549SERBSF10,632

549SERBSF10,632

Site Name (Subject):	TOOMEY PROPERTY
Site ID (Document ID):	NONCD0001025
Document Name (DocType):	Removal (RMVL)
Report Segment:	
Description:	Immediate Removal Correspondence, 1992 - 1997
Date of Document:	2/4/1997
Date Received:	
Box: *Enter SF and # with no spaces*	SF10,632
Access Level:	PUBLIC
Division:	WASTE MANAGEMENT
Section:	SUPERFUND
Program (Document Group):	SERB (SERB)
Document Category:	FACILITY

Print Report for Record | Go to New Blank Record | Go to New Record - (default to last record values) | Delete Record

Toomey Property Site
Immediate Removal

Folders

1. General Correspondence file, 1992—1997

Bound Reports

2. Photographs

MEMO

DATE: 2/4/97

TO: KAREN COPPEDGE GW SECTION

SUBJECT: HICKORY GROVE RD TCE SITE WATER LINE MAP

KAREN,

HERE IS A DIRECT PHOTOCOPY FROM FIGURE 1 OF MY DEC 1996 PA/SI REPORT. THE SHADED AREAS (CROSS HATCHED) REPRESENT THE EXTENT OF WATER LINE COVERAGE AS DETERMINED BY EXAMINATION OF WATER LINE MAPS IN THE GASTONIA, LOWELL, CRAMERTON, BELMONT, ETC CITY OFFICES. THIS INFORMATION WAS USED TO PREPARE FOR AN APPROXIMATE HOUSE COUNT OF RESIDENCES LIKELY TO BE USING WELLS BETWEEN 0.5 AND 4.0 MILES FROM THE SITE (DASHED LINE). THIS IS THE MOST DETAILED PRODUCT AVAILABLE AS A RESULT OF MY RESEARCH. ENCLOSED ARE SOURCE REFERENCE DATA (MEMO).

SINCERELY

From: Steve Coy

SUPERFUND

North Carolina Department of Environment, Health, and Natural Resources

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quarterly water quality monitoring at the water plant (under the Safe Drinking Water Act, Parts II and IV) has detected no contaminants to date.

(next page)

State of North Carolina
Department of Environment,
Health and Natural Resources
Division of Solid Waste Management

James B. Hunt, Jr., Governor
Jonathan B. Howes, Secretary
William L. Meyer, Director

DEHNR

MEMORANDUM

To: Pat DeRosa
CERCLA Branch Head
From: Stuart F. Parker, Jr.
Hydrogeologist
Date: January 30, 1996
Subject: Removal/CERCLIS Eligibility
Toomey Residence, 1020 Hickory Grove Road
Springwood, Gaston County, NC

In December 1995, at the request of Karen Connell, DEM Groundwater Section, Mooresville Regional Office, I contacted the EPA, Region IV, Emergency Response and Removal Branch (ERRB) regarding the Toomey property's potential eligibility for an EPA-funded removal action. Attached is a copy of the ERRB's evaluation. EPA Region IV has concluded that neither the PCB levels in the Toomey soil samples nor the PCE level in the nearby Propst domestic well are sufficiently high to qualify the site for an EPA-funded removal action.

At your request, I ran PREScore 3.0 scenarios, using the existing analytical data from the site, to determine how existing and potential groundwater contamination would score the site for disposition under CERCLA. Background population and surface water pathway data from the Hickory Grove Road TCE Site were used because of the Hickory Grove site's proximity to the Toomey property.

Groundwater : Sampling conducted at the site for the DEM detected PCE contamination in 6 domestic wells. In all but 1 of the wells, PCE concentrations exceeded EPA health-based benchmarks and the NCAC 2L standard for groundwater. No PCE was detected in other wells at the site. 1,1,1-trichloroethane (TCA) was reported in the above wells and in 13 other wells along neighboring Springwood Lane and Park Terrace. However, TCA levels were below the 2L standard and EPA benchmarks in all but 2 of the wells.

(~~next page~~) SFP

P.O. Box 27687, Raleigh, North Carolina 27611-7687 Telephone 919-733-4996 FAX 919-715-3605
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PCE >2L
PCE/TCE SOIL
NON-DETECT
N
SOUTH FORK
CATAWBA R.
1" = 50'
NE SUPERFUND

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
345 COURTLAND STREET, N.E.
ATLANTA, GEORGIA 30365

RECEIVED
Solid Waste
JAN 18 1996
MANAGEMENT DIV.

4WD-ERRB

Mr. Mike Kelly, Director
Solid Waste Management Division
North Carolina Division of
Solid Waste Management
P.O. Box 27687
Raleigh, North Carolina 27611-7687

JAN 11 1996

SUBJ: Toomey Property Site, Springwood, North Carolina

Dear Mr. Kelly:

On January 9, 1996, On-Scene Coordinator Terry Stilman of the U.S. Environmental Protection Agency's Emergency Response and Removal Branch (ERRB) conducted a site file review to deterimine removal action eligibility under the National Contingency Plan (NCP). Results of the review were evaluated using criteria from Section 300.415 of the NCP and current ERRB program guidance.

The Toomey Property Site was referred to ERRB by the NCDEHNR on December 7, 1995, to be evaluated for possible removal action. Several wells at this site have been contaminated by chlorinated solvents from historical backyard drum washing at the above site, and by petroleum components from a leaking underground storage tank across the road. Analytical results showed the groundwater to be contaminated with low levels of PCE and surface soil to be contaminated with low levels of PCBs, tetrachlorobiphenol, chlordane, dimethyl ethyl phenol, and other related compounds. Based on the data supplied by the NCDEHNR, the levels of contamination present were found to be below removal action criteria for both soils and groundwater.

Based upon ERRB's review, the above referenced site does not meet the criteria for removal eligibility. This determination does not preclude any other investigation activities or response actions by other parties which may still be appropriate for this site. Should site conditions change or additional information become available, ERRB will re-evaluate this site as necessary. Additionally, due to the extent of low level contamiantion present the Site has been referred to EPA's Site Investigation Section for evaluation.

Should you have any questions concerning ERRB's determination, please contact Mr. Terry Stilman, at (404) 347-3931 extension 6108 or Mr. Shane Hitchcock, Chief of Removal Operations Section, at (404) 347-3931 extension 6122.

Sincerely,

Myron D. Lair, Chief
Emergency Response and Removal Branch

State of North Carolina
Department of Environment,
Health and Natural Resources
Division of Solid Waste Management

James B. Hunt, Jr., Governor
Jonathan B. Howes, Secretary
William L. Meyer, Director

DEHNR

SUPERFUND SECTION

January 9, 1996

MEMORANDUM

To: Joe Parker
Hazardous Waste Section
Division of Environmental Management
Mooresville Regional Office

From: Stuart F. Parker, Jr.
Superfund Section
Division of Solid Waste Management
Raleigh Regional Office

Post-it® Fax Note 7671	Date 1/9/96	# of pages ▶ 6
To JOE PARKER	From Stuart Parker	
Co./Dept. DEM - Mooresville	Co. NC Superfund Sect	
Phone # 704 663 1699	Phone # 919 733 2801	
Fax # 704 663 6040	Fax # 919 733	

Re: Toomey Residence
1020 Hickory Grove Road
Gastonia, North Carolina 28056
Groundwater Incident # 9817

Dear Joe,

Enclosed are excerpts from my file on the Toomey property and the related Toomey Drum Company in Mount Holly, NC. This data is sent to your attention at the request of Keith Masters, with whom I spoke earlier this afternoon. I'm afraid my file contains no reference to the specific time period of drum cleaning activities at either of the 2 locations.

In late December, at Karen Connell's request, I queried Brian Myers of EPA Region IV regarding the Toomey property's potential eligibility for a removal action. The Christmas holidays and the recent furloughs of some Federal employees have prevented a written reply. However, Brian has indicated verbally that neither the PCB levels in the Toomey soil samples nor the PCE level in the nearby Probst domestic well are sufficiently high to qualify for an EPA removal. Most other contaminated wells at this site have also been affected by an unrelated petroleum spill, and so have been provided with POE filtration under the State UST trust fund.

I hope you and Keith will be able to use this information in your investigation. If you have any additional questions please contact me at 919-733-2801.

	NAME		PETROL Y/N BTX	PETROL Y/N MTBE	TREATMENT TO DATE, SOURCE, DURATION.
WSW 1	B40 ALEXANDER	3118 CEDAR ST	✓	✓	B
WSW 2	WM STONE (SPRING)	1028-B HGR	○	✓	B — TANKS FIXED
WSW 3	TOM ROBERTSON	1016 HGR	✓	✓	F — LIMITED TENAT
WSW 4	SADIE TOOMEY	1020 HGR	✓	✓	F — ACME PETROLEUM
WSW 5	MAX TOOMEY / WM BRANNAM	1022 HGR / 3715 CEDAR ST	✓	✓	F — under NOT DEALING w/ TOOMEY PROP
WSW 8	BEATRICE LAWTER	1028 HGR	✓	✓	F
WSW 21	BETTY FREEMAN	200 PARK TERRACE BELMONT	○	✓	NO ~~NO, OPEN~~
WSW 22	AF PROPST	208 PARK TERRACE			NO

PET CO WASTE TO INSTALL TREATMENT ON TOOMEY.

3/14/96 At request of P.D., checked new corrected SCDM limits on chlor solvents to see if Toomey would score.

① Betty Freeman 200 Park Terrace WSW 21 3.5 µg/l PCE was in excess of 2L standard (PCE = ~~0.0007 mg/l~~ 0.7 µg/l) and was shaded as such in Table 2 of sampling report. BUT its MTBE level 33.3 µg/l was << 2L (~~20~~ 200 µg/l), so didn't qualify for Petrol fund.

② PCE SCDM Benchmarks Blanket Ded: CHECKED PRE 3.0 FILE

I created: contaminant GW values are for 1,1DCE, ~~&~~ PCE (LL I) and TCA (LL II). None of the values is Ded w/ respect to new SCDM Benchmarks NO TOX / FRESH GW MOBILITY

State of North Carolina
Department of Environment,
Health and Natural Resources
Division of Solid Waste Management

James B. Hunt, Jr., Governor
Jonathan B. Howes, Secretary
William L. Meyer, Director

DEHNR

Post-it® Fax Note 7671	Date 12/7/95 # of pages ▶
To BRIAN MYERS	From STUART PARKER
Co./Dept. EPA REG IV	Co. NC SUPERFUND SECTION
Phone # 404 347 3931 X613	Phone # 919-733-2801
Fax # 404 347 4464	Fax # ~~404-347~~-919 733 4811

December 7, 1995

Myron D. Lair, Head
Emergency Response and Removal Branch
U. S. EPA Region IV
345 Courtland Street, NE
Atlanta, Georgia 30365

Subj: The Toomey Property Site Removal Evaluation Request
Springwood, Gaston County, NC

Dear Mr. Lair:

The NC Superfund Section requests that the Toomey Property Site be evaluated for a removal action. Enclosed, please find documentation and correspondence regarding the Toomey Property site on Hickory Grove Road in Springwood, Gaston County, NC. Several domestic wells at this site have been contaminated by chlorinated solvents from historical backyard drum washing at the Toomey property, and by petroleum components from a leaking underground storage tank across the road.

Groundwater at the Toomey property and adjacent properties was contaminated with PCE. All of the wells whose contaminants included petroleum components have subsequently been provided with point-of-entry filtration systems under the State's petroleum underground tank trust fund. However, tetrachloroethene (PCE) contamination has spread farther downgradient to 2 wells on nearby Park Terrace. Sample WSW-22, at the Probst residence on 208 Park Terrace, contained 36.7 ug/l PCE. Sample WSW-21 at the Freeman residence, 200 Park Terrace, contained 3.5 ug/l PCE and 33.3 ug/l MTBE. Because it does not contain petroleum components or MTBE, the Probst well is not eligible for funding under the State's underground tank trust fund.

In addition to groundwater concerns, Surface soil at the Toomey property is contaminated with PCBs, tetrachlorobiphenyl, chlordane, dimethyl ethyl phenol, and several unidentified compounds. Groundwater and soil analyses are enclosed.

Your attention to this matter is appreciated. Please call Ms. Pat DeRosa or me at (919)733-2801 to let us know if a field evaluation will be scheduled so that our site assessment field staff may coordinate its visit with your OSC.

Sincerely,

Jack Butler

Jack Butler, PE
Remediation Branch Head
NC Superfund Section

cc: Mike Kelly, DSWM
Pat DeRosa, DSWM
Doug Holyfield, DSWM
Phil Prete, DSWM
Pat Williamson, DSWM
Cindy Gurley, U.S. EPA
Matt Taylor, U.S. EPA
Boyce Hunt, Gaston County Health Dept.

MEMO

DATE: 12-11-95

TO: Stuart Parker - DSWM
N.C. Superfund Section

SUBJECT: Tommey Residence
Gaston County, N.C.

Attached are the lab results from the most recent sampling event at the subject site.

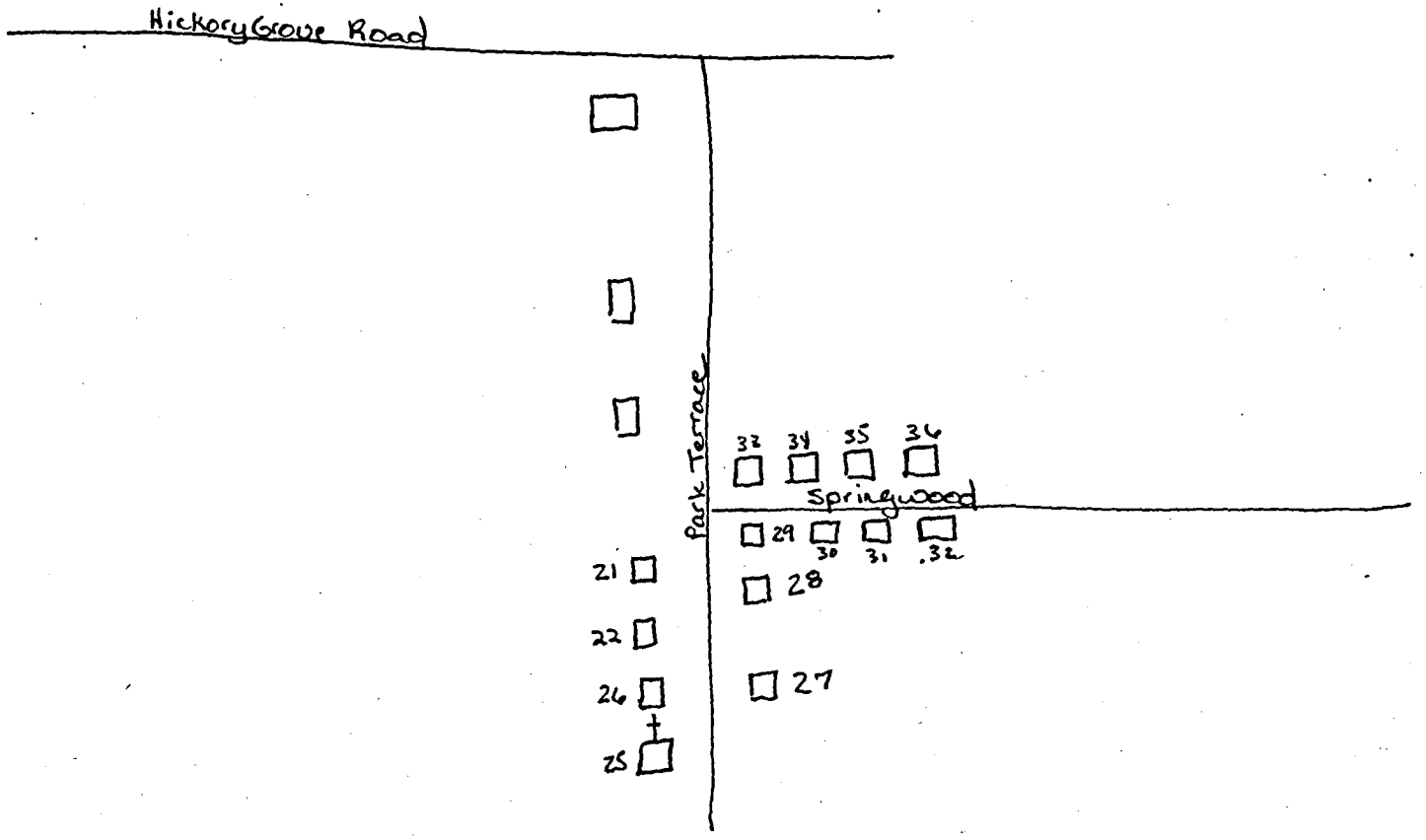
Please note that the well locations which were marked on the topo map previously sent to you are incorrect.

Call me if you have questions - (704) 663-1699 x 243.

RECEIVED
DEC 15 1995
SUPERFUND SECTION

95 DEC 13 AM 11:13
RECEIVED/EHNR
DEM. GROUND WATER SEC.

From: KW Connell - DEM Groundwater


Hickory Grove Road
Park Terrace
Springwood
33
34
35
36
29
30
31
32
28
27
21
22
26
25

SUPERFUND SECTION

COMMUNICATIONS RECORD FORM

Date: 11 / 30 / 95 Call: ___ Placed ___ ___ Returned ___ ___ Received ___

Time: ___ -- ___ AM ___ PM

Project: TOOMEY PROPERTY (~~HGATE SITE~~) ID: ___

Location: MCADENVILLE/SPRINGWOOD NC County: GASTON

Person Contacted: [redacted] DON RIGGER Telephone: 404 347 3931 X 6140

Affiliation: EPA IV REMOVAL

Communications Summary:

4/95

— PROPST WELL 208 PARK TERRACE : 36.7 PPB PCE

THIS IS ONLY WELL AT SITE THAT CANNOT BE ~~[illegible]~~ PROVIDED w/ POE TREATMENT UNDER THE PETROLEUM TRUST FUND

BEC NO PETROL CONSTITUENTS.

— KAREN COPPER OF NCDEM CALLED SFA 11/30 + SAID MRS PROPST WANTS TO KNOW WHAT'S DEVELOPING.

SHE IS IS CONTACT w/ MAYOR OF N BELMONT.

Signature: Tony

DIVISION OF ENVIRONMENTAL MANAGEMENT

Chemistry Laboratory Report / Ground Water Quality

N.C. DEPT. OF ENVIRONMENT, HEALTH & NATURAL RESOURCES

DEC 11 1995

DIVISION OF ENVIRONMENTAL MANAGEMENT
MOORESVILLE REGIONAL OFFICE

Lab Number :	5G1777
Date Received :	10/13/95
Time Received :	8:45 AM
Received By :	DS
Released By :	Tom
Date reported :	12/4/95

COUNTY : GASTON
QUAD NO:

REPORT TO : MRO Regional Office
COLLECTOR(S) : CONNELL
DATE: 10/12/95
TIME:
PURPOSE:

SAMPLE PRIORITY
[X] ROUTINE [ ] EMERGENCY
[X] CHAIN OF CUSTODY
[W] SAMPLE TYPE

Owner: YORK RES
Location or Site:
Description of sampling point
Sampling Method:
Remarks:

LABORATORY ANALYSIS

	BOD 310	mg/L
	COD High 340	mg/L
	COD Low 335	mg/L
	Coliform: MF Fecal 31616	/100ml
	Coliform: MF Total 31504	/100ml
	TOC	mg/l
	Turbitity	NTU
	Residue., Suspended 530	mg/L
	Total Suspended solids	mg/L
	pH	units
	Alkalinity to pH 4.5	mg/L
	Alkalinity to pH 8.3	mg/L
	Carbonate	mg/L
	Bicarbonate	mg/L
	Carbon dioxide	mg/L
	Chloride	mg/L
	Chromium: Hex 1032	ug/L
	Color: True 80	c.u.
	Cyanide 720	mg/L

	Diss. Solids 70300	mg/L
	Fluoride 951	mg/L
	Hardness: total 900	mg/L
	Hardness: (non-carb) 902	mg/L
	Phenols 32730	ug/L
	Specific Cond. 95	uMhos/cm2
	Sulfate	mg/L
	Sulfide 745	mg/L
	MBAS	mg/L
	Oil and Grease	mg/L
	Silica	mg/L
	Boron	
	NH3 as N 610	mg/L
	TKN as N 625	mg/L
	NO2 +NO3 as n 630	mg/L
	P: Total as P 665	mg/L
	PO4	mg/L

	Ag-Silver 46566	ug/L
	Al-Aluminum 46557	ug/L
	As-Arsenic 46551	ug/L
	Ba-Barium 46558	ug/L
	Ca-Calcium 46552	ug/L
	CJ-Cadium 46559	ug/L
	Cr-Chromium 46560	ug/L
	Cu- Copper 1042	ug/L
	Fe- Iron 1045	ug/L
	Hg- Mercury 71900	ug/L
	K-Potassium 46555	ug/L
	Mg- Magnesium 927	ug/L
	Mn-Manganese 1055	ug/L
	Na- Sodium 929	ug/L
	Ni-Nickel	ug/L
	Pb-Lead 46564	ug/L
	Se-Selenium	ug/L
	Zn_Zinc 46567	ug/L

	Organochlorine Pesticides
	Organophosphorus Pesticides
	Nitrogen Pesticides
	Acid Herbicides
	Semivolatiles
	TPH-Diesel Range
X	Volatile Organics (VOA bottle)
	TPH-Gasoline Range
	TPH-BTEX Gasoline Range

COMMENTS:

Fieldsheet Redistributed - 12/7/95 /Tom

5G1777.OCT

GROUNDWATER FIELD/LAB FORM

North Carolina
Department of Environment, Health, and Natural Resources
DIVISION OF ENVIRONMENTAL MANAGEMENT - GROUNDWATER SECTION

County: Gaston
Quad No. R680-33 Serial No.
Lat. 35° 12' 22" Long. 81° 04' 31"

SAMPLE PRIORITY
[X] ROUTINE [ ] EMERGENCY
[X] CHAIN OF CUSTODY

CHAIN OF CUSTODY

Lab Number: 561777
Date Received: 10/13/95 Time: 8:45
Rec'd by: DS From: Bus, Courier, Hand Del.,
Other:
Data Entry By: RS Ck:
Date Reported: 11/29/95

Report To: ARO, FRO, MRO, RRO, WaRO, WiRO, WSRO, Kinston FO, Fed. Trust, Central Off., Other:
Shipped by: Bus, Courier, Hand Del., Other:
Collector(s): Connell Date 10-12-95 Time 1:37 pm
Purpose: Baseline, Complaint, Compliance, LUST, Pesticide Study, Federal Trust, Other: Pollution monitoring GW Incl # 9317 (circle one)

FIELD ANALYSES

pH_{400} 5.5-6.0 Spec. Cond.$_{94}$ 115 umhos at 25° C
Temp.$_{10}$ 19 °C Odor none
Appearance Clear
Field Analysis By: Connell

Owner: York
Location or site: Springwood Drive Belmont NC 28012
Description of sampling point: hose bibb on front of house
Sampling Method: Pump (Pump, bailer, etc.) Sample Interval: unknown
Remarks: Pumping time = 10mins. (pumping time, air temp, etc.)

LABORATORY ANALYSES

	BOD_5 310	mg/l		Diss. Solids 70300	mg/l		Ag - Silver 46566	ug/l		Organochlorine Pesticides
	COD High 340	mg/l		Flouride 951	mg/l		Al - Aluminum 46557	ug/l		Organophosphorus Pesticides
	COD Low 335	mg/l		Hardness: Total 900	mg/l		As - Arsenic 46551	ug/l		Nitrogen Pesticides
	Coliform: MF Fecal 31616	/100ml		Hardness (non-carb) 902	mg/l		Ba - Barium 46558	ug/l		
	Coliform: MF Total 31504	/100ml		Phenols 32730	ug/l		Ca - Calcium 46552	mg/l		Acid Herbicides
	TOC 680	mg/l		Specific Cond. 95	uMhos/cm²		Cd - Cadmium 46559	ug/l		
	Turbidity 76	NTU		Sulfate 945	mg/l		Cr - Chromium 46560	ug/l		Semivolatile Organics
	Residue., Suspended 530	mg/l		Sulfide 745	mg/l		Cu - Copper 46562	ug/l		
							Fe - Iron 46563	ug/l		
						X	Hg - Mercury 71900	ug/l	X	Volatile Organics (VOA bottle)
	pH 403	units					K - Potassium 46555	mg/l		
	Alkalinity to pH 4.5 410	mg/l					Mg - Magnesium 46554	mg/l		TPH - Gasoline Range
	Alkalinity to pH 8.3 415	mg/l					Mn - Manganese 46565	ug/l		TPH - BTEX Gasoline Range
	Carbonate 445	mg/l		NH_3 as N 610	mg/l		Na - Sodium 46556	mg/l		
	Bicarbonate 440	mg/l		TKN as N 625	mg/l		Ni - Nickel	ug/l		
	Carbon dioxide 405	mg/l		NO_2 + NO_3 as N 630	mg/l		Pb - Lead 46564	ug/l		
	Chloride 940	mg/l		P: Total as P 665	mg/l		Se - Selenium	ug/l		
	Chromium: Hex 1032	ug/l					Zn - Zinc 46567	ug/l		
	Color: True 80	Pt-Co								
	Cyanide 720	mg/l								

Lab Comments:

GW-54 REV. 6/93 For Dissolved Analysis - submit filtered sample and write "DIS" in block.

EHNR/DEM LABORATORY
VOLATILE ANALYTICAL REPORT

LAB NO. 5G1777

REPORTED BY MS
CHECKED BY DJB
REVIEWED BY ALC

SUPERVISOR RZK
DATE 11/29/95
RELEASED BY
DATE 11/29/95

SAMPLE TYPE: WATER

ANALYSIS RESULTS

CAS#	VOA TARGET COMPOUND	TQL ug/L	DETECTED ug/L	
75-35-4	1,1-Dichloroethene	0.75		U
75-09-2	Methylene Chloride	10		U
156-60-5	trans-1,2-Dichloroethene	0.75		U
75-34-3	1,1-Dichloroethane	0.25		U
590-20-7	2,2-Dichloropropane	0.25		U
156-59-4	cis-1,2-Dichloroethene	0.25		U
67-66-3	Chloroform	0.25	0.27	
74-97-5	Bromochloromethane	0.75		U
71-55-6	1,1,1-Trichloroethane	0.25	1.1	
563-58-6	1,1-Dichloropropene	0.25		U
56-23-5	Carbon Tetrachloride	0.75		U
107-06-2	1,2-Dichloroethane	0.25		U
79-01-6	Trichloroethene	0.25		U
78-87-5	1,2-Dichloropropane	0.25		U
75-27-4	Bromodichloromethane	0.25		U
74-95-3	Dibromomethane	1		U
10061-01-5	cis-1,3-Dichloropropene	0.25		U
10061-02-6	trans-1,3-Dichloropropene	0.25		U
79-00-5	1,1,2-Trichloroethane	0.25		U
127-18-4	Tetrachloroethene	0.25		U
142-28-9	1,3-Dichloropropane	0.25		U
124-48-1	Dibromochloromethane	0.75		U
106-93-4	1,2-Dibromoethane	1		U
108-90-7	Chlorobenzene	0.25		U
630-20-6	1,1,1,2-Tetrachloroethane	0.25		U
75-25-2	Bromoform	0.5		U
79-34-5	1,1,2,2-Tetrachloroethane	0.75		U

CAS#	VOA TARGET COMPOUND	TQL ug/L	DETECTED ug/L	
96-18-4	1,2,3-Trichloropropane	0.25		U
108-86-1	Bromobenzene	1		U
95-49-8	2-Chlorotoluene	0.25		U
106-43-4	4-Chlorotoluene	0.25		U
541-73-1	1,3-Dichlorobenzene	0.25		U
106-46-7	1,4-Dichlorobenzene	0.25		U
95-50-1	1,2-Dichlorobenzene	0.25		U
96-12-8	1,2-Dibromo-3-Chloropropane	1		U
120-82-1	1,2,4-Trichlorobenzene	0.25		U
87-68-3	Hexachlorobutadiene	0.25		U
87-61-6	1,2,3-Trichlorobenzene	0.75		U
1634-04-4	Methyl-tert-butyl ether	5		U
71-43-2	Benzene	1		U
108-88-3	Toluene	1		U
100-41-4	Ethyl benzene	1		U
108-38-3	m,p-Xylenes	2		U
95-47-6	o-Xylene	1		U
100-42-5	Styrene	1		U
98-82-8	Isopropylbenzene	1		U
103-65-1	n-Propylbenzene	1		U
108-67-8	1,3,5-Trimethylbenzene	1		U
98-06-6	tert-Butylbenzene	1		U
95-63-6	1,2,4-Trimethylbenzene	1		U
135-98-8	sec-Butylbenzene	1		U
99-87-6	p-Isopropyltoluene	1		U
104-51-8	n-Butylbenzene	1		U
91-20-3	Naphthalene	1		U

	mg/L	mg/L	
Gasoline Range Estimated Total Petroleum Hydrocarbon	0.25		N

Other purgeables detected (up to 10 highest peaks) — Detected ug/L

NO VOLATILE ORGANIC COMPOUNDS DETECTED BY GC/PID.

TQL- Target Quantitation Limit- Subject to change due to instrument sensitivity
T- Tentatively Identified, not confirmed
E- Estimated Value
U- Samples analyzed for this compound but not detected
N- Sample not analyzed for this compound
D- Detected below quantitation limit
M- GC/MS Analysis performed

COMMENTS:

DIVISION OF ENVIRONMENTAL MANAGEMENT

Chemistry Laboratory Report / Ground Water Quality

Lab Number :	5G1776
Date Received :	10/13/95
Time Received :	8:45 AM
Received By :	DS
Released By :	[illegible]
Date reported :	11/21/95

COUNTY : GASTON
QUAD NO:

REPORT TO : MRO Regional Office
COLLECTOR(S) : CONNELL
DATE: 10/12/95
TIME:
PURPOSE:

SAMPLE PRIORITY
[X] ROUTINE [ ] EMERGENCY
[X] CHAIN OF CUSTODY
[W] SAMPLE TYPE

Owner: R. HALL
Location or Site:
Description of sampling point
Sampling Method:
Remarks:

LABORATORY ANALYSIS .

	BOD 310	mg/L		Diss. Solids 70300	mg/L		Ag-Silver 46566	ug/L		Organochlorine Pesticides
	COD High 340	mg/L		Fluoride 951	mg/L		Al-Aluminum 46557	ug/L		Organophosphorus Pesticides
	COD Low 335	mg/L		Hardness: total 900	mg/L		As-Arsenic 46551	ug/L		Nitrogen Pesticides
	Coliform: MF Fecal 31616	/100ml		Hardness: (non-carb) 902	mg/L		Ba-Barium 46558	ug/L		
	Coliform: MF Total 31504	/100ml		Phenols 32730	ug/L		Ca-Calcium 46552	ug/L		Acid Herbicides
	TOC	mg/l		Specific Cond. 95	uMhos/cm2		Cd-Cadium 46559	ug/L		
	Turbitity	NTU		Sulfate	mg/L		Cr-Chromium 46560	ug/L		Semivolatiles
	Residue., Suspended 530	mg/L		Sulfide 745	mg/L		Cu- Copper 1042	ug/L		TPH-Diesel Range
	Total Suspended solids	mg/L		MBAS	mg/L		Fe- Iron 1045	ug/L		
				Oil and Grease	mg/L		Hg- Mercury 71900	ug/L	X	Volatile Organics (VOA bottle)
	pH	units		Silica	mg/L		K-Potassium 46555	ug/L		
	Alkalinity to pH 4.5	mg/L		Boron			Mg- Magnesium 927	ug/L		TPH-Gasoline Range
	Alkalinity to pH 8.3	mg/L					Mn-Manganese 1055	ug/L		TPH-BTEX Gasoline Range
	Carbonate	mg/L		NH3 as N 610	mg/L		Na- Sodium 929	ug/L		
	Bicarbonate	mg/L		TKN as N 625	mg/L		Ni-Nickel	ug/L		
	Carbon dioxide	mg/L		NO2 +NO3 as n 630	mg/L		Pb-Lead 46564	ug/L		
	Chloride	mg/L		P: Total as P 665	mg/L		Se-Selenium	ug/L		
	Chromium: Hex 1032	ug/L		PO4	mg/L		Zn_Zinc 46567	ug/L		
	Color: True 80	c.u.								
	Cyanide 720	mg/L								

COMMENTS :

N.C. DEPT. OF
ENVIRONMENT, HEALTH
& NATURAL RESOURCES

NOV 22 1995

DIVISION OF ENVIRONMENTAL MANAGEMENT
MOORESVILLE REGIONAL OFFICE

GROUNDWATER FIELD/LAB FORM

North Carolina
Department of Environment, Health, and Natural Resources
DIVISION OF ENVIRONMENTAL MANAGEMENT - GROUNDWATER SECTION

County Gaston
Quad No. R680-34 Serial No.
Lat. 35°12' 20" Long. 81° 04' 32"

SAMPLE PRIORITY
[X] ROUTINE [ ] EMERGENCY
[X] CHAIN OF CUSTODY

Lab Number 5G1776
Date Received 10/13/95 Time 8:45
Rec'd by: LS From: Bus, Courier, Hand Del.,
Other:
Data Entry By: TM Ck:
Date Reported: 11/21

Report To: ARO, FRO, MRO, RRO, WaRO, WiRO, WSRO, Kinston FO, Fed. Trust, Central Off., Other:
Shipped by: Bus, Courier, Hand Del., Other:
Collector(s): Connell Date 10-12-95 Time 1:20pm
Purpose: Baseline, Complaint, Compliance, LUST, Pesticide Study, Federal Trust, Other: (circle one)

FIELD ANALYSES

pH_{400} 5.5-6.0 Spec. Cond.$_{94}$ 140 umhos at 25° C
Temp.$_{10}$ 20 °C Odor none
Appearance clear
Field Analysis By: Connell

Owner Robert Hall
Location or site 105 Springwood Drive, Belmont N C 28012
Description of sampling point hose bibb at well head
Sampling Method Pump (Pump, bailer, etc) Sample Interval TD = 305'
Remarks Pumping time = 10 mins. (pumping time, air temp. etc.)

LABORATORY ANALYSES

	BOD, 310	mg/l		Diss. Solids 70300	mg/l		Ag - Silver 46566	ug/l		Organochlorine Pesticides
	COD High 340	mg/l		Flouride 951	mg/l		Al - Aluminum 46557	ug/l		Organophosphorus Pesticides
	COD Low 335	mg/l		Hardness: Total 900	mg/l		As - Arsenic 46551	ug/l		Nitrogen Pesticides
	Coliform: MF Fecal 31616	/100ml		Hardness (non-carb) 902	mg/l		Ba - Barium 46558	ug/l		
	Coliform: MF Total 31504	/100ml		Phenols 32730	ug/l		Ca - Calcium 46552	mg/l		Acid Herbicides
	TOC 680	mg/l		Specific Cond. 95	uMhos/cm²		Cd - Cadmium 46559	ug/l		
	Turbidity 76	NTU		Sulfate 945	mg/l		Cr - Chromium 46560	ug/l		Semivolatile Organics
	Residue., Suspended 530	mg/l		Sulfide 745	mg/l		Cu - Copper 46562	ug/l		
							Fe - Iron 46563	ug/l		
							Hg - Mercury 71900	ug/l	X	Volatile Organics (VOA bottle)
	pH 403	units					K - Potassium 46555	mg/l		
	Alkalinity to pH 4.5 410	mg/l					Mg - Magnesium 46554	mg/l		TPH - Gasoline Range
	Alkalinity to pH 8.3 415	mg/l					Mn - Manganese 46565	ug/l		TPH - BTEX Gasoline Range
	Carbonate 445	mg/l		NH_3 as N 610	mg/l		Na - Sodium 46556	mg/l		
	Bicarbonate 440	mg/l		TKN as N 625	mg/l		Ni - Nickel	ug/l		
	Carbon dioxide 405	mg/l		NO_2 + NO_3 as N 630	mg/l		Pb - Lead 46564	ug/l		
	Chloride 940	mg/l		P: Total as P 665	mg/l		Se - Selenium	ug/l		
	Chromium: Hex 1032	ug/l					Zn - Zinc 46567	ug/l		
	Color: True 80	Pt-Co								
	Cyanide 720	mg/l								

Lab Comments:

GW-54 REV. 6/93 For Dissolved Analysis - submit filtered sample and write "DIS" in block.

EHNR/DEM LABORATORY
VOLATILE ANALYTICAL REPORT

LAB NO. 5G1776

REPORTED BY DJB
CHECKED BY JH
REVIEWED BY ALC

SUPERVISOR REK
DATE 11/16/95

RELEASED BY
DATE

SAMPLE TYPE: WATER

ANALYSIS RESULTS

CAS#	VOA TARGET COMPOUND	TQL ug/L	DETECTED ug/L	CAS#	VOA TARGET COMPOUND	TQL ug/L	DETECTED ug/L
75-35-4	1,1-Dichloroethene	0.75	D	96-18-4	1,2,3-Trichloropropane	0.25	U
75-09-2	Methylene Chloride	10	U	108-86-1	Bromobenzene	1	U
156-60-5	trans-1,2-Dichloroethene	0.75	U	95-49-8	2-Chlorotoluene	0.25	U
75-34-3	1,1-Dichloroethane	0.25	U	106-43-4	4-Chlorotoluene	0.25	U
590-20-7	2,2-Dichloropropane	0.25	U	541-73-1	1,3-Dichlorobenzene	0.25	U
156-59-4	cis-1,2-Dichloroethene	0.25	U	106-46-7	1,4-Dichlorobenzene	0.25	U
67-66-3	Chloroform	0.25	U	95-50-1	1,2-Dichlorobenzene	0.25	U
74-97-5	Bromochloromethane	0.75	U	96-12-8	1,2-Dibromo-3-Chloropropane	1	U
71-55-6	1,1,1-Trichloroethane	0.5	3.1E	120-82-1	1,2,4-Trichlorobenzene	0.25	U
563-58-6	1,1-Dichloropropene	0.25	U	87-68-3	Hexachlorobutadiene	0.25	U
56-23-5	Carbon Tetrachloride	0.75	U	87-61-6	1,2,3-Trichlorobenzene	0.75	U
107-06-2	1,2-Dichloroethane	0.25	U	1634-04-4	Methyl-tert-butyl ether	5	U
79-01-6	Trichloroethene	0.25	U	71-43-2	Benzene	1	U
78-87-5	1,2-Dichloropropane	0.25	U	108-88-3	Toluene	1	U
75-27-4	Bromodichloromethane	0.25	U	100-41-4	Ethyl benzene	1	U
74-95-3	Dibromomethane	1	U	108-38-3	m,p-Xylenes	2	U
10061-01-5	cis-1,3-Dichloropropene	0.25	U	95-47-6	o-Xylene	1	U
10061-02-6	trans-1,3-Dichloropropene	0.25	U	100-42-5	Styrene	1	U
79-00-5	1,1,2-Trichloroethane	0.25	U	98-82-8	Isopropylbenzene	1	U
127-18-4	Tetrachloroethene	0.25	U	103-65-1	n-Propylbenzene	1	U
142-28-9	1,3-Dichloropropane	0.25	U	108-67-8	1,3,5-Trimethylbenzene	1	U
124-48-1	Dibromochloromethane	0.75	U	98-06-6	tert-Butylbenzene	1	U
106-93-4	1,2-Dibromoethane	1	U	95-63-6	1,2,4-Trimethylbenzene	1	U
108-90-7	Chlorobenzene	0.25	U	135-98-8	sec-Butylbenzene	1	U
630-20-6	1,1,1,2-Tetrachloroethane	0.25	U	99-87-6	p-isopropyltoluene	1	U
75-25-2	Bromoform	0.5	U	104-51-8	n-Butylbenzene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	0.75	U	91-20-3	Naphthalene	1	U

	mg/L	mg/L
Gasoline Range Estimated Total Petroleum Hydrocarbon	0.25	N

TQL- Target Quantitation Limit- Subject to change due to instrument sensitivity
T- Tentatively Identified, not confirmed
E- Estimated Value
U- Samples analyzed for this compound but not detected
N- Sample not analyzed for this compound
D- Detected below quantitation limit
M- GC/MS Analysis performed

Other purgeables detected (up to 10 highest peaks) — Detected ug/L

NO VOLATILE ORGANIC COMPOUNDS DETECTED BY GC/PID.

COMMENTS:

DIVISION OF ENVIRONMENTAL MANAGEMENT

Chemistry Laboratory Report / Ground Water Quality

Lab Number :	5G1775
Date Received :	10/13/95
Time Received :	8:45 AM
Received By :	DS
Released By :	TMM
Date reported :	12/4/95

N.C. DEPT. OF ENVIRONMENT, HEALTH, & NATURAL RESOURCES

DEC 11 1995

DIVISION OF ENVIRONMENTAL MANAGEMENT
MOORESVILLE REGIONAL OFFICE

COUNTY : GASTON
QUAD NO:

REPORT TO : MRO Regional Office
COLLECTOR(S) : CONNELL
DATE: 10/12/95
TIME:
PURPOSE:

SAMPLE PRIORITY
[X] ROUTINE [ ] EMERGENCY

[X] CHAIN OF CUSTODY

[W] SAMPLE TYPE

Owner: CRIDER RES.
Location or Site:
Description of sampling point
Sampling Method:
Remarks:

LABORATORY ANALYSIS

	BOD 310	mg/L
	COD High 340	mg/L
	COD Low 335	mg/L
	Coliform: MF Fecal 31616	/100ml
	Coliform: MF Total 31504	/100ml
	TOC	mg/l
	Turbitity	NTU
	Residue., Suspended 530	mg/L
	Total Suspended solids	mg/L
	pH	units
	Alkalinity to pH 4.5	mg/L
	Alkalinity to pH 8.3	mg/L
	Carbonate	mg/L
	Bicarbonate	mg/L
	Carbon dioxide	mg/L
	Chloride	mg/L
	Chromium: Hex 1032	ug/L
	Color: True 80	c.u.
	Cyanide 720	mg/L

	Diss. Solids 70300	mg/L
	Fluoride 951	mg/L
	Hardness: total 900	mg/L
	Hardness: (non-carb) 902	mg/L
	Phenols 32730	ug/L
	Specific Cond. 95	uMhos/cm2
	Sulfate	mg/L
	Sulfide 745	mg/L
	MBAS	mg/L
	Oil and Grease	mg/L
	Silica	mg/L
	Boron	
	NH3 as N 610	mg/L
	TKN as N 625	mg/L
	NO2 +NO3 as n 630	mg/L
	P: Total as P 665	mg/L
	PO4	mg/L

	Ag-Silver 46566	ug/L
	Al-Aluminum 46557	ug/L
	As-Arsenic 46551	ug/L
	Ba-Barium 46558	ug/L
	Ca-Calcium 46552	ug/L
	Cd-Cadium 46559	ug/L
	Cr-Chromium 46560	ug/L
	Cu- Copper 1042	ug/L
	Fe- Iron 1045	ug/L
	Hg- Mercury 71900	ug/L
	K-Potassium 46555	ug/L
	Mg- Magnesium 927	ug/L
	Mn-Manganese 1055	ug/L
	Na- Sodium 929	ug/L
	Ni-Nickel	ug/L
	Pb-Lead 46564	ug/L
	Se-Selenium	ug/L
	Zn_Zinc 46567	ug/L

	Organochlorine Pesticides
	Organophosphorus Pesticides
	Nitrogen Pesticides
	Acid Herbicides
	Semivolatiles
	TPH-Diesel Range
X	Volatile Organics (VOA bottle)
	TPH-Gasoline Range
	TPH-BTEX Gasoline Range

COMMENTS :

Fieldsheet Redistributed - 12/7/95 - TMM

5G1775.OCT

GROUNDWATER FIELD/LAB FORM

North Carolina
Department of Environment, Health, and Natural Resources
DIVISION OF ENVIRONMENTAL MANAGEMENT - GROUNDWATER SECTION

CHAIN OF CUSTODY

SAMPLE PRIORITY

[X] ROUTINE [ ] EMERGENCY
[X] CHAIN OF CUSTODY

County: Gaston
Quad No: R680.29 Serial No:
Lat. 35° 12' 23" Long. 81° 04' 32"

Report To: ARO, FRO, (MRO), RRO, WaRO, WiRO, WSRO, Kinston FO, Fed. Trust, Central Off., Other:
Shipped by: Bus, (Courier) Hand Del., Other:
Collector(s): Connell Date 10-12-95 Time 12:55pm

Lab Number: 5G1775
Date Received: 10/13/95 Time: 8:45
Rec'd by: [illegible] From: Bus, (Courier) Hand Del.,
Other:
Data Entry By: [illegible] Ck: [illegible]
Date Reported: 11/29/95

Purpose: Baseline, Complaint, Compliance, LUST, Pesticide Study, Federal Trust, Other: Pollution Monitoring GW Incr# 9817 (circle one)

FIELD ANALYSES

pH_{400} 6.0-5.5 Spec. Cond.$_{94}$ 190umhos at 25° C
Temp.$_{10}$ 19 °C Odor none
Appearance clear
Field Analysis By: Connell

Owner: Crider
Location or site: 100 Springwood Drive, Belmont NC 28012
Description of sampling point: hose bibb on back of house
Sampling Method: Pump (Pump, bailer, etc.) Sample Interval: To = 120'
Remarks: Pumping time = 10 mins. (pumping time, air temp. etc.)

LABORATORY ANALYSES

	BOD, 310	mg/l		Diss. Solids 70300	mg/l		Ag - Silver 46566	ug/l		Organochlorine Pesticides
	COD High 340	mg/l		Flouride 951	mg/l		Al - Aluminum 46557	ug/l		Organophosphorus Pesticides
	COD Low 335	mg/l		Hardness: Total 900	mg/l		As - Arsenic 46551	ug/l		Nitrogen Pesticides
	Coliform: MF Fecal 31616	/100ml		Hardness (non-carb) 902	mg/l		Ba - Barium 46558	ug/l		
	Coliform: MF Total 31504	/100ml		Phenols 32730	ug/l		Ca - Calcium 46552	mg/l		Acid Herbicides
	TOC 680	mg/l		Specific Cond. 95	uMhos/cm²		Cd - Cadmium 46559	ug/l		
	Turbidity 76	NTU		Sulfate 945	mg/l		Cr - Chromium 46560	ug/l		Semivolatile Organics
	Residue., Suspended 530	mg/l		Sulfide 745	mg/l		Cu - Copper 46562	ug/l		
							Fe - Iron 46563	ug/l		
							Hg - Mercury 71900	ug/l	X	Volatile Organics (VOA bottle)
	pH 403	units					K - Potassium 46555	mg/l		
	Alkalinity to pH 4.5 410	mg/l					Mg - Magnesium 46554	mg/l		TPH - Gasoline Range
	Alkalinity to pH 8.3 415	mg/l					Mn - Manganese 46565	ug/l		TPH - BTEX Gasoline Range
	Carbonate 445	mg/l		NH_3 as N 610	mg/l		Na - Sodium 46556	mg/l		
	Bicarbonate 440	mg/l		TKN as N 625	mg/l		Ni - Nickel	ug/l		
	Carbon dioxide 405	mg/l		NO_2 + NO_3 as N 630	mg/l		Pb - Lead 46564	ug/l		
	Chloride 940	mg/l		P: Total as P 665	mg/l		Se - Selenium	ug/l		
	Chromium: Hex 1032	ug/l					Zn - Zinc 46567	ug/l		
	Color: True 80	Pt-Co								
	Cyanide 720	mg/l								

Lab Comments:

GW-54 REV. 6/93 For Dissolved Analysis - submit filtered sample and write "DIS" in block.

EHNR/DEM LABORATORY
VOLATILE ANALYTICAL REPORT

LAB NO. 5G1775

REPORTED BY MS
CHECKED BY DJB
REVIEWED BY ALC

SUPERVISOR RCK
DATE 11/29/95
RELEASED BY
DATE 11/29/95

SAMPLE TYPE: WATER

ANALYSIS RESULTS

CAS#	VOA TARGET COMPOUND	TQL ug/L	DETECTED ug/L		CAS#	VOA TARGET COMPOUND	TQL ug/L	DETECTED ug/L	
75-35-4	1,1-Dichloroethene	0.75		U	96-18-4	1,2,3-Trichloropropane	0.25		U
75-09-2	Methylene Chloride	10		U	108-86-1	Bromobenzene	1		U
156-60-5	trans-1,2-Dichloroethene	0.75		U	95-49-8	2-Chlorotoluene	0.25		U
75-34-3	1,1-Dichloroethane	0.25		U	106-43-4	4-Chlorotoluene	0.25		U
590-20-7	2,2-Dichloropropane	0.25		U	541-73-1	1,3-Dichlorobenzene	0.25		U
156-59-4	cis-1,2-Dichloroethene	0.25		U	106-46-7	1,4-Dichlorobenzene	0.25		U
67-66-3	Chloroform	0.25		U	95-50-1	1,2-Dichlorobenzene	0.25		U
74-97-5	Bromochloromethane	0.75		U	96-12-8	1,2-Dibromo-3-Chloropropane	1		U
71-55-6	1,1,1-Trichloroethane	0.25	0.49		120-82-1	1,2,4-Trichlorobenzene	0.25		U
563-58-6	1,1-Dichloropropene	0.25		U	87-68-3	Hexachlorobutadiene	0.25		U
56-23-5	Carbon Tetrachloride	0.75		U	87-61-6	1,2,3-Trichlorobenzene	0.75		U
107-06-2	1,2-Dichloroethane	0.25		U	1634-04-4	Methyl-tert-butyl ether	5		U
79-01-6	Trichloroethene	0.25		U	71-43-2	Benzene	1		U
78-87-5	1,2-Dichloropropane	0.25		U	108-88-3	Toluene	1		U
75-27-4	Bromodichloromethane	0.25		U	100-41-4	Ethyl benzene	1		U
74-95-3	Dibromomethane	1		U	108-38-3	m,p-Xylenes	2		U
10061-01-5	cis-1,3-Dichloropropene	0.25		U	95-47-6	o-Xylene	1		U
10061-02-6	trans-1,3-Dichloropropene	0.25		U	100-42-5	Styrene	1		U
79-00-5	1,1,2-Trichloroethane	0.25		U	98-82-8	Isopropylbenzene	1		U
127-18-4	Tetrachloroethene	0.25		U	103-65-1	n-Propylbenzene	1		U
142-28-9	1,3-Dichloropropane	0.25		U	108-67-8	1,3,5-Trimethylbenzene	1		U
124-48-1	Dibromochloromethane	0.75		U	98-06-6	tert-Butylbenzene	1		U
106-93-4	1,2-Dibromoethane	1		U	95-63-6	1,2,4-Trimethylbenzene	1		U
108-90-7	Chlorobenzene	0.25		U	135-98-8	sec-Butylbenzene	1		U
630-20-6	1,1,1,2-Tetrachloroethane	0.25		U	99-87-6	p-isopropyltoluene	1		U
75-25-2	Bromoform	0.5		U	104-51-8	n-Butylbenzene	1		U
79-34-5	1,1,2,2-Tetrachloroethane	0.75		U	91-20-3	Naphthalene	1		U

	mg/L	mg/L	
Gasoline Range Estimated Total Petroleum Hydrocarbon	0.25		N

Other purgeables detected (up to 10 highest peaks)	Detected ug/L
NO VOLATILE ORGANIC COMPOUNDS DETECTED BY GC/PID.	

TQL- Target Quantitation Limit- Subject to change due to instrument sensitivity
T- Tentatively Identified, not confirmed
E- Estimated Value
U- Samples analyzed for this compound but not detected
N- Sample not analyzed for this compound
D- Detected below quantitation limit
M- GC/MS Analysis performed

COMMENTS:

EHNR/DEM LABORATORY
VOLATILE ANALYTICAL REPORT

LAB NO. 5G1774

REPORTED BY DJB / DJB
CHECKED BY ALC ALC
REVIEWED BY ALC ALC

Logged: TMW 10/23/95
Checked:

SUPERVISOR R.E.K.
DATE 10/20/95
RELEASED BY
DATE 10/23/95

SAMPLE TYPE: WATER

ANALYSIS RESULTS

CAS#	VOA TARGET COMPOUND	TQL ug/L	DETECTED ug/L
75-35-4	1,1-Dichloroethene	0.75	U
75-09-2	Methylene Chloride	10	U
156-60-5	trans-1,2-Dichloroethene	0.75	U
75-34-3	1,1-Dichloroethane	0.25	U
590-20-7	2,2-Dichloropropane	0.25	U
156-59-4	cis-1,2-Dichloroethene	0.25	U
67-66-3	Chloroform	0.25	U
74-97-5	Bromochloromethane	0.75	U
71-55-6	1,1,1-Trichloroethane	0.25	U
563-58-6	1,1-Dichloropropene	0.25	U
56-23-5	Carbon Tetrachloride	0.75	U
107-06-2	1,2-Dichloroethane	0.25	U
79-01-6	Trichloroethene	0.25	U
78-87-5	1,2-Dichloropropane	0.25	U
75-27-4	Bromodichloromethane	0.25	U
74-95-3	Dibromomethane	1	U
10061-01-5	cis-1,3-Dichloropropene	0.25	U
10061-02-6	trans-1,3-Dichloropropene	0.25	U
79-00-5	1,1,2-Trichloroethane	0.25	U
127-18-4	Tetrachloroethene	0.25	U
142-28-9	1,3-Dichloropropane	0.25	U
124-48-1	Dibromochloromethane	0.75	U
106-93-4	1,2-Dibromoethane	1	U
108-90-7	Chlorobenzene	0.25	U
630-20-6	1,1,1,2-Tetrachloroethane	0.25	U
75-25-2	Bromoform	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.75	U

CAS#	VOA TARGET COMPOUND	TQL ug/L	DETECTED ug/L
96-18-4	1,2,3-Trichloropropane	0.25	U
108-86-1	Bromobenzene	1	U
95-49-8	2-Chlorotoluene	0.25	U
106-43-4	4-Chlorotoluene	0.25	U
541-73-1	1,3-Dichlorobenzene	0.25	U
106-46-7	1,4-Dichlorobenzene	0.25	U
95-50-1	1,2-Dichlorobenzene	0.25	U
96-12-8	1,2-Dibromo-3-Chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	0.25	U
87-68-3	Hexachlorobutadiene	0.25	U
87-61-6	1,2,3-Trichlorobenzene	0.75	U
1634-04-4	Methyl-tert-butyl ether	5	U
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethyl benzene	1	U
108-38-3	m,p-Xylenes	2	U
95-47-6	o-Xylene	1	U
100-42-5	Styrene	1	U
98-82-8	Isopropylbenzene	1	U
103-65-1	n-Propylbenzene	1	U
108-67-8	1,3,5-Trimethylbenzene	1	U
98-06-6	tert-Butylbenzene	1	U
95-63-6	1,2,4-Trimethylbenzene	1	U
135-98-8	sec-Butylbenzene	1	U
99-87-6	p-isopropyltoluene	1	U
104-51-8	n-Butylbenzene	1	U
91-20-3	Naphthalene	1	U

	mg/L	mg/L
Gasoline Range Estimated Total Petroleum Hydrocarbon	0.25	N

Other purgeables detected (up to 10 highest peaks)	Detected ug/L
NO VOLATILE ORGANIC COMPOUNDS	
DETECTED BY GC/ELCD/PID.	

TQL- Target Quantitation Limit- Subject to change due to instrument sensitivity
T- Tentatively Identified, not confirmed
E- Estimated Value
U- Samples analyzed for this compound but not detected
N- Sample not analyzed for this compound
D- Detected below quantitation limit
M- GC/MS Analysis performed

COMMENTS:

GROUNDWATER FIELD/LAB FORM

North Carolina
Department of Environment, Health, and Natural Resources
DIVISION OF ENVIRONMENTAL MANAGEMENT - GROUNDWATER SECTION

CHAIN OF CUSTODY

County: Gaston
Quad No: R68c - 28 Serial No.:
Lat. 35° 12' 25" Long. 81° 04' 33"

SAMPLE PRIORITY
[X] ROUTINE [ ] EMERGENCY
[X] CHAIN OF CUSTODY

Lab Number: 5G1774
Date Received: 10/13/95 Time: 8:45
Rec'd by: [illegible] From: Bus, Courier, Hand Del.,
Other:
Data Entry By: [illegible] Ck: [illegible]
Date Reported: 10/23/95

Report To: ARO, FRO, MRO, RRO, WaRO, WiRO, WSRO, Kinston FO, Fed. Trust, Central Off., Other:
Shipped by: Bus, Courier, Hand Del., Other:
Collector(s): Connell Date 10-12-95 Time 12:45 pm

Purpose: Baseline, Complaint, Compliance, LUST, Pesticide Study, Federal Trust, Other: Pollution Monitoring GW Inc # 9817 (circle one)

FIELD ANALYSES

pH_{400} 5.5-6.0 Spec. Cond.$_{94}$ 90 umhos at 25° C
Temp.$_{10}$ 21 °C Odor none
Appearance clear
Field Analysis By: Connell

Owner: Unknown
Location or site: 207 Park Terrace, Belmont NC 28012
Description of sampling point: hose bibb on front of house.
Sampling Method: Pump (Pump, bailer, etc.) Sample Interval: Unknown
Remarks: Pump time = 10 mins (pumping time, air temp. etc.)

LABORATORY ANALYSES

	BOD_5 310	mg/l		Diss. Solids 70300	mg/l		Ag - Silver 46566	ug/l		Organochlorine Pesticides
	COD High 340	mg/l		Flouride 951	mg/l		Al - Aluminum 46557	ug/l		Organophosphorus Pesticides
	COD Low 335	mg/l		Hardness: Total 900	mg/l		As - Arsenic 46551	ug/l		Nitrogen Pesticides
	Coliform: MF Fecal 31616	/100ml		Hardness (non-carb) 902	mg/l		Ba - Barium 46558	ug/l		
	Coliform: MF Total 31504	/100ml		Phenols 32730	ug/l		Ca - Calcium 46552	mg/l		Acid Herbicides
	TOC 680	mg/l		Specific Cond. 95	uMhos/cm²		Cd - Cadmium 46559	ug/l		
	Turbidity 76	NTU		Sulfate 945	mg/l		Cr - Chromium 46560	ug/l		Semivolatile Organics
	Residue., Suspended 530	mg/l		Sulfide 745	mg/l		Cu - Copper 46562	ug/l		
							Fe - Iron 46563	ug/l		
						X	Hg - Mercury 71900	ug/l	X	Volatile Organics (VOA bottle)
	pH 403	units					K - Potassium 46555	mg/l		
	Alkalinity to pH 4.5 410	mg/l					Mg - Magnesium 46554	mg/l		TPH - Gasoline Range
	Alkalinity to pH 8.3 415	mg/l					Mn - Manganese 46565	ug/l		TPH - BTEX Gasoline Range
	Carbonate 445	mg/l		NH_3 as N 610	mg/l		Na - Sodium 46556	mg/l		
	Bicarbonate 440	mg/l		TKN as N 625	mg/l		Ni - Nickel	ug/l		
	Carbon dioxide 405	mg/l		NO_2 + NO_3 as N 630	mg/l		Pb - Lead 46564	ug/l		
	Chloride 940	mg/l		P: Total as P 665	mg/l		Se - Selenium	ug/l		
	Chromium: Hex 1032	ug/l					Zn - Zinc 46567	ug/l		
	Color: True 80	Pt-Co								
	Cyanide 720	mg/l								

N.C. DEPT. OF ENVIRONMENT, HEALTH & NATURAL RESOURCES
OCT 25 1995
DIVISION OF ENVIRONMENTAL MANAGEMENT MOORESVILLE REGIONAL OFFICE

Lab Comments:

GW-54 REV. 6/93 For Dissolved Analysis - submit filtered sample and write "DIS" in block.

DIVISION OF ENVIRONMENTAL MANAGEMENT

Chemistry Laboratory Report / Ground Water Quality

N.C. DEPT. OF ENVIRONMENT, HEALTH & NATURAL RESOURCES

DEC 11 1995

DIVISION OF ENVIRONMENTAL MANAGEMENT
MOORESVILLE REGIONAL OFFICE

Lab Number : 5G1773
Date Received : 10/13/95
Time Received : 8:45 AM
Received By : DS

Released By : Tm
Date reported : 12/4/95

COUNTY : GASTON
QUAD NO:

REPORT TO : MRO Regional Office
COLLECTOR(S) : CONNELL
DATE: 10/12/95
TIME:
PURPOSE:

SAMPLE PRIORITY
[X] ROUTINE [ ] EMERGENCY
[X] CHAIN OF CUSTODY
[W] SAMPLE TYPE

Owner: CHANEY RES.
Location or Site:
Description of sampling point
Sampling Method:
Remarks:

LABORATORY ANALYSIS

	BOD 310	mg/L
	COD High 340	mg/L
	COD Low 335	mg/L
	Coliform: MF Fecal 31616	/100ml
	Coliform: MF Total 31504	/100ml
	TOC	mg/l
	Turbitity	NTU
	Residue., Suspended 530	mg/L
	Total Suspended solids	mg/L
	pH	units
	Alkalinity to pH 4.5	mg/L
	Alkalinity to pH 8.3	mg/L
	Carbonate	mg/L
	Bicarbonate	mg/L
	Carbon dioxide	mg/L
	Chloride	mg/L
	Chromium: Hex 1032	ug/L
	Color: True 80	c.u.
	Cyanide 720	mg/L

	Diss. Solids 70300	mg/L
	Fluoride 951	mg/L
	Hardness: total 900	mg/L
	Hardness: (non-carb) 902	mg/L
	Phenols 32730	ug/L
	Specific Cond. 95	uMhos/cm2
	Sulfate	mg/L
	Sulfide 745	mg/L
	MBAS	mg/L
	Oil and Grease	mg/L
	Silica	mg/L
	Boron	
	NH3 as N 610	mg/L
	TKN as N 625	mg/L
	NO2 +NO3 as n 630	mg/L
	P: Total as P 665	mg/L
	PO4	mg/L

	Ag-Silver 46566	ug/L
	Al-Aluminum 46557	ug/L
	As-Arsenic 46551	ug/L
	Ba-Barium 46558	ug/L
	Ca-Calcium 46552	ug/L
	Cd-Cadium 46559	ug/L
	Cr-Chromium 46560	ug/L
	Cu- Copper 1042	ug/L
	Fe- Iron 1045	ug/L
	Hg- Mercury 71900	ug/L
	K-Potassium 46555	ug/L
	Mg- Magnesium 927	ug/L
	Mn-Manganese 1055	ug/L
	Na- Sodium 929	ug/L
	Ni-Nickel	ug/L
	Pb-Lead 46564	ug/L
	Se-Selenium	ug/L
	Zn_Zinc 46567	ug/L

	Organochlorine Pesticides
	Organophosphorus Pesticides
	Nitrogen Pesticides
	Acid Herbicides
	Semivolatiles
	TPH-Diesel Range
X	Volatile Organics (VOA bottle)
	TPH-Gasoline Range
	TPH-BTEX Gasoline Range

COMMENTS :

Fieldsheet Redistributed - 12/7/95 - Tm

5G1773.OCT

GROUNDWATER FIELD/LAB FORM

North Carolina
Department of Environment, Health, and Natural Resources
DIVISION OF ENVIRONMENTAL MANAGEMENT - GROUNDWATER SECTION

CHAIN OF CUSTODY

County: Gaston
Quad No. R680-27 Serial No.
Lat. 35°12'27" Long. 81°04'35"

SAMPLE PRIORITY
[X] ROUTINE [ ] EMERGENCY
[X] CHAIN OF CUSTODY

Lab Number: 561773
Date Received: 10/13/95 Time: 8:45
Rec'd by: DS From: Bus, Courier, Hand Del.,
Other:
Data Entry By: DS Ck: TM
Date Reported: 11/21/95

Report To: ARO, FRO, MRO, RRO, WaRO, WiRO, WSRO, Kinston FO, Fed. Trust, Central Off., Other:
Shipped by: Bus, Courier, Hand Del., Other:
Collector(s): Connell Date 10-12-95 Time 12:35 pm

Purpose: Baseline, Complaint, Compliance, LUST, Pesticide Study, Federal Trust, Other: GW Incl # 9817 Pollution Monitoring (circle one)

FIELD ANALYSES

pH_{400} 6.0 Spec. Cond.$_{94}$ 150 umhos at 25° C
Temp.$_{10}$ 20 °C Odor
Appearance clear
Field Analysis By: Connell

Owner Chaney phone # 827-5482
Location or site 217 Park Terrace
Description of sampling point Hose bibb at well head
Sampling Method PUMP (Pump, bailer, etc.) Sample Interval TD = 260'
Remarks Pumping time ≈ 10 mins (pumping time, air temp. etc.)

LABORATORY ANALYSES

	BOD$_5$ 310	mg/l		Diss. Solids 70300	mg/l		Ag - Silver 46566	ug/l		Organochlorine Pesticides
	COD High 340	mg/l		Flouride 951	mg/l		Al - Aluminum 46557	ug/l		Organophosphorus Pesticides
	COD Low 335	mg/l		Hardness: Total 900	mg/l		As - Arsenic 46551	ug/l		Nitrogen Pesticides
	Coliform: MF Fecal 31616	/100ml		Hardness (non-carb) 902	mg/l		Ba - Barium 46558	ug/l		
	Coliform: MF Total 31504	/100ml		Phenols 32730	ug/l		Ca - Calcium 46552	mg/l		Acid Herbicides
	TOC 680	mg/l		Specific Cond. 95	uMhos/cm²		Cd - Cadmium 46559	ug/l		
	Turbidity 76	NTU		Sulfate 945	mg/l		Cr - Chromium 46560	ug/l		Semivolatile Organics
	Residue., Suspended 530	mg/l		Sulfide 745	mg/l		Cu - Copper 46562	ug/l		
							Fe - Iron 46563	ug/l		
							Hg - Mercury 71900	ug/l	X	Volatile Organics (VOA bottle)
	pH 403	units					K - Potassium 46555	mg/l		
	Alkalinity to pH 4.5 410	mg/l					Mg - Magnesium 46554	mg/l		TPH - Gasoline Range
	Alkalinity to pH 8.3 415	mg/l					Mn - Manganese 46565	ug/l		TPH - BTEX Gasoline Range
	Carbonate 445	mg/l		NH_3 as N 610	mg/l		Na - Sodium 46556	mg/l		
	Bicarbonate 440	mg/l		TKN as N 625	mg/l		Ni - Nickel	ug/l		
	Carbon dioxide 405	mg/l		NO_2 + NO_3 as N 630	mg/l		Pb - Lead 46564	ug/l		
	Chloride 940	mg/l		P: Total as P 665	mg/l		Se - Selenium	ug/l		
	Chromium: Hex 1032	ug/l					Zn - Zinc 46567	ug/l		
	Color: True 80	Pt-Co								
	Cyanide 720	mg/l								

Lab Comments:

GW-54 REV 3 For Dissolved Analysis - submit filtered sample and write "DIS" in h[illegible]k.

EHNR/DEM LABORATORY
VOLATILE ANALYTICAL REPORT

LAB NO. 5G1773

REPORTED BY MS
CHECKED BY DJB/DSS
REVIEWED BY ALC

SUPERVISOR RRK
DATE 11/29/95
RELEASED BY
DATE 11/29/95

SAMPLE TYPE: WATER

ANALYSIS RESULTS

CAS#	VOA TARGET COMPOUND	TQL ug/L	DETECTED ug/L		CAS#	VOA TARGET COMPOUND	TQL ug/L	DETECTED ug/L	
75-35-4	1,1-Dichloroethene	0.75		U	96-18-4	1,2,3-Trichloropropane	0.25		U
75-09-2	Methylene Chloride	10		U	108-86-1	Bromobenzene	1		U
156-60-5	trans-1,2-Dichloroethene	0.75		U	95-49-8	2-Chlorotoluene	0.25		U
75-34-3	1,1-Dichloroethane	0.25		U	106-43-4	4-Chlorotoluene	0.25		U
590-20-7	2,2-Dichloropropane	0.25		U	541-73-1	1,3-Dichlorobenzene	0.25		U
156-59-4	cis-1,2-Dichloroethene	0.25		U	106-46-7	1,4-Dichlorobenzene	0.25		U
67-66-3	Chloroform	0.25		U	95-50-1	1,2-Dichlorobenzene	0.25		U
74-97-5	Bromochloromethane	0.75		U	96-12-8	1,2-Dibromo-3-Chloropropane	1		U
71-55-6	1,1,1-Trichloroethane	0.25	0.85		120-82-1	1,2,4-Trichlorobenzene	0.25		U
563-58-6	1,1-Dichloropropene	0.25		U	87-68-3	Hexachlorobutadiene	0.25		U
56-23-5	Carbon Tetrachloride	0.75		U	87-61-6	1,2,3-Trichlorobenzene	0.75		U
107-06-2	1,2-Dichloroethane	0.25		U	1634-04-4	Methyl-tert-butyl ether	5		U
79-01-6	Trichloroethene	0.25		U	71-43-2	Benzene	1		U
78-87-5	1,2-Dichloropropane	0.25		U	108-88-3	Toluene	1		U
75-27-4	Bromodichloromethane	0.25		U	100-41-4	Ethyl benzene	1		U
74-95-3	Dibromomethane	1		U	108-38-3	m,p-Xylenes	2		U
10061-01-5	cis-1,3-Dichloropropene	0.25		U	95-47-6	o-Xylene	1		U
10061-02-6	trans-1,3-Dichloropropene	0.25		U	100-42-5	Styrene	1		U
79-00-5	1,1,2-Trichloroethane	0.25		U	98-82-8	Isopropylbenzene	1		U
127-18-4	Tetrachloroethene	0.25		U	103-65-1	n-Propylbenzene	1		U
142-28-9	1,3-Dichloropropane	0.25		U	108-67-8	1,3,5-Trimethylbenzene	1		U
124-48-1	Dibromochloromethane	0.75		U	98-06-6	tert-Butylbenzene	1		U
106-93-4	1,2-Dibromoethane	1		U	95-63-6	1,2,4-Trimethylbenzene	1		U
108-90-7	Chlorobenzene	0.25		U	135-98-8	sec-Butylbenzene	1		U
630-20-6	1,1,1,2-Tetrachloroethane	0.25		U	99-87-6	p-isopropyltoluene	1		U
75-25-2	Bromoform	0.5		U	104-51-8	n-Butylbenzene	1		U
79-34-5	1,1,2,2-Tetrachloroethane	0.75		U	91-20-3	Naphthalene	1		U

	mg/L	mg/L	
Gasoline Range Estimated Total Petroleum Hydrocarbon	0.25		N

Other purgeables detected (up to 10 highest peaks)	Detected ug/L
NO VOLATILE ORGANIC COMPOUNDS DETECTED BY GC/PID.	

TQL- Target Quantitation Limit- Subject to change due to instrument sensitivity
T- Tentatively Identified, not confirmed
E- Estimated Value
U- Samples analyzed for this compound but not detected
N- Sample not analyzed for this compound
D- Detected below quantitation limit
M- GC/MS Analysis performed

COMMENTS:

DIVISION OF ENVIRONMENTAL MANAGEMENT

Chemistry Laboratory Report / Ground Water Quality

Lab Number :	5G1772
Date Received :	10/13/95
Time Received :	8:45 AM
Received By :	DS
Released By :	Thu
Date reported :	11/21/95

COUNTY : GASTON
QUAD NO:

REPORT TO : MRO Regional Office
COLLECTOR(S) : CONNELL
DATE: 10/12/95
TIME:

PURPOSE:

SAMPLE PRIORITY
[X] ROUTINE [ ] EMERGENCY

[X] CHAIN OF CUSTODY

[W] SAMPLE TYPE

Owner: FREEMAN RES.
Location or Site:
Description of sampling point
Sampling Method:
Remarks:

LABORATORY ANALYSIS

	BOD 310	mg/L
	COD High 340	mg/L
	COD Low 335	mg/L
	Coliform: MF Fecal 31616	/100ml
	Coliform: MF Total 31504	/100ml
	TOC	mg/l
	Turbitity	NTU
	Residue., Suspended 530	mg/L
	Total Suspended solids	mg/L
	pH	units
	Alkalinity to pH 4.5	mg/L
	Alkalinity to pH 8.3	mg/L
	Carbonate	mg/L
	Bicarbonate	mg/L
	Carbon dioxide	mg/L
	Chloride	mg/L
	Chromium: Hex 1032	ug/L
	Color: True 80	c.u.
	Cyanide 720	mg/L

	Diss. Solids 70300	mg/L
	Fluoride 951	mg/L
	Hardness: total 900	mg/L
	Hardness: (non-carb) 902	mg/L
	Phenols 32730	ug/L
	Specific Cond. 95	uMhos/cm2
	Sulfate	mg/L
	Sulfide 745	mg/L
	MBAS	mg/L
	Oil and Grease	mg/L
	Silica	mg/L
	Boron	
	NH3 as N 610	mg/L
	TKN as N 625	mg/L
	NO2 +NO3 as n 630	mg/L
	P: Total as P 665	mg/L
	PO4	mg/L

	Ag-Silver 46566	ug/L
	Al-Aluminum 46557	ug/L
	As-Arsenic 46551	ug/L
	Ba-Barium 46558	ug/L
	Ca-Calcium 46552	ug/L
	Cd-Cadium 46559	ug/L
	Cr-Chromium 46560	ug/L
	Cu- Copper 1042	ug/L
	Fe- Iron 1045	ug/L
	Hg- Mercury 71900	ug/L
	K-Potassium 46555	ug/L
	Mg- Magnesium 927	ug/L
	Mn-Manganese 1055	ug/L
	Na- Sodium 929	ug/L
	Ni-Nickel	ug/L
	Pb-Lead 46564	ug/L
	Se-Selenium	ug/L
	Zn_Zinc 46567	ug/L

	Organochlorine Pesticides
	Organophosphorus Pesticides
	Nitrogen Pesticides
	Acid Herbicides
	Semivolatiles
	TPH-Diesel Range
X	Volatile Organics (VOA bottle)
	TPH-Gasoline Range
	TPH-BTEX Gasoline Range

COMMENTS :

N.C. DEPT. OF ENVIRONMENT, HEALTH & NATURAL RESOURCES

NOV 22 1995

DIVISION OF ENVIRONMENTAL MANAGEMENT
MOORESVILLE REGIONAL OFFICE

5G1772.OCT

GROUNDWATER FIELD/LAB FORM CHAIN OF CUSTODY

North Carolina
Department of Environment, Health, and Natural Resources
DIVISION OF ENVIRONMENTAL MANAGEMENT - GROUNDWATER SECTION

County: Gaston
Quad No: R680-21 Serial No.:
Lat. 35°12' 26" Long. 81°04' 31"

SAMPLE PRIORITY

[X] ROUTINE [ ] EMERGENCY
[X] CHAIN OF CUSTODY

Lab Number: 5G1772
Date Received: 10/13/95 Time: 8:45
Rec'd by: DS From: Bus, Courier, Hand Del.,
Other:
Data Entry By: Ruu Ck:
Date Reported: 11/21

Report To: ARO, FRO, MRO, RRO, WaRO, WiRO, WSRO, Kinston FO, Fed. Trust, Central Off., Other:
Shipped by: Bus, Courier, Hand Del., Other:
Collector(s): Connell Date 10-12-95 Time 12:20 pm

Purpose: Baseline, Complaint, Compliance, LUST, Pesticide Study, Federal Trust, Other: Pollution monitoring GW Inc # 9817 (circle one)

FIELD ANALYSES

pH_{400} 6.0 Spec. Cond.$_{94}$ 110 umhos at 25° C
Temp.$_{10}$ 20 °C. Odor none
Appearance Clear
Field Analysis By: Connell

Owner: Freeman
Location or site: 200 Park Terrace, Belmont NC 28012
Description of sampling point: Hose bibb on back of house
Sampling Method: Pump (Pump, bailer, etc.) Sample Interval: TD = 45'-50'
Remarks: Pumping time = 10 mins. (pumping time, air temp. etc.)

LABORATORY ANALYSES

	BOD, 310	mg/l		Diss. Solids 70300	mg/l		Ag - Silver 46566	ug/l		Organochlorine Pesticides
	COD High 340	mg/l		Flouride 951	mg/l		Al - Aluminum 46557	ug/l		Organophosphorus Pesticides
	COD Low 335	mg/l		Hardness: Total 900	mg/l		As - Arsenic 46551	ug/l		Nitrogen Pesticides
	Coliform: MF Fecal 31616	/100ml		Hardness (non-carb) 902	mg/l		Ba - Barium 46558	ug/l		
	Coliform: MF Total 31504	/100ml		Phenols 32730	ug/l		Ca - Calcium 46552	mg/l		Acid Herbicides
	TOC 680	mg/l		Specific Cond. 95	uMhos/cm²		Cd - Cadmium 46559	ug/l		
	Turbidity 76	NTU		Sulfate 945	mg/l		Cr - Chromium 46560	ug/l		Semivolatile Organics
	Residue., Suspended 530	mg/l		Sulfide 745	mg/l		Cu - Copper 46562	ug/l		
							Fe - Iron 46563	ug/l		
							Hg - Mercury 71900	ug/l	X	Volatile Organics (VOA bottle)
	pH 403	units					K - Potassium 46555	mg/l		
	Alkalinity to pH 4.5 410	mg/l					Mg - Magnesium 46554	mg/l		TPH - Gasoline Range
	Alkalinity to pH 8.3 415	mg/l					Mn - Manganese 46565	ug/l		TPH - BTEX Gasoline Range
	Carbonate 445	mg/l		NH_3 as N 610	mg/l		Na - Sodium 46556	mg/l		
	Bicarbonate 440	mg/l		TKN as N 625	mg/l		Ni - Nickel	ug/l		
	Carbon dioxide 405	mg/l		NO_2 + NO_3 as N 630	mg/l		Pb - Lead 46564	ug/l		
	Chloride 940	mg/l		P: Total as P 665	mg/l		Se - Selenium	ug/l		
	Chromium: Hex 1032	ug/l					Zn - Zinc 46567	ug/l		
	Color: True 80	Pt-Co								
	Cyanide 720	mg/l								

Lab Comments:

GW-54 REV. 6/93 For Dissolved Analysis - submit filtered sample and write "DIS" in blo

EHNR/DEM LABORATORY
VOLATILE ANALYTICAL REPORT

LAB NO. 5G1772

REPORTED BY DJB
CHECKED BY JH
REVIEWED BY ALC

SUPERVISOR REK
DATE 11/16/95

RELEASED BY
DATE

SAMPLE TYPE: WATER

ANALYSIS RESULTS

CAS#	VOA TARGET COMPOUND	TQL ug/L	DETECTED ug/L		CAS#	VOA TARGET COMPOUND	TQL ug/L	DETECTED ug/L	
75-35-4	1,1-Dichloroethene	0.75	D		96-18-4	1,2,3-Trichloropropane	0.25		U
75-09-2	Methylene Chloride	10		U	108-86-1	Bromobenzene	1		U
156-60-5	trans-1,2-Dichloroethene	0.75		U	95-49-8	2-Chlorotoluene	0.25		U
75-34-3	1,1-Dichloroethane	0.25		U	106-43-4	4-Chlorotoluene	0.25		U
590-20-7	2,2-Dichloropropane	0.25		U	541-73-1	1,3-Dichlorobenzene	0.25		U
156-59-4	cis-1,2-Dichloroethene	0.25		U	106-46-7	1,4-Dichlorobenzene	0.25		U
67-66-3	Chloroform	0.25		U	95-50-1	1,2-Dichlorobenzene	0.25		U
74-97-5	Bromochloromethane	0.75		U	96-12-8	1,2-Dibromo-3-Chloropropane	1		U
71-55-6	1,1,1-Trichloroethane	0.25	1.5		120-82-1	1,2,4-Trichlorobenzene	0.25		U
563-58-6	1,1-Dichloropropene	0.25		U	87-68-3	Hexachlorobutadiene	0.25		U
56-23-5	Carbon Tetrachloride	0.75		U	87-61-6	1,2,3-Trichlorobenzene	0.75		U
107-06-2	1,2-Dichloroethane	0.25		U	1634-04-4	Methyl-tert-butyl ether	5	15	
79-01-6	Trichloroethene	0.25		U	71-43-2	Benzene	1		U
78-87-5	1,2-Dichloropropane	0.25		U	108-88-3	Toluene	1		U
75-27-4	Bromodichloromethane	0.25		U	100-41-4	Ethyl benzene	1		U
74-95-3	Dibromomethane	1		U	108-38-3	m,p-Xylenes	2		U
10061-01-5	cis-1,3-Dichloropropene	0.25		U	95-47-6	o-Xylene	1		U
10061-02-6	trans-1,3-Dichloropropene	0.25		U	100-42-5	Styrene	1		U
79-00-5	1,1,2-Trichloroethane	0.25		U	98-82-8	Isopropylbenzene	1		U
127-18-4	Tetrachloroethene	0.25	2.2E		103-65-1	n-Propylbenzene	1		U
142-28-9	1,3-Dichloropropane	0.25		U	108-67-8	1,3,5-Trimethylbenzene	1		U
124-48-1	Dibromochloromethane	0.75		U	98-06-6	tert-Butylbenzene	1		U
106-93-4	1,2-Dibromoethane	1		U	95-63-6	1,2,4-Trimethylbenzene	1		U
108-90-7	Chlorobenzene	0.25		U	135-98-8	sec-Butylbenzene	1		U
630-20-6	1,1,1,2-Tetrachloroethane	0.25		U	99-87-6	p-isopropyltoluene	1		U
75-25-2	Bromoform	0.5		U	104-51-8	n-Butylbenzene	1		U
79-34-5	1,1,2,2-Tetrachloroethane	0.75		U	91-20-3	Naphthalene	1		U

	mg/L	mg/L	
Gasoline Range Estimated Total Petroleum Hydrocarbon	0.25		N

TQL- Target Quantitation Limit- Subject to change due to instrument sensitivity
T- Tentatively Identified, not confirmed
E- Estimated Value
U- Samples analyzed for this compound but not detected
N- Sample not analyzed for this compound
D- Detected below quantitation limit
M- GC/MS Analysis performed

Other purgeables detected (up to 10 highest peaks) — Detected ug/L

COMMENTS:

DIVISION OF ENVIRONMENTAL MANAGEMENT

Chemistry Laboratory Report / Ground Water Quality

Lab Number :	5G1771
Date Received :	10/13/95
Time Received :	8:45 AM
Received By :	DS
Released By :	Tm
Date reported :	12/4/95

N.C. DEPT. OF ENVIRONMENT, HEALTH, & NATURAL RESOURCES

DEC 11 1995

DIVISION OF ENVIRONMENTAL MANAGEMENT
MOORESVILLE REGIONAL OFFICE

COUNTY : GASTON
QUAD NO:

REPORT TO : MRO Regional Office
COLLECTOR(S) : CONNELL
DATE: 10/12/95
TIME:
PURPOSE:

SAMPLE PRIORITY
[X] ROUTINE [ ] EMERGENCY
[X] CHAIN OF CUSTODY
[W] SAMPLE TYPE

Owner: GRINDSTAFF
Location or Site:
Description of sampling point
Sampling Method:
Remarks:

LABORATORY ANALYSIS

	BOD 310	mg/L
	COD High 340	mg/L
	COD Low 335	mg/L
	Coliform: MF Fecal 31616	/100ml
	Coliform: MF Total 31504	/100ml
	TOC	mg/l
	Turbitity	NTU
	Residue., Suspended 530	mg/L
	Total Suspended solids	mg/L
	pH	units
	Alkalinity to pH 4.5	mg/L
	Alkalinity to pH 8.3	mg/L
	Carbonate	mg/L
	Bicarbonate	mg/L
	Carbon dioxide	mg/L
	Chloride	mg/L
	Chromium: Hex 1032	ug/L
	Color: True 80	c.u.
	Cyanide 720	mg/L

	Diss. Solids 70300	mg/L
	Fluoride 951	mg/L
	Hardness: total 900	mg/L
	Hardness: (non-carb) 902	mg/L
	Phenols 32730	ug/L
	Specific Cond. 95	uMhos/cm2
	Sulfate	mg/L
	Sulfide 745	mg/L
	MBAS	mg/L
	Oil and Grease	mg/L
	Silica	mg/L
	Boron	
	NH3 as N 610	mg/L
	TKN as N 625	mg/L
	NO2 +NO3 as n 630	mg/L
	P: Total as P 665	mg/L
	PO4	mg/L

	Ag-Silver 46566	ug/L
	Al-Aluminum 46557	ug/L
	As-Arsenic 46551	ug/L
	Ba-Barium 46558	ug/L
	Ca-Calcium 46552	ug/L
	Cd-Cadium 46559	ug/L
	Cr-Chromium 46560	ug/L
	Cu- Copper 1042	ug/L
	Fe- Iron 1045	ug/L
	Hg- Mercury 71900	ug/L
	K-Potassium 46555	ug/L
	Mg- Magnesium 927	ug/L
	Mn-Manganese 1055	ug/L
	Na- Sodium 929	ug/L
	Ni-Nickel	ug/L
	Pb-Lead 46564	ug/L
	Se-Selenium	ug/L
	Zn_Zinc 46567	ug/L

	Organochlorine Pesticides
	Organophosphorus Pesticides
	Nitrogen Pesticides
	Acid Herbicides
	Semivolatiles
	TPH-Diesel Range
X	Volatile Organics (VOA bottle)
	TPH-Gasoline Range
	TPH-BTEX Gasoline Range

COMMENTS :

Fieldsheet Redistributed - 12/7/95 - Tm

5G1771.OCT

GROUNDWATER FIELD/LAB FORM CHAIN OF CUSTODY

North Carolina
Department of Environment, Health, and Natural Resources
DIVISION OF ENVIRONMENTAL MANAGEMENT - GROUNDWATER SECTION

County Gaston
Quad No. R680-26 Serial No.
Lat. 35° 12' 28" Long. 81° 04' 34"

SAMPLE PRIORITY

[X] ROUTINE [ ] EMERGENCY
[X] CHAIN OF CUSTODY

Lab Number 5G 1771
Date Received 10/13/95 Time 8:45
Rec'd by: DS From: Bus, Courier, Hand Del.,
Other:
Data Entry By: DS CK: Tan
Date Reported: 11/29/95

Report To: ARO, FRO, MRO, RRO, WaRO, WiRO, WSRO, Kinston FO, Fed. Trust, Central Off., Other:
Shipped by: Bus, Courier, Hand Del., Other:
Collector(s): Connell Date 10-12-95 Time 12:07 pm
Purpose: Baseline, Complaint, Compliance, LUST, Pesticide Study, Federal Trust, Other: Pollution Monitoring GW Inc # 9817 (circle one)

FIELD ANALYSES

pH_{400} 6.0 Spec. Cond.$_{94}$ 110umhos at 25° C
Temp.$_{10}$ 22 °C Odor none
Appearance Clear
Field Analysis By: Connell

Owner Grindstaff
Location or site 214 Park Terrace Belmont NC 28012
Description of sampling point hose bibb on back of house
Sampling Method Pump (Pump, bailer, etc.) Sample Interval 10 - unknown
Remarks Sampled after pumping for 10 mins. (pumping time, air temp. etc.)

