

137538

R-585-7-3-19
PRELIMINARY ASSESSMENT AND SITE INSPECTION OF
FIRST PIEDMONT ROCK QUARRY
PREPARED UNDER

TDD NO. F3-8305-45
EPA NO. VA-164
CONTRACT NO. 68-01-6699

FOR THE
HAZARDOUS SITE CONTROL DIVISION
U.S. ENVIRONMENTAL PROTECTION AGENCY

SEPTEMBER 27, 1984

NUS CORPORATION
SUPERFUND DIVISION

SUBMITTED BY

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AR100001

TABLE OF CONTENTS

| <u>SECTION</u> | | <u>PAGE</u> |
|----------------|--------------------------------------|-------------|
| 1.0 | INTRODUCTION | 1-1 |
| 1.1 | AUTHORIZATION | 1-1 |
| 1.2 | SCOPE OF WORK | 1-1 |
| 1.3 | SUMMARY | 1-1 |
| 2.0 | THE SITE | 2-1 |
| 2.1 | LOCATION | 2-1 |
| 2.2 | SITE LAYOUT | 2-1 |
| 2.3 | OWNERSHIP HISTORY | 2-1 |
| 2.4 | SITE USE HISTORY | 2-1 |
| 2.5 | PERMIT AND REGULATORY ACTION HISTORY | 2-2 |
| 2.6 | REMEDIAL ACTION TO DATE | 2-2 |
| 3.0 | ENVIRONMENTAL SETTING | 3-1 |
| 3.1 | SURFACE WATERS | 3-1 |
| 3.2 | GEOLOGY AND SOILS | 3-1 |
| 3.3 | GROUNDWATERS | 3-1 |
| 3.4 | CLIMATE AND METEOROLOGY | 3-2 |
| 3.5 | LAND USE | 3-2 |
| 3.6 | POPULATION DISTRIBUTION | 3-2 |
| 3.7 | WATER SUPPLY | 3-2 |
| 3.8 | CRITICAL ENVIRONMENTS | 3-3 |
| 4.0 | WASTE TYPES AND QUANTITIES | 4-1 |
| 5.0 | FIELD TRIP REPORT | 5-1 |
| 5.1 | SUMMARY | 5-1 |
| 5.2 | PERSONS CONTACTED | 5-1 |
| 5.2.1 | PRIOR TO FIELD TRIP | 5-1 |
| 5.2.2 | AT THE SITE | 5-1 |
| 5.3 | SAMPLE LOG | 5-2 |
| 5.4 | SITE OBSERVATIONS | 5-3 |
| 5.5 | PHOTOGRAPH LOG | 5-4 |
| 5.6 | EPA ASSESSMENT FORMS | 5-5 |
| 6.0 | LABORATORY DATA | 6-1 |
| 6.1 | SAMPLE DATA SUMMARY | 6-1 |
| 6.2 | QUALITY ASSURANCE REVIEW | 6-2 |
| 6.2.1 | ORGANIC | 6-2 |
| 6.2.2 | INORGANIC | 6-5 |
| 7.0 | TOXICOLOGICAL EVALUATION | 7-1 |
| 7.1 | SUMMARY | 7-1 |
| 7.2 | SUPPORT DATA | 7-1 |

APPENDICES

| | | |
|---|--|-----|
| A | 1.0 COPY OF TDD FORM | A-1 |
| B | 1.0 MAPS AND SKETCHES 1.1 SITE LOCATION MAP 1.2 SITE SKETCH 1.3 SAMPLE LOCATION MAP | B-1 |
| C | 1.0 ENDANGERED AND THREATENED FLORAL AND FAUNA SPECIES IN SOUTHEASTERN VIRGINIA | C-1 |
| D | 1.0 QUALITY ASSURANCE SUPPORT DOCUMENTATION | D-1 |
| E | 1.0 LABORATORY DATA | E-1 |

SECTION 1

AR100004

1.0 INTRODUCTION

1.1 Authorization

NUS Corporation performed this work under Environmental Protection Agency Contract No. 68-01-6699. This specific report was prepared in accordance with Technical Directive Document No. F3-8305-45 for the First Piedmont Rock Quarry located in Pittsylvania County, Virginia.

1.2 Scope of Work

NUS FIT III was tasked to conduct a site inspection of First Piedmont's Rock Quarry located near the Beaver Park residential development in Pittsylvania County, Virginia.

1.3 Summary

First Piedmont Corporation leased the rock quarry site in 1970 and operated disposal activities there for approximately 2 years. In June 1981, a Hazardous Waste Site Notification, Form 8900-01, was submitted by First Piedmont Corporation to EPA Region III. The majority of the waste disposed of at the quarry was from the Goodyear Tire and Rubber Company located in Danville, Virginia. The alleged wastes consisted of cardboard, glass, paper, pallets, tires, rubber elastomer compounds, small quantities of putrescible waste and various silicate compounds generated during the manufacturing of glass.

FIT Region III conducted a preliminary assessment at the site on January 4, 1983 and a site inspection on July 27, 1983. The samples taken during the site inspection detected a number of organic and inorganic contaminants. A summary of the analysis of these samples is included in section 6.1 of this report.

A Toxicological Evaluation of the sample results was conducted by NUS FIT III and the documented results of this evaluation can be found in section 7.0 of this report.

SECTION 2

AR100006

2.0 THE SITE

2.1 Location

The First Piedmont Rock Quarry site is located off Route 719, adjacent to the Beaver Park residential development in Pittsylvania County, Virginia (see appendix B, figure 1.1).

2.2 Site Layout

The First Piedmont Rock Quarry occupies approximately 4 acres and is presently inactive. The floor of the quarry is approximately 65 feet from the land surface at the eastern edge. The west and east sides of the quarry are granite walls, while the southern and northern sides consist of slumped soils, mine debris, and/or deposited wastes.

Near the base of the granite walls are channels of ponded water. The lip of the quarry is bounded on all 4 sides by scrub vegetation and trees. The quarry has been filled with waste and cover material which elevated the northern edge of the quarry equal to the surrounding topography. A leachate seep was located near the northwest edge of the quarry.

2.3 Ownership History

The site property is owned by Mr. and Mrs. Richard Lacey Compton of Blaire, Virginia. First Piedmont Corporation, located in Chatham, Virginia, leased the rock quarry site from Mr. and Mrs. Compton in March, 1970.

2.4 Site Use History

First Piedmont utilized the site between April 1970 and July 1972. The disposal operation was conducted under the approval of local officials from the Pittsylvania County Health Department. The majority of the waste disposed of during the period of operation was generated at the Goodyear Tire and Rubber Company located in Danville, Virginia. The waste was transported to the site by First Piedmont Corporation.

2.5 Permit and Regulatory Action History

During the operating years, 1970-1972, the Pittsylvania County Health Department supervised the landfill. In 1972, a fire erupted at the site. First Piedmont Corporation suspects the fire was ignited by spontaneous combustion of wood, tires, and other solid materials. The fire was extinguished after several hours. After the fire First Piedmont Corporation transferred disposal operations to another location. The First Piedmont Rock Quarry site was then inspected by the Virginia State Health Department and a closure order was issued.

In June of 1981, Goodyear Tire and Rubber Company notified First Piedmont Corporation that some of the waste removed from their plant and deposited in the rock quarry contained small quantities of hazardous materials. As a result, First Piedmont Corporation filed a Notification of Potential Hazardous Waste form with the EPA on June 5, 1981. First Piedmont then inspected the site and obtained 3 water samples and tested them for inorganic contamination. The results of this sampling are not available.

2.6 Remedial Action To Date

Disposal operations were terminated in July of 1972. The site was subsequently covered with 1 to 2 feet of clayey soils.

SECTION 3

AR100009

3.0 ENVIRONMENTAL SETTING

3.1 Surface Waters

The First Piedmont Rock Quarry site lies approximately 1,400 feet east of Lawless Creek. From the western edge of the site a small drainage basin can be observed. Lawless Creek flows southwesterly and discharges into Fall Creek which is the main drainage basin for the area. Eventually Fall Creek drains into the Dan River which is approximately 12 miles southeast of the site.

3.2 Geology and Soils

Based upon the Pittsylvania County Soil Survey, the First Piedmont Rock Quarry site is situated in the uplands of the Piedmont Province. The site is underlain by the Shelton Formation which primarily consists of granite gneiss, quartz schist, and quartzite. Geology and Groundwater Resources of Pittsylvania and Halifax Counties by Harry E. Legrand, 1960, indicates the fractured granite gneiss extend to depths of 200 to 300 feet. The same reference refers to a saprolitic layer that may (based upon casing depths in the granite gneiss formation) extend up to 60 feet in depth. The depth to bedrock in the area is variable with rock outcrops existing throughout the area. The disposal site itself was a granite quarry.

Soils in the area surrounding the First Piedmont Rock Quarry site are of the Cecil Series. These soils consist of well-drained, gently sloping to moderately steep soils that have a dominantly clayey subsoil. These soils are characteristically acidic in nature and are formed from weathered felsic bedrock and granite. The pH of these soils ranges from 4 to 5 and has moderate corrosivity for uncoated steel.

3.3 Groundwaters

Legrand also infers that groundwater occurs in the lower soils and saprolitic area and the upper region of the granite gneiss bedrocks. The bedrock occurrence is controlled by fractures, most of which "occurs at a depth of less than 150 feet, much of it in the upper 30 feet of the bedrock." (pg. 18).

The shallow flow of the aquifer is presumably northwest towards Lawless Creek. According to the Soil Survey, the seasonal high water table is greater than 5 feet below the land surface.

Groundwater is used as a potable water source for local residents along State Route 719 in the Beaver Park community south and southeast of the site. These wells are reported to have an average depth of 40 feet.

3.4 Climate and Meteorology

The climate in the vicinity of the quarry consists of generally mild winters and warm, humid summers. The average annual precipitation of Pittsylvania County is approximately 43 inches.

3.5 Land Use

First Piedmont Corporation has no development plans for the former Rock Quarry site. The surrounding areas are wooded, and a small number of homes are located along State Route 719.

3.6 Population Distribution

The First Piedmont Rock Quarry site is adjacent to the Beaver Park residential development. The approximate population of the development is 260 people. Excluding this residential area, the vicinity consists mostly of rural wooded areas.

3.7 Water Supply

The Beaver Park residential area draws water exclusively from home wells. There are no known intakes on either Lawless or Fall Creeks. The nearest home well is approximately 300 feet south of the fill area.

3.8 Critical Environments

According to the Virginia Game and Inland Fish Commission, Lawless and Fall Creeks are classified as warm water streams and are the home of a variety of fish which include sunfish bluegills, catfish, and possibly white suckers. These streams are not state-stocked trout streams. Appendix C, lists the endangered and threatened floral and fauna species of southeastern Virginia.

SECTION 4

AR100013

4.0 WASTE TYPES AND QUANTITIES

The wastes generated at the Goodyear Tire and Rubber Company in Danville, Virginia, reportedly consisted of an unknown amount of cardboard, glass, paper, pallets, tires, rubber elastomer compounds, small quantities of putrescible wastes, and various silicate compounds generated during glass manufacturing.

Personnel from the First Piedmont Corporation estimated that, during the period of operation of the landfill, approximately 130 gallons per week (approximately 250 barrels) of mixed solvents, water, carbon black, and detergent were disposed of. Approximately 7,000 gallons is the estimated total quantity of liquids disposed of at the site by Goodyear. According to Goodyear, the majority of this liquid waste was generated in floor cleaning and solvent cleaning operations. Goodyear's RCRA classification defined the solvent fraction of the waste as hazardous. Because of the D001 ignitable classification, some of Goodyear's waste products had a 140°F flash point.

Due to uncontrolled dumping at the site, other wastes disposed of there include white goods and household wastes. Some scrap tobacco leaves from nearby tobacco farms may have been disposed of at the First Piedmont Rock Quarry site.

SECTION 5

AR100015

5.0 FIELD TRIP REPORT

5.1 Summary

A site inspection of the First Piedmont Rock Quarry site was conducted on July 27, 1983, by Michael Nalipinski, Martin Howe, Jeffrey Case, and Michael Cramer. The weather was warm with temperatures of approximately 80°F and winds 5-10 miles per hour.

Prior to sampling, a visual inspection of the quarry used for waste disposal and the surrounding area was made. On-site samples were taken from surface ponding, leachate, and stained soils. Off-site samples included home wells and upstream and downstream samples of Lawless Creek. Corresponding samples were taken for First Piedmont Corporation at several on-site sampling points. Photographs were taken of the on-site sampling.

Mr. Ben Davenport, President of First Piedmont Corporation, granted access to the site via a telecon with Michael Nalipinski on July 19, 1983. Mr. Davenport also stated that no information given to the sampling team was proprietary or confidential.

5.2 Persons Contacted

5.2.1 Prior to Field Trip

Robin Aitken
U.S. EPA Region III
Sixth and Walnut Sts.
Philadelphia, PA 19106
215-597-9328

Ben J. Davenport, President
First Piedmont Corp.
P.O. Drawer 1069
Chatham, VA 24531
804-432-0211

Jim Saunders
Bureau of Solid and Hazardous Waste
906 Madison Building
109 Governor Street
Richmond, VA 23219
804-786-7073

5.2.2 At The Site

Ben J. Davenport, President
First Piedmont Corp.
P.O. Drawer 1069
Chatham, VA 24531
804-432-0211

Edward E. Clay, Vice President
First Piedmont Corp.
P.O. Drawer 1069
Chatham, VA 24531
804-432-0211

TDD Number 8305-45
 EPA Number VA 164

5.3 SAMPLE LOG

Site Name First Piedmont

| TRAFFIC REPORTS | | SAMPLING LOCATION | PHASE | SAMPLE DESCRIPTION | DATE | TIME | pH | COMMENTS/OBSERVATIONS | LABORATORY |
|-----------------|-----------------------|---------------------------------|-------|--|---------|------|----|-----------------------|------------|
| Organic | Inorganic High Hazard | | | | | | | | |
| C 3747 | MC 1005 | Lewis Well | Aq | | 7-27-83 | 0940 | | Lacks/checked | |
| C 3748 | MC 1006 | Wind bush Well | Aq | | 7-27-83 | 0950 | | Lacks/checked | |
| C 3749 | MC 1007 | N. Edge Soil #1 | Solid | soil was black | 7-27-83 | 0955 | | ETC / checked | |
| C 3750 | MC 1008 | Ponded N. Edge | Aq | reddish orange w/ stem | 7-27-83 | 1000 | | Lacks/checked | |
| C 3751 | MC 1009 | Motley Well | Aq | | 7-27-83 | 1000 | | Lacks/checked | |
| C 3752 | MC 1010 | LEACHATE W. SIDE | Solid | focal odor no H ₂ O need. | 7-27-83 | 1005 | | ETC / checked | |
| C 3753 | MC 1011 | N. Edge SED. Pond | Aq | greenish brown color | 7-27-83 | 1020 | | Lacks/checked | |
| C 3754 | MC 1012 | Ponded H ₂ O S. Edge | Aq | green tint, stem, frogs | 7-27-83 | 1025 | | Lacks/checked | |
| C 3755 | MC 1013 | Ponded H ₂ O S. Edge | Solid | brown & sandy | 7-27-83 | 1030 | | ETC / checked | |
| C 3273 | MC 1014 | Drum E. White | Solid | white, gray, powdery | 7-27-83 | 1035 | | ETC / checked | |
| C 3274 | MC 1015 | Downstream | Aq | | 7-27-83 | 1040 | | Lacks/checked | |
| C 3275 | MC 1016 | Downstream | Solid | | 7-27-83 | 1045 | | ETC / checked | |
| C 3760 | MC 1017 | Upstream | Aq | | 7-27-83 | 1045 | | Lacks/checked | |
| C 3754 | MC 1019 | Upstream | Solid | | 7-27-83 | 1055 | | ETC / checked | |
| C 3758 | MC 1019 | Carter Well | Aq | near spring | 7-27-83 | 1100 | | Lacks/checked | |
| C 3276 | MC 1020 | Drum Black | Solid | Black crusty top gray resin on bottom | 7-27-83 | 1015 | | ETC / checked | |
| --- | MC 1021 | Blank | Solid | | 7-27-83 | 1310 | | ETC / checked | |
| --- | MC 1022 | Blank | Aq | | 7-27-83 | 1315 | | ETC / checked | |
| C 3757 | --- | Blank | Solid | | 7-27-83 | 1300 | | ETC / checked | |
| C 3756 | --- | Blank | Aq | | 7-27-83 | 1309 | | Lacks/checked | |

ARI00017

5.4 Site Observations

- o No radiation or HNU readings were recorded above background in the breathing zone throughout the site.
- o The site is not secure, and there is no means to control access.
- o Frogs were observed living in the ponded water on the southwestern edge of the site.

AR100019

5.5 PHOTOGRAPH LOG



Photos 1-5 - Panoramic view of site.

F3-0305-45

27 July 1983

1115 hrs

Panorama #2

Michael Nalpi

Michael Nalpi

Michael Nalpi

13 1300 45

27 11 1983

1115 hrs

Panorama #4

Michael Nalpi

Michael Nalpi

13 1300 45

27 11 1983

1115 hrs

Panorama #1

Michael Nalpi

Michael Nalpi

F3-0305-45

27 July 1983

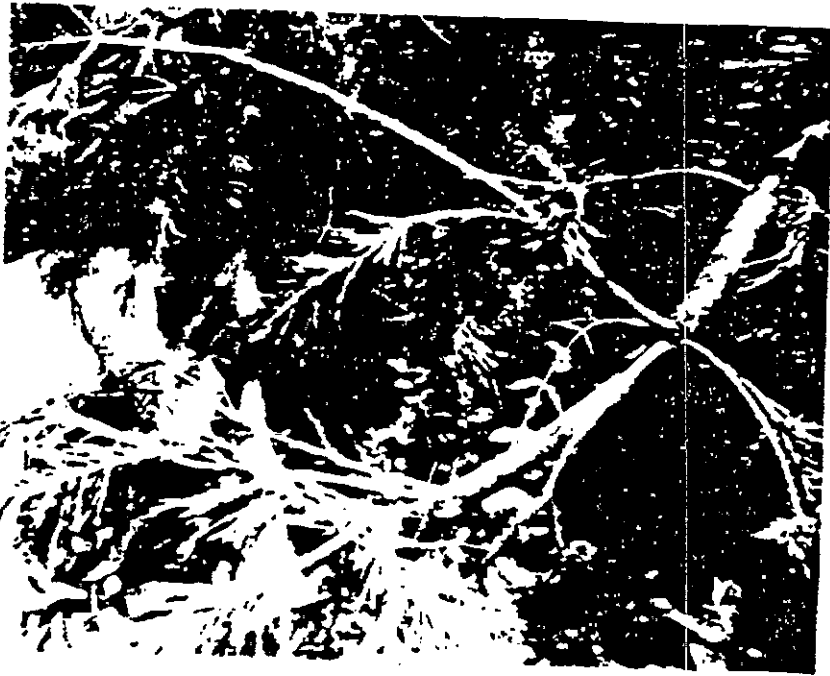
1115 hrs

Panorama #1

Michael Nalpi

Michael Nalpi

ARI00020



— Photo 6 - North edge soil #1. Black soil. —



— Photo 7 - Ponded water on north edge. —

AR100021

F3-8305-45

27 July 1983

0956

North edge soil #1 Blankens

Michael J. Natypinski

Michael J. Natypinski

F3 8305-45

27 July 1983

Ponded water North edge

1001 m

Michael J. Natypinski

Michael J. Natypinski

AR100022

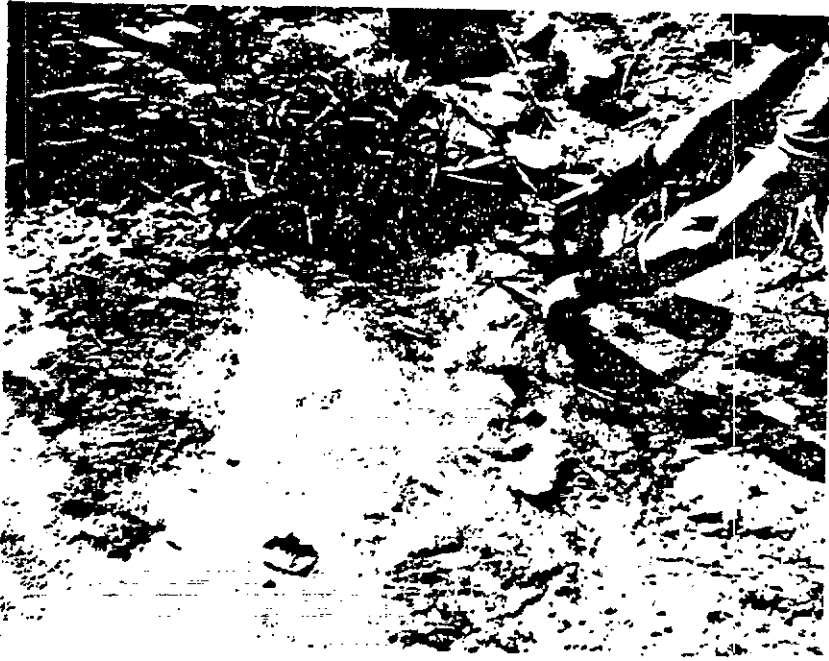


Photo 8 - Leachate on west side.



Photo 9 - Sediment on north edge.

AR100023

F3 8305-45.

27 July 1983

1006 hrs

Lehto v. Side

Michael Nalpinicki

Michael Nalpinicki

F3-8305-45

27 July 1983

1021 hrs

Sed N. Edge Standy H₂O

Michael Nalpinicki

Michael Nalpinicki

AR100024



Photo 10 - Poned water south edge.



Photo 11 - Drums - east edge of site.

ARI00025

F3-8305-45

27 July 1983

1031 hrs

Ponded H₂O ~~S. Ed~~ S. Edge Ag & Sed.
MTN

Michael Nalpasinski

Michael Nalpasinski

F3-8305-45

27 July 1983

1036 hrs

Drum EAST Edge whk

Michael Nalpasinski

Michael Nalpasinski

TDD No. F3-8305-45



**POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT**
PART 1 - SITE LOCATION AND INSPECTION INFORMATION

I. IDENTIFICATION

| | |
|----------|----------------|
| 01 STATE | 02 SITE NUMBER |
| VA | 164 |

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)

First Piedmont Rock Quarry

02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER

approx. 1/4 mile west of intersection 719 and Lawless Creek on the north edge of the road

03 CITY

south of Chatham

04 STATE | 05 ZIP CODE

VA | 24531

06 COUNTY

Pittsylvania

07 COUNTY CODE

08 C.O.P. DIST.

09 COORDINATES

79° 21' 05" N LATITUDE

36° 32' 55" W LONGITUDE

10 TYPE OF OWNERSHIP (Check one)

 A. PRIVATE B. FEDERAL C. STATE D. COUNTY E. MUNICIPAL
 F. OTHER G. UNKNOWN
III. INSPECTION INFORMATION

01 DATE OF INSPECTION

07 / 27 / 83

02 SITE STATUS

 ACTIVE
 INACTIVE

03 YEARS OF OPERATION

 1970 | 1972 UNKNOWN
 BEGINNING YEAR ENDING YEAR

04 AGENCY PERFORMING INSPECTION (Check all that apply)

 A. EPA B. EPA CONTRACTOR NUS Corporation C. MUNICIPAL D. MUNICIPAL CONTRACTOR
 E. STATE F. STATE CONTRACTOR G. OTHER

05 CHIEF INSPECTOR

Michael Nalipinski

06 TITLE

Environmental Scientist

07 ORGANIZATION

NUS Corp.

08 TELEPHONE NO

(215) 687-9510

09 OTHER INSPECTORS

Martin R. Howe

10 TITLE

Geologist/Hydrogeologist

11 ORGANIZATION

NUS Corp.

12 TELEPHONE NO

(215) 687-9510

Jeffrey Case

Chemical Engineer

NUS Corp.

(215) 687-9510

Michael Cramer

Geologist

NUS Corp.

(215) 687-9510

13 SITE REPRESENTATIVES INTERVIEWED

Ben Davenport

14 TITLE

President
First Piedmont

15 ADDRESS

16 TELEPHONE NO

(804) 432-0211

Edward Clay

Vice President
First Piedmont

804) 432-0211

17 ACCESS GAINED BY

 PERMISSION
 WARRANT

18 TIME OF INSPECTION

0930 hours

19 WEATHER CONDITIONS

approximately 80° F. with winds at 10 mph and sunny

IV. INFORMATION AVAILABLE FROM

01 CONTACT

Darius Ostrauskas

02 OF (Agency/Organization)

EPA Region III

03 TELEPHONE NO

(215) 597-3435

04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM

Michael Nalipinski

05 AGENCY

EPA Region III

06 ORGANIZATION

NUS Corporation

07 TELEPHONE NO.

(215) 687-9510

08 DATE

08 / 15 / 84
MONTH DAY YEAR

EPA FORM 2070-13 (7-81)

AR100027



**POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT**
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

| | |
|----------------|-----------------------|
| 01 STATE VA | 02 SITE NUMBER 164 |
|----------------|-----------------------|

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 A. GROUNDWATER CONTAMINATION 02 OBSERVED (DATE 7/27/83) POTENTIAL ALLEGED
03 POPULATION POTENTIALLY AFFECTED app. 260 04 NARRATIVE DESCRIPTION

Approximately 260 people within a 1-mile radius are supplied by well water. FIT III sampling has shown low levels of chromium in home wells.

01 B. SURFACE WATER CONTAMINATION 02 OBSERVED (DATE 7/27/83) POTENTIAL ALLEGED
03 POPULATION POTENTIALLY AFFECTED: unknown 04 NARRATIVE DESCRIPTION

FIT III sampling of 7/27/83 has shown potential off-site migration of lead.

01 C. CONTAMINATION OF AIR 02 OBSERVED (DATE _____) POTENTIAL ALLEGED
03 POPULATION POTENTIALLY AFFECTED _____ 04 NARRATIVE DESCRIPTION

No HNU readings were observed during the FIT inspection.

01 D. FIRE/EXPLOSIVE CONDITIONS 02 OBSERVED (DATE _____) POTENTIAL ALLEGED
03 POPULATION POTENTIALLY AFFECTED _____ 04 NARRATIVE DESCRIPTION

No

01 E. DIRECT CONTACT 02 OBSERVED (DATE 7/27/83) POTENTIAL ALLEGED
03 POPULATION POTENTIALLY AFFECTED app. 260 04 NARRATIVE DESCRIPTION

FIT III did not observe any site security measures during the inspection.

01 F. CONTAMINATION OF SOIL 02 OBSERVED (DATE 7/27/83) POTENTIAL ALLEGED
03 AREA POTENTIALLY AFFECTED: app. 5 04 NARRATIVE DESCRIPTION
(Acres)

Soil contamination results.

01 G. DRINKING WATER CONTAMINATION 02 OBSERVED (DATE 7/27/83) POTENTIAL ALLEGED
03 POPULATION POTENTIALLY AFFECTED app. 260 04 NARRATIVE DESCRIPTION

The homes sampled during the FIT III inspection showed low levels of chromium.

01 H. WORKER EXPOSURE/INJURY 02 OBSERVED (DATE _____) POTENTIAL ALLEGED
03 WORKERS POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

N/A

01 I. POPULATION EXPOSURE/INJURY 02 OBSERVED (DATE _____) POTENTIAL ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

unknown



**POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION
PART 4 - PERMIT AND DESCRIPTIVE INFORMATION**

I. IDENTIFICATION

| | |
|----------|----------------|
| 01 STATE | 02 SITE NUMBER |
| VA | 164 |

II. PERMIT INFORMATION

| 01 TYPE OF PERMIT ISSUED <small>(Check all that apply)</small> | 02 PERMIT NUMBER | 03 DATE ISSUED | 04 EXPIRATION DATE | 05 COMMENTS |
|---|------------------|----------------|--------------------|-----------------------|
| <input type="checkbox"/> A. NPDES | | | | |
| <input type="checkbox"/> B. UIC | | | | |
| <input type="checkbox"/> C. AIR | | | | |
| <input type="checkbox"/> D. RCRA | | | | |
| <input type="checkbox"/> E. RCRA INTERIM STATUS | | | | |
| <input type="checkbox"/> F. SPCC PLAN | | | | |
| <input type="checkbox"/> G. STATE <small>(Specify)</small> | | | | |
| <input type="checkbox"/> H. LOCAL <small>(Specify)</small> County | unknown | 1970 | 1972 | closure order in 1972 |
| <input type="checkbox"/> I. OTHER <small>(Specify)</small> | | | | |
| <input type="checkbox"/> J. NONE | | | | |

III. SITE DESCRIPTION

| 01 STORAGE/DSPOSAL <small>(Check all that apply)</small> | 02 AMOUNT | 03 UNIT OF MEASURE | 04 TREATMENT <small>(Check all that apply)</small> | 05 OTHER |
|--|-----------|--------------------|---|---|
| <input type="checkbox"/> A. SURFACE IMPOUNDMENT | _____ | _____ | <input type="checkbox"/> A. INCINERATION | <input type="checkbox"/> A. BUILDINGS ON SITE No |
| <input type="checkbox"/> B. PILES | _____ | _____ | <input type="checkbox"/> B. UNDERGROUND INJECTION | |
| <input type="checkbox"/> C. DRUMS, ABOVE GROUND | _____ | _____ | <input type="checkbox"/> C. CHEMICAL/PHYSICAL | 06 AREA OF SITE approx. 5 <small>(Acres)</small> |
| <input type="checkbox"/> D. TANK, ABOVE GROUND | _____ | _____ | <input type="checkbox"/> D. BIOLOGICAL | |
| <input type="checkbox"/> E. TANK, BELOW GROUND | _____ | _____ | <input type="checkbox"/> E. WASTE OIL PROCESSING | |
| <input checked="" type="checkbox"/> F. LANDFILL | unknown | unknown | <input type="checkbox"/> F. SOLVENT RECOVERY | |
| <input type="checkbox"/> G. LANDFARM | _____ | _____ | <input type="checkbox"/> G. OTHER RECYCLING/RECOVERY | |
| <input type="checkbox"/> H. OPEN DUMP | _____ | _____ | <input checked="" type="checkbox"/> H. OTHER <u>None</u> <small>(Specify)</small> | |
| <input type="checkbox"/> I. OTHER <small>(Specify)</small> | _____ | _____ | | |

07 COMMENTS

Approximately 130 gal./wk. of liquid were disposed of at the First Piedmont site for a 54 week period. Also, micellaneous solid material was disposed of at the site.

IV. CONTAINMENT

01 CONTAINMENT OF WASTES (Check one)

A. ADEQUATE, SECURE B. MODERATE C. INADEQUATE, POOR D. INSECURE, UNSOUND, DANGEROUS

02 DESCRIPTION OF DRUMS, DIKING, LINERS, BARRIERS, ETC.

The only attempt to secure the landfill is an alleged 1 to 2 feet of clay cap installed in 1972. During the FIT III inspection, material was observed protruding above the cap.

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE. YES NO

02 COMMENTS

Waste was observed protruding above the cover material during the FIT III inspection.

VI. SOURCES OF INFORMATION (Cite specific references, e.g. state files, aerial photos, reports)

FIT III site inspection of July 27, 1983.



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION

01 STATE | 02 SITE NUMBER
VA | 164

VI. ENVIRONMENTAL INFORMATION

01 PERMEABILITY OF UNSATURATED ZONE (Check one)

A. $10^{-6} - 10^{-8}$ cm/sec B. $10^{-4} - 10^{-6}$ cm/sec C. $10^{-4} - 10^{-3}$ cm/sec D. GREATER THAN 10^{-3} cm/sec

02 PERMEABILITY OF BEDROCK (Check one)

A. IMPERMEABLE
(Less than 10^{-6} cm/sec) B. RELATIVELY IMPERMEABLE
($10^{-4} - 10^{-6}$ cm/sec) C. RELATIVELY PERMEABLE
($10^{-2} - 10^{-4}$ cm/sec) D. VERY PERMEABLE
(Greater than 10^{-2} cm/sec)

03 DEPTH TO BEDROCK

est. 15 (ft)

04 DEPTH OF CONTAMINATED SOIL ZONE

>15 (ft)

05 SOIL pH

4 to 5

06 NET PRECIPITATION

44 (in)

07 ONE YEAR 24 HOUR RAINFALL

4.1 (in)

08 SLOPE
SITE SLOPE

app. 8 %

DIRECTION OF SITE SLOPE

northwest

TERRAIN AVERAGE SLOPE

x 8 %

09 FLOOD POTENTIAL

SITE IS IN N/A YEAR FLOODPLAIN

10

SITE IS ON BARRIER ISLAND, COASTAL HIGH HAZARD AREA, RIVERINE FLOODWAY

No

11 DISTANCE TO WETLANDS (3 acre minimum)

ESTUARINE

OTHER

A N/A (mi)

B. _____ (mi)

12 DISTANCE TO CRITICAL HABITAT (of endangered species)

_____ (mi)

ENDANGERED SPECIES: _____

13 LAND USE IN VICINITY

DISTANCE TO

COMMERCIAL/INDUSTRIAL

RESIDENTIAL AREAS, NATIONAL/STATE PARKS,
FORESTS, OR WILDLIFE RESERVES

AGRICULTURAL LANDS
PRIME AG LAND AG LAND

A app. 5 (mi)

B. <1/4 (mi)

C. >1 (mi) D. app. 1 (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY

Prior to 1970, the site was a granite quarry located in a rural wooded area in south central Virginia. From 1970 to 1972 the site was a dump operated by the First Piedmont Corporation. The site is located on a wooded hill that slopes towards Lawless Creek.

VII. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

FIT III site inspection on July 27, 1983



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 7 - OWNER INFORMATION

L IDENTIFICATION

01 STATE 02 SITE NUMBER
VA 164

| II. CURRENT OWNERS | | | | PARENT COMPANY (if applicable) | | | |
|---|--|---------------|-------------|---|--|---------------|-------------|
| 01 NAME | | 02 D+B NUMBER | | 06 NAME | | 09 D+B NUMBER | |
| Mr. & Mrs. Richard Lacey Crompton | | | | N/A | | | |
| 03 STREET ADDRESS (P.O. Box, RFD #, etc.) | | | 04 SIC CODE | 10 STREET ADDRESS (P.O. Box, RFD #, etc.) | | | 11 SIC CODE |
| Road No. 1 | | | | | | | |
| 05 CITY | | 06 STATE | 07 ZIP CODE | 12 CITY | | 13 STATE | 14 ZIP CODE |
| Blair | | VA | 24437 | | | | |
| 01 NAME | | 02 D+B NUMBER | | 06 NAME | | 09 D+B NUMBER | |
| | | | | | | | |
| 03 STREET ADDRESS (P.O. Box, RFD #, etc.) | | | 04 SIC CODE | 10 STREET ADDRESS (P.O. Box, RFD #, etc.) | | | 11 SIC CODE |
| | | | | | | | |
| 05 CITY | | 06 STATE | 07 ZIP CODE | 12 CITY | | 13 STATE | 14 ZIP CODE |
| | | | | | | | |
| 01 NAME | | 02 D+B NUMBER | | 06 NAME | | 09 D+B NUMBER | |
| | | | | | | | |
| 03 STREET ADDRESS (P.O. Box, RFD #, etc.) | | | 04 SIC CODE | 10 STREET ADDRESS (P.O. Box, RFD #, etc.) | | | 11 SIC CODE |
| | | | | | | | |
| 05 CITY | | 06 STATE | 07 ZIP CODE | 12 CITY | | 13 STATE | 14 ZIP CODE |
| | | | | | | | |
| 01 NAME | | 02 D+B NUMBER | | 06 NAME | | 09 D+B NUMBER | |
| | | | | | | | |
| 03 STREET ADDRESS (P.O. Box, RFD #, etc.) | | | 04 SIC CODE | 10 STREET ADDRESS (P.O. Box, RFD #, etc.) | | | 11 SIC CODE |
| | | | | | | | |
| 05 CITY | | 06 STATE | 07 ZIP CODE | 12 CITY | | 13 STATE | 14 ZIP CODE |
| | | | | | | | |
| 01 NAME | | 02 D+B NUMBER | | 06 NAME | | 09 D+B NUMBER | |
| | | | | | | | |
| 03 STREET ADDRESS (P.O. Box, RFD #, etc.) | | | 04 SIC CODE | 10 STREET ADDRESS (P.O. Box, RFD #, etc.) | | | 11 SIC CODE |
| | | | | | | | |
| 05 CITY | | 06 STATE | 07 ZIP CODE | 12 CITY | | 13 STATE | 14 ZIP CODE |
| | | | | | | | |
| III. PREVIOUS OWNER(S) (List most recent first) | | | | IV. REALTY OWNER(S) (if applicable, list most recent first) | | | |
| 01 NAME | | 02 D+B NUMBER | | 01 NAME | | 02 D+B NUMBER | |
| unknown | | | | N/A | | | |
| 03 STREET ADDRESS (P.O. Box, RFD #, etc.) | | | 04 SIC CODE | 03 STREET ADDRESS (P.O. Box, RFD #, etc.) | | | 04 SIC CODE |
| | | | | | | | |
| 05 CITY | | 06 STATE | 07 ZIP CODE | 05 CITY | | 06 STATE | 07 ZIP CODE |
| | | | | | | | |
| 01 NAME | | 02 D+B NUMBER | | 01 NAME | | 02 D+B NUMBER | |
| | | | | | | | |
| 03 STREET ADDRESS (P.O. Box, RFD #, etc.) | | | 04 SIC CODE | 03 STREET ADDRESS (P.O. Box, RFD #, etc.) | | | 04 SIC CODE |
| | | | | | | | |
| 05 CITY | | 06 STATE | 07 ZIP CODE | 05 CITY | | 06 STATE | 07 ZIP CODE |
| | | | | | | | |
| 01 NAME | | 02 D+B NUMBER | | 01 NAME | | 02 D+B NUMBER | |
| | | | | | | | |
| 03 STREET ADDRESS (P.O. Box, RFD #, etc.) | | | 04 SIC CODE | 03 STREET ADDRESS (P.O. Box, RFD #, etc.) | | | 04 SIC CODE |
| | | | | | | | |
| 05 CITY | | 06 STATE | 07 ZIP CODE | 05 CITY | | 06 STATE | 07 ZIP CODE |
| | | | | | | | |
| V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, aerial maps, reports) | | | | | | | |
| FIT III Interview with Ben Davenport of First Piedmont Corp. on July 27, 1983. | | | | | | | |



**POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 9 - GENERATOR/TRANSPORTER INFORMATION**

I. IDENTIFICATION

| | |
|----------|----------------|
| 01 STATE | 02 SITE NUMBER |
| VA | 164 |

II. ON-SITE GENERATOR

| | | | |
|---|---------------|-------------|--|
| 01 NAME N/A | 02 D+B NUMBER | | |
| 03 STREET ADDRESS (P.O. Box, RFD #, etc.) | 04 SIC CODE | | |
| 05 CITY | 06 STATE | 07 ZIP CODE | |

III. OFF-SITE GENERATOR(S)

| | | | |
|--|----------------|---|---------------|
| 01 NAME Goodyear Tire & Rubber Co. | 02 D+B NUMBER | 01 NAME | 02 D+B NUMBER |
| 03 STREET ADDRESS (P.O. Box, RFD #, etc.) (closed plant late 1970s) | 04 SIC CODE | 03 STREET ADDRESS (P.O. Box, RFD #, etc.) | 04 SIC CODE |
| 05 CITY Danville | 06 STATE VA | 07 ZIP CODE | |

IV. TRANSPORTER(S)

| | | | |
|---|----------------|---|---------------|
| 01 NAME First Piedmont Corporation | 02 D+B NUMBER | 01 NAME | 02 D+B NUMBER |
| 03 STREET ADDRESS (P.O. Box, RFD #, etc.) P.O. Drawer 1069 | 04 SIC CODE | 03 STREET ADDRESS (P.O. Box, RFD #, etc.) | 04 SIC CODE |
| 05 CITY Chatham | 06 STATE VA | 07 ZIP CODE 24531 | |

V. SOURCES OF INFORMATION (Cite specific references, e.g., MSDS Box, Sample Analysis, Reports)

FIT III Interview with Ben Davenport of First Piedmont Corp., on July 27, 1983.

ART00032



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 10 - PAST RESPONSE ACTIVITIES

I. IDENTIFICATION
01 STATE 02 SITE NUMBER
VA 164

II. PAST RESPONSE ACTIVITIES (Continued)

01 R. BARRIER WALLS CONSTRUCTED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

No

01 S. CAPPING/COVERING
04 DESCRIPTION

02 DATE 1970

03 AGENCY VA SWCB

Approximately 1 to 2 feet of clay cap was installed.

01 T. BULK TANKAGE REPAIRED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

No

01 U. GROUT CURTAIN CONSTRUCTED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

No

01 V. BOTTOM SEALED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

No

01 W. GAS CONTROL
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

No

01 X. FIRE CONTROL
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

No

01 Y. LEACHATE TREATMENT
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

No

01 Z. AREA EVACUATED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

No

01 1. ACCESS TO SITE RESTRICTED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

No

01 2. POPULATION RELOCATED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

No

01 3. OTHER REMEDIAL ACTIVITIES
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

None

III. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analyses, reports)

FIT III Interview with Ben Davenport of First Piedmont Corp. on July 27, 1983.



POTENTIAL HAZARDOUS WASTE SITE
IDENTIFICATION AND PRELIMINARY ASSESSMENT

REGION III SITE NUMBER (to be assigned by HQ) VA-164

NOTE: This form is completed for each potential hazardous waste site to help set priorities for site inspection. The information submitted on this form is based on available records and may be updated on subsequent forms as a result of additional inquiries and on-site inspections.

GENERAL INSTRUCTIONS: Complete Sections I and III through X as completely as possible before Section II (Preliminary Assessment). File this form in the Regional Hazardous Waste Log File and submit a copy to: U.S. Environmental Protection Agency; Site Tracking System; Hazardous Waste Enforcement Task Force (EN-335); 401 M St., SW; Washington, DC 20460.

I. SITE IDENTIFICATION

| | | | |
|---|----------------|--|--------------------------------|
| A. SITE NAME First Piedmont Rock Quarry | | B. STREET (or other identifier) P.O. Drawer 1069 | |
| C. CITY Charham | D. STATE VA | E. ZIP CODE 24531 | F. COUNTY NAME Pittsylvania |
| G. OWNER/OPERATOR (if known) 1. NAME First Piedmont Corporation (operator) | | 2. TELEPHONE NUMBER (804) 432-0211 | |
| H. TYPE OF OWNERSHIP <input type="checkbox"/> 1. FEDERAL <input type="checkbox"/> 2. STATE <input type="checkbox"/> 3. COUNTY <input type="checkbox"/> 4. MUNICIPAL <input checked="" type="checkbox"/> 5. PRIVATE <input type="checkbox"/> 6. UNKNOWN | | | |
| I. SITE DESCRIPTION The site is an abandoned rock quarry that received domestic and industrial waste from 1970 to 1972. | | | |
| J. HOW IDENTIFIED (i.e., citizen's complaints, OSHA citations, etc.) Notification of Hazardous Waste Site EPA form 89001 | | K. DATE IDENTIFIED (mo., day, & yr.) June 5, 1981 | |
| L. PRINCIPAL STATE CONTACT 1. NAME James Saunders | | 2. TELEPHONE NUMBER (804) 786-7073 | |

II. PRELIMINARY ASSESSMENT (complete this section last)

| | | |
|--|--|--------------------------------------|
| A. APPARENT SERIOUSNESS OF PROBLEM <input type="checkbox"/> 1. HIGH <input type="checkbox"/> 2. MEDIUM <input checked="" type="checkbox"/> 3. LOW <input type="checkbox"/> 4. NONE <input type="checkbox"/> 5. UNKNOWN | | |
| B. RECOMMENDATION <input type="checkbox"/> 1. NO ACTION NEEDED (no hazard) <input type="checkbox"/> 2. IMMEDIATE SITE INSPECTION NEEDED a. TENTATIVELY SCHEDULED FOR: b. WILL BE PERFORMED BY: <input checked="" type="checkbox"/> 3. SITE INSPECTION NEEDED a. TENTATIVELY SCHEDULED FOR: b. WILL BE PERFORMED BY: <input checked="" type="checkbox"/> 4. SITE INSPECTION NEEDED (low priority) | | |
| C. PREPARER INFORMATION 1. NAME Eugene Dennis, Geologist | | |
| 2. TELEPHONE NUMBER (215) 687-9510 | | 3. DATE (mo., day, & yr.) 2/11/83 |

III. SITE INFORMATION

| | | |
|--|---|--|
| A. SITE STATUS <input type="checkbox"/> 1. ACTIVE (These industrial or municipal sites which are being used for waste treatment, storage, or disposal on a continuing basis, even if infrequently.) <input checked="" type="checkbox"/> 2. INACTIVE (Those sites which no longer receive wastes.) <input type="checkbox"/> 3. OTHER (specify): (Those sites that include such incidents like "midnight dumping" where no regular or continuing use of the site for waste disposal has occurred.) | | |
| B. IS GENERATOR ON SITE? <input checked="" type="checkbox"/> 1. NO <input type="checkbox"/> 2. YES (specify generator's four-digit SIC Code): | | |
| C. AREA OF SITE (in acres) approximately 4 acres | D. IF APPARENT SERIOUSNESS OF SITE IS HIGH, SPECIFY COORDINATES 1. LATITUDE (deg.-min.-sec.) 79° 21' 5" | |
| | | 2. LONGITUDE (deg.-min.-sec.) 36° 39' 55" |
| E. ARE THERE BUILDINGS ON THE SITE? <input checked="" type="checkbox"/> 1. NO <input type="checkbox"/> 2. YES (specify): N/A | | |

AR100034

V. WASTE RELATED INFORMATION (continued)

3. LIST SUBSTANCES OF GREATEST CONCERN WHICH MAY BE ON THE SITE (place in descending order of hazard).

Non-specified solvents mixed with water, carbon black, and detergent.

