

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

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

Southeast Region Annex  
4041 North Richards Street  
PO Box 12436  
Milwaukee, Wisconsin 53212-0436  
Telephone 414-229-0800  
FAX 414-229-0810

November 15, 1999

Mr. Doug Wensch  
Doug's Auto Service  
1821 Cooper Avenue  
Sheboygan, WI 53081

FID # 460122190  
BRRTS# 03-60-001619

Subject: Request for Closure for Doug's Auto Service  
1821 Cooper Avenue  
Sheboygan, WI 53081

Dear Mr. Wensch:

The Wisconsin Department of Natural Resources has received and reviewed your *Request for Case Closure* dated August 22, 1999, for Doug's Auto Service prepared by Key Engineering Group. It is understood that a groundwater monitoring well has been installed on the adjacent property and that the groundwater analytical results indicated that groundwater impacts above the enforcement standard remain on the southeast boundary of the subject property and on the adjacent property. This information was presented to the DNR Southeast Region Closure Committee for conditional closure with groundwater use restrictions filed for both properties.

The Closure Committee has approved your site for conditional closure utilizing the placement of a groundwater use restriction on your property at 1821 Cooper Avenue and the adjacent property located at 2258 Calumet Drive Sheboygan, Wisconsin.

The Department's legal staff has reviewed the Deed Restriction that you submitted for review. Please address the changes that the legal staff has made (see the attached deed restrictions, changes are in red) prior to registration of the deed.

Page 2

Doug's Auto Service

November 16, 1999

Your consultant may abandon the remaining monitor wells on the Doug's Auto site and the off site properties in accordance with NR 141. Once the Department has received documentation of the recorded deed restriction, and monitoring well abandonment forms, we will finalize the closure for this site in our computer system.

The Department will then consider the case "closed" having determined that no further action is necessary at this site at this time. This site may be reopened pursuant to s. 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 of the environment.

The WDNR appreciates the actions you have taken to investigate and remediate this site. If you have any questions or comments, please contact me at (414) 229 - 0873 or at the above address.

Sincerely,



Mary Lou Bozica

Hydrogeologist

Cc SER casefile  
Zoy Begos/Key Environmental Group  
Rebecca Burkel/WDOT

Enclosure

Document Number

GROUNDWATER USE RESTRICTION

1561301

SHEBOYGAN COUNTY, WI  
RECORDED ON

12-23-1999 10:26 AM

DARLENE J. NAVIS  
REGISTER OF DEEDS

RECORDING FEE: 14.00  
TRANSFER FEE:

029189 3

Declaration of Restrictions

In Re: Lot twenty-one (21), Kohl's Subdivision to the City of Sheboygan, Sheboygan County, Wisconsin, according to the recorded plat thereof.

STATE OF WISCONSIN )  
 ) ss  
COUNTY OF SHEBOYGAN )

Name and Return Address  
Mr. Doug Wensch  
1821 Cooper Avenue  
Sheboygan, Wisconsin 53083

621490

WHEREAS, Mr. Doug Wensch is the owner of the above-described property. Parcel Identification Number (PIN)

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 groundwater or soil remediation activities on the property at the present time.

WHEREAS, one or more benzene discharges have occurred on this property. Benzene contamination exists in groundwater (460 micrograms per liter (µg/l)) above its NR 140 enforcement standard (5.0 µg/l) on this property in the groundwater monitoring well MW-900 located northeast of the site building. The last groundwater sample was collected on May 28, 1998. The monitoring well location is depicted on Figure 2.

WHEREAS, natural attenuation has been approved by the Wisconsin Department of Natural Resources to remediate groundwater contamination exceeding NR 140 groundwater standards within the boundaries of this property.

WHEREAS, construction of wells where the water quality does not comply with drinking water standards in NR 809 is restricted by NR 811 and NR 812, Wis. Adm. Code. Special well construction standards or water treatment requirements, or both, or well construction prohibitions may apply.

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:

Anyone who proposes to construct or reconstruct a well on this property is required to contact the Wisconsin Department of Natural Resources' Bureau of Drinking Water and

Groundwater, or its successor agency, to determine what specific requirements are applicable, prior to constructing or reconstructing a well on this property. No well may be constructed on this property unless applicable requirements are met.

If construction is proposed on this property that will require dewatering, or if groundwater is to be otherwise extracted from this property, while this groundwater use restriction is in effect, the groundwater shall be sampled and analyzed for contaminants that were previously detected on the property and any extracted groundwater shall be managed in compliance with applicable statutes and rules.

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 benefits 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 to give notice that this deed restriction, or portions of this deed restriction, are no longer binding.

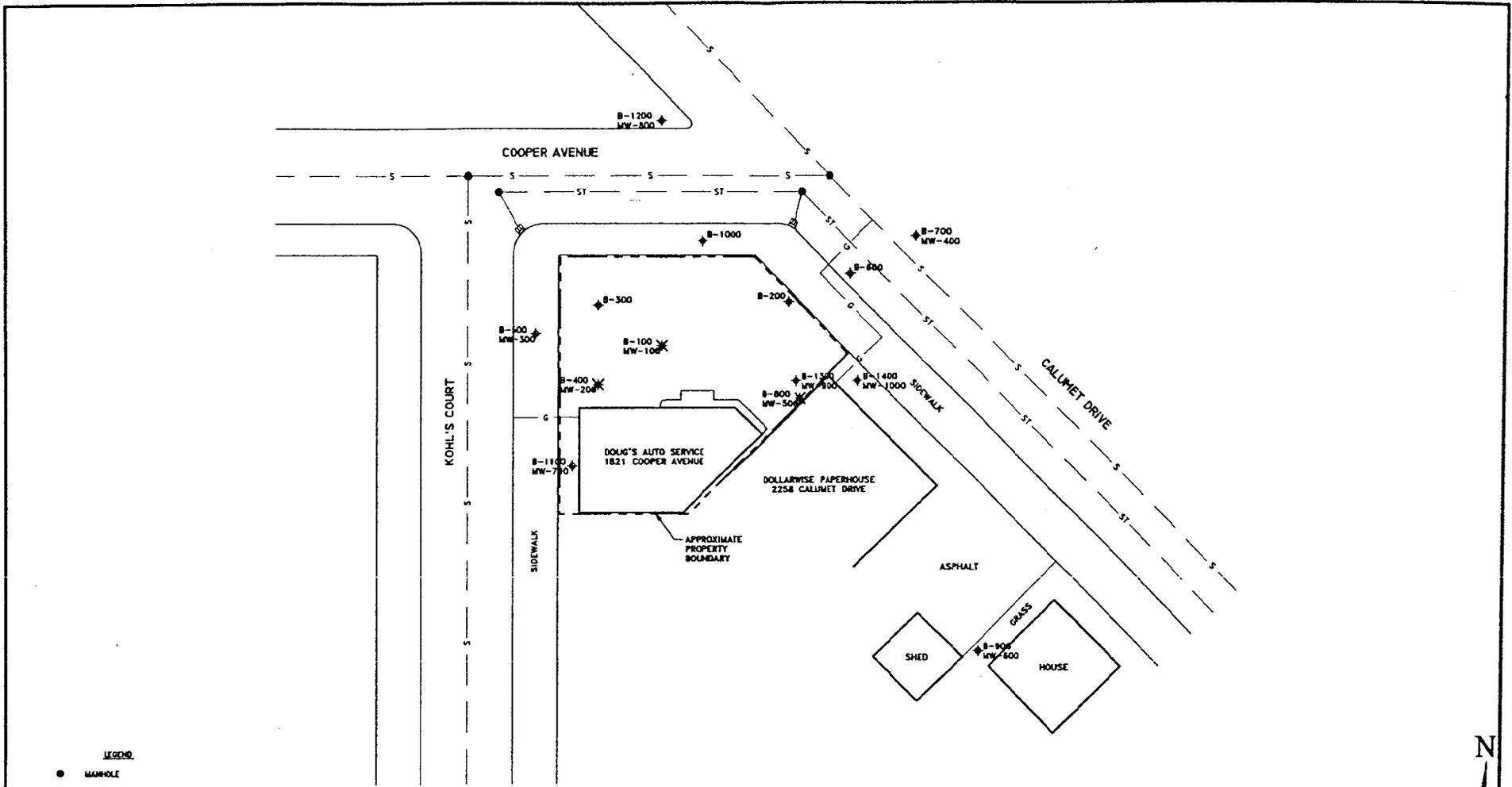
IN WITNESS WHEREOF, the owner of the property has executed this Declaration of Restrictions, this 2 day of WED, 1999  
DEC.

