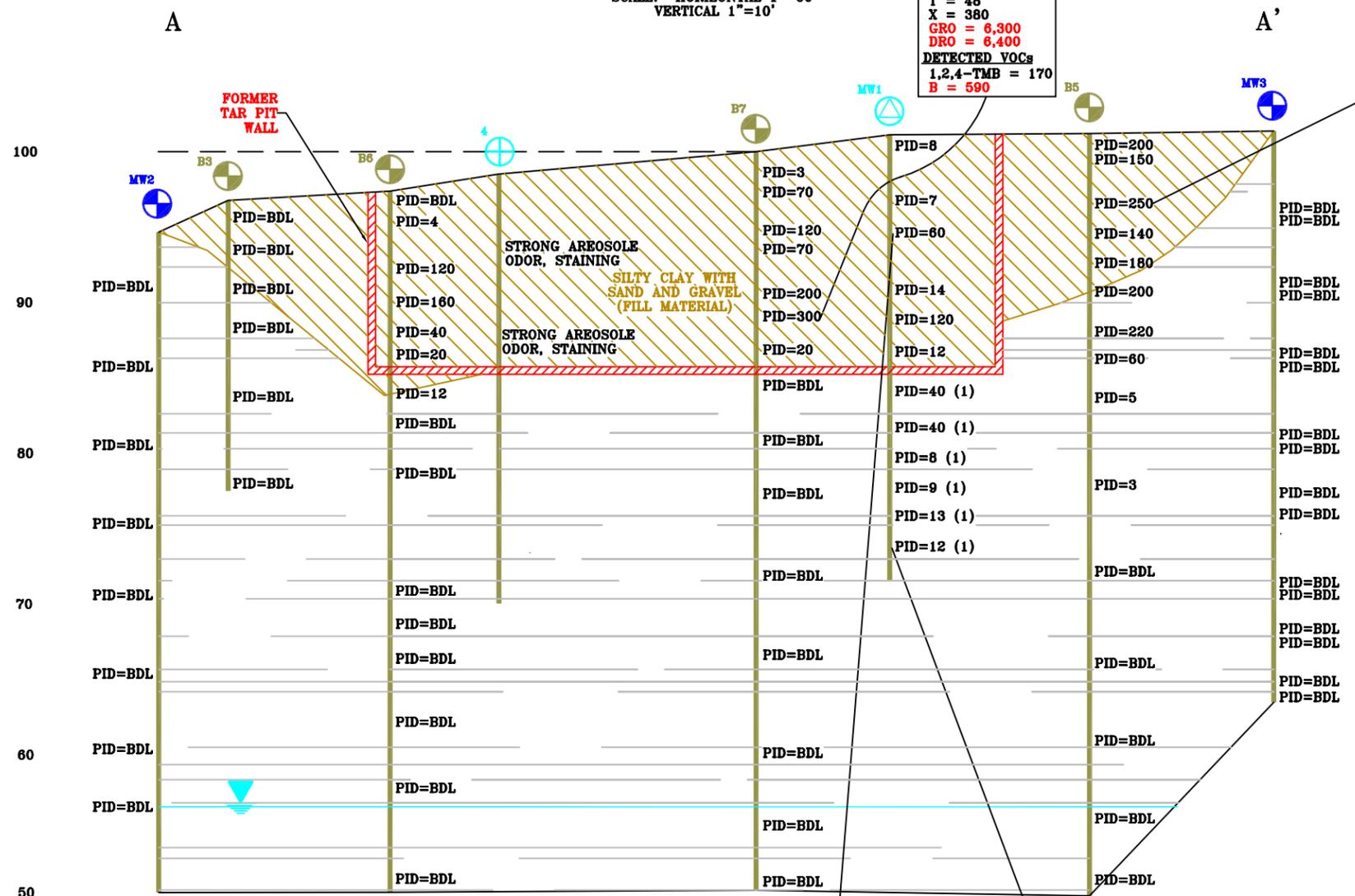
PROJECT NO.: 1E-9710012 CAD NO.: E7100124

N

CROSS SECTION A-A'

SCALE: HORIZONTAL 1"=60'
VERTICAL 1"=10'

S



E = 44
Napht = 24,000
n-BuB = 13
S = 470
T = 48
X = 380
GRO = 6,300
DRO = 6,400
DETECTED VOCs
1,2,4-TMB = 170
B = 590

GRO = 3,600
DRO = 12,000
DETECTED VOCs
1,2,4-TMB = 26,000
1,3,5-TMB = 16,000
B = 28,000
E = 11,000
IPBz = 310
Napht = 540,000
n-BuB = 2,100
n-PBz = 510
S = 34,000
T = 71,000
X = 111,000

- CHEMICAL KEY:**
- ACP: ACENAPHTHYLENE
 - AN: ACENAPHTHENE
 - B(a): BENZO (a) ANTHRACENE
 - B(a)P: BENZO (a) PYRENE
 - B(b): BENZO (b) FLUORANTHENE
 - B(g,h,i): BENZO (g,h,i) PERYLENE
 - C: CHRYSENE
 - F: FLUORANTHENE
 - FL: FLUORENE
 - IP: INDENO (1,2,3-cd) PYRENE
 - IPBz: ISOPROPYLBENZENE
 - MN: METHYLNAPHTHALENE
 - n-BuB: n-BUTYLBENZENE
 - n-PBz: n-PROPYLBENZENE
 - Napht: NAPHTHALENE
 - PA: PHENANTHRENE
 - PCB: POLYCHLORINATED BIPHENYLS
 - S: STYRENE
 - TMB: TRIMETHYLBENZENE
 - X: TOTAL XYLENES
 - B: BENZENE
 - T: TOLUENE
 - E: ETHYLBENZENE

