SDMS DocID 2196172

R-585-12-5-25

SITE INSPECTION OF FMC FREDERICKSBURG PREPARED UNDER

TDD NO. F3-8402-23
EPA NO. VA-33
CONTRACT NO. 68-01-6699

ORIGINAL
(Red)

FOR THE

HAZARDOUS SITE CONTROL DIVISION
U.S. ENVIRONMENTAL PROTECTION AGENCY

JUNE 11, 1986

NUS CORPORATION
SUPERFUND DIVISION

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EPG.

NUS CORPORATION
A Halliburton Company

JCFC Center 6/11/86

CC

Davis

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PROJECT FOR PERFORMANCE OF REMEDIAL RESPONSE ACTIVITIES AT UNCONTROLLED HAZARDOUS SUBSTANCE FACILITIES—ZONE 1

NUS CORPORATION
SUPERFUND DIVISION

Site Name: Fredericksburg
TDD No.: F3-8402-23

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Site Name: Fredericksburg
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APPENDICES

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SECTION 1

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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. F3-8402-23 for the FMC Fredericksburg site located in Spotsylvania County, Virginia.

1.2 Scope of Work

NUS FIT III was tasked to conduct a site inspection including sampling of the FMC Fredericksburg site in Spotsylvania County, Virginia. The site was visited on March 28, 1984.

1.3 Summary

The FMC Fredericksburg site was the location of a cellophane manufacturing operation from 1930 until 1978. The inactive site is presently owned by Spotsylvania County. The site is approximately 230 acres and is bounded by the Rappahannock River to the east and Deep Run Creek to the north and west. The Sylvania Heights subdivision borders the site to the south and uses groundwater as a potable source. According to the Virginia Department of Health and the Virginia State Water Control Board (VA SWCB), there are 4 waste disposal areas on site. The wastes disposed of at the site consisted of liquid viscose, waste cellophane, sodium sulfate, toluene, ethyl alcohol, butyl acetone, and asbestos. The 2 methods of disposal were incineration and landfilling. Viscose and caustic materials were disposed in the two 5-acre pits at the southern portion of the site. Wastes were also incinerated in another 5-acre pit along the eastern border near the Rappahannock River. The approximately 15-acre landfill is located south of Deep Run Creek. Wastes were also stored in tanks before disposal.

The areas of waste disposal and the possible routes of migration were sampled during the March 28, 1984 FIT III site inspection. Analysis results of samples collected by the FIT, and a toxicological evaluation of those results, can be found in sections 6.0 and 7.0 of this report, respectively.

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SECTION 2

2.0 THE SITE

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2.1 Location

The site is located in Spotsylvania County, in northeastern Virginia, approximately 1.5 miles south of the city of Fredericksburg. The access road to the site is located on Route 17 (see appendix B, figure 1).

2.2 Site Layout

The 230-acre site is bordered by the Rappahannock River to the east, Deep Run Creek to the north and west, and the Sylvania Heights subdivision to the south.

The areas of waste disposal are located along Deep Run Creek and the Rappahannock River at the northern and eastern areas of the site (see appendix B, figure 2). Wastes were stored in tanks prior to disposal.

An approximately 15-acre landfill is located in a low area between the northern buildings of the plant and Deep Run Creek. Wet wastes, consisting primarily of defective batches of cellophane, were disposed in the landfill. A waste pit on the eastern part of the site consists of 5 acres where liquid viscose wastes were disposed. Wastes were also burned in two 5-acre pits along the Rappahannock River. The waste contained sulfur compounds and other chemical compounds used in making cellophane. The waste pits and the landfill are presently covered with a clay blanket that was graded and seeded to grasses. The amount of waste disposed in each area is unknown.

2.3 Ownership History

The American Viscose Company owned the property from 1930 until approximately 1945. The Sylvania Company purchased the property from American Viscose and sold it to FMC Corporation. The FMC Corporation sold the site to Spotsylvania County, the present owner, in 1978. All 3 companies manufactured cellophane at the site.

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2.4 Site Use History

Prior to its sale to Spotsylvania County, the plant was one of the world's largest cellophane manufacturing plants. Cellophane was manufactured at the plant from 1930 to 1978 by three different owners/operators. Defective batches of cellophane were disposed in an on-site landfill. Sulfur compounds and other chemical compounds were burned in pits along the river. Liquid viscose wastes were disposed in a pit at the southeastern portion of the site.

2.5 Permit and Regulatory Action History

While under the operation of FMC Corporation, the site held an NPDES permit from 1972 until 1978. No regulatory actions have been taken at this site.

2.6 Remedial Action To Date

No major remedial actions have taken place at the site. According to a hydrogeologic investigation report completed by S.S. Papadopulos, the waste pits and the landfill were covered with a clay blanket, then graded and seeded to grasses.

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SECTION 3

3.0 ENVIRONMENTAL SETTING

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3.1 Water Supply

The city of Fredericksburg is located 1-1/2 miles northwest of the site. According to the Bureau of Water Supply Engineering and the Fredericksburg Sewer and Water Authority, the residents within the city are served by the Fredericksburg Sewer and Water Authority. The authority obtains its water supply from an unnamed intake on the Rappahannock River, 3-1/2 miles northwest of the site. Residents within the subject area who do not live in Fredericksburg use groundwater for their potable water supply. There are 4 community wells in the 3-mile radius area and all draw their water from the deep Patuxent aquifer.[1,2] The private wells in the area obtain their water from the shallow unconfined aquifer and the deeper Patuxent aquifer. Using the house count method, there are approximately 1,400 people using private wells within the 3-mile radius of the site. A 224-foot deep community well is located in the Sylvania Heights subdivision area, approximately 1/4 mile south of the site. Another public supply well, 250 feet deep, is located at the Community Club Estates, approximately 2 miles south of the site. Two wells, 140 and 164 feet deep, are located approximately 2.5 miles south of the site at Greenfield Village.

3.2 Surface Waters

The site is bounded by the Rappahannock River and a tributary identified as Deep Run Creek. At the time of the FIT III investigation, it was observed that both were receiving seeps that emanated from the site.

The river is used for drinking water and recreational purposes. The water intakes are approximately 3-1/2 miles upstream of the site. The site is on the fringe of the 100-year flood prone area.

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3.3 Geology and Soils

The FMC Fredericksburg site is located in the western portion of the Atlantic Coastal Plain Physiographic Province of Virginia. The Coastal Plain is characterized by an eastwardly thickening wedge of unconsolidated sediments which have been unconformably deposited over an eastward sloping crystalline basement. The unconsolidated Coastal Plain sediments consist of sand, gravel, silt, and clay and range in age from Cretaceous to Recent. The basement rocks, which range in age from Precambrian to Lower Paleozoic, consist mainly of massive igneous rocks and highly deformed metamorphic rocks.[1,4]

In the study area, the underlying Coastal Plain sediments consist, from youngest to oldest, of the Pleistocene sand and gravel deposits, the Tertiary Aquia Formation (where it has not been removed by erosion), and the middle part of the Potomac Group. The underlying crystalline basement consists of biotite-microline granite (or its saprolite) that is correlative with the Petersburg granite, which is exposed approximately 3 miles west of the site along the Fall Zone, and extends westward forming the Piedmont Physiographic Province.[1,2,4,6]

Specifically, the site is underlain by as much as 270 feet of unconsolidated Coastal Plain deposits (see appendices F and H, test hole no. 4). These deposits consist of approximately 25 to 40 feet of Pleistocene terrace deposits which are underlain by Cretaceous sediments, which extend to the basement.[2,5]

The Pleistocene age deposits, collectively referred to as the Columbia Group, typically consist of sand (fine to coarse grained) and gravel interbedded with silts and clays.[1]

The Aquia Formation, of late Paleocene age, is absent beneath the site but does occur approximately 0.75 feet east of the site. This formation consists primarily of very fine- to coarse-grained glauconite and quartz sands, interbedded with shell and clay layers. The reported thickness for the Aquia Formation in the study area is approximately 40 feet (see appendix F, Ferry Farms well no. 5).[1,2]

The underlying Cretaceous sediments of the middle Potomac Group consist of sand (fine to coarse grained), with occasional gravels, interbedded with silty clays. The lithologic heterogeneity and discontinous nature of the sediments in this unit makes correlation of individual sand and clay bodies extremely difficult, even over relatively short distances. Only the Patuxent Formation, consisting of sand, sandstone, clay, and minor gravels, is identifiable within the study area. The Patuxent is reported to crop out along a north to northeast trending band approximately 1.5 miles west of the site. The Cretaceous sediments extend from the base of the Pleistocene deposits to the crystalline basement beneath the site, a thickness of approximately 230 feet. The Patuxent Formation reportedly occupies the basal 140 feet of the Cretaceous sediments in this area.[1 to 7]

Test wells drilled in the site area encountered approximately 1 foot of soil. Although no soil classification was designated, it is suspected that the soil is a sandy loam formed in the Pleistocene sand and gravel deposits.[2,3]

3.4 Groundwaters

The hydrogeologic framework within the study area consists of the Pleistocene Columbia Group, the Tertiary (late Paleocene) Aquia Formation, and the Cretaceous middle Potomac Group. In this region (i.e., near the Fall Zone), these coastal plain sediments are unconfined and generally act as a single hydrologic unit. Recharge to these sediments is by infiltration from precipitation and stream flow on their respective outcrop and/or subcrop areas, and through downward leakage from overlying sediments.

S.S. Papadopulas and Associates, Incorporated performed hydrogeological investigations of the subject site in 1981 and 1983. Logs of test holes drilled on site indicate that relatively impermeable material within the Potomac Group sediments underlies the site. This zone, which occurs from a depth of 33 to 162 feet beneath the site (see appendix G), is composed primarily of interlensed, multicolored clay, silty clay, and sandy clay with a few thin layers of sand and gravel. These sediments, as is characteristic of Potomac Group sediments, show abrupt lateral and vertical lithological changes. Although this zone of relatively impervious material may act locally as a leaky confining layer beneath the site, logs of wells drilled within the site area demonstrate that these impervious zones are neither laterally nor vertically continuous.[1 to 7]

Water-level measurements taken by S.S. Papadopulas and Associates, Incorporated indicate that the water table is as near as 10.51 feet to the land surface (reference no. 3, table II). A groundwater contour map assembled by S.S. Papadopulas and Associates, Incorporated indicates that groundwater within the vicinity of the site flows towards points of discharge along Deep Run and the Rappahannock River (see appendix G, figure 5).

3.5 Climate and Meteorology

The climate of Fredericksburg has warm summers and mild winters, according to National Oceanic and Atmospheric Administration data. The proximity of the Atlantic Ocean provides a moderating effect. The average yearly precipitation is 43 inches, which is spread equally throughout the year. The mean annual lake evaporation is reported as approximately 34 inches per year.

3.6 Land Use

Spotsylvania County has no immediate plans for the FMC plant site. Deep Run Creek borders the site to the north and west, the Rappahannock River borders the site to the east, and the Sylvania Heights subdivision borders it to the south. The city of Fredericksburg is 1-1/2 miles to the north.

3.7 Population Distribution

According to the United States Geological Survey (U.S.G.S) Fredericksburg, Virginia 7.5 minute topographic quadrangle, the population living within a 3-mile radius of the site is approximately 19,000. The major concentration of this population is located in the city of Fredericksburg, which is 1-1/2 miles northwest of the site. The city has a population of approximately 890 people living within a 1-mile radius of the site and 9,407 people living within 2 miles.

3.8 Critical Environments

According to the United States Fish and Wildlife Service, critical environments in the area include Bald Eagle nesting and wintering areas on the Rappahannock River, 20 miles downstream from Fredericksburg. These nesting areas would be affected if the Rappahannock River were contaminated.

3.9 References

1. Meng, Andrew A. III, and John F. Harsh, United States Geologic Survey. Hydrogeologic Framework of the Coastal Plain of Virginia. Open-File Report 84-728, 1984.

2. S. S. Papadopulos and Associates, Incorporated, Contractor Consultant to FMC Corporation. Hydrogeological investigations at Spotsylvania County Industrial Park (former FMC plant site) near Fredericksburg, Virginia. September 1981.

3. S. S. Papadopulos and Associates, Incorporated, Contractor Consultant to FMC Corporation. Supplemental hydrogeological investigations at Spotsylvania County Industrial Park (former FMC Plant site) near Fredericksburg, Virginia. May 1983.

4. Virginia Division of Mineral Resources. Geologic Studies, Coastal Plain of Virginia. Bulletin 83 (Parts 1 and 2), 1973.

5. Subitzky, Seymour, Virginia Division of Geology. Summary of Geology and Ground-Water Conditions in the Fredericksburg District, Eastern Spotsylvania County, Virginia. Mineral Resources Circular No. 4, 1955.

6. Meng, Andrew A. III, United States Geologic Survey - Richmond, Virginia, with Gilbert Marshall, NUS FIT III. Telecon. May 2, 1986.

7. McGowen, Lee, Sydnor Hydrodynamics, Incorporated, with Gilbert Marshall, NUS FIT III. Correspondence. May 8, 1986. (Selected well logs from wells drilled in vicinity of FMC-Fredericksburg site.)

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SECTION 4

4.0 WASTE TYPES AND QUANTITIES

According to the Eckhardt Report, 2,750 hundred tons of chemical process wastes were disposed of on site. The types of waste were acid solutions, base solutions, heavy and trace metals, and miscellaneous organic and inorganic waste materials (see appendix E). VA SWCB files indicate that liquid viscose wastes, waste cellophane, sodium, sulfate, and asbestos were disposed at the FMC site.

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SECTION 5

ORIGINAL
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Site Name: Fredericksburg
TDD No.: F3-8402-23

5.0 FIELD TRIP REPORT

5.1 Summary

On Wednesday, March 28, 1984, NUS FIT III representatives [redacted] [redacted] visited the Spotsylvania County Industrial Park (FMC Fredericksburg) to perform a site inspection. A meeting was held with Lanny Branner, director of Public Works, County of Spotsylvania, regarding the site and the purpose of the visit. The FIT proceeded to take groundwater, leachate, and surface water samples from the site area.

The weather during the inspection was cold with heavy rain.

5.2 Persons Contacted

5.2.1 Prior to Field Trip

Kenneth Chestnut
Virgina Health Department
Madison Building
109 Governor Street
Richmond, VA 23219
(804) 786-6322

Thomas Schwarburg
Edward Miller
VA SWCB
Northern Region
5515 Cherokee Boulevard
Alexandria, VA 22301
(703) 750-6111

Stephen T. Foster
Lanny Branner
County of Spotsylvania
Director of Public Works
600 Higgins Road
Fredericksburg, VA 22401
(703) 898-2053

Robert Forman
Culpeper Regional Office
Virginia Health Department
P.O. Drawer 793
Culpeper, VA 22701
(703) 825-6772

Hugh Egborn
Virginia Health Department
Division of Water Programs
Culpeper Regional Office
P.O. Drawer 793
Culpeper, VA 22701
(703) 825-6772

Site Name: Fredericksburg
TDD No.: F3-8402-23

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5.2.2 At The Site

Lanny Branner
County of Spotsylvania
Director of Public Works
600 Higgins Road
Fredericksburg, VA 22401
(703) 898-2053

TDD Number F3- 8402- 23
EPA Number VA- 33

5-3 SAMPLE LOG

Site Name FMC Fredericksburg

TRAFFIC REPORTS Organic	Inorganic	High Hazard	SAMPLING LOCATION	PHASE	SAMPLE DESCRIPTION	DATE	TIME	pH	COMMENTS/OBSERVATIONS	LABORATORY ORG / Inor
C 8162	mc 3159		upstream North	AQ		3-28-84	0925			mead / JTC
C 8163	mc 3160		upstream South	AQ		"	0955			
C 8164	mc 3161		Sylvania Heights well	AQ		"	0950			
C 8165	mc 3162		Seep # 1	AQ		"	1000			
C 8166	mc 3163		Seep # 3	AQ		"	1050			
C 8167	mc 3164		Downstream	AQ		"	1100			
C 8168	mc 3165		well # 2	AQ		"	1120			
C 8169	mc 3166		Seep # 4	AQ		"	1215			
C 8170	mc 3167		Deep well	AQ		"	1300			
C 8171	mc 3168		Deep well Duplicate	AQ		"	1300			
C 8172	mc 3169		Blank	AQ		"	1025			
C 8173	mc 3170		upstream North	Solid		"	0925			
C 8174	mc 3171		upstream South	Solid		"	0955			
C 8175	mc 3172		Seep # 1	Solid		"	1000			
C8176	mc 3173		Seep # 2	Solid		"	1040			
C 8177	mc 3174		Seep # 3	Solid		"	1050			
C 8178	mc 3175		Seep # 4	Solid		"	1215			
C-8179	mc 3176		Downstream Deep Run	Solid		"	1100			

TDD Number F3-8402-23
EPA Number VA-33

5-3 **SAMPLE LOG**

Site Name FMC Fredericksburg

TRAFFIC REPORTS Organic	Inorganic	High Hazard	SAMPLING LOCATION	PHASE	SAMPLE DESCRIPTION	DATE	TIME	pH	COMMENTS/OBSERVATIONS	LABORATORY ORG / Inor
C8180	MC3177		Auger #1	Solid		3-28-84	1240			mead / JTC
C8181	MC3178		Auger #2	Solid		"	1255			↓
C8182	MC3179		Blank	Solid		"	1025			

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5.4 Site Observations

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- It had been raining hard the night before the site visit; as a result, most of the streams were near or above flood stage.

- No mini alert readings above background were recorded on site.

- An HNU was not used on site due to the heavy rain.

- [redacted] informed FIT III that 4 of the shallow monitoring wells on site had been destroyed.

- The site consists of 2 main disposal areas: a landfill adjacent to Deep Run Creek in the northern part of the property and a series of pits for disposal of liquids on the bluff adjacent to the Rappahannock River.

- A reconnaissance of the stream banks of Deep Run Creek and the Rappahannock River revealed a number of leachate seeps discharging into the surface water.

- Two of the seeps came from the old fill area along Deep Run Creek.

- The seeps were orange in color but had no odor. They were low flow and low volume.

- The 2 seeps along the Rappahannock River had much higher flow rates and volumes. They were red-orange in color.

- An auger boring in the old viscose pit area went through approximately 3 feet of clay and then encountered a black silt material, which had a bad odor. A sample was obtained for analysis.

- An auger boring in the old burning pit encountered the same type of material 6 inches below the surface. Three feet below the surface, the boring broke through the black material into what appeared to be natural soil. A sample was obtained of the black material.

- Two monitoring well samples were obtained.

- Shallow well no. 2, located near the old viscose pit, had a depth of water of 21 feet and a total depth of 44 feet. The casing stickup was 2 feet.

- The new deep monitoring well (NDW) is located between the disposal areas and the Sylvania Heights supply well.

- The depth of water on the NDW was 23 feet and the total depth was approximately 175 feet. The casing stickup was 2 feet.

5.5 PHOTOGRAPH LOG

Photo 1 - Deep Run Creek upstream north.

Photo 2 - Deep Run Creek upstream north.

Fmc Fredericksburg
F3- 8402-23
VA-33

R1 P1

Deep Run Creek
upstream North

3/28/84

0925

non responsive based on revised scope

R1 P2

Fmc Fredericksburg
F3- 8402-23 VA 33

APR 1984

Deep Run Creek
Upstream North

APR 1984

3/28/84

non responsive based on revised scope

0925

Photo 3 - Deep Run Creek upstream north.

Photo 4 - Deep Run Creek upstream north.

FMC Fredericksburg RIP3
P3-8402-23
VA-33

Deep Run Creek
Upstream South

3/28/84

0955

[redacted]

FMC Fredericksburg RIP4
P3-8402-23
VA-33

Deep Run Creek
Upstream South

3/28/84

0955

[redacted]

Photo 5 - Deep Run Creek upstream south.

Photo 6 - Well #2 sample

FMC Fredericksburg R1 P5
F3-8402-23
VA-33

Deep Run Creek
Upstream South

3/28/84

0955

non responsive based on revised scope
non responsive based on revised scope

FMC Fredericksburg R1 P6
F3-8402-23
VA-33

Well #2 Sample

3/28/84

1120

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non responsive based on revised scope
non responsive based on revised scope

Photo 8 - Lēachate Seep #4

Photo 9 - Leachate seep area.

FMC Fredericksburg R1P8
F3-8402-23
VA-33

Leachate Seep
#4

3/28/84

non responsive based on revised scope
non responsive based on revised scope

non responsive based on revised scope
non responsive based on revised scope
non responsive based on revised scope
non responsive based on revised scope

FMC Fredericksburg R1 P9
F3-8402-23
VA-33

Leachate Seep
Area

3/28/84

non responsive based on revised scope
non responsive based on revised scope
non responsive based on revised scope

non responsive based on revised scope
non responsive based on revised scope
non responsive based on revised scope

Photo 10 - Leachate seep area.

Photo 11 - Leachate seep

FMC Fredericksburg

RI P/O

8402-23

VA-33

Leachate Seep
Area

3/28/84

1213

non responsive based on revised scope
non responsive based on revised scope

FMC Fredericksburg

RIP/I

F3-8402-23

VA-33

Leachate Seep

3/28/84

1213

non responsive based on revised scope
non responsive based on revised scope

Photo 12 - Viscose pit area

FMC Fredericksburg

F3-8402-23

VA-33

R1P12

Viscose Pit
Area

3/28/84

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non responsive based on revised scope
non responsive based on revised scope

B40

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EPA

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

I IDENTIFICATION	
01 STATE	02 SITE NUMBER
VA	33

II. CURRENT OWNER(S)

01 NAME	02 D+B NUMBER	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	05 CITY	06 STATE	07 ZIP CODE
Spotsylvania County		Spotsylvania County Courthouse		Spotsylvania,	VA	22553
N/A						
N/A						

PARENT COMPANY (If applicable)

08 NAME	09 D+B NUMBER	10 STREET ADDRESS (P.O. Box, RFD #, etc.)	11 SIC CODE	12 CITY	13 STATE	14 ZIP CODE
N/A						
N/A						
N/A						

III. PREVIOUS OWNER(S) (List most recent first)

01 NAME	02 D+B NUMBER	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	05 CITY	06 STATE	07 ZIP CODE
FMC Corporation		P.O. Box Route No. 2		Fredericksburg,	VA	22401
N/A						
N/A						

IV. REALTY OWNER(S) (If applicable, list most recent first)

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

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

EPA file information
State file information

EPA FORM 2070-13 (7-81)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 8 - OPERATOR INFORMATION

I IDENTIFICATION	
01 STATE	02 SITE NUMBER
VA	33

II. CURRENT OPERATOR (Provide if different from owner)

01 NAME	02 D+B NUMBER
N/A	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER

OPERATOR'S PARENT COMPANY (If applicable)

10 NAME	11 D+B NUMBER
N/A	

12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE

14 CITY	15 STATE	16 ZIP CODE

III. PREVIOUS OPERATOR(S) (List most recent first; provide only if different from owner)

01 NAME	02 D+B NUMBER
FMC Corporation	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
P.O. Box 598 Route no. 2	

05 CITY	06 STATE	07 ZIP CODE
Fredericksburg	VA	22401

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD
Unknown	FMC Corporation

PREVIOUS OPERATORS' PARENT COMPANIES (If applicable)

10 NAME	11 D+B NUMBER
N/A	

12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE

14 CITY	15 STATE	16 ZIP CODE

01 NAME	02 D+B NUMBER
American Viscose Company	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
Unknown	

05 CITY	06 STATE	07 ZIP CODE
Unknown		

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD
Unknown	American Viscos

10 NAME	11 D+B NUMBER
N/A	

12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE

14 CITY	15 STATE	16 ZIP CODE

01 NAME	02 D+B NUMBER
Sylvania Company	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
Unknown	

05 CITY	06 STATE	07 ZIP CODE
Unknown		

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD
Unknown	Unknown

10 NAME	11 D+B NUMBER
N/A	

12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE

14 CITY	15 STATE	16 ZIP CODE

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

State and EPA files.

ORIGINAL
(Red)

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
VA	33

II PAST RESPONSE ACTIVITIES (Continued)

01 ☐ R BARRIER WALLS CONSTRUCTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ S CAPPING/COVERING — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
Fill area covered over with clay by the FMC Corporation.

01 ☐ T BULK TANKAGE REPAIRED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ U GROUT CURTAIN CONSTRUCTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ V BOTTOM SEALED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ W GAS CONTROL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ X FIRE CONTROL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ Y LEACHATE TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ Z AREA EVACUATED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ 1 ACCESS TO SITE RESTRICTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ 2 POPULATION RELOCATED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ 3 OTHER REMEDIAL ACTIVITIES — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

None

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

FIT III Site inspection March 28, 1985.
non responsive based on revised scope
non responsive based on revised scope nvestigation of Spotsylvania CO. Industrial Park, September 1981
May 1983.

EPA FORM 2070-13 (7-81)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 11 - ENFORCEMENT INFORMATION

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
VA	33

II. ENFORCEMENT INFORMATION

01 PAST REGULATORY/ENFORCEMENT ACTION ☐ YES ☒ NO

02 DESCRIPTION OF FEDERAL, STATE, LOCAL REGULATORY/ENFORCEMENT ACTION

None

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

State and EPA files.

ORIGINAL
(Red)

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
VA	33

II. ON-SITE GENERATOR

01 NAME	02 D+B NUMBER
Previous owners	
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	02 D+B NUMBER	01 NAME	02 D+B NUMBER
None		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
N/A		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

IV. TRANSPORTER(S)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
N/A		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
N/A		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

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

State and EPA files.

EPA

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

I IDENTIFICATION

01 STATE	02 SITE NUMBER
VA	33

II. PAST RESPONSE ACTIVITIES

01 ☐ A WATER SUPPLY CLOSED — 02 DATE _____ 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ B TEMPORARY WATER SUPPLY PROVIDED — 02 DATE _____ 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ C PERMANENT WATER SUPPLY PROVIDED — 02 DATE _____ 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ D SPILLED MATERIAL REMOVED — 02 DATE _____ 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ E CONTAMINATED SOIL REMOVED — 02 DATE _____ 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ F WASTE REPACKAGED — 02 DATE _____ 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ G WASTE DISPOSED ELSEWHERE — 02 DATE _____ 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ H ON SITE BURIAL — 02 DATE _____ 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ I IN SITU CHEMICAL TREATMENT — 02 DATE _____ 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ J IN SITU BIOLOGICAL TREATMENT — 02 DATE _____ 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ K IN SITU PHYSICAL TREATMENT — 02 DATE _____ 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ L ENCAPSULATION — 02 DATE _____ 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ M EMERGENCY WASTE TREATMENT — 02 DATE _____ 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ N CUTOFF WALLS — 02 DATE _____ 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ O EMERGENCY DIKING/SURFACE WATER DIVERSION — 02 DATE _____ 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ P CUTOFF TRENCHES/SUMP — 02 DATE _____ 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ Q SUBSURFACE CUTOFF WALL — 02 DATE _____ 03 AGENCY _____
04 DESCRIPTION
N/A

ORIGINAL (Red)

F3-8402-23

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

EPA

I IDENTIFICATION

01 STATE	02 SITE NUMBER
VA	33

II SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO. OR SPECIFIC LOCATION IDENTIFIER
FMC Fredericksburg	P.O. Box 598 Route 17

03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	COUNTY CODE	CONG. DIST.
Fredericksburg	VA	22401	Spotsylvania	177	VA07

09 COORDINATES LATITUDE	LONGITUDE	10 TYPE OF OWNERSHIP (Check one)
38° 16' 53"	77° 26' 39"	☒ A PRIVATE ☐ B FEDERAL ☐ C STATE ☒ D COUNTY ☐ E MUNICIPAL ☐ F OTHER ☐ G UNKNOWN

III. INSPECTION INFORMATION

01 DATE OF INSPECTION	02 SITE STATUS	03 YEARS OF OPERATION
3 / 28 / 84 (MONTH DAY YEAR)	☐ ACTIVE ☒ INACTIVE	1930 / 1978 (BEGINNING YEAR / ENDING YEAR) ___ UNKNOWN

04 AGENCY PERFORMING INSPECTION (Check all that apply)

☐ A EPA ☒ B EPA CONTRACTOR NUS Corp. (Name of firm) ☐ C MUNICIPAL ☐ D MUNICIPAL CONTRACTOR ___ (Name of firm)
☐ E STATE ☐ F STATE CONTRACTOR ___ (Name of firm) ☐ G OTHER ___ (Specify)

05 CHIEF INSPECTOR	06 TITLE	07 ORGANIZATION	08 TELEPHONE NO.
non responsive based on revised scope non responsive based on revised scope	Engineering Geologist	NUS Corp.	(215) 687-9510
09 non responsive based on revised scope non responsive based on revised scope non responsive based on revised scope	10 TITLE Geologist	11 ORGANIZATION NUS Corp.	12 TELEPHONE NO (215) 687-9510
non responsive based on revised scope non responsive based on revised scope non responsive based on revised scope	Geologist	NUS Corp.	(215) 687-9510
non responsive based on revised scope non responsive based on revised scope [redacted]	Environmental Technician	NUS Corp.	(215) 687-9510
			( )
			( )

13 SITE REPRESENTATIVES INTERVIEWED	14 TITLE	15 ADDRESS	16 TELEPHONE NO
Mr. Lanny Branner	Spotsylvania Co. Director of Public Works Dept.	600 Higgins Road Fredericksburg, VA 22401	(215) 687-9510
			( )
			( )
			( )
			( )
			( )

17 ACCESS GAINED BY (Check one)	18 TIME OF INSPECTION	19 WEATHER CONDITIONS
☒ PERMISSION ☐ WARRANT	0830	Rain and cold.

IV. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)	03 TELEPHONE NO
Darius Ostrauskas	EPA	(215) 597-6488

04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NO	08 DATE
Robert Howell		NUS Corp	(215) 687-9510	2 / 7 / 85 (MONTH DAY YEAR)

EPA FORM 2070 13 (7 81)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 2 - WASTE INFORMATION

I IDENTIFICATION	
01 STATE	02 SITE NUMBER
VA	33

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

- X A SOLID
- B POWDER FINES
- X C SLUDGE
- D OTHER _____ (Specify)
- E SLURRY
- X F LIQUID
- G GAS

02 WASTE QUANTITY AT SITE (Measures of waste quantities must be independent)

TONS 275,000

CUBIC YARDS _____

NO OF DRUMS _____

03 WASTE CHARACTERISTICS (Check all that apply)

- X A TOXIC
- X B CORROSIVE
- C RADIOACTIVE
- D PERSISTENT
- E SOLUBLE
- F INFECTIOUS
- G FLAMMABLE
- X H IGNITABLE
- I HIGHLY VOLATILE
- J EXPLOSIVE
- K REACTIVE
- L INCOMPATIBLE
- M NOT APPLICABLE

III WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE	Unknown		
OLW	OILY WASTE	Unknown		According to Eckhardt
SOL	SOLVENTS			Commission Report, from 1930-
PSD	PESTICIDES			1978 275,000 tons of these
OCC	OTHER ORGANIC CHEMICALS	Unknown		wastes were disposed of on site.
IOC	INORGANIC CHEMICALS			The volume of each substance was
ACD	ACIDS	Unknown		not reported.
BAS	BASES	Unknown		
MES	HEAVY METALS	Unknown		

IV HAZARDOUS SUBSTANCES (See Appendix for most frequently cited CAS Numbers)

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
	[illegible]	206-44-0		12,000	[illegible]
	benzo (a) pyrene	50-32-8		[illegible]	"
	PCB 1254	11097-69-1		490	"
	chloroethane	75-00-3		3.8	[illegible]
	1,1-dichloroethane	75-34-3		19	"
	arsenic	7440-83-21		150	"
	lead	7439-92-1		31	"
	cadmium	7440-43-9		[illegible]	"
	selenium	7782-49-2		[illegible]	"
	nickel	7440-02-0		93	"

V. FEEDSTOCKS (See Appendix for CAS Numbers)

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS			FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

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

EPA FORM 2070-13 (7-81)

ORIGINAL
(Red)

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
VA	33

II. PERMIT INFORMATION

01 TYPE OF PERMIT ISSUED (Check all that apply)	02 PERMIT NUMBER	03 DATE ISSUED	04 EXPIRATION DATE	05 COMMENTS
☒ A NPDES	VA0004014	Unknown	Unknown	Permit was issued to FMC Corp
☐ B UIC				when they operated the site.
☐ C AIR				The site is presently owned by
☐ D RCRA				Spotsylvania County and has
☐ E RCRA INTERIM STATUS				not been in operation since 197
☐ F SPCC PLAN				
☐ G STATE (Specify)				
☐ H LOCAL (Specify)				
☐ I OTHER (Specify)				
☐ J NONE				

III. SITE DESCRIPTION

01 STORAGE/DISPOSAL (Check all that apply)	02 AMOUNT	03 UNIT OF MEASURE
☒ A SURFACE IMPOUNDMENT		
☐ B PILES		
☐ C DRUMS, ABOVE GROUND		
☒ D TANK ABOVE GROUND		
☒ E TANK BELOW GROUND	According to the	
☒ F LANDFILL	Eckhardt Survey 275,000	
☐ G LANDFARM	tons of waste	
☒ H OPEN DUMP	were disposed of on site.	
☐ I OTHER (Specify)		

04 TREATMENT (Check all that apply)

- ☒ A INCENERATION
- ☐ B UNDERGROUND INJECTION
- ☐ C CHEMICAL/PHYSICAL
- ☐ D BIOLOGICAL
- ☐ E WASTE OIL PROCESSING
- ☐ F SOLVENT RECOVERY
- ☐ G OTHER RECYCLING/RECOVERY
- ☐ H OTHER (Specify)

05 OTHER

- ☒ A BUILDINGS ON SITE

06 AREA OF SITE

230 (Acres)

07 COMMENTS

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 waste disposal and incineration areas were unlined.

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE ☐ YES ☒ NO

02 COMMENTS

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

State files.
EPA Files.
FIT III Site inspection March 28, 1984.

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
VA	33

II. DRINKING WATER SUPPLY

01 TYPE OF DRINKING SUPPLY (Check as applicable)

	SURFACE	WELL
COMMUNITY	A ☐	B ☒
NON-COMMUNITY	C ☐	D ☒

02 STATUS

ENDANGERED	AFFECTED	MONITORED
A ☒	B ☐	C ☐
D ☒	E ☐	F ☐

03 DISTANCE TO SITE

A 1/4 (mi)
B 1/4 (mi)

III. GROUNDWATER

01 GROUNDWATER USE IN VICINITY (Check one)

☐ A ONLY SOURCE FOR DRINKING ☒ B DRINKING (Other sources available) COMMERCIAL INDUSTRIAL IRRIGATION (No other water sources available) ☐ C COMMERCIAL INDUSTRIAL, IRRIGATION (Limited other sources available) ☐ D NOT USED UNUSEABLE

02 POPULATION SERVED BY GROUND WATER Approximately 1,400/3 miles.

03 DISTANCE TO NEAREST DRINKING WATER WELL 1/4 (mi)

04 DEPTH TO GROUNDWATER	05 DIRECTION OF GROUNDWATER FLOW	06 DEPTH TO AQUIFER OF CONCERN	07 POTENTIAL YIELD OF AQUIFER	08 SOLE SOURCE AQUIFER
10.5 (ft)	Northeast	10.5 (ft)	3 (gpd)	☐ YES ☒ NO

09 DESCRIPTION OF WELLS (Including useage depth and location relative to population and buildings)

Sylvania Heights, Housing Development, 1 well, 224 feet deep, 1/4 miles south of site.
Country Club Estates, 1 well, 250 feet deep, 2 miles south of site.
Green Field Village, 2 wells, 140 and 164 feet deep, 2.5 miles south of site.

10 RECHARGE AREA
☒ YES ☐ NO
COMMENTS Recharge through precipitation

11 DISCHARGE AREA
☒ YES ☐ NO
COMMENTS Groundwater discharges to Deep Run and Rappahannock River.

IV. SURFACE WATER

01 SURFACE WATER USE (Check one)

☒ A RESERVOIR RECREATION DRINKING WATER SOURCE ☐ B IRRIGATION ECONOMICALLY IMPORTANT RESOURCES ☒ C COMMERCIAL, INDUSTRIAL ☐ D NOT CURRENTLY USED

02 AFFECTED/POTENTIALLY AFFECTED BODIES OF WATER

NAME	AFFECTED	DISTANCE TO SITE
Deep Run Crek	☒	0 (mi)
Rappahannock River	☒	0 (mi)
	☐	(mi)

V. DEMOGRAPHIC AND PROPERTY INFORMATION

01 TOTAL POPULATION WITHIN

ONE (1) MILE OF SITE	TWO (2) MILES OF SITE	THREE (3) MILES OF SITE
A 889 NO OF PERSONS	B 9,407 NO OF PERSONS	C 18,963 NO OF PERSONS

02 DISTANCE TO NEAREST POPULATION 1/4 (mi)

03 NUMBER OF BUILDINGS WITHIN TWO (2) MILES OF SITE 2,476

04 DISTANCE TO NEAREST OFF SITE BUILDING < 1/4 (mi)

05 POPULATION WITHIN VICINITY OF SITE (Provide narrative description of nature of population within vicinity of site e g rural village densely populated urban area)

1.5 miles north of the site is the city of Fredericksburg, population 15,220. Rural, sparsely populated areas constitute remaining areas around the site.

ORIGINAL
(Red)

EPA

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

I IDENTIFICATION

01 STATE	02 SITE NUMBER
VA	33

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

Unknown

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)

Unknown

03 DEPTH TO BEDROCK	04 DEPTH OF CONTAMINATED SOIL ZONE	05 SOIL pH
Approx. 270 (ft)	Unknown (ft)	Unknown

06 NET PRECIPITATION	07 ONE YEAR 24 HOUR RAINFALL	08 SLOPE: SITE SLOPE	DIRECTION OF SITE SLOPE	TERRAIN AVERAGE SLOPE
9 (in)	2.5 (in)	2 %	East	4 %

09 FLOOD POTENTIAL

SITE IS IN 100 YEAR FLOODPLAIN

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

11 DISTANCE TO WETLANDS (5 acre minimum)

ESTUARINE: A N/A (mi)

OTHER: B Unknown (mi)

12 DISTANCE TO CRITICAL HABITAT (of endangered species)

> 20 miles (mi)

ENDANGERED SPECIES Bald Eagle

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 N/A (mi)	B .2 (mi)	C N/A (mi)	D N/A (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY

Site is on the fringe of 100 year flood plain of the Rappahannock River. Areas of greater elevation surround the site.

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

FIT III Site inspection March 25, 1984.

EPA FORM 2070-13 (7-81)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 6 - SAMPLE AND FIELD INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
VA	33

II. SAMPLES TAKEN

SAMPLE TYPE	01 NUMBER OF SAMPLES TAKEN	02 SAMPLES SENT TO	03 ESTIMATED DATE RESULTS AVAILABLE
GROUNDWATER	4	Inorganic: JTC Environmental Organic: Mead Compa Chem	
SURFACE WATER	3	" "	
WASTE			
AIR			
RUNOFF			
SPILL			
SOIL	10	" "	
VEGETATION			
OTHER	3	" "	

III. FIELD MEASUREMENTS TAKEN

01 TYPE	02 COMMENTS
HNU	No readings taken due to heavy rain.
Radiation Mini alert	No readings above background noted.

IV. PHOTOGRAPHS AND MAPS

01 TYPE ☒ GROUND ☐ AERIAL

02 IN CUSTODY OF NUS Corp. (Name of organization or individual)

03 MAPS ☒ YES ☐ NO

04 LOCATION OF MAPS Copies included with report; Appendix B.

V. OTHER FIELD DATA COLLECTED (Provide narrative description)

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

Chain of Custody Records.
FIT III site inspection March 28, 1984.

ORIGINAL
(Red)

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
VA	33

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☐ A GROUNDWATER CONTAMINATION
02 ☐ OBSERVED (DATE 3/28/84)
03 POPULATION POTENTIALLY AFFECTED _____
04 NARRATIVE DESCRIPTION

Substances detected above background in well no. 2 (shallow) were 1,1,1-trichloroethane, 1,1-dichloroethane, lead, and nickel. Substances detected above background in deep well were toluene, o-xylene, and cyanide.

01 ☐ B SURFACE WATER CONTAMINATION
02 ☐ OBSERVED (DATE 3/28/84) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED _____
04 NARRATIVE DESCRIPTION

Selenium was detected at significantly higher concentrations in downstream sample than upstream sample.

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

None known or reported.

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

None known or reported.

01 ☐ E DIRECT CONTACT
02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED _____
04 NARRATIVE DESCRIPTION

None expected.

01 ☐ F CONTAMINATION OF SOIL
02 ☐ OBSERVED (DATE 3/28/84) ☐ POTENTIAL ☐ ALLEGED
03 AREA POTENTIALLY AFFECTED _____ (Acres)
04 NARRATIVE DESCRIPTION

Levels of the following substances were found in on-site soil at levels above background: 1,1-dichloroethane, chloroethane, toluene, PCB-1254, arsenic, lead, cadmium, selenium, and vanadium

01 ☐ G DRINKING WATER CONTAMINATION
02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED _____
04 NARRATIVE DESCRIPTION

There are 4 wells located within 2.5 miles of site which provide drinking water for local residents of 3 small developments. There are also several private drinking water wells in the area.

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

None known.

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

None expected.

EPA

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

I IDENTIFICATION
01 STATE: VA
02 SITE NUMBER: 33

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ☐ J DAMAGE TO FLORA — 02 ☐ OBSERVED (DATE 5/15/80) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

The vegetation in the vicinity of leachate seeps was reported to be dead or dying.

01 ☐ K DAMAGE TO FAUNA — 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION (Include name(s) of species)

None known.

01 ☐ L CONTAMINATION OF FOOD CHAIN — 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

None known.

01 ☐ M UNSTABLE CONTAINMENT OF WASTES (Spills Runoff Standing liquids Leaking drums) — 02 ☐ OBSERVED (DATE 3/28/84) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED _____ 04 NARRATIVE DESCRIPTION

Runoff of contaminated top soil flows into Deep Run Creek and the Rappahannock River.

01 ☐ N DAMAGE TO OFFSITE PROPERTY — 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

None known.

01 ☐ O CONTAMINATION OF SEWERS STORM DRAINS WWTPs — 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

None known.

01 ☐ P ILLEGAL UNAUTHORIZED DUMPING — 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

None known.

05 DESCRIPTION OF ANY OTHER KNOWN POTENTIAL OR ALLEGED HAZARDS

None.

III. TOTAL POPULATION POTENTIALLY AFFECTED: _____

IV. COMMENTS

N/A

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

Sample analysis reports from March 28, 1984.
State file information.
EPA file information.

ORIGINAL
(Red)

SECTION 6

Site Name: Fredericksburg
TDD No.: F3-8402-23

6.0 LABORATORY DATA

6.1 Sample Data Summary

ORIGINAL
(Red)

TDD Number F3-8402-23
EPA Number VA-33

SAMPLE DATA SUMMARY
TARGET COMPOUNDS

☒ Organic ☐ Inorganic

Site Name FMC Frederick
Date of Sample 3-28-84

Compounds Detected

Sample Number	Sample Description and Location	Phase	Units	1,1,1 trichloroethane	1,1 dichloroethane	1,1,2,2 tetrachloroethane	chloroethane	1,1 dichloroethene	ethylbenzene	methylene chloride		toluene	trichloroethene	carbon disulfide	o-xylene		Remarks
C8162	upstream North	AQ	ug/l														
C-8163	upstream South	AQ	ug/l														
C8164	Sylvania Heights well	AQ	ug/l														
C8165	Seep #1	AQ	ug/l		190		6.8	13	<5 ◊				6.4 ◊	<10 ◊			
C8166	Seep #3	AQ	ug/l														
C8167	Downstream	AQ	ug/l														
C8168	well #2	AQ	ug/l	19	15	5 ◊		6 ◊						<10 ◊			
C8169	Seep #4	AQ	ug/l														
C8170	Deep well	AQ	ug/l									10			<5		
C8171	Deep well Duplicate	AQ	ug/l									9			<5		
C8172	Blank	AQ	ug/l							5							

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.

ORIGINAL (Red)

TDD Number F3-8402-23
EPA Number VA 33

SAMPLE DATA SUMMARY
TARGET COMPOUNDS

☒ Organic ☐ Inorganic

Site Name FMC Fredericks
Date of Sample 3-28-84

Compounds Detected

Sample Number	Sample Description and Location	Phase	Units	fluorene	phenanthrene	dibenzo(a,h) anthracene	ideno(1,2,3-cd) pyrene	pyrene	dibenzo furan	2-methyl naphthalene	1,1,1 trichloro ethane	1,1,2 dichloroethane	chloroethane	methylene chloride	fluoro tri chloro methane	toluene	Remarks
C-8173	upstream North	Solid	ug/kg					<940 ◇						19 ◇			
C-8174	upstream South	Solid	ug/kg											78 ◇			
C-8175	Seep #1	Solid	ug/kg									<4.2	<4.2	78 ◇			
C-8176	Seep #2	Solid	ug/kg											61 ◇			
C-8177	Seep #3	Solid	ug/kg											82 ◇			
C-8178	Seep #4	Solid	ug/kg											34 ◇			
C-8179	Downstream Deep Run	Solid	ug/kg											210 ◇			
C-8180	Auger #1	Solid	ug/kg	1500	10,000	<940	4700	11,000	750							12	
C-8181	Auger #2	Solid	ug/kg	<490	4500		1500	3500	<490	<490	4.4			340 ◇	7.2		
C-8182	Blank	Solid	ug/kg											66			

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.

ORIGINAL (Red)

TDD Number F3-8402-23
EPA Number VA 33

SAMPLE DATA SUMMARY
TARGET COMPOUNDS

☒ Organic ☐ Inorganic

Site Name FMC Fredericks
Date of Sample 3-28-84

Compounds Detected

Sample Number	Sample Description and Location	Phase	Units	acenaphthene	fluoranthene	naphthalene	bis (2 ethyl hexyl) phthalate	di-n-butyl phthalate	di-n-octyl phthalate	benzo (a) anthracene	benzo (a) pyrene	benzo (b) fluoranthene	benzo (k) fluoranthene	chrysene	anthracene	benzo (ghi) perylene	Remarks
C-8173	upstream North	Solid	ug/kg		<940◇												
C-8174	upstream South	Solid	ug/kg														
C-8175	Seep #1	Solid	ug/kg														
C-8176	Seep #2	Solid	ug/kg				490c		<750◇								
C-8177	Seep #3	Solid	ug/kg														
C-8178	Seep #4	Solid	ug/kg														
C-8179	Downstream Deep Run	Solid	ug/kg														
C-8180	Auger #1	Solid	ug/kg	1600	12000	2200	1600		<470◇	6700	6600	8000	4600	5200	2700	4700	
C-8181	Auger #2	Solid	ug/kg	<490◇	4500	<490		<490◇		2300	2100	2500	1600	2400	930◇	1100	
C-8182	Blank	Solid	ug/kg														

ORIGINAL (Red)

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.

TDD Number F3- 8402- 23
EPA Number VA - 33

SAMPLE DATA SUMMARY
TARGET COMPOUNDS

☒ Organic ☐ Inorganic

Site Name FMC Fredericks
Date of Sample 3-28-84

Compounds Detected

Sample Number	Sample Description and Location	Phase	Units		PCB 1254		heptachlor epoxide										Remarks
C-8173	upstream North	Solid	ug/kg														
C-8174	upstream South	Solid	ug/kg				PN 82 ◇										
C-8175	Seep #1	Solid	ug/kg														
C-8176	Seep #2	Solid	ug/kg														
C-8177	Seep #3	Solid	ug/kg		490												
C-8178	Seep #4	Solid	ug/kg														
C-8179		Solid	ug/kg														
C-8180	Auger #1	Solid	ug/kg		360												
C-8181	Auger #2	Solid	ug/kg		360												
C-8182	Blank	Solid	ug/kg														

ORIGINAL (Red)

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.

TDD Number F3-8402-23
EPA Number VA-33

SAMPLE DATA SUMMARY
TARGET COMPOUNDS

☐ Organic ☒ Inorganic

Site Name FMC FREDERICKSBURG
Date of Sample 3-28-84

Compounds Detected

Sample Number	Sample Description and Location	Phase	Units	Arsenic	Antimony	Selenium	Thallium	Mercury	Tin	Cadmium	Lead	Cyanide						Remarks
MC3159	UPSTREAM NORTH	AQ	ug/L				15				6 ◊							
MC3160	UPSTREAM SOUTH	AQ	ug/L	11 ◊							10 ◊							
MC3161	SYLVANIA HEIGHTS WELL	AQ	ug/L															
MC3162	SEEP #1	AQ	ug/L	150	130	49			200		31							
MC3163	SEEP #3	AQ	ug/L	75	21	13 ◊			81 ◊	9			14					
MC3164	DOWNSTREAM	AQ	ug/L	13 ◊		4 ◊			57 ◊		7 ◊							
MC3165	WELL #2	AQ	ug/L	15 ◊					37 ◊		13							
MC3166	SEEP #4	AQ	ug/L	56	59	18 ◊					11 ◊							
MC3167	DEEP WELL	AQ	ug/L										17					
MC3168	Deep Well Duplicate	AQ	ug/L	12 ◊							8 ◊							
MC3169	BLANK	AQ	ug/L			3												
MC3170	UPSTREAM NORTH	SOLID	mg/kg	12						.15	23							
MC3171	UPSTREAM SOUTH	SOLID	mg/kg	13						.09	14							
MC3172	SEEP #1	SOLID	mg/kg	75		.8			1 ◊		2							

ORIGINAL (Red)

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.

TDD Number F3-8402-23
EPA Number VA-33

SAMPLE DATA SUMMARY
TARGET COMPOUNDS

☐ Organic ☒ Inorganic

Site Name FMC FREDERICKSBURG
Date of Sample 3-28-84

Compounds Detected

Sample Number	Sample Description and Location	Phase	Units	Arsenic	Antimony	Selenium	Thallium	Mercury	Tin	Cadmium	Lead	Cyanide					Remarks
MC3173	SEEP #2	SOLID	mg/kg	20	1.1					.06	7						
MC3174	SEEP # 3	SOLID	mg/kg	20	1.6					8	9.4						
MC3175	SEEP #4	SOLID	mg/kg	9.3						.14	8						
MC3176	DOWNSTREAM DEEP RUN	SOLID	mg/kg	32	2	1.9				.16	10						
MC3177	AUGER #1	SOLID	mg/kg	20	2	1.3				.07	29						
MC3178	AUGER #2	SOLID	mg/kg	130	3	17	1.5				130						
MC3179	BLANK	SOLID	ug/L														

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.

ORIGINAL (Red)

TDD Number F3-8402-23
EPA Number VA-33

SAMPLE DATA SUMMARY
TARGET COMPOUNDS

☐ Organic ☒ Inorganic

Site Name FMC FREDERICKSBURG
Date of Sample 3-28-84

Compounds Detected

Sample Number	Sample Description and Location	Phase	Units	Aluminum	Chromium	Barium	Beryllium	Cobalt	Copper	Iron	Nickel	Manganese	Zinc	Boron	Vanadium	Silver	Remarks
MC3173	SEEP #2	SOLID	mg/kg	6900	7	310			10	19,400	9	320	21 ◊			.6 ◊	
MC3174	SEEP #3	SOLID	mg/kg	2620	2 ◊	144		4.5 ◊	16.3	70,500	19	280	297				
MC3175	SEEP #4	SOLID	mg/kg	3370	7	25			5.6	11,100	3	127	20 ◊				
MC3176	DOWNSTREAM DEEP RUN	SOLID	mg/kg	11,400	18	119	.3 ◊	7.6 ◊	16	16,700	11	302	48 ◊		22	.5 ◊	
MC3177	AUGER #1	SOLID	mg/kg	7670	21	83	.6	9 ◊	20	14,200	13	230	47 ◊			.4 ◊	
MC3178	AUGER #2	SOLID	mg/kg	970	7	120	.7	4 ◊	22	9500	13	74	8.5 ◊		250		
MC3179	BLANK	SOLID	ug/L		14							47	18				

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.

ORIGINAL (Red)

TDD Number F3-8402-23
EPA Number VA-33

SAMPLE DATA SUMMARY
TARGET COMPOUNDS

☐ Organic ☒ Inorganic

Site Name FMC FREDERICKSBURG
Date of Sample 3-28-84

Compounds Detected

Sample Number	Sample Description and Location	Phase	Units	Aluminum	Chromium	Barium	Beryllium	Cobalt	Copper	Iron	Nickel	Manganese	Zinc	Boron	Vanadium	Silver	Remarks
MC3159	UPSTREAM NORTH	AQ	ug/L	1270						1520		150◊	77◊				
MC3160	UPSTREAM SOUTH	AQ	ug/L	4230						4590	57	140◊	42◊				
MC3161	SYLVANIA HEIGHTS WELL	AQ	ug/L	120◊					170	950		125◊	31◊				
MC3162	SEEP #1	AQ	ug/L	9800	12◊		7◊			12300	93	600	67◊				
MC3163	SEEP #3	AQ	ug/L	7920		320	8◊			168,000	86	800	340				
MC3164	DOWNSTREAM	AQ	ug/L	2830						3000		130◊	42◊				
MC3165	WELL #2	AQ	ug/L	260◊						108000	50	600	2910				
MC3166	SEEP #4	AQ	ug/L	3630			7◊			55,400		950	38◊				
MC3167	DEEP WELL	AQ	ug/L	260◊						13,100		250	150				
MC3168	DEEP WELL Duplicate	AQ	ug/L	330◊	12◊					18,400		270	240				
MC3169	BLANK	AQ	ug/L									30					
MC3170	UPSTREAM NORTH	SOLID	mg/kg	2040	9	63	.3◊	5◊	4	7460	3	200	35◊			.6◊	
MC3171	UPSTREAM SOUTH	SOLID	mg/kg	4190	11	59	.3◊	7◊	6	11,400	6	110	28◊		12		
MC3172	SEEP #1	SOLID	mg/Kg	1840	9	46			3	42,400	18	650	8◊		58	.6◊	

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.

ORIGINAL (Red)

ORIGINAL
(Red)

6.2 Quality Assurance Review

6.2.1 Organic Data: Lab Case 2534

6.2.1.1 Introduction

The findings offered in this report are based upon a general review of all available organic laboratory data. Blank analysis results, surrogate and matrix spike recoveries, duplicate analysis results, instrument carry-over effects, and GC confirmations were evaluated in detail.

6.2.1.2 Qualifiers

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

- All positive results for methylene chloride are questionable.
- The results for pyrene and fluoranthene in sample C-8173 are questionable.
- The results for di-n-octyl phthalate in samples C-8176 and C-8180 are questionable.
- The results for acenaphthene, anthracene, and di-n-butyl phthalate in sample C-8181 are questionable.
- The result for heptachlor epoxide in sample C-8174 is questionable.
- The results for ethylbenzene, trichloroethene, and carbon disulfide in sample C-8165 are questionable.
- The results for 1,1,2,2-tetrachloroethane, 1,1-dichloroethene, and carbon disulfide in sample C-8168 are questionable.

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 substantially greater than the levels reported cannot be present.

- The reported concentration for toluene in sample C-8180 may not reflect the average concentration actually present.

- Some BN compound detection limits in samples C-8168 and C-8176 may be slightly higher than those reported, in particular for nitrobenzene, although other compounds may be similarly affected.

- Some BNA compound detection limits in sample C-8173 may be substantially higher than those reported, in particular for 2,4-dinitrotoluene and pentachlorophenol, although other compounds may be similarly affected.

- Some acid compound detection limits in sample C-8171 may be substantially higher than those reported, in particular for 4-nitrophenol, although other compounds may be similarly affected.

- Due to an apparent laboratory transcription error, PCB-1260 was incorrectly reported as present in samples C-8180 and C-8181. These results were actually verified by the laboratory as PCB-1254. The data summary has been corrected to represent these results.

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

ORIGINAL
(Red)

6.2.1.3 Findings

- Methylene chloride, pyrene, fluoranthene, di-n-octyl phthalate, acenaphthene, anthracene, and di-n-butyl phthalate were detected in field and/or laboratory blanks at levels sufficient to question the aforementioned sample results.

- Due to lack of confidence in 2 column confirmations of low level single peak pesticides, the heptachlor epoxide result in sample C-8174 is deemed questionable.

- The results for ethylbenzene, trichloroethene, and carbon disulfide in sample C-8164 were questioned as possible artifacts of chromatographic ghosting from 6 immediately preceding standard runs.

- The results for 1,1,2,2-tetrachloroethane, 1,1-dichloroethene, and carbon disulfide in sample C-8168 were questioned as possible artifacts of chromatographic ghosting from 2 immediately preceding standard runs.

- Toluene, a matrix spike compound (which was also present indigenously in the sample), exhibited excessive variability of duplicate analysis results and high recoveries of the toluene matrix spike in sample C-8180. The excessive variability and high recovery may be due to solid sample inhomogeneity. The indigenous toluene in the sample may vary enough to cause the apparent high recovery.

- D_5-Nitrobenzene, a surrogate spike compound, exhibited very low recoveries in samples C-8168 and C-8176.

- 2,4-Dinitrotoluene and pentachlorophenol (both matrix spike compounds) exhibited zero recoveries, and 2,4,6-tribromophenol (a surrogate spike compound) exhibited a very low recovery for sample C-8173.

- 4-Nitrophenol, a matrix spike compound, exhibited a zero recovery for sample C-8171.

- Examination of laboratory raw data revealed that the pesticide analysis for samples C-8180 and C-8181 identified PCB-1254 as present, instead of the reported PCB-1260. These results were evaluated and verified as PCB-1254.

ORIGINAL (Red)

- Tentatively identified compounds were examined only for possible target compound identifications.

6.2.1.4 Summary

The text of this report has been formatted to address only those areas which affect the application of the data to the subject investigation. These problem areas have been identified in the previous sections of this review. Documentation of these problems and also documentation of any observed areas of contractual noncompliance are included in the attached Support Documentation Appendix.

Report prepared by Atwood F. Davis Date: June 11, 1986

ORIGINAL
(Red)

6.2.2 Inorganic Data: Lab Case 2534

6.2.2.1 Introduction

The findings offered in this report are based upon a general review of all available inorganic laboratory data. Blank analysis results, matrix spike results, duplicate analysis results, quantitative calculations, and quality assurance documentation were examined in detail.

6.2.2.2 Qualifiers

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

- The following results are deemed questionable:

Constituent	Samples with Questionable Results
aluminum	MC3161, MC3165, MC3167, and MC3168
chromium	MC3162, MC3168, and MC3174
beryllium	MC3162, MC3163, MC3166, MC3170, MC3171, and MC3176
cobalt	All positive results
manganese	MC3159, MC3160, MC3161, and MC3164
zinc	All positive results, except MC3163, MC3165, MC3167, MC3168, and MC3174
silver	All positive results
arsenic	MC3160, MC3164, MC3165, and MC3168
selenium	MC3163, MC3164, and MC3166
tin	MC3163, MC3164, MC3165, and MC3172
lead	MC3159, MC3160, MC3164, MC3166, and MC3168

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

ORIGINAL
(Red)

- The actual result for selenium in sample MC3177 may be slightly higher than reported.

- The reported results for iron and zinc in aqueous field duplicates MC3167/MC3168 may not reflect the average concentrations actually present in these samples.

- Due to an apparent laboratory transcription/calculation error, the result for iron in sample MC3165 was incorrectly reported as 10,800 ug/l. The actual result was 108,000 ug/l. This result has been corrected on the data summary.

- Due to an apparent laboratory transcription error, vanadium was incorrectly reported as present in sample MC3167. This result has been deleted from the data summary.

- Due to an apparent laboratory error, thallium was incorrectly reported as present in sample MC3172. This result has been deleted from the data summary.

- Due to an apparent laboratory review error, a qualitatively confident result for thallium in sample MC3178 was not reported. This result was reviewer calculated and added to the data summary.

6.2.2.3 Findings

- Aluminum, chromium, beryllium, cobalt, manganese, zinc, silver, arsenic, selenium, tin, and lead were detected in field and/or laboratory blanks at levels sufficient to question the aforementioned sample results.

- The matrix spike result for selenium in sample MC3177 exhibited a very low recovery, which appears to show a suppression effect present that would also affect analysis of the indigenous selenium in the sample. This suppression may make the concentration appear lower than the amount actually present.

ORIGINAL
(Red)

- Examination of the laboratory raw data and a check of the actual quantitative calculations revealed the actual result for iron in sample MC3165 to be 108,000 ug/l.

- Examination of the laboratory raw data did not reveal the presence of vanadium in sample MC3167. The laboratory apparently neglected to place a "less than" symbol in front of the detection limit amount of 200 ug/l on the data sheet for this sample.

- Examination of the laboratory raw data did not reveal the presence of thallium in sample C-3172.

- Examination of the laboratory raw data revealed the presence of thallium in sample MC3178 at a qualitatively confident level that was not reported by the laboratory.