Signature: Douglas Wrensch  
Printed Name: DOUGLAS WRENSCH

Subscribed and sworn to before me  
this 2<sup>nd</sup> day of December, 1999.

John Meinius  
Notary Public, State of Wisconsin  
My commission 3-23-2003

This document was drafted by the Wisconsin Department of Natural Resources.



**LEGEND**

- MANHOLE
- ▣ CATCH BASIN
- G GAS UTILITY
- S SANITARY SEWER UTILITY
- ST STORM SEWER UTILITY
- ✱ EXCAVATED MONITORING WELL LOCATION
- ◆ MONITORING WELL LOCATION
- ◆ SOIL BORING LOCATION

<p>SCALE: 1"=30'</p>	
DRN. BY: J.J.J.	DATE: 12/20/99
DSN. BY: Z.B.	FILE NO.: 0701002
CHK. BY: Z.B.	DWG. NO.: 07010022
REV. BY: C.I.I.	SHEET NO.: 1



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**FIGURE 2  
SITE LAYOUT**

GROUNDWATER USE RESTRICTION  
DOUG'S AUTO SERVICE  
1821 COOPER AVENUE  
SHRIMPVILN WISCONSIN





applicable, prior to constructing or reconstructing a well on this property. No well may be constructed on this property unless applicable requirements are met.

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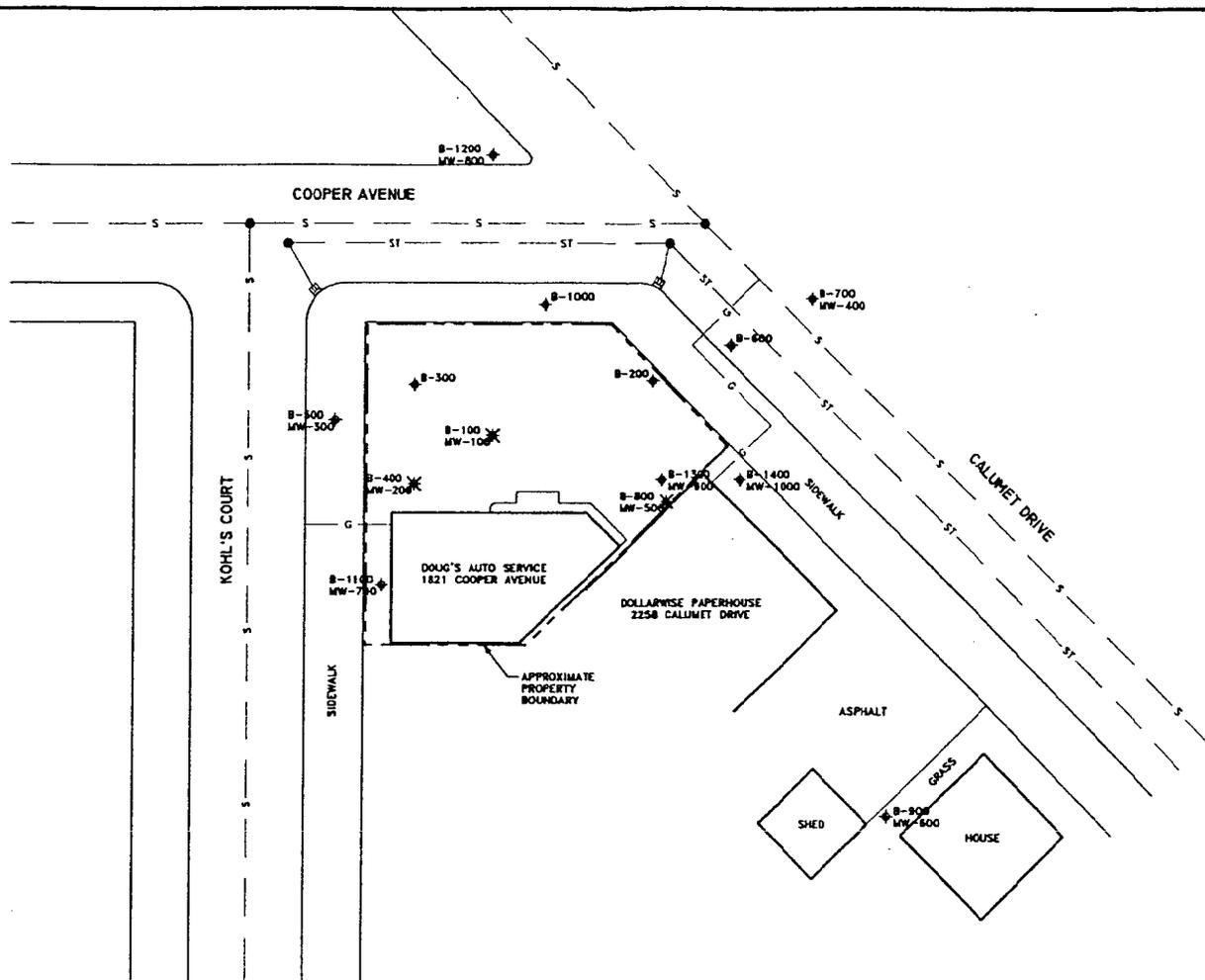
IN WITNESS WHEREOF, the owner of the property has executed this Declaration of Restrictions, this 13 day of DEC., 1999.

Signature: Ken R Wilke  
Printed Name: KEN R WILKE

Subscribed and sworn to before me  
this 13 day of Dec, 1999  
[Signature]

Notary Public, State of Wisconsin  
My commission May 7, 2000

This document was drafted by the Wisconsin Department of Natural Resources.



**LEGEND**

- MANHOLE
- ▣ CATCH BASIN
- G- GAS UTILITY
- S- SANITARY SEWER UTILITY
- ST- STORM SEWER UTILITY
- \* EXCAVATED MONITORING WELL LOCATION
- ◆ MONITORING WELL LOCATION
- ◆ SOIL BORING LOCATION

<p>SCALE: 1"=30'</p>	
DRN. BY: J.J.J.	DATE: 12/20/99
OSN. BY: Z.B.	FILE NO.: 0701002
CHK. BY: Z.B.	DWG. NO.: 07010022
REV. BY: C.I.	SHEET NO.: 1

