US EPA RECORDS CENTER REGION 5
554354

SAMPLE PROPOSAL
FIT REGION V

DIRK KAISER HAS FILE

1. Date Form Completed JULY 13, 1987

2. Account # FT1305/F0H0602 TDD # F05-8706-181

EPA I.D. # OHD981535024

3. Site Name, City, State E. 49TH STREET DUMP (B)

CLEVELAND, OH

4. Team Leader Steve Anderson ~~FTSD~~ Sampler Margie Hein ~~FTSD~~

5. Number and Type of Samples:

Soil/Sediment 8 Surface Water – Ground Water –

Residential/Municipal Wells – Other –

Number of Blanks – Number of Duplicates –

6. RAS Parameters Requested:

A/B/N X Pest/PCB X Volatiles X Metals X Cyanide X

SAS Parameters Requested: –

7. Expected Sampling Date(s): AUG. 12

Expected Shipping Date(s): AUG. 12

8. Lab Used For Analysis: Organic Haglet

Inorganic Hittman

SAS

9. Case Number 7844 SAS Number

10. Airbill Numbers: 8/12

Organic Lab 4223809461 # Coolers 1 # Samples 6 soils

Inorganic Lab 4223809472 # Coolers 1 # Samples 6 soils

CRL/SAS Lab # Coolers # Samples

SAMPLE DESCRIPTION

SITE NAME E. 49th St. Dump B

TDD# F05-8706-181

CASE NUMBER 7844

SAMPLE #/STATION LOCATION S1 Background

LOCATION DESCRIPTION S1 Background

SAMPLING DATE 8-12-87 SAMPLING TIME 1250

ORGANIC TRAFFIC NUMBER ET959

INORGANIC TRAFFIC NUMBER ME U959

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
80 oz.			
40 ml.			
1 Liter			
8oz	Metals/CN	5-32725	F7206102
8oz	Extractables	5-32726	F7206102
120ml	VOA's	5-32728	D6184052
120ml	VOA's	5-32727	D6184052

PHYSICAL DESCRIPTION AT TIME OF COLLECTION:
Brown silty soil

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: None

INSTRUMENT READINGS N/A

pH N/A

CONDUCTIVITY N/A

TEMPERATURE N/A

SAMPLE DESCRIPTION

SITE NAME E. 49th St. Dump B

TDD# F05-8706-181

CASE NUMBER 7844

SAMPLE #/STATION LOCATION S2

LOCATION DESCRIPTION S2

SAMPLING DATE 8-12-87 SAMPLING TIME 1020

ORGANIC TRAFFIC NUMBER EJ960

INORGANIC TRAFFIC NUMBER MEU960

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
80 oz.			
40 ml.			
1 liter			
8oz	Metals/CN	5-34141	F7206102
8oz	Extractables	5-34142	F7206102
120ml	VOA's	5-32729	D6184052
120ml	VOA's	5-32730	D6184052

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: Brown clay-like soil

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: None

INSTRUMENT READINGS N/A

pH N/A

CONDUCTIVITY N/A

TEMPERATURE N/A

SAMPLE DESCRIPTION

SITE NAME E. 49th St. Dump B

TDD# F05-8706-181

CASE NUMBER 7844

SAMPLE #/STATION LOCATION S3

LOCATION DESCRIPTION S3

SAMPLING DATE 8-12-87 SAMPLING TIME 1040

ORGANIC TRAFFIC NUMBER ET961

INORGANIC TRAFFIC NUMBER MEU961

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
80 oz.			
40 ml.			
1 liter			
8oz	Metals/CN	5-34143	F7206102
8oz	Extractables	5-34144	F7206102
120ml	VOA's	5-34145	D6184052
120ml	VOA's	5-34146	D6184052

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: Brown, silty soil

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: None

INSTRUMENT READINGS N/A

pH N/A

CONDUCTIVITY N/A

TEMPERATURE N/A

SAMPLE DESCRIPTION

SITE NAME E. 49th St. Dump B

TDD# F05-8706-181

CASE NUMBER 7844

SAMPLE #/STATION LOCATION S4

LOCATION DESCRIPTION S4

SAMPLING DATE 8-12-87 SAMPLING TIME 1120

ORGANIC TRAFFIC NUMBER ET962

INORGANIC TRAFFIC NUMBER MEU962

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
80 oz.			
40 ml.			
1 liter			
8oz	Metals/CN	5-34147	F7206102
8oz	Extractables	5-34148	F7206102
120ml	VOA's	5-34150	D6184052
120ml	VOA's	5-34149	D6184052

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: Wet, Brown clay

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: None

INSTRUMENT READINGS N/A

pH N/A

CONDUCTIVITY N/A

TEMPERATURE N/A

SAMPLE DESCRIPTION

SITE NAME E. 49th St. Dump B

TDD# F05-8706-181

CASE NUMBER 7844

SAMPLE #/STATION LOCATION S5

LOCATION DESCRIPTION S5

SAMPLING DATE 8-12-87 SAMPLING TIME 1150

ORGANIC TRAFFIC NUMBER E J963

INORGANIC TRAFFIC NUMBER ME U963

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
80 oz.			
40 ml.			
1 liter			
8oz	Metals/CN	5-34251	F7206102
8oz	Extractables	5-34252	F7206102
120ml	VOA's	5-34253	D6184052
120ml	VOA's	5-34254	D6184052

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: Rust-brown silty soil

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: None

INSTRUMENT READINGS N/A

pH N/A

CONDUCTIVITY N/A

TEMPERATURE N/A

SAMPLE DESCRIPTION

SITE NAME E. 49th St. Dump B

TDD# F05-8706-181

CASE NUMBER 7844

SAMPLE #/STATION LOCATION S6

LOCATION DESCRIPTION S6

SAMPLING DATE 8-12-87 SAMPLING TIME 1210

ORGANIC TRAFFIC NUMBER ET964

INORGANIC TRAFFIC NUMBER MEU964

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
80 oz.			
40 ml.			
1 Liter			
8oz	Metals/CN	5-34255	F7206102
8oz	Extractables	5-34256	F7206102
120ml	VOA's	5-34257	D6184052
120ml	VOA's	5-34258	D7131081

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: Rust-brown moist soil.

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: None

INSTRUMENT READINGS N/A

pH N/A

CONDUCTIVITY N/A

TEMPERATURE N/A

SAMPLE DESCRIPTION

SITE NAME E. 49th St. Dump B

TDD# FDS-8706-181

CASE NUMBER 7844

SAMPLE #/STATION LOCATION S7

LOCATION DESCRIPTION S7

SAMPLING DATE 8-12-87 SAMPLING TIME VOID

ORGANIC TRAFFIC NUMBER ET965

INORGANIC TRAFFIC NUMBER ME U965

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
80 oz.			
40 ml.			
1 liter			
8oz	Metals/CN	5-34259	VOID
8oz	Extractables	5-34260	
120ml	VOA's	5-34261	
120ml	VOA's	5-34262	

PHYSICAL DESCRIPTION AT TIME OF COLLECTION:

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: None

INSTRUMENT READINGS N/A

pH N/A

CONDUCTIVITY N/A

TEMPERATURE N/A

SAMPLE DESCRIPTION

SITE NAME E. 49th St. Dump B

TDD# F05-8706-181

CASE NUMBER 7844

SAMPLE #/STATION LOCATION S8

LOCATION DESCRIPTION S8

SAMPLING DATE 8-12-87 SAMPLING TIME VOID

ORGANIC TRAFFIC NUMBER ET966

INORGANIC TRAFFIC NUMBER ME U966

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
80 oz.			
40 ml.			
1 liter			
8oz	Metals/CN	5-34263	VOID
8oz	Extractables	5-34264	
120ml	VOA's	5-34266	
120ml	VOA's	5-34265	

PHYSICAL DESCRIPTION AT TIME OF COLLECTION:

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: None

INSTRUMENT READINGS N/A

pH N/A

CONDUCTIVITY N/A

TEMPERATURE N/A

Low soils

Site Name E. 49th Street Dump TDD FS-8706-181 01T0602 Case Number 7844

OTR	ITR	CRL	NEIC TAG NUMBER	ORG CHAIN OF CUSTODY	INO CHAIN OF CUSTODY	SAS NUMBER
ET959	MEU959			21171	21172	
ET960	MEU960	See	See	21171	21172	
ET961	MEU961	Log	Log	21171	21172	
ET962	MEU962			21171	21172	
ET963	MEU963	Book	Book	21171	21172	
ET964	MEU964			21171	21172	

CB, KG/df
9-30-81

SMP-002

OH-GEN-60-C9

ecology and environment, inc.
223 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60606, TEL. 312-663-9415

International Specialists in the Environmental Sciences

DATE: September 14, 1980

TO: Rene Van Someren

FROM: Anne C. Sause

RE: Ohio/Eckhardt Report
TDD F5-8009-3

On September 9, 1980 the writer flew to Cleveland, Ohio and drove to the Northeast District EPA Office in Twinsburg, Ohio. A file search was conducted to complete the preliminary assessments. That evening, the writer drove to the Cleveland airport and picked up Ellen Jurczak and John Cerocke. We returned to our hotel.

On September 10, 1980, the writer and E. Jurczak met with D. Bergo of NEDO-Ohio EPA to obtain directions to various sites in the district. Off-site inspections were then done on the Rockside Landfill, the East 49th Street Dump, and the Calhio Chemicals, Inc. lagoons.

Off site inspections of B.F. Goodrich (in Avon Lake, Ohio) and Garden Street Landfill were conducted on September 11, 1980. No off-site inspection of the Ford Road dump was conducted as the access road was under construction and blocked. Later, in the afternoon, the writer and E. Jurczak met with Ben Chambers of the Northwest District Office of the Ohio EPA. A file search was conducted.

On September 12, 1980 off-site inspections were conducted on the King Road Lucas County Sanitary Landfill, and the Gary Greiner (formerly Terry Little) Lagoons. The writer and E. Jurczak then drove to Detroit and flew to Chicago.

The Avon Lake City Dump was not visited because it is a low priority site and did not require an off-site inspection. Due to a lack of time, the B.F. Goodrich Akron Chemical Plant was not visited.

Additional memos are being written to explain what was seen at each site visited; any additional information gathered; recommendations for additional work, if any; and any problems encountered.

ACS/df

cc: Joe Petrilli
Tom Yeates
Writer

recycled paper

SITE NAME	PA	SI	FF	OTHER	HOW IDENT.	REMARKS	DUE DATE	FIT STATUS
Cleveland Land Develop.	X	X			Eckhardt			Complete
Columbus Waste Oil	X				Eckhardt			Complete
Coshocton City Landfill	X				Eckhardt	On-site insp. in progress		On target
Coshocton Plant Grounds	X				Eckhardt	On-site insp. in progress		On target
Creek Rd. for Benkus Co.	X				Eckhardt	On-site insp. in progress		On target
Cozarts Landfill	X				Seek & Find			Complete
Demilta-Mahon Landfill	X	X			Eckhardt			Complete
Diamond Shamrock				Review Closure Proposal	Eckhardt			Complete
E.H. Schilling Landfill	X				Eckhardt	On-site insp. in progress		On target
East 49th St.	X				Eckhardt	Site insp. in progress		On target
ECOL (Bedford Site #1)	X				Eckhardt			Complete
Fairport Harbor Landfill	X				Ad Hoc			Complete
Ford Rd. Dump Landfill	X				Eckhardt			On target

34. B.F. Goodrich Chemical Plant
    Moore and Walker Rds.
    Avon Lake, OH

35. Brenkus Excavating Co.
    Creek Road
    Kingsville, OH

36. Unknown
    East 49th St.
    Cleveland, OH

SCA

37. Ford Road Industrial Landfill
    Ford Road
    Elyria, OH

38. Kingsville Township Dump
    Middle Road
    Kingsville, OH

39. Closed Plant Site
    Shepard Road
    Perry, OH

Callio (confirmation)

40. Rockside Landfill
    Rockside Road
    Garfield Heights, OH

41. Universal Trucking Co - Gravel Pit
    Main Street
    North Kingsville, OH

34. B.F. Goodrich Chemical Plant
    Moore and Walker Rds.
    Avon Lake, OH

35. Brenkus Excavating Co.
    Creek Road
    Kingsville, OH

36. Unknown
    East 49th St.
    Cleveland, OH

37. Ford Road Industrial Landfill
    Ford Road
    Elyria, OH

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    Middle Road
    Kingsville, OH

39. Closed Plant Site
    Shepard Road
    Perry, OH

40. Rockside Landfill
    Rockside Road
    Garfield Heights, OH

41. Universal Trucking Co - Gravel Pit
    Main Street
    North Kingsville OH

HUTSON

36	UNKNOWN E 49 ST	S/A				✓
45	STANDARD OIL COMPANY	PITS PONDS LAGOONS			NECESSARY	✓
44	SHERWIN WILLIAMS COMPANY	PITS POND LAGOON		10/1	NOT NECESSARY	✓
43	SHELL OIL COMPANY	PITS PONDS LAGOONS		10/2	NOT NECESSARY	✓
55	PORT INC	OEPA		10/1	NOT NECESSARY	
57	N. COHEN & SONS	HOTLINE		10/3	NOT NECESSARY	✓
42	BURDETT OXGEN CO of CLEVELAND OHIO	PITS PONDS LAGOON		10/1	NOT NECESSARY	
145	UNKNOWN FACTORY	FIT	10/2		LEVEL NEEDED	NECESS
61	ALCHEMTRON EDO		10/2			NECESS
144	BECK CHEMICAL	FIT HOTLINE 519	10/2			NECESS

To

HW 33. Brenkus Excavating - We have some background on file, Olin used site, FIT and OEPA should follow-up and get more information from Olin.

HW 34. Unknown -E.49th Street - This could be the Leone demo site on E. 49th Street and Hemlinger Road, It also has taken some foundry sand, FIT may want to look at this one.

HW 35. Ford Road Industrial - This is probably a great threat. Alot of industrial wastes went to this one. We have some background. Needs alot of study.

36. Kingsville Town Dump - We cannot find this one.

HW 37. Closed plant site - Calbio deep wells are near there. Fungicides were disposed, we have some background information. More joint study is needed.

SW 38. Rockside Landfill - minor amounts of industrial wastes received that we know about. They have leachate problem. We have background information.

HW 39. Universal Trucking - Olin used this site, We do not know where it is. A good one for follow-up.

40 Cohen & Sons - We do not know about this one.

HW 41. Site, Koski, Reserve Environmental Services
He disposes of caustics, acids, inorganics, and organics. Virtually no ground or surface water pollution problems. Lagoon operation. This needs some joint effort. Middle and LA Bounty Road, Ashtabula.

HW 42. Laskin Waste Oil - PCB, OEPA has litigation pending. U.S. EPA has background. Never hurts to look at this kind of place again.

43. - 49. We may have a little information in our industrial wastewater files.

HW 50. Erieway - treater of acids, caustics, and waste oil. OEPA has bad problems with them. We have some pending litigation. Another good cage to rattle. They may have some radioactive wastes.

51. No information.

Do we have

Please add Ken Schultz's list to the search. OEPA has minor background on those.

OTHER SITES

HW 52. City Barrel & Drum in Cleveland

HW 33. Brenkos Excavating - We have some background on file, Olin used site, FIT and OEPA should follow-up and get more information from Olin.

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HW 50. Erieway - treater of acids, caustics, and waste oil. OEPA has bad problems with them. We have some pending litigation. Another good cage to rattle. They may have some radioactive wastes.

Do we have

51. No information.

Please add Ken Schultz's list to the search. OEPA has minor background on those.

OTHER SITES

HW 52. City Barrel & Drum in Cleveland

SAMPLE DESCRIPTION

SITE NAME E. 49th St. Dump B

TDD# F05-8706-181

CASE NUMBER 7844

SAMPLE #/STATION LOCATION S1 Background

LOCATION DESCRIPTION S1 Background

SAMPLING DATE 8-12-87 SAMPLING TIME 1250

ORGANIC TRAFFIC NUMBER ET959

INORGANIC TRAFFIC NUMBER ME U959

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
80 oz.			
40 ml.			
1 liter			
8oz	Metals/CN	5-32725	F7206102
8oz	Extractables	5-32726	F7206102
120ml	VOA's	5-32728	D6184052
120ml	VOA's	5-32727	D6184052

PHYSICAL DESCRIPTION AT TIME OF COLLECTION:
Brown silty soil

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: None

INSTRUMENT READINGS N/A

pH N/A

CONDUCTIVITY N/A

TEMPERATURE N/A

SAMPLE DESCRIPTION

SITE NAME E. 49th St. Dump B

TDD# F05-8706-181

CASE NUMBER 7844

SAMPLE #/STATION LOCATION Sa

LOCATION DESCRIPTION Sa

SAMPLING DATE 8-12-87 SAMPLING TIME 1020

ORGANIC TRAFFIC NUMBER ET960

INORGANIC TRAFFIC NUMBER MEU960

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
80 oz.			
40 ml.			
1 liter			
8oz	Metals/CN	5-34141	F7206102
8oz	Extractables	5-34142	F7206102
120ml	VOA's	5-32729	D6184052
120ml	VOA's	5-32730	D6184052

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: Brownclay-like soil

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: None

INSTRUMENT READINGS N/A

pH N/A

CONDUCTIVITY N/A

TEMPERATURE N/A

SAMPLE DESCRIPTION

SITE NAME E. 49th St. Dump B

TDD# F05-8706-181

CASE NUMBER 7844

SAMPLE #/STATION LOCATION S3

LOCATION DESCRIPTION S3

SAMPLING DATE 8-12-87 SAMPLING TIME 1040

ORGANIC TRAFFIC NUMBER ET961

INORGANIC TRAFFIC NUMBER MEU961

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
80 oz.			
40 ml.			
1 liter			
8oz	Metals/CN	5-34143	F7206102
8oz	Extractables	5-34144	F7206102
120ml	VOA's	5-34145	D6184052
120ml	VOA's	5-34146	D6184052

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: Brown, silty soil

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: None

INSTRUMENT READINGS N/A

pH N/A

CONDUCTIVITY N/A

TEMPERATURE N/A

SAMPLE DESCRIPTION

SITE NAME E. 49th St. Dump B

TDD# F05-8706-181

CASE NUMBER 7844

SAMPLE #/STATION LOCATION S4

LOCATION DESCRIPTION S4

SAMPLING DATE 8-12-87 SAMPLING TIME 1120

ORGANIC TRAFFIC NUMBER ET962

INORGANIC TRAFFIC NUMBER MEU962

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
80 oz.			
40 ml.			
1 liter			
8oz	Metals/CN	5-34147	F7206102
8oz	Extractables	5-34148	F7206102
120ml	VOA's	5-34150	D6184052
120ml	VOA's	5-34149	D6184052

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: Wet, Brown clay

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: None

INSTRUMENT READINGS N/A

pH N/A

CONDUCTIVITY N/A

TEMPERATURE N/A

SAMPLE DESCRIPTION

SITE NAME E. 49th St. Dump B

TDD# F05-8706-181

CASE NUMBER 7844

SAMPLE #/STATION LOCATION S5

LOCATION DESCRIPTION S5

SAMPLING DATE 8-12-87 SAMPLING TIME 1150

ORGANIC TRAFFIC NUMBER E J963

INORGANIC TRAFFIC NUMBER ME U963

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
80 oz.			
40 ml.			
1 Liter			
8oz	Metals/CN	5-34251	F7206102
8oz	Extractables	5-34252	F7206102
120ml	VOA's	5-34253	D6184052
120ml	VOA's	5-34254	D6184052

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: Rust-brown silty soil

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: None

INSTRUMENT READINGS N/A

pH N/A

CONDUCTIVITY N/A

TEMPERATURE N/A

SAMPLE DESCRIPTION

SITE NAME E. 49th St. Dump B

TDD# F05-8706-181

CASE NUMBER 7844

SAMPLE #/STATION LOCATION S6

LOCATION DESCRIPTION S6

SAMPLING DATE 8-12-87 SAMPLING TIME 1210

ORGANIC TRAFFIC NUMBER ET964

INORGANIC TRAFFIC NUMBER MEU964

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
80 oz.			
40 ml.			
1 liter			
8oz	Metals/CN	5-34255	F7206102
8oz	Extractables	5-34256	F7206102
120ml	VOA's	5-34257	D6184052
120ml	VOA's	5-34258	D7131081

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: Rust-brown moist Soil.

