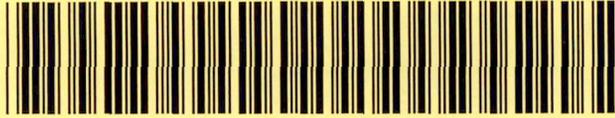


1038IHSSF1105



DocumentID NONCD0002841

Site Name GOBLE WELL

DocumentType Correspondence (C)

RptSegment 1

DocDate 3/21/1996

DocRcvd 3/21/1996

Box SF1105

AccessLevel PUBLIC

Division WASTE MANAGEMENT

Section SUPERFUND

Program IHS (IHS)

DocCat FACILITY

MEMO

DATE: 3/21/96

TO: File

SUBJECT: Neal Goble
Incident # 3486

Need to make a site visit to verify that no wells in use & everybody has city water. Then write closure letter & officially close out file.

5/14/97

SITE VISIT VERIFIED CW CONNECTIONS TO ALL. Do NOT WANT TO close SITE ~~W/~~ DUE TO OTHER CONTAMINANTS IN WELLS (i.e., CHLOR. SOLVENTS). Will REVIEW FILE COMPLETELY IN FUTURE

LANSOR D

From: Julie Berry



North Carolina Department of Environment,
Health, and Natural Resources

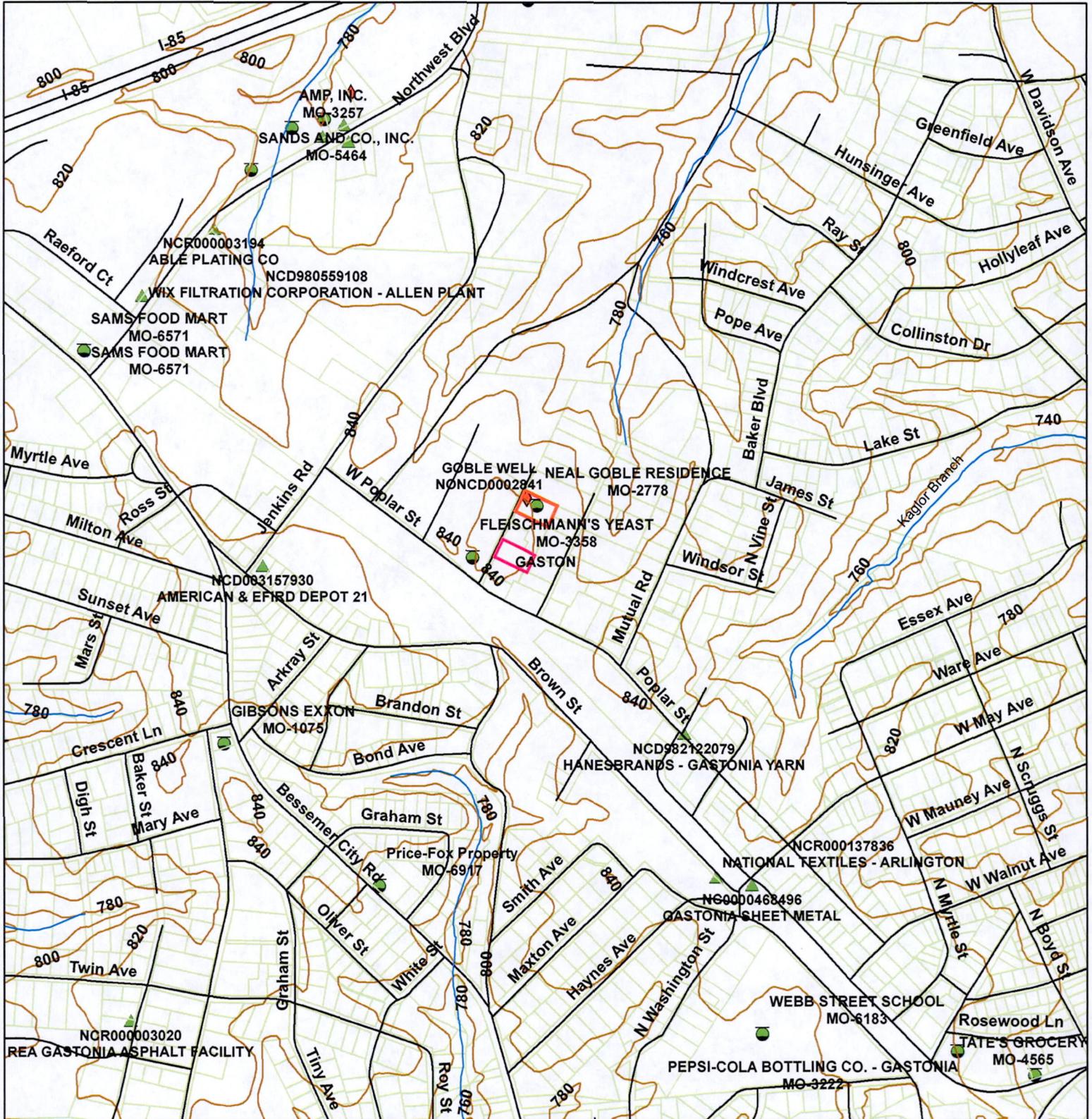


Printed on Recycled Paper

Goble Well:

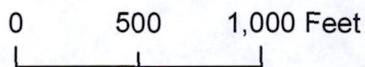
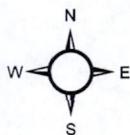
Mid-1980's-1990's file recently referred to IHSB from UST. They had the site listed as #3468 but it is not in the APS database. Pesticides contamination in supply well(s). Processed into the IHSB inventory by Bruce Lefler in October 2008.

Fmr Goble Well site - NONCD0002841 Gastonia, Gaston Co



Legend

- Export_USIncidents
- ◆ AllDryCleaners
- ▲ HWS Sites
- ◆ IHSB Sites
- Gast_dotroads
- Catawba Basin Lines
- 444 N McGuire St (Fmr Neil Goble Residence)
- 416 N McGuire St (May Black Residence)



Chemical	Neil Goble Well (444 N. McGuire St) 5/19/87	May Black Well (416 N. McGuire St) 9/11/87	Joyce Goble (425 Beech St) 9/11/87	Kirby Hoffman (? N. McGuire St) 9/11/87	15A NCAC 2L Standard	EPA Federal MCL
Beta BHC	0.06	BDL	BDL	BDL	NS	NS
2,4,5-T	0.03	BDL	BDL	BDL	NS	NS
1,1 Dichloroethane	0.25	BDL	BDL	BDL	6	NS
Chloroform	0.95	BDL	BDL	BDL	70	Secondary TTHMs combined 80
Trichloroethene	0.49	0.067	BDL	BDL	3	5
Tetrachloroethane	0.62	0.054	BDL	BDL	0.7	5
Tech-Chlordane (total)	BDL	0.9	BDL	BDL	0.1	2

BDL = Below Detection Limits

NS = No Standard



Files

State of North Carolina
Department of Natural Resources and Community Development
Mooresville Regional Office

James C. Martin, Governor
S. Thomas Rhodes, Secretary

Albert F. Hilton, Regional Manager

DIVISION OF ENVIRONMENTAL MANAGEMENT

June 1, 1988

Mrs. Joyce Goble
425 Beech St.
Gastonia, N. C. 28052

RE: Health Risk Assessment

Dear Mrs. Goble:

Please find attached a copy of the Health Risk Assessment performed by Dr. Ted Taylor on your well located 0.1 mile North on Beech Street on west side in Gastonia, Gaston County.

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

Sincerely,

Tony R. Parker /pb

Tony Parker
Hydrogeologic Technician

Approved by,

Eric J. Klingel /pb

Eric J. Klingel, Ph.D.
Hydrogeologic Regional Supervisor

cc: Gaston County Health Department

TRP:pb



Jiles

State of North Carolina
Department of Natural Resources and Community Development
Mooresville Regional Office

James G. Martin, Governor
S. Thomas Rhodes, Secretary

Albert F. Hilton, Regional Manager

DIVISION OF ENVIRONMENTAL MANAGEMENT

June 1, 1988

Ms. Mae Black
416 N. McGuire Street
Gastonia, N. C.

RE: Health Risk Assessment

Dear Ms. Black:

Please find attached a copy of the Health Risk Assessment performed by Dr. Ted Taylor on your well located at 416 N. McGuire Street, Gastonia, N. C., in Gaston County.

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

Sincerely,

Tony R. Parker /pb

Tony R. Parker
Hydrogeologic Technician

Approved by,

Eric J. Klingel /pb

Eric J. Klingel, Ph.D.
Hydrogeologic Regional Supervisor

cc: Gaston County Health Department

TRP:pb



JFH

State of North Carolina
Department of Natural Resources and Community Development
Mooresville Regional Office

James G. Martin, Governor
S. Thomas Rhodes, Secretary

Albert F. Hilton, Regional Manager

DIVISION OF ENVIRONMENTAL MANAGEMENT

June 1, 1988

Mr. Kirby Hoffman
N. McGuire St.
Gastonia, N. C.

RE: Health Risk Assessment

Dear Mr. Hoffman:

Please find attached a copy of the Health Risk Assessment performed by Dr. Ted Taylor on your well located on N. McGuire Street, Gastonia, North Carolina, Gaston County.

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

Sincerely,

Tony R. Parker /pb

Tony R. Parker
Hydrogeologic Technician

Approved by,

Eric J. Klingel /pb

Eric J. Klingel, Ph.D.
Hydrogeologic Regional Supervisor

cc: Gaston County Health Dept.

TRP:pb

90 bnc
2-15-90
city

Incident Name Neal Goble Residence
Region/County Mooresville / GASTON
Groundwater Incident File # 3486
Ranking Performed by J.W.W. Date 3/14/88

NORTH CAROLINA

GROUNDWATER CONTAMINATION INCIDENT MANAGEMENT
SITE PRIORITY RANKING SYSTEM

	<u>Points</u> <u>Awarded</u>
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; award 50 points total	<u>0</u>
B. Fire - free product subject to ignition in exposed areas such as surface water impoundments, streams, excavations, etc.; award 50 points total	<u>0</u>
II. EXPOSURE ASSESSMENT	
A. Contaminated Drinking Water Supplies	
1. Private, domestic water supply well containing substances in concentrations exceeding Class GA underground water quality standards; award 10 points per well	0 8/26/88 EJK
2. Public or institutional water supply well containing substances in concentrations exceeding Class GA underground water quality standards; award 30 points per well	<u>0</u>
3. Exceedences of Class WS-1 surface water quality standards as a result of groundwater discharge; award 20 points per surface water body impacted	<u>0</u>
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	<u>0</u>

B. Threat To Uncontaminated Drinking Water Supplies

1. Private, domestic water supply well located within 1500 feet downgradient of contaminant source; award 10 points per well
2. Public or institutional water supply well located within 1/2 mile 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 is located within 250 feet of contaminant source; award additional 20 points total

10

0

0

~~20~~ city water now here 2-15-90

C. Vapor Phase Exposure

1. Product vapors detected in inhabitable building(s); award 30 points total
2. Product vapors detected in other confined areas (uninhabitable buildings, sewer lines, utility vaults, etc.); award 5 points total

0

0

III. CONTAMINANT HAZARD ASSESSMENT (chemical groups are categorized based on toxicity, mobility and persistence in the environment). Evaluate the most hazardous substances detected and select only one of the following:

- A. Award 30 points total if contaminants detected are identified with any of the following groups:

30

1. Aromatic (Benzene) Acids
2. Aromatic Hydrocarbons (Benzene Derivatives)
3. Sulfonated Hydrocarbons
4. Halogenated Hydrocarbons
5. Alkaloids
6. Anilines
7. Phenols
8. Aldehydes
9. Ketones
10. Organic Sulfur Compounds (Sulfides, Mercaptans)
11. Organometallic Compounds

12. Cyanides
13. Esters
14. Metal Salts, Including Heavy Metals

B. Award 20 points total if contaminants detected are identified with any of the following groups: 0

1. Aliphatic (Fatty) Acids
2. Alcohols
3. Aliphatic Hydrocarbons (Petroleum Derivative)
4. Pyridines
5. Thiocyanides
6. Mineral and Metal Acids
7. Mineral and Metal Bases
8. Oxides
9. Sulfides

C. Award 10 points total if contaminants detected are identified with any of the following groups: 0

1. Aliphatic Amines and Their Salts
2. Sugars and Cellulose
3. Carbon and Graphite

IV. SOURCE ASSESSMENT

A. Free product thickness of $\geq 1/4$ inch detected on water table in observation or monitoring well; award 20 points total 0

B. Contaminated Soil (select only one answer)

1. Soil saturated with product (saturation determined by release of free liquid upon compaction of a soil sample by hand pressure); award 10 points total 0

2. Soil exhibiting organic vapor content above 100 ppm as measured by organic vapor or volatile organic detection equipment; award 5 points total 0

C. 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 20 points per source 20
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 0

V. ENVIRONMENTAL VULNERABILITY ASSESSMENT

- A. Vertical Contaminant Migration - Literature or well logs indicate that no confining layer is present above bedrock or above twenty feet below 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. Hydraulic Gradient Is Determined By (select only one answer):
 1. Calculations based on groundwater level measurements; award 10 points total 0
 2. Observation of significant recharge/discharge features in the vicinity of contaminant source and local topographic features; award 5 points total 0
 3. Observation of local topographic features only; award 0 points 0
- D. Existing Groundwater Quality
 1. Analytical test(s) performed on groundwater sample(s) obtained from site confirm presence of substances in concentrations exceeding Class GA underground water quality standards; award 10 points total 10
 2. Source(s) identified in Section IV constitute the only known source(s) of contamination resulting in exposure or potential exposure identified in Section II; award 10 points total ~~10~~ 0 sk/26/88
EK

TOTAL POINTS AWARDED

~~10~~ 90
H0 8/26/88
mc EK



Files

State of North Carolina
Department of Natural Resources and Community Development
Mooresville Regional Office

James G. Martin, Governor
S. Thomas Rhodes, Secretary

Albert F. Hilton, Regional Manager

DIVISION OF ENVIRONMENTAL MANAGEMENT

February 19, 1988

Ms. Joyce Goble
425 Beach Street
Gastonia, N. C. 28052

RE: Technical Assistance
Well Sampling Results
Joyce Goble Well
Gaston County, N. C.

Dear Ms. Goble:

In response to your request to have your well water tested, enclosed is the following information:

Well sampling results from the water samples collected on September 10, 1987 from the bored well on your property located at 425 Beach Street, Gastonia, in Gaston County.

It should be noted that all parameters checked were within recommended concentration levels as prescribed by Subchapter 2L, Classifications and Water Quality Standards of North Carolina with the exception of coliform bacteria which exceeded those levels.

Based on the analytical results for coliform bacteria it is recommended that you chlorinate your well using (HTH) swimming pool chlorine. The following method is recommended for chlorination:

1. Chlorine should be placed in the well in sufficient quantities to produce a chlorine residual of at least 100 parts per million (ppm) in the well.
2. The water in the well should be thoroughly agitated to allow dispersion of the chlorine.
3. The well casing, pump column, and any other equipment above the water level in the well should be thoroughly rinsed with chlorine as part of the disinfecting process.
4. The chlorine should be allowed to stand in the well for a period of at least 24 hours.

Ms. Joyce Goble
February 19, 1988
Page Two

5. The well should then be pumped until the system is clear of the chlorine before the system is placed back in to service.

I have enclosed a chart which indicates the proper amount of chlorine necessary to produce a residual of 100 ppm. After chlorination, I would suggest you contact the Gaston County Health Department to request a sample be taken from your well for coliform bacteria.

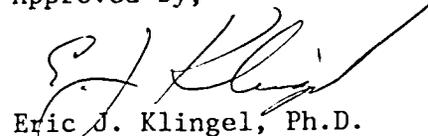
Should you have any questions concerning the sampling results, please do not hesitate to contact me at (704) 663-1699.

Sincerely,



Tony R. Parker
Hydrogeologic Technician

Approved by,



Eric J. Klingel, Ph.D.
Hydrogeologic Regional Supervisor

TRP:pb

COUNTY Gaston N.C. DEPARTMENT OF NATURAL RESOURCES
& COMMUNITY DEVELOPMENT

LAB NUMBER 8 761207
DATE RECEIVED 9-11-87 Time 8:30

QUAD NO. 27025 SERIAL NO. GS304
LAT. 35 16 17 LONG. 81 13 02 DEM

Rec'd by: DM From: Bus-Courier
Other _____

Report to: ARO, FRO, MRO, RRO, WaRO, WPRO,

WSRO, Kinston FO Other _____

GROUNDWATER FIELD/LAB FORM

SAMPLE PRIORITY

Shipped by: Bus, Courier, Other _____

ROUTINE EMERGENCY

COLLECTOR(S): Crawford DATE 9/9/87

TIME 1155 PURPOSE: BASELINE, COMPLAINT, COMPLIANCE, LUST, OTHER Collection site
(circle one)

FIELD ANALYSES

Owner Mr. Hattman

pH₄₀₀ _____ Spec. Cond. 94 at 25°C

Location or site N. McGuire St. Gastonia

Temp. 10 °C Odor _____

Description of sampling point Top @ Well

Appearance _____ Taste _____

Sampling Method Jet Pump 2" drilled Well Sample Interval unk.

Field Analysis By: Crawford

Remarks Filled up samples in lab to help collect pollution site
(pumping time, air temp, etc.)

LABORATORY ANALYSES

	BOD ₅ 310	mg/l
	COD High 340	mg/l
	COD Low 335	mg/l
x	Coliform:MF Fecal 31616	<1 /100ml
x	Coliform:MF Total 31504	59 /100ml
	TOC 680	mg/l
	Turbidity 76	NTU
x	pH 403	6.6 units
x	Alkalinity to pH 4.5 410	37 mg/l
x	Alkalinity to pH 8.3 415	<1 mg/l
	Carbonate 445	<1 mg/l
	Bicarbonate 440	45 mg/l
x	Arsenic:Total 1002	<10 ug/l
	Carbon dioxide 405	mg/l
x	Chloride 940	89 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	omit ug/l
	Specific Cond. 95	uMhos/cm ²
	Sulfate 945	mg/l
	Sulfide 745	mg/l
	NH ₃ as N 610	1.02 mg/l
	TKN as N 625	mg/l
x	NO ₂ + NO ₃ as N 630	1.8 mg/l
	P:Total as P 665	mg/l

x	Ag - Silver 1077	<25 ug/l
x	Al - Aluminum 1105	<50 ug/l
x	Ba - Barium 1007	<500 ug/l
x	Ca - Calcium 916	31 mg/l
x	Cd - Cadmium 1027	<10 ug/l
x	Chromium:Total 1034	<25 ug/l
x	Cu - Copper 1042	21 ug/l
x	Fe - Iron 1045	270 ug/l
x	Hg - Mercury 71900	<0.2 ug/l
x	K - Potassium 937	2.3 mg/l
x	Mg - Magnesium 927	7.0 mg/l
x	Mn - Manganese 1055	25 ug/l
x	Na - Sodium 929	20 mg/l
x	Ni - Nickel 1067	<50 ug/l
x	Pb - Lead 1051	<50 ug/l
x	Se - Selenium 1147	<50 ug/l
x	Zn - Zinc 1092	44 ug/l

x	Organochlorine Pesticides
x	Organophosphorus Pesticides
x	Acid Herbicides
x	Base / Neutral Extractable Organics
x	Acid Extractable Organics
x	Purgeable Organics (VOA bottle)
x	1,2 - Dibromoethane (EDB)
x	Benzene
x	Toluene
x	Xylene
	SEE ATTACHED ORGANICS ANALYSIS REPORT

Lab Comments: _____

Reported by WA

ANALYTICAL RESULTS

Date 2/11/88

Checked by LM

ORGANIC ANALYSIS

Supervisor REK

Entered by OM

Checked by BE

Lab No.	Storet #	Sample Type: <u>Water</u>	Concentration
76-1207		no base/neutral or acid extractable organics detected by GC/FID	
		no pesticides detected by GC/EC or GC/FPD	
		no acid herbicides identified by GC/EC	
		One unidentified peak detected by GC/EC	
		no volatile organics detected by GC/Hall	
		One unidentified peak detected by GC/PID	

COUNTY Haston

N.C. DEPARTMENT OF NATURAL RESOURCES

LAB NUMBER 8 76 207

QUAD NO 270g5 SERIAL NO CS 3045

& COMMUNITY DEVELOPMENT

DATE RECEIVED 2-17-87 Time 9:00

LAT. 35 16 17 LONG. 81 13 02

DEM

Rec'd by: DMT From: Bus-Courier

GROUNDWATER FIELD/LAB FORM

Report to: ARO, FRO, MRO, RRO, WaRO, WiRO,

SAMPLE PRIORITY

DATA ENTRY BY: Bow CK: LM

WSRO, Kinston FO Other _____

ROUTINE EMERGENCY

DATE REPORTED: 3-5-87

Shipped by: Bus, Courier, Other _____

COLLECTOR(S): Park/Hicks DATE 870211 TIME 1030 PURPOSE: BASELINE, COMPLAINT, COMPLIANCE, LUST, OTHER _____
(circle one)

FIELD ANALYSES

Owner Mr. Huffman

pH₄₀₀ 6.3 Spec. Cond.₉₄ 290 at 25°C

Location or site N meadow st. Gastonia

Temp.₁₀ 13 °C Odor none

Description of sampling point Tap @ well

Appearance clear Taste N/A

Sampling Method _____ Sample Interval unk

Field Analysis By: T Parker

Remarks 5 min

(pumping time, air temp, etc.)