- ABBREVIATIONS:**
- DRO: DIESEL RANGE ORGANICS
 - GRO: GASOLINE RANGE ORGANICS
 - LOD: LIMIT OF DETECTION
 - PAH: POLYNUCLEAR AROMATIC HYDROCARBONS
 - PID: PHOTOIONIZATION DETECTOR (FIELD)
 - VOC: VOLATILE ORGANIC COMPOUNDS

NOTES:
FIELD PID RESULTS EXPRESSED IN HNU UNITS
GRO AND DRO RESULTS EXPRESSED IN MILLIGRAMS PER KILOGRAM (mg/kg) EQUIVALENT TO PARTS PER MILLION (ppm)
VOC RESULTS EXPRESSED IN MICROGRAMS PER KILOGRAM (ug/kg) EQUIVALENT TO PARTS PER BILLION (ppb)

RESULTS INDICATED IN RED ARE ABOVE THE WISCONSIN ADMINISTRATIVE CODE ENFORCEMENT STANDARD (ES)

- METALS KEY:**
- As: ARSENIC
 - Ba: BARIUM
 - Cr: CHROMIUM
 - Hg: MERCURY
 - Pb: LEAD

LEGEND:

- STS BORING NUMBER AND LOCATION (SALT STORAGE DOME PROJECT, 1992)
- BORING NUMBER AND LOCATION (PROJECT No. 1G-940878)
- TERRAPROBE PENETRATION AND ABANDONED MONITORING WELL NUMBER AND LOCATION (PROJECT No. 1E-941228-1)
- MONITORING WELL NUMBER AND LOCATION
- INFERRED GROUNDWATER TABLE
- CLAY WITH VARYING SILT, SAND AND GRAVEL (NATIVE SOILS)

1,2,4-TMB = 3,200
1,3,5-TMB = 4,500
B = 3,290
E = 4,900
Napht = 81,000
X = 7,100
DETECTED PAHs
1-MN = 3.1
2-MN = 3.4
AN = 0.95
ACP = 2.9
AT = 1.7
B(a) = 1.0
B(b) = 0.62
B(g,h,i) = 0.45
B(a)P = 0.33
C = 0.82
F = 3.3
FL = 2.5
IP = 0.4
Napht = 11
PA = 5.9
P = 2.5
PCBs < LOD
DETECTED RCRA METALS
As = 57
Ba = 64
Cr = 16
Pb = 120
Hg = 2.5

DETECTED VOCs
T = 230
Napht = 2,200
X = 170
DETECTED PAHs
2-MN = 0.34
ACP = 0.19
AT = 0.2
B(a) = 0.19
F = 0.48
FL = 0.23
Napht = 1.8
PA = 0.79
P = 0.35
PCBs < LOD
DETECTED RCRA METALS
As = 3.8
Ba = 46
Cr = 17
Pb = 14

NOTE:
ELEVATIONS RELATED TO BENCHMARK OF 100.00', SOUTHWEST CORNER OF SECONDARY CONTAINMENT SURROUNDING "LUBECUBE" AST.
VERTICAL EXAGGERATION X 6
SEE FIGURE 3 FOR CROSS SECTION LOCATION.