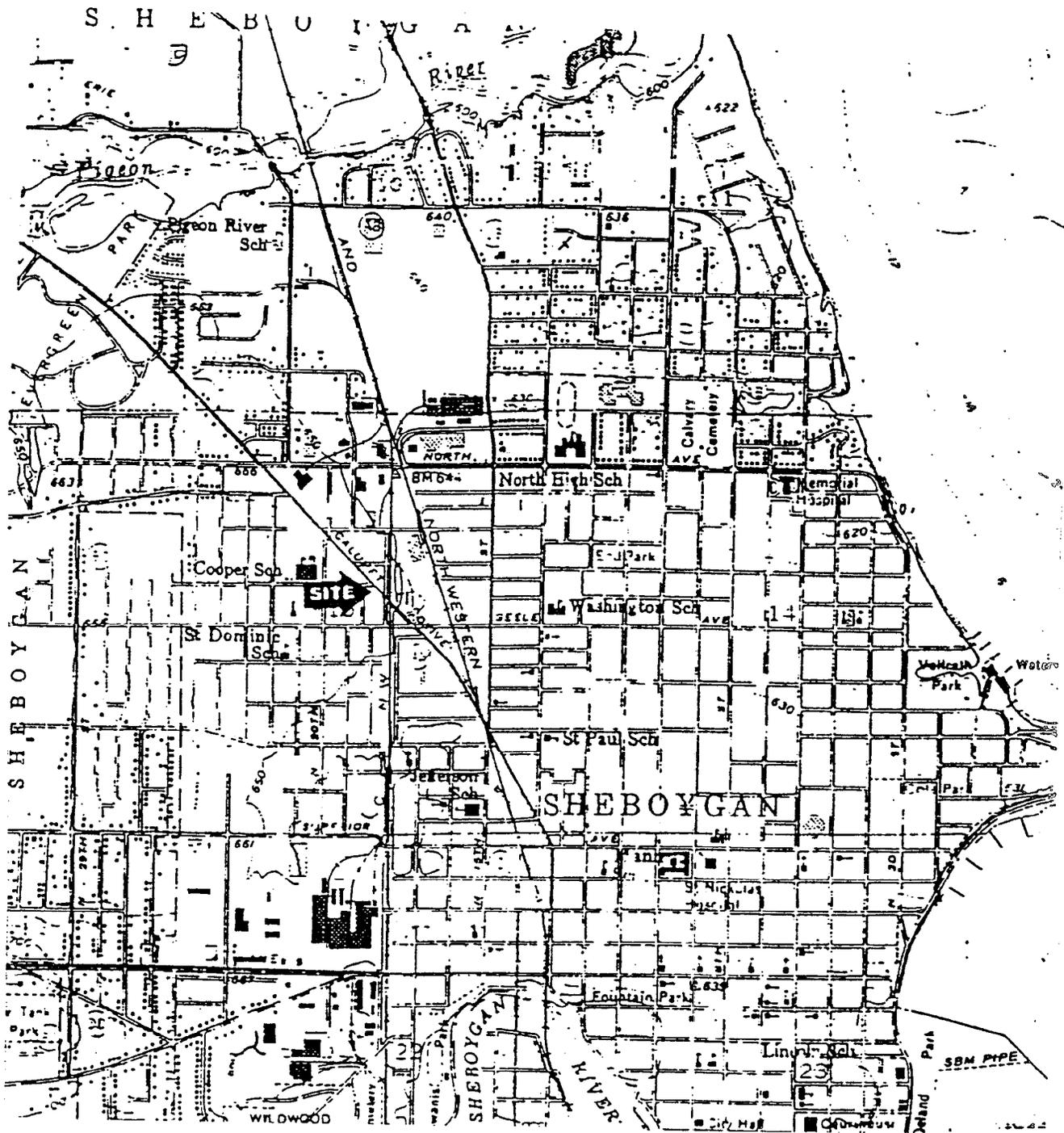


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**FIGURE 2  
SITE LAYOUT**

GROUNDWATER USE RESTRICTION  
DOUG'S AUTO SERVICE  
1821 COOPER AVENUE  
SHEBOYGAN WISCONSIN





SOURCE: USGS Sheboygan North, Wisconsin 7.5 Min. Series Quadrangle  
 Topographic Map 1954  
 Photorevised 1973

© 1998 Key Engineering Group Ltd.

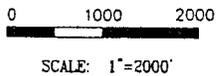
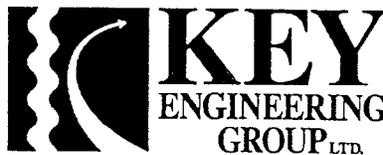
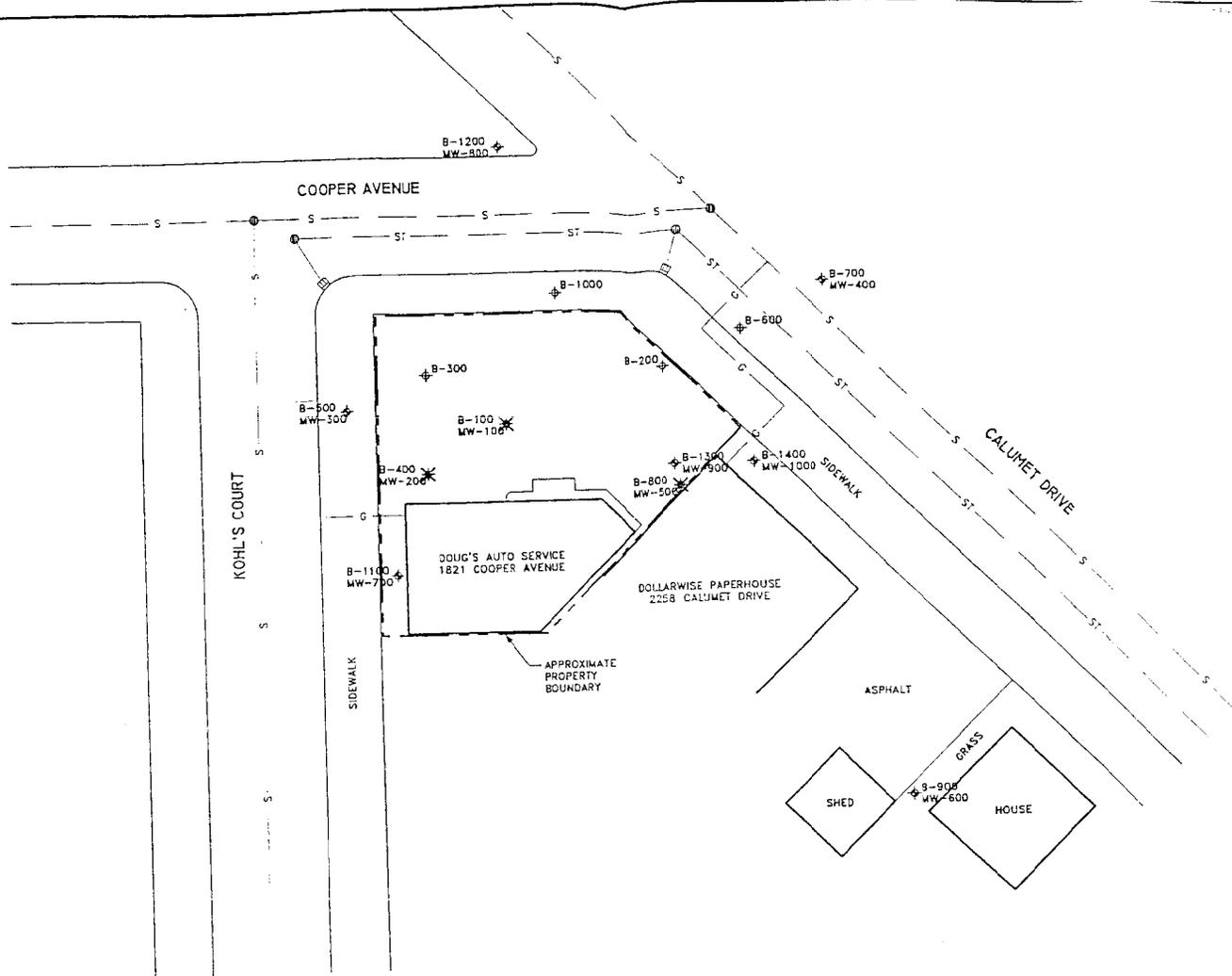


FIGURE 1  
 SITE LOCATION MAP



DRN. BY:	J.J.J.	DATE:	08/10/99
DSN. BY:	Z.B.	FILE NO.:	0701002
CHK. BY:	Z.B.	DWG. NO.:	07010021
REV. BY:	G.L.J.	SHEET NO.:	1

DOUG'S AUTO SERVICE  
 1821 COOPER AVENUE  
 SHEBOYGAN, WISCONSIN



**LEGEND**

- MANHOLE
- CATCH BASIN
- G- GAS UTILITY
- S- SANITARY SEWER UTILITY
- ST- STORM SEWER UTILITY
- \* EXCAVATED MONITORING WELL LOCATION
- + MONITORING WELL LOCATION
- + SOIL BORING LOCATION