LABORATORY ANALYSES

	BOD ₅ 310	mg/l
	COD High 340	mg/l
	COD Low 335	mg/l
X	Coliform:MF Fecal 31616	<2 /100ml
X	Coliform:MF Total 31504	<1 /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
X	Chloride 940	88 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/cm ²
	Sulfate 945	mg/l
	Sulfide 745	mg/l
	NH ₃ as N 610	mg/l
	TKN as N 625	mg/l
X	NO ₂ + NO ₃ as N 630	1.8 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 Herdicides
	Base / Neutral Extractable Organics
	Acid Extractable Organics
	Purgeable Organics (VOA bottle)
	1,2 - Dibromoethane (EDB)

Lab Comments: _____

Ms. Mae Black

416 North McGuire St.

Gastonia N.C. 28052

Dear Ms. Black:

Please find enclosed a copy of the laboratory report on the water sample collected from the bored well on your property at 416 North McGuire St. at Gastonia in Gaston County.

The analysis of your water collected on February 11, 1987 revealed the following concentrations for the parameters analysed:

- 1) Chlorides - 97 mg/l
- 2) Nitrate - 1.6 mg/l
- 3) Total coliform - 130 colonies per 100 milliliters

The recommended levels for the parameters listed above are as follows:

- 1) Chlorides - 250 mg/l or less
- 2) Nitrate - 10.0 mg/l or less
- 3) Total coliform - 1 per 100 milliliters

The ^{report} ^{indicates} the parameters for chlorides and nitrates are within the recommended levels, however the report indicated that total coliform has exceeded the recommended level. It should be noted that bored wells should be chlorinated about every two years ^{to prevent bacteria build up,} as this is a common problem with this type of well. The well should be chlorinated by using (HTH) swimming pool chlorine which can be supplied by most plumbing companies.

I have attached a chart ^{to your convenience} for your convenience to use to determine the proper amount of chlorine needed for your bored well.

If you should have any questions please contact me or Mr. Eric Klingel at (704) 663-1699.

Sincerely

Tony A Parker
Hydrogeological Technician

Approved By:

Eric J. Klingel

Hydrogeologic Regional Supervisor

C.C.

Mr. Neil Goble

444 North McGuire St.
Gastonia, N.C. 28052

[Handwritten signature]



Jes

State of North Carolina
Department of Natural Resources and Community Development
Mooresville Regional Office

James G. Martin, Governor
S. Thomas Rhodes, Secretary

Albert F. Hilton, Regional Manager

DIVISION OF ENVIRONMENTAL MANAGEMENT

February 8, 1988

Ms. Mae Black
416 North McGuire Street
Gastonia, N. C. 28052

Subject: Well Sampling Results
Black Well
Gaston County, N. C.

Dear Ms. Black:

This Office has received the analytical report on the water samples collected on September 10, 1987 from the bored well on your property located at 416 North McGuire Street, Gastonia, North Carolina in Gaston County.

Our laboratory has reported that the well is contaminated with the following organic compounds:

Tech Chlordane	0.90 ug/l (micrograms per liter)
Trichloroethene	0.067 ug/l
Tetrachloroethane	0.054 ug/l

I am requesting our Central Office in Raleigh to contact Dr. Ted Taylor, Toxicologist, North Carolina Department of Human Resources, for a health risk assessment in using the well water for drinking, cooking and bathing and, also a recommendation with regards to a water treatment system to effectively remove the contamination. Dr. Taylor should be in touch with you soon with his assessment.

Should you have questions, please do not hesitate to call me at (704) 663-1699.

Sincerely,

Handwritten signature of Tony R. Parker.

Tony R. Parker
Hydrogeological Technician

Approved by

Handwritten signature of Eric J. Klingel.

Eric J. Klingel
Regional Hydrogeological Supervisor

cc: Incident Management Unit

919 North Main Street PO. Box 950 Mooresville, NC 28115-0950 • Telephone 704 663 1699

COUNTY Gaston
 QUAD NO. Q70R1 SERIAL NO. G53001
 LAT. 35 16 17 LONG. 81 12 59

N.C. DEPARTMENT OF NATURAL RESOURCES
 & COMMUNITY DEVELOPMENT
 DEM
 GROUNDWATER FIELD/LAB FORM

LAB NUMBER 8 16-1208
 DATE RECEIVED 9-11-87 Time 8:30
 Rec'd by: DM From: Bus-Courier
 Other _____
 DATA ENTRY BY: _____ CK: _____
 DATE REPORTED: 2/8/88

Report to: ARO, FRO, MRO, RRO, WARS, WIRO
 WRSO, Kinston FO Other _____
 Shipped by: Bus, Courier, Other _____

RECEIVED
 DIVISION OF ENVIRONMENTAL MANAGEMENT

SAMPLE PRIORITY
 ROUTINE EMERGENCY

COLLECTOR(S): Flaherty DATE FEB 10 1988 TIME 1250 PURPOSE: BASELINE, COMPLAINT, COMPLIANCE, LUST, OTHER POTENTIAL
 (circle one)

FIELD ANALYSES

MOORESVILLE REGIONAL OFFICE
 Owner Mrs. Joyce Goble 425 Beech St. Gastonia 28052 704/865-5673
 Location or site 2 1/2 mi. N. on Beech St. on W. side
 Description of sampling point Tap @ Well
 Sampling Method Jet Pump Sample Interval unk.
 (pump, bailer, etc.)
 Field Analysis By: Crawford Remarks Follow up sampling - Neil Goble Pollution site
 (pumping time, air temp, etc.)

LABORATORY ANALYSES

	BOD ₅ 310	mg/l
	COD High 340	mg/l
	COD Low 335	mg/l
X	Coliform:MF Fecal 31616	150/100ml
X	Coliform:MF Total 31504	1400/100ml
	TOC 680	mg/l
	Turbidity 76	NTU
X	pH 403	6.3 units
X	Alkalinity to pH 4.5 410	13 mg/l
X	Alkalinity to pH 8.3 415	<1 mg/l
	Carbonate 445	<1 mg/l
	Bicarbonate 440	16 mg/l
X	Arsenic:Total 1002	<10 ug/l
	Carbon dioxide 405	mg/l
X	Chloride 940	31 mg/l
	Chromium:Hex 1032	ug/l
	Color:True 80	Pl-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
X	Phenols 32730	omit ug/l
	Specific Cond. 95	uMhos/cm ²
	Sulfate 945	mg/l
	Sulfide 745	mg/l
	NH ₃ as N 610	.02 mg/l
	TKN as N 625	mg/l
X	NO ₂ + NO ₃ as N 630	4.8 mg/l
	P:Total as P 665	mg/l

X	Ag - Silver 1077	ug/l
X	Al - Aluminum 1105	<50 ug/l
X	Ba - Barium 1007	<500 ug/l
X	Ca - Calcium 916	4.4 mg/l
X	Cd - Cadmium 1027	<10 ug/l
X	Chromium:Total 1034	<25 ug/l
X	Cu - Copper 1042	<10 ug/l
X	Fe - Iron 1045	80 ug/l
X	Hg - Mercury 71900	<0.2 ug/l
X	K - Potassium 937	3.1 mg/l
X	Mg - Magnesium 927	0.95 mg/l
X	Mn - Manganese 1055	<25 ug/l
X	Na - Sodium 929	9.8 mg/l
X	Ni - Nickel 1067	<50 ug/l
X	Pb - Lead 1051	<50 ug/l
X	Se - Selenium 1147	<5.0 ug/l
X	Zn - Zinc 1092	21 ug/l

X	Organochlorine Pesticides
X	Organophosphorus Pesticides
X	Acid Herdicides
X	Base / Neutral Extractable Organics
X	Acid Extractable Organics
X	Purgeable Organics (VOA bottle)
X	1,2 - Dibromoethane (EDB)
X	Benzene
X	Toluene
X	Xylene

SEE ATTACHED ORGANICS ANALYSIS REPORT

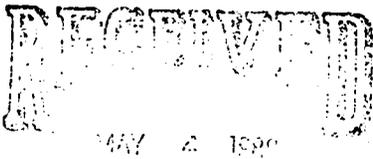
Lab Comments: _____

Working Draft of Proposed Laboratory Evaluation Form

- Based on these analytical results, this water should be considered safe for normal usage.
- Chemical analysis did not show any contamination. Because of odor, water should be resampled if odor persists.
- Based on these analytical results, this water is contaminated with a petroleum product that may be gasoline, fuel oil, kerosene, or other. The water should not be used for drinking or cooking purposes, avoid prolonged bathing.
- Based on these analytical results, this water is highly contaminated and should not be used for drinking, cooking or bathing.
- The laboratory results are not conclusive, please resample for:
- Microbiological analysis ()
- Chemical analysis ()
- Laboratory number 7 6 1 2 0 8
- Comments

Please indicate on lab sheet that it is a resample

For further information, contact the Environmental Epidemiology Branch,
(919) 733-3410.



GROUNDWATER SECTION
Raleigh, NC

Working Draft of Proposed Laboratory Evaluation Form

Based on these analytical results, this water should be considered safe for normal usage. *unless the coliform present a problem*

Chemical analysis did not show any contamination. Because of odor, water should be resampled if odor persists.

Based on these analytical results, this water is contaminated with a petroleum product that may be gasoline, fuel oil, kerosene, or other.

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

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

The laboratory results are not conclusive, please resample for:

Microbiological analysis

Chemical analysis

Laboratory number 761206

Comments

evaluate bacteria results

Please indicate on lab sheet that it is a resample

For further information, contact the Environmental Epidemiology Branch,
(919) 733-3410.

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GROUNDWATER SECTION
RALLIUM, NC

COUNTY Winston
 QUAD NO Q7006 SERIAL NO 653046
 LAT. 35 16 16 LONG. 4 13 03

N.C. DEPARTMENT OF NATURAL RESOURCES
 & COMMUNITY DEVELOPMENT
 DEM
 GROUNDWATER FIELD/LAB FORM

LAB NUMBER 8 7C-1206
 DATE RECEIVED 9-11-87 Time 8:30
 Rec'd by: am From: Bus Courier
 Other _____
 DATA ENTRY BY: _____ CK: _____
 DATE REPORTED: 9-11-87

Report to: ARO, FRO, MRO, RRO, WaRO, WIRO,
 WSRO, Kinston FO Other _____
 Shipped by: Bus Courier, Other _____
 COLLECTOR(S) Crawford DATE 870910 TIME 1140

SAMPLE PRIORITY
 ROUTINE EMERGENCY

FIELD ANALYSES

pH₄₀₀ _____ Spec. Cond. g₄ _____ at 25°C
 Temp. 10 _____ °C Odor _____
 Appearance _____ Taste _____
 Field Analysis By: Crawford

Owner Ms Mac Black
 Location or site 416 N. Mc Lane off Winston
 Description of sampling point bottom Tap in house
 Sampling Method Tap Pump Sample Interval unk.
 Remarks follow up sampling - Red Double Pollution site area
 (pumping time, air temp, etc.)

LABORATORY ANALYSES

	BOD ₅ 310	mg/l
	COD High 340	mg/l
	COD Low 335	mg/l
X	Colliform:MF Faecal 31616	400/100ml
X	Colliform:MF Total 31504	740/100ml
	TOC 680	mg/l
	Turbidity 76	NTU
X	pH 403	6.8 units
X	Alkalinity to pH 4.5 410	5.9 mg/l
X	Alkalinity to pH 8.3 415	21 mg/l
	Carbonate 445	<1 mg/l
	Bicarbonate 440	48 mg/l
X	Arsenic:Total 1002	<10 ug/l
	Carbon dioxide 405	mg/l
X	Chloride 940	60 mg/l
	Chromium:Hex 1032	ug/l
	Color:True 80	Pl-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
X	Phenols 32730	0.01 ug/l
	Specific Cond. 95	uMhos/cm ²
	Sulfate 945	mg/l
	Sulfide 745	mg/l
	NH ₃ as N 610	0.03 mg/l
	TKN as N 625	mg/l
X	NO ₂ + NO ₃ as N 630	2.0 mg/l
	P:Total as P 665	mg/l

	Ag - Silver 1077	ug/l
X	Al - Aluminum 1105	100 ug/l
X	Ba - Barium 1007	<500 ug/l
X	Ca - Calcium 916	2.6 mg/l
X	Cd - Cadmium 1027	<10 ug/l
X	Chromium:Total 1034	<25 ug/l
X	Cu - Copper 1042	94 ug/l
X	Fe - Iron 1045	110 ug/l
X	Hg - Mercury 71900	<0.2 ug/l
X	K - Potassium 937	3.2 mg/l
X	Mg - Magnesium 927	2.3 mg/l
X	Mn - Manganese 1055	<25 ug/l
X	Na - Sodium 929	2.1 mg/l
X	Ni - Nickel 1067	<50 ug/l
X	Pb - Lead 1051	<50 ug/l
X	Se - Selenium 1147	<5.0 ug/l
X	Zn - Zinc 1092	29 ug/l

X	Organochlorine Pesticides
X	Organophosphorus Pesticides
X	Acid Herbicides
X	Base / Neutral Extractable Organics
X	Acid Extractable Organics
X	Purgeable Organics (VOA bottle)
X	1,2 - Dibromoethane (EDB)
X	Benzene
X	Toluene
X	Xylene

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 FEB 9 1988
 ATTACHED ORGANICS ANALYSIS REPORT

Lab Comments: _____

GROUNDWATER SECTION
 RALEIGH, NC

Supervisor REK

ORGANIC ANALYSIS

DATE 2/1/88

Entered by SM

Checked by SM

Lab No.	Storet #	Sample Type:	Concentration
76-1206	39350	tech. chlordane 7 unidentified peaks detected by GC/EC	0.90 µg/l
		no pesticides detected by GC/FPD	
		no acid herbicides identified by GC/EC. Four unidentified peaks detected by GC/EC.	
39180		Trichloroethene	0.067 µg/l
34475		Tetrachloroethane detected by GC/Hall	0.054 µg/l
		no volatile organics detected by GC/PID	
		no base/neutral or acid extractable organics detected by GC/MS	

GC/MS/DS used

Working Draft of Proposed Laboratory Evaluation Form

- () Based on these analytical results, this water should be considered safe for normal usage.
- () Chemical analysis did not show any contamination. Because of odor, water should be resampled if odor persists.
- () Based on these analytical results, this water is contaminated with a petroleum product that may be gasoline, fuel oil, kerosene, or other. The water should not be used for drinking or cooking purposes, avoid prolonged bathing.
- () Based on these analytical results, this water is highly contaminated and should not be used for drinking, cooking or bathing.
- () The laboratory results are not conclusive, please resample for:
 - Microbiological analysis ()
 - Chemical analysis ()
- () Laboratory number 761207
- () Comments
evaluate coliform

() Please indicate on lab sheet that it is a resample

For further information, contact the Environmental Epidemiology Branch,
(919) 733-3410.

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1988

GROUNDWATER SECTION
RALEIGH, NC

COUNTY Hunter

N.C. DEPARTMENT OF NATURAL RESOURCES & COMMUNITY DEVELOPMENT

LAB NUMBER 8 16107

QUAD NO 47005 SERIAL NO 334

& COMMUNITY DEVELOPMENT

DATE RECEIVED 9-11-87 Time 8:00

LAT. 35 17 LONG. 113

DEM

Rec'd by: DM From: Bus-Courier

GROUNDWATER FIELD/LAB FORM

Report to: ARO, FRO, MRO, RRO, WaRO, WIRO,

SAMPLE PRIORITY

WSRO, Kinston FO Other _____

ROUTINE EMERGENCY

Shipped by: Bus, Courier, Other _____

DATA ENTRY BY: DM CK: _____

COLLECTOR(S): Crowford DATE 8/20/87 TIME 1155 PURPOSE: BASELINE, COMPLAINT, COMPLIANCE, LUST, OTHER Rollback
(circle one)

FIELD ANALYSES

Owner M. Krbly Hultman

pH₄₀₀ _____ Spec. Cond. ₉₄ _____ at 25°C

Location or site N McGair St Gastonia

Temp. ₁₀ _____ °C Odor _____

Description of sampling point Top of Well

Appearance _____ Taste _____

Sampling Method Jet Pump 2" drilled well Sample Interval unk
(pump, bailer, etc.)

Field Analysis By: Crowford

Remarks Filtered up sampling in lab to verify turbidity
(pumping time, air temp, etc.)

LABORATORY ANALYSES

	BOD ₅ 310	mg/l
	COD High 340	mg/l
	COD Low 335	mg/l
<input checked="" type="checkbox"/>	Coliform:MF Fecal 31616	/100ml
<input checked="" type="checkbox"/>	Coliform:MF Total 31504	/100ml
	TOC 680	mg/l
	Turbidity 76	NTU
<input checked="" type="checkbox"/>	pH 403	units
<input checked="" type="checkbox"/>	Alkalinity to pH 4.5 410	mg/l
<input checked="" type="checkbox"/>	Alkalinity to pH 8.3 415	mg/l
	Carbonate 445	mg/l
	Bicarbonate 440	mg/l
<input checked="" type="checkbox"/>	Arsenic:Total 1002	ug/l
	Carbon dioxide 405	mg/l
<input checked="" type="checkbox"/>	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
<input checked="" type="checkbox"/>	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
<input checked="" type="checkbox"/>	NO ₂ + NO ₃ as N 630	mg/l
	P:Total as P 665	mg/l

<input checked="" type="checkbox"/>	Ag - Silver 1077	<25 ug/l
<input checked="" type="checkbox"/>	Al - Aluminum 1105	<50 ug/l
<input checked="" type="checkbox"/>	Ba - Barium 1007	<500 ug/l
<input checked="" type="checkbox"/>	Ca - Calcium 916	81 mg/l
<input checked="" type="checkbox"/>	Cd - Cadmium 1027	<10 ug/l
<input checked="" type="checkbox"/>	Chromium:Total 1034	<25 ug/l
<input checked="" type="checkbox"/>	Cu - Copper 1042	21 ug/l
<input checked="" type="checkbox"/>	Fe - Iron 1045	270 ug/l
<input checked="" type="checkbox"/>	Hg - Mercury 71900	202 ug/l
<input checked="" type="checkbox"/>	K - Potassium 937	23 mg/l
<input checked="" type="checkbox"/>	Mg - Magnesium 927	70 mg/l
<input checked="" type="checkbox"/>	Mn - Manganese 1055	75 ug/l
<input checked="" type="checkbox"/>	Na - Sodium 929	30 mg/l
<input checked="" type="checkbox"/>	Ni - Nickel 1067	<50 ug/l
<input checked="" type="checkbox"/>	Pb - Lead 1051	<50 ug/l
<input checked="" type="checkbox"/>	Se - Selenium 1047	<50 ug/l
<input checked="" type="checkbox"/>	Zn - Zinc 1092	110 ug/l

<input checked="" type="checkbox"/>	Organochlorine Pesticides
<input checked="" type="checkbox"/>	Organophosphorus Pesticides
<input checked="" type="checkbox"/>	Acid Herbicides
<input checked="" type="checkbox"/>	Base / Neutral Extractable Organics
<input checked="" type="checkbox"/>	Acid Extractable Organics
<input checked="" type="checkbox"/>	Purgeable Organics (VOA bottle)
<input checked="" type="checkbox"/>	1,2 - Dibromoethane (EDB)
<input checked="" type="checkbox"/>	Benzene
<input checked="" type="checkbox"/>	Toluene
<input checked="" type="checkbox"/>	Xylene
	SEE ATTACHED ORGANICS ANALYSIS REPORT

Lab Comments: _____

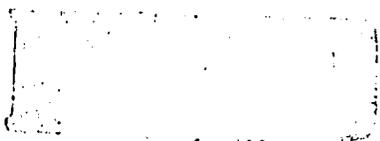
FEB 12 1988
GROUNDWATER SECTION
RALEIGH

Working Draft of Proposed Laboratory Evaluation Form

- Based on these analytical results, this water should be considered safe for normal usage.
- Chemical analysis did not show any contamination. Because of odor, water should be resampled if odor persists.
- Based on these analytical results, this water is contaminated with a petroleum product that may be gasoline, fuel oil, kerosene, or other. The water should not be used for drinking or cooking purposes, avoid prolonged bathing.
- Based on these analytical results, this water is highly contaminated and should not be used for drinking, cooking or bathing.
- The laboratory results are not conclusive, please resample for:
 - Microbiological analysis
 - Chemical analysis
- Laboratory number 761207
- Comments

Please indicate on lab sheet that it is a resample

For further information, contact the Environmental Epidemiology Branch,
(919) 733-3410.



