

Klauk, Robert H - DNR

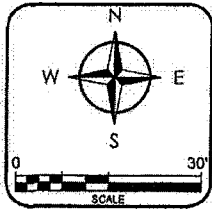
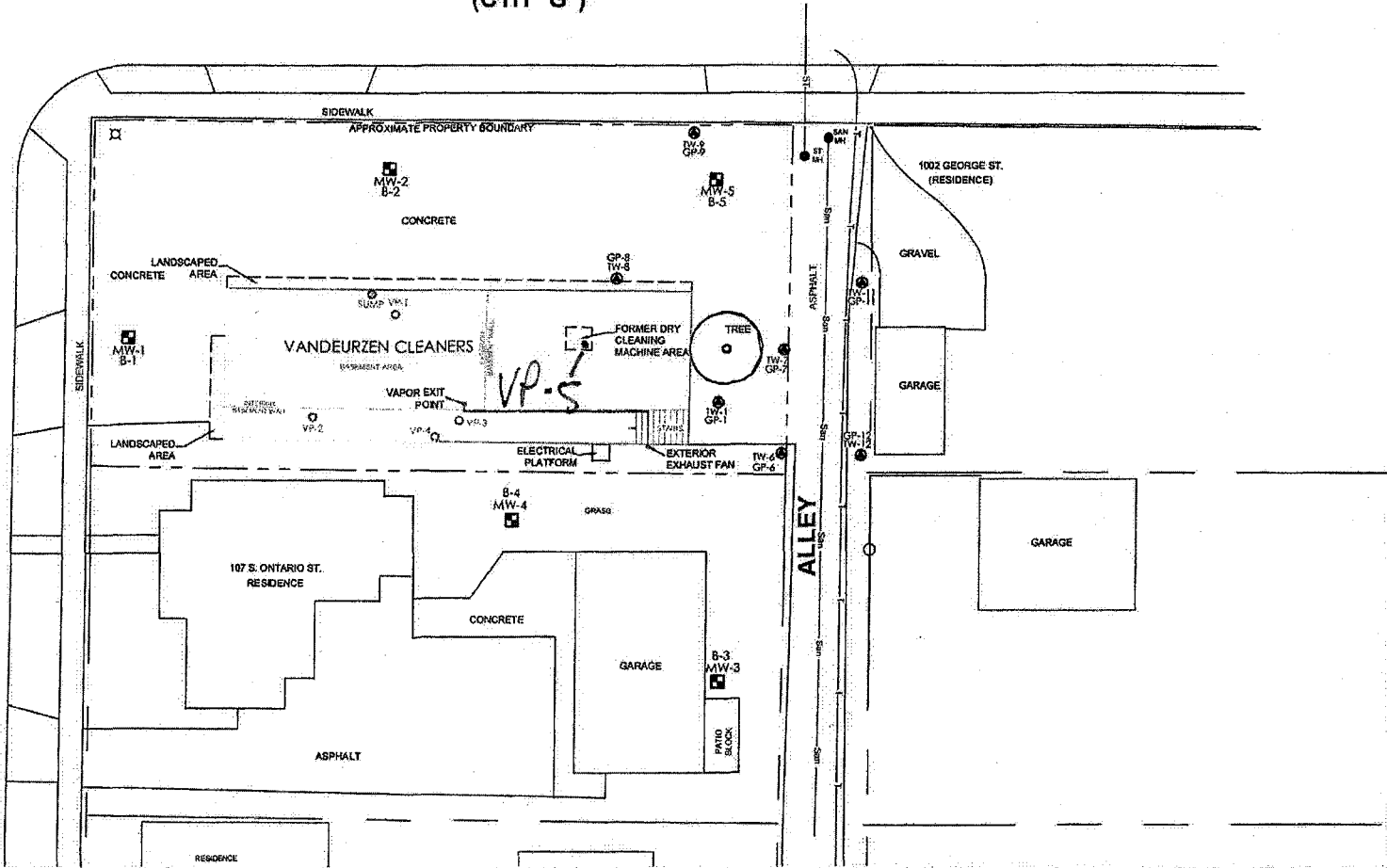
From: Brian Youngwirth <byoungwirth@generalengineering.net>
Sent: Thursday, June 23, 2016 10:09 AM
To: Klauk, Robert H - DNR
Subject: Vandeurzen
Attachments: Analytical Table 08.20.2014.xls; Groundwater Elevation Table.xls; Subslab Vapor Testing.xls

Bob, here are the tables for Vandeurzen. There are multiple tabs in the soil and groundwater tables.

