

From: Hnat, John J - DNR
Sent: Tuesday, March 28, 2017 3:48 PM
To: 'taylorduane82@yahoo.com'
Cc: Mylotta, Pamela A - DNR (Pamela.Mylotta@wisconsin.gov)
Subject: 4704 W Burleigh

Tracking:	Recipient	Delivery
	'taylorduane82@yahoo.com'	
	Mylotta, Pamela A - DNR (Pamela.Mylotta@wisconsin.gov)	Delivered: 03/28/2017 3:48 PM

Mr. Taylor,

Thank you for your questions about this open former dry cleaner site. I hope the following will answer your questions about the site. It can get pretty technical depending on the results for soil, groundwater, and vapor contamination.

On November 10, 2010, the DNR received a status update for One Hour Fabricare located at 4704 West Burleigh Street. The former environmental consultant, The Sigma Group, completed installing five NR 141 groundwater monitoring wells, collected additional soil samples for laboratory analysis, completed one round of groundwater monitoring, and completed a subslab vapor assessment from beneath the building.

Attached with this email are the results of that submitted document as follows:



- Table 1, indicates the depth of groundwater beneath the property is ~ 1.6 to 10.4 feet
- Table 2, is the soil boring sampling results. The main contaminant is tetrachloroethene, commonly known as PCE or "PERC". The main chemical used at this site to dry clean clothes.
- Trichloroethene or TCE, cis-1,2-dichloroethene, trans-1,2-dichloroethene, and vinyl chloride are break down or degrading products from PCE.
- Table 3, shows what was in the groundwater back in May 2010. We haven't any information on the groundwater quality since May 2010.
- Table 4, shows the subslab air quality beneath the floor/foundation. The results show that PCE = 1,140,000 ug/m³ and TCE = 43,800 ug/m³. What this means is the results for PCE and TCE are above the DNR's subslab vapor risk screening levels for small commercial and large commercial site. The DNR's screening levels for small commercial sites for PCE = 6,000 ug/m³ and TCE = 290 ug/m³. Because of the high number results for PCE and TCE beneath the subslab, an environmental consultant would have to evaluate a course of action to remediate the contamination beneath the foundation and possibly install a mitigation system to vent the contaminant air containing the PCE and TCE from beneath the building.
- Figure 2, is a site map of the facility
- Figure 3, shows the direction of the subsurface groundwater flow which is southeast
- Figure 4, is the soil quality map that shows the soil boring sample results and the depths the samples were analyzed at for contaminated soil
- Figure 5, is the groundwater quality map that shows the area where groundwater is contaminated at

To answer your question what has to be done, first of all, the DNR would recommend that Mr. McKay, the Responsible Party, hire an environmental consultant to review the file to propose a work plan to complete the site investigation and based on this site investigation, evaluate, and propose a remediation strategy for the site.

To answer your question on costs, the DNR can't comment on the cost of completing a site investigation and remediation of this site to closure because each dry cleaning site can cost more or less than other sites based on how complex the problem is. The DNR can't determine the costs the environmental consultants charge.

Finally, you wanted to know if someone could start a convenience store at this site. The RP would have to conduct additional subslab and indoor air sampling to find out if there is a vapor intrusion or continuing vapor intrusion issue for this site. If so, then The City Health Department would be relying on these results when the building would be safe to occupy from a vapor and direct contact (soil) issue. The DNR has no control when a building can be occupied or not. I don't know which City of Milwaukee department issues occupancy permits.

If you have any further questions, please contact Pam Mylotta at 414-263-8561, or

pamela.mylotta@wisconsin.gov while I'm on vacation.

I hope this helps. Have a great day.

 **J. Hnat, C.P.G., P.G..**

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TABLE 1
STATIC GROUNDWATER ELEVATIONS
MCKPLACO - ONE HOUR FABRICARE
4704 WEST BURLEIGH STREET
MILWAUKEE, WISCONSIN
Project Reference #10837

Monitoring Well Identification	Date	Ground Surface Elevation (feet MSL)	Top of Casing Elevation (feet MSL)	Depth to Groundwater (feet from TOC)	Depth to Groundwater (feet bgs)	Groundwater Elevation (feet MSL)	Well Screen Interval (feet MSL)
MW-1	05/11/10	710.59	709.92	1.6	2.27	708.32	3-13
MW-2	05/11/10	710.32	709.68	3.78	4.42	705.9	3.5-13.5
MW-3	05/11/10	711.56	710.77	3.24	4.03	707.53	3.5-13.5
MW-4	05/11/10	712.37	711.84	10.36	10.89	701.48	5-15
MW-5	05/11/10	711.09	710.53	4.16	4.72	706.37	4-14
TMW-2	05/11/10	712.230	711.94	2.93	3.22	709.01	4.5-15

Notes:

feet MSL = feet above Mean Sea Level
 feet from TOC = feet below top of casing
 feet bgs = feet below ground surface

TABLE 2
SOIL ANALYTICAL QUALITY RESULTS
VOLATILE ORGANIC COMPOUNDS
One Hour Fabricare - McKplaco
4704 Burleigh Street
Milwaukee, Wisconsin
Project Reference #10837