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: None

INSTRUMENT READINGS N/A

pH N/A

CONDUCTIVITY N/A

TEMPERATURE N/A

8-3
8-8

WORDPROCESSING REQUEST FORM

Originator Dirk Kaiser Ext. 341

Date submitted 5/3/88 Date final required 5/30/88

Folder FOH0602 Keyword FOH0602SA

Document number 0731 PRIORITY 1 2 3

Document identifier (circle one)

MEM LTR WPL RPT (SIR) TAB CON PRP FRM Other 2070

INITIAL DRAFT

Reviewed by Kaiser, UM, Audit Team Return to Hodge Approved by UM

Date submitted 7-22-88 Date required Completed by Sara

Instructions Please type draft and revise the 2070.

SECOND DRAFT

Reviewed by Kaiser, UM, SC Return to Hodge Approved by BC

Date submitted 8-8-88 Date required (8-8-88 a.m.) Completed by Sara

Instructions Please incorporate corrections and revisions.

THIRD DRAFT

Reviewed by Return to Hodge Approved by BC

Date submitted 8/9/88 Date required 8/9/88 Completed by Sara

Instructions Please revise and correct and print final.

FINAL

Reviewed by Return to Hodge Approved by BC

Date submitted 8/10/88 Date required 8/10/88 Completed by Sara

Instructions Please incorporate corrections.

Fitzpatrick BC
Sara

Ready to go final - 2 corrections on 2070

SAMPLE DESCRIPTION

SITE NAME E. 49th St. Dump B

TDD# F05-8706-181

CASE NUMBER 7844

SAMPLE #/STATION LOCATION S1 Background

LOCATION DESCRIPTION S1 Background

SAMPLING DATE 8-12-87 SAMPLING TIME 1250

ORGANIC TRAFFIC NUMBER ET959

INORGANIC TRAFFIC NUMBER ME U959

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
80 oz.			
40 ml.			
1 Liter			
8oz	Metals/CN	5-32725	F7206102
8oz	Extractables	5-32726	F7206102
120ml	VOA's	5-32728	D6184052
120ml	VOA's	5-32727	D6184052

PHYSICAL DESCRIPTION AT TIME OF COLLECTION:
Brown silty soil

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: None

INSTRUMENT READINGS N/A

pH N/A

CONDUCTIVITY N/A

TEMPERATURE N/A

SAMPLE DESCRIPTION

SITE NAME E. 49th St. Dump B

TDD# F05-8706-181

CASE NUMBER 7844

SAMPLE #/STATION LOCATION Sa

LOCATION DESCRIPTION Sa

SAMPLING DATE 8-12-87 SAMPLING TIME 1020

ORGANIC TRAFFIC NUMBER EJ960

INORGANIC TRAFFIC NUMBER ME U960

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
80 oz.			
40 ml.			
1 Liter			
8oz	Metals/CN	5-34141	F7206102
8oz	Extractables	5-34142	F7206102
120ml	VOA's	5-32729	D6184052
120ml	VOA's	5-32730	D6184052

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: Brownclay-like Soil

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: None

INSTRUMENT READINGS N/A

pH N/A

CONDUCTIVITY N/A

TEMPERATURE N/A

SAMPLE DESCRIPTION

SITE NAME E. 49th St. Dump B

TDD# F05-8706-181

CASE NUMBER 7844

SAMPLE #/STATION LOCATION S3

LOCATION DESCRIPTION S3

SAMPLING DATE 8-12-87 SAMPLING TIME 1040

ORGANIC TRAFFIC NUMBER ET961

INORGANIC TRAFFIC NUMBER MEU961

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
80 oz.			
40 ml.			
1 liter			
8oz	Metals/CN	5-34143	F7206102
8oz	Extractables	5-34144	F7206102
120ml	VOA's	5-34145	D6184052
120ml	VOA's	5-34146	D6184052

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: Brown, silty soil

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: None

INSTRUMENT READINGS N/A

pH N/A

CONDUCTIVITY N/A

TEMPERATURE N/A

SAMPLE DESCRIPTION

SITE NAME E. 49th St. Dump B

TDD# FDS-8706-181

CASE NUMBER 7844

SAMPLE #/STATION LOCATION S4

LOCATION DESCRIPTION S4

SAMPLING DATE 8-12-87 SAMPLING TIME 1120

ORGANIC TRAFFIC NUMBER ET962

INORGANIC TRAFFIC NUMBER MEU962

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
80 oz.			
40 ml.			
1 Liter			
8oz	Metals/CN	5-34147	F7206102
8oz	Extractables	5-34148	F7206102
120ml	VOA's	5-34150	D6184052
120ml	VOA's	5-34149	D6184052

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: Wet, Brown clay

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: None

INSTRUMENT READINGS N/A

pH N/A

CONDUCTIVITY N/A

TEMPERATURE N/A

SAMPLE DESCRIPTION

SITE NAME E. 49th St. Dump B

TDD# F05-8706-181

CASE NUMBER 7844

SAMPLE #/STATION LOCATION S5

LOCATION DESCRIPTION S5

SAMPLING DATE 8-12-87 SAMPLING TIME 1150

ORGANIC TRAFFIC NUMBER E T963

INORGANIC TRAFFIC NUMBER ME U963

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
80 oz.			
40 ml.			
1 liter			
8oz	Metals/CN	5-34251	F7206102
8oz	Extractables	5-34252	F7206102
120ml	VOA's	5-34253	D6184052
120ml	VOA's	5-34254	D6184052

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: Rust-brown silty soil

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: None

INSTRUMENT READINGS N/A

pH N/A

CONDUCTIVITY N/A

TEMPERATURE N/A

SAMPLE DESCRIPTION

SITE NAME E. 49th St. Dump B

TDD# F05-8706-181

CASE NUMBER 7844

SAMPLE #/STATION LOCATION S6

LOCATION DESCRIPTION S6

SAMPLING DATE 8-12-87 SAMPLING TIME 1210

ORGANIC TRAFFIC NUMBER ET964

INORGANIC TRAFFIC NUMBER MEU964

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
80 oz.			
40 ml.			
1 Liter			
8oz	Metals/CN	5-34255	F7206102
8oz	Extractables	5-34256	F7206102
120ml	VOA's	5-34257	D6184052
120ml	VOA's	5-34258	D7131081

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: Rust-brown moist soil.

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: None

INSTRUMENT READINGS N/A

pH N/A

CONDUCTIVITY N/A

TEMPERATURE N/A

A SURVEY OF THE ANALYTICAL RESULTS FOR SAMPLES WHICH WERE TAKEN DURING FIELD ACTIVITIES CAN BE FOUND IN THE FOLLOWING TABLES. ONLY DETECTABLE CONCENTRATIONS ARE REPORTED. HOWEVER, IF THE COMPOUND HAS A FOOTNOTE FOLLOWING THE VALUE, CONSULT THE DEFINITION OF THE FOOTNOTE PROVIDED BELOW. ADDITIONAL QA/QC IS PROVIDED IN THE ATTACHED DATA SHEETS.

I. REPORTING UNITS

A. Organics

1. Water Samples - ug/L or ppb (parts per billion)
2. Soils or Sediments - ug/kg or ppb (parts per billion)

B. Metals

1. Water Samples - ug/L or ppb (parts per billion)
2. Soils or Sediments - mg/kg or ppm (parts per million)

II. DEFINITION OF FOOTNOTES TO ANALYTICAL DATA

A. Organics

FOOTNOTE	DEFINITION	INTERPRETATION
U	Indicates compound was analyzed for but not detected.	Compound was not detected.
J	Indicates an estimated value.	Compound value may be semi-quantitative.
UJ	Quantitation limit is estimated due to a Quality Control (QC) protocol.	Compound was not detected.
C	This flag applies to pesticide results where the identification has been confirmed by GC/MS. Single component pesticides >10 ng/ul in the final extract shall be confirmed by GC/MS.	Compound was confirmed by mass spectroscopy.
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.	Compound value is semi-quantitative if it <5x the blank concentration (<10x the blank concentrations for common lab artifacts: phthalates, methylene chloride, acetone, toluene, 2-butanone).
E	This flag identifies compounds whose concentration 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.	Compound value may be semi-quantitative.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor.	Alerts data user to a possible change in the CRQL.
A	This flag indicates that a TIC is a suspected aldol-condensation product.	Alerts data user of a lab artifact.
R	Results are unusable due to a major violation of QC protocol.	Compound value is not usable.

B. Metals

FOOTNOTE OLD	FOOTNOTE NEW	DEFINITION	INTERPRETATION
E	E	Estimated or not reported due to inteference. See laboratory narrative.	Compound or element was not detected or value may be semi-quantitative.
S	S	Analysis by Method of Standard Additions.	Value may be quantitative.
R	N	Spike recoveries outside QC protocols which indicates a possible matrix problem. Data may be biased high or low. See spike results and laboratory narrative.	Value may be quantitative or semi-quantitative.
*		Duplicate value outside QC protocols which indicates a possible matrix problem.	Value may be semi-quantitative.
+	+	Correlation coefficient for standard additions in less than 0.995. See review and laboratory narrative.	Data value may be biased.
[ ]	B	Value is real, but is above instrument DL and below CRDL.	Value may be quantitative or semi-quantitative.
UJ	UJ	DL is estimated because of a QC protocol. DL is possibly above or below CRDL.	Compound or element was not detected.
J	J	Value is above CRDL and is an estimated value because of a QC Protocol.	Value may be semi-quantitative.
U	U	Compound was analyzed for but not detected.	Compound was not detected.
M	M	Duplicate injection precision not met.	Value may be semi-quantitative.
W	W	Post digestion spike for furnance AA analysis is out of control limits (35-115%), while sample absorbance is <50% of spike absorbance.	Value may be semi-quantitative.

C. Other Symbols Used

NA Value not available due to insufficient data.
NR Value not calculated since chemical is not a carcinogen.
( ) Estimated value.

ecology and environment, inc.

111 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60604, TEL. 312-663-9415
International Specialists in the Environment

CRL Receipt Date 11/16/87 FIT Receipt Date 11/30/87 Review Completed 12/6/87

TO: Dirk Kaiser

FROM: Brenda R. Jones

SUBJECT: E. 49th st. Dump

PAN: 01-0602 CASE # 7844

Sample Description

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

Project Data Status _____ Completed!!

✓ Incomplete, awaiting: organic soils

FIT Data Review Findings:

Check Data Sheets for Transcription Errors

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

Book No. 6 Page No. 245 Date Sampled 8/12/87

26U:001

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CHICAGO, ILLINOIS

CHEMICAL EVALUATION FORM

SITE NAME: E. 49th St. Dump PAN#: DATE: 12/6/87

CASE #: 7844 UNITS: mg/kg REVIEWER: BRJ

TOX/ PERS	COMPOUND	CRDL	3-5xCRDL	MEU 959	960	961	962	963	964	
	ALUMINUM									
	ANTIMONY									
	ARSENIC			5.0	11	4.2	17	23	6.3	
	BARIUM			b						
	BERYLLIUM				1.1	0.9	1.2	1.9		
	CADMIUM			6.4			12	8.6		
	CHROMIUM			8.6	12	10	46	68	31	
	COBALT				6.8		10	13		
	COPPER			23	14		39	66	48	
	LEAD			140	13	56	133	218	84	
	MERCURY						0.3	0.3	0.4	
	NICKEL			31	53	32	66	91	63	
	SELENIUM									
	SILVER			0.5			1.1	1.7	0.6	
	THALLIUM									
	TIN									
	VANADIUM			9.9		15	14	18	23	
	ZINC									
	CYANIDE									

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111 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60604, TEL. 312-663-9415
International Specialists in the Environment

MEMORANDUM

DATE: 12/6/87
TO: File
FROM: Brenda Robbins Jones BRJ
SUBJECT: E. 49th St. Dump
PAN #: CASE #: 7844

The reviewer of this inorganic/~~organic~~ data package correctly notes that spike recoveries for the ~~compounds~~/elements listed below are all biased low and should be considered estimated (i.e. qualified with a J). However, the data, at worst, underestimates the actual concentrations found in the sample.

It is my opinion that this data is usable for HRS purposes.

99N:5X

Element	%R
Antimony	42
Arsenic	35
Chromium	40
Selenium	16 — low
Silver	52

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NOV 30 1987

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 11.24.87

Rec.: 18 pages

SUBJECT: Review of Region V CLP Data
Received for Review on 11-16-87

FROM: Curtis Ross, Director (5SCRL)
Central Regional Laboratory

TO: Data User: FIT

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

SITE NAME: E. 49th STREET DUMP SMO Case No. 7844

EPA Data Set No. SF 4296 No. of Samples: 6 D.U./Activity Numbers Y905/C72100

CRL No. 87FP15S14 - S19

SMO Traffic No. MEU959 - 964

CLP Laboratory: HITTMAN ~~EBASCO~~ Hrs. Required for Review: 7

Following are our findings: The laboratory's portion of case #7844 consisted of 6 low concentration soil samples analyzed for metals and CN. The laboratory did not report any problems with the analysis. However, it was noted MEU963 was leaking upon receipt at the lab. ICP: Ni prep blank is 40 ug/L, Ni results are biased high & estimated (J). Flame: K, Na results are within limits. ~~GFAA: Matrix~~ spike %R for Sb(42%), As(35%), Cr(40%), Se(16%), Ag(52%), Tl(44%). As & Cr are estimated (J). Sb and Tl are estimated (UJ). ~~Ag data~~ for MEU960 & 961 are estimated (UJ) & Ag data for MEU959, 962, 963 & 964 are estimated (J). Se data is unacceptable. Hg & CN results are within control limits.

( ) Data are acceptable for use.
(X) Data are acceptable for use with qualifications referenced above. See Data Qualifier sheets and Calibration Outlier forms for flags and additional comments.
( ) Data are preliminary - pending verification by Contractor Laboratory. See Case Summary above.
( ) Data are unacceptable.

Margaret Hill
11/24/87

cc: Carla Dempsey, CLP Quality Assurance Officer, Analytical Operations Branch
James Petty, Chief Quality Assurance Research, EMSL, Las Vegas

EPA FORM 1320-6 (REV 3-76)

QC EXCEPTION SUMMARY REPORT

CASE # 7894
DATA SET # SF4296
LAB Q.C. #
DATE: 11/23/83

SITE E. 49th St Dump
LAB Hillmann Elbasco
REVIEWED BY MMT

MATRIX: Soil
CONC. : low
MATRIX:
CONC. :

WATER SAMPLE SPK.
WATER SAMPLE DUP.
SOIL SAMPLE SPK.
SOIL SAMPLE DUP.

	OVERALL CASE QC									MATRIX SPECIFIC QC						SAMPLE SPECIFIC QC		FIELD QC			REGIONAL QC			OTHER/ COMMENTS
	Holding Time	Cal Stds	Init Calver	Contin Calver	Prep Blk AQ	Prep Blk SOL	ICS %R	LCS % AQ	LCS % SOL	Sol Dup RPD	Sol Spk %R	AQ Dup RPD	AQ Spk %R	Ser Dilu AQ	Ser Dilu SOL	GFAA Dup	GFAA Spike	Blank	Dup	Spike	Blind	Blind Spike	Split Sample	
Aluminum	60																							
Antimony											42													
Arsenic											35													
Barium																								
Beryllium																								
Cadmium																								
Calcium																								
Chromium											40													
Cobalt																								
Copper																								
Iron*																								
Lead*										40	~~43~~													
Magnesium																								
Manganese																								
Mercury	14																							
Nickel	60					40 ug/l																		
Potassium																								
Selenium											16													
Silver*											52													
Sodium																								
Thallium											44													
Tin*																								
Vanadium																								
Zinc*																								
Cyanide	5														22									

MEU 963 was leaking upon delivery.

