SITE INSPECTION REPORT
FOR
SANDFILL LANDFILL #2
R05-8504-13
MID980499875
PAN #FMI0104SA

December 23, 1987

US EPA RECORDS CENTER REGION 5
458093

RECEIVED
DEC 29 1987
PLANNING AND CONTRACTS
MANAGEMENT UNIT

01032

Contents:

SITE INSPECTION MEMO 1

2070 — 13 FORM 2

SITE MAPS 3

SITE PHOTOGRAPHS 4

ANALYTICAL DATA 5

1

ecology and environment, inc.

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

International Specialists in the Environment

M E M O R A N D U M

DATE: December 23, 1987

TO: File

FROM: Danielle Provenzale DP

SUBJECT: Michigan/R05-8504-13/FMI0104SA
Rochester Hills/Sandfill Landfill #2
MID980499875

The Sandfill Landfill #2 site is an inactive commercial landfill located on approximately 25 acres of land in SW1/4 sec.24,T.3N.,R.11E., Rochester Hills, Michigan. The site was originally discovered by the Oakland County Health Department, which brought it to the attention of the Michigan Department of Natural Resources (MDNR). The site was then identified to the United States Environmental Protection Agency (U.S. EPA) in the form of preliminary assessment submitted by MDNR.

Landfill activity was first recorded in 1968 by Arthur Hill. Mr. Hill operated the landfill until 1971, and then sold it to Ed Malner of MAL Enterprises. MAL Enterprises continued operations until 1975. In 1975 Sandfill Inc. purchased the property and assumed operations of the landfill. In January 1977, Sandfill Inc. obtained licensure for acceptance of general refuse until September 1977, with the stipulation that a final cover be applied over the fill area at that time. Sandfill Inc. ceased operations in 1977 and covered the landfill. In 1983, the property was deeded to the State of Michigan, which later sold the property at a public auction to Mr. Vasile Cocariu, the present owner.

While in operation for the approximate time period of 1968 to 1977, commercial, household and industrial wastes were deposited into the landfill. Records regarding waste types and quantities were not kept.

recycled paper

The landfill is now closed and covered with both a clay cap and steel slag cap. This slag was applied to provide a base for a future recreational vehicle storage area on-site.

On April 29, 1986, Ecology and Environment, Inc., Field Investigation Team (E&E-FIT) conducted an inspection of the Sandfill Landfill #2 property. City personnel were interviewed, and five on-site soil and one background soil samples were collected in accordance with the approved work plan. During a visual inspection of the property, the site was observed to be bounded on the south by Hamlin Road, on the east by Dequindre Road, on the north by School Road, and on the west by a ditch that forms the border with another landfill adjacent to the site. An entrance gate and fencing along Hamlin Road and partially along Dequindre Road were the only means observed to prevent site accessibility. The remaining borders to the north and west were open and easily accessible.

The fill area was fairly flat and well vegetated. Some scattered demolition debris was observed on the site surface. A 35 to 45° slope was noted near the ditch at the western boundary and at the Ladd Drain which flows easterly across the northern portion of the site.

Analysis of samples obtained by E&E-FIT on April 29, 1986 revealed contamination with various inorganic metals such as chromium, nickel, and arsenic. Chromium and nickel were present in all five soil samples collected on-site. The maximum concentrations of chromium (279 mg/kg) and nickel (71 mg/kg) were detected in sample S1 which was collected from the Ladd Drain along the eastern edge of the site. Arsenic (30 mg/kg) was detected only in sample S5, which was collected from the Ladd Drain approximately 300 feet west of Dequindre Road.

Organic contaminants included 4,4-DDE, 4,4-DDD, 4,4-DDT, pyrene, and fluoranthene. Pesticide concentrations were detected in sample S2 (collected along the south bank of the Ladd Drain approximately 250 feet

west on Dequindre Road) and background sample S6 (collected on the east side of Dequindre Road just south of the intersection of Dequindre and School roads.) Sample S2 contained the maximum concentrations: 230 ug/kg, 4,4-DDT; 210 ug/kg, 4,4-DDD; and 82 ug/kg, 4,4-DDE. Pyrene and fluoranthene were detected only in background sample S6 at 440 ug/kg and 540 ug/kg, respectively.

It would appear that, at a minimum, surface contamination both on-site and off-site has occurred. However, attributing the contamination to this site is difficult. The area around Sandfill Landfill #2 is characterized by contaminated wells, landfills, and hazardous waste facilities. Known and potential sources of contamination are directly upgradient and adjacent to the site. J & L Landfill (also known as Avon Twp. Landfill), which is currently a National Priorities List candidate, is located directly west of the Sandfill site.

The site is located in a fairly urbanized area. Scattered residences are located adjacent to the site. Some of these homes have already connected to city water because of degradation of the surficial aquifer system in the area. The population within the 3-mile radius is primarily served by a surface water source with an intake outside the 3-mile radius. Approximately 500 homes located southeast of the site still use private drinking water wells. The majority of these wells are apparently drawing from unsorted sands and gravels extending 18 to 35 feet below the ground surface. Underlying this shallow aquifer system is 80 to 100 feet of lacustrine clay, which is followed by Coldwater Shale and the deeper bedrock aquifer of Berea Sandstone. Groundwater flow appears to be to the east toward the Clinton River and Rochester-Utica State Recreation Area.

2

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
MID	980499875

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER
SAND FILL LANDFILL #2	1911 HAMLIN ROAD

03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 CONG DIST
ROCHESTER HILLS	MI	48063	OAKLAND	125	12

09 COORDINATES LATITUDE	LONGITUDE	10 TYPE OF OWNERSHIP (Check one)
42°39'25.0"	093°05'42.1"	■ A. PRIVATE ☐ B. FEDERAL ☐ C. STATE ☐ D. COUNTY ☐ E. MUNICIPAL ☐ F. OTHER ☐ G. UNKNOWN

III. INSPECTION INFORMATION

01 DATE OF INSPECTION	02 SITE STATUS	03 YEARS OF OPERATION
4 / 29 / 86 (MONTH DAY YEAR)	☐ ACTIVE ■ INACTIVE	~1968 (BEGINNING YEAR) / 1977 (ENDING YEAR) ___ UNKNOWN

04 AGENCY PERFORMING INSPECTION (Check all that apply)

☐ A. EPA ■ B. EPA CONTRACTOR ECOLOGY & ENVIRONMENT, INC (Name of firm) ☐ C. MUNICIPAL ☐ D. MUNICIPAL CONTRACTOR ___ (Name of firm)
☐ E. STATE ☐ F. STATE CONTRACTOR ___ (Name of firm) ☐ G. OTHER ___ (Specify)

05 CHIEF INSPECTOR	06 TITLE	07 ORGANIZATION	08 TELEPHONE NO.
KELLY WALKER	ZOOLOGIST	E&E/FIT	(312) 663-9415

09 OTHER INSPECTORS	10 TITLE	11 ORGANIZATION	12 TELEPHONE NO.
STEVE VEVANG	GEOLOGIST	E&E/FIT	(312) 663-9415
JEFF CARMEN	GEOLOGIST	E&E/FIT	(312) 663-9415
			( )
			( )
			( )

13 SITE REPRESENTATIVES INTERVIEWED	14 TITLE	15 ADDRESS	16 TELEPHONE NO
NONE			( )
			( )
			( )
			( )
			( )
			( )

17 ACCESS GAINED BY (Check one)	18 TIME OF INSPECTION	19 WEATHER CONDITIONS
■ PERMISSION ☐ WARRANT	10:00 AM	OVERCAST, MISTY RAIN, ~65°F

IV. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)	03 TELEPHONE NO.
STEVE CUNNINGHAM	MICHIGAN DEPT. of NATURAL RESOURCES (DETROIT DIST.)	(517) 373-4816

04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NO.	08 DATE
DANIELLE PROVENZALE	U.S. EPA	E&E/FIT	(312) 663-9415	12 / 21 / 87 (MONTH DAY YEAR)

EPA FORM 2070-13 (7-81)

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
MID	980499875

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

- [x] A. SOLID
- [x] B. POWDER, FINES
- [ ] C. SLUDGE
- [ ] D. OTHER _____ (Specify)
- [ ] E. SLURRY
- [ ] F. LIQUID
- [ ] G. GAS

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

TONS _____
CUBIC YARDS _____
NO. OF DRUMS _____

03 WASTE CHARACTERISTICS (Check all that apply)

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

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE			* OCCIDENTAL PETROLEUM ALLEGEDLY
OLW	OILY WASTE			ADMITTED TO U.S. SUBCOMMITTEE
SOL	SOLVENTS			THAT THEY DISPOSED OF THIS
PSD	PESTICIDES			AMOUNT OF HALOGENATED
OCC	OTHER ORGANIC CHEMICALS	900	TONS *	ALIPHATICS ON-SITE.
IOC	INORGANIC CHEMICALS			RELIABILITY OF SOURCE OF
ACD	ACIDS			INFORMATION IS QUESTIONABLE.
BAS	BASES			
MES	HEAVY METALS			

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

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
MES	CHROMIUM	7440-47-3	SOIL #1 / MEM 844	279	mg/kg
MES	NICKEL	7440-02-0	SOIL #1 / MEM 844	71	mg/kg
MES	ARSENIC		SOIL #5 / MEE 248	30	mg/kg
PSD	4,4-DDT	50-29-3	SOIL #2 / EE 159	230	ug/kg
PSD	4,4-DDE	72-55-9	SOIL #2 / EE 159	82	ug/kg
PSD	4,4-DDD	72-54-8	SOIL #2 / EE 159	210	ug/kg
OCC	FLUORANTHENE	206-44-0	SOIL #6 / EE921	540	ug/kg
OCC	PYRENE	129-00-0	SOIL #6 / EE921	440	ug/kg

V. FEEDSTOCKS (See Appendix for CAS Numbers)

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS	N/A		FDS	N/A	
FDS			FDS		
FDS			FDS		
FDS			FDS		

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

E&E/FIT SITE INSPECTION ON 4-29-86; ORGANIC & INORGANIC DATA PACKAGES FOR SOIL SAMPLES OBTAINED. CASE #5914

MDNR FILES.

* KATY KIRWIN - ROCHESTER ECCENTRIC

EPA FORM 2070-13 (7-81)

recycled paper

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
MID	980499875

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ■ A. GROUNDWATER CONTAMINATION — 02 ■ OBSERVED (DATE: 1984) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 638 — 04 NARRATIVE DESCRIPTION
IN FEBUARY 1984, KECK CONSULTING SERVICES PERFORMED A HYDROGEOLOGICAL INVESTIGATION AT THE REQUEST OF THE MDNR DUE TO CONTAMINATION OF LOCAL PRIVATE RESIDENTIAL WELL (SEE "G" BELOW) IT WAS DETERMINED THAT MOST WELLS IN THE AREA ARE DRAWING WATER FROM A SURFICIAL SAND & GRAVEL AQUIFER SYSTEM EXTENDING ~30 FEET BELOW THE GROUND SURFACE, UNDERLAIN BY ~80-100 ft of LACUSTRINE CLAY, WHICH IS FOLLOWED BY THE DEEPER BEDROCK AQUIFER of COLD WATER SHALE & SANDSTONE

01 ■ B. SURFACE WATER CONTAMINATION — 02 ☐ OBSERVED (DATE:) ■ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: UNKNOWN — 04 NARRATIVE DESCRIPTION
THE CLINTON RIVER IS LOCATED ~1/4 MILE EAST OF THE SITE. THIS BRANCH OF THE RIVER FLOWS THROUGH THE ROCHESTER-UTICA STATE RECREATION AREA. SURFACE WATER CONTAMINATION COULD OCCUR VIA SURFACE DRAINAGE ENTERING THE LADD DRAIN, WHICH CUTS ACROSS SITE SURFACE, AND EMPTIES EAST INTO THE RIVER AND ITS ASSOCIATED WETLANDS. ALSO DUE TO THE CLOSE PROXIMITY OF THE SITE TO SURFACE WATER AND KNOWN CONTAMINATION OF GROUNDWATER, POSSIBLE CONTAMINANT MIGRATION VIA RECHARGE.

01 ☐ C. CONTAMINATION OF AIR — 02 ☐ OBSERVED (DATE:) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 0 — 04 NARRATIVE DESCRIPTION
NO DOCUMENTED COMPLAINTS ON AIR QUALITY IN THE AREA.
NO ODOR DETECTED AT TIME OF INSPECTION

01 ☐ D. FIRE/EXPLOSIVE CONDITIONS — 02 ☐ OBSERVED (DATE:) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 0 — 04 NARRATIVE DESCRIPTION
NO PAST DOCUMENTATION ON FIRE HAZARDS.
SITE IS PRESENTLY CLOSED AND POSES NO FIRE HAZARDS.

01 ■ E. DIRECT CONTACT — 02 ☐ OBSERVED (DATE:) ■ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 900 — 04 NARRATIVE DESCRIPTION
THE SITE HAS AN ENTRANCE GATE, BUT IS ONLY PARTIALLY FENCED AND EASILY ACCESSIBLE. DUE TO KNOWN SURFACE CONTAMINATION (SEE "F" BELOW) THERE IS THE POTENTIAL FOR CONTAMINATION VIA DIRECT CONTACT.

01 ■ F. CONTAMINATION OF SOIL — 02 ■ OBSERVED (DATE: 4/29/86) ☐ POTENTIAL ☐ ALLEGED
03 AREA POTENTIALLY AFFECTED: ~25 — 04 NARRATIVE DESCRIPTION
SOIL/SED. SAMPLES COLLECTED BY ESE/FIT ON 4-29-87 REVEALED CONTAMINATION WITH VARIOUS CHEMICALS. ORGANIC CONTAMINANTS INCLUDED PESTICIDES 4,4 DDT AT A CONCENTRATION OF 230 mg/kg AND IT DECOMPOSITION PRODUCTS 4,4 DDE 82 mg/kg and 4,4 DDD AT 210 mg/kg. OTHER ORGANIC CHEMICALS INCLUDED PYRENE AT 440 mg/kg AND FLUORANTHENE AT 540 mg/kg. Inorganic CONTAMINANTS INCLUDED HEAVY METALS CHROMIUM, NICKEL, & ARSENIC AT MAXIMUM CONCENTRATIONS OF 279 mg/kg, 71 mg/kg & 30 mg/kg RESPECTIVELY

01 ■ G. DRINKING WATER CONTAMINATION — 02 ☐ OBSERVED (DATE:) ■ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 638 — 04 NARRATIVE DESCRIPTION
RESIDENTS LOCATED ADJACENT TO THE SITE AREA, SPECIFICALLY NW1/4, SE1/4 sec. 24 T3N, R11E along PARKE ROAD HAD TO HOOK UP TO MUNICIPAL WATER SYSTEM DUE TO DOCUMENTED CONTAMINATION. THIS CONTAMINATION WAS ATTRIBUTED TO ANOTHER SITE IN THE AREA, HOWEVER POTENTIAL STILL EXISTS FOR THE SHALLOW AQUIFER SYSTEM TO BE IMPACTED BY PREVIOUS SITE ACTIVITIES. THE SITE IS UNLINED AND CONTAMINANT MIGRATION COULD OCCUR.

01 ■ H. WORKER EXPOSURE/INJURY — 02 ☐ OBSERVED (DATE:) ■ POTENTIAL ☐ ALLEGED
03 WORKERS POTENTIALLY AFFECTED: 0 — 04 NARRATIVE DESCRIPTION
THERE ARE NO DOCUMENTED REPORTS OF WORKER EXPOSURE/INJURY.
PAST EXPOSURE BY INDIVIDUALS WHO WERE EMPLOYED AT THE FACILITY AND ANY PERSONS EXPOSED TO THE CONTAMINANTS THAT WERE DEPOSITED ON SITE HAVE THE POTENTIAL TO BE AFFECTED.

01 ☐ I. POPULATION EXPOSURE/INJURY — 02 ☐ OBSERVED (DATE:) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: ~900 — 04 NARRATIVE DESCRIPTION
SHOULD CONDITIONS CONTINUE TO EXIST ON SITE, THE LOCAL AQUIFER SYSTEM EAST OF THE SITE TO THE CLINTON RIVER WOULD BE PERMANENTLY IMPAIRED. DEGRADATION OF THE STATE RECREATION AREA COULD OCCUR.

recycled paper

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
MD	980499875

II. PERMIT INFORMATION

01 TYPE OF PERMIT ISSUED (Check all that apply)	02 PERMIT NUMBER	03 DATE ISSUED	04 EXPIRATION DATE	05 COMMENTS
☐ A. NPDES				
☐ B. UIC				
☐ C. AIR				
☐ D. RCRA				
☐ E. RCRA INTERIM STATUS				
☐ F. SPCC PLAN				
☐ G. STATE (Specify) MDNR	4275	1/13/77	9/1/77	Solid Waste Disp / General Refuse establish cover
☐ H. ~~LOCAL~~ (Specify) MDNR	3799		11/4/75	Solid Waste Disp
☐ I. OTHER (Specify) MDNR	2915	1/21/74		Solid Waste Disp / demolition
☐ J. NONE				

III. SITE DESCRIPTION

01 STORAGE/DISPOSAL (Check all that apply)	02 AMOUNT	03 UNIT OF MEASURE
☐ A. SURFACE IMPOUNDMENT		
☐ B. PILES		
☐ C. DRUMS, ABOVE GROUND		
☐ D. TANK, ABOVE GROUND		
☐ E. TANK, BELOW GROUND		
■ F. LANDFILL	UNKNOWN	
☐ G. LANDFARM		
☐ H. OPEN DUMP		
☐ I. OTHER (Specify)		

04 TREATMENT (Check all that apply)
- ☐ A. INCENERATION
- ☐ B. UNDERGROUND INJECTION
- ☐ C. CHEMICAL/PHYSICAL
- ☐ D. BIOLOGICAL
- ☐ E. WASTE OIL PROCESSING
- ☐ F. SOLVENT RECOVERY
- ☐ G. OTHER RECYCLING/RECOVERY
- ☐ H. OTHER (Specify)

05 OTHER
- ☐ A. BUILDINGS ON SITE

NONE

06 AREA OF SITE: ~25 (Acres)

07 COMMENTS THE SANDFILL LANDFILL #2 SITE IS LOCATED IN THE SW 1/4 SEC 24 T3N, R 11E. THE LANDFILL ITSELF COMPRISES ~25 ACRES. THE SITE IS LOCATED AMONG NINE (9) OTHER LANDFILLS IN THE AREA. J & L LANDFILL (A NPL CANDIDATE) IS LOCATED IMMEDIATELY WEST OF THE SITE. THE LANDFILL WAS ORIGINALLY A SAND PIT THAT WAS EXCAVATED TO THE WATER TABLE & BACKFILLED WITH GENERAL HOUSEHOLD, COMMERCIAL AND LIGHT INDUSTRIAL WASTES. THE SITE IS NOW CLOSED AND COVERED WITH BOTH A CLAY CAP AND FOUNDRY SLAG. IT WAS TO BE USED AS A RECREATIONAL VEHICLE STORAGE AREA. DUE TO ITS PROXIMITY TO THE OTHER EXISTING LANDFILLS, CHARACTERIZATION OF THIS SITE WOULD HAVE TO ENCOMPASS THE WHOLE AREA.

IV. CONTAINMENT

01 CONTAINMENT OF WASTES (Check one)

☐ A. ADEQUATE, SECURE ☐ B. MODERATE ☐ C. INADEQUATE, POOR ■ D. INSECURE, UNSOUND, DANGEROUS

02 DESCRIPTION OF DRUMS, DIKING, LINERS, BARRIERS, ETC.

THERE IS NO DIKING TO PREVENT SURFACE WATER RUN-OFF. THE IS NO LINER UNDERLYING SITE TO PREVENT CONTAMINANT MIGRATION. THERE IS A NATURAL CLAY LAYER ~30 FT BELOW GROUND SURFACE THAT EXTENDS 80-100 FT THICK.

FOUNDRY SLAG HAS BEEN PLACED OVER CLAY CAP.

