

579SERBSF10,634

579SERBSF10,634

Site Name (Subject): TRI-COUNTY COMMUNITY COLLEGE

Site ID (Document ID): NCD038551263

Document Name (DocType): Correspondence (C)

Report Segment:

Description: General Correspondence, 1987 - 1995

Date of Document: 8/22/1995

Date Received:

Box: *Enter SF and # with no spaces* SF10,634

Access Level: PUBLIC

Division: WASTE MANAGEMENT

Section: SUPERFUND

Program (Document Group): SERB (SERB)

Document Category: FACILITY

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(default to last
record values)**

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TRI COUNTY COMMUNITY COLLEGE

NCD 038 551 263

Folders

1. General Correspondence file, 1987—

Bound Reports

1. **Draft** Groundwater Section Preliminary Investigation: March 1987
2. Site Inspection Report: March 1987
3. Site Reassessment Report: December 2007

EPA DID NOT MAIL
TO FACILITY

DATE: August 22, 1995

SUBJECT: REMOVAL FROM EPA'S CERCLIS INVENTORY

FROM: Matthew J. Robbins, Brownfields Coordinator
Waste Management Division, Region IV

TO: TRI COUNTY COMMUNITY COLLEGE
US 64 E JST S OF N.C.141 INT
MURPHY
NC 28906

EPA has identified the Brownfields Initiative as one of the Agency's top priorities. The term "brownfields" refers to previously used properties that may lie vacant because potential contamination makes them unmarketable to the private sector. EPA has recently announced a comprehensive Brownfields strategy, including Pilot grants to municipalities, to stimulate economic revitalization.

One part of the strategy has been for EPA to review its complete inventory of Superfund sites. These sites have been screened and determined to require no remedial action under the Federal Superfund Program based on information available as well as on conditions and policies that currently exist. This is to notify you that EPA has removed your facility from EPA's computer inventory known as CERCLIS. THIS DOES NOT INDICATE THAT THE STATE HAS MADE A SIMILAR DETERMINATION.

If you have any questions, please call me at 404/347-5059 ext. 6214.

cc: State Agency

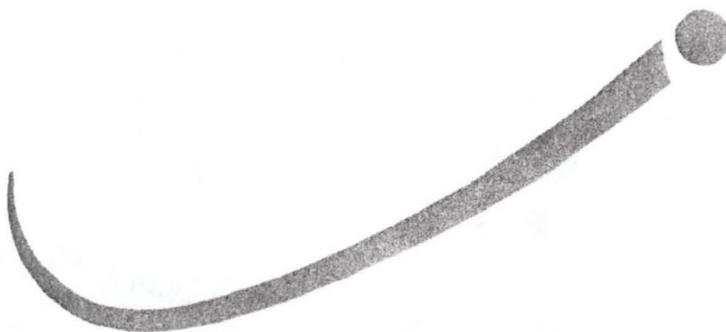
Received 12/20/89
GWS-ARO
Tri-County Comm. College
Ce 3371

PROPOSAL FOR
REMEDIAL ACTIONS
TRI-COUNTY COMMUNITY COLLEGE
INITIAL REMEDIAL ACTIONS

RECEIVED
DEC 28 1989
SUPERFUND SECTION



ENERGY SUPPORT SERVICES, INC.



ENERGY SUPPORT SERVICES, INC.

P.O. Box 6098
ASHEVILLE, NORTH CAROLINA 28816
(704) 258-8888

ESSI
P.O. BOX 1449
HOUSTON, TX. 77251
(713) 868-9521

ESSI
P.O. BOX 840
CORAOPOLIS, PENNSYLVANIA 15108
(412) 269-9600

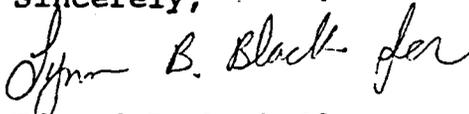
December 11, 1989

Mr. Vincent Crisp
Tri-County Community College
P.O. Box 40
Murphy, North Carolina 28906

Dear Mr. Crisp:

The letter and proposal is in response to our telephone conversation concerning the remedial actions requested by the DEM Groundwater Section. You will find a proposed cost for initial actions and continuing remedial actions to be performed at the college. I will call, after you have reviewed the proposal to answer any questions.

Sincerely,



Edward T. Rochelle
Director Technical Services

ER:lb

I. Sandfilter Wastewater Treatment Plant

- a. Obtain samples from the sandfilter bed
- b. Obtain samples from below the sandfilter bed
- c. Obtain samples from bottom of the sandfilter
- d. Review analysis from sandfilter samples
- e. Develop a plan for proposed abandonment

Note: This cost does not include cost of disposal of sandfilter soil if the analysis indicate the soil is a Hazardous Waste.

Estimated Cost - \$2,000.00

II. Contaminated Groundwater Discharge

- a. Review the Town of Murphy discharge permit to determine maximum concentration of contaminated groundwater allowed to enter waste system.
- b. Recommend a treatment system if required by the waste water permit.
- c. Develop a system to calculate/record discharge volume to the Town's wastewater system.

Estimated Cost - \$400.00

III. Analysis of Samples

- a. Obtain and analyze monitor well samples from wells 1 through 6.
- b. Obtain and analyze a pumping well sample

Estimated Cost - \$2,000.00

IV. Water - Table Contour Map

- a. Obtain data from monitor wells and water - supply well # 2 to construct a contour map showing groundwater movement.

Estimated Cost - 1,500.00

V. Schedule and Report

- a. Develop a schedule for the initial remedial actions to be taken and submit to DEM.
- b. Compile a report on the initial results of remedial actual actions taken and submit to DEM.

Estimated Cost - \$400.00

27. On 1/15/88, the contractor was notified that the State of Michigan Department of Environmental Management (DEM) had received a request from the Michigan Department of Transportation (MDOT) for a remedial action plan for the site. The contractor was to develop a remedial action plan for the site and submit it to DEM. The contractor was to develop a schedule for the initial remedial actions to be taken and submit it to DEM. The contractor was to compile a report on the initial results of remedial actual actions taken and submit it to DEM.

13. The contractor was to develop a remedial action plan for the site and submit it to DEM. The contractor was to develop a schedule for the initial remedial actions to be taken and submit it to DEM. The contractor was to compile a report on the initial results of remedial actual actions taken and submit it to DEM.

CONTINUING REMEDIAL ACTIONS

- I. Review and submit quarterly, the estimated monthly discharge volumes to the town wastewater system.
- II. Obtain and analyze monitor well samples for wells 1 through 6 on a quarterly basis. Obtain and analyze a pumping well sample on a monthly basis.
- III. Obtain data from monitor wells and water supply well # 2 to construct a contour map showing groundwater movement on a quarterly basis.
- IV. Develop and submit a quarterly report, detailing Continuing Remedial Action results, to DEM.

Estimated Cost - \$4,300.00

SUMMARY

- I. Initial Required Remedial Actions - \$6,300.00
- II. Continuing Required Remedial Actions - \$4,300.00/quarter

Note: All costs should also include a 15% contingency.



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

James G. Martin, Governor
William W. Cobey, Jr., Secretary

DIVISION OF ENVIRONMENTAL MANAGEMENT
GROUNDWATER SECTION
November 14, 1989

Ann B. Orr
Regional Manager

Mr. Vincent Crisp
Tri-County Community College
Post Office Box 40
Murphy, North Carolina 28906

Dear Mr. Crisp:

Subject: Groundwater Remediation
Tri-County Community College
Groundwater Incident No. 3371
Cherokee County, North Carolina

I have reviewed the pump test investigation conducted on water supply well #1 at Tri-County Community College and concur with the conclusion that this well could serve as a recovery well for groundwater remediation on the site. Below, I have listed steps that need to be undertaken to begin remediation.

- I. A plan shall be submitted on the proposed abandonment of the septic tank sandfilter wastewater treatment plant since the College is now reported to be on the new sewer line.

A soil sample shall be taken below the sandfilter bed and a sand sample from the bottom of the sandfilter. The analyses conducted shall be the same as those taken from the vicinity of monitor well B-1.

- II. Discussions shall be initiated with the Town of Murphy to determine the maximum amount of contaminated groundwater they could accept in their wastewater treatment plant and what additional treatment they may require, if any, prior to discharge in their system.

Pumping of the existing well at its maximum capacity of 15.5 gallons per minute (gpm) with the existing pump, shall begin as soon as approval is obtained from the Town of Murphy to discharge into their system. As soon as funds are available to the College, a larger capacity pump shall be installed in this well. The capacity of the pump you select will be dependent upon actual well yield or the maximum amount of contaminated groundwater the Town's system can accept, whichever is smaller.

Mr. Vincent Crisp
November 14, 1989
Page 2

Monthly discharge volumes to the Town's wastewater treatment system shall be provided to this office on a quarterly basis.

- III. Analyses shall be taken on monitor wells 1 through 6 on a quarterly basis during the first four quarters after pumping of water supply well #1 begins. After review of this data, the frequency of monitoring, and number of monitor wells sampled, will be evaluated.

The pumping well shall be sampled on a monthly basis for the first year. After reviewing the first year's analytical results, the sampling schedule may be modified.

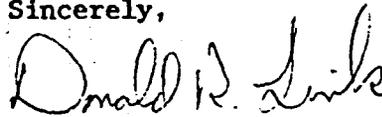
The analyses on the groundwater samples shall be conducted according to EPA Method 601 to the method detection limit. These results being reported to this office on a quarterly basis.

- IV. Each quarterly report shall contain a water-table contour map showing groundwater movement on the site. The map shall be based on water-table information from all monitor wells and water-supply well #2, which according to our records, is a bored or hand dug well in the saprolite.

Please provide this office with your comments and schedule for the above, by December 8, 1989.

If you have any questions, please do not hesitate to contact me or Diane Eskenasy at (704) 251-6208.

Sincerely,



Donald R. Link, P. G.
Regional Groundwater Supervisor

DRL/gc

cc: Edward T. Rochelle
Bob Wood

TRI-COUNTY COMMUNITY COLLEGE

POST OFFICE BOX 40
MURPHY, NORTH CAROLINA 28906

September 26, 1989

TELEPHONE
(704) 837-6810
(704) 837-5651
(704) 837-2412

Mr. Donald R. Link, P.G.
Hydrogeological Regional Supervisor
N.C. Dept. of Environment, Health & Natural Resources
Division of Environmental Management
Groundwater Section
59 Woodfin Place
Asheville, NC 28801

Dear Mr. Link:

In response to your letter of September 6, 1989, I am providing the following for your consideration:

1. The Aquifer Test Evaluation has been performed by Energy Support Services, Inc., as of September 22, 1989. They will be providing the data to you. The cost of this test was \$2,500. There was enough money left in the original DCC grant to pay this amount.
2. The funding referenced in my letter of August 24, 1989, remains available. Until I have more specific cost estimates from Energy Support Services, Inc., any funding or sources of funding would be speculative which may not be beneficial.

I will keep you informed.

Sincerely,



Vincent Crisp
President

jcb

RECEIVED

SEP 27 1989

Groundwater Section
Asheville Regional Office

ENERGY SUPPORT SERVICES, INC.

P.O. Box 6098
ASHEVILLE, NORTH CAROLINA 28816
(704) 258-8888

GWS-ARO

9/14/89

ESSI
P.O. BOX 1449
HOUSTON, TX. 77251
(713) 868-9521

Kevin Miller

ESSI
P.O. BOX 840
CORAOPOLIS, PENNSYLVANIA 15108
(412) 269-9600

September 14, 1989

Mr. Donald R. Link
Hydrogeological Regional Supervisor
N. C. Department Natural Resources

Subject: { Supplement Groundwater Investigation
Tri-County Community College
Groundwater Incident No. 3371
Cherokee County, North Carolina

Dear Mr. Link:

In response to your department's request for a soil sample to be taken at the well site B1, you will find the following results. The Chain of Custody sheet is also attached indicating sample location.

If you have any questions, please contact me at (704) 258-8888.

Sincerely,



Edward T. Rochelle
Director Technical Services

ER:bk

cc: Vincent Crisp

ER909025.ARC

Received
GWS-ARD
9/14/89

Log #: 0002

ENVIRONMENTAL SAMPLE LOG

Sample I.D. #: 88-366E1
Sample Collector: Don Allen
Company: TCC Co.
Contact Person: Vincent Crisp

Sample Date: 7/20/89
Sample Time: 1605

Sample Type: Soil Description: Soil sample
1 ft. NW of monitor well B1 at a depth of 5 ft.

Container Type: 1000 ml Mason Jar Sample Vol.: 1000 ml

Sampling Location: Toronto Common Collector 1 ft. NW of monitor well B1 at a depth of 5 ft.

EPA Lab: White River Services Date Shipped: 7/21/89

Analysis Requested: PAHs, PCBs, Pesticides, Metals, and other organics

Date Results Expected: 8/15/89 Date Received: 9/13/89

Results: The only detectable contaminant was Methylene Chloride at a concentration of 10 ug/kg.