GILES ENGINEERING ASSOCIATES, INC.
N8 W22350 JOHNSON RD., WAUKESHA, WI, 53186
(414)-544-0118

FIGURE 4
CROSS SECTION A-A'
CAMERON YARD PROJECT
2831 WEST CAMERON AVENUE
MILWAUKEE, WISCONSIN

DESIGNED	DRAWN	APPROVED	SCALE	DATE
CCW	DOC	X	1"=60'	3-09-98
PROJECT NO.: 1E-9710012		CAD No.: E7100125		

W

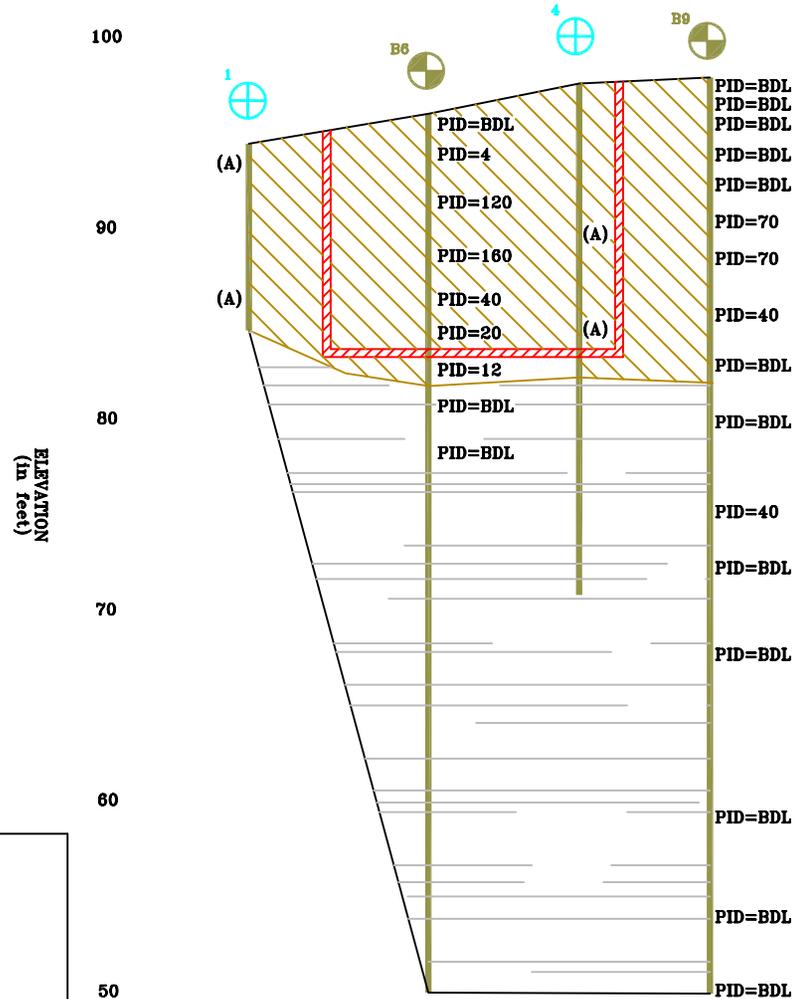
B

CROSS SECTION B-B'

SCALE: HORIZONTAL 1"=60'
VERTICAL 1"=10'

E

B'



LEGEND:

STS BORING NUMBER AND LOCATION
(SALT STORAGE DOME PROJECT, 1992)

BORING NUMBER AND LOCATION
(PROJECT No. 1G-940878)

SILTY CLAY WITH SAND AND GRAVEL
(FILL MATERIAL)

CLAY WITH VARYING SILT, SAND AND GRAVEL
(NATIVE SOILS)

(A) STRONG AREASOLE ODOR, STAINING

NOTE:
ELEVATIONS RELATED TO BENCHMARK
OF 100.00', SOUTHWEST CORNER OF
SECONDARY CONTAINMENT
SURROUNDING "LUBECUBE" AST.

VERTICAL EXAGGERATION X 6

SEE FIGURE 3 FOR CROSS
SECTION LOCATION.

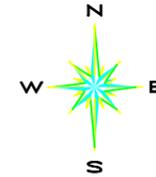


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FIGURE 5
CROSS SECTION B-B'
CAMERON YARD PROJECT
2831 WEST CAMERON AVENUE
MILWAUKEE, WISCONSIN

DESIGNED	DRAWN	APPROVED	SCALE	DATE
CCW	DOC	X	1"=60'	3-09-98
PROJECT NO.: 1E-9710012		CAD No.: E7100126		

CITY OF MILWAUKEE WATER DISTRIBUTION FACILITY

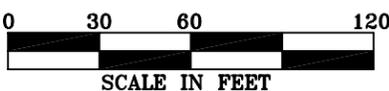


LEGEND:

- STS BORING NUMBER AND LOCATION (SALT STORAGE DOME PROJECT, 1992)
- BORING NUMBER AND LOCATION (PROJECT No. 1G-940878)
- TERRAPROBE PENETRATION AND ABANDONED MONITORING WELL NUMBER AND LOCATION (PROJECT No. 1E-941228-1)
- MONITORING WELL NUMBER AND LOCATION
- FENCE SEPARATING 6' BELOW GRADE DITCH WITH STONE RIP-RAP OVER GEOMEMBRANE COVER
- BENCHMARK: SOUTHWEST CORNER OF SECONDARY CONTAINMENT WALL, "LUBECUBE" AST. ELEVATION = 100.00'
- FORMER UTILITIES OR BUILDINGS

LINCOLN CREEK

39.5-41' DEPTH
 DETECTED VOCs
 T = 3.5
 PAHs < LOD
 PCBs < LOD
 DETECTED RCRA METALS
 As = 4.2
 Ba = 7.8
 Cr = 21
 Pb = 16



4.5-6' DEPTH
 GRO = 3,600
 DRO = 12,000
 DETECTED VOCs
 1,2,4-TMB = 26,000
 1,3,5-TMB = 16,000
 B = 26,000
 E = 11,000
 IPBz = 310
 N = 540,000
 n-BuB = 2,100
 n-PBz = 510
 S = 34,000
 T = 71,000
 X = 111,000

12-13.5' DEPTH
 GRO = 6,300
 DRO = 6,400
 DETECTED VOCs
 1,2,4-TMB = 170
 B = 590
 E = 44
 N = 24,000
 n-BuB = 13
 S = 470
 T = 48
 X = 380

8-12' DEPTH
 DETECTED VOCs
 1,2,4-TMB = 3,200
 1,3,5-TMB = 4,500
 B = 3,200
 E = 4,900
 N = 81,000
 X = 7,100
 DETECTED PAHs
 1-MN = 3.1
 2-MN = 3.4
 AN = 0.96
 ACP = 2.6
 AT = 1.7
 B(a) = 1.0
 B(b) = 0.62
 B(g,h,i) = 0.45
 B(a)P = 0.63
 C = 0.82
 F = 3.3
 FL = 2.5
 IP = 0.4
 N = 11
 PA = 5.9
 P = 2.5
 PCBs < LOD
 DETECTED RCRA METALS
 As = 57
 Ba = 64
 Cr = 16
 Pb = 120
 Hg = 2.5

30-32' DEPTH
 DETECTED VOCs
 T = 230
 N = 2,200
 X = 170
 DETECTED PAHs
 2-MN = 0.34
 ACP = 0.19
 AT = 0.2
 B(a) = 0.19
 F = 0.48
 FL = 0.23
 N = 1.8
 PA = 0.79
 P = 0.35
 PCBs < LOD
 DETECTED RCRA METALS
 As = 3.8
 Ba = 46
 Cr = 17
 Pb = 14

