State of Wisconsin
Department of Natural Resources
PO Box 7921, Madison WI 53707-7921
dnr.wi.gov

Remediation Site Operation, Maintenance, Monitoring & Optimization Report

Form 4400-194 (R 11/14)

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.

Submittal 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: 01/01/2018 To: 06/30/2018 Days in period: 181

3. Regulatory agency (enter DNR, DATCP and/or other): DNR

4. BRRTS ID No. (2 digit program-2 digit county-6 digit site specific): 02-30-287150

5. Site location

Region	County	Address
Southeast Region	Kenosha	4700 7th Ave

Municipality name	◉ City ◯ Town ◯ Village	Township	Range	◉E ◯W	Section	¼	¼ ¼
Kenosha		02 N	23		31	NE	NE

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): SW, CL

10. Hydraulic conductivity(cm/sec): .001

11. Average linear velocity of groundwater (ft/yr): 231

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

If yes, give location: Region

County

Municipality name	◯ City ◯ Town ◯ Village	Township	Range	◯E ◯W	Section	¼	¼ ¼
		N					

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 attentuation), 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: $629,400.00
2. Implementation costs (design, capital and installation costs, excluding investigation costs: $282,400.00
3. Total costs during the previous reporting period: $95,600.00
4. Total costs during this reporting period: $28,900.00
5. Total anticipated costs for the next reporting period: $15,000.00
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:

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 D. Horwath	Director of Engineering and Remediation Services
Signature	Date 7/26/2018

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	Date 7/26/2018

Scientists:

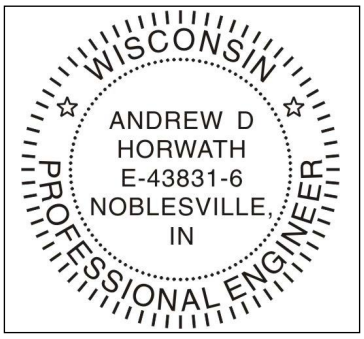
I hereby certify that I am a scientist as that term is defined in s. NR 712.03(3), Wis. Adm. Code, and that, to the best of my knowledge, all information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm.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

Print name	Title
Signature	Date

Other Persons:

Print name	Title
Signature	Date

Professional Seal(s), if applicable:



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: 15
2. Number of days of operation (only list the number of days the system actually operated, if unknown explain):
   111.4
3. System utilization in percent (days of operation divided by reporting time period multiplied by 100). If < 80%, explain:
   61.5 %. Unplanned shut downs from power failure resulted in 10 days of lost operation. The system was intentionally shut down on 4/9/18 for 56 days due to high water. The system was again shut down on 6/27/18 for 3 days. The adjusted system utilization percent is 91.3 %.
4. Average depth to groundwater: 8.17 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
2. Number of days of operation (only list the number of days the system actually operated, if unknown explain):
   111.4
3. System utilization in percent (days of operation divided by reporting time period multiplied by 100). If < 80%, explain:
   61.5 %. Unplanned shut downs from power failure resulted in 10 days of lost operation. The system was intentionally shut down on 4/9/18 for 56 days due to high water. The system was again shut down on 6/27/18 for 3 days. The adjusted system utilization percent is 91.3 %.

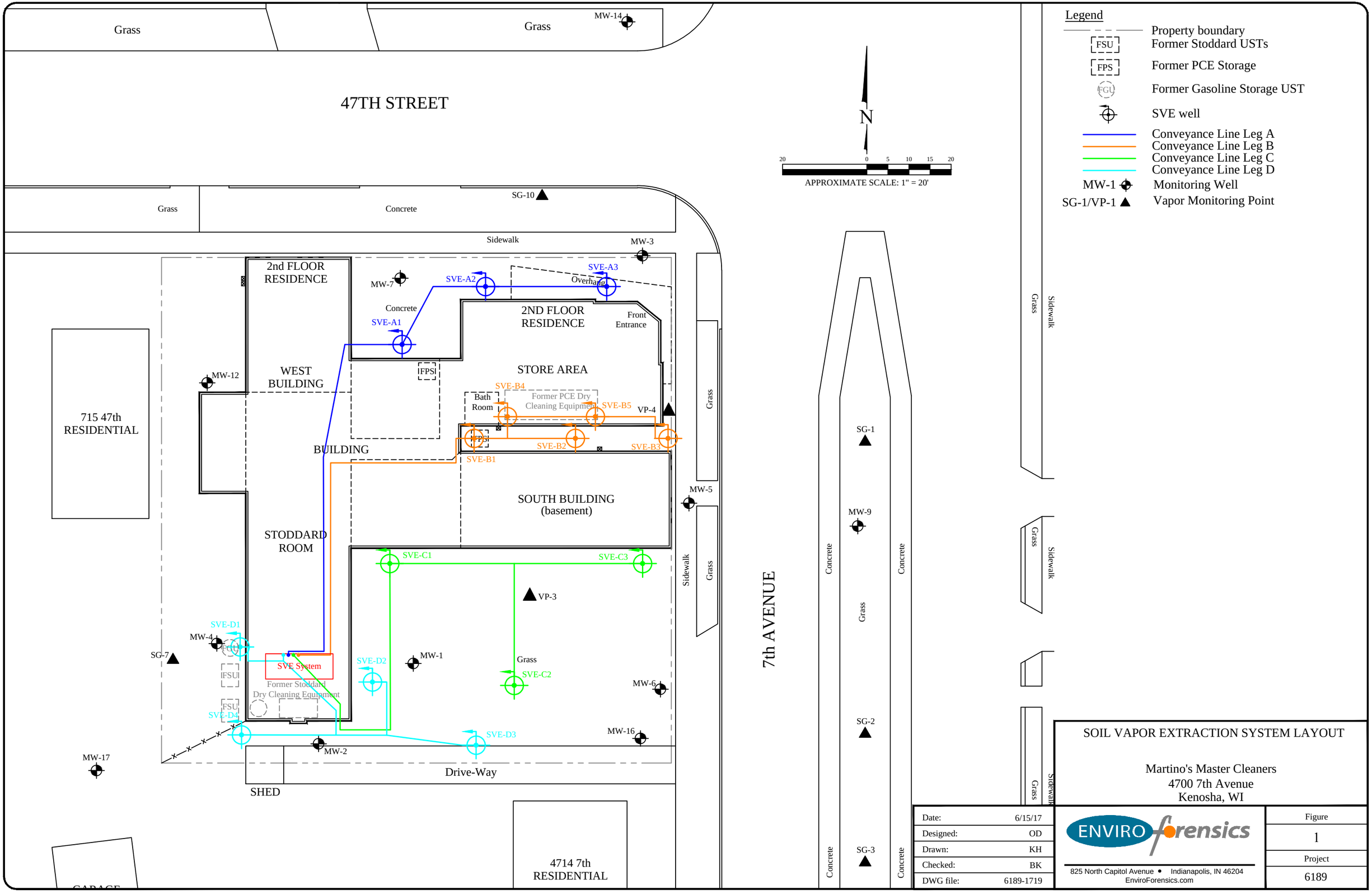
C. Effectiveness Evaluation

1. Average contaminant removal rate for the entire system: 0.018 pounds per day
2. Average contaminant removal rate per well or venting point: 0.001 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 (ppm_V) If over 10 ppm_V, explain:
      iii. If methane is not present above 10 ppm_V and if oxygen is greater than 20 percent in extracted air, you should either:
      - Drill confirmation borings during the next reporting period, if the entire site should be considered for closure.
      - 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.