4. ADDITIONAL COMMENTS OR NARRATIVE DESCRIPTION OF SITUATION KNOWN OR REPORTED TO EXIST AT THE SITE.

N/A

VI. HAZARD DESCRIPTION

| A. TYPE OF HAZARD | B. POTENTIAL HAZARD (mark 'X') | C. ALLEGED INCIDENT (mark 'X') | D. DATE OF INCIDENT (mo., day, yr.) | E. REMARKS |
|---|--------------------------------|--------------------------------|-------------------------------------|--|
| 1. NO HAZARD | | | | |
| 2. HUMAN HEALTH | | | | |
| 3. NON-WORKER INJURY/EXPOSURE | | | | |
| 4. WORKER INJURY | | | | |
| 5. CONTAMINATION OF WATER SUPPLY | | | | |
| 6. CONTAMINATION OF FOOD CHAIN | | | | Disposal of unknown number of drums containing a mixture of solvents, water, carbon black, and detergent occurred over 10 years ago. The possibility of drums rupturing exists. |
| 7. CONTAMINATION OF GROUND WATER | X | | | Surface water drains into Lawless Creek. |
| 8. CONTAMINATION OF SURFACE WATER | X | | | |
| 9. DAMAGE TO FLORA/FAUNA | | | | |
| 10. FISH KILL | | | | |
| 11. CONTAMINATION OF AIR | | | | |
| 12. NOTICEABLE ODORS | | | | |
| 13. CONTAMINATION OF SOIL | | | | |
| 14. PROPERTY DAMAGE | | | | |
| 15. FIRE OR EXPLOSION | | X | 1972 | First Piedmont Corp. suspects the fire was ignited by spontaneous combustion and consisted of wood, tires, and other solid material. The fire reportedly burned for several hours. |
| 16. SPILLS/LEAKING CONTAINERS/RUNOFF/STANDING LIQUIDS | | | | |
| 17. SEWER, STORM DRAIN PROBLEMS | | | | |
| 18. EROSION PROBLEMS | | | | |
| 19. INADEQUATE SECURITY | | | | |
| 20. INCOMPATIBLE WASTES | | | | |
| 21. MIDNIGHT DUMPING | | | | |
| 22. OTHER (specify): | | | | |

AR100035

LANDFILLS SITE INSPECTION REPORT
(Supplemental Report)

INSTRUCTION
Answer and Explain
as Necessary.

1. EVIDENCE OF SITE INSTABILITY (Erosion, Settling, Sink Holes, etc)

YES NO Unknown

2. EVIDENCE OF IMPROPER DISPOSAL OF BULK LIQUIDS, SEMI-SOLIDS AND SLUDGES INTO THE LANDFILL

YES NO Some drum protruding through cover material

3. CHECK RECORDS OF CELL LOCATION AND CONTENTS AND BENCHMARK

YES NO
N/A

4. WASTES SURROUNDED BY SORBENT MATERIAL

YES NO

5. DIVERSION STRUCTURES ARE EFFECTIVELY CONSTRUCTED AND PROPERLY MAINTAINED

YES NO

6. EVIDENCE OF PONDING OF WATER ON SITE

YES NO
Ponding on edges of quarry walls

7. EVIDENCE OF IMPROPER/INADEQUATE DRAINING

YES NO Ponding on edges of quarry walls

8. ADEQUATE LEACHATE COLLECTION SYSTEM (If "Yes", specify Type)

YES NO

8a. SURFACE LEACHATE SPRING

YES NO Near north edge of the site

9. RECORDS OF LEACHATE ANALYSIS

YES NO

10. GAS MONITORING

YES NO

11. GROUNDWATER MONITORING WELLS

YES NO

12. ARTIFICIAL MEMBRANE LINER INSTALLED

YES NO

13. SPECIFIC CONTAINMENT MEASURES (Clay Bottom, Sills, etc)

YES NO

14. FIXATION (Stabilization) OF WASTE

YES NO

15. ADEQUATE CLOSURE OF INACTIVE PORTION OF FACILITY

YES NO Some surface erosion, no vegetation, surface runoff leaving the site, ponding

16. COVER (Type)

Clayey soils from a borrow area

16a. THICKNESS

1 to 2 feet

16b. PERMEABILITY

Unknown

16c. DAILY APPLICATION

YES NO

The site is closed

AR100036

SECTION 6

AR100037

6.0 LABORATORY DATA

6.1 Sample Data Summary

SAMPLE DATA SUMMARY
TARGET COMPOUNDS

TDD Number F3-8305-45
EPA Number VA 164

Site Name First Piedmont
Date of Sample July 27, 1983

Organic Inorganic

Compounds Detected

| Sample Number | Sample Description and Location | Phase | Units | Compounds Detected | | | | | | | | | | | Remarks | | | | |
|---------------|---------------------------------|----------------|-------|--------------------|---|------------------------|---------------------|---------------------|---------|-------------------------|------------|--------------------|---------|------------------------------|---------|--------|---|---|------|
| | | | | Acenaphthene | N-nitrosodiphenylamine (2-ethoxyphenyl) | Benzyl butyl phthalate | D-N-butyl phthalate | D-N-octyl phthalate | Benzene | 1,1,1-trichloroethylene | Chloroform | Methylene chloride | Methane | 1,1,1,2,2,2-hexachloroethane | | Ethane | | | |
| C3747 | Lewis Well | A _g | ug/L | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| C3748 | Windbush Well | A _g | ug/L | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| C3749 | N.Edge Soil #1 | sed | ug/kg | — | — | — | — | — | — | <4.5 | — | 16.5 | — | 11.4 | — | — | — | — | — |
| C3750 | Paved N. Edge | A _g | ug/L | — | — | — | — | — | <7.2 | — | — | — | — | — | — | — | — | — | — |
| C3751 | Molly Well | A _g | ug/L | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| C3752 | Letchate W. Side | sed | ug/kg | — | — | — | — | <400 | — | — | — | — | — | — | — | — | — | — | — |
| C3753 | N. Edge Sed And | Sed | ug/kg | <400 | <400 | <400 | <400 | <400 | — | — | — | — | — | — | — | — | — | — | <4.5 |
| C3754 | Paved H ₂ O S. Edge | A _g | ug/L | — | 40 | <10 | <10 | <10 | — | — | — | — | — | — | — | — | — | — | — |
| C3755 | Paved H ₂ O S. Edge | sed | ug/kg | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| C3273 | Drum E. White | sed | ug/kg | — | — | — | — | <20,000 | — | — | — | — | — | — | — | — | — | — | <4.5 |
| C3274 | Downstream | A _g | ug/L | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| C3275 | Downstream | sed | ug/kg | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| C3760 | Upstream | A _g | ug/L | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| C3759 | Upstream | sed | ug/kg | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

NOTE: For a review of this data and non-target, tentatively identified compounds, please see the Analytical Quality Assurance section of this report.

◇ Denotes results of questionable qualitative significance based upon quality assurance review of data.

IR 100039

SAMPLE SUMMARY
TARGET COMPOUNDS

TDD Number F3-8305-45
EPA Number Ua 164

Site Name First Piedmont
Date of Sample July 27, 1983

Organic Inorganic

| Sample Number | Sample Description and Location | Phase | Units | Compounds Detected | | | | | | | | | | Remarks | | | | | | |
|---------------|---------------------------------|----------------|-------|---------------------|--------------------|------------|--------------|--------------|---------|---------|-----------|-----------------|---------------------|---------|--|--|--|--|--|------|
| | | | | α Endosulfan | β Endosulfan | heptachlor | α BHC | Benzoic Acid | Aniline | Acetone | 2-butanol | methyl chloride | 4-methyl-2-pentanol | | | | | | | |
| c3747 | Lewis Well | A ₁ | ug/L | | | | | | | | | | | | | | | | | |
| c3748 | Windush Well | A ₂ | ug/L | | | | | | | | | | | | | | | | | |
| c3749 | N. Edge Sul #1 | sed | ug/kg | | | | | 4800 | | | 5.8 | | | | | | | | | |
| c3750 | Ponded N. Edge | A ₁ | ug/L | | | | | | | | | | | | | | | | | |
| c3751 | Motly Well | B ₂ | ug/L | | | | | | | | | | | | | | | | | |
| c3752 | LEACHATE W. Side | sed | ug/kg | | | | | | | | 15.5 | | | | | | | | | |
| c3753 | N. EDGE Sed Pond | A ₁ | ug/L | | | | | | | | 57.0 | | | | | | | | | |
| c3754 | Ponded H ₂ O SE Edge | A ₂ | ug/L | 0.005 | <0.0004 | 0.016 | 0.036 | | | | | | | | | | | | | |
| AR100040 | | | | | | | | | | | | | | | | | | | | |
| | Ponded H ₂ O SE Edge | sed | ug/kg | | | | | | | | | | | | | | | | | |
| | Drum E. White | sed | ug/kg | | | | | | | | 41.6 | <4.5 | | | | | | | | |
| | Downstream | A ₁ | ug/L | | | | | | | | 20.7 | | | | | | | | | |
| c3755 | Downstream | sed | ug/kg | | | | | | | | 4.7 | 4.5 | | | | | | | | 16.4 |
| c3760 | Upstream | A ₁ | ug/L | | | | | | | | | | | | | | | | | |
| c3759 | Upstream | sed | ug/kg | | | | | | | | 4.5 | 4.5 | | | | | | | | |

NOTE: For a review of this data and non-target, tentatively identified compounds, please see the Analytical Quality Assurance section of this report.

◇ Data results of questionable qualitative significance based upon quality assurance review of data.

SAMPLE DATA SUMMARY
TARGET COMPOUNDS

TDD Number F3-830S-45
EPA Number VA 164

Site Name Frost Piedmont
Date of Sample July 27, 1983

Organic Inorganic

Compounds Detected

| Sample Number | Sample Description and Location | Phase | Units | Compounds Detected | | | | | | | | | | Remarks | | | | |
|---------------|---------------------------------|----------------|-------|---------------------|--------------------|------------|--------------|--------------|---------|---------|-----------|-----------------|--------------------|---------|--|--|--|--|
| | | | | α Endosulfan | β Endosulfan | Heptachlor | α BHC | Benzoic Acid | Aniline | Benzene | 2-Bromone | Methyl chloride | 4-methyl-2-pentene | | | | | |
| c3758 | Carite Well | A ₂ | ug/l | | | | | | | | | | 5% | | | | | |
| c3276 | Down Black | ad | ug/kg | | | | | 400000 | 17.1 | 44.5 | 673 | 75.6 | | | | | | |
| c3757 | Blank | ind | ug/kg | | | | | | 15.7 | 44.5 | 676 | | | | | | | |
| c3756 | Blank | A ₂ | ug/l | | | | | | 12 | | 300 | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |

NOTE: For review of this data and non-target, tentatively identified compounds, please see the Analytical Quality Assurance section of this report.
 Denotes results of questionable qualitative significance based upon quality assurance review of data.

AR100042

TDD Number 8305-45
 EPA Number VA 164

SAMPLE DATA SUMMARY
 TARGET COMPOUNDS

Organic Inorganic

Site Name First Piedmont
 Date of Sample 7-27-83

Compounds Detected

| Sample Number | Sample Description and Location | Phase | Units | Compounds Detected | | | | | | | | | | Remarks | | |
|---------------|---------------------------------|-------|-------|--------------------|----------|--------|-----------|---------|--------|---------|--------|-----------|------|---------|-------|--------|
| | | | | Aluminum | Chromium | Barium | Beryllium | Cadmium | Copper | Iron | Nickel | Manganese | Zinc | | Boron | Silver |
| MC1005 | Lewis Well | Aq | ug/L | — | — | — | — | 88 | 108 | — | 40 | 203 | — | — | — | — |
| MC1006 | Windrush Well | Aq | ug/L | — | — | — | — | — | — | — | — | — | — | — | — | — |
| MC1007 | N. Edge S. 1 MY | Solid | mg/kg | 20,900 | 16.7 | 47.8 | 1.7 | 3.3 | 9.9 | 12,500 | 7.3 | 177 | 38.2 | — | — | 16.7 |
| MC1008 | Ponded N. Edge | Aq | ug/L | 678,000 | 58 | 7460 | 13 | — | 134 | 413,000 | 59 | 6570 | 4670 | 46700 | — | — |
| MC1009 | Molley Well | Aq | ug/L | — | 64 | — | — | 50 | — | 173 | — | — | 11 | — | — | — |
| MC1010 | Leahurst W. Side | Solid | mg/kg | 4750 | 5.7 | 378 | 0.6 | — | 9.1 | 6550 | 2.2 | 152 | 106 | 785 | 10 | — |
| MC1011 | N. Edge Sand and | Solid | mg/kg | 9800 | 3.8 | 39.1 | 1.0 | — | 6.0 | 6850 | 3.3 | 91 | 28.7 | 15.7 | — | — |
| MC1012 | Ponded N. S. Edge | Aq | ug/L | 1020 | — | — | — | — | — | 2490 | — | 2910 | 48 | 176 | — | — |
| MC1013 | Ponded H ₂ O S. Edge | Solid | mg/kg | 18200 | — | 20.8 | 0.7 | 29.9 | 8 | 6900 | 5.7 | 62 | 15.9 | — | 20.4 | — |
| MC1014 | Down e. side | Solid | mg/kg | 17600 | 10.9 | 23.2 | — | — | 30.1 | 3610 | 5.7 | 155 | 223 | 55 | 21.4 | — |
| MC1015 | Downstream | Aq | ug/L | 1580 | — | — | — | — | — | 1880 | — | 150 | 29 | — | — | — |
| MC1016 | Downstream | Solid | mg/kg | 3490 | 13.5 | 15.4 | — | 2.7 | 7.9 | 610 | 3.8 | 140 | 193 | — | 15.9 | — |
| MC1017 | Upstream | Aq | ug/L | 1270 | — | — | — | — | — | 1390 | — | 71 | 24 | — | — | — |
| MC1018 | Upstream | Solid | mg/kg | 4610 | 20.9 | 16.9 | 0.4 | 2.6 | 2.6 | 7150 | 3.2 | 159 | 10.7 | — | 153 | — |

NOTE: For a review of this data and non-target, tentatively identified compounds, please see the Analytical Quality Assurance section of this report.
 ◇ Denotes results of questionable qualitative significance based upon quality assurance review of data.

SAMPLE DATA SUMMARY
TARGET COMPOUNDS

TDD Number 8305-45
EPA Number VA 164

Site Name First Piedmont
Date of Sample 7-27-83

Organic Inorganic

Compounds Detected

| Sample Number | Sample Description and Location | Phase | Units | Compounds Detected | | | | | | | | | | | Remarks | | | |
|---------------|---------------------------------|-------|-------|--------------------|----------|--------|-----------|---------|--------|-------|--------|-----------|------|-------|---------|----------|--------|---|
| | | | | Aluminum | Chromium | Barium | Beryllium | Cadmium | Copper | Iron | Nickel | Manganese | Zinc | Boron | | Vanadium | Silver | |
| MC1019 | CADDER Well | A9 | ug/L | 127 | 52 | — | — | — | 137 | 82 | 11 | 82 | — | — | — | — | — | — |
| MC1020 | Down Blank | Solid | mg/kg | 1530 | 60 | 40.7 | 0.4 | 9.6 | 550 | 13400 | 17.1 | 60 | 1240 | — | 23.1 | — | — | — |
| MC1021 | Blank | Solid | mg/kg | — | — | — | — | — | — | 4.2 | — | 0.5 | — | — | — | — | — | — |
| MC1022 | Blank | A9 | ug/L | — | — | — | — | — | — | — | — | — | 39 | — | — | — | — | — |
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NOTE: For a full view of this data and non-target, tentatively identified compounds, please refer to the Analytical Quality Assurance section of this report.

ARI00044

SAMPLE SUMMARY
TARGET COMPOUNDS

Site Name First Piedmont
Date of Sample 7-27-83

TDD Number 8325-45
EPA Number VA 164

Organic Inorganic

Compounds Detected

| Sample Number | Sample Description and Location | Phase | Units | Compounds Detected | | | | | | | | | | Remarks | | |
|---------------|---------------------------------|-------|-------|--------------------|----------|----------|----------|---------|-----|---------|------|------|---------|---------|---|---|
| | | | | Asbestos | Antimony | Selenium | Thallium | Mercury | Pb | Cadmium | Lead | Zinc | Cyanide | | | |
| MC1005 | Lewis Well | Aq | ug/L | - | - | - | - | 30 | - | - | - | 38.5 | - | - | - | - |
| MC1006 | Windbush Well | Aq | ug/L | - | - | - | - | 0.3 | - | - | - | 13 | 0 | - | - | - |
| MC1007 | N. Edge Sol. #2 | Solid | mg/kg | - | - | - | - | - | - | - | 0.08 | 19.8 | - | - | - | - |
| MC1009 | Ponded N. Edge | Aq | ug/L | - | - | - | - | 0.3 | 45 | - | - | 900 | - | - | - | - |
| MC1009 | Mottley Well | Aq | ug/L | - | - | - | - | 0.3 | 100 | - | - | - | - | - | - | - |
| MC1010 | Leachate W. Side | Solid | mg/kg | - | - | - | - | 0.5 | 14 | 0.23 | - | 63.5 | - | - | - | - |
| MC1011 | N. Edge Sol. #1 | Solid | mg/kg | - | - | - | - | - | - | - | - | 12.9 | - | - | - | - |
| MC1012 | Ponded Water S. Edge | Aq | ug/L | - | - | - | - | - | - | - | - | - | - | - | - | - |
| MC1013 | Ponded Water S. Edge | Solid | mg/kg | - | - | - | - | 0.1 | - | - | - | 13 | - | - | - | - |
| MC1014 | Down E. White | Solid | mg/kg | - | - | - | 0.5 | - | - | - | - | 54 | - | - | - | - |
| MC1015 | Downstream | Aq | ug/L | - | - | - | - | 0.2 | - | - | - | 26.5 | - | - | - | - |
| MC1016 | Downstream | Solid | mg/kg | - | - | - | - | - | - | - | - | 8 | - | - | - | - |
| MC1017 | Upstream | Aq | ug/L | - | - | - | - | 0.2 | - | - | - | - | - | - | - | - |
| MC1018 | Upstream | Solid | mg/kg | - | - | - | 0.5 | - | - | - | - | 2.9 | - | - | - | - |

NOTE: For a review of this data and non-target, tentatively identified compounds, please see the Analytical Quality Assurance section of this report.

◇ Denotes results of questionable qualitative significance based upon analytical assurance review of data.

AR100045

AR100045

SAMPLE DATA SUMMARY
TARGET COMPOUNDS

Site Name First Piedmont
Date of Sample 7-27-83

TDD Number 8305-45
EPA Number VA 164

Organic Inorganic

Compounds Detected

| Sample Number | Sample Description and Location | Phase | Units | Compounds Detected | | | | | | | | | | Remarks | | |
|---------------|---------------------------------|----------------|-------|--------------------|---------|----------|----------|---------|-----|---------|------|---------|---|---------|---|--|
| | | | | ARSENIC | BARMIUM | SELENIUM | THALLIUM | MERCURY | TIU | CADMIUM | LEAD | CYANIDE | | | | |
| MC1014 | Crocker Well | A ₉ | ug/L | - | - | - | - | - | 38 | - | - | - | - | - | - | |
| MC1020 | Drum Blank | Solid | mg/kg | 1.0 | - | 0.2 | - | - | - | 0.2 | 208 | - | - | - | - | |
| MC1021 | Blank | Solid | mg/kg | - | - | - | 0.1 | - | - | - | - | - | - | - | - | |
| MC1022 | Blank | A ₉ | ug/L | - | - | - | 0.2 | - | - | - | - | - | - | - | - | |
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NOTE: For a review of this data and non-target, tentatively identified compounds, please see the Analytical Quality Assurance section of this report.

AR100046

6.2 Quality Assurance Review

6.2.1 Organic Data: Lab Case 1915

6.2.1.1 Introduction

The findings offered in this report are based upon a general review of organic analytical data for 18 samples; 9 aqueous samples were sent to Lauck's Laboratories and 9 sediment samples were sent to ETC Laboratories. In particular, blank analysis results, surrogate spike results, matrix spike results, duplicate analysis results, evaluation of GC confirmations, and target compound matching quality were examined in detail.

6.2.1.2 Qualifiers

It is recommended that this data package be utilized only with the following qualifier statements:

- o All positive results for methylene chloride, acetone, 2-butanone, benzene, benzylbutyl phthalate, di-n-butyl phthalate, di-n-octyl phthalate, alpha-endosulfan, beta-endosulfan, heptachlor, and alpha-BHC may be questionable.
- o The positive result for bis(2-ethylhexyl) phthalate in sample C-3753 may be questionable.
- o The aforementioned results were designated questionable because there is evidence to doubt the presence of these compounds at concentrations less than or similar to the levels reported. However, it can be assumed that concentrations significantly greater than the levels report cannot be present.
- o The actual detection limits for 2,4-dinitrotoluene, pentachlorophenol, and 4-nitrophenol in sample C-3753 may be significantly higher than reported.
- o The actual detection limit for all BNA compounds in sample C-3749 may be slightly higher than reported.

- o The actual detection limit of some acid compounds in sample C-3759 may be significantly higher than reported.
- o The concentrations of qualitatively confident VOA compounds in sample C-3276 may be slightly different than reported.
- o The following compounds may be present as reported but cannot be verified until additional information has been received:

| <u>Sample</u> | <u>Compound</u> |
|---------------|---------------------------------------|
| C-3749 | 1,1,1-trichloroethane Benzoic acid |
| C-3753 | Acenaphthene Tetrachloroethene |
| C-3273 | 1,1,1-trichloroethane |
| C-3276 | Toluene Aniline |

- o Per EPA request, tentatively identified compounds which were reported by the laboratory are not included in this report.

6.2.1.3 Findings

- o Blank analysis revealed the presence of methylene chloride, acetone, 2-butanone, and benzene at sufficient levels to question the aforementioned sample results.
- o Although not found in any blanks, bis(2-ethylhexyl) phthalate, benzylbutyl phthalate, di-n-butyl phthalate, and di-n-octyl phthalate results were questioned because these compounds are common laboratory contaminants and were detected in samples at less than detection limits.
- o Alpha-endosulfan, beta-endosulfan, heptachlor, and alpha-BHC may be artifacts of random chromatographic interferences since these compounds were identified from the retention times of their single peak responses on dual GC columns.

- o Zero matrix spike recoveries were reported for 2,4-dinitrotoluene, pentachlorophenol, and 4-nitrophenol in sample C-3753.
- o Low spike recoveries were reported for all BNA surrogate compounds in sample C-3749.
- o Zero recovery was reported for 1 acid fraction surrogate compound in sample C-3759.
- o A 1/3 decrease in response was reported for all 3 VOA internal standard response areas in sample C-3276. Since these internal standards were used to quantitate sample values, the actual concentrations may be slightly different than reported.
- o The laboratory did not provide any spectra for positive results for 1,1,1-trichloroethane and benzoic acid in sample C-3749, acenaphthene and tetrachloroethene in sample C-3753, 1,1,1-trichloroethane in sample C-3273, and toluene and aniline in sample C-3276. At the time of submission of the data package, the laboratory misinterpreted the contractual requirement for inclusion of these spectra, since the reported values were all less than detection limits.
- o Tentatively identified compounds were examined only for possible target compound identifications.

6.2.1.4 Summary

The attached Quality Assurance Review has identified the aforementioned areas of concern. The analysis laboratory has been requested to supply the missing spectra, but these results have not yet been received. Please see the accompanying Support Documentation Appendix for specifics on this Quality Assurance Review.

Report prepared by R. Joseph Vitale

R. Joseph Vitale

Date: May 15, 1984

6.2.2 Inorganic Data: Lab Case 1915

6.2.2.1 Introduction

The findings offered in this report are based on a general review of all available inorganic laboratory data, blank analysis results, matrix spike and duplicate results, calibration data, and ICP interference data.

6.2.2.2 Qualifiers

It is recommended that this data package be utilized only with the following qualifier statements:

- o The results which may be qualitatively questionable are listed below:

| <u>Constituent</u> | <u>Samples with Questionable Results</u> |
|--------------------|--|
| Aluminum | MC-1019 |
| Beryllium | All positive results except MC-1007 |
| Copper | MC-1005, MC-1008, MC-1011, MC-1013, MC-1016 and MC-1018 |
| Iron | MC-1005, MC1009 and MC-1019 |
| Manganese | MC-1005 and MC-1019 |
| Zinc | MC-1005, MC-1009, MC-1012, MC-1015, MC-1017, MC-1018 and MC-1019 |
| Arsenic | MC-1011 and MC-1018 |
| Selenium | MC-1020 and MC-1014 |
| Mercury | All positive results |
| Tin | MC-1008, MC-1010 and MC-1019 |
| Cadmium | MC-1007 |
| Lead | MC-1006 |

- o The aforementioned results were designated questionable because there is evidence to doubt the presence of these compounds at concentrations less than or similar to the levels reported. However, it can be assumed that concentrations significantly greater than the levels report cannot be present.

- o The actual detection limit for selenium may be approximately twice the reported level.

6.2.2.3 Findings

- o Analysis of field and/or laboratory preparation blanks revealed the presence of aluminum, beryllium, copper, iron, manganese, zinc, arsenic, selenium, mercury, tin, cadmium and lead at sufficient levels to question the results for the aforementioned samples.
- o Examination of raw data revealed the laboratory could not adequately detect concentrations of selenium at reported detection limits.

6.2.2.3 Summary

The attached Quality Assurance Review has identified severe blank contamination and inadequate detection limits as the primary areas of concern. In particular, the source of blank contamination appears to be laboratory related since most of the contaminants found in the field blanks were also detected at similar levels in laboratory preparation blanks. Please see the accompanying Support Documentation Appendix for specifics on this Quality Assurance Review.

Report prepared by R. Joseph Vitale

R. Joseph Vitale

Date: May 15, 1984

SECTION 7

AR100052

7.0 TOXICOLOGICAL EVALUATION

7.1 Summary

Domestic well samples revealed concentrations of chromium in the Carter and Motley wells of 52 and 64 ug/l, respectively, in excess of Primary MCLs. Poned water on site also revealed the presence of 58 ug/l chromium. Available information suggests that these levels of chromium pose minimal short term risks to members of the Carter and Motley households; however, periodic resampling of these wells may be indicated to insure that contaminant levels do not approach those of more imminent concern.

The Lewis well sample revealed lead within MCLs; notable lead concentrations were also reported in samples of ponded water, leachate seep, and downstream Lawless Creek. These sample results may suggest off-site release of lead.

Remaining sample results revealed little to warrant concern. No HNU readings above background were recorded on the First Piedmont site.

7.2 Support Data

Samples from 4 domestic wells, located south of the First Piedmont site, revealed 52 and 64 ug/l of total chromium in the Carter and Motley wells, respectively. These reported concentrations exceed the Primary Maximum Contaminant Levels (MCL) of 50 ug/l set for chromium in public water supplies. An aqueous sample from an area of ponded water on site revealed 58 ug/l chromium. Any relationship between chromium reported in ponded water samples and domestic wells is not readily apparent from current data.

The nature of chromium in these well samples (chromium III or VI) cannot be ascertained from current data. Although hexavalent chromium has long been recognized as a toxic substance, trivalent chromium is considered by most investigators to be relatively innocuous and even essential to human health in microgram amounts. It has even been suggested that the average American diet may be potentially deficient in chromium (daily intake averages 60 to 65 ug/day).

Hexavalent chromium is a human carcinogen and increased risk of lung cancer among those occupationally exposed to airborne chromium VI has been established. There is no conclusive evidence, however, to indicate that ingestion of low levels of chromium is carcinogenic to humans. Chromium is also poorly absorbed from the gastrointestinal tract. A family of 4 individuals is known to have drunk water containing as much as 450 ug Cr per liter for a period of 3 years without known effects on health, as determined by a single medical examination (Davids and Lieber, 1951).

The weight of evidence from animal studies also suggests no carcinogenic response from ingested chromium. Limited studies indicate that toxic hexavalent chromium was tolerated in low concentrations, especially when ingested in food or drinking water, in which the limited absorption is a factor. Rats have tolerated hexavalent chromium in drinking water at 25,000 ug/l for one year and dogs showed no ill effects following exposure to 450 to 11,200 ug potassium chromate (Cr VI) per liter for 4 years (NAS, 1974). A study done by Schroeder and Mitchner (1971) has, however, indicated a slightly higher incidence of malignant tumors in mice dosed with 5,000 ug/l chromium VI in drinking water over a lifetime.

The extent to which ingested chromium VI may induce cancer is, therefore, not clear since it has not been well tested via the oral route, and since there is also some evidence that chromium VI is reduced to chromium III in the stomach. As a result of these uncertainties, no quantitative risk estimates of oral carcinogenicity can be determined for consumers of water from the Carter and Motley wells. Available studies do suggest that any potential risk (if it exists) would be low.

Available evidence also suggests that no acute non-carcinogenic effects would be expected to occur following consumption of water containing the concentrations of chromium reported in these wells. However, considering the unknown nature of chromium in the Carter and Motley wells, periodic resampling or sampling specific for chromium VI may be indicated to insure contaminant levels do not approach those of more imminent concern.

The Lewis well sample revealed a low level of the toxic metal lead (38.5 ug/l). This concentration is below the MCL for lead of 50 ug/l, and should not pose an imminent health threat. Periodic resampling to insure that contaminant concentrations stay within a safe range may also be indicated in this case.

Lead concentrations reported in a number of samples taken on the First Piedmont site and in nearby surface waters are also worthy of note. An aqueous sample from an area of ponded water on site revealed 900 ug/l lead. A nearby leachate seep sediment sample revealed 63.5 mg/kg of this toxic metal. The origin of this ponded water cannot be determined from current information; however, it apparently drains into nearby Lawless Creek which supports a variety of aquatic species. An aqueous sample of Lawless Creek taken downstream of the drainage outfall revealed 26.5 ug/l lead, exceeding the recommended Ambient Water Quality Criterion (AWQC) for lead of 0.75 ug/l in soft water (50 mg/l as CaCO₃). An aqueous sample from Lawless Creek taken upstream of the drainage outfall revealed no lead above analytical detection limits of 5 ug/l. Concentrations of lead reported in up and downstream creek sediment samples were 7.4 to 8.0 mg/kg, below average values generally reported in non-polluted soils (15 mg/kg). Current sample results may suggest off-site release of lead, with potentially deleterious effects on some resident aquatic species.

Up and downstream aqueous creek samples revealed 1390 and 1880 ug/l iron, respectively, exceeding the recommended AWQC for the protection of freshwater aquatic life of 1,000 ug/l. Elevated concentrations of iron were reported in both ponded water samples, including 423,000 ug/l in the northernmost ponded water sample, which is believed to drain into Lawless Creek. It is not clear from currently available sample data whether the slightly higher iron concentration reported in the downstream sample represents off-site release of this contaminant or is indicative of a range of iron concentrations that may be characteristic of surface waters in the area.

Trace levels of the highly bioaccumulative metal mercury were reported in several aqueous and solid samples, but were reported at comparable levels in both aqueous and solid blanks. The reported presence of mercury in these samples may, therefore, be questionable.

Remaining sample results from domestic wells, the First Piedmont site, and Lawless Creek revealed little to warrant concern. Low levels of organic parameters such as 1,1,1-trichloroethane, fluorotrichloroethane, tetrachloroethene, and bis(2-ethylhexyl) phthalate were reported in various soil and sediment samples; however, they should pose little threat to human health or the environment via expected exposure routes.

Samples from two deteriorating drums on site revealed few contaminants of note. Trace or low levels (all 100 mg/kg or less) of the low to moderately toxic halogenated hydrocarbons 1,1,1-trichloroethane and fluorotrichloromethane, and aniline were reported. A higher concentration of the toxic metal lead (208 mg/kg) was reported in one drum sample. Potential hazards to human health and the environment posed by toxic contaminants such as aniline and lead are limited in this case by the small quantities reported.

No ambient air HNU readings above background levels were obtained on the First Piedmont site.

Elizabeth A. Quinn, Toxicologist

APPENDIX A

AR100057

| | | |
|-----------------|---|------------|
| 1. COST CENTER: | REM/FIT ZONE CONTRACT TECHNICAL DIRECTIVE DOCUMENT (TDD) | 2. NO.: |
| ACCOUNT NO.: | | F3-8305-45 |

| | | | | |
|---|--|---|--|---|
| 3. PRIORITY: <input type="checkbox"/> HIGH <input checked="" type="checkbox"/> MEDIUM <input type="checkbox"/> LOW | 4. ESTIMATE OF TECHNICAL HOURS: 120 w/o HRS 140 with HRS | 5. EPA SITE ID: VA-164 | 6. COMPLETION DATE: 2 months after site visit not to exceed 9/30/83 | 7. REFERENCE INFO.: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> ATTACHED <input type="checkbox"/> PICK UP |
| | 4A. ESTIMATE OF SUBCONTRACT COST: | 5A. EPA SITE NAME: <u>First Piedmont</u> | | |

8. GENERAL TASK DESCRIPTION: _____
 Conduct a site inspection and HRS as necessary.

| | |
|--|---|
| 9. SPECIFIC ELEMENTS: _____ 1. Review P.A. prepared by NUS FIT III. 2. Prepare a sampling plan and submit to EPA for approval. 3. Coordinate site activities with state. 4. Conduct on-site sampling and inspection and off-site sampling as appropriate. 5. Coordinate lab needs thru VIAR. 6. Follow chain of custody. 7. Submit formal report. | 10. INTERIM DEADLINES: _____ _____ _____ _____ _____ _____ _____ |
|--|---|

11. DESIRED REPORT FORM: FORMAL REPORT LETTER REPORT FORMAL BRIEFING

OTHER (SPECIFY): _____

12. COMMENTS: If no HRS - 120 hours.

| | |
|--|-----------------------------|
| 13. AUTHORIZING RPO: <u>Linda Y. Boonazeri</u> (SIGNATURE) | 14. DATE: <u>3/17/83</u> |
|--|-----------------------------|

| | |
|--|-----------------------------|
| 15. RECEIVED BY: <input checked="" type="checkbox"/> ACCEPTED <input type="checkbox"/> ACCEPTED WITH EXCEPTIONS <input type="checkbox"/> REJECTED <u>Donald</u> (CONTRACTOR RPM SIGNATURE) AR100058 | 16. DATE: <u>6/13/83</u> |
|--|-----------------------------|

APPENDIX B

AR100059

APPENDIX C

AR100060

FEDERALLY LISTED AND PROPOSED ENDANGERED AND THREATENED SPECIES
 IN VIRGINIA (Cont'd)

| Common Name | Scientific Name | Status | Distribution |
|--|---|--------|--|
| MOLLUSKS: | | | |
| Snail, Virginia fringed mountain | <u>Polygyriscus virginianus</u> | E | Pulaski County, near Radford |
| Mussel, birdwing pearly | <u>Conradilla caelata</u> | E | Powell and Clinch Rivers - Lee, Russell, Scott and Wise Counties |
| Mussel, dromedary pearly | <u>Dromus dromas</u> | E | Powell River - Lee County |
| Mussel, green blossom pearly | <u>Epioblasma (=Dysnomia) torulosa gubernaculum</u> | E | Clinch River - Scott County |
| Mussel, tan riffle | <u>Epioblasma walkeri</u> | E | Middle Fork Holston River above South Holston impoundment; Smyth and Washington Counties |
| Mussel, fine-rayed | <u>Fusconaia cuneolus</u> | E | Clinch River - Tazewell, Russell, Scott, and Wise Counties |
| Mussel, shiny pigtoe | <u>Fusconaia edgariana</u> | E | Powell, Clinch and Holston Rivers - Tazewell, Russell, Scott, Wise, Lee, Washington and Smyth Counties |
| Mussel, Cumberland monkey-face pearly | <u>Quadrula intermedia</u> | E | Powell River - Lee County |
| Mussel, Appalachian monkey-face pearly | <u>Quadrula sparsa</u> | E | Powell River - Lee County |
| ARTHROPODS: | | | |
| Isopod, Madison Cave | <u>Antrolana lira</u> | PT | Augusta County |
| PLANTS: | | | |
| Birch, Ashe's | <u>Betula uber</u> | E | Cressy Creek - Smyth Co. |
| Pogonia, small whorled | <u>Isotria medeoloides</u> | PE | Buckingham, Gloucester, James City and New Kent Counties |

* Except for sea turtle nesting habitat, principal responsibility for these species is vested with the National Marine Fisheries Service.

E = endangered, T = threatened, PE = proposed endangered, PT = proposed threatened.

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FEDERALLY LISTED AND PROPOSED ENDANGERED AND THREATENED SPECIES
IN VIRGINIA (Cont'd)

| Common Name | Scientific Name | Status | Distribution |
|----------------------------------|--|--------|---|
| Turtle, loggerhead* | <u>Caretta caretta</u> | T | Oceanic summer resident coastal waters; rarely nests: Virginia Beach, Northhampton and Accomack Counties |
| Turtle, Atlantic ridley* | <u>Lepidochelys kempii</u> | E | Oceanic summer resident coastal waters, including Chesapeake Bay |
| <u>BIRDS:</u> | | | |
| Eagle, bald | <u>Haliaeetus leucocephalus</u> | E | Entire state - breeds in eastern counties |
| Falcon, American peregrine | <u>Falco peregrinus anatum</u> | E | Entire state - re-establishment of breeding population to coastal sites |
| Falcon, Arctic peregrine | <u>Falco peregrinus tundrius</u> | E | Entire state-migratory; concentration areas along coast |
| Pelican, brown | <u>Pelecanus occidentalis</u> | E | Occasional summer visitor coastal counties |
| Warbler, Bachman's | <u>Vermivora bachmani</u> | E | Extremely rare - no recorded nesting |
| Warbler, Kirtland's | <u>Dendroica kirtlandii</u> | E | Entire state - occasional migrant |
| Woodpecker, red-cockaded | <u>Picoides borealis</u> | E | Brunswick, Isle of Wight, Prince George, Southampton, Suffolk, Surry, Sussex, and Virginia Beach Counties |
| <u>MAMMALS:</u> | | | |
| Bat, gray | <u>Myotis grisescens</u> | E | Lee and Scott Counties |
| Bat, Indiana | <u>Myotis sodalis</u> | E | Nine western counties |
| Bat, Virginia big-eared | <u>Plecotus townsendii</u> | E | Bath, Highland, Rockingham and Tazewell Counties |
| Cougar, eastern | <u>Felis concolor cougar</u> | E | Entire state - continued existence unconfirmed |
| Squirrel, Delmarva Peninsula fox | <u>Sciurus niger cinereus</u> | E | Accomack County |
| Whale, blue* | <u>Balaenoptera musculus</u> | E | Oceanic |
| Whale, finback* | <u>Balaenoptera physalus</u> | E | Oceanic |
| Whale, humpback* | <u>Megaptera novaeangliae</u> | E | Oceanic |
| Whale, right* | <u>Eubalaena spp.</u> (all species) | E | Oceanic |
| Whale, sei* | <u>Balaenoptera borealis</u> | E | Oceanic |
| Whale, sperm* | <u>Physeter catodon</u> | E | Oceanic |

FEDERALLY LISTED AND PROPOSED ENDANGERED AND THREATENED SPECIES
IN VIRGINIA

| Common Name | Scientific Name | Status | Distribution |
|----------------------|-------------------------------|--------|---|
| FISHES: | | | |
| Chub, slender | <u>Hybopsis cahnii</u> | T | Powell and Clinch Rivers - Lee and Scott Counties; critical habitat: Powell River, main channel from the Tennessee-Virginia State line upstream through Lee County; Clinch River, TN-VA State line upstream through Scott County. |
| Chub, spotfin | <u>Hybopsis monacha</u> | T | North Fork Holston River - Scott and Washington Counties; critical habitat: North Fork Holston River main channel from the Virginia-Tennessee State line upstream through Scott and Washington Counties. |
| Madtom, yellowfin | <u>Noturus flavipinnis</u> | T | Powell River, Copper Creek - Lee, Scott, and Russell Counties; critical habitat: Powell River, main channel from the Virginia-Tennessee State line upstream through Lee County. Copper Creek main channel from its junction with Clinch River upstream through Scott County and upstream in Russell County to Dickensonville. |
| Sturgeon, shortnose* | <u>Acipenser brevirostrum</u> | E | Atlantic coastal rivers |
| REPTILES: | | | |
| Turtle, green* | <u>Chelonia mydas</u> | T | Oceanic summer visitor coastal waters, including Chesapeake Bay |
| Turtle, hawksbill* | <u>Eretmochelys imbricata</u> | E | Oceanic summer visitor coastal waters, including Chesapeake Bay |
| Turtle, leatherback* | <u>Dermochelys coriacea</u> | E | Oceanic summer visitor coastal waters, including Chesapeake Bay |

APPENDIX D

AR100064

PROJECT NAME: First Piedmont
 TDD NO: F3-8305-45

EPA SITE NO: VA 164
 REGION: ET III

QUALITY ASSURANCE REVIEW OF
 ORGANIC ANALYSIS LAB DATA PACKAGE

Case No.: 1915
 Contract No.: 68-01-6766
 Contract Laboratory: ETC
 Applicable IFB No.: WA 83-A063
 Reviewer: Rock J Vitale
 Review Date: 5/8/84

Applicable Sample No's.: C3749 C3752,
C3753 C3755 C3773, C3275,
C3759, C3276, C3757

The organic analytical data for this case has been reviewed. The quality assurance evaluation is summarized in the following table:

| Reviewer's Evaluation* | Fraction | | | | |
|------------------------------|-----------|-------|-------------------|---------------|------|
| | VOLATILES | ACIDS | BASE/ NEUTRALS | PCB/ PEST. | TCDD |
| Acceptable | | | | ✓ | ✓ |
| Acceptable with exception(s) | ✓ #1,4,5 | ✓ 2,3 | ✓ 2,3,5,6 | | |
| Questionable | | | | | |
| Unacceptable | | | | | |

* Definitions of the evaluation score categories are listed on next page.

This evaluation was based upon an analysis of the review items indicated below:

- DATA COMPLETENESS
NOT SUPPLIED WITH BNA METHOD BLANK.
- BLANK ANALYSIS RESULTS
- SURROGATE SPIKE RESULTS
- MATRIX SPIKE RESULTS
- DUPLICATE ANALYSIS RESULTS
- EVALUATION OF CONFIRMATIONS
- ≠ ● QUANTITATIVE CALCULATIONS

- Laboratory has not provided spectra for less than 10% values
- TARGET COMPOUND MATCHING QUALITY
- TENTATIVELY IDENTIFIED COMPOUNDS
- CHROMATOGRAPHIC SENSITIVITY CHECKS
- DFTPP AND BFB SPECTRUM TUNE RESULTS
- STANDARDS
- CALIBRATION CHECK STANDARDS
- INTERNAL STANDARDS PERFORMANCE

Data review forms are attached for each of the review items indicated above.

† No errors noted, no form attached.

● Spot Check performed.

Comments: #1 Please see blank analysis documentation
#2 Please see matrix spike recovery documentation
#3 Please see surrogate spike recovery documentation
#4 Chromatographic ghosting observed
#5 All reports with "less than" notations were not
supplied with spectra.
#6 Phthalates reported at "less than" values are questionable since
these are common lab contaminants

AR100065

DATA EVALUATION SCORE CATEGORIES

ACCEPTABLE: Data is within established control limits, or the data which is outside established control limits does not affect the validity of the analytical results.

ACCEPTABLE WITH EXCEPTION(S): Data is not completely within established control limits. The deficiencies are identified and specific data is still valid, given certain qualifications which are listed below.

QUESTIONABLE: Data is not within established control limits. The deficiencies bring the validity of the entire data set into question. However, the data validity is neither proved nor disproved by the available information.

UNACCEPTABLE: Data is not within established control limits. The deficiencies imply the results are not meaningful.