6.2.2.4 Summary

The text of this report has been formatted to address only those problem areas which affect the application of the data to the subject investigation. These problem areas have been identified as blank contamination, poor matrix spike recovery, excessive variability of duplicate results, and laboratory transcription/review errors. Documentation of these problems and also documentation of any observed areas of contractual noncompliance are included in the attached Support Documentation Appendix to this report.

Report prepared by Atwood F. Davis Date: June 11, 1986

ORIGINAL
(Red)

SECTION 7

ORIGINAL
(Red)

7.0 TOXICOLOGICAL EVALUATION

7.1 Summary

A shallow monitoring well (MW) sample revealed low levels of 2 chlorinated ethanes. Reported concentrations of these contaminants would not be expected to result in any adverse effects possibly other than a small increased risk of cancer. A deeper MW sampled on site revealed no contaminants at concentrations of toxicological concern.

Four seeps sampled on site revealed a pattern of contamination similar to that reported in groundwater. Concentrations of chlorinated ethanes and toluene reported in seep samples are sufficiently low to not pose any toxicological threats via likely routes of exposure. Additional organic contaminants reported in seep and auger samples included polychlorinated biphenyl (PCB) 1254, the plasticizer bis(2-ethylhexyl) phthalate, and the common urban contaminants polynuclear aromatic hydrocarbons (PAHs).

Inorganic analysis of seep and/or auger samples revealed notable concentrations of lead, arsenic, cadmium, or selenium. Impacts of these contaminants on area surface waters are expected to be minimal and localized.

7.2 Support Data

A sample from the shallow monitoring well (MW no. 2) on the FMC site revealed 19 ug/l 1,1,1-trichloroethane (1,1,1-TCEA) and 15 ug/l 1,1-dichloroethane (1,1-DCEA). A low level of 1,1-DCEA (190 ug/l) was also reported in a seep sample taken from the viscose pit.

No maximum contaminant levels (MCL) have been set for either of these chlorinated ethanes; although, a Recommended MCL (RMCL) of 200 ug/l has been set for 1,1,1-TCEA.[1] This RMCL has been calculated based upon chronic toxicity data using Acceptable Daily Intakes; with respect to carcinogenicity, 1,1,1-TCEA has been placed by EPA in Group D (not classified due to inadequate evidence of carcinogenicity).[1] Based on the RMCL, the concentration of 1,1,1-TCEA reported in MW no. 2 would not be expected to pose any toxic threats.

An acceptable intake/chronic (AIC) of 4,000 ug/l has been recommended for 1,1-DCEA, and although this concentration does not consider other sources of exposure, it is not anticipated that the substantially lower concentration of 1,1-DCEA reported in the shallow well would pose any serious non-carcinogenic threats.[2] No reliable evidence of carcinogenicity is available for 1,1-DCEA; however, note that a related compound, 1,2-dichloroethane, has shown evidence of carcinogenicity in laboratory animals.[3]

ORIGINAL
(Red)

The only organic contaminants reliably reported in the deep well sample was 10 ug/l of toluene and less than 5 ug/l xylene, concentrations which would not be expected to pose any toxic threats.

No inorganic contaminants were reported at concentrations of toxicological concern in well samples. Lead (13 ug/l) and cyanide (17 ug/l) were reported in well no. 2 and the deep well, respectively. These concentrations are well within the MCL set for lead of 50 ug/l and the AWQC recommended for cyanide of 200 ug/l.[4] Concentrations of iron (up to 18,400 ug/l), and manganese (up to 600 ug/l), reported in both on-site MWs and the Sylvania Heights well exceeded Secondary MCLs of 300 ug/l (Fe) and 50 ug/l (Mn).[5] These Secondary MCLs are intended to prevent objectionable tastes and staining of laundry and plumbing fixtures, and have no toxicologic significance.

Up to 190 ug/l of 2 chlorinated ethanes, 1,1-DCEA, and monochloroethane were also detected in seep no. 1, sampled adjacent to the Rappahannock River. As previously noted, 1,1-DCEA was also measured in MW no. 2, located south of the seep. Chlorinated ethanes do not persist in surface waters and are not significantly toxic to freshwater aquatic life.[6] Reported concentrations of these contaminants would not be expected to pose serious threats via likely routes of exposure.

Organic analysis of sediment underlying seep samples as well as auger samples revealed trace to low levels of the plasticizer bis(2-ethylhexyl) phthalate (up to 4,900 ug/kg in seep no. 2 and auger no. 1), PCB 1254 (up to 490 ug/kg in seep no. 3 and auger nos. 1 and 2), and PAHs (up to 83 mg/kg in auger nos. 1 and 2).

Phthalates such as bis(2-ethylhexyl) phthalate (DEHP) are widespread in the environment and exhibit a low order of toxicity. DEHP has shown limited evidence of carcinogenicity; however, potential carcinogenic threats are expected to be minimal via limited exposure routes in this case.[7]

ORIGINAL
(Red)

PCBs, on the other hand, are potentially carcinogenic, toxic, and highly bioaccumulative. The reported concentrations of PCB pose no acute threats to human health or wildlife via probable exposure routes. Accompanying carcinogenic risks via direct routes of exposure are also minimal. The primary route of potential human exposure to PCBs is from ingestion of residues present in meat, fish, poultry, and dairy products from animals exposed to various environmental levels. Due to the previous widespread use of PCBs, combined with their persistence, lipid solubility, and biomagnification in the food chain, it is probable that most of the general population has had exposure to, and storage of, these contaminants. It is not expected that the levels reported in seep and auger samples, if they are generally indicative of PCB levels on site, would contribute substantially to levels of PCBs assimilated from other sources.

PAHs are common urban contaminants that appear in food as well as in ambient air and water. They are formed as a result of incomplete combustion of organic compounds. Dermal contact with high concentrations of various PAHs may cause irritation, burning, papular and vasicular eruptions, as well as phototoxic and photoallergic effects. Risks of carcinogenicity that may arise from limited, short-term contact are expected to be minimal, as PAHs adsorb strongly to soil elements, which reduces concentrations available for absorption.

All of the previously noted contaminants (DEHP, PCBs, and PAHs) adsorb to soil elements and are relatively insoluble in water. Transport of these contaminants is, therefore, limited in most cases.[6] Note that, due to their high bioconcentration potential, significant transport of PCBs to surface waters is not desirable.

Inorganic analyses of seep sediments and auger samples revealed notable concentrations of arsenic (up to 150 mg/kg) and lead (130 mg/kg) in auger no. 2 and/or seep no. 1. Concentrations of arsenic and lead reported in non-polluted United States soils generally average 6 mg/kg for arsenic (range 1 to 17 mg/kg) and 10 mg/kg for lead (range 2 to 200 mg/kg).[8] Levels of metals reported in remaining auger and seep sediments were generally not remarkable.

ORIGINAL
(Red)

Aqueous seep samples revealed the presence of lead (31 ug/l), selenium (35 ug/l), cadmium (9 ug/l), and cyanide at concentrations in excess of those considered protective of aquatic life. The downstream Deep Run Creek sample, taken below the outfall of seep no. 3, revealed no inorganic contaminants at concentrations of toxicologic concern. Contaminants reported in seeps nos. 1 and 4, which outfall in the Rappahannock River, would be expected to have minimal impacts, due to substantial dilution and dispersion.

Prepared by: Elizabeth Quinn
Elizabeth Quinn, Toxicologist

Date: June 11, 1986

Site Name: Fredericksburg
TDD No.: F3-8402-23

ORIGINAL
(Red)

LIST OF SOURCES

1. Federal Register, Vol. 50, No. 219, November 13, 1985. Rules and Regulations.

2. United States Environmental Protection Agency. 1985. Toxicity Values for Use at Superfund Remedial Sites. Memorandum. Office of Solid Waste and Emergency Response. July 23, 1985.

3. United States Environmental Protection Agency. 1984. Health Effects Assessment for 1,2-Dichloroethane. Office of Emergency and Remedial Response, Washington, D.C. ECAO-CIN-HOO2.

4. United States Environmental Protection Agency. 1977. National Interim Primary Drinking Water Regulations. Office of Water Supply, Washington, D.C. EPA-570/9-76-003.

5. United States Environmental Protection Agency. 1977. National Secondary Drinking Water Regulations. Office of Drinking Water, Washington, D.C. EPA 510/9-76-000.

6. Versar, Incorporated. 1979. Water-related environmental fate of 129 priority pollutants. Prepared for United States Environmental Protection Agency. Monitoring and Data Support Division, Washington, D.C. 440/4-79-029.

7. United States Environmental Protection Agency. 1980. Ambient Water Quality Criteria for Phthalate Esters. Office of Water Regulations and Standards, Washington, D.C. EPA 440/5-80-067.

8. Allaway, W. H. 1968. Agronomic controls over the environmental cycling of trace elements. Adv. Agron. 20:235-274.

ORIGINAL
(Red)

APPENDIX A

1 COST CENTER	REM/FIT ZONE CONTRACT TECHNICAL DIRECTIVE DOCUMENT (TDD)	2 NO ORIGINAL (Red) F3-8402-23
ACCOUNT NO		

3 PRIORITY	4 ESTIMATE OF TECHNICAL HOURS	5 EPA SITE ID	6 COMPLETION DATE	7 REFERENCE INFO
☐ HIGH ☒ MEDIUM ☐ LOW	180	VA-33	3 weeks after QA	☒ YES ☐ NO ☐ ATTACHED ☐ PICK UP
	4A ESTIMATE OF SUBCONTRACT COST	5A EPA SITE NAME FMC Corp. Spotsylvania Co.		

8 GENERAL TASK DESCRIPTION Perform PA/SI of subject site.

9 SPECIFIC ELEMENTS

1.) Review background information.
2.) Submit sampling plan to EPA for approval.
3.) Coordinate Lab analysis.
4.) Conduct on and off site inspection and sampling.
5.) Take and ship samples according to standard protocol.
6.) Quality Assurance of Lab data according to standard protocol.
7.) Submission of report.

10. INTERIM DEADLINES

11 DESIRED REPORT FORM FORMAL REPORT ☒ LETTER REPORT ☐ FORMAL BRIEFING ☐

OTHER (SPECIFY)

12 COMMENTS Contact Ken Chestnut, Virginia Dept. of Health, Bureau of Solid Waste Management.

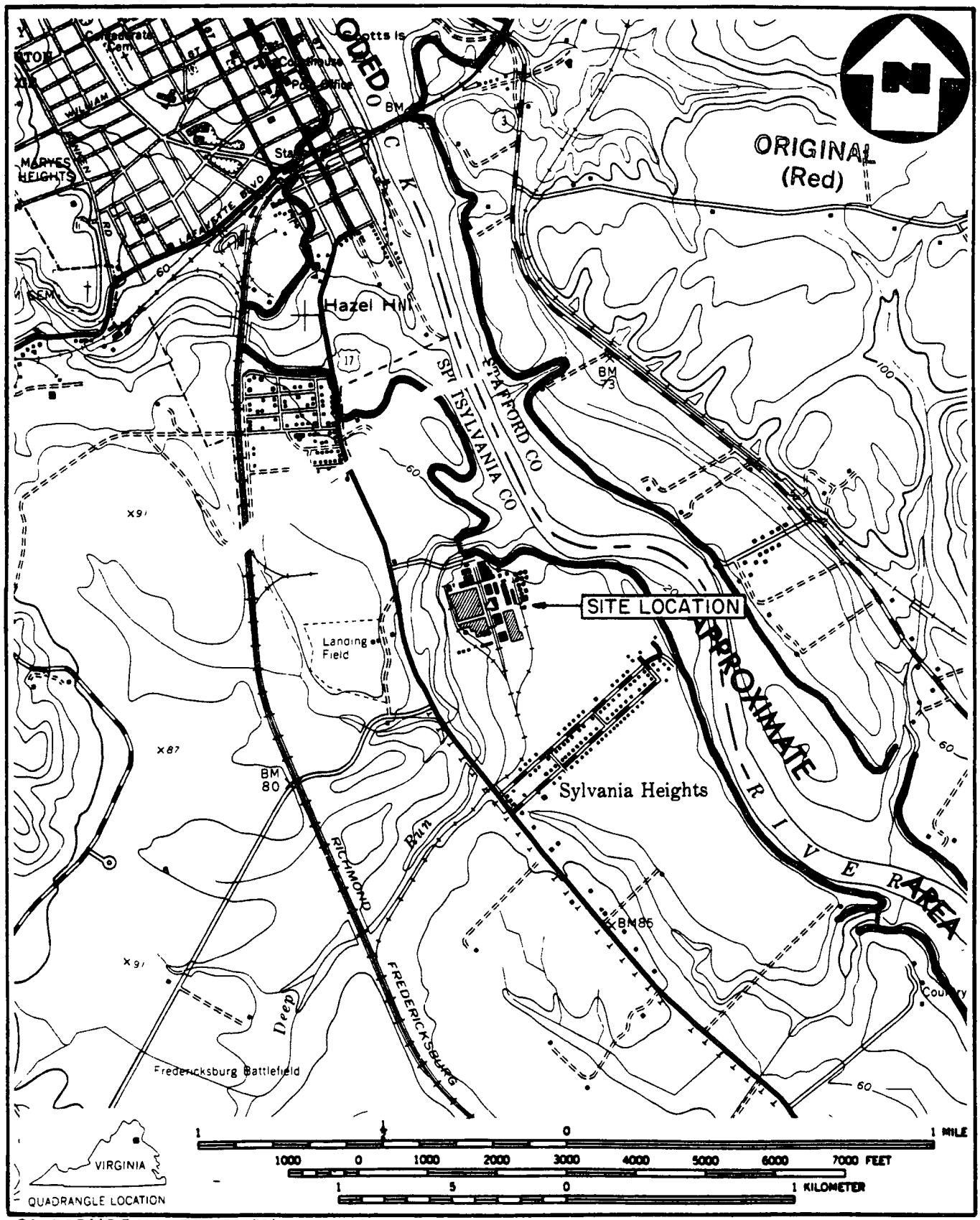
13 AUTHORIZING RPO Harold G Byer (SIGNATURE) — 14 DATE 3/15/84

15 RECEIVED BY ☒ ACCEPTED ☐ ACCEPTED WITH EXCEPTIONS ☐ REJECTED (CONTRACTOR RPM SIGNATURE) — 16 DATE 3/19/84

Sheet 1 White – FITL Copy
Sheet 2 Canary – DPO Copy
Sheet 3 Pink – Contracting Officer's Copy (Washington, D C)
Sheet 4 Goldenrod – Project Officer's Copy (Washington, D C)

ORIGINAL
(Red)

APPENDIX B



SOURCE: (7 5 MINUTE SERIES) USGS FREDERICKSBURG, VA QUAD.

FIGURE 1

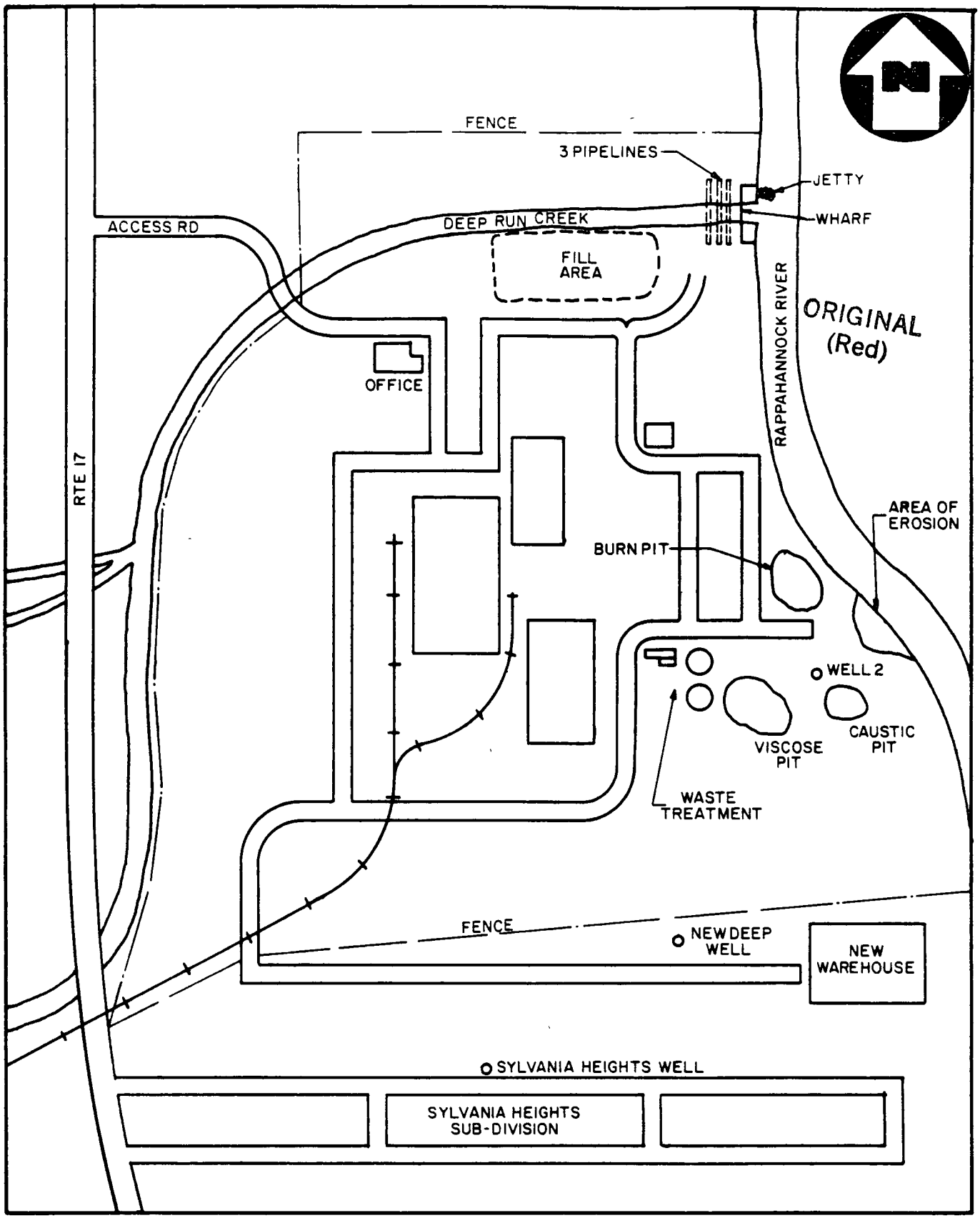
SITE LOCATION MAP

FMC FREDERICKSBURG PLANT, FREDERICKSBURG, VA

SCALE 1:24000

NUS CORPORATION

A Halliburton Company



SITE SKETCH

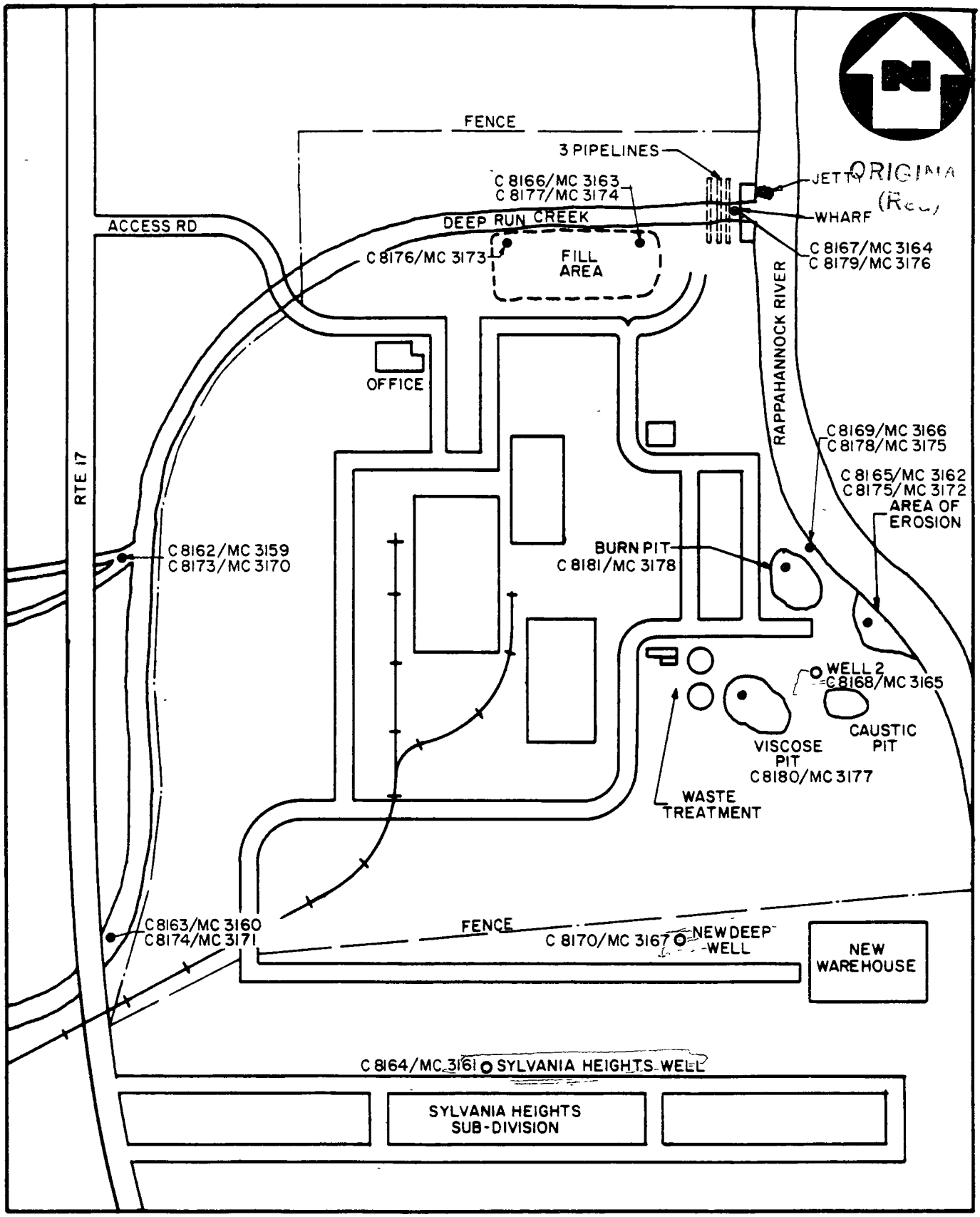
FMC FREDERICKSBURG PLANT, FREDERICKSBURG, VA.

(NO SCALE)

FIGURE 2

NUS CORPORATION

A Halliburton Company



SAMPLE LOCATION MAP

FMC FREDERICKSBURG PLANT, FREDERICKSBURG, VA.

(NO SCALE)

FIGURE 3

NUS CORPORATION

A Halliburton Company

RUN CHRONICLE

Solids 2534

FRACTION: VOA				FRACTION: BNA				FRACTION: BNA CONT.		
*Possible Ghosting										
RUN ORDER	RUN ID/ INSTR ID		DATE / SHIFT	RUN ORDER	RUN ID/ INSTR. ID		DATE / SHIFT	RUN ORDER	RUN ID/ INSTR. ID	DATE / SHIFT
	840404 BFB	A19	4/4 A/B		840505 DFTPP	A14	5/5 A		24050 C-8180	4/23 B
	LAB BLK GB	A19			840505 DFTPP	A14			24051 C-8181	
	GS STD 80	A19			HG STD	A14			24052 C-8182	
	GT STD 120	A19			SAMPLE other case	A14				
*‡	24037 C-8173	A19			GJ 24052 C-8182	A14			ORIGINAL (Red)	
*‡	24044 C-8174	A19			GH SAMPLE other CS	A14				
	24039 C-8173 MS	A19		3	SAMPLES other case	A14				
	24038 C-8174 MSD	A19			840505 DFTPP	A15	5/5 A			
*‡	24046 C-8176	A19			HG STD	A15				
*‡	24047 C-8177	A19			SAMPLE other case	A15				
	24048 C-8178	B19			GR024049 C-8179	A15				
	24045 C-8175	B19			2 SAMPLES other case	A15				
	BFB 840404	B19	4/4 B/C		840425 DFTPP	B16	4/25 B/C			
	840404 GB BLK	B19			2 SA HG STD	B16				
	840404 GC BLK	B19			2 SAMPLES other case	BC16				
	GS SOMED 80	B19			GR24046 C-8176	C16				
*‡	24049 C-8179	B19			DFTPP 840420	B22	4/20 BC			
*‡	24051 C-8181	B19			HG STD	B22				
	24052 C-8182 FBLK	B19			6 SAMPLES other case	BC22				
	24044 C-8174	C19			GH024037 C-8173	C22				
	Sample & 2 spikes other case	C19			840423 DFTPP	C07	4/23 C			
	BFB 840405	A18	4/5 A/B		DFTPP	C07				
	CB BLK	A18			HG STD 50ng	C07				
	CS 80 STD	A18			GH024045 C-8175	C07				
*‡	SAMPLE other CS	A18			GH024046 C-8176	C07				
*‡	C-8180	B18		other case	GS024148 MS Case 2532	C07				
	C-8180 MS	B18			GH024047 C-8177	C07				
	C-8180 MSD	B18			840423 DFTPP	B07	4/23 B			
					HG STD	B07				
	‡ No Ghosting Detected				24048 C-8178					
					24049 C-8179					

PESTICIDE
Run Chronicles

SEQUENCE RUN LOG - QC/QA APR 25, 1984 2:28 PM ORIGINAL PAGE 1

SEQUENCE NAME - SEQ75
CHANNEL # 7
INSTRUMENT # 01
TYPE(S) OF ANALYSIS PEST

CALTR STD LOT 4360/4364
DATE STARTED
DATE FINISHED

(Red) L U REF 19
CASE 2534
SAMPLES CIRCLED

SAMPLE NAME	B#	CASE NUMBER	EPA NUMBER	INJECTION TIME
SD 11619	01			19:00:50 ON APR 24, 1984
SD SPKE	02			19:27:10 ON APR 24, 1984
SD 4360	03			19:53:29 ON APR 24, 1984
SD 4364	04			20:19:49 ON APR 24, 1984
SD ARMX	05			20:46:09 ON APR 24, 1984
SD TOXA	06			21:12:28 ON APR 24, 1984
SD 1242	07			21:38:47 ON APR 24, 1984
SD 1248	08			22:05:06 ON APR 24, 1984
SD 1254	09			22:31:25 ON APR 24, 1984
SD TECH	10			22:57:45 ON APR 24, 1984
SD MD	11			23:24:03 ON APR 24, 1984
PP 25525	12	—	—	23:50:23 ON APR 24, 1984
PP 25557	13	—	—	0:16:41 ON APR 25, 1984
PP 25310	14	2609	SS	0:43:00 ON APR 25, 1984
PP 25311	15	2609	SS	1:09:18 ON APR 25, 1984
PP 25298	16	C#2646	A207P	1:35:38 ON APR 25, 1984
PP 25301	17	C#2646	A2081	2:01:57 ON APR 25, 1984
PP 25302	18	C#2646	A2081	2:28:16 ON APR 25, 1984
PP 25303	19	C#2646	A2083	2:54:44 ON APR 25, 1984
SD MD	20			3:20:53 ON APR 25, 1984
SD 4360	21			3:47:12 ON APR 25, 1984
CP 23578 R	22	C#2562	D3887	4:13:31 ON APR 25, 1984
CP 24919	23	—	—	4:39:50 ON APR 25, 1984
CP 24044	24	C#2534	C8174	5:06:10 ON APR 25, 1984
CP 24045 HG	25	C#2534	C8175	5:32:30 ON APR 25, 1984
PP 25304 Confirm	26	C#2609	S4101	5:58:50 ON APR 25, 1984
PP 25309 Confirm	27	2609	S4102	6:25:09 ON APR 25, 1984
PP 25312 Confirm	28	C#2609	S4103	6:51:29 ON APR 25, 1984
PP 25313 Confirm	29	C#2609	S4104	7:17:49 ON APR 25, 1984
SD MD	30			7:44:09 ON APR 25, 1984
SD 4364	31			8:10:30 ON APR 25, 1984
PP 25314	32	C#2609	S4105	8:36:50 ON APR 25, 1984
PP 25315	33	C#2609	S4106	9:03:10 ON APR 25, 1984
CP 25115 Rerun	34	C#2610	S3845	9:29:30 ON APR 25, 1984

SEQUENCE RUN LOG - QC/QA APR 19, 1984 10:33 AM

SEQUENCE NAME - S-072
CHANNEL # 7
INSTRUMENT # 01
TYPE(S) OF ANALYSIS PEST

CALIB STD LOT 8409-8411
DATE STARTED
DATE FINISHED

ORIGINAL
(Red)

SAMPLE NAME	B#	CASE NUMBER	EPA NUMBER	INJECTION
SD 4360	01			17 48 [illegible] ON APR 17, 1984
SD 4364	02			18 [illegible] ON APR 17, 1984
SD ARMX	03			19 05 06 ON APR 17, 1984
SD IOXA	04			19 [illegible] ON APR 17, 1984
SD 1242	05			20 00 45 ON APR 17, 1984
SD 1248	06			20 27 04 ON APR 17, 1984
SD 1254	07			20 53 24 ON APR 17, 1984
SD TECH	08			21 19 43 ON APR 17, 1984
SD SPKE	09			11 27 47 ON APR 18, 1984
SD MD	10			22 12 21 ON APR 17, 1984
✓ CP 23316	11	C#2562	D3874	22 38 40 ON APR 17, 1984
✓ CP 23328	12	C#2562	D3886	23 05 00 ON APR 17, 1984
✓ CP 23363	13	—		23 31 20 ON APR 17, 1984
✓ CP 23572	14	C#2562	D3851	23 57 39 ON APR 17, 1984
CP 23951 confirm	15	—		0 23 58 ON APR 18, 1984
SD EPA4	16			[illegible] ON APR 18, 1984
SD MD	17			1 16 47 ON APR 18, 1984
✓ CP 23068 R	18	C#2581	G2393	[illegible] ON APR 18, 1984
✓ CP 23065 R	19	C# 2581	G2390	2 09 47 ON APR 18, 1984
✓ CP 23066	20	C#2581	G2391	2 35 [illegible] ON APR 18, 1984
CP 23067 R rerun	21	C#2581	G2392	3 01 54 ON APR 18, 1984
CP 23069 R rerun	22	C#2581	G2394	3 [illegible] 14 ON APR 18, 1984
CP 23070 R rerun	23	C#2581	G2395	3 54 33 ON APR 18, 1984
✓ CP 24050	24	C#2534	C8180	4 20 53 ON APR 18, 1984
✓ CP 24051	25	C#2534	C8181	4 47 13 ON APR 18, 1984
HB	26			5 13 42 ON APR 18, 1984
SD MD	27			9 37 40 ON APR 18, 1984
SD 4360	28			10 08 47 ON APR 18, 1984
✓ PP 25104	29	—		10 [illegible] 07 ON APR 18, 1984
✓ PP 24058 R	30	C#2588	SS	11 01 26 ON APR 18, 1984
✓ PP 24059 R	31	C#2588	SS	11 54 47 ON APR 18, 1984
✓ PP 24162 R	32	C#2532	SS	12 21 05 ON APR 18, 1984
✓ PP 24163 R	33	C#2532	SS	12 47 25 ON APR 18, 1984
✓ PP 24262 R	34	C#2484	SS	14 13 44 ON APR 18, 1984

2534

SEQUENCE RUN LOG - QC/QA APR 16, 1984 4:24 PM PAGE

SEQUENCE NAME - SEQ54
CHANNEL # 5
INSTRUMENT # 03
TYPE(S) OF ANALYSIS PEST

CALIB STD LOT EPA 1
DATE STARTED _____
DATE FINISHED _____

ORIGINAL
(Red)

SAMPLE NAME	R#	CAS NUMBER	EPA NUMBER	INJECTION TIME
SD PP	01			17 40 03 ON APR 12, 1984
SD EPA1	02			17 17 14 ON APR 12, 1984
SD ARMX	03			18 54 56 ON APR 12, 1984
SD TOXA	04			19 45 38 ON APR 12, 1984
SD 1242	05			20 07 18 ON APR 12, 1984
SD 1248	06			20 44 00 ON APR 12, 1984
SD 1254	07			21 21 06 ON APR 12, 1984
SD TCL	08			[illegible]
SD SPKE	09			[illegible]
SD MD	10			24 11 17 ON APR [illegible]
PP 24874 confirm	11			[illegible]
X PP 22684 R QA	12	2581	SS	[illegible]
X PP 22685 R QA	13	2581	SS	[illegible]
X PP 22700 R	14	2581	SS	[illegible]
X PP 22709 R	15	2581	SS	[illegible]
PP 22922 R rerun	16	C 2574	D3814	[illegible]
X PP 23066 R rerun	17	C 2581	G2391	[illegible]
PP 23817 R not needed	18	C 2467	E8159	[illegible]
SD EPA4	19			[illegible]
SD MD	20			[illegible]
X PP [illegible] rerun	21	C 2581	G2390	[illegible]
X PP 23067 rerun	22	C#2581	G2392	[illegible]
X PP 23068 rerun	23	C#2581	G2393	[illegible]
X PP 23069 rerun	24	C#2581	G2394	[illegible]
X PP 23070 rerun	25	C#2581	G2395	[illegible]
X PP 23073 rerun	26	C#2581	SS	[illegible]
X PP 23074 rerun	27	C#2581	SS	[illegible]
X PP 23075 rerun	28	C#2581	G2396	[illegible]
SD MD	29			[illegible]
SD EPA1	30	Standard		[illegible]
X PP 24049 confirm	31	C 2534	C8179	[illegible]
PP 24726 rerun	32			[illegible]
PP 24396 confirm	33	C 2582	F3534	[illegible]
PP 24794 confirm	34			[illegible]

2534

SEQUENCE [illegible] - QC/QA APR 23, 1984 11:11 AM PAGE 1

SEQUENCE NAME - SEQ51
CHANNEL # 5
INSTRUMENT # 03
TYPE(S) OF ANALYSIS PEST

CALIB STD LOT EPA1
DATE STARTED _____
DATE FINISHED _____

ORIGINAL
(Red)

SAMPLE NAME	B#	CASE NUMBER	EPA NUMBER	INJECTION TIME
SD EPA1	01			18:14:13 ON APR 18, 1984
SD ARMX	02			18:51:01 ON APR 18, 1984
SD TOXA	03			19:42:04 ON APR 18, 1984
SD 1242	04			20:18:52 ON APR 18, 1984
SD 1248	05			20:55:42 ON APR 18, 1984
SD 1254	06			21:32:29 ON APR 18, 1984
SD TECH	07			22:10:24 ON APR 18, 1984
SD SPKE	08			22:47:09 ON APR 18, 1984
SD MD	09			23:25:10 ON APR 18, 1984
PP 24768	10	2574	Blank	0:01:55 ON APR 19, 1984
PP 25275	11		Blank	0:41:05 ON APR 19, 1984
PP 25278	12		Blank	1:17:49 ON APR 19, 1984
PP 25279	13		Blank	1:59:22 ON APR 19, 1984
PP 22953 R2	14	C#2574	SS	2:36:07 ON APR 19, 1984
PP 22955 R2	15	C#2574	SS	3:24:32 ON APR 19, 1984
PP 23303 R	16	2577	SS	4:01:15 ON APR 19, 1984
PP 23304 R	17	2577	SS	4:45:26 ON APR 19, 1984
SD EPA4	18			5:22:08 ON APR 19, 1984
SD MD	19			6:07:38 ON APR 19, 1984
PP 24042 R Reruns	20	C#2534	SS C-8173MS	6:44:19 ON APR 19, 1984
PP 24043 R Reruns	21	C#2534	SS C-8173MSD	7:21:03 ON APR 19, 1984
PP 23487 R	22	C#2589	SS	7:57:46 ON APR 19, 1984
PP 23488 R	23	C# 2589	SS	8:34:31 ON APR 19, 1984
PP 22941 R	24	C#2574	D3834	9:11:26 ON APR 19, 1984
PP 24048 R Reruns	25	C#2534	C8178	9:51:15 ON APR 19, 1984
PP 24150 R Reruns	26	C#2532	SS	10:28:00 ON APR 19, 1984
PP 24151 R Reruns	27	C#2532	SS	14:29:32 ON APR 19, 1984
SD MD	28			15:06:15 ON APR 19, 1984
				15:59:43 ON APR 19, 1984
				15:59:43 ON APR 19, 1984
				15:59:43 ON APR 19, 1984
				15:59:43 ON APR 19, 1984
				15:59:43 ON APR 19, 1984
				15:59:43 ON APR 19, 1984

6

SEQUENCE RUN LOG - QC/QA APR 23, 1984 11:16 AM PAGE 1

SEQUENCE NAME - SEQ23
CHANNEL # 2
INSTRUMENT # 06
TYPE(S) OF ANALYSIS PEST

CALIB STD LOT 4360/4364
DATE STARTED _____
DATE FINISHED _____

I U REF 23

ORIGINAL
(Req)

SAMPLE NAME	B#	CASE NUMBER	EPA NUMBER	INJECTION TIME
SD 4360	01			17:47:34 ON APR 20, 1984
SD 4364	02			18:13:54 ON APR 20, 1984
SD ARMX	03			18:40:14 ON APR 20, 1984
SD TOXA	04			19:06:34 ON APR 20, 1984
SD 1242	05			19:32:53 ON APR 20, 1984
SD 1248	06			19:59:12 ON APR 20, 1984
SD 1254	07			20:25:33 ON APR 20, 1984
SD TECH	08			20:51:51 ON APR 20, 1984
SD SPKE	09			21:18:11 ON APR 20, 1984
SD MD	10			21:44:31 ON APR 20, 1984
U PP 24954	11	2629-SAS1036B	Blank	22:10:50 ON APR 20, 1984
U PP 24906	12	2629-SAS	SS	22:37:10 ON APR 20, 1984
U PP 24907	13	2629-SAS	SS	23:03:30 ON APR 20, 1984
CP 25293	14	2610-SAS	Blank	23:29:50 ON APR 20, 1984
CP 23084	15	C#2581	G2405	23:56:09 ON APR 20, 1984
CP 24048 R	16	2534	C8178	0:22:29 ON APR 21, 1984
CP 24168	17	2589	S3818	0:48:49 ON APR 21, 1984
CP 24277	18	C#2484	D3236	1:15:08 ON APR 21, 1984
SD EPA4	19			1:41:28 ON APR 21, 1984
SD MD	20			2:07:46 ON APR 21, 1984
CP 24279	21	C#2484	D3238	2:34:06 ON APR 21, 1984
CP 25115 rerun	22	2610	3845	3:00:26 ON APR 21, 1984
CP 25128 rerun	23	2610 SMS	3850	3:26:45 ON APR 21, 1984
CP 25133	24	2610-SAS MSF	3851	3:53:05 ON APR 21, 1984
PP 24900 confirm	25	C#2629	R3856	4:19:25 ON APR 21, 1984
PP 24904 confirm	26	C#2629	R3857	4:45:45 ON APR 21, 1984
PP 24908	27	C#2629	R3858	5:12:05 ON APR 21, 1984
PP 24909 confirm	28	C#2629	R3859	5:38:23 ON APR 21, 1984
SD HR	29			6:04:43 ON APR 21, 1984

M. Westby 4/25/84

SEQUENCE [illegible] - QC/QA APR 19 1984 10:23 AM 8

SEQUENCE NAME - [illegible]
CHANNEL # [illegible]
INSTRUMENT # [illegible]
TYPE(S) OF ANALYSIS REST

CALIB STD LOT FPA
DATE STARTED
DATE FINISHED

ORIGINAL
(Red)

SAMPLE NAME	R#	CASE NUMBER	FPA NUMBER	INJECTION TIME
SD 4360	01			11 56 24 ON APR 16, 1984
SD 4364	02			12 24 43 ON APR 16, 1984
SD ARMX	03			12 54 02 ON APR 16, 1984
SD TOXA	04			13 21 22 ON APR 16, 1984
SD 1242	05			13 49 41 ON APR 16, 1984
SD 1248	06			14 18 01 ON APR 16, 1984
SD 1254	07			14 46 20 ON APR 16, 1984
SD 7-CS	08			15 14:40 ON APR 16, 1984
SD SPK	09			15 43 10 ON APR 16, 1984
SD MD	10			16 11 19 ON APR 16, 1984
✓ PP 25002	11	—	—	16 39 48 ON APR 16, 1984
✓ PP 24945	12	2612	SS	17 07 58 ON APR 16, 1984
✓ PP 24950	13	2612	SS	17 36 18 ON APR 16, 1984
✓ CP 24805	14	—	—	18 07 [illegible] ON APR 16, 1984
✓ CP 24874	15	—	—	18 [illegible] ON APR 16, 1984
✓ CP 24046	16	C 2534	C8176	19 [illegible] ON APR 16, 1984
✓ CP 24047	17	2534	C8177	19 29 45 ON APR 16, 1984
✓ CP 24049	18	C 2534	C8179	19 [illegible] ON APR 16, 1984
SD FPAA	19			20 26 15 ON APR 16, [illegible]
SD MD	20			20 54 [illegible] ON APR 16, 1984
✓ CP 24074	21	2588	A2206	21 [illegible] ON APR 16, 1984
✓ CP [illegible]	22	C 2588	A2210	22 [illegible] ON APR 16, 1984
✓ CP 23077	23	C 2581	G2398	22 49 32 ON APR 16, 1984
✓ CP 23583	24	C 2562	D3892	22 47 52 ON APR 16, 1984
✓ CP 23687	25	2604	G2420	23 16 [illegible] ON APR 16, 1984
✓ CP 23695	26	C 2604	G2428	23 [illegible] ON APR 16, 1984
✓ CP 24123	27			0 [illegible] ON APR 17, 1984
✓ CP 24145	28			0 [illegible] ON APR 17, 1984
SD MD	29			1 09 27 ON APR 17, 1984
SD 4360	30			1 37 46 ON APR 17, 1984
✓ CP 24409	31	—	—	2 06 [illegible] ON APR 17, 1984
✓ CP 24680	32	C 2616	SS	2 [illegible] ON APR 17, 1984
✓ CP 24681	33	C 2616	SS	3 [illegible] ON APR 17, 1984
✓ CP 24708	34	—	—	3 [illegible] ON APR 17, 1984

SEQUENCE RUN LOG - QC/QA 46 APR 19 1984 10 28 A

SEQUENCE NAME - SEQ94
CHANNEL # 9
INSTRUMENT # 0
TYPE(S) OF ANALYSIS BEST

LA IR STD LOT EPA1
DATE STARTED
DATE FINISHED

ORIGINAL
(Red)

SAMPLE NAME	B#	CASE NUMBER	EPA NUMBER	INJECTION
FLOR TEST	01			17 27 34 ON APR 16, 1984
SD EPA1	02			18 03 29 ON APR 16, 1984
SD ARMX	03			18 39 25 ON APR 16, 1984
SD TOXA	04			19 15 20 ON APR 16, 1984
SD 1242	05			19 51 15 ON APR 16, 1984
SD 1248	06			20 27 10 ON APR 16, 1984
SD 1254	07			21 03 05 ON APR 16, 1984
SD TECH	08			21 38 59 ON APR 16, 1984
SD SPKE	09			22 14 55 ON APR 16, 1984
SD MD	10			22 50 50 ON APR 16, 1984
✓ PP 23582	11	C#2561	D3891	23 26 45 ON APR 16, 1984
CP 23065 R confirm	12	C#2581	G2390	0 02 41 ON APR 17, 1984
CP 23066 R confirm	13	C#2581	G2391	0 38 36 ON APR 17, 1984
CP 23067 R confirm	14	C#2581	G2392	1 14 31 ON APR 17, 1984
CP 23068 R confirm	15	C#2581	G2393	1 50 26 ON APR 17, 1984
CP 23069 R confirm	16	C#2581	G2394	2 26 21 ON APR 17, 1984
CP 23070 R confirm	17	C#2581	G2395	3 02 15 ON APR 17, 1984
CP 24050 confirm	18	C#2534	C8180	3 38 10 ON APR 17, 1984
SD EPA4	19			4 14 05 ON APR 17, 1984
SD MD	20	Standard		4 50 50 ON APR 17, 1984
CP 24051 confirm	21	C#2534	C8181	5 25 53 ON APR 17, 1984
✓ CP 24065	22	C#2588	A2201	6 01 49 ON APR 17, 1984
✓ CP 24071	23	2588	SS	6 37 44 ON APR 17, 1984
✓ CP 24072	24	C#2588	SS	7 13 40 ON APR 17, 1984
CP 24177 confirm	25	C#998E	F54396	7 49 36 ON APR 17, 1984
CP 24178 confirm	26	C#998E	F5470	8 25 31 ON APR 17, 1984
CP 24197 confirm	27	C#998E9E	F5311S2	9 01 24 ON APR 17, 1984
CP 24198 confirm	28	C#998E9E	F5311S3	9 37 19 ON APR 17, 1984
SD MD	29			10 13 16 ON APR 17, 1984
SD EPA1	30			10 49 15 ON APR 17, 1984
✓ CP 23073	31	C#2581	SS	11 25 10 ON APR 17, 1984
✓ CP 23074	32	C#2581	SS	12 01 05 ON APR 17, 1984
CP 24595 rerun	33			12 37 0 ON APR 17, 1984
CP 24598 rerun	34			13 13 05 ON APR 17, 1984

2534

SEQUENCE RUN LOG - QC/QA APR 23, 1984 11:10 AM 4 PAGE 1

SEQUENCE NAME - SEQ02
CHANNEL # 0
INSTRUMENT # 07
TYPE(S) OF ANALYSIS PEST

CALIB. STD LOT EPA1
DATE STARTED
DATE FINISHED

L.U REF (S

ORIGINAL
(Red)

SAMPLE NAME	B#	CASE NUMBER	EPA NUMBER	INJECTION TIME
SD EPA1	01			17:09:31 ON APR 19, 1984
SD ARMX	02			17:46:19 ON APR 19, 1984
SD TOXA	03			18:23:08 ON APR 19, 1984
SD 1242	04			18:59:56 ON APR 19, 1984
SD 1248	05			19:36:43 ON APR 19, 1984
SD 1254	06			20:13:31 ON APR 19, 1984
SD TECH	07			20:50:19 ON APR 19, 1984
SD SPKE	08			21:27:06 ON APR 19, 1984
SD MD	09			22:03:53 ON APR 19, 1984
PP 23461	10	—	—	22:40:40 ON APR 19, 1984
CP 24919 Confirm	11	—	—	23:17:29 ON APR 19, 1984
CP 24920	12	—	—	23:54:18 ON APR 19, 1984
CP 22928 R	13	C#2574	SS SPIKE	0:31:07 ON APR 20, 1984
CP 22930 R	14	C#2574	SS SPIKE	1:07:57 ON APR 20, 1984
CP 24044 Confirm	15	C#2534	CB174	1:44:47 ON APR 20, 1984
CP 24045 Confirm	16	C#2534	CB175	2:21:38 ON APR 20, 1984
CP 24691	17	C#2616	SS	2:58:28 ON APR 20, 1984
SD EPA4	18			3:35:17 ON APR 20, 1984
SD MD	19			4:12:05 ON APR 20, 1984
CP 24692	20	C#2616	SS	4:48:52 ON APR 20, 1984
CP 23365	21	C#2577	J3134	5:25:42 ON APR 20, 1984
CP 23578 R Confirm	22	C#2562	D3887	6:02:36 ON APR 20, 1984
CP 24736	23	C#2610	SS	6:39:26 ON APR 20, 1984
CP 24737	24	C#2610	SS	7:16:17 ON APR 20, 1984
CP 25029	25	2647	SS	7:53:09 ON APR 20, 1984
CP 25030	26	2647	SS	8:30:05 ON APR 20, 1984
CP 23951	27	—	commercial	9:07:01 ON APR 20, 1984
SD MD	28			9:43:52 ON APR 20, 1984
SD EPA1	29			10:20:40 ON APR 20, 1984
CP 24595 Confirm	30	C#2543	E8574	10:57:30 ON APR 20, 1984
CP 24598	31	C#2543	E8575	11:34:21 ON APR 20, 1984
CP 25126	32	—	—	12:11:18 ON APR 20, 1984
CP 25127	33	—	—	12:48:18 ON APR 20, 1984
CP 25129	34	—	—	13:25:12 ON APR 20, 1984

2501

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SEQUENCE RUN LOG - QC/QA APR 9 1984 3:28 PM PAGE

SEQUENCE NAME - SEQ97
CHANNEL # 9
INSTRUMENT # 01
TYPE(S) OF ANALYSIS PEST

CALIB STD LOT FPA
DATE STARTED
DATE FINISHED

ORIGINAL
(Red)

SAMPLE NAME	R#	CASE NUMBER	FPA NUMBER	IN [illegible]
SD FPA1	01			18 38 44 ON APR 5 1984
SD ARMX	02			19 14 54 ON APR 5 1984
SD TOXA	03			19 50 46 ON APR 5 1984
SD 1242	04			20 26 37 ON APR 5 1984
SD 1248	05			21 02 25 ON APR 5 1984
SD 1254	06			21 38 21 ON APR 5 1984
SD TECR	07			22 [illegible] 12 ON APR 5 1984
SD [illegible]	08			[illegible]
SD MD	09			23 25 58 ON APR 5 [illegible]
PP 24284	10	—	—	0 01 50 ON APR 6 1984
PP 24450	11	—	—	0 37 42 ON APR 6 1984
PP 22262 R2	12	2478	SS	1 13 37 ON APR 6 1984
PP 22263 R2	13	2478	SS	1 49 25 ON APR 6 1984
PP 23903	14	[illegible]	S3807	2 25 17 ON APR 6 1984
PP 23903 rerun	15	[illegible]	S3808	3 01 12 ON APR 6 1984
PP 23904	16	[illegible]	S3809	3 38 01 ON APR 6 1984
PP 23905 rerun	17	[illegible]	S3810	7 32 26 ON APR 6 1984
SD FPA4	18			8 08 18 ON APR 6 1984
SD MD	19			8 44 09 ON APR 6 1984
PP 23906 confirm	20	[illegible]	S3811	9 20 01 ON APR 6 1984
PP [illegible]	21	—	—	[illegible]
PP 24244	22			10 31 45 ON APR 6 1984
PP 23578 R rerun	23	[illegible]	D3887	11 07 37 ON APR 6 1984
PP 23583 confirm	24	[illegible]	D3892	11 43 29 ON APR 6 1984
PP 23845	25	[illegible]	S4357	12 19 21 ON APR 6 1984
PP 24037	26	C#2534	C8173	12 55 14 ON APR 6 1984
PP 24042	27	C#2534	SS C-8173 MS	13 31 06 ON APR 6 1984
SD MD	28			14 06 58 ON APR 6 1984
SD FPA1	29			14 42 49 ON APR 6 1984
PP 23848 confirm	30	2467	S4384	
PP 23849	31	2467	S4393	
PP 24043	32	2534	SS C-8173 MSD	
PP 23813 post-rectrucidal	33	2467	E8142	

[signature] 4/27/84

SEQUENCE RUN LOG - QC/QA APR 16, 1984 4:20 PM PAGE 1

SEQUENCE NAME - SEQ03
CHANNEL # 0
INSTRUMENT # 07
TYPE(S) OF ANALYSIS PEST

CALIB STD LOT FPA 1
DATE STARTED _____
DATE FINISHED _____

ORIGINAL
(Red)

SAMPLE NAME	B#	CASE NUMBER	FPA NUMBER	INJECTION TIME
SD FPA1	01			17:22:23 ON APR 12, 1984
SD ARMX	02			17:59:11 ON APR 12, 1984
SD TOXA	03			18:46:00 ON APR 12, 1984
SD 1242	04			19:12.49 ON APR 12, 1984
SD 1248	05			19:49:46 ON APR 12, 1984
SD 1254	06			20:26:24 ON APR 12, 1984
SD TECH	07			21:03:12 ON APR 12, 1984
SD SPKE	08			21:49:58 ON APR 12, 1984
SD MD	09			22:16:47 ON APR 12, 1984
PP 24805 confirm	10	—	—	22:53:35 ON APR 12, 1984
PP 24858	11	—	—	23:31:26 ON APR 12, 1984
CP 24556	12	—	—	0:07:15 ON APR 14, 1984
CP 24397	13	—	—	0:44.04 ON APR 14, 1984
PP 24738 confirm	14	C#2610	S3816	1:20:54 ON APR 14, 1984
PP 24731 confirm	15	C#2610	S3815	1:57:42 ON APR 14, 1984
PP 24409 confirm	16	—	—	2:44:33 ON APR 14, 1984
PP 24398 rerun	17	—	—	3:11:25 ON APR 14, 1984
SD FPA4	18			3:48:17 ON APR 14, 1984
SD MD	19			4:25:06 ON APR 14, 1984
PP 24116	20	C#2589	S3819	5:01:55 ON APR 14, 1984
PP 24123 confirm	21	C#2589	S3817	5:38:46 ON APR 14, 1984
PP 24145 confirm	22			6:15:36 ON APR 14, 1984
PP 24047 confirm	23	C#2534	C8177	6:52:27 ON APR 14, 1984
PP 24046 confirm	24	C#2534	C8176	7:29:19 ON APR 14, 1984
PP 24075 confirm	25	C#2588	A2210	8:06:10 ON APR 14, 1984
PP 24074 confirm	26	C#2588	A2206	8:44:10 ON APR 14, 1984
PP 24221 rerun	27	—	—	9:20:00 ON APR 14, 1984
SD MD	28			9:56.53 ON APR 14, 1984
SD FPA1	29			10:33:41 ON APR 14, 1984
PP 24073	30	C#2588	A2203	11:10:27 ON APR 14, 1984
PP 24072 rerun	31	C#2588	SS	11:47:19 ON APR 14, 1984
PP 24071 rerun	32	2588	SS	12:24:10 ON APR 14, 1984
PP 24068	33	2588	A2202	13:01.01 ON APR 14, 1984
PP 24065 rerun	34	C#2588	A2201	13:37:51 ON APR 14, 1984

SEQUENCE RUN LOG - QC/QA APR 14, 1984 4:20 PM PAG. 2

SEQUENCE NAME - SEQ03
CHANNEL # 0
INSTRUMENT # 07
TYPE(S) OF ANALYSIS PEST

CALIB. STD LOT FPA 1
DATE STARTED
DATE FINISHED

ORIGINAL
(Red)

SAMPLE NAME	B#	CASE NUMBER	FPA NUMBER	INJECTION TIME
PP 24052	35	C#2534	CB182	14:14 40 ON APR 14, 1984
PP 24051 rerun	36	C#2534	CB181	14:51:41 ON APR 14, 1984
PP 24050 rerun	37	C#2534	CB180	15 28:22 ON APR 14, 1984
SD HR	38			16:05.11 ON APR 14, 1984

4/26/84

Instrument Carryover Effects

Possible Instances of Carryover Artifacts are Tabulated and Evaluated Below: GHOST ?

COMPOUND IN QUESTION	Initial Run (High Level)		Second Run			Third Run			Footnote
	Run I.D.	Instrument Level	Run I.D.	Instr. Level	Carryover Percent	Run I.D.	Instr. Level	Carryover Percent	Reference
Ethylbenzene	1814 STD MED	~80	1814 STD MED	~80	—	C-8165	2.5	~3%	1 Yes
Carbon Disulfide	"	~800	"	~800		C-8165	9.3	~1%	1 Yes
Trichloroethene	"	~80	"	~80	—	C-8165	6.4	~8%	1 Yes
Carbon Disulfide	CT840403C12 HIGH STD	114	C-8168	5.4	4.7				2 Yes
1,1-dichloroethene	"	118	C-8168	6.3	5.3				2 Yes
1,1-dichloroethane	"	115	C-8168	14.8	12.8				2 No
1,1,1-trichloroethane	"	116	C-8168	19	16.0				2 No
1,1,2,2-tetrachloroethane	"	127	C-8168	4.7	3.7				2 Yes

ORIGINAL (Red)

COMMENTS: (Results which are concluded to be possible artifacts, etc.)

(1) Sample RUN after 2 med. level VOA NEW TEST STDS at 80 ug/L immediately before these were a 20 ug/L Std, a 120 ug/L Std and another 80 ug/L Std in ascending order. 80 ug/L Std See Run chronicles

(2) Run immediately after a med 80 ug/L std, then a high 120 ug/L Std. Using a cut off of 6% for ghosts of lighter compounds (higher on QL than trichloroethene)

See Run Chronicles.

BLANK ANALYSIS RESULTS FOR TARGET COMPOUNDS 2534

FRACTION	TYPE	CONC	MATRIX	SAMPLE #	SOURCE OF H_2O	CONTAMINANTS (CONCENTRATION / DETECTION LIMIT)
ALL	FIELD		LO/AQ	C-8172 24034	NUS	Methylene Chloride (4.8ug/L / 5) 1
						Acetone (3ug/L /100) 2
						Chloroform (.7ug/L / 5) 2
						2-butanone (3 3 ug/L / 200) 2 ORIGINAL
						Toluene (.4ug/L / 5) 2 (Red)
						Phenol (3.8 ug/L / 10) 2
						gamma-BHC (.001 mg/ml / .1) 2,3
						delta-BHC (.001 mg/ml / .1) 2,3
						ENDRIN (.001 mg/ml / .1) 2,3
						ENDOSULFAN Sulfate (.007 mg/ml / .1) 2,3
VOA	LAB INSTR.		LO/AQ	CB840403 C12	MEAD	Methylene Chloride (.66ug/l / 5) 2
						Carbon disulfide (.12ug/l /) 2
						Chloroform (.4ug/l / 5) 2
						2-butanone (5.56ug/l / 200) 2
VOA	LAB INSTR.		LO/AQ	CB840402 A12	MEAD	Methylene Chloride (.69ug/l / 5) 2
						Acetone (2.92ug/l / 100) 2
						Chloroform (.52ug/l / 5) 2
						2-butanone (4.5ug/l / 200) 2
						2-hexanone (2.26ug/l /) 2
						Toluene (.152ug/l / 5) 2
VOA	LAB INSTR.		LO/AQ	CB840403 A12	MEAD	Methylene Chloride (1.27ug/L / 5) 2
						Chloroform (.43ug/L / 5) 2
						2-butanone (3.68ug/L / 200) 2
VOA	LAB INSTR.		LO/AQ	CB840403 B12	MEAD	Methylene Chloride (2.08ug/L / 5) 2
						Carbon disulfide (.12ug/L / 5) 2
						Chloroform (.47ug/L / 5) 2
						2-butanone (4.10ug/L / 200) 2
						Benzene (.16ug/L / 5) 2
VOA	LAB INSTR.		LO/AQ	CB840402 A18	MEAD	Methylene Chloride (.86ug/L / 5) 2
						Chloroform (.36ug/L / 5) 2
BNA	LAB METHOD		LO/AQ	GH 24321 A15	MEAD	Di-N-butyl phthalate (.80ug/L /) 2
BNA	LAB METHOD		LO/AQ	GH 24871 C14	MEAD	Diethyl phthalate (4.04 ug/L /) 2
						Di-N-butyl phthalate (5.28ug/L /) 2
						Pyrene (6.41 ug/L /) 2
						Bis (2-ethyl hexyl) phthalate (3.39ug/L /) 2

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 FOF

COMMENTS:

(1) RESULT REPORTED BY LABORATORY AND CONFIRMED BY REVIEWER.

(2) RESULT INFERRED FROM QUANTITATION LIST, DIAGNOSTICS, CHROMATOGRAM AND/OR SPECTRA.

(3) One column confirmation only and therefore suspect due to possible random chromatogra interferences.

(4) Run immediately after a standard or spiked sample, not used to question results, unless asterisked (*) in which case the blank result was not deemed artifactual.

BLANK ANALYSIS RESULTS FOR TARGET COMPOUNDS

FRACTION	TYPE	CONC	MATRIX	SAMPLE #	SOURCE OF H_2O	CONTAMINANTS (CONCENTRATION / DETECTION LIMIT)
BNA	Method		LO/AQ	24871CH continued	MEAD from pg. 1	Di-N-octyl phthalate (2.64 ug/L /)
BNA	Method		LO/AQ	GH24247	MEAD	Diethyl phthalate (.69 ug/L /)2
						Di-N-butyl phthalate (1.67 ug/L /)2
						Pyrene (1.17 ug/L /)2
						Bis(2-ethyl hexyl) phthalate (1.35 ug/L /)2
						Chrysene (1.07 ug/L /)2
						Di-N-octyl phthalate (.63 ug/L /)2
						Benzo(b) fluoranthene (2.44 ug/L /)2 II
						Benzo(k) fluoranthene (2.44 ug/L /)2 II
						Benzo(a) pyrene (2.96 ug/L /)2
BNA	Method		LO/AQ	GJ24313 B22	MEAD	Diethyl phthalate (1.10 ug/L /)2
						Phenanthrene (.26 ug/L /)2
						Di-N-butyl phthalate (1.28 ug/L /)2
						Benzo(a) anthracene (.29 ug/L /)2
						Bis(2-ethyl hexyl) phthalate (1.35 ug/L /)2
						Chrysene (.4 ug/L /)2
						Di-N-octyl phthalate (.63 ug/L /)2
						Benzo(a) pyrene (.40 ug/L /)2
PEST	Method		LO/AQ	24283	MEAD	NONE FOUND (3)
PEST	METHOD		LO/AQ	24320	MEAD	NONE FOUND (3)
PEST	METHOD		LO/AQ	24256	MEAD	NONE FOUND (3)
TCDD	METHOD		LO/AQ	26358	MEAD	NONE FOUND
TCDD	METHOD		LO/AQ	24256	MEAD	NONE FOUND
TCDD	METHOD		LO/AQ	23141R	MEAD	NONE FOUND
TCDD	METHOD		LO/AQ	24283	MEAD	NONE FOUND

ORIGINAL (Red)

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 FOF

COMMENTS:

(1) RESULT REPORTED BY LABORATORY AND CONFIRMED BY REVIEWER.

