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ADDENDUM TO THE FIELD TRIP REPORT FOR
FMC BALTIMORE
PREPARED UNDER

TDD NO. F3-8306-20
EPA NO. MD-17
CONTRACT NO. 68-01-6699

FOR THE

HAZARDOUS SITE CONTROL DIVISION
U.S. ENVIRONMENTAL PROTECTION AGENCY

FEBRUARY 5, 1985

NUS CORPORATION
SUPERFUND DIVISION

SUBMITTED BY	REVIEWED BY	APPROVED BY
Michael J. Nalipinski		
MICHAEL NALIPINSKI	WILLIAM WENTWORTH	GARTH GLENN
ENVIRON. SPECIALIST	ASST. MANAGER, REPORTS	MANAGER, FIT III

SECTION 1

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region III - 6th & Walnut Sts.
Philadelphia, Pa. 19106

SUBJECT: Request Assistance from FIT Office

DATE: 1-16-85

FROM: Neil R. Swanson,
Site Investigation and Support Section(3HW23)

TO: Butch Byer, FIT Coordinator
Site Investigation and Support Section(3HW23)

THRU: Edmund Skernolis, Chief
Site Investigation and
Support Section (3HW23)

I. SITE NAME: FMC Balt (MD-17)
DSN

II. LOCATION: Balt
MD

III. WORK ASSIGNMENT:

____	Preliminary Assessment	____	Quality Assurance Review of Data
X	Site Inspection finalize	____	Re-Sampling/Full Field Investigation
____	Hazard Ranking System	____	Peer Review Corrections
____	Toxicology Assessment	____	Other (See VI below)

IV. PRIORITY:

X High(*) ✓ HGB Medium ____ Low

V. Preferred Deadline:

Date: 2-22-85

VI. EXPLANATION OF TASK (* To include justification for high priority):

(1) finalize report

VII. To be completed by FIT Coordinator only:

Task complete date by FIT: Feb 28-85

Hours allocated: .....

Butch 1/16/85

NUS CORPORATION

992 OLD EAGLE SCHOOL ROAD, SUITE 918
WAYNE, PENNSYLVANIA 19087
215-687-8510

February 5, 1985
R-585-4-4-35
68-01-6699

Mr. Harold Byer
U.S.Environmental Protection Agency
Sixth and Walnut Streets
Philadelphia, PA 19106

Subject: Addendum to Field Trip Report
TDD No. F3-8306-20
FMC Baltimore
Baltimore, Maryland

Dear Mr. Byer:

Submitted herewith is an addendum to the Field Trip report for the subject project.

This report presents the priority pollutant information and data collected during the original dioxin screening study.

Considering the available information FIT III recommends that:

- The Maryland Department of Natural Resources should address the situation, as any contamination problem is likely to be limited to on-site areas.

If you have any questions, please contact me.

Respectfully submitted by,	Reviewed by,	Approved by,
Michael J. Nalipinski	for WW	
Michael Nalipinski Environ. Specialist	William Wentworth Asst. Manager, Reports	Garth Glenn Manager, FIT III

MN/hk

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. F3-8306-20 for the FMC, Inc., Baltimore Plant, located in Baltimore, Maryland.

1.2 Scope Of Work

NUS FIT III was tasked to conduct sampling at FMC's Baltimore Plant in Curtis Bay, Maryland. Samples were analyzed for dioxin (2,3,7,8-TCDD) and priority pollutants. This report will supplement the Field Trip Report submitted, to EPA on February 22, 1984, which addressed the results of sample analysis for 2,3,7,8-TCDD. This earlier report contains additional background information and photographs.

1.3 Summary

On June 21, 1983, FMC's Baltimore Plant was inspected by NUS FIT III. Samples were obtained from 12 on-site stations. Samples were analyzed for 2,3,7,8-TCDD and priority pollutants. Split samples were provided to FMC personnel under chain-of-custody.

The total plant size is approximately 50 acres. Twenty acres of the 50 are located north of Patapsco Avenue, and 30 acres are south of Patapsco Avenue. The pilot plant, which produces the suspected dioxin contaminated material, is located in the northern section of the site. The commercial production area for the suspected dioxin contaminated material is situated in the southern section of the plant. Samples in these 2 respective areas consisted of soils from 3 different CERCLA areas and assorted areas of surface. This report is exclusively concerned with priority pollutants. For further information regarding specific activities, environmental conditions, and the dioxin results refer to the original FMC Baltimore report (TDD No. F3-8306-20).

A Toxicological and Quality Assurance Review for the priority pollutant samples are included in this addendum.

SECTION 2

2.0 FIELD TRIP REPORT

2.1 Summary

Pursuant to Technical Directive Document No. F3-8306-20, site sampling of the FMC, Inc., Baltimore plant was conducted on June 21, 1983. NUS FIT III personnel participating in the inspection included Terrence Shannon, Eugene Dennis, Richard Cromer, Michael Nalipinski, and David Hassrick (Dioxin Team "B").

The weather during the inspection was overcast, with a temperature of 70° F and winds from 0-5 mph. A short, slight rainfall occurred during the inspection.

Samples were obtained from 12 stations at the plant for dioxin and organic/inorganic priority pollutant analyses. Split samples were provided to FMC personnel, under chain-of-custody.

2.2 Persons Contacted

2.2.1 Prior to Field Trip

All contacts, prior to the on-site work at the facility, were made by EPA III's representative, Neil Swanson (3AW23). NUS FIT III personnel did not have any contact with facility personnel before arriving at the site.

2.2.2 At the Site

Upon arriving at the site, a meeting was held with the following:

Peter Schaul
Neil Swanson
EPA, Region III
Sixth and Walnut Streets
Philadelphia, PA 19106
(215) 597-9800

Darryl Palmer, Environmental Manager
Frank Soleck, Production Manager
Irv Kipnis, Process Laboratory Manager
Charles Shaheen, Environmental Engineer
FMC Corporation
Agricultural Chemical Group
1701 E. Patapsco Ave., Box 1616
Baltimore, MD 21203
(301) 355-6400

Donald Senovich, FIT III Manager
Terrence Shannon, Environ. Engineer
NUS Corporation
992 Old Eagle School Road
Wayne, PA 19087
(215) 687-9510

Joseph Stang, Inspector
MD Dept of Health & Mental Hygiene
Office of Environmental Programs
201 W. Preston St., Rm. 2A4
Baltimore, MD 21201
(301) 383-6650

Elkins Dahle, Jr., Director
Charisse Deutch, Inspector
Baltimore Bureau of Industrial Hygiene
111 N. Calvert St., Rm S-219
Baltimore, MD 21202
(301) 396-4477

TDD Number 8306-20
EPA Number MD-17

SAMPLE LOG
Priority Pollutants

Site Name EMC-Baltimore

TRAFFIC REPORTS Organic	Inorganic	High Hazard	SAMPLING LOCATION	PHASE	SAMPLE DESCRIPTION	DATE	TIME	pH	COMMENTS/OBSERVATIONS	LABORATORY
C3705	MC1208		m-02-01	Solid	Facility - N side	6/21/83	1050			Mead/Versar
C3706	MC1209		m-02-02		Facility - N side		1120			
C3736	MC1210		m-02-03		Facility - N side		1145			
C3737	MC1211		m-02-04		Facility - S side		1212			
C3738	MC1212		m-02-05		Facility - N side		1244			
C3739	MC1213		m-02-06		Facility - N side		1309			
C3740	MC0939		m-02-07		Facility - N side		1329			
C3741	MC0982		m-02-09		Facility - S side		1536			
C3742	MC0984		m-02-10				1555			
C3743	MC1001		m-02-12				1635			
C3744	MC1002		m-02-13				1651			
C3745	MC1003		m-02-14				1715			
C3746	MC1004		m-02-15		Blank		1300			

SECTION 3

3.0 LABORATORY DATA

3.1 Sample Data Summary

TDD Number F3-8306-20
EPA Number MD-17

SAMPLE DATA SUMMARY
TARGET COMPOUNDS

☒ Organic ☐ Inorganic

Site Name FMC
Date of Sample 6/21/83

Compounds Detected

Sample Number	Sample Description and Location	Phase	Units	benzo(k) fluoranthene (+ benzo(b) fluoranthene)	chrysene	acenaphthylene	anthracene	benzo(ghi) perylene	fluorene	phenanthrene	dibenzo(a,h) anthracene	indeno(1,2,3-cd) pyrene	pyrene	dibenzo furan	acrylonitrile	benzene	Remarks
C3705	Facility - N side	Solid	µg/kg	<800	<400					<400			560				
C3706	Facility - N side				<400					<400			<400				
C3736	Facility - N side			12000	7300	540	2100	7000	830	12000	2400	5200	23000	<400			
C3737	Facility - S side			<16,000	8000					<8000			10000				
C3738	Facility - N side																
C3739	Facility - N side			2500	1400	<400	910	1200	620	4300		940	3500	400			
C3740	Facility - N side			5700	2800		1100	2500	460	5000	<800	2000	5600	<400			
C3741	Facility - S side																
C3742	Facility - S side				<400								560		74		
C3743	Facility - S side																
C3744	Facility - S side																
C3745	Facility - S side				880		<400			1400			1400				
C3746	Blank	↓	↓													<2.5	

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.

TDD Number F3-8306-20
EPA Number MD-17

SAMPLE DATA SUMMARY
TARGET COMPOUNDS

☒ Organic ☐ Inorganic

Site Name FMC
Date of Sample 6/21/83

NOTE: Sample results reported in units of wet weight.

Compounds Detected

Sample Number	Sample Description and Location	Phase	Units	2-Nitrophenol	Acenaphthene	1,2,4-trichlorobenzene	1,2-dichlorobenzene	1,4-dichlorobenzene	Fluoranthene	Naphthalene	bis(2-ethylhexyl) phthalate	butyl benzyl phthalate	di-N-butyl phthalate	benzo(a) anthracene	benzo(a) pyrene	benzo(b) fluoranthene (or coelutingisomer)	Remarks
C3705	Facility - N-side	Solid	ug/kg						640					<400		<800	
C3706	Facility - N-side								<400		950◇	<400◇	<400◇				
C3736	Facility - N-side				560				19000					14000	7500	12000	
C3737	Facility - S-side								11000					<8000	<16,000	<16,000	
C3738	Facility - N-side																
C3739	Facility - N-side				430				5100	<400				2400	1600	2500	
C3740	Facility - N-side				460				6800	680				4200	3400	5700	
C3741	Facility - S-side																
C3742	Facility - S-side			<800					440					<400		<800	
C3743	Facility - S-side					520	<400	560									
C3744	Facility - S-side					8400		6400									
C3745	Facility - S-side								1800					840		1400	
C3746	Blank																

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 - 8306 - 20

EPA Number MD-17

SAMPLE DATA SUMMARY
TARGET COMPOUNDS

☒ Organic ☐ Inorganic

Site Name F14C

Date of Sample 6/21/93

Compounds Detected

Sample Number	Sample Description and Location	Phase	Units	chlorobenzene	1,1,2,2-Tetrachloroethane	methylene chloride	Fluorotrichloromethane	acetone	2-butanone	2-hexanone	styrene	O-Xylene	4,4'-DDT	4,4'-DDE	4,4'-DDD	Remarks
C3705	Facility-N-side	Solid	ug/kg			12◇							2200	950	2000	
C3706	Facility-N-side					26◇										
C3736	Facility-N side					7.1◇										
C3737	Facility-S side			<2.5◇	<2.5◇	39◇	4.1◇				<2.5◇	<2.5◇			4.11◇	
C3738	Facility-N side					9.3◇										
C3739	Facility-N side					22◇										
C3740	Facility-N side					6.2◇							13◇			
C3741	Facility-S side					7.2◇										
C3742	Facility-S side					12◇		78◇	<100	<50						
C3743	Facility-S side					4.9◇										
C3744	Facility-S side					7.9◇										
C3745	Facility-S-side					4.9◇								2.13◇		
C3746	Blank	↓	↓			420	3.3									

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 F3-8306-20
EPA Number MD-17

SAMPLE DATA SUMMARY
TARGET COMPOUNDS

☐ Organic ☒ Inorganic

Site Name FMC
Date of Sample 6/21/83

Compounds Detected

Sample Number	Sample Description and Location	Phase	Units	Aluminum	Chromium	Barium	Beryllium	Cobalt	Copper	Iron	Nickel	Manganese	Zinc	Boron	Vanadium	Silver	Remarks
MC1208	Facility - North side	Solid	mg/Kg	2350	25.5	150	0.25		80	3750	10	250	349		40		
MC1209	Facility - North side	Solid	mg/Kg	2650	9.0	35		2.5	17.5	6700	2.0	94.5	19		20		
MC1210	Facility - North side	Solid	mg/Kg	3090	10.0	45	0.25	5.0	20	6940	4.0	250	26		10		
MC1211	Facility - South side	Solid	mg/Kg	1820	14.0	100	0.25	5.0	252	21200	12	253	191	10.0	20		
MC1212	Facility - North side	Solid	mg/Kg	3790	8.5	30		5.0	10	8420	4.0	101	14		20		
MC1213	Facility - North side	Solid	mg/Kg	3410	18	45	0.25	7.5	50	11600	10	235	191		20		
MC0939	Facility - North side	Solid	mg/Kg	4740	10.0	45		5.0	65	7960	12	273	73		30		
MC0982	Facility - South side	Solid	mg/Kg	4780	16.0	25	0.25	5.0	290	12400	18	84	24		20		
MC0984	Facility - South side	Solid	mg/Kg	1950	7.5	20			115	5920	6.0	93	35.5		20		
MC1001	Facility - South side	Solid	mg/Kg	2740	73	25	0.25	2.5	25	9250	6.0	95.2	47		20		
MC1002	Facility - South side	Solid	mg/Kg	2640	140	570	0.5	12.5	343	32700	30	417	400	15	30		
MC1003	Facility - South side	Solid	mg/Kg	2930	11.0	30		2.5	25	6540	4.0	135	56.5		10		
MC1004	Blank	Solid	mg/Kg														

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

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

TDD Number F3-8306 -20
EPA Number MD-17

SAMPLE DATA SUMMARY
TARGET COMPOUNDS

☐ Organic ☒ Inorganic

Site Name FMC
Date of Sample 6/21/83

Compounds Detected

Sample Number	Sample Description and Location	Phase	Units	Arsenic	Antimony	Selenium	Thallium	Mercury	Tin	Cadmium	Lead	Ammonia	Cyanide	Sulfide				Remarks
MC1208	Facility - North side	Solid	mg/kg	2.5		0.3		0.4	4.0◇	0.6	500							
MC1209	Facility - North side	Solid	mg/kg	3.0		0.1				0.05	30							
MC1210	Facility - North side	Solid	mg/kg	3.0		0.1				0.1	35							
MC1211	Facility - South side	Solid	mg/kg	14	2	0.3		0.3	2◇	0.5	500		0.5					
MC1212	Facility - North side	Solid	mg/kg	1.5						0.05	15							
MC1213	Facility - North side	Solid	mg/kg	3		0.2		2.0		1.4	150							
MC0939	Facility - North side	Solid	mg/kg	3.5		0.1				0.35	200							
MC0982	Facility - South side	Solid	mg/kg	2.5		0.1				0.1	20							
MC0984	Facility - South side	Solid	mg/kg	2.5		0.1				0.1	25							
MC1001	Facility - South side	Solid	mg/kg	2.5		0.1				0.25	175							
MC1002	Facility - South side	Solid	mg/kg	4.0	4.0	0.2		4.5	2.0◇	5.0	1400							
MC1003	Facility - South side	Solid	mg/kg	1.5		0.2				0.15	40							
MC1004	Blank	Solid	mg/kg															

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

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

3.2 Quality Assurance Review

3.2.1 Organic Data: Lab Case No. 1836

3.2.1.1 Introduction

The findings offered in this report are based upon a general review of all available sample data, blank results, surrogate and matrix spike recoveries, duplicate results, pesticide confirmations, and tentatively identified compounds.

3.2.1.2 Qualifiers

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

- All positive results for methylene chloride, acetone, fluorotrichloromethane, bis(2-ethylhexyl) phthalate, butyl benzyl phthalate, and di-n-butyl phthalate may be questionable.

- The reported results may be questionable for 4-4'-DDT in sample C3740, 4-4'-DDD in sample C3737, and 4-4'-DDE in sample C3745.

- The reported results for chlorobenzene, 1,1,2,2-tetrachloroethane, styrene, and o-xylene in sample C3737 may be questionable.

- For the BNA fraction of all samples, and for the pesticide fraction of sample C3705, positive results which are above detection limits are correctly expressed in wet weight units and should not be multiplied by the factor listed atop the laboratory report sheets. In addition, for sample C3737, BNA detection limits should be multiplied by the factor 800 in order to obtain correct wet weight results. (All the aforementioned transcription errors have been corrected and initialed on the laboratory report sheets and tabulated in the data summary.)

- The actual detection limits for some acid fraction compounds may be significantly higher than reported in samples C3706, C3736, C3738, C3739, C3740, and C3743.

- The actual detection limit for some BNA compounds may be significantly higher than reported in sample C3740.

- The actual detection limit for lindane may be significantly higher than reported in sample C3746.

- The reported levels of PAH compounds in sample C3740 may not reflect the average concentration of these compounds due to sample inhomogeneity.

3.2.1.3 Findings

- Blank analysis revealed the presence of methylene chloride, acetone, fluorotrichloromethane, bis(2-ethylhexyl) phthalate, butyl benzyl phthalate and di-n-butyl phthalate at concentrations sufficient to question all positive results for these parameters.

- The aforementioned results for chlorobenzene, 1,1,2,2-tetrachloroethane, styrene, and o-xylene may be artifacts of chromatographic ghosting from standards analyzed immediately preceding these sample runs.

- Zero surrogate recoveries were reported for 2,4,6-tribromophenol in samples C3706, C3736, C3738, C3739, C3740, and C3743.

- Zero matrix spike recoveries were reported for 2,4-dinitrotoluene and pentachlorophenol in sample C3740.

- Zero matrix spike recovery was reported for lindane in sample C3746.

- The aforementioned results for 4-4'-DDT, 4-4'-DDD and 4-4'-DDE were identified by dual column GC methods which are subject to random chromatographic interferences. However, the results for these 3 compounds in sample C3705 were not questioned, as these identifications were verified by GC/MS.

- Tentatively identified compounds of confident matching quality which are not suspected artifacts/contaminants are listed on the appropriate page in the Support Documentation Appendix to this report. In particular, 3 pesticides called by trade names, Tedion(R), Nialate(R), and Dinoseb(R) were tentatively identified from library searches.

3.2.1.4 Summary

The attached Quality Assurance Review has identified blank contamination, chromatographic ghosting, transcription errors, and inadequate surrogate and matrix spike recoveries as the major areas of concern. Please see the accompanying Support Documentation Appendix to this report for specifics on this Quality Assurance Review.

Report prepared by Rock J. Vitale _____ Date: May 2, 1984

Report prepared by Russel J. Sloboda _____ Date: May 2, 1984

3.2.2 Inorganic Data: Lab Case: 1836/SAS 619C

3.2.2.1 Introduction

The findings offered in this report are based upon a general review of all inorganic sample data, blank analysis results, matrix spike results, duplicate analysis results, ICP interference results, and quality assurance documentation.

3.2.2.2 Qualifiers

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

- All positive results for tin may be questionable.

3.2.2.3 Findings

- Blank analysis revealed the presence of tin at sufficient levels to question all positive results for this parameter.

3.2.2.4 Summary

The attached Quality Assurance Review has identified blank contamination as the primary area of concern. Please see the accompanying Support Documentation Appendix to this report for specifics on this Quality Assurance Review.

Report prepared by Rock J. Vitale _____ Date: April 24, 1984

SECTION 4

4.0 TOXICOLOGICAL EVALUATION

4.1 Summary

Twelve soil samples taken on the FMC site revealed measurable concentrations of the toxic and potentially carcinogenic pesticide DDT as well as DDT degradation products DDE and DDD. The reported concentrations of these parameters should not pose substantial threats to human health or the environment. Three tentatively identified pesticides, Tedion, Nialate, and Premerge were also reported in one or more soil samples. The limited information available for these pesticides precludes a thorough assessment of potential impacts on human health or the environment.

Notable concentrations of heavy metals lead and mercury were also reported in one or more samples from the FMC site. The potential may exist for contaminants reported on this site to leach into groundwater or be transported to adjacent surface waters. Groundwater or surface water quality cannot be assessed from current data; area residents do not utilize groundwater for potable purposes.

4.2 Support Data

4.2.1 Pesticides

Measurable concentrations of the pesticide DDT as well as DDT degradation products, DDE and DDD were reported in the soil sampled on the northern boundary of the FMC site. Reported pesticide concentrations were as follows: DDT, 2,200 ug/kg; DDE, 950 ug/kg; DDD, 2,000 ug/kg. Organochlorine pesticides such as DDT, DDE, and DDD have similar physiochemical properties which affect the toxic threats these contaminants may pose to human health and the environment. For example, all have the potential for causing cancer in humans, all adsorb strongly to soils or sediments and do not readily degrade, all bioconcentrate to a relatively high degree, and all partition primarily in adpose tissue following ingestion.

