

GENERAL INSTRUCTIONS, PURPOSE AND APPLICABILITY OF THIS FORM: Completion of this form is required under s. NR 724.13(3), Wis. Adm. Code. A narrative report or letter containing the equivalent information required in this form may be submitted in lieu of the actual form. Failure to submit this form as required is a violation of s. NR 724.13(3), Wis. Adm. Code, and is subject to the penalties in s. 292.99, Wis. Stats. This form must be submitted every six months for soil or groundwater remediation projects that report operation and maintenance progress in accordance with s. NR 724.13(3), Wis. Adm. Code.

Note: Long-term monitoring results submitted in accordance with s. NR 724.17(3), Wis. Adm. Code are required to be submitted within 10 business days of receiving sampling results and are not required to be submitted using this form. However, portions of this form require monitoring data summary information that may be based on information previously submitted in accordance with s. NR 724.17(3), Wis. Adm. Code.

Note: Responsible parties should check with the State Project Manager assigned to the site to determine if this form is required to be submitted at sites responded to under the Federal Comprehensive Environmental Response and Compensation Act (commonly known as Superfund) or an equivalent State lead Superfund response.

Note: Responsible parties should check with the State Project Manager assigned to the site to determine if any of the information required in this form may be omitted or changed and obtain prior written approval for any omissions or changes.

Submission of this form is not a substitute for reporting required by Department programs such as Waste Water or Air Management. Personally identifiable information on this form is not intended to be used for any other purpose than tracking progress of the remediation by the Bureau for Remediation and Redevelopment.

Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Open Records Law (ss. 19.31-19.39, Wis. Stats.). Unless otherwise noted, all citations refer to Wisconsin Administrative Code.

Note: There is a separate semi-annual report required under s. NR 700.11(1), Wis. Adm. Code. Reporting under that provision is through an internet-based form:

<http://dnr.wi.gov/topic/Brownfields/documents/regs/NR700progreport.pdf>

Section GI - General Site Information

A. General Information

1. Site name

Martino's Master Dry Cleaner

2. Reporting period from: 07/01/2018 To: 12/31/2018 Days in period: 184

3. Regulatory agency (enter DNR, DATCP and/or other) 4. BRRTS ID No. (2 digit program-2 digit county-6 digit site specific)
 DNR 02-30-552186

5. Site location

Region	County	Address				
Southeast Region	Kenosha	3917 52nd Street				
Municipality name <input checked="" type="radio"/> City <input type="radio"/> Town <input type="radio"/> Village	Township	Range <input checked="" type="radio"/> E <input type="radio"/> W	Section	¼	¼	
Kenosha	02 N	22	35	NE	SE	

6. Responsible party

Name

Martino's Master Drycleaners

Mailing address

7513 41st Ave, Kenosha, WI 53142

Phone number

(262) 694-7858

7. Consultant

Select if the following information has changed since the last submittal

Company name

EnviroForensics, LLC

Mailing address

N16 W23390 Stone Ridge Drive Suite G
 Waukesha WI 53188

Phone number

(262) 290-4001

8. Contaminants

Tetrachloroethene

9. Soil types (USCS or USDA)

SM, CL

10. Hydraulic conductivity(cm/sec):

11. Average linear velocity of groundwater (ft/yr)

12. If soil is treated ex situ, is the treatment location off site? Yes No

If yes, give location: Region

County

Municipality name <input type="radio"/> City <input type="radio"/> Town <input type="radio"/> Village	Township	Range <input type="radio"/> E <input type="radio"/> W	Section	¼	¼
	N				

Site name: Martino's Master Dry Cleaner
Reporting period from: 07/01/2018 To: 12/31/2018
Days in period: 184

B. Remediation Method

Only submit sections that apply to an individual site. Check all that apply:

- Groundwater extraction (submit a completed Section GW-1).
- Free product recovery (submit a completed Section GW-1).
- In situ air sparging (submit a completed Section GW-2).
- Groundwater natural attenuation (submit a completed Section GW-3).
- Other groundwater remediation method (submit a completed Section GW-4).
- Soil venting (including soil vapor extraction building venting and bioventing submit a completed Section IS-1).
- Soil natural attenuation (submit a completed Section IS-2).
- Other in situ soil remediation method (submit a completed Section IS-3).
- Biopiles (submit a completed Section ES-1).
- Landspreading/thinspreading of petroleum contaminated soil (submit a completed Section ES-2).
- Other ex situ remediation method (submit a completed Section ES-3).
- Site is a landfill (submit a completed Section LF-1).

C. General Effectiveness Evaluation for All Active Systems

If the remediation is active (not natural attenuation), complete this subsection.

1. Is the system operating at design rates and specifications? Yes No
If the answer is no, explain whether or not modifications are necessary to achieve the goal that was previously established in design.

2. Are modifications to the system warranted to improve effectiveness Yes No
If yes, explain:

3. Is natural attenuation an effective low cost option at this time? Yes No
4. Is closure sampling warranted at this time? Yes No
5. Are there any modifications that can be made to the remediation to improve cost effectiveness? Yes No
If yes, explain:

D. Economic and Cost Data to Date

1. Total investigation cost: \$397,000.00
2. Implementation costs (design, capital and installation costs, excluding investigation costs): \$288,400.00
3. Total costs during the previous reporting period: \$12,200.00
4. Total costs during this reporting period: \$15,100.00
5. Total anticipated costs for the next reporting period: \$10,000.00
6. Are any unusual or one-time costs listed in the reporting periods covered by D.3., D.4. or D.5. above? Yes No
If yes, explain:

Notes:

D.2 Implementation costs include approximately \$191,000 for interior and exterior remedial excavation activities conducted November 2016 - May 2017.

D.4 Cost includes unanticipated purchase and replacement of a remediation system fan.

Site name: Martino's Master Dry Cleaner
Reporting period from: 07/01/2018 To: 12/31/2018
Days in period: 184

**Remediation Site Operation, Maintenance,
Monitoring & Optimization Report**
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7. If closure is anticipated within 12 months, estimated costs for project closeout: _____

E. Name(s), Signature(s) and Date of Person(s) Submitting Form

Legibly print name, date and sign. Only persons qualified to submit reports under ch. NR 712 Wis. Adm. Code are to sign this form for sites with any ongoing active remediation, monitoring or an investigation. Other persons may sign this form for sites with no response activities during the six month reporting period.

Registered Professional Engineers:

I hereby certify that I am a registered professional engineer in the State of Wisconsin, registered in accordance with the requirements of ch. A-E 4, Wis. Adm. Code; that this document has been prepared in accordance with the rules of Professional Conduct in ch. A-E 8, Wis. Adm. Code; and that, to the best of my knowledge, all information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code.

Print name	Title
Andrew Horwath	Director of Engineering and Remediation Services
Signature <i>Andrew D. Horwath</i>	Date
	1/22/2019

Hydrogeologists:

I hereby certify that I am a hydrogeologist as that term is defined in s. NR 712.03(1), Wis. Adm. Code, and that, to the best of my knowledge, all information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code.

Print name	Title
Brian Kappen	Project Manager
Signature <i>Brian Kappen</i>	Date
	1/22/2019

Scientists:

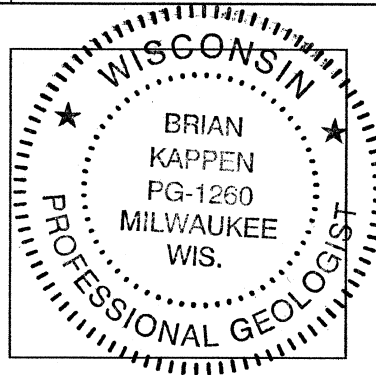
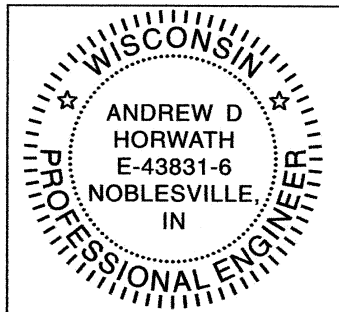
I hereby certify that I am a scientist as that term is defined in s. NR 712.03(3), Wis. Adm. Code, and that, to the best of my knowledge, all information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code.

Print name	Title
Signature	Date

Other Persons:

Print name	Title
Signature	Date

Professional Seal(s), if applicable:



Site name: Martino's Master Dry Cleaner
Reporting period from: 07/01/2018 To: 12/31/2018
Days in period: 184

Section IS-1, Soil Venting (Including Soil Vapor Extraction, Building Venting and Bioventing)

A. Soil Venting Operation

Note: This form is not required for building vapor mitigation systems that are installed proactively to protect building occupants/users and are not considered part of ongoing active soil remediation.