C.O.C.: _____ Sample Request: Results:



PURGEABLE HALOCARBONS
EPA METHOD 601 COMPOUNDS

IEA Sample Number: 344-137-1
 Sample Identification: 88-366 E1
 Date Analyzed: 08/02/89 By: Casto

Number	Compound	Quantitation Limit (ug/kg)	Results Concentration (ug/kg)
1	Chloromethane	1.0	BQL
2	Bromomethane	1.0	BQL
3	Vinyl Chloride	1.0	BQL
4	Dichlorodifluoromethane	1.0	BQL
5	Chloroethane	1.0	BQL
6	Methylene chloride	1.0	10
7	Trichlorofluoromethane	1.0	BQL
8	1,1-Dichloroethane	1.0	BQL
9	1,1-Dichloroethane	1.0	BQL
10	trans-1,2-Dichloroethane	1.0	BQL
11	Chloroform	1.0	BQL
12	1,2-Dichloroethane	1.0	BQL
13	1,1,1-Trichloroethane	1.0	BQL
14	Carbon tetrachloride	1.0	BQL
15	Bromodichloromethane	1.0	BQL
16	1,2-Dichloropropane	1.0	BQL
17	cis-1,3-Dichloropropene	1.0	BQL
18	Trichloroethane	1.0	BQL
19	trans-1,3-Dichloropropene	1.0	BQL
20	1,1,2-Trichloroethane	1.0	BQL
21	Dibromochloromethane	1.0	BQL
22	2-Chloroethylvinyl ether	1.0	BQL
23	Bromoform	1.0	BQL
24	Tetrachloroethene	1.0	BQL
25	1,1,2,2-Tetrachloroethane	1.0	BQL
26	Chlorobenzene	1.0	BQL
27	1,3-Dichlorobenzene	1.0	BQL
28	1,2-Dichlorobenzene	1.0	BQL
29	1,4-Dichlorobenzene	1.0	BQL

Comments:

BQL = Below Quantitation Limit



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

James G. Martin, Governor
William W. Cobey, Jr., Secretary

Ann B. Orr
Regional Manager

DIVISION OF ENVIRONMENTAL MANAGEMENT
GROUNDWATER SECTION

September 6, 1989

Mr. Vincent Crisp
Tri-County Community College
Post Office Box 40
Murphy, North Carolina 28906

Dear Mr. Crisp:

Subject: Supplement Groundwater Investigation
Tri-County Community College
Groundwater Incident No. 3371
Cherokee County, North Carolina

In response to your letter of August 24, 1989, please provide this office with an update by October 2, 1989, of Tri-County Community College's search for funds to complete the investigation and remediation. Also, be reminded that the analytical results of the soil samples taken on July 20, 1989, by Energy Support Services, Incorporated, were due in this office by September 4, 1989.

If you have any questions, please do not hesitate to contact me at (704) 251-6208.

Sincerely,

Kay Dechant
for

Donald R. Link, P. G.
Hydrogeological Regional Supervisor

DRL/gc

cc: Edward Rochelle

TRI-COUNTY COMMUNITY COLLEGE

POST OFFICE BOX 40
MURPHY, NORTH CAROLINA 28906

August 24, 1989

TELEPHONE
(704) 837-6810
(704) 837-5651
(704) 837-2412

Mr. Donald R. Link, P. G.
Hydrogeological Regional Supervisor
N.C. Dept. of Natural Resources and Community Development
Asheville Regional Office
Interchange Building
P. O. Box 370
Asheville, NC 28802-0370

Dear Mr. Link:

In response to your letter of August 17, 1989, the only potential funds available to address the investigation are: the balance of funds from the Department of Community Colleges grant, limited local operating budget funds, some contingency funds from construction projects 491 and 586. The use of these contingency will require approval by the Department of Community Colleges.

Energy Support Services, Incorporated can provide the analytical data for the soil samples. As soon as I get projected costs for additional investigation by Energy Support Services, Inc., I can determine if sufficient funds can be located.

Sincerely,



Vincent Crisp
President

jcb

RECEIVED

AUG 30 1989

Groundwater Section
Asheville Regional Office



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

James G. Martin, Governor
William W. Cobey, Jr., Secretary

DIVISION OF ENVIRONMENTAL MANAGEMENT
GROUNDWATER SECTION
August 17, 1989

Ann B. Orr
Regional Manager

Mr. Vincent Crisp
Tri-County Community College
Post Office Box 40
Murphy, North Carolina 28906

Dear Mr. Crisp:

Subject: Supplement Groundwater Investigation
Tri-County Community College
Groundwater Incident No. 3371
Cherokee County, North Carolina

I have received and reviewed the information provided in the subject investigation and have made comments as follows:

- I. Since the sewer line is the only known potential source of contamination in the vicinity of Monitor Well B-1, it may have been the source of the contamination. It has been reported that trichloroethene was used in the restroom to clean toilets.
- II. I can concur with your plan to conduct the pumping test, however, we need a date as to when and what steps are being undertaken to procure funds to complete this investigation. Please provide this office with this information by September 4, 1989.
- III. Please provide the analytical data or the soil samples taken by September 4, 1989.

If you have any questions, please do not hesitate to contact me or Diane Eskenasy at (704) 251-6208.

Sincerely,

A handwritten signature in dark ink that reads "Donald R. Link".

Donald R. Link, P. G.
Hydrogeological Regional Supervisor

DRL/gc
cc: Edward Rochelle

ENERGY SUPPORT SERVICES, INC.

P.O. Box 6098
ASHEVILLE, NORTH CAROLINA 28816
(704) 258-8888

RECEIVED

AUG 7 - 1989

Groundwater Section
Asheville Regional Office
ESSI

P.O. BOX 840
CORAOPOLIS, PENNSYLVANIA 15108
(412) 269-9600

ESSI
P.O. BOX 1449
HOUSTON, TX. 77251
(713) 868-9521

August 3, 1989

Mr. Donald R. Link
Dept. of Natural Resources and Community Development
Hydrogeological Regional Supervisor
Interchange Building
59 Woodfin Place
Asheville, NC 28801

Subject: Supplement Groundwater Investigation
Tri-County Community College
Groundwater Incident No. 3571
Cherokee County, North Carolina

Dear Mr. Link:

In response to your request for additional steps on July 18, 1989, the following information is being provided. We have discussed the recommendations with Mr. Vincent Crisp and apprised him of the costs involved in conducting the required tests.

Step 1. We have provided a drawing of the layout of sewer lines in relationship to well B1. The approximate distance between well B1 and the sanitary sewer line is 17 feet.

Step 2. In order to ensure that the desired information is obtained from the pump test in an economical fashion, the test will be performed in two phases. In the preliminary phase, the logistics of the pump test will be worked out, the pumping capacity of the existing production well pump will be measured, and the well effective radius of influence after several hours at full pumping capacity determined. If it can be confirmed that the radius of influence of the existing well/pump is adequate to effectively contain/remediate the plume and that monitoring wells are at a usable spacing, the final phase or full scale instrumented pump test can be performed using the existing wells and pumps.

ER908005.ARC

Mr. Donald R. Link
August 3, 1989
Page 2

Should the existing well's radius of influence be inadequate to remediate the contaminant plume or the aquifer have inadequate yield to support long term pumping at maximum discharge, evaluation will be made as to whether monitoring wells at an intermediate spacing are required or whether a pump of different capacity or a deeper pump pickup will be needed to effectively perform the test.

The full scale pump test will be designed to provide relevant aquifer geohydrologic parameters including the transmissivity, storativity, and the specific yield of the aquifer(s) and the radius of influence of the recovery well. Production Well #1 will be used as the pumped well and the existing Wells B-1, B-2, B-4 and Production Well #2 as observation wells. The test will consist of drawdown and recovery phases. During the drawdown phase, the pump discharge will be controlled at a constant flow rate. The pumping well and observation wells will be ceased to initiate the recovery phase. The pumping and observation wells will be equipped with pressure transducers to provide a continuous water level measurement capability. The transducers will be coupled with an In-Situ (trademark) Hermit SE 2000 field data recorder to allow continuous stand-alone measurement and recording of water level fluctuations. Changes in barometric pressure at the site will also be recorded. Documentation and interpretation of test results will be presented in a report of investigations to include recommendations for remediation of the groundwaters underlying the site.

Because of the limited financial resources available to the college, the Pump Test and future remedial actions will be addressed as funds are available. It is not possible at this time to commit to a time frame until funds can be identified.

Mr. Donald R. Link
August 3, 1989
Page 3

Step 3: Soil samples were collected 7/20/89 and are currently being analyzed.

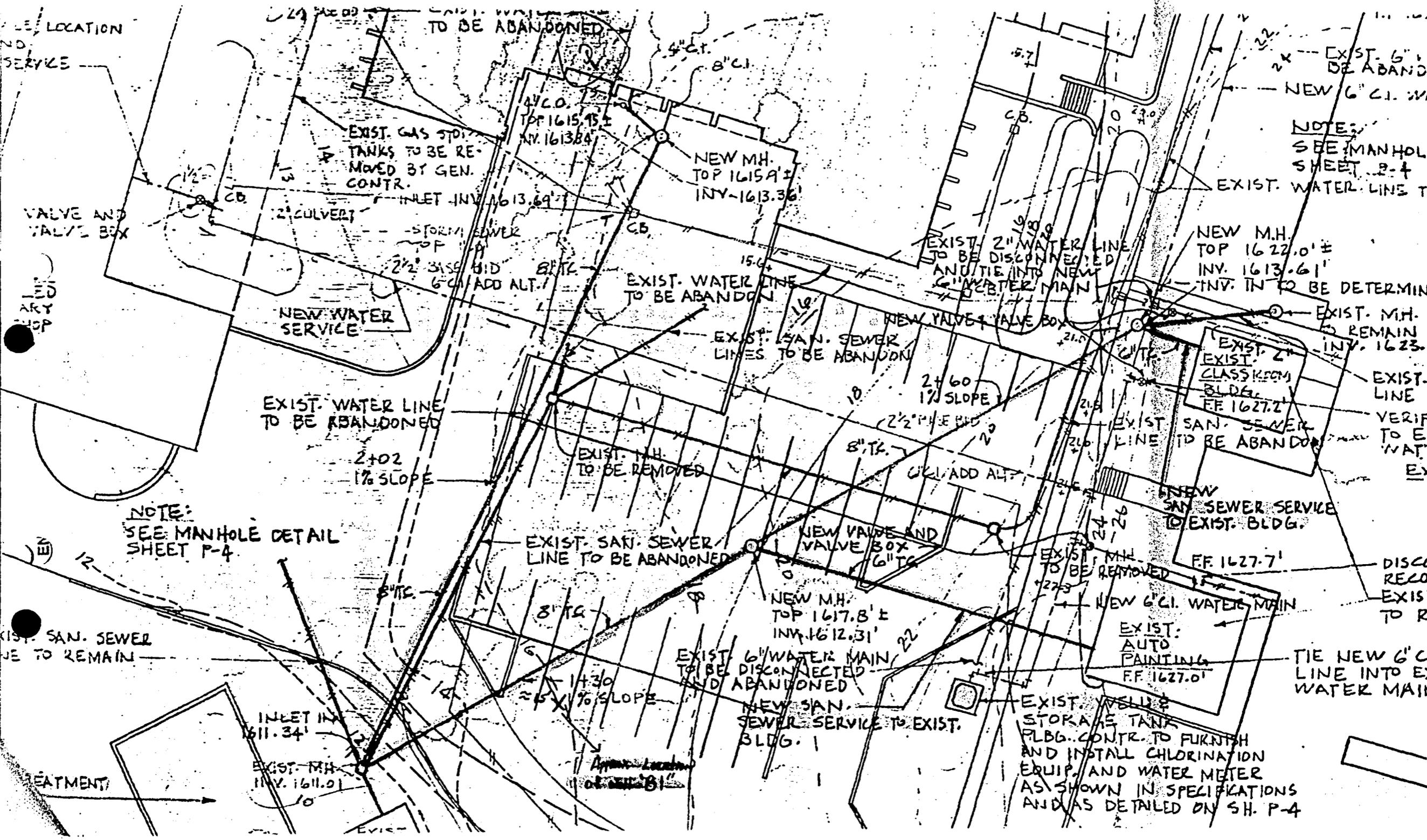
If you have questions, please do not hesitate to contact me or Don Allen at (704) 258-8888.

Sincerely,

Edward T. Rochelle
Director Technical Services

ER:bk

cc: Vincent Crisp
Don Allen



LOCATION
SERVICE

TO BE ABANDONED

EXIST. GAS STP
TANKS TO BE RE-
MOVED BY GEN.
CONTR.

NEW M.H.
TOP 1615.9' ±
INV. 1613.36'

NOTE:
SEE MANHOL
SHEET P-4

VALVE AND
VALVE BOX

2" CULVERT

STORM SEWER
TOP
2 1/2" BASE BID
6" CI ADD ALT.

EXIST. WATER LINE
TO BE ABANDONED

EXIST. 2" WATER LINE
TO BE DISCONNECTED
AND TIE INTO NEW
6" WATER MAIN

NEW M.H.
TOP 1622.0' ±
INV. 1613.61'
INV. IN TO BE DETERMINED

NEW WATER
SERVICE

EXIST. SAN. SEWER
LINES TO BE ABANDONED

NEW VALVE & VALVE BOX

EXIST. M.H.
TO REMAIN
INV. 1623.0'

EXIST. WATER LINE
TO BE ABANDONED

2+02
1% SLOPE

EXIST. M.H.
TO BE REMOVED

2+60
1% SLOPE

EXIST. SAN. SEWER
LINE TO BE ABANDONED

EXIST. LINE
VERIFY
TO EX
WAT
EX

NOTE:
SEE MANHOLE DETAIL
SHEET P-4

EXIST. SAN. SEWER
LINE TO BE ABANDONED

NEW VALVE AND
VALVE BOX
6" TC

NEW
SAN. SEWER SERVICE
TO EXIST. BLDG.

F.F. 1627.7'

DISCO
RECO
EXIST
TO R

EXIST. SAN. SEWER
LINE TO REMAIN

NEW M.H.
TOP 1617.8' ±
INV. 1612.31'

EXIST. 6" WATER MAIN
TO BE DISCONNECTED
AND ABANDONED

NEW SAN.
SEWER SERVICE TO EXIST.
BLDG.