GROUNDWATER SECTION
RALEIGH, NC

QUAD NO. Q7005 SERIAL NO. GS 3045
 LAT 35 16 17 LONG. 81 13 02

DEPARTMENT OF NATURAL RESOURCES
 & COMMUNITY DEVELOPMENT
CHAIN OF CUSTODY (2)
 GROUNDWATER FIELD/LAB FORM

LAB NUMBER 8 15120
 DATE RECEIVED 9-11-87 Time 8:
 Rec'd by: DM From: Bus Courier
 Other _____
 DATA ENTRY BY: DM CK: DM
 DATE REPORTED: 2/11/88

Report to: ARO, FRO, MRO, RRO, WaRO, WiRO,
 WSRO, Kinston FO Other _____

SAMPLE PRIORITY: ROUTINE EMERGENCY

Shipped by: Bus, Courier Other _____

COLLECTOR(S): Crawford DATE 8/29/80 TIME 1155 PURPOSE: BASELINE, COMPLAINT, COMPLIANCE, LUST (circle one) OTHER Production
 Owner Mr. Hattman # 3468

FIELD ANALYSES

pH 400 _____ Spec. Cond. 230 50°C
 Temp. 10 _____
 Appearance _____
 Field Analysis by Crawford

Location or site N. McGuire St. Gastonia
 Description of sampling point Tap @ Well
 Sampling Method Jet Pump 2" drilled Well Sample Interval unk.
 Remarks Follow up sampling in ref. to heavy metal pollution site
 (pumping time, air temp, etc.)

LABORATORY ANALYSES

BOD ₅ 310	mg/l
COD High 340	mg/l
COD Low 335	mg/l
X Coliform:MF Fecal 31616	/100ml
X Coliform:MF Total 31504	59 /100ml
TOC 680	mg/l
Turbidity 76	NTU
X pH 403	6.6 units
X Alkalinity to pH 4.5 410	37 mg/l
X Alkalinity to pH 8.3 415	21 mg/l
Carbonate 445	21 mg/l
Bicarbonate 440	45 mg/l
X Arsenic:Total 1002	<10 ug/l
Carbon dioxide 405	mg/l
X Chloride 940	89 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	Omit ug/l
Specific Cond. 95	uMhos/cm ²
Sulfate 945	mg/l
Sulfide 745	mg/l
NH ₃ as N 610	1.02 mg/l
TKN as N 625	mg/l
X NO ₂ + NO ₃ as N 630	1.8 mg/l
P:Total as P 665	mg/l

Ag - Silver 1077	<25 ug/l
X Al - Aluminum 1105	<50 ug/l
X Ba - Barium 1007	<500 ug/l
X Ca - Calcium 916	31 mg/l
X Cd - Cadmium 1027	<10 ug/l
X Chromium:Total 1034	<25 ug/l
X Cu - Copper 1042	21 ug/l
X Fe - Iron 1045	270 ug/l
X Hg - Mercury 71900	<0.2 ug/l
X K - Potassium 937	2.3 mg/l
X Mg - Magnesium 927	7.0 mg/l
X Mn - Manganese 1055	25 ug/l
X Na - Sodium 929	20 mg/l
X Ni - Nickel 1067	<50 ug/l
X Pb - Lead 1051	<50 ug/l
X Se - Selenium 1147	<50 ug/l
X Zn - Zinc 1092	44 ug/l

X Organochlorine Pesticides
X Organophosphorus Pesticides
X Acid Herbicides
X Base / Neutral Extractable Organics
X Acid Extractable Organics
X Purgeable Organics (VOA bottle)
X 1,2 - Dibromomethane (EDB)
X Benzene
X Toluene
X Xylene
SEE ATTACHED ORGANICS ANALYSIS REPORT

Lab Comments: _____

Working Draft of Proposed Laboratory Evaluation Form

- () Based on these analytical results, this water should be considered safe for normal usage.
- () Chemical analysis did not show any contamination. Because of odor, water should be resampled if odor persists.
- () Based on these analytical results, this water is contaminated with a petroleum product that may be gasoline, fuel oil, kerosene, or other.
The water should not be used for drinking or cooking purposes, avoid prolonged bathing.
- () Based on these analytical results, this water is highly contaminated and should not be used for drinking, cooking or bathing.
- () The laboratory results are not conclusive, please resample for:

Microbiological analysis ()

Chemical analysis ()

() Laboratory number 761208

() Comments :

evaluate coliform

() Please indicate on lab sheet that it is a resample

For further information, contact the Environmental Epidemiology Branch,
(919) 733-3410.

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MAY 4 1988

GROUNDWATER SECTION
RALEIGH, NC

COUNTY Gaston
 QUAD NO. Q70R1 SERIAL NO. G53001
 LAT. 35 16 17 LONG. 81 12 59

N.C. DEPARTMENT OF NATURAL RESOURCES
 & COMMUNITY DEVELOPMENT

LAB NUMBER 8 15120
 DATE RECEIVED 9-11-87 Time 8
 Rec'd by: DM From: Bus-Courier
 Other _____

DEM 3
 GROUNDWATER FIELD/LAB FORM

Report to: ARO, FRO MRO RRO, WaRO, WiRO,
 WSRO, Kinston FO Other _____

SAMPLE PRIORITY

ROUTINE EMERGENCY

DATA ENTRY BY: [Signature] CK: [Signature]
 DATE REPORTED: 2/8/88

Shipped by: Bus-Courier Other _____

COLLECTOR(S): [Signature] DATE 8/20/87 TIME 12:50 PURPOSE: BASELINE, COMPLAINT, COMPLIANCE, LUST, OTHER [Signature]
 (circle one)

FIELD ANALYSES

pH₄₀₀ _____ Spec. Cond. 94 at 25°C
 Temp. 10 °C Odor _____
 Appearance _____ Taste _____
 Field Analysis By: Crawford

Owner Mrs Joyce Gable 425 Beech St. Gastonia 28052 704/85-5622
 Location or site adj. to Beech St. on W. side
 Description of sampling point Tap & Well
 Sampling Method Jet Pump (pump, bailer, etc.) Sample Interval unk.
 Remarks Further up sampling = Neil Gable [Signature] [Signature]
 (pumping time, air temp, etc.)

LABORATORY ANALYSES

	BOD ₅ 310	mg/l
	COD High 340	mg/l
	COD Low 335	mg/l
X	Colliform:MF Fecal 31616	1.70/100ml
X	Colliform:MF Total 31504	1400/100ml
	TOC 680	mg/l
	Turbidity 76	NTU
X	pH 403	6.3 units
X	Alkalinity to pH 4.5 410	13 mg/l
X	Alkalinity to pH 8.3 415	< 1 mg/l
	Carbonate 445	< 1 mg/l
	Bicarbonate 440	11.0 mg/l
X	Arsenic:Total 1002	< 10 ug/l
	Carbon dioxide 405	mg/l
X	Chloride 940	21 mg/l
	Chromium:Hex 1032	ug/l
	Color:True-80	Pl-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
X	Phenols 32730	limit ug/l
	Specific Cond. 95	uMhos/cm ²
	Sulfate 945	mg/l
	Sulfide 745	mg/l
	NH ₃ as N 610	02 mg/l
	TKN as N 625	mg/l
X	NO ₂ + NO ₃ as N 630	1.8 mg/l
	P:Total as P 665	mg/l

X	Ag - Silver 1077	ug/l
X	Al - Aluminum 1105	< 50 ug/l
X	Ba - Barium 1007	< 500 ug/l
X	Ce - Calcium 916	4.4 mg/l
X	Cd - Cadmium 1027	< 10 ug/l
X	Chromium:Total 1034	< 25 ug/l
X	Cu - Copper 1042	< 10 ug/l
X	Fe - Iron 1045	80 ug/l
X	Hg - Mercury 71900	< 0.2 ug/l
X	K - Potassium 937	3.1 mg/l
X	Mg - Magnesium 927	0.95 mg/l
X	Mn - Manganese 1055	< 25 ug/l
X	Na - Sodium 929	9.8 mg/l
X	Ni - Nickel 1067	< 50 ug/l
X	Pb - Lead 1051	< 50 ug/l
X	Se - Selenium 1147	< 5.0 ug/l
X	Zn - Zinc 1092	21 ug/l

X	Organochlorine Pesticides
X	Organophosphorus Pesticides
X	Acid Herbicides
X	Base / Neutral Extractable Organics
X	Acid Extractable Organics
X	Purgeable Organics (VOA bottle)
X	1,2 - Dibromoethane (EOB)
X	Benzene
X	Toluene
X	Xylenes

Lab Comments: _____

SEE ATTACHED ORGANIC ANALYSIS REPORT

File

DIVISION OF ENVIRONMENTAL MANAGEMENT

February 5, 1988

MEMORANDUM TO: Bill Jeter
THROUGH: Eric Klingel *EK*
FROM: Tony R. Parker *TRP*
SUBJECT: Request for Health Risk Assessment
Ms. Mae Black Well
Gaston County
Incident Reference #3468

It is requested that the Central Office contact Dr. Ted Taylor of DHR for a health risk assessment on the subject well (lab report attached). The well was sampled on September 10, 1987, Ms. Blacks well is approximately 300 feet upgradient from Mr. Neil Gobles well that is also contaminated.

Ms. Black's address is 416 North McGuire Street, Gastonia, North Carolina 28052 and her telephone number is (704) 865-2749.

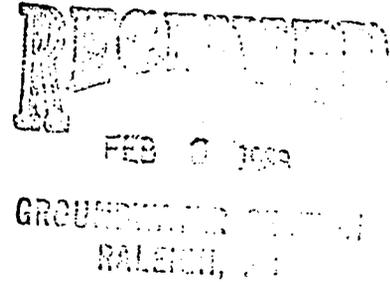
Should you have questions, please call me.

TRP:pb

DIVISION OF ENVIRONMENTAL MANAGEMENT

February 5, 1988

MEMORANDUM TO: Bill Jeter
THROUGH: Eric Klingel *EJK*
FROM: Tony R. Parker *TRP*
SUBJECT: Request for Health Risk Assessment
Ms. Mae Black Well
Gaston County
Incident Reference #3468



It is requested that the Central Office contact Dr. Ted Taylor of DHR for a health risk assessment on the subject well (lab report attached). The well was sampled on September 10, 1987, Ms. Blacks well is approximately 300 feet upgradient from Mr. Neil Gobles well that is also contaminated.

Ms. Black's address is 416 North McGuire Street, Gastonia, North Carolina 28052 and her telephone number is (704) 865-2749.

Should you have questions, please call me.

TRP:pb

Working Draft of Proposed Laboratory Evaluation Form

- Based on these analytical results, this water should be considered safe for normal usage.
- Chemical analysis did not show any contamination. Because of odor, water should be resampled if odor persists.
- Based on these analytical results, this water is contaminated with a petroleum product that may be gasoline, fuel oil, kerosene, or other. The water should not be used for drinking or cooking purposes, avoid prolonged bathing.
- Based on these analytical results, this water is highly contaminated and should not be used for drinking, cooking or bathing.
- The laboratory results are not conclusive, please resample for:
 - Microbiological analysis ()
 - Chemical analysis ()
- Laboratory number 761206
- Comments

Please indicate on lab sheet that it is a resample

For further information, contact the Environmental Epidemiology Branch, (919) 733-3410.

RECEIVED

MAY 4 1988

GROUNDWATER SECTION
RALEIGH, NC

COUNTY Wake
 QUAD NO. 1006 SERIAL NO. 253044
 LAT. _____ LONG. 8 13 03

N.C. DEPARTMENT OF NATURAL RESOURCES
 & COMMUNITY DEVELOPMENT
 DEM

LAB NUMBER 8 761206
 DATE RECEIVED 9-11-87 Time 8:30
 Rec'd by: DM From: Bus Courier
 Other _____
 DATA ENTRY BY: DM CK: DM
 DATE REPORTED: 2/2/88

FEB 9 1988
 GROUP WATER FIELD/LAB FORM
 SAMPLE PRIORITY

Report to: ARO, FRO, MRO, RRO, WaRO, W
 WSRO, Kinston FO Other _____

Shipped by: Bus, Courier, Other _____
 COLLECTOR(S): Crawford DATE 8/10 TIME 1140

FIELD ANALYSES

pH: 4.00 _____ Spec. Cond. 94 _____ at 25°C
 Temp. 10 _____ °C Odor _____
 Appearance _____ Taste _____
 Field Analysis By: Crawford

ROUTINE EMERGENCY
 Owner Mr. Mac Black 704/805-2749
 Location or site #16 N. Mebane St. Gastonia
 Description of sampling point Bottom Top in stream
 Sampling Method Jet Pump Sample Interval none
 Remarks follow up sampling - Neil Noble Collection site area.
 (pumping time, air temp, etc.)

LABORATORY ANALYSES

ROD5 310	mg/l
COO High 340	mg/l
COO Low 335	mg/l
Coliform:MF Fecal 31616	100/100ml
Coliform:MF Total 31504	100/100ml
TDC 680	mg/l
Turbidity 76	NTU
pH 403	1.8 units
Alkalinity to pH 4.5 410	3.9 mg/l
Alkalinity to pH 8.3 415	<1 mg/l
Carbonate 445	<1 mg/l
Bicarbonate 440	1.8 mg/l
Arsenic:Total 1002	<10 ug/l
Carbon Dioxide 405	mg/l
Chloride 940	1.6 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	omit ug/l
Specific Cond. 95	uMhos/cm ²
Sulfate 945	mg/l
Sulfide 745	mg/l
NH ₃ as N 610	0.3 mg/l
TKN as N 625	mg/l
NO ₂ + NO ₃ as N 830	3.0 mg/l
P:Total as P 665	mg/l

Ag - Silver 1077	ug/l
Al - Aluminum 1105	100 ug/l
Ba - Barium 1007	<500 ug/l
Ca - Calcium 916	2.6 mg/l
Cd - Cadmium 1027	<10 ug/l
Chromium:Total 1034	<25 ug/l
Cu - Copper 1042	9.4 ug/l
Fe - Iron 1045	110 ug/l
Hg - Mercury 71900	<0.2 ug/l
K - Potassium 937	31.2 mg/l
Mg - Magnesium 927	21.3 mg/l
Mn - Manganese 1055	<25 ug/l
Na - Sodium 929	2.1 mg/l
Ni - Nickel 1067	<50 ug/l
Pb - Lead 1051	<50 ug/l
Se - Selenium 1147	<5.0 ug/l
Zn - Zinc 1092	2.9 ug/l

<input checked="" type="checkbox"/> Organochlorine Pesticides
<input checked="" type="checkbox"/> Organophosphorus Pesticides
<input checked="" type="checkbox"/> Acid Herbicides
<input checked="" type="checkbox"/> Base / Neutral Extractable Organics
<input checked="" type="checkbox"/> Acid Extractable Organics
<input checked="" type="checkbox"/> Purgeable Organics (VOA bottle)
<input checked="" type="checkbox"/> 1,2 - Dibromoethane (EDB)
<input checked="" type="checkbox"/> Benzene
<input checked="" type="checkbox"/> Toluene
<input checked="" type="checkbox"/> Xylene
SEE ATTACHED ORGANICS ANALYSIS REPORT

Lab Comments: _____

Working Draft of Proposed Laboratory Evaluation Form

- Based on these analytical results, this water should be considered safe for normal usage.
- Chemical analysis did not show any contamination. Because of odor, water should be resampled if odor persists.
- Based on these analytical results, this water is contaminated with a petroleum product that may be gasoline, fuel oil, kerosene, or other. The water should not be used for drinking or cooking purposes, avoid prolonged bathing.
- Based on these analytical results, this water is highly contaminated and should not be used for drinking, cooking or bathing.
- The laboratory results are not conclusive, please resample for:
- Microbiological analysis ()
- Chemical analysis ()
- Laboratory number 761206
- Comments :

Please indicate on lab sheet that it is a resample

For further information, contact the Environmental Epidemiology Branch,
(919) 733-3410.