<p>SCALE: 1"=30'</p>		
DRN. BY:	J.J.J.	DATE: 08/12/99
DSN. BY:	Z.B.	FILE NO.: 0701002
CHK. BY:	Z.B.	DWG. NO.: 07010022
REV. BY:	G.L.J.	SHEET NO.: 1

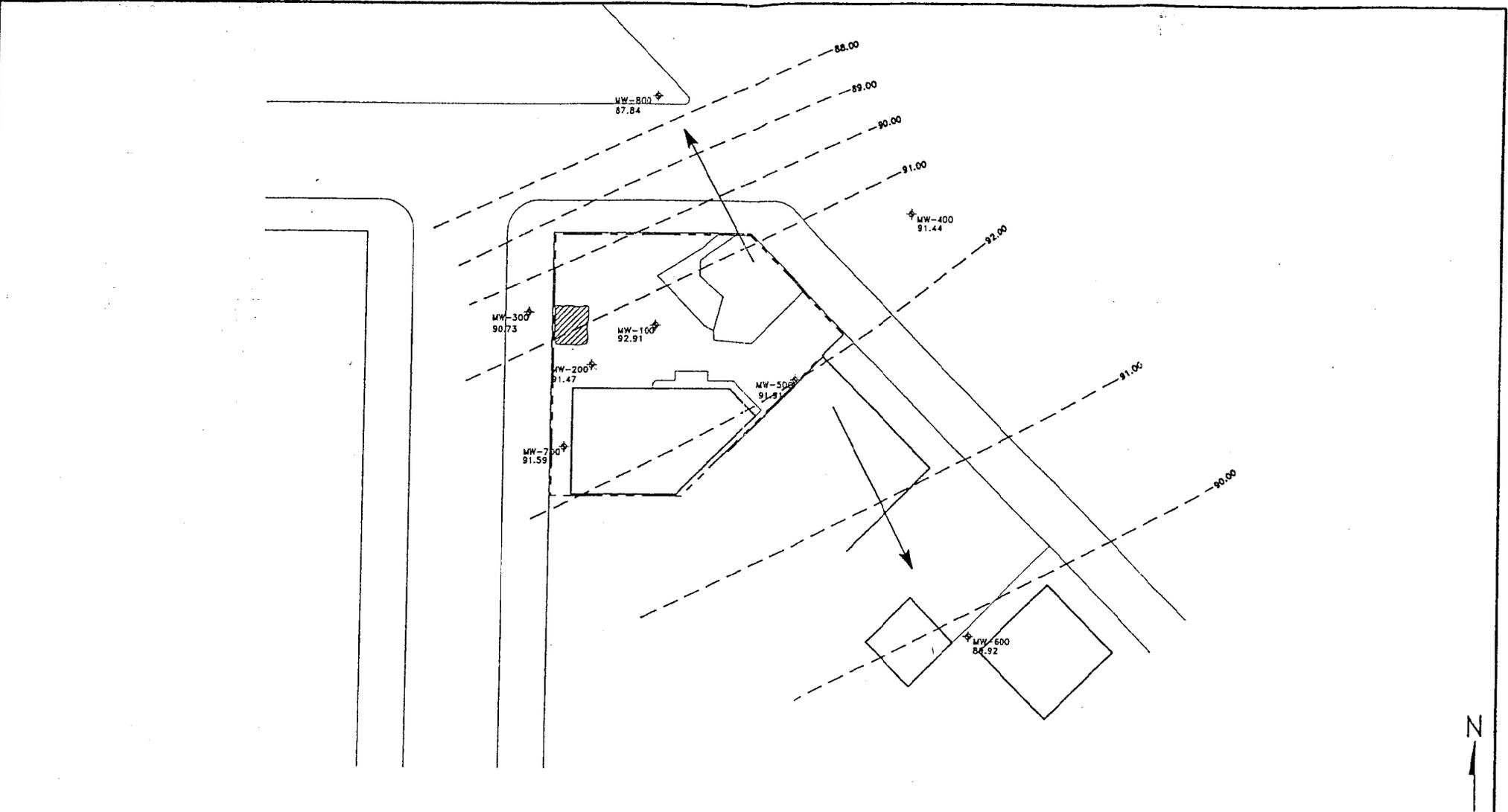


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**FIGURE 1  
SITE LAYOUT**

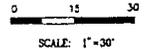
GROUNDWATER USE RESTRICTION  
DOUG'S AUTO SERVICE  
1821 COOPER AVENUE  
SHEBOYGAN, WISCONSIN





**LEGEND**  
 ◆ MONITORING WELL LOCATION  
 ← GROUNDWATER FLOW DIRECTION

DATE	REVISIONS	INI.



**FIGURE 5  
 GROUNDWATER ELEVATION  
 CONTOUR MAP (5/14/96)**

ADDITIONAL SI/RAO REPORT  
 DOUG'S AUTO SERVICE  
 1821 COOPER AVENUE  
 SHEBOYGAN, WISCONSIN

© 1997 Key Environmental Services, Inc.

DRN. BY:	S.L.G.	DATE:	06/18/97
DSN. BY:	C.E.H.	FILE NO.:	0701002
CHK. BY:	C.E.H.	DWG. NO.:	07010025
REV. BY:	G.L.J.	SHEET NO.:	5

**Key ENVIRONMENTAL SERVICES, INC.**  
 164 K215 Commerce Court - Cedarburg, WI 53012 - (414) 375-6750  
 6216 Washington Ave. - Racine, WI 53406 - (614) 886-4438

TABLE 1  
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS

REQUEST FOR CASE CLOSURE

DOUG'S AUTO SERVICE  
1821 Cooper Avenue  
Sheboygan, Wisconsin

SAMPLE	MW-100			MW-200			MW-300						MW-400					NR 140 ES	NR 140 PAL	
	12/7/92	9/27/95	7/22/96	12/7/92	9/27/95	7/22/96	12/7/92	9/27/95	7/22/96	8/4/97	12/2/97	5/28/98	12/7/92	9/27/95	7/22/96	8/4/97	12/2/97			5/28/98
GRO (ug/l)	---	2,500	2,800	---	1,000	1,500	---	<100	<100	<50	<50	---	---	<100	<100	<50	<50	---	NEL	NEL
Lead (ug/l)	---	<1	---	---	<1	---	---	<1	---	---	---	<5.0	---	1	---	---	---	<5.0	15	1.5
PAHs (mg/l)	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	ND	---	---
Detected VOCs (ug/l)																				
Benzene	45	240	250	102	110	120	3.1	2.8	<0.7	<0.16	<0.16	<0.5	0.5	<0.6	3.2	<0.16	<0.16	<0.5	5.0	5.0
Ethylbenzene	3.1	72	150	121	120	170	<2.0	<0.57	<0.7	<0.29	<0.29	<0.5	<2.0	<0.57	<0.7	<0.29	<0.29	<0.5	700	140
Toluene	4.9	22	24	59	37	39	<3.1	<1.0	<1.0	<0.36	<0.36	<0.5	<3.1	<1.0	<1.0	<0.36	<0.36	<0.5	343	68.6
Xylenes	7.4	17	57	206	118	170	<2.5	<2.5	<2.0	<1.15	<1.15	<0.5	<2.5	<2.5	<2.0	<1.15	<1.15	<0.5	620	124
MTBE	<1.3	<1.2	<0.5	<1.3	<2.2	<0.5	<1.3	<1.2	<0.5	<0.2	<0.20	<0.2	<1.3	<1.2	2.6	<0.20	<0.20	<0.2	60	12
Isopropylbenzene	2.5D	---	---	15	15	---	<3.6	---	---	---	---	<0.5	<3.6	---	---	---	---	<0.5	NEL	NEL
Dichlorodifluoromethane	<2.7	---	---	<2.7	54	---	<2.7	---	---	---	---	<0.5	<2.7	---	---	---	---	<0.5	NEL	NEL
Di-isopropyl Ether	<2.3	---	---	3.5	<3.6	---	<2.3	---	---	---	---	<0.5	<2.3	---	---	---	---	<0.5	NEL	NEL
n-Propyl benzene	<3.4	---	---	19	18	---	<3.4	---	---	---	---	<0.5	<3.4	---	---	---	---	<0.5	NEL	NEL
Trimethylbenzenes	2.6	12.3	49.7	158	80	128	<7	<1.84	<1.9	<0.64	<0.64	<2.0	<7	<1.84	<1.9	<0.64	<0.64	<2.0	480	96
Methylene chloride	2.5	---	---	3.2	<4.0	---	2.0	---	---	---	---	1.2 A	3.2	---	---	---	---	0.68 A	150	15
n-Butylbenzene	<5.6	---	---	72	11	---	<5.6	---	---	---	---	<0.5	<5.6	---	---	---	---	<0.5	NEL	NEL
sec-Butylbenzene	<3.8	---	---	<3.8	<4.9	---	<3.8	---	---	---	---	<0.5	<3.8	---	---	---	---	<0.5	NEL	NEL
tert-Butylbenzene	<5.8	---	---	142	<4	---	<5.8	---	---	---	---	<0.5	<5.8	---	---	---	---	<0.5	NEL	NEL
Naphthalene	<4.7	---	---	49	63	---	<4.7	---	---	---	---	<8.0	<4.7	---	---	---	---	<8.0	40	8
1,1-Dichloroethane	---	---	---	---	---	---	---	---	---	---	---	<0.5	---	---	---	---	---	<0.5	850	85
cis-1,2-Dichloroethane	---	---	---	---	---	---	---	---	---	---	---	<0.5	---	---	---	---	---	<0.5	70	7
p-Isopropyltoluene	---	---	---	---	---	---	---	---	---	---	---	<0.5	---	---	---	---	---	<0.5	NEL	NEL