LABORATORY ANALYSES

	BOD, 310	mg/l		Diss. Solids 70300	mg/l		Ag - Silver 46566	ug/l		Organochlorine Pesticides
	COD High 340	mg/l		Flouride 951	mg/l		Al - Aluminum 46557	ug/l		Organophosphorus Pesticides
	COD Low 335	mg/l		Hardness; Total 900	mg/l		As - Arsenic 46551	ug/l		Nitrogen Pesticides
	Coliform: MF Fecal 31616	/100ml		Hardness (non-carb) 902	mg/l		Ba - Barium 46558	ug/l		
	Coliform: MF Total 31504	/100ml		Phenols 32730	ug/l		Ca - Calcium 46552	mg/l		Acid Herbicides
	TOC 680	mg/l		Specific Cond. 95	uMhos/cm²		Cd - Cadmium 46559	ug/l		
	Turbidity 76	NTU		Sulfate 945	mg/l		Cr - Chromium 46560	ug/l		Semivolatile Organics
	Residue., Suspended 530	mg/l		Sulfide 745	mg/l		Cu - Copper 46562	ug/l		
							Fe - Iron 46563	ug/l		
							Hg - Mercury 71900	ug/l	X	Volatile Organics (VOA bottle)
	pH 403	units					K - Potassium 46555	mg/l		
	Alkalinity to pH 4.5 410	mg/l					Mg - Magnesium 46554	mg/l		TPH - Gasoline Range
	Alkalinity to pH 8.3 415	mg/l					Mn - Manganese 46565	ug/l		TPH - BTEX Gasoline Range
	Carbonate 445	mg/l		NH_3 as N 610	mg/l		Na - Sodium 46556	mg/l		
	Bicarbonate 440	mg/l		TKN as N 625	mg/l		Ni - Nickel	ug/l		
	Carbon dioxide 405	mg/l		NO_2 + NO_3 as N 630	mg/l		Pb - Lead 46564	ug/l		
	Chloride 940	mg/l		P: Total as P 665	mg/l		Se - Selenium	ug/l		
	Chromium: Hex 1032	ug/l					Zn - Zinc 46567	ug/l		
	Color: True 80	Pt-Co								
	Cyanide 720	mg/l								

Lab Comments:

GW-54 REV 1 For Dissolved Analysis - submit filtered sample and write "DIS" in block.

EHNR/DEM LABORATORY
VOLATILE ANALYTICAL REPORT

LAB NO. 5G1771

REPORTED BY MS
CHECKED BY DJB
REVIEWED BY ALC

SUPERVISOR RRK
DATE 11/29/95
RELEASED BY
DATE 11/29/95

SAMPLE TYPE: WATER

ANALYSIS RESULTS

CAS#	VOA TARGET COMPOUND	TQL ug/L	DETECTED ug/L		CAS#	VOA TARGET COMPOUND	TQL ug/L	DETECTED ug/L	
75-35-4	1,1-Dichloroethene	0.75		U	96-18-4	1,2,3-Trichloropropane	0.25		U
75-09-2	Methylene Chloride	10		U	108-86-1	Bromobenzene	1		U
156-60-5	trans-1,2-Dichloroethene	0.75		U	95-49-8	2-Chlorotoluene	0.25		U
75-34-3	1,1-Dichloroethane	0.25		U	106-43-4	4-Chlorotoluene	0.25		U
590-20-7	2,2-Dichloropropane	0.25		U	541-73-1	1,3-Dichlorobenzene	0.25		U
156-59-4	cis-1,2-Dichloroethene	0.25		U	106-46-7	1,4-Dichlorobenzene	0.25		U
67-66-3	Chloroform	0.25		U	95-50-1	1,2-Dichlorobenzene	0.25		U
74-97-5	Bromochloromethane	0.75		U	96-12-8	1,2-Dibromo-3-Chloropropane	1		U
71-55-6	1,1,1-Trichloroethane	0.25	0.36		120-82-1	1,2,4-Trichlorobenzene	0.25		U
563-58-6	1,1-Dichloropropene	0.25		U	87-68-3	Hexachlorobutadiene	0.25		U
56-23-5	Carbon Tetrachloride	0.75		U	87-61-6	1,2,3-Trichlorobenzene	0.75		U
107-06-2	1,2-Dichloroethane	0.25		U	1634-04-4	Methyl-tert-butyl ether	5		U
79-01-6	Trichloroethene	0.25		U	71-43-2	Benzene	1		U
78-87-5	1,2-Dichloropropane	0.25		U	108-88-3	Toluene	1		U
75-27-4	Bromodichloromethane	0.25		U	100-41-4	Ethyl benzene	1		U
74-95-3	Dibromomethane	1		U	108-38-3	m,p-Xylenes	2		U
10061-01-5	cis-1,3-Dichloropropene	0.25		U	95-47-6	o-Xylene	1		U
10061-02-6	trans-1,3-Dichloropropene	0.25		U	100-42-5	Styrene	1		U
79-00-5	1,1,2-Trichloroethane	0.25		U	98-82-8	Isopropylbenzene	1		U
127-18-4	Tetrachloroethene	0.25		U	103-65-1	n-Propylbenzene	1		U
142-28-9	1,3-Dichloropropane	0.25		U	108-67-8	1,3,5-Trimethylbenzene	1		U
124-48-1	Dibromochloromethane	0.75		U	98-06-6	tert-Butylbenzene	1		U
106-93-4	1,2-Dibromoethane	1		U	95-63-6	1,2,4-Trimethylbenzene	1		U
108-90-7	Chlorobenzene	0.25		U	135-98-8	sec-Butylbenzene	1		U
630-20-6	1,1,1,2-Tetrachloroethane	0.25		U	99-87-6	p-isopropyltoluene	1		U
75-25-2	Bromoform	0.5		U	104-51-8	n-Butylbenzene	1		U
79-34-5	1,1,2,2-Tetrachloroethane	0.75		U	91-20-3	Naphthalene	1		U

	mg/L	mg/L	
Gasoline Range Estimated Total Petroleum Hydrocarbon	0.25		N

TQL- Target Quantitation Limit- Subject to change due to instrument sensitivity
T- Tentatively Identified, not confirmed
E- Estimated Value
U- Samples analyzed for this compound but not detected
N- Sample not analyzed for this compound
D- Detected below quantitation limit
M- GC/MS Analysis performed

Other purgeables detected (up to 10 highest peaks) — Detected ug/L

NO VOLATILE ORGANIC COMPOUNDS DETECTED BY GC/PID.

COMMENTS:

EHNR/DEM LABORATORY
VOLATILE ANALYTICAL REPORT

LAB NO. 5G1770

REPORTED BY DJB
CHECKED BY ALC
REVIEWED BY ALC

Logged: Thu 10/23/95
Checked:

SUPERVISOR R.E.K.
DATE 10/20/95

RELEASED BY
DATE 10/23/95

SAMPLE TYPE: WATER

ANALYSIS RESULTS

CAS#	VOA TARGET COMPOUND	TQL ug/L	DETECTED ug/L	CAS#	VOA TARGET COMPOUND	TQL ug/L	DETECTED ug/L
75-35-4	1,1-Dichloroethene	0.75	U	96-18-4	1,2,3-Trichloropropane	0.25	U
75-09-2	Methylene Chloride	10	U	108-86-1	Bromobenzene	1	U
156-60-5	trans-1,2-Dichloroethene	0.75	U	95-49-8	2-Chlorotoluene	0.25	U
75-34-3	1,1-Dichloroethane	0.25	U	106-43-4	4-Chlorotoluene	0.25	U
590-20-7	2,2-Dichloropropane	0.25	U	541-73-1	1,3-Dichlorobenzene	0.25	U
156-59-4	cis-1,2-Dichloroethene	0.25	U	106-46-7	1,4-Dichlorobenzene	0.25	U
67-66-3	Chloroform	0.25	0.41 T	95-50-1	1,2-Dichlorobenzene	0.25	U
74-97-5	Bromochloromethane	0.75	U	96-12-8	1,2-Dibromo-3-Chloropropane	1	U
71-55-6	1,1,1-Trichloroethane	0.25	U	120-82-1	1,2,4-Trichlorobenzene	0.25	U
563-58-6	1,1-Dichloropropene	0.25	U	87-68-3	Hexachlorobutadiene	0.25	U
56-23-5	Carbon Tetrachloride	0.75	U	87-61-6	1,2,3-Trichlorobenzene	0.75	U
107-06-2	1,2-Dichloroethane	0.25	U	1634-04-4	Methyl-tert-butyl ether	5	U
79-01-6	Trichloroethene	0.25	U	71-43-2	Benzene	1	U
78-87-5	1,2-Dichloropropane	0.25	U	108-88-3	Toluene	1	U
75-27-4	Bromodichloromethane	0.25	U	100-41-4	Ethyl benzene	1	U
74-95-3	Dibromomethane	1	U	108-38-3	m,p-Xylenes	2	U
10061-01-5	cis-1,3-Dichloropropene	0.25	U	95-47-6	o-Xylene	1	U
10061-02-6	trans-1,3-Dichloropropene	0.25	U	100-42-5	Styrene	1	U
79-00-5	1,1,2-Trichloroethane	0.25	U	98-82-8	Isopropylbenzene	1	U
127-18-4	Tetrachloroethene	0.25	U	103-65-1	n-Propylbenzene	1	U
142-28-9	1,3-Dichloropropane	0.25	U	108-67-8	1,3,5-Trimethylbenzene	1	U
124-48-1	Dibromochloromethane	0.75	U	98-06-6	tert-Butylbenzene	1	U
106-93-4	1,2-Dibromoethane	1	U	95-63-6	1,2,4-Trimethylbenzene	1	U
108-90-7	Chlorobenzene	0.25	U	135-98-8	sec-Butylbenzene	1	U
630-20-6	1,1,1,2-Tetrachloroethane	0.25	U	99-87-6	p-isopropyltoluene	1	U
75-25-2	Bromoform	0.5	U	104-51-8	n-Butylbenzene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	0.75	U	91-20-3	Naphthalene	1	U

	mg/L	mg/L
Gasoline Range Estimated Total Petroleum Hydrocarbon	0.25	N

TQL- Target Quantitation Limit- Subject to change due to instrument sensitivity
T- Tentatively Identified, not confirmed
E- Estimated Value
U- Samples analyzed for this compound but not detected
N- Sample not analyzed for this compound
D- Detected below quantitation limit
M- GC/MS Analysis performed

Other purgeables detected (up to 10 highest peaks) — Detected ug/L

NO VOLATILE ORGANIC COMPOUNDS
DETECTED BY GC/PID.

COMMENTS:

GROUNDWATER FIELD/LAB FORM

North Carolina
Department of Environment, Health, and Natural Resources
DIVISION OF ENVIRONMENTAL MANAGEMENT - GROUNDWATER SECTION

CHAIN OF CUSTODY

County: GASTON
Quad No. R680-25 Serial No.
Lat. 35°12'29" Long. 81°04'36"

SAMPLE PRIORITY

[X] ROUTINE [ ] EMERGENCY
[X] CHAIN OF CUSTODY

Lab Number: 561770
Date Received: 10/13/95 Time: 8:45
Rec'd by: DS From: Bus, Courier, Hand Del.,
Other:
Data Entry By: Drew Ck: DS
Date Reported: 10/23/95

Report To: ARO, FRO, MRO, RRO, WaRO, WiRO, WSRO, Kinston FO, Fed. Trust, Central Off., Other:
Shipped by: Bus, Courier, Hand Del., Other:
Collector(s): Connell Date: 10-12-95 Time: 11:55AM
Purpose: Baseline, Complaint, Compliance, LUST, Pesticide Study, Federal Trust, Other: (circle one)

FIELD ANALYSES

pH_{400} 6.0 Spec. Cond.$_{94}$ 100 umhos at 25° C
Temp.$_{10}$ 23 °C Odor none
Appearance Clear
Field Analysis By: Connell

Owner: Springwood Baptist Church c/o Mr. Eason 121 Springwood Dr, Belmont NC 28012
Location or site: Park Terrace
Description of sampling point: hose bibb on back of house
Sampling Method: pump (Pump, bailer, etc.) Sample Interval: 10 = 45' 50'
Remarks: Sampled after pumping 5 mins (pumping time, air temp. etc.)

LABORATORY ANALYSES

	BOD_5 310	mg/l		Diss. Solids 70300	mg/l		Ag - Silver 46566	ug/l		Organochlorine Pesticides
	COD High 340	mg/l		Flouride 951	mg/l		Al - Aluminum 46557	ug/l		Organophosphorus Pesticides
	COD Low 335	mg/l		Hardness: Total 900	mg/l		As - Arsenic 46551	ug/l		Nitrogen Pesticides
	Coliform: MF Fecal 31616	/100ml		Hardness (non-carb) 902	mg/l		Ba - Barium 46558	ug/l		
	Coliform: MF Total 31504	/100ml		Phenols 32730	ug/l		Ca - Calcium 46552	mg/l		Acid Herbicides
	TOC 680	mg/l		Specific Cond. 95	uMhos/cm²		Cd - Cadmium 46559	ug/l		
	Turbidity 76	NTU		Sulfate 945	mg/l		Cr - Chromium 46560	ug/l		Semivolatile Organics
	Residue., Suspended 530	mg/l		Sulfide 745	mg/l		Cu - Copper 46562	ug/l		
							Fe - Iron 46563	ug/l		
						X	Hg - Mercury 71900	ug/l	X	Volatile Organics (VOA bottle)
	pH 403	units					K - Potassium 46555	mg/l		
	Alkalinity to pH 4.5 410	mg/l					Mg - Magnesium 46554	mg/l		TPH - Gasoline Range
	Alkalinity to pH 8.3 415	mg/l					Mn - Manganese 46565	ug/l		TPH - BTEX Gasoline Range
	Carbonate 445	mg/l		NH_3 as N 610	mg/l		Na - Sodium 46556	mg/l		
	Bicarbonate 440	mg/l		TKN as N 625	mg/l		Ni - Nickel	ug/l		
	Carbon dioxide 405	mg/l		NO_2 + NO_3 as N 630	mg/l		Pb - Lead 46564	ug/l		
	Chloride 940	mg/l		P: Total as P 665	mg/l		Se - Selenium	ug/l		
	Chromium: Hex 1032	ug/l					Zn - Zinc 46567	ug/l		
	Color: True 80	Pt-Co								
	Cyanide 720	mg/l								

N.C. DEPT. OF ENVIRONMENT, HEALTH & NATURAL RESOURCES
OCT 25 1995
DIVISION OF ENVIRONMENTAL MANAGEMENT
MOORESVILLE REGIONAL OFFICE

Lab Comments:

GW-54 REV. 6/93 For Dissolved Analysis - submit filtered sample and write "DIS" in block.

N.C. DEPT. OF
ENVIRONMENT, HEALTH,
DIVISION OF ENVIRONMENTAL MANAGEMENT & NATURAL RESOURCES

Chemistry Laboratory Report / Ground Water Quality

DEC 11 1995

DIVISION OF ENVIRONMENTAL MANAGEMENT
MOORESVILLE REGIONAL OFFICE

Lab Number :	5G1769
Date Received :	10/13/95
Time Received :	8:45 AM
Received By :	DS
Released By :	Tm
Date reported :	12/4/95

COUNTY : GASTON
QUAD NO:

REPORT TO : MRO Regional Office
COLLECTOR(S) : CONNELL
DATE: 10/12/95
TIME:

PURPOSE:

SAMPLE PRIORITY
[X] ROUTINE [ ] EMERGENCY

[X] CHAIN OF CUSTODY

[W] SAMPLE TYPE

Owner: AF PROPST
Location or Site:
Description of sampling point
Sampling Method:
Remarks:

LABORATORY ANALYSIS

	BOD 310	mg/L		Diss. Solids 70300	mg/L		Ag-Silver 46566	ug/L		Organochlorine Pesticides
	COD High 340	mg/L		Fluoride 951	mg/L		Al-Aluminum 46557	ug/L		Organophosphorus Pesticides
	COD Low 335	mg/L		Hardness: total 900	mg/L		As-Arsenic 46551	ug/L		Nitrogen Pesticides
	Coliform: MF Fecal 31616	/100ml		Hardness: (non-carb) 902	mg/L		Ba-Barium 46558	ug/L		
	Coliform: MF Total 31504	/100ml		Phenols 32730	ug/L		Ca-Calcium 46552	ug/L		Acid Herbicides
	TOC	mg/l		Specific Cond. 95	uMhos/cm2		Cd-Cadium 46559	ug/L		
	Turbitity	NTU		Sulfate	mg/L		Cr-Chromium 46560	ug/L		Semivolatiles
	Residue., Suspended 530	mg/L		Sulfide 745	mg/L		Cu- Copper 1042	ug/L		TPH-Diesel Range
	Total Suspended solids	mg/L		MBAS	mg/L		Fe- Iron 1045	ug/L		
				Oil and Grease	mg/L		Hg- Mercury 71900	ug/L	X	Volatile Organics (VOA bottle)
	pH	units		Silica	mg/L		K-Potassium 46555	ug/L		
	Alkalinity to pH 4.5	mg/L		Boron			Mg- Magnesium 927	ug/L		TPH-Gasoline Range
	Alkalinity to pH 8.3	mg/L					Mn-Manganese 1055	ug/L		TPH-BTEX Gasoline Range
	Carbonate	mg/L		NH3 as N 610	mg/L		Na- Sodium 929	ug/L		
	Bicarbonate	mg/L		TKN as N 625	mg/L		Ni-Nickel	ug/L		
	Carbon dioxide	mg/L		NO2 +NO3 as n 630	mg/L		Pb-Lead 46564	ug/L		
	Chloride	mg/L		P: Total as P 665	mg/L		Se-Selenium	ug/L		
	Chromium: Hex 1032	ug/L		PO4	mg/L		Zn_Zinc 46567	ug/L		
	Color: True 80	c.u.								
	Cyanide 720	mg/L								

COMMENTS :

Fieldsheet Redistributed - 12/7/95 - Tm

5G1769.OCT

GROUNDWATER FIELD/LAB FORM

CHAIN OF CUSTODY

North Carolina
Department of Environment, Health, and Natural Resources
DIVISION OF ENVIRONMENTAL MANAGEMENT - GROUNDWATER SECTION

County: Gaston
Quad No. R680-22 Serial No.
Lat. 35°12'37" Long. 81°04'32"

SAMPLE PRIORITY

[X] ROUTINE [ ] EMERGENCY
[X] CHAIN OF CUSTODY

Lab Number: 5G 1769
Date Received: 10/13/95 Time: 8:45
Rec'd by: DS From: Bus, Courier, Hand Del.,
Other:
Data Entry By: DD ck: TM
Date Reported: 11/29/95

Report To: ARO, FRO, MRO, RRO, WaRO, WiRO, WSRO, Kinston FO, Fed. Trust, Central Off., Other:
Shipped by: Bus, Courier, Hand Del., Other:
Collector(s): Connell Date 10-12-95 Time 11:35 AM
Purpose: Baseline, Complaint, Compliance, LUST, Pesticide Study, Federal Trust, Other: Pollution Monitoring 9817 GW Inc #
(circle one)

FIELD ANALYSES

pH_{400} 6.0 Spec. Cond.$_{94}$ 90 at 25° C
Temp.$_{10}$ 23° °C Odor none
Appearance clear
Field Analysis By: Connell

Owner: A.F. Propst
Location or site: 208 Park Terrace, Belmont NC 28012
Description of sampling point: hose bibb on front of house
Sampling Method: Pump (Pump, bailer, etc.) Sample Interval: TD = 45-50'
Remarks: Pump time = 10 mins (pumping time, air temp. etc.)

LABORATORY ANALYSES

	BOD, 310	mg/l		Diss. Solids 70300	mg/l		Ag - Silver 46566	ug/l		Organochlorine Pesticides
	COD High 340	mg/l		Flouride 951	mg/l		Al - Aluminum 46557	ug/l		Organophosphorus Pesticides
	COD Low 335	mg/l		Hardness: Total 900	mg/l		As - Arsenic 46551	ug/l		Nitrogen Pesticides
	Coliform: MF Fecal 31616	/100ml		Hardness (non-carb) 902	mg/l		Ba - Barium 46558	ug/l		
	Coliform: MF Total 31504	/100ml		Phenols 32730	ug/l		Ca - Calcium 46552	mg/l		Acid Herbicides
	TOC 680	mg/l		Specific Cond. 95	uMhos/cm²		Cd - Cadmium 46559	ug/l		
	Turbidity 76	NTU		Sulfate 945	mg/l		Cr - Chromium 46560	ug/l		Semivolatile Organics
	Residue., Suspended 530	mg/l		Sulfide 745	mg/l		Cu - Copper 46562	ug/l		
							Fe - Iron 46563	ug/l		
							Hg - Mercury 71900	ug/l	X	Volatile Organics (VOA bottle)
	pH 403	units					K - Potassium 46555	mg/l		
	Alkalinity to pH 4.5 410	mg/l					Mg - Magnesium 46554	mg/l		TPH - Gasoline Range
	Alkalinity to pH 8.3 415	mg/l					Mn - Manganese 46565	ug/l		TPH - BTEX Gasoline Range
	Carbonate 445	mg/l		NH_3 as N 610	mg/l		Na - Sodium 46556	mg/l		
	Bicarbonate 440	mg/l		TKN as N 625	mg/l		Ni - Nickel	ug/l		
	Carbon dioxide 405	mg/l		NO_2 + NO_3 as N 630	mg/l		Pb - Lead 46564	ug/l		
	Chloride 940	mg/l		P: Total as P 665	mg/l		Se - Selenium	ug/l		
	Chromium: Hex 1032	ug/l					Zn - Zinc 46567	ug/l		
	Color: True 80	Pt-Co								
	Cyanide 720	mg/l								

Lab Comments:

GW-54 REV. For Dissolved Analysis - submit filtered sample and write "DIS" in b[illegible]

EHNR/DEM LABORATORY
VOLATILE ANALYTICAL REPORT

LAB NO. 5G1769

REPORTED BY MS
CHECKED BY DJB/DSB
REVIEWED BY ALC

SUPERVISOR RJK
DATE 11/29/95
RELEASED BY
DATE 11/29/95

SAMPLE TYPE: WATER

ANALYSIS RESULTS

CAS#	VOA TARGET COMPOUND	TQL ug/L	DETECTED ug/L		CAS#	VOA TARGET COMPOUND	TQL ug/L	DETECTED ug/L	
75-35-4	1,1-Dichloroethene	0.75		U	96-18-4	1,2,3-Trichloropropane	0.25		U
75-09-2	Methylene Chloride	10		U	108-86-1	Bromobenzene	1		U
156-60-5	trans-1,2-Dichloroethene	0.75		U	95-49-8	2-Chlorotoluene	0.25		U
75-34-3	1,1-Dichloroethane	0.25		U	106-43-4	4-Chlorotoluene	0.25		U
590-20-7	2,2-Dichloropropane	0.25		U	541-73-1	1,3-Dichlorobenzene	0.25		U
156-59-4	cis-1,2-Dichloroethene	0.25		U	106-46-7	1,4-Dichlorobenzene	0.25		U
67-66-3	Chloroform	0.25	D		95-50-1	1,2-Dichlorobenzene	0.25		U
74-97-5	Bromochloromethane	0.75		U	96-12-8	1,2-Dibromo-3-Chloropropane	1		U
71-55-6	1,1,1-Trichloroethane	0.25		U	120-82-1	1,2,4-Trichlorobenzene	0.25		U
563-58-6	1,1-Dichloropropene	0.25		U	87-68-3	Hexachlorobutadiene	0.25		U
56-23-5	Carbon Tetrachloride	0.75		U	87-61-6	1,2,3-Trichlorobenzene	0.75		U
107-06-2	1,2-Dichloroethane	0.25		U	1634-04-4	Methyl-tert-butyl ether	5		U
79-01-6	Trichloroethene	0.25	0.63		71-43-2	Benzene	1		U
78-87-5	1,2-Dichloropropane	0.25		U	108-88-3	Toluene	1		U
75-27-4	Bromodichloromethane	0.25		U	100-41-4	Ethyl benzene	1		U
74-95-3	Dibromomethane	1		U	108-38-3	m,p-Xylenes	2		U
10061-01-5	cis-1,3-Dichloropropene	0.25		U	95-47-6	o-Xylene	1		U
10061-02-6	trans-1,3-Dichloropropene	0.25		U	100-42-5	Styrene	1		U
79-00-5	1,1,2-Trichloroethane	0.25		U	98-82-8	Isopropylbenzene	1		U
127-18-4	Tetrachloroethene	0.25	28E		103-65-1	n-Propylbenzene	1		U
142-28-9	1,3-Dichloropropane	0.25		U	108-67-8	1,3,5-Trimethylbenzene	1		U
124-48-1	Dibromochloromethane	0.75		U	98-06-6	tert-Butylbenzene	1		U
106-93-4	1,2-Dibromoethane	1		U	95-63-6	1,2,4-Trimethylbenzene	1		U
108-90-7	Chlorobenzene	0.25		U	135-98-8	sec-Butylbenzene	1		U
630-20-6	1,1,1,2-Tetrachloroethane	0.25		U	99-87-6	p-isopropyltoluene	1		U
75-25-2	Bromoform	0.5		U	104-51-8	n-Butylbenzene	1		U
79-34-5	1,1,2,2-Tetrachloroethane	0.75		U	91-20-3	Naphthalene	1		U

	mg/L	mg/L	
Gasoline Range Estimated Total Petroleum Hydrocarbon	0.25		N

Other purgeables detected (up to 10 highest peaks) — Detected ug/L

NO VOLATILE ORGANIC COMPOUNDS QUANTITATED BY GC/PID.

TQL- Target Quantitation Limit- Subject to change due to instrument sensitivity
T- Tentatively Identified, not confirmed
E- Estimated Value
U- Samples analyzed for this compound but not detected
N- Sample not analyzed for this compound
D- Detected below quantitation limit
M- GC/MS Analysis performed

COMMENTS:

DIVISION OF ENVIRONMENTAL MANAGEMENT

Chemistry Laboratory Report / Ground Water Quality

N.C. DEPT. OF ENVIRONMENT, HEALTH & NATURAL RESOURCES

DEC 11 1995

DIVISION OF ENVIRONMENTAL MANAGEMENT
MOORESVILLE REGIONAL OFFICE

Lab Number : 5G1768
Date Received : 10/13/95
Time Received : 8:45 AM
Received By : DS

Released By : Tm
Date reported : 12/4/95

COUNTY : GASTON
QUAD NO:

REPORT TO : MRO Regional Office
COLLECTOR(S) : CONNELL
DATE: 10/12/95
TIME:
PURPOSE:

SAMPLE PRIORITY
[X] ROUTINE [ ] EMERGENCY

[X] CHAIN OF CUSTODY

[W] SAMPLE TYPE

Owner: AF PROPST
Location or Site:
Description of sampling point
Sampling Method:
Remarks:

LABORATORY ANALYSIS

	BOD 310	mg/L
	COD High 340	mg/L
	COD Low 335	mg/L
	Coliform: MF Fecal 31616	/100ml
	Coliform: MF Total 31504	/100ml
	TOC	mg/l
	Turbitity	NTU
	Residue, Suspended 530	mg/L
	Total Suspended solids	mg/L
	pH	units
	Alkalinity to pH 4.5	mg/L
	Alkalinity to pH 8.3	mg/L
	Carbonate	mg/L
	Bicarbonate	mg/L
	Carbon dioxide	mg/L
	Chloride	mg/L
	Chromium: Hex 1032	ug/L
	Color: True 80	c.u.
	Cyanide 720	mg/L

	Diss. Solids 70300	mg/L
	Fluoride 951	mg/L
	Hardness: total 900	mg/L
	Hardness: (non-carb) 902	mg/L
	Phenols 32730	ug/L
	Specific Cond. 95	uMhos/cm2
	Sulfate	mg/L
	Sulfide 745	mg/L
	MBAS	mg/L
	Oil and Grease	mg/L
	Silica	mg/L
	Boron	
	NH3 as N 610	mg/L
	TKN as N 625	mg/L
	NO2 +NO3 as n 630	mg/L
	P: Total as P 665	mg/L
	PO4	mg/L

	Ag-Silver 46566	ug/L
	Al-Aluminum 46557	ug/L
	As-Arsenic 46551	ug/L
	Ba-Barium 46558	ug/L
	Ca-Calcium 46552	ug/L
	Cd-Cadium 46559	ug/L
	Cr-Chromium 46560	ug/L
	Cu- Copper 1042	ug/L
	Fe- Iron 1045	ug/L
	Hg- Mercury 71900	ug/L
	K-Potassium 46555	ug/L
	Mg- Magnesium 927	ug/L
	Mn-Manganese 1055	ug/L
	Na- Sodium 929	ug/L
	Ni-Nickel	ug/L
	Pb-Lead 46564	ug/L
	Se-Selenium	ug/L
	Zn_Zinc 46567	ug/L

	Organochlorine Pesticides
	Organophosphorus Pesticides
	Nitrogen Pesticides
	Acid Herbicides
	Semivolatiles
	TPH-Diesel Range
X	Volatile Organics (VOA bottle)
	TPH-Gasoline Range
	TPH-BTEX Gasoline Range

COMMENTS :

Fieldsheet Redistributed - 12/7/95 - Tm

5G1768.OCT

GROUNDWATER FIELD/LAB FORM

CHAIN OF CUSTODY

North Carolina
Department of Environment, Health, and Natural Resources
DIVISION OF ENVIRONMENTAL MANAGEMENT - GROUNDWATER SECTION

County Gaston
Quad No. R680.22 Serial No. _____
Lat. 35° 12' 37" Long. 81° 04' 32"

SAMPLE PRIORITY

[x] ROUTINE [ ] EMERGENCY
[x] CHAIN OF CUSTODY

Lab Number 5G 1768
Date Received 10/13/95 Time 8:45
Rec'd by: DS From: Bus, Courier, Hand Del.,
Other: _____
Data Entry By: [illegible] Ck: [illegible]
Date Reported: 11/29/95

Report To: ARO, FRO, MRO, RRO, WaRO, WiRO, WSRO, Kinston FO, Fed. Trust, Central Off., Other: _____
Shipped by: Bus, Courier, Hand Del., Other: _____
Collector(s): Connell Date 10.12.95 Time 11:37AM

Purpose: Baseline, Complaint, Compliance, LUST, Pesticide Study, Federal Trust, Other: Pollution Monitoring GW Incl 9211 (circle one)

FIELD ANALYSES

pH_{400} _____ Spec. Cond.$_{94}$ _____ at 25° C
Temp.$_{10}$ _____ °C Odor none
Appearance clear
Field Analysis By: Connell

Owner A.F. Propst
Location or site 208 Park Terrace, Belmont NC 28012
Description of sampling point THROUGH REFRIG.
Sampling Method PUSH BOTTOM ON REFRIG. (Pump, bailer, etc.) Sample Interval 10 x 45-50'
Remarks _____ (pumping time, air temp, etc.)

LABORATORY ANALYSES

	BOD, 310	mg/l		Diss. Solids 70300	mg/l		Ag - Silver 46566	ug/l		Organochlorine Pesticides
	COD High 340	mg/l		Flouride 951	mg/l		Al - Aluminum 46557	ug/l		Organophosphorus Pesticides
	COD Low 335	mg/l		Hardness: Total 900	mg/l		As - Arsenic 46551	ug/l		Nitrogen Pesticides
	Coliform: MF Fecal 31616	/100ml		Hardness (non-carb) 902	mg/l		Ba - Barium 46558	ug/l		
	Coliform: MF Total 31504	/100ml		Phenols 32730	ug/l		Ca - Calcium 46552	mg/l		Acid Herbicides
	TOC 680	mg/l		Specific Cond. 95	uMhos/cm²		Cd - Cadmium 46559	ug/l		
	Turbidity 76	NTU		Sulfate 945	mg/l		Cr - Chromium 46560	ug/l		Semivolatile Organics
	Residue., Suspended 530	mg/l		Sulfide 745	mg/l		Cu - Copper 46562	ug/l		
							Fe - Iron 46563	ug/l		
							Hg - Mercury 71900	ug/l	X	Volatile Organics (VOA bottle)
	pH 403	units					K - Potassium 46555	mg/l		
	Alkalinity to pH 4.5 410	mg/l					Mg - Magnesium 46554	mg/l		TPH - Gasoline Range
	Alkalinity to pH 8.3 415	mg/l					Mn - Manganese 46565	ug/l		TPH - BTEX Gasoline Range
	Carbonate 445	mg/l		NH_3 as N 610	mg/l		Na - Sodium 46556	mg/l		
	Bicarbonate 440	mg/l		TKN as N 625	mg/l		Ni - Nickel	ug/l		
	Carbon dioxide 405	mg/l		NO_2 + NO_3 as N 630	mg/l		Pb - Lead 46564	ug/l		
	Chloride 940	mg/l		P: Total as P 665	mg/l		Se - Selenium	ug/l		
	Chromium: Hex 1032	ug/l					Zn - Zinc 46567	ug/l		
	Color: True 80	Pt-Co								
	Cyanide 720	mg/l								

Lab Comments: _____

GW-54 REV. 5/93 For Dissolved Analysis - submit filtered sample and write "DIS" in block.

EHNR/DEM LABORATORY
VOLATILE ANALYTICAL REPORT

LAB NO. 5G1768

REPORTED BY MS
CHECKED BY DJB
REVIEWED BY ALC

SUPERVISOR RRK
DATE 11/29/95
RELEASED BY
DATE Thu 11/29/95

SAMPLE TYPE: WATER

ANALYSIS RESULTS

CAS#	VOA TARGET COMPOUND	TQL ug/L	DETECTED ug/L	CAS#	VOA TARGET COMPOUND	TQL ug/L	DETECTED ug/L
75-35-4	1,1-Dichloroethene	0.75	U	96-18-4	1,2,3-Trichloropropane	0.25	U
75-09-2	Methylene Chloride	10	U	108-86-1	Bromobenzene	1	U
156-60-5	trans-1,2-Dichloroethene	0.75	U	95-49-8	2-Chlorotoluene	0.25	U
75-34-3	1,1-Dichloroethane	0.25	U	106-43-4	4-Chlorotoluene	0.25	U
590-20-7	2,2-Dichloropropane	0.25	U	541-73-1	1,3-Dichlorobenzene	0.25	U
156-59-4	cis-1,2-Dichloroethene	0.25	U	106-46-7	1,4-Dichlorobenzene	0.25	0.26
67-66-3	Chloroform	0.25	U	95-50-1	1,2-Dichlorobenzene	0.25	U
74-97-5	Bromochloromethane	0.75	U	96-12-8	1,2-Dibromo-3-Chloropropane	1	U
71-55-6	1,1,1-Trichloroethane	0.25	U	120-82-1	1,2,4-Trichlorobenzene	0.25	U
563-58-6	1,1-Dichloropropene	0.25	U	87-68-3	Hexachlorobutadiene	0.25	U
56-23-5	Carbon Tetrachloride	0.75	U	87-61-6	1,2,3-Trichlorobenzene	0.75	U
107-06-2	1,2-Dichloroethane	0.25	D	1634-04-4	Methyl-tert-butyl ether	5	U
79-01-6	Trichloroethene	0.25	U	71-43-2	Benzene	1	U
78-87-5	1,2-Dichloropropane	0.25	U	108-88-3	Toluene	1	U
75-27-4	Bromodichloromethane	0.25	U	100-41-4	Ethyl benzene	1	U
74-95-3	Dibromomethane	1	U	108-38-3	m,p-Xylenes	2	U
10061-01-5	cis-1,3-Dichloropropene	0.25	U	95-47-6	o-Xylene	1	U
10061-02-6	trans-1,3-Dichloropropene	0.25	U	100-42-5	Styrene	1	U
79-00-5	1,1,2-Trichloroethane	0.25	U	98-82-8	Isopropylbenzene	1	U
127-18-4	Tetrachloroethene	0.25	U	103-65-1	n-Propylbenzene	1	U
142-28-9	1,3-Dichloropropane	0.25	U	108-67-8	1,3,5-Trimethylbenzene	1	U
124-48-1	Dibromochloromethane	0.75	U	98-06-6	tert-Butylbenzene	1	U
106-93-4	1,2-Dibromoethane	1	U	95-63-6	1,2,4-Trimethylbenzene	1	U
108-90-7	Chlorobenzene	0.25	U	135-98-8	sec-Butylbenzene	1	U
630-20-6	1,1,1,2-Tetrachloroethane	0.25	U	99-87-6	p-isopropyltoluene	1	U
75-25-2	Bromoform	0.5	U	104-51-8	n-Butylbenzene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	0.75	U	91-20-3	Naphthalene	1	U

	mg/L	mg/L
Gasoline Range Estimated Total Petroleum Hydrocarbon	0.25	N

TQL- Target Quantitation Limit- Subject to change due to instrument sensitivity
T- Tentatively Identified, not confirmed
E- Estimated Value
U- Samples analyzed for this compound but not detected
N- Sample not analyzed for this compound
D- Detected below quantitation limit
M- GC/MS Analysis performed

Other purgeables detected (up to 10 highest peaks) — Detected ug/L

NO VOLATILE ORGANIC COMPOUNDS QUANTITATED BY GC/PID.

COMMENTS:

GROUNDWATER FIELD/LAB FORM

CHAIN OF CUSTODY

North Carolina
Department of Environment, Health, and Natural Resources
DIVISION OF ENVIRONMENTAL MANAGEMENT - GROUNDWATER SECTION

County: Gaston
Quad No: R680-30 Serial No.:
Lat. 35° 17' 23" Long. 81° 04' 33"

SAMPLE PRIORITY

[X] ROUTINE [ ] EMERGENCY
[X] CHAIN OF CUSTODY

Lab Number: 5G1767
Date Received: 10/13/95 Time: 8:45
Rec'd by: DS From: Bus, Courier, Hand Del.,
Other:
Data Entry By: TRW Ck: [illegible]
Date Reported: 10/23/95

Report To: ARO, FRO, MRO, RRO, WaRO, WiRO, WSRO, Kinston FO, Fed. Trust, Central Off., Other:
Shipped by: Bus, Courier, Hand Del., Other:
Collector(s): Connell Date: 10-12-95 Time: 2:15 pm

Purpose: Baseline, Complaint, Compliance, LUST, Pesticide Study, Federal Trust, Other: Pollution Monitoring GW Inc# 9217 (circle one)

FIELD ANALYSES

pH_{400} 5.5-6.0 Spec. Cond.$_{94}$ 110 umhos at 25° C
Temp.$_{10}$ 19 °C Odor none
Appearance clear
Field Analysis By: Connell

Owner: Lewis
Location or site: 104 Springwood drive, Belmont NC 28012
Description of sampling point: hose bibb on front of house.
Sampling Method: Pump (Pump, bailer, etc) Sample Interval: unknown
Remarks: Pumping time ≈ 10 mins (pumping time, air temp. etc.)

LABORATORY ANALYSES

	BOD, 310	mg/l		Diss. Solids 70300	mg/l		Ag - Silver 46566	ug/l		Organochlorine Pesticides
	COD High 340	mg/l		Flouride 951	mg/l		Al - Aluminum 46557	ug/l		Organophosphorus Pesticides
	COD Low 335	mg/l		Hardness: Total 900	mg/l		As - Arsenic 46551	ug/l		Nitrogen Pesticides
	Coliform: MF Fecal 31616	/100ml		Hardness (non-carb) 902	mg/l		Ba - Barium 46558	ug/l		
	Coliform: MF Total 31504	/100ml		Phenols 32730	ug/l		Ca - Calcium 46552	mg/l		Acid Herbicides
	TOC 680	mg/l		Specific Cond. 95	uMhos/cm²		Cd - Cadmium 46559	ug/l		
	Turbidity 76	NTU		Sulfate 945	mg/l		Cr - Chromium 46560	ug/l		Semivolatile Organics
	Residue., Suspended 530	mg/l		Sulfide 745	mg/l		Cu - Copper 46562	ug/l		
							Fe - Iron 46563	ug/l		
							Hg - Mercury 71900	ug/l	X	Volatile Organics (VOA bottle)
	pH 403	units					K - Potassium 46555	mg/l		
	Alkalinity to pH 4.5 410	mg/l					Mg - Magnesium 46554	mg/l		TPH - Gasoline Range
	Alkalinity to pH 8.3 415	mg/l					Mn - Manganese 46565	ug/l		TPH - BTEX Gasoline Range
	Carbonate 445	mg/l		NH_3 as N 610	mg/l		Na - Sodium 46556	mg/l		
	Bicarbonate 440	mg/l		TKN as N 625	mg/l		Ni - Nickel	ug/l		N.C. DEPT. OF ENVIRONMENT, HEALTH, & NATURAL RESOURCES
	Carbon dioxide 405	mg/l		NO_2 + NO_3 as N 630	mg/l		Pb - Lead 46564	ug/l		
	Chloride 940	mg/l		P: Total as P 665	mg/l		Se - Selenium	ug/l		
	Chromium: Hex 1032	ug/l					Zn - Zinc 46567	ug/l		OCT 25 1995
	Color: True 80	Pt-Co								
	Cyanide 720	mg/l								DIVISION OF ENVIRONMENTAL MANAGEMENT MOORESVILLE REGIONAL OFFICE

Lab Comments:

GW-54 REV. 6/93 For Dissolved Analysis - submit filtered sample and write "DIS" in block.

EHNR/DEM LABORATORY
VOLATILE ANALYTICAL REPORT

LAB NO. 5G1767

REPORTED BY DJB / DJB
CHECKED BY ALC ALC
REVIEWED BY ALC ALC

Rec'd: Thu 10/19/95
Checked:

SUPERVISOR REK
DATE 10/20/95

RELEASED BY
DATE 10/23/95

SAMPLE TYPE: WATER

ANALYSIS RESULTS

CAS#	VOA TARGET COMPOUND	TQL ug/L	DETECTED ug/L	CAS#	VOA TARGET COMPOUND	TQL ug/L	DETECTED ug/L
75-35-4	1,1-Dichloroethene	0.75	U	96-18-4	1,2,3-Trichloropropane	0.25	U
75-09-2	Methylene Chloride	10	U	108-86-1	Bromobenzene	1	U
156-60-5	trans-1,2-Dichloroethene	0.75	U	95-49-8	2-Chlorotoluene	0.25	U
75-34-3	1,1-Dichloroethane	0.25	U	106-43-4	4-Chlorotoluene	0.25	U
590-20-7	2,2-Dichloropropane	0.25	U	541-73-1	1,3-Dichlorobenzene	0.25	U
156-59-4	cis-1,2-Dichloroethene	0.25	U	106-46-7	1,4-Dichlorobenzene	0.25	U
67-66-3	Chloroform	0.25	U	95-50-1	1,2-Dichlorobenzene	0.25	U
74-97-5	Bromochloromethane	0.75	U	96-12-8	1,2-Dibromo-3-Chloropropane	1	U
71-55-6	1,1,1-Trichloroethane	0.25	U	120-82-1	1,2,4-Trichlorobenzene	0.25	U
563-58-6	1,1-Dichloropropene	0.25	U	87-68-3	Hexachlorobutadiene	0.25	U
56-23-5	Carbon Tetrachloride	0.75	U	87-61-6	1,2,3-Trichlorobenzene	0.75	U
107-06-2	1,2-Dichloroethane	0.25	U	1634-04-4	Methyl-tert-butyl ether	5	U
79-01-6	Trichloroethene	0.25	U	71-43-2	Benzene	1	U
78-87-5	1,2-Dichloropropane	0.25	U	108-88-3	Toluene	1	U
75-27-4	Bromodichloromethane	0.25	U	100-41-4	Ethyl benzene	1	U
74-95-3	Dibromomethane	1	U	108-38-3	m,p-Xylenes	2	U
10061-01-5	cis-1,3-Dichloropropene	0.25	U	95-47-6	o-Xylene	1	U
10061-02-6	trans-1,3-Dichloropropene	0.25	U	100-42-5	Styrene	1	U
79-00-5	1,1,2-Trichloroethane	0.25	U	98-82-8	Isopropylbenzene	1	U
127-18-4	Tetrachloroethene	0.25	U	103-65-1	n-Propylbenzene	1	U
142-28-9	1,3-Dichloropropane	0.25	U	108-67-8	1,3,5-Trimethylbenzene	1	U
124-48-1	Dibromochloromethane	0.75	U	98-06-6	tert-Butylbenzene	1	U
106-93-4	1,2-Dibromoethane	1	U	95-63-6	1,2,4-Trimethylbenzene	1	U
108-90-7	Chlorobenzene	0.25	U	135-98-8	sec-Butylbenzene	1	U
630-20-6	1,1,1,2-Tetrachloroethane	0.25	U	99-87-6	p-isopropyltoluene	1	U
75-25-2	Bromoform	0.5	U	104-51-8	n-Butylbenzene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	0.75	U	91-20-3	Naphthalene	1	U

	mg/L	mg/L
Gasoline Range Estimated Total Petroleum Hydrocarbon	0.25	N

TQL- Target Quantitation Limit- Subject to change due to instrument sensitivity
T- Tentatively Identified, not confirmed
E- Estimated Value
U- Samples analyzed for this compound but not detected
N- Sample not analyzed for this compound
D- Detected below quantitation limit
M- GC/MS Analysis performed

Other purgeables detected (up to 10 highest peaks) — Detected ug/L

NO VOLATILE ORGANIC COMPOUNDS
DETECTED BY GC/ELCD/PID.

COMMENTS:

DIVISION OF ENVIRONMENTAL MANAGEMENT

Chemistry Laboratory Report / Ground Water Quality

Lab Number :	5G1766
Date Received :	10/13/95
Time Received :	8:45 AM
Received By :	DS
Released By :	[illegible]
Date reported :	12/4/95

COUNTY : GASTON
QUAD NO:

REPORT TO : MRO Regional Office
COLLECTOR(S) : CONNELL
DATE: 10/12/95
TIME:
PURPOSE:

SAMPLE PRIORITY
[X] ROUTINE [ ] EMERGENCY

[X] CHAIN OF CUSTODY

[W] SAMPLE TYPE

Owner: OWNER UNKNOWN
Location or Site:
Description of sampling point
Sampling Method:
Remarks:

LABORATORY ANALYSIS

	BOD 310	mg/L
	COD High 340	mg/L
	COD Low 335	mg/L
	Coliform: MF Fecal 31616	/100ml
	Coliform: MF Total 31504	/100ml
	TOC	mg/l
	Turbitity	NTU
	Residue., Suspended 530	mg/L
	Total Suspended solids	mg/L
	pH	units
	Alkalinity to pH 4.5	mg/L
	Alkalinity to pH 8.3	mg/L
	Carbonate	mg/L
	Bicarbonate	mg/L
	Carbon dioxide	mg/L
	Chloride	mg/L
	Chromium: Hex 1032	ug/L
	Color: True 80	c.u.
	Cyanide 720	mg/L

	Diss. Solids 70300	mg/L
	Fluoride 951	mg/L
	Hardness: total 900	mg/L
	Hardness: (non-carb) 902	mg/L
	Phenols 32730	ug/L
	Specific Cond. 95	uMhos/cm2
	Sulfate	mg/L
	Sulfide 745	mg/L
	MBAS	mg/L
	Oil and Grease	mg/L
	Silica	mg/L
	Boron	
	NH3 as N 610	mg/L
	TKN as N 625	mg/L
	NO2 +NO3 as n 630	mg/L
	P: Total as P 665	mg/L
	PO4	mg/L

	Ag-Silver 46566	ug/L
	Al-Aluminum 46557	ug/L
	As-Arsenic 46551	ug/L
	Ba-Barium 46558	ug/L
	Ca-Calcium 46552	ug/L
	Cd-Cadium 46559	ug/L
	Cr-Chromium 46560	ug/L
	Cu- Copper 1042	ug/L
	Fe- Iron 1045	ug/L
	Hg- Mercury 71900	ug/L
	K-Potassium 46555	ug/L
	Mg- Magnesium 927	ug/L
	Mn-Manganese 1055	ug/L
	Na- Sodium 929	ug/L
	Ni-Nickel	ug/L
	Pb-Lead 46564	ug/L
	Se-Selenium	ug/L
	Zn_Zinc 46567	ug/L

	Organochlorine Pesticides
	Organophosphorus Pesticides
	Nitrogen Pesticides
	Acid Herbicides
	Semivolatiles
	TPH-Diesel Range
X	Volatile Organics (VOA bottle)
	TPH-Gasoline Range
	TPH-BTEX Gasoline Range

COMMENTS :

5G1766.OCT

GROUNDWATER FIELD/LAB FORM

North Carolina
Department of Environment, Health, and Natural Resources
DIVISION OF ENVIRONMENTAL MANAGEMENT - GROUNDWATER SECTION

CHAIN OF CUSTODY

County: Gaston
Quad No. R680-31 Serial No.
Lat. 35°12' 23" Long. 81°04 35"

SAMPLE PRIORITY

[X] ROUTINE [ ] EMERGENCY
[X] CHAIN OF CUSTODY

Lab Number: 5G1766
Date Received: 10/13/95 Time: 8:45
Rec'd by: DS From: Bus, Courier, Hand Del.,
Other:
Data Entry By: Ck:
Date Reported: 11/29/95

Report To: ARO, FRO, MRO, RRO, WaRO, WiRO, WSRO, Kinston FO, Fed. Trust, Central Off., Other:
Shipped by: Bus, Courier, Hand Del., Other:
Collector(s): Cornell Date 10-12-95 Time 2:10pm
Purpose: Baseline, Complaint, Compliance, LUST, Pesticide Study, Federal Trust, Other: (circle one)

FIELD ANALYSES

pH_{400} 5.5-6.0 Spec. Cond.$_{94}$ 85umhos at 25° C
Temp.$_{10}$ 20 °C Odor none
Appearance Clear
Field Analysis By: Kconnell

Owner: Unknown
Location or site: 108 Springwood Drive, Belmont NC 28012
Description of sampling point: hose bibb on front of house
Sampling Method: Pump (Pump, bailer, etc.) Sample Interval: unknown
Remarks: Pumping time = 10 mins (pumping time, air temp, etc.)

LABORATORY ANALYSES

	BOD, 310	mg/l		Diss. Solids 70300	mg/l		Ag - Silver 46566	ug/l		Organochlorine Pesticides
	COD High 340	mg/l		Flouride 951	mg/l		Al - Aluminum 46557	ug/l		Organophosphorus Pesticides
	COD Low 335	mg/l		Hardness: Total 900	mg/l		As - Arsenic 46551	ug/l		Nitrogen Pesticides
	Coliform: MF Fecal 31616	/100ml		Hardness (non-carb) 902	mg/l		Ba - Barium 46558	ug/l		
	Coliform: MF Total 31504	/100ml		Phenols 32730	ug/l		Ca - Calcium 46552	mg/l		Acid Herbicides
	TOC 680	mg/l		Specific Cond. 95	uMhos/cm²		Cd - Cadmium 46559	ug/l		
	Turbidity 76	NTU		Sulfate 945	mg/l		Cr - Chromium 46560	ug/l		Semivolatile Organics
	Residue., Suspended 530	mg/l		Sulfide 745	mg/l		Cu - Copper 46562	ug/l		
							Fe - Iron 46563	ug/l		
							Hg - Mercury 71900	ug/l	X	Volatile Organics (VOA bottle)
	pH 403	units					K - Potassium 46555	mg/l		
	Alkalinity to pH 4.5 410	mg/l					Mg - Magnesium 46554	mg/l		TPH - Gasoline Range
	Alkalinity to pH 8.3 415	mg/l					Mn - Manganese 46565	ug/l		TPH - BTEX Gasoline Range
	Carbonate 445	mg/l		NH_3 as N 610	mg/l		Na - Sodium 46556	mg/l		
	Bicarbonate 440	mg/l		TKN as N 625	mg/l		Ni - Nickel	ug/l		
	Carbon dioxide 405	mg/l		NO_2 + NO_3 as N 630	mg/l		Pb - Lead 46564	ug/l		
	Chloride 940	mg/l		P: Total as P 665	mg/l		Se - Selenium	ug/l		
	Chromium: Hex 1032	ug/l					Zn - Zinc 46567	ug/l		
	Color: True 80	Pt-Co								
	Cyanide 720	mg/l								

Lab Comments:

GW-54 REV. 6[illegible] For Dissolved Analysis - submit filtered sample and write "DIS" in block.

EHNR/DEM LABORATORY
VOLATILE ANALYTICAL REPORT

LAB NO. 5G1766

REPORTED BY MS
CHECKED BY DJB
REVIEWED BY ALC

SUPERVISOR REK
DATE 11/29/95

RELEASED BY
DATE

SAMPLE TYPE: WATER

ANALYSIS RESULTS

CAS#	VOA TARGET COMPOUND	TQL ug/L	DETECTED ug/L	CAS#	VOA TARGET COMPOUND	TQL ug/L	DETECTED ug/L
75-35-4	1,1-Dichloroethene	0.75	U	96-18-4	1,2,3-Trichloropropane	0.25	U
75-09-2	Methylene Chloride	10	U	108-86-1	Bromobenzene	1	U
156-60-5	trans-1,2-Dichloroethene	0.75	U	95-49-8	2-Chlorotoluene	0.25	U
75-34-3	1,1-Dichloroethane	0.25	U	106-43-4	4-Chlorotoluene	0.25	U
590-20-7	2,2-Dichloropropane	0.25	U	541-73-1	1,3-Dichlorobenzene	0.25	U
156-59-4	cis-1,2-Dichloroethene	0.25	U	106-46-7	1,4-Dichlorobenzene	0.25	U
67-66-3	Chloroform	0.25	U	95-50-1	1,2-Dichlorobenzene	0.25	U
74-97-5	Bromochloromethane	0.75	U	96-12-8	1,2-Dibromo-3-Chloropropane	1	U
71-55-6	1,1,1-Trichloroethane	0.25	U	120-82-1	1,2,4-Trichlorobenzene	0.25	U
563-58-6	1,1-Dichloropropene	0.25	U	87-68-3	Hexachlorobutadiene	0.25	U
56-23-5	Carbon Tetrachloride	0.75	U	87-61-6	1,2,3-Trichlorobenzene	0.75	U
107-06-2	1,2-Dichloroethane	0.25	0.28	1634-04-4	Methyl-tert-butyl ether	5	U
79-01-6	Trichloroethene	0.25	U	71-43-2	Benzene	1	U
78-87-5	1,2-Dichloropropane	0.25	U	108-88-3	Toluene	1	U
75-27-4	Bromodichloromethane	0.25	U	100-41-4	Ethyl benzene	1	U
74-95-3	Dibromomethane	1	U	108-38-3	m,p-Xylenes	2	U
10061-01-5	cis-1,3-Dichloropropene	0.25	U	95-47-6	o-Xylene	1	U
10061-02-6	trans-1,3-Dichloropropene	0.25	U	100-42-5	Styrene	1	U
79-00-5	1,1,2-Trichloroethane	0.25	U	98-82-8	Isopropylbenzene	1	U
127-18-4	Tetrachloroethene	0.25	U	103-65-1	n-Propylbenzene	1	U
142-28-9	1,3-Dichloropropane	0.25	U	108-67-8	1,3,5-Trimethylbenzene	1	U
124-48-1	Dibromochloromethane	0.75	U	98-06-6	tert-Butylbenzene	1	U
106-93-4	1,2-Dibromoethane	1	U	95-63-6	1,2,4-Trimethylbenzene	1	U
108-90-7	Chlorobenzene	0.25	U	135-98-8	sec-Butylbenzene	1	U
630-20-6	1,1,1,2-Tetrachloroethane	0.25	U	99-87-6	p-isopropyltoluene	1	U
75-25-2	Bromoform	0.5	U	104-51-8	n-Butylbenzene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	0.75	U	91-20-3	Naphthalene	1	U

	mg/L	mg/L
Gasoline Range Estimated Total Petroleum Hydrocarbon	0.25	N

TQL- Target Quantitation Limit- Subject to change due to instrument sensitivity
T- Tentatively Identified, not confirmed
E- Estimated Value
U- Samples analyzed for this compound but not detected
N- Sample not analyzed for this compound
D- Detected below quantitation limit
M- GC/MS Analysis performed

Other purgeables detected (up to 10 highest peaks) — Detected ug/L

NO VOLATILE ORGANIC COMPOUNDS DETECTED BY GC/PID.

COMMENTS:

GROUNDWATER FIELD/LAB FORM

CHAIN OF CUSTODY

North Carolina
Department of Environment, Health, and Natural Resources
DIVISION OF ENVIRONMENTAL MANAGEMENT - GROUNDWATER SECTION

County: Gaston
Quad No: R680-3a Serial No.:
Lat. 35°12' 22" Long. 81° 04' 36"

SAMPLE PRIORITY

[X] ROUTINE [ ] EMERGENCY
[X] CHAIN OF CUSTODY

Lab Number: 5G 1765
Date Received: 10/13/95 Time: 8:45
Rec'd by: DS From: Bus, Courier, Hand Del.,
Other:
Data Entry By: JM Ck: DS
Date Reported: 10/23/95

Report To: ARO, FRO, MRO, RRO, WaRO, WiRO, WSRO, Kinston FO, Fed. Trust, Central Off., Other:
Shipped by: Bus, Courier, Hand Del., Other:
Collector(s): Connell Date: 10-12-95 Time: 2:05 pm

Purpose: Baseline, Complaint, Compliance, LUST, Pesticide Study, Federal Trust, Other: Pollution Monitoring GW Inc # 9277
(circle one)

FIELD ANALYSES

pH_{400} 5.5-6.0 Spec. Cond.$_{94}$ 80 umhos at 25° C
Temp.$_{10}$ 20 °C Odor none
Appearance clear
Field Analysis By: Connell

Owner: Buchanan
Location or site: 112 Springwood Drive, Belmont NC 28012
Description of sampling point:
Sampling Method: Pump (Pump, bailer, etc.) Sample Interval: unknown
Remarks: Pumping time = 10 mins (pumping time, air temp, etc.)

LABORATORY ANALYSES

	BOD, 310	mg/l		Diss. Solids 70300	mg/l		Ag - Silver 46566	ug/l		Organochlorine Pesticides
	COD High 340	mg/l		Flouride 951	mg/l		Al - Aluminum 46557	ug/l		Organophosphorus Pesticides
	COD Low 335	mg/l		Hardness: Total 900	mg/l		As - Arsenic 46551	ug/l		Nitrogen Pesticides
	Coliform: MF Fecal 31616	/100ml		Hardness (non-carb) 902	mg/l		Ba - Barium 46558	ug/l		
	Coliform: MF Total 31504	/100ml		Phenols 32730	ug/l		Ca - Calcium 46552	mg/l		Acid Herbicides
	TOC 680	mg/l		Specific Cond. 95	uMhos/cm²		Cd - Cadmium 46559	ug/l		
	Turbidity 76	NTU		Sulfate 945	mg/l		Cr - Chromium 46560	ug/l		Semivolatile Organics
	Residue., Suspended 530	mg/l		Sulfide 745	mg/l		Cu - Copper 46562	ug/l		
							Fe - Iron 46563	ug/l		
							Hg - Mercury 71900	ug/l	X	Volatile Organics (VOA bottle)
	pH 403	units					K - Potassium 46555	mg/l		
	Alkalinity to pH 4.5 410	mg/l					Mg - Magnesium 46554	mg/l		TPH - Gasoline Range
	Alkalinity to pH 8.3 415	mg/l					Mn - Manganese 46565	ug/l		TPH - BTEX Gasoline Range
	Carbonate 445	mg/l		NH_3 as N 610	mg/l		Na - Sodium 46556	mg/l		
	Bicarbonate 440	mg/l		TKN as N 625	mg/l		Ni - Nickel	ug/l		N.C. DEPT. OF ENVIRONMENT, HEALTH, & NATURAL RESOURCES
	Carbon dioxide 405	mg/l		NO_2 + NO_3 as N 630	mg/l		Pb - Lead 46564	ug/l		
	Chloride 940	mg/l		P: Total as P 665	mg/l		Se - Selenium	ug/l		
	Chromium: Hex 1032	ug/l					Zn - Zinc 46567	ug/l		
	Color: True 80	Pt-Co								OCT 25 1995
	Cyanide 720	mg/l								

Lab Comments:

DIVISION OF ENVIRONMENTAL MANAGEMENT
MOORESVILLE REGIONAL OFFICE

GW-54 REV. 6/93 For Dissolved Analysis - submit filtered sample and write "DIS" in block.

EHNR/DEM LABORATORY
VOLATILE ANALYTICAL REPORT

LAB NO. 5G1765

REPORTED BY DJB
CHECKED BY
REVIEWED BY

SUPERVISOR RCK
DATE 10/20/95
ENTERED BY
CHECKED BY

SAMPLE TYPE: WATER

ANALYSIS RESULTS

CAS#	VOA TARGET COMPOUND	TQL ug/L	DETECTED ug/L	CAS#	VOA TARGET COMPOUND	TQL ug/L	DETECTED ug/L
75-35-4	1,1-Dichloroethene	0.75	U	96-18-4	1,2,3-Trichloropropane	0.25	U
75-09-2	Methylene Chloride	10	U	108-86-1	Bromobenzene	1	U
156-60-5	trans-1,2-Dichloroethene	0.75	U	95-49-8	2-Chlorotoluene	0.25	U
75-34-3	1,1-Dichloroethane	0.25	U	106-43-4	4-Chlorotoluene	0.25	U
590-20-7	2,2-Dichloropropane	0.25	U	541-73-1	1,3-Dichlorobenzene	0.25	U
156-59-4	cis-1,2-Dichloroethene	0.25	U	106-46-7	1,4-Dichlorobenzene	0.25	U
67-66-3	Chloroform	0.25	U	95-50-1	1,2-Dichlorobenzene	0.25	U
74-97-5	Bromochloromethane	0.75	U	96-12-8	1,2-Dibromo-3-Chloropropane	1	U
71-55-6	1,1,1-Trichloroethane	0.25	U	120-82-1	1,2,4-Trichlorobenzene	0.25	U
563-58-6	1,1-Dichloropropene	0.25	U	87-68-3	Hexachlorobutadiene	0.25	U
56-23-5	Carbon Tetrachloride	0.75	U	87-61-6	1,2,3-Trichlorobenzene	0.75	U
107-06-2	1,2-Dichloroethane	0.25	U	1634-04-4	Methyl-tert-butyl ether	5	U
79-01-6	Trichloroethene	0.25	U	71-43-2	Benzene	1	U
78-87-5	1,2-Dichloropropane	0.25	U	108-88-3	Toluene	1	U
75-27-4	Bromodichloromethane	0.25	U	100-41-4	Ethyl benzene	1	U
74-95-3	Dibromomethane	1	U	108-38-3	m,p-Xylenes	2	U
10061-01-5	cis-1,3-Dichloropropene	0.25	U	95-47-6	o-Xylene	1	U
10061-02-6	trans-1,3-Dichloropropene	0.25	U	100-42-5	Styrene	1	U
79-00-5	1,1,2-Trichloroethane	0.25	U	98-82-8	Isopropylbenzene	1	U
127-18-4	Tetrachloroethene	0.25	U	103-65-1	n-Propylbenzene	1	U
142-28-9	1,3-Dichloropropane	0.25	U	108-67-8	1,3,5,Trimethylbenzene	1	U
124-48-1	Dibromochloromethane	0.75	U	98-06-6	tert-Butylbenzene	1	U
106-93-4	1,2-Dibromoethane	1	U	95-63-6	1,2,4-Trimethylbenzene	1	U
108-90-7	Chlorobenzene	0.25	U	135-98-8	sec-Butylbenzene	1	U
630-20-6	1,1,1,2-Tetrachloroethane	0,25	U	99-87-6	p-isopropyltoluene	1	U
75-25-2	Bromoform	0.5	U	104-51-8	n-Butylbenzene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	0.75	U	91-20-3	Naphthalene	1	U

TQL- Target Quantitation Limit- Subject to change due to instrument sensitivity
T- Tentatively Identified, not confirmed
E- Estimated Value
U- Samples analyzed for this compound but not detected
N- Sample not analyzed for this compound
D- Detected below quantitation limit
M- GC/MS Analysis performed

Other purgeables detected (up to 10 highest peaks)	Detected ug/L
NO VOLATILE ORGANIC COMPOUNDS	
DETECTED BY GC/ELCD/PID.	

COMMENTS:

N.C. DEPT. OF ENVIRONMENT, HEALTH, & NATURAL RESOURCES

DEC 11 1995

DIVISION OF ENVIRONMENTAL MANAGEMENT
MOORESVILLE REGIONAL OFFICE

DIVISION OF ENVIRONMENTAL MANAGEMENT

Chemistry Laboratory Report / Ground Water Quality

Lab Number :	5G1764
Date Received :	10/13/95
Time Received :	8:45 AM
Received By :	DS
Released By :	TMM
Date reported :	12/4/95

COUNTY : GASTON
QUAD NO:

REPORT TO : MRO Regional Office
COLLECTOR(S) : CONNELL
DATE: 10/12/95
TIME:
PURPOSE:

SAMPLE PRIORITY
[X] ROUTINE [ ] EMERGENCY
[X] CHAIN OF CUSTODY
[W] SAMPLE TYPE

Owner: EASON RES.
Location or Site:
Description of sampling point
Sampling Method:
Remarks:

LABORATORY ANALYSIS

	BOD 310	mg/L		Diss. Solids 70300	mg/L		Ag-Silver 46566	ug/L		Organochlorine Pesticides
	COD High 340	mg/L		Fluoride 951	mg/L		Al-Aluminum 46557	ug/L		Organophosphorus Pesticides
	COD Low 335	mg/L		Hardness: total 900	mg/L		As-Arsenic 46551	ug/L		Nitrogen Pesticides
	Coliform: MF Fecal 31616	/100ml		Hardness: (non-carb) 902	mg/L		Ba-Barium 46558	ug/L		
	Coliform: MF Total 31504	/100ml		Phenols 32730	ug/L		Ca-Calcium 46552	ug/L		Acid Herbicides
	TOC	mg/l		Specific Cond. 95	uMhos/cm2		Cd-Cadium 46559	ug/L		
	Turbitity	NTU		Sulfate	mg/L		Cr-Chromium 46560	ug/L		Semivolatiles
	Residue., Suspended 530	mg/L		Sulfide 745	mg/L		Cu- Copper 1042	ug/L		TPH-Diesel Range
	Total Suspended solids	mg/L		MBAS	mg/L		Fe- Iron 1045	ug/L		
				Oil and Grease	mg/L		Hg- Mercury 71900	ug/L	X	Volatile Organics (VOA bottle)
	pH	units		Silica	mg/L		K-Potassium 46555	ug/L		
	Alkalinity to pH 4.5	mg/L		Boron			Mg- Magnesium 927	ug/L		TPH-Gasoline Range
	Alkalinity to pH 8.3	mg/L					Mn-Manganese 1055	ug/L		TPH-BTEX Gasoline Range
	Carbonate	mg/L		NH3 as N 610	mg/L		Na- Sodium 929	ug/L		
	Bicarbonate	mg/L		TKN as N 625	mg/L		Ni-Nickel	ug/L		
	Carbon dioxide	mg/L		NO2 +NO3 as n 630	mg/L		Pb-Lead 46564	ug/L		
	Chloride	mg/L		P: Total as P 665	mg/L		Se-Selenium	ug/L		
	Chromium: Hex 1032	ug/L		PO4	mg/L		Zn_Zinc 46567	ug/L		
	Color: True 80	c.u.								
	Cyanide 720	mg/L								

COMMENTS :

Fieldsheet Redistributed - 12/7/95 - TMM

5G1764.OCT

GROUNDWATER FIELD/LAB FORM

CHAIN OF CUSTODY

North Carolina
Department of Environment, Health, and Natural Resources
DIVISION OF ENVIRONMENTAL MANAGEMENT - GROUNDWATER SECTION

County: Gaston
Quad No. R480-36 Serial No.
Lat. 35° 12' 20" Long. 81° 04' 34"

SAMPLE PRIORITY

[X] ROUTINE [ ] EMERGENCY
[X] CHAIN OF CUSTODY

Lab Number: 5G 1764
Date Received: 10/13/95 Time: 8:45
Rec'd by: DS From: Bus, Courier, Hand Del.,
Other:
Data Entry By: DS Ck: / Tm
Date Reported: 11/29/95

Report To: ARO, FRO, MRO, RRO, WaRO, WiRO, WSRO, Kinston FO, Fed. Trust, Central Off., Other:
Shipped by: Bus, Courier, Hand Del., Other:
Collector(s): Connell Date 10.12.95 Time 1:55 pm
Purpose: Baseline, Complaint, Compliance, LUST, Pesticide Study, Federal Trust, Other: Pollution Monitoring GW Inc # 9717 (circle one)

FIELD ANALYSES

pH_{400} 5.5-6.0 Spec. Cond.$_{94}$ 120 umhos at 25° C
Temp.$_{10}$ 20 °C Odor none
Appearance clear
Field Analysis By: Connell

Owner: Easons
Location or site: 121 Springwood Drive, Belmont NC 28012
Description of sampling point:
Sampling Method: Pump (Pump, bailer, etc.) Sample Interval: unknown
Remarks: PUMPING TIME = 2mins - But well had been running to wash the car. (pumping time, air temp, etc.)

LABORATORY ANALYSES

	BOD, 310	mg/l		Diss. Solids 70300	mg/l		Ag - Silver 46566	ug/l		Organochlorine Pesticides
	COD High 340	mg/l		Flouride 951	mg/l		Al - Aluminum 46557	ug/l		Organophosphorus Pesticides
	COD Low 335	mg/l		Hardness: Total 900	mg/l		As - Arsenic 46551	ug/l		Nitrogen Pesticides
	Coliform: MF Fecal 31616	/100ml		Hardness (non-carb) 902	mg/l		Ba - Barium 46558	ug/l		
	Coliform: MF Total 31504	/100ml		Phenols 32730	ug/l		Ca - Calcium 46552	mg/l		Acid Herbicides
	TOC 680	mg/l		Specific Cond. 95	uMhos/cm²		Cd - Cadmium 46559	ug/l		
	Turbidity 76	NTU		Sulfate 945	mg/l		Cr - Chromium 46560	ug/l		Semivolatile Organics
	Residue., Suspended 530	mg/l		Sulfide 745	mg/l		Cu - Copper 46562	ug/l		
							Fe - Iron 46563	ug/l		
							Hg - Mercury 71900	ug/l	X	Volatile Organics (VOA bottle)
	pH 403	units					K - Potassium 46555	mg/l		
	Alkalinity to pH 4.5 410	mg/l					Mg - Magnesium 46554	mg/l		TPH - Gasoline Range
	Alkalinity to pH 8.3 415	mg/l					Mn - Manganese 46565	ug/l		TPH - BTEX Gasoline Range
	Carbonate 445	mg/l		NH_3 as N 610	mg/l		Na - Sodium 46556	mg/l		
	Bicarbonate 440	mg/l		TKN as N 625	mg/l		Ni - Nickel	ug/l		
	Carbon dioxide 405	mg/l		NO_2 + NO_3 as N 630	mg/l		Pb - Lead 46564	ug/l		
	Chloride 940	mg/l		P: Total as P 665	mg/l		Se - Selenium	ug/l		
	Chromium: Hex 1032	ug/l					Zn - Zinc 46567	ug/l		
	Color: True 80	Pt-Co								
	Cyanide 720	mg/l								

Lab Comments:

GW-54 REV. 6/93 For Dissolved Analysis - submit filtered sample and write "DIS" in block.

EHNR/DEM LABORATORY
VOLATILE ANALYTICAL REPORT

LAB NO. 5G1764

REPORTED BY MS
CHECKED BY DJB/DSB
REVIEWED BY ALC

SUPERVISOR REK
DATE 11/29/95
RELEASED BY
DATE 11/29/95

SAMPLE TYPE: WATER

ANALYSIS RESULTS

CAS#	VOA TARGET COMPOUND	TQL ug/L	DETECTED ug/L		CAS#	VOA TARGET COMPOUND	TQL ug/L	DETECTED ug/L	
75-35-4	1,1-Dichloroethene	0.75		U	96-18-4	1,2,3-Trichloropropane	0.25		U
75-09-2	Methylene Chloride	10		U	108-86-1	Bromobenzene	1		U
156-60-5	trans-1,2-Dichloroethene	0.75		U	95-49-8	2-Chlorotoluene	0.25		U
75-34-3	1,1-Dichloroethane	0.25		U	106-43-4	4-Chlorotoluene	0.25		U
590-20-7	2,2-Dichloropropane	0.25		U	541-73-1	1,3-Dichlorobenzene	0.25		U
156-59-4	cis-1,2-Dichloroethene	0.25		U	106-46-7	1,4-Dichlorobenzene	0.25		U
67-66-3	Chloroform	0.25		U	95-50-1	1,2-Dichlorobenzene	0.25		U
74-97-5	Bromochloromethane	0.75		U	96-12-8	1,2-Dibromo-3-Chloropropane	1		U
71-55-6	1,1,1-Trichloroethane	0.25	0.30		120-82-1	1,2,4-Trichlorobenzene	0.25		U
563-58-6	1,1-Dichloropropene	0.25		U	87-68-3	Hexachlorobutadiene	0.25		U
56-23-5	Carbon Tetrachloride	0.75		U	87-61-6	1,2,3-Trichlorobenzene	0.75		U
107-06-2	1,2-Dichloroethane	0.25		U	1634-04-4	Methyl-tert-butyl ether	5		U
79-01-6	Trichloroethene	0.25		U	71-43-2	Benzene	1		U
78-87-5	1,2-Dichloropropane	0.25		U	108-88-3	Toluene	1		U
75-27-4	Bromodichloromethane	0.25		U	100-41-4	Ethyl benzene	1		U
74-95-3	Dibromomethane	1		U	108-38-3	m,p-Xylenes	2		U
10061-01-5	cis-1,3-Dichloropropene	0.25		U	95-47-6	o-Xylene	1		U
10061-02-6	trans-1,3-Dichloropropene	0.25		U	100-42-5	Styrene	1		U
79-00-5	1,1,2-Trichloroethane	0.25		U	98-82-8	Isopropylbenzene	1		U
127-18-4	Tetrachloroethene	0.25		U	103-65-1	n-Propylbenzene	1		U
142-28-9	1,3-Dichloropropane	0.25		U	108-67-8	1,3,5-Trimethylbenzene	1		U
124-48-1	Dibromochloromethane	0.75		U	98-06-6	tert-Butylbenzene	1		U
106-93-4	1,2-Dibromoethane	1		U	95-63-6	1,2,4-Trimethylbenzene	1		U
108-90-7	Chlorobenzene	0.25		U	135-98-8	sec-Butylbenzene	1		U
630-20-6	1,1,1,2-Tetrachloroethane	0.25		U	99-87-6	p-isopropyltoluene	1		U
75-25-2	Bromoform	0.5		U	104-51-8	n-Butylbenzene	1		U
79-34-5	1,1,2,2-Tetrachloroethane	0.75		U	91-20-3	Naphthalene	1		U

	mg/L	mg/L	
Gasoline Range Estimated Total Petroleum Hydrocarbon	0.25		N

Other purgeables detected (up to 10 highest peaks)	Detected ug/L
NO VOLATILE ORGANIC COMPOUNDS DETECTED BY GC/PID.	

TQL- Target Quantitation Limit- Subject to change due to instrument sensitivity
T- Tentatively Identified, not confirmed
E- Estimated Value
U- Samples analyzed for this compound but not detected
N- Sample not analyzed for this compound
D- Detected below quantitation limit
M- GC/MS Analysis performed

COMMENTS:

N.C. DEPT. OF ENVIRONMENT, HEALTH, & NATURAL RESOURCES

DIVISION OF ENVIRONMENTAL MANAGEMENT

Chemistry Laboratory Report / Ground Water Quality

DEC 11 1995

DIVISION OF ENVIRONMENTAL MANAGEMENT
MOORESVILLE REGIONAL OFFICE

Lab Number : 5G1763
Date Received : 10/13/95
Time Received : 8:45 AM
Received By : DS

Released By : Tm
Date reported : 12/4/95

COUNTY : GASTON
QUAD NO:

REPORT TO : MRO Regional Office
COLLECTOR(S) : CONNELL
DATE: 10/12/95
TIME:
PURPOSE:

SAMPLE PRIORITY
[X] ROUTINE [ ] EMERGENCY
[X] CHAIN OF CUSTODY
[W] SAMPLE TYPE

Owner: OWNER UNKNOWN
Location or Site:
Description of sampling point
Sampling Method:
Remarks:

LABORATORY ANALYSIS

	BOD 310	mg/L		Diss. Solids 70300	mg/L		Ag-Silver 46566	ug/L		Organochlorine Pesticides
	COD High 340	mg/L		Fluoride 951	mg/L		Al-Aluminum 46557	ug/L		Organophosphorus Pesticides
	COD Low 335	mg/L		Hardness: total 900	mg/L		As-Arsenic 46551	ug/L		Nitrogen Pesticides
	Coliform: MF Fecal 31616	/100ml		Hardness: (non-carb) 902	mg/L		Ba-Barium 46558	ug/L		
	Coliform: MF Total 31504	/100ml		Phenols 32730	ug/L		Ca-Calcium 46552	ug/L		Acid Herbicides
	TOC	mg/l		Specific Cond. 95	uMhos/cm2		Cd-Cadium 46559	ug/L		
	Turbitity	NTU		Sulfate	mg/L		Cr-Chromium 46560	ug/L		Semivolatiles
	Residue., Suspended 530	mg/L		Sulfide 745	mg/L		Cu- Copper 1042	ug/L		TPH-Diesel Range
	Total Suspended solids	mg/L		MBAS	mg/L		Fe- Iron 1045	ug/L		
				Oil and Grease	mg/L		Hg- Mercury 71900	ug/L	X	Volatile Organics (VOA bottle)
	pH	units		Silica	mg/L		K-Potassium 46555	ug/L		
	Alkalinity to pH 4.5	mg/L		Boron			Mg- Magnesium 927	ug/L		TPH-Gasoline Range
	Alkalinity to pH 8.3	mg/L					Mn-Manganese 1055	ug/L		TPH-BTEX Gasoline Range
	Carbonate	mg/L		NH3 as N 610	mg/L		Na- Sodium 929	ug/L		
	Bicarbonate	mg/L		TKN as N 625	mg/L		Ni-Nickel	ug/L		
	Carbon dioxide	mg/L		NO2 +NO3 as n 630	mg/L		Pb-Lead 46564	ug/L		
	Chloride	mg/L		P: Total as P 665	mg/L		Se-Selenium	ug/L		
	Chromium: Hex 1032	ug/L		PO4	mg/L		Zn_Zinc 46567	ug/L		
	Color: True 80	c.u.								
	Cyanide 720	mg/L								

COMMENTS:

Fieldsheet Redistributed - 12/7/95 - Tm

5G1763.OCT

GROUNDWATER FIELD/LAB FORM

CHAIN OF CUSTODY

North Carolina
Department of Environment, Health, and Natural Resources
DIVISION OF ENVIRONMENTAL MANAGEMENT - GROUNDWATER SECTION

County: Gaston
Quad No. R680.35 Serial No.
Lat. 35°12'21" Long. 81°04'33"

SAMPLE PRIORITY

[X] ROUTINE [ ] EMERGENCY
[X] CHAIN OF CUSTODY

Lab Number: 5G 1763
Date Received: 10/13/95 Time: 8:45
Rec'd by: DS From: Bus, Courier, Hand Del.,
Other:
Data Entry By: DS Ck: /Thu
Date Reported: 11/29/95

Report To: ARO, FRO, MRO, RRO, WaRO, WiRO, WSRO, Kinston FO, Fed. Trust, Central Off., Other:
Shipped by: Bus, Courier, Hand Del., Other:
Collector(s): Connell Date 10.12.95 Time 1:42 pm

Purpose: Baseline, Complaint, Compliance, LUST, Pesticide Study, Federal Trust, Other: Pollution Monitoring GW Inc #9217
(circle one)

FIELD ANALYSES

pH_{400} _____ Spec. Cond.$_{94}$ _____ at 25° C
Temp.$_{10}$ _____ °C Odor none
Appearance clear
Field Analysis By: Connell

Owner Unknown
Location or site house between 105 Springwood Dr and 121 Springwood Drive
Description of sampling point hose bibb on front
Sampling Method Pump (Pump, bailer, etc.) Sample Interval
Remarks Pumping time ≈ 10 mins (pumping time, air temp, etc.)

LABORATORY ANALYSES

	BOD, 310	mg/l		Diss. Solids 70300	mg/l		Ag - Silver 46566	ug/l		Organochlorine Pesticides
	COD High 340	mg/l		Flouride 951	mg/l		Al - Aluminum 46557	ug/l		Organophosphorus Pesticides
	COD Low 335	mg/l		Hardness: Total 900	mg/l		As - Arsenic 46551	ug/l		Nitrogen Pesticides
	Coliform: MF Fecal 31616	/100ml		Hardness (non-carb) 902	mg/l		Ba - Barium 46558	ug/l		
	Coliform: MF Total 31504	/100ml		Phenols 32730	ug/l		Ca - Calcium 46552	mg/l		Acid Herbicides
	TOC 680	mg/l		Specific Cond. 95	uMhos/cm²		Cd - Cadmium 46559	ug/l		
	Turbidity 76	NTU		Sulfate 945	mg/l		Cr - Chromium 46560	ug/l		Semivolatile Organics
	Residue., Suspended 530	mg/l		Sulfide 745	mg/l		Cu - Copper 46562	ug/l		
							Fe - Iron 46563	ug/l		
							Hg - Mercury 71900	ug/l	X	Volatile Organics (VOA bottle)
	pH 403	units					K - Potassium 46555	mg/l		
	Alkalinity to pH 4.5 410	mg/l					Mg - Magnesium 46554	mg/l		TPH - Gasoline Range
	Alkalinity to pH 8.3 415	mg/l					Mn - Manganese 46565	ug/l		TPH - BTEX Gasoline Range
	Carbonate 445	mg/l		NH_3 as N 610	mg/l		Na - Sodium 46556	mg/l		
	Bicarbonate 440	mg/l		TKN as N 625	mg/l		Ni - Nickel	ug/l		
	Carbon dioxide 405	mg/l		NO_2 + NO_3 as N 630	mg/l		Pb - Lead 46564	ug/l		
	Chloride 940	mg/l		P: Total as P 665	mg/l		Se - Selenium	ug/l		
	Chromium: Hex 1032	ug/l					Zn - Zinc 46567	ug/l		
	Color: True 80	Pt-Co								
	Cyanide 720	mg/l								

Lab Comments:

GW-54 REV. 6/93 For Dissolved Analysis - submit filtered sample and write "DIS" in block.

EHNR/DEM LABORATORY
VOLATILE ANALYTICAL REPORT

LAB NO. 5G1763

REPORTED BY MS
CHECKED BY DJB/DSB
REVIEWED BY ALC

SUPERVISOR RSK
DATE 11/29/95
RELEASED BY
DATE 11/29/95

SAMPLE TYPE: WATER

ANALYSIS RESULTS

CAS#	VOA TARGET COMPOUND	TQL ug/L	DETECTED ug/L		CAS#	VOA TARGET COMPOUND	TQL ug/L	DETECTED ug/L	
75-35-4	1,1-Dichloroethene	0.75		U	96-18-4	1,2,3-Trichloropropane	0.25		U
75-09-2	Methylene Chloride	10		U	108-86-1	Bromobenzene	1		U
156-60-5	trans-1,2-Dichloroethene	0.75		U	95-49-8	2-Chlorotoluene	0.25		U
75-34-3	1,1-Dichloroethane	0.25		U	106-43-4	4-Chlorotoluene	0.25		U
590-20-7	2,2-Dichloropropane	0.25		U	541-73-1	1,3-Dichlorobenzene	0.25		U
156-59-4	cis-1,2-Dichloroethene	0.25		U	106-46-7	1,4-Dichlorobenzene	0.25		U
67-66-3	Chloroform	0.25		U	95-50-1	1,2-Dichlorobenzene	0.25		U
74-97-5	Bromochloromethane	0.75		U	96-12-8	1,2-Dibromo-3-Chloropropane	1		U
71-55-6	1,1,1-Trichloroethane	0.25	2.0		120-82-1	1,2,4-Trichlorobenzene	0.25		U
563-58-6	1,1-Dichloropropene	0.25		U	87-68-3	Hexachlorobutadiene	0.25		U
56-23-5	Carbon Tetrachloride	0.75		U	87-61-6	1,2,3-Trichlorobenzene	0.75		U
107-06-2	1,2-Dichloroethane	0.25		U	1634-04-4	Methyl-tert-butyl ether	5		U
79-01-6	Trichloroethene	0.25		U	71-43-2	Benzene	1		U
78-87-5	1,2-Dichloropropane	0.25		U	108-88-3	Toluene	1		U
75-27-4	Bromodichloromethane	0.25		U	100-41-4	Ethyl benzene	1		U
74-95-3	Dibromomethane	1		U	108-38-3	m,p-Xylenes	2		U
10061-01-5	cis-1,3-Dichloropropene	0.25		U	95-47-6	o-Xylene	1		U
10061-02-6	trans-1,3-Dichloropropene	0.25		U	100-42-5	Styrene	1		U
79-00-5	1,1,2-Trichloroethane	0.25		U	98-82-8	Isopropylbenzene	1		U
127-18-4	Tetrachloroethene	0.25		U	103-65-1	n-Propylbenzene	1		U
142-28-9	1,3-Dichloropropane	0.25		U	108-67-8	1,3,5-Trimethylbenzene	1		U
124-48-1	Dibromochloromethane	0.75		U	98-06-6	tert-Butylbenzene	1		U
106-93-4	1,2-Dibromoethane	1		U	95-63-6	1,2,4-Trimethylbenzene	1		U
108-90-7	Chlorobenzene	0.25		U	135-98-8	sec-Butylbenzene	1		U
630-20-6	1,1,1,2-Tetrachloroethane	0.25		U	99-87-6	p-Isopropyltoluene	1		U
75-25-2	Bromoform	0.5		U	104-51-8	n-Butylbenzene	1		U
79-34-5	1,1,2,2-Tetrachloroethane	0.75		U	91-20-3	Naphthalene	1		U

	mg/L	mg/L	
Gasoline Range Estimated Total Petroleum Hydrocarbon	0.25		N

Other purgeables detected (up to 10 highest peaks) — Detected ug/L

NO VOLATILE ORGANIC COMPOUNDS DETECTED BY GC/PID.