RECEIVED

MAY 4 1988

GROUNDWATER SECTION
RALEIGH, NC

COUNTY Dorset
 QUAD NO Q7006 SERIAL NO G53046
 LAT. 35 16 16 LONG. 8 13 03

N.C. DEPARTMENT OF NATURAL RESOURCES
CHAIN OF CUSTODY
 DEM
 GROUNDWATER FIELD/LAB FORM

LAB NUMBER 8 7G-1206
 DATE RECEIVED 9-11-87 Time 8:30
 Rec'd by: DM From: Bus Courier

1

Report to: ARO, FRO, ARO, RRO, WaRO, WIRO,
 WSRO, Kinston FO Other _____

Shipped by: Bus Courier, Other _____

COLLECTOR(S): Crawford DATE 870910 TIME 1140

SAMPLE PRIORITY
 ROUTINE EMERGENCY

Other _____
 DATA ENTRY BY: DM CK: DM
 DATE REPORTED: 2/2/88

FIELD ANALYSES

pH 400 _____ Spec. Cond. 94 _____ at 25°C
 Temp. 10 _____ °C Odor _____
 Appearance _____ Taste _____
 Field Analysis By: Crawford

Owner Ms. Mae Black # 3468
 Location or site #16 N. McGuire St. Gastonia
 Description of sampling point Bathroom Tap in house
 Sampling Method Jet Pump Sample Interval unk.
 (pump, bailer, etc.) (pumping time, air temp, etc.)
 Remarks follow up sampling - Neil Noble Collection site area

LABORATORY ANALYSES

	BOD ₅ 310	mg/l
	COD High 340	mg/l
	COD Low 335	mg/l
X	Collform:MF Fecal 31616	490/100ml
X	Collform:MF Total 31504	TNTC/100ml
	TOC 680	mg/l
	Turbidity 76	NTU
X	pH 403	6.8 units
X	Alkalinity to pH 4.5 410	39 mg/l
X	Alkalinity to pH 8.3 415	<1 mg/l
	Carbonate 445	<1 mg/l
	Bicarbonate 440	48 mg/l
X	Arsenic:Total 1002	<10 ug/l
	Carbon dioxide 405	mg/l
X	Chloride 940	60 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
X	Phenols 32730	omit ug/l
	Specific Cond. 95	uMhos/cm ²
	Sulfate 945	mg/l
	Sulfide 745	mg/l
	NH ₃ as N 610	.03 mg/l
	TKN as N 625	mg/l
X	NO ₂ + NO ₃ as N 630	2.0 mg/l
	P:Total as P 665	mg/l

	Ag - Silver 1077	ug/l
X	Al - Aluminum 1105	100 ug/l
X	Ba - Barium 1007	<500 ug/l
X	Ca - Calcium 916	2.6 mg/l
X	Cd - Cadmium 1027	<10 ug/l
X	Chromium:Total 1034	<25 ug/l
X	Cu - Copper 1042	94 ug/l
X	Fe - Iron 1045	110 ug/l
X	Hg - Mercury 71900	<0.2 ug/l
X	K - Potassium 937	3.2 mg/l
X	Mg - Magnesium 927	2.3 mg/l
X	Mn - Manganese 1055	<25 ug/l
X	Na - Sodium 929	2.1 mg/l
X	Ni - Nickel 1067	<50 ug/l
X	Pb - Lead 1051	<50 ug/l
X	Se - Selenium 1147	<5.0 ug/l
X	Zn - Zinc 1092	29 ug/l

X	Organochlorine Pesticides
X	Organophosphorus Pesticides
X	Acid Herbicides
X	Base / Neutral Extractable Organics
X	Acid Extractable Organics
X	Purgeable Organics (VOA bottle)
X	1,2 - Dibromoethane (EDB)
X	Benzene
X	Toluene
X	Xylene
	ATTACHED ORGANICS ANALYSIS REPORT

Lab Comments: _____

COUNTY 1 Gaston

N.C. DEPARTMENT OF NATURAL RESOURCES

LAB NUMBER 8 7G-1206

QUAD NO. 27006 SERIAL NO. G-53046

& COMMUNITY DEVELOPMENT

DATE RECEIVED 2-11-87 Time 8:30

LAT. 35 16 16 LONG. 8 13 03

DEM

Rec'd by: DM From: Bus-Courier

Report to: ARO, FRO, MRO, RRO, WaRO, WRO

GROUNDWATER FIELD/LAB FORM

Other _____

WSRO, Kinston FO Other _____

SAMPLE PRIORITY

DATA ENTRY BY: DM CK: DM

Shipped by: Bus, Courier, Other _____

ROUTINE EMERGENCY

DATE REPORTED: 2/12/88

COLLECTOR(S): Crawford DATE 2/10/88 TIME 4:40 PURPOSE: BASELINE, COMPLAINT, COMPLIANCE, LUST, OTHER Public Site
(circle one)

FIELD ANALYSES

Owner Mrs. Mae Black 704/805-2749

pH₄₀₀ _____ Spec. Cond. 94 at 25°C

Location or site #16 N. Main St. Gaston 28052

Temp. 10 °C Odor _____

Description of sampling point Bottom Tap in house

Appearance _____ Taste _____

Sampling Method Tot Pump Sample Interval unk.

Field Analysis By: Crawford

Remarks follow up sampling - Neil Noble Public Site area
(pumping time, air temp, etc.)

LABORATORY ANALYSES

	BOD ₅ 310	mg/l
	COD High 340	mg/l
	COD Low 335	mg/l
X	Coliform:MF Fecal 31616	<u>190</u> /100ml
X	Coliform:MF Total 31504	<u>TNTC</u> /100ml
	TOC 680	mg/l
	Turbidity 76	NTU
X	pH 403	<u>6.8</u> units
X	Alkalinity to pH 4.5 410	<u>39</u> mg/l
X	Alkalinity to pH 8.3 415	<u><1</u> mg/l
	Carbonate 445	<u><1</u> mg/l
	Bicarbonate 440	<u>48</u> mg/l
X	Arsenic:Total 1002	<u><10</u> ug/l
	Carbon dioxide 405	mg/l
X	Chloride 940	<u>60</u> mg/l
	Chromium:Hex 1032	ug/l
	Color:True 80	Pl-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
X	Phenols 32730	<u>omit</u> ug/l
	Specific Cond. 95	uMhos/cm ²
	Sulfate 945	mg/l
	Sulfide 745	mg/l
	NH ₃ as N 610	<u>.03</u> mg/l
	TKN as N 625	mg/l
X	NO ₂ + NO ₃ as N 630	<u>2.0</u> mg/l
	P:Total as P 665	mg/l

	Ag - Silver 1077	ug/l
X	Al - Aluminum 1105	<u>100</u> ug/l
X	Ba - Barium 1007	<u><500</u> ug/l
X	Ca - Calcium 916	<u>2.6</u> mg/l
X	Cd - Cadmium 1027	<u><10</u> ug/l
X	Chromium:Total 1034	<u><25</u> ug/l
X	Cu - Copper 1042	<u>94</u> ug/l
X	Fe - Iron 1045	<u>110</u> ug/l
X	Hg - Mercury 71900	<u><0.2</u> ug/l
X	K - Potassium 937	<u>3.2</u> mg/l
X	Mg - Magnesium 927	<u>2.3</u> mg/l
X	Mn - Manganese 1055	<u><25</u> ug/l
X	Na - Sodium 929	<u>2.1</u> mg/l
X	Ni - Nickel 1067	<u><50</u> ug/l
X	Pb - Lead 1051	<u><50</u> ug/l
X	Se - Selenium 1147	<u><5.0</u> ug/l
X	Zn - Zinc 1092	<u>29</u> ug/l

X	Organochlorine Pesticides
X	Organophosphorus Pesticides
	Acid Herbicides
X	Base / Neutral Extractable Organics
X	Acid Extractable Organics
X	Purgeable Organics (VOA bottle)
X	1,2 - Dibromoethane (EDB)
X	<u>Benzene</u>
X	<u>Toluene</u>
X	<u>Xylene</u>
	SEE ATTACHED ORGANICS ANALYSIS REPORT

Lab Comments: _____

COUNTY Wake

N.C. DEPARTMENT OF NATURAL RESOURCES

LAB NUMBER 8 79 208

QUAD NO. 2704 SERIAL NO. 2204

& COMMUNITY DEVELOPMENT

DATE RECEIVED 7/28/87 Time 9:00

LAT. 35 51 11 LONG. 78 12 03

DEM

Rec'd by: D. D. From: Bus: Courier

GROUNDWATER FIELD/LAB FORM

Other _____

Report to: ARO, FRO, MRO, RRO, WaRO, WiRO,

SAMPLE PRIORITY

DATA ENTRY BY: _____ CK: LD

WSRO, Kinston FO Other _____

ROUTINE EMERGENCY

DATE REPORTED: 8 5 - 87

Shipped by: Bus: Courier, Other _____

COLLECTOR(S): B. J. Baker DATE 8/2/87 TIME 1:45 PURPOSE: BASELINE COMPLAINT, COMPLIANCE, LUST, OTHER _____ (circle one)

FIELD ANALYSES

Owner W. P. L.

pH₄₀₀ 6.4 Spec. Cond. 94.3 at 25°C

Location or site 411 N. ...

Temp. 10 °C Odor _____

Description of sampling point ...

Appearance clear Taste slt

Sampling Method _____ Sample Interval ...

Field Analysis By: B. J. Baker

Remarks (pump, bailer, etc.)

(pumping time, air temp, etc.)

LABORATORY ANALYSES

BOD ₅ 310	mg/l
COD High 340	mg/l
COD Low 335	mg/l
Collform:MF Fecal 31616	100ml
Collform: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/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
Base / Neutral Extractable Organics
Acid Extractable Organics
Purgeable Organics (VOA bottle)
1,2 - Dibromoethane (EDB)

Lab Comments: _____

MEMO.

DATE: 2/3/88

TO: File

SUBJECT: _____

I contacted ms. Black on 2/3/88 @ 1600 hrs and gave her the test results over the pho, also I advised her not to use the water until a health risk assessment had been made.

Ms. Black indicated she had tied on to the city water system in October of 87.



North Carolina Department of Natural Resources & Community Development



Files

State of North Carolina
Department of Natural Resources and Community Development
Mooresville Regional Office

James G. Martin, Governor.
S. Thomas Rhodes, Secretary

Albert F. Hilton, Regional Manager

DIVISION OF ENVIRONMENTAL MANAGEMENT

August 31, 1987

Mr. Neil Goble
444 North McGuire Street
Gastonia, North Carolina 28052

RE: Health Risk Assessment
Neil Goble Well
Gaston County

Dear Mr. Goble:

Please find attached a copy of the Health Risk Assessment performed by Dr. Ted Taylor on your well at 444 North McGuire Street in Gastonia.

If you should have any questions, please do not hesitate to contact Dr. Taylor at 919/733-3410, or me at 704/663-1699.

Sincerely,


Eric J. Klingel
Hydrogeologic Regional Supervisor

EJK:bb



North Carolina Department of Human Resources
Division of Health Services
P.O. Box 2091 • Raleigh, North Carolina 27602-2091

James G. Martin, Governor
David T. Flaherty, Secretary

Ronald H. Levine, M.D., M.P.H.
State Health Director

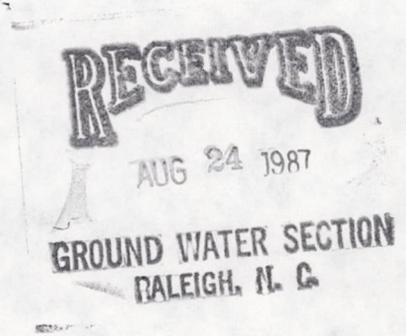
August 4, 1987

MEMORANDUM

TO: Bill Jeter
Groundwater Section

FROM: Ted Taylor, Ph.D., Toxicologist
Environmental Epidemiology Branch

SUBJECT: Mr. Neil Goble's Well



I have reviewed the most recent laboratory results on the water sample taken from Mr. Neil Goble's well in Gaston County. My overall impression of the quality of water is that it is unfit for human consumption for the following reasons:

The concentration of barium (1400 ug/l) exceeds the drinking water standard (1000 ug/l).

The concentration of sodium (350 mg/l) is unusually high - less than 4% of municipal water supplies (2000) contained sodium in this range.

The concentration of chloride (1600 mg/l) is very high; those groundwaters in the state naturally containing greater than 250 mg/l would be classified as GSA waters.

The concentrations of nitrate, calcium, and magnesium, although not violative of any standards, are relatively high when compared to "typical" groundwater.

The presence of very low concentrations of b-BHC and 2,4,5-T may be an indication of pesticide or herbicide contamination.

The presence of a variety of chlorinated solvents suggests industrial contamination, e.g., a degreasing operation.

The presence of three unidentified peaks detected by GC/PID suggests contamination by aromatic chemicals.

Jeter Memorandum
Page 2
August 4, 1987

Mr. Goble has telephoned me on several occasions and has indicated that a textile plant, a yeast plant, and a laundry service are located near his residence. In particular, he mentioned a "salt pit" operation at the textile plant which might be consistent with the elevated levels of cations and chloride that were found in his water.

In conclusion, the analytical results of this water sample are unusual in that elevated levels of cations, chloride, and traces of pesticides and chlorinated solvents were found.

If you have any questions, please feel free to contact me at 733-3410.

TT:lp

note follow up
to previous sample

DIVISION OF ENVIRONMENTAL MANAGEMENT
GROUNDWATER SECTION

July 23 1987 JUL 28 1987

ENVIRONMENTAL HEALTH SECTION

M E M O R A N D U M

TO: Linda Sewall
FROM: Bill Jeter *WJ*
SUBJECT: Request for Evaluation of Health Risk, Neil Goble Well, Gaston County.

Please find attached inorganic and organic analyses for a replacement, domestic well at the home of Mr. Neil Goble. This is a follow-up sample taken on 19 May, 1987, as per Dr. Taylor's instructions. An evaluation of the health risk associated with exposure and/or consumption of these groundwaters is requested and will be appreciated.

Should any questions arise concerning this matter, please contact me or Rick Klingel, telephone (704) 663 - 1699.

Attachment

cc: Files

tej

RECEIVED

AUG 24 1987

GROUND WATER SECTION
RALEIGH, N. C.



State of North Carolina
 Department of Natural Resources and Community Development
 Mooresville Regional Office

James G. Martin, Governor
 S. Thomas Rhodes, Secretary

Albert F. Hilton, Regional Manager

DIVISION OF ENVIRONMENTAL MANAGEMENT

February 12, 1987

Mr. Neil Goble
 444 North McGuire Street
 Gastonia, N. C. 28052

Dear Mr. Goble:

Please find enclosed a copy of the laboratory analyses that was conducted from the samples obtained from your new well on January 9, 1987. Also enclosed are copies of the laboratory analyses from your old well and Ms. Joyce Goble's well.

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

Sincerely,

Tony R. Parker
 Hydrogeological Technician

RECEIVED

AUG 24 1987

GROUND WATER SECTION
 DALEIGH, N. C.

TRP:pb

COUNTY Gaston
 QUAD NO. Q70g 2 SERIAL NO. 652935
 LAT. 35 16 25 LONG. 81 13 02

N.C. DEPARTMENT OF NATURAL RESOURCES
 & COMMUNITY DEVELOPMENT
 DEM

LAB NUMBER 65420
 DATE RECEIVED 7/6/92 Time 0830
 Rec'd by: EMW From: Bus-Courier
 Other _____
 DATA ENTRY BY: _____ CK: DF
 DATE REPORTED: 8-15-92

GROUNDWATER FIELD/LAB FORM

Report to: ARO, FRO, MRO, RRD, WARD, WIRD
 WSRO, Kinston FO Other _____

SAMPLE PRIORITY

Shipped by: Bus, Courier, Other _____
 ROUTINE EMERGENCY

COLLECTOR(S): T. Parker DATE: 8/1/92 TIME 1200 PURPOSE: BASELINE, COMPLAINT, COMPLIANCE, LUST, OTHER _____
 (circle one)

FIELD ANALYSES

OWNER: Mrs. Neal Noble
 Location or site: 444 N. 115th Ave. S. Gastonia NC.

pH₄₀₀ 5.5 Spec. Cond. 700 at 25°C
 Temp. 17 °C Odor none
 Description of sampling point: Well Head

Appearance _____ Taste _____
 Sampling Method: (pump) baller, etc. Sample Interval: 70'
 Field Analysis By: T. Parker Remarks _____

(pumping time, air temp; etc.)

LABORATORY ANALYSES

BOD ₅ 310	mg/l
COD High 340	mg/l
COD Low 335	mg/l
<input checked="" type="checkbox"/> Coliform:MF Fecal 31616	<u>20</u> /100ml
<input checked="" type="checkbox"/> Coliform:MF Total 31504	<u>30</u> /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
<input checked="" type="checkbox"/> Chloride 940	<u>1200</u> 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/cm ²
Sulfate 945	mg/l
Sulfide 745	mg/l
<u>Total Alkalinity</u>	
<u>solids 10 mg/l</u>	
NH ₃ as N 810	mg/l
TKN as N 625	mg/l
<input checked="" type="checkbox"/> NO ₂ + NO ₃ as N 630	<u>3.0</u> 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
<input checked="" type="checkbox"/> Cu - Copper 1042	<u>110</u> ug/l
<input checked="" type="checkbox"/> Fe - Iron 1045	<u>150</u> ug/l
Hg - Mercury 71900	ug/l
K - Potassium 937	mg/l
Mg - Magnesium 927	mg/l
<input checked="" type="checkbox"/> Mn - Manganese 1055	<u>80</u> ug/l
Na - Sodium 929	mg/l
Ni - Nickel 1067	ug/l
Pb - Lead 1051	ug/l
Se - Selenium 1147	ug/l
<input checked="" type="checkbox"/> Zn - Zinc 1092	<u>61</u> ug/l

Organochlorine Pesticides
Organophosphorus Pesticides
Acid Herbicides
<input checked="" type="checkbox"/> Base / Neutral Extractable Organics
<input checked="" type="checkbox"/> Acid Extractable Organics
Purgeable Organics (VOA bottle)
1,2 - Dibromomethane (EDB)

RECEIVED
 AUG 28 1992

GROUND WATER SECTION
 RALEIGH, N.C.

Lab Comments: No acid base neutral extractable organics detected by GC/FID.

* recommended limits
 GW-54 Revised 7/85

For Dissolved Analysis - submit filtered sample and write "DIS" in block
 White copy - Headquarters Pink copy - Region Yellow copy - Lab

New well - drilled in 86

COUNTY Haston
QUAD NO 27093 SERIAL NO. 655031
LAT. 35 16 15 LONG. 81 13 06

N.C. DEPARTMENT OF NATURAL RESOURCES
& COMMUNITY DEVELOPMENT
DEM

LAB NUMBER 8 76-31
DATE RECEIVED 1-12-87 Time 9:00
Rec'd by: Dm7 From: Bus Courier
Other _____
DATA ENTRY BY: _____ CK: LM
DATE REPORTED: _____

Report to: ARO, FRO, MRO, RRO, WaRO, WIRO,
WSRO, Kinston FO Other _____
Shipped by: Bus Courier, Other _____
COLLECTOR(S): Parkinson DATE 1-9-87 TIME 1030

GROUNDWATER FIELD/LAB FORM

SAMPLE PRIORITY

ROUTINE EMERGENCY

1

FIELD ANALYSES

pH₄₀₀ 5.5 Spec. Cond. 3360 @ 25°C
Temp. 16 °C Odor none
Appearance clear Taste N/A
Field Analysis By: T Parkinson

Owner Mr. Neil Hable
Location or site 444 N. McGuire St. Gastonia N.C.
Description of sampling point Well head tap
Sampling Method _____ Sample Interval _____
Remarks (pump, batter, etc.)
5 min
(pumping time, air temp, etc.)

LABORATORY ANALYSES

BOD ₅ 310	mg/l
COD High 340	mg/l
COD Low 335	mg/l
Collform:MF Fecal 31616	/100ml
Collform:MF Total 31504	/100ml
<input checked="" type="checkbox"/> 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
<input checked="" type="checkbox"/> Chloride 940	mg/l
Chromium:Hex 1032	ug/l
Color:True 80	Pt-Co
Cyanide 720	mg/l

Diss. Solids 70300	mg/l
Fluoride 351	mg/l
Hardness:Total 900	mg/l
Hardness (non-carb) 902	mg/l
Phenols 32730	ug/l
Specific Cond. 95	uMhos/cm ²
Sulfate 945	mg/l
Sulfide 745	mg/l
<input checked="" type="checkbox"/> TSS	mg/l
NH ₃ as N 61	mg/l
TKN as N 625	mg/l
<input checked="" type="checkbox"/> NO ₂ + NO ₃ as N	mg/l
P:Total as P	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
<input checked="" type="checkbox"/> Chromium:Total 1034	ug/l
<input checked="" type="checkbox"/> Cu - Copper 1042	ug/l
<input checked="" type="checkbox"/> Fe - Iron 1045	ug/l
Hg - Mercury 71900	ug/l
K - Potassium 937	mg/l
Mg - Magnesium 927	mg/l
<input checked="" type="checkbox"/> Mn - Manganese 1055	ug/l
Na - Sodium 929	mg/l
Ni - Nickel 1067	ug/l
<input checked="" type="checkbox"/> Pb - Lead 1051	ug/l
Se - Selenium 1147	ug/l
<input checked="" type="checkbox"/> Zn - Zinc 1092	ug/l

Organochlorine Pesticides
Organophosphorus Pesticides
<input checked="" type="checkbox"/> Acid Herbicides
Base / Neutral Extractable Organics
Acid Extractable Organics
Purgeable Organics (VOA bottle)
1,2 - Dibromoethane (EOB)

Lab Comments: _____

GROUND WATER SECTION

*Account
Gaston County*

DIVISION OF ENVIRONMENTAL MANAGEMENT

ENVIRONMENTAL HEALTH SECTION
JULY 20, 1987

MEMORANDUM TO: Dr. Ted Taylor
THROUGH: Bill Jeter
FROM: Eric Klingel *EAK*
SUBJECT: Request for Health Risk Assessment
Neil Goble Well
Gaston County, N. C.

RECEIVED
JUL 22 1987
GROUND WATER SECTION
DALEIGH, N. C.

