APPENDIX E
FIRST DETONATION LABORATORY REPORT FOR CAMP CLAIBORNE

The following laboratory report details the results for the first detonation samples collected at Camp Claiborne on 6/27/95. Also included is the chain of custody document for these samples.

SouthEastern
SEAS
ANALYTICAL SERVICES, INC.
1004 OSTER DR., SUITE 1 • HUNTSVILLE, ALABAMA 35816 • 205 / 536-8110

06/09/1995

Laboratory Report

Client: Nichols Research Corporation
4040 S. Memorial Parkway
Huntsville, AL 35815

Attn: Tom Martin

Sample ID: 9504110929
Date Received: 04/13/1995
Purchase Order No.: FP9502013

Lab. No.: 1418-1035-01
Date Sampled: 1995-04-11
Time Sampled: NA

Parameter	Results	Method	Analyst	Date	Time
Copper(T)	< 0.01 mg/L	6010	af	04-14-95	1200
Lead (T)	< 0.06 mg/L	6010	af	04-14-95	1200
Chromium (T)	< 0.01 mg/L	6010	af	04-14-95	1200
Mercury (T)	< 0.08 mg/L	6010	af	04-14-95	1200
Barium (T)	0.07 mg/L	6010	af	04-14-95	1200
Nickel (T)	< 0.05 mg/L	6010	af	04-14-95	1200
Potassium (T)	< 0.50 mg/L	6010	af	04-14-95	1200
Zinc (T)	< 0.01 mg/L	6010	af	04-14-95	1200
Cadmium (T)	< 0.01 mg/L	6010	af	04-14-95	1200
Aluminum (T)	5.21 mg/L	6010	af	04-14-95	1400
Calcium (T)	4.05 mg/L	6010	af	04-14-95	1200
Titanium (T)	0.12 mg/L	6010	af	04-14-95	1200

Method Sources
EPA-Test Methods for Evaluating Solid Waste, SW-846 3rd Ed.
EPA-Methods for Chemical Analysis of Water and Wastes (1983)
Standard Methods for the Examination of Water and Wastewater, 18th Ed.
40 CFR Part 136
NIOSH Manual of Analytical Methods (1984)

SouthEastern
SEAS
ANALYTICAL SERVICES, INC.

BASE/NEUTRAL-ACID COMPOUNDS

GC/MS Report

USEPA Method 8270/625

Client : Nichols Research Corporation
Sample Description: 950411 0929
Matrix : WATER
Analyst: E.F. Parks

Laboratory No: 1418-1035-01
Date Received: 4/13/95
Date Extracted: 4/17/95
Date Analyzed: 04/25/95

Compounds	MDL1 ug/L	Conc2 ug/L	Compounds	MDL1 ug/L	Conc2 ug/L
Bis(2-chloroethyl)ether	24	BMDL	4-Chlorophenyl phenylether	24	BMDL
1,3-Dichlorobenzene	24	BMDL	Fluorene	24	BMDL
1,2-Dichlorobenzene	24	BMDL	Azobenzene	24	BMDL
1,4-Dichlorobenzene	24	BMDL	Hexachlorobenzene	24	BMDL
Bis(2-chloroisopropyl)ether	24	BMDL	Phenanthrene	24	BMDL
N-Nitrosodi-n-propylamine	24	BMDL	Anthracene	24	BMDL
Hexachloroethane	24	BMDL	Dibutyl phthalate	24	BMDL
Nitrobenzene	24	BMDL	Fluoranthene	24	BMDL
Isophorone	24	BMDL	Pyrene	24	BMDL
Bis(2-chloroethoxy)methane	24	BMDL	Butylbenzyl phthalate	24	BMDL
1,2,4-Trichlorobenzene	24	BMDL	3,3'-Dichlorobenzidine	24	BMDL
Naphthalene	24	BMDL	Benzo(a)anthracene	24	BMDL
Hexachlorobutadiene	24	BMDL	Chrysene	24	BMDL
2-Chloronaphthalene	24	BMDL	Bis(2-ethylhexyl)phthalate	24	BMDL
Dimethyl phthalate	24	BMDL	Di-n-octyl phthalate	24	BMDL
2,6-Dinitrotoluene	24	BMDL	Benzo(b)fluoranthene	24	BMDL
Acenaphthylene	24	BMDL	Benzo(k)fluoranthene	24	BMDL
Acenaphthene	24	BMDL	Benzo(a)pyrene	24	BMDL
2,4-Dinitrotoluene	24	BMDL	Indeno(1,2,3-cd)pyrene	24	BMDL
Diethyl phthalate	24	BMDL	Dibenzo(a,h)anthracene	24	BMDL
Benzidine	49	BMDL	Benzo(g,h,i)perylene	24	BMDL
4-Bromophenyl phenyl ether	24	BMDL	N-Nitrosodiphenylamine	24	BMDL
N-nitrosodimethylamine	24	BMDL	OTHER COMPOUNDS:**		
Hexachlorocyclopentadiene	24	BMDL	2-Methylnaphthalene	24	BMDL

SURROGATE RECOVERIES	% REC
Nitrobenzene-D5	70
2-Fluorobiphenyl	74
Terphenyl-dl4	95

1 MDL=Method Detection Limit
2 BMDL=Below Method Detection Limit
3 ND= Not Determined

Reviewed by: DCR
Date: 6-13-95

Comments: * Presence indicated, but less than method detection limit.
** Tentatively identified and quantitatively estimated.

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SouthEastern SEAS ANALYTICAL SERVICES, INC.

BASE/NEUTRAL-ACID COMPOUNDS

GC/MS Report

USEPA Method 8270/625

Client : Nichols Research Corporation
Sample Description: 950411 0929
Matrix : WATER
Analyst: E.F. Parks

Laboratory No: 1418-1035-01
Date Received: 4/13/95
Date Extracted: 4/17/95
Date Analyzed: 04/25/95

Compounds	MDL1 ug/L	Conc2 ug/L	Additional Compounds	MDL1 ug/L	Conc2 ug/L
Phenol	24	BMDL	1-Methylnaphthalene	24	BMDL
2-Chlorophenol	24	BMDL	Acetophenone	24	BMDL
2-Nitrophenol	24	BMDL	Diphenylamine	24	BMDL
2,4-Dimethylphenol	24	BMDL	2-Aminonaphthalene	24	BMDL
2,4-Dichlorophenol	24	BMDL	1-Nitropyrene	24	BMDL
4-Chloro-3-Methylphenol	24	BMDL	2,5-Diphenyloxazole	24	BMDL
2,4,6-Trichlorophenol	24	BMDL	2-Nitronaphthalene	24	BMDL
2,4-Dinitrophenol	122	BMDL			
4-Nitrophenol	122	BMDL			
2-Methyl-4,6-Dinitrophenol	122	BMDL			
Pentachlorophenol	122	BMDL			
OTHER COMPOUNDS:					
2- &/or 3-Methylphenol	24	BMDL			
4-Methylphenol	24	BMDL			
2,4,5-Trichlorophenol	24	BMDL			

SURROGATE RECOVERIES	% REC
Phenol-d6	21
2-Fluorophenol	31
2,4,6-Tribromophenol	32

1 MDL=Method Detection Limit
2 BMDL=Below Method Detection Limit
3 ND= Not Determined

Reviewed by: DCS

Date: 6-12-95

Comments: * Presence indicated, but less than method detection limit.
** Tentatively identified and quantitatively estimated.

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SouthEastern
SEAS
ANALYTICAL SERVICES, INC.

Nitroaromatics and Nitramines by HPLC

USEPA Method 8330

Client Name: Nichols Research Corporation
Client ID: 9504110929
SEAS ID: 1418-1035-01

Date Analyzed: 5/17/95
Date Received: 4/13/95
Date Extracted: 4/18/95

Compound	MDL ug/L	Conc ug/L
HMX	0.012	<MDL
RDX	0.018	<MDL
1,3,5-TNB	0.020	<MDL
1,3-DNB	0.008	4170
NB	0.009	<MDL
Tetryl	0.019	NR
2,4,6-TNT	0.013	<MDL
2-Am-DNT	0.015	<MDL
4-Am-DNT	0.008	NR
2,4-DNT	0.049	<MDL
2,6-DNT	0.036	NR
2-NT	0.020	NR
4-NT	0.042	NR
3-NT	0.034	NR

Comments: NR = Not Requested
Analyst: Elise Tallman
Approved:

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06/09/1995

Laboratory Report

Client: Nichols Research Corporation
4040 S. Memorial Parkway
Huntsville, AL 35815

Attn: Tom Martin

Sample ID: 9504110935
Date Received: 04/13/1995
Purchase Order No.: FP9502013

Lab. No.: 1418-1035-02
Date Sampled: 1995-04-11
Time Sampled: NA

Parameter	Results	Method	Analyst	Date	Time
Copper(T)	5.10 mg/kg	6010	af	04-14-95	1200
Lead (T)	5.88 mg/kg	6010	af	04-14-95	1200
Chromium (T)	7.15 mg/kg	6010	af	04-14-95	1200
Mercury (T)	< 0.83 mg/kg	6010	af	04-14-95	1200
Barium (T)	38 mg/kg	6010	af	04-14-95	1200
Nickel (T)	2.91 mg/kg	6010	af	04-14-95	1200
Potassium (T)	237 mg/kg	6010	af	04-14-95	1200
Zinc (T)	13 mg/kg	6010	af	04-14-95	1200
Cadmium (T)	0.08 mg/kg	6010	af	04-14-95	1200
Aluminum (T)	6.40 mg/kg	6010	af	04-14-95	1200
Calcium (T)	509 mg/kg	6010	af	04-14-95	1200
Titanium (T)	27.1 mg/kg	6010	af	04-14-95	1200

Method Sources
EPA-Test Methods for Evaluating Solid Waste, SW-846 3rd Ed.
EPA-Methods for Chemical Analysis of Water and Wastes (1983)
Standard Methods for the Examination of Water and Waste-water, 18th Ed.
40 CFR Part 136
NIOSH Manual of Analytical Methods (1984)

SouthEastern
SEAS
ANALYTICAL SERVICES, INC.

BASE/NEUTRAL-ACID COMPOUNDS

GC/MS Report

USEPA Method 8270/625

Client : Nichols Research Corporation
Sample Description: 950411 0935
Matrix : SOLID
Analyst: E.F. Parks

Laboratory No: 1418-1035-02
Date Received: 4/13/95
Date Extracted: 4/17/95
Date Analyzed: 04/25/95

Compounds	MDL1 ug/Kg	Conc2 ug/Kg	Compounds	MDL1 ug/Kg	Conc2 ug/Kg
Bis(2-chloroethyl)ether	330	BMDL	4-Chlorophenyl phenylether	330	BMDL
1,3-Dichlorobenzene	330	BMDL	Fluorene	330	BMDL
1,2-Dichlorobenzene	330	BMDL	Azobenzene	330	BMDL
1,4-Dichlorobenzene	330	BMDL	Hexachlorobenzene	330	BMDL
Bis(2-chloroisopropyl)ether	330	BMDL	Phenanthrene	330	BMDL
N-Nitrosodi-n-propylamine	330	BMDL	Anthracene	330	BMDL
Hexachloroethane	330	BMDL	Dibutyl phthalate	330	BMDL
Nitrobenzene	330	BMDL	Fluoranthene	330	BMDL
Isophorone	330	BMDL	Pyrene	330	BMDL
Bis(2-chloroethoxy)methane	330	BMDL	Butylbenzyl phthalate	330	BMDL
1,2,4-Trichlorobenzene	330	BMDL	3,3'-Dichlorobenzidine	330	BMDL
Naphthalene	330	BMDL	Benzo(a)anthracene	330	BMDL
Hexachlorobutadiene	330	BMDL	Chrysene	330	BMDL
2-Chloronaphthalene	330	BMDL	Bis(2-ethylhexyl)phthalate	330	BMDL
Dimethyl phthalate	330	BMDL	Di-n-octyl phthalate	330	BMDL
2,6-Dinitrotoluene	330	BMDL	Benzo(b)fluoranthene	330	BMDL
Acenaphthylene	330	BMDL	Benzo(k)fluoranthene	330	BMDL
Acenaphthene	330	BMDL	Benzo(a)pyrene	330	BMDL
2,4-Dinitrotoluene	330	BMDL	Indeno(1,2,3-cd)pyrene	330	BMDL
Diethyl phthalate	330	BMDL	Dibenzo(a,h)anthracene	330	BMDL
Benzidine	660	BMDL	Benzo(g,h,i)perylene	330	BMDL
4-Bromophenyl phenyl ether	330	BMDL	N-Nitrosodiphenylamine	330	BMDL
N-nitrosodimethylamine	330	BMDL	OTHER COMPOUNDS:**		
Hexachlorocyclopentadiene	330	BMDL	2-Methylnaphthalene	330	BMDL

SURROGATE RECOVERIES	% REC
Nitrobenzene-D5	45
2-Fluorobiphenyl	54
Terphenyl-dl4	99

1 MDL=Method Detection Limit
2 BMDL=Below Method Detection Limit
3 ND= Not Determined

Reviewed by:
Date: 6-12-95

Comments: * Presence indicated, but less than method detection limit.
** Tentatively identified and quantitatively estimated.