(2) RESULT INFERRED FROM QUANTITATION LIST, DIAGNOSTICS, CHROMATOGRAM AND/OR SPECTRA.

BLANK ANALYSIS RESULTS FOR TARGET COMPOUNDS

FRACTION	TYPE	CONC	MATRIX	SAMPLE #	SOURCE OF H_2O	CONTAMINANTS (CONCENTRATION / DETECTION LIMIT)
ALL	FIELD	LO	SOL	C-8182 24052	NUS	Methylene Chloride (65.75ug/kg /)1
						Acetone (1.66ug/kg /)2
						Trichlorofluoromethane (.21 ug/kg /)2
						Chloroform (.58ug/kg /)2
						Toluene (.19ug/kg /)2
						Di-n-butylphthalate (55.6ug/kg / 400)2
						Pyrene (58ug/kg /)2
						Chrysene (14.5ug/kg /)2
						Di-n-octylphthalate (16ug/kg /)2
VOA	LAB Instr.	LO	SOL	GB840404 A19	MEAD	Methylene Chloride (1.0ug/kg /)2
						Acetone (2.49 ug/kg /)2
						Chloroform (.35ug/kg /)2
						2-butanone (2.84 ug/kg /)2
						2-chloroethyl vinyl ether (.33 ug/kg /)2
						toluene (.08 ug/kg /)2
VOA	LAB Instr.	LO	SOL	CB840405 A18	MEAD	chloroform (.27ug/kg /)2
VOA	LAB Instr.	LO	SOL	GC840404 B19	MEAD	Methylene Chloride (2.26 ug/kg /)2
						Chloroform (.36ug/kg /)2
						2-butanone (1.37 ug/kg /)2
						toluene (.05 ug/kg /)2
VOA	LAB Method	LO	SOL	GH024441	MEAD	Methylene Chloride (1.74 ug/kg /)2
						Acetone (.92ug/kg /)2
						Chloroform (.43 ug/kg /)2
						2-butanone (1.84 ug/kg /)2
						2-chloroethyl vinyl ether (.21ug/kg /)2
						2-hexanone (1.07 ug/kg /)2
						1,1,2,2-tetrachloroethane (.62ug/kg /)2
						toluene (.21ug/kg /)2
						chlorobenzene (.47ug/kg /)2
						ethylbenzene (.33 ug/kg /)2
						styrene (.09 ug/kg /)2
						o-xylene (.43 ug/kg /)2
VOA	LAB Method	LO	SOL	GN024435	MEAD	1,1,2,2-tetrachloroethane (.47ug/kg /)2
						tetrachloroethene (.45ug/kg /)2
						toluene (.42 ug/kg /)2

ORIGINAL (Red)

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 FOF

COMMENTS:

(1) RESULT REPORTED BY LABORATORY AND CONFIRMED BY REVIEWER.

(2) RESULT INFERRED FROM QUANTITATION LIST, DIAGNOSTICS, CHROMATOGRAM AND/OR SPECTRA.

BLANK ANALYSIS RESULTS FOR TARGET COMPOUNDS

FRACTION	TYPE	CONC	MATRIX	SAMPLE #	SOURCE OF H_2O	CONTAMINANTS (CONCENTRATION / DETECTION LIMIT)
VOA	LAB METHOD		LO/SOL	CN024435	MEAD	Chlorobenzene (.59 ug/kg /)2
						ethylbenzene (.48 ug/kg /)2
						styrene (.61 ug/kg /)2
						o-xylene (.12 ug/kg /)2
BNA	LAB METHOD		LO/SOL	GH026230 B15	MEAD	Phenol (41.9 ug/kg /)2
						Acenaphthylene (52.4 ug/kg /)2
						Pentachlorophenol (77.5 ug/kg /)2
						Phenanthrene (61.9 ug/kg /)2
						Anthracene (102.2 ug/kg /)2
						Dim-butyl phthalate (67.4 ug/kg /) ORIGINAL
						fluoranthene (149 ug/kg /)2 (Red)
						pyrene (171.1 ug/kg /)2
						benzo (a) anthracene (123.5 ug/kg /)2
						chrysene (127 ug/kg /)2
						di-n-octyl phthalate (24.4 ug/kg /)2
BNA	LAB Method		LO/SOL	GH026892 B14	MEAD	di-n-octyl phthalate (1000 ug/kg /)2
						diethyl phthalate (46.3 ug/kg /)2
						di-n-butyl phthalate (26.9 ug/kg /)2
BNA	LAB Method		LO/SOL	GJ024284 B20	MEAD	Phenol (29.3 ug/kg /)2
						4-chloroaniline (39.4 ug/kg /)2
						2,4,5-trichlorophenol (214.8 ug/kg /)2
						3-nitroaniline (110.7 ug/kg /)2
						2-nitroaniline (99.5 ug/kg /)2
						4-nitrophenol (81.4 ug/kg /)2
						diethyl phthalate (26.9 ug/kg /)2
						fluorene (15 ug/kg /)2
						4-nitroaniline (39.7 ug/kg /)2
						Phenanthrene (29.8 ug/kg /)2
						Anthracene (34.5 ug/kg /)2
						Di-n-butyl phthalate (32.2 ug/kg /)2
						fluoranthene (41.2 ug/kg /)2
						Pyrene (65.3 ug/kg /)2
						benzo(a) anthracene (79.6 ug/kg /)2
						Chrysene (93.8 ug/kg /)2
						di-n-octyl phthalate (11.9 ug/kg /)2
						benzo(b) fluoranthene (92.2 ug/kg /)2

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 FOR

COMMENTS:

(1) RESULT REPORTED BY LABORATORY AND CONFIRMED BY REVIEWER.

(2) RESULT INFERRED FROM QUANTITATION LIST, DIAGNOSTICS, CHROMATOGRAM AND/OR SPECTRA.

BLANK ANALYSIS RESULTS FOR TARGET COMPOUNDS

FRACTION	TYPE	CONC	MATRIX	SAMPLE #	SOURCE OF H_2O	CONTAMINANTS (CONCENTRATION / DETECTION LIMIT)
BNA	LAB METHOD	LO	SOL	GJ024284 B20 CONTINUED FROM pg. 4	MEAD	benzo(k)fluoranthene (113.7 ug/kg /)2
						benzo(a)pyrene (94.8 ug/kg /)2
BNA	LAB METHOD	LO	SOL	GH024311 A14	MEAD	Phenol (22 ug/kg /)2 ORIGINAL
						benzoic Acid (18.8 ug/kg /)2 (Red)
						2,4,5-trichlorophenol (90.8 ug/kg /)2
						diethylphthalate (22.9 ug/kg /)2
						pentachlorophenol (53.7 ug/kg /)2
						phenanthrene (10.2 ug/kg /)2
						anthracene (10.4 ug/kg /)2
						di-n-butyl phthalate (360.8 ug/kg /)2
						fluoranthene (19.5 ug/kg /)2
						Pyrene (35.4 ug/kg /)2
						butylbenzyl phthalate (22.5 ug/kg /)2
						benzo(a)anthracene (38.3 ug/kg /)2
						bis(2-ethylhexyl)phthalate (20 ug/kg /)2
						chrysene (38.4 ug/kg /)2
						di-n-octyl phthalate (21.7 ug/kg /)2
						benzo(b)fluoranthene (63.7 ug/kg /)2
						benzo(k)fluoranthene (65.4 ug/kg /)2
						benzo(g,h,i)perylene (8.1 ug/kg /)2
PEST/TCDD	PEST	LO	SOL	24284	MEAD	NONE FOUND
PEST/TCDD	LAB	LO	SOL	24311	MEAD	None found
PEST/TCDD	LAB	LO	SOL	25278	MEAD	NONE FOUND

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 FOF

COMMENTS:

(1) RESULT REPORTED BY LABORATORY AND CONFIRMED BY REVIEWER.

(2) RESULT INFERRED FROM QUANTITATION LIST, DIAGNOSTICS, CHROMATOGRAM AND/OR SPECTRA.

WATER SURROGATE PERCENT RECOVERY SUMMARY

CASE NO. 2534
LOW LEVEL
WATER xxx

CONTRACTOR CompuChem
MED. LEVEL
SOIL/SED.

CONTRACT NO. 68-01-6762 68-01-6866
HIGH LEVEL
OTHER (Specify)

QC REPORT NO.

SURR. I.D.	EXT. DATE	EXT. I.D.	DATE ANA.	ANAL. I.D.	CC #	SMO Traffic No.	[Volatile] (#233) D_8 Toluene 84-114	(#247) BFB 63-127*	(#258) D_4-1,2 Dichloro Ethane 90-130*	[Semi-Volatile] (#447) D_5 Nitro Benzene 42-131	(#448) 2-Fluoro Biphenyl 50-154	(#471) D_{10} Pyrene (NE)	(#496) D_{14} p-Ter Phenyl 54-118*	(#612) D_5 Phenol 15-90	(#619) 2-Fluoro Phenol 25-115*	(#628) 2,4,6-Tribromo Phenol 47-123*	[Pesticide] (#738) Dibutyl Chlor-endate 67-114*	[Dioxin] (#466) 1,2,3,4 TCDD 26-104
383	3/29		4/3	258	24020	CA162	100	92	74	58	68	100	70	17	44	44	79	87
382	3/30		4/9	754														
368	4/2		4/3	679														
364	4/2		4/12	803														
383																		
382																		
368																		
364																		
383																		
382																		
368																		
364																		
383																		
382																		
368																		
364																		
383																		
382																		
368																		
364																		

ORIGINAL (Red)

Comments: See Solid & Aqueous Surrogate Spike Comments Page at end of this section.

Volatiles: 0 out of 4; outside of QC limits
Semivolatiles: 0 out of 4; outside of QC limits
Dioxin: 1 out of 1; outside of QC limits

*Asterisked values are outside of QC limits
NE - Not established

Date Limit Set 12/82

WATER SURROGATE PERCENT RECOVERY SUMMARY

CASE NO. 2534
LOW LEVEL
WATER xx

CONTRACTOR CompuChem
MED. LEVEL
SOIL/SED.

CONTRACT NO. 68-01-6762 / 68-01-6866
HIGH LEVEL
OTHER (SpecTfy)

QC REPORT NO.

SURR. I.D.	EXT. DATE	EXT. I.D.	DATE ANA.	ANAL. I.D.	CC #	SMO Traffic No.	[Volatile] (#233) D_8 Toluene 84-114	(#247) BFB 63-127*	(#258) D_4-1,2 Dichloro Ethane 90-130*	[Semi-Volatile] (#447) D_5 Nitro Benzene 42-131	(#448) 2-Fluoro Biphenyl 50-154	(#471) D_{10} Pyrene (NE)	(#496) D_{14} p-Ter Phenyl 54-118*	(#512) D_5 Phenol 15-90	(#519) 2-Fluoro Phenol 25-115*	(#528) 2,4,6-Tribromo Phenol 47-123*	[Pesticide] (#738) Dibutyl Chlor-endate 67-114*	[Dioxin] (#466) 1,2,3,4 TCDD 26-104
383	3/29		4/3	758	24024	C8163	97	81	73	78	82	80	88	32	58	72	84	74
382	4/2		4/20	756														
368	4/2		4/3	629														
364	4/24		4/24	803	R													
383	3/29		4/4	817	24028	C8164	104	105	79	24*	28	40	84	12*	14*	28	76	99
382	3/30		4/9	756														
368	4/2		4/3	629														
364	4/2		4/13	619														
383	3/29		4/2	673	24029	C8165	108	104	90	82	82	86	92	30	58	88	79	73
382	4/2		4/21	719														
368	4/2		4/3	629														
364	4/2		4/13	619														
383	3/29		4/4	817	24030	C8166	110	102	82	78	84	76	80	30	56	86	74	64
382	4/2		4/21	719														
368	4/2		4/6	629														
364	4/24		4/24	803														
383	3/29		4/2	758	24031	C8167	94	93	65	76	82	86	92	36	68	96	108	#107
382	4/2		4/21	719														
368	4/2		4/6	629														
364	4/2		4/10	619														

ORIGINAL (Red)

Comments: See comments page.

Volatiles: 0 out of 5; outside of QC limits
Semivolatiles: 3 out of 20; outside of QC limits
Dioxin: 1 out of 5; outside of QC limits

*Asterisked values are outside of QC limits
NE - Not established

Date Limit Set 12/82

WATER SURROGATE PERCENT RECOVERY SUMMARY

CASE NO. 2534
LOW LEVEL
WATER xx

CONTRACTOR CompuChem
MED. LEVEL
SOIL/SED.

CONTRACT NO. 68-01-6702 / 68-01-6866
HIGH LEVEL
OTHER (Specify)

QC REPORT NO.

SURR. I.D.	EXT. DATE	EXT. I.D.	DATE ANA.	ANAL. I.D.	CC #	SMO Traffic No.	Volatile (8233) D_8 Toluene 84-114	Volatile (8247) BFB 63-127*	Volatile (8258) D_4-1,2 Dichloro Ethane 90-130*	Semi-Volatile (8447) D_5 Nitro Benzene 42-131	Semi-Volatile (8448) 2-Fluoro Biphenyl 50-154	Semi-Volatile (8471) D_{10} Pyrene (NE)	Semi-Volatile (8496) D_{14} p-Ter Phenyl 54-118*	Semi-Volatile (8612) D_5 Phenol 15-90	Semi-Volatile (8619) 2-Fluoro Phenol 25-115*	Semi-Volatile (8628) 2,4,6-Tribromo Phenol 47-123*	Pesticide (8738) Dibutyl Chlorendate 67-114*	Dioxin (8466) 1,2,3,4 TCDD 26-104
383	3/29		4/3	577	24032	C8168	102	94	69	6.8* (1)	90	100	110	32	54	84	125	98
382	4/2		4/21	719														
368	4/2		4/10	597														
364	4/2		4/10	619														
383	3/29		4/3	577	24033	C8169	99	86	69	88	82	82	92	28	52	86	54	102
382	4/2		4/21	719														
368	4/2		4/6	679														
364	4/2		4/10	619														
383	3/29		4/3	577	24034	C8170	101	96	71	78	92	100	86	28	54	64	131	101
382	4/2		4/21	754														
368	4/2		4/6															
364	4/2		4/10	619														
383	3/29		4/3	577	24035	C8171	103	98	70	84	94	130	90	28	52	62	75	106
382	4/2		4/21	754														
368	4/2		4/6	597														
364	4/2		4/10	619														
383	3/29		4/3	577	24036	C8172	100	97	68	48	60	92	62	16	28	24	108	101
382	4/3		4/11	754														
368	4/3		4/6	679														
364	4/26		4/27	1043														

ORIGINAL (Red)

Comments: See comments page

Volatiles: 0 out of 5; outside of QC limits
Semivolatiles: 1 out of 20; outside of QC limits
Dioxin: 1 out of 5; outside of QC limits

*Asterisked values are outside of QC limits
NE - Not established

Date Limit Set 12/82

WATER SURROGATE PERCENT RECOVERY SUMMARY

CASE NO. 2534
LOW LEVEL
WATER XX
R's & RP's

CONTRACTOR CompuChem
MED. LEVEL
SOIL/SED.

CONTRACT NO. 68-01-6762 / 68-01-6866
HIGH LEVEL
OTHER (Specify)

QC REPORT NO.

SURR. I.D.	EXT. DATE	EXT. I.D.	DATE ANA.	ANAL. I.D.	CC #	SMO Traffic No.	[Volatile] (0233) D_8 Toluene 84-114	(0247) BFB 63-127*	(0258) D_4-1,2 Dichloro Ethane 90-130*	[Semi-Volatile] (0447) D_5 Nitro Benzene 42-131	(0448) 2-Fluoro Biphenyl 50-154	(0471) D_{10} Pyrene (NE)	(0496) D_{14} p-Ter Phenyl 54-118*	(0512) D_5 Phenol 15-90	(0519) 2-Fluoro Phenol 25-115*	(0528) 2,4,6-Tribromo Phenol 47-123*	[Pesticide] (0738) Dibutyl Chlor-endate 67-114*	[Dioxin] (0466) 1,2,3,4 TCDD 26-104
																		106*
383					24095	CB171												
382																		
368																		
364	4/24		4/24	803	R													
383																		
382																		
368																		
364																		
383																		
382																		
368																		
364																		
383																		
382																		
368																		
364																		
383																		
382																		
368																		
364																		

ORIGINAL (Red)

Comments: See comments page

Volatiles: ___ out of ___; outside of QC limits
Semivolatiles: ___ out of ___; outside of QC limits
Dioxin: 1 out of 1; outside of QC limits

*Asterisked values are outside of QC limits
NE - Not established

Date Limit Set 12/82

WATER SURROGATE PERCENT RECOVERY SUMMARY

CASE NO. 2534
LOW LEVEL
WATER xx
R's + RP's

CONTRACTOR CompuChem
MED. LEVEL
SOIL/SED.

CONTRACT NO. 68-01-6762 / 68-01-6866
HIGH LEVEL
OTHER (Specify)

QC REPORT NO.

SURR. I.D.	EXT. DATE	EXT. I.D.	DATE ANA.	ANAL. I.D.	CC #	SMO Traffic No.	Volatile (#233) D_8 Toluene 84-114	Volatile (#247) BFB 63-127*	Volatile (#258) D_4-1,2 Dichloro Ethane 90-130*	Semi-Volatile (#447) D_5 Nitro Benzene 42-131	Semi-Volatile (#448) 2-Fluoro Biphenyl 50-154	Semi-Volatile (#471) D_{10} Pyrene (NE)	Semi-Volatile (#496) D_{14} p-Ter Phenyl 54-118*	Semi-Volatile (#512) D_5 Phenol 15-90	Semi-Volatile (#519) 2-Fluoro Phenol 25-115*	Semi-Volatile (#528) 2,4,6-Tribromo Phenol 47-123*	[Pesticide] (#738) Dibutyl Chlor-endate 67-114*	[Dioxin] (#465) 1,2,3,4 TCDD 26-104
383					24028	C8164				30	58	58	58	11 *	48	40		
382	4/2		4/15	615	R													
368																		
364																		112 *
383					24031													
382																		
368																		
364	4/24		4/24	803	R													
383																		
382																		
368																		
364																		
383																		
382																		
368																		
364																		
383																		
382																		
368																		
364																		

ORIGINAL (Red)

Comments: See Comments page

Volatiles: ___ out of ___ ; outside of QC limits
Semivolatiles: 1 out of 4 ; outside of QC limits
Dioxin: 1 out of 1 ; outside of QC limits

*Asterisked values are outside of QC limits
NE - Not established

Date Limit Set 12/82

[redacted] 27 [redacted] [redacted] [redacted] OIL [redacted] GATE [redacted] CENT [redacted] VERY [redacted] ARY [redacted] [redacted] [redacted] [redacted] [redacted] [redacted]

CASE NO. 2534
LOW LEVEL
WATER
QC REPORT NO.

CONTRACTOR CompuChem
MED. LEVEL
SOIL/SED. XX

CONTRACT NO. 68-01-6762 / 68-01-6966 [redacted]
HIGH LEVEL
OTHER (Specify)

							[---------Volatile---------]			[---------Semi-Volatile---------]								[Pesticide]	[Dioxin]
SURR. I.D.	EXT. DATE	EXT. I.D.	DATE ANA.	ANAL. I.D.	CC #	SMO Traffic No.	(#233) D_8 Toluene 81-120	(#247) BFB 57-137*	(#258) D_4-1,2 Dichloro Ethane 50-150*	(#447) D_5 Nitro Benzene 19-115	(#448) 2-Fluoro Biphenyl 17-125	(#471) D_{10} Pyrene (NE)	(#496) D_{14} p-Ter Phenyl 34-126*	(#612) D_5 Phenol 10-104	(#619) 2-Fluoro Phenol 26-116	(#628) 2,4,6-Tribromo Phenol 32-124*	(#738) Dibutyl Chlor-endate 41-121*	(#466) 1,2,3,4 TCDD 11-128
383	3/29		4/4	633	24044	CB174	96	118	73	63	74	110	88	42	26	7.7	21	95
382	4/2		4/23	754														
368	4/10		4/25	679														
364	4/2		4/11	619														
383	4/3		4/4	633	24045	CB175	110	155	23	30	79	104	96	50	64	46	33	80
382	4/2		4/23	719														
368	4/10		4/25	679														
364	4/2		4/11	619														
383	3/29		4/4	633	24046	CB176	96	127	68	9.6*	57	66	69	51	65	48	27	71
382	4/2		4/23	719						(2)								
368	4/10		4/16	597														
364	4/2		4/11	619														
383	4/3		4/4	633	24047	CB177	103	139	69	19	60	72	61	34	41	23	48	45
382	4/2		4/23	719														
368	4/10		4/16	597														
364	4/2		4/11	619														
383	4/3		4/4	633	24048	CB178	118	158	77	70	79	96	88	42	54	38	78	39
382	4/2		4/20	756														
368	4/17		4/19	679	R2													
364	4/2		4/4															

Volatiles: 0 out of 5 ; outside of QC limits
Semivolatiles: 1 out of 20 ; outside of QC limits
Dioxin: 0 out of 5 ; outside of QC limits

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

ORIGINAL (Red)

Comments:

SO[redacted]RROGA[redacted]ERCE[redacted]COVE[redacted]MMAR[redacted]

CASE NO. 2534
LOW LEVEL
WATER
QC REPORT NO.

CONTRACTOR CompuChem
MED. LEVEL
SOIL/SED. XX

CONTRACT NO. 68-01-676[redacted]
68-01-6866
HIGH LEVEL
OTHER (Specify)

SURR. I.D.	EXT. DATE	EXT. I.D.	DATE ANA.	ANAL. I.D.	CC #	SMO Traffic No.	(#233) D_8 Toluene 81-120	(#247) BFB 57-137*	(#258) D_4-1,2 Dichloro Ethane 50-150*	(#447) D_5 Nitro Benzene 19-115	(#448) 2-Fluoro Biphenyl 17-125	(#471) (40-120) D_{10} Pyrene (NE)**	(#496) D_{14} p-Ter Phenyl 34-126*	(#612) D_5 Phenol 10-104	(#619) 2-Fluoro Phenol 26-116	(#628) 2,4,6-Tribromo Phenol 32-124*	(#738) Dibutyl Chlor-endate 41-121*	(#466) 1,2,3,4 TCDD 11-128
	[---------Volatile---------]									[----------Semi-Volatile----------]							[Pesticide]	[Dioxin]
383	4/3		4/4	623	24049	CB179	106	144	98	29	23	89	100	45	57	69	196*	77
382	5/1		5/6	740														
368	4/10		4/17	597														
364	4/2		4/11	619														
383					24050	CB180	Screened Medium			75	96	96	100	46	34	15	63	54
382	4/2		4/23	756														
368	4/10		4/18	597														
364	4/2		4/11	619														
383	4/3		4/4	623	24051	CB181	114	113	107	112	104	88	96	51	61	69	60	71
382	4/2		4/23	756 719														
368	4/10		4/18	597														
364	4/2		4/11	643														
383	4/3		4/4	623	24052	CB182	106	137	73	89	98	106	117	34	90	82	41	23
382	4/2		5/5	740														
368	4/7		4/13	597														
364	4/2		4/11	643														
383	3/29		4/4	623	24087	CB123	105	120	78	107	102	124*	*134	35	47	6* (3)	24	72
382	4/2		4/21	763														
368	4/2		4/6	679														
364	4/2		4/12	619														

Volatiles: 0 out of 4 ; outside of QC limits
Semivolatiles: ___ out of ___ ; outside of QC limits
Dioxin: 0 out of 5 ; outside of QC limits

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

ORIGINAL (Red)

Comments: ** Range from Instm. Guide to Review of GC/MS 11/82

[redacted] OIL [redacted] DGATH [redacted] LENT [redacted] VLRY [redacted] ARY [redacted]

CASE NO. 2534
LOW LEVEL xx
WATER
QC REPORT NO.

CONTRACTOR Compu Chem
MED. LEVEL
SOIL/SED. XX

CONTRACT NO. 68-01-6762 [redacted] 68-01-6866
HIGH LEVEL
OTHER (Specify)

							[---------Volatile---------]			[----------Semi-Volatile----------]							[Pesticide]	[Dioxin]
SURR. I.D.	EXT. DATE	EXT. I.D.	DATE ANA.	ANAL. I.D.	CC #	SMO Traffic No.	(#233) D_8 Toluene 81-120	(#247) BFB 57-137*	(#258) D_4-1,2 Dichloro Ethane 50-150*	(#447) D_5 Nitro Benzene 19-115	(#448) 2-Fluoro Biphenyl 17-125	(#471) D_{10} Pyrene (NE)	(#496) D_{14} p-Ter Phenyl 34-126*	(#612) D_5 Phenol 10-104	(#619) 2-Fluoro Phenol 26-116	(#628) 2,4,6-Tribromo Phenol 32-124*	(#738) Dibutyl Chlor-endate 41-121*	(#466) 1,2,3,4 TCDD 11-128
383	4/24		4/26	254	240416R					15* (2)	58	68	66	25	30	32		
382																		
368																		
364																		
383																		
382																		
368																		
364																		
383																		
382																		
368																		
364																		
383																		
382																		
368																		
364																		
383																		
382																		
368																		
364																		

Volatiles: 1 out of 4; outside of QC limits
Semivolatiles: ___ out of ___; outside of QC limits
Dioxin: ___ out of ___; outside of QC limits

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

ORIGINAL (Red)

Comments:

SOIL SURR[redacted] PLR[redacted]LCO[redacted]SUM[redacted]

CASE NO. 2534
LOW LEVEL
WATER
QC REPORT NO.

CONTRACTOR CompuChem
MED. LEVEL xx
SOIL/SED. XX

CONTRACT NO. 68-01-6806 68-01-6762
HIGH LEVEL
OTHER (Specify)

SURR. I.D.	EXT. DATE	EXT. I.D.	DATE ANA.	ANAL. I.D.	CC #	SMO Traffic No.	[Volatile] (0233) D_8 Toluene 81-120	(0247) BFB 57-137*	(0258) D_4-1,2 Dichloro Ethane 50-150*	[Semi-Volatile] (0447) D_5 Nitro Benzene 19-115	(0448) 2-Fluoro Biphenyl 17-125	(0471) D_{10} Pyrene (NE)	(0496) D_{14} p-Ter Phenyl 34-126*	(0612) D_5 Phenol 10-104	(0619) 2-Fluoro Phenol 26-116	(0628) 2,4,6-Tribromo Phenol 32-124*	[Pesticide] (0738) Dibutyl Chlor-endate 41-121*	[Dioxin] (0486) 1,2,3,4 TCDD 11-128
383	7/29		4/5	623	24050	68180	100	109	84									
382																		
368																		
364																		
383																		
382																		
368																		
364																		
383																		
382																		
368																		
364																		
383																		
382																		
368																		
364																		
383																		
382																		
368																		
364																		

Volatiles: 0 out of 1 ; outside of QC limits
Semivolatiles: ___ out of ___ ; outside of QC limits
Dioxin: ___ out of ___ ; outside of QC limits

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

Comments:

ORIGINAL
(Red)

NUS CORPORATION
SUPERFUND DIVISION

Soil & Aqueous Surrogate Spike Comments

PROJECT NOTES

* Asterisked values NOT commented upon are not sufficiently out of range to question sample results

(1) Some BN compound detection limits for sample C-8168 may be slightly higher than those reported, in particular for nitrobenzene, although other compounds may be similarly affected.

(2) Some BN compound detection limits and actual results may be slightly higher than those reported, in particular the d.L for nitrobenzene, although other compounds may be similarly affected - in sample C-8176.

(3) Some Acid compound detection limits may be slightly higher than those reported in sample C-8173.

NUS 443A 58 1182

CASE NO. 2534
LOW LEVEL XX
WATER XX
QC REPORT NO.

CONTRACTOR MEAD CO[redacted]CHEM
MED. LEVEL
SOIL/SED.

CONTRACT NO. 68-01-[redacted]
HIGH LEVEL
OTHER (Specify)
UNITS (Circle) ug/kg ug/l

FRACTION	COMPOUND	SMO # CONC	CONC. SPIKE ADDED	CONC. MS	% REC.	CONC. MSD	% REC.	RPD	QC LIMITS* RPD	QC LIMITS* RECOVERY	COMMENTS
VOA 24031 SMO # e8167	1,1-Dichloroethylene	ND	25	20	80	23	92	14	<15%	51-150	24020
	Trichloroethylene		25	22	88	24	96	9	<15%	74-130	24024
	Chlorobenzene		25	23	92	25	100	8	<15%	67-130	24028-36
MS e8167 MSD e8167	Toluene		25	20	80	22	88	10	<15%	58-130	
	Benzene	ND	25	19	76	22	88	15	<15%	56-130	
B/N SMO #	1,2,4-Trichlorobenzene								<50%	38-110	
	Acenaphthene								<50%	57-120	
	2,4-Dinitrotoluene								<50%	43-110	
MS # ___ MSD # ___	Di-N-Butylphthalate								<50%	13-110	
	Pyrene								<50%	25-140	
	N-Nitrosodi-N-Propylamine								<50%	34-110	
	1,4-Dichlorobenzene								<50%	33-110	
ACID SMO #	Pentachlorophenol								<40%	19-120	
	Phenol								<40%	23-80	
	2-Chlorophenol								<40%	33-110	
MS # ___ MSD # ___	P-Chloro-M-Cresol								<40%	32-110	
	4-Nitrophenol								<40%	15-90	
PEST SMO #	Lindane		4						<40%	87-110	
	Heptachlor		4						<40%	43-120	
	Aldrin		4						<40%	45-110	
MS # ___ MSD # ___	Dieldrin		4						<40%	56-120	
	Endrin		4						<40%	89-110	
	p,p-DDT		4						<40%	82-100	

*Asterisked values are outside QC limits.

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

RECOVERY: VOAs 0 out of 10; outside QC limits
B/N ___ out of ___; outside QC limits
ACID ___ out of ___; outside QC limits
PEST ___ out of ___; outside QC limits

*Date Limits Set 12/82
Revision Due 6/83

ORIGINAL (Red)

MATRIX SPIKE DUPLICATE/RECOVERY

CASE NO. 2534
LOW LEVEL XX
WATER XX
QC REPORT NO.

CONTRACTOR MEAD COMPUCHEM
MED. LEVEL
SOIL/SED.

CONTRACT NO. 68-01-6666
HIGH LEVEL
OTHER (Specify)
UNITS (Circle) ug/kg (ug/l)

FRACTION	COMPOUND	SMO # CONC	CONC. SPIKE ADDED	CONC. MS	% REC.	CONC. MSD	% REC.	RPD	QC LIMITS* RPD	QC LIMITS* RECOVERY	COMMENTS
VOA SMO #	1,1-Dichloroethylene		25						<15%	51-150	
	Trichloroethylene		25						<15%	74-130	
	Chlorobenzene		25						<15%	67-130	
MS # ___ MSD # ___	Toluene		25						<15%	58-130	
	Benzene		25						<15%	56-130	
B/N 24035 SMO # C8171	1,2,4-Trichlorobenzene	ND	200	180	90	130	65	32	<50%	38-110	24020 24024 24028 (1)
	Acenaphthene	ND	200	180	90	150	75	18	<50%	57-120	
	2,4-Dinitrotoluene	ND	200	180	90	120	60	40	<50%	43-110	
MS #C8171 MSD #C8171	Di-N-Butylphthalate	ND	200	110	55	52	26	72*	<50%	13-110	
	Pyrene	ND	200	180	90	190	95	5	<50%	25-140	DUPLICATE MS calc by reviewer from Raw data
	N-Nitrosodi-N-Propylamine	ND	800	680	85	600	75	13	<50%	34-110	
	1,4-Dichlorobenzene	ND	200	170	85	140	70	19	<50%	33-110	
ACID 24035 SMO # C8171	Pentachlorophenol	ND	200	(ED) 64	32	33	17*	64*	<40%	19-120	24020 24024 24028
	Phenol	ND	200	120	60	80	40	40	<40%	23-80	
	2-Chlorophenol	ND	200	160	80	120	60	29	<40%	33-110	
MS #C8171 MSD #C8171	P-Chloro-M-Cresol	ND	200	140	70	120	60	15	<40%	32-110	
	4-Nitrophenol	ND	1200	560	47	0*	0*	200*	<40%	15-90	(4)
PEST SMO #	Lindane		8.0						<40%	87-110	Dup. MS Not Found in Q.L. but reported as BDL by hand (recorded zero to calc. RPD & rec.)
	Heptachlor		8.0						<40%	43-120	
	Aldrin		8.0						<40%	45-110	
MS # ___ MSD # ___	Dieldrin		8.0						<40%	56-120	
	Endrin		8.0						<40%	89-110	
	P,P-DDT		8.0						<40%	82-100	

*Asterisked values are outside QC limits.

RPD: VOAs ___ out of ___; outside QC limits
B/N 1 out of 7; outside QC limits
ACID 0 out of 5; outside QC limits
PEST ___ out of ___; outside QC limits

RECOVERY: VOAs ___ out of ___; outside QC limits
B/N 0 out of 14; outside QC limits
ACID 0 out of 10; outside QC limits
PEST ___ out of ___; outside QC limits

*Date Limits Set 12/82
Revision Due 6/83

ORIGINAL (Red)

MATRIX SPIKE/DUPLICATE/RECOVERY

CASE NO. 2534
LOW LEVEL XX
WATER XX
QC REPORT NO.

CONTRACTOR MEAD COMPUCHEM
MED. LEVEL
SOIL/SED.

CONTRACT NO. 68-01-686
HIGH LEVEL
OTHER (Specify)
UNITS (Circle) ug/kg (ug/l)

FRACTION	COMPOUND	SMO # CONC	CONC. SPIKE ADDED	CONC. MS	% REC.	CONC. MSD	% REC.	RPD	QC LIMITS* RPD	QC LIMITS* RECOVERY	COMMENTS
VOA SMO #	1,1-Dichloroethylene		25						<15%	51-150	
	Trichloroethylene		25						<15%	74-130	
	Chlorobenzene		25						<15%	67-130	
MS # MSD #	Toluene		25						<15%	58-130	
	Benzene		25						<15%	56-130	
B/N SMO #	1,2,4-Trichlorobenzene		200						<50%	38-110	
	Acenaphthene		200						<50%	67-120	
	2,4-Dinitrotoluene		200						<50%	43-110	
MS # MSD #	Di-N-Butylphthalate		200						<50%	13-110	
	Pyrene		200						<50%	25-140	
	N-Nitrosodi-N-Propylamine		800						<50%	34-110	
	1,4-Dichlorobenzene		200						<50%	33-110	
ACID SMO #	Pentachlorophenol		200						<40%	19-120	
	Phenol		200						<40%	23-80	
	2-Chlorophenol		200						<40%	33-110	
MS # MSD #	P-Chloro-M-Cresol		200						<40%	32-110	
	4-Nitrophenol		1200						<40%	15-90	
PEST 24029 SMO # C8165	Lindane	ND	8.0	7.4	93	7.4	93	0	<40%	87-110	24020 24024 24028-36
	Heptachlor		8.0	9.4	118	9.5	119	1	<40%	43-120	
	Aldrin		8.0	6.8	85	6.8	85	0	<40%	45-110	
MS C8165	Dieldrin		8.0	7.7	96	7.6	95	1	<40%	56-120	
MSD C8165	Endrin		8.0	7.9	99	7.8	98	1	<40%	89-110	
	P,P-DDT	ND	8.0	11	138*	7.4	93	39	<40%	82-100	

*Asterisked values are outside QC limits.

RPD: VOAs ___ out of ___; outside QC limits
B/N ___ out of ___; outside QC limits
ACID ___ out of ___; outside QC limits
PEST 0 out of 6; outside QC limits

RECOVERY: VOAs ___ out of ___; outside QC limits
B/N ___ out of ___; outside QC limits
ACID ___ out of ___; outside QC limits
PEST 1 out of 12; outside QC limits

*Date Limits Set 12/82
Revision Run 6/83

ORIGINAL (Red)

MATRIX SPIKE DUPLICATE/RECOVERY

CASE NO. 2534
LOW LEVEL XX
WATER
QC REPORT NO.

CONTRACTOR MEAD COMPUCHEM
MED. LEVEL
SOIL/SED. XX

CONTRACT NO. 68-01-6866/6762
HIGH LEVEL
OTHER (Specify)
UNITS (Circle) ug/kg ug/l

FRACTION	COMPOUND	SMO # CONC	CONC. SPIKE ADDED	CONC. MS	% REC.	CONC. MSD	% REC.	RPD	QC LIMITS* RPD	QC LIMITS* RECOVERY	COMMENTS
VOA 24044 SMO # C8174	1,1-Dichloroethylene	ND	12.5	13	104	14	112	7	<15%	51-150	24037
	Trichloroethylene	ND	12.5	14	112	14	112	0	<15%	74-130	24044-52
	Chlorobenzene	ND	12.5	13	104	13	104	0	<15%	67-130	
MS C8174 MSD C8174	Toluene	ND	12.5	13	104	13	104	0	<15%	58-130	
	Benzene	ND	12.5	12	112	11	88	24*	<15%	56-130	
B/N SMO #	1,2,4-Trichlorobenzene		2000						<50%	38-110	
	Acenaphthene		2000						<50%	57-120	
	2,4-Dinitrotoluene		2000						<50%	43-110	
MS # ___ MSD # ___	Di-N-Butylphthalate		2000						<50%	13-110	
	Pyrene		2000						<50%	25-140	
	N-Nitrosodi-N-Propylamine		8000						<50%	34-110	
	1,4-Dichlorobenzene		2000						<50%	33-110	
ACID SMO #	Pentachlorophenol		2000						<40%	19-120	
	Phenol		2000						<40%	23-80	
	2-Chlorophenol		2000						<40%	33-110	
MS # ___ MSD # ___	P-Chloro-M-Cresol		2000						<40%	32-110	
	4-Nitrophenol		12000						<40%	15-90	
PEST SMO #	Lindane		80						<40%	87-110	
	Heptachlor		80						<40%	43-120	
	Aldrin		80						<40%	45-110	
MS # ___ MSD # ___	Dieldrin		80						<40%	56-120	
	Endrin		80						<40%	89-110	
	P,P-DDT		80						<40%	82-100	

*Asterisked values are outside QC limits.

RPD: VOAs 1 out of 3; outside QC limits
B/N ___ out of ___; outside QC limits
ACID ___ out of ___; outside QC limits
PEST ___ out of ___; outside QC limits

RECOVERY: VOAs 0 out of 10; outside QC limits
B/N ___ out of ___; outside QC limits
ACID ___ out of ___; outside QC limits
PEST ___ out of ___; outside QC limits

*Date Limits Set 12/82
Revision Due 6/83

ORIGINAL (Red)

MATRIX SPIKE DUPLICATE/RECOVERY

CASE NO. 2534
LOW LEVEL
WATER
QC REPORT NO.

CONTRACTOR MEAD COMPUCHEM
MED. LEVEL XX
SOIL/SED. XX

CONTRACT NO. 68-01-
HIGH LEVEL
OTHER (Specify)
UNITS (Circle) ug/g ug/l

FRACTION	COMPOUND	SMO # CONC	CONC. SPIKE ADDED	CONC. MS	% REC.	CONC. MSD	% REC.	RPD	QC LIMITS* RPD	QC LIMITS* RECOVERY	COMMENTS
VOA 24050 SMO # C-8180	1,1-Dichloroethylene	ND	25	28	112	25	100	11	<15%	51-150	24050
	Trichloroethylene	ND	25	31	124	25	100	21*	<15%	74-130	
	Chlorobenzene	ND	25	26	104	24	96	8	<15%	67-130	
MS C8180 MSD C8182	Toluene	12	25	60	192*	42	120	46*	<15%	58-130	(2)
	Benzene	ND	25	28	112	23	92	20*	<15%	56-130	
B/N SMO #	1,2,4-Trichlorobenzene								<50%	38-110	
	Acenaphthene								<50%	57-120	
	2,4-Dinitrotoluene								<50%	43-110	
MS # ___ MSD # ___	Di-N-Butylphthalate								<50%	13-110	
	Pyrene								<50%	25-140	
	N-Nitrosodi-N-Propylamine								<50%	34-110	
	1,4-Dichlorobenzene								<50%	33-110	
ACID SMO #	Pentachlorophenol								<40%	19-120	
	Phenol								<40%	23-80	
	2-Chlorophenol								<40%	33-110	
MS # ___ MSD # ___	P-Chloro-M-Cresol								<40%	32-110	
	4-Nitrophenol								<40%	15-90	
PEST SMO #	Lindane								<40%	87-110	
	Heptachlor								<40%	43-120	
	Aldrin								<40%	45-110	
MS # ___ MSD # ___	Dieldrin								<40%	56-120	
	Endrin								<40%	89-110	
	p,p-DDT								<40%	82-100	

*Asterisked values are outside QC limits.

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

RECOVERY: VOAs 1 out of 10; outside QC limits
B/N ___ out of ___; outside QC limits
ACID ___ out of ___; outside QC limits
PEST ___ out of ___; outside QC limits

*Date Limits Set 12/82
Revision Due 6/83

ORIGINAL (Red)

MATRIX SPIKE DUPLICATE RECOVERY

CASE NO. 2534
LOW LEVEL XX
WATER
QC REPORT NO.

CONTRACTOR MEAD COMPUCHEM
MED. LEVEL
SOIL/SED. XX

CONTRACT NO. 68-01-[redacted]66
HIGH LEVEL
OTHER (Specify)
UNITS (Circle) ug/kg ug/l

FRACTION	COMPOUND	SMO # CONC	CONC. SPIKE ADDED	CONC. MS	% REC.	CONC. MSD	% REC.	RPD	QC LIMITS* RPD	QC LIMITS* RECOVERY	COMMENTS
VOA	1,1-Dichloroethylene		12.5						<15%	51-150	
SMO #	Trichloroethylene		12.5						<15%	74-130	
	Chlorobenzene		12.5						<15%	67-130	
MS # ___	Toluene		12.5						<15%	58-130	
MSD # ___	Benzene		12.5						<15%	56-130	
B/N 24037	1,2,4-Trichlorobenzene	ND	2000	1100	55	1000	50	10	<50%	38-110	24037
SMO #	Acenaphthene		2000	1100	55*	1100	55*	0	<50%	57-120	24044-52
C8173	2,4-Dinitrotoluene		2000	BDL	—*	—	—*	—	<50%	43-110	(3)
MS # C8173	Di-N-Butylphthalate	ND	2000	1200	60	1200	60	0	<50%	13-110	
MSD # C8173	Pyrene	330(LT)	2000	1800	74	1900	79	7	<50%	25-140	
	N-Nitrosodi-N-Propylamine	ND	8000	5000	63	5500	69	9	<50%	34-110	
	1,4-Dichlorobenzene		2000	1100	55	1000	55	0	<50%	33-110	
ACID 24037	Pentachlorophenol		2000	BDL	—*	LT(520)	26	—	<40%	19-120	24037 (3)
SMO #	Phenol		2000	960	48	760	38	23	<40%	23-80	24044-52
C8173	2-Chlorophenol		2000	1000	50	520	26*	63*	<40%	33-110	
MS C8173	P-Chloro-M-Cresol		2000	1200	60	960	48	22	<40%	32-110	
MSD C8173	4-Nitrophenol	ND	12000	LT(6000)	33	LT(4000)	33	0	<40%	15-90	
PEST	Lindane		80						<40%	87-110	
SMO #	Heptachlor		80						<40%	43-120	
	Aldrin		80						<40%	45-110	
MS # ___	Dieldrin		80						<40%	56-120	
MSD # ___	Endrin		80						<40%	89-110	
	p,p-DDT		80						<40%	82-100	

*Asterisked values are outside QC limits.

RPD: VOAs ___ out of ___; outside QC limits
B/N 0 out of 7; outside QC limits
ACID 1 out of 3; outside QC limits
PEST ___ out of ___; outside QC limits

RECOVERY: VOAs ___ out of ___; outside QC limits
B/N 4 out of 14; outside QC limits
ACID 2 out of 16; outside QC limits
PEST ___ out of ___; outside QC limits

*Date Limits Set 12/82
Revision Due 6/83

ORIGINAL (Red)

MATRIX SPIKE DUPLICATE RECOVERY

CASE NO. 2534
LOW LEVEL XX
WATER
QC REPORT NO.

CONTRACTOR MEAD COMPUTECHM
MED. LEVEL
SOIL/SED. XX

CONTRACT NO. 68-01-6866
HIGH LEVEL
OTHER (Specify)
UNITS (Circle) ug/kg ug/l

FRACTION	COMPOUND	SMO # CONC	CONC. SPIKE ADDED	CONC. MS	% REC.	CONC. MSD	% REC.	RPD	QC LIMITS* RPD	QC LIMITS* RECOVERY	COMMENTS
VOA	1,1-Dichloroethylene		12.5						<15%	51-150	
SMO #	Trichloroethylene		12.5						<15%	74-130	
	Chlorobenzene		12.5						<15%	67-130	
MS # ___	Toluene		12.5						<15%	58-130	
MSD # ___	Benzene		12.5						<15%	56-130	
B/N	1,2,4-Trichlorobenzene								<50%	38-110	
SMO #	Acenaphthene								<50%	57-120	
	2,4-Dinitrotoluene								<50%	43-110	
	Di-N-Butylphthalate								<50%	13-110	
MS # ___	Pyrene								<50%	25-140	
MSD # ___	N-Nitrosodi-N-Propylamine								<50%	34-110	
	1,4-Dichlorobenzene								<50%	33-110	
ACID	Pentachlorophenol								<40%	19-120	
SMO #	Phenol								<40%	23-80	
	2-Chlorophenol								<40%	33-110	
MS # ___	P-Chloro-M-Cresol								<40%	32-110	
MSD # ___	4-Nitrophenol								<40%	15-90	
PEST	Lindane	ND	283	240	85*	240	85*	0	<40%	87-110	24037
24044 SMO #	Heptachlor		283	260	92	260	92	0	<40%	43-120	24044-24052
CP174	Aldrin		283	240	85	220	78	9	<40%	45-110	
MS CP174	Dieldrin		283	230	81	200	71	13	<40%	56-120	
MSD CP174	Endrin		283	160	57*	220	78*	31	<40%	89-110	
	P,P-DDT	ND	283	140	49*	130	46*	6	<40%	82-100	

*Asterisked values are outside QC limits.

RPD: VOAs ___ out of ___; outside QC limits
B/N ___ out of ___; outside QC limits
ACID ___ out of ___; outside QC limits
PEST 0 out of 6; outside QC limits

RECOVERY: VOAs ___ out of ___; outside QC limits
B/N ___ out of ___; outside QC limits
ACID ___ out of ___; outside QC limits
PEST 6 out of 12; outside QC limits

*Date Limits Set 12/82
Revision Due 6/83

ORIGINAL (Red)

ORIGINAL
(Red)

NUS CORPORATION
SUPERFUND DIVISION

MATRIX SPIKE COMMENTS

PROJECT NOTES

* Asterisked values NOT COMMENTED UPON are NOT sufficiently out of RANGE to QUESTION SAMPLE RESULTS.

(1) If di-n-butyl were identified in this sample C-8171, then actual result could vary. However it was NOT detected in this SAMPLE and it is a COMMON CONTAMINANT that could vary the recovery ∴ Sample results are NOT affected.

(2) High toluene recovery & RPD in C-8180 probably due to lab CONTAMINATION which MAY vary RANDOMLY, OR MAY be due to solid SAMPLE inhomogeneity. Actual result for toluene in this sample may vary, reported result may NOT represent the average CONCENTRATION actually present.

(3) Some BNA compounds d.L's in sample C-8173 may be substantially higher than those reported, in particular for 2,4-dinitro toluene and pentachlorophenol, although other compounds may be similarly affected.

(4) Some Acid cmpd. d.L's in C-8171 MAY be substantially lower than those reported in particular for, 4-nitrophenol, although other compounds MAY be similarly affected. If 4-nitrophenol were present then the amount actually found may vary however since NONE was found indigenously - only d.L's are affected as noted.

NUS 443A 58 1182

EVALUATION OF CONFIRMATIONS OF GC ANALYSES

SAMPLE NO	COMPOUND	GC COLUMN # 1 EPAØ 30m COLUMN: DB-5 CONDITIONS: DETECTOR. ECD OTHER. DATA FROM COLUMN # 1: ☒ RET OR ☐ REL RET TIMES IN:		RELATIVE PEAK AREA RATIOS		GC COLUMN # 2 PACK 01 COLUMN. SP2250/2401 CONDITIONS: DETECTOR. ECD OTHER: DATA FROM COLUMN # 2: ☒ RET OR ☐ REL RET TIMES IN:		RELATIVE PEAK AREA RATIOS		COMMENTS	TYPE OF CONFIRMATION (2 COL / GC/MS)	REVIEWER CONFIDENT
		Sample	Standard	Sample	Standard	Sample	Standard	Sample	Standard			
C-8177	PCB 1254	12.92	12.84	1010	906	3.25	3.11	30578	7576	Quantitated PCB hits from Column #2 Excellent match for 1254 by 2 col. GC ORIGINAL (Red)	2col	Yes
		13.95	13.94	304	934	3.69	3.70	5774	2671			
		15.98	15.96	609	685	4.56	4.82	36479	14090			
		16.22	16.20	1557	1611	5.43	5.37	24184	19555			
		17.13	17.11	404	535	6.48	6.78	3663	8966			
		17.44	17.42	1138	2463	7.26	7.30	23049	17049			
		17.75	17.73	908	759	8.32	8.34	39852	25485			
		18.68	18.65	790	693	9.36	9.33	21361	14314			
		18.96	18.94	1894	1310	10.60	10.62	30578	21161			
		19.24	19.20	513	301	11.93	12.06	53338	24603			
		19.52	19.51	3012	2539							
		20.21 20.99	20.18 20.96	1263 4311	516 29166							
		22.25	22.23	1166	1244							
		22.51	22.50	2545	1630							
		22.96	22.95	416	318							
		23.77	23.76	3535	1757							
		25.21	25.19	902	643							
		26.34	26.32	2942	342							
		27.95	27.94	2859	3618							
C-8174	Heptachlor Epoxide									Due to lack of confidence in 2col. confirmations of low level single peak pesticides this result has been deemed questionable.	2col	No

COMMENTS: _____

EVALUATION OF CONFIRMATIONS OF GC ANALYSES

SAMPLE NO	COMPOUND	GC COLUMN # 1 EPA 9				GC COLUMN # 2 PACK07				COMMENTS	TYPE OF CONFIRMATION (2 COL / GC/MS)	REVIEWER CONFIDENT
		COLUMN: DB-5 30m CONDITIONS: DETECTOR. OTHER. DATA FROM COLUMN # 1. ☒ RET OR ☐ REL RET. TIMES IN:		RELATIVE PEAK AREA RATIOS		COLUMN: SP2250/2401 CONDITIONS: DETECTOR. OTHER: DATA FROM COLUMN # 2: ☒ RET OR ☐ REL RET TIMES IN:		RELATIVE PEAK AREA RATIOS				
		Sample	Standard	Sample	Standard	Sample	Standard	Sample	Standard			
C-8180	PCB-1254	12.12	12.12	444244	793636	6.74	6.76	374796	212922	Excellent match Lab transcription error / reported 1260 but raw data identified 1254	2col	Yes
		13.59	13.62	1687315	722462	7.58	7.65	183425	469089			
		14.76	14.75	973357	655784	8.60	8.66	301294	308630			
		17.33	17.33	722440	1049163	9.73	9.80	232909	356288			
		18.08	17.98	2446035	1876934	10.56	10.55	75864	368431			
		18.96	18.96	401915	466117	11.48	11.93	11047	30893			
		19.29	19.29	1179654	2868808	12.86	12.91	154125	282060			
		20.84	20.84	2952265	2786645	13.45	13.59	11435	23853			
		21.31	21.31	577106	414834							
		21.78	21.77	1243550	1665245	15.33	15.40	109237	477218			
		23.11	23.08	1807633	1641435							
		23.39	23.38	683553	955271	20.23	20.04	161358	892821			
		23.66	23.62	654735	725857	3.78	3.94	243393	197168	*		
		24.49	24.49	6376635	4421896	4.48	4.38	278094	205168	*		
		25.48	25.48	582846	3603748	5.50	5.53	38863	1575660	*		
		25.97	25.96	1775048	1690370	5.91	5.95	184147	251202	*		

ORIGINAL (Red)

COMMENTS: * Unique to PCB 1254

EVALUATION OF CONFIRMATIONS OF GC ANALYSES

SAMPLE NO	COMPOUND	GC COLUMN # 1 EPA 9 COLUMN: DB-5 30M CONDITIONS: DETECTOR. ECD OTHER. DATA FROM COLUMN # 1 ☒ RET OR ☐ REL RET. TIMES IN:		RELATIVE PEAK AREA RATIOS		GC COLUMN # 2 PACK07 COLUMN: SP-2250/2401 CONDITIONS: DETECTOR. ECD OTHER: DATA FROM COLUMN # 2 ☒ RET OR ☐ REL RET TIMES IN:		RELATIVE PEAK AREA RATIOS		COMMENTS	TYPE OF CONFIRMATION (2 COL / GC/MS)	REVIEWER CONFIDENT
		Sample	Standard	Sample	Standard	Sample	Standard	Sample	Standard			
C-8181	PCB-1254	11.57	11.61	4494714	3326727	4.00	3.94	141783	197168	*	2col	yes
		12.19	12.14	507255	175801	4.34	4.38	71500	205168	*		
		13.62	13.64	1258411	1132023	5.48	5.53	76818	151566	*		
		13.92	13.97	7794763	172427	5.90	5.95	222294	251202	*		
		14.74	14.76	1638647	1732351	6.73	6.76	405049	212922			
		15.03	15.05	366495	607585	7.38	7.65	270625	469089			
		15.62	15.65	73868	126542	8.58	8.65	257081	308630			
		15.89	15.92	402050	547169	9.75	9.80	460300	356288			
		16.16	16.19	806444	1067161	10.51	10.55	26234	368431			
		16.40	16.43	251342	327396	—	11.93	—	30893			
		16.68	16.72	2602893	2283651	12.85	12.91	1411436	282060			
		17.32	17.35	668426	500044							
		17.59	17.60	325003	370146							
		17.81	17.83	516625	200371							
		18.06	18.10	2561222	2981548							
		18.57	18.60	345805	350019							
		18.80	18.84	90312	72471							
		19.28	19.31	1401951	1355133							
		19.54	19.57	1571426	1608864							

Lab transcription error reported 1260 but raw data identified 1254

ORIGINAL (Red)

COMMENTS: * UNIQUE TO PCB 1254

PROJECT NAME: FMC Fredericksburg
TDD NO: F3-8402-23

EPA SITE NO.: VA-33
REGION: III

QUALITY ASSURANCE REVIEW OF INORGANIC ANALYTICAL DATA PACKAGE

ORIGINAL (Red)

Case No.: 2534
Contract No.: 68-01-6877
Contract Laboratory: JTC
Applicable IFB No.: WA83-A195
Reviewer: Atwood F. Davis
Review Date: 1-31-85

Applicable Sample No's.: MC-3159 through and including MC-3179

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 II COLD VAPOR AA MERCURY	TASK III CYANIDE
Acceptable			✓	✓
Acceptable with exception(s)	✓(1,2)	✓(1,3)		
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
- ● 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) See blank analysis results
(2) See duplicate results
(3) See matrix spike results
(4) Also note transcription/review errors for quant. calculations

DATA EVALUATION SCORE CATEGORIES

ORIGINAL
(Red)

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 deficiences are identified and specific data is still valid, given certain qualifications which are listed below.

QUESTIONABLE: Data is not within established control limits. The deficiences 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 deficiences imply the results are not meaningful.

DATA COMPLETENESS	2534															
	CONC./ MATRIX	L/A										→	L/S			→
	TRAFFIC REPORT # MC	3159	3160	3161	3162	3163	3164	3165	3166	3167	3168	3169	3170	3171	3172	3173
	LAB I.D. # 70-	0870	0871	0872	0873	0874	0875	0876	0877	0878	0879	0880	0881	0882	0883	0884
FIELD QC	BLANK											✓	ORIGINAL (Red)			
	DUPLICATE			✓												
	SPIKE															
TASK I: ICAP OR AA: METALS	RAW DATA	✓														
	TAB. RESULTS	✓														
	TAB. D.L.'s	✓														
	QA FORM	✓														
	ICAP INTER. QC	NA														
	INSTR. SENS.	✓														
TASK II: FURNACE AA: METALS	RAW DATA	✓														
	TAB. RESULTS	✓														
	TAB. D.L.'s	✓														
	QA FORM	✓														
	INSTR. SENS.	✓														
TASK II: COLD VAPOR AA: MERCURY	RAW DATA	✓														
	TAB. RESULTS	✓														
	TAB. D.L.'s	✓														
	QA FORM	✓														
	INSTR. SENS.	✓														
TASK III: CYANIDE	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.															
OTHER (SPECIFY):	RAW DATA															
	TAB. RUSULTS															
	TAB. D.L.'s															
	QA FORM															
	INSTR. SENS.															

COMMENTS:

DATA COMPLETENESS	CONC./ MATRIX	L/S →					
	TRAFFIC REPORT # MC	3174	3175	3176	3177	3178	3179
	LAB I.D. # 70-	0885	0886	0887	0888	0889	0890
FIELD QC	BLANK						✓
	DUPLICATE						
	SPIKE						
TASK I: ICAP OR AA: METALS	RAW DATA	✓					
	TAB. RESULTS	✓					
	TAB. D.L.'s	✓					
	QA FORM	NA					
	ICAP INTER. QC	✓					
	INSTR. SENS.	✓					
TASK II: FURNACE AA: METALS	RAW DATA	✓					
	TAB. RESULTS	✓					
	TAB. D.L.'s	✓					
	QA FORM	✓					
	INSTR. SENS.	✓					
TASK II: COLD VAPOR AA: MERCURY	RAW DATA	✓					
	TAB. RESULTS	✓					
	TAB. D.L.'s	✓					
	QA FORM	✓					
	INSTR. SENS.	✓					
TASK III: CYANIDE	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.						
OTHER (SPECIFY):	RAW DATA						
	TAB. RUSULTS						
	TAB. D.L.'s						
	QA FORM						
	INSTR. SENS.						

ORIGINAL (Red)

COMMENTS:

BLANK ANALYSIS RESULTS

TASK	TYPE	CONC	MATRIX	SAMPLE #	SOURCE OF H_2O	CONTAMINANTS (CONCENTRATION / DETECTION LIMIT
ALL	LAB	LO	SOL	MBLK2	JTC	Sn (26 ug/L / 20)1 Ag (4ug/L / 10)2
						Zn (25 ug/L / 10)1
						Al (95 ug/L / 200)2
						As (5 ug/L / 10)2 ORIGINAL
						Be (2ug/L / 5)2
						Cd (.2ug/L / 1)2 (Red)
						Pb (1.5ug/L / 5)2
						Mn (14ug/L / 15)2
ALL	LAB	LO	AQ	MBLK1	JTC	Sn (26 ug/L / 20)1
						As (7ug/L / 10)2
						Cd (.2ug/L / 1)2
						Co (14ug/L / 50)2
						Cu (7ug/L / 50)2
						Pb (2.3 ug/L / 5)2
						Zn (7 ug/L / 10)2
ALL	FIELD	LO	AQ	MC-3169	NUS	As (5ug/L / 10) 2
						Be (2ug/L / 5)2
						Co (21ug/L / 50)
						Mn (30ug/L / 15)1
						Ni (6ug/L / 40)2
						Se (3ug/L / 2)1
ALL	FIELD	LO	SOL	MC-3179		Cr (14ug/L / 10)1
						Co (4)ug/L / 50)2
						Mn (47ug/L / 15)2
						Zn (18 ug/L / 10)1

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

MATRIX SPIKE RECOVERIES

Sample No.	MC-3161	MC-3177				
Field Spike						ORIGINAL (Red)
Lab Spike	✓	✓				
Matrix	AQ	SOL				
Conc. Level	LO	LO				
Method Std.						
Fraction	ALL	ALL				

All matrix spike recoveries were within the established control ranges specified in; IFB WA83-A195, Exhibit E, Table 2. ___ Yes ✓ No

Exception(s):

Parameter	Accepted Range (%)	Actual % Rec.	Sample Number	Org. Result	Spike Added	Spike Result	Units
Tl	75-125	56	MC-3161	<10	50	28	ug/L
Sn	75-125	59	MC-3161	<20	75	44	ug/L
CN	80-120	76	MC-3161	52	100	128	ug/L
Ba	80-120	103	MC-3177	1108	2000	2367	ug/L
Cr	80-120	56	MC-3177	266	100	322	ug/L
Hg	75-125	71	MC-3177	<.1	.4	.286	ug/L
Se (1)	75-125	40	MC-3177	11.4	25	20.5	ug/L
V	80-120	123	MC-3177	261	2000	2723	ug/L
CN	80-120	78	MC-3177	<.5	100	78	ug/L

Comments: Recoveries Not commented upon, are not sufficiently out of range to question sample results.