Notes:

- - not analyzed
- A - laboratory artifact - concentrations found of this analyte are characteristic of laboratory artifact
- Bold exceeds ES
- ES - NR 140 enforcement standard
- GRO - gasoline range organics
- mg/l - milligrams per liter
- MTBE - methyl tert-butyl ether
- ND - not detected
- NEL - no established limit
- PAHs - polynuclear aromatic hydrocarbons
- ug/l - micrograms per liter

TABLE 1 (CONTINUED)  
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS

REQUEST FOR CASE CLOSURE

DOUG'S AUTO SERVICE  
1821 Cooper Avenue  
Sheboygan, Wisconsin

SAMPLE	MW-500			MW-900	MW-600				MW-700				MW-800				MW-1000	NR 140 ES	NR 140 PAL			
	9/23/93	9/27/95	7/22/96	5/28/98	9/27/98	7/12/98	8/4/97	12/2/97	5/28/98	9/27/98	7/22/98	8/4/97	12/2/97	5/28/98	9/27/98	7/22/98	8/4/97			12/2/97	5/28/98	6/28/99
GRO (ug/l)	3,200	3,200	2,000	---	<100	<100	<50	<50	---	<100	<100	<50	<50	---	<100	<100	<50	<50	---	6,100	NEL	NEL
Lead (ug/l)	---	<1	---	5.2	<1	---	---	---	<5.0	<1	---	---	---	<3.0	<1	---	---	---	<5.0	16	15	1.5
PAHs (mg/l)	---	---	---	ND	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	ND	---	---
Detected VOCs (ug/l)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Benzene (ug/l)	1,300	1,400	1,000	460	<0.26	<0.7	<0.16	<0.16	<0.5	<0.26	<0.7	<0.16	<0.16	<0.5	<0.26	<0.7	<0.16	<0.16	<0.5	460	5.0	0.5
Ethylbenzene	45	250	190	120	<0.32	<0.7	<0.29	<0.29	<0.5	<0.32	<0.7	<0.29	<0.29	<0.5	<0.32	<0.7	<0.29	<0.29	<0.5	240	700	140
Toluene	34	24	14	25	<0.69	<1.0	<0.36	<0.36	<0.5	<0.69	<1.0	<0.36	<0.36	<0.5	<0.69	<1.0	<0.36	<0.36	<0.5	160	343	68.6
Xylenes	223	152	70	480	<0.42	<2.0	<1.15	<1.15	<0.5	<0.42	<2.0	<1.15	<1.15	<0.5	<0.42	<2.0	<1.15	<1.15	<0.5	430	620	124
MTBE	<1.0	<4.4	<5	<0.2	<0.22	<0.5	<0.20	<0.20	<0.2	1.1	<0.5	1.1	<0.20	<0.2	<0.22	<0.5	<0.20	<0.20	<0.2	<2.0	80	12
Isopropylbenzene (ug/l)	2.3	10	---	3.9	<0.36	---	---	---	<0.5	<0.36	---	---	---	<0.5	<0.36	---	---	---	<0.5	17	NEL	NEL
Dichlorodifluoromethane	<4.0	<108	---	<0.5	<5.4	---	---	---	<0.5	<5.4	---	---	---	<0.5	<5.4	---	---	---	<0.5	<5.0	NEL	NEL
Di-isopropyl Ether	<1.0	<7.6	---	<5.0	<0.38	---	---	---	<5.0	<0.38	---	---	---	<5.0	<0.38	---	---	---	<5.0	<5.0	NEL	NEL
n-Propyl benzene	3.3	20	---	2.7	<0.41	---	---	---	<0.5	<0.41	---	---	---	<0.5	<0.41	---	---	---	<0.5	<5.0	NEL	NEL
Trimethylbenzene	30.3	62	60	112	<1.11	<1.9	<0.64	<0.64	<2.0	<1.14	<1.9	<0.64	<0.64	<2.0	<1.14	<1.9	<0.64	<0.64	<2.0	222	480	98
Methylchloride	<2.0	<80	---	<0.53	<4	---	---	---	0.65 A	<4	---	---	---	<0.53	<4	---	---	---	0.71 A	<5.3	150	15
n-Butylbenzene	3.3	10	---	6.8	<0.45	---	---	---	<0.5	<0.45	---	---	---	<0.5	<0.45	---	---	---	<0.5	<5.0	NEL	NEL
sec-Butylbenzene	<1.0	2.1	---	<0.5	<0.49	---	---	---	<0.5	<0.49	---	---	---	<0.5	<0.49	---	---	---	<0.5	<5.0	NEL	NEL
tert-Butylbenzene	<1.0	<8	---	<0.5	<0.4	---	---	---	<0.5	<0.4	---	---	---	<0.5	<0.4	---	---	---	<0.5	<5.0	NEL	NEL
Naphthalene	11	34	---	15	<0.41	---	---	---	<0.5	<0.41	---	---	---	<0.5	<0.41	---	---	---	<0.5	<5.0	NEL	NEL
1,1-Dichloroethane	---	---	---	<0.5	---	---	---	---	<0.5	---	---	---	---	1.0	---	---	---	---	<0.5	<5.0	85	8
cis-1,2-Dichloroethene	---	---	---	<0.5	---	---	---	---	<0.5	---	---	---	---	---	---	---	---	---	<0.5	<5.0	85	85
p-Isopropyltoluene	---	---	---	---	---	---	---	---	<0.5	---	---	---	---	1.7	---	---	---	---	<0.5	<5.0	70	7
	---	---	---	1.2	---	---	---	---	<0.5	---	---	---	---	<0.5	---	---	---	---	<0.5	8.2	NEL	NEL

Notes:

--- - not analyzed

A - laboratory artifact - concentrations found of this analyte are characteristic of laboratory artifact