1. Number of air extraction wells available and number of wells actually in use during the period: 4
2. Number of days of operation (only list the number of days the system actually operated, if unknown explain):
161. Between 1 and 4 extraction wells were actually in use at any given time during the reporting period based on site conditions and equipment malfunction.
3. System utilization in percent (days of operation divided by reporting time period multiplied by 100). If < 80%, explain:
88%. The system was intentionally shut down on 5/9/18 due to high water table conditions, and re-started on 7/24/18.
4. Average depth to groundwater: 10.2 gpm

B. Building Basement/Subslab Venting System Operation

1. Number of venting points available and number of points actually in use during the period: _____
2. Number of days of operation (only list the number of days the system actually operated, if unknown explain): _____
3. System utilization in percent (days of operation divided by reporting time period multiplied by 100). If < 80%, explain: _____

C. Effectiveness Evaluation

1. Average contaminant removal rate for the entire system: 0.02 pounds per day
2. Average contaminant removal rate per well or venting point: 0.006 pounds per day
3. If the average contaminant removal rate is less than one pound per day for the entire system, or if the average contaminant removal rate per well is less than one tenth of a pound per day, evaluate the following:
 - a. If contaminants are aerobically biodegradable and confirmation borings have not been drilled in the past year:
 - i. Oxygen levels in extracted air: _____ percent
 - ii. Methane levels in extracted air (ppmv) If over 10 ppmv, explain: _____
 - iii. If methane is not present above 10 ppmv and if oxygen is greater than 20 percent in extracted air, you should either:
 - o Drill confirmation borings during the next reporting period, if the entire site should be considered for closure.
 - o Or, perform an in situ respirometry test in a zone of high contamination. Do not perform the test in an air extraction well, use a gas probe or water table well. If a zero order rate of decay based on oxygen depletion is less than 2 mg/kg per day, then you should drill confirmation borings, if the entire site should be considered for closure. If the rate of decay is between 2 and 10 mg/kg, operate for one more reporting period before evaluating further. If the zero order rate of decay is greater than 10 mg/kg total hydrocarbons, continue operating the system in a manner than maximizes aerobic biodegradation.
 - b. If contaminants are not aerobically biodegradable and confirmation borings have not been recently drilled during the past year, you should drill confirmation borings during the next reporting period if the entire site should be considered for closure.
 - c. If soil borings were drilled during the past year and soil contamination remains above acceptable levels, explain if the system effectiveness can be increased and/or if other options need to be considered to achieve cleanup criteria.

D. Additional Attachments

- Attach the following to this form:
- Well and soil sample location map indicating all air extraction wells. If forced air injection wells are also in use, identify those wells.
 - If water table monitoring wells are present at the site, a map of well locations.
 - Time versus vapor phase contaminant concentration graph.
 - Time versus cumulative contaminant removal graph.
 - Groundwater elevations table, if water table wells are present at the site; also list screen lengths and elevations.
 - Table of soil contaminant chemistry data.
 - Soil gas data, if gas probes are used to monitor subsurface conditions in locations other than where air is extracted.
 - System operational data table.

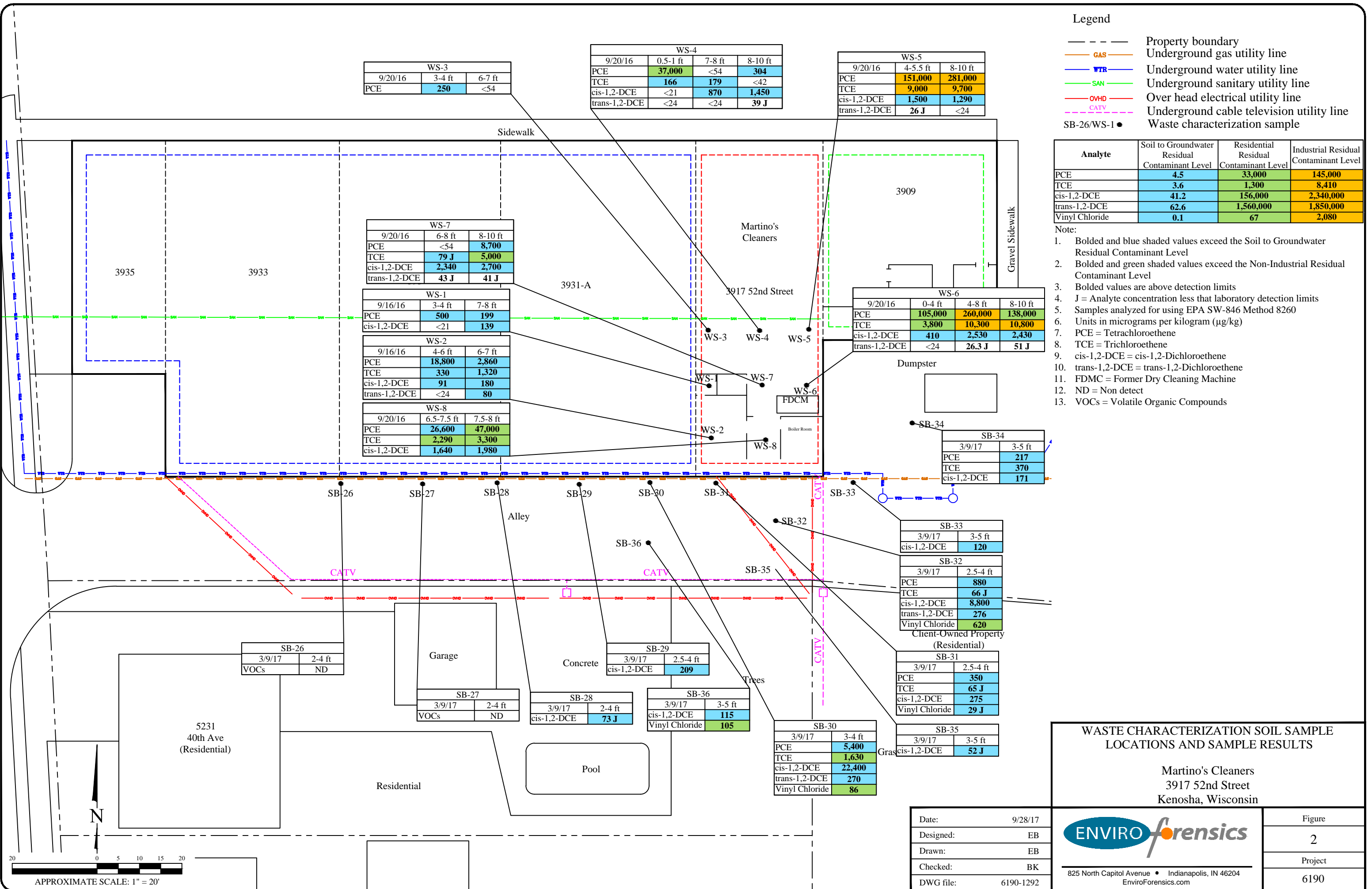
Legend

- Property boundary
- GAS Underground gas utility line
- WTR Underground water utility line
- SAN Underground sanitary utility line
- OVHD Over head electrical utility line
- CATV Underground cable television utility line
- SB-26/WS-1 Waste characterization sample

Analyte	Soil to Groundwater Residual Contaminant Level	Residential Residual Contaminant Level	Industrial Residual Contaminant Level
PCE	4.5	33,000	145,000
TCE	3.6	1,300	8,410
cis-1,2-DCE	41.2	156,000	2,340,000
trans-1,2-DCE	62.6	1,560,000	1,850,000
Vinyl Chloride	0.1	67	2,080

Note:

- Bolded and blue shaded values exceed the Soil to Groundwater Residual Contaminant Level
- Bolded and green shaded values exceed the Non-Industrial Residual Contaminant Level
- Bolded values are above detection limits
- J = Analyte concentration less than laboratory detection limits
- Samples analyzed for using EPA SW-846 Method 8260
- Units in micrograms per kilogram (µg/kg)
- PCE = Tetrachloroethene
- TCE = Trichloroethene
- cis-1,2-DCE = cis-1,2-Dichloroethene
- trans-1,2-DCE = trans-1,2-Dichloroethene
- FDMC = Former Dry Cleaning Machine
- ND = Non detect
- VOCs = Volatile Organic Compounds



WS-3		
9/20/16	3-4 ft	6-7 ft
PCE	250	<54

WS-4			
9/20/16	0.5-1 ft	7-8 ft	8-10 ft
PCE	37,000	<54	304
TCE	166	179	<42
cis-1,2-DCE	<21	870	1,450
trans-1,2-DCE	<24	<24	39 J

WS-5		
9/20/16	4-5.5 ft	8-10 ft
PCE	151,000	281,000
TCE	9,000	9,700
cis-1,2-DCE	1,500	1,290
trans-1,2-DCE	26 J	<24

WS-7		
9/20/16	6-8 ft	8-10 ft
PCE	<54	8,700
TCE	79 J	5,000
cis-1,2-DCE	2,340	2,700
trans-1,2-DCE	43 J	41 J