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LEGEND	
	MONITORING WELL & SOIL BORING LOCATION
	TEMPORARY MONITORING WELL & GEOPROBE LOCATION
	VAPOR TESTING LOCATIONS
	SUMP LOCATION

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SOIL BORING, PROBE, MONITORING WELL & TEMPORARY MONITORING WELL LOCATION MAP

Former Van Deurzen Dry Cleaners
 City of DePere
 Brown County, WI

GEC

DRAWN BY	KP
REVIEWED BY	LMB
ISSUE DATE	June 2016
GEC FILE NO.	2-0614-154
SHEET NO.	

FIGURE 3

TABLE 1
SUMMARY OF SOIL ANALYTICAL RESULTS
VAN DEURZEN CLEANERS
02-0614-154

Sample No.	NC RCL (ug/kg)	C RCL (ug/kg)	Not-To-Exceed Direct Contact	Soil to Groundwater RCL	SB-1/MW-1	SB-2/MW-2	SB-3/MW-3	SB-4/MW-4	SB-4/MW-4	SB-5/MW-5
Sampling Date					07/10/14	07/10/14	07/10/14	07/10/14	07/10/14	07/10/14
Sample Depth (feet)					4-6'	4-6'	4-6'	2-4'	6-7'	4-6'
PETROLEUM VOLATILE ORGANIC COMPOUNDS (PVOC) (ug/kg)										
Benzene	111,000	1,490	1,490	5.1	<9.2	<9.2	<9.2	<9.2	<9.2	<9.2
Ethylbenzene	4,200,000	7,470	7,470	1,570	<10	<10	<10	<10	<10	<10
Methyl tert-butyl ether	23,800,000	59,400	59,400	27	<30	<30	<30	<30	<30	<30
Naphthalene	188,000	5,150	5,150	658	<114	<114	<114	<114	<114	<114
Tetrachloroethene	115,000	30,700	30,700	4.5	<49	<49	<49	<49	<49	66J
Toluene	5,300,000	NE	818,000	1107	<20	<20	<20	<20	<20	<20
1,2,4-Trimethylbenzene	89,800	NE	89,800	1382	<26	<26	<26	<26	<26	<26
1,3,5-Trimethylbenzene	782,000	NE	182,000	1382	<26	<26	<26	<26	<26	<26
Xylenes, -m, -p	890,000	NE	258,000	3940	<68	<68	<68	<68	<68	<68
Xylenes, -o					<31	<31	<31	<31	<31	<31

µg/kg = micrograms per kilogram
RCL = Residual Contaminant Level

SSL = Soil Screening Level

DCL = Direct Contact Level

NA = Parameter not analyzed

NE = NR 720 RCL not established

J = Analyte detected above laboratory limit of detection but below limit of quantitation.

Bold indicates analytical results exceed NR 720 RCL

**TABLE 1
SUMMARY OF SOIL ANALYTICAL RESULTS
VAN DEURZEN CLEANERS
02-0614-154**

Sample No.	NC RCL (ug/kg)	C RCL (ug/kg)	Not-To- Exceed Direct Contact	Soil to Groundwater RCL	GP-6	GP-6	GP-7	GP-7	GP-8	GP-9
Sampling Date					07/30/15	07/30/15	07/30/15	07/30/15	07/30/15	07/30/15
Sample Depth (feet)					3-4	7-8	2-3	7-8	6-7'	4-5
PETROLEUM VOLATILE ORGANIC COMPOUNDS (PVOC) (ug/kg)										
Benzene	111,000	1,490	1,490	5.1	<16	<16	<16	<16	<16	<16
Ethylbenzene	4,200,000	7,470	7,470	1,570	<27	<27	<27	<27	<27	<27
Methyl tert-butyl ether	23,800,000	59,400	59,400	27	<25	<25	<25	<25	<25	<25
Naphthalene	188,000	5,150	5,150	658	<87	<87	<87	<87	<87	<87
Tetrachloroethene	115,000	30,700	30,700	4.5	860	6,100	360	247	<54	930
Toluene	5,300,000	NE	818,000	1107	<31	<31	<31	<31	<31	<31
1,2,4-Trimethylbenzene	89,800	NE	89,800	1382	<78	<78	<78	<78	<78	<78
1,3,5-Trimethylbenzene	782,000	NE	182,000	1382	<89	<89	<89	<89	<89	<89
Xylenes, -m, -p	890,000	NE	258,000	3940	<70	<70	<70	<70	<70	<70
Xylenes, -o					<29	<29	<29	<29	<29	<29