Soil Boring Identification:			SB-1		SB-2		SB-3		SB-4	
Sample Depth (ft):			21"	27.5"	4	11	10	14	4	14
PID / FID			5.1	4.7	30	0.4	19.7	0	0	0
Parameter	Unit	NR 720	NR 746		Collection Date					
		RCL	Table 1	Table 2	10/09/06	10/09/06	10/09/06	10/09/06	10/09/06	10/09/06
Benzene	µg/kg	5.5	8,500	1,100	<25	<25	<25	<25	<25	<25
Bromobenzene	µg/kg	NS	NS	NS	<25	<25	<25	<25	<25	<25
Bromodichloromethane	µg/kg	NS	NS	NS	<25	<25	<25	<25	<25	<25
n-Butylbenzene	µg/kg	NS	NS	NS	<25	<25	<25	<25	<25	<25
sec-Butylbenzene	µg/kg	NS	NS	NS	<25	<25	<25	<25	<25	<25
tert-Butylbenzene	µg/kg	NS	NS	NS	<25	<25	<25	<25	<25	<25
Carbon tetrachloride	µg/kg	NS	NS	NS	<25	<25	<25	<25	<25	<25
Chlorobenzene	µg/kg	NS	NS	NS	<25	<25	<25	<25	<25	<25
Chloroethane	µg/kg	NS	NS	NS	<25	<25	<25	<25	<25	<25
Chloroform	µg/kg	NS	NS	NS	<25	<25	<25	<25	<25	<25
Chloromethane	µg/kg	NS	NS	NS	<25	<25	<25	<25	<25	<25
2-Chlorotoluene	µg/kg	NS	NS	NS	<25	<25	<25	<25	<25	<25
4-Chlorotoluene	µg/kg	NS	NS	NS	<25	<25	<25	<25	<25	<25
Dibromochloromethane	µg/kg	NS	NS	NS	<25	<25	<25	<25	<25	<25
1,2-Dibromo-3-chloropropane	µg/kg	NS	NS	NS	<25	<25	<25	<25	<25	<25
1,2-Dibromoethane	µg/kg	NS	NS	NS	<25	<25	<25	<25	<25	<25
1,2-Dichlorobenzene	µg/kg	NS	NS	NS	<25	<25	<25	<25	<25	<25
1,3-Dichlorobenzene	µg/kg	NS	NS	NS	<25	<25	<25	<25	<25	<25
1,4-Dichlorobenzene	µg/kg	NS	NS	NS	<25	<25	<25	<25	<25	<25
Dichlorodifluoromethane	µg/kg	NS	NS	NS	<25	<25	<25	<25	<25	<25
1,1-Dichloroethane	µg/kg	NS	NS	NS	<25	<25	<25	<25	<25	<25
1,2-Dichloroethane	µg/kg	4.9	600	540	<25	<25	<25	<25	<25	<25
1,1-Dichloroethene	µg/kg	NS	NS	NS	<25	<25	<25	<25	<25	<25
cis-1,2-Dichloroethene	µg/kg	NS	NS	NS	<25	<25	<25	<25	151	<25
trans-1,2-Dichloroethene	µg/kg	NS	NS	NS	<25	<25	<25	<25	<25	<25
1,2-Dichloropropane	µg/kg	NS	NS	NS	<25	<25	<25	<25	<25	<25
1,3-Dichloropropane	µg/kg	NS	NS	NS	<25	<25	<25	<25	<25	<25
Di-isopropyl ether	µg/kg	NS	NS	NS	<25	<25	<25	<25	<25	<25
Ethylbenzene	µg/kg	2,900	4,600	NS	<25	<25	<25	<25	<25	<25
Hexachlorobutadiene	µg/kg	NS	NS	NS	<25	<25	<25	<25	<25	<25
Isopropylbenzene	µg/kg	NS	NS	NS	<25	<25	<25	<25	<25	<25
p-Isopropyltoluene	µg/kg	NS	NS	NS	<25	<25	<25	<25	<25	<25
Methylene chloride	µg/kg	NS	NS	NS	<25	<25	<25	<25	<25	<25
Methyl-tert-butyl-ether	µg/kg	NS	NS	NS	<25	<25	<25	<25	<25	<25
Naphthalene	µg/kg	NS	2,700	NS	<25	<25	<25	<25	<25	<25
n-Propylbenzene	µg/kg	NS	NS	NS	<25	<25	<25	<25	<25	<25
1,1,2,2-Tetrachloroethane	µg/kg	NS	NS	NS	<25	<25	<25	<25	<25	<25
Tetrachloroethene	µg/kg	1230 ¹	33000 ²	NS	2,440	9,500	120	<25	10,100	<25
Toluene	µg/kg	1,500	38,000	NS	<25	<25	<25	<25	<25	<25
1,2,3-Trichlorobenzene	µg/kg	NS	NS	NS	<25	<25	<25	<25	<25	<25
1,2,4-Trichlorobenzene	µg/kg	NS	NS	NS	<25	<25	<25	<25	<25	<25
1,1,1-Trichloroethane	µg/kg	NS	NS	NS	<25	<25	<25	<25	<25	<25
1,1,2-Trichloroethane	µg/kg	NS	NS	NS	<25	<25	<25	<25	<25	<25
Trichloroethene	µg/kg	160 ¹	14000 ²	NS	25J	45J	<25	<25	190	<25
Trichlorofluoromethane	µg/kg	NS	NS	NS	<25	<25	<25	<25	<25	<25
1,2,4-Trimethylbenzene	µg/kg	NS	83,000	NS	<25	<25	<25	<25	<25	<25
1,3,5-Trimethylbenzene	µg/kg	NS	11,000	NS	<25	<25	<25	<25	<25	<25
Vinyl chloride	µg/kg	NS	870 ²	NS	<25	<25	<25	<25	<25	<25
Total Xylenes	µg/kg	4,100	42,000	NS	<75	<75	<75	<75	<75	<75

Notes: Laboratory analyses performed by Synergy Environmental Lab, Inc. on behalf of Terracon Consultants.

µg/kg = micrograms per kilogram (equivalent to parts per billion)

NA = Not Analyzed

NS = No Standard

J = Analyte detected between limit of detection and limit of quantification.

NR 720 RCL = Wisconsin Administrative Code, Chapter NR 720 generic Residual Contaminant Level (industrial land use RCLs for RCRA metals).

NR 746 Table 1 = Wisconsin Administrative Code, Chapter NR 746, Table 1 soil screening level: Indicators of Residual Petroleum Products in Soil Pores.

NR 746 Table 2 = Wisconsin Administrative Code, Chapter NR 746, Table 2: Protection of Human Health from Direct Contact with Contaminated Soil.

¹ = Calculated Site Specific RCLs

² = WDNR hazardous waste contained-out determination values

Exceedances: **BOLD** = detected compound

BOX = concentration exceeds standard

TABLE 2
SOIL ANALYTICAL QUALITY RESULTS
VOLATILE ORGANIC COMPOUNDS
One Hour Fabricare - McKplaco
4704 Burleigh Street
Milwaukee, Wisconsin
Project Reference #10837