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BASE/NEUTRAL-ACID COMPOUNDS
GC/MS Report
USEPA Method 8270/625

Client : Nichols Research Corporation
Sample Description: 950411 0935
Matrix : SOLID
Analyst: E.F. Parks

Laboratory No: 1418-1035-02
Date Received: 4/13/95
Date Extracted: 4/17/95
Date Analyzed: 04/25/95

Compounds	MDL1 ug/Kg	Conc2 ug/Kg	Additional Compounds	MDL1 ug/Kg	Conc2 ug/Kg
Phenol	330	BMDL	1-Methylnaphthalene	330	BMDL
2-Chlorophenol	330	BMDL	Acetophenone	330	BMDL
2-Nitrophenol	330	BMDL	Diphenylamine	330	BMDL
2,4-Dimethylphenol	330	BMDL	2-Aminonaphthalene	330	BMDL
2,4-Dichlorophenol	330	BMDL	1-Nitropyrene	330	BMDL
4-Chloro-3-Methylphenol	330	BMDL	2,5-Diphenyloxazole	330	BMDL
2,4,6-Trichlorophenol	330	BMDL	2-Nitronaphthalene	330	BMDL
2,4-Dinitrophenol	1650	BMDL			
4-Nitrophenol	1650	BMDL			
2-Methyl-4,6-Dinitrophenol	1650	BMDL			
Pentachlorophenol	1650	BMDL			
OTHER COMPOUNDS:					
2- &/or 3-Methylphenol	330	BMDL			
4-Methylphenol	330	BMDL			
2,4,5-Trichlorophenol	330	BMDL			

SURROGATE RECOVERIES	% REC
Phenol-d6	49
2-Fluorophenol	59
2,4,6-Tribromophenol	63

1 MDL=Method Detection Limit
2 BMDL=Below Method Detection Limit
3 ND= Not Determined

Reviewed by: DK
Date: 6-12-95

Comments: * Presence indicated, but less than method detection limit.
** Tentatively identified and quantitatively estimated.

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ANALYTICAL SERVICES, INC.

Nitroaromatics and Nitramines by HPLC

USEPA Method 8330

Client Name: Nichols Research Corporation
Client ID: 9504110935
SEAS ID: 1418-1035-02

Date Analyzed: 5/17/95
Date Received: 4/13/95
Date Extracted: 4/18/95

Compound	MDL ug/Kg	Conc ug/Kg
HMX	26.1	<MDL
RDX	40.6	<MDL
1,3,5-TNB	45.8	<MDL
1,3-DNB	17.1	<MDL
NB	20.6	<MDL
Tetryl	42.1	NR
2,4,6-TNT	30.1	<MDL
2-Am-DNT	34.1	<MDL
4-Am-DNT	17.5	NR
2,4-DNT	111	<MDL
2,6-DNT	81.3	NR
2-NT	44.7	NR
4-NT	95.3	NR
3-NT	76.3	NR

Comments: NR = Not Requested
Analyst: Elise Tallman
Approved:

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06/09/1995

Laboratory Report

Client: Nichols Research Corporation
4040 S. Memorial Parkway
Huntsville, AL 35815

Attn: Tom Martin

Sample ID: 9504110940
Date Received: 04/13/1995
Purchase Order No.: FP9502013

Lab. No.: 1418-1035-03
Date Sampled: 1995-04-11
Time Sampled: NA

Parameter	Results	Method	Analyst	Date	Time
Copper(T)	1.88 mg/kg	6010	af	04-14-95	1200
Lead (T)	5.39 mg/kg	6010	af	04-14-95	1200
Chromium (T)	1.71 mg/kg	6010	af	04-14-95	1200
Mercury (T)	< 0.73 mg/kg	6010	af	04-14-95	1200
Barium (T)	19.9 mg/kg	6010	af	04-14-95	1200
Nickel (T)	0.46 mg/kg	6010	af	04-14-95	1200
Potassium (T)	57.9 mg/kg	6010	af	04-14-95	1200
Zinc (T)	7.86 mg/kg	6010	af	04-14-95	1200
Cadmium (T)	0.05 mg/kg	6010	af	04-14-95	1200
Aluminum (T)	1560 mg/kg	6010	af	04-14-95	1200
Calcium (T)	143 mg/kg	6010	af	04-14-95	1200
Titanium (T)	17 mg/kg	6010	af	04-14-95	1200

Method Sources

EPA-Test Methods for Evaluating Solid Waste, SW-846 3rd Ed.
EPA-Methods for Chemical Analysis of Water and Wastes (1983)
Standard Methods for the Examination of Water and Waste-water, 18th Ed.
40 CFR Part 136
NIOSH Manual of Analytical Methods (1984)

SouthEastern
SEAS
ANALYTICAL SERVICES, INC.

BASE/NEUTRAL-ACID COMPOUNDS

GC/MS Report

USEPA Method 8270/625

Client : Nichols Research Corporation
Sample Description: 950411 0940
Matrix : SOLID
Analyst: E.F. Parks

Laboratory No: 1418-1035-03
Date Received: 4/13/95
Date Extracted: 4/17/95
Date Analyzed: 04/25/95

Compounds	MDL1 ug/Kg	Conc2 ug/Kg	Compounds	MDL1 ug/Kg	Conc2 ug/Kg
Bis(2-chloroethyl)ether	330	BMDL	4-Chlorophenyl phenylether	330	BMDL
1,3-Dichlorobenzene	330	BMDL	Fluorene	330	BMDL
1,2-Dichlorobenzene	330	BMDL	Azobenzene	330	BMDL
1,4-Dichlorobenzene	330	BMDL	Hexachlorobenzene	330	BMDL
Bis(2-chloroisopropyl)ether	330	BMDL	Phenanthrene	330	BMDL
N-Nitrosodi-n-propylamine	330	BMDL	Anthracene	330	BMDL
Hexachloroethane	330	BMDL	Dibutyl phthalate	330	BMDL
Nitrobenzene	330	BMDL	Fluoranthene	330	BMDL
Isophorone	330	BMDL	Pyrene	330	BMDL
Bis(2-chloroethoxy)methane	330	BMDL	Butylbenzyl phthalate	330	BMDL
1,2,4-Trichlorobenzene	330	BMDL	3,3'-Dichlorobenzidine	330	BMDL
Naphthalene	330	BMDL	Benzo(a)anthracene	330	BMDL
Hexachlorobutadiene	330	BMDL	Chrysene	330	BMDL
2-Chloronaphthalene	330	BMDL	Bis(2-ethylhexyl)phthalate	330	BMDL
Dimethyl phthalate	330	BMDL	Di-n-octyl phthalate	330	BMDL
2,6-Dinitrotoluene	330	BMDL	Benzo(b)fluoranthene	330	BMDL
Acenaphthylene	330	BMDL	Benzo(k)fluoranthene	330	BMDL
Acenaphthene	330	BMDL	Benzo(a)pyrene	330	BMDL
2,4-Dinitrotoluene	330	BMDL	Indeno(1,2,3-cd)pyrene	330	BMDL
Diethyl phthalate	330	BMDL	Dibenzo(a,h)anthracene	330	BMDL
Benzidine	660	BMDL	Benzo(g,h,i)perylene	330	BMDL
4-Bromophenyl phenyl ether	330	BMDL	N-Nitrosodiphenylamine	330	BMDL
N-nitrosodimethylamine	330	BMDL	OTHER COMPOUNDS:**		
Hexachlorocyclopentadiene	330	BMDL	2-Methylnaphthalene	330	BMDL

SURROGATE RECOVERIES	% REC
Nitrobenzene-D5	54
2-Fluorobiphenyl	56
Terphenyl-dl4	130

1 MDL=Method Detection Limit
2 BMDL=Below Method Detection Limit
3 ND= Not Determined

Reviewed by: DCR
Date: 6-15-95

Comments: * Presence indicated, but less than method detection limit.
** Tentatively identified and quantitatively estimated.

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SouthEastern
SEAS
ANALYTICAL SERVICES, INC.

BASE/NEUTRAL-ACID COMPOUNDS

GC/MS Report

USEPA Method 8270/625

Client : Nichols Research Corporation
Sample Description: 950411 0940
Matrix : SOLID
Analyst: E.F. Parks

Laboratory No: 1418-1035-03
Date Received: 4/13/95
Date Extracted: 4/17/95
Date Analyzed: 04/25/95

Compounds	MDL1 ug/Kg	Conc2 ug/Kg	Additional Compounds	MDL1 ug/Kg	Conc2 ug/Kg
Phenol	330	BMDL	1-Methylnaphthalene	330	BMDL
2-Chlorophenol	330	BMDL	Acetophenone	330	BMDL
2-Nitrophenol	330	BMDL	Diphenylamine	330	BMDL
2,4-Dimethylphenol	330	BMDL	2-Aminonaphthalene	330	BMDL
2,4-Dichlorophenol	330	BMDL	1-Nitropyrene	330	BMDL
4-Chloro-3-Methylphenol	330	BMDL	2,5-Diphenyloxazole	330	BMDL
2,4,6-Trichlorophenol	330	BMDL	2-Nitronaphthalene	330	BMDL
2,4-Dinitrophenol	1650	BMDL			
4-Nitrophenol	1650	BMDL			
2-Methyl-4,6-Dinitrophenol	1650	BMDL			
Pentachlorophenol	1650	BMDL			
OTHER COMPOUNDS:					
2- &/or 3-Methylphenol	330	BMDL			
4-Methylphenol	330	BMDL			
2,4,5-Trichlorophenol	330	BMDL			

SURROGATE RECOVERIES	% REC
Phenol-d6	53
2-Fluorophenol	63
2,4,6-Tribromophenol	70

1 MDL=Method Detection Limit
2 BMDL=Below Method Detection Limit
3 ND= Not Determined

Reviewed by: DCR
Date: 6-13-95

Comments: * Presence indicated, but less than method detection limit.
** Tentatively identified and quantitatively estimated.

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SouthEastern
SEAS
ANALYTICAL SERVICES, INC.

Nitroaromatics and Nitramines by HPLC

USEPA Method 8330

Client Name: Nichols Research Corporation
Client ID: 9504110940
SEAS ID: 1418-1035-03

Date Analyzed: 5/17/95
Date Received: 4/13/95
Date Extracted: 4/18/95

Compound	MDL ug/Kg	Conc ug/Kg
HMX	26.1	<MDL
RDX	40.6	<MDL
1,3,5-TNB	45.8	<MDL
1,3-DNB	17.1	<MDL
NB	20.6	<MDL
Tetryl	42.1	NR
2,4,6-TNT	30.1	<MDL
2-Am-DNT	34.1	<MDL
4-Am-DNT	17.5	NR
2,4-DNT	111	<MDL
2,6-DNT	81.3	NR
2-NT	44.7	NR
4-NT	95.3	NR
3-NT	76.3	NR

Comments: NR = Not Requested
Analyst: Elise Tallman
Approved:

1004 OSTER DR., SUITE 1 • HUNTSVILLE, ALABAMA 35816 • 205 / 536-8110

SouthEastern
SEAS
ANALYTICAL SERVICES, INC.
1004 OSTER DR., SUITE 1 • HUNTSVILLE, ALABAMA 35816 • 205 / 536-8110

06/09/1995

Laboratory Report

Client: Nichols Research Corporation
4040 S. Memorial Parkway
Huntsville, AL 35815

Attn: Tom Martin

Sample ID: 9504110943
Date Received: 04/13/1995
Purchase Order No.: FP9502013

Lab. No.: 1418-1035-04
Date Sampled: 1995-04-11
Time Sampled: NA

Parameter	Results	Method	Analyst	Date	Time
Copper(T)	3.40 mg/kg	6010	af	04-14-95	1200
Lead (T)	9.55 mg/kg	6010	af	04-14-95	1200
Chromium (T)	2.10 mg/kg	6010	af	04-14-95	1200
Mercury (T)	< 0.80 mg/kg	6010	af	04-14-95	1200
Barium (T)	63.1 mg/kg	6010	af	04-14-95	1200
Nickel (T)	0.83 mg/kg	6010	af	04-14-95	1200
Potassium (T)	119 mg/kg	6010	af	04-14-95	1200
Zinc (T)	7.54 mg/kg	6010	af	04-14-95	1200
Cadmium (T)	0.07 mg/kg	6010	af	04-14-95	1200
Aluminum (T)	2020 mg/kg	6010	af	04-14-95	1200
Calcium (T)	463 mg/kg	6010	af	04-14-95	1200
Titanium (T)	22.9 mg/kg	6010	af	04-14-95	1200

Method Sources
EPA-Test Methods for Evaluating Solid Waste, SW-846 3rd Ed.
EPA-Methods for Chemical Analysis of Water and Wastes (1983)
Standard Methods for the Examination of Water and Waste-water, 18th Ed.
40 CFR Part 136
NIOSH Manual of Analytical Methods (1984)

SouthEastern
SEAS
ANALYTICAL SERVICES, INC.