WS-1		
9/16/16	3-4 ft	7-8 ft
PCE	500	199
cis-1,2-DCE	<21	139

WS-2		
9/16/16	4-6 ft	6-7 ft
PCE	18,800	2,860
TCE	330	1,320
cis-1,2-DCE	91	180
trans-1,2-DCE	<24	80

WS-8		
9/20/16	6.5-7.5 ft	7.5-8 ft
PCE	26,600	47,000
TCE	2,290	3,300
cis-1,2-DCE	1,640	1,980

WS-6			
9/20/16	0-4 ft	4-8 ft	8-10 ft
PCE	105,000	260,000	138,000
TCE	3,800	10,300	10,800
cis-1,2-DCE	410	2,530	2,430
trans-1,2-DCE	<24	26.3 J	51 J

SB-34	
3/9/17	3-5 ft
PCE	217
TCE	370
cis-1,2-DCE	171

SB-33	
3/9/17	3-5 ft
cis-1,2-DCE	120

SB-32	
3/9/17	2.5-4 ft
PCE	880
TCE	66 J
cis-1,2-DCE	8,800
trans-1,2-DCE	276
Vinyl Chloride	620

SB-31	
3/9/17	2.5-4 ft
PCE	350
TCE	65 J
cis-1,2-DCE	275
Vinyl Chloride	29 J

SB-35	
3/9/17	3-5 ft
cis-1,2-DCE	52 J

SB-30	
3/9/17	3-4 ft
PCE	5,400
TCE	1,630
cis-1,2-DCE	22,400
trans-1,2-DCE	270
Vinyl Chloride	86

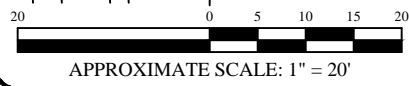
SB-29	
3/9/17	2.5-4 ft
cis-1,2-DCE	209

SB-28	
3/9/17	2-4 ft
cis-1,2-DCE	73 J

SB-36	
3/9/17	3-5 ft
cis-1,2-DCE	115
Vinyl Chloride	105

SB-26	
3/9/17	2-4 ft
VOCs	ND

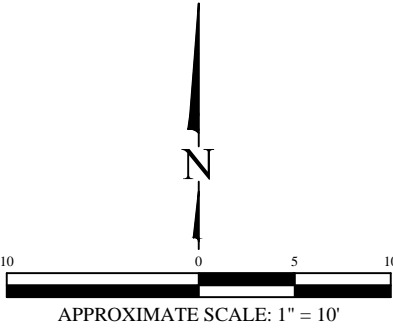
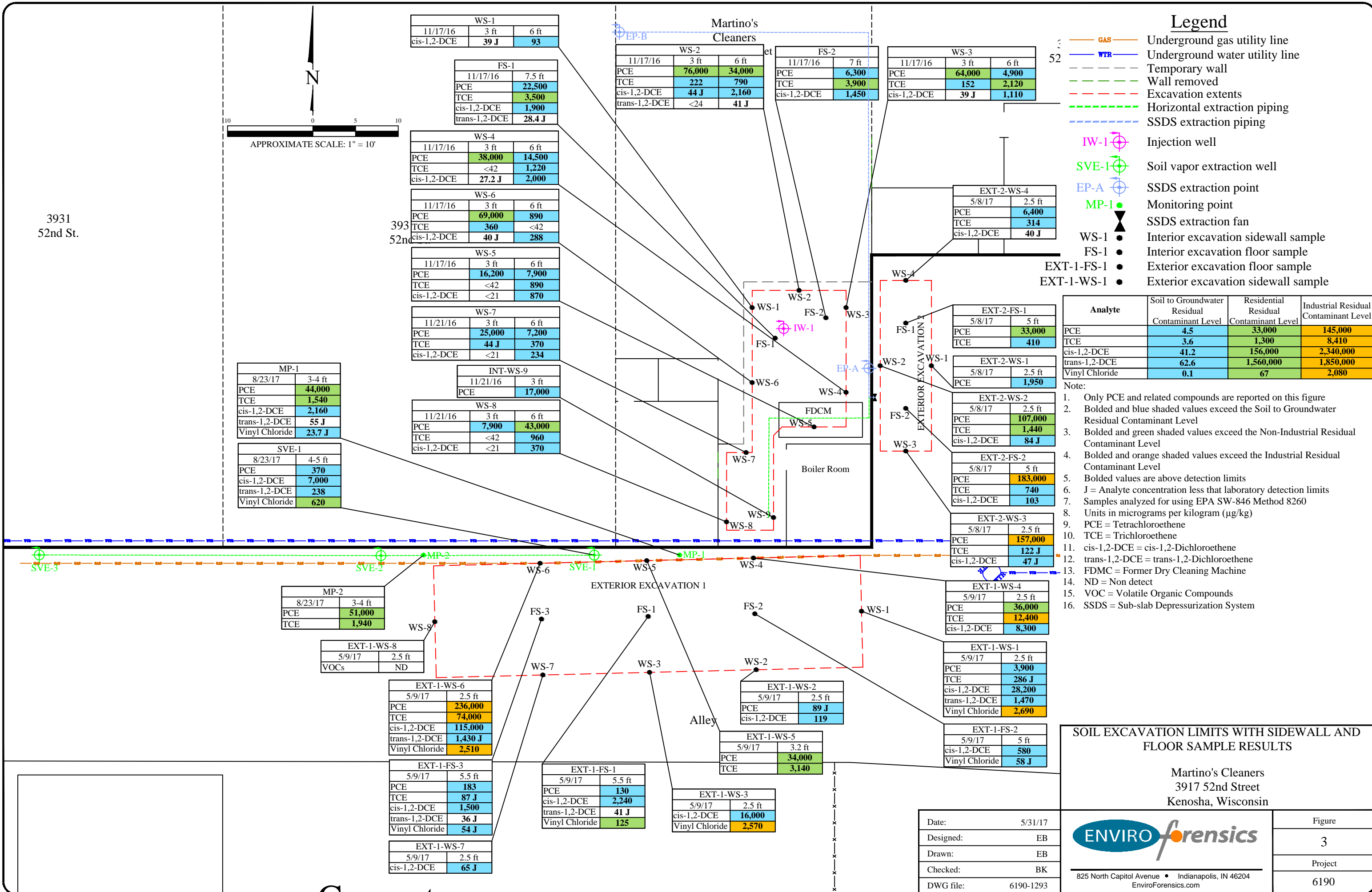
SB-27	
3/9/17	2-4 ft
VOCs	ND



WASTE CHARACTERIZATION SOIL SAMPLE LOCATIONS AND SAMPLE RESULTS

Martino's Cleaners
3917 52nd Street
Kenosha, Wisconsin

Date:	9/28/17	 825 North Capitol Avenue • Indianapolis, IN 46204 EnviroForensics.com	Figure
Designed:	EB		2
Drawn:	EB		Project
Checked:	BK		6190
DWG file:	6190-1292		



Legend

- GAS — Underground gas utility line
- WTR — Underground water utility line
- - - - - Temporary wall
- - - - - Wall removed
- - - - - Excavation extents
- - - - - Horizontal extraction piping
- - - - - SSDS extraction piping
- ⊕ IW-1 Injection well
- ⊕ SVE-1 Soil vapor extraction well
- ⊕ EP-A SSDS extraction point
- MP-1 Monitoring point
- ▲ SSDS extraction fan
- WS-1 Interior excavation sidewall sample
- FS-1 Interior excavation floor sample
- EXT-1-FS-1 Exterior excavation floor sample
- EXT-1-WS-1 Exterior excavation sidewall sample

Sample ID	Date	Depth	Sample Type	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Vinyl Chloride
WS-1	11/17/16	3 ft	6 ft	39 J	93			
FS-1	11/17/16	7.5 ft		22,500	3,500	1,900	28.4 J	
WS-2	11/17/16	3 ft	6 ft	76,000	34,000	44 J	2,160	
FS-2	11/17/16	7 ft		6,300	3,900	1,450		
WS-3	11/17/16	3 ft	6 ft	64,000	4,900	152	2,120	
EXT-2-WS-4	5/8/17	2.5 ft		6,400	314	40 J		
WS-4	11/17/16	3 ft	6 ft	38,000	14,500	<42	1,220	
WS-6	11/17/16	3 ft	6 ft	69,000	890	360	<42	
WS-5	11/17/16	3 ft	6 ft	16,200	7,900	<42	890	
WS-7	11/21/16	3 ft	6 ft	25,000	7,200	44 J	370	
INT-WS-9	11/21/16	3 ft		17,000				
WS-8	11/21/16	3 ft	6 ft	7,900	43,000	<42	370	
MP-1	8/23/17	3-4 ft		44,000	1,540	2,160	55 J	23.7 J
SVE-1	8/23/17	4-5 ft		370	7,000	238		620
EXT-2-FS-1	5/8/17	5 ft		33,000	410			
EXT-2-WS-1	5/8/17	2.5 ft		1,950				
EXT-2-WS-2	5/8/17	2.5 ft		107,000	1,440	84 J		
EXT-2-FS-2	5/8/17	5 ft		183,000	740	103		
EXT-2-WS-3	5/8/17	2.5 ft		157,000	122 J	47 J		
EXT-1-WS-4	5/9/17	2.5 ft		36,000	12,400	8,300		
EXT-1-WS-1	5/9/17	2.5 ft		3,900	286 J	28,200	1,470	2,690
EXT-1-FS-2	5/9/17	5 ft		580	58 J			
EXT-1-WS-8	5/9/17	2.5 ft		ND				
EXT-1-WS-6	5/9/17	2.5 ft		236,000	74,000	115,000	1,430 J	2,510
EXT-1-FS-3	5/9/17	5.5 ft		183	87 J	1,500	36 J	54 J
EXT-1-WS-7	5/9/17	2.5 ft		65 J				
EXT-1-FS-1	5/9/17	5.5 ft		130	2,240	41 J	125	
EXT-1-WS-3	5/9/17	2.5 ft		16,000			2,570	
EXT-1-WS-5	5/9/17	3.2 ft		34,000	3,140			

