US EPA RECORDS CENTER REGION 5
518525

SAMPLE DESCRIPTION

SITE NAME/TDD# Spartan Stgn. Asphalt Company / F05-8901-013

CASE NUMBER 13001

SAMPLE #/STATION LOCATION MW1 / Monitoring Well MW1

SAMPLING DATE 10/25/89 SAMPLING TIME 1030

ORGANIC TRAFFIC NUMBER E-GN55

INORGANIC TRAFFIC NUMBER MEGL23

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
1 L Plastic	Metals	5-060479	C9209053
1 L Plastic	Cyanide	5-060480	C9209053
80 oz Amber	GC/MS/PP/Pest.	5-060481	A9193043
80 oz Amber	GC/MS/PP/Pest.	5-060482	A9193043
40 ml Glass	VOA	5-060483	B7321324
40 ml Glass	VOA	5-060484	B7321324

PHYSICAL DESCRIPTION AT TIME OF COLLECTION:

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT:

INSTRUMENT READINGS

pH

CONDUCTIVITY

TEMPERATURE

SAMPLE DESCRIPTION

SITE NAME/TDD# Spartan Sign Asphalt Company / F05-8901-013

CASE NUMBER 13001

SAMPLE #/STATION LOCATION MWBLK / Monitoring Well MWBLK (Blank)

SAMPLING DATE 10/25/89 SAMPLING TIME 1000

ORGANIC TRAFFIC NUMBER E-GN61

INORGANIC TRAFFIC NUMBER MEGL29

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
1 L Plastic	Metals	5-060515	C9209053
1 L Plastic	Cyanide	5-060516	C9209053
80 oz Amber	GC/MS/PP/Pest.	5-060517	A9193043
80 oz Amber	GC/MS/PP/Pest.	5-060518	A9193043
40 ml Glass	VOA	5-060519	B7321324
40 ml Glass	VOA	5-060520	B7321324

PHYSICAL DESCRIPTION AT TIME OF COLLECTION:

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT:

INSTRUMENT READINGS

pH

CONDUCTIVITY

TEMPERATURE

SAMPLE DESCRIPTION

SITE NAME/TDD# Spartan Sign Asphalt Company / F05-8901-013

CASE NUMBER 13001

SAMPLE #/STATION LOCATION MWDUP / Monitoring Well MWDUP (Same as MW1)

SAMPLING DATE 10/25/89 SAMPLING TIME 1030

ORGANIC TRAFFIC NUMBER E-GN55

INORGANIC TRAFFIC NUMBER MEGL23

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
1 L Plastic	Metals	5-060521	C9209053
1 L Plastic	Cyanide	5-060522	C9209053
80 oz Amber	GC/MS/PP/Pest.	5-060523	A9193043
80 oz Amber	GC/MS/PP/Pest.	5-060524	A9193043
40 ml Glass	VOA	5-060525	B7321324
40 ml Glass	VOA	5-060526	B7321324

PHYSICAL DESCRIPTION AT TIME OF COLLECTION:

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT:

INSTRUMENT READINGS

pH

CONDUCTIVITY

TEMPERATURE

SAMPLE DESCRIPTION

SITE NAME/TDD# Spartan Sigh Asphalt Company / F05-8901-013

CASE NUMBER 13001

SAMPLE #/STATION LOCATION MWMSD / Monitoring Well MWMSD (Matrix Spike Duplicate)

~~(Same as MW2)~~ MJF 10/25/89 (Same as MW1)

SAMPLING DATE 10/25/89 SAMPLING TIME 1030

ORGANIC TRAFFIC NUMBER E-GN ~~56~~ 55 MJF 10/25/89

~~INORGANIC TRAFFIC NUMBER~~ ~~MEGL~~

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
80 oz Amber	GC/MS/PP/Pest.	5-060527	A9193043
80 oz Amber	GC/MS/PP/Pest.	5-060528	A9193043
40 ml Glass	VOA	5-060529	B7321324
40 ml Glass	VOA	5-060530	B7321324
40 ml Glass	VOA	5-060531	B7321324
40 ml Glass	VOA	5-060532	B7321324

PHYSICAL DESCRIPTION AT TIME OF COLLECTION:

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT:

INSTRUMENT READINGS

pH

CONDUCTIVITY

TEMPERATURE

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

REGION 5
230 South Dearborn Street
Chicago, Illinois 60604

CHAIN OF CUSTODY RECORD

PROJ. NO.: FOS 8901 013

PROJECT NAME: FMI 067745A/13001/MID005337092

SAMPLERS: (Signature) M Michael J. Fitter

Cooler # 155 ~~17~~ MJF 10/25/89

REMARKS: Low Concentration

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	80 oz GC/MS/PP/Pest.	40 ml VOA					Tag Numbers:	Matrix:
MW1	10/25/89	1030		✓	MW1	4	2	2					5-060481 -- 5-060484	water
MWDUP	10/25/89	1030		✓	MWDUP	4	2	2					5-060523 - - 5-060526	water
MWBLK	10/25/89	1000		✓	MWBLK	4	2	2					5-060517 -- 5-060520	water
MWMSD	10/25/89	1030		✓	MWMSD	6	2	4					5-060527 -- 5-060532	water

Lot Numbers:
80 oz: A9193043
40 ml: B9321324

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
M Michael J. Fitter	10/25/89 1500				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	
				Shipped via Federal Express to CLAYTON Airbill # : 9071160372 Custody Seals: 163388 and 163389	

Distribution: White — Accompanies Shipment; Pink — Coordinator Field Files; Yellow — Laboratory File

5- 02130

United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

EPA

Organic Traffic Report
(For CLP Use Only)

Case Number: 13001
SAS No. (if applicable):

1. Type of Activity (Check one): ENF, NPLD, RA, ✓ SI, STSI, ER, O&M, RD, ST, Other (Specify), ESI, PA, RIFS, STPA

Non-Superfund Program:

Site Name: Spartan Sign Asphalt Company

City, State: Holt, Michigan

Site Spill ID:

2. Region Number: V
Sampling Co.: FIT
Sampler (Name): Michael J. Feltes

3. Ship To: CLAYTON
22345 Rochell Drive
Novi, MI 48050
Attn.: Debbie Brozeski

4. Date Shipped: 10/25/89
Airbill Number: 9071160372
Carrier: Federal Express

Triple volume required for matrix spike/duplicate aqueous sample.
Ship medium and high concentration samples in paint cans.
See reverse for additional instructions.

5. Sample Description (Enter in Column A)
1. Surface Water
2. Ground Water
3. Leachate
4. Rinsate
5. Soil/Sediment
6. Oil (SAS)
7. Waste (SAS)
8. Other (SAS) (Specify)

CLP Sample Number (From labels)	(A) Sample Description (From box 1)	(B) Concentration L=low M=med H=high	(C) RAS Analysis VOA	BNA	Pest/PCB	(D) Special Handling	(E) Station Location	(F) Date/Time of Sample Collection	(G) Corresponding CLP Inorganic Sample Number
EGN55	2	L	✓	✓	✓				MEGL 23
~~EGN56~~	~~2~~	~~L~~	~~✓~~	~~✓~~	~~✓~~				~~MEGL 24~~ MJF 10/25/89
~~EGN57~~	~~2~~	~~L~~	~~✓~~	~~✓~~	~~✓~~				~~MEGL 26~~ MJF 10/25/89
~~EGN58~~	~~2~~	~~L~~	~~✓~~	~~✓~~	~~✓~~				~~MEGL 26~~ MJF 10/25/89
EGN 61	3	L	✓	✓	✓	Blank			MEGL 29
~~EGN60~~									~~MEGL 28~~ MJF 10/25/89

EPA Form 9110-2 (8-88) Replaces EPA Form 2075-7, which may be used. Blue - SMO Copy Pink - Region Copy White - Lab Copy for Return to SMO Yellow - Lab Copy

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

REGION 5
230 South Dearborn Street
Chicago, Illinois 60604

CHAIN OF CUSTODY RECORD

PROJ. NO.: F05 8701 013

PROJECT NAME: FMI06745A / 13001 / MID005337092

SAMPLERS: (Signature) Michael J. Fitter

Cooler # 142

REMARKS: Low Concentration

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	1 L Plastic Metals	1 L Plastic Cyanide					Tag Numbers	Matrix:
MW1	10/25/89	1030		✓	MW1	2	1	1					5-060479 - - 5-060480	water
~~MW2~~	~~10/25/89~~			✓	~~MW2~~	~~2~~	~~1~~	~~1~~					~~5-060485 - - 5-060486~~ MJF 10/25/89	~~water~~
~~MW3~~	~~10/25/89~~			✓	~~MW3~~	~~2~~	~~1~~	~~1~~					~~5-060491 - - 5-060492~~ MJF 10/25/89	~~water~~
~~MW4~~	~~10/25/89~~			✓	~~MW4~~	~~2~~	~~1~~	~~1~~					~~5-060497 - 5-060498~~ MJF 10/25/89	~~water~~
MWBLK	10/25/89	1000		✓	MWBLK	2	1	1					5-060515 - - 5-060516	water
MWDUP	10/25/89	1030		✓	MWDUP	2	1	1					5-060521 - - 5-060522	water

Lot Numbers:
1 L Plastic: C9209053

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Michael J. Fitter	10/25/89 1500				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	
				Shipped via Federal Express to DataChem Airbill #: 9071160383 Custody Seals: 163394 and 163395	

Distribution: White — Accompanies Shipment; Pink — Coordinator Field Files; Yellow — Laboratory File

5- 02133

United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

EPA

Inorganic Traffic Report
(For CLP Use Only)

Case Number: 13001

SAS No. (if applicable):

1. Type of Activity (Check one): ENF, NPLD, RA, ✓ SI, STSI, ER, O&M, RD, ST, Other (Specify), ESI, PA, RIFS, STPA

Non-Superfund Program

Site Name: Spartan Stgn Asphalt Company

City, State: Holt, Michigan

Site Spill ID:

2. Region Number: V

Sampling Co.: FIT

Sampler (Name): Michael J. Feltes

3. Ship To: Data Chem
960 West LeVoy Drive
Salt Lake City, UT 84123
Attn: Lee Harris

4. Date Shipped: 10/25/89

Airbill Number: 9071160383

Carrier: Federal Express

Double volume required for matrix spike/duplicate aqueous sample.

Ship medium and high concentration samples in paint cans.

See reverse for additional instructions.

5. Sample Description (Enter in Column A)
1. Surface Water
2. Ground Water
3. Leachate
4. Rinsate
5. Soil/Sediment
6. Oil (SAS)
7. Waste (SAS)
8. Other (SAS) (Specify)

CLP Sample Number (From labels)	(A) Sample Description (From box 1)	(B) Concentration L=low M=med H=high	(C) RAS Analysis: Total Metals	(C) RAS Analysis: Cyanide	(D) Special Handling	(E) Station Location	(F) Date/Time of Sample Collection	(G) Corresponding Organic Sample Number
MEGL 23	2	L	✓	✓				EGN 55
~~MEGL 24~~	~~2~~	~~L~~	~~✓~~	~~✓~~				~~EGN 56~~ MJF 10/29/89
~~MEGL 25~~	~~2~~	~~L~~	~~✓~~	~~✓~~				~~EGN 57~~ MJF 10/29/89
~~MEGL 26~~	~~2~~	~~L~~	~~✓~~	~~✓~~				~~EGN 58~~ MJF 10/29/89
MEGL 29	3	L	✓	✓	Blank			EGN 61

EPA Form 9110-1 (8-88) Replaces EPA Form 2075-6, which may be used. Green - SMO Copy Pink - Region Copy White - Lab Copy for Return to SMO Yellow - Lab Copy

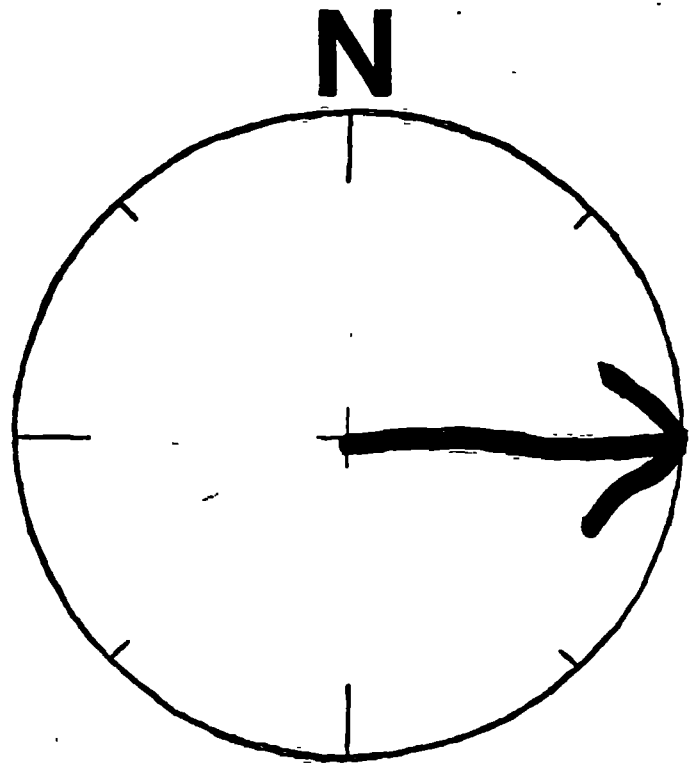
SITE F05-8901-013

CITY Holt STATE MI

SAMPLE MW1

DATE 10/25/89

TIME 1030



FEDERAL EXPRESS

AIRBILL

USE THIS AIRBILL FOR DOMESTIC SHIPMENTS WITHIN THE CONTINENTAL U.S.A., ALASKA AND HAWAII.
USE THE INTERNATIONAL AIR AIRBILL FOR SHIPMENTS TO PUERTO RICO.
QUESTIONS? CALL 800-238-5355 TOLL FREE.

PACKAGE TRACKING NUMBER [redacted] 1160 [redacted]

SENDER'S COPY

Sender's Federal Express Account Number: 0605-6243-2
Date: 6/24/93

1 From (Your Name) Please Print: [illegible]
Your Phone Number (Very Important): (312) 663-9415
Company: Ecology & Environment, Inc.
Department/Floor No.:
Street Address: 5634 N. NW HWY
City: Chicago State: IL ZIP Required: 60646

2 To (Recipient's Name) Please Print: Debbie [illegible]
Recipient's Phone Number (Very Important): (313) 344-1770
Company: Clayton Group Services
Department/Floor No.:
Exact Street Address (We Cannot Deliver to P.O. Boxes or P.O. Zip Codes.): 22345 Sheldon Drive
City: Novi State: MI ZIP Required: 48050

3 YOUR BILLING REFERENCE INFORMATION (FIRST 24 CHARACTERS WILL APPEAR ON INVOICE.): FMI0674 [illegible] FT1303

4 IF HOLD FOR PICK-UP, Print FEDEX Address Here
Street (Address): [illegible]
City: State: ZIP Required:

PAYMENT: ☐ Bill Sender ☐ Bill Recipient's FedEx Acct. No. ☒ Bill 3rd Party FedEx Acct. No. ☐ Bill Credit Card ☐ Cash
[illegible] 7751-4

5 SERVICES (CHECK ONE BOX ONLY)

1 ☒ PRIORITY 1 ☐ 6 ☐ OVERNIGHT LETTER
2 ☐ COURIER-PAK OVERNIGHT ENVELOPE ☐ 7 ☐
3 ☐ OVERNIGHT BOX ☐ 8 ☐
4 ☐ OVERNIGHT TUBE ☐ 9 ☐
5 ☐ STANDARD AIR Delivery not later than second business day ☐ 10 ☐
* Declared Value Limit $100.

DELIVERY AND SPECIAL HANDLING
☐ HOLD FOR PICK-UP
☒ DELIVER WEEKDAY
☐ DELIVER SATURDAY
☐ DANGEROUS GOODS
☐ CONSTANT SURVEILLANCE SERVICE (CSS)
☐ DRY ICE
☐ OTHER SPECIAL SERVICE
☐ SATURDAY PICK-UP
☐ HOLIDAY DELIVERY

PACKAGES	WEIGHT	FOR DECLARED VALUE (See right)	PIECE SIZE
1	LBS		
	LBS		
	LBS		
	LBS		
Total 1	Total 1	Total	

Received At: 1 ☐ Regular Stop 2 ☐ On-Call Stop 3 ☐ Drop Box 4 ☐ B.S.C. 5 ☐ Station
FEDEX Corp. Employee No.:
Date/Time for FEDEX Use: 1154 133

SERVICE CONDITIONS, DECLARED VALUE AND LIMIT OF LIABILITY

Use of this airbill constitutes your agreement to the service conditions in our current Service Guide which is available upon request. See back of sender's copy of this airbill for further information.
We will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay or non-delivery, unless you specify a higher amount in the space to the left, pay 40¢ per additional $100 specified and document your actual loss in the event of a claim. Maximum amount limitations found in the current Federal Express Service Guide apply. Your rights to recover from Federal Express for loss of the intrinsic value of the package, as well as for loss of sales, income, interest, profit, attorneys fees, costs and any other form of damage whether direct, incidental, consequential or special is limited to the greater of $100 or the declared value specified to the left. In no event shall your recovery exceed your actual loss. In the event of Internal Delivery, Federal Express will at your request and with some limitations, refund all transportation charges paid. See Service Guide for further information.

6 Sender authorizes Federal Express to deliver this shipment without obtaining a delivery signature and shall indemnify and hold harmless Federal Express from any claims resulting therefrom.
Release Signature:

Federal Express Use
Base Charges
Declared Value Charge
Other 1
Other 2
Total Charges

PART #112800 REVISION DATE 1/88 PRINTED IN U.S.A. NCREC 009 © 1988 FEC

SENDER'S COPY

FEDERAL EXPRESS

AIRBILL

USE THIS AIRBILL FOR DOMESTIC SHIPMENTS WITHIN THE CONTINENTAL U.S.A., ALASKA AND HAWAII.
USE THE INTERNATIONAL AIR WAYBILL FOR SHIPMENTS TO PUERTO RICO.
QUESTIONS? CALL 800-238-5355 TOLL FREE.

PACKAGE TRACKING NUMBER [redacted]1160[redacted]

[redacted]1160[redacted]

SENDER'S COPY

Sender's Federal Express Account Number: [illegible]
Date: [illegible]

1 From (Your Name) Please Print: [illegible]
Your Phone Number (Very Important): (773) 363-9415
Company: Ecology [illegible] Consultant, Inc.
Department/Floor No.:
Street Address: 5634 No [illegible]
City: Chicago State: IL ZIP Required: 60646

2 To (Recipient's Name) Please Print: L [illegible] Pereira
Recipient's Phone Number (Very Important): (801) 266-7700
Company: [illegible]
Department/Floor No.:
Exact Street Address (We Cannot Deliver to P.O. Boxes or P.O. Zip Codes): 960 [illegible] LeVoy Drive
City: Salt Lake City State: UT ZIP Required: 84123

3 YOUR BILLING REFERENCE INFORMATION (FIRST 24 CHARACTERS WILL APPEAR ON INVOICE.)
FMZ06[illegible]5A23V FT1395

PAYMENT ☐ Bill Sender ☐ Bill Recipient's FedEx Acct. No. ☒ Bill 3rd Party FedEx Acct. No. ☐ Bill Credit Card ☐ Cash
[illegible]6229[illegible]721-4

4 H HOLD FOR PICK-UP, Print FEDEX Address Here
Street Address:
City State ZIP Required

SERVICES	DELIVERY AND SPECIAL HANDLING	PACKAGES	WEIGHT	VALUE DECLARED VALUE (See right)	OVER SIZE
1 ☒ PRIORITY 1 Overnight Delivery; 6 ☐ OVERNIGHT LETTER	1 ☐ HOLD FOR PICK-UP	1	LBS		
2 ☐ COURIER-PAK OVERNIGHT ENVELOPE; 7 ☐	2 ☒ DELIVER WEEKDAY		LBS		
3 ☐ OVERNIGHT BOX; 8 ☐	3 DELIVER SATURDAY		LBS		
4 ☐ OVERNIGHT TUBE; 9 ☐	4 ☐ DANGEROUS GOODS		LBS		
	5 ☐ CONSTANT SURVEILLANCE SERVICE (CSS)	Total	Total	Total	
	6 ☐ DRY ICE				
5 ☐ STANDARD AIR Delivery not later than second business day; 10 ☐	7 ☐ OTHER SPECIAL SERVICE				
	8 ☐				
	9 ☐ SATURDAY PICK-UP				
	10 ☐				
	11 ☐				
	12 ☒ SUNDAY DELIVERY				

*Declared Value Limit $100.

Received At: 1 ☐ Regular Stop 2 ☐ On-Call Stop 3 ☐ 4 ☐ 5 ☐ Drop Box B.S.C. Station
FEDEX Corp. Employee No.:
Date/Time for FEDEX Use: 10/24/1[illegible]

SERVICE CONDITIONS, DECLARED VALUE AND LIMIT OF LIABILITY

Use of this airbill constitutes your agreement to the service conditions in our current Service Guide which is available upon request. See back of sender's copy of this airbill for further information.

We will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay or non-delivery, unless you specify a higher amount in the space to the left, pay 40¢ per additional $100 specified and document your actual loss in the event of a claim. Maximum amount limitations found in the current Federal Express Service Guide apply. Your rights to recover from Federal Express for loss of the intrinsic value of the package, as well as for loss of sales, income, interest, profit, attorney's fees, costs and any other form of damage whether direct, incidental, consequential or special is limited to the greater of $100 or the declared value specified at the left. In no event shall your recovery exceed your actual loss. [illegible] Federal Express will at your request and with some limitations, refund all transportation charges paid. See Service Guide for further information.

6 Sender authorizes Federal Express to deliver this shipment without obtaining a delivery signature and shall indemnify and hold harmless Federal Express from any claims resulting therefrom.

Recipient Signature:

Federal Express Use
Base Charges $
Declared Value Charge
Other 1
Other 2
Total Charges

PART #111820 Revised Rev 1/95 PRINTED IN U.S.A. MCREC
009
© 1994 F.E.C.