BASE/NEUTRAL-ACID COMPOUNDS

GC/MS Report

USEPA Method 8270/625

Client : Nichols Research Corporation
Sample Description: 950411 0943
Matrix : SOLID
Analyst: E.F. Parks

Laboratory No: 1418-1035-04
Date Received: 4/13/95
Date Extracted: 4/17/95
Date Analyzed: 04/25/95

Compounds	MDL1 ug/Kg	Conc2 ug/Kg	Compounds	MDL1 ug/Kg	Conc2 ug/Kg
Bis(2-chloroethyl)ether	330	BMDL	4-Chlorophenyl phenylether	330	BMDL
1,3-Dichlorobenzene	330	BMDL	Fluorene	330	BMDL
1,2-Dichlorobenzene	330	BMDL	Azobenzene	330	BMDL
1,4-Dichlorobenzene	330	BMDL	Hexachlorobenzene	330	BMDL
Bis(2-chloroisopropyl)ether	330	BMDL	Phenanthrene	330	BMDL
N-Nitrosodi-n-propylamine	330	BMDL	Anthracene	330	BMDL
Hexachloroethane	330	BMDL	Dibutyl phthalate	330	942
Nitrobenzene	330	BMDL	Fluoranthene	330	BMDL
Isophorone	330	BMDL	Pyrene	330	BMDL
Bis(2-chloroethoxy)methane	330	BMDL	Butylbenzyl phthalate	330	1172
1,2,4-Trichlorobenzene	330	BMDL	3,3'-Dichlorobenzidine	330	BMDL
Naphthalene	330	BMDL	Benzo(a)anthracene	330	BMDL
Hexachlorobutadiene	330	BMDL	Chrysene	330	BMDL
2-Chloronaphthalene	330	BMDL	Bis(2-ethylhexyl)phthalate	330	734
Dimethyl phthalate	330	BMDL	Di-n-octyl phthalate	330	BMDL
2,6-Dinitrotoluene	330	BMDL	Benzo(b)fluoranthene	330	BMDL
Acenaphthylene	330	BMDL	Benzo(k)fluoranthene	330	BMDL
Acenaphthene	330	BMDL	Benzo(a)pyrene	330	BMDL
2,4-Dinitrotoluene	330	BMDL	Indeno(1,2,3-cd)pyrene	330	BMDL
Diethyl phthalate	330	BMDL	Dibenzo(a,h)anthracene	330	BMDL
Benzidine	660	BMDL	Benzo(g,h,i)perylene	330	BMDL
4-Bromophenyl phenyl ether	330	BMDL	N-Nitrosodiphenylamine	330	BMDL
N-nitrosodimethylamine	330	BMDL	OTHER COMPOUNDS:**		
Hexachlorocyclopentadiene	330	BMDL	2-Methylnaphthalene	330	BMDL

SURROGATE RECOVERIES	% REC
Nitrobenzene-D5	49
2-Fluorobiphenyl	60
Terphenyl-dl4	139

1 MDL=Method Detection Limit
2 BMDL=Below Method Detection Limit
3 ND= Not Determined

Reviewed by:
Date: 6-13-95

Comments: * Presence indicated, but less than method detection limit.
** Tentatively identified and quantitatively estimated.

1004 OSTER DR., SUITE 1 • HUNTSVILLE, ALABAMA 35816 • 205 / 536-8110

SouthEastern SEAS ANALYTICAL SERVICES, INC.

BASE/NEUTRAL-ACID COMPOUNDS

GC/MS Report

USEPA Method 8270/625

Client : Nichols Research Corporation
Sample Description: 950411 0943
Matrix : SOLID
Analyst: E.F. Parks

Laboratory No: 1418-1035-04
Date Received: 4/13/95
Date Extracted: 4/17/95
Date Analyzed: 04/25/95

Compounds	MDL1 ug/Kg	Conc2 ug/Kg	Additional Compounds	MDL1 ug/Kg	Conc2 ug/Kg
Phenol	330	BMDL	1-Methylnaphthalene	330	BMDL
2-Chlorophenol	330	BMDL	Acetophenone	330	BMDL
2-Nitrophenol	330	BMDL	Diphenylamine	330	BMDL
2,4-Dimethylphenol	330	BMDL	2-Aminonaphthalene	330	BMDL
2,4-Dichlorophenol	330	BMDL	1-Nitropyrene	330	BMDL
4-Chloro-3-Methylphenol	330	BMDL	2,5-Diphenyloxazole	330	BMDL
2,4,6-Trichlorophenol	330	BMDL	2-Nitronaphthalene	330	BMDL
2,4-Dinitrophenol	1650	BMDL			
4-Nitrophenol	1650	BMDL			
2-Methyl-4,6-Dinitrophenol	1650	BMDL			
Pentachlorophenol	1650	BMDL			
OTHER COMPOUNDS:					
2- &/or 3-Methylphenol	330	BMDL			
4-Methylphenol	330	BMDL			
2,4,5-Trichlorophenol	330	BMDL			

SURROGATE RECOVERIES	% REC
Phenol-d6	42
2-Fluorophenol	56
2,4,6-Tribromophenol	53

1 MDL=Method Detection Limit
2 BMDL=Below Method Detection Limit
3 ND= Not Determined

Reviewed by: [signature]
Date: 6-13-95

Comments: * Presence indicated, but less than method detection limit.
** Tentatively identified and quantitatively estimated.

1004 OSTER DR., SUITE 1 • HUNTSVILLE, ALABAMA 35816 • 205 / 536-8110

SouthEastern
SEAS
ANALYTICAL SERVICES, INC.

Nitroaromatics and Nitramines by HPLC

USEPA Method 8330

Client Name: Nichols Research Corporation
Client ID: 9504110943
SEAS ID: 1418-1035-04

Date Analyzed: 5/17/95
Date Received: 4/13/95
Date Extracted: 4/18/95

Compound	MDL ug/Kg	Conc ug/Kg
HMX	26.1	<MDL
RDX	40.6	<MDL
1,3,5-TNB	45.8	<MDL
1,3-DNB	17.1	<MDL
NB	20.6	<MDL
Tetryl	42.1	NR
2,4,6-TNT	30.1	<MDL
2-Am-DNT	34.1	<MDL
4-Am-DNT	17.5	NR
2,4-DNT	111	<MDL
2,6-DNT	81.3	NR
2-NT	44.7	NR
4-NT	95.3	NR
3-NT	76.3	NR

Comments: NR = Not Requested
Analyst: Elise Tallman
Approved:

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SouthEastern
SEAS
ANALYTICAL SERVICES, INC.
1004 OSTER DR., SUITE 1 • HUNTSVILLE, ALABAMA 35816 • 205 / 536-8110

06/09/1995

Laboratory Report

Client: Nichols Research Corporation
4040 S. Memorial Parkway
Huntsville, AL 35815

Attn: Tom Martin

Sample ID: 9504110947
Date Received: 04/13/1995
Purchase Order No.: FP9502013

Lab. No.: 1418-1035-05
Date Sampled: 1995-04-11
Time Sampled: NA

Parameter	Results	Method	Analyst	Date	Time
Copper(T)	8.05 mg/kg	6010	af	04-14-95	1200
Lead (T)	4.36 mg/kg	6010	af	04-14-95	1200
Chromium (T)	1.78 mg/kg	6010	af	04-14-95	1200
Mercury (T)	< 0.66 mg/kg	6010	af	04-14-95	1200
Barium (T)	24.8 mg/kg	6010	af	04-14-95	1200
Nickel (T)	0.47 mg/kg	6010	af	04-14-95	1200
Potassium (T)	70.5 mg/kg	6010	af	04-14-95	1200
Zinc (T)	2.72 mg/kg	6010	af	04-14-95	1200
Cadmium (T)	0.03 mg/kg	6010	af	04-14-95	1200
Aluminum (T)	1760 mg/kg	6010	af	04-14-95	1200
Calcium (T)	383 mg/kg	6010	af	04-14-95	1200
Titanium (T)	20.2 mg/kg	6010	af	04-14-95	1200

Method Sources
EPA-Test Methods for Evaluating Solid Waste, SW-846 3rd Ed.
EPA-Methods for Chemical Analysis of Water and Wastes (1983)
Standard Methods for the Examination of Water and Wastewater, 18th Ed.
40 CFR Part 136
NIOSH Manual of Analytical Methods (1984)

SouthEastern
SEAS
ANALYTICAL SERVICES, INC.

BASE/NEUTRAL-ACID COMPOUNDS
GC/MS Report
USEPA Method 8270/625

Client : Nichols Research Corporation
Sample Description: 950411 0947
Matrix : SOLID
Analyst: E.F. Parks

Laboratory No: 1418-1035-05
Date Received: 4/13/95
Date Extracted: 4/17/95
Date Analyzed: 04/25/95

Compounds	MDL1 ug/Kg	Conc2 ug/Kg	Compounds	MDL1 ug/Kg	Conc2 ug/Kg
Bis(2-chloroethyl)ether	330	BMDL	4-Chlorophenyl phenylether	330	BMDL
1,3-Dichlorobenzene	330	BMDL	Fluorene	330	BMDL
1,2-Dichlorobenzene	330	BMDL	Azobenzene	330	BMDL
1,4-Dichlorobenzene	330	BMDL	Hexachlorobenzene	330	BMDL
Bis(2-chloroisopropyl)ether	330	BMDL	Phenanthrene	330	BMDL
N-Nitrosodi-n-propylamine	330	BMDL	Anthracene	330	BMDL
Hexachloroethane	330	BMDL	Dibutyl phthalate	330	BMDL
Nitrobenzene	330	BMDL	Fluoranthene	330	BMDL
Isophorone	330	BMDL	Pyrene	330	BMDL
Bis(2-chloroethoxy)methane	330	BMDL	Butylbenzyl phthalate	330	BMDL
1,2,4-Trichlorobenzene	330	BMDL	3,3'-Dichlorobenzidine	330	BMDL
Naphthalene	330	BMDL	Benzo(a)anthracene	330	BMDL
Hexachlorobutadiene	330	BMDL	Chrysene	330	BMDL
2-Chloronaphthalene	330	BMDL	Bis(2-ethylhexyl)phthalate	330	BMDL
Dimethyl phthalate	330	BMDL	Di-n-octyl phthalate	330	BMDL
2,6-Dinitrotoluene	330	BMDL	Benzo(b)fluoranthene	330	BMDL
Acenaphthylene	330	BMDL	Benzo(k)fluoranthene	330	BMDL
Acenaphthene	330	BMDL	Benzo(a)pyrene	330	BMDL
2,4-Dinitrotoluene	330	BMDL	Indeno(1,2,3-cd)pyrene	330	BMDL
Diethyl phthalate	330	BMDL	Dibenzo(a,h)anthracene	330	BMDL
Benzidine	660	BMDL	Benzo(g,h,i)perylene	330	BMDL
4-Bromophenyl phenyl ether	330	BMDL	N-Nitrosodiphenylamine	330	BMDL
N-nitrosodimethylamine	330	BMDL	OTHER COMPOUNDS:**		
Hexachlorocyclopentadiene	330	BMDL	2-Methylnaphthalene	330	BMDL

SURROGATE RECOVERIES	% REC
Nitrobenzene-D5	56
2-Fluorobiphenyl	58
Terphenyl-dl4	155

1 MDL=Method Detection Limit
2 BMDL=Below Method Detection Limit
3 ND= Not Determined

Reviewed by: [illegible]
Date: 6-13-95

Comments: * Presence indicated, but less than method detection limit.
** Tentatively identified and quantitatively estimated.

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SouthEastern
SEAS
ANALYTICAL SERVICES, INC.

BASE/NEUTRAL-ACID COMPOUNDS

GC/MS Report

USEPA Method 8270/625

Client : Nichols Research Corporation
Sample Description: 950411 0947
Matrix : SOLID
Analyst: E.F. Parks

Laboratory No: 1418-1035-05
Date Received: 4/13/95
Date Extracted: 4/17/95
Date Analyzed: 04/25/95

Compounds	MDL1 ug/Kg	Conc2 ug/Kg	Additional Compounds	MDL1 ug/Kg	Conc2 ug/Kg
Phenol	330	BMDL	1-Methylnaphthalene	330	BMDL
2-Chlorophenol	330	BMDL	Acetophenone	330	BMDL
2-Nitrophenol	330	BMDL	Diphenylamine	330	BMDL
2,4-Dimethylphenol	330	BMDL	2-Aminonaphthalene	330	BMDL
2,4-Dichlorophenol	330	BMDL	1-Nitropyrene	330	BMDL
4-Chloro-3-Methylphenol	330	BMDL	2,5-Diphenyloxazole	330	BMDL
2,4,6-Trichlorophenol	330	BMDL	2-Nitronaphthalene	330	BMDL
2,4-Dinitrophenol	1650	BMDL			
4-Nitrophenol	1650	BMDL			
2-Methyl-4,6-Dinitrophenol	1650	BMDL			
Pentachlorophenol	1650	BMDL			
OTHER COMPOUNDS:					
2- &/or 3-Methylphenol	330	BMDL			
4-Methylphenol	330	BMDL			
2,4,5-Trichlorophenol	330	BMDL			

SURROGATE RECOVERIES	% REC
Phenol-d6	51
2-Fluorophenol	59
2,4,6-Tribromophenol	78

1 MDL=Method Detection Limit
2 BMDL=Below Method Detection Limit
3 ND= Not Determined

Reviewed by:

Date: 6-13-95

Comments: * Presence indicated, but less than method detection limit.
** Tentatively identified and quantitatively estimated.