EXIST.
AUTO
PAINTING
F.F. 1627.0'

TIE NEW 6" C.I.
LINE INTO EX
WATER MAIN

INLET IN
1611.34'

EXIST. M.H.
INV. 1611.01'

TREATMENT

EXIST. WELLS &
STORAGE TANK
PLBG. CONTR. TO FURNISH
AND INSTALL CHLORINATION
EQUIP. AND WATER METER
AS SHOWN IN SPECIFICATIONS
AND AS DETAILED ON SH. P-4

Tri-County Community
College File



State of North Carolina
Department of Environment, Health, and Natural Resources
Division of Solid Waste Management
P.O. Box 27687 · Raleigh, North Carolina 27611-7687

James G. Martin, Governor
William W. Cobey, Jr., Secretary

William L. Meyer
Director

January 3, 1989

Ms. Kate Probst
Clean Sites
1199 North Fairfax Street
Alexandria, VA 22314

Subj: Response to Information Request Concerning the Clean Sites
Report "Hazardous Waste and the Rural Poor"

Dear Ms. Probst:

This letter is in response to your request for information for your report "Hazardous Waste Sites and the Rural Poor". Your letter of December 18, 1989, requested specific information on the Tri-County Community College Site (NCD038551263), and any other general comments on the report. I am pleased to provide the following information and comments.

The NC Division of Solid Waste Management, Superfund Section, conducted a site investigation at Tri-County Community College on February 10 and 11, 1987. Sampling results confirmed that the drinking water supplied by an on site well was contaminated with trichloroethene. We forwarded the Site Investigation Report to the U.S. EPA Region IV. The State has retained involvement at the site through the Division of Environmental Management (DEM). The DEM has been working with Tri-County Community College and their contractor to investigate and remediate the site. A total of 12 monitoring wells with both shallow and deep aquifer sampling capability were installed. Six wells are still used on the site. Although the sampling data shows that the TCE contamination is from a source on the campus grounds, the source remains unknown due to the varied uses of the site through the years. The highest levels of TCE on the site are from below the sand filter beds that were formerly used for sewage discharge.

Tri-County Community College is now connected to County water and sewer lines and is no longer using the contaminated wells. One of these wells will be used in the remedial effort scheduled to begin later this month. The plan calls for pumping the water from this well and discharging it to the sewer system for treatment at the local POTW. Theoretically, pumping will continue until North

Carolina ground water standards are met. At present it is not known how long this will take. Six monitoring wells on site will be sampled quarterly. If you would like further information concerning the ongoing efforts you can contact Mr. Donald Link of the DEM-Asheville Regional Office, P.O. Box 370, Asheville, NC 28802, (704) 251-6208.

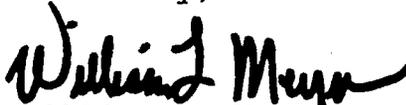
It is noted on Table VI of your report that the U.S. EPA conducted a removal action at the site. Neither the Division of Solid Waste Management, the Division of Environmental Management, nor the Cherokee County Health Department can confirm that this took place. It is known that Tri-County Community College provided bottled water to students until they were connected to the County Water System.

Concerning general comments on the report, you may wish to know that there are two other sites in Cherokee County within 2 miles of Tri-County Community College, both of which have ground water contaminated with chlorinated solvents. The other sites are Emerson Electric Company (NCD089989917) and Clifton Precision (NCD044438406). A Site Investigation Report for Emerson Electric Company was completed and forwarded to EPA Region IV in March 1987 (enclosed). The Clifton Precision Site is a TSD that is regulated under RCRA; therefore, there was only a preliminary assessment conducted on the site (enclosed). The U.S. EPA has issued Clifton Precision an administrative order to clean up the site and is overseeing the remedial effort. Shannon Maher, (404)347-7603, is the EPA contact person for the site. Some drinking water wells were contaminated at these sites. The Cherokee County Health Department is continuing to sample wells at Clifton Precision.

In Appendix E for the Charles Macon Lagoon and Drum NPL Site, under the fourth column one contaminant is reported as "PCE"; this should be changed to "TCE" or trichloroethylene.

The NC Division of Solid Waste Management is pleased to provide these comments to you. If you have any questions, please contact me at (919)733-4996.

Sincerely,



William L. Meyer
Director

WM/bn/cleansit

enclosures

cc:

Perry Nelson

Don Link



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

James G. Martin, Governor
William W. Cobey, Jr., Secretary

Ann B. Orr
Regional Manager

DIVISION OF ENVIRONMENTAL MANAGEMENT
GROUNDWATER SECTION

July 18, 1989

Mr. Vincent Crisp
Tri-County Community College
Post Office Box 40
Murphy, North Carolina 28906

Dear Mr. Crisp:

Subject: Supplemental Groundwater Investigation
Tri-County Community College
Groundwater Incident No. 3371
Cherokee County, North Carolina

In reviewing the subject investigation report, it was noted that the highest concentration of trichloroethane found in the groundwater was at Monitor Well B-1 located between Building A and the filter bed. Since Monitor Well B-1 is in an area where sewer lines may be located, a leak in this sewer line in the past may be the source of the contamination.

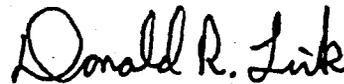
I have listed below additional steps that need to be undertaken at this site:

- 1.) Locate and provide a plan to this office by August 1, 1989, of any sewer lines in the vicinity of Monitor Well B-1.
- 2.) Provide a plan and proposed completion date for the proposed aquifer test evaluation to this office by August 1, 1989.
- 3.) Provide an analysis for volatile organics from a soil sample to be taken at a depth of 5 feet below the land surface at Monitor Well B-1 to this office by August 15, 1989.

Mr. Vincent Crisp
July 18, 1989
Page 2

If you have any questions, please do not hesitate to contact me or Diane Eskenasy at (704) 251-6208.

Sincerely,



Donald R. Link, P. G.
Hydrogeological Regional Supervisor

DRL/gc

cc: Ann Borden
Ed Rochelle
Edward Hedgecock



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

James G. Martin, Governor
William W. Cobey, Jr., Secretary

DIVISION OF ENVIRONMENTAL MANAGEMENT
GROUNDWATER SECTION

Ann B. Orr
Regional Manager

June 1, 1989

Mr. Vincent Crisp, President
Tri-County Community College
Post Office Box 40
Murphy, North Carolina 28906

Dear Mr. Crisp:

Subject: Report of Investigation
Tri-County Community College
Groundwater Incident No. 3371
Cherokee County, North Carolina

I discussed the most recent investigation at Tri-County Community College, Cherokee County, with Ed Rochelle of ESSI on May 30, 1989. He indicated that a final report will be received by this office by June 15, 1989.

I have reviewed Well Construction Permit No. 19-0027-WM-0018 and it is in fact written for "wells as needed," so there is no need for an amendment or issuance of a new permit.

We look forward to receipt of the report by June 15, 1989.

If you have any questions, do not hesitate to contact me or Don Link at 704-251-6208.

Sincerely,

A handwritten signature in cursive script that reads "Diane M. A. Eskenasy".

Diane M. A. Eskenasy, P. G.
Hydrogeological Technician

DMAE:ar

cc: Ann Borden
Ed Rochelle
Kenneth Vanhoy



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

James G. Martin, Governor
William W. Cobey, Jr., Secretary

Ann B. Orr
Regional Manager

DIVISION OF ENVIRONMENTAL MANAGEMENT
GROUNDWATER SECTION

March 21, 1989

Mr. Edward T. Rochelle
Director of Technical Services
ESSI
P. O. Box 6098
Asheville, North Carolina 28816

Subject: Remedial Action Plan
Tri-County Community College
Groundwater Incident No. 3371
Cherokee County, North Carolina

Dear Mr. Rochelle:

As we discussed by telephone on March 20, 1989, the remedial action plan for Tri-County Community College in Cherokee County, North Carolina should be submitted to this office by April 24, 1989. The plan shall include the following information:

1. Completed well construction permit applications (forms attached),
2. Proposed locations for the new monitor wells, and
3. A time frame for monitor well installation, initial sampling, and commencement of a quarterly sampling schedule.

Groundwater samples shall be analyzed by EPA Method 601 for purgeable halocarbons and taken to the lowest method detection limits. Analyses shall include the number of unidentified peaks, and shall be submitted to this office no later than 30 days after the end of the reporting quarter.

Mr. Edward T. Rochelle

Page 2

March 21, 1989

We look forward to hearing from you by April 24, 1989. If you have any questions before then, do not hesitate to contact me or Don Link at 704-251-6208.

Sincerely,



Diane M. A. Eskenasy, P. G.
Hydrogeological Technician

DMAE:ar

Attachments

cc: Bill Jeter
Vince Crisp

*B. you
3/17/89*
Apentz sh

GENERAL SERVICES AGREEMENT CONTRACT #RT 89-075
ADDENDUM #1
BETWEEN TRI-COUNTY COMMUNITY COLLEGE AND
ENERGY SUPPORT SERVICES, INC.

RECEIVED

MAR 16 1989

Groundwater Section
Asheville Regional Office

SCOPE OF SERVICES

Energy Support Services, Inc. (ESSI) will provide services in the area of groundwater investigation to Tri-County Community College in response to North Carolina Department of Natural Resources and Community Development (NRCD) Incident #3371.

Based on discussion with NRCD and Tri-County Community College, the areas to be addressed in the site investigation/characterization at Tri-County Community College in order of importance are:

- A. Additional monitoring wells to determine the extent of vertical and horizontal contamination.
 - B. A detailed Site Characterization Report to enable NRCD to evaluate necessary remedial actions.
 - C. Develop a waste management program for Tri-County Community College to reduce the possibility of additional groundwater contamination.
 - D. Evaluate the current wastewater system (sand filter) for contamination and possible cleanup.
- 1.0 ESSI will drill four (4) permanent monitoring wells on-site to define the extent of on-site contamination, provide observation points for a pumping test if needed at a later date and to provide future monitoring points for evaluating remedial actions.
 - 2.0 ESSI will drill two (2) temporary monitoring wells off-site to assess the horizontal extent of off-site contamination down-gradient. Depending on the distance of movement of the contamination, additional down-gradient temporary monitoring wells may be added.
 - 3.0 Water quality samples will be obtained from each new well and the two (2) existing Tri-County Community College wells. The water samples will be analyzed by an EPA approved laboratory for Volatile Organic Compounds (VOC). Results from the analysis will be made available to Tri-County Community College and NRCD.

- 4.0 ESSI will evaluate waste disposal practices at Tri-County Community College and initiate a comprehensive waste management program for all potential groundwater contaminants. The program will include source reduction techniques, spill/leak handling procedures and proper disposal procedures.
- 5.0 ESSI will evaluate the current waste water disposal system (sand filter) to determine the feasibility and cost effectiveness of replacing the existing medium. Contamination levels in the sand filter and the projected date for connection to the City of Murphy municipal sewer system will be the primary factors in determining recommendations for the sand filter.
- 6.0 ESSI will handle all required permits, reports, action plans and correspondence with the Asheville Office of the NRCO during the site investigation. Upon completion of the investigation ESSI will provide a detailed report of findings to Tri-County Community College and NRCO. Based on NRCO recommendations/requirements after reviewing the report ESSI will submit a proposal for remedial action at the site.

COMPENSATION

- 1.0 ESSI agrees to provide services in the area of groundwater investigation to Tri-County Community College as defined in the attached Scope of Services for the sum of Thirty-seven thousand five hundred dollars, \$37,500.00.
- 2.0 Any additional services/expenses must be agreed upon and approved in writing by Tri-County Community College prior to initiation.
- 3.0 Billing for services under this contract will be monthly based on work completed.

GENERAL SERVICES AGREEMENT CONTRACT #RT 89-075
ADDENDUM #2
BETWEEN TRI-COUNTY COMMUNITY COLLEGE AND
ENERGY SUPPORT SERVICES, INC.

SCOPE OF SERVICES

The purpose of this addendum is to add a cost estimate for each phase of the site investigation. This estimate is identical to the cost estimate found in our Proposal dated December 21, 1988.

The cost estimate is based on information available prior to project initiation. As work progresses it may be necessary to shift funds among the four (4) programs based on evaluation of new data. Should this become necessary ESSI will present their recommendations to Tri-County Community College for approval.

ESTIMATED COST

The following is an estimated cost of the services to be provided:

- | | | |
|----|--|-------------|
| A. | Additional Monitor Wells | \$27,000.00 |
| | o Install Monitor Wells | |
| | o Sample Monitor Wells/Existing Wells | |
| | o Laboratory Analysis of Samples | |
| | o Prepare Reports and Review | |
| B. | Upgrade Waste Disposal System | \$5,000.00 |
| | o Evaluate Waste Water | |
| | o Recommend Either Medium | |
| | o Supervise Reconstruction | |
| | o Test Effectiveness | |
| C. | Waste Minimization Programs | \$2,500.00 |
| | o Program Development | |
| | o Evaluate Waste Streams | |
| | o Train Personnel | |
| | o Segregate Waste | |
| | o Eliminate Sources of Leaks and Spills | |
| D. | Develop Groundwater Remediation Plan | \$3,000.00 |
| | o Develop Remedial Action System | |
| | o Correspond with DEM and NRCD | |
| | o Correspond with City Officials | |
| | o Setup a Program for Future Monitoring Requirements | |

TOTAL ESTIMATED COST \$37,500.00

To show their acceptance to the terms and conditions of this Agreement, the Authorized representatives of the parties have signed their names below.