- CHEMICAL KEY:**
- 1-MN: 1-METHYLNAPHTHALENE
 - 2-MN: 2-METHYLNAPHTHALENE
 - 1,2,4-TMB: 1,2,4-TRIMETHYLBENZENE
 - 1,3,5-TMB: 1,3,5-TRIMETHYLBENZENE
 - ACP: ACENAPHTHYLENE
 - AN: ACENAPHTHENE
 - AT: ANTHRACENE
 - B: BENZENE
 - B(a): BENZO (a) ANTHRACENE
 - B(a)F: BENZO (a) FLUORANTHENE
 - B(a)P: BENZO (a) PYRENE
 - B(b): BENZO (b) FLUORANTHENE
 - B(g,h,i): BENZO (g,h,i) PERYLENE
 - B(k): BENZO (k) FLUORANTHENE
 - C: CHRYSENE
 - diBA: di BENZO (a,h) ANTHRACENE
 - E: ETHYLBENZENE
 - F: FLUORANTHENE
 - FL: FLUORENE
 - IP: INDENO (1,2,3-cd) PYRENE
 - IPBz: ISOPROPYLBENZENE
 - Napht: NAPHTHALENE
 - n-BuB: n-BUTYLBENZENE
 - n-PBz: n-PROPYLBENZENE
 - P: PYRENE
 - PA: PHENANTHRENE
 - PCA: TETRACHLOROETHANE
 - S: STYRENE
 - PCB: POLYCHLORINATED BIPHENYLS
 - T: TOLUENE
 - TCE: TRICHLOROETHENE
 - X: TOTAL XYLENES

- METALS KEY:**
- As: ARSENIC
 - Ba: BARIUM
 - Cr: CHROMIUM
 - Hg: MERCURY
 - Pb: LEAD
- ABBREVIATIONS:**
- DRO: DIESEL RANGE ORGANICS
 - GRO: GASOLINE RANGE ORGANICS
 - PAH: POLYNUCLEAR AROMATIC HYDROCARBONS
 - RCRA: RESOURCE CONSERVATION AND RECOVERY ACT
 - VOC: VOLATILE ORGANIC COMPOUNDS

NOTES:

GRO, DRO, PAH, AND RCRA METALS RESULTS EXPRESSED IN MILLIGRAMS PER KILOGRAM (mg/kg) EQUIVALENT TO PARTS PER MILLION (ppm)

VOC RESULTS EXPRESSED IN MICROGRAMS PER KILOGRAM (ug/kg) EQUIVALENT TO PARTS PER BILLION (ppb)

RESULTS INDICATED IN RED ARE ABOVE RESIDUAL CONTAMINANT LEVELS FOR SOIL SET FORTH IN TABLE 1 OF NR 720.09.

RESULTS INDICATED IN GREEN ARE ABOVE WDNR RESIDUAL CONTAMINANT LEVELS FOR A DIRECT CONTACT PATHWAY.

RESULTS INDICATED IN BLUE ARE ABOVE WDNR RESIDUAL CONTAMINANT LEVELS FOR PROTECTION OF GROUNDWATER.

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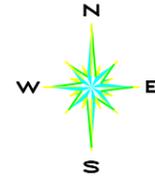
FIGURE 8
 SOIL ANALYTICAL RESULTS
 CAMERON YARD PROJECT
 2831 WEST CAMERON AVENUE
 MILWAUKEE, WISCONSIN

DESIGNED	DRAWN	APPROVED	SCALE	DATE
SCT	DOC	X	1"=60'	3-09-98
PROJECT NO.: 1E-9710012		CAD NO.: E7100129		

CITY OF MILWAUKEE WATER DISTRIBUTION FACILITY

LEGEND:

- MW1A MONITORING WELL NUMBER AND LOCATION
- FENCE SEPARATING 6' BELOW GRADE DITCH WITH STONE RIP-RAP OVER GEOMEMBRANE COVER
- FORMER UTILITIES OR BUILDINGS
- BENCHMARK: SOUTHWEST CORNER OF SECONDARY CONTAINMENT WALL, "LUBECUBE" AST. ELEVATION = 100.00'



LINCOLN CREEK

DETECTED RCRA METALS
 Ba = 0.08
 Pb = 0.0078
 Se = 0.028
DETECTED VOCs
 X = 0.4

DETECTED RCRA METALS
 Ba = 0.07
 Pb = 0.01
 Se = 0.011
DETECTED VOCs
 T = 0.4

DETECTED RCRA METALS
 Ba = 0.1
 Pb = 0.0098
 Hg = 0.0004
 Se = 0.014
 VOC's = ND

DETECTED RCRA METALS
 Ba = 0.01
 Pb = 0.0074
 Se = 0.027
 VOCs = ND

DETECTED RCRA METALS
 Ba = 0.3
 Pb = 0.0049
DETECTED VOCs
 cis-1,1-DCE = 32
 X = 0.4
 PCE = 0.8
 t-1,2-DCE = 1.1
 TCE = 0.4