Soil Boring Identification:			GP-1		GP-2		GP-3		GP-4	
Sample Depth (ft):			2-4	6-8	0-2	4-6	0-2	6-8	2-4	4-6
PID / FID			1.5	1	7.9	9	0.9	171	1	1
Parameter	Unit	NR 720		NR 746		Collection Date				
		RCL	Table 1	Table 2		06/02/09	06/02/09	06/02/09	06/02/09	06/02/09
Benzene	µg/kg	5.5	8,500	1,100	<20	<20	<20	<20	1,100	<20
Bromobenzene	µg/kg	NS	NS	NS	<34	<34	<34	<34	<34	<34
Bromodichloromethane	µg/kg	NS	NS	NS	<16	<16	<16	<16	<16	<16
n-Butylbenzene	µg/kg	NS	NS	NS	<35	<35	<35	<35	660	<35
sec-Butylbenzene	µg/kg	NS	NS	NS	<25	<25	<25	<25	153	<25
tert-Butylbenzene	µg/kg	NS	NS	NS	<23	<23	<23	<23	<23	<23
Carbon tetrachloride	µg/kg	NS	NS	NS	<21	<21	<21	<21	<21	<21
Chlorobenzene	µg/kg	NS	NS	NS	<16	<16	<16	<16	<16	<16
Chloroethane	µg/kg	NS	NS	NS	<23	<23	<23	<23	<23	<23
Chloroform	µg/kg	NS	NS	NS	<50	<50	<50	<50	<50	<50
Chloromethane	µg/kg	NS	NS	NS	<43	<43	<43	<43	<43	<43
2-Chlorotoluene	µg/kg	NS	NS	NS	<31	<31	<31	<31	<31	<31
4-Chlorotoluene	µg/kg	NS	NS	NS	<24	<24	<24	<24	<24	<24
Dibromochloromethane	µg/kg	NS	NS	NS	<21	<21	<21	<21	<21	<21
1,2-Dibromo-3-chloropropane	µg/kg	NS	NS	NS	<37	<37	<37	<37	<37	<37
1,2-Dibromoethane	µg/kg	NS	NS	NS	<21	<21	<21	<21	<21	<21
1,2-Dichlorobenzene	µg/kg	NS	NS	NS	<32	<32	<32	<32	<32	<32
1,3-Dichlorobenzene	µg/kg	NS	NS	NS	<41	<41	<41	<41	<41	<41
1,4-Dichlorobenzene	µg/kg	NS	NS	NS	<42	<42	<42	<42	<42	<42
Dichlorodifluoromethane	µg/kg	NS	NS	NS	<33	<33	<33	<33	<33	<33
1,1-Dichloroethane	µg/kg	NS	NS	NS	<22	<22	<22	<22	<22	<22
1,2-Dichloroethane	µg/kg	4.9	600	540	<24	<24	<24	<24	<24	<24
1,1-Dichloroethene	µg/kg	NS	NS	NS	<27	<27	<27	<27	<27	<27
cis-1,2-Dichloroethene	µg/kg	NS	NS	NS	<24	<24	83	164	<24	<24
trans-1,2-Dichloroethene	µg/kg	NS	NS	NS	<29	<29	<29	<29	<29	<29
1,2-Dichloropropane	µg/kg	NS	NS	NS	<19	<19	<19	<19	<19	<19
1,3-Dichloropropane	µg/kg	NS	NS	NS	<21	<21	<21	<21	<21	<21
Di-isopropyl ether	µg/kg	NS	NS	NS	<15	<15	<15	<15	<15	<15
Ethylbenzene	µg/kg	2,900	4,600	NS	<16	<16	<16	23 J	8,800	<16
Hexachlorobutadiene	µg/kg	NS	NS	NS	<50	<50	<50	<50	<50	<50
Isopropylbenzene	µg/kg	NS	NS	NS	<30	<30	<30	<30	580	<30
p-Isopropyltoluene	µg/kg	NS	NS	NS	<30	<30	<30	<30	41 J	<30
Methylene chloride	µg/kg	NS	NS	NS	<44	<44	<44	<44	<44	<44
Methyl-tert-butyl-ether	µg/kg	NS	NS	NS	<23	<23	<23	<23	<23	<23
Naphthalene	µg/kg	NS	2,700	NS	<117	<117	<117	<117	550	<117
n-Propylbenzene	µg/kg	NS	NS	NS	<29	<29	<29	<29	2,780	<29
1,1,2,2-Tetrachloroethane	µg/kg	NS	NS	NS	<25	<25	<25	<25	<25	<25
Tetrachloroethene	µg/kg	1230 ¹	33000 ²	NS	88	<18	710	2,490	<18	<18
Toluene	µg/kg	1,500	38,000	NS	<23	<23	<23	<23	62 J	27 J
1,2,3-Trichlorobenzene	µg/kg	NS	NS	NS	<87	<87	<87	<87	<87	<87
1,2,4-Trichlorobenzene	µg/kg	NS	NS	NS	<53	<53	<53	<53	<53	<53
1,1,1-Trichloroethane	µg/kg	NS	NS	NS	<27	<27	<27	<27	<27	<27
1,1,2-Trichloroethane	µg/kg	NS	NS	NS	<30	<30	<30	<30	<30	<30
Trichloroethene	µg/kg	160 ¹	14000 ²	NS	29 J	<20	123	470	<20	<20
Trichlorofluoromethane	µg/kg	NS	NS	NS	<16	<16	<16	<16	<16	<16
1,2,4-Trimethylbenzene	µg/kg	NS	83,000	NS	<20	<20	<20	<20	86	2,220
1,3,5-Trimethylbenzene	µg/kg	NS	11,000	NS	<24	<24	<24	<24	29.5 J	1,220
Vinyl chloride	µg/kg	NS	870 ²	NS	<17	<17	<17	<17	<17	<17
Total Xylenes	µg/kg	4,100	42,000	NS	<48	<48	<48	<48	73 J	2,696

Notes: Laboratory analyses performed by: Synergy Environmental Lab, Inc.

µg/kg = micrograms per kilogram (equivalent to parts per billion)

NA = Not Analyzed

NS = No Standard

J = Analyte detected between limit of detection and limit of quantification.

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¹ = Calculated Site Specific RCLs

² = WDNR hazardous waste contained-out determination values

Exceedances: **BOLD** = detected compound

BOX = concentration exceeds standard

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VOLATILE ORGANIC COMPOUNDS
One Hour Fabricare - McKplaco
4704 Burleigh Street
Milwaukee, Wisconsin
Project Reference #10837