SOIL VAPOR EXTRACTION SYSTEM LAYOUT

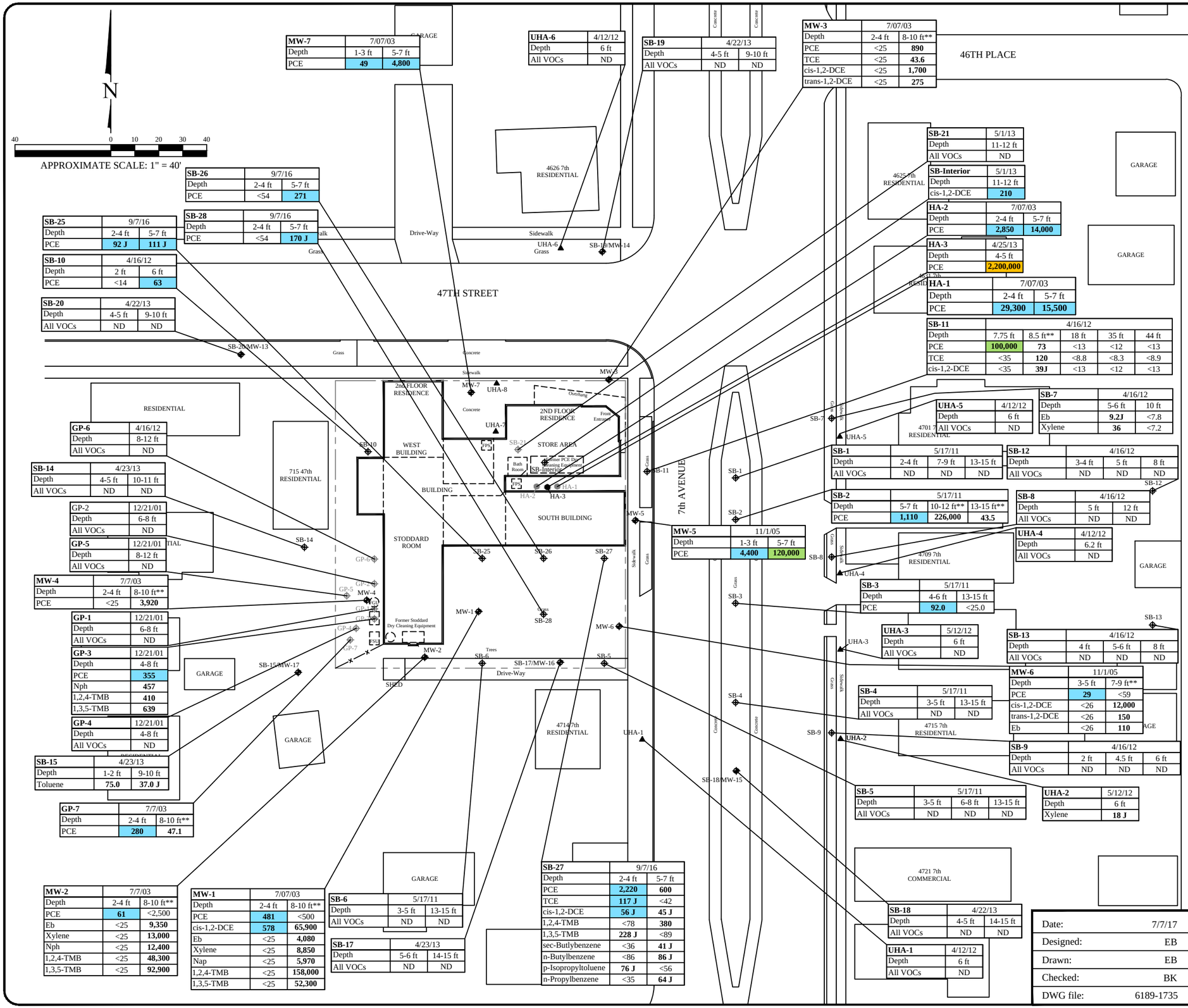
Martino's Master Cleaners
4700 7th Avenue
Kenosha, WI

Date:	6/15/17
Designed:	OD
Drawn:	KH
Checked:	BK
DWG file:	6189-1719

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

Figure 1

Project 6189



MW-7	7/07/03	
Depth	1-3 ft	5-7 ft
PCE	**49**	**4,800**

UHA-6	4/12/12
Depth	6 ft
All VOCs	ND

SB-19	4/22/13	
Depth	4-5 ft	9-10 ft
All VOCs	ND	ND

MW-3	7/07/03	
Depth	2-4 ft	8-10 ft**
PCE	<25	**890**
TCE	<25	**43.6**
cis-1,2-DCE	<25	**1,700**
trans-1,2-DCE	<25	**275**

SB-26	9/7/16	
Depth	2-4 ft	5-7 ft
PCE	<54	**271**

SB-25	9/7/16	
Depth	2-4 ft	5-7 ft
PCE	**92 J**	**111 J**

SB-28	9/7/16	
Depth	2-4 ft	5-7 ft
PCE	<54	**170 J**

SB-10	4/16/12	
Depth	2 ft	6 ft
PCE	<14	**63**

SB-20	4/22/13	
Depth	4-5 ft	9-10 ft
All VOCs	ND	ND

GP-6	4/16/12
Depth	8-12 ft
All VOCs	ND

SB-14	4/23/13	
Depth	4-5 ft	10-11 ft
All VOCs	ND	ND

GP-2	12/21/01
Depth	6-8 ft
All VOCs	ND

GP-5	12/21/01
Depth	8-12 ft
All VOCs	ND

MW-4	7/7/03	
Depth	2-4 ft	8-10 ft**
PCE	<25	**3,920**

GP-1	12/21/01
Depth	6-8 ft
All VOCs	ND

GP-3	12/21/01
Depth	4-8 ft
PCE	**355**
Nph	**457**
1,2,4-TMB	**410**
1,3,5-TMB	**639**

GP-4	12/21/01
Depth	4-8 ft
All VOCs	ND

SB-15	4/23/13	
Depth	1-2 ft	9-10 ft
Toluene	**75.0**	**37.0 J**

GP-7	7/7/03	
Depth	2-4 ft	8-10 ft**
PCE	**280**	**47.1**

MW-2	7/7/03	
Depth	2-4 ft	8-10 ft**
PCE	**61**	<2,500
Eb	<25	**9,350**
Xylene	<25	**13,000**
Nph	<25	**12,400**
1,2,4-TMB	<25	**48,300**
1,3,5-TMB	<25	**92,900**

MW-1	7/07/03	
Depth	2-4 ft	8-10 ft**
PCE	**481**	<500
cis-1,2-DCE	**578**	**65,900**
Eb	<25	**4,080**
Xylene	<25	**8,850**
Nap	<25	**5,970**
1,2,4-TMB	<25	**158,000**
1,3,5-TMB	<25	**52,300**

SB-6	5/17/11	
Depth	3-5 ft	13-15 ft
All VOCs	ND	ND

SB-17	4/23/13	
Depth	5-6 ft	14-15 ft
All VOCs	ND	ND

SB-27	9/7/16	
Depth	2-4 ft	5-7 ft
PCE	**2,220**	**600**
TCE	**117 J**	<42
cis-1,2-DCE	**56 J**	**45 J**
1,2,4-TMB	<78	**380**
1,3,5-TMB	**228 J**	<89
sec-Butylbenzene	<36	**41 J**
n-Butylbenzene	<86	**86 J**
p-Isopropyltoluene	**76 J**	<56
n-Propylbenzene	<35	**64 J**

MW-5	11/1/05	
Depth	1-3 ft	5-7 ft
PCE	**4,400**	**120,000**

SB-21	5/1/13
Depth	11-12 ft
All VOCs	ND

SB-Interior	5/1/13
Depth	11-12 ft
cis-1,2-DCE	**210**

HA-2	7/07/03	
Depth	2-4 ft	5-7 ft
PCE	**2,850**	**14,000**

HA-3	4/25/13
Depth	4-5 ft
PCE	**2,200,000**

HA-1	7/07/03	
Depth	2-4 ft	5-7 ft
PCE	**29,300**	**15,500**

SB-11	4/16/12				
Depth	7.75 ft	8.5 ft**	18 ft	35 ft	44 ft
PCE	**100,000**	**73**	<13	<12	<13
TCE	<35	**120**	<8.8	<8.3	<8.9
cis-1,2-DCE	<35	**39J**	<13	<12	<13

SB-7	4/16/12	
Depth	5-6 ft	10 ft
Eb	**9.2J**	<7.8
Xylene	**36**	<7.2

UHA-5	4/12/12
Depth	6 ft
All VOCs	ND

SB-1	5/17/11		
Depth	2-4 ft	7-9 ft	13-15 ft
All VOCs	ND	ND	ND

SB-12	4/16/12		
Depth	3-4 ft	5 ft	8 ft
All VOCs	ND	ND	ND

SB-2	5/17/11		
Depth	5-7 ft	10-12 ft**	13-15 ft**
PCE	**1,110**	**226,000**	**43.5**