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE: ■ YES ☐ NO

02 COMMENTS THERE IS AN ENTRANCE GATE, HOWEVER INADEQUATE FENCING ALLOWS EASY ACCESSIBILITY TO SITE.

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

E&E/FIT SITE INSPECTION 4/29/86

MDNR STATE/COUNTY FILES

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
MID	980499875

II. DRINKING WATER SUPPLY

01 TYPE OF DRINKING SUPPLY (Check as applicable)

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

02 STATUS

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

03 DISTANCE TO SITE

A. 4 mi (mi)
B. ~100 ft (ft)

III. GROUNDWATER

01 GROUNDWATER USE IN VICINITY (Check one)

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

02 POPULATION SERVED BY GROUND WATER 638

03 DISTANCE TO NEAREST DRINKING WATER WELL 100 ft (ft)

04 DEPTH TO GROUNDWATER	05 DIRECTION OF GROUNDWATER FLOW	06 DEPTH TO AQUIFER OF CONCERN	07 POTENTIAL YIELD OF AQUIFER	08 SOLE SOURCE AQUIFER
<20 (ft)	east	<20 (ft)	UNKNOWN (gpd)	☐ YES ☒ NO

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

WELLS IN THE AREA ARE DRAWING FROM UNSORTED SANDS & GRAVELS EXTENDING BETWEEN 18-35 FT BELOW GROUND SURFACE. UNDERLYING THIS SURFICIAL AQUIFER SYSTEM IS ~80-100 ft OF LACUSTRINE CLAY WHICH IS UNDERLAIN BY THE COLDWATER SHALE & BEREA SANDSTONE. MOST OF THE POPULATION IN THE 3-mile radius ARE ON SURFACE WATER FROM DETROIT. THERE ARE PRIVATE WELLS TO THE SE.

10 RECHARGE AREA		11 DISCHARGE AREA	
☒ YES ☐ NO	COMMENTS SOURCE OF RECHARGE IN THE AREA. INFILTRATION MAY BE INDUCED SEASONALLY BY THE CLINTON RIVER & ITS ASSOCIATED WETLANDS	☒ YES ☐ NO	COMMENTS THE PRINCIPAL AQUIFER SYSTEM PROBABLY OCCURS IN THE FORM OF SEEPAGE TO THE EAST TOWARD THE CLINTON RIVER & ITS ASSOCIATED WETLANDS

IV. SURFACE WATER

01 SURFACE WATER USE (Check one)

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

02 AFFECTED/POTENTIALLY AFFECTED BODIES OF WATER

NAME:	AFFECTED	DISTANCE TO SITE
LADD DRAIN	☐	ON-SITE (mi)
CLINTON RIVER & ITS ASSOCIATED WETLANDS	☐	<1/4 (mi)
	☐	(mi)

V. DEMOGRAPHIC AND PROPERTY INFORMATION

01 TOTAL POPULATION WITHIN

ONE (1) MILE OF SITE	TWO (2) MILES OF SITE	THREE (3) MILES OF SITE
A. ~900 NO. OF PERSONS	B. ~10,000 NO. OF PERSONS	C. ~80,000 NO. OF PERSONS

02 DISTANCE TO NEAREST POPULATION 100 ft (mi)

03 NUMBER OF BUILDINGS WITHIN TWO (2) MILES OF SITE 2825

04 DISTANCE TO NEAREST OFF-SITE BUILDING 100 ft (mi)

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

THE SITE IS SITUATED AMONG NINE OTHER LANDFILL OPERATIONS. THERE ARE SCATTERED PRIVATE RESIDENCES ADJACENT TO THE SITE. APPROXIMATELY ONE MILE IN ANY DIRECTION FROM THE SITE, ARE URBANIZED AREAS. THE ROCHESTER-UTICA STATE RECREATION AREA IS <1/4 MILE EAST OF THE SITE.

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
MID	980499875

VI. ENVIRONMENTAL INFORMATION

01 PERMEABILITY OF UNSATURATED ZONE *(Check one)*

☐ A. $10^{-6} - 10^{-8}$ cm/sec ☐ B. $10^{-4} - 10^{-6}$ cm/sec ☐ C. $10^{-4} - 10^{-3}$ cm/sec ■ D. GREATER THAN 10^{-3} cm/sec

02 PERMEABILITY OF BEDROCK *(Check one)*

☐ A. IMPERMEABLE *(Less than 10^{-6} cm/sec)* ■ B. RELATIVELY IMPERMEABLE *($10^{-4} - 10^{-6}$ cm/sec)* ■ C. RELATIVELY PERMEABLE *($10^{-2} - 10^{-4}$ cm/sec)* ☐ D. VERY PERMEABLE *(Greater than 10^{-2} cm/sec)*

03 DEPTH TO BEDROCK	04 DEPTH OF CONTAMINATED SOIL ZONE	05 SOIL pH
>100 (ft)	UNKNOWN (ft)	UNKNOWN

06 NET PRECIPITATION	07 ONE YEAR 24 HOUR RAINFALL	08 SLOPE: SITE SLOPE	DIRECTION OF SITE SLOPE	TERRAIN AVERAGE SLOPE
0.68 (in)	2.2 (in)	0-1 %	easterly	0-1 %

09 FLOOD POTENTIAL

SITE IS IN 500 YEAR FLOODPLAIN

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

11 DISTANCE TO WETLANDS *(5 acre minimum)*

ESTUARINE: A. N/A (mi)

OTHER: B. < 1/4 (mi)

12 DISTANCE TO CRITICAL HABITAT *(of endangered species)*

N/A (mi)

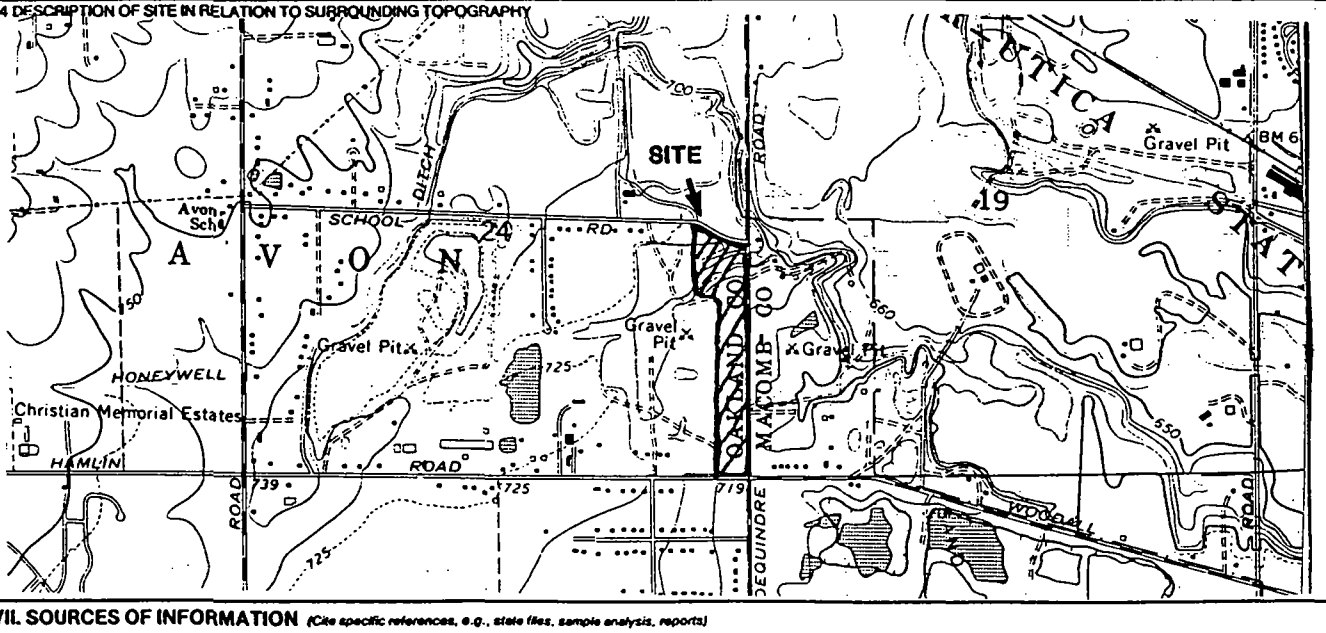
ENDANGERED SPECIES: N/A

13 LAND USE IN VICINITY

DISTANCE TO:

COMMERCIAL/INDUSTRIAL	RESIDENTIAL AREAS; NATIONAL/STATE PARKS, FORESTS, OR WILDLIFE RESERVES	AGRICULTURAL LANDS: PRIME AG LAND	AGRICULTURAL LANDS: AG LAND
A. 2000 ft (mi)	B. 0.25 (mi)	C. NA (mi)	D. ~1 (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY



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

WELL LOGS
E&E/FIT INSPECTION 4-29-86
U.S.G.S. TOPOGRAPHIC MAPS.

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
MO	980499875

II. SAMPLES TAKEN

SAMPLE TYPE	01 NUMBER OF SAMPLES TAKEN	02 SAMPLES SENT TO	03 ESTIMATED DATE RESULTS AVAILABLE
GROUNDWATER			
SURFACE WATER			
WASTE			
AIR			
RUNOFF			
SOIL	6 (INORGANIC)	WILSON LABORATORIES - 525 N. 8th PL. P.O BOX 1884 SALINA, KS 67402	IMMEDIATELY
SOIL	6 (ORGANIC)	UTAH BIOMEDICAL TEST LABORATORY - 520 WAKARA WAY SALT LAKE CITY, UT 84108	IMMEDIATELY
VEGETATION			
OTHER			

III. FIELD MEASUREMENTS TAKEN

01 TYPE	02 COMMENTS
HNU	CALIBRATED AT 9.8 span at 66ppm gas - no readings above background
RAD-MINI	no calibration needed - no readings above background
DRAEGER TUBE	no calibration needed - no color change

IV. PHOTOGRAPHS AND MAPS

01 TYPE ■ GROUND ☐ AERIAL

02 IN CUSTODY OF ECOLOGY & ENVIRONMENT, INC (Name of organization or individual)

03 MAPS ■ YES ☐ NO

04 LOCATION OF MAPS ECOLOGY & ENVIRONMENT, INC

V. OTHER FIELD DATA COLLECTED (Provide narrative description)

SITE PHOTOGRAPHS ATTACHED.

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

E & E/FIT SITE INSPECTION 4/29/86

EPA FORM 2070-13 (7-81)

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
MID	980499875

II. CURRENT OWNER(S)

01 NAME	02 D+B NUMBER
MR VASILE COCARIU	NA

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
4840 STONELEIGH	

05 CITY	06 STATE	07 ZIP CODE
BLOOMFIELD HILLS	MI	48013

01 NAME	02 D+B NUMBER

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

05 CITY	06 STATE	07 ZIP CODE

01 NAME	02 D+B NUMBER

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

05 CITY	06 STATE	07 ZIP CODE

01 NAME	02 D+B NUMBER

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

05 CITY	06 STATE	07 ZIP CODE

PARENT COMPANY (If applicable)

08 NAME	09 D+B NUMBER

10 STREET ADDRESS (P.O. Box, RFD #, etc.)	11 SIC CODE

12 CITY	13 STATE	14 ZIP CODE

08 NAME	09 D+B NUMBER

10 STREET ADDRESS (P.O. Box, RFD #, etc.)	11 SIC CODE

12 CITY	13 STATE	14 ZIP CODE

08 NAME	09 D+B NUMBER

10 STREET ADDRESS (P.O. Box, RFD #, etc.)	11 SIC CODE

12 CITY	13 STATE	14 ZIP CODE

08 NAME	09 D+B NUMBER

10 STREET ADDRESS (P.O. Box, RFD #, etc.)	11 SIC CODE

12 CITY	13 STATE	14 ZIP CODE

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

01 NAME	02 D+B NUMBER
MRS. MARION PIHAJLIC	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
1671 HAMLIN RD EAST	

05 CITY	06 STATE	07 ZIP CODE
ROCHESTER	MI	48063

01 NAME	02 D+B NUMBER
EDWARD MALNER	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
1919 MACKWOOD	

05 CITY	06 STATE	07 ZIP CODE
ROCHESTER	MI	48 63

01 NAME	02 D+B NUMBER
ARTHUR HILL	

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

05 CITY	06 STATE	07 ZIP CODE

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

01 NAME	02 D+B NUMBER

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

05 CITY	06 STATE	07 ZIP CODE

01 NAME	02 D+B NUMBER

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

05 CITY	06 STATE	07 ZIP CODE

01 NAME	02 D+B NUMBER

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

05 CITY	06 STATE	07 ZIP CODE

01 NAME	02 D+B NUMBER

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

05 CITY	06 STATE	07 ZIP CODE

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

MDNR STATE/COUNTY FILES
E & E FILES.

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
MID	980499875

II. CURRENT OPERATOR (Provide if different from owner)

01 NAME	02 D+B NUMBER
NA	

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

05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER

OPERATOR'S PARENT COMPANY (If applicable)

10 NAME	11 D+B NUMBER
NA	

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

14 CITY	15 STATE	16 ZIP CODE

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

01 NAME	02 D+B NUMBER
JOHN SPOKAESKI	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
1911 HAMLIN RD	

05 CITY	06 STATE	07 ZIP CODE
ROCHESTER	MI	48063

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD
2	MARION PIHAJLIC

PREVIOUS OPERATORS' PARENT COMPANIES (If applicable)

10 NAME	11 D+B NUMBER

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

14 CITY	15 STATE	16 ZIP CODE

01 NAME	02 D+B NUMBER
MR. LEONARD SHADDOCH	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
SANDFILL INC 1911 HAMLIN RD	

05 CITY	06 STATE	07 ZIP CODE
ROCHESTER	MI	48063

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD
2	

10 NAME	11 D+B NUMBER

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

14 CITY	15 STATE	16 ZIP CODE

01 NAME	02 D+B NUMBER
M.A.L ENTERPRISES.	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
1805 HAMLIN RD	

05 CITY	06 STATE	07 ZIP CODE
ROCHESTER	MI	48063

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD
4	ED. MALNER

10 NAME	11 D+B NUMBER

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

14 CITY	15 STATE	16 ZIP CODE

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

MDNR STATE/COUNTY FILES
E&E FILES

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
MID	980499875

II. ON-SITE GENERATOR

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

III. OFF-SITE GENERATOR(S)

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

IV. TRANSPORTER(S)

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

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

MDNR STATE & COUNTY FILES

E & E FILES

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
MID	980409875

II. PAST RESPONSE ACTIVITIES

01 ☐ A. WATER SUPPLY CLOSED 04 DESCRIPTION NA	02 DATE	03 AGENCY
01 ☐ B. TEMPORARY WATER SUPPLY PROVIDED 04 DESCRIPTION	02 DATE	03 AGENCY
01 ☐ C. PERMANENT WATER SUPPLY PROVIDED 04 DESCRIPTION	02 DATE	03 AGENCY
01 ☐ D. SPILLED MATERIAL REMOVED 04 DESCRIPTION	02 DATE	03 AGENCY
01 ☐ E. CONTAMINATED SOIL REMOVED 04 DESCRIPTION	02 DATE	03 AGENCY
01 ☐ F. WASTE REPACKAGED 04 DESCRIPTION	02 DATE	03 AGENCY
01 ☐ G. WASTE DISPOSED ELSEWHERE 04 DESCRIPTION	02 DATE	03 AGENCY
01 ☐ H. ON SITE BURIAL 04 DESCRIPTION	02 DATE	03 AGENCY
01 ☐ I. IN SITU CHEMICAL TREATMENT 04 DESCRIPTION	02 DATE	03 AGENCY
01 ☐ J. IN SITU BIOLOGICAL TREATMENT 04 DESCRIPTION	02 DATE	03 AGENCY
01 ☐ K. IN SITU PHYSICAL TREATMENT 04 DESCRIPTION	02 DATE	03 AGENCY
01 ☐ L. ENCAPSULATION 04 DESCRIPTION	02 DATE	03 AGENCY
01 ☐ M. EMERGENCY WASTE TREATMENT 04 DESCRIPTION	02 DATE	03 AGENCY
01 ☐ N. CUTOFF WALLS 04 DESCRIPTION	02 DATE	03 AGENCY
01 ☐ O. EMERGENCY DIKING/SURFACE WATER DIVERSION 04 DESCRIPTION	02 DATE	03 AGENCY
01 ☐ P. CUTOFF TRENCHES/SUMP 04 DESCRIPTION	02 DATE	03 AGENCY
01 ☐ Q. SUBSURFACE CUTOFF WALL 04 DESCRIPTION	02 DATE	03 AGENCY

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
MID	980499875

II PAST RESPONSE ACTIVITIES *(Continued)*

01 ☐ R. BARRIER WALLS CONSTRUCTED 04 DESCRIPTION NA	02 DATE	03 AGENCY
01 ☐ S. CAPPING/COVERING 04 DESCRIPTION	02 DATE	03 AGENCY
01 ☐ T. BULK TANKAGE REPAIRED 04 DESCRIPTION	02 DATE	03 AGENCY
01 ☐ U. GROUT CURTAIN CONSTRUCTED 04 DESCRIPTION	02 DATE	03 AGENCY
01 ☐ V. BOTTOM SEALED 04 DESCRIPTION	02 DATE	03 AGENCY
01 ☐ W. GAS CONTROL 04 DESCRIPTION	02 DATE	03 AGENCY
01 ☐ X. FIRE CONTROL 04 DESCRIPTION	02 DATE	03 AGENCY
01 ☐ Y. LEACHATE TREATMENT 04 DESCRIPTION	02 DATE	03 AGENCY
01 ☐ Z. AREA EVACUATED 04 DESCRIPTION	02 DATE	03 AGENCY
01 ☐ 1. ACCESS TO SITE RESTRICTED 04 DESCRIPTION	02 DATE	03 AGENCY
01 ☐ 2. POPULATION RELOCATED 04 DESCRIPTION	02 DATE	03 AGENCY
01 ☐ 3. OTHER REMEDIAL ACTIVITIES 04 DESCRIPTION	02 DATE	03 AGENCY

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

MDNR STATE/COUNTY FILES

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
MID	980499875

II. ENFORCEMENT INFORMATION

01 PAST REGULATORY/ENFORCEMENT ACTION ☐ YES ■ NO

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

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

MDNR FILES
COUNTY FILES

	High	Moderate	Low
Fire and Explosion Hazard			
Flammable Materials — none known			✓
Explosives — none known			✓
Incompatable Chemicals — none known			✓
Direct Contact with Acutely Toxic Chemicals			
Site Security — unfenced on 3-sides.	✓		
Leaking Drums or Tanks — none			✓
Open Lagoons or pits — none			✓
Materials on Surface — chemical contaminants	✓		
Proximity of Population — < 1/4 mile	✓		
Evidence of Casual Site Use			
Contaminated Water Supply			
Exceeds 10 Day Snarl — NA	→		
Gross Taste or Odors — NA	→		
Alternate Water Available — yes			✓
Potential Contamination	✓		
Is the site abandoned or active? closed, inactive			

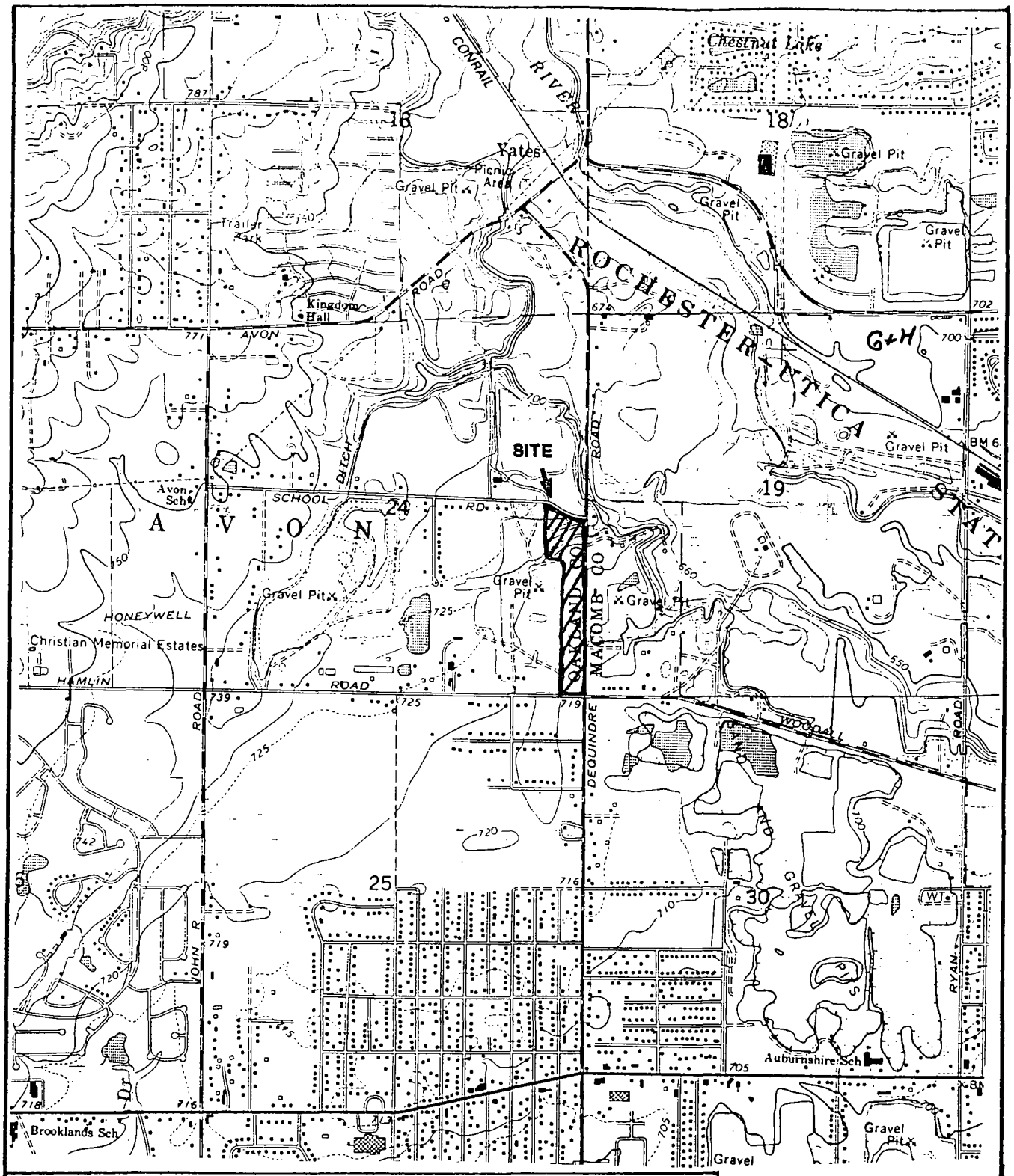
Comments

Site is a closed landfill situated among nine other local landfill operations in the area.