Soil Boring Identification:			GP-5		GP-6		GP-7		GP-8	
Sample Depth (ft):			0-2	4-6	0-2	4-6	2-4	4-6	2-4	6-8
PID / FID			12	0	1.2	1.6	0.6	1	4	6
Parameter			NR 720		NR 746		Collection Date			
	Unit	RCL	Table 1	Table 2			06/02/09	06/02/09	06/02/09	06/02/09
Benzene	µg/kg	5.5	8,500	1,100	<20	<20	<20	<20	<20	<20
Bromobenzene	µg/kg	NS	NS	NS	<34	<34	<34	<34	<34	<34
Bromodichloromethane	µg/kg	NS	NS	NS	<16	<16	<16	<16	<16	<16
n-Butylbenzene	µg/kg	NS	NS	NS	<35	<35	<35	<35	<35	<35
sec-Butylbenzene	µg/kg	NS	NS	NS	<25	<25	<25	<25	<25	<25
tert-Butylbenzene	µg/kg	NS	NS	NS	<23	<23	<23	<23	<23	<23
Carbon tetrachloride	µg/kg	NS	NS	NS	<21	<21	<21	<21	<21	<21
Chlorobenzene	µg/kg	NS	NS	NS	<16	<16	<16	<16	<16	<16
Chloroethane	µg/kg	NS	NS	NS	<23	<23	<23	<23	<23	<23
Chloroform	µg/kg	NS	NS	NS	<50	<50	<50	<50	<50	<50
Chloromethane	µg/kg	NS	NS	NS	<43	<43	<43	<43	<43	<43
2-Chlorotoluene	µg/kg	NS	NS	NS	<31	<31	<31	<31	<31	<31
4-Chlorotoluene	µg/kg	NS	NS	NS	<24	<24	<24	<24	<24	<24
Dibromochloromethane	µg/kg	NS	NS	NS	<21	<21	<21	<21	<21	<21
1,2-Dibromo-3-chloropropane	µg/kg	NS	NS	NS	<37	<37	<37	<37	<37	<37
1,2-Dibromoethane	µg/kg	NS	NS	NS	<21	<21	<21	<21	<21	<21
1,2-Dichlorobenzene	µg/kg	NS	NS	NS	<32	<32	<32	<32	<32	<32
1,3-Dichlorobenzene	µg/kg	NS	NS	NS	<41	<41	<41	<41	<41	<41
1,4-Dichlorobenzene	µg/kg	NS	NS	NS	<42	<42	<42	<42	<42	<42
Dichlorodifluoromethane	µg/kg	NS	NS	NS	<33	<33	<33	<33	<33	<33
1,1-Dichloroethane	µg/kg	NS	NS	NS	<22	<22	<22	<22	<22	<22
1,2-Dichloroethane	µg/kg	4.9	600	540	<24	<24	<24	<24	<24	<24
1,1-Dichloroethene	µg/kg	NS	NS	NS	<27	<27	<27	<27	<27	<27
cis-1,2-Dichloroethene	µg/kg	NS	NS	NS	<24	<24	<24	<24	<24	<24
trans-1,2-Dichloroethene	µg/kg	NS	NS	NS	<29	<29	<29	<29	<29	<29
1,2-Dichloropropane	µg/kg	NS	NS	NS	<19	<19	<19	<19	<19	<19
1,3-Dichloropropane	µg/kg	NS	NS	NS	<21	<21	<21	<21	<21	<21
Di-isopropyl ether	µg/kg	NS	NS	NS	<15	<15	<15	<15	<15	<15
Ethylbenzene	µg/kg	2,900	4,600	NS	<16	<16	<16	<16	<16	<16
Hexachlorobutadiene	µg/kg	NS	NS	NS	<50	<50	<50	<50	<50	<50
Isopropylbenzene	µg/kg	NS	NS	NS	<30	<30	<30	<30	<30	<30
p-Isopropyltoluene	µg/kg	NS	NS	NS	<30	<30	<30	<30	<30	<30
Methylene chloride	µg/kg	NS	NS	NS	<44	<44	<44	<44	<44	<44
Meihy-tert-butyl-ether	µg/kg	NS	NS	NS	<23	<23	<23	<23	<23	<23
Naphthalene	µg/kg	2,700	NS	<117	<117	<117	<117	<117	<117	<117
n-Propylbenzene	µg/kg	NS	NS	<29	<29	<29	<29	<29	<29	<29
1,1,2,2-Tetrachloroethane	µg/kg	NS	NS	<25	<25	<25	<25	<25	<25	<25
Tetrachloroethene	µg/kg	1230 ¹	33000 ²	NS	<18	<18	100	1,290	210	172
Toluene	µg/kg	1,500	38,000	NS	<23	<23	<23	<23	<23	<23
1,2,3-Trichlorobenzene	µg/kg	NS	NS	NS	<87	<87	<87	<87	<87	<87
1,2,4-Trichlorobenzene	µg/kg	NS	NS	NS	<53	<53	<53	<53	<53	<53
1,1,1-Trichloroethane	µg/kg	NS	NS	NS	<27	<27	<27	<27	<27	<27
1,1,2-Trichloroethane	µg/kg	NS	NS	NS	<30	<30	<30	<30	<30	<30
Trichloroethene	µg/kg	160 ¹	14000 ²	NS	<20	<20	<20	<20	<20	<20
Trichlorofluoromethane	µg/kg	NS	NS	NS	<16	<16	<16	<16	<16	<16
1,2,4-Trimethylbenzene	µg/kg	NS	83,000	NS	<20	<20	<20	<20	<20	<20
1,3,5-Trimethylbenzene	µg/kg	NS	11,000	NS	<24	<24	<24	<24	<24	<24
Vinyl chloride	µg/kg	NS	870 ²	NS	<17	<17	<17	<17	<17	<17
Total Xylenes	µg/kg	4,100	42,000	NS	<48	<48	<48	<48	<48	<48

Notes: Laboratory analyses performed by: Synergy Environmental Lab, Inc.
 µg/kg = micrograms per kilogram (equivalent to parts per billion)
 NA = Not Analyzed NS = No Standard

J = Analyte detected between limit of detection and limit of quantification.

NR 720 RCL = Wisconsin Administrative Code, Chapter NR 720 generic Residual Contaminant Level (industrial land use RCLs for RCRA metals).

NR 746 Table 1 = Wisconsin Administrative Code, Chapter NR 746, Table 1 soil screening level: Indicators of Residual Petroleum Products in Soil Pores.

NR 746 Table 2 = Wisconsin Administrative Code, Chapter NR 746, Table 2: Protection of Human Health from Direct Contact with Contaminated Soil.

¹ = Calculated Site Specific RCLs

² = WDNR hazardous waste contained-out determination values

Exceedances: **BOLD** = detected compound

BOX = concentration exceeds standard

TABLE 2
SOIL ANALYTICAL QUALITY RESULTS
VOLATILE ORGANIC COMPOUNDS
One Hour Fabricare - McKplaco
4704 Burleigh Street
Milwaukee, Wisconsin
Project Reference #10837