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SouthEastern
SEAS
ANALYTICAL SERVICES, INC.

Nitroaromatics and Nitramines by HPLC

USEPA Method 8330

Client Name: Nichols Research Corporation
Client ID: 9504110947
SEAS ID: 1418-1035-05

Date Analyzed: 5/17/95
Date Received: 4/13/95
Date Extracted: 4/18/95

Compound	MDL ug/Kg	Conc ug/Kg
HMX	26.1	<MDL
RDX	40.6	<MDL
1,3,5-TNB	45.8	<MDL
1,3-DNB	17.1	<MDL
NB	20.6	<MDL
Tetryl	42.1	NR
2,4,6-TNT	30.1	<MDL
2-Am-DNT	34.1	<MDL
4-Am-DNT	17.5	NR
2,4-DNT	111	<MDL
2,6-DNT	81.3	NR
2-NT	44.7	NR
4-NT	95.3	NR
3-NT	76.3	NR

Comments: NR = Not Requested
Analyst: Elise Tallman
Approved:

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SouthEastern
SEAS
ANALYTICAL SERVICES, INC.
1004 OSTER DR., SUITE 1 • HUNTSVILLE, ALABAMA 35816 • 205 / 536-8110

06/09/1995

Laboratory Report

Client: Nichols Research Corporation
4040 S. Memorial Parkway
Huntsville, AL 35815

Attn: Tom Martin

Sample ID: 9504110954
Date Received: 04/13/1995
Purchase Order No.: FP9502013

Lab. No.: 1418-1035-06
Date Sampled: 1995-04-11
Time Sampled: NA

Parameter	Results	Method	Analyst	Date	Time
Copper(T)	0.94 mg/kg	6010	af	04-14-95	1200
Lead (T)	3.70 mg/kg	6010	af	04-14-95	1200
Chromium (T)	1.38 mg/kg	6010	af	04-14-95	1200
Mercury (T)	< 0.89 mg/kg	6010	af	04-14-95	1200
Barium (T)	24.4 mg/kg	6010	af	04-14-95	1200
Nickel (T)	0.39 mg/kg	6010	af	04-14-95	1200
Potassium (T)	82.1 mg/kg	6010	af	04-14-95	1200
Zinc (T)	2.13 mg/kg	6010	af	04-14-95	1200
Cadmium (T)	0.05 mg/kg	6010	af	04-14-95	1200
Aluminum (T)	1840 mg/kg	6010	af	04-14-95	1200
Calcium (T)	144 mg/kg	6010	af	04-14-95	1200
Titanium (T)	12.8 mg/kg	6010	af	04-14-95	1200

Method Sources
EPA-Test Methods for Evaluating Solid Waste, SW-846 3rd Ed.
EPA-Methods for Chemical Analysis of Water and Wastes (1983)
Standard Methods for the Examination of Water and Waste-water, 18th Ed.
40 CFR Part 136
NIOSH Manual of Analytical Methods (1984)

SouthEastern SEAS ANALYTICAL SERVICES, INC.

BASE/NEUTRAL-ACID COMPOUNDS

GC/MS Report

USEPA Method 8270/625

Client : Nichols Research Corporation
Sample Description: 950411 0954
Matrix : SOLID
Analyst: E.F. Parks

Laboratory No: 1418-1035-06
Date Received: 4/13/95
Date Extracted: 4/17/95
Date Analyzed: 04/25/95

Compounds	MDL1 ug/Kg	Conc2 ug/Kg	Compounds	MDL1 ug/Kg	Conc2 ug/Kg
Bis(2-chloroethyl)ether	330	BMDL	4-Chlorophenyl phenylether	330	BMDL
1,3-Dichlorobenzene	330	BMDL	Fluorene	330	BMDL
1,2-Dichlorobenzene	330	BMDL	Azobenzene	330	BMDL
1,4-Dichlorobenzene	330	BMDL	Hexachlorobenzene	330	BMDL
Bis(2-chloroisopropyl)ether	330	BMDL	Phenanthrene	330	BMDL
N-Nitrosodi-n-propylamine	330	BMDL	Anthracene	330	BMDL
Hexachloroethane	330	BMDL	Dibutyl phthalate	330	BMDL
Nitrobenzene	330	BMDL	Fluoranthene	330	BMDL
Isophorone	330	BMDL	Pyrene	330	BMDL
Bis(2-chloroethoxy)methane	330	BMDL	Butylbenzyl phthalate	330	BMDL
1,2,4-Trichlorobenzene	330	BMDL	3,3'-Dichlorobenzidine	330	BMDL
Naphthalene	330	BMDL	Benzo(a)anthracene	330	BMDL
Hexachlorobutadiene	330	BMDL	Chrysene	330	BMDL
2-Chloronaphthalene	330	BMDL	Bis(2-ethylhexyl)phthalate	330	BMDL
Dimethyl phthalate	330	BMDL	Di-n-octyl phthalate	330	BMDL
2,6-Dinitrotoluene	330	BMDL	Benzo(b)fluoranthene	330	BMDL
Acenaphthylene	330	BMDL	Benzo(k)fluoranthene	330	BMDL
Acenaphthene	330	BMDL	Benzo(a)pyrene	330	BMDL
2,4-Dinitrotoluene	330	BMDL	Indeno(1,2,3-cd)pyrene	330	BMDL
Diethyl phthalate	330	BMDL	Dibenzo(a,h)anthracene	330	BMDL
Benzidine	660	BMDL	Benzo(g,h,i)perylene	330	BMDL
4-Bromophenyl phenyl ether	330	BMDL	N-Nitrosodiphenylamine	330	BMDL
N-nitrosodimethylamine	330	BMDL	OTHER COMPOUNDS:**		
Hexachlorocyclopentadiene	330	BMDL	2-Methylnaphthalene	330	BMDL

SURROGATE RECOVERIES	% REC
Nitrobenzene-D5	50
2-Fluorobiphenyl	49
Terphenyl-dl4	123

1 MDL=Method Detection Limit
2 BMDL=Below Method Detection Limit
3 ND= Not Determined

Reviewed by: DKR
Date: 6-13-95

Comments: * Presence indicated, but less than method detection limit.
** Tentatively identified and quantitatively estimated.

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SouthEastern
SEAS
ANALYTICAL SERVICES, INC.

BASE/NEUTRAL-ACID COMPOUNDS

GC/MS Report
USEPA Method 8270/625

Client : Nichols Research Corporation
Sample Description: 950411 0954
Matrix : SOLID
Analyst: E.F. Parks

Laboratory No: 1418-1035-06
Date Received: 4/13/95
Date Extracted: 4/17/95
Date Analyzed: 04/25/95

Compounds	MDL1 ug/Kg	Conc2 ug/Kg	Additional Compounds	MDL1 ug/Kg	Conc2 ug/Kg
Phenol	330	BMDL	1-Methylnaphthalene	330	BMDL
2-Chlorophenol	330	BMDL	Acetophenone	330	BMDL
2-Nitrophenol	330	BMDL	Diphenylamine	330	BMDL
2,4-Dimethylphenol	330	BMDL	2-Aminonaphthalene	330	BMDL
2,4-Dichlorophenol	330	BMDL	1-Nitropyrene	330	BMDL
4-Chloro-3-Methylphenol	330	BMDL	2,5-Diphenyloxazole	330	BMDL
2,4,6-Trichlorophenol	330	BMDL	2-Nitronaphthalene	330	BMDL
2,4-Dinitrophenol	1650	BMDL			
4-Nitrophenol	1650	BMDL			
2-Methyl-4,6-Dinitrophenol	1650	BMDL			
Pentachlorophenol	1650	BMDL			
OTHER COMPOUNDS:					
2- &/or 3-Methylphenol	330	BMDL			
4-Methylphenol	330	BMDL			
2,4,5-Trichlorophenol	330	BMDL			

SURROGATE RECOVERIES	% REC
Phenol-d6	49
2-Fluorophenol	60
2,4,6-Tribromophenol	58

1 MDL=Method Detection Limit
2 BMDL=Below Method Detection Limit
3 ND= Not Determined

Reviewed by:

Date: 5-18-95

Comments: * Presence indicated, but less than method detection limit.
** Tentatively identified and quantitatively estimated.

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SouthEastern
SEAS
ANALYTICAL SERVICES, INC.

Nitroaromatics and Nitramines by HPLC

USEPA Method 8330

Client Name: Nichols Research Corporation
Client ID: 9504110954
SEAS ID: 1418-1035-06

Date Analyzed: 5/17/95
Date Received: 4/13/95
Date Extracted: 4/18/95

Compound	MDL ug/Kg	Conc ug/Kg
HMX	26.1	<MDL
RDX	40.6	<MDL
1,3,5-TNB	45.8	<MDL
1,3-DNB	17.1	<MDL
NB	20.6	<MDL
Tetryl	42.1	NR
2,4,6-TNT	30.1	<MDL
2-Am-DNT	34.1	<MDL
4-Am-DNT	17.5	NR
2,4-DNT	111	<MDL
2,6-DNT	81.3	NR
2-NT	44.7	NR
4-NT	95.3	NR
3-NT	76.3	NR

Comments: NR = Not Requested
Analyst: Elise Tallman
Approved:

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SouthEastern
SEAS
ANALYTICAL SERVICES, INC.
1004 OSTER DR., SUITE 1 • HUNTSVILLE, ALABAMA 35816 • 205 / 536-8110

06/09/1995

Laboratory Report

Client: Nichols Research Corporation
4040 S. Memorial Parkway
Huntsville, AL 35815

Attn: Tom Martin

Sample ID: 9504110957
Date Received: 04/13/1995
Purchase Order No.: FP9502013

Lab. No.: 1418-1035-07
Date Sampled: 1995-04-11
Time Sampled: NA

Parameter	Results	Method	Analyst	Date	Time
Copper(T)	1.43 mg/kg	6010	af	04-14-95	1200
Lead (T)	4.55 mg/kg	6010	af	04-14-95	1200
Chromium (T)	1.39 mg/kg	6010	af	04-14-95	1200
Mercury (T)	< 0.83 mg/kg	6010	af	04-14-95	1200
Barium (T)	24.1 mg/kg	6010	af	04-14-95	1200
Nickel (T)	0.52 mg/kg	6010	af	04-14-95	1200
Potassium (T)	70.1 mg/kg	6010	af	04-14-95	1200
Zinc (T)	3.39 mg/kg	6010	af	04-14-95	1200
Cadmium (T)	0.06 mg/kg	6010	af	04-14-95	1200
Aluminum (T)	1520 mg/kg	6010	af	04-14-95	1200
Calcium (T)	143 mg/kg	6010	af	04-14-95	1200
Titanium (T)	14.6 mg/kg	6010	af	04-14-95	1200

Method Sources

EPA-Test Methods for Evaluating Solid Waste, SW-846 3rd Ed.
EPA-Methods for Chemical Analysis of Water and Wastes (1983)
Standard Methods for the Examination of Water and Waste-water, 18th Ed.
40 CFR Part 136
NIOSH Manual of Analytical Methods (1984)

SouthEastern
SEAS
ANALYTICAL SERVICES, INC.