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[illegible]

SAMPLE DESCRIPTION

SITE NAME/TDD# Spartan Sign Asphalt Company / F05-8901-013

CASE NUMBER 13001

SAMPLE #/STATION LOCATION S1 / Soil Sample S1

SAMPLING DATE 10/24/89 SAMPLING TIME 1200

ORGANIC TRAFFIC NUMBER E-GN 48

INORGANIC TRAFFIC NUMBER MEGL 16

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
8 oz	GC/MS/PP/Pest.	5-060451	F8166014
4 oz (120 ml)	VOA	5-060452	D9033084
4 oz (120 ml)	VOA	5-060453	D9033084
8 oz	Metals/Cyanide	5-060454	F8166014

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: Black Muck

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT:

INSTRUMENT READINGS

pH

CONDUCTIVITY

TEMPERATURE

SAMPLE DESCRIPTION

SITE NAME/TDD# Spartan Sign Asphalt Company / F05-8901-013

CASE NUMBER 13001

SAMPLE #/STATION LOCATION S2 / Soil Sample S2

SAMPLING DATE 10/24/89 SAMPLING TIME 1210

ORGANIC TRAFFIC NUMBER E-GN 49

INORGANIC TRAFFIC NUMBER MEGL 17

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
8 oz	GC/MS/PP/Pest.	5-060455	F8166014
4 oz (120 ml)	VOA	5-060456	D9033084
4 oz (120 ml)	VOA	5-060457	D9033084
8 oz	Metals/Cyanide	5-060458	F8166014

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: Brown Muck

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT:

INSTRUMENT READINGS

pH

CONDUCTIVITY

TEMPERATURE

SAMPLE DESCRIPTION

SITE NAME/TDD# Spartan Sign Asphalt Company / F05-8901-013

CASE NUMBER 13001

SAMPLE #/STATION LOCATION S3 / Soil Sample S3

SAMPLING DATE 10/24/89 SAMPLING TIME 1220

ORGANIC TRAFFIC NUMBER E-GN50

INORGANIC TRAFFIC NUMBER MEGL18

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
8 oz	GC/MS/PP/Pest.	5-060459	F8166014
4 oz (120 ml)	VOA	5-060460	D9033084
4 oz (120 ml)	VOA	5-060461	D9033084
8 oz	Metals/Cyanide	5-060462	F8166014

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: Black Sand

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT:

INSTRUMENT READINGS

pH

CONDUCTIVITY

TEMPERATURE

SAMPLE DESCRIPTION

SITE NAME/TDD# Spartan Srgn Asphalt Company / F05-8901-013

CASE NUMBER 13001

SAMPLE #/STATION LOCATION S4 / Soil Sample S4

SAMPLING DATE 10/24/89 SAMPLING TIME 1230

ORGANIC TRAFFIC NUMBER E-GN51

INORGANIC TRAFFIC NUMBER MEGL19

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
8 oz	GC/MS/PP/Pest.	5-060463	F8166014
4 oz (120 ml)	VOA	5-060464	D9033084
4 oz (120 ml)	VOA	5-060465	D9033084
8 oz	Metals/Cyanide	5-060466	F8166014

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: Brown Sand

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT:

INSTRUMENT READINGS

pH

CONDUCTIVITY

TEMPERATURE

SAMPLE DESCRIPTION

SITE NAME/TDD# Spartan Sign Asphalt Company / F05-8901-013

CASE NUMBER 13001

SAMPLE #/STATION LOCATION S5 / Soil Sample S5

SAMPLING DATE 10/24/89 SAMPLING TIME 1315

ORGANIC TRAFFIC NUMBER E-GN52

INORGANIC TRAFFIC NUMBER MEGL20

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
8 oz	GC/MS/PP/Pest.	5-060467	F8166014
4 oz (120 ml)	VOA	5-060468	D9033084
4 oz (120 ml)	VOA	5-060469	D9033084
8 oz	Metals/Cyanide	5-060470	F8166014

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: Brown Sand

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT:

INSTRUMENT READINGS

pH

CONDUCTIVITY

TEMPERATURE

SAMPLE DESCRIPTION

SITE NAME/TDD# Spartan Sign Asphalt Company / F05-8901-013

CASE NUMBER 13001

SAMPLE #/STATION LOCATION S6 / Soil Sample S6
(Background Sample Location)

SAMPLING DATE 10/24/89 SAMPLING TIME 1300

ORGANIC TRAFFIC NUMBER E-GN53

INORGANIC TRAFFIC NUMBER MEGL21

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
8 oz	GC/MS/PP/Pest.	5-060471	F8166014
4 oz (120 ml)	VOA	5-060472	D9033084
4 oz (120 ml)	VOA	5-060473	D9033084
8 oz	Metals/Cyanide	5-060474	F8166014

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: Black Sand

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT:

INSTRUMENT READINGS

pH

CONDUCTIVITY

TEMPERATURE

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

REGION 5
230 South Dearborn Street
Chicago, Illinois 60604

CHAIN OF CUSTODY RECORD

PROJ. NO.: F05 890 013
PROJECT NAME: FMI067745A/13001/MID005337092
SAMPLERS (Signature): Michael J. Fiala
Cooler # 17

STA. NO. (STR #)	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	8 oz Extractable	4 oz (120 ml) VOA					REMARKS Low Concentration Tag Numbers	Matrix
EGN48	10/24/89	1200		✓	Soil 1	3	1	2					5-060451 -- 5-060453	Soil
EGN49	10/24/89	1210		✓	Soil 2	3	1	2					5-060455 -- 5-060457	Soil
EGN50	10/24/89	1220		✓	Soil 3	3	1	2					5-060459 -- 5-060461	Soil
EGN51	10/24/89	1230		✓	Soil 4	3	1	2					5-060463 -- 5-060465	Soil
EGN52	10/24/89	1315		✓	Soil 5	3	1	2					5-060467 -- 5-060469	Soil
EGN53	10/24/89	1300		✓	Soil 6	3	1	2					5-060471 -- 5-060473	Soil
~~EGN54~~	~~10/24/89~~			~~✓~~	~~Soil 7~~	~~3~~	~~1~~	~~2~~					~~5-060475 -- 5-060477~~ MJF 10/24/89	~~Soil~~

MJF 10/24/89

Lot Numbers:
4 oz (120 ml): D9033084
8 oz: F8166014

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Michael J. Fiala	10/24/89 1500				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	
				Shipped via Federal Express to CLAYTON Airbill #: 9071160350 Custody Seals: 163384 and 163385	

Distribution: White — Accompanies Shipment; Pink — Coordinator Field Files; Yellow — Laboratory File

5- 02128

EPA

United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

Organic Traffic Report
(For CLP Use Only)

Case Number: 13001

SAS No. (if applicable):

1. Type of Activity (Check one): ENF, NPLD, RA, ✓ SI, STSI, EF, O&M, RD, ST, Other (Specify), ESI, PA, RIFS, STPA

2. Region Number: I

Sampling Co.: FIT

Sampler (Name): Michael J. Fetter

4. Date Shipped: 10/24/89

Airbill Number: 9091160350

Carrier: Federal Express

5. Sample Description (Enter in Column A)
1. Surface Water
2. Ground Water
3. Leachate
4. Rinsate
5. Soil/Sediment
6. Oil (RAS)
7. Waste (SAS)
8. Other (SAS) (Specify)

Non-Superfund Program

Site Name: Spartan Sign Asphalt Company

City, State: Holt, Michigan

Site Spill ID:

3. Ship To:
CLAYTON
22345 Rochel Drive
Novi, MI 48050
Attn.: Debbie Brezoster

Triple volume required for matrix spike/duplicate aqueous sample.

Ship medium and high concentration samples in paint cans.

See reverse for additional instructions.

CLP Sample Number (From labels)	(A) Sample Description (From box 1)	(B) Concentration L=low M=med H=high	(C) RAS Analysis VOA	BNA	Pest/PCB	(D) Special Handling	(E) Station Location	(F) Date/Time of Sample Collection	(G) Corresponding CLP Inorganic Sample Number
EGN 48	5	L	✓	✓	✓				MEGL16
EGN 49	5	L	✓	✓	✓				MEGL17
EGN 50	5	L	✓	✓	✓				MEGL18
EGN 51	5	L	✓	✓	✓				MEGL19
EGN 52	5	L	✓	✓	✓				MEGL20
EGN 53	5	L	✓	✓	✓				MEGL21
EGN 54	5	L	✓	✓	✓				MEGL22

MJF 10/24/89

MJF 10/24/89

EPA Form 9110-2 (8-88) Replaces EPA Form 2075-7, which may be used. Blue - SMO Copy Pink - Region Copy White - Lab Copy for Return to SMO Yellow - Lab Copy

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

REGION 5
230 South Dearborn Street
Chicago, Illinois 60604

CHAIN OF CUSTODY RECORD

PROJ. NO.: FOS 8701 013

PROJECT NAME: FMI 067745A / 13001 / MID005337092

SAMPLERS: (Signature) Michael J. Fritton

Cooler # 55

REMARKS: Low Concentration

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	8 oz Metals/Cyanide						Tag Numbers	Matrix
MEGL16	10/24/89	1200		✓	Soil 1	1	1						5-060454	Soil
MEGL17	10/24/89	1210		✓	Soil 2	1	1						5-060458	Soil
MEGL18	10/24/89	1220		✓	Soil 3	1	1						5-060462	Soil
MEGL19	10/24/89	1230		✓	Soil 4	1	1						5-060466	Soil
MEGL20	10/24/89	1315		✓	Soil 5	1	1						5-060470	Soil
MEGL21	10/24/89	1300		✓	Soil 6	1	1						5-060474	Soil
~~MEGL22~~	~~10/24/89~~			~~✓~~	~~Soil 7~~	~~1~~	~~1~~						~~5-060478~~	~~Soil~~

MJF 10/24/89 — MJF 10/24/89

Lot Numbers:
8 oz : F8166014

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Michael J. Fritton	10/24/89 1900				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks: Shipped via Federal Express to DATACHEM Airbill # 9071160361 Custody Seals: 163386 and 163389	

Distribution: White — Accompanies Shipment; Pink — Coordinator Field Files; Yellow — Laboratory File

5- 02129

United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

EPA

Inorganic Traffic Report
(For CLP Use Only)

Case Number: 13001

SAS No. (if applicable):

1. Type of Activity (Check one): ENF, NPLD, RA, ✓ SI, STSI, ER, O&M, RD, ST, Other (Specify), ESI, PA, RIFS, STPA

2. Region Number: V

Sampling Co.: FIT

4. Date Shipped: 10/24/89

Airbill Number: 9071160361

Sampler (Name): Michael J. Feltz

Carrier: Federal Express

5. Sample Description (Enter in Column A)
1. Surface Water
2. Ground Water
3. Leachate
4. Rinsate
5. Soil/Sediment
6. Oil (SAS)
7. Waste (SAS)
8. Other (SAS) (Specify)

Non-Superfund Program

Site Name: Spartan Sign Asphalt Company

City, State: Holt, Michigan

Site Spill ID

3. Ship To: DATACHEM
960 West Levoy Drive
Salt Lake City, UT 84123
Attn: Lee Harris

Double volume required for matrix spike/duplicate aqueous sample.

Ship medium and high concentration samples in paint cans.

See reverse for additional instructions.

CLP Sample Number (From labels)	(A) Sample Description (From box 1)	(B) Concentration L=low M=med H=high	(C) BAS Analysis: Total Metals	(C) BAS Analysis: Cyanide	(D) Special Handling	(E) Station Location	(F) Date/Time of Sample Collection	(G) Corresponding Organic Sample Number
MEGL 16	5	L	✓	✓				EGN 48
MEGL 17	5	L	✓	✓				EGN 49
MEGL 18	5	L	✓	✓				EGN 50
MEGL 19	5	L	✓	✓				EGN 51
MEGL 20	5	L	✓	✓				EGN 52
MEGL 21	5	L	✓	✓				EGN 53
MEGL 22	5	L	✓	✓				EGN 54

MJF 10/24/89

MJF 10/24/89

EPA Form 9110-1 (8-88) Replaces EPA Form 2075-6, which may be used. Green - SMO Copy Pink - Region Copy White - Lab Copy for Return to SMO Yellow - Lab Copy

ecology and environment, inc.

111 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60604, TEL. 312-663-9415

International Specialists in the Environment

CRL Receipt Date 11/30 FIT Receipt Date 12/14 Review Completed 1/11/90

TO: Wagner

FROM: Mary Gzyra

SUBJECT: Sparton Sign Asphalt

PAN: MI0674SA (1 hour charged for review) Case # 13001

Sample Description

Organics (VOA, ABN, Pest/PCB)		Inorganics (Metals, Cyanide)	
# 6	Low Soil	#	Low Soil
3	Low Water		Low Water
	Drinking Water		Drinking Water
	Other		Other

Project Data Status _____ Completed!!

✓ Incomplete, awaiting Soil & water Moisture

FIT Data Review Findings:

Check Data Sheets for Transcription Errors

_____ Compounds were detected in sample(s); see enclosed sheet.

Book No. 9 Page No. _____ Date Sampled 10/24/85

0759:2

recycled paper

Table 4-__
RESULTS OF CHEMICAL ANALYSIS OF
FIT-COLLECTED _____ SAMPLES

Zf 1/11/90

Soils — Waters

Physical State*	Waste Characteristics**	Category***	SI Memo	Sample Collection Information and Parameters / Compound Detected (values in µg/L or µg/kg)	1	2	3	4	5	6	7	8	9	10	11	12
																BLK
				Date												
				Time												
				Well Depth (Feet)												
				CRL Log Number										EGN 55	EGP 22	EGN 61
				CLP Organic Traffic Report Number	EGN 48	49	50	51	52	53						
				CLP Inorganic Traffic Report Number												
				Temperature (°C)												
				Specific Conductivity (µmhos/cm)												
				pH												
				Volatile Organics												
Gas	A,D,G,I	OCC	HH	chloromethane												
Gas	A,D,G,I	OCC	HH	bromomethane												
Gas	A,D,G,I	OCC	HH	vinyl chloride												
Gas	A,D,G,I	OCC	HH	chloroethane												
Liquid	A,D,H,I	SOL	HH,CLA	methylene chloride												
Liquid	E,H,I,A	SOL	K,CLA	acetone												
Liquid	A,H,I	SOL	SH	carbon disulfide												
Liquid	A,D,G,I	SOL	HH	1,1-dichloroethene												
Liquid	A,D,H,G	SOL	HH	1,1-dichloroethane												
Liquid	A,D,G	SOL	HH	1,2-dichloroethene (total)												
Liquid	A,D	SOL	HH	chloroform												2 J
Liquid	A,D,G	SOL	HH	1,2-dichloroethane												
Liquid	A,E,G	SOL	K,CLA	2-butanone (MEK)												
Liquid	A,D	SOL	HH	1,1,1-trichloroethane												
Liquid	A,D	SOL	HH	carbon tetrachloride												
Liquid	A,D,G	SOL	HYD	vinyl acetate												
Liquid	A,D	OCC	HH	bromodichloromethane												
Liquid	A,D,G	SOL	HH	1,2-dichloropropane												
Liquid	A,D,G	SOL	HH	cis-1,3-dichloropropene												
Liquid	A,D,G,B	SOL	HH	trichloroethene												
Liquid	A,D	OCC	HH	dibromochloromethane												
Liquid	A,D	SOL	HH	1,1,2-trichloroethane												
Liquid	A,G	SOL	A	benzene												
Liquid	A,D,G	SOL	HH	trans-1,3-dichloropropene												
Liquid	A,D	SOL	HH,CLA	bromoform												
Liquid	A,E,G	SOL	K,CLA	4-methyl-2-pentanone												
Liquid	A,E,G	SOL	K	2-hexanone												
Liquid	A,D	SOL	HH	tetrachloroethene												
Liquid	A,G,E	SOL	A,CLA	toluene					7	11						
Liquid	A,D,E	SOL	HH	1,1,2,2-tetrachloroethane												
Liquid	A,D,G	SOL	HA	chlorobenzene												
Liquid	A,G	SOL	A	ethylbenzene												
Liquid	A,D,G	OCC	A	styrene												
Liquid	A,G	SOL	A	xylenes (total)												

Table 4- (Cont.)

Physical State*	Waste Characteristics**	Category***	SI Memo	Sample Collection Information and Parameters	Sample Number ___1	___2	___3	___4	___5	___6	___7	___8	___9	___10	___11	___12
				Semivolatile Organics												
S, thick l	A,B,E	OCC	P	phenol												
Liquid	A,D,B	OCC	HH	bis(2-chloroethyl)ether												
Liquid	A,D,B	OCC	P	2-chlorophenol												
Liquid	A,D,H	SOL	HA	1,3-dichlorobenzene												
Solid	A,D,H	OCC	HA	1,4-dichlorobenzene												
Liquid	A,D,H	SOL	A	benzyl alcohol												
Liquid	A,D,H	OCC	HA	1,2-dichlorobenzene												
Liquid	A,B	OCC	P	2-methylphenol												
	A,D	OCC	HH	bis(2-chloroisopropyl)ether												
Liquid	A,B	OCC	P	4-methylphenol												
	A	OCC	H-Amine	n-nitroso-di-n-dipropylamine												
Solid	A,D	OCC	HH	hexachloroethane												
Liquid	A,D	OCC	NA	nitrobenzene												
Liquid	A,D	OCC	H	isophorone												
Solid	A,D	OCC	P	2-nitrophenol												
Solid	A,B	OCC	P	2,4-dimethylphenol												
Solid	A	OCC	A	benzoic acid												
	A,D	OCC	HH	bis(2-chloroethoxy)methane												
Liquid	A,D	OCC	P	2,4-dichlorophenol												
Liquid	A,D	OCC	HA	1,2,4-trichlorobenzene												
Solid	A	OCC	PAH	naphthalene												
Solid	A,D	OCC	HH	4-chloroaniline												
Liquid	A,D,B	OCC	HH	hexachlorobutadiene												
Solid	A,D	OCC	P	4-chloro-3-methylphenol												
Liquid	A,D	OCC	PAH	2-methylnaphthalene												
Liquid	A,D,B	OCC	HH	hexachlorocyclopentadiene												
Solid	A,D	OCC	P	2,4,6-trichlorophenol												
Solid	A,D	OCC	P	2,4,5-trichlorophenol												
Liquid	A,D	OCC	PAH	2-chloronaphthalene												
Solid	A,D	OCC	NH	2-nitroaniline												
Liquid	A,D	OCC	PH,CLA	dimethylphthalate												
Solid	A,D	OCC	PAH	acenaphthylene												
Solid	A,D	OCC	NA	2,6-dinitrotoluene												
Solid	A,D	OCC	NH	3-nitroaniline												
Solid	A,D	OCC	PAH	acenaphthene												
Solid	A,D,G	OCC	P	2,4-dinitrophenol												
Solid	A,D	OCC	P	4-nitrophenol												
Solid	A,D	OCC	A	dibenzofuran												
Solid	A,D	OCC	NA	2,4-dinitrotoluene												
Liquid	A,D	OCC	PH	diethylphthalate												
	A,D	OCC	HH	4-chlorophenyl-phenylether												
Solid	A,D	OCC	PAH	fluorene												
Solid	A,D,E	OCC	NH	4-nitroaniline												
Solid	A,D	OCC	P	4,6-dinitro-2-methylphenol												
Solid	A,D	OCC	NH	n-nitrosodiphenylamine												
Liquid	A,D	OCC	HH	4-bromophenyl-phenylether												
Solid	A,D	OCC	HA	hexachlorobenzene												
Solid	A,D	OCC	P	pentachlorophenol												
Solid	A,D	OCC	PAH	phenanthrene												

Table 4- (Cont.)

Physical State*	Waste Characteristics**	Category***	SI Memo	Sample Collection Information and Parameters	Sample Number 1	2	3	4	5	6	7	8	9	10	11	12
				Semivolatile Organics, Cont.												
Solid	A,D	OCC	PAH	anthracene												
Liquid	A,D	OCC	PH,CLA	di-n-butylphthalate												
Solid	A,D	OCC	PAH	fluoranthene												
Solid	A,D	OCC	PAH	pyrene												
Liquid	A,D	OCC	PH,CLA	butylbenzylphthalate												
	A,D	OCC	HA	3,3'-dichlorobenzidine												
Solid	A,D	OCC	PAH	benzo[a]anthracene												
Solid	A,D	OCC	PAH	chrysene												
Liquid	A,D	OCC	PH,CLA	bis(2-ethylhexyl)phthalate												
Liquid	A,D	OCC	PH,CLA	di-n-octylphthalate												
Solid	A,D	OCC	PAH	benzo[b]fluoranthene												
Solid	A,D	OCC	PAH	benzo[k]fluoranthene												
Solid	A,D,K,L	OCC	PAH	benzo[a]pyrene												
Solid	A,D	OCC	PAH	indeno[1,2,3-cd]pyrene												
Solid	A,D	OCC	PAH	dibenzo[a,h]anthracene												
Solid	A,D	OCC	PAH	benzo[q,h,i]perylene												
				Pesticides/PCBs												
Solid	A,D	PSD	PEST	alpha BHC												
Solid	A,D	PSD	PEST	beta BHC												
Solid	A,D	PSD	PEST	delta BHC												
Solid	A,D	PSD	PEST	gamma BHC (Lindane)												
Solid	A,D	PSD	PEST	Heptachlor												
Solid	A,D	PSD	PEST	Aldrin												
Solid	A,D	PSD	PEST	Heptachlor epoxide												
Solid	A,D	PSD	PEST	Endosulfan I												
Solid	A,D,E	PSD	PEST	Dieldrin												
Solid	A,D	PSD	PEST	4,4'-DDE												
Solid	A,D	PSD	PEST	Endrin												
Solid	A,D	PSD	PEST	Endosulfan II												
Solid	A,D	PSD	PEST	4,4'-DDD												
Solid	A,D	PSD	PEST	Endosulfan sulfate												
Solid	A,D	PSD	PEST	4,4'-DDT												
Solid	A,D	PSD	PEST	Methoxychlor (hariate)												
Solid	A,D	PSD	PEST	Endrin ketone												
Solid	A,D	PSD	PEST	alpha Chlordane												
Solid	A,D	PSD	PEST	gamma Chlordane												
Solid	A,D	PSD	PEST	Toxaphene												
Liquid	A,D	OCC	PCB	Aroclor 1016												
Liquid	A,D	OCC	PCB	Aroclor 1221												
Liquid	A,D	OCC	PCB	Aroclor 1232												
Liquid	A,D	OCC	PCB	Aroclor 1242												
Liquid	A,D	OCC	PCB	Aroclor 1248												
Liquid	A,D	OCC	PCB	Aroclor 1254												
Liquid	A,D	OCC	PCB	Aroclor 1260												

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 12/13/89

12/14/89

SUBJECT: Review of Region V CLP Data
Received for Review on Nov 30, 1989

FROM: Curtis Ross, Director (5SCRL) Patrick J. Chunilla for
Central Regional Laboratory

TO: Data User: FIT

We have reviewed the data for the following case(s).

SITE NAME: Spartan Sign Asphalt Co. SMO Case No. 13001

EPA Data Set No. _____ No. of Samples: 9 D.U./Activity Numbers 1

CRL No. _____

SMO Traffic No. EGN 48-53, 55, 61, EGP 22

CLP Laboratory: Clayton Hrs. Required for Review: 8 hrs + 1 = 9 wfw

Following are our findings.

This review covers the results for 9 samples: (6 soils) and (3 waters) for RAS Organic Analysis.

Qualifiers and calibration outliers are noted on the following pages of the review narrative.

John Vosinka 12/11/89
Roy F. Weston / ESAS

( ) Data are acceptable for use.
(✓) Data are acceptable for use with qualifications noted above.
( ) Data are preliminary - pending verification by Contractor Laboratory.
( ) Data are unacceptable.

cc: Dr. Alfred Haeberer/Joan Fisk/Gary Ward, EPA Support Services
Ross K. Robeson, EMSL-Las Vegas
Don Trees, CLP/Sample Management Office

Region V

ORGANIC REGIONAL DATA ASSESSMENT

CASE NO. 13001 SITE Spartan Sign Asphalt Co.

LABORATORY Clayton NO. OF SAMPLES/MATRIX (6/Soils) + (3 water)

SDG # EGN 48 REVIEWER (IF NOT ESD) ESAT

SOW# 2/88 REVIEWER'S NAME John Vasinko

DPO: ACTION _____ FYI _____ COMPLETION DATE 12/11/89

DATA ASSESSMENT SUMMARY

		VOA	BNA	PEST	OTHER
1.	HOLDING TIMES	O	O	O	
2.	GC/MS TUNE/INSTR. PERFORM.	O	O	—	
3.	CALIBRATIONS	O	O	O	
4.	BLANKS	O	O	O	
5.	SURROGATES	O	O	O	
6.	MATRIX SPIKE/DUP	O	O	O	
7.	OTHER QC	—	—	—	
8.	INTERNAL STANDARDS	O	O	---	
9.	COMPOUND IDENTIFICATION	—	—	—	
10.	SYSTEM PERFORMANCE	—	—	—	
11.	OVERALL ASSESSMENT	O	O	O	

O = Data had no problems/or qualified due to minor problems.
M = Data qualified due to major problems.
Z = Data unacceptable.
X = Problems, but do not affect data.