SB-8	4/16/12	
Depth	5 ft	12 ft
All VOCs	ND	ND

UHA-4	4/12/12
Depth	6.2 ft
All VOCs	ND

SB-3	5/17/11	
Depth	4-6 ft	13-15 ft
PCE	**92.0**	<25.0

UHA-3	5/12/12
Depth	6 ft
All VOCs	ND

SB-13	4/16/12		
Depth	4 ft	5-6 ft	8 ft
All VOCs	ND	ND	ND

MW-6	11/1/05	
Depth	3-5 ft	7-9 ft**
PCE	**29**	<59
cis-1,2-DCE	<26	**12,000**
trans-1,2-DCE	<26	**150**
Eb	<26	**110**

SB-4	5/17/11	
Depth	3-5 ft	13-15 ft
All VOCs	ND	ND

SB-9	4/16/12		
Depth	2 ft	4.5 ft	6 ft
All VOCs	ND	ND	ND

SB-5	5/17/11		
Depth	3-5 ft	6-8 ft	13-15 ft
All VOCs	ND	ND	ND

UHA-2	5/12/12
Depth	6 ft
Xylene	**18 J**

SB-18	4/22/13	
Depth	4-5 ft	14-15 ft
All VOCs	ND	ND

UHA-1	4/12/12
Depth	6 ft
All VOCs	ND

Legend

- Property boundary
- FSU — Former Stoddard USTs
- FPS — Former PCE Storage
- FGU — Former Gasoline UST
- MW-1 — Existing monitoring well location
- HA-1 — Previous hand auger soil boring location
- HA-3 — EnviroForensics hand auger soil boring location
- GP-1 — Previous direct push soil boring location
- SB-1 — EnviroForensics direct push soil boring location
- UHA-1 — EnviroForensics utility corridor sampling location

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**	**156,000**	**2,040,000**
trans-1,2-DCE	**41.2**	**211,000**	**976,000**
Vinyl Chloride	**0.14**	**67.1**	**2,030**
Benzene	**5.1**	**1,490**	**7,410**
Toluene	**1,384**	**818,000**	**818,000**
Ethylbenzene	**1,570**	**7,470**	**37,000**
Xylene - (Total)	**19,700**	**258,000**	**258,000**
Naphthalene	**659**	**5,150**	**26,000**
1,2,4-TMB	**1,394**	**89,800**	**219,000**
1,3,5-TMB	**1,380**	**182,000**	**182,000**
sec-Butyllbenzene	NE	**145,000**	**145,000**
n-Butylbenzene	NE	**108,000**	**108,000**
p-Isopropyltoluene	NE	**162,000**	**162,000**
n-Propylbenzene	NE	**264,000**	**264,000**

Notes:

1. Bold, shaded blue values exceed Soil to Groundwater Residential Residual Contaminant Levels
2. Bold, shaded orange values exceed Industrial Residual Contaminant Levels
3. Bold, shaded green values exceed Residential Residual Containment Levels
4. ** = saturated soil sample not applicable for comparison to residual contaminant levels
5. Results reported in micrograms per kilogram (ug/kg)
6. PCE = Tetrachloroethene
7. TCE = Trichloroethene
8. cis-1,2-DCE = cis-1,2-Dichloroethene
9. trans-1,2-DCE = trans-1,2-Dichloroethene
10. Eb = Ethylbenzene
11. Nap = Naphthalene
12. 1,2,4-TMB = 1,2,4-Trimethylbenzene
13. 1,3,5-TMB = 1,3,5-Trimethylbenzene
14. NR = Not Regulated
15. ND = Not Detected
16. J = Result is less than reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.
17. Sample analyzed using U.S. EPA SW-846 Method 8260
18. Sample/consituents not shown are below laboratory detection limits

SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS

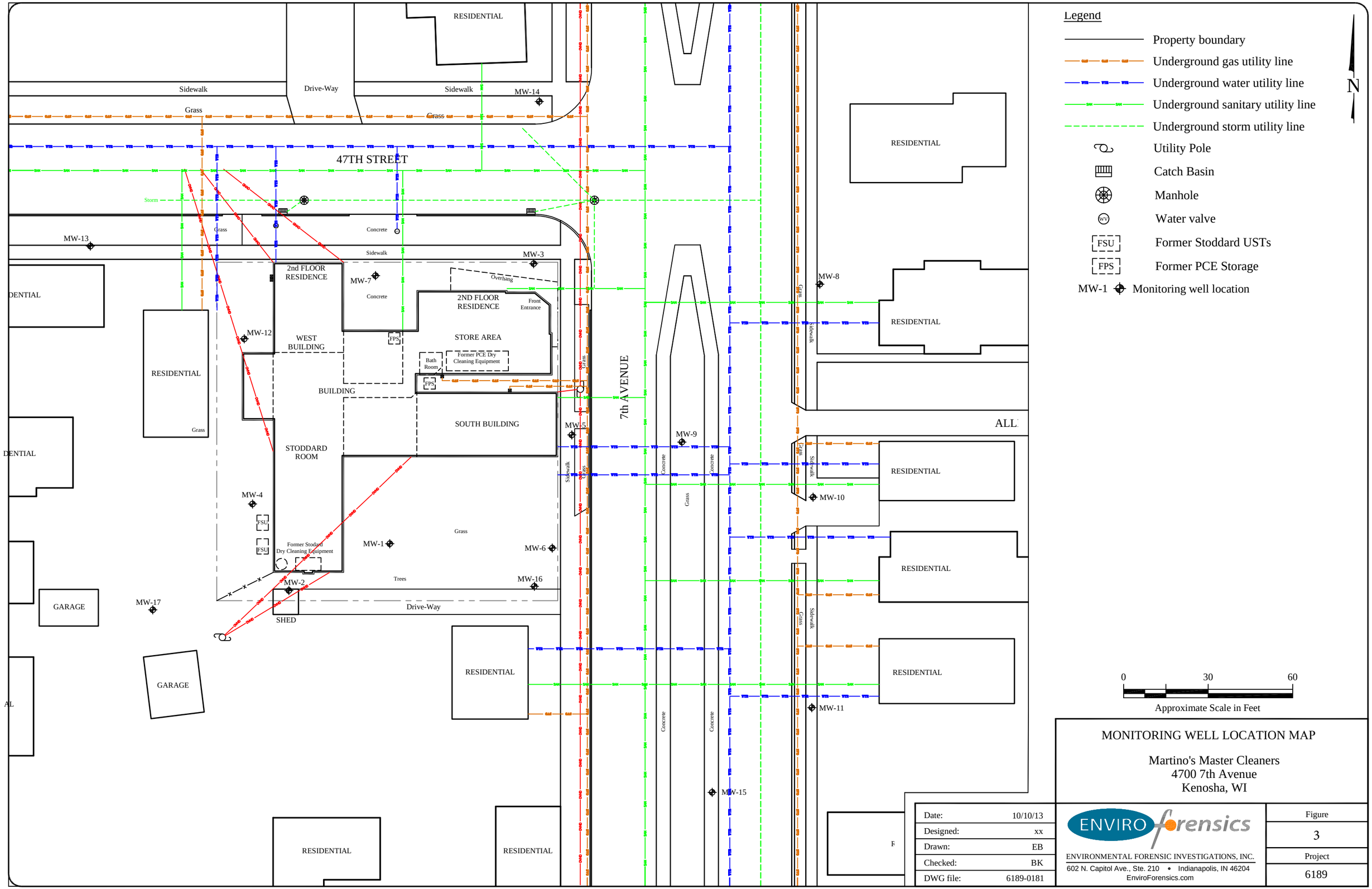
Martino's Master Cleaners
4700 7th Avenue
Kenosha, WI