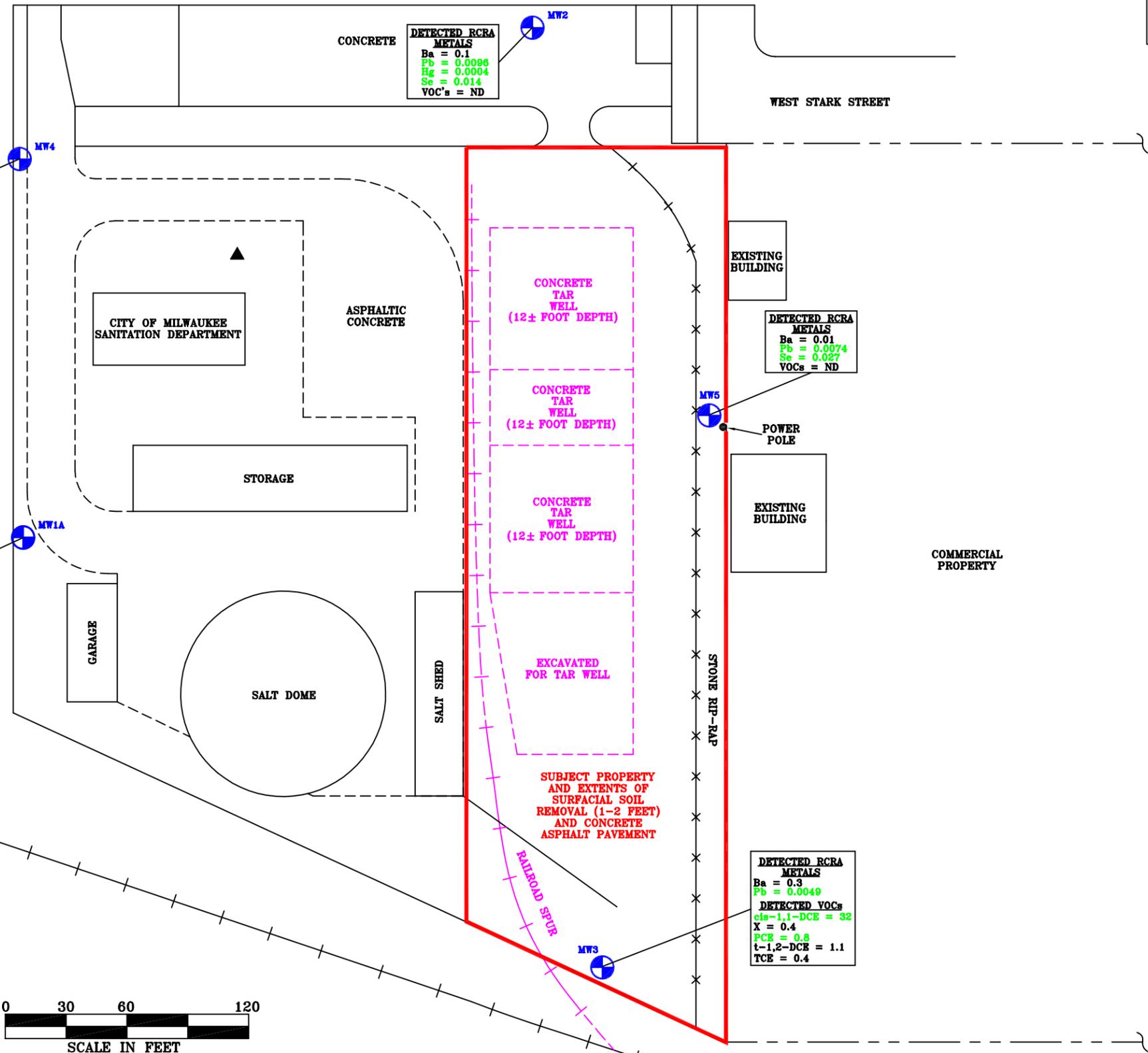
CONCRETE TAR WELL (12± FOOT DEPTH)

CONCRETE TAR WELL (12± FOOT DEPTH)

CONCRETE TAR WELL (12± FOOT DEPTH)

EXCAVATED FOR TAR WELL

SUBJECT PROPERTY AND EXTENTS OF SURFACIAL SOIL REMOVAL (1-2 FEET) AND CONCRETE ASPHALT PAVEMENT



- CHEMICAL KEY:**
- 1-MN: 1-METHYL NAPHTHALENE
 - 2-MN: 2-METHYL NAPHTHALENE
 - TMB: TRIMETHYLBENZENE
 - ACP: ACENAPHTHYLENE
 - AN: ACENAPHTHENE
 - B: BENZENE
 - B(a): BENZO (a) ANTHRACENE
 - B(a)F: BENZO (a) FLUORANTHENE
 - B(a,h,i): BENZO (a,h,i) PERYLENE
 - ChM: CHLOROMETHANE
 - cis-1,2-DCE: cis-1,2-DICHLOROETHENE
 - E: ETHYLBENZENE
 - F: FLUORANTHENE
 - FL: FLUORENE
 - IP: INDENO (1,2,3-cd) PYRENE
 - MTBE: METHYL TERT-BUTYL ETHER
 - Naph: NAPHTHALENE
 - p-IP: p-ISOPROPYLTOLUENE
 - P: PYRENE
 - PA: PHENANTHRENE
 - X: TOTAL XYLENES
- METALS KEY:**
- As: ARSENIC
 - Ba: BARIUM
 - Cd: CADMIUM
 - Cr: CHROMIUM
 - Pb: LEAD
 - Se: SELENIUM
 - Hg: MERCURY
- ABBREVIATIONS:**
- PAH: POLYNUCLEAR AROMATIC HYDROCARBONS
 - PCB: POLYCHLORINATED BIPHENYLS
 - PQL: PRATICAL QUANTIFICATION LIMIT
 - RCRA: RESOURCE CONSERVATION AND RECOVERY ACT
 - VOC: VOLATILE ORGANIC COMPOUNDS

NOTES:

PAH, PCB, AND VOC RESULTS EXPRESSED IN MICROGRAMS PER LITER (ug/L) EQUIVALENT TO PARTS PER BILLION (ppb)

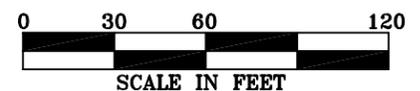
RCRA METALS RESULTS EXPRESSED IN MILLIGRAMS PER LITER (mg/L) EQUIVALENT TO PARTS PER MILLION (ppm)

P1 AND MW1A SAMPLED DURING JANUARY 1995

MW2 - MW5 SAMPLED DURING DECEMBER 1997

RESULTS INDICATED IN GREEN ARE ABOVE THE WISCONSIN ADMINISTRATIVE CODE PREVENTIVE ACTION LIMITS (PAL)

RESULTS INDICATED IN RED ARE ABOVE THE WISCONSIN ADMINISTRATIVE CODE ENFORCEMENT STANDARD (ES)



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FIGURE 9
 GROUNDWATER ANALYTICAL RESULTS (12/11/1998)
 CAMERON YARD PROJECT
 2831 WEST CAMERON AVENUE
 MILWAUKEE, WISCONSIN

DESIGNED	DRAWN	APPROVED	SCALE	DATE
SCT	DOC	X	1"=60'	3-09-98
PROJECT NO.: 1E-9710012		CAD NO.: E710012A		

TABLE 1
Soil Analytical Results (VOC, GRO and DRO)

Cameron Yard
 2931 W. Cameron Yard
 Milwaukee, Wisconsin
 Project No. 1E-9710012

Analytes		SAMPLING LOCATIONS				WDNR NR 720 Soil Standards	
		B5	B7	MW1			MW1A
Date Sampled		9/21/94	9/21/94	1/23/95	1/23/95	1/24/95	NA
Sample Depth (feet)		4.5-6	12-13.5	8-12	30-32	39.5-41	NA
PID (Instrument Units)		250	300	60	12	BDL	NA
GRO (mg/kg)		3600	6300	--	--	--	250
DRO (mg/kg)		12000	6400	--	--	--	250
Detected VOC's (ug/kg)	Benzene	26000	590	3200	<53	<0.51	5.5
	Ethylbenzene	11000	44	4900	<71	<0.68	2900
	iso Propylbenzene	310	<5.0	<580	<53	<0.51	NS
	n-Butylbenzene	2100	13	<1400	<120	<1.2	NS
	n-Propylbenzene	510	<5.0	<780	<71	<0.68	NS
	Naphthalene	540000	24000	81000	2200	<1.2	NS
	Styrene	34000	470	--	--	--	NS
	Toluene	71000	48	<780	230	3.5	1500
	1,2,4-Trimethylbenzene	26000	170	3200	<71	<0.68	NS
	1,3,5-Trimethylbenzene	16000	<5.0	4500	<140	<<1.4	NS
	Total Xylenes	111000	380	7100	170	<1.2	4100

VOC: Volatile Organic Compound

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

PID: Photoionization Detector

WDNR: Wisconsin Department of Natural Resources

NS: No Soil Standard

mg/kg: Milligrams per kilograms; equivalent to parts per million (ppm)

ug/kg: Micrograms per kilogram; equivalent to parts per billion (ppb)

--: Not analyzed

Results in red exceed the WDNR Residual Contaminant Level (RCL) set for in NR 720.09

TABLE 2
Soil Analytical Results (PAH and PCB)

Cameron Yard
2931 W. Cameron Yard
Milwaukee, Wisconsin
Project No. 1E-9710012

Analytes		SAMPLING LOCATIONS				WDNR Standards		
		B5	B7	MW1		MW1A	Groundwater Pathway	Direct Contact (non-industrial use)
Date Sampled		9/21/94	9/21/94	1/23/95	1/23/95	1/24/95	NA	
Sample Depth (feet)		4.5-6	12-13.5	8-12	30-32	39.5-41	NA	
PID (Instrument Units)		250	300	60	12	BDL	NA	
PAHs (ug/kg)	1-methyl Naphthalene	--	--	3100	<130	<130	23000	1100000
	2-methyl Naphthalene	--	--	3400	340	<130	20000	600000
	Acenaphthene	--	--	960	<130	<130	38000	900000
	Acenaphthylene	--	--	2600	190	<130	700	18000
	Anthracene	--	--	1700	200	<130	3000000	5000000
	Benzo (a) anthracene	--	--	1000		<130	17000	88
	Benzo (a) pyrene	--	--		<130	<130	48000	8.8
	Benzo (b) fluoranthene	--	--		<130	<130	360000	88
	Benzo (ghi) perylene	--	--	450	<130	<130	6800000	1800
	Benzo (k) fluoranthene	--	--	<140	<130	<130	870000	880
	Chrysene	--	--	820	<130	<130	37000	8800
	Dibenzo (a,h) anthracene	--	--	<140	<130	<130	38000	8.8
	Fluoranthene	--	--	3300	480	<130	500000	600000
	Fluorene	--	--	2500	230	<130	100000	600000
	Indeno (1,2,3-cd) pyrene	--	--	400	<130	<130	680000	88
	Naphthalene	--	--	11000	1800	<130	400	20000
Phenanthrene	--	--	5900	790	<130	1800	18000	
Pyrene	--	--	2500	350	<130	8700000	500000	
PCB (ug/kg)	aroclor 1016	--	--	<42	<38	<38	NS	
	aroclor 1221	--	--	<86	<76	<77	NS	
	aroclor 1232	--	--	<42	<38	<38	NS	
	aroclor 1242	--	--	<42	<38	<38	NS	
	aroclor 1248	--	--	<42	<38	<38	NS	
	aroclor 1254	--	--	<42	<38	<38	NS	
	aroclor 1260	--	--	<42	<38	<38	NS	