ACTION ITEMS: _____

AREAS OF CONCERN: The Semi-volatile samples (EGN 48, EGN 49, EGN 50, EGN 51, EGN 52, EGN 53) report large numbers of TIC compounds

NOTABLE PERFORMANCE: _____

DATA QUALIFIERS

Contractor: Clayton NovI

Case 13001

Below is a summary of the out-of-control audits and the possible effect on the data for this case:

(1) Holding time

The volatile water sample (EGP22) exceeded the 7day holding time, from the time of sampling to the time of analysis, by 1 day. Therefore, in the sample (EGP22) for the aromatic compounds: (Benzene, Toluene, chlorobenzene, Ethylbenzene, Styrene and total xylene) the positive results should be flagged (J) as estimated and non-detects should be flagged (UJ).

The semi-volatile soil sample (EGN51) exceeded the 10 day holding time, from the time of sampling to the time of extraction, by 14 days. Therefore, all non-detects should be flagged (R) as unusable and positive results should be flagged (J) as estimated.

(2) GC/MS tuning

All (BFB) and (DFTPP) tuning criteria have been achieved.

(3) Calibration

The volatile and semi-volatile outliers for the initial and continuing calibrations are noted on the calibration outlier forms which follow.

(4) Blanks

A) volatile

(i) water

The volatile water blank (VBLKE2) reports detectable amounts of acetone and methylene,

Reviewed by: John Vasinko

Phone: (312) 353-8309

Date: 12/10/89

DATA QUALIFIERS

Contractor: CLAYTON NOVI

Case 13001

Below is a summary of the out-of-control audits and the possible effect on the data for this case:

(4) Blanks (cont.)
The samples associated with this blank: (EGN61, EGN55) both report detectable amounts of methylene chloride and acetone at concentrations less than 10 times the amount found in the blank. Therefore, in the samples (EGN61, EGN55) acetone and methylene chloride have been flagged (u) as undetected.

The volatile water blank (VBLKE3) reports detectable amounts of methylene chloride and acetone. The samples associated with this blank: (EGP22) also reports detectable amounts of methylene chloride and acetone at a concentration that is less than 10 times the amount found in the blank. Therefore, in the sample (EGP22), methylene chloride and acetone have been flagged (u) as undetected.

(ii) Soil

The volatile soil blank (VBLKE1) reports detectable amounts of methylene chloride and acetone. The samples associated with this blank: (EGN48, EGN49, EGN50, EGN51, EGN52, EGN53) all report detectable amounts of methylene chloride and acetone at concentrations less than 10 times the amount found in the blank. Therefore, in the samples listed above, methylene chloride and acetone have been flagged (u) as undetected.

B) Semi-volatile

(i) water

The semi-volatile water blanks (SBLKW1, SBLKW2)

Reviewed by: John Vasinko

Phone: (312) 353-8309

Date: 12/10/89

DATA QUALIFIERS

Contractor: CLAYTON NOUI

Case/3001

Below is a summary of the out-of-control audits and the possible effect on the data for this case:

(4) Blanks (cont.)
both report No detectable amounts of contamination
(ii) Soil
The soil blanks (SB/KS1) and (SB/KS3) both report no detectable amounts of contamination.
B) Pesticide
(i) water
The pesticide water blank (PB/KW1) reports no detectable amounts of contamination.
(ii) soil
The pesticide soil blanks (PB/KS1) and (PB/KS2) both report No detectable amounts of contamination.

(5) Surrogate Recovery
A) Volatile
(i) water
All volatile water samples report All surrogate recoveries to be well within Q.C. limits
(ii) Soil
All volatile soil samples report All surrogate recoveries to be well within Q.C. limits
B) Semi-volatile
(i) water
All semi-volatile water samples report All surrogate recoveries to be well within Q.C. limits
(ii) soil
All semivolatile soil samples report All surrogate recoveries to be well within Q.C. limits

Reviewed by: John VASHKO
Phone: (312) 353-8309
Date: 12/10/89

DATA QUALIFIERS

Contractor: Clayton NOVI

Case 13001

Below is a summary of the out-of-control audits and the possible effect on the data for this case:

(5) Surrogate Recovery (cont.)

C) Pesticide

(i) water

All pesticide water samples report All surrogate recoveries to be well within Q.C. limits.

(ii) soil

All pesticide soil samples report All surrogate recoveries to be well within Q.C. limits.

(6) Matrix spike / Matrix spike duplicate

A) Volatile

(i) water (EGN55 MS/MSD)

The volatile water matrix spike And matrix spike duplicate reports All recoveries And RPD Values to be well within Q.C. limits

(ii) Soil (EGN51 MS/MSD)

The volatile soil matrix spike And matrix spike duplicate reports All recoveries And RPD values to be well within Q.C. limits.

B) Semi-volatile

(i) water (EGP22 MS/MSD)

The semivolatile matrix spike reports All recoveries to be well within Q.C. limits. The matrix spike duplicate reports A high (109%) recovery for the spiked compound Pentachlorophenol. Also, All RPD values Are well within Q.C. limits. The Above listed out-of-control conditions Are, in my professional judgement, sample specific And should have NO effect

Reviewed by: John Vasinko

Phone: (312) 353-8309

Date: 12/10/89

DATA QUALIFIERS

Contractor: CLAYTON NOVI

Case 13001

Below is a summary of the out-of-control audits and the possible effect on the data for this case:

(b) Matrix spike / Matrix spike duplicate (cont.)
on the unspiked samples. Therefore, No Action is to be taken with the unspiked samples with the exception of sample (EGP22). In sample (EGP22) the compound pentachlorophenol should be flagged (J) as estimated for positive results and non-detects should be flagged (UJ)

(ii) Soil (EGN5))

The semi-volatile soil matrix spike and matrix spike duplicate reports all recoveries to be well within Q.C. limits. However, the compounds 1,4-Dichlorobenzene and pentachlorophenol report high recoveries with values of (34%) and (62%) respectively. The above listed out-of-control conditions are, in my professional judgement, sample specific and should have no effect on the unspiked samples. Therefore, No Action is to be taken with the unspiked samples with the exception of sample (EGN48). In sample (EGN48) positive results for 1,4-Dichlorobenzene and pentachlorophenol should be flagged (J) as estimated and non-detects should be flagged (UJ).

c) Pesticide

(i) Water (EGN55 MS/MSD)

The pesticide water matrix spike and matrix spike duplicate reports all recoveries and RPD values to be well within Q.C. limits. Therefore, No Action is to be taken.

Reviewed by: John Vasinko

Phone: (312) 353-8307

Date: 12/10/89

DATA QUALIFIERS

Contractor: CLAYTON NOVI

Case 13001

Below is a summary of the out-of-control audits and the possible effect on the data for this case:

(6) Matrix spike / Matrix spike duplicate (Cont.)

(ii) Soil

The pesticide soil matrix spike and matrix spike duplicate reports high recoveries for the compound gamma-BHC with values of (191%) and (190%) respectively. The above listed out-of-control conditions are, in my professional judgement sample specific and should have no effect on the unspiked samples. Therefore, no action is to be taken with the unspiked samples with the exception of sample (EGN51). In sample (EGN51), for the compound gamma-BHC, positive results should be flagged (J) as estimated and non-detects should be flagged (UJ).

(7) Field Duplicates

No field duplicates were supplied with this data set. The field blank (EGN61) reports no significant amounts of contamination for all three sample fractions.

(8) Internal Standard performance

A) Volatile

All volatile samples report all internal standard areas and retention times to be well within Q.C. limits.

B) Semi-volatile

The semi-volatile sample (EGN52) reports low areas counts for the internal standards phenanthrene-d10, chrysene-d12, and perylene-d12. Therefore, in the sample (EGN52), for compounds quantitated by the above listed

Reviewed by: John Vasilko

Phone: (312) 353-0309

Date: 12/11/89

DATA QUALIFIERS

Contractor: CLAYTON NOVI

Case 13001

Below is a summary of the out-of-control audits and the possible effect on the data for this case:

(8) Internal Standard Performance (cont.)
(See Attached list) Should be flagged (J) as estimated for positive results and (UJ) for non-detects.
Upon re-analysis the sample (EGN52RE) reports a low area count for the internal standards chrysene-d12 and perylene-d12. Therefore, in the sample (EGN52RE) for compounds quantitated by the internal standards chrysene-d12 and perylene-d12 (See Attached listed) should be flagged (J) as estimated and (UJ) for non-detects.

(9) Compound Quantitation and reported detection limits
The analytical results for this case have been calculated correctly based on the appropriate internal standard, quantitation ion and relative responce factor. Also, the CRQLs have been adjusted to reflect the dilution factor, sample size, and where applicable, percent moisture of the sample.

(10) Additional Case Specific Problems
The Semi-volatile samples (EGN48, EGN49, EGN50, EGN51, EGN52, EGN53) all report a large number of TIC compounds.

Reviewed by: John Vasinko
Phone: (312) 353-8309
Date: 12/11/89

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V
CALIBRATION OUTLIERS
VOLATILE HSL COMPOUNDS

CASE/SAS # 13001 CONTRACTOR Clayton NOUI

Instrument # 5E	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	10/25/89 652			1-/26/85 2137											
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
Chloromethane															
Bromomethane															
Vinyl Chloride															
Chloroethane															
Methylene Chloride															
Acetone															
Carbon Disulfide															
1,1-Dichloroethane															
1,1-Dichloroethene															
Trans-1,2-Dichloroethene															
Chloroform															
2-Butanone															
1,2-Dichloroethane															
1,1,1-Trichloroethane															
Carbon Tetrachloride															
Vinyl Acetate															
Bromodichloromethane															
1,2-Dichloropropane															
Trans-1,3-Dichloropropene															
Trichloroethene															
Dibromochloromethane															
1,1,2-Trichloroethane															
Benzene															
cis-1,3-Dichloropropene															
2-Chloroethylvinylether															
Bromoform															
4-Methyl-2-Pentanone															
2-Hexanone															
Tetrachloroethene															
1,1,2,2-Tetrachloroethane															
Toluene															
Chlorobenzene															
Ethylbenzene															
Styrene															
m-Xylene															
o/p-Xylene															
S				VB1KB1											
AFFECTED SAMPLES:				EGN48											
				EGN49											
				EGN50											
				EGN51											
				EGN52											
				EGN53											
				EGN51MS/MSD											
Reviewer's Initials/Date: J.V. 12/18/89															

* These flags should be applied to the analytes on the sample data sheets.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V
CALIBRATION OUTLIERS
VOLATILE HSL COMPOUNDS

CASE/SAS # 13601 CONTRACTOR Clayton NOVI.

Instrument # SE	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	10/24/89 442			10/27/89 2134			11/2/89 1536								
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
Chloromethane															
Bromomethane															
Vinyl Chloride															
Chloroethane															
Methylene Chloride															
Acetone	.292	39.4	J	.347	27.6	J									
Carbon Disulfide															
1,1-Dichloroethane															
1,1-Dichloroethene															
Trans-1,2-Dichloroethene															
Chloroform															
2-Butanone	.466	34.3	J				.043	34.9	J						
1,2-Dichloroethane	.860			2.382	28.1	J									
1,1,1-Trichloroethane															
Carbon Tetrachloride															
Vinyl Acetate	.726						.543	25.2	J						
Bromodichloromethane															
1,2-Dichloropropane															
Trans-1,3-Dichloropropene															
Trichloroethene															
Dibromochloromethane															
1,1,2-Trichloroethane															
Benzene															
cis-1,3-Dichloropropene															
2-Chloroethylvinylether															
Bromoform															
4-Methyl-2-Pentanone	.408						.252	38.2	J						
2-Hexanone	.267						.185	30.7	J						
Tetrachloroethene															
1,1,2,2-Tetrachloroethane	.704						.467	35.7	J						
Toluene															
Chlorobenzene															
Ethylbenzene															
Styrene															
m-Xylene															
o/p-Xylene															

AFFECTED SAMPLES:

VBIKE2	VBIKE3
EGN61	EGP22
EGN55	
EGN55MS	
EGN55MSD	

Reviewer's Initials/Date: J.V 12/10/89

* These flags should be applied to the analytes on the sample data sheets.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V
CALIBRATION OUTLIERS
SEMIVOLATILE HSL COMPOUNDS
(Page 1)

CASE/SAS # 13001 CONTRACTOR Clayton NOVI

Instrument # GF	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	11/14/89 1028														
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
Phenol															
bis(-2-Chloroethyl)Ether															
2-Chlorophenol															
1,3-Dichlorobenzene															
1,4-Dichlorobenzene															
Benzyl Alcohol															
1,2-Dichlorobenzene															
2-Methylphenol															
bis(2-chloroisopropyl)Ether															
4-Methylphenol															
N-Nitroso-Di-n-Propylamine															
Hexachloroethane															
Nitrobenzene															
Isophorone															
2-Nitrophenol															
2,4-Dimethylphenol															
Benzoic Acid															
bis(2-Chloroethoxy)Methane															
2,4-Dichlorophenol															
1,2,4-Trichlorobenzene															
Naphthalene															
4-Chloroaniline															
Hexachlorobutadiene															
4-Chloro-3-Methylphenol															
2-Methylnaphthalene															
Hexachlorocyclopentadiene															
2,4,6-Trichlorophenol															
2,4,5-Trichlorophenol															
2-Chloronaphthalene															
2-Nitroaniline															
Dimethyl Phthalate															
Acenaphthylene															
3-Nitroaniline	149	446	J												
Acenaphthene															
2,4-Dinitrophenol															
4-Nitrophenol															
Dibenzofuran															

AFFECTED SAMPLES:

SB1KW1
SB1KW2
EGN55
EGP22
EGP22MS
EGP22MSD

Reviewer Initials/Date: JV 12/10/89

* These flags should be applied to the analytes on the sample data sheets.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V
CALIBRATION OUTLIERS
SEMIVOLATILE HSL COMPOUNDS
Page 2

CASE/SAS # 13001 CONTRACTOR Clayton NOVI

Instrument # 6F	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	11/14/89 1028														
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
2,4-Dinitrotoluene															
2,6-Dinitrotoluene															
Diethylphthalate															
4-Chlorophenyl-phenylether															
Fluorene															
4-Nitroaniline	.066	35.5	I												
4,6-Dinitro-2-Methylphenol															
N-Nitrosodiphenylamine															
4-Bromophenyl-phenylether															
Hexachlorobenzene															
Pentachlorophenol															
Phenanthrene															
Anthracene															
Di-n-Butylphthalate															
Fluoranthene															
Pyrene															
Butylbenzylphthalate															
Benzo(a)Anthracene															
bis(2-Ethylhexyl)Phthalate															
Chrysene															
Di-n-Octyl Phthalate															
Benzo(b)Fluoranthene															
Benzo(k)Fluoranthene															
Benzo(a)Pyrene															
Indeno(1,2,3-cd)Pyrene															
Dibenz(a,h)Anthracene															
Benzo(g,h,i)Perylene															

SEE PAGE 1 FOR AFFECTED SAMPLES.

* These flags should be applied to the analytes on the sample data sheets.

Reviewer's Initials/Date: J. Vashko 12/10/89

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V
CALIBRATION OUTLIERS
SEMIVOLATILE HSL COMPOUNDS
(Page 1)

CASE/SAS # 13001 CONTRACTOR Clayton NOVI

Instrument # 6F	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	11/15/89 1334			11/16/89 1209											
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
Phenol															
bis(-2-Chloroethyl)Ether															
2-Chlorophenol															
1,3-Dichlorobenzene															
1,4-Dichlorobenzene															
Benzyl Alcohol															
1,2-Dichlorobenzene															
2-Methylphenol															
bis(2-chloroisopropyl)Ether															
4-Methylphenol															
N-Nitroso-Di-n-Propylamine															
Hexachloroethane															
Nitrobenzene	.697			.313	26.4	J									
Isophorone															
2-Nitrophenol															
2,4-Dimethylphenol															
Benzoic Acid															
bis(2-Chloroethoxy)Methane															
2,4-Dichlorophenol															
1,2,4-Trichlorobenzene															
Naphthalene															
4-Chloroaniline															
Hexachlorobutadiene															
4-Chloro-3-Methylphenol															
2-Methylnaphthalene															
Hexachlorocyclopentadiene	.500			.423	25.8	J									
2,4,6-Trichlorophenol															
2,4,5-Trichlorophenol															
2-Chloronaphthalene															
2-Nitroaniline															
Dimethyl Phthalate															
Acenaphthylene															
3-Nitroaniline	.240	41.4	J												
Acenaphthene															
2,4-Dinitrophenol															
4-Nitrophenol															
Dibenzofuran															

AFFECTED SAMPLES:

EGN 61	EGN 52
SAIM 51	EGN 51 MS
EGN 53	EGN 51 MSD
EGN 50	
EGN 49	
EGN 48	

Reviewer Initials/Date: JLU 12/10/89

* These flags should be applied to the analytes on the sample data sheets.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V
CALIBRATION OUTLIERS
SEMIVOLATILE MSL COMPOUNDS
Page 2

CASE/SAS # 13001 CONTRACTOR Clayton NOVI

Instrument # 67	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	11/15/89 1336			11/16/89 1709											
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
2,4-Dinitrotoluene															
2,6-Dinitrotoluene															
Diethylphthalate															
4-Chlorophenyl-phenylether															
Fluorene															
4-Nitroaniline	.192			.117	32.0	J									
4,6-Dinitro-2-Methylphenol															
N-Nitrosodiphenylamine															
4-Bromophenyl-phenylether	.380			.481	26.6	J									
Hexachlorobenzene															
Pentachlorophenol															
Phenanthrene															
Anthracene															
Di-n-Butylphthalate															
Fluoranthene															
Pyrene															
Butylbenzylphthalate															
Benzo(a)Anthracene															
bis(2-Ethylhexyl)Phthalate															
Chrysene															
Di-n-Octyl Phthalate															
Benzo(b)Fluoranthene															
Benzo(k)Fluoranthene															
Benzo(a)Pyrene															
Indeno(1,2,3-cd)Pyrene															
Dibenz(a,h)Anthracene															
Benzo(g,h,i)Perylene															

SEE PAGE 1 FOR AFFECTED SAMPLES.

* These flags should be applied to the analytes on the sample data sheets.

Reviewer's Initials/Date: J. Vasinko 12/10/89

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V
CALIBRATION OUTLIERS
SEMIVOLATILE HSL COMPOUNDS
(Page 1)

CASE/SAS # B001 CONTRACTOR CLAYTON

Instrument # LP	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	11/22/89 0626														
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
Phenol															
bis(-2-Chloroethyl)Ether															
2-Chlorophenol															
1,3-Dichlorobenzene															
1,4-Dichlorobenzene															
Benzyl Alcohol															
1,2-Dichlorobenzene															
2-Methylphenol															
bis(2-Chloroisopropyl)Ether															
4-Methylphenol															
N-Nitroso-Di-n-Propylamine															
Hexachloroethane															
Nitrobenzene															
Isophorone															
2-Nitrophenol															
2,4-Dimethylphenol															
Benzoic Acid															
bis(2-Chloroethoxy)Methane															
2,4-Dichlorophenol															
1,2,4-Trichlorobenzene															
Naphthalene															
4-Chloroaniline															
Hexachlorobutadiene															
4-Chloro-3-Methylphenol															
2-Methylnaphthalene															
Hexachlorocyclopentadiene															
2,4,6-Trichlorophenol															
2,4,5-Trichlorophenol															
2-Chloronaphthalene															
2-Nitroaniline															
Dimethyl Phthalate															
Acenaphthylene															
3-Nitroaniline															
Acenaphthene															
2,4-Dinitrophenol															
4-Nitrophenol															
Dibenzofuran															

AFFECTED SAMPLES:

EGN52 RE
SB1R53
EGN51

Reviewer Initials/Date: S.U. 12/10/89

* These flags should be applied to the analytes on the sample data sheets.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V
CALIBRATION OUTLIERS
SEMIVOLATILE HSL COMPOUNDS
Page 2

CASE/SAS # 13061 CONTRACTOR Clayton NOVI

Instrument # 2F	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	11/22/89 0026														
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
2,4-Dinitrotoluene															
2,6-Dinitrotoluene															
Diethylphthalate															
4-Chlorophenyl-phenylether															
Fluorene															
4-Nitroaniline															
4,6-Dinitro-2-Methylphenol															
N-Nitrosodiphenylamine															
4-Bromophenyl-phenylether															
Hexachlorobenzene															
Pentachlorophenol															
Phenanthrene															
Anthracene															
Di-n-Butylphthalate															
Fluoranthene															
Pyrene															
Butylbenzylphthalate															
Benzo(a)Anthracene															
bis(2-Ethylhexyl)Phthalate															
Chrysene															
Di-n-Octyl Phthalate															
Benzo(b)Fluoranthene															
Benzo(k)Fluoranthene															
Benzo(a)Pyrene															
Indeno(1,2,3-cd)Pyrene															
Dibenz(a,h)Anthracene															
Benzo(g,h,i)Perylene															

SEE PAGE 1 FOR AFFECTED SAMPLES.

* These flags should be applied to the analytes on the sample data sheets.

Reviewer's Initials/Date: J. Vasinko 12/10/89

8/87

DATA REPORTING QUALIFIERS

For reporting results to EPA, the following result qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

VALUE - If the result is a value greater than or equal to the detection limit, report the value.

U - Indicates compound was analyzed but not detected. The sample quantitation limit must be corrected for dilution and for percent moisture. For example, 10 U for phenol in water if the sample final volume is the protocol-specified final volume. If a 1 to 10 dilution of extract is necessary, the reported limit is 100 U. For a soil sample, the value must also be adjusted for percent moisture. For example, if the sample had 24% moisture and a 1 to 10 dilution factor, the sample quantitation limit for phenol (330 U) would be corrected to:

$$\frac{(330\ U)}{D} \times df \qquad \text{where } D = \frac{100 - \%\ \text{moisture}}{100}$$

and df = dilution factor

$$\text{at 24\% moisture, } D = \frac{100-24}{100} = 0.76$$

$$\frac{(330\ U)}{.76} \times 10 = 4300\ U$$ rounded to the appropriate number of significant figures

For soil sample subjected to GPC clean-up procedures, the CRQL is also multiplied by 2, to account for the fact that only half of the extract is recovered.

J - Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero. For example, if the sample quantitation limit is 10 ug/L, but a concentration is 3 ug/L is calculated, report it as 3J. The sample quantitation limit must be adjusted for both dilution and percent moisture as discussed for the U flag, so that if a sample with 24% moisture and a 1 to 10 dilution factor has a calculated concentration of 300 ug/L and a sample quantitation limit of 430 ug/kg, report the concentration as 300J on Form I.

C - This flag applies to pesticide results where the identification has been confirmed by GC/MS. Single component pesticides $\geq$10 ng/ul in the final extract shall be confirmed by GC/MS.

2

B - This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action. This flag must be used for a TIC as well as for a positively identified TCL compound.