ORIGINAL
(Red)

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 postive 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.

Comments: _____

Duplicate Analysis Results

ORIGINAL
(Red)

The applicable duplicate pairs are:

sample no.	MC-3161	MC-3177	MC-3167 / MC-3168		
Field duplicate			✓		
Lab duplicate	✓	✓			
sample level	LO	LO	LO		
sample matrix	AQ	SOL	AQ		
Fraction	ALL	ALL	ALL		

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

Fraction	maximum acceptable Percent Difference	
ALL AQUEOUS	20%	adopted for review purposes.
ALL SOLID	40%	

The RPD's exceeding the maximum acceptable percent difference were:

Fraction	Compound	Actual RPD	Sample	Comparison conc.	Comparison conc.
I	Al	48	MC-3161	119	73 ug/L
I	ZN	88	MC-3161	31	12 ug/l
II	Pb	52	MC-3177	29	17 mg/kg
I	Mn	54	MC-3177	225	129 mg/kg
III	Se	42	MC-3177	2.1	1.3 mg/kg
I	AL	24	MC-3167/68	260	330 ug/L
I	Fe (1)	34	"	13,100	18,400 ug/l
I	ZN (1)	46	"	150	240 ug/L
II	AS	120	"	3 (BDL)	12 ug/L
I	CR	200	"	<10	12 ug/l
II	Pb	51	"	<5 (4.75)	8
III	CN⁻	200	"	17	<10

Outlier Results not commented upon were not sufficiently out of range (or due to low concentrations found, not significant) to question sample results.

Comments: (1) Results for Fe & ZN in field duplicates 3167/68 may not reflect the average conc. actually present in these samples, possibly due to inhomogeneity of suspended solids - but not likely since these were well samples.

Initial Calibration Verification and Continuing Calibration Verification

ORIGIN (Red)

Documentation indicates calibrations were performed and checked every ten samples: Yes ✓ No___

Exceptions: _____

Calibrations and verifications were all within the control limits specified in

WA83-A195 : Yes ✓ No___

Outliers are listed below:

Parameter	Acceptable Range (%)	Calibration Identifier	% of True Value	Comments

Interference QC Results NOT APPLICABLE TASK I analyzed by FAA/GFAA, ICP not used

Documentation indicates interference QC samples were run before and after every ten samples: Yes___ No_

Exceptions: _____

Interference QC results were all within the control limits specified in

_____ : Yes___ No___

Exceptions:

Parameter	Acceptable Range (%)	Calibration Identifier	% of True Value	Comments

ORIGINAL
(Red)

Detection Limits Results

Detection limits were reported for all samples analyzed: Yes ✓ No ___

Exceptions: _____

Detection limits were less than or equal to the required detection limits specified in WA83-A195. Yes ✓ No ___

Exceptions: _____

Instrument Sensitivity Reports

Instrument sensitivity reports were documented for all parameters:

Yes ✓ No ___

Comments: _____

Other Remarks Concerning this Case:

QUANTITATIVE CALCULATIONS

CALCULATION ERRORS AND CORRECTED RESULTS ARE LISTED BELOW:

TRANSCRIPTION ERRORS appear to be responsible for incorrectly reported results.

ORIGINAL (Rec) actual result

MC-3165 Fe reported by lab as 10,800 ug/L was 108,000 ug/L, result corrected on data summary

MC-3167 V reported by lab as 200 ug/L apparently left out < symbol, examination of raw data revealed no vanadium was present <200 ug/L, result deleted from data summary.

MC-3172 Tl incorrectly reported as present in this sample at 3 mg/kg raw data revealed not present result deleted from summary.

MC-3178 Tl not reported by lab, examination of raw data revealed its presence at 1.5 mg/kg, result added to data summary.

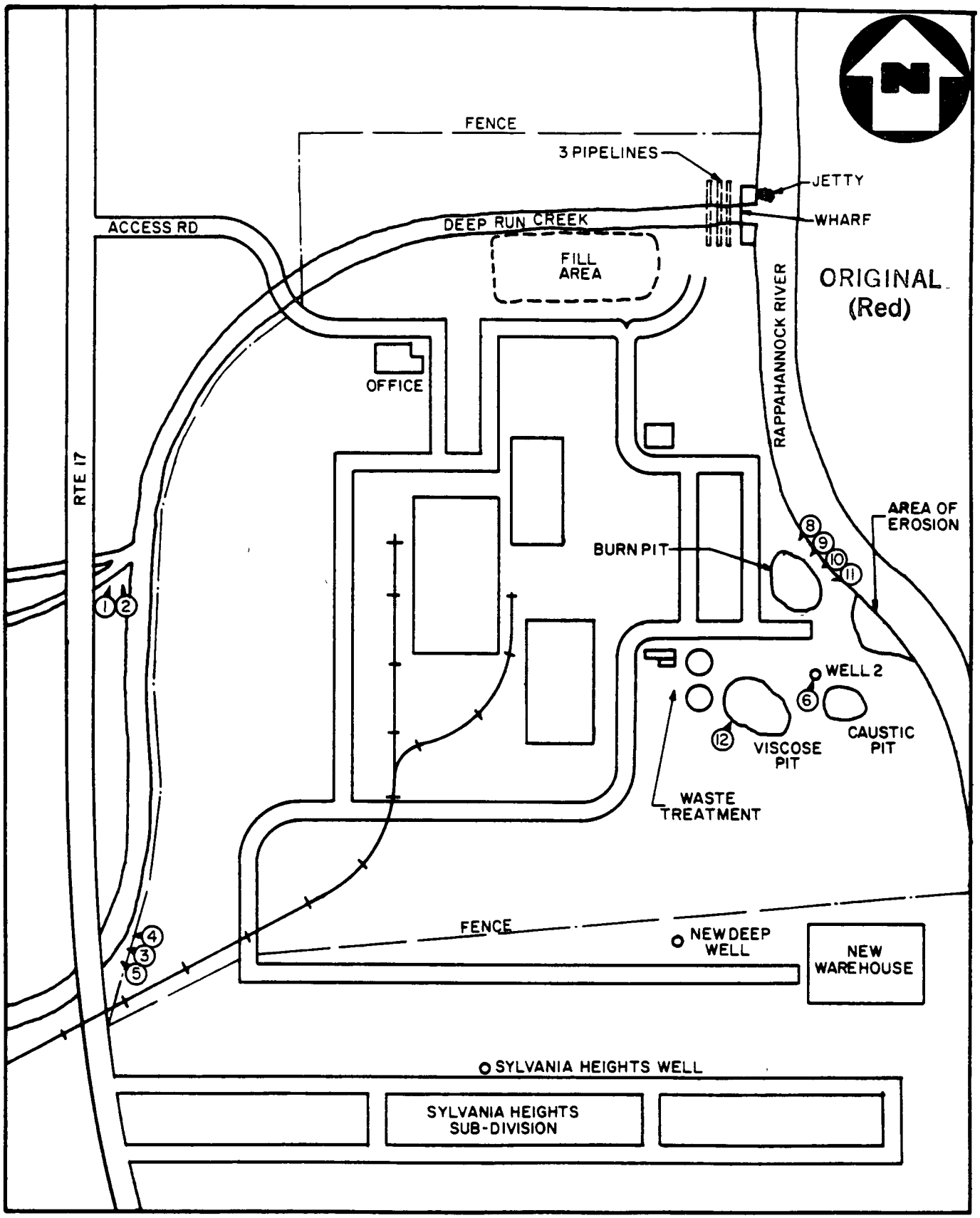

PHOTO LOCATION MAP

FMC FREDERICKSBURG PLANT, FREDERICKSBURG, VA.

(NO SCALE)

FIGURE 4

NUS CORPORATION

A Halliburton Company

ORIGINAL
(Red)

APPENDIX C

PROJECT NAME: FMC Fredericksburg
TDD NO: F3-8402-23

EPA SITE NO.: VA-33
REGION: III

QUALITY ASSURANCE REVIEW OF ORGANIC ANALYSIS LAB DATA PACKAGE

ORIGINAL (Red)

Case No.: 2534
Contract No.: 68-01-6866
Contract Laboratory: MEAD
Applicable IFB No.: WA83-A198
Reviewer: Atwood F. Davis
Review Date: 2-4-85

Applicable Sample No's.: C-8162 through and including C-8182

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)	✓(1,3,4)	✓(4)	✓(1,4)	✓(2)	
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
- ● INSTRUMENT CARRY OVER EFFECTS
- ● 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) See blank analysis results
(2) See evaluation of GC confirmations
(3) See Instrument Carryover Effects
(4) See surrogate & matrix spike recoveries

DATA EVALUATION SCORE CATEGORIES

ORIGINAL
(Red)

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 deficiences are identified and specific data is still valid, given certain qualifications which are listed below.

QUESTIONABLE: Data is not within established control limits. The deficiences 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 deficiences imply the results are not meaningful.

DATA COMPLETENESS	2534 CONC./MATRIX	L/S									
FRACTION	TRAFFIC REPORT # C-	8173	8174	8175	8176	8177	8178	8179	8180	8181	8182
	LAB I.D. # 24-	037	044	045	046 BR	047	048	049	050	051	052
BNA :	RUN DATE/TIME (1)										ORIGINAL (Red)
	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.	✓									
	Chromatograms: 3-Pt. Calib.										
	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.	✓									
	2nd COLUMN CONF.	✓									
	GC/MS CONFIRMATION	NA									
	PESTICIDE DUPLICATE		✓								
	PESTICIDE SPIKE		✓								
	PESTICIDE BLANK										✓
TCDD	TCDD TABULATION	✓									
	TCDD DETECTION LIMIT	✓									
	TCDD CHRO./E.I.C.P.	✓									
	TCDD BLANK										✓

DATA COMPLETENESS	2534												
	CONC./MATRIX	L/S											
FRACTION	TRAFFIC REPORT # C-	8173	8174	8175	8176	8177	8178	8179	8180	8181	8182		
	LAB I.D. # 24-	037	044	045	046	047	048	049	050	051	052		
VOA :	RUN DATE/TIME (1)												
	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.	✓											
(2)	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.		✓						✓				

ORIGINAL (Red)

COMMENTS: (1) See run chronicles
(2) Low standard NOT supplied.

DATA COMPLETENESS	2534											
	CONC./MATRIX	L/A										
FRACTION	TRAFFIC REPORT # C-	8162	8163	8164	8165	8166	8167	8168	8169	8170	8171	8172
	LAB I.D. # 24-	020	024[1R]	028	029	030	031	032	033	034	035	036
BNA :	RUN DATE/TIME (1)											
	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	NA										
	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.	✓										
	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.	✓										
	2nd COLUMN CONF.	NA										
	GC/MS CONFIRMATION	NA										
	PESTICIDE DUPLICATE				✓							
	PESTICIDE SPIKE				✓							
	PESTICIDE BLANK											✓
TCDD	TCDD TABULATION	✓										
	TCDD DETECTION LIMIT	✓										
	TCDD CHRO./E.I.C.P.	✓										
	TCDD BLANK											✓

DATA COMPLETENESS	2534											
	CONC./MATRIX	L/A										
FRACTION	TRAFFIC REPORT # C-	8162	8163	8164	8165	8166	8167	8168	8169	8170	8171	8172
	LAB I D. # 24-	020	024	028	029	030	031	032	033	034	035	036
VOA !	RUN DATE/TIME (1)											
	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.	✓										
	Chromatograms: 3-Pt. Calib.	✓										
	LINEARITY: 3-PT. CALIB	✓										
	RF COMPARISON	✓										
	SAMPLE/FIELD BLANK											✓
	METHOD/INSTR. BLANK											
	LAB DUPLICATE						✓					
	FIELD DUP/REP											
	MAT. SPK./M. STD.						✓					

ORIGINAL (Red)

COMMENTS: (1) See Run chronicles

KEY TO DATA COMPLETENESS FORM

Abbreviation Used on Form	Description of Checklist Item
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. I.D. 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. I.D. 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.	Tabulated response factors and amount injected for all cmpds. in 3-point calibration
Chromatograms: Calib. Chk.	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
2nd 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. I.D.	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

ORIGINAL
(Red)

KEY TO SYMBOLS USED IN DATA COMPLETENESS TABLE

Symbol	Meaning
✓	Data item present
NA	Data item not applicable or not required
P	Data item within established control limits
F	Data item outside established control limits
MS	Missing item

Symbol	Meaning
I	Incomplete data item
NC	Data item not clearly explained (units of conc., etc)
* or [number]	See footnote
XX/XX/XX XX:XX	Date/Time of run (calibration, etc.)

RUN CHRONICLE

Aqueous 2534

FRACTION: VOA				FRACTION: VOA continued				FRACTION: BNA's & PEST.		
* Poss. Ghosting				* Poss. Ghosting				NOT TABULATED SINCE NO POSITIVE RESULTS WERE REPORTED		
RUN ORDER	RUN ID / DESCRIPTION	INST #	DATE	RUN ORDER	RUN ID/ DESCRIPTION		DATE / TIME			
	BFB 840403	A12	4/3 A/B		CN-024034 C-8170	A12	4/3 C/A			
	LAB 840403 BLK CB	A12			CN-024035 C-8171	A12				
	CS Std	A12			CN024036 C-8172	A12			ORIGINAL	
	CT STD	B12			BFB 840402	A18	4/2 A/B		(Red)	
	CU Std	B12			LAB BLK CB	A18				
	CV Std	B12			CS Std 1814 Med	A18				
	CW Std MED	B12			CT Std 1815 HIGH	A18				
*	CN024020 C-8162	B12	‡		CU Std 1113 LOW	A18				
*	CN024024 C-8163	B12	‡		CV Std 1814 MED	A18				
	BFB 840403	B12	4/3 B/C		Std Neo TEST 1814 MED	A18				
	LAB 840403 BLK CB	B12			Std. New TEST 1814 MED	B18				
	CS 840403 Std	C12		*	CN024029 C-8165	B18	‡‡			
*	CN024028 C-8164	C12	‡							
*	CN024030 C-8166	C12	‡		‡ No ghosting					
	2 samples & 2 spikes other case				‡‡ Ghosting DETECTED					
	BFB 840402	A12	4/2 A/B							
	LAB BLK CB	A12								
	CS Std Med	A12								
	CT Std High	A12								
*	CN sample other case	A12	‡							
*	CN021031 C-8167	A12	‡							
	CN024021 C-8162MS	A12	deleted							
	CN024021 C-8162MS	B12								
*	SAMPLE other case	B12								
	CN024022 C-8162MSD	B12								
	840403 BFB	C12	4/3 C/A							
	LAB CB BLK	C12								
	CS Std Med	C12								
	CT Std High	C12								
*	CN024032 C8168	A12	‡‡							
*	CN024033 C8169	A12	‡							

ORIGINAL
(Red)

APPENDIX D

U.S. ENVIRONMENTAL PROTECTION AGENCY-CLP Sample Management Office
P.O. Box 818, Alexandria, VA 22313 - 703/557-2490

Sample Number C8612

8162

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: Mead CompuChem
Lab Sample ID No.: 24020
Sample Matrix: Liquid
Data Release Authorized By: 88

Case Number: 2534
QC Report No.:
Contract No.: 68-01-6866
Date Sample Received: 3/29/84

SEMIVOLATILE COMPOUNDS

ORIGINAL (Red)

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 3/30/84
DATE ANALYZED: 4/9/84
PERCENT MOISTURE:

Multiply Detection limits by 1 ☐ or 10 ☐ or ☑ 2
(Check Box for Appropriate Factor)

PP#	CAS#		ug/l or ug/kg (circle one)
(21A)	88-06-2	2,4,6-trichlorophenol	10U
(22A)	59-50-7	p-chloro-m-cresol	20U
(24A)	95-57-8	2-chlorophenol	10U
(31A)	122-83-2	2,4-dichlorophenol	10U
(34A)	105-67-9	2,4-dimethylphenol	10U
(57A)	88-75-5	2-nitrophenol	20U
(58A)	100-02-7	4-nitrophenol	100U
(59A)	51-88-5	2,4-dinitrophenol	50U
(60A)	534-52-1	4,6-dinitro-2-methylphenol	20U
(64A)	87-36-5	pentachlorophenol	20U
(65A)	108-95-2	phenol	10U
	65-85-0	benzoic acid	100U
	95-48-7	2-methylphenol	10U
	108-39-4	4-methylphenol	10U
	95-95-4	2,4,5-trichlorophenol	100U
(1B)	83-32-9	acenaphthene	10U
(5B)	92-87-5	benzidine	40U
(8B)	120-82-1	1,2,4-trichlorobenzene	10U
(9B)	118-74-1	hexachlorobenzene	10U
(12B)	67-72-1	hexachloroethane	10U
(18B)	111-44-4	bis(2-chloroethyl)ether	10U
(20B)	91-58-7	2-chloronaphthalene	10U
(25B)	95-50-1	1,2-dichlorobenzene	10U
(26B)	541-73-1	1,3-dichlorobenzene	10U
(27B)	106-46-7	1,4-dichlorobenzene	10U
(28B)	91-94-1	3,3'-dichlorobenzidine	20U
(35B)	121-14-2	2,4-dinitrotoluene	20U
(36B)	606-20-2	2,6-dinitrotoluene	10U
(37B)	122-66-7	1,2-diphenylhydrazine	20U
(39B)	206-44-0	fluoranthene	10U
(40B)	7005-72-3	4-chlorophenyl phenylether	10U
(41B)	101-55-3	4-bromophenyl phenyl ether	10U
(42B)	39638-32-9	bis-(2-chloroisopropyl)ether	10U
(43B)	111-91-1	bis-(2-chloroethoxy)methane	20U

PP#	CAS#		ug/l or ug/kg (circle one)
(52B)	87-68-3	hexachlorobutadiene	10U
(53B)	77-47-4	hexachlorocyclopentadiene	10U
(54B)	78-59-1	isophorone	10U
(55B)	91-20-3	naphthalene	10U
(56B)	98-95-3	nitrobenzene	10U
(62B)	86-30-6	N-nitrosodiphenylamine	10U
(63B)	621-64-7	N-nitrosodi-n-propylamine	20U
(66B)	117-81-7	bis(2-ethylhexyl)phthalate	10U
(67B)	85-68-7	butyl benzyl phthalate	10U
(68B)	84-74-2	di-n-butyl phthalate	10U
(69B)	117-84-0	di-n-octyl phthalate	10U
(70B)	84-66-2	diethyl phthalate	10U
(71B)	131-11-3	dimethyl phthalate	10U
(72B)	56-55-3	benzo(a)anthracene	10U
(73B)	50-33-8	benzo(a)pyrene	20U
(74B)	205-99-2	benzo(b)fluoranthene	20U
(75B)	207-08-9	benzo(k)fluoranthene	20U
(76B)	218-01-9	chrysene	10U
(77B)	208-96-8	acenaphthylene	10U
(78B)	120-12-7	anthracene	10U
(79B)	191-24-2	benzo(ghi)perylene	20U
(80B)	86-73-7	fluorene	10U
(81B)	85-01-8	phenanthrene	10U
(82B)	53-70-3	dibenzo(a,h)anthracene	20U
(83B)	193-39-5	indeno(1,2,3-cd)pyrene	20U
(84B)	129-00-0	pyrene	10U
	62-53-3	aniline	10U
	100-51-6	benzyl alcohol	20U
	106-47-8	4-chloroaniline	50U
	132-64-9	dibenzofuran	10U
	91-57-6	2-methylnaphthalene	20U
	88-74-4	2-nitroaniline	100U
	99-09-2	3-nitroaniline	100U
	100-01-6	4-nitroaniline	100U

U.S. ENVIRONMENTAL PROTECTION AGENCY - CLP Sample Management Office
P.O. Box 818, Alexandria, Virginia 22313 - 703/557-2490

SAMPLE NUMBER
C8612

ORIGINAL (Red)

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: CompuChem
Lab Sample ID No: 24020
Sample Matrix: Liquid
Data Release Authorized By:

Case Number 2534
QC Report No.
Contract No.: 68-01-6866
Date Sample Received: 3/29/84

VOLATILES

CONCENTRATION: (LOW) MEDIUM HIGH (circle)
DATE EXTRACTED/PREPARED: 3/29/84
DATE ANALYZED: 4/3/84
PERCENT MOISTURE:

Multiply Detection limits by 1 ☑ or ☐ _____
(Check Box for Appropriate Factor)

PP#	CAS#		(ug/l) or ug/kg (circle one)
(2V)	107-02-8	acrolein	100U
(3V)	107-13-1	acrylonitrile	100U
(4V)	71-43-2	benzene	5U
(6V)	56-23-5	carbon tetrachloride	5U
(7V)	108-90-7	chlorobenzene	5U
(10V)	107-06-2	1,2-dichloroethane	5U
(11V)	71-55-6	1,1,1-trichloroethane	5U
(13V)	75-34-3	1,1-dichloroethane	5U
(14V)	79-00-5	1,1,2-trichloroethane	5U
(15V)	79-34-5	1,1,2,2-tetrachloroethane	5U
(16V)	75-00-3	chloroethane	5U
(19V)	110-75-8	2-chloroethylvinyl ether	5U
(23V)	67-66-3	chloroform	5U
(29V)	75-35-4	1,1-dichloroethene	5U
(30V)	156-60-5	1,2-trans-dichloroethene	5U
(32V)	78-87-5	1,2-dichloropropane	5U
(33V)	10061-02-6	trans-1,3-dichloropropene	5U
	10061-01-05	cis,1,3-dichloropropene	10U
(38V)	100-41-4	ethylbenzene	5U
(44V)	75-09-2	methylene chloride	5U
(45V)	74-87-3	chloromethane	5U
(46V)	74-83-9	bromomethane	5U
(47V)	75-25-2	bromoform	5U
(48V)	75-27-4	bromodichloromethane	5U
(49V)	75-69-4	fluorotrichloromethane	5U
(51V)	124-48-1	chlorodibromomethane	5U
(85V)	127-18-4	tetrachloroethene	5U
(86V)	108-88-3	toluene	5U
(87V)	79-01-6	trichloroethene	5U
(88V)	75-01-4	vinyl chloride	5U
	67-64-1	acetone	100U
	78-93-3	2-butanone	200U
	75-15-0	carbondisulfide	10U
	519-78-6	2-hexanone	100U
	108-10-1	4-methyl-2-pentanone	100U
	100-42-5	styrene	5U
	108-05-4	vinyl acetate	10U
	95-47-6	o-xylene	5U

PESTICIDES

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 4/2/84
DATE ANALYZED: 4/8/84
PERCENT MOISTURE:

Multiply Detection limits by 1 ☑ or ☐ _____
(Check Box for Appropriate Factor)

PP#	CAS#		(ug/l) or ug/kg (circle one)
(89P)	309-00-2	aldrin	0.1U
(90P)	60-57-1	dieldrin	0.1U
(91P)	57-74-9	chlordane	0.1U
(92P)	50-29-3	4,4'-DDT	0.1U
(93P)	72-55-9	4,4'-DDE	0.1U
(94P)	72-54-8	4,4'-DDD	0.1U
(95P)	115-29-7	endosulfan I	0.1U
(96P)	115-29-7	endosulfan II	0.1U
(97P)	1031-07-8	endosulfan sulfate	0.1U
(98P)	72-20-8	endrin	0.1U
(99P)	7421-43-4	endrin aldehyde	0.1U
(100P)	76-44-8	heptachlor	0.1U
(101P)	1024-57-3	heptachlor epoxide	0.1U
(102P)	319-84-6	BHC-Alpha	0.1U
(103P)	319-85-7	BHC-Beta	0.1U
(104P)	319-86-8	BHC-Delta	0.1U
(105P)	58-89-9	BHC-Gamma	0.1U
(106P)	53469-21-9	PCB-1242	0.1U
(107P)	11097-69-7	PCB-1254	0.1U
(108P)	11104-28-2	PCB-1221	0.1U
(109P)	11141-16-5	PCB-1232	0.1U
(110P)	12672-29-6	PCB-1248	0.1U
(111P)	11096-82-5	PCB-1260	0.1U
(112P)	12674-11-2	PCB-1016	0.1U
(113P)	8001-35-2	toxaphene	0.1U

DIOXINS

CONCENTRATION: (LOW) MEDIUM HIGH (circle)
DATE EXTRACTED/PREPARED: 4/12/84
DATE ANALYZED: 4/12/84
PERCENT MOISTURE:

			(ug/l) or ug/kg (circle one)
(129B)	1746-01-6	2,3,7,8-tetrachlorodibenzo-p-dioxin	0.004U

ENVIRONMENTAL PROTECTION AGENCY-CLP Sample Management Office
P.O. Box 818, Alexandria, VA 22313 - 703/557-2490

Sample Number
C8163

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: Mead CompuChem
Lab Sample ID No.: 24024
Sample Matrix: Liquid
Date Release Authorized By: [illegible]

Case Number: 2534
QC Report No.:
Contract No.: 68-01-6866
Date Sample Received: 3/29/84

ORIGINAL
(Red)

SEMIVOLATILE COMPOUNDS

CONCENTRATION: (LOW) MEDIUM HIGH (circle one).
DATE EXTRACTED/PREPARED: 4/2/84
DATE ANALYZED: 4/20/84
PERCENT MOISTURE:

Multiply Detection limits by 1 ☐ or 10 ☐ or ☑ 2.42
(Check Box for Appropriate Factor)

PP#	CAS#		(ug/l) or ug/kg (circle one)
(21A)	88-06-2	2,4,6-trichlorophenol	10U
(22A)	59-50-7	p-chloro-m-cresol	20U
(24A)	95-57-8	2-chlorophenol	10U
(31A)	122-83-2	2,4-dichlorophenol	10U
(34A)	105-67-9	2,4-dimethylphenol	10U
(57A)	88-75-5	2-nitrophenol	20U
(58A)	100-02-7	4-nitrophenol	100U
(59A)	51-88-5	2,4-dinitrophenol	50U
(60A)	534-52-1	4,6-dinitro-2-methylphenol	20U
(64A)	87-36-5	pentachlorophenol	20U
(65A)	108-95-2	phenol	10U
	65-85-0	benzoic acid	100U
	95-48-7	2-methylphenol	10U
	108-39-4	4-methylphenol	10U
	95-95-4	2,4,5-trichlorophenol	100U
(1B)	83-32-9	acenaphthene	10U
(5B)	92-87-5	benzidine	40U
(8B)	120-82-1	1,2,4-trichlorobenzene	10U
(9B)	118-74-1	hexachlorobenzene	10U
(12B)	67-72-1	hexachloroethane	10U
(18B)	111-44-4	bis(2-chloroethyl)ether	10U
(20B)	91-58-7	2-chloronaphthalene	10U
(25B)	95-50-1	1,2-dichlorobenzene	10U
(26B)	541-73-1	1,3-dichlorobenzene	10U
(27B)	106-46-7	1,4-dichlorobenzene	10U
(28B)	91-94-1	3,3'-dichlorobenzidine	20U
(35B)	121-14-2	2,4-dinitrotoluene	20U
(36B)	606-20-2	2,6-dinitrotoluene	10U
(37B)	122-66-7	1,2-diphenylhydrazine	20U
(39B)	206-44-0	fluoranthene	10U
(40B)	7005-72-3	4-chlorophenyl phenylether	10U
(41B)	101-55-3	4-bromophenyl phenyl ether	10U
(42B)	39638-32-9	bis-(2-chloroisopropyl)ether	10U
(43B)	111-91-1	bis-(2-chloroethoxy)methane	20U

PP#	CAS#		(ug/l) or ug/kg (circle one)
(52B)	87-68-3	hexachlorobutadiene	10U
(53B)	77-47-4	hexachlorocyclopentadiene	10U
(54B)	78-59-1	isophorone	10U
(55B)	91-20-3	naphthalene	10U
(56B)	98-95-3	nitrobenzene	10U
(62B)	86-30-6	N-nitrosodiphenylamine	10U
(63B)	621-64-7	N-nitrosodi-n-propylamine	20U
(66B)	117-81-7	bis(2-ethylhexyl)phthalate	10U
(67B)	85-68-7	butyl benzyl phthalate	10U
(68B)	84-74-2	di-n-butyl phthalate	10U
(69B)	117-84-0	di-n-octyl phthalate	10U
(70B)	84-66-2	diethyl phthalate	10U
(71B)	131-11-3	dimethyl phthalate	10U
(72B)	56-55-3	benzo(a)anthracene	10U
(73B)	50-33-8	benzo(a)pyrene	20U
(74B)	205-99-2	benzo(b)fluoranthene	20U
(75B)	207-08-9	benzo(k)fluoranthene	20U
(76B)	218-01-9	chrysene	10U
(77B)	208-96-8	acenaphthylene	10U
(78B)	120-12-7	anthracene	10U
(79B)	191-24-2	benzo(ghi)perylene	20U
(80B)	86-73-7	fluorene	10U
(81B)	85-01-8	phenanthrene	10U
(82B)	53-70-3	dibenzo(a,h)anthracene	20U
(83B)	193-39-5	indeno(1,2,3-cd)pyrene	20U
(84B)	129-00-0	pyrene	10U
	62-53-3	aniline	10U
	100-51-6	benzyl alcohol	20U
	106-47-8	4-chloroaniline	50U
	132-64-9	dibenzofuran	10U
	91-57-6	2-methylnaphthalene	20U
	88-74-4	2-nitroaniline	100U
	99-09-2	3-nitroaniline	100U
	100-01-6	4-nitroaniline	100U

ENVIRONMENTAL PROTECTION AGENCY
Box 818, Alexandria, Virginia 22313 - 703/557-2490

C8163

ORIGINAL
(Red)

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: CompuChem
Lab Sample ID No: 24024
Sample Matrix: Liquid
Date Release Authorized By: 88

Case Number 2534
QC Report No.
Contract No.: 68-01-6866
Date Sample Received: 3/29/84

VOLATILES

CONCENTRATION: (LOW) MEDIUM HIGH (circle)
DATE EXTRACTED/PREPARED: 3/29/84
DATE ANALYZED: 4/3/84
PERCENT MOISTURE:

Multiply Detection limits by 1 ☑ or ☐ _____
(Check Box for Appropriate Factor)

PP#	CAS#		ug/l or ug/kg (circle one)
(2V)	107-02-8	acrolein	100U
(3V)	107-13-1	acrylonitrile	100U
(4V)	71-43-2	benzene	5U
(6V)	56-23-5	carbon tetrachloride	5U
(7V)	108-90-7	chlorobenzene	5U
(10V)	107-06-2	1,2-dichloroethane	5U
(11V)	71-55-6	1,1,1-trichloroethane	5U
(13V)	75-34-3	1,1-dichloroethane	5U
(14V)	79-00-5	1,1,2-trichloroethane	5U
(15V)	79-34-5	1,1,2,2-tetrachloroethane	5U
(16V)	75-00-3	chloroethane	5U
(19V)	110-75-8	2-chloroethylvinyl ether	5U
(23V)	67-66-3	chloroform	5U
(29V)	75-35-4	1,1-dichloroethene	5U
(30V)	156-60-5	1,2-trans-dichloroethene	5U
(32V)	78-87-5	1,2-dichloropropane	5U
(33V)	10061-02-6	trans-1,3-dichloropropene	10U
	10061-01-05	cis,1,3-dichloropropene	5U
(38V)	100-41-4	ethylbenzene	5U
(44V)	75-09-2	methylene chloride	5U
(45V)	74-87-3	chloromethane	5U
(46V)	74-83-9	bromomethane	5U
(47V)	75-25-2	bromoform	5U
(48V)	75-27-4	bromodichloromethane	5U
(49V)	75-69-4	fluorotrichloromethane	5U
(51V)	124-48-1	chlorodibromomethane	5U
(85V)	127-18-4	tetrachloroethene	5U
(86V)	108-88-3	toluene	5U
(87V)	79-01-6	trichloroethene	5U
(88V)	75-01-4	vinyl chloride	10U
	67-64-1	acetone	100U
	78-93-3	2-butanone	200U
	75-15-0	carbondisulfide	10U
	519-78-6	2-hexanone	100U
	108-10-1	4-methyl-2-pentanone	100U
	100-42-5	styrene	5U
	108-05-4	vinyl acetate	10U
	95-47-6	o-xylene	5U

PESTICIDES

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 4/2/84
DATE ANALYZED: 4/3/84
PERCENT MOISTURE:

Multiply Detection limits by 1 ☑ or ☐ _____
(Check Box for Appropriate Factor)

PP#	CAS#		ug/l or ug/kg (circle on
(89P)	309-00-2	aldrin	0.1U
(90P)	60-57-1	dieldrin	0.1U
(91P)	57-74-9	chlordane	0.1U
(92P)	50-29-3	4,4'-DDT	0.1U
(93P)	72-55-9	4,4'-DDE	0.1U
(94P)	72-54-8	4,4'-DDD	0.1U
(95P)	115-29-7	endosulfan I	0.1U
(96P)	115-29-7	endosulfan II	0.1U
(97P)	1031-07-8	endosulfan sulfate	0.1U
(98P)	72-20-8	endrin	0.1U
(99P)	7421-43-4	endrin aldehyde	0.1U
(100P)	76-44-8	heptachlor	0.1U
(101P)	1024-57-3	heptachlor epoxide	0.1U
(102P)	319-84-6	BHC-Alpha	0.1U
(103P)	319-85-7	BHC-Beta	0.1U
(104P)	319-86-8	BHC-Delta	0.1U
(105P)	58-89-9	BHC-Gamma	0.1
(106P)	53469-21-9	PCB-1242	0.1
(107P)	11097-69-7	PCB-1254	0.1
(108P)	11104-28-2	PCB-1221	0.1
(109P)	11141-16-5	PCB-1232	0.1
(110P)	12672-29-6	PCB-1248	0.1
(111P)	11096-82-5	PCB-1260	0.1
(112P)	12674-11-2	PCB-1016	0.1
(113P)	8001-35-2	toxaphene	0.1

DIOXINS

CONCENTRATION: (LOW) MEDIUM HIGH (circle)
DATE EXTRACTED/PREPARED: 4/24/84
DATE ANALYZED: 4/24/84
PERCENT MOISTURE:

			ug/ or ug (circl
(129B)	1746-01-6	2,3,7,8-tetrachlorodiben. p-dioxin	0.

U.S. ENVIRONMENTAL PROTECTION AGENCY-CLP Sample Management Office
P.O. Box 818, Alexandria, VA 22313 - 703/557-2490

Sample Number
C8164

ORIGINAL
(Red)

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: Mead CompuChem
Lab Sample ID No.: 24028
Sample Matrix: Liquid
Date Release Authorized By:

Case Number: 2534
QC Report No.:
Contract No.: 68-01-6866
Date Sample Received: 3/29/84

SEMIVOLATILE COMPOUNDS

CONCENTRATION: LOW MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 3/30/84
DATE ANALYZED: 4/9/84
PERCENT MOISTURE:

Multiply Detection limits by 1 ☐ or 10 ☐ or ☑ 2
(Check Box for Appropriate Factor)

PP#	CAS#		ug/l or ug/kg (circle one)
(21A)	88-06-2	2,4,6-trichlorophenol	10U
(22A)	59-50-7	p-chloro-m-cresol	20U
(24A)	95-57-8	2-chlorophenol	10U
(31A)	122-83-2	2,4-dichlorophenol	10U
(34A)	105-67-9	2,4-dimethylphenol	10U
(57A)	88-75-5	2-nitrophenol	20U
(58A)	100-02-7	4-nitrophenol	100U
(59A)	51-88-5	2,4-dinitrophenol	50U
(60A)	534-52-1	4,6-dinitro-2-methylphenol	20U
(64A)	87-36-5	pentachlorophenol	20U
(65A)	108-95-2	phenol	10U
	65-85-0	benzoic acid	100U
	95-48-7	2-methylphenol	10U
	108-39-4	4-methylphenol	10U
	95-95-4	2,4,5-trichlorophenol	100U
(1B)	83-32-9	acenaphthene	10U
(5B)	92-87-5	benzidine	40U
(8B)	120-82-1	1,2,4-trichlorobenzene	10U
(9B)	118-74-1	hexachlorobenzene	10U
(12B)	67-72-1	hexachloroethane	10U
(18B)	111-44-4	bis(2-chloroethyl)ether	10U
(20B)	91-58-7	2-chloronaphthalene	10U
(25B)	95-50-1	1,2-dichlorobenzene	10U
(26B)	541-73-1	1,3-dichlorobenzene	10U
(27B)	106-46-7	1,4-dichlorobenzene	10U
(28B)	91-94-1	3,3'-dichlorobenzidine	20U
(35B)	121-14-2	2,4-dinitrotoluene	20U
(36B)	606-20-2	2,6-dinitrotoluene	10U
(37B)	122-66-7	1,2-diphenylhydrazine	20U
(39B)	206-44-0	fluoranthene	10U
(40B)	7005-72-3	4-chlorophenyl phenylether	10U
(41B)	101-55-3	4-bromophenyl phenyl ether	10U
(42B)	39638-32-9	bis-(2-chloroisopropyl)ether	10U
(43B)	111-91-1	bis-(2-chloroethoxy)methane	20U

PP#	CAS#		ug/l or ug/kg (circle one)
(52B)	87-68-3	hexachlorobutadiene	10U
(53B)	77-47-4	hexachlorocyclopentadiene	10U
(54B)	78-59-1	isophorone	10U
(55B)	91-20-3	naphthalene	10U
(56B)	98-95-3	nitrobenzene	10U
(62B)	86-30-6	N-nitrosodiphenylamine	10U
(63B)	621-64-7	N-nitrosodi-n-propylamine	20U
(66B)	117-81-7	bis(2-ethylhexyl)phthalate	10U
(67B)	85-68-7	butyl benzyl phthalate	10U
(68B)	84-74-2	di-n-butyl phthalate	10U
(69B)	117-84-0	di-n-octyl phthalate	10U
(70B)	84-66-2	diethyl phthalate	10U
(71B)	131-11-3	dimethyl phthalate	10U
(72B)	56-55-3	benzo(a)anthracene	10U
(73B)	50-33-8	benzo(a)pyrene	20U
(74B)	205-99-2	benzo(b)fluoranthene	20U
(75B)	207-08-9	benzo(k)fluoranthene	20U
(76B)	218-01-9	chrysene	10U
(77B)	208-96-8	acenaphthylene	10U
(78B)	120-12-7	anthracene	10U
(79B)	191-24-2	benzo(ghi)perylene	20U
(80B)	86-73-7	fluorene	10U
(81B)	85-01-8	phenanthrene	10U
(82B)	53-70-3	dibenzo(a,h)anthracene	20U
(83B)	193-39-5	indeno(1,2,3-cd)pyrene	20U
(84B)	129-00-0	pyrene	10U
	62-53-3	aniline	10U
	100-51-6	benzyl alcohol	20U
	106-47-8	4-chloroaniline	50U
	132-64-9	dibenzofuran	10U
	91-57-6	2-methylnaphthalene	20U
	88-74-4	2-nitroaniline	100U
	99-09-2	3-nitroaniline	100U
	100-01-6	4-nitroaniline	100U

U.S. ENVIRONMENTAL PROTECTION AGENCY-CLP Sample Management Office
P.O. Box 818, Alexandria, VA 22313 - 703/557-2490

Sample Number
C8164

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: Mead CompuChem
Lab Sample ID No.: 24028
Sample Matrix: Liquid
Date Release Authorized By: 88

Case Number: 2534
QC Report No.:
Contract No.: 68-01-6866
Date Sample Received: 3/29/84

ORIGINAL
(Red)

SEMIVOLATILE COMPOUNDS

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 4/12/84
DATE ANALYZED: 4/13/84
PERCENT MOISTURE:

Multiply Detection limits by 1 ☐ or 10 ☐ or ☑ 4
(Check Box for Appropriate Factor)

PP#	CAS#		ug/l or ug/kg (circle one)
(21A)	88-06-2	2,4,6-trichlorophenol	10U
(22A)	59-50-7	p-chloro-m-cresol	20U
(24A)	95-57-8	2-chlorophenol	10U
(31A)	122-83-2	2,4-dichlorophenol	10U
(34A)	105-67-9	2,4-dimethylphenol	10U
(57A)	88-75-5	2-nitrophenol	20U
(58A)	100-02-7	4-nitrophenol	100U
(59A)	51-28-5	2,4-dinitrophenol	50U
(60A)	534-52-1	4,6-dinitro-2-methylphenol	20U
(64A)	87-86-5	pentachlorophenol	20U
(65A)	108-95-2	phenol	10U
	65-85-0	benzoic acid	100U
	95-48-7	2-methylphenol	10U
	108-39-4	4-methylphenol	10U
	95-95-4	2,4,5-trichlorophenol	100U
(1B)	83-32-9	acenaphthene	10U
(5B)	92-87-5	benzidine	40U
(8B)	120-82-1	1,2,4-trichlorobenzene	10U
(9B)	118-74-1	hexachlorobenzene	10U
(12B)	67-72-1	hexachloroethane	10U
(18B)	111-44-4	bis(2-chloroethyl)ether	10U
(20B)	91-58-7	2-chloronaphthalene	10U
(25B)	95-50-1	1,2-dichlorobenzene	10U
(26B)	541-73-1	1,3-dichlorobenzene	10U
(27B)	106-46-7	1,4-dichlorobenzene	10U
(28B)	91-94-1	3,3'-dichlorobenzidine	20U
(35B)	121-14-2	2,4-dinitrotoluene	20U
(36B)	606-20-2	2,6-dinitrotoluene	10U
(37B)	122-66-7	1,2-diphenylhydrazine	20U
(39B)	206-44-0	fluoranthene	10U
(40B)	7005-72-3	4-chlorophenyl phenylether	10U
(41B)	101-55-3	4-bromophenyl phenyl ether	10U
(42B)	39638-32-9	bis-(2-chloroisopropyl)ether	10U
(43B)	111-91-1	bis-(2-chloroethoxy)methane	20U

PP#	CAS#		ug/l or ug/kg (circle one)
(52B)	87-68-3	hexachlorobutadiene	10U
(53B)	77-47-4	hexachlorocyclopentadiene	10U
(54B)	78-59-1	isophorone	10U
(55B)	91-20-3	naphthalene	10U
(56B)	98-95-3	nitrobenzene	10U
(62B)	86-30-6	N-nitrosodiphenylamine	10U
(63B)	621-64-7	N-nitrosodi-n-propylamine	20U
(66B)	117-81-7	bis(2-ethylhexyl)phthalate	10U
(67B)	85-68-7	butyl benzyl phthalate	10U
(68B)	84-74-2	di-n-butyl phthalate	10U
(69B)	117-84-0	di-n-octyl phthalate	10U
(70B)	84-66-2	diethyl phthalate	10U
(71B)	131-11-3	dimethyl phthalate	10U
(72B)	56-55-3	benzo(a)anthracene	10U
(73B)	50-33-8	benzo(a)pyrene	20U
(74B)	205-99-2	benzo(b)fluoranthene	20U
(75B)	207-08-9	benzo(k)fluoranthene	20U
(76B)	218-01-9	chrysene	10U
(77B)	208-96-8	acenaphthylene	10U
(78B)	120-12-7	anthracene	10U
(79B)	191-24-2	benzo(ghi)perylene	20U
(80B)	86-73-7	fluorene	10U
(81B)	85-01-8	phenanthrene	10U
(82B)	53-70-3	dibenzo(a,h)anthracene	20U
(83B)	193-39-5	indeno(1,2,3-cd)pyrene	20U
(84B)	129-00-0	pyrene	10U
	62-53-3	aniline	10U
	100-51-6	benzyl alcohol	20U
	106-47-8	4-chloroaniline	50U
	132-64-9	dibenzofuran	10U
	91-57-6	2-methylnaphthalene	20U
	88-74-4	2-nitroaniline	100U
	99-09-2	3-nitroaniline	100U
	100-01-6	4-nitroaniline	100U

U.S. ENVIRONMENTAL PROTECTION AGENCY - CLP Sample Management Office
P.O. Box 818, Alexandria, Virginia 22313 - 703/557-2490

C8164

ORIGINAL
(Red)

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: CompuChem
Lab Sample ID No: 24028
Sample Matrix: Liquid
Date Release Authorized By:

Case Number 2534
QC Report No.
Contract No.: 68-01-6866
Date Sample Received: 3/29/84

VOLATILES

CONCENTRATION: (LOW) MEDIUM HIGH (circle)
DATE EXTRACTED/PREPARED: 3/29/84
DATE ANALYZED: 4/4/84
PERCENT MOISTURE:

Multiply Detection limits by 1 ☑ or ☐ _____
(Check Box for Appropriate Factor)

PP#	CAS#		(ug/l) or ug/kg (circle one)
(2V)	107-02-8	acrolein	100U
(3V)	107-13-1	acrylonitrile	100U
(4V)	71-43-2	benzene	5U
(6V)	56-23-5	carbon tetrachloride	5U
(7V)	108-90-7	chlorobenzene	5U
(10V)	107-06-2	1,2-dichloroethane	5U
(11V)	71-55-6	1,1,1-trichloroethane	5U
(13V)	75-34-3	1,1-dichloroethane	5U
(14V)	79-00-5	1,1,2-trichloroethane	5U
(15V)	79-34-5	1,1,2,2-tetrachloroethane	5U
(16V)	75-00-3	chloroethane	5U
(19V)	110-75-8	2-chloroethylvinyl ether	5U
(23V)	67-66-3	chloroform	5U
(29V)	75-35-4	1,1-dichloroethene	5U
(30V)	156-60-5	1,2-trans-dichloroethene	5U
(32V)	78-87-5	1,2-dichloropropane	5U
(33V)	10061-02-6	trans-1,3-dichloropropene	10U
	10061-01-05	cis,1,3-dichloropropene	5U
(38V)	100-41-4	ethylbenzene	5U
(44V)	75-09-2	methylene chloride	5U
(45V)	74-87-3	chloromethane	5U
(46V)	74-83-9	bromomethane	5U
(47V)	75-25-2	bromoform	5U
(48V)	75-27-4	bromodichloromethane	5U
(49V)	75-69-4	fluorotrichloromethane	5U
(51V)	124-48-1	chlorodibromomethane	5U
(85V)	127-18-4	tetrachloroethene	5U
(86V)	108-88-3	toluene	5U
(87V)	79-01-6	trichloroethene	5U
(88V)	75-01-4	vinyl chloride	100U
	67-64-1	acetone	200U
	78-93-3	2-butanone	10U
	75-15-0	carbondisulfide	100U
	519-78-6	2-hexanone	100U
	108-10-1	4-methyl-2-pentanone	5U
	100-42-5	styrene	10U
	108-05-4	vinyl acetate	5U
	95-47-6	o-xylene	

PESTICIDES

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 4/2/84
DATE ANALYZED: 4/3/84
PERCENT MOISTURE:

Multiply Detection limits by 1 ☑ or ☐ _____
(Check Box for Appropriate Factor)

PP#	CAS#		(ug/l) or ug/kg (circle on
(89P)	309-00-2	aldrin	0.1U
(90P)	60-57-1	dieldrin	0.1U
(91P)	57-74-9	chlordane	0.1U
(92P)	50-29-3	4,4'-DDT	0.1U
(93P)	72-55-9	4,4'-DDE	0.1U
(94P)	72-54-8	4,4'-DDD	0.1U
(95P)	115-29-7	endosulfan I	0.1U
(96P)	115-29-7	endosulfan II	0.1U
(97P)	1031-07-8	endosulfan sulfate	0.1U
(98P)	72-20-8	endrin	0.1U
(99P)	7421-43-4	endrin aldehyde	0.1U
(100P)	76-44-8	heptachlor	0.1U
(101P)	1024-57-3	heptachlor epoxide	0.1U
(102P)	319-84-6	BHC-Alpha	0.1U
(103P)	319-85-7	BHC-Beta	0.1U
(104P)	319-86-8	BHC-Delta	0.1U
(105P)	58-89-9	BHC-Gamma	0.1
(106P)	53469-21-9	PCB-1242	0.1
(107P)	11097-69-7	PCB-1254	0.1
(108P)	11104-28-2	PCB-1221	0.1
(109P)	11141-16-5	PCB-1232	0.1
(110P)	12672-29-6	PCB-1248	0.1
(111P)	11096-82-5	PCB-1260	0.1
(112P)	12674-11-2	PCB-1016	0.1
(113P)	8001-35-2	toxaphene	0.1

DIOXINS

CONCENTRATION: (LOW) MEDIUM HIGH (circle)
DATE EXTRACTED/PREPARED: 4/2/84
DATE ANALYZED: 4/13/84
PERCENT MOISTURE:

			(ug or u (circl
(129B)	1746-01-6	2,3,7,8-tetrachlorodiben p-dioxin	0.

July,

U.S. ENVIRONMENTAL PROTECTION AGENCY-CLP Sample Management Office
P.O. Box 818, Alexandria, VA 22313 - 703/557-2490

Sample Number
C8165

ORGANICS ANALYSIS DATA SHEET

ORIGINAL (Red)

Laboratory Name: Mead CompuChem
Lab Sample ID No.: 24029
Sample Matrix: Liquid
Data Release Authorized By: [illegible]

Case Number: 2534
QC Report No.:
Contract No.: 68-01-6866
Date Sample Received: 3/29/84

SEMIVOLATILE COMPOUNDS

CONCENTRATION: LOW MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 4/2/84
DATE ANALYZED: 4/21/84
PERCENT MOISTURE:

Multiply Detection limits by 1 ☐ or 10 ☐ or ☑ 2.7
(Check Box for Appropriate Factor)

PP#	CAS#		ug/l or ug/kg (circle one)
(21A)	88-06-2	2,4,6-trichlorophenol	10U
(22A)	59-50-7	p-chloro-m-cresol	20U
(24A)	95-57-8	2-chlorophenol	10U
(31A)	122-83-2	2,4-dichlorophenol	10U
(34A)	105-67-9	2,4-dimethylphenol	10U
(57A)	88-75-5	2-nitrophenol	20U
(58A)	100-02-7	4-nitrophenol	100U
(59A)	51-88-5	2,4-dinitrophenol	50U
(60A)	534-52-1	4,6-dinitro-2-methylphenol	20U
(64A)	87-36-5	pentachlorophenol	20U
(65A)	108-95-2	phenol	10U
	65-85-0	benzoic acid	100U
	95-48-7	2-methylphenol	10U
	108-39-4	4-methylphenol	10U
	95-95-4	2,4,5-trichlorophenol	100U
(1B)	83-32-9	acenaphthene	10U
(5B)	92-87-5	benzidine	40U
(8B)	120-82-1	1,2,4-trichlorobenzene	10U
(9B)	118-74-1	hexachlorobenzene	10U
(12B)	67-72-1	hexachloroethane	10U
(18B)	111-44-4	bis(2-chloroethyl)ether	10U
(20B)	91-58-7	2-chloronaphthalene	10U
(25B)	95-50-1	1,2-dichlorobenzene	10U
(26B)	541-73-1	1,3-dichlorobenzene	10U
(27B)	106-46-7	1,4-dichlorobenzene	10U
(28B)	91-94-1	3,3'-dichlorobenzidine	20U
(35B)	121-14-2	2,4-dinitrotoluene	20U
(36B)	606-20-2	2,6-dinitrotoluene	10U
(37B)	122-66-7	1,2-diphenylhydrazine	20U
(39B)	206-44-0	fluoranthene	10U
(40B)	7005-72-3	4-chlorophenyl phenylether	10U
(41B)	101-55-3	4-bromophenyl phenyl ether	10U
(42B)	39638-32-9	bis-(2-chloroisopropyl)ether	10U
(43B)	111-91-1	bis-(2-chloroethoxy)methane	20U

PP#	CAS#		ug/l or ug/kg (circle one)
(52B)	87-68-3	hexachlorobutadiene	1
(53B)	77-47-4	hexachlorocyclopentadiene	1
(54B)	78-59-1	isophorone	1
(55B)	91-20-3	naphthalene	1
(56B)	98-95-3	nitrobenzene	
(62B)	86-30-6	N-nitrosodiphenylamine	
(63B)	621-64-7	N-nitrosodi-n-propylamine	
(66B)	117-81-7	bis(2-ethylhexyl)phthalate	
(67B)	85-68-7	butyl benzyl 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	1
(72B)	56-55-3	benzo(a)anthracene	1
(73B)	50-33-8	benzo(a)pyrene	2
(74B)	205-99-2	benzo(b)fluoranthene	2
(75B)	207-08-9	benzo(k)fluoranthene	2
(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	

ENVIRONMENTAL PROTECTION AGENCY - CLP Sample ...
Box 818, Alexandria, Virginia 22313 - 703/557-2490

C8165

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: CompuChem
Lab Sample ID No: 24029
Sample Matrix: Liquid
Date Release Authorized By: 88

Case Number 2534
QC Report No.
Contract No.: 68-01-6866
Date Sample Received: 3/29/84

ORIGINAL (Red)

VOLATILES

CONCENTRATION: (LOW) MEDIUM HIGH (circle)
DATE EXTRACTED/PREPARED: 3/29/84
DATE ANALYZED: 4/2/84
PERCENT MOISTURE:

Multiply Detection limits by 1 ☑ or ☐ _____
(Check Box for Appropriate Factor)

PP#	CAS#		ug/l or ug/kg (circle one)
(2V)	107-02-8	acrolein	100U
(3V)	107-13-1	acrylonitrile	100U
(4V)	71-43-2	benzene	5U
(6V)	56-23-5	carbon tetrachloride	5U
(7V)	108-90-7	chlorobenzene	5U
(10V)	107-06-2	1,2-dichloroethane	5U
(11V)	71-55-6	1,1,1-trichloroethane	5U
(13V)	75-34-3	1,1-dichloroethane	190 ~~5U~~ DGC
(14V)	79-00-5	1,1,2-trichloroethane	5U
(15V)	79-34-5	1,1,2,2-tetrachloroethane	5U
(16V)	75-00-3	chloroethane	6.8 ~~5U~~ DGC
(19V)	110-75-8	2-chloroethylvinyl ether	5U
(23V)	67-66-3	chloroform	5U
(29V)	75-35-4	1,1-dichloroethene	13 ~~5U~~ DGC
(30V)	156-60-5	1,2-trans-dichloroethene	5U
(32V)	78-87-5	1,2-dichloropropane	5U
(33V)	10061-02-6	trans-1,3-dichloropropene	5U
	10061-01-05	cis,1,3-dichloropropene	10U
(38V)	100-41-4	ethylbenzene	LT ~~5U~~ DGC
(44V)	75-09-2	methylene chloride	5U
(45V)	74-87-3	chloromethane	5U
(46V)	74-83-9	bromomethane	5U
(47V)	75-25-2	bromoform	5U
(48V)	75-27-4	bromodichloromethane	5U
(49V)	75-69-4	fluorotrichloromethane	~~5U~~ DGC
(51V)	124-48-1	chlorodibromomethane	5U
(85V)	127-18-4	tetrachloroethene	5U
(86V)	108-88-3	toluene	5U
(87V)	79-01-6	trichloroethene	6.4 ~~5U~~ DGC
(88V)	75-01-4	vinyl chloride	5U
	67-64-1	acetone	100U
	78-93-3	2-butanone	200U
	75-15-0	carbondisulfide	LT ~~100U~~ DGC
	519-78-6	2-hexanone	100U
	108-10-1	4-methyl-2-pentanone	100U
	100-42-5	styrene	5U
	108-05-4	vinyl acetate	10U
	95-47-6	o-xylene	5U

PESTICIDES

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 4/2/84
DATE ANALYZED: 4/3/84
PERCENT MOISTURE:

Multiply Detection limits by 1 ☑ or ☐ _____
(Check Box for Appropriate Factor)

PP#	CAS#		ug/l or ug/kg (circle one)
(89P)	309-00-2	aldrin	0.1U
(90P)	60-57-1	dieldrin	0.1U
(91P)	57-74-9	chlordane	0.1U
(92P)	50-29-3	4,4'-DDT	0.1U
(93P)	72-55-9	4,4'-DDE	0.1U
(94P)	72-54-8	4,4'-DDD	0.1U
(95P)	115-29-7	endosulfan I	0.1U
(96P)	115-29-7	endosulfan II	0.1U
(97P)	1031-07-8	endosulfan sulfate	0.1U
(98P)	78-20-8	endrin	0.1U
(99P)	7421-43-4	endrin aldehyde	0.1U
(100P)	76-44-8	heptachlor	0.1U
(101P)	1024-57-3	heptachlor epoxide	0.1U
(102P)	319-84-6	BHC-Alpha	0.1U
(103P)	319-85-7	BHC-Beta	0.1U
(104P)	319-86-8	BHC-Delta	0.1U
(105P)	58-89-9	BHC-Gamma	0.1U
(106P)	53469-21-9	PCB-1242	0.1U
(107P)	11097-69-7	PCB-1254	0.1U
(108P)	11104-28-2	PCB-1221	0.1U
(109P)	11141-16-5	PCB-1232	0.1U
(110P)	12672-29-6	PCB-1248	0.1U
(111P)	11096-82-5	PCB-1260	0.1U
(112P)	12674-11-2	PCB-1016	0.1U
(113P)	8001-35-2	toxaphene	0.1U

DGC 5/2/84

DIOXINS

CONCENTRATION: (LOW) MEDIUM HIGH (circle)
DATE EXTRACTED/PREPARED: 4/2/84
DATE ANALYZED: 4/13/84
PERCENT MOISTURE:

			ug/l or ug/ (circle
(129B)	1746-01-6	2,3,7,8-tetrachlorodibenzo p-dioxin	0.0

ENVIRONMENTAL PROTECTION AGENCY-CLP Sample Management Office
P.O. Box 818, Alexandria, VA 22313 - 703/557-2490

Sample Number
C8166

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: Mead CompuChem
Lab Sample ID No.: 24030
Sample Matrix: Liquid
Date Release Authorized By: [illegible]

Case Number: 2534
QC Report No.:
Contract No.: 68-01-6866
Date Sample Received: 3/29/84

SEMIVOLATILE COMPOUNDS

ORIGINAL (Red)

CONCENTRATION: LOW MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 4/2/84
DATE ANALYZED: 4/21/84
PERCENT MOISTURE:

Multiply Detection limits by 1 ☐ or 10 ☐ or ☑ 2
(Check Box for Appropriate Factor)

PP#	CAS#		ug/l or ug/kg (circle one)
(21A)	88-06-2	2,4,6-trichlorophenol	10U
(22A)	59-50-7	p-chloro-m-cresol	20U
(24A)	95-57-8	2-chlorophenol	10U
(31A)	122-83-2	2,4-dichlorophenol	10U
(34A)	105-67-9	2,4-dimethylphenol	10U
(57A)	88-75-5	2-nitrophenol	20U
(58A)	100-02-7	4-nitrophenol	100U
(59A)	51-88-5	2,4-dinitrophenol	50U
(60A)	534-52-1	4,6-dinitro-2-methylphenol	20U
(64A)	87-36-5	pentachlorophenol	20U
(65A)	108-95-2	phenol	10U
	65-85-0	benzoic acid	100U
	95-48-7	2-methylphenol	10U
	108-39-4	4-methylphenol	10U
	95-95-4	2,4,5-trichlorophenol	100U
(1B)	83-32-9	acenaphthene	10U
(5B)	92-87-5	benzidine	40U
(8B)	120-82-1	1,2,4-trichlorobenzene	10U
(9B)	118-74-1	hexachlorobenzene	10U
(12B)	67-72-1	hexachloroethane	10U
(18B)	111-44-4	bis(2-chloroethyl)ether	10U
(20B)	91-58-7	2-chloronaphthalene	10U
(25B)	95-50-1	1,2-dichlorobenzene	10U
(26B)	541-73-1	1,3-dichlorobenzene	10U
(27B)	106-46-7	1,4-dichlorobenzene	10U
(28B)	91-94-1	3,3'-dichlorobenzidine	20U
(35B)	121-14-2	2,4-dinitrotoluene	20U
(36B)	606-20-2	2,6-dinitrotoluene	10U
(37B)	122-66-7	1,2-diphenylhydrazine	20U
(39B)	206-44-0	fluoranthene	10U
(40B)	7005-72-3	4-chlorophenyl phenylether	10U
(41B)	101-55-3	4-bromophenyl phenyl ether	10U
(42B)	39638-32-9	bis-(2-chloroisopropyl)ether	10U
(43B)	111-91-1	bis-(2-chloroethoxy)methane	20U