SITE SURFACE IS RELATIVELY FLAT AND WELL VEGETATED. SAMPLES OF SOIL OBTAINED FROM LADD DRAIN (WHICH CUTS ACROSS SITE) INDICATE CONTAMINATION WITH VARIOUS CONTAMINANTS. ROCHESTER-UTICA STATE RECREATION AREA IS ~1/4 MILE EAST OF THE SITE. GROUNDWATER & SURFACE WATER FLOWS TO THE EAST. SITE IS UNFENCED ON THREE SIDES AND IS EASILY ACCESSIBLE.

3

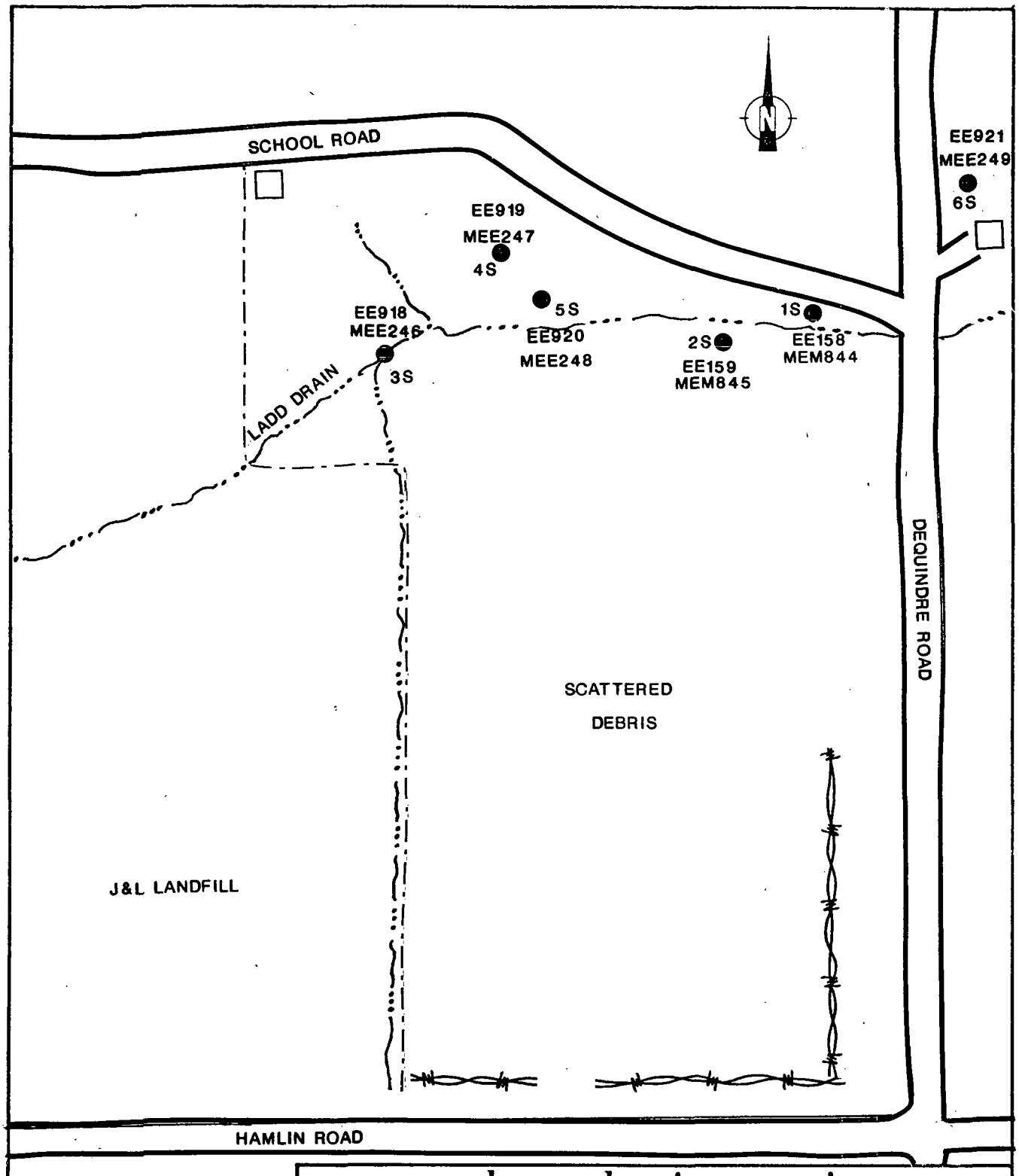
rdinal



ecology and environment, inc.

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

TITLE: SITE LOCATION MAP	FIGURE #: 1
SITE: SANDFILL LANDFILL #2	SCALE: 1:24000
CITY: ROCHESTER HILLS STATE: MICHIGAN	P.A.N.: FMI0104SA
SOURCE: U.S.G.S. TOPOGRAPHIC MAP UTICA QUAD.	DATE: 1968 REVISED: 1983



LEGEND	ecology and environment, inc. 111 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60604, TEL. 312-663-9415	
PROPERTY LINE	TITLE: SITE SKETCH	FIGURE #: 2
FENCING	SITE: SANDFILL LANDFILL #2	SCALE: N/A
DRAINAGE DITCH	CITY: ROCHESTER HILLS STATE: MICHIGAN	P.A.N.: FMI0104SA
PRIVATE RESIDENCE	SOURCE: SITE INSPECTION	DATE: N/A REVISED: N/A

4

dinal

FIELD PHOTOGRAPHY LOG SHEET

DATE 4/29/86

TIME 11:10 (A.M.) P.M.

DIRECTION: N NNE NE ENE
(E) ESE SE SSE
S SSW SW WSW
W WNW NW NNW

WEATHER overcast, misting, ~65°F

SITE Sandfill Landfill #2

TDD# R05-8504-13

PHOTOGRAPHED BY: Kelly Walker

SAMPLE ID# (if applicable) 15

DESCRIPTION: Sample point 15. Collected on the north bank of Ladd Drain at the culvert on the west side of Dequindre Road.

DATE 4/29/86

TIME 11:10 (A.M.) P.M.

DIRECTION: N NNE NE ENE
(E) ESE SE SSE
S SSW SW WSW
W WNW NW NNW

WEATHER overcast, misting, ~65°F

SITE Sandfill Landfill #2

TDD# R05-8504-13

PHOTOGRAPHED BY: Kelly Walker

SAMPLE ID# (if applicable) 15

DESCRIPTION: Distant photo of sample point 15.

FIELD PHOTOGRAPHY LOG SHEET

DATE 4/29/86

TIME 11:20 (A.M.) P.M.

DIRECTION: (N) NNE NE ENE
E ESE SE SSE
S SSW SW WSW
W WNW NW NNW

WEATHER overcast, misting, ~65°F

SITE Sandfill Landfill #2

TDD# R05-8504-13

PHOTOGRAPHED BY: Kelly Walker

SAMPLE ID# (if applicable) 25

DESCRIPTION: Sample point 25. Collected on the south bank of Ladd Drain ~250 ft. West of Dequindre Rd. Oil sheen noted.

DATE 4/29/86

TIME 11:20 (A.M.) P.M.

DIRECTION: (N) NNE NE ENE
E ESE SE SSE
S SSW SW WSW
W WNW NW NNW

WEATHER overcast, misting, ~65°F

SITE Sandfill Landfill #2

TDD# R05-8504-13

PHOTOGRAPHED BY: Kelly Walker

SAMPLE ID# (if applicable) 25

DESCRIPTION: Distant photo of sample point 25.

FIELD PHOTOGRAPHY LOG SHEET

DATE 4/29/86

TIME 11:45 (A.M.) P.M.

DIRECTION: N NNE NE ENE
E ESE SE SSE
(S) SSW SW WSW
W WNW NW NNW

WEATHER overcast, misting, ~65° F

SITE Sandfill Landfill #2

TDD# R05-8504-13

PHOTOGRAPHED BY: Kelly Walker

SAMPLE ID# (if applicable) 35

DESCRIPTION: Sample point 35. Collected at the point where the west boundary ditch separating J+L site + Sandfill #2 meets Ladd Drain at the NW corner of the site. No oil sheen noted.

DATE 4/29/86

TIME 11:45 (A.M.) P.M.

DIRECTION: N NNE NE ENE
E ESE SE SSE
(S) SSW SW WSW
W WNW NW NNW

WEATHER overcast, misting, ~65° F

SITE Sandfill Landfill #2

TDD# R05-8504-13

PHOTOGRAPHED BY: Kelly Walker

SAMPLE ID# (if applicable) 35

DESCRIPTION: Distant photo of sample point 35.

FIELD PHOTOGRAPHY LOG SHEET

DATE 4/29/86

TIME 12:10 A.M. (P.M.)

DIRECTION: N NNE NE ENE
E ESE SE SSE
S SSW SW WSW
(W) WNW NW NNW

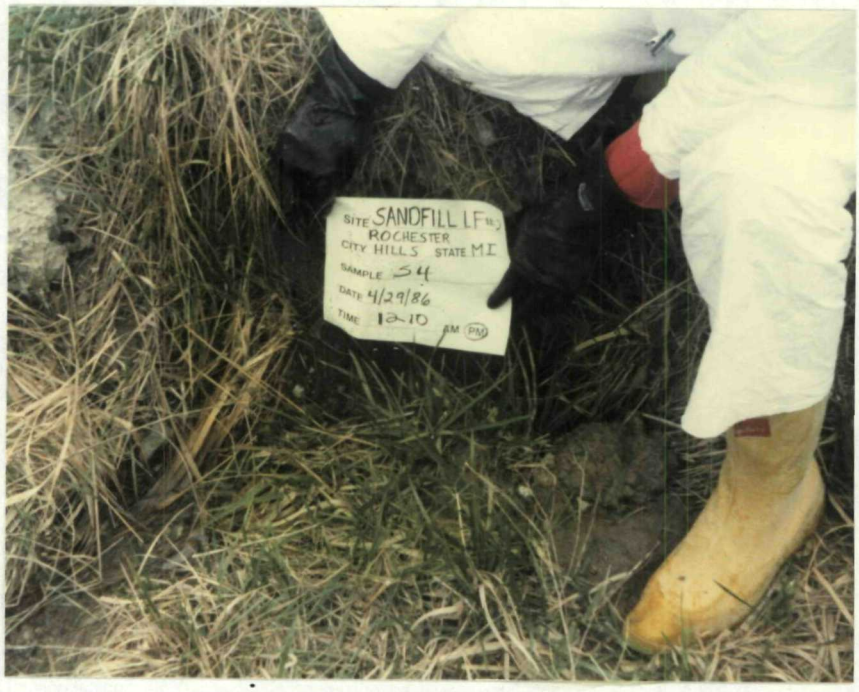
WEATHER overcast, misting, ~65°F

SITE Sandfill Landfill #2

TDD# R05-8504-13

PHOTOGRAPHED BY: Kelly Walker

SAMPLE ID# (if applicable) 45



DESCRIPTION: Sample point 45. Collected from a surface run-off drainage on the north bank of Ladd Drain. Oil sheen noted.

DATE 4/29/86

TIME 12:10 A.M. (P.M.)

DIRECTION: (N) NNE NE ENE
E ESE SE SSE
S SSW SW WSW
W WNW NW NNW

WEATHER overcast, misting, ~65°F

SITE Sandfill Landfill #2

TDD# R05-8504-13

PHOTOGRAPHED BY: Kelly Walker

SAMPLE ID# (if applicable) 45

DESCRIPTION: Distant photo of sample point 45.

FIELD PHOTOGRAPHY LOG SHEET

DATE 4/29/86

TIME 12:20 A.M. (P.M.)

DIRECTION: N NNE NE ENE
E ESE SE SSE
S SSW SW WSW
(W) WNW NW NNW

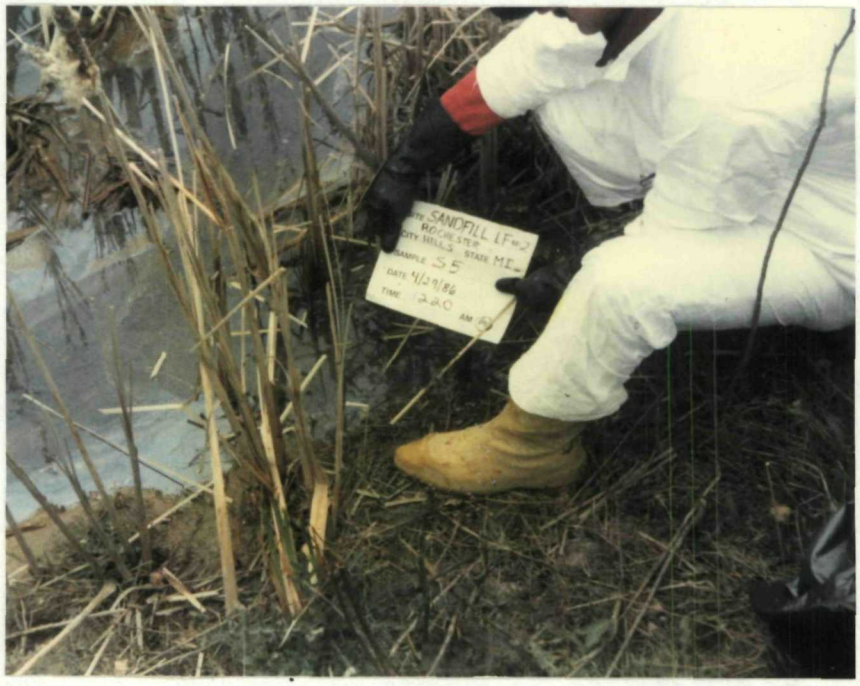
WEATHER overcast, misting, ~65°F

SITE Sandfill Landfill #2

TDD# R05-8504-13

PHOTOGRAPHED BY: Kelly Walker

SAMPLE ID# (if applicable) 55



DESCRIPTION: Sample point 55. Collected on the north bank of Ladd Drain ~300ft. west of Dequindre Rd. Oil sheen noted.

DATE 4/29/86

TIME 12:20 A.M. (P.M.)

DIRECTION: N NNE NE ENE
E ESE SE SSE
S SSW SW WSW
(W) WNW NW NNW

WEATHER overcast, misting, ~65°F

SITE Sandfill Landfill #2

TDD# R05-8504-13

PHOTOGRAPHED BY: Kelly Walker

SAMPLE ID# (if applicable) 55

DESCRIPTION: Distant photo of sample point 55.

FIELD PHOTOGRAPHY LOG SHEET

DATE 4/29/86

TIME 12:30 A.M. (P.M.)

DIRECTION: N NNE NE ENE
E ESE SE SSE
(S) SSW SW WSW
W WNW NW NNW

WEATHER overcast, misting, ~65°F

SITE Sandfill Landfill #2

TDD# R05-8504-13

PHOTOGRAPHED BY: Kelly Walker

SAMPLE ID# (if applicable) 65

DESCRIPTION: Sample point 65. Background sample collected on the east side of Dequindre Rd. on the slope behind the R. Barno residence.

DATE 4/29/86

TIME 12:30 A.M. (P.M.)

DIRECTION: N NNE NE ENE
E ESE SE SSE
(S) SSW SW WSW
W WNW NW NNW

WEATHER overcast, misting, ~65°F

SITE Sandfill landfill #2

TDD# R05-8504-13

PHOTOGRAPHED BY: Kelly Walker

SAMPLE ID# (if applicable) 65

DESCRIPTION: Distant photo of sample point 65.

FIELD PHOTOGRAPHY LOG SHEET

DATE 4/29/86

TIME 12:35 A.M (P.M.)

DIRECTION: N NNE NE ENE
(E) ESE SE SSE
S SSW SW WSW
W WNW NW NNW

WEATHER overcast, misting, ~65°F

SITE Sandfill Landfill #2

TDD# R05-8504-13

PHOTOGRAPHED BY: Kelly Walker

SAMPLE ID# (if applicable) 65.

DESCRIPTION: Photo of R. Barno residence, 49950 Dequindre Rd., where 65 was collected on slope behind the garage.

DATE 4/29/86

TIME 12:55 A.M (P.M)

DIRECTION: N NNE NE ENE
E ESE SE SSE
S SSW SW (WSW)
W WNW NW NNW

WEATHER overcast, misting, ~65°F

SITE Sandfill Landfill #2

TDD# R05-8504-13

PHOTOGRAPHED BY: Kelly Walker

SAMPLE ID# (if applicable) N/A

DESCRIPTION: Photo of Ladd Drain taken from the corner of School and Dequindre Roads.

FIELD PHOTOGRAPHY LOG SHEET

DATE 4/29/86

TIME 12:58 A.M. (P.M.)

DIRECTION: N NNE NE ENE
(E) ESE SE SSE
S SSW SW WSW
W WNW NW NNW

WEATHER overcast, misting, ~65°F

SITE Sandfill Landfill #2

TDD# R05-8504-13

PHOTOGRAPHED BY: Kelly Walker

SAMPLE ID# (if applicable) N/A

DESCRIPTION: Photo of culvert running under Dequindre Road.

DATE 4/29/86

TIME 1:00 A.M. (P.M.)

DIRECTION: N NNE NE ENE
E ESE SE SSE
(S) SSW SW WSW
W WNW NW NNW

WEATHER overcast, misting, ~65°F

SITE Sandfill Landfill #2

TDD# R05-8504-13

PHOTOGRAPHED BY: Kelly Walker

SAMPLE ID# (if applicable) N/A

DESCRIPTION: Photo of ditch on the west boundry of the site which separates Sandfill Landfill #2 from J&L Site.