µg/kg = micrograms per kilogram
RCL = Residual Contaminant Level

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DCL = Direct Contact Level

NA = Parameter not analyzed

NE = NR 720 RCL not established

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GP-11		GP-12		VP-5
05/19/16		05/19/16		05/19/16
0-2	4-6	2-4	4-6	0.5
<16	<16	<16	<16	<16
<27	<27	<27	<27	<27
<25	<25	<25	<25	<25
<87	<87	<87	<87	<87
<54	<54	<54	<54	<54
<31	<31	<31	<31	<31
<78	<78	<78	<78	<78
<89	<89	<89	<89	<89
<70	<70	<70	<70	<70
<29	<29	<29	<29	<29

TABLE 2
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
VAN DEURZEN CLEANERS
02-0614-154

Monitoring Well	NR 140		MW-1			MW-2			MW-3			MW-4			MW-5		
	ES	PAL	07/21/2014	08/06/2015	05/19/2016	07/21/2014	08/06/2015	05/19/2016	07/21/2014	08/06/2015	05/19/2016	07/21/2014	08/06/2015	05/19/2016	07/21/2014	08/06/2015	05/19/2016
PETROLEUM VOLATILE ORGANIC COMPOUNDS (PVOC) (µg/L)																	
Benzene	5	0.5	<0.24	<0.44	<0.44	<0.24	<0.44	<0.44	<0.24	<0.44	<0.44	<0.24	<0.44	<0.44	<0.24	<0.44	<0.44
Ethylbenzene	700	140	<0.55	<0.71	<0.71	<0.55	<0.71	<0.71	<0.55	<0.71	<0.71	<0.55	<0.71	<0.71	<0.55	<0.71	<0.71
Methyl tert-butyl ether	60	12	<0.23	<1.1	<1.1	<0.23	<1.1	<1.1	<0.23	<0.44	<1.1	<0.23	<1.1	<1.1	<0.23	<1.1	<1.1
Toluene	1000	200	<0.69	<0.44	<0.44	<0.69	<0.44	<0.44	<0.69	<0.44	<0.44	<0.69	<0.44	<0.44	<0.69	<0.44	<0.44
1,2,4-Trimethylbenzene	480	96	<2.2	<1.6	<1.6	<2.2	<1.6	<1.6	<2.2	<1.6	<1.6	<2.2	<1.6	<1.6	<2.2	<1.6	<1.6
1,3,5-Trimethylbenzene			<1.4	<1.5	<1.5	<1.4	<1.5	<1.5	<1.4	<1.5	<1.5	<1.4	<1.5	<1.5	<1.4	<1.5	<1.5
Xylenes, -m, -p	10000	1000	<0.69	<2.2	<2.2	<0.69	<2.2	<2.2	<0.69	<2.2	<2.2	<0.69	<2.2	<2.2	<0.69	<2.2	<2.2
Xylenes, -o			<0.63	<0.9	<0.9	<0.63	<0.9	<0.9	<0.63	<0.9	<0.9	<0.63	<0.9	<0.9	<0.63	<0.9	<0.9
OTHER DETECTED VOLATILE ORGANIC COMPOUNDS (VOC) (µg/L)																	
Cis 1,2 Dichloroethene	70	7	<0.38	<0.45	<0.45	<0.38	<0.45	<0.45	<0.38	<0.45	<0.45	<0.38	<0.45	<0.45	<0.38	<0.45	<0.45
Tetrachloroethene	5	0.5	<0.33	<0.49	<0.49	<0.33	<0.49	<0.49	<0.33	<0.49	<0.49	<0.33	<0.49	<0.49	12.9	8.3	11.4
Trichloroethene (TCE)	5	0.5	<0.33	<0.47	<0.47	<0.33	<0.47	<0.47	<0.33	<0.47	<0.47	<0.33	<0.47	<0.47	<0.33	<0.47	<0.47

ES = Enforcement Standard
PAL = Preventive Action Limit
µg/L = micrograms per liter
NA = Parameter not analyzed
NE = NR 140 ES not established
J = Analyte detected above laboratory limit of detection but below limit of quantitation.
Bold indicates analytical results above NR 140 ES