Soil Boring Identification:				HA-1	HA-2	MW-1	MW-4	MW-5
Sample Depth (ft):				3	6	6	2-4	2-4
PID / FID				8	4.5	23	0	0
Parameter	Unit	NR 720	NR 746	Collection Date				
		RCL	Table 1	Table 2	06/02/09	06/02/09	06/02/09	05/05/10
Benzene	µg/kg	5.5	8,500	1,100	<20	<20	<20	<35
Bromobenzene	µg/kg	NS	NS	NS	<34	<34	<34	<55
Bromodichloromethane	µg/kg	NS	NS	NS	<16	<16	<16	<31
n-Butylbenzene	µg/kg	NS	NS	NS	<35	<35	<35	<46
sec-Butylbenzene	µg/kg	NS	NS	NS	<25	<25	<25	<35
tert-Butylbenzene	µg/kg	NS	NS	NS	<23	<23	<23	<41
Carbon tetrachloride	µg/kg	NS	NS	NS	<21	<21	<21	<28
Chlorobenzene	µg/kg	NS	NS	NS	<16	<16	<16	<40
Chloroethane	µg/kg	NS	NS	NS	<23	<23	<23	<80
Chloroform	µg/kg	NS	NS	NS	<50	<50	<50	<39
Chloromethane	µg/kg	NS	NS	NS	<43	<43	<43	<43
2-Chlorotoluene	µg/kg	NS	NS	NS	<31	<31	<31	<46
4-Chlorotoluene	µg/kg	NS	NS	NS	<24	<24	<24	<36
Dibromochloromethane	µg/kg	NS	NS	NS	<21	<21	<21	<42
1,2-Dibromo-3-chloropropane	µg/kg	NS	NS	NS	<37	<37	<37	<67
1,2-Dibromoethane	µg/kg	NS	NS	NS	<21	<21	<21	<20
1,2-Dichlorobenzene	µg/kg	NS	NS	NS	<32	<32	<32	<41
1,3-Dichlorobenzene	µg/kg	NS	NS	NS	<41	<41	<41	<37
1,4-Dichlorobenzene	µg/kg	NS	NS	NS	<42	<42	<42	<20
Dichlorodifluoromethane	µg/kg	NS	NS	NS	<33	<33	<33	<33
1,1-Dichloroethane	µg/kg	NS	NS	NS	<22	<22	<22	<45
1,2-Dichloroethane	µg/kg	4.9	600	540	<24	<24	<24	<45
1,1-Dichloroethene	µg/kg	NS	NS	NS	<27	<27	<27	<44
cis-1,2-Dichloroethene	µg/kg	NS	NS	NS	<24	<24	<24	<44
trans-1,2-Dichloroethene	µg/kg	NS	NS	NS	<29	<29	<29	<43
1,2-Dichloropropane	µg/kg	NS	NS	NS	<19	<19	<19	<38
1,3-Dichloropropane	µg/kg	NS	NS	NS	<21	<21	<21	<33
Di-isopropyl ether	µg/kg	NS	NS	NS	<15	<15	<15	<31
Ethylbenzene	µg/kg	2,900	4,600	NS	<16	<16	<16	<56
Hexachlorobutadiene	µg/kg	NS	NS	NS	<50	<50	<50	<79
Isopropylbenzene	µg/kg	NS	NS	NS	<30	<30	<30	<39
p-Isopropyltoluene	µg/kg	NS	NS	NS	<30	<30	<30	<43
Methylene chloride	µg/kg	NS	NS	NS	<44	<44	<44	<52
Methyl-tert-butyl-ether	µg/kg	NS	NS	NS	<23	<23	<23	<27
Naphthalene	µg/kg	NS	2,700	NS	<117	<117	<117	<53
n-Propylbenzene	µg/kg	NS	NS	NS	<29	<29	<29	<44
1,1,2,2-Tetrachloroethane	µg/kg	NS	NS	NS	<25	<25	<25	<29
Tetrachloroethene	µg/kg	1230 ¹	33000 ²	NS	1,360	980	2,820	1,730
Toluene	µg/kg	1,500	38,000	NS	<23	<23	<23	<51
1,2,3-Trichlorobenzene	µg/kg	NS	NS	NS	<87	<87	<87	<58
1,2,4-Trichlorobenzene	µg/kg	NS	NS	NS	<53	<53	<53	<48
1,1,1-Trichloroethane	µg/kg	NS	NS	NS	<27	<27	<27	<28
1,1,2-Trichloroethane	µg/kg	NS	NS	NS	<30	<30	<30	<36
Trichloroethene	µg/kg	160 ¹	14000 ²	NS	<20	<20	60 J	169
Trichlorofluoromethane	µg/kg	NS	NS	NS	<16	<16	<16	<35
1,2,4-Trimethylbenzene	µg/kg	NS	83,000	NS	<20	<20	<20	<73
1,3,5-Trimethylbenzene	µg/kg	NS	11,000	NS	<24	<24	<24	<57
Vinyl chloride	µg/kg	NS	870 ²	NS	<17	<17	<17	<33
Total Xylenes	µg/kg	4,100	42,000	NS	<48	<48	<48	<124

Notes: Laboratory analyses performed by: Synergy Environmental Lab, Inc.

µg/kg = micrograms per kilogram (equivalent to parts per billion)

NA = Not Analyzed

NS = No Standard

J = Analyte detected between limit of detection and limit of quantification.

NR 720 RCL = Wisconsin Administrative Code, Chapter NR 720 generic Residual Contaminant Level (industrial land use RCLs for RCRA metals).

NR 746 Table 1 = Wisconsin Administrative Code, Chapter NR 746, Table 1 soil screening level: Indicators of Residual Petroleum Products in Soil Pores.

NR 746 Table 2 = Wisconsin Administrative Code, Chapter NR 746, Table 2: Protection of Human Health from Direct Contact with Contaminated Soil.

¹ = Calculated Site Specific RCLs

² = WDNR hazardous waste contained-out determination values

Exceedances: **BOLD** = detected compound **BOX** = concentration exceeds standard

TABLE 3
GROUNDWATER ANALYTICAL QUALITY RESULTS
VOLATILE ORGANIC COMPOUNDS
One Hour Fabricare - McKplaco Property
4704 West Burleigh Street
Milwaukee, Wisconsin
Project Reference #10837