Date:	7/7/17
Designed:	EB
Drawn:	EB
Checked:	BK
DWG file:	6189-1735

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

Figure
2

Project
6189



MONITORING WELL LOCATION MAP

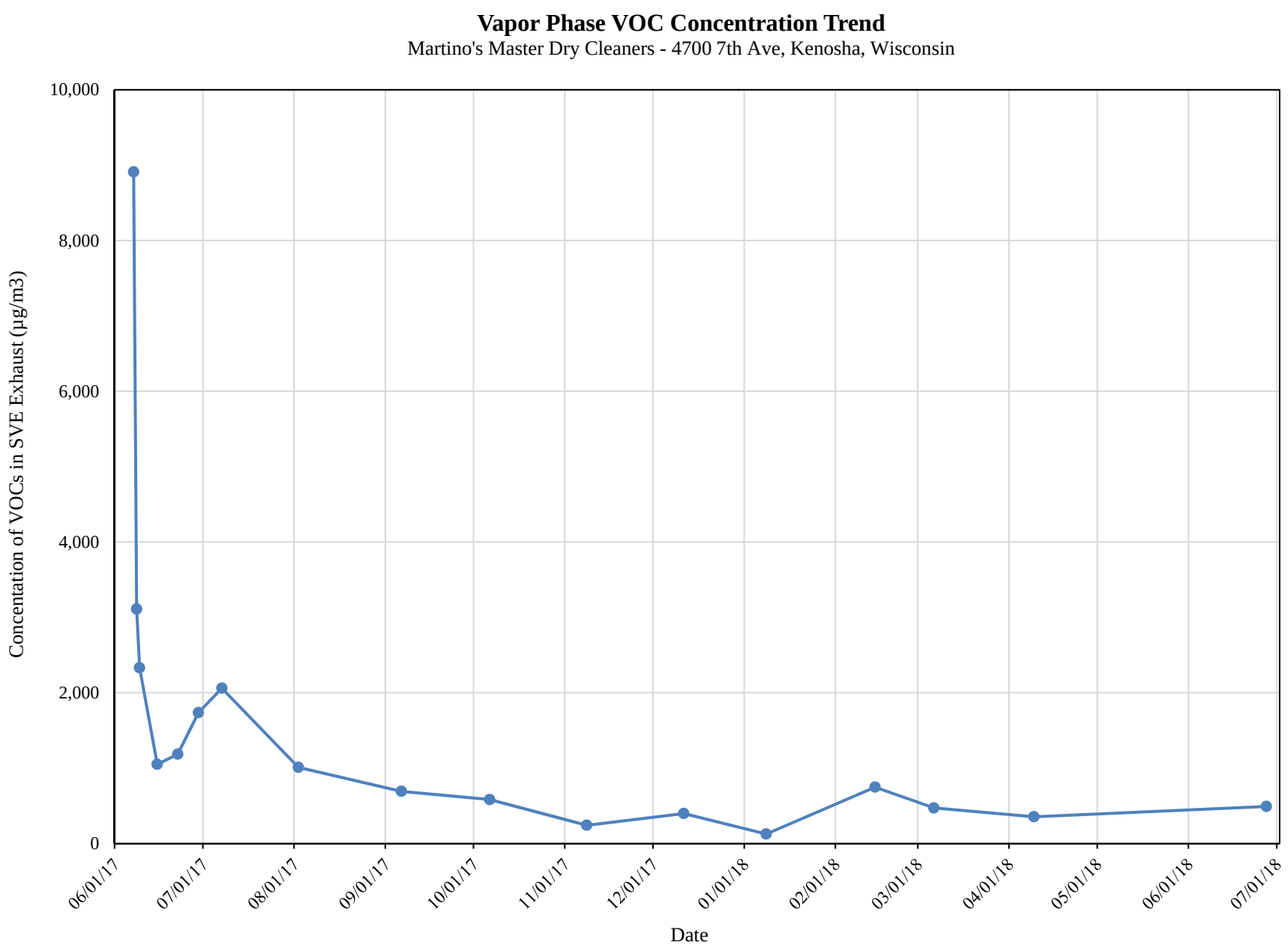
Martino's Master Cleaners
4700 7th Avenue
Kenosha, WI

Date:	10/10/13
Designed:	xx
Drawn:	EB
Checked:	BK
DWG file:	6189-0181

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

Figure
3

Project
6189


Vapor Phase VOC Concentration Trend
Martino's Master Dry Cleaners - 4700 7th Ave, Kenosha, Wisconsin
Concentation of VOCs in SVE Exhaust (µg/m3)
10,000
8,000
6,000
4,000
2,000
0
06/01/17
07/01/17
08/01/17
09/01/17
10/01/17
11/01/17
12/01/17
01/01/18
02/01/18
03/01/18
04/01/18
05/01/18
06/01/18
07/01/18
Date

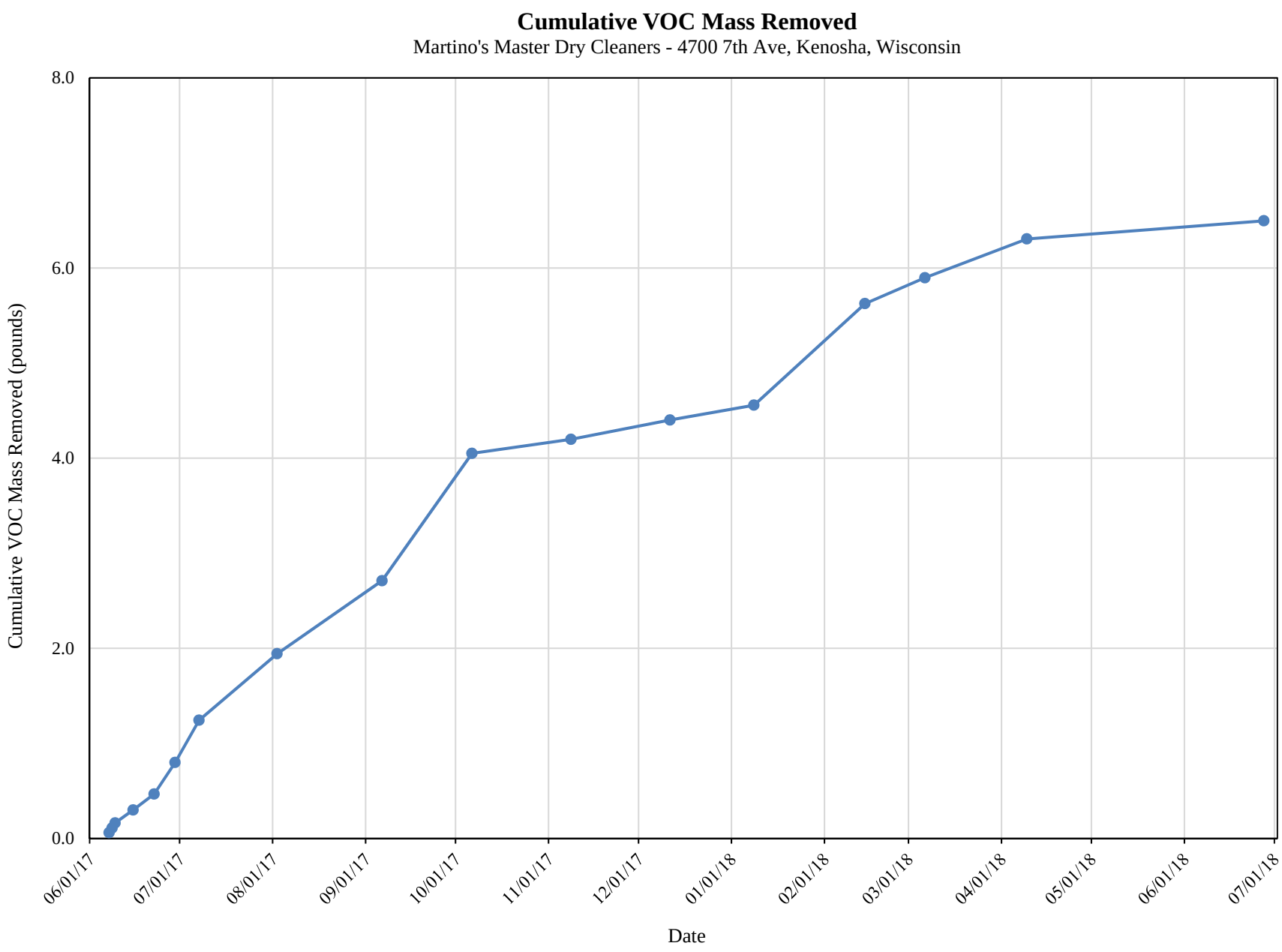

Cumulative VOC Mass Removed
Martino's Master Dry Cleaners - 4700 7th Ave, Kenosha, Wisconsin
Cumulative VOC Mass Removed (pounds)
8.0
6.0
4.0
2.0
0.0
06/01/17
07/01/17
08/01/17
09/01/17
10/01/17
11/01/17
12/01/17
01/01/18
02/01/18
03/01/18
04/01/18
05/01/18
06/01/18
07/01/18
Date