It is requested that the Central Office contact Dr. Ted Taylor of DHR for a health risk assessment on the subject well (lab report attached). The well was sampled May 19, 1987 by request of Dr. Ted Taylor as a follow-up from previous sampling.

Mr. Gobles address is 444 North McGuire Street, Gastonia, North Carolina 28052 and his/her telephone number is 704/864-1974.

Should you have questions, please call me at 704/663-1699.

RECEIVED

GROUND WATER SECTION
DALEIGH, N. C.

COUNTY GASTON
 QUAD NO. Q7003 SERIAL NO. GS 3031
 LAT. 35 16 15 LONG. 81 15 06

N.C. DEPARTMENT OF NATURAL RESOURCES
 & COMMUNITY DEVELOPMENT
 DEM
 GROUNDWATER FIELD/LAB FORM

LAB NUMBER 8: 79 720
 DATE RECEIVED 5/20/87 Time 9:00
 Rec'd by: Jo From: Bus Courier
 Other _____
 DATA ENTRY BY: Bm CK: DM
 DATE REPORTED: 7-14-87

Report to: ARO, FRO, MRO, RRO, WaRO, WIRO,
 WSRO, Kinston FO Other _____

Shipped by Bus Courier Other _____

SAMPLE PRIORITY
 ROUTINE EMERGENCY

COLLECTOR(S): Cernice/Lewis DATE 5/19/87 TIME 11:50 PURPOSE: BASELINE, COMPLAINT, COMPLIANCE, LUST, OTHER _____
 (circle one)

FIELD ANALYSES

pH₄₀₀ _____ Spec. Cond. ga _____ at 25°C
 Temp. 17 °C Odor NONE
 Appearance Clear Taste _____
 Field Analysis By: J. Wells

Owner MR. Neil Gable
 Location or site 444 N. Mc Guire St Gastonia
 Description of sampling point: Tap @ well head
 Sampling Method Sub (pump) baller, etc. Sample Interval unk.
 Remarks Fracture system
 (pumping time, air temp, etc.)

LABORATORY ANALYSES

BOD ₅ 100	mg/l
COD High 340	mg/l
COD Low 335	mg/l
Coliform MF Fecal 31816	/100ml
Coliform MF Total 31507	/100ml
TOC 660	mg/l
Turbidity 26	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	Pl-Co
Cyanide 720	mg/l

Dis. Solids 70360	mg/l
Fluoride 951	mg/l
Hardness: Total 900	mg/l
Hardness (non-carb) 802	mg/l
Phenols 32730	mg/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

<input checked="" type="checkbox"/> Organochlorine Pesticides
<input checked="" type="checkbox"/> Organophosphorus Pesticides
<input checked="" type="checkbox"/> Acid Herbicides
<input checked="" type="checkbox"/> Base / Neutral Extractable Organics
<input checked="" type="checkbox"/> Acid Extractable Organics
<input checked="" type="checkbox"/> Purgeable Organics (VOA bottle)
<input checked="" type="checkbox"/> 1,2 - Dibromoethane (EDB)
SEE ATTACHED ORGANICS ANALYSIS REPORT

Lab Comments: _____

RECEIVED

RECEIVED

JUL 22 1987

Reported by CW

Date 7/9/87

Checked by LM

ORGANIC ANALYSIS

Supervisor REK

Entered by Bm

Checked by RM

Lab No.	Sample Type: <u>Water</u>	Analytical Results	Concentration
76-720		No base neutral or acid extractable organics detected by GC/FID	
		Beta BHC	0.06 ug/l
		detected by GC/EC	
		No pesticides detected for GC/FID	
		2,4,5-T	0.03 ug/l
		detected by GC/EC	
		1,1 dichloroethane	0.25 ug/l
		Chloroform	0.95 ug/l
		trichloroethene	0.49 ug/l
		tetrachloroethene	0.62 ug/l
		detected by GC/Hall	
		Three unidentified peaks detected	
		by GC/FID	
		- Threosol Dms	
		- DAPC (Residual)	
		- Semivolatile Volatile Ethers	

INSTRUCTIONS

Using typewriter or ball point pen, fill in all requested information on the top portion of form front. Please print legibly if typewriter is not available.

SAMPLE COLLECTION

- 1) Remove the one 1-quart plastic container and inflate by mouth, if uninflated.
- 2) Let the water (to be sampled) run for 5 minutes to assure that the water is from the distribution system.
- 3) Rinse the plastic container two or three times, and discard the water.
- 4) After rinsing, fill the container to within approximately one inch of top of the sampling container. Then cap the container securely.

SAMPLE SHIPMENT:

- 1) After collection of the sample, place the one 1-quart sample into the cardboard box along with the report form, then seal.
- 2) Mail immediately to the State Laboratory using the supplied label.

RECOMMENDED LIMITS FOR DRINKING WATER ARE LISTED BELOW:

Color	15 units	Calcium	No established limits
Not less than 6.5 units		Magnesium	No established limits
Alkalinity	No established limits	Fluoride	Temperature Dependent
Hardness	No established limits	Arsenic	0.05 mg/l
Iron	0.30 mg/l	Lead	0.05 mg/l
0.05 mg/l		Zinc	5.00 mg/l
Turbidity	5 units	Copper	1.00 mg/l
250 mg/l			

FOR LABORATORY USE ONLY

RECEIVED

AUG 24 1987

GROUND WATER SECTION
DALEIGH, IL. C.

Per Mrs. Robert Cloninger
 24) 922-3668

STATE LABORATORY OF PUBLIC HEALTH
 DIVISION OF HEALTH SERVICES
 N. C. DEPARTMENT OF HUMAN RESOURCES
 P.O. BOX 28047 - 306 N. WILMINGTON ST., RALEIGH 27611

INORGANIC CHEMICAL ANALYSES-PRIVATE WATER SYSTEM

Complete All Items Above Heavy Line
 (See Instructions on Reverse Side)

Name of System Mc Golle Block 152

Address 444 N McGuire St
Gaston, N.C. ZIP 28041

County GASTON

Report To: T. FEENSTER

Address: Gaston County Health Dept
GASTON, N.C. ZIP 28041

Collected By: T FEENSTER

Date Collected: 5/13/86 Time: 3:00 PM

Location of Sampling Point: HOUSE TAP

Remarks: Referred to Mr. Crawford Dept of Environmental Management
6-27-86 704-663-1699

Source of Water:
 Ground Both
 Surface Purchased

Source of Sample:
 House Tap
 Well Tap

Type of Sample:
 Raw Treated

Type of Treatment:
 None Lime
 Chlorinated Soda Ash
 Fluoridated Polyphosphate
 Filtered Water Softener
 Alum Other

Type of Analysis Desired:
 Regular Parameters Both
 Optional Parameters

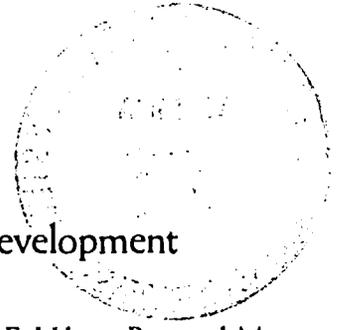
Regular Parameters		Optional Parameters (List as needed)	
	Results		Results
PH	6.2		
Arsenic	< 0.01 mg/l		
Lead	< 0.03 mg/l		
Iron	0.16 mg/l		
Manganese	0.04 mg/l		
Copper	0.40 mg/l		
Zinc	< 0.05 mg/l		
Calcium	83.8 mg/l		
Magnesium	22.0 mg/l		
Hardness-CaCO ₃ (Ca, Mg)	300 mg/l		
Alkalinity-CaCO ₃	8 mg/l		
Chloride	100 mg/l		
Color	0 units		
Turbidity	0.75 NTU units		
Fluoride	< 0.10 mg/l		

RECEIVED

GROUND WATER SECTION
 RALEIGH, N.C.

Date Received _____ Date Reported 5-20-86 Reported By _____

Date Analyzed _____ Laboratory Number 10873 MAY 14 86



State of North Carolina
 Department of Natural Resources and Community Development
 Mooresville Regional Office

James G. Martin, Governor
 S. Thomas Rhodes, Secretary

Albert F. Hilton, Regional Manager

DIVISION OF ENVIRONMENTAL MANAGEMENT

March 19, 1987

Mr. Neil Goble
 444 North McGuire Street
 Gastonia, North Carolina 28052

Dear Mr. Goble:

After reviewing the laboratory report concerning the 6 inch drilled well located on your property at 444 North McGuire Street in Gastonia in Gaston County, I have, by copy of memorandum, contacted Dr. Ted Taylor, Toxicologist with the Department of Human Resources, to request a risk assessment regarding use of your well for drinking and bathing and also the type of treatment available to remove the contamination.

Should you have any questions, please contact me or Mr. Eric Klingel at (704) 663-1699, or if you wish to contact Dr. Taylor, his telephone number 9s (919) 733-2178.

Sincerely,

Tony R. Parker

Tony R. Parker
 Hydrogeological Technician

Approved By:

Eric J. Klingel

Eric J. Klingel
 Regional Hydrogeological Supervisor

cc: Mr. Bill Jeter
 Mr. L. P. Benton, Jr.
 Ms. Karen Long

AUG 24 1987

GROUND WATER SECTION
 DALEIGH-12-15

DIVISION OF ENVIRONMENTAL MANAGEMENT

July 20, 1987

MEMORANDUM TO: Dr. Ted Taylor
THROUGH: Bill Jeter
FROM: Eric Klingel *EJK*
SUBJECT: Request for Health Risk Assessment
Neil Goble Well
Gaston County, N. C.

It is requested that the Central Office contact Dr. Ted Taylor of DHR for a health risk assessment on the subject well (lab report attached). The well was sampled May 19, 1987 by request of Dr. Ted Taylor as a follow-up from previous sampling.

Mr. Gobles address is 444 North McGuire Street, Gastonia, North Carolina 28052 and his/her telephone number is 704/864-1974.

Should you have questions, please call me at 704/663-1699.

TRP:pb *TRP*

~~Bill~~ BILL

Working Draft of Proposed Laboratory Evaluation Form

- () Based on these analytical results, this water should be considered safe for normal usage.
- () Chemical analysis did not show any contamination. Because of odor, water should be resampled if odor persists.
- () Based on these analytical results, this water is contaminated with a petroleum product that may be gasoline, fuel oil, kerosene, or other.

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

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

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

Microbiological analysis ()

Chemical analysis ()

- () Laboratory number 79-720

- () Comments *I have sent a memo on the Neil Goble well. TT.*

- () Please indicate on lab sheet that it is a resample

For further information, contact the Environmental Epidemiology Branch,
(919) 733-3410.

COUNTY GASTON
 QUAD NO. Q7093 SERIAL NO. GS 3031
 LAT. 35 16 15 LONG. 81 13 06

N.C. DEPARTMENT OF NATURAL RESOURCES
 & COMMUNITY DEVELOPMENT
 DEM

LAB NUMBER 8 7G 720
 DATE RECEIVED 5/20/87 Time 9:00
 Rec'd by: JG From: Bus Courier
 Other _____
 DATA ENTRY BY: BW CK: DM
 DATE REPORTED: 7-14-87

GROUNDWATER FIELD/LAB FORM

SAMPLE PRIORITY

ROUTINE EMERGENCY

Report to: ARO, FRO, MRO RRO, WaRO, WIRO,
 WSR0, Kinston FO Other _____
 Shipped by Bus Courier Other _____

COLLECTOR(S): CRAWFORD/WELLS DATE 5/19/87 TIME 1150 PURPOSE: BASELINE, COMPLAINT, COMPLIANCE, LUST, OTHER _____
 (Circle one)

FIELD ANALYSES

pH₄₀₀ _____ Spec. Cond. ₉₄ _____ at 25°C
 Temp. ₁₀ 17 °C Odor NONE
 Appearance Clear Taste _____
 Field Analysis By: J. Wells

Owner MR. Neil Goble
 Location or site 444 N. Mc Guire St. Gastonia
 Description of sampling point Tap @ well head
 Sampling Method Sub (pump) bailer, etc.) Sample Interval UMK
 Remarks FRACTURE SYSTEM
 (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	<u><2</u> /100ml
✓ Coliform:MF Total 31504	<u><2</u> /100ml
TOC 680	mg/l
Turbidity 76	NTU
✓ pH 403	<u>6.4</u> units
✓ Alkalinity to pH 4.5 410	<u>20</u> mg/l
✓ Alkalinity to pH 8.3 415	<u><1</u> mg/l
✓ Carbonate 445	<u><1</u> mg/l
✓ Bicarbonate 440	<u>24</u> mg/l
Arsenic:Total 1002	ug/l
Carbon dioxide 405	mg/l
✓ Chloride 940	<u>1600</u> mg/l
Chromium:Hex 1032	ug/l
Color:True 80	Pt-Co
Cyanide 720	mg/l

Diss. Solids 70300	mg/l
✓ Fluoride 951	<u><0.1</u> mg/l
✓ Hardness:Total 900	<u>1300</u> mg/l
✓ Hardness (non-carb) 902	<u>1300</u> mg/l
✓ Phenols 32730	<u>5</u> ug/l
Specific Cond. 95	uMhos/cm ²
✓ Sulfate 945	<u>11</u> mg/l
Sulfide 745	mg/l
NH ₃ as N 610	<u>0.04</u> mg/l
TKN as N 625	mg/l
✓ NO ₂ + NO ₃ as N 630	<u>4.9</u> mg/l
✓ P:Total as P 665	<u>.02</u> mg/l

Ag - Silver 1077	ug/l
✓ Al - Aluminum 1105	<u>50</u> ug/l
✓ Ba - Barium 1007	<u>1400</u> ug/l
✓ Ca - Calcium 916	<u>430</u> mg/l
✓ Cd - Cadmium 1027	<u><10</u> ug/l
✓ Chromium:Total 1034	<u><25</u> ug/l
✓ Cu - Copper 1042	<u><10</u> ug/l
✓ Fe - Iron 1045	<u>330</u> ug/l
Hg - Mercury 71900	ug/l
✓ K - Potassium 937	<u>14</u> mg/l
✓ Mg - Magnesium 927	<u>55</u> mg/l
✓ Mn - Manganese 1055	<u><25</u> ug/l
✓ Na - Sodium 929	<u>350</u> mg/l
✓ Ni - Nickel 1067	<u><50</u> ug/l
✓ Pb - Lead 1051	<u><50</u> ug/l
✓ Se - Selenium 1147	<u><5.0</u> ug/l
✓ Zn - Zinc 1092	<u>44</u> ug/l

✓ Organochlorine Pesticides
✓ Organophosphorus Pesticides
✓ Acid Herbicides
✓ Base / Neutral Extractable Organics
✓ Acid Extractable Organics
✓ Purgeable Organics (VOA bottle)
✓ 1,2 - Dibromoethane (EDB)
SEE ATTACHED ORGANICS ANALYSIS REPORT

RECEIVED

JUL 13 1987

Lab Comments: _____

Reported by Cut

Date 1/19/81

Checked by LM

ORGANIC ANALYSIS

Supervisor REK

Entered by Bm

Checked by DM

Lab No.	Sample Type: <u>Water</u>	Analytical Results	Concentration
76-720		No base neutral or acid extractable organics detected by GC/FID	
		Beta BHC detected by GC/EC	0.06ug/l
		No pesticides detected for GC/FID	
		2,4,5-T detected by GC/EC	0.03ug/l
		1,1 dichloroethane	0.25ug/l
		Chloroform	0.95ug/l
		trichloroethene	0.49ug/l
		tetrachloroethene	0.62ug/l
		detected by GC/Hall	
		three unidentified peaks detected	
		by GC/FID	

POLLUTION INCIDENT REPORTING FORM

1. Incident # _____
2. Tabulate only _____

Division of Environmental Management
GROUNDWATER SECTION

TYPE OF ACTION

A	1. Emergency response	<input checked="" type="radio"/> 3. Complaint investigation	5. Re-evaluation : # _____
	2. Compliance investigation	4. Routine inventory	6. Other : _____
POTENTIAL HAZARDS : 1. Toxic chemicals 2. Radioactivity 3. Air emissions 4. Explosives 5. Fire			

INCIDENT

B	Incident Name <i>Neal Goble Property</i>		
	Address <i>444 N. McGuire St.</i>		City/Town <i>Gastonia N.C.</i>
	County <i>Gaston</i>	Region <i>MRO</i>	DEM Regional Contact <i>Erici Klinsik</i>

PERSON REPORTING INCIDENT

C	Name <i>Neal Goble</i>	Date <i>1-9-87</i>	Time <i>1030 hrs.</i>
	Company/Agency <i>N/A</i>		Telephone <i>704/864-1874</i>
	Briefly Describe Incident <i>Mr. Goble asked to have is well sampled, old well was high in chlorides & Nitrates. Had new well drilled. New well sampled 1-9-87 - no organics were taken. Bill Crawford re-sampled well for organics.</i>		
	REPORTED BY: 1. Responsible party 2. Government agency <input checked="" type="radio"/> 3. Private party		

RECOMMENDED ACTION

D	1. Investigation complete 3. Initiate/complete cleanup 5. Technical support 7. Enforcement action		
	<input checked="" type="radio"/> 2. Continue investigation 4. Long-term remedial action 6. Drill crew 8. Monitoring plan		
	Comments <i>Sources unknown, industrial area, may need drill crew</i>		
	LAB SAMPLES: 1. Yes 2. No	Signature <i>Tony R. Parker</i>	Date <i>7-27-87</i>

POLLUTION INCIDENT REPORTING FORM

Incident # _____
 County: Gaston

POLLUTANTS INVOLVED

	MATERIALS INVOLVED	AMOUNT STORED	AMOUNT LOST	AMOUNT RECOVERED
E	<u>Beta BHC / Chloroform</u>	<u>None</u>	_____	_____
	<u>2,4,5-T / Trichlorethene</u>	<u>"</u>	_____	_____
	<u>1,2, Dichloroethane / Tetrachloroethane</u>	<u>"</u>	_____	_____

3-wif. Peaks.

IMPACT ON SURFACE WATERS

F	WATERS EFFECTED: <input checked="" type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> No 3. Potentially	Distance to Stream (ft)	Amount in Water (gal)
	FISH KILL: 1. Yes <input checked="" type="radio"/> No	Name of Stream	Stream Class

Distance to Stream: 900'
 Amount in Water: None
 Name of Stream: unk.