BASE/NEUTRAL-ACID COMPOUNDS

GC/MS Report

USEPA Method 8270/625

Client : Nichols Research Corporation
Sample Description: 950411 0957
Matrix : SOLID
Analyst: E.F. Parks

Laboratory No: 1418-1035-07
Date Received: 4/13/95
Date Extracted: 4/17/95
Date Analyzed: 04/25/95

Compounds	MDL1 ug/Kg	Conc2 ug/Kg	Compounds	MDL1 ug/Kg	Conc2 ug/Kg
Bis(2-chloroethyl)ether	330	BMDL	4-Chlorophenyl phenylether	330	BMDL
1,3-Dichlorobenzene	330	BMDL	Fluorene	330	BMDL
1,2-Dichlorobenzene	330	BMDL	Azobenzene	330	BMDL
1,4-Dichlorobenzene	330	BMDL	Hexachlorobenzene	330	BMDL
Bis(2-chloroisopropyl)ether	330	BMDL	Phenanthrene	330	BMDL
N-Nitrosodi-n-propylamine	330	BMDL	Anthracene	330	BMDL
Hexachloroethane	330	BMDL	Dibutyl phthalate	330	BMDL
Nitrobenzene	330	BMDL	Fluoranthene	330	BMDL
Isophorone	330	BMDL	Pyrene	330	BMDL
Bis(2-chloroethoxy)methane	330	BMDL	Butylbenzyl phthalate	330	BMDL
1,2,4-Trichlorobenzene	330	BMDL	3,3'-Dichlorobenzidine	330	BMDL
Naphthalene	330	BMDL	Benzo(a)anthracene	330	BMDL
Hexachlorobutadiene	330	BMDL	Chrysene	330	BMDL
2-Chloronaphthalene	330	BMDL	Bis(2-ethylhexyl)phthalate	330	BMDL
Dimethyl phthalate	330	BMDL	Di-n-octyl phthalate	330	BMDL
2,6-Dinitrotoluene	330	BMDL	Benzo(b)fluoranthene	330	BMDL
Acenaphthylene	330	BMDL	Benzo(k)fluoranthene	330	BMDL
Acenaphthene	330	BMDL	Benzo(a)pyrene	330	BMDL
2,4-Dinitrotoluene	330	BMDL	Indeno(1,2,3-cd)pyrene	330	BMDL
Diethyl phthalate	330	BMDL	Dibenzo(a,h)anthracene	330	BMDL
Benzidine	660	BMDL	Benzo(g,h,i)perylene	330	BMDL
4-Bromophenyl phenyl ether	330	BMDL	N-Nitrosodiphenylamine	330	BMDL
N-nitrosodimethylamine	330	BMDL	OTHER COMPOUNDS:**		
Hexachlorocyclopentadiene	330	BMDL	2-Methylnaphthalene	330	BMDL

SURROGATE RECOVERIES	% REC
Nitrobenzene-D5	64
2-Fluorobiphenyl	67
Terphenyl-dl4	142

1 MDL=Method Detection Limit
2 BMDL=Below Method Detection Limit
3 ND= Not Determined

Reviewed by:
Date: 6-13-95

Comments: * Presence indicated, but less than method detection limit.
** Tentatively identified and quantitatively estimated.

1004 OSTER DR., SUITE 1 • HUNTSVILLE, ALABAMA 35816 • 205 / 536-8110

SouthEastern
SEAS
ANALYTICAL SERVICES, INC.

BASE/NEUTRAL-ACID COMPOUNDS

GC/MS Report

USEPA Method 8270/625

Client : Nichols Research Corporation
Sample Description: 950411 0957
Matrix : SOLID
Analyst: E.F. Parks

Laboratory No: 1418-1035-07
Date Received: 4/13/95
Date Extracted: 4/17/95
Date Analyzed: 04/25/95

Compounds	MDL1 ug/Kg	Conc2 ug/Kg	Additional Compounds	MDL1 ug/Kg	Conc2 ug/Kg
Phenol	330	BMDL	1-Methylnaphthalene	330	BMDL
2-Chlorophenol	330	BMDL	Acetophenone	330	BMDL
2-Nitrophenol	330	BMDL	Diphenylamine	330	BMDL
2,4-Dimethylphenol	330	BMDL	2-Aminonaphthalene	330	BMDL
2,4-Dichlorophenol	330	BMDL	1-Nitropyrene	330	BMDL
4-Chloro-3-Methylphenol	330	BMDL	2,5-Diphenyloxazole	330	BMDL
2,4,6-Trichlorophenol	330	BMDL	2-Nitronaphthalene	330	BMDL
2,4-Dinitrophenol	1650	BMDL			
4-Nitrophenol	1650	BMDL			
2-Methyl-4,6-Dinitrophenol	1650	BMDL			
Pentachlorophenol	1650	BMDL			
OTHER COMPOUNDS:					
2- &/or 3-Methylphenol	330	BMDL			
4-Methylphenol	330	BMDL			
2,4,5-Trichlorophenol	330	BMDL			

SURROGATE RECOVERIES	% REC
Phenol-d6	58
2-Fluorophenol	67
2,4,6-Tribromophenol	79

1 MDL=Method Detection Limit
2 BMDL=Below Method Detection Limit
3 ND= Not Determined

Reviewed by:
Date: 6-13-95

Comments: * Presence indicated, but less than method detection limit.
** Tentatively identified and quantitatively estimated.

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SouthEastern
SEAS
ANALYTICAL SERVICES, INC.

Nitroaromatics and Nitramines by HPLC

USEPA Method 8330

Client Name: Nichols Research Corporation
Client ID: 9504110957
SEAS ID: 1418-1035-07

Date Analyzed: 5/17/95
Date Received: 4/13/95
Date Extracted: 4/18/95

Compound	MDL ug/Kg	Conc ug/Kg
HMX	26.1	<MDL
RDX	40.6	<MDL
1,3,5-TNB	45.8	<MDL
1,3-DNB	17.1	<MDL
NB	20.6	<MDL
Tetryl	42.1	NR
2,4,6-TNT	30.1	<MDL
2-Am-DNT	34.1	<MDL
4-Am-DNT	17.5	NR
2,4-DNT	111	<MDL
2,6-DNT	81.3	NR
2-NT	44.7	NR
4-NT	95.3	NR
3-NT	76.3	NR

Comments: NR = Not Requested
Analyst: Elise Tallman
Approved:

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SEAS
ANALYTICAL SERVICES, INC.
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06/09/1995

Laboratory Report

Client: Nichols Research Corporation
4040 S. Memorial Parkway
Huntsville, AL 35815

Attn: Tom Martin

Sample ID: 9504111003
Date Received: 04/13/1995
Purchase Order No.: FP9502013

Lab. No.: 1418-1035-08
Date Sampled: 1995-04-11
Time Sampled: NA

Parameter	Results	Method	Analyst	Date	Time
Copper(T)	0.61 mg/kg	6010	af	04-14-95	1200
Lead (T)	3.71 mg/kg	6010	af	04-14-95	1200
Chromium (T)	2.32 mg/kg	6010	af	04-14-95	1200
Mercury (T)	< 0.87 mg/kg	6010	af	04-14-95	1200
Barium (T)	17.1 mg/kg	6010	af	04-14-95	1200
Nickel (T)	0.80 mg/L	6010	af	04-14-95	1200
Potassium (T)	102 mg/L	6010	af	04-14-95	1200
Zinc (T)	3.34 mg/kg	6010	af	04-14-95	1200
Cadmium (T)	0.04 mg/kg	6010	af	04-14-95	1200
Aluminum (T)	1890 mg/kg	6010	af	04-14-95	1200
Calcium (T)	139 mg/kg	6010	af	04-14-95	1200
Titanium (T)	25.5 mg/kg	6010	af	04-14-95	1200

Method Sources

EPA-Test Methods for Evaluating Solid Waste, SW-846 3rd Ed.
EPA-Methods for Chemical Analysis of Water and Wastes (1983)
Standard Methods for the Examination of Water and Wastewater, 18th Ed.
40 CFR Part 136
NIOSH Manual of Analytical Methods (1984)

SouthEastern SEAS ANALYTICAL SERVICES, INC.

BASE/NEUTRAL-ACID COMPOUNDS

GC/MS Report

USEPA Method 8270/625

Client : Nichols Research Corporation
Sample Description: 950411 1003
Matrix : SOLID
Analyst: E.F. Parks

Laboratory No: 1418-1035-08
Date Received: 4/13/95
Date Extracted: 4/17/95
Date Analyzed: 04/25/95

Compounds	MDL1 ug/Kg	Conc2 ug/Kg	Compounds	MDL1 ug/Kg	Conc2 ug/Kg
Bis(2-chloroethyl)ether	330	BMDL	4-Chlorophenyl phenylether	330	BMDL
1,3-Dichlorobenzene	330	BMDL	Fluorene	330	BMDL
1,2-Dichlorobenzene	330	BMDL	Azobenzene	330	BMDL
1,4-Dichlorobenzene	330	BMDL	Hexachlorobenzene	330	BMDL
Bis(2-chloroisopropyl)ether	330	BMDL	Phenanthrene	330	BMDL
N-Nitrosodi-n-propylamine	330	BMDL	Anthracene	330	BMDL
Hexachloroethane	330	BMDL	Dibutyl phthalate	330	BMDL
Nitrobenzene	330	BMDL	Fluoranthene	330	BMDL
Isophorone	330	BMDL	Pyrene	330	BMDL
Bis(2-chloroethoxy)methane	330	BMDL	Butylbenzyl phthalate	330	BMDL
1,2,4-Trichlorobenzene	330	BMDL	3,3'-Dichlorobenzidine	330	BMDL
Naphthalene	330	BMDL	Benzo(a)anthracene	330	BMDL
Hexachlorobutadiene	330	BMDL	Chrysene	330	BMDL
2-Chloronaphthalene	330	BMDL	Bis(2-ethylhexyl)phthalate	330	BMDL
Dimethyl phthalate	330	BMDL	Di-n-octyl phthalate	330	BMDL
2,6-Dinitrotoluene	330	BMDL	Benzo(b)fluoranthene	330	BMDL
Acenaphthylene	330	BMDL	Benzo(k)fluoranthene	330	BMDL
Acenaphthene	330	BMDL	Benzo(a)pyrene	330	BMDL
2,4-Dinitrotoluene	330	BMDL	Indeno(1,2,3-cd)pyrene	330	BMDL
Diethyl phthalate	330	BMDL	Dibenzo(a,h)anthracene	330	BMDL
Benzidine	660	BMDL	Benzo(g,h,i)perylene	330	BMDL
4-Bromophenyl phenyl ether	330	BMDL	N-Nitrosodiphenylamine	330	BMDL
N-nitrosodimethylamine	330	BMDL	OTHER COMPOUNDS:**		
Hexachlorocyclopentadiene	330	BMDL	2-Methylnaphthalene	330	BMDL

SURROGATE RECOVERIES	% REC
Nitrobenzene-D5	36
2-Fluorobiphenyl	43
Terphenyl-dl4	148

1 MDL=Method Detection Limit
2 BMDL=Below Method Detection Limit
3 ND= Not Determined

Reviewed by: DCR
Date: 4-13-95

Comments: * Presence indicated, but less than method detection limit.
** Tentatively identified and quantitatively estimated.

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SEAS
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06/09/1995

Laboratory Report

Client: Nichols Research Corporation
4040 S. Memorial Parkway
Huntsville, AL 35815

Attn: Tom Martin

Sample ID: 9504111020
Date Received: 04/13/1995
Purchase Order No.: FP9502013

Lab. No.: 1418-1035-09
Date Sampled: 1995-04-11
Time Sampled: NA

Parameter	Results	Method	Analyst	Date	Time
Copper(T)	1.56 mg/kg	6010	af	04-14-95	1200
Lead (T)	11 mg/kg	6010	af	04-14-95	1200
Chromium (T)	2.37 mg/kg	6010	af	04-14-95	1200
Mercury (T)	4.69 mg/kg	6010	af	04-14-95	1200
Barium (T)	21 mg/kg	6010	af	04-14-95	1200
Nickel (T)	1.31 mg/kg	6010	af	04-14-95	1200
Potassium (T)	85.2 mg/kg	6010	af	04-14-95	1200
Zinc (T)	6.07 mg/kg	6010	af	04-14-95	1200
Cadmium (T)	0.52 mg/kg	6010	af	04-14-95	1200
Aluminum (T)	1670 mg/kg	6010	af	04-14-95	1200
Calcium (T)	128 mg/kg	6010	af	04-14-95	1200
Titanium (T)	22.2 mg/kg	6010	af	04-14-95	1200

Method Sources

EPA-Test Methods for Evaluating Solid Waste, SW-846 3rd Ed.
EPA-Methods for Chemical Analysis of Water and Wastes (1983)
Standard Methods for the Examination of Water and Waste-water, 18th Ed.
40 CFR Part 136
NIOSH Manual of Analytical Methods (1984)

SouthEastern
SEAS
ANALYTICAL SERVICES, INC.