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS 8-557-2490

EPA Sample No. MEU 959

Date 11/4/87

INORGANIC ANALYSIS DATA SHEET

LAB NAME Hittman Geosio Assoc Inc CASE NO. 7844

SOW NO. 7/84

LAB SAMPLE ID. NO. 5144 QC REPORT NO. 38

Elements Identified and Measured

Concentration: Low X Medium ____

Matrix: Water ____ Soil X Sludge ____ Other ____

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	70 P	13.	Magnesium	[1160] P
2.	Antimony	6 UFR	14.	Manganese	347 P
3.	Arsenic	0 FSR	15.	Mercury	0.1 UCV
4.	Barium	[9] P	16.	Nickel	[31 86] P
5.	Beryllium	1 UP	17.	Potassium	[428] P
6.	Cadmium	4 P	18.	Selenium	0.4 UFR
7.	Calcium	3 50 P	19.	Silver	[0.5] FR
8.	Chromium	6 FR	20.	Sodium	[66] P
9.	Cobalt	4 UP	21.	Thallium	1.9 UFR
10.	Copper	3 P	22.	Tin	22 UP
11.	Iron	12 0 P	23.	Vanadium	[9.9] P
12.	Lead	[1] F R*	24.	Zinc	156 P

Cyanide [illegible] Percent Solids (%) 81.2

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: ____

Lab Manager [signature]

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MEU 960

Date 11/4/87

INORGANIC ANALYSIS DATA SHEET

LAB NAME Hittman Ebasco Assoc Inc CASE NO. 7844

SOW NO. 7/84

LAB SAMPLE ID. NO. 5145 QC REPORT NO. 38

Elements Identified and Measured

Concentration: Low X Medium ____

Matrix: Water ____ Soil X Sludge ____ Other ____

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	6500P	13.	Magnesium	10700P
2.	Antimony	5.5UFR	14.	Manganese	376P
3.	Arsenic	1.1FR	15.	Mercury	0.1UCV
4.	Barium	[44]P	16.	Nickel	~~10.53P~~ [53P]
5.	Beryllium	[1.1]P	17.	Potassium	[1210]P
6.	Cadmium	~~6.4P~~ 2.3UP	18.	Selenium	0.5UFR
7.	Calcium	3500P	19.	Silver	0.4UFR
8.	Chromium	1.2FR	20.	Sodium	[390]P
9.	Cobalt	[6.3]P	21.	Thallium	2.2UFR
10.	Copper	[14]P	22.	Tin	21UP
11.	Iron	24600P	23.	Vanadium	9.4UP
12.	Lead	13F	24.	Zinc	56P
	Cyanide	1.2U		Percent Solids (%)	84.3

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager R Christophe

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MEU 961

Date 11/4/87

INORGANIC ANALYSIS DATA SHEET

LAB NAME HITTMAN EBASCO ASSOC. INC. CASE NO. 7844

SOW NO. 7/84

LAB SAMPLE ID. NO. 5146 QC REPORT NO. 38

Elements Identified and Measured

Concentration: Low X Medium ____

Matrix: Water ____ Soil X Sludge ____ Other ____

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	5030P	13.	Magnesium	7640P
2.	Antimony	4.3UFR	14.	Manganese	656P
3.	Arsenic	4.2FR	15.	Mercury	0.1UCV
4.	Barium	[1.3]P	16.	Nickel	[32P]
5.	Beryllium	[0.9]P	17.	Potassium	[677]P
6.	Cadmium	1.8UP	18.	Selenium	0.3UFR
7.	Calcium	36300P	19.	Silver	0.2UFR
8.	Chromium	10.8FR	20.	Sodium	[301]P
9.	Cobalt	3.8UP	21.	Thallium	1.5UFR
10.	Copper	4.0UP	22.	Tin	17UP
11.	Iron	13000P	23.	Vanadium	[15]P
12.	Lead	[56]FR*	24.	Zinc	77P

Cyanide 1.1 Percent Solids (%) 92.1

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager [signature]

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MEU962

Date 11/4/87

INORGANIC ANALYSIS DATA SHEET

LAB NAME Hittman Ebasco Assoc. Inc. CASE NO. 7844

SOW NO. 7/84

LAB SAMPLE ID. NO. 5147 QC REPORT NO. 38

Elements Identified and Measured

Concentration: Low X Medium ____

Matrix: Water ____ Soil X Sludge ____ Other ____

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	8830P	13.	Magnesium	9780P
2.	Antimony	5.6UFR	14.	Manganese	417P
3.	Arsenic	17 FSR	15.	Mercury	0.3CV
4.	Barium	18 P	16.	Nickel	66P
5.	Beryllium	1.7P	17.	Potassium	1110P
6.	Cadmium	1.9P	18.	Selenium	0.6UFR
7.	Calcium	20400P	19.	Silver	1.1FR
8.	Chromium	16FR	20.	Sodium	233P
9.	Cobalt	10P	21.	Thallium	2.7UFR
10.	Copper	31P	22.	Tin	22UP
11.	Iron	27400P	23.	Vanadium	14P
12.	Lead	13 FSR now *	24.	Zinc	791P
Cyanide		1.6	Percent Solids (%)		63.0

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: ____

Lab Manager P. Christopher

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MEU963

Date 11/4/87

INORGANIC ANALYSIS DATA SHEET

LAB NAME Hittman Ebasco Assoc. Inc. CASE NO. 7844

SOW NO. 7/84

LAB SAMPLE ID. NO. 5148 QC REPORT NO. 38

Elements Identified and Measured

Concentration: Low X Medium ____

Matrix: Water ____ Soil X Sludge ____ Other ____

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	11400P	13.	Magnesium	8140P
2.	Antimony	9.2UFR	14.	Manganese	602P
3.	Arsenic	[23]FSR	15.	Mercury	0.3CV
4.	Barium	1030P	16.	Nickel	91P
5.	Beryllium	[1.9]R	17.	Potassium	[1800]P
6.	Cadmium	8.6P	18.	Selenium	0.9UFR
7.	Calcium	28300P	19.	Silver	[1.7]FR
8.	Chromium	168FR	20.	Sodium	[1130]P
9.	Cobalt	[13]P	21.	Thallium	3.7UFR
10.	Copper	66.7P	22.	Tin	36UP
11.	Iron	49800P	23.	Vanadium	[18]P
12.	Lead	[218]FR*	24.	Zinc	378P

Cyanide 2.6U Percent Solids (%) 38.0

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager P. Christopher

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MEU 964

Date 11/4/87

INORGANIC ANALYSIS DATA SHEET

LAB NAME HITMAN EBASCO ASSOC. Inc CASE NO. 7844

SOW NO. 7/84

LAB SAMPLE ID. NO. 5149 QC REPORT NO. 38

Elements Identified and Measured

Concentration: Low X Medium ____

Matrix: Water ____ Soil X Sludge ____ Other ____

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	5870 P	13.	Magnesium	10400P
2.	Antimony	8.8 UFR	14.	Manganese	339 P
3.	Arsenic	[6.5] FSR	15.	Mercury	0.4 CV
4.	Barium	71.2 P	16.	Nickel	[63] P
5.	Beryllium	1.2 UP	17.	Potassium	[1380] P
6.	Cadmium	3.9 UP	18.	Selenium	0.7 UFR
7.	Calcium	40500 P	19.	Silver	[0.6] FR
8.	Chromium	21 FR	20.	Sodium	[1130] P
9.	Cobalt	7.2 UP	21.	Thallium	3.2 UFR
10.	Copper	48 P	22.	Tin	34 UP
11.	Iron	28500 P	23.	Vanadium	[23] P
12.	Lead	18.4 FR	24.	Zinc	140 P

Cyanide 2.4 U Percent Solids (%) 41.0

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager [signature]

Form III A

Q. C. Report No. 38

BLANKS

LAB NAME HITTMAN EBASCO ASSOC. INC. CASE NO. 7844

DATE 11/4/87 UNITS ug/L

Matrix SOIL

Preparation Compound	Initial Calibration Blank Value	Continuing Calibration Blank Value 1	2	3	4	Preparation Blank 1	2
Metals:							
1. Aluminum	88u	88u	[143]	88u		88u	
2. Antimony	9.6u	9.6u	9.6u	9.6u		9.6u	
3. Arsenic	1.4u	1.4u	1.4u	1.4u		1.4u	
4. Barium	[14]	[11]	5.3u			[13]	
5. Beryllium	2.0u	2.0u	2.0u			2.0u	
6. Cadmium	4.1u	4.1u	4.1u			4.1u	
7. Calcium	45u	45u	45u	45u		45u	
8. Chromium	0.6u	[0.7]	0.6u			[2.6]	
9. Cobalt	8.5u	8.5u	8.5u			8.5u	
10. Copper	9.1u	9.1u				9.1u	
11. Iron	[52]	[54]	[50]	[47]		[69]	
12. Lead	2.9u	2.9u	2.9u			2.9u	
13. Magnesium	[36]	[31]	12u	[20]		[16]	
14. Manganese	2.5u	2.5u	2.5u			[3.0]	
15. Mercury	0.2u	0.2u	0.2u	0.2u		0.2u	
16. Nickel	[37]	[22]	[32]			40	
17. Potassium	24u	24u	24u	24u	24u	24u	
18. Selenium	0.9u	0.9u	0.9u	0.9u	0.9u	0.9u	
19. Silver	0.7u	0.7u	0.7u	0.7u		0.7u	
20. Sodium	20u	20u	20u	20u		[119]	
21. Thallium	3.9u	3.9u	3.9u	3.9u		3.9u	
22. Tin	37u	37u	37u			37u	
23. Vanadium	16u	16u	[20]			16u	
24. Zinc	5.3u	5.3u	5.3u			5.3u	
Other:							
Cyanide	10u	10u	10u			10u	

Form III B

Q. C. Report No. 38

BLANKS

LAB NAME HITTMAN EBASCO ASSOC. INC. CASE NO. 7844

DATE 11/4/87 UNITS ug/L

Matrix SOIL

Preparation Compound	Initial Calibration Blank Value	Continuing Calibration Blank Value 1	2	3	4	Preparation Blank 1	2
Metals:							
1. Aluminum							
2. Antimony							
3. Arsenic	1.4u	1.4u	1.4u	1.4u			
4. Barium							
5. Beryllium							
6. Cadmium							
7. Calcium							
8. Chromium	0.6u	[0.8]	[0.8]				
9. Cobalt							
10. Copper	9.1u	9.1u					
11. Iron							
12. Lead	2.9u	2.9u	2.9u	2.9u	2.9u		
13. Magnesium							
14. Manganese							
15. Mercury							
16. Nickel							
17. Potassium		24u					
18. Selenium							
19. Silver							
20. Sodium							
21. Thallium	3.9u	3.9u	3.9u				
22. Tin							
23. Vanadium							
24. Zinc							
Other:							
Cyanide	10u	10u	10u			10u	

Form III C

Q. C. Report No. 38

BLANKS

LAB NAME HITTMAN EBASCO ASSOC. INC. CASE NO. 7844

DATE 11/4/87 UNITS ug/L

Matrix SOIL

Preparation Compound	Initial Calibration Blank Value	Continuing Calibration Blank Value 1	2	3	4	Preparation Blank 1	2
Metals:							
1. Aluminum							
2. Antimony							
3. Arsenic							
4. Barium							
5. Beryllium							
6. Cadmium							
7. Calcium							
8. Chromium							
9. Cobalt							
10. Copper							
11. Iron							
12. Lead	2.9u	2.9u	2.9u	2.9u			
13. Magnesium							
14. Manganese							
15. Mercury							
16. Nickel							
17. Potassium							
18. Selenium							
19. Silver							
20. Sodium							
21. Thallium							
22. Tin							
23. Vanadium							
24. Zinc							
Other:							
Cyanide	10u	10u	10u			10u	

Form V A

Q. C. Report No. 38

SPIKE SAMPLE RECOVERY

LAB NAME HITTMAN EBASCO ASSOCIATES INC.

CASE NO. 7844

EPA Sample No. MEU959

Lab Sample ID No. 5144

DATE 11/4/87

Units ug/L

Matrix SOIL

Compound	Control Limit %R	Spiked Sample Result (SSR)	Sample Result (SR)	Spiked Added (SA)	%R[1]	
Metals:						
1. Aluminum	75-125				NR	
2. Antimony	-	21	9.6u	50	42	R
3. Arsenic	-	~~26~~ 24	10	40	35	R
4. Barium	-	2150	[153]	2000	100	
5. Beryllium	-	52	2.0u	50	104	
6. Cadmium	-	60	11	50	98	
7. Calcium	-				NR	
8. Chromium	-	26	18	20	40	R
9. Cobalt	-	493	8.5u	500	99	
10. Copper	-	283	39	250	98	
11. Iron	-				NR	
12. Lead	-	305	288	40	43	*
13. Magnesium	-				NR	
14. Manganese	-	1120	598	500	104	
15. Mercury	-	1.2	0.2u	1.0	120	
16. Nickel	-	521	54	500	93	
17. Potassium	-				NR	
18. Selenium	-	[1.6]	0.9u	10	16	R
19. Silver	-	27	[1.1]	50	52	R
20. Sodium	-				NR	
21. Thallium	-	22	3.9u	50	44	R
22. Tin	-	500	37u	500	100	
23. Vanadium	-	492	[17]	500	95	
24. Zinc	-	776	269	500	101	
Other:						
Cyanide	-					

[1] %R = [(SSR - SR)/SA] x 100

"R" - out of control

Comments: * No R flag SR > 4x SA

Form VB

Q. C. Report No. 38

SPIKE SAMPLE RECOVERY

LAB NAME HITTMAN EBASCO ASSOCIATES INC.

CASE NO. 7844

EPA Sample No. MEU964

Lab Sample ID No. 5149

Units UG/L

DATE 11/4/87

Matrix SOIL

Compound	Control Limit %R	Spiked Sample Result (SSR)	Sample Result (SR)	Spiked Added (SA)	%R[1]
Metals:					
1. Aluminum	75-125				
2. Antimony	-				
3. Arsenic	-				
4. Barium	-				
5. Beryllium	-				
6. Cadmium	-				
7. Calcium	-				
8. Chromium	-				
9. Cobalt	-				
10. Copper	-				
11. Iron	-				
12. Lead	-				
13. Magnesium	-				
14. Manganese	-				
15. Mercury	-				
16. Nickel	-				
17. Potassium	-				
18. Selenium	-				
19. Silver	-				
20. Sodium	-				
21. Thallium	-				
22. Tin	-				
23. Vanadium	-				
24. Zinc	-				
Other:					
Cyanide	-	102	10u	100	102

[1] %R = [(SSR - SR)/SA] x 100

"R"- out of control

Comments:

Form VI A

Q. C. Report No. 38

DUPLICATES

LAB NAME HITTMAN EBASCO ASSOCIATES INC.

DATE 11/4/87

CASE NO. 7844

EPA Sample No. MEU959

Lab Sample ID No. 5144

Units ug/L

Matrix SOIL

Compound	Control Limit[1]	Sample(S)	Duplicate(D)	RPD[2]
Metals:				
1. Aluminum				
2. Antimony				
3. Arsenic				
4. Barium				
5. Beryllium				
6. Cadmium				
7. Calcium				
8. Chromium				
9. Cobalt				
10. Copper				
11. Iron				
12. Lead				
13. Magnesium				
14. Manganese				
15. Mercury		0.2u	[0.2]	NC
16. Nickel				
17. Potassium				
18. Selenium				
19. Silver				
20. Sodium				
21. Thallium				
22. Tin				
23. Vanadium				
24. Zinc				
Other:				
Cyanide				

* Out of Control

[1] To be added at a later date.

[2] RPD = [|S - D|/((S + D)/2)] x 100

NC - Non calculable RPD due to value(s) less than CRDL

Form VI B

Q. C. Report No. 38

DUPLICATES

LAB NAME HITTMAN EBASCO ASSOCIATES INC.

CASE NO. 7844

EPA Sample No. MEU 960

Lab Sample ID No. 5145

DATE 11/24/87

Units ug/L

Matrix SOIL

Compound	Control Limit[1]	Sample(S)	Duplicate(D)	RPD[2]
Metals:				
1. Aluminum	± 20%	11400	12200	6.8
2. Antimony		9.6u	9.6u	NC
3. Arsenic	±10	20	23	14
4. Barium	±	[113]	[113]	~~0~~ NC
5. Beryllium		[2.0]	[2.0]	NC
6. Cadmium		4.1u	4.1u	NC
7. Calcium	± 20%	57100	61500	7.4
8. Chromium	±10	22	24	8.7
9. Cobalt		[12]	[22]	NC
10. Copper		[24]	29	NC
11. Iron	± 20%	42100	44700	6.0
12. Lead	± 5.0	24	36	40 *
13. Magnesium	± 5000	18700	19600	4.7
14. Manganese	± 20%	659	670	1.7
15. Mercury				
16. Nickel	±40	93	95	2.1
17. Potassium		[2130]	[2140]	NC
18. Selenium		0.9u	0.9u	NC
19. Silver		0.7u	[8.1]	NC
20. Sodium		[683]	[573]	NC
21. Thallium		3.9u	3.9u	NC
22. Tin		37u	37u	NC
23. Vanadium		16u	[22]	NC
24. Zinc	± 20	99	109	9.6
Other:				
Cyanide				

* Out of Control

[1] To be added at a later date.

[2] RPD = [|S - D|/((S + D)/2)] x 100

NC - Non calculable RPD due to value(s) less than CRDL

Form VI C

Q. C. Report No. 38

DUPLICATES

LAB NAME HITTMAN EBASCO ASSOCIATES INC.

DATE 11/4/87

CASE NO. 7844

EPA Sample No. MEU 469 963

Lab Sample ID No. 5148

Units ug/L

Matrix SOIL

Compound	Control Limit[1]	Sample(S)	Duplicate(D)	RPD[2]
Metals:				
1. Aluminum				
2. Antimony				
3. Arsenic				
4. Barium				
5. Beryllium				
6. Cadmium				
7. Calcium				
8. Chromium				
9. Cobalt				
10. Copper				
11. Iron				
12. Lead				
13. Magnesium				
14. Manganese				
15. Mercury				
16. Nickel				
17. Potassium				
18. Selenium				
19. Silver				
20. Sodium				
21. Thallium				
22. Tin				
23. Vanadium				
24. Zinc				
Other:				
Cyanide		10u	10u	NC

* Out of Control

[1] To be added at a later date.

[2] RPD = [|S - D|/((S + D)/2)] x 100

NC - Non calculable RPD due to value(s) less than CRDL

Form VII

Report No. 38

INSTRUMENT DETECTION LIMITS AND

LABORATORY CONTROL SAMPLE

LAB NAME HITTMAN EBASCO ASSOCIATES INC. CASE NO. 7844

DATE 11/4/87 LCS UNITS ug/L mg/kg

(Circle One)

Compound	Required Detection Limits (CRDL)-ug/l	Instrument Detection Limits (IDL)-ug/l ICP/AA	Instrument Detection Limits (IDL)-ug/l Furnace	Lab Control Sample True	Lab Control Sample Found	Lab Control Sample %R
Metals:						
1. Aluminum	200	88.4		800	752	94
2. Antimony	60		9.6	80	70	88
3. Arsenic	10		1.4	80	73	91
4. Barium	200	3.5		5000	4630	93
5. Beryllium	5	2.0		300	289	96
6. Cadmium	5	4.1		50	49	98
7. Calcium	5000	45.3		7500	7100	95
8. Chromium	10		0.6	80	78	98
9. Cobalt	50	8.5		300	278	93
10. Copper	25	9.1		400	388	97
11. Iron	100	9.6		800	962	120
12. Lead	5		2.9	80	76	95
13. Magnesium	5000	11.6		5000	4920	98
14. Manganese	15	2.5		400	380	95
15. Mercury	0.2	0.17		7.0	7.9	113
16. Nickel	40	12.6		300	281	94
17. Potassium	5000	24.2		2500	2410	96
18. Selenium	5		0.9	80	77	96
19. Silver	10		0.7	40	37	93
20. Sodium	5000	20.2		2500	2620	105
21. Thallium	10		3.9	80	72	90
22. Tin	40	37.3		800	761	95
23. Vanadium	50	16.4		800	743	93
24. Zinc	20	5.3		400	396	99
Other:						
Cyanide	10	NR	NR	100	92	92

ecology and environment, inc.
111 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60604, TEL. 312-663-9415
International Specialists in the Environment

CRL Receipt Date 9-9-87 FIT Receipt Date 12-8-87 Review Completed 12-8-87

TO: Steve ANDERSON

FROM: Jim Mertes

SUBJECT: E. 49th St. Dump

PAN: OH 0602 CASE # 7844

Sample Description

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

Project Data Status X Completed!!