RISK ASSESSMENT

Use these Codes: High = 3 Moderate = <input checked="" type="radio"/> Low = 1 None = 0				
G	Resource Threat	GROUNDWATER		
	Vertical Migration of Contaminant	<u>2</u>	Amount Infiltrating Land	
	Horizontal Migration of Contaminant	<u>2</u>		
	Areal Extent of Contamination	<u>2</u>	SURFACE WATER	AIR
	Probability of Violations	<u>2</u>	<u>0</u>	<u>0</u>
	Remedial Action Priority	<u>1</u>	<u>0</u>	<u>0</u>
	Potential Hazard of Substance	<u>2</u>	<u>0</u>	<u>0</u>
	Threat to Drinking Water	<u>2</u>	<u>0</u>	<u>0</u>
	Seriousness of Threat	<u>2</u>	<u>0</u>	<u>0</u>
	Overall Regional Concern	<u>2</u>	<u>0</u>	<u>0</u>
Please Circle the Appropriate Response(s):				
1. This incident poses additional threat to human health by: (1) inhalation (2) absorption <input checked="" type="radio"/> (3) ingestion				
2. This incident poses additional threat to the environment by potential adverse effects on:				
(1) sensitive areas (2) wildlife (3) fish				

POTENTIAL SOURCE OF POLLUTION

H	SOURCE OF POTENTIAL POLLUTION	TYPE OF POLLUTANT	LOCATION	SETTING
	1. Intentional dump 2. Pit, pond, lagoon 3. Leak--underground 4. Spray irrigation 5. Land application 6. Animal feedlot <input checked="" type="radio"/> 7. Source unknown 8. Septic tank	9. Sewer line 10. Stockpile 11. Landfill 12. Spill --surface 13. Well 14. Dredge Spoil 15. Nonpoint source	1. Pesticide/herbicide 2. Radioactive waste 3. Gasoline/diesel 4. Other petroleum prod. 5. Sewage/septage 6. Fertilizers 7. Sludge 8. Solid waste leachate 9. Metals 10. Other inorganics <input checked="" type="radio"/> 11. Other organics	1. Facility 2. Railroad 3. Waterway 4. Pipeline 5. Dumpsite 6. Highway <input checked="" type="radio"/> 7. Residence 8. Other
MULTIPLE SOURCES AT SITE: <input checked="" type="radio"/> 1. Yes 2. No		POLLUTION CONFIRMED 1. Yes 2. No		

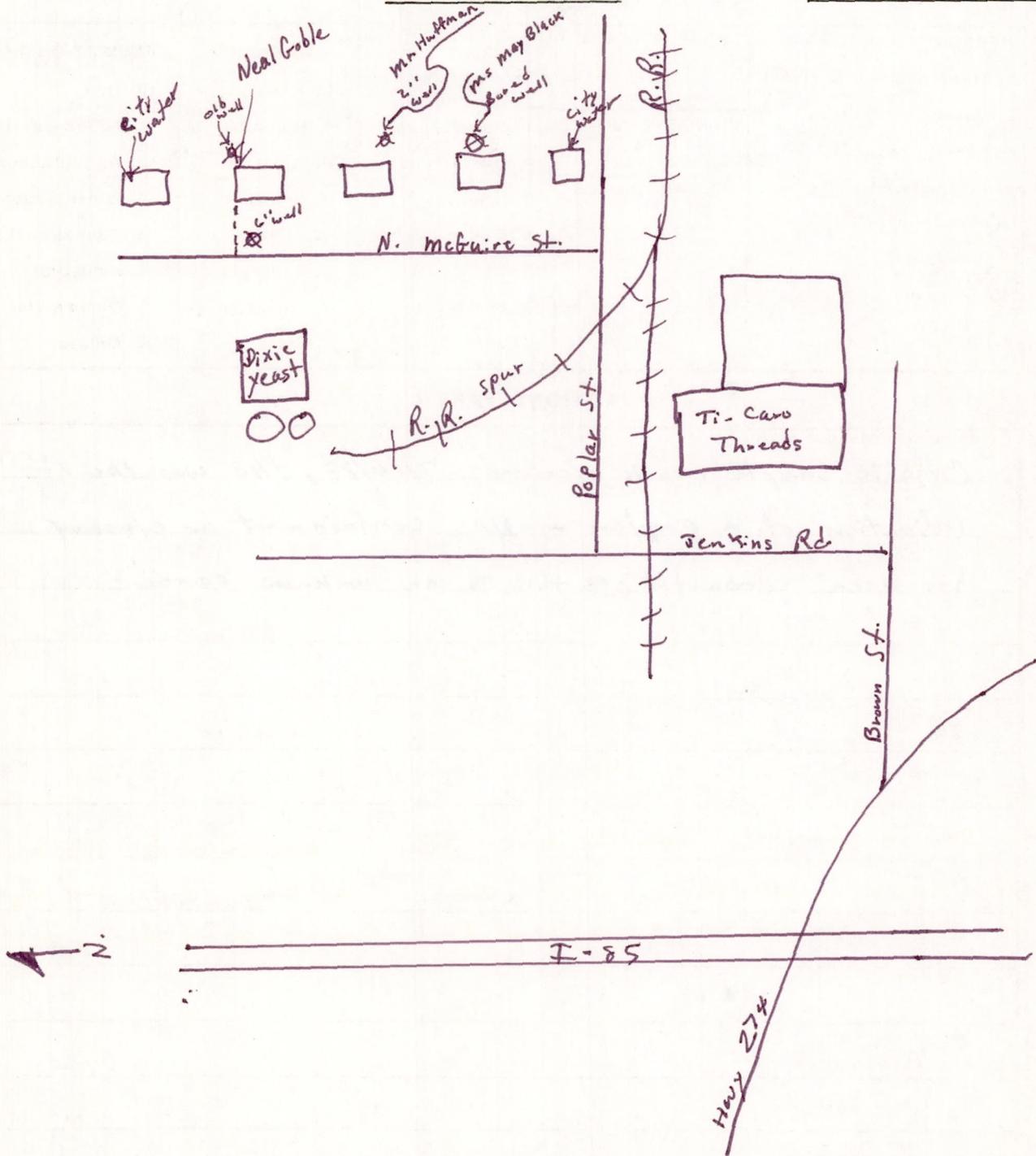
POLLUTION INCIDENT REPORTING FORM

Incident # _____
 County Gaston

LOCATION OF INCIDENT

Street Address, Road <u>444 N. McGuire St.</u>		City/Town <u>Gastonia</u>	County <u>Gaston</u>
Date Incident Occurred <u>unk.</u>	Time Incident Occurred <u>unk.</u>	7 1/2 Quad Name <u>Gastonia North</u>	Lat. : Deg: Min: Sec: <u>35 16 15</u>
			Long. : Deg: Min: Sec: <u>81 13 06</u>

Draw Sketch of Area



ATTACH PHOTOCOPY OF MAP SHOWING: 1. Pollutant Source 2. Threatened Water Supplies
 3. Direction of Overland Flow

POLLUTION INCIDENT REPORTING FORM

Incident # _____
 County: Caston

SOIL TYPES

COASTAL PLAIN REGION	PIEDMONT SOIL REGION	LANDFORM
1. Middle Coastal Plain	<u>10</u> Felsic Crystalline	1. River/coastal terrace
2. Upper Coastal Plain/Piedmont	11. Carolina Slate Belt	2. Coastal (flat) plain
3. Sandhills	12. Triassic Basin	3. Mountain range
4. Lower Coastal/Wicomico, Talbot	13. Mixed Felsic and Mafic	4. Sandhills
5. Lower Coastal Plain/Pamlico		5. Swamp
6. Organic Soil		6. Linear (valley) slope
7. Brackish and Freshwater Marsh		<u>7</u> . Head slope (concave)
8. Outer Banks		8. Nose slope (convex)
9. Large River Valleys/Flood Plain		9. Foot slope

OBSERVED AVERAGE GRADIENTS	ESTIMATED DEPTHS
To nearest water supply: <u>1</u> %	To uppermost confining bed: <u>25-35</u> ft.
Water table gradient: <u>1</u> %	To water table: <u>30</u> ft.
To nearest stream: <u>2</u> %	To bedrock: <u>100</u> ft.
Stream gradient: <u>2</u> %	

ESTIMATE HYDRAULIC CONDUCTIVITIES				AQUIFER USE
Soil	Unsaturated zone	Water Table	Upper confined aquifer	
1. high	1. high	1. high	1. high	1. Little or no use
<u>2</u> . medium	<u>2</u> . medium	<u>2</u> . medium	<u>2</u> . medium	<u>2</u> . Moderate uses
3. low	3. low	3. low	3. low	3. Heavily used
4. unknown	4. unknown	4. unknown	4. unknown	

DISTANCE TO NEAREST WATER SUPPLY: 400 ft. DISTANCE TO NEAREST BUILDING: 100 ft.

Describe general lithology of soil and unsaturated zone

Site is located in industrial area. Site is underlain by Fractured to Massive Granite Rock. Soil cover is red clay, estimated depth to water table is 30' & weathered Rock from 25-100' bedrock depth is 100'.

Provide map showing: 1. Pollutant source 2. Threatened water supplies 3. Direction of overland flow

NOTIFICATIONS

* 24 Hour Telephone Number

Date	Agency	Telephone	Time	Contact
_____	Spill Response Center-DEM	(919) 733-5291	_____	_____
_____	Water Supply-DHR	(919) 733-2321	_____	_____
_____	Solid/Hazardous Waste-DHR	(919) 733-2178	_____	_____
_____	Regional Office _____	_____	_____	_____
_____	Emergency Mngt.-CC&PS	(919) 733-3867	_____	_____
_____	Pesticides-DOA	(919) 733-3556	_____	_____
_____	Inland Fisheries-WRC	(919) 733-3633	_____	_____
_____	Wildlife Resources Commission	(800) 662-7137 *	_____	_____
_____	Marine Fisheries	(919) 726-7021	_____	_____
_____	Radiation Protection-DHR	(919) 733-4283	_____	_____
_____	EPA-Atlanta	(404) 881-4062 *	_____	_____
_____	Coast Guard-Wilmington	(919) 343-4567	_____	_____
_____	Coast Guard-Hampton Roads	(804) 441-3307	_____	_____
_____	National Response Center	(800) 424-8802 *	_____	_____
_____	(your supervisor) _____	_____	_____	_____
_____	(PIO) _____	_____	_____	_____
_____	(shipper) _____	_____	_____	_____
_____	(carrier) _____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	CHEMTREC (Chemical Spills Only)	(800) 424-9300 *	_____	_____
_____	N.C. Poison Center	(919) 684-8111 *	_____	_____
_____	Explosives problems-SBI	(919) 779-1400 *	_____	_____
_____	State Warning Point-SHP (emergencies only)	(919) 733-3861 * (800) 662-7956 *	_____	_____
_____	EPA-PCB problems	(919) 541-4573	_____	_____

Files



State of North Carolina
Department of Natural Resources and Community Development
Mooresville Regional Office

James G. Martin, Governor
S. Thomas Rhodes, Secretary

Albert F. Hilton, Regional Manager

DIVISION OF ENVIRONMENTAL MANAGEMENT

July 20, 1987

Mr. Neil Goble
444 North McGuire Street
Gastonia, N. C. 28052

Subject: Well Sampling Results
Goble Well
Gaston County, N. C.

Dear Mr. Goble:

This Office has received the analytical report on the water samples collected on May 19, 1987 from the 6" drilled well on your property located at 444 North McGuire Street at Gastonia in Gaston County.

Our laboratory has reported that the well is contaminated with the following organic compounds:

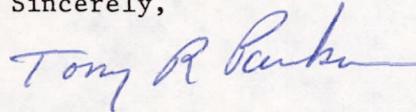
Beta BHC	0.06 ug/1 (micrograms per liter)
2,4,5-T	0.03 ug/1
1,1 Dichlorethane	0.25 ug/1
Chloroform	0.95 ug/1
Trichlorethene	0.49 ug/1
Tetrachloroethene	0.62 ug/1
Three unidentified peaks detected	

I am requesting our Central Office in Raleigh to contact Dr. Ted Taylor, Toxicologist, North Carolina Department of Human Resources, for a health risk assessment in using the well water for drinking, cooking and bathing and, also, a recommendation with regards to a water treatment system to effectively remove the contamination. Dr. Taylor should be in touch with you soon with his assessment.

Mr. Neil Goble
July 20, 1987
Page Two

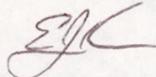
Should you have questions, please do not hesitate to call me at
704/663-1699.

Sincerely,



Tony R. Parker
Hydrogeological Technician

Approved by,



Eric J. Klingel
Regional Hydrogeological Supervisor

Attachment

cc: Incident Management Unit

TRP:pb

COUNTY GASTON

N.C. DEPARTMENT OF NATURAL RESOURCES
& COMMUNITY DEVELOPMENT

LAB NUMBER 8 76 720

QUAD NO. Q7003 SERIAL NO. GS 3031

DEM
GROUNDWATER FIELD/LAB FORM

DATE RECEIVED 5/20/87 Time 9:00

LAT. 35 16 15 LONG. 81 13 06

Rec'd by: Jo From: Bus/Courier

Report to: ARO, FRO, MRO, RRO, WaRO, WIRO,

SAMPLE PRIORITY

Other _____

WSRO, Kinston FO Other _____

ROUTINE EMERGENCY

DATA ENTRY BY: BW CK: DM

Shipped by: Bus, Courier, Other _____

DATE REPORTED: 7-14-87

COLLECTOR(S): CRAWFORD/WELLS DATE 5/19/87 TIME 1150 PURPOSE: BASELINE, COMPLAINT, COMPLIANCE, LUST, OTHER _____
(circle one)

FIELD ANALYSES

Owner MR Neil Gable

pH₄₀₀ _____ Spec. Cond. 94 at 25°C

Location or site 444 N. Mc Guire St. CUSTONIA

Temp. 17 °C Odor NONE

Description of sampling point Tap @ well head

Appearance Clear Taste _____

Sampling Method sub (pump, bailer, etc.) Sample Interval unk.

Field Analysis By: J Wells

Remarks FRacture SYSTEM (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	<2 /100ml
✓	Coliform:MF Total 31504	<2 /100ml
✓	TOC 680	mg/l
✓	Turbidity 76	NTU
✓	pH 403	6.4 units
✓	Alkalinity to pH 4.5 410	20 mg/l
✓	Alkalinity to pH 8.3 415	<1 mg/l
✓	Carbonate 445	<1 mg/l
✓	Bicarbonate 440	24 mg/l
✓	Arsenic:Total 1002	ug/l
✓	Carbon dioxide 405	mg/l
✓	Chloride 940	1600 mg/l
✓	Chromium:Hex 1032	ug/l
✓	Color:True 80	Pt-Co
✓	Cyanide 720	mg/l

✓	Diss. Solids 70300	mg/l
✓	Fluoride 951	<0.1 mg/l
✓	Hardness:Total 900	1300 mg/l
✓	Hardness (non-carb) 902	1300 mg/l
✓	Phenols 32730	5 ug/l
✓	Specific Cond. 95	uMhos/cm ²
✓	Sulfate 945	11 mg/l
✓	Sulfide 745	mg/l
✓	NH ₃ as N 610	0.04 mg/l
✓	TKN as N 625	mg/l
✓	NO ₂ + NO ₃ as N 630	4.9 mg/l
✓	P:Total as P 665	0.02 mg/l

✓	Ag - Silver 1077	ug/l
✓	Al - Aluminum 1105	50 ug/l
✓	Ba - Barium 1007	1400 ug/l
✓	Ca - Calcium 916	430 mg/l
✓	Cd - Cadmium 1027	<10 ug/l
✓	Chromium:Total 1034	<25 ug/l
✓	Cu - Copper 1042	<10 ug/l
✓	Fe - Iron 1045	330 ug/l
✓	Hg - Mercury 71900	ug/l
✓	K - Potassium 937	14 mg/l
✓	Mg - Magnesium 927	55 mg/l
✓	Mn - Manganese 1055	<25 ug/l
✓	Na - Sodium 929	350 mg/l
✓	Ni - Nickel 1067	<50 ug/l
✓	Pb - Lead 1051	<50 ug/l
✓	Se - Selenium 1147	<5.0 ug/l
✓	Zn - Zinc 1092	44 ug/l

✓	Organochlorine Pesticides
✓	Organophosphorus Pesticides
✓	Acid Herdicides
✓	Base / Neutral Extractable Organics
✓	Acid Extractable Organics
✓	Purgeable Organics (VOA bottle)
✓	1,2 - Dibromoethane (EDB)
SEE ATTACHED ORGANICS ANALYSIS REPORT	

Lab Comments: _____

Reported by CW

Date 7/9/87

Checked by LM

ORGANIC ANALYSIS

Supervisor REK

Entered by Bm

Checked by RM

Lab No.	Sample Type: <u>Water</u>	Analytical Results	Concentration
76-720	No base neutral or acid extractable organics detected by GC/FID		
		Beta BHC detected by GC/EC	0.06ug/l
	No pesticides detected for GC/FID		
		2,4,5-T detected by GC/EC	0.03ug/l
		1,1 dichloroethane	0.25ug/l
		Chloroform	0.95ug/l
		trichloroethene	0.49ug/l
		tetrachloroethene	0.62ug/l
	three unidentified peaks detected by GC/FID	detected by GC/Hall	

COUNTY Gaston
 QUAD NO. R7003 SERIAL NO. CS3031
 LAT. 35 16 15 LONG. 81 13 06

N.C. DEPARTMENT OF NATURAL RESOURCES
 & COMMUNITY DEVELOPMENT
 DEM

LAB NUMBER 8 76396 ✓
 DATE RECEIVED 8/23/87 Time 0910
 Rec'd by: HMMW From: Bus-Courier

GROUNDWATER FIELD/LAB FORM

Report to: ARO, FRO, MRO, RRO, WaRO, WiRO,
 WSRO, Kinston FO Other _____
 Shipped by: Bus, Courier, Other _____

SAMPLE PRIORITY
 ROUTINE EMERGENCY

Other _____
 DATA ENTRY BY: [Signature] CK: [Signature]
 DATE REPORTED: 4-7-87

COLLECTOR(S): T. Parker DATE 8/03 TIME _____ PURPOSE: BASELINE, COMPLAINT, COMPLIANCE, LUST, OTHER _____
 (circle one)

FIELD ANALYSES

Owner Mr. Neil Groble
 pH₄₀₀ _____ Spec. Cond. 94 at 25°C Location or site 444 North McGuire St. Gastonia NC
 Temp. 10 °C Odor _____ Description of sampling point Well head tap
 Appearance _____ Taste _____ Sampling Method Sub Sample Interval unk.
 (pump, bailer, etc.)
 Field Analysis By: _____ Remarks 5 min
 (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

RECEIVED
 DEPT. OF ENVIRONMENTAL MANAGEMENT
 APR 8 1987
 MOORESVILLE REGIONAL OFFICE

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/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 Herdicides
Base / Neutral Extractable Organics
Acid Extractable Organics
Purgeable Organics (VOA bottle)
1,2 - Dibromoethane (EDB)

Lab Comments: _____

COUNTY Gaston
 QUAD NO. Q70 Q3 SERIAL NO. G5 3031
 LAT. 35 16 15 LONG. 81 13 06

N.C. DEPARTMENT OF NATURAL RESOURCES
 & COMMUNITY DEVELOPMENT
 DEM

LAB NUMBER 8 76396
 DATE RECEIVED 8/23/87 Time 0910
 Rec'd by: HMU From: Bus. Courier

(1)

GROUNDWATER FIELD/LAB FORM

Report to: ARO, FRO, MRO, RRO, WaRO, WiRO,

WSRO, Kinston FO Other _____

Shipped by: Bus. Courier Other _____

COLLECTOR(S): T. Parker DATE 8/23 TIME _____ PURPOSE: BASELINE, COMPLAINT, COMPLIANCE, LUST, OTHER _____
 (Circle one)

SAMPLE PRIORITY

ROUTINE EMERGENCY

Other _____

DATA ENTRY BY: JM CK: DF

DATE REPORTED: 4-7-87

FIELD ANALYSES

pH₄₀₀ _____ Spec. Cond. ₉₄ _____ at 25°C

Temp. ₁₀ _____ °C Odor _____

Appearance _____ Taste _____

Field Analysis By: _____

Owner Mr. Neil Goble

Location or site 444 North. McGuire St. Gastonia NC

Description of sampling point Well head tap

Sampling Method Sub (pump, bailer, etc.) Sample Interval unk.

Remarks _____ 5 min. (pumping time, air temp., etc.)

LABORATORY ANALYSES

80D 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
<input checked="" type="checkbox"/> Chloride 940	<u>1400</u> 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/cm ²
Sulfate 945	mg/l
Sulfide 745	mg/l
NH ₃ as N 610	<u>1.08</u> mg/l
TKN as N 625	mg/l
<input checked="" type="checkbox"/> NO ₂ + NO ₃ as N 630	<u>5.2</u> 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: _____

APR 8 1987
 GASTON COUNTY
 HEALTH DEPARTMENT

Working Draft of Proposed Laboratory Evaluation Form

- () Based on these analytical results, this water should be considered safe for normal usage.
- () Chemical analysis did not show any contamination. Because of odor, water should be resampled if odor persists.
- () Based on these analytical results, this water is contaminated with a petroleum product that may be gasoline, fuel oil, kerosene, or other.

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

- () Based on these analytical results, this water is highly contaminated and should not be used for drinking, cooking or bathing.
- () The laboratory results are not conclusive, please resample for:

Microbiological analysis ()

Chemical analysis ()

() Laboratory number 79396

() Comments

I talked to someone involving this case. An organic scan should be run

Please indicate on lab sheet that it is a resample

For further information, contact the Environmental Epidemiology Branch,
(919) 733-3410.

