

October 26, 1994

Project Reference #2371
FID #230006920
County of Kenosha
HW GENCL

Mr. Roy Baietto
1850 19th Avenue
Kenosha, WI 53140-1654

RE: Results of Preassessment
Arctic Laundry & Cleaners
5619 22nd Avenue
Kenosha, WI 53140-3885

Dear Mr. Baietto:

As a precursor to a more comprehensive subsurface investigation, Sigma Environmental Services, Inc. (Sigma) oversaw the completion of one soil boring at Arctic Laundry and Cleaners (Arctic) located at 5619 22nd Avenue, Kenosha, Wisconsin (Figure 1), on August 23, 1994. The boring was completed behind the building (Figure 2) in the area where by-products of the dry-cleaning process ("muck cooker sludge") were previously disposed. The boring was installed to determine whether there are impacts to the soil and/or groundwater resulting from this disposal

The shallow soil at this location consists of approximately three feet of silty clay overlying very fine sand which extended to the bottom of the boring at 11 feet below ground surface (bgs). The water table is approximately 8 feet bgs. Two soil samples and one groundwater sample from boring GP-1 were analyzed by CBC Environmental Laboratories, Inc. (CBC) for Volatile Organic Compounds (EPA Method SW 8021). Review of the soil analytical results (Table 1) indicates that Tetrachloroethene, also known as Perchloroethylene (PCE), was detected in the samples from both 1 to 3 feet bgs (.079 mg/kg) and 5 to 7 feet bgs (2.7 mg/kg). The shallower soil sample also contained O-Xylene at a concentration of .0014 mg/kg.

The groundwater sample was collected on August 25, 1994 from a ¾" temporary PVC well which was installed in the boring. Review of the groundwater analytical results (Table 2) indicates that PCE (42 ug/l), Trichloroethene (1.0 ug/l), and Toluene (7.2 ug/l) were detected in the sample. The concentration of PCE exceeds the Wisconsin Department of Natural Resources (WDNR) Enforcement Standard of 5.0 ug/l for this compound.



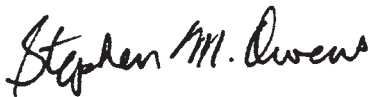
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The soil and groundwater analytical results indicate that the disposal of dry-cleaning by-products has impacted the subsurface materials at Arctic Laundry and Cleaners. Sigma recommends that the proposed comprehensive subsurface investigation detailed in our "Proposal for Subsurface Investigation" (dated May 26, 1994), be implemented to delineate the extent of impacted soil and groundwater.

If you have any questions or comments, please feel free to contact me at (414) 768-7144.

Sincerely,

SIGMA ENVIRONMENTAL SERVICES, INC.



Stephen M. Owens
Project Scientist

SMO:bjg

Attachments

cc: Attorney Don Gallo - Michael, Best & Friedrich

**TABLE 1
SUMMARY OF SOIL ANALYTICAL RESULTS
ARCTIC LAUNDRY AND CLEANERS
5619 22ND AVENUE
KENOSHA, WISCONSIN
Project Reference #2371**

Sample ID	Depth Collected (feet bgs)	Date Collected	PID Response (iui)	Laboratory Analysis (in mg/kg)		
				O-Xylene	Tetrachloroethene	Sample Description
GP-1/ 1'-3'	1 - 3	8/23/94	0.0	0.0014	0.079	Light brown silty clay moist, no odor
GP-1/ 5'-7'	5 - 7	8/23/94	44.5	<.001	2.7	Light brown very fine silty sand, moist, no odor

KEY: bgs = below ground surface
 iui = instrument units as isobutylene
 mg/kg = milligrams per kilogram (equivalent to parts per million (ppm))
 < = not detected above the detection limit (the numerical value following the < symbol)

NOTES: Samples analyzed for Volatile Organic Compounds (EPA Method SW 8021).
 Only compounds detected above their method detection limits are included in this table.

**TABLE 2
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
ARCTIC LAUNDRY AND CLEANERS**

	Sample ID	Groundwater Quality Standards	
	GP-1	ES	PAL
Trichloroethene	1.0	5	0.5
Tetrachloroethene (PCE)	4.2	5	0.5
Toluene	7.2	343	68.6


KEY: All results are in micrograms per liter (ug/l) which is equivalent to parts per billion (ppb)
 PCE = Perchloroethylene (a synonym for Tetrachloroethene)
 ES = Enforcement Standard (expressed in ppb)
 PAL = Preventive Action Limit
 ■ = Exceeds WDNR Enforcement Standard