Analyte	Soil to Groundwater Residual Contaminant Level	Residential Residual Contaminant Level	Industrial Residual Contaminant Level
PCE	4.5	33,000	145,000
TCE	3.6	1,300	8,410
cis-1,2-DCE	41.2	156,000	2,340,000
trans-1,2-DCE	62.6	1,560,000	1,850,000
Vinyl Chloride	0.1	67	2,080

- Note:
- Only PCE and related compounds are reported on this figure
 - Bolded and blue shaded values exceed the Soil to Groundwater Residual Contaminant Level
 - Bolded and green shaded values exceed the Non-Industrial Residual Contaminant Level
 - Bolded and orange shaded values exceed the Industrial Residual Contaminant Level
 - Bolded values are above detection limits
 - J = Analyte concentration less than laboratory detection limits
 - Samples analyzed for using EPA SW-846 Method 8260
 - Units in micrograms per kilogram (µg/kg)
 - PCE = Tetrachloroethene
 - TCE = Trichloroethene
 - cis-1,2-DCE = cis-1,2-Dichloroethene
 - trans-1,2-DCE = trans-1,2-Dichloroethene
 - FDMC = Former Dry Cleaning Machine
 - ND = Non detect
 - VOC = Volatile Organic Compounds
 - SSDS = Sub-slab Depressurization System

SOIL EXCAVATION LIMITS WITH SIDEWALL AND FLOOR SAMPLE RESULTS

Martino's Cleaners
3917 52nd Street
Kenosha, Wisconsin

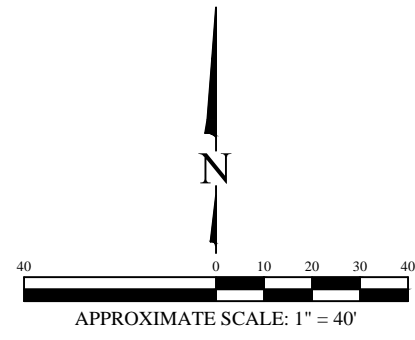
Date:	5/31/17
Designed:	EB
Drawn:	EB
Checked:	BK
DWG file:	6190-1293