The reported concentrations of DDT, DDE, and DDD should 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 contaminants such as these is from ingestion of residues present in meat, fish, poultry, and dairy products from animals exposed to various environmental levels.

It is not anticipated that the levels of DDT, DDE, and DDD reported in this sample would contribute substantially by indirect exposure routes to the levels of these contaminants already present in an average human diet. Due to the widespread use of DDT combined with its persistence, lipid solubility, and biomagnification in the food chain, it is probable that most of the general population has had some exposure to and storage of these contaminants. The normal human diet has been estimated to contain about 49 ug of DDT and its metabolites per day (Duggan and Corneliussen, 1972).

Three nontarget, tentatively identified pesticides were also reported in one or more soil samples taken on the FMC site. A chlorinated pesticide, Tedion (tetradifon), was the most widely reported tentatively identified pesticide, appearing in 7 soil samples. Tedion was produced by FMC in the past and was a compound of concern due to a potential for dioxin contamination. Note that no dioxin was reported in any sample taken on the FMC site (see Field Trip Report, 2/22/84).

Concentrations of Tedion reported in these 7 samples ranged as high as 3,300 and 230 mg/kg (0.33 and 0.023 percent) in soil sampled proximate to Building no. 34, located adjacent to a former Tedion production building (no. 52). Notable Tedion concentrations were also reported in 2 samples taken outside of Building no. 91 (54 and 14 mg/kg), the location of the Tedion pilot plant.

Little toxicity information is available for Tedion, and a comprehensive assessment of potential impacts on human health or the environment, as well as the potential mobility or ultimate fate of this pesticide is not possible from current data. It is important to note that no stressed vegetation or environmental contamination was observed in the vicinity of any sample locations.

Tedion is moderately to highly toxic when administered orally; the LD 50 in rats is 566 mg/kg (Registry of Toxic Effects of Chemical Substances, 1979). Tedion administered to mice at a dose of 14 to 46 mg/kg/day was found not to be tumorigenic by Innes et al. (1969). Human exposure to Tedion residues through the diet is possible as Duggan et al. (1971) reported Tedion residues in 1 percent of the samples of any food class in a single year.

Two other tentatively identified pesticides, Nialate (ethion) and Premerge (dinoseb) were each identified in 1 soil sample. Nialate, a pesticide used for spraying fruit trees and as a cattle dip, was reported at a concentration of 12 mg/kg in the sample taken from the eastern boundary of the south side of the FMC site. Nialate is extremely toxic via the oral route with an LD 50 in rats of 13 mg/kg (Registry of Toxic Effects of Chemical Substances, 1979). Ingestion of Nialate at doses as low as 100 ug/kg has produced adverse effects on circulating blood elements in humans (RTECS, 1979). WHO (1973) has recommended an Acceptable Daily Intake (ADI) of 5 ug/kg for Nialate residues in food. The actual average daily human intake of Nialate residues in food has been estimated to be about 1 to 4 ug/day (Duggan and Corneliussen, 1972). No assessment of potential carcinogenic or tumorigenic effects, environmental mobility, or the ultimate fate of Nialate is possible from available data.

Premerge (dinoseb) was reported at a concentration of 220,000 ug/kg in the sample taken adjacent to Building no. 34. Premerge is an herbicide used for control of seedling weeds and grasses in crops. This herbicide is also extremely toxic with an oral LD 50 in rats of 25 mg/kg. Premerge is also highly toxic to fish; 100 percent mortality to goldfish was recorded at a Premerge concentration of 400 ug/l (Weed Science Society of America, 1983). Following application to crops, Premerge is not tightly adsorbed on most agricultural soils, and it can leach in porous, sandy soils. Premerge is not expected to build up in soils and microbical degradation has been observed (Weed Science Society of America, 1983).

4.2.2 Other Contaminants

Soil samples from north and south sides of the FMC site revealed measurable concentrations of a wide range of polynuclear aromatic hydrocarbons (PAH) in 8 of 12 samples. Total reported PAH concentrations ranged from about 1,600 ug/kg in the sample taken near the eastern site boundary to about 112,000 ug/kg (112 ppm) in the sample taken near the western site boundary. Note that the sample intended as a field blank (obtained from the lawn in front of Building no. 19), revealed 8,120 ug/kg PAHs.

Polynuclear aromatic hydrocarbons comprise a diverse class of compounds consisting of substituted and unsubstituted polycyclic and heterocyclic aromatic rings. They are formed as a result of incomplete combustion of organic compounds and appear in food as well as ambient air and water. PAHs are a common constituent of creosote, which is used as a wood preservative. Note that the second highest reported PAH concentration on the FMC site (93,000 ug/kg) was reported in the soil sample taken from a railroad bed.

It is well established that PAHs such as benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene (all reported in one or more FMC soil samples) have carcinogenic potential when dermally applied. Risks of carcinogenicity that may result from repeated dermal contact with the reported soil PAH concentrations are probably low in this case as PAHs adsorb to soils, thus reducing concentrations available for absorption should direct contact occur. More acute toxic effects such as irritation or photosensitization, associated with direct contact with pure PAHs, also would not be expected at the reported concentrations.

Surface water does not serve as a significant transport medium for PAHs as they are relatively water insoluble as a class and undergo rapid photolysis following any dissolution that may occur. Due to their affinity for soils, PAHs may be conveyed with surface runoff. The potential may exist for PAHs to be transported to adjacent Curtis Bay or Stonehouse Cove. PAHs are commonly found in urban areas such as Baltimore; however, transport of PAH contaminated soil may contribute to an already existing pollutant burden in Curtis Bay or Stonehouse Cove. The ultimate fate of PAHs in sediments is believed to be biodegradation by benthic organisms.

Notable concentrations of heavy metals lead and mercury were reported in 8 and 4 soil samples, respectively. Lead concentrations ranged from 30 mg/kg (eastern boundary) to 1,400 mg/kg (proximate to Building no. 34), and exceeded average lead concentrations generally reported in nonpolluted soils of 15 mg/kg (Schroeder, 1965). Lead concentrations in soils can range from 2 to 200 mg/kg, and can be as high as 400 mg/kg in some urban soils as a result of automobile exhaust and paint deposits from demolished buildings. Lead-contaminated soils may be transported with surface runoff or in an acidic environment solubilized lead may be leached with percolating water. The dominant mechanism controlling the fate of lead in the environment appears to be sorption.

Reported mercury concentrations exceeded average concentrations generally reported in nonpolluted soils of 0.01 to 0.04 mg/kg (Brooks, 1972; Beliles, 1979) in soil sampled near Building no. 34 (4.5 mg/kg), near Building no. 91 (2.0 mg/kg), in the railroad bed (0.3 mg/kg), and near the northern boundary (0.4 mg/kg). The primary sink for mercury in the environment is sediment or soil; however, mercury can be metabolized by bacteria to methylated forms which are mobile in the environment. The persistence and extremely high bioconcentration factors (as high as 10^5) for methylated mercury compounds suggest that any mobilization of these compounds may be of concern. The current status of Curtis Bay and Stonehouse Cove with respect to mercury cannot be determined from available data. It may be noted that it is possible for environmentally significant concentrations of mercury to be present in a surface water below levels that are readily detectable by normal analytical protocols.

Elizabeth Quinn, Toxicologist

Site Name: FMC Baltimore
TDD No.: F3-8306-20

LIST OF SOURCES

Beliles, R.P. "The Lesser Metals." Toxicity of Heavy Metals, New York: Marcel Dekker, Inc., 1979.

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Duggan, R.E. and P.E. Corneliussen. "Dietary Intake of Pesticide Chemicals in the United States (III), June 1968 to April 1970." Pesticide Monitoring Journal, No. 5, (1972), pp. 331-341.

Duggan, R.E., G.Q. Libscomb, E.L. Cox, R.E. Heatwole, and R.C. Kling. "Residues in Food and Feed: Pesticide Residue Levels in Food in the United States, from July 1, 1963 to June 30, 1969." Pesticide Monitoring Journal, No. 5, (1971), pp. 73-212.

Innes, J.R.M., B.M. Ulland, M.G. Valerios, L. Petrucelli, L. Fishbein, E.R. Hart, A.J. Pallotta, R.R. Bates, and J. Peters. "Bioasay of Pesticides and Industrial Chemicals for Tumor-Ogenicity in Mice: A Preliminary Note." Journal of the National Cancer Institute, 42, (1969), pp. 1101-1114.

National Institute for Occupational Safety and Health. Registry of Toxic Effects of Chemcial Substances, 1979. Rockwell, Maryland: Tracor Jitco, Inc., 1980.

Schroeder, H.A. "The Biological Trace Elements." Journal of Chronic Diseases, 18, (1965) pp. 217-228.

Weed Science Society of America. Herbicide Handbook, Champaign, IL, 1983.

World Health Organization. "Safe Use of Pesticides." WHO Technical Report No. 513, 1973.

APPENDIX A

1. COST CENTER:	REM/FIT ZONE CONTRACT TECHNICAL DIRECTIVE DOCUMENT (TDD)	2. NO.:
ACCOUNT NO.:		F3-8306-20

3. PRIORITY:	4. ESTIMATE OF TECHNICAL HOURS:	5. EPA SITE ID:	6. COMPLETION DATE:	7. REFERENCE INFO.:
[XX] HIGH [ ] MEDIUM [ ] LOW	225		Report due 2 months after sample result received	[X] YES [ ] NO [ ] ATTACHED [X] PICK UP
	4A. ESTIMATE OF SUBCONTRACT COST: $400	5A. EPA SITE NAME: FMC Corporation ~~Baltimore~~	FJB	

GENERAL TASK DESCRIPTION:

Conduct PA/SI at subject facility.

9. SPECIFIC ELEMENTS:

1. Attend preliminary meeting with EPA personnel at subject facility.
2. Develop sampling plan in conjunction with EPA project leader.
3. Coordinate labs for analysis (P.P. & Dioxin).
4. Sample on-site for characterization of dioxin and priority pollutants.
5. Off-site sampling at discretion of EPA project leader.
6. Ship samples under chain of custody to appropriate labs.
7. Dioxin sampling etc. according to EPA/CDC protocol.
8. Submit formal report, PA & SI forms.
9. If sufficient data provide HRS under separate cover (30 additional hours).

10. INTERIM DEADLINES:

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

OTHER (SPECIFY): If time doesn't permit both dioxin and priority pollutants sampling, conduct dioxin only.

12. COMMENTS: 10. Subcontract for proper disposal of contaminated clothing and materials from Site Inspection. (not to exceed 2 barrels/site).

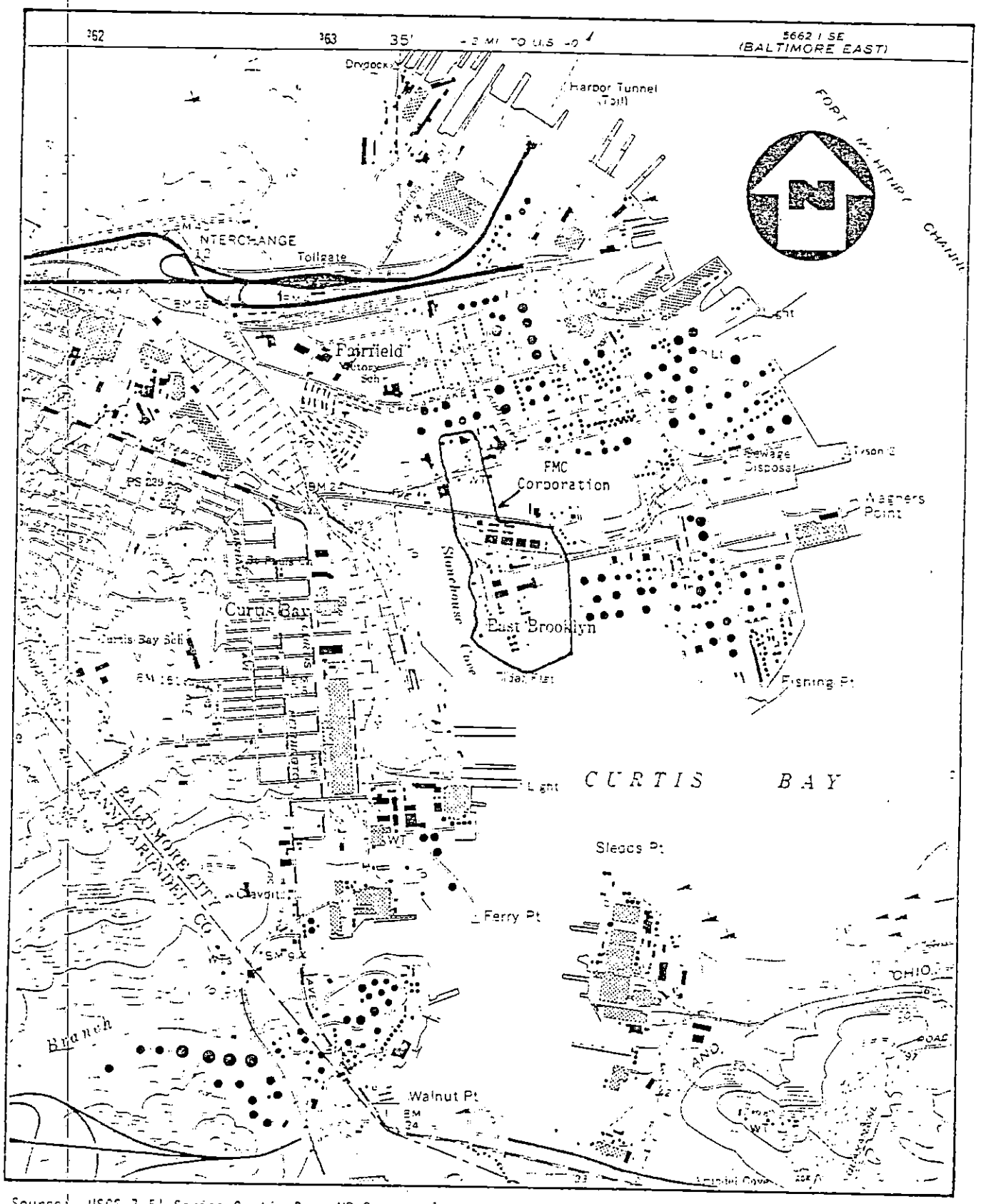
13. AUTHORIZING REQ: Linda Y. Boerdzyer (SIGNATURE) — 14. DATE: 6/9/83

15. RECEIVED BY: [X] ACCEPTED [ ] ACCEPTED WITH EXCEPTIONS [ ] REJECTED

Donald Smorinel (CONTRACTOR RPM SIGNATURE) — 16. DATE: 6/10/83

Sheet 1 White – FITL Copy Sheet 3 Pink – Contracting Officer's Copy (Washington, D. C.)

APPENDIX B



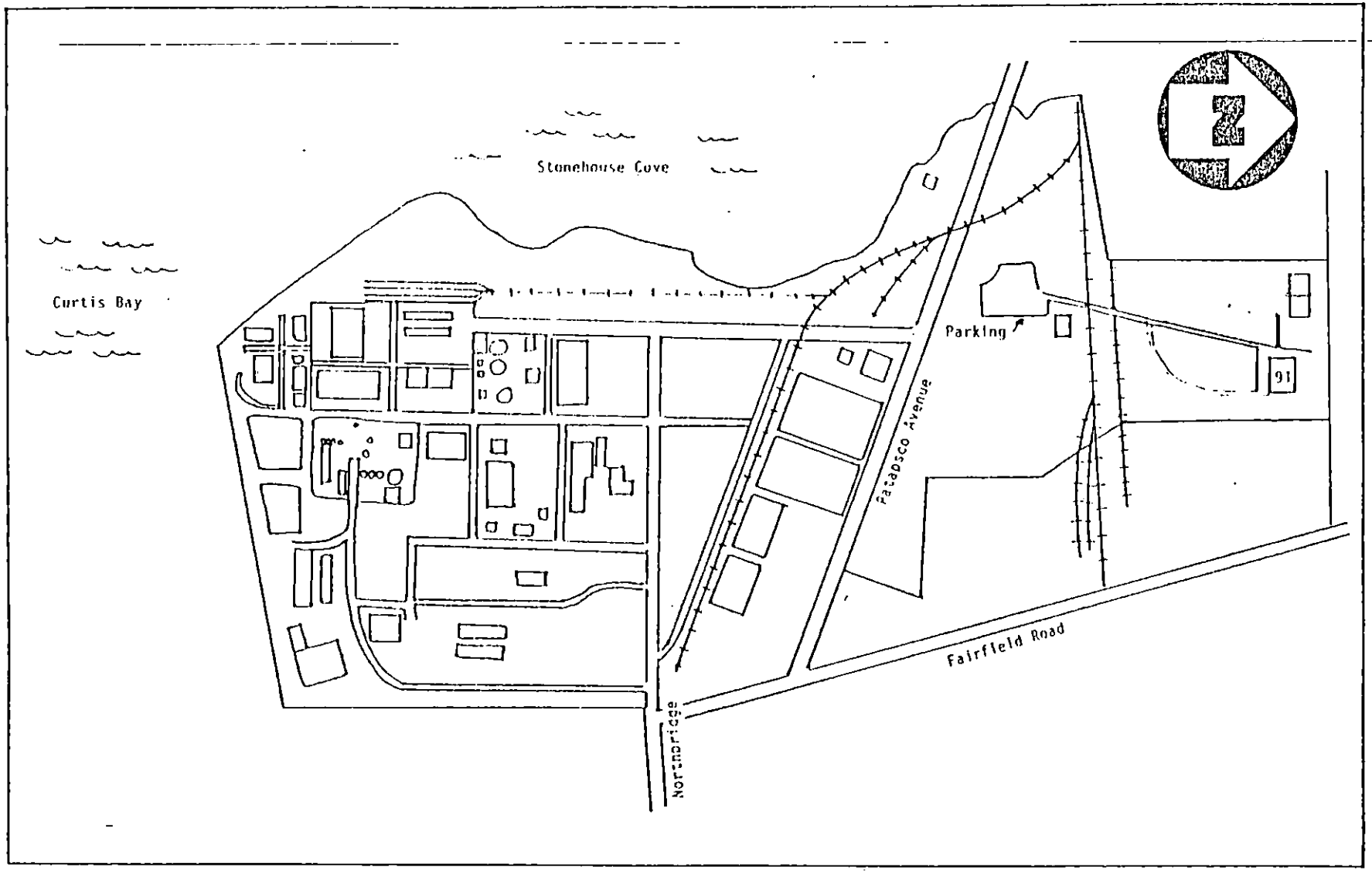
Source: USGS 7.5' Series Curtis Bay, MD Quadrangle

Site Location Map

FMC Corporation, Baltimore, Maryland

Scale: 1:24,000

NUS CORPORATION
A Halliburton Company

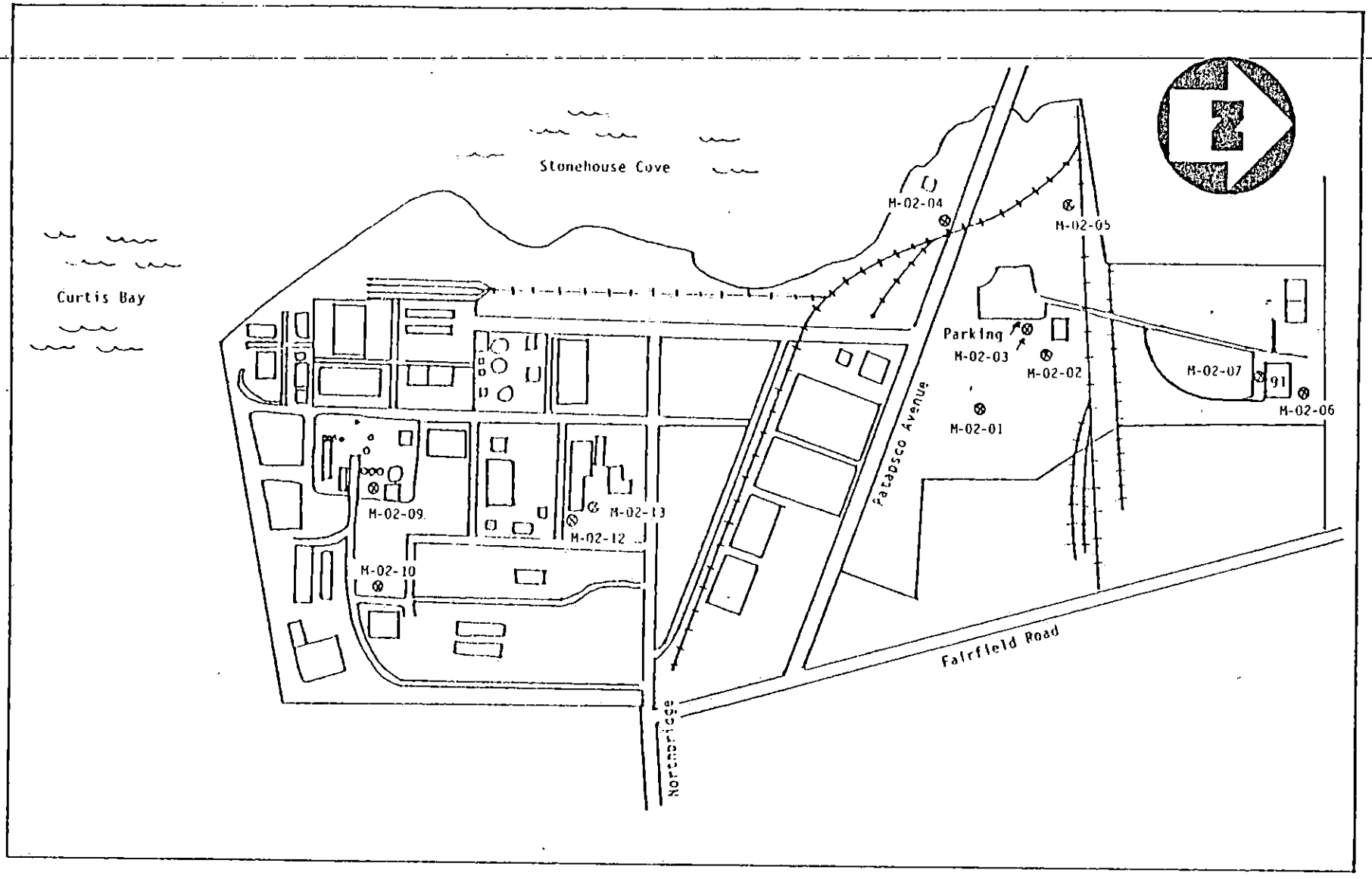


Site Sketch

FMC Corporation, Baltimore, Maryland

NOT TO SCALE

NUS CORPORATION
A Halliburton Company



Sample Location Map

FMC Corporation, Baltimore, Maryland

NOT TO SCALE

NUS CORPORATION
A Halliburton Company

APPENDIX C

PROJECT NAME: FMC Agricultural
TDD NO: TDD F3-8306-20

EPA SITE NO.: M-02
REGION: FIT III

QUALITY ASSURANCE REVIEW OF INORGANIC ANALYTICAL DATA PACKAGE

Case No.: 1836
Contract No.: 68-01-6776
Contract Laboratory: Versar
Applicable IFB No.: WA 83-A125
Reviewer: Rock J Vitale
Review Date: 4/20/84

Applicable Sample No's.:
MC1208, MC1209, MC1210, MC1211, MC1212, MC1213, MC0939, MC0982, MC0984, MC1001, MC1002, MC1003, MC1004,

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

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

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

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

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

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

‡ No errors noted, no form attached.