Incomplete, awaiting:

FIT Data Review Findings:

Attachment 1 of the review narrative belonged to another (E. 49th St. Raw Data) case, These three pages have been removed & returned to the original Raw Data at CRL. However, some information was transcribed on these pages that referred to the E. 49th St. Dump Case: "The laboratory used the Webb-McCall method in addition to the RAS method for PCB calculation in ET964. In view of the abundance of BNA cmpds., the RAS results are probably biased high and those calculated by Webb-McCall accurate. Both are reported on Table 1."

Check Data Sheets for Transcription Errors

— Med & low data are attached for ET964 (VOA fraction)

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

Book No. 6 Page No. 244 Date Sampled 8-12-87

26U:001

— Reextracted data also included for ET959, ET962

— HRS usable hits enclosed

— Detection limits on user info sheet are bogus, get correct D.L. from O.A.D.S forms!

— TEC's in most samples

1 hr. charged to above PAN Q week ending 12-12-87 J.M.

missing data Received 12-17-87

recycled paper

page 1 of 13

recd 12/8/87
48 pages

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

12/2/87

DATE: ~~11/7/1987~~

SUBJECT: Review of Region V CLP Data
Received for Review on 9/9/1987

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

TO: Data User: FIT

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

SITE NAME: E. 49th Street Dump SMO Case No. 7844

EPA Data Set No. SF 4296 No. of Samples: 6 D.U./Activity Numbers Y905 C72100

CRL No.: 87FP15S14 to 87F 15S19

SMO Traffic No. ET959 to ET964

CLP Laboratory: HAZELTON Hrs. Required for Review: 8

M10685

Following are our findings:

See attached review
Arochlors and BNAs were found. See Table 1.
Elna G. Kaufman
EGKaufman for Renee Capozza

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

cc: Duane Geuder, Quality Assurance Officer, EPA Support Services
James Petty, Chief Quality Assurance Research, EMSL, Las Vegas

EPA FORM 1320-6 (Rev. 5/87)

Attachment 2 can be incorporated in the review narrative or at least it should follow the same outline. Pat Chunilla 12-7-87

Attachment 2
DATA QUALIFIERS

Contractor: Hazelton

Case 7844 Re

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

1. Sample Holding Times. Acceptable except for sample ET962 which was extracted for BNAs after 13 days (QC limit 10 days) However time delay is marginal, therefore BNA data in ET962 is acceptable

2. GC/MS Tuning
BFB DFTPP

3. Calibration
Due to out of criteria %rsd or %D of initial and continuing calibrations the following analyte detection limits are inaccurate:
chloromethane, bromomethane, carbon disulfide, vinylacetate in all samples.
2-hexanone, 4-methyl-2-pentanone, hexachloroethane, hexachlorocyclopentadiene
3,3-dichlorobenzidine in sample ET964
benzo(k)fluoranthene in ET962
bis(2-chloroethyl)ether in ET962 and ET964
2-chlorophenol and 2,4 dinitrophenol in ET 961 and ET963
benzyl alcohol, napthalene and 4-nitroaniline in ET961, -962, -963, -964
4-nitrophenol in ET961, ET962 and ET963

4. Blanks
Common contaminants (and TICs) detected in the VOA and BNA blanks. All were at levels less than 10 x the CRQL. These contaminants are
methylene chloride
acetone
trimethyl silanol

Reviewed by: RENEE CAPOVA
Phone 415 - 777 2811 (San Francisco)
Date: 11/7/87

ecology and environment

Attachment 2
DATA QUALIFIERS

Contractor: Hazelton labs | Case 7844 ne

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

4. Blanks continued
n-nitrosodiphenylamine
di-n-butylphthalate
butylbenzylphthalate
3-pentanol 2,2-dimethyl
α-d-xylofuranoiside, methyl 3,5 odimethyl
3,7,11 tridecatriene nitrile, 4,8,12 trimethyl.

Where samples contained less than 10 X, labelled UJ in table.

5. Surrogates
VOA: Acceptable The %R of toluene-d8 and BFB in samples ET959 and ET969 marginally exceeded the QC range. Data valid

BNA:
15 out 78 surrogates had unacceptable %Rs (See ms/msD)
7 out of 12 B/Ns and 4 out of 10 Acid ms compounds had unacceptable %Rs. Matrix effects may cause reduced recovery of substituted benzene compounds in sample ET959. For these compounds see Table, where detection limits are labelled UJ). The recovery of 2-fluoro biphenyl in samples ET963 and ET959 were below the QC range. The detection limit of all BNAs in sample ET959 are biased low and all results are biased low. Only one surrogate in sample ET963 is out of specification. Although the laboratory did not

Reviewed by:
Phone
Date:

recycled paper
geology and environment

Attachment 2
DATA QUALIFIERS

Contractor: Hazelton

Case 7844

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

reanalyse this sample, the reviewer considers BN data of this sample to be acceptable.

6. MS/MSD See surrogates

Reviewed by:

Phone

Date:

recycled paper
ecology and environment

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

CALIBRATION OUTLIERS
VOLATILE HSL COMPOUNDS

CASE/SAS # 7847 CONTRACTOR Hazelton Labs

Instrument #	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	8/10/87			8/14 17:00			8/20 1623								
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
Chloromethane		45	J		35	J									
Bromomethane		76	J		57	J		41	J						
Vinyl Chloride															
Chloroethane															
Methylene Chloride															
Acetone															
Carbon Disulfide					452	J		387	J						
1,1-Dichloroethane															
1,1-Dichloroethene															
Trans-1,2-Dichloroethene															
Chloroform															
2-Butanone															
1,2-Dichloroethane															
1,1,1-Trichloroethane															
Carbon Tetrachloride															
Vinyl Acetate					173	J		187	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								66	J						
2-Hexanone								66	J						
Tetrachloroethene															
1,1,2,2-Tetrachloroethane															
Toluene															
Chlorobenzene															
Ethylbenzene															
Styrene															
m-Xylene															
o/p-Xylene															

AFFECTED SAMPLES:

ET 959	ET 959	ET 961 ms	
ET 960	960	ET 161 msD	
ET 961	961	ET 964	
ET 962	962		
ET 963	963		
ET 964	959 RE		
	962 RE		

Reviewer's Initials/Date: RE 11/7/87

* 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 # 7844 CONTRACTOR Hazelton

Instrument #	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:				8/21 10:09			8/21 23:09			8/27 11:18					
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
Phenol															
bis(-2-Chloroethyl)Ether					-50	J		47	J		48	J			
2-Chlorophenol															
1,3-Dichlorobenzene															
1,4-Dichlorobenzene															
Benzyl Alcohol					410	J		37	J		115	J			
1,2-Dichlorobenzene															
2-Methylphenol															
bis(2-chloroisopropyl)Ether															
4-Methylphenol															
N-Nitroso-Di-n-Propylamine								45	J						
Hexachloroethane															
Nitrobenzene															
Isophorone															
2-Nitrophenol															
2,4-Dimethylphenol															
Benzoic Acid															
bis(2-Chloroethoxy)Methane															
2,4-Dichlorophenol															
1,2,4-Trichlorobenzene															
Naphthalene															
4-Chloroaniline					100	J		98	J		88	J			
Hexachlorobutadiene															
4-Chloro-3-Methylphenol															
2-Methylnaphthalene															
Hexachlorocyclopentadiene															
2,4,6-Trichlorophenol								52	J						
2,4,5-Trichlorophenol															
2-Chloronaphthalene															
2-Nitroaniline															
Dimethyl Phthalate															
Acenaphthylene															
3-Nitroaniline					97	J		83	J		62	J			
Acenaphthene															
2,4-Dinitrophenol					49	J									
4-Nitrophenol					63	J					34	J			
Dibenzofuran															

AFFECTED SAMPLES:

ET960	ET959	ET962
ET959MS	ET964	ET959RE
ET959MSD		ET959MS
ET961		ET959MSD
ET963		

Reviewer Initials/Date: RL 11/7/87

* 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

CASE/SAS # 7844 CONTRACTOR Hazelton

Instrument #	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:				8/21			8/21 2309			8/27 11:48					
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
2,4-Dinitrotoluene															
2,6-Dinitrotoluene															
Diethylphthalate															
4-Chlorophenyl-phenylether															
Fluorene															
4-Nitroaniline					350	J		320	J		180	J			
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											91	J			
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: RE 11/7/87

TABLE I

COMPOUND	SAMPLE DET. LIMIT ug/kg	ug/kg ET959	ug/kg ET960	ug/kg ET961	ug/kg ET962	ug/kg ET963	LOW ET964	MED ET964
chloromethane	12							
bromomethane	12							
vinyl chloride	12							
chloroethane	12							
methylene chloride	6	9UJ	8UJ	8UJ	9UJ	41 J	36UJ	
acetone	12	12UJ	18 J	14UJ	32UJ	74 J	140UJ	
carbon disulfide	6							
1,1-dichloroethene								
1,1-dichloroethane								
trans-1,2,-dichloroethene								
chloroform								
1,2-dichloroethane								
2-butanone	12							
1,1,1-trichloroethane	6							
carbon tetrachloride	6							
vinyl acetate	12							
bromodichloromethane	6							
1,1,2,2-tetrachloroethane								
1,2-dichloropropane								
trans-1,3-dichloropropene								
trichloroethene								
dibromochloromethane								
1,1,2-trichloroethane								
benzene						100	2900	3700
cis-1,3-dichloropropene								
2-chloroethylvinylether								
bromoform								
2-hexanone								
4-methyl-2-pentanone	12							
tetrachloroethene	12							
toluene	6	9				220	2800	5500
chlorobenzene						21	1000	2100
ethylbenzene								
styrene								
total xylenes							770	1900
N-nitrosodimethylamine	330							
phenol								
aniline								
bis(2-chloroethyl)ether								
2-chlorophenol								
1,3-dichlorobenzene							150 J	
1,4-dichlorobenzene							400 J	
benzyl alcohol							J	
1,2-dichlorobenzene							60 J	
2-methylphenol								
bis(2-chloroisopropyl)ether								
4-methylphenol								
N-nitroso-di-n-propylamine								
hexachloroethane								
nitrobenzene								
isophrone								
2-nitrophenol								
2,4-dimethylphenol								
benzoic acid	1600				88 J	40 J		
bis(2-chloroethoxy)methane	330							
2,4-dichlorophenol								
1,2,4-trichlorobenzene								
napthalene								
4-chloroaniline								
hexachlorobutadiene								
4-chloro-3-methylphenol								
2-methylnapthalene							260 J	
hexachlorocyclopentadiene								
2,4,6-trichlorophenol								
2,4,5-trichlorophenol	1600							

Dt = 1300

VOA

6 / 10

Table 1

COMPOUND	SAMPLE PQL LIMIT	ET959	ET960	ET961	ET962	ET963	ET964	ET964
dimethyl phthalate	330							
acenaphthylene	330	33J		28J				
3-nitroaniline	1600							
acenaphthene	330							
2,4-dinitrophenol	1600							
4-nitrophenol	1600							
dibenzofuran	330							
2,4-dinitrotoluene								
2,6-dinitrotoluene								
diethylphthalate								
4-chlorophenyl-phenylether								
fluorene				80J			94J	
4-nitroaniline	1600							
4,6-dinitro-2-methylphenol	1600							
N-nitrosodiphenylamine	330		78UJ			120UJ	220UJ	
4-bromophenyl-phenylether								
hexachlorobenzene								
pentachlorophenol	1600							
phenanthrene	330	300J		1200	150J	81J	150J	
anthracene	330	57J		350J				
di-n-butylphthalate	330	560UJ	940UJ	170UJ	2500UJ	1400UJ	2500UJ	
fluoranthene	330	580J		2400	380J	200J		
benzidine	660	J						
pyrene	330	540J		1500	350J	140J	43J	
butylbenzylphthalate								
3,3'-dichlorobenzidine								
benzo(a)anthracene		270J		1000	170J	91J		
bis(2-ethylhexyl)phthalate					340J		490J	
chrysene		320J		960	240J	190J		
di-n-octylphthalate								
benzo(b&k)fluoranthene		550J		1470		247J		
benzo(a)pyrene		250J		930		100J		
indeno(1,2,3-cd)pyrene				600				
dibenzo(a,h)anthracene								
benzo(g,h,i)perylene								
alpha-BHC	10							
beta-BHC								
delta-BHC								
gamma-BHC(lindane)								
heptachlor								
aldrin								
heptachlor epoxide								
endosulfan I								
dieldrin	20							
4,4'-DDE								
endrin								
endosulfan II								
4,4'-DDD								
endrin aldehyde								
endosulfan sulfate								
4,4'-DDT								
methoxychlor	100							
endrin ketone	20							
chlordane	100							
toxaphene	200							
Aroclor-1016	100					WEBB	CLP	
Aroclor-1221						MCCALL		
Aroclor-1232						METHOD	METHOD	
Aroclor-1242								
Aroclor-1248						3100	3300	
Aroclor-1254	200					2200	3200	
Aroclor-1260	200							

Case: 7844

Contractor: Hazelton

TENTATIVELY IDENTIFIED COMPOUNDS
WATCH ASSESSMENT

NOTE: Reviewer should note directly on Organic Analysis Data Sheet (OADS) those matches that in his opinion (based on contract criteria) are unreasonable.

CRITERIA

(1) Relative intensities of major ions (>10%) reference spectrum should be present in the sample spectrum.

(2) Relative intensities of major ions in sample spectrum should agree to within ± 20% of reference spectrum intensities.

(3) Molecular ions present in reference spectrum should be present in sample spectrum.

(4) Ions present in sample spectrum, but not in reference spectrum should be reviewed for possible background contamination or presence of coeluting interferences.

(5) Ions present in reference spectrum, but not in the sample spectrum should be reviewed for possible subtraction from the sample spectrum because of background contamination or coeluting interferences.

(6) If, in the reviewer's opinion, no valid identification can be made the compound should be labelled as "unknown" and the initials and date of the reviewer placed on the OADS.

Reviewer's Initials/Date: RE 11/7/87

HAZLETON LABORATORIES AMERICA, INC.
3301 KINSMAN BLVD • P.O. BOX 7545 • MADISON, WI 53707 • (608) 241-4471 • TLX 703956 HAZRAL MDS UD

RECEIVED
SEP 09 1987
US EPA CENTRAL REGIONAL LAB.
536 S. CLARK STREET
CHICAGO, ILLINOIS 60605

SF 4296

September 4, 1987

Sample Management Office
Viar and Company
209 Madison Street
Alexandria, VA 22314

Enclosed is the data package for Case No. 7844. Under this case number, we received a total of six soil samples, which were received on August 13, 1987 from Region V. All samples were analyzed and reported according to the protocols provided under our Contract No 68-01-7146 bid lot #1.

Please note the following summary comments relating to the contractual quality control in this case:

- Medium Level Analysis. One sample (ET964) was analyzed using the medium level method, for the volatile fraction, due to high levels of benzene and chlorobenzene. We had notified Region V that this sample had been analyzed by the low level method. They requested that we submitt both the low level and medium level data.

- GC-MS Tuning. All tuning requirements for both BFB and DFTPP for samples analyzed in this case were within contract criteria.

- Instrumental Calibrations. All instrumental calibrations for all fractions analyzed were within contract criteria for both initial and continuing calibrations.

- Method Blanks. All method blanks analyzed with this case were found to be within contract criteria for all fractions analyzed.

- Surrogate Recovery Exceptions.

  Volatile Fraction. Two samples; ET959 and ET962 resulted in out of control surrogate recoveries involving toluene-d_8 and BFB. Reanalysis of both ET959 and ET962 reproduced the original out of control recoveries and are considered to be the result of matrix problems.

Semivolatile Fraction. Sample ET962 (extracted 8-19-87) produced a low recovery (< 10%) for 2-fluorophenol. The re-extracted sample (8-26-87) resulted infully compliant surrogate recoveries and is the only data therefore submitted.

Sample ET959 (extracted 8-19-87) produced compliant surrogate recoveries, but the MS and MSD of ET959 generated unacceptable recoveries of two acid surrogates and two base/neutral surrogates (similiar poor recoveries of the matrix spiking compounds were noted). It was decided to re-extract and reanalyze all three samples due to the discrepancy between the unspiked and matrix spiked results. The re-extractions were performed on August 26, 1987. The result of the unspiked ET959 produced similiar surrogate recoveries to that of the original extract, although nitrobenzene-d_5 was out of control at 18% (the original recovery was at the lower control limit of 23%). The reanalysis of the matrix spikes of ET959 produced inconsistent results; where the surrogate recoveries were in control with the exception of a high 2,4,6-tribromophenol in ET959MS, the results of ET959MSD again produced two out of control surrogate recoveries in both the acid and base/
neutral fractions. We are unsure of the exact explanation for the inconsistent results and are providing both sets of data for your review.

- Quantitation and Reporting of PCB's. In sample ET964 the quantitation of aroclors 1248 and 1254 was complicated by contribution of both aroclors to individual peaks. In order to avoid artificially high values, the Webb-McCall method of quantitation was used in addition to the routine PCB calculation technique. PCB values, using both quantitation techniques, have been reported on the Form I for your information and use. It is the professional judgement of the analyst that the Webb-McCall method of quantitation may represent a more accurate result for this particular sample.

- Pesticide Confrimation Analysis. GC confirmation analysis of several samples in this case was performed using a DB-608 Megabore Capillary Column. Please note that a 1.5% DBC shift criteria has been established by Joan Fisk when using Megabore capillary columns.