Bold values exceed NR 140 ES

ES - NR 140 enforcement standard

GRO - gasoline range organics

mg/l - milligrams per liter

MTBE - methyl tert-butyl ether

ND - not detected

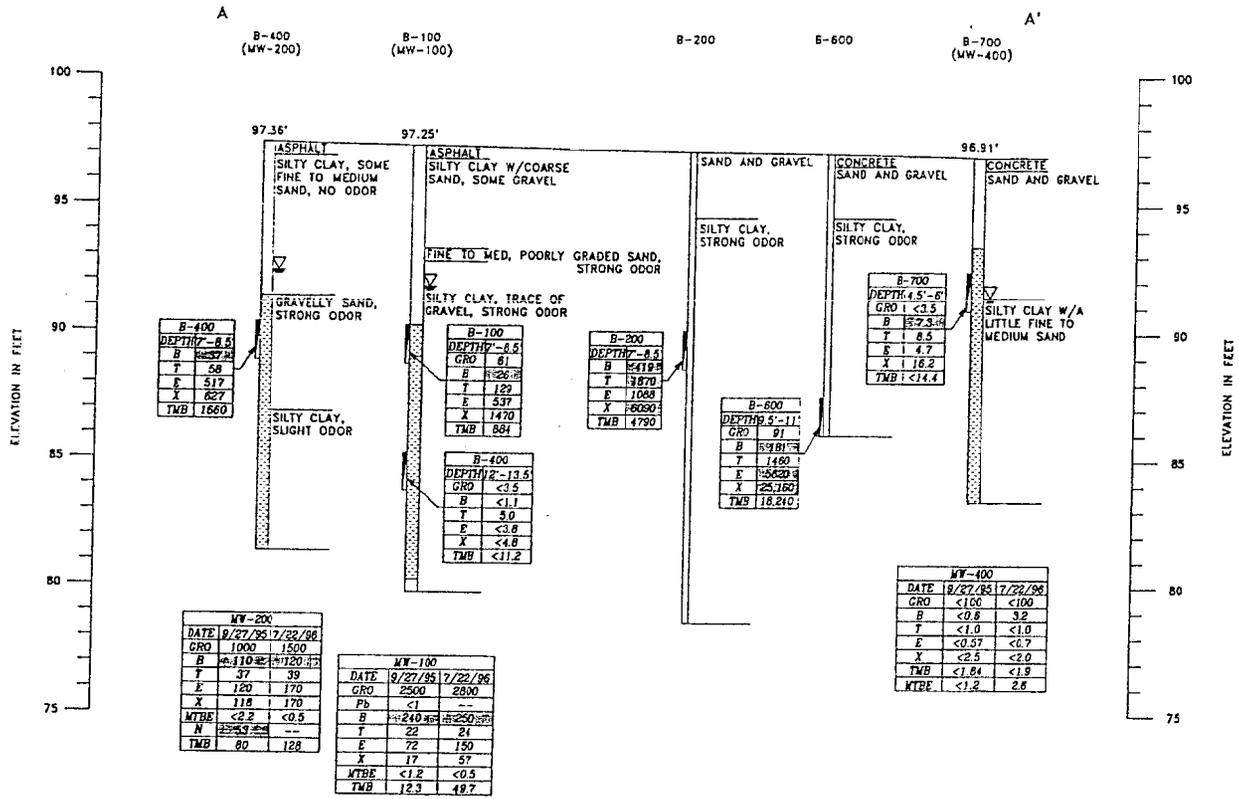
NEL - no established limit

PAHs - polynuclear aromatic hydrocarbons

Shaded values exceed NR 140 PAL

ug/l - micrograms per liter

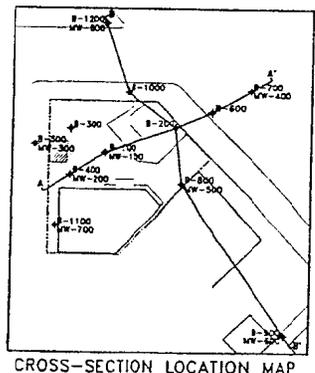
SCHEMATIC CROSS-SECTION A-A'



- SOIL NOTES**
- GRO: GASOLINE RANGE ORGANICS, mg/kg
  - B: BENZENE, ug/kg
  - T: TOLUENE, ug/kg
  - E: ETHYLBENZENE, ug/kg
  - X: TOTAL XYLENES, ug/kg
  - MTBE: METHYL TERTIARY BUTYL ETHER, ug/kg
  - TMB: TOTAL TRIMETHYLBENZENES, ug/kg
  - ug/kg: MICROGRAMS PER KILOGRAM
  - mg/kg: MILLIGRAMS PER KILOGRAM
  - <: LESS THAN
  - : NOT ANALYZED

- GROUNDWATER NOTES**
- GRO: GASOLINE RANGE ORGANICS, mg/l
  - B: BENZENE, ug/l
  - T: TOLUENE, ug/l
  - E: ETHYLBENZENE, ug/l
  - X: TOTAL XYLENES, ug/l
  - MTBE: METHYL TERTIARY BUTYL ETHER, ug/l
  - K: NAPHTHALENE, ug/l
  - TMB: TOTAL TRIMETHYLBENZENES, ug/l
  - ug/l: MICROGRAMS PER LITER
  - mg/l: MILLIGRAMS PER LITER
  - <: LESS THAN
  - : NOT ANALYZED

- LEGEND**
- [Symbol] SAMPLE INTERVAL
  - [Symbol] SCREEN INTERVAL
  - [Symbol] GROUNDWATER LEVEL
  - [Symbol] CONCENTRATION GREATER THAN: NR 710 GENERIC RESIDUAL CONTAMINANT LEVEL (SOIL) NR 140 ENFORCEMENT STANDARD (GROUNDWATER)



DATE	REVISIONS	INI.

FIGURE 3 SCHEMATIC CROSS-SECTION A-A'

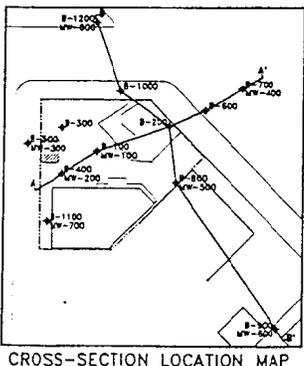
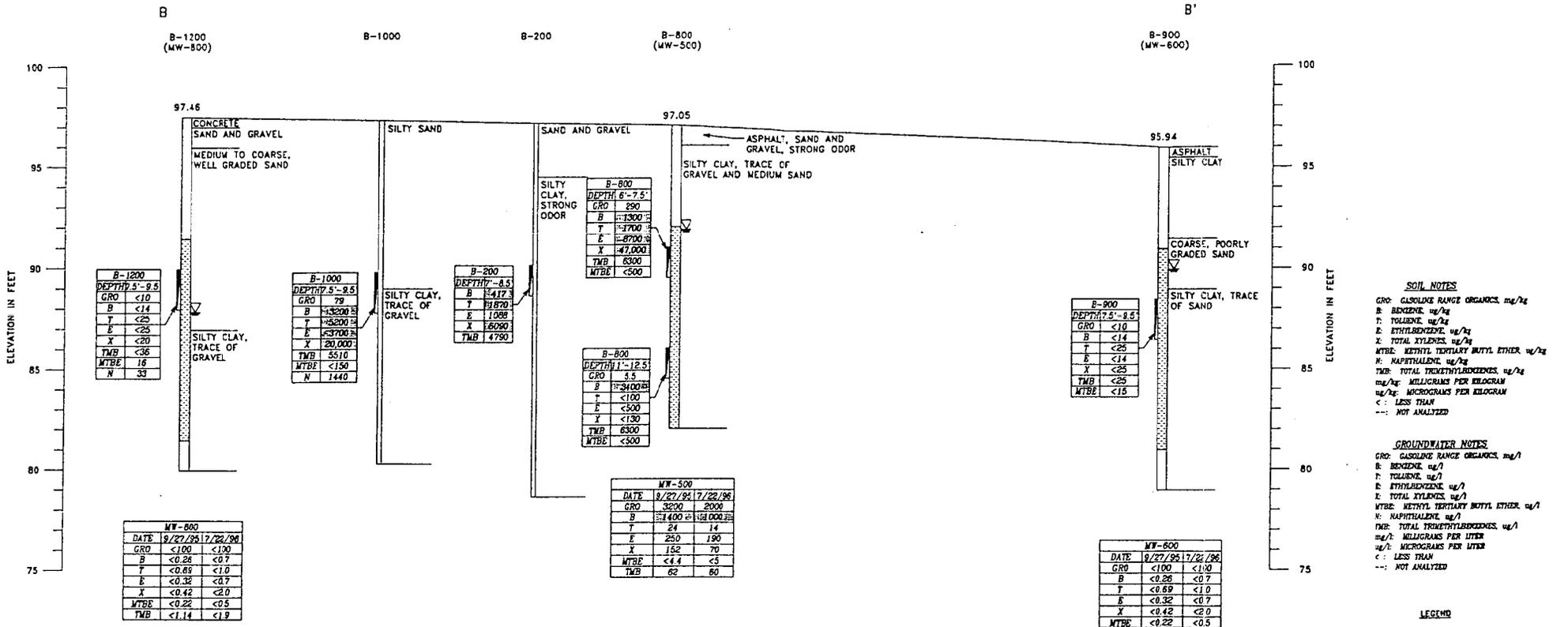
ADDITIONAL SI/RAO REPORT  
DOUG'S AUTO CENTER  
1821 COOPER AVENUE  
SHEBOYGAN, WISCONSIN