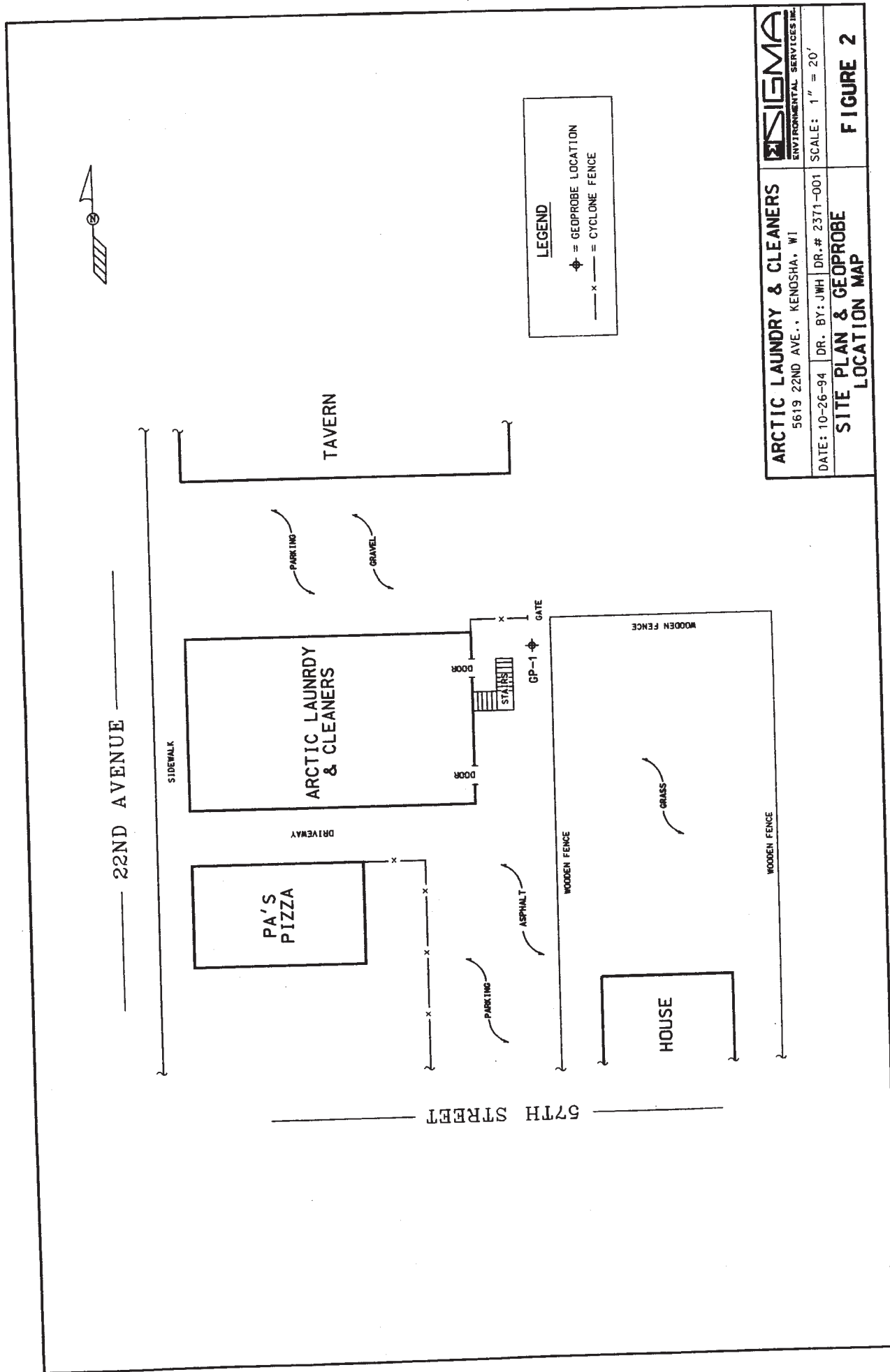
NOTES: Sample GP-1 was analyzed for Volatile Organic Compounds (EPA Method SW 8021).
 Only compounds detected above their method detection limits are included in this table.



ADAPTED FROM U.S.G.S. 7.5 MINUTE SERIES. KENOSHA, WISCONSIN QUADRANGLE



ARCTIC LAUNDRY & CLEANERS 5619 22ND AVE., KENOSHA, WI		 ENVIRONMENTAL SERVICES INC.	
APP. BY:	DRAWN BY: JWH	DRAWING NUMBER	SCALE: SEE ABOVE
REV.:		2371-001	DATE: 9-23-94
SITE LOCATION MAP			FIGURE 1



ARCTIC LAUNDRY & CLEANERS 5619 22ND AVE., KENOSHA, WI	
DATE: 10-26-94	DR. BY: JWH DR.#: 2371-001
SITE PLAN & GEOPROBE LOCATION MAP	
SCALE: 1" = 20'	
FIGURE 2	