



LAW ENGINEERING TESTING COMPANY
geotechnical, environmental & construction materials consultants
150 DIVISION DRIVE
P.O. BOX 278, WILMINGTON, NORTH CAROLINA 28402
(919) 343-0226

April 29, 1986

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MAY 14 1986

ABC 1-Hour Cleaners, Inc.
2127 Lejeune Boulevard
Jacksonville, NC 28840

GROUNDWATER SECTION
WILMINGTON REGIONAL OFFICE

Attention: Mr. Victor Melts

Subject: On-Site Sampling
Septic Tank and Outlying Area
ABC 1-Hour Cleaners, Inc.
Jacksonville, North Carolina
LETCO Job No.: J-473-86-1623

Dear Mr. Melts:

The results of Law Engineering Testing Company's preliminary investigation of your septic tank and the surrounding soils indicate that the septic tank does contain concentrations of dry cleaning fluid and it's derivative compounds. Our investigation also finds concentrations of these compounds in soils surrounding the septic tank and adjacent to the floor drain. Chemical analysis also finds trace quantities of the same compounds in the soils taken from the area which you have indicated is the location of the septic tank drainage field. The results of our investigation are shown on the attached report copy from Law & Company, chemists. Location of the samples is shown on a second illustration. Concentration of tetrachloroethylene at each sample location is also shown on this plan.

At this time we have insufficient information on the exact position of the drain field lines, floor drain configuration and septic tank construction to make any definite conclusions about the pathways of contaminant movement. However our observations suggest the existing septic tank is leaking toward its eastern side. Additional contamination is found adjacent to the now sealed floor drain. A low contribution of drycleaning compounds appear to be introduced into the local soil by the nitrification field based on your designated location.

Based on the results, we recommend that you take steps immediately to:

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ABC 1-Hour Cleaners, Inc.
April 29, 1986
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1. Connect your wastewater plumbing directly to the available public utility by a means which bypasses the septic tank altogether.
2. Remove and dispose by proper method the contents of the existing septic tank (consider removing septic tank).
3. Develop with our assistance, and in consultation with the North Carolina Department of Environmental Management, a plan for removing and/or confining the contaminating compounds in soils underlying, and adjacent to, your building.

Law Engineering Testing Company hydrologists and engineers are ready to provide further assistance in any of these matters upon your authorization. In addition, we are prepared to discuss our plan for completing Item No. 4 in Mr. Wakild's "Notice of Violation" letter. However we recommend not proceeding with Item No. 4 until the Department of Environmental Management has made comment on this initial investigation. Please let us know of a time in the near future when we can meet to discuss our results and recommendations.

Very truly yours,

LAW ENGINEERING TESTING COMPANY

Charles F. Stehman, Ph. D.
Professional Geologist

James C. Pate, P. E.
Manager, Wilmington Operations

Reviewed by Richard C. Leach, P. E.
Assistant Vice President

CFS/JCP/RCL/bp

Attachments: Sample Locations
Test Results

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GROUNDED STATION
WILMINGTON REGIONAL OFFICE



LAW & COMPANY
Consulting and Analytical Chemists

ESTABLISHED 1903

Main Office
1711 Castle Street
P.O. Box 629
Wilmington, N.C. 28402

REPORT DATE: 4-22-86

RICHARD SPIVEY, President
919-762-7082 919-762-8956
TWX 510-937-0280

LAW ENGINEERING TESTING COMPANY
P.O. BOX 278
WILMINGTON, NORTH CAROLINA 28402
ATTN: CHARLES F. STEHMAN

DATE RECEIVED: 4-08-86
DATE COLLECTED: 4-08-86
COLLECTED BY: CUSTOMER
LAB I.D. # EW 3845

LETCO Job No: J-473-86-1623

SAMPLE DESCRIPTION: SEPTIC TANK SLUDGE

		WATER		SEPTAGE	
TESTS/SAMPLES		ABC TOP	ABC BOTTOM	ABC #1	ABC #2
1,1 DICHLOROETHYLENE	PPM	<.1	24	<.1	<.1
1,2 DICHLOROETHYLENE	PPM	<.1	15	11.3	.4
TRICHLOROETHYLENE	PPM	22	9.5	4.0	.1
TETRACHLOROETHYLENE	PPM	1.0	1402	85	1.4
TESTS/SAMPLES		ABC #3	ABC #4	ABC #5	ABC #6
1,1 DICHLOROETHYLENE	PPM	<.1	<.1	<.1	<.1
1,2 DICHLOROETHYLENE	PPM	.9	7.3	2.3	.9
TRICHLOROETHYLENE	PPM	.5	2.3	.4	.5
TETRACHLOROETHYLENE	PPM	2.3	18.4	2.0	1.4
TESTS/SAMPLES		ABC #7	ABC #8	ABC #9	
1,1 DICHLOROETHYLENE	PPM	<.1	<.1	<.1	
1,2 DICHLOROETHYLENE	PPM	<.1	8.1	3.9	
TRICHLOROETHYLENE	PPM	.9	14	.4	
TETRACHLOROETHYLENE	PPM	1.2	404	<.1	