Parameter	Unit	NR 140		Collection Date											
				TMW-2		MW-1		MW-2		MW-3		MW-4		MW-5	
		ES	PAL	10/13/06	05/11/10	05/11/10	05/11/10	05/11/10	05/11/10	05/11/10	05/11/10	05/11/10	05/11/10	05/11/10	
Benzene	µg/L	5.0	0.5	<47	<0.38	<3.8	<0.38	<38	<0.38	<0.38	<0.38	<0.38	<0.38		
Bromobenzene	µg/L	NS	NS	<0.62	<1	<10	<1	<100	<1	<1	<1	<1	<1		
Bromodichloromethane	µg/L	0.6	0.06	<0.82	<0.64	<6.4	<0.64	<64	<0.64	<0.64	<0.64	<0.64	<0.64		
Bromoform	µg/L	4.4	0.44	<0.3	<0.39	<3.9	<0.39	<39	<0.39	<0.39	<0.39	<0.39	<0.39		
tert-Butylbenzene	µg/L	NS	NS	<0.6	<0.55	<5.5	<0.55	<55	<0.55	<0.55	<0.55	<0.55	<0.55		
sec-Butylbenzene	µg/L	NS	NS	<0.76	<0.59	<5.9	<0.59	<59	<0.59	<0.59	<0.59	<0.59	<0.59		
n-Butylbenzene	µg/L	NS	NS	<1.1	<0.94	<9.4	<0.94	<94	<0.94	<0.94	<0.94	<0.94	<0.94		
Carbon Tetrachloride	µg/L	5.0	0.5	<0.52	<0.25	<2.5	<0.25	<25	<0.25	<0.25	<0.25	<0.25	<0.25		
Chlorobenzene	µg/L	100	10	<0.56	<0.91	<9.1	<0.91	<91	<0.91	<0.91	<0.91	<0.91	<0.91		
Chloroethane	µg/L	400	80	<0.54	<0.67	<6.7	<0.67	<67	<0.67	<0.67	<0.67	<0.67	<0.67		
Chloroform	µg/L	6.0	0.6	<0.61	<0.32	<3.2	<0.32	<32	<0.32	<0.32	<0.32	<0.32	<0.32		
Chloromethane	µg/L	3.0	0.3	<1	<1.2	<12	<1.2	<120	<1.2	<1.2	<1.2	<1.2	<1.2		
2-Chlorotoluene	µg/L	NS	NS	<1.1	<0.51	<5.1	<0.51	<51	<0.51	<0.51	<0.51	<0.51	<0.51		
4-Chlorotoluene	µg/L	NS	NS	<0.62	<0.74	<7.4	<0.74	<74	<0.74	<0.74	<0.74	<0.74	<0.74		
1,2-Dibromo-3-Chloropropane	µg/L	0.2	0.02	<2.5	<1.9	<19	<1.9	<190	<1.9	<1.9	<1.9	<1.9	<1.9		
Dibromochloromethane	µg/L	60	6.0	<0.65	<1.1	<11	<1.1	<110	<1.1	<1.1	<1.1	<1.1	<1.1		
1,4-Dichlorobenzene	µg/L	75	15	<0.68	<0.95	<9.5	<0.95	<95	<0.95	<0.95	<0.95	<0.95	<0.95		
1,3-Dichlorobenzene	µg/L	1,250	125	<0.72	<0.79	<7.9	<0.79	<79	<0.79	<0.79	<0.79	<0.79	<0.79		
1,2-Dichlorobenzene	µg/L	600	60	<0.69	<0.84	<8.4	<0.84	<84	<0.84	<0.84	<0.84	<0.84	<0.84		
Dichlorodifluoromethane	µg/L	1,000	200	<0.5	<0.7	<7	<0.7	<70	<0.7	<0.7	<0.7	<0.7	<0.7		
1,2-Dichloroethane	µg/L	5.0	0.5	<0.72	<0.38	<3.8	<0.38	<38	<0.38	<0.38	<0.38	<0.38	<0.38		
1,1-Dichloroethane	µg/L	850	85	<0.56	<0.69	<6.9	<0.69	<69	<0.69	<0.69	<0.69	<0.69	<0.69		
1,1-Dichloroethene	µg/L	7.0	0.7	<0.3	<0.7	<7	<0.7	<70	<0.7	<0.7	<0.7	<0.7	<0.7		
cis-1,2-Dichloroethene	µg/L	70	7.0	1.29 J	<0.78	106	1.56 J	150 J	<0.78	<0.78	<0.78	<0.78	<0.78		
trans-1,2-Dichloroethene	µg/L	100	20	<0.95	<1.3	23.1 J	<1.3	<130	<1.3	<1.3	<1.3	<1.3	<1.3		
1,2-Dichloropropane	µg/L	5.0	0.5	<0.47	<0.34	<3.4	<0.34	<34	<0.34	<0.34	<0.34	<0.34	<0.34		
2,2-Dichloropropane	µg/L	NS	NS	<1.2	<0.46	<4.6	<0.46	<46	<0.46	<0.46	<0.46	<0.46	<0.46		
1,3-Dichloropropane	µg/L	NS	NS	<0.67	<0.97	<9.7	<0.97	<97	<0.97	<0.97	<0.97	<0.97	<0.97		
Di-isopropyl ether	µg/L	NS	NS	<0.71	<0.7	<7	<0.7	<70	<0.7	<0.7	<0.7	<0.7	<0.7		
EDB (1,2-Dibromoethane)	µg/L	0.05	0.01	<0.49	<0.95	<9.5	<0.95	<95	<0.95	<0.95	<0.95	<0.95	<0.95		
Ethylbenzene	µg/L	700	140	<0.38	<0.55	<5.5	<0.55	<55	<0.55	<0.55	<0.55	<0.55	<0.55		
Hexachlorobutadiene	µg/L	NS	NS	<2.1	<1.8	<18	<1.8	<180	<1.8	<1.8	<1.8	<1.8	<1.8		
Isopropylbenzene	µg/L	NS	NS	<0.99	<0.71	<7.1	<0.71	<71	<0.71	<0.71	<0.71	<0.71	<0.71		
p-Isopropyltoluene	µg/L	NS	NS	<0.81	<0.91	<9.1	<0.91	<91	<0.91	<0.91	<0.91	<0.91	<0.91		
Methylene Chloride	µg/L	5.0	0.5	<0.69	<0.47	<4.7	<0.47	<47	<0.47	<0.47	<0.47	<0.47	<0.47		
Methyl Tert Butyl Ether (MTBE)	µg/L	60	12	<0.52	<0.25	<2.5	<0.25	<25	<0.25	<0.25	<0.25	<0.25	<0.25		
Naphthalene	µg/L	100	10	<2.2	<2.4	<24	<2.4	<240	<2.4	<2.4	<2.4	<2.4	<2.4		
n-Propylbenzene	µg/L	NS	NS	<0.61	<0.67	<6.7	<0.67	<67	<0.67	<0.67	<0.67	<0.67	<0.67		
1,1,2,2-Tetrachloroethane	µg/L	0.2	0.02	<0.89	<0.5	<5	<0.5	<50	<0.5	<0.5	<0.5	<0.5	<0.5		
1,1,1,2-Tetrachloroethane	µg/L	70	7.0	<0.65	<0.7	<7	<0.7	<70	<0.7	<0.7	<0.7	<0.7	<0.7		
Tetrachloroethene	µg/L	5.0	0.5	<0.52	9.1	510	<0.43	4100	<0.43	<0.43	<0.43	<0.43	<0.43		
Toluene	µg/L	1,000	200	<0.59	<0.72	<7.2	<0.72	<72	<0.72	<0.72	<0.72	<0.72	<0.72		
1,2,4-Trichlorobenzene	µg/L	70	14	<1.5	<1.5	<15	<1.5	<150	<1.5	<1.5	<1.5	<1.5	<1.5		
1,2,3-Trichlorobenzene	µg/L	NS	NS	<1.4	<0.28	<28	<0.28	<280	<0.28	<0.28	<0.28	<0.28	<0.28		
1,1,1-Trichloroethane	µg/L	200	40	<0.5	<0.53	<5.3	<0.53	<53	<0.53	<0.53	<0.53	<0.53	<0.53		
1,1,2-Trichloroethane	µg/L	5.0	0.5	<0.5	<0.47	<4.7	<0.47	<47	<0.47	<0.47	<0.47	<0.47	<0.47		
Trichloroethene (TCE)	µg/L	5.0	0.5	<0.44	0.55 J	112	0.40 J	267	<0.39	1.92					
Trichlorofluoromethane	µg/L	3,490	698	<0.61	<0.56	<5.6	<0.56	<56	<0.56	<0.56	<0.56	<0.56	<0.56		
1,2,4-Trimethylbenzene	µg/L	**	**	<0.39	<0.65	<6.5	<0.65	<65	<0.65	<0.65	<0.65	<0.65	<0.65		
1,3,5-Trimethylbenzene	µg/L	**	**	<1.2	<0.55	<5.5	<0.55	<55	<0.55	<0.55	<0.55	<0.55	<0.55		
Total Trimethylbenzenes	µg/L	480	96	<1.59	<1.2	<12	<1.2	<120	<1.2	<1.2	<1.2	<1.2	<1.2		
Vinyl Chloride	µg/L	0.2	0.02	0.2 J	<0.19	<1.9	<0.19	<19	<0.19	<0.19	<0.19	<0.19	<0.19		
Xylenes (total)	µg/L	10,000	1,000	<1.42	<1.62	<16.2	<1.62	<162	<1.62	<1.62	<1.62	<1.62	<1.62		

Notes:

Terracon conducted groundwater sampling on October 13, 2006

µg/L = micrograms per liter (equivalent to parts per billion)

J = Analyte detected between limit of detection and limit of quantification

NA = Not Analyzed NS = No Standard

NR 140 ES = Wisconsin Administrative Code, Chapter NR 140 Enforcement Standard

NR 140 PAL = Wisconsin Administrative Code, Chapter NR 140 Preventive Action Limit