TABLE 2

GROUNDWATER ELEVATION DATA SUMMARY

Martino's Master Dry Cleaners

4700 7th Avenue, Kenosha, Wisconsin

Well Identification	Date	TOC Elevation (feet AMSL)	Top Screen Elevation (feet AMSL)	Bottom Screen Elevation (feet AMSL)	Depth to Water (feet below TOC)	Groundwater Elevation (feet AMSL)
PZ-1	6/8/2016	606.77	576.77	571.27	11.93	594.84
	9/27/2016	606.77	576.77	571.27	10.53	596.24
	7/13/2017	606.77	576.77	571.27	10.52	596.25
	1/10/2018	606.77	576.77	571.27	8.79	597.98
	5/30/2018	606.77	576.77	571.27	11.00	595.77
PZ-2	6/8/2016	606.46	576.46	571.46	8.83	597.63
	9/27/2016	606.46	576.46	571.46	12.87	593.59
	7/13/2017	606.46	576.46	571.46	11.98	594.48
	1/10/2018	606.46	576.46	571.46	9.77	596.69
	5/30/2018	606.46	576.46	571.46	12.42	594.04
MW-1	6/8/2016	606.79	601.79	591.79	6.76	600.03
	9/27/2016	606.79	601.79	591.79	7.67	599.12
	7/13/2017	606.79	601.79	591.79	3.85	602.94
	1/10/2018	606.79	601.79	591.79	8.09	598.70
	5/30/2018	606.79	601.79	591.79	5.42	601.37
MW-2	6/8/2016	607.50	602.50	592.50	7.08	600.42
	9/27/2016	607.50	602.50	592.50	8.36	599.14
	7/13/2017	607.50	602.50	592.50	3.38	604.12
	1/10/2018	607.50	602.50	592.50	8.41	599.09
	5/30/2018	607.50	602.50	592.50	5.16	602.34
MW-3	6/8/2016	606.73	601.73	591.73	7.76	598.97
	9/27/2016	606.73	601.73	591.73	7.96	598.77
	7/13/2017	606.73	601.73	591.73	7.47	599.26
	1/10/2018	606.73	601.73	591.73	8.83	597.90
	5/30/2018	606.73	601.73	591.73	7.08	599.65
MW-4	6/8/2016	607.98	602.98	592.98	7.48	600.50
	9/27/2016	607.98	602.98	592.98	8.18	599.80
	7/13/2017	607.98	602.98	592.98	3.36	604.62
	1/10/2018	607.98	602.98	592.98	8.69	599.29
	5/30/2018	607.98	602.98	592.98	5.80	602.18
MW-5	6/8/2016	606.31	601.31	591.31	7.63	598.68
	9/27/2016	606.31	601.31	591.31	7.81	598.50
	7/13/2017	606.31	601.31	591.31	6.86	599.45
	1/10/2018	606.31	601.31	591.31	8.78	597.53
	5/30/2018	606.31	601.31	591.31	7.25	599.06
MW-6	6/8/2016	606.61	601.61	591.61	8.01	598.60
	9/27/2016	606.61	601.61	591.61	8.42	598.19
	7/13/2017	606.61	601.61	591.61	7.27	599.34
	1/10/2018	606.61	601.61	591.61	8.94	597.67
	5/30/2018	606.61	601.61	591.61	7.51	599.10
MW-7	6/8/2016	606.92	601.92	591.92	7.57	599.35
	9/27/2016	606.92	601.92	591.92	7.52	599.40
	7/13/2017	606.92	601.92	591.92	7.21	599.71
	1/10/2018	606.92	601.92	591.92	8.10	598.82
	5/30/2018	606.92	601.92	591.92	7.10	599.82

ENVIRO forensics

TABLE 2
GROUNDWATER ELEVATION DATA SUMMARY
Martino's Master Dry Cleaners
4700 7th Avenue, Kenosha, Wisconsin

Well Identification	Date	TOC Elevation (feet AMSL)	Top Screen Elevation (feet AMSL)	Bottom Screen Elevation (feet AMSL)	Depth to Water (feet below TOC)	Groundwater Elevation (feet AMSL)
MW-8	6/8/2016	606.80	601.80	591.80	8.18	598.62
	9/27/2016	606.80	601.80	591.80	9.00	597.80
	7/13/2017	606.80	601.80	591.80	6.06	600.74
	1/10/2018	606.80	601.80	591.80	8.95	597.85
	5/30/2018	606.80	601.80	591.80	7.30	599.50
MW-9	6/8/2016	607.49	601.49	596.49	10.07	597.42
	9/27/2016	607.49	601.49	596.49	10.28	597.21
	7/13/2017	607.49	601.49	596.49	9.13	598.36
	1/10/2018	607.49	601.49	596.49	10.63	596.86
	5/30/2018	607.49	601.49	596.49	9.70	597.79
MW-10	6/8/2016	606.50	589.50	595.50	9.27	597.23
	9/27/2016	606.50	589.50	595.50	Dry	
	7/13/2017	606.50	589.50	595.50	7.17	599.33
	1/10/2018	606.50	589.50	595.50	9.96	596.54
	5/30/2018	606.50	589.50	595.50	8.09	598.41
MW-11	6/8/2016	606.36	601.36	596.36	8.77	597.59
	9/27/2016	606.36	601.36	596.36	Dry	
	7/13/2017	606.36	601.36	596.36	7.86	598.50
	1/10/2018	606.36	601.36	596.36	9.68	596.68
	5/30/2018	606.36	601.36	596.36	8.2	598.16
MW-12	6/8/2016	607.64	601.64	596.64	7.68	599.96
	9/27/2016	607.64	601.64	596.64	7.96	599.68
	7/13/2017	607.64	601.64	596.64	6.02	601.62
	1/10/2018	607.64	601.64	596.64	8.65	598.99
	5/30/2018	607.64	601.64	596.64	7.21	600.43
MW-13	6/8/2016	606.97	601.97	596.97	7.33	599.64
	9/27/2016	606.97	601.97	596.97	7.61	599.36
	7/13/2017	606.97	601.97	596.97	5.23	601.74
	1/10/2018	606.97	601.97	596.97	8.10	598.87
	5/30/2018	606.97	601.97	596.97	7.81	599.16
MW-14	6/8/2016	606.61	601.61	596.61	7.67	598.94
	9/27/2016	606.61	601.61	596.61	8.09	598.52
	7/13/2017	606.31	601.61	596.61	5.82	600.49
	1/10/2018	606.31	601.61	596.61	8.34	597.97
	5/30/2018	606.31	601.61	596.61	6.70	599.61
MW-15	6/8/2016	607.31	604.31	594.31	10.91	596.40
	9/27/2016	607.31	604.31	594.31	11.01	596.30
	7/13/2017	607.31	604.31	594.31	10.11	597.20
	1/10/2018	607.31	604.31	594.31	NM	
	5/30/2018	607.31	604.31	594.31	10.66	596.65
MW-16	6/8/2016	606.80	601.80	596.80	8.41	598.39
	9/27/2016	606.80	601.80	596.80	8.37	598.43
	7/13/2017	606.80	601.80	596.80	6.85	599.95
	1/10/2018	606.80	601.80	596.80	7.71	599.09
	5/30/2018	606.80	601.80	596.80	6.90	599.90

TABLE 2

GROUNDWATER ELEVATION DATA SUMMARY

Martino's Master Dry Cleaners

4700 7th Avenue, Kenosha, Wisconsin

Well Identification	Date	TOC Elevation (feet AMSL)	Top Screen Elevation (feet AMSL)	Bottom Screen Elevation (feet AMSL)	Depth to Water (feet below TOC)	Groundwater Elevation (feet AMSL)
MW-17	6/8/2016	607.13	603.13	598.13	6.46	600.67
	9/27/2016	607.13	603.13	598.13	7.57	599.56
	7/13/2017	607.13	603.13	598.13	2.35	604.78
	1/10/2018	607.13	603.13	598.13	7.61	599.52
	5/30/2018	607.13	603.13	598.13	4.52	602.61