FIELD PHOTOGRAPHY LOG SHEET

DATE 4/29/86

TIME 1:15 A.M. (P.M.)

DIRECTION: N NNE NE ENE
E ESE SE SSE
(S) SSW SW WSW
W WNW NW NNW

WEATHER overcast, misting, ~65°F

SITE Sandfill Landfill #2

TDD# R05-8504-13

PHOTOGRAPHED BY: Kelly Walker

SAMPLE ID# (if applicable) N/A

DESCRIPTION: Photo of the R. Crook's residence, 1790 School Rd. Nearest resident/well, adjacent to site on the NW corner.

DATE 4/29/86

TIME 1:25 A.M. (P.M.)

DIRECTION: N NNE NE ENE
E ESE SE SSE
S SSW SW WSW
W WNW (NW) NNW

WEATHER Overcast, misting, ~65°F

SITE Sandfill Landfill #2

TDD# R05-8504-13

PHOTOGRAPHED BY: Kelly Walker

SAMPLE ID# (if applicable) N/A

DESCRIPTION: Photo looking across Sandfill #2 taken from the corner of Deguindre and Hamlin Roads.

FIELD PHOTOGRAPHY LOG SHEET

DATE 4/29/86

TIME 1:28 A.M. P.M.

DIRECTION: N NNE NE ENE
E ESE SE SSE
S SSW SW WSW
W WNW NW NNW

WEATHER Overcast, misting, ~65°F

SITE Sandfill Landfill #2

TDD# R05-8504-13

PHOTOGRAPHED BY: Kelly Walker

SAMPLE ID# (if applicable) N/A

DESCRIPTION: Photo of the west boundry ditch between Sandfill #2 and J+L site. Taken from Hamlin Road.

DATE 4/29/86

TIME 1:30 A.M. P.M.

DIRECTION: N NNE NE ENE
E ESE SE SSE
S SSW SW WSW
W WNW NW NNW

WEATHER overcast, misting, ~65°F

SITE Sandfill Landfill #2

TDD# R05-8504-13

PHOTOGRAPHED BY: Kelly Walker

SAMPLE ID# (if applicable) N/A

DESCRIPTION: Photo of the front gate on Hamlin Road with the dirt pile in front of it.

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 INFORMATION 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
2. Soils or Sediments - mg/kg or ppm

II. DEFINITION OF FOOTNOTES TO ANALYTICAL DATA

A. Organics

FOOTNOTE	DEFINITION	INTERPRETATION
UJ	Detection Limit (DL) is estimated because of a Quality Control (QC) protocol. DL is possibly above or below Contract Required Detection Limit (CRDL).	Compound was not detected
UB	Compound found in laboratory blank. No value above CRDL.	Compound was not detected
UJB	Compound found in laboratory blank, but not detected in sample. CRDL is estimated because of a QC protocol.	Compound was not detected
B	Compound found in blank. Two interpretations are possible:	
	a. If sample value is equivalent to DL to 5x blank concentration;	Compound value is semi-quantitative
	b. If sample value is greater than 5x the blank concentration.	Compound value is quantitative
JB	Compound found in blank, value is estimated because of QC protocol.	Compound value is semi-quantitative
R	Do Not Use Value. Major Violation of QC Protocol.	Compound value is not usable
C	Value adjusted for blank (an unacceptable procedure).	Compound value is semi-quantitative
J	Value is above CRDL and is an estimated value because of a QC protocol.	Compound value is semi-quantitative
Q	No Analytical Result.	Compound was not detected
N	Presumptive evidence for the presence of a compound as used for a Tentatively Identified Compound (TIC).	Compound value is semi-quantitative

B. Metals

FOOTNOTE	DEFINITION	INTERPRETATION
E	Estimated or not reported due to interference. See laboratory narrative.	Compound or element was not detected or value is semi-quantitative
s	Analysis by Method of Standard Additions (Look for a "+" footnote).	Value is quantitative
R	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 is semi-quantitative
+	Correlation coefficient for standard additions is less than 0.995. See review and laboratory narrative.	Data value is biased
[ ]	Value is real, but is above instrument DL and below CRDL.	Value may be quantitative or semi-quantitative
UJ	DL is estimated because of a QC protocol. DL is possibly above or below CRDL.	Compound or element was not detected
J	Value is above CRDL and is an estimated value because of a QC Protocol.	Value is semi-quantitative

	ITC	MEM 844	MEM 845	MEE 246	MEE 247	MEE 248	MEE 249				
	OTC	EE 158	EE 159	EE 918	EE 919	EE 920	EE 921				
	SAMPLE	S1	S2	S3	S4	S5	S6				
COMPOUND											
chloromethane											
bromomethane											
vinyl chloride											
chloroethane											
methylene chloride											
acetone											
carbon disulfide											
1,1-dichloroethene											
1,1-dichloroethane											
trans-1,2,-dichloroethene											
chloroform											
1,2-dichloroethane											
2-butanone											
1,1,1-trichloroethane											
carbon tetrachloride											
vinyl acetate											
bromodichloromethane											
1,1,2,2-tetrachloroethane											
1,2-dichloropropane											
trans-1,3-dichloropropene											
trichloroethene											
dibromochloromethane											
1,1,2-trichloroethane											
benzene											
cis-1,3-dichloropropene											
2-chloroethylvinylether											
bromoform											
2-hexanone											
4-methyl-2-pentanone											
tetrachloroethene											
toluene											
chlorobenzene											
ethylbenzene											
styrene											
total xylenes											
N-nitrosodimethylamine											
phenol											
aniline											
bis(2-chloroethyl)ether											
2-chlorophenol											
1,3-dichlorobenzene											
1,4-dichlorobenzene											
benzyl alcohol											
1,2-dichlorobenzene											
2-methylphenol											
bis(2-chloroisopropyl)ether											
4-methylphenol											
N-nitroso-di-n-propylamine											
hexachloroethane											
nitrobenzene											
isophrone											
2-nitrophenol											
2,4-dimethylphenol											
benzoic acid											
bis(2-chloroethoxy)methane											
2,4-dichlorophenol											
1,2,4-trichlorobenzene											
napthalene											
4-chloroaniline											
hexachlorobutadiene											
4-chloro-3-methylphenol											
2-methylnapthalene					21ug/kg J						
hexachlorocyclopentadiene											
2,4,6-trichlorophenol											
2,4,5-trichlorophenol											
2-chloronaphthalene											
2-nitroaniline											
dimethyl phthalate											
acenapthylene											
3-nitroaniline											
acenaphthene											
2,4-dinitrophenol											
4-nitrophenol											
dibenzofuran											
2,4-dinitrotoluene											
2,6-dinitrotoluene											
diethylphthalate											
4-chlorophenyl-phenylether											
fluorene					38ug/kg J	21ug/kg J					
4-nitroaniline											
4,6-dinitro-2-methylphenol											
N-nitrosodiphenylamine											
4-bromophenyl-phenylether											
hexachlorobenzene											

STATE MICHIGAN SITE SANDFILL LANDFILL #2 TDD R05-8704-13 PAGE 1 OF 2, SET # 1

COMPOUND						
ITC	MEM844	MEM845	MEE 246	MEE 247	MEE248	MEE249
OTC	EE 158	EE 159	EE918	EE919	EE920	EE921
SAMPLE	S1	S2	S3	S4	S5	S6
pentachlorophenol						
phenanthrene	150 ug/kg J		100 ug/kg J	74 ug/kg J	120 ug/kg J	260 ug/kg J
anthracene	32 ug/kg J					38 ug/kg J
di-n-butylphthalate						
fluoranthene	240 ug/kg J	130 ug/kg J	130 ug/kg J	130 ug/kg J	210 ug/kg J	540 ug/kg
benzidine						
pyrene	250 ug/kg J	130 ug/kg J	150 ug/kg J	140 ug/kg J	220 ug/kg J	440 ug/kg
butylbenzylphthalate						
3,3'-dichlorobenzidine	110 ug/kg J					
benzo(a)anthracene			78 ug/kg J	67 ug/kg J	100 ug/kg J	200 ug/kg J
bis(2-ethylhexyl)phthalate						
chrysene	130 ug/kg J	80 ug/kg J	74 ug/kg J	74 ug/kg J	120 ug/kg J	230 ug/kg J
di-n-octylphthalate						
benzo(b&k)fluoranthene	330 ug/kg J					260 ug/kg J
benzo(a)pyrene				61 ug/kg J	76 ug/kg J	180 ug/kg J
indeno(1,2,3-cd)pyrene						130 ug/kg J
dibenzo(a,h)anthracene						53 ug/kg J
benzo(g,h,i)perylene						140 ug/kg J
alpha-BHC						
beta-BHC						
delta-BHC						
gamma-BHC(lindane)						
heptachlor						
aldrin						
heptachlor epoxide						
endosulfan I						
dieldrin						
4,4'-DDE		82 ug/kg				28 ug/kg
endrin						
endosulfan II						
4,4'-DDD		210 ug/kg				
endrin aldehyde						
endosulfan sulfate						
4,4'-DDT		230 ug/kg				84 ug/kg
methoxychlor						
endrin ketone						
chlordane						
toxaphene						
Aroclor-1016						
Aroclor-1221						
Aroclor-1232						
Aroclor-1242						
Aroclor-1248						
Aroclor-1254						
Aroclor-1260						
ELEMENT						
aluminum	7880 mg/kg J	8910 mg/kg J	7180 mg/kg J	7250 mg/kg J	14100 mg/kg J	6080 mg/kg J
antimony						
arsenic					30 mg/kg	
barium						
beryllium						
cadmium						
calcium	53800 mg/kg	34000 mg/kg	55700 mg/kg	46200 mg/kg	80400 mg/kg	11,500 mg/kg
chromium	279 mg/kg	67 mg/kg	41 mg/kg	24 mg/kg	168 mg/kg	
cobalt						
copper						
iron	14700 mg/kg J	17600 mg/kg J	14400 mg/kg J	16000 mg/kg J	45700 mg/kg J	10200 mg/kg J
lead	45 mg/kg J	34 mg/kg J	30 mg/kg J	21 mg/kg J	45 mg/kg J	114 mg/kg J
magnesium	15200 mg/kg	11300 mg/kg	14400 mg/kg	15000 mg/kg	22500 mg/kg	4480 mg/kg
manganese	993 mg/kg	363 mg/kg	307 mg/kg	301 mg/kg	580 mg/kg	445 mg/kg
mercury						
nickel	71 mg/kg	41 mg/kg	46 mg/kg	26 mg/kg	54 mg/kg	
potassium						
selenium						
silver						
sodium						
thallium						
tin						
vanadium						
zinc	154 mg/kg	114 mg/kg	54 mg/kg	58 mg/kg	234 mg/kg	235 mg/kg
cyanide CHECK IF ANALYZED ( )						
TENTATIVELY IDENTIFIED ORGANICS						

STATE MICHIGAN SITE SANDFILL LANDFILL #2 TDD R05-8504-13 PAGE 2 OF 2, SET # 1

MI0104-07

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

Date Received for Review: 5/27/86 Date Review Completed: 6/3/86

TO: Kelly Walker

FROM: Suzanne Kozlowski

SUBJECT: Sandfill Landfill #2 Michigan R05-8504-13

Sample Description: Case # 5914 six low soil metals analyses

Project Data Status: waiting for soil organics

FIT Data Review Findings:

Al, Fe, Pb and Se results are estimated.
Chromium and nickel found in most samples
✓ indicate toxic metals

Additional Comments:

Book No. 5
Page No. 136

recycled paper

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 5-22-86

SUBJECT: Review of Region V CLP Data
Received for Review on 5/15/86

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

TO: Data User: Fit

RECEIVED MAY 27 1986

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

SITE NAME: Sandfill Landfill #2 SMO Case No. 5914

EPA Data Set No. SF 3196 No. of Samples: 6 D.U./Activity Numbers Y905 / C48500

CRL No. 86FW06544 - 86FW06549

SMO Traffic No. MEM844 - MEM845; MEE246 - MEE249

CLP Laboratory: Wilson Hrs. Required for Review: 6

Following are our findings.

This review covers analysis of six low level soil samples for total metals. Duplicates above CLP RPD are Al(30), Fe (29), and Pb (23). Spike recovery for Se (60%) is below CLP limits. The detection limit for that Se sample may be biased low. Data results for all prior mentioned elements are estimated. Spike recovery for Pb is 0% but not flagged, since the sample concentration is more than four times the spike added. It is advised a larger (50 ug/l) spike should have been used. Hg shows a different continuing cal verification std at end of run from others.

5-22-86
DM

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

FORM 1320-6 (REV 3-76)

QC EXCEPTION SUMMARY REPORT

CASE # 5914
DATA SET # SF 3196
LAB Q.C.# 5914
DATE: 5-22-86

SITE Sandfill Landfill #2
LAB Wilson
REVIEWED BY Dorothy M. May

MATRIX: soil
CONC. : low

WATER SAMPLE SPK.
WATER SAMPLE DUP.
SOIL SAMPLE SPK. MEE 249
SOIL SAMPLE DUP. MEE 249

	OVERALL CASE QC									MATRIX SPECIFIC QC						SAMPLE SPECIFIC QC		FIELD QC			REGIONAL QC			OTHER/ COMMENTS
	Holding Time	Cal Blanks	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 Diln AQ	Ser Diln SOL	GFAA Dup	GFAA Spike	Blank	Dup RPD	Spike %R	Blind Blank	Blind Spike %R	Split Sample RPD	
Aluminum										30														
Antimony																								
Arsenic																								
Barium																								
Beryllium																								
Cadmium																								
Calcium																								
Chromium																								
Cobalt																								
Copper																								
Iron										29														
Lead										23														
Magnesium																								
Manganese																								
Mercury																								
Nickel																								
Potassium																								
Selenium											60%													
Silver																								
Sodium																								
Thallium																								
Tin																								
Vanadium																								
Zinc																								
Cyanide																								

RECEIVED MAY 27 1986

U.S. EPA CONTRACT LABORATORY PROGRAM
SAMPLE MANAGEMENT OFFICE
P.O. BOX 818 - ALEXANDRIA, VA 22313
703/557-2409 FTS: 8-557-2490

DATE 86/05/13

COVER PAGE

5F3196

INORGANIC ANALYSIS DATA PACKAGE

RECEIVED MAY 27 1986

LAB NAME WILSON LABORATORIES
SDG NO. 784

CASE NO. 5914
Q.C. REPORT NO. 5914

SAMPLE NUMBERS

EPA NO.	LAB ID NO.	EPA NO.	LAB ID NO.
MEE246	8605-0716	MEE247	8605-0717
MEE248	8605-0718	MEE249	8605-0719
MEE249	8605-0722P	MEE249	8605-0723A
MEM844	8605-0720	MEM845	8605-0721

RECEIVED
MAY 15 1986
U.S. EPA CENTRAL REGIONAL LAB.
536 S. CLARK STREET
CHICAGO, ILLINOIS 60605

COMMENTS:

IF INTERELEMENT AND BACKGROUND CORRECTIONS APPLIED? YES X NO
IF YES, CORRECTIONS APPLIED BEFORE X OR AFTER GENERATION OF RAW DATA

FOOTNOTES:

R - NOT REQUIRED BY CONTRACT AT THIS TIME

FORM I:

VALUE - IF THE RESULT IS A VALUE GREATER THAN OR EQUAL TO THE INSTRUMENT DETECTION LIMIT BUT LESS THAN THE CONTRACT REQUIRED DETECTION LIMIT, REPORT THE VALUE IN BRACKETS (I.E.,[10]). INDICATE THE ANALYTICAL METHOD USED WITH P (FOR ICP/AA) OR F (FOR FURNACE).

- INDICATES ELEMENT WAS ANALYZED FOR BUT NOT DETECTED. REPORT WITH THE DETECTION LIMIT VALUE (E.G., 10U).

E - INDICATES A VALUE ESTIMATED OR NOT REPORTED DUE TO THE PRESENCE OF INTERFERENCE. EXPLANATORY NOTE INCLUDED ON COVER PAGE

- INDICATES VALUE DETERMINED BY METHOD OF STANDARD ADDITION

S - INDICATES SPIKE SAMPLE RECOVERY IS NOT WITHIN CONTROL LIMITS

- INDICATES DUPLICATE ANALYSIS IS NOT WITHIN CONTROL LIMITS

- INDICATES THE CORRELATION COEFFICIENT FOR METHOD OF STANDARD ADDITION IS LESS THAN 0.995

FORM I

86FW06544

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.
MEM844

DATE 86/05/13

INORGANIC ANALYSIS DATA SHEET

RECEIVED MAY 27 1986

LAB NAME WILSON LABORATORIES
SOW NO. 764
LAB SAMPLE ID. NO. 8605-0720

CASE NO. 5817
QC REPORT NO. 5914

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	7880 * J	F	13.	MAGNESIUM	15200	F
2.	ANTIMONY	38 U	F	14.	MANGANESE	993	F
3.	ARSENIC	6.3 U	F	15.	MERCURY	.13 U	
4.	BARIUM	[63 J	F	16.	NICKEL	71	F
5.	BERYLLIUM	1.9 U	F	17.	POTASSIUM	3010 U	F
6.	CADMIUM	3.1 U	F	18.	SELENIUM	3.1 U R UJ	F
7.	CALCIUM	53800	F	19.	SILVER	6.3 U	F
8.	CHROMIUM	279	F	20.	SODIUM	1500 U	F
9.	COBALT	24 U	F	21.	THALLIUM	6.3 U	F
10.	COPPER	11 U	F	22.	TIN	25 U	F
11.	IRON	14700 * J	F	23.	VANADIUM	22 U	F
12.	LEAD	45 ~~R~~ * J	F	24.	ZINC	154	F
	CYANIDE				PERCENT SOLIDS (%)	79	

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 Kathi A. Mitchell

FORM I

86FWD6545

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.
MEM645

DATE 86/05/13

INORGANIC ANALYSIS DATA SHEET

RECEIVED MAY 27 1986

LAB NAME WILSON LABORATORIES
SOW NO. 784
LAB SAMPLE ID. NO. 8605-0721

CASE NO. 5914
QC REPORT NO. 5914

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	8990 * J	P	13.	MAGNESIUM	11300	P
2.	ANTIMONY	46 U	P	14.	MANGANESE	363	P
3.	ARSENIC	7.6 U	F	15.	MERCURY	.15 U	
4.	BARIUM	[61]	P	16.	NICKEL	41	P
5.	BERYLLIUM	2.3 U	P	17.	POTASSIUM	3660 U	P
6.	CADMIUM	3.8 U	P	18.	SELENIUM	3.8 U R UJ	F
7.	CALCIUM	34000	P	19.	SILVER	7.6 U	P
8.	CHROMIUM	67	P	20.	SODIUM	1830 U	P
9.	COBALT	29 U	P	21.	THALLIUM	7.6 U	F
10.	COPPER	13 U	P	22.	TIN	30 U	P
11.	IRON	17600 * J	P	23.	VANADIUM	27 U	P
12.	LEAD	34 R * J	F	24.	ZINC	114	P
	CYANIDE				PERCENT SOLIDS (%)	65	

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 Kathi A. Mitchell

FORM I

86FW06546

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. MEE246

DATE 86/05/13

INORGANIC ANALYSIS DATA SHEET

RECEIVED MAY 27 1986

LAB NAME WILSON LABORATORIES
SOW NO. 784
LAB SAMPLE ID. NO. 8605-0716

CASE NO. 5914

QC REPORT NO. 5914

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	7180 * J	P	13.	MAGNESIUM	14400	P
2.	ANTIMONY	37 U	P	14.	MANGANESE	307	P
3.	ARSENIC	6.2 U	F	15.	MERCURY	.13 U	
4.	BARIUM	37 U	P	16.	NICKEL	46	P
5.	BERYLLIUM	1.9 U	P	17.	POTASSIUM	2970 U	P
6.	CADMIUM	3.1 U	P	18.	SELENIUM	3.1 U R UJ	F
7.	CALCIUM	55100	P	19.	SILVER	6.2 U	P
8.	CHROMIUM	41	P	20.	SODIUM	1490 U	P
9.	COBALT	24 U	P	21.	THALLIUM	6.2 U	F
10.	COPPER	11 U	P	22.	TIN	25 U	P
11.	IRON	14400 * J	P	23.	VANADIUM	22 U	P
12.	LEAD	20 ~~*~~ * J	F	24.	ZINC	54	P
	CYANIDE				PERCENT SOLIDS (%)	60	