If you have any questions regarding this case or need any further clarifications, please feel free to call.

Sincerely,

David C. Hills

David C. Hills
Manager, Environmental analysis

DCH/mw

cc: USEPA Region V
USEPA EMSL-LV
Central File

In Reference to Case No(s):
7844

Contract Laboratory Program
REGIONAL/LABORATORY COMMUNICATION SYSTEM
Telephone Record Log

RECEIVED

Date of Call: AUGUST 21, 1987

Laboratory Name: HAZLETON LABORATORIES

Lab Contact: DAVE HILLS

Region: V

Regional Contact: JAN PELS

Call Initiated By: ✓ Laboratory ___ Region

In reference to data for the following sample number(s):
ET 964

Summary of Questions/Issues Discussed:

Benzene and chlorobenzene are slightly over upper calibration range when using 1.0g:

	Conc found	x	Dil factor	=	Sample Conc
Benzene	280		5		1400 ug/kg
Chlorobenzene	273		5		1365 ug/kg

Using the maximum volume of extract (100ml) from Med level protocol, this would represent a dil factor of 125 and would be expected to produce results near the detection limit and potentially less accurate results.

Summary of Resolution:

Jan discussed this with the data user who said that they still would like the medium level analysis performed, but would also like the data from the diluted (1.0g) low level analysis.

David C. Hills
Signature

8-21-87
Date

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

SOIL SURROGATE PERCENT RECOVERY SUMMARY

Case No. 7844 **Contract Laboratory** HAZLETON LABORATORIES **Contract No.** 68-01-7146

Low ✓ **Medium** _____

SMO TRAFFIC NO.	VOLATILE: TOLUENE-D8 (81-117)	VOLATILE: BFB (74-121)	VOLATILE: 1,2 DICHLORO-ETHANE-D4 (70-121)	SEMI-VOLATILE: NITRO-BENZENE-D5 (23-120)	SEMI-VOLATILE: 2-FLUORO-BIPHENYL (30-115)	SEMI-VOLATILE: TERPHENYL-D14 (18-137)			SEMI-VOLATILE: PHENOL-D5 (24-113)	SEMI-VOLATILE: 2-FLUORO-PHENOL (25-121)	SEMI-VOLATILE: 2,4,6 TRIBROMO-PHENOL (19-122)	PESTICIDE: DIBUTYL-CHLORENDATE** (20-150)
ET959	124*	70*	88	23	33	80			32	26	65	103
ET959 RE	127*	73*	89	18*	56	91			53	26	84	NR
ET960	115	77	86	36	35	51			39	32	36	103
ET961	109	89	90	38	44	57			42	37	56	82
ET962	121*	77	83	33	53	85			56	42	87	52
ET962RE	125*	72*	88	NR	NR	NR			NR	NR	NR	NR
ET963	116	77	88	30	27*	42			28	28	37	46
ET964	117	95	90	34	44	74			40	34	68	33
ET959MS	NR	NR	NR	1*	20*	69			18*	5*	67	105
ET959MSD	NR	NR	NR	0*	14*	67			12*	2*	66	97
ET959MS-RE	NR	NR	NR	55	103	136			110	63	148*	NR
ET959MSD-RE	NR	NR	NR	11*	22*	36			23*	16*	32	NR
ET961MS	109	86	83	NR	NR	NR			NR	NR	NR	NR
ET961MSD	109	88	84	NR	NR	NR			NR	NR	NR	NR
M.Blk-1	101	95	88	52	54	80			53	45	52	114
M.Blk-2	105	105	73	56	58	101			58	57	88	NR

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

** ADVISORY LIMITS ONLY

Volatiles: 7 out of 36 ; outside of QC limits

Semi-Volatiles: 15 out of 78 ; outside of QC limits

Pesticides: 0 out of 9 ; outside of QC limits

7/85

VOA

Comments: ET964 has been analyzed as a medium level soil also. Both data included as per request.

FORM II

SOIL SURROGATE PERCENT RECOVERY SUMMARY

Case No. 7844 **Contract Laboratory** HAZLETON LABORATORIES **Contract No.** 68-01-7146

Low _____ **Medium** ✓

	VOLATILE			SEMI-VOLATILE								PESTICIDE
SMO TRAFFIC NO.	TOLUENE-D8 (81-117)	BFB (74-121)	1,2 DICHLORO-ETHANE-D4 (70-121)	NITRO-BENZENE-D5 (23-120)	2-FLUORO-BIPHENYL (30-115)	TERPHENYL-D14 (18-137)			PHENOL-D5 (24-113)	2-FLUORO-PHENOL (25-121)	2,4,6 TRIBROMO-PHENOL (19-122)	DIBUTYL-CHLORENDATE ** (20-150)
ET964	84	78	72									
ET964MS	89	83	74									
ET964MSD	90	85	81									
M.BLK-3	107	104	91									

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

**ADVISORY LIMITS ONLY

Volatiles: 0 out of 12 ; outside of QC limits

Semi-Volatiles: — out of — ; outside of QC limits

Pesticides: — out of — ; outside of QC limits

7/85

Comments:

FORM II

SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. 7844 **Contractor** HAZLETON LABORATORIES **Contract No.** 68-01-7146

Low Level ✓ **Medium Level** _____

FRACTION	COMPOUND	CONC. SPIKE ADDED (ug/Kg)	SAMPLE RESULT	CONC. MS	% REC	CONC. MSD	% REC	RPD	QC LIMITS* RPD	QC LIMITS* RECOVERY
VOA SMO SAMPLE NO. ET961	1,1-Dicholorethene	58	0	36	62	37	64	3	22	59-172
	Trichloroethene	↓	↓	49	84	50	86	2	24	62-137
	Chlorobenzene	↓	↓	61	105	59	102	3	21	60-133
	Toluene	↓	↓	64	110	63	109	1	21	59-139
	Benzene	↓	↓	52	90	50	86	5	21	66-142
B/N SMO SAMPLE NO. ET959	1,2,4-Trichlorobenzene	2050	↓	0	0*	0	0*	—	23	38-107
	Acenaphthene	↓	↓	630	31	520	25*	19	19	31-137
	2,4 Dinitrotoluene	↓	↓	1500	73	940	46	45	47	28-89
	Pyrene	↓	550	1830	62	1640	53	16	36	35-142
	N-Nitrosodi-n-Propylamine	↓	0	95	5*	70	3*	30	38	41-126
	1,4-Dichlorobenzene	↓	↓	0	0*	0	0*	—	27	28-104
ACID SMO SAMPLE NO. ET959	Pentachlorophenol	4100	↓	3040	74	2510	61	19	47	17-109
	Phenol	↓	↓	700	17*	510	12*	31	35	26-90
	2-Chlorophenol	↓	↓	330	8*	170	4*	64*	50	25-102
	4-Chloro-3-Methylphenol	↓	↓	2300	56	2250	55	2	33	26-103
	4-Nitrophenol	↓	↓	2380	58	2330	57	2	50	11-114
PEST SMO SAMPLE NO. ET959	Lindane	33	↓	21	64	23	70	9	50	46-127
	Heptachlor	↓	↓	22	67	25	76	13	31	35-130
	Aldrin	↓	↓	16	48	18	55	14	43	34-132
	Dieldrin	82	↓	45	55	47	57	4	38	31-134
	Endrin	↓	↓	74	90	72	88	2	45	42-139
	4,4'-DDT	↓	↓	39	48	58	71	39	50	23-134

*ASTERISKED VALUES ARE OUTSIDE QC LIMITS.

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

RECOVERY: VOAs 0 out of 10 ; outside QC limits
B/N 7 out of 12 ; outside QC limits
ACID 4 out of 10 ; outside QC limits
PEST 0 out of 12 ; outside QC limits

Comments:

SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. 7844 **Contractor** HAZLETON LABORATORIES **Contract No.** 68-01-7146

Low Level ✓ **Medium Level** _____

FRACTION	COMPOUND	CONC. SPIKE ADDED (ug/Kg)	SAMPLE RESULT	CONC. MS	% REC	CONC. MSD	% REC	RPD	QC LIMITS* RPD	QC LIMITS* RECOVERY
VOA SMO SAMPLE NO. —	1,1-Dicholorethene								22	59-172
	Trichloroethene								24	62-137
	Chlorobenzene								21	60-133
	Toluene								21	59-139
	Benzene								21	66-142
B/N SMO SAMPLE NO. ET959 (Re-extracted)	1,2,4-Trichlorobenzene	2050	0	1060	52	220	11*	130*	23	38-107
	Acenaphthene			2280	111	550	27*	122*	19	31-137
	2,4 Dinitrotoluene			2510	122*	540	26*	130*	47	28-89
	Pyrene		930	3170	109	980	2*	193*	36	35-142
	N-Nitrosodi-n-Propylamine		0	1220	60	260	13*	129*	38	41-126
	1,4-Dichlorobenzene			450	22*	150	7*	103*	27	28-104
ACID SMO SAMPLE NO. ET959	Pentachlorophenol	4100		6290	153*	690	17	160*	47	17-109
	Phenol			4630	113*	960	23*	132*	35	26-90
	2-Chlorophenol			3230	79	710	17*	129*	50	25-102
	4-Chloro-3-Methylphenol			5820	142*	1560	38	116*	33	26-103
	4-Nitrophenol			5190	127*	1070	26	132*	50	11-114
PEST SMO SAMPLE NO. —	Lindane								50	46-127
	Heptachlor								31	35-130
	Aldrin								43	34-132
	Dieldrin								38	31-134
	Endrin								45	42-139
	4,4'-DDT								50	23-134

*ASTERISKED VALUES ARE OUTSIDE QC LIMITS.

RPD: VOAs — out of — ; outside QC limits
B/N 6 out of 6 ; outside QC limits
ACID 5 out of 5 ; outside QC limits
PEST — out of — ; outside QC limits

RECOVERY: VOAs — out of — ; outside QC limits
B/N 8 out of 12 ; outside QC limits
ACID 6 out of 10 ; outside QC limits
PEST — out of — ; outside QC limits

Comments: _____

SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. 7844 **Contractor** HAZLETON LABORATORIES **Contract No.** 68-01-7146

Low Level _____ **Medium Level** ✓

FRACTION	COMPOUND	CONC. SPIKE ADDED (ug/Kg)	SAMPLE RESULT	CONC. MS	% REC	CONC. MSD	% REC	RPD	QC LIMITS* RPD	QC LIMITS* RECOVERY
VOA SMO SAMPLE NO. ET964	1,1-Dicholorethene	12940	0	6420	50*	6620	51*	2	22	59-172
	Trichloroethene		0	11200	87	11100	86	1	24	62-137
	Chlorobenzene		5500.	17700	94	17800	95	1	21	60-133
	Toluene		0	11700	90	12300	95	5	21	59-139
	Benzene		3700	14400	83	14000	80	4	21	66-142
B/N SMO SAMPLE NO.	1,2,4-Trichlorobenzene								23	38-107
	Acenaphthene								19	31-137
	2,4 Dinitrotoluene								47	28-89
	Pyrene								36	35-142
	N-Nitrosodi-n-Propylamine								38	41-126
	1,4-Dichlorobenzene								27	28-104
ACID SMO SAMPLE NO.	Pentachlorophenol								47	17-109
	Phenol								35	26-90
	2-Chlorophenol								50	25-102
	4-Chloro-3-Methylphenol								33	26-103
	4-Nitrophenol								50	11-114
PEST SMO SAMPLE NO.	Lindane								50	46-127
	Heptachlor								31	35-130
	Aldrin								43	34-132
	Dieldrin								38	31-134
	Endrin								45	42-139
	4,4'-DDT								50	23-134

*ASTERISKED VALUES ARE OUTSIDE QC LIMITS.

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

RECOVERY: VOAs 2 out of 10 : outside QC limits
B/N — out of — : outside QC limits
ACID — out of — : outside QC limits
PEST — out of — : outside QC limits

Comments: _____

METHOD BLANK SUMMARY

Case No. 7844 Region 5 Contractor HAZLETON LABORATORIES Contract No. 68-01-7146

FILE ID	DATE OF ANALYSIS	FRACTION	MATRIX	CONC. LEVEL	INST. ID	CAS NUMBER	COMPOUND (HSL, TIC OR UNKNOWN)	CONC.	UNITS	CRQL
M.Blk-1 25866	8-14-87	VOA	SOIL	L	HP5993	75-09-2	Methylene chloride	3J	µg/kg	5
						67-64-1	Acetone	5J		10
						—	Unknown	32		—
M.Blk-2 25943	8-20-87	VOA	SOIL	L	HP5993	75-09-2	Methylene chloride	4J	µg/kg	5
						67-64-1	Acetone	9J		10
						1066-40-6	Silanol, trimethyl-	12		—
						—	Unknown	41		—
						—	Unknown	5		—
M.Blk-3 25973	8-23-87	VOA	SOIL	M	HP5993	—	No volatiles found	—	—	—
M.Blk-1 BAN938	8-21-87	BNA	SOIL	L	FINNS1B	86-30-6	N-Nitrosodiphenylamine	83J	µg/kg	330
						84-74-2	Di-n-butylphthalate	200J		330
						—	Unknown	530		—
M.Blk-2 BAN966	8-27-87	BNA	SOIL	L	FINNS1B	84-74-2	Di-n-butylphthalate	160J	µg/kg	330
						85-68-7	Butylbenzylphthalate	1600		330
						3970-62-5	3-Pentanol, 2,2-dimethyl-	240		—
						3253-83-6	Alpha-D-xylofuranoside, methyl-3,5-O-dimethyl-	1100		—
						—	Unknown	1200		—
						6006-01-5	3,7,11-tridecatrienenitrile, 4,8,12-trimethyl-	610		—
M.Blk-1 2977	8-24-87	PEST	SOIL	L	Z-82211	—	No Pesticides/PCB's found	—	—	—

Comments:

Sample Number
ET 959

Organics Analysis Data Sheet
(Page 1)

87FR15514

Laboratory Name: HAZLETON LABORATORIES
Case No: 7844
Lab Sample ID No: 70802524
QC Report No:
Sample Matrix: Soil
Contract No: 68-01-7146
Data Release Authorized By: David C Gylb
Date Sample Received: 8/13/87

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 8/14/87
Date Analyzed: 8/14/87
Conc/Dil Factor: 1 pH 6.6
Percent Moisture: (Not Decanted) 18.4 C.F. 1.23

CAS Number		ug/l or (ug/Kg) (Circle One)
74-87-3	Chloromethane	12U
74-83-9	Bromomethane	12U
75-01-4	Vinyl Chloride	12U
75-00-3	Chloroethane	12U
75-09-2	Methylene Chloride	9B
67-64-1	Acetone	12B
75-15-0	Carbon Disulfide	6U
75-35-4	1, 1-Dichloroethene	6U
75-34-3	1, 1-Dichloroethane	6U
156-60-5	Trans-1, 2-Dichloroethene	6U
67-66-3	Chloroform	6U
107-06-2	1, 2-Dichloroethane	6U
78-93-3	2-Butanone	12U
71-55-6	1, 1, 1-Trichloroethane	6U
56-23-5	Carbon Tetrachloride	6U
108-05-4	Vinyl Acetate	12U
75-27-4	Bromodichloromethane	6U

CAS Number		ug/l or (ug/Kg) (Circle One)
78-87-5	1, 2-Dichloropropane	6U
10061-02-6	Trans-1, 3-Dichloropropene	6U
79-01-6	Trichloroethene	6U
124-48-1	Dibromochloromethane	6U
79-00-5	1, 1, 2-Trichloroethane	6U
71-43-2	Benzene	6U
10061-01-5	cis-1, 3-Dichloropropene	6U
110-75-8	2-Chloroethylvinylether	12U
75-25-2	Bromoform	6U
108-10-1	4-Methyl-2-Pentanone	12U
591-78-6	2-Hexanone	12U
127-18-4	Tetrachloroethene	6U
79-34-5	1, 1, 2, 2-Tetrachloroethane	6U
108-88-3	Toluene	9
108-90-7	Chlorobenzene	6U
100-41-4	Ethylbenzene	6U
100-42-5	Styrene	6U
	Total Xylenes	6U

D.L

6

Data Reporting Qualifiers

For reporting results to EPA, the following results 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 for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action

Other 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 data summary report

Laboratory Name: HAZLETON LABORATORIES

Case No: 7844

Sample Number
ET 95 9

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 8/19/87

Date Analyzed: 8/22/87

Conc/Dil Factor: 1

Percent Moisture (Decanted): 18.4

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	410u
111-44-4	bis(2-Chloroethyl)Ether	
95-57-8	2-Chlorophenol	
541-73-1	1,3-Dichlorobenzene	
106-46-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylphenol	
39638-32-9	bis(2-chloroisopropyl)Ether	
106-44-5	4-Methylphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylphenol	
65-85-0	Benzoic Acid	2000u
111-91-1	bis(2-Chloroethoxy)Methane	410u
120-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	
91-20-3	Naphthalene	
106-47-8	4-Chloroaniline	
87-68-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methylphenol	
91-57-6	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
88-06-2	2,4,6-Trichlorophenol	
95-95-4	2,4,5-Trichlorophenol	2000u
91-58-7	2-Chloronaphthalene	410u
88-74-4	2-Nitroaniline	2000u
131-11-3	Dimethyl Phthalate	410u
208-96-8	Acenaphthylene	33 J
99-09-2	3-Nitroaniline	2000u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	410u
51-28-5	2,4-Dinitrophenol	2000u
100-02-7	4-Nitrophenol	2000u
132-84-9	Dibenzofuran	410u
121-14-2	2,4-Dinitrotoluene	
606-20-2	2,6-Dinitrotoluene	
84-66-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
86-73-7	Fluorene	
100-01-6	4-Nitroaniline	2000u
534-52-1	4,6-Dinitro-2-Methylphenol	2000u
86-30-6	N-Nitrosodiphenylamine (1)	410u
101-55-3	4-Bromophenyl-phenylether	
118-74-1	Hexachlorobenzene	
87-86-5	Pentachlorophenol	2000u
85-01-8	Phenanthrene	300 J
120-12-7	Anthracene	57 J
84-74-2	Di-n-Butylphthalate	560 B
206-44-0	Fluoranthene	580
129-00-0	Pyrene	540
85-68-7	Butylbenzylphthalate	410u
91-94-1	3,3'-Dichlorobenzidine	820u
56-55-3	Benzo(a)Anthracene	270 J
117-81-7	bis(2-Ethylhexyl)Phthalate	410u
218-01-9	Chrysene	320 J
117-84-0	Di-n-Octyl Phthalate	410u
205-99-2	Benzo(b)Fluoranthene	550
207-08-9	Benzo(k)Fluoranthene	410u
50-32-8	Benzo(a)Pyrene	280 J
193-39-5	Indeno(1,2,3-cd)Pyrene	410u
53-70-3	Dibenz(a,h)Anthracene	
191-24-2	Benzo(g,h,i)Perylene	