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DRN. BY:	S.L.G.	DATE:	06/18/97
DSN. BY:	C.E.H.	FILE NO.:	0701002
CHK. BY:	C.E.H.	DWG. NO.:	07010026
REV. BY:	G.L.J.	SHEET NO.:	3

**Key ENVIRONMENTAL SERVICES, INC.**  
866 N215 Commerce Court • Cedarburg, WI 53012 • (414) 375-4750  
8216 Washington Ave. • Racine, WI 53406 • (414) 888-4438

SCHEMATIC CROSS-SECTION B-B'



MW-500	
DATE	9/27/95 17/22/96
GRO	3200 2000
B	1400 15000
F	24 14
E	250 190
X	152 70
MTBE	<4.4 <5
TMB	62 60

MW-800	
DATE	9/27/95 17/22/96
GRO	<100 <100
B	<0.26 <0.7
F	<0.69 <1.0
E	<0.32 <0.7
X	<0.42 <2.0
MTBE	<0.22 <0.5
TMB	<1.14 <1.9

MW-900	
DATE	9/27/95 17/22/96
GRO	<100 <100
B	<0.26 <0.7
F	<0.69 <1.0
E	<0.32 <0.7
X	<0.42 <2.0
MTBE	<0.22 <0.5
TMB	<1.14 <1.9

DATE	REVISIONS	INI.

HORIZONTAL SCALE: 1"=20'  
 VERTICAL SCALE: 1"=5'

FIGURE 4  
SCHEMATIC CROSS-SECTION B-B'

ADDITIONAL SI/RAO REPORT  
 DOUG'S AUTO CENTER  
 1821 COOPER AVENUE  
 SHEBOYGAN, WISCONSIN

© 1997 Key Environmental Services, Inc.

DRN. BY:	S.L.G.	DATE:	06/18/97
DSN. BY:	C.E.H.	FILE NO.:	0701002
CHK. BY:	C.E.H.	DWG. NO.:	07010027
REV. BY:	G.L.J.	SHEET NO.:	4

**Key ENVIRONMENTAL SERVICES, INC.**  
 866 WISCONSIN Court - Cedarburg, WI 53012 - (414) 375-4750  
 8216 Washington Ave. - Racine, WI 53406 - (414) 886-4438

DATE	9/27/95	7/22/96	8/4/97	12/2/97	5/28/98
CRD	<100	<100	<50	<50	<50
Pb	<1	---	---	---	<5.0
B	<0.26	<0.7	<0.18	<0.18	<0.5
T	<0.32	<1.0	<0.38	<0.38	<0.5
E	<0.32	<0.7	<0.29	<0.29	<0.5
X	<0.42	<2.0	<1.15	<1.15	<0.5
MTBE	<0.22	<0.5	<0.20	<0.20	<0.20
N	<0.41	---	---	---	<8.0
TMB	<1.14	<1.9	<0.64	<0.64	<2.1
IPB	<0.36	---	---	---	<0.5
D-FLU	<3.4	---	---	---	<0.5
DI-IFE	<0.38	---	---	---	<0.5
n-PB	<0.41	---	---	---	<0.5
MCE	<4	---	---	---	<0.53
n-BUT	<0.48	---	---	---	<0.5
sec-BUT	<0.49	---	---	---	<0.5
tert-BUT	<0.4	---	---	---	<0.5
PAH	---	---	---	---	ND

DATE	12/7/92	9/27/95	7/22/96
CRD	---	2500	2600
Pb	---	<1	---
B	4.9	22	24
T	31	72	150
E	7.4	17	57
X	---	<1.2	<0.5
MTBE	<1.3	---	---
N	<4.7	---	---
TMB	2.8	12.3	49.7
IPB	2.5	---	---
D-FLU	<2.7	---	---
DI-IFE	<2.3	---	---
n-PB	<3.4	---	---
MCE	2.5	---	---
n-BUT	<3.8	---	---
sec-BUT	<3.8	---	---
tert-BUT	<3.8	---	---

DATE	12/7/92	9/27/95	7/22/96	8/4/97	12/2/97	5/28/98
CRD	---	<100	<100	<50	<50	<50
Pb	---	<1	---	---	---	<5.0
B	<1.1	2.8	<0.7	<0.18	<0.18	<0.5
T	<3.1	<1.0	<0.38	<0.38	<0.38	<0.5
E	<2.0	<0.7	<0.29	<0.29	<0.29	<0.5
X	<2.5	<2.5	<2.0	<1.15	<1.15	<0.5
MTBE	<1.3	<1.2	<0.5	<0.20	<0.20	<0.20
N	<4.7	---	---	---	---	<8.0
TMB	<7.0	<1.84	<1.9	<0.64	<0.64	<2.0
IPB	<3.8	---	---	---	---	<0.5
D-FLU	<2.7	---	---	---	---	<0.5
DI-IFE	<2.3	---	---	---	---	<0.5
n-PB	<3.4	---	---	---	---	<0.5
MCE	2.0	---	---	---	---	1.2 A
n-BUT	<3.8	---	---	---	---	<0.5
sec-BUT	<3.8	---	---	---	---	<0.5
tert-BUT	<3.8	---	---	---	---	<0.5
PAH	---	---	---	---	---	ND

DATE	12/7/92	9/27/95	7/22/96
CRD	---	1300	1500
Pb	---	<1	---
B	5.1	11.0	120.0
T	39	37	39
E	127	120	170
X	206	118	170
MTBE	<1.3	<2.2	<0.5
N	150	80	128
TMB	150	80	128
IPB	15	15	---
D-FLU	<2.7	<5.4	---
DI-IFE	3.5	<3.8	---
n-PB	19	19	---
MCE	3.2	<4.0	---
n-BUT	7.2	11	---
sec-BUT	<1.8	<4.9	---
tert-BUT	14.2	<4	---

DATE	9/27/95	7/22/96	8/4/97	12/2/97	5/28/98
CRD	<100	<100	<50	<50	<50
Pb	<1	---	---	---	<5.0
B	<0.26	<0.7	<0.18	<0.18	<0.5
T	<0.32	<1.0	<0.38	<0.38	<0.5
E	<0.32	<0.7	<0.29	<0.29	<0.5
X	<0.42	<2.0	<1.15	<1.15	<0.5
MTBE	<0.22	<0.5	<0.20	<0.20	<0.20
N	<0.41	---	---	---	<8.0
TMB	<1.14	<1.9	<0.64	<0.64	<2.1
IPB	<0.36	---	---	---	<0.5
D-FLU	<3.4	---	---	---	<0.5
DI-IFE	<0.38	---	---	---	<0.5
n-PB	<0.41	---	---	---	<0.5
MCE	<4	---	---	---	<0.53
n-BUT	<0.48	---	---	---	<0.5
sec-BUT	<0.49	---	---	---	<0.5
tert-BUT	<0.4	---	---	---	<0.5
1,1-DCA	---	---	---	---	1.0
cis-1,2	---	---	---	---	1.7
PAH	---	---	---	---	ND