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 Kathi A. Mitchell

FORM I

86FW06547

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.
MEE247

DATE 86/05/13

INORGANIC ANALYSIS DATA SHEET

RECEIVED MAY 27 1986

LAB NAME WILSON LABORATORIES
SOW NO. 784
LAB SAMPLE ID. NO. 8605-0717

CASE NO. 5914
QC REPORT NO. 5914

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	7250 * J	P	13.	MAGNESIUM	15000	P
2.	ANTIMONY	37 U	P	14.	MANGANESE	301	P
3.	ARSENIC	6.1 U	F	15.	MERCURY	.12 U	
4.	BARIUM	37 U	P	16.	NICKEL	26	P
5.	BERYLLIUM	1.8 U	P	17.	POTASSIUM	2930 U	P
6.	CADMIUM	3.1 U	P	18.	SELENIUM	3.1 U R UJ	F
7.	CALCIUM	46200	P	19.	SILVER	6.1 U	P
8.	CHROMIUM	24	P	20.	SODIUM	1470 U	P
9.	COBALT	23 U	P	21.	THALLIUM	6.1 U	F
10.	COPPER	10 U	P	22.	TIN	24 U	P
11.	IRON	16000 * J	P	23.	VANADIUM	21 U	P
12.	LEAD	21 ~~R~~ * J	F	24.	ZINC	58	P
	CYANIDE				PERCENT SOLIDS (%)	81	

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 Kathi A. Mitchell

FORM I

86FW06548

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.
MEE24B

DATE 86/05/13

INORGANIC ANALYSIS DATA SHEET

RECEIVED MAY 27 1986

LAB NAME WILSON LABORATORIES
CASE NO. 5812
SDG NO. 784
LAB SAMPLE ID. NO. 8605-0718
QC REPORT NO. 5914

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	14100 * J	P	13.	MAGNESIUM	22500	P
2.	ANTIMONY	74 U	P	14.	MANGANESE	590	P
3.	ARSENIC	30	F	15.	MERCURY	.25 U	
4.	BARIUM	[210]	P	16.	NICKEL	54	P
5.	BERYLLIUM	3.7 U	P	17.	POTASSIUM	5940 U	P
6.	CADMIUM	6.2 U	P	18.	SELENIUM	6.2 U R UJ	F
7.	CALCIUM	80400	P	19.	SILVER	12 U	P
8.	CHROMIUM	168	P	20.	SODIUM	2970 U	P
9.	COBALT	47 U	P	21.	THALLIUM	12 U	F
10.	COPPER	21 U	P	22.	TIN	50 U	P
11.	IRON	45700 * J	P	23.	VANADIUM	43 U	P
12.	LEAD	45 ~~R~~ * J	F	24.	ZINC	234	P

CYANIDE PERCENT SOLIDS (%) 40

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 Kathy A. Mitchell

FORM I

86FW06549

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.
MEE249

DATE 86/05/13

INORGANIC ANALYSIS DATA SHEET

RECEIVED MAY 27 1986

LAB NAME WILSON LABORATORIES
SOW NO. 784
LAB SAMPLE ID. NO. 8605-0719

CASE NO. 5914
QC REPORT NO. 5914

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	6080 * J	P	13.	MAGNESIUM	4460	P
2.	ANTIMONY	37 U	P	14.	MANGANESE	445	P
3.	ARSENIC	6.2 U	F	15.	MERCURY	.13 U	
4.	BARIUM	[62]	P	16.	NICKEL	19 U	P
5.	BERYLLIUM	1.9 U	P	17.	POTASSIUM	2970 U	P
6.	CADMIUM	3.1 U	P	18.	SELENIUM	3.1 U R UJ	F
7.	CALCIUM	11500	P	19.	SILVER	6.2 U	P
8.	CHROMIUM	6.2 U	P	20.	SODIUM	1490 U	P
9.	COBALT	24 U	P	21.	THALLIUM	6.2 U	F
10.	COPPER	11 U	P	22.	TIN	25 U	P
11.	IRON	10200 * J	P	23.	VANADIUM	22 U	P
12.	LEAD	114 ~~R~~ * J	F	24.	ZINC	235	P
	CYANIDE				PERCENT SOLIDS (%)	80	

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 Kathi a Mitchell

FORM III A

Q. C. REPORT NO. 5914

BLANKS

RECEIVED MAY 2 7 1986

LAB NAME WILSON LABORATORIES CASE NO. 5914

DATE 86/05/13 UNITS UG/L

MATRIX WATER

COMPOUND	INITIAL CALIBRATION BLANK VALUE	CONTINUING CALIBRATION BLANK VALUE 1	2	3	4	PREPARATION BLANK MATRIX: 1 7 MAY	MATRIX: 2
METALS:	I	II	I	I	I	II	I
	I	II	I	I	I	II	I
1. ALUMINUM	I 160 U	II 160 U	I 160 U	I	I	II 160 U	I
2. ANTIMONY	I 60 U	II 60 U	I 60 U	I	I	II 60 U	I
3. ARSENIC	I 5 U	II 5 U	I 5 U	I	I	II 5 U	I
4. BARIUM	I 60 U	II 60 U	I 60 U	I	I	II 60 U	I
5. BERYLLIUM	I 3 U	II 3 U	I 3 U	I	I	II 3 U	I
6. CADMIUM	I 5 U	II 5 U	I 5 U	I	I	II 5 U	I
7. CALCIUM	I 4500 U	II 4500 U	I 4500 U	I	I	II 4500 U	I
8. CHROMIUM	I 10 U	II 10 U	I 10 U	I	I	II 10 U	I
9. COBALT	I 38 U	II 38 U	I 38 U	I	I	II 38 U	I
10. COPPER	I 17 U	II 17 U	I 17 U	I	I	II 17 U	I
11. IRON	I 80 U	II 80 U	I 80 U	I	I	II 80 U	I
12. LEAD	I 2.5 U	II 2.5 U	I 2.5 U	I	I	II 2.5 U	I
13. MAGNESIUM	I 3600 U	II 3600 U	I 3600 U	I	I	II 3600 U	I
14. MANGANESE	I 11 U	II 11 U	I 11 U	I	I	II 11 U	I
15. MERCURY	I .2 U	II .2 U	I .2 U	I	I	II .2 U	I
16. NICKEL	I 31 U	II 31 U	I 31 U	I	I	II 31 U	I
17. POTASSIUM	I 4800 U	II 4800 U	I 4800 U	I	I	II 4800 U	I
18. SELENIUM	I 2.5 U	II 2.5 U	I 2.5 U	I	I	II 2.5 U	I
19. SILVER	I 10 U	II 10 U	I 10 U	I	I	II 10 U	I
20. SODIUM	I 2400 U	II 2400 U	I 2400 U	I	I	II 2400 U	I
21. THALLIUM	I 5 U	II 5 U	I 5 U	I	I	II 5 U	I
22. TIN	I 40 U	II 40 U	I 40 U	I	I	II 40 U	I
23. VANADIUM	I 35 U	II 35 U	I 35 U	I	I	II 35 U	I
24. ZINC	I 17 U	II 17 U	I 17 U	I	I	II 17 U	I
OTHER:							
CYANIDE	I	II	I	I	I	I	I

FORM III B

Q. C. REPORT NO. 5914

BLANKS

LAB NAME WILSON LABORATORIES CASE NO. 5914

DATE 86/05/13 UNITS UG/L

MATRIX WATER

RECEIVED MAY 27 1986

COMPOUND	INITIAL CALIBRATION BLANK VALUE	CONTINUING CALIBRATION BLANK VALUE 1	2	3	4	PREPARATION BLANK MATRIX: 1	MATRIX: 2
METALS:	I	II	I	I	I	II	I
	I	II	I	I	I	II	I
1. ALUMINUM	I	II	I	I	I	I	I
2. ANTIMONY	I	II	I	I	I	I	I
3. ARSENIC	I	II 5 U	I	I	I	I	I
4. BARIUM	I	II	I	I	I	I	I
5. BERYLLIUM	I	II	I	I	I	I	I
6. CADMIUM	I	II	I	I	I	I	I
7. CALCIUM	I	II	I	I	I	I	I
8. CHROMIUM	I	II	I	I	I	I	I
9. COBALT	I	II	I	I	I	I	I
10. COPPER	I	II	I	I	I	I	I
11. IRON	I	II	I	I	I	I	I
12. LEAD	I	II 2.5 U	I 2.5 U	I 2.5 U	I	I	I
13. MAGNESIUM	I	II	I	I	I	I	I
14. MANGANESE	I	II	I	I	I	I	I
15. MERCURY	I	II .2 U	I .2 U	I	I	I	I
16. NICKEL	I	II	I	I	I	I	I
17. POTASSIUM	I	II	I	I	I	I	I
18. SELENIUM	I	II 2.5 U	I	I	I	I	I
19. SILVER	I	II	I	I	I	I	I
20. SODIUM	I	II	I	I	I	I	I
21. THALLIUM	I	II 5 U	I	I	I	I	I
22. TIN	I	II	I	I	I	I	I
23. VANADIUM	I	II	I	I	I	I	I
24. ZINC	I	II	I	I	I	I	I
OTHER:							
CYANIDE	I	II	I	I	I	I	I

FORM V A

Q. C. REPORT NO. 5914

RECEIVED MAY 2 7 1986

SPIKE SAMPLE RECOVERY

LAB NAME WILSON LABORATORIES

CASE NO. 5914
EPA SAMPLE NO. MEE249
LAB SAMPLE ID NO. 8605-0719
UNITS UG/L

DATE 86/05/13

MATRIX SOLID

COMPOUND	CONTROL LIMIT %R	SPIKED SAMPLE RESULT (SSR)	SAMPLE RESULT (SR)	SPIKED ADDED (SA)	% R
METALS:					
1. ALUMINUM	75 - 125	12730	9830	0	N
2. ANTIMONY	''	510	60 U	500	102
3. ARSENIC	''	48	10 U	40	120
4. BARIUM	''	2160	100	2000	103
5. BERYLLIUM	''	50	3 U	50	100
6. CADMIUM	''	45	5 U	50	90
7. CALCIUM	''	21100	18600	0	N
8. CHROMIUM	''	247	10 U	200	124
9. COBALT	''	499	38 U	500	100
10. COPPER	''	228	17 U	250	91
11. IRON	''	18750	16470	0	N
12. LEAD	''	184	184	20	0 R
13. MAGNESIUM	''	8600	7200	0	N
14. MANGANESE	''	1251	719	500	106
15. MERCURY	''	.4	.1 U	.43	92
16. NICKEL	''	571	31 U	500	114
17. POTASSIUM	''	4800 U	4800 U	0	N
18. SELENIUM	''	6	5 U	10	60 R
19. SILVER	''	50	10 U	50	100
20. SODIUM	''	2400 U	2400 U	0	N
21. THALLIUM	''	54	10 U	50	108
22. TIN	''	530	40 U	500	106
23. VANADIUM	''	532	35 U	500	106
24. ZINC	''	905	380	500	105
OTHER:					
CYANIDE	''				

Kam 86/05/

1 %R = [(SSR -SR) / SA] X 100
''R'' - OUT OF CONTROL
N - NO SPIKE REQUIRED
COMMENTS: MERCURY AND CYANIDE DATA EXPRESSED IN MG/KG

FORM VI A

Q. C. REPORT NO. 5914

RECEIVED MAY 27 1986

DUPLICATES

AB NAME WILSON LABORATORIES

CASE NO. 5914
EPA SAMPLE NO. MEE249
LAB SAMPLE ID NO. 8605-0719
UNITS UG/L

A E 86/05/13

MATRIX SOLID

COMPOUND	CONTROL LIMIT 1	SAMPLE(S)	DUPLICATE(D)	RPD 2
METALS:				
1. ALUMINUM		9830	13250	30 *
2. ANTIMONY		60 U	60 U	NC
3. ARSENIC		10 U	10 U	NC
4. BARIUM		100	110	10
5. BERYLLIUM		3 U	3 U	NC
6. CADMIUM		5 U	5 U	NC
7. CALCIUM		18600	17900	4
8. CHROMIUM		10 U	10 U	NC
9. COBALT		38 U	38 U	NC
10. COPPER		17 U	17 U	NC
11. IRON		16470	21960	29 *
12. LEAD		184	146	23 *
13. MAGNESIUM		7200	8300	14
14. MANGANESE		719	851	17
15. MERCURY		.1 U	.1 U	NC
16. NICKEL		31 U	31 U	NC
17. POTASSIUM		4800 U	4800 U	NC
18. SELENIUM		5 U	5 U	NC
19. SILVER		10 U	10 U	NC
20. SODIUM		2400 U	2400 U	NC
21. THALLIUM		10 U	10 U	NC
22. TIN		40 U	40 U	NC
23. VANADIUM		35 U	35 U	NC
24. ZINC		380	380	0
OTHER:				
CYANIDE				

1 OUT OF CONTROL
2 TO BE ADDED AT A LATER DATE. 2 RPD =[I S - D I / ((S + D) / 2)] X 10
NC - NON CALCULABLE RPD DUE TO VALUE(S) LESS THEN CRDL
COMMENTS: MERCURY AND CYANIDE DATA EXPRESSED IN MG/KG

MI-0104-08

ecology and environment, inc.

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

International Specialists in the Environment

Date Received for Review: 6-19-86 Date Review Completed: 6-20-86

To: Kelly Walker

From: Cynthia Pugh

Subject: Sandfill Landfill (Michigan)
(RS-8504-13)

Sample Description: Case # 5914: Low Soil Organics

Project Data Status: Complete

FIT Data Review Findings:

Data Acceptable - Note comments/qualifications on attached review sheet & User's Info. Section

Additional Comments:

Book No. 5
Page No. 136

recycled paper

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 6/17/86

RECEIVED JUN 19 1986

SUBJECT: Review of Region V CLP Data
Received for Review on _____3 JUNE 86_____

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

TO; Data User:_____FIT_____

_____

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

SITE NAME_____SANDFILL LANDFILL_____ SMO Case No. _5914_____
NO. OF D.U./ACTIVITY
EPA DATA SET NO__SF_3196___SAMPLES_6_____NUMBERS__Y905/C48500___

CRL No:___86FW06S44 - 86FW06S49_____

SMO Traffic No._____EE 158-159, EE 918-921_____

CLP Laboratory:_____UBTL_____ Hrs. Required for Review:__4_____

Following are our findings.

A TIMES ACCEPTABLE

B SURROGATES ACCEPTABLE. SEE LAB NARRATIVE ABOUT DBC IN EE920.

C MS/MSD ACCEPTABLE. SEE LAB NARRATIVE ABOUT DIELDRIN INTERFERENCE. 4/12 %R OUT FOR PESTICIDE AND 3/6 OUT FOR R%D.

D LAB BLANK VOA BLANK HAD CARBON DISULFIDE (CRDL AND THE SV HAD 3 TIC"s. PESTICDES ARE ACCEPTABLE

E TUNING ACCEPTABLE

F CALIBRATION INITIAL
FOR VOA;
2-BUTANONE (0.05 RF-AVE THEREFORE NOT ANALYZED FOR.
VINYL ACETATE AND 2-CHLOROETHYLVINYL ETHER
(0.30 AND)0.05 RF-AVE

Reviewed 11 June 86 Thomas B. Lyons

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

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

RECEIVED JUN 1 9 1986

SITE NAME_____SANDFILL LANDFILL_____SMO Case No. _5914_____

%RSD ACCEPTABLE
FOR SV;
4-CHLOROANILINE AND 3-NITROANILINE <0.05 RF-AVE THEREFORE NOT ANALYZED FOR. 2 %RSD OUT.
CONTINUOUS
FOR VOA;

86-05-03 VINYL ACETATE <0.05 RF, THEREFORE NOT ANALYZED FOR. 2-BUTANONE, 1,1,2-TRICHLOROETHANE AND 2-CHLOROETHYL VINYL EHTHER <0.30 AND >0.05 RF. 6 %D OUT
FOR SV,

86-05-17 4-CHLOROANILINE AND 3-NITOROANILINE <0.05 RF, THEREFORE NOT ANALYZED FOR. 6 %D OUT.

6 PESTICIDE SEE LAB NARRATIVE. PESTICIDE ACCEPTABLE.

RECEIVED JUN 19 1986

<<<< USER'S INFORMATION >>>>

SAND FILL LANDFILL SMO CASE #5914

DATE: 11 JUNE 86 REVIEWER: TOM CLYNE
ECOLOGY & ENVIRONMENT

= HSL HITS!
Tom

EE 158	HSL	VOA	NONE		
		SV	8 COMPOUNDS --J-- <CRDL		
		PEST	NONE		
	TIC	VOA	NONE		
		SV	16 MOSTLY HYDROCARBONS.		
EE 159	HSL	VOA	NONE		
		SV	4 PAH --J-- < CRDL		
		PEST	4,4'DDE	82 UG/KG	#
			4,4'DDD	210	#
			4,4"DDT	230	#
	TIC	VOA	NONE		
		SV	10 MOSTLY HYDROCARBONS.		
EE 918	HSL	VOA	NONE		
		SV	7 PAH --J-- <CRDL		
		PEST	NONE		
	TIC	VOA	NONE		
		SV	9 COMPOUNDS		
EE 919	HSL	VOA	NONE		
		SV	7 PAH <CRDL		
		PEST	NONE		
	TIC	VOA	NONE		
		SV	20 MOSTLY HYDROCARBONS		
EE 420	HSL	VOA	BENZENE	4.1 J <CRDL	
		SV	8 PAH --J-- <CRDL		
		PEST	NONE		
	TIC	VOA	2 COMPOUNDS		
			20 MOSTLY HYDROCARBONS		
				UG/KG	
EE 421	HSL	VOA	TOLUENE	1.5 J <CRDL	
		SV	FLUORENE	21J	
			PHENANTHRACENE	38J	
			ANTHRACENE	38J	
			FLUORAANTHENE	540	#
			PYRENE	440	#
			BENZO-(a)-ANTHRACENE	200 J	
			CHRYSENE	230J	
			BENZO-(b)-FLUORANTHENE	260J	
			BENZO-(k)-FLUORANTHENE	100J	
			BENZO-(a)-PYRENE	180J	
			INDO-1,2,3-cd-PYRENE	130J	
			DIBENZO-a,h-ANTHRACENE	53J	
			BENZO-ghi-PERYLENE	140J	
			ALL --J-- <CRDL		

SANDFILL LANDFILL CASE SMO# 5914

EE 421 CON'T

	PEST	4,4'DDE	28	RECEIVED JUN 19 1986
		4,4'DDT	84	#
TIC	VOA	NONE		
	SV	15 MOSTLY HYDROCARBONS		

SUMMARY

THERE ARE MANY PAH HITS IN THIS SET OF SAMPLES. MOST ARE ARE --J-- BECAUSE THEY ARE <CRDL. THERE ARE HITS FOR HRS IN EE421 AND EE159 FOR PAH AND PESTICIDES THAT CAN BE USED FOR HRS.