410 D.L.

410 D.L.

(1)-Cannot be separated from diphenylamine

Sample Number
ET959

Laboratory Name HAZLETON LABORATORIES

Case No 7844

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 8-19-87

Date Analyzed: 8-24-87

Conc/Dil Factor: 1

Percent Moisture (decanted): 18.4 %

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	9.8 U
319-85-7	Beta-BHC	9.8 U
319-86-8	Delta-BHC	9.8 U
58-89-9	Gamma-BHC (Lindane)	9.8 U
76-44-8	Heptachlor	9.8 U
309-00-2	Aldrin	9.8 U
1024-57-3	Heptachlor Epoxide	9.8 U
959-98-8	Endosulfan I	20 U
60-57-1	Dieldrin	20 U
72-55-9	4, 4'-DDE	20 U
72-20-8	Endrin	20 U
33213-65-9	Endosulfan II	20 U
72-54-8	4, 4'-DDD	20 U
1031-07-8	Endosulfan Sulfate	20 U
50-29-3	4, 4'-DDT	98 U
72-43-5	Methoxychlor	20 U
53494-70-5	Endrin Ketone	98 U
57-74-9	Chlordane	200 U
8001-35-2	Toxaphene	98 U
12674-11-2	Aroclor-1016	98 U
11104-28-2	Aroclor-1221	98 U
11141-16-5	Aroclor-1232	98 U
53469-21-9	Aroclor-1242	98 U
12672-29-6	Aroclor-1248	200 U
11097-69-1	Aroclor-1254	200 U
11096-82-5	Aroclor-1260	200 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s — or W_s 24.4 g DRY WT V_t 20,000 ul V_i 4 ul

7 85

Laboratory Name HAZLETON LABORATORIES

Case No 7845

Sample Number
ET959

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1	3240-09-3	5-Hexen-2-one, 5 methyl	BNA	296	300
2		unknown		1790	210
3	54105-67-8	Heptadecane, 2,6-Dimethyl		1851	330
4		unknown		1907	670
5		unknown		1917	410
6		unknown		1927	980
7		unknown alkane		1963	930
8		unknown		2017	3100
9		unknown		2068	1300
10		unknown		2126	790
11		unknown		2141	790
12		unknown		2168	580
13	1066-40-6	Silanol, trimethyl-	VOA	208	8
14	589-34-4	Hexane, 3-methyl-		353	12
15					
16					
17					
18					
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28					
29					
30					

Sample Number
ET959 RE

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: HAZLETON LABORATORIES

Case No: 7844

Lab Sample ID No: 70802524 RE

QC Report No:

Sample Matrix: Soil

Contract No: 68-01-7146

Data Release Authorized By: David C. Gilb

Date Sample Received: 8/13/87

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 8/14/87

Date Analyzed: 8/14/87

Conc/Dil Factor: 1 pH 6.6

Percent Moisture: (Not Decanted) 18.4 C.F. = 1.23

CAS Number		ug/l or (ug/Kg) (Circle One)
74-87-3	Chloromethane	12U
74-83-9	Bromomethane	12U
75-01-4	Vinyl Chloride	12U
75-00-3	Chloroethane	12U
75-09-2	Methylene Chloride	14 B
67-64-1	Acetone	35 B
75-15-0	Carbon Disulfide	6U
75-35-4	1, 1-Dichloroethene	6U
75-34-3	1, 1-Dichloroethane	6U
156-60-5	Trans-1, 2-Dichloroethene	6U
67-66-3	Chloroform	6U
107-06-2	1, 2-Dichloroethane	6U
78-93-3	2-Butanone	12U
71-55-6	1, 1, 1-Trichloroethane	6U
56-23-5	Carbon Tetrachloride	6U
108-05-4	Vinyl Acetate	12U
75-27-4	Bromodichloromethane	6U

CAS Number		ug/l or (ug/Kg) (Circle One)
78-87-5	1, 2-Dichloropropane	6U
10061-02-6	Trans-1, 3-Dichloropropene	6U
79-01-6	Trichloroethene	6U
124-48-1	Dibromochloromethane	6U
79-00-5	1, 1, 2-Trichloroethane	6U
71-43-2	Benzene	6U
10061-01-5	cis-1, 3-Dichloropropene	6U
110-75-8	2-Chloroethylvinylether	12U
75-25-2	Bromoform	6U
108-10-1	4-Methyl-2-Pentanone	12U
591-78-6	2-Hexanone	12U
127-18-4	Tetrachloroethene	6U
79-34-5	1, 1, 2, 2-Tetrachloroethane	6U
108-88-3	Toluene	7
108-90-7	Chlorobenzene	6U
100-41-4	Ethylbenzene	6U
100-42-5	Styrene	6U
	Total Xylenes	6U

Data Reporting Qualifiers

For reporting results to EPA, the following results 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 for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action

Other 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 data summary report

Laboratory Name: HAZLETON LABORATORIES

Case No: 7844

Sample Number
ET959RE

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 8/26/87

Date Analyzed: 8/27/87

Conc/Dil Factor: 1

Percent Moisture (Decanted) 18.4

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	410 u
111-44-4	bis(-2-Chloroethyl)Ether	
95-57-8	2-Chlorophenol	
541-73-1	1, 3-Dichlorobenzene	
106-46-7	1, 4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1, 2-Dichlorobenzene	
95-48-7	2-Methylphenol	
39638-32-9	bis(2-chloroisopropyl)Ether	
106-44-5	4-Methylphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2, 4-Dimethylphenol	
65-85-0	Benzoic Acid	156 J
111-91-1	bis(-2-Chloroethoxy)Methane	410 u
120-83-2	2, 4-Dichlorophenol	
120-82-1	1, 2, 4-Trichlorobenzene	
91-20-3	Naphthalene	
106-47-8	4-Chloroaniline	
87-68-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methylphenol	
91-57-6	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
88-06-2	2, 4, 6-Trichlorophenol	
95-95-4	2, 4, 5-Trichlorophenol	2000 u
91-58-7	2-Chloronaphthalene	410 u
88-74-4	2-Nitroaniline	2000 u
131-11-3	Dimethyl Phthalate	410 u
208-96-8	Acenaphthylene	54 J
99-09-2	3-Nitroaniline	2000 u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	410 u
51-28-5	2, 4-Dinitrophenol	2000 u
100-02-7	4-Nitrophenol	2000 u
132-64-9	Dibenzofuran	46 J
121-14-2	2, 4-Dinitrotoluene	410 u
606-20-2	2, 6-Dinitrotoluene	
84-66-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
86-73-7	Fluorene	59 J
100-01-6	4-Nitroaniline	2000 u
534-52-1	4, 6-Dinitro-2-Methylphenol	2000 u
86-30-6	N-Nitrosodiphenylamine (1)	410 u
101-55-3	4-Bromophenyl-phenylether	
118-74-1	Hexachlorobenzene	
87-86-5	Pentachlorophenol	2000 u
85-01-8	Phenanthrene	920
120-12-7	Anthracene	~~170 J~~
84-74-2	Di-n-Butylphthalate	200 JB
206-44-0	Fluoranthene	1100
129-00-0	Pyrene	930
85-68-7	Butylbenzylphthalate	1700 B
91-94-1	3, 3'-Dichlorobenzidine	820 u
56-55-3	Benzo(a)Anthracene	490
117-81-7	bis(2-Ethylhexyl)Phthalate	410 u
218-01-9	Chrysene	590
117-84-0	Di-n-Octyl Phthalate	410 u
205-99-2	Benzo(b)Fluoranthene	1000
207-08-9	Benzo(k)Fluoranthene	410 u
50-32-8	Benzo(a)Pyrene	420
193-39-5	Indeno(1, 2, 3-cd)Pyrene	410 u
53-70-3	Dibenz(a, h)Anthracene	
191-24-2	Benzo(g, h, i)Perylene	

410 D.L.

(1)-Cannot be seperated from diphenylamine

Laboratory Name HAZLETON LABORATORIES

Case No 7844

Sample Number E7959RE

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	Unknown	BNA	371	370
2.	unknown		376	530
3. 109-87-5	Methane, Dimethoxy -		384	1300
4.	unknown		1254	250
5.	unknown		1313	210
6. 603-11-2	1,2 Benzenedicarboxylic Acid, 3-Nitro		1716	620
7.	unknown		1722	830
8.	unknown		1834	180
9.	unknown		1847	450
10.	unknown		1910	1900
11.	unknown		1945	500
12.	unknown		1958	2600
13.	unknown		2019	400
14.	unknown		2026	210
15.	unknown Alkane		2051	770
16.	unknown		2071	650
17.	unknown	↓	2122	370
18. 589344	Hexane, 3-methyl-	VOA	350	9
19. –	Unknown	↓	170	6
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Sample Number
ET 960

87FP15515

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: HAZLETON LABORATORIES
Case No: 7844
Lab Sample ID No: 70802525
QC Report No:
Sample Matrix: Soil
Contract No: 68-01-7146
Data Release Authorized By: David C Kelly
Date Sample Received: 8/13/87

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 8/14/87
Date Analyzed: 8/14/87
Conc/Dil Factor: 1 pH 7.7
Percent Moisture: (Not Decanted) 19.2 C.F 1.24

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	12U
74-83-9	Bromomethane	12U
75-01-4	Vinyl Chloride	12U
75-00-3	Chloroethane	12U
75-09-2	Methylene Chloride	8B
67-64-1	Acetone	18B
75-15-0	Carbon Disulfide	6U
75-35-4	1, 1-Dichloroethene	6U
75-34-3	1, 1-Dichloroethane	6U
156-60-5	Trans-1, 2-Dichloroethene	6U
67-66-3	Chloroform	6U
107-06-2	1, 2-Dichloroethane	6U
78-93-3	2-Butanone	12U
71-55-6	1, 1, 1-Trichloroethane	6U
56-23-5	Carbon Tetrachloride	6U
108-05-4	Vinyl Acetate	12U
75-27-4	Bromodichloromethane	6U

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	6U
10061-02-6	Trans-1, 3-Dichloropropene	6U
79-01-6	Trichloroethene	6U
124-48-1	Dibromochloromethane	6U
79-00-5	1, 1, 2-Trichloroethane	6U
71-43-2	Benzene	6U
10061-01-5	cis-1, 3-Dichloropropene	6U
110-75-8	2-Chloroethylvinylether	12U
75-25-2	Bromoform	6U
108-10-1	4-Methyl-2-Pentanone	12U
591-78-6	2-Hexanone	12U
127-18-4	Tetrachloroethene	6U
79-34-5	1, 1, 2, 2-Tetrachloroethane	6U
108-88-3	Toluene	6U
108-90-7	Chlorobenzene	6U
100-41-4	Ethylbenzene	6U
100-42-5	Styrene	6U
	Total Xylenes	6U

Data Reporting Qualifiers

For reporting results to EPA, the following results 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 for but not detected Report the minimum detection limit for the sample with the U (e g , 10U) based on necessary concentration/dilution action (This is not necessarily the instrument detection limit) The footnote should read U-Compound was analyzed for but not detected The number is the minimum attainable detection limit for the sample

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e g , 10J) If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J

C This flag applies to pesticide parameters where the identification has been confirmed by GC MS Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC MS

B This flag is used when the analyte is found in the blank as well as a sample It indicates possible/probable blank contamination and warns the data user to take appropriate action

Other 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 data summary report

Laboratory Name: HAZLETON LABORATORIES

Case No: 7844

Sample Number: ET 960

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 8-19-87

Date Analyzed: 8-21-87

Conc/Dil Factor: —

Percent Moisture (Decanted) 19.2

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	410u
111-44-4	bis(2-Chloroethyl)Ether	
95-57-8	2-Chlorophenol	
541-73-1	1, 3-Dichlorobenzene	
106-46-7	1, 4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1, 2-Dichlorobenzene	
95-48-7	2-Methylphenol	
39638-32-9	bis(2-chloroisopropyl)Ether	
106-44-5	4-Methylphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2, 4-Dimethylphenol	
65-85-0	Benzoic Acid	2000u *
111-91-1	bis(2-Chloroethoxy)Methane	410u
120-83-2	2, 4-Dichlorophenol	
120-82-1	1, 2, 4-Trichlorobenzene	
91-20-3	Naphthalene	
106-47-8	4-Chloroaniline	
87-68-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methylphenol	
91-57-6	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
88-06-2	2, 4, 6-Trichlorophenol	
95-95-4	2, 4, 5-Trichlorophenol	2000u *
91-58-7	2-Chloronaphthalene	410u
88-74-4	2-Nitroaniline	2000u *
131-11-3	Dimethyl Phthalate	410u
208-96-8	Acenaphthylene	410u
99-09-2	3-Nitroaniline	2000u *

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	410u
51-28-5	2, 4-Dinitrophenol	2000u *
100-02-7	4-Nitrophenol	2000u *
132-64-9	Dibenzofuran	410u
121-14-2	2, 4-Dinitrotoluene	
606-20-2	2, 6-Dinitrotoluene	
84-66-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
86-73-7	Fluorene	
100-01-6	4-Nitroaniline	2000u *
534-52-1	4, 6-Dinitro-2-Methylphenol	2000u *
86-30-6	N-Nitrosodiphenylamine (1)	785B
101-55-3	4-Bromophenyl-phenylether	410u
118-74-1	Hexachlorobenzene	410u
87-86-5	Pentachlorophenol	2000u *
85-01-8	Phenanthrene	410u
120-12-7	Anthracene	410u
84-74-2	Di-n-Butylphthalate	940B
206-44-0	Fluoranthene	410u
129-00-0	Pyrene	
85-68-7	Butylbenzylphthalate	
91-94-1	3, 3'-Dichlorobenzidine	820u *
56-55-3	Benzo(a)Anthracene	410u
117-81-7	bis(2-Ethylhexyl)Phthalate	
218-01-9	Chrysene	
117-84-0	Di-n-Octyl Phthalate	
205-99-2	Benzo(b)Fluoranthene	
207-08-9	Benzo(k)Fluoranthene	
50-32-8	Benzo(a)Pyrene	
193-39-5	Indeno(1, 2, 3-cd)Pyrene	
53-70-3	Dibenz(a, h)Anthracene	
191-24-2	Benzo(g, h, i)Perylene	

(1)-Cannot be separated from diphenylamine

Laboratory Name: HAZLETON LABORATORIES

Case No: 7844

Sample Number
ET 960

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 08-19-87

Date Analyzed: 8-25-87

Conc/Dil Factor: 1

Percent Moisture (decanted): 19.2 %

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	9.9 U
319-85-7	Beta-BHC	9.9 U
319-86-8	Delta-BHC	9.9 U
58-89-9	Gamma-BHC (Lindane)	9.9 U
76-44-8	Heptachlor	9.9 U
309-00-2	Aldrin	9.9 U
1024-57-3	Heptachlor Epoxide	9.9 U
959-98-8	Endosulfan I	9.9 U
60-57-1	Dieldrin	20 U
72-55-9	4, 4'-DDE	20 U
72-20-8	Endrin	20 U
33213-65-9	Endosulfan II	20 U
72-54-8	4, 4'-DDD	20 U
1031-07-8	Endosulfan Sulfate	20 U
50-29-3	4, 4'-DDT	20 U
72-43-5	Methoxychlor	99 U
53494-70-5	Endrin Ketone	20 U
57-74-9	Chlordane	99 U
8001-35-2	Toxaphene	200 U
12674-11-2	Aroclor-1016	99 U
11104-28-2	Aroclor-1221	99 U
11141-16-5	Aroclor-1232	99 U
53469-21-9	Aroclor-1242	99 U
12672-29-6	Aroclor-1248	99 U
11097-69-1	Aroclor-1254	200 U
11096-82-5	Aroclor-1260	200 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s — or W_s 24.2 g DRY WT V_t 20,000 ul V_i 4 ul

Laboratory Name HAZLETON LABORATORIES

Case No 7844

Sample Number
E1960

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	No Volatiles Found	VOA		
2.	Unknown	BNA	229	600
3. 3240-09-3	5-hexen-2-one, 5-methyl-	↓	291	200
4.				
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Sample Number
ET 961

87FP15S16

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: HAZLETON LABORATORIES
Case No: 7844
Lab Sample ID No: 10802526
QC Report No:
Sample Matrix: Soil
Contract No: 68-01-7146
Data Release Authorized By: David C. Schell
Date Sample Received: 8/13/87

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 8/14/87
Date Analyzed: 8/14/87
Conc/Dil Factor: 1 pH 8.6
Percent Moisture: (Not Decanted) 13.8 C.F.: 1.16

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	12U
74-83-9	Bromomethane	12U
75-01-4	Vinyl Chloride	12U
75-00-3	Chloroethane	12U
75-09-2	Methylene Chloride	8B
67-64-1	Acetone	14B
75-15-0	Carbon Disulfide	6U
75-35-4	1, 1-Dichloroethene	6U
75-34-3	1, 1-Dichloroethane	6U
156-60-5	Trans-1, 2-Dichloroethene	6U
67-66-3	Chloroform	6U
107-06-2	1, 2-Dichloroethane	6U
78-93-3	2-Butanone	12U
71-55-6	1, 1, 1-Trichloroethane	6U
56-23-5	Carbon Tetrachloride	6U
108-05-4	Vinyl Acetate	12U
75-27-4	Bromodichloromethane	6U

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	6U
10061-02-6	Trans-1, 3-Dichloropropene	6U
79-01-6	Trichloroethene	6U
124-48-1	Dibromochloromethane	6U
79-00-5	1, 1, 2-Trichloroethane	6U
71-43-2	Benzene	6U
10061-01-5	cis-1, 3-Dichloropropene	6U
110-75-8	2-Chloroethylvinylether	12U
75-25-2	Bromoform	6U
108-10-1	4-Methyl-2-Pentanone	12U
591-78-6	2-Hexanone	12U
127-18-4	Tetrachloroethene	6U
79-34-5	1, 1, 2, 2-Tetrachloroethane	6U
108-88-3	Toluene	6U
108-90-7	Chlorobenzene	6U
100-41-4	Ethylbenzene	6U
100-42-5	Styrene	6U
	Total Xylenes	6U