◒ Spot Check performed.

Comments: #1 Please see blank analysis documentation

INORGANIC DATA COMPLETENESS CHECKLIST

	TRAFFIC REPORT#	MC1208	MC1209	MC1210	MC1211	MC1212	MC1213	MCD939	MCD982	MC0984	MC1001	MC1002	MC1003	MC1[illegible]
	MATRIX (SOL/AQ)	SOL	SOL	SOL	SOL	SOL	SOL	SOL	SOL	SOL	SOL	SOL	SOL	SO[illegible]
	(LO, MED, HI) CONC.	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Lo[illegible]
FIELD QC	BLANK													✓
	DUPLICATE				✓			✓	✓					
	SPIKE				✓			✓	✓					
TASK I: ICAP or AA metals	Raw data	✓												
	TAB. results	✓												
	TAB. D.L.'s	✓												
	QA Form	✓												
	ICAP Interference QC	✓												
	Instr. Sens.	✓												
TASK II: [illegible] ce AA M[illegible]s	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. results													
	TAB. D.L.'s													
	QA Form													
	Instr. Sens.													

Comments:

DATA EVALUATION SCORE CATEGORIES

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

ACCEPTABLE WITH EXCEPTION(S): Data is not completely within established control limits. The 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.

Blank Analysis Results

The contaminants found in the blanks are listed below:

FRACTION	TYPE OF BLANK	SAMPLE NO.	SOURCE OF	CONTAMINANTS (concentration/DL)
All	Field low/sol	MC1004	NUS	N.D*
All	Prep BLANK.	Prep,	Versar	Fe (18 µg/L / 50 µg/L) Sn (1.8 mg/Kg / 0.5 mg/Kg)
All	BLANK	BLANK Value	Versar	N.D
All	Prep BLANK₂	Prep,	Versar	N.D

COMMENTS:

* Extremely low levels of Al, Ba, Cu and Sn were seen in the field blank MC1004. These values were so small they could not be used to question any values reported in the results.

MATRIX SPIKE RECOVERIES

Sample No.	MC0939	MC0982	MC1211			
Field Spike						
Lab Spike	✓	✓	✓			
Matrix	SOL ✓	SOL	SOL			
Conc. Level	LOW	LOW	LOW			
Method Std.						
Fraction	TASK I+II,III	TASK II	II - Hg			

All matrix spike recoveries were within the established control ranges specified in;
IFB WA83-A125, Exhibit E, Table 2. ✓ Yes ___ No

Exception(s):

Parameter	Accepted Range (%)	Actual % Rec.	Sample Number	Org. Result	Spike Added	Spike Result	Units
Ni	80-120	68%	MC0939	15	20	28.5	mg/kg
Sn	75-125	144%	MC0939	2.8	5	.10	mg/kg

Comments: No real effect on data as reported

Duplicate Analysis Results

The applicable duplicate pairs are:

sample no.	MC0939	MC1211				
Field duplicate						
Lab duplicate	✓	✓				
sample level	Low	Low				
sample matrix	Sol	Sol				
Fraction	I, II, III	Hg				

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

Fraction	maximum acceptable Percent Difference
	20% AQ
	40% Sol

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

Fraction	Compound	Actual RPD	Sample	Comparison conc.	Comparison conc.
Tash I	Cobalt	67	MC0939	5ppm	10ppm

Comments: All acceptable - no effect on data

CASE 1836

CONTINUING CALIBRATION VERIFICATION UG/L

ELEMENT	STANDARD SOLUTION 1 FOUND	TRUE	% REC.	STANDARD SOLUTION 2 FOUND	TRUE.	% REC.
AG	24.	24.	100.	24.	24.	100.
AL	870.	800.	109.	840.	800.	105.
B	1090.	1000.	109.	1030.	1000.	103.
BA	354.	335.	106.	344.	335.	103.
BE	1010.	900.	112.	922.	900.	102.
CO	660.	600.	110.	600.	600.	100.
CR	276.	250.	110.	248.	250.	99.
CU	3o4.	350.	110.	352.	350.	101.
FE	988.	900.	110.	920.	900.	102.
MN	552.	500.	110.	497.	500.	99.
NI	315.	300.	105.	300.	300.	100.
V	920.	850.	108.	856.	850.	101.
N	456.	400.	114.	393.	400.	98.

CONTINUING CALIBRATION VERIFICATION UG/L

ELEMENT	STANDARD SOLUTION 3 FOUND	TRUE	% REC.
AG	24.	24.	100.
AL	825.	800.	103.
B	1040.	1000.	104.
BA	342.	335.	102.
BE	929.	900.	103.
CO	610.	600.	102.
CR	252.	250.	101.
CU	352.	350.	101.
FE	934.	900.	104.
N	502.	500.	100.
NI	300.	300.	100.
V	860.	850.	101.
ZN	405.	400.	101.

DUPLICATE SAMPLE RESULTS mg/KG

SAMPLE # MC 0939

	SAMPLE RESULT	DUPLICATE RESULT	% RPD
AG	< 1.500	< 1.500	-
AL	4960.000	6390.000	25.
B	< 3.000	< 3.000	-
BA	44.000	54.500	21.
BE	< 0.500	< 0.500	-
CD	5.000	10.000	67.
CR	10.000	12.000	18.
CU	68.000	74.000	8.
FE	7940.000	8490.000	7.
MN	295.000	388.000	27.
NI	15.000	< 7.500	-
V	28.000	26.000	7.
ZN	79.500	88.500	11.

SPIKED SAMPLE RESULTS mg/KG

SAMPLE # MC 0939

ELEMENT	SAMPLE RESULT	SPIKE RESULT	SPIKE ADDED	% RECOVERY
AG	< 1.500	4.500	5.000	90.
AL	4960.000	15200.000	10000.000	102.
B	< 3.000	12.000	10.000	120.
BA	44.000	144.000	100.000	100.
BE	< 0.500	2.850	2.500	114.
CD	5.000	15.500	10.000	105.
CR	10.000	29.400	20.000	97.
CU	68.000	264.000	200.000	98.
FE	7940.000	18000.000	10000.000	101.
MN	295.000	770.000	500.000	95.
NI	15.000	28.500	20.000	68.
V	28.000	73.500	50.000	91.
ZN	79.500	227.000	150.000	98.

CASE 1836

ICP INTEFERENCE CHECK

STANDARD SOURCE : EPA

UG/L

ELEMENT	INITIAL FOUND	INITIAL TRUE	INITIAL %REC.	FINAL FOUND	FINAL TRUE	FINAL %REC.
AG	267.	300.	89.	270.	300.	90.
AL	123000.	120000.	103.	118000.	120000.	98.
B	1220.	500.	*.	1200.	500.	*.
BA	607.	300.	*.	606.	300.	*.
BE	99.	100.	99.	98.	100.	98.
CD	280.	300.	93.	280.	300.	93.
CR	312.	300.	104.	304.	300.	101.
CU	288.	300.	96.	288.	300.	96.
FE	499000.	500000.	100.	495000.	500000.	99.
MN	343.	200.	*.	334.	200.	*.
NI	285.	300.	95.	315.	300.	105.
V	320.	300.	107.	336.	300.	112.
ZN	321.	300.	107.	315.	300.	105.

* SEE ATTACHMENT 1.

Versar inc.

ATTACHMENT I

DATE: October 8, 1982

SUBJ: "True" Concentrations for EPA ICP Interferrence Check Samples (WP481, WP581, and WP681)

Versar's observed concentration for Ba, B, and Mn in EPA ICP interference check samples (WP481, WP581, and WP681) differ substantially from the "true" values reported by EPA. Detailed analysis of the problem at Versar confirmed that ICP spectral corrections have been correctly applied and that ICP calibration materials are verifiable against other EPA Q.A. vials. This investigation suggests that the interference vial "true" values are in error. Attempts to confirm this problem with EPA have been inconslusive.

Ted Martin of EMSL, EPA has not analyzed the suspect vial series and was therefore unable to comment on our problems. Mr. Martin was, however, able to confirm a similar problem noted in the EPA ICP calibration check vial (WP481 concentration 1). This problem has also been noted in Versar's ICP lab. Ray Wesselman (Q.A. Branch, U.S. EPA, EMSL, Cinn. OH) Project Manager for the preparation of this interference vial series was also unable to comment on our investigation. Mr. Wesselman will be looking into the problem and will contact Versar with any information as it becomes available. A complete report of Versar's investigation into this problem will be provided to Mr. George Brillis of the U.S. EPA, EMSL, Las Vegas, NV, Q.A. Division.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
CENTRAL REGIONAL LABORATORY
839 BESTGATE ROAD
ANNAPOLIS, MARYLAND 21401

301-224-2740
FTS-922-3752

DATE : April 13, 1984

SUBJECT: Contamination of EPA ICP Interference Check Samples (WP481, WP581, and WP681)

FROM : Colleen Walling CW
Physical Science Technician

TO : Pat Krantz
QA Officer

THRU : E. Ramona Trovato ERT
Team Leader, Inorganic Analysis Section

When reviewing an Inorganic Analytical Data Package from Versar Inc., I discovered a problem of possible contamination of the ICP Interference Check Samples WP481, WP581, and WP681 as noted by the contract laboratory. I contacted Ray Wessleman, Project Officer of the Quality Assurance Branch, U.S. EPA, EMSL in Cincinnati. He confirmed the suspecion and provided me with the following information of the contaminants and their concentrations:

Parameter	Concentration (mg/L)
Boron	0.3
Barium	0.09
Manganese	0.08
Chromium	0.03
Zinc	0.024
Silica dioxide	1.5

These samples are no longer available from EMSL and they urge that they not be used. EMSL has sent these samples to the Bureau of Quality Assurance for further investigation.

CK:jr

cc: Kirby Worthington

Initial Calibration Verification and Continuing Calibration Verification

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

Exceptions: All acceptable

Calibrations and verifications were all within the control limits specified in WA83-A125: Yes ✓ No___

Outliers are listed below:

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

Interference QC Results

Documentation indicates interference QC samples were run before and after every ten samples: Yes ✓ No___

Exceptions: See versar ICP interference notice

Interference QC results were all within the control limits specified in WA83-A125: Yes ✓ No___

Exceptions:

Parameter	Acceptable Range (%)	Calibration Identifier	% of True Value	Comments
B, Ba, Mn				Ampule Contamination Documented by EPA

Detection Limits Results

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

Exceptions: All acceptable

Detection limits were less than or equal to the required detection limits specified in WA83-A125. Yes ✓ No ___

Exceptions: All acceptable

Instrument Sensitivity Reports

Instrument sensitivity reports were documented for all parameters:

Yes ✓ No ___

Comments: Well documented sensitivity checks.

Other Remarks Concerning this Case:

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

PROJECT NAME: FMC Agricultural
TDD NO: F3-8306-20

EPA SITE NO.: M-02
REGION: F, T III

QUALITY ASSURANCE REVIEW OF ORGANIC ANALYSIS LAB DATA PACKAGE

Case No.: 1836
Contract No.: 68-01-6607
Contract Laboratory: Mead
Applicable IFB No.: WA82-A069
Reviewer: Rock J Vitale
Review Date: 4/17/84

Applicable Sample No's.: C3705, C3706, C3736, C3737, C3738, C3739, C3740, C3741, C3742, C3743, C3744, C3745, C3746.

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				✓ #5	Not addressed in this Review
Acceptable with exception(s)	✓ #1, #2	✓ #3, #4	✓ #1, #4		
Questionable					
Unacceptable					

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

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

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

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

‡ No errors noted, no form attached.

◒ Spot Check performed.

Comments: #1 Please see blank analysis documentation
#2 Chromatographic ghosting was observed.
#3 Please see surrogate recovery documentation
#4 Please see matrix spike recovery form
#5 Reported pesticides are confirmed - also see tentively identified compounds for other pesticides identifications

DATA EVALUATION SCORE CATEGORIES

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

ACCEPTABLE WITH EXCEPTION(S): Data is not completely within established control limits. The 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	CONC./MATRIX	LO/SOL	LO/SOL	LO/SOL	LO/SOL	LO/SOL	LO/SOL	LO/SOL	LO/SOL	LO/SOL	LO/SOL	LO/SOL	
FRACTION	TRAFFIC REPORT #	C3705	C3706	C3736	C3737	C3738	C3739	C3740	C3741	C3742	C3743	C3744	
	LAB I.D. #	4845	4846	4847	4848	4849	4850	4851	4852	4853	4854	4855	
VOA !	RUN DATE/TIME	✓											✓
	TARGET COMPOUND TAB.	✓										✓	
	TARGET COMPOUND D.L.	✓										✓	
	TENT. I.D. COMPOUND TAB.	✓										✓	
	SURROGATE RECOVERY	✓										✓	
	GC SCREEN TABULATION	MS										✓	
	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.	MS										✓	
	LINEARITY: 3-PT. CALIB	✓										✓	
	RF COMPARISON	✓										✓	
	SAMPLE/FIELD BLANK												
	METHOD/INSTR. BLANK												
	LAB DUPLICATE												
	FIELD DUP/REP												
	MAT. SPK./M. STD.												

COMMENTS:

DATA COMPLETENESS	CONC./MATRIX	LO/SOL	LO/SOL	LO/AQ	LO/AQ	LO/AQ	LO/AQ	LO/AQ	LO/AQ				
FRACTION	TRAFFIC REPORT #	C3745	C3746	21A11	22A11	22B11	A05	6704	5622				
	LAB I.D. #	4856	4857	N/a	N/a	N/a	N/a	N/a	N/a				
VOA !	RUN DATE/TIME	✓							✓				
	TARGET COMPOUND TAB.	✓							✓				
	TARGET COMPOUND D.L.	✓							✓				
	TENT. I.D. COMPOUND TAB.	✓							✓				
	SURROGATE RECOVERY	✓							✓				
	GC SCREEN TABULATION	MS							✓				
	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.	MS							✓				
	LINEARITY: 3-PT. CALIB	✓							✓				
	RF COMPARISON	✓							✓				
	SAMPLE/FIELD BLANK		✓										
	METHOD/INSTR. BLANK			✓	✓	✓	✓	✓	✓				
	LAB DUPLICATE	✓											
	FIELD DUP/REP												
	MAT. SPK./M. STD.	✓											

COMMENTS:

Sample C3737 VOA was run after a standard.
" C3742 VOA was run after a standard.
However, insufficient evidence to question the reported compounds in C3742 because levels were to high percent of previous run to be a ghost: acrylonitrile – 24% 2-butanone – 20% 2-hexanone – 13%. Furthermore, typical ghost compounds were not observed at these levels: xylene – 1.5%, styrene – 2.3%, chlorobenzene – 6.5%, 1,1,2,2-tetrachloroethane – 4.5%. Also if purged water from previous standard was accidentally used, then acrolein would also be high if results were due to this artifactual error. However, acrolein was only 4.5% of previous run.

Therefore, only results about 5% of previous run in sample C3737 were questioned, and no results were high enough to question in sample C3742.

DATA COMPLETENESS	CONC./MATRIX	LO/201	LO/SOL	LO/SOL	LO/SOL	LO/SOL	LO/SOL	LO/SOL	LO/SOL	LO/SOL	LO/SOL	LO/SOL	
FRACTION	TRAFFIC REPORT #	C3705	C3706	C3736	C3737	C3738	C3739	C3740	C3741	C3742	C3743	C3744	
	LAB I.D. #	4845	4846	4847	4848	4849	4850	4851	4852	4853	4854	4855	
BNA :	RUN DATE/TIME	✓											✓
	TARGET COMPOUND TAB.	✓											✓
	TARGET COMPOUND D.L.	✓											✓
	TENT. I.D. COMPOUND TAB.	✓											✓
	SURROGATE RECOVERY	✓											✓
	GC SCREEN TABULATION	MS											✓
	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.	MS											✓
	LINEARITY : 3-PT. CALIB	✓											✓
	RF COMPARISON	✓											✓
	SAMPLE/FIELD BLANK												
	METHOD/INSTR. BLANK												
	LAB DUPLICATE							✓					
	FIELD DUP/REP												
	MAT. SPK./M. STD.							✓					
PEST. :	PESTICIDE TABULATION	✓											✓
	PEST. D.L. TABULATION	✓											✓
	PESTICIDE CHRO.	✓											✓
	PESTICIDE STD. CHRO.	✓											✓
	PESTICIDE STD. I.D.	✓											✓
	2nd COLUMN CONF.	✓											✓
	GC/MS CONFIRMATION	MS											✓
	PESTICIDE DUPLICATE												
	PESTICIDE SPIKE												
	PESTICIDE BLANK												
TCDD	TCDD TABULATION												
	TCDD DETECTION LIMIT												
	TCDD CHRO./E.I.C.P.												
	TCDD BLANK												

DATA COMPLETENESS	CONC./MATRIX	LO/SOL	LO/SOL	LO/AQ	LO/AQ	LO/AQ
FRACTION	TRAFFIC REPORT #	C3745	C3746	N/a	N/a	N/a
	LAB I.D. #	4856	4857	4919	5371	6713
BNA :	RUN DATE/TIME	✓	→	→	→	→
	TARGET COMPOUND TAB.	✓	→	→	→	→
	TARGET COMPOUND D.L.	✓	→	→	→	→
	TENT. I.D. COMPOUND TAB.	✓	→	→	→	→
	SURROGATE RECOVERY	✓	→	→	→	→
	GC SCREEN TABULATION	MS	→	→	→	→
	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.	MS	→	→	→	→
	LINEARITY: 3-PT. CALIB	✓	→	→	→	→
	RF COMPARISON	✓	→	→	→	→
	SAMPLE/FIELD BLANK		✓			
	METHOD/INSTR. BLANK			✓	✓	✓
	LAB DUPLICATE					
	FIELD DUP/REP					
	MAT. SPK./M. STD.					
PEST. :	PESTICIDE TABULATION	✓	→	→	→	→
	PEST. D.L. TABULATION	✓	→	→	→	→
	PESTICIDE CHRO.	✓	→	→	→	→
	PESTICIDE STD. CHRO.	✓	→	→	→	→
	PESTICIDE STD. I.D.	✓	→	→	→	→
	2nd COLUMN CONF.	✓	→	→	→	→
	GC/MS CONFIRMATION	MS	→	→	→	→
	PESTICIDE DUPLICATE		✓			
	PESTICIDE SPIKE		✓			
	PESTICIDE BLANK		✓	✓	✓	
TCDD	TCDD TABULATION					
	TCDD DETECTION LIMIT					
	TCDD CHRO./E.I.C.P.					
	TCDD BLANK					