AR100066

| DATA COMPLETENESS | | CONC./MATRIX | 10/20L | 10/50L | 10/50L | 10/50L | 10/50L | 10/50L | 10/50L | 20/50L |
|-------------------|------------------------------|--------------|--------|--------|--------|--------|--------|--------|--------|--------|
| FRACTION | TRAFFIC REPORT # | C3144 | C3152 | C3153 | C3155 | C3213 | C3215 | C3759 | C3216 | C3157 |
| | LAB I.D. # | C8353 | 8854 | C8355 | C8356 | C8357 | C8358 | C8359 | C8360 | C8361 |
| BNA : | RUN DATE/TIME (FRJ) | ✓ | | | | | | | | |
| | TARGET COMPOUND TAB. | ✓ | | | | | | | | |
| | TARGET COMPOUND D.L. | ✓ | | | | | | | | |
| | TENT. I.D. COMPOUND TAB. | ✓ | | | | | | | | |
| | SURROGATE RECOVERY | ✓ | | | | | | | | |
| | GC SCREEN TABULATION | ✓ | | | | | | | | |
| | GC/MS CHROMATOGRAMS | ✓ | | | | | | | | |
| | TARGET CMPD. QUAN. LIST | ✓ | | | | | | | | |
| | TARGET CMPD. SPECTRA | MS | ✓ | MS | ✓ | MS | ✓ | ✓ | MS | ✓ |
| | TENT. I.D. CMPD. Q.L. | ✓ | | | | | | | | |
| | TENT. CMPD. LIB. SRCH. | ✓ | | | | | | | | |
| | CHRO./SENS. CHECKS | ✓ | | | | | | | | |
| | BFB/DFTPP TUNE DATA | ✓ | | | | | | | | |
| | I.S. AREAS CHARTS | ✓ | | | | | | | | |
| | I.S. REL. RESP. FORM | ✓ | | | | | | | | |
| | RF & AMTS.: CALIB. CHK. | ✓ | | | | | | | | |
| | RF & AMTS.: 3-PT CALIB. | ✓ | | | | | | | | |
| | Chromatograms: Calib. Chk. | ✓ | | | | | | | | |
| | Chromatograms: 3-Pt. Calib. | MS | | | | | | | | |
| | LINEARITY: 3-PT. CALIB | ✓ | | | | | | | | |
| | RF COMPARISON | ✓ | | | | | | | | |
| | SAMPLE/FIELD BLANK | | | | | | | | | ✓ |
| | METHOD/INSTR. BLANK | MISSING | | | | | | | | |
| | LAB DUPLICATE | | ✓ | | | | | | | |
| | FIELD DUP/REP | | | | | | | | | |
| | MAT. SPK./M. STD. | | | ✓ | | | | | | |
| PEST. : | PESTICIDE TABULATION | ✓ | | | | | | | | |
| | PEST. D.L. TABULATION | ✓ | | | | | | | | |
| | PESTICIDE CHRO. | ✓ | | | | | | | | |
| | PESTICIDE STD. CHRO. | ✓ | | | | | | | | |
| | PESTICIDE STD. I.D. | ✓ | | | | | | | | |
| | 2 nd COLUMN CONF. | N/A | | | | | | | | |
| | GC/MS CONFIRMATION | N/A | | | | | | | | |
| | PESTICIDE DUPLICATE | | | | | | | | ✓ | |
| | PESTICIDE SPIKE | | | | | | | | ✓ | |
| | PESTICIDE BLANK | | | | | | | | | ✓ |
| TCDD | TCDD TABULATION | ✓ | | | | | | | | |
| | TCDD DETECTION LIMIT | ✓ | | | | | | | | |
| | TCDD CHRO./E.I.C.P. | ✓ | | | | | | | | |
| | TCDD BLANK | | | | | | | | | ✓ |

AR100067

| DATA COMPLETENESS | | CONC./MATRIX | ^u / _g ac | ^u / _g oc | ^u / _g oc | ^u / _g ac | ^u / _g oc | ^u / _g oc | ^u / _g ac | ^u / _g oc | ^u / _g ac | ^u / _g oc | BLK |
|-------------------|-----------------------------|--------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|-----|
| FRACTION | TRAFFIC REPORT # | C3749 | C3752 | C3753 | C3755 | C3773 | C3775 | C3759 | C3776 | C3757 | | | |
| | LAB I.D. # | C8352 | C8354 | C8355 | C8356 | C8357 | C8358 | C8359 | C8360 | C8361 | | | ✓ |
| VOA : | RUN DATE/TIME | FRN | ✓ | | | | | | | | | | ✓ |
| | TARGET COMPOUND TAB. | | ✓ | | | | | | | | | | ✓ |
| | TARGET COMPOUND D.L. | | ✓ | | | | | | | | | | ✓ |
| | TENT. I.D. COMPOUND TAB. | | ✓ | | | | | | | | | | ✓ |
| | SURROGATE RECOVERY | | ✓ | | | | | | | | | | ✓ |
| | GC SCREEN TABULATION | | ✓ | | | | | | | | | | ✓ |
| | GC/MS CHROMATOGRAMS | | ✓ | | | | | | | | | | ✓ |
| | TARGET CMPD. QUAN. LIST | | ✓ | | | | | | | | | | ✓ |
| | TARGET CMPD. SPECTRA | | MS ✓ | MS | ✓ | MS | ✓ | ✓ | MS | | | | ✓ |
| | TENT. I.D. CMPD. Q.L. | | ✓ | | | | | | | | | | ✓ |
| | TENT. CMPD. LIB. SRCH. | | ✓ | | | | | | | | | | ✓ |
| | CHRO./SENS. CHECKS | | ✓ | | | | | | | | | | ✓ |
| | BFB/DFTPP TUNE DATA | | ✓ | | | | | | | | | | ✓ |
| | I.S. AREAS CHARTS | | ✓ | | | | | | | | | | ✓ |
| | I.S. REL. RESP. FORM | | ✓ | | | | | | | | | | ✓ |
| | RF & AMTS.: CALIB. CHK. | | ✓ | | | | | | | | | | ✓ |
| | RF & AMTS.: 3-PT CALIB. | | ✓ | | | | | | | | | | ✓ |
| | Chromatograms: Calib. Chk. | | ✓ | | | | | | | | | | ✓ |
| | Chromatograms: 3-Pt. Calib. | | MS | | | | | | | | | | ✓ |
| | LINEARITY: 3-PT. CALIB | | ✓ | | | | | | | | | | ✓ |
| | RF COMPARISON | | ✓ | | | | | | | | | | ✓ |
| | SAMPLE/FIELD BLANK | | | | | | | | | | | ✓ | |
| | METHOD/INSTR. BLANK | | | | | | | | | | | ✓ | |
| | LAB DUPLICATE | | | | | | | ✓ | | | | | |
| | FIELD DUP/REP | | | | | | | | | | | | |
| | MAT. SPK./M. STD. | | | | | | | ✓ | | | | | |

COMMENTS:

→ No BNA instrument or reagent blank analysis was run or supplied

AR100068

KEY TO DATA COMPLETENESS FORM

| <u>Abbreviation Used on Form</u> | <u>Description of Checklist Item</u> |
|---|---|
| Conc./Matrix | Concentration category submitted in analysis request (low, med, hi); and matrix (sol., aq.) |
| Fraction | Fil in acid, base/neutral, acid/base/neutral, or volatiles analysis |
| Run Date/Time | Instrument run date (to be used for correlating calibration) |
| Target Cmpd. Tab. | Tabulated results for target compounds |
| Target Cmpd. D.L. | Detection limits for target compounds (actual/level indicated by screen) |
| Tent. LD. Cmpd. Tab. | Tabulated results for tentatively identified compounds |
| Surr. Rec. | Surrogate recoveries results |
| GC Screen Tab. | Tabulated GC screen results indicating required level of followup |
| GC/MS Chromatograms | Chromatograms of GC/MS analysis runs |
| Target Cmpd. Quan. List | Target compounds quantitation list, showing areas, ret. times |
| Target Cmpd. Spectra | Enhanced and unenhanced spectra of target compound hits |
| Tent. LD. Cmpd. Q.L. | Quantitation list for tentatively identified compounds |
| Tent. Cmpd. Lib. Srch. | Spectra and library match spectra of tentatively identified compounds |
| Chro./Sens. Checks | EICP's and R.R.F.'s for chromatographic sensitivity checks |
| BFB/DFTPP Tune Data | Spectra intensity lists, and criteria comparison forms for BFB, DFTPP |
| I.S. Areas Charts | Internal standards area control charts and description of remedial action |
| I.S. Rel. Resp. Form | Internal standards relative response listings for each sample run |
| RF and amts.: Calib. Chk. | Tabulated response factors and amount injected for all cmpds. in calibration check |
| RF and amts.: 3-Pt. Calib. Chromatograms: Calib. Chk. | Tabulated response factors and amount injected for all cmpds. in 3-point calibration |
| Chromatograms: 3-Pt. Calib. | Chromatograms for calibration check standard |
| Linearity: 3-Pt. Calib. | Chromatograms for 3-point multilevel calibration standards. |
| RF Comparison | Tabulated correlation coefficient or relative standard deviation for calibration |
| Sample/Field Blank | Tabulated comparison of calibration Response Factor with check standard |
| Method/Instr. Blank | Equipment rinse or reagent water blank shipped with samples from field |
| Lab Duplicate | Method or instrument blank which is prepared at lab |
| Field Dup/Rep | Sample which was split by lab for duplicate analysis |
| Mat. Spk./M. Std. | Sample which was split or collected twice in the field |
| Pest. Tab. | Matrix spike or method standard (blind, or done by lab) |
| Pest. D.L. Tab. | Tabulated results for pesticides |
| Pest. Chro. | Tabulated detection limits for pesticides |
| 2 nd Col. Conf. | Chromatograms for pesticide screening |
| GC/MS Conf. | Confirmation of pesticide results by using a second GC column and temperature |
| Pest. Dup., Spk. Blk. | Confirmation of pesticide results by GC/MS analysis |
| Pest. Std. Chro. | Pesticide duplicate, spike, and blank |
| Pest. Std. LD. | Chromatogram of pesticide standard |
| TCDD | Pesticide standard identification form |
| TCDD Tab., D.L., EICP, Blk. | 2,3,7,8-tetrachlorodibenzodioxin |
| | TCDD tabulated results, detection limits, extracted ion current profile, blank |

KEY TO SYMBOLS USED IN DATA COMPLETENESS TABLE

| <u>Symbol</u> | <u>Meaning</u> | <u>Symbol</u> | <u>Meaning</u> |
|---------------|--|----------------|---|
| ✓ | Data item present | I | Incomplete data item |
| NA | Data item not applicable or not required | NC | Data item not clearly explained (units of conc., etc) |
| P | Data item within established control limits | * or [number] | See footnote |
| F | Data item outside established control limits | XX/XX/XX XX:XX | Date/Time of run (calibration, etc.) |
| MS | Missing item | | |

AR100069

RUN CHRONICLE

| FRACTION: VOA | | | FRACTION: BNA | | | FRACTION: | | |
|---------------|--------------------------------|-----------|---------------|--------------------------------|-----------|-----------|---------------------|-----------|
| RUN ORDER | RUN ID/ DESCRIPTION | DATE TIME | RUN ORDER | RUN ID/ DESCRIPTION | DATE TIME | RUN ORDER | RUN ID/ DESCRIPTION | DATE TIME |
| (1) | FRN-11032-BFB | 11032 | | DFTDP | 6524 | | | |
| | BFB | 11052 | | DFTDP | 6607 | | | |
| (2) | BLK | 11033 | | DFTDP | 6627 | | | |
| (E) | SPiKE ^{ALL} compounds | 11063 | | SPiKE ^{ALL} compounds | 6537 | | | |
| (F) | SPiKE ^{ALL} compounds | 11064 | | SPiKE ^{ALL} compounds | 6538 | | | |
| (3) | STD | 11034 | | STD | 6609 | | | |
| (7) | C3273 | 11040 | | STD | 6628 | | | |
| (C) | C3275 | 11061 | | STD | 6536 | | | |
| (B) | C3276 | 11060 | | C3273 | 6619 | | | |
| (6) | C3749 | 11039 | | C3275 | 6540 | | | |
| (4) | C3752 | 11037 | | C3276 | 6620 | | | |
| (8) | C3753 | 11044 | | C3749 | 6546 | | | |
| (5) | C3755 | 11038 | | C3752 | 6544 | | | |
| (A) | C3757 | 11059 | | C3753 | 6543 | | | |
| (D) | C3759 | 11062 | | C3755 | 6541 | | | |
| | | | | C3757 | 6539 | | | |
| | | | | C3759 | 6542 | | | |
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AP100070

BLANK ANALYSIS RESULTS FOR TARGET COMPOUNDS

| FRACTION | TYPE | CONC | MATRIX | SAMPLE # | SOURCE OF H ₂ O | CONTAMINANTS (CONCENTRATION / DETECTION LIMIT) |
|----------|-------|------|--------|----------|----------------------------|---|
| ✓ VOA | lab | llw | AQ | QC955 | ETC | Methylene Chloride (56.9 ug / 50 ug) #1 2-PROPANONE (66.8 ug / 50 ug) #1 2-BUTANONE (12.9 ug / 50 ug) #1 |
| VOA | field | llw | sof | C3757 | NUS | Methylene Chloride (6.55.2 ug/kg / 4.5 ug/kg) #1 2-PROPANONE (47.5 ug/kg / 4.5 ug/kg) #1 2-BUTANONE (11.9 ug/kg / 4.5 ug/kg) #1 |
| BNA | field | llw | sof | C3757 | NUS | N.D. |
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LABORATORY REPORTED FIELD BLANK DATA IS COMPARED WITH THE SAMPLE DATA IN A TABULATION FORM WITHIN THE SAMPLE ANALYTICAL DATA SUMMARY. TENTATIVELY IDENTIFIED COMPOUNDS IN BLANKS ARE LISTED ON A SEPARATE F
COMMENTS:

- (1) RESULT REPORTED BY LABORATORY AND CONFIRMED BY REVIEWER.
- (2) RESULT INFERRED FROM QUANTITATION LIST, DIAGNOSTICS, CHROMATOGRAM AND/OR SPECTRA.

AR100071

SOIL SURROGATE PERCENT RECOVERY SUMMARY

CASE NO. 175
 LOW LEVEL WATER
 QC REPORT NO. Q2955V, Q2957V

CONTRACTOR ETC CORP
 MED. LEVEL SOIL/SED.

CONTRACT NO. 68-01-6766
 HIGH LEVEL OTHER (Specify)

| SMO Traffic No. | [-----] Volatile [-----] Semi-Volatile [-----] Pesticide [Dioxin] | | | | | | | | | | | |
|-----------------|---|----------|-----------------------------|---------------------------|----------------------------|-----------------------|----------------------|--------------------|--------------------------|---------------------|----------------------------|-----------------------------|
| | D8 Toluene (81-120) | BFB (ME) | D4-1,2 Dichloro Ethane (ME) | D5 Nitro Benzene (19-120) | 2-Fluoro Biphenyl (17-120) | D14 p-ter Phenyl (ME) | 2-Fluoro Naphthalene | D5 Phenol (10-100) | 2-Fluoro Phenol (26-120) | Tribromo Pheno (ME) | Dibutyl Chlor- endate (ME) | *-*-* 1,2,3,4 TCDD (11-130) |
| C3773 | 96 | 75 | 75 | 0 | 25 | | 38 | 0 | 0 | 0 | 1.2 | 99 |
| C3775 | 118 | 113 | 100 | 57 | 80 | | 84 | 64 | 31 | 100 | 100 | 495* |
| C3776 | 139* | 89 | 108 | 28 | 60 | | 60 | 0* | 0 | 50 | 82 | 178* |
| C3779 | 187* | 104 | 107* | 8* | 13* | | 0 | 0* | 0 | 82 | 104 | 42 |
| C3752 | 110 | 111 | 111* | 8* | 61 | | 78 | 57 | 58* | 115 | 113 | 173* |
| C3753 | 108 | 105 | 113* | 35 | 80 | | 56 | 46 | 7 | 104 | 113 | 113 |
| C3754 | 113 | 115 | 117* | 80 | 63 | | 79 | 13 | 05 | 104 | 84 | 203* |
| C3787 | 97 | 95 | 95 | 80 | 72 | | 64 | 76 | 0 | 84 | 114 | 217* |
| C3759 | 104 | 98 | 103 | 68 | 65 | | 77 | 41 | 0 | 114 | 355* | 355* |
| REPTS: | | | | | | | | | | | | |
| C3755 | | | | 92 | 95 | | 92 | 41 | | 23* | | |
| C3752 | | | | 31 | 58 | | 34 | 26 | | 0* | | |

lab Claims
 NOT CONC
 PNOX - OK
 NO effect
 ON D.L's

FORM III (continued)

C3749
 3NA D.L's

Slightly higher than reported

*Asterisk values are outside of QC limits.
 NE - Not established.

→ C3753, Acid D.L. slightly higher than reported (Laboratory error)
 → C3759, Same Acid D.L's significantly higher than reported.

Comments:

*- Recoveries based on surrogate compound D10 Ethylbenzene
 B1/A samples C3773 & C3776 had a small volume of soil containing low recovery problem since final concentration would be below the detection limit.
 B1/A sample C3749 - low surrogate recoveries due to sample wetted in benzene.

*- C3776, C3752 & C3755 had matrix interferences problems; high baseline. See narrative section.
 Volatiles: out of 27; outside of QC limit
 Semi-Volatiles: 11 out of 21; outside of QC limit

AR100072

MATRIX SPIKE DUPLICATE/RECOVERY

CASE NO. 1915 CONTRACT NO. 68-01-6766
 LOW LEVEL ✓ HIGH LEVEL _____
 WATER _____ OTHER (Specify) _____
 QC REPORT NO. _____ UNITS (Circle) ug/Kg ug/l

CONTRACTOR ETC Corp
 MED. LEVEL _____
 SOIL/SED. _____

| FRACTION | COMPOUND | CONC. SPIKE ADDED | CONC. MS | % REC. | CONC. MSD | % REC. | RPD | QC LIMITS | COMMENTS |
|------------------------|---------------------------|-------------------|----------|--------|-----------|--------|------|-------------|--------------------|
| VOC SMD # C3759 | 1,1-Dichloroethylene | 18.3 | 18.3 | 102 | 20.6 | 114 | 11.8 | <15% 51-150 | |
| | Trichloroethylene | 17.3 | 17.3 | 96 | 18.4 | 102 | 6.2 | <15% 74-130 | |
| | Chlorobenzene | 19.7 | 19.7 | 109 | 21.9 | 123 | 10.6 | <15% 67-130 | |
| | Toluene | 19.5 | 19.5 | 108 | 21.4 | 119 | 9.3 | <15% 58-130 | |
| | Benzene | 19.1 | 19.1 | 106 | 17.4 | 17.4 | 9.5 | <15% 56-130 | |
| B/N SMD # C3753 | 1,2,4-Trichlorobenzene | 50 | 20 | 120* | 51.6 | 103 | 36 | <50% 38-110 | |
| | Acenaphthene | 50 | 47 | 94 | 35.8 | 72 | 27 | <50% 57-120 | |
| | 2,4-Dinitrotoluene | 50 | 0 | 0 | 0 | 0 | 0 | <50% 43-110 | |
| | Di-N-Butylphthalate | 50 | 31 | 62 | 37.8 | 80 | 25 | <50% 13-110 | |
| | Pyrene | 50 | 43.6 | 87 | 40.8 | 88 | 6 | <50% 25-140 | |
| ACID SMD # C3753 | N-Nitrosodl-N-Propylamine | 50 | 42.2 | 84 | 38.5 | 88 | 4.4 | <50% 34-110 | |
| | 1,4-Dichlorobenzene | 50 | 41 | 82 | 17.8 | 36 | 7.8 | <50% 33-110 | |
| | Pentachlorophenol | 50 | 0 | 0 | 0 | 0 | 0 | <40% 19-120 | Pentachloro phenol |
| | Phenol | 50 | 27.4 | 55 | 27.4 | 55 | 0 | <40% 21-80 | |
| | 2-Chlorophenol | 50 | 25.25 | 45 | 24.2 | 47 | 4 | <40% 33-110 | |
| PEST SMD # C3276 | P-Chloro-M-Cresol | 50 | 18.2 | 36 | 22.4 | 45 | 20 | <40% 32-110 | |
| | 4-Nitrophenol | 50 | 0 | 0 | 0 | 0 | 0 | <40% 15-90 | 4-Nitro phenol |
| | Lindane | 100000 | 88000 | 88 | 13000 | 131* | 31 | <40% 87-110 | |
| | Heptachlor | 100000 | 67200 | 67 | 9300 | 93 | 33 | <40% 43-120 | |
| | Aldrin | 100000 | 91000 | 91 | 14000 | 148* | 48* | <40% 45-110 | |
| PEST SMD # C3276 | Dieldrin | 100000 | 103000 | 103 | 15000 | 155* | 36 | <40% 56-120 | |
| | Endrin | 100000 | 156000 | 156* | 22000 | 220* | 34 | <40% 89-110 | |
| | P,P-DDT | 100000 | 126000 | 126* | 17900 | 179* | 35 | <40% 82-100 | |

*Asterisked values are outside QC limits.

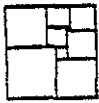
RPD: VOAs 0 out of 5; outside QC limits
 B/N 3 out of 3; outside QC limits
 ACID 4 out of 5; outside QC limits
 PEST 7 out of 7; outside QC limits

RECOVERY: VOAs 0 out of 0; outside QC limits
 B/N 3 out of 3; outside QC limits
 ACID 4 out of 4; outside QC limits
 PEST 7 out of 7; outside QC limits

Date Limits Set 12/82
 Revision Due 6/83

0004

AR100073



NUS
CORPORATION

INTERNAL CORRESPONDENCE
C-585-5-4-32

TO: Diane Foster, Program Manager, ETC
FROM: Russell J. Sloboda ^{RS}
SUBJECT: Missing Deliverables for Case 1915, ETC Data

DATE: May 15, 1984
COPIES: Joan Fisk
William Coakley

Per agreement with EPA, ETC has agreed to supply target compound spectra for reported identifications which are flagged as less than detection limits. Enclosed you will find the data package for Case 1915. The following spectra are requested:

| <u>Traffic Report No.</u> | <u>ETC Lab No.</u> | <u>Compounds</u> |
|---------------------------|--------------------|---------------------------------------|
| C3749 | C8353 | 1,1,1-trichloroethane benzoic acid |
| C3753 | C8355 | acenaphthene tetrachloroethene |
| C3273 | C8357 | 1,1,1-trichloroethane |
| C3276 | C8360 | toluene, aniline |

PROJECT NAME: First Piedmont
 TDD NO: F3 B305-45

EPA SITE NO.: VA 164
 REGION: ETW

QUALITY ASSURANCE REVIEW OF
 ORGANIC ANALYSIS LAB DATA PACKAGE

Case No.: 1915
 Contract No.: 68-01-6607
 Contract Laboratory: Laucks
 Applicable IFB No.: WA 82-AD69
 Reviewer: Rock J Vitale
 Review Date: 5/7/84

Applicable Sample No's.: C3274, C3747
C3748, C3750, C3751, C3754
C3756, C3757, C3758, C3760

The organic analytical data for this case has been reviewed. The quality assurance evaluation is summarized in the following table:

| Reviewer's Evaluation* | Fraction | | | | |
|------------------------------|-----------|-------|-------------------|---------------|------|
| | VOLATILES | ACIDS | BASE/ NEUTRALS | PCB/ PEST. | TCDD |
| Acceptable | | ✓ | | | ✓ |
| Acceptable with exception(s) | ✓ #1 | | ✓ #2 | ✓ #3 | |
| Questionable | | | | | |
| Unacceptable | | | | | |

* Definitions of the evaluation score categories are listed on next page.

This evaluation was based upon an analysis of the review items indicated below:

- DATA COMPLETENESS
- BLANK ANALYSIS RESULTS
- SURROGATE SPIKE RESULTS
- MATRIX SPIKE RESULTS
- DUPLICATE ANALYSIS RESULTS
- EVALUATION OF CONFIRMATIONS
- ≠ ● QUANTITATIVE CALCULATIONS
- ≠ ● TARGET COMPOUND MATCHING QUALITY
- TENTATIVELY IDENTIFIED COMPOUNDS
- CHROMATOGRAPHIC SENSITIVITY CHECKS
- DFTPP AND BFB SPECTRUM TUNE RESULTS
- STANDARDS
- CALIBRATION CHECK STANDARDS
- INTERNAL STANDARDS PERFORMANCE

Data review forms are attached for each of the review items indicated above.

† No errors noted, no form attached.

● Spot Check performed.

Comments: #1 Please see blank analysis documentation.
#2 Some phthalates were reported at "less than" values, these are considered questionable since they are common lab contaminants
#3 Single peak pesticide identifications are questioned since they may be artifacts of random chromatographic interferences

AR100075

DATA EVALUATION SCORE CATEGORIES

ACCEPTABLE: Data is within established control limits, or the data which is outside established control limits does not affect the validity of the analytical results.

ACCEPTABLE WITH EXCEPTION(S): Data is not completely within established control limits. The deficiencies are identified and specific data is still valid, given certain qualifications which are listed below.

QUESTIONABLE: Data is not within established control limits. The deficiencies bring the validity of the entire data set into question. However, the data validity is neither proved nor disproved by the available information.

UNACCEPTABLE: Data is not within established control limits. The deficiencies imply the results are not meaningful.

AR100076

| DATA COMPLETENESS | | CONC./MATRIX | ²⁰ / ₁₀ AQ | ²⁰ / ₁₀ AA | ⁴ / ₁₀ AA | ⁴ / ₁₀ BA | ⁴ / ₁₀ CA | ⁴ / ₁₀ DA | ⁴ / ₁₀ EA | ⁴ / ₁₀ FA | ⁴ / ₁₀ GA | ⁴ / ₁₀ HA | ⁴ / ₁₀ IA | ⁴ / ₁₀ JA | ⁴ / ₁₀ KA | ⁴ / ₁₀ LA | ⁴ / ₁₀ MA | ⁴ / ₁₀ NA | ⁴ / ₁₀ OA | ⁴ / ₁₀ PA | ⁴ / ₁₀ QA | ⁴ / ₁₀ RA | ⁴ / ₁₀ SA | ⁴ / ₁₀ TA | ⁴ / ₁₀ UA | ⁴ / ₁₀ VA | ⁴ / ₁₀ WA | ⁴ / ₁₀ XA | ⁴ / ₁₀ YA | ⁴ / ₁₀ ZA | | | | | | | | | |
|-------------------|------------------------------|--------------|----------------------------------|----------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|-------|-------|-----|--|--|--|--|--|--|
| FRACTION | TRAFFIC REPORT # | 3274 | C3747 | C3748 | C3750 | C3751 | C3754 | C3756 | C3757 | C3758 | C3759 | C3760 | C3761 | C3762 | C3763 | C3764 | C3765 | C3766 | C3767 | C3768 | C3769 | C3770 | C3771 | C3772 | C3773 | C3774 | C3775 | C3776 | C3777 | C3778 | C3779 | C3780 | BLK | | | | | | |
| | LAB I.D. # | 79617- | 132 | 133 | 134 | 135 | 136 | 137 | 138 | 139 | 140 | 141 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| VOA : | RUN DATE/TIME | ✓ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | TARGET COMPOUND TAB. | ✓ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | TARGET COMPOUND D.L. | ✓ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | TENT. I.D. COMPOUND TAB. | ✓ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | SURROGATE RECOVERY | ✓ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | GC SCREEN TABULATION | ✓ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | GC/MS CHROMATOGRAMS | ✓ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | TARGET CMPD. QUAN. LIST | ✓ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | TARGET CMPD. SPECTRA | ✓ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | TENT. I.D. CMPD. Q.L. | ✓ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | TENT. CMPD. LIB. SRCH. | ✓ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | CHRO./SENS. CHECKS | ✓ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | BFB/DFTPP TUNE DATA | ✓ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | I.S. AREAS CHARTS | ✓ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | I.S. REL. RESP. FORM | ✓ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | RF & AMTS.: CALIB. CHK. | ✓ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | RF & AMTS.: 3-PT CALIB. | ✓ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Chromatograms: Calib. Chk. | MS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Chromatograms: 3- Pt. Calib. | MS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | LINEARITY: 3-PT. CALIB | ✓ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | RF COMPARISON | ✓ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | SAMPLE/FIELD BLANK | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | METHOD/INSTR. BLANK | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | LAB DUPLICATE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | FIELD DUP/REP | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | MAT. SPK./M. STD. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

COMMENTS :

| DATA COMPLETENESS | | CONC./MATRIX | ¹⁰ / ₁₀₀ | ¹⁰ / ₁₀₀ | ¹⁰ / ₁₀₀ | ¹⁰ / ₁₀₀ | ¹⁰ / ₁₀₀ | ¹⁰ / ₁₀₀ | ¹⁰ / ₁₀₀ | ¹⁰ / ₁₀₀ | ¹⁰ / ₁₀₀ | ¹⁰ / ₁₀₀ | ¹⁰ / ₁₀₀ |
|-------------------|------------------------------|--------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| FRACTION | TRAFFIC REPORT # | | C3274 | C3747 | C3748 | C3750 | C3751 | C3754 | C3756 | C3757 | C3758 | C3760 | B/C |
| | LAB I.D. # | 7967- | 132 | 133 | 134 | 135 | 136 | 137 | 138 | 139 | 140 | 141 | |
| BNA : | RUN DATE/TIME | | ✓ | | | | | | | | | | |
| | TARGET COMPOUND TAB. | | ✓ | | | | | | | | | | |
| | TARGET COMPOUND D.L. | | ✓ | | | | | | | | | | |
| | TENT. I.D. COMPOUND TAB. | | ✓ | | | | | | | | | | |
| | SURROGATE RECOVERY | | ✓ | | | | | | | | | | |
| | GC SCREEN TABULATION | | ✓ | | | | | | | | | | |
| | GC/MS CHROMATOGRAMS | | ✓ | | | | | | | | | | |
| | TARGET CMPD. QUAN. LIST | | ✓ | | | | | | | | | | |
| | TARGET CMPD. SPECTRA | | ✓ | | | | | | | | | | |
| | TENT. I.D. CMPD. Q.L. | | ✓ | | | | | | | | | | |
| | TENT. CMPD. LIB. SRCH. | | ✓ | | | | | | | | | | |
| | CHRO./SENS. CHECKS | | ✓ | | | | | | | | | | |
| | BFB/DFTPP TUNE DATA | | ✓ | | | | | | | | | | |
| | I.S. AREAS CHARTS | | ✓ | | | | | | | | | | |
| | I.S. REL. RESP. FORM | | ✓ | | | | | | | | | | |
| | RF & AMTS.: CALIB. CHK. | | ✓ | | | | | | | | | | |
| | RF & AMTS.: 3-PT CALIB. | | ✓ | | | | | | | | | | |
| | Chromatograms: Calib. Chk. | | MS | | | | | | | | | | |
| | Chromatograms: 3-Pt. Calib. | | MS | | | | | | | | | | |
| | LINEARITY: 3-PT. CALIB | | ✓ | | | | | | | | | | |
| | RF COMPARISON | | ✓ | | | | | | | | | | |
| | SAMPLE/FIELD BLANK | | | | | | | | ✓ | | | | |
| | METHOD/INSTR. BLANK | | | | | | | | | | | | ✓ |
| | LAB DUPLICATE | | | | | | | | | | | | |
| | FIELD DUP/REP | | | | | | | | | | | | |
| | MAT. SPK./M. STD. | | | | | | | | | | | | |
| PEST. : | PESTICIDE TABULATION | | ✓ | | | | | | | | | | |
| | PEST. D.L. TABULATION | | ✓ | | | | | | | | | | |
| | PESTICIDE CHRO. | | ✓ | | | | | | | | | | |
| | PESTICIDE STD. CHRO. | | ✓ | | | | | | | | | | |
| | PESTICIDE STD. I.D. | | ✓ | | | | | | | | | | |
| | 2 nd COLUMN CONF. | | ✓ | | | | | | | | | | |
| | GC/MS CONFIRMATION | | N/C | | | | | | | | | | |
| | PESTICIDE DUPLICATE | | | | | | | | ✓ | | | | |
| | PESTICIDE SPIKE | | | | | | | | ✓ | | | | |
| | PESTICIDE BLANK | | | | | | | | | | | | ✓ |
| TCDD | TCDD TABULATION | | ✓ | | | | | | | | | | |
| | TCDD DETECTION LIMIT | | ✓ | | | | | | | | | | |
| | TCDD CHRO./E.I.C.P. | | ✓ | | | | | | | | | | |
| | TCDD BLANK | | | | | | | | | ✓ | | | ✓ |

AR100078

KEY TO DATA COMPLETENESS FORM

| <u>Abbreviation Used on Form</u> | <u>Description of Checklist Item</u> |
|---|---|
| Conc./Matrix | Concentration category submitted in analysis request (low, med, hi); and matrix (sol., aq.) |
| Fraction | Fill in acid, base/neutral, acid/base/neutral, or volatiles analysis |
| Run Date/Time | Instrument run date (to be used for correlating calibration) |
| Target Cmpd. Tab. | Tabulated results for target compounds |
| Target Cmpd. D.L. | Detection limits for target compounds (actual/level indicated by screen) |
| Tent. LD. Cmpd. Tab. | Tabulated results for tentatively identified compounds |
| Surr. Rec. | Surrogate recoveries results |
| GC Screen Tab. | Tabulated GC screen results indicating required level of followup |
| GC/MS Chromatograms | Chromatograms of GC/MS analysis runs |
| Target Cmpd. Quan. List | Target compounds quantitation list, showing areas, ret. times |
| Target Cmpd. Spectra | Enhanced and unenhanced spectra of target compound hits |
| Tent. LD. Cmpd. Q.L. | Quantitation list for tentatively identified compounds |
| Tent. Cmpd. Lib. Srch. | Spectra and library match spectra of tentatively identified compounds |
| Chro./Sens. Checks | EICP's and R.R.F.'s for chromatographic sensitivity checks |
| BFB/DFTPP Tune Data | Spectra intensity lists, and criteria comparison forms for BFB, DFTPP |
| I.S. Areas Charts | Internal standards area control charts and description of remedial action |
| I.S. Rel. Resp. Form | Internal standards relative response listings for each sample run |
| RF and amts.: Calib. Chk. | Tabulated response factors and amount injected for all cmpds. in calibration check |
| RF and amts.: 3-Pt. Calib. Chromatograms: Calib. Chk. | Tabulated response factors and amount injected for all cmpds. in 3-point calibration Chromatograms for calibration check standard |
| Chromatograms: 3-Pt. Calib. | Chromatograms for 3-point multilevel calibration standards. |
| Linearity: 3-Pt. Calib. | Tabulated correlation coefficient or relative standard deviation for calibration |
| RF Comparison | Tabulated comparison of calibration Response Factor with check standard |
| Sample/Field Blank | Equipment rinse or reagent water blank shipped with samples from field |
| Method/Instr. Blank | Method or instrument blank which is prepared at lab |
| Lab Duplicate | Sample which was split by lab for duplicate analysis |
| Field Dup/Rep | Sample which was split or collected twice in the field |
| Mat. Spk./M. Std. | Matrix spike or method standard (blind, or done by lab) |
| Pest. Tab. | Tabulated results for pesticides |
| Pest. D.L. Tab. | Tabulated detection limits for pesticides |
| Pest. Chro. | Chromatograms for pesticide screening |
| 2 nd Col. Conf. | Confirmation of pesticide results by using a second GC column and temperature |
| GC/MS Conf. | Confirmation of pesticide results by GC/MS analysis |
| Pest. Dup., Spk. Blk. | Pesticide duplicate, spike, and blank |
| Pest. Std. Chro. | Chromatogram of pesticide standard |
| Pest. Std. LD. | Pesticide standard identification form |
| TCDD | 2,3,7,8-tetrachlorodibenzodioxin |
| TCDD Tab., D.L., EICP, Blk. | TCDD tabulated results, detection limits, extracted ion current profile, blank |

KEY TO SYMBOLS USED IN DATA COMPLETENESS TABLE

| <u>Symbol</u> | <u>Meaning</u> | <u>Symbol</u> | <u>Meaning</u> |
|---------------|--|----------------|---|
| ✓ | Data item present | I | Incomplete data item |
| NA | Data item not applicable or not required | NC | Data item not clearly explained (units of conc., etc) |
| P | Data item within established control limits | * or [number] | See footnote |
| F | Data item outside established control limits | XX/XX/XX XX:XX | Date/Time of run (calibration, etc.) |
| MS | Missing item | | |

AR100079

BLANK ANALYSIS RESULTS FOR TARGET COMPOUNDS

| FRACTION | TYPE | CONC | MATRIX | SAMPLE # | SOURCE OF H ₂ O | CONTAMINANT'S (CONCENTRATION / DETECTION LIMIT) |
|----------|-------|------|--------|----------|----------------------------|--|
| VOA | lab | low | AQ | 617MBW | Laucks | Methylene Chloride (17.3 ug/l / 5ug/l) #1 Acetone (18.3 ug/l / 5ug/l) #1 |
| BNA | lab | low | AQ | 617MBW | Laucks | N.D. |
| VOA | Field | low | AQ | C3756 | NUS | Methylene Chloride (367 ug/l / 5ug/l) #1 Acetone (31 ug/l / 5ug/l) #1 Chloroform (3.6 ug/l / 5ug/l) #1 Benzene (21 ug/l / 5ug/l) #3 |
| BNA | lab | low | AQ | C3756 | NUS | N.D. |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

LABORATORY REPORTED FIELD BLANK DATA IS COMPARED WITH THE SAMPLE DATA IN A TABULATION FORM WITHIN T SAMPLE ANALYTICAL DATA SUMMARY. TENTATIVELY IDENTIFIED COMPOUNDS IN BLANKS ARE LISTED ON A SEPARATE F COMMENTS:

- (1) RESULT REPORTED BY LABORATORY AND CONFIRMED BY REVIEWER.
- (2) RESULT INFERRED FROM QUANTITATION LIST, DIAGNOSTICS, CHROMATOGRAM AND/OR SPECTRA.

#3 Inferred from chromatogram at benzene RT.

CASE NO 915
 LOW LEVEL LOW

CONTRACTOR WATER SEWERAGE DEPARTMENT
 LAUNDRY TREATMENT LABORATORIES
 MEDIUM LEVEL

CONTRACT NO W.R. 2003

| Traffic No | LTL Sample No | Soluble | | | | Semi-soluble | | | | Insoluble | | | |
|------------|---------------|--------------------------------|----------------|----------------|---------------------|---------------|-------------------------------|-------------------------------|-------------------------|------------------------|-----------------------|---------------------------|-------------------------------------|
| | | 40-120- Methylene ethane | 40- Toluene | 40-120- BPD | 2-Fluore- Phenol | 40- Phenol | 40-2,4- Dinitro- Phenol | 2,4,6- Trinitro- Phenol | 2-Fluore- Anthracene | 40-dinitro- Benzene | 2-Fluore- Biphenyl | 40-2,4- Ter- phenyl | 2,4,6- Tri- nitro- Benzene |
| 132 | 132 | 13.0 | 123.4 | 123.1 | 52.3 | 30.6 | 50.9 | 96.3 | 40.9 | 26.5 | 42.0 | 62.0 | 60.9 |
| 133 | 133 | 15.8 | 95.9 | 115.2 | 46.9 | 23.9 | 91.0 | 104.5 | 75.2 | 104.3 | 104.3 | 104 | 104 |
| 134 | 134 | 42.4 | 41.7 | 108.1 | 47.7 | 25.9 | 61.6 | 70.4 | 71.4 | 94.9 | 94.9 | 96.9 | 96.9 |
| 135 | 135 | 47.7 | 86.5 | 108.3 | 52.0 | 50.6 | 47.4 | 78.6 | 81.1 | 71.1 | 71.1 | 71.5 | 101 |
| 136 | 136 | 100.6 | 82.3 | 104.8 | 45.3 | 27.1 | 53.1 | 105.8 | 79.3 | 82.4 | 124.4 | 124.4 | 86.7 |
| 137 | 137 | 101.9 | 90.6 | 107.9 | 39.1 | 31.2 | 67.6 | 84.2 | 126.8 | 97.8 | 112 | 90.0 | 90.0 |
| 138 | 138 | 103.1 | 81.2 | 108.4 | 50.0 | 23.0 | 82.1 | 84.2 | 97.6 | 114.6 | 106 | 91.1 | 91.1 |
| 139 | 139 | 102.5 | 90.5 | 108.4 | 46.3 | 23.1 | 82.1 | 84.2 | 97.6 | 114.6 | 106 | 91.1 | 91.1 |
| 140 | 140 | 102.5 | 90.5 | 108.4 | 46.3 | 23.1 | 82.1 | 84.2 | 97.6 | 114.6 | 106 | 91.1 | 91.1 |
| 141 | 141 | 102.5 | 90.5 | 108.4 | 46.3 | 23.1 | 82.1 | 84.2 | 97.6 | 114.6 | 106 | 91.1 | 91.1 |
| 142 | 142 | 102.5 | 90.5 | 108.4 | 46.3 | 23.1 | 82.1 | 84.2 | 97.6 | 114.6 | 106 | 91.1 | 91.1 |
| 143 | 143 | 102.5 | 90.5 | 108.4 | 46.3 | 23.1 | 82.1 | 84.2 | 97.6 | 114.6 | 106 | 91.1 | 91.1 |
| 144 | 144 | 102.5 | 90.5 | 108.4 | 46.3 | 23.1 | 82.1 | 84.2 | 97.6 | 114.6 | 106 | 91.1 | 91.1 |
| 145 | 145 | 102.5 | 90.5 | 108.4 | 46.3 | 23.1 | 82.1 | 84.2 | 97.6 | 114.6 | 106 | 91.1 | 91.1 |
| 146 | 146 | 102.5 | 90.5 | 108.4 | 46.3 | 23.1 | 82.1 | 84.2 | 97.6 | 114.6 | 106 | 91.1 | 91.1 |
| 147 | 147 | 102.5 | 90.5 | 108.4 | 46.3 | 23.1 | 82.1 | 84.2 | 97.6 | 114.6 | 106 | 91.1 | 91.1 |
| 148 | 148 | 102.5 | 90.5 | 108.4 | 46.3 | 23.1 | 82.1 | 84.2 | 97.6 | 114.6 | 106 | 91.1 | 91.1 |
| 149 | 149 | 102.5 | 90.5 | 108.4 | 46.3 | 23.1 | 82.1 | 84.2 | 97.6 | 114.6 | 106 | 91.1 | 91.1 |
| 150 | 150 | 102.5 | 90.5 | 108.4 | 46.3 | 23.1 | 82.1 | 84.2 | 97.6 | 114.6 | 106 | 91.1 | 91.1 |

Waterborne values are outside of QC limits Advisory limits

Volatiles: 1 out of 36 outside of QC limits Comments: MS, J, S, O, B, C, S, T, Y, R, B, A, C, S, T, R, S, P, D, R, C, S, T, Y, R
 Semi-volatiles: 1 out of 72 outside of QC limits
 Pesticides: 1 out of 12 outside of QC limits
 Metals: 2 out of 12 outside of QC limits

FORM III

5-19-68

CASE NO 1915 CONTRACTOR Lauck's Testing Labs CONTRACT NO WA 82-A069
 QC REPORT NO _____ SAMPLE TYPE Water LEVEL LOW
 UNITS (Circle) ug/Kg (ug/L)

| FRACTION | COMPOUND | CONC SPIKE ADDED | CONC MS | REC % | CONC MSD | REC % | RPD | QC LIMITS | | COMMENTS |
|----------------------------------|---------------------------|------------------|---------|-------|----------|-------|-------|-----------|----------|----------|
| | | | | | | | | RPD | RECOVERY | |
| VQA (17-137 SNO# C3754) | 1,1-Dichloroethylene | 25.0 | 20.95 | 83.8 | 23.63 | 92.5 | -9.9 | <158 | 51-151 | |
| | Trichloroethylene | 25.0 | 26.29 | 105.2 | 29.40 | 117.6 | -11.2 | <158 | 74-128 | |
| | Chlorobenzene | 25.0 | 18.74 | 75.0 | 20.62 | 82.5 | -9.6 | <158 | 67-131 | |
| | Toluene | 25.0 | 23.45 | 93.8 | 24.84 | 99.4 | -5.1 | <158 | 58-132 | |
| B/N | Benzene | 25.0 | 22.89 | 91.6 | 25.41 | 101.6 | -10.4 | <158 | 56-132 | |
| | 1,2,4-Trichlorobenzene | 50.0 | 46.48 | 93.0 | 53.02 | 106.0 | -13.1 | <508 | 38-108 | |
| SNO# | Acenaphthene | " | 39.34 | 78.7 | 31.04 | 62.1 | 23.6 | <508 | 57-115 | |
| | 2,4-Dinitrotoluene | " | 27.10 | 54.2 | 26.52 | 53.0 | 2.2 | <508 | 43-113 | |
| | Di-N-Butylphthalate | " | 26.26 | 52.5 | 23.54 | 47.1 | 10.9 | <508 | 13-113 | |
| | Pyrene | " | 42.84 | 85.7 | 39.04 | 78.1 | 9.3 | <508 | 25-137 | |
| | N-Nitrosodi-N-Propylamine | " | 26.46 | 53.3 | 25.88 | 51.8 | 5.0 | <508 | 34-114 | |
| | 1,4-Dichlorobenzene | " | 22.22 | 64.4 | 20.40 | 60.8 | 6.1 | <508 | 33-103 | |
| | Pentachlorophenol | " | 37.30 | 74.6 | 41.72 | 83.4 | -11.2 | <408 | 19-123 | |
| | Phenol | " | 13.48 | 27.0 | 12.04 | 24.1 | 11.3 | <408 | 23-81 | |
| | 2-Chlorophenol | " | 28.88 | 57.8 | 30.28 | 60.6 | -4.7 | <408 | 33-107 | |
| | p-Chloro-m-cresol | " | 26.08 | 52.2 | 31.38 | 62.8 | -18.4 | <408 | 32-108 | |
| SNO# | 4-Nitrophenol | 250.0 | 57.24 | 22.9 | 53.22 | 21.3 | 7.3 | <408 | 15-93 | |
| | Lindane | 6.67 | 6.74 | 102 | 6.02 | 90.1 | 12.2 | <408 | 87-107 | |
| PST | Heptachlor | " | 6.50 | 102 | 6.04 | 95.9 | 6.2 | <408 | 43-125 | |
| | Aldrin | " | 7.03 | 106.4 | 6.72 | 101.1 | 7.8 | <408 | 45-109 | |
| | Dieldrin | " | 4.26 | 125.4 | 5.71 | 127.1 | 1.6 | <408 | 56-122 | |
| | Endrin | " | 4.04 | 136.1 | 5.43 | 139.1 | 2.2 | <408 | 89-101 | |
| SNO# | P,p'-DDE | " | 5.44 | 133.1 | 5.67 | 130.1 | 2.3 | <408 | 82-102 | |

*asterisked values are outside QC limits

RPD: VQA out of 5 ; outside QC limits
 B/N out of 1 ; outside QC limits
 ACID out of 5 ; outside QC limits
 PST out of 6 ; outside QC limits

RECOVERY: VQA out of 10 ; outside QC limits
 B/N out of 14 ; outside QC limits
 ACIDS out of 10 ; outside QC limits
 PST out of 12 ; outside QC limits

FORM V

Reviewed *[Signature]*

EVALUATION OF CONFIRMATIONS OF GC ANALYSES

| SAMPLE NO. | COMPOUND | GC COLUMN # 1 | | | | GC COLUMN # 2 | | | | GC/MS DATA | | | | | |
|------------|---|--|----------|--|----------|---|----------|--|----------|-------------------------------------|----------|---|----------|---|----------|
| | | COLUMN: CONDITIONS; DETECTOR; | | DATA FROM COLUMN # 1: D RET. OR D REL. RET. TIMES IN: | | COLUMN: CONDITIONS; DETECTOR; | | DATA FROM COLUMN # 2: D RET. OR D REL. RET. TIMES IN: | | COLUMN: CONDITIONS; DETECTOR; | | DATA FROM GC/MS RUN(S): SPECTRUM MATCH (Y/N) LEVEL HIGH ENOUGH FOR GC/MS WHICH EXTRACT | | OSCANNO. D RET. OR D REL. RET. TIMES IN: | |
| | | Sample | Standard | Sample | Standard | Sample | Standard | Sample | Standard | Sample | Standard | Sample | Standard | Sample | Standard |
| E3754 | d-Eudosalbin β-Eudosalbin Heptacos α-BHC | | | | | | | | | | | | | | |
| | | <i>See page 1 considered questionable by chromatographic interference.</i> | | | | <i>peak positive identification - they can be easily duplicated</i> | | | | | | | | | |
| | | | | | | | | | | | | | | 2C | N |

COMMENTS:

PROJECT NAME: First Piedmont
 TDD NO: F3-8305-45

EPA SITE NO.: VA 164
 REGION: F, T, III

QUALITY ASSURANCE REVIEW OF
 INORGANIC ANALYTICAL DATA PACKAGE

Case No.: 1915
 Contract No.: 68-01-6829
 Contract Laboratory: Chemtech
 Applicable IFB No.: WA 83-A196
 Reviewer: Rock J Vitale
 Review Date: 5/9/84

Applicable Sample No's.:
MC1005 (thru & including)
MC1022

The inorganic analytical data for this case has been reviewed. The quality assurance evaluation is summarized in the following table:

| Reviewer's Evaluation* | Fraction | | | |
|------------------------------|-------------------------------|---------------------------------|--------------------------------------|---------------------|
| | TASK I ICP or AA METALS | TASK II FURNACE AA METALS | TASK III COLD VAPOR AA MERCURY | TASK III CYANIDE |
| Acceptable | | | | ✓ |
| Acceptable with exception(s) | ✓ ^① | ✓ ^{①②} | ✓ ^① | |
| Questionable | | | | |
| Unacceptable | | | | |

* Definitions of the evaluation score categories are listed on next page.