Data Reporting Qualifiers

For reporting results to EPA, the following results 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 for but not detected Report the minimum detection limit for the sample with the U (e g . 10U) based on necessary concentration/dilution action (This is not necessarily the instrument detection limit) The footnote should read U-Compound was analyzed for but not detected The number is the minimum attainable detection limit for the sample

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e g . 10J) If limit of detection is 10 µg /l and a concentration of 3 µg/l is calculated, report as 3J

C This flag applies to pesticide parameters where the identification has been confirmed by GC MS Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC MS

B This flag is used when the analyte is found in the blank as well as a sample It indicates possible/probable blank contamination and warns the data user to take appropriate action

Other 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 data summary report

Laboratory Name: HAZLETON LABORATORIES

Case No: 7844

Sample Number
ET 961

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 8-19-87

Date Analyzed: 8-21-87

Conc/Dil Factor: –

Percent Moisture (Decanted) 13.8

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	390u	
111-44-4	bis(2-Chloroethyl)Ether		
95-57-8	2-Chlorophenol		
541-73-1	1, 3-Dichlorobenzene		
106-46-7	1, 4-Dichlorobenzene		
100-51-6	Benzyl Alcohol		
95-50-1	1, 2-Dichlorobenzene		
95-48-7	2-Methylphenol		
39638-32-9	bis(2-chloroisopropyl)Ether		
106-44-5	4-Methylphenol		
621-64-7	N-Nitroso-Di-n-Propylamine		
67-72-1	Hexachloroethane		
98-95-3	Nitrobenzene		
78-59-1	Isophorone		
88-75-5	2-Nitrophenol		
105-67-9	2, 4-Dimethylphenol		
65-85-0	Benzoic Acid	2000u	•
111-91-1	bis(2-Chloroethoxy)Methane	390u	
120-83-2	2, 4-Dichlorophenol		
120-82-1	1, 2, 4-Trichlorobenzene		
91-20-3	Naphthalene		
106-47-8	4-Chloroaniline		
87-68-3	Hexachlorobutadiene		
59-50-7	4-Chloro-3-Methylphenol		
91-57-6	2-Methylnaphthalene		
77-47-4	Hexachlorocyclopentadiene		
88-06-2	2, 4, 6-Trichlorophenol		
95-95-4	2, 4, 5-Trichlorophenol	2000u	•
91-58-7	2-Chloronaphthalene	390u	
88-74-4	2-Nitroaniline	2000u	•
131-11-3	Dimethyl Phthalate	390u	
208-96-8	Acenaphthylene	128J	*
99-09-2	3-Nitroaniline	2000u	•

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	390u	
51-28-5	2, 4-Dinitrophenol	2000u	•
100-02-7	4-Nitrophenol	2000u	•
132-64-9	Dibenzofuran	390u	
121-14-2	2, 4-Dinitrotoluene		
606-20-2	2, 6-Dinitrotoluene		
84-66-2	Diethylphthalate		
7005-72-3	4-Chlorophenyl-phenylether		
86-73-7	Fluorene	180J	*
100-01-6	4-Nitroaniline	2000u	•
534-52-1	4, 6-Dinitro-2-Methylphenol	2000u	•
86-30-6	N-Nitrosodiphenylamine (1)	390u	
101-55-3	4-Bromophenyl-phenylether		
118-74-1	Hexachlorobenzene		
87-86-5	Pentachlorophenol	2000u	•
85-01-8	Phenanthrene	1200	*
120-12-7	Anthracene	850J	*
84-74-2	Di-n-Butylphthalate	170JB	*
206-44-0	Fluoranthene	2400	*
129-00-0	Pyrene	1500	*
85-68-7	Butylbenzylphthalate	390u	*
91-94-1	3, 3'-Dichlorobenzidine	780u	
56-55-3	Benzo(a)Anthracene	1000	*
117-81-7	bis(2-Ethylhexyl)Phthalate	390u	
218-01-9	Chrysene	960	*
117-84-0	Di-n-Octyl Phthalate	390u	
205-99-2	Benzo(b)Fluoranthene	600	*
207-08-9	Benzo(k)Fluoranthene	870	*
50-32-8	Benzo(a)Pyrene	930	*
193-39-5	Indeno(1, 2, 3-cd)Pyrene	600	*
53-70-3	Dibenza, h)Anthracene	390u	
191-24-2	Benzo(g, h, i)Perylene	390u	

390 Det. Limit

(1)-Cannot be separated from diphenylamine

Laboratory Name HAZLETON LABORATORIES

Case No. 7844

Sample Number ET 9.61

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 08-19-87

Date Analyzed 08-25-87

Conc/Dil Factor 1

Percent Moisture (decanted) 13.8 %

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	9.3 U
319-85-7	Beta-BHC	9.3 U
319-86-8	Delta-BHC	9.3 U
58-89-9	Gamma-BHC (Lindane)	9.3 U
76-44-8	Heptachlor	9.3 U
309-00-2	Aldrin	9.3 U
1024-57-3	Heptachlor Epoxide	9.3 U
959-98-8	Endosulfan I	9.3 U
60-57-1	Dieldrin	19 U
72-55-9	4,4'-DDE	19 U
72-20-8	Endrin	19 U
33213-65-9	Endosulfan II	19 U
72-54-8	4,4'-DDD	19 U
1031-07-8	Endosulfan Sulfate	19 U
50-29-3	4,4'-DDT	19 U
72-43-5	Methoxychlor	93 U
53494-70-5	Endrin Ketone	19 U
57-74-9	Chlordane	93 U
8001-35-2	Toxaphene	190 U
12674-11-2	Aroclor-1016	93 U
11104-28-2	Aroclor-1221	93 U
11141-16-5	Aroclor-1232	93 U
53469-21-9	Aroclor-1242	93 U
12672-29-6	Aroclor-1248	93 U
11097-69-1	Aroclor-1254	190 U
11096-82-5	Aroclor-1260	190 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s — or W_s 25.9 g DRY WT V_t 20,000 ul V_i 4 ul

Laboratory Name HAZLETON LABORATORIES

Case No. 7244

Sample Number
ET 961

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1. —	unknown	BAN	222	540
2. 25346-31-0	Pentane, 3-Bromo-3-methyl-		251	160
3. —	unknown		287	260
4. 2088-07-5	1-penten-3-ol, 2-methyl-		368	190
5. —	unknown decane		1152	290
6. —	unknown decane		1237	230
7. —	unknown		1304	280
8. —	unknown		1309	300
9. 10544-50-0	Sulfur mol,		1383	820
10. —	unknown		1457	280
11. 195-19-7	Benzo(c) phenanthrene		1636	160
12. 205-82-3	Benzo(J) fluoranthene		1902	980
13.	unknown		2111	700
14. 1066406	Silanol, trimethyl-	VOA	208	7
15.				
16.				
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30.				

Sample Number
ET 962

87FP15517

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: HAZLETON LABORATORIES
Lab Sample ID No: 70802527
Sample Matrix: Soil
Data Release Authorized By: David C. Gyle

Case No: 7844
QC Report No:
Contract No: 68-01-7146
Date Sample Received: 8/13/87

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 8/14/87
Date Analyzed: 8/14/87
Conc/Dil Factor: 1 pH 7.6
Percent Moisture: (Not Decanted) 44.6 C.F. = 1.81

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	18U
74-83-9	Bromomethane	18U
75-01-4	Vinyl Chloride	18U
75-00-3	Chloroethane	18U
75-09-2	Methylene Chloride	9B
67-64-1	Acetone	32B
75-15-0	Carbon Disulfide	9U
75-35-4	1, 1-Dichloroethene	9U
75-34-3	1, 1-Dichloroethane	9U
156-60-5	Trans-1, 2-Dichloroethene	9U
67-66-3	Chloroform	9U
107-06-2	1, 2-Dichloroethane	9U
78-93-3	2-Butanone	18U
71-55-6	1, 1, 1-Trichloroethane	9U
56-23-5	Carbon Tetrachloride	9U
108-05-4	Vinyl Acetate	18U
75-27-4	Bromodichloromethane	9U

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	9U
10061-02-6	Trans-1, 3-Dichloropropene	9U
79-01-6	Trichloroethene	9U
124-48-1	Dibromochloromethane	9U
79-00-5	1, 1, 2-Trichloroethane	9U
71-43-2	Benzene	9U
10061-01-5	cis-1, 3-Dichloropropene	9U
110-75-8	2-Chloroethylvinylether	18U
75-25-2	Bromoform	9U
108-10-1	4-Methyl-2-Pentanone	18U
591-78-6	2-Hexanone	18U
127-18-4	Tetrachloroethene	9U
79-34-5	1, 1, 2, 2-Tetrachloroethane	9U
108-88-3	Toluene	9U
108-90-7	Chlorobenzene	9U
100-41-4	Ethylbenzene	9U
100-42-5	Styrene	9U
	Total Xylenes	9U

Data Reporting Qualifiers

For reporting results to EPA, the following results 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 for but not detected Report the minimum detection limit for the sample with the U (e g , 10U) based on necessary concentration/dilution action (This is not necessarily the instrument detection limit) The footnote should read U-Compound was analyzed for but not detected The number is the minimum attainable detection limit for the sample

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e g , 10J) If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J

C This flag applies to pesticide parameters where the identification has been confirmed by GC MS Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC MS

B This flag is used when the analyte is found in the blank as well as a sample It indicates possible/probable blank contamination and warns the data user to take appropriate action

Other 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 data summary report

Laboratory Name: HAZLETON LABORATORIES

Case No: 7844

Sample Number: ET962

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 8/16/87

Date Analyzed: 8/27/87

Conc/Dil Factor: 1

Percent Moisture (Decanted) 44.6

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	600 u
111-44-4	bis(2-Chloroethyl)Ether	
95-57-8	2-Chlorophenol	
541-73-1	1,3-Dichlorobenzene	
106-46-7	1,4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1,2-Dichlorobenzene	
95-48-7	2-Methylphenol	
39638-32-9	bis(2-chloroisopropyl)Ether	
106-44-5	4-Methylphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2,4-Dimethylphenol	
65-85-0	Benzoic Acid	88 J
111-91-1	bis(2-Chloroethoxy)Methane	600 u
120-83-2	2,4-Dichlorophenol	
120-82-1	1,2,4-Trichlorobenzene	
91-20-3	Naphthalene	
106-47-8	4-Chloroaniline	
87-68-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methylphenol	
91-57-6	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
88-06-2	2,4,6-Trichlorophenol	
95-95-4	2,4,5-Trichlorophenol	3000 u
91-58-7	2-Chloronaphthalene	600 u
88-74-4	2-Nitroaniline	3000 u
131-11-3	Dimethyl Phthalate	600 u
208-96-8	Acenaphthylene	
99-09-2	3-Nitroaniline	3000 u

3000 D.L.

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	600 u
51-28-5	2,4-Dinitrophenol	3000 u
100-02-7	4-Nitrophenol	3000 u
132-64-9	Dibenzofuran	600 u
121-14-2	2,4-Dinitrotoluene	
606-20-2	2,6-Dinitrotoluene	
84-66-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
86-73-7	Fluorene	
100-01-6	4-Nitroaniline	3000 u
534-52-1	4,6-Dinitro-2-Methylphenol	3000 u
86-30-6	N-Nitrosodiphenylamine (1)	600 u
101-55-3	4-Bromophenyl-phenylether	
118-74-1	Hexachlorobenzene	
87-86-5	Pentachlorophenol	3000 u
85-01-8	Phenanthrene	150 J
120-12-7	Anthracene	600 u
84-74-2	Di-n-Butylphthalate	2500 B
206-44-0	Fluoranthene	280 J
129-00-0	Pyrene	350 J
85-68-7	Butylbenzylphthalate	600 u
91-94-1	3,3'-Dichlorobenzidine	1200 u
56-55-3	Benzo(a)Anthracene	170 J
117-81-7	bis(2-Ethylhexyl)Phthalate	340 J
218-01-9	Chrysene	240 J
117-84-0	Di-n-Octyl Phthalate	600 u
205-99-2	Benzo(b)Fluoranthene	
207-08-9	Benzo(k)Fluoranthene	
50-32-8	Benzo(a)Pyrene	
193-39-5	Indeno(1,2,3-cd)Pyrene	
53-70-3	Dibenza[illegible]hAnthracene	
191-24-2	Benzo(g,h,i)Perylene	

600 D.L.

(1)-Cannot be separated from diphenylamine

Laboratory Name HAZLETON LABORATORIES

Case No 7844

Sample Number E1-962

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 08-19-87

Date Analyzed 08-25-87

Conc/Dil Factor 1

Percent Moisture (decanted) 44.6 %

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	14 U
319-85-7	Beta-BHC	14 U
319-86-8	Delta-BHC	14 U
58-89-9	Gamma-BHC (Lindane)	14 U
76-44-8	Heptachlor	14 U
309-00-2	Aldrin	14 U
1024-57-3	Heptachlor Epoxide	14 U
959-98-8	Endosulfan I	14 U
60-57-1	Dieldrin	29 U
72-55-9	4, 4'-DDE	29 U
72-20-8	Endrin	29 U
33213-65-9	Endosulfan II	29 U
72-54-8	4, 4'-DDD	29 U
1031-07-8	Endosulfan Sulfate	29 U
50-29-3	4, 4'-DDT	29 U
72-43-5	Methoxychlor	140 U
53494-70-5	Endrin Ketone	29 U
57-74-9	Chlordane	140 U
8001-35-2	Toxaphene	290 U
12674-11-2	Aroclor-1016	140 U
11104-28-2	Aroclor-1221	140 U
11141-16-5	Aroclor-1232	140 U
53469-21-9	Aroclor-1242	140 U
12672-29-6	Aroclor-1248	140 U
11097-69-1	Aroclor-1254	290 U
11096-82-5	Aroclor-1260	290 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s — or W_s 16.6 g DRY WT V_t 20,000 ul V_i 4 ul

Laboratory Name HAZLETON LABORATORIES

Case No 7844

Sample Number
ET 962

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1	3970-62-5	3-Pentanol, 2,2-Dimethyl	B/N	242	460
2	625-86-5	Furan, 2,5-Dimethyl		329	310
3	62016-37-9	Octane, 2,4,6-Trimethyl		959	260
4	54105-67-8	Heptadecane, 2,6-Dimethyl		1144	420
5	629-80-1	Hexadecanal (ACN)		1254	1700
6	17851-53-5	1,2-Benzenedicarboxylic Acid, Butyl 2-Methylpropyl Ester		1272	860
7	61886-64-4	3-Octadecyne		1287	440
8	6514-50-0	Sulfur Mol (S8)		1375	3500
9	29812-79-1	Hydroxylamine, O-Decyl		1834	1000
10		Unknown		1903	1000
11	3891-98-3	Dodecane, 2,6,10-Trimethyl		1946	2900
12	7476-56-0	5-Hepten-3-One, 5-Ethyl-4-Methyl		1965	3100
13	55045-11-4	Tridecane, 5-Propyl		2052	2700
14		Unknown		2073	2500
15		Unknown		2175	3200
16		Unknown		2255	3200
17	1066406	Silanol, trimethyl-	VOA	208	11
18					
19					
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Sample Number
ET 962 RE

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: HAZLETON LABORATORIES

Case No: 7844

Lab Sample ID No: 70802527 RE

QC Report No:

Sample Matrix: Soil

Contract No: 68-01-7146

Data Release Authorized By: David C Gleb

Date Sample Received: 8/13/87

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 8/14/87

Date Analyzed: 8/14/87

Conc/Dil Factor: 1 pH 7.6

Percent Moisture: (Not Decanted) 44.6 C.F. = 1.81

CAS Number		ug/l or (ug/Kg) (Circle One)
74-87-3	Chloromethane	18U
74-83-9	Bromomethane	18U
75-01-4	Vinyl Chloride	18U
75-00-3	Chloroethane	18U
75-09-2	Methylene Chloride	14 B
67-64-1	Acetone	62 B
75-15-0	Carbon Disulfide	9U
75-35-4	1, 1-Dichloroethene	9U
75-34-3	1, 1-Dichloroethane	9U
156-60-5	Trans-1, 2-Dichloroethene	9U
67-66-3	Chloroform	9U
107-06-2	1, 2-Dichloroethane	9U
78-93-3	2-Butanone	18U
71-55-6	1, 1, 1-Trichloroethane	9U
56-23-5	Carbon Tetrachloride	9U
108-05-4	Vinyl Acetate	18U
75-27-4	Bromodichloromethane	9U

CAS Number		ug/l or (ug/Kg) (Circle One)
78-87-5	1, 2-Dichloropropane	9U
10061-02-6	Trans-1, 3-Dichloropropene	9U
79-01-6	Trichloroethene	9U
124-48-1	Dibromochloromethane	9U
79-00-5	1, 1, 2-Trichloroethane	9U
71-43-2	Benzene	9U
10061-01-5	cis-1, 3-Dichloropropene	9U
110-75-8	2-Chloroethylvinylether	18U
75-25-2	Bromoform	9U
108-10-1	4-Methyl-2-Pentanone	18U
591-78-6	2-Hexanone	18U
127-18-4	Tetrachloroethene	9U
79-34-5	1, 1, 2, 2-Tetrachloroethane	9U
108-88-3	Toluene	9U
108-90-7	Chlorobenzene	9U
100-41-4	Ethylbenzene	9U
100-42-5	Styrene	9U
	Total Xylenes	9U

Data Reporting Qualifiers

For reporting results to EPA, the following results 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 for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other 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 data summary report.