Notes:

AMSL = Above Mean Sea Level

TOC = Top of Casing

TABLE 1

SOIL SAMPLE ANALYTICAL RESULTS SUMMARY

Martino's Master Dry Cleaners
4700 7th Avenue, Kenosha, Wisconsin

Boring Identification	Sample Depth (feet bgs)	Sample Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Toluene	Ethylbenzene	Xylenes	Napthtalene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	sec-Butylbenzene	n-Butylbenzene	p-Isopropyltoluene	n-Propylbenzene
			Chlorinated VOCs (µg/kg)				Petroleum VOCs (µg/kg)									
Residual Contaminant Level - Industrial			**145,000**	**8,410**	**2,340,000**	**1,850,000**	**818,000**	**35,400**	**260,000**	**24,100**	**219,000**	**182,000**	**145,00**	**108,000**	**162,000**	**264,000**
Residual Contaminant Level - Non-Industrial			**33,000**	**1,300**	**156,000**	**1,560,000**	**818,000**	**8,020**	**260,000**	**5,520**	**219,000**	**182,000**	**145,000**	**108,000**	**162,000**	**264,000**
Residual Contaminant Level - Soil to Groundwater			**4.5**	**3.6**	**41**	**62.6**	**1,107**	**1,570**	**3,960**	**658.0**	**1,382**	**1,382**	**NE**	**NE**	**NE**	**NE**
GP-1	6-8	12/21/2001	<25	<25	<25	<25	<25	<25	**37.1**	<25	<25	<25	ND	ND	ND	ND
GP-2	6-8	12/21/2001	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	ND	ND	ND	ND
GP-3	4-8	12/21/2001	**355**	<25	<25	<25	<25	<25	<25	**457**	**410**	**639**	ND	ND	ND	ND
GP-4	4-8	12/21/2001	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	ND	ND	ND	ND
GP-5	8-12	12/21/2001	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	ND	ND	ND	ND
GP-6	8-12	12/21/2001	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	ND	ND	ND	ND
GP-7	2-4	7/7/2003	**280**	<25	<25	<25	<25	<25	<25	<25	<25	<25	ND	ND	ND	ND
	8-10 **	7/7/2003	**47.1**	<25	<25	<25	<25	<25	<25	<25	<25	<25	ND	ND	ND	ND
MW-1	2-4	7/7/2003	**481**	<25	**578**	<25	<25	<25	<25	<25	<25	<25	ND	ND	ND	ND
	8-10 **	7/7/2003	<500	<500	**65,900**	<500	<500	**4,080**	**8,850**	**5,970**	**158,000**	**52,300**	ND	ND	ND	ND
MW-2	2-4	7/7/2003	**61**	<25	<25	<25	<25	<25	<25	<25	<25	<25	ND	ND	ND	ND
	8-10 **	7/7/2003	<2500	<2500	<2500	<2500	<2500	**9,350**	**13,000**	**12,400**	**48,300**	**92,900**	ND	ND	ND	ND
MW-3	2-4	7/7/2003	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	ND	ND	ND	ND
	8-10 **	7/7/2003	**890**	**43.6**	**1,700**	**275**	<25	<25	<25	<25	<25	<25	ND	ND	ND	ND
MW-4	2-4	7/7/2003	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	ND	ND	ND	ND
	8-10 **	7/7/2003	**3,920**	<25	<25	<25	<25	<25	<25	<25	<25	<25	ND	ND	ND	ND
MW-5	1-3	11/1/2005	**4,400**	<28	<28	<28	<25	<25	<25	<25	<25	<25	ND	ND	ND	ND
	5-7	11/1/2005	**120,000**	<1500	<1500	<1500	<25	<25	<25	<25	<25	<25	ND	ND	ND	ND
MW-6	3-5	11/1/2005	**29**	<26	<26	<26	<26	<26	<89	<52	<25	<25	ND	ND	ND	ND
	7-9 **	11/1/2005	<59	<59	**12,000**	**150**	<59	**110**	<200	<120	<25	<25	ND	ND	ND	ND
MW-7	1-3	11/1/2005	**49**	<27	<27	<27	<25	<25	<25	<25	<25	<25	ND	ND	ND	ND
	5-7	11/1/2005	**4,800**	<32	<32	<32	<25	<25	<25	<25	<25	<25	ND	ND	ND	ND
HA-1	2-4	7/7/2003	**29,300**	<25	<25	<25	<25	<25	<25	<25	<25	<25	ND	ND	ND	ND
	5-7	7/7/2003	**15,500**	<25	<25	<25	<25	<25	<25	<25	<25	<25	ND	ND	ND	ND
HA-2	2-4	7/7/2003	**2,850**	<25	<25	<25	<25	<25	<25	<25	<25	<25	ND	ND	ND	ND
	5-7	7/7/2003	**14,000**	<25	<25	<25	<25	<25	<25	<25	<25	<25	ND	ND	ND	ND
HA-3	4-5	4/25/2013	**2,200,000**	< 260	< 170	< 340	< 160	< 170	<94	< 680	< 520	< 280	ND	ND	ND	ND
SB-Interior	11-12	5/1/2013	< 18	< 20	**210**	< 27	< 13	< 14	< 7.5	< 54	< 23	< 23	ND	ND	ND	ND