PP#	CAS#		ug/l or ug/kg (circle one)
(52B)	87-68-3	hexachlorobutadiene	10U
(53B)	77-47-4	hexachlorocyclopentadiene	10U
(54B)	78-59-1	isophorone	10U
(55B)	91-20-3	naphthalene	10U
(56B)	98-95-3	nitrobenzene	10U
(62B)	86-30-6	N-nitrosodiphenylamine	10U
(63B)	621-64-7	N-nitrosodi-n-propylamine	20U
(66B)	117-81-7	bis(2-ethylhexyl)phthalate	10U
(67B)	85-68-7	butyl benzyl phthalate	10U
(68B)	84-74-2	di-n-butyl phthalate	10U
(69B)	117-84-0	di-n-octyl phthalate	10U
(70B)	84-66-2	diethyl phthalate	10U
(71B)	131-11-3	dimethyl phthalate	10U
(72B)	56-55-3	benzo(a)anthracene	10U
(73B)	50-33-8	benzo(a)pyrene	20U
(74B)	205-99-2	benzo(b)fluoranthene	20U
(75B)	207-08-9	benzo(k)fluoranthene	20U
(76B)	218-01-9	chrysene	10U
(77B)	208-96-8	acenaphthylene	10U
(78B)	120-12-7	anthracene	10U
(79B)	191-24-2	benzo(ghi)perylene	20U
(80B)	86-73-7	fluorene	10U
(81B)	85-01-8	phenanthrene	10U
(82B)	53-70-3	dibenzo(a,h)anthracene	20U
(83B)	193-39-5	indeno(1,2,3-cd)pyrene	20U
(84B)	129-00-0	pyrene	10U
	62-53-3	aniline	10U
	100-51-6	benzyl alcohol	20U
	106-47-8	4-chloroaniline	50U
	132-64-9	dibenzofuran	10U
	91-57-6	2-methylnaphthalene	20U
	88-74-4	2-nitroaniline	100U
	99-09-2	3-nitroaniline	100U
	100-01-6	4-nitroaniline	100U

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

C8166

ORIGINAL
(Red)

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: CompuChem
Lab Sample ID No: 24030
Sample Matrix: Liquid
Data Release Authorized By: [illegible]

Case Number 2534
QC Report No.
Contract No.: 68-01-6866
Date Sample Received: 3/29/84

VOLATILES

CONCENTRATION: (LOW) MEDIUM HIGH (circle)
DATE EXTRACTED/PREPARED: 3/29/84
DATE ANALYZED: 4/4/84
PERCENT MOISTURE:

Multiply Detection limits by 1 ☑ or ☐ _____
(Check Box for Appropriate Factor)

PP#	CAS#		(ug/l) or ug/kg (circle one)
(2V)	107-02-8	acrolein	100U
(3V)	107-13-1	acrylonitrile	100U
(4V)	71-43-2	benzene	5U
(6V)	56-23-5	carbon tetrachloride	5U
(7V)	108-90-7	chlorobenzene	5U
(10V)	107-06-2	1,2-dichloroethane	5U
(11V)	71-55-6	1,1,1-trichloroethane	5U
(13V)	75-34-3	1,1-dichloroethane	5U
(14V)	79-00-5	1,1,2-trichloroethane	5U
(15V)	79-34-5	1,1,2,2-tetrachloroethane	5U
(16V)	75-00-3	chloroethane	5U
(19V)	110-75-8	2-chloroethylvinyl ether	5U
(23V)	67-66-3	chloroform	5U
(29V)	75-35-4	1,1-dichloroethene	5U
(30V)	156-60-5	1,2-trans-dichloroethene	5U
(32V)	78-87-5	1,2-dichloropropane	5U
(33V)	10061-02-6	trans-1,3-dichloropropene	5U
	10061-01-05	cis,1,3-dichloropropene	10U
(38V)	100-41-4	ethylbenzene	5U
(44V)	75-09-2	methylene chloride	5U
(45V)	74-87-3	chloromethane	5U
(46V)	74-83-9	bromomethane	5U
(47V)	75-25-2	bromoform	5U
(48V)	75-27-4	bromodichloromethane	5U
(49V)	75-69-4	fluorotrichloromethane	5U
(51V)	124-48-1	chlorodibromomethane	5U
(85V)	127-18-4	tetrachloroethene	5U
(86V)	108-88-3	toluene	5U
(87V)	79-01-6	trichloroethene	5U
(88V)	75-01-4	vinyl chloride	5U
	67-64-1	acetone	100U
	78-93-3	2-butanone	200U
	75-15-0	carbondisulfide	10U
	519-78-6	2-hexanone	100U
	108-10-1	4-methyl-2-pentanone	100U
	100-42-5	styrene	5U
	108-05-4	vinyl acetate	10U
	95-47-6	o-xylene	5U

PESTICIDES

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 4/2/84
DATE ANALYZED: 4/6/84
PERCENT MOISTURE:

Multiply Detection limits by 1 ☑ or ☐ _____
(Check Box for Appropriate Factor)

PP#	CAS#		(ug/l) or ug/kg (circle on
(89P)	309-00-2	aldrin	0.1U
(90P)	60-57-1	dieldrin	0.1U
(91P)	57-74-9	chlordane	0.1U
(92P)	50-29-3	4,4'-DDT	0.1U
(93P)	72-55-9	4,4'-DDE	0.1U
(94P)	72-54-8	4,4'-DDD	0.1U
(95P)	115-29-7	endosulfan I	0.1U
(96P)	115-29-7	endosulfan II	0.1U
(97P)	1031-07-8	endosulfan sulfate	0.1U
(98P)	72-20-8	endrin	0.1U
(99P)	7421-43-4	endrin aldehyde	0.1U
(100P)	76-44-8	heptachlor	0.1U
(101P)	1024-57-3	heptachlor epoxide	0.1U
(102P)	319-84-6	BHC-Alpha	0.1U
(103P)	319-85-7	BHC-Beta	0.1U
(104P)	319-86-8	BHC-Delta	0.1U
(105P)	58-89-9	BHC-Gamma	0.1U
(106P)	53469-21-9	PCB-1242	0.1U
(107P)	11097-69-7	PCB-1254	0.1U
(108P)	11104-28-2	PCB-1221	0.1U
(109P)	11141-16-5	PCB-1232	0.1U
(110P)	12672-29-6	PCB-1248	0.1U
(111P)	11096-82-5	PCB-1260	0.1U
(112P)	12674-11-2	PCB-1016	0.1U
(113P)	8001-35-2	toxaphene	0.1U

DIOXINS

CONCENTRATION: (LOW) MEDIUM HIGH (circle)
DATE EXTRACTED/PREPARED: 4/2/84
DATE ANALYZED: 4-8-84
PERCENT MOISTURE:

			(ug/l or ug/ (circle
(129B)	1746-01-6	2,3,7,8-tetrachlorodibenzo p-dioxin	0.0

July, 1

ENVIRONMENTAL PROTECTION AGENCY-CLP Sample Management Office
P.O. Box 818, Alexandria, VA 22313 - 703/557-2490

Sample Number
C8167

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: Mead CompuChem
Lab Sample ID No.: 24031
Sample Matrix: Liquid
Date Release Authorized By: [illegible]

Case Number: 2534
QC Report No.:
Contract No.: 68-01-6866
Date Sample Received: 3/29/84

ORIGINAL
(Red)

SEMIVOLATILE COMPOUNDS

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 4/2/84
DATE ANALYZED: 4/2/84
PERCENT MOISTURE:

Multiply Detection limits by 1 ☐ or 10 ☐ or ☑ 263
(Check Box for Appropriate Factor)

PP#	CAS#		ug/l or ug/kg (circle one)
(21A)	88-06-2	2,4,6-trichlorophenol	10U
(22A)	59-50-7	p-chloro-m-cresol	20U
(24A)	95-57-8	2-chlorophenol	10U
(31A)	122-83-2	2,4-dichlorophenol	10U
(34A)	105-67-9	2,4-dimethylphenol	10U
(57A)	88-75-5	2-nitrophenol	20U
(58A)	100-02-7	4-nitrophenol	100U
(59A)	51-88-5	2,4-dinitrophenol	50U
(60A)	534-52-1	4,6-dinitro-2-methylphenol	20U
(64A)	87-36-5	pentachlorophenol	20U
(65A)	108-95-2	phenol	10U
	65-85-0	benzoic acid	100U
	95-48-7	2-methylphenol	10U
	108-39-4	4-methylphenol	10U
	95-95-4	2,4,5-trichlorophenol	100U
(1B)	83-32-9	acenaphthene	10U
(5B)	92-87-5	benzidine	40U
(8B)	120-82-1	1,2,4-trichlorobenzene	10U
(9B)	118-74-1	hexachlorobenzene	10U
(12B)	67-72-1	hexachloroethane	10U
(18B)	111-44-4	bis(2-chloroethyl)ether	10U
(20B)	91-58-7	2-chloronaphthalene	10U
(25B)	95-50-1	1,2-dichlorobenzene	10U
(26B)	541-73-1	1,3-dichlorobenzene	10U
(27B)	106-46-7	1,4-dichlorobenzene	10U
(28B)	91-94-1	3,3'-dichlorobenzidine	20U
(35B)	121-14-2	2,4-dinitrotoluene	20U
(36B)	606-20-2	2,6-dinitrotoluene	10U
(37B)	122-66-7	1,2-diphenylhydrazine	20U
(39B)	206-44-0	fluoranthene	10U
(40B)	7005-72-3	4-chlorophenyl phenylether	10U
(41B)	101-55-3	4-bromophenyl phenyl ether	10U
(42B)	39638-32-9	bis-(2-chloroisopropyl)ether	10U
(43B)	111-91-1	bis-(2-chloroethoxy)methane	20U

PP#	CAS#		ug/l or ug/kg (circle one)
(52B)	87-68-3	hexachlorobutadiene	10U
(53B)	77-47-4	hexachlorocyclopentadiene	10U
(54B)	78-59-1	isophorone	10U
(55B)	91-20-3	naphthalene	10U
(56B)	98-95-3	nitrobenzene	10U
(62B)	86-30-6	N-nitrosodiphenylamine	10U
(63B)	621-64-7	N-nitrosodi-n-propylamine	20U
(66B)	117-81-7	bis(2-ethylhexyl)phthalate	10U
(67B)	85-68-7	butyl benzyl phthalate	10U
(68B)	84-74-2	di-n-butyl phthalate	10U
(69B)	117-84-0	di-n-octyl phthalate	10U
(70B)	84-66-2	diethyl phthalate	10U
(71B)	131-11-3	dimethyl phthalate	10U
(72B)	56-55-3	benzo(a)anthracene	10U
(73B)	50-33-8	benzo(a)pyrene	20U
(74B)	205-99-2	benzo(b)fluoranthene	20U
(75B)	207-08-9	benzo(k)fluoranthene	20U
(76B)	218-01-9	chrysene	10U
(77B)	208-96-8	acenaphthylene	10U
(78B)	120-12-7	anthracene	10U
(79B)	191-24-2	benzo(ghi)perylene	20U
(80B)	86-73-7	fluorene	10U
(81B)	85-01-8	phenanthrene	10U
(82B)	53-70-3	dibenzo(a,h)anthracene	20U
(83B)	193-39-5	indeno(1,2,3-cd)pyrene	20U
(84B)	129-00-0	pyrene	10U
	62-53-3	aniline	10U
	100-51-6	benzyl alcohol	20U
	106-47-8	4-chloroaniline	50U
	132-64-9	dibenzofuran	10U
	91-57-6	2-methylnaphthalene	20U
	88-74-4	2-nitroaniline	100U
	99-09-2	3-nitroaniline	100U
	100-01-6	4-nitroaniline	100U

ENVIRONMENTAL PROTECTION AGENCY
Box 818, Alexandria, Virginia 22313 - 703/557-2490

C8167

ORIGINAL
(Red)

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: CompuChem
Lab Sample ID No: ~~3/29/84 DEE~~ 24031
Sample Matrix: Liquid
Data Release Authorized By:

Case Number 2534
QC Report No.
Contract No.: 68-01-6860
Date Sample Received: 3/29/84

VOLATILES

CONCENTRATION: (LOW) MEDIUM HIGH (circle)
DATE EXTRACTED/PREPARED: 3/29/84
DATE ANALYZED: 4/2/84
PERCENT MOISTURE:

Multiply Detection limits by 1 ☑ or ☐ _____
(Check Box for Appropriate Factor)

PP#	CAS#		ug/l or ug/kg (circle one)
(2V)	107-02-8	acrolein	100U
(3V)	107-13-1	acrylonitrile	100U
(4V)	71-43-2	benzene	5U
(6V)	56-23-5	carbon tetrachloride	5U
(7V)	108-90-7	chlorobenzene	5U
(10V)	107-06-2	1,2-dichloroethane	5U
(11V)	71-55-6	1,1,1-trichloroethane	5U
(13V)	75-34-3	1,1-dichloroethane	5U
(14V)	79-00-5	1,1,2-trichloroethane	5U
(15V)	79-34-5	1,1,2,2-tetrachloroethane	5U
(16V)	75-00-3	chloroethane	5U
(19V)	110-75-8	2-chloroethylvinyl ether	5U
(23V)	67-66-3	chloroform	5U
(29V)	75-35-4	1,1-dichloroethene	5U
(30V)	156-60-5	1,2-trans-dichloroethene	5U
(32V)	78-87-5	1,2-dichloropropane	5U
(33V)	10061-02-6	trans-1,3-dichloropropene	5U
	10061-01-05	cis,1,3-dichloropropene	10U
(38V)	100-41-4	ethylbenzene	5U
(44V)	75-09-2	methylene chloride	5U
(45V)	74-87-3	chloromethane	5U
(46V)	74-83-9	bromomethane	5U
(47V)	75-25-2	bromoform	5U
(48V)	75-27-4	bromodichloromethane	5U
(49V)	75-69-4	fluorotrichloromethane	5U
(51V)	124-48-1	chlorodibromomethane	5U
(85V)	127-18-4	tetrachloroethene	5U
(86V)	108-88-3	toluene	5U
(87V)	79-01-6	trichloroethene	5U
(88V)	75-01-4	vinyl chloride	5U
	67-64-1	acetone	100U
	78-93-3	2-butanone	200U
	75-15-0	carbondisulfide	10U
	519-78-6	2-hexanone	100U
	108-10-1	4-methyl-2-pentanone	100U
	100-42-5	styrene	5U
	108-05-4	vinyl acetate	10U
	95-47-6	o-xylene	5U

PESTICIDES

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 4/2/84
DATE ANALYZED: 4/6/84
PERCENT MOISTURE:

Multiply Detection limits by 1 ☑ or ☐ _____
(Check Box for Appropriate Factor)

PP#	CAS#		ug/l or ug/kg (circle one
(89P)	309-00-2	aldrin	0.1U
(90P)	60-57-1	dieldrin	0.1U
(91P)	57-74-9	chlordane	0.1U
(92P)	50-29-3	4,4'-DDT	0.1U
(93P)	72-55-9	4,4'-DDE	0.1U
(94P)	72-54-8	4,4'-DDD	0.1U
(95P)	115-29-7	endosulfan I	0.1U
(96P)	115-29-7	endosulfan II	0.1U
(97P)	1031-07-8	endosulfan sulfate	0.1U
(98P)	72-20-8	endrin	0.1U
(99P)	7421-43-4	endrin aldehyde	0.1U
(100P)	76-44-8	heptachlor	0.1U
(101P)	1024-57-3	heptachlor epoxide	0.1U
(102P)	319-84-6	BHC-Alpha	0.1U
(103P)	319-85-7	BHC-Beta	0.1U
(104P)	319-86-8	BHC-Delta	0.1U
(105P)	58-89-9	BHC-Gamma	0.1U
(106P)	53469-21-9	PCB-1242	0.1U
(107P)	11097-69-7	PCB-1254	0.1U
(108P)	11104-28-2	PCB-1221	0.1U
(109P)	11141-16-5	PCB-1232	0.1U
(110P)	12672-29-6	PCB-1248	0.1U
(111P)	11096-82-5	PCB-1260	0.1U
(112P)	12674-11-2	PCB-1016	0.1U
(113P)	8001-35-2	toxaphene	0.1U

DIOXINS

CONCENTRATION: (LOW) MEDIUM HIGH (circle)
DATE EXTRACTED/PREPARED: 4/24/84
DATE ANALYZED: 4-24-84
PERCENT MOISTURE:

			ug/l or ug/k (circle o
(129B)	1746-01-6	2,3,7,8-tetrachlorodibenzo-p-dioxin	0.004

ENVIRONMENTAL PROTECTION AGENCY - CLP Sample Management Office
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C8167

ORIGINAL (Red)

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: CompuChem
Lab Sample ID No: 24031
Sample Matrix: Liquid
Data Release Authorized By: [illegible]

Case Number 2534
QC Report No.
Contract No.: 68-01-6866
Date Sample Received: 3/29/84

VOLATILES

CONCENTRATION: LOW MEDIUM HIGH (circle)
DATE EXTRACTED/PREPARED:
DATE ANALYZED:
PERCENT MOISTURE:

Multiply Detection limits by 1 ☐ or ☐ _____
(Check Box for Appropriate Factor)

PP#	CAS#		ug/l or ug/kg (circle one)
(2V)	107-02-8	acrolein	100U
(3V)	107-13-1	acrylonitrile	100U
(4V)	71-43-2	benzene	5U
(6V)	56-23-5	carbon tetrachloride	5U
(7V)	108-90-7	chlorobenzene	5U
(10V)	107-06-2	1,2-dichloroethane	5U
(11V)	71-55-6	1,1,1-trichloroethane	5U
(13V)	75-34-3	1,1-dichloroethane	5U
(14V)	79-00-5	1,1,2-trichloroethane	5U
(15V)	79-34-5	1,1,2,2-tetrachloroethane	5U
(16V)	75-00-3	chloroethane	5U
(19V)	110-75-8	2-chloroethylvinyl ether	5U
(23V)	67-66-3	chloroform	5U
(29V)	75-35-4	1,1-dichloroethene	5U
(30V)	156-60-5	1,2-trans-dichloroethene	5U
(32V)	78-87-5	1,2-dichloropropane	5U
(33V)	10061-02-6	trans-1,3-dichloropropene	5U
	10061-01-05	cis,1,3-dichloropropene	10U
(38V)	100-41-4	ethylbenzene	5U
(44V)	75-09-2	methylene chloride	5U
(45V)	74-87-3	chloromethane	5U
(46V)	74-83-9	bromomethane	5U
(47V)	75-25-2	bromoform	5U
(48V)	75-27-4	bromodichloromethane	5U
(49V)	75-69-4	fluorotrichloromethane	5U
(51V)	124-48-1	chlorodibromomethane	5U
(85V)	127-18-4	tetrachloroethene	5U
(86V)	108-88-3	toluene	5U
(87V)	79-01-6	trichloroethene	5U
(88V)	75-01-4	vinyl chloride	5U
	67-64-1	acetone	100U
	78-93-3	2-butenone	200U
	75-15-0	carbondisulfide	10U
	519-78-6	2-hexanone	100U
	108-10-1	4-methyl-2-pentanone	100U
	100-42-5	styrene	5U
	108-05-4	vinyl acetate	10U
	95-47-6	o-xylene	5U

PESTICIDES

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

Multiply Detection limits by 1 ☐ or ☐ _____
(Check Box for Appropriate Factor)

PP#	CAS#		ug/l or ug/kg (circle one)
(89P)	309-00-2	aldrin	0.1U
(90P)	60-57-1	dieldrin	0.1U
(91P)	57-74-9	chlordane	0.1U
(92P)	50-29-3	4,4'-DDT	0.1U
(93P)	72-55-9	4,4'-DDE	0.1U
(94P)	72-54-8	4,4'-DDD	0.1U
(95P)	115-29-7	endosulfan I	0.1U
(96P)	115-29-7	endosulfan II	0.1U
(97P)	1031-07-8	endosulfan sulfate	0.1U
(98P)	72-20-8	endrin	0.1U
(99P)	7421-43-4	endrin aldehyde	0.1U
(100P)	76-44-8	heptachlor	0.1U
(101P)	1024-57-3	heptachlor epoxide	0.1U
(102P)	319-84-6	BHC-Alpha	0.1U
(103P)	319-85-7	BHC-Beta	0.1U
(104P)	319-86-8	BHC-Delta	0.1U
(105P)	58-89-9	BHC-Gamma	0.1U
(106P)	53469-21-9	PCB-1242	0.1U
(107P)	11097-69-7	PCB-1254	0.1U
(108P)	11104-28-2	PCB-1221	0.1U
(109P)	11141-16-5	PCB-1232	0.1U
(110P)	12672-29-6	PCB-1248	0.1U
(111P)	11096-82-5	PCB-1260	0.1U
(112P)	12674-11-2	PCB-1016	0.1U
(113P)	8001-35-2	toxaphene	0.1U

DIOXINS

CONCENTRATION: LOW MEDIUM HIGH (circle)
DATE EXTRACTED/PREPARED: 4/2/84
DATE ANALYZED: 4/10/84
PERCENT MOISTURE:

			ug/l or ug/k (circle o
(129B)	1746-01-6	2,3,7,8-tetrachlorodibenzo-p-dioxin	0.00

U.S. ENVIRONMENTAL PROTECTION AGENCY-CLP Sample Management Office
P.O. Box 818, Alexandria, VA 22313 - 703/557-2490

Sample Number
C8 168

ORGANICS ANALYSIS DATA SHEET

ORIGINAL (Red)

Laboratory Name: Mead CompuChem
Lab Sample ID No.: 24032R
Sample Matrix: Liquid
Data Release Authorized By: SB

Case Number: 2534
QC Report No.:
Contract No.: 68-01-6866
Date Sample Received: 3-29-84

SEMIVOLATILE COMPOUNDS

CONCENTRATION: LOW MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 4-24-84
DATE ANALYZED: 4-26-84
PERCENT MOISTURE:

Multiply Detection limits by 1 ☐ or 10 ☐ or ☒ 2
(Check Box for Appropriate Factor)

PP#	CAS#		ug/l or ug/kg (circle one)
(21A)	88-06-2	2,4,6-trichlorophenol	10U
(22A)	59-50-7	p-chloro-m-cresol	20U
(24A)	95-57-8	2-chlorophenol	10U
(31A)	122-83-2	2,4-dichlorophenol	10U
(34A)	105-67-9	2,4-dimethylphenol	10U
(57A)	88-75-5	2-nitrophenol	20U
(58A)	100-02-7	4-nitrophenol	100U
(59A)	51-88-5	2,4-dinitrophenol	50U
(60A)	534-52-1	4,6-dinitro-2-methylphenol	20U
(64A)	87-36-5	pentachlorophenol	20U
(65A)	108-95-2	phenol	10U
	65-85-0	benzoic acid	100U
	95-48-7	2-methylphenol	10U
	108-39-4	4-methylphenol	10U
	95-95-4	2,4,5-trichlorophenol	100U
(1B)	83-32-9	acenaphthene	10U
(5B)	92-87-5	benzidine	40U
(8B)	120-82-1	1,2,4-trichlorobenzene	10U
(9B)	118-74-1	hexachlorobenzene	10U
(12B)	67-72-1	hexachloroethane	10U
(18B)	111-44-4	bis(2-chloroethyl)ether	10U
(20B)	91-58-7	2-chloronaphthalene	10U
(25B)	95-50-1	1,2-dichlorobenzene	10U
(26B)	541-73-1	1,3-dichlorobenzene	10U
(27B)	106-46-7	1,4-dichlorobenzene	10U
(28B)	91-94-1	3,3'-dichlorobenzidine	20U
(35B)	121-14-2	2,4-dinitrotoluene	20U
(36B)	606-20-2	2,6-dinitrotoluene	10U
(37B)	122-66-7	1,2-diphenylhydrazine	20U
(39B)	206-44-0	fluoranthene	10U
(40B)	7005-72-3	4-chlorophenyl phenylether	10U
(41B)	101-55-3	4-bromophenyl phenyl ether	10U
(42B)	39638-32-9	bis-(2-chloroisopropyl)ether	10U
(43B)	111-91-1	bis-(2-chloroethoxy)methane	20U

PP#	CAS#		ug/l or ug/kg (circle one)
(52B)	87-68-3	hexachlorobutadiene	10U
(53B)	77-47-4	hexachlorocyclopentadiene	10U
(54B)	78-59-1	isophorone	10U
(55B)	91-20-3	naphthalene	10U
(56B)	98-95-3	nitrobenzene	10U
(62B)	86-30-6	N-nitrosodiphenylamine	10U
(63B)	621-64-7	N-nitrosodi-n-propylamine	20U
(66B)	117-81-7	bis(2-ethylhexyl)phthalate	10U
(67B)	85-68-7	butyl benzyl phthalate	10U
(68B)	84-74-2	di-n-butyl phthalate	10U
(69B)	117-84-0	di-n-octyl phthalate	10U
(70B)	84-66-2	diethyl phthalate	10U
(71B)	131-11-3	dimethyl phthalate	10U
(72B)	56-55-3	benzo(a)anthracene	10U
(73B)	50-33-8	benzo(a)pyrene	20U
(74B)	205-99-2	benzo(b)fluoranthene	20U
(75B)	207-08-9	benzo(k)fluoranthene	20U
(76B)	318-01-9	chrysene	10U
(77B)	208-96-8	acenaphthylene	10U
(78B)	120-12-7	anthracene	10U
(79B)	181-24-2	benzo(ghi)perylene	20U
(80B)	86-73-7	fluorene	10U
(81B)	85-01-8	phenanthrene	10U
(82B)	53-70-3	dibenzo(a,h)anthracene	20U
(83B)	193-39-5	indeno(1,2,3-cd)pyrene	20U
(84B)	129-00-0	pyrene	10U
	62-53-3	aniline	10U
	100-51-6	benzyl alcohol	20U
	106-47-8	4-chloroaniline	50U
	132-64-9	dibenzofuran	10U
	91-57-6	2-methylnaphthalene	20U
	88-74-4	2-nitroaniline	100U
	99-09-2	3-nitroaniline	100U
	100-01-6	4-nitroaniline	100U

U.S. ENVIRONMENTAL PROTECTION AGENCY
P.O. Box 818, Alexandria, VA 22313 - 703/557-2490

Sample Number
C8168

ORIGINAL
(Red)

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: Mead CompuChem
Lab Sample ID No.: 24032
Sample Matrix: Liquid
Date Release Authorized By: [illegible]

Case Number: 2534
QC Report No.:
Contract No.: 68-01-6866
Date Sample Received: 3-29-84

SEMIVOLATILE COMPOUNDS

CONCENTRATION: LOW MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 4-2-84
DATE ANALYZED: 4-21-84
PERCENT MOISTURE: /

Multiply Detection limits by 1 ☐ or 10 ☐ or ☑ 2.00
(Check Box for Appropriate Factor)

PP#	CAS#		ug/l or ug/kg (circle one)
(21A)	88-06-2	2,4,6-trichlorophenol	10U
(22A)	59-50-7	p-chloro-m-cresol	20U
(24A)	95-57-8	2-chlorophenol	10U
(31A)	122-83-2	2,4-dichlorophenol	10U
(34A)	105-67-9	2,4-dimethylphenol	10U
(57A)	88-75-5	2-nitrophenol	20U
(58A)	100-02-7	4-nitrophenol	100U
(59A)	51-88-5	2,4-dinitrophenol	50U
(60A)	534-52-1	4,6-dinitro-2-methylphenol	20U
(64A)	87-36-5	pentachlorophenol	20U
(65A)	108-95-2	phenol	10U
	65-85-0	benzoic acid	100U
	95-48-7	2-methylphenol	10U
	108-39-4	4-methylphenol	10U
	95-95-4	2,4,5-trichlorophenol	100U
(1B)	83-32-9	acenaphthene	10U
(5B)	92-87-5	benzidine	40U
(8B)	120-82-1	1,2,4-trichlorobenzene	10U
(9B)	118-74-1	hexachlorobenzene	10U
(12B)	67-72-1	hexachloroethane	10U
(18B)	111-44-4	bis(2-chloroethyl)ether	10U
(20B)	91-58-7	2-chloronaphthalene	10U
(25B)	95-50-1	1,2-dichlorobenzene	10U
(26B)	541-73-1	1,3-dichlorobenzene	10U
(27B)	106-46-7	1,4-dichlorobenzene	10U
(28B)	91-94-1	3,3'-dichlorobenzidine	20U
(35B)	121-14-2	2,4-dinitrotoluene	20U
(36B)	606-20-2	2,6-dinitrotoluene	10U
(37B)	122-66-7	1,2-diphenylhydrazine	20U
(39B)	206-44-0	fluoranthene	10U
(40B)	7005-72-3	4-chlorophenyl phenylether	10U
(41B)	101-55-3	4-bromophenyl phenyl ether	10U
(42B)	39638-32-9	bis-(2-chloroisopropyl)ether	10U
(43B)	111-91-1	bis-(2-chloroethoxy)methane	20U

PP#	CAS#		ug/l or ug/kg (circle one)
(52B)	87-68-3	hexachlorobutadiene	10U
(53B)	77-47-4	hexachlorocyclopentadiene	10U
(54B)	78-59-1	isophorone	10U
(55B)	91-20-3	naphthalene	10U
(56B)	98-95-3	nitrobenzene	10U
(62B)	86-30-6	N-nitrosodiphenylamine	10U
(63B)	621-64-7	N-nitrosodi-n-propylamine	20U
(66B)	117-81-7	bis(2-ethylhexyl)phthalate	10U
(67B)	85-68-7	butyl benzyl phthalate	10U
(68B)	84-74-2	di-n-butyl phthalate	10U
(69B)	117-84-0	di-n-octyl phthalate	10U
(70B)	84-66-2	diethyl phthalate	10U
(71B)	131-11-3	dimethyl phthalate	10U
(72B)	56-55-3	benzo(a)anthracene	10U
(73B)	50-33-8	benzo(a)pyrene	20U
(74B)	205-99-2	benzo(b)fluoranthene	20U
(75B)	207-08-9	benzo(k)fluoranthene	20U
(76B)	318-01-9	chrysene	10U
(77B)	208-96-8	acenaphthylene	10U
(78B)	120-12-7	anthracene	10U
(79B)	181-24-2	benzo(ghi)perylene	20U
(80B)	86-73-7	fluorene	10U
(81B)	85-01-8	phenanthrene	10U
(82B)	53-70-3	dibenzo(a,h)anthracene	20U
(83B)	193-39-5	indeno(1,2,3-cd)pyrene	20U
(84B)	129-00-0	pyrene	10U
	62-53-3	aniline	10U
	100-51-6	benzyl alcohol	20U
	106-47-8	4-chloroaniline	50U
	132-64-9	dibenzofuran	10U
	91-57-6	2-methylnaphthalene	20U
	88-74-4	2-nitroaniline	100U
	99-09-2	3-nitroaniline	100U
	100-01-6	4-nitroaniline	100U

U.S. ENVIRONMENTAL PROTECTION AGENCY - CLP Sample Management Office
P.O. Box 818, Alexandria, Virginia 22313 - 703/557-2490

SAMPLE NUMBER
C8168

ORIGINAL
(Red)

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: Compuchem
Lab Sample ID No: 21032
Sample Matrix: Liquid
Data Release Authorized By: [illegible]

Case Number 2534
QC Report No.
Contract No.: 68-01-6866
Date Sample Received: 3/29/84

VOLATILES

CONCENTRATION: LOW MEDIUM HIGH (circle)
DATE EXTRACTED/PREPARED: 3/29/84
DATE ANALYZED: 4/3/84
PERCENT MOISTURE:

Multiply Detection limits by 1 ☑ or ☐ _____
(Check Box for Appropriate Factor)

PP#	CAS#		ug/l or ug/kg (circle one)
(2V)	107-02-8	acrolein	100U
(3V)	107-13-1	acrylonitrile	100U
(4V)	71-43-2	benzene	5U
(6V)	56-23-5	carbon tetrachloride	5U
(7V)	108-90-7	chlorobenzene	5U
(10V)	107-06-2	1,2-dichloroethane	5U
(11V)	71-55-6	1,1,1-trichloroethane	19 5U DEC
(13V)	75-34-3	1,1-dichloroethane	15 5U DEC
(14V)	79-00-5	1,1,2-trichloroethane	5U
(15V)	79-34-5	1,1,2,2-tetrachloroethane	5 5U DEC
(16V)	75-00-3	chloroethane	5U
(19V)	110-75-8	2-chloroethylvinyl ether	5U
(23V)	67-66-3	chloroform	5U
(29V)	75-35-4	1,1-dichloroethene	6 5U DEC
(30V)	156-60-5	1,2-trans-dichloroethene	5U
(32V)	78-87-5	1,2-dichloropropane	5U
(33V)	10061-02-6	trans-1,3-dichloropropene	5U
	10061-01-05	cis,1,3-dichloropropene	10U
(38V)	100-41-4	ethylbenzene	5U
(44V)	75-09-2	methylene chloride	5U
(45V)	74-87-3	chloromethane	5U
(46V)	74-83-9	bromomethane	5U
(47V)	75-25-2	bromoform	5U
(48V)	75-27-4	bromodichloromethane	5U
(49V)	75-69-4	fluorotrichloromethane	5U
(51V)	124-48-1	chlorodibromomethane	5U
(85V)	127-18-4	tetrachloroethene	5U
(86V)	108-88-3	toluene	5U
(87V)	79-01-6	trichloroethene	5U
(88V)	75-01-4	vinyl chloride	5U
	67-64-1	acetone	100U
	78-93-3	2-butanone	200U
	75-15-0	carbondisulfide	LT 10U DEC
	519-78-6	2-hexanone	100U
	108-10-1	4-methyl-2-pentanone	100U
	100-42-5	styrene	5U
	108-05-4	vinyl acetate	10U
	95-47-6	o-xylene	5U

PESTICIDES

CONCENTRATION: LOW MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 4/2/84
DATE ANALYZED: 4/6/84
PERCENT MOISTURE:

Multiply Detection limits by 1 ☑ or ☐ _____
(Check Box for Appropriate Factor)

PP#	CAS#		ug/l or ug/kg (circle one)
(89P)	309-00-2	aldrin	0.1U
(90P)	60-57-1	dieldrin	0.1U
(91P)	57-74-9	chlordane	0.1U
(92P)	50-29-3	4,4'-DDT	0.1U
(93P)	72-55-9	4,4'-DDE	0.1U
(94P)	72-54-8	4,4'-DDD	0.1U
(95P)	115-29-7	endosulfan I	0.1U
(96P)	115-29-7	endosulfan II	0.1U
(97P)	1031-07-8	endosulfan sulfate	0.1U
(98P)	72-20-8	endrin	0.1U
(99P)	7421-43-4	endrin aldehyde	0.1U
(100P)	76-44-8	heptachlor	0.1U
(101P)	1024-57-3	heptachlor epoxide	0.1U
(102P)	319-84-6	BHC-Alpha	0.1U
(103P)	319-85-7	BHC-Beta	0.1U
(104P)	319-86-8	BHC-Delta	0.1U
(105P)	58-89-9	BHC-Gamma	0.1U
(106P)	53469-21-9	PCB-1242	0.1U
(107P)	11097-69-7	PCB-1254	0.1U
(108P)	11104-28-2	PCB-1221	0.1U
(109P)	11141-16-5	PCB-1232	0.1U
(110P)	12672-29-6	PCB-1248	0.1U
(111P)	11096-82-5	PCB-1260	0.1U
(112P)	12674-11-2	PCB-1016	0.1U
(113P)	8001-35-2	toxaphene	0.1U

DIOXINS

CONCENTRATION: LOW MEDIUM HIGH (circle)
DATE EXTRACTED/PREPARED: 4/2/84
DATE ANALYZED: 4/10/84
PERCENT MOISTURE:

			ug/l or ug/kg (circle on
(129B)	1746-01-6	2,3,7,8-tetrachlorodibenzo-p-dioxin	0.004U

ENVIRONMENTAL PROTECTION AGENCY-CLP Sample Management Office
P.O. Box 818, Alexandria, VA 22313 - 703/557-2490

Sample Number
C8169

ORIGINAL
(Red)

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: Mass CompuChem
Lab Sample ID No.: 23033
Sample Matrix: Liquid
Date Release Authorized By: [illegible]

Case Number: 2534
QC Report No.:
Contract No.: 68-01-6866
Date Sample Received: 3/29/84

SEMIVOLATILE COMPOUNDS

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 4/2/84
DATE ANALYZED: 4/21/84
PERCENT MOISTURE:

Multiply Detection limits by 1 ☐ or 10 ☐ or ☑ 2
(Check Box for Appropriate Factor)

PP#	CAS#		ug/l or ug/kg (circle one)
(21A)	88-06-2	2,4,6-trichlorophenol	10U
(22A)	59-50-7	p-chloro-m-cresol	20U
(24A)	95-57-8	2-chlorophenol	10U
(31A)	122-83-2	2,4-dichlorophenol	10U
(34A)	105-67-9	2,4-dimethylphenol	10U
(57A)	88-75-5	2-nitrophenol	20U
(58A)	100-02-7	4-nitrophenol	100U
(59A)	51-88-5	2,4-dinitrophenol	50U
(60A)	534-52-1	4,6-dinitro-2-methylphenol	20U
(64A)	87-36-5	pentachlorophenol	20U
(65A)	108-95-2	phenol	10U
	65-85-0	benzoic acid	100U
	95-48-7	2-methylphenol	10U
	108-39-4	4-methylphenol	10U
	95-95-4	2,4,5-trichlorophenol	100U
(1B)	83-32-9	acenaphthene	10U
(5B)	92-87-5	benzidine	40U
(8B)	120-82-1	1,2,4-trichlorobenzene	10U
(9B)	118-74-1	hexachlorobenzene	10U
(12B)	67-72-1	hexachloroethane	10U
(18B)	111-44-4	bis(2-chloroethyl)ether	10U
(20B)	91-58-7	2-chloronaphthalene	10U
(25B)	95-50-1	1,2-dichlorobenzene	10U
(26B)	541-73-1	1,3-dichlorobenzene	10U
(27B)	106-46-7	1,4-dichlorobenzene	10U
(28B)	91-94-1	3,3'-dichlorobenzidine	20U
(35B)	121-14-2	2,4-dinitrotoluene	20U
(36B)	606-20-2	2,6-dinitrotoluene	10U
(37B)	122-66-7	1,2-diphenylhydrazine	20U
(39B)	206-44-0	fluoranthene	10U
(40B)	7005-72-3	4-chlorophenyl phenylether	10U
(41B)	101-55-3	4-bromophenyl phenyl ether	10U
(42B)	39638-32-9	bis-(2-chloroisopropyl)ether	10U
(43B)	111-91-1	bis-(2-chloroethoxy)methane	20U

PP#	CAS#		ug/l or ug/kg (circle one)
(52B)	87-68-3	hexachlorobutadiene	10U
(53B)	77-47-4	hexachlorocyclopentadiene	10U
(54B)	78-59-1	isophorone	10U
(55B)	91-20-3	naphthalene	10U
(56B)	98-95-3	nitrobenzene	10U
(62B)	86-30-6	N-nitrosodiphenylamine	10U
(63B)	621-64-7	N-nitrosodi-n-propylamine	20U
(66B)	117-81-7	bis(2-ethylhexyl)phthalate	10U
(67B)	85-68-7	butyl benzyl phthalate	10U
(68B)	84-74-2	di-n-butyl phthalate	10U
(69B)	117-84-0	di-n-octyl phthalate	10U
(70B)	84-66-2	diethyl phthalate	10U
(71B)	131-11-3	dimethyl phthalate	10U
(72B)	56-55-3	benzo(a)anthracene	10U
(73B)	50-33-8	benzo(a)pyrene	20U
(74B)	205-99-2	benzo(b)fluoranthene	20U
(75B)	207-08-9	benzo(k)fluoranthene	20U
(76B)	218-01-9	chrysene	10U
(77B)	208-96-8	acenaphthylene	10U
(78B)	120-12-7	anthracene	10U
(79B)	191-24-2	benzo(ghi)perylene	20U
(80B)	86-73-7	fluorene	10U
(81B)	85-01-8	phenanthrene	10U
(82B)	53-70-3	dibenzo(a,h)anthracene	20U
(83B)	193-39-5	indeno(1,2,3-cd)pyrene	20U
(84B)	129-00-0	pyrene	10U
	62-53-3	aniline	10U
	100-51-6	benzyl alcohol	20U
	106-47-8	4-chloroaniline	50U
	132-64-9	dibenzofuran	10U
	91-57-6	2-methylnaphthalene	20U
	88-74-4	2-nitroaniline	100U
	99-09-2	3-nitroaniline	100U
	100-01-6	4-nitroaniline	100U

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

SAMPLE NUMBER
C 8169

ORGANICS ANALYSIS DATA SHEET

ORIGINAL (Red)

Laboratory Name: CompuChem
Lab Sample ID No: 224033
Sample Matrix: Liquid
Date Release Authorized By:

Case Number 2534
QC Report No.
Contract No.: 68-01-6846
Date Sample Received: 3/29/84

VOLATILES

CONCENTRATION: (LOW) MEDIUM HIGH (circle)
DATE EXTRACTED/PREPARED: 3/29/84
DATE ANALYZED: 4/3/84
PERCENT MOISTURE:

Multiply Detection limits by 1 ☑ or ☐ _____
(Check Box for Appropriate Factor)

PP#	CAS#		(ug/l) or ug/kg (circle one)
(2V)	107-02-8	acrolein	100U
(3V)	107-13-1	acrylonitrile	100U
(4V)	71-43-2	benzene	5U
(6V)	56-23-5	carbon tetrachloride	5U
(7V)	108-90-7	chlorobenzene	5U
(10V)	107-06-2	1,2-dichloroethane	5U
(11V)	71-55-6	1,1,1-trichloroethane	5U
(13V)	75-34-3	1,1-dichloroethane	5U
(14V)	79-00-5	1,1,2-trichloroethane	5U
(15V)	79-34-5	1,1,2,2-tetrachloroethane	5U
(16V)	75-00-3	chloroethane	5U
(19V)	110-75-8	2-chloroethylvinyl ether	5U
(23V)	67-66-3	chloroform	5U
(29V)	75-35-4	1,1-dichloroethene	5U
(30V)	156-60-5	1,2-trans-dichloroethene	5U
(32V)	78-87-5	1,2-dichloropropane	5U
(33V)	10061-02-6	trans-1,3-dichloropropene	5U
	10061-01-05	cis,1,3-dichloropropene	10U
(38V)	100-41-4	ethylbenzene	5U
(44V)	75-09-2	methylene chloride	5U
(45V)	74-87-3	chloromethane	5U
(46V)	74-83-9	bromomethane	5U
(47V)	75-25-2	bromoform	5U
(48V)	75-27-4	bromodichloromethane	5U
(49V)	75-69-4	fluorotrichloromethane	5U
(51V)	124-48-1	chlorodibromomethane	5U
(85V)	127-18-4	tetrachloroethene	5U
(86V)	108-88-3	toluene	5U
(87V)	79-01-6	trichloroethene	5U
(88V)	75-01-4	vinyl chloride	5U
	67-64-1	acetone	100U
	78-93-3	2-butanone	200U
	75-15-0	carbondisulfide	10U
	519-78-6	2-hexanone	100U
	108-10-1	4-methyl-2-pentanone	100U
	100-42-5	styrene	5U
	108-05-4	vinyl acetate	10U
	95-47-6	o-xylene	5U

PESTICIDES

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 4/2/84
DATE ANALYZED: 4/6/84
PERCENT MOISTURE:

Multiply Detection limits by 1 ☑ or ☐ _____
(Check Box for Appropriate Factor)

PP#	CAS#		(ug/l) or ug/kg (circle one)
(89P)	309-00-2	aldrin	0.1U
(90P)	60-57-1	dieldrin	0.1U
(91P)	57-74-9	chlordane	0.1U
(92P)	50-29-3	4,4'-DDT	0.1U
(93P)	72-55-9	4,4'-DDE	0.1U
(94P)	72-54-8	4,4'-DDD	0.1U
(95P)	115-29-7	endosulfan I	0.1U
(96P)	115-29-7	endosulfan II	0.1U
(97P)	1031-07-8	endosulfan sulfate	0.1U
(98P)	72-20-8	endrin	0.1U
(99P)	7421-43-4	endrin aldehyde	0.1U
(100P)	76-44-8	heptachlor	0.1U
(101P)	1024-57-3	heptachlor epoxide	0.1U
(102P)	319-84-6	BHC-Alpha	0.1U
(103P)	319-85-7	BHC-Beta	0.1U
(104P)	319-86-8	BHC-Delta	0.1U
(105P)	58-89-9	BHC-Gamma	0.1U
(106P)	53469-21-9	PCB-1242	0.1U
(107P)	11097-69-7	PCB-1254	0.1U
(108P)	11104-28-2	PCB-1221	0.1U
(109P)	11141-16-5	PCB-1232	0.1U
(110P)	12672-29-6	PCB-1248	0.1U
(111P)	11096-82-5	PCB-1260	0.1U
(112P)	12674-11-2	PCB-1016	0.1U
(113P)	8001-35-2	toxaphene	0.1U

DIOXINS

CONCENTRATION: (LOW) MEDIUM HIGH (circle)
DATE EXTRACTED/PREPARED: 4/2/84
DATE ANALYZED: 4/10/84
PERCENT MOISTURE:

			(ug/l) or ug/kg (circle one)
(129B)	1746-01-6	2,3,7,8-tetrachlorodibenzo-p-dioxin	0.004

ENVIRONMENTAL PROTECTION AGENCY ... Sample Management Office
P.O. Box 818, Alexandria, VA 22313 - 703/557-2490

Sample Number
C8170

ORIGINAL
(Red)

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: Mead CompuChem
Lab Sample ID No.: 23084
Sample Matrix: Liquid
Date Release Authorized By: [illegible]

Case Number: 2534
QC Report No.:
Contract No.: 68-01-6866
Date Sample Received: 3/29/84

SEMIVOLATILE COMPOUNDS

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 4/2/84
DATE ANALYZED: 4/21/84
PERCENT MOISTURE:

Multiply Detection limits by 1 ☐ or 10 ☐ or ☑ 2.4
(Check Box for Appropriate Factor)

PP#	CAS#		ug/l or ug/kg (circle one)
(21A)	88-06-2	2,4,6-trichlorophenol	10U
(22A)	59-50-7	p-chloro-m-cresol	20U
(24A)	95-57-8	2-chlorophenol	10U
(31A)	122-83-2	2,4-dichlorophenol	10U
(34A)	105-67-9	2,4-dimethylphenol	10U
(57A)	88-75-5	2-nitrophenol	20U
(58A)	100-02-7	4-nitrophenol	100U
(59A)	51-88-5	2,4-dinitrophenol	50U
(60A)	534-52-1	4,6-dinitro-2-methylphenol	20U
(64A)	87-36-5	pentachlorophenol	20U
(65A)	108-95-2	phenol	10U
	65-85-0	benzoic acid	100U
	95-48-7	2-methylphenol	10U
	108-39-4	4-methylphenol	10U
	95-95-4	2,4,5-trichlorophenol	100U
(1B)	83-32-9	acenaphthene	10U
(5B)	92-87-5	benzidine	40U
(8B)	120-82-1	1,2,4-trichlorobenzene	10U
(9B)	118-74-1	hexachlorobenzene	10U
(12B)	67-72-1	hexachloroethane	10U
(18B)	111-44-4	bis(2-chloroethyl)ether	10U
(20B)	91-58-7	2-chloronaphthalene	10U
(25B)	95-50-1	1,2-dichlorobenzene	10U
(26B)	541-73-1	1,3-dichlorobenzene	10U
(27B)	106-46-7	1,4-dichlorobenzene	10U
(28B)	91-94-1	3,3'-dichlorobenzidine	20U
(35B)	121-14-2	2,4-dinitrotoluene	20U
(36B)	606-20-2	2,6-dinitrotoluene	10U
(37B)	122-66-7	1,2-diphenylhydrazine	20U
(39B)	206-44-0	fluoranthene	10U
(40B)	7005-72-3	4-chlorophenyl phenylether	10U
(41B)	101-55-3	4-bromophenyl phenyl ether	10U
(42B)	39638-32-9	bis-(2-chloroisopropyl)ether	10U
(43B)	111-91-1	bis-(2-chloroethoxy)methane	20U

PP#	CAS#		ug/l or ug/kg (circle one)
(52B)	87-68-3	hexachlorobutadiene	10U
(53B)	77-47-4	hexachlorocyclopentadiene	10U
(54B)	78-59-1	isophorone	10U
(55B)	91-20-3	naphthalene	10U
(56B)	98-95-3	nitrobenzene	10U
(62B)	86-30-6	N-nitrosodiphenylamine	10U
(63B)	621-64-7	N-nitrosodi-n-propylamine	20U
(66B)	117-81-7	bis(2-ethylhexyl)phthalate	10U
(67B)	85-68-7	butyl benzyl phthalate	10U
(68B)	84-74-2	di-n-butyl phthalate	10U
(69B)	117-84-0	di-n-octyl phthalate	10U
(70B)	84-66-2	diethyl phthalate	10U
(71B)	131-11-3	dimethyl phthalate	10U
(72B)	56-55-3	benzo(a)anthracene	10U
(73B)	50-33-8	benzo(a)pyrene	20U
(74B)	205-99-2	benzo(b)fluoranthene	20U
(75B)	207-08-9	benzo(k)fluoranthene	20U
(76B)	218-01-9	chrysene	10U
(77B)	208-96-8	acenaphthylene	10U
(78B)	120-12-7	anthracene	10U
(79B)	191-24-2	benzo(ghi)perylene	20U
(80B)	86-73-7	fluorene	10U
(81B)	85-01-8	phenanthrene	10U
(82B)	53-70-3	dibenzo(a,h)anthracene	20U
(83B)	193-39-5	indeno(1,2,3-cd)pyrene	20U
(84B)	129-00-0	pyrene	10U
	62-53-3	aniline	10U
	100-51-6	benzyl alcohol	20U
	106-47-8	4-chloroaniline	50U
	132-64-9	dibenzofuran	10U
	91-57-6	2-methylnaphthalene	20U
	88-74-4	2-nitroaniline	100U
	99-09-2	3-nitroaniline	100U
	100-01-6	4-nitroaniline	100U

ENVIRONMENTAL PROTECTION AGENCY
P.O. Box 818, Alexandria, Virginia 22313 - 703/557-2490

C 8170

ORIGINAL
(Red)

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: CompuChem
Lab Sample ID No: 22034
Sample Matrix: Liquid
Date Release Authorized By: [illegible]

Case Number 2534
QC Report No.
Contract No.: 68-01-6806
Date Sample Received: 9/29/84

VOLATILES

CONCENTRATION: LOW MEDIUM HIGH (circle)
DATE EXTRACTED/PREPARED: 3/29/84
DATE ANALYZED: 4/3/84
PERCENT MOISTURE:

Multiply Detection limits by 1 ☑ or ☐ _____
(Check Box for Appropriate Factor)

PP#	CAS#		ug/l or ug/kg (circle one)
(2V)	107-02-8	acrolein	100U
(3V)	107-13-1	acrylonitrile	100U
(4V)	71-43-2	benzene	5U
(6V)	56-23-5	carbon tetrachloride	5U
(7V)	108-90-7	chlorobenzene	5U
(10V)	107-06-2	1,2-dichloroethane	5U
(11V)	71-55-6	1,1,1-trichloroethane	5U
(13V)	75-34-3	1,1-dichloroethane	5U
(14V)	79-00-5	1,1,2-trichloroethane	5U
(15V)	79-34-5	1,1,2,2-tetrachloroethane	5U
(16V)	75-00-3	chloroethane	5U
(19V)	110-75-8	2-chloroethylvinyl ether	5U
(23V)	67-66-3	chloroform	5U
(29V)	75-35-4	1,1-dichloroethene	5U
(30V)	156-60-5	1,2-trans-dichloroethene	5U
(32V)	78-87-5	1,2-dichloropropane	5U
(33V)	10061-02-6	trans-1,3-dichloropropene	5U
	10061-01-05	cis,1,3-dichloropropene	10U
(38V)	100-41-4	ethylbenzene	5U
(44V)	75-09-2	methylene chloride	5U
(45V)	74-87-3	chloromethane	5U
(46V)	74-83-9	bromomethane	5U
(47V)	75-25-2	bromoform	5U
(48V)	75-27-4	bromodichloromethane	5U
(49V)	75-69-4	fluorotrichloromethane	5U
(51V)	124-48-1	chlorodibromomethane	5U
(85V)	127-18-4	tetrachloroethene	5U
(86V)	108-88-3	toluene	10 ~~5U~~ DEC
(87V)	79-01-6	trichloroethene	5U
(88V)	75-01-4	vinyl chloride	5U
	67-64-1	acetone	100U
	78-93-3	2-butanone	200U
	75-15-0	carbondisulfide	10U
	519-78-6	2-hexanone	100U
	108-10-1	4-methyl-2-pentanone	100U
	100-42-5	styrene	5U
	108-05-4	vinyl acetate	10U
	95-47-6	o-xylene	LT ~~5U~~ DEC

PESTICIDES

CONCENTRATION: LOW MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 4/3/84
DATE ANALYZED: 4-6-84
PERCENT MOISTURE:

Multiply Detection limits by 1 ☑ or ☐ _____
(Check Box for Appropriate Factor)

PP#	CAS#		ug/l or ug/kg (circle one)
(89P)	309-00-2	aldrin	0.1U
(90P)	60-57-1	dieldrin	0.1U
(91P)	57-74-9	chlordane	0.1U
(92P)	50-29-3	4,4'-DDT	0.1U
(93P)	72-55-9	4,4'-DDE	0.1U
(94P)	72-54-8	4,4'-DDD	0.1U
(95P)	115-29-7	endosulfan I	0.1U
(96P)	115-29-7	endosulfan II	0.1U
(97P)	1031-07-8	endosulfan sulfate	0.1U
(98P)	72-20-8	endrin	0.1U
(99P)	7421-43-4	endrin aldehyde	0.1U
(100P)	76-44-8	heptachlor	0.1U
(101P)	1024-57-3	heptachlor epoxide	0.1U
(102P)	319-84-6	BHC-Alpha	0.1U
(103P)	319-85-7	BHC-Beta	0.1U
(104P)	319-86-8	BHC-Delta	0.1U
(105P)	58-89-9	BHC-Gamma	0.1U
(106P)	53469-21-9	PCB-1242	0.1U
(107P)	11097-69-7	PCB-1254	0.1U
(108P)	11104-28-2	PCB-1221	0.1U
(109P)	11141-16-5	PCB-1232	0.1U
(110P)	12672-29-6	PCB-1248	0.1U
(111P)	11096-82-5	PCB-1260	0.1U
(112P)	12674-11-2	PCB-1016	0.1U
(113P)	8001-35-2	toxaphene	0.1U

DIOXINS

CONCENTRATION: LOW MEDIUM HIGH (circle)
DATE EXTRACTED/PREPARED: 4/12/84
DATE ANALYZED: 4/16/84
PERCENT MOISTURE:

			ug/l or ug/k (circle o
(129B)	1746-01-6	2,3,7,8-tetrachlorodibenzo-p-dioxin	0.004

July, 15

ENVIRONMENTAL [illegible]
P.O. Box 818, Alexandria, VA 22313 - 703/557-2490

Sample Number
C8171

ORIGINAL
(Red)

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: [illegible] CompuChem
Lab Sample ID No.: [illegible]
Sample Matrix: Liquid
Date Release Authorized By: [illegible]

Case Number: 2534
QC Report No.:
Contract No.: 68-01-6866
Date Sample Received: 3/29/84

SEMIVOLATILE COMPOUNDS

CONCENTRATION: LOW MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 4/2/84
DATE ANALYZED: 4/21/84
PERCENT MOISTURE:

Multiply Detection limits by 1 ☐ or 10 ☐ or ☑ 2
(Check Box for Appropriate Factor)

PP#	CAS#		ug/l or ug/kg (circle one)
(21A)	88-06-2	2,4,6-trichlorophenol	10U
(22A)	59-50-7	p-chloro-m-cresol	20U
(24A)	95-57-8	2-chlorophenol	10U
(31A)	122-83-2	2,4-dichlorophenol	10U
(34A)	105-67-9	2,4-dimethylphenol	10U
(57A)	88-75-5	2-nitrophenol	20U
(58A)	100-02-7	4-nitrophenol	100U
(59A)	51-88-5	2,4-dinitrophenol	50U
(60A)	534-52-1	4,6-dinitro-2-methylphenol	20U
(64A)	87-36-5	pentachlorophenol	20U
(65A)	108-95-2	phenol	10U
	65-85-0	benzoic acid	100U
	95-48-7	2-methylphenol	10U
	108-39-4	4-methylphenol	10U
	95-95-4	2,4,5-trichlorophenol	100U
(1B)	83-32-9	acenaphthene	10U
(5B)	92-87-5	benzidine	40U
(8B)	120-82-1	1,2,4-trichlorobenzene	10U
(9B)	118-74-1	hexachlorobenzene	10U
(12B)	67-72-1	hexachloroethane	10U
(18B)	111-44-4	bis(2-chloroethyl)ether	10U
(20B)	91-58-7	2-chloronaphthalene	10U
(25B)	95-50-1	1,2-dichlorobenzene	10U
(26B)	541-73-1	1,3-dichlorobenzene	10U
(27B)	106-46-7	1,4-dichlorobenzene	10U
(28B)	91-94-1	3,3'-dichlorobenzidine	20U
(35B)	121-14-2	2,4-dinitrotoluene	20U
(36B)	606-20-2	2,6-dinitrotoluene	10U
(37B)	122-66-7	1,2-diphenylhydrazine	20U
(39B)	206-44-0	fluoranthene	10U
(40B)	7005-72-3	4-chlorophenyl phenylether	10U
(41B)	101-55-3	4-bromophenyl phenyl ether	10U
(42B)	39638-32-9	bis-(2-chloroisopropyl)ether	10U
(43B)	111-91-1	bis-(2-chloroethoxy)methane	20U

PP#	CAS#		ug/l or ug/kg (circle one)
(52B)	87-68-3	hexachlorobutadiene	10U
(53B)	77-47-4	hexachlorocyclopentadiene	10U
(54B)	78-59-1	isophorone	10U
(55B)	91-20-3	naphthalene	10U
(56B)	98-95-3	nitrobenzene	10U
(62B)	86-30-6	N-nitrosodiphenylamine	10U
(63B)	621-64-7	N-nitrosodi-n-propylamine	20U
(66B)	117-81-7	bis(2-ethylhexyl)phthalate	10U
(67B)	85-68-7	butyl benzyl phthalate	10U
(68B)	84-74-2	di-n-butyl phthalate	10U
(69B)	117-84-0	di-n-octyl phthalate	10U
(70B)	84-66-2	diethyl phthalate	10U
(71B)	131-11-3	dimethyl phthalate	10U
(72B)	56-55-3	benzo(a)anthracene	10U
(73B)	50-33-8	benzo(a)pyrene	20U
(74B)	205-99-2	benzo(b)fluoranthene	20U
(75B)	207-08-9	benzo(k)fluoranthene	20U
(76B)	218-01-9	chrysene	10U
(77B)	208-96-8	acenaphthylene	10U
(78B)	120-12-7	anthracene	10U
(79B)	191-24-2	benzo(ghi)perylene	20U
(80B)	86-73-7	fluorene	10U
(81B)	85-01-8	phenanthrene	10U
(82B)	53-70-3	dibenzo(a,h)anthracene	20U
(83B)	193-39-5	indeno(1,2,3-cd)pyrene	20U
(84B)	129-00-0	pyrene	10U
	62-53-3	aniline	10U
	100-51-6	benzyl alcohol	20U
	106-47-8	4-chloroaniline	50U
	132-64-9	dibenzofuran	10U
	91-57-6	2-methylnaphthalene	20U
	88-74-4	2-nitroaniline	100U
	99-09-2	3-nitroaniline	100U
	100-01-6	4-nitroaniline	100U

ENVIROLOGY
P.O. Box 818, Alexandria, Virginia 22313 - 703/557-2490

C8171

ORIGINAL
(Red)

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: CompuChem
Lab Sample ID No: 24035
Sample Matrix: Liquid
Date Release Authorized By: [illegible]

Case Number 2534
QC Report No.
Contract No.: 68-01-6866
Date Sample Received: 3/29/84

VOLATILES

CONCENTRATION: (LOW) MEDIUM HIGH (circle)
DATE EXTRACTED/PREPARED: 3/29/84
DATE ANALYZED: 4/3/84
PERCENT MOISTURE:

Multiply Detection limits by 1 ☑ or ☐ _____
(Check Box for Appropriate Factor)