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

KEY TO SYMBOLS USED IN DATA COMPLETENESS TABLE

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

NR - NOT RUN

RUN CHRONICLE

FRACTION: VOA			FRACTION: BNA			FRACTION: Pest			
							Pack		FSCC
RUN ORDER	RUN ID/ DESCRIPTION	DATE / TIME	RUN ORDER	RUN ID/ DESCRIPTION	DATE / TIME	RUN ORDER	RUN ID/ DESCRIPTION		DATE / TIME
16	C3746/4857 #11	7/23 / 1:03	X11	C3746/4857 #16	7/13 / 13:46		C3746 4857	NR	8/7 / 4:20
15	C3745/4856 #11	7/23 / 0:24	B3	C3745/4856 #14	8/4 / 0:34		C3745 4856	7/29 / 0:04	7/13 / 21:44
14	C3744/4855 #11	7/22 / 23:49	5	C3744/4855 #16	7/25 / 17:27		C3744 4855	7/18 / 17:54	7/12 / 6:42
13	C3743/4854 #11	7/22 / 23:06	4	C3743/4854 #16	7/25 / 16:31		C3743 4854	7/20 / 19:03	7/14 / 21:14
12	C3742/4853 #11	7/22 / 22:20	*3	C3742/4853 #16	7/25 / 15:24		C3742 4853	7/20 / 23:52	7/14 / 10:52
8	C3741/4852 #11	7/22 / 16:54		C3741/4852 #14	7/26 / 8:21		C3741 4852	NR	8/7 / 3:40
7	C3740/4851	7/22 / 16:16	X10	C3740/4851 #16	7/13 / 12:22		C3740 4851	7/20 / 7:36	7/14 / 22:37
6	C3739/4850 #11	7/22 / 15:25	X9	C3739/4850 #16	7/13 / 11:17		C3739 4850	7/19 / 15:13	7/14 / 21:56
5	C3738/4849 #11	7/22 / 14:49	X8	C3738/4849 #16	7/13 / 10:20		C3738 4849	NR	7/14 / 6:02
4	C3737/4848 #11	7/22 / 14:06	X7	C3737/4848 #16	7/13 / 8:56		C3737 4848	7/19 / 11:42	7/15 / 1:23
X4	C3736/4847 #5	8/4 / 11:37	X4	C3736/4847 #16	7/13 / 5:00		C3736 4847	NR	7/14 / 24:01
B6	C3706/4846 #11	7/21 / 15:60	X3	C3706/4846 #16	7/13 / 4:10		C3706 4846	NR	7/14 / 5:20
SPACE PRIOR TO B5	C3705/4845 #11	7/21 / 14:17	X2	C3705/4845 #16	7/13 / 3:20		C3705 4845	8/7 / 14:56	8/12 / 19:38
B1	BFB #11	7/21 / 8:14	X5	Cal STD #16	7/13 / 5:55				7/14 / 23:38
1	BFB #11	7/22 / 8:46	1	DFTPP #16	7/25 / 9:46		4919 BLK		7/13 / 22:27
9	BFB #11	7/22 / 18:22		DFTPP #14	7/26 / 1:02		5371 BLK		8/6 / 23:37
X2	BFB #5	8/4 / 10:47	B1	DFTPP #14	8/3 / 22:03		SPIKE		7/14 / 15:42
B2	GB83072IA11 INSTR BLK	7/21 / 8:30	X1	4919-BLK #14	7/13 / 2:14		SPIKE		7/14 / 17:05
2	BD830722A11 INSTRU BLK	7/22 / 10:18		5371-BLK #14	7/26 / 5:51		STD MIX	8/7 / 13:11	8/12 / 13:07
10	GB830722B11 INSTRU BLK	7/22 / 20:02	B4	6713-BLK #14	8/4 / 15:01		STD MIX	8/7 / 12:45	8/12 / 13:48
X1	GC83084A05 INSTRU BLK	8/4 / 10:06		SPIKE #16	7/26 / 14:20		PCB 1016/1260	8/7 / 13:38	8/12 / 14:30
—	6704-BLK #11	8/3 / 4:30		SPIKE #16	7/26 / 15:34		tox	8/7 / 14:04	8/12 / 15:12
SPACE PRIOR TO B4	5622-BLK #11	7/21 / 10:43	—	STD 50 NG #16	7/12 / 22:55		STD mix	7/19 / 10:44	7/14 / 8:48
17	SPIKE #11	7/23 / 2:23	X6	STD 50 NG #16	7/13 / 6:32		STD mix	7/19 / 10:19	7/14 / 9:30
18	SPIKE #11	7/23 / 6:36	2	STD 50 NG #16	7/25 / 12:04		PCB 1016/1260	7/19 / 9:25	7/14 / 14:19
B3	STD 40NG/kg #11	7/21 / 9:08		STD 50NG #14	7/26 / 3:43		tox	7/18 / 14:40	7/14 / 13:38
SPIKE 400NG/kg ACCIDENTAL 3	STD 60NG/kg #11	7/22 / 13:12	B2	STD 50NG #14	8/3 / 23:17		STD mix	7/20 / 16:51	8/7 / 11:58
11	STD 40NG/kg #11	7/22 / 21:18					STD mix	7/20 / 17:18	8/7 / 12:38
X3	STD 40NG/kg #5	8/4 / 10:55					1016/1260	7/20 / 17:45	8/7 / 20:10
							tox	8/19 / 17:45	8/7 / 20:50

BLANK ANALYSIS RESULTS FOR TARGET COMPOUNDS

FRACTION	TYPE	CONC	MATRIX	SAMPLE #	SOURCE OF H_2O	CONTAMINANTS (CONCENTRATION / DETECTION LIMIT)
VOA	field	low	Sol	C3746 4857	NUS	Methylene Chloride (443 ug/kg / 2.5 ug/kg) #1 Benzene (2.1 ug/kg / 2.5 ug/kg) #1 Fluorotrichloromethane (3.3 ug/kg / 2.5 ug/kg) #1 Acetone (22.4 ug/kg / 50 ug/kg) #2
						Chlorobenzene (0.33 ug/kg / 2.5 ug/kg) #2 2-Butanone (1.2 ug/kg / 2.5 ug/kg) #2 2-Hexanone (1.6 ug/kg / 2.5 ug/kg) #2
BNA	field	low	Sol	C3746* 4857*	NUS	Phenanthrene (0.76 ug / 10 ug) #2 * Di-n-butyl Phthalate (1.6 ug / 10 ug) #2 Fluoranthene (1.6 ug / 10 ug) #2 * Pyrene (1.6 ug / 10 ug) #2 *
						Bis (2ethylhexyl) Phthalate (3.2 ug / 10 ug) #2 Chrysene (2.3 ug / 10 ug) #2 Butylbenzyl Phthalate (1.2 ug / 10 ug) #2 Benzo (A) Pyrene (1.8 ug / 10 ug) #2
VOA	INSTRUMENT BLANK	low	AQ	21A11	Mead	Methylene Chloride (0.96 ug/kg / 2.5 ug/kg) #1 2-Butanone (2.0 ug/kg / 2.5 ug/kg) #2 2-Hexanone (0.71 ug/kg / 2.5 ug/kg) #2 Chlorobenzene (0.25 ug/kg) 2.5 ug/kg) #2
VOA	INSTRUMENT BLANK	low	AQ	22A11	mead	methylene Chloride (1.4 ug/kg / 2.5 ug/kg) #1 Acetone (4.1 ug/kg / 2.5 ug/kg) #2 2-Butanone (2.3 ug/kg / 2.5 ug/kg) #2
VOA	INSTRUMENT BLANK	low	AQ	22B11	mead	Methylene Chloride (1.5 ug/kg / 2.5 ug/kg) #1 Acetone (3.8 ug/kg / 50 ug/kg) #2 2-Hexanone (0.80 ug/kg / 2.5 ug/kg) #2 2-Butanone (1.4 ug/kg / 2.5 ug/kg) #2
VOA	INSTRUMENT BLANK	Low	AQ	04A05	mead	Methylene Chloride (1.1 ug/kg / 2.5 ug/kg) #1 Acetone (0.93 ug/kg / 50 ug/kg) #2 2-Butanone (0.86 ug/kg) 2.5 ug/kg) #2
VOA	Reagent BLANK	Low	AQ	6704	mead	Methylene Chloride (2.9 ug/kg / 2.5 ug/kg) #1 Acetone (1.0 ug/kg / 50 ug/kg) #2 Fluorotrichloromethane (0.32 ug/kg / 2.5 ug/kg) #2 2-Butanone (1.8 ug/kg / 2.5 ug/kg) #2

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

COMMENTS:

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

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

*C3746 run after high level sample; results may be due to ghosting at 0.5-1.0% of sample C3740. However, chrysene and benzo(a)pyrene were 3.4% and 2%, respectively, of previous run. All sample results also evaluated for possible ghosting.

BLANK ANALYSIS RESULTS FOR TARGET COMPOUNDS

FRACTION	TYPE	CONC	MATRIX	SAMPLE #	SOURCE OF H_2O	CONTAMINANTS (CONCENTRATION / DETECTION LIMIT
VOA	Reagent Blank	Low	AQ	5622	mead	Methylene Chloride (1.4 ug/kg / 2.5 ug/kg) #1 Acetone (4.0 ug/kg / 50 ug/kg) #2 #3
BNA	Reagent Blank	Low	AQ	4919	mead	Di-N-butyl Phthalate (0.26 ng / 10 ng) #2
BNA	Reagent Blank	Low	AQ	5371	mead	Di-N-butyl Phthalate (0.39 ng / ng) #2 Pyrene (0.29 ng / ng) #2
BNA	Reagent Blank	Low	AQ	6713	mead	Di-N-butyl Phthalate (0.54 ng / ng) #2 Pyrene (0.64 ng / 10 ng) #2 Bis (2-ethylhexyl) Phthalate (0.56 ng / 10 ng) #2 Chrysene (0.56 ng / 10 ng) #2
Pest	Reagent Blank	Low	AQ	4919 5371	mead	N.D.

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

COMMENTS:

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

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

#3 This blank was run after a 50ng STD, therefore will not be used to question spl rsl

BLANK ANALYSIS RESULTS FOR TENTATIVELY IDENTIFIED COMPOUNDS

ALL TENTATIVELY IDENTIFIED COMPOUNDS FOUND IN BLANK ANALYSES ARE LISTED BELOW:

SAMPLE #	FRACTION	SCAN #(S)	SPECTRUM MATCH INDICES TYPE	SCORE	TYPE	SCORE	ESTIMATED CONCENTRATION	COMPOUND NAME	COMMENTS
C3746	VOA	209	Pur	97.8			15ug/kg	1,1-oxybis ethane	
	BNA	1955	Pur	609			480ug/kg	Hexadecanoic Acid-Carboxylic Acid	
		2604	Pur	606			200ug/kg	- UNKNOWN	
		2334					770ug/kg	Tedion Ghost of C3740 @ 14000ug/kg	
BLK-4919	BNA	1277					Scan @ 1277 @ 30% of 3rd I.S.		
BLK-5371	BNA	817					Scan @ 817 @ 2% of 1st I.S.		
BCK-6713	BNA	814					Scan @ 814 @ 1% of 1st IS		
		986					Scan @ 986 @ 1% of 2nd I.S.		
		1254					Scan @ 1254 @ 3% of 3rd I.S.		

SURROGATE PERCENT RECOVERY SUMMARY

CASE NO. 1836
LOW LEVEL ✓
WATER
QC REPORT NO.

CONTRACTOR Mend Compu Chem
MED. LEVEL
SOIL/SED. ✓

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

7/26

							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 (NE)	(#258) D_4-1,2 Dichloro Ethane (NE)	(#447) D_5 Nitro Benzene (19-120)	(#448) 2-Fluoro Biphenyl (17-120)	(#471) D_{10} Pyrene (NE)	(#496) D_{14} p-ter Phenyl (NE)	(#612) D_5 Phenol (10-100)	(#619) 2-Fluoro Phenol (26-120)	(#628) 2,4,6-Tribromo Phenol (NE)	(#738) Dibutyl Chlor-endate (NE)	(#466) 1,2,3,4 TCDD (11-130)
383	7-14 83	729	7-22-83	633	4850	C3739	101	106	89									
382	7-1 83		7-13-83	586						58	78	76	85	60	59	0		
368			8-19-83	679 597													35	
383	7-14 83	729	7-22-83	673	4851	C3740	100	109	89									
382	7-1 83		7-13-83	586						63	82	86	84	38	53	Ø		
368	7-6 83		7-14-83 7-14-83	597 679													Ø ①	
383	7-14 83	729	7-22-83	673	4852	C3741	110	120	97									
382	7-13 83		7-26-83	531						65	73	76	67	23	31	30		
368	7-14 83		8-7-83	597 679													46	
383	7-14 83	729	7-22-83	673	4853	C3742	108	100	81									
382	7-1 83		7-25-83	586						95	110	120	120	85	96	96		
368	7-6 83		7-20-83	679													43	
383	7-14 83	729	7-22-83	673	4854	C3743	119	108	82									
382	7-1 83		7-25-83	659						70	96	110	100	54	61	0		
368	7-6 83		7-20-83	679													790**	

Volatiles: 0 out of 5 ; outside of QC limits
Semivolatiles: 0 out of 15 ; outside of QC limits
Dioxin: — out of — ; outside of QC limits

Comments: Dioxin not required

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

** Matrix interference
① No recovery due to dilution

SURROGATE PERCENT RECOVERY SUMMARY

CASE NO. 1836
LOW LEVEL ✓
WATER
QC REPORT NO.

CONTRACTOR Mer. CompuChem
MED. LEVEL
SOIL/SED. ✓

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

7/26

							[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 (NE)	(#258) D_4-1,2 Dichloro Ethane (NE)	(#447) D_5 Nitro Benzene (19-120)	(#448) 2-Fluoro Biphenyl (17-120)	(#471) D_{10} Pyrene (NE)	(#496) D_{14} p-ter Phenyl (NE)	(#612) D_5 Phenol (10-100)	(#619) 2-Fluoro Phenol (26-120)	(#628) 2,4,6-Tribromo Phenol (NE)	(#738) Dibutyl Chlorendate (NE)	(#466) 1,2,3,4 TCDD (11-130)
383	7-11-83	729	7-21-83	633	4845	C3705	98	96	83									
382	6-31-83		7-13-83	602						43	52	57	57	37	42	17		
368	7-6-83		8-12-83	679													74%	
383	7-14-83	729	7-21-83	633	4846	C3706	100	99	86									
382	6-31-83		7-13-83	602						68	69	75	72	56	55	0 ✓		
368	7-16-83		7-13-83	679													51	
383	8-2		8-4-83	633	4847R	C3736	95	94	75									
382	6-31		7-13-83	602						61	70	83	78	20	0 *	0 ✓		
368	7-10-83		7-13-83	679													25	
383	7-14-83		7-22-83	633	4848	C3737	111	84	104									
382	7-1-83		7-13-83	586						0 **	113	110	124	0 **	0 **	0 ✓		
368	7-6-83		7-19-83	679 587													25	
383	7-14-83	729	7-22-83	633	4849	C3738	113	120	98									
382	7-1-83		7-13-83	586						76	100	110	110	43	100	0 ✓		
368	7-6-83		7-13-83	679													18	

Volatiles: 0 out of 5 ; outside of QC limits
Semivolatiles: 1 out of 11 ; outside of QC limits
Dioxin: ___ out of ___ ; outside of QC limits

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

Comments: Dioxin not required

** 20:1 dilution

SURROGATE PERCENT RECOVERY SUMMARY

CASE NO. 1836
LOW LEVEL ✓
WATER
QC REPORT NO.

CONTRACTOR Mead CompuChem
MED. LEVEL
SOIL/SED. ✓

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

Re-Run Samples

							[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 (NE)	(#258) D_4-1,2 Dichloro Ethane (NE)	(#447) D_5 Nitro Benzene (19-120)	(#448) 2-Fluoro Biphenyl (17-120)	(#471) D_{10} Pyrene (NE)	(#496) D_{14} p-Ter Phenyl (NE)	(#612) D_5 Phenol (10-100)	(#619) 2-Fluoro Phenol (26-120)	(#628) 2,4,6-Tribromo Phenol (NE)	(#738) Dibutyl Chlor-endate (NE)	(#466) 1,2,3,4 TCDD (11-130)
					4836R	C3745												
382			8-4-83	602						59	62	53	60	52	48	8		
~~382~~	~~82~~		~~8-4-83~~	~~602~~	~~4847R~~	~~C3736~~	~~95~~	~~94~~	~~95~~									

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

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

Comments:

SURROGATE PERCENT RECOVERY SUMMARY

CASE NO. 1336
LOW LEVEL
WATER
QC REPORT NO.

CONTRACTOR Mead CompuChem
MED. LEVEL
SOIL/SED.

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

7/26

SURR. I.D.	EXT. DATE	EXT. I.D.	DATE ANA.	ANAL. I.D.	CC #	SMO Traffic No.	Volatile (#233) D_8 Toluene (81-120)	Volatile (#247) BFB (NE)	Volatile (#258) D_4-1,2 Dichloro Ethane (NE)	Semi-Volatile (#447) D_5 Nitro Benzene (19-120)	Semi-Volatile (#448) 2-Fluoro Biphenyl (17-120)	Semi-Volatile (#471) D_{10} Pyrene (NE)	Semi-Volatile (#496) D_{14} p-ter Phenyl (NE)	Semi-Volatile (#612) D_5 Phenol (10-100)	Semi-Volatile (#619) 2-Fluoro Phenol (26-120)	Semi-Volatile (#628) 2,4,6-Tribromo Phenol (NE)	Pesticide (#738) Dibutyl Chlorendate (NE)	Dioxin (#466) 1,2,3,4 TCDD (11-130)
383	7-14 83	729	7-22-83	673	4855	C3744	112	94	83									
382	7-1 83		7-25-83	659						SEE QA NOTICE BDL	BDL	BDL	BDL	BDL	BDL	BDL		
368	7-6 83		7-18-83	679								(10:1	DILUTION)				INDETERMINATE +	
															OKRV			
383	7-14 83	729	7-23-83	633	4856	C3745	112	110	100									
382	8-2 83		8-4-83	602	4856R					59	62	53	60	52	48	8.1		
368	7-6 83		7-13-83	679 597													116	
383	7-14 83	729	7-23-83	633	4857	C3746	117	108	80									
382	6-31 83		7-13-83	586						62	82	94	94	71	110	0		
368	7-14 83		8-2-83	597 679													39	

Volatiles: 0 out of 3 ; outside of QC limits
Semivolatiles: 0 out of 8 ; outside of QC limits
Dioxin: — out of — ; outside of QC limits

*Asterisked values are outside of QC limits.
NE - Not established.
+ Due to heavy interferences

Comments: Dioxin Not required

MATRIX SPIKE DUPLICATE/RECOVERY

CASE NO. 1836
LOW LEVEL XX
WATER
QC REPORT NO. 133-43

CONTRACTOR MEAD COMPUCHEM
MED. LEVEL
SOIL/SED. XX

CONTRACT NO. 68-01-6762
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 4856 SMO # C3745	1,1-Dichloroethylene	ND	12.5	11.0	88	13.0	104	17*	<15%	51-150	4845-4857
	Trichloroethylene	ND	12.5	9.4	75	13.0	104	32*	<15%	74-130	
	Chlorobenzene	ND	12.5	9.2	74	12.0	96	26*	<15%	67-130	See Q.A.
MS #4864 MSD #4865	Toluene	ND	12.5	9.2	74	12.0	96	26*	<15%	58-130	NOTICE
	Benzene	ND	12.5	10.2	82	12.6	101	24*	<15%	56-130	
B/N 4851 SMO # C3740	1,2,4-Trichlorobenzene	ND	2000	1200	60	1200	60	0	<50%	38-110	4845-4857
	Acenaphthene	460	2000	1700	62	1700	62	0	<50%	57-120	
	2,4-Dinitrotoluene	ND	2000	BDL	(-)*	BDL	(-)	—	<50%	43-110	
MS #4866 MSD #4867	Di-N-Butylphthalate	ND	2000	1200	60	1400	70	15	<50%	13-110	*due to soil hetero-geneity - Bpw 2/29/88
	Pyrene	5600	2000	5000	(*)	4800	(*)	—	<50%	25-140	
	N-Nitrosodi-N-Propylamine	ND	8000	6900	86	7400	93	15	<50%	34-110	
	1,4-Dichlorobenzene	ND	2000	760	38	1000	50	27	<50%	33-110	
ACID 4851 SMO # C3740	Pentachlorophenol	ND	2000	NF	(-)*	568 (ET)	28	—	<40%	19-120	4845-4857
	Phenol	ND	2000	1000	50	1200	60	18	<40%	23-80	
	2-Chlorophenol	ND	2000	1400	70	1600	80	13	<40%	33-110	
MS #4866 MSD #4867	P-Chloro-M-Cresol	ND	2000	1200	60	1400	70	15	<40%	32-110	
	4-Nitrophenol	ND	12000	4300	36	9100	76	71*	<40%	15-90	
PEST 4857 SMO # C3746	Lindane	ND	80	*	(—)	10.1	13	—	<40%	87-110	4845-4857
	Heptachlor	ND	80	53.9	67	53.4	67	0	<40%	43-120	
	Aldrin	ND	80	61.6	77	59.4	74	4	<40%	45-110	See Q.A
MS #4868 MSD #4869	Dieldrin	ND	80	49.6*	62	50.4	63	2	<40%	56-120	NOTICE
	Endrin	ND	80	60.9*	76	64.8	81	6	<40%	89-110	
	P,P-DDT	ND	80	39.0*	49	39.2	49	0	<40%	82-100	

*Asterisked values are outside QC limits.