TQL- Target Quantitation Limit- Subject to change due to instrument sensitivity
T- Tentatively Identified, not confirmed
E- Estimated Value
U- Samples analyzed for this compound but not detected
N- Sample not analyzed for this compound
D- Detected below quantitation limit
M- GC/MS Analysis performed

COMMENTS:

TOOMEY SITE CORRESPONDENCE SUMMARY 11/21/95

1/21/93 T C Deroller for M Dunway (GCHD) INFO ON SPRINGWOOD

1/22/93 D THOMPSON CHRONOLOGY OF SITE (SPRINGWOOD GASOLINE)

10/21/92 — 1/14/93

2/12/93 DEM POLLUTION INCIDENT / UST LEAK REPORTING FORM (C Deroller)

" NC GW CONTAMIN. INCIDENT MGT. SITE PRIORITY RANKING ~~INCIDENT~~ SYSTEM

(TOOMEY RESIDENCE)

3/10/93 FIELD NOTES TOOMEY PROPERTY

3/11/93 SOIL SAMPLE AT TOOMEY PROPERTY

3/26/93 NOV. 1) UNLAWFUL DISCHARGE

2) NO REMOVAL

3) NO NOTIFICATION

4/28/93 TRANSMITTAL TO GAIL SCOGGIN — EPA FROM C Deroller

5/17/93 OHM REMOVAL ESTIMATE

6/9/93 FOUR SEASONS REMOVAL ESTIMATE

" (R L MARTIN RESIDENTIAL NO CONTAM)

" (M HILL LL II TCA IN WELL)

6/21/93 SADIE TOOMEY — EXPENSE BUDGET (HAND WRITTEN)

3/22/94 SAMPLE TOOMEY DRIVE CO WELL IN MT HOLLY

5/2/94 REPORT ON TDCW RESULTS 1.7 PCE ppb

6/9/94 Denton → Mooberry HIGH PRIORITY NON CONT SITES

9/23/94 COMPLAINT FORM: WELL (BRADFORD) WATER HAS SHEEN — NEAR STONEWALL LAND APPLIC

9/27/94 SAMPLED: M BRADFORD WELL CONT. 1.3 ppb 11 DCA. NO SEMI TESTING

12/29/94 " " " " 1.7 ppb 11 DCA NO SEMI'S DETECTED

(FIGS 12-15, 19 — MAPS OF PCE & SOLVENT SPILLS)

4/28/95 MULTIPLE WELL G.M.A. INC. SAMPLE RES. GILLILANDS PLACE, CUMBERLAND (NEW TOOMEY S.T.)

10/5/95 DEM SAMPLE RES: PROPER WELL 208 PARKTERR. PCE 36.7 ppb

10/16/95 NOV W/ ATTACHED GMA TABLE, TOOMEY RESIDENCE. NOTED (116 ppb "PRE POE SYSTEM" PCE)

10/31/95 K Connell → P Denosa — REQ TO EVAL CERCLA JURISDICTION

State of North Carolina
Department of Environment,
Health and Natural Resources
Mooresville Regional Office

James B. Hunt, Jr., Governor
Jonathan B. Howes, Secretary

RECEIVED
NOV 01 1995
SUPERFUND SECTION

DEHNR

DIVISION OF ENVIRONMENTAL MANAGEMENT

October 31, 1995

MEMORANDUM

To: Pat DeRosa - Supervisor
N.C. Superfund Site Assessment Branch
Division of Solid Waste Management

From: Karen Connell KC
Hydrogeologist
Groundwater Section
Division of Environmental Management

Subject: Toomey Residence
1020 Hickory Grove Road
Gastonia, North Carolina 28056
Groundwater Incident #9817

I spoke with Jeanette Stanley last week regarding the contamination at the subject site. The site is a high priority site for the Groundwater Section due to the presence of contaminated water supply wells. In October 1992, a release from the underground storage tank (UST) system at Gilliland's Place, located across Hickory Grove Road from the Toomey site, was discovered. Point-of-entry filter systems or bottled water has been supplied to all residences in the area with supply wells that are contaminated by the release from the petroleum UST system. Many of these water supply wells also contain tetrachloroethene (PCE). The highest concentration of PCE, 188.5 ppb, has been detected in the water supply well on the property owned by Ms. Sadie Toomey.

On March 11, 1993 Chris DeRoller and I visited the Toomey property for the purpose of collecting soil samples. The soil sample analyses indicated the presence of tetrachlorobiphenyl, polychlorinated biphenyls, chlordane, dimethyl ethyl phenol, and numerous unidentified compounds on the semi-volatile analysis. The laboratory results for these samples and a map showing the sampling points are enclosed for your reference. A Notice of Violation (Oil Pollution and Hazardous Substances Control Act) was issued to Ms. Toomey on April 26, 1994. That Notice required that documentation showing that all drums and contaminated soil had been disposed of properly be submitted. A list of Ms. Toomey's expenses and cost estimates for removing the soil were submitted, but documentation that the contaminated soil had been removed was not submitted.

Resent sampling conducted by Groundwater Management Associates, on behalf of the party responsible for the petroleum release, indicated that the PCE contamination in the groundwater has migrated farther off-site, as a water supply well located at 208 Park Terrace contained 36.7 ppb PCE at the time of sampling. On October 16, 1995, the MRO issued a Notice of Violation to Ms. Toomey for the groundwater contamination originating from her property. That Notice required Ms. Toomey to provide alternate drinking water to the residence located at 208 Park Terrace, and to submit a site assessment report and a corrective action plan. In a telephone conversation with Ms. Toomey, who is 82 years old, she stated that she is not be financially able to perform the activities required by the Division. She is retired and receives social security benefits.

Ms. Toomey's husband, Grady Toomey and his brother, James Toomey, operated the business at the site until moving Toomey Drum Company to Route 1 Box 195, Mount Holly in Gaston County. That business is operated by Jim Toomey, James Toomey's son. Both Grady Toomey and James Toomey are deceased.

On March 22, 1994 staff of DEM sampled the water supply well at the Toomey Drum Company located in Mount Holly. Laboratory results from those samples indicated the presence of 1.7 ppb PCE in the water supply well.

Please review the information enclosed and determine if the N.C. Superfund Section can assume lead jurisdiction of this site. Also, please determine if the EPA might be able to supply alternate water to the affected residence. Additional water supply wells on Park Terrace and Springwood Drive have been sampled for VOCs. I will forward the laboratory results for those samples to you as soon as they are received. In addition, there have been some negotiations between the State Trust Fund, Gaston County, and the responsible party for the UST release regarding a water line. However, to my knowledge, the negotiations have not been successful.

Should have any questions, please call me at (704) 663-1699, ext. 243.

Enclosures

KWC

State of North Carolina
Department of Environment,
Health and Natural Resources
Mooresville Regional Office

James B. Hunt, Jr., Governor
Jonathan B. Howes, Secretary

DEHNR

DIVISION OF ENVIRONMENTAL MANAGEMENT

October 30, 1995

Residence
207 Park Terrace
Belmont, North Carolina 28012

RE: Well Water Sample Results
207 Park Terrace Well
Gaston County, N.C.

Dear Residents:

On October 12, 1995, staff from the Mooresville Regional Office of the North Carolina Division of Environmental Management sampled your well at 207 Park Terrace, Belmont in Gaston County. The samples were analyzed for volatile organic compounds. Volatile organic compounds include a wide range of manmade compounds including, but not limited to, gasoline components and chlorinated solvents used as degreasers.

Laboratory results from these samples indicate at the time of sampling that volatile organic compounds, which were tested for, were not present in your water supply.

Should you have any questions, please call me at (704) 663-1699, ext. 243.

Sincerely,

Karen Connell

Karen Connell
Hydrogeologist

Enclosure: Lab Results

cc: Gaston County Health Department

KWC/cf

919 North Main Street, Mooresville, North Carolina 28115 Telephone 704-663-1699 FAX 704-663-6040
An Equal Opportunity Affirmative Action Employer 50% recycled/ 10% post-consumer paper

State of North Carolina
Department of Environment,
Health and Natural Resources
Mooresville Regional Office

James B. Hunt, Jr., Governor
Jonathan B. Howes, Secretary

DEHNR

DIVISION OF ENVIRONMENTAL MANAGEMENT

October 30, 1995

Springwood Baptist Church
C/O Mr. Eason
121 Springwood Drive
Belmont, North Carolina 28012

RE: Well Water Sample Results
Springwood Baptist Church Well
Gaston County, N.C.

Dear Mr. Eason:

On October 12, 1995, staff from the Mooresville Regional Office of the North Carolina Division of Environmental Management sampled the well at the Springwood Baptist Church, Belmont in Gaston County. The samples were analyzed for volatile organic compounds. Volatile organic compounds include a wide range of manmade compounds including, but not limited to, gasoline components and chlorinated solvents used as degreasers.

Laboratory results from these samples indicate at the time of sampling that volatile organic compounds, which were tested for, were not present in your water supply except for chloroform which was present at a level of 0.41 ug/l. Chloroform is a common by-product of chlorination. It is frequently found in wells located in areas served by municipal water lines. The amount detected in your well is significantly below the EPA drinking water standard of 100 ug/l.

Should you have any questions, please call me at (704) 663-1699, ext. 243.

Sincerely,

Karen Connell

Karen Connell
Hydrogeologist

Enclosure: Lab Results

cc: Gaston County Health Department

KWC/cf

919 North Main Street, Mooresville, North Carolina 28115 Telephone 704-663-1699 FAX 704-663-6040
An Equal Opportunity Affirmative Action Employer 50% recycled/ 10% post-consumer paper

State of North Carolina
Department of Environment,
Health and Natural Resources
Mooresville Regional Office

James B. Hunt, Jr., Governor
Jonathan B. Howes, Secretary
Linda Diane Long, Regional Manager

DEHNR

DIVISION OF ENVIRONMENTAL MANAGEMENT

October 5, 1995

A.F. Propst
208 Park Terrace
Belmont, North Carolina 28012

RE: Well Water Sample Results
A.F. Propst Well
Gaston County, N.C.

Dear Mr. Propst:

The Groundwater Section of the Division of Environmental Management received the laboratory results for the samples collected from your water supply well (WSW-22) located at 208 Park Terrace, Belmont in Gaston County. The samples were collected on April 3, 1995 by staff of Groundwater Management Associates. The samples were analyzed for volatile organic compounds. Volatile organic compounds include a wide range of manmade compounds including, but not limited to, gasoline components and chlorinated solvents used as degreasers.

Laboratory results from these samples indicate at the time of sampling that one volatile organic compound was present in your water supply. A copy of the laboratory results is enclosed for your review. These results are:

COMPOUND	CONCENTRATION	EPA DRINKING WATER STANDARD*
tetrachloroethene	36.7	5

*Concentration in micrograms per liter (ug/l), which is also parts per billion (ppb).

919 North Main Street, Mooresville, North Carolina 28115 Telephone 704-663-1699 FAX 704-663-6040
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The level of tetrachloroethene detected in your water supply well at the time of sampling exceeds the EPA Drinking Water Standard of 5 parts per billion (ppb). I have forwarded a copy of the laboratory results to the State Toxicologist, and requested a written evaluation concerning health risks for human consumption. I will forward those comments to you as soon as they are received.

Should you have questions in the meantime, please call me at (704) 663-1699, ext. 243.

Sincerely,

Karen Connell

Karen Connell
Hydrogeologist

Enclosure: Lab Results

cc: Gaston County Health Department

KWC

State of North Carolina
Department of Environment,
Health and Natural Resources
Mooresville Regional Office

James B. Hunt, Jr., Governor
Jonathan B. Howes, Secretary
Linda Diane Long, Regional Manager

KWC

DEHNR

DIVISION OF ENVIRONMENTAL MANAGEMENT

August 18, 1995

Mr. & Mrs. Robert Hall
105 Springwood Drive
Belmont, North Carolina 28012

RE: Well Water Sample Results
Hall Well
Gaston County, N.C.

Dear Mr & Mrs. Hall:

On May 31, 1995, staff from the Mooresville Regional Office of the North Carolina Division of Environmental Management sampled your well at the above address. The samples were analyzed for volatile and semi-volatile organic compounds. Volatile organic compounds include a wide range of manmade compounds including, but not limited to, gasoline components and chlorinated solvents used as degreasers. Examples of semi-volatile compounds include some of the components of diesel, kerosene, and new and used motor oil.

Laboratory results from these samples indicate at the time of sampling that semi-volatile organic compounds, which were tested for, were not present in your water supply. 1,1,1-Trichloroethane was detected in your water supply at 7.8 parts per billion (ppb). The State Toxicologist has determined that this low level should not pose any health risk upon continued consumption. We will be sampling this well again in approximately 3 months.

Should you have any questions, please call Karen Connell at (704) 663-1699, ext. 243.

Sincerely,

Paul R. Dahlen, P.G.
Hydrogeological Technician II

Enclosure: Lab Results

cc: Gaston County Health Department

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North Carolina Department of Environment, Health, & Natural Resources
Division of Epidemiology
Environmental Epidemiology Section

Drinking Water Health Risk Evaluation
General

Gaston COUNTY

DATE 8/9/95 LABORATORY NUMBER 5G1030

(✓) Based on these analytical results, this water should be considered safe for normal usage.

( ) Chemical analysis did not show any contamination. Water should be resampled if odor or taste persists.

( ) The water should not be used for drinking or cooking purposes, avoid prolonged bathing/showering.

( ) Based on these analytical results, this water is highly contaminated and should not be used for drinking, cooking or bathing/showering.

( ) The laboratory results are not conclusive, please resample:

PLEASE INDICATE ON LAB SHEET THAT IT IS A RESAMPLE AND PROVIDE PREVIOUS SAMPLE NUMBER(S).

(✓) COMMENTS:
Low levels should not pose any health risks upon continued consumption.

For further information, contact Dr. Ken Rudo or Dr. Luanne Williams, Environmental Epidemiology Section, (919) 733-3410.

DEHNR 3891 (5/92)
Environmental Epidemiology Section (Review 5/95)

GROUNDWATER FIELD/LAB FORM CHAIN OF CUSTODY

North Carolina
Department of Environment, Health, and Natural Resources
DIVISION OF ENVIRONMENTAL MANAGEMENT - GROUNDWATER SECTION

County: Gaston
Quad No. PG8912 Serial No.:
Lat. 35°16'25"N Long. 81°03'39"W

SAMPLE PRIORITY
[X] ROUTINE [ ] EMERGENCY
[X] CHAIN OF CUSTODY

Lab Number: 5G 1030
Date Received: 6/1/95 Time: 9:15
Rec'd by: DS From: Bus, Courier, Hand Del.,
Other:
Data Entry By: TRW Ck: DS
Date Reported: 7/18/95

Report To: ARO, FRO, MBO, RRO, WaRO, WiRO, WSRO, Kinston FO, Fed. Trust, Central Off., Other:
Shipped by: Bus, Courier, Hand Del., Other:
Collector(s): P. Dahlen Date 5/31/95 Time 1:00 pm
Purpose: Baseline, Complaint, Compliance, LUST, Pesticide Study, Federal Trust, Other: (circle one)

N.C. DEPT. OF ENVIRONMENT, HEALTH, NATURAL RESOURCES
JUL 24 1995
DIVISION OF ENVIRONMENTAL MANAGEMENT
MOORESVILLE REGIONAL OFFICE

FIELD ANALYSES

pH_{400} ~6.2 Spec. Cond.$_{94}$ 130 at 25° C 19°
Temp.$_{10}$ 19 °C Odor sweet
Appearance clear/colorless
Field Analysis By: P. Dahlen

Owner: Robert + Thelma Hall
Location or site: 105 Springwood Drive Belmont 28012
Description of sampling point: hose bib
Sampling Method: pump (Pump, bailer, etc)
Sample Interval:
Remarks: 1st run for ~10 minutes (pumping time, air temp. etc.)

LABORATORY ANALYSES

	BOD, 310	mg/l		Diss. Solids 70300	mg/l		Ag - Silver 46566	ug/l		Organochlorine Pesticides
	COD High 340	mg/l		Flouride 951	mg/l		Al - Aluminum 46557	ug/l		Organophosphorus Pesticides
	COD Low 335	mg/l		Hardness: Total 900	mg/l		As - Arsenic 46551	ug/l		Nitrogen Pesticides
	Coliform: MF Fecal 31616	/100ml		Hardness (non-carb) 902	mg/l		Ba - Barium 46558	ug/l		
	Coliform: MF Total 31504	/100ml		Phenols 32730	ug/l		Ca - Calcium 46552	mg/l		Acid Herbicides
	TOC 680	mg/l		Specific Cond. 95	uMhos/cm²		Cd - Cadmium 46559	ug/l		
	Turbidity 76	NTU		Sulfate 945	mg/l		Cr - Chromium 46560	ug/l	X	Semivolatile Organics
	Residue., Suspended 530	mg/l		Sulfide 745	mg/l		Cu - Copper 46562	ug/l		
							Fe - Iron 46563	ug/l		
							Hg - Mercury 71900	ug/l	X	Volatile Organics (VOA bottle)
	pH 403	units					K - Potassium 46555	mg/l		
	Alkalinity to pH 4.5 410	mg/l					Mg - Magnesium 46554	mg/l		TPH - Gasoline Range
	Alkalinity to pH 8.3 415	mg/l					Mn - Manganese 46565	ug/l		TPH - BTEX Gasoline Range
	Carbonate 445	mg/l		NH_3 as N 610	mg/l		Na - Sodium 46556	mg/l		
	Bicarbonate 440	mg/l		TKN as N 625	mg/l		Ni - Nickel	ug/l		
	Carbon dioxide 405	mg/l		NO_2 + NO_3 as N 630	mg/l		Pb - Lead 46564	ug/l		S, V
	Chloride 940	mg/l		P: Total as P 665	mg/l		Se - Selenium	ug/l		
	Chromium: Hex 1032	ug/l					Zn - Zinc 46567	ug/l		
	Color: True 80	Pt-Co								
	Cyanide 720	mg/l								

Lab Comments:

GW-54 REV. 6/93 For Dissolved Analysis - submit filtered sample and write "DIS" in block.

SEMIVOLATILE ORGANICS REPORT - DEM LAB

LAB NUMBER:5G-1030 SUPERVISOR PTD LAB #:5G-1030
DATE : 6-21-95

REPORTED BY
CHECKED BY PTD ENTERED BY THU 6/21/95
REVIEWED BY PTD CHECKED BY DS

MO DEPT. OF ENVIRONMENTAL QUALITY NATURAL RESOURCES
JUL 24 1995
DIVISION OF ENVIRONMENTAL QUALITY LABORATORY MANAGEMENT

SAMPLE TYPE: WATER DILUTION FACTOR : 1

CAS NUMBER	TQL X 1	ANALYTE NAME	CONC UG/L
62-53-3	10	ANILINE	U
108-95-2	10	PHENOL	U
111-44-4	10	BIS(2-CHLOROETHYL) ETHER	U
95-57-8	10	2-CHLOROPHENOL	U
541-73-1	10	1,3-DICHLOROBENZENE	U
106-46-7	10	1,4-DICHLOROBENZENE	U
100-51-6	20	BENZYL ALCOHOL	U
95-50-1	10	1,2-DICHLOROBENZENE	U
95-48-7	10	2-METHYL PHENOL	U
108-60-1	10	BIS(2-CHLOROISOPROPYL) ETHER	U
106-44-5	10	4-METHYL PHENOL	U
621-64-7	10	N-NITROSO-DI-N-PROPYLAMINE	U
67-72-1	10	HEXACHLOROETHANE	U
98-95-3	10	NITROBENZENE	U
78-59-1	10	ISOPHORONE	U
88-75-5	10	2-NITRO PHENOL	U
105-67-9	10	2,4-DIMETHYL PHENOL	U
65-85-0	50	BENZOIC ACID	U
111-91-1	10	BIS(2-CHLOROETHOXY) METHANE	U
120-83-2	10	2,4-DICHLORO PHENOL	U
120-82-1	10	1,2,4-TRICHLOROBENZENE	U
91-20-3	10	NAPHTHALENE	U
106-47-8	20	4-CHLOROANILINE	U
87-68-3	10	HEXACHLOROBUTADIENE	U
59-50-7	20	4-CHLORO-3-METHYL PHENOL	U
91-57-6	10	2-METHYL NAPHTHALENE	U
77-47-4	10	HEXACHLOROCYCLOPENTADIENE	U
88-06-2	10	2,4,6-TRICHLORO PHENOL	U
95-95-4	10	2,4,5-TRICHLORO PHENOL	U
91-58-7	10	2-CHLORO NAPHTHALENE	U
88-74-4	50	2-NITROANALINE	U
131-11-3	10	DIMETHYL PHTHALATE	U
208-96-8	10	ACENAPHTHYLENE	U
606-20-2	10	2,6-DINITROTOLUENE	U
99-09-2	50	3-NITROANALINE	U
83-32-9	10	ACENAPHTHENE	U
51-28-5	50	2,4-DINITRO PHENOL	U
100-02-7	50	4-NITRO PHENOL	U
132-64-9	10	DIBENZOFURAN	U
121-14-2	10	2,4-DINITROTOLUENE	U
84-66-2	10	DIETHYL PHTHALATE	U
7005-72-3	10	4-CHLOROPHENYL PHENYL ETHER	U
86-73-7	10	FLUORENE	U
100-01-6	50	4-NITROANALINE	U

SEMIVOLATILE ORGANICS REPORT - DEM LAB

534-52-1	50	4,6-DINITRO-2-METHYL PHENOL	U
86-30-6	10	N-NITROSODIPHENYLAMINE	U
101-55-3	10	4-BROMOPHENYL PHENYL ETHER	U
118-74-1	10	HEXACHLOROBENZENE	U
87-86-5	50	PENTACHLORO PHENOL	U
85-01-8	10	PHENANTHRENE	U
120-12-7	10	ANTHRACENE	U
84-74-2	10	DI-N-BUTYL PHTHALATE	U
206-44-0	10	FLUORANTHENE	U
129-00-0	10	PYRENE	U
85-68-7	10	BUTYLBENZYL PHTHALATE	U
91-94-1	20	3,3'-DICHLOROBENZIDINE	U
56-55-3	10	BENZO(A)ANTHRACENE	U
218-01-9	10	CHRYSENE	U
117-81-7	10	BIS(2-ETHYLHEXYL) PHTHALATE	U
117-84-0	10	DI-N-OCTYL PHTHALATE	U
205-99-2	10	BENZO(B)FLUORANTHENE	U
207-08-9	10	BENZO(K)FLUORANTHENE	U
50-32-8	10	BENZO(A)PYRENE	U
193-39-5	10	INDENO(1,2,3-CD)PYRENE	U
53-70-3	10	DIBENZO(A,H)ANTHRACENE	U
191-24-2	10	BENZO(G,H,I)PERYLENE	U

OTHER SEMIVOLATILE ORGANICS FOR SAMPLE NUMBER : 5G-1030

NO BASE/NEUTRAL OR ACID EXTRACTABLE ORGANICS
DETECTED BY GC/MS.

TQL= TARGET QUANTITATION LIMIT
T= TENTATIVELY IDENTIFIED ESTIMATED CONCENTRATION
E= ESTIMATED CONCENTRATION
U= COMPOUND ANALYZED FOR NOT DETECTED
N= COMPOUND NOT ANALYZED FOR
D= DETECTED BELOW QUANTITATION LIMIT
H= HOLDING TIME EXCEEDED
TQL SUBJECT TO CHANGE DUE TO INSTRUMENT SENSITIVITY

EHNR/DEM LABORATORY
VOLATILE ANALYTICAL REPORT

LAB NO. 5G1030

REPORTED BY
CHECKED BY
REVIEWED BY

SUPERVISOR R&K
DATE 7/17/95
ENTERED BY
CHECKED BY DS

SAMPLE TYPE: WATER

ANALYSIS RESULTS

CAS#	VOA TARGET COMPOUND	TQL ug/L	DETECTED ug/L		CAS#	VOA TARGET COMPOUND	TQL ug/L	DETECTED ug/L
75-35-4	1,1-Dichloroethene	0.75	D		96-18-4	1,2,3-Trichloropropane	0.25	U
75-09-2	Methylene Chloride	10		U	108-86-1	Bromobenzene	1	U
156-60-5	trans-1,2-Dichloroethene	0.75		U	95-49-8	2-Chlorotoluene	0.25	U
75-34-3	1,1-Dichloroethane	0.25		U	106-43-4	4-Chlorotoluene	0.25	U
590-20-7	2,2-Dichloropropane	0.25		U	541-73-1	1,3-Dichlorobenzene	0.25	U
156-59-4	cis-1,2-Dichloroethene	0.25		U	106-46-7	1,4-Dichlorobenzene	0.25	U
67-66-3	Chloroform	0.25		U	95-50-1	1,2-Dichlorobenzene	0.25	U
74-97-5	Bromochloromethane	0.75		U	96-12-8	1,2-Dibromo-3-Chloropropane	1	U
71-55-6	1,1,1-Trichloroethane	1.25	7.8		120-82-1	1,2,4-Trichlorobenzene	0.25	U
563-58-6	1,1-Dichloropropene	0.25		U	87-68-3	Hexachlorobutadiene	0.25	U
56-23-5	Carbon Tetrachloride	0.75		U	87-61-6	1,2,3-Trichlorobenzene	0.75	U
107-06-2	1,2-Dichloroethane	0.25		U	1634-04-4	Methyl-tert-butyl ether	5	U
79-01-6	Trichloroethene	0.25		U	71-43-2	Benzene	1	U
78-87-5	1,2-Dichloropropane	0.25		U	108-88-3	Toluene	1	U
75-27-4	Bromodichloromethane	0.25		U	100-41-4	Ethyl benzene	1	U
74-95-3	Dibromomethane	1		U	108-38-3	m,p-Xylenes	2	U
10061-01-5	cis-1,3-Dichloropropene	0.25		U	95-47-6	o-Xylene	1	U
10061-02-6	trans-1,3-Dichloropropene	0.25		U	100-42-5	Styrene	1	U
79-00-5	1,1,2-Trichloroethane	0.25		U	98-82-8	Isopropylbenzene	1	U
127-18-4	Tetrachloroethene	0.25		U	103-65-1	n-Propylbenzene	1	U
142-28-9	1,3-Dichloropropane	0.25		U	108-67-8	1,3,5-Trimethylbenzene	1	U
124-48-1	Dibromochloromethane	0.75		U	98-06-6	tert-Butylbenzene	1	U
106-93-4	1,2-Dibromoethane	1		U	95-63-6	1,2,4-Trimethylbenzene	1	U
108-90-7	Chlorobenzene	0.25		U	135-98-8	sec-Butylbenzene	1	U
630-20-6	1,1,1,2-Tetrachloroethane	0.25		U	99-87-6	p-isopropyltoluene	1	U
75-25-2	Bromoform	0.5		U	104-51-8	n-Butylbenzene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	0.75		U	91-20-3	Naphthalene	1	U

TQL- Target Quantitation Limit- Subject to change due to instrument sensitivity
T- Tentatively Identified, not confirmed
E- Estimated Value
U- Samples analyzed for this compound but not detected
N- Sample not analyzed for this compound
D- Detected below quantitation limit
M- GC/MS Analysis performed

Other purgeables detected (up to 10 highest peaks) — Detected ug/L

NO VOLATILE ORGANIC COMPOUNDS
DETECTED BY GC/PID.

COMMENTS:

Groundwater Management Associates, Inc.
101-E Woodwinds Industrial Court
Cary, North Carolina 27511
(919) 481-2631
(919) 481-3219 (fax)

April 28, 1995

CERTIFIED MAIL #Z 309 819 282
RETURN RECEIPT REQUESTED

Reviewed May 1, 1995

Mr. Paul Dahlen
NCDEHNR/DEM/Groundwater Section
Mooresville Regional Office
919 North Main Street
Mooresville, North Carolina 28115

Re: Water-Supply Well Sampling
Gilliland's Place
Pacemaker Corporation
Springwood, Gaston County
Incident #10040

Dear Mr. Dahlen:

WSW-3 in locked shed no one living in house. WSW-16 - no one is living there power is off

Enclosed are the results of sampling of water-supply wells in the vicinity of the above-referenced site (Figure 1). A sampling event was conducted on March 8, 1995, and included wells WSW-1, WSW-2, WSW-4 through WSW-10, WSW-12 through WSW-15, and WSW-19 (Figure 2). Wells WSW-3 and WSW-16 were also scheduled to be sampled, but these wells could not be accessed. Samples were analyzed by EPA Method 602 extended to include MTBE, EDB, and IPE. Additionally, the samples from water-supply-wells WSW-1, WSW-2, WSW-4, WSW-5, WSW-8, and WSW-19 were analyzed for compounds detected by EPA Method 601.

Tetrachloroethene (PCE) and 1,1,1-trichloroethane (TCA) were detected at wells WSW-2 and WSW-4. The concentrations of PCE detected in wells WSW-2 and WSW-4 exceed the state groundwater standard of 0.7 parts per billion. The results of the analyses by EPA Method 602 show that violations of groundwater standards are present at wells WSW-4, WSW-5, WSW-8, and WSW-19. Tables 1 and 2 contain the results of sampling of water-supply wells at the site.

At the request of the DEM, a second sampling event was conducted on April 3, 1995, and included sampling of wells WSW-18, WSW-20 through WSW-22, and re-sampling of well WSW-19. The samples were analyzed by EPA Methods 601 and 602 extended to include MTBE, EDB, and IPE.

No compounds were detected at well WSW-19 on April 3, 1995 (Tables 1 and 2). Tetrachloroethene (PCE) and 1,1,1-trichloroethane (TCA) were detected at wells WSW-20 through WSW-22. The concentrations of PCE detected in wells WSW-21 and WSW-22 exceed the state groundwater standard of 0.7 parts per billion. MTBE was detected at wells WSW-20 and WSW-21 at concentrations less than the state groundwater standard.

The next sampling event will take place in June, 1995. The sampling event will include wells WSW-1 through WSW-5 and samples will be analyzed by EPA Method 602 extended to include MTBE, EDB, and IPE. It is recommended that semi-annual sampling at wells WSW-18 through WSW-22 with analyses by EPA Methods 601 and 602 extended to include MTBE, EDB, and IPE be added to the monitoring schedule. Table 3 contains an updated monitoring schedule for water-supply-wells at the site.

Please call Chad Leinbach or me if you have any questions regarding this site.

Sincerely,
Groundwater Management Associates, Inc.

Mary T. Facciolo, E.I.T.
Environmental Engineer

enclosures
cc: Pacemaker Corporation

MTF/16205/pd042795.doc

CTE

Chemical & Environmental Technology, Inc.

ENVIRONMENTAL LABORATORY AND CONSULTING SERVICES

JOHN M. OGLE
PRESIDENT

P. O. BOX 12298
RESEARCH TRIANGLE PARK, N. C. 27709
PHONE (919) 467-3090
FAX (919) 467-3515

FINAL REPORT OF ANALYSES

GROUNDWATER MANAGEMENT ASSOC.
101-E WOODWIND INDUSTRIAL
CARY, NC 27511-
Attn: CHAD LEINBACH

REPORT DATE: 04/17/95

162-05

SAMPLE NUMBER- 99338 SAMPLE ID- WSW-21 SAMPLE MATRIX- GW
DATE SAMPLED- 04/03/95 TIME SAMPLED- 1300
DATE RECEIVED- 04/06/95 SAMPLER- ROGER DUNKER RECEIVED BY- JMM
TIME RECEIVED- 1305 DELIVERED BY- CHAD LEINBACH

 PROJECT NAME : 162-05

ANALYSIS	METHOD	ANALYSIS DATE	BY	RESULT	UNITS	PQL
EPA 601/602	601/602	04/13/95	ALT			
PURGEABLE HALOCARBONS EPA 601	601/602			--------		-
BROMODICHLOROMETHANE	601/602			< 1.0	ug/L	1.0
BROMOFORM	601/602			< 1.0	ug/L	1.0
BROMOMETHANE	601/602			< 1.0	ug/L	1.0
CARBON TETRACHLORIDE	601/602			< 1.0	ug/L	1.0
CHLOROBENZENE	601/602			< 1.0	ug/L	1.0
CHLOROETHANE	601/602			< 1.0	ug/L	1.0
2-CHLOROETHYLVINYL ETHER	601/602			< 1.0	ug/L	1.0
CHLOROFORM	601/602			< 1.0	ug/L	1.0
CHLOROMETHANE	601/602			< 1.0	ug/L	1.0
DIBROMOCHLOROMETHANE	601/602			< 1.0	ug/L	1.0
1,2-DICHLOROBENZENE	601/602			< 1.0	ug/L	1.0
1,3-DICHLOROBENZENE	601/602			< 1.0	ug/L	1.0
1,4-DICHLOROBENZENE	601/602			< 1.0	ug/L	1.0
DICHLORODIFLUOROMETHANE	601/602			< 1.0	ug/L	1.0
1,1-DICHLOROETHANE	601/602			< 1.0	ug/L	1.0
1,2-DICHLOROETHANE	601/602			< 1.0	ug/L	1.0
1,1-DICHLOROETHENE	601/602			< 1.0	ug/L	1.0
trans-1,2-DICHLOROETHENE	601/602			< 1.0	ug/L	1.0
1,2-DICHLOROPROPANE	601/602			< 1.0	ug/L	1.0

AMERICAN COUNCIL OF INDEPENDENT LABORATORIES, INC.

CTE

Chemical & Environmental Technology, Inc.

ENVIRONMENTAL LABORATORY AND CONSULTING SERVICES

JOHN M. OGLE
PRESIDENT

P. O. BOX 12298
RESEARCH TRIANGLE PARK, N. C. 27709
PHONE (919) 467-3090
FAX (919) 467-3515

 PROJECT NAME : 162-05

CONTINUATION OF DATA FOR SAMPLE NUMBER 99338

ANALYSIS	METHOD	ANALYSIS DATE	BY	RESULT	UNITS	PQL
cis-1,3-DICHLOROPROPENE	601/602			< 1.0	ug/L	1.0
trans-1,3-DICHLOROPROPENE	601/602			< 1.0	ug/L	1.0
METHYLENE CHLORIDE	601/602			< 1.0	ug/L	1.0
1,1,2,2-TETRACHLOROETHANE	601/602			< 1.0	ug/L	1.0
TETRACHLOROETHENE	601/602			3.5	ug/L	1.0
1,1,1-TRICHLOROETHANE	601/602			< 1.0	ug/L	1.0
1,1,2-TRICHLOROETHANE	601/602			< 1.0	ug/L	1.0
TRICHLOROETHENE	601/602			< 1.0	ug/L	1.0
TRICHLOROFLUOROMETHANE	601/602			< 1.0	ug/L	1.0
VINYL CHLORIDE	601/602			< 1.0	ug/L	1.0
SURROGATE:	601/602			--------		-
1-CHLORO-2-BROMOPROPANE	601/602			90.1	percent	-
PURGEABLE AROMATICS EPA 602	601/602			--------		-
BENZENE	601/602			< 1.0	ug/L	1.0
CHLOROBENZENE	601/602			< 1.0	ug/L	1.0
1,2-DICHLOROBENZENE	601/602			< 1.0	ug/L	1.0
1,3-DICHLOROBENZENE	601/602			< 1.0	ug/L	1.0
1,4-DICHLOROBENZENE	601/602			< 1.0	ug/L	1.0
ETHYLBENZENE	601/602			< 1.0	ug/L	1.0
TOLUENE	601/602			< 1.0	ug/L	1.0
TOTAL XYLENES	601/602			< 1.0	ug/L	1.0
SURROGATE: FLUOROBENZENE	601/602			109	percent	-
MODIFIED EPA 602	EPA 602	04/13/95	ALT			
1,2-DIBROMOETHANE (EDB)	EPA 602			< 1.0	ug/L	1.0
ISOPROPYLETHER (IPE)	EPA 602			< 1.0	ug/L	1.0
METHYLTERT-BUTYLETHER (MTBE)	EPA 602			33.3	ug/L	1.0

PQL = Practical Quantitation Limit
Results followed by the letter J are estimated concentrations.
All results for soil and sludge samples are reported on a dry weight basis as required by the NC DEM Laboratory Certification Section. Wet Weight Concentration = (dry weight conc.)(percent solids)/100.

PLEASE NOTE THAT EPA METHOD 602 WAS MODIFIED TO INCLUDE EDB, IPE, & MTBE.

LABORATORY DIRECTOR _____ for THL

AMERICAN COUNCIL OF INDEPENDENT LABORATORIES, INC.

Chemical & Environmental Technology, Inc.

ENVIRONMENTAL LABORATORY AND CONSULTING SERVICES

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PRESIDENT

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FINAL REPORT OF ANALYSES

GROUNDWATER MANAGEMENT ASSOC.
101-E WOODWIND INDUSTRIAL
CARY, NC 27511-
Attn: CHAD LEINBACH

REPORT DATE: 04/17/95

162-05

SAMPLE NUMBER- 99339 SAMPLE ID- WSW-22 SAMPLE MATRIX- GW
DATE SAMPLED- 04/03/95 TIME SAMPLED- 1300
DATE RECEIVED- 04/06/95 SAMPLER- ROGER DUNKER RECEIVED BY- JMM
TIME RECEIVED- 1305 DELIVERED BY- CHAD LEINBACH

 PROJECT NAME : 162-05

ANALYSIS	METHOD	ANALYSIS DATE	BY	RESULT	UNITS	PQL
EPA 601/602	601/602	04/13/95	ALT			
PURGEABLE HALOCARBONS EPA 601	601/602			--------		-
BROMODICHLOROMETHANE	601/602			< 1.0	ug/L	1.0
BROMOFORM	601/602			< 1.0	ug/L	1.0
BROMOMETHANE	601/602			< 1.0	ug/L	1.0
CARBON TETRACHLORIDE	601/602			< 1.0	ug/L	1.0
CHLOROBENZENE	601/602			< 1.0	ug/L	1.0
CHLOROETHANE	601/602			< 1.0	ug/L	1.0
2-CHLOROETHYLVINYL ETHER	601/602			< 1.0	ug/L	1.0
CHLOROFORM	601/602			< 1.0	ug/L	1.0
CHLOROMETHANE	601/602			< 1.0	ug/L	1.0
DIBROMOCHLOROMETHANE	601/602			< 1.0	ug/L	1.0
1,2-DICHLOROBENZENE	601/602			< 1.0	ug/L	1.0
1,3-DICHLOROBENZENE	601/602			< 1.0	ug/L	1.0
1,4-DICHLOROBENZENE	601/602			< 1.0	ug/L	1.0
DICHLORODIFLUOROMETHANE	601/602			< 1.0	ug/L	1.0
1,1-DICHLOROETHANE	601/602			< 1.0	ug/L	1.0
1,2-DICHLOROETHANE	601/602			< 1.0	ug/L	1.0
1,1-DICHLOROETHENE	601/602			< 1.0	ug/L	1.0
trans-1,2-DICHLOROETHENE	601/602			< 1.0	ug/L	1.0
1,2-DICHLOROPROPANE	601/602			< 1.0	ug/L	1.0

AMERICAN COUNCIL OF INDEPENDENT LABORATORIES, INC.

ETE

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ENVIRONMENTAL LABORATORY AND CONSULTING SERVICES

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PHONE (919) 467-3090
FAX (919) 467-3515

 PROJECT NAME : 162-05

CONTINUATION OF DATA FOR SAMPLE NUMBER 99339

ANALYSIS	METHOD	ANALYSIS DATE	BY	RESULT	UNITS	PQL
cis-1,3-DICHLOROPROPENE	601/602			< 1.0	ug/L	1.0
trans-1,3-DICHLOROPROPENE	601/602			< 1.0	ug/L	1.0
METHYLENE CHLORIDE	601/602			< 1.0	ug/L	1.0
1,1,2,2-TETRACHLOROETHANE	601/602			< 1.0	ug/L	1.0
TETRACHLOROETHENE	601/602			36.7	ug/L	1.0
1,1,1-TRICHLOROETHANE	601/602			< 1.0	ug/L	1.0
1,1,2-TRICHLOROETHANE	601/602			< 1.0	ug/L	1.0
TRICHLOROETHENE	601/602			0.7 J	ug/L	1.0
TRICHLOROFLUOROMETHANE	601/602			< 1.0	ug/L	1.0
VINYL CHLORIDE	601/602			< 1.0	ug/L	1.0
SURROGATE:	601/602			--------		-
1-CHLORO-2-BROMOPROPANE	601/602			88.1	percent	-
PURGEABLE AROMATICS EPA 602	601/602			--------		-
BENZENE	601/602			< 1.0	ug/L	1.0
CHLOROBENZENE	601/602			< 1.0	ug/L	1.0
1,2-DICHLOROBENZENE	601/602			< 1.0	ug/L	1.0
1,3-DICHLOROBENZENE	601/602			< 1.0	ug/L	1.0
1,4-DICHLOROBENZENE	601/602			< 1.0	ug/L	1.0
ETHYLBENZENE	601/602			< 1.0	ug/L	1.0
TOLUENE	601/602			< 1.0	ug/L	1.0
TOTAL XYLENES	601/602			< 1.0	ug/L	1.0
SURROGATE: FLUOROBENZENE	601/602			90.9	percent	-
MODIFIED EPA 602	EPA 602	04/13/95	ALT			
1,2-DIBROMOETHANE (EDB)	EPA 602			< 1.0	ug/L	1.0
ISOPROPYLETHER (IPE)	EPA 602			< 1.0	ug/L	1.0
METHYLTERT-BUTYLETHER (MTBE)	EPA 602			< 1.0	ug/L	1.0

PQL = Practical Quantitation Limit
Results followed by the letter J are estimated concentrations.
All results for soil and sludge samples are reported on a dry weight basis as required by the NC DEM Laboratory Certification Section. Wet Weight Concentration = (dry weight conc.)(percent solids)/100.

PLEASE NOTE THAT EPA METHOD 602 WAS MODIFIED TO INCLUDE EDB, IPE, & MTBE.

LABORATORY DIRECTOR _____ for THL

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Gillilands/Toomey. Gaston County

Table 2. Analytical Results of Groundwater From Water-Supply Wells - Chlorinated Hydrocarbons (cont.)

Well	Sample #	Date	1,1,1-TCA	1,2-DCA	1,1-DCE	PCE
15A NCAC 2L Groundwater Standard (in ppb)			200	0.38	7	0.7
WSW-10	930132	1/11/93	12.5	<1	<1	<1
WSW-11	930088	1/5/93	1.2	<1	<1	<1
WSW-12	923996	11/23/92	<1	<1	<1	<1
	GMA	9/27/94	<1	<1	<1	<1
WSW13	924196	12/11/92	<1	<1	<1	<1
WSW14	924198	12/11/92	<1	<1	<1	<1
	GMA	9/27/94	<1	<1	<1	<1
WSW-15	924197	12/11/92	<1	<1	<1	<1
	GMA	9/27/94	<1	<1	<1	<1
WSW-16	924195	12/11/92	<1	<1	<1	<1
WSW-17	923995	11/30/92	<1	<1	<1	<1
WSW-18	923911	11/18/92	<1	<1	<1	<1
	GMA	4/3/95	<1	<1	<1	<1
WSW-19	924202	12/11/92	<1	<1	<1	<1
	GMA	3/8/95	<1	<1	<1	<1
	GMA	4/3/95	<1	<1	<1	<1
WSW-20	924199	12/11/92	<1	<1	<1	<1
	GMA	4/3/95	<1	<1	<1	0.5 J
WSW-21	GMA	4/3/95	<1	<1	<1	3.5
WSW-22	GMA	4/3/95	0.7 J	<1	<1	36.7

WSW = water-supply well Shaded areas indicate violations of NCAC 2L standards
Samples designated with a six-digit sample code were collected by the Gaston County Health Department.
GMA = sample collected by Groundwater Management Associates, Inc.
EPA = sample collected by US EPA Region IV
* sample collected after the point-of-entry (POE) treatment system
# = sample collected between carbon units
TCA = Trichloroethane, DCA = Dichloroethane, DCE = Dichloroethene, and PCE = Tetrachloroethene
A = average value J = estimated value ND = No detection limit provided.

Table 1. Analytical Results of Water Samples from Water-Supply Wells - Petroleum Hydrocarbons (cont.)

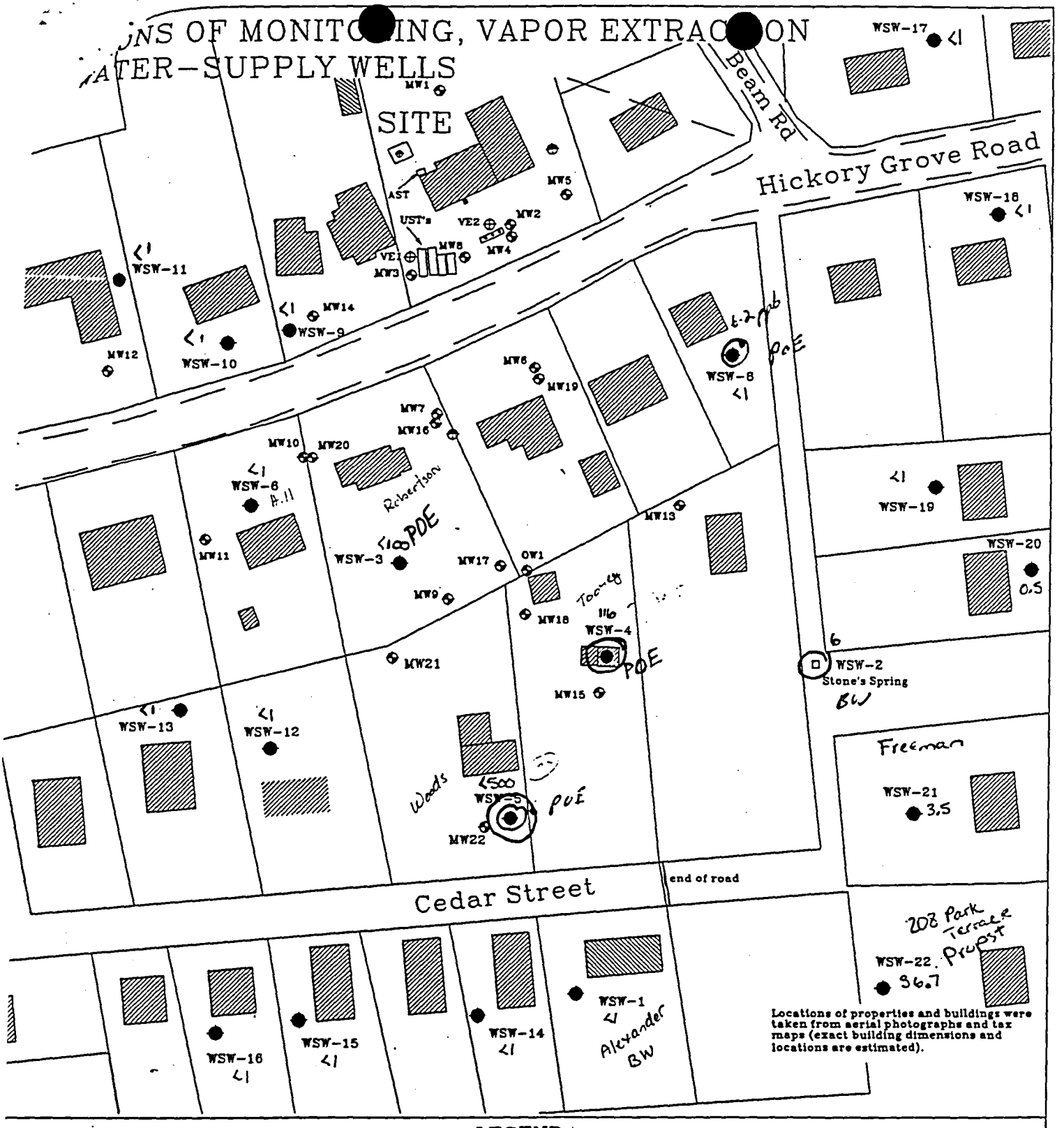
Well	Sample #	Date	Benzene	Toluene	Ethyl-benzene	Xylenes	MTBE	EDB	IPE	Naph-thalene	Trimethyl-benzenes
15A NCAC 2L Groundwater Standards (in parts per billion)			1	1000	29	530	200	0.0004		21**	
WSW-11	930088	1/5/93	<1	<1	<1	<1	<1		<1	<1	<1
WSW-12	923996	11/23/92	<1	<1	<1	<1	<1		<1	<1	<1
	3113 EPA	1/5/93	<1	<1	<1	<1					<1
	GMA	9/27/94	<1	<1	<1	<1	<1	<1	<1		
	GMA	3/8/95	<1	<1	<1	<1	<1	<1	<1		
WSW-13	924196	12/11/92	<1	<1	<1	<1	<1		<1	<1	<1
	GMA	3/8/95	<1	<1	<1	<1	<1	<1	<1		
WSW-14	924198	12/11/92	<1	<1	<1	<1	<1		<1	<1	<1
	GMA	9/27/94	<1	<1	<1	<1	<1	<1	<1		
	GMA	3/8/95	<1	<1	<1	<1	<1	<1	<1		
WSW-15	924197	12/11/92	<1	<1	<1	<1	<1		<1	<1	<1
	GMA	9/27/94	<1	<1	<1	<1	<1	<1	<1		
	GMA	3/8/95	<1	<1	<1	<1	<1	<1	<1		
WSW-16	924195	12/11/92	<1	<1	<1	<1	<1		<1	<1	<1
	GMA	12/14/94	<1	<1	<1	<1	3.4	<1	<1		
WSW-17	923995	11/30/92	<1	<1	<1	<1	<1		<1	<1	<1
	1105 EPA	1/5/93	<1	<1	<1	<1					<1
WSW-18	923911	11/18/92	<1	<1	<1	<1	<1		<1	<1	<1
	1104 EPA	1/5/93	<1	<1	<1	<1					<1
	GMA	4/3/95	<1	<1	<1	<1	<1	<1	<1		
WSW-19	924202	12/11/92	<1	<1	<1	<1	<1		<1	<1	<1
	GMA	12/14/94	<1	<1	<1	<1	1.2	<1	<1		
	GMA	3/8/95	3.2	<1	<1	20.3	<1	<1	<1		
	GMA	4/3/95	<1	<1	<1	<1	<1	<1	<1		
WSW-20	924199	12/11/92	<1	<1	<1	<1	<1		<1	<1	<1
	GMA	4/3/95	<1	<1	<1	<1	2.6	<1	<1		
WSW-21	GMA	4/3/95	<1	<1	<1	<1	33.3	<1	<1		
WSW-22	GMA	4/3/95	<1	<1	<1	<1	<1	<1	<1		

Samples designated by a six-digit sample code were collected by Gaston County Health Department.
GMA = sample collected by Groundwater Management Associates, Inc.
GC = sample collected by Geopure Continental
EPA = sample collected by EPA Region IV

Shaded areas indicate violations of 15A NCAC 2L groundwater standards.
EDB = 1,2-dibromoethane IPE = isopropyl ether
A = Average value J = Estimated value

EMK/16205/wsw_btex.xls

...NS OF MONITORING, VAPOR EXTRACTION ...ATER-SUPPLY WELLS



LEGEND

UST's = underground storage tanks

AST = aboveground storage tank

MW1 — monitoring well

property line

secondary road pavement (estimate)

WSW-1 — water-supply well

abandoned water-supply well

VE1 — vapor extraction well

building/residence

SCALE: 0 50 100 200 — 1 inch = 100 feet

North

...acemaker Leasing Co., Gilliland's Place, Springwood, Gaston County

GROUNDWATER MANAGEMENT ASSOCIATES, INC. | Figure 2

Benzene • Toluene • PCE

CTE

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please update both gw-tables and give me a copy of them. Thanks

REPORT OF ANALYSES

GROUNDWATER MANAGEMENT ASSOC.
101-E WOODWIND INDUSTRIAL
CARY, NC 27511-
Attn: CHAD LEINBACH

REPORT DATE: 04/17/95

162-05

SAMPLE NUMBER- 99335 SAMPLE ID- WSW-18 SAMPLE MATRIX- GW
DATE SAMPLED- 04/03/95 TIME SAMPLED- 1300
DATE RECEIVED- 04/06/95 SAMPLER- ROGER DUNKER RECEIVED BY- JMM
TIME RECEIVED- 1305 DELIVERED BY- CHAD LEINBACH

 PROJECT NAME : 162-05

ANALYSIS	METHOD	ANALYSIS DATE	BY	RESULT	UNITS	PQL
EPA 601/602	601/602	04/12/95	ALT			
PURGEABLE HALOCARBONS EPA 601	601/602			--------		-
BROMODICHLOROMETHANE	601/602			< 1.0	ug/L	1.0
BROMOFORM	601/602			< 1.0	ug/L	1.0
BROMOMETHANE	601/602			< 1.0	ug/L	1.0
CARBON TETRACHLORIDE	601/602			< 1.0	ug/L	1.0
CHLOROBENZENE	601/602			< 1.0	ug/L	1.0
CHLOROETHANE	601/602			< 1.0	ug/L	1.0
2-CHLOROETHYLVINYL ETHER	601/602			< 1.0	ug/L	1.0
CHLOROFORM	601/602			< 1.0	ug/L	1.0
CHLOROMETHANE	601/602			< 1.0	ug/L	1.0
DIBROMOCHLOROMETHANE	601/602			< 1.0	ug/L	1.0
1,2-DICHLOROBENZENE	601/602			< 1.0	ug/L	1.0
1,3-DICHLOROBENZENE	601/602			< 1.0	ug/L	1.0
1,4-DICHLOROBENZENE	601/602			< 1.0	ug/L	1.0
DICHLORODIFLUOROMETHANE	601/602			< 1.0	ug/L	1.0
1,1-DICHLOROETHANE	601/602			< 1.0	ug/L	1.0
1,2-DICHLOROETHANE	601/602			< 1.0	ug/L	1.0
1,1-DICHLOROETHENE	601/602			< 1.0	ug/L	1.0
trans-1,2-DICHLOROETHENE	601/602			< 1.0	ug/L	1.0
1,2-DICHLOROPROPANE	601/602			< 1.0	ug/L	1.0

AMERICAN COUNCIL OF INDEPENDENT LABORATORIES, INC.

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 PROJECT NAME : 162-05

CONTINUATION OF DATA FOR SAMPLE NUMBER 99335

ANALYSIS	METHOD	ANALYSIS DATE	BY	RESULT	UNITS	PQL
cis-1,3-DICHLOROPROPENE	601/602			< 1.0	ug/L	1.0
trans-1,3-DICHLOROPROPENE	601/602			< 1.0	ug/L	1.0
METHYLENE CHLORIDE	601/602			< 1.0	ug/L	1.0
1,1,2,2-TETRACHLOROETHANE	601/602			< 1.0	ug/L	1.0
TETRACHLOROETHENE	601/602			< 1.0	ug/L	1.0
1,1,1-TRICHLOROETHANE	601/602			< 1.0	ug/L	1.0
1,1,2-TRICHLOROETHANE	601/602			< 1.0	ug/L	1.0
TRICHLOROETHENE	601/602			< 1.0	ug/L	1.0
TRICHLOROFLUOROMETHANE	601/602			< 1.0	ug/L	1.0
VINYL CHLORIDE	601/602			< 1.0	ug/L	1.0
SURROGATE:	601/602			--------		-
1-CHLORO-2-BROMOPROPANE	601/602			85.3	percent	-
PURGEABLE AROMATICS EPA 602	601/602			--------		-
BENZENE	601/602			< 1.0	ug/L	1.0
CHLOROBENZENE	601/602			< 1.0	ug/L	1.0
1,2-DICHLOROBENZENE	601/602			< 1.0	ug/L	1.0
1,3-DICHLOROBENZENE	601/602			< 1.0	ug/L	1.0
1,4-DICHLOROBENZENE	601/602			< 1.0	ug/L	1.0
ETHYLBENZENE	601/602			< 1.0	ug/L	1.0
TOLUENE	601/602			< 1.0	ug/L	1.0
TOTAL XYLENES	601/602			< 1.0	ug/L	1.0
SURROGATE: FLUOROBENZENE	601/602			110	percent	-
MODIFIED EPA 602	EPA 602	04/12/95	ALT			
1,2-DIBROMOETHANE (EDB)	EPA 602			< 1.0	ug/L	1.0
ISOPROPYLETHER (IPE)	EPA 602			< 1.0	ug/L	1.0
METHYLTERT-BUTYLETHER (MTBE)	EPA 602			< 1.0	ug/L	1.0

PQL = Practical Quantitation Limit
Results followed by the letter J are estimated concentrations.
All results for soil and sludge samples are reported on a dry weight basis as required by the NC DEM Laboratory Certification Section. Wet Weight Concentration = (dry weight conc.)(percent solids)/100.

PLEASE NOTE THAT EPA METHOD 602 WAS MODIFIED TO INCLUDE EDB, IPE, & MTBE.

LABORATORY DIRECTOR J. M. for THL

AMERICAN COUNCIL OF INDEPENDENT LABORATORIES, INC.

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ENVIRONMENTAL LABORATORY AND CONSULTING SERVICES

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FINAL REPORT OF ANALYSES

GROUNDWATER MANAGEMENT ASSOC.
101-E WOODWIND INDUSTRIAL
CARY, NC 27511-
Attn: CHAD LEINBACH

REPORT DATE: 04/17/95

162-05

SAMPLE NUMBER- 99336 SAMPLE ID- WSW-19 SAMPLE MATRIX- GW
DATE SAMPLED- 04/03/95 TIME SAMPLED- 1300
DATE RECEIVED- 04/06/95 SAMPLER- ROGER DUNKER RECEIVED BY- JMM
TIME RECEIVED- 1305 DELIVERED BY- CHAD LEINBACH

 PROJECT NAME : 162-05

ANALYSIS	METHOD	ANALYSIS DATE	BY	RESULT	UNITS	PQL
EPA 601/602	601/602	04/13/95	ALT			
PURGEABLE HALOCARBONS EPA 601	601/602			--------		-
BROMODICHLOROMETHANE	601/602			< 1.0	ug/L	1.0
BROMOFORM	601/602			< 1.0	ug/L	1.0
BROMOMETHANE	601/602			< 1.0	ug/L	1.0
CARBON TETRACHLORIDE	601/602			< 1.0	ug/L	1.0
CHLOROBENZENE	601/602			< 1.0	ug/L	1.0
CHLOROETHANE	601/602			< 1.0	ug/L	1.0
2-CHLOROETHYLVINYL ETHER	601/602			< 1.0	ug/L	1.0
CHLOROFORM	601/602			< 1.0	ug/L	1.0
CHLOROMETHANE	601/602			< 1.0	ug/L	1.0
DIBROMOCHLOROMETHANE	601/602			< 1.0	ug/L	1.0
1,2-DICHLOROBENZENE	601/602			< 1.0	ug/L	1.0
1,3-DICHLOROBENZENE	601/602			< 1.0	ug/L	1.0
1,4-DICHLOROBENZENE	601/602			< 1.0	ug/L	1.0
DICHLORODIFLUOROMETHANE	601/602			< 1.0	ug/L	1.0
1,1-DICHLOROETHANE	601/602			< 1.0	ug/L	1.0
1,2-DICHLOROETHANE	601/602			< 1.0	ug/L	1.0
1,1-DICHLOROETHENE	601/602			< 1.0	ug/L	1.0
trans-1,2-DICHLOROETHENE	601/602			< 1.0	ug/L	1.0
1,2-DICHLOROPROPANE	601/602			< 1.0	ug/L	1.0

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 PROJECT NAME : 162-05

CONTINUATION OF DATA FOR SAMPLE NUMBER 99336

ANALYSIS	METHOD	ANALYSIS DATE	BY	RESULT	UNITS	PQL
cis-1,3-DICHLOROPROPENE	601/602			< 1.0	ug/L	1.0
trans-1,3-DICHLOROPROPENE	601/602			< 1.0	ug/L	1.0
METHYLENE CHLORIDE	601/602			< 1.0	ug/L	1.0
1,1,2,2-TETRACHLOROETHANE	601/602			< 1.0	ug/L	1.0
TETRACHLOROETHENE	601/602			< 1.0	ug/L	1.0
1,1,1-TRICHLOROETHANE	601/602			< 1.0	ug/L	1.0
1,1,2-TRICHLOROETHANE	601/602			< 1.0	ug/L	1.0
TRICHLOROETHENE	601/602			< 1.0	ug/L	1.0
TRICHLOROFLUOROMETHANE	601/602			< 1.0	ug/L	1.0
VINYL CHLORIDE	601/602			< 1.0	ug/L	1.0
SURROGATE:	601/602			--------		-
1-CHLORO-2-BROMOPROPANE	601/602			91.1	percent	-
PURGEABLE AROMATICS EPA 602	601/602			--------		-
BENZENE	601/602			< 1.0	ug/L	1.0
CHLOROBENZENE	601/602			< 1.0	ug/L	1.0
1,2-DICHLOROBENZENE	601/602			< 1.0	ug/L	1.0
1,3-DICHLOROBENZENE	601/602			< 1.0	ug/L	1.0
1,4-DICHLOROBENZENE	601/602			< 1.0	ug/L	1.0
ETHYLBENZENE	601/602			< 1.0	ug/L	1.0
TOLUENE	601/602			< 1.0	ug/L	1.0
TOTAL XYLENES	601/602			< 1.0	ug/L	1.0
SURROGATE: FLUOROBENZENE	601/602			103	percent	-
MODIFIED EPA 602	EPA 602	04/13/95	ALT			
1,2-DIBROMOETHANE (EDB)	EPA 602			< 1.0	ug/L	1.0
ISOPROPYLETHER (IPE)	EPA 602			< 1.0	ug/L	1.0
METHYLTERT-BUTYLETHER (MTBE)	EPA 602			< 1.0	ug/L	1.0

PQL = Practical Quantitation Limit
Results followed by the letter J are estimated concentrations.
All results for soil and sludge samples are reported on a dry weight basis as required by the NC DEM Laboratory Certification Section. Wet Weight Concentration = (dry weight conc.)(percent solids)/100.

PLEASE NOTE THAT EPA METHOD 602 WAS MODIFIED TO INCLUDE EDB, IPE, & MTBE.

LABORATORY DIRECTOR _____ for THL

AMERICAN COUNCIL OF INDEPENDENT LABORATORIES, INC.

CTE

Chemical & Environmental Technology, Inc.

ENVIRONMENTAL LABORATORY AND CONSULTING SERVICES

JOHN M. OGLE
PRESIDENT

P. O. BOX 12298
RESEARCH TRIANGLE PARK, N. C. 27709
PHONE (919) 467-3090
FAX (919) 467-3515

FINAL REPORT OF ANALYSES

GROUNDWATER MANAGEMENT ASSOC.
101-E WOODWIND INDUSTRIAL
CARY, NC 27511-
Attn: CHAD LEINBACH

REPORT DATE: 04/17/95

162-05

SAMPLE NUMBER- 99337 SAMPLE ID- WSW-20 SAMPLE MATRIX- GW
DATE SAMPLED- 04/03/95 TIME SAMPLED- 1300
DATE RECEIVED- 04/06/95 SAMPLER- ROGER DUNKER RECEIVED BY- JMM
TIME RECEIVED- 1305 DELIVERED BY- CHAD LEINBACH

 PROJECT NAME : 162-05

ANALYSIS	METHOD	ANALYSIS DATE	BY	RESULT	UNITS	PQL
EPA 601/602	601/602	04/13/95	ALT			
PURGEABLE HALOCARBONS EPA 601	601/602			--------		-
BROMODICHLOROMETHANE	601/602			< 1.0	ug/L	1.0
BROMOFORM	601/602			< 1.0	ug/L	1.0
BROMOMETHANE	601/602			< 1.0	ug/L	1.0
CARBON TETRACHLORIDE	601/602			< 1.0	ug/L	1.0
CHLOROBENZENE	601/602			< 1.0	ug/L	1.0
CHLOROETHANE	601/602			< 1.0	ug/L	1.0
2-CHLOROETHYLVINYL ETHER	601/602			< 1.0	ug/L	1.0
CHLOROFORM	601/602			< 1.0	ug/L	1.0
CHLOROMETHANE	601/602			< 1.0	ug/L	1.0
DIBROMOCHLOROMETHANE	601/602			< 1.0	ug/L	1.0
1,2-DICHLOROBENZENE	601/602			< 1.0	ug/L	1.0
1,3-DICHLOROBENZENE	601/602			< 1.0	ug/L	1.0
1,4-DICHLOROBENZENE	601/602			< 1.0	ug/L	1.0
DICHLORODIFLUOROMETHANE	601/602			< 1.0	ug/L	1.0
1,1-DICHLOROETHANE	601/602			< 1.0	ug/L	1.0
1,2-DICHLOROETHANE	601/602			< 1.0	ug/L	1.0
1,1-DICHLOROETHENE	601/602			< 1.0	ug/L	1.0
trans-1,2-DICHLOROETHENE	601/602			< 1.0	ug/L	1.0
1,2-DICHLOROPROPANE	601/602			< 1.0	ug/L	1.0

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PHONE (919) 467-3090
FAX (919) 467-3515

 PROJECT NAME : 162-05

CONTINUATION OF DATA FOR SAMPLE NUMBER 99337

ANALYSIS	METHOD	ANALYSIS DATE	BY	RESULT	UNITS	PQL
cis-1,3-DICHLOROPROPENE	601/602			< 1.0	ug/L	1.0
trans-1,3-DICHLOROPROPENE	601/602			< 1.0	ug/L	1.0
METHYLENE CHLORIDE	601/602			< 1.0	ug/L	1.0
1,1,2,2-TETRACHLOROETHANE	601/602			< 1.0	ug/L	1.0
TETRACHLOROETHENE	601/602			0.5 J	ug/L	1.0
1,1,1-TRICHLOROETHANE	601/602			< 1.0	ug/L	1.0
1,1,2-TRICHLOROETHANE	601/602			< 1.0	ug/L	1.0
TRICHLOROETHENE	601/602			< 1.0	ug/L	1.0
TRICHLOROFLUOROMETHANE	601/602			< 1.0	ug/L	1.0
VINYL CHLORIDE	601/602			< 1.0	ug/L	1.0
SURROGATE:	601/602			--------		-
1-CHLORO-2-BROMOPROPANE	601/602			92.4	percent	-
PURGEABLE AROMATICS EPA 602	601/602			--------		-
BENZENE	601/602			< 1.0	ug/L	1.0
CHLOROBENZENE	601/602			< 1.0	ug/L	1.0
1,2-DICHLOROBENZENE	601/602			< 1.0	ug/L	1.0
1,3-DICHLOROBENZENE	601/602			< 1.0	ug/L	1.0
1,4-DICHLOROBENZENE	601/602			< 1.0	ug/L	1.0
ETHYLBENZENE	601/602			< 1.0	ug/L	1.0
TOLUENE	601/602			< 1.0	ug/L	1.0
TOTAL XYLENES	601/602			< 1.0	ug/L	1.0
SURROGATE: FLUOROBENZENE	601/602			97.6	percent	-
MODIFIED EPA 602	EPA 602	04/13/95	ALT			
1,2-DIBROMOETHANE (EDB)	EPA 602			< 1.0	ug/L	1.0
ISOPROPYLETHER (IPE)	EPA 602			< 1.0	ug/L	1.0
METHYLTERT-BUTYLETHER (MTBE)	EPA 602			2.6	ug/L	1.0

PQL = Practical Quantitation Limit
Results followed by the letter J are estimated concentrations.
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PLEASE NOTE THAT EPA METHOD 602 WAS MODIFIED TO INCLUDE EDB, IPE, & MTBE.

LABORATORY DIRECTOR J. M. for THL

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FINAL REPORT OF ANALYSES

GROUNDWATER MANAGEMENT ASSOC.
101-E WOODWIND INDUSTRIAL
CARY, NC 27511-
Attn: CHAD LEINBACH

REPORT DATE: 04/17/95

162-05

SAMPLE NUMBER- 99338 SAMPLE ID- WSW-21 SAMPLE MATRIX- GW
DATE SAMPLED- 04/03/95 TIME SAMPLED- 1300
DATE RECEIVED- 04/06/95 SAMPLER- ROGER DUNKER RECEIVED BY- JMM
TIME RECEIVED- 1305 DELIVERED BY- CHAD LEINBACH

 PROJECT NAME : 162-05

ANALYSIS	METHOD	ANALYSIS DATE	BY	RESULT	UNITS	PQL
EPA 601/602	601/602	04/13/95	ALT			
PURGEABLE HALOCARBONS EPA 601	601/602			--------		-
BROMODICHLOROMETHANE	601/602			< 1.0	ug/L	1.0
BROMOFORM	601/602			< 1.0	ug/L	1.0
BROMOMETHANE	601/602			< 1.0	ug/L	1.0
CARBON TETRACHLORIDE	601/602			< 1.0	ug/L	1.0
CHLOROBENZENE	601/602			< 1.0	ug/L	1.0
CHLOROETHANE	601/602			< 1.0	ug/L	1.0
2-CHLOROETHYLVINYL ETHER	601/602			< 1.0	ug/L	1.0
CHLOROFORM	601/602			< 1.0	ug/L	1.0
CHLOROMETHANE	601/602			< 1.0	ug/L	1.0
DIBROMOCHLOROMETHANE	601/602			< 1.0	ug/L	1.0
1,2-DICHLOROBENZENE	601/602			< 1.0	ug/L	1.0
1,3-DICHLOROBENZENE	601/602			< 1.0	ug/L	1.0
1,4-DICHLOROBENZENE	601/602			< 1.0	ug/L	1.0
DICHLORODIFLUOROMETHANE	601/602			< 1.0	ug/L	1.0
1,1-DICHLOROETHANE	601/602			< 1.0	ug/L	1.0
1,2-DICHLOROETHANE	601/602			< 1.0	ug/L	1.0
1,1-DICHLOROETHENE	601/602			< 1.0	ug/L	1.0
trans-1,2-DICHLOROETHENE	601/602			< 1.0	ug/L	1.0
1,2-DICHLOROPROPANE	601/602			< 1.0	ug/L	1.0

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PHONE (919) 467-3090
FAX (919) 467-3515

 PROJECT NAME : 162-05

CONTINUATION OF DATA FOR SAMPLE NUMBER 99338

ANALYSIS	METHOD	ANALYSIS DATE	BY	RESULT	UNITS	PQL
cis-1,3-DICHLOROPROPENE	601/602			< 1.0	ug/L	1.0
trans-1,3-DICHLOROPROPENE	601/602			< 1.0	ug/L	1.0
METHYLENE CHLORIDE	601/602			< 1.0	ug/L	1.0
1,1,2,2-TETRACHLOROETHANE	601/602			< 1.0	ug/L	1.0
TETRACHLOROETHENE	601/602			3.5	ug/L	1.0
1,1,1-TRICHLOROETHANE	601/602			< 1.0	ug/L	1.0
1,1,2-TRICHLOROETHANE	601/602			< 1.0	ug/L	1.0
TRICHLOROETHENE	601/602			< 1.0	ug/L	1.0
TRICHLOROFLUOROMETHANE	601/602			< 1.0	ug/L	1.0
VINYL CHLORIDE	601/602			< 1.0	ug/L	1.0
SURROGATE:	601/602			--------		-
1-CHLORO-2-BROMOPROPANE	601/602			90.1	percent	-
PURGEABLE AROMATICS EPA 602	601/602			--------		-
BENZENE	601/602			< 1.0	ug/L	1.0
CHLOROBENZENE	601/602			< 1.0	ug/L	1.0
1,2-DICHLOROBENZENE	601/602			< 1.0	ug/L	1.0
1,3-DICHLOROBENZENE	601/602			< 1.0	ug/L	1.0
1,4-DICHLOROBENZENE	601/602			< 1.0	ug/L	1.0
ETHYLBENZENE	601/602			< 1.0	ug/L	1.0
TOLUENE	601/602			< 1.0	ug/L	1.0
TOTAL XYLENES	601/602			< 1.0	ug/L	1.0
SURROGATE: FLUOROBENZENE	601/602			109	percent	-
MODIFIED EPA 602	EPA 602	04/13/95	ALT			
1,2-DIBROMOETHANE (EDB)	EPA 602			< 1.0	ug/L	1.0
ISOPROPYLETHER (IPE)	EPA 602			< 1.0	ug/L	1.0
METHYLTERT-BUTYLETHER (MTBE)	EPA 602			33.3	ug/L	1.0

PQL = Practical Quantitation Limit
Results followed by the letter J are estimated concentrations.
All results for soil and sludge samples are reported on a dry weight basis as required by the NC DEM Laboratory Certification Section. Wet Weight Concentration = (dry weight conc.)(percent solids)/100.

PLEASE NOTE THAT EPA METHOD 602 WAS MODIFIED TO INCLUDE EDB, IPE, & MTBE.

LABORATORY DIRECTOR _____ for THL

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FINAL REPORT OF ANALYSES

GROUNDWATER MANAGEMENT ASSOC.
101-E WOODWIND INDUSTRIAL
CARY, NC 27511-
Attn: CHAD LEINBACH

REPORT DATE: 04/17/95

162-05

SAMPLE NUMBER- 99339 SAMPLE ID- WSW-22 SAMPLE MATRIX- GW
DATE SAMPLED- 04/03/95 TIME SAMPLED- 1300
DATE RECEIVED- 04/06/95 SAMPLER- ROGER DUNKER RECEIVED BY- JMM
TIME RECEIVED- 1305 DELIVERED BY- CHAD LEINBACH

 PROJECT NAME : 162-05

ANALYSIS	METHOD	ANALYSIS DATE	BY	RESULT	UNITS	PQL
EPA 601/602	601/602	04/13/95	ALT			
PURGEABLE HALOCARBONS EPA 601	601/602			--------		-
BROMODICHLOROMETHANE	601/602			< 1.0	ug/L	1.0
BROMOFORM	601/602			< 1.0	ug/L	1.0
BROMOMETHANE	601/602			< 1.0	ug/L	1.0
CARBON TETRACHLORIDE	601/602			< 1.0	ug/L	1.0
CHLOROBENZENE	601/602			< 1.0	ug/L	1.0
CHLOROETHANE	601/602			< 1.0	ug/L	1.0
2-CHLOROETHYLVINYL ETHER	601/602			< 1.0	ug/L	1.0
CHLOROFORM	601/602			< 1.0	ug/L	1.0
CHLOROMETHANE	601/602			< 1.0	ug/L	1.0
DIBROMOCHLOROMETHANE	601/602			< 1.0	ug/L	1.0
1,2-DICHLOROBENZENE	601/602			< 1.0	ug/L	1.0
1,3-DICHLOROBENZENE	601/602			< 1.0	ug/L	1.0
1,4-DICHLOROBENZENE	601/602			< 1.0	ug/L	1.0
DICHLORODIFLUOROMETHANE	601/602			< 1.0	ug/L	1.0
1,1-DICHLOROETHANE	601/602			< 1.0	ug/L	1.0
1,2-DICHLOROETHANE	601/602			< 1.0	ug/L	1.0
1,1-DICHLOROETHENE	601/602			< 1.0	ug/L	1.0
trans-1,2-DICHLOROETHENE	601/602			< 1.0	ug/L	1.0
1,2-DICHLOROPROPANE	601/602			< 1.0	ug/L	1.0

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PHONE (919) 467-3090
FAX (919) 467-3515

 PROJECT NAME : 162-05

CONTINUATION OF DATA FOR SAMPLE NUMBER 99339

ANALYSIS	METHOD	ANALYSIS DATE	BY	RESULT	UNITS	PQL
cis-1,3-DICHLOROPROPENE	601/602			< 1.0	ug/L	1.0
trans-1,3-DICHLOROPROPENE	601/602			< 1.0	ug/L	1.0
METHYLENE CHLORIDE	601/602			< 1.0	ug/L	1.0
1,1,2,2-TETRACHLOROETHANE	601/602			< 1.0	ug/L	1.0
TETRACHLOROETHENE	601/602			36.7	ug/L	1.0
1,1,1-TRICHLOROETHANE	601/602			< 1.0	ug/L	1.0
1,1,2-TRICHLOROETHANE	601/602			< 1.0	ug/L	1.0
TRICHLOROETHENE	601/602			0.7 J	ug/L	1.0
TRICHLOROFLUOROMETHANE	601/602			< 1.0	ug/L	1.0
VINYL CHLORIDE	601/602			< 1.0	ug/L	1.0
SURROGATE:	601/602			--------		-
1-CHLORO-2-BROMOPROPANE	601/602			88.1	percent	-
PURGEABLE AROMATICS EPA 602	601/602			--------		-
BENZENE	601/602			< 1.0	ug/L	1.0
CHLOROBENZENE	601/602			< 1.0	ug/L	1.0
1,2-DICHLOROBENZENE	601/602			< 1.0	ug/L	1.0
1,3-DICHLOROBENZENE	601/602			< 1.0	ug/L	1.0
1,4-DICHLOROBENZENE	601/602			< 1.0	ug/L	1.0
ETHYLBENZENE	601/602			< 1.0	ug/L	1.0
TOLUENE	601/602			< 1.0	ug/L	1.0
TOTAL XYLENES	601/602			< 1.0	ug/L	1.0
SURROGATE: FLUOROBENZENE	601/602			90.9	percent	-
MODIFIED EPA 602	EPA 602	04/13/95	ALT			
1,2-DIBROMOETHANE (EDB)	EPA 602			< 1.0	ug/L	1.0
ISOPROPYLETHER (IPE)	EPA 602			< 1.0	ug/L	1.0
METHYLTERT-BUTYLETHER (MTBE)	EPA 602			< 1.0	ug/L	1.0

PQL = Practical Quantitation Limit
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All results for soil and sludge samples are reported on a dry weight basis as required by the NC DEM Laboratory Certification Section. Wet Weight Concentration = (dry weight conc.)(percent solids)/100.

PLEASE NOTE THAT EPA METHOD 602 WAS MODIFIED TO INCLUDE EDB, IPE, & MTBE.

LABORATORY DIRECTOR J. M. for THL

AMERICAN COUNCIL OF INDEPENDENT LABORATORIES, INC.

State of North Carolina
Department of Environment,
Health and Natural Resources
Mooresville Regional Office

James B. Hunt, Jr., Governor
Jonathan B. Howes, Secretary
Linda Diane Long, Regional Manager

DEHNR

DIVISION OF ENVIRONMENTAL MANAGEMENT

April 7, 1995

Melanie Bradford
808 Hickory Grove Road
Gastonia, North Carolina 28056

RE: Health Risk Assessment
Bradford Well
Gaston County, N.C.

Dear Ms. Bradford:

Please find attached a copy of the Health Risk Assessment performed by Dr. Ken Rudo on your well located at 808 Hickory Grove Road, Gastonia in Gaston County.

If you should have any questions, please do not hesitate to contact Dr. Rudo at (919) 733-3410 or me at (704) 663-1699, ext. 243.

Sincerely,

Karen Walker

Karen Walker
Hydrogeologist

KDW/sc
Attachment
cc: Gaston County Health Department

919 North Main Street, Mooresville, North Carolina 28115 Telephone 704-663-1699 FAX 704-663-6040
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North Carolina Department of Environment, Health, & Natural Resources
Division of Epidemiology
Environmental Epidemiology Section

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APR 03 1995
POLLUTION CONTROL BRANCH

Drinking Water Health Risk Evaluation
General

Caston COUNTY

DATE 3/21/95 LABORATORY NUMBER 46196P

(✓) Based on these analytical results, this water should be considered safe for normal usage.

( ) Chemical analysis did not show any contamination. Water should be resampled if odor or taste persists.

( ) The water should not be used for drinking or cooking purposes, avoid prolonged bathing/showering.

( ) Based on these analytical results, this water is highly contaminated and should not be used for drinking, cooking or bathing/showering.

( ) The laboratory results are not conclusive, please resample:

PLEASE INDICATE ON LAB SHEET THAT IT IS A RESAMPLE AND PROVIDE PREVIOUS SAMPLE NUMBER(S).

( ) COMMENTS:

For further information, contact Dr. Ken Rudo or Dr. Luanne Williams, Environmental Epidemiology Section, (919) 733-3410.

DEHNR 3891 (5/92)
Environmental Epidemiology Section (Review 5/95)

Table 1. Analytical Results of Water Samples from Water-Supply Wells - Petroleum Hydrocarbons

Well	Sample #	Date	Benzene	Toluene	Ethyl-benzene	Xylenes	MTBE	EDB	IPE	Naph-thalene	Trimethyl-benzenes
15A NCAC 2L Groundwater Standards (in parts per billion)			1	1000	29	530	200	0.0004		21**	
WSW-1	924245	12/21/92	<1	<1	<1	<1	<1		<1	<1	<1
	GMA	9/22/93	<1	<1	<1	<1	3.4				
	GMA	12/8/93	<1	<1	<1	<1	15.2	<1	<1		
	GMA	3/24/94	<1	<1	<1	<1	28.1	<1	<1		
	GMA	6/29/94	<1	<1	<1	<1	89.1	<1	<1		
	GMA	9/27/94	11	<1	<1	6.3	165	<1	<1		
	GMA	12/14/94	<1	<1	<1	<1	<1	<1	<1		
	GMA	3/8/95	<1	<1	<1	<1	<1	<1	<1		
WSW-2	930087	1/5/93	<1	<1	<1	<1	3.8		<1	<1	<1
	GMA	9/22/93	<1	<1	<1	<1	36.1				
	GMA	12/7/93	<1	<1	<1	<1	26.8	<1	<1		
	GMA	3/24/94	<1	<1	<1	<1	56.6	<1	<1		
	GMA	6/29/94	<1	<1	<1	<1	43.9	<1	<1		
	GMA	9/27/94	<1	<1	<1	<1	32.1	<1	<1		
	GMA	12/14/94	<1	<1	<1	<1	34	<1	<1		
	GMA	3/8/95	<1	<1	<1	<1	76.5	<1	<1		
WSW-3	923647	10/26/92	3464.4	4686.3	81.4	1726.9	896.2		55.6	32.2	275.5
	1016 EPA	1/5/93	8100 A	9800 A	580 J	3800 A					660 J
	GMA	9/22/93*	<1	<1	<1	<1	<1				
	GMA	12/7/93*	<1	<1	<1	<1	<1	<1	<1		
	GMA	3/24/94	9920	17800	1870	22100	1100	<1000	1670		
	GMA	6/29/94	9860	19600	1800	9960	2470	<1000	1200		
	GMA	9/27/94	11400	22000	2160	11300	2500	<100	1230		
	GMA	12/14/94*	<1	<1	<1	<1	<1	<1	<1		
	GMA	1/9/95	12000	22100	1990	10800	2370	<1000	<1000		

Samples designated by a six-digit sample code were collected by Gaston County Health Department.
GMA = sample collected by Groundwater Management Associates, Inc.
GC = sample collected by Geopure Continental
EPA = sample collected by EPA Region IV
* sample collected after the point-of-entry (POE) water treatment system
** Naphthalene now has an interim standard as of December 23, 1993

Shaded areas indicate violations of 15A NCAC 2L groundwater standards.
EDB = 1,2-dibromoethane IPE = isopropyl ether
A = Average value J = Estimated value
WSW = water-supply well

Table 1. Analytical Results of Water Samples from Water-Supply Wells - Petroleum Hydrocarbons (cont.)

Well	Sample #	Date	Benzene	Toluene	Ethyl-benzene	Xylenes	MTBE	EDB	IPE	Naph-thalene	Trimethyl-benzenes
15A NCAC 2L Goundwater Standards (in parts per billion)			1	1000	29	530	200	0.0004		21**	
WSW-4	930134	1/11/93	<1	<1	<1	<1	9.5		<1	<1	<1
	930470	2/12/93	98.1	<1	<1	<1	140.8		<1	<1	<1
	930472	2/12/93	90.3	<1	<1	<1	135.8		<1	<1	<1
	930471	2/12/93	77.3	<1	<1	<1	133.7		<1	<1	<1
	GMA	9/22/93*	<1	<1	<1	<1	<1				
	GMA	12/7/93*	<1	<1	<1	<1	<1	<1	<1		
	GMA	3/24/94	<1	<1	<1	<1	145	<1	<1		
	GMA	6/29/94	0.9J	<1	<1	<1	366	<1	2		
	GMA	9/27/94	3.1 J	4.8J	<10	<10	166	<10	<10		
	D1 (a) GC	10/26/94	<1	<1	<1	<2	<5			<1	<1
	D2 (a) GC	10/26/94	<1	<1	<1	<2	<5			<1	<1
	D3 (a) GC	10/26/94	<1	<1	<1	<2	<5			<1	<1
	D1 (b) GC	10/26/94	<1	<1	<1	<2	100			<1	<1
	D2 (b) GC	10/26/94	<1	<1	<1	<2	<5			<1	<1
	D3 (b) GC	10/26/94	<1	<1	<1	<2	<5			<1	<1
	GMA	12/14/94	<5	<5	<5	<5	185	<5	<5		
	GMA	3/8/95	<5	<5	<5	<5	161	<5	10.1		

Samples designated by a six-digit sample code were collected by Gaston County Health Department.
GMA = sample collected by Groundwater Management Associates, Inc.
GC = sample collected by Geopure Continental
EPA = sample collected by EPA Region IV
# sample collected between carbon units
* sample collected after the point-of-entry (POE) water treatment system
** Naphthalene now has an interim standard as of December 23, 1993
(a) = samples taken from the Sadie Toomey residence
(b) = samples taken from the Max & Kay Toomey residence

Shaded areas indicate violations of 15A NCAC 2L groundwater standards.
EDB = 1,2-dibromoethane IPE = isopropyl ether
A = Average value J = Estimated value
WSW = water-supply well

Table 1. Analytical Results of Water Samples from Water-Supply Wells - Petroleum Hydrocarbons (cont.)