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CHEMIST: Dolly Sidman

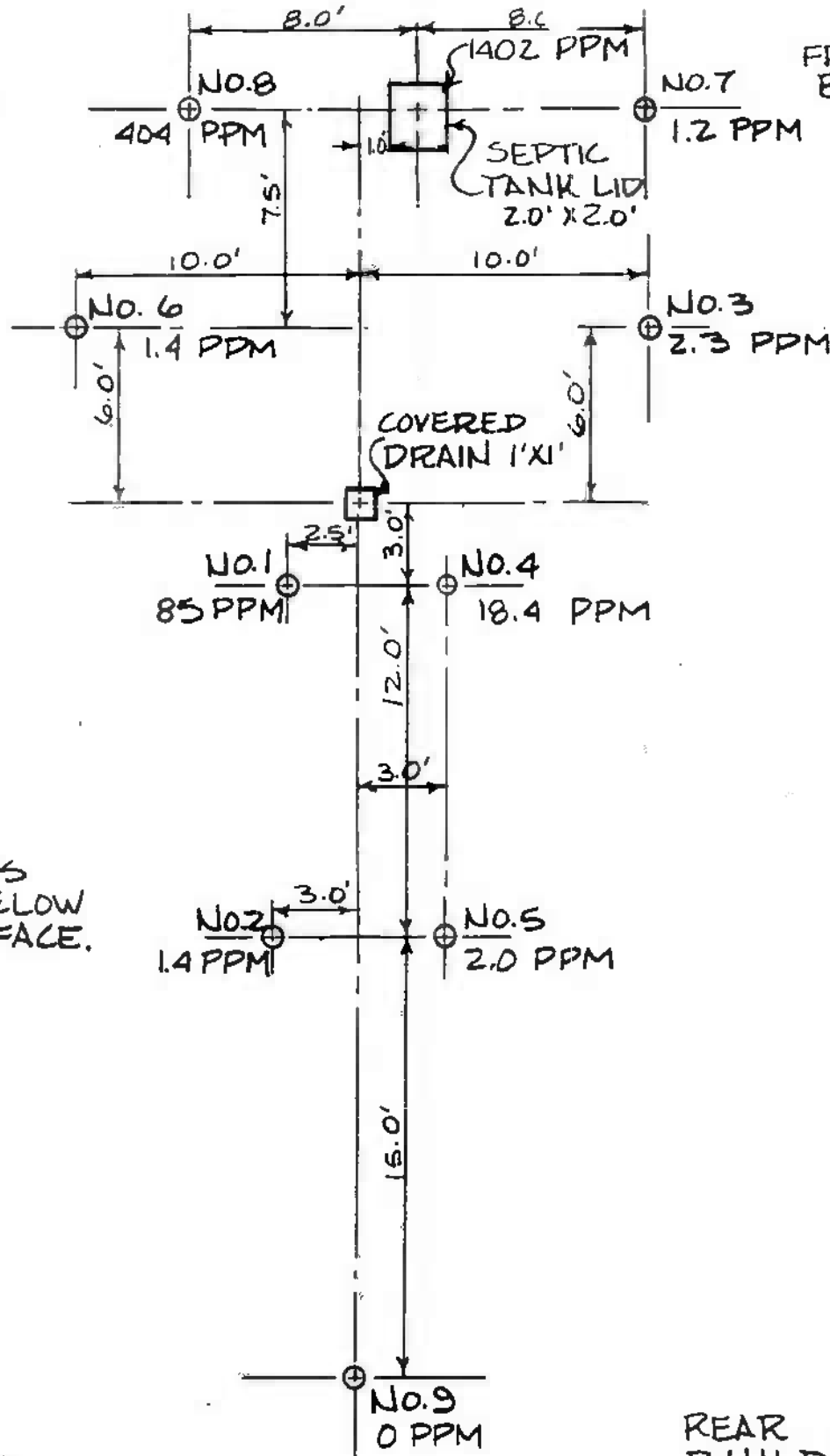
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TOTAL AMOUNT: 805.00

GROUNDEWATER SECTION
WILMINGTON REGIONAL OFFICE

↑
FRONT OF
BUILDING

↑
FRONT OF
BUILDING



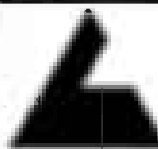
ALL SAMPLES
TAKEN 4' BELOW
FLOOR SURFACE.

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↓
REAR OF
BUILDING

↓
REAR OF
BUILDING

ABC 1-HOUR DRY CLEANING
JACKSONVILLE, N.C.
SAMPLE LOCATIONS & CONCENTRATIONS
OF TETRACHLORETHYLENE



LAW ENGINEERING
TESTING COMPANY
WILMINGTON, NC

SCALE	DRAWN:	CHECKED:	APPROVED:	DATE	PROJECT NO.	DRAWING NO.
1"=6.0'	CLE	CFS	CFS	4-23-86	J-1623	1 OF 1