RPD: VOAs 5 out of 5; outside QC limits
B/N 7 out of 7; outside QC limits
ACID 2 out of 3; outside QC limits
PEST 1 out of 6; outside QC limits

RECOVERY: VOAs 0 out of 5; outside QC limits
B/N 2 out of 7; outside QC limits
ACID 1 out of 3; outside QC limits
PEST 2 out of 6; outside QC limits

*Date Limits Set 12/82

yes agree RV.

-acid D.L addressed already.

some Pest D.L's signif higher

Evaluation of Confirmations of GC Analyses

SAMPLE NO	Compound	GC column #1 (Column: SP 2250/2401; conditions: Packed; detector: Back 07; other: ECD) DATA FROM COLUMN NO. 1: ☑ Ret. or ☐ Rel. Ret. Times in: SAMPLE	STANDARD	Relative Peak Area Ratios SAMPLE	STANDARD	GC column #2 (Column: FSCC DB-5-30m; conditions: CAP 05; detector: ECD; other:) DATA FROM COLUMN NO. 2: ☑ Ret. or ☐ Rel. Ret. Times in: SAMPLE	STANDARD	Relative Peak Area Ratios SAMPLE	STANDARD	GC/MS DATA (column: FSCC; conditions: Normal BNA conditions; detector: Quadrapole; other:) DATA FROM GC/MS RUN(S): ☑ scan number ☐ Ret. or ☐ Rel. Ret. Times in: SAMPLE	STANDARD	Relative Peak Area Ratios SAMPLE	STANDARD	Spectrum MATCH? (Y/N)	Level high enough for confirm	WHICH STANDARD	Reported type of confirmation (2c/1c/Lib)	Reviewer Confident (Y/N)	
C3705	4,4'-DDT	10.22	10.10	17595728	19.8 887113	20.80	20.89	10314014	14.4 717858	Y	Y	BNA	2154	Not run, but good match			2C/Lib	Y	#1
	4,4'-DDD	8.56	8.53	2167428	24.5 886134	18.07	18.13	6805824	22.3 306175	Y	Y	BNA	2099	Not run but good match				Y	
	4,4'-DDE	5.58	5.58	8130546	15.8 552549	19.50	19.58	12130870	13.6 430533	Y	Y	BNA	2085	Not run, but good match				Y	
C3737	4,4'-DDD	7.82	7.76	1139640	4576016	19.60	19.58	262163	430533								2C	No	#2
C3740	4,4'-DDT	10.12	10.10	8517	887113	20.86	20.89	840561	717858								2C	No	#2
C3745	4,4'-DDE	5.07	5.13	201881	284207	18.13	18.13	122128	306175								2C	No	#2

Tedion® and Nialate® also present on this date

Comments: #1 Very confident on these hits since they were detected by 2 columns G.C. and verified by GC/MS.

#2 [illegible] GC/MS [illegible] 4,4'-DDT/DDD [illegible] the presence of these compounds in 2 column confirmed samples is therefore suspected, but not proven.

TENTATIVELY IDENTIFIED COMPOUND SAMPLE RESULTS

ALL TENTATIVE IDENTIFICATIONS OF CONFIDENT MATCHING QUALITY, WHICH AREN'T SUSPECTED ARTIFACTS/CONTAMINANTS, ARE LISTED BELOW:

$ = such as PAH = Poly Aromatic Hydrocarbo

SAMPLE #	FRACTION	SCAN #(S)	SPECTRUM MATCH INDICES TYPE	SCORE	TYPE	SCORE	ESTIMATED CONCENTRATION	COMPOUND NAME	COMMENTS
C3705	BNA	2154	Pur	742			520 µg/kg	p,p'-DDT - confirmed by 2 col. GC	
		2334	Pur	328 (not in library)			560 µg/kg	p-chlorophenyl-2,4,5-trichlorophenyl sulfone	
		2659	Pur	350			440 µg/kg	UNKNOWN	(Tedion® F - see picture after page 3 of tentatives)
		2781	Pur	438			480 µg/kg	UNKNOWN	
		2659	Pur	350			440 µg/kg	UNKNOWN	
		2085					(see GC)	p,p'-DDE	
		2099 (I.S. = 2286)					(see GC)	p,p'-DDD	
C3706	BNA	1571	Pur	829			600 µg/kg	ALKANE	
		1668	Pur	789			1000 µg/kg	ALKANE	
		1850	Pur	751			680 µg/kg	ALKANE	
		2238	Pur	578			360 µg/kg	ALKANE	
		2307	Pur	726			440 µg/kg	ALKANE	
		2438	Pur	750			720 µg/kg	ALKANE	
		2501	Pur	518			920 µg/kg	ALKANE	
		2564	Pur	695			1000 µg/kg	ALKANE	
		2622	Pur	605			1680 µg/kg	ALKANE	
		2684	Pur	672			960 µg/kg	ALKANE	
		2752	Pur	618			480 µg/kg	ALKANE	
		2786	Pur	424			480 µg/kg	UNKNOWN	
		2858	Pur	381			1100 µg/kg	UNKNOWN	
C3736	BNA	1813	Pur	527			480 µg/kg	UNKNOWN	
		1856	Pur	832			1120 µg/kg	A methyl Phenanthrene isomer	
		1870	Pur	701			3500 µg/kg	UNKNOWN	
		1917	Pur	837			1800 µg/kg	A Phenyl Naphthalene isomer	
		2111	Pur	746			3100 µg/kg	A $C_{17}H_{12}$ PAH, $ 1-methyl pyrene	
		2125	Pur	806			2600 µg/kg	A $C_{17}H_{12}$ PAH, $ 1-methyl pyrene	
		2200	Pur	732			840 µg/kg	1,1':2',1"-Terphenyl - Very Good match	
		2219	Pur	820			920 µg/kg	A $C_{17}H_{10}O$ PAH	
		2243	Pur	806			840 µg/kg	UNKNOWN	
		2374	Pur	801			1200 µg/kg	A $C_{19}H_{14}$ PAH, $ 7-methyl benzo(g)anthracene	
		2518	Pur	689			1100 µg/kg	A $C_{20}H_{12}$ PAH, $ benzo(e)pyrene	
		2599	Pur	387			340 µg/kg	UNKNOWN	
		1851	Pur	801			210 µg/kg	A methyl Phenanthrene isomer	
		2236	Pur	833			520 µg/kg	BENZO\B\Naphtho\1,2-D\Thiophene or isomer	
		2309	Pur	793			400 µg/kg	UNKNOWN	
		2390	Pur	483			220 µg/kg	UNKNOWN	
		2570	Pur	775			300 µg/kg	A $C_{20}H_{12}$ PAH, $ benzo(j) fluoranthene	
C3737	BNA						N.D		
C3738	BNA	1788	Pur	333			310 µg/kg	UNKNOWN	
C3739	BNA	1851	Pur	776			600 µg/kg	A methyl Phenanthrene isomer	
		1870	Pur	591			2000 µg/kg	UNKNOWN	
		2353	Pur	315 (not in library)			54,000 µg/kg	Tedion® - see sample C3705 + Picture	
		2449	Pur	425			21,000 µg/kg	UNKNOWN	
		2461	Pur	412			21,000 µg/kg	UNKNOWN	
		1673	Pur	477			580 µg/kg	UNKNOWN	

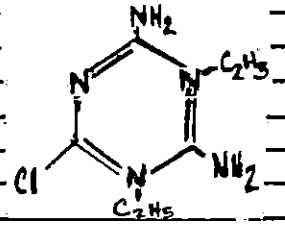
TENTATIVELY IDENTIFIED COMPOUND SAMPLE RESULTS

ALL TENTATIVE IDENTIFICATIONS OF CONFIDENT MATCHING QUALITY, WHICH AREN'T SUSPECTED ARTIFACTS/CONTAMINANTS, ARE LISTED BELOW:

$-suffixes – MW – Molecular weight

SAMPLE #	FRACTION	SCAN #(S)	SPECTRUM MATCH INDICES TYPE	SCORE	TYPE	SCORE	ESTIMATED CONCENTRATION	COMPOUND NAME (PAH – Poly Aromatic Hydrocarbon)	COMMENTS
C3739	BNA	1922	Pur	902			810 ug/kg	9,10-Anthracenedione - or isomer	
		1725	Pur	698			7200 ug/kg	6-chloro-N,N'-Diethyl-1,3,5-Triazine-2,4-Diamine, very good match. (Herbacide) - derivative	
		(I.S. at 2089)							
C3740	BNA	1811	Pur	825			770 ug/kg	9H-CARBAZOLE	
		1850	Pur	747			810 ug/kg	A methyl Phenanthrene isomer	
		1856	Pur	830			720 ug/kg	A methyl Phenanthrene isomer	
		1869	Pur	580			1800 ug/kg	UNKNOWN	
		1921	Pur	914			1400 ug/kg	9,10-Anthracenedione - or isomer	
		2066	Pur	577			440 ug/kg	UNKNOWN	
		2105	Pur	708			790 ug/kg	UNKNOWN	
		2267	Pur	846			1200 ug/kg	7H-BENZ(DE)ANTHRACEN-7-ONE - or isomer	
		2306	Pur	367			830 ug/kg	UNKNOWN	
		2374	Pur	738			1600 ug/kg	a $C_{19}H_{14}$ PAH, $ 7-methylbenzo(a)anthracene	
		2516	Pur	657			640 ug/kg	A $C_{20}H_{12}$ PAH, $ benzo(j)fluoranthene	
		2569	Pur	685			1000 ug/kg	A $C_{20}H_{12}$ PAH, $ benzo(j)fluoranthene	
		2219	Pur	816			754 ug/kg	7H-BENZ(DE)ANTHRACENE-7-ONE - or isomer	
		2242	Pur	693			840 ug/kg	UNKNOWN	
		2339	Pur	331	← not in library		14,000 ug/kg	Tedion® - see sample C3705 + picture	
		(I.S. at 2287)							
C3741	BNA	966	Pur	726			450 ug/kg	2-\2-(2-Butoxyethoxy)ethoxy\-ethanol - or other ethyleneglycol polymer	
		1342	Pur	426			250 ug/kg	UNKNOWN	
		1402	Pur	489			1600 ug/kg	UNKNOWN	
		1763	Pur	495			900 ug/kg	UNKNOWN	
		1863	Pur	435			990 ug/kg	UNKNOWN	
		1885	Pur	727			12,000 ug/kg	A $C_9H_{22}O_4S_4P_2$ Pesticide called S,S' Methylene bis(O,O-diethyl phosphorodithioate. Very Good Match	
							Tradename: Nialate® →	$(C_2H_5O)_2\overset{S}{\uparrow}P-S-CH_2-S-\overset{S}{\uparrow}P(OC_2H_5)_2$	
		2026	Pur	241	← not in library		560 ug/kg	Tedion® isomer	
		2038	Pur	307	← not in library		3400 ug/kg	Tedion® isomer	
		2045	Pur	317	← not in library		6400 ug/kg	Tedion® - (Probably not Isomer, but tedion itself)	
		2061	Pur	454			370 ug/kg	UNKNOWN	
		2117	Pur	365			770 ug/kg	UNKNOWN	
		2226	Pur	266			500 ug/kg	1,1'-sulfonylbis(3,4,5-trichlorobenzene) or isomer (tedion byproduct)	
		2290	Pur	337			290 ug/kg	UNKNOWN	
		(I.S. @ 2016)							

SCAN 1725



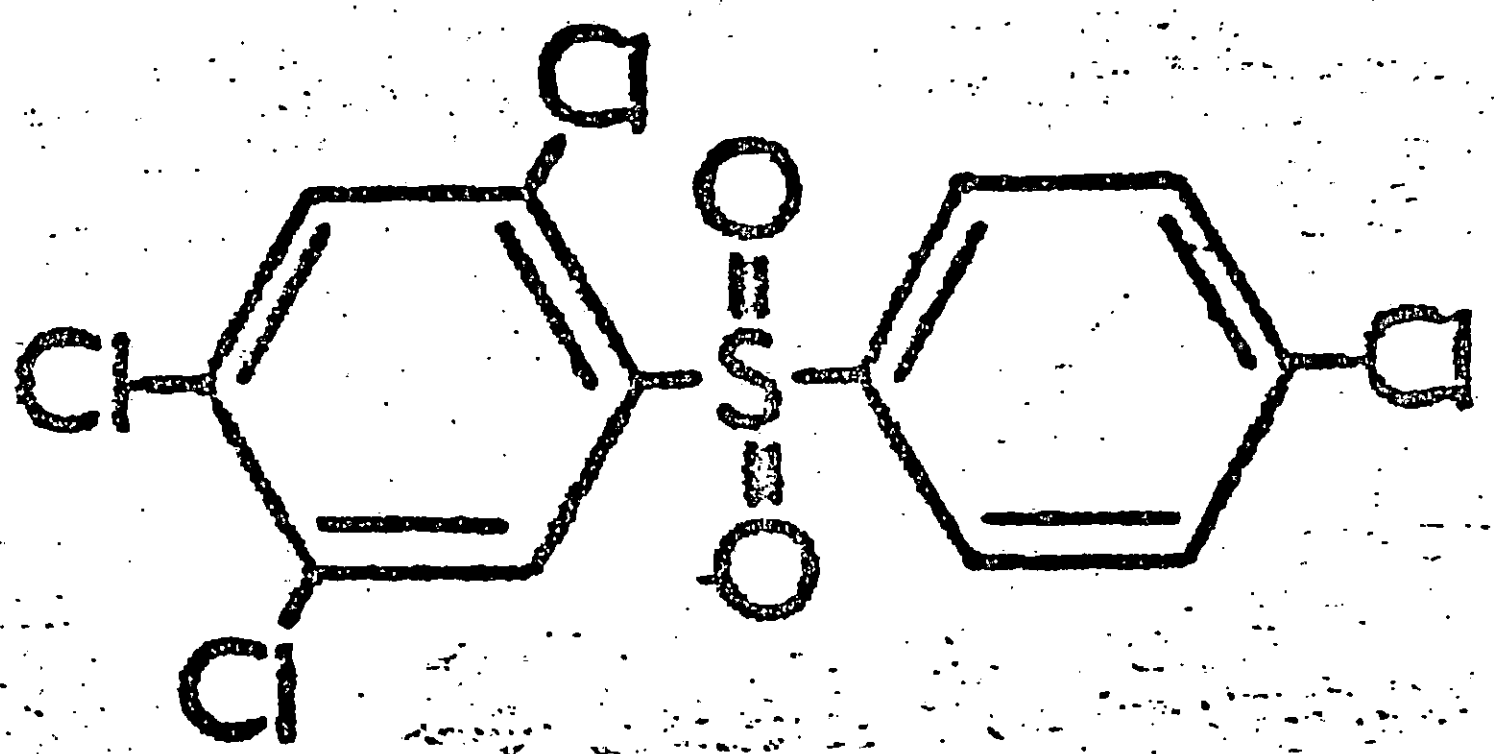
TENTATIVELY IDENTIFIED COMPOUND SAMPLE RESULTS

ALL TENTATIVE IDENTIFICATIONS OF CONFIDENT MATCHING QUALITY, WHICH AREN'T SUSPECTED ARTIFACTS/CONTAMINANTS, ARE LISTED BELOW:

SAMPLE #	FRACTION	SCAN #(S)	SPECTRUM MATCH INDICES TYPE	SCORE	TYPE	SCORE	ESTIMATED CONCENTRATION	COMPOUND NAME	COMMENTS MW - molecular weight
C3742	BNA	1364	Pur	426			3700 µg/kg	UNKNOWN	
		1437	Pur	475			92,000 µg/kg	UNKNOWN	
		1797	Pur	491			5,700 µg/kg	UNKNOWN	
		1899	Pur	468			7,000 µg/kg	UNKNOWN	
		1932	Pur	366			6,000 µg/kg	UNKNOWN	
		1993	Pur	367			2,800 µg/kg	UNKNOWN	
		2090	Pur	340			3,400 µg/kg	Tedion® - See sample C3705 + picture	
		(I.S.@2059)							
C3743	BNA	1898	Pur	702	NNB	library	2000 µg/kg	1,1'-Sulfonylbis(4-chloro-BENZENE) a Tedion by product -	
		1994	Pur	331	Not in	library	1000 µg/kg	2,4-dichlorophenyl-4-chlorophenyl-sulfone → Tedion by product.	
		2108	Pur	349	Not in	library	230,000 µg/kg	- Tedion®	
		2144	Pur	309	Not in	library	6,900 µg/kg	- Tedion® - Isomer (a chlorophenyl trichlorophenyl sulfon)	
		2206	Pur	469			880 µg/kg	- UNKNOWN.	
		2221	Pur	433			900 µg/kg	UNKNOWN	
		2297	Pur	250	Not in	library	10,000 µg/kg	Tedion by-product; see below: 1,1'-Sulfonyl bis (2,4,5-trichloro benzen) or isomer	
		(I.S.@2060)							
C3744	BNA	1585	Pur	679			220,000 µg/kg	2-(1-methylpropyl)-4,6-Dinitrophe - trade name dinoseb® - a pesticide	
		1902	Pur	694			260,000 µg/kg	1,1'-sulfonylbis(4-chlorobenzene) - tedion by produ	
		1991	Pur	355	Not in	library	68,000 µg/kg	2,4,5-trichlorophenylphenyl sulfone - tedion by prod	
		1997	Pur	393	Not in	library	83,000 µg/kg	2,4-dichlorophenyl-4-chlorophenyl sulfone - tedion by prod	
		2123	Pur	365	Not in	library	3,300,000 µg/kg	Tedion® - estimated as 0.3% tedion !!!	
		2159	Pur	327	Not in	library	880,000 µg/kg	Tedion® isomer	
		2188	Pur	317	Not in	library	12,000 µg/kg	Tedion® isomer	
		2204	Pur	310	Not in	library	20,000 µg/kg	tedion by product; mol. wt. 388, has fragment of 2,4,5-trichlorophenyl sulfo	
		2311	Pur	243	Not in	library	800,000 µg/kg	1,1'-sulfonylbis(2,4,5-trichlorobenzene) or isomer (tedion by pro	
		(I.S.@2063)							
C3745	BNA						N.D.		