Well	Sample #	Date	Benzene	Toluene	Ethyl-benzene	Xylenes	MTBE	EDB	IPE	Naph-thalene	Trimethyl-benzenes
15A NCAC 2L Goundwater Standards (in parts per billion)			1	1000	29	530	200	0.0004		21**	
WSW-5	923997	11/23/92	<1	<1	<1	<1	35.2		<1		
	924246	12/21/92	84.6	14.6	<1	23.4	91.1		<1	<1	<1
	3115 EPA	1/5/93	320 A	40 AJ		134 A				<1	<1
	GMA	9/22/93*	<1	<1	<1	<1	<1				18.2 AJ
	WSW-5-A	12/7/93*	<1	<1	<1	<1	<1	<1	<1		
	WSW-5-B	12/7/93#	<1	<1	<1	<1	<1	<1	<1		
	WSW-5-C	12/7/93	1260	42.4 J	<50	606	323	<50	<50		
	WSW-5-D	12/7/93*	<1	<1	<1	<1	<1	<1	<1		
	GMA	3/24/94	2490	1072	564	1720	474	<100	135		
	D-1 GC	6/3/94	3300	2500	300	> 2100	930			<50	<50
	D-2 GC	6/3/94 #	<1	<1	<1	<1	510			<1	<1
	D-3 GC	6/3/94 *	<1	<1	<1	<2	<5			<1	<1
	GMA	6/29/94	3420	2470	265	3330	1110	<100	315		
	D1 GC	7/18/94	3800	3000	280	4400	1000			290	700
	D2 GC	7/18/94 #	<1	<1	<1	<3	250			<1	<1
	D3 GC	7/18/94 *	<1	<1	<1	<3	<5			<1	<1
	GMA	9/27/94	4490	4240	441J	4580	1480	<500	623		
	D1 GC	11/29/94	2900	2300	300 J	1860	760 J			<1	<1
	D2 GC	11/29/94 #	42	<1	<1	<2	1200			<1	<1
	D3 GC	11/29/94 *	<1	<1	<1	<2	<5			<1	<1
	GMA	12/14/94	3510	2910	356	3300	1100	<200	162 J		
	D1 GC	12/15/94	2600 J	2500 J	340 J	3200	770			200	660
	D2 GC	12/15/94 #	6.9	5.8	<1	5.5	<5			<1	1
	D3 GC	12/15/94 *	<1	<1	<1	<2	<5			<1	<1
	GMA	3/8/95	4100	4210	562	4410	1380	<500	733		

Samples designated by a six-digit sample code were collected by Gaston County Health Department.
GMA = sample collected by Groundwater Management Associates, Inc.
GC = sample collected by Geopure Continental
EPA = sample collected by EPA Region IV
# sample collected between carbon units
* sample collected after the point-of-entry (POE) water treatment system
** Naphthalene now has an interim standard as of December 23, 1993

Shaded areas indicate violations of 15A NCAC 2L groundwater standards.
EDB = 1,2-dibromoethane IPE = isopropyl ether
A = Average value J = Estimated value
WSW = water-supply well

Table 1. Analytical Results of Water Samples from Water-Supply Wells - Petroleum Hydrocarbons (cont.)

Well	Sample #	Date	Benzene	Toluene	Ethyl-benzene	Xylenes	MTBE	EDB	IPE	Naph-thalene	Trimethyl-benzenes
15A NCAC 2L Groundwater Standards (in parts per billion)			1	1000	29	530	200	0.0004		21**	
WSW-6	923909	11/18/92	<1	<1	<1	<1	<1		<1	<1	<1
	1010 EPA	1/593	<1	<1	<1	<1					<1
	GMA	9/22/93	<1	<1	<1	<1	<1				
	GMA	12/7/93	<1	<1	<1	<1	<1	<1	<1		
	GMA	3/24/94	<1	<1	<1	<1	<1	<1	<1		
	GMA	6/29/94	<1	<1	<1	<1	<1	<1	<1		
	GMA	9/27/94	<1	<1	<1	<1	<1	<1	<1		
	GMA	3/8/95	<1	<1	<1	<1	<1	<1	<1		
WSW-7	930583	3/3/93	<1	<1	<1	<1	<1			<1	<1
	GMA	9/22/93	<1	<1	<1	<1	<1				
	GMA	12/7/93	<1	<1	<1	<1	<1	<1	<1		
	GMA	3/24/94	<1	<1	<1	<1	<1	<1	<1		
	GMA	6/29/94	<1	<1	<1	<1	<1	<1	<1		
	GMA	9/27/94	<1	<1	<1	<1	<1	<1	<1		
	GMA	3/8/95	<1	<1	<1	<1	<1	<1	<1		
WSW-8	930089	1/5/93	<1	<1	<1	<1	<1			<1	<1
	1028 EPA	1/5/93	<1	<1	<1	<1					
	GMA	9/2/93	<1	<1	<1	<1	<1	<1	<1		
	GMA	12/8/93	<1	<1	<1	1.1	1.4	<1	1.9		
	GMA	12/14/94	139	<50	<50	337	<50	<50	<50		
	GMA	3/8/95	6.2	<1	<1	18.2	<1	<1	<1		
WSW-9	923910	11/18/92	<1	<1	<1	<1	<1		<1	<1	<1
	1017 EPA	1/5/93	<1	<1	<1	<1					<1
	GMA	12/8/93	<1	<1	<1	<1	<1	<1	<1		
	GMA	12/14/94	<1	<1	<1	<1	<1	<1	<1		
	GMA	3/8/95	<1	<1	<1	<1	4.4	<1	<1		
WSW-10	930132	1/11/93	<1	<1	<1	<1	<1	<1	<1	<1	<1
	GMA	12/14/94	<1	<1	<1	<1	<1	<1	<1		
	GMA	3/8/95	<1	<1	<1	<1	1.4	<1	<1		

Samples designated by a six-digit sample code were collected by Gaston County Health Department.
GMA = sample collected by Groundwater Management Associates, Inc.
GC = sample collected by Geopure Continental
EPA = sample collected by EPA Region IV

Shaded areas indicate violations of 15A NCAC 2L groundwater standards.
EDB = 1,2-dibromoethane IPE = isopropyl ether
A = Average value J = Estimated value
WSW = water-supply well

EMK/16205/wsw_btex.xls

Table 1. Analytical Results of Water Samples from Water-Supply Wells - Petroleum Hydrocarbons (cont.)

Well	Sample #	Date	Benzene	Toluene	Ethyl-benzene	Xylenes	MTBE	EDB	IPE	Naph-thalene	Trimethyl-benzenes
15A NCAC 2L Groundwater Standards (in parts per billion)			1	1000	29	530	200	0.0004		21**	
WSW-11	930088	1/5/93	<1	<1	<1	<1	<1		<1	<1	<1
WSW-12	923996	11/23/92	<1	<1	<1	<1	<1		<1	<1	<1
	3113 EPA	1/5/93	<1	<1	<1	<1					<1
	GMA	9/27/94	<1	<1	<1	<1	<1	<1	<1		
	GMA	3/8/95	<1	<1	<1	<1	<1	<1	<1		
WSW-13	924196	12/11/92	<1	<1	<1	<1	<1		<1	<1	<1
	GMA	3/8/95	<1	<1	<1	<1	<1	<1	<1		
WSW-14	924198	12/11/92	<1	<1	<1	<1	<1		<1	<1	<1
	GMA	9/27/94	<1	<1	<1	<1	<1	<1	<1		
	GMA	3/8/95	<1	<1	<1	<1	<1	<1	<1		
WSW-15	924197	12/11/92	<1	<1	<1	<1	<1		<1	<1	<1
	GMA	9/27/94	<1	<1	<1	<1	<1	<1	<1		
	GMA	3/8/95	<1	<1	<1	<1	<1	<1	<1		
WSW-16	924195	12/11/92	<1	<1	<1	<1	<1		<1	<1	<1
	GMA	12/14/94	<1	<1	<1	<1	3.4	<1	<1		
WSW-17	923995	11/30/92	<1	<1	<1	<1	<1		<1	<1	<1
	1105 EPA	1/5/93	<1	<1	<1	<1					<1
WSW-18	923911	11/18/92	<1	<1	<1	<1	<1		<1	<1	<1
	1104 EPA	1/5/93	<1	<1	<1	<1					<1
	GMA	4/3/95	<1	<1	<1	<1	<1	<1	<1		
WSW-19	924202	12/11/92	<1	<1	<1	<1	<1		<1	<1	<1
	GMA	12/14/94	<1	<1	<1	<1	1.2	<1	<1		
	GMA	3/8/95	3.2	<1	<1	20.3	<1	<1	<1		
	GMA	4/3/95	<1	<1	<1	<1	<1	<1	<1		
WSW-20	924199	12/11/92	<1	<1	<1	<1	<1		<1	<1	<1
	GMA	4/3/95	<1	<1	<1	<1	2.6	<1	<1		
WSW-21	GMA	4/3/95	<1	<1	<1	<1	33.3	<1	<1		
WSW-22	GMA	4/3/95	<1	<1	<1	<1	<1	<1	<1		

Samples designated by a six-digit sample code were collected by Gaston County Health Department.
GMA = sample collected by Groundwater Management Associates, Inc.
GC = sample collected by Geopure Continental
EPA = sample collected by EPA Region IV

Shaded areas indicate violations of 15A NCAC 2L groundwater standards.
EDB = 1,2-dibromoethane IPE = isopropyl ether
A = Average value J = Estimated value

EMK/16205/wsw_btex.xls

Table 2. Analytical Results of Groundwater From Water-Supply Wells - Chlorinated Hydrocarbons

Well	Sample #	Date	1,1,1-TCA	1,2-DCA	1,1-DCE	PCE
15A NCAC 2L Groundwater Standard (in ppb)			200	0.38	7	0.7
WSW-1	924245	12/21/92	4.5	<1	<1	4.5
	GMA	9/22/93	5.1	<1		
	GMA	12/8/93	3.9	<1	0.7 J	7.1
	GMA	9/27/94	2.2	<1	<1	4.8
	GMA	12/14/94	<1	<1	<1	<1
	GMA	3/8/95	<1	<1	<1	<1
WSW-2	930087	1/5/93	10.9	<1	1.8	11.4
	1028-B EPA	1/5/93	9.4 A	<1	1.6 AJ	12A
	GMA	9/22/93	3.9	<1		
	GMA	12/7/93	3.5	<1	1.1	6.1
	GMA	9/27/94	2.5	<1	<1	2.7
	GMA	3/8/95	3.1	<1	<1	6
WSW-3	1016 EPA	1/5/93	230 J	ND	ND	ND
	GMA	9/22/93 *	<1	<1		
	GMA	12/7/93 *	<1	<1	<1	<1
	GMA	9/27/94	<100	<100	<100	<100
WSW-4	923994	11/30/92	59.5	<1	7.5	71.1
	1020 EPA	1/5/93	62 A	ND	9.5 AJ	78 A
	930471	2/12/93	187.6	<1	29.7	166.9
	930134	1/11/93	81.5	<1	11.8	85.5
	930470	[illegible]/12/93	206.1	<1	32.5	188.5
	930472	2/12/93	193.6	<1	32.1	188.3
	GMA	9/22/93 *	<1	<1		
	GMA	12/7/93 *	<1	<1	<1	<1
	GMA	9/27/94	31.7	<10	<10	91.9
	D1 (a) GC	10/26/94	<0.25	<0.25	<0.75	<0.25
	D2 (a) GC	10/26/94	<0.25	<0.25	<0.75	<0.25
	D3 (a) GC	10/26/94	<0.25	<0.25	<0.75	<0.25
	D1 (b) GC	10/26/94	20	<0.25	2.9	56
	D2 (b) GC	10/26/94	<0.25	<0.25	<0.75	<0.25
	D3 (b) GC	10/26/94	<0.25	<0.25	<0.75	<0.25
	GMA	3/8/95	42.9	<5	<5	116

WSW = water-supply well Shaded areas indicate violations of NCAC 2L standards
Samples designated with a six-digit sample code were collected by the Gaston County Health Department.
GMA = sample collected by Groundwater Management Associates, Inc.
EPA = sample collected by US EPA Region IV
GC = sample collected by Geopure Continental
* sample collected after the point-of-entry (POE) treatment system
# = sample collected between carbon units
TCA = Trichloroethane, DCA = Dichloroethane, DCE = Dichloroethene, and PCE = Tetrachloroethene
Sample # 930472 from well WSW-4 contained 1.0 ppb of Trichloroethylene
A = average value J = estimated value ND = No detection limit provided.
(a) = samples taken from the Sadie Toomey residence
(b) = samples taken from teh Max & Kay Toomey residence

Table 2. Analytical Results of Groundwater From Water-Supply Wells - Chlorinated Hydrocarbons (cont.)

Well	Sample #	Date	1,1,1-TCA	1,2-DCA	1,1-DCE	PCE
15A NCAC 2L Groundwater Standard (in ppb)			200	0.38	7	0.7
WSW-5	923997	11/23/92	31.1	<1	4.1	39.8
	924246	12/21/92	15.7	<1	1.8	21.8
	3115 EPA	1/5/93	13 AJ	6.7 AJ	ND	24 AJ
	GMA	9/22/93 *	<1	<1		
	WSW-5-A GMA	12/7/93*	<1	<1	<1	<1
	WSW-5-B GMA	12/7/93 #	<1	<1	<1	<1
	WSW-5-C GMA	12/7/93	27.1 J	<50	<50	<50
	WSW-5-D GMA	12/7/93 *	<1	<1	<1	<1
	D-1 GC	6/3/94	<125	<125	<375	<125
	D-2 GC	6/3/94 #	<0.25	<0.25	<0.75	<0.25
	D-3 GC	6/3/94 *	<0.25	<0.25	<0.75	<0.25
	D1 GC	7/18/94	<10	100	<10	16 J
	D2 GC	7/18/94 #	<0.25	<0.25	<0.75	<0.25
	D3 GC	7/18/94 *	<0.25	<0.25	<0.75	<0.25
	GMA	9/27/94	<500	<500	<500	<500
	D1 GC	11/29/94	6.6	<0.25	0.77	17
	D2 GC	11/29/94 #	<0.25	0.82	<0.75	<0.25
	D3 GC	11/29/94 *	<0.25	<0.25	<0.75	<0.25
	D1 GC	12/15/94	6.0	<0.25	<0.75	17
	D2 GC	12/15/94 #	<0.25	<0.25	<0.75	<0.25
	D3 GC	12/15/94 *	<0.25	<0.25	<0.75	<0.25
	GMA	3/8/95	<500	<500	<500	<500
WSW-6	923909	11/18/92	4.2	<1	<1	<1
	1010 EPA	1/5/93	3.5 AJ	ND	ND	ND
	GMA	9/22/93	<1	<1		
	GMA	12/7/93	<1	<1	<1	<1
	GMA	9/27/94	<1	<1	<1	<1
WSW-7	930583	3/3/93	1.8	<1	<1	<1
	GMA	9/22/93	<1	<1		
	GMA	12/7/93	<1	<1	<1	<1
	GMA	9/27/94	<1	<1	<1	<1
WSW-8	930089	1/5/93	<1	1.1	<1	<1
	1028 EPA	1/5/93	ND	1.6 AJ		ND
	GMA	9/2/93	<1	1	<1	<1
	GMA	12/8/93	<1	<1	<1	<1
	GMA	3/8/95	<1	<1	<1	<1
WSW-9	923910	11/18/92	3.7	<1	<1	<1
	1017 EPA	1/5/93	0.66 AJ	ND	ND	ND
	GMA	12/8/93	<1	<1	<1	<1

WSW = water-supply well Shaded areas indicate violations of NCAC 2L standards
Samples designated with a six-digit sample code were collected by the Gaston County Health Department.
GMA = sample collected by Groundwater Management Associates, Inc.
EPA = sample collected by US EPA Region IV
* sample collected after the point-of-entry (POE) treatment system
# = sample collected between carbon units
TCA = Trichloroethane, DCA = Dichloroethane, DCE = Dichloroethene, and PCE = Tetrachloroethene
A = average value J = estimated value ND = No detection limit provided.
EMK/16205/wswclor.xls

Table 2. Analytical Results of Groundwater From Water-Supply Wells - Chlorinated Hydrocarbons (cont.)

Well	Sample #	Date	1,1,1-TCA	1,2-DCA	1,1-DCE	PCE
15A NCAC 2L Groundwater Standard (in ppb)			200	0.38	7	0.7
WSW-10	930132	1/11/93	12.5	<1	<1	<1
WSW-11	930088	1/5/93	1.2	<1	<1	<1
WSW-12	923996	11/23/92	<1	<1	<1	<1
	GMA	9/27/94	<1	<1	<1	<1
WSW13	924196	12/11/92	<1	<1	<1	<1
WSW14	924198	12/11/92	<1	<1	<1	<1
	GMA	9/27/94	<1	<1	<1	<1
WSW-15	924197	12/11/92	<1	<1	<1	<1
	GMA	9/27/94	<1	<1	<1	<1
WSW-16	924195	12/11/92	<1	<1	<1	<1
WSW-17	923995	11/30/92	<1	<1	<1	<1
WSW-18	923911	11/18/92	<1	<1	<1	<1
	GMA	4/3/95	<1	<1	<1	<1
WSW-19	924202	12/11/92	<1	<1	<1	<1
	GMA	3/8/95	<1	<1	<1	<1
	GMA	4/3/95	<1	<1	<1	<1
WSW-20	924199	12/11/92	<1	<1	<1	<1
	GMA	4/3/95	<1	<1	<1	0.5 J
WSW-21	GMA	4/3/95	<1	<1	<1	3.5
WSW-22	GMA	4/3/95	0.7 J	<1	<1	36.7

WSW = water-supply well Shaded areas indicate violations of NCAC 2L standards
Samples designated with a six-digit sample code were collected by the Gaston County Health Department.
GMA = sample collected by Groundwater Management Associates, Inc.
EPA = sample collected by US EPA Region IV
* sample collected after the point-of-entry (POE) treatment system
# = sample collected between carbon units
TCA = Trichloroethane, DCA = Dichloroethane, DCE = Dichloroethene, and PCE = Tetrachloroethene
A = average value J = estimated value ND = No detection limit provided.

Table 3. Proposed Monitoring Schedule for Water-Supply-Wells

Sampling Event	Wells to be Sampled	Analyses
December	WSW-1 through WSW-5	EPA Method 602 extended to include MTBE, EDB, and IPE
March	WSW-1 through WSW-10, WSW-12 through WSW-16, and WSW-18 through WSW-22	EPA Method 602 extended to include MTBE, EDB, and IPE
	WSW-1 through WSW-5 WSW-18 through WSW-22	EPA Method 601
June	WSW-1 through WSW-5	EPA Method 602 extended to include MTBE, EDB, and IPE
September	WSW-1 through WSW-10, WSW-12 through WSW-16, and WSW-18 through WSW-22	EPA Method 602 extended to include MTBE, EDB, and IPE
	WSW-1 through WSW-5 WSW-18 through WSW-22	EPA Method 601

Chemical & Environmental Technology, Inc.

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FINAL REPORT OF ANALYSES

GROUNDWATER MANAGEMENT ASSOC.
101-E WOODWINDS IND. CT.
CARY, NC 27511-

REPORT DATE: 03/24/95

162-05

SAMPLE NUMBER- 98056 SAMPLE ID- WSW-1 SAMPLE MATRIX- GW
DATE SAMPLED- 03/08/95 TIME SAMPLED- 1400
DATE RECEIVED- 03/09/95 SAMPLER- ROGER DUNKER RECEIVED BY- MHH
TIME RECEIVED- 1249 DELIVERED BY- CHAD LEINBACH

 PROJECT NAME : 162-05

ANALYSIS	METHOD	ANALYSIS DATE	BY	RESULT	UNITS	PQL
EPA 601/602	601/602	03/22/95	ALT			
PURGEABLE HALOCARBONS EPA 601	601/602			--------		-
BROMODICHLOROMETHANE	601/602			< 1.0	ug/L	1.0
BROMOFORM	601/602			< 1.0	ug/L	1.0
BROMOMETHANE	601/602			< 1.0	ug/L	1.0
CARBON TETRACHLORIDE	601/602			< 1.0	ug/L	1.0
CHLOROBENZENE	601/602			< 1.0	ug/L	1.0
CHLOROETHANE	601/602			< 1.0	ug/L	1.0
2-CHLOROETHYLVINYL ETHER	601/602			< 1.0	ug/L	1.0
CHLOROFORM	601/602			< 1.0	ug/L	1.0
CHLOROMETHANE	601/602			< 1.0	ug/L	1.0
DIBROMOCHLOROMETHANE	601/602			< 1.0	ug/L	1.0
1,2-DICHLOROBENZENE	601/602			< 1.0	ug/L	1.0
1,3-DICHLOROBENZENE	601/602			< 1.0	ug/L	1.0
1,4-DICHLOROBENZENE	601/602			< 1.0	ug/L	1.0
DICHLORODIFLUOROMETHANE	601/602			< 1.0	ug/L	1.0
1,1-DICHLOROETHANE	601/602			< 1.0	ug/L	1.0
1,2-DICHLOROETHANE	601/602			< 1.0	ug/L	1.0
1,1-DICHLOROETHENE	601/602			< 1.0	ug/L	1.0
trans-1,2-DICHLOROETHENE	601/602			< 1.0	ug/L	1.0
1,2-DICHLOROPROPANE	601/602			< 1.0	ug/L	1.0

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 PROJECT NAME : 162-05

CONTINUATION OF DATA FOR SAMPLE NUMBER 98056

ANALYSIS	METHOD	ANALYSIS DATE	BY	RESULT	UNITS	PQL
cis-1,3-DICHLOROPROPENE	601/602			< 1.0	ug/L	1.0
trans-1,3-DICHLOROPROPENE	601/602			< 1.0	ug/L	1.0
METHYLENE CHLORIDE	601/602			< 1.0	ug/L	1.0
1,1,2,2-TETRACHLOROETHANE	601/602			< 1.0	ug/L	1.0
TETRACHLOROETHENE	601/602			< 1.0	ug/L	1.0
1,1,1-TRICHLOROETHANE	601/602			< 1.0	ug/L	1.0
1,1,2-TRICHLOROETHANE	601/602			< 1.0	ug/L	1.0
TRICHLOROETHENE	601/602			< 1.0	ug/L	1.0
TRICHLOROFLUOROMETHANE	601/602			< 1.0	ug/L	1.0
VINYL CHLORIDE	601/602			< 1.0	ug/L	1.0
SURROGATE:	601/602			--------		-
1-CHLORO-2-BROMOPROPANE	601/602			99.1	percent	-
PURGEABLE AROMATICS EPA 602	601/602			--------		-
BENZENE	601/602			< 1.0	ug/L	1.0
CHLOROBENZENE	601/602			< 1.0	ug/L	1.0
1,2-DICHLOROBENZENE	601/602			< 1.0	ug/L	1.0
1,3-DICHLOROBENZENE	601/602			< 1.0	ug/L	1.0
1,4-DICHLOROBENZENE	601/602			< 1.0	ug/L	1.0
ETHYLBENZENE	601/602			< 1.0	ug/L	1.0
TOLUENE	601/602			< 1.0	ug/L	1.0
TOTAL XYLENES	601/602			< 1.0	ug/L	1.0
SURROGATE: FLUOROBENZENE	601/602			102	percent	-
MODIFIED EPA 602	EPA 602	03/22/95	ALT			
1,2-DIBROMOETHANE (EDB)	EPA 602			< 1.0	ug/L	1.0
ISOPROPYLETHER (IPE)	EPA 602			< 1.0	ug/L	1.0
METHYLTERT-BUTYLETHER (MTBE)	EPA 602			< 1.0	ug/L	1.0

PQL = Practical Quantitation Limit
Results followed by the letter J are estimated concentrations.
All results for soil and sludge samples are reported on a dry weight basis as required by the NC DEM Laboratory Certification Section. Wet Weight Concentration = (dry weight conc.)(percent solids)/100.

LABORATORY DIRECTOR Janie Fitzgerald

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FINAL REPORT OF ANALYSES

GROUNDWATER MANAGEMENT ASSOC.
101-E WOODWINDS IND. CT.
CARY, NC 27511-

REPORT DATE: 03/24/95

162-05

SAMPLE NUMBER- 98057 SAMPLE ID- WSW-2 SAMPLE MATRIX- GW
DATE SAMPLED- 03/08/95 TIME SAMPLED- 1400
DATE RECEIVED- 03/09/95 SAMPLER- ROGER DUNKER RECEIVED BY- MHH
TIME RECEIVED- 1249 DELIVERED BY- CHAD LEINBACH

 PROJECT NAME : 162-05

ANALYSIS	METHOD	ANALYSIS DATE	BY	RESULT	UNITS	PQL
EPA 601/602	601/602	03/22/95	ALT			
PURGEABLE HALOCARBONS EPA 601	601/602			--------		-
BROMODICHLOROMETHANE	601/602			< 1.0	ug/L	1.0
BROMOFORM	601/602			< 1.0	ug/L	1.0
BROMOMETHANE	601/602			< 1.0	ug/L	1.0
CARBON TETRACHLORIDE	601/602			< 1.0	ug/L	1.0
CHLOROBENZENE	601/602			< 1.0	ug/L	1.0
CHLOROETHANE	601/602			< 1.0	ug/L	1.0
2-CHLOROETHYLVINYL ETHER	601/602			< 1.0	ug/L	1.0
CHLOROFORM	601/602			< 1.0	ug/L	1.0
CHLOROMETHANE	601/602			< 1.0	ug/L	1.0
DIBROMOCHLOROMETHANE	601/602			< 1.0	ug/L	1.0
1,2-DICHLOROBENZENE	601/602			< 1.0	ug/L	1.0
1,3-DICHLOROBENZENE	601/602			< 1.0	ug/L	1.0
1,4-DICHLOROBENZENE	601/602			< 1.0	ug/L	1.0
DICHLORODIFLUOROMETHANE	601/602			< 1.0	ug/L	1.0
1,1-DICHLOROETHANE	601/602			< 1.0	ug/L	1.0
1,2-DICHLOROETHANE	601/602			< 1.0	ug/L	1.0
1,1-DICHLOROETHENE	601/602			< 1.0	ug/L	1.0
trans-1,2-DICHLOROETHENE	601/602			< 1.0	ug/L	1.0
1,2-DICHLOROPROPANE	601/602			< 1.0	ug/L	1.0

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 PROJECT NAME : 162-05

CONTINUATION OF DATA FOR SAMPLE NUMBER 98057

ANALYSIS	METHOD	ANALYSIS DATE	BY	RESULT	UNITS	PQL
cis-1,3-DICHLOROPROPENE	601/602			< 1.0	ug/L	1.0
trans-1,3-DICHLOROPROPENE	601/602			< 1.0	ug/L	1.0
METHYLENE CHLORIDE	601/602			< 1.0	ug/L	1.0
1,1,2,2-TETRACHLOROETHANE	601/602			< 1.0	ug/L	1.0
TETRACHLOROETHENE	601/602			6.0	ug/L	1.0
1,1,1-TRICHLOROETHANE	601/602			3.1	ug/L	1.0
1,1,2-TRICHLOROETHANE	601/602			< 1.0	ug/L	1.0
TRICHLOROETHENE	601/602			< 1.0	ug/L	1.0
TRICHLOROFLUOROMETHANE	601/602			< 1.0	ug/L	1.0
VINYL CHLORIDE	601/602			< 1.0	ug/L	1.0
SURROGATE:	601/602			--------		-
1-CHLORO-2-BROMOPROPANE	601/602			99.6	percent	-
PURGEABLE AROMATICS EPA 602	601/602			--------		-
BENZENE	601/602			< 1.0	ug/L	1.0
CHLOROBENZENE	601/602			< 1.0	ug/L	1.0
1,2-DICHLOROBENZENE	601/602			< 1.0	ug/L	1.0
1,3-DICHLOROBENZENE	601/602			< 1.0	ug/L	1.0
1,4-DICHLOROBENZENE	601/602			< 1.0	ug/L	1.0
ETHYLBENZENE	601/602			< 1.0	ug/L	1.0
TOLUENE	601/602			< 1.0	ug/L	1.0
TOTAL XYLENES	601/602			< 1.0	ug/L	1.0
SURROGATE: FLUOROBENZENE	601/602			103	percent	-
MODIFIED EPA 602	EPA 602	03/22/95	ALT			
1,2-DIBROMOETHANE (EDB)	EPA 602			< 1.0	ug/L	1.0
ISOPROPYLETHER (IPE)	EPA 602			< 1.0	ug/L	1.0
METHYLTERT-BUTYLETHER (MTBE)	EPA 602			76.5	ug/L	1.0

PQL = Practical Quantitation Limit
Results followed by the letter J are estimated concentrations.
All results for soil and sludge samples are reported on a dry weight basis as required by the NC DEM Laboratory Certification Section. Wet Weight Concentration = (dry weight conc.)(percent solids)/100.

LABORATORY DIRECTOR Irvie Litzberger

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FINAL REPORT OF ANALYSES

GROUNDWATER MANAGEMENT ASSOC.
101-E WOODWINDS IND. CT.
CARY, NC 27511-

REPORT DATE: 03/24/95

162-05

SAMPLE NUMBER- 98058 SAMPLE ID- WSW-4 SAMPLE MATRIX- GW
DATE SAMPLED- 03/08/95 TIME SAMPLED- 1400
DATE RECEIVED- 03/09/95 SAMPLER- ROGER DUNKER RECEIVED BY- MHH
TIME RECEIVED- 1249 DELIVERED BY- CHAD LEINBACH

 PROJECT NAME : 162-05

ANALYSIS	METHOD	ANALYSIS DATE	BY	RESULT	UNITS	PQL
EPA 601/602	601/602	03/22/95	ALT			
PURGEABLE HALOCARBONS EPA 601	601/602			--------		-
BROMODICHLOROMETHANE	601/602			< 5.0	ug/L	5.0
BROMOFORM	601/602			< 5.0	ug/L	5.0
BROMOMETHANE	601/602			< 5.0	ug/L	5.0
CARBON TETRACHLORIDE	601/602			< 5.0	ug/L	5.0
CHLOROBENZENE	601/602			< 5.0	ug/L	5.0
CHLOROETHANE	601/602			< 5.0	ug/L	5.0
2-CHLOROETHYLVINYL ETHER	601/602			< 5.0	ug/L	5.0
CHLOROFORM	601/602			< 5.0	ug/L	5.0
CHLOROMETHANE	601/602			< 5.0	ug/L	5.0
DIBROMOCHLOROMETHANE	601/602			< 5.0	ug/L	5.0
1,2-DICHLOROBENZENE	601/602			< 5.0	ug/L	5.0
1,3-DICHLOROBENZENE	601/602			< 5.0	ug/L	5.0
1,4-DICHLOROBENZENE	601/602			< 5.0	ug/L	5.0
DICHLORODIFLUOROMETHANE	601/602			< 5.0	ug/L	5.0
1,1-DICHLOROETHANE	601/602			< 5.0	ug/L	5.0
1,2-DICHLOROETHANE	601/602			< 5.0	ug/L	5.0
1,1-DICHLOROETHENE	601/602			< 5.0	ug/L	5.0
trans-1,2-DICHLOROETHENE	601/602			< 5.0	ug/L	5.0
1,2-DICHLOROPROPANE	601/602			< 5.0	ug/L	5.0

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 PROJECT NAME : 162-05

CONTINUATION OF DATA FOR SAMPLE NUMBER 98058

ANALYSIS	METHOD	ANALYSIS DATE	BY	RESULT	UNITS	PQL
cis-1,3-DICHLOROPROPENE	601/602			< 5.0	ug/L	5.0
trans-1,3-DICHLOROPROPENE	601/602			< 5.0	ug/L	5.0
METHYLENE CHLORIDE	601/602			< 5.0	ug/L	5.0
1,1,2,2-TETRACHLOROETHANE	601/602			< 5.0	ug/L	5.0
TETRACHLOROETHENE	601/602			116	ug/L	5.0
1,1,1-TRICHLOROETHANE	601/602			42.9	ug/L	5.0
1,1,2-TRICHLOROETHANE	601/602			< 5.0	ug/L	5.0
TRICHLOROETHENE	601/602			< 5.0	ug/L	5.0
TRICHLOROFLUOROMETHANE	601/602			< 5.0	ug/L	5.0
VINYL CHLORIDE	601/602			< 5.0	ug/L	5.0
SURROGATE:	601/602			--------		-
1-CHLORO-2-BROMOPROPANE	601/602			100	percent	-
PURGEABLE AROMATICS EPA 602	601/602			--------		-
BENZENE	601/602			< 5.0	ug/L	5.0
CHLOROBENZENE	601/602			< 5.0	ug/L	5.0
1,2-DICHLOROBENZENE	601/602			< 5.0	ug/L	5.0
1,3-DICHLOROBENZENE	601/602			< 5.0	ug/L	5.0
1,4-DICHLOROBENZENE	601/602			< 5.0	ug/L	5.0
ETHYLBENZENE	601/602			< 5.0	ug/L	5.0
TOLUENE	601/602			< 5.0	ug/L	5.0
TOTAL XYLENES	601/602			< 5.0	ug/L	5.0
SURROGATE: FLUOROBENZENE	601/602			101	percent	-
MODIFIED EPA 602	EPA 602	03/22/95	ALT			
1,2-DIBROMOETHANE (EDB)	EPA 602			< 5.0	ug/L	5.0
ISOPROPYLETHER (IPE)	EPA 602			10.1	ug/L	5.0
METHYLTERT-BUTYLETHER (MTBE)	EPA 602			161	ug/L	5.0

PQL = Practical Quantitation Limit
Results followed by the letter J are estimated concentrations.
All results for soil and sludge samples are reported on a dry weight basis as required by the NC DEM Laboratory Certification Section. Wet Weight Concentration = (dry weight conc.)(percent solids)/100.

LABORATORY DIRECTOR Jessie Lutzenberger

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FINAL REPORT OF ANALYSES

GROUNDWATER MANAGEMENT ASSOC.
101-E WOODWINDS IND. CT.
CARY, NC 27511-

REPORT DATE: 03/24/95

162-05

SAMPLE NUMBER- 98059 SAMPLE ID- WSW-5 SAMPLE MATRIX- GW
DATE SAMPLED- 03/08/95 TIME SAMPLED- 1400
DATE RECEIVED- 03/09/95 SAMPLER- ROGER DUNKER RECEIVED BY- MHH
TIME RECEIVED- 1249 DELIVERED BY- CHAD LEINBACH

 PROJECT NAME : 162-05

ANALYSIS	METHOD	ANALYSIS DATE	BY	RESULT	UNITS	PQL
EPA 601/602	601/602	03/22/95	ALT			
PURGEABLE HALOCARBONS EPA 601	601/602			--------		-
BROMODICHLOROMETHANE	601/602			< 500	ug/L	500
BROMOFORM	601/602			< 500	ug/L	500
BROMOMETHANE	601/602			< 500	ug/L	500
CARBON TETRACHLORIDE	601/602			< 500	ug/L	500
CHLOROBENZENE	601/602			< 500	ug/L	500
CHLOROETHANE	601/602			< 500	ug/L	500
2-CHLOROETHYLVINYL ETHER	601/602			< 500	ug/L	500
CHLOROFORM	601/602			< 500	ug/L	500
CHLOROMETHANE	601/602			< 500	ug/L	500
DIBROMOCHLOROMETHANE	601/602			< 500	ug/L	500
1,2-DICHLOROBENZENE	601/602			< 500	ug/L	500
1,3-DICHLOROBENZENE	601/602			< 500	ug/L	500
1,4-DICHLOROBENZENE	601/602			< 500	ug/L	500
DICHLORODIFLUOROMETHANE	601/602			< 500	ug/L	500
1,1-DICHLOROETHANE	601/602			< 500	ug/L	500
1,2-DICHLOROETHANE	601/602			< 500	ug/L	500
1,1-DICHLOROETHENE	601/602			< 500	ug/L	500
trans-1,2-DICHLOROETHENE	601/602			< 500	ug/L	500
1,2-DICHLOROPROPANE	601/602			< 500	ug/L	500

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 PROJECT NAME : 162-05

CONTINUATION OF DATA FOR SAMPLE NUMBER 98059

ANALYSIS	METHOD	ANALYSIS DATE	BY	RESULT	UNITS	PQL
cis-1,3-DICHLOROPROPENE	601/602			< 500	ug/L	500
trans-1,3-DICHLOROPROPENE	601/602			< 500	ug/L	500
METHYLENE CHLORIDE	601/602			< 500	ug/L	500
1,1,2,2-TETRACHLOROETHANE	601/602			< 500	ug/L	500
TETRACHLOROETHENE	601/602			< 500	ug/L	500
1,1,1-TRICHLOROETHANE	601/602			< 500	ug/L	500
1,1,2-TRICHLOROETHANE	601/602			< 500	ug/L	500
TRICHLOROETHENE	601/602			< 500	ug/L	500
TRICHLOROFLUOROMETHANE	601/602			< 500	ug/L	500
VINYL CHLORIDE	601/602			< 500	ug/L	500
SURROGATE:	601/602			--------		-
1-CHLORO-2-BROMOPROPANE	601/602			105	percent	-
PURGEABLE AROMATICS EPA 602	601/602			--------		-
BENZENE	601/602			4100	ug/L	500
CHLOROBENZENE	601/602			< 500	ug/L	500
1,2-DICHLOROBENZENE	601/602			< 500	ug/L	500
1,3-DICHLOROBENZENE	601/602			< 500	ug/L	500
1,4-DICHLOROBENZENE	601/602			< 500	ug/L	500
ETHYLBENZENE	601/602			562	ug/L	500
TOLUENE	601/602			4210	ug/L	500
TOTAL XYLENES	601/602			4410	ug/L	500
SURROGATE: FLUOROBENZENE	601/602			104	percent	-
MODIFIED EPA 602	EPA 602	03/22/95	ALT			
1,2-DIBROMOETHANE (EDB)	EPA 602			< 500	ug/L	500
ISOPROPYLETHER (IPE)	EPA 602			733	ug/L	500
METHYLTERT-BUTYLETHER (MTBE)	EPA 602			1380	ug/L	500

PQL = Practical Quantitation Limit
Results followed by the letter J are estimated concentrations.
All results for soil and sludge samples are reported on a dry weight basis as required by the NC DEM Laboratory Certification Section. Wet Weight Concentration = (dry weight conc.)(percent solids)/100.

LABORATORY DIRECTOR Jessie Lutzgebey

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FINAL REPORT OF ANALYSES

GROUNDWATER MANAGEMENT ASSOC.
101-E WOODWINDS IND. CT.
CARY, NC 27511-

REPORT DATE: 03/24/95

162-05

SAMPLE NUMBER- 98060 SAMPLE ID- WSW-6 SAMPLE MATRIX- GW
DATE SAMPLED- 03/08/95 TIME SAMPLED- 1400
DATE RECEIVED- 03/09/95 SAMPLER- ROGER DUNKER RECEIVED BY- MHH
TIME RECEIVED- 1249 DELIVERED BY- CHAD LEINBACH

Page 1 of 1 PROJECT NAME : 162-05

ANALYSIS	METHOD	ANALYSIS DATE	BY	RESULT	UNITS	PQL
PURGEABLE AROMATIC EPA 602	EPA 602	03/22/95	ALT			
BENZENE	EPA 602			< 1.0	ug/L	1.0
CHLOROBENZENE	EPA 602			< 1.0	ug/L	1.0
1,2-DICHLOROBENZENE	EPA 602			< 1.0	ug/L	1.0
1,3-DICHLOROBENZENE	EPA 602			< 1.0	ug/L	1.0
1,4-DICHLOROBENZENE	EPA 602			< 1.0	ug/L	1.0
ETHYLBENZENE	EPA 602			< 1.0	ug/L	1.0
TOLUENE	EPA 602			< 1.0	ug/L	1.0
TOTAL XYLENES	EPA 602			< 1.0	ug/L	1.0
SURROGATE: FLUOROBENZENE	EPA 602			102	percent	-
MODIFIED EPA 602	EPA 602	03/22/95	ALT			
1,2-DIBROMOETHANE (EDB)	EPA 602			< 1.0	ug/L	1.0
ISOPROPYLETHER (IPE)	EPA 602			< 1.0	ug/L	1.0
METHYLTERT-BUTYLETHER (MTBE)	EPA 602			< 1.0	ug/L	1.0

PQL = Practical Quantitation Limit
Results followed by the letter J are estimated concentrations.
All results for soil and sludge samples are reported on a dry weight basis as required by the NC DEM Laboratory Certification Section. Wet Weight Concentration = (dry weight conc.)(percent solids)/100.

LABORATORY DIRECTOR Jorie Litzberger

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FINAL REPORT OF ANALYSES

GROUNDWATER MANAGEMENT ASSOC.
101-E WOODWINDS IND. CT.
CARY, NC 27511-

REPORT DATE: 03/24/95

162-05

SAMPLE NUMBER- 98061 SAMPLE ID- WSW-7 SAMPLE MATRIX- GW
DATE SAMPLED- 03/08/95 TIME SAMPLED- 1400
DATE RECEIVED- 03/09/95 SAMPLER- ROGER DUNKER RECEIVED BY- MHH
TIME RECEIVED- 1249 DELIVERED BY- CHAD LEINBACH

 PROJECT NAME : 162-05

ANALYSIS	METHOD	ANALYSIS DATE	BY	RESULT	UNITS	PQL
PURGEABLE AROMATIC EPA 602	EPA 602	03/22/95	ALT			
BENZENE	EPA 602			< 1.0	ug/L	1.0
CHLOROBENZENE	EPA 602			< 1.0	ug/L	1.0
1,2-DICHLOROBENZENE	EPA 602			< 1.0	ug/L	1.0
1,3-DICHLOROBENZENE	EPA 602			< 1.0	ug/L	1.0
1,4-DICHLOROBENZENE	EPA 602			< 1.0	ug/L	1.0
ETHYLBENZENE	EPA 602			< 1.0	ug/L	1.0
TOLUENE	EPA 602			< 1.0	ug/L	1.0
TOTAL XYLENES	EPA 602			< 1.0	ug/L	1.0
SURROGATE: FLUOROBENZENE	EPA 602			104	percent	-
MODIFIED EPA 602	EPA 602	03/22/95	ALT			
1,2-DIBROMOETHANE (EDB)	EPA 602			< 1.0	ug/L	1.0
ISOPROPYLETHER (IPE)	EPA 602			< 1.0	ug/L	1.0
METHYLTERT-BUTYLETHER (MTBE)	EPA 602			< 1.0	ug/L	1.0

PQL = Practical Quantitation Limit
Results followed by the letter J are estimated concentrations.
All results for soil and sludge samples are reported on a dry weight basis as required by the NC DEM Laboratory Certification Section. Wet Weight Concentration = (dry weight conc.)(percent solids)/100.

LABORATORY DIRECTOR Terrie Lotzbeg

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FINAL REPORT OF ANALYSES

GROUNDWATER MANAGEMENT ASSOC.
101-E WOODWINDS IND. CT.
CARY, NC 27511-

REPORT DATE: 03/24/95

162-05

SAMPLE NUMBER- 98062 SAMPLE ID- WSW-8 SAMPLE MATRIX- GW
DATE SAMPLED- 03/08/95 TIME SAMPLED- 1400
DATE RECEIVED- 03/09/95 SAMPLER- ROGER DUNKER RECEIVED BY- MHH
TIME RECEIVED- 1249 DELIVERED BY- CHAD LEINBACH

 PROJECT NAME : 162-05

ANALYSIS	METHOD	ANALYSIS DATE	BY	RESULT	UNITS	PQL
EPA 601/602	601/602	03/22/95	ALT			
PURGEABLE HALOCARBONS EPA 601	601/602			--------		-
BROMODICHLOROMETHANE	601/602			< 1.0	ug/L	1.0
BROMOFORM	601/602			< 1.0	ug/L	1.0
BROMOMETHANE	601/602			< 1.0	ug/L	1.0
CARBON TETRACHLORIDE	601/602			< 1.0	ug/L	1.0
CHLOROBENZENE	601/602			< 1.0	ug/L	1.0
CHLOROETHANE	601/602			< 1.0	ug/L	1.0
2-CHLOROETHYLVINYL ETHER	601/602			< 1.0	ug/L	1.0
CHLOROFORM	601/602			< 1.0	ug/L	1.0
CHLOROMETHANE	601/602			< 1.0	ug/L	1.0
DIBROMOCHLOROMETHANE	601/602			< 1.0	ug/L	1.0
1,2-DICHLOROBENZENE	601/602			< 1.0	ug/L	1.0
1,3-DICHLOROBENZENE	601/602			< 1.0	ug/L	1.0
1,4-DICHLOROBENZENE	601/602			< 1.0	ug/L	1.0
DICHLORODIFLUOROMETHANE	601/602			< 1.0	ug/L	1.0
1,1-DICHLOROETHANE	601/602			< 1.0	ug/L	1.0
1,2-DICHLOROETHANE	601/602			< 1.0	ug/L	1.0
1,1-DICHLOROETHENE	601/602			< 1.0	ug/L	1.0
trans-1,2-DICHLOROETHENE	601/602			< 1.0	ug/L	1.0
1,2-DICHLOROPROPANE	601/602			< 1.0	ug/L	1.0

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 PROJECT NAME : 162-05

CONTINUATION OF DATA FOR SAMPLE NUMBER 98062

ANALYSIS	METHOD	ANALYSIS DATE	BY	RESULT	UNITS	PQL
cis-1,3-DICHLOROPROPENE	601/602			< 1.0	ug/L	1.0
trans-1,3-DICHLOROPROPENE	601/602			< 1.0	ug/L	1.0
METHYLENE CHLORIDE	601/602			< 1.0	ug/L	1.0
1,1,2,2-TETRACHLOROETHANE	601/602			< 1.0	ug/L	1.0
TETRACHLOROETHENE	601/602			< 1.0	ug/L	1.0
1,1,1-TRICHLOROETHANE	601/602			< 1.0	ug/L	1.0
1,1,2-TRICHLOROETHANE	601/602			< 1.0	ug/L	1.0
TRICHLOROETHENE	601/602			< 1.0	ug/L	1.0
TRICHLOROFLUOROMETHANE	601/602			< 1.0	ug/L	1.0
VINYL CHLORIDE	601/602			< 1.0	ug/L	1.0
SURROGATE:	601/602			--------		-
1-CHLORO-2-BROMOPROPANE	601/602			105	percent	-
PURGEABLE AROMATICS EPA 602	601/602			--------		-
BENZENE	601/602			6.2	ug/L	1.0
CHLOROBENZENE	601/602			< 1.0	ug/L	1.0
1,2-DICHLOROBENZENE	601/602			< 1.0	ug/L	1.0
1,3-DICHLOROBENZENE	601/602			< 1.0	ug/L	1.0
1,4-DICHLOROBENZENE	601/602			< 1.0	ug/L	1.0
ETHYLBENZENE	601/602			< 1.0	ug/L	1.0
TOLUENE	601/602			< 1.0	ug/L	1.0
TOTAL XYLENES	601/602			18.2	ug/L	1.0
SURROGATE: FLUOROBENZENE	601/602			104	percent	-
MODIFIED EPA 602	EPA 602	03/22/95	ALT			
1,2-DIBROMOETHANE (EDB)	EPA 602			< 1.0	ug/L	1.0
ISOPROPYLETHER (IPE)	EPA 602			< 1.0	ug/L	1.0
METHYLTERT-BUTYLETHER (MTBE)	EPA 602			< 1.0	ug/L	1.0

PQL = Practical Quantitation Limit
Results followed by the letter J are estimated concentrations.
All results for soil and sludge samples are reported on a dry weight basis as required by the NC DEM Laboratory Certification Section. Wet Weight Concentration = (dry weight conc.)(percent solids)/100.

LABORATORY DIRECTOR Jerrie Fitzgerald

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FINAL REPORT OF ANALYSES

GROUNDWATER MANAGEMENT ASSOC.
101-E WOODWINDS IND. CT.
CARY, NC 27511-

REPORT DATE: 03/24/95

162-05

SAMPLE NUMBER- 98063 SAMPLE ID- WSW-9 SAMPLE MATRIX- GW
DATE SAMPLED- 03/08/95 TIME SAMPLED- 1400
DATE RECEIVED- 03/09/95 SAMPLER- ROGER DUNKER RECEIVED BY- MHH
TIME RECEIVED- 1249 DELIVERED BY- CHAD LEINBACH

Page 1 of 1 PROJECT NAME : 162-05

ANALYSIS	METHOD	ANALYSIS DATE	BY	RESULT	UNITS	PQL
PURGEABLE AROMATIC EPA 602	EPA 602	03/22/95	ALT			
BENZENE	EPA 602			< 1.0	ug/L	1.0
CHLOROBENZENE	EPA 602			< 1.0	ug/L	1.0
1,2-DICHLOROBENZENE	EPA 602			< 1.0	ug/L	1.0
1,3-DICHLOROBENZENE	EPA 602			< 1.0	ug/L	1.0
1,4-DICHLOROBENZENE	EPA 602			< 1.0	ug/L	1.0
ETHYLBENZENE	EPA 602			< 1.0	ug/L	1.0
TOLUENE	EPA 602			< 1.0	ug/L	1.0
TOTAL XYLENES	EPA 602			< 1.0	ug/L	1.0
SURROGATE: FLUOROBENZENE	EPA 602			110	percent	-
MODIFIED EPA 602	EPA 602	03/22/95	ALT			
1,2-DIBROMOETHANE (EDB)	EPA 602			< 1.0	ug/L	1.0
ISOPROPYLETHER (IPE)	EPA 602			< 1.0	ug/L	1.0
METHYLTERT-BUTYLETHER (MTBE)	EPA 602			4.4	ug/L	1.0

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LABORATORY DIRECTOR Marie Kolzberger

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FINAL REPORT OF ANALYSES

GROUNDWATER MANAGEMENT ASSOC.
101-E WOODWINDS IND. CT.
CARY, NC 27511-

REPORT DATE: 03/24/95

162-05

SAMPLE NUMBER- 98064 SAMPLE ID- WSW-10
DATE SAMPLED- 03/08/95
DATE RECEIVED- 03/09/95 SAMPLER- ROGER DUNKER
TIME RECEIVED- 1249 DELIVERED BY- CHAD LEINBACH

SAMPLE MATRIX- GW
TIME SAMPLED- 1400
RECEIVED BY- MHH

Page 1 of 1 PROJECT NAME : 162-05

ANALYSIS	METHOD	ANALYSIS DATE	BY	RESULT	UNITS	PQL
PURGEABLE AROMATIC EPA 602	EPA 602	03/22/95	ALT			
BENZENE	EPA 602			< 1.0	ug/L	1.0
CHLOROBENZENE	EPA 602			< 1.0	ug/L	1.0
1,2-DICHLOROBENZENE	EPA 602			< 1.0	ug/L	1.0
1,3-DICHLOROBENZENE	EPA 602			< 1.0	ug/L	1.0
1,4-DICHLOROBENZENE	EPA 602			< 1.0	ug/L	1.0
ETHYLBENZENE	EPA 602			< 1.0	ug/L	1.0
TOLUENE	EPA 602			< 1.0	ug/L	1.0
TOTAL XYLENES	EPA 602			< 1.0	ug/L	1.0
SURROGATE: FLUOROBENZENE	EPA 602			104	percent	-
MODIFIED EPA 602	EPA 602	03/22/95	ALT			
1,2-DIBROMOETHANE (EDB)	EPA 602			< 1.0	ug/L	1.0
ISOPROPYLETHER (IPE)	EPA 602			< 1.0	ug/L	1.0
METHYLTERT-BUTYLETHER (MTBE)	EPA 602			1.4	ug/L	1.0

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LABORATORY DIRECTOR Irvie Litzenberger

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FINAL REPORT OF ANALYSES

GROUNDWATER MANAGEMENT ASSOC.
101-E WOODWINDS IND. CT.
CARY, NC 27511-

REPORT DATE: 03/24/95

162-05

SAMPLE NUMBER- 98065 SAMPLE ID- WSW-12 SAMPLE MATRIX- GW
DATE SAMPLED- 03/08/95 TIME SAMPLED- 1400
DATE RECEIVED- 03/09/95 SAMPLER- ROGER DUNKER RECEIVED BY- MHH
TIME RECEIVED- 1249 DELIVERED BY- CHAD LEINBACH

Page 1 of 1 PROJECT NAME : 162-05

ANALYSIS	METHOD	ANALYSIS DATE	BY	RESULT	UNITS	PQL
PURGEABLE AROMATIC EPA 602	EPA 602	03/22/95	ALT			
BENZENE	EPA 602			< 1.0	ug/L	1.0
CHLOROBENZENE	EPA 602			< 1.0	ug/L	1.0
1,2-DICHLOROBENZENE	EPA 602			< 1.0	ug/L	1.0
1,3-DICHLOROBENZENE	EPA 602			< 1.0	ug/L	1.0
1,4-DICHLOROBENZENE	EPA 602			< 1.0	ug/L	1.0
ETHYLBENZENE	EPA 602			< 1.0	ug/L	1.0
TOLUENE	EPA 602			< 1.0	ug/L	1.0
TOTAL XYLENES	EPA 602			< 1.0	ug/L	1.0
SURROGATE: FLUOROBENZENE	EPA 602			104	percent	-
MODIFIED EPA 602	EPA 602	03/22/95	ALT			
1,2-DIBROMOETHANE (EDB)	EPA 602			< 1.0	ug/L	1.0
ISOPROPYLETHER (IPE)	EPA 602			< 1.0	ug/L	1.0
METHYLTERT-BUTYLETHER (MTBE)	EPA 602			< 1.0	ug/L	1.0

PQL = Practical Quantitation Limit
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LABORATORY DIRECTOR Jessie Ritzhey

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FINAL REPORT OF ANALYSES

GROUNDWATER MANAGEMENT ASSOC.
101-E WOODWINDS IND. CT.
CARY, NC 27511-

REPORT DATE: 03/24/95

162-05

SAMPLE NUMBER- 98066 SAMPLE ID- WSW-13 SAMPLE MATRIX- GW
DATE SAMPLED- 03/08/95 TIME SAMPLED- 1400
DATE RECEIVED- 03/09/95 SAMPLER- ROGER DUNKER RECEIVED BY- MHH
TIME RECEIVED- 1249 DELIVERED BY- CHAD LEINBACH

 PROJECT NAME : 162-05

ANALYSIS	METHOD	ANALYSIS DATE	BY	RESULT	UNITS	PQL
PURGEABLE AROMATIC EPA 602	EPA 602	03/22/95	ALT			
BENZENE	EPA 602			< 1.0	ug/L	1.0
CHLOROBENZENE	EPA 602			< 1.0	ug/L	1.0
1,2-DICHLOROBENZENE	EPA 602			< 1.0	ug/L	1.0
1,3-DICHLOROBENZENE	EPA 602			< 1.0	ug/L	1.0
1,4-DICHLOROBENZENE	EPA 602			< 1.0	ug/L	1.0
ETHYLBENZENE	EPA 602			< 1.0	ug/L	1.0
TOLUENE	EPA 602			< 1.0	ug/L	1.0
TOTAL XYLENES	EPA 602			< 1.0	ug/L	1.0
SURROGATE: FLUOROBENZENE	EPA 602			105	percent	-
MODIFIED EPA 602	EPA 602	03/22/95	ALT			
1,2-DIBROMOETHANE (EDB)	EPA 602			< 1.0	ug/L	1.0
ISOPROPYLETHER (IPE)	EPA 602			< 1.0	ug/L	1.0
METHYLTERT-BUTYLETHER (MTBE)	EPA 602			< 1.0	ug/L	1.0

PQL = Practical Quantitation Limit
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LABORATORY DIRECTOR Jerrie Lotzenberger

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FINAL REPORT OF ANALYSES

GROUNDWATER MANAGEMENT ASSOC.
101-E WOODWINDS IND. CT.
CARY, NC 27511-

REPORT DATE: 03/24/95

162-05

SAMPLE NUMBER- 98067 SAMPLE ID- WSW-14
DATE SAMPLED- 03/08/95
DATE RECEIVED- 03/09/95 SAMPLER- ROGER DUNKER
TIME RECEIVED- 1249 DELIVERED BY- CHAD LEINBACH

SAMPLE MATRIX- GW
TIME SAMPLED- 1400
RECEIVED BY- MHH

Page 1 of 1 PROJECT NAME : 162-05

ANALYSIS	METHOD	ANALYSIS DATE	BY	RESULT	UNITS	PQL
PURGEABLE AROMATIC EPA 602	EPA 602	03/22/95	ALT			
BENZENE	EPA 602			< 1.0	ug/L	1.0
CHLOROBENZENE	EPA 602			< 1.0	ug/L	1.0
1,2-DICHLOROBENZENE	EPA 602			< 1.0	ug/L	1.0
1,3-DICHLOROBENZENE	EPA 602			< 1.0	ug/L	1.0
1,4-DICHLOROBENZENE	EPA 602			< 1.0	ug/L	1.0
ETHYLBENZENE	EPA 602			< 1.0	ug/L	1.0
TOLUENE	EPA 602			< 1.0	ug/L	1.0
TOTAL XYLENES	EPA 602			< 1.0	ug/L	1.0
SURROGATE: FLUOROBENZENE	EPA 602			100	percent	-
MODIFIED EPA 602	EPA 602	03/22/95	ALT			
1,2-DIBROMOETHANE (EDB)	EPA 602			< 1.0	ug/L	1.0
ISOPROPYLETHER (IPE)	EPA 602			< 1.0	ug/L	1.0
METHYLTERT-BUTYLETHER (MTBE)	EPA 602			< 1.0	ug/L	1.0

PQL = Practical Quantitation Limit
Results followed by the letter J are estimated concentrations.
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LABORATORY DIRECTOR Terrie Ritzberger

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FINAL REPORT OF ANALYSES

GROUNDWATER MANAGEMENT ASSOC.
101-E WOODWINDS IND. CT.
CARY, NC 27511-

REPORT DATE: 03/24/95

162-05

SAMPLE NUMBER- 98068 SAMPLE ID- WSW-15
DATE SAMPLED- 03/08/95
DATE RECEIVED- 03/09/95 SAMPLER- ROGER DUNKER
TIME RECEIVED- 1249 DELIVERED BY- CHAD LEINBACH

SAMPLE MATRIX- GW
TIME SAMPLED- 1400
RECEIVED BY- MHH

Page 1 of 1 PROJECT NAME : 162-05

ANALYSIS	METHOD	ANALYSIS DATE	BY	RESULT	UNITS	PQL
PURGEABLE AROMATIC EPA 602	EPA 602	03/22/95	ALT			
BENZENE	EPA 602			< 1.0	ug/L	1.0
CHLOROBENZENE	EPA 602			< 1.0	ug/L	1.0
1,2-DICHLOROBENZENE	EPA 602			< 1.0	ug/L	1.0
1,3-DICHLOROBENZENE	EPA 602			< 1.0	ug/L	1.0
1,4-DICHLOROBENZENE	EPA 602			< 1.0	ug/L	1.0
ETHYLBENZENE	EPA 602			< 1.0	ug/L	1.0
TOLUENE	EPA 602			< 1.0	ug/L	1.0
TOTAL XYLENES	EPA 602			< 1.0	ug/L	1.0
SURROGATE: FLUOROBENZENE	EPA 602			105	percent	-
MODIFIED EPA 602	EPA 602	03/22/95	ALT			
1,2-DIBROMOETHANE (EDB)	EPA 602			< 1.0	ug/L	1.0
ISOPROPYLETHER (IPE)	EPA 602			< 1.0	ug/L	1.0
METHYLTERT-BUTYLETHER (MTBE)	EPA 602			< 1.0	ug/L	1.0

PQL = Practical Quantitation Limit
Results followed by the letter J are estimated concentrations.
All results for soil and sludge samples are reported on a dry weight basis as required by the NC DEM Laboratory Certification Section. Wet Weight Concentration = (dry weight conc.)(percent solids)/100.

LABORATORY DIRECTOR Terrie Letzerberger

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FINAL REPORT OF ANALYSES

GROUNDWATER MANAGEMENT ASSOC.
101-E WOODWINDS IND. CT.
CARY, NC 27511-

REPORT DATE: 03/24/95

162-05

SAMPLE NUMBER- 98069 SAMPLE ID- WSW-19 SAMPLE MATRIX- GW
DATE SAMPLED- 03/08/95 TIME SAMPLED- 1400
DATE RECEIVED- 03/09/95 SAMPLER- ROGER DUNKER RECEIVED BY- MHH
TIME RECEIVED- 1249 DELIVERED BY- CHAD LEINBACH

 PROJECT NAME : 162-05

ANALYSIS	METHOD	ANALYSIS DATE	BY	RESULT	UNITS	PQL
EPA 601/602	601/602	03/22/95	ALT			
PURGEABLE HALOCARBONS EPA 601	601/602			--------		-
BROMODICHLOROMETHANE	601/602			< 1.0	ug/L	1.0
BROMOFORM	601/602			< 1.0	ug/L	1.0
BROMOMETHANE	601/602			< 1.0	ug/L	1.0
CARBON TETRACHLORIDE	601/602			< 1.0	ug/L	1.0
CHLOROBENZENE	601/602			< 1.0	ug/L	1.0
CHLOROETHANE	601/602			< 1.0	ug/L	1.0
2-CHLOROETHYLVINYL ETHER	601/602			< 1.0	ug/L	1.0
CHLOROFORM	601/602			< 1.0	ug/L	1.0
CHLOROMETHANE	601/602			< 1.0	ug/L	1.0
DIBROMOCHLOROMETHANE	601/602			< 1.0	ug/L	1.0
1,2-DICHLOROBENZENE	601/602			< 1.0	ug/L	1.0
1,3-DICHLOROBENZENE	601/602			< 1.0	ug/L	1.0
1,4-DICHLOROBENZENE	601/602			< 1.0	ug/L	1.0
DICHLORODIFLUOROMETHANE	601/602			< 1.0	ug/L	1.0
1,1-DICHLOROETHANE	601/602			< 1.0	ug/L	1.0
1,2-DICHLOROETHANE	601/602			< 1.0	ug/L	1.0
1,1-DICHLOROETHENE	601/602			< 1.0	ug/L	1.0
trans-1,2-DICHLOROETHENE	601/602			< 1.0	ug/L	1.0
1,2-DICHLOROPROPANE	601/602			< 1.0	ug/L	1.0

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FAX (919) 467-3515

 PROJECT NAME : 162-05

CONTINUATION OF DATA FOR SAMPLE NUMBER 98069

ANALYSIS	METHOD	ANALYSIS DATE	BY	RESULT	UNITS	PQL
cis-1,3-DICHLOROPROPENE	601/602			< 1.0	ug/L	1.0
trans-1,3-DICHLOROPROPENE	601/602			< 1.0	ug/L	1.0
METHYLENE CHLORIDE	601/602			< 1.0	ug/L	1.0
1,1,2,2-TETRACHLOROETHANE	601/602			< 1.0	ug/L	1.0
TETRACHLOROETHENE	601/602			< 1.0	ug/L	1.0
1,1,1-TRICHLOROETHANE	601/602			< 1.0	ug/L	1.0
1,1,2-TRICHLOROETHANE	601/602			< 1.0	ug/L	1.0
TRICHLOROETHENE	601/602			< 1.0	ug/L	1.0
TRICHLOROFLUOROMETHANE	601/602			< 1.0	ug/L	1.0
VINYL CHLORIDE	601/602			< 1.0	ug/L	1.0
SURROGATE:	601/602			--------		-
1-CHLORO-2-BROMOPROPANE	601/602			114	percent	-
PURGEABLE AROMATICS EPA 602	601/602			--------		-
BENZENE	601/602			3.2	ug/L	1.0
CHLOROBENZENE	601/602			< 1.0	ug/L	1.0
1,2-DICHLOROBENZENE	601/602			< 1.0	ug/L	1.0
1,3-DICHLOROBENZENE	601/602			< 1.0	ug/L	1.0
1,4-DICHLOROBENZENE	601/602			< 1.0	ug/L	1.0
ETHYLBENZENE	601/602			< 1.0	ug/L	1.0
TOLUENE	601/602			< 1.0	ug/L	1.0
TOTAL XYLENES	601/602			20.3	ug/L	1.0
SURROGATE: FLUOROBENZENE	601/602			91.4	percent	-
MODIFIED EPA 602	EPA 602	03/22/95	ALT			
1,2-DIBROMOETHANE (EDB)	EPA 602			< 1.0	ug/L	1.0
ISOPROPYLETHER (IPE)	EPA 602			< 1.0	ug/L	1.0
METHYLTERT-BUTYLETHER (MTBE)	EPA 602			< 1.0	ug/L	1.0

PQL = Practical Quantitation Limit
Results followed by the letter J are estimated concentrations.
All results for soil and sludge samples are reported on a dry weight basis as required by the NC DEM Laboratory Certification Section. Wet Weight Concentration = (dry weight conc.)(percent solids)/100.

LABORATORY DIRECTOR Jessie Styles

Chemical & Environmental Technology, Inc.
102-A Woodwinds Industrial Ct.
Cary, NC 27511 (919) 467-3090

CHAIN OF CUSTODY RECORD

CLIENT NAME: Groundwater Management Assoc. Inc.

ADDRESS: 101-E Woodwinds Ind. CT
Cary NC 27511

PHONE: 481-2631

BILL TO: Same

ADDRESS:

PROJECT NO: 162-05

PROJECT NAME:

PURCHASE ORDER NO:

COLLECTED BY: (Signature) Roger Dunker

PRESERVED IN FIELD ☐
PRESERVED IN LAB ☒
RECEIVED ON ICE ☒

ANALYSES REQUIRED: EPA 601; EPA 602 + MTBE, TPE, EDB

C & ET NO.	DATE	TIME	COMP	GRAB	SAMPLE I.D.	NO. CONTAINERS	EPA 601	EPA 602 + MTBE, TPE, EDB					REMARKS	NONE	NaOH	H_2SO_4	HNO_3	HCl
98056	3/8/95	2:00P		X	WSW 1	3	X	X										X
98057					WSW 2	3	X	X										
98058					WSW 4	3	X	X										
98059					WSW 5	3	X	X										
98060					WSW 6	2		X										
98061					WSW 7	2		X										
98062					WSW 8	3	X	X										
98063					WSW 9	2		X										
98064					WSW 10	2		X										
98065					WSW 12	2		X										
98066					WSW 13	2		X										
98067					WSW 14	2		X										

RELINQUISHED BY (Signature)	DATE	TIME	RECEIVED BY (Signature)	RELINQUISHED BY (Signature)	DATE	TIME	RECEIVED BY (Signature)
Roger Dunker	3/8/95	8:00P	Mark Vincent	Mark Vincent	3/9/95	12:30	Chad Lewis

RELINQUISHED BY (Signature)	DATE	TIME	RECEIVED FOR LABORATORY BY:	DATE	TIME	REMARKS:
Chad Lewis	3/9/95	12:45	[illegible]	3-9-95	1249	GW.

Chemical & Environmental Technology, Inc.
102-A Woodwinds Industrial Ct.
Cary, NC 27511 (919) 467-3090

CHAIN OF CUSTODY RECORD

CLIENT NAME: Groundwater Management Assoc Inc.
ADDRESS: 101-E Woodwinds Ind. CT
Cary NC 27511
PHONE: 481-2631

BILL TO: Same
ADDRESS:

PROJECT NO: 162-05
PROJECT NAME:

PURCHASE ORDER NO:

COLLECTED BY: (Signature) Roger Dunker

PRESERVED IN FIELD ☐
PRESERVED IN LAB ☒
RECEIVED ON ICE ☒

ANALYSES REQUIRED: EPA 601; EPA 602 + MTBE, TPE, EDB

C & ET NO.	DATE	TIME	COMP	GRAB	SAMPLE I.D.	NO. CONTAINERS	EPA 601	EPA 602 + MTBE, TPE, EDB					REMARKS	NONE	NaOH	H_2SO_4	HNO_3	HCl
98068	3/8/95	2:00P		X	WSW 15	2		X										X
98069	"	"		"	WSW 19	3	X	X										X

RELINQUISHED BY (Signature)	DATE	TIME	RECEIVED BY (Signature)	RELINQUISHED BY (Signature)	DATE	TIME	RECEIVED BY (Signature)
Roger Dunker	3/8/95	3:00P	Mary Faccio	Mary Faccio	3/9/95	12:30	Chad Lanier

RELINQUISHED BY (Signature)	DATE	TIME	RECEIVED FOR LABORATORY BY:	DATE	TIME	REMARKS:
Chad Lanier	3/9/95	12:45	[illegible]	3-9-95	1249	GW

Chemical & Environmental Technology, Inc.

ENVIRONMENTAL LABORATORY AND CONSULTING SERVICES

JOHN M. OGLE
PRESIDENT

P. O. BOX 12298
RESEARCH TRIANGLE PARK, N. C. 27709
PHONE (919) 467-3090
FAX (919) 467-3515

METHOD REFERENCES

Federal Register, Vol. 59, 40 CFR Part 136.3, January 31, 1994

--Metals, Inorganics, and Organics for groundwater and wastewater

Federal Register, Vol. 56, 40 CFR Parts 141-143, January 30, 1991

--Metals, Inorganics, and Organics for drinking water

"Groundwater Section Guidelines for the Investigation and Remediation of Soils and Groundwater", NCDEHNR, DEM, March 1993.

--High Fraction Hydrocarbon and Low Fraction Hydrocarbon for groundwater and soil

SW-846, Third Edition, Revision I, July 1992

--Inorganics and Organics in soil or sludges. Metals in soil, sludge, or groundwater. (Metals in groundwater are digested by **Method 3030C, Standard Methods, 18th Edition)**

40 CFR Part 261, Appendix II and III

--Toxic Characteristic Leaching Procedure

Standard Methods, 18th Edition, 1992

--Total and Fecal Coliform in wastewater, streams, and lakes

GROUNDWATER FIELD/LAB FORM CHAIN OF CUSTODY

North Carolina
Department of Environment, Health, and Natural Resources
DIVISION OF ENVIRONMENTAL MANAGEMENT - GROUNDWATER SECTION

ounty Gaston
uad No. Q 63 g 12 Serial No.
t. 35°16'15" Long. 81°03'54"

SAMPLE PRIORITY
[X] ROUTINE [ ] EMERGENCY
[X] CHAIN OF CUSTODY

Lab Number HG 1969
Date Received 12-30-94 Time 8:45
Rec'd by: DS From: Bus, Courier, Hand Del.,
Other:
Data Entry By: CK:
Date Reported: 1/23/95

eport To: ARO, FRO, MRO, RRO, WaRO, WIRO, SRO, Kinston FO, Fed. Trust, Central Off., Other:
hipped by: Bus, Courier, Hand Del., Other:
ollector(s): KWalker Date 12/27/94 Time 2:45pm

Purpose: Baseline, Complaint, Compliance, LUST, Pesticide Study, Federal Trust, Other: (circle one)

Owner Melanie Bradford
Location or site 808 Hickory Grove Rd - Gastonia NC 28056
Description of sampling point Sink in well house
Sampling Method Pump (Pump, bailer, etc.) Sample Interval WK
Remarks Sampled after pumping 10 min (pumping time, air temp, etc.)
Resample of HG1472.

IELD ANALYSES

H_{400} 6.0 Spec. Cond.$_{94}$ 80 umhos at 25° C
emp.$_{10}$ 18 °C Odor none
ppearance Clear
ield Analysis By: KWalker

ABORATORY ANALYSES

	BOD, 310	mg/l		Diss. Solids 70300	mg/l		Ag - Silver 46566	ug/l		Organochlorine Pesticides
	COD High 340	mg/l		Flouride 951	mg/l		Al - Aluminum 46557	ug/l		Organophosphorus Pesticides
	COD Low 335	mg/l		Hardness: Total 900	mg/l		As - Arsenic 46551	ug/l		Nitrogen Pesticides
	Coliform: MF Fecal 31616	/100ml		Hardness (non-carb) 902	mg/l		Ba - Barium 46558	ug/l		
	Coliform: MF Total 31504	/100ml		Phenols 32730	ug/l		Ca - Calcium 46552	mg/l		Acid Herbicides
	TOC 680	mg/l		Specific Cond. 95	uMhos/cm²		Cd - Cadmium 46559	ug/l		
	Turbidity 76	NTU		Sulfate 945	mg/l	✓	Cr - Chromium 46560	ug/l	✓	Semivolatile Organics
	Residue., Suspended 530	mg/l		Sulfide 745	mg/l		Cu - Copper 46562	ug/l		
							Fe - Iron 46563	ug/l		
							Hg - Mercury 71900	ug/l	✓	Volatile Organics (VOA bottle)
	pH 403	units					K - Potassium 46555	mg/l		
	Alkalinity to pH 4.5 410	mg/l					Mg - Magnesium 46554	mg/l		TPH - Gasoline Range
	Alkalinity to pH 8.3 415	mg/l					Mn - Manganese 46565	ug/l		TPH - BTEX Gasoline Range
	Carbonate 445	mg/l		NH_3 as N 610	mg/l		Na - Sodium 46556	mg/l		
	Bicarbonate 440	mg/l		TKN as N 625	mg/l		Ni - Nickel	ug/l		
	Carbon dioxide 405	mg/l		$NO_2 + NO_3$ as N 630	mg/l		Pb - Lead 46564	ug/l		
	Chloride 940	mg/l		P: Total as P 665	mg/l		Se - Selenium	ug/l		
	Chromium: Hex 1032	ug/l					Zn - Zinc 46567	ug/l		
	Color: True 80	Pt-Co								
	Cyanide 720	mg/l								

Lab Comments:

JAN 26 1995

GW-54 REV 1 For Dissolved Analysis - submit filtered sample and write "DIS" in the

SEMIVOLATILE ORGANICS REPORT - CHEM LAB

LAB NUMBER: 4G1969 SUPERVISOR REK LAB #: 4G1969
DATE : 1/11/95

REPORTED BY Sm
CHECKED BY [illegible] ENTERED BY [illegible]
REVIEWED BY [illegible] CHECKED BY [illegible]

SAMPLE TYPE: WATER DILUTION FACTOR : _____

CAS NUMBER	TQL X 1	ANALYTE NAME	CONC. UG/L
62-53-3	10	ANILINE	U
108-95-2	10	PHENOL	U
111-44-4	10	BIS(2-CHLOROETHYL) ETHER	U
95-57-8	10	2-CHLOROPHENOL	U
541-73-1	10	1,3-DICHLOROBENZENE	U
106-46-7	10	1,4-DICHLOROBENZENE	U
100-51-6	20	BENZYL ALCOHOL	U
95-50-1	10	1,2-DICHLOROBENZENE	U
95-48-7	10	2-METHYL PHENOL	U
108-60-1	10	BIS(2-CHLOROISOPROPYL) ETHER	U
106-44-5	10	4-METHYL PHENOL	U
621-64-7	10	N-NITROSO-DI-N-PROPYLAMINE	U
67-72-1	10	HEXACHLOROETHANE	U
98-95-3	10	NITROBENZENE	U
78-59-1	10	ISOPHORONE	U
88-75-5	10	2-NITRO PHENOL	U
105-67-9	10	2,4-DIMETHYL PHENOL	U
65-85-0	50	BENZOIC ACID	U
111-91-1	10	BIS(2-CHLOROETHOXY) METHANE	U
120-83-2	10	2,4-DICHLORO PHENOL	U
120-82-1	10	1,2,4-TRICHLOROBENZENE	U
91-20-3	10	NAPHTHALENE	U
106-47-8	20	4-CHLOROANILINE	U
87-68-3	10	HEXACHLOROBUTADIENE	U
59-50-7	20	4-CHLORO-3-METHYL PHENOL	U
91-57-6	10	2-METHYL NAPHTHALENE	U
77-47-4	10	HEXACHLOROCYCLOPENTADIENE	U
88-06-2	10	2,4,6-TRICHLORO PHENOL	U
95-95-4	10	2,4,5-TRICHLORO PHENOL	U
91-58-7	10	2-CHLORO NAPHTHALENE	U
88-74-4	50	2-NITROANALINE	U
131-11-3	10	DIMETHYL PHTHALATE	U
208-96-8	10	ACENAPHTHYLENE	U
606-20-2	10	2,6-DINITROTOLUENE	U
99-09-2	50	3-NITROANALINE	U
83-32-9	10	ACENAPHTHENE	U
51-28-5	50	2,4-DINITRO PHENOL	U
100-02-7	50	4-NITRO PHENOL	U
132-64-9	10	DIBENZOFURAN	U
121-14-2	10	2,4-DINITROTOLUENE	U
84-66-2	10	DIETHYL PHTHALATE	U
7005-72-3	10	4-CHLOROPHENYL PHENYL ETHER	U
86-73-7	10	FLUORENE	U
100-01-6	50	4-NITROANALINE	U

SEMIVOLATILE ORGANICS REPORT - DEM LAB

534-52-1	50	4,6-DINITRO-2-METHYL PHENOL	U
86-30-6	10	N-NITROSODIPHENYLAMINE	U
101-55-3	10	4-BROMOPHENYL PHENYL ETHER	U
118-74-1	10	HEXACHLOROBENZENE	U
87-86-5	50	PENTACHLORO PHENOL	U
85-01-8	10	PHENANTHRENE	U
120-12-7	10	ANTHRACENE	U
84-74-2	10	DI-N-BUTYL PHTHALATE	U
206-44-0	10	FLUORANTHENE	U
129-00-0	10	PYRENE	U
85-68-7	10	BUTYLBENZYL PHTHALATE	U
91-94-1	20	3,3'-DICHLOROBENZIDINE	U
56-55-3	10	BENZO(A)ANTHRACENE	U
218-01-9	10	CHRYSENE	U
117-81-7	10	BIS(2-ETHYLHEXYL) PHTHALATE	U
117-84-0	10	DI-N-OCTYL PHTHALATE	U
205-99-2	10	BENZO(B)FLUORANTHENE	U
207-08-9	10	BENZO(K)FLUORANTHENE	U
50-32-8	10	BENZO(A)PYRENE	U
193-39-5	10	INDENO(1,2,3-CD)PYRENE	U
53-70-3	10	DIBENZO(A,H)ANTHRACENE	U
191-24-2	10	BENZO(G,H,I)PERYLENE	U

OTHER SEMIVOLATILE ORGANICS FOR SAMPLE NUMBER : 4G1969

NO BASE/NEUTRAL OR ACID EXTRACTABLE ORGANICS
DETECTED BY GC/MS.

TQL= TARGET QUANTITATION LIMIT
T= TENTATIVELY IDENTIFIED ESTIMATED CONCENTRATION
E= ESTIMATED CONCENTRATION
U= COMPOUND ANALYZED FOR NOT DETECTED
N= COMPOUND NOT ANALYZED FOR
D= DETECTED BELOW QUANTITATION LIMIT
H= HOLDING TIME EXCEEDED
TQL SUBJECT TO CHANGE DUE TO INSTRUMENT SENSITIVITY

EHNR/DEM LABORATORY
VOLATILE ANALYTICAL REPORT

LAB NO. 4G1969

EPORTED BY
CHECKED BY
EVIEWED BY

SUPERVISOR "REK"
DATE 1/20/95
ENTERED BY
CHECKED BY

AMPLE TYPE: WATER

ANALYSIS RESULTS

CAS#	VOA TARGET COMPOUND	TQL ug/L	DETECTED ug/L	CAS#	VOA TARGET COMPOUND	TQL ug/L	DETECTED ug/L
75-35-4	1,1-Dichloroethene	0.75	U	96-18-4	1,2,3-Trichloropropane	0.25	U
75-09-2	Methylene Chloride	10	U	108-86-1	Bromobenzene	1	U
156-60-5	trans-1,2-Dichloroethene	0.75	U	95-49-8	2-Chlorotoluene	0.25	U
75-34-3	1,1-Dichloroethane	0.25	1.7	106-43-4	4-Chlorotoluene	0.25	U
590-20-7	2,2-Dichloropropane	0.25	U	541-73-1	1,3-Dichlorobenzene	0.25	U
156-59-4	cis-1,2-Dichloroethene	0.25	U	106-46-7	1,4-Dichlorobenzene	0.25	U
67-66-3	Chloroform	0.25	D,T	95-50-1	1,2-Dichlorobenzene	0.25	U
74-97-5	Bromochloromethane	0.75	U	96-12-8	1,2-Dibromo-3-Chloropropane	1	U
71-55-6	1,1,1-Trichloroethane	0.25	U	120-82-1	1,2,4-Trichlorobenzene	0.25	U
563-58-6	1,1-Dichloropropene	0.25	U	87-68-3	Hexachlorobutadiene	0.25	U
56-23-5	Carbon Tetrachloride	0.75	U	87-61-6	1,2,3-Trichlorobenzene	0.75	U
107-06-2	1,2-Dichloroethane	0.25	U	1634-04-4	Methyl-tert-butyl ether	5	U
79-01-6	Trichloroethene	0.25	U	71-43-2	Benzene	1	U
78-87-5	1,2-Dichloropropane	0.25	U	108-88-3	Toluene	1	U
75-27-4	Bromodichloromethane	0.25	U	100-41-4	Ethyl benzene	1	U
74-95-3	Dibromomethane	1	U	108-38-3	m,p-Xylenes	2	U
10061-01-5	cis-1,3-Dichloropropene	0.25	U	95-47-6	o-Xylene	1	U
10061-02-6	trans-1,3-Dichloropropene	0.25	U	100-42-5	Styrene	1	U
79-00-5	1,1,2-Trichloroethane	0.25	U	98-82-8	Isopropylbenzene	1	U
127-18-4	Tetrachloroethene	0.25	U	103-65-1	n-Propylbenzene	1	U
142-28-9	1,3-Dichloropropane	0.25	U	108-67-8	1,3,5-Trimethylbenzene	1	U
124-48-1	Dibromochloromethane	0.75	U	98-06-6	tert-Butylbenzene	1	U
106-93-4	1,2-Dibromoethane	1	U	95-63-6	1,2,4-Trimethylbenzene	1	U
108-90-7	Chlorobenzene	0.25	U	135-98-8	sec-Butylbenzene	1	U
630-20-6	1,1,1,2-Tetrachloroethane	0.25	U	99-87-6	p-isopropyltoluene	1	U
75-25-2	Bromoform	0.5	U	104-51-8	n-Butylbenzene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	0.75	U	91-20-3	Naphthalene	1	U

TQL- Target Quantitation Limit- Subject to change due to instrument sensitivity
T- Tentatively Identified, not confirmed
E- Estimated Value
U- Samples analyzed for this compound but not detected
N- Sample not analyzed for this compound
D- Detected below quantitation limit
M- GC/MS Analysis performed

Other purgeables detected (up to 10 highest peaks)	Detected ug/L
NO VOLATILE ORGANIC COMPOUNDS	
DETECTED BY GC//PID.	

COMMENTS:

State of North Carolina
Department of Environment,
Health and Natural Resources
Mooresville Regional Office

James B. Hunt, Jr., Governor
Jonathan B. Howes, Secretary
Linda Diane Long, Regional Manager

DEHNR

DIVISION OF ENVIRONMENTAL MANAGEMENT

February 1, 1995

Melanie Bradford
808 Hickory Grove Road
Gastonia, North Carolina 28056

RE: Well Water Sample Results
Bradford Well
Gaston County, N.C.

Dear Mrs. Bradford:

On December 29, 1994, staff from the Mooresville Regional Office of the North Carolina Division of Environmental Management sampled your well at 808 Hickory Grove Road, in Gaston County. The samples were analyzed for volatile and semi-volatile organic compounds. Volatile organic compounds include a wide range of manmade compounds including, but not limited to, gasoline components and chlorinated solvents used as degreasers. Examples of semi-volatile compounds include some of the components of diesel, kerosene, and new and used motor oil.

Laboratory results from these samples indicate at the time of sampling that semi-volatile organic compounds, which were tested for, were not present in your water supply. However, 1,1-dichloroethane, a volatile organic compound, was present in your water supply at 1.7 parts per billion (ppb). This level is below the North Carolina groundwater standard of 7 ppb established for this compound. In addition, chloroform, a common by-product of chlorination was detected in your water supply. The amount detected in your well is significantly below the EPA drinking water standard of 100 ug/l.

Should you have any question, please call me at (704) 663-1699, ext. 243.