TOM

RECEIVED JUN 1 5 1988

CASE: 5914

	1	2	3	4	5	6	7	8	9	10
TIC										
OTC	EE 150	EE 159	EE 918	EE 919	EE 920	EE 921				
SAMPLE	µg/Kg	→				→				
COMPOUND										
chloromethane										
bromomethane										
vinyl chloride										
chloroethane										
methylene chloride	8.8 B		2.1 JB	2.78 B	5.55 B	2.5 B				
acetone	24 B	35 B	21 B	34 JB	22 JB	3.0 JB				
carbon disulfide			16 J							
1,1-dichloroethene										
1,1-dichloroethane										
trans-1,2,-dichloroethene										
chloroform										
1,2-dichloroethane										
2-butanone										
1,1,1-trichloroethane										
carbon tetrachloride										
vinyl acetate										
bromodichloromethane										
1,1,2,2-tetrachloroethane										
1,2-dichloropropane										
trans-1,3-dichloropropene										
trichloroethene										
dibromochloromethane										
1,1,2-trichloroethane										
benzene					6.1 J					
cis-1,3-dichloropropene										
2-chloroethylvinylether										
bromoform										
2-hexanone										
4-methyl-2-pentanone										
tetrachloroethene										
toluene						1.5 J				
chlorobenzene										
ethylbenzene										
styrene										
total xylenes										
N-nitrosodimethylamine										
phenol										
aniline										
bis(2-chloroethyl)ether										
2-chlorophenol										
1,3-dichlorobenzene										
1,4-dichlorobenzene										
benzyl alcohol										
1,2-dichlorobenzene										
2-methylphenol										
bis(2-chloroisopropyl)ether										
4-methylphenol										
N-nitroso-di-n-propylamine										
hexachloroethane										
nitrobenzene										
isophrone										
2-nitrophenol										
2,4-dimethylphenol										
benzoic acid										
bis(2-chloroethoxy)methane										
2,4-dichlorophenol										
1,2,4-trichlorobenzene										
napthalene										
4-chloroaniline										
hexachlorobutadiene										
4-chloro-3-methylphenol										
2-methylnapthalene					21 J					
hexachlorocyclopentadiene										
2,4,6-trichlorophenol										
2,4,5-trichlorophenol										
2-chloronaphthalene										
2-nitroaniline										
dimethyl pnthalate		81 J	18 J							
acenapthylene										
3-nitroaniline										
acenaphthene										
2,4-dinitrophenol										
4-nitrophenol										
dibenzofuran										
2,4-dinitrotoluene										
2,6-dinitrotoluene										
diethylphthalate										
4-chlorophenyl-phenylether										
flourene					38 J	21 J				
4-nitroaniline										
4,6-dinitro-2-methylphenol										
N-nitrosodiphenylamine										
4-bromophenyl-phenylether										
hexachlorobenzene										

J = Use for HRS

J = Semi quantative unmarked means an artifact TC

STATE _____ SITE _____ TDD _____ PAGE 1 OF 2, SITE _____

CASE: 5914

RECEIVED JUN 19 1986

	1	2	3	4	5	6	7	8	9	10
STC										
OTC	EE 159	EE 159	EE 918	EE 919	EE 920	EE 921				
SAMPLE	ug/kg	→								
COMPOUND										
pentachlorophenol										
phenanthrene	190 J	68 J	100 J	74 J	120 J	240 J				
anthracene	32 J		20 J	20 J		38 J				
di-n-butylphthalate			26 J	53 J		26 J				
fluoranthene	240 J	130 J	180 J	130 J	210 J	~~[illegible]~~	640	HRS		
benzidine										
pyrene	250 J	130 J	150 J	140 J	220 J	440		HRS		
butylbenzylphthalate						19 J				
3,3'-dichlorobenzidine										
benzo(a)anthracene	110 J		78 J	67 J	100 J	200 J				
bis(2-ethylhexyl)phthlate										
chrysene	130 J	80 J	94 J	74 J	120 J	230 J				
di-n-octyl phthlate										
benzo(bbk)fluoranthene	180/120					200 J / 100 J				
benzo(a)pyrene				61 J	76 J	180 J				
indeno(1,2,3-cd)pyrene						190 J				
dibenzo(a,h)anthracene						53 J				
benzo(g,h,i)perylene						140 J				
alpha-BHC										
beta-BHC										
delta-BHC										
gamma-BHC (lindane)										
heptachlor										
aldrin										
heptachlor epoxide										
endosulfan I										
dieldrin										
4,4'-DDE		82						HRS		
endrin										
endosulfan II										
4,4'-DDD		210						HRS		
endrin aldehyde										
endosulfan sulfate										
4,4'-DDT		230						HRS		
methoxychlor										
endrin ketone										
chlordane										
toxaphene										
Aroclor-1016										
Aroclor-1221										
Aroclor-1232										
Aroclor-1242										
Aroclor-1248										
Aroclor-1254										
Aroclor-1260										
ELEMENT										
aluminum										
antimony										
arsenic										
barium										
beryllium										
cadmium										
calcium										
chromium										
cobalt										
copper										
iron										
lead										
magnesium										
manganese										
mercury										
nickel										
potassium										
selenium										
silver										
sodium										
thallium										
tin										
vanadium										
zinc										
cyanide CHECK IF ANALYZED ( )										
TENTATIVELY IDENTIFIED ORGANICS										

○ = use for HRS

□ = semi quantative

= unmarked means an artifact

TC

STATE _____ SITE _____ TDD _____ PAGE 2 OF 2, SCT # ____

UBTL, INC.
520 WAKARA WAY • SALT LAKE CITY, UTAH 84108 • 801 / 583-3600

5 F 3 1986

RECEIVED JUN 19 1986

May 30, 1986
Refer to: 86C242

RECEIVED
JUN 3 1986
U.S. EPA, CENTRAL REGIONAL LAB
536 S. CLARK STREET
CHICAGO, ILLINOIS 60605

USEPA Region V
536 South Clark Street
Central Regional Laboratory
10th Floor
Chicago, IL 60605

Attn: Curtis Ross

Dear Ms. Woods:

Enclosed is the organic analytical report for Case No. 5914.

Please acknowledge receipt of the enclosure by dating and signing the copy of this letter. A pre-addressed, stamped envelope has been provided for your convenience.

Should you have any questions concerning the enclosed data packages, please feel free to contact E.H. Sanders, or myself at (801) 583-3600. We would welcome any suggestions which you believe would help us to serve you better.

Sincerely,

C. Cottle

Cathy Cottle
Document Control Officer
Contract No. 68-01-6864 (2)

enclosure

Date: _____ Acknowledged by: Melina Feliciano

NARRATIVE

CASE NO. 5914
Sample No.(s) EE158, EE159, EE918, EE919,
EE920, E921, EE921MS and EE921MSD
EPA-CLP CONTRACT NO. 68-01-6864 (2)
UBTL, INC.

RECEIVED JUN 1 9 1986

Data Release Authorized by: Edward H Gandus

I. 1. Dibutyl Chlorendate Recovery.
No Dibutyl Chlorendate was recovered for sample no. EE920. The original extract was spiked with Dibutyl Chlorendate and re-analyzed. Again, no Dibutyl Chlorendate was detected. The chromatogram for the spiked extract analysis is included in this report. These results indicate that the pesticide extract of sample no. EE920 contains a factor which reacts with Dibutyl Chlorendate, removing it from the solution.

I. 2. Pesticide/PCB Matrix Spike Recoveries.
The analyses of the Matrix Spike and MS duplicate of sample no. EE921 indicated that 4,4'-DDT is not stable in this sample matrix and/or its extracts. Increased concentrations DDE were detected. DDE is a decomposition product of 4,4'-DDT. The increased concentration of DDE interfered with quantitation of Dieldrin.

I. 3. Pesticide GC/MS Confirmation.
The pesticides DDE, DDD, and DDT were confirmed as positive detections by GC/MS for sample no. EE159.

I. 4. End of Narrative.

SOIL SURROGATE PERCENT RECOVERY SUMMARY

Case No. 5914 Contract Laboratory UBTL Contract No. 68-01-6864

Low X 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: 1-fluoro Naphthalene	SEMI-VOLATILE: pentafluoro phenol	SEMI-VOLATILE: PHENOL-D6 (24-113)	SEMI-VOLATILE: 2-FLUORO-PHENOL (25-121)	SEMI-VOLATILE: 2,4,6 TRIBROMO-PHENOL (19-122)	PESTICIDE: DIBUTYL-CHLORENDATE ** (20-150)
BLANK	97.7	101.	100.	81.0	79.8	96.1	76.8	76.4	74.2	70.3	94.7	59.
EE158	102.	100.	105.	67.9	71.4	85.6	71.0	37.9	65.9	61.5	104.	58.
EE159	100.	101.	107.	80.1	83.0	94.1	79.2	30.0	76.7	71.6	111.	68.
EE918	102.	102.	111.	73.7	73.8	81.5	75.3	62.5	67.2	63.9	107.	68.
EE919	102.	103.	113.	72.2	80.8	87.0	73.1	46.5	62.4	57.9	112.	59.
EE920	103.	103.	115.	81.4	77.9	88.6	78.5	67.1	74.6	73.2	122.	(1) 0.0 *
EE921	114.	92.4	115.	71.1	73.2	81.4	72.4	36.5	62.1	56.0	94.1	65.
EE921MS	110.	95.1	116.	72.6	73.4	89.3	72.6	73.8	67.5	67.6	112.	76.
EE921MSD	112.	93.1	112.	62.3	67.4	72.3	66.0	59.9	61.3	61.0	103.	39.

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

**ADVISORY LIMITS ONLY

Volatiles: 0 out of 27 ; outside of QC limits

Semi-Volatiles: 0 out of 72 ; outside of QC limits

Pesticides: 1 out of 9 ; outside of QC limits

7/85

Comments: (1) SEE NARRATIVE.

FORM II

600009

RECEIVED JUN 19 1986

SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. 5914 Contractor UBTL Contract No. 68-01-6864

Low Level X 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. EE921	1,1-Dicholoroethene	50.	0.	58.2	116.	56.5	113.	3.0	22	59-172
	Trichloroethene	50.	0.	41.5	83.0	41.7	83.4	0.5	24	62-137
	Chlorobenzene	50.	0.	52.5	105.	53.2	106.	1.3	21	60-133
	Toluene	50.	1.2	56.7	113.	59.1	118.	4.1	21	59-139
	Benzene	50.	0.	54.2	108.	56.1	112.	3.4	21	66-142
B/N SMO SAMPLE NO. EE921	1,2,4-Trichlorobenzene	100	0	66.8	66.8	57.7	57.7	14.6	23	38-107
	Acenaphthene	100	0	65.7	65.7	62.6	62.6	4.8	19	31-137
	2,4 Dinitrotoluene	100	0	93.8	93.8*	86.3	86.3	8.3	47	28-89
	Pyrene	100	10.7	90.7	80.0	68.2	57.5	32.7	38	35-142
	N-Nitrosodi-n-Propylamine	100	0	60.4	60.4	59.3	59.3	1.8	38	41-126
	1,4-Dichlorobenzene	100	0	62.1	62.1	55.2	55.2	11.8	27	28-104
ACID SMO SAMPLE NO. EE921	Pentachlorophenol	200	0	149.0	74.5	120.1	60.1	21.4	47	17-109
	Phenol	200	0	123.0	61.5	109.3	54.7	11.7	35	26-90
	2-Chlorophenol	200	0	133.4	66.7	121.9	61.0	8.9	50	25-102
	4-Chloro-3-Methylphenol	200	0	190.7	95.4	168.4	84.2	12.5	33	26-103
	4-Nitrophenol	300	0	276.5	92.2	266.5	88.8	3.8	50	11-114
PEST SMO SAMPLE NO. (1) EE921	Lindane	6.7	0.	58	87.	2.1	31.*	94.*	50	46-127
	Heptachlor	6.7	0.	6.2	93.	4.8	71.	26.	31	35-130
	Aldrin	6.7	0.	6.2	92.	4.8	72.	24.	43	34-132
	Dieldrin	16.7	0.	18.5	111.	41.8	250.*	77.*	38	31-134
	Endrin	16.7	0.	24.6	147.*	16.9	101.	37.	45	42-139
	4,4'-DDT	16.7	69.	6.7	40	—	—*	—*	50	23-134

*ASTERISKED VALUES ARE OUTSIDE QC LIMITS.

RPD: VOAs 0 out of 5; outside QC limits
B/N 0 out of 6; outside QC limits
ACID 0 out of 5; outside QC limits
(1) PEST 3 out of 6; outside QC limits

RECOVERY: VOAs 0 out of 10; outside QC limits
B/N 1 out of 12; outside QC limits
ACID 0 out of 10; outside QC limits
(1) PEST 4 out of 12; outside QC limits

Comments:
(1) SEE NARRATIVE ON SAMPLE NO. EE921.

FORM III 7/85

000011

RECEIVED JUN 19 1986

REAGENT BLANK SUMMARY

Case No. 5914 Contractor UBTL Contract No. 68-01-6864

FILE ID	DATE OF ANALYSIS	FRACTION	MATRIX	CONC. LEVEL	INST. ID	CAS NUMBER	COMPOUND (HSL, TIC OR UNKNOWN)	CONC.	UNITS	CRDL
E47BLANK	5.3.86	VOA	SOIL	LOW	GC/MS #5	75.09.2	METHYLENE CHLORIDE	1.4	mg/kg	5.
↓	↓	↓	↓	↓	↓	67.64.1	ACETONE	8.2	↓	10.
↓	↓	↓	↓	↓	↓	75.15.0	CARBON DISULFIDE	0.9	↓	5.
EY3BLK	5-17-86	BNA	SOIL	LOW	MS-3	—	UNKNOWN	114 J	ug/kg	NA
↓	↓	↓	↓	↓	↓	—	UNKNOWN	375 J	↓	↓
↓	↓	↓	↓	↓	↓	—	UNKNOWN	104 J	↓	↓
19486	5-7-86	PEST	SOIL	LOW	EC-1	—	NO HSL COMPOUNDS DETECTED	—	ug/kg	NA

Comments:

FORM IV

4/84

000013

RECEIVED JUN 19 1986

RECEIVED JUN 1 9 1989

Sample Number
INSTRUMENT LOD's

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: UBTL INC.

Case No:

Lab Sample ID No:

QC Report No:

Sample Matrix: SOIL

Contract No:

Data Release Authorized By:

Date Sample Received

Volatile Compounds By MS-5

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed:

Conc/Dil Factor: 1. pH

Percent Moisture: (Not Decanted) 0.0

CAS Number		ug/l or ug/Kg (Circle One)	
74-87-3	Chloromethane	1.1	U
74-83-9	Bromomethane	3.2	U
75-01-4	Vinyl Chloride	.9	U
75-00-3	Chloroethane	2.2	U
75-09-2	Methylene Chloride	1.3	U
67-64-1	Acetone	3.8	U
75-15-0	Carbon Disulfide	.8	U
75-35-4	1, 1-Dichloroethene	1.9	U
75-34-3	1, 1-Dichloroethane	.8	U
156-60-5	Trans-1, 2-Dichloroethene	1.4	U
67-66-3	Chloroform	1.5	U
107-06-2	1, 2-Dichloroethane	1	U
78-93-3	2-Butanone	5.9	U
71-55-6	1, 1, 1-Trichloroethane	4.6	U
56-23-5	Carbon Tetrachloride	3.3	U
108-05-4	Vinyl Acetate	8.6	U
75-27-4	Bromodichloromethane	1.6	U

CAS Number		ug/l or ug/Kg (Circle One)	
78-87-5	1, 2-Dichloropropane	.8	U
10061-02-6	Trans-1, 3-Dichloropropene	2.1	U
79-01-6	Trichloroethene	1.7	U
124-48-1	Dibromochloromethane	2.4	U
79-00-5	1, 1, 2-Trichloroethane	1.8	U
71-43-2	Benzene	.9	U
10061-01-5	cis-1, 3-Dichloropropene	3.6	U
110-75-8	2-Chloroethylvinylether	2.5	U
75-25-2	Bromoform	2.5	U
108-10-1	4-Methyl-2-Pentanone	5.3	U
591-78-6	2-Hexanone	4.6	U
127-18-4	Tetrachloroethene	1.8	U
79-34-5	1, 1, 2, 2-Tetrachloroethane	2	U
108-88-3	Toluene	1.2	U
108-90-7	Chlorobenzene	1.7	U
100-41-4	Ethylbenzene	1.2	U
100-42-5	Styrene	1.8	U
	Total Xylenes	2.2	U

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

000582

RECEIVED JUN 19 1986

Laboratory Name UBTL INC.

Case No:

Sample Number
INSTRUMENT LODs

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds By MS-8

Concentration: Low Medium (Circle One)

Date Extracted/Prepared

Date Analyzed

Conc/Dil Factor 1

Percent Moisture (Decanted) 0.

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	75	U
111-44-4	bis(2-Chloroethyl)Ether	120	U
95 57-8	2-Chlorophenol	20	U
541-73-1	1 3-Dichlorobenzene	21	U
106-46-7	1 4-Dichlorobenzene	26	U
100-51-6	Benzyl Alcohol	49	U
95-50-1	1 2-Dichlorobenzene	22	U
95-48-7	2-Methylphenol	210	U
39638-32-9	bis(2-chloroisopropyl)Ether	210	U
106-44-5	4-Methylphenol	200	U
621-64-7	N-Nitroso-Di-n-Propylamine	180	U
67-72-1	Hexachloroethane	110	U
98 95 3	Nitrobenzene	55	U
78-59-1	Isophorone	52	U
88-75-5	2-Nitrophenol	39	U
105-67-9	2 4-Dimethylphenol	110	U
65-85-0	Benzoic Acid	39	U
111-91-1	bis(2-Chloroethoxy)Methane	78	U
120-83-2	2 4-Dichlorophenol	52	U
120-82-1	1 2 4-Trichlorobenzene	36	U
91-20-3	Naphthalene	22	U
106-47-8	4-Chloroaniline	330	U
87-68 3	Hexachlorobutadiene	140	U
59-50-7	4-Chloro-3-Methylphenol	72	U
91-57-6	2-Methylnaphthalene	170	U
77-47-4	Hexachlorocyclopentadiene	320	U
88-06-2	2 4 6-Trichlorophenol	28	U
95-95-4	2 4 5-Trichlorophenol	62	U
91-58-7	2-Chloronaphthalene	13	U
88-74-4	2-Nitroaniline	46	U
131-11-3	Dimethyl Phthalate	24	U
208-96-8	Acenaphthylene	30	U
99-09 2	3-Nitroaniline	680	U

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	140	U
51-28-5	2 4-Dinitrophenol	330	U
100-02-7	4-Nitrophenol	360	U
132-64-9	Dibenzofuran	9.1	U
121-14-2	2 4-Dinitrotoluene	29	U
606 20-2	2 6-Dinitrotoluene	65	U
84-66-2	Diethylphthalate	68	U
7005-72-3	4-Chlorophenyl-phenylether	24	U
86-73-7	Fluorene	21	U
100-01-6	4-Nitroaniline	120	U
534-52-1	4 6-Dinitro-2-Methylphenol	110	U
86-30-6	N-Nitrosodiphenylamine (1)	49	U
101-55-3	4-Bromophenyl-phenylether	75	U
118-74-1	Hexachlorobenzene	62	U
87-86-5	Pentachlorophenol	110	U
85-01-8	Phenanthrene	16	U
120-12-7	Anthracene	65	U
84-74-2	Di-n-Butylphthalate	130	U
206-44-0	Fluoranthene	210	U
129-00-0	Pyrene	330	U
85-68-7	Butylbenzylphthalate	98	U
91-94-1	3 3 -Dichlorobenzidine	590	U
56-55-3	Benzo(a)Anthracene	65	U
117-81-7	bis(2-Ethylhexyl)Phthalate	75	U
218-01-9	Chrysene	88	U
117-84-0	Di-n-Octyl Phthalate	290	U
205-99-2	Benzo(b)Fluoranthene	49	U
207-08-9	Benzo(k)Fluoranthene	110	U
50-32-8	Benzo(a)Pyrene	78	U
193-39-5	Indeno(1 2 3-cd)Pyrene	330	U
53-70-3	Dibenz(a h)Anthracene	320	U
191-24 2	Benzo(g h i)Perylene	190	U

(1)-Cannot be separated from diphenylamine

RECEIVED JUN 1 9 1986

Laboratory Name UBTL INC.

Case No

Sample Number
INSTRUMENT LOD's

Soil sample

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs by EC-1

Concentration: Low Medium (Circle One)

Date Extracted/Prepared

Date Analyzed

Conc/Dil Factor: 1.