PP#	CAS#		(ug/l) or ug/kg (circle one)
(2V)	107-02-8	acrolein	100U
(3V)	107-13-1	acrylonitrile	100U
(4V)	71-43-2	benzene	5U
(6V)	56-23-5	carbon tetrachloride	5U
(7V)	108-90-7	chlorobenzene	5U
(10V)	107-06-2	1,2-dichloroethane	5U
(11V)	71-55-6	1,1,1-trichloroethane	5U
(13V)	75-34-3	1,1-dichloroethene	5U
(14V)	79-00-5	1,1,2-trichloroethane	5U
(15V)	79-34-5	1,1,2,2-tetrachloroethane	5U
(16V)	75-00-3	chloroethane	5U
(19V)	110-75-8	2-chloroethylvinyl ether	5U
(23V)	67-66-3	chloroform	5U
(29V)	75-35-4	1,1-dichloroethene	5U
(30V)	156-60-5	1,2-trans-dichloroethene	5U
(32V)	78-87-5	1,2-dichloropropane	5U
(33V)	10061-02-6	trans-1,3-dichloropropene	5U
	10061-01-05	cis,1,3-dichloropropene	10U
(38V)	100-41-4	ethylbenzene	5U
(44V)	75-09-2	methylene chloride	5U
(45V)	74-87-3	chloromethane	5U
(46V)	74-83-9	bromomethane	5U
(47V)	75-25-2	bromoform	5U
(48V)	75-27-4	bromodichloromethane	5U
(49V)	75-69-4	fluorotrichloromethane	5U
(51V)	124-48-1	chlorodibromomethane	5U
(85V)	127-18-4	tetrachloroethene	5U
(86V)	108-88-3	toluene	9 ~~5U~~ 262
(87V)	79-01-6	trichloroethene	5U
(88V)	75-01-4	vinyl chloride	5U
	67-64-1	acetone	100U
	78-93-3	2-butanone	200U
	75-15-0	carbondisulfide	10U
	519-78-6	2-hexanone	100U
	108-10-1	4-methyl-2-pentanone	100U
	100-42-5	styrene	5U
	108-05-4	vinyl acetate	10U
	95-47-6	o-xylene	LT ~~5U~~ 262

PESTICIDES

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 4/2/84
DATE ANALYZED: 4/6/84
PERCENT MOISTURE:

Multiply Detection limits by 1 ☑ or ☐ _____
(Check Box for Appropriate Factor)

PP#	CAS#		(ug/l) or ug/k (circle o
(89P)	309-00-2	aldrin	0.1U
(90P)	60-57-1	dieldrin	0.1U
(91P)	57-74-9	chlordane	0.1U
(92P)	50-29-3	4,4'-DDT	0.1U
(93P)	72-55-9	4,4'-DDE	0.1U
(94P)	72-54-8	4,4'-DDD	0.1U
(95P)	115-29-7	endosulfan I	0.1U
(96P)	115-29-7	endosulfan II	0.1U
(97P)	1031-07-8	endosulfan sulfate	0.1U
(98P)	72-20-8	endrin	0.1U
(99P)	7421-43-4	endrin aldehyde	0.1U
(100P)	76-44-8	heptachlor	0.1U
(101P)	1024-57-3	heptachlor epoxide	0.1U
(102P)	319-84-6	BHC-Alpha	0.1U
(103P)	319-85-7	BHC-Beta	0.1U
(104P)	319-86-8	BHC-Delta	0.1U
(105P)	58-89-9	BHC-Gamma	0.1U
(106P)	53469-21-9	PCB-1242	0.1U
(107P)	11097-69-7	PCB-1254	0.1U
(108P)	11104-28-2	PCB-1221	0.1U
(109P)	11141-16-5	PCB-1232	0.1U
(110P)	12672-29-6	PCB-1248	0.1U
(111P)	11096-82-5	PCB-1260	0.1U
(112P)	12674-11-2	PCB-1016	0.1U
(113P)	8001-35-2	toxaphene	0.1U

DIOXINS

CONCENTRATION: (LOW) MEDIUM HIGH (circle)
DATE EXTRACTED/PREPARED: 4/2/84
DATE ANALYZED: 4/10/84
PERCENT MOISTURE:

			(ug/l or ug (circle
(129B)	1746-01-6	2,3,7,8-tetrachlorodibenz p-dioxin	0.0 0.0

July,

Box 818, Alexandria, Virginia

L8171

ORGANICS ANALYSIS DATA SHEET

ORIGINAL (Red)

Laboratory Name: CompuChem
Lab Sample ID No: 22035
Sample Matrix: Liquid
Date Release Authorized By: 88

Case Number 2584
QC Report No.
Contract No.: 68-01-6866
Date Sample Received: 3/29/84

~~VOLATILES~~

CONCENTRATION: LOW MEDIUM HIGH (circle)
DATE EXTRACTED/PREPARED:
DATE ANALYZED:
PERCENT MOISTURE:

Multiply Detection limits by 1 ☐ or ☐ _____
(Check Box for Appropriate Factor)

PP#	CAS#		ug/l or ug/kg (circle one)
(2V)	107-02-8	acrolein	100U
(3V)	107-13-1	acrylonitrile	100U
(4V)	71-43-2	benzene	5U
(6V)	56-23-5	carbon tetrachloride	5U
(7V)	108-90-7	chlorobenzene	5U
(10V)	107-06-2	1,2-dichloroethane	5U
(11V)	71-55-6	1,1,1-trichloroethane	5U
(13V)	75-34-3	1,1-dichloroethane	5U
(14V)	79-00-5	1,1,2-trichloroethane	5U
(15V)	79-34-5	1,1,2,2-tetrachloroethane	5U
(16V)	75-00-3	chloroethane	5U
(19V)	110-75-8	2-chloroethylvinyl ether	5U
(23V)	67-66-3	chloroform	5U
(29V)	75-35-4	1,1-dichloroethene	5U
(30V)	156-60-5	1,2-trans-dichloroethene	5U
(32V)	78-87-5	1,2-dichloropropane	5U
(33V)	10061-02-6	trans-1,3-dichloropropene	5U
	10061-01-05	cis,1,3-dichloropropene	10U
(38V)	100-41-4	ethylbenzene	5U
(44V)	75-09-2	methylene chloride	5U
(45V)	74-87-3	chloromethane	5U
(46V)	74-83-9	bromomethane	5U
(47V)	75-25-2	bromoform	5U
(48V)	75-27-4	bromodichloromethane	5U
(49V)	75-69-4	fluorotrichloromethane	5U
(51V)	124-48-1	chlorodibromomethane	5U
(85V)	127-18-4	tetrachloroethene	5U
(86V)	108-88-3	toluene	5U
(87V)	79-01-6	trichloroethene	5U
(88V)	75-01-4	vinyl chloride	10U
	67-64-1	acetone	200U
	78-93-3	2-butanone	10U
	75-15-0	carbondisulfide	100U
	519-78-6	2-hexanone	100U
	108-10-1	4-methyl-2-pentanone	5U
	100-42-5	styrene	10U
	108-05-4	vinyl acetate	5U
	95-47-6	o-xylene	5U

~~PESTICIDES~~

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

Multiply Detection limits by 1 ☐ or ☐ _____
(Check Box for Appropriate Factor)

PP#	CAS#		ug/l or ug/kg (circle one)
(89P)	309-00-2	aldrin	0.1U
(90P)	60-57-1	dieldrin	0.1U
(91P)	57-74-9	chlordane	0.1U
(92P)	50-29-3	4,4'-DDT	0.1U
(93P)	72-55-9	4,4'-DDE	0.1U
(94P)	72-54-8	4,4'-DDD	0.1U
(95P)	115-29-7	endosulfan I	0.1U
(96P)	115-29-7	endosulfan II	0.1U
(97P)	1031-07-8	endosulfan sulfate	0.1U
(98P)	72-20-8	endrin	0.1U
(99P)	7421-43-4	endrin aldehyde	0.1U
(100P)	76-44-8	heptachlor	0.1U
(101P)	1024-57-3	heptachlor epoxide	0.1U
(102P)	319-84-6	BHC-Alpha	0.1U
(103P)	319-85-7	BHC-Beta	0.1U
(104P)	319-86-8	BHC-Delta	0.1U
(105P)	58-89-9	BHC-Gamma	0.1U
(106P)	53469-21-9	PCB-1242	0.1U
(107P)	11097-69-7	PCB-1254	0.1U
(108P)	11104-28-2	PCB-1221	0.1U
(109P)	11141-16-5	PCB-1232	0.1U
(110P)	12672-29-6	PCB-1248	0.1U
(111P)	11096-82-5	PCB-1260	0.1U
(112P)	12674-11-2	PCB-1016	0.1U
(113P)	8001-35-2	toxaphene	0.1U

DIOXINS

CONCENTRATION: (LOW) MEDIUM HIGH (circle)
DATE EXTRACTED/PREPARED: 4/24/84
DATE ANALYZED: 4/24/84
PERCENT MOISTURE:

			ug/l or ug/k (circle c
(129B)	1746-01-6	2,3,7,8-tetrachlorodibenzo-p-dioxin	0.00

ENVIRONMENTAL PROTECTION AGENCY-CLP Sample Management Office
P.O. Box 818, Alexandria, VA 22313 - 703/557-2490

Sample Number
C8172

ORGANICS ANALYSIS DATA SHEET

ORIGINAL (Red)

Laboratory Name: Mead Comp/Chem
Lab Sample ID No.: 24036
Sample Matrix: Liquid
Date Release Authorized By: [illegible]

Case Number: 2534
QC Report No.:
Contract No.: 68-01-6866
Date Sample Received: 9/29/84

SEMIVOLATILE COMPOUNDS

CONCENTRATION: LOW MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 9/3/84
DATE ANALYZED: 9/11/84
PERCENT MOISTURE:

Multiply Detection limits by 1 ☐ or 10 ☐ or ☑ 2
(Check Box for Appropriate Factor)

PP#	CAS#		ug/l or ug/kg (circle one)
(21A)	88-06-2	2,4,6-trichlorophenol	10U
(22A)	59-50-7	p-chloro-m-cresol	20U
(24A)	95-57-8	2-chlorophenol	10U
(31A)	122-83-2	2,4-dichlorophenol	10U
(34A)	105-67-9	2,4-dimethylphenol	10U
(57A)	88-75-5	2-nitrophenol	20U
(58A)	100-02-7	4-nitrophenol	100U
(59A)	51-88-5	2,4-dinitrophenol	50U
(60A)	534-52-1	4,6-dinitro-2-methylphenol	20U
(64A)	87-36-5	pentachlorophenol	20U
(65A)	108-95-2	phenol	10U
	65-85-0	benzoic acid	100U
	95-48-7	2-methylphenol	10U
	108-39-4	4-methylphenol	10U
	95-95-4	2,4,5-trichlorophenol	100U
(1B)	83-32-9	acenaphthene	10U
(5B)	92-87-5	benzidine	40U
(8B)	120-82-1	1,2,4-trichlorobenzene	10U
(9B)	118-74-1	hexachlorobenzene	10U
(12B)	67-72-1	hexachloroethane	10U
(18B)	111-44-4	bis(2-chloroethyl)ether	10U
(20B)	91-58-7	2-chloronaphthalene	10U
(25B)	95-50-1	1,2-dichlorobenzene	10U
(26B)	541-73-1	1,3-dichlorobenzene	10U
(27B)	106-46-7	1,4-dichlorobenzene	10U
(28B)	91-94-1	3,3'-dichlorobenzidine	20U
(35B)	121-14-2	2,4-dinitrotoluene	20U
(36B)	606-20-2	2,6-dinitrotoluene	10U
(37B)	122-66-7	1,2-diphenylhydrazine	20U
(39B)	206-44-0	fluoranthene	10U
(40B)	7005-72-3	4-chlorophenyl phenylether	10U
(41B)	101-55-3	4-bromophenyl phenyl ether	10U
(42B)	39638-32-9	bis-(2-chloroisopropyl)ether	10U
(43B)	111-91-1	bis-(2-chloroethoxy)methane	20U

PP#	CAS#		ug/l or ug/kg (circle one)
(52B)	87-68-3	hexachlorobutadiene	10U
(53B)	77-47-4	hexachlorocyclopentadiene	10U
(54B)	78-59-1	isophorone	10U
(55B)	91-20-3	naphthalene	10U
(56B)	98-95-3	nitrobenzene	10U
(62B)	86-30-6	N-nitrosodiphenylamine	10U
(63B)	621-64-7	N-nitrosodi-n-propylamine	20U
(66B)	117-81-7	bis(2-ethylhexyl)phthalate	10U
(67B)	85-68-7	butyl benzyl phthalate	10U
(68B)	84-74-2	di-n-butyl phthalate	10U
(69B)	117-84-0	di-n-octyl phthalate	10U
(70B)	84-66-2	diethyl phthalate	10U
(71B)	131-11-3	dimethyl phthalate	10U
(72B)	56-55-3	benzo(a)anthracene	10U
(73B)	50-33-8	benzo(a)pyrene	20U
(74B)	205-99-2	benzo(b)fluoranthene	20U
(75B)	207-08-9	benzo(k)fluoranthene	20U
(76B)	218-01-9	chrysene	10U
(77B)	208-96-8	acenaphthylene	10U
(78B)	120-12-7	anthracene	10U
(79B)	191-24-2	benzo(ghi)perylene	20U
(80B)	86-73-7	fluorene	10U
(81B)	85-01-8	phenanthrene	10U
(82B)	53-70-3	dibenzo(a,h)anthracene	20U
(83B)	193-39-5	indeno(1,2,3-cd)pyrene	20U
(84B)	129-00-0	pyrene	10U
	62-53-3	aniline	10U
	100-51-6	benzyl alcohol	20U
	106-47-8	4-chloroaniline	50U
	132-64-9	dibenzofuran	10U
	91-57-6	2-methylnaphthalene	20U
	88-74-4	2-nitroaniline	100U
	99-09-2	3-nitroaniline	100U
	100-01-6	4-nitroaniline	100U

ENVIRONMENTAL PROTECTION AGENCY - CLP Sample Management Office
. Box 818, Alexandria, Virginia 22313 - 703/557-2490

SAMPLE NUMBER
C8172

ORIGINAL
(Red)

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: CompuChem
Lab Sample ID No: 24036
Sample Matrix: Liquid
Date Release Authorized By:

Case Number 2534
QC Report No.
Contract No.: 68-01-6866
Date Sample Received: 3/29/84

VOLATILES

CONCENTRATION: LOW MEDIUM HIGH (circle)
DATE EXTRACTED/PREPARED: 3/29/84
DATE ANALYZED: 4/3/84
PERCENT MOISTURE:

Multiply Detection limits by 1 ☑ or ☐ _____
(Check Box for Appropriate Factor)

PP#	CAS#		ug/l or ug/kg (circle one)
(2V)	107-02-8	acrolein	100U
(3V)	107-13-1	acrylonitrile	100U
(4V)	71-43-2	benzene	5U
(6V)	56-23-5	carbon tetrachloride	5U
(7V)	108-90-7	chlorobenzene	5U
(10V)	107-06-2	1,2-dichloroethane	5U
(11V)	71-55-6	1,1,1-trichloroethane	5U
(13V)	75-34-3	1,1-dichloroethane	5U
(14V)	79-00-5	1,1,2-trichloroethane	5U
(15V)	79-34-5	1,1,2,2-tetrachloroethane	5U
(16V)	75-00-3	chloroethane	5U
(19V)	110-75-8	2-chloroethylvinyl ether	5U
(23V)	67-66-3	chloroform	5U
(29V)	75-35-4	1,1-dichloroethene	5U
(30V)	156-60-5	1,2-trans-dichloroethene	5U
(32V)	78-87-5	1,2-dichloropropane	5U
(33V)	10061-02-6	trans-1,3-dichloropropene	5U
	10061-01-05	cis,1,3-dichloropropene	10U
(38V)	100-41-4	ethylbenzene	5U
(44V)	75-09-2	methylene chloride	5 ~~50~~ BBC
(45V)	74-87-3	chloromethane	5U
(46V)	74-83-9	bromomethane	5U
(47V)	75-25-2	bromoform	5U
(48V)	75-27-4	bromodichloromethane	5U
(49V)	75-69-4	fluorotrichloromethane	5U
(51V)	124-48-1	chlorodibromomethane	5U
(85V)	127-18-4	tetrachloroethene	5U
(86V)	108-88-3	toluene	5U
(87V)	79-01-6	trichloroethene	5U
(88V)	75-01-4	vinyl chloride	5U
	67-64-1	acetone	100U
	78-93-3	2-butanone	200U
	75-15-0	carbondisulfide	10U
	519-78-6	2-hexanone	100U
	108-10-1	4-methyl-2-pentanone	100U
	100-42-5	styrene	5U
	108-05-4	vinyl acetate	10U
	95-47-6	o-xylene	5U

PESTICIDES

CONCENTRATION: LOW MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 4/9/84
DATE ANALYZED: 4/16/84
PERCENT MOISTURE:

Multiply Detection limits by 1 ☑ or ☐ _____
(Check Box for Appropriate Factor)

PP#	CAS#		ug/l or ug/kg (circle one)
(89P)	309-00-2	aldrin	0.1U
(90P)	60-57-1	dieldrin	0.1U
(91P)	57-74-9	chlordane	0.1U
(92P)	50-29-3	4,4'-DDT	0.1U
(93P)	72-55-9	4,4'-DDE	0.1U
(94P)	72-54-8	4,4'-DDD	0.1U
(95P)	115-29-7	endosulfan I	0.1U
(96P)	115-29-7	endosulfan II	0.1U
(97P)	1031-07-8	endosulfan sulfate	0.1U
(98P)	72-20-8	endrin	0.1U
(99P)	7421-43-4	endrin aldehyde	0.1U
(100P)	76-44-8	heptachlor	0.1U
(101P)	1024-57-3	heptachlor epoxide	0.1U
(102P)	319-84-6	BHC-Alpha	0.1U
(103P)	319-85-7	BHC-Beta	0.1U
(104P)	319-86-8	BHC-Delta	0.1U
(105P)	58-89-9	BHC-Gamma	0.1U
(106P)	53469-21-9	PCB-1242	0.1U
(107P)	11097-69-7	PCB-1254	0.1U
(108P)	11104-28-2	PCB-1221	0.1U
(109P)	11141-16-5	PCB-1232	0.1U
(110P)	12672-29-6	PCB-1248	0.1U
(111P)	11096-82-5	PCB-1260	0.1U
(112P)	12674-11-2	PCB-1016	0.1U
(113P)	8001-35-2	toxaphene	0.1U

DIOXINS

CONCENTRATION: LOW MEDIUM HIGH (circle)
DATE EXTRACTED/PREPARED: 4/26/84
DATE ANALYZED: 4-27-84
PERCENT MOISTURE:

			ug/l or ug/kg (circle one
(129B)	1746-01-6	2,3,7,8-tetrachlorodibenzo-p-dioxin	0.004U

July, 1983

ENVIRONMENTAL PROTECTION AGENCY - CLP Sample Management Office
Box 818, Alexandria, Virginia 22313 - 703/557-2490

C8173

ORIGINAL
(Red)

ORGANICS ANALYSIS DATA SHEET

Case Number: 2534
QC Report No.:
Contract No.: 68-01-6866
Date Sample Received: 3-29-84

Laboratory Name: CompuChem
Lab Sample ID No: 24037
Sample Matrix: Solid
Data Release Authorized By:

VOLATILES

CONCENTRATION: (LOW) MEDIUM HIGH (circle)
DATE EXTRACTED/PREPARED: 4-3-84
DATE ANALYZED: 4-4-84
PERCENT MOISTURE: 1.79 factor = 79% 44%

Multiply Detection limits by 1 ☐ or ☑ 1.7
(Check Box for Appropriate Factor)

PP#	CAS#		ug/l or ug/kg (circle one)
(2V)	107-02-8	acrolein	50U
(3V)	107-13-1	acrylonitrile	50U
(4V)	71-43-2	benzene	2.5U
(6V)	56-23-5	carbon tetrachloride	2.5U
(7V)	108-90-7	chlorobenzene	2.5U
(10V)	107-06-2	1,2-dichloroethane	2.5U
(11V)	71-55-6	1,1,1-trichloroethane	2.5U
(13V)	75-34-3	1,1-dichloroethane	2.5U
(14V)	79-00-5	1,1,2-trichloroethane	2.5U
(15V)	79-34-5	1,1,2,2-tetrachloroethane	2.5U
(16V)	75-00-3	chloroethane	2.5U
(19V)	110-75-8	2-chloroethylvinyl ether	2.5U
(23V)	67-66-3	chloroform	2.5U
(29V)	75-35-4	1,1-dichloroethene	2.5U
(30V)	156-60-5	1,2-trans-dichloroethene	2.5U
(32V)	78-87-5	1,2-dichloropropane	2.5U
(33V)	10061-02-6	trans-1,3-dichloropropene	5U
	10061-01-05	cis,1,3-dichloropropene	2.5U
(38V)	100-41-4	ethylbenzene	19 ~~2.5U~~
(44V)	75-09-2	methylene chloride	2.5U
(45V)	74-87-3	chloromethane	2.5U
(46V)	74-83-9	bromomethane	2.5U
(47V)	75-25-2	bromoform	2.5U
(48V)	75-27-4	bromodichloromethane	2.5U
(49V)	75-69-4	fluorotrichloromethane	2.5U
(51V)	124-48-1	chlorodibromomethane	2.5U
(85V)	127-18-4	tetrachloroethene	2.5U
(86V)	108-88-3	toluene	2.5U
(87V)	79-01-6	trichloroethene	2.5U
(88V)	75-01-4	vinyl chloride	50U
	67-64-1	acetone	100U
	78-93-3	2-butanone	5U
	75-15-0	carbondisulfide	50U
	519-78-6	2-hexanone	50U
	108-10-1	4-methyl-2-pentanone	2.5U
	100-42-5	styrene	5U
	108-05-4	vinyl acetate	2.5U
	95-47-6	o-xylene	

PESTICIDES

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 4-2-84
DATE ANALYZED: 4-6-84
PERCENT MOISTURE: 1.79 factor = 4470

Multiply Detection limits by 1 ☐ or ☑ 1
(Check Box for Appropriate Factor)

PP#	CAS#		u or (circ
(89P)	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	endosulfan I	
(96P)	115-29-7	endosulfan II	
(97P)	1031-07-8	endosulfan sulfate	
(98P)	78-20-8	endrin	
(99P)	7421-43-4	endrin aldehyde	
(100P)	76-44-8	heptachlor	
(101P)	1024-57-3	heptachlor epoxide	
(102P)	319-84-6	BHC-Alpha	
(103P)	319-85-7	BHC-Beta	
(104P)	319-86-8	BHC-Delta	
(105P)	58-89-9	BHC-Gamma	
(106P)	53469-21-9	PCB-1242	
(107P)	11097-69-7	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 (c
DATE EXTRACTED/PREPARED: 4-2-84
DATE ANALYZED: 4-12-84
PERCENT MOISTURE: 1.79 factor = 4

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

C8173

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: Mead CompuChem
Lab Sample ID No.: 24037
Sample Matrix: Solid
Data Release Authorized By: [illegible]

Case Number: 2534
QC Report No.:
Contract No.: 68-01-6866
Date Sample Received: 3-29-84

SEMIVOLATILE COMPOUNDS

ORIGINAL (Red)

CONCENTRATION: LOW MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 4-2-84
DATE ANALYZED: 4-2-84
PERCENT MOISTURE: LTG factor - 44%

Multiply Detection limits by 1 ☐ or 10 ☐ or ☐ 94
(Check Box for Appropriate Factor)

PP#	CAS#		ug/l or ug/kg (circle one)
(21A)	88-06-2	2,4,6-trichlorophenol	10U
(22A)	59-50-7	p-chloro-m-cresol	20U
(24A)	95-57-8	2-chlorophenol	10U
(31A)	122-83-2	2,4-dichlorophenol	10U
(34A)	105-67-9	2,4-dimethylphenol	10U
(57A)	88-75-5	2-nitrophenol	20U
(58A)	100-02-7	4-nitrophenol	100U
(59A)	51-88-5	2,4-dinitrophenol	50U
(60A)	534-52-1	4,6-dinitro-2-methylphenol	20U
(64A)	87-36-5	pentachlorophenol	20U
(65A)	108-95-2	phenol	10U
	65-85-0	benzoic acid	100U
	95-48-7	2-methylphenol	10U
	108-39-4	4-methylphenol	10U
	95-95-4	2,4,5-trichlorophenol	100U
(1B)	83-32-9	acenaphthene	10U
(5B)	92-87-5	benzidine	40U
(8B)	120-82-1	1,2,4-trichlorobenzene	10U
(9B)	118-74-1	hexachlorobenzene	10U
(12B)	67-72-1	hexachloroethane	10U
(18B)	111-44-4	bis(2-chloroethyl)ether	10U
(20B)	91-58-7	2-chloronaphthalene	10U
(25B)	95-50-1	1,2-dichlorobenzene	10U
(26B)	541-73-1	1,3-dichlorobenzene	10U
(27B)	106-46-7	1,4-dichlorobenzene	10U
(28B)	91-94-1	3,3'-dichlorobenzidine	20U
(35B)	121-14-2	2,4-dinitrotoluene	20U
(36B)	606-20-2	2,6-dinitrotoluene	20U
(37B)	122-66-7	1,2-diphenylhydrazine	20U
(39B)	206-44-0	fluoranthene LT - 10U	
(40B)	7005-72-3	4-chlorophenyl phenylether	10U
(41B)	101-55-3	4-bromophenyl phenyl ether	10U
(42B)	39638-32-9	bis-(2-chloroisopropyl)ether	20U
(43B)	111-91-1	bis-(2-chloroethoxy)methane	20U

PP#	CAS#		ug/l or ug/kg (circle one)
(52B)	87-68-3	hexachlorobutadiene	
(53B)	77-47-4	hexachlorocyclopentadiene	
(54B)	78-59-1	isophorone	
(55B)	91-20-3	naphthalene	
(56B)	98-95-3	nitrobenzene	
(62B)	86-30-6	N-nitrosodiphenylamine	
(63B)	621-64-7	N-nitrosodi-n-propylamine	
(66B)	117-81-7	bis(2-ethylhexyl)phthalate	
(67B)	85-68-7	butyl benzyl 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)	50-33-8	benzo(a)pyrene	
(74B)	205-99-2	benzo(b)fluoranthene	
(75B)	207-08-9	benzo(k)fluoranthene	
(76B)	318-01-9	chrysene	
(77B)	208-96-8	acenaphthylene	
(78B)	120-12-7	anthracene	
(79B)	181-24-2	benzo(ghi)perylene	
(80B)	86-73-7	fluorene	
(81B)	85-01-8	phenanthrene	
(82B)	53-70-3	dibenzo(a,h)anthracene	
(83B)	183-39-5	indeno(1,2,3-cd)pyrene	
(84B)	129-00-0	pyrene LT -	
	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	1
	99-09-2	3-nitroaniline	1
	100-01-6	4-nitroaniline	1

Box 818,

C8174

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: Mead CompuChem
Lab Sample ID No.: 24044
Sample Matrix: Solid
Data Release Authorized By: SS

Case Number: 2534
QC Report No.:
Contract No.: 68 01-6866
Date Sample Received: 3-29-84

ORIGINAL
(Red)

SEMIVOLATILE COMPOUNDS

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 4-2-84
DATE ANALYZED: 4-23-84
PERCENT MOISTURE: 177 factor - 4490

Multiply Detection limits by 1 [ ] or 10 [ ] or [X] 72
(Check Box for Appropriate Factor)

PP#	CAS#		ug/l or ug/kg (circle one)
(21A)	88-06-2	2,4,6-trichlorophenol	10U
(22A)	59-50-7	p-chloro-m-cresol	20U
(24A)	95-57-8	2-chlorophenol	10U
(31A)	122-83-2	2,4-dichlorophenol	10U
(34A)	105-67-9	2,4-dimethylphenol	10U
(57A)	88-75-5	2-nitrophenol	20U
(58A)	100-02-7	4-nitrophenol	100U
(59A)	51-88-5	2,4-dinitrophenol	50U
(60A)	534-52-1	4,6-dinitro-2-methylphenol	20U
(64A)	87-36-5	pentachlorophenol	20U
(65A)	108-95-2	phenol	10U
	65-85-0	benzoic acid	100U
	95-48-7	2-methylphenol	10U
	108-39-4	4-methylphenol	10U
	95-95-4	2,4,5-trichlorophenol	100U
(1B)	83-32-9	acenaphthene	10U
(5B)	92-87-5	benzidine	40U
(8B)	120-82-1	1,2,4-trichlorobenzene	10U
(9B)	118-74-1	hexachlorobenzene	10U
(12B)	67-72-1	hexachloroethane	10U
(18B)	111-44-4	bis(2-chloroethyl)ether	10U
(20B)	91-58-7	2-chloronaphthalene	10U
(25B)	95-50-1	1,2-dichlorobenzene	10U
(26B)	541-73-1	1,3-dichlorobenzene	10U
(27B)	106-46-7	1,4-dichlorobenzene	10U
(28B)	91-94-1	3,3'-dichlorobenzidine	20U
(35B)	121-14-2	2,4-dinitrotoluene	20U
(36B)	606-20-2	2,6-dinitrotoluene	20U
(37B)	122-66-7	1,2-diphenylhydrazine	20U
(39B)	206-44-0	fluoranthene	10U
(40B)	7005-72-3	4-chlorophenyl phenylether	10U
(41B)	101-55-3	4-bromophenyl phenyl ether	10U
(42B)	39638-32-9	bis-(2-chloroisopropyl)ether	20U
(43B)	111-91-1	bis-(2-chloroethoxy)methane	20U

PP#	CAS#		ug/l or ug/kg (circle one)
(52B)	87-68-3	hexachlorobutadiene	10U
(53B)	77-47-4	hexachlorocyclopentadiene	10U
(54B)	78-59-1	isophorone	10U
(55B)	91-20-3	naphthalene	10U
(56B)	98-95-3	nitrobenzene	10U
(62B)	86-30-6	N-nitrosodiphenylamine	10U
(63B)	621-64-7	N-nitrosodi-n-propylamine	20U
(66B)	117-81-7	bis(2-ethylhexyl)phthalate	10U
(67B)	85-68-7	butyl benzyl phthalate	10U
(68B)	84-74-2	di-n-butyl phthalate	10U
(69B)	117-84-0	di-n-octyl phthalate	10U
(70B)	84-66-2	diethyl phthalate	10U
(71B)	131-11-3	dimethyl phthalate	10U
(72B)	56-55-3	benzo(a)anthracene	10U
(73B)	50-33-8	benzo(a)pyrene	20U
(74B)	205-99-2	benzo(b)fluoranthene	20U
(75B)	207-08-9	benzo(k)fluoranthene	20U
(76B)	318-01-9	chrysene	10U
(77B)	208-96-8	acenaphthylene	10U
(78B)	120-12-7	anthracene	10U
(79B)	181-24-2	benzo(ghi)perylene	20U
(80B)	86-73-7	fluorene	10U
(81B)	85-01-8	phenanthrene	10U
(82B)	53-70-3	dibenzo(a,h)anthracene	20U
(83B)	183-39-5	indeno(1,2,3-cd)pyrene	20U
(84B)	129-00-0	pyrene	10U
	62-53-3	aniline	10U
	100-51-6	benzyl alcohol	20U
	106-47-8	4-chloroaniline	50U
	132-64-9	dibenzofuran	10U
	91-57-6	2-methylnaphthalene	20U
	88-74-4	2-nitroaniline	100U
	99-09-2	3-nitroaniline	100U
	100-01-6	4-nitroaniline	100U

ENVIRONMENTAL ...
Box 818, Alexandria, Virginia 22313 - 703/557-2490

C8174

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: CompuChem
Lab Sample ID No: 24044
Sample Matrix: Solid
Data Release Authorized By: [illegible]

Case Number 2534
QC Report No.
Contract No.: 68-01-6866
Date Sample Received: 3-29-84

ORIGINAL (Rec)

VOLATILES

CONCENTRATION: (LOW) MEDIUM HIGH (circle)
DATE EXTRACTED/PREPARED: 4-3-84
DATE ANALYZED: 4-4-84
PERCENT MOISTURE: 1.77 factor = 4490

Multiply Detection limits by 1 ☐ or ☒ 1.77
(Check Box for Appropriate Factor)

PP#	CAS#		ug/l or ~~ug/kg~~ (circle one)
(2V)	107-02-8	acrolein	50U
(3V)	107-13-1	acrylonitrile	50U
(4V)	71-43-2	benzene	2.5U
(6V)	56-23-5	carbon tetrachloride	2.5U
(7V)	108-90-7	chlorobenzene	2.5U
(10V)	107-06-2	1,2-dichloroethane	2.5U
(11V)	71-55-6	1,1,1-trichloroethane	2.5U
(13V)	75-34-3	1,1-dichloroethane	2.5U
(14V)	79-00-5	1,1,2-trichloroethane	2.5U
(15V)	79-34-5	1,1,2,2-tetrachloroethane	2.5U
(16V)	75-00-3	chloroethane	2.5U
(19V)	110-75-8	2-chloroethylvinyl ether	2.5U
(23V)	67-66-3	chloroform	2.5U
(29V)	75-35-4	1,1-dichloroethene	2.5U
(30V)	156-60-5	1,2-trans-dichloroethene	2.5U
(32V)	78-87-5	1,2-dichloropropane	2.5U
(33V)	10061-02-6	trans-1,3-dichloropropene	2.5U
	10061-01-05	cis,1,3-dichloropropene	5U
(38V)	100-41-4	ethylbenzene	2.5U
(44V)	75-09-2	methylene chloride	78 ~~2.5U~~
(45V)	74-87-3	chloromethane	2.5U
(46V)	74-83-9	bromomethane	2.5U
(47V)	75-25-2	bromoform	2.5U
(48V)	75-27-4	bromodichloromethane	2.5U
(49V)	75-69-4	fluorotrichloromethane	2.5U
(51V)	124-48-1	chlorodibromomethane	2.5U
(85V)	127-18-4	tetrachloroethene	2.5U
(86V)	108-88-3	toluene	2.5U
(87V)	79-01-6	trichloroethene	2.5U
(88V)	75-01-4	vinyl chloride	2.5U
	67-64-1	acetone	50U
	78-93-3	2-butanone	100U
	75-15-0	carbondisulfide	5U
	519-78-6	2-hexanone	50U
	108-10-1	4-methyl-2-pentanone	50U
	100-42-5	styrene	2.5U
	108-05-4	vinyl acetate	5U
	95-47-6	o-xylene	2.5U

PESTICIDES

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 4-10-84
DATE ANALYZED: 4-20-84
PERCENT MOISTURE: 1.77 factor = 4490

Multiply Detection limits by 1 ☐ or ☒ 1.77
(Check Box for Appropriate Factor)

PP#	CAS#		ug/l or ~~ug/k~~ (circle o
(89P)	309-00-2	aldrin	4.0U
(90P)	60-57-1	dieldrin	4.0U
(91P)	57-74-9	chlordane	4.0U
(92P)	50-29-3	4,4'-DDT	4.0U
(93P)	72-55-9	4,4'-DDE	4.0U
(94P)	72-54-8	4,4'-DDD	4.0U
(95P)	115-29-7	endosulfan I	4.0U
(96P)	115-29-7	endosulfan II	4.0U
(97P)	1031-07-8	endosulfan sulfate	4.0U
(98P)	78-20-8	endrin	4.0U
(99P)	7421-43-4	endrin aldehyde	4.0U
(100P)	76-44-8	heptachlor	4.0U
(101P)	1024-57-3	heptachlor epoxide PN82	~~4.0U~~
(102P)	319-84-6	BHC-Alpha	4.0U
(103P)	319-85-7	BHC-Beta	4.0U
(104P)	319-86-8	BHC-Delta	4.0U
(105P)	58-89-9	BHC-Gamma	4.0U
(106P)	53469-21-9	PCB-1242	4.0U
(107P)	11097-69-7	PCB-1254	4.0U
(108P)	11104-28-2	PCB-1221	4.0U
(109P)	11141-16-5	PCB-1232	4.0U
(110P)	12672-29-6	PCB-1248	4.0U
(111P)	11096-82-5	PCB-1260	4.0U
(112P)	12674-11-2	PCB-1016	4.0U
(113P)	8001-35-2	toxaphene	4.0U

DIOXINS

CONCENTRATION: (LOW) MEDIUM HIGH (circle)
DATE EXTRACTED/PREPARED: 4-2-84
DATE ANALYZED: 4-11-84
PERCENT MOISTURE: 1.77 factor = 4490

			ug/g or ~~ug/~~ (circle
(129B)	1746-01-6	2,3,7,8-tetrachlorodibenzo p-dioxin	0.1

L PROTECTION AGENCY - CLP Sample Management Office
Alexandria, Virginia 22313 - 703/557-2490

SAMPLE NUMBER
C8175

ORIGINAL
(Red)

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: ~~Compuchem~~
Lab Sample ID No: 24045
Sample Matrix: Solid
Data Release Authorized By: 88

Case Number 2534
QC Report No.
Contract No.: 68-01-6866
Date Sample Received: 3-29-84

VOLATILES

CONCENTRATION: (LOW) MEDIUM HIGH (circle)
DATE EXTRACTED/PREPARED: 4-3-84
DATE ANALYZED: 4-4-84
PERCENT MOISTURE: 1.81 factor = 4490

Multiply Detection limits by 1 ☐ or ☒ 1.66
(Check Box for Appropriate Factor)

PP#	CAS#		ug/l or ~~ug/kg~~ (circle one)
(2V)	107-02-8	acrolein	50U
(3V)	107-13-1	acrylonitrile	50U
(4V)	71-43-2	benzene	2.5U
(6V)	56-23-5	carbon tetrachloride	2.5U
(7V)	108-90-7	chlorobenzene	2.5U
(10V)	107-06-2	1,2-dichloroethane	2.5U
(11V)	71-55-6	1,1,1-trichloroethane	2.5U
(13V)	75-34-3	1,1-dichloroethane	LT ~~2.5U~~
(14V)	79-00-5	1,1,2-trichloroethane	2.5U
(15V)	79-34-5	1,1,2,2-tetrachloroethane	2.5U
(16V)	75-00-3	chloroethane	LT ~~2.5U~~
(19V)	110-75-8	2-chloroethylvinyl ether	2.5U
(23V)	67-66-3	chloroform	2.5U
(29V)	75-35-4	1,1-dichloroethene	2.5U
(30V)	156-60-5	1,2-trans-dichloroethene	2.5U
(32V)	78-87-5	1,2-dichloropropane	2.5U
(33V)	10061-02-6	trans-1,3-dichloropropene	2.5U
	10061-01-05	cis,1,3-dichloropropene	5U
(38V)	100-41-4	ethylbenzene	2.5U
(44V)	75-09-2	methylene chloride	78 ~~2.5U~~
(45V)	74-87-3	chloromethane	2.5U
(46V)	74-83-9	bromomethane	2.5U
(47V)	75-25-2	bromoform	2.5U
(48V)	75-27-4	bromodichloromethane	2.5U
(49V)	75-69-4	fluorotrichloromethane	2.5U
(51V)	124-48-1	chlorodibromomethane	2.5U
(85V)	127-18-4	tetrachloroethene	2.5U
(86V)	108-88-3	toluene	2.5U
(87V)	79-01-6	trichloroethene	2.5U
(88V)	75-01-4	vinyl chloride	2.5U
	67-64-1	acetone	50U
	78-93-3	2-butanone	100U
	75-15-0	carbondisulfide	5U
	519-78-6	2-hexanone	50U
	108-10-1	4-methyl-2-pentanone	50U
	100-42-5	styrene	2.5U
	108-05-4	vinyl acetate	5U
	95-47-6	o-xylene	2.5U

PESTICIDES

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 4-11-84
DATE ANALYZED: 4-25-84
PERCENT MOISTURE: 1.81 factor = 4490

Multiply Detection limits by 1 ☐ or ☒ 1.81
(Check Box for Appropriate Factor)

PP#	CAS#		ug/l or ~~ug/kg~~ (circle one)
(89P)	309-00-2	aldrin	4.0U
(90P)	60-57-1	dieldrin	4.0U
(91P)	57-74-9	chlordane	4.0U
(92P)	50-29-3	4,4'-DDT	4.0U
(93P)	72-55-9	4,4'-DDE	4.0U
(94P)	72-54-8	4,4'-DDD	4.0U
(95P)	115-29-7	endosulfan I	4.0U
(96P)	115-29-7	endosulfan II	4.0U
(97P)	1031-07-8	endosulfan sulfate	4.0U
(98P)	78-20-8	endrin	4.0U
(99P)	7421-43-4	endrin aldehyde	4.0U
(100P)	76-44-8	heptachlor	4.0U
(101P)	1024-57-3	heptachlor epoxide	4.0U
(102P)	319-84-6	BHC-Alpha	4.0U
(103P)	319-85-7	BHC-Beta	4.0U
(104P)	319-86-8	BHC-Delta	4.0U
(105P)	58-89-9	BHC-Gamma	4.0U
(106P)	53469-21-9	PCB-1242	4.0U
(107P)	11097-69-7	PCB-1254	4.0U
(108P)	11104-28-2	PCB-1221	4.0U
(109P)	11141-16-5	PCB-1232	4.0U
(110P)	12672-29-6	PCB-1248	4.0U
(111P)	11096-82-5	PCB-1260	4.0U
(112P)	12674-11-2	PCB-1016	4.0U
(113P)	8001-35-2	toxaphene	4.0U

DIOXINS

CONCENTRATION: (LOW) MEDIUM HIGH (circle)
DATE EXTRACTED/PREPARED: 4-28-84
DATE ANALYZED: 4-11-84
PERCENT MOISTURE: 1.81 factor = 4490

			ug/g or ~~ug/k~~ (circle o
(129B)	1746-01-6	2,3,7,8-tetrachlorodibenzo-p-dioxin	0.16

PROTECTION AGENCY-CLP Sample Management Office
Alexandria, VA 22313 - 703/557-2490

Sample Number
C8175

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: Mead CompuChem
Lab Sample ID No.: 24045
Sample Matrix: Solid
Data Release Authorized By: [illegible]

Case Number: 2534
QC Report No.:
Contract No.: 68-01-6866
Date Sample Received: 3-29-84

SEMIVOLATILE COMPOUNDS

ORIGINAL (Red)

CONCENTRATION: LOW MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 4-2-84
DATE ANALYZED: 4-23-84
PERCENT MOISTURE: 1/81 factor = 4490

Multiply Detection limits by 1 ☐ or 10 ☐ or ☑ 72
(Check Box for Appropriate Factor)

PP#	CAS#		ug/l or ug/kg (circle one)
(21A)	88-06-2	2,4,6-trichlorophenol	10U
(22A)	59-50-7	p-chloro-m-cresol	20U
(24A)	95-57-8	2-chlorophenol	10U
(31A)	122-83-2	2,4-dichlorophenol	10U
(34A)	105-67-9	2,4-dimethylphenol	10U
(57A)	88-75-5	2-nitrophenol	20U
(58A)	100-02-7	4-nitrophenol	100U
(59A)	51-88-5	2,4-dinitrophenol	50U
(60A)	534-52-1	4,6-dinitro-2-methylphenol	20U
(64A)	87-36-5	pentachlorophenol	20U
(65A)	108-95-2	phenol	10U
	65-85-0	benzoic acid	100U
	95-48-7	2-methylphenol	10U
	108-39-4	4-methylphenol	10U
	95-95-4	2,4,5-trichlorophenol	100U
(1B)	83-32-9	acenaphthene	10U
(5B)	92-87-5	benzidine	40U
(8B)	120-82-1	1,2,4-trichlorobenzene	10U
(9B)	118-74-1	hexachlorobenzene	10U
(12B)	67-72-1	hexachloroethane	10U
(18B)	111-44-4	bis(2-chloroethyl)ether	10U
(20B)	91-58-7	2-chloronaphthalene	10U
(25B)	95-50-1	1,2-dichlorobenzene	10U
(26B)	541-73-1	1,3-dichlorobenzene	10U
(27B)	106-46-7	1,4-dichlorobenzene	10U
(28B)	91-94-1	3,3'-dichlorobenzidine	20U
(35B)	121-14-2	2,4-dinitrotoluene	20U
(36B)	606-20-2	2,6-dinitrotoluene	20U
(37B)	122-66-7	1,2-diphenylhydrazine	20U
(39B)	206-44-0	fluoranthene	10U
(40B)	7005-72-3	4-chlorophenyl phenylether	10U
(41B)	101-55-3	4-bromophenyl phenyl ether	10U
(42B)	39638-32-9	bis-(2-chloroisopropyl)ether	20U
(43B)	111-91-1	bis-(2-chloroethoxy)methane	20U

PP#	CAS#		ug/l or ug/kg (circle one)
(52B)	87-68-3	hexachlorobutadiene	10U
(53B)	77-47-4	hexachlorocyclopentadiene	10U
(54B)	78-59-1	isophorone	10U
(55B)	91-20-3	naphthalene	10U
(56B)	98-95-3	nitrobenzene	10U
(62B)	86-30-6	N-nitrosodiphenylamine	10U
(63B)	621-64-7	N-nitrosodi-n-propylamine	20U
(66B)	117-81-7	bis(2-ethylhexyl)phthalate	10U
(67B)	85-68-7	butyl benzyl phthalate	10U
(68B)	84-74-2	di-n-butyl phthalate	10U
(69B)	117-84-0	di-n-octyl phthalate	10U
(70B)	84-66-2	diethyl phthalate	10U
(71B)	131-11-3	dimethyl phthalate	10U
(72B)	56-55-3	benzo(a)anthracene	10U
(73B)	50-33-8	benzo(a)pyrene	20U
(74B)	205-99-2	benzo(b)fluoranthene	20U
(75B)	207-08-9	benzo(k)fluoranthene	20U
(76B)	318-01-9	chrysene	10U
(77B)	208-96-8	acenaphthylene	10U
(78B)	120-12-7	anthracene	10U
(79B)	181-24-2	benzo(ghi)perylene	20U
(80B)	86-73-7	fluorene	10U
(81B)	85-01-8	phenanthrene	10U
(82B)	53-70-3	dibenzo(a,h)anthracene	20U
(83B)	183-39-5	indeno(1,2,3-cd)pyrene	20U
(84B)	129-00-0	pyrene	10U
	62-53-3	aniline	10U
	100-51-6	benzyl alcohol	20U
	106-47-8	4-chloroaniline	50U
	132-64-9	dibenzofuran	10U
	91-57-6	2-methylnaphthalene	20U
	88-74-4	2-nitroaniline	100U
	99-09-2	3-nitroaniline	100U
	100-01-6	4-nitroaniline	100U

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

SAMPLE NUMBER
C8176

ORIGINAL
(Red)

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: CompuChem
Lab Sample ID No: 24046
Sample Matrix: Solid
Data Release Authorized By: SS

Case Number 2534
QC Report No.
Contract No.: 68-01-6866
Date Sample Received: 3-29-84

VOLATILES

CONCENTRATION: (LOW) MEDIUM HIGH (circle)
DATE EXTRACTED/PREPARED: 4-3-84
DATE ANALYZED: 4-4-84
PERCENT MOISTURE: 1.91 factor = 4890

Multiply Detection limits by 1 ☐ or ☑ 1.91
(Check Box for Appropriate Factor)

PP#	CAS#		ug/l or ug/kg (circle one)
(2V)	107-02-8	acrolein	50U
(3V)	107-13-1	acrylonitrile	50U
(4V)	71-43-2	benzene	2.5U
(6V)	56-23-5	carbon tetrachloride	2.5U
(7V)	108-90-7	chlorobenzene	2.5U
(10V)	107-06-2	1,2-dichloroethane	2.5U
(11V)	71-55-6	1,1,1-trichloroethane	2.5U
(13V)	75-34-3	1,1-dichloroethane	2.5U
(14V)	79-00-5	1,1,2-trichloroethane	2.5U
(15V)	79-34-5	1,1,2,2-tetrachloroethane	2.5U
(16V)	75-00-3	chloroethane	2.5U
(19V)	110-75-8	2-chloroethylvinyl ether	2.5U
(23V)	67-66-3	chloroform	2.5U
(29V)	75-35-4	1,1-dichloroethene	2.5U
(30V)	156-60-5	1,2-trans-dichloroethene	2.5U
(32V)	78-87-5	1,2-dichloropropane	2.5U
(33V)	10061-02-6	trans-1,3-dichloropropene	2.5U
	10061-01-05	cis,1,3-dichloropropene	5U
(38V)	100-41-4	ethylbenzene	2.5U
(44V)	75-09-2	methylene chloride	61 ~~2.5U~~
(45V)	74-87-3	chloromethane	2.5U
(46V)	74-83-9	bromomethane	2.5U
(47V)	75-25-2	bromoform	2.5U
(48V)	75-27-4	bromodichloromethane	2.5U
(49V)	75-69-4	fluorotrichloromethane	2.5U
(51V)	124-48-1	chlorodibromomethane	2.5U
(85V)	127-18-4	tetrachloroethene	2.5U
(86V)	108-88-3	toluene	2.5U
(87V)	79-01-6	trichloroethene	2.5U
(88V)	75-01-4	vinyl chloride	50U
	67-64-1	acetone	100U
	78-93-3	2-butanone	5U
	75-15-0	carbondisulfide	50U
	519-78-6	2-hexanone	50U
	108-10-1	4-methyl-2-pentanone	2.5U
	100-42-5	styrene	5U
	108-05-4	vinyl acetate	2.5U
	95-47-6	o-xylene	2.5U

PESTICIDES

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 4-12-84
DATE ANALYZED: 4-13-84
PERCENT MOISTURE: 1.91 factor = 4890

Multiply Detection limits by 1 ☐ or ☑ 1.91
(Check Box for Appropriate Factor)

PP#	CAS#		ug/l or ug/ (circle
(89P)	309-00-2	aldrin	4.0
(90P)	60-57-1	dieldrin	4.0
(91P)	57-74-9	chlordane	4.0
(92P)	50-29-3	4,4'-DDT	4.0
(93P)	72-55-9	4,4'-DDE	4.0
(94P)	72-54-8	4,4'-DDD	4.0
(95P)	115-29-7	endosulfan I	4.0
(96P)	115-29-7	endosulfan II	4.
(97P)	1031-07-8	endosulfan sulfate	4.
(98P)	78-20-8	endrin	4.
(99P)	7421-43-4	endrin aldehyde	4.
(100P)	76-44-8	heptachlor	4.
(101P)	1024-57-3	heptachlor epoxide	4.
(102P)	319-84-6	BHC-Alpha	4.
(103P)	319-85-7	BHC-Beta	4.
(104P)	319-86-8	BHC-Delta	4.
(105P)	58-89-9	BHC-Gamma	4.
(106P)	53469-21-9	PCB-1242	4.
(107P)	11097-69-7	PCB-1254	4.
(108P)	11104-28-2	PCB-1221	4.
(109P)	11141-16-5	PCB-1232	4.
(110P)	12672-29-6	PCB-1248	4.
(111P)	11096-82-5	PCB-1260	4.
(112P)	12674-11-2	PCB-1016	4.
(113P)	8001-35-2	toxaphene	4

DIOXINS

CONCENTRATION: (LOW) MEDIUM HIGH (circle)
DATE EXTRACTED/PREPARED: 4-2-84
DATE ANALYZED: 4-11-84
PERCENT MOISTURE: 1.91 factor = 4890

			u or (circ
(129B)	1746-01-6	2,3,7,8-tetrachlorodibe p-dioxin	

July

C8176

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: Mead CompuChem
Lab Sample ID No.: 24046R
Sample Matrix: Solid
Data Release Authorized By: 88

Case Number: 2534
QC Report No.:
Contract No.: 68-01-6866
Date Sample Received: 3-29-84

SEMIVOLATILE COMPOUNDS

ORIGINAL (Red)

CONCENTRATION: LOW MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 4-24-84
DATE ANALYZED: 4-26-84
PERCENT MOISTURE: 1.91 factor = 4890

Multiply Detection limits by 1 [ ] or 10 [ ] or [4] 75
(Check Box for Appropriate Factor)

PP#	CAS#		ug/l or ug/kg (circle one)
(21A)	88-06-2	2,4,6-trichlorophenol	10U
(22A)	59-50-7	p-chloro-m-cresol	20U
(24A)	95-57-8	2-chlorophenol	10U
(31A)	122-83-2	2,4-dichlorophenol	10U
(34A)	105-67-9	2,4-dimethylphenol	10U
(57A)	88-75-5	2-nitrophenol	20U
(58A)	100-02-7	4-nitrophenol	100U
(59A)	51-88-5	2,4-dinitrophenol	50U
(60A)	534-52-1	4,6-dinitro-2-methylphenol	20U
(64A)	87-36-5	pentachlorophenol	20U
(65A)	108-95-2	phenol	10U
	65-85-0	benzoic acid	100U
	95-48-7	2-methylphenol	10U
	108-39-4	4-methylphenol	10U
	95-95-4	2,4,5-trichlorophenol	100U
(1B)	83-32-9	acenaphthene	10U
(5B)	92-87-5	benzidine	40U
(8B)	120-82-1	1,2,4-trichlorobenzene	10U
(9B)	118-74-1	hexachlorobenzene	10U
(12B)	67-72-1	hexachloroethane	10U
(18B)	111-44-4	bis(2-chloroethyl)ether	10U
(20B)	91-58-7	2-chloronaphthalene	10U
(25B)	95-50-1	1,2-dichlorobenzene	10U
(26B)	541-73-1	1,3-dichlorobenzene	10U
(27B)	106-46-7	1,4-dichlorobenzene	10U
(28B)	91-94-1	3,3'-dichlorobenzidine	20U
(35B)	121-14-2	2,4-dinitrotoluene	20U
(36B)	606-20-2	2,6-dinitrotoluene	20U
(37B)	122-66-7	1,2-diphenylhydrazine	20U
(39B)	206-44-0	fluoranthene	10U
(40B)	7005-72-3	4-chlorophenyl phenylether	10U
(41B)	101-55-3	4-bromophenyl phenyl ether	10U
(42B)	39638-32-9	bis-(2-chloroisopropyl)ether	20U
(43B)	111-91-1	bis-(2-chloroethoxy)methane	20U

PP#	CAS#		ug/l or ug/kg (circle one)
(52B)	87-68-3	hexachlorobutadiene	10U
(53B)	77-47-4	hexachlorocyclopentadiene	10U
(54B)	78-59-1	isophorone	10U
(55B)	91-20-3	naphthalene	10U
(56B)	98-95-3	nitrobenzene	10U
(62B)	86-30-6	N-nitrosodiphenylamine	10U
(63B)	621-64-7	N-nitrosodi-n-propylamine	20U
(66B)	117-81-7	bis(2-ethylhexyl)phthalate	~~490U~~
(67B)	85-68-7	butyl benzyl phthalate	10U
(68B)	84-74-2	di-n-butyl phthalate	10U
(69B)	117-84-0	di-n-octyl phthalate LT	~~10U~~
(70B)	84-66-2	diethyl phthalate	10U
(71B)	131-11-3	dimethyl phthalate	10U
(72B)	56-55-3	benzo(a)anthracene	10U
(73B)	50-33-8	benzo(a)pyrene	20U
(74B)	205-99-2	benzo(b)fluoranthene	20U
(75B)	207-08-9	benzo(k)fluoranthene	20U
(76B)	318-01-9	chrysene	10U
(77B)	208-96-8	acenaphthylene	10U
(78B)	120-12-7	anthracene	10U
(79B)	181-24-2	benzo(ghi)perylene	20U
(80B)	86-73-7	fluorene	10U
(81B)	85-01-8	phenanthrene	10U
(82B)	53-70-3	dibenzo(a,h)anthracene	20U
(83B)	183-39-5	indeno(1,2,3-cd)pyrene	20
(84B)	129-00-0	pyrene	10
	62-53-3	aniline	10
	100-51-6	benzyl alcohol	20
	106-47-8	4-chloroaniline	50
	132-64-9	dibenzofuran	10
	91-57-6	2-methylnaphthalene	20
	88-74-4	2-nitroaniline	100
	99-09-2	3-nitroaniline	100
	100-01-6	4-nitroaniline	100

Alexandria, VA 22310 703/557-2490

Sample Number: C8177

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: Mead CompuChem
Lab Sample ID No.: 24047
Sample Matrix: Solid
Data Release Authorized By: [signature]

Case Number: 2534
QC Report No.:
Contract No.: 68-016866
Date Sample Received: 3-29-84

SEMIVOLATILE COMPOUNDS

ORIGINAL
-(Red)

CONCENTRATION: LOW MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 4-2-84
DATE ANALYZED: 4-23-84
PERCENT MOISTURE: 2.52 factor ~ 6090

Multiply Detection limits by 1 ☐ or 10 ☐ or ~~14~~ 90
(Check Box for Appropriate Factor)

PP#	CAS#		ug/l or ug/kg (circle one)
(21A)	88-06-2	2,4,6-trichlorophenol	10U
(22A)	59-50-7	p-chloro-m-cresol	20U
(24A)	95-57-8	2-chlorophenol	10U
(31A)	122-83-2	2,4-dichlorophenol	10U
(34A)	105-67-9	2,4-dimethylphenol	10U
(57A)	88-75-5	2-nitrophenol	20U
(58A)	100-02-7	4-nitrophenol	100U
(59A)	51-88-5	2,4-dinitrophenol	50U
(60A)	534-52-1	4,6-dinitro-2-methylphenol	20U
(64A)	87-36-5	pentachlorophenol	20U
(65A)	108-95-2	phenol	10U
	65-85-0	benzoic acid	100U
	95-48-7	2-methylphenol	10U
	108-39-4	4-methylphenol	10U
	95-95-4	2,4,5-trichlorophenol	100U
(1B)	83-32-9	acenaphthene	10U
(5B)	92-87-5	benzidine	40U
(8B)	120-82-1	1,2,4-trichlorobenzene	10U
(9B)	118-74-1	hexachlorobenzene	10U
(12B)	67-72-1	hexachloroethane	10U
(18B)	111-44-4	bis(2-chloroethyl)ether	10U
(20B)	91-58-7	2-chloronaphthalene	10U
(25B)	95-50-1	1,2-dichlorobenzene	10U
(26B)	541-73-1	1,3-dichlorobenzene	10U
(27B)	106-46-7	1,4-dichlorobenzene	10U
(28B)	91-94-1	3,3'-dichlorobenzidine	20U
(35B)	121-14-2	2,4-dinitrotoluene	20U
(36B)	606-20-2	2,6-dinitrotoluene	20U
(37B)	122-66-7	1,2-diphenylhydrazine	20U
(39B)	206-44-0	fluoranthene	10U
(40B)	7005-72-3	4-chlorophenyl phenylether	10U
(41B)	101-55-3	4-bromophenyl phenyl ether	10U
(42B)	39638-32-9	bis-(2-chloroisopropyl)ether	20U
(43B)	111-91-1	bis-(2-chloroethoxy)methane	20U

PP#	CAS#		ug/l or ug/kg (circle one)
(52B)	87-68-3	hexachlorobutadiene	10U
(53B)	77-47-4	hexachlorocyclopentadiene	10U
(54B)	78-59-1	isophorone	10U
(55B)	91-20-3	naphthalene	10U
(56B)	98-95-3	nitrobenzene	10U
(62B)	86-30-6	N-nitrosodiphenylamine	10U
(63B)	621-64-7	N-nitrosodi-n-propylamine	20U
(66B)	117-81-7	bis(2-ethylhexyl)phthalate	10U
(67B)	85-68-7	butyl benzyl phthalate	10U
(68B)	84-74-2	di-n-butyl phthalate	10U
(69B)	117-84-0	di-n-octyl phthalate	10U
(70B)	84-66-2	diethyl phthalate	10U
(71B)	131-11-3	dimethyl phthalate	10U
(72B)	56-55-3	benzo(a)anthracene	10U
(73B)	50-33-8	benzo(a)pyrene	20U
(74B)	205-99-2	benzo(b)fluoranthene	20U
(75B)	207-08-9	benzo(k)fluoranthene	20U
(76B)	318-01-9	chrysene	10U
(77B)	208-96-8	acenaphthylene	10U
(78B)	120-12-7	anthracene	10U
(79B)	181-24-2	benzo(ghi)perylene	20U
(80B)	86-73-7	fluorene	10U
(81B)	85-01-8	phenanthrene	10U
(82B)	53-70-3	dibenzo(a,h)anthracene	20U
(83B)	183-39-5	indeno(1,2,3-cd)pyrene	20U
(84B)	129-00-0	pyrene	10U
	62-53-3	aniline	10U
	100-51-6	benzyl alcohol	20U
	106-47-8	4-chloroaniline	50U
	132-64-9	dibenzofuran	10U
	91-57-6	2-methylnaphthalene	20U
	88-74-4	2-nitroaniline	100U
	99-09-2	3-nitroaniline	100U
	100-01-6	4-nitroaniline	100U