Sincerely,

Karen Walker

Karen Walker
Hydrogeologist

Enclosure: Lab Results

cc: Gaston County Health Department

KDW/sg

919 North Main Street, Mooresville, North Carolina 28115 Telephone 704-663-1699 FAX 704-663-6040
An Equal Opportunity Affirmative Action Employer 50% recycled/ 10% post-consumer paper

GROUNDWATER FIELD/LAB FORM CHAIN OF CUSTODY

North Carolina
Department of Environment, Health, and Natural Resources
DIVISION OF ENVIRONMENTAL MANAGEMENT - GROUNDWATER SECTION

County Gaston
Quad No. Q 68 g 12 Serial No.
Lat. 35°16'15" Long. 81°03'54"

SAMPLE PRIORITY

[X] ROUTINE [ ] EMERGENCY
[X] CHAIN OF CUSTODY

Lab Number HG-1969
Date Received 12-30-94 Time 8:45
Rec'd by: DS From: Bus, Courier, Hand Del.,
Other:
Data Entry By: Ck. DS
Date Reported: 1/23/95

Report To: ARO, FRO, MRO, RRO, WaRO, WiRO, WSRO, Kinston FO, Fed. Trust, Central Off., Other:
Shipped by: Bus, Courier, Hand Del., Other:
Collector(s): KWalker Date 12/29/94 Time 2:45pm
Purpose: Baseline, Complaint, Compliance, LUST, Pesticide Study, Federal Trust, Other: (circle one)

FIELD ANALYSES

pH_{400} 6.0 Spec. Cond.$_{94}$ 80 umhos at 25° C
Temp.$_{10}$ 18 °C Odor none
Appearance Clear
Field Analysis By: KWalker

Owner Melanie Bradford
Location or site 808 Hickory Grove Rd - Gastonia NC 28056
Description of sampling point Sink in well house
Sampling Method PUMP (Pump, bailer, etc.) Sample Interval unk
Remarks Sampled after pumping 10 mins (pumping time, air temp. etc.)
Resample of HG1472

LABORATORY ANALYSES

	BOD, 310	mg/l		Diss. Solids 70300	mg/l		Ag - Silver 46566	ug/l		Organochlorine Pesticides
	COD High 340	mg/l		Flouride 951	mg/l		Al - Aluminum 46557	ug/l		Organophosphorus Pesticides
	COD Low 335	mg/l		Hardness: Total 900	mg/l		As - Arsenic 46551	ug/l		Nitrogen Pesticides
	Coliform: MF Fecal 31616	/100ml		Hardness (non-carb) 902	mg/l		Ba - Barium 46558	ug/l		
	Coliform: MF Total 31504	/100ml		Phenols 32730	ug/l		Ca - Calcium 46552	mg/l		Acid Herbicides
	TOC 680	mg/l		Specific Cond. 95	uMhos/cm²		Cd - Cadmium 46559	ug/l		
	Turbidity 76	NTU		Sulfate 945	mg/l	✓	Cr - Chromium 46560	ug/l	✓	Semivolatile Organics
	Residue., Suspended 530	mg/l		Sulfide 745	mg/l		Cu - Copper 46562	ug/l		
							Fe - Iron 46563	ug/l		
							Hg - Mercury 71900	ug/l	✓	Volatile Organics (VOA bottle)
	pH 403	units					K - Potassium 46555	mg/l		
	Alkalinity to pH 4.5 410	mg/l					Mg - Magnesium 46554	mg/l		TPH - Gasoline Range
	Alkalinity to pH 8.3 415	mg/l					Mn - Manganese 46565	ug/l		TPH - BTEX Gasoline Range
	Carbonate 445	mg/l		NH_3 as N 610	mg/l		Na - Sodium 46556	mg/l		
	Bicarbonate 440	mg/l		TKN as N 625	mg/l		Ni - Nickel	ug/l		
	Carbon dioxide 405	mg/l		NO_2 + NO_3 as N 630	mg/l		Pb - Lead 46564	ug/l		
	Chloride 940	mg/l		P: Total as P 665	mg/l		Se - Selenium	ug/l		
	Chromium: Hex 1032	ug/l					Zn - Zinc 46567	ug/l		
	Color: True 80	Pt-Co								
	Cyanide 720	mg/l								

N.C. DEPT. OF ENVIRONMENT, HEALTH, NATURAL RESOURCES
JAN 31 1995

Lab Comments:

DIVISION OF ENVIRONMENTAL MANAGEMENT
MOORESVILLE REGIONAL OFFICE

GW-54 REV 1 For Dissolved Analysis - submit filtered sample and write "DIS" in b

SEMIVOLATILE ORGANICS REPORT - DEM LAB

LAB NUMBER: 4G1969 SUPERVISOR REK LAB #: 4G1969
DATE : 1/11/95

REPORTED BY Sm
CHECKED BY
REVIEWED BY
ENTERED BY
CHECKED BY

SAMPLE TYPE: WATER DILUTION FACTOR : _____

CAS NUMBER	TQL X 1	ANALYTE NAME	CONC. UG/L
62-53-3	10	ANILINE	U
108-95-2	10	PHENOL	U
111-44-4	10	BIS(2-CHLOROETHYL) ETHER	U
95-57-8	10	2-CHLOROPHENOL	U
541-73-1	10	1,3-DICHLOROBENZENE	U
106-46-7	10	1,4-DICHLOROBENZENE	U
100-51-6	20	BENZYL ALCOHOL	U
95-50-1	10	1,2-DICHLOROBENZENE	U
95-48-7	10	2-METHYL PHENOL	U
108-60-1	10	BIS(2-CHLOROISOPROPYL) ETHER	U
106-44-5	10	4-METHYL PHENOL	U
621-64-7	10	N-NITROSO-DI-N-PROPYLAMINE	U
67-72-1	10	HEXACHLOROETHANE	U
98-95-3	10	NITROBENZENE	U
78-59-1	10	ISOPHORONE	U
88-75-5	10	2-NITRO PHENOL	U
105-67-9	10	2,4-DIMETHYL PHENOL	U
65-85-0	50	BENZOIC ACID	U
111-91-1	10	BIS(2-CHLOROETHOXY) METHANE	U
120-83-2	10	2,4-DICHLORO PHENOL	U
120-82-1	10	1,2,4-TRICHLOROBENZENE	U
91-20-3	10	NAPHTHALENE	U
106-47-8	20	4-CHLOROANILINE	U
87-68-3	10	HEXACHLOROBUTADIENE	U
59-50-7	20	4-CHLORO-3-METHYL PHENOL	U
91-57-6	10	2-METHYL NAPHTHALENE	U
77-47-4	10	HEXACHLOROCYCLOPENTADIENE	U
88-06-2	10	2,4,6-TRICHLORO PHENOL	U
95-95-4	10	2,4,5-TRICHLORO PHENOL	U
91-58-7	10	2-CHLORO NAPHTHALENE	U
88-74-4	50	2-NITROANALINE	U
131-11-3	10	DIMETHYL PHTHALATE	U
208-96-8	10	ACENAPHTHYLENE	U
606-20-2	10	2,6-DINITROTOLUENE	U
99-09-2	50	3-NITROANALINE	U
83-32-9	10	ACENAPHTHENE	U
51-28-5	50	2,4-DINITRO PHENOL	U
100-02-7	50	4-NITRO PHENOL	U
132-64-9	10	DIBENZOFURAN	U
121-14-2	10	2,4-DINITROTOLUENE	U
84-66-2	10	DIETHYL PHTHALATE	U
7005-72-3	10	4-CHLOROPHENYL PHENYL ETHER	U
86-73-7	10	FLUORENE	U
100-01-6	50	4-NITROANALINE	U

SEMIVOLATILE ORGANICS REPORT - DEM LAB

534-52-1	50	4,6-DINITRO-2-METHYL PHENOL	U
86-30-6	10	N-NITROSODIPHENYLAMINE	U
101-55-3	10	4-BROMOPHENYL PHENYL ETHER	U
118-74-1	10	HEXACHLOROBENZENE	U
87-86-5	50	PENTACHLORO PHENOL	U
85-01-8	10	PHENANTHRENE	U
120-12-7	10	ANTHRACENE	U
84-74-2	10	DI-N-BUTYL PHTHALATE	U
206-44-0	10	FLUORANTHENE	U
129-00-0	10	PYRENE	U
85-68-7	10	BUTYLBENZYL PHTHALATE	U
91-94-1	20	3,3'-DICHLOROBENZIDINE	U
56-55-3	10	BENZO(A)ANTHRACENE	U
218-01-9	10	CHRYSENE	U
117-81-7	10	BIS(2-ETHYLHEXYL) PHTHALATE	U
117-84-0	10	DI-N-OCTYL PHTHALATE	U
205-99-2	10	BENZO(B)FLUORANTHENE	U
207-08-9	10	BENZO(K)FLUORANTHENE	U
50-32-8	10	BENZO(A)PYRENE	U
193-39-5	10	INDENO(1,2,3-CD)PYRENE	U
53-70-3	10	DIBENZO(A,H)ANTHRACENE	U
191-24-2	10	BENZO(G,H,I)PERYLENE	U

OTHER SEMIVOLATILE ORGANICS FOR SAMPLE NUMBER : 4G1969

NO BASE/NEUTRAL OR ACID EXTRACTABLE ORGANICS
DETECTED BY GC/MS.

TQL= TARGET QUANTITATION LIMIT
T= TENTATIVELY IDENTIFIED ESTIMATED CONCENTRATION
E= ESTIMATED CONCENTRATION
U= COMPOUND ANALYZED FOR NOT DETECTED
N= COMPOUND NOT ANALYZED FOR
D= DETECTED BELOW QUANTITATION LIMIT
H= HOLDING TIME EXCEEDED
TQL SUBJECT TO CHANGE DUE TO INSTRUMENT SENSITIVITY

EHNR/DEM LABORATORY
VOLATILE ANALYTICAL REPORT

LAB NO. 4G1969

REPORTED BY
CHECKED BY
REVIEWED BY

SUPERVISOR REK
DATE 1/20/95
ENTERED BY
CHECKED BY

SAMPLE TYPE: WATER

ANALYSIS RESULTS

CAS#	VOA TARGET COMPOUND	TQL ug/L	DETECTED ug/L	CAS#	VOA TARGET COMPOUND	TQL ug/L	DETECTED ug/L
75-35-4	1,1-Dichloroethene	0.75	U	96-18-4	1,2,3-Trichloropropane	0.25	U
75-09-2	Methylene Chloride	10	U	108-86-1	Bromobenzene	1	U
156-60-5	trans-1,2-Dichloroethene	0.75	U	95-49-8	2-Chlorotoluene	0.25	U
75-34-3	1,1-Dichloroethane	0.25	1.7	106-43-4	4-Chlorotoluene	0.25	U
590-20-7	2,2-Dichloropropane	0.25	U	541-73-1	1,3-Dichlorobenzene	0.25	U
156-59-4	cis-1,2-Dichloroethene	0.25	U	106-46-7	1,4-Dichlorobenzene	0.25	U
67-66-3	Chloroform	0.25	D,T	95-50-1	1,2-Dichlorobenzene	0.25	U
74-97-5	Bromochloromethane	0.75	U	96-12-8	1,2-Dibromo-3-Chloropropane	1	U
71-55-6	1,1,1-Trichloroethane	0.25	U	120-82-1	1,2,4-Trichlorobenzene	0.25	U
563-58-6	1,1-Dichloropropene	0.25	U	87-68-3	Hexachlorobutadiene	0.25	U
56-23-5	Carbon Tetrachloride	0.75	U	87-61-6	1,2,3-Trichlorobenzene	0.75	U
107-06-2	1,2-Dichloroethane	0.25	U	1634-04-4	Methyl-tert-butyl ether	5	U
79-01-6	Trichloroethene	0.25	U	71-43-2	Benzene	1	U
78-87-5	1,2-Dichloropropane	0.25	U	108-88-3	Toluene	1	U
75-27-4	Bromodichloromethane	0.25	U	100-41-4	Ethyl benzene	1	U
74-95-3	Dibromomethane	1	U	108-38-3	m,p-Xylenes	2	U
10061-01-5	cis-1,3-Dichloropropene	0.25	U	95-47-6	o-Xylene	1	U
10061-02-6	trans-1,3-Dichloropropene	0.25	U	100-42-5	Styrene	1	U
79-00-5	1,1,2-Trichloroethane	0.25	U	98-82-8	Isopropylbenzene	1	U
127-18-4	Tetrachloroethene	0.25	U	103-65-1	n-Propylbenzene	1	U
142-28-9	1,3-Dichloropropane	0.25	U	108-67-8	1,3,5-Trimethylbenzene	1	U
124-48-1	Dibromochloromethane	0.75	U	98-06-6	tert-Butylbenzene	1	U
106-93-4	1,2-Dibromoethane	1	U	95-63-6	1,2,4-Trimethylbenzene	1	U
108-90-7	Chlorobenzene	0.25	U	135-98-8	sec-Butylbenzene	1	U
630-20-6	1,1,1,2-Tetrachloroethane	0.25	U	99-87-6	p-isopropyltoluene	1	U
75-25-2	Bromoform	0.5	U	104-51-8	n-Butylbenzene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	0.75	U	91-20-3	Naphthalene	1	U

TQL- Target Quantitation Limit- Subject to change due to instrument sensitivity
T- Tentatively Identified, not confirmed
E- Estimated Value
U- Samples analyzed for this compound but not detected
N- Sample not analyzed for this compound
D- Detected below quantitation limit
M- GC/MS Analysis performed

Other purgeables detected (up to 10 highest peaks)	Detected ug/L
NO VOLATILE ORGANIC COMPOUNDS	
DETECTED BY GC//PID.	

COMMENTS:

State of North Carolina
Department of Environment,
Health and Natural Resources
Mooresville Regional Office

James B. Hunt, Jr., Governor
Jonathan B. Howes, Secretary
Linda Diane Long, Regional Manager

DEHNR

DIVISION OF ENVIRONMENTAL MANAGEMENT

December 16, 1994

Melanie Bradford
808 Hickory Grove Road
Gastonia, North Carolina 28056

RE: Health Risk Assessment
Bradford Well
Gaston County, N.C.

Dear Ms. Bradford:

Please find attached a copy of the Health Risk Assessment performed by Dr. Ken Rudo on your well located at 808 Hickory Grove Road in Gaston County. As stated previously, I plan to resample your well this month.

If you should have any questions, please do not hesitate to contact Dr. Rudo at (919) 733-3410 or me at (704) 663-1699, ext. 243.

Sincerely,

Karen Walker

Karen Walker
Hydrogeologist

Attachment

cc: Gaston County Health Department

KKW/sc

919 North Main Street, Mooresville, North Carolina 28115 Telephone 704-663-1699 FAX 704-663-6040
An Equal Opportunity Affirmative Action Employer 50% recycled/ 10% post-consumer paper

State of North Carolina
Department of Environment,
Health and Natural Resources
Division of Epidemiology

James B. Hunt, Jr., Governor
Jonathan B. Howes, Secretary

DEHNR
NORTH CAROLINA DEPARTMENT OF ENVIRONMENT, HEALTH & NATURAL RESOURCES

DEC 15 1994

DIVISION OF ENVIRONMENTAL MANAGEMENT
MOORESVILLE REGIONAL OFFICE

December 12, 1994

Ms. Karen Walker
Mooresville Regional Office
919 North Main Street
Mooresville, North Carolina 28115

Dear Ms. Walker:

RE: Health Risk Evaluation
Gaston County

Attached is the Environmental Epidemiology Section's drinking water health risk evaluation for the well water sample from the above site. Recommendations for continued water use are also given.

If you have any further questions, please call me at (919) 733-3410.

Sincerely,

Kenneth Rudo, Ph.D., Toxicologist
Environmental Epidemiology Section

KR:td

Attachment

North Carolina Department of Environment, Health, & Natural Resources
Division of Epidemiology
Environmental Epidemiology Section

Drinking Water Health Risk Evaluation
General

Gaston COUNTY

DATE 12/2/94 LABORATORY NUMBER 461472

(✓) Based on these analytical results, this water should be considered safe for normal usage.

( ) Chemical analysis did not show any contamination. Water should be resampled if odor or taste persists.

( ) The water should not be used for drinking or cooking purposes, avoid prolonged bathing/showering.

( ) Based on these analytical results, this water is highly contaminated and should not be used for drinking, cooking or bathing/showering.

( ) The laboratory results are not conclusive, please resample:

PLEASE INDICATE ON LAB SHEET THAT IT IS A RESAMPLE AND PROVIDE PREVIOUS SAMPLE NUMBER(S).

(✓) COMMENTS:
low level should not pose any health risk upon continued consumption.

For further information, contact Dr. Ken Rudo or Dr. Luanne Williams, Environmental Epidemiology Section, (919) 733-3410.

DEHNR 3891 (5/92)
Environmental Epidemiology Section (Review 5/95)

GROUNDWATER FIELD/LAB FORM

CHAIN OF CUSTODY

North Carolina
Department of Environment, Health, and Natural Resources
DIVISION OF ENVIRONMENTAL MANAGEMENT - GROUNDWATER SECTION

County Gaston
Quad No Q68g-12 Serial No.
Lat. 35° 16' 15" Long. 81° 03' 54"

SAMPLE PRIORITY

☐ ROUTINE ☒ EMERGENCY
☒ CHAIN OF CUSTODY

Lab Number 46 ~~7465~~ 1472
Date Received 9/28/94 Time 8:45
Rec'd by: DS From: Bus, Courier, Hand Del.,
Other:
Data Entry By: [illegible] Ck: [illegible]
Date Reported: 11/21/94

N.C. DEPT. OF ENVIRONMENT, HEALTH & NATURAL RESOURCES

Report To: ARO, FRO, MRO, RRO, WaRO, WIRO, WSRO, Kinston FO, Fed. Trust, Central Off., Other:
Shipped by: Bus, Courier, Hand Del., Other:
Collector(s): K Walker Date 9-27-94 Time 9:45 am
Purpose: Baseline, Complaint, Compliance, LUST, Pesticide Study, Federal Trust, Other: NOV 29 1994 (circle one)

DIVISION OF ENVIRONMENTAL MANAGEMENT MOORESVILLE REGIONAL OFFICE

FIELD ANALYSES

pH_{400} 6.0 Spec. Cond.$_{94}$ 80 umhos at 25° C
Temp.$_{10}$ 22 °C Odor none
Appearance clear
Field Analysis By: K Walker

Owner Melanie Bradford
Location or site 808 Hickory Grove Road
Description of sampling point sink in well house
Sampling Method Pump (Pump, bailer, etc.) Sample Interval unk.
Remarks sampled after pumping n 5 mins. (pumping time, air temp. etc.)

LABORATORY ANALYSES

	BOD, 310	mg/l		Diss. Solids 70300	mg/l		Ag - Silver 46566	ug/l		Organochlorine Pesticides
	COD High 340	mg/l		Flouride 951	mg/l		Al - Aluminum 46557	ug/l		Organophosphorus Pesticides
	COD Low 335	mg/l		Hardness: Total 900	mg/l		As - Arsenic 46551	ug/l		Nitrogen Pesticides
	Coliform: MF Fecal 31616	/100ml		Hardness (non-carb) 902	mg/l		Ba - Barium 46558	ug/l		
	Coliform: MF Total 31504	/100ml		Phenols 32730	ug/l		Ca - Calcium 46552	mg/l		Acid Herbicides
	TOC 680	mg/l		Specific Cond. 95	uMhos/cm²		Cd - Cadmium 46559	ug/l		
	Turbidity 76	NTU		Sulfate 945	mg/l		Cr - Chromium 46560	ug/l		Semivolatile Organics
	Residue., Suspended 530	mg/l		Sulfide 745	mg/l		Cu - Copper 46562	ug/l		
							Fe - Iron 46563	ug/l		
						✓	Hg - Mercury 71900	ug/l	✓	Volatile Organics (VOA bottle)
	pH 403	units					K - Potassium 46555	mg/l		
	Alkalinity to pH 4.5 410	mg/l					Mg - Magnesium 46554	mg/l		TPH - Gasoline Range
	Alkalinity to pH 8.3 415	mg/l					Mn - Manganese 46565	ug/l		TPH - BTEX Gasoline Range
	Carbonate 445	mg/l		NH_3 as N 610	mg/l		Na - Sodium 46556	mg/l		
	Bicarbonate 440	mg/l		TKN as N 625	mg/l		Ni - Nickel	ug/l		
	Carbon dioxide 405	mg/l		NO_2 + NO_3 as N 630	mg/l		Pb - Lead 46564	ug/l		
	Chloride 940	mg/l		P: Total as P 665	mg/l		Se - Selenium	ug/l		
	Chromium: Hex 1032	ug/l					Zn - Zinc 46567	ug/l		
	Color: True 80	Pt-Co								
	Cyanide 720	mg/l								

Lab Comments:

GW-54 REV. 8/93

For Dissolved Analysis - submit filtered sample and write "DIS" in block.

EHNR/DEM LABORATORY
VOLATILE ANALYTICAL REPORT

LAB NO. 4G1472

REPORTED BY
CHECKED BY
REVIEWED BY

SUPERVISOR BZK
DATE 11/17/94
ENTERED BY
CHECKED BY

SAMPLE TYPE: WATER

ANALYSIS RESULTS

CAS#	VOA TARGET COMPOUND	TQL ug/L	DETECTED ug/L	CAS#	VOA TARGET COMPOUND	TQL ug/L	DETECTED ug/L
75-35-4	1,1-Dichloroethene	0.75	U	96-18-4	1,2,3-Trichloropropane	0.25	U
75-09-2	Methylene Chloride	10	U	108-86-1	Bromobenzene	1	U
156-60-5	trans-1,2-Dichloroethene	0.75	U	95-49-8	2-Chlorotoluene	0.25	U
75-34-3	1,1-Dichloroethane	0.25	1.3	106-43-4	4-Chlorotoluene	0.25	U
590-20-7	2,2-Dichloropropane	0.25	U	541-73-1	1,3-Dichlorobenzene	0.25	U
156-59-4	cis-1,2-Dichloroethene	0.25	U	106-46-7	1,4-Dichlorobenzene	0.25	U
67-66-3	Chloroform	0.25	U	95-50-1	1,2-Dichlorobenzene	0.25	U
74-97-5	Bromochloromethane	0.75	U	96-12-8	1,2-Dibromo-3-Chloropropane	1	U
71-55-6	1,1,1-Trichloroethane	0.25	U	120-82-1	1,2,4-Trichlorobenzene	0.25	U
563-58-6	1,1-Dichloropropene	0.25	U	87-68-3	Hexachlorobutadiene	0.25	U
56-23-5	Carbon Tetrachloride	0.75	U	87-61-6	1,2,3-Trichlorobenzene	0.75	U
107-06-2	1,2-Dichloroethane	0.25	U	1634-04-4	Methyl-tert-butyl ether	5	U
79-01-6	Trichloroethene	0.25	U	71-43-2	Benzene	1	U
78-87-5	1,2-Dichloropropane	0.25	U	108-88-3	Toluene	1	U
75-27-4	Bromodichloromethane	0.25	U	100-41-4	Ethyl benzene	1	U
74-95-3	Dibromomethane	1	U	108-38-3	m,p-Xylenes	2	U
10061-01-5	cis-1,3-Dichloropropene	0.25	U	95-47-6	o-Xylene	1	U
10061-02-6	trans-1,3-Dichloropropene	0.25	U	100-42-5	Styrene	1	U
79-00-5	1,1,2-Trichloroethane	0.25	U	98-82-8	Isopropylbenzene	1	U
127-18-4	Tetrachloroethene	0.25	U	103-65-1	n-Propylbenzene	1	U
142-28-9	1,3-Dichloropropane	0.25	U	108-67-8	1,3,5-Trimethylbenzene	1	U
124-48-1	Dibromochloromethane	0.75	U	98-06-6	tert-Butylbenzene	1	U
106-93-4	1,2-Dibromoethane	1	U	95-63-6	1,2,4-Trimethylbenzene	1	U
108-90-7	Chlorobenzene	0.25	U	135-98-8	sec-Butylbenzene	1	U
630-20-6	1,1,1,2-Tetrachloroethane	0.25	U	99-87-6	p-Isopropyltoluene	1	U
75-25-2	Bromoform	0.5	U	104-51-8	n-Butylbenzene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	0.75	U	91-20-3	Naphthalene	1	U

TQL- Target Quantitation Limit- Subject to change due to instrument sensitivity
T- Tentatively Identified, not confirmed
E- Estimated Value
U- Samples analyzed for this compound but not detected
N- Sample not analyzed for this compound
D- Detected below quantitation limit
M- GC/MS Analysis performed

Other purgeables detected (up to 10 highest peaks)	Detected ug/L
NO VOLATILE ORGANIC COMPOUNDS	
DETECTED BY GC//PID.	

COMMENTS:

MRO

Division of Environmental Management
GROUNDWATER SECTION

N.C. DEPT. OF ENVIRONMENT, HEALTH, & NATURAL RESOURCES

OCT 4 1994

DIVISION OF ENVIRONMENTAL MANAGEMENT
MOORESVILLE REGIONAL OFFICE

CHAIN OF CUSTODY RECORD

For Investigation of Groundwater Incident No.

Samples collected and GW-54 forms completed by: Karen Walker

Lab Only Lab No.	Quad No.	Location	Date	Time	No. of Containers
61472 ~~HG 14165~~	Q68q-12	Melanie Bradford - Gaston County	9-27-94	9:45am	1

Relinquished by(Signature):	Received by(Signature):	Date/Time
Karen Walker	Donna Saunders	9/28/94 8:45
Rel.	Rec. by	/
Rel.	Rec. by	/
Rel.	Rec. by	/

Method of Shipment: Courier

Security Type and Condition: Seal by: KWalker Broken by: Donna Saunders
Lock by: Open by:

LAB USE ONLY

Lab No. From	Through	No. Containers	Analysis	Relinquished by	Received by	Date / Time
HG 1472	-	1	VOA	Donna Saunders	Cindy Shea	9/28/94 9:00
						/
						/
						/
						/
						/
						/
						/
						/

White copy - GW Headquarters, Canary copy - Lab, Pink copy - Region

GW-53 Revised 9/87

State of North Carolina
Department of Environment,
Health and Natural Resources
Mooresville Regional Office

James B. Hunt, Jr., Governor
Jonathan B. Howes, Secretary
Linda Diane Long, Regional Manager

DEHNR

DIVISION OF ENVIRONMENTAL MANAGEMENT

December 2, 1994

Melanie Bradford
808 Hickory Grove Road
Gastonia, North Carolina 28056

RE: Well Water Sample Results
Bradford Well
Gaston County, N.C.

Dear Ms. Bradford:

On September 27, 1994, staff from the Mooresville Regional Office of the North Carolina Division of Environmental Management sampled your well at 808 Hickory Grove Road, in Gaston County. The samples were analyzed for volatile organic compounds. Volatile organic compounds include a wide range of manmade compounds including, but not limited to, gasoline components and chlorinated solvents used as degreasers.

Laboratory results from these samples indicate at the time of sampling that 1,1-dichloroethane was present in your water supply at 1.3 parts per billion (ppb). Although this level is below the North Carolina groundwater standard of 7 ppb established for this contaminant, I will forward a copy of the laboratory results to the State Toxicologist and request a written evaluation concerning the health risks associated with human consumption. I will forward those results to you when they are received.

In addition, I remain concerned about the "rainbow film" you reported on the surface of your water and plan to resample your well during December 1994. In the meantime, please call me at (704) 663-1699, ext. 243 if you have any questions.

Sincerely,

Karen Walker

Karen Walker
Hydrogeologist

Enclosure: Lab Results
cc: Gaston County Health Department
KDW/sc

GROUNDWATER FIELD/LAB FORM

CHAIN OF CUSTODY

North Carolina
Department of Environment, Health, and Natural Resources
DIVISION OF ENVIRONMENTAL MANAGEMENT - GROUNDWATER SECTION

unty Gaston
ad No. Q68g-12 Serial No. _____
t. 35° 16' 15" Long. 81° 03' 54"

SAMPLE PRIORITY

☐ ROUTINE ☒ EMERGENCY
☒ CHAIN OF CUSTODY

Lab Number 46 ~~1465~~ 1472
Date Received 9/28/94 Time 8:45
Rec'd by: DS From: Bus, Courier, Hand Del.,
Other: _____
Data Entry By: [illegible] Ck: [illegible]
Date Reported: 11/21/94

N.C. DEPT. OF ENVIRONMENT, HEALTH & NATURAL RESOURCES

port To: ARO, FRO, MRO, RRO, WaRO, WiRO,
SRO, Kinston FO, Fed. Trust, Central Off., Other: _____
Shipped by: Bus, Courier, Hand Del., Other: _____
Collector(s): K Walker Date 9-27-94 Time 9:45 am
Purpose: Baseline, Complaint, Compliance, LUST, Pesticide Study, Federal Trust, Other: NOV 29 1994 (circle one)

DIVISION OF ENVIRONMENTAL MANAGEMENT
MOORESVILLE REGIONAL OFFICE

FIELD ANALYSES

pH_{400} 6.0 Spec. Cond.$_{94}$ 80 umhos at 25° C
Temp.$_{10}$ 22 °C Odor none
Appearance clear
Field Analysis By: K Walker

Owner Melanie Bradford
Location or site 808 Hickory Grove Road
Description of sampling point Sink in Well house
Sampling Method Pump (Pump, bailer, etc.) Sample Interval unk.
Remarks Sampled after pumping n 5 mins. (pumping time, air temp. etc.)

LABORATORY ANALYSES

	BOD, 310	mg/l		Diss. Solids 70300	mg/l		Ag - Silver 46566	ug/l		Organochlorine Pesticides
	COD High 340	mg/l		Flouride 951	mg/l		Al - Aluminum 46557	ug/l		Organophosphorus Pesticides
	COD Low 335	mg/l		Hardness: Total 900	mg/l		As - Arsenic 46551	ug/l		Nitrogen Pesticides
	Coliform: MF Fecal 31616	/100ml		Hardness (non-carb) 902	mg/l		Ba - Barium 46558	ug/l		
	Coliform: MF Total 31504	/100ml		Phenols 32730	ug/l		Ca - Calcium 46552	mg/l		Acid Herbicides
	TOC 680	mg/l		Specific Cond. 95	uMhos/cm²		Cd - Cadmium 46559	ug/l		
	Turbidity 76	NTU		Sulfate 945	mg/l		Cr - Chromium 46560	ug/l		Semivolatile Organics
	Residue., Suspended 530	mg/l		Sulfide 745	mg/l		Cu - Copper 46562	ug/l		
							Fe - Iron 46563	ug/l		
							Hg - Mercury 71900	ug/l	✓	Volatile Organics (VOA bottle)
	pH 403	units					K - Potassium 46555	mg/l		
	Alkalinity to pH 4.5 410	mg/l					Mg - Magnesium 46554	mg/l		TPH - Gasoline Range
	Alkalinity to pH 8.3 415	mg/l					Mn - Manganese 46565	ug/l		TPH - BTEX Gasoline Range
	Carbonate 445	mg/l		NH_3 as N 610	mg/l		Na - Sodium 46556	mg/l		
	Bicarbonate 440	mg/l		TKN as N 625	mg/l		Ni - Nickel	ug/l		
	Carbon dioxide 405	mg/l		NO_2 + NO_3 as N 630	mg/l		Pb - Lead 46564	ug/l	✓	
	Chloride 940	mg/l		P: Total as P 665	mg/l		Se - Selenium	ug/l		
	Chromium: Hex 1032	ug/l					Zn - Zinc 46567	ug/l		
	Color: True 80	Pt-Co								
	Cyanide 720	mg/l								

Lab Comments: _____

GW-54 REV. 6/93

For Dissolved Analysis - submit filtered sample and write "DIS" in block.

EHNR/DEM LABORATORY
VOLATILE ANALYTICAL REPORT

LAB NO. 4G1472

REPORTED BY
CHECKED BY
REVIEWED BY

SUPERVISOR RZK
DATE 11/17/94
ENTERED BY
CHECKED BY

SAMPLE TYPE: WATER

ANALYSIS RESULTS

CAS#	VOA TARGET COMPOUND	TQL ug/L	DETECTED ug/L		CAS#	VOA TARGET COMPOUND	TQL ug/L	DETECTED ug/L	
75-35-4	1,1-Dichloroethene	0.75		U	96-18-4	1,2,3-Trichloropropane	0.25		U
75-09-2	Methylene Chloride	10		U	108-86-1	Bromobenzene	1		U
156-60-5	trans-1,2-Dichloroethene	0.75		U	95-49-8	2-Chlorotoluene	0.25		U
75-34-3	1,1-Dichloroethane	0.25	1.3		106-43-4	4-Chlorotoluene	0.25		U
590-20-7	2,2-Dichloropropane	0.25		U	541-73-1	1,3-Dichlorobenzene	0.25		U
156-59-4	cis-1,2-Dichloroethene	0.25		U	106-46-7	1,4-Dichlorobenzene	0.25		U
67-66-3	Chloroform	0.25		U	95-50-1	1,2-Dichlorobenzene	0.25		U
74-97-5	Bromochloromethane	0.75		U	96-12-8	1,2-Dibromo-3-Chloropropane	1		U
71-55-6	1,1,1-Trichloroethane	0.25		U	120-82-1	1,2,4-Trichlorobenzene	0.25		U
563-58-6	1,1-Dichloropropene	0.25		U	87-68-3	Hexachlorobutadiene	0.25		U
56-23-5	Carbon Tetrachloride	0.75		U	87-61-6	1,2,3-Trichlorobenzene	0.75		U
107-06-2	1,2-Dichloroethane	0.25		U	1634-04-4	Methyl-tert-butyl ether	5		U
79-01-6	Trichloroethene	0.25		U	71-43-2	Benzene	1		U
78-87-5	1,2-Dichloropropane	0.25		U	108-88-3	Toluene	1		U
75-27-4	Bromodichloromethane	0.25		U	100-41-4	Ethyl benzene	1		U
74-95-3	Dibromomethane	1		U	108-38-3	m,p-Xylenes	2		U
10061-01-5	cis-1,3-Dichloropropene	0.25		U	95-47-6	o-Xylene	1		U
10061-02-6	trans-1,3-Dichloropropene	0.25		U	100-42-5	Styrene	1		U
79-00-5	1,1,2-Trichloroethane	0.25		U	98-82-8	Isopropylbenzene	1		U
127-18-4	Tetrachloroethene	0.25		U	103-65-1	n-Propylbenzene	1		U
142-28-9	1,3-Dichloropropane	0.25		U	108-67-8	1,3,5-Trimethylbenzene	1		U
124-48-1	Dibromochloromethane	0.75		U	98-06-6	tert-Butylbenzene	1		U
106-93-4	1,2-Dibromoethane	1		U	95-63-6	1,2,4-Trimethylbenzene	1		U
108-90-7	Chlorobenzene	0.25		U	135-98-8	sec-Butylbenzene	1		U
630-20-6	1,1,1,2-Tetrachloroethane	0.25		U	99-87-6	p-isopropyltoluene	1		U
75-25-2	Bromoform	0.5		U	104-51-8	n-Butylbenzene	1		U
79-34-5	1,1,2,2-Tetrachloroethane	0.75		U	91-20-3	Naphthalene	1		U

TQL- Target Quantitation Limit- Subject to change due to instrument sensitivity
T- Tentatively Identified, not confirmed
E- Estimated Value
U- Samples analyzed for this compound but not detected
N- Sample not analyzed for this compound
D- Detected below quantitation limit
M- GC/MS Analysis performed

Other purgeables detected (up to 10 highest peaks)	Detected ug/L
NO VOLATILE ORGANIC COMPOUNDS	
DETECTED BY GC//PID.	

COMMENTS:

DIVISION OF ENVIRONMENTAL MANAGEMENT

June 9, 1994

MEMORANDUM TO: Arthur Mouberry

FROM: Chris DeRoller

THROUGH: Barbara Christian

SUBJECT: High Priority Non-UST Sites

On September 23, 1992 a NOV for 2L violations was issued to Mr. Robert Furr. The violations are believed to be related to surface spills and releases from a heating oil AST. Subsequent sampling of one of the contaminated water supply wells showed declining contaminant levels so Mr. Furr was initially put on a monitoring schedule in lieu of completing a CSA. After a year and a half of monitoring the levels increased again in one well and never decreased in the second, so we requested that the CSA be performed.

Mr. Furr's response is attached. There is no alternate water supply available in the area so this constitutes an "A" site for us. This site is also not eligible for either the State Trust Fund or Superfund.

In a similar situation a NOV for the OPHSCA was issued to Mrs. Sadie Toomey for PCBs and other oily contaminants in soil at her residence. In addition to the soil contamination, at least eight nearby water supply wells contain chlorinated solvents. We believe the PCBs, oils and solvents came from a drum storage operation that Mrs. Toomey's husband operated for several years. He is deceased now, and we have been unable to obtain information on where the drums came from. Mrs. Toomey's response to the NOV is attached.

Again no public water supply is available at this site. The site is not eligible for State Trust Fund reimbursement, but may be eligible for Superfund involvement. Gail Scogin of EPA was notified in February of 1993 and again in April of 1993 after we received the PCBs soil results. At that time Ms. Scogin was not sure what EPA's involvement would be. I have received no word from her since then.

Please advise as to how we should address these sites. There are several other non-UST sites in the MRO which are similar to these, i.e. water supply wells contaminated and threatened and an RP or PRP apparently financially unable to proceed with a thorough assessment and cleanup (see table below).

CMD/sc

SELECTED HIGH PRIORITY NON-UST SITES IN THE MRO

Incident №	Site	Contaminant	Wells Impacted*		Other Wells*
			>DWS	Others	Within 1500'
5628	Davis Park Rd	Solvents	5	9	25
5779	Fairview Trailer Park	Nitrate	-	-	20(?)
11684	Ken Duncan Heating	Solvents	1	-	23
10437	Mingus Residence	Solvents	1	10	52
6319	Morton Residence	Solvents	1	-	23(?)
11301	Spivey Well	Solvents	4	6	20
3353	Tuffy Oil	Kerosene	-	-	8(?)
5839	Pittman Residence	Solvents	2	3	5
9086	Furr Residence	Fuel Oil Gasoline	2	-	5
9817	Toomey Residence	Solvents	4	14	20(?)

* Approximate Numbers - May change with additional investigation.
DWS - Drinking Water Standards
(?) - Approximated from USGS TOPO Maps

Attachments: Furr to DEM 3/17/94
DEM to Furr 2/15/94
DEM to Furr 2/15/93
DEM to Furr 9/23/92
DEM to Toomey 4/26/93
Toomey to DEM 6/21/93
Toomey File Memos 2/12/93 & 4/28/93

June 9, 1994
MRO/CMD

State of North Carolina
Department of Environment,
Health and Natural Resources
Mooresville Regional Office

James B. Hunt, Jr., Governor
Jonathan B. Howes, Secretary
Vivian H. Burke, Regional Manager

DEHNR

DIVISION OF ENVIRONMENTAL MANAGEMENT

May 2, 1994

Jim Toomey
Toomey Drum Company
Route 1, Box 195
Mount Holly, North Carolina 28120

RE: Well Water Sample Results
Toomey Drum Well
Gaston County, N.C.

Dear Mr. Toomey:

On March 22, 1994 staff from the Mooresville Regional Office of the North Carolina Division of Environmental Management sampled your well at Route 1, Box 195, Mount Holly. The samples were analyzed for volatile and semi-volatile organic compounds. Volatile organic compounds include a wide range of manmade compounds including, but not limited to, gasoline components and chlorinated solvents used as degreasers. Examples of semi-volatile compounds include some of the components of diesel, kerosene, and new and used motor oil.

Laboratory results from these samples indicate at the time of sampling that volatile organic compounds were present in your water supply. A copy of the laboratory results is enclosed for your review. These results are:

Compound	Concentration*	EPA Drinking Water Standards*
tetrachloroethylene	1.7	5
two unidentified compounds		

*Concentration in micrograms per liter (ug/l), which is also parts per billion (ppb).

The tetrachloroethylene does not exceed the drinking water standards. I will forward a copy of the laboratory results to the State Toxicologist, however, and request a written evaluation concerning health risks for human consumption. I will forward those comments to you upon receipt. I will also resample your well to see if we can identify the two other compounds that were detected.

Should you have questions in the meantime, please call me at (704) 663-1699, ext. 235.

Sincerely,

Chris DeRoller
Hydrogeologist

Enclosure: Lab Results

cc: Gaston County Health Department

CMD/sc

GROUNDWATER FIELD/LAB FORM

North Carolina
Department of Environment, Health, and Natural Resources
DIVISION OF ENVIRONMENTAL MANAGEMENT - GROUNDWATER SECTION

CHAIN OF CUSTODY

County Gaston
Quad No. P68K-1 Serial No.
Lat. 35° 22' 37" Long. 81° 00' 11

SAMPLE PRIORITY

[X] ROUTINE [ ] EMERGENCY
[X] CHAIN OF CUSTODY

Lab Number 4G 384
Date Received 3-23-94 Time 8:30
Rec'd by: DB From: Bus, Courier, Hand Del.,
Other:
Data Entry By: 94 Ck: RB
Date Reported: 4/20/94

Report To: ARO, FRO, MRO, RRO, WaRO, WiRO, WSRO, Kinston FO, Fed. Trust, Central Off., Other:
Shipped by: Bus, Courier, Hand Del., Other:
Collector(s): D. Beller Date 3/22/94 Time 1:30
Purpose: Baseline, Complaint, Compliance, LUST, Pesticide Study, Federal Trust, Other: Poll. Inv. (circle one)

FIELD ANALYSES

pH_{400} _____ Spec. Cond.$_{94}$ _____ at 25° C
Temp.$_{10}$ _____ °C Odor _____
Appearance _____
Field Analysis By: _____

Owner Toomey Drum Company (704) 827-5200
Location or site Business 16; Rt. 1, Box 195 Mt. Holly NC 28120
Description of sampling point Tap outside fence
Sampling Method pump (Pump, bailer, etc.) Sample Interval unk
Remarks (pumping time, air temp. etc.)

LABORATORY ANALYSES

	BOD, 310	mg/l		Diss. Solids 70300	mg/l		Ag - Silver 46566	ug/l		Organochlorine Pesticides
	COD High 340	mg/l		Flouride 951	mg/l		Al - Aluminum 46557	ug/l		Organophosphorus Pesticides
	COD Low 335	mg/l		Hardness; Total 900	mg/l		As - Arsenic 46551	ug/l		Nitrogen Pesticides
	Coliform: MF Fecal 31616	/100ml		Hardness (non-carb) 902	mg/l		Ba - Barium 46558	ug/l		
	Coliform: MF Total 31504	/100ml		Phenols 32730	ug/l		Ca - Calcium 46552	mg/l		Acid Herbicides
	TOC 680	mg/l		Specific Cond, 95	uMhos/cm²		Cd - Cadmium 46559	ug/l		
	Turbidity 76	NTU		Sulfate 945	mg/l		Cr - Chromium 46560	ug/l	X	Semivolatile Organics
	Residue., Suspended 530	mg/l		Sulfide 745	mg/l		Cu - Copper 46562	ug/l		
							Fe - Iron 46563	ug/l		
							Hg - Mercury 71900	ug/l	X	Volatile Organics (VOA bottle)
	pH 403	units					K - Potassium 46555	mg/l		
	Alkalinity to pH 4.5 410	mg/l					Mg - Magnesium 46554	mg/l		TPH - Gasoline Range
	Alkalinity to pH 8.3 415	mg/l					Mn - Manganese 46565	ug/l		TPH - BTEX Gasoline Range
	Carbonate 445	mg/l		NH_3 as N 610	mg/l		Na - Sodium 46556	mg/l		
	Bicarbonate 440	mg/l		TKN as N 625	mg/l		Ni - Nickel	ug/l		
	Carbon dioxide 405	mg/l		NO_2 + NO_3 as N 630	mg/l		Pb - Lead 46564	ug/l		S, V
	Chloride 940	mg/l		P: Total as P 665	mg/l		Se - Selenium	ug/l		
	Chromium: Hex 1032	ug/l					Zn - Zinc 46567	ug/l		
	Color: True 80	Pt-Co								
	Cyanide 720	mg/l								

N.C. DEPT. OF ENVIRONMENT, HEALTH, & NATURAL RESOURCES

Lab Comments:

APR 26 1994

DIVISION OF ENVIRONMENTAL MANAGEMENT
MOORESVILLE REGIONAL OFFICE

GW-54 REV. 6 For Dissolved Analysis - submit filtered sample and write "DISS" in blank

SEMIVOLATILE ORGANICS REPORT - DEM LAB

LAB NUMBER: 4G384 SUPERVISOR RCK LAB #: 4G384
DATE : 4/15/94

REPORTED BY JW
CHECKED BY SM ENTERED BY
REVIEWED BY SM CHECKED BY

SAMPLE TYPE: WATER DILUTION FACTOR : _____

CAS NUMBER	TQL X 1	ANALYTE NAME	CONC. UG/L
108-95-2	10	PHENOL	U
111-44-4	10	BIS(2-CHLOROETHYL) ETHER	U
95-57-8	10	2-CHLOROPHENOL	U
541-73-1	10	1,3-DICHLOROBENZENE	U
106-46-7	10	1,4-DICHLOROBENZENE	U
100-51-6	20	BENZYL ALCOHOL	U
95-50-1	10	1,2-DICHLOROBENZENE	U
95-48-7	10	2-METHYL PHENOL	U
108-60-1	10	BIS(2-CHLOROISOPROPYL) ETHER	U
106-44-5	10	4-METHYL PHENOL	U
621-64-7	10	N-NITROSO-DI-N-PROPYLAMINE	U
67-72-1	10	HEXACHLOROETHANE	U
98-95-3	10	NITROBENZENE	U
78-59-1	10	ISOPHORONE	U
88-75-5	10	2-NITRO PHENOL	U
105-67-9	10	2,4-DIMETHYL PHENOL	U
65-85-0	50	BENZOIC ACID	U
111-91-1	10	BIS(2-CHLOROETHOXY) METHANE	U
120-83-2	10	2,4-DICHLORO PHENOL	U
120-82-1	10	1,2,4-TRICHLOROBENZENE	U
91-20-3	10	NAPHTHALENE	U
106-47-8	20	4-CHLOROANILINE	U
87-68-3	10	HEXACHLOROBUTADIENE	U
59-50-7	20	4-CHLORO-3-METHYL PHENOL	U
91-57-6	10	2-METHYL NAPHTHALENE	U
77-47-4	10	HEXACHLOROCYCLOPENTADIENE	U
88-06-2	10	2,4,6-TRICHLORO PHENOL	U
95-95-4	10	2,4,5-TRICHLORO PHENOL	U
91-58-7	10	2-CHLORO NAPHTHALENE	U
88-74-4	50	2-NITROANALINE	U
131-11-3	10	DIMETHYL PHTHALATE	U
208-96-8	10	ACENAPHTHYLENE	U
606-20-2	10	2,6-DINITROTOLUENE	U
99-09-2	50	3-NITROANALINE	U
83-32-9	10	ACENAPHTHENE	U
51-28-5	50	2,4-DINITRO PHENOL	U
100-02-7	50	4-NITRO PHENOL	U
132-64-9	10	DIBENZOFURAN	U
121-14-2	10	2,4-DINITROTOLUENE	U
84-66-2	10	DIETHYL PHTHALATE	U
7005-72-3	10	4-CHLOROPHENYL PHENYL ETHER	U
86-73-7	10	FLUORENE	U
100-01-6	50	4-NITROANALINE	U
534-52-1	50	4,6-DINITRO-2-METHYL PHENOL	U

SEMIVOLATILE ORGANICS REPORT - DEM LAB

86-30-6	10	N-NITROSODIPHENYLAMINE	U
101-55-3	10	4-BROMOPHENYL PHENYL ETHER	U
118-74-1	10	HEXACHLOROBENZENE	U
87-86-5	50	PENTACHLORO PHENOL	U
85-01-8	10	PHENANTHRENE	U
120-12-7	10	ANTHRACENE	U
84-74-2	10	DI-N-BUTYL PHTHALATE	U
206-44-0	10	FLUORANTHENE	U
129-00-0	10	PYRENE	U
85-68-7	10	BUTYLBENZYL PHTHALATE	U
91-94-1	20	3,3'-DICHLOROBENZIDINE	U
56-55-3	10	BENZO(A)ANTHRACENE	U
218-01-9	10	CHRYSENE	U
117-81-7	10	BIS(2-ETHYLHEXYL) PHTHALATE	U
117-84-0	10	DI-N-OCTYL PHTHALATE	U
205-99-2	10	BENZO(B)FLUORANTHENE	U
207-08-9	10	BENZO(K)FLUORANTHENE	U
50-32-8	10	BENZO(A)PYRENE	U
193-39-5	10	INDENO(1,2,3-CD)PYRENE	U
53-70-3	10	DIBENZO(A,H)ANTHRACENE	U
191-24-2	10	BENZO(G,H,I)PERYLENE	U

OTHER SEMIVOLATILE ORGANICS FOR SAMPLE NUMBER : 4G384

NO ACID OR BASE/NEUTRAL EXTRACTABLE ORGANIC
COMPOUNDS WERE DETECTED BY GC/MS.

TQL= TARGET QUANTITATION LIMIT
T= TENTATIVELY IDENTIFIED ESTIMATED CONCENTRATION
E= ESTIMATED CONCENTRATION
U= COMPOUND ANALYZED FOR NOT DETECTED
N= COMPOUND NOT ANALYZED FOR
D= DETECTED BELOW QUANTITATION LIMIT
H= HOLDING TIME EXCEEDED
TQL SUBJECT TO CHANGE DUE TO INSTRUMENT SENSITIVITY

EHNR/DEM LABORATORY
VOLATILE ANALYTICAL REPORT

LAB NO. 4G384

REPORTED BY NS
CHECKED BY FB
REVIEWED BY ASC

SUPERVISOR RFK
DATE 4/20/94
ENTERED BY
CHECKED BY

SAMPLE TYPE: WATER

ANALYSIS RESULTS

CAS#	VOA TARGET COMPOUND	TQL ug/L	DETECTED ug/L
75-35-4	1,1-Dichloroethene	0.75	U
75-09-2	Methylene Chloride	10	U
156-60-5	trans-1,2-Dichloroethene	0.75	U
75-34-3	1,1-Dichloroethane	0.25	U
590-20-7	2,2-Dichloropropane	0.25	U
156-59-4	cis-1,2-Dichloroethene	0.25	U
67-66-3	Chloroform	0.25	U
74-97-5	Bromochloromethane	0.75	U
71-55-6	1,1,1-Trichloroethane	0.25	U
563-58-6	1,1-Dichloropropene	0.25	U
56-23-5	Carbon Tetrachloride	0.75	U
107-06-2	1,2-Dichloroethane	0.25	U
79-01-6	Trichloroethene	0.25	U
78-87-5	1,2-Dichloropropane	0.25	U
75-27-4	Bromodichloromethane	0.25	U
74-95-3	Dibromomethane	1	U
10061-01-5	cis-1,3-Dichloropropene	0.25	U
10061-02-6	trans-1,3-Dichloropropene	0.25	U
79-00-5	1,1,2-Trichloroethane	0.25	U
127-18-4	Tetrachloroethene	0.25	1.7
142-28-9	1,3-Dichloropropane	0.25	U
124-48-1	Dibromochloromethane	0.75	U
106-93-4	1,2-Dibromoethane	1	U
108-90-7	Chlorobenzene	0.25	U
630-20-6	1,1,1,2-Tetrachloroethane	0.25	U
75-25-2	Bromoform	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.75	U

CAS#	VOA TARGET COMPOUND	TQL ug/L	DETECTED ug/L
96-18-4	1,2,3-Trichloropropane	0.25	U
108-86-1	Bromobenzene	1	U
95-49-8	2-Chlorotoluene	0.25	U
106-43-4	4-Chlorotoluene	0.25	U
541-73-1	1,3-Dichlorobenzene	0.25	U
106-46-7	1,4-Dichlorobenzene	0.25	U
95-50-1	1,2-Dichlorobenzene	0.25	U
96-12-8	1,2-Dibromo-3-Chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	0.25	U
87-68-3	Hexachlorobutadiene	0.25	U
87-61-6	1,2,3-Trichlorobenzene	0.75	U
1634-04-4	Methyl-tert-butyl ether	5	U
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethyl benzene	1	U
108-38-3	m,p-Xylenes	2	U
95-47-6	o-Xylene	1	U
100-42-5	Styrene	1	U
98-82-8	Isopropylbenzene	1	U
103-65-1	n-Propylbenzene	1	U
108-67-8	1,3,5-Trimethylbenzene	1	U
98-06-6	tert-Butylbenzene	1	U
95-63-6	1,2,4-Trimethylbenzene	1	U
135-98-8	sec-Butylbenzene	1	U
99-87-6	p-isopropyltoluene	1	U
104-51-8	n-Butylbenzene	1	U
91-20-3	Naphthalene	1	U

TQL- Target Quantitation Limit- Subject to change due to instrument sensitivity
T- Tentatively Identified, not confirmed
E- Estimated Value
U- Samples analyzed for this compound but not detected
N- Sample not analyzed for this compound
D- Detected below quantitation limit
M- GC/MS Analysis performed

Other purgeables detected (up to 10 highest peaks) — Detected ug/L

2 UNIDENTIFIED PEAKS DETECTED BY GC/PID

COMMENTS:

Toomey Drum

North Carolina Department of Environment, Health, & Natural Resources
Division of Epidemiology
Environmental Epidemiology Section

Drinking Water Health Risk Evaluation
General

Gaston COUNTY

DATE 5/6/94 LABORATORY NUMBER 46384

(✓) Based on these analytical results, this water should be considered safe for normal usage.

( ) Chemical analysis did not show any contamination. Water should be resampled if odor or taste persists.

( ) The water should not be used for drinking or cooking purposes, avoid prolonged bathing/showering.

( ) Based on these analytical results, this water is highly contaminated and should not be used for drinking, cooking or bathing/showering.

( ) The laboratory results are not conclusive, please resample:

PLEASE INDICATE ON LAB SHEET THAT IT IS A RESAMPLE AND PROVIDE PREVIOUS SAMPLE NUMBER(S).

(✓) COMMENTS:
level is below the EPA MCL of 5 ppb.
Continued consumption should not pose any health risks at this time.

For further information, contact Dr. Ken Rudo or Dr. Luanne Williams, Environmental Epidemiology Section, (919) 733-3410.

DEHNR 3891 (5/92)
Environmental Epidemiology Section (Review 5/95)

CMP

State of North Carolina
Department of Environment,
Health and Natural Resources
Mooresville Regional Office

James B. Hunt, Jr., Governor
Jonathan B. Howes, Secretary
Vivian H. Burke, Regional Manager

DEHNR

DIVISION OF ENVIRONMENTAL MANAGEMENT

May 2, 1994

Jim Toomey
Toomey Drum Company
Route 1, Box 195
Mount Holly, North Carolina 28120

RE: Well Water Sample Results
Toomey Drum Well
Gaston County, N.C.

Dear Mr. Toomey:

On March 22, 1994 staff from the Mooresville Regional Office of the North Carolina Division of Environmental Management sampled your well at Route 1, Box 195, Mount Holly. The samples were analyzed for volatile and semi-volatile organic compounds. Volatile organic compounds include a wide range of manmade compounds including, but not limited to, gasoline components and chlorinated solvents used as degreasers. Examples of semi-volatile compounds include some of the components of diesel, kerosene, and new and used motor oil.

Laboratory results from these samples indicate at the time of sampling that volatile organic compounds were present in your water supply. A copy of the laboratory results is enclosed for your review. These results are:

Compound	Concentration*	EPA Drinking Water Standards*
tetrachloroethylene	1.7	5
two unidentified compounds		

*Concentration in micrograms per liter (ug/l), which is also parts per billion (ppb).

The tetrachloroethylene does not exceed the drinking water standards. I will forward a copy of the laboratory results to the State Toxicologist, however, and request a written evaluation concerning health risks for human consumption. I will forward those comments to you upon receipt. I will also resample your well to see if we can identify the two other compounds that were detected.

Should you have questions in the meantime, please call me at (704) 663-1699, ext. 235.

Sincerely,

Chris DeRoller
Hydrogeologist

Enclosure: Lab Results

cc: Gaston County Health Department

CMD/sc

GROUNDWATER FIELD/LAB FORM

North Carolina
Department of Environment, Health, and Natural Resources
DIVISION OF ENVIRONMENTAL MANAGEMENT - GROUNDWATER SECTION

CHAIN OF CUSTODY

County Gaston
Quad No. P68K-1 Serial No.
Lat. 35°22'37" Long. 81°00'11

SAMPLE PRIORITY

[X] ROUTINE [ ] EMERGENCY
[X] CHAIN OF CUSTODY

Lab Number 4G 384
Date Received 3-23-94 Time 8:30
Rec'd by: DB From: Bus, Courier, Hand Del.,
Other:
Data Entry By: 94 Ck: RB
Date Reported: 4/20/94

Report To: ARO, FRO, MBO, RRO, WaRO, WiRO, WSRO, Kinston FO, Fed. Trust, Central Off., Other:
Shipped by: Bus, Courier, Hand Del., Other:
Collector(s): D. Beller Date 3/22/94 Time 1:30
Purpose: Baseline, Complaint, Compliance, LUST, Pesticide Study, Federal Trust, Other: Pill. Inv. (circle one)

FIELD ANALYSES

pH_{400} _____ Spec. Cond.$_{94}$ _____ at 25° C
Temp.$_{10}$ _____ °C Odor _____
Appearance
Field Analysis By:

Owner Toomey Drum Company (704) 827-5200
Location or site Business 16; Rt. 1, Box 195 Mt. Holly NC 28120
Description of sampling point Tap outside fence
Sampling Method pump (Pump, bailer, etc) Sample Interval unk
Remarks (pumping time, air temp, etc.)

LABORATORY ANALYSES

	BOD, 310	mg/l		Diss. Solids 70300	mg/l		Ag - Silver 46566	ug/l		Organochlorine Pesticides
	COD High 340	mg/l		Flouride 951	mg/l		Al - Aluminum 46557	ug/l		Organophosphorus Pesticides
	COD Low 335	mg/l		Hardness: Total 900	mg/l		As - Arsenic 46551	ug/l		Nitrogen Pesticides
	Coliform: MF Fecal 31616	/100ml		Hardness (non-carb) 902	mg/l		Ba - Barium 46558	ug/l		
	Coliform: MF Total 31504	/100ml		Phenols 32730	ug/l		Ca - Calcium 46552	mg/l		Acid Herbicides
	TOC 680	mg/l		Specific Cond. 95	uMhos/cm²		Cd - Cadmium 46559	ug/l		
	Turbidity 76	NTU		Sulfate 945	mg/l		Cr - Chromium 46560	ug/l	X	Semivolatile Organics
	Residue., Suspended 530	mg/l		Sulfide 745	mg/l		Cu - Copper 46562	ug/l		
							Fe - Iron 46563	ug/l		
							Hg - Mercury 71900	ug/l	X	Volatile Organics (VOA bottle)
	pH 403	units					K - Potassium 46555	mg/l		
	Alkalinity to pH 4.5 410	mg/l					Mg - Magnesium 46554	mg/l		TPH - Gasoline Range
	Alkalinity to pH 8.3 415	mg/l					Mn - Manganese 46565	ug/l		TPH - BTEX Gasoline Range
	Carbonate 445	mg/l		NH_3 as N 610	mg/l		Na - Sodium 46556	mg/l		
	Bicarbonate 440	mg/l		TKN as N 625	mg/l		Ni - Nickel	ug/l		
	Carbon dioxide 405	mg/l		NO_2 + NO_3 as N 630	mg/l		Pb - Lead 46564	ug/l		S, V
	Chloride 940	mg/l		P: Total as P 665	mg/l		Se - Selenium	ug/l		
	Chromium: Hex 1032	ug/l					Zn - Zinc 46567	ug/l		
	Color: True 80	Pt-Co								
	Cyanide 720	mg/l								

N.C. DEPT. OF ENVIRONMENT, HEALTH, & NATURAL RESOURCES

Lab Comments:

APR 26 1994

DIVISION OF ENVIRONMENTAL MANAGEMENT
MOORESVILLE REGIONAL OFFICE

GW-54 REV. 6 For Dissolved Analysis - submit filtered sample and write "DISS" in block

SEMIVOLATILE ORGANICS REPORT - DEM LAB

LAB NUMBER: 4G384 SUPERVISOR RCK LAB #: 4G384
DATE : 4/15/94

REPORTED BY JW
CHECKED BY SM ENTERED BY
REVIEWED BY SM CHECKED BY

SAMPLE TYPE: WATER DILUTION FACTOR : _____

CAS NUMBER	TQL X 1	ANALYTE NAME	CONC. UG/L
108-95-2	10	PHENOL	U
111-44-4	10	BIS(2-CHLOROETHYL) ETHER	U
95-57-8	10	2-CHLOROPHENOL	U
541-73-1	10	1,3-DICHLOROBENZENE	U
106-46-7	10	1,4-DICHLOROBENZENE	U
100-51-6	20	BENZYL ALCOHOL	U
95-50-1	10	1,2-DICHLOROBENZENE	U
95-48-7	10	2-METHYL PHENOL	U
108-60-1	10	BIS(2-CHLOROISOPROPYL) ETHER	U
106-44-5	10	4-METHYL PHENOL	U
621-64-7	10	N-NITROSO-DI-N-PROPYLAMINE	U
67-72-1	10	HEXACHLOROETHANE	U
98-95-3	10	NITROBENZENE	U
78-59-1	10	ISOPHORONE	U
88-75-5	10	2-NITRO PHENOL	U
105-67-9	10	2,4-DIMETHYL PHENOL	U
65-85-0	50	BENZOIC ACID	U
111-91-1	10	BIS(2-CHLOROETHOXY) METHANE	U
120-83-2	10	2,4-DICHLORO PHENOL	U
120-82-1	10	1,2,4-TRICHLOROBENZENE	U
91-20-3	10	NAPHTHALENE	U
106-47-8	20	4-CHLOROANILINE	U
87-68-3	10	HEXACHLOROBUTADIENE	U
59-50-7	20	4-CHLORO-3-METHYL PHENOL	U
91-57-6	10	2-METHYL NAPHTHALENE	U
77-47-4	10	HEXACHLOROCYCLOPENTADIENE	U
88-06-2	10	2,4,6-TRICHLORO PHENOL	U
95-95-4	10	2,4,5-TRICHLORO PHENOL	U
91-58-7	10	2-CHLORO NAPHTHALENE	U
88-74-4	50	2-NITROANALINE	U
131-11-3	10	DIMETHYL PHTHALATE	U
208-96-8	10	ACENAPHTHYLENE	U
606-20-2	10	2,6-DINITROTOLUENE	U
99-09-2	50	3-NITROANALINE	U
83-32-9	10	ACENAPHTHENE	U
51-28-5	50	2,4-DINITRO PHENOL	U
100-02-7	50	4-NITRO PHENOL	U
132-64-9	10	DIBENZOFURAN	U
121-14-2	10	2,4-DINITROTOLUENE	U
84-66-2	10	DIETHYL PHTHALATE	U
7005-72-3	10	4-CHLOROPHENYL PHENYL ETHER	U
86-73-7	10	FLUORENE	U
100-01-6	50	4-NITROANALINE	U
534-52-1	50	4,6-DINITRO-2-METHYL PHENOL	U

SEMIVOLATILE ORGANICS REPORT - DEM LAB

86-30-6	10	N-NITROSODIPHENYLAMINE	U
101-55-3	10	4-BROMOPHENYL PHENYL ETHER	U
118-74-1	10	HEXACHLOROBENZENE	U
87-86-5	50	PENTACHLORO PHENOL	U
85-01-8	10	PHENANTHRENE	U
120-12-7	10	ANTHRACENE	U
84-74-2	10	DI-N-BUTYL PHTHALATE	U
206-44-0	10	FLUORANTHENE	U
129-00-0	10	PYRENE	U
85-68-7	10	BUTYLBENZYL PHTHALATE	U
91-94-1	20	3,3'-DICHLOROBENZIDINE	U
56-55-3	10	BENZO(A)ANTHRACENE	U
218-01-9	10	CHRYSENE	U
117-81-7	10	BIS(2-ETHYLHEXYL) PHTHALATE	U
117-84-0	10	DI-N-OCTYL PHTHALATE	U
205-99-2	10	BENZO(B)FLUORANTHENE	U
207-08-9	10	BENZO(K)FLUORANTHENE	U
50-32-8	10	BENZO(A)PYRENE	U
193-39-5	10	INDENO(1,2,3-CD)PYRENE	U
53-70-3	10	DIBENZO(A,H)ANTHRACENE	U
191-24-2	10	BENZO(G,H,I)PERYLENE	U

OTHER SEMIVOLATILE ORGANICS FOR SAMPLE NUMBER : 4G384

NO ACID OR BASE/NEUTRAL EXTRACTABLE ORGANIC COMPOUNDS WERE DETECTED BY GC/MS.

TQL= TARGET QUANTITATION LIMIT
T= TENTATIVELY IDENTIFIED ESTIMATED CONCENTRATION
E= ESTIMATED CONCENTRATION
U= COMPOUND ANALYZED FOR NOT DETECTED
N= COMPOUND NOT ANALYZED FOR
D= DETECTED BELOW QUANTITATION LIMIT
H= HOLDING TIME EXCEEDED
TQL SUBJECT TO CHANGE DUE TO INSTRUMENT SENSITIVITY

EHNR/DEM LABORATORY
VOLATILE ANALYTICAL REPORT

LAB NO. 4G384

REPORTED BY NS
CHECKED BY TB
REVIEWED BY AJC

SUPERVISOR REK
DATE 4/20/94
ENTERED BY
CHECKED BY

SAMPLE TYPE: WATER

ANALYSIS RESULTS

CAS#	VOA TARGET COMPOUND	TQL ug/L	DETECTED ug/L	CAS#	VOA TARGET COMPOUND	TQL ug/L	DETECTED ug/L
75-35-4	1,1-Dichloroethene	0.75	U	96-18-4	1,2,3-Trichloropropane	0.25	U
75-09-2	Methylene Chloride	10	U	108-86-1	Bromobenzene	1	U
156-60-5	trans-1,2-Dichloroethene	0.75	U	95-49-8	2-Chlorotoluene	0.25	U
75-34-3	1,1-Dichloroethane	0.25	U	106-43-4	4-Chlorotoluene	0.25	U
590-20-7	2,2-Dichloropropane	0.25	U	541-73-1	1,3-Dichlorobenzene	0.25	U
156-59-4	cis-1,2-Dichloroethene	0.25	U	106-46-7	1,4-Dichlorobenzene	0.25	U
67-66-3	Chloroform	0.25	U	95-50-1	1,2-Dichlorobenzene	0.25	U
74-97-5	Bromochloromethane	0.75	U	96-12-8	1,2-Dibromo-3-Chloropropane	1	U
71-55-6	1,1,1-Trichloroethane	0.25	U	120-82-1	1,2,4-Trichlorobenzene	0.25	U
563-58-6	1,1-Dichloropropene	0.25	U	87-68-3	Hexachlorobutadiene	0.25	U
56-23-5	Carbon Tetrachloride	0.75	U	87-61-6	1,2,3-Trichlorobenzene	0.75	U
107-06-2	1,2-Dichloroethane	0.25	U	1634-04-4	Methyl-tert-butyl ether	5	U
79-01-6	Trichloroethene	0.25	U	71-43-2	Benzene	1	U
78-87-5	1,2-Dichloropropane	0.25	U	108-88-3	Toluene	1	U
75-27-4	Bromodichloromethane	0.25	U	100-41-4	Ethyl benzene	1	U
74-95-3	Dibromomethane	1	U	108-38-3	m,p-Xylenes	2	U
10061-01-5	cis-1,3-Dichloropropene	0.25	U	95-47-6	o-Xylene	1	U
10061-02-6	trans-1,3-Dichloropropene	0.25	U	100-42-5	Styrene	1	U
79-00-5	1,1,2-Trichloroethane	0.25	U	98-82-8	Isopropylbenzene	1	U
127-18-4	Tetrachloroethene	0.25	1.7	103-65-1	n-Propylbenzene	1	U
142-28-9	1,3-Dichloropropane	0.25	U	108-67-8	1,3,5-Trimethylbenzene	1	U
124-48-1	Dibromochloromethane	0.75	U	98-06-6	tert-Butylbenzene	1	U
106-93-4	1,2-Dibromoethane	1	U	95-63-6	1,2,4-Trimethylbenzene	1	U
108-90-7	Chlorobenzene	0.25	U	135-98-8	sec-Butylbenzene	1	U
630-20-6	1,1,1,2-Tetrachloroethane	0.25	U	99-87-6	p-isopropyltoluene	1	U
75-25-2	Bromoform	0.5	U	104-51-8	n-Butylbenzene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	0.75	U	91-20-3	Naphthalene	1	U

TQL- Target Quantitation Limit- Subject to change due to instrument sensitivity
T- Tentatively Identified, not confirmed
E- Estimated Value
U- Samples analyzed for this compound but not detected
N- Sample not analyzed for this compound
D- Detected below quantitation limit
M- GC/MS Analysis performed

Other purgeables detected (up to 10 highest peaks) — Detected ug/L

2 UNIDENTIFIED PEAKS DETECTED BY GC/PID

COMMENTS:

POLLUTION INCIDENT/U.S.T. LEAK REPORTING FORM

Department of Environment, Health, Natural Resources
Division of Environmental Management
GROUNDWATER SECTION

Confirm. GW Contamination (Y/N) Y
Major Soil Contamination (Y/N) ____
Minor Soil Contaminatin (Y/N) ____

Incident # ____

Date Incident Occurred or Leak Detected 12/17/93

INCIDENT DESCRIPTION

Incident Location/Name: Toomey Residence

Address: 1020 Hickory Grove Road

City/Town: Gastonia | County: Gaston | Region: MRO

Briefly Describe Incident: GCHD responded to a "gasoline odor" complaint and sampled several wells in the vicinity of 1020 Hickory Grove Road. Petroleum Contamination was detected in some of the wells (Hickory Grove Road Incident No. ____) Chlorinated solvents were detected in several of the wells. Source may be a former back-yard drum cleaning operation at the Toomey Residence

POTENTIAL SOURCE OWNER-OPERATOR

Potential Source Owner-Operator: Mr. Grady Toomey | Telephone:

Company: | Street Address: 1020 Hickory Grove Road

City: Gastonia | County: Gaston | State: NC | Zip Code:

OWNERSHIP
0. N/A 1. Municipal 2. Military 3. Unknown (4) Private 5. Federal 6. County 7. State

OPERATION TYPE
0. N/A 1. Public Service 2. Agricultrural 3. Residential 4. Educational/Relig. 5. Industrial (6) Commercial 7. Mining

POLLUTANTS INVOLVED

MATERIALS INVOLVED	AMOUNT LOST	AMOUNT RECOVERED
PCE	unk	unk
1,1,1-TCA	unk	unk
Breakdown Products	unk	unk

SOURCE OF POLLUTION

PRIMARY SOURCE OF POLLUTION (Select one)
(1) Intentional dump
2. Pit, pond, lagoon
3. Leak-underground
4. Spray irrigation
5. Land application
6. Animal feedlot
(7) Source ~~unknown~~ uncontrolled at this time
8. Septic tank
9. Sewer line
10. Stockpile
11. Landfill
12. Spill-surface
13. Well
14. Dredge spoil
15. Nonpoint source

PRIMARY POLLUTANT TYPE (Select one)
1. Pesticide/herbicide
2. Radioactive waste
3. Gasoline/diesel
4. Heating oil
5. Other petroleum prod.
6. Sewage/septage
7. Fertilizers
8. Sludge
9. Solid waste leachate
10. Metals
11. Other inorganics
(12) Other organics

LOCATION
1. Facility
2. Railroad
3. Waterway
4. Pipeline
5. Dumpsite
6. Highway
(7) Residence
8. Other

SETTING
(1) Residential
2. Industrial
3. Urban
4. Rural

Site Priority Ranking: 350A

D.E.M. Regional Contact: Chris DeMoller | Signature: [signature] | Date: 2/12/93

GW-61 Revised 3/92

IMPACT ON DRINKING WATER SUPPLIES

WELLS AFFECTED (1.) YES 2. NO

NUMBER OF WELLS AFFECTED ~~5~~ 4

Well(s) Contaminated: (Users Name)

1. Ms. Toomey 1020 Hickory Grove Road
2. Karen Woods 3115 Cedar Street
3. Alexanders 3118 Cedar Street
4. ? Hickory Grove Road
5.

Circle Appropriate Responses

Lab Samples Taken By: 1. DEM 2. DHS 3. Responsible Party (4.) Other Gaston County, EPA 5. None

Samples Taken Include: (1.) Groundwater 2. Soil

LOCATION OF INCIDENT

7 1/2 Min. Quad Name: Mount Holly, N.C.

5 Min. Quad Number: C 68 g

Lat. : Deg : Min : Sec : 35° 16' 25"

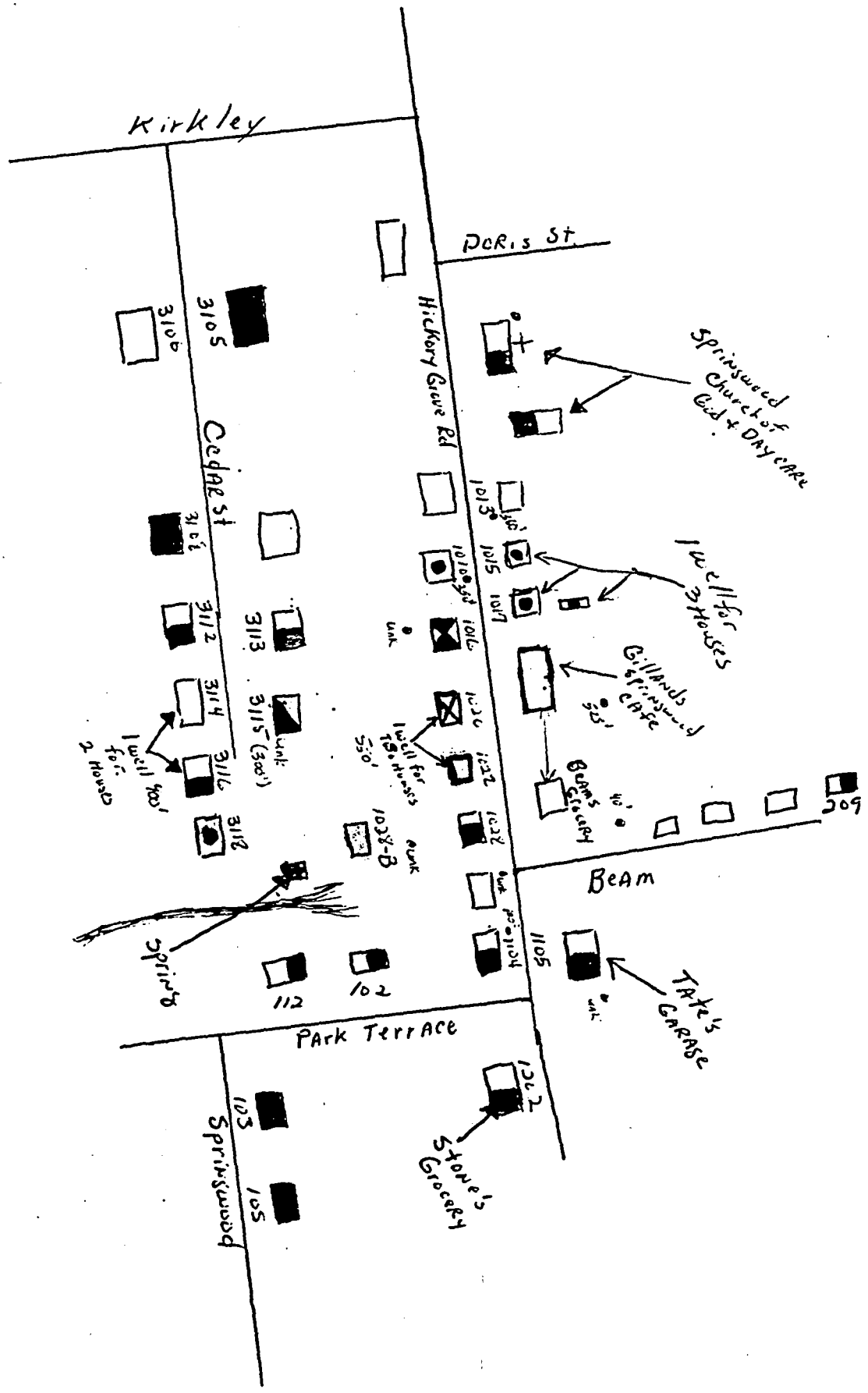
Long. : Deg : Min : Sec : 81° 03 47"

Draw Sketch of Area or Attach Additional Maps

GASTON COUNTY

ENVIRONMENTAL HEALTH

991 West Hudson Boulevard - Gastonia, North Carolina 28052 - Phone (704)



North Carolina Department of Environment, Health, & Natural Resources
Division of Epidemiology
Environmental Epidemiology Section

RECEIVED
AUG 18 1993
N. C. DEPT. OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT
POLLUTION CONTROL BRANCH

Drinking Water Health Risk Evaluation For Petroleum Products

AUG 25 1993

Gaston COUNTY

DATE 8/19/93 LABORATORY NUMBER 931973

DIVISION OF ENVIRONMENTAL MANAGEMENT
MOORESVILLE REGIONAL OFFICE

This water is probably contaminated with a petroleum product that may be gasoline, fuel oil, kerosene or other.

( ) The movement of chemicals into groundwater is difficult to predict. Although these results indicate that trace levels of contaminants are present, this water is acceptable for normal use now. However, since levels may increase or other chemicals might appear in the future, this water should be resampled in _____ month(s). (PLEASE INDICATE ON LAB SHEET THAT IT IS A RESAMPLE AND PROVIDE PREVIOUS SAMPLE NUMBER(S).)

( ) Your water contains a chemical (benzene) that is known to cause cancer in humans. The U. S. Environmental Protection Agency has set a maximum contaminant level of 5 ug/l (ppb) for benzene. This is the level that is considered acceptable for public water supplies. Even at this level, there may be some risk of cancer. The level of benzene in this water cannot be predicted from one time to another.

( ) Based on this benzene level, this water should not be used for drinking or cooking. Prolonged bathing/showering should be avoided.

(✓) This water is highly contaminated and should not be used for drinking, cooking or bathing/showering.

( ) This water sample contains multiple contaminants that suggest petroleum contamination. Since the toxicity of some of these agents is unknown or poorly understood, prudent public health policy recommends that this water should not be used for drinking and cooking. Prolonged bathing/showering should be avoided.

COMMENTS:

Extensive gasoline contamination is indicated. Any continued water use for any purpose may pose an increased health risk. DO NOT USE THIS WATER!

For further information, contact Dr. Ken Rudo or Dr. Luanne Williams, Environmental Epidemiology Section, (919) 733-3410.

DEHNR 3892 (5/92)
Environmental Epidemiology Section (Review 5/95)

- On bottled water per Dex Thompson 8/27/93

North Carolina Department of Environment, Health, & Natural Resources
Division of Epidemiology
Environmental Epidemiology Section

RECEIVED
AUG 18 1993
POLLUTION CONTROL BRANCH

Drinking Water Health Risk Evaluation For
Petroleum Products

Gaston COUNTY

DATE 8/10/93 LABORATORY NUMBER 931974

This water is probably contaminated with a petroleum product that may be gasoline, fuel oil, kerosene or other.

( ) The movement of chemicals into groundwater is difficult to predict. Although these results indicate that trace levels of contaminants are present, this water is acceptable for normal use now. However, since levels may increase or other chemicals might appear in the future, this water should be resampled in _____ month(s). (PLEASE INDICATE ON LAB SHEET THAT IT IS A RESAMPLE AND PROVIDE PREVIOUS SAMPLE NUMBER(S).)

( ) Your water contains a chemical (benzene) that is known to cause cancer in humans. The U. S. Environmental Protection Agency has set a maximum contaminant level of 5 ug/l (ppb) for benzene. This is the level that is considered acceptable for public water supplies. Even at this level, there may be some risk of cancer. The level of benzene in this water cannot be predicted from one time to another.

( ) Based on this benzene level, this water should not be used for drinking or cooking. Prolonged bathing/showering should be avoided.

( ) This water is highly contaminated and should not be used for drinking, cooking or bathing/showering.

(✓) This water sample contains multiple contaminants that suggest petroleum contamination. Since the toxicity of some of these agents is unknown or poorly understood, prudent public health policy recommends that this water should not be used for drinking and cooking. Prolonged bathing/showering should be avoided.

COMMENTS:
Gasoline contamination indicated. Resample in 3 months. Continued consumption may pose an increased health risk over time.

For further information, contact Dr. Ken Rudo or Dr. Luanne Williams, Environmental Epidemiology Section, (919) 733-3410.

DEHNR 3892 (5/92)
Environmental Epidemiology Section (Review 5/95)

N.C. Dept. of Environment, Health and Natural Resources
Division of Laboratory Services
State Laboratory of Public Health
P.O. Box 28047, Raleigh, N.C. 27611

RECEIVED
AUG 18 1993
POLLUTION CONTROL BRANCH

Environmental Sciences Analysis Report

Please Read instruction sheet
VOA vials contain 1:1 HCL

Name of Owner, Patient or Supply: Goodwin Electronics

Address: Hedgewood Circle

County: Gaston

Report To: Doc Thrower

Address: Gaston Co. Health Dept
991 W. Hudson Blvd, Gastonia, N.C. 28052

Date Collected: 7/1/93

Collected By: Doc Thrower

Analysis Desired: VOC

JUL 1993

Laboratory Number	Sample Number	Sample Description or Remarks	Results In
931973	Spulling-	Spulling - Hedgewood	SEE ATTACHED SHEET(S)
931974	Barber	Barber - Hedgewood	SEE ATTACHED SHEET(S)
931975		Trip Blank	NO VOLATILE COMPOUNDS IDENTIFIED

Samples 11

Date Received 7-8-93 WB

Date Reported 7-14-93

Date Extracted

Date Analyzed VOC 7/13/93 JPM

Reported By: John P. Neal

Note: These samples came in at room temperature vials Not frozen.

DEHNR Form 2364 Revised (9-89)
Laboratory
1658E

M

N. C. DEPARTMENT OF ENVIRONMENT, HEALTH, & NATURAL RESOURCES
DIVISION OF LABORATORY SERVICES, ENVIRONMENTAL SCIENCES SECTION
P.O. BOX 28047 - 306 N. WILMINGTON ST, RALEIGH, N.C. 27611

Laboratory No. 931973 PURGEABLE COMPOUNDS Date of Analysis 7/12 - 7/13/93

COMPOUND	µg/l
Dichlorodifluoromethane	U
Chloromethane	
✓Vinyl Chloride	
Bromomethane	
Chloroethane	
Trichlorofluoromethane	
✓1,1-Dichloroethylene	
Methylene Chloride	
tert-Butyl Methyl Ether	2153.0 J
✓trans-1,2-Dichloroethylene	U
Isopropyl ether	3.2
1,1-Dichloroethane	U
2,2-Dichloropropane	
✓cis-1,2-Dichloroethylene	
Chloroform	
(BCM) Bromochloromethane	
✓1,1,1-Trichloroethane	
1,1-Dichloropropene	
✓Carbon Tetrachloride	
✓Benzene	4.2
✓1,2-Dichloroethane	1K
✓Trichloroethylene	U
✓1,2-Dichloropropane	
Bromodichloromethane	
Dibromomethane	
✓Toluene	
1,1,2-Trichloroethane	
✓Tetrachloroethylene	1K
1,3-Dichloropropane	U
Dibromochloromethane	
1,2-Dibromoethane (EDB)	
1-Chlorohexane	

COMPOUND	µg/l
✓Chlorobenzene	U
✓Ethylbenzene	
1,1,1,2-Tetrachloroethane	
✓p-Xylene	2.6
✓m-Xylene	
✓o-Xylene	1K
✓Styrene	U
Bromoform	
Isopropylbenzene	
1,1,2,2-Tetrachloroethane	
Bromobenzene	
n-Propylbenzene	
1,2,3-Trichloropropane	
2-Chlorotoluene	
1,3,5-Trimethylbenzene	
4-Chlorotoluene	
tert-Butyl Benzene	
Pentachloroethane	
1,2,4-Trimethylbenzene	
sec-Butyl Benzene	
p-Isopropyltoluene	
1,3-Dichlorobenzene	
✓1,4-Dichlorobenzene	
n-Butylbenzene	
✓1,2-Dichlorobenzene	
Bis (2-Chloroisopropyl) Ether	
1,2-Dibromo-3-Chloropropane	
1,2,4-Trichlorobenzene	
Hexachlorobutadiene	
Naphthalene	
1,2,3-Trichlorobenzene	

COMMENTS: Unidentified peaks present

MDL - Minimum Detection Limit for water (EPA Method 502.2), is 1.0 µg/l.

J - Estimated value.
K - Actual value is known to be less than value given.
L - Actual value is known to be greater than value given.
U - Material was analyzed for but not detected.
NA - Not analyzed.
1/ - Tentative identification.
✓ - Regulated VOC
T - Trihalomethane

N.C. Dept. of Environment, Health, & Natural Resources
DEHNR 3068-0 (Rev. 10/92 Laboratory Services)
#1532E D-18

N. C. DEPARTMENT OF ENVIRONMENT, HEALTH, & NATURAL RESOURCES
DIVISION OF LABORATORY SERVICES, ENVIRONMENTAL SCIENCES SECTION
P.O. BOX 28047 - 306 N. WILMINGTON ST, RALEIGH, N.C. 27611

Laboratory No. 931974 PURGEABLE COMPOUNDS Date of Analysis 7/13/93

COMPOUND	µg/l
Dichlorodifluoromethane	U
Chloromethane	↓
✓Vinyl Chloride	↓
Bromomethane	↓
Chloroethane	↓
Trichlorofluoromethane	↓
✓1,1-Dichloroethylene	↓
Methylene Chloride	↓
tert-Butyl Methyl Ether	187.5 J
✓trans-1,2-Dichloroethylene	U
Isopropyl ether	1.5
1,1-Dichloroethane	U
2,2-Dichloropropane	↓
✓cis-1,2-Dichloroethylene	↓
Chloroform	1K T
(BCM) Bromochloromethane	U
✓1,1,1-Trichloroethane	↓
1,1-Dichloropropene	↓
✓Carbon Tetrachloride	↓
✓Benzene	↓
✓1,2-Dichloroethane	↓
✓Trichloroethylene	↓
✓1,2-Dichloropropane	↓
Bromodichloromethane	↓
Dibromomethane	↓
✓Toluene	↓
1,1,2-Trichloroethane	↓
✓Tetrachloroethylene	1K
1,3-Dichloropropane	U
Dibromochloromethane	↓
1,2-Dibromoethane (EDB)	↓
1-Chlorohexane	↓

COMPOUND	µg/l
✓Chlorobenzene	U
✓Ethylbenzene	↓
1,1,1,2-Tetrachloroethane	↓
✓p-Xylene	↓
✓m-Xylene	↓
✓o-Xylene	↓
✓Styrene	↓
Bromoform	↓
Isopropylbenzene	↓
1,1,2,2-Tetrachloroethane	↓
Bromobenzene	↓
n-Propylbenzene	↓
1,2,3-Trichloropropane	↓
2-Chlorotoluene	↓
1,3,5-Trimethylbenzene	↓
4-Chlorotoluene	↓
tert-Butyl Benzene	↓
Pentachloroethane	↓
1,2,4-Trimethylbenzene	↓
sec-Butyl Benzene	↓
p-Isopropyltoluene	↓
1,3-Dichlorobenzene	↓
✓1,4-Dichlorobenzene	↓
n-Butylbenzene	↓
✓1,2-Dichlorobenzene	↓
Bis (2-Chloroisopropyl) Ether	↓
1,2-Dibromo-3-Chloropropane	↓
1,2,4-Trichlorobenzene	↓
Hexachlorobutadiene	↓
Naphthalene	↓
1,2,3-Trichlorobenzene	✓

COMMENTS: Unidentified peaks present

MDL - Minimum Detection Limit for water (EPA Method 502.2), is 1.0 µg/l.