825 North Capitol Avenue • Indianapolis, IN 46204
EnviroForensics.com

Figure	3
Project	6190

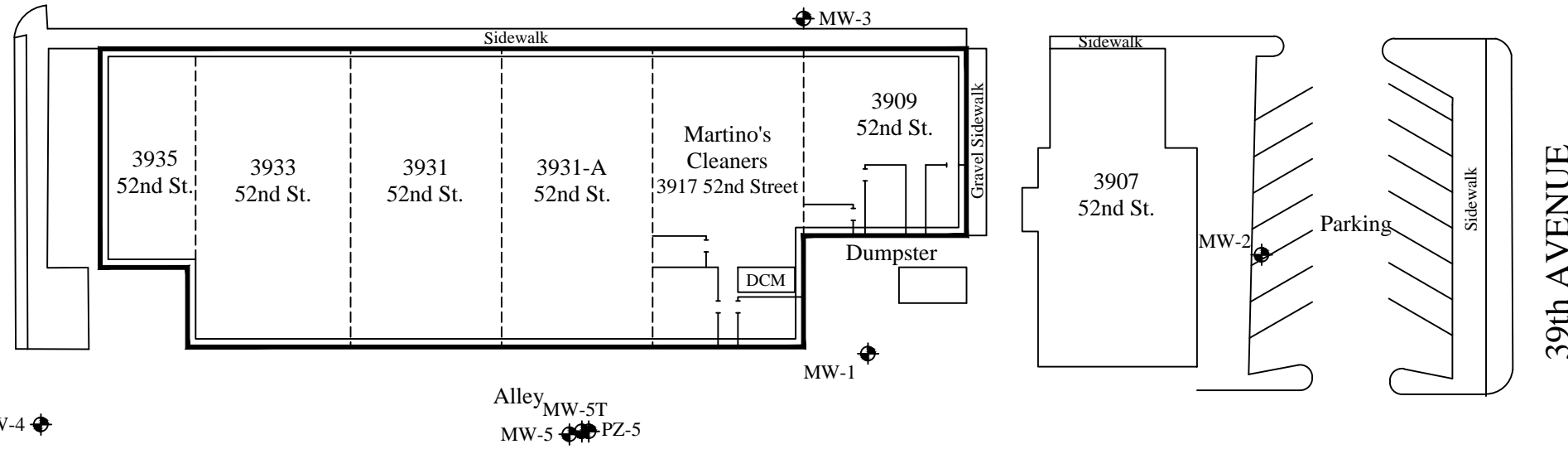
Legend

MW-1  Monitoring well

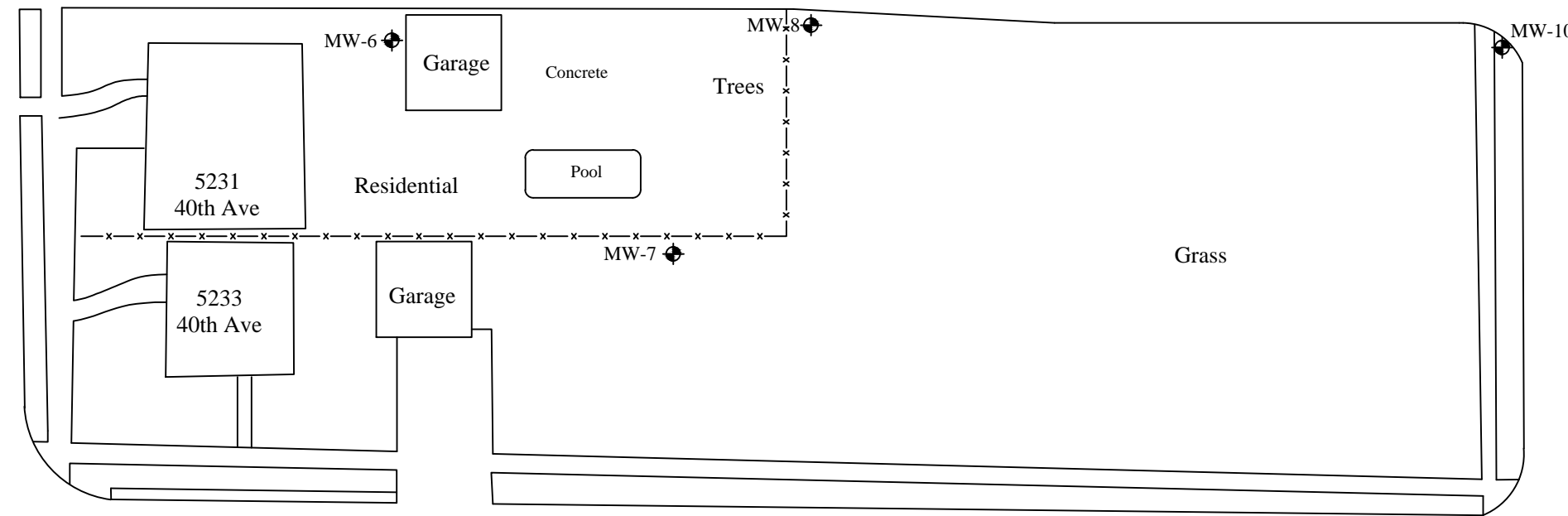


40th AVENUE

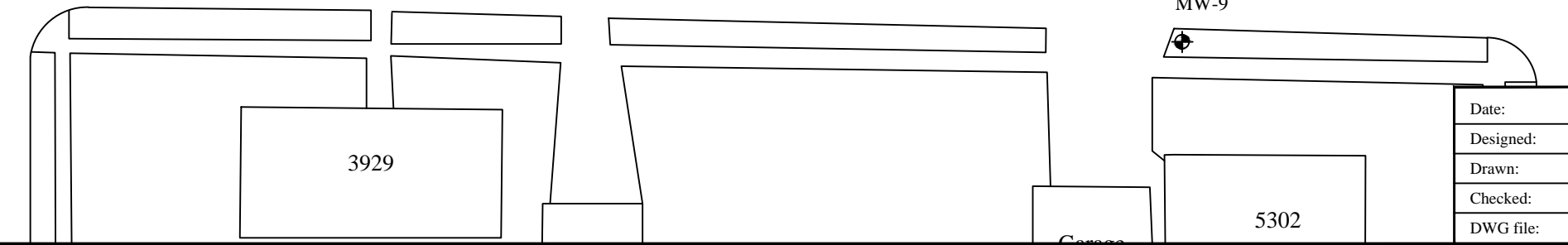
Parking Lot



39th AVENUE



53rd STREET



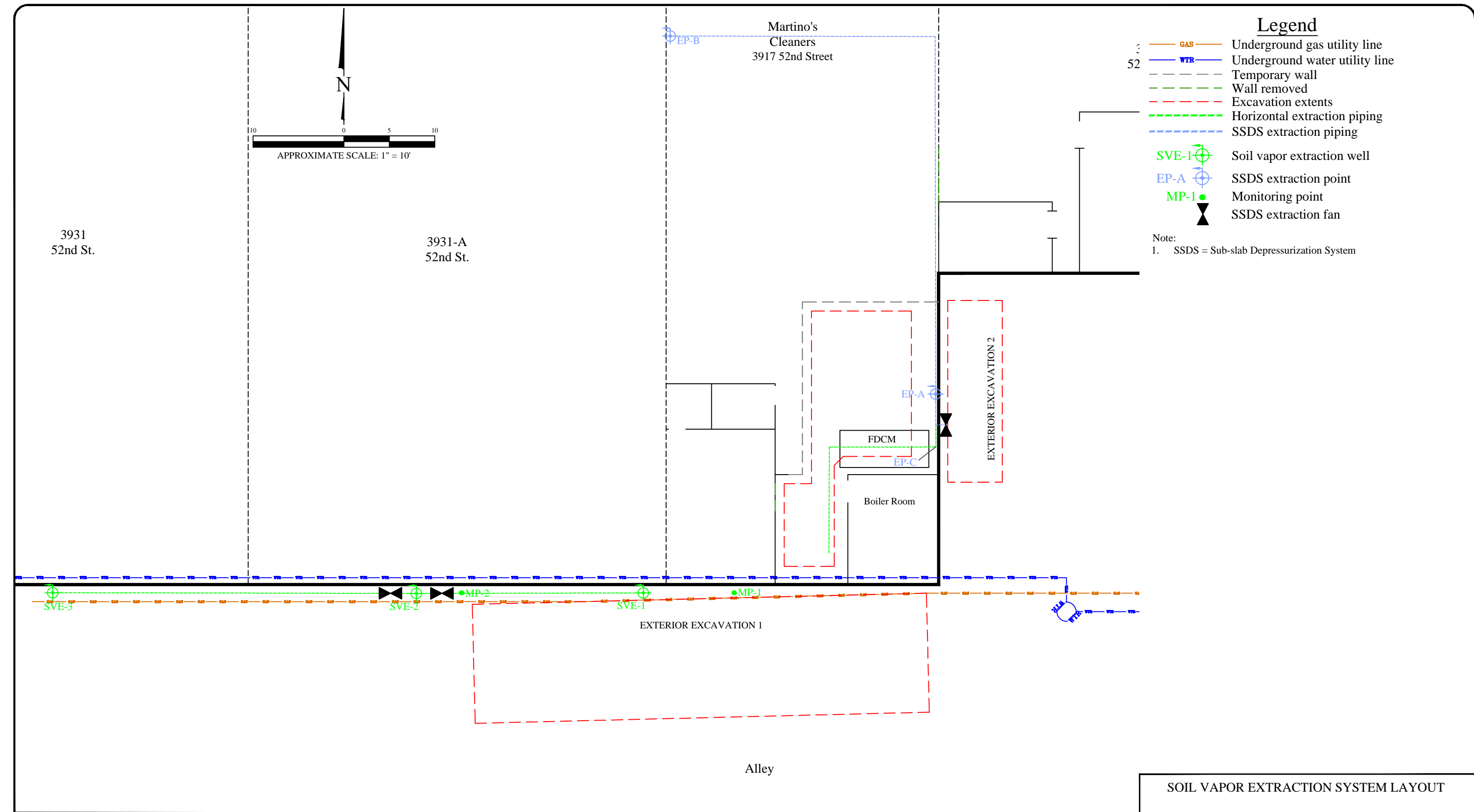
MONITORING WELL LOCATION MAP

Martino's Cleaners
3917 52nd Street
Kenosha, Wisconsin

Date:	4/1/16
Designed:	EB
Drawn:	EB
Checked:	KH
DWG file:	6190-0835

ENVIRONMENTAL FORENSIC INVESTIGATIONS, INC.
602 N. Capitol Ave., Ste. 210 • Indianapolis, IN 46204
EnviroForensics.com

Figure	4
Project	6190



SOIL VAPOR EXTRACTION SYSTEM LAYOUT

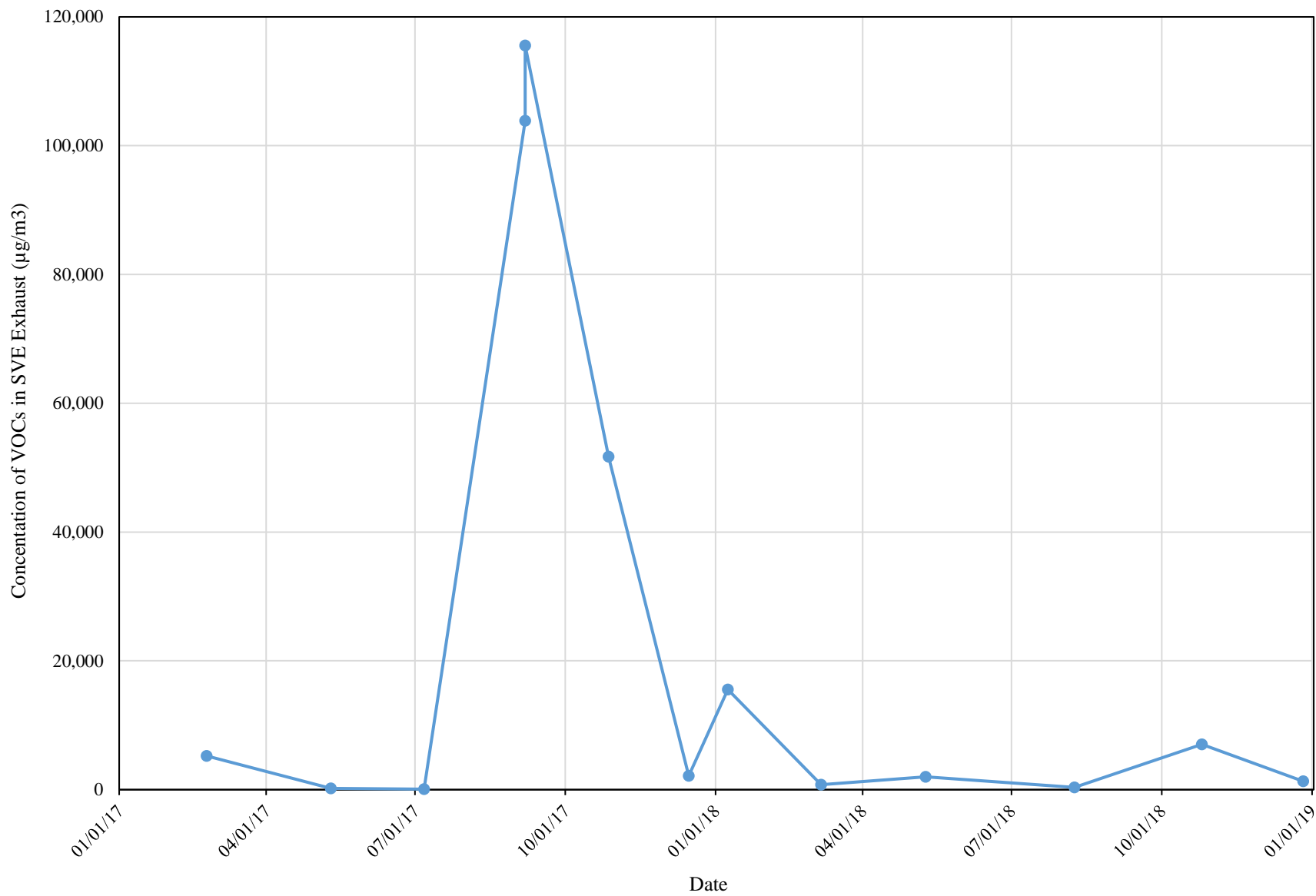
Martino's Cleaners
3917 52nd Street
Kenosha, Wisconsin

Date: 5/31/17	Figure: 5
Designed: EB	Project: 6190
Drawn: EB	
Checked: BK	
DWG file: 6190-1293	