PAHs: Polynuclear Aromatic Hydrocarbons

mg/kg: Milligrams per kilograms; equivalent to parts per million (ppm)

PCB: Polychlorinated biphenyls

ug/kg: Micrograms per kilogram; equivalent to parts per billion (ppb)

PID: Photoionization Detector

NS: No standards established

WDNR: Wisconsin Department of Natural Resources

--: Not analyzed

Results in blue exceed the WDNR generic residual contaminant levels (RCLs) for groundwater pathway, which are set forth in the WDNR Soil Cleanup Levels for PAHs Interim Guidance (Publication RR-519-97)

TABLE 3
Soil Analytical Results (RCRA metals)

Cameron Yard
 2931 W. Cameron Yard
 Milwaukee, Wisconsin
 Project No. 1E-9710012

Analytes		SAMPLING LOCATIONS					WDNR NR 720 RCL's (mg/kg) (1)	Natural Occuring Levels (mg/kg) (2)	EPA TCLP Standard (mg/L) (3)
		B5	B7	MW1		MW1A			
Date Sampled		9/21/94	9/21/94	1/23/95	1/23/95	1/24/95			
Sample Depth (feet)		4.5-6	12-13.5	8-12	30-32	39.5-41			
RCRA Metals (mg/kg)	Arsenic	--	--	5.7 *	3.8	4.2	0.039	1 - 50	5
	Barium	--	--	64	46	78	NS	100 - 3000	100
	Cadmium	--	--	<0.3	<0.3	<0.3	8	0.01- 0.7	1
	Total Chromium	--	--	16	17	21	14 / 16,000(4)	1- 1000	5
	Lead	--	--	120	14	16	50	2- 200	5
	Mercury	--	--	2.5	<0.02	<0.02	NS	0.01 - 0.3	0.2
	Selenium	--	--	<0.1	<0.5	<0.1	NS	0.1 - 2	1
	Silver	--	--	<1.1	<0.99	<1.0	NS	0.01 - 5	5

--: Not analyzed

*: Due to laboratory matrix interferences

TCLP: Toxicity Characteristic Leaching Procedure

RCL: Residual Contaminant Level

mg/kg: Milligrams per kilogram; equivalent to parts per million (ppm)

mg/L: Milligrams per liter; equivalent to parts per million (ppm)

(1): Based on a nonindustrial use property

(2): Lindsay, Willard L. 1979. Chemical Equilibria in Soils, Table 1.1, pp.7-8.

(3): Total RCRA metal results must exceed the TCLP standard by at least 20 times for a potential TCLP standard exceedance

(4): RCL for hexavalent chromium is 14mg/kg and RCL for trivalent chromium is 16,000mg/kg

**TABLE 6
VOC GROUNDWATER ANALYTICAL RESULTS**

Cameron Yard
2931 W. Cameron Avenue
Milwaukee, Wisconsin
Project No. 1E-9710012

Sample Location	Date Collected	Detected Volatile Organic Compounds (ug/l)												
		Benzene	c-1,2-DCE	Ethylbenzene	Toluene	Total Xylenes	PCE	t-1,2-DCE	TCE	Chloro	P-IPT	MTBE	Napht	TMB
MW1A	01/27/1995	<0.5	<0.75	0.93	1.0	4.3	<0.3	<0.2	<0.2	<0.3	<0.21		5.2	7
	09/04/1998	<0.2	<0.2	<0.2	<0.3	<0.4	<0.3	<0.2	<0.2	<0.8	<0.2	<0.2	<0.5	<0.3
	12/11/1998	<0.2	<0.2	<0.2	0.4	<0.4	<0.3	<0.2	<0.2	<0.8	<0.2	<0.2	<0.5	<0.3
MW2	12/05/1997	<0.3	<0.6	<0.4	<0.5	<0.9	<0.3	<0.2	<0.2	4.1	<0.3	<0.2	<0.4	<0.5
	09/04/1998	<0.2	<0.2	<0.2	<0.3	<0.4	<0.3	<0.2	<0.2	<0.8	<0.2	<0.2	<0.5	<0.3
	12/11/1998	<0.2	<0.2	<0.2	<0.3	<0.4	<0.3	<0.2	<0.2	<0.8	<0.2	<0.2	<0.5	<0.3
MW3	12/04/1997	<0.3	2.1	<0.4	<0.5	<0.9	<0.3	<0.2	<0.2	<0.6	<0.3	<0.2	<0.4	<0.5
	10/16/1998	0.2		0.3	<0.3	<0.4	<0.3	<0.2	<0.2	<0.8	<0.2	<0.2	<0.5	<0.3
	12/11/1998	<0.2		<0.2	<0.3	0.4		1.1	0.4	<0.8	<0.2	<0.2	<0.5	<0.3
MW4	12/04/1997	<0.3	<0.6	<0.4	<0.5	<0.9	<0.3	<0.2	<0.2	<0.6	<0.3	<0.2	<0.4	<0.5
	09/04/1998	<0.2	<0.2	<0.2	<0.3	<0.4	<0.3	<0.2	<0.2	<0.8	<0.2	<0.2	<0.5	<0.3
	12/11/1998	<0.2	<0.2	<0.2	<0.3	0.4	<0.3	<0.2	<0.2	<0.8	<0.2	<0.2	<0.5	<0.3
MW5	12/05/1997		<0.6	<0.4	<0.5	<0.9	<0.3	<0.2	<0.2	5.4	<0.3	<0.2	6.1	<0.5
	09/04/1998	0.2	<0.2	<0.2	<0.3	<0.4	<0.3	<0.2	<0.2	<0.8	<0.2	<0.2	<0.5	<0.3
	12/11/1998	<0.2	<0.2	<0.2	<0.3	<0.4	<0.3	<0.2	<0.2	<0.8	<0.2	<0.2	<0.5	<0.3
WDNR ES		5	70	700	343	620	5	100	5	3	NS	60	40	480
WDNR PAL		0.5	7	140	68.6	124	0.5	20	0.5	0.3	NS	12	8	96