Energy Support Services, Inc.

Tri-County Community College

BY: *Arnold Hill*
TITLE: *Manager Harrison Div.*
DATE: *February 20, 1989*

BY: *Descent Clegg*
TITLE: *President*
DATE: *3/13/89*

BY: *Franklin Brown*
TITLE: *Chairman of Bd. of Trust*
DATE: *3/10/89*



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

James G. Martin, Governor
William W. Cobey, Jr., Secretary

David R. Spain
Regional Manager

DIVISION OF ENVIRONMENTAL MANAGEMENT
GROUNDWATER SECTION

January 11, 1989

Mr. Vincent Crisp, President
Tri-County Community College
P. O. Box 40
Murphy, North Carolina 28906

Subject: Tri-County Community College
Groundwater Incident No. 3371
Cherokee County, North Carolina

Dear Mr. Crisp:

Per our telephone conversation on January 10, 1989, you will present Mr. Rochelle's proposal regarding the groundwater investigation and remediation at Tri-County Community College, Cherokee County, to the Board of Trustees on January 19, 1989, and you will inform this office of the Board's acceptance or rejection of the proposal no later than January 26, 1989. If the proposal is accepted, please include a copy with your letter to this office.

If you have any questions, please call me at 704-251-6208, extension 267, or Don Link, extension 301.

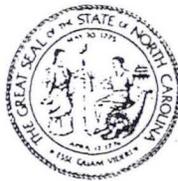
Sincerely,

A handwritten signature in cursive script that reads "Diane M. A. Eskenasy".

Diane M. A. Eskenasy, P. G.
Hydrogeological Technician

DMAE:ar

cc: Douglass Dixon
Franklin Barnett



State of North Carolina
Department of Environment, Health, and Natural Resources
Division of Solid Waste Management
P.O. Box 27687 · Raleigh, North Carolina 27611-7687

James G. Martin, Governor
William W. Cobey, Jr., Secretary

William L. Meyer
Director

January 3, 1989

Ms. Kate Probst
Clean Sites
1199 North Fairfax Street
Alexandria, VA 22314

Subj: Response to Information Request Concerning the Clean Sites
Report "Hazardous Waste and the Rural Poor"

Dear Ms. Probst:

This letter is in response to your request for information for your report "Hazardous Waste Sites and the Rural Poor". Your letter of December 18, 1989, requested specific information on the Tri-County Community College Site (NCD038551263), and any other general comments on the report. I am pleased to provide the following information and comments.

The NC Division of Solid Waste Management, Superfund Section, conducted a site investigation at Tri-County Community College on February 10 and 11, 1987. Sampling results confirmed that the drinking water supplied by an on site well was contaminated with trichloroethene. We forwarded the Site Investigation Report to the U.S. EPA Region IV. The State has retained involvement at the site through the Division of Environmental Management (DEM). The DEM has been working with Tri-County Community College and their contractor to investigate and remediate the site. A total of 12 monitoring wells with both shallow and deep aquifer sampling capability were installed. Six wells are still used on the site. Although the sampling data shows that the TCE contamination is from a source on the campus grounds, the source remains unknown due to the varied uses of the site through the years. The highest levels of TCE on the site are from below the sand filter beds that were formerly used for sewage discharge.

Tri-County Community College is now connected to County water and sewer lines and is no longer using the contaminated wells. One of these wells will be used in the remedial effort scheduled to begin later this month. The plan calls for pumping the water from this well and discharging it to the sewer system for treatment at the local POTW. Theoretically, pumping will continue until North

Carolina ground water standards are met. At present it is not known how long this will take. Six monitoring wells on site will be sampled quarterly. If you would like further information concerning the ongoing efforts you can contact Mr. Donald Link of the DEM-Asheville Regional Office, P.O. Box 370, Asheville, NC 28802, (704) 251-6208.

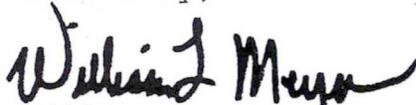
It is noted on Table VI of your report that the U.S. EPA conducted a removal action at the site. Neither the Division of Solid Waste Management, the Division of Environmental Management, nor the Cherokee County Health Department can confirm that this took place. It is known that Tri-County Community College provided bottled water to students until they were connected to the County Water System.

Concerning general comments on the report, you may wish to know that there are two other sites in Cherokee County within 2 miles of Tri-County Community College, both of which have ground water contaminated with chlorinated solvents. The other sites are Emerson Electric Company (NCD089989917) and Clifton Precision (NCD044438406). A Site Investigation Report for Emerson Electric Company was completed and forwarded to EPA Region IV in March 1987 (enclosed). The Clifton Precision Site is a TSD that is regulated under RCRA; therefore, there was only a preliminary assessment conducted on the site (enclosed). The U.S. EPA has issued Clifton Precision an administrative order to clean up the site and is overseeing the remedial effort. Shannon Maher, (404)347-7603, is the EPA contact person for the site. Some drinking water wells were contaminated at these sites. The Cherokee County Health Department is continuing to sample wells at Clifton Precision.

In Appendix E for the Charles Macon Lagoon and Drum NPL Site, under the fourth column one contaminant is reported as "PCE"; this should be changed to "TCE" or trichloroethylene.

The NC Division of Solid Waste Management is pleased to provide these comments to you. If you have any questions, please contact me at (919)733-4996.

Sincerely,


William L. Meyer
Director

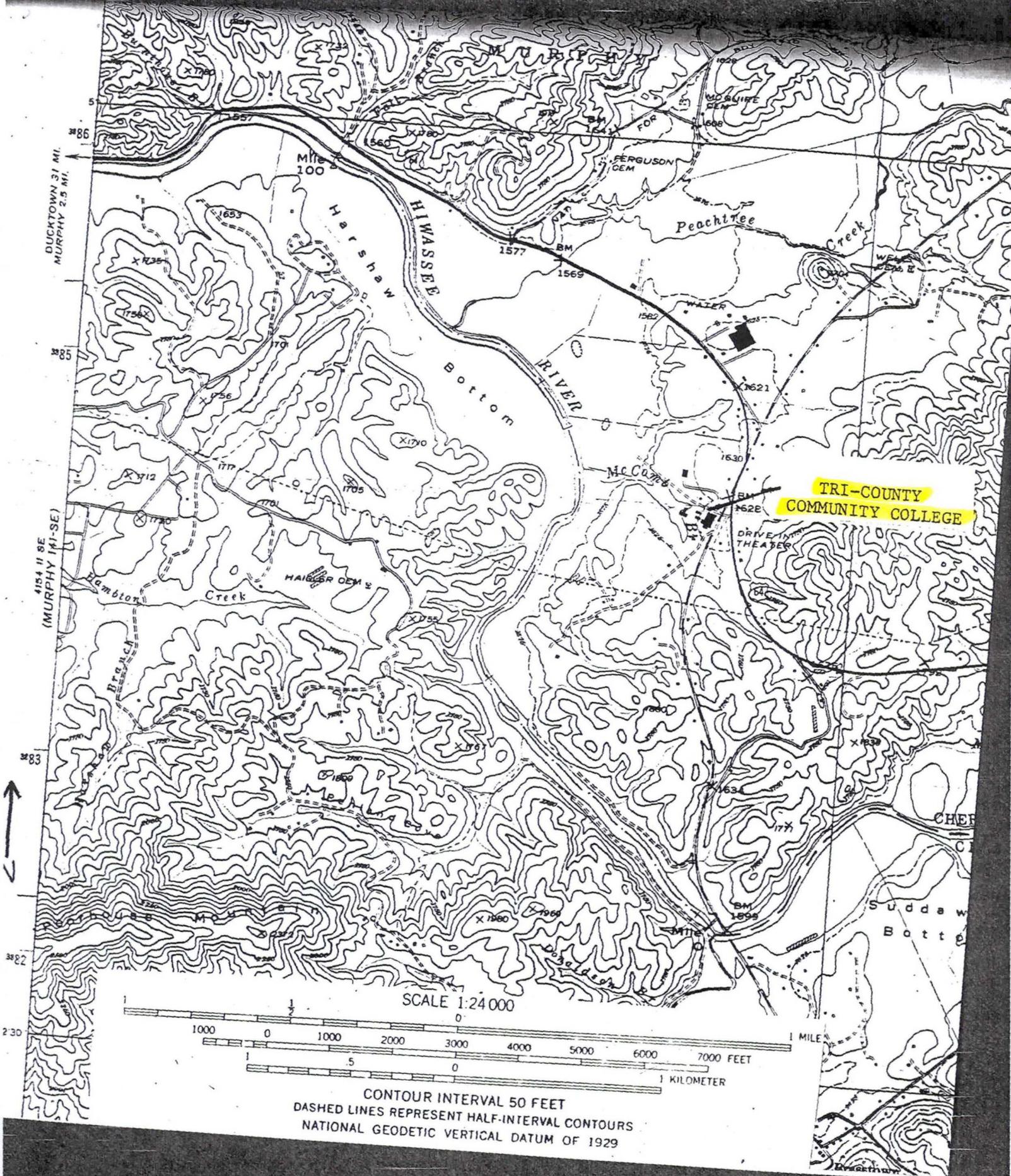
WM/bn/cleansit

enclosures

cc:

Perry Nelson

Don Link



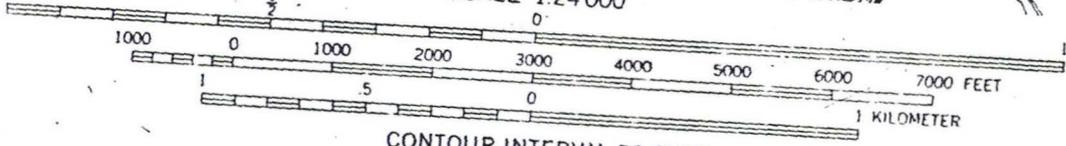
DUCKTOWN 31 MI.
MURPHY 2.5 MI.

4154 11 SE
(MURPHY 1A1-SE)



230

SCALE 1:24 000



CONTOUR INTERVAL 50 FEET
DASHED LINES REPRESENT HALF-INTERVAL CONTOURS
NATIONAL GEODETIC VERTICAL DATUM OF 1929

**TRI-COUNTY
COMMUNITY COLLEGE**

DRIVE IN
THEATER

McCarty

FERGUSON
CEM

HAIGLER
CEM

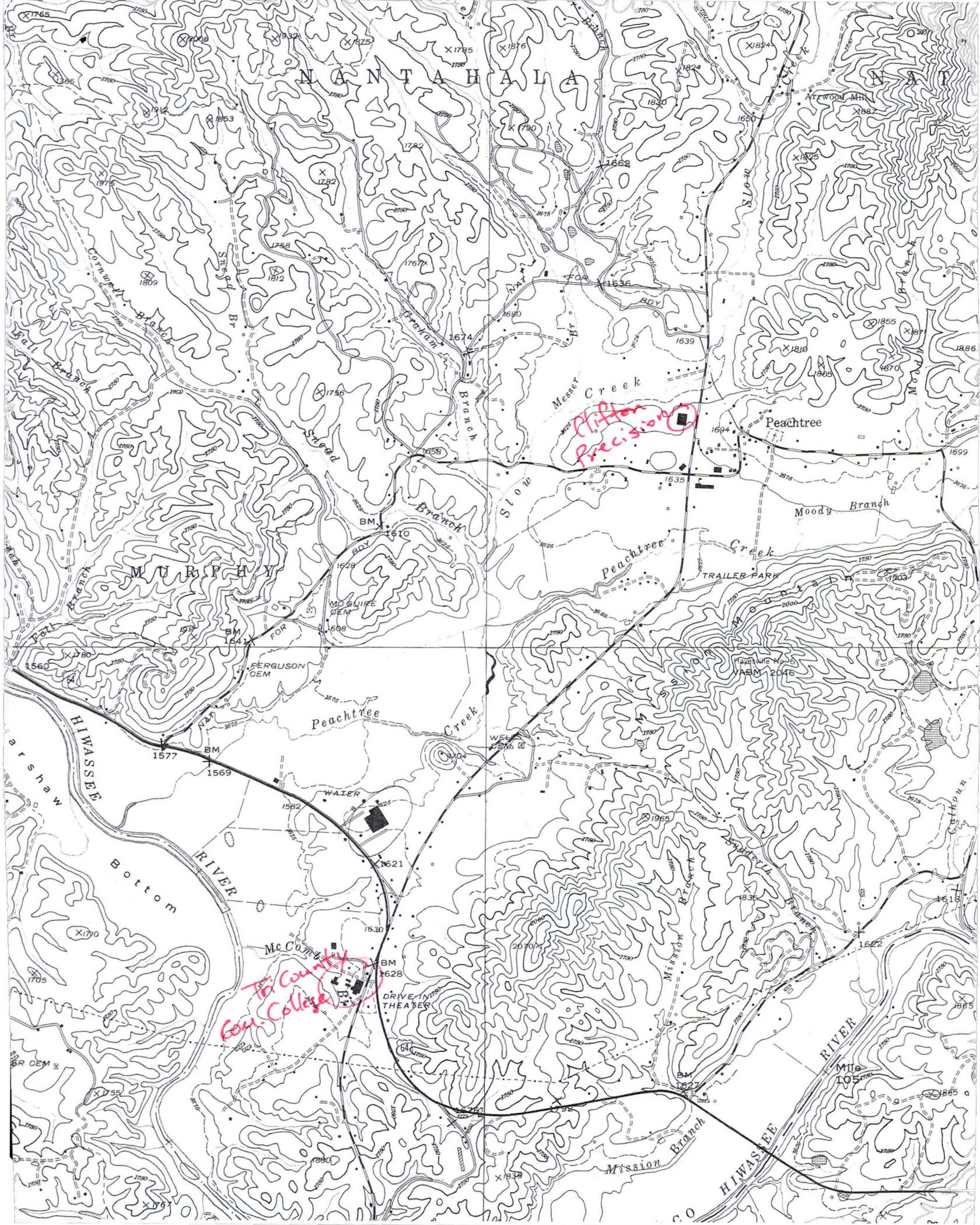
Hartsaw
Bottom

HIWASSEE
RIVER

Peachtree
Creek

CHESTER

Suddaw
Bottom



NANTAHALA

MURPHY

MHA Precision

To County College

HIWASSEE RIVER

Bottom

Peachtree Creek

Messer Creek

Peachtree

Moody Branch

Peachtree Creek

TRAILER PARK

Peachtree Creek

WATER

McCall's

DRIVE-IN THEATER

HIWASSEE RIVER

Mile 105

Mission Branch

D. Davis 9/10/88

AN EQUAL OPPORTUNITY EMPLOYER

DEPARTMENT OF COMMUNITY COLLEGES

TRI-COUNTY COMMUNITY COLLEGE

August 29, 1988

POST OFFICE BOX 40
MURPHY, NORTH CAROLINA 28906

TELEPHONE
(704) 837-6810
(704) 837-6851
(704) 837-2412

Mr. Don Link
N.C. Dept. of Natural Resources & Community Development
Asheville Regional Office
Division of Environmental Management
P. O. Box 370
Asheville, NC 28802-0370

Dear Mr. Link:

In response to Mr. Roy M. Davis' letter of August 1, 1988, concerning Groundwater Incident No. 3371, we have contacted various state agencies asking for guidance in pursuing a solution to the above problem.