ENVIRO forensics

TABLE 1

SOIL SAMPLE ANALYTICAL RESULTS SUMMARY

Martino's Master Dry Cleaners
4700 7th Avenue, Kenosha, Wisconsin

Boring Identification	Sample Depth (feet bgs)	Sample Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Toluene	Ethylbenzene	Xylenes	Napthtalene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	sec-Butylbenzene	n-Butylbenzene	p-Isopropyltoluene	n-Propylbenzene
			Chlorinated VOCs (µg/kg)				Petroleum VOCs (µg/kg)									
Residual Contaminant Level - Industrial			**145,000**	**8,410**	**2,340,000**	**1,850,000**	**818,000**	**35,400**	**260,000**	**24,100**	**219,000**	**182,000**	**145,00**	**108,000**	**162,000**	**264,000**
Residual Contaminant Level - Non-Industrial			**33,000**	**1,300**	**156,000**	**1,560,000**	**818,000**	**8,020**	**260,000**	**5,520**	**219,000**	**182,000**	**145,000**	**108,000**	**162,000**	**264,000**
Residual Contaminant Level - Soil to Groundwater			**4.5**	**3.6**	**41**	**62.6**	**1,107**	**1,570**	**3,960**	**658.0**	**1,382**	**1,382**	**NE**	**NE**	**NE**	**NE**
SB-1	2-4	5/17/2011	<25.0	< 25.0	<25.0	< 25.0	<25	<25	<25	<25	<25	<25	ND	ND	ND	ND
	7-9	5/17/2011	<62.5	<62.5	<62.5	<62.5	<25	<25	<25	<25	<25	<25	ND	ND	ND	ND
	13-15	5/17/2011	<25.0	< 25.0	<25.0	< 25.0	<25	<25	<25	<25	<25	<25	ND	ND	ND	ND
SB-2	5-7	5/17/2011	**1,110**	< 25.0	<25.0	< 25.0	<25	<25	<25	<25	<25	<25	ND	ND	ND	ND
	5-7 DUP-2	5/17/2011	**1,370**	< 25.0	<25.0	< 25.0	<25	<25	<25	<25	<25	<25	ND	ND	ND	ND
	10-12 **	5/17/2011	**226,000**	<1000	<1000	<1000	<25	<25	<25	<25	<25	<25	ND	ND	ND	ND
	13-15 **	5/17/2011	**43.5**	< 25.0	<25.0	< 25.0	<25	<25	<25	<25	<25	<25	ND	ND	ND	ND
SB-3	4-6	5/17/2011	**92**	< 25.0	<25.0	< 25.0	<25	<25	<25	<25	<25	<25	ND	ND	ND	ND
	13-15	5/17/2011	<25.0	< 25.0	<25.0	< 25.0	<25	<25	<25	<25	<25	<25	ND	ND	ND	ND
SB-4	3-5	5/17/2011	<25.0	< 25.0	<25.0	< 25.0	<25	<25	<25	<25	<25	<25	ND	ND	ND	ND
	3-5 DUP-1	5/17/2011	<25.0	< 25.0	<25.0	< 25.0	<25	<25	<25	<25	<25	<25	ND	ND	ND	ND
	13-15	5/17/2011	<25.0	< 25.0	<25.0	< 25.0	<25	<25	<25	<25	<25	<25	ND	ND	ND	ND
SB-5	3-5	5/17/2011	<25.0	< 25.0	<25.0	< 25.0	<25	<25	<25	<25	<25	<25	ND	ND	ND	ND
	6-8	5/17/2011	<250	<250	<250	<250	<25	<25	<25	<25	<25	<25	ND	ND	ND	ND
	13-15	5/17/2011	<25.0	< 25.0	<25.0	< 25.0	<25	<25	<25	<25	<25	<25	ND	ND	ND	ND
SB-6	3-5	5/17/2011	<25.0	< 25.0	<25.0	< 25.0	<25	<25	<25	<25	<25	<25	ND	ND	ND	ND
	13-15	5/17/2011	<25.0	< 25.0	<25.0	< 25.0	<25	<25	<25	<25	<25	<25	ND	ND	ND	ND
SB-7	5-6	4/16/2012	< 13	< 9.0	< 13	< 16	< 9.0	**9.2 J**	**36**	< 28	< 18	< 16	ND	ND	ND	ND
	10	4/16/2012	< 12	< 8.4	< 12	< 15	< 8.4	< 7.8	< 7.2	< 27	< 17	< 15	ND	ND	ND	ND
SB-8	5	4/16/2012	< 17	< 12	< 17	< 21	< 12	< 11	< 9.9	< 37	< 23	< 21	ND	ND	ND	ND
	5 (Dup-1)	4/16/2012	< 12	< 8.2	< 12	< 15	< 8.2	< 7.6	< 7.0	< 26	< 16	< 15	ND	ND	ND	ND
	12	4/16/2012	< 12	< 8.5	< 13	< 15	< 8.5	< 7.9	< 7.2	< 27	< 17	< 15	ND	ND	ND	ND
SB-9	2	4/16/2012	< 12	< 8.6	< 13	< 16	< 8.6	< 8.0	< 7.4	< 27	< 17	< 16	ND	ND	ND	ND
	4.5	4/16/2012	< 14	< 9.4	< 14	< 17	< 9.4	< 8.7	< 8.0	< 30	< 19	< 17	ND	ND	ND	ND
	6	4/16/2012	< 13	< 9.4	< 14	< 17	< 9.4	< 8.7	< 8.0	< 30	< 19	< 17	ND	ND	ND	ND
SB-10	2	4/16/2012	< 14	< 9.6	< 14	< 17	< 9.6	< 8.9	< 8.2	< 30	< 19	< 18	ND	ND	ND	ND
	6	4/16/2012	**63**	< 9.6	< 14	< 17	< 9.6	< 8.9	< 8.2	< 30	< 19	< 17	ND	ND	ND	ND

TABLE 1

SOIL SAMPLE ANALYTICAL RESULTS SUMMARY

Martino's Master Dry Cleaners
4700 7th Avenue, Kenosha, Wisconsin

Boring Identification	Sample Depth (feet bgs)	Sample Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Toluene	Ethylbenzene	Xylenes	Napthtalene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	sec-Butylbenzene	n-Butylbenzene	p-Isopropyltoluene	n-Propylbenzene
			Chlorinated VOCs (µg/kg)				Petroleum VOCs (µg/kg)									
Residual Contaminant Level - Industrial			**145,000**	**8,410**	**2,340,000**	**1,850,000**	**818,000**	**35,400**	**260,000**	**24,100**	**219,000**	**182,000**	**145,00**	**108,000**	**162,000**	**264,000**
Residual Contaminant Level - Non-Industrial			**33,000**	**1,300**	**156,000**	**1,560,000**	**818,000**	**8,020**	**260,000**	**5,520**	**219,000**	**182,000**	**145,000**	**108,000**	**162,000**	**264,000**
Residual Contaminant Level - Soil to Groundwater			**4.5**	**3.6**	**41**	**62.6**	**1,107**	**1,570**	**3,960**	**658.0**	**1,382**	**1,382**	**NE**	**NE**	**NE**	**NE**
SB-11	7.75	4/17/2012	**100,000**	< 35	< 53	< 64	< 35	< 33	< 30	< 110	< 70	< 65	ND	ND	ND	ND
	8.5 **	4/17/2012	**73**	**120**	**39 J**	< 16	< 8.7	< 8.1	< 7.4	< 28	< 17	< 16	ND	ND	ND	ND
	18	4/17/2012	< 13	< 8.8	< 13	< 16	< 8.8	< 8.2	< 7.5	< 28	< 17	< 16	ND	ND	ND	ND
	35	4/17/2012	< 12	< 8.3	< 12	< 15	< 8.3	< 7.7	< 7.1	< 26	< 15	< 16	ND	ND	ND	ND
	44	4/17/2012	< 13	< 8.9	< 13	< 16	< 8.9	< 8.3	< 7.6	< 28	< 18	< 16	ND	ND	ND	ND
SB-12	3-4	4/16/2012	< 13	< 8.8	< 13	< 16	< 8.8	< 8.2	< 7.5	< 28	< 17	< 16	ND	ND	ND	ND
	5	4/16/2012	< 12	< 8.6	< 13	< 15	< 8.6	< 8.0	< 7.3	< 27	< 17	< 16	ND	ND	ND	ND
	8	4/16/2012	< 15	< 10	< 15	< 19	< 10	< 9.6	< 8.9	< 33	< 20	< 19	ND	ND	ND	ND
SB-13	4	4/16/2012	< 16	< 11	< 16	< 20	< 11	< 10	< 9.3	< 34	< 21	< 20	ND	ND	ND	ND
	5-6	4/16/2012	< 12	< 8.7	< 13	< 16	< 8.7	< 8.0	< 7.4	< 27	< 17	< 16	ND	ND	ND	ND
	5-6 (Dup 2)	4/16/2012	< 18	< 13	< 19	< 22	< 13	< 12	< 11	< 40	< 25	< 23	ND	ND	ND	ND
	8	4/16/2012	< 13	< 9.0	< 13	< 16	< 9.0	< 8.3	< 7.7	< 28	< 18	< 16	ND	ND	ND	ND
SB-14	4-5	4/23/2013	< 19	< 21	< 14	< 28	< 13	< 14	< 7.7	< 56	< 43	< 23	ND	ND	ND	ND
	10-11	4/23/2013	< 16	< 18	< 12	< 24	< 11	< 12	< 6.5	< 47	< 36	< 20	ND	ND	ND	ND
SB-15	1-2	4/23/2013	< 21	< 24	< 16	< 32	**75.0**	< 16	**37.0 J**	< 63	< 49	< 26	ND	ND	ND	ND
	9-10	4/23/2013	< 15	< 16	< 11	< 22	< 10	< 11	< 6	< 43	< 18	< 18	ND	ND	ND	ND
SB-16	--	--	Boring not installed.													
SB-17	5-6	4/22/2013	< 36	< 40	< 27	< 54	< 25	< 27	< 15	< 110	< 46	< 45	ND	ND	ND	ND
	14-15	4/22/2013	< 17	< 19	< 13	< 25	< 12	< 8.0	<6 .9	< 50	< 38	< 21	ND	ND	ND	ND
SB-18	4-5	4/22/2013	< 18	< 21	< 14	< 28	< 13	< 14	< 7.5	< 54	< 42	< 23	ND	ND	ND	ND
	14-15	4/22/2013	< 16	< 18	< 12	< 24	< 11	< 12	< 6.6	< 48	< 36	< 20	ND	ND	ND	ND
SB-19	4-5	4/22/2013	< 19	< 21	< 14	< 28	< 13	< 14	< 7.8	< 56	< 24	< 23	ND	ND	ND	ND
	9-10	4/22/2013	< 16	< 17	< 12	< 23	< 11	< 12	< 6.4	< 46	< 36	< 19	ND	ND	ND	ND
SB-20	4-5	4/22/2013	< 19	< 21	< 14	< 29	< 13	< 15	< 7.9	< 57	< 44	< 24	ND	ND	ND	ND
	9-10	4/22/2013	< 18	< 20	< 13	< 27	< 12	< 14	< 7.4	< 53	< 41	< 22	ND	ND	ND	ND