This evaluation was based upon an analysis of the review items indicated below:

- DATA COMPLETENESS
- BLANK ANALYSIS RESULTS
- MATRIX SPIKE RESULTS
- DUPLICATE ANALYSIS RESULTS
- STANDARD ADDITIONS RESULTS
- QUANTITATIVE CALCULATIONS
- INITIAL CALIBRATION VERIFICATION
- CONTINUING CALIBRATION VERIFICATION
- INTERFERENCE QC RESULTS
- DETECTION LIMITS RESULTS
- INSTRUMENT SENSITIVITY REPORTS

Data review forms are attached for each of the review items indicated above.

† No errors noted, no form attached.

⊖ Spot Check performed.

Comments: #1 Please see blank analysis documentation
#2 Selenium data showed inability to achieve reported detection limit

ART00085

DATA EVALUATION SCORE CATEGORIES

ACCEPTABLE: Data is within established control limits, or the data which is outside established control limits does not affect the validity of the analytical results.

ACCEPTABLE WITH EXCEPTION(S): Data is not completely within established control limits. The deficiencies are identified and specific data is still valid, given certain qualifications which are listed below.

QUESTIONABLE: Data is not within established control limits. The deficiencies bring the validity of the entire data set into question. However, the data validity is neither proved nor disproved by the available information.

UNACCEPTABLE: Data is not within established control limits. The deficiencies imply the results are not meaningful.

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| DATA COMPLETENESS | CONC./ MATRIX | F | | | | | | | | | | | | | | | |
|--|---------------------|-------|-------|--------|-------|-------|--------|--------|-------|--------|--------|-------|--------|-------|--------|-------|-------|
| | | Lo/AQ | Lo/AQ | Lo/SOL | Lo/AQ | Lo/AQ | Lo/SOL | Lo/SOL | Lo/AQ | Lo/SOL | Lo/SOL | Lo/AQ | Lo/SOL | Lo/AQ | Lo/SOL | Lo/AQ | Lo/AQ |
| | TRAFFIC REPORT # MC | 1005 | 1006 | 1007 | 1008 | 1009 | 1010 | 1011 | 1012 | 1013 | 1014 | 1015 | 1016 | 1017 | 1018 | 1019 | |
| | LAB I.D. #62-79 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | |
| FIELD QC | BLANK | | | | | | | | | | | | | | | | |
| | DUPLICATE | ✓ | | ✓ | | | | | | | | | | | | | |
| | SPIKE | ✓ | | ✓ | | | | | | | | | ✓ | | | | ✓ |
| TASK I: ICAP OR AA: METALS | RAW DATA | ✓ | | | | | | | | | | | | | | | ✓ |
| | TAB. RESULTS | ✓ | | | | | | | | | | | | | | | ✓ |
| | TAB. D.L.'s | ✓ | | | | | | | | | | | | | | | ✓ |
| | QA FORM | ✓ | | | | | | | | | | | | | | | ✓ |
| | ICAP INTER. QC | ✓ | | | | | | | | | | | | | | | ✓ |
| | INSTR. SENS. | MS | | | | | | | | | | | | | | | |
| TASK II: FURNACE AA: METALS | RAW DATA | ✓ | | | | | | | | | | | | | | | ✓ |
| | TAB. RESULTS | ✓ | | | | | | | | | | | | | | | ✓ |
| | TAB. D.L.'s | ✓ | | | | | | | | | | | | | | | ✓ |
| | QA FORM | ✓ | | | | | | | | | | | | | | | ✓ |
| | INSTR. SENS. | MS | | | | | | | | | | | | | | | ✓ |
| TASK II: COLD VAPOR AA: MERCURY | RAW DATA | ✓ | | | | | | | | | | | | | | | ✓ |
| | TAB. RESULTS | ✓ | | | | | | | | | | | | | | | ✓ |
| | TAB. D.L.'s | ✓ | | | | | | | | | | | | | | | ✓ |
| | QA FORM | ✓ | | | | | | | | | | | | | | | ✓ |
| | INSTR. SENS. | MS | | | | | | | | | | | | | | | ✓ |
| TASK III: CYANIDE | RAW DATA | ✓ | | | | | | | | | | | | | | | ✓ |
| | TAB. RESULTS | ✓ | | | | | | | | | | | | | | | ✓ |
| | TAB. D.L.'s | ✓ | | | | | | | | | | | | | | | ✓ |
| | QA FORM. | ✓ | | | | | | | | | | | | | | | ✓ |
| | INSTR. SENS. | MS | | | | | | | | | | | | | | | ✓ |
| OTHER (SPECIFY): | RAW DATA | | | | | | | | | | | | | | | | |
| | TAB. RESULTS | | | | | | | | | | | | | | | | |
| | TAB. D.L.'s | | | | | | | | | | | | | | | | |
| | QA FORM | | | | | | | | | | | | | | | | |
| | INSTR. SENS. | | | | | | | | | | | | | | | | |
| OTHER (SPECIFY): | RAW DATA | | | | | | | | | | | | | | | | |
| | TAB. RESULTS | | | | | | | | | | | | | | | | |
| | TAB. D.L.'s | | | | | | | | | | | | | | | | |
| | QA FORM | | | | | | | | | | | | | | | | |
| | INSTR. SENS. | | | | | | | | | | | | | | | | |

COMMENTS: _____

| DATA COMPLETENESS | CONC./ MATRIX | % | | | PEEP B/C/C |
|--|---------------------|-------|-------|-------|------------|
| | | 1/500 | 1/500 | 1/100 | |
| | TRAFFIC REPORT # MC | 1020 | 1021 | 1022 | |
| | LAB I.D. #62-79 | 16 | 17 | 18 | |
| FIELD QC | BLANK | | ✓ | ✓ | ✓ |
| | DUPLICATE | | | | |
| | SPIKE | | | | |
| TASK I: ICAP OR AA: METALS | RAW DATA | ✓ | ✓ | ✓ | |
| | TAB. RESULTS | ✓ | ✓ | ✓ | |
| | TAB. D.L.'s | ✓ | ✓ | ✓ | |
| | QA FORM | ✓ | ✓ | ✓ | |
| | ICAP INTER. QC | ✓ | ✓ | ✓ | |
| | INSTR. SENS. | MS | ✓ | ✓ | ✓ |
| TASK II: FURNACE AA: METALS | RAW DATA | ✓ | ✓ | ✓ | |
| | TAB. RESULTS | ✓ | ✓ | ✓ | |
| | TAB. D.L.'s | ✓ | ✓ | ✓ | |
| | QA FORM | ✓ | ✓ | ✓ | |
| | INSTR. SENS. | MS | ✓ | ✓ | ✓ |
| TASK II: COLD VAPOR AA: MERCURY | RAW DATA | ✓ | ✓ | ✓ | |
| | TAB. RESULTS | ✓ | ✓ | ✓ | |
| | TAB. D.L.'s | ✓ | ✓ | ✓ | |
| | QA FORM | ✓ | ✓ | ✓ | |
| | INSTR. SENS. | MS | ✓ | ✓ | ✓ |
| TASK III: CYANIDE | RAW DATA | ✓ | ✓ | ✓ | |
| | TAB. RESULTS | ✓ | ✓ | ✓ | |
| | TAB. D.L.'s | ✓ | ✓ | ✓ | |
| | QA FORM. | ✓ | ✓ | ✓ | |
| | INSTR. SENS. | MS | ✓ | ✓ | ✓ |
| OTHER (SPECIFY): | RAW DATA | | | | |
| | TAB. RESULTS | | | | |
| | TAB. D.L.'s | | | | |
| | QA FORM | | | | |
| | INSTR. SENS. | | | | |
| OTHER (SPECIFY): | RAW DATA | | | | |
| | TAB. RESULTS | | | | |
| | TAB. D.L.'s | | | | |
| | QA FORM | | | | |
| | INSTR. SENS. | | | | |

COMMENTS:

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BLANK ANALYSIS RESULTS

| TASK | TYPE | CONC | MATRIX | SAMPLE # | SOURCE OF H ₂ O | CONTAMINANTS (CONCENTRATION / DETECTION LIMIT) |
|--|---------------------------|------|--------|----------|----------------------------|--|
| All | Field/lw/sol | | | MC1021 | NUS | Arsenic (0.15mg/kg / 0.50mg/kg) #2 1.5 6 |
| | | | | | | Tin (0.30 mg/kg / 1mg/kg) #2 1.1 21 |
| | | | | | | Lead (0.21 mg/kg / 1.5mg/kg) #2 1.1 21 |
| | | | | | | Copper (1.6 mg/kg / 2.5 mg/kg) #2 8 32 |
| | | | | | | Iron (4.3 mg/kg / 5mg/kg) #1 21.5 430 |
| | | | | | | Zinc (0.52 mg/kg / 0.5 mg/kg) #2 2.6 10.4 |
| | | | | | | Manganese (0.50mg/kg / 0.5mg/kg) #1 2.5 50 |
| All | Field/lw/AQ | | | MC1022 | NUS | Mercury (0.10 mg/kg / 0.2mg/kg) #10.5 2 |
| | | | | | | Tin (11.9 ug/L / 20 ug/L) 3.5 39.5 |
| | | | | | | Selenium (2 ug/L / 2ug/L) #2 0.5 10 |
| | | | | | | Lead (4.1 ug/L / 15 ug/L) #2 1.03 20.5 |
| | | | | | | Cadmium (0.29 ug/L / 4 ug/L) #7 0.08 1.5 |
| | | | | | | Mercury (0.20 ug/L / 0.2 ug/L) #1 0.01 1.0 |
| | | | | | | Aluminum (60.1 ug/L / 200 ug/L) #2 0.15 300 |
| All | Reagent Blank LW/AQ | | | R BLK | Chemtech | Beryllium (2.9 ug/L / 5 ug/L) #2 0.93 14.5 |
| | | | | | | Copper (29.7 ug/L / 50 ug/L) #2 3.5 149 |
| | | | | | | Iron (56.9 ug/L / 200 ug/L) #2 14.1 282 |
| | | | | | | Manganese (5.5 ug/L / 10 ug/L) #2 1.4 27.5 |
| | | | | | | Zinc (46.8 ug/L / 10 ug/L) #2 11.7 234 |
| | | | | | | Arsenic (3 ug/L / 10 ug/L) #2 0.75 15 |
| | | | | | | Tin (6.4 ug/L / 25 ug/L) #2 1.6 32 |
| Selenium (2 ug/L / 2 ug/L) #2 0.50 10 | | | | | | |
| Lead (4.6 ug/L / 15 ug/L) #2 1.2 23 | | | | | | |
| Cadmium (0.46 ug/L / 4 ug/L) #2 0.12 2.3 | | | | | | |
| Mercury 0.5 ug/L / 0.2 ug/L) #2 1.3 2.5 | | | | | | |
| Beryllium (7.9 ug/L / 15 ug/L) #2 1.2 24.5 | | | | | | |
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LABORATORY REPORTED FIELD BLANK DATA IS COMPARED WITH THE SAMPLE DATA IN A TABULATION FORM WITHIN SAMPLE ANALYTICAL DATA SUMMARY.

COMMENTS:

- (1) RESULT REPORTED BY LABORATORY AND CONFIRMED BY REVIEWER.
- (2) RESULT INFERRED FROM RAW DATA

→ Source of severe blank contamination appears to be laboratory related since most of the contaminants also appear in laboratory preparation blanks.

MATRIX SPIKE RECOVERIES

| | | | | | |
|-------------|---------|--------|--------|--|--|
| Sample No. | MC1005 | MC1016 | MC1007 | | |
| Field Spike | | | | | |
| Lab Spike | ✓ | ✓ | ✓ | | |
| Matrix | AQUEOUS | SOLID | SOLID | | |
| Conc. Level | Low | Low | Low | | |
| Method Std. | | | | | |
| Fraction | All | All | Pb+Cd | | |

All matrix spike recoveries were within the established control ranges specified in;
 IFB WA83-A196, Exhibit E, Table 2. ✓ Yes ___ No

Exception(s):

| <u>Parameter</u> | <u>Accepted Range (%)</u> | <u>Actual % Rec.</u> | <u>Sample Number</u> | <u>Org. Result</u> | <u>Spike Added</u> | <u>Spike Result</u> | <u>Units</u> |
|------------------|---------------------------|----------------------|----------------------|--------------------|--------------------|---------------------|--------------|
| Thallium | 75-120 | 54.7 | MC1007 | <10 | 75 | 41 | mg/kg |
| | | | | | | | |
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Comments: Standard Addition performed on outlier -

STANDARD ADDITION RESULTS

Documentation indicates a standard addition correction was performed on all spiked samples for parameters having recoveries outside of control limits: Yes No

For the parameters having poor recoveries in the spiked sample(s), standard additions were also performed on all other samples where the following conditions were met:

- (1) The sample matrix was similar to the matrix of the sample which was spiked; and
 - (2) The parameters in question were detected with positive results.
- Yes No

The parameters with poor spike recoveries are listed below, along with the type of standard addition performed (none, 1, 2, or 3 point). The results for these parameters in other samples which have a similar matrix are also listed below:

| sample | description of matrix | parameter | recovery | type of std. add. |
|--------|-----------------------|-----------|----------|-------------------|
| MC1007 | soil | Tl | * | * |
| | | | | |
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Comments: * Standard Addition was performed on sample to verify absence of thallium in the sample.

Duplicate Analysis Results

The applicable duplicate pairs are:

| | | | | | | |
|-----------------|---------|--------|--|--|--|--|
| sample no. | MC1005 | MC1007 | | | | |
| Field duplicate | | | | | | |
| Lab duplicate | ✓ | ✓ | | | | |
| sample level | low | low | | | | |
| sample matrix | Aqueous | Solid | | | | |
| Fraction | All | All | | | | |

The relative percent difference (RPD) for each parameter group was evaluated. The duplicate analysis RPD acceptance criteria should be:

| | |
|-----------------|-----------------------------|
| <u>Fraction</u> | <u>maximum acceptable</u> & |
| | <u>Percent Difference</u> |

The RPD's exceeding the maximum acceptable percent difference were: ^{20% - Aqueous} 40% - Solids

| <u>Fraction</u> | <u>Compound</u> | <u>Actual RPD</u> | <u>Comparison</u> | |
|-----------------|-----------------|-------------------|-------------------|----------------------|
| | | | <u>Sample</u> | <u>conc. conc.</u> |
| TASK I | Aluminum | 56.6 | MC1005 | 71 127 |
| | Iron | 75.5 | MC1005 | 108 239 |
| | Copper | 22.8 | MC1005 | 88 70 |
| | Lead | 131.9 | MC1015 | 39 8 |
| V | Mercury | 28.6 | MC1005 | 0.3 6.4 |
| | | | | |
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Comments: Aluminum not reported, all other values are very questionable due blank contamination

Initial Calibration Verification and Continuing Calibration Verification

Documentation indicates calibrations were performed and checked every ten samples:

Yes No

Exceptions: _____

Calibrations and verifications were all within the control limits specified in

68-01-6829 - WA83-A196

Yes No

Outliers are listed below:

| Parameter | Acceptable Range (%) | Calibration Identifier | % of True Value | Comments |
|-----------|----------------------|------------------------|-----------------|-----------------------|
| | | | | <i>all acceptable</i> |
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Interference QC Results

Documentation indicates interference QC samples were run before and after

SP1 runs

~~every ten samples~~: Yes No

Exceptions: *all acceptable*

Interference QC results were all within the control limits specified in

68-01-6829 WA83-A196

Yes No

Exceptions:

| Parameter | Acceptable Range (%) | Calibration Identifier | % of True Value | Comments |
|-----------|----------------------|------------------------|-----------------|-----------------------|
| | | | | <i>all acceptable</i> |
| | | | | |
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AR100093

INTERFERENCE STANDARDS (ICP)

CASE NUMBER 1915

| METALS | I.D. Chemtech Mix | | | ID | | | ID | | |
|-----------|-------------------|------|-------|-------|------|-------|-------|------|-------|
| | Found | True | % Rec | Found | True | % Rec | Found | True | % Rec |
| Aluminum | 436.8 | 500 | 87.4 | | | | | | |
| Boron | 454 | 500 | 90.8 | | | | | | |
| Barium | 421 | 500 | 84.2% | | | | | | |
| Beryllium | 388 | 500 | 77.6 | | | | | | |
| Calcium | 384 | 500 | 77 | | | | | | |
| Chromium | 419 | 500 | 83.8% | | | | | | |
| Cobalt | 373 | 500 | 74.6 | | | | | | |
| Copper | 517 | 500 | 103 | | | | | | |
| Iron | 359 | 500 | 72% | | | | | | |
| Magnesium | 354 | 500 | 71% | | | | | | |
| MANGANESE | 398 | 500 | 79.6 | | | | | | |
| Nickel | 385 | 500 | 77 | | | | | | |
| Silver | 457 | 500 | 91.4 | | | | | | |
| Sodium | 352 | 500 | 71% | | | | | | |
| VANADIUM | 428 | 500 | 85.6 | | | | | | |
| Zinc | 420 | 500 | 84 | | | | | | |

COMMENTS:

In general, recoveries were O.K. - no
real effect on data

Detection Limits Results

Detection limits were reported for all samples analyzed: Yes No

Exceptions: all d.l.'s reported

Detection limits were less than or equal to the required detection limits specified in 68-01 AB20 - WA83-A196. Yes No

Exceptions: Selenium detection is actually higher since lab has failed to demonstrate it can detect the required detection limit (lowest standard was at 2.5 times the reported D.L.)

Instrument Sensitivity Reports

Instrument sensitivity reports were documented for all parameters:

Yes No

Comments: No instrument sensitivity reports were reported

Other Remarks Concerning this Case:

There are currently no established control ranges for ICP interference check standards. However, although not a contractual requirement, 85% - 115% is used here as a tentative guideline for evaluation. Outliers of this tentative control range, if any, are tabulated on the bottom of the preceding page.

AR100095

APPENDIX E

AR100096

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: Lauche Testing Labs Case No: 1915
 Lab Sample ID No: 79617-133 QC Report No: 79617
 Sample Matrix: Water Contract No: WA-82-A069
 Data Release Authorized By: Mute Taha Date Sample Received: 7/28/83

SEMIVOLATILE COMPOUNDS

CONCENTRATION: LOW MEDIUM HIGH (circle one)
 DATE EXTRACTED/PREPARED: 8/3/83
 DATE ANALYZED: 8/19/83
 PERCENT MOISTURE: _____

| PP # | CAS # | <u>mg/l</u> or <u>ug/kg</u> (circle one) | PP # | CAS # | <u>mg/l</u> or <u>ug/kg</u> (circle one) |
|-------|------------|--|-------|----------|--|
| (21A) | 88-06-2 | | (52B) | 87-61-3 | |
| (22A) | 95-90-7 | | (53B) | 77-47-4 | |
| (24A) | 95-57-8 | | (54B) | 78-75-1 | |
| (31A) | 120-83-2 | | (55B) | 91-20-3 | |
| (34A) | 105-67-9 | | (56B) | 98-95-3 | |
| (57A) | 88-73-5 | | (62B) | 86-30-6 | |
| (58A) | 100-02-7 | | (63B) | 621-61-7 | |
| (59A) | 51-28-5 | | (66B) | 117-81-7 | |
| (60A) | 534-52-1 | | (67B) | 85-61-7 | |
| (64A) | 87-86-5 | | (68B) | 84-74-2 | |
| (65A) | 108-93-2 | | (69B) | 117-84-0 | |
| | 65-85-0 | | (70B) | 84-66-2 | |
| | 95-48-7 | | (71B) | 131-11-3 | |
| | 108-39-4 | | (72B) | 56-55-3 | |
| | 95-95-4 | | (73B) | 50-32-8 | |
| (1B) | 83-32-9 | | (74B) | 205-99-2 | |
| (5B) | 92-87-5 | | (75B) | 207-08-9 | |
| (8B) | 120-82-1 | | (76B) | 218-01-9 | |
| (9B) | 118-74-1 | | (77B) | 208-96-8 | |
| (12B) | 67-72-1 | | (78B) | 120-12-7 | |
| (18B) | 111-44-4 | | (79B) | 191-24-2 | |
| (20B) | 91-58-7 | | (80B) | 86-73-7 | |
| (25B) | 95-90-1 | | (81B) | 85-01-8 | |
| (26B) | 541-73-1 | | (82B) | 53-70-3 | |
| (27B) | 106-46-7 | | (83B) | 193-39-5 | |
| (28B) | 91-94-1 | | (84B) | 129-00-0 | |
| (35B) | 121-14-2 | | | 62-53-3 | |
| (36B) | 606-20-2 | | | 100-51-6 | |
| (37B) | 122-66-7 | | | 106-47-8 | |
| (39B) | 206-44-0 | | | 132-64-9 | |
| (40B) | 7005-72-3 | | | 91-57-6 | |
| (41B) | 101-55-3 | | | 88-74-8 | |
| (42B) | 39638-32-9 | | | 99-09-2 | |
| (43B) | 111-91-1 | | | 100-01-6 | |

13747

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: Lanthe Testing Lab
Lab Sample ID No: 79617-133
Sample Matrix: water
Data Release Authorized By: Mulu Tulu

Case No: 1915
QC Report No: 79617
Contract No: WA-82-A069
Date Sample Received: 8/28/83

VOLATILES

CONCENTRATION: LOW MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 8/5/83
DATE ANALYZED: 8/5/83
PERCENT MOISTURE: _____

| PP # | CAS # | | or ug/g (circle one) |
|-------|-------------|---------------------------|-------------------------|
| (2V) | 107-02-8 | acrolein | |
| (3V) | 107-13-1 | acrylonitrile | |
| (4V) | 71-43-2 | benzene | |
| (6V) | 56-23-5 | carbon tetrachloride | |
| (7V) | 108-90-7 | chlorobenzene | |
| (10V) | 107-06-2 | 1,2-dichloroethane | |
| (11V) | 71-55-6 | 1,1,1-trichloroethane | |
| (13V) | 75-34-3 | 1,1-dichloroethane | |
| (14V) | 79-00-5 | 1,1,2-trichloroethane | |
| (15V) | 79-34-5 | 1,1,2,2-tetrachloroethane | |
| (16V) | 75-00-3 | chloroethane | |
| (19V) | 110-75-8 | 2-chloroethylvinyl ether | |
| (23V) | 67-66-3 | chloroform | |
| (29V) | 75-35-4 | 1,1-dichloroethane | |
| (30V) | 126-60-5 | trans-1,2-dichloroethane | |
| (32V) | 78-87-5 | 1,2-dichloropropane | |
| (33V) | 10061-02-6 | trans-1,3-dichloropropane | |
| | 10061-01-05 | cis-1,3-dichloropropane | |
| (38V) | 100-41-4 | ethylbenzene | |
| (44V) | 75-09-2 | methylene chloride | <u>ND-B</u> |
| (45V) | 74-87-3 | chloromethane | |
| (46V) | 74-83-9 | bromomethane | |
| (47V) | 75-25-2 | bromoform | |
| (48V) | 75-27-4 | bromodichloromethane | |
| (49V) | 75-69-4 | fluorotrichloromethane | |
| (50V) | 75-71-8 | dichlorodifluoromethane | |
| (51V) | 124-48-1 | chlorodibromomethane | |
| (85V) | 127-18-4 | tetrachloroethane | |
| (86V) | 106-88-3 | toluene | |
| (87V) | 79-01-6 | trichloroethane | |
| (88V) | 75-01-4 | vinyl chloride | |
| | 67-64-1 | acetone | <u>ND-B</u> |
| | 78-93-3 | 2-butanone | |
| | 75-15-0 | carbonyl sulfide | |
| | 515-78-6 | 2-hexanone | |
| | 108-10-1 | 4-methyl-2-pentanone | |
| | 100-42-5 | styrene | |
| | 108-05-4 | vinyl acetate | |

PESTICIDES

CONCENTRATION: LOW MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 8/30/84
DATE ANALYZED: 8/30/84
PERCENT MOISTURE: N/A

| PP # | CAS # | | or ug/g (circle one) |
|--------|------------|--------------------|-------------------------|
| (89P) | 309-00-2 | aldrin | |
| (90P) | 68-37-1 | dieldrin | |
| (91P) | 57-74-9 | chlordane | |
| (92P) | 30-29-3 | 4,4-DDT | |
| (93P) | 72-55-9 | 4,4-DDE | |
| (94P) | 72-54-8 | 4,4-DDO | |
| (95P) | 115-29-7 | α-endosulfan | |
| (96P) | 115-29-7 | β-endosulfan | |
| (97P) | 1031-07-8 | endosulfan sulfate | |
| (98P) | 72-20-8 | endrin | |
| (99P) | 7421-93-4 | endrin aldehyde | |
| (100P) | 76-84-8 | heptachlor | |
| (101P) | 1024-37-3 | heptachlor epoxide | |
| (102P) | 319-84-6 | γ-BHC | |
| (103P) | 319-85-7 | δ-BHC | |
| (104P) | 319-86-8 | ε-BHC | |
| (105P) | 58-89-9 | ✓-BHC (lindane) | |
| (106P) | 53469-21-9 | PCB-1242 | |
| (107P) | 11097-69-1 | PCB-1254 | |
| (108P) | 11104-28-2 | PCB-1221 | |
| (109P) | 11141-16-5 | PCB-1232 | |
| (110P) | 12672-29-6 | PCB-1248 | |
| (111P) | 11096-82-5 | PCB-1260 | |
| (112P) | 12674-11-2 | PCB-1016 | |
| (113P) | 8001-35-2 | toxaphene | |

DIOXINS

CONCENTRATION: LOW MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 8/30/84
DATE ANALYZED: 8/30/84-22
PERCENT MOISTURE: N/A

| PP # | CAS # | | or ug/g (circle one) |
|--------|-----------|-------------------------------------|-------------------------|
| (129B) | 1746-01-6 | 2,3,7,8-tetrachlorodibenzo-p-dioxin | |

AR100098

or ug/g
(circle one)
July

Sample Number

C3747

Laboratory Name: Laucks Testing Laboratories, Inc.

Case No 1916

B. Tentatively Identified Compounds

| CAS # | COMPOUND NAME | Fraction | Scan No | (Max Score on Mass Matching Routine(FIT) | Estimated Concentration (ug/L or ug/kg) |
|----------|-----------------------------|----------|---------|--|---|
| 286-20-4 | 7-Oxabicyclo [4.1.0]heptane | BAW | 456 | 955 | 10 J |
| 344-04-7 | Bromopentafluorobenzene | BAW | 464 | 947 | 6 J |
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AR100099

C3748

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: Laufer Testing Labs
Lab Sample ID No: FL170134
Sample Matrix: Water
Data Release Authorized By: Mike Tulin

Case No: 1915
QC Report No: 79617
Contract No: WA-82-A069
Date Sample Received: 7/28/83

VOLATILES

PESTICIDES

CONCENTRATION: LOW MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 8/5/83
DATE ANALYZED: 8/5
PERCENT MOISTURE: _____

CONCENTRATION: LOW MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 830804
DATE ANALYZED: 830819
PERCENT MOISTURE: N/A

| FP # | CAS # | Chemical Name | Concentration |
|-------|-------------|---------------------------|---------------|
| (2V) | 187-03-8 | acrolein | |
| (3V) | 187-13-1 | acrylonitrile | |
| (4V) | 71-43-2 | benzene | |
| (6V) | 56-23-5 | carbon tetrachloride | |
| (7V) | 108-90-7 | chlorobenzene | |
| (10V) | 187-06-2 | 1,2-dichloroethane | |
| (11V) | 71-55-6 | 1,1,1-trichloroethane | |
| (13V) | 75-34-3 | 1,1-dichloroethane | |
| (14V) | 79-06-5 | 1,1,2-trichloroethane | |
| (15V) | 79-34-5 | 1,1,2,2-tetrachloroethane | |
| (16V) | 75-00-3 | chloroethane | |
| (19V) | 110-75-8 | 2-chloroethylvinyl ether | |
| (23V) | 67-66-3 | chloroform | |
| (29V) | 75-35-4 | 1,1-dichloroethane | |
| (30V) | 156-60-5 | trans-1,2-dichloroethane | |
| (32V) | 78-27-5 | 1,2-dichloropropane | |
| (33V) | 10061-02-6 | trans-1,3-dichloropropane | |
| | 10061-01-05 | cis-1,3-dichloropropane | |
| (38V) | 100-41-4 | ethylbenzene | |
| (44V) | 75-09-2 | methylene chloride | ND-B |
| (45V) | 74-37-3 | chloromethane | |
| (46V) | 74-83-9 | bromomethane | |
| (47V) | 75-25-2 | bromoform | |
| (48V) | 75-27-4 | bromodichloromethane | |
| (49V) | 75-69-4 | fluorotrichloromethane | |
| (50V) | 75-71-8 | dichlorodifluoromethane | |
| (51V) | 124-42-1 | chlorodibromomethane | |
| (85V) | 127-18-4 | tetrachloroethane | |
| (86V) | 108-88-3 | toluene | |
| (87V) | 79-01-6 | trichloroethane | |
| (88V) | 75-01-4 | vinyl chloride | |
| | 67-64-1 | acetone | ND-B |
| | 72-93-3 | 2-butanone | |
| | 75-15-8 | carbon disulfide | |
| | 513-78-6 | 2-hexanone | |
| | 108-10-1 | 4-methyl-2-pentanone | |
| | 108-42-5 | styrene | |
| | 108-05-4 | vinyl acetate | |

| FP # | CAS # | Chemical Name | Concentration |
|--------|------------|--------------------|---------------|
| (83P) | 309-00-2 | aldrin | |
| (90P) | 60-57-1 | dieldrin | |
| (91P) | 57-74-9 | chlordane | |
| (92P) | 50-29-3 | 4,4'-DDT | |
| (93P) | 72-55-9 | 4,4'-DDE | |
| (94P) | 72-54-8 | 4,4'-DDD | |
| (95P) | 115-29-7 | α-endosulfan | |
| (96P) | 115-29-7 | β-endosulfan | |
| (97P) | 1031-07-8 | endosulfan sulfate | |
| (98P) | 72-20-8 | endrin | |
| (99P) | 7421-93-4 | endrin aldehyde | |
| (100P) | 76-44-8 | heptachlor | |
| (101P) | 1024-57-3 | heptachlor epoxide | |
| (102P) | 319-84-6 | α-BHC | |
| (103P) | 319-85-7 | β-BHC | |
| (104P) | 319-86-8 | γ-BHC | |
| (105P) | 58-89-9 | δ-BHC (lindane) | |
| (106P) | 53469-21-9 | PCB-1242 | |
| (107P) | 11097-69-1 | PCB-1254 | |
| (108P) | 11104-28-2 | PCB-1221 | |
| (109P) | 11181-16-5 | PCB-1232 | |
| (110P) | 12672-29-6 | PCB-1248 | |
| (111P) | 11096-82-5 | PCB-1260 | |
| (112P) | 12674-11-2 | PCB-1016 | |
| (113P) | 8001-35-2 | toxaphene | |

DIOXINS

CONCENTRATION: LOW MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 830804
DATE ANALYZED: 830821-22
PERCENT MOISTURE: N/A

| FP # | CAS # | Chemical Name | Concentration |
|--------|-----------|-------------------------------------|---------------|
| (129B) | 1746-01-6 | 2,3,7,8-tetrachlorodibenzo-p-dioxin | |

AR100100

July 11

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: Laurel Testing Labs
 Lab Sample ID No: 79617-134
 Sample Matrix: Water
 Data Release Authorized By: Mike Wilson

Case No: 1915
 QC Report No: 79617
 Contract No: WA-82-A069
 Date Sample Received: 7/28/83

SEMIVOLATILE COMPOUNDS

CONCENTRATION: LOW MEDIUM HIGH (circle one)
 DATE EXTRACTED/PREPARED: 8/5/83
 DATE ANALYZED: 8/22/83
 PERCENT MOISTURE: _____

| PP # | CAS # | NAME |
|-------|------------|------------------------------|
| (21A) | 88-06-2 | 2,4,6-trichlorophenol |
| (22A) | 99-90-7 | p-chloro-m-cresol |
| (24A) | 95-57-8 | 2-chlorophenol |
| (31A) | 120-83-2 | 2,4-dichlorophenol |
| (34A) | 103-67-9 | 2,4-dimethylphenol |
| (57A) | 88-75-5 | 2-nitrophenol |
| (58A) | 100-02-7 | 4-nitrophenol |
| (59A) | 51-28-5 | 2,4-dinitrophenol |
| (60A) | 534-52-1 | 4,6-dinitro-2-methylphenol |
| (64A) | 87-86-5 | pentachlorophenol |
| (65A) | 108-95-2 | phenol |
| | 63-85-0 | benzoic acid |
| | 95-48-7 | 2-methylphenol |
| | 108-39-6 | 4-methylphenol |
| | 95-95-4 | 2,4,5-trichlorophenol |
| (1B) | 83-32-9 | acenaphthene |
| (5B) | 92-87-5 | benzidine |
| (8B) | 120-82-1 | 1,2,4-trichlorobenzene |
| (9B) | 118-74-1 | hexachlorobenzene |
| (12B) | 67-72-1 | hexachloroethane |
| (18B) | 111-44-4 | bis(2-chloroethyl)ether |
| (20B) | 91-38-7 | 2-chloronaphthalene |
| (25B) | 95-90-1 | 1,2-dichlorobenzene |
| (26B) | 541-73-1 | 1,3-dichlorobenzene |
| (27B) | 106-46-7 | 1,4-dichlorobenzene |
| (28B) | 91-94-1 | 3,3'-dichlorobenzidine |
| (35B) | 121-14-2 | 2,4-dinitrotoluene |
| (36B) | 606-20-2 | 2,6-dinitrotoluene |
| (37B) | 122-66-7 | 1,2-diphenylhydrazine |
| (39B) | 206-84-0 | fluoranthene |
| (40B) | 7005-72-3 | 4-chlorophenyl phenyl ether |
| (41B) | 101-55-3 | 4-bromophenyl phenyl ether |
| (42B) | 39638-32-9 | bis(2-chloroisopropyl) ether |
| (43B) | 111-91-1 | bis(2-chloroethoxy) methane |

mg/l
(circle one)

| PP # | CAS # | NAME |
|-------|-----------|-----------------------------|
| (52B) | 87-61-5 | hexachlorobutadiene |
| (53B) | 77-47-4 | hexachlorocyclopentadiene |
| (54B) | 78-79-1 | isophorone |
| (55B) | 91-20-3 | naphthalene |
| (56B) | 98-95-3 | nitrobenzene |
| (62B) | 86-31-6 | N-nitrosodiphenylamine |
| (63B) | 621-61-7 | N-nitrosodipropylamine |
| (64B) | 117-81-7 | bis(2-ethylhexyl) phthalate |
| (67B) | 85-61-7 | benzyl butyl phthalate |
| (68B) | 84-70-2 | di-n-butyl phthalate |
| (69B) | 117-81-0 | di-n-octyl phthalate |
| (70B) | 84-61-2 | diethyl phthalate |
| (71B) | 131-11-3 | dimethyl phthalate |
| (72B) | 56-51-3 | benzo(a)anthracene |
| (73B) | 50-31-8 | benzo(a)pyrene |
| (74B) | 205-91-2 | benzo(b)fluoranthene |
| (75B) | 207-011-9 | benzo(k)fluoranthene |
| (76B) | 218-011-9 | chrysene |
| (77B) | 208-91-8 | acenaphthylene |
| (78B) | 120-117-7 | anthracene |
| (79B) | 191-211-2 | benzo(ghi)perylene |
| (80B) | 86-717-7 | fluorene |
| (81B) | 85-011-8 | phenanthrene |
| (82B) | 53-711-3 | dibenzo(a,h)anthracene |
| (83B) | 193-911-5 | indeno(1,2,3-cd)pyrene |
| (84B) | 129-011-0 | pyrene |
| | 62-511-3 | aniline |
| | 100-511-6 | benzyl alcohol |
| | 106-471-8 | 4-chloroaniline |
| | 132-611-9 | dibenzofuran |
| | 91-571-6 | 2-methylnaphthalene |
| | 88-711-4 | 2-nitroaniline |
| | 99-011-2 | 3-nitroaniline |
| | 100-011-6 | 4-nitroaniline |

mg/l
(circle one)

AR100101

Sample Number
C3748

Laboratory Name: Laucks Testing Laboratories, Inc.