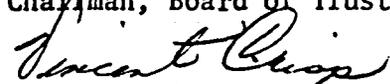
We have been provided a list of possible consultants by the Division of Purchase and Contract and advised as to how we must conduct a bid procedure for this service. This list was made available August 26, 1988.

The N.C. Department of Community Colleges has been advised of our problem and is assisting us in the search for possible funding to be used in exploration and groundwater remediation.

We are not able to give you a specific projected timetable at the present time. As soon as consultant service has been attained, we will provide you a projected timetable.

Thank you for your assistance in this matter. If you should need additional information at the present time, please advise.

Sincerely,

Franklin Barnett
Chairman, Board of Trustees

Vincent Crisp
President

jcb

cc: Phil Albano, DCC

RECEIVED

AUG 30 1988

Groundwater Section
Asheville Regional Office



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

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

David R. Spain
Regional Manager

DIVISION OF ENVIRONMENTAL MANAGEMENT
GROUNDWATER SECTION

September 9, 1988

Mr. Vincent Crisp
Tri-County Community College
P. O. Box 40
Murphy, North Carolina 28906

Subject: Groundwater Remediation
Tri-County Community College
Groundwater Incident No. 3371
Cherokee County, North Carolina

Dear Mr. Crisp:

I have reviewed your letter of August 29, 1988, regarding a groundwater investigation and remediation on the property of Tri-County Community College in Cherokee County. The letter did not specifically address funding of the remediation effort. Please provide this office with some type of breakdown of where you are seeking funding and when they would become available by October 10, 1988.

If you have any questions, please do not hesitate to contact me or Diane Eskenasy at (704) 251-6208, extensions 301 or 267.

Sincerely,

A handwritten signature in cursive script that reads "Donald R. Link".

Donald R. Link, P. G.
Hydrogeological Regional Supervisor

DRL:ar

cc: Cherokee County Health Department

TRI-COUNTY COMMUNITY COLLEGE

POST OFFICE BOX 40
MURPHY, NORTH CAROLINA 28906TELEPHONE
(704) 837-6810
(704) 837-5651
(704) 837-2412

October 5, 1988

Mr. Donald R. Link, P.G.
Hydrogeological Regional Supervisor
N.C. Dept. of Natural Resources and Community Development
Asheville Regional Office
Interchange Building
P. O. Box 370
Asheville, NC 28802-0370

Dear Mr. Link:

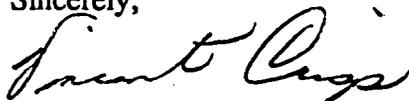
In your letter of September 9, 1988, you asked for a breakdown of where we are seeking funding to address Groundwater Incident No. 3371. Enclosed is a copy of Bruce Harrington's letter.

The one million dollars he mentioned was appropriated for the new water/sewer system. The Department of Community Colleges is aware of this problem.

The Cherokee County Commissioners have been informed. One member of our Board of Trustees is also a Cherokee County Commissioner. Our N.C. State Representative has been informed.

I am unable to give you a time when funding will be available but I will let you know when I can give you reliable information.

Sincerely,

Vincent Crisp
President

/jcb

Enclosure

RECEIVED

OCT 7 - 1988

Groundwater Section
Asheville Regional Office



State of North Carolina
Office of State Budget and Management

James G. Martin
Governor and Director
of the Budget

C. C. Cameron
Executive Assistant to the Governor
for Budget and Management

September 26, 1988

Mr. Vincent Crisp, President
Tri-County Community College
P. O. Box 40
Murphy, North Carolina 28906

RE: Possible Funding to Address Groundwater Incident Number 3371

Dear Mr. Crisp:

In response to your letter of September 13, 1988 we are sorry to inform you that we are unable to locate any funds within the Office of State Budget and Management or the Department of Natural Resources and Community Development which may be used to address your groundwater problem. Other possible sources of funding which you may wish to pursue include:

1. The one million dollars appropriated by the 1987 and 1988 legislative sessions to Tri-County Community College for water/sewer lines. Will the full amount of this appropriation be required for water/sewer lines and, if not, can such funds be used towards your groundwater problem?
2. The State Board of Community Colleges reserve fund.

We suggest that you contact Mr. Tom King, Vice President for Finance, Department of Community Colleges concerning possible funding from these two sources.

Sincerely,

W. Bruce Harrington
W. Bruce Harrington
Budget Administrator

WBH/jfj

cc: Mr. Tom King
Mr. Phil Albano
Mr. Robert Powell



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

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

David R. Spain
Regional Manager

DIVISION OF ENVIRONMENTAL MANAGEMENT

August 1, 1988

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Franklin Barnett, Chairman
Tri-County Community College Board of
Trustees
Post Office Box 334
Murphy, North Carolina 28906

Tricounty
Community
College
File

SUBJECT: Notice of Noncompliance
NCAC Title 15, Subchapter 2L
Classifications and Water Quality
Standards Applicable to the
Groundwaters of North Carolina
Groundwater Incident No. 3371
Tri-County Community College
Cherokee County, North Carolina

Dear Mr. Barnett:

Chapter 143, North Carolina General Statutes, authorizes and directs the Environmental Management Commission of the Department of Natural Resources and Community Development to protect and preserve the water and air resources of the State. The Division of Environmental Management (DEM) has the delegated authority to enforce adopted pollution control rules and regulations.

Based upon a groundwater investigation conducted by the DEM on the campus of Tri-County Community College located in Peachtree, Cherokee County, the Division has reason to believe that the college is responsible for activities resulting in noncompliance with North Carolina law.

Specific violations noted are as follows: The presence of trichloroethene in monitor wells on Tri-County Community College property near the sand filter and in monitor wells constructed offsite, in the McCombs' pasture across the creek from the sand filter, establishes violations of the "Classifications and Water Quality Standards Applicable to the Groundwaters of North Carolina", NCAC Title 15, Subchapter 2L, .0103(h)(3), and .0202(b).

You are requested to submit a written response to this Notice describing your plans to achieve compliance with the above-cited laws or regulations within thirty days from receipt of this letter. This shall include plans to determine the offsite horizontal extent of contamination and plans for ground-water remediation with a projected timetable.

Failure to respond within the time specified and voluntarily achieve compliance may result in issuance of a civil penalty assessment under authority of G.S. 143-215.6 of not more than \$10,000; the issuance of a special order against you under the authority of G.S. 143-215.2; or a request to the Attorney General to institute an action for injunctive relief. If any action or failure to act is continuous, each day may be considered a separate violation.

Your response and/or questions should be directed to Don Link or Diane Eskenasy of the Asheville Regional Office at (704) 251-6208.

Sincerely,



Roy M. Davis
Regional Supervisor

RMD:DRL:DMAE:sb

cc: Mr. Vincent Crisp
Mr. Robert C. Wood
Office of Legal Affairs
Douglass Dixon

cc: Dixon 11/21
D. P.

AN EQUAL OPPORTUNITY EMPLOYER

DEPARTMENT OF COMMUNITY COLLEGES

TRI-COUNTY COMMUNITY COLLEGE

POST OFFICE BOX 40
MURPHY, NORTH CAROLINA 28906

November 17, 1988

TELEPHONE
(704) 837-8810
(704) 837-5651
(704) 837-2412

Ms. Kay Dechant, Hydrogeologist
N.C. Dept. of Natural Resources & Community Dev.
Asheville Regional Office
Interchange Building
P. O. Box 370
Asheville, NC 28802-0370

Dear Ms. Dechant:

Enclosed is a copy of my letter to Tom King requesting funding for Groundwater Incident No. 3371. Mr. King told me this request had to be approved by the State Board of Community Colleges, and he would provide confirmation of the funding after the State Board meeting.

We have discussed our problem with SCS Engineers and Environmental Consultants out of Reston, Virginia. This firm is providing services to Clifton Precision and have indicated their willingness to provide services to us at a substantially reduced charge, if this arrangement is satisfactory with Clifton Precision.

I have discussed this possibility with the local Clifton management, and they are willing to cooperate. We have shared all our information with SCS Engineers for their examination.

As soon as we have additional information on either of these possibilities, I will inform you immediately. If you need more clarification, please advise.

Sincerely,

Franklin Barnett
Franklin Barnett

Chairman, Board of Trustees

Vincent Crisp
Vincent Crisp

President

jcb

Enclosure

RECEIVED

NOV 21 1988

Groundwater Section
Asheville Regional Office

TRI-COUNTY COMMUNITY COLLEGE

POST OFFICE BOX 40
MURPHY, NORTH CAROLINA 28906

November 2, 1988

TELEPHONE
(704) 837-8810
(704) 837-5651
(704) 837-2412

Mr. Thomas C. King, Jr.
Vice President for Finance
N.C. Dept. of Community Colleges
200 W. Jones Street
Raleigh, NC 27603-1337

Dear Mr. King:

Enclosed are copies of correspondence between N.C. Department of Natural Resources and Community Development and Tri-County Community College concerning Groundwater Incident No. 3371.

From our telephone conversation, I understand there is a maximum of \$35,000 from the Environmental Management Group for the cleanup of groundwater. Since Incident No. 3371 is expected to be expensive cleanup, we request your assistance in securing the above funds.

Thank you very much for your help.

Sincerely,

Vincent Crisp
President

/jcb

Enclosures



DEPARTMENT OF COMMUNITY COLLEGES

NORTH CAROLINA STATE BOARD OF COMMUNITY COLLEGES

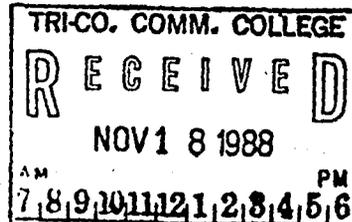
200 W. JONES STREET

RALEIGH, NC 27603-1337

ROBERT W. SCOTT
STATE PRESIDENT

919-733-7001

November 10, 1988



Mr. Vincent W. Crisp
President
Tri-County Community College
P.O. Box 40
Murphy, North Carolina 28906

Dear Vincent:

The State Board of Community Colleges, at its November 10 meeting, approved an amount of \$35,000 from board reserve funds to be used for a study being conducted to determine the total requirements and impact to clean up the contaminated area on your campus.

Should you have any questions, please do not hesitate to contact me.

Sincerely,

Thomas C. King, Jr.
Thomas C. King, Jr.
Vice President for Finance

11/18/88

Ray,

This letter came in after our response had been prepared and signed. Thank you.

Vincent Crisp

cc to Bill
1/30/89
rec'd 1/30/89
dmc
AKO-GWS

ENERGY SUPPORT SERVICES, INC.

P.O. Box 6098

ASHEVILLE, NORTH CAROLINA 28816

(704) 258-8888

Energy Support Services, Inc.

ESSI
P.O. BOX 1449
HOUSTON, TX. 77251
(713) 888-9521

ESSI
P.O. BOX 840
CORAOPOLIS, PENNSYLVANIA 15108
(412) 269-8800

December 21, 1988

Tri-County Community College
P.O. Box 40
Murphy, N.C. 28906

Attention: Mr. Vincent Crisp

Re: Proposal to Perform Groundwater Investigations/Remediation
Incident No. 3371
Tri-County Community College
Cherokee County, North Carolina

Dear Mr. Crisp:

In response to your request for proposal for groundwater remediation services, Energy Support Services, Inc. is pleased to submit this proposal to conduct supplementary groundwater investigations to aid in definition of the areal extent of contamination and in identifying the preferred means of remediation of contaminated groundwater underlying the Tri-County Community College (TCCC) site.

This proposed scope of investigations is based on recent discussions and meetings with representations of the Division of Environmental Management (DEM) of the North Carolina Department of Natural Resources and Community Development (NCRD) and a review of the Report of Preliminary Investigations, Tri-County Community College, Incident No. 3371 prepared by the Asheville Regional Office of the DEM. By the utilizing the existing DEM investigations and data, the scope of the proposed investigation is significantly below what otherwise would be required. These proposed investigations are intended to gather additional basic data regarding the horizontal and vertical extent of contamination and to characterize aquifer geohydrologic parameter as necessary to determine the preferred means of remediation per DEM "Guidelines for Technical and Field Data Necessary for Developing Remedial Plan."