Exceedances: **BOLD** = concentration exceeds Chapter NR 140 PAL

BOX = concentration exceeds Chapter NR 140 ES

TABLE 4
SUB-SLAB AIR ANALYTICAL QUALITY RESULTS
ONE HOUR FABRICARE - MCKPLACO
4704 WEST BURLEIGH STREET
MILWAUKEE, WISCONSIN
Project Reference #10837

Volatile Organic Compounds - Detects Only	Unit	Calculated Sub-Slab Air Standard	SSV-1-10837
			Collection Date
			8/2/2010
cis 1,2-dichloroethene	µg/m³	NS	198
tetrachloroethene	µg/m³	41	1,140,000
trans 1,2-dichloroethene	µg/m³	630	75
trichloroethene	µg/m³	120	43800
vinyl chloride	µg/m³	16	<2.2

Notes:

µg/m³ = micrograms per cubic meter of air

NS = No calculated standard

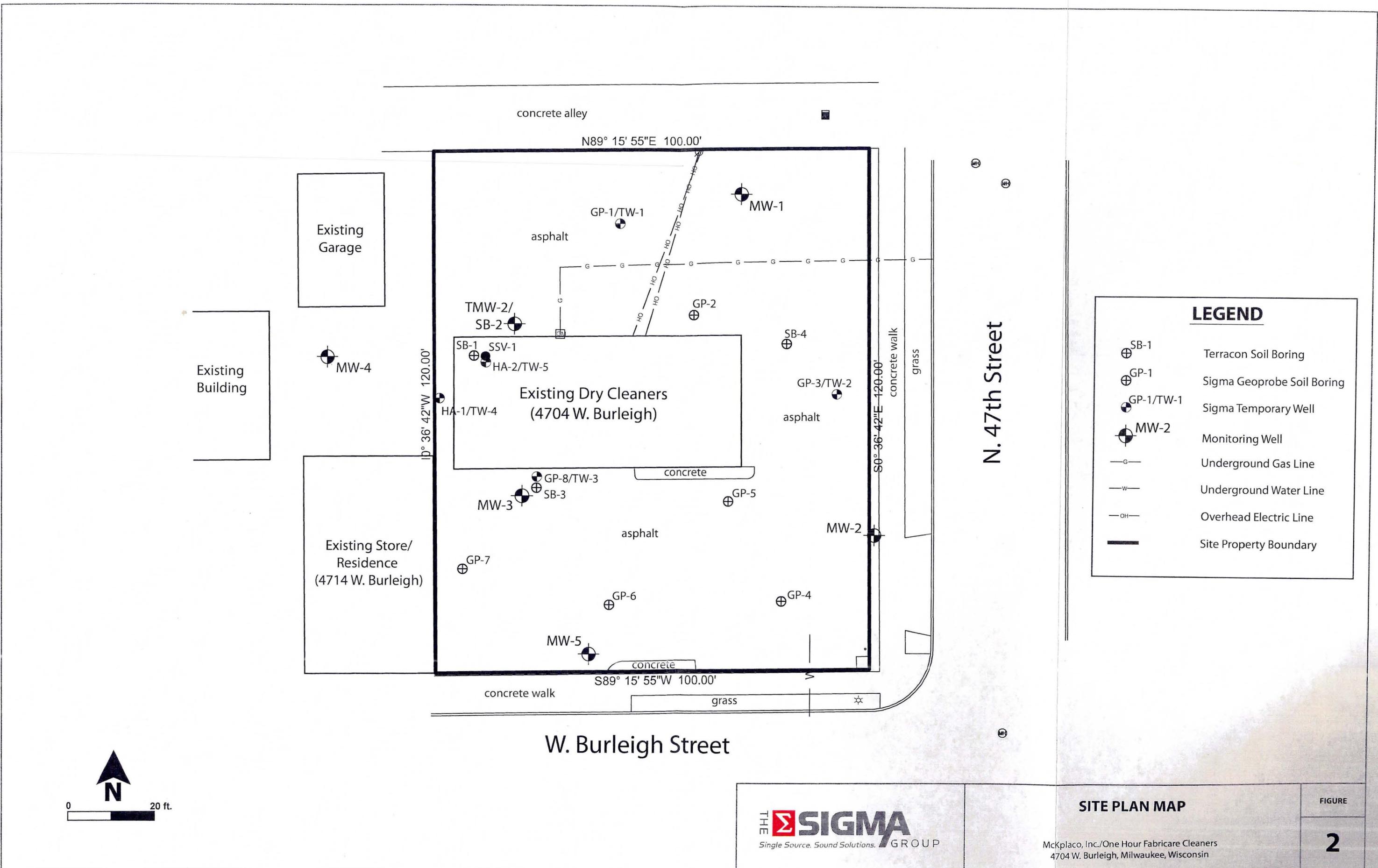
Sub-Slab Air Standard = The sub-slab air standard was calculated using EPA Residential Air Standard and the WDNR conversion factor of 10 for a non-carcinogenic and 100 for a carcinogenic analyte.

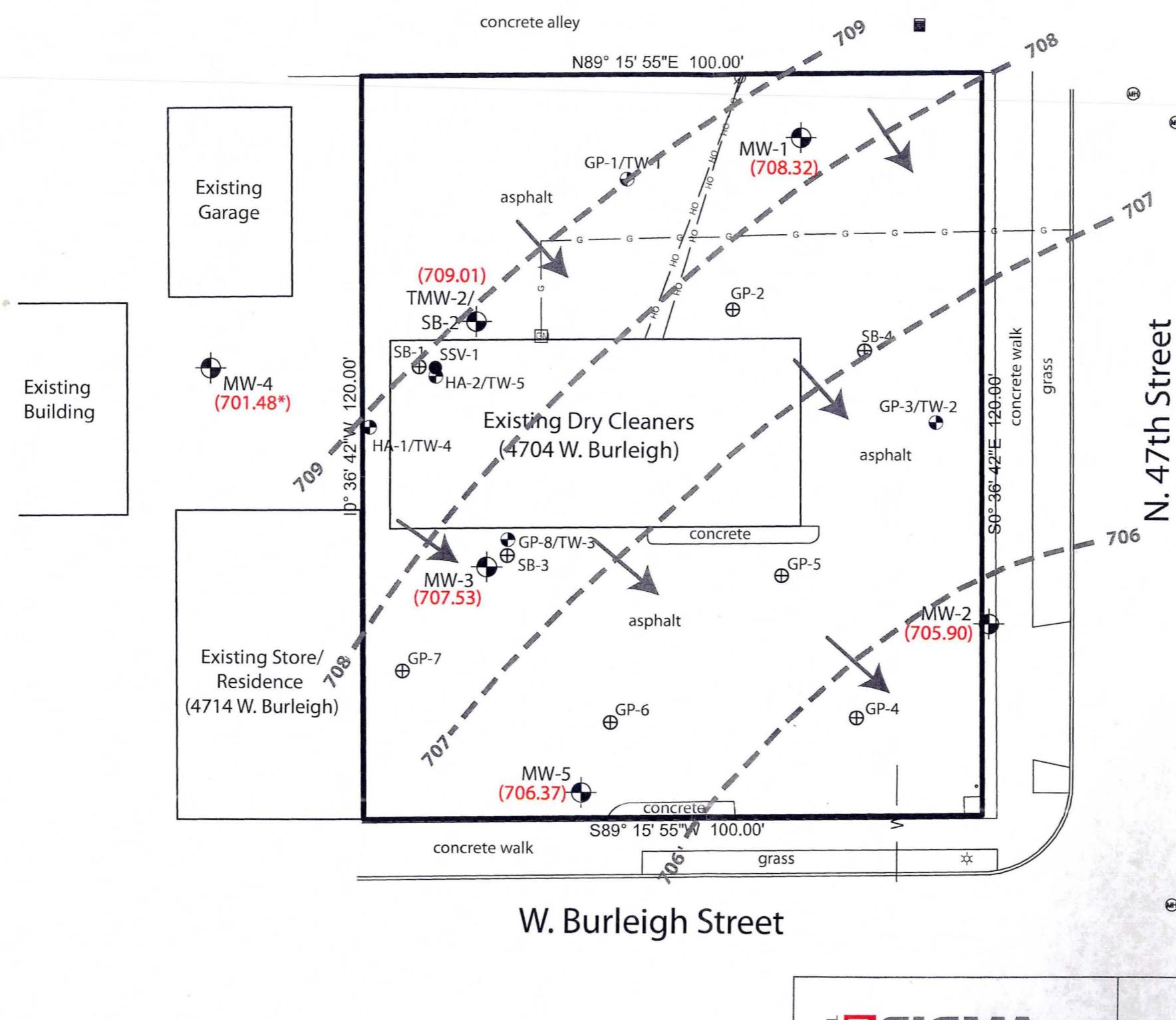
Exceedances: **BOLD** = concentration exceeds calculated sub-slab air standard