Percent Moisture (decanted)

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	.1 U
319-85-7	Beta-BHC	.1 U
319-86-8	Delta-BHC	.09 U
58-89-9	Gamma-BHC (Lindane)	.1 U
76-44-8	Heptachlor	.1 U
309-00-2	Aldrin	.2 U
1024-57-3	Heptachlor Epoxide	.1 U
959-98-8	Endosulfan I	.3 U
60-57-1	Dieldrin	.3 U
72-55-9	4,4'-DDE	.7 U
72-20-8	Endrin	.6 U
33213-65-9	Endosulfan II	.6 U
72-54-8	4,4'-DDD	1.3 U
1031-07-8	Endosulfan Sulfate	.5 U
50-29-3	4,4'-DDT	1.4 U
72-43-5	Methoxychlor	2.2 U
53494-70-5	Endrin Ketone	1.2 U
57-74-9	Chlordane	5 U
8001-35-2	Toxaphene	13 U
12674-11-2	Aroclor-1016	5 U
11104-28-2	Aroclor-1221	1.7 U
11141-16-5	Aroclor-1232	1.7 U
53469-21-9	Aroclor-1242	1.7 U
12672-29-6	Aroclor-1248	1.7 U
11097-69-1	Aroclor-1254	5 U
11096-82-5	Aroclor-1260	1.7 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 30 gm V_t 5000 µl V_i 2 µl

Sample Number
EE158

ZGF006544

Organics Analysis Data Sheet
(Page 1)

RECEIVED JUN 19 1986

Laboratory Name: UBTL INC.
Lab Sample ID No: EP0636
Sample Matrix: SOIL
Data Release Authorized By: [signature]

Case No: 5944
QC Report No: NA
Contract No: 68-01-6864
Date Sample Received: 4-30-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 5-3-86
Date Analyzed: 5-3-86
Conc/Dil Factor: 1. pH 7.4
Percent Moisture: (Not Decanted) 24.9

CAS Number		ug/l or ug/Kg (Circle One)	
74-87-3	Chloromethane	13	U
74-83-9	Bromomethane	13	U
75-01-4	Vinyl Chloride	13	U
75-00-3	Chloroethane	13	U
75-09-2	Methylene Chloride	8.8	B
67-64-1	Acetone	25	B
75-15-0	Carbon Disulfide	6.7	U
75-35-4	1, 1-Dichloroethene	6.7	U
75-34-3	1, 1-Dichloroethane	6.7	U
156-60-5	Trans-1, 2-Dichloroethene	6.7	U
67-66-3	Chloroform	6.7	U
107-06-2	1, 2-Dichloroethane	6.7	U
78-93-3	2-Butanone	13	U
71-55-6	1, 1, 1-Trichloroethane	6.7	U
56-23-5	Carbon Tetrachloride	6.7	U
108-05-4	Vinyl Acetate	13	U
75-27-4	Bromodichloromethane	6.7	U

CAS Number		ug/l or ug/Kg (Circle One)	
78-87-5	1, 2-Dichloropropane	6.7	U
10061-02-6	Trans-1, 3-Dichloropropene	6.7	U
79-01-6	Trichloroethene	6.7	U
124-48-1	Dibromochloromethane	6.7	U
79-00-5	1, 1, 2-Trichloroethane	6.7	U
71-43-2	Benzene	6.7	U
10061-01-5	cis-1, 3-Dichloropropene	6.7	U
110-75-8	2-Chloroethylvinylether	13	U
75-25-2	Bromoform	6.7	U
108-10-1	4-Methyl-2-Pentanone	13	U
591-78-6	2-Hexanone	13	U
127-18-4	Tetrachloroethene	6.7	U
79-34-5	1, 1, 2, 2-Tetrachloroethane	6.7	U
108-88-3	Toluene	6.7	U
108-90-7	Chlorobenzene	6.7	U
100-41-4	Ethylbenzene	6.7	U
100-42-5	Styrene	6.7	U
	Total Xylenes	6.7	U

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 UBTL INC.

Case No 5914

Sample Number EE158

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

RECEIVED JUN 19 1986

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 5-6-86

Date Analyzed 5-17-86

Conc/Dil Factor 1

Percent Moisture (Decanted) 24.9

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes NA

Continuous Liquid - Liquid Extraction ☐Yes NA

CAS Number		ug/L or ug/Kg (Circle One)	
108-95-2	Phenol	440	U
111-44-4	bis-2-Chloroethylether	440	U
95-57-8	2-Chlorophenol	440	U
541-73-1	1,3-Dichlorobenzene	440	U
106-46-7	1,4-Dichlorobenzene	440	U
100-51-6	Benzyl Alcohol	440	U
95-50-1	1,2-Dichlorobenzene	440	U
95-48-7	2-Methylphenol	440	U
39638-32-9	bis(2-chloroisopropyl)Ether	440	U
106-44-5	4-Methylphenol	440	U
621-64-7	N-Nitroso-Di-n-Propylamine	440	U
67-72-1	Hexachloroethane	440	U
98-95-3	Nitrobenzene	440	U
78-59-1	Isophorone	440	U
88-75-5	2-Nitrophenol	440	U
105-67-9	2,4-Dimethylphenol	440	U
65-85-0	Benzoic Acid	2100	U
111-91-1	bis-2-Chloroethoxy)Methane	440	U
120-83-2	2,4-Dichlorophenol	440	U
120-82-1	1,2,4-Trichlorobenzene	440	U
91-20-3	Naphthalene	440	U
106-47-8	4-Chloroaniline	440	U
87-68-3	Hexachlorobutadiene	440	U
59-50-7	4-Chloro-3-Methylphenol	440	U
91-57-6	2-Methylnaphthalene	440	U
77-47-4	Hexachlorocyclopentadiene	440	U
88-06-2	2,4,6-Trichlorophenol	440	U
95-95-4	2,4,5-Trichlorophenol	2100	U
91-58-7	2-Chloronaphthalene	440	U
88-74-4	2-Nitroaniline	2100	U
131-11-3	Dimethyl Phthalate	440	U
208-96-8	Acenaphthylene	440	U
99-09-2	3-Nitroaniline	2100	U

CAS Number		ug/L or ug/Kg (Circle One)	
83-32-9	Acenaphthene	440	U
51-28-5	2,4-Dinitrophenol	2100	U
100-02-7	4-Nitrophenol	2100	U
132-64-9	Dibenzofuran	440	U
121-14-2	2,4-Dinitrotoluene	440	U
606-20-2	2,6-Dinitrotoluene	440	U
84-66-2	Diethylphthalate	440	U
7005-72-3	4-Chlorophenyl-phenylether	440	U
86-73-7	Fluorene	440	U
100-01-6	4-Nitroaniline	2100	U
534-52-1	4,6-Dinitro-2-Methylphenol	2100	U
86-30-6	N-Nitrosodiphenylamine (1)	440	U
101-55-3	4-Bromophenyl-phenylether	440	U
118-74-1	Hexachlorobenzene	440	U
87-86-5	Pentachlorophenol	2100	U
85-01-8	Phenanthrene	150	J
120-12-7	Anthracene	32	J
84-74-2	Di-n-Butylphthalate	440	U
206-44-0	Fluoranthene	240	J
129-00-0	Pyrene	250	J
85-68-7	Butylbenzylphthalate	440	U
91-94-1	3,3-Dichlorobenzidine	880	U
56-55-3	Benzo(a)Anthracene	110	J
117-81-7	bis(2-Ethylhexyl)Phthalate	440	U
218-01-9	Chrysene	130	J
117-84-0	Di-n-Octyl Phthalate	440	U
205-99-2	Benzo(b)Fluoranthene	110	J
207-08-9	Benzo(k)Fluoranthene	120	J
50-32-8	Benzo(a)Pyrene	440	U
193-39-5	Indeno(1,2,3-cd)Pyrene	440	U
53-70-3	Dibenzo(a,h)Anthracene	440	U
191-24-2	Benzo(g,h,i)Perylene	440	U

(1)-Cannot be separated from diphenylamine

Laboratory Name UBTL INC.
Case No 5914

Sample Number
EE158

Organics Analysis Data Sheet
(Page 3)

RECEIVED JUN 19 1986

Pesticide/PCBs

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 5-6-86
Date Analyzed: 5-8-86
Conc/Dil Factor: 1.
Percent Moisture (decanted) 24.9

GPC Cleanup ☐Yes ☒No
Separatory Funnel Extraction ☐Yes NA
Continuous Liquid - Liquid Extraction ☐Yes NA

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha BHC	11 U
319-85-7	Beta BHC	11 U
319-86-8	Delta BHC	11 U
58-89-9	Gamma-BHC (Lindane)	11 U
76-44-8	Heptachlor	11 U
309-00-2	Aldrin	11 U
1024-57-3	Heptachlor Epoxide	11 U
959-98-8	Endosulfan I	11 U
60-57-1	Dieldrin	21 U
72-55-9	4,4'-DDE	21 U
72-20-8	Endrin	21 U
33213-65-9	Endosulfan II	21 U
72-54-8	4,4'-DDD	21 U
1031-07-8	Endosulfan Sulfate	21 U
50-29-3	4,4'-DDT	21 U
72-43-5	Methoxychlor	110 U
53494-70-5	Endrin Ketone	21 U
57-74-9	Chlordane	110 U
8001-35-2	Toxaphene	210 U
12674-11-2	Aroclor-1016	110 U
11104-28-2	Aroclor-1221	110 U
11141-16-5	Aroclor-1232	110 U
53469-21-9	Aroclor-1242	110 U
12672-29-6	Aroclor-1248	110 U
11097-69-1	Aroclor-1254	210 U
11096-82-5	Aroclor-1260	210 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 30 gm V_t 5000 ul V_i 2 ul

Laboratory Name UBTL INC

Case No 5914

Sample Number EE158

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

RECEIVED JUN 19 1986

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)	
1. —	UNKNOWN HYDROCARBON	BNA	1322	134.	
2. —	UNKNOWN HYDROCARBON	BNA	1327	133.	
3. —	UNKNOWN HYDROCARBON	BNA	1704	72.	
4. —	UNKNOWN HYDROCARBON	BNA	1758	141.	
5. —	UNKNOWN HYDROCARBON	BNA	1811	136.	
6. —	UNKNOWN	BNA	1862	67.	
7. —	UNKNOWN HYDROCARBON	BNA	1918	143.	
8. —	UNKNOWN	BNA	1945	63.	
9. —	UNKNOWN	BNA	2012	146.	
10. —	UNKNOWN HYDROCARBON	BNA	2054	592.	
11. —	UNKNOWN HYDROCARBON	BNA	2238	112.	
12. —	UNKNOWN	BNA	2315	210.	
13. —	UNKNOWN	BNA	2354	146.	
14. —	UNKNOWN	BNA	2421	189.	
15. —	UNKNOWN	BNA	2501	110.	
16. —	UNKNOWN	BNA	2552	170.	16
17.					
18. —	NONE FOUND	VOA	—	—	0
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

86F W04 505

Sample Number
EE159

Organics Analysis Data Sheet
(Page 1)

RECEIVED JUN 19 1986

Laboratory Name: UBTL INC.
Lab Sample ID No: EP0637
Sample Matrix: SOIL
Data Release Authorized By: [signature]

Case No: 5914
QC Report No: NA
Contract No: 68-01-6864
Date Sample Received 4-30-86

Volatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 5-3-86
Date Analyzed: 5-3-86
Conc/Dil Factor: 1. pH 7.6
Percent Moisture: (Not Decanted) 37.8

CAS Number		ug/l or ug/Kg (Circle One)	
74-87-3	Chloromethane	16	U
74-83-9	Bromomethane	16	U
75-01-4	Vinyl Chloride	16	U
75-00-3	Chloroethane	16	U
75-09-2	Methylene Chloride	8	U
67-64-1	Acetone	35	B
75-15-0	Carbon Disulfide	8	U
75-35-4	1, 1-Dichloroethene	8	U
75-34-3	1, 1-Dichloroethane	8	U
156-60-5	Trans-1, 2-Dichloroethene	8	U
67-66-3	Chloroform	8	U
107-06-2	1, 2-Dichloroethane	8	U
78-93-3	2-Butanone	16	U
71-55-6	1, 1, 1-Trichloroethane	8	U
56-23-5	Carbon Tetrachloride	8	U
108-05-4	Vinyl Acetate	16	U
75-27-4	Bromodichloromethane	8	U

CAS Number		ug/l or ug/Kg (Circle One)	
78-87-5	1, 2-Dichloropropane	8	U
10061-02-6	Trans-1, 3-Dichloropropene	8	U
79-01-6	Trichloroethene	8	U
124-48-1	Dibromochloromethane	8	U
79-00-5	1, 1, 2-Trichloroethane	8	U
71-43-2	Benzene	8	U
10061-01-5	cis-1, 3-Dichloropropene	8	U
110-75-8	2-Chloroethylvinylether	16	U
75-25-2	Bromoform	8	U
108-10-1	4-Methyl-2-Pentanone	16	U
591-78-6	2-Hexanone	16	U
127-18-4	Tetrachloroethene	8	U
79-34-5	1, 1, 2, 2-Tetrachloroethane	8	U
108-88-3	Toluene	8	U
108-90-7	Chlorobenzene	8	U
100-41-4	Ethylbenzene	8	U
100-42-5	Styrene	8	U
	Total Xylenes	8	U

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 UBTL INC.

Case No 5914

Sample Number EE159

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 5-6-86

Date Analyzed 5-17-86

Conc/Dil Factor 1

Percent Moisture (Decanted) 37.8

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes NA

Continuous Liquid - Liquid Extraction ☐Yes N/A

RECEIVED JUN 19 1986

CAS Number		ug/l or ug/Kg (Circle One)	
108-95-2	Phenol	530	U
111-44-4	bis-2-Chloroethyl Ether	530	U
95-57-8	2-Chlorophenol	530	U
541-73-1	1,3-Dichlorobenzene	530	U
106-46-7	1,4-Dichlorobenzene	530	U
100-51-6	Benzyl Alcohol	530	U
95-50-1	1,2-Dichlorobenzene	530	U
95-48-7	2-Methylphenol	530	U
39638-32-9	bis(2-chloroisopropyl)Ether	530	U
106-44-5	4-Methylphenol	530	U
621-64-7	N-Nitroso-Di-n-Propylamine	530	U
67-72-1	Hexachloroethane	530	U
98-95-3	Nitrobenzene	530	U
78-59-1	Isophorone	530	U
88-75-5	2-Nitrophenol	530	U
105-67-9	2,4-Dimethylphenol	530	U
65-85-0	Benzoic Acid	2600	U
111-91-1	bis(2-Chloroethoxy)Methane	530	U
120-83-2	2,4-Dichlorophenol	530	U
120-82-1	1,2,4-Trichlorobenzene	530	U
91-20-3	Naphthalene	530	U
106-47-8	4-Chloroaniline	530	U
87-68-3	Hexachlorobutadiene	530	U
59-50-7	4-Chloro-3-Methylphenol	530	U
91-57-6	2-Methylnaphthalene	530	U
77-47-4	Hexachlorocyclopentadiene	530	U
88-06-2	2,4,6-Trichlorophenol	530	U
95-95-4	2,4,5-Trichlorophenol	2600	U
91-58-7	2-Chloronaphthalene	530	U
88-74-4	2-Nitroaniline	2600	U
131-11-3	Dimethyl Phthalate	81	J
208-96-8	Acenaphthylene	530	U
99-09-2	3-Nitroaniline	2600	U

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	530	U
51-28-5	2,4-Dinitrophenol	2600	U
100-02-7	4-Nitrophenol	2600	U
132-64-9	Dibenzofuran	530	U
121-14-2	2,4-Dinitrotoluene	530	U
606-20-2	2,6-Dinitrotoluene	530	U
84-66-2	Diethylphthalate	530	U
7005-72-3	4-Chlorophenyl-phenylether	530	U
86-73-7	Fluorene	530	U
100-01-6	4-Nitroaniline	2600	U
534-52-1	4,6-Dinitro-2-Methylphenol	2600	U
86-30-6	N-Nitrosodiphenylamine (1)	530	U
101-55-3	4-Bromophenyl-phenylether	530	U
118-74-1	Hexachlorobenzene	530	U
87-86-5	Pentachlorophenol	2600	U
85-01-8	Phenanthrene	68	J
120-12-7	Anthracene	530	U
84-74-2	Di-n-Butylphthalate	530	U
206-44-0	Fluoranthene	130	J
129-00-0	Pyrene	130	J
85-68-7	Butylbenzylphthalate	530	U
91-94-1	3,3'-Dichlorobenzidine	1100	U
56-55-3	Benzo(a)Anthracene	530	U
117-81-7	bis(2-Ethylhexyl)Phthalate	530	U
218-01-9	Chrysene	80	J
117-84-0	Di-n-Octyl Phthalate	530	U
205-99-2	Benzo(b)Fluoranthene	530	U
207-08-9	Benzo(k)Fluoranthene	530	U
50-32-8	Benzo(a)Pyrene	530	U
193-39-5	Indeno(1,2,3-cd)Pyrene	530	U
53-70-3	Dibenz(a,h)Anthracene	530	U
191-24-2	Benzo(g,h,i)Perylene	530	U

(1)-Cannot be separated from diphenylamine

Laboratory Name UBTL INC.

Case No 5914

Sample Number EE159

Organics Analysis Data Sheet
(Page 3)

RECEIVED JUN 19 1986

Pesticide/PCBs

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 5-6-86

Date Analyzed: 5-7-86

Conc/Dil Factor: 1.

Percent Moisture (decanted) 37.8

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes NA

Continuous Liquid - Liquid Extraction ☐Yes NA

CAS Number		ug/l or ug/Kg (Circle One)	
319-84-6	Alpha-BHC	13 U	
319-85-7	Beta-BHC	13 U	
319-86-8	Delta-BHC	13 U	
58-89-9	Gamma-BHC (Lindane)	13 U	
76-44-8	Heptachlor	13 U	
309-00-2	Aldrin	13 U	
1024-57-3	Heptachlor Epoxide	13 U	
959-98-8	Endosulfan I	13 U	
60-57-1	Dieldrin	26 U	
72-55-9	4,4'-DDE	82	
72-20-8	Endrin	26 U	
33213-65-9	Endosulfan II	26 U	
72-54-8	4,4'-DDD	210	
1031-07-8	Endosulfan Sulfate	26 U	
50-29-3	4,4'-DDT	230	240
72-43-5	Methoxychlor	130 U	
53494-70-5	Endrin Ketone	26 U	
57-74-9	Chlordane	130 U	
8001-35-2	Toxaphene	260 U	
12674-11-2	Aroclor-1016	130 U	
11104-28-2	Aroclor-1221	130 U	
11141-16-5	Aroclor-1232	130 U	
53469-21-9	Aroclor-1242	130 U	
12672-29-6	Aroclor-1248	130 U	
11097-69-1	Aroclor-1254	260 U	
11096-82-5	Aroclor-1260	260 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 30 gm V_t 5000 ul V_i 2 ul

Form 1 7/85

Laboratory Name UBTL INC

Case No 5914

Sample Number EE159

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

RECEIVED JUN 19 1986

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)	
1. —	UNKNOWN HYDROCARBON	BNA	1812	143.	
2. —	UNKNOWN HYDROCARBON	BNA	1920	204.	
3. —	UNKNOWN	BNA	2015	442.	
4. —	UNKNOWN	BNA	2061	1331.	
5. —	UNKNOWN	BNA	2189	168.	
6. —	UNKNOWN HYDROCARBON	BNA	2244	555.	
7. —	UNKNOWN	BNA	2326	115.	
8. —	UNKNOWN	BNA	2361	603.	
9. —	UNKNOWN HYDROCARBON	BNA	2510	423.	
10. —	UNKNOWN	BNA	2559	196.	10
11.					
12. —	NONE FOUND	VOA	—	—	0
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

Sample Number
EE918

86FWC6546

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: UBTL INC.
Case No: 5914
Lab Sample ID No: EP0638
QC Report No: NA
Sample Matrix: SOIL
Contract No: 68-01-6864
Data Release Authorized By: [signature]
Date Sample Received: 4-30-86

Volatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 5-3-86
Date Analyzed: 5-3-86
Conc/Dil Factor: 1. pH 7.7
Percent Moisture: (Not Decanted) 24.3

RECEIVED JUN 19 1986

CAS Number		ug/l or ug/Kg (Circle One)	
74-87-3	Chloromethane	13	U
74-83-9	Bromomethane	13	U
75-01-4	Vinyl Chloride	13	U
75-00-3	Chloroethane	13	U
75-09-2	Methylene Chloride	2.1	JB
67-64-1	Acetone	21	B
75-15-0	Carbon Disulfide	1.6	JB
75-35-4	1, 1-Dichloroethene	6.6	U
75-34-3	1, 1-Dichloroethane	6.6	U
156-60-5	Trans-1, 2-Dichloroethene	6.6	U
67-66-3	Chloroform	6.6	U
107-06-2	1, 2-Dichloroethane	6.6	U
78-93-3	2-Butanone	13	U
71-55-6	1, 1, 1-Trichloroethane	6.6	U
56-23-5	Carbon Tetrachloride	6.6	U
108-05-4	Vinyl Acetate	13	U
75-27-4	Bromodichloromethane	6.6	U

CAS Number		ug/l or ug/Kg (Circle One)	
78-87-5	1, 2-Dichloropropane	6.6	U
10061-02-6	Trans-1, 3-Dichloropropene	6.6	U
79-01-6	Trichloroethene	6.6	U
124-48-1	Dibromochloromethane	6.6	U
79-00-5	1, 1, 2-Trichloroethane	6.6	U
71-43-2	Benzene	6.6	U
10061-01-5	cis-1, 3-Dichloropropene	6.6	U
110-75-8	2-Chloroethylvinylether	13	U
75-25-2	Bromoform	6.6	U
108-10-1	4-Methyl-2-Pentanone	13	U
591-78-6	2-Hexanone	13	U
127-18-4	Tetrachloroethene	6.6	U
79-34-5	1, 1, 2, 2-Tetrachloroethane	6.6	U
108-88-3	Toluene	6.6	U
108-90-7	Chlorobenzene	6.6	U
100-41-4	Ethylbenzene	6.6	U
100-42-5	Styrene	6.6	U
	Total Xylenes	6.6	U

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 UBTL INC.