TABLE 2
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
VAN DEURZEN CLEANERS
02-0614-154

Monitoring Well	NR 140		TW-1			TW-6		TW-7		TW-8		TW-9		Sump
	ES	PAL	07/21/2014	08/06/2015	05/19/2016	08/06/2015	05/19/2016	08/06/2015	05/19/2016	08/06/2015	05/19/2016	08/06/2015	05/19/2016	10/06/2014
PETROLEUM VOLATILE ORGANIC COMPOUNDS (PVOC) (µg/L)														
Benzene	5	0.5	<0.24	<4.4	<2.2	<4.4	<4.4	<0.44	<0.44	<0.44	<0.44	<2.2	<0.44	<0.24
Ethylbenzene	700	140	<0.55	<7.1	<3.55	<7.1	<7.1	<0.71	<0.71	<0.71	<0.71	<3.55	<0.71	<0.55
Methyl tert-butyl ether	60	12	<0.23	<11	<5.5	<11	<11	<1.1	<1.1	<1.1	<1.1	<5.5	<1.1	<0.23
Toluene	1000	200	<0.69	<4.4	<2.2	<4.4	<4.4	<0.44	<0.44	<0.44	<0.44	<2.2	<0.44	<0.69
1,2,4-Trimethylbenzene	480	96	<2.2	<16	<8	<16	<16	<1.6	<1.6	<1.6	<1.6	<8	<1.6	<2.2
1,3,5-Trimethylbenzene			<1.4	<15	<7.5	<15	<15	<1.5	<1.5	<1.5	<1.5	<1.5	<7.5	<1.5
Xylenes, -m, -p	10000	1000	<0.69	<22	<11	<22	<22	<2.2	<2.2	<2.2	<2.2	<11	<2.2	<0.69
Xylenes, -o			<0.63	<9	<4.5	<9	<9	<0.9	<0.9	<0.9	<0.9	<0.9	<4.5	<0.9
OTHER DETECTED VOLATILE ORGANIC COMPOUNDS (VOC) (µg/L)														
Cis 1,2 Dichloroethene	70	7	<0.38	32	34	<4.5	8.5J	2.2	0.76J	<0.45	<0.45	<2.25	<0.45	5.9
Tetrachloroethene	5	0.5	320	218	196	620	1230	23.5	44	2.46	2.94	144	162	41
Trichloroethene (TCE)	5	0.5	11.3	23.1	26.6	<4.7	12.4J	1.37J	1.51	<0.47	<0.47	<2.35	<0.47	17.4

ES = Enforcement Standard

PAL = Preventive Action Limit

µg/L = micrograms per liter

NA = Parameter not analyzed

NE = NR 140 ES not established

J = Analyte detected above laboratory limit of detection but below limit of quantitation.

Bold indicates analytical results above NR 140 ES

TABLE 2
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
VAN DEURZEN CLEANERS
02-0614-154

Monitoring Well	NR 140		TW-10		TW-11		TW-12	
	ES	PAL	05/24/2016		05/24/2016		05/24/2016	
PETROLEUM VOLATILE ORGANIC COMPOUNDS (PVOC) (µg/L)								
Benzene	5	0.5	<0.44		<0.44		<0.44	
Ethylbenzene	700	140	<0.71		<0.71		<0.71	
Methyl tert-butyl ether	60	12	<1.1		<1.1		<1.1	
Toluene	1000	200	<0.44		<0.44		<0.44	
1,2,4 -Trimethylbenzene	480	96	<1.6		<1.6		<1.6	
1,3,5 -Trimethylbenzene			<1.5		<1.5		<1.5	
Xylenes, -m, -p	10000	1000	<2.2		<2.2		<2.2	
Xylenes, -o			<0.9		<0.9		<0.9	
OTHER DETECTED VOLATILE ORGANIC COMPOUNDS (VOC) (µg/L)								
Cis 1,2 Dichloroethene	70	7	<0.45		<0.45		<0.45	
Tetrachloroethene	5	0.5	<0.49		<0.49		<0.49	
Trichloroethene (TCE)	5	0.5	<0.47		<0.47		<0.47	

ES = Enforcement Standard

PAL = Preventive Action Limit

µg/L = micrograms per liter

NA = Parameter not analyzed

NE = NR 140 ES not established

J = Analyte detected above laboratory limit of detection but below limit of quantitation.

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