E - This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis. This flag will not apply to pesticides/PCBs analyzed by GC/EC methods. If one or more compounds have a response greater than full scale, the sample or extract must be diluted and re-analyzed according to the specifications. All such compounds with a response greater than full scale should have the concentration flagged with an "E" on the Form I for the original analysis. If the dilution of the extract causes any compounds identified in the first analysis to be below the calibration range in the second analysis, then the results of both analyses shall be reported on separate Forms I. The Form I for the diluted sample shall have the "DL" suffix appended to the sample number.

D - This flag identifies all compounds identified in an analysis at a secondary dilution factor. If a sample or extract is re-analyzed at a higher dilution factor, as in the "E" flag above, the "DL" suffix is appended to the sample number on the Form I for the diluted sample and all concentration values reported on that Form I are flagged with the "D" flag.

A - This flag indicates that TIC is a suspected aldol-condensation product.

X - Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the Sample Data Summary Package and the Case Narrative. If more than one is required, use "Y" and "Z", as needed. If more than five qualifiers are required for a sample result, use the "X" flag to combine several flags, as needed. For instance, the "X" flag might combine the "A", "B", and "D" flags for some sample.

*TABLE 4

VOLATILE INTERNAL STANDARDS WITH CORRESPONING TCL ANALYTES ASSIGNED FOR QUANTITATION

Bromochloromethane	1,4-Difluorobenzene	Chlorobenzene-d_5
Chloromethane	2- Butanone	2-Hexanone
Bromomethane	1,1,1-Trichloroethane	4-Methyl-2-Pentanone
*Vinyl Chloride	Carbon Tetrachloride	Tetrachloroethene
Chloroethane	Vinyl Acetate	1,1,2,2-Tetrachloroethane
Methylene Chloride	Bromodichloromethane	*Toluene
Acetone	*1,2-Dichloropropane	Chlorobenzene
Carbon Disulfide	trans-1,3-Dichloropropane	*Ethylbenzene
*1,1-Dichloroethene	Trichloroethene	Styrene
1,1-Dichloroethane	Dibromochloromethane	Xylene (total)
1,2-Dichloroethene (total)	1,1,2-Trichloroethane	Bromofluorobenzene (surr)
*Chloroform	Benzene	Toluene-d_8 (surr)
1,2-Dichloroethane	cis-1,3-Dichloropropene	
1,2-Dichloroethane-d_4 (surr)	Bromoform	

(surr) = surrogate compound
*Calibration check compounds

SEMIVOLATILE INTERNAL STANDARDS WITH CORRESPONDING TCL ANALYTES ASSIGNED FOR QUANTITATION

1,4-Dichlorobenzene-d_4	Naphthalene-d_8	Acenaphthene-d_{10}	Phenanthrene-d_{10}	Chrysene-d_{12}	Perylene-d_{12}
Phenol	Nitrobenzene	Hexachlorocyclopentadiene	4,6-Dinitro-2-methylphenol	Pyrene	Di-n-octyl Phthalate
bis(2-Chloroethyl) ether	Isophorone	2,4,6-Trichlorophenol	N-nitrosodiphenylamine	Butylbenzyl Phthalate	Benzo(b)fluoranthene
2-Chlorophenol	2-Nitrophenol	2,4,5-Trichlorophenol	1,2-Diphenylhydrazine	3,3'-Dichlorobenzidine	Benzo(k)fluoranthene
1,3-Dichlorobenzene	2,4-Dimethylphenol	2-Chloronaphthalene	4-Bromophenyl Phenyl Ether	Benzo(a)anthracene	Benzo(a)pyrene
1,4-Dichlorobenzene	Benzoic acid	2-Nitroaniline	Hexachlorobenzene	bis(2-ethylhexyl Phthalate	Indeno(1,2,3-cd) pyrene
Benzyl Alcohol	bis(2-Chloroethoxy)methane	Dimethyl Phthalate	Pentachlorophenol	Chrysene	Dibenz(a,h) anthracene
1,2-Dichlorobenzene	2,4-Dichlorophenol	Acenaphthylene	Phenanthrene	Terphenyl-d_{14} (surr)	
2-Methylphenol	1,2,4-Trichlorobenzene	3-Nitroaniline	Anthracene		
bis(2-Chloroisopropyl)ether	Naphthalene	Acenaphthene	Di-n-butyl Phthalate		
4-Methylphenol	4-Chloroaniline	2,4-Dinitrophenol	Fluoranthene		
N-nitroso-Di-n-propylamine	Hexachlorobutadiene	4-Nitrophenol			
Hexachloroethane	4-Chloro-3-methylphenol	Dibenzofuran			
2-Fluorophenol (surr)	2-Methylnaphthalene	2,4-Dinitrotoluene			
Phenol-d_6 (surr)	Nitrobenzene-d_5 (surr)	2,6-Dinitrotoluene			
		Diethyl Phthalate			
		4-Chlorophenyl-phenyl ether			
		Fluorene			
		4-Nitroaniline			
		2-Fluorobiphenyl (surr)			
		2,4,6-Tribromo Phenol (surr)			

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGN48

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) SOIL Lab Sample ID: 779996

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E7949

Level: (low/med) LOW Date Received: 10/25/89

% Moisture: not dec. 74 Date Analyzed: 10/27/89

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	38	U
74-83-9	Bromomethane	38	U
75-01-4	Vinyl Chloride	38	U
75-00-3	Chloroethane	38	U
75-09-2	Methylene Chloride	~~19~~	~~B~~ U
67-64-1	Acetone	82	~~B~~ U
75-15-0	Carbon Disulfide	19	U
75-35-4	1,1-Dichloroethene	19	U
75-35-3	1,1-Dichloroethane	19	U
540-59-0	1,2-Dichloroethene (total)	19	U
67-66-3	Chloroform	19	U
107-06-2	1,2-Dichloroethane	19	U
78-93-3	2-Butanone	38	U
71-55-6	1,1,1-Trichloroethane	19	U
56-23-5	Carbon Tetrachloride	19	U
108-05-4	Vinyl Acetate	38	U
75-27-4	Bromodichloromethane	19	U
78-87-5	1,2-Dichloropropane	19	U
10061-01-5	cis-1,3-Dichloropropene	19	U
79-01-6	Trichloroethene	19	U
124-48-1	Dibromochloromethane	19	U
79-00-5	1,1,2-Trichloroethane	19	U
71-43-2	Benzene	19	U
10061-02-6	Trans-1,3-Dichloropropene	19	U
75-25-2	Bromoform	19	U
108-10-1	4-Methyl-2-Pentanone	38	U
591-78-6	2-Hexanone	38	U
127-18-4	Tetrachloroethene	19	U
79-34-5	1,1,2,2-Tetrachloroethane	19	U
108-88-3	Toluene	19	U
108-90-7	Chlorobenzene	19	U
100-41-4	Ethylbenzene	19	U
100-42-5	Styrene	19	U
1330-20-7	Total Xylenes	19	U

JLV. 12/10/89

13001 • 5-111-01

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EGN48

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) SOIL Lab Sample ID: 779996

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E7949

Level: (low/med) LOW Date Received: 10/25/89

% Moisture: not dec. 74 Date Analyzed: 10/27/89

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGN49

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) SOIL Lab Sample ID: 779998

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E7950

Level: (low/med) LOW Date Received: 10/25/89

% Moisture: not dec. 77 Date Analyzed: 10/27/89

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	43	U
74-83-9	Bromomethane	43	U
75-01-4	Vinyl Chloride	43	U
75-00-3	Chloroethane	43	U
75-09-2	Methylene Chloride	22	~~B~~ U
67-64-1	Acetone	110	~~B~~ U
75-15-0	Carbon Disulfide	22	U
75-35-4	1,1-Dichloroethene	22	U
75-35-3	1,1-Dichloroethane	22	U
540-59-0	1,2-Dichloroethene (total)	22	U
67-66-3	Chloroform	22	U
107-06-2	1,2-Dichloroethane	22	U
78-93-3	2-Butanone	43	U
71-55-6	1,1,1-Trichloroethane	22	U
56-23-5	Carbon Tetrachloride	22	U
108-05-4	Vinyl Acetate	43	U
75-27-4	Bromodichloromethane	22	U
78-87-5	1,2-Dichloropropane	22	U
10061-01-5	cis-1,3-Dichloropropene	22	U
79-01-6	Trichloroethene	22	U
124-48-1	Dibromochloromethane	22	U
79-00-5	1,1,2-Trichloroethane	22	U
71-43-2	Benzene	22	U
10061-02-6	Trans-1,3-Dichloropropene	22	U
75-25-2	Bromoform	22	U
108-10-1	4-Methyl-2-Pentanone	43	U
591-78-6	2-Hexanone	43	U
127-18-4	Tetrachloroethene	22	U
79-34-5	1,1,2,2-Tetrachloroethane	22	U
108-88-3	Toluene	22	U
108-90-7	Chlorobenzene	22	U
100-41-4	Ethylbenzene	22	U
100-42-5	Styrene	22	U
1330-20-7	Total Xylenes	22	U

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1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EGN49

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) SOIL Lab Sample ID: 779998

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E7950

Level: (low/med) LOW Date Received: 10/25/89

% Moisture: not dec. 77 Date Analyzed: 10/27/89

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGN50

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) SOIL Lab Sample ID: 780000

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E7951

Level: (low/med) LOW Date Received: 10/25/89

% Moisture: not dec. 66 Date Analyzed: 10/27/89

Column: (pack/cap) PACK Dilution Factor: 1.0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	29	U
74-83-9	Bromomethane	29	U
75-01-4	Vinyl Chloride	29	U
75-00-3	Chloroethane	29	U
75-09-2	Methylene Chloride	15 ~~B~~	U
67-64-1	Acetone	51 ~~B~~	U
75-15-0	Carbon Disulfide	15	U
75-35-4	1,1-Dichloroethene	15	U
75-35-3	1,1-Dichloroethane	15	U
540-59-0	1,2-Dichloroethene (total)	15	U
67-66-3	Chloroform	15	U
107-06-2	1,2-Dichloroethane	15	U
78-93-3	2-Butanone	29	U
71-55-6	1,1,1-Trichloroethane	15	U
56-23-5	Carbon Tetrachloride	15	U
108-05-4	Vinyl Acetate	29	U
75-27-4	Bromodichloromethane	15	U
78-87-5	1,2-Dichloropropane	15	U
10061-01-5	cis-1,3-Dichloropropene	15	U
79-01-6	Trichloroethene	15	U
124-48-1	Dibromochloromethane	15	U
79-00-5	1,1,2-Trichloroethane	15	U
71-43-2	Benzene	15	U
10061-02-6	Trans-1,3-Dichloropropene	15	U
75-25-2	Bromoform	15	U
108-10-1	4-Methyl-2-Pentanone	29	U
591-78-6	2-Hexanone	29	U
127-18-4	Tetrachloroethene	15	U
79-34-5	1,1,2,2-Tetrachloroethane	15	U
108-88-3	Toluene	15	U
108-90-7	Chlorobenzene	15	U
100-41-4	Ethylbenzene	15	U
100-42-5	Styrene	15	U
1330-20-7	Total Xylenes	15	U

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1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EGN50

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) SOIL Lab Sample ID: 780000

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E7951

Level: (low/med) LOW Date Received: 10/25/89

% Moisture: not dec. 66 Date Analyzed: 10/27/89

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGN51

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) SOIL Lab Sample ID: 780002

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E7952

Level: (low/med) LOW Date Received: 10/25/89

% Moisture: not dec. 9 Date Analyzed: 10/27/89

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	5	BU
67-64-1	Acetone	14	BU
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-35-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	11	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total Xylenes	5	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EGN51

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) SOIL Lab Sample ID: 780002

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E7952

Level: (low/med) LOW Date Received: 10/25/89

% Moisture: not dec. 9 Date Analyzed: 10/27/89

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGN52

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) SOIL Lab Sample ID: 780004

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E7953

Level: (low/med) LOW Date Received: 10/25/89

% Moisture: not dec. 6 Date Analyzed: 10/27/89

Column: (pack/cap) PACK Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	5~~4~~	~~B~~ U
67-64-1	Acetone	15	~~B~~ U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-35-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	11	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	7	
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total Xylenes	5	U

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IE

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EGN52

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) SOIL Lab Sample ID: 780004

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E7953

Level: (low/med) LOW Date Received: 10/25/89

% Moisture: not dec. 6 Date Analyzed: 10/27/89

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGN53

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) SOIL Lab Sample ID: 780006

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E7954

Level: (low/med) LOW Date Received: 10/25/89

% Moisture: not dec. 25 Date Analyzed: 10/27/89

Column: (pack/cap) PACK Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	13	U
74-83-9	Bromomethane	13	U
75-01-4	Vinyl Chloride	13	U
75-00-3	Chloroethane	13	U
75-09-2	Methylene Chloride	7	~~B~~ U
67-64-1	Acetone	17	~~B~~ U
75-15-0	Carbon Disulfide	7	U
75-35-4	1,1-Dichloroethene	7	U
75-35-3	1,1-Dichloroethane	7	U
540-59-0	1,2-Dichloroethene (total)	7	U
67-66-3	Chloroform	7	U
107-06-2	1,2-Dichloroethane	7	U
78-93-3	2-Butanone	13	U
71-55-6	1,1,1-Trichloroethane	7	U
56-23-5	Carbon Tetrachloride	7	U
108-05-4	Vinyl Acetate	13	U
75-27-4	Bromodichloromethane	7	U
78-87-5	1,2-Dichloropropane	7	U
10061-01-5	cis-1,3-Dichloropropene	7	U
79-01-6	Trichloroethene	7	U
124-48-1	Dibromochloromethane	7	U
79-00-5	1,1,2-Trichloroethane	7	U
71-43-2	Benzene	7	U
10061-02-6	Trans-1,3-Dichloropropene	7	U
75-25-2	Bromoform	7	U
108-10-1	4-Methyl-2-Pentanone	13	U
591-78-6	2-Hexanone	13	U
127-18-4	Tetrachloroethene	7	U
79-34-5	1,1,2,2-Tetrachloroethane	7	U
108-88-3	Toluene	11	
108-90-7	Chlorobenzene	7	U
100-41-4	Ethylbenzene	7	U
100-42-5	Styrene	7	U
1330-20-7	Total Xylenes	7	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EGN53

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: - SDG No.: EGN48

Matrix: (soil/water) SOIL Lab Sample ID: 780006

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E7954

Level: (low/med) LOW Date Received: 10/25/89

% Moisture: not dec. 25 Date Analyzed: 10/27/89

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 2

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 108872	Cyclohexane, methyl- (8CI9CI	22.62	14	J
2.	Unknown Hydrocarbon	25.47	12	J

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGN55

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) WATER Lab Sample ID: 780321

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: E7970

Level: (low/med) LOW Date Received: 10/26/89

% Moisture: not dec. ____ Date Analyzed: 10/28/89

Column: (pack/cap) PACK Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5 ~~2~~	~~BJ~~ W
67-64-1	Acetone	14	~~B~~ W
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-35-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total Xylenes	5	U

SVL 12/10/89

13001 • 5-111-07

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EGN55

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) WATER Lab Sample ID: 780321

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: E7970

Level: (low/med) LOW Date Received: 10/26/89

% Moisture: not dec. ____ Date Analyzed: 10/28/89

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

13001 • 5-110-08

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGN61

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) WATER Lab Sample ID: 780329

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: E7969

Level: (low/med) LOW Date Received: 10/26/89

% Moisture: not dec. ____ Date Analyzed: 10/28/89

Column: (pack/cap) PACK Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5 ~~2~~	~~BL~~ W
67-64-1	Acetone	19	~~B~~ W
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-35-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	2	J
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total Xylenes	5	U

S.V. 12/10/89

13001 • 5-111-08

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EGN61

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) WATER Lab Sample ID: 780329

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: E7969

Level: (low/med) LOW Date Received: 10/26/89

% Moisture: not dec. ____ Date Analyzed: 10/28/89

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGP22

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) WATER Lab Sample ID: 780323

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: E8056

Level: (low/med) LOW Date Received: 10/26/89

% Moisture: not dec. ____ Date Analyzed: 11/02/89

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5 ~~2~~	~~B~~ u
67-64-1	Acetone	14	~~B~~ u
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-35-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total Xylenes	5	U

BLK 12/10/89

13001 • 5-111-09

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EGP22

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) WATER Lab Sample ID: 780323

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: E8056

Level: (low/med) LOW Date Received: 10/26/89

% Moisture: not dec. ____ Date Analyzed: 11/02/89

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGN48

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) SOIL Lab Sample ID: 780008

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F6961

Level: (low/med) LOW Date Received: 10/25/89

% Moisture: not dec. 74 dec. 63 Date Extracted: 11/02/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/15/89

GPC Cleanup: (Y/N) Y pH: 7.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	1800	U
111-44-4	bis(2-Chloroethyl)Ether	1800	U
95-57-8	2-Chlorophenol	1800	U
541-73-1	1,3-Dichlorobenzene	1800	U
106-46-7	1,4-Dichlorobenzene	1800	U
100-51-6	Benzyl Alcohol	1800	U
95-50-1	1,2-Dichlorobenzene	1800	U
95-48-7	2-Methylphenol	1800	U
39638-32-9	bis(2-Chloroisopropyl)Ether	1800	U
106-44-5	4-Methylphenol	1800	U
621-64-7	N-Nitroso-Di-n-Propylamine	1800	U
67-72-1	Hexachloroethane	1800	U
98-95-3	Nitrobenzene	1800	U
78-59-1	Isophorone	1800	U
88-75-5	2-Nitrophenol	1800	U
105-67-9	2,4-Dimethylphenol	1800	U
65-85-0	Benzoic Acid	8600	U
111-91-1	bis(2-Chloroethoxy)Methane	1800	U
120-83-2	2,4-Dichlorophenol	1800	U
120-82-1	1,2,4-Trichlorobenzene	1800	U
91-20-3	Naphthalene	1800	U
106-47-8	4-Chloroaniline	1800	U
87-68-3	Hexachlorobutadiene	1800	U
59-50-7	4-Chloro-3-Methylphenol	1800	U
91-57-6	2-Methylnaphthalene	1800	U
77-47-4	Hexachlorocyclopentadiene	1800	U
88-06-2	2,4,6-Trichlorophenol	1800	U
95-95-4	2,4,5-Trichlorophenol	8600	U
91-58-7	2-Chloronaphthalene	1800	U
88-74-4	2-Nitroaniline	8600	U
131-11-3	Dimethyl Phthalate	1800	U
208-96-8	Acenaphthylene	1800	U
606-20-2	2,6-Dinitrotoluene	1800	U

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1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGN48

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) SOIL Lab Sample ID: 780008

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F6961

Level: (low/med) LOW Date Received: 10/25/89

% Moisture: not dec. 74 dec. 63 Date Extracted: 11/02/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/15/89

GPC Cleanup: (Y/N) Y pH: 7.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	8600	U
83-32-9	Acenaphthene	1800	U
51-28-5	2,4-Dinitrophenol	8600	U
100-02-7	4-Nitrophenol	8600	U
132-64-9	Dibenzofuran	1800	U
121-14-2	2,4-Dinitrotoluene	1800	U
84-66-2	Diethylphthalate	1800	U
7005-72-3	4-Chlorophenyl-phenylether	1800	U
86-73-7	Fluorene	1800	U
100-10-6	4-Nitroaniline	8600	U
534-52-1	4,6-Dinitro-2-Methylphenol	8600	U
86-30-6	N-Nitrosodiphenylamine (1)	1800	U
101-55-3	4-Bromophenyl-phenylether	1800	U
118-74-1	Hexachlorobenzene	1800	U
87-86-5	Pentachlorophenol	8600	U
85-01-8	Phenanthrene	1800	U
120-12-7	Anthracene	1800	U
84-74-2	Di-n-Butylphthalate	1800	U
206-44-0	Fluoranthene	1800	U
129-00-0	Pyrene	1800	U
85-68-7	Butylbenzylphthalate	1800	U
91-94-1	3,3'-Dichlorobenzidine	3600	U
56-55-3	Benzo(a)Anthracene	1800	U
218-01-9	Chrysene	1800	U
117-81-7	bis(2-Ethylhexyl)Phthalate	1800	U
117-84-0	Di-n-Octyl Phthalate	1800	U
205-99-2	Benzo(b)Fluoranthene	1800	U
207-08-9	Benzo(k)Fluoranthene	1800	U
50-32-8	Benzo(a)Pyrene	1800	U
193-39-5	Indeno(1,2,3-cd)Pyrene	1800	U
53-70-3	Dibenz(a,h)Anthracene	1800	U
191-24-2	Benzo(g,h,i)Perylene	1800	U

(1) - Cannot be separated from Diphenylamine

13001 • 5-211-01

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EGN48

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) SOIL Lab Sample ID: 780008

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F6961

Level: (low/med) LOW Date Received: 10/25/89

% Moisture: not dec. 74 dec. 63 Date Extracted: 11/02/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/15/89

GPC Cleanup: (Y/N) Y pH: 7.0 Dilution Factor: 1.0

Number TICs found: 16

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 108214	Acetic acid, 1-methylethyl e	5.63	3500	~~BJ~~ u
2. 123422	4-Hydroxy-4-Methyl-2-Pentano	6.10	93000	AB~~J~~ u
3. 4436753	3-Hexene-2,5-dione (8CI9CI)	7.88	3300	~~BJ~~ u
4.	Unknown	8.08	1000	J
5.	Unknown	8.67	5100	~~BJ~~ u
6. 79209	Acetic Acid, Methyl ester	9.72	960	J
7.	Molecular Sulfur	17.22	1500	J
8.	Unknown Hydrocarbon	19.09	780	J
9. 17233715	Hexathiepane (8CI9CI)	20.00	1900	J
10.	Molecular Sulfur	22.82	270000	J
11.	Unknown Hydrocarbon	25.34	1000	J
12.	Unknown Hydrocarbon	27.07	1700	J
13. 112958	Eicosane	28.87	3600	J
14.	Unknown	30.49	3500	J
15.	Unknown Hydrocarbon	31.17	5100	J
16. 629801	Hexadecanal	33.37	2300	J

J.V. 12/10/89

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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGN49

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) SOIL Lab Sample ID: 780009

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F6960

Level: (low/med) LOW Date Received: 10/25/89

% Moisture: not dec. 77 dec. ____ Date Extracted: 11/02/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/15/89

GPC Cleanup: (Y/N) Y pH: 7.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	2900	U
111-44-4	bis(2-Chloroethyl)Ether	2900	U
95-57-8	2-Chlorophenol	2900	U
541-73-1	1,3-Dichlorobenzene	2900	U
106-46-7	1,4-Dichlorobenzene	2900	U
100-51-6	Benzyl Alcohol	2900	U
95-50-1	1,2-Dichlorobenzene	2900	U
95-48-7	2-Methylphenol	2900	U
39638-32-9	bis(2-Chloroisopropyl)Ether	2900	U
106-44-5	4-Methylphenol	2900	U
621-64-7	N-Nitroso-Di-n-Propylamine	2900	U
67-72-1	Hexachloroethane	2900	U
98-95-3	Nitrobenzene	2900	U
78-59-1	Isophorone	2900	U
88-75-5	2-Nitrophenol	2900	U
105-67-9	2,4-Dimethylphenol	2900	U
65-85-0	Benzoic Acid	14000	U
111-91-1	bis(2-Chloroethoxy)Methane	2900	U
120-83-2	2,4-Dichlorophenol	2900	U
120-82-1	1,2,4-Trichlorobenzene	2900	U
91-20-3	Naphthalene	2900	U
106-47-8	4-Chloroaniline	2900	U
87-68-3	Hexachlorobutadiene	2900	U
59-50-7	4-Chloro-3-Methylphenol	2900	U
91-57-6	2-Methylnaphthalene	2900	U
77-47-4	Hexachlorocyclopentadiene	2900	U
88-06-2	2,4,6-Trichlorophenol	2900	U
95-95-4	2,4,5-Trichlorophenol	14000	U
91-58-7	2-Chloronaphthalene	2900	U
88-74-4	2-Nitroaniline	14000	U
131-11-3	Dimethyl Phthalate	2900	U
208-96-8	Acenaphthylene	2900	U
606-20-2	2,6-Dinitrotoluene	2900	U