BASE/NEUTRAL-ACID COMPOUNDS

GC/MS Report

USEPA Method 8270/625

Client : Nichols Research Corporation
Sample Description: 950411 1020
Matrix : SOLID
Analyst: E.F. Parks

Laboratory No: 1418-1035-09
Date Received: 4/13/95
Date Extracted: 4/17/95
Date Analyzed: 04/26/95

Compounds	MDL1 ug/Kg	Conc2 ug/Kg	Compounds	MDL1 ug/Kg	Conc2 ug/Kg
Bis(2-chloroethyl)ether	330	BMDL	4-Chlorophenyl phenylether	330	BMDL
1,3-Dichlorobenzene	330	BMDL	Fluorene	330	BMDL
1,2-Dichlorobenzene	330	BMDL	Azobenzene	330	BMDL
1,4-Dichlorobenzene	330	BMDL	Hexachlorobenzene	330	BMDL
Bis(2-chloroisopropyl)ether	330	BMDL	Phenanthrene	330	BMDL
N-Nitrosodi-n-propylamine	330	BMDL	Anthracene	330	BMDL
Hexachloroethane	330	BMDL	Dibutyl phthalate	330	BMDL
Nitrobenzene	330	BMDL	Fluoranthene	330	BMDL
Isophorone	330	BMDL	Pyrene	330	BMDL
Bis(2-chloroethoxy)methane	330	BMDL	Butylbenzyl phthalate	330	BMDL
1,2,4-Trichlorobenzene	330	BMDL	3,3'-Dichlorobenzidine	330	BMDL
Naphthalene	330	BMDL	Benzo(a)anthracene	330	BMDL
Hexachlorobutadiene	330	BMDL	Chrysene	330	BMDL
2-Chloronaphthalene	330	BMDL	Bis(2-ethylhexyl)phthalate	330	BMDL
Dimethyl phthalate	330	BMDL	Di-n-octyl phthalate	330	BMDL
2,6-Dinitrotoluene	330	BMDL	Benzo(b)fluoranthene	330	BMDL
Acenaphthylene	330	BMDL	Benzo(k)fluoranthene	330	BMDL
Acenaphthene	330	BMDL	Benzo(a)pyrene	330	BMDL
2,4-Dinitrotoluene	330	BMDL	Indeno(1,2,3-cd)pyrene	330	BMDL
Diethyl phthalate	330	BMDL	Dibenzo(a,h)anthracene	330	BMDL
Benzidine	660	BMDL	Benzo(g,h,i)perylene	330	BMDL
4-Bromophenyl phenyl ether	330	BMDL	N-Nitrosodiphenylamine	330	BMDL
N-nitrosodimethylamine	330	BMDL	OTHER COMPOUNDS:**		
Hexachlorocyclopentadiene	330	BMDL	2-Methylnaphthalene	330	BMDL

SURROGATE RECOVERIES	% REC
Nitrobenzene-D5	18
2-Fluorobiphenyl	14
Terphenyl-dl4	29

1 MDL=Method Detection Limit
2 BMDL=Below Method Detection Limit
3 ND= Not Determined

Reviewed by: [illegible]
Date: 6-13-95

Comments: * Presence indicated, but less than method detection limit.
** Tentatively identified and quantitatively estimated.

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SouthEastern
SEAS
ANALYTICAL SERVICES, INC.

BASE/NEUTRAL-ACID COMPOUNDS

GC/MS Report

USEPA Method 8270/625

Client : Nichols Research Corporation
Sample Description: 950411 1020
Matrix : SOLID
Analyst: E.F. Parks

Laboratory No: 1418-1035-09
Date Received: 4/13/95
Date Extracted: 4/17/95
Date Analyzed: 04/26/95

Compounds	MDL1 ug/Kg	Conc2 ug/Kg	Additional Compounds	MDL1 ug/Kg	Conc2 ug/Kg
Phenol	330	BMDL	1-Methylnaphthalene	330	BMDL
2-Chlorophenol	330	BMDL	Acetophenone	330	BMDL
2-Nitrophenol	330	BMDL	Diphenylamine	330	BMDL
2,4-Dimethylphenol	330	BMDL	2-Aminonaphthalene	330	BMDL
2,4-Dichlorophenol	330	BMDL	1-Nitropyrene	330	BMDL
4-Chloro-3-Methylphenol	330	BMDL	2,5-Diphenyloxazole	330	BMDL
2,4,6-Trichlorophenol	330	BMDL	2-Nitronaphthalene	330	BMDL
2,4-Dinitrophenol	1650	BMDL			
4-Nitrophenol	1650	BMDL			
2-Methyl-4,6-Dinitrophenol	1650	BMDL			
Pentachlorophenol	1650	BMDL			
OTHER COMPOUNDS:					
2- &/or 3-Methylphenol	330	BMDL			
4-Methylphenol	330	BMDL			
2,4,5-Trichlorophenol	330	BMDL			

SURROGATE RECOVERIES	% REC
Phenol-d6	18
2-Fluorophenol	17
2,4,6-Tribromophenol	19

1 MDL=Method Detection Limit
2 BMDL=Below Method Detection Limit
3 ND= Not Determined

Reviewed by: DK 2
Date: 6-13-95

Comments: * Presence indicated, but less than method detection limit.
** Tentatively identified and quantitatively estimated.

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SouthEastern
SEAS
ANALYTICAL SERVICES, INC.

Nitroaromatics and Nitramines by HPLC

USEPA Method 8330

Client Name: Nichols Research Corporation
Client ID: 9504111020
SEAS ID: 1418-1035-09

Date Analyzed: 5/17/95
Date Received: 4/13/95
Date Extracted: 4/18/95

Compound	MDL ug/Kg	Conc ug/Kg
HMX	26.1	<MDL
RDX	40.6	<MDL
1,3,5-TNB	45.8	<MDL
1,3-DNB	17.1	<MDL
NB	20.6	<MDL
Tetryl	42.1	NR
2,4,6-TNT	30.1	<MDL
2-Am-DNT	34.1	<MDL
4-Am-DNT	17.5	NR
2,4-DNT	111	<MDL
2,6-DNT	81.3	NR
2-NT	44.7	NR
4-NT	95.3	NR
3-NT	76.3	NR

Comments: NR = Not Requested
Analyst: Elise Tallman
Approved:

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SEAS
ANALYTICAL SERVICES, INC.
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06/09/1995

Laboratory Report

Client: Nichols Research Corporation
4040 S. Memorial Parkway
Huntsville, AL 35815

Attn: Tom Martin

Sample ID: 9504111026
Date Received: 04/13/1995
Purchase Order No.: FP9502013

Lab. No.: 1418-1035-10
Date Sampled: 1995-04-11
Time Sampled: NA

Parameter	Results	Method	Analyst	Date	Time
Copper(T)	2.34 mg/kg	6010	af	04-14-95	1200
Lead (T)	4.97 mg/kg	6010	af	04-14-95	1200
Chromium (T)	5.64 mg/kg	6010	af	04-14-95	1200
Mercury (T)	< 0.80 mg/kg	6010	af	04-14-95	1200
Barium (T)	31.1 mg/kg	6010	af	04-14-95	1200
Nickel (T)	3.87 mg/kg	6010	af	04-14-95	1200
Potassium (T)	234 mg/kg	6010	af	04-14-95	1200
Zinc (T)	12.1 mg/kg	6010	af	04-14-95	1200
Cadmium (T)	0.07 mg/kg	6010	af	04-14-95	1200
Aluminum (T)	4150 mg/kg	6010	af	04-14-95	1200
Calcium (T)	600 mg/kg	6010	af	04-14-95	1200
Titanium (T)	62.6 mg/kg	6010	af	04-14-95	1200

Method Sources

EPA-Test Methods for Evaluating Solid Waste, SW-846 3rd Ed.
EPA-Methods for Chemical Analysis of Water and Wastes (1983)
Standard Methods for the Examination of Water and Waste-water, 18th Ed.
40 CFR Part 136
NIOSH Manual of Analytical Methods (1984)

SouthEastern SEAS ANALYTICAL SERVICES, INC.

BASE/NEUTRAL-ACID COMPOUNDS

GC/MS Report

USEPA Method 8270/625

Client : Nichols Research Corporation
Sample Description: 950411 1026
Matrix : SOLID
Analyst: E.F. Parks

Laboratory No: 1418-1035-10
Date Received: 4/13/95
Date Extracted: 4/17/95
Date Analyzed: 04/26/95

Compounds	MDL1 ug/Kg	Conc2 ug/Kg	Compounds	MDL1 ug/Kg	Conc2 ug/Kg
Bis(2-chloroethyl)ether	330	BMDL	4-Chlorophenyl phenylether	330	BMDL
1,3-Dichlorobenzene	330	BMDL	Fluorene	330	BMDL
1,2-Dichlorobenzene	330	BMDL	Azobenzene	330	BMDL
1,4-Dichlorobenzene	330	BMDL	Hexachlorobenzene	330	BMDL
Bis(2-chloroisopropyl)ether	330	BMDL	Phenanthrene	330	BMDL
N-Nitrosodi-n-propylamine	330	BMDL	Anthracene	330	BMDL
Hexachloroethane	330	BMDL	Dibutyl phthalate	330	BMDL
Nitrobenzene	330	BMDL	Fluoranthene	330	BMDL
Isophorone	330	BMDL	Pyrene	330	BMDL
Bis(2-chloroethoxy)methane	330	BMDL	Butylbenzyl phthalate	330	BMDL
1,2,4-Trichlorobenzene	330	BMDL	3,3'-Dichlorobenzidine	330	BMDL
Naphthalene	330	BMDL	Benzo(a)anthracene	330	BMDL
Hexachlorobutadiene	330	BMDL	Chrysene	330	BMDL
2-Chloronaphthalene	330	BMDL	Bis(2-ethylhexyl)phthalate	330	BMDL
Dimethyl phthalate	330	BMDL	Di-n-octyl phthalate	330	BMDL
2,6-Dinitrotoluene	330	BMDL	Benzo(b)fluoranthene	330	BMDL
Acenaphthylene	330	BMDL	Benzo(k)fluoranthene	330	BMDL
Acenaphthene	330	BMDL	Benzo(a)pyrene	330	BMDL
2,4-Dinitrotoluene	330	BMDL	Indeno(1,2,3-cd)pyrene	330	BMDL
Diethyl phthalate	330	BMDL	Dibenzo(a,h)anthracene	330	BMDL
Benzidine	660	BMDL	Benzo(g,h,i)perylene	330	BMDL
4-Bromophenyl phenyl ether	330	BMDL	N-Nitrosodiphenylamine	330	BMDL
N-nitrosodimethylamine	330	BMDL	OTHER COMPOUNDS:**		
Hexachlorocyclopentadiene	330	BMDL	2-Methylnaphthalene	330	BMDL

SURROGATE RECOVERIES	% REC
Nitrobenzene-D5	31
2-Fluorobiphenyl	30
Terphenyl-dl4	54

1 MDL=Method Detection Limit
2 BMDL=Below Method Detection Limit
3 ND= Not Determined

Reviewed by: DLR
Date: 6-13-95

Comments: * Presence indicated, but less than method detection limit.
** Tentatively identified and quantitatively estimated.

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SouthEastern
SEAS
ANALYTICAL SERVICES, INC.

BASE/NEUTRAL-ACID COMPOUNDS

GC/MS Report

USEPA Method 8270/625

Client : Nichols Research Corporation
Sample Description: 950411 1026
Matrix : SOLID
Analyst: E.F. Parks

Laboratory No: 1418-1035-10
Date Received: 4/13/95
Date Extracted: 4/17/95
Date Analyzed: 04/26/95

Compounds	MDL1 ug/Kg	Conc2 ug/Kg	Additional Compounds	MDL1 ug/Kg	Conc2 ug/Kg
Phenol	330	BMDL	1-Methylnaphthalene	330	BMDL
2-Chlorophenol	330	BMDL	Acetophenone	330	BMDL
2-Nitrophenol	330	BMDL	Diphenylamine	330	BMDL
2,4-Dimethylphenol	330	BMDL	2-Aminonaphthalene	330	BMDL
2,4-Dichlorophenol	330	BMDL	1-Nitropyrene	330	BMDL
4-Chloro-3-Methylphenol	330	BMDL	2,5-Diphenyloxazole	330	BMDL
2,4,6-Trichlorophenol	330	BMDL	2-Nitronaphthalene	330	BMDL
2,4-Dinitrophenol	1650	BMDL			
4-Nitrophenol	1650	BMDL			
2-Methyl-4,6-Dinitrophenol	1650	BMDL			
Pentachlorophenol	1650	BMDL			
OTHER COMPOUNDS:					
2- &/or 3-Methylphenol	330	BMDL			
4-Methylphenol	330	BMDL			
2,4,5-Trichlorophenol	330	BMDL			

SURROGATE RECOVERIES	% REC
Phenol-d6	31
2-Fluorophenol	31
2,4,6-Tribromophenol	33

1 MDL=Method Detection Limit
2 BMDL=Below Method Detection Limit
3 ND= Not Determined

Reviewed by: DKA
Date: 6/13/95

Comments: * Presence indicated, but less than method detection limit.
** Tentatively identified and quantitatively estimated.

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SouthEastern
SEAS
ANALYTICAL SERVICES, INC.