Based upon our discussions with (NCRD), the important areas of interest to be addressed in the remediation plan will include:

- a. Additional Monitor Wells to determine extent of vertical and horizontal contamination.
- b. The upgrade or possible elimination of the current waste disposal system (Sand-Filter).
- c. Development of a waste minimization program to prevent alternate waste sources from contributing to the groundwater contaminations.
- d. Site Groundwater Remediation Plan for present and future groundwater monitoring to assess the effectiveness of the cleanup effort.

The following is a discussion on the suggested actions by the (NCRD):

A. Additional Monitor Wells

Proposed installation of six groundwater monitoring wells at the approximate locations shown in Figure 1. Wells MW-1 thru MW-4 will be permanent monitor wells located to further define the extent of onsite contamination, to provide observation points for a pumping test if needed at a later date, and to provide future monitoring/sampling points to evaluate the progress of the Remedial Action Plan. Wells MW-5 and MW-6 will be temporary monitoring wells intended to assess the horizontal extent of offsite contamination down-gradient direction. Depending on the distance of movement of the contamination, additional down-gradient temporary monitoring wells may be required. Water quality samples will be obtained from each new well and the two existing TCCC wells. The water samples will be analyzed by an EPA approved laboratory for chemical analysis for Volatile Organic Compounds (VOA).

As an option, to be performed upon request and at additional cost, a Pumping Test may be required at some point in the remediation process. This would gather geohydrologic data regarding the true behavior of the bedrock and regolith aquifers under stress, or pumping conditions. This test would be performed under the direct supervision of Mr. Ed Rochelle, Mr. Ed Hedgecock and Mr. Barry Nelson.

B. Upgrade of Waste Water Disposal (Sand Filter)

Proposed is an evaluation of the existing (Sand Filter) method of waste water disposal. The Sand Filter needs to be refilled with appropriate medium to reduce solids, organic

and also adjust pH for application of the NPDES permit for discharge of waste water. This will condition the water for discharge and reduce the contribution of volatile organics to the current groundwater contamination. This should play a substantial role in contamination reduction.

C. Waste Minimization Program

Proposed is the development of a Waste Minimization Program to reduce the contribution of waste to the groundwater and reduce the amount of waste to be disposed. It is clear that some of the source of the groundwater contamination may have occurred by releasing solvents directly to the ground without treatment of the Sand Filter. This practice needs to be addressed by developing a program that will heighten awareness by employees, collect and segregate waste, and reduce the volume of waste to be disposed. This will reduce the cost of disposal of hazardous waste and eliminate additional groundwater contamination.

D. Site Groundwater Remediation Plan

Proposed is a Remedial Action System to assess the progress of the groundwater cleanup. Once the initial investigations are completed, the NCRD will require ongoing surveillance of the groundwater remediation. This will include additional sampling, reports, permits, correspondence and discussions with the Regional Office in Asheville to keep them apprized of the effectiveness of the cleanup. Also, discussion with the City of Murphy will be required for use of city/county sewer to pump down the recovery well as needed to cleanup the site. Energy Support Services, Inc. will perform these liaison activities to keep all interested parties informed.

We appreciate your consideration of Energy Support Services, Inc. for this work and are looking forward to working as your environmental consultant on this and future projects.

Sincerely,



Edward T. Rochelle
Director - Technical Services

/lb P 401, CD-P2

ESTIMATED COST

The following is an estimated cost of the services to be provided:

- A. ✓ Additional Monitor Wells \$27,000.00
 - o Install Monitor Wells
 - o Sample Monitor Wells/Existing Wells
 - o Laboratory Analysis of Samples
 - o Prepare Reports and Review

- B. Upgrade Waste Disposal System \$5,000.00
 - o Evaluate Waste Water
 - o Recommend Either Medium
 - o Supervise Reconstruction
 - o Test Effectiveness

- C. Waste Minimization Programs \$2,500.00
 - o Program Development
 - o Evaluate Waste Streams
 - o Train Personnel
 - o Segregate Waste
 - o Eliminate Sources of Leaks and Spills

- D. Develop Groundwater Remediation Plan \$3,000.00
 - o Develop Remedial Action System
 - o Correspond with DEM and NRCD
 - o Correspond with City Officials
 - o Setup a Program for Future Monitoring Requirements

TOTAL ESTIMATED COST \$37,500.00

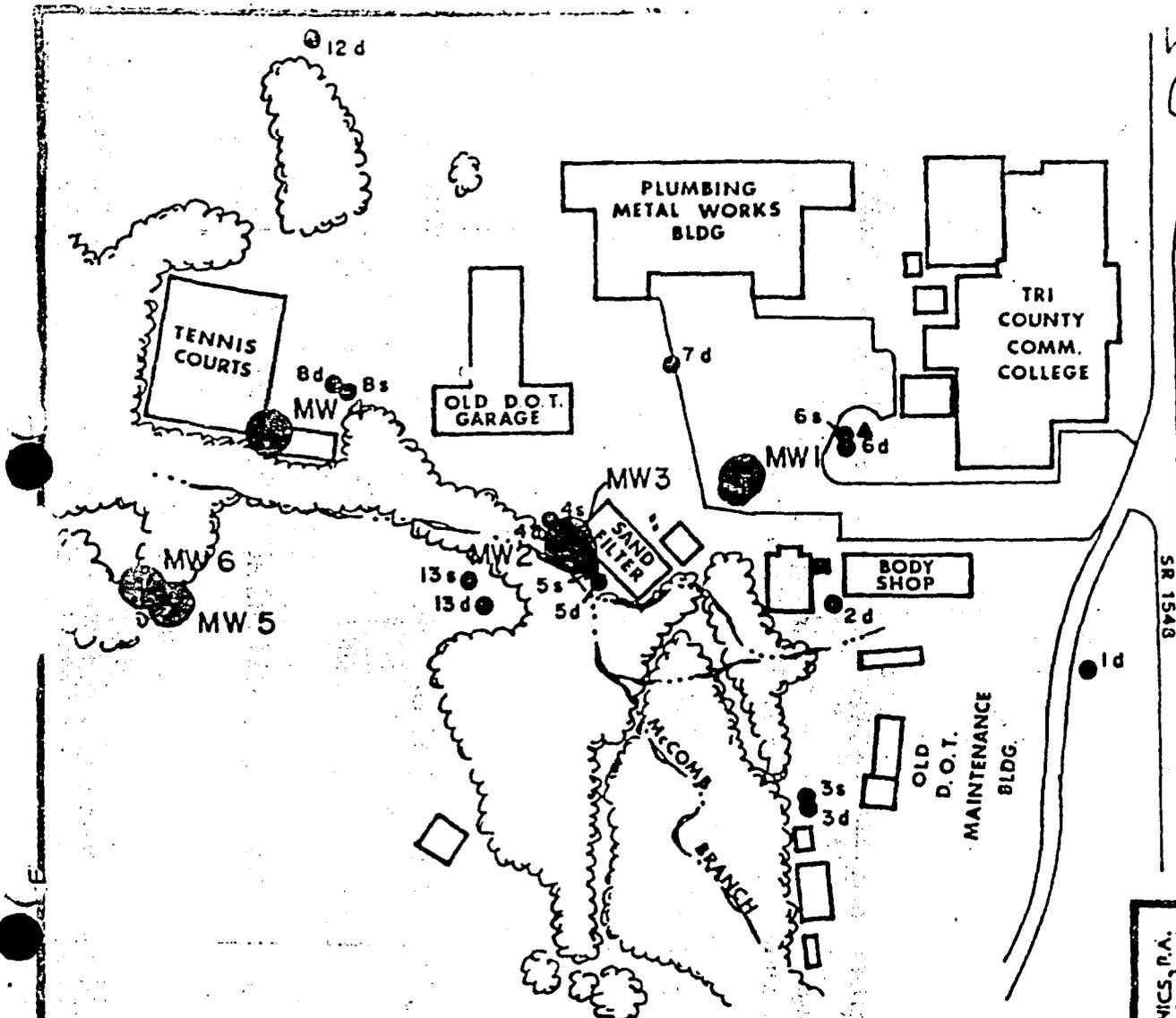
is cost reasonable

e.g. linobottom to prevent reentry not sure if concrete or clay or what

Petrol. products? lib from mechanic's area

what could be coming up

35,000 + 2,500 oper. monies



LEGEND

- PROPOSED MONITORING WELL
- TEMPORARY MONITORING WELL (ABANDONED)
- CONTAMINATED DEEP WELL
- CONTAMINATED BORED WELL

ENGINEERING TECTONICS, P.A. CONSULTING & CONSTRUCTION • APPROVED 06/11/88 P.O. Box 11844, Winston-Salem, NC 27104	<h2 style="margin: 0;">TRI-COUNTY COMMUNITY COLLEGE</h2> <p style="margin: 0;">CEROCHEE COUNTY, NORTH CAROLINA</p>	
	<h3 style="margin: 0;">LOCATION OF PROPOSED MONITORING WELLS</h3>	
	12-7-88	
	DRAWN BY: JH	APPROVED BY:
— NO SCALE —		
FIGURE 1		

NOTE: INFORMATION TAKEN FROM A MAP ENTITLED
 "SITE MAP WITH MONITOR WELL LOCATION"
 DOCUMENT #2373, DATED JUNE 1987, COMPILED
 FOR THE NORTH CAROLINA DIVISION OF
 ENVIRONMENTAL MANAGEMENT BY
 SECTION AND 21 00" AN ACTUAL FIELD SURVEY
 BY ENGINEERING SECTION-11, 0 0



TABLE 1 - SCHEDULE OF PROPOSED MONITORING WELLS

<u>Monitoring Well</u>	<u>Est'd Depth (ft)</u>	<u>Screened Interval</u>	<u>Type/Aquifer</u>
MW-1	85	75-85	Permanent/Saprolite
MW-2	85	75-85	Permanent/Saprolite
MW-3	35	25-35	Permanent/Saprolite
MW-4	150	N/A	Permanent/Bedrock
MW-5	35	25-35	Temporary/Saprolite
MW-6	85	75-85	Temporary/Saprolite

POLLUTION INCIDENT REPORTING FORM

1. Incident # 3371
 2. Tabulate only _____

Division of Environmental Management
GROUNDWATER SECTION

TYPE OF ACTION

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

INCIDENT

B	Incident Name <u>Tri-County Community College</u>		
	Address <u>U.S. 64</u>		City/Town <u>Murphy</u>
	County <u>Cherokee</u>	Region <u>Asheville</u>	DEM Regional Contact
	RALEIGH, N. C. 2 1987 ON		

PERSON REPORTING INCIDENT

C	Name <u>N/A - Investigation as a result of</u>	Date —	Time —
	Company/Agency <u>Clifton Precision Investm</u>	Telephone	
	Briefly Describe Incident <u>The water-supply well at Tri-County Community College was found to be contaminated with ethanes & ethanes & unsafe to drink.</u>		
	REPORTED BY: 1. Responsible party <input checked="" type="checkbox"/> 2. Government agency 3. Private party <u>NRCB</u>		

RECOMMENDED ACTION

D	1. Investigation complete 3. Initiate/complete cleanup 5. Technical support 7. Enforcement action		
	<input checked="" type="checkbox"/> 2. Continue investigation 4. Long-term remedial action 6. Drill crew 8. Monitoring plan		
	Comments <u>NRCB to construct monitor wells on site to determine if contamination is coming from on site source</u>		
	LAB SAMPLES: <input checked="" type="checkbox"/> 2. No	Signature <u>Don Lamb</u>	Date <u>2/27/87</u>

POLLUTION INCIDENT REPORTING FORM

Incident # _____
 County: Cherokee

POLLUTANTS INVOLVED

	<u>MATERIALS INVOLVED</u>	<u>AMOUNT STORED</u>	<u>AMOUNT LOST</u>	<u>AMOUNT RECOVERED</u>
E	<u>Solvents</u>	<u>?</u>	<u>?</u>	<u>?</u>
	_____	_____	_____	_____
	_____	_____	_____	_____

IMPACT ON SURFACE WATERS

F	WATERS EFFECTED	<input checked="" type="radio"/> 1. Yes	<input type="radio"/> 2. No	<input type="radio"/> 3. Potentially	Distance to Stream (ft)	Amount in Water (gal)
	FISH KILL:	<input type="radio"/> 1. Yes	<input checked="" type="radio"/> 2. No		<u>Prop. Boundary</u>	
				Name of Stream	<u>68ppb TCE</u>	Stream Class
				<u>McCamb Branch</u>		

RISK ASSESSMENT

Use these Codes: High = 3 Moderate = 2 Low = 1 None = 0

Resource Threat	GROUNDWATER		Amount Infiltrating Land	
	Vertical Migration of Contaminant	<u>3</u>		<u>Unknown</u>
Horizontal Migration of Contaminant	<u>3</u>			
Areal Extent of Contamination	<u>3</u>		SURFACE WATER	
Probability of Violations	<u>3</u>		<u>3</u>	<u>0</u>
Remedial Action Priority	<u>3</u>		<u>3</u>	<u>0</u>
Potential Hazard of Substance	<u>3</u>		<u>3</u>	<u>0</u>
Threat to Drinking Water	<u>3</u>		<u>1</u>	<u>0</u>
Seriousness of Threat	<u>3</u>		<u>1</u>	<u>0</u>
Overall Regional Concern	<u>3</u>		<u>2</u>	<u>0</u>