Case No 1915

B. Tentatively Identified Compounds

| CAS # | COMPOUND NAME | Fraction | Scan No | XMax Score on Mass Matching Routine(FT) | Estimated Concentration (ug/L) or ug/kg) |
|-----------------|-----------------------------------|------------|------------|--|--|
| <u>286-20-4</u> | <u>7-Oxabicyclo[4.1.0]heptane</u> | <u>RAW</u> | <u>466</u> | <u>922</u> | <u>7 J</u> |
| <u>344-04-7</u> | <u>Bromopentafluorobenzene</u> | <u>RAW</u> | <u>475</u> | <u>893</u> | <u>5 J</u> |
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Handwritten note in a box:
12/15/83
M

David M. Speer

Sample Number
C3749

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: ETC Corp Case No: 1915
 Lab Sample ID: CR353 QC Report No: _____

Multiply Detection Limits by 1 or 10 (Check Box for Appropriate Factor)

ACID COMPOUNDS

| PP # | CAS # | Compound Name | Concentration (ug/l) |
|-------|----------|----------------------------|----------------------|
| (21A) | 88-06-2 | 2,4,6-trichlorophenol | 800 U |
| (22A) | 99-30-7 | p-chloro-m-cresol | 800 U |
| (24A) | 95-37-5 | 2-chlorophenol | 800 U |
| (31A) | 120-83-2 | 2,4-dichlorophenol | 800 U |
| (36A) | 103-67-9 | 2,4-dimethylphenol | 800 U |
| (37A) | 88-75-3 | 2-nitrophenol | 800 U |
| (38A) | 100-02-7 | 4-nitrophenol | 800 U |
| (39A) | 31-28-3 | 2,4-dinitrophenol | 800 U |
| (40A) | 534-52-1 | 4,6-dinitro-2-methylphenol | 800 U |
| (46A) | 37-36-3 | pentachlorophenol | 800 U |
| (63A) | 108-95-2 | phenol | 800 U |

BASE/NEUTRAL COMPOUNDS

| PP # | CAS # | Compound Name | Concentration (ug/l) |
|-------|----------|------------------------|----------------------|
| (73B) | 90-32-8 | benz(a)pyrene | 400 U |
| (74B) | 203-99-2 | benz(b)fluoranthene | 400 U |
| (75B) | 207-08-9 | benz(k)fluoranthene | 400 U |
| (76B) | 218-01-9 | chrysene | 400 U |
| (77B) | 208-96-8 | acenaphthylene | 400 U |
| (78B) | 120-12-7 | anthracene | 400 U |
| (79B) | 191-26-2 | benz(g)hperylene | 400 U |
| (80B) | 86-73-7 | fluorene | 400 U |
| (81B) | 85-01-8 | phenanthrene | 400 U |
| (82B) | 53-70-3 | quinoxaline | 400 U |
| (83B) | 193-39-5 | indeno(1,2,3-cd)pyrene | 400 U |
| (84B) | 129-05-0 | pyrene | 400 U |

BASE/NEUTRAL COMPOUNDS

| | | | |
|--------|------------|------------------------------|-------|
| (18) | 83-32-9 | acenaphthene | 400 U |
| (37) | 97-57-5 | benzidine | 400 U |
| (38) | 120-82-1 | 1,2-dichlorobenzene | 400 U |
| (98) | 118-74-1 | hexachlorobenzene | 400 U |
| (128) | 67-72-1 | hexachlorocyclopentadiene | 400 U |
| (138) | 111-46-4 | hex(2-chloroethyl)amine | 400 U |
| (20B) | 91-38-7 | 2-chloronaphthalene | 400 U |
| (23B) | 95-50-1 | 1,2-dichlorobenzene | 400 U |
| (26B) | 98-173-1 | 1,3-dichlorobenzene | 400 U |
| (27B) | 106-46-7 | 1,4-dichlorobenzene | 400 U |
| (28B) | 91-94-1 | 3,3'-dichlorobenzidine | 400 U |
| (33B) | 121-14-2 | 2,4-dinitrotoluene | 400 U |
| (36B) | 606-20-2 | 2,6-dinitrotoluene | 400 U |
| (37B) | 122-66-7 | 1,2-diphenylhydrazine | 400 U |
| (39B) | 206-44-0 | fluoranthene | 400 U |
| (40B) | 7003-72-3 | 4-chlorophenyl phenyl ether | 400 U |
| (41B) | 101-39-3 | 4-bromophenyl phenyl ether | 400 U |
| (42B) | 38634-32-9 | bis(2-chloroisopropyl) ether | 400 U |
| (43B) | 111-91-1 | bis(2-chloroethoxy) methane | 400 U |
| (44B) | 67-48-3 | hexachlorocyclopentadiene | 400 U |
| (45B) | 77-47-6 | hexachlorocyclopentadiene | 400 U |
| (46B) | 78-74-1 | dechlorane | 400 U |
| (49B) | 91-20-1 | naphthalene | 400 U |
| (50B) | 98-95-1 | nitrobenzene | 400 U |
| (427B) | 88-36-4 | N-nitrosodiphenylamine | 400 U |
| (437B) | 62-46-7 | N-nitrosodipropylamine | 400 U |
| (468B) | 117-81-7 | bis(2-ethylhexyl) phthalate | 400 U |
| (478B) | 85-68-7 | benzyl butyl phthalate | 400 U |
| (488B) | 36-78-2 | dimethyl phthalate | 400 U |
| (498B) | 117-84-0 | di-n-octyl phthalate | 400 U |
| (508B) | 86-86-2 | dibutyl phthalate | 400 U |
| (518B) | 131-11-3 | dumetone phthalate | 400 U |
| (72B) | 36-35-3 | benz(a)anthracene | 400 U |

VOLATILES

| | | | |
|-------|-------------|---------------------------|--------|
| (2V) | 107-02-8 | acrolein | 50 U |
| (3V) | 107-13-1 | acrylonitrile | 50 U |
| (4V) | 71-43-2 | benzene | 4.5 U |
| (6V) | 56-23-3 | carbon tetrachloride | 4.5 U |
| (7V) | 108-90-7 | chlorobenzene | 4.5 U |
| (10V) | 107-06-2 | 1,2-dichloroethane | 4.5 U |
| (11V) | 71-35-6 | 1,1,1-trichloroethane | 4.5 U |
| (13V) | 75-34-3 | 1,1-dichloroethane | 4.5 U |
| (14V) | 79-00-3 | 1,1,2-trichloroethane | 4.5 U |
| (15V) | 79-34-3 | 1,1,2,2-tetrachloroethane | 4.5 U |
| (16V) | 75-00-3 | chloroethane | 4.5 U |
| (19V) | 110-75-2 | 2-chloroethyl vinyl ether | 4.5 U |
| (23V) | 67-46-3 | chloroform | 4.5 U |
| (29V) | 75-35-6 | 1,1-dichloroethane | 4.5 U |
| (30V) | 136-40-3 | trans-1,2-dichloroethane | 4.5 U |
| (32V) | 78-57-3 | 1,2-dichloropropane | 4.5 U |
| (33V) | 10061-02-6 | trans-1,3-dichloropropane | 4.5 U |
| | 10061-01-05 | cis-1,3-dichloropropane | 4.5 U |
| (38V) | 100-41-4 | ethylbenzene | 4.5 U |
| (44V) | 75-09-2 | methylene chloride | 16.5 U |
| (45V) | 78-67-3 | chloromethane | 4.5 U |
| (46V) | 74-83-9 | bromomethane | 4.5 U |
| (47V) | 75-25-2 | iodoform | 4.5 U |
| (48V) | 75-27-6 | bromo-dichloromethane | 4.5 U |
| (49V) | 75-49-6 | fluoro-dichloromethane | 12.4 U |
| (50V) | 75-71-8 | dichlorodifluoromethane | 4.5 U |
| (51V) | 128-48-1 | chlorodibromomethane | 4.5 U |
| (53V) | 127-18-6 | tetrachloroethene | 4.5 U |
| (56V) | 108-88-3 | toluene | 4.5 U |
| (57V) | 79-01-6 | trichloroethene | 4.5 U |
| (58V) | 75-01-6 | vinyl chloride | 4.5 U |

FORM II

0012 AR100103

ORGANIC ANALYSIS DATA SHEET Page 2

David M. Speil
1915

Sample Number
C3749

Company Name: ETC CORP
Sample Lab. No.: C8353

Case No.: 1915
QC Report No.: _____

Multiply Detection Limits by 1 or 10 (Check Box for Appropriate Factor)

PESTICIDES

| PP# | CAS# | NAME | DL (circle one) |
|-----|-----------|-----------------------------|--------------------|
| PP# | 309-55-7 | aldrin | 400 u |
| PP# | 68-57-1 | dieldrin | 400 u |
| PP# | 59-78-9 | γ-hexachlorocyclopentadiene | 20000 u |
| PP# | 58-75-3 | δ-hexachlorocyclopentadiene | 400 u |
| PP# | 77-33-9 | δ-hexachlorocyclopentadiene | 400 u |
| PP# | 77-33-9 | δ-hexachlorocyclopentadiene | 400 u |
| PP# | 77-33-9 | δ-hexachlorocyclopentadiene | 400 u |
| PP# | 115-29-7 | γ-hexachlorocyclopentadiene | 400 u |
| PP# | 115-29-7 | γ-hexachlorocyclopentadiene | 400 u |
| PP# | 1031-07-3 | endosulfan sulfate | 400 u |
| PP# | 77-20-3 | methidathion | 400 u |
| PP# | 7821-93-8 | methidathion | 400 u |
| PP# | 76-44-3 | heptachlor | 400 u |
| PP# | 1026-57-3 | heptachlor epoxide | 400 u |
| PP# | 319-34-6 | γ-BHC | 400 u |

PESTICIDES

| PP# | CAS# | NAME | DL (circle one) |
|--------|------------|------------------|--------------------|
| (103P) | 319-34-7 | γ-BHC | 400 u |
| (104P) | 319-34-8 | δ-BHC | 400 u |
| (105P) | 32-89-9 | γ-BHC (linoleic) | 400 u |
| (106P) | 53468-21-9 | PCB-1262 | 20000 u |
| (107P) | 11097-69-1 | PCB-1254 | 20000 u |
| (108P) | 11104-23-2 | PCB-1221 | 20000 u |
| (109P) | 11101-16-3 | PCB-1232 | 20000 u |
| (110P) | 12672-29-6 | PCB-1248 | 20000 u |
| (111P) | 11096-82-9 | PCB-1260 | 20000 u |
| (112P) | 12674-11-2 | PCB-1016 | 20000 u |
| (113P) | 8001-35-2 | toxaphene | 20000 u |

DIOXINS

(129B) 1746-01-6 2,3,7,8-tetrachlorodibenzo-p-dioxin 1700 ~~u~~

Non-Priority Pollutant Hazardous Substances List Compounds

ACID COMPOUNDS

| CAS# | NAME | DL (circle one) |
|----------|-----------------------------|------------------|
| 63-25-3 | benzoic acid | 800 u |
| 75-48-7 | 2-methoxyphenol | 800 u |
| 105-79-4 | 4-methoxyphenol | 800 u |
| 75-95-4 | 2,4,5-trichlorophenoic acid | 800 u |

BASE/NEUTRAL COMPOUNDS

| | | |
|----------|-------------------|------------------|
| 62-33-3 | aniline | 400 u |
| 106-31-6 | benzyl alcohol | 400 u |
| 106-47-3 | benzylamine | 400 u |
| 132-64-9 | benzothiazole | 400 u |
| 91-77-4 | 2-methylimidazole | 400 u |
| 88-76-4 | 2-imidazole | 400 u |
| 99-29-2 | 3-imidazole | 400 u |
| 100-01-4 | 4-imidazole | 400 u |

VOLATILES

| CAS# | NAME | DL (circle one) |
|----------|----------------------|------------------|
| 67-64-1 | acetone | 5.8 u |
| 78-93-3 | 2-butanone | 4.5 u |
| 75-15-0 | carbon disulfide | 4.5 u |
| 319-78-6 | 2-hexanone | 4.5 u |
| 108-10-1 | 4-methyl-2-pentanone | 4.5 u |
| 100-42-5 | styrene | 4.5 u |
| 108-25-8 | vinyl acetate | 4.5 u |
| 95-47-6 | o-xylene | 4.5 u |

FORM II (continued)

0013

AR100104

C3750

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: Lauch Testing Labs
 Lab Sample ID No: 79617-135
 Sample Matrix: Water
 Data Release Authorized By: Mike Nelson

Case No: 1915
 QC Report No: 79617
 Contract No: WA-82-A069
 Date Sample Received: 7/28/83

VOLATILES

CONCENTRATION: LOW MEDIUM HIGH (circle one)
 DATE EXTRACTED/PREPARED: 8/5
 DATE ANALYZED: 8/5
 PERCENT MOISTURE: _____

PESTICIDES

CONCENTRATION: LOW MEDIUM HIGH (circle one)
 DATE EXTRACTED/PREPARED: 830804
 DATE ANALYZED: 830819
 PERCENT MOISTURE: _____

| FP # | CAS # | Chemical Name | Concentration |
|-------|-------------|---------------------------|---------------|
| (2V) | 107-02-8 | acrolein | u/l |
| (3V) | 107-13-1 | acrylonitrile | |
| (4V) | 71-43-2 | benzene | R |
| (6V) | 56-23-5 | carbon tetrachloride | |
| (7V) | 108-90-7 | chlorobenzene | |
| (10V) | 107-06-2 | 1,2-dichloroethane | |
| (11V) | 71-55-6 | 1,1,1-trichloroethane | |
| (13V) | 75-34-3 | 1,1-dichloroethane | |
| (14V) | 79-00-5 | 1,1,2-trichloroethane | |
| (15V) | 79-34-3 | 1,1,2,2-tetrachloroethane | |
| (16V) | 75-00-3 | chloroethane | |
| (19V) | 110-75-8 | 2-chloroethylvinyl ether | |
| (23V) | 67-66-3 | chloroform | |
| (29V) | 75-35-4 | 1,1-dichloroethane | |
| (30V) | 136-60-3 | trans-1,2-dichloroethane | |
| (32V) | 78-87-5 | 1,2-dichloropropane | |
| (33V) | 10061-02-6 | trans-1,3-dichloropropane | |
| | 10061-01-05 | cis-1,3-dichloropropane | |
| (38V) | 100-41-4 | ethylbenzene | |
| (44V) | 75-09-2 | methylene chloride | 114 B |
| (45V) | 74-87-3 | chloromethane | |
| (46V) | 74-83-9 | bromomethane | |
| (47V) | 75-25-2 | bromoform | |
| (48V) | 75-27-4 | bromodichloromethane | |
| (49V) | 75-49-4 | fluorotrichloromethane | |
| (50V) | 75-71-8 | dichlorodifluoromethane | |
| (51V) | 129-45-1 | chlorodibromomethane | |
| (85V) | 127-18-4 | tetrachloroethane | |
| (86V) | 108-88-3 | toluene | |
| (87V) | 79-01-6 | trichloroethane | |
| (88V) | 75-01-4 | vinyl chloride | |
| | 67-64-1 | acetone | ND-B |
| | 78-93-3 | 2-butanone | |
| | 75-15-0 | carbonylsulfide | |
| | 519-72-6 | 2-hexanone | |
| | 108-10-1 | 4-methyl-2-pentanone | |
| | 100-42-5 | styrene | |
| | 108-05-4 | vinyl acetate | |

| FP # | CAS # | Chemical Name | Concentration |
|--------|------------|--------------------|---------------|
| (89P) | 309-10-2 | aldrin | |
| (90P) | 60-17-1 | dieldrin | |
| (91P) | 57-14-9 | chlordane | |
| (92P) | 50-15-3 | 4,4-DDT | |
| (93P) | 72-35-9 | 4,4-DDE | |
| (94P) | 72-34-8 | 4,4-DDD | |
| (95P) | 115-29-7 | α-endosulfan | |
| (96P) | 115-29-7 | β-endosulfan | |
| (97P) | 1031-07-8 | endosulfan sulfate | |
| (98P) | 72-20-8 | endrin | |
| (99P) | 7821-93-4 | endrin aldehyde | |
| (100P) | 76-44-8 | heptachlor | |
| (101P) | 1024-57-3 | heptachlor epoxide | |
| (102P) | 319-84-6 | γ-BHC | |
| (103P) | 319-85-7 | β-BHC | |
| (104P) | 319-86-8 | δ-BHC | |
| (105P) | 58-89-9 | ✓-BHC (lindane) | |
| (106P) | 53469-21-9 | PCB-1262 | |
| (107P) | 11097-69-1 | PCB-1254 | |
| (108P) | 11104-21-2 | PCB-1221 | |
| (109P) | 11141-16-5 | PCB-1232 | |
| (110P) | 12672-29-6 | PCB-1248 | |
| (111P) | 11096-87-5 | PCB-1260 | |
| (112P) | 12674-11-2 | PCB-1016 | |
| (113P) | 8001-31-2 | toxaphene | |

DIOXINS

CONCENTRATION: LOW MEDIUM HIGH (circle one)
 DATE EXTRACTED/PREPARED: 830804
 DATE ANALYZED: 830821-22
 PERCENT MOISTURE: _____

| FP # | CAS # | Chemical Name | Concentration |
|--------|-----------|-------------------------------------|---------------|
| (129B) | 1746-01-6 | 2,3,7,8-tetrachlorodibenzo-p-dioxin | ug/l |

AR100105

July 15

Sample Number
C3750

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: Lauchs Testing Labs
 Lab Sample ID No: 79618-135
 Sample Matrix: water
 Data Release Authorized By: M. L. C. C.

Case No: 1915
 QC Report No: 79617
 Contract No.: WA-82-A069
 Date Sample Received: 7/28/83

SEMIVOLATILE COMPOUNDS

CONCENTRATION: LOW MEDIUM HIGH (circle one)
 DATE EXTRACTED/PREPARED: 8/3/83
 DATE ANALYZED: 8/23/83
 PERCENT MOISTURE: _____

| PP # | CAS # | NAME | (circle one) or ug/kg |
|-------|------------|------------------------------|--------------------------|
| (21A) | 88-06-2 | 2,4,6-trichlorophenol | |
| (22A) | 95-93-7 | p-chloro-m-cresol | |
| (28A) | 95-57-8 | 2-chlorophenol | |
| (31A) | 120-83-2 | 2,4-dichlorophenol | |
| (34A) | 105-67-9 | 2,4-dimethylphenol | |
| (57A) | 88-75-5 | 2-nitrophenol | |
| (58A) | 100-02-7 | 4-nitrophenol | |
| (79A) | 51-28-5 | 2,4-dinitrophenol | |
| (60A) | 534-52-1 | 4,6-dinitro-2-methylphenol | |
| (64A) | 87-86-5 | pentachlorophenol | |
| (65A) | 108-95-2 | phenol | |
| | 65-85-0 | benzoic acid | |
| | 95-48-7 | 2-methylphenol | |
| | 108-39-4 | 4-methylphenol | |
| | 95-95-4 | 2,4,5-trichlorophenol | |
| (18) | 83-32-9 | acenaphthene | |
| (9B) | 92-87-5 | benzidine | |
| (8B) | 120-82-1 | 1,2,4-trichlorobenzene | |
| (9B) | 118-74-1 | hexachlorobenzene | |
| (12B) | 67-72-1 | hexachloroethane | |
| (18B) | 111-84-4 | bis(2-chloroethyl)ether | |
| (20B) | 91-58-7 | 2-chloronaphthalene | |
| (25B) | 95-50-1 | 1,2-dichlorobenzene | |
| (26B) | 94-73-1 | 1,3-dichlorobenzene | |
| (27B) | 106-46-7 | 1,4-dichlorobenzene | |
| (28B) | 91-94-1 | 3,3'-dichlorobenzidine | |
| (35B) | 121-14-2 | 2,4-dinitrotoluene | |
| (36B) | 606-20-2 | 2,6-dinitrotoluene | |
| (37B) | 122-66-7 | 1,2-diphenylhydrazine | |
| (39B) | 206-44-0 | fluoranthene | |
| (40B) | 7005-72-3 | 4-chlorophenyl phenyl ether | |
| (41B) | 101-55-3 | 4-bromophenyl phenyl ether | |
| (42B) | 39638-32-9 | bis(2-chloroisopropyl) ether | |
| (43B) | 111-91-1 | bis(2-chloroethoxy) methane | |

| PP # | CAS # | NAME | (circle one) or ug |
|-------|----------|-----------------------------|-----------------------|
| (52B) | 87-68-3 | hexachlorobutadiene | |
| (53B) | 77-47-4 | hexachlorocyclopentadiene | |
| (54B) | 78-79-1 | isophorone | |
| (59B) | 91-20-3 | naphthalene | |
| (56B) | 98-95-3 | nitrobenzene | |
| (62B) | 86-30-6 | N-nitrosodiphenylamine | |
| (63B) | 621-64-7 | N-nitrosodipropylamine | |
| (66B) | 117-81-7 | bis(2-ethylhexyl) phthalate | |
| (67B) | 85-68-7 | benzyl butyl phthalate | |
| (68B) | 84-74-2 | di-n-butyl phthalate | |
| (69B) | 117-84-0 | di-n-octyl phthalate | |
| (70B) | 84-66-2 | diethyl phthalate | |
| (71B) | 131-11-3 | dimethyl phthalate | |
| (72B) | 36-53-3 | benzo(a)anthracene | |
| (73B) | 50-32-8 | benzo(a)pyrene | |
| (74B) | 205-99-2 | benzo(b)fluoranthene | |
| (75B) | 207-08-9 | benzo(k)fluoranthene | |
| (76B) | 218-01-9 | chrysene | |
| (77B) | 208-96-8 | acenaphthylene | |
| (78B) | 120-12-7 | anthracene | |
| (79B) | 191-24-2 | benzo(ghi)perylene | |
| (80B) | 86-73-7 | fluorene | |
| (81B) | 85-01-8 | phenanthrene | |
| (82B) | 53-70-3 | dibenzo(a,h)anthracene | |
| (83B) | 193-39-5 | indeno(1,2,3-cd)pyrene | |
| (84B) | 129-00-0 | pyrene | |
| | 62-53-3 | aniline | |
| | 100-51-6 | benzyl alcohol | |
| | 106-47-8 | 4-chloroaniline | |
| | 132-64-9 | dibenzofuran | |
| | 91-57-6 | 2-methylnaphthalene | |
| | 88-74-4 | 2-nitroaniline | |
| | 99-09-2 | 3-nitroaniline | |
| | 100-01-6 | 4-nitroaniline | |

AR100106

Sample Number

C3750

Laboratory Name: Laucks Testing Laboratories, Inc.

Case No

1915

B. Tentatively Identified Compounds

| CAS # | COMPOUND NAME | Fraction | Scan No | XMax Score on Mass Matching Routine (SGL) | Estimated Concentration (ug/l or ug/kg) |
|------------|---|----------|---------|---|---|
| 286-20-4 | 7-Oxabicyclo[4.1.0]heptane | RAW | 453 | 866 | 33 J |
| 719-22-2 | 2,6-Bis(1,1-Dimethylethyl)-2,5-cyclohexadiene-1,4-dione | " | 1188 | 978 | 4 J |
| 10544-50-0 | Sulfur | " | 1219 | 621 | 21 J |
| 122-39-4 | N-Phenylbenzenamine | " | 1331 | 854 | 12 J |
| 2634-33-5 | 1,2-Benzisothiazol(3,2-d)one | " | 1416 | 879 | 518 J |
| 334-48-5 | Decanoic Acid | " | 1602 | 964 | 12 J |
| 10544-50-0 | Sulfur | " | 1666 | 981 | 69 J |
| 2216-77-5 | 1,3-Dibutoxy-2-propanol | " | 1739 | 915 | 42 J |
| 26248-42-0 | Tridecanol | " | 2107 | 976 | 34 J |
| 26248-42-0 | Tridecanol | " | 2162 | 982 | 46 J |
| 26248-42-0 | Tridecanol | " | 2225 | 980 | 145 J |
| 57289-26-6 | 2-Methyl-(S)-dodecanol | " | 2297 | 979 | 98 J |
| 54004-41-0 | 4-Methyl-2-propyl-1-pentanol | " | 2384 | 952 | 136 J |
| 2136-70-1 | 2-(Tetradecyloxy)-ethanol | " | 2489 | 976 | 73 J |
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Reviewed
[Signature]

AR100107

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: Lanika Testing Lab
 Lab Sample ID No: 79617-136
 Sample Matrix: water
 Data Release Authorized By: Mike Kelso

Case No: 1915
 QC Report No: 79617
 Contract No: WA-82-0069
 Date Sample Received: 7/28/83

SEMIVOLATILE COMPOUNDS

CONCENTRATION: LOW MEDIUM HIGH (circle one)
 DATE EXTRACTED/PREPARED: 8/3/83
 DATE ANALYZED: 8/2-83
 PERCENT MOISTURE: _____

(circle one)

| PP # | CAS # | Compound Name |
|-------|------------|------------------------------|
| (21A) | 88-06-2 | 2,4,6-trichlorophenol |
| (22A) | 95-90-7 | p-chloro-m-cresol |
| (24A) | 95-57-8 | 2-chlorophenol |
| (31A) | 120-83-2 | 2,4-dichlorophenol |
| (34A) | 105-67-9 | 2,4-dimethylphenol |
| (57A) | 88-75-5 | 2-nitrophenol |
| (58A) | 100-02-7 | 4-nitrophenol |
| (59A) | 51-28-5 | 2,4-dinitrophenol |
| (60A) | 534-52-1 | 4,6-dinitro-2-methylphenol |
| (64A) | 87-36-5 | pentachlorophenol |
| (65A) | 108-95-2 | phenol |
| | 65-85-0 | benzoic acid |
| | 95-48-7 | 2-methylphenol |
| | 108-39-4 | 4-methylphenol |
| | 95-95-4 | 2,4,5-trichlorophenol |
| (1B) | 83-32-9 | acenaphthene |
| (5B) | 92-87-5 | benzidine |
| (8B) | 120-82-1 | 1,2,4-trichlorobenzene |
| (9B) | 118-74-1 | hexachlorobenzene |
| (12B) | 67-72-1 | hexachloroethane |
| (13B) | 111-44-4 | bis(2-chloroethyl) ether |
| (20B) | 91-58-7 | 2-chloronaphthalene |
| (25B) | 95-90-1 | 1,2-dichlorobenzene |
| (26B) | 541-73-1 | 1,3-dichlorobenzene |
| (27B) | 106-46-7 | 1,4-dichlorobenzene |
| (28B) | 91-94-1 | 3,7-dichlorobenzidine |
| (35B) | 121-14-2 | 2,4-dinitrotoluene |
| (36B) | 606-20-2 | 2,6-dinitrotoluene |
| (37B) | 122-66-7 | 1,2-diphenylhydrazine |
| (39B) | 206-44-0 | fluoranthene |
| (40B) | 7005-72-3 | 4-chlorophenyl phenyl ether |
| (41B) | 101-55-3 | 4-bromophenyl phenyl ether |
| (42B) | 39638-32-9 | bis(2-chloroisopropyl) ether |
| (43B) | 111-91-1 | bis(2-chloroethoxy) methane |

(circle one)

| PP # | CAS # | Compound Name |
|-------|----------|-----------------------------|
| (52B) | 87-68-3 | hexachlorobutadiene |
| (53B) | 77-47-4 | hexachlorocyclopentadiene |
| (54B) | 78-99-1 | isophorone |
| (55B) | 91-20-3 | naphthalene |
| (56B) | 98-95-3 | nitrobenzene |
| (62B) | 86-30-6 | N-nitrosodiphenylamine |
| (63B) | 621-64-7 | N-nitrosodipropylamine |
| (66B) | 117-81-7 | bis(2-ethylhexyl) phthalate |
| (67B) | 85-68-7 | benzyl butyl phthalate |
| (68B) | 84-74-2 | di-n-butyl phthalate |
| (69B) | 117-84-0 | di-n-octyl phthalate |
| (70B) | 84-66-2 | diethyl phthalate |
| (71B) | 131-11-3 | dimethyl phthalate |
| (72B) | 56-55-3 | benzo(a)anthracene |
| (73B) | 50-32-8 | benzo(a)pyrene |
| (74B) | 205-99-2 | benzo(b)fluoranthene |
| (75B) | 207-08-9 | benzo(k)fluoranthene |
| (76B) | 218-01-9 | chrysene |
| (77B) | 208-96-8 | acenaphthylene |
| (78B) | 120-12-7 | anthracene |
| (79B) | 191-24-2 | benzo(ghi)perylene |
| (80B) | 86-73-7 | fluorene |
| (81B) | 85-01-8 | phenanthrene |
| (82B) | 53-70-3 | di-benzo(a,h)anthracene |
| (83B) | 193-39-5 | indeno(1,2,3-cd)pyrene |
| (84B) | 129-00-0 | pyrene |
| | 62-53-3 | aniline |
| | 100-51-6 | benzyl alcohol |
| | 106-47-8 | 4-chloroaniline |
| | 132-64-9 | di-benzofuran |
| | 91-57-6 | 2-methylnaphthalene |
| | 88-74-4 | 2-nitroaniline |
| | 99-09-2 | 3-nitroaniline |
| | 100-01-6 | 4-nitroaniline |

AR100108

C3751

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: Lauche Testing Lab
 Lab Sample ID No: 79617-136
 Sample Matrix: Water
 Data Release Authorized By: Mike Velin

Case No: 1915
 QC Report No: 79617
 Contract No.: WA 80-A069
 Date Sample Received: 7/28/83

VOLATILES

PESTICIDES

CONCENTRATION: LOW MEDIUM HIGH (circle one)
 DATE EXTRACTED/PREPARED: 8/5
 DATE ANALYZED: 8/5
 PERCENT MOISTURE: _____

CONCENTRATION: LOW MEDIUM HIGH (circle one)
 DATE EXTRACTED/PREPARED: 830804
 DATE ANALYZED: 830819
 PERCENT MOISTURE: N/A

| FP # | CAS # | Chemical Name | Unit (circle one) |
|-------|-------------|---------------------------|-------------------|
| (2V) | 107-02-8 | acrolein | ug/l |
| (3V) | 107-13-1 | acrylonitrile | ug/l |
| (6V) | 71-43-2 | benzene | ug/l |
| (6V) | 56-23-5 | carbon tetrachloride | ug/l |
| (7V) | 108-90-7 | chlorobenzene | ug/l |
| (10V) | 107-06-2 | 1,2-dichloroethane | ug/l |
| (11V) | 71-55-6 | 1,1,1-trichloroethane | ug/l |
| (13V) | 75-34-3 | 1,1-dichloroethane | ug/l |
| (14V) | 79-00-5 | 1,1,2-trichloroethane | ug/l |
| (15V) | 79-34-5 | 1,1,2,2-tetrachloroethane | ug/l |
| (16V) | 75-00-3 | chloroethane | ug/l |
| (19V) | 110-75-8 | 2-chloroethylvinyl ether | ug/l |
| (23V) | 67-66-3 | chloroform | ug/l |
| (29V) | 75-35-4 | 1,1-dichloroethane | ug/l |
| (30V) | 156-60-5 | trans-1,2-dichloroethane | ug/l |
| (32V) | 78-87-5 | 1,2-dichloropropane | ug/l |
| (33V) | 10061-02-6 | trans-1,3-dichloropropene | ug/l |
| | 10061-01-05 | cis-1,3-dichloropropene | ug/l |
| (38V) | 100-41-4 | ethylbenzene | ug/l |
| (44V) | 75-09-2 | methylene chloride | ug/l |
| (45V) | 74-87-3 | chloromethane | ug/l |
| (46V) | 74-83-9 | bromomethane | ug/l |
| (47V) | 75-25-2 | bromoform | ug/l |
| (48V) | 75-27-4 | bromodichloromethane | ug/l |
| (49V) | 75-69-4 | fluorotrichloromethane | ug/l |
| (50V) | 75-71-8 | dichlorodifluoromethane | ug/l |
| (51V) | 129-48-1 | chlorodibromomethane | ug/l |
| (85V) | 127-18-4 | tetrachloroethane | ug/l |
| (86V) | 108-88-3 | toluene | ug/l |
| (87V) | 79-01-6 | trichloroethane | ug/l |
| (88V) | 75-01-4 | vinyl chloride | ug/l |
| | 67-64-1 | acetone | ug/l |
| | 78-93-3 | 2-butanone | ug/l |
| | 75-15-0 | carbonylsulfide | ug/l |
| | 519-72-6 | 2-hexanone | ug/l |
| | 108-10-1 | 4-methyl-2-pentanone | ug/l |
| | 100-42-5 | styrene | ug/l |
| | 108-05-4 | vinyl acetate | ug/l |

| FP # | CAS # | Chemical Name | Unit (circle one) |
|--------|------------|--------------------|-------------------|
| (89P) | 309-00-2 | aldrin | ug/l |
| (90P) | 60-57-1 | dieldrin | ug/l |
| (91P) | 57-74-9 | chlordane | ug/l |
| (92P) | 50-29-3 | 4,4'-DDT | ug/l |
| (93P) | 72-55-9 | 4,4'-DDE | ug/l |
| (94P) | 72-34-8 | 4,4'-DDD | ug/l |
| (95P) | 115-29-7 | α-endosulfan | ug/l |
| (96P) | 115-29-7 | β-endosulfan | ug/l |
| (97P) | 1031-07-8 | endosulfan sulfate | ug/l |
| (98P) | 72-20-8 | endrin | ug/l |
| (99P) | 7421-93-4 | endrin aldehyde | ug/l |
| (100P) | 76-44-8 | heptachlor | ug/l |
| (101P) | 1024-57-3 | heptachlor epoxide | ug/l |
| (102P) | 319-84-6 | γ-BHC | ug/l |
| (103P) | 319-85-7 | β-BHC | ug/l |
| (104P) | 319-86-8 | δ-BHC | ug/l |
| (105P) | 58-89-9 | α-BHC (lindane) | ug/l |
| (106P) | 53469-21-9 | PCB-1242 | ug/l |
| (107P) | 11097-69-1 | PCB-1254 | ug/l |
| (108P) | 11104-28-2 | PCB-1221 | ug/l |
| (109P) | 11141-16-5 | PCB-1232 | ug/l |
| (110P) | 12672-29-6 | PCB-1248 | ug/l |
| (111P) | 11096-82-5 | PCB-1260 | ug/l |
| (112P) | 12674-11-2 | PCB-1016 | ug/l |
| (113P) | 8001-35-2 | toxaphene | ug/l |

DIOXINS

CONCENTRATION: LOW MEDIUM HIGH (circle one)
 DATE EXTRACTED/PREPARED: 830804
 DATE ANALYZED: 830821-22
 PERCENT MOISTURE: N/A

| FP # | CAS # | Chemical Name | Unit (circle one) |
|--------|-----------|-------------------------------------|-------------------|
| (129B) | 1746-01-6 | 2,3,7,8-tetrachlorodibenzo-p-dioxin | ug/l |

July 1

AR100109

Sample Number

C3751

Laboratory Name: Laucks Testing Laboratories, Inc.

Case No 1915

B. Tentatively Identified Compounds

| CAS # | COMPOUND NAME | Fraction | Scan No | ZMax Score on Mass Matching Routine(FIT) | Estimated Concentration (ug/L or ug/kg) |
|----------|----------------------------|----------|---------|--|---|
| 286-20-4 | 7-Oxabicyclo[4.1.0]heptane | BAD | 460 | 888 | 7 J |
| 344-04-7 | Bromopentafluorobenzene | BAD | 468 | 898 | 5 J |
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David M. Aspell

Sample Number
C3752

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: ETC Corp Case No: 1915
 Lab Sample ID. No: C3754 QC Report No: _____

Multiply Detection Limit by 1 or 10 (Check box for Appropriate Factor)

ACID COMPOUNDS

| PP # | CAS # | Compound Name | Concn (ug/g) |
|-------|----------|----------------------------|--------------|
| (21A) | 88-06-7 | 2,4,6-trichlorophenol | 800U |
| (22A) | 99-30-7 | p-chloro-m-cresol | 800U |
| (23A) | 95-37-8 | 3-chlorophenol | 800U |
| (24A) | 120-83-2 | 2,4-dichlorophenol | 800U |
| (25A) | 103-67-9 | 2,4-dimethylphenol | 800U |
| (27A) | 88-75-3 | 2-nitrophenol | 800U |
| (28A) | 100-02-7 | 4-nitrophenol | 800U |
| (29A) | 51-28-5 | 2,4-dinitrophenol | 800U |
| (30A) | 738-52-1 | 4,6-dinitro-2-methylphenol | 800U |
| (31A) | 87-46-5 | parachlorophenol | 800U |
| (32A) | 108-95-2 | phenol | 800U |

BASE/NEUTRAL COMPOUNDS

| PP # | CAS # | Compound Name | Concn (ug/kg) |
|-------|----------|------------------------|---------------|
| (73B) | 90-32-8 | benzo(a)pyrene | 400U |
| (74B) | 205-99-2 | benzo(b)fluoranthene | 400U |
| (75B) | 207-28-9 | benzo(k)fluoranthene | 400U |
| (76B) | 218-01-9 | chrysene | 400U |
| (77B) | 208-96-8 | acenaphthylene | 400U |
| (78B) | 120-12-7 | anthracene | 400U |
| (79B) | 191-26-2 | benz[e]phenanthrene | 400U |
| (80B) | 86-73-7 | fluorene | 400U |
| (81B) | 83-01-8 | phenanthrene | 400U |
| (82B) | 53-70-3 | fluoranthene | 400U |
| (83B) | 193-39-3 | indeno(1,2,3-cd)pyrene | 400U |
| (84B) | 129-08-0 | pyrene | 400U |

BASE/NEUTRAL COMPOUNDS

| | | | |
|-------|------------|--------------------------------|------|
| (18) | 85-32-9 | acetophenone | 400U |
| (58) | 92-57-5 | benzene | 400U |
| (88) | 120-82-1 | 1,2-dichlorobenzene | 400U |
| (98) | 115-76-1 | hexachlorobenzene | 400U |
| (128) | 67-72-1 | hexachloroethane | 400U |
| (138) | 111-66-8 | hex(2-chloroethyl) ether | 400U |
| (258) | 91-58-7 | 2-chloroanisole | 400U |
| (259) | 95-50-1 | 1,2-dichlorobenzene | 400U |
| (265) | 561-75-1 | 1,3-dichlorobenzene | 400U |
| (275) | 106-46-7 | 1,4-dichlorobenzene | 400U |
| (285) | 91-96-1 | 1,3-dichlorobenzene | 400U |
| (338) | 121-14-2 | 2,4-dinitroanisole | 400U |
| (368) | 606-70-2 | 2,4-dinitroanisole | 400U |
| (378) | 122-66-7 | 1,2-diphenyl ethane | 400U |
| (398) | 206-46-0 | fluorene | 400U |
| (408) | 7005-72-3 | 4-chlorophenyl phenyl ether | 400U |
| (418) | 101-55-3 | 4-bromophenyl phenyl ether | 400U |
| (428) | 79638-52-9 | bis(2-chloroisopropyl) ether | 400U |
| (438) | 111-91-1 | bis(2-chloroisopropyl) methane | 400U |
| (458) | 87-48-3 | hexachlorobutadiene | 400U |
| (478) | 77-47-8 | hexachlorocyclopentadiene | 400U |
| (488) | 78-39-1 | asphorane | 400U |
| (498) | 91-20-3 | naphthalene | 400U |
| (508) | 98-35-2 | chlorobenzene | 400U |
| (528) | 86-70-6 | N,N-diisopropylamine | 400K |
| (538) | 421-66-7 | N,N-diisopropylamine | 400U |
| (548) | 117-81-7 | 1,3-(2-ethylhexyl) phthalate | 400U |
| (558) | 33-44-7 | benzyl butyl phthalate | 400U |
| (568) | 88-76-2 | di-n-butyl phthalate | 400K |
| (578) | 117-84-0 | di-n-butyl phthalate | 400U |
| (588) | 108-28-2 | diethyl phthalate | 400U |
| (598) | 111-11-1 | dimethyl phthalate | 400U |
| (608) | 56-35-3 | benzo(a)anthracene | 400U |

VOLATILES

| | | | |
|-------|-------------|---------------------------|-------|
| (3V) | 107-02-8 | acetylene | 50U |
| (3V) | 107-13-1 | acetylene | 50U |
| (4V) | 71-43-2 | benzene | 4.5U |
| (6V) | 36-23-5 | carbon tetrachloride | 4.5U |
| (7V) | 108-90-7 | chlorobenzene | 4.5U |
| (10V) | 107-06-2 | 1,2-dichloroethane | 4.5U |
| (11V) | 71-35-6 | 1,1,1-trichloroethane | 4.5U |
| (13V) | 75-34-3 | 1,1-dichloroethane | 4.5U |
| (14V) | 79-00-5 | 1,1,2-trichloroethane | 4.5U |
| (15V) | 79-34-5 | 1,1,2,2-tetrachloroethane | 4.5U |
| (16V) | 75-00-3 | chloroethane | 4.5U |
| (19V) | 110-75-8 | 2-chloroethyl vinyl ether | 4.5U |
| (23V) | 67-66-3 | chloroform | 4.5U |
| (29V) | 75-35-8 | 1,1-dichloroethane | 4.5U |
| (30V) | 136-60-5 | trans-1,2-dichloroethane | 4.5U |
| (32V) | 78-67-3 | 1,2-dichloropropane | 4.5U |
| (33V) | 10061-02-6 | trans-1,3-dichloropropane | 4.5U |
| | 10061-01-03 | cis-1,3-dichloropropane | 4.5U |
| (35V) | 100-41-4 | ethylbenzene | 4.5U |
| (44V) | 75-09-2 | methyl ethyl chloride | 4.5KC |
| (45V) | 78-27-3 | chloromethane | 4.5U |
| (46V) | 78-23-9 | bromomethane | 4.5U |
| (47V) | 75-25-2 | bromoform | 4.5U |
| (48V) | 75-27-8 | bromodichloromethane | 4.5U |
| (49V) | 75-69-8 | 1,1,1-trichloroethane | 4.5U |
| (50V) | 75-71-8 | dichlorodifluoromethane | 4.5U |
| (51V) | 128-48-1 | dichlorobromomethane | 4.5U |
| (53V) | 127-18-8 | tetrachloroethane | 4.5U |
| (56V) | 108-88-3 | toluene | 4.5U |
| (57V) | 79-01-6 | trichloroethane | 4.5U |
| (58V) | 75-01-8 | vinyl chloride | 4.5U |

FORM II

0014

AR100111

David M. Speck
1915

Sample Number
C3752

Company Name: EMC Corp
Sample ID: C8304

Case No: _____
QC Report No: _____

Multiply Detection Limits by 1 or 10 (Check Box for Appropriate Factor)

PESTICIDES

| PP # | CAS # | Chemical Name | U/L (circle one) |
|------|-----------|-----------------------|---------------------|
| PP1 | 377-89-2 | aldrin | 200U |
| PP1 | 69-57-1 | dieldrin | 200U |
| PP1 | 57-76-9 | chlorfenvinphos | 10000U |
| PP1 | 58-79-3 | p,p'-DDT | 200U |
| PP1 | 72-53-9 | p,p'-DDE | 200U |
| PP1 | 72-26-8 | p,p'-DDD | 200U |
| PP1 | 115-29-7 | γ-endosulfan | 200U |
| PP1 | 115-29-7 | δ-endosulfan | 200U |
| PP1 | 1031-57-8 | endosulfan sulfate | 200U |
| PP1 | 72-20-2 | methidathion | 200U |
| PP1 | 7621-93-8 | methidathion chloride | 200U |
| PP1 | 76-26-8 | heptachlor | 200U |
| PP1 | 1026-57-3 | heptachlor epoxide | 200U |
| PP1 | 319-84-6 | γ-BHC | 200U |

PESTICIDES

| PP # | CAS # | Chemical Name | U/L (circle one) |
|--------|------------|-----------------|---------------------|
| (103P) | 319-85-7 | β-BHC | 200U |
| (104P) | 319-86-8 | δ-BHC | 200U |
| (105P) | 58-29-9 | γ-BHC (lindane) | 200U |
| (106P) | 53669-21-9 | PCB-1262 | 10000U |
| (107P) | 11077-69-1 | PCB-1254 | 10000U |
| (108P) | 11104-25-2 | PCB-1221 | 10000U |
| (109P) | 11161-16-9 | PCB-1232 | 10000U |
| (110P) | 12672-29-6 | PCB-1248 | 10000U |
| (111P) | 11096-82-9 | PCB-1260 | 10000U |
| (112P) | 12674-11-2 | PCB-1016 | 10000U |
| (113P) | 8001-35-2 | toxaphene | 10000U |

DIOXINS

799) 1794-01-6 2,3,7,8-tetrachlorodibenzo-p-dioxin 1200U

Non-Priority Pollutant Hazardous Substances List Compounds

ACID COMPOUNDS

| CAS # | Chemical Name | U/L (circle one) |
|----------|-----------------------|---------------------|
| 63-25-3 | benzoic acid | 200U |
| 93-84-7 | 2-methylphenol | 200U |
| 105-39-6 | 4-methylphenol | 200U |
| 95-93-6 | 2,4,6-trichlorophenol | 200U |

BASE/NEUTRAL COMPOUNDS

| | | |
|----------|-----------------------|------|
| 62-53-3 | aniline | 400U |
| 100-51-6 | benzyl alcohol | 400U |
| 106-47-3 | 4-chloroaniline | 400U |
| 132-66-9 | chloroacetone | 400U |
| 91-27-6 | 2-methylcyclohexanone | 400U |
| 88-76-4 | 2-methylcyclohexanone | 400U |
| 99-29-2 | 3-methylcyclohexanone | 400U |
| 100-61-6 | 4-methylcyclohexanone | 400U |

VOLATILES

| CAS # | Chemical Name | U/L (circle one) |
|----------|----------------------|---------------------|
| 67-64-1 | acetone | 15.5U |
| 78-93-3 | 2-butanone | 4.5U |
| 75-15-0 | carbon disulfide | 4.5U |
| 519-72-6 | 2-hexanone | 4.5U |
| 108-10-1 | 4-methyl-2-pentanone | 4.5U |
| 100-42-5 | styrene | 4.5U |
| 108-25-6 | vinyl acetate | 4.5U |
| 95-47-6 | oxytone | 4.5U |

David H. Speis

Sample Number
C3762
 8/14 Repeat

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: ETC Corp
 Lab Sample ID. No: C8354

Case No: 1915
 QC Report No: _____

Multiply Detection Limits by 1 or 10 (Check box for Appropriate Factor)

ACID COMPOUNDS

| PP # | CAS # | NAME | U/L (CIRCLE ONE) |
|-------|----------|----------------------------|------------------|
| (21A) | 28-26-7 | 2,4,6-trichlorophenol | 800U |
| (22A) | 79-30-7 | p-chloro-m-cresol | 800U |
| (26A) | 95-57-3 | 2-chlorophenol | 800U |
| (31A) | 120-53-2 | 2,4-dichlorophenol | 800U |
| (36A) | 103-67-9 | 2,4-dimethylphenol | 800U |
| (57A) | 55-75-3 | 2-nitrophenol | 800U |
| (58A) | 100-02-7 | 4-nitrophenol | 800U |
| (59A) | 31-22-5 | 2,4-dinitrophenol | 800U |
| (60A) | 534-72-1 | 6,6-dinitro-2-methylphenol | 800U |
| (64A) | 87-36-5 | pentachlorophenol | 800U |
| (65A) | 108-95-2 | phenol | 800U |

BASE/NEUTRAL COMPOUNDS

| PP # | CAS # | NAME | U/L (CIRCLE ONE) |
|-------|----------|------------------------|------------------|
| (73B) | 30-32-8 | benz(a)pyrene | 400U |
| (74B) | 203-99-2 | benz(a)fluoranthene | 400U |
| (75B) | 207-08-9 | benz(b)fluoranthene | 400U |
| (76B) | 218-01-9 | chrysene | 400U |
| (77B) | 208-96-8 | acenaphthylene | 400U |
| (78B) | 120-12-7 | anthracene | 400U |
| (79B) | 191-24-2 | benz(a)phenylene | 400U |
| (80B) | 86-73-7 | fluorene | 400U |
| (81B) | 83-01-8 | phenanthrene | 400U |
| (82B) | 53-70-3 | dibenz(a,h)anthracene | 400U |
| (83B) | 193-39-3 | indeno(1,2,3-cd)pyrene | 400U |
| (84B) | 129-00-0 | styrene | 400U |

BASE/NEUTRAL COMPOUNDS

| | | | |
|-------|------------|-----------------------------|------|
| (18) | 53-32-9 | acrylonitrile | 400U |
| (58) | 92-57-5 | benzidine | 400U |
| (88) | 120-52-1 | 1,2,4-trichlorobenzene | 400U |
| (98) | 118-76-1 | hexachlorobenzene | 400U |
| (128) | 67-72-1 | hexachloroethane | 400U |
| (188) | 111-46-4 | hex(2-chloroethyl)ether | 400U |
| (208) | 91-58-7 | 2-chloronaphthalene | 400U |
| (238) | 95-50-1 | 1,2-dichlorobenzene | 400U |
| (268) | 581-73-1 | 1,3-dichlorobenzene | 400U |
| (278) | 106-46-7 | 1,4-dichlorobenzene | 400U |
| (288) | 91-96-1 | 3,3'-dichlorobenzidine | 400U |
| (338) | 121-14-2 | 2,4-dinitrotoluene | 400U |
| (368) | 606-26-2 | 2,6-dinitrotoluene | 400U |
| (378) | 122-66-7 | 1,2-diphenylhydrazine | 400U |
| (398) | 706-44-0 | diuron | 400U |
| (408) | 7003-72-3 | 4-chlorophenyl phenyl ether | 400U |
| (418) | 101-33-3 | 4-bromophenyl phenyl ether | 400U |
| (428) | 79638-12-9 | bis(2-chloroacetyl) ether | 400U |
| (438) | 111-91-1 | bis(2-chloroethyl) methane | 400U |
| (448) | 87-48-3 | hexachlorocyclopentadiene | 400U |
| (458) | 77-47-6 | hexachlorocyclopentadiene | 400U |
| (468) | 78-39-1 | asphorane | 400U |
| (478) | 91-20-3 | methylenedianiline | 400U |
| (488) | 98-95-3 | nitrobenzene | 400U |
| (498) | 86-26-4 | N,N-diethylphenylamine | 400U |
| (508) | 121-44-7 | N,N-diethylpropylamine | 400U |
| (518) | 117-81-7 | N,N-diethylheptylamine | 400U |
| (528) | 83-44-7 | benzyl butyl phthalate | 400U |
| (538) | 86-76-2 | di-n-butyl phthalate | 400U |
| (548) | 117-81-0 | di-n-butyl phthalate | 400U |
| (558) | 86-86-2 | diethyl phthalate | 400U |
| (568) | 11-11-1 | dimethyl phthalate | 400U |
| (578) | 86-11-3 | benz(a)anthracene | 400U |