TABLE 1

SOIL SAMPLE ANALYTICAL RESULTS SUMMARY

Martino's Master Dry Cleaners
4700 7th Avenue, Kenosha, Wisconsin

Boring Identification	Sample Depth (feet bgs)	Sample Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Toluene	Ethylbenzene	Xylenes	Napthtalene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	sec-Butylbenzene	n-Butylbenzene	p-Isopropyltoluene	n-Propylbenzene
			Chlorinated VOCs (µg/kg)				Petroleum VOCs (µg/kg)									
Residual Contaminant Level - Industrial			**145,000**	**8,410**	**2,340,000**	**1,850,000**	**818,000**	**35,400**	**260,000**	**24,100**	**219,000**	**182,000**	**145,00**	**108,000**	**162,000**	**264,000**
Residual Contaminant Level - Non-Industrial			**33,000**	**1,300**	**156,000**	**1,560,000**	**818,000**	**8,020**	**260,000**	**5,520**	**219,000**	**182,000**	**145,000**	**108,000**	**162,000**	**264,000**
Residual Contaminant Level - Soil to Groundwater			**4.5**	**3.6**	**41**	**62.6**	**1,107**	**1,570**	**3,960**	**658.0**	**1,382**	**1,382**	**NE**	**NE**	**NE**	**NE**
SB-25	2-4	9/7/2016	**92 J**	<42	<21	<24	<31	<27	<99	<87	<78	<89	<36	<86	<56	<35
	5-7	9/7/2016	**111 J**	<42	<21	<24	<31	<27	<99	<87	<78	<89	<36	<86	<56	<35
SB-26	2-4	9/7/2016	<54	<42	<21	<24	<31	<27	<99	<87	<78	<89	<36	<86	<56	<35
	5-7	9/7/2016	**271**	<42	<21	<24	<31	<27	<99	<87	<78	<89	<36	<86	<56	<35
SB-27	2-4	9/7/2016	**2,220**	**117 J**	**56 J**	<24	<31	<27	<99	<87	<78	**228 J**	<36	<86	**76 J**	<35
	5-7	9/7/2016	**600**	<42	**45 J**	<24	<31	<27	<99	<87	**380**	<89	**41 J**	**86 J**	<56	**64 J**
SB-28	2-4	9/7/2016	<54	<42	<21	<24	<31	<27	<99	<87	<78	<89	<36	<86	<56	<35
	5-7	9/7/2016	**170 J**	<42	<21	<24	<31	<27	<99	<87	<78	<89	<36	<86	<56	<35

Notes

WDNR Residual Contaminant Levels (RCLs) were calculated according to the procedures described in WDNR Publication RR-890.

Samples analyzed using EPA SW-846 Method 8260

Bolded values exceed laboratory detection levels

Bolded and **orange shaded** values exceed the Industrial Residual Contaminat Level

Bolded and **blue shaded** values exceed the Non-Industrial Residual Contminant Level

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

µg/kg = micrograms per kilogram

bgs = below ground surface

J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an estimated value.

ND = Compound not detected above the laboratory method detection limit

NE = Not established

VOCs = Volatile Organic Compounds

* = Laboratory detection of p-Isopropyltoluene below applicable criteria

** = Saturated soil sample not applicable for comparison to residual contaminant levels

Samples/constiuents not shown are below laboratory reporting limits

TABLE 3
SOIL VAPOR EXTRACTION SYSTEM OPERATIONAL DATA
Martino's Master Dry Cleaners
4700 7th Ave, Kenosha, Wisconsin

Date	Time	Parameter	System Runtime	VFD Setting	System Vacuum	Conveyance Line Vacuum				Pre-Filter Vacuum	Post-Filter Vacuum	Exhaust Pressure	Differential Pressure	Exhaust Temperature	Effluent VOC Concentration	Water Flow Meter	
		Location	Panel Display	Panel Display	Air-Water Separator	A	B	C	D	Filter Housing		Exhaust Pipe	Exhaust Pipe	Exhaust Pipe	Exhaust Port	Next to Carbon Vessel	
		Units	Hours	Hertz	in Hg	in Hg				in Hg		in H_2O	in H_2O	°F	µg/m^3	Gallons	Cumulative Gallons
06/07/17	1711		4.10	30.00	-6.50	-6.00	-6.20	-7.00	--	-7.00	-6.50	-4.00	-0.25	110.00	8,911	9,996,153	102
06/08/17	1132		22.40	30.00	-6.50	-6.00	-6.00	-7.00	--	-7.00	-6.50	-4.00	-0.25	110.00	3,110	9,996,969	918
06/09/17	1136		48.70	30.00	-6.20	-6.00	-6.00	-7.00	--	-7.00	-6.50	-4.00	-0.25	105.00	2,331	9,997,938	1,887
06/15/17	1325		190.60	30.00	-7.50	-6.00	-6.00	-7.00	--	-7.50	-7.00	-4.50	-0.25	110.00	1,050	2,140	6,089
06/22/17	0953		354.90	30.00	-6.50	-6.50	-7.00	-7.50	--	-7.25	-6.00	-4.00	-0.25	115.00	1,186	5,968	9,917
06/29/17	1150		524.80	35.00	-7.00	-7.00	-7.00	-8.00	-7.00	-8.00	-7.00	-5.00	-0.35	125.00	1,735	13,061	17,010
07/06/17	0840		688.90	35.00	-7.00	-7.00	-7.50	-8.00	-7.00	-8.00	-7.00	-5.00	-0.35	125.00		20,815	24,764
07/07/17	1435		717.20	35.00	-8.00	-8.50	-8.00	-1.00	-1.00	-9.00	-8.00	-5.00	-0.35	130.00	2,060	22,000	25,949
08/02/17	1950		1336.20	35.00	-8.00	-8.00	-8.00	0.00	0.00	-8.00	-6.50	-5.00	-0.35	135.00	1,010	53,162	57,111
09/06/17	1249		2174.10	40.00	-5.50	-6.00	-6.50	-5.00	-3.00	-6.00	-4.50	-6.00	-0.40	120.00	692	74,477	78,426
10/06/17	1405		2894.80	40.00	-5.00	-6.00	-5.50	-1.00	-2.00	-5.00	-4.00	-7.00	-0.50	115.00	583	80,873	84,822
11/08/17	1432		3603.30	30.00	-5.50	-1.00	-5.00	-1.00	-5.00	-5.00	-4.00	-4.00	-0.20	105.00	241	95,557	99,506
12/11/17	1415		4393.60	32.00	-4.50	-4.00	-3.50	0.00	0.00	-3.00	-2.50	-4.50	-0.30	90.00	397	110,848	114,797
01/08/18	1425		4895.00	41.00	-7.50	-5.50	-6.50	-6.50	0.00	-6.00	-6.00	-6.00	-0.40	115.00	125	114,555	118,504
02/14/18	1326		5762.70	41.00	-8.00	-8.00	-7.50	-8.50	0.00	-7.50	-7.50	-6.00	-0.40	125.00	747	124,877	128,826
03/06/18	1229		6194.70	40.00	-7.50	-6.00	-6.00	0.00	0.00	-6.00	-6.00	-6.00	-0.40	110.00	471	135,163	139,112
04/09/18	1107		7008.00	40.00	-7.50	-6.00	-6.50	0.00	0.00	-6.00	-6.00	-6.00	-0.45	110.00	354	147,689	151,638
06/27/18	1220		7361.30	41.00	-10.00	-10.00	-7.50	-10.50	-10.00	-9.00	-9.00	-5.00	-0.35	155.00	491	164,339	168,288

Notes:

-- = Reading not recorded due to broken gauge

in Hg = inches of mercury

in H_2O = inches of water

µg/m^3 = micrograms per cubic meter