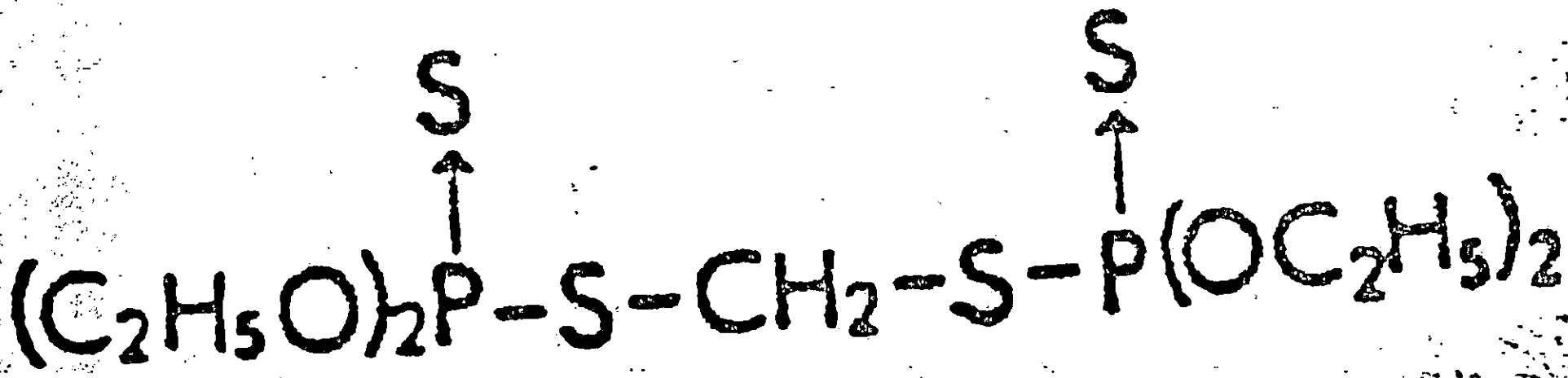
Comments: Tedion derivatives were identified by comparing structure of compound which was in NB library with sample spectra which appeared to add successively one more chlorine atom to each species identified. All identifications of tedion itself are confident, since conversations with FMC Chemist Irv Kypness on 10/3/84 have identified the major isomer of trichlorophenyl chlorophenyl sulfone to be the chemical FMC manufactured at this site, tedion, or 2,4,5-trichlorophenyl-4-chlorophenyl sulfone

- Other identifications of tedion derivatives are fairly confident, but could also be isomers with same molecular formula



Tedion → very close to dioxin spectra.
Tedion derivative with one less chlorine may have caused dioxin false positives in the dioxin identification at this site in

ethion; 1960 [Nialate®] ANSI, ESA, ISO O, O', O'-tetraethyl S, S'-methylene bisphosphorodithioate 563-12-2



Nialate

APPENDIX D

C3705
LOW LEVEL SOLID

ORGANICS ANALYSIS DATA SHEET - Page 1

Laboratory Name: Mead CompuChem
Lab Sample ID No.: 4845

Case Number: 1836
SAS Number: 619-C

Multiply all Values and Detection limits by 1 [ ] or 10 [ ] or [✓] 1.25 x 40
(Check Box for Appropriate Factor)

ACID COMPOUNDS

PP#	CAS#		ug/kg
(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
)	534-52-1	4,6-dinitro-2-methylphenol	20U
)	87-36-5	pentachlorophenol	20U
(65A)	108-95-2	phenol	10U

(Non-Priority Pollutant Hazardous Substances)

	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

BASE-NEUTRAL COMPOUNDS

PP#	CAS#		ug/kg
(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
)	67-72-1	hexachloroethane	10U
)	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 (as azobenzene)	20U
(39B)	206-44-0	fluoranthene 6HO	~~10U~~ mB
(40B)	7005-72-3	4-chlorophenyl phenylether	10U
(41B)	101-55-3	4-bromophenyl phenyl ether	10U

BASE/NEUTRAL COMPOUNDS

PP#	CAS#		ug/kg
(42B)	39638-32-9	bis-(2-chloroisopropyl)ether	20U
(43B)	11--91-1	bis-(2-chloroethoxy)methane	20U
(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 LT	~~10U~~ mB
(73B)	50-33-8	benzo(a)pyrene	20U
(74B)	205-99-2	benzo(b)fluoranthene II LT	~~20U~~ mB
(75B)	207-08-9	benzo(k)fluoranthene II LT	~~20U~~ mB
(76B)	318-01-9	chrysene LT	~~10U~~ mB
(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 LT	~~10U~~ mB
(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 5LO	~~10U~~ mB

(Non-Priority Pollutant Hazardous Substances)

	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

CASE 1836

Sample Number
C3705
LOW LEVEL SOLID

ORGANICS ANALYSIS DATA SHEET - Page 2

Laboratory Name Mead CompuChem
Lab Sample ID No. 4845

Case Number 1836
SAS Number 619-C

Multiply all Values and Detection limits by 1 ☐ or 10 ☐ or ☑ 1.25
(Check Box for Appropriate Factor)

VOLATILES

PP#	CAS#		ug/kg
(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	12 ~~2.5U~~ MD
(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

(Non-Priority Pollutant Hazardous Substances)

	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

CASE 1836

ORGANICS ANALYSIS DATA SHEET - Page 3

Sample Number
C3705
LOW LEVEL SOLID

Laboratory Name Mead CompuChem
Lab Sample ID No. 4845

Case Number 1836
SAS Number 619-C

Multiply all Values and Detection Limits by 1 ☐ or 10 ☐ or ☑ 1000x1.25
(Check Box for Appropriate Factor)

PESTICIDES

PP#	CAS#		ug/kg
(39P)	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 P.C. 2200	~~4.0U~~ AE
(93P)	72-55-9	4,4'-DDE P.C. 950	~~4.0U~~ AE
(94P)	72-54-8	4,4'-DDD P.C. 2000	~~4.0U~~ AE
(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~~	~~ug/kg~~
(129B)	1746-01-6	~~2,3,7,8-tetrachlorodibenzo-p-dioxin~~	~~0.16U~~

CASE 1836

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

Sample Number
C3706
LOW LEVEL SOLID

ORGANICS ANALYSIS DATA SHEET - Page 1

Laboratory Name Mead CompuChem
Lab Sample ID No. 4846

Case Number 1836
SAS Number 619-C

Multiply all Values and Detection limits by 1 ☐ or 10 ☐ or ☑ 1.22 x 40
(Check Box for Appropriate Factor)

ACID COMPOUNDS

PP#	CAS#		ug/kg
(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
9A)	51-88-5	2,4-dinitrophenol	50U
0A)	534-52-1	4,6-dinitro-2-methylphenol	20U
(64A)	87-36-5	pentachlorophenol	20U
(65A)	108-95-2	phenol	10U

(Non-Priority Pollutant Hazardous Substances)

	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

BASE-NEUTRAL COMPOUNDS

PP#	CAS#		ug/kg
(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
2B)	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 (as azobenzene)	20U
(39B)	206-44-0	fluoranthene	LT ~~100~~ MD
(40B)	7005-72-3	4-chlorophenyl phenylether	10U
(41B)	101-55-3	4-bromophenyl phenyl ether	10U

BASE/NEUTRAL COMPOUNDS

PP#	CAS#		ug/kg
(42B)	39638-32-9	bis-(2-chloroisopropyl)ether	20U
(43B)	11--91-1	bis-(2-chloroethoxy)methane	20U
(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	950 ~~100~~ MD
(67B)	85-68-7	butyl benzyl phthalate	LT ~~100~~ MD
(68B)	84-74-2	di-n-butyl phthalate	LT ~~100~~ MD
(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	LT ~~100~~ MD
(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	LT ~~100~~ MD
(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	LT ~~100~~ MD

(Non-Priority Pollutant Hazardous Substances)

	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

CASE 1836

Sample Number
C3706
LOW LEVEL SOLID

ORGANICS ANALYSIS DATA SHEET - Page 2

Laboratory Name Mead CompuChem
Lab Sample ID No. 4846

Case Number 1836
SAS Number 619-C

Multiply all Values and Detection limits by 1 ☐ or 10 ☐ or ☑ 1.22
(Check Box for Appropriate Factor)

VOLATILES

PP#	CAS#		ug/kg
(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 26	~~2.5U~~ MD
(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

(Non-Priority Pollutant Hazardous Substances)

	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

CASE 1836

ORGANICS ANALYSIS DATA SHEET - Page 3

Sample Number
C3766
LOW LEVEL SOLID

Laboratory Name Mead CompuChem
Lab Sample ID No. 4846

Case Number 1836
SAS Number 619-C

Multiply all Values and Detection Limits by 1 ☐ or 10 ☐ or ☑ 1.22
(Check Box for Appropriate Factor)

PESTICIDES

PP#	CAS#		ug/kg
(39P)	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~~

			~~ug/kg~~
~~(129B)~~	~~1746-01-6~~	~~2,3,7,8-tetrachlorodibenzo-p-dioxin~~	~~0.16U~~

CASE 1836

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

Sample Number
C3736
LOW LEVEL SOLID

ORGANICS ANALYSIS DATA SHEET - Page 1

Laboratory Name: Mead CompuChem
Lab Sample ID No.: 4847

Case Number: 1836
SAS Number: 619-C

Multiply all Values and Detection limits by 1 ☐ or 10 ☐ or ☑ 1.18 x 40
(Check Box for Appropriate Factor)

ACID COMPOUNDS

PP#	CAS#		ug/kg
(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

(Non-Priority Pollutant Hazardous Substances)

	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

BASE-NEUTRAL COMPOUNDS

PP#	CAS#		ug/kg
(1B)	83-32-9	acenaphthene	560 ~~10U~~ AE
(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 (as azobenzene)	20U
(39B)	206-44-0	fluoranthene	Q 19000 ~~100U~~ AE
(40B)	7005-72-3	4-chlorophenyl phenylether	10U
(41B)	101-55-3	4-bromophenyl phenyl ether	10U

BASE/NEUTRAL COMPOUNDS

PP#	CAS#		ug/kg
(42B)	39638-32-9	bis-(2-chloroisopropyl)ether	20U
(43B)	111-91-1	bis-(2-chloroethoxy)methane	20U
(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	19000 ~~100U~~ AE
(73B)	50-33-8	benzo(a)pyrene	7400 ~~20U~~ AE
(74B)	205-99-2	benzo(b)fluoranthene	12000 ~~20U~~ AE
(75B)	207-08-9	benzo(k)fluoranthene	12000 ~~20U~~ AE
(76B)	318-01-9	chrysene	7300 ~~10U~~ AE
(77B)	208-96-8	acenaphthylene	540 ~~10U~~ AE
(78B)	120-12-7	anthracene	2100 ~~10U~~ AE
(79B)	191-24-2	benzo(ghi)perylene	7000 ~~20U~~ AE
(80B)	86-73-7	fluorene	830 ~~10U~~ AE
(81B)	85-01-8	phenanthrene	12000 ~~10U~~ AE
(82B)	53-70-3	dibenzo(a,h)anthracene	2900 ~~20U~~ AE
(83B)	193-39-5	indeno(1,2,3-cd)pyrene	5200 ~~20U~~ AE
(84B)	129-00-0	pyrene	Q 23000 ~~10U~~ AE

(Non-Priority Pollutant Hazardous Substances)

	62-53-3	aniline	10U
	100-51-6	benzyl alcohol	20U
	106-47-8	4-chloroaniline	50U
	132-64-9	dibenzofuran	LT ~~100U~~ AE
	91-57-6	2-methylnaphthalene	20U
	88-74-4	2-nitroaniline	100U
	99-09-2	3-nitroaniline	100U
	100-01-6	4-nitroaniline	100U

CASE 1836

Sample Number
C3736
LOW LEVEL SOLID

ORGANICS ANALYSIS DATA SHEET - Page 2

Laboratory Name Mead CompuChem
Lab Sample ID No. 4847

Case Number 1836
SAS Number 619-C

Multiply all Values and Detection limits by 1 ☐ or 10 ☐ or ☑ 1.18
(Check Box for Appropriate Factor)

VOLATILES

PP#	CAS#		ug/kg
(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 71	~~2.5U~~ mB
(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

(Non-Priority Pollutant Hazardous Substances)

	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

CASE 1836

ORGANICS ANALYSIS DATA SHEET - Page 3

Sample Number
C3736
LOW LEVEL SOLID

Laboratory Name Mead CompuChem
Lab Sample ID No. 4847

Case Number 1836
SAS Number 619-C

Multiply all Values and Detection Limits by 1 ☐ or 10 ☐ or ☑ 1.16
(Check Box for Appropriate Factor)

PESTICIDES

PP#	CAS#		ug/kg
(39P)	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

			ug/kg
~~(129P)~~	~~1746-01-6~~	2,3,7,8-tetrachlorodibenzo-~~p-dioxin~~	~~0.16U~~

CASE 1836

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

Sample Number
C3737
LOW LEVEL SOLID

ORGANICS ANALYSIS DATA SHEET - Page 1

Laboratory Name Mead CompuChem
Lab Sample ID No. 4848

Case Number 1836
SAS Number 679-C

Multiply all Values and Detection limits by 1 ☐ or 10 ☐ or ☒ 1.22
(Check Box for Appropriate Factor)

ACID COMPOUNDS

PP#	CAS#		ug/kg
(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
8A)	100-02-7	4-nitrophenol	100U
9A)	51-88-5	2,4-dinitrophenol	50U
(60A)	534-52-1	4,6-dinitro-2-methylphenol	20U
[illegible]	87-[illegible]-5	pentachlorophenol	20U
(65A)	108-95-2	phenol	10U

(Non-Priority Pollutant Hazardous Substances)

	65-85-0	benzoic acid	100U
	95-48-7	2-methylphenol	10U
	[illegible]3-39-4	4-methylphenol	10U
	5-95-4	2,4,5-trichlorophenol	100U

BASE-NEUTRAL COMPOUNDS

(1B)	83-32-9	acenaphthene	10U
(5B)	92-87-5	benzidine	40U
3B)	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
	[illegible]	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 (as azobenzene)	20U
(39B)	206-44-0	fluoranthene 11000	~~10U~~ MD
(40B)	7005-72-3	4-chlorophenyl phenylether	10U
(41B)	101-55-3	4-bromophenyl phenyl ether	10U

BASE/NEUTRAL COMPOUNDS

PP#	CAS#		ug/kg
(42B)	39638-32-9	bis-(2-chloroisopropyl)ether	20U
(43B)	11--91-1	bis-(2-chloroethoxy)methane	20U
(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 LT	~~10U~~ MD
(73B)	50-33-8	benzo(a)pyrene LT	~~20U~~ MD
(74B)	205-99-2	benzo(b)fluoranthene LT	~~20U~~ MD
(75B)	207-08-9	benzo(k)fluoranthene LT	~~20U~~ MD
(76B)	318-01-9	chrysene 8000	~~10U~~ MD
(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 LT	~~10U~~ MD
(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 10000	~~10U~~ MD

(Non-Priority Pollutant Hazardous Substances)

	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

CASE 1836

Sample Number
C3737
LOW LEVEL SOLID

ORGANICS ANALYSIS DATA SHEET - Page 2

Laboratory Name Mead CompuChem
Lab Sample ID No. 4848

Case Number 1836
SAS Number 619-C

Multiply all Values and Detection limits by 1 ☐ or 10 ☐ or ☑ 1.22
(Check Box for Appropriate Factor)

VOLATILES

PP#	CAS#		ug/kg
(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	LT ~~2.5U~~ MD
(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	LT ~~2.5U~~ MD
(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-dichloropropene	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	39 ~~2.5U~~ MD
(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	41 ~~2.5U~~ MD
(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

(Non-Priority Pollutant Hazardous Substances)

	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	LT ~~2.5U~~ MD
	108-05-4	vinyl acetate	5U
	95-47-6	o-xylene	LT ~~2.5U~~ MD

CASE 1836

Sample Number
C 3737
LOW LEVEL SOLID

ORGANICS ANALYSIS DATA SHEET - Page 3

Laboratory Name Mead CompuChem
Lab Sample ID No. 4848

Case Number 1836
SAS Number 619-C

Multiply all Values and Detection Limits by 1 ☐ or 10 ☐ or ☑ 1.22
(Check Box for Appropriate Factor)

PESTICIDES

PP#	CAS#		ug/kg
(39P)	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 P.N. 4.11	~~4.0U~~ NE
(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	~~ug/kg~~
(129B)	1746-01-6	~~2,3,7,8-tetrachlorodibenzo-p-dioxin~~	~~0.16U~~

CASE 1836

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

Sample Number
C3738
LOW LEVEL SOLID

ORGANICS ANALYSIS DATA SHEET - Page 1

Laboratory Name Mead CompuChem
Lab Sample ID No. 4849

Case Number 1836
SAS Number 619-C

Multiply all Values and Detection limits by 1 [ ] or 10 [ ] or [✓] 1.17x40
(Check Box for Appropriate Factor)

ACID COMPOUNDS

PP#	CAS#		ug/kg
(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
7A)	88-75-5	2-nitrophenol	20U
(8A)	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)	87-86-5	pentachlorophenol	20U
(65A)	108-95-2	phenol	10U

(Non-Priority Pollutant Hazardous Substances)

	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

BASE-NEUTRAL COMPOUNDS

PP#	CAS#		ug/kg
(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
[illegible]	[illegible]	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 (as azobenzene)	20U
(39B)	206-44-0	fluoranthene	10U
(40B)	7005-72-3	4-chlorophenyl phenylether	10U
(41B)	101-55-3	4-bromophenyl phenyl ether	10U

BASE/NEUTRAL COMPOUNDS

PP#	CAS#		ug/kg
(42B)	39638-32-9	bis-(2-chloroisopropyl)ether	20U
(43B)	111-91-1	bis-(2-chloroethoxy)methane	20U
(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

(Non-Priority Pollutant Hazardous Substances)

	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

CASE 1836

Sample Number
C3738
LOW LEVEL SOLID

ORGANICS ANALYSIS DATA SHEET - Page 2

Laboratory Name Mead CompuChem
Lab Sample ID No. 4849

Case Number 1836
SAS Number 619-C

Multiply all Values and Detection limits by 1 ☐ or 10 ☐ or ☑ 1.17
(Check Box for Appropriate Factor)

VOLATILES

PP#	CAS#		ug/kg
(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	9.3 ~~2.5U~~ ma
(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

(Non-Priority Pollutant Hazardous Substances)

	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

CASE 1836

Sample Number
C3738
LOW LEVEL SOLID

ORGANICS ANALYSIS DATA SHEET - Page 3

Laboratory Name Mead CompuChem
Lab Sample ID No. 4849

Case Number 1836
SAS Number 619-C

Multiply all Values and Detection Limits by 1 ☐ or 10 ☐ or ☑ 1.17
(Check Box for Appropriate Factor)

PESTICIDES

PP#	CAS#		ug/kg
(39P)	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)	72-20-8	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~~	~~ug/kg~~
(129B)	1746-01-6	~~2,3,7,8-tetrachlorodibenzo-p-dioxin~~	~~0.16U~~

CASE 183

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

Sample Number
C3739
LOW LEVEL SOLID

ORGANICS ANALYSIS DATA SHEET - Page 1

Laboratory Name Mead CompuChem
Lab Sample ID No. 4850

Case Number 1836
SAS Number 619-C

Multiply all Values and Detection limits by 1 ☐ or 10 ☐ or ☑ 40 x 1.31
(Check Box for Appropriate Factor)

ACID COMPOUNDS

PP#	CAS#		ug/kg
(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
9A)	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

(Non-Priority Pollutant Hazardous Substances)

	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

BASE-NEUTRAL COMPOUNDS

PP#	CAS#		ug/kg
(1B)	83-32-9	acenaphthene	430 ~~100~~ MB
(5B)	92-87-5	benzidine	40U
(8B)	120-82-1	1,2,4-trichlorobenzene	10U
9B)	118-74-1	hexachlorobenzene	10U
..2B)	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 (as azobenzene)	20U
(39B)	206-44-0	fluoranthene	5100 ~~100~~ MB
(40B)	7005-72-3	4-chlorophenyl phenylether	10U
(41B)	101-55-3	4-bromophenyl phenyl ether	10U

BASE/NEUTRAL COMPOUNDS

PP#	CAS#		ug/kg
(42B)	39638-32-9	bis-(2-chloroisopropyl)ether	20U
(43B)	11--91-1	bis-(2-chloroethoxy)methane	20U
(52B)	87-68-3	hexachlorobutadiene	10U
(53B)	77-47-4	hexachlorocyclopentadiene	10U
(54B)	78-59-1	isophorone	10U
(55B)	91-20-3	naphthalene	LT ~~100~~ MB
(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	2400 ~~400~~ MB
(73B)	50-33-8	benzo(a)pyrene	1600 ~~200~~ MB
(74B)	205-99-2	benzo(b)fluoranthene	2500 ~~200~~ MB
(75B)	207-08-9	benzo(k)fluoranthene	2500 ~~200~~ MB
(76B)	318-01-9	chrysene	1400 ~~100~~ MB
(77B)	208-96-8	acenaphthylene	LT ~~100~~ MB
(78B)	120-12-7	anthracene	910 ~~100~~ MB
(79B)	191-24-2	benzo(ghi)perylene	1200 ~~200~~ MB
(80B)	86-73-7	fluorene	620 ~~100~~ MB
(81B)	85-01-8	phenanthrene	4300 ~~100~~ MB
(82B)	53-70-3	dibenzo(a,h)anthracene	20U
(83B)	193-39-5	indeno(1,2,3-cd)pyrene	940 ~~200~~ MB
(84B)	129-00-0	pyrene	3500 ~~100~~ MB

(Non-Priority Pollutant Hazardous Substances)

	62-53-3	aniline	10U
	100-51-6	benzyl alcohol	20U
	106-47-8	4-chloroaniline	50U
	132-64-9	dibenzofuran	400 ~~10U~~ SS
	91-57-6	2-methylnaphthalene	20U
	88-74-4	2-nitroaniline	100U
	99-09-2	3-nitroaniline	100U
	100-01-6	4-nitroaniline	100U

CASE 1836

Sample Number
C3739
LOW LEVEL SOLID

ORGANICS ANALYSIS DATA SHEET - Page 2

Laboratory Name Mead CompuChem
Lab Sample ID No. 4850

Case Number 1836
SAS Number 619-C

Multiply all Values and Detection limits by 1 ☐ or 10 ☐ or ☑ 1.31
(Check Box for Appropriate Factor)

VOLATILES

PP#	CAS#		ug/kg
(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	22 ~~2.5U~~ MB
(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

(Non-Priority Pollutant Hazardous Substances)

	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

CASE 1836

ORGANICS ANALYSIS DATA SHEET - Page 3

Sample Number
C3739
LOW LEVEL SOLID

Laboratory Name Mead CompuChem
Lab Sample ID No. 4850

Case Number 1836
SAS Number 619-C

Multiply all Values and Detection Limits by 1 ☐ or 10 ☐ or ☑ 50x1.31
(Check Box for Appropriate Factor)

PESTICIDES

PP#	CAS#		ug/kg
(39P)	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~~ ~~ug/kg~~