Working Draft of Proposed Laboratory Evaluation Form

- () Based on these analytical results, this water should be considered safe for normal usage.
- () Chemical analysis did not show any contamination. Because of odor, water should be resampled if odor persists.
- () Based on these analytical results, this water is contaminated with a petroleum product that may be gasoline, fuel oil, kerosene, or other.
The water should not be used for drinking or cooking purposes, avoid prolonged bathing.
- () Based on these analytical results, this water is highly contaminated and should not be used for drinking, cooking or bathing.
- () The laboratory results are not conclusive, please resample for:

Microbiological analysis ()

Chemical analysis ()

() Laboratory number 75-31

() Comments

None of the inorganic agents are present at a level of concern. Someone needs to interpret the coliform results. If questions remain on the quality of water, an organic scan is indicated

X Please indicate on lab sheet that it is a resample

For further information, contact the Environmental Epidemiology Branch,
(919) 733-3410.

APR 10 1987

DIVISION OF ENVIRONMENTAL MANAGEMENT

GROUNDWATER SECTION

April 1, 1987



MEMORANDUM

TO: Linda Sewall
FROM: Bill Jeter *[Signature]*
SUBJECT: Request For Assessment Of Health Risk

The staff of the Mooresville Region has requested Dr. Taylor's assessment of the health risk of consuming the groundwater from Neil Goble's well. Should there be any questions concerning the request, please contact Eric Klingel at (704) 663-1699.

Attachment

WCJ/bjg

cc: Files

COUNTY Haston
 QUAD NO Q7093 SERIAL NO. GS 3031
 LAT. 35 16 15 LONG. 81 13 06

New well
 N.C. DEPARTMENT OF NATURAL RESOURCES
 & COMMUNITY DEVELOPMENT
 DEM

LAB NUMBER 8 76-31
 DATE RECEIVED 1-12-87 Time 9:00
 Rec'd by: DNT From: Bus Courier
 Other _____
 DATA ENTRY BY: [Signature] CK: LM
 DATE REPORTED: 2-5-87

1

Report to: ARO, FRO, MRO, RRO, WaRO, WIRO,
 WSRO, Kinston FO Other _____
 Shipped by: Bus Courier, Other _____
 COLLECTOR(S): [Signature] DATE 1-9-87 TIME 1030

GROUNDWATER FIELD/LAB FORM

SAMPLE PRIORITY
 ROUTINE EMERGENCY

PURPOSE: BASELINE, COMPLAINT, COMPLIANCE, LUST, OTHER _____
 (circle one)

FIELD ANALYSES

pH₄₀₀ 5.5 Spec. Cond. 3360 @ 25°C
 Temp. 16 °C Odor none
 Appearance clear Taste N/A
 Field Analysis By: [Signature]

Owner Mr. Neil Noble
 Location or site 444 N. McGinnis St. Gastonia N.C.
 Description of sampling point Well head tap
 Sampling Method _____
 Remarks (pump, batter, etc.) Sample Interval 5 min
(pumping time, str temp, etc.)

LABORATORY ANALYSES

BOD ₅ 310	mg/l
COD High 340	mg/l
COD Low 335	mg/l
Collform:MF Fecal 31616	/100ml
Collform:MF Total 31504	/100ml
<input checked="" type="checkbox"/> TOC 680	<u><5</u> 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
<input checked="" type="checkbox"/> Chloride 940	<u>1500</u> mg/l
Chromium:Hex 1032	ug/l
Color:True 80	Pt-Co
Cyanide 720	mg/l

Dis. 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/cm ²
Sulfate 945	mg/l
Sulfide 745	mg/l
<input checked="" type="checkbox"/> TSS	<u>4</u> mg/l
DIVISION OF ENVIRONMENTAL MANAGEMENT ROCKVILLE, N.C. 28153 COMMUNITY DEVELOPMENT	
NH ₃ as N 61	mg/l
TKN as N 625	mg/l
<input checked="" type="checkbox"/> NO ₂ + NO ₃ as N	<u>5.2</u> mg/l
P:Total as P 60	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
<input checked="" type="checkbox"/> Chromium:Total 1034	<u>225</u> ug/l
<input checked="" type="checkbox"/> Cu - Copper 1042	<u>210</u> ug/l
<input checked="" type="checkbox"/> Fe - Iron 1045	<u>160</u> ug/l
Hg - Mercury 71900	ug/l
K - Potassium 937	mg/l
Mg - Magnesium 927	mg/l
<input checked="" type="checkbox"/> Mn - Manganese 1055	<u>30</u> ug/l
Na - Sodium 929	mg/l
Ni - Nickel 1067	<u>250</u> ug/l
<input checked="" type="checkbox"/> Pb - Lead 1051	<u>250</u> ug/l
Se - Selenium 1147	ug/l
<input checked="" type="checkbox"/> Zn - Zinc 1092	<u>41</u> ug/l

Organochlorine Pesticides
Organophosphorus Pesticides
Acid Herbicides
<input checked="" type="checkbox"/> Base / Neutral Extractable Organics
Acid Extractable Organics
Purgeable Organics (VOA bottle)
1,2 - Dibromoethane (DOB)

Lab Comments: _____

COUNTY Haston
 QUAD NO. Q 7293 SERIAL NO. 25313
 LAT. 35 16 15 LONG. 81 17 26

New well
 N.C. DEPARTMENT OF NATURAL RESOURCES
 & COMMUNITY DEVELOPMENT
 DEM

LAB NUMBER 8 76 206
 DATE RECEIVED 2-15-87 Time 9:0
 Rec'd by: [Signature] From: Bus: Courier
 Other _____
 DATA ENTRY BY: [Signature] CK: DE
 DATE REPORTED: 2-20-87

GROUNDWATER FIELD/LAB FORM

SAMPLE PRIORITY

ROUTINE EMERGENCY

Report to: ARO, FRO, MRO, RRO, WaRO, WIRO,
 WSRO, Kinston FO Other _____
 Shipped by: Bus: Courier Other _____

COLLECTOR(S): [Signature] DATE 2/14/87 TIME 1030 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 Mr. Neil Noble
 Location or site 444 N. Wagon St. Gaston
 Description of sampling point well hand dug
 Sampling Method _____ Sample Interval 10
 (pump, bailer, etc.)
 Remarks [Signature]
 (pumping time, air temp, etc.)

LABORATORY ANALYSES

BOD ₅ 310	mg/l
COD High 340	mg/l
COD Low 335	mg/l
X Collform:MF Fecal 31616	< 1 /100ml
X Collform:MF Total 31504	2 /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/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
Herbicides
Base / Neutral Extractable Organics
Acid Extractable Organics
Purgeable Organics (VOA bottle)
1,2 - Dibromoethane (EOB)

Lab Comments: _____

DIVISION OF ENVIRONMENTAL MANAGEMENT

March 19, 1987

MEMORANDUM TO: Ted Taylor, Ph. D., Toxicologist
Environmental Epidemiology Branch

THROUGH: Ronald L. McMillan *RLM*
Mooresville Regional Supervisor

THROUGH: Eric J. Klingel *EJK*
Groundwater Regional Supervisor

THROUGH: Bill Jeter, Head Incident Management Group

FROM: Tony R. Parker *TRP*

SUBJECT: Risk Assessment for Contaminates Detected in
Private Water Supply Well of Mr. Neil Goble,
Gaston County

MAR 23 1987
KALLIUM, N. C. DIVISION

It is requested that a risk assessment be performed on the following sample analysis. The sample was collected from a private water supply well owned by Mr. Neil Goble located at 444 North McGuire Street in Gastonia in Gaston County.

Reconnaissance of the area revealed that the well is located in an industrial and residential setting. The well is located downgradient from single family septic tank systems.

Attached is a copy of the laboratory analysis of the water sample collected on January 9, 1987. Please provide a risk assessment of potential exposure (drinking and bathing) to the identified chlorides, nitrates, etc. and recommendation for usage, treatment, or discontinuance of the subject water supply.

If you should have any questions or need additional information, please contact me or Mr. Eric Klingel at (704) 663-1699.

Attachment

cc: Mr. Neil Goble
Mr. L. P. Benton, Jr.
Ms. Karen Long

TRP:se

COUNTY Hastin
 QUAD NO. 7043 SERIAL NO. 653031
 LAT. 35 16 15 LONG. 81 13 06

N.C. DEPARTMENT OF NATURAL RESOURCES
 & COMMUNITY DEVELOPMENT
 DEM

LAB NUMBER 8 76-31
 DATE RECEIVED 1-12-87 Time 9:00
 Rec'd by: DNT From: Bus Courier

(1)

Report to: ARO, FRO, MRO, RRO, WaRO, WIRO,
 WSRO, Kinston FO Other _____
 Shipped by: Bus, Courier, Other _____

GROUNDWATER FIELD/LAB FORM

SAMPLE PRIORITY
 ROUTINE EMERGENCY

Other _____
 DATA ENTRY BY: Bme CK: LM
 DATE REPORTED: 2-5-87

COLLECTOR(S): J. Parker DATE 1-9-87 TIME 1030 PURPOSE: BASELINE, COMPLAINT, COMPLIANCE, LUST, OTHER _____
 (circle one)

FIELD ANALYSES

pH₄₀₀ 5.5 Spec. Cond. 3360 @ 25°C
 Temp. 16 °C Odor none
 Appearance Clear Taste N/A
 Field Analysis By: J. Parker

Owner Mr. Neil Noble
 Location or site 444 N. McCain St. Gastonia N.C.
 Description of sampling point Well head tap
 Sampling Method _____ Sample Interval _____
 Remarks (pump water, etc.) 5 min
 (pumping time, air temp, etc.)

LABORATORY ANALYSES

BOD ₅ 310	mg/l
COD High 340	mg/l
COD Low 335	mg/l
Collform:MF Fecal 31616	/100ml
Collform:MF Total 31504	/100ml
X TOC 680	<u><5</u> 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
X Chloride 940	<u>1500</u> 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/cm ²
Sulfate 945	mg/l
Sulfide 745	mg/l
X TSS	<u>4</u> mg/l
NH ₃ as N 610	<u>.05</u> mg/l
TKN as N 625	mg/l
X NO ₂ + NO ₃ as N 630	<u>5.2</u> 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
X Chromium:Total 1034	<u>225</u> ug/l
X Cu - Copper 1042	<u>410</u> ug/l
X Fe - Iron 1045	<u>160</u> ug/l
Hg - Mercury 71900	ug/l
K - Potassium 937	mg/l
Mg - Magnesium 927	mg/l
X Mn - Manganese 1055	<u>30</u> ug/l
Na - Sodium 929	mg/l
Ni - Nickel 1067	<u>450</u> ug/l
X Pb - Lead 1051	<u>250</u> ug/l
Se - Selenium 1147	ug/l
X Zn - Zinc 1092	<u>41</u> ug/l

Organochlorine Pesticides
Organophosphorus Pesticides
Acid Herbicides
Base / Neutral Extractable Organics
Acid Extractable Organics
Purgeable Organics (VOA bottle)
1,2 - Dibromoethane (EDB)
FEB 6 1987
CR...

Lab Comments: _____

Working Draft of Proposed Laboratory Evaluation Form

- () Based on these analytical results, this water should be considered safe for normal usage.
- () Chemical analysis did not show any contamination. Because of odor, water should be resampled if odor persists.
- () Based on these analytical results, this water is contaminated with a petroleum product that may be gasoline, fuel oil, kerosene, or other.

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

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

The laboratory results are not conclusive, please resample for:

Microbiological analysis ()

Chemical analysis organics

() Laboratory number 79-31

() Comments

Previous comments indicated this should be resampled for organics

Please indicate on lab sheet that it is a resample

For further information, contact the Environmental Epidemiology Branch,
(919) 733-3410.

File



State of North Carolina
Department of Natural Resources and Community Development
Mooresville Regional Office

James G. Martin, Governor
S. Thomas Rhodes, Secretary

Albert F. Hilton, Regional Manager

DIVISION OF ENVIRONMENTAL MANAGEMENT

March 19, 1987

Mr. Neil Goble
444 North McGuire Street
- Gastonia, North Carolina 28052

Dear Mr. Goble:

After reviewing the laboratory report concerning the 6 inch drilled well located on your property at 444 North McGuire Street in Gastonia in Gaston County, I have, by copy of memorandum, contacted Dr. Ted Taylor, Toxicologist with the Department of Human Resources, to request a risk assessment regarding use of your well for drinking and bathing and also the type of treatment available to remove the contamination.

Should you have any questions, please contact me or Mr. Eric Klingel at (704) 663-1699, or if you wish to contact Dr. Taylor, his telephone number is (919) 733-2178.

Sincerely,

A handwritten signature in blue ink that reads "Tony R. Parker".

Tony R. Parker
Hydrogeological Technician

Approved By:

Eric J. Klingel
Regional Hydrogeological Supervisor

cc: Mr. Bill Jeter
Mr. L. P. Benton, Jr.
Ms. Karen Long

TRP:se

MEMO.

DATE: 3/17/87

TO: File

SUBJECT: Neil Noble Well

Received call from Karen Long
on 3/17/87 @ 1445 - she has
requested that we go out and
resample for chlorides and Nitrate.

Attorney General's Office
N.C. Dept. of Justice
P.O. Box 629
Raleigh NC 27602
919/733-7214

She also would like a copy of lab results
on the next sample.

TR



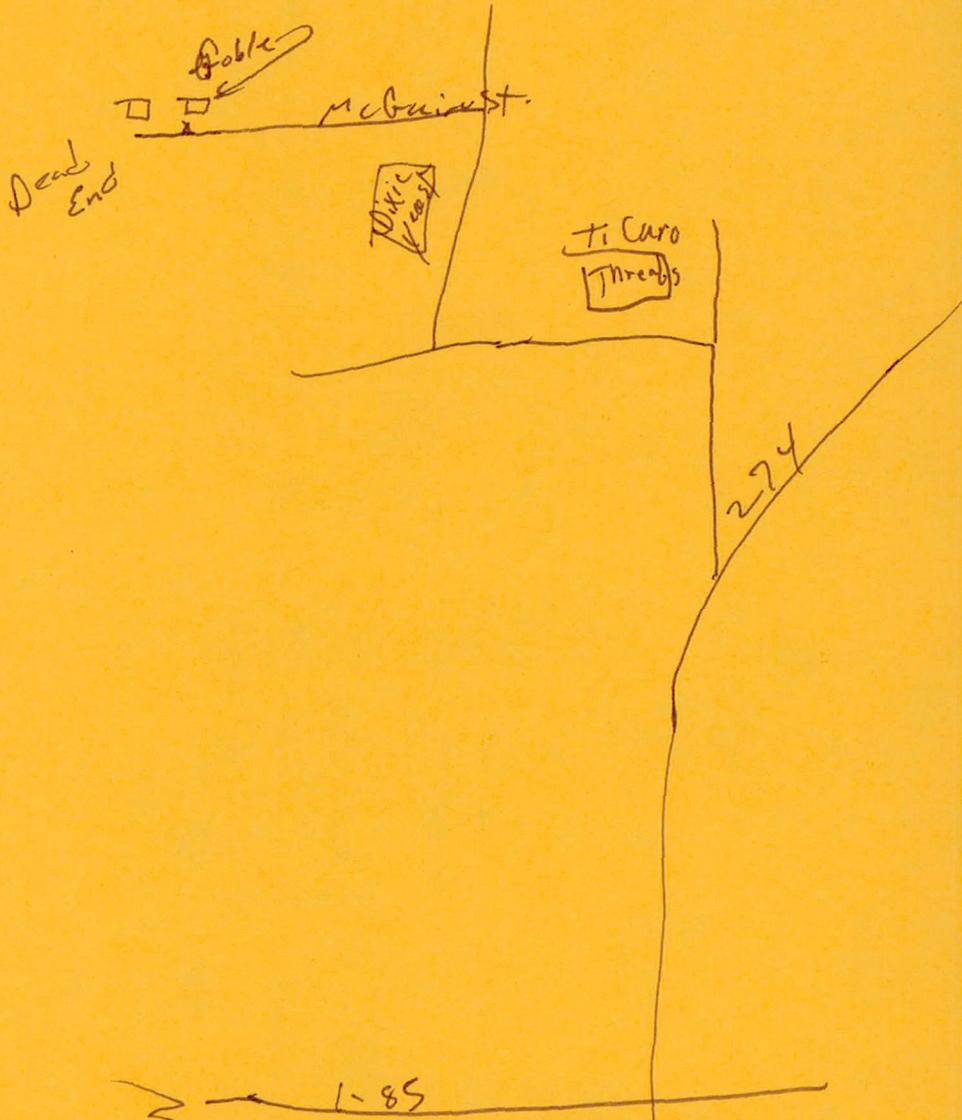
North Carolina Department of Natural
Resources & Community Development

MEMO.

DATE: _____

TO: _____

SUBJECT: _____



North Carolina Department of Natural Resources & Community Development

275

File



State of North Carolina
Department of Natural Resources and Community Development
Mooresville Regional Office

James G. Martin, Governor
S. Thomas Rhodes, Secretary

Albert F. Hilton, Regional Manager

DIVISION OF ENVIRONMENTAL MANAGEMENT

March 12, 1987

Ms. Mae Black
416 North McGuire Street
Gastonia, North Carolina 28052

Dear Ms. Black:

Please find enclosed a copy of the laboratory report on the water sample collected from the bored well on your property at 416 North McGuire Street at Gastonia in Gaston County.

The analysis of your water collected on February 11, 1987 revealed the following concentrations for the parameters analyzed:

1. Chlorides - 97 mg/l
2. Nitrate - 1.6 mg/l
3. Total Coliform - 130 colonies per 100 milliliters

The recommended levels for the parameters listed above are as follows:

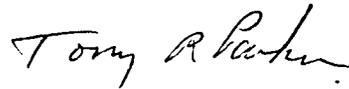
1. Chlorides - 250 mg/l or less
2. Nitrate - 10.0 mg/l or less
3. Total Coliform - 1 per 100 milliliters

The report indicates the parameters for Chlorides and Nitrates are within the recommended levels, however, the report indicated that total coliform has exceeded the recommended level. It should be noted that bored wells should be chlorinated about every two years to prevent bacteria build up, as this is a common problem with this type of well. The well should be chlorinated by using (HTH) swimming pool chlorine which can be supplied by most plumbing companies. I have attached a chart for your convenience to use to determine the proper amount of chlorine needed for your bored well.

Ms. Mae Black
Page Two
March 12, 1987

If you should have any questions, please contact me or Mr. Eric Klingel at
(704) 663-1699.

Sincerely,



Tony R. Parker
Hydrogeological Technician

Approved By:

Eric J. Klingel
Hydrogeologic Regional Supervisor

Enclosure

cc: Mr. Neil Goble

TRP:se

MEMO.

DATE: 3/6/87TO: Fale

SUBJECT: _____

Received call from Mr. Goble on 3/6/87 at 1500 hours. Mr. Goble wanted to know if his water was safe to drink. I advised him to call Ted Taylor for this information. He also stated that the lead appeared to be very high on the lab analyzer picked up on 1/9/87, Mr. Goble thought that the results read 250 $\mu\text{g/l}$ on Pb - but the results actually ~~read~~ read $< 50 \mu\text{g/l}$.



North Carolina Department of Natural Resources & Community Development

COUNTY Haston
 QUAD NO. 27093 SERIAL NO. 25303
 LAT. 35 16 15 LONG. 01 17 06

W. E. Well
 N.C. DEPARTMENT OF NATURAL RESOURCES
 & COMMUNITY DEVELOPMENT
 DEM
 GROUNDWATER FIELD/LAB FORM

LAB NUMBER 8 76 206
 DATE RECEIVED 2-17-87 Time 9:00
 Rec'd by: D. J. J. From: Bus-Courier
 Other _____
 DATA ENTRY BY: DM CK: DF
 DATE REPORTED: 2-20-87

Report to: ARO, FRO, MRO, RRO, WaRO, WIRO,
 WSR0, Kinston FO Other _____
 Shipped by: Bus, Courier, Other _____

SAMPLE PRIORITY
 ROUTINE EMERGENCY

COLLECTOR(S): T. P. ... DATE 2/11/87 TIME 1020 PURPOSE: BASELINE, COMPLAINT, COMPLIANCE, LUST, OTHER _____
 (circle one)

FIELD ANALYSES

Owner Mr. Neil Noble
 pH₄₀₀ _____ Spec. Cond. 94 at 25°C Location or site 444 N. Magnolia St. Haston
 Temp. 10 °C Odor _____ Description of sampling point Well hand tap
 Appearance _____ Taste _____ Sampling Method _____ Sample Interval 1 min.
 Field Analysis By: _____ Remarks 5 min.
 (pumping time, air temp, etc.)