ISOLATES

| | | | |
|-------|-------------|---------------------------|--|
| (2V) | 107-02-8 | acrylonitrile | |
| (3V) | 107-13-1 | acrylonitrile | |
| (4V) | 71-43-2 | benzene | |
| (6V) | 56-23-3 | carbon tetrachloride | |
| (7V) | 108-90-7 | chlorobenzene | |
| (10V) | 107-06-2 | 1,2-dichloroethane | |
| (11V) | 71-35-6 | 1,1,1-trichloroethane | |
| (13V) | 79-34-3 | 1,1-dichloroethane | |
| (14V) | 79-00-5 | 1,1,2-trichloroethane | |
| (15V) | 79-34-5 | 1,1,2,2-tetrachloroethane | |
| (16V) | 75-00-3 | chloroform | |
| (19V) | 110-73-8 | 2-chloroethyl vinyl ether | |
| (23V) | 67-66-3 | chloroform | |
| (29V) | 75-33-8 | 1,1-dichloroethane | |
| (30V) | 134-40-3 | trans-1,2-dichloroethane | |
| (32V) | 78-27-5 | 1,2-dichloropropane | |
| (33V) | 10061-02-4 | trans-1,3-dichloropropane | |
| | 10061-01-03 | cis-1,3-dichloropropane | |
| (38V) | 100-81-4 | ethylbenzene | |
| (44V) | 75-09-2 | methylene chloride | |
| (45V) | 74-87-3 | chloromethane | |
| (46V) | 74-83-9 | bromomethane | |
| (47V) | 75-23-2 | bromoform | |
| (48V) | 75-27-4 | bromodichloromethane | |
| (49V) | 75-69-4 | tetrachloroethane | |
| (50V) | 75-71-8 | dichlorodifluoromethane | |
| (51V) | 128-48-1 | chlorodibromomethane | |
| (53V) | 127-18-4 | tetrachloroethane | |
| (56V) | 108-88-3 | toluene | |
| (57V) | 79-01-6 | trichloroethane | |
| (58V) | 73-01-4 | vinyl chloride | |

FORM II

0016

AR100113

ORGANICS ANALYSIS DATA SHEET Page 2

Handwritten: David M. Spaid
1915

Sample Number
C3752

Handwritten: B/N/A Repeat

Primary Name: ETC Corp.
Sample I.D. No: CP352

Case No: _____
QC Report No: _____

Multiply Detection Limits by 1 or 10 (Check Box for Appropriate Factor)

PESTICIDES

| PP # | CAS # | NAME | U/L or U/LG (circle one) |
|--------|-----------|--------------------|--------------------------------|
| (89P) | 89-05-2 | aldrin | |
| (90P) | 68-57-1 | dieldrin | |
| (91P) | 59-74-9 | endosulfan | |
| (92P) | 38-29-3 | o,p'-DDT | |
| (93P) | 72-55-9 | o,p'-DDE | |
| (94P) | 72-56-5 | o,p'-DDD | |
| (95P) | 115-29-7 | γ-endosulfan | |
| (96P) | 115-29-7 | β-endosulfan | |
| (97P) | 1831-07-8 | endosulfan sulfate | |
| (98P) | 72-20-5 | methoxy | |
| (99P) | 7821-93-8 | methoxy aldehyde | |
| (100P) | 76-16-5 | heptachlor | |
| (101P) | 1024-57-3 | heptachlor epoxide | |
| (102P) | 319-34-6 | γ-BHC | |

PESTICIDES

| PP # | CAS # | NAME | U/L or U/LG (circle one) |
|--------|------------|-----------------|--------------------------------|
| (103P) | 319-33-7 | β-BHC | |
| (104P) | 319-34-8 | δ-BHC | |
| (105P) | 58-29-9 | γ-BHC (lindane) | |
| (106P) | 53649-21-9 | PCB-1242 | |
| (107P) | 11097-69-1 | PCB-1254 | |
| (108P) | 11104-22-2 | PCB-1221 | |
| (109P) | 11101-16-3 | PCB-1232 | |
| (110P) | 12672-29-6 | PCB-1248 | |
| (111P) | 11096-32-5 | PCB-1260 | |
| (112P) | 12678-11-2 | PCB-1016 | |
| (113P) | 8001-35-2 | toxaphene | |

DIOXINS

| | | | |
|--------|-----------|-------------------------------------|--|
| (129B) | 1766-01-6 | 2,3,7,8-tetrachlorodibenzo-p-dioxin | |
|--------|-----------|-------------------------------------|--|

Non-Priority Pollutant Hazardous Substances List Compounds

ACID COMPOUNDS

| CAS # | NAME | U/L or U/LG (circle one) |
|----------|----------------------|--------------------------------|
| 65-21-3 | benzoic acid | 800U |
| 75-06-7 | 2-methyl phenol | 800U |
| 108-79-8 | 4-methyl phenol | 800U |
| 75-95-8 | 2,4,6-trichloropheno | 800U |

VOLATILES

| CAS # | NAME | U/L or U/LG (circle one) |
|----------|----------------------|--------------------------------|
| 67-68-1 | acetone | |
| 78-93-3 | 2-butanone | |
| 73-15-0 | carbonyl sulfide | |
| 519-78-6 | 2-hexanone | |
| 108-10-1 | 4-methyl-2-pentanone | |
| 100-42-5 | styrene | |
| 108-35-8 | vinyl acetate | |
| 95-47-6 | o-xylene | |

BASE/NEUTRAL COMPOUNDS

| | | |
|----------|---------------------|------|
| 12-53-3 | aniline | 400U |
| 108-31-6 | benzyl alcohol | 400U |
| 86-47-3 | benzoin alcohol | 400U |
| 132-66-9 | benzotriazine | 400U |
| 91-37-6 | 2-methyl-1-propanol | 400U |
| 88-78-8 | 2-methoxyaniline | 400U |
| 99-09-2 | 3-methoxyaniline | 400U |
| 188-01-6 | 4-methoxyaniline | 400U |

FORM II (continued)

0017

AR100114

David M. Spill

Sample Number
C3753

ORGANICS ANALYSIS DATA SHEET

Company Name: ETC Corp
 Sample ID: 48355

Case No: 1915
 QC Report No: _____

Multiply Detection Limits by 1 or 10 (Check Box for Appropriate Factor)

ACID COMPOUNDS

| FP # | CAS # | Chemical Name | DL (ug/kg) |
|------|----------|----------------------------|------------|
| 01A) | 88-06-2 | 2,4,6-trichlorophenol | 800U |
| 02A) | 99-30-7 | p-chloro-m-cresol | 800U |
| 03A) | 95-57-8 | 2-chlorophenol | 800U |
| 04A) | 120-83-2 | 2,4-dichlorophenol | 800U |
| 05A) | 103-67-9 | 2,4-dimethylphenol | 800U |
| 06A) | 88-73-3 | 2-nitrophenol | 800U |
| 07A) | 100-02-7 | 4-nitrophenol | 800U |
| 08A) | 31-23-5 | 2,4-dinitrophenol | 800U |
| 09A) | 534-52-1 | 4,6-dinitro-2-methylphenol | 800U |
| 10A) | 87-36-5 | paratrichlorophenol | 800U |
| 11A) | 108-95-2 | phenol | 800U |

BASE/NEUTRAL COMPOUNDS

| FP # | CAS # | Chemical Name | DL (ug/kg) |
|------|----------|--------------------------|------------|
| 73B) | 30-32-8 | benzofluorene | 400U |
| 74B) | 203-99-2 | benzofluoranthene | 400U |
| 75B) | 207-28-9 | benzofluoranthene | 400U |
| 76B) | 212-01-9 | chrysene | 400U |
| 77B) | 208-96-8 | acenaphthylene | 400U |
| 78B) | 120-12-7 | anthracene | 400U |
| 79B) | 191-24-2 | benzofluoranthene | 400U |
| 80B) | 86-73-7 | fluorene | 400U |
| 81B) | 83-31-8 | phenanthrene | 400U |
| 82B) | 33-70-3 | dibenzofluoranthene | 400U |
| 83B) | 193-39-3 | indeno(1,2,3-cd)perylene | 400U |
| 84B) | 129-00-0 | pyrene | 400U |

BASE/NEUTRAL COMPOUNDS

| FP # | CAS # | Chemical Name | DL (ug/kg) |
|------|------------|-------------------------------|------------|
| 11B) | 83-32-9 | acenaphthene | 400K |
| 12B) | 92-37-3 | benzidine | 400U |
| 13B) | 120-82-1 | 1,2-dichlorobenzene | 400U |
| 14B) | 118-76-1 | hexachlorobenzene | 400U |
| 15B) | 67-72-1 | hexachloroethane | 400U |
| 16B) | 111-46-4 | hex(2-chloroethyl)ether | 400U |
| 17B) | 91-36-7 | 2-chloronaphthalene | 400U |
| 18B) | 95-30-1 | 1,2-dichlorobenzene | 400U |
| 19B) | 561-73-1 | 1,3-dichlorobenzene | 400U |
| 20B) | 106-46-7 | 1,4-dichlorobenzene | 400U |
| 21B) | 91-36-1 | 3,3'-dichlorobenzidine | 400U |
| 22B) | 121-14-2 | 2,4-dinitrotoluene | 400U |
| 23B) | 606-20-2 | 2,4-dinitrotoluene | 400U |
| 24B) | 122-66-7 | 1,2-diphenylhydrazine | 400U |
| 25B) | 206-44-0 | fluoranthene | 400U |
| 26B) | 7025-72-3 | 4-chlorophenyl phenyl ether | 400U |
| 27B) | 101-33-3 | 4-nitrophenyl phenyl ether | 400U |
| 28B) | 79638-32-9 | bis(2-chloroacetyl) ether | 400U |
| 29B) | 111-91-1 | bis(2-chloroethyl) methane | 400U |
| 30B) | 87-48-3 | hexachlorocyclopentadiene | 400U |
| 31B) | 77-47-4 | hexachlorocyclopentadiene | 400U |
| 32B) | 78-39-1 | sophorane | 400U |
| 33B) | 91-20-3 | naphthalene | 400U |
| 34B) | 98-35-3 | anthracene | 400U |
| 35B) | 84-36-6 | 1-methyl-2-naphthylamine | 400U |
| 36B) | 62-44-7 | N,N-dimethylpropylamine | 400U |
| 37B) | 111-11-7 | 3,3,12-trimethyl(1) pyrolysis | 400K |
| 38B) | 35-48-7 | butyl butyl pyrolysis | 400K |
| 39B) | 88-79-2 | dimethyl pyrolysis | 400K |
| 40B) | 117-36-0 | dimethyl pyrolysis | 400U |
| 41B) | 88-79-2 | dimethyl pyrolysis | 400U |
| 42B) | 31-11-1 | dimethyl pyrolysis | 400U |
| 43B) | 88-33-3 | dimethyl pyrolysis | 400U |

VOLATILES

| FP # | CAS # | Chemical Name | DL (ug/kg) |
|------|-------------|---------------------------|------------|
| 01V) | 107-02-8 | acrylon | 50U |
| 02V) | 107-13-1 | acrylonitrile | 50U |
| 03V) | 71-43-2 | benzene | 4.5U |
| 04V) | 56-23-5 | carbon tetrachloride | 4.5U |
| 05V) | 108-90-7 | chlorobenzene | 4.5U |
| 06V) | 107-06-2 | 1,2-dichloroethane | 4.5U |
| 07V) | 71-33-6 | 1,1,1-trichloroethane | 4.5U |
| 08V) | 75-34-3 | 1,1-dichloroethane | 4.5U |
| 09V) | 79-00-5 | 1,1,2-trichloroethane | 4.5U |
| 10V) | 79-34-5 | 1,1,2,2-tetrachloroethane | 4.5U |
| 11V) | 75-00-3 | chloroethane | 4.5U |
| 12V) | 110-73-8 | 2-chloroethyl vinyl ether | 4.5U |
| 13V) | 67-66-3 | chloroform | 4.5U |
| 14V) | 75-35-8 | 1,1-dichloroethane | 4.5U |
| 15V) | 136-40-5 | trans-1,2-dichloroethane | 4.5U |
| 16V) | 78-87-5 | 1,2-dichloropropane | 4.5U |
| 17V) | 10061-02-6 | cis-1,2-dichloropropane | 4.5U |
| 18V) | 10061-01-05 | cis-1,3-dichloropropane | 4.5U |
| 19V) | 100-41-4 | ethyl benzene | 4.5U |
| 20V) | 75-09-2 | methylen chloride | 12.5U |
| 21V) | 78-87-3 | chloromethane | 4.5U |
| 22V) | 74-83-9 | bromomethane | 4.5U |
| 23V) | 75-25-2 | iodoform | 4.5U |
| 24V) | 75-27-8 | bromodichloromethane | 4.5U |
| 25V) | 75-49-4 | dibromodichloromethane | 4.5U |
| 26V) | 75-71-8 | dichlorodifluoromethane | 4.5U |
| 27V) | 128-48-1 | chlorodibromomethane | 4.5U |
| 28V) | 127-18-6 | tetrachloroethane | 4.5K |
| 29V) | 108-88-3 | toluene | 4.5U |
| 30V) | 79-01-6 | trichloroethane | 4.5U |
| 31V) | 75-01-0 | vinyl chloride | 4.5U |

FORM II

0018

AR100115

ORGANIC ANALYSIS DATA SHEET - Page 2

David L. Spill
1915

Sample Number
03753

Company Name: ETC Corp
Sample ID: 03753

Case No: _____
QC Report No: _____

Multiply Detection Limits by 1 or 10 (Check Box for Appropriate Factor)

PESTICIDES

| PP # | CAS # | Name | ML (circle one) |
|------|-----------|-------------------------|-----------------|
| PP1 | 395-20-2 | aldrin | 200 |
| PP2 | 66-57-1 | dieldrin | 200 |
| PP3 | 57-76-9 | quinaldine | 10000 |
| PP4 | 58-25-3 | o,p'-DDT | 200 |
| PP5 | 72-55-9 | o,p'-DDE | 200 |
| PP6 | 72-24-3 | o,p'-DDD | 200 |
| PP7 | 115-29-7 | o,p'-DDD sulfonate | 200 |
| PP8 | 115-29-7 | p,p'-DDD sulfonate | 200 |
| PP9 | 1831-37-8 | endosulfan sulfate | 200 |
| PP10 | 72-20-3 | methidathion | 200 |
| PP11 | 7821-93-8 | methidathion hydrolysis | 200 |
| PP12 | 76-24-3 | heptachlor | 200 |
| PP13 | 1828-37-3 | heptachlor epoxide | 200 |
| PP14 | 319-24-6 | γ-BHC | 200 |

PESTICIDES

| PP # | CAS # | Name | ML (circle one) |
|--------|------------|------------------|-----------------|
| (109P) | 319-24-7 | β-BHC | 200 |
| (108P) | 319-24-8 | δ-BHC | 200 |
| (105P) | 58-29-9 | γ-BHC (linalene) | 200 |
| (106P) | 53469-21-9 | PCB-1242 | 10000 |
| (107P) | 11097-69-1 | PCB-1254 | 10000 |
| (108P) | 11104-28-2 | PCB-1221 | 10000 |
| (109P) | 11101-16-5 | PCB-1232 | 10000 |
| (110P) | 12672-29-6 | PCB-1268 | 10000 |
| (111P) | 11096-32-3 | PCB-1260 | 10000 |
| (112P) | 12674-11-2 | PCB-1016 | 10000 |
| (113P) | 8001-35-2 | toxaphene | 10000 |

DIODINES

(129B) 1746-01-6 2,3,7,8-tetrachlorodibenz-p-dioxin - 12000

Non-Priority Pollutant Hazardous Substances List Compounds

ACID COMPOUNDS

| CAS # | Name | ML (circle one) |
|----------|-----------------------|-----------------|
| 65-25-3 | benzoic acid | 8000 |
| 93-28-7 | 2-methylphenol | 8000 |
| 108-19-6 | 4-methylphenol | 8000 |
| 93-93-8 | 2,4,6-trichlorophenol | 8000 |

BASE/NEUTRAL COMPOUNDS

| | | |
|----------|-------------------|------|
| 62-53-3 | aniline | 4000 |
| 108-31-6 | benzyl alcohol | 4000 |
| 106-47-3 | 4-chloroaniline | 4000 |
| 132-66-9 | benzofuran | 4000 |
| 91-57-6 | 2-methylimidazole | 4000 |
| 88-74-6 | 2-imidazolethione | 4000 |
| 99-09-2 | 3-imidazolethione | 4000 |
| 108-81-4 | 4-imidazolethione | 4000 |

VOLATILES

| CAS # | Name | ML (circle one) |
|----------|----------------------|-----------------|
| 67-64-1 | acetone | 5900 |
| 78-93-3 | 2-butanone | 4.50 |
| 75-15-0 | carbonyl sulfide | 4.50 |
| 519-78-6 | 2-hexanone | 4.50 |
| 108-10-1 | 4-methyl-2-pentanone | 4.50 |
| 100-42-3 | styrene | 4.50 |
| 108-05-8 | vinyl acetate | 4.50 |
| 95-47-6 | o-xylene | 4.50 |

FORM II (continued)

0019

AR100116

Sample Number
03754

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: Lancho Testing Lab Case No: 1915
 Lab Sample ID No: 79617-137 QC Report No: 79617
 Sample Matrix: Water Contract No: WA-82-A069
 Data Release Authorized By: Walter Date Sample Received: 7/28/83

SEMIVOLATILE COMPOUNDS

CONCENTRATION: LOW MEDIUM HIGH (circle one)

DATE EXTRACTED/PREPARED: 8/3

DATE ANALYZED: 9/23/83

PERCENT MOISTURE: _____

| PP # | CAS # | Compound Name | Unit (circle one) | PP # | CAS # | Compound Name | Unit (circle one) |
|-------|------------|------------------------------|-------------------|-------|----------|-----------------------------|-------------------|
| (21A) | 88-06-2 | 2,4,6-trichlorophenol | mg/l | (52B) | 87-18-5 | hexachlorobutadiene | |
| (22A) | 59-50-7 | p-chloro-m-cresol | mg/kg | (53B) | 77-17-8 | hexachlorocyclopentadiene | |
| (26A) | 95-57-8 | 2-chlorophenol | (circle one) | (54B) | 78-19-1 | isophorone | |
| (31A) | 120-83-2 | 2,4-dichlorophenol | | (59B) | 91-20-3 | naphthalene | |
| (34A) | 105-67-9 | 2,4-dimethylphenol | | (56B) | 98-95-3 | nitrobenzene | |
| (57A) | 88-75-5 | 2-nitrophenol | | (62B) | 86-30-6 | N-nitrosodiphenylamine | |
| (58A) | 100-02-7 | 4-nitrophenol | | (63B) | 621-44-7 | N-nitrosodipropylamine | |
| (59A) | 51-28-5 | 2,4-dinitrophenol | | (66B) | 117-81-7 | bis(2-ethylhexyl) phthalate | 4. |
| (60A) | 534-52-1 | 4,6-dinitro-2-methylphenol | | (67B) | 85-68-7 | benzyl butyl phthalate | K |
| (64A) | 87-86-5 | pentachlorophenol | | (68B) | 84-78-2 | di-n-butyl phthalate | K |
| (65A) | 108-95-2 | phenol | | (69B) | 117-81-0 | di-n-octyl phthalate | K |
| | 65-85-0 | benzoic acid | | (70B) | 84-66-2 | diethyl phthalate | |
| | 95-48-7 | 2-methylphenol | | (71B) | 131-11-3 | dimethyl phthalate | |
| | 108-99-4 | 4-methylphenol | | (72B) | 56-53-3 | benzofluoranthene | |
| | 95-95-8 | 2,4,5-trichlorophenol | | (73B) | 50-52-8 | benzofluoranthene | |
| (1B) | 83-32-9 | acenaphthene | | (74B) | 205-91-2 | benzo(b)fluoranthene | |
| (5B) | 92-87-5 | benzidine | | (75B) | 207-01-9 | benzo(k)fluoranthene | |
| (8B) | 120-82-1 | 1,2,4-trichlorobenzene | | (76B) | 218-01-9 | chrysene | |
| (9B) | 118-74-1 | hexachlorobenzene | | (77B) | 208-96-8 | acenaphthylene | |
| (12B) | 67-72-1 | hexachloroethane | | (78B) | 120-11-7 | anthracene | |
| (18B) | 111-44-4 | bis(2-chloroethyl) ether | | (79B) | 191-24-2 | benzo(g)hoperylene | |
| (20B) | 91-58-7 | 2-chloronaphthalene | | (80B) | 86-73-7 | fluorene | |
| (25B) | 95-50-1 | 1,2-dichlorobenzene | | (81B) | 85-01-8 | phenanthrene | |
| (26B) | 541-73-1 | 1,3-dichlorobenzene | | (82B) | 53-70-3 | dibenzo(a,h)anthracene | |
| (27B) | 106-86-7 | 1,4-dichlorobenzene | | (83B) | 193-39-5 | indeno(1,2,3-cd)pyrene | |
| (28B) | 91-94-1 | 3,3'-dichlorobenzidine | | (84B) | 129-00-0 | pyrene | |
| (35B) | 121-14-2 | 2,4-dinitrotoluene | | | 62-53-3 | aniline | |
| (36B) | 606-20-2 | 2,6-dinitrotoluene | | | 100-51-6 | benzyl alcohol | |
| (37B) | 122-66-7 | 1,2-diphenylhydrazine | | | 106-47-8 | 4-chloroaniline | |
| (39B) | 206-44-0 | fluoranthene | | | 132-64-9 | dibenzofuran | |
| (40B) | 7005-72-3 | 4-chlorophenyl phenyl ether | | | 91-57-6 | 2-methylnaphthalene | |
| (41B) | 101-55-3 | 4-bromophenyl phenyl ether | | | 88-78-4 | 2-nitroaniline | |
| (42B) | 39638-32-9 | bis(2-chloroisopropyl) ether | | | 99-09-2 | 3-nitroaniline | |
| (43B) | 111-91-1 | bis(2-chloroethoxy) methane | | | 100-01-6 | 4-nitroaniline | |

ART00117

Sample Number
C3754

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: Laurels Testing Lab
 Lab Sample ID No: 79617-137
 Sample Matrix: Water
 Data Release Authorized By: Mike Nelson

Case No: 1915
 QC Report No: 79617
 Contract No: WA-82-8069
 Date Sample Received: 7/28/83

-- VOLATILES

CONCENTRATION: LO MEDIUM HIGH (circle one)
 DATE EXTRACTED/PREPARED: 8/5
 DATE ANALYZED: 8/5
 PERCENT MOISTURE: _____

PESTICIDES

CONCENTRATION: LO MEDIUM HIGH (circle one)
 DATE EXTRACTED/PREPARED: 8-4-83
 DATE ANALYZED: 8-19-83
 PERCENT MOISTURE: _____

| FP # | CAS # | Chemical Name | (circle one) |
|-------|-------------|---------------------------|--------------|
| (2V) | 107-03-8 | acrolein | |
| (3V) | 107-13-1 | acrylonitrile | |
| (4V) | 71-43-2 | benzene | |
| (6V) | 56-23-5 | carbon tetrachloride | |
| (7V) | 108-90-7 | chlorobenzene | |
| (10V) | 107-06-2 | 1,2-dichloroethane | |
| (11V) | 71-55-6 | 1,1,1-trichloroethane | |
| (13V) | 75-34-3 | 1,1-dichloroethane | |
| (14V) | 79-00-5 | 1,1,2-trichloroethane | |
| (15V) | 79-34-5 | 1,1,2,2-tetrachloroethane | |
| (16V) | 75-00-3 | chloroethane | |
| (19V) | 110-75-8 | 2-chloroethylvinyl ether | |
| (23V) | 67-66-3 | chloroform | |
| (29V) | 75-35-4 | 1,1-dichloroethane | |
| (30V) | 156-60-5 | trans-1,2-dichloroethane | |
| (32V) | 78-87-5 | 1,2-dichloropropane | |
| (33V) | 10061-02-6 | trans-1,3-dichloropropane | |
| | 10061-01-05 | cis-1,3-dichloropropane | |
| (38V) | 100-81-4 | ethylbenzene | |
| (44V) | 75-09-2 | methylene chloride | ND - B |
| (45V) | 74-87-3 | chloromethane | |
| (46V) | 74-83-9 | bromomethane | |
| (47V) | 75-25-2 | bromoform | |
| (48V) | 75-27-4 | bromodichloromethane | |
| (49V) | 75-69-4 | fluorotrichloromethane | |
| (50V) | 75-71-3 | dichlorodifluoromethane | |
| (51V) | 124-44-1 | chlorodibromomethane | |
| (85V) | 127-18-4 | tetrachloroethane | |
| (86V) | 108-88-3 | toluene | |
| (87V) | 79-01-6 | trichloroethane | |
| (88V) | 75-01-4 | vinyl chloride | |
| | 67-64-1 | acetone | |
| | 78-93-3 | 2-butanone | |
| | 75-15-0 | carbonylsulfide | |
| | 519-78-6 | 2-hexanone | |
| | 108-10-1 | 4-methyl-2-pentanone | |
| | 100-42-5 | styrene | |
| | 108-05-4 | vinyl acetate | |

| FP # | CAS # | Chemical Name | (circle one) |
|--------|------------|--------------------|--------------|
| (89P) | 309-00-2 | aldrin | |
| (90P) | 60-57-1 | dieldrin | |
| (91P) | 57-78-9 | chlorfens | |
| (92P) | 50-29-3 | 4,4-DDT | |
| (93P) | 72-33-9 | 4,4-DDE | |
| (94P) | 72-34-8 | 4,4-DDD | |
| (95P) | 115-29-7 | α-endosulfan | 0.005 |
| (96P) | 115-29-7 | β-endosulfan | K |
| (97P) | 1031-07-8 | endosulfan sulfate | |
| (98P) | 72-20-8 | endrin | |
| (99P) | 7421-93-4 | endrin aldehyde | |
| (100P) | 76-44-8 | heptachlor | 0.005 |
| (101P) | 1024-57-3 | heptachlor epoxide | |
| (102P) | 319-34-6 | α-BHC | 0.036 |
| (103P) | 319-35-7 | β-BHC | |
| (104P) | 319-36-8 | γ-BHC | |
| (105P) | 58-89-9 | γ-BHC (lindane) | |
| (106P) | 53469-21-9 | PCB-1202 | |
| (107P) | 11097-69-1 | PCB-1254 | |
| (108P) | 11104-28-2 | PCB-1221 | |
| (109P) | 11141-16-3 | PCB-1232 | |
| (110P) | 12672-29-6 | PCB-1298 | |
| (111P) | 11096-82-3 | PCB-1260 | |
| (112P) | 12674-11-2 | PCB-1016 | |
| (113P) | 8001-35-2 | toxaphene | |

DIOXINS

CONCENTRATION: LO MEDIUM HIGH (circle one)
 DATE EXTRACTED/PREPARED: 8-4-83
 DATE ANALYZED: 8-21-83
 PERCENT MOISTURE: _____

| FP # | CAS # | Chemical Name | (circle one) |
|--------|-----------|-------------------------------------|--------------|
| (129B) | 1746-01-6 | 2,3,7,8-tetrachlorodibenzo-p-dioxin | |

ART00118

David M. Jones

Sample Number
C3755

ORGANIC ANALYSIS DATA SHEET

Agency Name: ETC Corp
 Sample ID. No.: C3755

Case No.: 1915
 QC Report No.:

Multiplicity Detection Limits by 1 or 10 (Check Box for Appropriate Factor)

ACID COMPOUNDS

| PP # | CAS # | Chemical Name | u/l (ug/kg) |
|-------|----------|----------------------------|-------------|
| (21A) | 88-06-2 | 2,4-dichlorophenol | 800U |
| (22A) | 99-50-7 | p-chloro-phenol | 800U |
| (23A) | 95-57-5 | 2-chlorophenol | 800U |
| (24A) | 120-33-2 | 2,4-dichlorophenol | 800U |
| (25A) | 185-67-9 | 2,4-dimethylphenol | 800U |
| (27A) | 88-75-3 | 2-nitrophenol | 800U |
| (28A) | 100-02-7 | 4-nitrophenol | 800U |
| (29A) | 51-25-3 | 2,4-dinitrophenol | 800U |
| (30A) | 534-32-1 | 4,6-dinitro-2-methylphenol | 800U |
| (31A) | 87-36-5 | parachlorophenol | 800U |
| (32A) | 106-95-2 | phenol | 800U |

BASE/NEUTRAL COMPOUNDS

| PP # | CAS # | Chemical Name | u/l (ug/kg) |
|-------|----------|------------------------|-------------|
| (73B) | 80-32-8 | benz(a)pyrene | 400U |
| (74B) | 205-99-2 | benz(b)fluoranthene | 400U |
| (75B) | 207-08-9 | benz(k)fluoranthene | 400U |
| (76B) | 218-01-9 | chrysene | 400U |
| (77B) | 205-96-8 | acenaaphthylene | 400U |
| (78B) | 120-12-7 | anthracene | 400U |
| (79B) | 191-28-2 | benzo(a)phenylene | 400U |
| (80B) | 86-73-7 | fluorene | 400U |
| (81B) | 85-01-8 | phenanthrene | 400U |
| (82B) | 33-70-3 | subenza(a,h)anthracene | 400U |
| (83B) | 193-39-5 | indeno(1,2,3-cd)pyrene | 400U |
| (84B) | 129-00-0 | pyrene | 400U |

BASE/NEUTRAL COMPOUNDS

| | | | |
|------|------------|---------------------------------|------|
| (18) | 53-32-9 | acetophenone | 400U |
| (19) | 72-57-3 | benzofuran | 400U |
| (20) | 120-57-1 | 1,2-dichlorobenzene | 400U |
| (21) | 112-74-1 | hexachlorobenzene | 400U |
| (22) | 67-72-1 | hexachloroethane | 400U |
| (23) | 111-46-6 | hex(2-chloroethoxy)ethane | 400U |
| (24) | 91-38-7 | 2-chloroethoxyethane | 400U |
| (25) | 95-30-1 | 1,2-dichloroethane | 400U |
| (26) | 501-73-1 | 1,2-dichlorobenzene | 400U |
| (27) | 106-66-7 | 1,4-dichlorobenzene | 400U |
| (28) | 91-88-1 | 3,3'-dichlorobenzidine | 400U |
| (29) | 121-14-2 | 2,4-dinitroethane | 400U |
| (30) | 166-25-2 | 2,4-dinitroethane | 400U |
| (31) | 122-66-7 | 1,2-diphenyl ethane | 400U |
| (32) | 706-00-3 | fluorene | 400U |
| (33) | 7053-72-3 | 4-chlorophenyl phenyl ether | 400U |
| (34) | 181-33-3 | 4-bromophenyl phenyl ether | 400U |
| (35) | 79634-32-9 | bis (2-chloroethoxy) ether | 400U |
| (36) | 111-91-1 | bis (2-chloroethoxy) methane | 400U |
| (37) | 27-45-3 | hexachlorocyclopentadiene | 400U |
| (38) | 77-47-8 | hexachlorocyclopentadiene | 400U |
| (39) | 78-39-1 | acetophenone | 400U |
| (40) | 91-28-3 | acetophenone | 400U |
| (41) | 96-93-7 | acetophenone | 400U |
| (42) | 86-30-6 | N,N-dimethylpropylamine | 400U |
| (43) | 421-44-7 | N,N-dimethylpropylamine | 400U |
| (44) | 117-51-7 | 5,5 (2-mercaptoethyl) phthalate | 400U |
| (45) | 83-68-7 | benzyl butyl phthalate | 400U |
| (46) | 26-76-2 | dimethyl phthalate | 400U |
| (47) | 117-34-6 | dimethyl phthalate | 400U |
| (48) | 28-00-2 | dimethyl phthalate | 400U |
| (49) | 31-11-3 | dimethyl phthalate | 400U |
| (50) | 26-33-3 | benzyl butyl phthalate | 400U |

VOLATILES

| | | | |
|-------|-------------|---------------------------|-------|
| (2V) | 107-02-8 | acrolein | 50U |
| (3V) | 107-13-1 | acrylonitrile | 50U |
| (4V) | 71-43-2 | benzene | 4.5U |
| (5V) | 56-23-3 | carbon tetrachloride | 4.5U |
| (6V) | 108-90-7 | chlorobenzene | 4.5U |
| (7V) | 107-06-2 | 1,2-dichloroethane | 4.5U |
| (8V) | 71-35-6 | 1,1,1-trichloroethane | 4.5U |
| (9V) | 75-34-3 | 1,1-dichloroethane | 4.5U |
| (10V) | 79-00-5 | 1,1,2-trichloroethane | 4.5U |
| (11V) | 79-34-5 | 1,1,2-trichloroethane | 4.5U |
| (12V) | 75-00-3 | chloroethane | 4.5U |
| (13V) | 110-75-8 | 2-chloroethyl vinyl ether | 4.5U |
| (14V) | 67-66-3 | chloroform | 4.5U |
| (15V) | 75-35-8 | 1,1-dichloroethane | 4.5U |
| (16V) | 156-60-5 | trans-1,2-dichloroethane | 4.5U |
| (17V) | 78-57-3 | 1,2-dichloropropane | 4.5U |
| (18V) | 10061-82-6 | trans-1,3-dichloropropane | 4.5U |
| (19V) | 10061-81-05 | cis-1,3-dichloropropane | 4.5U |
| (20V) | 100-61-6 | ethylbenzene | 4.5U |
| (21V) | 75-09-2 | methylene chloride | 4.5KC |
| (22V) | 76-57-3 | chloromethane | 4.5U |
| (23V) | 76-53-9 | bromomethane | 4.5U |
| (24V) | 75-23-2 | bromoform | 4.5U |
| (25V) | 75-27-8 | bromodichloromethane | 4.5U |
| (26V) | 75-69-6 | fluorodichloromethane | 4.5U |
| (27V) | 75-71-5 | dichlorodifluoromethane | 4.5U |
| (28V) | 124-68-1 | chlorodibromomethane | 4.5U |
| (29V) | 127-18-6 | tetrachloroethane | 4.5U |
| (30V) | 108-88-3 | toluene | 4.5U |
| (31V) | 79-01-6 | trichloroethane | 4.5U |
| (32V) | 75-01-0 | vinyl chloride | 4.5U |

FORM II

0020

AR100120

ORGANICS ANALYSIS DATA SHEET Page 2

David H. Spill

Sample Number
03755

Party Name: ETC Corp
Sample ID: CR359

Case No: _____
QC Report No: _____

Multiply Detection Limits by 1 or 10 (Check Box for Appropriate Factor)

PESTICIDES

| CAS # | | U/L or U/Lx (circle one) |
|-----------|--------------------|--------------------------------|
| 309-00-2 | aldrin | 20U |
| 60-57-1 | dieldrin | 20U |
| 57-76-9 | chlorfens | 1000U |
| 50-29-3 | p,p'-DDT | 20U |
| 72-35-9 | p,p'-DDE | 20U |
| 72-34-8 | p,p'-DDD | 20U |
| 115-29-7 | γ-endosulfan | 20U |
| 115-29-7 | β-endosulfan | 20U |
| 1031-07-8 | endosulfan sulfate | 20U |
| 77-20-8 | carbin | 20U |
| 7621-93-4 | carbin aldehyde | 20U |
| 76-66-3 | heptachlor | 20U |
| 1026-57-3 | heptachlor epoxide | 20U |
| 319-84-6 | CC-BHC | 20U |

PESTICIDES

| PP # | CAS # | | U/L or U/Lx (circle one) |
|--------|------------|-----------------|--------------------------------|
| (103P) | 319-85-7 | β-BHC | 20U |
| (104P) | 319-86-8 | δ-BHC | 20U |
| (105P) | 58-29-9 | γ-BHC (lindane) | 20U |
| (106P) | 53669-21-9 | PCB-1242 | 1000U |
| (107P) | 11097-69-1 | PCB-1254 | 1000U |
| (108P) | 11104-28-2 | PCB-1221 | 1000U |
| (109P) | 11101-16-5 | PCB-1232 | 1000U |
| (110P) | 12672-29-6 | PCB-1248 | 1000U |
| (111P) | 11096-32-3 | PCB-1260 | 1000U |
| (112P) | 12674-11-2 | PCB-1016 | 1000U |
| (113P) | 8001-35-2 | toxaphene | 1000U |

DIOXINS

(1298) 1796-01-6 2,3,7,8-tetrachlorodibenz-p-dioxin 1200U

Non-Priority Pollutant Hazardous Substances List Compounds

ACID COMPOUNDS

| CAS # | | U/L or U/Lx (circle one) |
|----------|-----------------------|--------------------------------|
| 65-83-0 | benzoic acid | 800U |
| 95-46-7 | 2-methylphenol | 800U |
| 108-39-4 | 4-methylphenol | 800U |
| 95-93-4 | 2,4,6-trichlorophenol | 800U |

VOLATILES

| CAS # | | U/L or U/Lx (circle one) |
|----------|----------------------|--------------------------------|
| 67-64-1 | acetone | 20.7U |
| 78-93-3 | 2-butanone | 4.5U |
| 75-15-0 | carbon disulfide | 4.5U |
| 519-78-6 | 2-hexanone | 4.5U |
| 108-10-1 | 4-methyl-2-pentanone | 4.5U |
| 100-42-5 | styrene | 4.5U |
| 108-05-8 | vinyl acetate | 4.5U |
| 95-47-6 | o-xylene | 4.5U |

BASE/NEUTRAL COMPOUNDS

| | | |
|----------|--------------------|------|
| 63-53-3 | aniline | 400U |
| 100-51-6 | benzyl alcohol | 400U |
| 106-47-8 | 4-chloroaniline | 400U |
| 132-66-9 | debenzofuran | 400U |
| 91-57-4 | 2-methylmorpholine | 400U |
| 88-76-4 | 2-nitroaniline | 400U |
| 98-09-2 | 3-nitroaniline | 400U |
| 108-01-6 | 4-nitroaniline | 400U |

FORM II (continued)

0021

AR100121

David A. Speis
 B/N/A Repeat
 Sample Number **C3755**

ORGANICS ANALYSIS DATA SHEET

Party Name: ETC Corp
 Sample ID: C8359

Case No: 1915
 QC Report No: _____

Mutually Exclusive Lists by 1 or 10 (Check Box for Appropriate Factor)

ACID COMPOUNDS

| PP # | CAS # | Chemical Name | VE/1 (circle one) |
|------|----------|----------------------------------|----------------------|
| 130 | 26-26-7 | 2,4,6-trichlorophenol | 800U |
| 131 | 79-26-7 | 4-chlorophenol | 800U |
| 132 | 95-57-3 | 2-chlorophenol | 800U |
| 133 | 120-31-2 | 3,4-dichlorophenol | 800U |
| 134 | 105-67-9 | 2,6-dimethylphenol | 800U |
| 135 | 88-75-3 | 2-nitrophenol | 800U |
| 136 | 100-02-7 | 4-nitrophenol | 800U |
| 137 | 91-73-5 | 2,4-dichlorophenol | 800U |
| 138 | 334-52-1 | 4-(4-nitrophenyl)-2-methylphenol | 800U |
| 139 | 57-14-3 | parachlorophenol | 800U |
| 140 | 106-71-2 | phenol | 800U |

BASE/NEUTRAL COMPOUNDS

| PP # | CAS # | Chemical Name | VE/1 (circle one) |
|------|----------|------------------------|----------------------|
| 173B | 90-32-8 | benz(a)pyrene | 400U |
| 174B | 203-99-2 | benz(b)fluoranthene | 400U |
| 175B | 207-35-9 | benz(k)fluoranthene | 400U |
| 176B | 218-01-9 | chrysene | 400U |
| 177B | 203-96-3 | acenaphthylene | 400U |
| 178B | 120-12-7 | anthracene | 400U |
| 179B | 191-24-2 | benz(g)hperylene | 400U |
| 180B | 86-73-7 | fluorene | 400U |
| 181B | 83-01-8 | phenanthrene | 400U |
| 182B | 33-70-3 | dibenz(a,h)anthracene | 400U |
| 183B | 193-39-3 | indeno(1,2,3-cd)pyrene | 400U |
| 184B | 129-00-0 | pyrene | 400U |

BASE/NEUTRAL COMPOUNDS

| | | | |
|-----|----------|-----------------------------|------|
| 185 | 53-32-9 | acenaphthene | 400U |
| 186 | 92-57-5 | indoline | 400U |
| 187 | 120-32-1 | 1,2,4-trichlorobenzene | 400U |
| 188 | 112-74-1 | hexachlorobenzene | 400U |
| 189 | 67-77-1 | hexachloroethane | 400U |
| 190 | 111-66-6 | 1,1,2-trichloroethane | 400U |
| 191 | 91-35-7 | 2-chloroethanol | 400U |
| 192 | 95-35-1 | 1,2-dichloroethane | 400U |
| 193 | 91-75-1 | 1,1-dichloroethane | 400U |
| 194 | 106-66-7 | 1,1-dichloroethane | 400U |
| 195 | 91-94-1 | 1,1,2-trichloroethane | 400U |
| 196 | 121-14-2 | 2,2-dichloroethane | 400U |
| 197 | 604-75-2 | 2,2-dichloroethane | 400U |
| 198 | 122-66-7 | 1,2-dichloroethane | 400U |
| 199 | 28-04-0 | fluorobenzene | 400U |
| 200 | 795-77-3 | 4-chlorophenyl phenyl ether | 400U |
| 201 | 181-33-3 | 4-nitrophenyl phenyl ether | 400U |
| 202 | 795-77-3 | 4-chlorophenyl phenyl ether | 400U |
| 203 | 111-91-2 | 4-nitrophenyl phenyl ether | 400U |
| 204 | 87-42-3 | hexachlorocyclopentadiene | 400U |
| 205 | 77-47-6 | hexachlorocyclopentadiene | 400U |
| 206 | 78-24-1 | acetylene | 400U |
| 207 | 91-28-3 | acetylene | 400U |
| 208 | 86-73-7 | acetylene | 400U |
| 209 | 86-73-7 | acetylene | 400U |
| 210 | 121-66-7 | 1,1,1-trichloroethane | 400U |
| 211 | 77-47-6 | hexachlorocyclopentadiene | 400U |
| 212 | 77-47-6 | hexachlorocyclopentadiene | 400U |
| 213 | 77-47-6 | hexachlorocyclopentadiene | 400U |
| 214 | 77-47-6 | hexachlorocyclopentadiene | 400U |
| 215 | 77-47-6 | hexachlorocyclopentadiene | 400U |
| 216 | 77-47-6 | hexachlorocyclopentadiene | 400U |
| 217 | 77-47-6 | hexachlorocyclopentadiene | 400U |
| 218 | 77-47-6 | hexachlorocyclopentadiene | 400U |
| 219 | 77-47-6 | hexachlorocyclopentadiene | 400U |
| 220 | 77-47-6 | hexachlorocyclopentadiene | 400U |
| 221 | 77-47-6 | hexachlorocyclopentadiene | 400U |
| 222 | 77-47-6 | hexachlorocyclopentadiene | 400U |
| 223 | 77-47-6 | hexachlorocyclopentadiene | 400U |
| 224 | 77-47-6 | hexachlorocyclopentadiene | 400U |
| 225 | 77-47-6 | hexachlorocyclopentadiene | 400U |
| 226 | 77-47-6 | hexachlorocyclopentadiene | 400U |
| 227 | 77-47-6 | hexachlorocyclopentadiene | 400U |
| 228 | 77-47-6 | hexachlorocyclopentadiene | 400U |
| 229 | 77-47-6 | hexachlorocyclopentadiene | 400U |
| 230 | 77-47-6 | hexachlorocyclopentadiene | 400U |
| 231 | 77-47-6 | hexachlorocyclopentadiene | 400U |
| 232 | 77-47-6 | hexachlorocyclopentadiene | 400U |
| 233 | 77-47-6 | hexachlorocyclopentadiene | 400U |
| 234 | 77-47-6 | hexachlorocyclopentadiene | 400U |
| 235 | 77-47-6 | hexachlorocyclopentadiene | 400U |
| 236 | 77-47-6 | hexachlorocyclopentadiene | 400U |
| 237 | 77-47-6 | hexachlorocyclopentadiene | 400U |
| 238 | 77-47-6 | hexachlorocyclopentadiene | 400U |
| 239 | 77-47-6 | hexachlorocyclopentadiene | 400U |
| 240 | 77-47-6 | hexachlorocyclopentadiene | 400U |
| 241 | 77-47-6 | hexachlorocyclopentadiene | 400U |
| 242 | 77-47-6 | hexachlorocyclopentadiene | 400U |
| 243 | 77-47-6 | hexachlorocyclopentadiene | 400U |
| 244 | 77-47-6 | hexachlorocyclopentadiene | 400U |
| 245 | 77-47-6 | hexachlorocyclopentadiene | 400U |
| 246 | 77-47-6 | hexachlorocyclopentadiene | 400U |
| 247 | 77-47-6 | hexachlorocyclopentadiene | 400U |
| 248 | 77-47-6 | hexachlorocyclopentadiene | 400U |
| 249 | 77-47-6 | hexachlorocyclopentadiene | 400U |
| 250 | 77-47-6 | hexachlorocyclopentadiene | 400U |

VOLATILES

| | | | |
|------|-------------|---------------------------|--|
| 121V | 107-02-8 | acrolein | |
| 122V | 107-13-1 | acrylonitrile | |
| 123V | 71-43-2 | benzene | |
| 124V | 36-23-5 | carbon tetrachloride | |
| 125V | 108-90-7 | chlorobenzene | |
| 126V | 107-06-2 | 1,2-dichloroethane | |
| 127V | 71-33-6 | 1,1,1-trichloroethane | |
| 128V | 75-34-3 | 1,1-dichloroethane | |
| 129V | 79-08-3 | 1,1,2-trichloroethane | |
| 130V | 79-34-5 | 1,1,2,2-tetrachloroethane | |
| 131V | 75-09-3 | chloroethane | |
| 132V | 110-73-6 | 2-chloroethoxyethyl ether | |
| 133V | 67-66-3 | chloroform | |
| 134V | 75-33-6 | 1,1-dichloroethane | |
| 135V | 156-60-3 | trans-1,2-dichloroethane | |
| 136V | 78-87-3 | 1,2-dichloropropane | |
| 137V | 10061-02-6 | trans-1,3-dichloropropane | |
| 138V | 10061-01-03 | cis-1,3-dichloropropane | |
| 139V | 100-41-4 | ethylbenzene | |
| 140V | 75-09-2 | methylcyclohexane | |
| 141V | 76-87-3 | chloromethane | |
| 142V | 78-83-9 | bromomethane | |
| 143V | 75-25-2 | iodomethane | |
| 144V | 75-27-6 | bromodichloromethane | |
| 145V | 75-69-6 | dibromodichloromethane | |
| 146V | 75-71-8 | dichlorodifluoromethane | |
| 147V | 128-66-1 | chlorodibromomethane | |
| 148V | 127-18-8 | tetrachloroethane | |
| 149V | 108-88-3 | toluene | |
| 150V | 79-01-6 | trichloroethene | |
| 151V | 75-01-0 | vinyl chloride | |