J - Estimated value.
K - Actual value is known to be less than value given.
L - Actual value is known to be greater than value given.
U - Material was analyzed for but not detected.
NA - Not analyzed.
1/ - Tentative identification.
✓ - Regulated VOC
T - Trihalomethane

N.C. Dept. of Environment, Health, & Natural Resources
DEHNR 3068-O (Rev. 10/92 Laboratory Services)
#1532E D-18

FOUR SEASONS

Four Seasons Industrial Services, Inc.
3107 South Elm-Eugene Street • P.O. Box 16590
Greensboro, North Carolina 27416-0590
(919) 273-2718 • Fax Number (919) 274-5798

June 9, 1993

Mr. Max Toomey
1822 Hickory Grove Road
Gastonia, NC 28056

RE: Proposal to Remove PCB-Contaminated Soil;
Four Seasons Proposal PG306380

Dear Mr. Toomey:

Four Seasons Industrial Services, Inc. (Four Seasons) is pleased to present this proposal for the above-referenced services. The requirements for this project have been developed based upon your discussions with Four Seasons representative Doug Wilson.

Scope of Work

Our understanding of the scope of work is as follows:

- Mobilize a crew and necessary equipment to your site in Gastonia, North Carolina.
- Excavate, transport, and dispose of approximately 24 cubic yards of PCB-contaminated soil.
- Demobilize from the site.

Pricing Summary

Our estimated project price is as follows:

Item	Unit Rate	Estimated Units	Estimated Extension
Mobilization/ Demobilization	$250	Lump Sum	$250
Excavation, Loadout of Contaminated Soil	$1,950/day	1 day	$1,950
Waste Profiling	$1,400/sample	1 sample	$1,400
Transportation and Disposal of Soil to CWM - Emelle, AL	$500/ton	30 tons	$15,000
	ESTIMATED PROJECT TOTAL		**$18,600**

Recycled Paper

The above pricing is based upon the following assumptions and conditions:

- The State will provide all confirmatory sampling necessary.
- The soil will be accepted for disposal as a PCB-contaminated waste into CWM - Emelle, Alabama.
- No site restoration has been included.

Conclusion

Should you have any questions regarding this proposal, please contact Doug Wilson at 704-527-1293.

Sincerely,

Four Seasons Industrial Services, Inc.

TDMilne

Todd D. Milne
Manager, Project Development

TDM:tgc

pc: Doug Wilson
File P:2222_1

CMD

State of North Carolina
Department of Environment, Health, and Natural Resources
Mooresville Regional Office

James B. Hunt, Jr., Governor

Jonathan B. Howes, Secretary
DIVISION OF ENVIRONMENTAL MANAGEMENT

June 9, 1993

Mr. Michael Hill
1010 Hickory Grove Road
Gastonia, North Carolina 28056

RE: Well Water Sample Results
Hill Well
Gaston County, N.C.

Dear Mr. Hill:

On May 6, 1993 staff from the Mooresville Regional Office of the North Carolina Division of Environmental Management sampled your well at 1010 Hickory Grove Road. The samples were analyzed for volatile organic compounds. Volatile organic compounds include a wide range of manmade compounds including, but not limited to, gasoline components and chlorinated solvents used as degreasers.

Laboratory results from these samples indicate at the time of sampling that volatile organic compounds were present in your water supply. A copy of the laboratory results is enclosed for your review. These results are:

Compound	Concentration*	EPA Drinking Water Standards*
1,1,1-Trichloroethane	.85	200

*Concentration in micrograms per liter (ug/l), which is also parts per billion (ppb).

This compound does not exceed the drinking water standards. I will forward a copy of the laboratory results to the State Toxicologist, however, and request a written evaluation concerning health risks for human consumption. I will forward those comments to you upon receipt.

P.O. Box 950, 919 North Main Street, Mooresville, N.C. 28115-0950 • Telephone 704-663-1699 • FAX 704-663-6040

An Equal Opportunity Affirmative Action Employer

Should you have questions in the meantime, please call me at (704) 663-1699, ext. 235.

Sincerely,

Chris DeRoller
Hydrogeologist

Enclosure: Lab Results

cc: Doc Thompson - Gaston County Health Department

CMD/sc

North Carolina
Department of Environment, Health, and Natural Resources
Division of Environmental Management
Groundwater Field/Lab Form

N.C. DEPT. OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT

JUN 04 1993

DIVISION OF ENVIRONMENTAL MANAGEMENT
MOORESVILLE REGIONAL OFFICE

COUNTY Gaston
QUAD NO. Q68-6 SERIAL NO.
LAT. 35°16' 18" LONG. 81°03'50"

LAB NUMBER B 3G 710
DATE RECEIVED 5/7/93 Time 9:20
Rec'd by: DS From: Bus-Courier
Other
DATA ENTRY BY: YH CK: DS
DATE REPORTED: 6/2/93

Report to: ARO, FRO, MRO, RRO, WaRO, WIRO, WSRO, Kinston FO Other
Shipped by: Bus, Courier, Other

SAMPLE PRIORITY
[X] ROUTINE [ ] EMERGENCY

CHAIN OF CUSTODY

COLLECTOR(S): DeBeller DATE 5/6/93 TIME 1:05 PURPOSE: BASELINE, COMPLAINT, COMPLIANCE, LUST, OTHER (circle one)

FIELD ANALYSES

pH400 ____ Spec. Cond.94 ____ at 25°C
Temp.10 ____ °C Odor
Appearance ____ Taste
Field Analysis By:

Owner Michael Hill (Inc.-Toomey Resid)
Location or site 1010 Hickory Grove Road, Gastonia
Description of sampling point Tap at well head
Sampling Method sub pump (pump, bailer, etc.) Sample Interval T.D. 350'
Remarks (pumping time, air temp, etc.)

LABORATORY ANALYSES

	BOD_5 310	mg/l
	COD High 340	mg/l
	COD Low 335	mg/l
	Coliform:MF Fecal 31616	/100ml
	Coliform:MF Total 31504	/100ml
	TOC 680	mg/l
	Turbidity 76	NTU
	pH 403	units
	Alkalinity to pH 4.5 410	mg/l
	Alkalinity to pH 8.3 415	mg/l
	Carbonate 446	mg/l
	Bicarbonate 440	mg/l
	Arsenic:Total 1002	ug/l
	Carbon dioxide 405	mg/l
	Chloride 940	mg/l
	Chromium:Hex 1032	ug/l
	Color:True 80	Pt-Co
	Cyanide 720	mg/l

	Diss. Solids 70300	mg/l
	Fluoride 951	mg/l
	Hardness:Total 900	mg/l
	Hardness (non-carb) 902	mg/l
	Phenols 32730	ug/l
	Specific Cond. 95	uMhos/cm²
	Sulfate 945	mg/l
	Sulfide 745	mg/l
	NH_3 as N 610	mg/l
	TKN as N 625	mg/l
	$NO_2 + NO_3$ as N 630	mg/l
	P:Total as P 665	mg/l

	Ag - Silver 1077	ug/l
	Al - Aluminum 1106	ug/l
	Ba - Barium 1007	ug/l
	Ca - Calcium 916	mg/l
	Cd - Cadmium 1027	ug/l
	Chromium:Total 1034	ug/l
	Cu - Copper 1042	ug/l
	Fe - Iron 1045	ug/l
	Hg - Mercury 71900	ug/l
	K - Potassium 937	mg/l
	Mg - Magnesium 927	mg/l
	Mn - Manganese 1056	ug/l
	Na - Sodium 929	mg/l
	Ni - Nickel 1067	ug/l
	Pb - Lead 1051	ug/l
	Se - Selenium 1147	ug/l
	Zn - Zinc 1092	ug/l

	Organochlorine Pesticides
	Organophosphorus Pesticides
	Acid Herbicides
	Base / Neutral Extractable Organics
	Acid Extractable Organics
X	Purgeable Organics (VOA bottle)
	1,2 - Dibromoethane (EDB)

Lab Comments:

GW-54 REV. 9/90

For Dissolved Analysis - submit filtered sample and write "D" in block

White Copy - Groundwater Central Office Yellow Copy - Regional Office Pink Copy - Central Files Goldenrod Copy - Lab

EHNR/DEM LABORATORY
VOLATILE ANALYTICAL REPORT

LAB NO. 3G 710

REPORTED BY
CHECKED BY
REVIEWED BY

SUPERVISOR REK
DATE 6/2/93
ENTERED BY
CHECKED BY

SAMPLE TYPE: WATER

ANALYSIS RESULTS

CAS#	VOA TARGET COMPOUND	TQL ug/l	DETECTED ug/l
75-35-4	1,1-Dichloroethene	0.75	U
75-09-2	Methylene Chloride	0.25	U
156-60-5	trans-1,2-Dichloroethene	0.75	U
75-34-3	1,1-Dichloroethane	0.25	U
590-20-7	2,2-Dichloropropane	0.25	U
156-59-4	cis-1,2-Dichloroethene	0.25	U
67-66-3	Chloroform	0.25	U
74-97-5	Bromochloromethane	0.75	U
71-55-6	1,1,1-Trichloroethane	0.25	0.85
563-58-6	1,1-Dichloropropene	0.25	U
56-23-5	Carbon Tetrachloride	0.75	U
107-06-2	1,2-Dichloroethane	0.25	U
79-01-6	Trichloroethene	0.25	U
78-87-5	1,2-Dichloropropane	0.25	U
75-27-4	Bromodichloromethane	0.25	U
74-95-3	Dibromomethane	1	U
10061-01-5	cis-1,3-Dichloropropene	0.25	U
10061-02-6	trans-1,3-Dichloropropene	0.25	U
79-00-5	1,1,2-Trichloroethane	0.25	U
127-18-4	Tetrachloroethene	0.25	U
142-28-9	1,3-Dichloropropane	0.25	U
124-48-1	Dibromochloromethane	0.75	U
106-93-4	1,2-Dibromoethane	1	U
108-90-7	Chlorobenzene	0.25	U
630-20-6	1,1,1,2-Tetrachloroethane	0.25	U
75-25-2	Bromoform	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.75	U

CAS#	VOA TARGET COMPOUND	TQL ug/l	DETECTED ug/l
96-18-4	1,2,3-Trichloropropane	0.25	U
108-86-1	Bromobenzene	1	U
95-49-8	2-Chlorotoluene	0.25	U
106-43-4	4-Chlorotoluene	0.25	U
541-73-1	1,3-Dichlorobenzene	0.25	U
106-46-7	1,4-Dichlorobenzene	0.25	U
95-50-1	1,2-Dichlorobenzene	0.25	U
96-12-8	1,2-Dibromo-3-Chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	0.25	U
87-68-3	Hexachlorobutadiene	0.25	U
87-61-6	1,2,3-Trichlorobenzene	0.75	U
1634-04-4	Methyl-tert-butyl ether	5	U
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethyl benzene	1	U
108-38-3	m,p-Xylenes	2	U
95-47-6	o-Xylene	1	U
100-42-5	Styrene	1	U
98-82-8	Isopropylbenzene	1	U
103-65-1	n-Propylbenzene	1	U
108-67-8	1,3,5-Trimethylbenzene	1	U
98-06-6	tert-Butylbenzene	1	U
95-63-6	1,2,4-Trimethylbenzene	1	U
135-98-8	sec-Butylbenzene	1	U
99-87-6	p-isopropyltoluene	1	U
104-51-8	n-Butylbenzene	1	U
91-20-3	Naphthalene	1	U

TQL- Target Quantitation Limit- Subject to change due to instrument sensitivity
T- Tentatively Identified, not confirmed
B- Estimated Value
U- Samples analyzed for this compound but not detected
N- Sample not analyzed for this compound
D- Detected below quantitation limit
M- GC/MS Analysis performed

Other purgeables detected (up to 10 highest peaks) — Detected ug/l

NO VOLATILE ORGANIC COMPOUNDS DETECTED BY GC/PID.

COMMENTS:

State of North Carolina
Department of Environment, Health, and Natural Resources
Mooresville Regional Office

James B. Hunt, Jr., Governor

Jonathan B. Howes, Secretary

DIVISION OF ENVIRONMENTAL MANAGEMENT

June 9, 1993

Mr. Robert L. Martin
505 Woodlawn Avenue
Suite 137
Belmont, North Carolina 28012

RE: Well Water Sample Results
Martin Well
Gaston County, N.C.

Dear Mr. Martin:

On May 6, 1993, staff from the Mooresville Regional Office of the North Carolina Division of Environmental Management sampled your well at 1110 Hickory Grove Road in Gaston County. The samples were analyzed for volatile organic compounds. Volatile organic compounds include a wide range of manmade compounds including, but not limited to, gasoline components and chlorinated solvents used as degreasers.

Laboratory results from these samples indicate at the time of sampling that no volatile organic compounds were present in your water supply.

Should you have any question, please call me at (704) 663-1699, ext. 235.

Sincerely,

Chris DeRoller
Hydrogeologist

Enclosure: Lab Results

cc: Gaston County Health Department

CMD/sc

P.O. Box 950, 919 North Main Street, Mooresville, N.C. 28115-0950 • Telephone 704-663-1699 • FAX 704-663-6040

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North Carolina
Department of Environment, Health, and Natural Resources
Division of Environmental Management
Groundwater Field/Lab Form

N. C. DEPT. OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT
JUN 0 1 1993
DIVISION OF ENVIRONMENTAL MANAGEMENT
WINSTON-SALEM REGIONAL OFFICE

COUNTY Gaston
QUAD NO. Q68a-7 SERIAL NO. ____
LAT. 35°16'27" LONG. 81°03'42"

LAB NUMBER # 36712
DATE RECEIVED 5/7/93 Time 9:20
Rec'd by: DS From: Bus Courier
Other ____
DATA ENTRY BY: GH CK: DS
DATE REPORTED: 5/26/93

Report to: ARO, FRO, MRO, ORRO, WaRO, WIRO, WSRO, Kinston FO Other ____
Shipped by: Bus, Courier Other ____

SAMPLE PRIORITY
☑ ROUTINE ☐ EMERGENCY

CHAIN OF CUSTODY

COLLECTOR(S): DeBolle DATE 5/4/93 TIME 7:35 PURPOSE: BASELINE, COMPLAINT, COMPLIANCE, LUST, OTHER Full Tank
(circle one)

FIELD ANALYSES

pH_{400} ____ Spec. Cond.$_{94}$ ____ at 25°C
Temp.$_{10}$ ____ °C Odor ____
Appearance ____ Taste ____
Field Analysis By: ____

Owner ~~Unknown~~ Mr. Robert L. Martin, 505 Woodlawn Avenue, Suite 137 Belmont 28012
Location or site Home between 1110 HGR 1028 & 1104 Hickory Grove Road (704) 827-8683
Description of sampling point Tap at front of home
Sampling Method Jet pump (pump, bailer, etc.) Sample Interval Last
Remarks ____ (pumping time, air temp, etc.)

LABORATORY ANALYSES

	BOD_5 310	mg/l		Diss. Solids 70300	mg/l		Ag - Silver 1077	ug/l		Organochlorine Pesticides
	COD High 340	mg/l		Fluoride 951	mg/l		Al - Aluminum 1106	ug/l		Organophosphorus Pesticides
	COD Low 335	mg/l		Hardness:Total 900	mg/l		Ba - Barium 1007	ug/l		
	Coliform:MF Fecal 31616	/100ml		Hardness (non-carb) 902	mg/l		Ca - Calcium 916	mg/l		Acid Herbicides
	Coliform:MF Total 31504	/100ml		Phenols 32730	ug/l		Cd - Cadmium 1027	ug/l		
	TOC 680	mg/l		Specific Cond. 95	uMhos/cm²		Chromium:Total 1034	ug/l		Base / Neutral Extractable Organics
	Turbidity 76	NTU		Sulfate 945	mg/l		Cu - Copper 1042	ug/l		Acid Extractable Organics
				Sulfide 745	mg/l		Fe - Iron 1045	ug/l		
							Hg - Mercury 71900	ug/l	X	Purgeable Organics (VOA bottle)
	pH 403	units					K - Potassium 937	mg/l		
	Alkalinity to pH 4.5 410	mg/l					Mg - Magnesium 927	mg/l		1,2 - Dibromoethane (EDB)
	Alkalinity to pH 8.3 415	mg/l					Mn - Manganese 1055	ug/l		
	Carbonate 445	mg/l					Na - Sodium 929	mg/l		
	Bicarbonate 440	mg/l		NH_3 as N 610	mg/l		Ni - Nickel 1067	ug/l		
	Arsenic:Total 1002	ug/l		TKN as N 625	mg/l		Pb - Lead 1051	ug/l		
	Carbon dioxide 405	mg/l		NO_2 + NO_3 as N 630	mg/l		Se - Selenium 1147	ug/l		
	Chloride 940	mg/l		P:Total as P 665	mg/l		Zn - Zinc 1092	ug/l		
	Chromium:Hex 1032	ug/l								
	Color:True 80	Pt-Co								
	Cyanide 720	mg/l								

Lab Comments: ____

GW-54 REV. 9/90

For Dissolved Analysis - submit filtered sample and write "DISS" in block
White Copy - Groundwater Central Office Yellow Copy - Regional Office Pink Copy - Central Files Goldenrod Copy - Lab

EHNR/DEM LABORATORY
VOLATILE ANALYTICAL REPORT

LAB NO. 3G 712

REPORTED BY CH
CHECKED BY
REVIEWED BY

SUPERVISOR REK
DATE 5/26/93
ENTERED BY
CHECKED BY DS

SAMPLE TYPE: WATER

ANALYSIS RESULTS

CAS#	VOA TARGET COMPOUND	TQL ug/l	DETECTED ug/l
75-35-4	1,1-Dichloroethene	0.75	U
75-09-2	Methylene Chloride	0.25	U
156-60-5	trans-1,2-Dichloroethene	0.75	U
75-34-3	1,1-Dichloroethane	0.25	U
590-20-7	2,2-Dichloropropane	0.25	U
156-59-4	cis-1,2-Dichloroethene	0.25	U
67-66-3	Chloroform	0.25	U
74-97-5	Bromochloromethane	0.75	U
71-55-6	1,1,1-Trichloroethane	0.25	U
563-58-6	1,1-Dichloropropene	0.25	U
56-23-5	Carbon Tetrachloride	0.75	U
107-06-2	1,2-Dichloroethane	0.25	U
79-01-6	Trichloroethene	0.25	U
78-87-5	1,2-Dichloropropane	0.25	U
75-27-4	Bromodichloromethane	0.25	U
74-95-3	Dibromomethane	1	U
10061-01-5	cis-1,3-Dichloropropene	0.25	U
10061-02-6	trans-1,3-Dichloropropene	0.25	U
79-00-5	1,1,2-Trichloroethane	0.25	U
127-18-4	Tetrachloroethene	0.25	U
142-28-9	1,3-Dichloropropane	0.25	U
124-48-1	Dibromochloromethane	0.75	U
106-93-4	1,2-Dibromoethane	1	U
108-90-7	Chlorobenzene	0.25	U
630-20-6	1,1,1,2-Tetrachloroethane	0.25	U
75-25-2	Bromoform	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.75	U

CAS#	VOA TARGET COMPOUND	TQL ug/l	DETECTED ug/l
96-18-4	1,2,3-Trichloropropane	0.25	U
108-86-1	Bromobenzene	1	U
95-49-8	2-Chlorotoluene	0.25	U
106-43-4	4-Chlorotoluene	0.25	U
541-73-1	1,3-Dichlorobenzene	0.25	U
106-46-7	1,4-Dichlorobenzene	0.25	U
95-50-1	1,2-Dichlorobenzene	0.25	U
96-12-8	1,2-Dibromo-3-Chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	0.25	U
87-68-3	Hexachlorobutadiene	0.25	U
87-61-6	1,2,3-Trichlorobenzene	0.75	U
1634-04-4	Methyl-tert-butyl ether	5	U
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethyl benzene	1	U
108-38-3	m,p-Xylenes	2	U
95-47-6	o-Xylene	1	U
100-42-5	Styrene	1	U
98-82-8	Isopropylbenzene	1	U
103-65-1	n-Propylbenzene	1	U
108-67-8	1,3,5-Trimethylbenzene	1	U
98-06-6	tert-Butylbenzene	1	U
95-63-6	1,2,4-Trimethylbenzene	1	U
135-98-8	sec-Butylbenzene	1	U
99-87-6	p-isopropyltoluene	1	U
104-51-8	n-Butylbenzene	1	U
91-20-3	Naphthalene	1	U

TQL- Target Quantitation Limit- Subject to change due to instrument sensitivity
T- Tentatively Identified, not confirmed
E- Estimated Value
U- Samples analyzed for this compound but not detected
N- Sample not analyzed for this compound
D- Detected below quantitation limit
M- GC/MS Analysis performed

Other purgeables detected (up to 10 highest peaks) — Detected ug/l

NO VOLATILE ORGANIC COMPOUNDS DETECTED BY GC/ELCD/PID.

COMMENTS:

COUNTY Gaston
QUAD NO. Q18-5 SERIAL NO. _____
LAT. 35°16'19" LONG. 81°03'47"

North Carolina
Department of Environment, Health, and Natural Resources
Division of Environmental Management
Groundwater Field/Lab Form

LAB NUMBER # 3G711
DATE RECEIVED 5/7/93 Time 9:20
Rec'd by: DS From: Bus-Courier
Other _____
DATA ENTRY BY: JH CK: DS
DATE REPORTED: 6/3/93

Report to: ARO, FRO, MRO, RRO, WaRO, WIRO, WSRO, Kinston FO Other _____
Shipped by: Bus, Courier, Other _____

SAMPLE PRIORITY
☐ ROUTINE ☐ EMERGENCY

CHAIN OF CUSTODY

COLLECTOR(S): DeRoller DATE 5/6/93 TIME 1:25 PURPOSE: BASELINE, COMPLAINT, COMPLIANCE, LUST, OTHER Poll. Fin.
(circle one)

FIELD ANALYSES

pH_{400} 6.0 Spec. Cond.$_{94}$ 95 at 25°C
Temp.$_{10}$ 21 °C Odor N/A
Appearance Clear Taste N/A
Field Analysis By: DeRoller

Owner Mrs. Sadie Toomey (Inc. - Toomey Residence)
Location or site 1020 Hickory Grove Road
Description of sampling point Tap before POE at well head
Sampling Method pump (pump, bailer, etc.) Sample Interval T.D. 585'
Remarks _____ (pumping time, air temp, etc.)

LABORATORY ANALYSES

	BOD_5 310	mg/l
	COD High 340	mg/l
	COD Low 335	mg/l
	Coliform:MF Fecal 31616	/100ml
	Coliform:MF Total 31504	/100ml
	TOC 680	mg/l
	Turbidity 76	NTU
	pH 403	units
	Alkalinity to pH 4.5 410	mg/l
	Alkalinity to pH 8.3 415	mg/l
	Carbonate 445	mg/l
	Bicarbonate 440	mg/l
	Arsenic:Total 1002	ug/l
	Carbon dioxide 405	mg/l
	Chloride 940	mg/l
	Chromium:Hex 1032	ug/l
	Color:True 80	Pt-Co
	Cyanide 720	mg/l

X	Diss. Solids 70300 100	mg/l
	Fluoride 951	mg/l
	Hardness:Total 900	mg/l
	Hardness (non-carb) 902	mg/l
	Phenols 32730	ug/l
	Specific Cond. 95	uMhos/cm²
	Sulfate 945	mg/l
	Sulfide 745	mg/l
	NH_3 as N 610	
	TKN as N 625	
	$NO_2 + NO_3$ as N 630	mg/l
	P:Total as P 665	mg/l

N. C. DEPT. OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT
JUN 14 1993
DIVISION OF ENVIRONMENTAL MANAGEMENT MOORESVILLE REGIONAL OFFICE

	Ag - Silver 1077	ug/l
	Al - Aluminum 1106	ug/l
	Ba - Barium 1007	ug/l
	Ca - Calcium 916	mg/l
	Cd - Cadmium 1027	ug/l
	Chromium:Total 1034	ug/l
	Cu - Copper 1042	ug/l
	Fe - Iron 1045	ug/l
	Hg - Mercury 71900	ug/l
	K - Potassium 937	mg/l
	Mg - Magnesium 927	mg/l
	Mn - Manganese 1055	ug/l
	Na - Sodium 929	mg/l
	Ni - Nickel 1067	ug/l
	Pb - Lead 1051	ug/l
	Se - Selenium 1147	ug/l
	Zn - Zinc 1092	ug/l

	Organochlorine Pesticides
	Organophosphorus Pesticides
	Acid Herbicides
	Base / Neutral Extractable Organics
	Acid Extractable Organics
	Purgeable Organics (VOA bottle)
	1,2 - Dibromoethane (EDB)
X	PCB's
	P:8

Lab Comments: _____

GW-54 REV. 9/90

For Dissolved Analysis - submit filtered sample and write "DIS" in block
White Copy - Groundwater Central Office Yellow Copy - Regional Office Pink Copy - Central Files Goldenrod Copy - Lab

PESTICIDES ANALYTICAL REPORT

LABORATORY # 3G711 | LABORATORY # 3G711

REPORTED BY DSB | ENTERED BY JH

CHECKED BY MLA | SAMPLE TYPE : WATER | CHECKED BY RS

REVIEWED BY MLA | DATE _____

SUPERVISOR RCK 6/3/93

CHLORINATED PESTICIDES BY ELECTRON CAPTURE DETECTION

CAS NO.	PESTICIDE	TQL UG/L	DETECTED UG/L	CAS NO.	PESTICIDE	TQL UG/L	DETECTED UG/L
15972-60-8	ALACHLOR	0.10	N	7421-93-4	ENDRIN ALDEHYDE	0.05	N
309-00-2	ALDRIN	0.08	N	53494-70-5	ENDRIN KETONE	0.04	N
1912-24-9	ATRAZINE	0.75	N	2593-15-9	ETHADOLE	0.03	N
319-84-6	BHC-ALPHA	0.05	N	76-44-8	HEPTACHLOR	0.02	N
319-85-7	BHC-BETA	0.02	N	1024-57-3	HEPTACHLOR EPOXIDE	0.01	N
319-86-8	BHC-DELTA	0.03	N	118-74-1	HEXACHLOROBENZENE	0.01	N
58-89-9	BHC-GAMMA (LINDANE)	0.02	N	121-75-5	MALATHION	0.08	N
57-74-9	CHLORDANE, TECHNICAL	0.20	N	72-43-5	METHOXYCHLOR, pp	0.05	N
5103-71-9	CHLORDANE-ALPHA	0.02	N	2385-85-5	MIREX	0.02	N
5103-74-2	CHLORDANE-GAMMA	0.03	N	39765-80-5	TRANS-NONACHLOR	0.02	N
3734-48-3	CHLORDENE	0.02	N	26880-48-8	OXYCHLORDANE	0.02	N
3675-77-6	CHLORONEB	0.50	N	52645-53-1	CIS-PERMETHRIN	0.50	N
501-15-6	CHLOROBENZILATE	5.00	N	52645-53-1	TRANS-PERMETHRIN	0.15	N
2921-88-2	CHLORPYRIFOS	0.02	N	1918-16-7	PROPACHLOR	0.10	N
1897-45-6	DCPA	0.02	N	117-18-0	TECNAZENE	0.02	N
53-19-0	DDD, op	0.06	N	1582-09-8	TRIFLURALIN	0.03	N
72-54-8	DDD, pp	0.04	N	12674-11-2	AROCHLOR 1016	0.50	U
3424-82-6	DDE, op	0.02	N	11104-28-2	AROCHLOR 1221	0.50	U
72-55-9	DDE, pp	0.02	N	11141-16-5	AROCHLOR 1232	0.50	U
789-02-6	DDT, op	0.04	N	53469-21-9	AROCHLOR 1242	0.50	U
50-29-3	DDT, pp	0.06	N	12672-29-6	AROCHLOR 1248	0.50	U
60-57-1	DIELDRIN	0.02	N	11097-69-1	AROCHLOR 1254	0.50	U
959-98-8	ENDOSULFAN I	0.03	N	11096-82-5	AROCHLOR 1260	0.50	U
33213-65-9	ENDOSULFAN II	0.01	N	37324-23-5	AROCHLOR 1262	0.50	U
1031-07-8	ENDOSULFAN SULFATE	0.02	N	8001-35-2	TOXAPHENE	1.5	U
72-20-8	ENDRIN	0.03	N				
					UNIDENTIFIED PEAKS DETECTED		31

ACID HERBICIDES BY ELECTRON CAPTURE DETECTION

CAS NO.	PESTICIDE	TQL UG/L	DETECTED UG/L	CAS NO.	PESTICIDE	TQL UG/L	DETECTED UG/L
50594-66-6	ACIFLUORFEN	0.50	N	88-85-7	DINOSEB	1.00	N
25057-89-0	BENTAZON	5.00	N	7600-50-9	5-HYDROXYDICAMBA	0.10	N
133-90-4	CHLORAMBEN	0.50	N	100-02-7	4-NITROPHENOL	1.00	N
94-75-7	2,4-D	1.00	N	87-86-5	PENTACHLOROPHENOL	0.20	N
94-82-6	2,4-DB	5.0	N	1918-00-9	DICAMBA	1.00	N
	DCPA (ACID METABOLITES)	0.05	N	93-76-5	2,4,5-T	0.75	N
1918-00-9	DICAMBA	0.75	N	93-72-1	2,4,5-TP	1.00	N
51-36-5	3,5 DICHLOROBENZOIC ACID	1.00	N				
120-36-5	DICHLORPROP	0.50	N				
					UNIDENTIFIED PEAKS DETECTED		N

ORGANOPHOSPHATE PESTICIDES BY FLAME PHOTOMETRIC DETECTION

CAS NO.	PESTICIDE	TQL UG/L	DETECTED UG/L	CAS NO.	PESTICIDE	TQL UG/L	DETECTED UG/L
786-19-6	CARBOPHENOTHION	1.0	N	115-90-2	FENSULFOTHION	10.0	N
2921-88-2	CHLORPYRIFOS	2.3	N	150-50-5	FOLEX	2.0	N
50-29-3	DDE	2.5	N	6923-22-4	MEVINPHOS	1.86	N
298-03-3	DEMETON	2.5	N	300-76-5	MONOCROTOPHOS	10.0	N
333-41-5	DIAZINON	0.8	N	56-38-2	NALED	4.0	N
62-73-7	DICHLORVOS	2.13	N	298-00-0	PARATHION, ETHYL	0.65	N
60-51-5	DIMETHOATE	3.5	N	298-02-2	PARATHION, METHYL	1.5	N
298-04-4	DISULFOTON	1.02	N	299-84-3	PHORATE	1.5	N
2497-06-5	DISULFOTON SULFONE	2.28	N	3689-24-5	RONNEL	0.75	N
2497-07-6	DISULFOTON SULFOXIDE	NE	N	13071-79-9	SULPROFOS	0.25	N
2104-64-5	EPN	4.0	N	7786-34-7	TERBUFOS	1.11	N
563-12-2	ETHION	1.3	N				
13194-48-4	ETHOPROP	2.0	N				
55-38-9	FENTHION	2.0	N				
					UNIDENTIFIED PEAKS DETECTED		N

NITROGEN PESTICIDES BY HALL DETECTION

CAS NO.	PESTICIDES	TQL UG/L	DETECTED UG/L	CAS NO.	PESTICIDES	TQL UG/L	DETECTED UG/L
15972-60-8	ALACHLOR	2.6	N	113-48-4	MGK 264	2.7	N
834-12-8	AMETRYN	0.54	N	3212-67-1	MOLINATE	2.2	N
1912-24-9	ATRAZINE	0.38	N	15299-99-7	NAPROPAMIDE	2.8	N
314-40-9	BROMACIL	1.7	N	27314-13-2	NORFLURAZON	2.1	N
23184-66-9	BUTACHLOR	2.2	N	1114-71-2	PEBULATE	1.8	N
2008-41-5	BUTYLATE	1.9	N	1610-18-0	PROMETON	0.44	N
5234-68-4	CARBOXIN	2.8	N	7287-19-6	PROMETRYN	0.44	N
101-21-3	CHLOROPHAM	1.9	N	23950-58-5	PRONAMIDE	5.8	N
1134-23-2	CYCLOATE	1.8	N	139-40-2	PROPAZINE	0.54	N
2921-88-2	CHLORPYRIFOS	2.4	N	122-34-9	SIMAZINE	2.4	N
333-41-5	DIAZINON	1.3	N	1014-70-6	SIMETRYN	0.50	N
957-51-7	DIPHENAMID	2.2	N	34014-18-1	TEBUTHIURON	1.2	N
759-94-4	EPTC (EPTAM)	2.1	N	5902-51-2	TERBACIL	1.7	N
22224-92-6	FENAMIPHOS	3.7	N	886-50-0	TERBUTRYN	1.1	N
51235-04-2	HEXAZINONE	1.9	N	1929-77-7	VERNOLATE	0.66	N
51218-45-2	METOLACHLOR	2.8	N				
21087-64-9	METRIBUZIN	0.79	N				
					UNIDENTIFIED PEAKS DETECTED		N

D - DETECTED
TQL - TARGET QUANTITATION LIMIT
NE - NO ESTABLISHED TQL
E - ESTIMATED VALUE
U - SAMPLES ANALYZED FOR THIS COMPOUND BUT NOT DETECTED
N - SAMPLE NOT ANALYZED FOR THIS COMPOUND
T - TENTATIVELY IDENTIFIED BUT UNABLE TO CONFIRM

OHM Corporation

May 17, 1993

Mr. Max Toomey
1022 Hickory Grove Rd.
Gastonia, NC 28056

RE: Residential Removal of PCB Contaminated Soils

Dear Mr. Toomey:

As requested by Mr. Thompson of the Gaston County Health Department and based on discussions with yourself on May 17, 1993, OHM Remediation Services Corp. is pleased to provide a budgetary estimate for the above referenced project.

Based on the dimensions noted in the Notice Of Violation, the cost of this cleanup including handling, packaging, transporting, and disposing is estimated to be $4,500.00 to $6,500.00. Actual cost will vary depending on analytical requirements, the location of the disposal facility, and the time constraints for project completion.

Several smaller firms located in your area may be more competitive on a project of this magnitude and I highly recommend you contact them for additional estimates.

I trust this meets your current needs and wish you success on the implementation of the final resolution to your problem.

Respectfully,

W. R. Thompson

W. R. Thompson
NC Division Manager

100 Dominion Drive, Suite 107 ■ Morrisville, North Carolina 27560 ■ 919-467-2349

MEMO

DATE: 4/28/93

TO: File

SUBJECT:

Gail Scogin:

We Clarified that some homes with levels above drinking water standard were not on bottled water. EPA's Toxicologist has said these residents should be on bottled water, has also said PCB levels in soil are high. Gail is still not sure if EPA will be involved at the site. She will call Mrs. Stone back and let her know the status would like enhanced map for homes and latest soil sample results.

From: C. DeRik

North Carolina Department of Environment, Health, and Natural Resources

Printed on Recycled Paper

FAX TRANSMITTAL COVER SHEET

STATE OF NORTH CAROLINA
DEPARTMENT OF ENVIRONMENT, HEALTH, AND NATURAL RESOURCES

FROM: **Name:** Chris DeRelle

Division: DEM

Section: GW

MOORESVILLE REGIONAL OFFICE
919 North Main Street
Post Office Box 950
Mooresville, North Carolina 28115

Phone 704/663-1699 FAX 704/663-6040

DATE: 4/28/93

TO: Gail Scogin

FAX NUMBER: 404-347-4464

SUBJECT: Here's the map and sample results you requested. I also enclosed ~~the~~ a copy of NOV we issued to Mrs. Sadie Toomey. If I can be of any more help, please let me know. Chris

NUMBER OF PAGES (Including Cover): 11

FAX TRANSMITTAL COVER SHEET

STATE OF NORTH CAROLINA
DEPARTMENT OF ENVIRONMENT, HEALTH, AND NATURAL RESOURCES

FROM: **Name:** C. Dupree

Division: DEM

Section: GW

MOORESVILLE REGIONAL OFFICE
919 North Main Street
Post Office Box 950
Mooresville, North Carolina 28115

Phone 704/663-1699 FAX 704/663-6040

DATE: 4/23/93

TO: Doc Thompson

FAX NUMBER: 853-5252 (704)

SUBJECT: Doc, Here's the well sampling results for Hickory Grove Rd. Site.

NUMBER OF PAGES (Including Cover): 9

COUNTY: Gaston

QUAD NO. Q68q-4 SERIAL NO. _____

LAT. 35°16' 21" LONG. 81°03' 40"

North Carolina
Department of Environment, Health, and Natural Resources
Division of Environmental Management
Groundwater Field/Lab Form

LAB NUMBER # 36421

DATE RECEIVED 3-12-93 Time 9:00

Rec'd by: DS From: Bus, Courier

Other _____

DATA ENTRY BY: JH CK: DS

DATE REPORTED: 3/29/93

Report to: ARO, FRO, MRO, RRO, WaRO, WIRO, WSRO, Kinston FO, Other _____

Shipped by: Bus, Courier, Other _____

SAMPLE PRIORITY

☒ ROUTINE ☐ EMERGENCY

COLLECTOR(S): KPW, DOC DATE 3-11-93 TIME 11:07am PURPOSE: BASELINE, COMPLAINT, COMPLIANCE, LUST, OTHER _____ (circle one)

FIELD ANALYSES

pH 400 _____ Spec. Cond. 94 _____ at 25°C

Temp. 10 _____ °C Odor _____

Appearance _____ Taste _____

Field Analysis By: _____

Owner Spring - Hickory Grove Road Incident

Location or site Hickory Grove Road

Description of sampling point Spring

Sampling Method Grab (~~pump~~, bailer, etc.) Sample Interval _____

Remarks _____ (pumping time, air temp, etc.)

LABORATORY ANALYSES

	BOD_5 310	mg/l		Diss. Solids 70300	mg/l		Ag - Silver 1077	ug/l		Organochlorine Pesticides
	COD High 340	mg/l		Fluoride 951	mg/l		Al - Aluminum 1105	ug/l		Organophosphorus Pesticides
	COD Low 335	mg/l		Hardness:Total 900	mg/l		Ba - Barium 1007	ug/l		
	Coliform:MF Fecal 31616	/100ml		Hardness (non-carb) 902	mg/l		Ca - Calcium 916	mg/l		Acid Herbicides
	Coliform:MF Total 31504	/100ml		Phenols 32730	ug/l		Cd - Cadmium 1027	ug/l		
	TOC 680	mg/l		Specific Cond. 95	uMhos/cm²		Chromium:Total 1034	ug/l		Base / Neutral Extractable Organics
	Turbidity 76	NTU		Sulfate 945	mg/l		Cu - Copper 1042	ug/l		Acid Extractable Organics
				Sulfide 745			Fe - Iron 1045	ug/l		
							Hg - Mercury 71900	ug/l	✓	Purgeable Organics (VOA bottle)
	pH 403	units					K - Potassium 937	mg/l		
	Alkalinity to pH 4.5 410	mg/l					Mg - Magnesium 927	mg/l		1,2 - Dibromoethane (EDB)
	Alkalinity to pH 8.3 415	mg/l					Mn - Manganese 1055	ug/l		
	Carbonate 445	mg/l					Na - Sodium 929	mg/l		
	Bicarbonate 440	mg/l		NH_3 as N 610	mg/l		Ni - Nickel 1067	ug/l		
	Arsenic:Total 1002	ug/l		TKN as N 625	mg/l		Pb - Lead 1051	ug/l		
	Carbon dioxide 405	mg/l		$NO_2 + NO_3$ as N 630	mg/l		Se - Selenium 1147	ug/l		
	Chloride 940	mg/l		P:Total as P 665	mg/l		Zn - Zinc 1092	ug/l		
	Chromium:Hex 1032	ug/l								
	Color:True 80	Pt-Co								
	Cyanide 720	mg/l								

N. C. DEPT. OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT
APR - 2 1993
DIVISION OF ENVIRONMENTAL MANAGEMENT
MOORESVILLE REGIONAL OFFICE

Lab Comments: _____

GW-54 REV. 9/90

For Dissolved Analysis - submit filtered sample and write "DIS" in block

EHNR/DEM LABORATORY
VOLATILE ANALYTICAL REPORT

LAB NO. 3G421

REPORTED BY
CHECKED BY
REVIEWED BY

SUPERVISOR REK
DATE 3/29/93
ENTERED BY JH
CHECKED BY DS

SAMPLE TYPE: WATER

ANALYSIS RESULTS

CAS#	VOA TARGET COMPOUND	TQL ug/l	DETECTED ug/l
75-35-4	1,1-Dichloroethene	0.75	1.8
75-09-2	Methylene Chloride	0.25	U
156-60-5	trans-1,2-Dichloroethene	0.75	U
75-34-3	1,1-Dichloroethane	0.25	D T
590-20-7	2,2-Dichloropropane	0.25	U
156-59-4	cis-1,2-Dichloroethene	0.25	U
67-66-3	Chloroform	0.25	.28 T
74-97-5	Bromochloromethane	0.75	U
71-55-6	1,1,1-Trichloroethane	2.5	11
563-58-6	1,1-Dichloropropene	0.25	U
56-23-5	Carbon Tetrachloride	0.75	U
107-06-2	1,2-Dichloroethane	0.25	U
79-01-6	Trichloroethene	0.25	U
78-87-5	1,2-Dichloropropane	0.25	U
75-27-4	Bromodichloromethane	0.25	U
74-95-3	Dibromomethane	1	U
10061-01-5	cis-1,3-Dichloropropene	0.25	U
10061-02-6	trans-1,3-Dichloropropene	0.25	U
79-00-5	1,1,2-Trichloroethane	0.25	U
127-18-4	Tetrachloroethene	2.5	14
142-28-9	1,3-Dichloropropane	0.25	U
124-48-1	Dibromochloromethane	0.75	U
106-93-4	1,2-Dibromoethane	1	U
108-90-7	Chlorobenzene	0.25	U
630-20-6	1,1,1,2-Tetrachloroethane	0.25	U
75-25-2	Bromoform	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.75	U

CAS#	VOA TARGET COMPOUND	TQL ug/l	DETECTED ug/l
96-18-4	1,2,3-Trichloropropane	0.25	U
108-86-1	Bromobenzene	1	U
95-49-8	2-Chlorotoluene	0.25	U
106-43-4	4-Chlorotoluene	0.25	U
541-73-1	1,3-Dichlorobenzene	0.25	U
106-46-7	1,4-Dichlorobenzene	0.25	U
95-50-1	1,2-Dichlorobenzene	0.25	U
96-12-8	1,2-Dibromo-3-Chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	0.25	U
87-68-3	Hexachlorobutadiene	0.25	U
87-61-6	1,2,3-Trichlorobenzene	0.75	U
1634-04-4	Methyl-tert-butyl ether	5	14 T
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethyl benzene	1	U
108-38-3	m,p-Xylenes	2	U
95-47-6	o-Xylene	1	U
100-42-5	Styrene	1	U
98-82-8	Isopropylbenzene	1	U
103-65-1	n-Propylbenzene	1	U
108-67-8	1,3,5-Trimethylbenzene	1	U
98-06-6	tert-Butylbenzene	1	U
95-63-6	1,2,4-Trimethylbenzene	1	U
135-98-8	sec-Butylbenzene	1	U
99-87-6	p-isopropyltoluene	1	U
104-51-8	n-Butylbenzene	1	U
91-20-3	Naphthalene	1	U

TQL- Target Quantitation Limit- Subject to change due to instrument sensitivity
T- Tentatively Identified, not confirmed
E- Estimated Value
U- Samples analyzed for this compound but not detected
N- Sample not analyzed for this compound
D- Detected below quantitation limit
M- GC/MS Analysis performed

Other purgeables detected (up to 10 highest peaks) — Detected ug/l

ONE UNIDENTIFIED PEAK DETECTED BY GC/ELCD.

COMMENTS:

COUNTY Gaston

QUAD NO. Q68q-2 SERIAL NO. _____

LAT. 35°16'20" LONG. 81°03'44"

North Carolina
Department of Environment, Health, and Natural Resources
Division of Environmental Management
Groundwater Field/Lab Form

LAB NUMBER # 3G 402

DATE RECEIVED 3-12-93 Time 9:00

Rec'd by: DS From: Bus Courier

Other _____

DATA ENTRY BY: JH CK: DS

DATE REPORTED: 3/29/93

Report to: ARO, FRO, MRO, RRO, WaRO, WIRO, WSRO, Kinston FO Other _____

Shipped by: Bus, Courier, Other _____

CHAIN OF CUSTODY

SAMPLE PRIORITY

☒ ROUTINE ☐ EMERGENCY

COLLECTOR(S): Karen Walker DATE 3/11/93 TIME 11:03 am PURPOSE: BASELINE, COMPLAINT, COMPLIANCE, LUST, OTHER _____ (circle one)

Owner Stone Residence - Hickory Grove Road incident

Location or site 1028 B Hickory Grove Road, Bessemer

Description of sampling point hose bibb on side of house

Sampling Method _____ (pump, bailer, etc.) Sample Interval _____

Remarks Sampled after pumping well 10 mins. (pumping time, air temp, etc.)

FIELD ANALYSES

pH_{400} _____ Spec. Cond.$_{94}$ _____ at 25°C

Temp.$_{10}$ _____ °C Odor none

Appearance clear Taste n/a

Field Analysis By: Karen Walker

LABORATORY ANALYSES

	BOD_5 310	mg/l
	COD High 340	mg/l
	COD Low 335	mg/l
	Coliform:MF Fecal 31616	/100ml
	Coliform:MF Total 31504	/100ml
	TOC 680	mg/l
	Turbidity 76	NTU
	pH 403	units
	Alkalinity to pH 4.5 410	mg/l
	Alkalinity to pH 8.3 415	mg/l
	Carbonate 445	mg/l
	Bicarbonate 440	mg/l
	Arsenic:Total 1002	ug/l
	Carbon dioxide 405	mg/l
	Chloride 940	mg/l
	Chromium:Hex 1032	ug/l
	Color:True 80	Pt-Co
	Cyanide 720	mg/l

	Diss. Solids 70300	mg/l
	Fluoride 951	mg/l
	Hardness:Total 900	mg/l
	Hardness (non-carb) 902	mg/l
	Phenols 32730	ug/l
	Specific Cond. 95	uMhos/cm²
	Sulfate 945	mg/l
	Sulfide 745	mg/l
	NH_3 as N 610	mg/l
	TKN as N 625	mg/l
	NO_2 + NO_3 630	mg/l
	P:Total as P 665	mg/l

N. C. DEPT. OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT

APR - 2 1993

DIVISION OF ENVIRONMENTAL MANAGEMENT MOORESVILLE REGIONAL OFFICE

	Ag - Silver 1077	ug/l
	Al - Aluminum 1105	ug/l
	Ba - Barium 1007	ug/l
	Ca - Calcium 916	mg/l
	Cd - Cadmium 1027	ug/l
	Chromium:Total 1034	ug/l
	Cu - Copper 1042	ug/l
	Fe - Iron 1045	ug/l
	Hg - Mercury 71900	ug/l
	K - Potassium 937	mg/l
	Mg - Magnesium 927	mg/l
	Mn - Manganese 1055	ug/l
	Na - Sodium 929	mg/l
	Ni - Nickel 1067	ug/l
	Pb - Lead 1051	ug/l
	Se - Selenium 1147	ug/l
	Zn - Zinc 1092	ug/l

	Organochlorine Pesticides
	Organophosphorus Pesticides
	Acid Herbicides
	Base / Neutral Extractable Organics
	Acid Extractable Organics
✓	Purgeable Organics (VOA bottle)
	1,2 - Dibromoethane (EDB)

Lab Comments: _____

GW-54 REV. 9/90

For Dissolved Analysis - submit filtered sample and write "D" in block

EHNR/DEM LABORATORY
VOLATILE ANALYTICAL REPORT

LAB NO. 3G 402

REPORTED BY CH
CHECKED BY A&C
REVIEWED BY A&C

SUPERVISOR RZK
DATE 3/26/93
ENTERED BY JH
CHECKED BY KS

SAMPLE TYPE: WATER

ANALYSIS RESULTS

CAS#	VOA TARGET COMPOUND	TQL ug/l	DETECTED ug/l
75-35-4	1,1-Dichloroethene	0.75	2 E
75-09-2	Methylene Chloride	0.25	U
156-60-5	trans-1,2-Dichloroethene	0.75	U
75-34-3	1,1-Dichloroethane	0.25	D T
590-20-7	2,2-Dichloropropane	0.25	U
156-59-4	cis-1,2-Dichloroethene	0.25	U
67-66-3	Chloroform	0.25	0.30 E T
74-97-5	Bromochloromethane	0.75	U
71-55-6	1,1,1-Trichloroethane	2.5	10
563-58-6	1,1-Dichloropropene	0.25	U
56-23-5	Carbon Tetrachloride	0.75	U
107-06-2	1,2-Dichloroethane	0.25	D T
79-01-6	Trichloroethene	0.25	U
78-87-5	1,2-Dichloropropane	0.25	U
75-27-4	Bromodichloromethane	0.25	U
74-95-3	Dibromomethane	1	U
10061-01-5	cis-1,3-Dichloropropene	0.25	U
10061-02-6	trans-1,3-Dichloropropene	0.25	U
79-00-5	1,1,2-Trichloroethane	0.25	U
127-18-4	Tetrachloroethene	0.25	15 E
142-28-9	1,3-Dichloropropane	0.25	U
124-48-1	Dibromochloromethane	0.75	U
106-93-4	1,2-Dibromoethane	1	U
108-90-7	Chlorobenzene	0.25	U
630-20-6	1,1,1,2-Tetrachloroethane	0.25	U
75-25-2	Bromoform	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.75	U

CAS#	VOA TARGET COMPOUND	TQL ug/l	DETECTED ug/l
96-18-4	1,2,3-Trichloropropane	0.25	U
108-86-1	Bromobenzene	1	U
95-49-8	2-Chlorotoluene	0.25	U
106-43-4	4-Chlorotoluene	0.25	U
541-73-1	1,3-Dichlorobenzene	0.25	U
106-46-7	1,4-Dichlorobenzene	0.25	U
95-50-1	1,2-Dichlorobenzene	0.25	U
96-12-8	1,2-Dibromo-3-Chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	0.25	U
87-68-3	Hexachlorobutadiene	0.25	U
87-61-6	1,2,3-Trichlorobenzene	0.75	U
1634-04-4	Methyl-tert-butyl ether	5	16 T
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethyl benzene	1	U
108-38-3	m,p-Xylenes	2	U
95-47-6	o-Xylene	1	1.2 E
100-42-5	Styrene	1	U
98-82-8	Isopropylbenzene	1	U
103-65-1	n-Propylbenzene	1	U
108-67-8	1,3,5-Trimethylbenzene	1	U
98-06-6	tert-Butylbenzene	1	U
95-63-6	1,2,4-Trimethylbenzene	1	U
135-98-8	sec-Butylbenzene	1	U
99-87-6	p-isopropyltoluene	1	U
104-51-8	n-Butylbenzene	1	U
91-20-3	Naphthalene	1	U

TQL- Target Quantitation Limit- Subject to change due to instrument sensitivity
T- Tentatively Identified, not confirmed
E- Estimated Value
U- Samples analyzed for this compound but not detected
N- Sample not analyzed for this compound
D- Detected below quantitation limit
M- GC/MS Analysis performed

Other purgeables detected (up to 10 highest peaks)	Detected ug/l

COMMENTS:

EHNR/DEM LABORATORY
VOLATILE ANALYTICAL REPORT

LAB NO. 3G 403

REPORTED BY TJ
CHECKED BY ARC
REVIEWED BY ARC

SUPERVISOR RJK
DATE 3/26/93
ENTERED BY JK
CHECKED BY DS

SAMPLE TYPE: WATER

ANALYSIS RESULTS

CAS#	VOA TARGET COMPOUND	TQL ug/l	DETECTED ug/l
75-35-4	1,1-Dichloroethene	0.75	D
75-09-2	Methylene Chloride	0.25	U
156-60-5	trans-1,2-Dichloroethene	0.75	U
75-34-3	1,1-Dichloroethane	0.25	U
590-20-7	2,2-Dichloropropane	0.25	U
156-59-4	cis-1,2-Dichloroethene	0.25	U
67-66-3	Chloroform	0.25	D T
74-97-5	Bromochloromethane	0.75	U
71-55-6	1,1,1-Trichloroethane	1.25	4
563-58-6	1,1-Dichloropropene	0.25	U
56-23-5	Carbon Tetrachloride	0.75	U
107-06-2	1,2-Dichloroethane	0.25	U
79-01-6	Trichloroethene	0.25	U
78-87-5	1,2-Dichloropropane	0.25	U
75-27-4	Bromodichloromethane	0.25	U
74-95-3	Dibromomethane	1	U
10061-01-5	cis-1,3-Dichloropropene	0.25	U
10061-02-6	trans-1,3-Dichloropropene	0.25	U
79-00-5	1,1,2-Trichloroethane	0.25	U
127-18-4	Tetrachloroethene	0.25	5.2 E
142-28-9	1,3-Dichloropropane	0.25	U
124-48-1	Dibromochloromethane	0.75	U
106-93-4	1,2-Dibromoethane	1	U
108-90-7	Chlorobenzene	0.25	U
630-20-6	1,1,1,2-Tetrachloroethane	0.25	U
75-25-2	Bromoform	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.75	U

CAS#	VOA TARGET COMPOUND	TQL ug/l	DETECTED ug/l
96-18-4	1,2,3-Trichloropropane	0.25	U
108-86-1	Bromobenzene	1	U
95-49-8	2-Chlorotoluene	0.25	U
106-43-4	4-Chlorotoluene	0.25	U
541-73-1	1,3-Dichlorobenzene	0.25	U
106-46-7	1,4-Dichlorobenzene	0.25	U
95-50-1	1,2-Dichlorobenzene	0.25	U
96-12-8	1,2-Dibromo-3-Chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	0.25	U
87-68-3	Hexachlorobutadiene	0.25	U
87-61-6	1,2,3-Trichlorobenzene	0.75	U
1634-04-4	Methyl-tert-butyl ether	5	U
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethyl benzene	1	U
108-38-3	m,p-Xylenes	2	U
95-47-6	o-Xylene	1	U
100-42-5	Styrene	1	U
98-82-8	Isopropylbenzene	1	U
103-65-1	n-Propylbenzene	1	U
108-67-8	1,3,5-Trimethylbenzene	1	U
98-06-6	tert-Butylbenzene	1	U
95-63-6	1,2,4-Trimethylbenzene	1	U
135-98-8	sec-Butylbenzene	1	U
99-87-6	p-isopropyltoluene	1	U
104-51-8	n-Butylbenzene	1	U
91-20-3	Naphthalene	1	U

TQL- Target Quantitation Limit- Subject to change due to instrument sensitivity
T- Tentatively Identified, not confirmed
E- Estimated Value
U- Samples analyzed for this compound but not detected
N- Sample not analyzed for this compound
D- Detected below quantitation limit
M- GC/MS Analysis performed

Other purgeables detected (up to 10 highest peaks) — Detected ug/l

NO VOLATILE ORGANIC COMPOUNDS QUANTITATED BY GC/PID.

COMMENTS:

COUNTY Weston

QUAD. NO. Q68q-3 SERIAL NO. _____

LAT. 35°16' 51" LONG. 81°03'47"

Report to: ARO, FRO, (MRO) RRO, WaRO, WiRO, WSRO, Kinston FO Other _____

Shipped by: Bus, (Courier), Other _____

COLLECTOR(S): Karen Walker DATE 3-11-93 TIME 11:15am

North Carolina
Department of Environment, Health, and Natural Resources
Division of Environmental Management
Groundwater Field/Lab Form

CHAIN OF CUSTODY

SAMPLE PRIORITY

☒ ROUTINE ☐ EMERGENCY

PURPOSE: BASELINE, COMPLAINT, COMPLIANCE, (LUST), OTHER _____ (circle one)

LAB NUMBER 8 X-464

DATE RECEIVED 3-12-93 Time 9:00

Rec'd by: DS From: Bus (Courier)

Other _____

DATA ENTRY BY: JN CK: DS

DATE REPORTED: 4/7/93

FIELD ANALYSES

pH 400 _____ Spec. Cond. 94 _____ at 25°C

Temp. 10 _____ °C Odor none

Appearance clear Taste n/a

Field Analysis By: Karen Walker

Owner Ms Lowder · Hickory Grove Road

Location or site Hickory Grove Road

Description of sampling point hose bibb @ well head

Sampling Method _____ (pump, bailer, etc.) Sample Interval _____

Remarks Sampled after 10 mins. pumping (pumping time, air temp, etc.)

LABORATORY ANALYSES

	BOD_5 310	mg/l
	COD High 340	mg/l
	COD Low 335	mg/l
	Coliform:MF Fecal 31616	/100ml
	Coliform:MF Total 31504	/100ml
	TOC 680	mg/l
	Turbidity 76	NTU
	pH 403	units
	Alkalinity to pH 4.5 410	mg/l
	Alkalinity to pH 8.3 415	mg/l
	Carbonate 445	mg/l
	Bicarbonate 440	mg/l
	Arsenic:Total 1002	ug/l
	Carbon dioxide 405	mg/l
	Chloride 940	mg/l
	Chromium:Hex 1032	ug/l
	Color:True 80	Pt-Co
	Cyanide 720	mg/l

	Diss. Solids 70300	mg/l
	Fluoride 951	mg/l
	Hardness:Total 900	mg/l
	Hardness (non-carb) 902	mg/l
	Phenols 32730	ug/l
	Specific Cond. 95	uMhos/cm²
	Sulfate 945	mg/l
	Sulfide 745	mg/l
	NH_3 as N 610	mg/l
	TKN as N 625	mg/l
	$NO_2 + NO_3$ as N 630	mg/l
	P:Total as P 665	mg/l

	Ag - Silver 1077	ug/l
	Al - Aluminum 1105	ug/l
	Ba - Barium 1007	ug/l
	Ca - Calcium 916	mg/l
	Cd - Cadmium 1027	ug/l
	Chromium:Total 1034	ug/l
	Cu - Copper 1042	ug/l
	Fe - Iron 1045	ug/l
	Hg - Mercury 71900	ug/l
	K - Potassium 937	mg/l
	Mg - Magnesium 927	mg/l
	Mn - Manganese 1055	ug/l
	Na - Sodium 929	mg/l
	Ni - Nickel 1067	ug/l
	Pb - Lead 1051	ug/l
	Se - Selenium 1147	ug/l
	Zn - Zinc 1092	ug/l

	Organochlorine Pesticides
	Organophosphorus Pesticides
	Acid Herbicides
	Base / Neutral Extractable Organics
	Acid Extractable Organics
✓	Purgeable Organics (VOA bottle)
	1,2 - Dibromoethane (EDB)

Lab Comments: _____

GW-54 REV. 9/90

For Dissolved Analysis - submit filtered sample and write "DIS" in block

White Copy - Groundwater Central Office Yellow Copy - Regional Office Pink Copy - Central Files Goldenrod Copy - Lab

EHNR/DEM LABORATORY
VOLATILE ANALYTICAL REPORT

LAB NO. 3G 404

REPORTED BY H
CHECKED BY
REVIEWED BY

SUPERVISOR REK
DATE 3/26/93
ENTERED BY
CHECKED BY DS

SAMPLE TYPE: WATER

ANALYSIS RESULTS

CAS#	VOA TARGET COMPOUND	TQL ug/l	DETECTED ug/l
75-35-4	1,1-Dichloroethene	0.75	U
75-09-2	Methylene Chloride	0.25	U
156-60-5	trans-1,2-Dichloroethene	0.75	U
75-34-3	1,1-Dichloroethane	0.25	U
590-20-7	2,2-Dichloropropane	0.25	U
156-59-4	cis-1,2-Dichloroethene	0.25	U
67-66-3	Chloroform	0.25	D
74-97-5	Bromochloromethane	0.75	U
71-55-6	1,1,1-Trichloroethane	0.25	0.32
563-58-6	1,1-Dichloropropene	0.25	U
56-23-5	Carbon Tetrachloride	0.75	U
107-06-2	1,2-Dichloroethane	0.25	0.72
79-01-6	Trichloroethene	0.25	U
78-87-5	1,2-Dichloropropane	0.25	U
75-27-4	Bromodichloromethane	0.25	U
74-95-3	Dibromomethane	1	U
10061-01-5	cis-1,3-Dichloropropene	0.25	U
10061-02-6	trans-1,3-Dichloropropene	0.25	U
79-00-5	1,1,2-Trichloroethane	0.25	U
127-18-4	Tetrachloroethene	0.25	D
142-28-9	1,3-Dichloropropane	0.25	U
124-48-1	Dibromochloromethane	0.75	U
106-93-4	1,2-Dibromoethane	1	U
108-90-7	Chlorobenzene	0.25	U
630-20-6	1,1,1,2-Tetrachloroethane	0.25	U
75-25-2	Bromoform	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.75	U

CAS#	VOA TARGET COMPOUND	TQL ug/l	DETECTED ug/l
96-18-4	1,2,3-Trichloropropane	0.25	U
108-86-1	Bromobenzene	1	U
95-49-8	2-Chlorotoluene	0.25	U
106-43-4	4-Chlorotoluene	0.25	U
541-73-1	1,3-Dichlorobenzene	0.25	U
106-46-7	1,4-Dichlorobenzene	0.25	U
95-50-1	1,2-Dichlorobenzene	0.25	U
96-12-8	1,2-Dibromo-3-Chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	0.25	U
87-68-3	Hexachlorobutadiene	0.25	U
87-61-6	1,2,3-Trichlorobenzene	0.75	U
1634-04-4	Methyl-tert-butyl ether	5	U
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethyl benzene	1	U
108-38-3	m,p-Xylenes	2	U
95-47-6	o-Xylene	1	U
100-42-5	Styrene	1	U
98-82-8	Isopropylbenzene	1	U
103-65-1	n-Propylbenzene	1	U
108-67-8	1,3,5-Trimethylbenzene	1	U
98-06-6	tert-Butylbenzene	1	U
95-63-6	1,2,4-Trimethylbenzene	1	U
135-98-8	sec-Butylbenzene	1	U
99-87-6	p-isopropyltoluene	1	U
104-51-8	n-Butylbenzene	1	U
91-20-3	Naphthalene	1	U

TQL- Target Quantitation Limit- Subject to change due to instrument sensitivity
T- Tentatively Identified, not confirmed
E- Estimated Value
U- Samples analyzed for this compound but not detected
N- Sample not analyzed for this compound
D- Detected below quantitation limit
M- GC/MS Analysis performed

Other purgeables detected (up to 10 highest peaks) — Detected ug/l

NO VOLATILE ORGANIC COMPOUNDS DETECTED BY GC/PID.

COMMENTS:

CMD

State of North Carolina
Department of Environment, Health, and Natural Resources
Mooresville Regional Office

James B. Hunt, Jr., Governor | Jonathan B. Howes, Secretary

DIVISION OF ENVIRONMENTAL MANAGEMENT

April 26, 1993

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mrs. Sadie Toomey
1020 Hickory Grove Road
Gastonia, North Carolina 28056

RE: Notice of Violation
G.S. 143-215.75 - Oil Pollution
and Hazardous Substances Control Act

Toomey Residence
Gaston County, N.C.

Dear Mrs. Toomey:

Chapter 143, North Carolina General Statutes, authorizes and directs the Environmental Management Commission of the Department of Environment, Health, and Natural Resources to protect and preserve the water and air resources of the State. The Division of Environmental Management (Division) has the delegated authority to enforce adopted pollution control rules.

Based upon an inspection of the subject site located at 1020 Hickory Grove Road, in Gastonia, North Carolina the Division has reason to believe that you are responsible for activities resulting in noncompliance with North Carolina Law.

Specific violations of General Statute 143-215.75 et seq., Oil Pollution and Hazardous Substances Control Act, are as follows:

1. G.S. 143-215.83(a), Unlawful Discharges. On March 11, 1993, the Groundwater Section of the Mooresville Regional Office investigated the subject site and observed two areas where chemical substances had been dumped and/or spilled on the ground. Soil samples collected in these areas indicated the presence of polychlorinated biphenyls (PCBs),

P.O. Box 950, 919 North Main Street, Mooresville, N.C. 28115-0950 • Telephone 704-663-1699 • FAX 704-663-6040

An Equal Opportunity Affirmative Action Employer

chlordane, dimethyl ethyl phenol, and other high boiling point organic compounds. In addition, a drum of sodium hydroxide had been turned upside down and product had spilled out onto the ground.

2. G.S. 143-215.84, Removal of Prohibited Discharges. The discharge was not immediately collected and removed, and the area affected by the discharge was not restored to the condition that existed immediately prior to the discharge.

3. G.S. 143-215.85, Required Notice. You did not immediately notify the Department of the discharges.

To achieve compliance with the above-cited laws, you are required to submit within sixty (60) days from receipt of this letter: 1) documentation that all leaking drums and contaminated soil have been removed and properly disposed of; and 2) an analysis of water from your well for pesticides, PCBs and total dissolved solids.

The above violations of G.S. 143-215.75 et seq. are subject to a civil penalty assessment under the authority of G.S. 143-215.91 of not more than $5000 per violation. Failure to respond within the time specified and to voluntarily achieve compliance may result in a recommendation for enforcement.

Your response and/or questions should be directed to Chris DeRoller of the Mooresville Regional Office at (704) 663-1699, ext. 235.

Sincerely,

Brenda J. Smith

Brenda J. Smith, P.G.
Regional Supervisor

Attachment: Sample Results

cc: Groundwater Section, Raleigh

CMD/sc

FAX TRANSMITTAL COVER SHEET

STATE OF NORTH CAROLINA
DEPARTMENT OF ENVIRONMENT, HEALTH, AND NATURAL RESOURCES

FROM: **Name:** C. Deller

Division: DEM

Section: Groundwater

MOORESVILLE REGIONAL OFFICE
919 North Main Street
Post Office Box 950
Mooresville, North Carolina 28115

Phone 704/663-1699 FAX 704/663-6040

DATE: 4/14/93

TO: Gail Scagin - EPA

FAX NUMBER: 912-264-5178

SUBJECT: Rest of Hickory Grove Rd. Info

NUMBER OF PAGES (Including Cover): 9

COUNTY: Gastonia
QUAD NO. Q68q-51 SERIAL NO. _____
LAT. 35° 16' 19" LONG. 81° 03' 47"

North Carolina
Department of Environment, Health, and Natural Resources
Division of Environmental Management
Groundwater Field/Lab Form

CHAIN OF CUSTODY

LAB NUMBER # 3G405
DATE RECEIVED 3-12-93 Time 9:00
Rec'd by: DS From: Bus Courier
Other _____

Report to: ARO, FRO MRO RRO, WaRO, WIRO, WSRO, Kinston FO Other _____
Shipped by: Bus Courier Other _____

SAMPLE PRIORITY
☒ ROUTINE ☐ EMERGENCY

Soil

DATA ENTRY BY: HH CK: DS
DATE REPORTED: 4/14/93

COLLECTOR(S): DeBoller/Walker DATE 3/11/93 TIME 11:20 PURPOSE: BASELINE, COMPLAINT, COMPLIANCE, LUST, OTHER Poll. Inv.
(circle one)

FIELD ANALYSES

pH_{400} _____ Spec. Cond. 94 _____ at 25°C
Temp. 10 _____ °C Odor Strong
Appearance Black/Stained Taste N/A
Field Analysis By: C. DeBoller

Owner Toomey Residence
Location or site 1020 Hickory Grove Road
Description of sampling point Soil boring #1 (Near Current well house)
Sampling Method Hand auger (pump, baller, etc.) Sample Interval 0-6"
Remarks _____ (pumping time, air temp, etc.)

LABORATORY ANALYSES

	BOD_5 310	mg/l
	COD High 340	mg/l
	COD Low 335	mg/l
	Coliform:MF Fecal 31616	/100ml
	Coliform:MF Total 31504	/100ml
	TOC 680	mg/l
	Turbidity 76	NTU
	pH 403	units
	Alkalinity to pH 4.5 410	mg/l
	Alkalinity to pH 8.3 415	mg/l
	Carbonate 445	mg/l
	Bicarbonate 440	mg/l
	Arsenic:Total 1002	ug/l
	Carbon dioxide 405	mg/l
	Chloride 940	mg/l
	Chromium:Hex 1032	ug/l
	Color:True 80	Pt-Co
	Cyanide 720	mg/l

	Diss. Solids 70300	mg/l
	Fluoride 951	mg/l
	Hardness:Total 900	mg/l
	Hardness (non-carb) 902	mg/l
	Phenols 32730	ug/l
	Specific Cond. 95	uMhos/cm²
	Sulfate 945	mg/l
	Sulfide 745	mg/l
	NH_3 as N 610	mg/l
	TKN as N 625	mg/l
	$NO_2 + NO_3$ as N 630	mg/l
	P:Total as P 665	mg/l

	Ag - Silver 1077	ug/l
	Al - Aluminum 1105	ug/l
	Ba - Barium 1007	ug/l
	Ca - Calcium 916	mg/l
	Cd - Cadmium 1027	ug/l
	Chromium:Total 1034	ug/l
	Cu - Copper 1042	ug/l
	Fe - Iron 1045	ug/l
	Hg - Mercury 71900	ug/l
	K - Potassium 937	mg/l
	Mg - Magnesium 927	mg/l
	Mn - Manganese 1055	ug/l
	Na - Sodium 929	mg/l
	Ni - Nickel 1067	ug/l
	Pb - Lead 1051	ug/l
	Se - Selenium 1147	ug/l
	Zn - Zinc 1092	ug/l

	Organochlorine Pesticides
	Organophosphorus Pesticides
X	PCB's RZK per CD 3/26/93
	Acid Herbicides
X	Base / Neutral Extractable Organics
X	Acid Extractable Organics
X	Purgeable Organics (VOA bottle)
	1,2 - Dibromoethane (EDB)

S.V.P.

N. C. DEPT. OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT
APR 19 1993
DIVISION OF ENVIRONMENTAL MANAGEMENT
WINSTON-SALEM REGIONAL OFFICE

Lab Comments: _____

GW-54 REV. 8/90

For Dissolved Analysis - submit filtered sample and write "DIS" in block
White Copy - Groundwater Central Office Yellow Copy - Regional Office Pink Copy - Central Files Goldenrod Copy - Lab

PESTICIDES ANALYTICAL REPORT

LABORATORY # 3G405 | LABORATORY # 3G405

REPORTED BY CUB | ENTERED BY NH

CHECKED BY HC | SAMPLE TYPE : SEDIMENT | CHECKED BY DS

REVIEWED BY [illegible] | DATE _____

SUPERVISOR RZK 4/14/93

CHLORINATED PESTICIDES BY ELECTRON CAPTURE DETECTION

CAS NO.	PESTICIDE	TQL MG/KG	DETECTED MG/KG	CAS NO.	PESTICIDE	TQL MG/KG	DETECTED MG/KG
15972-60-8	ALACHLOR	NE	N	7421-93-4	ENDRIN ALDEHYDE	0.002	N
309-00-2	ALDRIN	0.0007	N	53494-70-5	ENDRIN KETONE	0.002	N
1912-24-9	ATRAZINE	NE	N	2593-15-9	ETHAZOLE	0.001	N
319-84-6	BHC-ALPHA	0.0007	N	76-44-8	HEPTACHLOR	0.0007	N
319-85-7	BHC-BETA	0.001	N	1024-57-3	HEPTACHLOR EPOXIDE	0.0007	N
319-86-8	BHC-DELTA	NE	N	118-74-1	HEXACHLOROBENZENE	0.003	N
58-89-9	BHC-GAMMA (LINDANE)	0.0007	N	121-75-5	MALATHION	0.008	N
57-74-9	CHLORDANE, TECHNICAL	0.03	N	72-43-5	METHOXYCHLOR, pp	0.0017	N
5103-71-9	CHLORDANE-ALPHA	0.0007	N	2385-85-5	MIREX	0.001	N
5103-74-2	CHLORDANE-GAMMA	0.0007	N	39765-80-5	TRANS-NONACHLOR	0.0007	N
3734-48-3	CHLORDENE	0.0007	N	26880-48-8	OXYCHLORDANE	0.001	N
2675-77-6	CHLORONEB	0.005	N	52645-53-1	CIS-PERMETHRIN	NE	N
501-15-6	CHLOROBENZILATE	0.0017	N	52645-53-1	TRANS-PERMETHRIN	NE	N
2921-88-2	CHLORTHALONIL	0.001	N	1918-16-7	PROPACHLOR	NE	N
1897-45-6	DCPA	0.0007	N	117-18-0	TECNAZENE	0.0007	N
53-19-0	DDD, op	0.0017	N	1582-09-8	TRIFLURALIN	0.0007	N
72-54-8	DDD, pp	0.0013	N	12674-11-2	AROCHLOR 1016	0.029	U
3424-82-6	DDE, op	0.0007	N	11104-28-2	AROCHLOR 1221	0.073	U
72-55-9	DDE, pp	0.0007	N	11141-16-5	AROCHLOR 1232	0.073	U
789-02-6	DDT, op	0.0013	N	53469-21-9	AROCHLOR 1242	0.027	**12 B****
50-29-3	DDT, pp	0.0007	N	12672-29-6	AROCHLOR 1248	0.057	U
60-57-1	DIELDRIN	0.0007	N	11097-69-1	AROCHLOR 1254	0.05	**18 B****
959-98-8	ENDOSULFAN I	0.001	N	11096-82-5	AROCHLOR 1260	0.047	U
33213-65-9	ENDOSULFAN II	0.001	N	37324-23-5	AROCHLOR 1262	0.05	U
1031-07-8	ENDOSULFAN SULFATE	0.0007	N	8001-35-2	TOXAPHENE	0.05	N
72-20-8	ENDRIN	0.001	N				
					UNIDENTIFIED PEAKS DETECTED		18

ACID HERBICIDES BY ELECTRON CAPTURE DETECTION

CAS NO.	PESTICIDE	TQL MG/KG	DETECTED MG/KG	CAS NO.	PESTICIDE	TQL MG/KG	DETECTED MG/KG
50594-66-6	ACIFLUORFEN	0.005	N	88-85-7	DINOSEB	0.004	N
25057-89-0	BENTAZON	0.017	N	7600-50-2	5-HYDROXYDICAMBA	0.007	N
133-90-4	CHLORAMBEN	0.007	N	100-02-7	4-NITROPHENOL	0.017	N
94-75-7	2,4-D	0.013	N	87-86-5	PENTACHLOROPHENOL	0.001	N
94-82-6	2,4-DB	0.037	N	1918-02-1	PICLORAM	0.01	N
	DCPA (ACID METABOLITES)	0.001	N	93-76-5	2,4,5-T	0.005	N
1918-00-9	DICAMBA	0.008	N	93-72-1	2,4,5-TP	0.002	N
51-36-5	3,5 DICHLOROBENZOIC ACID	0.008	N				
120-36-5	DICHLORPROP	0.011	N				
					UNIDENTIFIED PEAKS DETECTED		N

ORGANOPHOSPHATE PESTICIDES BY FLAME PHOTOMETRIC DETECTION

CAS NO.	PESTICIDE	TQL MG/KG	DETECTED MG/KG	CAS NO.	PESTICIDE	TQL MG/KG	DETECTED MG/KG
786-19-6	CARBOPHENOTHION	0.13	N	115-90-2	FENSULFOTHION	0.33	N
2921-88-2	CHLORPYRIFOS	0.05	N	150-50-5	FOLEX	0.067	N
50-29-3	DDE	0.08	N	6923-22-4	MEVINPHOS	NE	N
298-03-3	DEMETON	0.043	N	300-76-5	MONOCROTOPHOS	0.33	N
333-41-5	DIAZINON	0.027	N	56-38-2	NALED	0.13	N
62-73-7	DICHLORVOS	NE	N	298-00-0	PARATHION, ETHYL	0.022	N
60-51-5	DIMETHOATE	0.12	N	298-02-2	PARATHION, METHYL	0.025	N
298-04-4	DISULFOTON	NE	N	299-84-3	PHORATE	0.012	N
2497-06-5	DISULFOTON SULFONE	NE	N	3689-24-5	RONNEL	0.025	N
2497-07-6	DISULFOTON SULFOXIDE	NE	N	13071-74-9	SULFOTEPP	0.008	N
2104-64-5	EPN	0.13	N	7786-34-7	TERBUFOS	NE	N
563-12-2	ETHION	0.043	N				
13194-48-4	ETHOPROP	0.033	N				
55-38-9	FENTHION	0.05	N				
					UNIDENTIFIED PEAKS DETECTED		N

NITROGEN PESTICIDES BY HALL DETECTION

CAS NO.	PESTICIDES	TQL MG/KG	DETECTED MG/KG	CAS NO.	PESTICIDES	TQL MG/KG	DETECTED MG/KG
15972-60-8	ALACHLOR	0.17	N	113-48-4	MGK 264	0.73	N
834-12-8	AMETRYN	0.17	N	2212-67-1	MOLINATE	0.12	N
1912-24-9	ATRAZINE	0.087	N	15299-99-7	NAPROPAMIDE	0.25	N
314-40-9	BROMACIL	0.67	N	27314-13-2	NORFLURAZON	0.33	N
23184-66-9	BUTACHLOR	0.80	N	1114-71-2	PEBULATE	0.087	N
2008-41-5	BUTYLATE	0.033	N	1610-18-0	PROMETON	6.7	N
5234-68-5	CARBOXIN	0.60	N	7287-19-6	PROMETRYN	0.17	N
101-21-3	CHLOROPHAM	0.37	N	23950-58-5	PRONAMIDE	0.67	N
1134-23-2	CYCLOATE	0.10	N	139-40-2	PROPAZINE	0.12	N
2921-88-2	CHLORPYRIFOS	NE	N	122-34-9	SIMAZINE	1.0	N
333-41-5	DIAZINON	0.003	N	1014-70-6	SIMETRYN	0.17	N
957-51-7	DIPHENAMID	0.40	N	34014-18-1	TEBUTHIURON	0.20	N
759-94-4	EPTC (EPTAM)	0.08	N	5902-51-2	TERBACIL	0.67	N
22224-92-6	FENAMIPHOS	0.017	N	886-50-0	TERBUTRYN	0.17	N
51235-04-2	HEXAZINONE	0.60	N	1929-77-7	VERNOLATE	0.12	N
51218-45-2	METOLACHLOR	0.80	N				
21087-64-9	METRIBUZIN	0.13	N				
					UNIDENTIFIED PEAKS DETECTED		N

D - DETECTED
TQL - TARGET QUANTITATION LIMIT
NE - NO ESTABLISHED TQL
E - ESTIMATED VALUE
U - SAMPLES ANALYZED FOR THIS COMPOUND BUT NOT DETECTED
N - SAMPLE NOT ANALYZED FOR THIS COMPOUND
T - TENTATIVELY IDENTIFIED BUT UNABLE TO CONFIRM

SEMIVOLATILE ORGANICS REPORT - DEM LAB

LAB NUMBER: 3G405 SUPERVISOR RLK LAB #: 3G405
DATE : 3/24/93

REPORTED BY MW
CHECKED BY RTD ENTERED BY JH
REVIEWED BY RTD CHECKED BY DS

SAMPLE TYPE: SEDIMENT DILUTION FACTOR: 5

CAS NUMBER	TQL X 5	ANALYTE NAME	CONC. UG/KG
108-95-2	660	PHENOL	U
111-44-4	660	BIS(2-CHLOROETHYL) ETHER	U
95-57-8	660	2-CHLOROPHENOL	U
541-73-1	660	1,3-DICHLOROBENZENE	U
106-46-7	660	1,4-DICHLOROBENZENE	U
100-51-6	1300	BENZYL ALCOHOL	U
95-50-1	660	1,2-DICHLOROBENZENE	U
95-48-7	660	2-METHYL PHENOL	U
108-60-1	660	BIS(2-CHLOROISOPROPYL) ETHER	U
106-44-5	660	4-METHYL PHENOL	U
621-64-7	660	N-NITROSO-DI-N-PROPYLAMINE	U
67-72-1	660	HEXACHLOROETHANE	U
98-95-3	660	NITROBENZENE	U
78-59-1	660	ISOPHORONE	U
88-75-5	660	2-NITRO PHENOL	U
105-67-9	660	2,4-DIMETHYL PHENOL	U
65-85-0	3300	BENZOIC ACID	U
111-91-1	660	BIS(2-CHLOROETHOXY) METHANE	U
120-83-2	660	2,4-DICHLORO PHENOL	U
120-82-1	660	1,2,4-TRICHLOROBENZENE	U
91-20-3	660	NAPHTHALENE	U
106-47-8	1300	4-CHLOROANILINE	U
87-68-3	660	HEXACHLOROBUTADIENE	U
59-50-7	1300	4-CHLORO-3-METHYL PHENOL	U
91-57-6	660	2-METHYL NAPHTHALENE	U
77-47-4	660	HEXACHLOROCYCLOPENTADIENE	U
88-06-2	660	2,4,6-TRICHLORO PHENOL	U
95-95-4	660	2,4,5-TRICHLORO PHENOL	U
91-58-7	660	2-CHLORO NAPHTHALENE	U
88-74-4	3300	2-NITROANALINE	U
131-11-3	660	DIMETHYL PHTHALATE	U
208-96-8	660	ACENAPHTHYLENE	U
606-20-2	660	2,6-DINITROTOLUENE	U
99-09-2	3300	3-NITROANALINE	U
83-32-9	660	ACENAPHTHENE	U
51-28-5	3300	2,4-DINITRO PHENOL	U
100-02-7	3300	4-NITRO PHENOL	U
132-64-9	660	DIBENZOFURAN	U
121-14-2	660	2,4-DINITROTOLUENE	U
84-66-2	660	DIETHYL PHTHALATE	U
7005-72-3	660	4-CHLOROPHENYL PHENYL ETHER	U
86-73-7	660	FLUORENE	U
100-01-6	3300	4-NITROANALINE	U
534-52-1	3300	4,6-DINITRO-2-METHYL PHENOL	U

86-30-6	660	N-NITROSODIPHENYLAMINE	U
101-55-3	660	4-BROMOPHENYL PHENYL ETHER	U
118-74-1	660	HEXACHLOROBENZENE	U
87-86-5	3300	PENTACHLORO PHENOL	U
85-01-8	660	PHENANTHRENE	U
120-12-7	660	ANTHRACENE	U
84-74-2	660	DI-N-BUTYL PHTHALATE	U
206-44-0	660	FLUORANTHENE	U
129-00-0	660	PYRENE	U
85-68-7	660	BUTYLBENZYL PHTHALATE	U
91-94-1	1300	3,3'-DICHLOROBENZIDINE	U
56-55-3	660	BENZO(A)ANTHRACENE	U
218-01-9	660	CHRYSENE	U
117-81-7	660	BIS(2-ETHYLHEXYL) PHTHALATE	U
117-84-0	660	DI-N-OCTYL PHTHALATE	U
205-99-2	660	BENZO(B)FLUORANTHENE	U
207-08-9	660	BENZO(K)FLUORANTHENE	U
50-32-8	660	BENZO(A)PYRENE	U
193-39-5	660	INDENO(1,2,3-CD)PYRENE	U
53-70-3	660	DIBENZO(A,H)ANTHRACENE	U
191-24-2	660	BENZO(G,H,I)PERYLENE	U

OTHER SEMIVOLATILE ORGANICS FOR SAMPLE NUMBER : 3G405

TETRACHLOROBIPHENYL (C12.H6.CL4)	1700	T
UNIDENTIFIED	2600	E
UNIDENTIFIED	4400	E
UNIDENTIFIED	1800	E
UNIDENTIFIED	1100	E
UNIDENTIFIED	1400	E
UNIDENTIFIED	1100	E
UNIDENTIFIED	1100	E
UNIDENTIFIED	2100	E
UNIDENTIFIED	2600	E
UNIDENTIFIED	1400	E
UNIDENTIFIED	1900	E
UNIDENTIFIED	2400	E
UNIDENTIFIED	1400	E
UNIDENTIFIED	1200	E
UNIDENTIFIED	1300	E
POLYCHLORINATED BIPHENYLS (PCBs)	6700	E
LATE ELUTING MASS OF CHEMICALS (EST. RANGE)	4700000	E

TQL= TARGET QUANTITATION LIMIT
T= TENTATIVELY IDENTIFIED ESTIMATED CONCENTRATION
E= ESTIMATED CONCENTRATION
U= COMPOUND ANALYZED FOR NOT DETECTED
N= COMPOUND NOT ANALYZED FOR
D= DETECTED BELOW QUANTITATION LIMIT
H= HOLDING TIME EXCEEDED
TQL SUBJECT TO CHANGE DUE TO INSTRUMENT SENSITIVITY

EHNR/DEM LABORATORY
VOLATILE ANALYTICAL REPORT

LAB NO. 3G405

REPORTED BY
CHECKED BY
REVIEWED BY

SUPERVISOR REK
DATE 3/31/93
ENTERED BY JH
CHECKED BY DS

SAMPLE TYPE: SEDIMENT

ANALYSIS RESULTS

CAS#	VOA TARGET COMPOUND	TQL ug/Kg	DETECTED ug/Kg	CAS#	VOA TARGET COMPOUND	TQL ug/Kg	DETECTED ug/Kg
75-35-4	1,1-Dichloroethene	4.5	U	96-18-4	1,2,3-Trichloropropane	1.5	U
75-09-2	Methylene Chloride	1.5	U	108-86-1	Bromobenzene	6	U
156-60-5	trans-1,2-Dichloroethene	4.5	U	95-49-8	2-Chlorotoluene	1.5	U
75-34-3	1,1-Dichloroethane	1.5	U	106-43-4	4-Chlorotoluene	1.5	U
590-20-7	2,2-Dichloropropane	1.5	U	541-73-1	1,3-Dichlorobenzene	1.5	U
156-59-4	cis-1,2-Dichloroethene	1.5	U	106-46-7	1,4-Dichlorobenzene	1.5	U
67-66-3	Chloroform	1.5	U	95-50-1	1,2-Dichlorobenzene	1.5	U
74-97-5	Bromochloromethane	4.5	U	96-12-8	1,2-Dibromo-3-Chloropropane	6	U
71-55-6	1,1,1-Trichloroethane	1.5	U	120-82-1	1,2,4-Trichlorobenzene	1.5	U
563-58-6	1,1-Dichloropropene	1.5	U	87-68-3	Hexachlorobutadiene	1.5	U
56-23-5	Carbon Tetrachloride	4.5	U	87-61-6	1,2,3-Trichlorobenzene	4.5	U
107-06-2	1,2-Dichloroethane	1.5	U	1634-04-4	Methyl-tert-butyl ether	30	U
79-01-6	Trichloroethene	1.5	U	71-43-2	Benzene	6	U
78-87-5	1,2-Dichloropropane	1.5	U	108-88-3	Toluene	6	U
75-27-4	Bromodichloromethane	1.5	U	100-41-4	Ethyl benzene	6	U
74-95-3	Dibromomethane	6	U	108-38-3	m,p-Xylenes	6	U
10061-01-5	cis-1,3-Dichloropropene	1.5	U	95-47-6	o-Xylene	6	U
10061-02-6	trans-1,3-Dichloropropene	1.5	U	100-42-5	Styrene	6	U
79-00-5	1,1,2-Trichloroethane	1.5	U	98-82-8	Isopropylbenzene	6	U
127-18-4	Tetrachloroethene	1.5	U	103-65-1	n-Propylbenzene	6	U
142-28-9	1,3-Dichloropropane	1.5	U	108-67-8	1,3,5-Trimethylbenzene	6	U
124-48-1	Dibromochloromethane	4.5	U	98-06-6	tert-Butylbenzene	6	U
106-93-4	1,2-Dibromoethane	6	U	95-63-6	1,2,4-Trimethylbenzene	6	U
108-90-7	Chlorobenzene	1.5	U	135-98-8	sec-Butylbenzene	6	U
630-20-6	1,1,1,2-Tetrachloroethane	1.5	U	99-87-6	p-isopropyltoluene	6	U
75-25-2	Bromoform	3	U	104-51-8	n-Butylbenzene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	4.5	U	91-20-3	Naphthalene	6	U

TQL- Target Quantation Limit- Subject to change due to instrument sensitivity
T- Tentatively Identified, not confirmed
B- Estimated Value
U- Samples analyzed for this compound but not detected
N- Sample not analyzed for this compound
D- Detected below quantitation limit
M- GC/MS Analysis performed

Other purgeables detected (up to 10 highest peaks) — Detected ug/Kg

FOUR UNIDENTIFIED PEAKS
DETECTED BY GC/PID.
NO VOLATILE ORGANIC COMPOUNDS
DETECTED BY GC/ELCD.