825 North Capitol Avenue • Indianapolis, IN 46204
EnviroForensics.com

Vapor Phase VOC Concentration Trend

Martino's Master Dry Cleaners - 3917 52nd Street, Kenosha, Wisconsin



Cumulative VOC Mass Removed

Martino's Master Dry Cleaners - 3917 52nd Street, Kenosha, Wisconsin

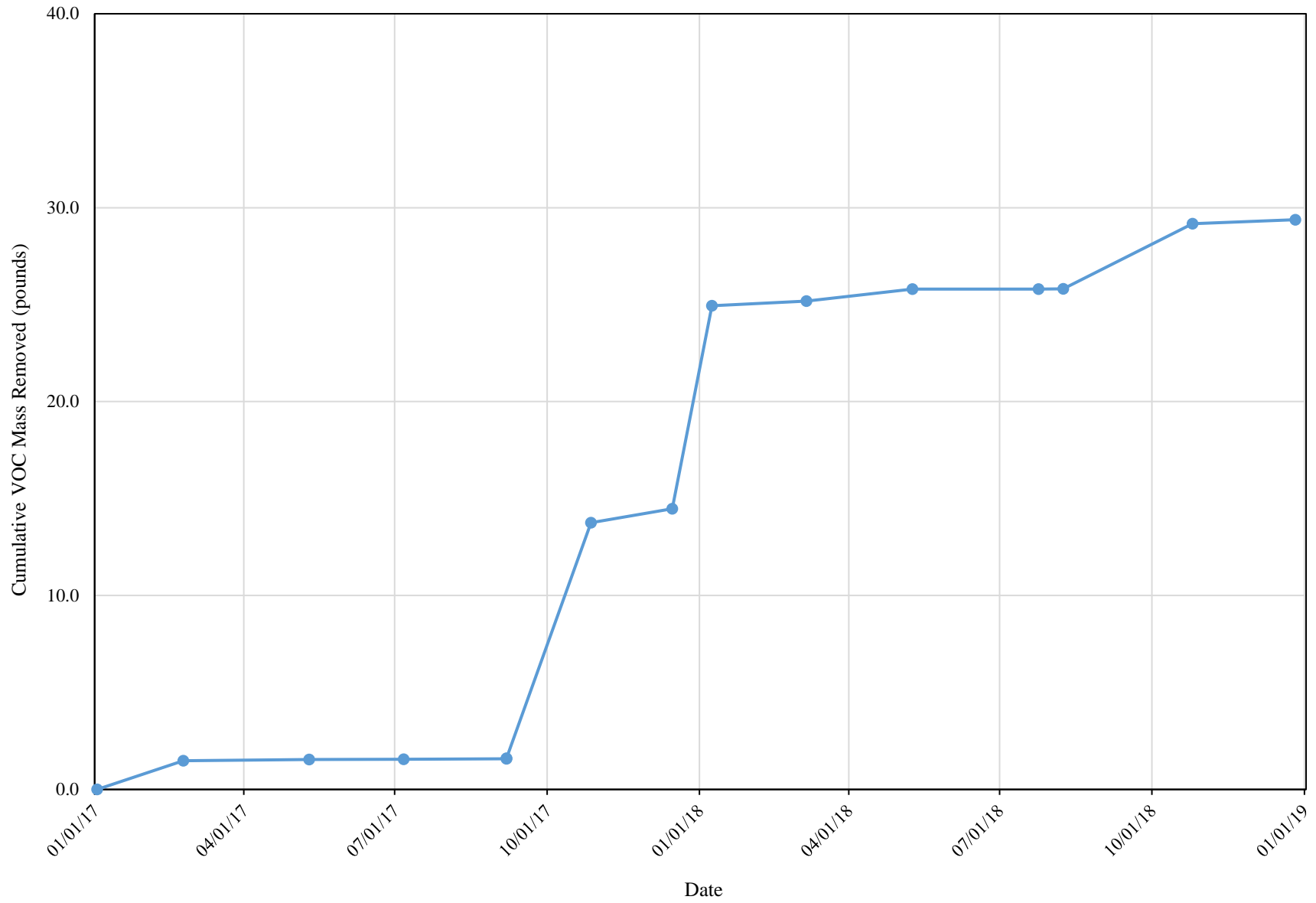


TABLE 2
GROUNDWATER ELEVATION DATA SUMMARY
 Martino's Master Drycleaners
 3917 52nd Street, Kenosha, Wisconsin

Well Identification	Screened Interval (feet below TOC)	TOC Elevation (feet AMSL)	Date	Depth to Water (feet below TOC)	Groundwater Elevation (feet AMSL)
MW-1	8.11 - 18.11	654.37	10/19/2011	12.25	642.12
		654.37	10/30/2012	15.20	639.17
		654.37	3/22/2013	12.10	642.27
		654.37	7/17/2013	11.79	642.58
		654.37	9/30/2013	13.53	640.84
		654.37	12/30/2013	14.20	640.17
		654.37	3/11/2014	13.82	640.55
		654.37	6/5/2014	12.01	642.36
		654.37	9/8/2014	12.70	641.67
		654.37	12/8/2014	12.90	641.47
		654.37	3/16/2015	11.60	642.77
		654.37	6/17/2015	11.89	642.48
		654.37	9/15/2015	13.13	641.24
		654.37	12/2/2015	5.15	649.22
		654.37	2/23/2016	11.86	642.51
		654.37	6/1/2016	11.39	642.98
		654.37	9/19/2016	13.63	640.74
		654.37	1/11/2018	14.51	639.86
		654.37	1/29/2019		
				<i>Min</i>	<i>11.39</i>
		<i>Max</i>	<i>15.20</i>	<i>642.98</i>	
		<i>Avg</i>	<i>12.85</i>	<i>641.52</i>	
MW-2	9.46 - 19.45	653.77	10/19/2011	12.40	641.37
		653.77	10/30/2012	14.84	638.93
		653.77	3/22/2013	12.46	641.31
		653.77	7/17/2013	12.34	641.43
		653.77	9/30/2013	13.69	640.08
		653.77	12/30/2013	14.15	639.62
		653.77	3/11/2014	13.65	640.12
		653.77	6/5/2014	11.36	642.41
		653.77	9/8/2014	12.50	641.27
		653.77	12/8/2014	12.78	640.99
		653.77	3/16/2015	12.74	641.03
		653.77	6/17/2015	11.96	641.81
		653.77	9/15/2015	13.10	640.67
		653.77	12/2/2015	11.01	642.76
		653.77	2/23/2016	11.95	641.82
		653.77	6/1/2016	11.52	642.25
		653.77	9/19/2016	13.48	640.29
		653.77	1/11/2018	14.01	639.76
		653.77	1/29/2019		
				<i>Min</i>	<i>11.01</i>
		<i>Max</i>	<i>14.84</i>	<i>642.76</i>	
		<i>Avg</i>	<i>12.77</i>	<i>641.00</i>	

TABLE 2
GROUNDWATER ELEVATION DATA SUMMARY
 Martino's Master Drycleaners
 3917 52nd Street, Kenosha, Wisconsin

Well Identification	Screened Interval (feet below TOC)	TOC Elevation (feet AMSL)	Date	Depth to Water (feet below TOC)	Groundwater Elevation (feet AMSL)
MW-3	7.98 - 17.98	654.44	10/19/2011	4.09	650.35
		654.44	10/30/2012	3.22	651.22
		654.44	3/22/2013	2.64	651.80
		654.44	7/17/2013	2.92	651.52
		654.44	9/30/2013	3.48	650.96
		654.44	12/30/2013	4.16	650.28
		654.44	3/11/2014	7.43	647.01
		654.44	6/5/2014	7.45	646.99
		654.44	9/8/2014	2.96	651.48
		654.44	12/8/2014	2.12	652.32
		654.44	3/16/2015	2.67	651.77
		654.44	6/17/2015	2.40	652.04
		654.44	9/15/2015	3.31	651.13
		654.44	12/2/2015	2.25	652.19
		654.44	2/23/2016	2.87	651.57
		654.44	6/1/2016	2.98	651.46
		654.44	9/19/2016	3.46	650.98
		654.44	1/11/2018	5.00	649.44
		654.44	1/29/2019		
				<i>Min</i>	2.12
		<i>Max</i>	7.45	652.32	
		<i>Avg</i>	3.63	650.81	
MW-4	9.26 - 19.26	654.97	10/19/2011	10.89	644.08
		654.97	10/30/2012	15.40	639.57
		654.97	3/22/2013	10.64	644.33
		654.97	7/17/2013	10.52	644.45
		654.97	9/30/2013	12.43	642.54
		654.97	12/30/2013	13.55	641.42
		654.97	3/11/2014	12.71	642.26
		654.97	6/5/2014	9.52	645.45
		654.97	9/8/2014	11.54	643.43
		654.97	12/8/2014	11.65	643.32
		654.97	3/16/2015	11.15	643.82
		654.97	6/17/2015	10.55	644.42
		654.97	9/15/2015	12.41	642.56
		654.97	12/2/2015	9.32	645.65
		654.97	2/23/2016	10.19	644.78
		654.97	6/1/2016	10.03	644.94
		654.97	9/19/2016	12.73	642.24
		654.97	1/11/2018	13.49	641.48
		654.97	1/29/2019		
				<i>Min</i>	9.32
		<i>Max</i>	15.40	645.65	
		<i>Avg</i>	11.60	643.37	