FORM II

0022

AR100122

ORGANICS ANALYSIS DATA SHEET Page 2

David W. Ingh
1915 B/N/A Repeat
Sample Number
C3755

Buyer Name: ETC Corp
Sample ID. No: 28359

Case No: _____
QC Report No: _____

Multiply Detection Limits by 1 or 10 (Check Box for Appropriate Factor)

PESTICIDES

| CAS # | name | µg/l or µg/kg (circle one) |
|-----------|--------------------|----------------------------------|
| 379-20-2 | aldrin | |
| 60-57-1 | dieldrin | |
| 57-76-9 | dieldrene | |
| 50-29-3 | o,p'-DDT | |
| 72-33-9 | o,p'-DDE | |
| 72-34-3 | o,p'-DDD | |
| 113-29-7 | o'-endosulfan | |
| 113-29-7 | p'-endosulfan | |
| 1031-07-3 | endosulfan sulfate | |
| 72-20-8 | endrin | |
| 7821-93-4 | endrin aldehyde | |
| 76-34-3 | heptachlor | |
| 1026-57-1 | heptachlor epoxide | |
| 319-84-6 | o'-BHC | |

PESTICIDES

| FP # | CAS # | name | µg/l or µg/kg (circle one) |
|--------|------------|-----------------|----------------------------------|
| (103P) | 319-85-7 | p'-BHC | |
| (104P) | 319-86-3 | q'-BHC | |
| (105P) | 58-29-9 | γ-BHC (lindane) | |
| (106P) | 53469-21-9 | PCB-1202 | |
| (107P) | 11097-69-1 | PCB-1254 | |
| (108P) | 11104-28-2 | PCB-1221 | |
| (109P) | 11141-16-9 | PCB-1232 | |
| (110P) | 12672-29-6 | PCB-1268 | |
| (111P) | 11096-82-3 | PCB-1260 | |
| (112P) | 12674-11-2 | PCB-1016 | |
| (113P) | 8001-33-2 | toxaphene | |

DIOXINS

| | | |
|--------|-----------|-------------------------------------|
| (129B) | 1746-01-6 | 2,3,7,8-tetrachlorodibenzo-p-dioxin |
|--------|-----------|-------------------------------------|

Non-Priority Pollutant Hazardous Substances List Components

ACID COMPOUNDS

| CAS # | name | µg/l or µg/kg (circle one) |
|----------|-----------------------|----------------------------------|
| 63-53-0 | benzoic acid | 800U |
| 95-26-7 | 2-methyl phenol | 800U |
| 108-29-6 | 4-methyl phenol | 800U |
| 95-93-6 | 2,4,6-trichlorophenol | 800U |

BASE/NEUTRAL COMPOUNDS

| | | |
|----------|------------------|------|
| 62-53-3 | aniline | 400U |
| 100-51-6 | benzyl alcohol | 400U |
| 106-47-8 | 4-chloroaniline | 400U |
| 132-66-9 | chloroaniline | 400U |
| 91-77-6 | 2-methyl aniline | 400U |
| 88-76-4 | 2-nitroaniline | 400U |
| 99-09-2 | 3-nitroaniline | 400U |
| 100-01-6 | 4-nitroaniline | 400U |

VOLATILES

| CAS # | name | µg/l or µg/kg (circle one) |
|----------|----------------------|----------------------------------|
| 67-64-1 | acetone | |
| 78-93-3 | 2-butanone | |
| 75-13-0 | carbonyl sulfide | |
| 519-78-6 | 2-hexanone | |
| 108-10-1 | 4-methyl-2-pentanone | |
| 100-42-3 | styrene | |
| 108-05-6 | vinyl acetate | |
| 95-67-6 | o-xylene | |

FORM II (continued)

0023

AR100123

Handwritten: *Handwritten initials*
 Sample Number: **83273**

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: ETC Corp
 Lab Sample ID. No: 8357

Case No: 1915
 QC Report No: _____

Multiply Detection Limits by 1 or 10 (Check Box for Appropriate Factor)

ACID COMPOUNDS

| PP # | CAS # | Chemical Name | DL (ug/L) |
|-------|----------|-----------------------------------|-----------|
| (11A) | 38-06-7 | 2,4,6-trichlorophenoic acid | 40000U |
| (12A) | 99-36-7 | perchloroacetic acid | 40000U |
| (13A) | 95-57-3 | 2-chlorophenoic acid | 40000U |
| (14A) | 128-33-7 | 2,4-dichlorophenoic acid | 40000U |
| (15A) | 183-67-9 | 2,4-dimethylphenoic acid | 40000U |
| (16A) | 28-75-3 | 2-nitrophenol | 40000U |
| (17A) | 188-07-7 | 4-nitrophenol | 40000U |
| (18A) | 51-78-3 | 2,4-dinitrophenol | 40000U |
| (19A) | 534-72-1 | 4,6-dichloro-2-methylphenoic acid | 40000U |
| (20A) | 87-36-5 | peroxydichlorophenoic acid | 40000U |
| (21A) | 104-95-2 | phenol | 40000U |

BASE/NEUTRAL COMPOUNDS

| PP # | CAS # | Chemical Name | DL (ug/L) |
|-------|----------|------------------------|-----------|
| (72B) | 30-32-8 | benzofluoranthene | 20000U |
| (74B) | 205-99-2 | benzo[b]fluoranthene | 20000U |
| (75B) | 207-08-9 | benzo[k]fluoranthene | 20000U |
| (76B) | 218-01-9 | dibenz[a,h]anthracene | 20000U |
| (77B) | 208-96-3 | acenaphthylene | 20000U |
| (78B) | 120-12-7 | anthracene | 20000U |
| (79B) | 191-28-2 | benzo[ghi]perylene | 20000U |
| (80B) | 86-73-7 | fluorene | 20000U |
| (81B) | 83-01-2 | phenanthrene | 20000U |
| (82B) | 33-70-3 | dibenz[a,h]anthracene | 20000U |
| (83B) | 193-39-3 | indeno[1,2,3-cd]pyrene | 20000U |
| (84B) | 129-00-0 | pyrene | 20000U |

BASE/NEUTRAL COMPOUNDS

| | | | |
|------|-----------|-----------------------------|--------|
| (18) | 83-32-9 | acenaphthene | 20000U |
| (19) | 92-37-5 | benzidine | 20000U |
| (20) | 120-32-1 | 1,2-dichlorobenzene | 20000U |
| (21) | 112-74-1 | hexachlorobenzene | 20000U |
| (22) | 67-73-1 | hexachlorocyclopentadiene | 20000U |
| (23) | 111-26-6 | 1,2-dichloroethane | 20000U |
| (24) | 91-58-7 | 2-chloroethanol | 20000U |
| (25) | 75-30-1 | 1,2-dichlorobenzene | 20000U |
| (26) | 361-73-1 | 1,3-dichlorobenzene | 20000U |
| (27) | 106-46-7 | 1,4-dichlorobenzene | 20000U |
| (28) | 91-96-1 | 3,3'-dichlorobenzidine | 20000U |
| (29) | 121-18-2 | 2,4-dinitrotoluene | 20000U |
| (30) | 606-20-2 | 2,4-dinitrotoluene | 20000U |
| (31) | 122-46-7 | 1,2-diphenylhydrazine | 20000U |
| (32) | 206-46-2 | fluorene | 20000U |
| (33) | 2061-72-3 | 4-chlorophenyl phenyl ether | 20000U |
| (34) | 101-53-3 | 4-nitrophenyl phenyl ether | 20000U |
| (35) | 2062-32-9 | 1-(2-chloroacetyl) ether | 20000U |
| (36) | 111-91-1 | 1-(2-chloroethyl) methanol | 20000U |
| (37) | 87-44-3 | tetrachloroethylene | 20000U |
| (38) | 77-47-8 | hexachlorocyclopentadiene | 20000U |
| (39) | 78-39-1 | asphatene | 20000U |
| (40) | 91-20-3 | nitrobenzene | 20000U |
| (41) | 98-92-3 | nitrobenzene | 20000U |
| (42) | 16-30-6 | N,N-dimethylamine | 20000U |
| (43) | 421-44-7 | N,N-dimethylpropylamine | 20000U |
| (44) | 117-31-7 | 2,2-(2-ethoxyethyl) propane | 20000U |
| (45) | 23-68-7 | ethyl methyl phosphate | 20000U |
| (46) | 36-78-2 | di-n-butyl phosphate | 20000U |
| (47) | 117-34-5 | di-n-butyl phosphate | 20000U |
| (48) | 36-66-2 | di-n-butyl phosphate | 20000U |
| (49) | 111-11-3 | di-n-butyl phosphate | 20000U |
| (50) | 36-35-3 | benzofluoranthene | 20000U |

VOLATILES

| | | | |
|------|-------------|---------------------------|------|
| (51) | 107-02-3 | acrolein | 50U |
| (52) | 107-13-1 | acrylonitrile | 50U |
| (53) | 71-43-2 | benzene | 4.5U |
| (54) | 56-23-5 | carbon tetrachloride | 4.5U |
| (55) | 108-90-7 | chlorobenzene | 4.5U |
| (56) | 107-06-2 | 1,2-dichloroethane | 4.5U |
| (57) | 71-33-6 | 1,1,1-trichloroethane | 4.5K |
| (58) | 75-34-3 | 1,1-dichloroethane | 4.5U |
| (59) | 79-00-5 | 1,1,2-trichloroethane | 4.5U |
| (60) | 79-34-3 | 1,1,2,2-tetrachloroethane | 4.5U |
| (61) | 75-20-3 | chloroethane | 4.5U |
| (62) | 110-75-8 | 2-chloroethyl vinyl ether | 4.5U |
| (63) | 67-66-3 | chloroform | 4.5U |
| (64) | 75-35-8 | 1,1-dichloroethane | 4.5U |
| (65) | 136-40-5 | trans-1,2-dichloroethane | 4.5U |
| (66) | 78-57-3 | 1,2-dichloropropane | 4.5U |
| (67) | 10061-02-4 | trans-1,3-dichloropropane | 4.5U |
| (68) | 10061-01-05 | cis-1,3-dichloropropane | 4.5U |
| (69) | 100-41-6 | ethylbenzene | 4.5U |
| (70) | 75-29-2 | methylene chloride | 9.20 |
| (71) | 78-37-3 | chloroethane | 4.5U |
| (72) | 74-83-9 | bromomethane | 4.5U |
| (73) | 75-23-2 | bromoform | 4.5U |
| (74) | 75-27-8 | bromodichloromethane | 4.5U |
| (75) | 75-69-6 | 1,1-dibromochloroethane | 4.5K |
| (76) | 75-71-8 | dichlorodifluoromethane | 4.5U |
| (77) | 126-48-1 | chlorodibromomethane | 4.5U |
| (78) | 127-18-8 | tetrachloroethane | 4.5U |
| (79) | 108-88-3 | toluene | 4.5U |
| (80) | 79-01-6 | trichloroethene | 4.5U |
| (81) | 75-01-8 | vinyl chloride | 4.5U |

0006 AR100124

ORGANIC ANALYSIS DATA SHEET - Page 2

Sample Number
C3273

David H. Speck
1915

Library Name: ETC CORP
Sample I.D. No: CR357

Case No: _____
QC Report No: _____

Multiply Detection Limits by 1 or 10 (Check Box for Appropriate Factor)

PESTICIDES

| PP # | CAS # | | ^{u/l} (circle one) u/g |
|--------|-----------|--------------------|---------------------------------------|
| (00P) | 509-00-2 | aldrin | 1000 U |
| (00P) | 60-57-1 | dieldrin | 1000 U |
| (01P) | 57-76-9 | chlordane | 50000 U |
| (02P) | 50-29-3 | p,p'-DDT | 1000 U |
| (03P) | 72-55-9 | p,p'-DDE | 1000 U |
| (04P) | 72-56-8 | p,p'-DDD | 1000 U |
| (05P) | 115-29-7 | γ-endosulfan | 1000 U |
| (06P) | 115-29-7 | β-endosulfan | 1000 U |
| (07P) | 1031-07-8 | endosulfan sulfate | 1000 U |
| (08P) | 72-20-8 | endrin | 1000 U |
| (09P) | 7821-93-8 | endrin aldehyde | 1000 U |
| (100P) | 76-68-8 | heptachlor | 1000 U |
| (101P) | 1026-57-3 | heptachlor epoxide | 1000 U |
| (102P) | 319-84-6 | δ-BHC | 1000 U |

PESTICIDES

| PP # | CAS # | | ^{u/l} (circle one) u/g |
|--------|------------|-----------------|---------------------------------------|
| (103P) | 319-83-7 | β-BHC | 1000 U |
| (104P) | 319-84-8 | δ-BHC | 1000 U |
| (105P) | 32-89-9 | γ-BHC (lindane) | 1000 U |
| (106P) | 33469-21-9 | PCB-1202 | 50000 U |
| (107P) | 11097-69-1 | PCB-1254 | 50000 U |
| (108P) | 11104-28-2 | PCB-1221 | 50000 U |
| (109P) | 11141-16-5 | PCB-1232 | 50000 U |
| (110P) | 12672-29-6 | PCB-1208 | 50000 U |
| (111P) | 11096-82-5 | PCB-1260 | 50000 U |
| (112P) | 12678-11-2 | PCB-1016 | 50000 U |
| (113P) | 3001-35-2 | toxaphene | 50000 U |

PESTICIDES

(1298) 1766-01-6 2,3,7,8-tetrachlorodibenzop-dioxin: 60000 U

Non-Priority Pollutant Hazardous Substances List Components

ACID COMPOUNDS

| CAS # | | ^{u/l} (circle one) u/g |
|----------|------------------------|---------------------------------------|
| 63-25-0 | benzoic acid | 2000 U |
| 95-48-7 | 2-methyl propanoic | 2000 U |
| 108-19-8 | 4-methyl propanoic | 2000 U |
| 95-95-8 | 2,4,6-trichlorophenoic | 2000 U |

BASE/NEUTRAL COMPOUNDS

| | | |
|----------|--------------------|--------|
| 62-53-3 | aniline | 4000 U |
| 100-51-6 | benzyl alcohol | 4000 U |
| 106-47-3 | 4-chloroaniline | 4000 U |
| 132-64-9 | dibenzofuran | 4000 U |
| 91-57-6 | 2-methyl imidazole | 4000 U |
| 88-78-8 | 2-imidazole | 4000 U |
| 99-09-2 | 3-imidazole | 4000 U |
| 100-01-6 | 4-imidazole | 4000 U |

VOLATILES

| CAS # | | ^{u/l} (circle one) u/g |
|----------|----------------------|---------------------------------------|
| 67-66-1 | acetone | 41.6 C |
| 78-93-3 | 2-butanone | 4.5 U |
| 75-15-0 | carbonyl sulfide | 4.5 U |
| 519-78-6 | 2-hexanone | 4.5 U |
| 108-10-1 | 4-methyl-2-pentanone | 4.5 U |
| 100-42-5 | styrene | 4.5 U |
| 108-05-8 | vinyl acetate | 4.5 U |
| 95-47-6 | o-xylene | 4.5 U |

FORM II (continued)

0007

AR100125

David H. Davis

Sample Number
C3273

ETC CORP

1915

Job No
OC955

Case No

B. Tentatively Identified Compounds

| CAS # | Compound Name | Fraction | Scan No. or Retention Time | % Maximum Score Attained Mass Matching Reference (Specify <u>PGM</u>) | Estimated Concentration (ug/L or ug/g) |
|-------|-----------------------|----------|----------------------------|--|--|
| 76131 | Ethane, 1,2-dichloro- | VOA | 310 | 23 | 7.8 J |
| | 1,2-dichloroethane | B/N/A | 145 | 76 | 55 J |
| | UNKNOWN | | | | |
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FORM II (continued)

0028

AR100126

Sample Number
C3274

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: Louche Testing Lab
 Lab Sample ID No: 79617-132
 Sample Matrix: water
 Data Release Authorized By: M. J. J. J.

Case No: 1915
 QC Report No: 79617
 Contract No: WA-82-4069
 Date Sample Received: 7/28/83

VOLATILES

CONCENTRATION: LOW MEDIUM HIGH (circle one)
 DATE EXTRACTED/PREPARED: 8/5/83
 DATE ANALYZED: 8/5/83
 PERCENT MOISTURE: _____

| FP # | CAS # | Compound | or mg/kg (circle one) |
|-------|-------------|---------------------------|-----------------------|
| (2V) | 107-02-8 | acrolein | |
| (3V) | 107-13-1 | acrylonitrile | |
| (4V) | 71-43-2 | benzene | |
| (6V) | 56-23-5 | carbon tetrachloride | |
| (7V) | 108-90-7 | chlorobenzene | |
| (10V) | 107-06-2 | 1,2-dichloroethane | |
| (11V) | 71-55-6 | 1,1,1-trichloroethane | |
| (13V) | 75-34-3 | 1,1-dichloroethane | |
| (14V) | 79-00-5 | 1,1,2-trichloroethane | |
| (15V) | 79-34-5 | 1,1,2,2-tetrachloroethane | |
| (16V) | 75-00-3 | chloroethane | |
| (19V) | 110-75-8 | 2-chloroethylvinyl ether | |
| (23V) | 67-66-3 | chloroform | |
| (29V) | 75-35-4 | 1,1-dichloroethane | |
| (30V) | 156-60-5 | trans-1,2-dichloroethane | |
| (32V) | 78-87-5 | 1,2-dichloropropane | |
| (33V) | 10061-02-6 | trans-1,3-dichloropropane | |
| | 10061-01-05 | cis-1,3-dichloropropane | |
| (38V) | 100-41-4 | ethylbenzene | |
| (44V) | 75-09-2 | methylene chloride | ND-B |
| (45V) | 74-87-3 | chloromethane | |
| (46V) | 74-83-9 | bromomethane | |
| (47V) | 73-23-2 | bromoform | |
| (48V) | 75-27-4 | bromodichloromethane | |
| (49V) | 75-69-4 | fluorotrichloromethane | |
| (50V) | 75-71-8 | dichlorodifluoromethane | |
| (51V) | 124-48-1 | chlorodibromomethane | |
| (83V) | 127-18-4 | tetrachloroethane | |
| (86V) | 108-88-3 | toluene | |
| (87V) | 79-01-6 | trichloroethane | |
| (88V) | 75-01-4 | vinyl chloride | |
| | 67-64-1 | acetone | |
| | 78-93-3 | 2-butanone | |
| | 75-15-0 | carbonylsulfide | |
| | 519-78-6 | 2-hexanone | |
| | 108-10-1 | 4-methyl-2-pentanone | |
| | 100-42-5 | styrene | |
| | 106-05-4 | vinyl acetate | |

PESTICIDES

CONCENTRATION: LOW MEDIUM HIGH (circle one)
 DATE EXTRACTED/PREPARED: 8-4-83
 DATE ANALYZED: 8-19-83
 PERCENT MOISTURE: _____

| FP # | CAS # | Compound | or mg/kg (circle one) |
|--------|------------|--------------------|-----------------------|
| (89P) | 309-00-2 | aldrin | |
| (90P) | 60-57-1 | dieldrin | |
| (91P) | 57-74-9 | chlor丹 | |
| (92P) | 50-29-3 | 4,4'-DDE | |
| (93P) | 72-33-9 | 4,4'-DDE | |
| (94P) | 72-34-8 | 4,4'-DDD | |
| (95P) | 115-29-7 | α-endosulfan | |
| (96P) | 115-29-7 | β-endosulfan | |
| (97P) | 1031-07-8 | endosulfan sulfate | |
| (98P) | 72-20-8 | endrin | |
| (99P) | 7421-93-4 | endrin aldehyde | |
| (100P) | 76-14-8 | heptachlor | |
| (101P) | 1024-97-3 | heptachlor epoxide | |
| (102P) | 319-14-6 | α-BHC | |
| (103P) | 319-15-7 | β-BHC | |
| (104P) | 319-16-8 | γ-BHC | |
| (105P) | 58-19-9 | γ-BHC (lindane) | |
| (106P) | 53469-21-9 | PCB-1242 | |
| (107P) | 11097-49-1 | PCB-1254 | |
| (108P) | 11104-22-2 | PCB-1221 | |
| (109P) | 11141-16-5 | PCB-1232 | |
| (110P) | 12672-29-6 | PCB-1248 | |
| (111P) | 11096-82-5 | PCB-1260 | |
| (112P) | 12674-11-2 | PCB-1016 | |
| (113P) | 8001-35-2 | toxaphene | |

DIOXINS

CONCENTRATION: LOW MEDIUM HIGH (circle one)
 DATE EXTRACTED/PREPARED: 8-4-83
 DATE ANALYZED: 8-21-83
 PERCENT MOISTURE: _____

| FP # | CAS # | Compound | or mg/kg (circle one) |
|--------|-----------|-------------------------------------|-----------------------|
| (129B) | 1746-01-6 | 2,3,7,8-tetrachlorodibenzo-p-dioxin | |

July 1'

AR100127

Sample Number

C3274

Laboratory Name: Laucks Testing Laboratories, Inc.

Case No 1915

B. Tentatively Identified Compounds

| CAS # | COMPOUND NAME | Fraction | Scan No | XMax Score on Mass Matching Routine(F/T) | Estimated Concentration (ug/L or ug/kg) |
|----------|---------------------------|----------|---------|--|---|
| 286-20-4 | 7-Oxabicyclo[4.1.0]heptan | MAN | 458 | 961 | 12 J |
| 344-04-7 | Bromopentafluorobenzene | MAN | 466 | 964 | 9 J |
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ORGANICS ANALYSIS DATA SHEET

Laboratory Name: Lauha Testing Labs
 Lab Sample ID No: 79617-1323
 Sample Matrix: water
 Data Release Authorized By: Milo Hela

Case No: 1915
 QC Report No: 79617
 Contract No: WA-82-A069
 Date Sample Received: 7/28/83

SEMIVOLATILE COMPOUNDS

CONCENTRATION: LOW MEDIUM HIGH (circle one)
 DATE EXTRACTED/PREPARED: 8/3/83
 DATE ANALYZED: 8/19/83
 PERCENT MOISTURE: _____

| PP # | CAS # | NAME | UNIT or ug/kg (circle one) |
|-------|------------|------------------------------|----------------------------------|
| (21A) | 88-06-2 | 2,4,6-trichlorophenol | |
| (22A) | 59-50-7 | p-chloro-m-cresol | |
| (24A) | 95-57-8 | 2-chlorophenol | |
| (31A) | 120-83-2 | 2,4-dichlorophenol | |
| (34A) | 105-67-9 | 2,4-dimethylphenol | |
| (57A) | 88-75-5 | 2-nitrophenol | |
| (58A) | 100-02-7 | 4-nitrophenol | |
| (59A) | 51-28-5 | 2,4-dinitrophenol | |
| (60A) | 534-52-1 | 4,6-dinitro-2-methylphenol | |
| (64A) | 87-86-5 | pentachlorophenol | |
| (65A) | 108-95-2 | phenol | |
| | 65-85-0 | benzoic acid | |
| | 95-48-7 | 2-methylphenol | |
| | 108-39-4 | 4-methylphenol | |
| | 95-95-4 | 2,4,5-trichlorophenol | |
| (1B) | 83-32-9 | acenaphthene | |
| (5B) | 92-87-5 | benzidine | |
| (8B) | 120-82-1 | 1,2,4-trichlorobenzene | |
| (9B) | 118-74-1 | hexachlorobenzene | |
| (12B) | 67-72-1 | hexachloroethane | |
| (18B) | 111-44-4 | bis(2-chloroethyl) ether | |
| (20B) | 91-58-7 | 2-chloronaphthalene | |
| (25B) | 95-50-1 | 1,2-dichlorobenzene | |
| (26B) | 941-73-1 | 1,3-dichlorobenzene | |
| (27B) | 106-46-7 | 1,4-dichlorobenzene | |
| (28B) | 91-94-1 | 3,3'-dichlorobenzidine | |
| (35B) | 121-14-2 | 2,4-dinitrotoluene | |
| (36B) | 606-20-2 | 2,6-dinitrotoluene | |
| (37B) | 122-66-7 | 1,2-diphenylhydrazine | |
| (39B) | 206-44-0 | fluoranthene | |
| (40B) | 7003-72-3 | 4-chlorophenyl phenyl ether | |
| (41B) | 101-55-3 | 4-bromophenyl phenyl ether | |
| (42B) | 39638-32-9 | bis(2-chloroisopropyl) ether | |
| (43B) | 111-91-1 | bis(2-chloroethoxy) methane | |

| PP # | CAS # | NAME | UNIT or ug/kg (circle one) |
|-------|----------|-----------------------------|----------------------------------|
| (52B) | 87-68-3 | hexachlorobutadiene | |
| (53B) | 77-47-4 | hexachlorocyclopentadiene | |
| (54B) | 78-79-1 | isophorone | |
| (59B) | 91-20-3 | naphthalene | |
| (64B) | 98-95-3 | nitrobenzene | |
| (62B) | 86-30-6 | N-nitrosodiphenylamine | |
| (63B) | 621-64-7 | N-nitrosodipropylamine | |
| (66B) | 117-81-7 | bis(2-ethylhexyl) phthalate | |
| (67B) | 85-68-7 | benzyl butyl phthalate | |
| (68B) | 84-74-2 | di-n-butyl phthalate | |
| (69B) | 117-84-0 | di-n-octyl phthalate | |
| (70B) | 84-66-2 | diethyl phthalate | |
| (71B) | 131-11-3 | dimethyl phthalate | |
| (72B) | 56-35-3 | benzo(a)anthracene | |
| (73B) | 50-32-8 | benzo(a)pyrene | |
| (74B) | 205-99-2 | benzo(b)fluoranthene | |
| (75B) | 207-48-9 | benzo(k)fluoranthene | |
| (76B) | 218-01-9 | chrysene | |
| (77B) | 208-96-8 | acenaphthylene | |
| (78B) | 120-12-7 | anthracene | |
| (79B) | 191-24-2 | benzo(ghi)perylene | |
| (80B) | 86-73-7 | fluorene | |
| (81B) | 85-01-8 | phenanthrene | |
| (82B) | 53-70-3 | dibenzo(a,h)anthracene | |
| (83B) | 193-39-5 | indeno(1,2,3-cd)pyrene | |
| (84B) | 129-00-0 | pyrene | |
| | 62-53-3 | aniline | |
| | 100-51-6 | benzyl alcohol | |
| | 106-47-8 | 4-chloroaniline | |
| | 132-64-9 | dibenzofuran | |
| | 91-57-6 | 2-methylnaphthalene | |
| | 88-71-8 | 2-nitroaniline | |
| | 99-09-2 | 3-nitroaniline | |
| | 100-01-6 | 4-nitroaniline | |

AP-100129

David M. Speck

Sample Number
C3375

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: ETC Corp
 Lab Sample ID. No: C8360

Case No: 1915
 QC Report No: _____

Multiply Detection Limits by 1 or 10 (Check Box for Appropriate Factor)

ACID COMPOUNDS

| FP # | CAS # | Compound | U/L (ug/kg) (ug/gm) |
|-------|----------|----------------------------|---------------------|
| (21A) | 85-01-7 | 2,4,6-trichlorophenol | 800U |
| (22A) | 75-35-7 | 1-chloro-2-naphthol | 800U |
| (23A) | 95-57-3 | 2-chlorophenol | 800U |
| (31A) | 120-33-7 | 2,4-dichlorophenol | 800U |
| (36A) | 103-67-9 | 2,4-dimethylphenol | 800U |
| (37A) | 88-75-5 | 2-naphthol | 800U |
| (38A) | 190-07-7 | 4-nitrophenol | 800U |
| (39A) | 51-25-5 | 2,4-dinitrophenol | 800U |
| (40A) | 734-32-1 | 4,6-dinitro-2-methylphenol | 800U |
| (44A) | 87-36-5 | pentachlorophenol | 800U |
| (65A) | 108-95-2 | phenol | 800U |

BASE/NEUTRAL COMPOUNDS

| FP # | CAS # | Compound | U/L (ug/kg) (ug/gm) |
|-------|----------|------------------------|---------------------|
| (73B) | 30-32-8 | benzo(a)pyrene | 400U |
| (74B) | 205-99-2 | benzo(b)fluoranthene | 400U |
| (75B) | 207-08-9 | benzo(k)fluoranthene | 400U |
| (76B) | 212-01-9 | chrysene | 400U |
| (77B) | 208-96-8 | acenaphthylene | 400U |
| (78B) | 120-12-7 | anthracene | 400U |
| (79B) | 191-24-2 | benzo(g)hperylene | 400U |
| (80B) | 86-73-7 | fluorene | 400U |
| (81B) | 83-01-8 | phenanthrene | 400U |
| (82B) | 53-70-3 | dibenz(a,h)anthracene | 400U |
| (83B) | 193-39-5 | indeno(1,2,3-cd)pyrene | 400U |
| (84B) | 129-00-0 | pyrene | 400U |

BASE/NEUTRAL COMPOUNDS

| | | | |
|--------|------------|------------------------------|------|
| (18) | 53-32-9 | acenaphthene | 400U |
| (35B) | 72-57-5 | benzidine | 400U |
| (118) | 120-32-1 | 1,2-dichlorobenzene | 400U |
| (98) | 115-74-1 | hexachlorobenzene | 400U |
| (128) | 67-72-1 | hexachloroethane | 400U |
| (138) | 111-44-8 | hex(2-chloroethyl)ether | 400U |
| (28B) | 91-58-7 | 2-chloroethoxyethane | 400U |
| (29B) | 95-30-1 | 1,2-dichlorobenzene | 400U |
| (26B) | 361-73-1 | 1,1-dichlorobenzene | 400U |
| (27B) | 106-46-7 | 1,3-dichlorobenzene | 400U |
| (25B) | 91-84-1 | 1,3-dichlorobenzidine | 400U |
| (33B) | 121-14-3 | 2,4-dinitroethane | 400U |
| (34B) | 606-70-2 | 2,4-dinitroethane | 400U |
| (37B) | 127-46-7 | 1,2-dinitroethane | 400U |
| (39B) | 206-44-0 | fluoranthene | 400U |
| (40B) | 7905-72-3 | 4-chlorophenyl phenyl ether | 400U |
| (41B) | 181-55-3 | 4-bromophenyl phenyl ether | 400U |
| (42B) | 79612-32-9 | bis(2-chloropropyl) ether | 400U |
| (43B) | 121-91-1 | bis(2-chloroethyl) methane | 400U |
| (45B) | 87-42-3 | hexachlorocyclopentadiene | 400U |
| (47B) | 77-47-4 | hexachlorocyclopentadiene | 400U |
| (48B) | 72-79-1 | asphatene | 400U |
| (33B) | 91-20-3 | acetylene | 400U |
| (36B) | 96-93-3 | acetylene | 400U |
| (42B) | 34-30-6 | 4-nitroethoxyphenylamine | 400U |
| (43B) | 421-44-7 | N,N-dimethylpropylamine | 400U |
| (44B) | 117-31-7 | bis(2-methylhexyl) phosphate | 400U |
| (45B) | 83-48-7 | benzyl butyl phosphate | 400U |
| (46B) | 28-76-2 | dimethyl phosphate | 400U |
| (47B) | 117-34-0 | dimethyl phosphate | 400U |
| (48B) | 28-76-2 | dimethyl phosphate | 400U |
| (49B) | 131-11-3 | dimethyl phosphate | 400U |
| (72B) | 28-76-2 | dimethyl phosphate | 400U |
| (73B) | 28-76-2 | dimethyl phosphate | 400U |
| (74B) | 28-76-2 | dimethyl phosphate | 400U |
| (75B) | 28-76-2 | dimethyl phosphate | 400U |
| (76B) | 28-76-2 | dimethyl phosphate | 400U |
| (77B) | 28-76-2 | dimethyl phosphate | 400U |
| (78B) | 28-76-2 | dimethyl phosphate | 400U |
| (79B) | 28-76-2 | dimethyl phosphate | 400U |
| (80B) | 28-76-2 | dimethyl phosphate | 400U |
| (81B) | 28-76-2 | dimethyl phosphate | 400U |
| (82B) | 28-76-2 | dimethyl phosphate | 400U |
| (83B) | 28-76-2 | dimethyl phosphate | 400U |
| (84B) | 28-76-2 | dimethyl phosphate | 400U |
| (85B) | 28-76-2 | dimethyl phosphate | 400U |
| (86B) | 28-76-2 | dimethyl phosphate | 400U |
| (87B) | 28-76-2 | dimethyl phosphate | 400U |
| (88B) | 28-76-2 | dimethyl phosphate | 400U |
| (89B) | 28-76-2 | dimethyl phosphate | 400U |
| (90B) | 28-76-2 | dimethyl phosphate | 400U |
| (91B) | 28-76-2 | dimethyl phosphate | 400U |
| (92B) | 28-76-2 | dimethyl phosphate | 400U |
| (93B) | 28-76-2 | dimethyl phosphate | 400U |
| (94B) | 28-76-2 | dimethyl phosphate | 400U |
| (95B) | 28-76-2 | dimethyl phosphate | 400U |
| (96B) | 28-76-2 | dimethyl phosphate | 400U |
| (97B) | 28-76-2 | dimethyl phosphate | 400U |
| (98B) | 28-76-2 | dimethyl phosphate | 400U |
| (99B) | 28-76-2 | dimethyl phosphate | 400U |
| (100B) | 28-76-2 | dimethyl phosphate | 400U |

VOLATILES

| | | | |
|-------|-------------|---------------------------|------|
| (2V) | 107-02-8 | acrolein | 50U |
| (3V) | 107-13-1 | acrylonitrile | 50U |
| (4V) | 71-43-2 | benzene | 4.5U |
| (6V) | 56-23-5 | carbon tetrachloride | 4.5U |
| (7V) | 108-90-7 | chlorobenzene | 4.5U |
| (10V) | 107-06-2 | 1,2-dichloroethane | 4.5U |
| (11V) | 71-35-6 | 1,1,1-trichloroethane | 4.5U |
| (13V) | 75-34-3 | 1,1-dichloroethane | 4.5U |
| (14V) | 79-00-5 | 1,1,2-trichloroethane | 4.5U |
| (15V) | 79-34-3 | 1,1,2,2-tetrachloroethane | 4.5U |
| (16V) | 79-00-3 | chloroethane | 4.5U |
| (19V) | 110-73-8 | 2-chloroethyl vinyl ether | 4.5U |
| (22V) | 67-46-3 | chloroform | 4.5U |
| (29V) | 75-35-8 | 1,1-dichloroethene | 4.5U |
| (30V) | 136-40-5 | trans-1,2-dichloroethene | 4.5U |
| (32V) | 78-87-3 | 1,2-dichloropropane | 4.5U |
| (33V) | 10061-02-6 | trans-1,3-dichloropropane | 4.5U |
| | 10061-01-05 | cis-1,3-dichloropropane | 4.5U |
| (38V) | 100-41-8 | ethyl benzene | 4.5U |
| (44V) | 73-09-2 | methylene chloride | 7.00 |
| (49V) | 78-27-3 | chloromethane | 4.5U |
| (46V) | 78-23-9 | bromomethane | 4.5U |
| (47V) | 73-23-2 | bromoform | 4.5U |
| (48V) | 73-27-4 | bromodichloromethane | 4.5U |
| (49V) | 73-49-4 | dibromodichloromethane | 4.5U |
| (50V) | 73-71-2 | dichlorodifluoromethane | 4.5U |
| (51V) | 126-42-1 | chlorodibromomethane | 4.5U |
| (53V) | 127-18-2 | tetrachloroethene | 4.5U |
| (56V) | 108-88-3 | toluene | 4.5U |
| (57V) | 79-01-6 | trichloroethene | 4.5U |
| (58V) | 73-01-4 | vinyl chloride | 4.5U |

ORGANICS ANALYSIS DATA SHEET Page 2

David H. Spill
1915

Sample Number
C3275

Company Name: ETC Corp
Job Sample L.D. No: 29360

Case No:
QC Report No:

Multiply Detection Limits by 1 or 10 (Check Box for Appropriate Factor)

PESTICIDES

| PP # | CAS # | NAME | U/L (circle one) |
|--------|-----------|--------------------|---------------------|
| (109P) | 309-00-2 | aldrin | 20U |
| (110P) | 60-57-1 | dieldrin | 20U |
| (111P) | 57-76-9 | chlordane | 1000U |
| (112P) | 30-29-3 | o,p'-DDT | 20U |
| (113P) | 72-33-9 | o,p'-DDE | 20U |
| (114P) | 72-36-8 | o,p'-DDD | 20U |
| (115P) | 113-29-7 | γ-endosulfan | 20U |
| (116P) | 113-29-7 | δ-endosulfan | 20U |
| (117P) | 1031-07-8 | endosulfan sulfate | 20U |
| (118P) | 72-20-8 | endrin | 20U |
| (119P) | 7621-93-6 | endrin aldehyde | 20U |
| (120P) | 76-44-1 | heptachlor | 20U |
| (121P) | 1024-57-3 | heptachlor epoxide | 20U |
| (122P) | 319-84-6 | γ-BHC | 20U |

PESTICIDES

| PP # | CAS # | NAME | U/L (circle one) |
|--------|------------|-----------------|---------------------|
| (103P) | 319-83-7 | β-BHC | 20U |
| (104P) | 319-86-8 | δ-BHC | 20U |
| (105P) | 58-29-9 | γ-BHC (lindane) | 20U |
| (106P) | 33469-21-9 | PCB-1242 | 1000U |
| (107P) | 11097-69-1 | PCB-1234 | 1000U |
| (108P) | 11104-28-2 | PCB-1221 | 1000U |
| (109P) | 11101-16-9 | PCB-1232 | 1000U |
| (110P) | 12672-29-6 | PCB-1248 | 1000U |
| (111P) | 11096-82-5 | PCB-1260 | 1000U |
| (112P) | 12674-11-2 | PCB-1016 | 1000U |
| (113P) | 8001-35-2 | toxaphene | 1000U |

DIOXINS

| | | | |
|--------|-----------|-------------------------------------|-------|
| (129B) | 1766-01-6 | 2,3,7,8-tetrachlorodibenzo-p-dioxin | 1200U |
|--------|-----------|-------------------------------------|-------|

Non-Priority Pollutant Hazardous Substances List Compounds

ACID COMPOUNDS

| CAS # | NAME | U/L (circle one) |
|----------|-----------------------|---------------------|
| 63-25-0 | benzoic acid | 800U |
| 93-88-7 | 2-methylphenol | 800U |
| 108-29-6 | 4-methylphenol | 800U |
| 93-93-6 | 2,4,6-trichlorophenol | 800U |

BASE/NEUTRAL COMPOUNDS

| | | |
|----------|----------------------------|------|
| 62-53-3 | aniline | 400U |
| 100-31-6 | benzyl alcohol | 400U |
| 106-47-3 | 4-chloroaniline | 400U |
| 132-66-9 | dibenzofuran | 400U |
| 91-57-6 | 2-methyl-1,4-benzothiazine | 400U |
| 58-76-8 | 2-nitroaniline | 400U |
| 99-09-2 | 3-nitroaniline | 400U |
| 100-01-6 | 4-nitroaniline | 400U |

VOLATILES

| CAS # | NAME | U/L (circle one) |
|----------|----------------------|---------------------|
| 67-64-1 | acetone | 4.7C |
| 72-93-3 | 2-butanone | 4.5KC |
| 75-15-0 | carbon disulfide | 4.5U |
| 319-72-6 | 2-hexanone | 4.5U |
| 108-10-1 | 4-methyl-2-pentanone | 16.4 |
| 100-42-5 | styrene | 4.5U |
| 103-05-8 | vinyl acetate | 4.5U |
| 95-47-6 | oxytene | 4.5U |

FORM II (continued)

0009

AR100131

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: Lanika Testing Labs. Case No: 1915
 Lab Sample ID No: 79617-141 QC Report No: 79617
 Sample Matrix: Water Contract No: WA-80-4069
 Data Release Authorized By: Mitch Nelson Date Sample Received: 7/28/83

SEMIVOLATILE COMPOUNDS

CONCENTRATION: LOW MEDIUM HIGH (circle one)
 DATE EXTRACTED/PREPARED: 8/31/83
 DATE ANALYZED: 8/22/83
 PERCENT MOISTURE: _____

| PP # | CAS # | NAME | PP # | CAS # | NAME |
|-------|------------|------------------------------|-------|----------|-----------------------------|
| (21A) | 88-06-2 | 2,4,6-trichlorophenol | (52B) | 87-68-3 | hexachlorobutadiene |
| (22A) | 59-50-7 | p-chloro-m-cresol | (53B) | 77-47-4 | hexachlorocyclopentadiene |
| (24A) | 95-57-8 | 2-chlorophenol | (54B) | 78-29-1 | isophorone |
| (31A) | 120-83-2 | 2,4-dichlorophenol | (55B) | 91-20-3 | naphthalene |
| (34A) | 105-67-9 | 2,6-dimethylphenol | (56B) | 98-95-3 | nitrobenzene |
| (57A) | 88-75-5 | 2-nitrophenol | (62B) | 86-30-6 | N-nitrosodiphenylamine |
| (58A) | 100-02-7 | 4-nitrophenol | (63B) | 621-64-7 | N-nitrosodipropylamine |
| (59A) | 51-28-5 | 2,4-dinitrophenol | (64B) | 117-81-7 | bis(2-ethylhexyl) phthalate |
| (60A) | 534-52-1 | 4,6-dinitro-2-methylphenol | (67B) | 85-68-7 | benzyl butyl phthalate |
| (64A) | 87-86-5 | pentachlorophenol | (68B) | 84-74-2 | di-n-butyl phthalate |
| (65A) | 108-95-2 | phenol | (69B) | 117-84-0 | di-n-octyl phthalate |
| | 65-85-0 | benzoic acid | (70B) | 84-66-2 | diethyl phthalate |
| | 95-48-7 | 2-methylphenol | (71B) | 131-11-3 | dimethyl phthalate |
| | 108-99-4 | 4-methylphenol | (72B) | 56-55-3 | benzo(a)anthracene |
| | 95-95-4 | 2,4,5-trichlorophenol | (73B) | 50-32-8 | benzo(a)pyrene |
| (1B) | 83-32-9 | acenaphthene | (74B) | 205-99-2 | benzo(b)fluoranthene |
| (5B) | 92-87-5 | benzidine | (75B) | 207-08-9 | benzo(k)fluoranthene |
| (8B) | 120-82-1 | 1,2,4-trichlorobenzene | (76B) | 212-01-9 | chrysene |
| (9B) | 118-74-1 | hexachlorobenzene | (77B) | 208-96-8 | acenaphthylene |
| (12B) | 67-72-1 | hexachloroethane | (78B) | 120-12-7 | anthracene |
| (18B) | 111-44-4 | bis(2-chloroethyl) ether | (79B) | 191-24-2 | benzo(ghi)perylene |
| (20B) | 91-58-7 | 2-chloronaphthalene | (80B) | 86-73-7 | fluorene |
| (25B) | 95-50-1 | 1,2-dichlorobenzene | (81B) | 85-01-8 | phenanthrene |
| (26B) | 941-73-1 | 1,3-dichlorobenzene | (82B) | 53-70-3 | dibenzo(a,h)anthracene |
| (27B) | 106-46-7 | 1,4-dichlorobenzene | (83B) | 193-39-5 | indeno(1,2,3-cd)pyrene |
| (28B) | 91-98-1 | 3,3'-dichlorobenzidine | (84B) | 129-00-0 | pyrene |
| (35B) | 121-14-2 | 2,4-dinitrotoluene | | 62-53-3 | aniline |
| (36B) | 606-20-2 | 2,6-dinitrotoluene | | 100-51-6 | benzyl alcohol |
| (37B) | 122-66-7 | 1,2-diphenylhydrazine | | 106-47-8 | 4-chloroaniline |
| (39B) | 206-44-0 | fluoranthene | | 132-64-9 | dibenzofuran |
| (40B) | 7005-72-3 | 4-chlorophenyl phenyl ether | | 91-57-6 | 2-methylnaphthalene |
| (41B) | 101-55-3 | 4-bromophenyl phenyl ether | | 88-74-4 | 2-nitroaniline |
| (42B) | 39632-32-9 | bis(2-chloroisopropyl) ether | | 99-09-2 | 3-nitroaniline |
| (43B) | 111-91-1 | bis(2-chloroethoxy) methane | | 100-01-6 | 4-nitroaniline |

C3760

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: Lovels Testing Labs
 Lab Sample ID No: 79617-141
 Sample Matrix: Water
 Data Release Authorized By: Milly Helen

Case No: 1915
 QC Report No: 79617
 Contract No: W4-82-A069
 Date Sample Received: 7/28/83