~~(129D)~~	~~1746-01-6~~	~~2,3,7,8-tetrachlorodibenzo-p-dioxin~~	~~0.16U~~

CASE 1836

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

Sample Number
C3740
LOW LEVEL SOLID

ORGANICS ANALYSIS DATA SHEET - Page 1

Laboratory Name Mead CompuChem
Lab Sample ID No. 4851

Case Number 1836
SAS Number 619-C

Multiply all Values and Detection limits by 1 ☐ or 10 ☐ or ☑ 40 X1.14
(Check Box for Appropriate Factor)

ACID COMPOUNDS

PP#	CAS#		ug/kg
(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
(55A)	122-83-2	2,4-dichlorophenol	10U
(56A)	105-67-9	2,4-dimethylphenol	10U
(57A)	88-75-5	2-nitrophenol	20U
(58A)	100-02-7	4-nitrophenol	100U
9A)	51-88-5	2,4-dinitrophenol	50U
0A)	534-52-1	4,6-dinitro-2-methylphenol	20U
(64A)	87-36-5	pentachlorophenol	20U
(65A)	108-95-2	phenol	10U

(Non-Priority Pollutant Hazardous Substances)

	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

BASE-NEUTRAL COMPOUNDS

PP#	CAS#		ug/kg
(1B)	83-32-9	acenaphthene	460 ~~180~~ MD
(5B)	92-87-5	benzidine	40U
(8B)	120-82-1	1,2,4-trichlorobenzene	10U
9B)	118-74-1	hexachlorobenzene	10U
2B)	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 (as azobenzene)	20U
(39B)	206-44-0	fluoranthene	6800 ~~100~~ MD
(40B)	7005-72-3	4-chlorophenyl phenylether	10U
(41B)	101-55-3	4-bromophenyl phenyl ether	10U

BASE/NEUTRAL COMPOUNDS

PP#	CAS#		ug/kg
(42B)	39638-32-9	bis-(2-chloroisopropyl)ether	20U
(43B)	11--91-1	bis-(2-chloroethoxy)methane	20U
(52B)	87-68-3	hexachlorobutadiene	10U
(53B)	77-47-4	hexachlorocyclopentadiene	10U
(54B)	78-59-1	isophorone	10U
(55B)	91-20-3	naphthalene	680 ~~100~~ MD
(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	4200 ~~100~~ MD
(73B)	50-33-8	benzo(a)pyrene	3400 ~~200~~ MD
(74B)	205-99-2	benzo(b)fluoranthene	5700 ~~200~~ MD
(75B)	207-08-9	benzo(k)fluoranthene	5700 ~~200~~ MD
(76B)	318-01-9	chrysene	2800 ~~100~~ MD
(77B)	208-96-8	acenaphthylene	10U
(78B)	120-12-7	anthracene	1100 ~~100~~ MD
(79B)	181-24-2	benzo(ghi)perylene	2500 ~~200~~
(80B)	86-73-7	fluorene	460 ~~100~~ MD
(81B)	85-01-8	phenanthrene	5600 ~~100~~ MD
(82B)	53-70-3	dibenzo(a,h)anthracene	LT ~~200~~ MD
(83B)	183-39-5	indeno(1,2,3-cd)pyrene	2000 ~~200~~ MD
(84B)	129-00-0	pyrene	5600 ~~100~~ MD

(Non-Priority Pollutant Hazardous Substances)

	62-53-3	aniline	10U
	100-51-6	benzyl alcohol	20U
	106-47-8	4-chloroaniline	50U
	132-64-9	dibenzofuran	LT ~~100~~ MD
	91-57-6	2-methylnaphthalene	20U
	88-74-4	2-nitroaniline	100U
	99-09-2	3-nitroaniline	100U
	100-01-6	4-nitroaniline	100U

CASE 1836

Sample Number
C3740
LOW LEVEL SOLID

ORGANICS ANALYSIS DATA SHEET - Page 2

Laboratory Name Mead CompuChem
Lab Sample ID No. 4851

Case Number 1836
SAS Number 619-C

Multiply all Values and Detection limits by 1 ☐ or 10 ☐ or ☑ 1.14
(Check Box for Appropriate Factor)

VOLATILES

PP#	CAS#		ug/kg
(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	6.2 ~~2.5U~~ MB
(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

(Non-Priority Pollutant Hazardous Substances)

	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

CASE 1836

Sample Number
C3740
LOW LEVEL SOLID

ORGANICS ANALYSIS DATA SHEET - Page 3

Laboratory Name Mead CompuChem
Lab Sample ID No. 4851

Case Number 1836
SAS Number 619-C

Multiply all Values and Detection Limits by 1 ☐ or 10 ☐ or ☑ 1.14
(Check Box for Appropriate Factor)

PESTICIDES

PP#	CAS#		ug/kg
(39P)	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 P.N. 13	~~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~~	~~ug/kg~~
(129B)	1746-01-6	~~2,3,7,8-tetrachlorodibenzo-p-dioxin~~	~~0.16U~~

CASE 1836

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

Sample Number
C3741
LOW LEVEL SOLID

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ORGANICS ANALYSIS DATA SHEET - Page 1

Laboratory Name Mead CompuChem
Lab Sample ID No. 4852

Case Number 1836
SAS Number 619-C

Multiply all Values and Detection limits by 1 ☐ or 10 ☐ or ☑ 40x1.19
(Check Box for Appropriate Factor)

ACID COMPOUNDS

PP#	CAS#		ug/kg
(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
50A)	534-52-1	4,6-dinitro-2-methylphenol	20U
(64A)	87-36-5	pentachlorophenol	20U
(65A)	108-95-2	phenol	10U

(Non-Priority Pollutant Hazardous Substances)

	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

BASE-NEUTRAL COMPOUNDS

(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
2B)	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 (as azobenzene)	20U
(39B)	206-44-0	fluoranthene	10U
(40B)	7005-72-3	4-chlorophenyl phenylether	10U
(41B)	101-55-3	4-bromophenyl phenyl ether	10U

BASE/NEUTRAL COMPOUNDS

PP#	CAS#		ug/kg
(42B)	39638-32-9	bis-(2-chloroisopropyl)ether	20U
(43B)	11--91-1	bis-(2-chloroethoxy)methane	20U
(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

(Non-Priority Pollutant Hazardous Substances)

	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

CASE 1836

ORGANICS ANALYSIS DATA SHEET - Page 2

Sample Number
C3741
LOW LEVEL SOLID

Laboratory Name Mead CompuChem
Lab Sample ID No. 4852

Case Number 1836
SAS Number 619-C

Multiply all Values and Detection limits by 1 ☐ or 10 ☐ or ☑ 1.19
(Check Box for Appropriate Factor)

VOLATILES

PP#	CAS#		ug/kg
(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	7.2 ~~2.5U~~ ma
(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

(Non-Priority Pollutant Hazardous Substances)

	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

CASE 1836

Sample Number
C3741
LOW LEVEL SOLID

ORGANICS ANALYSIS DATA SHEET - Page 3

Laboratory Name Mead CompuChem
Lab Sample ID No. 4852

Case Number 1836
SAS Number 619-C

Multiply all Values and Detection Limits by 1 ☐ or 10 ☐ or ☒ 1.19
(Check Box for Appropriate Factor)

PESTICIDES

PP#	CAS#		ug/kg
(39P)	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~~	~~ug/kg~~
(129B)	1746-01-6	~~2,3,7,8-tetrachlorodibenzo-p-dioxin~~	~~0.16U~~

CASE 1836

C3742
LOW LEVEL SOLID

ORGANICS ANALYSIS DATA SHEET - Page 1

.boratory Name Mead CompuChem
:b Sample ID No. 4853

Case Number 1836
SAS Number 619-C

Multiply all Values and Detection limits by 1 ☐ or 10 ☐ or ☑ 1.11x40
(Check Box for Appropriate Factor)

ACID COMPOUNDS

PP#	CAS#		ug/kg
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 LT	~~20U~~ MB
58A)	100-02-7	4-nitrophenol	100U
)	51-88-5	2,4-dinitrophenol	50U
)	534-52-1	4,6-dinitro-2-methylphenol	20U
64A)	87-36-5	pentachlorophenol	20U
65A)	108-95-2	phenol	10U

(Non-Priority Pollutant Hazardous Substances)

	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

BASE-NEUTRAL COMPOUNDS

1B)	83-32-9	acenaphthene	10U
5B)	92-87-5	benzidine	40U
8B)	120-82-1	1,2,4-trichlorobenzene	10U
)	118-74-1	hexachlorobenzene	10U
)	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 (as azobenzene)	20U
39B)	206-44-0	fluoranthene 440	~~10U~~ MB
40B)	7005-72-3	4-chlorophenyl phenylether	10U
41B)	101-55-3	4-bromophenyl phenyl ether	10U

BASE/NEUTRAL COMPOUNDS

PP#	CAS#		ug/kg
(42B)	39638-32-9	bis-(2-chloroisopropyl)ether	20U
(43B)	111-91-1	bis-(2-chloroethoxy)methane	20U
(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 LT	~~10U~~ MB
(73B)	50-33-8	benzo(a)pyrene	20U
(74B)	205-99-2	benzo(b)fluoranthene LT	~~20U~~ MB
(75B)	207-08-9	benzo(k)fluoranthene	20U
(76B)	318-01-9	chrysene LT	~~10U~~ MB
(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 560	~~10U~~ MB

(Non-Priority Pollutant Hazardous Substances)

	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

CASE 1836

ORGANICS ANALYSIS DATA SHEET - Page 2

Sample Number
C3742
LOW LEVEL SOLID

Laboratory Name Mead CompuChem
Lab Sample ID No. 4853

Case Number 1836
SAS Number

Multiply all Values and Detection limits by 1 ☐ or 10 ☐ or ☑ 1.11
(Check Box for Appropriate Factor)

VOLATILES

PP#	CAS#		ug/kg
(2V)	107-02-8	acrolein	50U
(3V)	107-13-1	acrylonitrile	74 ~~50U~~ mB
(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	12 ~~2.5U~~ mB
(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

(Non-Priority Pollutant Hazardous Substances)

	67-64-1	acetone	78 ~~50U~~ mB
	78-93-3	2-butanone	LT ~~100U~~ mB
	75-15-0	carbondisulfide	5U
	519-78-6	2-hexanone	LT ~~50U~~ mB
	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

CASE 1836

Sample Number
C3742
LOW LEVEL SOLID

ORGANICS ANALYSIS DATA SHEET - Page 3

Laboratory Name Mead CompuChem
Lab Sample ID No. 4853

Case Number 1836
SAS Number 619-C

Multiply all Values and Detection Limits by 1 ☐ or 10 ☐ or ☒ 1.11 x5
(Check Box for Appropriate Factor)

PESTICIDES

PP#	CAS#		ug/kg
(39P)	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~~	~~ug/kg~~
(129B)	1746-01-6	~~2,3,7,8-tetrachlorodibenzo-p-dioxin~~	~~0.16U~~

CASE 1836

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

Sample Number
C3743
LOW LEVEL SOLID

ORGANICS ANALYSIS DATA SHEET - Page 1

Laboratory Name Mead CompuChem
Lab Sample ID No. 4854

Case Number 1836
SAS Number 619-C

Multiply all Values and Detection limits by 1 ☐ or 10 ☐ or ☑ HO x1.18
(Check Box for Appropriate Factor)

ACID COMPOUNDS

PP#	CAS#		ug/kg
(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

(Non-Priority Pollutant Hazardous Substances)

	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

BASE-NEUTRAL COMPOUNDS

PP#	CAS#		ug/kg
(1B)	83-32-9	acenaphthene	10U
(5B)	92-87-5	benzidine	40U
8B)	120-82-1	1,2,4-trichlorobenzene	520 ~~10U~~ MB
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	LT ~~10U~~ MB
(26B)	541-73-1	1,3-dichlorobenzene	10U
(27B)	106-46-7	1,4-dichlorobenzene	560 ~~10U~~ MB
(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 (as azobenzene)	20U
(39B)	206-44-0	fluoranthene	10U
(40B)	7005-72-3	4-chlorophenyl phenylether	10U
(41B)	101-55-3	4-bromophenyl phenyl ether	10U

BASE/NEUTRAL COMPOUNDS

PP#	CAS#		ug/kg
(42B)	39638-32-9	bis-(2-chloroisopropyl)ether	20U
(43B)	11--91-1	bis-(2-chloroethoxy)methane	20U
(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

(Non-Priority Pollutant Hazardous Substances)

	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

CASE 1836

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

Sample Number
C3743
LOW LEVEL SOLID

ORGANICS ANALYSIS DATA SHEET - Page 1

Laboratory Name Mead CompuChem
Lab Sample ID No. 4854

Case Number 1836
SAS Number 619-C

Multiply all Values and Detection limits by 1 ☐ or 10 ☐ or ☑ HO x1.18
(Check Box for Appropriate Factor)

ACID COMPOUNDS

PP#	CAS#		ug/kg
(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

(Non-Priority Pollutant Hazardous Substances)

	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

BASE-NEUTRAL COMPOUNDS

(1B)	83-32-9	acenaphthene	10U
(5B)	92-87-5	benzidine	40U
8B)	120-82-1	1,2,4-trichlorobenzene	520 ~~100~~ MA
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	LT ~~100~~ MA
(26B)	541-73-1	1,3-dichlorobenzene	10U
(27B)	106-46-7	1,4-dichlorobenzene	560 ~~100~~ MA
(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 (as azobenzene)	20U
(39B)	206-44-0	fluoranthene	10U
(40B)	7005-72-3	4-chlorophenyl phenylether	10U
(41B)	101-55-3	4-bromophenyl phenyl ether	10U

BASE/NEUTRAL COMPOUNDS

PP#	CAS#		ug/kg
(42B)	39638-32-9	bis-(2-chloroisopropyl)ether	20U
(43B)	111-91-1	bis-(2-chloroethoxy)methane	20U
(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

(Non-Priority Pollutant Hazardous Substances)

	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

CASE 1836

Sample Number
C3743
LOW LEVEL SOLID

ORGANICS ANALYSIS DATA SHEET - Page 2

Laboratory Name Mead CompuChem
Lab Sample ID No. 4854

Case Number 1836
SAS Number 619-C

Multiply all Values and Detection limits by 1 ☐ or 10 ☐ or ☑ 1.18 x .96
(Check Box for Appropriate Factor)

VOLATILES

PP#	CAS#		ug/kg
(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	4.9 ~~2.5U~~ MB
(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

(Non-Priority Pollutant Hazardous Substances)

	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

CASE 1836

Sample Number
C3743
LOW LEVEL SOLID

ORGANICS ANALYSIS DATA SHEET - Page 3

Laboratory Name Mead CompuChem
Lab Sample ID No. 4854

Case Number 1836
SAS Number 619-C

Multiply all Values and Detection Limits by 1 ☐ or 10 ☐ or ☑ 1.18 x50
(Check Box for Appropriate Factor)

PESTICIDES

PP#	CAS#		ug/kg
(39P)	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~~	~~ug/kg~~
(129B)	1746-01-6	~~2,3,7,8-tetrachlorodibenzo-p-dioxin~~	~~0.16U~~

CASE 1836

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

Sample Number
C3744
LOW LEVEL SOLID

ORGANICS ANALYSIS DATA SHEET - Page 1

Laboratory Name Mead CompuChem
Lab Sample ID No. 4855

Case Number 1836
SAS Number 619-C

Multiply all Values and Detection limits by 1 ☐ or 10 ☐ or ☑ 400 x 1.39
(Check Box for Appropriate Factor)

ACID COMPOUNDS

PP#	CAS#		ug/kg
(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

(Non-Priority Pollutant Hazardous Substances)

	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

BASE-NEUTRAL COMPOUNDS

(1B)	83-32-9	acenaphthene	10U
(5B)	92-87-5	benzidine	40U
(8B)	120-82-1	1,2,4-trichlorobenzene 8400	~~10U~~ mU
(9B)	118-74-1	hexachlorobenzene	10U
(B)	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 6400	~~10U~~ mU
(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 (as azobenzene)	20U
(39B)	206-44-0	fluoranthene	10U
(40B)	7005-72-3	4-chlorophenyl phenylether	10U
(41B)	101-55-3	4-bromophenyl phenyl ether	10U

BASE/NEUTRAL COMPOUNDS

PP#	CAS#		ug/kg
(42B)	39638-32-9	bis-(2-chloroisopropyl)ether	20U
(43B)	11--91-1	bis-(2-chloroethoxy)methane	20U
(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

(Non-Priority Pollutant Hazardous Substances)

	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

CASE 1836

Sample Number
C3744
LOW LEVEL SOLID

ORGANICS ANALYSIS DATA SHEET - Page 2

Laboratory Name Mead CompuChem
Lab Sample ID No. 4855

Case Number 1836
SAS Number 619-C

Multiply all Values and Detection limits by 1 ☐ or 10 ☐ or ☑ 1.39x.94
(Check Box for Appropriate Factor)

VOLATILES

PP#	CAS#		ug/kg
(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	7.9 ~~2.5U~~ mb
(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

(Non-Priority Pollutant Hazardous Substances)

	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

CASE 1836

Sample Number
C3744
LOW LEVEL SOLID

ORGANICS ANALYSIS DATA SHEET - Page 3

Laboratory Name Mead CompuChem
Lab Sample ID No. 4855

Case Number 1836
SAS Number 619-C

Multiply all Values and Detection Limits by 1 ☐ or 10 ☐ or ☑ 1.39 x 1,000
(Check Box for Appropriate Factor)

PESTICIDES

PP#	CAS#		ug/kg
(39P)	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~~	~~ug/kg~~
(129B)	1746-01-6	~~2,3,7,8-tetrachlorodibenzo-p-dioxin~~	~~0.16U~~

CASE 1836

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

Sample Number
C3745
LOW LEVEL SOLID

ORGANICS ANALYSIS DATA SHEET - Page 1

Laboratory Name Mead CompuChem
Lab Sample ID No. 4856

Case Number 1836
SAS Number 619-C

Multiply all Values and Detection limits by 1 ☐ or 10 ☐ or ☑ 40x1.15
(Check Box for Appropriate Factor)

ACID COMPOUNDS

PP#	CAS#		ug/kg
(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

(Non-Priority Pollutant Hazardous Substances)

	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

BASE-NEUTRAL COMPOUNDS

PP#	CAS#		ug/kg
(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 (as azobenzene)	20U
(39B)	206-44-0	fluoranthene 1800 ~~100~~ MB	
(40B)	7005-72-3	4-chlorophenyl phenylether	10U
(41B)	101-55-3	4-bromophenyl phenyl ether	10U

BASE/NEUTRAL COMPOUNDS

PP#	CAS#		ug/kg
(42B)	39638-32-9	bis-(2-chloroisopropyl)ether	20U
(43B)	11--91-1	bis-(2-chloroethoxy)methane	20U
(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 840 ~~100~~ MB	
(73B)	50-33-8	benzo(a)pyrene	20U
(74B)	205-99-2	benzo(b)fluoranthene 1400 ~~200~~ MB	
(75B)	207-08-9	benzo(k)fluoranthene	20U
(76B)	318-01-9	chrysene 880 ~~100~~ MB	
(77B)	208-96-8	acenaphthylene	10U
(78B)	120-12-7	anthracene LT ~~100~~ MB	
(79B)	181-24-2	benzo(ghi)perylene	20U
(80B)	86-73-7	fluorene	10U
(81B)	85-01-8	phenanthrene 1400 ~~100~~ MB	
(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 1400 ~~100~~ MB	

(Non-Priority Pollutant Hazardous Substances)

	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

CASE 1836

Sample Number
C3745
LOW LEVEL SOLID

ORGANICS ANALYSIS DATA SHEET - Page 2

Laboratory Name Mead CompuChem
Lab Sample ID No. 4856

Case Number 1836
SAS Number 619-C

Multiply all Values and Detection limits by 1 ☐ or 10 ☐ or ☑ 1.15x.935
(Check Box for Appropriate Factor)

VOLATILES

PP#	CAS#		ug/kg
(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	4.9 ~~2.5U~~ BE
(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

(Non-Priority Pollutant Hazardous Substances)

	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

CASE 1836

Sample Number
C3745
LOW LEVEL SOLID

ORGANICS ANALYSIS DATA SHEET - Page 3

Laboratory Name Mead CompuChem
Lab Sample ID No. 4856

Case Number 1836
SAS Number 619-C

Multiply all Values and Detection Limits by 1 ☐ or 10 ☐ or ☑ 1.15
(Check Box for Appropriate Factor)

PESTICIDES

PP#	CAS#		ug/kg
(39P)	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 PN. 2.13 ~~4.0U~~ MD	
(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~~

			~~ug/kg~~
(129B)	1746-01-6	~~2,3,7,8-tetrachlorodibenzo-p-dioxin~~	~~0.16U~~

CASE 1836

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

Sample Number
C3746
LOW LEVEL SOLID

ORGANICS ANALYSIS DATA SHEET - Page 1

Laboratory Name Mead CompuChem
Lab Sample ID No. 4857

Case Number 1836
SAS Number 619-C

Multiply all Values and Detection limits by 1 [ ] or 10 [ ] or [✓] 40
(Check Box for Appropriate Factor)

ACID COMPOUNDS

PP#	CAS#		ug/kg
(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
[illegible]	[illegible]	pentachlorophenol	20U
(65A)	108-95-2	phenol	10U