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1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGN49

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) SOIL Lab Sample ID: 780009

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F6960

Level: (low/med) LOW Date Received: 10/25/89

% Moisture: not dec. 77 dec. ____ Date Extracted: 11/02/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/15/89

GPC Cleanup: (Y/N) Y pH: 7.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	14000	U
83-32-9	Acenaphthene	2900	U
51-28-5	2,4-Dinitrophenol	14000	U
100-02-7	4-Nitrophenol	14000	U
132-64-9	Dibenzofuran	2900	U
121-14-2	2,4-Dinitrotoluene	2900	U
84-66-2	Diethylphthalate	2900	U
7005-72-3	4-Chlorophenyl-phenylether	2900	U
86-73-7	Fluorene	2900	U
100-10-6	4-Nitroaniline	14000	U
534-52-1	4,6-Dinitro-2-Methylphenol	14000	U
86-30-6	N-Nitrosodiphenylamine (1)	2900	U
101-55-3	4-Bromophenyl-phenylether	2900	U
118-74-1	Hexachlorobenzene	2900	U
87-86-5	Pentachlorophenol	14000	U
85-01-8	Phenanthrene	2900	U
120-12-7	Anthracene	2900	U
84-74-2	Di-n-Butylphthalate	2900	U
206-44-0	Fluoranthene	2900	U
129-00-0	Pyrene	2900	U
85-68-7	Butylbenzylphthalate	2900	U
91-94-1	3,3'-Dichlorobenzidine	5700	U
56-55-3	Benzo(a)Anthracene	2900	U
218-01-9	Chrysene	2900	U
117-81-7	bis(2-Ethylhexyl)Phthalate	2900	U
117-84-0	Di-n-Octyl Phthalate	2900	U
205-99-2	Benzo(b)Fluoranthene	2900	U
207-08-9	Benzo(k)Fluoranthene	2900	U
50-32-8	Benzo(a)Pyrene	2900	U
193-39-5	Indeno(1,2,3-cd)Pyrene	2900	U
53-70-3	Dibenz(a,h)Anthracene	2900	U
191-24-2	Benzo(g,h,i)Perylene	2900	U

(1) - Cannot be separated from Diphenylamine

13001 • 5-211-02

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EGN49

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) SOIL Lab Sample ID: 780009

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F6960

Level: (low/med) LOW Date Received: 10/25/89

% Moisture: not dec. 77 dec. ____ Date Extracted: 11/02/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/15/89

GPC Cleanup: (Y/N) Y pH: 7.0 Dilution Factor: 1.0

Number TICs found: 15

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 108214	Acetic Acid, 1-Methylethyl e	5.63	6400	~~BJ~~ u
2. 123422	4-Hydroxy-4-Methyl-2-Pentano	6.12	150000	~~ABJ~~ u
3.	Unknown	7.32	2100	J
4. 4436753	3-Hexene-2,5-dione (8CI9CI)	7.90	4500	~~BJ~~ u
5.	Unknown	8.07	1200	J
6.	Unknown	8.64	7700	~~BJ~~ u
7. 79209	Acetic acid, methyl ester (8	9.72	1300	J
8.	Molecular Sulfur	17.19	2000	J
9.	Unknown Hydrocarbon Co-eluti	23.24	81000	J
10.	Unknown Hydrocarbon	27.07	1500	J
11. 112958	Eicosane	28.86	2500	J
12.	Unknown	30.44	9200	J
13.	Unknown Hydrocarbon	31.14	2900	J
14. 629801	Hexadecanal	33.34	2700	J
15.	Unknown Hydrocarbon	34.24	2400	J

J.V.
12/10/89

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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGN50

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) SOIL Lab Sample ID: 780010

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F6959

Level: (low/med) LOW Date Received: 10/25/89

% Moisture: not dec. 66 dec. 26 Date Extracted: 11/02/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/15/89

GPC Cleanup: (Y/N) Y pH: 7.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	890	U
111-44-4	bis(2-Chloroethyl)Ether	890	U
95-57-8	2-Chlorophenol	890	U
541-73-1	1,3-Dichlorobenzene	890	U
106-46-7	1,4-Dichlorobenzene	890	U
100-51-6	Benzyl Alcohol	890	U
95-50-1	1,2-Dichlorobenzene	890	U
95-48-7	2-Methylphenol	890	U
39638-32-9	bis(2-Chloroisopropyl)Ether	890	U
106-44-5	4-Methylphenol	890	U
621-64-7	N-Nitroso-Di-n-Propylamine	890	U
67-72-1	Hexachloroethane	890	U
98-95-3	Nitrobenzene	890	U
78-59-1	Isophorone	890	U
88-75-5	2-Nitrophenol	890	U
105-67-9	2,4-Dimethylphenol	890	U
65-85-0	Benzoic Acid	4300	U
111-91-1	bis(2-Chloroethoxy)Methane	890	U
120-83-2	2,4-Dichlorophenol	890	U
120-82-1	1,2,4-Trichlorobenzene	890	U
91-20-3	Naphthalene	890	U
106-47-8	4-Chloroaniline	890	U
87-68-3	Hexachlorobutadiene	890	U
59-50-7	4-Chloro-3-Methylphenol	890	U
91-57-6	2-Methylnaphthalene	890	U
77-47-4	Hexachlorocyclopentadiene	890	U
88-06-2	2,4,6-Trichlorophenol	890	U
95-95-4	2,4,5-Trichlorophenol	4300	U
91-58-7	2-Chloronaphthalene	890	U
88-74-4	2-Nitroaniline	4300	U
131-11-3	Dimethyl Phthalate	890	U
208-96-8	Acenaphthylene	890	U
606-20-2	2,6-Dinitrotoluene	890	U

13001 • 5-210-06

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGN50

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) SOIL Lab Sample ID: 780010

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F6959

Level: (low/med) LOW Date Received: 10/25/89

% Moisture: not dec. 66 dec. 26 Date Extracted: 11/02/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/15/89

GPC Cleanup: (Y/N) Y pH: 7.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	4300	U
83-32-9	Acenaphthene	890	U
51-28-5	2,4-Dinitrophenol	4300	U
100-02-7	4-Nitrophenol	4300	U
132-64-9	Dibenzofuran	890	U
121-14-2	2,4-Dinitrotoluene	890	U
84-66-2	Diethylphthalate	890	U
7005-72-3	4-Chlorophenyl-phenylether	890	U
86-73-7	Fluorene	890	U
100-10-6	4-Nitroaniline	4300	U
534-52-1	4,6-Dinitro-2-Methylphenol	4300	U
86-30-6	N-Nitrosodiphenylamine (1)	890	U
101-55-3	4-Bromophenyl-phenylether	890	U
118-74-1	Hexachlorobenzene	890	U
87-86-5	Pentachlorophenol	4300	U
85-01-8	Phenanthrene	890	U
120-12-7	Anthracene	890	U
84-74-2	Di-n-Butylphthalate	890	U
206-44-0	Fluoranthene	890	U
129-00-0	Pyrene	890	U
85-68-7	Butylbenzylphthalate	890	U
91-94-1	3,3'-Dichlorobenzidine	1800	U
56-55-3	Benzo(a)Anthracene	890	U
218-01-9	Chrysene	890	U
117-81-7	bis(2-Ethylhexyl)Phthalate	890	U
117-84-0	Di-n-Octyl Phthalate	890	U
205-99-2	Benzo(b)Fluoranthene	890	U
207-08-9	Benzo(k)Fluoranthene	890	U
50-32-8	Benzo(a)Pyrene	890	U
193-39-5	Indeno(1,2,3-cd)Pyrene	890	U
53-70-3	Dibenz(a,h)Anthracene	890	U
191-24-2	Benzo(g,h,i)Perylene	890	U

(1) - Cannot be separated from Diphenylamine

13001 • 5-211-03

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EGN50

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) SOIL Lab Sample ID: 780010

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F6959

Level: (low/med) LOW Date Received: 10/25/89

% Moisture: not dec. 66 dec. 26 Date Extracted: 11/02/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/15/89

GPC Cleanup: (Y/N) Y pH: 7.0 Dilution Factor: 1.0

Number TICs found: 12

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 108214	Acetic Acid, 1-Methylethyl e	5.67	1400	~~BJ~~ u
2. 123422	4-Hydroxy-4-Methyl-2-Pentano	6.10	41000	~~ABJ~~ u
3.	Unknown	7.33	630	J
4. 4436753	3-Hexene-2,5-dione (8CI9CI)	7.92	940	~~BJ~~ u
5.	Unknown	8.67	1800	~~BJ~~ u
6. 10544500	Molecular Sulfur	17.24	1400	J
7.	Unknown Co-eluting with Mole	19.12	460	J
8.	Molecular Sulfur	22.82	52000	J
9. 112958	Eicosane	28.87	1800	J
10.	Unknown	30.47	2600	J
11.	Unknown Hydrocarbon	31.14	2600	J
12. 629801	Hexadecanal (ACN)(9CI)	33.34	2300	J

S.V. 12/10/89

13001 • 5 · 210 - 07

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGN51

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) SOIL Lab Sample ID: 780011

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F7057

Level: (low/med) LOW Date Received: 10/25/89

% Moisture: not dec. 9 dec. ____ Date Extracted: 11/17/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/22/89

GPC Cleanup: (Y/N) Y pH: 6.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	730	U
111-44-4	bis(2-Chloroethyl)Ether	730	U
95-57-8	2-Chlorophenol	730	U
541-73-1	1,3-Dichlorobenzene	730	U
106-46-7	1,4-Dichlorobenzene	730	U
100-51-6	Benzyl Alcohol	730	U
95-50-1	1,2-Dichlorobenzene	730	U
95-48-7	2-Methylphenol	730	U
39638-32-9	bis(2-Chloroisopropyl)Ether	730	U
106-44-5	4-Methylphenol	730	U
621-64-7	N-Nitroso-Di-n-Propylamine	730	U
67-72-1	Hexachloroethane	730	U
98-95-3	Nitrobenzene	730	U
78-59-1	Isophorone	730	U
88-75-5	2-Nitrophenol	730	U
105-67-9	2,4-Dimethylphenol	730	U
65-85-0	Benzoic Acid	3500	U
111-91-1	bis(2-Chloroethoxy)Methane	730	U
120-83-2	2,4-Dichlorophenol	730	U
120-82-1	1,2,4-Trichlorobenzene	730	U
91-20-3	Naphthalene	730	U
106-47-8	4-Chloroaniline	730	U
87-68-3	Hexachlorobutadiene	730	U
59-50-7	4-Chloro-3-Methylphenol	730	U
91-57-6	2-Methylnaphthalene	730	U
77-47-4	Hexachlorocyclopentadiene	730	U
88-06-2	2,4,6-Trichlorophenol	730	U
95-95-4	2,4,5-Trichlorophenol	3500	U
91-58-7	2-Chloronaphthalene	730	U
88-74-4	2-Nitroaniline	3500	U
131-11-3	Dimethyl Phthalate	730	U
208-96-8	Acenaphthylene	730	U
606-20-2	2,6-Dinitrotoluene	730	U

13001 • 5-210-08

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGN51

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) SOIL Lab Sample ID: 780011

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F7057

Level: (low/med) LOW Date Received: 10/25/89

% Moisture: not dec. 9 dec. ____ Date Extracted: 11/17/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/22/89

GPC Cleanup: (Y/N) Y pH: 6.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	3500	U
83-32-9	Acenaphthene	730	U
51-28-5	2,4-Dinitrophenol	3500	U
100-02-7	4-Nitrophenol	3500	U
132-64-9	Dibenzofuran	730	U
121-14-2	2,4-Dinitrotoluene	730	U
84-66-2	Diethylphthalate	730	U
7005-72-3	4-Chlorophenyl-phenylether	730	U
86-73-7	Fluorene	730	U
100-10-6	4-Nitroaniline	3500	U
534-52-1	4,6-Dinitro-2-Methylphenol	3500	U
86-30-6	N-Nitrosodiphenylamine (1)	730	U
101-55-3	4-Bromophenyl-phenylether	730	U
118-74-1	Hexachlorobenzene	730	U
87-86-5	Pentachlorophenol	3500	U
85-01-8	Phenanthrene	730	U
120-12-7	Anthracene	730	U
84-74-2	Di-n-Butylphthalate	730	U
206-44-0	Fluoranthene	730	U
129-00-0	Pyrene	730	U
85-68-7	Butylbenzylphthalate	730	U
91-94-1	3,3'-Dichlorobenzidine	1500	U
56-55-3	Benzo(a)Anthracene	730	U
218-01-9	Chrysene	730	U
117-81-7	bis(2-Ethylhexyl)Phthalate	730	U
117-84-0	Di-n-Octyl Phthalate	730	U
205-99-2	Benzo(b)Fluoranthene	730	U
207-08-9	Benzo(k)Fluoranthene	730	U
50-32-8	Benzo(a)Pyrene	730	U
193-39-5	Indeno(1,2,3-cd)Pyrene	730	U
53-70-3	Dibenz(a,h)Anthracene	730	U
191-24-2	Benzo(g,h,i)Perylene	730	U

(1) - Cannot be separated from Diphenylamine

13001 • 5-211-04

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EGN51

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) SOIL Lab Sample ID: 780011

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F7057

Level: (low/med) LOW Date Received: 10/25/89

% Moisture: not dec. 9 dec. ____ Date Extracted: 11/17/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/22/89

GPC Cleanup: (Y/N) Y pH: 6.0 Dilution Factor: 1.0

Number TICs found: 9

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 108214	Acetic Acid, 1-Methylethyl e	4.47	890	~~BJ~~ u
2.	UNKNOWN	4.73	310	J
3. 123422	4-Hydroxy-4-Methyl-2-Pentano	4.92	30000	~~ABJ~~ u
4. 4436753	3-Hexene-2,5-dione (8CI9CI)	6.62	1400	~~BJ~~ u
5.	UNKNOWN	7.37	580	J
6.	UNKNOWN	22.82	310	J
7.	UNKNOWN	25.56	310	J
8.	UNKNOWN	31.02	300	J
9.	UNKNOWN	36.17	440	J

JM 12/10/89

13001 • 5-210-09

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGN52

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) SOIL Lab Sample ID: 780012

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F6974

Level: (low/med) LOW Date Received: 10/25/89

% Moisture: not dec. 6 dec. ____ Date Extracted: 11/02/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/16/89

GPC Cleanup: (Y/N) Y pH: 6.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	700	U
111-44-4	bis(2-Chloroethyl)Ether	700	U
95-57-8	2-Chlorophenol	700	U
541-73-1	1,3-Dichlorobenzene	700	U
106-46-7	1,4-Dichlorobenzene	700	U
100-51-6	Benzyl Alcohol	700	U
95-50-1	1,2-Dichlorobenzene	700	U
95-48-7	2-Methylphenol	700	U
39638-32-9	bis(2-Chloroisopropyl)Ether	700	U
106-44-5	4-Methylphenol	700	U
621-64-7	N-Nitroso-Di-n-Propylamine	700	U
67-72-1	Hexachloroethane	700	U
98-95-3	Nitrobenzene	700	U
78-59-1	Isophorone	700	U
88-75-5	2-Nitrophenol	700	U
105-67-9	2,4-Dimethylphenol	700	U
65-85-0	Benzoic Acid	3400	U
111-91-1	bis(2-Chloroethoxy)Methane	700	U
120-83-2	2,4-Dichlorophenol	700	U
120-82-1	1,2,4-Trichlorobenzene	700	U
91-20-3	Naphthalene	700	U
106-47-8	4-Chloroaniline	700	U
87-68-3	Hexachlorobutadiene	700	U
59-50-7	4-Chloro-3-Methylphenol	700	U
91-57-6	2-Methylnaphthalene	700	U
77-47-4	Hexachlorocyclopentadiene	700	U
88-06-2	2,4,6-Trichlorophenol	700	U
95-95-4	2,4,5-Trichlorophenol	3400	U
91-58-7	2-Chloronaphthalene	700	U
88-74-4	2-Nitroaniline	3400	U
131-11-3	Dimethyl Phthalate	700	U
208-96-8	Acenaphthylene	700	U
606-20-2	2,6-Dinitrotoluene	700	U

13001 • 5-21010

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGN52

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) SOIL Lab Sample ID: 780012

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F6974

Level: (low/med) LOW Date Received: 10/25/89

% Moisture: not dec. 6 dec. ____ Date Extracted: 11/02/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/16/89

GPC Cleanup: (Y/N) Y pH: 6.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	3400	U
83-32-9	Acenaphthene	700	U
51-28-5	2,4-Dinitrophenol	3400	U
100-02-7	4-Nitrophenol	3400	U
132-64-9	Dibenzofuran	700	U
121-14-2	2,4-Dinitrotoluene	700	U
84-66-2	Diethylphthalate	700	U
7005-72-3	4-Chlorophenyl-phenylether	700	U
86-73-7	Fluorene	700	U
100-10-6	4-Nitroaniline	3400	U
534-52-1	4,6-Dinitro-2-Methylphenol	3400	U
86-30-6	N-Nitrosodiphenylamine (1)	700	U
101-55-3	4-Bromophenyl-phenylether	700	U
118-74-1	Hexachlorobenzene	700	U
87-86-5	Pentachlorophenol	3400	U
85-01-8	Phenanthrene	700	U
120-12-7	Anthracene	700	U
84-74-2	Di-n-Butylphthalate	700	U
206-44-0	Fluoranthene	700	U
129-00-0	Pyrene	700	U
85-68-7	Butylbenzylphthalate	700	U
91-94-1	3,3'-Dichlorobenzidine	1400	U
56-55-3	Benzo(a)Anthracene	700	U
218-01-9	Chrysene	700	U
117-81-7	bis(2-Ethylhexyl)Phthalate	700	U
117-84-0	Di-n-Octyl Phthalate	700	U
205-99-2	Benzo(b)Fluoranthene	700	U
207-08-9	Benzo(k)Fluoranthene	700	U
50-32-8	Benzo(a)Pyrene	700	U
193-39-5	Indeno(1,2,3-cd)Pyrene	700	U
53-70-3	Dibenz(a,h)Anthracene	700	U
191-24-2	Benzo(g,h,i)Perylene	700	U

(1) - Cannot be separated from Diphenylamine

13001 • 5-211-05

EPA SAMPLE NO.

EGN52

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) SOIL Lab Sample ID: 780012

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F6974

Level: (low/med) LOW Date Received: 10/25/89

% Moisture: not dec. 6 dec. ____ Date Extracted: 11/02/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/16/89

GPC Cleanup: (Y/N) Y pH: 6.0 Dilution Factor: 1.0

Number TICs found: 23

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 108214	Acetic acid, 1-methylethyl e	5.73	1200	~~BN~~ u
2. 123422	4-Hydroxy-4-Methyl-2-Pentano	6.23	38000	~~AB~~ u
3.	UNKNOWN	8.79	1100	J
4.	Unknown Hydrocarbon	21.99	1000	J
5.	Unknown Hydrocarbon	25.44	1300	J
6.	Unknown Hydrocarbon	25.97	3400	J
7.	Unknown Hydrocarbon	26.17	3300	J
8.	Unknown Hydrocarbon	26.32	1700	J
9.	Unknown Hydrocarbon	26.62	1400	J
10.	Unknown Hydrocarbon	26.76	1100	J
11.	Unknown Hydrocarbon	27.02	2500	J
12.	Unknown Hydrocarbon	27.39	3600	J
13.	Unknown Hydrocarbon	27.62	1100	J
14.	Unknown Hydrocarbon	28.47	3100	J
15.	Unknown Hydrocarbon	28.77	2600	J
16.	Unknown Hydrocarbon	29.09	1500	J
17.	Unknown Hydrocarbon	29.37	4400	J
18.	Unknown Hydrocarbon	29.74	2200	J
19.	Unknown Hydrocarbon	31.17	1200	J
20.	Unknown Hydrocarbon	31.34	1600	J
21.	Unknown Hydrocarbon	31.92	1200	J
22.	Unknown Hydrocarbon	34.39	1300	J
23.	Unknown Hydrocarbon	37.47	1200	J

JM 12/10/89

13001 • 5-210-11

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGN52RE

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) SOIL Lab Sample ID: 780012

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F7055

Level: (low/med) LOW Date Received: 10/25/89

% Moisture: not dec. 6 dec. ____ Date Extracted: 11/02/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/22/89

GPC Cleanup: (Y/N) Y pH: 6.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	700	U
111-44-4	bis(2-Chloroethyl)Ether	700	U
95-57-8	2-Chlorophenol	700	U
541-73-1	1,3-Dichlorobenzene	700	U
106-46-7	1,4-Dichlorobenzene	700	U
100-51-6	Benzyl Alcohol	700	U
95-50-1	1,2-Dichlorobenzene	700	U
95-48-7	2-Methylphenol	700	U
39638-32-9	bis(2-Chloroisopropyl)Ether	700	U
106-44-5	4-Methylphenol	700	U
621-64-7	N-Nitroso-Di-n-Propylamine	700	U
67-72-1	Hexachloroethane	700	U
98-95-3	Nitrobenzene	700	U
78-59-1	Isophorone	700	U
88-75-5	2-Nitrophenol	700	U
105-67-9	2,4-Dimethylphenol	700	U
65-85-0	Benzoic Acid	3400	U
111-91-1	bis(2-Chloroethoxy)Methane	700	U
120-83-2	2,4-Dichlorophenol	700	U
120-82-1	1,2,4-Trichlorobenzene	700	U
91-20-3	Naphthalene	700	U
106-47-8	4-Chloroaniline	700	U
87-68-3	Hexachlorobutadiene	700	U
59-50-7	4-Chloro-3-Methylphenol	700	U
91-57-6	2-Methylnaphthalene	700	U
77-47-4	Hexachlorocyclopentadiene	700	U
88-06-2	2,4,6-Trichlorophenol	700	U
95-95-4	2,4,5-Trichlorophenol	3400	U
91-58-7	2-Chloronaphthalene	700	U
88-74-4	2-Nitroaniline	3400	U
131-11-3	Dimethyl Phthalate	700	U
208-96-8	Acenaphthylene	700	U
606-20-2	2,6-Dinitrotoluene	700	U

13001 • 5-210-12

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGN52RE

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) SOIL Lab Sample ID: 780012

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F7055

Level: (low/med) LOW Date Received: 10/25/89

% Moisture: not dec. 6 dec. ____ Date Extracted: 11/02/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/22/89