, Alexandria, Virginia 22313 - 703/557-2490

C8177

ORIGINAL (Red)

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: CompuChem
Lab Sample ID No: 24047
Sample Matrix: Solid
Data Release Authorized By: 88

Case Number 2534
QC Report No.
Contract No.: 68-01-6866
Date Sample Received: 3-29-84

VOLATILES

CONCENTRATION: (LOW) MEDIUM HIGH (circle)
DATE EXTRACTED/PREPARED: 4-3-84
DATE ANALYZED: 4-4-84
PERCENT MOISTURE: 2.52 factor = 60%

Multiply Detection limits by 1 ☐ or ☑ 2.49
(Check Box for Appropriate Factor)

PP#	CAS#		ug/l or ug/kg (circle one)
(2V)	107-02-8	acrolein	50U
(3V)	107-13-1	acrylonitrile	50U
(4V)	71-43-2	benzene	2.5U
(6V)	56-23-5	carbon tetrachloride	2.5U
(7V)	108-90-7	chlorobenzene	2.5U
(10V)	107-06-2	1,2-dichloroethane	2.5U
(11V)	71-55-6	1,1,1-trichloroethane	2.5U
(13V)	75-34-3	1,1-dichloroethane	2.5U
(14V)	79-00-5	1,1,2-trichloroethane	2.5U
(15V)	79-34-5	1,1,2,2-tetrachloroethane	2.5U
(16V)	75-00-3	chloroethane	2.5U
(19V)	110-75-8	2-chloroethylvinyl ether	2.5U
(23V)	67-66-3	chloroform	2.5U
(29V)	75-35-4	1,1-dichloroethene	2.5U
(30V)	156-60-5	1,2-trans-dichloroethene	2.5U
(32V)	78-87-5	1,2-dichloropropane	2.5U
(33V)	10061-02-6	trans-1,3-dichloropropene	2.5U
	10061-01-05	cis,1,3-dichloropropene	5U
(38V)	100-41-4	ethylbenzene	2.5U
(44V)	75-09-2	methylene chloride	82 ~~2.5U~~
(45V)	74-87-3	chloromethane	2.5U
(46V)	74-83-9	bromomethane	2.5U
(47V)	75-25-2	bromoform	2.5U
(48V)	75-27-4	bromodichloromethane	2.5U
(49V)	75-69-4	fluorotrichloromethane	2.5U
(51V)	124-48-1	chlorodibromomethane	2.5U
(85V)	127-18-4	tetrachloroethene	2.5U
(86V)	108-88-3	toluene	2.5U
(87V)	79-01-6	trichloroethene	2.5U
(88V)	75-01-4	vinyl chloride	2.5U
	67-64-1	acetone	50U
	78-93-3	2-butanone	100U
	75-15-0	carbondisulfide	5U
	519-78-6	2-hexanone	50U
	108-10-1	4-methyl-2-pentanone	50U
	100-42-5	styrene	2.5U
	108-05-4	vinyl acetate	5U
	95-47-6	o-xylene	2.5U

PESTICIDES

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 4-4-84
DATE ANALYZED: 4-13-84
PERCENT MOISTURE: 2.52 factor = 60%

Multiply Detection limits by 1 ☐ or ☑ 2.62
(Check Box for Appropriate Factor)

PP#	CAS#		ug/l or ug/kg (circle one)
(89P)	309-00-2	aldrin	4.0U
(90P)	60-57-1	dieldrin	4.0U
(91P)	57-74-9	chlordane	4.0U
(92P)	50-29-3	4,4'-DDT	4.0U
(93P)	72-55-9	4,4'-DDE	4.0U
(94P)	72-54-8	4,4'-DDD	4.0U
(95P)	115-29-7	endosulfan I	4.0U
(96P)	115-29-7	endosulfan II	4.0U
(97P)	1031-07-8	endosulfan sulfate	4.0U
(98P)	78-20-8	endrin	4.0U
(99P)	7421-43-4	endrin aldehyde	4.0U
(100P)	76-44-8	heptachlor	4.0U
(101P)	1024-57-3	heptachlor epoxide	4.0U
(102P)	319-84-6	BHC-Alpha	4.0U
(103P)	319-85-7	BHC-Beta	4.0U
(104P)	319-86-8	BHC-Delta	4.0U
(105P)	58-89-9	BHC-Gamma	4.0U
(106P)	53469-21-9	PCB-1242	4.0U
(107P)	11097-69-7	PCB-1254 P.N. 490	~~4.0U~~
(108P)	11104-28-2	PCB-1221	4.0U
(109P)	11141-16-5	PCB-1232	4.0U
(110P)	12672-29-6	PCB-1248	4.0U
(111P)	11096-82-5	PCB-1260	4.0U
(112P)	12674-11-2	PCB-1016	4.0U
(113P)	8001-35-2	toxaphene	4.0U

DIOXINS

CONCENTRATION: (LOW) MEDIUM HIGH (circle)
DATE EXTRACTED/PREPARED: 4-2-84
DATE ANALYZED: 4-11-84
PERCENT MOISTURE: 2.52 factor = 60%

			ug/g or ug/l (circle one)
(129B)	1746-01-6	2,3,7,8-tetrachlorodibenzo-p-dioxin	0.1

Sample Number
C8178

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: Mead CompuChem
Lab Sample ID No.: 24648
Sample Matrix: Solid
Data Release Authorized By: 88

Case Number: 2534
QC Report No.:
Contract No.: 68-01-6866
Date Sample Received: 3-29-84

SEMIVOLATILE COMPOUNDS

ORIGINAL (Red)

CONCENTRATION: LOW MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 4-2-84
DATE ANALYZED: 4-23-84
PERCENT MOISTURE: 2.10 factor = 5290

Multiply Detection limits by 1 ☐ or 10 ☐ or ☑ 84
(Check Box for Appropriate Factor)

PP#	CAS#		ug/l or ug/kg (circle one)
(21A)	88-06-2	2,4,6-trichlorophenol	10U
(22A)	59-50-7	p-chloro-m-cresol	20U
(24A)	95-57-8	2-chlorophenol	10U
(31A)	122-83-2	2,4-dichlorophenol	10U
(34A)	105-67-9	2,4-dimethylphenol	10U
(57A)	88-75-5	2-nitrophenol	20U
(58A)	100-02-7	4-nitrophenol	100U
(59A)	51-88-5	2,4-dinitrophenol	50U
(60A)	534-52-1	4,6-dinitro-2-methylphenol	20U
(64A)	87-36-5	pentachlorophenol	20U
(65A)	108-95-2	phenol	10U
	65-85-0	benzoic acid	100U
	95-48-7	2-methylphenol	10U
	108-39-4	4-methylphenol	10U
	95-95-4	2,4,5-trichlorophenol	100U
(1B)	83-32-9	acenaphthene	10U
(5B)	92-87-5	benzidine	40U
(8B)	120-82-1	1,2,4-trichlorobenzene	10U
(9B)	118-74-1	hexachlorobenzene	10U
(12B)	67-72-1	hexachloroethane	10U
(18B)	111-44-4	bis(2-chloroethyl)ether	10U
(20B)	91-58-7	2-chloronaphthalene	10U
(25B)	95-50-1	1,2-dichlorobenzene	10U
(26B)	541-73-1	1,3-dichlorobenzene	10U
(27B)	106-46-7	1,4-dichlorobenzene	10U
(28B)	91-94-1	3,3'-dichlorobenzidine	20U
(35B)	121-14-2	2,4-dinitrotoluene	20U
(36B)	606-20-2	2,6-dinitrotoluene	20U
(37B)	122-66-7	1,2-diphenylhydrazine	20U
(39B)	206-44-0	fluoranthene	10U
(40B)	7005-72-3	4-chlorophenyl phenylether	10U
(41B)	101-55-3	4-bromophenyl phenyl ether	10U
(42B)	39638-32-9	bis-(2-chloroisopropyl)ether	20U
(43B)	111-91-1	bis-(2-chloroethoxy)methane	20U

PP#	CAS#		ug/l or ug/kg (circle on
(52B)	87-68-3	hexachlorobutadiene	10U
(53B)	77-47-4	hexachlorocyclopentadiene	10U
(54B)	78-59-1	isophorone	10U
(55B)	91-20-3	naphthalene	10U
(56B)	98-95-3	nitrobenzene	10U
(62B)	86-30-6	N-nitrosodiphenylamine	10U
(63B)	621-64-7	N-nitrosodi-n-propylamine	20U
(66B)	117-81-7	bis(2-ethylhexyl)phthalate	10U
(67B)	85-68-7	butyl benzyl phthalate	10U
(68B)	84-74-2	di-n-butyl phthalate	10U
(69B)	117-84-0	di-n-octyl phthalate	10U
(70B)	84-66-2	diethyl phthalate	10U
(71B)	131-11-3	dimethyl phthalate	10U
(72B)	56-55-3	benzo(a)anthracene	10U
(73B)	50-33-8	benzo(a)pyrene	20U
(74B)	205-99-2	benzo(b)fluoranthene	20U
(75B)	207-08-9	benzo(k)fluoranthene	20U
(76B)	318-01-9	chrysene	10U
(77B)	208-96-8	acenaphthylene	10U
(78B)	120-12-7	anthracene	10U
(79B)	181-24-2	benzo(ghi)perylene	20U
(80B)	86-73-7	fluorene	10U
(81B)	85-01-8	phenanthrene	10U
(82B)	53-70-3	dibenzo(a,h)anthracene	20U
(83B)	183-39-5	indeno(1,2,3-cd)pyrene	20U
(84B)	129-00-0	pyrene	10U
	62-53-3	aniline	10U
	100-51-6	benzyl alcohol	20U
	106-47-8	4-chloroaniline	50U
	132-64-9	dibenzofuran	10U
	91-57-6	2-methylnaphthalene	20U
	88-74-4	2-nitroaniline	100U
	99-09-2	3-nitroaniline	100U
	100-01-6	4-nitroaniline	100U

PROTECTION AGENCY - CLP Sample Management Office
Alexandria, Virginia 22313 - 703/557-2490

SAMPLE NUMBER
C8178

ORGANICS ANALYSIS DATA SHEET

ORIGINAL (Red)

Laboratory Name: CompuChem
Lab Sample ID No: 24048
Sample Matrix: Solid
Data Release Authorized By: 88

Case Number 2534
QC Report No.
Contract No.: 68-01 6666
Date Sample Received: 3-29-84

VOLATILES

CONCENTRATION: (LOW) MEDIUM HIGH (circle)
DATE EXTRACTED/PREPARED: 4-3-84
DATE ANALYZED: 4-4-84
PERCENT MOISTURE: 2.10 factor = 5290

Multiply Detection limits by 1 ☐ or ☑ 2.0
(Check Box for Appropriate Factor)

PP#	CAS#		ug/l or ug/kg (circle one)
(2V)	107-02-8	acrolein	50U
(3V)	107-13-1	acrylonitrile	50U
(4V)	71-43-2	benzene	2.5U
(6V)	56-23-5	carbon tetrachloride	2.5U
(7V)	108-90-7	chlorobenzene	2.5U
(10V)	107-06-2	1,2-dichloroethane	2.5U
(11V)	71-55-6	1,1,1-trichloroethane	2.5U
(13V)	75-34-3	1,1-dichloroethane	2.5U
(14V)	79-00-5	1,1,2-trichloroethane	2.5U
(15V)	79-34-5	1,1,2,2-tetrachloroethane	2.5U
(16V)	75-00-3	chloroethane	2.5U
(19V)	110-75-8	2-chloroethylvinyl ether	2.5U
(23V)	67-66-3	chloroform	2.5U
(29V)	75-35-4	1,1-dichloroethene	2.5U
(30V)	156-60-5	1,2-trans-dichloroethene	2.5U
(32V)	78-87-5	1,2-dichloropropane	2.5U
(33V)	10061-02-6	trans-1,3-dichloropropene	2.5U
	10061-01-05	cis,1,3-dichloropropene	5U
(38V)	100-41-4	ethylbenzene	2.5U
(44V)	75-09-2	methylene chloride	34 ~~2.5U~~
(45V)	74-87-3	chloromethane	2.5U
(46V)	74-83-9	bromomethane	2.5U
(47V)	75-25-2	bromoform	2.5U
(48V)	75-27-4	bromodichloromethane	2.5U
(49V)	75-69-4	fluorotrichloromethane	2.5U
(51V)	124-48-1	chlorodibromomethane	2.5U
(85V)	127-18-4	tetrachloroethene	2.5U
(86V)	108-88-3	toluene	2.5U
(87V)	79-01-6	trichloroethene	2.5U
(88V)	75-01-4	vinyl chloride	2.5U
	67-64-1	acetone	50U
	78-93-3	2-butanone	100U
	75-15-0	carbondisulfide	5U
	519-78-6	2-hexanone	50U
	108-10-1	4-methyl-2-pentanone	50U
	100-42-5	styrene	2.5U
	108-05-4	vinyl acetate	5U
	95-47-6	o-xylene	2.5U

PESTICIDES

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 4-17-84
DATE ANALYZED: 4-19-84
PERCENT MOISTURE: 2.10 factor = 5290

Multiply Detection limits by 1 ☐ or ☑ 2.10
(Check Box for Appropriate Factor)

PP#	CAS#		ug/l or ug/kg (circle one)
(89P)	309-00-2	aldrin	4.0U
(90P)	60-57-1	dieldrin	4.0U
(91P)	57-74-9	chlordane	4.0U
(92P)	50-29-3	4,4'-DDT	4.0U
(93P)	72-55-9	4,4'-DDE	4.0U
(94P)	72-54-8	4,4'-DDD	4.0U
(95P)	115-29-7	endosulfan I	4.0U
(96P)	115-29-7	endosulfan II	4.0U
(97P)	1031-07-8	endosulfan sulfate	4.0U
(98P)	78-20-8	endrin	4.0U
(99P)	7421-43-4	endrin aldehyde	4.0U
(100P)	76-44-8	heptachlor	4.0U
(101P)	1024-57-3	heptachlor epoxide	4.0U
(102P)	319-84-6	BHC-Alpha	4.0U
(103P)	319-85-7	BHC-Beta	4.0U
(104P)	319-86-8	BHC-Delta	4.0U
(105P)	58-89-9	BHC-Gamma	4.0U
(106P)	53469-21-9	PCB-1242	4.0U
(107P)	11097-69-7	PCB-1254	4.0U
(108P)	11104-28-2	PCB-1221	4.0U
(109P)	11141-16-5	PCB-1232	4.0U
(110P)	12672-29-6	PCB-1248	4.0U
(111P)	11096-82-5	PCB-1260	4.0U
(112P)	12674-11-2	PCB-1016	4.0U
(113P)	8001-35-2	toxaphene	4.0U

DIOXINS

CONCENTRATION: (LOW) MEDIUM HIGH (circle)
DATE EXTRACTED/PREPARED: 4-28-84
DATE ANALYZED: 4-11-84
PERCENT MOISTURE: 2.10 factor = 5290

			ug/g or ug/kg (circle one)
(129B)	1746-01-6	2,3,7,8-tetrachlorodibenzo-p-dioxin	0.16U

Box 818, Alexandria, VA 22313 - 703/557-2490

Sample Number
C8179

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: Mead CompuChem
Lab Sample ID No.: 24049 R2
Sample Matrix: Solid
Data Release Authorized By: 88

Case Number: 2534
QC Report No.:
Contract No.: 68-01-6866
Date Sample Received: 3-29-84

SEMIVOLATILE COMPOUNDS

CONCENTRATION: LOW MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 5-1-84
DATE ANALYZED: 5-6-84
PERCENT MOISTURE: 1.84 factor = 46%

ORIGINAL
(Red)

Multiply Detection limits by 1 ☐ or 10 ☐ or ☑ 73.6
(Check Box for Appropriate Factor)

PP#	CAS#		ug/l or ug/kg (circle one)
(21A)	88-06-2	2,4,6-trichlorophenol	10U
(22A)	59-50-7	p-chloro-m-cresol	20U
(24A)	95-57-8	2-chlorophenol	10U
(31A)	122-83-2	2,4-dichlorophenol	10U
(34A)	105-67-9	2,4-dimethylphenol	10U
(57A)	88-75-5	2-nitrophenol	20U
(58A)	100-02-7	4-nitrophenol	100U
(59A)	51-88-5	2,4-dinitrophenol	50U
(60A)	534-52-1	4,6-dinitro-2-methylphenol	20U
(64A)	87-36-5	pentachlorophenol	20U
(65A)	108-95-2	phenol	10U
	65-85-0	benzoic acid	100U
	95-48-7	2-methylphenol	10U
	108-39-4	4-methylphenol	10U
	95-95-4	2,4,5-trichlorophenol	100U
(1B)	83-32-9	acenaphthene	10U
(5B)	92-87-5	benzidine	40U
(8B)	120-82-1	1,2,4-trichlorobenzene	10U
(9B)	118-74-1	hexachlorobenzene	10U
(12B)	67-72-1	hexachloroethane	10U
(18B)	111-44-4	bis(2-chloroethyl)ether	10U
(20B)	91-58-7	2-chloronaphthalene	10U
(25B)	95-50-1	1,2-dichlorobenzene	10U
(26B)	541-73-1	1,3-dichlorobenzene	10U
(27B)	106-46-7	1,4-dichlorobenzene	10U
(28B)	91-94-1	3,3'-dichlorobenzidine	20U
(35B)	121-14-2	2,4-dinitrotoluene	20U
(36B)	606-20-2	2,6-dinitrotoluene	20U
(37B)	122-66-7	1,2-diphenylhydrazine	20U
(39B)	206-44-0	fluoranthene	10U
(40B)	7005-72-3	4-chlorophenyl phenylether	10U
(41B)	101-55-3	4-bromophenyl phenyl ether	10U
(42B)	39638-32-9	bis-(2-chloroisopropyl)ether	20U
(43B)	111-91-1	bis-(2-chloroethoxy)methane	20U

PP#	CAS#		ug/l or ug/kg (circle one)
(52B)	87-68-3	hexachlorobutadiene	10U
(53B)	77-47-4	hexachlorocyclopentadiene	10U
(54B)	78-59-1	isophorone	10U
(55B)	91-20-3	naphthalene	10U
(56B)	98-95-3	nitrobenzene	10U
(62B)	86-30-6	N-nitrosodiphenylamine	10U
(63B)	621-64-7	N-nitrosodi-n-propylamine	20U
(66B)	117-81-7	bis(2-ethylhexyl)phthalate	10U
(67B)	85-68-7	butyl benzyl phthalate	10U
(68B)	84-74-2	di-n-butyl phthalate	10U
(69B)	117-84-0	di-n-octyl phthalate	10U
(70B)	84-66-2	diethyl phthalate	10U
(71B)	131-11-3	dimethyl phthalate	10U
(72B)	56-55-3	benzo(a)anthracene	10U
(73B)	50-33-8	benzo(a)pyrene	20U
(74B)	205-99-2	benzo(b)fluoranthene	20U
(75B)	207-08-9	benzo(k)fluoranthene	20U
(76B)	318-01-9	chrysene	10U
(77B)	208-96-8	acenaphthylene	10U
(78B)	120-12-7	anthracene	10U
(79B)	181-24-2	benzo(ghi)perylene	20U
(80B)	86-73-7	fluorene	10U
(81B)	85-01-8	phenanthrene	10U
(82B)	53-70-3	dibenzo(a,h)anthracene	20U
(83B)	183-39-5	indeno(1,2,3-cd)pyrene	20U
(84B)	129-00-0	pyrene	10U
	62-53-3	aniline	10U
	100-51-6	benzyl alcohol	20U
	106-47-8	4-chloroaniline	50U
	132-64-9	dibenzofuran	10U
	91-57-6	2-methylnaphthalene	20U
	88-74-4	2-nitroaniline	100U
	99-09-2	3-nitroaniline	100U
	100-01-6	4-nitroaniline	100U

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MC 31.7

Date 4.20 84

INORGANIC ANALYSIS DATA SHEET

LAB NAME JTC Environmental

CASE NO. 2534

LAB SAMPLE ID. NO. 70-0578

QC REPORT NO. 92

Matrix Aqueous

Elements Identified and Measured

ug/L or mg/kg (Circle One)

ORIGINAL (Red)

1.	Aluminum	260 ~~257~~	13.	Magnesium	NR
2.	Antimony	<20	14.	Manganese	~~246~~ 250.
3.	Arsenic	<10	15.	Mercury	<.2
4.	Barium	<100	16.	Nickel	<40
5.	Beryllium	<5	17.	Potassium	NR
6.	Cadmium	<1	18.	Selenium	<2
7.	Calcium	NR	19.	Silver	<10
8.	Chromium	<10	20.	Sodium	NR
9.	Cobalt	<50	21.	Thallium	<10
10.	Copper	<50	22.	Tin	ND/B
11.	Iron	13100	23.	Vanadium	200
12.	Lead	<5	24.	Zinc	150.
	Cyanide	17.		Percent Solids	NR

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager S. D

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MC 3168

Date 4.20.84

INORGANIC ANALYSIS DATA SHEET

LAB NAME JTC Environmental

CASE NO. 2534

LAB SAMPLE ID. NO. 70 0579

QC REPORT NO. 92

Matrix Aqueous

Elements Identified and Measured

ug/L or mg/kg (Circle One)

ORIGINAL! (Red)

1.	Aluminum	330 ~~320~~	13.	Magnesium	NR
2.	Antimony	< 20	14.	Manganese	270 ~~274~~
3.	Arsenic	12.	15.	Mercury	< .2
4.	Barium	< 100	16.	Nickel	< 40
5.	Beryllium	< 5	17.	Potassium	NR
6.	Cadmium	< 1	18.	Selenium	< 2
7.	Calcium	NR	19.	Silver	< 10
8.	Chromium	12	20.	Sodium	NR
9.	Cobalt	< 50	21.	Thallium	< 10
10.	Copper	< 50	22.	Tin	ND/B
11.	Iron	18400	23.	Vanadium	< 200
12.	Lead	8	24.	Zinc	240
	Cyanide	< 10		Percent Solids	NR

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager E D

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MC3169

Date 4.20.84

INORGANIC ANALYSIS DATA SHEET

LAB NAME JTC Environmental

CASE NO. 2534

LAB SAMPLE ID. NO. 70-0880

QC REPORT NO. 92

Matrix Aqueous

Elements Identified and Measured

ORIGINAL (Red)

ug/L or mg/kg (Circle One)

1.	Aluminum	<100	13.	Magnesium	NR
2.	Antimony	<20	14.	Manganese	30
3.	Arsenic	<10	15.	Mercury	<.2
4.	Barium	<200	16.	Nickel	<40
5.	Beryllium	<5	17.	Potassium	NR
6.	Cadmium	<1	18.	Selenium	3.
7.	Calcium	NR	19.	Silver	<10
8.	Chromium	<10	20.	Sodium	NR
9.	Cobalt	<50	21.	Thallium	<10
10.	Copper	<50	22.	Tin	ND/B
11.	Iron	<50	23.	Vanadium	<200
12.	Lead	<5	24.	Zinc	<10
	Cyanide	<10		Percent Solids	NR

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager S. D.

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MC3170

Date 4.20.84

INORGANIC ANALYSIS DATA SHEET

LAB NAME JTC Environmental

CASE NO. 2534

LAB SAMPLE ID. NO. 70-0381

QC REPORT NO. 92

Matrix Soil

Elements Identified and Measured

ug/L or mg/kg (Circle One)

ORIGINAL (Red)

1.	Aluminum	2040.	13.	Magnesium	NR
2.	Antimony	<1.	14.	Manganese	20 C
3.	Arsenic	12. ~~12.4~~	15.	Mercury	<2.
4.	Barium	63 E	16.	Nickel	3.
5.	Beryllium	.3	17.	Potassium	NR
6.	Cadmium	.15	18.	Selenium	<.1
7.	Calcium	NR	19.	Silver	.6
8.	Chromium	9 E	20.	Sodium	NR
9.	Cobalt	~~4.6~~ 5.	21.	Thallium	<X0.5
10.	Copper	~~4.3~~ 4.	22.	Tin	<1.
11.	Iron	7460	23.	Vanadium	<10 E
12.	Lead	23.	24.	Zinc	35 C
	Cyanide	<.5		Percent Solids	NR

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager S. B.

Form I

ENVIRONMENTAL PROTECTION AGENCY - CLP Sample Management Office
O. Box 818, Alexandria, Virginia 22313 - 703/557-2490

SAMPLE NUMBER
C8179

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: CompuChem
Lab Sample ID No: 24049
Sample Matrix: Solid
Data Release Authorized By: [illegible]

Case Number 2534
QC Report No.
Contract No.: 68-01-6866
Date Sample Received: 3-29-84

ORIGINAL (Red)

VOLATILES

CONCENTRATION: (LOW) MEDIUM HIGH (circle)
DATE EXTRACTED/PREPARED: 4-3-84
DATE ANALYZED: 4-4-84
PERCENT MOISTURE: 1.84 factor = 46%

Multiply Detection limits by 1 ☐ or ☑ 1.77
(Check Box for Appropriate Factor)

PP#	CAS#		ug/l or ug/kg (circle one)
(2V)	107-02-8	acrolein	50U
(3V)	107-13-1	acrylonitrile	50U
(4V)	71-43-2	benzene	2.5U
(6V)	56-23-5	carbon tetrachloride	2.5U
(7V)	108-90-7	chlorobenzene	2.5U
(10V)	107-06-2	1,2-dichloroethane	2.5U
(11V)	71-55-6	1,1,1-trichloroethane	2.5U
(13V)	75-34-3	1,1-dichloroethane	2.5U
(14V)	79-00-5	1,1,2-trichloroethane	2.5U
(15V)	79-34-5	1,1,2,2-tetrachloroethane	2.5U
(16V)	75-00-3	chloroethane	2.5U
(19V)	110-75-8	2-chloroethylvinyl ether	2.5U
(23V)	67-66-3	chloroform	2.5U
(29V)	75-35-4	1,1-dichloroethene	2.5U
(30V)	156-60-5	1,2-trans-dichloroethene	2.5U
(32V)	78-87-5	1,2-dichloropropane	2.5U
(33V)	10061-02-6	trans-1,3-dichloropropene	2.5U
	10061-01-05	cis,1,3-dichloropropene	5U
(38V)	100-41-4	ethylbenzene	2.5U
(44V)	75-09-2	methylene chloride	210 ~~2.5U~~
(45V)	74-87-3	chloromethane	2.5U
(46V)	74-83-9	bromomethane	2.5U
(47V)	75-25-2	bromoform	2.5U
(48V)	75-27-4	bromodichloromethane	2.5U
(49V)	75-69-4	fluorotrichloromethane	2.5U
(51V)	124-48-1	chlorodibromomethane	2.5U
(85V)	127-18-4	tetrachloroethene	2.5U
(86V)	108-88-3	toluene	2.5U
(87V)	79-01-6	trichloroethene	2.5U
(88V)	75-01-4	vinyl chloride	2.5U
	67-64-1	acetone	50U
	78-93-3	2-butanone	100U
	75-15-0	carbondisulfide	5U
	519-78-6	2-hexanone	50U
	108-10-1	4-methyl-2-pentanone	50U
	100-42-5	styrene	2.5U
	108-05-4	vinyl acetate	5U
	95-47-6	o-xylene	2.5U

PESTICIDES

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 4-10-84
DATE ANALYZED: 4-13-84
PERCENT MOISTURE: 1.84/factor = 46%

Multiply Detection limits by 1 ☐ or ☑ 1.8
(Check Box for Appropriate Factor)

PP#	CAS#		ug/ or ug (circle
(89P)	309-00-2	aldrin	4.
(90P)	60-57-1	dieldrin	4.
(91P)	57-74-9	chlordane	4.
(92P)	50-29-3	4,4'-DDT	4.
(93P)	72-55-9	4,4'-DDE	4.
(94P)	72-54-8	4,4'-DDD	4.
(95P)	115-29-7	endosulfan I	4.
(96P)	115-29-7	endosulfan II	4.
(97P)	1031-07-8	endosulfan sulfate	4.
(98P)	78-20-8	endrin	4.
(99P)	7421-43-4	endrin aldehyde	4.
(100P)	76-44-8	heptachlor	4.
(101P)	1024-57-3	heptachlor epoxide	4.
(102P)	319-84-6	BHC-Alpha	4.
(103P)	319-85-7	BHC-Beta	4.
(104P)	319-86-8	BHC-Delta	4.
(105P)	58-89-9	BHC-Gamma	4.
(106P)	53469-21-9	PCB-1242	4.
(107P)	11097-69-7	PCB-1254	4.0
(108P)	11104-28-2	PCB-1221	4.0
(109P)	11141-16-5	PCB-1232	4.0
(110P)	12672-29-6	PCB-1248	4.0
(111P)	11096-82-5	PCB-1260	4.0
(112P)	12674-11-2	PCB-1016	4.0
(113P)	8001-35-2	toxaphene	4.0

DIOXINS

CONCENTRATION: (LOW) MEDIUM HIGH (circle)
DATE EXTRACTED/PREPARED: 4-2-84
DATE ANALYZED: 4-11-84
PERCENT MOISTURE: 1.84 factor = 46%

			ug/g or ug/ (circle
(129B)	1746-01-6	2,3,7,8-tetrachlorodibenzo p-dioxin	0.1

ECTION AGENCY-CLP Sample Management Office
Alexandria, VA 22313 - 703/557-2490

Sample Number
C8180

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: Mead CompuChem
Lab Sample ID No.: 24050
Sample Matrix: Solid
Data Release Authorized By:

Case Number: 2534
QC Report No.:
Contract No.: 68-01-6666
Date Sample Received: 3-29-84

SEMIVOLATILE COMPOUNDS

ORIGINAL
(Red)

CONCENTRATION: LOW MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 4-2-84
DATE ANALYZED: 4-23-84
PERCENT MOISTURE: 117 factor = 590

Multiply Detection limits by 1 ☐ or 10 ☐ or 4 ☑ 47
(Check Box for Appropriate Factor)

PP#	CAS#		ug/l or ug/kg (circle one)
(21A)	88-06-2	2,4,6-trichlorophenol	10U
(22A)	59-50-7	p-chloro-m-cresol	20U
(24A)	95-57-8	2-chlorophenol	10U
(31A)	122-83-2	2,4-dichlorophenol	10U
(34A)	105-67-9	2,4-dimethylphenol	10U
(57A)	88-75-5	2-nitrophenol	20U
(58A)	100-02-7	4-nitrophenol	100U
(59A)	51-88-5	2,4-dinitrophenol	50U
(60A)	534-52-1	4,6-dinitro-2-methylphenol	20U
(64A)	87-36-5	pentachlorophenol	20U
(65A)	108-95-2	phenol	10U
	65-85-0	benzoic acid	100U
	95-48-7	2-methylphenol	10U
	108-39-4	4-methylphenol	10U
	95-95-4	2,4,5-trichlorophenol	100U
(1B)	83-32-9	acenaphthene 1600 ~~10U~~	
(5B)	92-87-5	benzidine	40U
(8B)	120-82-1	1,2,4-trichlorobenzene	10U
(9B)	118-74-1	hexachlorobenzene	10U
(12B)	67-72-1	hexachloroethane	10U
(18B)	111-44-4	bis(2-chloroethyl)ether	10U
(20B)	91-58-7	2-chloronaphthalene	10U
(25B)	95-50-1	1,2-dichlorobenzene	10U
(26B)	541-73-1	1,3-dichlorobenzene	10U
(27B)	106-46-7	1,4-dichlorobenzene	10U
(28B)	91-94-1	3,3'-dichlorobenzidine	20U
(35B)	121-14-2	2,4-dinitrotoluene	20U
(36B)	606-20-2	2,6-dinitrotoluene	20U
(37B)	122-66-7	1,2-diphenylhydrazine	20U
(39B)	206-44-0	fluoranthene 6200 ~~10U~~	
(40B)	7005-72-3	4-chlorophenyl phenylether	10U
(41B)	101-55-3	4-bromophenyl phenyl ether	10U
(42B)	39638-32-9	bis-(2-chloroisopropyl)ether	20U
(43B)	111-91-1	bis-(2-chloroethoxy)methane	20U

PP#	CAS#		ug/l or ug/kg (circle one)
(52B)	87-68-3	hexachlorobutadiene	10U
(53B)	77-47-4	hexachlorocyclopentadiene	10U
(54B)	78-59-1	isophorone	10U
(55B)	91-20-3	naphthalene 2200 ~~10U~~	
(56B)	98-95-3	nitrobenzene	10U
(62B)	86-30-6	N-nitrosodiphenylamine	10U
(63B)	621-64-7	N-nitrosodi-n-propylamine	20U
(66B)	117-81-7	bis(2-ethylhexyl)phthalate 600 ~~10U~~	
(67B)	85-68-7	butyl benzyl phthalate	10U
(68B)	84-74-2	di-n-butyl phthalate	10U
(69B)	117-84-0	di-n-octyl phthalate LT ~~10U~~	
(70B)	84-66-2	diethyl phthalate	10U
(71B)	131-11-3	dimethyl phthalate	10U
(72B)	56-55-3	benzo(a)anthracene 6700 ~~10U~~	
(73B)	50-33-8	benzo(a)pyrene 6600 ~~20U~~	
(74B)	205-99-2	benzo(b)fluoranthene 8000 ~~20U~~	
(75B)	207-08-9	benzo(k)fluoranthene 4600 ~~20U~~	
(76B)	318-01-9	chrysene 5200 ~~10U~~	
(77B)	208-96-8	acenaphthylene	10U
(78B)	120-12-7	anthracene 2700 ~~10U~~	
(79B)	181-24-2	benzo(ghi)perylene 4700 ~~20U~~	
(80B)	86-73-7	fluorene 1500 ~~10U~~	
(81B)	85-01-8	phenanthrene 10,000 ~~10U~~	
(82B)	53-70-3	dibenzo(a,h)anthracene LT ~~20U~~	
(83B)	183-39-5	indeno(1,2,3-cd)pyrene 4700 ~~20U~~	
(84B)	129-00-0	pyrene 11000 ~~10U~~	
	62-53-3	aniline	10U
	100-51-6	benzyl alcohol	20U
	106-47-8	4-chloroaniline	50U
	132-64-9	dibenzofuran 750 ~~10U~~	
	91-57-6	2-methylnaphthalene	20U
	88-74-4	2-nitroaniline	100U
	99-09-2	3-nitroaniline	100U
	100-01-6	4-nitroaniline	100U

C8180

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: CompuChem
Lab Sample ID No: 24050
Sample Matrix: Solid
Data Release Autorized By: [illegible]

Case Number 2534
QC Report No.
Contract No.: 68-01-6866
Date Sample Received: 3-29-84

VOLATILES

CONCENTRATION: LOW (MEDIUM) HIGH (circle)
DATE EXTRACTED/PREPARED: 4-3-84
DATE ANALYZED: 4-5-84
PERCENT MOISTURE: 1.17 factor = 15%

Multiply Detection limits by 1 ☐ or ☑ 0.98
(Check Box for Appropriate Factor)

PP#	CAS#		ug/l (ug/g) or ug/kg (circle one)
(2V)	107-02-8	acrolein	100U
(3V)	107-13-1	acrylonitrile	100U
(4V)	71-43-2	benzene	5U
(6V)	56-23-5	carbon tetrachloride	5U
(7V)	108-90-7	chlorobenzene	5U
(10V)	107-06-2	1,2-dichloroethane	5U
(11V)	71-55-6	1,1,1-trichloroethane	5U
(13V)	75-34-3	1,1-dichloroethane	5U
(14V)	79-00-5	1,1,2-trichloroethane	5U
(15V)	79-34-5	1,1,2,2-tetrachloroethane	5U
(16V)	75-00-3	chloroethane	5U
(19V)	110-75-8	2-chloroethylvinyl ether	5U
(23V)	67-66-3	chloroform	5U
(29V)	75-35-4	1,1-dichloroethene	5U
(30V)	156-60-5	1,2-trans-dichloroethene	5U
(32V)	78-87-5	1,2-dichloropropane	5U
(33V)	10061-02-6	trans-1,3-dichloropropene	5U
	10061-01-05	cis,1,3-dichloropropene	10U
(38V)	100-41-4	ethylbenzene	5U
(44V)	75-09-2	methylene chloride	5U
(45V)	74-87-3	chloromethane	5U
(46V)	74-83-9	bromomethane	5U
(47V)	75-25-2	bromoform	5U
(48V)	75-27-4	bromodichloromethane	5U
(49V)	75-69-4	fluorotrichloromethane	5U
(51V)	124-48-1	chlorodibromomethane	5U
(85V)	127-18-4	tetrachloroethene	5U
(86V)	108-88-3	toluene	12 ~~5U~~
(87V)	79-01-6	trichloroethene	5U
(88V)	75-01-4	vinyl chloride	5U
	67-64-1	acetone	100U
	78-93-3	2-butanone	200U
	75-15-0	carbondisulfide	10U
	519-78-6	2-hexanone	100U
	108-10-1	4-methyl-2-pentanone	100U
	100-42-5	styrene	5U
	108-05-4	vinyl acetate	10U
	95-47-6	o-xylene	5U

PESTICIDES ORIGINAL (Red)

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 4-16-84
DATE ANALYZED: 4-17-84
PERCENT MOISTURE: 1.17 factor = 15%

Multiply Detection limits by 1 ☐ or ☑ 14
(Check Box for Appropriate Factor)

PP#	CAS#		ug/l or ug/kg (circle one)
(89P)	309-00-2	aldrin	4.0U
(90P)	60-57-1	dieldrin	4.0U
(91P)	57-74-9	chlordane	4.0U
(92P)	50-29-3	4,4'-DDT	4.0U
(93P)	72-55-9	4,4'-DDE	4.0U
(94P)	72-54-8	4,4'-DDD	4.0U
(95P)	115-29-7	endosulfan I	4.0U
(96P)	115-29-7	endosulfan II	4.0U
(97P)	1031-07-8	endosulfan sulfate	4.0U
(98P)	78-20-8	endrin	4.0U
(99P)	7421-43-4	endrin aldehyde	4.0U
(100P)	76-44-8	heptachlor	4.0U
(101P)	1024-57-3	heptachlor epoxide	4.0U
(102P)	319-84-6	BHC-Alpha	4.0U
(103P)	319-85-7	BHC-Beta	4.0U
(104P)	319-86-8	BHC-Delta	4.0U
(105P)	58-89-9	BHC-Gamma	4.0U
(106P)	53469-21-9	PCB-1242	4.0U
(107P)	11097-69-7	PCB-1254	4.0U
(108P)	11104-28-2	PCB-1221	4.0U
(109P)	11141-16-5	PCB-1232	4.0U
(110P)	12672-29-6	PCB-1248	4.0U
(111P)	11096-82-5	PCB-1260 D.N. 360	~~4.0U~~
(112P)	12674-11-2	PCB-1016	4.0U
(113P)	8001-35-2	toxaphene	4.0U

DIOXINS

CONCENTRATION: (LOW) MEDIUM HIGH (circle)
DATE EXTRACTED/PREPARED: 4-2-84
DATE ANALYZED: 4-11-84
PERCENT MOISTURE: ~~[illegible]~~ 1.17 factor = 15

			ug/g ~~or ug/kg~~ (circle one)
(129B)	1746-01-6	2,3,7,8-tetrachlorodibenzo-p-dioxin	0.16U

July, 19

C8181

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: Mead CompuChem
Lab Sample ID No.: 24051
Sample Matrix: Soil
Data Release Authorized by: 88

Case Number: 2534
QC Report No.:
Contract No.: 68-01-6866
Date Sample Received: 3-29-84

SEMIVOLATILE COMPOUNDS

ORIGINAL (Red)

CONCENTRATION: LOW MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 4-2-84
DATE ANALYZED: 4-23-84
PERCENT MOISTURE: 1.22 factor = 1890

Multiply Detection limits by 1 ☐ or 10 ☐ or ☑ 49
(Check Box for Appropriate Factor)

PP#	CAS#		ug/l or ug/kg (circle one)
(21A)	88-06-2	2,4,6-trichlorophenol	10U
(22A)	59-50-7	p-chloro-m-cresol	20U
(24A)	95-57-8	2-chlorophenol	10U
(31A)	122-83-2	2,4-dichlorophenol	10U
(34A)	105-67-9	2,4-dimethylphenol	10U
(57A)	88-75-5	2-nitrophenol	20U
(58A)	100-02-7	4-nitrophenol	100U
(59A)	51-88-5	2,4-dinitrophenol	50U
(60A)	534-52-1	4,6-dinitro-2-methylphenol	20U
(64A)	87-36-5	pentachlorophenol	20U
(65A)	108-95-2	phenol	10U
	65-85-0	benzoic acid	100U
	95-48-7	2-methylphenol	10U
	108-39-4	4-methylphenol	10U
	95-95-4	2,4,5-trichlorophenol	100U
(1B)	83-32-9	acenaphthene LT	~~10U~~
(5B)	92-87-5	benzidine	40U
(8B)	120-82-1	1,2,4-trichlorobenzene	10U
(9B)	118-74-1	hexachlorobenzene	10U
(12B)	67-72-1	hexachloroethane	10U
(18B)	111-44-4	bis(2-chloroethyl)ether	10U
(20B)	91-58-7	2-chloronaphthalene	10U
(25B)	95-50-1	1,2-dichlorobenzene	10U
(26B)	541-73-1	1,3-dichlorobenzene	10U
(27B)	106-46-7	1,4-dichlorobenzene	10U
(28B)	91-94-1	3,3'-dichlorobenzidine	20U
(35B)	121-14-2	2,4-dinitrotoluene	20U
(36B)	606-20-2	2,6-dinitrotoluene	20U
(37B)	122-66-7	1,2-diphenylhydrazine	20U
(39B)	206-44-0	fluoranthene 4500	~~10U~~
(40B)	7005-72-3	4-chlorophenyl phenylether	10U
(41B)	101-55-3	4-bromophenyl phenyl ether	10U
(42B)	39638-32-9	bis-(2-chloroisopropyl)ether	20U
(43B)	111-91-1	bis-(2-chloroethoxy)methane	20U

PP#	CAS#		ug/l or ug/kg (circle one)
(52B)	87-68-3	hexachlorobutadiene	10U
(53B)	77-47-4	hexachlorocyclopentadiene	10U
(54B)	78-59-1	isophorone	10U
(55B)	91-20-3	naphthalene LT	~~10U~~
(56B)	98-95-3	nitrobenzene	10U
(62B)	86-30-6	N-nitrosodiphenylamine	10U
(63B)	621-64-7	N-nitrosodi-n-propylamine	20U
(66B)	117-81-7	bis(2-ethylhexyl)phthalate	10U
(67B)	85-68-7	butyl benzyl phthalate	10U
(68B)	84-74-2	di-n-butyl phthalate LT	~~10U~~
(69B)	117-84-0	di-n-octyl phthalate	10U
(70B)	84-66-2	diethyl phthalate	10U
(71B)	131-11-3	dimethyl phthalate	10U
(72B)	56-55-3	benzo(a)anthracene 2300	~~10U~~
(73B)	50-33-8	benzo(a)pyrene 2100	~~20U~~
(74B)	205-99-2	benzo(b)fluoranthene 2500	~~20U~~
(75B)	207-08-9	benzo(k)fluoranthene 1600	~~20U~~
(76B)	318-01-9	chrysene 2400	~~10U~~
(77B)	208-96-8	acenaphthylene	10U
(78B)	120-12-7	anthracene 930	~~10U~~
(79B)	181-24-2	benzo(ghi)perylene 1100	~~20U~~
(80B)	86-73-7	fluorene LT	~~10U~~
(81B)	85-01-8	phenanthrene 4500	~~10U~~
(82B)	53-70-3	dibenzo(a,h)anthracene	20U
(83B)	183-39-5	indeno(1,2,3-cd)pyrene 1500	~~20U~~
(84B)	129-00-0	pyrene 3500	~~10U~~
	62-53-3	aniline	10U
	100-51-6	benzyl alcohol	20U
	106-47-8	4-chloroaniline	50U
	132-64-9	dibenzofuran LT	~~10U~~
	91-57-6	2-methylnaphthalene LT	~~20U~~
	88-74-4	2-nitroaniline	100U
	99-09-2	3-nitroaniline	100U
	100-01-6	4-nitroaniline	100U

ENTAL PROTECTION AGENCY - CLP Sample Management Office
15, Alexandria, Virginia 22313 - 703/557-2490

SAMPLE NUMBER
C8181

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: CompuChem
Lab Sample ID No: 221051
Sample Matrix: Solid
Data Release Authorized By: [illegible]

Case Number 2534
QC Report No.
Contract No.: 68-01-6866
Date Sample Received: 3-29-84

ORIGINAL (Red)

VOLATILES

CONCENTRATION: (LOW) MEDIUM HIGH (circle)
DATE EXTRACTED/PREPARED: 4-3-84
DATE ANALYZED: 4-4-84
PERCENT MOISTURE: 1.22 factor - 1890

Multiply Detection limits by 1 ☐ or ☑ 1.17
(Check Box for Appropriate Factor)

PP#	CAS#		ug/l or ug/kg (circle one)
(2V)	107-02-8	acrolein	50U
(3V)	107-13-1	acrylonitrile	50U
(4V)	71-43-2	benzene	2.5U
(6V)	56-23-5	carbon tetrachloride	2.5U
(7V)	108-90-7	chlorobenzene	2.5U
(10V)	107-06-2	1,2-dichloroethane	2.5U
(11V)	71-55-6	1,1,1-trichloroethane	4.4 ~~2.5U~~
(13V)	75-34-3	1,1-dichloroethane	2.5U
(14V)	79-00-5	1,1,2-trichloroethane	2.5U
(15V)	79-34-5	1,1,2,2-tetrachloroethane	2.5U
(16V)	75-00-3	chloroethane	2.5U
(19V)	110-75-8	2-chloroethylvinyl ether	2.5U
(23V)	67-66-3	chloroform	2.5U
(29V)	75-35-4	1,1-dichloroethene	2.5U
(30V)	156-60-5	1,2-trans-dichloroethene	2.5U
(32V)	78-87-5	1,2-dichloropropane	2.5U
(33V)	10061-02-6	trans-1,3-dichloropropene	2.5U
	10061-01-05	cis,1,3-dichloropropene	5U
(38V)	100-41-4	ethylbenzene	2.5U
(44V)	75-09-2	methylene chloride	340 ~~2.5U~~
(45V)	74-87-3	chloromethane	2.5U
(46V)	74-83-9	bromomethane	2.5U
(47V)	75-25-2	bromoform	2.5U
(48V)	75-27-4	bromodichloromethane	2.5U
(49V)	75-69-4	fluorotrichloromethane	7.2 ~~2.5U~~
(51V)	124-48-1	chlorodibromomethane	2.5U
(85V)	127-18-4	tetrachloroethene	2.5U
(86V)	108-88-3	toluene	2.5U
(87V)	79-01-6	trichloroethene	2.5U
(88V)	75-01-4	vinyl chloride	2.5U
	67-64-1	acetone	50U
	78-93-3	2-butanone	100U
	75-15-0	carbondisulfide	5U
	519-78-6	2-hexanone	50U
	108-10-1	4-methyl-2-pentanone	50U
	100-42-5	styrene	2.5U
	108-05-4	vinyl acetate	5U
	95-47-6	o-xylene	2.5U

PESTICIDES

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 4-11-84
DATE ANALYZED: 4-12-84
PERCENT MOISTURE: 1.22 factor = ~~2210~~ 1890

Multiply Detection limits by 1 ☐ or ☑ 15
(Check Box for Appropriate Factor)

PP#	CAS#		ug/l or ug/kg (circle one)
(89P)	309-00-2	aldrin	4.0U
(90P)	60-57-1	dieldrin	4.0U
(91P)	57-74-9	chlordane	4.0U
(92P)	50-29-3	4,4'-DDT	4.0U
(93P)	72-55-9	4,4'-DDE	4.0U
(94P)	72-54-8	4,4'-DDD	4.0U
(95P)	115-29-7	endosulfan I	4.0U
(96P)	115-29-7	endosulfan II	4.0U
(97P)	1031-07-8	endosulfan sulfate	4.0U
(98P)	78-20-8	endrin	4.0U
(99P)	7421-43-4	endrin aldehyde	4.0U
(100P)	76-44-8	heptachlor	4.0U
(101P)	1024-57-3	heptachlor epoxide	4.0U
(102P)	319-84-6	BHC-Alpha	4.0U
(103P)	319-85-7	BHC-Beta	4.0U
(104P)	319-86-8	BHC-Delta	4.0U
(105P)	58-89-9	BHC-Gamma	4.0U
(106P)	53469-21-9	PCB-1242	4.0U
(107P)	11097-69-7	PCB-1254	4.0U
(108P)	11104-28-2	PCB-1221	4.0U
(109P)	11141-16-5	PCB-1232	4.0U
(110P)	12672-29-6	PCB-1248	4.0U
(111P)	11096-82-5	PCB-1260 P.N. 360	~~4.0U~~
(112P)	12674-11-2	PCB-1016	4.0U
(113P)	8001-35-2	toxaphene	4.0U

DIOXINS

CONCENTRATION: (LOW) MEDIUM HIGH (circle)
DATE EXTRACTED/PREPARED: 4-28-84
DATE ANALYZED: 4-11-84
PERCENT MOISTURE: 1.22 factor = 1890

			ug/g ~~or ug/kg~~ (circle one)
(129B)	1746-01-6	2,3,7,8-tetrachlorodibenzo-p-dioxin	0.16U

July, 1983

818, Alexandria, VA [illegible] 3 - 703/557-2490

S[illegible] Number
C8182

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: Mead CompuChem
Lab Sample ID No.: 24052
Sample Matrix: Solid
Data Release Authorized By: [illegible]

Case Number: 2534
QC Report No.:
Contract No.: 68-01-6866
Date Sample Received: 3-29-84

SEMIVOLATILE COMPOUNDS

ORIGINAL
(Red)

CONCENTRATION: LOW MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 4-2-84
DATE ANALYZED: 5-5-84
PERCENT MOISTURE:

Multiply Detection limits by 1 ☐ or 10 ☐ or ☑ 40
(Check Box for Appropriate Factor)

PP#	CAS#		ug/l or ug/kg (circle one)
(21A)	88-06-2	2,4,6-trichlorophenol	10U
(22A)	59-50-7	p-chloro-m-cresol	20U
(24A)	95-57-8	2-chlorophenol	10U
(31A)	122-83-2	2,4-dichlorophenol	10U
(34A)	105-67-9	2,4-dimethylphenol	10U
(57A)	88-75-5	2-nitrophenol	20U
(58A)	100-02-7	4-nitrophenol	100U
(59A)	51-88-5	2,4-dinitrophenol	50U
(60A)	534-52-1	4,6-dinitro-2-methylphenol	20U
(64A)	87-36-5	pentachlorophenol	20U
(65A)	108-95-2	phenol	10U
	65-85-0	benzoic acid	100U
	95-48-7	2-methylphenol	10U
	108-39-4	4-methylphenol	10U
	95-95-4	2,4,5-trichlorophenol	100U
(1B)	83-32-9	acenaphthene	10U
(5B)	92-87-5	benzidine	40U
(8B)	120-82-1	1,2,4-trichlorobenzene	10U
(9B)	118-74-1	hexachlorobenzene	10U
(12B)	67-72-1	hexachloroethane	10U
(18B)	111-44-4	bis(2-chloroethyl)ether	10U
(20B)	91-58-7	2-chloronaphthalene	10U
(25B)	95-50-1	1,2-dichlorobenzene	10U
(26B)	541-73-1	1,3-dichlorobenzene	10U
(27B)	106-46-7	1,4-dichlorobenzene	10U
(28B)	91-94-1	3,3'-dichlorobenzidine	20U
(35B)	121-14-2	2,4-dinitrotoluene	20U
(36B)	606-20-2	2,6-dinitrotoluene	20U
(37B)	122-66-7	1,2-diphenylhydrazine	20U
(39B)	206-44-0	fluoranthene	10U
(40B)	7005-72-3	4-chlorophenyl phenylether	10U
(41B)	101-55-3	4-bromophenyl phenyl ether	10U
(42B)	39638-32-9	bis-(2-chloroisopropyl)ether	20U
(43B)	111-91-1	bis-(2-chloroethoxy)methane	20U

PP#	CAS#		ug/l or ug/kg (circle one)
(52B)	87-68-3	hexachlorobutadiene	10U
(53B)	77-47-4	hexachlorocyclopentadiene	10U
(54B)	78-59-1	isophorone	10U
(55B)	91-20-3	naphthalene	10U
(56B)	98-95-3	nitrobenzene	10U
(62B)	86-30-6	N-nitrosodiphenylamine	10U
(63B)	621-64-7	N-nitrosodi-n-propylamine	20U
(66B)	117-81-7	bis(2-ethylhexyl)phthalate	10U
(67B)	85-68-7	butyl benzyl phthalate	10U
(68B)	84-74-2	di-n-butyl phthalate	10U
(69B)	117-84-0	di-n-octyl phthalate	10U
(70B)	84-66-2	diethyl phthalate	10U
(71B)	131-11-3	dimethyl phthalate	10U
(72B)	56-55-3	benzo(a)anthracene	10U
(73B)	50-33-8	benzo(a)pyrene	20U
(74B)	205-99-2	benzo(b)fluoranthene	20U
(75B)	207-08-9	benzo(k)fluoranthene	20U
(76B)	318-01-9	chrysene	10U
(77B)	208-96-8	acenaphthylene	10U
(78B)	120-12-7	anthracene	10U
(79B)	181-24-2	benzo(ghi)perylene	20U
(80B)	86-73-7	fluorene	10U
(81B)	85-01-8	phenanthrene	10U
(82B)	53-70-3	dibenzo(a,h)anthracene	20U
(83B)	183-39-5	indeno(1,2,3-cd)pyrene	20U
(84B)	129-00-0	pyrene	10U
	62-53-3	aniline	10U
	100-51-6	benzyl alcohol	20U
	106-47-8	4-chloroaniline	50U
	132-64-9	dibenzofuran	10U
	91-57-6	2-methylnaphthalene	20U
	88-74-4	2-nitroaniline	100U
	99-09-2	3-nitroaniline	100U
	100-01-6	4-nitroaniline	100U

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

SAMPLE NUMBER
C8182

ORGANICS ANALYSIS DATA SHEET

Laboratory Name: CompuChem
Lab Sample ID No: 24052
Sample Matrix: Solid
Data Release Authorized By: [illegible]

Case Number 2534
QC Report No.
Contract No.: 68-01-6866
Date Sample Received: 3-29-84

ORIGINAL (Red)

VOLATILES

CONCENTRATION: (LOW) MEDIUM HIGH (circle)
DATE EXTRACTED/PREPARED: 4-3-84
DATE ANALYZED: 4-5-84
PERCENT MOISTURE:

Multiply Detection limits by 1 ☐ or ☒ 1
(Check Box for Appropriate Factor)

PP#	CAS#		ug/l or ug/kg (circle one)
(2V)	107-02-8	acrolein	50U
(3V)	107-13-1	acrylonitrile	50U
(4V)	71-43-2	benzene	2.5U
(6V)	56-23-5	carbon tetrachloride	2.5U
(7V)	108-90-7	chlorobenzene	2.5U
(10V)	107-06-2	1,2-dichloroethane	2.5U
(11V)	71-55-6	1,1,1-trichloroethane	2.5U
(13V)	75-34-3	1,1-dichloroethane	2.5U
(14V)	79-00-5	1,1,2-trichloroethane	2.5U
(15V)	79-34-5	1,1,2,2-tetrachloroethane	2.5U
(16V)	75-00-3	chloroethane	2.5U
(19V)	110-75-8	2-chloroethylvinyl ether	2.5U
(23V)	67-66-3	chloroform	2.5U
(29V)	75-35-4	1,1-dichloroethene	2.5U
(30V)	156-60-5	1,2-trans-dichloroethene	2.5U
(32V)	78-87-5	1,2-dichloropropane	2.5U
(33V)	10061-02-6	trans-1,3-dichloropropene	2.5U
	10061-01-05	cis,1,3-dichloropropene	5U
(38V)	100-41-4	ethylbenzene	2.5U
(44V)	75-09-2	methylene chloride	66 ~~2.5U~~
(45V)	74-87-3	chloromethane	2.5U
(46V)	74-83-9	bromomethane	2.5U
(47V)	75-25-2	bromoform	2.5U
(48V)	75-27-4	bromodichloromethane	2.5U
(49V)	75-69-4	fluorotrichloromethane	2.5U
(51V)	124-48-1	chlorodibromomethane	2.5U
(85V)	127-18-4	tetrachloroethene	2.5U
(86V)	108-88-3	toluene	2.5U
(87V)	79-01-6	trichloroethene	2.5U
(88V)	75-01-4	vinyl chloride	2.5U
	67-64-1	acetone	50U
	78-93-3	2-butanone	100U
	75-15-0	carbondisulfide	5U
	519-78-6	2-hexanone	50U
	108-10-1	4-methyl-2-pentanone	50U
	100-42-5	styrene	2.5U
	108-05-4	vinyl acetate	5U
	95-47-6	o-xylene	2.5U

PESTICIDES

CONCENTRATION: (LOW) MEDIUM HIGH (circle one)
DATE EXTRACTED/PREPARED: 4-2-84
DATE ANALYZED: 4-13-84
PERCENT MOISTURE:

Multiply Detection limits by 1 ☒ or ☐
(Check Box for Appropriate Factor)

PP#	CAS#		ug/l or ug/kg (circle one)
(89P)	309-00-2	aldrin	4.0U
(90P)	60-57-1	dieldrin	4.0U
(91P)	57-74-9	chlordane	4.0U
(92P)	50-29-3	4,4'-DDT	4.0U
(93P)	72-55-9	4,4'-DDE	4.0U
(94P)	72-54-8	4,4'-DDD	4.0U
(95P)	115-29-7	endosulfan I	4.0U
(96P)	115-29-7	endosulfan II	4.0U
(97P)	1031-07-8	endosulfan sulfate	4.0U
(98P)	78-20-8	endrin	4.0U
(99P)	7421-43-4	endrin aldehyde	4.0U
(100P)	76-44-8	heptachlor	4.0U
(101P)	1024-57-3	heptachlor epoxide	4.0U
(102P)	319-84-6	BHC-Alpha	4.0U
(103P)	319-85-7	BHC-Beta	4.0U
(104P)	319-86-8	BHC-Delta	4.0U
(105P)	58-89-9	BHC-Gamma	4.0U
(106P)	53469-21-9	PCB-1242	4.0U
(107P)	11097-69-7	PCB-1254	4.0U
(108P)	11104-28-2	PCB-1221	4.0U
(109P)	11141-16-5	PCB-1232	4.0U
(110P)	12672-29-6	PCB-1248	4.0U
(111P)	11096-82-5	PCB-1260	4.0U
(112P)	12674-11-2	PCB-1016	4.0U
(113P)	8001-35-2	toxaphene	4.0U

DIOXINS

CONCENTRATION: (LOW) MEDIUM HIGH (circle)
DATE EXTRACTED/PREPARED: 4-2-84
DATE ANALYZED: 4-11-84
PERCENT MOISTURE:

			ug/g or ug/kg (circle one)
(129B)	1746-01-6	2,3,7,8-tetrachlorodibenzo-p-dioxin	0.16U

U.S. EPA Contract La' ratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

C NAL (Red)

EPA Sample No. MC3159

Date 4.20.84

INORGANIC ANALYSIS DATA SHEET

LAB NAME JTC Environmental

CASE NO. 2534

LAB SAMPLE ID. NO. 70-0870

QC REPORT NO. 92

Matrix Aqueous

Elements Identified and Measured

ug/L or mg/kg (Circle One)

ORIGINAL (Red)

1.	Aluminum	1270 ~~1267~~	13.	Magnesium	NR
2.	Antimony	<20	14.	Manganese	~~146~~ 150.
3.	Arsenic	<100	15.	Mercury	<.2
4.	Barium	<100	16.	Nickel	<40
5.	Beryllium	<5	17.	Potassium	NR
6.	Cadmium	<1.	18.	Selenium	<2
7.	Calcium	NR	19.	Silver	<10
8.	Chromium	<10	20.	Sodium	NR
9.	Cobalt	<50	21.	Thallium	<10
10.	Copper	66	22.	Tin	<20.
11.	Iron	1520 ~~1522~~	23.	Vanadium	<200
12.	Lead	6	24.	Zinc	77
Cyanide		<10./~~146~~ <10	Percent Solids		NR

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager E.D.