TABLE 2
GROUNDWATER ELEVATION DATA SUMMARY
 Martino's Master Drycleaners
 3917 52nd Street, Kenosha, Wisconsin

Well Identification	Screened Interval (feet below TOC)	TOC Elevation (feet AMSL)	Date	Depth to Water (feet below TOC)	Groundwater Elevation (feet AMSL)
MW-5 (Abandoned)	9.09 - 19.09	654.83	10/19/2011	12.35	642.48
		654.83	10/30/2012	15.12	639.71
		654.83	3/22/2013	11.27	643.56
		654.83	7/17/2013	11.60	643.23
		654.83	9/30/2013	13.55	641.28
		654.83	12/30/2013	14.34	640.49
		654.83	3/11/2014	12.84	641.99
		654.83	6/5/2014	10.48	644.35
		654.83	9/8/2014	12.47	642.36
		654.83	12/8/2014	11.96	642.87
MW-5T	10.68 - 20.68	654.94	10/24/2014	12.07	642.87
		654.94	12/8/2014	12.76	642.18
		654.94	3/16/2015	12.60	642.34
		654.94	6/17/2015	11.93	643.01
		654.94	9/15/2015	12.87	642.07
		654.94	12/2/2015	11.18	643.76
		654.94	2/23/2016	11.86	643.08
		654.94	6/1/2016	11.28	643.66
		654.94	9/19/2016	13.17	641.77
		654.94	1/11/2018	14.44	640.5
		654.94	1/29/2019		
			<i>Min</i>	<i>11.18</i>	<i>640.50</i>
			<i>Max</i>	<i>14.44</i>	<i>643.76</i>
	<i>Avg</i>	<i>12.42</i>	<i>642.52</i>		
PZ-5	35.36 - 40.36	654.92	6/17/2015	12.79	642.13
		654.92	9/15/2015	13.14	641.78
		654.92	12/2/2015	11.50	643.42
		654.92	2/23/2016	11.70	643.22
		654.92	6/1/2016	11.24	643.68
		654.92	9/19/2016	13.42	641.5
		654.92	1/11/2018	14.24	640.68
		654.92	1/29/2019		
			<i>Min</i>	<i>11.24</i>	<i>640.68</i>
			<i>Max</i>	<i>14.24</i>	<i>643.68</i>
	<i>Avg</i>	<i>12.58</i>	<i>642.34</i>		

TABLE 2
GROUNDWATER ELEVATION DATA SUMMARY
 Martino's Master Drycleaners
 3917 52nd Street, Kenosha, Wisconsin

Well Identification	Screened Interval (feet below TOC)	TOC Elevation (feet AMSL)	Date	Depth to Water (feet below TOC)	Groundwater Elevation (feet AMSL)
MW-6	9.52 - 14.52	655.56	10/24/2014	DRY	DRY
		655.56	12/8/2014	11.44	644.12
		655.56	3/16/2015	11.54	644.02
		655.56	6/17/2015	10.66	644.90
		655.56	9/15/2015	12.87	642.69
		655.56	12/2/2015	10.06	645.50
		655.56	2/23/2016	11.44	644.12
		655.56	6/1/2016	NM	NM
		655.56	1/11/2018	13.99	641.57
		655.56	1/29/2019		
				<i>Min</i>	<i>10.06</i>
		<i>Max</i>	<i>13.99</i>	<i>645.50</i>	
		<i>Avg</i>	<i>11.71</i>	<i>643.85</i>	
MW-7	7.33 - 12.33	652.56	10/24/2014	2.24	650.32
		652.56	12/8/2014	2.43	650.13
		652.56	3/16/2015	1.56	651.00
		652.56	6/17/2015	1.33	651.23
		652.56	9/15/2015	8.74	643.82
		652.56	12/2/2015	0.40	652.16
		652.56	2/23/2016	2.63	649.93
		652.56	6/1/2016	4.49	648.07
		652.56	9/19/2016	9.70	642.86
		652.56	1/11/2018	3.77	648.79
		652.56	1/29/2019		
		<i>Min</i>	<i>1.33</i>	<i>642.86</i>	
		<i>Max</i>	<i>9.70</i>	<i>651.23</i>	
		<i>Avg</i>	<i>4.10</i>	<i>648.46</i>	
MW-8	8.27 - 13.27	653.19	10/24/2014	2.34	650.85
		653.19	12/8/2014	1.00	652.19
		653.19	3/16/2015	1.48	651.71
		653.19	6/17/2015	1.87	651.32
		653.19	9/15/2015	4.38	648.81
		653.19	12/2/2015	NM	NM
		653.19	2/23/2016	3.34	649.85
		653.19	6/1/2016	NM	NM
		653.19	1/11/2018	3.39	649.80
		653.19	1/29/2019		
				<i>Min</i>	<i>1.00</i>
		<i>Max</i>	<i>4.38</i>	<i>652.19</i>	
		<i>Avg</i>	<i>2.54</i>	<i>650.65</i>	

TABLE 2
GROUNDWATER ELEVATION DATA SUMMARY
 Martino's Master Drycleaners
 3917 52nd Street, Kenosha, Wisconsin

Well Identification	Screened Interval (feet below TOC)	TOC Elevation (feet AMSL)	Date	Depth to Water (feet below TOC)	Groundwater Elevation (feet AMSL)
MW-9	9.40 - 19.40	651.08	6/17/2015	8.04	643.04
		651.08	9/15/2015	9.63	641.45
		651.08	12/2/2015	7.41	643.67
		651.08	2/23/2016	8.19	642.89
		651.08	6/1/2016	7.70	643.38
		651.08	9/19/2016	9.88	641.20
		651.08	1/11/2018	10.53	640.55
		651.08	1/29/2019		
				<i>Min</i>	<i>7.41</i>
		<i>Max</i>	<i>10.53</i>	<i>643.67</i>	
		<i>Avg</i>	<i>8.77</i>	<i>642.31</i>	
MW-10	9.38 - 19.38	651.94	6/17/2015	9.62	642.32
		651.94	9/15/2015	11.03	640.91
		651.94	12/2/2015	8.60	643.34
		651.94	2/23/2016	9.65	642.29
		651.94	6/1/2016	9.63	642.31
		651.94	9/19/2016	11.43	640.51
		651.94	1/11/2018	11.94	640.00
		651.94	1/29/2019		
				<i>Min</i>	<i>8.60</i>
		<i>Max</i>	<i>11.94</i>	<i>643.34</i>	
		<i>Avg</i>	<i>10.27</i>	<i>641.67</i>	

Notes:

AMSL = above mean sea level

NM = Not measured

TOC = Top of Casing

Shaded values are anomolous and excluded from statistics

TABLE 2
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS

Martino's Master Drycleaners
3917 52nd Street, Kenosha, Wisconsin

Boring Identification	Date Sampled	Sample Depth (feet bgs)		Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl Chloride	1,2,4-Trimethylbenzene
Industrial RCL ¹				145,000	8,410	2,340,000	1,850,000	2,080	219,000
Non-Industrial RCL ¹				33,000	1,300	156,000	1,560,000	67	219,000
Soil to Goundwater RCL ¹				4.5	3.6	41.2	62.6	0.1	1,382
GP-1	1/16/2008	2-4	Removed	<31	<31	730	40.0	90.0	<31
	1/16/2008	4-6		<30	<30	1,000	<30	<42	<30
HA-1	5/25/2011	2-3		83.8	<25.0	<25.0	<25.0	<25.0	<25.0
HP-2	1/16/2008	2-4	Removed	820,000	3,900	<3000	<3000	<4200	<3000
	1/16/2008	8-10		73,000	3,900	950	<300	<420	<300
HP-3	1/16/2008	2-4		110,000	<600	<600	<600	<830	<600
	1/16/2008	8-10		84,000	5,100	1,800	<290	<410	<290
SB-1	10/19/2010	3-5		<25.0	<25.0	77.6	<25.0	<25.0	<25.0
	10/19/2010	14-16		<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
SB-2	10/19/2010	2-4	Removed	<25.0	<25.0	<25.0	<25.0	<25.0	29.0 J
	10/19/2010	14-16*		<25.0*	<25.0*	<25.0*	<25.0*	<25.0*	<25.0*
SB-3	10/19/2010	4-6		<25.0	<25.0	828	36.6	<25.0	<25.0
	10/19/2010	14-16		<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
SB-4	10/19/2010	3-5	Removed	2,180	143	<25.0	<25.0	<25.0	<25.0
	10/19/2010	18-20		<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
SB-5	10/19/2010	2-4		<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
	10/19/2010	16-18		35.1	<25.0	<25.0	<25.0	<25.0	<25.0
SB-6	10/19/2010	4-6		<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
	10/19/2010	16-18		<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
SB-7	5/24/2011	2-4		<25.0	<25.0	40.2 J	<25.0	<25.0	<25.0
	5/24/2011	12-14		<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
SB-8	5/24/2011	4-6		<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
	5/24/2011	14-16		<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
SB-9	5/25/2011	2-4	Removed	<25.0	<25.0	411	<25.0	106	<25.0
	5/25/2011	13-15		<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
SB-10	5/25/2011	2-4		23,800	736	164 J	<100	<100	<100
	5/25/2011	12-14		<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
SB-11	10/18/2011	4-6		<30	<30	<30	<30	<30	<30
	10/18/2011	10-12		<29	<29	<29	<29	<29	<29
SB-12	10/18/2011	4-6		<30	<30	<30	<30	<30	<30
	10/18/2011	12-14		<29	<29	<29	<29	<29	<29