(Non-Priority Pollutant Hazardous Substances)

	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

BASE-NEUTRAL COMPOUNDS

PP#	CAS#		ug/kg
(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
[illegible]	[illegible]	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 (as azobenzene)	20U
(39B)	206-44-0	fluoranthene	10U
(40B)	7005-72-3	4-chlorophenyl phenylether	10U
(41B)	101-55-3	4-bromophenyl phenyl ether	10U

BASE/NEUTRAL COMPOUNDS

PP#	CAS#		ug/kg
(42B)	39638-32-9	bis-(2-chloroisopropyl)ether	20U
(43B)	11--91-1	bis-(2-chloroethoxy)methane	20U
(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

(Non-Priority Pollutant Hazardous Substances)

	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

CASE 1836

Sample Number
C 3746
LOW LEVEL SOLID

ORGANICS ANALYSIS DATA SHEET - Page 2

Laboratory Name Mead CompuChem
Lab Sample ID No. 4857

Case Number 1836
SAS Number 619-C

Multiply all Values and Detection limits by 1 ☐ or 10 ☐ or ☑ .94
(Check Box for Appropriate Factor)

VOLATILES

PP#	CAS#		ug/kg
(2V)	107-02-8	acrolein	50U
(3V)	107-13-1	acrylonitrile	50U
(4V)	71-43-2	benzene LT	~~2.5U~~ MB
(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 420 ~~2.5U~~	~~2.5U~~ MB S
(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 3.3	~~2.5U~~ MB
(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

(Non-Priority Pollutant Hazardous Substances)

	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

CASE 1836

Sample Number
C3746
LOW LEVEL SOLID

ORGANICS ANALYSIS DATA SHEET - Page 3

Laboratory Name Mead CompuChem
Lab Sample ID No. 4857

Case Number 1836
SAS Number 619-C

Multiply all Values and Detection Limits by 1 ☑ or 10 ☐ or ☐ _____
(Check Box for Appropriate Factor)

PESTICIDES

PP#	CAS#		ug/kg
(39P)	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~~	~~ug/kg~~
(129B)	1746-01-6	~~2,3,7,8-tetrachlorodibenzo-p-dioxin~~	~~0.16U~~

CASE 1836

7/13/83

SAMPLE MC 0939

INORGANICS ANALYSIS DATA SHEET

LAB NAME VERSAR INC.
LAB SAMPLE # 3568

CASE ~~1784~~
QC REPORT ~~95~~

FMC
Ag 1836
619C
8306-20

PROJECT-TASK 793.0000 /751.085 SAS 619C
BATCH NO. 95

TASK 1

	MG/KG		MG/KG
ALUMINUM	4740.000	IRON	7960.000
BARIUM	45.000	MANGANESE	273.000
BERYLLIUM	< 2.500	NICKEL	12.000
BORON	< 5.000	SILVER	< 0.500
CHROMIUM	10.000	VANADIUM	30.000
COBALT	5.000	ZINC	73.000
COPPER	65.000		

TASK 2

	MG/KG		MG/KG
ANTIMONY	<1.	MERCURY	<0.1
ARSENIC	3.5	SELENIUM	0.1
CADMIUM	0.35	THALLIUM	<0.5
LEAD	200. (4)	TIN	"ND/B."

TASK 3

	MG/KG
CYANIDE	<0.5

COMMENTS

1. "C" - BLANK CORRECTED CONC.
2. "ND/B" - NOT DETECTED DUE TO BLANK
3. "S" - SAMPLES ANALYZED BY THE STD. ADDITION METHOD.
4. WITH A DETECTION LIMIT OF 50.
5. WITH A DETECTION LIMIT OF
6. WITH A DETECTION LIMIT OF
7. INSUFFICIENT SAMPLE ALIQUOT
8. INTERFERENCE

William Vivian (ACTING)

ROBERT MAXFIELD, INORG. BRANCH MANAGER.

7/13/83 SAMPLE MC 0982

INORGANICS ANALYSIS DATA SHEET

LAB NAME VERSAR INC. CASE 1784
LAB SAMPLE # 3569 QC REPORT 95

PROJECT-TASK 793.0000 /751.085 SAS 619C
BATCH NO. 95

TASK 1

	MG/KG		MG/KG
ALUMINUM	4780.000	IRON	12900.000
BARIUM	25.000	MANGANESE	84.000
BERYLLIUM	0.250	NICKEL	18.000
BORON	< 5.000	SILVER	< 0.500
CHROMIUM	16.000	VANADIUM	20.000
COBALT	5.000	ZINC	24.000
COPPER	290.000		

TASK 2

	MG/KG		MG/KG
ANTIMONY	<1.	MERCURY	<0.1
ARSENIC	2.5	SELENIUM	0.1
CADMIUM	0.1	THALLIUM	<0.5
LEAD	20. (4)	TIN	"ND/B"

TASK 3

	MG/KG
CYANIDE	<0.5

COMMENTS

1. "C" - BLANK CORRECTED CONC.
2. "ND/B" - NOT DETECTED DUE TO BLANK
3. "S" - SAMPLES ANALYZED BY THE STD. ADDITION METHOD.
4. WITH A DETECTION LIMIT OF 2.5
5. WITH A DETECTION LIMIT OF
6. WITH A DETECTION LIMIT OF
7. INSUFFICIENT SAMPLE ALIQUOT
8. INTERFERENCE

William Nice (ACWS)

ROBERT MAXFIELD, INORG. BRANCH MANAGER.

INORGANICS ANALYSIS DATA SHEET

LAB NAME VERSAR INC. CASE 1784
LAB SAMPLE # 3570 QC REPORT 95

PROJECT-TASK 793.0000 /751.085 SAS 619C
BATCH NO. 95

TASK 1

	MG/KG		MG/KG
ALUMINUM	1950.000	IRON	5920.000
BARIUM	20.000	MANGANESE	93.000
BERYLLIUM	< 0.250	NICKEL	6.000
BORON	< 5.000	SILVER	< 0.500
CHROMIUM	7.500	VANADIUM	20.000
COBALT	< 2.500	ZINC	35.500
COPPER	115.000		

TASK 2

	MG/KG		MG/KG
ANTIMONY	<1.	MERCURY	<0.1
ARSENIC	2.5	SELENIUM	0.1
CADMIUM	0.1	THALLIUM	<0.5
LEAD	25 (4)	TIN	"ND/B"

TASK 3

	MG/KG
CYANIDE	<0.5

COMMENTS

1. "C" - BLANK CORRECTED CONC.
2. "ND/B" - NOT DETECTED DUE TO BLANK
3. "S" - SAMPLES ANALYZED BY THE STD. ADDITION METHOD.
4. WITH A DETECTION LIMIT OF 2.5
5. WITH A DETECTION LIMIT OF
6. WITH A DETECTION LIMIT OF
7. INSUFFICIENT SAMPLE ALIQUOT
8. INTERFERENCE

William Niven (ACTING)

ROBERT MAXFIELD, INORG. BRANCH MANAGER.

7/13/83 SAMPLE MC 1001

INORGANICS ANALYSIS DATA SHEET

LAB NAME VERSAR INC. CASE 1784
LAB SAMPLE # 3571 QC REPORT 95

PROJECT-TASK 793.0000 /751.085 SAS 619C
BATCH NO. 95

TASK 1

	MG/KG		MG/KG
ALUMINUM	2740.000	IRON	9250.000
BARIUM	25.000	MANGANESE	95.200
BERYLLIUM	0.250	NICKEL	6.000
BORON	< 5.000	SILVER	< 0.500
CHROMIUM	73.000	VANADIUM	20.000
COBALT	2.500	ZINC	47.000
COPPER	25.000		

TASK 2

	MG/KG		MG/KG
ANTIMONY	<1.	MERCURY	<0.1
ARSENIC	2.5	SELENIUM	0.1
CADMIUM	0.25	THALLIUM	<0.5
LEAD	175. (4)	TIN	"ND/B"

TASK 3

	MG/KG
CYANIDE	<0.5

COMMENTS

1. "C" - BLANK CORRECTED CONC.
2. "ND/B" - NOT DETECTED DUE TO BLANK
3. "S" - SAMPLES ANALYZED BY THE STD. ADDITION METHOD.
4. WITH A DETECTION LIMIT OF 25,
5. WITH A DETECTION LIMIT OF
6. WITH A DETECTION LIMIT OF
7. INSUFFICIENT SAMPLE ALIQUOT
8. INTERFERENCE

William Niven (Acting)

ROBERT MAXFIELD, INORG. BRANCH MANAGER.

7/13/83 SAMPLE MC 1002

INORGANICS ANALYSIS DATA SHEET

LAB NAME VERSAR INC. CASE 1784
LAB SAMPLE # 3572 QC REPORT 95

PROJECT-TASK 793.0000 /751.085 SAS 619C
BATCH NO. 95

TASK 1

	MG/KG		MG/KG
ALUMINUM	2640.000	IRON	32700.000
BARIUM	570.000	MANGANESE	417.000
BERYLLIUM	0.500	NICKEL	30.000
BORON	15.000	SILVER	< 0.500
CHROMIUM	140.000	VANADIUM	30.000
COBALT	12.500	ZINC	400.000
COPPER	343.000		

TASK 2

	MG/KG		MG/KG
ANTIMONY	4.	MERCURY	4.5
ARSENIC	4.	SELENIUM	0.2
CADMIUM	5. (4)	THALLIUM	<0.5
LEAD	1400. (5)	TIN	2. "C"

TASK 3

	MG/KG
CYANIDE	<0.5 C

COMMENTS

1. "C" - BLANK CORRECTED CONC.
2. "ND/B" - NOT DETECTED DUE TO BLANK
3. "S" - SAMPLES ANALYZED BY THE STD. ADDITION METHOD.
4. WITH A DETECTION LIMIT OF 0.5
5. WITH A DETECTION LIMIT OF 200.
6. WITH A DETECTION LIMIT OF
7. INSUFFICIENT SAMPLE ALIQUOT
8. INTERFERENCE

William Nive (ACTING)

ROBERT MAXFIELD, INORG. BRANCH MANAGER.

7/13/83

SAMPLE MC 1003

INORGANICS ANALYSIS DATA SHEET

LAB NAME VERSAR INC.
LAB SAMPLE # 3573

CASE 1784
QC REPORT 95

PROJECT-TASK 793.0000 /751.085 SAS 619C
BATCH NO. 95

TASK 1

	MG/KG		MG/KG
ALUMINUM	2930.000	IRON	6540.000
BARIUM	30.000	MANGANESE	135.000
BERYLLIUM	< 0.250	NICKEL	4.000
BORON	< 5.000	SILVER	< 0.500
CHROMIUM	11.000	VANADIUM	10.000
COBALT	2.500	ZINC	56.500
COPPER	25.000		

TASK 2

	MG/KG		MG/KG
ANTIMONY	<1.	MERCURY	<0.1
ARSENIC	1.5	SELENIUM	0.2
CADMIUM	0.15	THALLIUM	<0.5
LEAD	40. (A)	TIN	"ND/B"

TASK 3

	MG/KG
CYANIDE	<0.5

COMMENTS

1. "C" - BLANK CORRECTED CONC.
2. "ND/B" - NOT DETECTED DUE TO BLANK
3. "S" - SAMPLES ANALYZED BY THE STD. ADDITION METHOD.
4. WITH A DETECTION LIMIT OF 5.
5. WITH A DETECTION LIMIT OF
6. WITH A DETECTION LIMIT OF
7. INSUFFICIENT SAMPLE ALIQUOT
8. INTERFERENCE

William Nixon (ACTING)

ROBERT MAXFIELD, INORG. BRANCH MANAGER.

7/13/83

SAMPLE MC 1004

INORGANICS ANALYSIS DATA SHEET

LAB NAME VERSAR INC.
LAB SAMPLE # 3574

CASE 1784
QC REPORT 95

PROJECT-TASK 793.0000 /751.085 SAS 619C
BATCH NO. 95

TASK 1

	MG/KG		MG/KG
ALUMINUM	< 10.000	IRON	< 2.500
BARIUM	< 5.000	MANGANESE	< 0.750
BERYLLIUM	< 0.250	NICKEL	< 2.000
BORON	< 5.000	SILVER	< 0.500
CHROMIUM	< 0.500	VANADIUM	< 10.000
COBALT	< 2.500	ZINC	< 0.500
COPPER	< 2.500		

TASK 2

	MG/KG		MG/KG
ANTIMONY	<1	MERCURY	<0.1
ARSENIC	<0.5	SELENIUM	<0.1
CADMIUM	<0.05	THALLIUM	<0.5
LEAD	<0.25	TIN	"ND/B"

TASK 3

	MG/KG
CYANIDE	<0.5

COMMENTS

1. "C" - BLANK CORRECTED CONC.
2. "ND/B" - NOT DETECTED DUE TO BLANK
3. "S" - SAMPLES ANALYZED BY THE STD. ADDITION METHOD.
4. WITH A DETECTION LIMIT OF
5. WITH A DETECTION LIMIT OF
6. WITH A DETECTION LIMIT OF
7. INSUFFICIENT SAMPLE ALIQUOT
8. INTERFERENCE

William Nixon (ACTING)

ROBERT MAXFIELD, INORG. BRANCH MANAGER.

7/13/83 SAMPLE MC 1208

INORGANICS ANALYSIS DATA SHEET

LAB NAME VERSAR INC. CASE 1784
LAB SAMPLE # 3575 QC REPORT 95

PROJECT-TASK 793.0000 /751.085 SAS 619C
BATCH NO. 95

TASK 1

	MG/KG		MG/KG
ALUMINUM	2350.000	IRON	3750.000
BARIUM	150.000	MANGANESE	250.000
BERYLLIUM	0.250	NICKEL	10.000
BORON	< 5.000	SILVER	< 0.500
CHROMIUM	25.500	VANADIUM	40.000
COBALT	< 2.500	ZINC	349.000
COPPER	80.000		

TASK 2

	MG/KG		MG/KG
ANTIMONY	<1.	MERCURY	0.4
ARSENIC	2.5	SELENIUM	0.3
CADMIUM	0.6 (A)	THALLIUM	<0.5
LEAD	500. (5)	TIN	4. "C" (6)

TASK 3

	MG/KG
CYANIDE	<0.5

COMMENTS

1. "C" - BLANK CORRECTED CONC.
2. "ND/B" - NOT DETECTED DUE TO BLANK
3. "S" - SAMPLES ANALYZED BY THE STD. ADDITION METHOD.
4. WITH A DETECTION LIMIT OF 0.1
5. WITH A DETECTION LIMIT OF 100.
6. WITH A DETECTION LIMIT OF 2.
7. INSUFFICIENT SAMPLE ALIQUOT
8. INTERFERENCE

William Niven (ACTING)

ROBERT MAXFIELD, INORG. BRANCH MANAGER.

7/13/83 SAMPLE MC 1209

INORGANICS ANALYSIS DATA SHEET

LAB NAME VERSAR INC. CASE 1784
LAB SAMPLE # 3576 QC REPORT 95

PROJECT-TASK 793.0000 /751.085 SAS 619C
BATCH NO. 95

TASK 1

	MG/KG		MG/KG
ALUMINUM	2650.000	IRON	6700.000
BARIUM	35.000	MANGANESE	94.500
BERYLLIUM	< 0.250	NICKEL	2.000
BORON	< 5.000	SILVER	< 0.500
CHROMIUM	9.000	VANADIUM	20.000
COBALT	2.500	ZINC	19.000
COPPER	17.500		

TASK 2

	MG/KG		MG/KG
ANTIMONY	<1.	MERCURY	<0.1
ARSENIC	3.	SELENIUM	0.1
CADMIUM	0.05	THALLIUM	<0.5
LEAD	30. (4)	TIN	"ND/B"

TASK 3

	MG/KG
CYANIDE	<0.5

COMMENTS
1. "C" - BLANK CORRECTED CONC.
2. "ND/B" - NOT DETECTED DUE TO BLANK
3. "S" - SAMPLES ANALYZED BY THE STD. ADDITION METHOD.
4. WITH A DETECTION LIMIT OF 5.
5. WITH A DETECTION LIMIT OF
6. WITH A DETECTION LIMIT OF
7. INSUFFICIENT SAMPLE ALIQUOT
8. INTERFERENCE

William Niven (ACTING)
ROBERT MAXFIELD, INORG. BRANCH MANAGER.

7/13/83

SAMPLE MC 1211

INORGANICS ANALYSIS DATA SHEET

LAB NAME VERSAR INC.
LAB SAMPLE # 3577

CASE 1784
QC REPORT 95

PROJECT-TASK 793.0000 /751.085 SAS 619C
BATCH NO. 95

TASK 1

	MG/KG		MG/KG
ALUMINUM	1820.000	IRON	21200.000
BARIUM	100.000	MANGANESE	253.000
BERYLLIUM	0.250	NICKEL	12.000
BORON	10.000	SILVER	< 0.500
CHROMIUM	14.000	VANADIUM	20.000
COBALT	5.000	ZINC	191.000
COPPER	252.000		

TASK 2

	MG/KG		MG/KG
ANTIMONY	2.	MERCURY	0.3 "S"
ARSENIC	14. (4)	SELENIUM	0.3
CADMIUM	0.5	THALLIUM	<0.5
LEAD	500.	TIN	2. "C"

TASK 3

	MG/KG
CYANIDE	0.5

COMMENTS

1. "C" - BLANK CORRECTED CONC.
2. "ND/B" - NOT DETECTED DUE TO BLANK
3. "S" - SAMPLES ANALYZED BY THE STD. ADDITION METHOD.
4. WITH A DETECTION LIMIT OF 2.
5. WITH A DETECTION LIMIT OF 50.
6. WITH A DETECTION LIMIT OF
7. INSUFFICIENT SAMPLE ALIQUOT
8. INTERFERENCE

William Niven (Acting)

ROBERT MAXFIELD, INORG. BRANCH MANAGER.

7/13/83

SAMPLE MC 1212

INORGANICS ANALYSIS DATA SHEET

LAB NAME VERSAR INC.
LAB SAMPLE # 3578

CASE 1784
QC REPORT 95

PROJECT-TASK 793.0000 /751.085 SAS 619C
BATCH NO. 95

TASK 1

	MG/KG		MG/KG
ALUMINUM	3790.000	IRON	8420.000
BARIUM	30.000	MANGANESE	101.000
BERYLLIUM	< 0.250	NICKEL	4.000
BORON	< 5.000	SILVER	< 0.500
CHROMIUM	8.500	VANADIUM	20.000
COBALT	5.000	ZINC	14.000
COPPER	10.000		

TASK 2

	MG/KG		MG/KG
ANTIMONY	<1.	MERCURY	<0.1
ARSENIC	1.5	SELENIUM	<0.1
CADMIUM	0.05	THALLIUM	<0.5
LEAD	15. (4)	TIN	"ND/B"

TASK 3

	MG/KG
CYANIDE	<0.5

COMMENTS

1. "C" - BLANK CORRECTED CONC.
2. "ND/B" - NOT DETECTED DUE TO BLANK
3. "S" - SAMPLES ANALYZED BY THE STD. ADDITION METHOD.
4. WITH A DETECTION LIMIT OF 2.5
5. WITH A DETECTION LIMIT OF
6. WITH A DETECTION LIMIT OF
7. INSUFFICIENT SAMPLE ALIQUOT
8. INTERFERENCE

William Nine (Actng)

ROBERT MAXFIELD, INORG. BRANCH MANAGER.

7/13/83 SAMPLE MC 1213

INORGANICS ANALYSIS DATA SHEET

LAB NAME VERSAR INC. CASE 1784
LAB SAMPLE # 3579 QC REPORT 95

PROJECT-TASK 793.0000 /751.085 SAS 619C
BATCH NO. 95

TASK 1

	MG/KG		MG/KG
ALUMINUM	3410.000	IRON	11600.000
BARIUM	45.000	MANGANESE	235.000
BERYLLIUM	0.250	NICKEL	10.000
BORON	< 5.000	SILVER	< 0.500
CHROMIUM	18.000	VANADIUM	20.000
COBALT	7.500	ZINC	191.000
COPPER	50.000		

TASK 2

	MG/KG		MG/KG
ANTIMONY	<1.	MERCURY	2.0
ARSENIC	3.	SELENIUM	0.2
CADMIUM	1.4	THALLIUM	<0.5
LEAD	150. (4)	TIN	"ND/B"

TASK 3

	MG/KG
CYANIDE	<0.5

1. ----------
2. " COMMENTS
3. " 1. "C" - BLANK CORRECTED CONC.
   2. "ND/B" - NOT DETECTED DUE TO BLANK
4. " 3. "S" - SAMPLES ANALYZED BY THE STD. ADDITION METHOD.
   4. WITH A DETECTION LIMIT OF 25.
   5. WITH A DETECTION LIMIT OF
   6. WITH A DETECTION LIMIT OF
   7. INSUFFICIENT SAMPLE ALIQUOT
   8. INTERFERENCE

William Nieu (Acting)

ROBERT MAXFIELD, INORG. BRANCH MANAGER.