COMMENTS:

COUNTY Gastonia

QUAD NO. Q68 q52 SERIAL NO. _____

LAT. 35° 16' 19" LONG. 81°03'47"

North Carolina
Department of Environment, Health, and Natural Resources
Division of Environmental Management
Groundwater Field/Lab Form

LAB NUMBER # 3G406

DATE RECEIVED 3-12-93 Time 9:00

Rec'd by: DS From: Bus Courier

Other _____

DATA ENTRY BY: JH CK: DS

DATE REPORTED: 3/29/93

Report to: ARO, FRO, MRO, RRO, WaRO, WIRO, WSRO, Kinston FO Other _____

CHAIN OF CUSTODY

SAMPLE PRIORITY

☒ ROUTINE ☐ EMERGENCY

Soil

Shipped by: Bus Courier Other _____

COLLECTOR(S): DeRoller/Walker DATE 3/11/93 TIME 11:35 PURPOSE: BASELINE, COMPLAINT, COMPLIANCE, LUST, OTHER Poll. Inv. (circle one)

FIELD ANALYSES

pH_{400} _____ Spec. Cond.$_{94}$ _____ at 25°C

Temp.$_{10}$ _____ °C Odor Same

Appearance mild to no staining Taste _____

Field Analysis By: C. DeRoller

Owner Toomey Residence

Location or site 1020 Hickory Grove Road

Description of sampling point Soil boring #1 28-34"

Sampling Method Hand Auger (pump, bailer, etc.) Sample Interval ↓

Remarks _____ (pumping time, air temp, etc.)

LABORATORY ANALYSES

	BOD_5 310	mg/l
	COD High 340	mg/l
	COD Low 335	mg/l
	Coliform:MF Fecal 31616	/100ml
	Coliform:MF Total 31504	/100ml
	TOC 680	mg/l
	Turbidity 76	NTU
	pH 403	units
	Alkalinity to pH 4.5 410	mg/l
	Alkalinity to pH 8.3 415	mg/l
	Carbonate 445	mg/l
	Bicarbonate 440	mg/l
	Arsenic:Total 1002	ug/l
	Carbon dioxide 405	mg/l
	Chloride 940	mg/l
	Chromium:Hex 1032	ug/l
	Color:True 80	Pt-Co
	Cyanide 720	mg/l

	Diss. Solids 70300	mg/l
	Fluoride 951	mg/l
	Hardness:Total 900	mg/l
	Hardness (non-carb) 902	mg/l
	Phenols 32730	ug/l
	Specific Cond. 95	uMhos/cm²
	Sulfate 945	mg/l
	Sulfide 745	mg/l
	NH_3 as N 610	mg/l
	TKN as N 625	mg/l
	$NO_2 + NO_3$ as N 630	mg/l
	P:Total as P 665	mg/l

	Ag - Silver 1077	ug/l
	Al - Aluminum 1105	ug/l
	Ba - Barium 1007	ug/l
	Ca - Calcium 916	mg/l
	Cd - Cadmium 1027	ug/l
	Chromium:Total 1034	ug/l
	Cu - Copper 1042	ug/l
	Fe - Iron 1045	ug/l
	Hg - Mercury 71900	ug/l
	K - Potassium 937	mg/l
	Mg - Magnesium 927	mg/l
	Mn - Manganese 1055	ug/l
	Na - Sodium 929	mg/l
	Ni - Nickel 1067	ug/l
	Pb - Lead 1051	ug/l
	Se - Selenium 1147	ug/l
	Zn - Zinc 1092	ug/l

	Organochlorine Pesticides
	Organophosphorus Pesticides
	Acid Herbicides
X	Base / Neutral Extractable Organics
X	Acid Extractable Organics
X	Purgeable Organics (VOA bottle)
	1,2 - Dibromoethane (EDB)
	S, V

U.S. DEPT. OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT
APR - 2 1993
DIVISION OF ENVIRONMENTAL MANAGEMENT MOORESVILLE REGIONAL OFFICE

Lab Comments: _____

GW-54 REV. 8/90

For Dissolved Analysis - submit filtered sample and write "DIS" in block

SEMIVOLATILE ORGANICS REPORT - DEM LAB

LAB NUMBER:3G406 SUPERVISOR RJK LAB #:3G406
DATE : 3/26/93

REPORTED BY MD
CHECKED BY [illegible] ENTERED BY JH
REVIEWED BY PTD CHECKED BY DS

SAMPLE TYPE: SEDIMENT DILUTION FACTOR: _____

CAS NUMBER	TQL X 1	ANALYTE NAME	CONC. UG/KG
108-95-2	660	PHENOL	U
111-44-4	660	BIS(2-CHLOROETHYL) ETHER	U
95-57-8	660	2-CHLOROPHENOL	U
541-73-1	660	1,3-DICHLOROBENZENE	U
106-46-7	660	1,4-DICHLOROBENZENE	U
100-51-6	1300	BENZYL ALCOHOL	U
95-50-1	660	1,2-DICHLOROBENZENE	U
95-48-7	660	2-METHYL PHENOL	U
108-60-1	660	BIS(2-CHLOROISOPROPYL) ETHER	U
106-44-5	660	4-METHYL PHENOL	U
621-64-7	660	N-NITROSO-DI-N-PROPYLAMINE	U
67-72-1	660	HEXACHLOROETHANE	U
98-95-3	660	NITROBENZENE	U
78-59-1	660	ISOPHORONE	U
88-75-5	660	2-NITRO PHENOL	U
105-67-9	660	2,4-DIMETHYL PHENOL	U
65-85-0	3300	BENZOIC ACID	U
111-91-1	660	BIS(2-CHLOROETHOXY) METHANE	U
120-83-2	660	2,4-DICHLORO PHENOL	U
120-82-1	660	1,2,4-TRICHLOROBENZENE	U
91-20-3	660	NAPHTHALENE	U
106-47-8	1300	4-CHLOROANILINE	U
87-68-3	660	HEXACHLOROBUTADIENE	U
59-50-7	1300	4-CHLORO-3-METHYL PHENOL	U
91-57-6	660	2-METHYL NAPHTHALENE	U
77-47-4	660	HEXACHLOROCYCLOPENTADIENE	U
88-06-2	660	2,4,6-TRICHLORO PHENOL	U
95-95-4	660	2,4,5-TRICHLORO PHENOL	U
91-58-7	660	2-CHLORO NAPHTHALENE	U
88-74-4	3300	2-NITROANALINE	U
131-11-3	660	DIMETHYL PHTHALATE	U
208-96-8	660	ACENAPHTHYLENE	U
606-20-2	660	2,6-DINITROTOLUENE	U
99-09-2	3300	3-NITROANALINE	U
83-32-9	660	ACENAPHTHENE	U
51-28-5	3300	2,4-DINITRO PHENOL	U
100-02-7	3300	4-NITRO PHENOL	U
132-64-9	660	DIBENZOFURAN	U
121-14-2	660	2,4-DINITROTOLUENE	U
84-66-2	660	DIETHYL PHTHALATE	U
7005-72-3	660	4-CHLOROPHENYL PHENYL ETHER	U
86-73-7	660	FLUORENE	U
100-01-6	3300	4-NITROANALINE	U
534-52-1	3300	4,6-DINITRO-2-METHYL PHENOL	U

BHNR/DEM LABORATORY
VOLATILE ANALYTICAL REPORT

LAB NO. 3G406

REPORTED BY
CHECKED BY
REVIEWED BY

SUPERVISOR RZK
DATE 3/29/93
ENTERED BY JH
CHECKED BY DS

SAMPLE TYPE: SEDIMENT

ANALYSIS RESULTS

CAS#	VOA TARGET COMPOUND	TQL ug/Kg	DETECTED ug/Kg	CAS#	VOA TARGET COMPOUND	TQL ug/Kg	DETECTED ug/Kg
75-35-4	1,1-Dichloroethene	4.5	U	96-18-4	1,2,3-Trichloropropane	1.5	U
75-09-2	Methylene Chloride	1.5	U	108-86-1	Bromobenzene	6	U
156-60-5	trans-1,2-Dichloroethene	4.5	U	95-49-8	2-Chlorotoluene	1.5	U
75-34-3	1,1-Dichloroethane	1.5	U	106-43-4	4-Chlorotoluene	1.5	U
590-20-7	2,2-Dichloropropane	1.5	U	541-73-1	1,3-Dichlorobenzene	1.5	U
156-59-4	cis-1,2-Dichloroethene	1.5	U	106-46-7	1,4-Dichlorobenzene	1.5	U
67-66-3	Chloroform	1.5	U	95-50-1	1,2-Dichlorobenzene	1.5	U
74-97-5	Bromochloromethane	4.5	U	96-12-8	1,2-Dibromo-3-Chloropropane	6	U
71-55-6	1,1,1-Trichloroethane	1.5	U	120-82-1	1,2,4-Trichlorobenzene	1.5	U
563-58-6	1,1-Dichloropropene	1.5	U	87-68-3	Hexachlorobutadiene	1.5	U
56-23-5	Carbon Tetrachloride	4.5	U	87-61-6	1,2,3-Trichlorobenzene	4.5	U
107-06-2	1,2-Dichloroethane	1.5	U	1634-04-4	Methyl-tert-butyl ether	30	U
79-01-6	Trichloroethene	1.5	U	71-43-2	Benzene	6	U
78-87-5	1,2-Dichloropropane	1.5	U	108-88-3	Toluene	6	U
75-27-4	Bromodichloromethane	1.5	U	100-41-4	Ethyl benzene	6	U
74-95-3	Dibromomethane	6	U	108-38-3	m,p-Xylenes	6	U
10061-01-5	cis-1,3-Dichloropropene	1.5	U	95-47-6	o-Xylene	6	U
10061-02-6	trans-1,3-Dichloropropene	1.5	U	100-42-5	Styrene	6	U
79-00-5	1,1,2-Trichloroethane	1.5	U	98-82-8	Isopropylbenzene	6	U
127-18-4	Tetrachloroethene	1.5	U	103-65-1	n-Propylbenzene	6	U
142-28-9	1,3-Dichloropropane	1.5	U	108-67-8	1,3,5-Trimethylbenzene	6	U
124-48-1	Dibromochloromethane	4.5	U	98-06-6	tert-Butylbenzene	6	U
106-93-4	1,2-Dibromoethane	6	U	95-63-6	1,2,4-Trimethylbenzene	6	U
108-90-7	Chlorobenzene	1.5	U	135-98-8	sec-Butylbenzene	6	U
630-20-6	1,1,1,2-Tetrachloroethane	1.5	U	99-87-6	p-isopropyltoluene	6	U
75-25-2	Bromoform	3	U	104-51-8	n-Butylbenzene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	4.5	U	91-20-3	Naphthalene	6	U

TQL- Target Quantation Limit- Subject to change due to instrument sensitivity
T- Tentatively Identified, not confirmed
E- Estimated Value
U- Samples analyzed for this compound but not detected
N- Sample not analyzed for this compound
D- Detected below quantitation limit
M- GC/MS Analysis performed

Other purgeables detected (up to 10 highest peaks)

Detected ug/Kg

NO VOLATILE ORGANIC COMPOUNDS DETECTED BY GC/ELCD/PID.

COMMENTS:

SEMIVOLATILE ORGANICS REPORT - DEM LAB

86-30-6	660	N-NITROSODIPHENYLAMINE	U
101-55-3	660	4-BROMOPHENYL PHENYL ETHER	U
118-74-1	660	HEXACHLOROBENZENE	U
87-86-5	3300	PENTACHLORO PHENOL	U
85-01-8	660	PHENANTHRENE	U
120-12-7	660	ANTHRACENE	U
84-74-2	660	DI-N-BUTYL PHTHALATE	U
206-44-0	660	FLUORANTHENE	U
129-00-0	660	PYRENE	U
85-68-7	660	BUTYLBENZYL PHTHALATE	U
91-94-1	1300	3,3'-DICHLOROBENZIDINE	U
56-55-3	660	BENZO(A)ANTHRACENE	U
218-01-9	660	CHRYSENE	U
117-81-7	660	BIS(2-ETHYLHEXYL) PHTHALATE	U
117-84-0	660	DI-N-OCTYL PHTHALATE	U
205-99-2	660	BENZO(B)FLUORANTHENE	U
207-08-9	660	BENZO(K)FLUORANTHENE	U
50-32-8	660	BENZO(A)PYRENE	U
193-39-5	660	INDENO(1,2,3-CD)PYRENE	U
53-70-3	660	DIBENZO(A,H)ANTHRACENE	U
191-24-2	660	BENZO(G,H,I)PERYLENE	U

OTHER SEMIVOLATILE ORGANICS FOR SAMPLE NUMBER : 3G406

NO BASE/NEUTRAL OR ACID EXTRACTABLE ORGANICS
DETECTED BY GC/MS.

TQL= TARGET QUANTITATION LIMIT
T= TENTATIVELY IDENTIFIED ESTIMATED CONCENTRATION
E= ESTIMATED CONCENTRATION
U= COMPOUND ANALYZED FOR NOT DETECTED
N= COMPOUND NOT ANALYZED FOR
D= DETECTED BELOW QUANTITATION LIMIT
H= HOLDING TIME EXCEEDED
TQL SUBJECT TO CHANGE DUE TO INSTRUMENT SENSITIVITY

COUNTY Gastonia
QUAD NO. G68qS3 SERIAL NO. _____
LAT. 35° 16' 19" LONG. 81°03'47"

North Carolina
Department of Environment, Health, and Natural Resources
Division of Environmental Management
Groundwater Field/Lab Form
CHAIN OF CUSTODY

LAB NUMBER # 3G 407
DATE RECEIVED 3-12-93 Time 9:00
Rec'd by: DS From: Bus-Courier
Other _____

Report to: ARO, FRO, MRO, RRO, WaRO, WIRO, WSRO, Kinston FO Other _____
Shipped by: Bus Courier Other _____

SAMPLE PRIORITY
☒ ROUTINE ☐ EMERGENCY

Soil

DATA ENTRY BY: JH CK: DS
DATE REPORTED: 4/1/93

COLLECTOR(S): DeBoller/Walker DATE 3/11/93 TIME 11:40 PURPOSE: BASELINE, COMPLAINT, COMPLIANCE, LUST, OTHER Poll. Inv.
(circle one)

FIELD ANALYSES

pH_{400} _____ Spec. Cond.$_{94}$ _____ at 25°C
Temp.$_{10}$ _____ °C Odor Strong
Appearance Stained Black Taste _____
Field Analysis By: CMD

Owner Toomey Residence
Location or site 1020 Hickory Grove Road
Description of sampling point Soil boring #2 (near carport)
Sampling Method hand auger (pump, bailer, etc.) Sample Interval 0-6"
Remarks _____ (pumping time, air temp, etc.)

LABORATORY ANALYSES

	BOD_5 310	mg/l
	COD High 340	mg/l
	COD Low 335	mg/l
	Coliform:MF Fecal 31616	/100ml
	Coliform:MF Total 31504	/100ml
	TOC 680	mg/l
	Turbidity 76	NTU
	pH 403	units
	Alkalinity to pH 4.5 410	mg/l
	Alkalinity to pH 8.3 415	mg/l
	Carbonate 445	mg/l
	Bicarbonate 440	mg/l
	Arsenic:Total 1002	ug/l
	Carbon dioxide 405	mg/l
	Chloride 940	mg/l
	Chromium:Hex 1032	ug/l
	Color:True 80	Pt-Co
	Cyanide 720	mg/l

	Diss. Solids 70300	mg/l
	Fluoride 951	mg/l
	Hardness:Total 900	mg/l
	Haruness (non-carb) 902	mg/l
	Phenols 32730	ug/l
	Specific Cond. 95	uMhos/cm^2
	Sulfate 945	mg/l
	Sulfide 745	mg/l
	NH_3 as N 610	mg/l
	TKN as N 625	mg/l
	$NO_2 + NO_3$ as N 630	mg/l
	P:Total as P 665	mg/l

	Ag - Silver 1077	ug/l
	Al - Aluminum 1105	ug/l
	Ba - Barium 1007	ug/l
	Ca - Calcium 916	mg/l
	Cd - Cadmium 1027	ug/l
	Chromium:Total 1034	ug/l
	Cu - Copper 1042	ug/l
	Fe - Iron 1045	ug/l
	Hg - Mercury 71900	ug/l
	K - Potassium 937	mg/l
	Mg - Magnesium 927	mg/l
	Mn - Manganese 1055	ug/l
	Na - Sodium 929	mg/l
	Ni - Nickel 1067	ug/l
	Pb - Lead 1051	ug/l
	Se - Selenium 1147	ug/l
	Zn - Zinc 1092	ug/l

	Organochlorine Pesticides
	Organophosphorus Pesticides
	Acid Herbicides
X	Base / Neutral Extractable Organics
X	Acid Extractable Organics
X	Purgeable Organics (VOA bottle)
	1,2 - Dibromoethane (EDB)

N.C. DEPT. OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT
MAR 16 1993
DIVISION OF ENVIRONMENTAL MANAGEMENT
GROUNDWATER SECTION

Lab Comments: _____

GW-54 REV. 9/90

For Dissolved Analysis - submit filtered sample and write "DS" in block
White Copy - Groundwater Central Office Yellow Copy - Regional Office Pink Copy - Central Files Goldenrod Copy - Lab

SEMIVOLATILE ORGANICS REPORT - DEM LAB

LAB NUMBER: 3G407 SUPERVISOR RCK LAB #: 3G407
DATE : 3/31/93

REPORTED BY [illegible]
CHECKED BY [illegible] ENTERED BY JH
REVIEWED BY [illegible] CHECKED BY DS

SAMPLE TYPE: SEDIMENT DILUTION FACTOR: 1.33

CAS NUMBER	TQL X 1.33	ANALYTE NAME		CONC. UG/KG
108-95-2	660	PHENOL		330 D
111-44-4	660	BIS(2-CHLOROETHYL) ETHER	U	
95-57-8	660	2-CHLOROPHENOL	U	
541-73-1	660	1,3-DICHLOROBENZENE	U	
106-46-7	660	1,4-DICHLOROBENZENE	U	
100-51-6	1300	BENZYL ALCOHOL	U	
95-50-1	660	1,2-DICHLOROBENZENE	U	
95-48-7	660	2-METHYL PHENOL	U	
108-60-1	660	BIS(2-CHLOROISOPROPYL) ETHER	U	
106-44-5	660	4-METHYL PHENOL	U	
621-64-7	660	N-NITROSO-DI-N-PROPYLAMINE	U	
67-72-1	660	HEXACHLOROETHANE	U	
98-95-3	660	NITROBENZENE	U	
78-59-1	660	ISOPHORONE	U	
88-75-5	660	2-NITRO PHENOL	U	
105-67-9	660	2,4-DIMETHYL PHENOL	U	
65-85-0	3300	BENZOIC ACID	U	
111-91-1	660	BIS(2-CHLOROETHOXY) METHANE	U	
120-83-2	660	2,4-DICHLORO PHENOL	U	
120-82-1	660	1,2,4-TRICHLOROBENZENE	U	
91-20-3	660	NAPHTHALENE	U	
106-47-8	1300	4-CHLOROANILINE	U	
87-68-3	660	HEXACHLOROBUTADIENE	U	
59-50-7	1300	4-CHLORO-3-METHYL PHENOL	U	
91-57-6	660	2-METHYL NAPHTHALENE	U	
77-47-4	660	HEXACHLOROCYCLOPENTADIENE	U	
88-06-2	660	2,4,6-TRICHLORO PHENOL	U	
95-95-4	660	2,4,5-TRICHLORO PHENOL	U	
91-58-7	660	2-CHLORO NAPHTHALENE	U	
88-74-4	3300	2-NITROANALINE	U	
131-11-3	660	DIMETHYL PHTHALATE	U	
208-96-8	660	ACENAPHTHYLENE	U	
606-20-2	660	2,6-DINITROTOLUENE	U	
99-09-2	3300	3-NITROANALINE	U	
83-32-9	660	ACENAPHTHENE	U	
51-28-5	3300	2,4-DINITRO PHENOL	U	
100-02-7	3300	4-NITRO PHENOL	U	
132-64-9	660	DIBENZOFURAN	U	
121-14-2	660	2,4-DINITROTOLUENE	U	
84-66-2	660	DIETHYL PHTHALATE	U	
7005-72-3	660	4-CHLOROPHENYL PHENYL ETHER	U	
86-73-7	660	FLUORENE	U	
100-01-6	3300	4-NITROANALINE	U	
534-52-1	3300	4,6-DINITRO-2-METHYL PHENOL	U	

SEMIVOLATILE ORGANICS REPORT - DEM LAB

86-30-6	660	N-NITROSODIPHENYLAMINE	U
101-55-3	660	4-BROMOPHENYL PHENYL ETHER	U
118-74-1	660	HEXACHLOROBENZENE	U
87-86-5	3300	PENTACHLORO PHENOL	U
85-01-8	660	PHENANTHRENE	U
120-12-7	660	ANTHRACENE	U
84-74-2	660	DI-N-BUTYL PHTHALATE	U
206-44-0	660	FLUORANTHENE	U
129-00-0	660	PYRENE	U
85-68-7	660	BUTYLBENZYL PHTHALATE	U
91-94-1	1300	3,3'-DICHLOROBENZIDINE	U
56-55-3	660	BENZO(A)ANTHRACENE	U
218-01-9	660	CHRYSENE	U
117-81-7	660	BIS(2-ETHYLHEXYL) PHTHALATE	U
117-84-0	660	DI-N-OCTYL PHTHALATE	U
205-99-2	660	BENZO(B)FLUORANTHENE	U
207-08-9	660	BENZO(K)FLUORANTHENE	U
50-32-8	660	BENZO(A)PYRENE	U
193-39-5	660	INDENO(1,2,3-CD)PYRENE	U
53-70-3	660	DIBENZO(A,H)ANTHRACENE	U
191-24-2	660	BENZO(G,H,I)PERYLENE	U

OTHER SEMIVOLATILE ORGANICS FOR SAMPLE NUMBER : 3G407

DIMETHLY ETHYL PHENOL (C10.H14.O)	1400	T
UNIDENTIFIED	300	E
UNIDENTIFIED	370	E
UNIDENTIFIED	700	E
UNIDENTIFIED	320	E
UNIDENTIFIED	570	E
UNIDENTIFIED	500	E
UNIDENTIFIED	580	E
UNIDENTIFIED	830	E
UNIDENTIFIED	250	E
UNIDENTIFIED	280	E
POLYCHLORINATED BIPHENYLS (PCBs)	610	T
CHLORDANE	490	T
LATE ELUTING MASS OF CHEMICALS	570000	E

TQL= TARGET QUANTITATION LIMIT
T= TENTATIVELY IDENTIFIED ESTIMATED CONCENTRATION
E= ESTIMATED CONCENTRATION
U= COMPOUND ANALYZED FOR NOT DETECTED
N= COMPOUND NOT ANALYZED FOR
D= DETECTED BELOW QUANTITATION LIMIT
H= HOLDING TIME EXCEEDED
TQL SUBJECT TO CHANGE DUE TO INSTRUMENT SENSITIVITY

EHNR/DEM LABORATORY
VOLATILE ANALYTICAL REPORT

LAB NO. 3G407

REPORTED BY
CHECKED BY
REVIEWED BY

SUPERVISOR RCK
DATE 3/29/93
ENTERED BY JH
CHECKED BY DS

SAMPLE TYPE: SEDIMENT

ANALYSIS RESULTS

CAS#	VOA TARGET COMPOUND	TQL ug/Kg	DETECTED ug/Kg	CAS#	VOA TARGET COMPOUND	TQL ug/Kg	DETECTED ug/Kg
75-35-4	1,1-Dichloroethene	4.5	U	96-18-4	1,2,3-Trichloropropane	1.5	U
75-09-2	Methylene Chloride	1.5	U	108-86-1	Bromobenzene	6	U
156-60-5	trans-1,2-Dichloroethene	4.5	U	95-49-8	2-Chlorotoluene	1.5	U
75-34-3	1,1-Dichloroethane	1.5	U	106-43-4	4-Chlorotoluene	1.5	U
590-20-7	2,2-Dichloropropane	1.5	U	541-73-1	1,3-Dichlorobenzene	1.5	U
156-59-4	cis-1,2-Dichloroethene	1.5	U	106-46-7	1,4-Dichlorobenzene	1.5	U
67-66-3	Chloroform	1.5	U	95-50-1	1,2-Dichlorobenzene	1.5	U
74-97-5	Bromochloromethane	4.5	U	96-12-8	1,2-Dibromo-3-Chloropropane	6	U
71-55-6	1,1,1-Trichloroethane	1.5	U	120-82-1	1,2,4-Trichlorobenzene	1.5	U
563-58-6	1,1-Dichloropropene	1.5	U	87-68-3	Hexachlorobutadiene	1.5	U
56-23-5	Carbon Tetrachloride	4.5	U	87-61-6	1,2,3-Trichlorobenzene	4.5	U
107-06-2	1,2-Dichloroethane	1.5	U	1634-04-4	Methyl-tert-butyl ether	30	U
79-01-6	Trichloroethene	1.5	U	71-43-2	Benzene	6	U
78-87-5	1,2-Dichloropropane	1.5	U	108-88-3	Toluene	6	U
75-27-4	Bromodichloromethane	1.5	U	100-41-4	Ethyl benzene	6	U
74-95-3	Dibromomethane	6	U	108-38-3	m,p-Xylenes	6	U
10061-01-5	cis-1,3-Dichloropropene	1.5	U	95-47-6	o-Xylene	6	U
10061-02-6	trans-1,3-Dichloropropene	1.5	U	100-42-5	Styrene	6	U
79-00-5	1,1,2-Trichloroethane	1.5	U	98-82-8	Isopropylbenzene	6	U
127-18-4	Tetrachloroethene	1.5	U	103-65-1	n-Propylbenzene	6	U
142-28-9	1,3-Dichloropropane	1.5	U	108-67-8	1,3,5-Trimethylbenzene	6	U
124-48-1	Dibromochloromethane	4.5	U	98-06-6	tert-Butylbenzene	6	U
106-93-4	1,2-Dibromoethane	6	U	95-63-6	1,2,4-Trimethylbenzene	6	U
108-90-7	Chlorobenzene	1.5	U	135-98-8	sec-Butylbenzene	6	U
630-20-6	1,1,1,2-Tetrachloroethane	1.5	U	99-87-6	p-isopropyltoluene	6	U
75-25-2	Bromoform	3	U	104-51-8	n-Butylbenzene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	4.5	U	91-20-3	Naphthalene	6	U

TQL- Target Quantation Limit- Subject to change due to instrument sensitivity
T- Tentatively Identified, not confirmed
B- Estimated Value
U- Samples analyzed for this compound but not detected
N- Sample not analyzed for this compound
D- Detected below quantitation limit
M- GC/MS Analysis performed

Other purgeables detected (up to 10 highest peaks)

Detected ug/Kg

NO VOLATILE ORGANIC COMPOUNDS DETECTED BY GC/ELCD/PID.

COMMENTS:

Dixie Yarns
Edgerton st.
Well observed across from 708
Chome was burned .2 miles from plant

903, 904 no WM observed
↑ City water already to residence in 903A

Parkdale Mills well

Well but closed up
another up the street but also closed up.

3/10/93
[Tommy Residence]

Granite had surface at numerous spots on the property, Two abandoned wells, one with concrete one with gravel.

Drum lids → Versatint Green II
Fugitive Tint 710281-012
Lot # F1399
Milken Chemicals 810-690-2300
Inman S.C.

Versatint blue N-6
710257-012

Safety Kleen - 251242
Sticker (Air Compressor Oil Drum) - Patons Inc
Charlotte NC
QST

Phacc Yarns Code 1831D-
.9610 → faded
McAdenville, NC
631474 (10-91)
437
37
400

Sodium Hydroxide
DrewCard 187

Adjunct H liquid - Sodium Hydroxide

Hoechst Celanese - Amino
Acet-P-Anisidine - Moist

Sedgeclean ESb

Chemtreat BL-122 Sodium Bisulfite

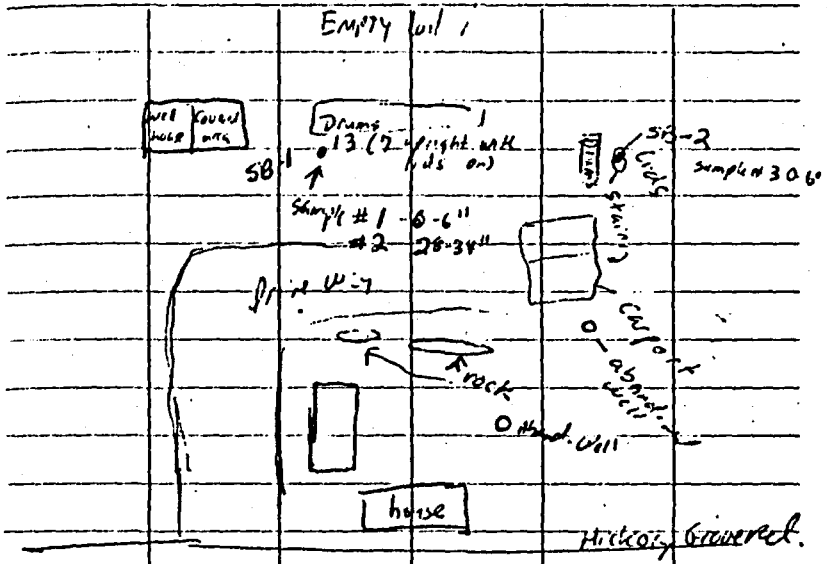
American Cynamid
Wayne N.J. 07470
Lot # 10-650
Formaldehyde

Randalman 25 Isopropyl Alcohol
methyl alcohol (Sanor Cx)
Rochester & Midland (Creative
Chemistry) - Rochester, NY

Currently sells drums as
garbage cans - ~~any~~ clean
when she gets them

Liquid observed in ~~some~~ some of
the drums with bungs closed
(Sanor Cx) DOT E6500-55
(two blue drums)
Cleaner → B? Chem?
Sedge Clean 9005751 15

#1 Soil stained black, odor 0.6"
6" - 8" Red Clay (odor)
8" - 12" " " "
12" - 34" Saprolite - slight odor
28" - Sample #2
34" weathered rock



Sodium Hydroxide barrell turned
~~upside to look same~~ upside down
and product has spilled out on the surface

8" tan saprolite - sandy
0.6" Sample #3

Incident Name: Toomey Residence Region/County: MRO / Gaston

Groundwater Incident File #: _____ Ranking Performed by: CMD

Date: 2/12/93

NORTH CAROLINA
GROUNDWATER CONTAMINATION INCIDENT MANAGEMENT SITE PRIORITY RANKING SYSTEM

(To be completed by Regional Office)

		Points Awarded
I.	**IMMINENT HAZARD ASSESSMENT**	
A.	Explosion - free product in confined areas or vapor phase product detected at or above 20% of the lower explosive limit or at health concern levels; award 50 points total	—
B.	Fire - free product subject to ignition in exposed areas such as surface water impoundments, streams, excavations, etc.; award 50 points total	—
II.	**EXPOSURE ASSESSMENT**	
A.	Contaminated Drinking Water Supplies	
1.	Private, domestic water supply well containing substances in concentrations exceeding 15A NCAC 2L groundwater quality standards; award 10 points per well	50
2.	Public or institutional water supply well containing substances in concentrations exceeding 15A NCAC 2L groundwater quality standards; award 20 points per well	—
3.	Exceedances of Class WS-1 surface water quality standards as a result of groundwater discharge; award 20 points per surface water body impacted	—
4.	If a water supply well identified in items II. A. 1 and II. A. 2 cannot be replaced by an existing public water supply source requiring hook-up only; award additional 10 points per irreplaceable well	50
B.	Threat to Uncontaminated Drinking Water Supplies	
1.	Private, domestic water supply well located within 1500 feet down gradient of contaminant source; award 10 points per well	at least 200
2.	Public or institutional water supply well located within 1500 feet downgradient of contaminant source; award 15 points per well	?
3.	Raw surface water intake for public water supply located within 1/2 mile downgradient of contaminant source; award 5 points per water supply system	—
4.	If any well identified in items II. B. 1 and II. B. 2 or an intake in item II. B. 3. are located within 250 feet of contaminant source; award additional 20 points total (not per well or intake)	20
C.	Vapor Phase Exposure	
1.	Product vapors detected in inhabitable building(s) below 20% of the lower explosive limit or health concern levels; award 30 points total	—

Points Awarded

2. Product vapors detected in other confined areas (uninhabitable buildings, sewer lines, utility vaults, etc.) below 20% of the lower explosive limit; award 10 points total — _____

SOURCE ASSESSMENT

A. Uncontrolled or Unabated Primary Source (including dumpsites, stockpiles, lagoons, land applications, septic tanks, landfills, underground and above ground storage tanks, etc.)

1. Suspected or confirmed source remains in active use and continues to receive raw product, wastewater or solid waste; award 30 points per source — _____

2. Active use of suspected or confirmed source has been discontinued or source was caused by a one-time release of product or waste, however, source continues to release product or contaminants into the environment; award 10 points per source 10

ENVIRONMENTAL VULNERABILITY ASSESSMENT

A. Vertical Contaminant Migration - Literature or well logs indicate that no confining layer is present above bedrock or within twenty feet of land surface; award 10 points total 10

B. Horizontal Contaminant Migration - Data or observations indicate that no discharge points or aquifer discontinuities exist between the source and the nearest downgradient drinking water supply; award 10 points total 10

C. Existing Groundwater Quality - The worst case monitor or supply well contains contaminant levels:

1. At less than 10 times the 2L groundwater standards; award 5 points _____

2. Between 10 and 100 times the 2L groundwater standards; award 20 points _____

3. Greater than 100 times the 2L groundwater standards; award 40 points 40

REGIONAL OFFICE RESPONSE (LETTER RANK)

Priority A - (Site meets any one of the criteria)

1. Water supply well(s) contaminated and no alternate water supplies available.

2. Vapors present in confined areas at explosive or health concern levels.

3. Treated surface water supply in violation of the safe drinking standards.

Priority B - (Any One)

1. Water supply well(s) contaminated, but alternate water supplies available.

2. Water supply well(s) within 1500 feet of site, but not contaminated and no alternate water supplies available.

3. Vapors present in confined areas but not at explosive or health concern levels.

Priority C - (Both)

1. No water supply well(s) contaminted.

2. Water supply well(s) greater than 1500 feet from site, no alternate water supply available.

Priority D - (Both)

1. No water supply well(s) contaminted.

2. Water supply well(s) within 1500 feet of site but alternate water supplies available.

Priority E - (Both)

1. No water supply well(s) contaminated or within 1500 feet of site.

2. Area served by alternate water supply.

TOTAL POINTS AWARDED

390 A
#/Letter

MEMO

DATE: 2/12/93

TO: File

SUBJECT: Toomey Residence Drum Cleaning Operatio

Talked to Gail Scogin with EPA:

She doesn't think they'll be doing anything at the site. But she's not sure. Primarily because chlorinated solvent contamination appears to be minor compared to the petroleum contamination at the site. Reevaluating sites currently.

Beeper# 1-800-443-PAGE (ID# 065025)
FAX (904) 347-7817

From:

North Carolina Department of Environment, Health, and Natural Resources

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N. C. DEPT. OF NATURAL
RESOURCES
COMMUNITY DEVELOPMENT
JAN 2 2 1993
DIVISION OF ENVIRONMENTAL MANAGEMENT
MOORESVILLE REGIONAL OFFICE

GASTON COUNTY ENVIRONMENTAL HEALTH

INCIDENT LOG

FILE NAME: Springwood Gas Incident

STAFF INVESTIGATOR: James "Doc" Thompson, R. S.

LOCATION OF INCIDENT: 1016 Hickory Grove Road (Springwood Area)

BRIEF DESCRIPTION OF INCIDENT

Gasoline contamination suspected as a result of an Environmental Assessment of Frances Robertson's well

DATE	LOG ENTRY
10/21/92	Gaston County Health Department received complaint of "Gasoline Odor" from Mrs. Frances Robertson (1016 Hickory Grove Road)
10/26/92	Mrs. Robertson's well was sampled for volatile organic compounds. Samples were pulled and sent to the State Lab for analysis. Gasoline odor was detected.
11/11/92	Gaston County Health Department received Laboratory results on Mrs. Robertson's well. The following petroleum products were found:

896.2 ppb of MTBE
55.6 ppb of Isopropyl Ether
4686.3 ppb of Toluene
32.2 ppb of Napthalene
1200.2 ppb SP 1 (X) - Xylene
67.8 ppb of 1,3,5 Trimethylbenzene
526.7 ppb of (P) Xylene
346.4 ppb of Benzene
207.7 1,2,4 Trimethyl benzene
81.4 ppb of Ethylbenzene

11/11/92	Mrs. Robertson was contacted and told to discontinue use of water for any purpose.
11/15/92	Orthophotic Map with scale of 1" = 200' was obtained from County Mapping Department. Springwood area located on map and sampling areas were determined.
11/18/92	Three additional VOC samples were taken from the following locations and sent to State lab for analysis: 1. 1010 Hickory Grove Road 2. 1017 Hickory Grove Road 3. 1104 Hickory Grove Road
11/23/92	Two additional samples were taken from the following residences adjacent to Mrs. Robertson's home: 1. 3113 Cedar Street 2. 3115 Cedar Street Additional samples will be taken on 11/30/92.

11/29/92 Steve Bograd of Division of Environmental Management was contacted. Will remit report to his office once sampling has been completed.

11/30/92 Two additional samples were collected from:

1. 1105 Hickory Grove Road
2. 1020 Hickory Grove Road

Both samples were sent to State Laboratory for analysis.

12/1/92 Doc Thompson scheduled meeting with Dr. Ken Rudo, State Toxicologist for 12/7/92.

12/7/92 Doc Thompson received results on three samples collected on 11/18/92. No petroleum products found; only trace amount of chlorinated hydrocarbons found with levels well below maximum contaminant standards (MCL).

Dr. Ken Rudo and Doc Thompson visited site of well contamination site and met with Mrs. Robertson. Dr. Rudo assured Mrs. Robertson that his office would provide help in seeing that she receive bottled water and an emergency tank so that she could bathe, wash clothes, cook, etc. The cost of the water tank and bottled water would be provided by the North Carolina Trust Fund that is set up for such emergencies. Dr. Rudo and Doc Thompson surveyed the area around the contaminated well site. Dr. Rudo suggested further sampling. Doc told Dr. Rudo he had planned to perform more sampling once VOC bottles were sent from the State Lab. Dr. Rudo said he would provide sampling bottles at no cost. Doc Thompson suggested that we ask for tank tightness test for those service stations and garages who had gas tanks located in the vicinity of the site. Dr. Rudo concurred on this additional approach.

12/9/92 Doc Thompson spoke with Charles Jenkins of Acme, Inc. who supplies tanks to the Springwood Cafe. Mr. Thompson told him that a Tank Tightness Test should be performed. Mr. Jenkins said that such a test had just been completed. A report of the test was faxed and received by Doc Thompson.

12/10/92 Gaston County Health Department received VOC bottles from Dr. Rudo. Mr. Thompson contacted Stone's Grocery and asked for tank tightness test to be performed. Mrs. Stone said that she would perform the Tank Tightness Test and submit a report to Mr. Thompson. To date no contact has been successful with the owners of Tate's Garage concerning Tank Tightness Testing.

12/11/92 Additional samples to be taken from area surrounding contaminated well site on 12/11/92.

Board of Health will be brought up to date as to current status on 12/21/92.

12/11/92 Nine more residences sampled:

1. 3108 Cedar St.
2. 3105 Cedar St.
3. 3112 Cedar St.
4. 3116 Cedar St.
5. 112 Park Terrace
6. 102 Park Terrace
7. 103 Springwood Drive
8. 105 Springwood Drive
9. 209 Bean Road

12/17/92 Four more results received from State Lab. Two out of the four have chlorinated hydrocarbons above the standard MCL for PCE. Those residences were contacted and told to limit their showers to ten minutes, and not to use water to drink or cook.

- Contacted Dr. LuAnn Williams of State Lab Toxicology office. She agreed with our assessment of results and said that the two residences with chlorinated hydrocarbons above the standard MCL for PCE should be taken off their water.

12/18/92 Contacted Karen Walker, DEM from the UST Division. she is to meet me at site on 12/21/92 approximately at 10:30 A.M.

- Phoned Charlotte Jesmick of "Superfund". She added it to Superfund priority list. They will investigate as soon as possible.

- There is 2 distinct problems in this area: Contaminants of a petroleum and the other chlorinated solvents. This suggest that there are two sources feeding different contaminants to site.

- Phoned EPA Region IV, Don Rigger of Atlanta, Ga. This is to help those residences with Chlorinated solvent contamination to receive some help. This help is in the form of bottled water or emergency water tanks.

- Possible source of chlorinated hydrocarbons may have been found. Upon conversation with Sadie Toomey, a residence of this area who lives beside of Mrs. Robertson, she stated that her husband Grady Toomey was in the drum business for years. He went to area chemical companies and industries and collected old chemical drums. He brought drums back to his home and washed them out. Those drums were emptied in a grassy area in his yard near the location of the well. Jim Toomey (Hwy 15 - (827-5200) still is in the business of buying and selling old drums. Jim is Grady Toomey's nephew.

12/21/92 Meet with Karen Walker of the Mooresville DEM office and surveyed site. Will send copies of information on site to her.

- Board of Health meeting - gave presentation on Springwood Site:

  2 samples taken:

  3115 Cedar Street - Resampled
  3118 Cedar Street

12/22/92 Talked with Don Rigger of CPA Region IV Office. Faxed copies of results to him. He said that once he reviewed results he would determine their role in site investigation.

12/23/92 Received call from Don Rigger's, EPA Region IV of Atlanta, Ga. office. Don said Mrs. Toomey could probably quality for help, but that Mrs. Woods well had not yet reached MCL standards for help. Don said that Bruce Ferguson would be our contact from his office.

12/29/93 Bruce Ferguson called to schedule a meeting with Doc Thompson at 11:00 A.M. for 1/5/93.

1/4/93 Received nine more results of water samples taken from Springwood residences. Five of the nine had only traces of chlorinated solvents in their wells. These five are within safe drinking water standards.

1/5/93 Meet Bruce Ferguson of EPA, Region IV office on the Springwood Residences sites. Bruce resampled eight of the previous wells we had sampled. Also two split samples were taken from two new sites by Bruce Ferguson and Doc Thompson. In addition to the two split samples, two other residences were sampled.

- Mr. Stone of Stone's Groceries completed his pressure test on his gas tanks. Report was good on tanks and Mr. Stone is to submit copy of report to Doc Thompson.

- 4 more residences sampled:

  Stones' Groceries
  1028 Hickory Grove Road
  Springwood Church of God
  1028-B Hickory Grove Road

c:\wp51\jdt\springwood

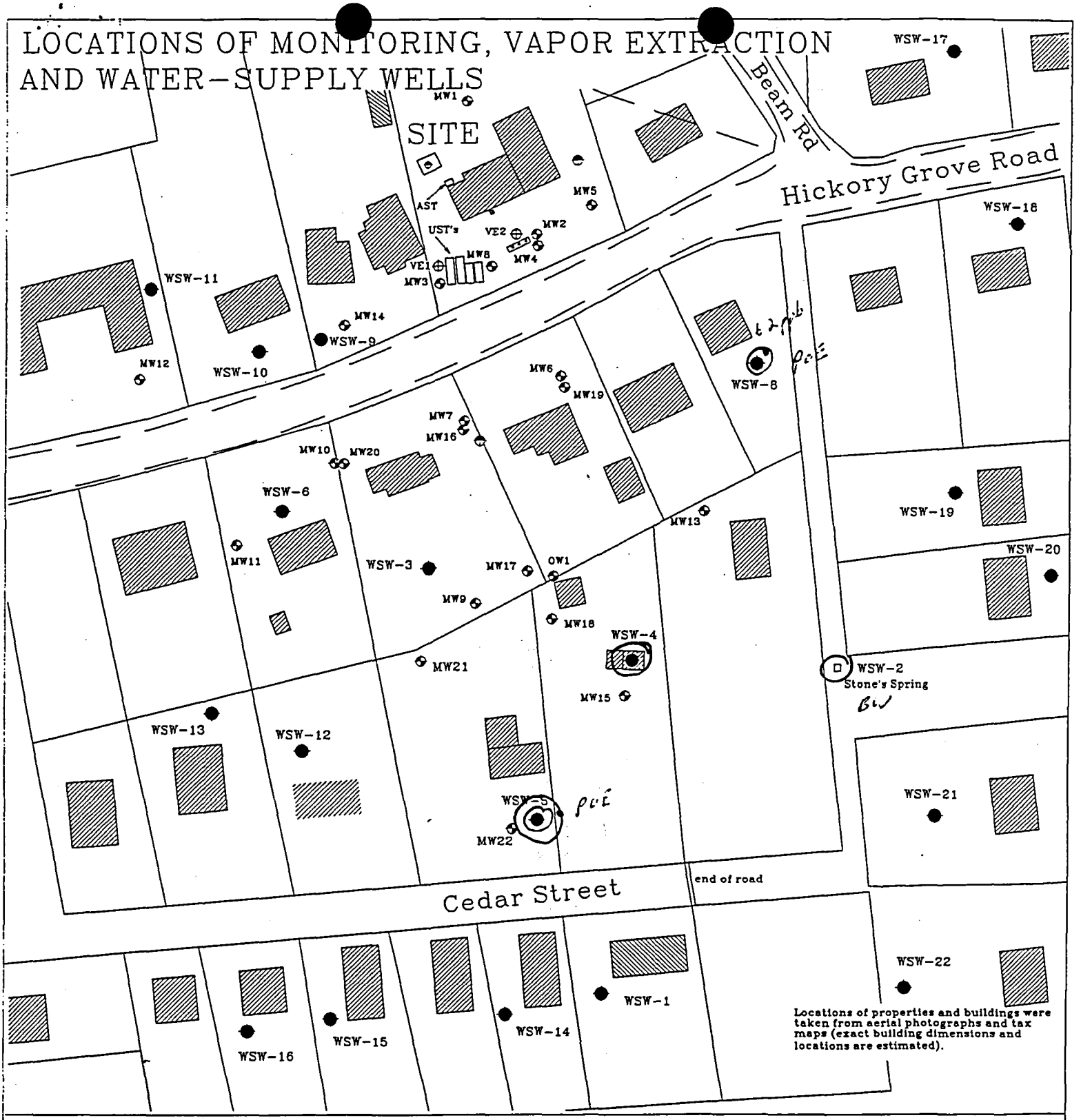
1/11/93 Max Toney's home sampled. He is supplied by the same well that services his mothers home (Sadie Toney) Suggested Mr. Max Toney take same precautions as his mother

1/14/93 Received results of Karen Woods sample. Increase in MTBE. Petroleum products more evident. Contacted Karen Walker of D.E.M. Doc Hooper of Gaston County asked for further assistance.

Also Mr. Alexanders ~~[illegible]~~ result was received. His well is contaminated with ~~[illegible]~~ Chlorinated Solvents

Mark Dunway (Gaston C. Hydrogeologist) visited Ms. Woods & Mr. Alexanders home. Mr. Dunway contacted officials from ~~the~~ State Toxicologist Office and Karen Walker of DEM.

LOCATIONS OF MONITORING, VAPOR EXTRACTION AND WATER-SUPPLY WELLS



LEGEND

UST's = underground storage tanks

AST = aboveground storage tank

MW1	monitoring well	WSW-1	water-supply well
	property line		abandoned water-supply well
	secondary road	VE1	vapor extraction well
	pavement (estimate)		building/residence

SCALE: 0 50 100 200 — 1 inch = 100 feet

North

Pacemaker Leasing Co., Gilliland's Place, Springwood, Gaston County

GROUNDWATER MANAGEMENT ASSOCIATES, INC. | **Figure 2**

• Benzene • Toluene • PCE

Table 1. Surrounding Landowners, Addresses, and Water-Supply Well Data

Name and Address of Surrounding Landowner	Telephone #	Water Supply Well Data	Well #
Bud Alexander, 3118 Cedar St., Gastonia, NC 28056	(704) 827-0949	No details of construction	WSW-1
William Stone, 1028-B Hickory Grove Road, Gastonia, NC 28056	(704) 827-8228	spring is approximately 50 feet below house	WSW-2
Tom Robertson, 1016 Hickory Grove Road, Gastonia, NC 28056	(704) 825-5824	depth = 136	WSW-3
Sadie Toomey, 1020 Hickory Grove Road, Gastonia, NC 28056	(704) 827-2240	depth = 585 casing to 30	WSW-4
Max Toomey, 1022 Hickory Grove Road, Gastonia, NC 28056	(704) 827-2933	Shares WSW-4	WSW-4
William Branham, 3115 Cedar St., Gastonia, NC 28056	(704) 827-8755	No details of construction	WSW-5
Mike Hill, 1010 Hickory Grove Rd, Gastonia, NC 28056	(704) 827-0325	depth = 350 casing to 21	WSW-6
George Phillips, Beam Road, Gastonia, NC 28056	(704) 827-4922	Yes - depth = 550	WSW-7
Gilliland's Place, 1021 Hickory Grove Road, Gastonia, NC 28056	(704) 827-9272	Shares WSW-7	WSW-7
Springwood Cafe. 1024 Hickory Grove Road, Gastonia, NC 28506	(704) 827-8131	Shares WSW-7	WSW-7
Beatrice Lawter, 1028 Hickory Grove Road, Gastonia, NC 28056	(704) 827-6971	depth = 40 casing to 22	WSW-8
James Cathcart, 1017 Hickory Grove Road, Gastonia, NC 28056	(704) 827-4046	depth = 365 casing to 21	WSW-9
J.B. Grindstaff, 1013 Hickory Grove Road, Gastonia, NC 28056	(704) 827-3538	depth = 2857 or 3857 casing to 5	WSW-10
Springwood Church of God, Hickory Grove Rd., Gastonia, NC 28056	(704) 827-7853	No details of construction	WSW-11
T. Wallace, 3113 Cedar St., Gastonia, NC 28056	(704) 822-6742	No details of construction	WSW-12
vacant, 3107 Cedar St., Gastonia, NC 28056		No details of construction	WSW-13
Vera B. Hagen, 3116 Cedar Street, Gastonia, NC 28056	(704) 827-2909	depth = 435 casing to 60	WSW-14
vacant, 3112 Cedar Street, Gastonia, NC 28056		depth = 95 casing to 35	WSW-15
vacant, 3108 Cedar St., Gastonia, NC 28056		No details of construction	WSW-16
Joe Tate's Garage. 1105 Hickory Grove Road, Gastonia, NC 28056	No listing	No details of construction	WSW-17
Mary Martin, 1104 Hickory Grove Road, Gastonia, NC 28056	(704) 827-5469	depth = 100 casing to 40	WSW-18
William Richards, 102 Park Terrace, Gastonia, NC 28056	(704) 822-1453	depth = 65	WSW-19
Lester Wriston, 112 Park Terrace, Gastonia, NC 28056	No listing	depth = 62 casing to 40	WSW-20
Betty Freeman, 200 Park Terrace, Belmont, NC 28012	(704) 827-2453	No details of construction	WSW-21
A.F. Propst, 208 Park Terrace, Belmont, NC 28012	(704) 827-6416	depth = 45	WSW-22
Robert L. Martin, Jr., 1100 Hickory Grove Rd., Gastonia, NC 28056	(704) 827-8683	No details of construction	WSW-23
R.M. Fletcher, 1201 Hickory Grove Rd.,, Gastonia, NC 28056	(704) 827-8846	No details of construction	WSW-24

Depths are in feet. WSW = water-supply well

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CRSC ppb
PCE 0.67
1,1DCE 0.058

Table 2. Analytical Results of Groundwater From Water-Supply Wells - Chlorinated Hydrocarbons

Well	Sample #	Date	1,1,1-TCA	1,2-DCA	1,1-DCE	PCE
15A NCAC 2L Groundwater Standard (in ppb)			200	0.38	7	0.7
WSW-1	924245	12/21/92	4.5	<1	<1	4.5
	GMA	9/22/93	5.1	<1		
	GMA	12/8/93	3.9	<1	0.7 J	7.1
	GMA	9/27/94	2.2	<1	<1	4.8
	GMA	12/14/94	<1	<1	<1	<1
	GMA	3/8/95	<1	<1	<1	<1
WSW-2	930087	1/5/93	10.9	<1	1.8	11.4
	1028-B EPA	1/5/93	9.4 A	<1	1.6 AJ	12A
	GMA	9/22/93	3.9	<1		
	GMA	12/7/93	3.5	<1	1.1	6.1
	GMA	9/27/94	2.5	<1	<1	2.7
	GMA	3/8/95	3.1	<1	<1	6
WSW-3	1016 EPA	1/5/93	230 J	ND	ND	ND
	GMA	9/22/93 *	<1	<1		
	GMA	12/7/93 *	<1	<1	<1	<1
	GMA	9/27/94	<100	<100	<100	<100
WSW-4	923994	11/30/92	59.5	<1	7.5	71.1
	1020 EPA	1/5/93	62 A	ND	9.5 AJ	78 A
	930471	2/12/93	187.6	<1	29.7	166.9
	930134	1/11/93	81.5	<1	11.8	85.5
	930470	[illegible]/12/93	206.1	<1	32.5	188.5
	930472	2/12/93	193.6	<1	32.1	188.3
	GMA	9/22/93 *	<1	<1		
	GMA	12/7/93 *	<1	<1	<1	<1
	GMA	9/27/94	31.7	<10	<10	91.9
	D1 (a) GC	10/26/94	<0.25	<0.25	<0.75	<0.25
	D2 (a) GC	10/26/94	<0.25	<0.25	<0.75	<0.25
	D3 (a) GC	10/26/94	<0.25	<0.25	<0.75	<0.25
	D1 (b) GC	10/26/94	20	<0.25	2.9	56
	D2 (b) GC	10/26/94	<0.25	<0.25	<0.75	<0.25
	D3 (b) GC	10/26/94	<0.25	<0.25	<0.75	<0.25
	GMA	3/8/95	42.9	<5	<5	116

WSW = water-supply well Shaded areas indicate violations of NCAC 2L standards
Samples designated with a six-digit sample code were collected by the Gaston County Health Department.
GMA = sample collected by Groundwater Management Associates, Inc.
EPA = sample collected by US EPA Region IV
GC = sample collected by Geopure Continental
* sample collected after the point-of-entry (POE) treatment system
# = sample collected between carbon units
TCA = Trichloroethane, DCA = Dichloroethane, DCE = Dichloroethene, and PCE = Tetrachloroethene
Sample # 930472 from well WSW-4 contained 1.0 ppb of Trichloroethylene
A = average value J = estimated value ND = No detection limit provided.
(a) = samples taken from the Sadie Toomey residence
(b) = samples taken from teh Max & Kay Toomey residence

Table 2. Analytical Results of Groundwater From Water-Supply Wells - Chlorinated Hydrocarbons (cont.)

Well	Sample #	Date	1,1,1-TCA	1,2-DCA	1,1-DCE	PCE
15A NCAC 2L Groundwater Standard (in ppb)			200	0.38	7	0.7
WSW-5	923997	11/23/92	31.1	<1	4.1	39.8
	924246	12/21/92	15.7	<1	1.8	21.8
	3115 EPA	1/5/93	13 AJ	6.7 AJ	ND	24 AJ
	GMA	9/22/93 *	<1	<1		
	WSW-5-A GMA	12/7/93*	<1	<1	<1	<1
	WSW-5-B GMA	12/7/93 #	<1	<1	<1	<1
	WSW-5-C GMA	12/7/93	27.1 J	<50	<50	<50
	WSW-5-D GMA	12/7/93 *	<1	<1	<1	<1
	D-1 GC	6/3/94	<125	<125	<375	<125
	D-2 GC	6/3/94 #	<0.25	<0.25	<0.75	<0.25
	D-3 GC	6/3/94 *	<0.25	<0.25	<0.75	<0.25
	D1 GC	7/18/94	<10	100	<10	16 J
	D2 GC	7/18/94 #	<0.25	<0.25	<0.75	<0.25
	D3 GC	7/18/94 *	<0.25	<0.25	<0.75	<0.25
	GMA	9/27/94	<500	<500	<500	<500
	D1 GC	11/29/94	6.6	<0.25	0.77	17
	D2 GC	11/29/94 #	<0.25	0.82	<0.75	<0.25
	D3 GC	11/29/94 *	<0.25	<0.25	<0.75	<0.25
	D1 GC	12/15/94	6.0	<0.25	<0.75	17
	D2 GC	12/15/94 #	<0.25	<0.25	<0.75	<0.25
	D3 GC	12/15/94 *	<0.25	<0.25	<0.75	<0.25
	GMA	3/8/95	<500	<500	<500	<500
WSW-6	923909	11/18/92	4.2	<1	<1	<1
	1010 EPA	1/5/93	3.5 AJ	ND	ND	ND
	GMA	9/22/93	<1	<1		
	GMA	12/7/93	<1	<1	<1	<1
	GMA	9/27/94	<1	<1	<1	<1
WSW-7	930583	3/3/93	1.8	<1	<1	<1
	GMA	9/22/93	<1	<1		
	GMA	12/7/93	<1	<1	<1	<1
	GMA	9/27/94	<1	<1	<1	<1
WSW-8	930089	1/5/93	<1	1.1	<1	<1
	1028 EPA	1/5/93	ND	1.6 AJ		ND
	GMA	9/2/93	<1	1	<1	<1
	GMA	12/8/93	<1	<1	<1	<1
	GMA	3/8/95	<1	<1	<1	<1
WSW-9	923910	11/18/92	3.7	<1	<1	<1
	1017 EPA	1/5/93	0.66 AJ	ND	ND	ND
	GMA	12/8/93	<1	<1	<1	<1

WSW = water-supply well Shaded areas indicate violations of NCAC 2L standards

Samples designated with a six-digit sample code were collected by the Gaston County Health Department.

GMA = sample collected by Groundwater Management Associates, Inc.

EPA = sample collected by US EPA Region IV

* sample collected after the point-of-entry (POE) treatment system

= sample collected between carbon units

TCA = Trichloroethane, DCA = Dichloroethane, DCE = Dichloroethene, and PCE = Tetrachloroethene

A = average value J = estimated value ND = No detection limit provided.

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Table 2. Analytical Results of Groundwater From Water-Supply Wells - Chlorinated Hydrocarbons (cont.)

Well	Sample #	Date	1,1,1-TCA	1,2-DCA	1,1-DCE	PCE
15A NCAC 2L Groundwater Standard (in ppb)			200	0.38	7	0.7
WSW-10	930132	1/11/93	12.5	<1	<1	<1
WSW-11	930088	1/5/93	1.2	<1	<1	<1
WSW-12	923996	11/23/92	<1	<1	<1	<1
	GMA	9/27/94	<1	<1	<1	<1
WSW13	924196	12/11/92	<1	<1	<1	<1
WSW14	924198	12/11/92	<1	<1	<1	<1
	GMA	9/27/94	<1	<1	<1	<1
WSW-15	924197	12/11/92	<1	<1	<1	<1
	GMA	9/27/94	<1	<1	<1	<1
WSW-16	924195	12/11/92	<1	<1	<1	<1
WSW-17	923995	11/30/92	<1	<1	<1	<1
WSW-18	923911	11/18/92	<1	<1	<1	<1
	GMA	4/3/95	<1	<1	<1	<1
WSW-19	924202	12/11/92	<1	<1	<1	<1
	GMA	3/8/95	<1	<1	<1	<1
	GMA	4/3/95	<1	<1	<1	<1
WSW-20	924199	12/11/92	<1	<1	<1	<1
	GMA	4/3/95	<1	<1	<1	0.5 J
WSW-21	GMA	4/3/95	<1	<1	<1	3.5
WSW-22	GMA	4/3/95	0.7 J	<1	<1	36.7

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1/21/93

BORE & CORE

919•872•9551

TO: CHRIS DEROLLER

FROM: MARK DURWAY - 853 5200
Gaston Co. Hlth Dept.

Chris —

Here's info on Springwood Ground Water Contamination. If you need analysis sheets let me know.

Also, I collected 3 VOC samples from homes near LeRoy Henderson's in CR Inds area.

Mark Durway

N. C. DEPT. OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT

JAN 22 1993

DIVISION OF ENVIRONMENTAL MANAGEMENT
MOORESVILLE REGIONAL OFFICE

Gail ~~Scogin~~ Scogin

GEOENVIRONMENTAL DRILLING SERVICES • P.O. BOX 58632, RALEIGH, NC 27658 • FAX 919-872-9552

N. C. DEPT. OF NATURAL RESOURCES COMMUNITY DEVELOPMENT
JAN 2 2 1993
DIVISION OF ENVIRONMENTAL MANAGEMENT MOORESVILLE REGIONAL OFFICE

GASTON COUNTY ENVIRONMENTAL HEALTH

INCIDENT LOG

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STAFF INVESTIGATOR: James "Doc" Thompson, R. S.

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12/7/92 Doc Thompson received results on three samples collected on 11/18/92. No petroleum products found; only trace amount of chlorinated hydrocarbons found with levels well below maximum contaminant standards (MCL).

Dr. Ken Rudo and Doc Thompson visited site of well contamination site and met with Mrs. Robertson. Dr. Rudo assured Mrs. Robertson that his office would provide help in seeing that she receive bottled water and an emergency tank so that she could bathe, wash clothes, cook, etc. The cost of the water tank and bottled water would be provided by the North Carolina Trust Fund that is set up for such emergencies. Dr. Rudo and Doc Thompson surveyed the area around the contaminated well site. Dr. Rudo suggested further sampling. Doc told Dr. Rudo he had planned to perform more sampling once VOC bottles were sent from the State Lab. Dr. Rudo said he would provide sampling bottles at no cost. Doc Thompson suggested that we ask for tank tightness test for those service stations and garages who had gas tanks located in the vicinity of the site. Dr. Rudo concurred on this additional approach.

12/9/92 Doc Thompson spoke with Charles Jenkins of Acme, Inc. who supplies tanks to the Springwood Cafe. Mr. Thompson told him that a Tank Tightness Test should be performed. Mr. Jenkins said that such a test had just been completed. A report of the test was faxed and received by Doc Thompson.

12/10/92 Gaston County Health Department received VOC bottles from Dr. Rudo. Mr. Thompson contacted Stone's Grocery and asked for tank tightness test to be performed. Mrs. Stone said that she would perform the Tank Tightness Test and submit a report to Mr. Thompson. To date no contact has been successful with the owners of Tate's Garage concerning Tank Tightness Testing.

12/11/92 Additional samples to be taken from area surrounding contaminated well site on 12/11/92.

Board of Health will be brought up to date as to current status on 12/21/92.

12/11/92 Nine more residences sampled:

1. 3108 Cedar St.
2. 3105 Cedar St.
3. 3112 Cedar St.
4. 3116 Cedar St.
5. 112 Park Terrace
6. 102 Park Terrace
7. 103 Springwood Drive
8. 105 Springwood Drive
9. 209 Bean Road

12/17/92 Four more results received from State Lab. Two out of the four have chlorinated hydrocarbons above the standard MCL for PCE. Those residences were contacted and told to limit their showers to ten minutes, and not to use water to drink or cook.

- Contacted Dr. LuAnn Williams of State Lab Toxicology office. She agreed with our assessment of results and said that the two residences with chlorinated hydrocarbons above the standard MCL for PCE should be taken off their water.

12/18/92 Contacted Karen Walker, DEM from the UST Division. she is to meet me at site on 12/21/92 approximately at 10:30 A.M.

- Phoned Charlotte Jesmick of "Superfund". She added it to Superfund priority list. They will investigate as soon as possible.

- There is 2 distinct problems in this area: Contaminants of a petroleum and the other chlorinated solvents. This suggest that there are two sources feeding different contaminants to site.

- Phoned EPA Region IV, Don Rigger of Atlanta, Ga. This is to help those residences with Chlorinated solvent contamination to receive some help. This help is in the form of bottled water or emergency water tanks.

- Possible source of chlorinated hydrocarbons may have been found. Upon conversation with Sadie Toomey, a residence of this area who lives beside of Mrs. Robertson, she stated that her husband Grady Toomey was in the drum business for years. He went to area chemical companies and industries and collected old chemical drums. He brought drums back to his home and washed them out. Those drums were emptied in a grassy area in his yard near the location of the well. Jim Toomey (Hwy 15 - (827-5200) still is in the business of buying and selling old drums. Jim is Grady Toomey's nephew.

12/21/92 Meet with Karen Walker of the Mooresville DEM office and surveyed site. Will send copies of information on site to her.

- Board of Health meeting - gave presentation on Springwood Site:

  2 samples taken:

  3115 Cedar Street - Resampled
  3118 Cedar Street

12/22/92 Talked with Don Rigger of CPA Region IV Office. Faxed copies of results to him. He said that once he reviewed results he would determine their role in site investigation.

12/23/92 Received call from Don Rigger's, EPA Region IV of Atlanta, Ga. office. Don said Mrs. Toomey could probably quality for help, but that Mrs. Woods well had not yet reached MCL standards for help. Don said that Bruce Ferguson would be our contact from his office.

12/29/93 Bruce Ferguson called to schedule a meeting with Doc Thompson at 11:00 A.M. for 1/5/93.

1/4/93 Received nine more results of water samples taken from Springwood residences. Five of the nine had only traces of chlorinated solvents in their wells. These five are within safe drinking water standards.

1/5/93 Meet Bruce Ferguson of EPA, Region IV office on the Springwood Residences sites. Bruce resampled eight of the previous wells we had sampled. Also two split samples were taken from two new sites by Bruce Ferguson and Doc Thompson. In addition to the two split samples, two other residences were sampled.

- Mr. Stone of Stone's Groceries completed his pressure test on his gas tanks. Report was good on tanks and Mr. Stone is to submit copy of report to Doc Thompson.

- 4 more residences sampled:

  Stones' Groceries
  1028 Hickory Grove Road
  Springwood Church of God
  1028-B Hickory Grove Road

c:\wp51\jdt\springwood

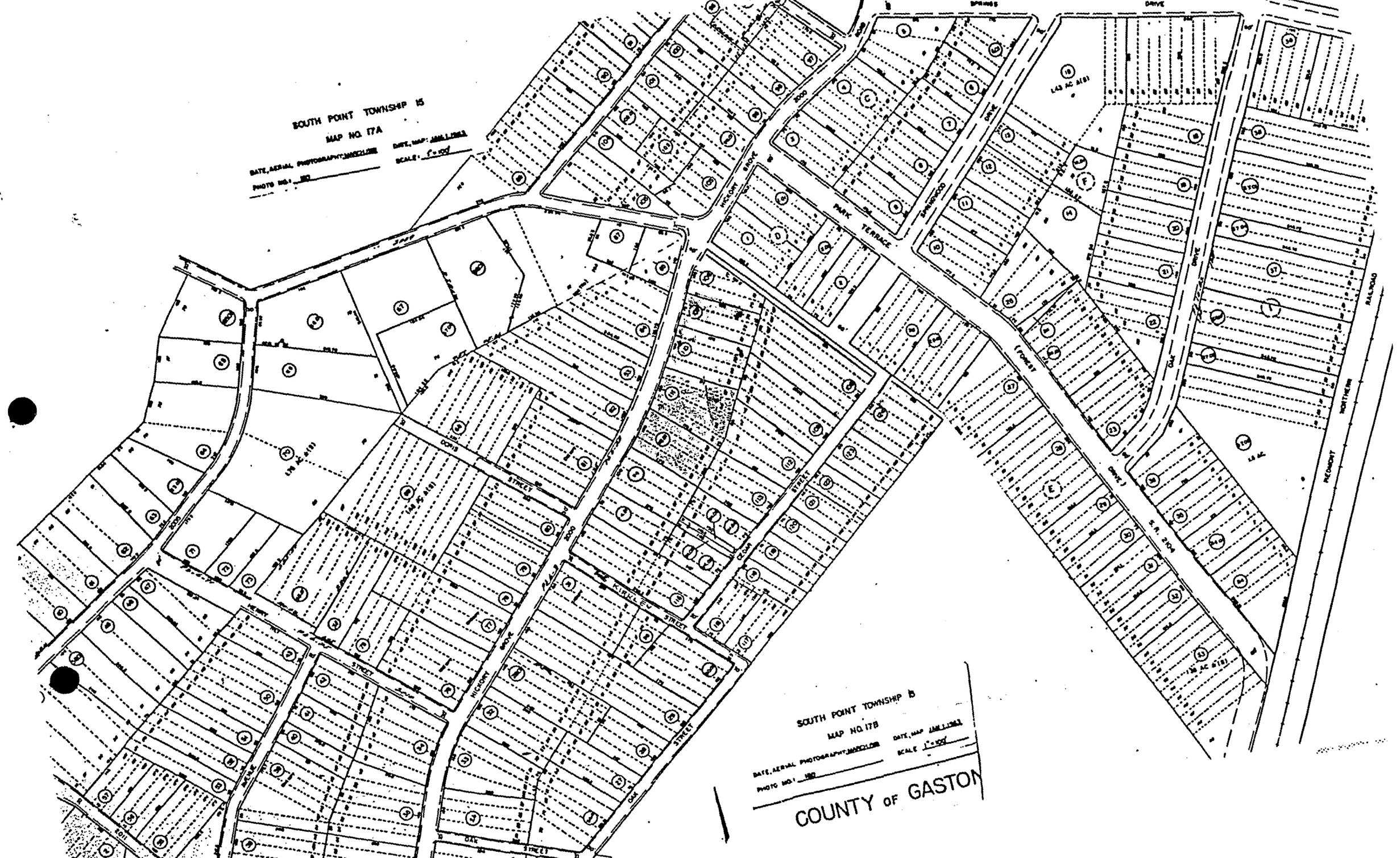
1/11/93 Max Toney's home sampled. He is supplied by the same well that services his mothers home (Sadie Toney) Suggested Mr. Max Toney take same precautions as his mother

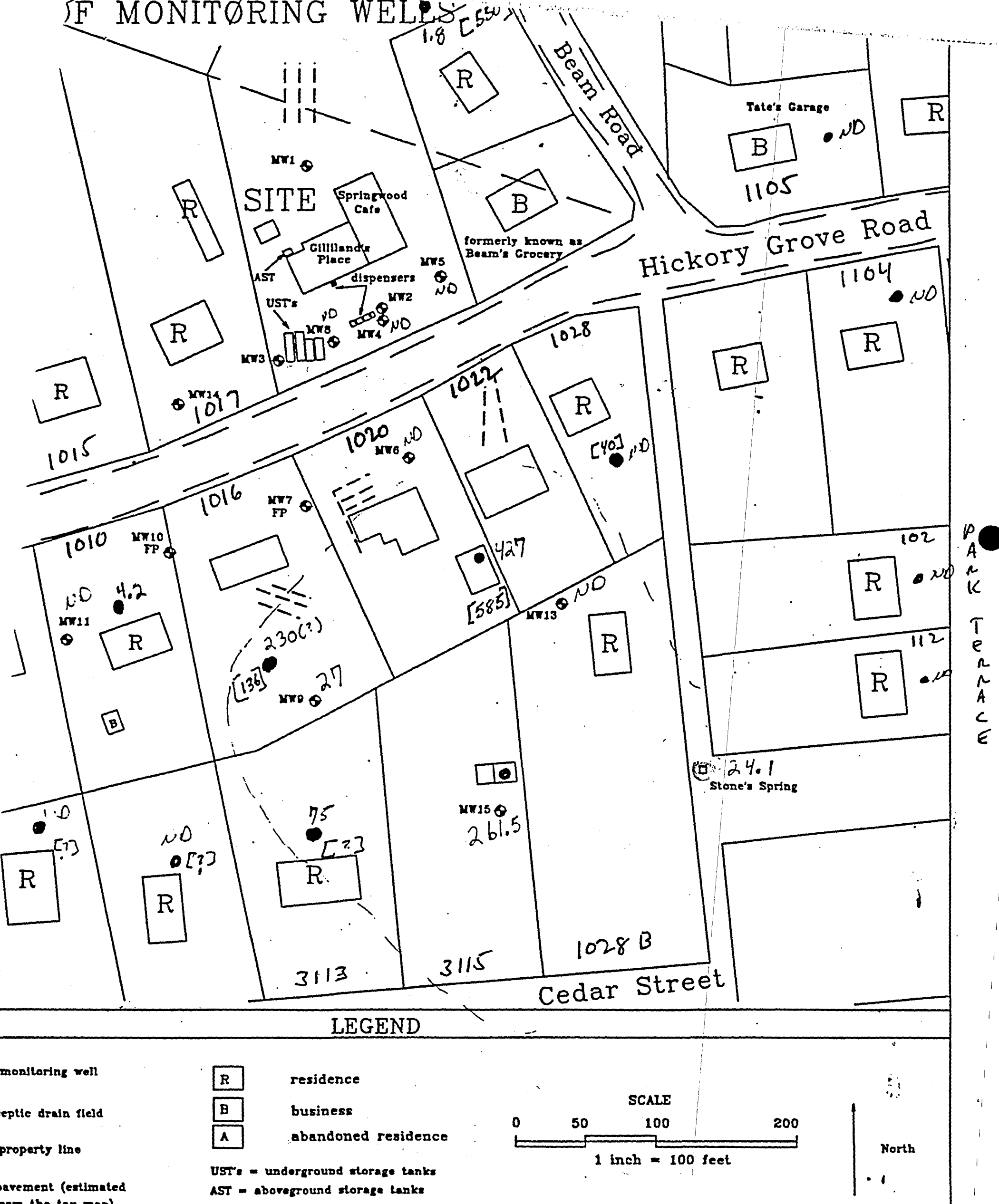
1/14/93 Received results of Karen Woods sample. Increase in MTBE. Petroleum products more evident. Contacted Karen Walker of D.E.M. Doc Hooper of Gaston County asked for futher assistance.

Also Mr. Alexanders ~~[illegible]~~ result was received. His well is contaminated with ~~[illegible]~~ Chlorinated Solvents

Mark Dunway (Gaston C. Hydrogeologist) visited Ms. Woods & Mr. Alexanders home. Mr. Dunway contacted officials from ~~the~~ State Toxicologist Office and Karen Walker of DEM.

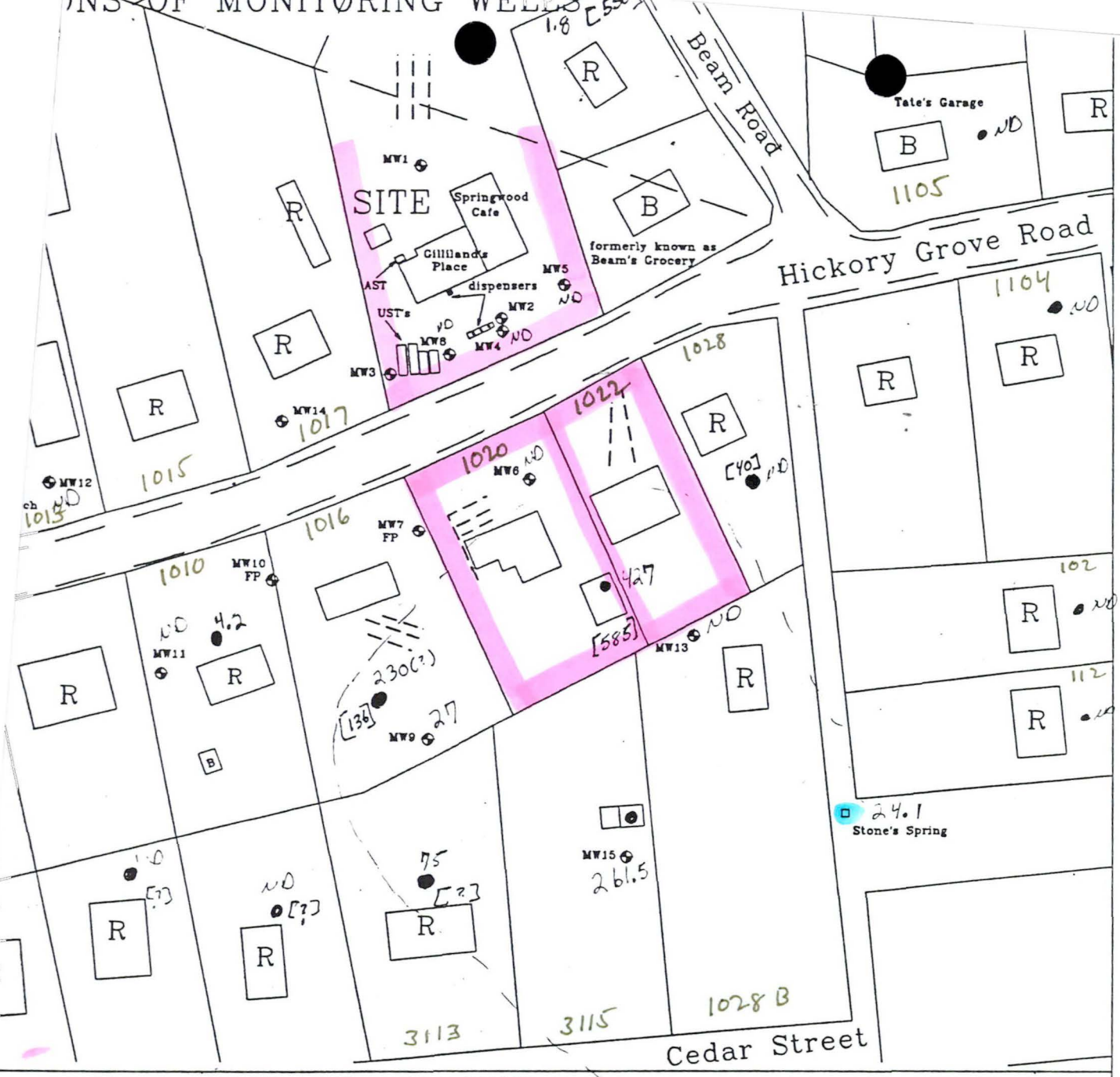
	Name	Address		Date Sampled	MTBE	Isopropylether	Benzene	Toluene	Ethylbenzene	Xylene (p/m)	Xylene (o)	1,3,5 Trimethylbenzene	1,2,4 Trimethylbenzene	Naphthalene	1,1 Dichloroethylene	1,1,1 Trichloroethane	Tetrachloroethylene	1,1 Dichloroethane	Trichloroethylene	1,2 Dichloroethane	Chloroform	1,2 Dibromoethane	
1	Frances Robertson	1016 Hickory Gr Rd. *	•	10/26/92	896 ppb	55.6 ppb	3444.4 ppb	4626.3 ppb	81.4 ppb	1200 ppb	526.7 ppb	27.8 ppb	267.7 ppb	32.2 ppb		<Trace	<Trace			<Trace			
2	Sadie Downey	1020 Hickory Gr Rd. *	•	11/30/92	~~[illegible]~~										9.6 ppb	59.5 ppb	[illegible] ppb	<Trace	<Trace	<Trace			
3	Karen Woods	3115 Cedar Street *	•	11/23/92	35.2 ppb		Trace								4.1 ppb	31.1 ppb	39.8 ppb	<Trace			<Trace		
4	* Karen Woods (Resample)	3115 Cedar Street *	•	12/21/92	91.1 ppb		84.6 ppb	14.6 ppb		73.3 ppb	10.1 ppb	Trace	Trace		1.9 ppb	15.9 ppb	21.8 ppb	<Trace	<Trace	<Trace	<Trace		
5	Doris Wallace	3113 Cedar Street	•	11/23/92													<Trace				<Trace		X
6	Mike Hill	1010 Hickory Gr. Rd	•	11/18/92												4.2 ppb		Trace			<Trace		
7	James Cathcart	1017 Hickory Gr Rd	•	11/18/92												3.7 ppb	Trace	Trace			Trace		
8	Mary Martin	1104 Park Terrace Rd	•	11/18/92												Trace	<Trace				Trace		X
9	Pete's Garage	1105 Hickory Gr Rd.	•	11/30/92													<Trace				<Trace		X
10	Jim Allen	3112 Cedar Street	•	12/11/92													Trace						X
11	Beara Hogan	3116 Cedar Street	•	12/11/92												<Trace	<Trace	Trace	<Trace				X
12	Jester Whisto	112 Park Terrace Rd	•	12/11/92												<Trace	<Trace	Trace		<Trace	<Trace		X
13	Keith Richards	102 Park Terrace Rd.	•	12/11/92												<Trace	<Trace	<Trace			<Trace		X
14	Bill Ferguson	209 Bean Rd	•	12/11/92												<Trace		Trace			Trace		X
15	Mr. Farmer	3108 Cedar Street	•	12/11/92	← No volatile compounds found																		
16	Robert Hall	105 Springwood Dr	•	12/11/92	← No volatile compounds found																		
17	Marie York	103 Springwood Dr	•	12/11/92	← No volatile compounds found																		
18	Mr. Gibson	3105 Cedar Street	•	12/11/92	← No volatile compounds found																		
19	* Bud Alexander	3118 Cedar Street	•	12/21/92	Trace										<Trace	4.5 ppb	4.5 ppb	<Trace		Trace	<Trace		
20	* Stre's Spring	Hickory Grove Rd		1/5/93	3.9 ppb										1.8 ppb	10.9 ppb	11.4 ppb	Trace		Trace			
21	* Stre's Grocery	Hickory Grove Rd		1/5/92													Trace	Trace		Trace			
22	* Springwood Church of God	Hickory Grove Rd		1/5/92												1.2 ppb					<Trace		
23	* Beatrice Lawter	1028 Hickory Gr. Rd.		1/5/92												<Trace	<Trace			1.1 ppb	<Trace	Trace	
24	J.B. Hindstaff	1013 Hickory Gr Rd		11/7/92																			
25	Max Downey	1022 Hickory Gr. Rd. *	•	11/ /92																			


SOUTH POINT TOWNSHIP 15
MAP NO. 17A
DATE, AERIAL PHOTOGRAPHY: MARCH 1963
PHOTO NO.: 350
DATE, MAP: JANUARY 1963
SCALE: 1" = 100'
SOUTH POINT TOWNSHIP 15
MAP NO. 17B
DATE, AERIAL PHOTOGRAPHY: MARCH 1963
PHOTO NO.: 350
DATE, MAP: JANUARY 1963
SCALE: 1" = 100'
COUNTY OF GASTON
PARK TERRACE
HICKORY GROVE
DORIS STREET
KIRKLEY STREET
OAK STREET
FOREST DRIVE
SPRINGWOOD DRIVE
OAK DRIVE
SPRINGS DRIVE
PIEDMONT NORTHERN RAILROAD



Corporation / Gilliland's Place, Springwood, Gaston County

NDWATER MANAGEMENT ASSOCIATES, INC. | Figure 7



LEGEND

MW9	monitoring well
	septic drain field
	property line
	pavement (estimated from the tax map)
	NCSR (North Carolina Secondary Road)
R	residence
B	business
A	abandoned residence

UST's = underground storage tanks
AST = aboveground storage tanks

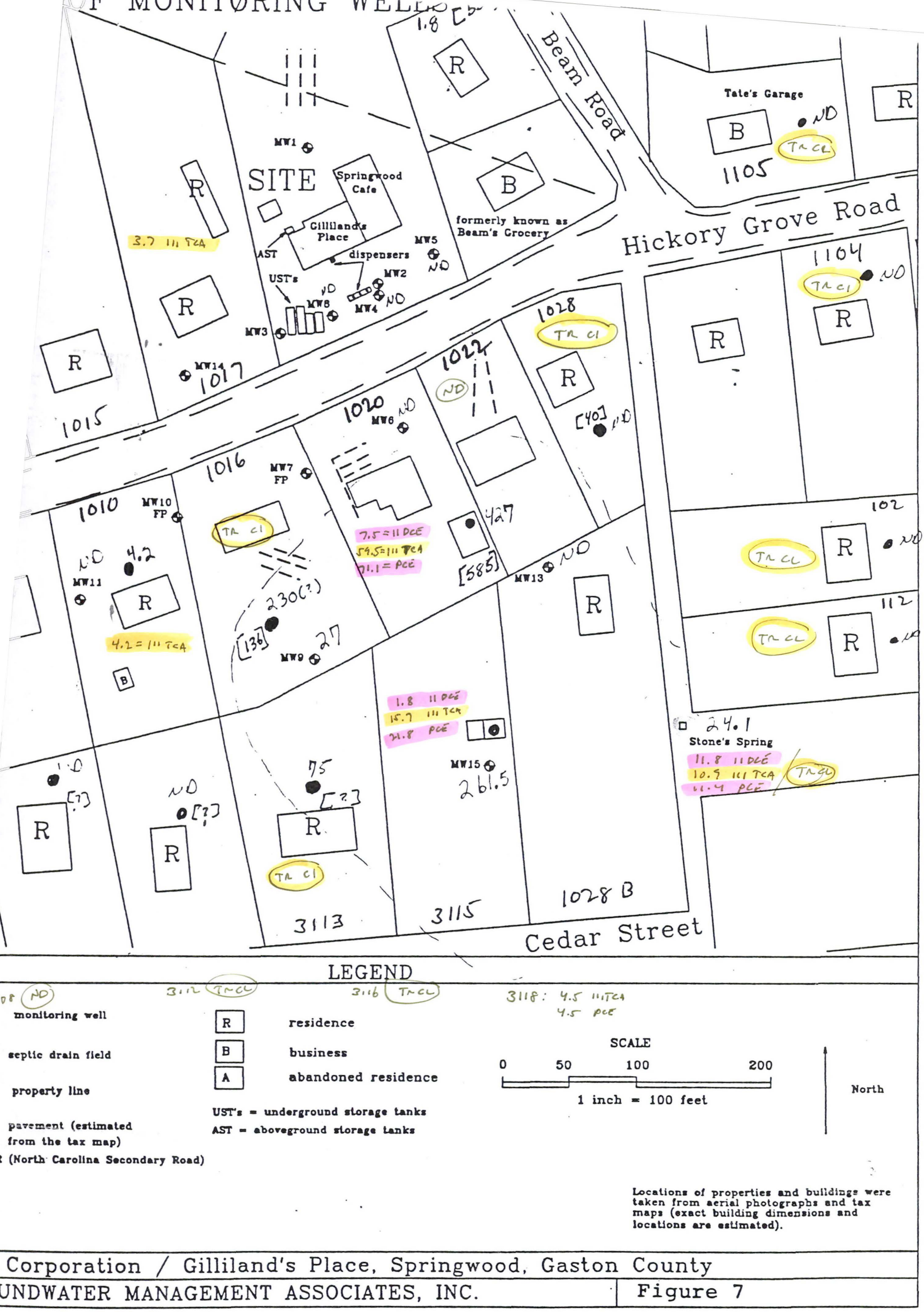
SCALE
0 50 100 200
1 inch = 100 feet

North

Locations of properties and buildings were taken from aerial photographs and tax maps (exact building dimensions and locations are estimated).

aker Corporation / Gilliland's Place, Springwood, Gaston County

GROUNDWATER MANAGEMENT ASSOCIATES, INC. | Figure 7



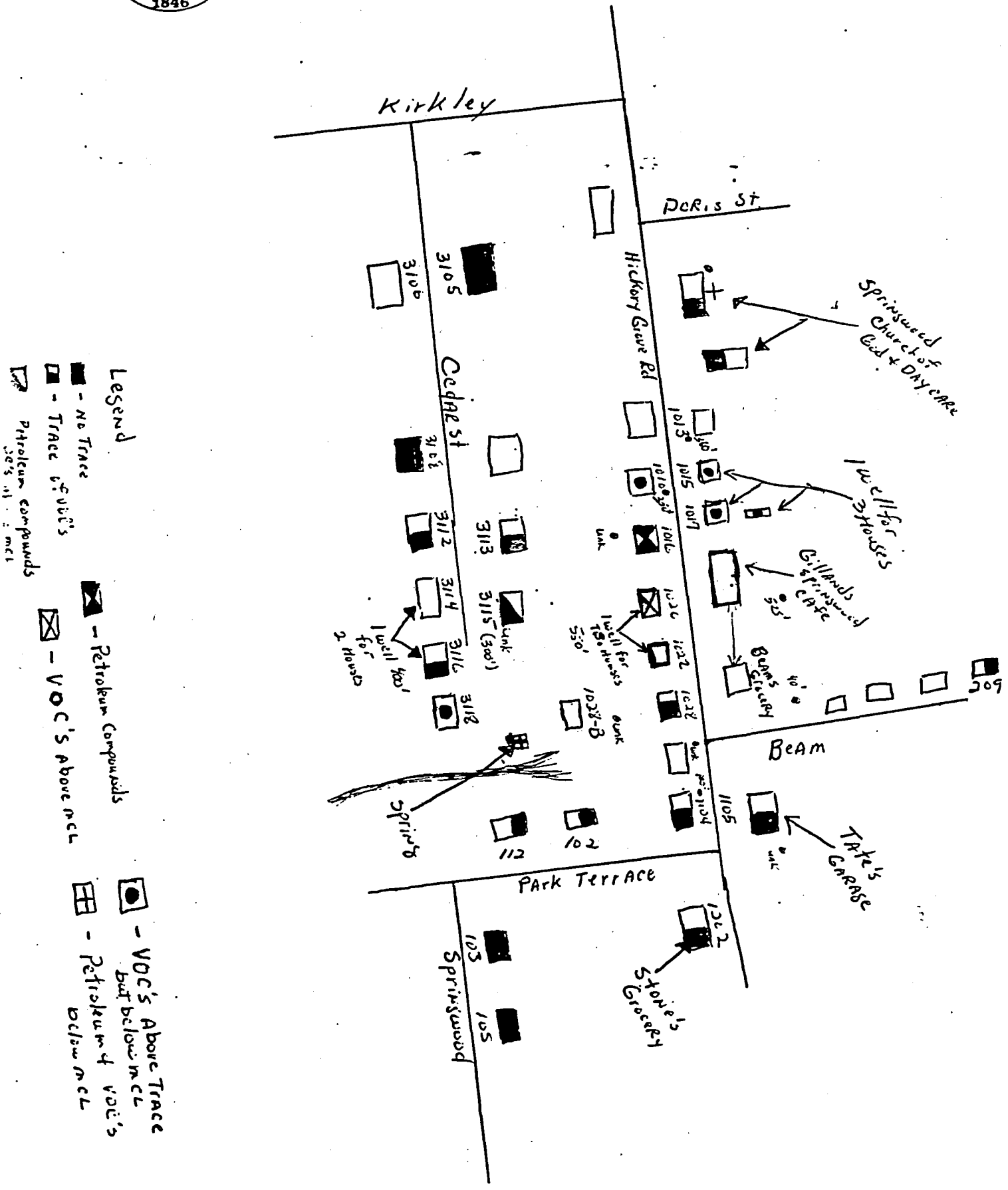
Corporation / Gilliland's Place, Springwood, Gaston County

UNDWATER MANAGEMENT ASSOCIATES, INC. | Figure 7

GASTON COUNTY

ENVIRONMENTAL HEALTH

991 West Hudson Boulevard - Gastonia, North Carolina 28052 - Phone (704)



Stone's Spring

	MTBE	1,1-DCE	1,1,1-TCA	PCE	1,1-DCA	TCE	CIF
1/5/93	3.8	1.8	10.9	11.4	T	ND	ND
3/11/93	14	1.8	11	14	T	ND	T

Bud Alexander

12/21/92	T	T	4.5	4.5	T	ND	T
3/11/93	ND	T	4.0	5.2 E	ND	ND	T

Sadie Toomey

11/30/92	ND	7.5	59.5	71.1	T	T	T
2/23/93	133.7	29.7	187.6	166.9	T	T	T*

* Numerous gasoline constituents are now showing up.