Please Circle the Appropriate Response(s):

1. This incident poses additional threat to human health by: (1) Inhalation (2) absorption (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

SOURCE OF POTENTIAL POLLUTION	TYPE OF POLLUTANT	LOCATION	SETTING
1. Intentional dump	1. Pesticide/herbicide	<input checked="" type="radio"/> 1. Facility	1. Residential
2. Pit, pond, lagoon	2. Radioactive waste	2. Railroad	2. Industrial
3. Leak--underground	3. Gasoline/diesel	3. Waterway	3. Urban
4. Spray Irrigation	4. Other petroleum prod.	4. Pipeline	<input checked="" type="radio"/> 4. Rural
5. Land application	5. Sewage/septage	5. Dumpsite	
6. Animal feedlot	6. Fertilizers	6. Highway	
<input checked="" type="radio"/> 7. Source unknown	7. Sludge	7. Residence	
8. Septic tank	8. Solid waste leachate	8. Other	
	9. Metals		
	10. Other Inorganics		
	<input checked="" type="radio"/> 11. Other organics		

MULTIPLE SOURCES AT SITE: 1. Yes 2. No

POLLUTION CONFIRMED: 1. Yes 2. No

POLLUTION INCIDENT REPORTING FORM

Incident # _____

County Cherokee

LOCATION OF INCIDENT

Street Address, Road

US 64E

City/Town

Murphy

County

Cherokee

Date Incident Occurred

UNK

Time Incident Occurred

UNK

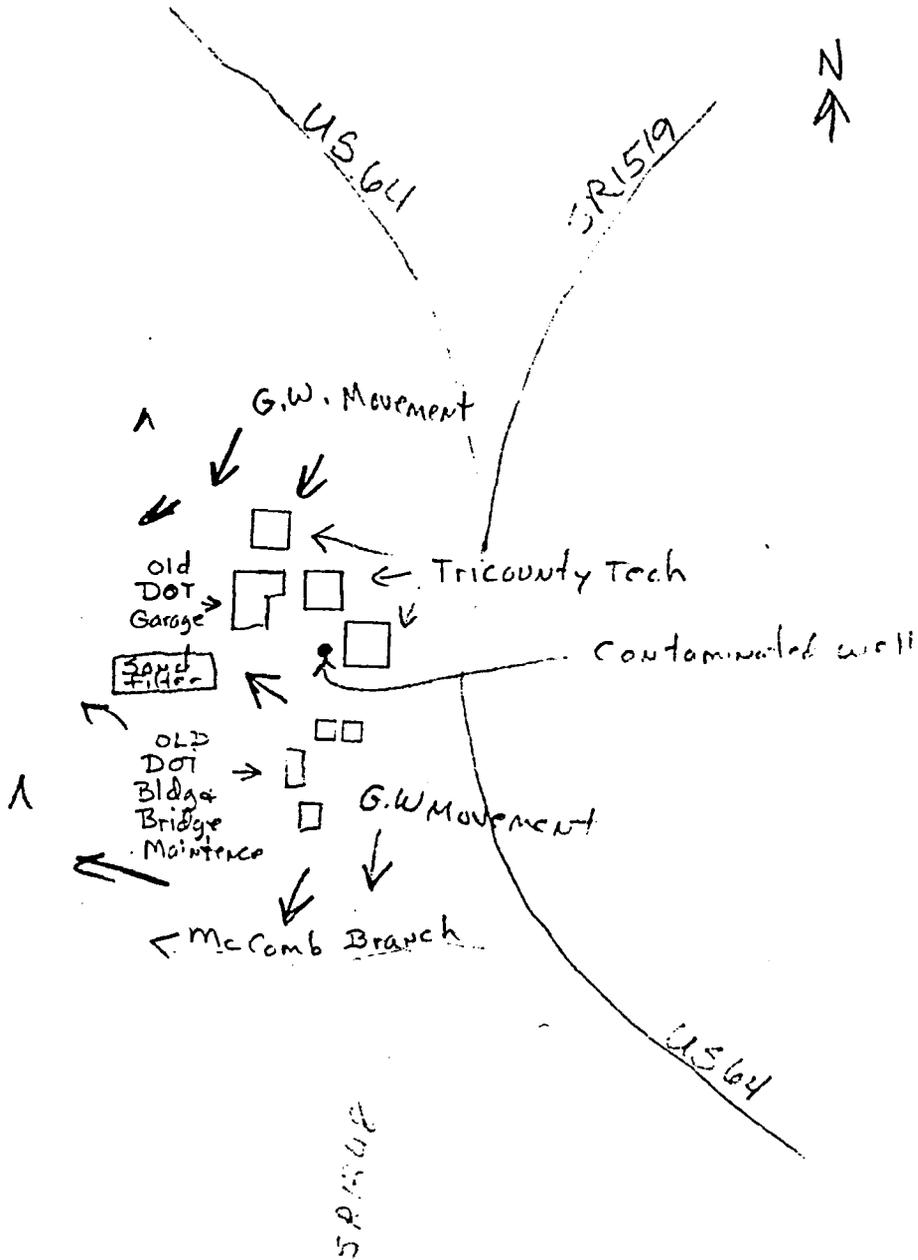
7 1/2 Quad Name

Peachtree

Lat. : Deg: Min: Sec:

Long. : Deg: Min: Sec:

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: Cherokee

SOIL TYPES

COASTAL PLAIN REGION

1. Middle Coastal Plain
2. Upper Coastal Plain/Piedmont
3. Sandhills
4. Lower Coastal/Wicomico, Talbot
5. Lower Coastal Plain/Pamlico
6. Organic Soil
7. Brackish and Freshwater Marsh
8. Outer Banks
9. Large River Valleys/Flood Plain

PIEDMONT SOIL REGION

10. Felsic Crystalline
11. Carolina Slate Belt
12. Triassic Basin
13. Mixed Felsic and Mafic

MOUNTAIN SOIL REGION

14. Low and Intermediate Mountain
15. Basins/Terraces/Flood Plain
16. High Mountain

LANDFORM

1. River/coastal terrace
2. Coastal (flat) plain'
3. Mountain range
4. Sandhills
5. Swamp
6. Linear (valley) slope
7. Head slope (concave)
8. Nose slope (convex)
9. Foot slope
10. Barrier Island
11. Barrier system
12. Beach ridge
13. Tidal marsh
14. Floodplain
15. Upland: 0-5% slope (Interstream divide)

OBSERVED AVERAGE GRADIENTS

To nearest water supply: 2 %
 Water table gradient: 2 %
 To nearest stream: 2 %
 Stream gradient: 2 %

ESTIMATED DEPTHS

To uppermost confining bed: _____ ft.
 To water table: 0-50 ft.
 To bedrock: 50-100 ft.

ESTIMATE HYDRAULIC CONDUCTIVITIES

Soil	Unsaturated zone	Water Table	Upper confined aquifer
1. high	1. high	1. high	1. high
2. <u>medium</u>	2. <u>medium</u>	2. <u>medium</u>	2. medium
3. low	3. low	3. low	3. low
4. unknown	4. unknown	4. unknown	4. unknown

AQUIFER USE

1. Little or no use
2. Moderate uses
3. Heavily used

DISTANCE TO NEAREST WATER SUPPLY: ? ft. DISTANCE TO NEAREST BUILDING: ? ft.

Location of source unk. →

Describe general lithology of soil and unsaturated zone

Area underlain by alluvial material and a deposit of silty to sandy clay. This overburden is underlain by schist.

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

12 June 1987

To: File

From: Stan Atwood *Ja*

Re: Tri-County Community College
NCD 038551263

I received a call today from John Mann, EPA Emergency Response Program, about the Tri-County Community College site. They are planning on visiting the site Tuesday and are considering using soil gas analysis to determine the source of contamination. I told him NRCD was planning a study of the site as well and he should contact Don Link or Roy Davis in Asheville. He said he would also contact Bob Wood, Health Director for Cherokee County.

SA/pw/0384b



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

14 April 1987

Mr. Bill Jeter
NRCD
Ground Water Section
P.O. Box 27687
Raleigh, NC 27611

Dear Bill:

Re: Site Investigation Reports
Emerson Electric Company
Tri-County Community College

The Site Investigation Reports for the subject sites are enclosed. Additional copies have been sent to Roy Davis, NRCD Asheville, and Bob Wood, Cherokee County Health Department. These reports and the preliminary hazard ranking system (HRS) scores for the sites have been submitted to EPA Region IV for review.

Thank you for your assistance with these investigations. If you have any comments or questions, please contact me at (919) 733-2801.

Sincerely,

Stan Atwood, Toxicologist
CERCLA Unit
Solid and Hazardous Waste Management Branch
Environmental Health Section

SA/tb/0373b

cc: Lee Crosby



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

14 April 1987

Mr. Roy Davis
Regional Supervisor
NRCD
P.O. Box 370
Asheville, NC 28802

Dear Roy:

Re: Site Investigation Reports
Emerson Electric Company
Tri-County Community College

The Site Investigation Reports for the subject sites are enclosed. Additional copies have been sent to Bill Jeter, NRCD Raleigh and Bob Wood, Cherokee County Health Department. These reports and the preliminary hazard ranking system (HRS) scores for the sites have been submitted to EPA Region IV for review.

Thank you for your assistance with these investigations. If you have any comments or questions, please contact me at (919) 733-2801.

Sincerely,

Stan Atwood, Toxicologist
CERCLA Unit
Solid and Hazardous Waste Management Branch
Environmental Health Section

SA/tb/0373b

cc: Lee Crosby



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

14 April 1987

Mr. Robert Wood, Director
Cherokee County Health Department
206 Hilton Street
Murphy, NC 28906

Dear Bob:

Re: Site Investigation Reports
Emerson Electric Company
Tri-County Community College

The Site Investigation Reports for the subject sites are enclosed. Additional copies have been sent to Roy Davis, NRCDA Asheville and Bill Jeter, NRCDA Raleigh. These reports and the preliminary hazard ranking system (HRS) scores for the sites have been submitted to EPA Region IV for review.

Thank you for your assistance with these investigations. If you have any comments or questions, please contact me at (919) 733-2801.

Sincerely,

Stan Atwood, Toxicologist
CERCLA Unit
Solid and Hazardous Waste Management Branch
Environmental Health Section

SA/tb/0373b

cc: Lee Crosby

COUNTY CHEROKEE
 QUAD NO. T10342 SERIAL NO. CE2274
 LAT. 350358 LONG. 835759

N.C. DEPARTMENT OF NATURAL RESOURCES
 COMMUNITY DEVELOPMENT
 DEM

LAB NUMBER 8 1027
 DATE RECEIVED 5/20/87 Time 1100
 Rec'd by: AMW From: Bus-Courier

26

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

GROUNDWATER FIELD/LAB FORM
 SAMPLE PRIORITY

Shipped by: Bus Courier Other _____
 COLLECTOR(S): MINNICK DATE 4/7/87 TIME _____

ROUTINE EMERGENCY

Other _____
 DATA ENTRY BY: [Signature] CK: [Signature]
 DATE REPORTED: 5-28-87

FIELD ANALYSES

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

Owner: TEL Co COMM COLLEGE
 Location of site: PITDIE
 Description of sampling point: INSIDE TAP
 Sampling Method: PUMPED Sample Interval _____
 Remarks: _____
 (pumping time, air temp, etc.)

LABORATORY ANALYSES

CO ₂ 310	mg/l
CO ₂ High 940	mg/l
CO ₂ Low 335	mg/l
Coliform:MF Fecal 31818	/100ml
Coliform:MF Total 31604	/100ml
TQC 680	mg/l
Turbidity 76	NTU
pH 403	units
Alkalinity to pH 4.5 430	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	PCU
Cyanide 720	mg/l

Calc. Solids 2850	mg/l
Sulfate 285	mg/l
Hardness Total 285	mg/l
Hardness Calc 285	mg/l
Phosphate 285	mg/l
Specific Cond. 285	mg/l
Sulfate 285	mg/l
Sulfide 285	mg/l
NH ₃ as N 285	mg/l
TKN as N 285	mg/l
NO ₂ + NO ₃ as N 285	mg/l
Total as N 285	mg/l

Ag Silver 1077	ug/l
Al Aluminum 1105	ug/l
Ba Barium 1007	ug/l
Ca Calcium 919	mg/l
Cd Cadmium 1027	ug/l
Chromium:Total 1034	ug/l
Cu Copper 1042	ug/l
Fe Iron 1045	ug/l
Hg Mercury 71800	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)
SEE ATTACHED ORGANICS ANALYSIS REPORT
RECEIVED

Lab Comments: _____

JUN 2 1987

Groundwater Section
 Asheville Regional Office



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

James G. Martin, Governor

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

31 March 1987

Ms. Denise Smith
EPA NC CERCLA Project Officer
EPA Region IV Waste Division
345 Courtland Street, N.E.
Atlanta, GA 30365

Dear Ms. Smith:

SUBJECT: Site Inspection Report
Tri-County Community College NC D038551263
Route 1, P.O. Box 40
Murphy, NC 28906

Submitted herewith is the Site Inspection Report for the subject site. Based on our review of the available data, we have concluded the following.

Tri-County Community College opened in 1967. There are four main classroom and administrative buildings with a fifth under construction on the 77 acre campus. The site was originally occupied by the NC Department of Corrections (DOC) who operated a prison there from the late 1930s until 1965. Clifton Precision, a manufacturer of electric motors, occupied the site from March 1966 until January 1967, and the NC Department of Transportation (DOT) operated a maintenance shop at the site until August 1976.