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MC3160

Date 4.20.84

INORGANIC ANALYSIS DATA SHEET

LAB NAME JTC Environmental

CASE NO. 2534

LAB SAMPLE ID. NO. 70.0871

QC REPORT NO. 92

Matrix Aqueous

Elements Identified and Measured

ug/L or mg/kg (Circle One)

ORIGINAL (Red)

1.	Aluminum	4230	13.	Magnesium	NR
2.	Antimony	<20	14.	Manganese	~~144~~ 140.
3.	Arsenic	~~21~~ 11.	15.	Mercury	<.2
4.	Barium	<100	16.	Nickel	57
5.	Beryllium	<5.	17.	Potassium	NR
6.	Cadmium	<1	18.	Selenium	<2
7.	Calcium	NR	19.	Silver	<10
8.	Chromium	<10	20.	Sodium	NR
9.	Cobalt	<50	21.	Thallium	<10
10.	Copper	<50	22.	Tin	<20
11.	Iron	4590	23.	Vanadium	<200
12.	Lead	10	24.	Zinc	42
	Cyanide	<10.		Percent Solids	NR

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager E. S.

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MC3161

Date 4.20.87

INORGANIC ANALYSIS DATA SHEET

LAB NAME JTC Environmental

CASE NO. 2534

LAB SAMPLE ID. NO. MD-0872

QC REPORT NO. 92

Matrix Aqueous

Elements Identified and Measured

ORIGINAL (Red)

ug/L or mg/kg (Circle One)

1.	Aluminum	120	13.	Magnesium	NR
2.	Antimony	<2	14.	Manganese	125
3.	Arsenic	<10	15.	Mercury	<.2
4.	Barium	<100	16.	Nickel	<40
5.	Beryllium	<5	17.	Potassium	NR
6.	Cadmium	<1	18.	Selenium	<2.
7.	Calcium	NR	19.	Silver	<10
8.	Chromium	<10	20.	Sodium	NR
9.	Cobalt	<50	21.	Thallium	<10.
10.	Copper	170. ~~168~~	22.	Tin	<20
11.	Iron	950	23.	Vanadium	<200
12.	Lead	<5	24.	Zinc	31
	Cyanide	<10		Percent Solids	NR

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager E. D.

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. HC-3161 D

Date 4.20 84

INORGANIC ANALYSIS DATA SHEET

LAB NAME JTC Environmental

CASE NO. 2534

LAB SAMPLE I NO.

QC REPORT NO. 92

Matrix

Elements Identified and Measured

ORIGINAL (Red)

ug/L or mg/kg (Circle One)

1.	Aluminum	73	13.	Magnesium	NR
2.	Antimony	< 20	14.	Manganese	~~123~~ 120.
3.	Arsenic	<10	15.	Mercury	<.2
4.	Barium	<100	16.	Nickel	<40
5.	Beryllium	<5	17.	Potassium	NR
6.	Cadmium	<1	18.	Selenium	<2.
7.	Calcium	NR	19.	Silver	<10
8.	Chromium	<10	20.	Sodium	NR
9.	Cobalt	<50	21.	Thallium	<10.
10.	Copper	160 ~~156~~	22.	Tin	<20
11.	Iron	850	23.	Vanadium	<200
12.	Lead	<5	24.	Zinc	12
	Cyanide	— ~~<10~~		Percent Solids	NR

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager E. D.

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MC3162

Date 9.20.84

INORGANIC ANALYSIS DATA SHEET

LAB NAME IIT Environmental

CASE NO. 2534

LAB SAMPLE ID. NO. 70-0873

QC REPORT NO. 92

Matrix Aqueous

Elements Identified and Measured

(ug/L) or mg/kg (Circle One)

ORIGINAL (Red)

1.	Aluminum	9800	13.	Magnesium	NR
2.	Antimony	130. ~~+26~~	14.	Manganese	~~596~~ 600.
3.	Arsenic	150. ~~+52~~	15.	Mercury	<.2
4.	Barium	<100	16.	Nickel	93
5.	Beryllium	7.	17.	Potassium	NR
6.	Cadmium	<1	18.	Selenium	49.
7.	Calcium	NR	19.	Silver	<10
8.	Chromium	12	20.	Sodium	NR
9.	Cobalt	<50	21.	Thallium	<10
10.	Copper	<50	22.	Tin	200. ~~+96~~ C/E
11.	Iron	12300	23.	Vanadium	<200
12.	Lead	31.	24.	Zinc	67
	Cyanide	<10		Percent Solids	NR

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager S D

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
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703/557-2490 FTS: 8-557-2490

EPA Sample No. MC3163

Date 9.20.84

INORGANIC ANALYSIS DATA SHEET

LAB NAME JTC Environmental

CASE NO. 2534

LAB SAMPLE ID. NO. 70-0874

QC REPORT NO. 92

Matrix Aqueous

Elements Identified and Measured

ug/L or mg/kg (Circle One)

ORIGINAL (Red)

1.	Aluminum	7920	13.	Magnesium	NR
2.	Antimony	21	14.	Manganese	~~795~~ 800.
3.	Arsenic	75	15.	Mercury	<.2
4.	Barium	320	16.	Nickel	86
5.	Beryllium	8.	17.	Potassium	NR
6.	Cadmium	9.	18.	Selenium	13.
7.	Calcium	NR	19.	Silver	<10
8.	Chromium	<10	20.	Sodium	NR
9.	Cobalt	<50	21.	Thallium	<10
10.	Copper	<50	22.	Tin	81 C/E
11.	Iron	168000	23.	Vanadium	<200
12.	Lead	<5	24.	Zinc	340
	Cyanide	14 E.		Percent Solids	NR

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager E. D

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
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703/557-2490 FTS: 8-557-2490

EPA Sample No. MC3164

Date 4.20.84

INORGANIC ANALYSIS DATA SHEET

LAB NAME JTC Environmental

CASE NO. 2534

LAB SAMPLE ID. NO. 70-0875

QC REPORT NO. 92

Matrix Aqueous

Elements Identified and Measured

ug/L or mg/kg (Circle One)

ORIGINAL (Red)

1.	Aluminum	2830	13.	Magnesium	NR
2.	Antimony	<20	14.	Manganese	130
3.	Arsenic	13.	15.	Mercury	<.2
4.	Barium	<100	16.	Nickel	<40
5.	Beryllium	<5	17.	Potassium	NR
6.	Cadmium	<1	18.	Selenium	~~3.5~~ 4.
7.	Calcium	NR	19.	Silver	<10
8.	Chromium	<10	20.	Sodium	NR
9.	Cobalt	<50	21.	Thallium	<10
10.	Copper	<50	22.	Tin	57 C/E
11.	Iron	3000	23.	Vanadium	<200
12.	Lead	7	24.	Zinc	42
	Cyanide	<10.		Percent Solids	NR

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager [illegible]

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MC 3165

Date 4.20.84

INORGANIC ANALYSIS DATA SHEET

LAB NAME JTC Environmental

CASE NO. 2534

LAB SAMPLE ID. NO. 70-0876

QC REPORT NO. 97

Matrix Aqueous

Elements Identified and Measured

ug/L or mg/kg (Circle One)

ORIGINAL (Red)

1.	Aluminum	260. ~~257~~	13.	Magnesium	NR
2.	Antimony	<20	14.	Manganese	~~589~~ 600.
3.	Arsenic	15.	15.	Mercury	<.2
4.	Barium	<100	16.	Nickel	50
5.	Beryllium	<5	17.	Potassium	NR
6.	Cadmium	<1	18.	Selenium	<2
7.	Calcium	NR	19.	Silver	<10
8.	Chromium	<10	20.	Sodium	NR
9.	Cobalt	<50	21.	Thallium	<10
10.	Copper	<50	22.	Tin	37 C/E
11.	Iron	10800	23.	Vanadium	<200
12.	Lead	13	24.	Zinc	2910
	Cyanide	<10.		Percent Solids	NR

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager E. D

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MC3166

Date 4.20.84

INORGANIC ANALYSIS DATA SHEET

LAB NAME JTC Environmental

CASE NO. 2534

LAB SAMPLE ID. NO. 70-0877

QC REPORT NO. 92

Matrix Aqueous

Elements Identified and Measured

ug/L or mg/kg (Circle One)

ORIGINAL (Red)

1.	Aluminum	3630	13.	Magnesium	NR
2.	Antimony	59	14.	Manganese	~~947~~ 950
3.	Arsenic	56	15.	Mercury	<.2
4.	Barium	<100	16.	Nickel	<40
5.	Beryllium	7.	17.	Potassium	NR
6.	Cadmium	<1	18.	Selenium	18
7.	Calcium	NR	19.	Silver	<10
8.	Chromium	<10	20.	Sodium	NR
9.	Cobalt	<50	21.	Thallium	<10
10.	Copper	<50	22.	Tin	ND/B
11.	Iron	55400	23.	Vanadium	<200
12.	Lead	11.	24.	Zinc	38
	Cyanide	<10		Percent Solids	NR

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager S. B.

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MC 3171

Date 4.20.84

INORGANIC ANALYSIS DATA SHEET

LAB NAME JTC Environmental

CASE NO. 2534

LAB SAMPLE ID. NO. 90 0882

QC REPORT NO. 92

Matrix Soil

Elements Identified and Measured

ug/L or mg/kg (Circle One)

ORIGINAL (Red)

1.	Aluminum	4190	13.	Magnesium	NR
2.	Antimony	<1	14.	Manganese	110. ~~109~~ C
3.	Arsenic	13	15.	Mercury	<.1
4.	Barium	59 E	16.	Nickel	6.
5.	Beryllium	.3	17.	Potassium	NR
6.	Cadmium	.09	18.	Selenium	<.1
7.	Calcium	NR	19.	Silver	<.5
8.	Chromium	11 E	20.	Sodium	NR
9.	Cobalt	~~6.7~~ 7.	21.	Thallium	<.5
10.	Copper	~~6.3~~ 6.	22.	Tin	<1
11.	Iron	11400	23.	Vanadium	12 E
12.	Lead	14.	24.	Zinc	28 C

Cyanide / Dupl <5 / <5

Percent Solids NR

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager S. [illegible]

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MC3172

Date 8.20.84

INORGANIC ANALYSIS DATA SHEET

LAB NAME JTC Environmental

CASE NO. 2534

LAB SAMPLE ID. NO. 70-0883

QC REPORT NO. 92

Matrix Soil

Elements Identified and Measured

ug/L or mg/kg (Circle One)

ORIGINAL (Red)

1.	Aluminum	1840	13.	Magnesium	NR
2.	Antimony	<1.	14.	Manganese	650 C
3.	Arsenic	75	15.	Mercury	<.1
4.	Barium	46 E	16.	Nickel	18
5.	Beryllium	<.25	17.	Potassium	NR
6.	Cadmium	<.05	18.	Selenium	.8 E
7.	Calcium	NR	19.	Silver	.6
8.	Chromium	~~<2~~ 9E	20.	Sodium	NR
9.	Cobalt	<2.5 ~~<2.5~~ 3.	21.	Thallium	~~<.5~~ 3.
10.	Copper	~~2.5~~ 3.	22.	Tin	1. C
11.	Iron	42400	23.	Vanadium	58 E
12.	Lead	2. ~~2.4~~	24.	Zinc	8. ~~8.4~~ C
	Cyanide	<.5		Percent Solids	NR

Footnotes. For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager SD

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MC3173

Date 7.20.84

INORGANIC ANALYSIS DATA SHEET

LAB NAME ITC Environmental

CASE NO. 2534

LAB SAMPLE ID. NO. 70-0884

QC REPORT NO. 92

Matrix Soil ?

Elements Identified and Measured

ug/L or mg/kg (Circle One)

ORIGINAL (Red)

1.	Aluminum	6900	13.	Magnesium	NR
2.	Antimony	1.1	14.	Manganese	320. ~~347~~ C
3.	Arsenic	20.	15.	Mercury	<.1
4.	Barium	310. ~~340~~ E	16.	Nickel	9.
5.	Beryllium	<.25	17.	Potassium	NR
6.	Cadmium	.06	18.	Selenium	~~.8~~ <.1
7.	Calcium	NR	19.	Silver	.6
8.	Chromium	7 E	20.	Sodium	NR
9.	Cobalt	<2.5	21.	Thallium	<.5
10.	Copper	10. ~~9.5~~	22.	Tin	ND/B
11.	Iron	19400	23.	Vanadium	<10
12.	Lead	7.	24.	Zinc	21 C
	Cyanide	<.5		Percent Solids	NR

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager S. D.

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MC3174

Date 4.20.84

INORGANIC ANALYSIS DATA SHEET

LAB NAME JTC Environmental

CASE NO. 2534

LAB SAMPLE ID. NO. 7C-0885

QC REPORT NO. 92

Matrix Soil

Elements Identified and Measured

ug/L or mg/kg (Circle One)

ORIGINAL (Red)

1.	Aluminum	2620	13.	Magnesium	NR
2.	Antimony	1.6	14.	Manganese	280 ~~276~~ C
3.	Arsenic	20.	15.	Mercury	<.1
4.	Barium	144 ~~25~~ E	16.	Nickel	19.8.
5.	Beryllium	<.25	17.	Potassium	NR
6.	Cadmium	8	18.	Selenium	<.1
7.	Calcium	NR	19.	Silver	<.5
8.	Chromium	2 E	20.	Sodium	NR
9.	Cobalt	4.5	21.	Thallium	<.5
10.	Copper	16.3	22.	Tin	ND/B
11.	Iron	70500	23.	Vanadium	<10
12.	Lead	9.4	24.	Zinc	297 C
	Cyanide	<.5		Percent Solids	NR

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager E. D.

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MC3175

Date 4.20.84

INORGANIC ANALYSIS DATA SHEET

LAB NAME JTI Environmental

CASE NO. 2534

LAB SAMPLE ID. NO. 70-0886

QC REPORT NO. 92

Matrix Soil

Elements Identified and Measured

ug/L or mg/kg (Circle One)

ORIGINAL (Red)

1.	Aluminum	3370	13.	Magnesium	NR
2.	Antimony	<1.	14.	Manganese	127 C
3.	Arsenic	9.3	15.	Mercury	<.1
4.	Barium	25.7 E	16.	Nickel	4.3.
5.	Beryllium	<.25	17.	Potassium	NR
6.	Cadmium	.14	18.	Selenium	<.1
7.	Calcium	NR	19.	Silver	<.5
8.	Chromium	7E	20.	Sodium	NR
9.	Cobalt	<2.5	21.	Thallium	<.5
10.	Copper	5.6	22.	Tin	<1.
11.	Iron	11100.	23.	Vanadium	<10
12.	Lead	8	24.	Zinc	20 C
	Cyanide	<5.		Percent Solids	NR

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager E.D.

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MC3176

Date 4.20 89

INORGANIC ANALYSIS DATA SHEET

LAB NAME JTC Environmental

CASE NO. 2534

LAB SAMPLE ID. NO. 70-0887

QC REPORT NO. 92

Matrix Soil

Elements Identified and Measured

ug/L or mg/kg (Circle One)

ORIGINAL (Red)

1.	Aluminum	11,400	13.	Magnesium	NR
2.	Antimony	2.	14.	Manganese	302 C
3.	Arsenic	~~32~~ 32	15.	Mercury	<.1
4.	Barium	119 E	16.	Nickel	11.
5.	Beryllium	.3	17.	Potassium	NR
6.	Cadmium	.16	18.	Selenium	1.9 E
7.	Calcium	NR	19.	Silver	.5
8.	Chromium	18 E	20.	Sodium	NR
9.	Cobalt	7.6	21.	Thallium	<.5
10.	Copper	16. ~~15.5~~	22.	Tin	ND/B
11.	Iron	16700	23.	Vanadium	22 E
12.	Lead	10	24.	Zinc	48 C
	Cyanide	<.5		Percent Solids	NR

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager E. D

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MC3177

Date 4.20.84

INORGANIC ANALYSIS DATA SHEET

LAB NAME JTC Environmental

CASE NO. 2534

LAB SAMPLE ID. NO. 70-0388

QC REPORT NO. 92

Matrix Soil

Elements Identified and Measured

ug/L or mg/kg (Circle One)

ORIGINAL (Red)

1.	Aluminum	7670	13.	Magnesium	NR
2.	Antimony	2. ~~7.6~~	14.	Manganese	230. ~~225~~ C
3.	Arsenic	20. ~~23.~~	15.	Mercury	<.1
4.	Barium	83 E	16.	Nickel	13
5.	Beryllium	.6	17.	Potassium	NR
6.	Cadmium	.07	18.	Selenium	1.3 E
7.	Calcium	NR	19.	Silver	.4
8.	Chromium	21 E	20.	Sodium	NR
9.	Cobalt	9. ~~9.3~~	21.	Thallium	<.5
10.	Copper	20.	22.	Tin	ND/B
11.	Iron	14200	23.	Vanadium	<10 E
12.	Lead	29	24.	Zinc	47 C
	Cyanide	<.5		Percent Solids	NR

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager S. D

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MC-3177 D

Date 4.20.84

INORGANIC ANALYSIS DATA SHEET

LAB NAME JTC Environmental

CASE NO. 2534

LAB SAMPLE ID. NO. 700888

QC REPORT NO. 92

Matrix ~~Soil~~ ?

Elements Identified and Measured

ug/L or mg/kg (Circle One)

ORIGINAL (Red)

1.	Aluminum	7600	13.	Magnesium	NR
2.	Antimony	2. ~~1.6~~	14.	Manganese	130 C
3.	Arsenic	22. ~~22.3~~	15.	Mercury	<.1
4.	Barium	78 E	16.	Nickel	13.
5.	Beryllium	.6	17.	Potassium	NR
6.	Cadmium	.07	18.	Selenium	2. E
7.	Calcium	NR	19.	Silver	.5
8.	Chromium	25 E	20.	Sodium	NR
9.	Cobalt	9. ~~9.2~~	21.	Thallium	<.5
10.	Copper	21.	22.	Tin	ND/B
11.	Iron	13300	23.	Vanadium	<10 E
12.	Lead	17.	24.	Zinc	47 C

Cyanide —

Percent Solids NR

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager S. D.

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MC 3178

Date 4.20.84

INORGANIC ANALYSIS DATA SHEET

LAB NAME JTC Environmental

CASE NO. 2534

LAB SAMPLE ID. NO. 70-0889

QC REPORT NO. 92

Matrix Soil

Elements Identified and Measured

ug/L or mg/kg (Circle One)

ORIGINAL (Red)

1.	Aluminum	9.70	13.	Magnesium	NR
2.	Antimony	3. ~~2.5~~	14.	Manganese	74 C
3.	Arsenic	130. ~~133.~~	15.	Mercury	<.1
4.	Barium	120. ~~117~~ E	16.	Nickel	13.
5.	Beryllium	.7	17.	Potassium	NR
6.	Cadmium	<.05	18.	Selenium	17 E
7.	Calcium	NR	19.	Silver	<.5
8.	Chromium	7E	20.	Sodium	NR
9.	Cobalt	4. ~~4.3~~	21.	Thallium	<.5
10.	Copper	22	22.	Tin	ND/B
11.	Iron	9500	23.	Vanadium	250. ~~249~~ E
12.	Lead	130.	24.	Zinc	8.5 C
	Cyanide	<5		Percent Solids	NR

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager E. D.

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MC3179

Date 4.20.84

INORGANIC ANALYSIS DATA SHEET

LAB NAME JTC Environmental

CASE NO. 2534

LAB SAMPLE ID. NO. 70-0890

QC REPORT NO. 92

Matrix Aqueous

Elements Identified and Measured

ug/L or mg/kg (Circle One)

1.	Aluminum	<100	13.	Magnesium	NR
2.	Antimony	<20	14.	Manganese	47
3.	Arsenic	<10	15.	Mercury	<.2
4.	Barium	<100	16.	Nickel	<40
5.	Beryllium	<5	17.	Potassium	NR
6.	Cadmium	<1.	18.	Selenium	<2.
7.	Calcium	NR	19.	Silver	<10
8.	Chromium	14.	20.	Sodium	NR
9.	Cobalt	<50	21.	Thallium	<10.
10.	Copper	<50	22.	Tin	ND/B
11.	Iron	<50	23.	Vanadium	<200
12.	Lead	<5	24.	Zinc	18
	Cyanide	<10		Percent Solids	NR

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager E. D.

Form I

APPENDIX E

ORIGINAL
(Red)

96th Congress
1st Session

COMMITTEE PRINT

COMMITTEE PRINT 96-IFC 33

HRS SUP. DOC. ref. 13

WASTE DISPOSAL SITE SURVEY

REPORT

together with

ADDITIONAL AND SEPARATE VIEWS

BY THE

SUBCOMMITTEE ON OVERSIGHT AND INVESTIGATIONS

OF THE

COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE

HOUSE OF REPRESENTATIVES

NINETY-SIXTH CONGRESS

FIRST SESSION

OCTOBER 1979

U.S. GOVERNMENT PRINTING OFFICE

52-419 O

WASHINGTON : 1979

For sale by the Superintendent of Documents, U.S. Government Printing Office
Washington, D.C. 20402

ORIGINAL
(Red)

S[illegible] LOCATED ON PROPERTY OF CHEMICAL PLANT PAR[illegible] IN SURVEY AND IS KNOWN TO HAVE BEEN USED FOR DISPOSAL FROM 1956 TO 1979 SITE IS STILL BEING USED AMOUNT OF CHEMICAL PROCESS WASTE DISPOSED OF AT THIS SITE THROUGH 1978 WAS REPORTED AS 206 HUNDRED TONS CHEMICAL COMPONENTS OF WASTE DISPOSED AT THIS SITE INCLUDE ORGANICS AND INORGANICS METHODS OF DISPOSAL INCLUDE MONO INDUSTRIAL WASTE LANDFILL, MIXED INDUSTRIAL WASTE LANDFILL, DRUMMED WASTE LANDFILL, PITS, PONDS AND LAGOONS, INCINERATION, TREATMENT (EG NEUTRALIZATION), REPROCESSING AND/OR RECYCLING AND OTHER UNCATAGORIZED METHOD

FREDERICKSBURG

FREDERICKSBURG PLANT, PO BOX 598 22401

SITE IS LOCATED ON PROPERTY OF CHEMICAL PLANT PARTICIPATING IN SURVEY AND IS KNOWN TO HAVE BEEN USED FOR DISPOSAL FROM 1930 TO 1978 SITE IS NO LONGER IN USE AMOUNT OF CHEMICAL PROCESS WASTE DISPOSED OF AT THIS SITE THROUGH 1978 WAS REPORTED AS 2,750 HUNDRED TONS CHEMICAL COMPONENTS OF WASTE DISPOSED AT THIS SITE INCLUDE ACID SOLUTIONS (WITH PH < 3), BASE SOLUTIONS (WITH PH > 12), HEAVY METALS AND TRACE METALS (BONDED ORGANICALLY AND INORGANICALLY), ORGANICS, INORGANICS AND MISCELLANEOUS WASTE MATERIAL METHODS OF DISPOSAL INCLUDE MIXED INDUSTRIAL WASTE LANDFILL, PITS, PONDS AND LAGOONS AND INCINERATION

FRONT ROYAL

FRONT ROYAL WORKS, P O BOX 683 KENDRICK LANE 22630

SITE IS LOCATED ON PROPERTY OF CHEMICAL PLANT PARTICIPATING IN SURVEY AND IS KNOWN TO HAVE BEEN USED FOR DISPOSAL FROM 1946 TO 1979. SITE IS STILL BEING USED AMOUNT OF CHEMICAL PROCESS WASTE DISPOSED OF AT THIS SITE THROUGH 1978 WAS REPORTED AS 800 HUNDRED TONS CHEMICAL COMPONENTS OF WASTE DISPOSED AT THIS SITE INCLUDE ACID SOLUTIONS (WITH PH < 3), HEAVY METALS AND TRACE METALS (BONDED ORGANICALLY AND INORGANICALLY) INORGANICS AND MISCELLANEOUS WASTE MATERIAL METHODS OF DISPOSAL INCLUDE MONO INDUSTRIAL WASTE LANDFILL MIXED INDUSTRIAL WASTE LANDFILL, DRUMMED WASTE LANDFILL, PITS, PONDS AND LAGOONS, LAND FARMING, TREATMENT (EG - NEUTRALIZATION) AND REPROCESSING AND/OR RECYCLING

GOOCHLAND CO

GOOCHLAND COUNTY STATE FARM, ADDRESS UNREPORTED

SITE IS NOT LOCATED ON PROPERTY OF CHEMICAL PLANT PARTICIPATING IN SURVEY, BUT IS KNOWN TO HAVE BEEN USED FOR DISPOSAL DURING 1973 AT TIME OF USE, SITE WAS PUBLICLY OWNED SITE IS NO LONGER IN USE CHEMICAL COMPONENTS OF WASTE DISPOSED AT THIS SITE INCLUDE ORGANICS METHODS OF DISPOSAL INCLUDE MIXED INDUSTRIAL WASTE LANDFILL

HAMPTON

END OF ANDREWS ST, ADDRESS UNREPORTED

SITE IS NOT LOCATED ON PROPERTY OF CHEMICAL PLANT PARTICIPATING IN SURVEY, BUT IS KNOWN TO HAVE BEEN USED FOR DISPOSAL DURING 1966 AT TIME OF USE, SITE WAS OWNED BY PRIVATE CONCERN OTHER THAN CHEMICAL COMPANY INCLUDED IN THIS SURVEY SITE IS POSSIBLY OPEN OR CLOSED CHEMICAL COMPONENTS OF WASTE DISPOSED AT THIS SITE INCLUDE BASE SOLUTIONS (WITH PH > 12), HEAVY METALS AND TRACE METALS (BONDED ORGANICALLY AND INORGANICALLY) AND INORGANICS METHODS OF DISPOSAL ARE NOT KNOWN

HAMPTON

SEWER CONNECTION, 411 ROTARY 23670

SITE IS LOCATED ON PROPERTY OF CHEMICAL PLANT PARTICIPATING IN SURVEY AND IS KNOWN TO HAVE BEEN USED FOR DISPOSAL, BUT FOR AN UNSPECIFIED PERIOD OF TIME SITE IS NO LONGER IN USE AMOUNT OF CHEMICAL PROCESS WASTE DISPOSED OF AT THIS SITE THROUGH 1978 WAS REPORTED AS 3 HUNDRED TONS CHEMICAL COMPONENTS OF WASTE DISPOSED AT THIS SITE INCLUDE BASE SOLUTIONS (WITH PH > 12), HEAVY METALS AND TRACE METALS (BONDED ORGANICALLY AND INORGANICALLY) AND INORGANICS METHODS OF DISPOSAL INCLUDE UNCATAGORIZED METHODS

HAMPTON

WILLIAMS PAVING CO LANDFILL, OFF ARMSTEAD AVE

SITE IS NOT LOCATED ON PROPERTY OF CHEMICAL PLANT PARTICIPATING IN SURVEY, BUT IS KNOWN TO HAVE BEEN USED FOR DISPOSAL FROM 1976 TO 1978 AT TIME OF USE, SITE WAS OWNED BY PRIVATE CONCERN OTHER THAN CHEMICAL COMPANY INCLUDED IN THIS SURVEY SITE IS STILL BEING USED CHEMICAL COMPONENTS OF WASTE DISPOSED AT THIS SITE INCLUDE BASE SOLUTIONS (WITH PH > 12), HEAVY METALS AND TRACE METALS (BONDED ORGANICALLY AND INORGANICALLY) AND INORGANICS METHODS OF DISPOSAL ARE NOT KNOWN

ORIGINAL
(Red)

HIWASSE

SITE IS NOT LOCATED [illegible] BEEN USED FOR DISPOSAL F[illegible] CHEMICAL COMPANY INCLUDED DISPOSED AT THIS SITE I[illegible] INORGANICS AND MIS[illegible] LANDFILL AND REPROCESSING

HOPEWELL

SITE IS LOCATED ON PR[illegible] USED FOR DISPOSAL FROM 19[illegible] DISPOSED OF AT THIS SITE T[illegible] WASTE DISPOSED AT THIS SITE ORGANICALLY AND INORGANICAL[illegible] DISPOSAL INCLUDE MONO INDUS[illegible] LANDFILL, PITS, PONDS AND L[illegible] METHODS.

HOPEWELL

SITE IS NOT LOCATED ON P[illegible] BEEN USED FOR DISPOSAL FROM [illegible] BEING USED CHEMICAL COMPON[illegible] HEAVY METALS AND TRACE METALS MISCELLANEOUS WASTE MATERIAL WASTE LANDFILL AND LANDFILL I[illegible]

HOPEWELL

SITE IS LOCATED ON PROPERT[illegible] USED FOR DISPOSAL FROM 1957 TO [illegible] DISPOSED OF AT THIS SITE THROU[illegible] DISPOSED AT THIS SITE INCLUDE [illegible] INORGANICS METHODS OF DISPOS[illegible]

HOPEWELL

SITE IS NOT LOCATED ON PROP[illegible] BEEN USED FOR DISPOSAL FROM 197[illegible] CHEMICAL COMPANY INCLUDED IN TH[illegible] DISPOSED AT THIS SITE INCLUDE [illegible] METHODS OF DISPOSAL INCLUDE UNCA[illegible]

HOPEWELL

SITE IS NOT LOCATED ON PROPE[illegible] BEEN USED FOR DISPOSAL FROM 1977 CHEMICAL COMPANY INCLUDED IN THIS DISPOSED AT THIS SITE INCLUDE HE[illegible] METHODS OF DISPOSAL INCLUDE UNCA[illegible]

HOPEWELL

SITE IS NOT LOCATED ON PROPER[illegible] BEEN USED FOR DISPOSAL FOR AN U[illegible] CONCERN OTHER THAN CHEMICAL COMP[illegible] COMPONENTS OF WASTE DISPOSED AT TH[illegible] INORGANICALLY) AND INORGANICS ME[illegible]

APPENDIX F

ORIGINAL
(Red)

HYDROGEOLOGICAL INVESTIGATIONS
AT SPOTSYLVANIA COUNTY INDUSTRIAL PARK
(FORMER FMC PLANT SITE)
NEAR FREDERICKSBURG, VIRGINIA

Prepared for

FMC CORPORATION

Environmental Planning Department

Philadelphia, Pennsylvania

ORIGINAL
(Red)

S. S. PAPADOPULOS & ASSOCIATES, INC.
Consulting Ground-Water Hydrologists
Rockville, Maryland

September 1981

Table IV

Logs of Selected Wells in Vicinity of Spotsylvania County Industrial Park

LZ2 - Leazer Pump and Well Company Test Hole #2

Near South Gate of Plant Property
(Log from Plant Engineer's General Notes III, p. 52)

Depth (Feet) From	To	Material Penetrated
0	3	Sandy loam
3	13	Sand
13	25	Course sand with some gravel (water)
25	62	Marl and clay

E4 - J. T Ellington Test Hole #4

About 79 feet East of Butler Building on Plant Site.
(Log by Driller, reported by Subitzky, 1955)

Depth (Feet) From	To	Material Penetrated
0	27	Sand and gravel
27	31	Rock (flint)
31	40	Sand and gravel
40	55	Clay, red
55	130	Clay, blue
130	270	Sandstone

FF5 - Ferry Farms Well #5

Lot 16, Block 26, Ferry Farms Subdivision.
(Log by Sydnor Hydrodynamics, Inc.)

Depth (Feet) From	To	Material Penetrated
0	10	Red clay
10	50	Yellow clay
50	90	Gray clay
90	100	Sand
100	150	Sand and gravel
150	195	Sand clay
195	202	Gravel
202	227	Sand clay
227	230	Sand clay
230	286	Brown clay
286	300	Gray sand clay
300	315	Sand clay
315	336	Sand and little clay
336	341	Sand, coarse
341	375	Hard sand clay
375	400	Hard clay
400	414	Sand rock

Casing: 6-inch, 0 - 291
Screen: 6-inch, 188-203, 288-298, 306-336

LZ3 - Leazer Pump and Well Company Test Hole #3

West of Former Bridge Crossing Deep Run at Upstream End of Pond
(Log from Plant Engineer's General Notes III, p 52)

Depth (Feet) From	To	Material Penetrated
0	35	No Record
35	68	Sand (lot of water)
68	70	Sandy clay (dry)

TV - Tidewater Veneer (now Bassett Bedding)

100 ft NW of State Road 638, ½ Mile W of U S Route 17
(Log by Sydnor Hydrodynamics, Inc.)

Depth (Feet) From	To	Material Penetrated
0	10	Bark and some clay mixed
10	20	Sandy, yellow clay
20	55	Red hard clay
55	65	Brown sand
65	95	Hard red clay
95	125	Sandy brownish clay
125	150	Sandy with clay mixed
150	159	Greenish and brown clay mixed
169	197	Sand with little clay mixed
197	230	Hard clay
230	240	Clay with some sand mixed
240	242	Bedrock

Casing. 7-inch, +2 to -118 feet, 6-inch 146-174, 194-242 ft
Screen 6-inch 116-146 ft , 174-194 ft.

FF6 - Ferry Farms Well #6

Lot 1, on Elementary School Property
(Log by Sydnor Hydrodynamics, Inc)

Depth (Feet) From	To	Material Penetrated
0	17	Red clay
17	42	Brown sand
42	47	Black sand
47	57	Shell
57	76	Shell-black sand mixed
76	87	Black sand - gravel
87	125	Brown-red clay
125	147	Medium sand-some clay
147	170	Gravel - sand mixed
170	400	Sandy clay with sand streaks
400	410	Clay
410	420	Rock

Casing: 6-inch 0-392 feet
Screen: 6-inch 306-316, 342-382 ft.

ORIGINAL (Red)

APPENDIX G

ORIGINAL
(Red)

SUPPLEMENTAL
HYDROGEOLOGIC INVESTIGATIONS
AT SPOTSYLVANIA COUNTY INDUSTRIAL PARK
(FORMER FMC PLANT SITE)
NEAR FREDERICKSBURG, VIRGINIA

PREPARED FOR

FMC CORPORATION

ENVIRONMENTAL PLANNING DEPARTMENT

PHILADELPHIA, PENNSYLVANIA

ORIGINAL
(Red)

S. S. PAPADOPULOS & ASSOCIATES, INC.

CONSULTING GROUND-WATER HYDROLOGISTS

ROCKVILLE, MARYLAND

MAY, 1983

APPENDIX A

WATER WELL COMPLETION REPORTS

(DRILLER'S LOGS)

ORIGINAL
(Red)

Form GW 2
1978 10 000

COMMONWEALTH OF VIRGINIA
WATER WELL COMPLETION REPORT

(Certification of Completion/County Permit)

• BWCM No 4/R

State Water Control Board
P O Box 11143
2111 North Hamilton St
Richmond Va 23230

SWCB Permit _____
County Permit _____
Certification of inspecting official
This well does _____ does not _____
meet code/low requirements
S _____
Date _____
For Office Use

County/City _____

County/City Stamp

• Virginia Plane Coordinates
_____ N
_____ E
Latitude & Longitude
_____ N
_____ W
• Topo Map No _____
• Elevation _____ ft
• Formation _____
• Lithology _____
• River Basin _____
• Province _____
• Type Logs _____
• Cuttings _____
• Water Analysis _____
• Aquifer Test _____

• Owner Spotsylvania County Ind. Park
• Well Designation or Number Monitoring Well
Address S.S. Papadopulos & Assoc.
6218 Montrose Road
Phone Rockville, Maryland 20852

• Drilling Contractor Sydnor Hydrodynamics, Inc.
Address P.O. Box 27186
Richmond, Va. 23261-7186
Phone 804-643-2725

Tax Map I D No _____
Subdivision _____
Section _____
Block _____
Lot _____
Class Well I _____ IIA _____
IIB _____ IIIA _____ IIIB _____
IIIC _____ IIID _____ IIIE _____

WELL LOCATION 1500 (feet/~~miles~~) East (direction) of Rt. 2 (Spotsylvania)
and 2500 feet/~~miles~~ SE (direction) of Rt. 700
(If possible please include map showing location marked)

Date started 9/30/82 • Date completed 10/28/82 Type rig Rotary

1 WELL DATA New ☆ Reworked _____ Deepened _____
• Total depth 175 ft
• Depth to bedrock _____ ft
• Hole size (Also include reamed zones)
• 12 inches from 0 to 52 ft
• 8 inches from 52 to 175 ft
• _____ inches from _____ to _____ ft
• Casing size (I D) and material
• 4 inches from +3 to 163 ft
Material Steel
Wt per foot 11 or wall thickness _____ in
• 8 inches from 0 to 52 ft
Material Steel
Wt per foot 28.55 or wall thickness _____ in
• _____ inches from _____ to _____ ft
Material _____
Wt per foot _____ or wall thickness _____ in
• Screen size and mesh for each zone (where applicable)
• 4 inches from 163 to 173 ft
• Mesh size 030 Type Stainless Steel
• _____ inches from _____ to _____ ft
• Mesh size _____ Type _____
• _____ inches from _____ to _____ ft
• Mesh size _____ Type _____
• _____ inches from _____ to _____ ft
• Mesh size _____ Type _____
• Gravel pack
• From 153 to 175 ft
• From _____ to _____ ft
• Grout
4" • From 0 to 153 ft. Type Cement
8" • From 0 to 52 ft. Type Cement

2 WATER DATA • Water temperature _____ °F
• Static water level (unpumped level measured) 26'1"
• Stabilized measured pumping water level 118'8½"
• Stabilized yield 25 gpm after 5 hours
Natural Flow Yes _____ No ☆ flow rate _____ gpm
Comment on quality _____

3 WATER ZONES From 163 To 173
From _____ To _____ From _____ To _____
From _____ To _____ From _____ To _____

ORIGINAL
(Signed)

4 USE DATA
Type of use Drinking _____ Livestock Watering _____
Irrigation _____ Food processing _____ Household _____
Manufacturing _____ Fire safety _____ Cleaning _____
Recreation _____ Aesthetic _____ Cooling or heating _____
Injection _____ Other Observation
• Type of facility Domestic _____ Public water supply _____
Public institution _____ Farm _____ Industry ☆
Commercial _____ Other _____

5 PUMP DATA Type _____ • Rated H P _____
• Intake depth _____ • Capacity _____ at _____ head

6 WELLHEAD Type well seal _____
Pressure tank _____ gal Loc _____
Sample tap _____ Measurement port _____
Well vent _____ Pressure relief valve _____
Gate valve _____ Check valve (when required) _____
Electrical disconnect switch on power supply _____

7 DISINFECTION Well disinfected _____ yes _____ no
Date _____ Disinfectant used _____
Amount _____ Hours used _____

8 ABANDONMENT (where applicable) • yes _____ no _____
Casing pulled yes _____ no _____ not applicable _____
Plugging grout From _____ to _____ material _____

Owner Spotsylvania County (S.S. Papadopulos Assoc.)

BWCM No _____

9 State law requires submitting to the Virginia State Water Control Board information about groundwater and wells for every well made in the State intended for water or any other non exempt well This information must be submitted whether the well is completed on standby or abandoned Information required includes an accurately and completely prepared water well completion report full data from any aquifer pumping tests drill cuttings taken at ten foot intervals (unless exemption is secured) the results of any chemical analyses and copies of any geophysical logs Quarterly pumpage and use reports are required from owners of public supply and industrial wells County or State permits to drill may be required in some parts of the state Some counties require submission of a water well completion report The Virginia State Health Department requires a water well completion report for public supply wells

10 DRILLERS LOG (use additional Sheets if necessary)

DEPTH (feet) From	To	TYPE OF ROCK OR SOIL (color material, fossils, hardness, etc)	REMARKS (water, caving cavities, broken, core, shot, (etc)	11 Drilling Time (Min)	12 DIAGRAM OF WELL CONSTRUCTION (with dimensions)
0	1	Top soil			
1	2	Gray clay			
2	4	Loose gravel			
4	8	Coarse gravel and sand			
8	15	Gravel,sand,yellow and gray clay			
15	25	Gray clay,some gravel			
25	30	Gray clay,sand,wood			
30	33	Gray clay and gravel			
33	34	Tough brown and red clay			
34	41	Tough brown and red clay,very thin layers of gravel			
41	43	Green tough clay,trace of gravel			
43	45	Tough red clay,trace of gravel			
45	47	Dark brown tough clay,trace of green clay			
47	52	Tough red clay			
52	60	Red,brown and green clay,some gravel			
60	64	Green clay			
64	70	Brown,red and some green clay			
70	76	Green clay			
76	88	Green clay,sand and gravel			
88	89	Green clay,silty sand			
89	92	Green sandy clay			
92	93	Green clay			ORIGINAL (Red)
93	105	Green and brown clay			
105	110	Green silty clay and sand			
110	115	Green clay,trace of yellow sandy clay			

13 Well lot dedicated? _____ Size _____ ft X _____ ft , Well house? _____
Distance to nearest pollutant source _____ ft , Type _____
Distance to nearest property line _____ ft , Building _____ ft

14 WATER SERVICE PIPE Checked under _____ p s i for _____
minutes Pipe size _____ inches , Material _____
Installer _____
Date _____

15 I certify that the information contained herein is true and correct and that this well and/or system has been installed and constructed in accordance with the requirements for well construction as specified in compliance with appropriate county or independent city ordinances and the laws and rules of the Commonwealth of Virginia

Signature _____ (Seal) Date 11/1/82
(Well driller or authorized person)

License No _____

State Water Control Board Regional Offices

Valley Reg Off
116 North Main Street
P O Box 268
Bridgewater, Va 22812
703 828 2595

Piedmont Reg Off
4010 West Broad Street
P O Box 6616
Richmond Va 23230
804 257 1006

Southwest Reg Off
408 East Main Street
P O Box 476
Abingdon, Va 24210
703-628-5183

Tidewater Reg Off
287 Pembroke Office Park
Suite 310 Pembroke No 2
Va Beach Va 23462
804-499 8742

West Central Reg Off
Executive Park
5312 Peters Creek Road
Roanoke Va 24019
703 - 982 - 7432

Northern Virginia Reg Off
5515 Cherokee Avenue
Suite 404
Alexandria, Va 22312
703 750-9111

Owner Spotsylvania

BWCM No _____

9 State law requires submitting to the Virginia State Water Control Board information about groundwater and wells for every well made in the State intended for water or any other non exempt well This information must be submitted whether the well is completed on standby or abandoned Information required includes an accurately and completely prepared water well completion report full data from any aquifer pumping tests drill cuttings taken at ten foot intervals (unless exemption is secured) the results of any chemical analyses and copies of any geophysical logs Quarterly pumpage and use reports are required from owners of public supply and industrial wells County or State permits to drill may be required in some parts of the state Some counties require submission of a water well completion report The Virginia State Health Department requires a water well completion report for public supply wells

10 DRILLERS LOG (use additional Sheets if necessary)

DEPTH (feet) From	To	TYPE OF ROCK OR SOIL (color, material, fossils, hardness, etc)	REMARKS (water, caving cavities, broken, core, shot, (etc)	11 Drilling Time (Min)	12 DIAGRAM OF WELL CONSTRUCTION (with dimensions)
115	120	Green and brown sandy clay			
120	135	Green,brown,red,gray and yellow sandy clay			
135	140	Green,brown and gray clay			
140	145	Brown and gray clay			
145	150	Green,brown and gray sandy clay			
150	155	Green,brown,gray,yellow clay with some sand and gravel			
155	160	Brown clay			
160	162	Brown sandy clay			
162	175	Mixed colors of sand,fine to medium grain			

ORIGINAL
(Red)

13 Well lot dedicated? _____ Size _____ ft X _____ ft Well house? _____
Distance to nearest pollutant source _____ ft , Type _____
Distance to nearest property line _____ ft , Building _____ ft

14 WATER SERVICE PIPE Checked under _____ p s i for _____ minutes Pipe size _____ inches , Material _____
Installer _____
Date _____

15 I certify that the information contained herein is true and correct and that this well and/or system has been installed and constructed in accordance with the requirements for well construction as specified in compliance with appropriate county or independent city ordinances and the laws and rules of the Commonwealth of Virginia

Signature [illegible] (Seal) Date 11/1/82
(Well driller or authorized person)

License No _____

State Water Control Board Regional Offices

Valley Reg Off
116 North Main Street
P O Box 268
Bridgewater, Va 22812
703 828 2595

Southwest Reg Off
408 East Main Street
P O Box 476
Abingdon, Va 24210
703-628 5183

West Central Reg Off
Executive Park
5312 Peters Creek Road
Roanoke Va 24019
708 - 982 - 7432

Piedmont Reg Off
4010 West Broad Street
P O Box 6616
Richmond, Va 23230
804 257-1006

Tidewater Reg Off
287 Pembroke Office Park
Suite 310 Pembroke No 2
Va Beach, Va 23462
804-499 8742

Northern Virginia Reg Off
5515 Cherokee Avenue
Suite 404
Alexandria Va 22312
703 750 9111

Form GW 2
1978 10,000

COMMONWEALTH OF VIRGINIA
WATER WELL COMPLETION REPORT

• BWCM No _____

(Certification of Completion/County Permit)

State Water Control Board
P O Box 11143
2111 North Hamilton St
Richmond, Va 23230

SWCB Permit _____
County Permit _____
Certification of inspecting official
This well does _____ does not _____
meet code/low requirements
S _____
Date _____
For Office Use

County/City _____

County/City Stamp

• Virginia Plane Coordinates
_____ N
_____ E
Latitude & Longitude
_____ N
_____ W
• Topo Map No _____
• Elevation _____ ft
• Formation _____
• Lithology _____
• River Basin _____
• Province _____
• Type Logs _____
• Cuttings _____
• Water Analysis _____
• Aquifer Test _____

• Owner Spotsylvania County Ind. Park
• Well Designation or Number _____
Address S.S. Papadopulos & Assoc.
6218 Montrose Road
Phone Rockville, Maryland 20852

• Drilling Contractor Sydnor Hydrodynamics, Inc.
Address P.O. Box 27186
Richmond, Va. 23261
Phone 804-643-2725

Tax Map I D No _____
Subdivision _____
Section _____
Block _____
Lot _____
Class Well I _____, IIA _____
IIB _____ IIIA _____ IIIB _____
IIIC _____ IIID _____ IIIE _____

WELL LOCATION 1500 (feet/~~miles~~ East direction) of Rt. 2 (Spotsylvania Co.)
and 2500 feet/~~miles~~ SE (direction) of Rt. 700
(If possible please include map showing location marked)

Date started 10-20-82 • Date completed 10-28-82 Type rig Rotary

1 WELL DATA New _____ ~~Reworked~~ Abandon _____ Deepened _____
• Total depth _____ ft
• Depth to bedrock _____ ft
• Hole size (Also include reamed zones)
• _____ inches from _____ to _____ ft
• _____ inches from _____ to _____ ft
• _____ inches from _____ to _____ ft
• Casing size (I D) and material
• _____ inches from _____ to _____ ft
Material _____
Wt per foot _____ or wall thickness _____ in
• _____ inches from _____ to _____ ft
Material _____
Wt per foot _____ or wall thickness _____ in
• _____ inches from _____ to _____ ft
Material _____
Wt per foot _____ or wall thickness _____ in
• Screen size and mesh for each zone (where applicable)
• _____ inches from _____ to _____ ft
• Mesh size _____ Type _____
• _____ inches from _____ to _____ ft
• Mesh size _____ Type _____
• _____ inches from _____ to _____ ft
• Mesh size _____ Type _____
• _____ inches from _____ to _____ ft
• Mesh size _____ Type _____
• Gravel pack
• From _____ to _____ ft
• From _____ to _____ ft
• Grout
• From _____ to _____ ft Type _____
• From _____ to _____ ft, Type _____

2 WATER DATA • Water temperature _____ °F
• Static water level (unpumped level measured) _____ ft
• Stabilized measured pumping water level _____ ft
• Stabilized yield _____ gpm after _____ hours
Natural Flow Yes _____ No _____, flow rate _____ gpm
Comment on quality _____

ORIGINAL (Red)

3 WATER ZONES From _____ To _____
From _____ To _____ From _____ To _____
From _____ To _____ From _____ To _____

4 USE DATA
Type of use Drinking _____ Livestock Watering _____
Irrigation _____ Food processing _____ Household _____
Manufacturing _____, Fire safety _____ Cleaning _____
Recreation _____ Aesthetic _____ Cooling or heating _____
Injection _____ Other _____
• Type of facility Domestic _____, Public water supply _____
Public institution _____ Farm _____ Industry _____
Commercial _____, Other _____

5 PUMP DATA Type _____ • Rated H P _____
• Intake depth _____ • Capacity _____ at _____ head

6 WELLHEAD Type well seal _____
Pressure tank _____ gal, Loc _____
Sample tap _____ Measurement port _____
Well vent _____, Pressure relief valve _____
Gate valve _____ Check valve (when required) _____
Electrical disconnect switch on power supply _____

7 DISINFECTION Well disinfected _____ yes _____ no
Date _____, Disinfectant used _____
Amount _____, Hours used _____

8 ABANDONMENT (where applicable) • yes ✲ no _____
Casing pulled yes _____ no ✲ not applicable _____
Plugging grout From 0 to 100 material Cement

Owner Spotsylvania County

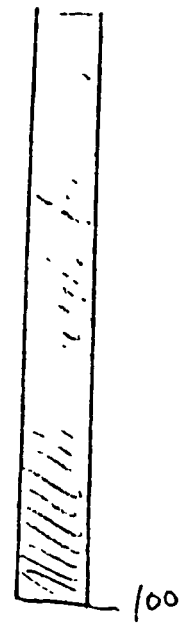
BWCM No _____

9 State law requires submitting to the Virginia State Water Control Board information about groundwater and wells for every well made in the State intended for water or any other non exempt well This information must be submitted whether the well is completed on standby or abandoned Information required includes an accurately and completely prepared water well completion report full data from any aquifer pumping tests drill cuttings taken at ten foot intervals (unless exemption is secured) the results of any chemical analyses and copies of any geophysical logs Quarterly pumpage and use reports are required from owners of public supply and industrial wells County or State permits to drill may be required in some parts of the state Some counties require submission of a water well completion report The Virginia State Health Department requires a water well completion report for public supply wells

10 DRILLERS LOG (use additional Sheets if necessary)

DEPTH (feet) From	To	TYPE OF ROCK OR SOIL (color, material, fossils, hardness, etc)	REMARKS (water, caving, cavities, broken, core, shot, (etc)	11 Drilling Time (Min)
0	100	Cleaned out old well Drilled by others		

12 DIAGRAM OF WELL CONSTRUCTION (with dimensions)



Note:
102 Bags cement grout pumped.

ORIGINAL
(Red)

13 Well lot dedicated? _____ Size _____ ft X _____ ft Well house? _____
Distance to nearest pollutant source _____ ft , Type _____
Distance to nearest property line _____ ft , Building _____ ft

14 WATER SERVICE PIPE Checked under _____ p s i for _____
minutes Pipe size _____ inches , Material _____
Installer _____
Date _____

15 I certify that the information contained herein is true and correct and that this well and/or system has been installed and constructed in accordance with the requirements for well construction as specified in compliance with appropriate county or independent city ordinances and the laws and rules of the Commonwealth of Virginia

Signature _____ (Seal) Date 11/1/82
(Well driller or authorized person)

License No _____

State Water Control Board Regional Offices

Valley Reg Off
116 North Main Street
P O Box 268
Bridgewater, Va 22812
703 828 2595

Piedmont Reg Off
4010 West Broad Street
P O Box 6616
Richmond, Va 23230
804 257 1006

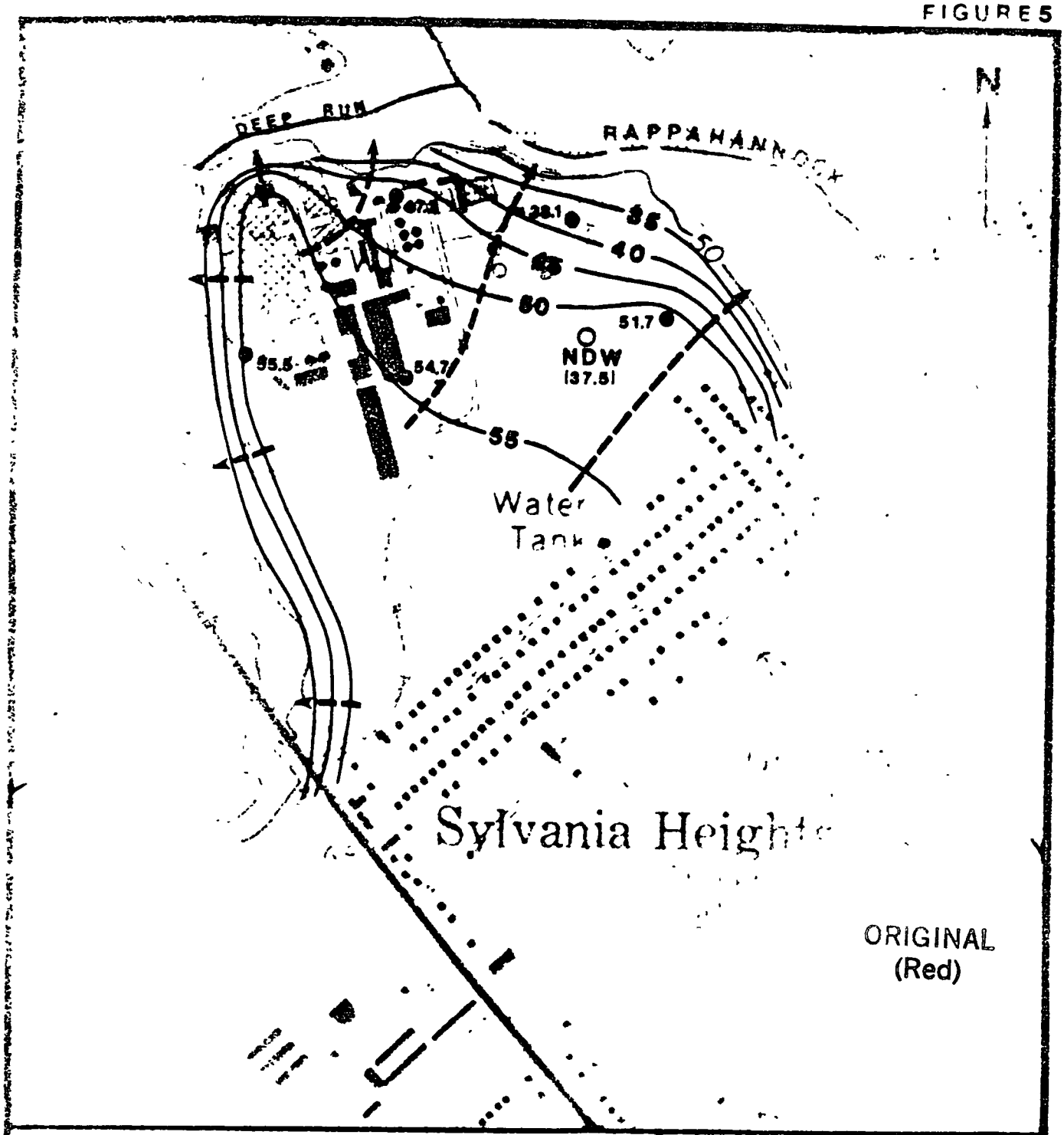
Southwest Reg Off
408 East Main Street
P O Box 476
Abingdon, Va 24210
703-628-5183

Tidewater Reg Off
287 Pembroke Office Park
Suite 310 Pembroke No 2
Va Beach, Va 23462
804-499-8742

West Central Reg. Off
Executive Park
5312 Peters Creek Road
Roanoke, Va 24019
703 - 982 - 7432

Northern Virginia Reg Off
5515 Cherokee Avenue
Suite 404
Alexandria, Va 22312
703 750 9111

FIGURE 5



—50— Line of equal water-level elevation, in feet above MSL

Direction of ground-water flow

381● Location of shallow aquifer well and measured water level

○ NDW (37.5) Location of new deep well and measured water-level elevation

500 0 500 1000
Scale feet

S.S. PAPADOPULOS & ASSOCIATES, INC.

ELEVATION OF THE WATER TABLE AND DIRECTION OF GROUND-WATER FLOW IN SHALLOW AQUIFER DECEMBER 1982

Base map adapted from U.S. Geological Survey 7.5 minute series Fredericksburg Va Quad, 1966 Photorevised 1978

APPENDIX H

ORIGINAL
(Red)

GD
1025
.V8 S824

Commonwealth of Virginia

Department of Conservation and Development

DIVISION OF GEOLOGY

William M. McGill, State Geologist

Mineral Resources Circular No. 4

SUMMARY OF GEOLOGY AND GROUND-WATER CONDITIONS IN THE FREDERICKSBURG DISTRICT, EASTERN SPOTSYLVANIA COUNTY, VIRGINIA

A Preliminary Report

By

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ORIGINAL
(Red)

Prepared in cooperation with the Geological Survey of the United States Department of the Interior

Charlottesville, Virginia

1955

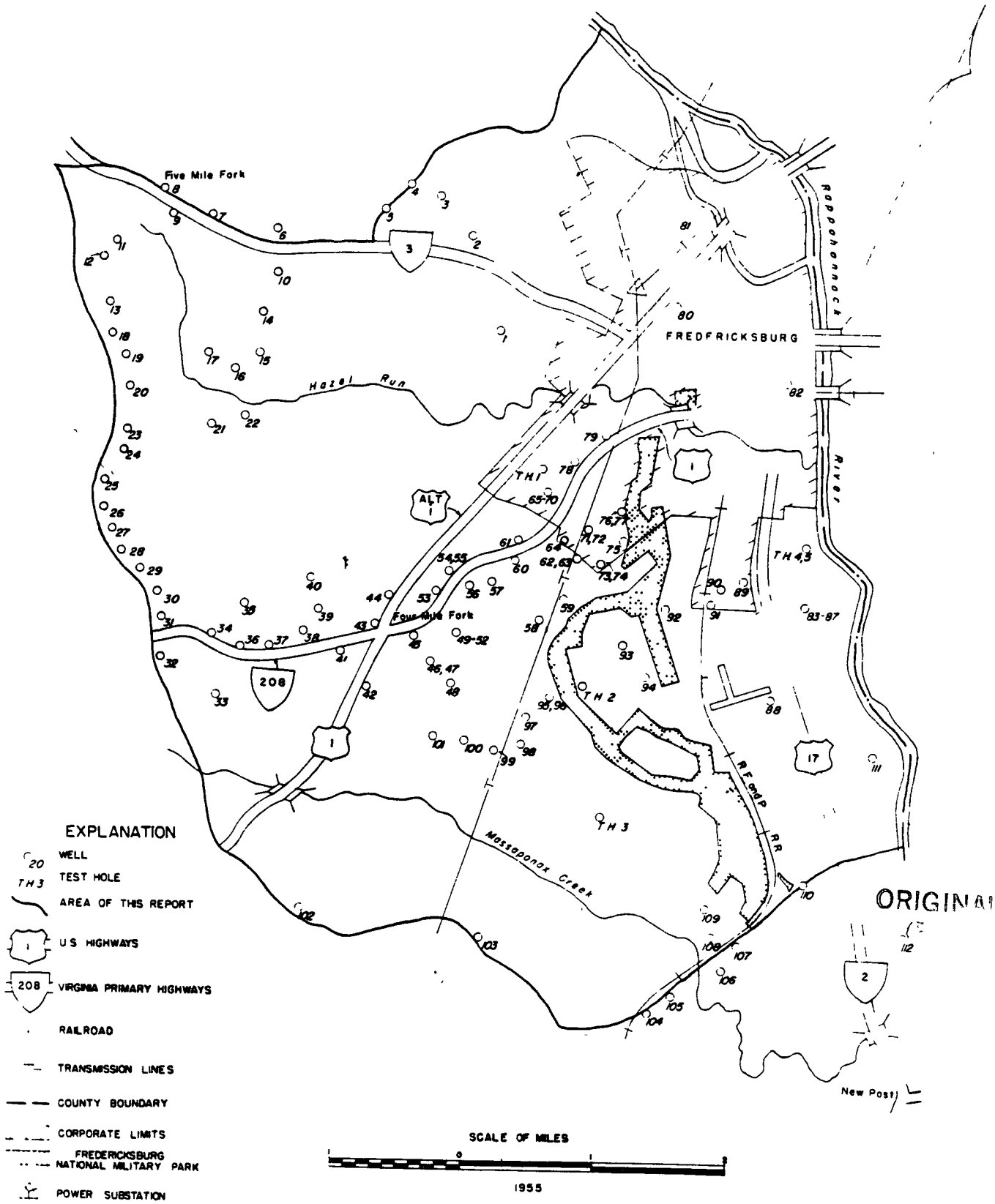

Figure 4 -- Map showing location of wells and test holes in eastern Spotsylvania County, Virginia

Table 2.--Logs of wells in eastern Spotsylvania County, Virginia--Continued

Test hole No. 4. .7 mi. SE. of Fredericksburg; American Viscose Corp.

(Log by J. T. Ellington)

Altitude 65 feet

	Thickness (feet)	Depth (feet)
Sand and gravel	27	27
Rock (flint)	4	31
Sand and gravel	9	40
Clay, red	15	55
Clay, blue	75	130
Sandstone	140	270

Test hole No. 5. .7 mi. SE. of Fredericksburg; American Viscose Corp.

(Log by J. T. Ellington)

Altitude 65 feet

Sand and gravel; 12-inch bbulders	15	15
Gravel, coarse	3	18
Sand and gravel	15	33
Rock; flint	4	37
Sand and gravel	5	42
Clay, red	9	51

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