Groundwater monitoring program began September 4, 1998

Chloro Chloromethane
P-IPT P-Isopropyltoluene
MTBE Methyl tert butyl ether
Napht Naphthalene
TMB Trimethylbenzene (combined)
ug/l Micrograms per liter
WDNR Wisconsin Department of Natural Resources
ES Enforcement Standard, expressed in ug/l
PAL Preventive Action Limit, expressed in ug/l
DCE Dichloroethene
PCE Tetrachloroethene
TCE Trichloroethene

Results indicated in red exceed the WDNR ES according to NR 140.10

TABLE 7
RCRA Metal Groundwater Analytical Results

Cameron Yard
 2931 W. Cameron Yard
 Milwaukee, Wisconsin
 Project No. 1E-9710012

Sample Location	Sample Date	RCRA Metals (mg/l)							
		Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Selenium	Silver
MW1A	1/27/95	0.004	0.12		0.008	0.017	NA	<0.004	NA
	9/4/98		0.03	<0.0007	<0.01	<0.0011	<0.0002	0.054	<0.006
	12/11/98	<0.0099	0.07	<0.0007	<0.01		<0.0002		<0.006
MW2	12/5/97		0.2		<0.011	<5.7	NA		NA
	9/4/98		0.07	<0.0007	<0.01	<0.0011	<0.0002		<0.006
	12/11/98	<0.0099	0.1	<0.0007	<0.01				<0.006
MW3	12/4/97				<0.011	<5.7	NA	<0.12	NA
	10/16/98	<0.0099	0.2	<0.0007	<0.01	<0.0011	<0.0002	<0.0078	<0.006
	12/11/98	<0.0099	0.3	<0.0007	<0.01		<0.0002	<0.0078	<0.006
MW4	12/4/97		0.1		<0.011	<5.7	NA		NA
	9/4/98	<0.0099	0.05	<0.0007	<0.01	<0.0011	<0.0002		<0.006
	12/11/98	<0.0099	0.08	<0.0007	<0.01		<0.0002		<0.006
MW5	12/5/97		0.2	<0.0007	<0.011	<5.7	NA	0.05	NA
	9/4/98		0.06	<0.0007	<0.01	<0.0011	<0.0002	<0.0078	<0.006
	12/11/98	<0.0099	0.01	<0.0007	<0.01		<0.0002		<0.006
WDNR PAL		0.005	0.4	0.0005	0.01	0.0015	0.0002	0.01	0.01
WDNR ES		0.05	2	0.005	0.1	0.015	0.002	0.05	0.05

Groundwater monitoring program began September 4, 1998

RCRA Resource Conservation Recovery Act
WDNR PAL
WDNR ES
mg/l Milligrams per liter

Results in red exceed the WDNR ES.

TABLE 8
PAH and PCB Groundwater Analytical Results

Cameron Yard Project
 2831 West Cameron Avenue
 Milwaukee, Wisconsin
 PROJECT NO. 1E-9710012

Sampling Locations	Sampling Date	Detected PAHs (ug/l)											Total PCBs (ug/l)	
		1-Methyl Naphthalene	2-Methyl Naphthalene	Acenaphthylene	Acenaphthene	Benzo (a) anthracene	Benzo (g,h,i) perylene	Benzo (k) fluoranthene	Fluoranthene	Fluorene	Ideno (1,2,3-cd) pyrene	Phenanthrene		Pyrene
MW1A	1/27/95	<3.0	<3.0	<2.5	<3.0	<3.0	<4.0	<2.5	<2.5	<3.0	<8.0	<3.5	<2.0	--
MW2	12/5/97	<1.7	<1.7	<1.8	<1.7	<0.03	<0.06	<0.008	7.8	0.4	<0.3	0.3	<0.3	<0.2
MW3	12/4/97	<1.7	6.8	3.4	<1.7	<0.03	0.06	<0.008	<0.5	<0.3	0.9	<0.2	<0.3	<0.2
MW4	12/4/97	<1.7	<1.7	<1.8	<1.7	<0.03	<0.06	<0.008	0.8	<0.3	<0.3	<0.2	<0.3	<0.4
MW5	12/5/97	2.1	<1.7	<1.8	15	0.05	<0.06	0.02	0.9	<0.3	0.7	<0.2	0.3	<0.2
NR140 PAL		NS	NS	NS	NS	NS	NS	NS	80	80	NS	NS	50	0.003
NR140 ES		NS	NS	NS	NS	NS	NS	NS	400	400	NS	NS	250	0.3

--: Not Analyzed
 ES: Enforcement Standard
 PAL: Preventive Action Limit

PAH: Polycyclic Aromatic Hydrocarbon
 PCB: Polychlorinated Biphenyl

NS: No Established Groundwater Standard
 ug/L: Micrograms per liter; equivalent to parts per billion (ppb)