The DOC originally installed a septic system with a sand filter bed for domestic sewage. The leachate is discharged to McComb Branch. Tri-County Community College still uses this system and maintains an NPDES permit for the discharge.

In January 1987 trichloroethene (300 ppb) was detected in the drinking water well at this site. Other wells in the community (including two industrial sites) were also found to contain low levels of chlorinated solvents. Tri-County Community College now uses bottled water for drinking.

It was reported that small amounts of trichloroethene have been used in the chemistry labs and machine shop. A 55-gallon drum labeled trichloroethene was found in the machine shop, but it contains used motor oil. The origin of the drum is unknown.

Ms. Denise Smith
31 March 1987
Page 2

A CERCLA site inspection was conducted on 10-11 February 1987. Ground water, surface water, and sediment samples were collected. The well contained 542 ppb trichloroethene and McComb Branch contained 68 ppb trichloroethene. No metals were detected in the well sample.

The site is located in an alluvial valley. Geology is complex with much local folding. Fractured bedrock is the aquifer of concern.

If you have any questions, please contact me at (919) 733-2801.

Sincerely,



Stan Atwood, Toxicologist
CERCLA Unit
Solid and Hazardous Waste Management Branch
Environmental Health Section

SA/tb/0193b



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

James G. Martin, Governor
Phillip J. Kirk, Jr., Secretary

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

13 February 1987

Ms. Denise Smith
EPA NC CERCLA Project Officer
EPA Region IV Waste Division
345 Courtland Street, N.E.
Atlanta, GA 30365

Dear Ms. Smith:

SUBJECT: Preliminary Assessment Report
Tri-County Community College NC D038551263
US 64
Murphy, NC 28906

Enclosed please find the Preliminary Assessment report for the subject site. The recommended priority is based on review of available data.

Tri-County Community College opened in 1967. From the late 1930's until February 1965 the Department of Corrections (DOC) maintained a prison at this site. Clifton Precision, a manufacturer of electric motors, occupied the site from March 1966 until January 1967, and the NC Department of Transportation (DOT) operated a maintenance shop adjacent to the site until August 1976.

The prison originally installed a septic system with a sand filter bed for domestic sewage. The leachate discharges to McComb Branch. Tri-County Community College still uses this system.

In January 1987 trichloroethene (300 ppb) was detected in the drinking water at this site. Bottled water is now being used. A few residential wells and a hospital well in the site vicinity have shown trace amounts of chlorinated solvents.

It was reported that trichloroethene has been used in small amounts in the body shop and chemistry lab. The DOT maintenance shop reportedly used gasoline and kerosene to clean parts, and Clifton Precision used freon at the site. There are no known on site spills or disposals of trichloroethene.

Ms. Denise Smith
13 February 1987
Page 2

Ground water is presently the only available source of drinking water to the community. The town of Murphy draws drinking water from the Hiwassee River about four to five miles downstream from the site.

A high priority for inspection is recommended. If you have any questions, please contact me at (919) 733-2801.

Sincerely,



Stan Atwood, Toxicologist
CERCLA Unit
Solid and Hazardous Waste Management Branch
Environmental Health Section

SA/tb/0193b

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART I - INFORMATION AND ASSESSMENT

II. IDENTIFICATION

01 STATE NC | 02 SITE NUMBER D 038551263

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site) | 02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER
Tri County Community College | US 64
704-837-6810

03 CITY Murphy | 04 STATE NC | 05 ZIP CODE 28906 | 06 COUNTY Cherokee | 07 COUNTY CODE 20 | 08 CONG DIST 11

09 COORDINATES: LATITUDE 35 03 53 | LONGITUDE 83 57 59

10 DIRECTIONS TO SITE (Starting from nearest public road) Follow US 64 east of Murphy to NC 141.
College located on the right.

III RESPONSIBLE PARTIES

01 OWNER (if known) | 02 STREET (Business, mailing, residential)
Tri County Community College | US 64

03 CITY Murphy | 04 STATE NC | 05 ZIP CODE 28906 | 06 TELEPHONE NUMBER (919) 837-8810

07 OPERATOR (if known and different from owner) | 08 STREET (Business, mailing, residential)

09 CITY | 10 STATE | 11 ZIP CODE | 12 TELEPHONE NUMBER

13 TYPE OF OWNERSHIP (Check one)

A. PRIVATE B. FEDERAL: _____ (Agency) C. STATE D. COUNTY E. MUNICIPAL
 F. OTHER: _____ (Specify) G. UNKNOWN

14 OWNER/OPERATOR NOTIFICATION ON FILE (Check all that apply) (CERCLA 103c)

A. RCRA 3001 DATE RECEIVED: _____ B. UNCONTROLLED WASTE SITE DATE RECEIVED _____ C. NONE

IV. CHARACTERIZATION OF POTENTIAL HAZARD

01 ON SITE INSPECTION BY (Check all that apply)
 YES DATE _____ A. EPA B. EPA CONTRACTOR C. STATE D. OTHER CONTRACTOR
 E. LOCAL HEALTH OFFICIAL F. OTHER: _____

NO CONTRACTOR NAME(S): _____

02 SITE STATUS (Check one) | 03 YEARS OF OPERATION
 A. ACTIVE B. INACTIVE C. UNKNOWN | 1967 | present | UNKNOWN
BEGINNING YEAR ENDING YEAR

04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT. KNOWN, OR ALLEGED Chlorinated solvents detected in on-site drinking water well. Trichloroethene major contaminant.

05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION Site has switched to bottled water.
Trichloroethene is a possible human carcinogen.

V. PRIORITY ASSESSMENT

01 PRIORITY FOR INSPECTION (Check one. If high or medium is checked, complete Part 2 - Waste Information and Part 3 - Description of Hazardous Conditions and Incidents)
 A. HIGH (inspection required promptly) B. MEDIUM (inspection required) C. LOW (inspection on time available basis) D. NONE (No further action needed, complete current disposition form)

VI. INFORMATION AVAILABLE FROM

01 CONTACT Bob Wood, Health Director | 02 OF (Agency/Organization) Cherokee Co. Health Department | 03 TELEPHONE NUMBER (704) 857-7486

02 PERSON RESPONSIBLE FOR ASSESSMENT Stan Atwood | 05 AGENCY ORGANIZATION NC DHR/DHS SHW Mgmt. Br. | 03 TELEPHONE NUMBER (919) 733-2801 | 08 DATE 02-09-87

PEACHTREE, N.C.

N3500-W8352.5/7.5

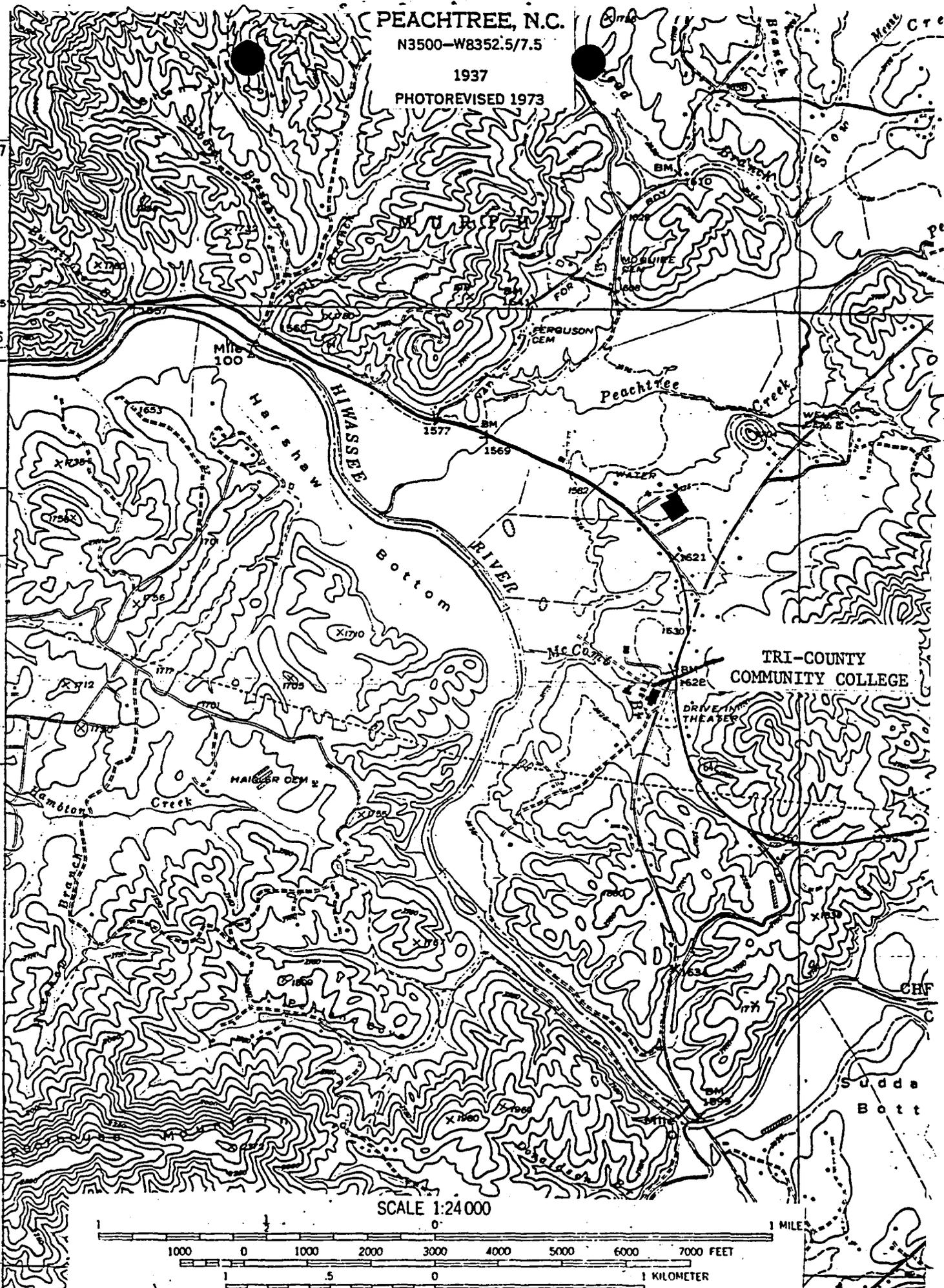
1937

PHOTOREVISED 1973

87
86
85
83
82
230

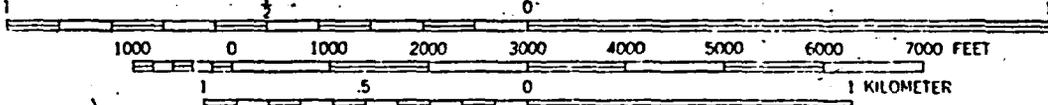
DUCKTOWN 31 MI.
MURPHY 2.5 MI.

154 11 SE
(MURPHY 141-SE)



TRI-COUNTY
COMMUNITY COLLEGE

SCALE 1:24 000



CONTOUR INTERVAL 50 FEET
DASHED LINES REPRESENT HALF-INTERVAL CONTOURS
NATIONAL GEODETIC VERTICAL DATUM OF 1929

4 February 1987

TO: File

FROM: Stan Atwood *sa*

RE: Ground water contamination: Emerson Electric and Tri-County
Community College.

I spoke by telephone with Bob Wood, Health Director, about his knowledge of the waste management histories of the subject sites. He gave the following information:

1. Tri-County Community College has occupied the present site since 1967. They have used some chlorinated solvents, including trichloroethene, in the body shop and chemistry labs.
2. Clifton Precision occupied the site between March 1966 and January 1967.
3. The Department of Transportation had a maintenance shed at the site prior to 1976: Used kerosene and gasoline to clean parts.
4. The Department of Corrections also operated a prison at the site from the late 1930's until February 1965.
5. No records of solvent spills or disposal on site.
6. Clifton Precision claims to have used freon at this site.
7. The prison constructed a sand filter bed for domestic sewage.
8. Emerson used trichloroethane until December 1985. Spent solvents reportedly drummed and shipped off site.
9. Contacts at Tri-County Community College - Vincent Crisp, President; Lyle Carringer, 837-6810 or 5651.

SA/tb/0193b

COUNTY CHEROKEE
 QUAD NO. 7103 SERIAL NO. _____
 LAT. 350000 LONG. 835500

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

LAB NUMBER 8 76-75
 DATE RECEIVED 1-20-87 Time 9:30
 Rec'd by: Dmf From Bus-Courier
 Other _____
 DATA ENTRY BY: LBW CK: [Signature]
 DATE REPORTED: 1-22-87

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

SAMPLE PRIORITY
 ROUTINE EMERGENCY

COLLECTOR(S): MINSICK DATE 1/19/87 TIME _____ PURPOSE: BASELINE, COMPLAIN, COMPLIANCE, LUST, OTHER _____
(circle one)

FIELD ANALYSES

pH₄₀₀ _____ Spec. Cond. 94 at 25°C
 Temp. 10 °C Odor _____
 Appearance _____ Taste _____

Owner TPI-Co COMM. COLLEGE
 Location or site PEACHTREE
 Description of sampling point INSIDE TAP
 Sampling Method PUMP Sample Interval _____
 (pump, baller, etc.)
 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 31816	/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	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
Phenols 32730	ug/l
Specific Cond. 95	uMhos/cm ²
Sulfate 245	mg/l
Sulfide 174	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 - Dibromothane (EDB)
SEE ATTACHED ORGANICS ANALYSIS REPORT
RECEIVED

Lab Comments: _____

JAN 23 1987

Groundwater Section
 Asheville Regional Office