Sub Con't

PCB SSVAST = 6,000
TC E 200

Project: 10337_Fig 2SPM.ai | Filename: 10337_Fig 2SPM.ai | Directory: Graphics | Created By: MET | Date: 06/08/2010





* = groundwater elevation not considered during evaluation of groundwater flow.

Soil Quality Legend

All results reported in micrograms per kilograms (ug/kg).

J = Concentrations reported between the laboratory

PCE = Tetrachloroethene

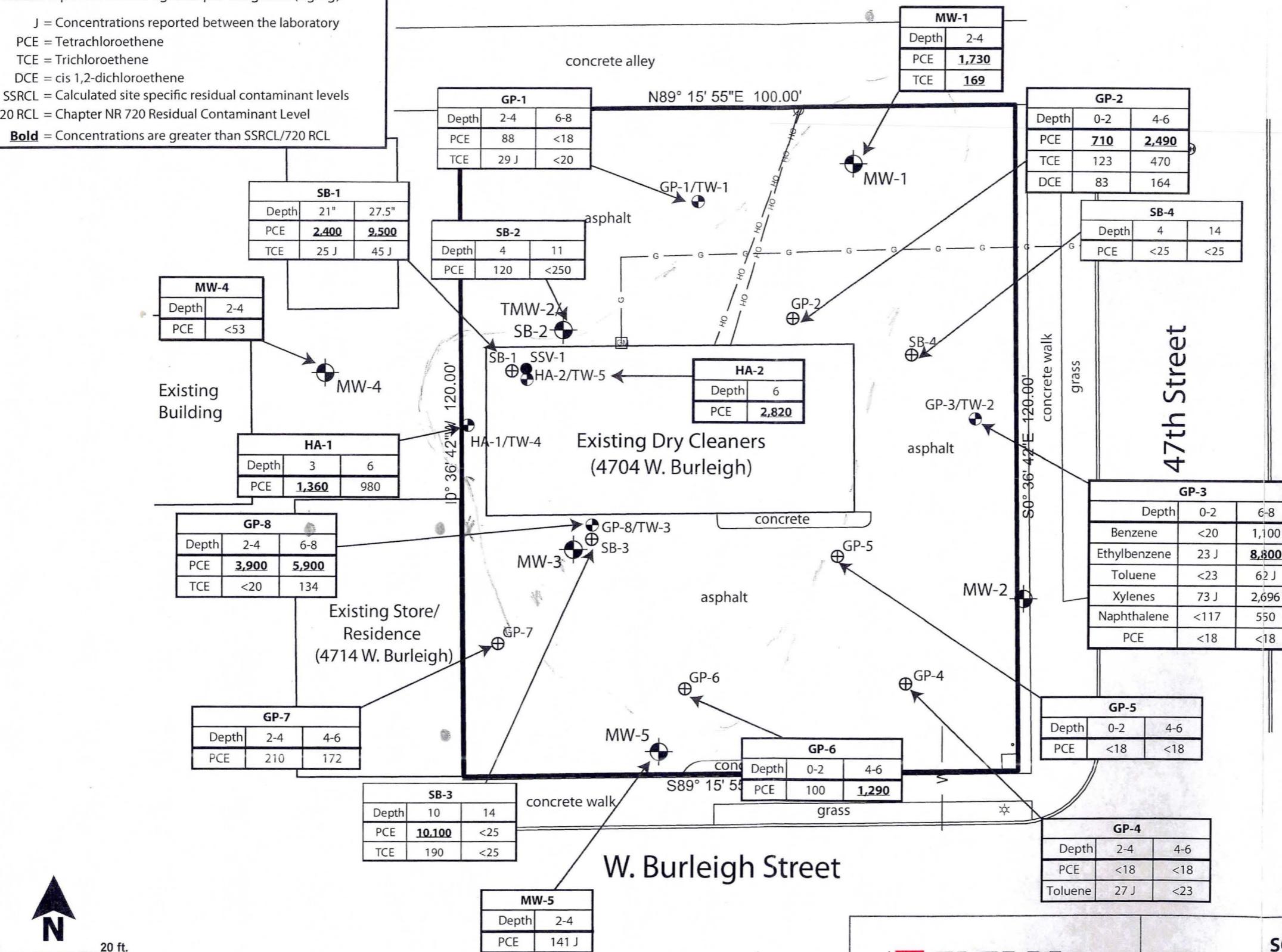
TCE = Trichloroethene

DCE = cis 1,2-dichloroethene

SSRCL = Calculated site specific residual contaminant levels

NR 720 RCL = Chapter NR 720 Residual Contaminant Level

Bold = Concentrations are greater than SSRCL/720 RCL



LEGEND

SB-1	Terracon Soil Boring
GP-1	Sigma Geoprobe Soil Boring
MW-2	Sigma Temporary Well
G	Monitoring Well
w	Underground Gas Line
OH	Underground Water Line
—	Overhead Electric Line
—	Site Property Boundary

SOIL QUALITY MAP
(Detects Only)

McPlaco, Inc./One Hour Fabricare Cleaners
4704 W. Burleigh, Milwaukee, Wisconsin

FIGURE

4