GPC Cleanup: (Y/N) Y pH: 6.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	3400	U
83-32-9	Acenaphthene	700	U
51-28-5	2,4-Dinitrophenol	3400	U
100-02-7	4-Nitrophenol	3400	U
132-64-9	Dibenzofuran	700	U
121-14-2	2,4-Dinitrotoluene	700	U
84-66-2	Diethylphthalate	700	U
7005-72-3	4-Chlorophenyl-phenylether	700	U
86-73-7	Fluorene	700	U
100-10-6	4-Nitroaniline	3400	U
534-52-1	4,6-Dinitro-2-Methylphenol	3400	U
86-30-6	N-Nitrosodiphenylamine (1)	700	U
101-55-3	4-Bromophenyl-phenylether	700	U
118-74-1	Hexachlorobenzene	700	U
87-86-5	Pentachlorophenol	3400	U
85-01-8	Phenanthrene	700	U
120-12-7	Anthracene	700	U
84-74-2	Di-n-Butylphthalate	700	U
206-44-0	Fluoranthene	700	U
129-00-0	Pyrene	700	U
85-68-7	Butylbenzylphthalate	700	U
91-94-1	3,3'-Dichlorobenzidine	1400	U
56-55-3	Benzo(a)Anthracene	700	U
218-01-9	Chrysene	700	U
117-81-7	bis(2-Ethylhexyl)Phthalate	700	U
117-84-0	Di-n-Octyl Phthalate	700	U
205-99-2	Benzo(b)Fluoranthene	700	U
207-08-9	Benzo(k)Fluoranthene	700	U
50-32-8	Benzo(a)Pyrene	700	U
193-39-5	Indeno(1,2,3-cd)Pyrene	700	U
53-70-3	Dibenz(a,h)Anthracene	700	U
191-24-2	Benzo(g,h,i)Perylene	700	U

(1) - Cannot be separated from Diphenylamine

13001 • 5 - 211 - 06

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EGN52RE

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) SOIL Lab Sample ID: 780012

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F7055

Level: (low/med) LOW Date Received: 10/25/89

% Moisture: not dec. 6 dec. ____ Date Extracted: 11/02/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/22/89

GPC Cleanup: (Y/N) Y pH: 6.0 Dilution Factor: 1.0

Number TICs found: 20

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 108214	Acetic acid, 1-methylethyl e	4.45	3300	~~BJ~~ u
2. 123422	4-Hydroxy-4-Methyl-2-Pentano	4.88	63000	~~ABJ~~ u
3.	UNKNOWN	6.32	1700	~~BJ~~ u
4.	UNKNOWN	7.35	1900	J
5.	UNKNOWN	8.37	1500	J
6.	Unknown Nitrogen Compound	9.02	3000	J
7.	Unknown Hydrocarbon	19.79	4400	J
8.	Unknown Hydrocarbon	20.29	3200	J
9.	Unknown Hydrocarbon	20.59	1500	J
10.	Unknown Hydrocarbon	21.35	3100	J
11.	Unknown Hydrocarbon	26.79	1500	J
12.	Unknown Hydrocarbon	27.12	2600	J
13.	Unknown Hydrocarbon	28.56	4500	J
14.	Unknown Hydrocarbon	28.96	7700	J
15.	Unknown Hydrocarbon	30.59	8000	J
16.	Unknown Hydrocarbon	31.49	11000	J
17.	Unknown Hydrocarbon	32.71	6800	J
18.	Unknown Hydrocarbon	34.34	2900	J
19.	Unknown Hydrocarbon	35.84	1700	J
20.	UNKNOWN	36.19	4500	J

JVL 12/10/89

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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGN53

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) SOIL Lab Sample ID: 780013

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F6958

Level: (low/med) LOW Date Received: 10/25/89

% Moisture: not dec. 25 dec. ____ Date Extracted: 11/02/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/15/89

GPC Cleanup: (Y/N) Y pH: 6.5 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	880	U
111-44-4	bis(2-Chloroethyl)Ether	880	U
95-57-8	2-Chlorophenol	880	U
541-73-1	1,3-Dichlorobenzene	880	U
106-46-7	1,4-Dichlorobenzene	880	U
100-51-6	Benzyl Alcohol	880	U
95-50-1	1,2-Dichlorobenzene	880	U
95-48-7	2-Methylphenol	880	U
39638-32-9	bis(2-Chloroisopropyl)Ether	880	U
106-44-5	4-Methylphenol	880	U
621-64-7	N-Nitroso-Di-n-Propylamine	880	U
67-72-1	Hexachloroethane	880	U
98-95-3	Nitrobenzene	880	U
78-59-1	Isophorone	880	U
88-75-5	2-Nitrophenol	880	U
105-67-9	2,4-Dimethylphenol	880	U
65-85-0	Benzoic Acid	4300	U
111-91-1	bis(2-Chloroethoxy)Methane	880	U
120-83-2	2,4-Dichlorophenol	880	U
120-82-1	1,2,4-Trichlorobenzene	880	U
91-20-3	Naphthalene	880	U
106-47-8	4-Chloroaniline	880	U
87-68-3	Hexachlorobutadiene	880	U
59-50-7	4-Chloro-3-Methylphenol	880	U
91-57-6	2-Methylnaphthalene	880	U
77-47-4	Hexachlorocyclopentadiene	880	U
88-06-2	2,4,6-Trichlorophenol	880	U
95-95-4	2,4,5-Trichlorophenol	4300	U
91-58-7	2-Chloronaphthalene	880	U
88-74-4	2-Nitroaniline	4300	U
131-11-3	Dimethyl Phthalate	880	U
208-96-8	Acenaphthylene	880	U
606-20-2	2,6-Dinitrotoluene	880	U

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1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGN53

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) SOIL Lab Sample ID: 780013

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F6958

Level: (low/med) LOW Date Received: 10/25/89

% Moisture: not dec. 25 dec. ____ Date Extracted: 11/02/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/15/89

GPC Cleanup: (Y/N) Y pH: 6.5 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	4300	U
83-32-9	Acenaphthene	880	U
51-28-5	2,4-Dinitrophenol	4300	U
100-02-7	4-Nitrophenol	4300	U
132-64-9	Dibenzofuran	880	U
121-14-2	2,4-Dinitrotoluene	880	U
84-66-2	Diethylphthalate	880	U
7005-72-3	4-Chlorophenyl-phenylether	880	U
86-73-7	Fluorene	880	U
100-10-6	4-Nitroaniline	4300	U
534-52-1	4,6-Dinitro-2-Methylphenol	4300	U
86-30-6	N-Nitrosodiphenylamine (1)	880	U
101-55-3	4-Bromophenyl-phenylether	880	U
118-74-1	Hexachlorobenzene	880	U
87-86-5	Pentachlorophenol	4300	U
85-01-8	Phenanthrene	880	U
120-12-7	Anthracene	880	U
84-74-2	Di-n-Butylphthalate	880	U
206-44-0	Fluoranthene	880	U
129-00-0	Pyrene	880	U
85-68-7	Butylbenzylphthalate	880	U
91-94-1	3,3'-Dichlorobenzidine	1800	U
56-55-3	Benzo(a)Anthracene	880	U
218-01-9	Chrysene	880	U
117-81-7	bis(2-Ethylhexyl)Phthalate	880	U
117-84-0	Di-n-Octyl Phthalate	880	U
205-99-2	Benzo(b)Fluoranthene	880	U
207-08-9	Benzo(k)Fluoranthene	880	U
50-32-8	Benzo(a)Pyrene	880	U
193-39-5	Indeno(1,2,3-cd)Pyrene	880	U
53-70-3	Dibenz(a,h)Anthracene	880	U
191-24-2	Benzo(g,h,i)Perylene	880	U

(1) - Cannot be separated from Diphenylamine

13001 • 5-211-07

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E6N53

Lab Name: CLAYTON NOVI Contract: 68-09-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: E6N48

Matrix: (soil/water) SOIL Lab Sample ID: 780013

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F6958

Level: (low/med) LOW Date Received: 10/25/89

% Moisture: not dec. 25 dec. ____ Date Extracted: 11/02/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/15/89

GPC Cleanup: (Y/N) Y pH: 6.5 Dilution Factor: 1.0

Number TICs found: 18

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 108214	Acetic Acid, 1-Methylethyl e	5.65	2400	~~BJ~~ u
2. 123422	4-Hydroxy-4-Methyl-2-Pentano	6.13	59000	~~ABJ~~ u
3.	Unknown Ester	6.23	460	~~BJ~~ u
4.	Unknown	6.33	690	J
5.	Unknown	7.32	540	J
6. 1068877	Pentane, 3-ethyl-2,4-dimethy	7.58	530	J
7. 4436753	3-Hexene-2,5-dione (8CI9CI)	7.90	1000	~~BJ~~ u
8. 100527	Benzaldehyde (ACN)(DOT)(8CI9	8.22	410	J
9.	Unknown	8.64	4100	~~BJ~~ u
10.	Unknown Hydrocarbon	27.04	590	J
11.	Unknown	28.29	450	J
12. 112958	Eicosane (8CI9CI)	28.86	1400	J
13.	Unknown	30.44	1700	J
14.	Unknown Hydrocarbon	31.14	6900	J
15. 629801	Hexadecanal (ACN)(9CI)	33.32	2100	J
16.	Unknown Hydrocarbon	34.24	8400	J
17.	Unknown	37.42	1800	J
18.	Unknown Hydrocarbon	38.67	3400	J

JM 12/10/89

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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGN55

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) WATER Lab Sample ID: 780331

Sample wt/vol: 1000 (g/mL) ML Lab File ID: F6938

Level: (low/med) LOW Date Received: 10/26/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/03/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/14/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
100-51-6	Benzyl Alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
39638-32-9	bis(2-Chloroisopropyl)Ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
65-85-0	Benzoic Acid	50	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

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1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGN55

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) WATER Lab Sample ID: 780331

Sample wt/vol: 1000 (g/mL) ML Lab File ID: F6938

Level: (low/med) LOW Date Received: 10/26/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/03/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/14/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-10-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-Methylphenol	50	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

13001 • 5-211-08

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EGN55

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) WATER Lab Sample ID: 780331

Sample wt/vol: 1000 (g/mL) ML Lab File ID: F6938

Level: (low/med) LOW Date Received: 10/26/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/03/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/14/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

Number TICs found: 4

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 105602	Caprolactam	13.22	200	J
2. 85609	Phenol, 4,4'-butylidenebis[2	29.09	8.0	J
3.	Unknown	35.22	38	J
4.	Unknown	39.79	21	J

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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGN61

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) WATER Lab Sample ID: 780337

Sample wt/vol: 1000 (g/mL) ML Lab File ID: F6956

Level: (low/med) LOW Date Received: 10/26/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/30/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/15/89

GPC Cleanup: (Y/N) N pH: 6.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
100-51-6	Benzyl Alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
39638-32-9	bis(2-Chloroisopropyl)Ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
65-85-0	Benzoic Acid	50	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

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1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGN61

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) WATER Lab Sample ID: 780337

Sample wt/vol: 1000 (g/mL) ML Lab File ID: F6956

Level: (low/med) LOW Date Received: 10/26/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/30/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/15/89

GPC Cleanup: (Y/N) N pH: 6.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-10-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-Methylphenol	50	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

13001 • 5-211-09

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EGN61

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) WATER Lab Sample ID: 780337

Sample wt/vol: 1000 (g/mL) ML Lab File ID: F6956

Level: (low/med) LOW Date Received: 10/26/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/30/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/15/89

GPC Cleanup: (Y/N) N pH: 6.0 Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGP22

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) WATER Lab Sample ID: 780335

Sample wt/vol: 1000 (g/mL) ML Lab File ID: F6939

Level: (low/med) LOW Date Received: 10/26/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/30/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/14/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
100-51-6	Benzyl Alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
39638-32-9	bis(2-Chloroisopropyl)Ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
65-85-0	Benzoic Acid	50	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

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1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGP22

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) WATER Lab.Sample ID: 780335

Sample wt/vol: 1000 (g/mL) ML Lab File ID: F6939

Level: (low/med) LOW Date Received: 10/26/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/30/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/14/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-10-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-Methylphenol	50	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

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1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EGP22

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) WATER Lab Sample ID: 780335

Sample wt/vol: 1000 (g/mL) ML Lab File ID: F6939

Level: (low/med) LOW Date Received: 10/26/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/30/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/14/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 105602	Caprolactam	13.15	83	J

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1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGN48

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) SOIL Lab Sample ID: 780008

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

Level: (low/med) LOW Date Received: 10/25/89

% Moisture: not dec. 74 dec. 63 Date Extracted: 11/02/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/12/89

GPC Cleanup: (Y/N) Y pH: 7.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	43	U
319-85-7	beta-BHC	43	U
319-86-8	delta-BHC	43	U
58-89-9	gamma-BHC (Lindane)	43	U
76-44-8	Heptachlor	43	U
309-00-2	Aldrin	43	U
1024-57-3	Heptachlor epoxide	43	U
959-98-8	Endosulfan I	43	U
60-57-1	Dieldrin	86	U
72-55-9	4,4'-DDE	86	U
72-20-8	Endrin	86	U
33213-65-9	Endosulfan II	86	U
72-54-8	4,4'-DDD	86	U
1031-07-8	Endosulfan sulfate	86	U
50-29-3	4,4'-DDT	86	U
72-43-5	Methoxychlor	430	U
53494-70-5	Endrin ketone	86	U
5103-71-9	alpha-Chlordane	430	U
5103-74-2	gamma-Chlordane	430	U
8001-35-2	Toxaphene	860	U
12674-11-2	Aroclor-1016	430	U
11104-28-2	Aroclor-1221	430	U
11141-16-5	Aroclor-1232	430	U
53469-21-9	Aroclor-1242	430	U
12672-29-6	Aroclor-1248	430	U
11097-69-1	Aroclor-1254	860	U
11096-82-5	Aroclor-1260	860	U

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1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGN49

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) SOIL Lab Sample ID: 780009

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

Level: (low/med) LOW Date Received: 10/25/89

% Moisture: not dec. 77 dec. ____ Date Extracted: 11/02/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/12/89

GPC Cleanup: (Y/N) Y pH: 7.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	70	U
319-85-7	beta-BHC	70	U
319-86-8	delta-BHC	70	U
58-89-9	gamma-BHC (Lindane)	70	U
76-44-8	Heptachlor	70	U
309-00-2	Aldrin	70	U
1024-57-3	Heptachlor epoxide	70	U
959-98-8	Endosulfan I	70	U
60-57-1	Dieldrin	140	U
72-55-9	4,4'-DDE	140	U
72-20-8	Endrin	140	U
33213-65-9	Endosulfan II	140	U
72-54-8	4,4'-DDD	140	U
1031-07-8	Endosulfan sulfate	140	U
50-29-3	4,4'-DDT	140	U
72-43-5	Methoxychlor	700	U
53494-70-5	Endrin ketone	140	U
5103-71-9	alpha-Chlordane	700	U
5103-74-2	gamma-Chlordane	700	U
8001-35-2	Toxaphene	1400	U
12674-11-2	Aroclor-1016	700	U
11104-28-2	Aroclor-1221	700	U
11141-16-5	Aroclor-1232	700	U
53469-21-9	Aroclor-1242	700	U
12672-29-6	Aroclor-1248	700	U
11097-69-1	Aroclor-1254	1400	U
11096-82-5	Aroclor-1260	1400	U

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1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGN50

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) SOIL Lab Sample ID: 780010

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

Level: (low/med) LOW Date Received: 10/25/89

% Moisture: not dec. 66 dec. 26 Date Extracted: 11/02/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/12/89

GPC Cleanup: (Y/N) Y pH: 7.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	22	U
319-85-7	beta-BHC	22	U
319-86-8	delta-BHC	22	U
58-89-9	gamma-BHC (Lindane)	22	U
76-44-8	Heptachlor	22	U
309-00-2	Aldrin	22	U
1024-57-3	Heptachlor epoxide	22	U
959-98-8	Endosulfan I	22	U
60-57-1	Dieldrin	43	U
72-55-9	4,4'-DDE	43	U
72-20-8	Endrin	43	U
33213-65-9	Endosulfan II	43	U
72-54-8	4,4'-DDD	43	U
1031-07-8	Endosulfan sulfate	43	U
50-29-3	4,4'-DDT	43	U
72-43-5	Methoxychlor	220	U
53494-70-5	Endrin ketone	43	U
5103-71-9	alpha-Chlordane	220	U
5103-74-2	gamma-Chlordane	220	U
8001-35-2	Toxaphene	430	U
12674-11-2	Aroclor-1016	220	U
11104-28-2	Aroclor-1221	220	U
11141-16-5	Aroclor-1232	220	U
53469-21-9	Aroclor-1242	220	U
12672-29-6	Aroclor-1248	220	U
11097-69-1	Aroclor-1254	430	U
11096-82-5	Aroclor-1260	430	U

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGN51

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) SOIL Lab Sample ID: 780011

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

Level: (low/med) LOW Date Received: 10/25/89

% Moisture: not dec. 9 dec. ____ Date Extracted: 11/02/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/12/89

GPC Cleanup: (Y/N) Y pH: 6.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	18	U
319-85-7	beta-BHC	18	U
319-86-8	delta-BHC	18	U
58-89-9	gamma-BHC (Lindane)	18	U
76-44-8	Heptachlor	18	U
309-00-2	Aldrin	18	U
1024-57-3	Heptachlor epoxide	18	U
959-98-8	Endosulfan I	18	U
60-57-1	Dieldrin	35	U
72-55-9	4,4'-DDE	35	U
72-20-8	Endrin	35	U
33213-65-9	Endosulfan II	35	U
72-54-8	4,4'-DDD	35	U
1031-07-8	Endosulfan sulfate	35	U
50-29-3	4,4'-DDT	35	U
72-43-5	Methoxychlor	180	U
53494-70-5	Endrin ketone	35	U
5103-71-9	alpha-Chlordane	180	U
5103-74-2	gamma-Chlordane	180	U
8001-35-2	Toxaphene	350	U
12674-11-2	Aroclor-1016	180	U
11104-28-2	Aroclor-1221	180	U
11141-16-5	Aroclor-1232	180	U
53469-21-9	Aroclor-1242	180	U
12672-29-6	Aroclor-1248	180	U
11097-69-1	Aroclor-1254	350	U
11096-82-5	Aroclor-1260	350	U

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGN52

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) SOIL Lab Sample ID: 780012

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

Level: (low/med) LOW Date Received: 10/25/89

% Moisture: not dec. 6 dec. ____ Date Extracted: 11/02/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/12/89

GPC Cleanup: (Y/N) Y pH: 6.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	17	U
319-85-7	beta-BHC	17	U
319-86-8	delta-BHC	17	U
58-89-9	gamma-BHC (Lindane)	17	U
76-44-8	Heptachlor	17	U
309-00-2	Aldrin	17	U
1024-57-3	Heptachlor epoxide	17	U
959-98-8	Endosulfan I	17	U
60-57-1	Dieldrin	34	U
72-55-9	4,4'-DDE	34	U
72-20-8	Endrin	34	U
33213-65-9	Endosulfan II	34	U
72-54-8	4,4'-DDD	34	U
1031-07-8	Endosulfan sulfate	34	U
50-29-3	4,4'-DDT	34	U
72-43-5	Methoxychlor	170	U
53494-70-5	Endrin ketone	34	U
5103-71-9	alpha-Chlordane	170	U
5103-74-2	gamma-Chlordane	170	U
8001-35-2	Toxaphene	340	U
12674-11-2	Aroclor-1016	170	U
11104-28-2	Aroclor-1221	170	U
11141-16-5	Aroclor-1232	170	U
53469-21-9	Aroclor-1242	170	U
12672-29-6	Aroclor-1248	170	U
11097-69-1	Aroclor-1254	340	U
11096-82-5	Aroclor-1260	340	U

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGN53

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) SOIL Lab Sample ID: 780013

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

Level: (low/med) LOW Date Received: 10/25/89

% Moisture: not dec. 25 dec. ____ Date Extracted: 11/02/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/12/89

GPC Cleanup: (Y/N) Y pH: 6.5 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	21	U
319-85-7	beta-BHC	21	U
319-86-8	delta-BHC	21	U
58-89-9	gamma-BHC (Lindane)	21	U
76-44-8	Heptachlor	21	U
309-00-2	Aldrin	21	U
1024-57-3	Heptachlor epoxide	21	U
959-98-8	Endosulfan I	21	U
60-57-1	Dieldrin	43	U
72-55-9	4,4'-DDE	43	U
72-20-8	Endrin	43	U
33213-65-9	Endosulfan II	43	U
72-54-8	4,4'-DDD	43	U
1031-07-8	Endosulfan sulfate	43	U
50-29-3	4,4'-DDT	43	U
72-43-5	Methoxychlor	210	U
53494-70-5	Endrin ketone	43	U
5103-71-9	alpha-Chlordane	210	U
5103-74-2	gamma-Chlordane	210	U
8001-35-2	Toxaphene	430	U
12674-11-2	Aroclor-1016	210	U
11104-28-2	Aroclor-1221	210	U
11141-16-5	Aroclor-1232	210	U
53469-21-9	Aroclor-1242	210	U
12672-29-6	Aroclor-1248	210	U
11097-69-1	Aroclor-1254	430	U
11096-82-5	Aroclor-1260	430	U

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGN55

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) WATER Lab Sample ID: 780331

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

Level: (low/med) LOW Date Received: 10/26/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/30/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/31/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.50	U
5103-74-2	gamma-Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGN61

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) WATER Lab Sample ID: 780337

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

Level: (low/med) LOW Date Received: 10/26/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/30/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/31/89

GPC Cleanup: (Y/N) N pH: 6.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.50	U
5103-74-2	gamma-Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGP22

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) WATER Lab Sample ID: 780334

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

Level: (low/med) LOW Date Received: 10/26/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/03/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/13/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.50	U
5103-74-2	gamma-Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

11/16/89

FORM I PEST 1/87 Rev.

EPA

United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

Organic Traffic Report
(For CLP Use Only)

Case Number: 13001
SAS No. (if applicable):

1. Sample Description (Enter in Column A)
1. Surface Water
2. Ground Water
3. Leachate
4. Rinsate
5. Soil/Sediment
6. Oil (SAS)
7. Waste (SAS)
8. Other (SAS) (Specify)

2. Region Number: V
Sampling Co.: FIT
Sampler (Name): Michael J. Fettis

3. Ship To:
CLAYTON
22345 Rochelle Drive
Novi, MI 48050
Attn.: Debbie Brozoski

4. Date Shipped: 10/23/89
Airbill Number: 4071160372
Carrier: Federal Express

Triple volume required for matrix spike/duplicate aqueous sample.
Ship medium and high concentration samples in paint cans.
See reverse for additional instructions.

5. Date Received: 10/26/89 Received by: D. Brozoski
Laboratory Contract Number: 68-D9-0035
Unit Price: $810.00
6. Transfer to:
Date Received:
Received by:
Contract Number:
Price:

CLP Sample Number (From labels)	(A) Sample Description (From box 1)	(B) Concentration L=low M=med H=high	(C) RAS Analysis VOA	BNA	Pest/PCB	(D) Special Handling	(E) Station Location	(F) Date/Time of Sample Collection	(G) Corresponding CLP Inorganic Sample Number	(H) Sample Condition on Receipt	(I) High Conc. Phases (Check below) Solid	Water—MIS Liq.	Non Water—MIS Liq.
EGN55	2	L	✓	✓	✓				MEGL23	INTACT			
~~EGN66~~	~~2~~	~~L~~	~~✓~~	~~✓~~	~~✓~~				~~MEGL24~~	MJF 10/23/89			
~~EGN67~~	~~2~~	~~L~~	~~✓~~	~~✓~~	~~✓~~				~~MEGL26~~	MJF 10/23/89			
~~EGN68~~	~~2~~	~~L~~	~~✓~~	~~✓~~	~~✓~~				~~MEGL20~~	MJF 10/23/89			
EGN61	3	L	✓	✓	✓	Blank			MEGL29	✓			
~~EGN60~~									~~MEGL28~~	~~MJF 10/23/89~~			
EGP22	2	L	✓	✓	✓				MEGP20				
add'l. 10/31/89 per SMO due to sampler error DB 10/31/89													
+ SDG FINAL SAMPLE													

019

13001-5-004-02

United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

Organic Traffic Report
(For CLP Use Only)

Case Number: 13001
SAS No. (if applicable):

1. Sample Description *(Enter in Column A)*
1. Surface Water
2. Ground Water
3. Leachate
4. Rinsate
5. Soil/Sediment
6. Oil (SAS)
7. Waste (SAS)
8. Other (SAS) *(Specify)*

2. Region Number: IX
Sampling Co.: FIT
Sampler (Name): Michael J. Felter

3. Ship To:
CLAYTON
22345 Koelkl Drive
Novi, MI 48050
Attn.: Debbie Brozoski

4. Date Shipped: 10/24/89
Airbill Number: 9071160350
Carrier: Federal Express

Triple volume required for matrix spike/duplicate aqueous sample.