LABORATORY ANALYSES

	BOD ₅ 310	mg/l
	COD High 340	mg/l
	COD Low 335	mg/l
X	Coliform:MF Fecal 31616	<1 /100ml
X	Coliform:MF Total 31504	2 /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/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 Herdicides
	Base / Neutral Extractable Organics
	Acid Extractable Organics
	Purgeable Organics (VOA bottle)
	1,2 - Dibromoethane (EDB)

Lab Comments: _____

ACCEPTED FOR NATURAL RESOURCES AND COMMUNITY DEVELOPMENT
 DIVISION OF ENVIRONMENTAL MANAGEMENT
 RALEIGH REGIONAL OFFICE
 FEB 25 1987



State of North Carolina
Department of Natural Resources and Community Development
Mooreville Regional Office

James G. Martin, Governor
S. Thomas Rhodes, Secretary

Albert F. Hilton, Regional Manager

DIVISION OF ENVIRONMENTAL MANAGEMENT

February 12, 1987

Mr. Neil Goble
444 North McGuire Street
Gastonia, N. C. 28052

Dear Mr. Goble:

Please find enclosed a copy of the laboratory analyses that was conducted from the samples obtained from your new well on January 9, 1987. Also enclosed are copies of the laboratory analyses from your old well and Ms. Joyce Goble's well.

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

Sincerely,

A handwritten signature in cursive script that reads "Tony R. Parker".

Tony R. Parker
Hydrogeological Technician

TRP:pb

COUNTY Gaston
 QUAD NO. 27093 SERIAL NO. 653031
 LAT. 35 16 15 LONG. 81 13 06

New well
 N.C. DEPARTMENT OF NATURAL RESOURCES
 & COMMUNITY DEVELOPMENT
 DEM

LAB NUMBER 8 76-31
 DATE RECEIVED 1-9-87 Time 9:00
 Rec'd by: DNT From: Bus-Courier
 Other _____
 DATA ENTRY BY: Dm CK: LM
 DATE REPORTED: 2-5-87

Report to: ARO, FRO, MRO, RRO, WaRO, WIRO,
 WSRO, Kinston FO Other _____
 Shipped by: Bus, Courier, Other _____

GROUNDWATER FIELD/LAB FORM

SAMPLE PRIORITY

ROUTINE EMERGENCY

COLLECTOR(S): Parker DATE 1-9-87 TIME 1030 PURPOSE: BASELINE, COMPLAINT, COMPLIANCE, LUST, OTHER _____
 (circle one)

FIELD ANALYSES

pH₄₀₀ 5.5 Spec. Cond. 3360 at 25°C
 Temp. 16 °C Odor none
 Appearance clear Taste N/A
 Field Analysis By: T Parker

Owner Mr. Neil Goble
 Location or site 444 N. McGuire St. Gastonia N.C.
 Description of sampling point Well head tap
 Sampling Method _____ Sample Interval _____
 (pump, bailer, etc.) 5 min
 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
X	TOC 680	<u><5</u> 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
X	Chloride 940	<u>1500</u> 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/cm ²
	Sulfate 945	mg/l
	Sulfide 745	mg/l
X	<u>TSS</u>	<u>4</u> mg/l
	NH ₃ as N 610	<u>.05</u> mg/l
	TKN as N 625	mg/l
X	NO ₂ + NO ₃ as N 630	<u>5.2</u> 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
X	Chromium:Total 1034	<u>225</u> ug/l
X	Cu - Copper 1042	<u>210</u> ug/l
X	Fe - Iron 1045	<u>160</u> ug/l
	Hg - Mercury 71900	ug/l
	K - Potassium 937	mg/l
	Mg - Magnesium 927	mg/l
X	Mn - Manganese 1055	<u>30</u> ug/l
	Na - Sodium 929	mg/l
X	Ni - Nickel 1067	<u>250</u> ug/l
X	Pb - Lead 1051	<u>250</u> ug/l
	Se - Selenium 1147	ug/l
X	Zn - Zinc 1092	<u>41</u> ug/l

	Organochlorine Pesticides
	Organophosphorus Pesticides
X	Acid Herdicides
	Base / Neutral Extractable Organics
	Acid Extractable Organics
	Purgeable Organics (VOA bottle)
	1,2 - Dibromoethane (EDB)

Lab Comments: _____

File



State of North Carolina
Department of Natural Resources and Community Development
Mooreville Regional Office

James G. Martin, Governor
S. Thomas Rhodes, Secretary

Albert F. Hilton, Regional Manager

DIVISION OF ENVIRONMENTAL MANAGEMENT

January 15, 1987

Mrs. Joyce Goble
425 Beech Street
Gastonia, North Carolina 28052

Dear Mrs. Goble:

We have received the laboratory report on the water samples collected from the 24-inch bored well on your property, located off Beech Street in Gaston County.

All parameters analyzed were within the recommended drinking water standards with the exception of fecal and total coliforms. In addition to the coliform bacteria, many non-coliforms were detected in the water.

It is this Office's recommendation that the well be properly chlorinated and rechecked for coliform bacteria. The following method is recommended for chlorination:

1. Chlorine should be placed in the well in sufficient quantities to produce a chlorine residual of at least 100 parts per million (ppm) in the well.
2. The water in the well should be thoroughly agitated to allow dispersion of the chlorine.
3. The well casing, pump column, and any other equipment above the water level in the well shall be thoroughly rinsed with chlorine as a part of the disinfecting process.
4. The chlorine should be allowed to stand in the well for a period of at least 24 hours.
5. The well should then be pumped until the system is clear of the chlorine before the system is placed back into service.

Mrs. Joyce Goble
Page Two
January 15, 1987

I have enclosed a chart which indicates the proper amount of chlorine necessary to produce a residual of 100 ppm. After chlorination, I would suggest you contact the Gaston County Health Department to request a sample be taken from your well for coliform bacteria.

Should you have any questions concerning the sampling results, please do not hesitate to contact me or Jesse Wells at (704) 663-1699.

Sincerely,



Eric J. Klingel
Hydrogeological Regional Supervisor

Enclosure

JWW:se

Bored $\frac{97}{10}$

2" - $\frac{80}{10}$

2" - $\frac{0}{1200}$ $\frac{0.6''}{1500}$



COUNTY Gaston
 QUAD NO. Q70r1 SERIAL NO. RS 3001
 LAT. 35 16 17 LONG. 81 12 59

N.C. DEPARTMENT OF NATURAL RESOURCES
 & COMMUNITY DEVELOPMENT
 DEM
 GROUNDWATER FIELD/LAB FORM

LAB NUMBER 8 609-900 904
 DATE RECEIVED 11/19/86 Time 8:00
 Rec'd by: JG From: Bus-Courier
 Other _____
 DATA ENTRY BY: Bm CK: LM
 DATE REPORTED: 1-7-87

Report to: ARO, FRO, MRO, RRO, WaRO, WiRO,
 WSR0, Kinston FO Other _____
 Shipped by: Bus, Courier, Other _____

SAMPLE PRIORITY
 ROUTINE EMERGENCY

COLLECTOR(S): Wells/Crawford DATE 11/18/86 TIME 1030 PURPOSE: BASELINE, COMPLAINT, COMPLIANCE, LUST, OTHER _____
 (circle one)

FIELD ANALYSES

Owner Mrs. Joyce Gable 425 Beech St. Castonia 28022 (704) 865-5623
 pH₄₀₀ 6.24 Spec. Cond. 199 at 25°C Location or site Travel 0.7 mi N on Beech St. on the W side
 Temp. 10 °C Odor NONE Description of sampling point Top at well
 Appearance Clear Taste _____ Sampling Method Jet Pump Sample Interval UNKNOWN
 (pump, bailer, etc.)
 Field Analysis By: J Wells 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	10 /100ml
✓	Coliform:MF Total 31504	600 /100ml
	TOC 680	<5 mg/l
	Turbidity 76	NTU
✓	pH 403	6.7 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	70 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/cm ²
	Sulfate 945	mg/l
	Sulfide 745	mg/l
	NH ₃ as N 510	.20 mg/l
	TKN as N 625	mg/l
✓	NO ₂ + NO ₃ as N 630	2.5 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	<10 ug/l
✓	Fe - Iron 1045	140 ug/l
	Hg - Mercury 71900	ug/l
	K - Potassium 937	mg/l
	Mg - Magnesium 927	mg/l
✓	Mn - Manganese 1055	<25 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)
✓	TOC <5

Lab Comments: many non-coliforms present

MEMO.

DATE: _____

TO: _____

SUBJECT: _____

Call from Mike Hensley 11-24-86
stated he did not drill (real Goble well) &
that he drilled a new well 6" and will
abandon old well - wants organic run on ^{new} well.
He will call us when ready to abandon old well.

Call from Mr. Neil Goble 1-9-87 - wants
new well sampled - old well has been abandoned.
I advised Mr. Goble I would set by to put up sample
on 1-10-86 or the week of 1-12-87.

Jessie Wells took sample of daughter in laws
well behind Mr. Goble's home for TOC on NOV-18, 86



North Carolina Department of Natural
Resources & Community Development

UNITED STATES POSTAL SERVICE

OFFICIAL BUSINESS



PENALTY FOR PRIVATE
USE, \$300

SENDER INSTRUCTIONS

Print your name, address, and ZIP Code in the space below.

- Complete items 1, 2, 3, and 4 on the reverse.
- Attach to front of article if space permits, otherwise affix to back of article.
- Endorse article "Return Receipt Requested" adjacent to number.

RETURN

TO



Division of Environmental Management

(Groundwater) (Name of Sender)

Post Office Box 950

(No. and Street, Apt., Suite, P.O. Box or R.D. No.)

Mooresville, North Carolina 28115

(City, State, and ZIP Code)

PS Form 3811, July 1983 447-845

SENDER: Complete items 1, 2, 3 and 4.

Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for service(s) requested.

- 1. Show to whom, date and address of delivery.
- 2. Restricted Delivery.

3. Article Addressed to:

Mr. Eugene E. Goebel
Coca Cola Production Center

4. Type of Service:

- Registered Insured
- Certified COD
- Express Mail

Article Number

P 149 039 414

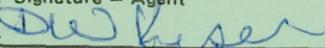
Always obtain signature of addressee or agent and **DATE DELIVERED.**

5. Signature - Addressee

X

6. Signature - Agent

X



7. Date of Delivery

11-5-86

8. Addressee's Address (*ONLY if requested and fee paid*)

DOMESTIC RETURN RECEIPT

File



State of North Carolina
Department of Natural Resources and Community Development
Mooresville Regional Office

James G. Martin, Governor
S. Thomas Rhodes, Secretary

Albert F. Hilton, Regional Manager

DIVISION OF ENVIRONMENTAL MANAGEMENT

August 20, 1986

Mr. Neal Goble
444 North McGuire Street
Gastonia, North Carolina 28052

Dear Mr. Goble:

Please find attached a copy of the laboratory analysis of the water samples collected from your well on July 1, 1986. Please note that I have highlighted in red the normal drinking water standards for those parameters that were analyzed.

Should you have any questions, please call me at 704/663-1699.

Sincerely,

A handwritten signature in cursive script that reads "Tony R. Parker".

Tony R. Parker
Hydrogeological Technician

Attachment

TRP:se

COUNTY Gaston
 QUAD NO. 270g 2 SERIAL NO. AS 2935
 LAT. 35 16 25 LONG. 81 13 02

Old well
 N.C. DEPARTMENT OF NATURAL RESOURCES
 & COMMUNITY DEVELOPMENT
 DEM

LAB NUMBER 8 LG 480
 DATE RECEIVED 8/6/86 Time 0830
 Rec'd by: Amw From: Bus-Courier

Report to: ARO, FRO, MRO, RRO, WaRO, WiRO,
 WSR0, Kinston FO Other _____
 Shipped by: Bus, Courier, Other _____

RECEIVED
 DIVISION OF ENVIRONMENTAL MANAGEMENT

GROUNDWATER FIELD/LAB FORM

SAMPLE PRIORITY

ROUTINE EMERGENCY

Other _____
 DATA ENTRY BY: Amw CK: DF
 DATE REPORTED: 8-15-86

COLLECTOR(S): T. Parker DATE 8-19-86 TIME 1200 PURPOSE: BASELINE, COMPLAINT, COMPLIANCE, LUST, OTHER _____
 (circle one)

FIELD ANALYSES

MOORESVILLE
 REGIONAL OFFICE

Owner Mr. Neal Goble

pH₄₀₀ 5.5 Spec. Cond. 700 at 25°C Location or site 444 N. Mc Mine St. Gastonia N.C.

Temp. 17 °C Odor none Description of sampling point Well head

Appearance _____ Taste _____ Sampling Method _____ Sample Interval 90'

Field Analysis By: T. Parker 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	<u>20</u> /100ml
Coliform:MF Total 31504	<u>30</u> /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	<u>1200</u> 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/cm ²
Sulfate 945	mg/l
Sulfide 745	mg/l
<u>Total Dissolved Solids 10 mg/l</u>	
NH ₃ as N 610	mg/l
TKN as N 625	mg/l
NO ₂ + NO ₃ as N 630	<u>3.0</u> 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	<u>110</u> ug/l
Fe - Iron 1045	<u>250</u> ug/l
Hg - Mercury 71900	ug/l
K - Potassium 937	mg/l
Mg - Magnesium 927	mg/l
Mn - Manganese 1055	<u>80</u> 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	<u>61</u> ug/l

Organochlorine Pesticides
Organophosphorus Pesticides
Acid Herdicides
Base / Neutral Extractable Organics
Acid Extractable Organics
Purgeable Organics (VOA bottle)
1,2 - Dibromoethane (EDB)

Lab Comments: No acid, base, neutral extractable organics detected by GC/FID.

MEMO.

DATE: 6/27/86

TO: Tony

SUBJECT: Complaint

James McIntyre of Gaston Co. Health Dept. called regarding a well they sampled. Lab results show chloride value of 600 mg/l (250 mg/l is recommended limit).

The owners name is Mr. Goble daughter, Mrs. Robert Cloninger, called them about the well. Her number is 704/922-3668 and address is 444 N. McGuire St., Dallas, NC. She thinks the well may be contaminated by industrial waste dumped on ground by Threads, Inc.

Please call Mrs. Cloninger and get directions to site and more info. about well problem. Go to well and collect sample samples for pH, S.Cond., chloride, Nitrate, Total and Fecal Coliform, and organics. Also, find out where tank located and distance to well. See if you think contam. may be from industry?



North Carolina Department of Natural Resources & Community Development

B.H.C.

Del Mrs. Robert Clouinger
 4) 722-3668

STATE LABORATORY OF PUBLIC HEALTH
 DIVISION OF HEALTH SERVICES
 N. C. DEPARTMENT OF HUMAN RESOURCES
 P.O. BOX 28047 - 306 N. WILMINGTON ST., RALEIGH 27611

INORGANIC CHEMICAL ANALYSES-PRIVATE WATER SYSTEM

Complete All Items Above Heavy Line
 (See Instructions on Reverse Side)

Name of System: Mr Goble Block 152

Address: 444 N McGuire St
Greensboro, NC ZIP: 27405

County: CASTON

Report To: T. FEENSTER

Address: CASTON COUNTY HEALTH DEPT
CASTON NC ZIP: 27805

Collected By: T FEENSTER

Date Collected: 5/12/86 Time: 3:00 PM

Location of Sampling Point: HOUSE TAP

Source of Water:
 Ground Both
 Surface Purchased

Source of Sample:
 House Tap
 Well Tap

Type of Sample:
 Raw Treated

Type of Treatment:
 None Lime
 Chlorinated Soda Ash
 Fluoridated Polyphosphate
 Filtered Water Softener
 Alum Other

Type of Analysis Desired:
 Regular Parameters Both
 Optional Parameters

Remarks: Referred to Mr Crowford Dept of Environmental Management
6-27-86 704-663-1699

Regular Parameters		Results	Optional Parameters (List as needed)	Results
PH		5.2		
Arsenic		<u><0.01</u> mg/l		
Lead		<u><0.03</u> mg/l		
Iron		<u>0.16</u> mg/l		
Manganese		0.05 mg/l		
Copper		<u>0.40</u> mg/l		
Zinc		<u><0.05</u> mg/l		
Calcium		<u>83.8</u> mg/l		
Magnesium		<u>22.0</u> mg/l		
Hardness-CaCO ₃ (Ca, Mg)		<u>300</u> mg/l		
Alkalinity-CaCO ₃		<u>8</u> mg/l		
Chloride		100 mg/l		
Color		<u>0</u> units		
Turbidity		<u>0.75</u> NTU units		
Fluoride		<u><0.10</u> mg/l		

RECEIVED

GROUND WATER SECTION
 RALEIGH N.C.

Date Received: _____ Date Reported: 5-20-86 Reported By: _____

10873 MAY 14 86

Date Analyzed: _____ Laboratory Number: _____

DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT
DIVISION OF ENVIRONMENTAL MANAGEMENT

WELL AND PUMP INSPECTION REPORT

Well location Gastonia
(Town, Comm., Subdivision and Lot No.)

Owner Mr. Neal Goble

Address 444 N. McGuire St. Gastonia N.C. 28052

Date 1-10-86

Area West Gastonia

County Gaston

Road/Street 444 N. McGuire St.

Quad No. Q709-4

Serial No. GS 3031

Lat. 35¹⁵/₁₆ Long. 81 13 06

WELL CONSTRUCTION

Drilling Contractor Mike Hensley Well Drilling Co., P.O. Box 8 Lowell, N.C. 28098 (0742)
Name Address Reg. #

Meets Min. Standards

	<u>Measure</u>	<u>Yes</u>	<u>No</u>	<u>Remarks</u>
<u>Permit</u>			X	N/A
<u>Location</u>				
Distance from Pollution source		X		
Other location standards		X		
<u>Total Depth</u>		X		150'
<u>Casing</u>				
Depth		X		100'
Diameter		X		6"
Weight/thickness		X		PVC sch. 40
Height		X		1' above L.S.
Drive shoe				?
Exception approved by owner				N/A
<u>Grout:</u>				
Type		X		cement
Thickness		X		
Depth		X		?
<u>Screens</u>				N/A
<u>Development</u>		X		
<u>1. D. Plate</u>		X		
<u>Abandonment (temporary/permanent)</u>				N/A
<u>Water level</u>				36'
<u>Well test</u>				N/A
<u>Chlorination</u>		X		
<u>Cuttings</u>				N/A
<u>Reports</u>				
<u>Water sample</u> (appearance) <u>clear</u>				

Pump installer Lowell Pump & Water P.O. Box 8 Lowell NC 28098 948
 Name Address Reg. "

Meets Min. Standards

<u>Measure</u>	<u>Yes</u>	<u>No</u>	<u>Remarks</u>
<u>Enclosure</u>	X		
<u>Enclosure floor</u>	X		
<u>Casing height</u>	X		1' above L.S.
<u>Access port</u>	X		
<u>Valved flow</u>	X		
<u>Water tight pipe entry</u>	X		
<u>Well entry</u>	X		
<u>Vent</u>	X		
<u>Hose bib</u>	X		
<u>Tee (jet)</u>	X		
<u>Suction line</u>			N/A
<u>Chlorination</u>	X		
<u>Temporary Aband.</u>			N/A

Date Well Constructed NOV 1986

Date Pump Installed NOV 1986

TS
 Signature

Witness

<u>Name</u>	<u>Address</u>	<u>Type</u>