North Carolina Department of Environment, Health, & Natural Resources
Division of Epidemiology
Environmental Epidemiology Section

Drinking Water Health Risk Evaluation
General

Gaston COUNTY

DATE 1/15/93 LABORATORY NUMBER 923995

(✓) Based on these analytical results, this water should be considered safe for normal usage.

( ) Chemical analysis did not show any contamination. Water should be resampled if odor or taste persists.

( ) The water should not be used for drinking or cooking purposes, avoid prolonged bathing/showering.

( ) Based on these analytical results, this water is highly contaminated and should not be used for drinking, cooking or bathing/showering.

( ) The laboratory results are not conclusive, please resample:

PLEASE INDICATE ON LAB SHEET THAT IT IS A RESAMPLE AND PROVIDE PREVIOUS SAMPLE NUMBER(S).

(✓) COMMENTS:
Trace levels should not pose any health risk at this time.

For further information, contact Dr. Ken Rudo or Dr. Luanne Williams, Environmental Epidemiology Section, (919) 733-3410.

DEHNR 3891 (5/92)
Environmental Epidemiology Section (Review 5/95)

North Carolina Department of Environment, Health, & Natural Resources
Division of Epidemiology
Environmental Epidemiology Section

RECEIVED
JAN 27 1993
POLLUTION CONTROL BRANCH

Drinking Water Health Risk Evaluation For
Chlorinated Solvents

Gaston COUNTY

DATE 1/N/93 LABORATORY NUMBER 923994

Based on these analytical results, this water is contaminated with chlorinated solvents which have been widely used (both industrially and in home-use products) for many years. One chlorinated solvent, vinyl chloride, is known to cause cancer in humans. Many other chlorinated solvents have been shown to cause cancer in laboratory animals. However, none of these chemicals is known to cause cancer in humans.

Some chlorinated solvents have not been linked to cancer. For these chemicals, acceptable intake levels are much higher and are based on other health effects.

The U. S. Environmental Protection Agency has set maximum contaminant levels (MCL) for a number of chlorinated solvents. The MCL is the amount of a chemical that is considered acceptable in public drinking water supplies. The maximum contaminant level is not binding for users of private supply wells, but is a useful guideline.

Chemical	This Well (ppb)	Maximum Contaminant Level (ppb)
1,1-dichloroethylene	7.5 ppb	7 ppb
tetrachloroethylene	71.1 ppb	5 ppb

( ) This water is acceptable for all uses due to the very low levels present.
  ( ) Resample in about _____ month(s). (PLEASE INDICATE ON LAB SHEET THAT IT IS A RESAMPLE AND PROVIDE PREVIOUS SAMPLE NUMBER(S).)

(✓) This water is significantly contaminated and should not be used for drinking or cooking. Prolonged bathing/showering should be avoided.

( ) This water is highly contaminated and should not be used for drinking, cooking or bathing/showering.

COMMENTS:
Chlorinated solvent contaminant levels exceed the EPA MCL. Continued water consumption may pose an increased cancer risk over time. Resample in 3-4 months.

For further information, contact Dr. Ken Rudo or Dr. Luanne Williams, Environmental Epidemiology Section, (919) 733-3410.

DEHNR 3893 (5/92)
Environmental Epidemiology Section (Review 5/95)

N.C. Dept. of Environment, Health and Natural Resources
Division of Laboratory Services
State Laboratory of Public Health
P.O. Box 28047, Raleigh, N.C. 27611

VOC

Environmental Sciences Analysis Report

Please Read instruction sheet
VOA vials contain 1:1 HCL

Name of Owner, Patient or Supply: Springwood Residence

Address: Hickory Gr. Rd

County: Gaston

Report To: Don Thorpe

Address: Gaston Co. Health Dept
~~999 W. Hudson Blvd~~
Gastonia, N.C. 28052

Date Collected: 11/30/92

Collected By: Don Thorpe

Analysis Desired: Retrobit VOC

Laboratory Number	Sample Number	Sample Description or Remarks	Results In
923994	Jonny	1020 Hickory Gr Rd	SEE ATTACHED SHEET(S)
923995	Jake	1105 Hickory Gr Rd	SEE ATTACHED SHEET(S)
923999		Trip Blank	NO VOLATILE COMPOUNDS IDENTIFIED

Date Received 12-3-92 WA

Date Reported 12/09/92

Date Extracted

Date Analyzed VOC 12/7/92 JM

Reported By: John R. Neal

DEHNR Form 2364 Revised (9-89)
Laboratory

N. C. DEPARTMENT OF ENVIRONMENT, HEALTH, & NATURAL RESOURCES
DIVISION OF LABORATORY SERVICES, ENVIRONMENTAL SCIENCES SECTION
P.O. BOX 28047 - 306 N. WILMINGTON ST, RALEIGH, N.C. 27611

Laboratory No. 923994 PURGEABLE COMPOUNDS Date of Analysis 12/7/92

COMPOUND	µg/l
Dichlorodifluoromethane	U
Chloromethane	
✓Vinyl Chloride	
Bromomethane	
Chloroethane	
Trichlorofluoromethane	
✓1,1-Dichloroethylene	7.5
Methylene Chloride	U
tert-Butyl Methyl Ether	
✓trans-1,2-Dichloroethylene	
Isopropyl ether	
1,1-Dichloroethane	1K
2,2-Dichloropropane	U
✓cis-1,2-Dichloroethylene	
Chloroform	
(BCM) Bromochloromethane	
✓1,1,1-Trichloroethane	59.5
1,1-Dichloropropene	U
✓Carbon Tetrachloride	
✓Benzene	
✓1,2-Dichloroethane	1K
✓Trichloroethylene	1K
✓1,2-Dichloropropane	U
Bromodichloromethane	
Dibromomethane	
✓Toluene	
1,1,2-Trichloroethane	
✓Tetrachloroethylene	71.1
1,3-Dichloropropane	U
Dibromochloromethane	
1,2-Dibromoethane (EDB)	
1-Chlorohexane	

COMPOUND	µg/l
✓Chlorobenzene	U
✓Ethylbenzene	
1,1,1,2-Tetrachloroethane	
✓p-Xylene	
✓m-Xylene	
✓o-Xylene	
✓Styrene	
Bromoform	
Isopropylbenzene	
1,1,2,2-Tetrachloroethane	
Bromobenzene	
n-Propylbenzene	
1,2,3-Trichloropropane	
2-Chlorotoluene	
1,3,5-Trimethylbenzene	
4-Chlorotoluene	
tert-Butyl Benzene	
Pentachloroethane	
1,2,4-Trimethylbenzene	
sec-Butyl Benzene	
p-Isopropyltoluene	
1,3-Dichlorobenzene	
✓1,4-Dichlorobenzene	
n-Butylbenzene	
✓1,2-Dichlorobenzene	
Bis (2-Chloroisopropyl) Ether	
1,2-Dibromo-3-Chloropropane	
1,2,4-Trichlorobenzene	
Hexachlorobutadiene	
Naphthalene	
1,2,3-Trichlorobenzene	

COMMENTS:

MDL - Minimum Detection Limit for water (EPA Method 502.2), is 1.0 µg/l.

J - Estimated value.
K - Actual value is known to be less than value given.
L - Actual value is known to be greater than value given.
U - Material was analyzed for but not detected.
NA - Not analyzed.
1/ - Tentative identification.
✓ - Regulated VOC
T - Trihalomethane

N.C. Dept. of Environment, Health, & Natural Resources
DEHNR 3068-O (Rev. 10/92 Laboratory Services)
#1532E D-18

N. C. DEPARTMENT OF ENVIRONMENT, HEALTH, & NATURAL RESOURCES
DIVISION OF LABORATORY SERVICES, ENVIRONMENTAL SCIENCES SECTION
P.O. BOX 28047 - 306 N. WILMINGTON ST, RALEIGH, N.C. 27611

Laboratory No. 923995 PURGEABLE COMPOUNDS Date of Analysis 12/7/92

COMPOUND	µg/l
Dichlorodifluoromethane	U
Chloromethane	
✓Vinyl Chloride	
Bromomethane	
Chloroethane	
Trichlorofluoromethane	
✓1,1-Dichloroethylene	
Methylene Chloride	
tert-Butyl Methyl Ether	
✓trans-1,2-Dichloroethylene	
Isopropyl ether	
1,1-Dichloroethane	
2,2-Dichloropropane	
✓cis-1,2-Dichloroethylene	
Chloroform	1K T
(BCM) Bromochloromethane	U
✓1,1,1-Trichloroethane	
1,1-Dichloropropene	
✓Carbon Tetrachloride	
✓Benzene	
✓1,2-Dichloroethane	
✓Trichloroethylene	
✓1,2-Dichloropropane	
Bromodichloromethane	
Dibromomethane	
✓Toluene	
1,1,2-Trichloroethane	
✓Tetrachloroethylene	1K
1,3-Dichloropropane	U
Dibromochloromethane	
1,2-Dibromoethane (EDB)	
1-Chlorohexane	

COMPOUND	µg/l
✓Chlorobenzene	U
✓Ethylbenzene	
1,1,1,2-Tetrachloroethane	
✓p-Xylene	
✓m-Xylene	
✓o-Xylene	
✓Styrene	
Bromoform	
Isopropylbenzene	
1,1,2,2-Tetrachloroethane	
Bromobenzene	
n-Propylbenzene	
1,2,3-Trichloropropane	
2-Chlorotoluene	
1,3,5-Trimethylbenzene	
4-Chlorotoluene	
tert-Butyl Benzene	
Pentachloroethane	
1,2,4-Trimethylbenzene	
sec-Butyl Benzene	
p-Isopropyltoluene	
1,3-Dichlorobenzene	
✓1,4-Dichlorobenzene	
n-Butylbenzene	
✓1,2-Dichlorobenzene	
Bis (2-Chloroisopropyl) Ether	
1,2-Dibromo-3-Chloropropane	
1,2,4-Trichlorobenzene	
Hexachlorobutadiene	
Naphthalene	
1,2,3-Trichlorobenzene	

COMMENTS:

MDL - Minimum Detection Limit for water (EPA Method 502.2), is 1.0 µg/l.

J - Estimated value.
K - Actual value is known to be less than value given.
L - Actual value is known to be greater than value given.
U - Material was analyzed for but not detected.
NA - Not analyzed.
1/ - Tentative identification.
✓ - Regulated VOC
T - Trihalomethane

N.C. Dept. of Environment, Health, & Natural Resources
DEHNR 3068-0 (Rev. 10/92 Laboratory Services)
#1532E D-18

Inc. # 9817

North Carolina Department of Environment, Health, & Natural Resources
Division of Epidemiology
Environmental Epidemiology Section

Drinking Water Health Risk Evaluation
General

Gaston COUNTY

DATE 7/7/93 LABORATORY NUMBER 36710

(✓) Based on these analytical results, this water should be considered safe for normal usage.

( ) Chemical analysis did not show any contamination. Water should be resampled if odor or taste persists.

( ) The water should not be used for drinking or cooking purposes, avoid prolonged bathing/showering.

( ) Based on these analytical results, this water is highly contaminated and should not be used for drinking, cooking or bathing/showering.

( ) The laboratory results are not conclusive, please resample.

RECEIVED
JUL 19 1993
POLLUTION CONTROL BRANCH

PLEASE INDICATE ON LAB SHEET THAT IT IS A RESAMPLE AND PROVIDE PREVIOUS SAMPLE NUMBER(S).

(✓) COMMENTS: low levels should not pose any health risks at this time.

For further information, contact Dr. Ken Rudo or Dr. Luanne Williams, Environmental Epidemiology Section, (919) 733-3410.

DEHNR 3891 (5/92)
Environmental Epidemiology Section (Review 5/95)

COUNTY Gaston

QUAD NO. Q68a-6 SERIAL NO. _____

LAT. 35°16' 18" LONG. 81°03' 50"

North Carolina
Department of Environment, Health, and Natural Resources
Division of Environmental Management
Groundwater Field/Lab Form

LAB NUMBER 8 36710

DATE RECEIVED 5/7/93 Time 9:20

Rec'd by: DS From: Bus-Courier Other _____

Report to: ARO, FRO, MRO, RRO, WaRO, WIRO, WSRO, Kinston FO Other _____

Shipped by: Bus, Courier, Other _____

SAMPLE PRIORITY

[X] ROUTINE [ ] EMERGENCY

RECEIVED JUL 19 1993 POLLUTION CONTROL BRANCH

CHAIN OF CUSTODY

DATA ENTRY BY: 1H CK: DS

DATE REPORTED: 6/2/93

COLLECTOR(S): DeBeller DATE 5/6/93 TIME 1:05 PURPOSE: BASELINE, COMPLAINT, COMPLIANCE, LUST, OTHER (circle one) #9817

FIELD ANALYSES

pH 400 _____ Spec. Cond. 94 _____ at 25°C

Temp. 10 _____ °C Odor _____

Appearance _____ Taste _____

Field Analysis By: _____

Owner Michael Hill (Inc.-Toomey Rd.)

Location or site 1010 Hickory Grove Road, Gastonia

Description of sampling point Top of well head

Sampling Method sub pump (pump, bailer, etc.) Sample Interval T.D. 350'

Remarks _____ (pumping time, air temp, etc.)

RECEIVED JUN 07 1993 POLLUTION CONTROL BRANCH

LABORATORY ANALYSES

	BOD_5 310	mg/l
	COD High 340	mg/l
	COD Low 335	mg/l
	Coliform:MF Fecal 31616	/100ml
	Coliform:MF Total 31504	/100ml
	TOC 680	mg/l
	Turbidity 76	NTU
	pH 403	units
	Alkalinity to pH 4.5 410	mg/l
	Alkalinity to pH 8.3 415	mg/l
	Carbonate 445	mg/l
	Bicarbonate 440	mg/l
	Arsenic:Total 1002	ug/l
	Carbon dioxide 405	mg/l
	Chloride 940	mg/l
	Chromium:Hex 1032	ug/l
	Color:True 80	Pt-Co
	Cyanide 720	mg/l

	Diss. Solids 70300	mg/l
	Fluoride 951	mg/l
	Hardness:Total 900	mg/l
	Hardness (non-carb) 902	mg/l
	Phenols 32730	ug/l
	Specific Cond. 95	uMhos/cm²
	Sulfate 945	mg/l
	Sulfide 745	mg/l
	NH_3 as N 610	mg/l
	TKN as N 625	mg/l
	$NO_2 + NO_3$ as N 630	mg/l
	P:Total as P 665	mg/l

	Ag - Silver 1077	ug/l
	Al - Aluminum 1106	ug/l
	Ba - Barium 1007	ug/l
	Ca - Calcium 916	mg/l
	Cd - Cadmium 1027	ug/l
	Chromium:Total 1034	ug/l
	Cu - Copper 1042	ug/l
	Fe - Iron 1045	ug/l
	Hg - Mercury 71900	ug/l
	K - Potassium 937	mg/l
	Mg - Magnesium 927	mg/l
	Mn - Manganese 1055	ug/l
	Na - Sodium 929	mg/l
	Ni - Nickel 1067	ug/l
	Pb - Lead 1051	ug/l
	Se - Selenium 1147	ug/l
	Zn - Zinc 1092	ug/l

	Organochlorine Pesticides
	Organophosphorus Pesticides
	Acid Herbicides
	Base / Neutral Extractable Organics
	Acid Extractable Organics
X	Purgeable Organics (VOA bottle)
	1,2 - Dibromoethane (EDB)

Lab Comments: _____

6-9 jo

GW-54 REV. 9/90

For Dissolved Analysis - submit filtered sample and write "DISS" in block

White Copy - Groundwater Central Office Yellow Copy - Regional Office Pink Copy - [illegible]

EHNR/DEM LABORATORY
VOLATILE ANALYTICAL REPORT

LAB NO. 3G 710

RECEIVED
JUL 19 1993
POLLUTION CONTROL BRANCH

REPORTED BY
CHECKED BY
REVIEWED BY

SUPERVISOR REK
DATE 6/2/93
ENTERED BY JN
CHECKED BY

SAMPLE TYPE: WATER

CAS#	VOA TARGET COMPOUND	TQL ug/l	DETECTED ug/l
75-35-4	1,1-Dichloroethene	0.75	U
75-09-2	Methylene Chloride	0.25	U
156-60-5	trans-1,2-Dichloroethene	0.75	U
75-34-3	1,1-Dichloroethane	0.25	U
590-20-7	2,2-Dichloropropane	0.25	U
156-59-4	cis-1,2-Dichloroethene	0.25	U
67-66-3	Chloroform	0.25	U
74-97-5	Bromochloromethane	0.75	U
71-55-6	1,1,1-Trichloroethane	0.25	0.85
563-58-6	1,1-Dichloropropene	0.25	U
56-23-5	Carbon Tetrachloride	0.75	U
107-06-2	1,2-Dichloroethane	0.25	U
79-01-6	Trichloroethene	0.25	U
78-87-5	1,2-Dichloropropane	0.25	U
75-27-4	Bromodichloromethane	0.25	U
74-95-3	Dibromomethane	1	U
10061-01-5	cis-1,3-Dichloropropene	0.25	U
10061-02-6	trans-1,3-Dichloropropene	0.25	U
79-00-5	1,1,2-Trichloroethane	0.25	U
127-18-4	Tetrachloroethene	0.25	U
142-28-9	1,3-Dichloropropane	0.25	U
124-48-1	Dibromochloromethane	0.75	U
106-93-4	1,2-Dibromoethane	1	U
108-90-7	Chlorobenzene	0.25	U
630-20-6	1,1,1,2-Tetrachloroethane	0.25	U
75-25-2	Bromoform	0.5	U
79-34-5	1,1,2,2-Tetrachloroethane	0.75	U

CAS#	VOA TARGET COMPOUND	TQL ug/l	DETECTED ug/l
96-18-4	1,2,3-Trichloropropane	0.25	U
108-86-1	Bromobenzene	1	U
95-49-8	2-Chlorotoluene	0.25	U
106-43-4	4-Chlorotoluene	0.25	U
541-73-1	1,3-Dichlorobenzene	0.25	U
106-46-7	1,4-Dichlorobenzene	0.25	U
95-50-1	1,2-Dichlorobenzene	0.25	U
96-12-8	1,2-Dibromo-3-Chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	0.25	U
87-68-3	Hexachlorobutadiene	0.25	U
87-61-6	1,2,3-Trichlorobenzene	0.75	U
1634-04-4	Methyl-tert-butyl ether	5	U
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethyl benzene	1	U
108-38-3	m,p-Xylenes	2	U
95-47-6	o-Xylene	1	U
100-42-5	Styrene	1	U
98-82-8	Isopropylbenzene	1	U
103-65-1	n-Propylbenzene	1	U
108-67-8	1,3,5-Trimethylbenzene	1	U
98-06-6	tert-Butylbenzene	1	U
95-63-6	1,2,4-Trimethylbenzene	1	U
135-98-8	sec-Butylbenzene	1	U
99-87-6	p-isopropyltoluene	1	U
104-51-8	n-Butylbenzene	1	U
91-20-3	Naphthalene	1	U

TQL- Target Quantitation Limit- Subject to change due to instrument sensitivity
T- Tentatively Identified, not confirmed
B- Estimated Value
U- Samples analyzed for this compound but not detected
N- Sample not analyzed for this compound
D- Detected below quantitation limit
M- GC/MS Analysis performed

Other purgeables detected (up to 10 highest peaks) — Detected ug/l

NO VOLATILE ORGANIC COMPOUNDS DETECTED BY GC/PID.

COMMENTS:

North Carolina Department of Environment, Health, & Natural Resources
Division of Epidemiology
Environmental Epidemiology Section

RECEIVED
JAN 27 1995
POLLUTION CONTROL

Drinking Water Health Risk Evaluation
General

Gaston COUNTY

DATE 1/13/95

LABORATORY NUMBER 924195 924200 924196 924207

(✓) Based on these analytical results, this water should be considered safe for normal usage.

( ) Chemical analysis did not show any contamination. Water should be resampled if odor or taste persists.

( ) The water should not be used for drinking or cooking purposes, avoid prolonged bathing/showering.

( ) Based on these analytical results, this water is highly contaminated and should not be used for drinking, cooking or bathing/showering.

( ) The laboratory results are not conclusive, please resample:

PLEASE INDICATE ON LAB SHEET THAT IT IS A RESAMPLE AND PROVIDE PREVIOUS SAMPLE NUMBER(S).

(✓) COMMENTS:
No contaminants detected

For further information, contact Dr. Ken Rudo or Dr. Luanne Williams, Environmental Epidemiology Section, (919) 733-3410.

DEHNR 3891 (5/92)
Environmental Epidemiology Section (Review 5/95)

N.C. Dept. of Environment, Health and Natural Resources
Division of Laboratory Services
State Laboratory of Public Health
P.O. Box 28047, Raleigh, N.C. 27611

Environmental Sciences Analysis Report

Name of Owner, Patient or Supply: Springwood Residences

Address: Hickory Grove Rd Area

County: Gaston

Report To: Doc Thompson - Gaston County Health Dept

Address: 991 W. Hudson Blvd

Gastonia N.C.

Date Collected: 12/11/92

Collected By: Doc Thompson

Analysis Desired: VOA & Petroleum

VOC

Please Read instruction sheet
VOA vials contain 1:1 HCL

Laboratory Number	Sample Number	Sample Description or Remarks	Results In
924195	Farmer	3108 Cedar St.	NO VOLATILE COMPOUNDS IDENTIFIED
924196	Goodson	3105 Cedar St.	NO VOLATILE COMPOUNDS IDENTIFIED
924197	Allen	3112 Cedar St	SEE ATTACHED SHEET(S)
924198	Hagan	3116 Cedar St.	SEE ATTACHED SHEET(S)
924199	Winton	112 Park Terrace	SEE ATTACHED SHEET(S)
924200	Hall	105 Springwood Dr	NO VOLATILE COMPOUNDS IDENTIFIED
924201	York	103 Springwood Dr	NO VOLATILE COMPOUNDS IDENTIFIED
924202	Richards	102 Park Terrace	SEE ATTACHED SHEET(S)
924203	Ferguson	well tap 12/11/92	SEE ATTACHED SHEET(S)
924204		TRIP BLANK 12/9/92	NO VOLATILE COMPOUNDS IDENTIFIED
924205		TRIP BLANK 12/9/92	

Date Received 12-17-92 WB

Date Reported 12/29/92

Date Extracted

Date Analyzed VOC 12/17/92 - 12/28/92 JPM

Reported By: John L. Neal

DEHNR Form 2364 Revised (9-89)
Laboratory

N. C. DEPARTMENT OF ENVIRONMENT, HEALTH, & NATURAL RESOURCES
DIVISION OF LABORATORY SERVICES, ENVIRONMENTAL SCIENCES SECTION
P.O. BOX 28047 - 306 N. WILMINGTON ST, RALEIGH, N.C. 27611

Laboratory No. 924197 PURGEABLE COMPOUNDS Date of Analysis 12/22/92

COMPOUND	µg/l
Dichlorodifluoromethane	U
Chloromethane	
✓Vinyl Chloride	
Bromomethane	
Chloroethane	
Trichlorofluoromethane	
✓1,1-Dichloroethylene	
Methylene Chloride	
tert-Butyl Methyl Ether	
✓trans-1,2-Dichloroethylene	
Isopropyl ether	
1,1-Dichloroethane	
2,2-Dichloropropane	
✓cis-1,2-Dichloroethylene	
Chloroform	
(BCM) Bromochloromethane	
✓1,1,1-Trichloroethane	
1,1-Dichloropropene	
✓Carbon Tetrachloride	
✓Benzene	
✓1,2-Dichloroethane	
✓Trichloroethylene	
✓1,2-Dichloropropane	
Bromodichloromethane	
Dibromomethane	
✓Toluene	
1,1,2-Trichloroethane	✓
✓Tetrachloroethylene	1K
1,3-Dichloropropane	U
Dibromochloromethane	
1,2-Dibromoethane (EDB)	
1-Chlorohexane	✓

COMPOUND	µg/l
✓Chlorobenzene	U
✓Ethylbenzene	
1,1,1,2-Tetrachloroethane	
✓p-Xylene	
✓m-Xylene	
✓o-Xylene	
✓Styrene	
Bromoform	
Isopropylbenzene	
1,1,2,2-Tetrachloroethane	
Bromobenzene	
n-Propylbenzene	
1,2,3-Trichloropropane	
2-Chlorotoluene	
1,3,5-Trimethylbenzene	
4-Chlorotoluene	
tert-Butyl Benzene	
Pentachloroethane	
1,2,4-Trimethylbenzene	
sec-Butyl Benzene	
p-Isopropyltoluene	
1,3-Dichlorobenzene	
✓1,4-Dichlorobenzene	
n-Butylbenzene	
✓1,2-Dichlorobenzene	
Bis (2-Chloroisopropyl) Ether	
1,2-Dibromo-3-Chloropropane	
1,2,4-Trichlorobenzene	
Hexachlorobutadiene	
Naphthalene	
1,2,3-Trichlorobenzene	✓

COMMENTS:

MDL - Minimum Detection Limit for water (EPA Method 502.2), is 1.0 µg/l.

J - Estimated value.
K - Actual value is known to be less than value given.
L - Actual value is known to be greater than value given.
U - Material was analyzed for but not detected.
NA - Not analyzed.
1/ - Tentative identification.
✓ - Regulated VOC
T - Trihalomethane

N.C. Dept. of Environment, Health, & Natural Resources
DEHNR 3068-O (Rev. 10/92 Laboratory Services)
#1532E D-18

N. C. DEPARTMENT OF ENVIRONMENT, HEALTH, & NATURAL RESOURCES
DIVISION OF LABORATORY SERVICES, ENVIRONMENTAL SCIENCES SECTION
P.O. BOX 28047 - 306 N. WILMINGTON ST, RALEIGH, N.C. 27611

Laboratory No. 924198 PURGEABLE COMPOUNDS Date of Analysis 12/22/92

COMPOUND	µg/l
Dichlorodifluoromethane	U
Chloromethane	|
✓Vinyl Chloride	|
Bromomethane	|
Chloroethane	|
Trichlorofluoromethane	|
✓1,1-Dichloroethylene	|
Methylene Chloride	|
tert-Butyl Methyl Ether	|
✓trans-1,2-Dichloroethylene	|
Isopropyl ether	↓
1,1-Dichloroethane	trace
2,2-Dichloropropane	U
✓cis-1,2-Dichloroethylene	|
Chloroform	|
(BCM) Bromochloromethane	↓
✓1,1,1-Trichloroethane	1K
1,1-Dichloropropene	U
✓Carbon Tetrachloride	|
✓Benzene	|
✓1,2-Dichloroethane	↓
✓Trichloroethylene	1K
✓1,2-Dichloropropane	U
Bromodichloromethane	|
Dibromomethane	|
✓Toluene	|
1,1,2-Trichloroethane	↓
✓Tetrachloroethylene	1K
1,3-Dichloropropane	U
Dibromochloromethane	|
1,2-Dibromoethane (EDB)	|
1-Chlorohexane	↓

COMPOUND	µg/l
✓Chlorobenzene	U
✓Ethylbenzene	|
1,1,1,2-Tetrachloroethane	|
✓p-Xylene	|
✓m-Xylene	|
✓o-Xylene	|
✓Styrene	|
Bromoform	|
Isopropylbenzene	|
1,1,2,2-Tetrachloroethane	|
Bromobenzene	|
n-Propylbenzene	|
1,2,3-Trichloropropane	|
2-Chlorotoluene	|
1,3,5-Trimethylbenzene	|
4-Chlorotoluene	|
tert-Butyl Benzene	|
Pentachloroethane	|
1,2,4-Trimethylbenzene	|
sec-Butyl Benzene	|
p-Isopropyltoluene	|
1,3-Dichlorobenzene	|
✓1,4-Dichlorobenzene	
n-Butylbenzene	
✓1,2-Dichlorobenzene	
Bis (2-Chloroisopropyl) Ether	
1,2-Dibromo-3-Chloropropane	
1,2,4-Trichlorobenzene	
Hexachlorobutadiene	
Naphthalene	
1,2,3-Trichlorobenzene	✓

COMMENTS:

MDL - Minimum Detection Limit for water (EPA Method 502.2), is 1.0 µg/l.

J - Estimated value.
K - Actual value is known to be less than value given.
L - Actual value is known to be greater than value given.
U - Material was analyzed for but not detected.
NA - Not analyzed.
1/ - Tentative identification.
✓ - Regulated VOC
T - Trihalomethane

N.C. Dept. of Environment, Health, & Natural Resources
DEHNR 3068-0 (Rev. 10/92 Laboratory Services)
#1532E D-18

N.C. DEPARTMENT OF ENVIRONMENT, HEALTH, & NATURAL RESOURCES
DIVISION OF LABORATORY SERVICES, ENVIRONMENTAL SCIENCES SECTION
P.O. BOX 28047 - 306 N. WILMINGTON ST, RALEIGH, N.C. 27611

Laboratory No. 924199 PURGEABLE COMPOUNDS Date of Analysis 12/28/92

COMPOUND	µg/l
Dichlorodifluoromethane	U
Chloromethane	|
✓Vinyl Chloride	|
Bromomethane	|
Chloroethane	|
Trichlorofluoromethane	|
✓1,1-Dichloroethylene	|
Methylene Chloride	|
tert-Butyl Methyl Ether	|
✓trans-1,2-Dichloroethylene	|
Isopropyl ether	↓
1,1-Dichloroethane	trace
2,2-Dichloropropane	U
✓cis-1,2-Dichloroethylene	↓
Chloroform	1K T
(BCM) Bromochloromethane	U
✓1,1,1-Trichloroethane	1K
1,1-Dichloropropene	U
✓Carbon Tetrachloride	|
✓Benzene	↓
✓1,2-Dichloroethane	1K
✓Trichloroethylene	U
✓1,2-Dichloropropane	|
Bromodichloromethane	|
Dibromomethane	|
✓Toluene	|
1,1,2-Trichloroethane	↓
✓Tetrachloroethylene	1K
1,3-Dichloropropane	U
Dibromochloromethane	|
1,2-Dibromoethane (EDB)	|
1-Chlorohexane	↓

COMPOUND	µg/l
✓Chlorobenzene	U
✓Ethylbenzene	|
1,1,1,2-Tetrachloroethane	|
✓p-Xylene	|
✓m-Xylene	|
✓o-Xylene	|
✓Styrene	|
Bromoform	|
Isopropylbenzene	|
1,1,2,2-Tetrachloroethane	|
Bromobenzene	|
n-Propylbenzene	|
1,2,3-Trichloropropane	|
2-Chlorotoluene	|
1,3,5-Trimethylbenzene	|
4-Chlorotoluene	|
tert-Butyl Benzene	|
Pentachloroethane	|
1,2,4-Trimethylbenzene	|
sec-Butyl Benzene	|
p-Isopropyltoluene	|
1,3-Dichlorobenzene	|
✓1,4-Dichlorobenzene	|
n-Butylbenzene	|
✓1,2-Dichlorobenzene	|
Bis (2-Chloroisopropyl) Ether	|
1,2-Dibromo-3-Chloropropane	|
1,2,4-Trichlorobenzene	|
Hexachlorobutadiene	|
Naphthalene	|
1,2,3-Trichlorobenzene	✓

COMMENTS:

MDL - Minimum Detection Limit for water (EPA Method 502.2), is 1.0 µg/l.

J - Estimated value.
K - Actual value is known to be less than value given.
L - Actual value is known to be greater than value given.
U - Material was analyzed for but not detected.
NA - Not analyzed.
1/ - Tentative identification.
✓ - Regulated VOC
T - Trihalomethane

N.C. Dept. of Environment, Health, & Natural Resources
DEHNR 3068-O (Rev. 10/92 Laboratory Services)
#1532E D-18

N. C. DEPARTMENT OF ENVIRONMENT, HEALTH, & NATURAL RESOURCES
DIVISION OF LABORATORY SERVICES, ENVIRONMENTAL SCIENCES SECTION
P.O. BOX 28047 - 306 N. WILMINGTON ST, RALEIGH, N.C. 27611

Laboratory No. 924202 PURGEABLE COMPOUNDS Date of Analysis 12/28/92

COMPOUND	µg/l
Dichlorodifluoromethane	U
Chloromethane	
✓Vinyl Chloride	
Bromomethane	
Chloroethane	
Trichlorofluoromethane	
✓1,1-Dichloroethylene	
Methylene Chloride	
tert-Butyl Methyl Ether	
✓trans-1,2-Dichloroethylene	
Isopropyl ether	
1,1-Dichloroethane	
2,2-Dichloropropane	
✓cis-1,2-Dichloroethylene	
Chloroform	1K T
(BCM) Bromochloromethane	U
✓1,1,1-Trichloroethane	1K
1,1-Dichloropropene	U
✓Carbon Tetrachloride	
✓Benzene	
✓1,2-Dichloroethane	1K
✓Trichloroethylene	U
✓1,2-Dichloropropane	
Bromodichloromethane	
Dibromomethane	
✓Toluene	
1,1,2-Trichloroethane	
✓Tetrachloroethylene	1K
1,3-Dichloropropane	U
Dibromochloromethane	
1,2-Dibromoethane (EDB)	
1-Chlorohexane	

COMPOUND	µg/l
✓Chlorobenzene	U
✓Ethylbenzene	
1,1,1,2-Tetrachloroethane	
✓p-Xylene	
✓m-Xylene	
✓o-Xylene	
✓Styrene	
Bromoform	
Isopropylbenzene	
1,1,2,2-Tetrachloroethane	
Bromobenzene	
n-Propylbenzene	
1,2,3-Trichloropropane	
2-Chlorotoluene	
1,3,5-Trimethylbenzene	
4-Chlorotoluene	
tert-Butyl Benzene	
Pentachloroethane	
1,2,4-Trimethylbenzene	
sec-Butyl Benzene	
p-Isopropyltoluene	
1,3-Dichlorobenzene	
✓1,4-Dichlorobenzene	
n-Butylbenzene	
✓1,2-Dichlorobenzene	
Bis (2-Chloroisopropyl) Ether	
1,2-Dibromo-3-Chloropropane	
1,2,4-Trichlorobenzene	
Hexachlorobutadiene	
Naphthalene	
1,2,3-Trichlorobenzene	

COMMENTS:

MDL - Minimum Detection Limit for water (EPA Method 502.2), is 1.0 µg/l.

J - Estimated value.
K - Actual value is known to be less than value given.
L - Actual value is known to be greater than value given.
U - Material was analyzed for but not detected.
NA - Not analyzed.
1/ - Tentative identification.
✓ - Regulated VOC
T - Trihalomethane

N.C. Dept. of Environment, Health, & Natural Resources
DEHNR 3068-O (Rev. 10/92 Laboratory Services)
#1532E D-18

N. C. DEPARTMENT OF ENVIRONMENT, HEALTH, & NATURAL RESOURCES
DIVISION OF LABORATORY SERVICES, ENVIRONMENTAL SCIENCES SECTION
P.O. BOX 28047 - 306 N. WILMINGTON ST, RALEIGH, N.C. 27611

Laboratory No. 924203 PURGEABLE COMPOUNDS Date of Analysis 12/28/92

COMPOUND	µg/l
Dichlorodifluoromethane	U
Chloromethane	
✓Vinyl Chloride	
Bromomethane	
Chloroethane	
Trichlorofluoromethane	
✓1,1-Dichloroethylene	
Methylene Chloride	
tert-Butyl Methyl Ether	
✓trans-1,2-Dichloroethylene	
Isopropyl ether	↓
1,1-Dichloroethane	trace
2,2-Dichloropropane	U
✓cis-1,2-Dichloroethylene	↓
Chloroform	trace
(BCM) Bromochloromethane	U
✓1,1,1-Trichloroethane	1K
1,1-Dichloropropene	U
✓Carbon Tetrachloride	
✓Benzene	
✓1,2-Dichloroethane	
✓Trichloroethylene	
✓1,2-Dichloropropane	
Bromodichloromethane	
Dibromomethane	
✓Toluene	
1,1,2-Trichloroethane	
✓Tetrachloroethylene	
1,3-Dichloropropane	
Dibromochloromethane	
1,2-Dibromoethane (EDB)	
1-Chlorohexane	↓

COMPOUND	µg/l
✓Chlorobenzene	U
✓Ethylbenzene	
1,1,1,2-Tetrachloroethane	
✓p-Xylene	
✓m-Xylene	
✓o-Xylene	
✓Styrene	
Bromoform	
Isopropylbenzene	
1,1,2,2-Tetrachloroethane	
Bromobenzene	
n-Propylbenzene	
1,2,3-Trichloropropane	
2-Chlorotoluene	
1,3,5-Trimethylbenzene	
4-Chlorotoluene	
tert-Butyl Benzene	
Pentachloroethane	
1,2,4-Trimethylbenzene	
sec-Butyl Benzene	
p-Isopropyltoluene	
1,3-Dichlorobenzene	
✓1,4-Dichlorobenzene	
n-Butylbenzene	
✓1,2-Dichlorobenzene	
Bis (2-Chloroisopropyl) Ether	
1,2-Dibromo-3-Chloropropane	
1,2,4-Trichlorobenzene	
Hexachlorobutadiene	
Naphthalene	
1,2,3-Trichlorobenzene	✓

COMMENTS:

MDL - Minimum Detection Limit for water (EPA Method 502.2), is 1.0 µg/l.

J - Estimated value.
K - Actual value is known to be less than value given.
L - Actual value is known to be greater than value given.
U - Material was analyzed for but not detected.
NA - Not analyzed.
1/ - Tentative identification.
✓ - Regulated VOC
T - Trihalomethane

N.C. Dept. of Environment, Health, & Natural Resources
DEHNR 3068-O (Rev. 10/92 Laboratory Services)
#1532E D-18

North Carolina Department of Environment, Health, & Natural Resources
Division of Epidemiology
Environmental Epidemiology Section

RECEIVED
JAN 27 1993
POLLUTION CONTROL BRANCH

Drinking Water Health Risk Evaluation
General

Gaston COUNTY

DATE 1/15/93 LABORATORY NUMBER 924197 924199 924203 924198 924202

(✓) Based on these analytical results, this water should be considered safe for normal usage.

( ) Chemical analysis did not show any contamination. Water should be resampled if odor or taste persists.

( ) The water should not be used for drinking or cooking purposes, avoid prolonged bathing/showering.

( ) Based on these analytical results, this water is highly contaminated and should not be used for drinking, cooking or bathing/showering.

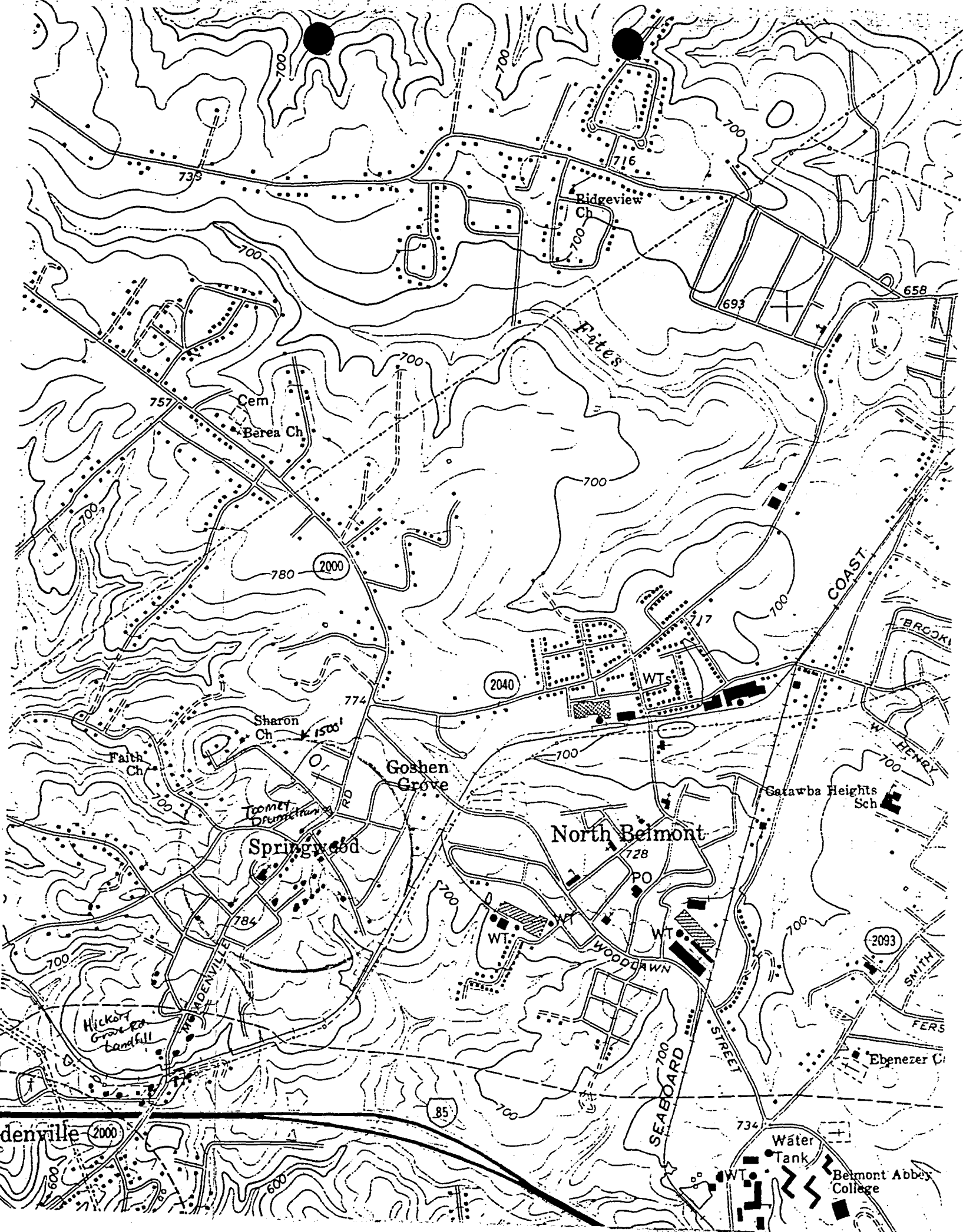
( ) The laboratory results are not conclusive, please resample:

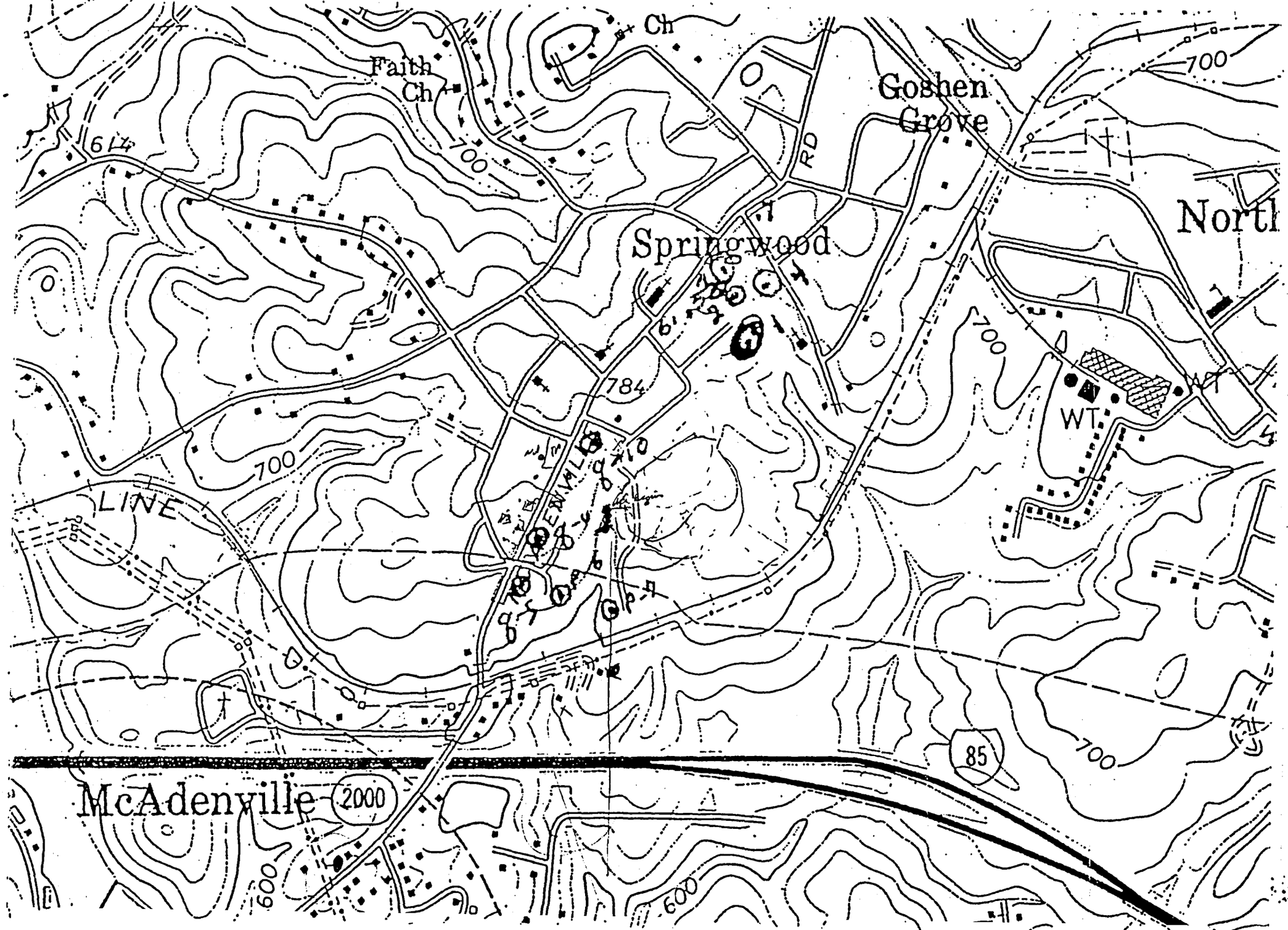
PLEASE INDICATE ON LAB SHEET THAT IT IS A RESAMPLE AND PROVIDE PREVIOUS SAMPLE NUMBER(S).

(✓) COMMENTS:
low levels of chlorinated solvents in each of the above wells should not pose any health risks at this time. Resample in 4-6 months

For further information, contact Dr. Ken Rudo or Dr. Luanne Williams, Environmental Epidemiology Section, (919) 733-3410.

DEHNR 3891 (5/92)
Environmental Epidemiology Section (Review 5/95)


Ridgeview Ch
716
693
658
Fites
Cem
Berea Ch
757
780
2000
2040
WTs
COAST
774
Sharon Ch
1500'
Faith Ch
Goshen Grove
Toomer Drumlin
RD
Springwood
North Belmont
728
PO
WT
WOODLAWN
STREET
SEABOARD
Catawba Heights Sch
W. HENRY
2093
SMITH
Ebenezer
784
MADENVILLE
Hickory Grove Rd landfill
85
734
Water Tank
Belmont Abbey College
denville
600


Ch
Faith
Ch
Goshen
Grove
700
614
700
RD
North
Springwood
784
700
WT
LINE
700
85
700
McAdenville
2000
600
600

Cedar St

North Carolina Department of Environment, Health, & Natural Resources
Division of Epidemiology
Environmental Epidemiology Section

Drinking Water Health Risk Evaluation For
Petroleum Products

RECEIVED

Gaston COUNTY

DATE 1/14/93 JAN 21 1993 LABORATORY NUMBER 934 345

POLLUTION CONTROL BRANCH

This water is probably contaminated with a petroleum product that may be gasoline, fuel oil, kerosene or other.

( ) The movement of chemicals into groundwater is difficult to predict. Although these results indicate that trace levels of contaminants are present, this water is acceptable for normal use now. However, since levels may increase or other chemicals might appear in the future, this water should be resampled in _____ month(s). (PLEASE INDICATE ON LAB SHEET THAT IT IS A RESAMPLE AND PROVIDE PREVIOUS SAMPLE NUMBER(S).)

( ) Your water contains a chemical (benzene) that is known to cause cancer in humans. The U. S. Environmental Protection Agency has set a maximum contaminant level of 5 ug/l (ppb) for benzene. This is the level that is considered acceptable for public water supplies. Even at this level, there may be some risk of cancer. The level of benzene in this water cannot be predicted from one time to another.

( ) Based on this benzene level, this water should not be used for drinking or cooking. Prolonged bathing/showering should be avoided.

( ) This water is highly contaminated and should not be used for drinking, cooking or bathing/showering.

(✓) This water sample contains multiple contaminants that suggest petroleum contamination. Since the toxicity of some of these agents is unknown or poorly understood, prudent public health policy recommends that this water should not be used for drinking and cooking. Prolonged bathing/showering should be avoided.

COMMENTS:

[illegible]

For further information, contact Dr. Ken Rudo or Dr. Luanne Williams, Environmental Epidemiology Section, (919) 733-3410.

DEHNR 3892 (5/92)
Environmental Epidemiology Section (Review 5/95)

N.C. Dept. of Environment, Health and Natural Resources
Division of Laboratory Services
State Laboratory of Public Health
P.O. Box 28047, Raleigh, N.C. 27611

Environmental Sciences Analysis Report

VOC

Name of Owner, Patient or Supply: Springwood Residences

Address: Hickory Grove Rd. Area

County: Gaston

Report To: Doc Thorpe - Gaston County Health Dept

Address: 991 W. Hudson Blvd.
Gastonia, N.C. 28052

Please Read instruction sheet
VOA vials contain 1:1 HCL

Date Collected: 12/21/92

Collected By: Doc Thorpe

Analysis Desired: VOC & Petroleum

Laboratory Number	Sample Number	Sample Description or Remarks	Results In
924245	Alexander	3118 Cedar Street	SEE ATTACHED SHEET(S)
924246	Brown/Nichols	3115 Cedar Street - Receptle	SEE ATTACHED SHEET(S)
924247		VOC Trip Blank	NO VOLATILE COMPOUNDS IDENTIFIED

Date Received 12-28-92 SA

Date Reported 1/7/93

Date Extracted

Date Analyzed VOC 1/4/93 JPM

Reported By: John L. Neal

DEHNR Form 2364 Revised (9-89)
Laboratory

N. C. DEPARTMENT OF ENVIRONMENT, HEALTH, & NATURAL RESOURCES
DIVISION OF LABORATORY SERVICES, ENVIRONMENTAL SCIENCES SECTION
P.O. BOX 28047 - 306 N. WILMINGTON ST, RALEIGH, N.C. 27611

Laboratory No. 924245 PURGEABLE COMPOUNDS Date of Analysis 1/4/93

COMPOUND	µg/l
Dichlorodifluoromethane	U
Chloromethane	
✓Vinyl Chloride	
Bromomethane	
Chloroethane	
Trichlorofluoromethane	
✓1,1-Dichloroethylene	1K
Methylene Chloride	U
tert-Butyl Methyl Ether	trace
✓trans-1,2-Dichloroethylene	U
Isopropyl ether	
1,1-Dichloroethane	1K
2,2-Dichloropropane	U
✓cis-1,2-Dichloroethylene	
Chloroform	1K T
(BCM) Bromochloromethane	U
✓1,1,1-Trichloroethane	4.5
1,1-Dichloropropene	U
✓Carbon Tetrachloride	
✓Benzene	
✓1,2-Dichloroethane	trace
✓Trichloroethylene	U
✓1,2-Dichloropropane	
Bromodichloromethane	
Dibromomethane	
✓Toluene	
1,1,2-Trichloroethane	
✓Tetrachloroethylene	4.5
1,3-Dichloropropane	U
Dibromochloromethane	
1,2-Dibromoethane (EDB)	
1-Chlorohexane	

COMPOUND	µg/l
✓Chlorobenzene	U
✓Ethylbenzene	
1,1,1,2-Tetrachloroethane	
✓p-Xylene	
✓m-Xylene	
✓o-Xylene	
✓Styrene	
Bromoform	
Isopropylbenzene	
1,1,2,2-Tetrachloroethane	
Bromobenzene	
n-Propylbenzene	
1,2,3-Trichloropropane	
2-Chlorotoluene	
1,3,5-Trimethylbenzene	
4-Chlorotoluene	
tert-Butyl Benzene	
Pentachloroethane	
1,2,4-Trimethylbenzene	
sec-Butyl Benzene	
p-Isopropyltoluene	
1,3-Dichlorobenzene	
✓1,4-Dichlorobenzene	
n-Butylbenzene	
✓1,2-Dichlorobenzene	
Bis (2-Chloroisopropyl) Ether	
1,2-Dibromo-3-Chloropropane	
1,2,4-Trichlorobenzene	
Hexachlorobutadiene	
Naphthalene	
1,2,3-Trichlorobenzene	

COMMENTS:

MDL - Minimum Detection Limit for water (EPA Method 502.2), is 1.0 µg/l.

J - Estimated value.
K - Actual value is known to be less than value given.
L - Actual value is known to be greater than value given.
U - Material was analyzed for but not detected.
NA - Not analyzed.
1/ - Tentative identification.
✓ - Regulated VOC
T - Trihalomethane

N.C. Dept. of Environment, Health, & Natural Resources
DEHNR 3068-D (Rev. 10/92 Laboratory Services)
#1532E D-18

N. C. DEPARTMENT OF ENVIRONMENT, HEALTH, & NATURAL RESOURCES
DIVISION OF LABORATORY SERVICES, ENVIRONMENTAL SCIENCES SECTION
P.O. BOX 28047 - 306 N. WILMINGTON ST, RALEIGH, N.C. 27611

Laboratory No. 924246 PURGEABLE COMPOUNDS Date of Analysis 1/4/93

COMPOUND	µg/l
Dichlorodifluoromethane	U
Chloromethane	|
✓Vinyl Chloride	|
Bromomethane	|
Chloroethane	|
Trichlorofluoromethane	↓
✓1,1-Dichloroethylene	1.8
Methylene Chloride	U
tert-Butyl Methyl Ether	91.1
✓trans-1,2-Dichloroethylene	U
Isopropyl ether	↓
1,1-Dichloroethane	1K
2,2-Dichloropropane	U
✓cis-1,2-Dichloroethylene	↓
Chloroform	1K T
(BCM) Bromochloromethane	U
✓1,1,1-Trichloroethane	15.7
1,1-Dichloropropene	U
✓Carbon Tetrachloride	↓
✓Benzene	84.6
✓1,2-Dichloroethane	1K
✓Trichloroethylene	1K
✓1,2-Dichloropropane	U
Bromodichloromethane	|
Dibromomethane	↓
✓Toluene	14.6
1,1,2-Trichloroethane	U
✓Tetrachloroethylene	21.8
1,3-Dichloropropane	U
Dibromochloromethane	|
1,2-Dibromoethane (EDB)	|
1-Chlorohexane	↓

COMPOUND	µg/l
✓Chlorobenzene	U
✓Ethylbenzene	|
1,1,1,2-Tetrachloroethane	↓
✓p-Xylene	} 13.3
✓m-Xylene	}
✓o-Xylene	10.1
✓Styrene	U
Bromoform	|
Isopropylbenzene	|
1,1,2,2-Tetrachloroethane	|
Bromobenzene	|
n-Propylbenzene	|
1,2,3-Trichloropropane	|
2-Chlorotoluene	↓
1,3,5-Trimethylbenzene	trace
4-Chlorotoluene	U
tert-Butyl Benzene	|
Pentachloroethane	↓
1,2,4-Trimethylbenzene	trace
sec-Butyl Benzene	U
p-Isopropyltoluene	|
1,3-Dichlorobenzene	|
✓1,4-Dichlorobenzene	|
n-Butylbenzene	|
✓1,2-Dichlorobenzene	|
Bis (2-Chloroisopropyl) Ether	|
1,2-Dibromo-3-Chloropropane	|
1,2,4-Trichlorobenzene	|
Hexachlorobutadiene	|
Naphthalene	|
1,2,3-Trichlorobenzene	✓

COMMENTS: Unidentified peaks present

MDL - Minimum Detection Limit for water (EPA Method 502.2), is 1.0 µg/l.

J - Estimated value.
K - Actual value is known to be less than value given.
L - Actual value is known to be greater than value given.
U - Material was analyzed for but not detected.
NA - Not analyzed.
1/ - Tentative identification.
✓ - Regulated VOC
T - Trihalomethane

N.C. Dept. of Environment, Health, & Natural Resources
DEHNR 3068-O (Rev. 10/92 Laboratory Services)
#1532E D-18

North Carolina Department of Environment, Health, & Natural Resources
Division of Epidemiology
Environmental Epidemiology Section

Drinking Water Health Risk Evaluation For
Chlorinated Solvents

Gaston COUNTY

DATE 1/14/93 LABORATORY NUMBER 923996

Based on these analytical results, this water is contaminated with chlorinated solvents which have been widely used (both industrially and in home-use products) for many years. One chlorinated solvent, vinyl chloride, is known to cause cancer in humans. Many other chlorinated solvents have been shown to cause cancer in laboratory animals. However, none of these chemicals is known to cause cancer in humans.

Some chlorinated solvents have not been linked to cancer. For these chemicals, acceptable intake levels are much higher and are based on other health effects.

The U. S. Environmental Protection Agency has set maximum contaminant levels (MCL) for a number of chlorinated solvents. The MCL is the amount of a chemical that is considered acceptable in public drinking water supplies. The maximum contaminant level is not binding for users of private supply wells, but is a useful guideline.

Chemical	This Well (ppb)	Maximum Contaminant Level (ppb)
Chloroform	1	100
Tetrachloroethylene	1	5

(✓) This water is acceptable for all uses due to the very low levels present.
(✓) Resample in about 4-6 month(s). (PLEASE INDICATE ON LAB SHEET THAT IT IS A RESAMPLE AND PROVIDE PREVIOUS SAMPLE NUMBER(S).)

( ) This water is significantly contaminated and should not be used for drinking or cooking. Prolonged bathing/showering should be avoided.

( ) This water is highly contaminated and should not be used for drinking, cooking or bathing/showering.

COMMENTS:

Chlorinated solvent contamination is [illegible] contaminant detected [illegible] at the time. Resample in [illegible] months

For further information, contact Dr. Ken Rudo or Dr. Luanne Williams, Environmental Epidemiology Section, (919) 733-3410.

DEHNR 3893 (5/92)
Environmental Epidemiology Section (Review 5/95)

North Carolina Department of Environment, Health, & Natural Resources
Division of Epidemiology
Environmental Epidemiology Section

Drinking Water Health Risk Evaluation For Petroleum Products

Gaston COUNTY
923497

DATE 1/14/93 LABORATORY NUMBER 934246

This water is probably contaminated with a petroleum product that may be gasoline, fuel oil, kerosene or other.

( ) The movement of chemicals into groundwater is difficult to predict. Although these results indicate that trace levels of contaminants are present, this water is acceptable for normal use now. However, since levels may increase or other chemicals might appear in the future, this water should be resampled in ________ month(s). (PLEASE INDICATE ON LAB SHEET THAT IT IS A RESAMPLE AND PROVIDE PREVIOUS SAMPLE NUMBER(S).)

(√) Your water contains a chemical (benzene) that is known to cause cancer in humans. The U. S. Environmental Protection Agency has set a maximum contaminant level of 5 ug/l (ppb) for benzene. This is the level that is considered acceptable for public water supplies. Even at this level, there may be some risk of cancer. The level of benzene in this water cannot be predicted from one time to another.

( ) Based on this benzene level, this water should not be used for drinking or cooking. Prolonged bathing/showering should be avoided.

(√) This water is highly contaminated and should not be used for drinking, cooking or bathing/showering.

( ) This water sample contains multiple contaminants that suggest petroleum contamination. Since the toxicity of some of these agents is unknown or poorly understood, prudent public health policy recommends that this water should not be used for drinking and cooking. Prolonged bathing/showering should be avoided.

COMMENTS:
[illegible]

For further information, contact Dr. Ken Rudo or Dr. Luanne Williams, Environmental Epidemiology Section, (919) 733-3410.

DEHNR 3892 (5/92)
Environmental Epidemiology Section (Review 5/95)

N.C. Dept. of Environment, Health and Natural Resources
Division of Laboratory Services
State Laboratory of Public Health
P.O. Box 28047, Raleigh, N.C. 27611

Environmental Sciences Analysis Report

VOC

Name of Owner, Patient or Supply: Springwood Residences

Address: Hickory Gr. Rd.

County: Gaston

Report To: Doc Thompson

Address: Gaston Co. Health Dept
991 W. Hudson Blvd
Gastonia, N.C. 28052

Please Read instruction sheet
VOA vials contain 1:1 HCL

Date Collected: 11/23/92

Collected By: Doc Thompson

Analysis Desired: Petroleum VOC

Laboratory Number	Sample Number	Sample Description or Remarks	Results In
923996	Wallace I	Tonja Wallace 3113 Cedar St	SEE ATTACHED SHEET(S)
923997	Brown-I	Karen Brown 3115 Cedar St	SEE ATTACHED SHEET(S)
923998		Trip Blank	NO VOLATILE COMPOUNDS IDENTIFIED

Date Received 12-3-92 Wy

Date Reported 12/11/92

Date Extracted

Date Analyzed VOC 12/8-12/8/92 JPM

Reported By: John L. Neal

DEHNR Form 2364 Revised (9-89)
Laboratory

N. C. DEPARTMENT OF ENVIRONMENT, HEALTH, & NATURAL RESOURCES
DIVISION OF LABORATORY SERVICES, ENVIRONMENTAL SCIENCES SECTION
P.O. BOX 28047 - 306 N. WILMINGTON ST, RALEIGH, N.C. 27611

Laboratory No. 923996 PURGEABLE COMPOUNDS Date of Analysis 12/7/92

COMPOUND	µg/l
Dichlorodifluoromethane	U
Chloromethane	
✓Vinyl Chloride	
Bromomethane	
Chloroethane	
Trichlorofluoromethane	
✓1,1-Dichloroethylene	
Methylene Chloride	
tert-Butyl Methyl Ether	
✓trans-1,2-Dichloroethylene	
Isopropyl ether	
1,1-Dichloroethane	
2,2-Dichloropropane	
✓cis-1,2-Dichloroethylene	
Chloroform	1K T
(BCM) Bromochloromethane	U
✓1,1,1-Trichloroethane	
1,1-Dichloropropene	
✓Carbon Tetrachloride	
✓Benzene	
✓1,2-Dichloroethane	
✓Trichloroethylene	
✓1,2-Dichloropropane	
Bromodichloromethane	
Dibromomethane	
✓Toluene	
1,1,2-Trichloroethane	
✓Tetrachloroethylene	1K
1,3-Dichloropropane	U
Dibromochloromethane	
1,2-Dibromoethane (EDB)	
1-Chlorohexane	

COMPOUND	µg/l
✓Chlorobenzene	U
✓Ethylbenzene	
1,1,1,2-Tetrachloroethane	
✓p-Xylene	
✓m-Xylene	
✓o-Xylene	
✓Styrene	
Bromoform	
Isopropylbenzene	
1,1,2,2-Tetrachloroethane	
Bromobenzene	
n-Propylbenzene	
1,2,3-Trichloropropane	
2-Chlorotoluene	
1,3,5-Trimethylbenzene	
4-Chlorotoluene	
tert-Butyl Benzene	
Pentachloroethane	
1,2,4-Trimethylbenzene	
sec-Butyl Benzene	
p-Isopropyltoluene	
1,3-Dichlorobenzene	
✓1,4-Dichlorobenzene	
n-Butylbenzene	
✓1,2-Dichlorobenzene	
Bis (2-Chloroisopropyl) Ether	
1,2-Dibromo-3-Chloropropane	
1,2,4-Trichlorobenzene	
Hexachlorobutadiene	
Naphthalene	
1,2,3-Trichlorobenzene	

COMMENTS:

MDL - Minimum Detection Limit for water (EPA Method 502.2), is 1.0 µg/l.

J - Estimated value.
K - Actual value is known to be less than value given.
L - Actual value is known to be greater than value given.
U - Material was analyzed for but not detected.
NA - Not analyzed.
1/ - Tentative identification.
✓ - Regulated VOC
T - Trihalomethane

N.C. Dept. of Environment, Health, & Natural Resources
DEHNR 3068-O (Rev. 10/92 Laboratory Services)
#1532E D-18

N.C. DEPARTMENT OF ENVIRONMENT, HEALTH, & NATURAL RESOURCES
DIVISION OF LABORATORY SERVICES, ENVIRONMENTAL SCIENCES SECTION
P.O. BOX 28047 - 306 N. WILMINGTON ST, RALEIGH, N.C. 27611

Laboratory No. 923997 PURGEABLE COMPOUNDS Date of Analysis 12/8/92

COMPOUND	µg/l
Dichlorodifluoromethane	U
Chloromethane	|
✓Vinyl Chloride	|
Bromomethane	|
Chloroethane	|
Trichlorofluoromethane	↓
✓1,1-Dichloroethylene	4.1
Methylene Chloride	U
tert-Butyl Methyl Ether	35.2
✓trans-1,2-Dichloroethylene	U
Isopropyl ether	↓
1,1-Dichloroethane	1K
2,2-Dichloropropane	U
✓cis-1,2-Dichloroethylene	↓
Chloroform	1K T
(BCM) Bromochloromethane	U
✓1,1,1-Trichloroethane	31.1
1,1-Dichloropropene	U
✓Carbon Tetrachloride	↓
✓Benzene	trace
✓1,2-Dichloroethane	1K
✓Trichloroethylene	1K
✓1,2-Dichloropropane	U
Bromodichloromethane	|
Dibromomethane	|
✓Toluene	|
1,1,2-Trichloroethane	↓
✓Tetrachloroethylene	39.8
1,3-Dichloropropane	U
Dibromochloromethane	|
1,2-Dibromoethane (EDB)	|
1-Chlorohexane	|

COMPOUND	µg/l
✓Chlorobenzene	U
✓Ethylbenzene	|
1,1,1,2-Tetrachloroethane	|
✓p-Xylene	|
✓m-Xylene	|
✓o-Xylene	|
✓Styrene	|
Bromoform	|
Isopropylbenzene	|
1,1,2,2-Tetrachloroethane	|
Bromobenzene	|
n-Propylbenzene	|
1,2,3-Trichloropropane	|
2-Chlorotoluene	|
1,3,5-Trimethylbenzene	|
4-Chlorotoluene	|
tert-Butyl Benzene	|
Pentachloroethane	|
1,2,4-Trimethylbenzene	|
sec-Butyl Benzene	|
p-Isopropyltoluene	|
1,3-Dichlorobenzene	|
✓1,4-Dichlorobenzene	|
n-Butylbenzene	|
✓1,2-Dichlorobenzene	|
Bis (2-Chloroisopropyl) Ether	
1,2-Dibromo-3-Chloropropane	
1,2,4-Trichlorobenzene	
Hexachlorobutadiene	
Naphthalene	
1,2,3-Trichlorobenzene	✓

COMMENTS:

MDL - Minimum Detection Limit for water (EPA Method 502.2), is 1.0 µg/l.

J - Estimated value.
K - Actual value is known to be less than value given.
L - Actual value is known to be greater than value given.
U - Material was analyzed for but not detected.
NA - Not analyzed.
1/ - Tentative identification.
✓ - Regulated VOC
T - Trihalomethane

N.C. Dept. of Environment, Health, & Natural Resources
DEHNR 3068-0 (Rev. 10/92 Laboratory Services)
#1532E D-18

North Carolina Department of Environment, Health, & Natural Resources
Division of Epidemiology
Environmental Epidemiology Section

N.C. DEPT. OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT

Drinking Water Health Risk Evaluation
General

Gaston COUNTY

DIVISION OF WATER MANAGEMENT MOORESVILLE REGIONAL OFFICE

DATE 12/1/92 LABORATORY NUMBER 923909, 923910, 923911

(✓) Based on these analytical results, this water should be considered safe for normal usage.

( ) Chemical analysis did not show any contamination. Water should be resampled if odor or taste persists.

( ) The water should not be used for drinking or cooking purposes, avoid prolonged bathing/showering.

( ) Based on these analytical results, this water is highly contaminated and should not be used for drinking, cooking or bathing/showering.

( ) The laboratory results are not conclusive, please resample:

PLEASE INDICATE ON LAB SHEET THAT IT IS A RESAMPLE AND PROVIDE PREVIOUS SAMPLE NUMBER(S).

(✓) COMMENTS:
Contaminants are not indicative of gasoline/petroleum. Levels are low and should not pose any health risk upon continued consumption at this time.
Please resample in 3-4 months

For further information, contact Dr. Ken Rudo or Dr. Luanne Williams, Environmental Epidemiology Section, (919) 733-3410.

RECEIVED
DEC 17 1
POLLUTION CONTROL BRANCH

DEHNR 3891 (5/92)
Environmental Epidemiology Section (Review 5/95)

N.C. Dept. of Environment, Health and Natural Resources
Division of Laboratory Services
State Laboratory of Public Health
P.O. Box 28047, Raleigh, N.C. 27611

VOC

Environmental Sciences Analysis Report

Please Read instruction sheet
VOA vials contain 1:1 HCl

Name of Owner, Patient or Supply: Residences of Hickory

Address: Gr. Rd, N. Belmont, N.C.

County: Gaston

Report To: Doc Thompson

Address: Gaston Co. Health Dept
~~991 W. Hudson Blvd~~
Gastonia, N.C. 28052

Date Collected: 11/18/92

Collected By: Doc Thompson

Analysis Desired: VOC & Petroleums

Laboratory Number	Sample Number	Sample Description or Remarks	Results In
928909	Hill-I	Mike Hill 1010 Hickory Gr. Rd.	SEE ATTACHED SHEET(S)
928910	Cath-I	James Cath Cmt 1012 Hickory Gr. Rd.	SEE ATTACHED SHEET(S)
928911	Martin I	Mary Martin 1104 Park Terr Ave Rd	SEE ATTACHED SHEET(S)
928912		Trip Blank	NO VOLATILE COMPOUNDS IDENTIFIED

Date Received 11-23-92 SA

Date Reported 11-27-92

Date Extracted

Date Analyzed VOC 11/23/92 JM

Reported By: John L. Neal

DEHNR Form 2364 Revised (9-89)
Laboratory

N.C. DEPARTMENT OF ENVIRONMENT, HEALTH, & NATURAL RESOURCES
DIVISION OF LABORATORY SERVICES, ENVIRONMENTAL SCIENCES SECTION
P.O. BOX 28047 - 306 N. WILMINGTON ST, RALEIGH, N.C. 27611

Laboratory No. 923909 PURGEABLE COMPOUNDS Date of Analysis 11/23/92

COMPOUND	µg/l
Dichlorodifluoromethane	U
Chloromethane	
✓Vinyl Chloride	
Bromomethane	
Chloroethane	
Trichlorofluoromethane	
✓1,1-Dichloroethylene	
Methylene Chloride	
tert-Butyl Methyl Ether	
✓trans-1,2-Dichloroethylene	
Isopropyl ether	U
1,1-Dichloroethane	trace
2,2-Dichloropropane	U
✓cis-1,2-Dichloroethylene	U
Chloroform	1K T
(BCM) Bromochloromethane	U
✓1,1,1-Trichloroethane	4.2
1,1-Dichloropropene	U
✓Carbon Tetrachloride	
✓Benzene	
✓1,2-Dichloroethane	
✓Trichloroethylene	
✓1,2-Dichloropropane	
Bromodichloromethane	
Dibromomethane	
✓Toluene	
1,1,2-Trichloroethane	
✓Tetrachloroethylene	
1,3-Dichloropropane	
Dibromochloromethane	
1,2-Dibromoethane (EDB)	
1-Chlorohexane	U

COMPOUND	µg/l
✓Chlorobenzene	U
✓Ethylbenzene	
1,1,1,2-Tetrachloroethane	
✓p-Xylene	
✓m-Xylene	
✓o-Xylene	
✓Styrene	
Bromoform	
Isopropylbenzene	
1,1,2,2-Tetrachloroethane	
Bromobenzene	
n-Propylbenzene	
1,2,3-Trichloropropane	
2-Chlorotoluene	
1,3,5-Trimethylbenzene	
4-Chlorotoluene	
tert-Butyl Benzene	
Pentachloroethane	
1,2,4-Trimethylbenzene	
sec-Butyl Benzene	
p-Isopropyltoluene	
1,3-Dichlorobenzene	
✓1,4-Dichlorobenzene	
n-Butylbenzene	
✓1,2-Dichlorobenzene	
Bis (2-Chloroisopropyl) Ether	
1,2-Dibromo-3-Chloropropane	
1,2,4-Trichlorobenzene	
Hexachlorobutadiene	
Naphthalene	
1,2,3-Trichlorobenzene	✓

COMMENTS:

MDL - Minimum Detection Limit for water (EPA Method 502.2), is 1.0 µg/l.

J - Estimated value.
K - Actual value is known to be less than value given.
L - Actual value is known to be greater than value given.
U - Material was analyzed for but not detected.
NA - Not analyzed.
1/ - Tentative identification.
✓ - Regulated VOC
T - Trihalomethane

N.C. Dept. of Environment, Health, & Natural Resources
DEHNR 3068-O (Rev. 10/92 Laboratory Services)
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N. C. DEPARTMENT OF ENVIRONMENT, HEALTH, & NATURAL RESOURCES
DIVISION OF LABORATORY SERVICES, ENVIRONMENTAL SCIENCES SECTION
P.O. BOX 28047 - 306 N. WILMINGTON ST, RALEIGH, N.C. 27611

Laboratory No. 92391D PURGEABLE COMPOUNDS Date of Analysis 11/23/92

COMPOUND	µg/l
Dichlorodifluoromethane	u
Chloromethane	
✓Vinyl Chloride	
Bromomethane	
Chloroethane	
Trichlorofluoromethane	
✓1,1-Dichloroethylene	
Methylene Chloride	
tert-Butyl Methyl Ether	
✓trans-1,2-Dichloroethylene	
Isopropyl ether	↓
1,1-Dichloroethane	trace
2,2-Dichloropropane	u
✓cis-1,2-Dichloroethylene	↓
Chloroform	trace T
(BCM) Bromochloromethane	u
✓1,1,1-Trichloroethane	3.7
1,1-Dichloropropene	u
✓Carbon Tetrachloride	
✓Benzene	
✓1,2-Dichloroethane	
✓Trichloroethylene	
✓1,2-Dichloropropane	
Bromodichloromethane	
Dibromomethane	
✓Toluene	
1,1,2-Trichloroethane	↓
✓Tetrachloroethylene	trace
1,3-Dichloropropane	u
Dibromochloromethane	
1,2-Dibromoethane (EDB)	
1-Chlorohexane	↓

COMPOUND	µg/l
✓Chlorobenzene	u
✓Ethylbenzene	
1,1,1,2-Tetrachloroethane	
✓p-Xylene	
✓m-Xylene	
✓o-Xylene	
✓Styrene	
Bromoform	
Isopropylbenzene	
1,1,2,2-Tetrachloroethane	
Bromobenzene	
n-Propylbenzene	
1,2,3-Trichloropropane	
2-Chlorotoluene	
1,3,5-Trimethylbenzene	
4-Chlorotoluene	
tert-Butyl Benzene	
Pentachloroethane	
1,2,4-Trimethylbenzene	
sec-Butyl Benzene	
p-Isopropyltoluene	
1,3-Dichlorobenzene	
✓1,4-Dichlorobenzene	
n-Butylbenzene	
✓1,2-Dichlorobenzene	
Bis (2-Chloroisopropyl) Ether	
1,2-Dibromo-3-Chloropropane	
1,2,4-Trichlorobenzene	
Hexachlorobutadiene	
Naphthalene	
1,2,3-Trichlorobenzene	✓

COMMENTS:

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N. C. DEPARTMENT OF ENVIRONMENT, HEALTH, & NATURAL RESOURCES
DIVISION OF LABORATORY SERVICES, ENVIRONMENTAL SCIENCES SECTION
P.O. BOX 28047 - 306 N. WILMINGTON ST, RALEIGH, N.C. 27611

Laboratory No. 92.3911 PURGEABLE COMPOUNDS Date of Analysis 11/23/92

COMPOUND	µg/l
Dichlorodifluoromethane	U
Chloromethane	|
✓Vinyl Chloride	|
Bromomethane	|
Chloroethane	|
Trichlorofluoromethane	|
✓1,1-Dichloroethylene	|
Methylene Chloride	|
tert-Butyl Methyl Ether	|
✓trans-1,2-Dichloroethylene	|
Isopropyl ether	|
1,1-Dichloroethane	|
2,2-Dichloropropane	|
✓cis-1,2-Dichloroethylene	|
Chloroform	trace T
(BCM) Bromochloromethane	U
✓1,1,1-Trichloroethane	trace
1,1-Dichloropropene	U
✓Carbon Tetrachloride	|
✓Benzene	|
✓1,2-Dichloroethane	|
✓Trichloroethylene	|
✓1,2-Dichloropropane	|
Bromodichloromethane	|
Dibromomethane	|
✓Toluene	|
1,1,2-Trichloroethane	|
✓Tetrachloroethylene	1K
1,3-Dichloropropane	U
Dibromochloromethane	|
1,2-Dibromoethane (EDB)	|
1-Chlorohexane	|

COMPOUND	µg/l
✓Chlorobenzene	U
✓Ethylbenzene	|
1,1,1,2-Tetrachloroethane	|
✓p-Xylene	|
✓m-Xylene	|
✓o-Xylene	|
✓Styrene	|
Bromoform	|
Isopropylbenzene	|
1,1,2,2-Tetrachloroethane	|
Bromobenzene	|
n-Propylbenzene	|
1,2,3-Trichloropropane	|
2-Chlorotoluene	|
1,3,5-Trimethylbenzene	|
4-Chlorotoluene	|
tert-Butyl Benzene	|
Pentachloroethane	|
1,2,4-Trimethylbenzene	|
sec-Butyl Benzene	|
p-Isopropyltoluene	|
1,3-Dichlorobenzene	|
✓1,4-Dichlorobenzene	|
n-Butylbenzene	|
✓1,2-Dichlorobenzene	
Bis (2-Chloroisopropyl) Ether	
1,2-Dibromo-3-Chloropropane	
1,2,4-Trichlorobenzene	
Hexachlorobutadiene	
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