Ship medium and high concentration samples in paint cans.

See reverse for additional instructions.

5. Date Received: 10/25/89
Received by: D. Brozoski
Laboratory Contract Number: 68-D9-0035
Unit Price: $810.00

6. Transfer to:
Date Received:
Received by:
Contract Number:
Price:

CLP Sample Number (From labels)	(A) Sample Description (From box 1)	(B) Concentration L=low M=med H=high	(C) RAS Analysis VOA	BNA	Pest/PCB	(D) Special Handling	(E) Station Location	(F) Date/Time of Sample Collection	(G) Corresponding CLP Inorganic Sample Number	(H) Sample Condition on Receipt	(I) High Conc. Phases (Check below) Solid	Water—MIS Liq.	Non Water—MIS Liq.
EGN 48	5	L	✓	✓	✓				MEGL 16	INTACT			
EGN 49	5	L	✓	✓	✓				MEGL 17				
EGN 50	5	L	✓	✓	✓				MEGL 18				
EGN 51	5	L	✓	✓	✓				MEGL 19				
EGN 52	5	L	✓	✓	✓				MEGL 20				
EGN 53	5	L	✓	✓	✓				MEGL 21				
~~EGN 54~~	~~5~~	~~L~~	~~✓~~	~~✓~~	~~✓~~				~~MEGL 22~~	MJF 10/26/89			

EPA Form 9110-2 (8-88) Replaces EPA Form 2075-7, which may be used. Blue - SMO Copy Pink - Region Copy White - Lab Copy for Return to SMO Yellow - Lab Copy

018

13001 · 5-004-01

United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

EPA

Organic Traffic Report
(For CLP Use Only)

Case Number: 13001
SAS No. (Applicable):

1. Sample Description (Enter in Column A)
1. Surface Water
2. Ground Water
3. Leachate
4. Rinsate
5. Soil/Sediment
6. Oil (SAS)
7. Waste (SAS)
8. Other (SAS) (Specify)

2. Region Number: V
Sampling Co.: FIT
Sampler (Name): M. Michael J. Tellis
3. Ship To: CLASCON 2234 Rethelline Ave Nov, MI 48050 Attn.: Debbie Brozoski

4. Date Shipped: 10/31/89
Airbill Number: 4071160372
Carrier: Federal Express
Triple volume required for matrix spike/duplicate aqueous sample.
Ship medium and high concentration samples in paint cans.
See reverse for additional instructions.

5. Date Received: 10/26/89 Received by: (Brozoski)
Laboratory Contract Number: 68-D9-0035
Unit Price: $810.00
6. Transfer to:
Date Received:
Received by:
Contract Number:
Price:

CLP Sample Number (From labels)	(A) Sample Description (From box 1)	(B) Concentration L=low M=med H=high	(C) RAS Analysis VOA	BNA	Pest/PCB	(D) Special Handling	(E) Station Location	(F) Date/Time of Sample Collection	(G) Corresponding CLP Inorganic Sample Number	(H) Sample Condition on Receipt	(I) High Conc. Phases (Check below) Solid	Water—MIS Liq.	Non Water—MIS Liq.
EGN55	2	L	✓	✓	✓				MEGL23	INTACT			
~~EGN56~~	~~2~~	~~L~~	~~✓~~	~~✓~~	~~✓~~				~~MEGL24~~	MJT 10/23/89			
~~EGN57~~	~~2~~	~~L~~	~~✓~~	~~✓~~	~~✓~~				~~MEGL26~~	MJT 10/23/89			
~~EGN58~~	~~2~~	~~L~~	~~✓~~	~~✓~~	~~✓~~				~~MEGL28~~	MJT 10/23/89			
EGN61	3	L	✓	✓	✓	Blank			MEGL29	✓			
~~EGN62~~									~~MEGL30~~	MJT 10/26/89			
+ EGP22	2	L	✓	✓	✓				MEGP30				
added 10/31/89 per SMO due to sampler error. DB 11/01/89													
+ SDG FINAL SAMPLE													

EPA Form 9110-2 (9-88) Replaces EPA Form 2075-7, which may be used. Blue - SMO Copy Pink - Region Copy White - Lab Copy for Return to SMO Yellow - Lab Copy

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13001 • 5-031-02

United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

Organic Traffic Report
(For CLP Use Only)

Case Number: 13001
SAS No. (if applicable):

1. Sample Description *(Enter in Column A)*
   1. Surface Water
   2. Ground Water
   3. Leachate
   4. Rinsate
   5. Soil/Sediment
   6. Oil (SAS)
   7. Waste (SAS)
   8. Other (SAS) *(Specify)*

2. Region Number: V
Sampling Co.: FIT
Sampler (Name): Michael J. Fette

3. Ship To:
CLAYTON
22345 Hoelkel Drive
Novi, MI 48050
Attn.: Deabie Brozoski

4. Date Shipped: 10/04/89
Airbill Number: 4071160350
Carrier: Federal Express

Triple volume required for matrix spike/duplicate aqueous sample.

Ship medium and high concentration samples in paint cans.

See reverse for additional instructions.

5. Date Received: 10/05/89
Received by: D. Brozoski
Laboratory Contract Number: 68-D9-0035
Unit Price: $810.00

6. Transfer to:
Date Received:
Received by:
Contract Number:
Price:

CLP Sample Number (From labels)	(A) Sample Description (From box 1)	(B) Concentration L=low M=med H=high	(C) RAS Analysis VOA	BNA	Pest/PCB	(D) Special Handling	(E) Station Location	(F) Date/Time of Sample Collection	(G) Corresponding CLP Inorganic Sample Number	(H) Sample Condition on Receipt	(I) High Conc. Phases (Check below) Solid	Water—MIS Liq.	Non Water—MIS Liq.
EGN 48	5	L	✓	✓	✓				MEGL 16	INTACT			
LGN 49	5	L	✓	✓	✓				MEGL 17	↓			
LGN 50	5	L	✓	✓	✓				MEGL 18				
LGN 51	5	L	✓	✓	✓				MEGL 19				
LGN 52	5	L	✓	✓	✓				MEGL 20				
LGN 53	5	L	✓	✓	✓				MEGL 21				
~~LGN 54~~	~~5~~	~~L~~	~~✓~~	~~✓~~	~~✓~~				~~MEGL 22~~	MT			

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13001 · 5-031-01

EPA Form 9110-2 (9-88) Replaces EPA Form 2075-7, which may be used. Blue - SMO Copy Pink - Region Copy White - Lab Copy for Return to SMO Yellow - Lab Copy

Clayton Environmental Consultants, Inc.

22345 Roethel Drive • Novi, Michigan 48050 • (313) 344-1770

CASE NARRATIVE

Case No.: 13001
EPA Nos.: EGN48-EGN53
EPA Nos.: EGN55, EGN61, EGP22
SDG No.: EGN48
Contract No.: 68-D9-0035

Case Summary

Six (6) soil samples were received on October 25, 1989, and three (3) water samples were received on October 26, 1989 for Case 13001. The samples were analyzed for full organics.

On October 31, 1989, Emanual Nocon, Sample Management Office (SMO), advised us of the following changes to this case:

- Water sample EGN55 was actually two samples.
- Sample bottles of Sample EGN55 labelled by the sampler as MSD and DUP should read EGP22.
- Holding times would be missed, but Region V agreed to accept the data.
- No penalty would be assessed by the EPA for missing holding times.

Therefore, these sample bottles were appropriately relabelled, relogged, extracted, and analyzed, and the corresponding paperwork was corrected as EGP22.

The internal standard areas of phenanthrene-d_{10}, chrysene-d_{12}, and perylene-d_{12} were outside the quality control (QC) limit in the semivolatile (BNA) fraction of Sample EGN52. The sample was remixed and reanalyzed with similar results, indicating a matrix effect. Both sets of data have been reported; therefore, Clayton should receive payment for sample EGN52RE.

The BNA fraction of Sample EGN51 was extracted outside the holding time.

The Hewlett Packard GC/MS data systems used by Clayton has a combined NBS/WILEY library. The data system prints the mass spectra for all tentatively identified compounds (TIC's) and the top three library matches. When no library matches are found, the data system prints "NO DATA BASE ENTRIES RETRIEVED".

Branch Offices Los Angeles, CA • Atlanta, GA • Edison, NJ • Toronto, Ontario • Windsor, Ontario • London, U.K.
A Marsh & McLennan Company

Standards

The instrument was tuned to meet the abundance criteria for BFB and DFTPP before any standards, blanks, or samples were analyzed. Initial and continuing calibration data of the SPCC and CCC for VOA's and BNA's are within the contract-required QC limits.

Pesticide Linearity and Degradation

Linearity and degradation criteria are within the contract-required QC limits for the packed column which was used for quantitation.

Percent-difference and retention time shifts for all pesticide compounds were within contract-required criteria for the primary run which was used for quantitation.

Surrogate Recoveries

Surrogate recovery results are reported on Form II, and can be found in the QC Summary data package.

Matrix Spike/Matrix Spike Duplicate

Matrix spike and matrix spike duplicate recovery data are reported on Form III, and can be found in the QC Summary data package.

Blanks

The method blanks and corresponding samples are reported on the Method Blank Summary, Form IV, and can be found in the QC Summary data package.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

[signature] for

Daryl Strandbergh
Project Manager, CLP

11/29/89
Date

In Reference to Case No(s):

13001

Contract Laboratory Program
REGIONAL/LABORATORY COMMUNICATION SYSTEM

Telephone Record Log

RECEIVED
NOV 06 1989
US EPA CENTRAL REGIONAL LAB.
536 S. CLARK ST.
CHICAGO, ILLINOIS 60605

Date of Call: 10/19/89

Laboratory Name: Clayton Environmental

Lab Contact: Debbie Brozoski

Region: SMO

Regional Contact: Emanuel Rocon

Call Initiated By: ___ Laboratory ✓ Region SMO

In reference to data for the following sample number(s):

Summary of Questions/Issues Discussed:

Case 13001 will be shipped from Region V the week of 10/23/89 and consist of 84s and 074w for full organics.
Contract 68-D9-0035

Summary of Resolution:

Debra Brozoski
Signature

10/19/89
Date

Distribution: (1) Lab Copy, (2) Region Copy, (3) SMO Copy

In Reference to Case No(s):
13001

Contract Laboratory Program
REGIONAL/LABORATORY COMMUNICATION SYSTEM

Telephone Record Log

Date of Call: 10/25/89

Laboratory Name: Clayton Environmental

Lab Contact: Debbie Brozoski

Region: SMU

Regional Contact: Emanual Nocon

Call Initiated By: ___ Laboratory X ~~Region~~ SMU

In reference to data for the following sample number(s):

Summary of Questions/Issues Discussed:

lot's for full organics were shipped from Region I under airbill 9071160950. Case is not complete.

Summary of Resolution:

Debbie Brozoski — Signature

10/25/89 — Date

Distribution: (1) Lab Copy, (2) Region Copy, (3) SMO Copy

In Reference to Case No(s):
13001

Contract Laboratory Program
REGIONAL/LABORATORY COMMUNICATION SYSTEM

Telephone Record Log

Date of Call: 10/26/89

Laboratory Name: Clayton Environmental
Lab Contact: Debbie Brozoski
Region: SMO
Regional Contact: Emanual Nocon

Call Initiated By: ___ Laboratory ✓ Region

In reference to data for the following sample number(s):

Summary of Questions/Issues Discussed:

① Should Gum Region V 3/w for Full organics
- airbill 9071160372.
- Case is complete

② We only received 2/w for full organics.

Summary of Resolution:

He will contact the samplers and let me know what is correct.

Debbie Brozoski
Signature

10/26/89
Date

Distribution: (1) Lab Copy, (2) Region Copy, (3) SMO Copy

In Reference to Case No(s):
13001

Contract Laboratory Program
REGIONAL/LABORATORY COMMUNICATION SYSTEM
Telephone Record Log

Date of Call: 10/31/89

Laboratory Name: Clayton Environmental
Lab Contact: Debbie Brozoski
Region: SMO
Regional Contact: Emanuel Nocon

Call Initiated By: ___ Laboratory X Region

In reference to data for the following sample number(s):

QB 10/31/89
Summary of Questions/Issues Discussed:

(1) Sample ~~EGN~~ EGN55 is actually 2 samples. Sample bottles that are labelled as MSD and Dup should be EPA no. EGP22. The description for the OTR is as follows:

Sample No.	Description	Conc.	RAS Analysis	Corresponding Inorganic No
EGP22	2	L	Full Org.	MEGF80

(2) What about holding times? We will need to extract for BNA/P for this sample, and holding times ~~are~~ have expired.
QB 10/31/89

Summary of Resolution:

Region I advises to go ahead with the analyses and we will not be penalized for ~~m~~ extracting outside holding time.
QB 10/31/89

Debbie Brozoski
Signature

10/31/89
Date

Distribution: (1) Lab Copy, (2) Region Copy, (3) SMO Copy

In Reference to Case No(s): 13001

Contract Laboratory Program
REGIONAL/LABORATORY COMMUNICATION SYSTEM

Telephone Record Log

Date of Call: 11/01/89

Laboratory Name: Clayton Environmental

Lab Contact: Debbie BROZOSKI

Region: SMO

Regional Contact: Emanuel Nocon

Call Initiated By: ✓ Laboratory ___ Region

In reference to data for the following sample number(s):

EGN55, EGP22

Summary of Questions/Issues Discussed:

After review of the paperwork, the following have been extracted:
EGN55 - P/PCB sample, P/PCB MS and MSD
EGP22 - BNA sample, BNA MS and MSD.

① EGP22 was designated as the MS/MSD. Will the Region accept the data for EGN55 MS & MSD for P/PCB?

② How do I handle the paperwork? Do I add EGP22 to the Organic Traffic Report?

Summary of Resolution:

① The Region says it is OK to report an MS/MSD on Sample EGN55 for P/PCB. EGN55 and EGP22 are from the same monitoring well.

② Add EGP22 to the OTR, noting it was due to sampler error.

Debra Brozoski — Signature

11/1/89 — Date

Distribution: (1) Lab Copy, (2) Region Copy, (3) SMO Copy

13001 • 5 -100-01

2A
WATER VOLATILE SURROGATE RECOVERY

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

	EPA SAMPLE NO.	S1 (TOL)#	S2 (BFB)#	S3 (DCE)#	OTHER	TOT OUT
01	EGN55	98	99	99		0
02	EGN61	103	99	96		0
03	EGP22	96	98	94		0
04	EGN55MS	99	99	100		0
05	EGN55MSD	102	103	103		0
06	VBLKE2	99	92	89		0
07	VBLKE3	95	94	92		0

	QC LIMITS
S1 (TOL) = Toluene-d8	(88-110)
S2 (BFB) = Bromofluorobenzene	(86-115)
S3 (DCE) = 1,2-Dichloroethane-d4	(76-114)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

13001 • 5-100-02

2B

SOIL VOLATILE SURROGATE RECOVERY

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Level:(low/med) LOW

	EPA SAMPLE NO.	S1 (TOL)#	S2 (BFB)#	S3 (DCE)#	OTHER	TOT OUT
01	EGN48	108	88	92		0
02	EGN49	117	89	98		0
03	EGN50	108	89	97		0
04	EGN51	101	92	96		0
05	EGN52	116	83	95		0
06	EGN53	117	77	94		0
07	EGN51MS	105	95	101		0
08	EGN51MSD	108	98	103		0
09	VBLKE1	107	99	96		0

	QC LIMITS
S1 (TOL) = Toluene-d8	(81-117)
S2 (BFB) = Bromofluorobenzene	(74-121)
S3 (DCE) = 1,2-Dichloroethane-d4	(70-121)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

2C
WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

	EPA SAMPLE NO.	S1 (NBZ)#	S2 (FBP)#	S3 (TPH)#	S4 (PHL)#	S5 (2FP)#	S6 (TBP)#	OTHER	TOT OUT
01	EGN55	62	63	89	45	63	99		0
02	EGN61	60	57	85	35	60	80		0
03	EGP22	62	70	82	31	39	84		0
04	EGP22MS	59	66	94	28	33	107		0
05	EGP22MSD	49	59	75	30	35	107		0
06	SBLKW1	70	71	87	41	60	75		0
07	SBLKW2	58	66	82	46	53	80		0

		QC LIMITS
S1 (NBZ)	= Nitrobenzene-d5	(35-114)
S2 (FBP)	= 2-Fluorobiphenyl	(43-116)
S3 (TPH)	= Terphenyl	(33-141)
S4 (PHL)	= Phenol-d5	(10-94)
S5 (2FP)	= 2-Fluorophenol	(21-100)
S6 (TBP)	= 2,4,6-Tribromophenol	(10-123)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out

13001 • 5-200-02

2D

SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Level:(low/med) LOW

	EPA SAMPLE NO.	S1 (NBZ)#	S2 (FBP)#	S3 (TPH)#	S4 (PHL)#	S5 (2FP)#	S6 (TBP)#	OTHER	TOT OUT
01	EGN48	52	74	80	71	66	95		0
02	EGN49	47	61	66	64	71	79		0
03	EGN50	59	63	71	71	73	87		0
04	EGN51	54	73	78	52	55	51		0
05	EGN52	59	79	89	74	74	78		0
06	EGN52RE	63	71	93	61	43	57		0
07	EGN53	60	71	71	83	85	91		0
08	EGN51MS	35	57	76	50	36	71		0
09	EGN51MSD	37	62	79	57	49	87		0
10	SBLKS1	38	41	95	44	48	69		0
11	SBLKS3	50	65	71	44	47	57		0

		QC LIMITS
S1 (NBZ)	= Nitrobenzene-d5	(23-120)
S2 (FBP)	= 2-Fluorobiphenyl	(30-115)
S3 (TPH)	= Terphenyl	(18-137)
S4 (PHL)	= Phenol-d5	(24-113)
S5 (2FP)	= 2-Fluorophenol	(25-121)
S6 (TBP)	= 2,4,6-Tribromophenol	(19-122)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out

13001 • 5-300-01

2E
WATER PESTICIDE SURROGATE RECOVERY

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

	EPA SAMPLE NO.	S1 (DBC)#	OTHER
01	EGN55	89	0
02	EGN61	91	0
03	EGP22	88	0
04	EGN55MS	90	0
05	EGN55MSD	86	0
06	PBLKW1	93	0
07	PBLKW2	94	0

ADVISORY
QC LIMITS
(24-154)

S1 (DBC) = Dibutlychlorendate

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

11/17/89

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FORM II PEST-1 1/87 Rev.

13001 • 5-300-02

2F
SOIL PESTICIDE SURROGATE RECOVERY

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Level:(low/med) LOW

	EPA SAMPLE NO.	S1 (DBC)#	OTHER
01	EGN48	89	0
02	EGN49	63	0
03	EGN50	104	0
04	EGN51	87	0
05	EGN52	84	0
06	EGN53	82	0
07	EGN51MS	86	0
08	EGN51MSD	94	0
09	PBLKS1	106	0

S1 (DBC) = Dibutylchlorendate — ADVISORY QC LIMITS (20-150)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

11/16/87

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FORM II PEST-2 1/87 Rev.