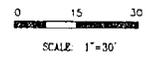
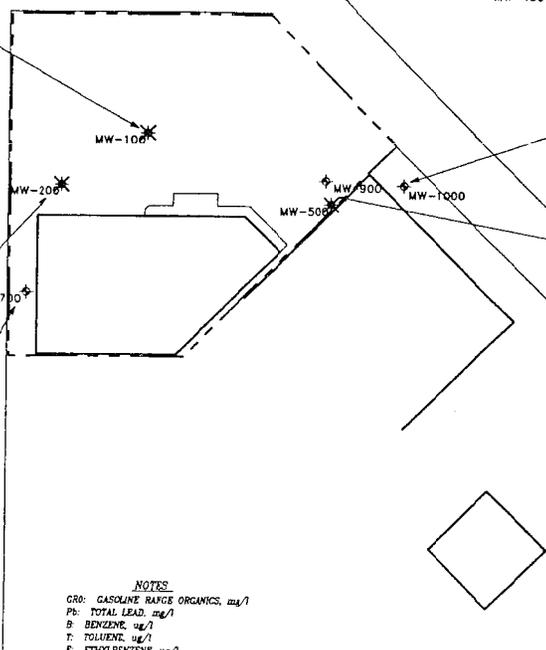
**NOTES**  
 CRD: GASOLINE RANGE ORGANICS, ug/l  
 Pb: TOTAL LEAD, mg/l  
 B: BENZENE, ug/l  
 T: TOLUENE, ug/l  
 E: ETHYLBENZENE, ug/l  
 X: TOTAL XYLENES, ug/l  
 MTBE: METHYL TERTIARY BUTYL ETHER, ug/l  
 N: NAPHTHALENE, ug/l  
 TMB: TOTAL TRIMETHYLBENZENES, ug/l  
 IPB: ISOPROPYLBENZENE, ug/l  
 D-FLU: DICHLORODIFLUOROMETHANE, ug/l  
 DI-IFE: DI-ISOPROPYL ETHER, ug/l  
 n-PB: n-PROPYLBENZENE, ug/l  
 MCE: METHYLENECHLORIDE, ug/l  
 n-BUT: n-BUTYLBENZENE, ug/l  
 sec-BUT: sec-BUTYLBENZENE, ug/l  
 tert-BUT: tert-BUTYLBENZENE, ug/l  
 1,1-DCA: 1,1-DICHLOROETHANE, ug/l  
 cis-1,2: cis-1,2-DICHLOROETHENE, ug/l  
 p-PT: p-ISOPROPYLTOLUENE, ug/l  
 PAH: POLYNUCLEAR AROMATIC HYDROCARBON, ug/l  
 mg/l: MILLIGRAMS PER LITER  
 ug/l: MICROGRAMS PER LITER  
 <: LESS THAN  
 ---: NOT ANALYZED  
 ND: NOT DETECTED ABOVE LABORATORY METHOD DETECTION LIMITS  
 A: LABORATORY ARTIFACT - CONCENTRATIONS FOUND OF THIS ANALYTE ARE CHARACTERISTIC OF LABORATORY ARTIFACT

**LEGEND**  
 ✕ EXCAVATED MONITORING WELL LOCATION  
 + MONITORING WELL LOCATION  
 □ VALUES EXCEED THE NR 140 ENFORCEMENT STANDARD (ES)

MW-300

MW-300

MW-700



DRN. BY: J.J.J. DATE: 08/10/99  
 DSN. BY: Z.B. FILE NO.: 0701002  
 CHK. BY: Z.B. DWG. NO.: 07020024  
 REV. BY: G.L.J. SHEET NO.: 3



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**FIGURE 3**  
 SUMMARY OF GROUNDWATER  
 SAMPLE ANALYTICAL RESULTS  
 REQUEST FOR CASE CLOSURE  
 DOUG'S AUTO SERVICE  
 1821 COOPER AVENUE  
 SHEBOYGAN, WISCONSIN

DATE	12/7/92	9/27/95	7/22/96	8/4/97	12/2/97	5/28/98
CRD	---	<100	<100	<50	<50	<50
Pb	---	<1	---	---	---	<5.0
B	0.50	<0.8	3.2	<0.18	<0.18	<0.5
T	<3.1	<1.0	<0.38	<0.38	<0.38	<0.5
E	<2.0	<0.7	<0.29	<0.29	<0.29	<0.5
X	<2.5	<2.5	<2.0	<1.15	<1.15	<0.5
MTBE	<1.3	<1.2	2.8	<0.20	<0.20	<0.20
N	<4.7	---	---	---	---	<8.0
TMB	<7.0	<1.84	<1.9	<0.64	<0.64	<2.0
IPB	<3.8	---	---	---	---	<0.5
D-FLU	<2.7	---	---	---	---	<0.5
DI-IFE	<2.3	---	---	---	---	<0.5
n-PB	<3.4	---	---	---	---	<0.5
MCE	3.2	---	---	---	---	0.88 A
n-BUT	<3.8	---	---	---	---	<0.5
sec-BUT	<3.8	---	---	---	---	<0.5
tert-BUT	<3.8	---	---	---	---	<0.5
PAH	---	---	---	---	---	ND

DATE	6/28/99
CRD	6100
Pb	18
B	460
T	160
E	430
X	220
MTBE	17
N	23
TMB	29
IPB	29
D-FLU	2.2
DI-IFE	2.2

DATE	9/29/93	11/27/95	7/22/96
CRD	3200	3200	2000
Pb	---	---	---
B	<1300	<1400	<1000
T	34	24	14
E	45	25.0	180
X	223	152	70
MTBE	<1.0	<4.4	<5
N	---	---	---
TMB	11.2	34	---
IPB	2.3	62	80
D-FLU	<4.0	<108	---
DI-IFE	<1.0	<7.8	---
n-PB	<3.4	---	---
MCE	<2.0	<80	---
n-BUT	3.3	10	---
sec-BUT	<1.0	2.1	---
tert-BUT	<1.0	<8	---
PAH	---	---	---

DATE	5/28/98
CRD	4800
Pb	25
B	120
T	480
E	112
X	19
MTBE	<0.2
N	15
TMB	11.2
IPB	2.7
D-FLU	<0.5
DI-IFE	<0.5
n-PB	2.7
MCE	<0.53
n-BUT	3.8
sec-BUT	<0.5
tert-BUT	<0.5
PAH	ND

DATE	9/27/95	7/22/96	8/4/97	12/2/97	5/28/98
CRD	<100	<100	<50	<50	<50
Pb	<1	---	---	---	<5.0
B	<0.26	<0.7	<0.18	<0.18	<0.5
T	<0.32	<1.0	<0.38	<0.38	<0.5
E	<0.32	<0.7	<0.29	<0.29	<0.5
X	<0.42	<2.0	<1.15	<1.15	<0.5
MTBE	<0.22	<0.5	<0.20	<0.20	<0.20
N	<0.41	---	---	---	<8.0
TMB	<1.14	<1.9	<0.64	<0.64	<2.0
IPB	<0.36	---	---	---	<0.5
D-FLU	<3.4	---	---	---	<0.5
DI-IFE	<0.38	---	---	---	<0.5
n-PB	<0.41	---	---	---	<0.5
MCE	<4	---	---	---	<0.53
n-BUT	<0.48	---	---	---	<0.5
sec-BUT	<0.49	---	---	---	<0.5
tert-BUT	<0.4	---	---	---	<0.5
PAH	---	---	---	---	ND