TABLE 2
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS

Martino's Master Drycleaners
3917 52nd Street, Kenosha, Wisconsin

Boring Identification	Date Sampled	Sample Depth (feet bgs)	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl Chloride	1,2,4-Trimethylbenzene
Industrial RCL ¹			145,000	8,410	2,340,000	1,850,000	2,080	219,000
Non-Industrial RCL ¹			33,000	1,300	156,000	1,560,000	67	219,000
Soil to Groundwater RCL ¹			4.5	3.6	41.2	62.6	0.1	1,382
SB-13	10/22/2014	2	259	<28	<24	<29	<21	<26
	10/22/2014	6	316	<28	<24	<29	<21	<26
	10/22/2014	10	68 J	<28	<24	<29	<21	<26
SB-14	10/22/2014	2	<49	<28	<24	<29	<21	<26
	10/22/2014	6	<49	<28	<24	<29	<21	<26
	10/22/2014	10	<49	<28	<24	<29	<21	<26
SB-15	10/22/2014	2	214	<28	<24	<29	<21	<26
	10/22/2014	6	126 J	40 J	320	<29	<21	<26
	10/22/2014	10	<49	<28	<24	<29	<21	<26
SB-16	4/21/2015	4	<54	<42	<21	<24	<10	NA
	4/21/2015	6	<54	99 J	350	<24	<10	NA
SB-17	4/28/2015	5	3,200	340	262	<2.4	<10	NA
	4/21/2015	6	7,200	840	570	<24	<10	NA
	4/21/2015	8	<54	<42	560	<24	<10	NA
	4/28/2015	8	<54	<42	530	<24	<10	NA
	4/28/2015	10	<5.4	<4.2	<2.1	<2.4	<10	NA
SB-18	4/21/2015	6	<54	<42	53 J	<24	<10	NA
	4/21/2015	10	<54	<42	<21	<24	<10	NA
SB-19	4/21/2015	2	<54	<42	<21	<24	<10	NA
	4/21/2015	8	<54	<42	<21	<24	<10	NA
SB-20	4/21/2015	4	<54	<42	<21	<24	<10	NA
	4/21/2015	6	<54	<42	<21	<24	<10	NA
SB-21	4/21/2015	6	<54	<42	<21	<24	<10	NA
	4/21/2015	8	<54	<42	<21	<24	<10	NA
SB-22	4/21/2015	2	<54	<42	<21	<24	<10	NA
	4/21/2015	8	<54	<42	<21	<24	<10	NA
SB-23	4/28/2015	4	<54	<42	<21	<24	<10	NA
	4/28/2015	6	<54	<42	<21	<24	<10	NA
	4/28/2015	8	<54	<42	<21	<24	<10	NA
SB-24	4/28/2015	4	<54	<42	<21	<24	<10	NA
	4/28/2015	6	<54	<42	82	<24	<10	NA
	4/28/2015	8	<54	<42	32 J	<24	<10	NA

TABLE 2
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS
 Martino's Master Drycleaners
 3917 52nd Street, Kenosha, Wisconsin

Boring Identification	Date Sampled	Sample Depth (feet bgs)		Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl Chloride	1,2,4-Trimethylbenzene
Industrial RCL ¹				145,000	8,410	2,340,000	1,850,000	2,080	219,000
Non-Industrial RCL ¹				33,000	1,300	156,000	1,560,000	67	219,000
Soil to Goundwater RCL ¹				4.5	3.6	41.2	62.6	0.1	1,382
SB-25	4/28/2015	4		<54	<42	<21	<24	<10	NA
	4/28/2015	6		<54	<42	<21	<24	<10	NA
	4/28/2015	8		<54	<42	<21	<24	<10	NA
SB-26	3/9/2017	2-4		<32	<41	<32	<28	<19	<25
SB-27	3/9/2017	2-4		<32	<41	<32	<28	<19	<25
SB-28	3/9/2017	3-4		<32	<41	73 J	<28	<19	<25
SB-29	3/9/2017	2.5-4	Removed	<32	<41	209	<28	<19	<25
SB-30	3/9/2017	3-4	Removed	5,400	1,630	22,400	270	86	<25
SB-31	3/9/2017	2.5-4	Removed	350	65 J	275	<28	29 J	<25
SB-32	3/9/2017	2.5-4	Removed	880	66 J	8,800	276	620	<25
SB-33	3/9/2017	3-5		<32	<41	120	<28	<19	<25
SB-34	3/9/2017	3-5		217	370	171	<28	<19	<25
SB-35	3/9/2017	3-5		<32	<41	52 J	<28	<19	<25
SB-36	3/9/2017	3-5	Removed	<32	<41	115	<28	105	<25

Notes:

¹ Residual Contaminant Levels calculated according to the procedures described in WDNR Publication RR-890

All concentrations reported in micrograms per kilogram µg/kg

Samples analyzed using EPA SW-846 Method 8260

Bolded values are above method detection limits

Bolded and orange shaded values exceed the Industrial Residual Contaminant Level

Bolded and green shaded values exceed the Non-Industrial Residual Contaminant Level

Bolded and blue shaded values exceed the Soil to Groundwater Residual Contaminant Level

* = Original sample broken during sample shipment, duplicate sample used for reporting

J = Analyte concentration detected between the laboratory Method Detection Limit and Reporting Limit

NA = Not Analyzed

RCL = Residual Contaminant Level

TABLE 3
SOIL VAPOR EXTRACTION DATA SUMMARY

Martino's Master Dry Cleaners
3917 52nd Street, Kenosha, Wisconsin

Date	Elapsed Runtime	Extraction Point Flow Rate					Effluent CVOC Concentration				Extraction Points Open/Notes
		SVE-1	SVE-2	SVE-3	EP-C	Total	East	West	EP-C	Total	
	Hours	cfm					µg/m ³				
2/23/2017	1,824	NI	NI	NI	41.4	41.4	NI	NI	5,247	5,247	EP-C
5/10/2017	3,336	NI	NI	NI	46.8	46.8	NI	NI	214	214	EP-C
7/6/2017	4,824	NI	NI	NI	39.7	39.7	NI	NI	78	78	EP-C
9/6/2017	4,825	16.0	NI	NI	47.0	63.0	--	103,161	829	103,990	EP-C, SVE-1
9/6/2017	4,826	29.0	NI	NI	--	29.0	--	115,560	--	115,560	SVE-1
10/27/2017	6,002	15.5	18.8	19.0	46.8	100.1	44,380	7,059	264	51,703	EP-C; SVE-1, 2, 3
12/15/2017	6,578	16.0	70.7	14.1	--	100.8	2,014	126	--	2,140	SVE-1, 2, 3
1/8/2018	7,946	29.8	29.7	17.6	53.9	131.0	342	457	14,741	15,540	EP-C; SVE-1, 2, 3
3/6/2018	9,482	18.3	18.4	12.6	24.9	74.2	147	117	499	763	EP-C; SVE-1, 2, 3
5/9/2018	9,483	11.0	15.1	27.3	--	53.4	977	1,016	--	1,993	SVE-1, 2, 3. Shut down fans after sampling due to high water table.
7/24/2018	9,484	--	--	--	--	0.0	--	--	--	--	SVE-1, 2, 3. Re-started fans.
8/8/2018	9,844	5.7	6.8	23.4	--	35.9	--	337	--	337	SVE-1,-2,-3. East fan malfunction.
10/25/2018	11,884	9.7	11.9	8.4	24.2	54.2	2,153	859	4,039	7,051	EP-C; SVE-1, 2, 3
12/26/2018	13,348	--	--	--	28.3	28.3	--	--	1,312	1,312	EP-C

Notes:

-- = measurement not collected

CVOC = Chlorinated volatile organic compounds

NI = Extraction point not installed

cfm = cubic feet per minute

µg/m³ = micrograms per cubic meter