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix Spike - EPA Sample No.: EGN55

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	50.0	0	58.3	117	61-145
Trichloroethene	50.0	0	44.5	89	71-120
Benzene	50.0	0	46.8	94	76-127
Toluene	50.0	0	48.5	97	76-125
Chlorobenzene	50.0	0	47.9	96	75-130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	50.0	56.3	113	3	14	61-145
Trichloroethene	50.0	47.0	94	-5	14	71-120
Benzene	50.0	50.1	100	-6	11	76-127
Toluene	50.0	50.8	102	-5	13	76-125
Chlorobenzene	50.0	50.1	100	-4	13	75-130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

COMMENTS:

3B

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix Spike - EPA Sample No.: EGN51 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	54.9	0	72.9	133	59-172
Trichloroethene	54.9	0	53.6	98	62-137
Benzene	54.9	0	57.7	105	66-142
Toluene	54.9	0	58.2	106	59-139
Chlorobenzene	54.9	0	58.5	107	60-133

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	54.9	71.4	130	2	22	59-172
Trichloroethene	54.9	52.7	96	2	24	62-137
Benzene	54.9	56.5	103	2	21	66-142
Toluene	54.9	57.6	105	1	21	59-139
Chlorobenzene	54.9	57.8	105	2	21	60-133

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

COMMENTS:

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3C

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix Spike - EPA Sample No.: EGP22

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
Phenol	200	0	56.3	28	12- 86
2-Chlorophenol	200	0	116	58	27-123
1,4-Dichlorobenzene	100	0	76.1	76	36 - 97
N-Nitroso-di-n-prop.(1)	100	0	71.9	72	41-116
1,2,4-Trichlorobenzene	100	0	78.2	78	39 - 98
4-Chloro-3-methylphenol	200	0	151	76	23 - 97
Acenaphthene	100	0	82.9	83	46-118
4-Nitrophenol	200	0	64.3	32	10- 80
2,4-Dinitrotoluene	100	0	87.0	87	24- 96
Pentachlorophenol	200	0	201	101	9-103
Pyrene	100	0	123	123	26-127

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	200	58.3	29	-4	42	12- 86
2-Chlorophenol	200	119	60	-3	40	27-123
1,4-Dichlorobenzene	100	59.6	60	24	28	36 - 97
N-Nitroso-di-n-prop.(1)	100	56.3	56	25	38	41-116
1,2,4-Trichlorobenzene	100	63.8	64	20	28	39 - 98
4-Chloro-3-methylphenol	200	164	82	-8	42	23 - 97
Acenaphthene	100	80.9	81	2	31	46-118
4-Nitrophenol	200	85.9	43	-29	50	10- 80
2,4-Dinitrotoluene	100	95.2	95	-9	38	24- 96
Pentachlorophenol	200	218	109 *	-8	50	9-103
Pyrene	100	90.1	90	31	31	26-127

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 11 outside limits
Spike Recovery: 1 out of 22 outside limits

COMMENTS:

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SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix Spike - EPA Sample No.: EGN51 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC LIMITS REC.
Phenol	7330	0	3230	44	26- 90
2-Chlorophenol	7330	0	3000	41	25-102
1,4-Dichlorobenzene	3660	0	1800	49	28 104
N-Nitroso-di-n-prop.(1)	3660	0	1960	54	41 126
1,2,4-Trichlorobenzene	3660	0	2070	57	38 107
4-Chloro-3-methylphenol	7330	0	5030	69	26 103
Acenaphthene	3660	0	2840	78	31-137
4-Nitrophenol	7330	0	6470	88	11-114
2,4-Dinitrotoluene	3660	0	2700	74	28- 89
Pentachlorophenol	7330	0	5390	74	17-109
Pyrene	3660	0	3270	89	35-142

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	7330	4160	57	-26	35	26- 90
2-Chlorophenol	7330	3540	48	-16	50	25-102
1,4-Dichlorobenzene	3660	2520	69	-34 *	27	28 104
N-Nitroso-di-n-prop.(1)	3660	1910	52	4	38	41 126
1,2,4-Trichlorobenzene	3660	2320	63	-10	23	38 107
4-Chloro-3-methylphenol	7330	6350	87	-23	33	26 103
Acenaphthene	3660	3040	83	-6	19	31-137
4-Nitrophenol	7330	6490	89	-1	50	11-114
2,4-Dinitrotoluene	3660	2990	82	-10	47	28- 89
Pentachlorophenol	7330	2840	39	62 *	47	17-109
Pyrene	3660	3470	95	-7	36	35-142

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 2 out of 11 outside limits
Spike Recovery: 0 out of 22 outside limits

COMMENTS:

262

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3E

WATER PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix Spike - EPA Sample No.: EGN55

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
gamma-BHC (Lindane)	0.200	0	0.210	105	56-123
Heptachlor	0.200	0	0.169	85	40-131
Aldrin	0.200	0	0.173	87	40-120
Dieldrin	0.500	0	0.591	118	52-126
Endrin	0.500	0	0.515	103	56-121
4,4'-DDT	0.500	0	0.568	114	38-127

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
gamma-BHC (Lindane)	0.200	0.201	101	4	15	56-123
Heptachlor	0.200	0.174	87	-3	20	40-131
Aldrin	0.200	0.175	88	-1	22	40-120
Dieldrin	0.500	0.574	115	3	18	52-126
Endrin	0.500	0.512	102	1	21	56-121
4,4'-DDT	0.500	0.574	115	-1	27	38-127

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 6 outside limits
Spike Recovery: 0 out of 12 outside limits

COMMENTS:

RH 11/17/89

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3F

SOIL PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix Spike - EPA Sample No.: EGN51 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC LIMITS REC.
gamma-BHC (Lindane)	58.5	0	115	197 *	46-127
Heptachlor	58.5	0	54.2	93	35-130
Aldrin	58.5	0	56.1	96	34-132
Dieldrin	146	0	133	91	31-134
Endrin	146	0	152	104	42-139
4,4'-DDT	146	0	170	116	23-134

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
gamma-BHC (Lindane)	58.5	111	190 *	4	50	46-127
Heptachlor	58.5	55.4	95	-2	31	35-130
Aldrin	58.5	62.4	107	-11	43	34-132
Dieldrin	146	178	122	-29	38	31-134
Endrin	146	158	108	-4	45	42-139
4,4'-DDT	146	187	128	-10	50	23-134

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 6 outside limits
Spike Recovery: 2 out of 12 outside limits

COMMENTS:

11/16/89

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4A
VOLATILE METHOD BLANK SUMMARY

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Lab File ID: E7948 Lab Sample ID: VBLKE1

Date Analyzed: 10/26/89 Time Analyzed: 2259

Matrix: (soil/water) SOIL Level: (low/med) LOW

Instrument ID: 5E

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	EGN48	779996	E7949	0057
02	EGN49	779998	E7950	0156
03	EGN50	780000	E7951	0304
04	EGN51	780002	E7952	0415
05	EGN52	780004	E7953	0505
06	EGN53	780006	E7954	0627
07	EGN51MS	780002	E7955	0713
08	EGN51MSD	780002	E7956	0800

COMMENTS:

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4A

VOLATILE METHOD BLANK SUMMARY

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Lab File ID: E7968 Lab Sample ID: VBLKE2

Date Analyzed: 10/27/89 Time Analyzed: 2304

Matrix: (soil/water) WATER Level:(low/med) LOW

Instrument ID: 5E

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	EGN55	780321	E7970	0118
02	EGN61	780329	E7969	0032
03	EGN55MS	780321	E7971	0204
04	EGN55MSD	780321	E7972	0249

COMMENTS:

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4A

VOLATILE METHOD BLANK SUMMARY

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Lab File ID: E8055 Lab Sample ID: VBLKE3

Date Analyzed: 11/02/89 Time Analyzed: 1709

Matrix: (soil/water) WATER Level:(low/med) LOW

Instrument ID: 5E

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	EGP22	780323	E8056	1841

COMMENTS:

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4B

SEMIVOLATILE METHOD BLANK SUMMARY

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Lab File ID: F6936 Lab Sample ID: SBLKW1

Date Extracted: 10/30/89 Extraction:(SepF/Cont/Sonc) SEPF

Date Analyzed: 11/14/89 Time Analyzed: 1647

Matrix: (soil/water) WATER Level:(low/med) LOW

Instrument ID: 6F

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	EGN61	780337	F6956	11/15/89
02	EGP22	780335	F6939	11/14/89
03	EGP22MS	780336	F6940	11/14/89
04	EGP22MSD	780336	F6941	11/14/89

COMMENTS:

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4B

SEMIVOLATILE METHOD BLANK SUMMARY

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Lab File ID: F6937 Lab Sample ID: SBLKW2

Date Extracted: 11/03/89 Extraction:(SepF/Cont/Sonc) SEPF

Date Analyzed: 11/14/89 Time Analyzed: 1740

Matrix: (soil/water) WATER Level:(low/med) LOW

Instrument ID: GF

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	EGN55	780331	F6938	11/14/89

COMMENTS:

13001·5-202-03

4B
SEMIVOLATILE METHOD BLANK SUMMARY

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Lab File ID: F6957 Lab Sample ID: SBLKS1

Date Extracted: 11/02/89 Extraction:(SepF/Cont/Sonc) SONC

Date Analyzed: 11/15/89 Time Analyzed: 2001

Matrix: (soil/water) SOIL Level:(low/med) LOW

Instrument ID: 6F

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	EGN48	780008	F6961	11/15/89
02	EGN49	780009	F6960	11/15/89
03	EGN50	780010	F6959	11/15/89
04	EGN52	780012	F6974	11/16/89
05	EGN52RE	780012	F7055	11/22/89
06	EGN53	780013	F6958	11/15/89
07	EGN51MS	780011	F6976	11/16/89
08	EGN51MSD	780011	F6977	11/16/89

COMMENTS:

265

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4B

SEMIVOLATILE METHOD BLANK SUMMARY

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Lab File ID: F7056 Lab Sample ID: SBLKS3

Date Extracted: 11/17/89 Extraction:(SepF/Cont/Sonc) SONC

Date Analyzed: 11/22/89 Time Analyzed: 0608

Matrix: (soil/water) SOIL Level:(low/med) LOW

Instrument ID: 6F

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	EGN51	780011	F7057	11/22/89

COMMENTS:

266

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4C

PESTICIDE METHOD BLANK SUMMARY

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Lab Sample ID: PBLKW1 Lab File ID: _____

Matrix:(soil/water) WATER Level:(low/med) LOW

Date Extracted: 10/30/89 Extraction:(SepF/Cont/Sonc) SEPF

Date Analyzed (1): 10/31/89 Date Analyzed (2): _____

Time Analyzed (1): 2009 Time Analyzed (2): _____

Instrument ID (1): D088 Instrument ID (2): _____

GC Column ID (1): RTX-35 GC Column ID (2): _____

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	EGN55	780331	10/31/89	
02	EGN61	780337	10/31/89	
03	EGN55MS	780331	10/31/89	
04	EGN55MSD	780331	10/31/89	

COMMENTS:

11/17/89

597

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4C

PESTICIDE METHOD BLANK SUMMARY

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Lab Sample ID: PBLKS1 Lab File ID: _____

Matrix:(soil/water) SOIL Level:(low/med) LOW

Date Extracted: 11/02/89 Extraction:(SepF/Cont/Sonc) SONC

Date Analyzed (1): 11/12/89 Date Analyzed (2): _____

Time Analyzed (1): 0036 Time Analyzed (2): _____

Instrument ID (1): D08B Instrument ID (2): _____

GC Column ID (1): RTX-35 GC Column ID (2): _____

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	EGN48	780008	11/12/89	
02	EGN49	780009	11/12/89	
03	EGN50	780010	11/12/89	
04	EGN51	780011	11/12/89	
05	EGN52	780012	11/12/89	
06	EGN53	780013	11/12/89	
07	EGN51MS	780011	11/12/89	
08	EGN51MSD	780011	11/12/89	

COMMENTS:

11/16/89

598

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4C

PESTICIDE METHOD BLANK SUMMARY

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Lab Sample ID: PBLKW2 Lab File ID: _____

Matrix:(soil/water) WATER Level:(low/med) LOW

Date Extracted: 11/03/89 Extraction:(SepF/Cont/Sonc) SEPF

Date Analyzed (1): 11/13/89 Date Analyzed (2): _____

Time Analyzed (1): 0333 Time Analyzed (2): _____

Instrument ID (1): D088 Instrument ID (2): _____

GC Column ID (1): RTX-35 GC Column ID (2): _____

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	EGP22	780334	11/13/89	

COMMENTS:

11/17/89

599

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKE1

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) SOIL Lab Sample ID: VBLKE1

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E7948

Level: (low/med) LOW Date Received: 10/25/89

% Moisture: not dec. ____ Date Analyzed: 10/26/89

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	
67-64-1	Acetone	20	
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-35-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total Xylenes	5	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKE1

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) SOIL Lab Sample ID: VBLKE1

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E7948

Level: (low/med) LOW Date Received: 10/25/89

% Moisture: not dec. ____ Date Analyzed: 10/26/89

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKE2

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) WATER Lab Sample ID: VBLKE2

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: E7968

Level: (low/med) LOW Date Received: 10/26/89

% Moisture: not dec. ____ Date Analyzed: 10/27/89

Column: (pack/cap) PACK Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	3	J
67-64-1	Acetone	20	
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-35-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total Xylenes	5	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKE2

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) WATER Lab Sample ID: VBLKE2

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: E7968

Level: (low/med) LOW Date Received: 10/26/89

% Moisture: not dec. ____ Date Analyzed: 10/27/89

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKE3

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) WATER Lab Sample ID: VBLKE3

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: E8055

Level: (low/med) LOW Date Received: 10/26/89

% Moisture: not dec. ____ Date Analyzed: 11/02/89

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	3	J
67-64-1	Acetone	13	
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-35-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total Xylenes	5	U

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1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKE3

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) WATER Lab Sample ID: VBLKE3

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: E8055

Level: (low/med) LOW Date Received: 10/26/89

% Moisture: not dec. ____ Date Analyzed: 11/02/89

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLKW1

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) WATER Lab Sample ID: SBLKW1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: F6936

Level: (low/med) LOW Date Received: 10/26/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/30/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/14/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
100-51-6	Benzyl Alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
39638-32-9	bis(2-Chloroisopropyl)Ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
65-85-0	Benzoic Acid	50	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

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1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLKW1

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) WATER Lab Sample ID: SBLKW1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: F6936

Level: (low/med) LOW Date Received: 10/26/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/30/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/14/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-10-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-Methylphenol	50	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

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1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLKW1

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) WATER Lab Sample ID: SBLKW1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: F6936

Level: (low/med) LOW Date Received: 10/26/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/30/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/14/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLKS1

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) SOIL Lab Sample ID: SBLKS1

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F6957

Level: (low/med) LOW Date Received: 10/25/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/02/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/15/89

GPC Cleanup: (Y/N) Y pH: 6.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	660	U
111-44-4	bis(2-Chloroethyl)Ether	660	U
95-57-8	2-Chlorophenol	660	U
541-73-1	1,3-Dichlorobenzene	660	U
106-46-7	1,4-Dichlorobenzene	660	U
100-51-6	Benzyl Alcohol	660	U
95-50-1	1,2-Dichlorobenzene	660	U
95-48-7	2-Methylphenol	660	U
39638-32-9	bis(2-Chloroisopropyl)Ether	660	U
106-44-5	4-Methylphenol	660	U
621-64-7	N-Nitroso-Di-n-Propylamine	660	U
67-72-1	Hexachloroethane	660	U
98-95-3	Nitrobenzene	660	U
78-59-1	Isophorone	660	U
88-75-5	2-Nitrophenol	660	U
105-67-9	2,4-Dimethylphenol	660	U
65-85-0	Benzoic Acid	3200	U
111-91-1	bis(2-Chloroethoxy)Methane	660	U
120-83-2	2,4-Dichlorophenol	660	U
120-82-1	1,2,4-Trichlorobenzene	660	U
91-20-3	Naphthalene	660	U
106-47-8	4-Chloroaniline	660	U
87-68-3	Hexachlorobutadiene	660	U
59-50-7	4-Chloro-3-Methylphenol	660	U
91-57-6	2-Methylnaphthalene	660	U
77-47-4	Hexachlorocyclopentadiene	660	U
88-06-2	2,4,6-Trichlorophenol	660	U
95-95-4	2,4,5-Trichlorophenol	3200	U
91-58-7	2-Chloronaphthalene	660	U
88-74-4	2-Nitroaniline	3200	U
131-11-3	Dimethyl Phthalate	660	U
208-96-8	Acenaphthylene	660	U
606-20-2	2,6-Dinitrotoluene	660	U

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1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLKS1

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) SOIL Lab Sample ID: SBLKS1

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F6957

Level: (low/med) LOW Date Received: 10/25/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/02/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/15/89

GPC Cleanup: (Y/N) Y pH: 6.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	3200	U
83-32-9	Acenaphthene	660	U
51-28-5	2,4-Dinitrophenol	3200	U
100-02-7	4-Nitrophenol	3200	U
132-64-9	Dibenzofuran	660	U
121-14-2	2,4-Dinitrotoluene	660	U
84-66-2	Diethylphthalate	660	U
7005-72-3	4-Chlorophenyl-phenylether	660	U
86-73-7	Fluorene	660	U
100-10-6	4-Nitroaniline	3200	U
534-52-1	4,6-Dinitro-2-Methylphenol	3200	U
86-30-6	N-Nitrosodiphenylamine (1)	660	U
101-55-3	4-Bromophenyl-phenylether	660	U
118-74-1	Hexachlorobenzene	660	U
87-86-5	Pentachlorophenol	3200	U
85-01-8	Phenanthrene	660	U
120-12-7	Anthracene	660	U
84-74-2	Di-n-Butylphthalate	660	U
206-44-0	Fluoranthene	660	U
129-00-0	Pyrene	660	U
85-68-7	Butylbenzylphthalate	660	U
91-94-1	3,3'-Dichlorobenzidine	1300	U
56-55-3	Benzo(a)Anthracene	660	U
218-01-9	Chrysene	660	U
117-81-7	bis(2-Ethylhexyl)Phthalate	660	U
117-84-0	Di-n-Octyl Phthalate	660	U
205-99-2	Benzo(b)Fluoranthene	660	U
207-08-9	Benzo(k)Fluoranthene	660	U
50-32-8	Benzo(a)Pyrene	660	U
193-39-5	Indeno(1,2,3-cd)Pyrene	660	U
53-70-3	Dibenz(a,h)Anthracene	660	U
191-24-2	Benzo(g,h,i)Perylene	660	U

(1) - Cannot be separated from Diphenylamine

13001 • 5-23-02

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLKS1

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) SOIL Lab Sample ID: SBLKS1

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F6957

Level: (low/med) LOW Date Received: 10/25/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/02/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/15/89

GPC Cleanup: (Y/N) Y pH: 6.0 Dilution Factor: 1.0

Number TICs found: 6

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 108214	Acetic Acid, 1-Methylethyl e	5.63	1300	J
2. 123422	4-Hydroxy-4-Methyl-2-Pentano	6.08	34000	AJ
3.	Unknown Ester	6.22	370	J
4.	Unknown	6.37	390	J
5. 4436753	3-Hexene-2,5-dione (8CI9CI)	7.90	600	J
6.	Unknown	8.64	450	J

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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLKW2

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) WATER Lab Sample ID: SBLKW2

Sample wt/vol: 1000 (g/mL) ML Lab File ID: F6937

Level: (low/med) LOW Date Received: 10/26/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/03/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/14/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
100-51-6	Benzyl Alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
39638-32-9	bis(2-Chloroisopropyl)Ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
65-85-0	Benzoic Acid	50	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

13001 • 5-232-06

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLKW2

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) WATER Lab Sample ID: SBLKW2

Sample wt/vol: 1000 (g/mL) ML Lab File ID: F6937

Level: (low/med) LOW Date Received: 10/26/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/03/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/14/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-10-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-Methylphenol	50	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

13001 • 5-233-03

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLKW2

Lab Name: CLAYTON NOVI Contract: 68-09-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) WATER Lab Sample ID: SBLKW2

Sample wt/vol: 1000 (g/mL) ML Lab File ID: F6937

Level: (low/med) LOW Date Received: 10/26/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/03/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/14/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

13001 • 5-252-07

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLKS3

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) SOIL Lab Sample ID: SBLKS3

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F7056

Level: (low/med) LOW Date Received: 10/25/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/17/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/22/89

GPC Cleanup: (Y/N) Y pH: 6.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	660	U
111-44-4	bis(2-Chloroethyl)Ether	660	U
95-57-8	2-Chlorophenol	660	U
541-73-1	1,3-Dichlorobenzene	660	U
106-46-7	1,4-Dichlorobenzene	660	U
100-51-6	Benzyl Alcohol	660	U
95-50-1	1,2-Dichlorobenzene	660	U
95-48-7	2-Methylphenol	660	U
39638-32-9	bis(2-Chloroisopropyl)Ether	660	U
106-44-5	4-Methylphenol	660	U
621-64-7	N-Nitroso-Di-n-Propylamine	660	U
67-72-1	Hexachloroethane	660	U
98-95-3	Nitrobenzene	660	U
78-59-1	Isophorone	660	U
88-75-5	2-Nitrophenol	660	U
105-67-9	2,4-Dimethylphenol	660	U
65-85-0	Benzoic Acid	3200	U
111-91-1	bis(2-Chloroethoxy)Methane	660	U
120-83-2	2,4-Dichlorophenol	660	U
120-82-1	1,2,4-Trichlorobenzene	660	U
91-20-3	Naphthalene	660	U
106-47-8	4-Chloroaniline	660	U
87-68-3	Hexachlorobutadiene	660	U
59-50-7	4-Chloro-3-Methylphenol	660	U
91-57-6	2-Methylnaphthalene	660	U
77-47-4	Hexachlorocyclopentadiene	660	U
88-06-2	2,4,6-Trichlorophenol	660	U
95-95-4	2,4,5-Trichlorophenol	3200	U
91-58-7	2-Chloronaphthalene	660	U
88-74-4	2-Nitroaniline	3200	U
131-11-3	Dimethyl Phthalate	660	U
208-96-8	Acenaphthylene	660	U
606-20-2	2,6-Dinitrotoluene	660	U

13001 • 5-232-08

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLKS3

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) SOIL Lab Sample ID: SBLKS3

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F7056

Level: (low/med) LOW Date Received: 10/25/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/17/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/22/89

GPC Cleanup: (Y/N) Y pH: 6.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	3200	U
83-32-9	Acenaphthene	660	U
51-28-5	2,4-Dinitrophenol	3200	U
100-02-7	4-Nitrophenol	3200	U
132-64-9	Dibenzofuran	660	U
121-14-2	2,4-Dinitrotoluene	660	U
84-66-2	Diethylphthalate	660	U
7005-72-3	4-Chlorophenyl-phenylether	660	U
86-73-7	Fluorene	660	U
100-10-6	4-Nitroaniline	3200	U
534-52-1	4,6-Dinitro-2-Methylphenol	3200	U
86-30-6	N-Nitrosodiphenylamine (1)	660	U
101-55-3	4-Bromophenyl-phenylether	660	U
118-74-1	Hexachlorobenzene	660	U
87-86-5	Pentachlorophenol	3200	U
85-01-8	Phenanthrene	660	U
120-12-7	Anthracene	660	U
84-74-2	Di-n-Butylphthalate	660	U
206-44-0	Fluoranthene	660	U
129-00-0	Pyrene	660	U
85-68-7	Butylbenzylphthalate	660	U
91-94-1	3,3'-Dichlorobenzidine	1300	U
56-55-3	Benzo(a)Anthracene	660	U
218-01-9	Chrysene	660	U
117-81-7	bis(2-Ethylhexyl)Phthalate	660	U
117-84-0	Di-n-Octyl Phthalate	660	U
205-99-2	Benzo(b)Fluoranthene	660	U
207-08-9	Benzo(k)Fluoranthene	660	U
50-32-8	Benzo(a)Pyrene	660	U
193-39-5	Indeno(1,2,3-cd)Pyrene	660	U
53-70-3	Dibenz(a,h)Anthracene	660	U
191-24-2	Benzo(g,h,i)Perylene	660	U

(1) - Cannot be separated from Diphenylamine

1 3 0 0 1 · 5-233-04

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLKS3

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) SOIL Lab Sample ID: SBLKS3

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F7056

Level: (low/med) LOW Date Received: 10/25/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/17/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/22/89

GPC Cleanup: (Y/N) Y pH: 6.0 Dilution Factor: 1.0

Number TICs found: 4

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 108214	Acetic Acid, 1-Methylethyl E	4.47	670	J
2. 123422	4-Hydroxy-4-Methyl-2-Pentano	4.92	22000	AJ
3. 4436753	3-Hexene-2,5-dione	6.63	320	J
4.	UNKNOWN	6.87	350	J

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1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLKW1

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) WATER Lab Sample ID: PBLKW1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

Level: (low/med) LOW Date Received: 10/26/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/30/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/31/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.50	U
5103-74-2	gamma-Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

724 RD 11-27-89
~~723~~

11/17/89

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1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLKS1

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) SOIL Lab Sample ID: PBLKS1

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

Level: (low/med) LOW Date Received: 10/25/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/02/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/12/89

GPC Cleanup: (Y/N) Y pH: 6.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	16	U
319-85-7	beta-BHC	16	U
319-86-8	delta-BHC	16	U
58-89-9	gamma-BHC (Lindane)	16	U
76-44-8	Heptachlor	16	U
309-00-2	Aldrin	16	U
1024-57-3	Heptachlor epoxide	16	U
959-98-8	Endosulfan I	16	U
60-57-1	Dieldrin	32	U
72-55-9	4,4'-DDE	32	U
72-20-8	Endrin	32	U
33213-65-9	Endosulfan II	32	U
72-54-8	4,4'-DDD	32	U
1031-07-8	Endosulfan sulfate	32	U
50-29-3	4,4'-DDT	32	U
72-43-5	Methoxychlor	160	U
53494-70-5	Endrin ketone	32	U
5103-71-9	alpha-Chlordane	160	U
5103-74-2	gamma-Chlordane	160	U
8001-35-2	Toxaphene	320	U
12674-11-2	Aroclor-1016	160	U
11104-28-2	Aroclor-1221	160	U
11141-16-5	Aroclor-1232	160	U
53469-21-9	Aroclor-1242	160	U
12672-29-6	Aroclor-1248	160	U
11097-69-1	Aroclor-1254	320	U
11096-82-5	Aroclor-1260	320	U

11/16/89

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13001 • 5 - 330-03

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLKW2

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 13001 SAS No.: _____ SDG No.: EGN48

Matrix: (soil/water) WATER Lab Sample ID: PBLKW2

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

Level: (low/med) LOW Date Received: 10/26/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/03/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/13/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.50	U
5103-74-2	gamma-Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

11/17/89

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