Nitroaromatics and Nitramines by HPLC

USEPA Method 8330

Client Name: Nichols Research Corporation
Client ID: 9504111026
SEAS ID: 1418-1035-10

Date Analyzed: 5/17/95
Date Received: 4/13/95
Date Extracted: 4/18/95

Compound	MDL ug/Kg	Conc ug/Kg
HMX	26.1	<MDL
RDX	40.6	<MDL
1,3,5-TNB	45.8	<MDL
1,3-DNB	17.1	<MDL
NB	20.6	<MDL
Tetryl	42.1	NR
2,4,6-TNT	30.1	<MDL
2-Am-DNT	34.1	<MDL
4-Am-DNT	17.5	NR
2,4-DNT	111	<MDL
2,6-DNT	81.3	NR
2-NT	44.7	NR
4-NT	95.3	NR
3-NT	76.3	NR

Comments: NR = Not Requested
Analyst: Elise Tallman
Approved:

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SouthEastern
SEAS
ANALYTICAL SERVICES, INC.
1004 OSTER DR., SUITE 1 • HUNTSVILLE, ALABAMA 35816 • 205 / 536-8110

06/09/1995

Laboratory Report

Client: Nichols Research Corporation
4040 S. Memorial Parkway
Huntsville, AL 35815

Attn: Tom Martin

Sample ID: 9504111035
Date Received: 04/13/1995
Purchase Order No.: FP9502013

Lab. No.: 1418-1035-11
Date Sampled: 1995-04-11
Time Sampled: NA

Parameter	Results	Method	Analyst	Date	Time
Copper(T)	1.29 mg/kg	6010	af	04-14-95	1200
Lead (T)	4.11 mg/kg	6010	af	04-14-95	1200
Chromium (T)	1.73 mg/kg	6010	af	04-14-95	1200
Mercury (T)	< 0.97 mg/kg	6010	af	04-14-95	1200
Barium (T)	34.2 mg/kg	6010	af	04-14-95	1200
Nickel (T)	1.20 mg/kg	6010	af	04-14-95	1200
Potassium (T)	75.7 mg/kg	6010	af	04-14-95	1200
Zinc (T)	3.25 mg/kg	6010	af	04-14-95	1200
Cadmium (T)	< 0.12 mg/kg	6010	af	04-14-95	1200
Aluminum (T)	1810 mg/kg	6010	af	04-14-95	1200
Calcium (T)	322 mg/kg	6010	af	04-14-95	1200
Titanium (T)	25.7 mg/kg	6010	af	04-14-95	1200

Method Sources
EPA-Test Methods for Evaluating Solid Waste, SW-846 3rd Ed.
EPA-Methods for Chemical Analysis of Water and Wastes (1983)
Standard Methods for the Examination of Water and Waste-water, 18th Ed.
40 CFR Part 136
NIOSH Manual of Analytical Methods (1984)

SouthEastern SEAS ANALYTICAL SERVICES, INC.

BASE/NEUTRAL-ACID COMPOUNDS

GC/MS Report

USEPA Method 8270/625

Client : Nichols Research Corporation
Sample Description: 950411 1035
Matrix : SOLID
Analyst: E.F. Parks

Laboratory No: 1418-1035-11
Date Received: 4/13/95
Date Extracted: 4/17/95
Date Analyzed: 04/26/95

Compounds	MDL1 ug/Kg	Conc2 ug/Kg	Compounds	MDL1 ug/Kg	Conc2 ug/Kg
Bis(2-chloroethyl)ether	330	BMDL	4-Chlorophenyl phenylether	330	BMDL
1,3-Dichlorobenzene	330	BMDL	Fluorene	330	BMDL
1,2-Dichlorobenzene	330	BMDL	Azobenzene	330	BMDL
1,4-Dichlorobenzene	330	BMDL	Hexachlorobenzene	330	BMDL
Bis(2-chloroisopropyl)ether	330	BMDL	Phenanthrene	330	BMDL
N-Nitrosodi-n-propylamine	330	BMDL	Anthracene	330	BMDL
Hexachloroethane	330	BMDL	Dibutyl phthalate	330	BMDL
Nitrobenzene	330	BMDL	Fluoranthene	330	BMDL
Isophorone	330	BMDL	Pyrene	330	BMDL
Bis(2-chloroethoxy)methane	330	BMDL	Butylbenzyl phthalate	330	BMDL
1,2,4-Trichlorobenzene	330	BMDL	3,3'-Dichlorobenzidine	330	BMDL
Naphthalene	330	BMDL	Benzo(a)anthracene	330	BMDL
Hexachlorobutadiene	330	BMDL	Chrysene	330	BMDL
2-Chloronaphthalene	330	BMDL	Bis(2-ethylhexyl)phthalate	330	BMDL
Dimethyl phthalate	330	BMDL	Di-n-octyl phthalate	330	BMDL
2,6-Dinitrotoluene	330	BMDL	Benzo(b)fluoranthene	330	BMDL
Acenaphthylene	330	BMDL	Benzo(k)fluoranthene	330	BMDL
Acenaphthene	330	BMDL	Benzo(a)pyrene	330	BMDL
2,4-Dinitrotoluene	330	BMDL	Indeno(1,2,3-cd)pyrene	330	BMDL
Diethyl phthalate	330	BMDL	Dibenzo(a,h)anthracene	330	BMDL
Benzidine	660	BMDL	Benzo(g,h,i)perylene	330	BMDL
4-Bromophenyl phenyl ether	330	BMDL	N-Nitrosodiphenylamine	330	BMDL
N-nitrosodimethylamine	330	BMDL	OTHER COMPOUNDS:**		
Hexachlorocyclopentadiene	330	BMDL	2-Methylnaphthalene	330	BMDL

SURROGATE RECOVERIES	% REC
Nitrobenzene-D5	25
2-Fluorobiphenyl	22
Terphenyl-dl4	66

1 MDL=Method Detection Limit
2 BMDL=Below Method Detection Limit
3 ND= Not Determined

Reviewed by: [illegible]
Date: 6-13-95

Comments: * Presence indicated, but less than method detection limit.
** Tentatively identified and quantitatively estimated.

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SouthEastern
SEAS
ANALYTICAL SERVICES, INC.

BASE/NEUTRAL-ACID COMPOUNDS

GC/MS Report

USEPA Method 8270/625

Client : Nichols Research Corporation
Sample Description: 950411 1035
Matrix : SOLID
Analyst: E.F. Parks

Laboratory No: 1418-1035-11
Date Received: 4/13/95
Date Extracted: 4/17/95
Date Analyzed: 04/26/95

Compounds	MDL1 ug/Kg	Conc2 ug/Kg	Additional Compounds	MDL1 ug/Kg	Conc2 ug/Kg
Phenol	330	BMDL	1-Methylnaphthalene	330	BMDL
2-Chlorophenol	330	BMDL	Acetophenone	330	BMDL
2-Nitrophenol	330	BMDL	Diphenylamine	330	BMDL
2,4-Dimethylphenol	330	BMDL	2-Aminonaphthalene	330	BMDL
2,4-Dichlorophenol	330	BMDL	1-Nitropyrene	330	BMDL
4-Chloro-3-Methylphenol	330	BMDL	2,5-Diphenyloxazole	330	BMDL
2,4,6-Trichlorophenol	330	BMDL	2-Nitronaphthalene	330	BMDL
2,4-Dinitrophenol	1650	BMDL			
4-Nitrophenol	1650	BMDL			
2-Methyl-4,6-Dinitrophenol	1650	BMDL			
Pentachlorophenol	1650	BMDL			
OTHER COMPOUNDS:					
2- &/or 3-Methylphenol	330	BMDL			
4-Methylphenol	330	BMDL			
2,4,5-Trichlorophenol	330	BMDL			

SURROGATE RECOVERIES	% REC
Phenol-d6	30
2-Fluorophenol	25
2,4,6-Tribromophenol	24

1 MDL=Method Detection Limit
2 BMDL=Below Method Detection Limit
3 ND= Not Determined

Reviewed by:
DKR
Date: 6-13-95

Comments: * Presence indicated, but less than method detection limit.
** Tentatively identified and quantitatively estimated.

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SouthEastern
SEAS
ANALYTICAL SERVICES, INC.

Nitroaromatics and Nitramines by HPLC

USEPA Method 8330

Client Name: Nichols Research Corporation
Client ID: 9504111035
SEAS ID: 1418-1035-11

Date Analyzed: 5/17/95
Date Received: 4/13/95
Date Extracted: 4/18/95

Compound	MDL ug/Kg	Conc ug/Kg
HMX	26.1	<MDL
RDX	40.6	<MDL
1,3,5-TNB	45.8	<MDL
1,3-DNB	17.1	<MDL
NB	20.6	<MDL
Tetryl	42.1	NR
2,4,6-TNT	30.1	<MDL
2-Am-DNT	34.1	<MDL
4-Am-DNT	17.5	NR
2,4-DNT	111	<MDL
2,6-DNT	81.3	NR
2-NT	44.7	NR
4-NT	95.3	NR
3-NT	76.3	NR

Comments: NR = Not Requested
Analyst: Elise Tallman
Approved:

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SouthEastern
SEAS
ANALYTICAL SERVICES, INC.
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06/09/1995

Laboratory Report

Client: Nichols Research Corporation
4040 S. Memorial Parkway
Huntsville, AL 35815

Attn: Tom Martin

Sample ID: 9504111036
Date Received: 04/13/1995
Purchase Order No.: FP9502013

Lab. No.: 1418-1035-12
Date Sampled: 1995-04-11
Time Sampled: NA

Parameter	Results	Method	Analyst	Date	Time
Copper(T)	3.47 mg/kg	6010	af	04-14-95	1200
Lead (T)	8.45 mg/kg	6010	af	04-14-95	1200
Chromium (T)	8.38 mg/kg	6010	af	04-14-95	1200
Mercury (T)	< 1.06 mg/kg	6010	af	04-14-95	1200
Barium (T)	62 mg/kg	6010	af	04-14-95	1200
Nickel (T)	6.22 mg/kg	6010	af	04-14-95	1200
Potassium (T)	298 mg/kg	6010	af	04-14-95	1200
Zinc (T)	20.2 mg/kg	6010	af	04-14-95	1200
Cadmium (T)	0.21 mg/kg	6010	af	04-14-95	1200
Aluminum (T)	7.30 mg/kg	6010	af	04-14-95	1200
Calcium (T)	1270 mg/kg	6010	af	04-14-95	1200
Titanium (T)	27.1 mg/kg	6010	af	04-14-95	1200

Method Sources

EPA-Test Methods for Evaluating Solid Waste, SW-846 3rd Ed.
EPA-Methods for Chemical Analysis of Water and Wastes (1983)
Standard Methods for the Examination of Water and Waste-water, 18th Ed.
40 CFR Part 136
NIOSH Manual of Analytical Methods (1984)

SouthEastern
SEAS
ANALYTICAL SERVICES, INC.

BASE/NEUTRAL-ACID COMPOUNDS

GC/MS Report

USEPA Method 8270/625

Client : Nichols Research Corporation
Sample Description: 950411 1036
Matrix : SOLID
Analyst: E.F. Parks

Laboratory No: 1418-1035-12
Date Received: 4/13/95
Date Extracted: 4/17/95
Date Analyzed: 04/26/95

Compounds	MDL1 ug/Kg	Conc2 ug/Kg	Compounds	MDL1 ug/Kg	Conc2 ug/Kg
Bis(2-chloroethyl)ether	330	BMDL	4-Chlorophenyl phenylether	330	BMDL
1,3-Dichlorobenzene	330	BMDL	Fluorene	330	BMDL
1,2-Dichlorobenzene	330	BMDL	Azobenzene	330	BMDL
1,4-Dichlorobenzene	330	BMDL	Hexachlorobenzene	330	BMDL
Bis(2-chloroisopropyl)ether	330	BMDL	Phenanthrene	330	BMDL
N-Nitrosodi-n-propylamine	330	BMDL	Anthracene	330	BMDL
Hexachloroethane	330	BMDL	Dibutyl phthalate	330	BMDL
Nitrobenzene	330	BMDL	Fluoranthene	330	BMDL
Isophorone	330	BMDL	Pyrene	330	BMDL
Bis(2-chloroethoxy)methane	330	BMDL	Butylbenzyl phthalate	330	BMDL
1,2,4-Trichlorobenzene	330	BMDL	3,3'-Dichlorobenzidine	330	BMDL
Naphthalene	330	BMDL	Benzo(a)anthracene	330	BMDL
Hexachlorobutadiene	330	BMDL	Chrysene	330	BMDL
2-Chloronaphthalene	330	BMDL	Bis(2-ethylhexyl)phthalate	330	BMDL
Dimethyl phthalate	330	BMDL	Di-n-octyl phthalate	330	BMDL
2,6-Dinitrotoluene	330	BMDL	Benzo(b)fluoranthene	330	BMDL
Acenaphthylene	330	BMDL	Benzo(k)fluoranthene	330	BMDL
Acenaphthene	330	BMDL	Benzo(a)pyrene	330	BMDL
2,4-Dinitrotoluene	330	BMDL	Indeno(1,2,3-cd)pyrene	330	BMDL
Diethyl phthalate	330	BMDL	Dibenzo(a,h)anthracene	330	BMDL
Benzidine	660	BMDL	Benzo(g,h,i)perylene	330	BMDL
4-Bromophenyl phenyl ether	330	BMDL	N-Nitrosodiphenylamine	330	BMDL
N-nitrosodimethylamine	330	BMDL	OTHER COMPOUNDS:**		
Hexachlorocyclopentadiene	330	BMDL	2-Methylnaphthalene	330	BMDL

SURROGATE RECOVERIES	% REC
Nitrobenzene-D5	56
2-Fluorobiphenyl	57
Terphenyl-d14	143

1 MDL=Method Detection Limit
2 BMDL=Below Method Detection Limit
3 ND= Not Determined

Reviewed by: DCR
Date: 6-13-95

Comments: * Presence indicated, but less than method detection limit.
** Tentatively identified and quantitatively estimated.