Laboratory Name: HAZLETON LABORATORIES

Case No: 7844

Sample Number: ET 962 RE

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1. 4889832	Bicyclo [3.1.1] hept-2-ene, 3,6,6-trimethyl-	VOA	417	12
2. 144398	1,6-Octadien-3-ol, 3,7-dimethyl-, propanoate	↓	428	38
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Sample Number
ET 963

87FP1551B

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: HAZLETON LABORATORIES
Case No: 7844
Lab Sample ID No: 70802528
QC Report No:
Sample Matrix: Soil
Contract No: 68-01-7146
Data Release Authorized By: David C. Gilb
Date Sample Received: 8/13/87

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 8/14/87
Date Analyzed: 8/14/87
Conc/Dil Factor: 1 pH 7.5
Percent Moisture: (Not Decanted) 65.5 C.F. = 2.90

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	29U
74-83-9	Bromomethane	29U
75-01-4	Vinyl Chloride	29U
75-00-3	Chloroethane	29U
75-09-2	Methylene Chloride	41 B
67-64-1	Acetone	74 B
75-15-0	Carbon Disulfide	14U
75-35-4	1, 1-Dichloroethene	14U
75-34-3	1, 1-Dichloroethane	14U
156-60-5	Trans-1, 2-Dichloroethene	14U
67-66-3	Chloroform	14U
107-06-2	1, 2-Dichloroethane	14U
78-93-3	2-Butanone	29U
71-55-6	1, 1, 1-Trichloroethane	14U
56-23-5	Carbon Tetrachloride	14U
108-05-4	Vinyl Acetate	29U
75-27-4	Bromodichloromethane	14U

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	14U
10061-02-6	Trans-1, 3-Dichloropropene	14U
79-01-6	Trichloroethene	14U
124-48-1	Dibromochloromethane	14U
79-00-5	1, 1, 2-Trichloroethane	14U
71-43-2	Benzene	100
10061-01-5	cis-1, 3-Dichloropropene	14U
110-75-8	2-Chloroethylvinylether	29U
75-25-2	Bromoform	14U
108-10-1	4-Methyl-2-Pentanone	29U
591-78-6	2-Hexanone	29U
127-18-4	Tetrachloroethene	14U
79-34-5	1, 1, 2, 2-Tetrachloroethane	14U
108-88-3	Toluene	14U
108-90-7	Chlorobenzene	220
100-41-4	Ethylbenzene	21
100-42-5	Styrene	14U
	Total Xylenes	14U

D.L = 14 HRS

D.L = 14 HRS

Data Reporting Qualifiers

For reporting results to EPA, the following results 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 for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action

Other 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 data summary report

Laboratory Name: HAZLETON LABORATORIES

Case No: 7844

Sample Number: ET 963

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 8-19-87

Date Analyzed: 8-21-87

Conc/Dil Factor: —

Percent Moisture (Decanted): 65.5

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	970 u
111-44-4	bis(2-Chloroethyl)Ether	
95-57-8	2-Chlorophenol	
541-73-1	1, 3-Dichlorobenzene	
106-46-7	1, 4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1, 2-Dichlorobenzene	
95-48-7	2-Methylphenol	
39638-32-9	bis(2-chloroisopropyl)Ether	
106-44-5	4-Methylphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2, 4-Dimethylphenol	
65-85-0	Benzoic Acid	4800 DL
111-91-1	bis(2-Chloroethoxy)Methane	970 u
120-83-2	2, 4-Dichlorophenol	
120-82-1	1, 2, 4-Trichlorobenzene	
91-20-3	Naphthalene	
106-47-8	4-Chloroaniline	
87-68-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methylphenol	
91-57-6	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
88-06-2	2, 4, 6-Trichlorophenol	
95-95-4	2, 4, 5-Trichlorophenol	4800 u
91-58-7	2-Chloronaphthalene	970 u
88-74-4	2-Nitroaniline	4800 u
131-11-3	Dimethyl Phthalate	970 u
208-96-8	Acenaphthylene	970 u
99-09-2	3-Nitroaniline	4800 u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	970 u
51-28-5	2, 4-Dinitrophenol	4800 u
100-02-7	4-Nitrophenol	4800 u
132-64-9	Dibenzofuran	970 u
121-14-2	2, 4-Dinitrotoluene	
606-20-2	2, 6-Dinitrotoluene	
84-66-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
86-73-7	Fluorene	
100-01-6	4-Nitroaniline	4800 u
534-52-1	4, 6-Dinitro-2-Methylphenol	4800 u
86-30-6	N-Nitrosodiphenylamine (1)	120 JB 970 D.L.
101-55-3	4-Bromophenyl-phenylether	970 u
118-74-1	Hexachlorobenzene	970 u
87-86-5	Pentachlorophenol	4800 u
85-01-8	Phenanthrene	81 J
120-12-7	Anthracene	970 u
84-74-2	Di-n-Butylphthalate	1400 B
206-44-0	Fluoranthene	200 J
129-00-0	Pyrene	140 J
85-68-7	Butylbenzylphthalate	970 u
91-94-1	3, 3'-Dichlorobenzidine	1900 u
56-55-3	Benzo(a)Anthracene	91 J
117-81-7	bis(2-Ethylhexyl)Phthalate	970 u
218-01-9	Chrysene	190 J
117-84-0	Di-n-Octyl Phthalate	970 u
205-99-2	Benzo(b)Fluoranthene	150 J
207-08-9	Benzo(k)Fluoranthene	97 J
50-32-8	Benzo(a)Pyrene	100 J
193-39-5	Indeno(1, 2, 3-cd)Pyrene	970 u
53-70-3	Dibenza[illegible]h)Anthracene	
191-24-2	Benzo(g, h, i)Perylene	

(1)-Cannot be separated from diphenylamine

Laboratory Name HAZLETON LABORATORIES

Case No. 7844

Sample Number
ET 963

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 08-19-87

Date Analyzed 08-25-87

Conc/Dil Factor 1

Percent Moisture (decanted) 65.5 %

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	23 U
319-85-7	Beta-BHC	23 U
319-86-8	Delta-BHC	23 U
58-89-9	Gamma-BHC (Lindane)	23 U
76-44-8	Heptachlor	23 U
309-00-2	Aldrin	23 U
1024-57-3	Heptachlor Epoxide	23 U
959-98-8	Endosulfan I	23 U
60-57-1	Dieldrin	46 U
72-55-9	4, 4'-DDE	46 U
72-20-8	Endrin	46 U
33213-65-9	Endosulfan II	46 U
72-54-8	4, 4'-DDD	46 U
1031-07-8	Endosulfan Sulfate	46 U
50-29-3	4, 4'-DDT	46 U
72-43-5	Methoxychlor	230 U
53494-70-5	Endrin Ketone	46 U
57-74-9	Chlordane	230 U
8001-35-2	Toxaphene	460 U
12674-11-2	Aroclor-1016	230 U
11104-28-2	Aroclor-1221	230 U
11141-16-5	Aroclor-1232	230 U
53469-21-9	Aroclor-1242	230 U
12672-29-6	Aroclor-1248	230 U
11097-69-1	Aroclor-1254	460 U
11096-82-5	Aroclor-1260	460 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s — or W_s 10.3g DRY WT V_t 20,000 ul V_i 4 ul

Laboratory Name HAZLETON LABORATORIES

Case No 7844

Sample Number ET 963

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	109999	Furan, tetrahydro-	VOA	153	18
2.		Unknown		192	24
3.	96479	Furan, tetrahydro-3-methyl		226	36
4.	4744109	Propane, 1,1-dimethoxy-		301	46
5.	77736	4,7-Methano-1H-indene, 3a,4,7,7a-tetrahydro		391	64
6.		Unknown	BNA	226	1600
7.	3240-09-3	5-hexen-2-one, 5-methyl-		291	600
8.		Unknown		752	560
9.	10544-50-0	Sulfur mol.		1385	540
10.	603-11-2	1,2-Benzenedicarboxylic Acid, 3-nitro-		1749	450
11.		Unknown		1841	490
12.		Unknown		1951	1100
13.		Unknown		2055	940
14.		Unknown		2260	1500
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87FP15519

Sample Number

ET 964

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: HAZLETON LABORATORIES

Case No: 7844

Lab Sample ID No: 70802529

QC Report No:

Sample Matrix: Soil

Contract No: 68-01-7146

Data Release Authorized By: David C. Gill

Date Sample Received: 08/13/87

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 08/20/87

Date Analyzed: 08/20/87

Conc/Dil Factor: 5 pH 7.4

Percent Moisture: (Not Decanted) 51.6

C.F. = 2.07

CAS Number		ug/l or (ug/Kg) (Circle One)
74-87-3	Chloromethane	100U
74-83-9	Bromomethane	100U
75-01-4	Vinyl Chloride	100U
75-00-3	Chloroethane	100U
75-09-2	Methylene Chloride	36BJ
67-64-1	Acetone	140B
75-15-0	Carbon Disulfide	52U
75-35-4	1, 1-Dichloroethene	52U
75-34-3	1, 1-Dichloroethane	52U
156-60-5	Trans-1, 2-Dichloroethene	52U
67-66-3	Chloroform	52U
107-06-2	1, 2-Dichloroethane	52U
78-93-3	2-Butanone	100U
71-55-6	1, 1, 1-Trichloroethane	52U
56-23-5	Carbon Tetrachloride	52U
108-05-4	Vinyl Acetate	100U
75-27-4	Bromodichloromethane	52U

CAS Number		ug/l or (ug/Kg) (Circle One)
78-87-5	1, 2-Dichloropropane	52U
10061-02-6	Trans-1, 3-Dichloropropene	52U
79-01-6	Trichloroethene	52U
124-48-1	Dibromochloromethane	52U
79-00-5	1, 1, 2-Trichloroethane	52U
71-43-2	Benzene	2900
10061-01-5	cis-1, 3-Dichloropropene	52U
110-75-8	2-Chloroethylvinylether	100U
75-25-2	Bromoform	52U
108-10-1	4-Methyl-2-Pentanone	100U
591-78-6	2-Hexanone	100U
127-18-4	Tetrachloroethene	52U
79-34-5	1, 1, 2, 2-Tetrachloroethane	52U
108-88-3	Toluene	52U
108-90-7	Chlorobenzene	2800
100-41-4	Ethylbenzene	1000
100-42-5	Styrene	52U
	Total Xylenes	770

52 D.L.

HRS

HRS

Data Reporting Qualifiers

For reporting results to EPA, the following results 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 for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

R INDICATES THE VALUE OBTAINED FROM THE INITIAL ANALYSIS EXCEEDED THE CALIBRATION RANGE FOR THIS COMPOUND. THE SAMPLE WAS RE-ANALYZED WITH AN APPROPRIATE DILUTION FOR QUANTITATION. ALL OTHER RESULTS ARE PROVIDED FROM THE INITIAL ANALYSIS.

Laboratory Name: HAZLETON LABORATORIES

Case No: 7844

Sample Number
ET 964

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 8-19-87

Date Analyzed: 8-22-87

Conc./Dil Factor: -

Percent Moisture (Decanted) 51.6

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	690u
111-44-4	bis(2-Chloroethyl)Ether	
95-57-8	2-Chlorophenol	
541-73-1	1, 3-Dichlorobenzene	150J
106-46-7	1, 4-Dichlorobenzene	400J
100-51-6	Benzyl Alcohol	690u
95-50-1	1, 2-Dichlorobenzene	60J
95-48-7	2-Methylphenol	690u
39638-32-9	bis(2-chloroisopropyl)Ether	
106-44-5	4-Methylphenol	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2, 4-Dimethylphenol	
65-85-0	Benzoic Acid	3400u
111-91-1	bis(2-Chloroethoxy)Methane	690u
120-83-2	2, 4-Dichlorophenol	
120-82-1	1, 2, 4-Trichlorobenzene	
91-20-3	Naphthalene	1900 690 DL
106-47-8	4-Chloroaniline	690u
87-68-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methylphenol	
91-57-6	2-Methylnaphthalene	290J
77-47-4	Hexachlorocyclopentadiene	690u
88-06-2	2, 4, 6-Trichlorophenol	690u
95-95-4	2, 4, 5-Trichlorophenol	3400u
91-58-7	2-Chloronaphthalene	690u
88-74-4	2-Nitroaniline	3400u
131-11-3	Dimethyl Phthalate	690u
208-96-8	Acenaphthylene	690u
99-09-2	3-Nitroaniline	3400u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	690u
51-28-5	2, 4-Dinitrophenol	3400u
100-02-7	4-Nitrophenol	3400u
132-64-9	Dibenzofuran	690u
121-14-2	2, 4-Dinitrotoluene	
606-20-2	2, 6-Dinitrotoluene	
84-66-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
86-73-7	Fluorene	94J 690 D.L.
100-01-6	4-Nitroaniline	3400u
534-52-1	4, 6-Dinitro-2-Methylphenol	3400u
86-30-6	N-Nitrosodiphenylamine (1)	220JB
101-55-3	4-Bromophenyl-phenylether	690u
118-74-1	Hexachlorobenzene	690u
87-86-5	Pentachlorophenol	3400u
85-01-8	Phenanthrene	150J
120-12-7	Anthracene	690u
84-74-2	Di-n-Butylphthalate	250JB
206-44-0	Fluoranthene	690u
129-00-0	Pyrene	43J
85-68-7	Butylbenzylphthalate	690u
91-94-1	3, 3'-Dichlorobenzidine	1380u
56-55-3	Benzo(a)Anthracene	690u
117-81-7	bis(2-Ethylhexyl)Phthalate	490J
218-01-9	Chrysene	690u
117-84-0	Di-n-Octyl Phthalate	
205-99-2	Benzo(b)Fluoranthene	
207-08-9	Benzo(k)Fluoranthene	
50-32-8	Benzo(a)Pyrene	
193-39-5	Indeno(1, 2, 3-cd)Pyrene	
53-70-3	Dibenz(a, h)Anthracene	
191-24-2	Benzo(g, h, i)Perylene	

(1)-Cannot be separated from diphenylamine

Laboratory Name: HAZLETON LABORATORIES

Case No: 7844

Sample Number
ET964

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared: 8-19-87

Date Analyzed: 8-26-87

Conc/Dil Factor: 5

Percent Moisture (decanted): 51.6 %

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	83 U
319-85-7	Beta-BHC	83 U
319-86-8	Delta-BHC	83 U
58-89-9	Gamma-BHC (Lindane)	83 U
76-44-8	Heptachlor	83 U
309-00-2	Aldrin	83 U
1024-57-3	Heptachlor Epoxide	83 U
959-98-8	Endosulfan I	83 U
60-57-1	Dieldrin	170 U
72-55-9	4, 4'-DDE	170 U
72-20-8	Endrin	170 U
33213-65-9	Endosulfan II	170 U
72-54-8	4, 4'-DDD	170 U
1031-07-8	Endosulfan Sulfate	170 U
50-29-3	4, 4'-DDT	170 U
72-43-5	Methoxychlor	830 U
53494-70-5	Endrin Ketone	170 U
57-74-9	Chlordane	830 U
8001-35-2	Toxaphene	1,700 U
12674-11-2	Aroclor-1016	830 U
11104-28-2	Aroclor-1221	830 U
11141-16-5	Aroclor-1232	830 U
53469-21-9	Aroclor-1242	830 U
12672-29-6	Aroclor-1248	2,100* 3300
11097-69-1	Aroclor-1254	2,200* 3200
11096-82-5	Aroclor-1260	1,700 U

by CLP Method.

830 D.L

1700 D.L

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s — or W_s 14.5 g DRY WT V_t 20,000 ul V_i 4 ul

* THESE VALUES CALCULATED BY WEBB-McCALL METHOD (J. of CHROMATOGRAPHIC SCIENCE, pg 366-373, JULY 1973) TO ELIMINATE CROSS-CONTRIBUTION FROM PEAKS IN BOTH PCB STANDARDS. EACH PEAK IS CALCULATED INDIVIDUALLY AND WEIGHTED FOR ITS PERCENT CONTRIBUTION TO THAT PCB.

Laboratory Name: HAZLETON LABORATORIES

Case No: 7844

Sample Number: ET 964

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.		unknown	BAN	235	620
2.		unknown		763	1100
3.	54932-78-4	phenol, 4-(2,2,3,3-Tetramethylbutyl)-		1073	890
4.	26914-33-0	1,1-Biphenyl, Tetrachloro-		1353	780
5.	10544-50-0	Sulfur mol		1402	7800
6.		unknown		1460	920
7.		unknown phenol		1527	1700
8.		unknown		1819	720
9.		unknown		1957	1100
10.		unknown		1964	1400
11.		unknown		1978	2300
12.		unknown		2003	1000
13.		unknown		2022	2000
14.		unknown		2037	3400
15.		unknown		2062	790
16.		unknown		2074	970
17.		unknown		2081	2400
18.		unknown		2100	1200
19.		unknown		2173	1300
20.		unknown		2200	1500
21.	109660	Pentane	VOA	204	140
22.	1066406	Silanol, trimethyl-		208	96
23.	110827	Cyclohexane		215	60
24.	77736	4,7-methano-1H-indene, 3a,4,7,7a-tetrahydro-		391	160
25.	103651	Benzene, propyl-		534	190
26.					
27.					
28.					
29.					
30.					

Sample Number
ET 964

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: HAZLETON LABORATORIES
Case No: 7844
Lab Sample ID No: 70802529
QC Report No:
Sample Matrix: Soil
Contract No: 68-01-7146
Data Release Authorized By: David C Stolb
Date Sample Received: 8/13/87

Volatile Compounds

Concentration: Low (Medium) (Circle One)
Date Extracted/Prepared: 8/21/87
Date Analyzed: 8/23/88
Conc/Dil Factor: 125 pH 7.4
Percent Moisture: (Not Decanted) 51.6 C.F. = 2.07

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	2600U
74-83-9	Bromomethane	2600U
75-01-4	Vinyl Chloride	2600U
75-00-3	Chloroethane	2600U
75-09-2	Methylene Chloride	1300U
67-64-1	Acetone	2600U
75-15-0	Carbon Disulfide	1300U
75-35-4	1, 1-Dichloroethene	1300U
75-34-3	1, 1-Dichloroethane	1300U
156-60-5	Trans-1, 2-Dichloroethene	1300U
67-66-3	Chloroform	1300U
107-06-2	1, 2-Dichloroethane	1300U
78-93-3	2-Butanone	2600U
71-55-6	1, 1, 1-Trichloroethane	1300U
56-23-5	Carbon Tetrachloride	1300U
108-05-4	Vinyl Acetate	2600U
75-27-4	Bromodichloromethane	1300U

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	1300U
10061-02-6	Trans-1, 3-Dichloropropene	1300U
79-01-6	Trichloroethene	1300U
124-48-1	Dibromochloromethane	1300U
79-00-5	1, 1, 2-Trichloroethane	1300U
71-43-2	Benzene	3700
10061-01-5	cis-1, 3-Dichloropropene	1300U
110-75-8	2-Chloroethylvinylether	2600U
75-25-2	Bromoform	1300U
108-10-1	4-Methyl-2-Pentanone	2600U
591-78-6	2-Hexanone	2600U
127-18-4	Tetrachloroethene	1300U
79-34-5	1, 1, 2, 2-Tetrachloroethane	1300U
108-88-3	Toluene	1300U
108-90-7	Chlorobenzene	5500
100-41-4	Ethylbenzene	2100
100-42-5	Styrene	1300U
	Total Xylenes	1900

1300 D.L.

1300

Data Reporting Qualifiers

For reporting results to EPA, the following results 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 for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected The number is the minimum attainable detection limit for the sample

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC MS

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action

Other 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 data summary report

Laboratory Name HAZLETON LABORATORIES

Case No. 7844

Sample Number
ET 964

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	No Volatiles Found			
2.				
3.				
4.				
5.				
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