VOLATILES

CONCENTRATION: LOW MEDIUM HIGH (circle one)
 DATE EXTRACTED/PREPARED: 8/5
 DATE ANALYZED: 8/5
 PERCENT MOISTURE: _____

PESTICIDES

CONCENTRATION: LOW MEDIUM HIGH (circle one)
 DATE EXTRACTED/PREPARED: 8/8/84
 DATE ANALYZED: 8/30/84
 PERCENT MOISTURE: N/A

| PP # | CAS # | Chemical Name | or ug/kg (circle one) |
|-------|-------------|---------------------------|-----------------------|
| (2V) | 107-02-8 | acrolein | |
| (3V) | 107-13-1 | acrylonitrile | |
| (4V) | 71-43-2 | benzene | |
| (6V) | 56-23-5 | carbon tetrachloride | |
| (7V) | 108-90-7 | chlorobenzene | |
| (10V) | 107-06-2 | 1,2-dichloroethane | |
| (11V) | 71-55-6 | 1,1,1-trichloroethane | |
| (13V) | 75-34-3 | 1,1-dichloroethane | |
| (14V) | 79-00-3 | 1,1,2-trichloroethane | |
| (15V) | 79-34-5 | 1,1,2,2-tetrachloroethane | |
| (16V) | 75-00-3 | chloroethane | |
| (19V) | 110-75-8 | 2-chloroethylvinyl ether | |
| (23V) | 67-66-3 | chloroform | |
| (29V) | 75-35-4 | 1,1-dichloroethane | |
| (30V) | 156-60-5 | trans-1,2-dichloroethane | |
| (32V) | 78-87-5 | 1,2-dichloropropane | |
| (33V) | 10061-02-4 | trans-1,3-dichloropropane | |
| | 10061-01-05 | cis-1,3-dichloropropane | |
| (38V) | 100-41-4 | ethylbenzene | |
| (44V) | 75-09-2 | methylene chloride | 10 B |
| (45V) | 74-87-3 | chloromethane | |
| (46V) | 74-83-9 | bromomethane | |
| (47V) | 75-25-2 | bromoform | |
| (48V) | 75-27-4 | bromodichloromethane | |
| (49V) | 75-69-4 | fluorotrichloromethane | |
| (50V) | 75-71-8 | dichlorodifluoromethane | |
| (51V) | 124-48-1 | chlorodibromomethane | |
| (85V) | 127-18-4 | tetrachloroethane | |
| (86V) | 108-88-3 | toluene | |
| (87V) | 79-01-6 | trichloroethane | |
| (88V) | 75-01-4 | vinyl chloride | |
| | 67-64-1 | acetone | |
| | 72-93-3 | 2-butanone | |
| | 75-15-0 | carbonylsulfide | |
| | 519-78-6 | 2-hexanone | |
| | 108-10-1 | 4-methyl-2-pentanone | |
| | 100-42-5 | styrene | |
| | 108-05-4 | vinyl acetate | |

| PP # | CAS # | Chemical Name | or ug/kg (circle one) |
|--------|------------|--------------------|-----------------------|
| (89P) | 309-00-2 | aldrin | |
| (90P) | 66-57-1 | dieldrin | |
| (91P) | 57-78-9 | chlordane | |
| (92P) | 50-29-3 | 4,4'-DDT | |
| (93P) | 73-55-9 | 4,4'-DDE | |
| (94P) | 72-34-8 | 4,4'-DDD | |
| (95P) | 115-29-7 | α-endosulfan | |
| (96P) | 115-29-7 | β-endosulfan | |
| (97P) | 1031-07-8 | endosulfan sulfate | |
| (98P) | 72-20-8 | endrin | |
| (99P) | 7421-93-4 | endrin aldehyde | |
| (100P) | 76-44-8 | heptachlor | |
| (101P) | 1024-57-3 | heptachlor epoxide | |
| (102P) | 319-84-6 | α-BHC | |
| (103P) | 319-85-7 | β-BHC | |
| (104P) | 319-86-8 | δ-BHC | |
| (105P) | 58-29-9 | γ-BHC (lindane) | |
| (106P) | 53469-21-9 | PCB-1242 | |
| (107P) | 11097-69-1 | PCB-1254 | |
| (108P) | 11104-28-2 | PCB-1221 | |
| (109P) | 11141-16-5 | PCB-1232 | |
| (110P) | 12672-79-6 | PCB-1248 | |
| (111P) | 11096-12-5 | PCB-1260 | |
| (112P) | 12674-11-2 | PCB-1016 | |
| (113P) | 8001-35-2 | toxaphene | |

DIOXINS

CONCENTRATION: LOW MEDIUM HIGH (circle one)
 DATE EXTRACTED/PREPARED: 8/30/84
 DATE ANALYZED: 8/30/84-22
 PERCENT MOISTURE: N/A

| PP # | CAS # | Chemical Name | or ug/kg (circle one) |
|--------|-----------|-------------------------------------|-----------------------|
| (129B) | 1746-01-6 | 2,3,7,8-tetrachlorodibenzo-p-dioxin | |

AR100133

David H. Spill

Sample Number
03759

ORGANICS ANALYSIS DATA SHEET

Company Name: ETC Corp
 Sample ID: CR356

Case No: 1915
 QC Report No: _____

Multiply Detection Limits by 1 or 10 (Check Box for Appropriate Factor)

ACID COMPOUNDS

| PP # | CAS # | Chemical Name | Wt/L (ug/kg) |
|------|----------|----------------------------|--------------|
| 71A) | 88-06-2 | 2,4,6-trichlorophenol | 800U |
| 72A) | 99-50-7 | p-chloro-m-cresol | 800U |
| 73A) | 95-57-8 | 2-chlorophenol | 800U |
| 74A) | 120-83-2 | 2,4-dichlorophenol | 800U |
| 75A) | 105-67-9 | 2,4-dimethylphenol | 800U |
| 76A) | 88-75-5 | 2-nitrophenol | 800U |
| 77A) | 100-02-7 | 4-nitrophenol | 800U |
| 78A) | 51-28-1 | 2,4-dinitrophenol | 800U |
| 79A) | 934-52-1 | 4,6-dinitro-2-methylphenol | 800U |
| 80A) | 87-36-5 | penta-chlorophenol | 800U |
| 81A) | 108-95-2 | phenol | 800U |

BASE/NEUTRAL COMPOUNDS

| PP # | CAS # | Chemical Name | Wt/L (ug/kg) |
|------|----------|------------------------|--------------|
| 73B) | 30-32-8 | benz(a)pyrene | 400U |
| 74B) | 205-99-2 | benz(b)fluoranthene | 400U |
| 75B) | 207-08-9 | benz(k)fluoranthene | 400U |
| 76B) | 218-01-9 | chrysene | 400U |
| 77B) | 208-96-8 | acenaaphthylene | 400U |
| 78B) | 120-12-7 | anthracene | 400U |
| 79B) | 191-28-2 | benz(g)hoperylene | 400U |
| 80B) | 86-73-7 | fluorene | 400U |
| 81B) | 83-01-8 | phenanthrene | 400U |
| 82B) | 33-70-3 | benz(a,h)anthracene | 400U |
| 83B) | 193-39-5 | indeno(1,2,3-cd)pyrene | 400U |
| 84B) | 129-08-0 | pyrene | 400U |

BASE/NEUTRAL COMPOUNDS

| PP # | CAS # | Chemical Name | Wt/L (ug/kg) |
|------|-----------|------------------------------|--------------|
| 101) | 25-32-9 | acrylonitrile | 400U |
| 102) | 71-27-3 | benzidine | 400U |
| 103) | 120-82-1 | 1,2,4-trichlorobenzene | 400U |
| 104) | 118-76-1 | hexachlorobenzene | 400U |
| 105) | 67-72-1 | hexachloroethane | 400U |
| 106) | 111-66-8 | bis(2-chloroethyl) ether | 400U |
| 107) | 91-58-7 | 2-chloroethoxyethane | 400U |
| 108) | 95-50-1 | 1,2-dichlorobenzene | 400U |
| 109) | 91-75-1 | 1,3-dichlorobenzene | 400U |
| 110) | 106-46-7 | 1,4-dichlorobenzene | 400U |
| 111) | 91-94-1 | 1,3-dichlorobenzidine | 400U |
| 112) | 121-14-2 | 2,4-dinitrotoluene | 400U |
| 113) | 406-20-2 | 2,6-dinitrotoluene | 400U |
| 114) | 122-66-7 | 1,2-diphenylhydrazine | 400U |
| 115) | 706-44-0 | fluoranthene | 400U |
| 116) | 7063-72-3 | 4-chlorophenyl phenyl ether | 400U |
| 117) | 101-55-3 | 4-bromophenyl phenyl ether | 400U |
| 118) | 7063-72-9 | bis(2-chloroisopropyl) ether | 400U |
| 119) | 111-91-1 | bis(2-chloroethyl) methane | 400U |
| 120) | 87-46-3 | hexachlorocyclopentadiene | 400U |
| 121) | 77-47-4 | hexachlorocyclopentadiene | 400U |
| 122) | 78-19-1 | acophenone | 400U |
| 123) | 91-20-3 | naphthalene | 400U |
| 124) | 96-53-3 | nitrobenzene | 400U |
| 125) | 86-10-6 | N-nitrosodiphenylamine | 400U |
| 126) | 621-66-7 | N-nitrosodipropylamine | 400U |
| 127) | 117-81-7 | bis(2-ethylhexyl) phosphate | 400U |
| 128) | 15-48-7 | benzyl butyl phosphate | 400U |
| 129) | 86-78-2 | dimethyl phosphate | 400U |
| 130) | 117-36-0 | di-n-octyl phosphate | 400U |
| 131) | 86-78-2 | diethyl phosphate | 400U |
| 132) | 111-11-1 | dimethyl phosphate | 400U |
| 133) | 86-15-1 | benz(a)anthracene | 400U |

VOLATILES

| PP # | CAS # | Chemical Name | Wt/L (ug/kg) |
|------|-------------|---------------------------|--------------|
| 134) | 107-02-8 | acrolein | 50U |
| 135) | 107-13-1 | acrylonitrile | 50U |
| 136) | 71-43-2 | benzene | 4.5U |
| 137) | 36-23-5 | carbon tetrachloride | 4.5U |
| 138) | 108-90-7 | chlorobenzene | 4.5U |
| 139) | 107-06-2 | 1,1-dichloroethane | 4.5U |
| 140) | 71-35-6 | 1,1,1-trichloroethane | 4.5U |
| 141) | 75-34-3 | 1,1-dichloroethane | 4.5U |
| 142) | 79-00-5 | 1,1,2-trichloroethane | 4.5U |
| 143) | 79-34-3 | 1,1,2,2-tetrachloroethane | 4.5U |
| 144) | 75-00-3 | chloroethane | 4.5U |
| 145) | 110-75-8 | 2-chloroethyl vinyl ether | 4.5U |
| 146) | 67-66-3 | chloroform | 4.5U |
| 147) | 75-35-4 | 1,1-dichloroethane | 4.5U |
| 148) | 136-40-5 | trans-1,2-dichloroethane | 4.5U |
| 149) | 78-57-5 | 1,2-dichloropropane | 4.5U |
| 150) | 10061-02-6 | trans-1,3-dichloropropane | 4.5U |
| 151) | 10061-01-05 | cis-1,3-dichloropropane | 4.5U |
| 152) | 100-61-6 | ethyl benzene | 4.5U |
| 153) | 75-09-2 | methyl ethyl chloride | 4.5U |
| 154) | 78-57-3 | chloromethane | 4.5U |
| 155) | 78-53-9 | bromomethane | 4.5U |
| 156) | 75-23-2 | bromoform | 4.5U |
| 157) | 75-27-4 | bromodichloromethane | 4.5U |
| 158) | 75-49-6 | dibromodichloromethane | 4.5U |
| 159) | 75-71-8 | dichlorodifluoromethane | 4.5U |
| 160) | 124-68-1 | chlorodibromomethane | 4.5U |
| 161) | 127-18-6 | tetrachloroethene | 4.5U |
| 162) | 108-83-3 | toluene | 4.5U |
| 163) | 79-01-6 | trichloroethene | 4.5U |
| 164) | 75-01-6 | vinyl chloride | 4.5U |

FORM II

0026

AR100135

ORGANIC ANALYSIS DATA SHEET - Page 2

David M. Spet
1915

Sample Number
C3759

Client Name: ETC Corp
Sample I.D. No: 19356

Case No: _____
QC Report No: _____

Multiply Detection Limits by: 1 or 10 (Check Box for Appropriate Factor)

PESTICIDES

| CAS # | NAME | W/L (µg/g) |
|-----------|--------------------|---------------|
| 305-50-2 | aldrin | 20U |
| 50-57-1 | dieldrin | 20U |
| 57-76-9 | dieldrin | 1000U |
| 50-57-3 | D,D-DDT | 20U |
| 77-35-9 | D,D-DDD | 20U |
| 77-36-3 | D,D-DDO | 20U |
| 112-29-7 | γ-chlordane | 20U |
| 112-29-7 | δ-chlordane | 20U |
| 1031-07-5 | endosulfan sulfate | 20U |
| 77-20-3 | endrin | 20U |
| 7821-93-5 | endrin aldehyde | 20U |
| 76-44-3 | heptachlor | 20U |
| 1826-57-3 | heptachlor epoxide | 20U |
| 319-24-6 | γ-BHC | 20U |

PESTICIDES

| PP # | CAS # | NAME | W/L (µg/g) |
|--------|------------|-----------------|---------------|
| (105P) | 319-35-7 | β-BHC | 20U |
| (106P) | 319-36-3 | δ-BHC | 20U |
| (105P) | 52-39-9 | γ-BHC (lindane) | 20U |
| (106P) | 33669-21-9 | PCB-1267 | 1000U |
| (107P) | 11097-49-1 | PCB-1234 | 1000U |
| (108P) | 11106-28-2 | PCB-1221 | 1000U |
| (109P) | 11101-16-3 | PCB-1232 | 1000U |
| (110P) | 12672-29-4 | PCB-1268 | 1000U |
| (111P) | 11096-82-3 | PCB-1260 | 1000U |
| (112P) | 12678-11-2 | PCB-1016 | 1000U |
| (113P) | 8001-33-2 | toxaphene | 1000U |

DIOXINS

(129B) 1766-01-4 2,3,7,8-tetrachlorodibenzo-p-dioxin 1200U

Non-Priority Pollutant Hazardous Substances List Compounds

ACID COMPOUNDS

| CAS # | NAME | W/L (µg/g) |
|----------|-----------------------------|---------------|
| 63-25-3 | benzoic acid | 20U |
| 75-26-7 | 2-methylphenol | 200U |
| 102-73-6 | 4-methylphenol | 200U |
| 75-93-6 | 2,4,6-trichlorophenoic acid | 200U |

BASE/NEUTRAL COMPOUNDS

| | | |
|----------|-------------------|------|
| 62-53-3 | aniline | 400U |
| 100-51-6 | benzyl alcohol | 400U |
| 106-47-3 | benzothiazole | 400U |
| 132-66-9 | benzotriazole | 400U |
| 91-57-6 | 2-methylimidazole | 400U |
| 26-76-6 | imidazole | 400U |
| 99-09-2 | imidazole | 400U |
| 26-71-6 | imidazole | 400U |

VOLATILES

| CAS # | NAME | W/L (µg/g) |
|----------|----------------------|---------------|
| 67-66-1 | acetone | 4.5KC |
| 78-93-3 | 2-butanone | 4.5KC |
| 75-15-0 | carbon disulfide | 4.5U |
| 519-78-6 | 2-hexanone | 4.5U |
| 102-10-1 | 4-methyl-2-pentanone | 4.5U |
| 100-42-3 | styrene | 4.5U |
| 102-05-4 | vinyl acetate | 4.5U |
| 95-47-6 | oxybenzene | 4.5U |

FORM II (continued)

0027

AR100136

US ENVIRONMENTAL PROTECTION AGENCY
HWT Sample Management Office
P.O. Box 818 - Alexandria, Virginia 22313
703/557-2490 FTS 8-557-2490

FIRST PIEDMONT
8305-45

Sample No.
MC1005

INORGANICS ANALYSIS DATA SHEET

LAB NAME Chemtech
LAB SAMPLE ID. NO. G2-79-01

CASE NO. 1915
QC REPORT NO. 079

TASK 1 (Elements to be Identified and Measured)

1. Aluminum < 100 ^{ug/l or mg/kg} (circle one)
2. Chromium < 10
3. Barium < 100
4. Beryllium < 5
5. Cobalt < 50
6. Copper 88
7. Iron 108
8. Nickel < 40
9. Manganese 70

10. Zinc 203 ^{ug/l or mg/kg} (circle one)
11. Boron < 100
12. Vanadium < 200
13. Silver < 10

TASK 2 (Elements to be Identified and Measured)

1. Arsenic < 10 ^{ug/l or mg/kg} (circle one)
2. Antimony < 20
3. Selenium < 2
4. Thallium < 10

5. Mercury 0.3 ^{ug/l or mg/kg} (circle one)
6. Tin < 20
7. Cadmium < 1
8. Lead 38.5

TASK 3 (Elements to be Identified and Measured)

1. Ammonia ^{ug/l or mg/kg} (circle one)
2. Cyanide FB < 0.01 < 10
3. Sulfide

COMMENTS:

Paul Brugghe
8/15/83

INORGANICS ANALYSIS DATA SHEET

LAB NAME Chemtech CASE NO. 1915
LAB SAMPLE ID. NO. 62-79-02 QC REPORT NO. 079

TASK 1 (Elements to be Identified and Measured)

| | <u>ug/l or mg/kg</u> (circle one) | | <u>ug/l or mg/kg</u> (circle one) |
|--------------|--------------------------------------|--------------|--------------------------------------|
| 1. Aluminum | <100 | 10. Zinc | 386 |
| 2. Chromium | 15 | 11. Boron | <100 |
| 3. Barium | <100 | 12. Vanadium | <200 |
| 4. Beryllium | <5 | 13. Silver | <10 |
| 5. Cobalt | <50 | | |
| 6. Copper | <50 | | |
| 7. Iron | 79 | | |
| 8. Nickel | <40 | | |
| 9. Manganese | <10 | | |

TASK 2 (Elements to be Identified and Measured)

| | <u>ug/l or mg/kg</u> (circle one) | | <u>ug/l or mg/kg</u> (circle one) |
|-------------|--------------------------------------|------------|--------------------------------------|
| 1. Arsenic | <10 | 5. Mercury | 0.3 |
| 2. Antimony | <20 | 6. Tin | <20 |
| 3. Selenium | <2 | 7. Cadmium | <1 |
| 4. Thallium | <10 | 8. Lead | FB 0.65 13 |

TASK 3 (Elements to be Identified and Measured)

| | <u>ug/l or mg/kg</u> (circle one) |
|------------|--------------------------------------|
| 1. Ammonia | |
| 2. Cyanide | FB <0.4 <10 |
| 3. Sulfide | |

COMMENTS:

Paul Buzzynski
8/15/83

Sample No.
 MC-1007

INORGANICS ANALYSIS DATA SHEET

LAB NAME Chemtech CASE NO. 1915
 LAB SAMPLE ID. NO. G2-79-03 QC REPORT NO. 079

TASK 1 (Elements to be Identified and Measured)

| | ug/l or <u>(mg/kg)</u> (circle one) | | ug/l or <u>(mg/kg)</u> (circle one) |
|--------------|--|--------------|--|
| 1. Aluminum | 20900 | 10. Zinc | 38.2 |
| 2. Chromium | 16.7 | 11. Boron | <5 |
| 3. Barium | 47.8 | 12. Vanadium | 16.7 |
| 4. Beryllium | 1.7 | 13. Silver | <0.5 |
| 5. Cobalt | 3.3 | | |
| 6. Copper | 9.9 | | |
| 7. Iron | 12500 | | |
| 8. Nickel | 7.3 | | |
| 9. Manganese | 177 | | |

TASK 2 (Elements to be Identified and Measured)

| | ug/l or <u>(mg/kg)</u> (circle one) | | ug/l or <u>(mg/kg)</u> (circle one) |
|-------------|--|------------|--|
| 1. Arsenic | 0.95 | 5. Mercury | <0.1 |
| 2. Antimony | <1 | 6. Tin | <1 |
| 3. Selenium | <0.1 | 7. Cadmium | 0.08 |
| 4. Thallium | <0.5 | 8. Lead | 19.8 |

TASK 3 (Elements to be Identified and Measured)

| | ug/l or <u>(mg/kg)</u> (circle one) |
|------------|--|
| 1. Ammonia | |
| 2. Cyanide | <0.25 |
| 3. Sulfide | |

COMMENTS:

Frank Buczyński
 8/15/83

US ENVIRONMENTAL PROTECTION AGENCY
HWI Sample Management Office
P.O. Box 818 - Alexandria, Virginia 22313
703/557-2690 FTS 2-557-2690

Sample No.
MC 1002

INORGANICS ANALYSIS DATA SHEET

LAB NAME Chemtech
LAB SAMPLE ID. NO. 62-79-04

CASE NO. 1915
QC REPORT NO. 079

TASK 1 (Elements to be Identified and Measured)

| | ug/l or mg/kg (circle one) | | ug/l or mg/kg (circle one) |
|--------------|-------------------------------|--------------|-------------------------------|
| 1. Aluminum | 678000 | 10. Zinc | 4670 |
| 2. Chromium | 54 | 11. Boron | 46700 |
| 3. Barium | 7460 | 12. Vanadium | 2200 |
| 4. Beryllium | 13 | 13. Silver | <10 |
| 5. Cobalt | <50 | | |
| 6. Copper | 134 | | |
| 7. Iron | 423000 | | |
| 8. Nickel | 54 | | |
| 9. Manganese | 6570 | | |

TASK 2 (Elements to be Identified and Measured)

| | ug/l or mg/kg (circle one) | | ug/l or mg/kg (circle one) |
|-------------|-------------------------------|------------|-------------------------------|
| 1. Arsenic | 80 | 5. Mercury | 0.3 |
| 2. Antimony | <20 | 6. Tin | 45 |
| 3. Selenium | <2 | 7. Cadmium | <1 |
| 4. Thallium | <10 | 8. Lead | 900 |

TASK 3 (Elements to be Identified and Measured)

| | ug/l or mg/kg (circle one) |
|------------|-------------------------------|
| 1. Ammonia | |
| 2. Cyanide | FB <over> <10 |
| 3. Sulfide | |

COMMENTS:

Frank Buzgali
8/15/83

US ENVIRONMENTAL PROTECTION AGENCY
HWT Sample Management Office
P.O. Box 818 - Alexandria, Virginia 22313
703/557-2490 FTS 8-557-2490

Sample No.
MC 1009

INORGANICS ANALYSIS DATA SHEET

LAB NAME Chemtech CASE NO. 1915-
LAB SAMPLE ID. NO. 62-79-05 QC REPORT NO. 079

TASK 1 (Elements to be Identified and Measured)

| | <u>ug/l or mg/kg</u> (circle one) | | <u>ug/l or mg/kg</u> (circle one) |
|--------------|--------------------------------------|--------------|--------------------------------------|
| 1. Aluminum | <100 | 10. Zinc | 11 |
| 2. Chromium | 64 | 11. Boron | <100 |
| 3. Barium | <100 | 12. Vanadium | <200 |
| 4. Beryllium | <5 | 13. Silver | <10 |
| 5. Cobalt | <50 | | |
| 6. Copper | 50 | | |
| 7. Iron | 173 | | |
| 8. Nickel | <40 | | |
| 9. Manganese | <10 | | |

TASK 2 (Elements to be Identified and Measured)

| | <u>ug/l or mg/kg</u> (circle one) | | <u>ug/l or mg/kg</u> (circle one) |
|-------------|--------------------------------------|------------|--------------------------------------|
| 1. Arsenic | <10 | 5. Mercury | 0.3 |
| 2. Antimony | <20 | 6. Tin | 100 |
| 3. Selenium | <2 | 7. Cadmium | <1 |
| 4. Thallium | <10 | 8. Lead | FB <0.25 <5 |

TASK 3 (Elements to be Identified and Measured)

| | <u>ug/l or mg/kg</u> (circle one) |
|------------|--------------------------------------|
| 1. Ammonia | |
| 2. Cyanide | FB <0.01 <10 |
| 3. Sulfide | |

COMMENTS:

Frank Buczyński
8/15/83

US ENVIRONMENTAL PROTECTION AGENCY
HWE Sample Management Office
P.O. Box 818 - Alexandria, Virginia 22313
703/557-2490 FTS 2-557-2490

Sample No.
MC-10

INORGANICS ANALYSIS DATA SHEET

LAB NAME Chemtech CASE NO. 1915
LAB SAMPLE ID. NO. G2-79-06 QC REPORT NO. 079

TASK 1 (Elements to be Identified and Measured)

| | ug/l or <u>(mg/kg)</u> (circle one) | | ug/l or <u>(mg/l)</u> (circle one) |
|--------------|--|--------------|---------------------------------------|
| 1. Aluminum | 4750 | 10. Zinc | 106 |
| 2. Chromium | 5.7 | 11. Boron | 75.5 |
| 3. Barium | 37.8 | 12. Vanadium | 10 |
| 4. Beryllium | 0.6 | 13. Silver | <0.5 |
| 5. Cobalt | <2.5 | | |
| 6. Copper | 9.1 | | |
| 7. Iron | 6550 | | |
| 8. Nickel | 2.2 | | |
| 9. Manganese | 152 | | |

TASK 2 (Elements to be Identified and Measured)

| | ug/l or <u>(mg/kg)</u> (circle one) | | ug/l or <u>(mg/l)</u> (circle one) |
|-------------|--|------------|---------------------------------------|
| 1. Arsenic | 2.2 | 5. Mercury | 0.5 |
| 2. Antimony | <1 | 6. Tin | 1.4 |
| 3. Selenium | <0.1 | 7. Cadmium | 0.23 |
| 4. Thallium | <0.5 | 8. Lead | 63.5 |

TASK 3 (Elements to be Identified and Measured)

| | ug/l or <u>(mg/kg)</u> (circle one) |
|------------|--|
| 1. Ammonia | |
| 2. Cyanide | <0.25 |
| 3. Sulfide | |

COMMENTS:

Fred Buzgache
8/15/83

Sample No.
 MC-1011

INORGANICS ANALYSIS DATA SHEET

LAB NAME Chemtech CASE NO. 1915-
 LAB SAMPLE ID. NO. G2-79-07 QC REPORT NO. 079

TASK 1 (Elements to be Identified and Measured)

| | ug/l or <u>(mg/kg)</u> (circle one) | | ug/l or <u>(mg/kg)</u> (circle one) |
|--------------|--|--------------|--|
| 1. Aluminum | 980 | 10. Zinc | 28.7 |
| 2. Chromium | 3.8 | 11. Boron | 15.7 |
| 3. Barium | 39.1 | 12. Vanadium | < 10 |
| 4. Beryllium | 1.0 | 13. Silver | < 0.5 |
| 5. Cobalt | < 2.5 | | |
| 6. Copper | 6.0 | | |
| 7. Iron | 6850 | | |
| 8. Nickel | 3.3 | | |
| 9. Manganese | 91 | | |

TASK 2 (Elements to be Identified and Measured)

| | ug/l or <u>(mg/kg)</u> (circle one) | | ug/l or <u>(mg/kg)</u> (circle one) |
|-------------|--|------------|--|
| 1. Arsenic | 0.8 | 5. Mercury | < 0.1 |
| 2. Antimony | < 1 | 6. Tin | < 1 |
| 3. Selenium | < 0.1 | 7. Cadmium | < 0.05 |
| 4. Thallium | < 0.5 | 8. Lead | FB 258 12.9 |

TASK 3 (Elements to be Identified and Measured)

| | ug/l or <u>(mg/kg)</u> (circle one) |
|------------|--|
| 1. Ammonia | |
| 2. Cyanide | < 0.25 |
| 3. Sulfide | |

COMMENTS:

Frank Buczyński
 8/15/83

Sample No.
 MC 10 12

INORGANICS ANALYSIS DATA SHEET

LAB NAME Chemtech CASE NO. 1915
 LAB SAMPLE ID. NO. 62-79-08 QC REPORT NO. 079

TASK 1 (Elements to be Identified and Measured)

| | ug/l or mg/kg (circle one) | | ug/l or mg/kg (circle one) |
|--------------|-------------------------------|--------------|-------------------------------|
| 1. Aluminum | 1020 | 10. Zinc | 48 |
| 2. Chromium | <10 | 11. Boron | 176 |
| 3. Barium | <100 | 12. Vanadium | <200 |
| 4. Beryllium | <5 | 13. Silver | <10 |
| 5. Cobalt | <50 | | |
| 6. Copper | <50 | | |
| 7. Iron | 2640 | | |
| 8. Nickel | <40 | | |
| 9. Manganese | 2910 | | |

TASK 2 (Elements to be Identified and Measured)

| | ug/l or mg/kg (circle one) | | ug/l or mg/kg (circle one) |
|-------------|-------------------------------|------------|-------------------------------|
| 1. Arsenic | FB <0.5 <10 | 3. Mercury | <0.2 |
| 2. Antimony | <20 | 6. Tin | <20 |
| 3. Selenium | <2 | 7. Cadmium | <1 |
| 4. Thallium | <10 | 8. Lead | FB <0.25 <5 |

TASK 3 (Elements to be Identified and Measured)

| | ug/l or mg/kg (circle one) |
|------------|-------------------------------|
| 1. Ammonia | |
| 2. Cyanide | FB <0.01 <10 |
| 3. Sulfide | |

COMMENTS:

Frank Buzgala
 8/15/83

US ENVIRONMENTAL PROTECTION AGENCY
HVI Sample Management Office
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703/557-2490 FTS 2-557-2490

Sample No.
MC-1013

INORGANICS ANALYSIS DATA SHEET

LAB NAME Chemtech
LAB SAMPLE ID. NO. G2-79-09

CASE NO. 1915
QC REPORT NO. 079

TASK 1 (Elements to be Identified and Measured)

| | ug/l or (mg/kg) (circle one) | | ug/l or (mg/kg) (circle one) |
|--------------|---------------------------------|--------------|---------------------------------|
| 1. Aluminum | 78200 | 10. Zinc | 15.9 |
| 2. Chromium | <0.5 | 11. Boron | <5 |
| 3. Barium | 20.8 | 12. Vanadium | 20.4 |
| 4. Beryllium | 0.7 | 13. Silver | <0.5 |
| 5. Cobalt | 29.9 | | |
| 6. Copper | 8 | | |
| 7. Iron | 6900 | | |
| 8. Nickel | 5.7 | | |
| 9. Manganese | 62 | | |

TASK 2 (Elements to be Identified and Measured)

| | ug/l or (mg/kg) (circle one) | | ug/l or (mg/kg) (circle one) |
|-------------|---------------------------------|------------|---------------------------------|
| 1. Arsenic | 1.3 | 5. Mercury | 0.1 |
| 2. Antimony | <1 | 6. Tin | <1 |
| 3. Selenium | <0.1 | 7. Cadmium | <0.05 |
| 4. Thallium | <0.5 | 8. Lead | 13 |

TASK 3 (Elements to be Identified and Measured)

| | ug/l or (mg/kg) (circle one) |
|------------|---------------------------------|
| 1. Ammonia | |
| 2. Cyanide | <0.25 |
| 3. Sulfide | |

COMMENTS:

Frank Buzgack
8/15/83

Sample No.
 MC-10

INORGANICS ANALYSIS DATA SHEET

LAB NAME Chemtech
 LAB SAMPLE ID. NO. G2-79-10

CASE NO. 1915-
 QC REPORT NO. 079

TASK 1 (Elements to be Identified and Measured)

| | ug/l or <u>(mg/kg)</u> (circle one) | | ug/l or <u>(mg/kg)</u> (circle one) |
|--------------|--|--------------|--|
| 1. Aluminum | 17600 | 10. Zinc | 223 |
| 2. Chromium | 10.9 | 11. Boron | 5.5 |
| 3. Barium | 23.2 | 12. Vanadium | 21.4 |
| 4. Beryllium | <0.25 | 13. Silver | <0.5 |
| 5. Cobalt | <2.5 | | |
| 6. Copper | 30.1 | | |
| 7. Iron | 3610 2.5 FB | | |
| 8. Nickel | 5.7 | | |
| 9. Manganese | 15.5 | | |

TASK 2 (Elements to be Identified and Measured)

| | ug/l or <u>(mg/kg)</u> (circle one) | | ug/l or <u>(mg/kg)</u> (circle one) |
|-------------|--|------------|--|
| 1. Arsenic | 1.0 | 3. Mercury | <0.1 |
| 2. Antimony | <1 | 6. Tin | <1 |
| 3. Selenium | 0.5 | 7. Cadmium | <0.05 |
| 4. Thallium | <0.5 | 8. Lead | 54 |

TASK 3 (Elements to be Identified and Measured)

| | ug/l or <u>(mg/kg)</u> (circle one) |
|------------|--|
| 1. Ammonia | |
| 2. Cyanide | <0.25 |
| 3. Sulfide | |

COMMENTS:

Frank Ruzynski
 8/15/83

US ENVIRONMENTAL PROTECTION AGENCY
HWT Sample Management Office
P.O. Box 218 -- Alexandria, Virginia 22313
703/557-2490 FTS 2-557-2490

Sample No.
MC 1015

INORGANICS ANALYSIS DATA SHEET

LAB NAME Chemtech
LAB SAMPLE ID. NO. G2-79-11

CASE NO. 1915
QC REPORT NO. 079

TASK 1 (Elements to be Identified and Measured)

ug/l or mg/kg
(circle one)

| | |
|--------------|----------------|
| 1. Aluminum | <u>1580</u> |
| 2. Chromium | <u><U</u> |
| 3. Barium | <u><100</u> |
| 4. Beryllium | <u><5</u> |
| 5. Cobalt | <u><50</u> |
| 6. Copper | <u><50</u> |
| 7. Iron | <u>1880</u> |
| 8. Nickel | <u><U</u> |
| 9. Manganese | <u>150</u> |

ug/l or mg/kg
(circle one)

| | |
|--------------|----------------|
| 10. Zinc | <u>29</u> |
| 11. Boron | <u><100</u> |
| 12. Vanadium | <u><200</u> |
| 13. Silver | <u><10</u> |

TASK 2 (Elements to be Identified and Measured)

ug/l or mg/kg
(circle one)

| | |
|-------------|---------------|
| 1. Arsenic | <u><10</u> |
| 2. Antimony | <u><20</u> |
| 3. Selenium | <u><2</u> |
| 4. Thallium | <u><10</u> |

ug/l or mg/kg
(circle one)

| | |
|------------|---------------|
| 5. Mercury | <u>0.2</u> |
| 6. Tin | <u><20</u> |
| 7. Cadmium | <u><1</u> |
| 8. Lead | <u>26.5</u> |

TASK 3 (Elements to be Identified and Measured)

ug/l or mg/kg
(circle one)

| | |
|------------------|---------------------------------|
| 1. Ammonia | |
| <u>2</u> Cyanide | <u><0.4</u> FB <u><10</u> |
| 3. Sulfide | |

COMMENTS:

Phil Chapman L.
8/15/83

Sample No.
 MC-10

INORGANICS ANALYSIS DATA SHEET

LAB NAME Chemtech
 LAB SAMPLE ID. NO. G2-79-12

CASE NO. 1915-
 QC REPORT NO. 079

TASK 1 (Elements to be Identified and Measured)

| | ug/l or (mg/kg) (circle one) | | ug/l or (mg/kg) (circle one) |
|--------------|---------------------------------|--------------|---------------------------------|
| 1. Aluminum | 3490 | 10. Zinc | 14.3 |
| 2. Chromium | 13.5 | 11. Boron | <5 |
| 3. Barium | 15.4 | 12. Vanadium | 15.4 |
| 4. Beryllium | <0.25 | 13. Silver | <0.5 |
| 5. Cobalt | 2.7 | | |
| 6. Copper | 7.9 | | |
| 7. Iron | 6100 2.6 FB | | |
| 8. Nickel | 3.8 | | |
| 9. Manganese | 190 | | |

TASK 2 (Elements to be Identified and Measured)

| | ug/l or (mg/kg) (circle one) | | ug/l or (mg/kg) (circle one) |
|-------------|---------------------------------|------------|---------------------------------|
| 1. Arsenic | <0.5 | 5. Mercury | <0.1 |
| 2. Antimony | <1 | 6. Tin | FB <20 <1 |
| 3. Selenium | <0.1 | 7. Cadmium | <0.05 |
| 4. Thallium | <0.5 | 8. Lead | 8 |

TASK 3 (Elements to be Identified and Measured)

| | ug/l or (mg/kg) (circle one) |
|------------|---------------------------------|
| 1. Ammonia | |
| 2. Cyanide | <0.25 |
| 3. Sulfide | |

COMMENTS:

Frank Bazzocchi
 8/15/83

US ENVIRONMENTAL PROTECTION AGENCY
HWT Sample Management Office
P.O. Box 818 -- Alexandria, Virginia 22313
703/557-2490 FTS 8-557-2490

Sample No.
MC 1017

INORGANICS ANALYSIS DATA SHEET

LAB NAME Chemtech
LAB SAMPLE ID. NO. G2-79-13

CASE NO. 1915
QC REPORT NO. 079

TASK 1 (Elements to be Identified and Measured)

ug/l or mg/kg
(circle one)

| | |
|--------------|----------------|
| 1. Aluminum | <u>1270</u> |
| 2. Chromium | <u><10</u> |
| 3. Barium | <u><100</u> |
| 4. Beryllium | <u><5</u> |
| 5. Cobalt | <u><50</u> |
| 6. Copper | <u><50</u> |
| 7. Iron | <u>1390</u> |
| 8. Nickel | <u><40</u> |
| 9. Manganese | <u>71</u> |

ug/l or mg/kg
(circle one)

| | |
|--------------|----------------|
| 10. Zinc | <u>24</u> |
| 11. Boron | <u><100</u> |
| 12. Vanadium | <u><200</u> |
| 13. Silver | <u><10</u> |

TASK 2 (Elements to be Identified and Measured)

ug/l or mg/kg
(circle one)

| | |
|-------------|---------------|
| 1. Arsenic | <u><10</u> |
| 2. Antimony | <u><20</u> |
| 3. Selenium | <u><2</u> |
| 4. Thallium | <u><10</u> |

ug/l or mg/kg
(circle one)

| | |
|------------|-----------------------------------|
| 5. Mercury | <u>0.2</u> |
| 6. Tin | <u><20</u> |
| 7. Cadmium | <u><1</u> |
| 8. Lead | <u>FB <20 <5</u> |

TASK 3 (Elements to be Identified and Measured)

ug/l or mg/kg
(circle one)

| | |
|------------|---------------|
| 1. Ammonia | |
| 2. Cyanide | <u><10</u> |
| 3. Sulfide | |

COMMENTS:

Frank Buzgala
8/15/83

Sample No.
 MC-101

INORGANICS ANALYSIS DATA SHEET

LAB NAME Chemtech
 LAB SAMPLE ID. NO. G2-79-14

CASE NO. 1915
 QC REPORT NO. 079

TASK 1 (Elements to be Identified and Measured)

| | ug/l or (mg/kg) (circle one) | | ug/l or (mg/kg) (circle one) |
|--------------|---------------------------------|--------------|---------------------------------|
| 1. Aluminum | 4610 | 10. Zinc | 10.7 |
| 2. Chromium | 20.9 | 11. Boron | <5 |
| 3. Barium | 16.9 | 12. Vanadium | 15.3 |
| 4. Beryllium | 0.4 | 13. Silver | 20.5 |
| 5. Cobalt | 2.6 | | |
| 6. Copper | 2.6 | | |
| 7. Iron | 7150 | | |
| 8. Nickel | 3.2 | | |
| 9. Manganese | 159 | | |

TASK 2 (Elements to be Identified and Measured)

| | ug/l or (mg/kg) (circle one) | | ug/l or (mg/kg) (circle one) |
|-------------|---------------------------------|------------|---------------------------------|
| 1. Arsenic | 0.5 | 5. Mercury | FB 0.2 0.1 |
| 2. Antimony | <1 | 6. Tin | <1 |
| 3. Selenium | <0.1 | 7. Cadmium | <0.05 |
| 4. Thallium | <0.5 | 8. Lead | 7.9 |

TASK 3 (Elements to be Identified and Measured)

| | ug/l or (mg/kg) (circle one) |
|------------|---------------------------------|
| 1. Ammonia | |
| 2. Cyanide | <0.25 |
| 3. Sulfide | |

COMMENTS:

Frank Benzinger
 8/15/83

US ENVIRONMENTAL PROTECTION AGENCY
HWI Sample Management Office
P.O. Box 818 - Alexandria, Virginia 22313
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Sample No.
MC1019

INORGANICS ANALYSIS DATA SHEET

LAB NAME Chemtech
LAB SAMPLE ID. NO. G2-79-15

CASE NO. 1915
QC REPORT NO. 079

TASK 1 (Elements to be Identified and Measured)

1. Aluminum 127 ^{ug/l or mg/kg} (circle one)
2. Chromium 52
3. Barium <100
4. Beryllium <5
5. Cobalt <50
6. Copper <50
7. Iron 137
8. Nickel <40
9. Manganese 11

10. Zinc 82 ^{ug/l or mg/kg} (circle one)
11. Boron <100
12. Vanadium <200
13. Silver <10

TASK 2 (Elements to be Identified and Measured)

1. Arsenic <10 ^{ug/l or mg/kg} (circle one)
2. Antimony <20
3. Selenium <2
4. Thallium <10

5. Mercury <0.2 ^{ug/l or mg/kg} (circle one)
6. Tin 38
7. Cadmium <0.
8. Lead FD <0.25 <5

TASK 3 (Elements to be Identified and Measured)

1. Ammonia
2. Cyanide FD <0.24 <20 ^{ug/l or mg/kg} (circle one)
3. Sulfide

COMMENTS:

Frank Buzzycki
8/15/83

AR100151

US ENVIRONMENTAL PROTECTION AGENCY
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Sample No.
 MC-1020

INORGANICS ANALYSIS DATA SHEET

LAB NAME Chemtech CASE NO. 1915
 LAB SAMPLE ID. NO. G2-79-16 QC REPORT NO. 079

TASK 1 (Elements to be Identified and Measured)

| | ug/l or <u>mg/kg</u> (circle one) | | ug/l or <u>mg/kg</u> (circle one) |
|--------------|--------------------------------------|--------------|--------------------------------------|
| 1. Aluminum | 1530 | 10. Zinc | 1240 |
| 2. Chromium | 60 | 11. Boron | LS |
| 3. Barium | 40.7 | 12. Vanadium | 23.1 |
| 4. Beryllium | 0.4 | 13. Silver | <0.5 |
| 5. Cobalt | 9.6 | | |
| 6. Copper | 550 | | |
| 7. Iron | 13400 | | |
| 8. Nickel | 17.1 | | |
| 9. Manganese | 60 | | |

TASK 2 (Elements to be Identified and Measured)

| | ug/l or <u>mg/kg</u> (circle one) | | ug/l or <u>mg/kg</u> (circle one) |
|-------------|--------------------------------------|------------|--------------------------------------|
| 1. Arsenic | 1.0 | 5. Mercury | <0.1 |
| 2. Antimony | <1 | 6. Tin | <1 |
| 3. Selenium | 0.2 | 7. Cadmium | 0.2 |
| 4. Thallium | <0.5 | 8. Lead | FB <0.5 208 * |

TASK 3 (Elements to be Identified and Measured)

| | ug/l or <u>mg/kg</u> (circle one) |
|------------|--------------------------------------|
| 1. Ammonia | |
| 2. Cyanide | <0.25 |
| 3. Sulfide | |

COMMENTS: * - - Pb RESULT TAKEN FROM ICAP DATA

Frank Buzgala
 8/15/83

US ENVIRONMENTAL PROTECTION AGENCY
HWI Sample Management Office
P.O. Box 818 - Alexandria, Virginia 22313
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Sample No.
MC-1021

INORGANICS ANALYSIS DATA SHEET

LAB NAME Chemtech CASE NO. 1915-
LAB SAMPLE ID. NO. G2-79-17 QC REPORT NO. 079

TASK 1 (Elements to be Identified and Measured)

| | ug/l or <u>(mg/kg)</u> (circle one) | | ug/l or <u>(mg/kg)</u> (circle one) |
|--------------|--|--------------|--|
| 1. Aluminum | < 5 | 10. Zinc | < 0.5 |
| 2. Chromium | < 0.5 | 11. Boron | < 5 |
| 3. Barium | < 5 | 12. Vanadium | < 10 |
| 4. Beryllium | < 0.25 | 13. Silver | < 0.5 |
| 5. Cobalt | < 2.5 | | |
| 6. Copper | < 2.5 | | |
| 7. Iron | 4.2 | | |
| 8. Nickel | < 2 | | |
| 9. Manganese | 0.5 | | |

TASK 2 (Elements to be Identified and Measured)

| | ug/l or <u>(mg/kg)</u> (circle one) | | ug/l or <u>(mg/kg)</u> (circle one) |
|-------------|--|------------|--|
| 1. Arsenic | < 0.5 | 5. Mercury | 0.1 |
| 2. Antimony | < 1 | 6. Tin | < 1 |
| 3. Selenium | < 0.1 | 7. Cadmium | < 0.05 |
| 4. Thallium | < 0.5 | 8. Lead | FB < 0.05 < 5 |

TASK 3 (Elements to be Identified and Measured)

| | ug/l or <u>(mg/kg)</u> (circle one) |
|------------|--|
| 1. Ammonia | |
| 2. Cyanide | < 0.25 |
| 3. Sulfide | |

COMMENTS:

8/15/83
F. B. Boyd