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SouthEastern
SEAS
ANALYTICAL SERVICES, INC.

Nitroaromatics and Nitramines by HPLC

USEPA Method 8330

Client Name: Nichols Research Corporation
Client ID: 9504111036
SEAS ID: 1418-1035-12

Date Analyzed: 5/17/95
Date Received: 4/13/95
Date Extracted: 4/18/95

Compound	MDL ug/Kg	Conc ug/Kg
HMX	26.1	<MDL
RDX	40.6	<MDL
1,3,5-TNB	45.8	<MDL
1,3-DNB	17.1	<MDL
NB	20.6	<MDL
Tetryl	42.1	NR
2,4,6-TNT	30.1	<MDL
2-Am-DNT	34.1	<MDL
4-Am-DNT	17.5	NR
2,4-DNT	111	<MDL
2,6-DNT	81.3	NR
2-NT	44.7	NR
4-NT	95.3	NR
3-NT	76.3	NR

Comments: NR = Not Requested
Analyst: Elise Tallman
Approved:

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SouthEastern SEAS ANALYTICAL SERVICES, INC.

BASE/NEUTRAL-ACID COMPOUNDS

GC/MS Report

USEPA Method 8270/625

Client : Nichols Research Corporation
Sample Description: 950411 1036
Matrix : SOLID
Analyst: E.F. Parks

Laboratory No: 1418-1035-12
Date Received: 4/13/95
Date Extracted: 4/17/95
Date Analyzed: 04/26/95

Compounds	MDL1 ug/Kg	Conc2 ug/Kg	Additional Compounds	MDL1 ug/Kg	Conc2 ug/Kg
Phenol	330	BMDL	1-Methylnaphthalene	330	BMDL
2-Chlorophenol	330	BMDL	Acetophenone	330	BMDL
2-Nitrophenol	330	BMDL	Diphenylamine	330	BMDL
2,4-Dimethylphenol	330	BMDL	2-Aminonaphthalene	330	BMDL
2,4-Dichlorophenol	330	BMDL	1-Nitropyrene	330	BMDL
4-Chloro-3-Methylphenol	330	BMDL	2,5-Diphenyloxazole	330	BMDL
2,4,6-Trichlorophenol	330	BMDL	2-Nitronaphthalene	330	BMDL
2,4-Dinitrophenol	1650	BMDL			
4-Nitrophenol	1650	BMDL			
2-Methyl-4,6-Dinitrophenol	1650	BMDL			
Pentachlorophenol	1650	BMDL			
OTHER COMPOUNDS:					
2- &/or 3-Methylphenol	330	BMDL			
4-Methylphenol	330	BMDL			
2,4,5-Trichlorophenol	330	BMDL			

SURROGATE RECOVERIES	% REC
Phenol-d6	48
2-Fluorophenol	53
2,4,6-Tribromophenol	63

1 MDL=Method Detection Limit
2 BMDL=Below Method Detection Limit
3 ND= Not Determined

Reviewed by: DCR
Date: 6-13-95

Comments: * Presence indicated, but less than method detection limit.
** Tentatively identified and quantitatively estimated.

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SouthEastern
SEAS
ANALYTICAL SERVICES, INC.
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06/09/1995

Laboratory Report

Client: Nichols Research Corporation
4040 S. Memorial Parkway
Huntsville, AL 35815

Attn: Tom Martin

Sample ID: Trip Blank
Date Received: 04/13/1995
Purchase Order No.: FP9502013

Lab. No.: 1418-1035-13
Date Sampled: 1995-04-11
Time Sampled: NA

Parameter	Results	Method	Analyst	Date	Time
Copper(T)	< 0.01 mg/kg	6010	af	04-14-95	1200
Lead (T)	< 0.06 mg/kg	6010	af	04-14-95	1200
Chromium (T)	< 0.01 mg/kg	6010	af	04-14-95	1200
Mercury (T)	< 0.08 mg/kg	6010	af	04-14-95	1200
Barium (T)	< 0.01 mg/kg	6010	af	04-14-95	1200
Nickel (T)	< 0.05 mg/kg	6010	af	04-14-95	1200
Potassium (T)	< 0.50 mg/kg	6010	af	04-14-95	1200
Zinc (T)	< 0.01 mg/kg	6010	af	04-14-95	1200
Cadmium (T)	< 0.01 mg/kg	6010	af	04-14-95	1200
Aluminum (T)	0.19 mg/kg	6010	af	04-14-95	1200
Calcium (T)	< 0.50 mg/kg	6010	af	04-14-95	1200
Titanium (T)	0.03 mg/kg	6010	af	04-14-95	1200

Method Sources
EPA-Test Methods for Evaluating Solid Waste, SW-846 3rd Ed.
EPA-Methods for Chemical Analysis of Water and Wastes (1983)
Standard Methods for the Examination of Water and Waste-water, 18th Ed.
40 CFR Part 136
NIOSH Manual of Analytical Methods (1984)

SouthEastern SEAS ANALYTICAL SERVICES, INC.

BASE/NEUTRAL-ACID COMPOUNDS

GC/MS Report

USEPA Method 8270/625

Client : Nichols Research Corporation
Sample Description: TRIP BLANK
Matrix : WATER
Analyst: E.F. Parks

Laboratory No: 1418-1035-13
Date Received: 4/13/95
Date Extracted: 4/17/95
Date Analyzed: 04/25/95

Compounds	MDL1 ug/L	Conc2 ug/L	Compounds	MDL1 ug/L	Conc2 ug/L
Bis(2-chloroethyl)ether	23	BMDL	4-Chlorophenyl phenylether	23	BMDL
1,3-Dichlorobenzene	23	BMDL	Fluorene	23	BMDL
1,2-Dichlorobenzene	23	BMDL	Azobenzene	23	BMDL
1,4-Dichlorobenzene	23	BMDL	Hexachlorobenzene	23	BMDL
Bis(2-chloroisopropyl)ether	23	BMDL	Phenanthrene	23	BMDL
N-Nitrosodi-n-propylamine	23	BMDL	Anthracene	23	BMDL
Hexachloroethane	23	BMDL	Dibutyl phthalate	23	BMDL
Nitrobenzene	23	BMDL	Fluoranthene	23	BMDL
Isophorone	23	BMDL	Pyrene	23	BMDL
Bis(2-chloroethoxy)methane	23	BMDL	Butylbenzyl phthalate	23	BMDL
1,2,4-Trichlorobenzene	23	BMDL	3,3'-Dichlorobenzidine	23	BMDL
Naphthalene	23	BMDL	Benzo(a)anthracene	23	BMDL
Hexachlorobutadiene	23	BMDL	Chrysene	23	BMDL
2-Chloronaphthalene	23	BMDL	Bis(2-ethylhexyl)phthalate	23	BMDL
Dimethyl phthalate	23	BMDL	Di-n-octyl phthalate	23	BMDL
2,6-Dinitrotoluene	23	BMDL	Benzo(b)fluoranthene	23	BMDL
Acenaphthylene	23	BMDL	Benzo(k)fluoranthene	23	BMDL
Acenaphthene	23	BMDL	Benzo(a)pyrene	23	BMDL
2,4-Dinitrotoluene	23	BMDL	Indeno(1,2,3-cd)pyrene	23	BMDL
Diethyl phthalate	23	BMDL	Dibenzo(a,h)anthracene	23	BMDL
Benzidine	46	BMDL	Benzo(g,h,i)perylene	23	BMDL
4-Bromophenyl phenyl ether	23	BMDL	N-Nitrosodiphenylamine	23	BMDL
N-nitrosodimethylamine	23	BMDL	OTHER COMPOUNDS:**		
Hexachlorocyclopentadiene	23	BMDL	2-Methylnaphthalene	23	BMDL

SURROGATE RECOVERIES	% REC
Nitrobenzene-D5	66
2-Fluorobiphenyl	67
Terphenyl-dl4	92

1 MDL=Method Detection Limit
2 BMDL=Below Method Detection Limit
3 ND= Not Determined

Reviewed by: DR
Date: 6-13-95

Comments: * Presence indicated, but less than method detection limit.
** Tentatively identified and quantitatively estimated.

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SouthEastern
SEAS
ANALYTICAL SERVICES, INC.

BASE/NEUTRAL-ACID COMPOUNDS

GC/MS Report

USEPA Method 8270/625

Client : Nichols Research Corporation
Sample Description: TRIP BLANK
Matrix : WATER
Analyst: E.F. Parks

Laboratory No: 1418-1035-13
Date Received: 4/13/95
Date Extracted: 4/17/95
Date Analyzed: 04/25/95

Compounds	MDL1 ug/L	Conc2 ug/L	Additional Compounds	MDL1 ug/L	Conc2 ug/L
Phenol	23	BMDL	1-Methylnaphthalene	23	BMDL
2-Chlorophenol	23	BMDL	Acetophenone	23	BMDL
2-Nitrophenol	23	BMDL	Diphenylamine	23	BMDL
2,4-Dimethylphenol	23	BMDL	2-Aminonaphthalene	23	BMDL
2,4-Dichlorophenol	23	BMDL	1-Nitropyrene	23	BMDL
4-Chloro-3-Methylphenol	23	BMDL	2,5-Diphenyloxazole	23	BMDL
2,4,6-Trichlorophenol	23	BMDL	2-Nitronaphthalene	23	BMDL
2,4-Dinitrophenol	115	BMDL			
4-Nitrophenol	115	BMDL			
2-Methyl-4,6-Dinitrophenol	115	BMDL			
Pentachlorophenol	115	BMDL			
OTHER COMPOUNDS:					
2- &/or 3-Methylphenol	23	BMDL			
4-Methylphenol	23	BMDL			
2,4,5-Trichlorophenol	23	BMDL			

SURROGATE RECOVERIES	% REC
Phenol-d6	32
2-Fluorophenol	58
2,4,6-Tribromophenol	75

1 MDL=Method Detection Limit
2 BMDL=Below Method Detection Limit
3 ND= Not Determined

Reviewed by: RZ
Date: 6-13-95

Comments: * Presence indicated, but less than method detection limit.
** Tentatively identified and quantitatively estimated.

1004 OSTER DR., SUITE 1 • HUNTSVILLE, ALABAMA 35816 • 205 / 536-8110

SouthEastern SEAS ANALYTICAL SERVICES, INC.

1004 Oster Drive, Suite 1
Huntsville, Alabama 35816
(205) 536-8110

CHAIN OF CUSTODY/FIELD DATA SHEET

CLIENT: [illegible]

CLIENT/PROJECT SITE: [illegible]

PAGE: ____ OF: ____

CLIENT CONTACT: Tom [illegible]

PROJECT JOB NO.: (FOR LAB USE ONLY)

SAMPLE DESCRIPTION/LOCATION	TYPE GRB	TYPE COMP	MATRIX TYPE	DATE SAMPLED	TIME	PRESERVATIVE	NUMBER OF CONTAINERS	COLLECTED BY:	ANALYSIS REQUESTED								
[illegible]	X		[illegible]	[illegible]		[illegible]	1	[illegible]									
[illegible]	X		"	"		[illegible]	1	[illegible]									
[illegible]	X		[illegible]	"		[illegible]	1	[illegible]									
[illegible]	X		"	"		[illegible]	1	[illegible]									
[illegible]	X		"			"	1	[illegible]									
[illegible]	X		"			"	1	[illegible]									
[illegible]	X		"	"		"	1	[illegible]									
[illegible]	X		"	"		"	1	[illegible]									
[illegible]	X		"	"		"	1	[illegible]									
[illegible]	X		"	"		"	1	[illegible]									
[illegible]	X		"	"		"	1	[illegible]									
[illegible]	X		"	"		"	1	[illegible]									
[illegible]	X		"	"		"	1	[illegible]									
[illegible]	X		"	"		"	1	[illegible]									
Trip Blank																	

TURNAROUND TIME REQUESTED: Normal

REMARKS:

SHIPPED BY:

UPS: _____ CLIENT VEHICLE: X

FEDX: _____ LAB VEHICLE: _____

OTHER: _____

RELINQUISHED BY:	RECEIVED BY:	DATE:	TIME:	REASON:	RELINQUISHED TO LABORATORY BY:	ACCEPTED FOR LAB BY:	DATE:	TIME:
					[illegible]	[illegible]	[illegible]	
					LABORATORY COMMENTS:			

ORIGINAL - REMAINS WITH SAMPLE CANARY - CLIENT COPY