Case No. 5914

Sample Number EE918

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 5-6-86

Date Analyzed 5-17-86

Conc/Dil Factor 1

Percent Moisture (Decanted) 24.3

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes NA

Continuous Liquid - Liquid Extraction ☐Yes NA

RECEIVED JUN 19 1986

CAS Number		ug/L or ug/Kg (Circle One)
108-95-2	Phenol	440 U
111-44-4	bis-2-Chloroethyl Ether	440 U
95-57-8	2-Chlorophenol	440 U
541-73-1	1,3-Dichlorobenzene	440 U
106-46-7	1,4-Dichlorobenzene	440 U
100-51-6	Benzyl Alcohol	440 U
95-50-1	1,2-Dichlorobenzene	440 U
95-48-7	2-Methylphenol	440 U
39638-32-9	bis(2-chloroisopropyl)Ether	440 U
106-44-5	4-Methylphenol	440 U
621-64-7	N-Nitroso-Di-n-Propylamine	440 U
67-72-1	Hexachloroethane	440 U
98-95-3	Nitrobenzene	440 U
78-59-1	Isophorone	440 U
88-75-5	2-Nitrophenol	440 U
105-67-9	2,4-Dimethylphenol	440 U
65-85-0	Benzoic Acid	2100 U
111-91-1	bis(2-Chloroethoxy)Methane	440 U
120-83-2	2,4-Dichlorophenol	440 U
120-82-1	1,2,4-Trichlorobenzene	440 U
91-20-3	Naphthalene	440 U
106-47-8	4-Chloroaniline	440 U
87-68-3	Hexachlorobutadiene	440 U
59-50-7	4-Chloro-3-Methylphenol	440 U
91-57-6	2-Methylnaphthalene	440 U
77-47-4	Hexachlorocyclopentadiene	440 U
88-06-2	2,4,6-Trichlorophenol	440 U
95-95-4	2,4,5-Trichlorophenol	2100 U
91-58-7	2-Chloronaphthalene	440 U
88-74-4	2-Nitroaniline	2100 U
131-11-3	Dimethyl Phthalate	440 U
208-96-8	Acenaphthylene	18 J
99-09-2	3-Nitroaniline	2100 U

CAS Number		ug/L or ug/Kg (Circle One)
83-32-9	Acenaphthene	440 U
51-28-5	2,4-Dinitrophenol	2100 U
100-02-7	4-Nitrophenol	2100 U
132-64-9	Dibenzofuran	440 U
121-14-2	2,4-Dinitrotoluene	440 U
606-20-2	2,6-Dinitrotoluene	440 U
84-66-2	Diethylphthalate	440 U
7005-72-3	4-Chlorophenyl-phenylether	440 U
86-73-7	Fluorene	440 U
100-01-6	4-Nitroaniline	2100 U
534-52-1	4,6-Dinitro-2-Methylphenol	2100 U
86-30-6	N-Nitrosodiphenylamine (1)	440 U
101-55-3	4-Bromophenyl-phenylether	440 U
118-74-1	Hexachlorobenzene	440 U
87-86-5	Pentachlorophenol	2100 U
85-01-8	Phenanthrene	100 J
120-12-7	Anthracene	30 J
84-74-2	Di-n-Butylphthalate	26 J
206-44-0	Fluoranthene	130 J
129-00-0	Pyrene	150 J
85-68-7	Butylbenzylphthalate	440 U
91-94-1	3,3'-Dichlorobenzidine	870 U
56-55-3	Benzo(a)Anthracene	78 J
117-81-7	bis(2-Ethylhexyl)Phthalate	440 U
218-01-9	Chrysene	74 J
117-84-0	Di-n-Octyl Phthalate	440 U
205-99-2	Benzo(b)Fluoranthene	440 U
207-08-9	Benzo(k)Fluoranthene	440 U
50-32-8	Benzo(a)Pyrene	440 U
193-39-5	Indeno(1,2,3-cd)Pyrene	440 U
53-70-3	Dibenzo(a,h)Anthracene	440 U
191-24-2	Benzo(g,h,i)Perylene	440 U

NO TC

(1) Cannot be separated from diphenylamine

Laboratory Name UBTL INC.

Case No 5914

Sample Number EE 918

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 5-6-86

Date Analyzed: 5-8-86

Conc/Dil Factor: 1.

Percent Moisture (decanted) 24.3

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes NA

Continuous Liquid - Liquid Extraction ☐Yes NA

RECEIVED JUN 19 1986

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	11 U
319-85-7	Beta-BHC	11 U
319-86-8	Delta-BHC	11 U
58-89-9	Gamma-BHC (Lindane)	11 U
76-44-8	Heptachlor	11 U
309-00-2	Aldrin	11 U
1024-57-3	Heptachlor Epoxide	11 U
959-98-8	Endosulfan I	11 U
60-57-1	Dieldrin	21 U
72-55-9	4,4'-DDE	21 U
72-20-8	Endrin	21 U
33213-65-9	Endosulfan II	21 U
72-54-8	4,4'-DDD	21 U
1031-07-8	Endosulfan Sulfate	21 U
50-29-3	4,4'-DDT	21 U
72-43-5	Methoxychlor	110 U
53494-70-5	Endrin Ketone	21 U
57-74-9	Chlordane	110 U
8001-35-2	Toxaphene	210 U
12674-11-2	Aroclor-1016	110 U
11104-28-2	Aroclor-1221	110 U
11141-16-5	Aroclor-1232	110 U
53469-21-9	Aroclor-1242	110 U
12672-29-6	Aroclor-1248	110 U
11097-69-1	Aroclor-1254	210 U
11096-82-5	Aroclor-1260	210 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 30 gm V_t 5000 µl V_i 2 µl

Laboratory Name UBTL INC

Case No 5914

Sample Number EE91B

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

RECEIVED JUN 19 1986

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1. —	UNKNOWN HYDROCARBON	BNA	1813	168.
2. —	UNKNOWN HYDROCARBON	BNA	1921	358.
3. —	UNKNOWN	BNA	2016	204.
4. —	UNKNOWN HYDROCARBON	BNA	2058	272.
5. —	UNKNOWN	BNA	2062	241.
6. —	UNKNOWN	BNA	2321	239.
7. —	UNKNOWN	BNA	2364	1179.
8. —	UNKNOWN	BNA	2426	203.
9. —	UNKNOWN	BNA	2513	195.
10.				
11. —	NONE FOUND	VOA	—	—
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

9
0

86FU062547

Sample Number
EE919

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: UBTL INC.
Case No: 5914
Lab Sample ID No: EP0639
QC Report No: NA
Sample Matrix: SOIL
Contract No: 68-01-6864
Data Release Authorized By: [signature]
Date Sample Received: 4-30-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 5-3-86
Date Analyzed: 5-3-86 RECEIVED JUN 19 1986
Conc/Dil Factor: 1. pH 7.9
Percent Moisture: (Not Decanted) 17.8

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	12 U
74-83-9	Bromomethane	12 U
75-01-4	Vinyl Chloride	12 U
75-00-3	Chloroethane	12 U
75-09-2	Methylene Chloride	2.7 JB
67-64-1	Acetone	7.4 JB
75-15-0	Carbon Disulfide	6.1 U
75-35-4	1, 1-Dichloroethene	6.1 U
75-34-3	1, 1-Dichloroethane	6.1 U
156-60-5	Trans-1, 2-Dichloroethene	6.1 U
67-66-3	Chloroform	6.1 U
107-06-2	1, 2-Dichloroethane	6.1 U
78-93-3	2-Butanone	12 U
71-55-6	1, 1, 1-Trichloroethane	6.1 U
56-23-5	Carbon Tetrachloride	6.1 U
108-05-4	Vinyl Acetate	12 U
75-27-4	Bromodichloromethane	6.1 U

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	6.1 U
10061-02-6	Trans-1, 3-Dichloropropene	6.1 U
79-01-6	Trichloroethene	6.1 U
124-48-1	Dibromochloromethane	6.1 U
79-00-5	1, 1, 2-Trichloroethane	6.1 U
71-43-2	Benzene	6.1 U
10061-01-5	cis-1, 3-Dichloropropene	6.1 U
110-75-8	2-Chloroethylvinylether	12 U
75-25-2	Bromoform	6.1 U
108-10-1	4-Methyl-2-Pentanone	12 U
591-78-6	2-Hexanone	12 U
127-18-4	Tetrachloroethene	6.1 U
79-34-5	1, 1, 2, 2-Tetrachloroethane	6.1 U
108-88-3	Toluene	6.1 U
108-90-7	Chlorobenzene	6.1 U
100-41-4	Ethylbenzene	6.1 U
100-42-5	Styrene	6.1 U
	Total Xylenes	6.1 U

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 UBTL INC.

Case No 5914

Sample Number EE919

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 5-6-86

Date Analyzed 5/17/86

Conc/Dil Factor 1.

Percent Moisture (Decanted) 17.8

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes NA

Continuous Liquid - Liquid Extraction ☐Yes NA

RECEIVED JUN 19 1986

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

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	400	U
51-28-5	2,4-Dinitrophenol	1900	U
100-02-7	4-Nitrophenol	1900	U
132-64-9	Dibenzofuran	400	U
121-14-2	2,4-Dinitrotoluene	400	U
606-20-2	2,6-Dinitrotoluene	400	U
84-66-2	Diethylphthalate	400	U
7005-72-3	4-Chlorophenyl-phenylether	400	U
86-73-7	Fluorene	400	U
100-01-6	4-Nitroaniline	1900	U
534-52-1	4,6-Dinitro-2-Methylphenol	1900	U
86-30-6	N-Nitrosodiphenylamine (1)	400	U
101-55-3	4-Bromophenyl-phenylether	400	U
118-74-1	Hexachlorobenzene	400	U
87-86-5	Pentachlorophenol	1900	U
85-01-8	Phenanthrene	74	J
120-12-7	Anthracene	20	J
84-74-2	Di-n-Butylphthalate	53	J
206-44-0	Fluoranthene	130	J
129-00-0	Pyrene	140	J
85-68-7	Butylbenzylphthalate	400	U
91-94-1	3,3'-Dichlorobenzidine	800	U
56-55-3	Benzo(a)Anthracene	67	J
117-81-7	bis(2-Ethylhexyl)Phthalate	400	U
218-01-9	Chrysene	74	J
117-84-0	Di-n-Octyl Phthalate	400	U
205-99-2	Benzo(b)Fluoranthene	400	U
207-08-9	Benzo(k)Fluoranthene	400	U
50-32-8	Benzo(a)Pyrene	61	J
193-39-5	Indeno(1,2,3-cd)Pyrene	400	U
53-70-3	Dibenz(a,h)Anthracene	400	U
191-24-2	Benzo(g,h,i)Perylene	400	U

(1)-Cannot be separated from diphenylamine

Laboratory Name UBTL INC.

Case No 5914

Sample Number EE919

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 5-6-86

Date Analyzed 5-8-86

Conc/Dil Factor: 1.

Percent Moisture (decanted) 17.8

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes NA

Continuous Liquid - Liquid Extraction ☐Yes NA

RECEIVED JUN 19 1986

CAS Number		ug/l or ug/Kg (Circle One)
319 84-6	Alpha-BHC	9.7 U
319 85-7	Beta-BHC	9.7 U
319-86-8	Delta-BHC	9.7 U
58 89-9	Gamma-BHC (Lindane)	9.7 U
76-44-8	Heptachlor	9.7 U
309 00-2	Aldrin	9.7 U
1024 57-3	Heptachlor Epoxide	9.7 U
959 98-8	Endosulfan I	9.7 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	97 U
53494-70-5	Endrin Ketone	19 U
57-74-9	Chlordane	97 U
8001-35 2	Toxaphene	190 U
12674-11-2	Aroclor-1016	97 U
11104-28 2	Aroclor-1221	97 U
11141-16-5	Aroclor-1232	97 U
53469-21-9	Aroclor-1242	97 U
12672-29-6	Aroclor-1248	97 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 30 gm V_t 5000 µl V_i 2 µl

Laboratory Name UBTL INC

Case No 5914

Sample Number EE919

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

RECEIVED JUN 1 9 1986

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)	
1. —	unknown hydrocarbon	BNA	1166	142	
2. —	unknown hydrocarbon	BNA	1246	148	
3. —	unknown hydrocarbon	BNA	1321	159	
4 —	unknown hydrocarbon	BNA	1326	195	
5. —	unknown hydrocarbon	BNA	1392	155	
6. —	unknown hydrocarbon	BNA	1401	134	
7. —	unknown hydrocarbon	BNA	1460	202	
8 —	unknown hydrocarbon	BNA	1525	132	
9. —	unknown hydrocarbon	BNA	1587	163	
10. —	unknown hydrocarbon	BNA	1704	96	
11. —	unknown hydrocarbon	BNA	1758	58	
12. —	unknown hydrocarbon	BNA	1810	130	
13. —	unknown hydrocarbon	BNA	1862	95	
14 —	unknown hydrocarbon	BNA	1918	193	
15. —	unknown	BNA	1945	47	
16 —	unknown hydrocarbon	BNA	1981	52	
17. —	unknown hydrocarbon	BNA	2239	219	
18 —	unknown	BNA	2358	155	
19. —	unknown	BNA	2421	54	
20. —	unknown	BNA	2504	145	20
21.					
22. —	NONE FOUND	VOA	—	—	0
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30					

76FWD0348

Sample Number
EE920

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: UBTL INC.
Case No: 5914
Lab Sample ID No: EP0640
QC Report No: NA
Sample Matrix: SOIL
Contract No: 68-01-6864
Data Release Authorized By: [signature]
Date Sample Received: 4-30-86

Volatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 5-3-86
Date Analyzed: 5-3-86
Conc/Dil Factor: 1. pH 7.4
Percent Moisture: (Not Decanted) 56.3

RECEIVED JUN 19 1986

CAS Number		ug/l or ug/Kg (Circle One)	
74-87-3	Chloromethane	23	U
74-83-9	Bromomethane	23	U
75-01-4	Vinyl Chloride	23	U
75-00-3	Chloroethane	23	U
75-09-2	Methylene Chloride	5.3	JB
67-64-1	Acetone	22	JB
75-15-0	Carbon Disulfide	11	U
75-35-4	1, 1-Dichloroethene	11	U
75-34-3	1, 1-Dichloroethane	11	U
156-60-5	Trans-1, 2-Dichloroethene	11	U
67-66-3	Chloroform	11	U
107-06-2	1, 2-Dichloroethane	11	U
78-93-3	2-Butanone	23	U
71-55-6	1, 1, 1-Trichloroethane	11	U
56-23-5	Carbon Tetrachloride	11	U
108-05-4	Vinyl Acetate	23	U
75-27-4	Bromodichloromethane	11	U

CAS Number		ug/l or ug/Kg (Circle One)	
78-87-5	1, 2-Dichloropropane	11	U
10061-02-6	Trans-1, 3-Dichloropropene	11	U
79-01-6	Trichloroethene	11	U
124-48-1	Dibromochloromethane	11	U
79-00-5	1, 1, 2-Trichloroethane	11	U
71-43-2	Benzene	4.1	J
10061-01-5	cis-1, 3-Dichloropropene	11	U
110-75-8	2-Chloroethylvinylether	23	U
75-25-2	Bromoform	11	U
108-10-1	4-Methyl-2-Pentanone	23	U
591-78-6	2-Hexanone	23	U
127-18-4	Tetrachloroethene	11	U
79-34-5	1, 1, 2, 2-Tetrachloroethane	11	U
108-88-3	Toluene	11	U
108-90-7	Chlorobenzene	11	U
100-41-4	Ethylbenzene	11	U
100-42-5	Styrene	11	U
	Total Xylenes	11	U

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 UBTL INC.

Case No

Sample Number EE920

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 5-6-86

Date Analyzed 5/17/86

Conc/Dil Factor 1

Percent Moisture (Decanted) 56.3

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes NA

Continuous Liquid - Liquid Extraction ☐Yes NA

RECEIVED JUN 19 1986

CAS Number		ug/l or ug/Kg (Circle One)
108 95 2	Phenol	760 U
111-44-4	bis(2-Chloroethyl)Ether	760 U
95 57-8	2-Chlorophenol	760 U
541-73 1	1 3-Dichlorobenzene	760 U
106-46 7	1 4-Dichlorobenzene	760 U
100-51-6	Benzyl Alcohol	760 U
95-50 1	1 2-Dichlorobenzene	760 U
95-48 7	2-Methylphenol	760 U
39638 32 9	bis(2-chloroisopropyl)Ether	760 U
106-44 5	4-Methylphenol	760 U
621-64 7	N Nitroso-Di-n-Propylamine	760 U
67-72-1	Hexachloroethane	760 U
98 95 3	Nitrobenzene	760 U
78 59 1	Isophorone	760 U
88 75 5	2-Nitrophenol	760 U
105-67-9	2 4-Dimethylphenol	760 U
65-85-0	Benzoic Acid	3700 U
111-91-1	bis(2-Chloroethoxy)Methane	760 U
120-83-2	2 4-Dichlorophenol	760 U
120-82-1	1 2 4-Trichlorobenzene	760 U
91-20-3	Naphthalene	760 U
106-47-8	4-Chloroaniline	760 U
87-68 3	Hexachlorobutadiene	760 U
59 50 7	4-Chloro-3-Methylphenol	760 U
91-57-6	2-Methylnaphthalene	21 J
77-47-4	Hexachlorocyclopentadiene	760 U
88-06-2	2 4 6-Trichlorophenol	760 U
95-95-4	2 4 5-Trichlorophenol	3700 U
91-58 7	2-Chloronaphthalene	760 U
88 74-4	2-Nitroaniline	3700 U
131-11-3	Dimethyl Phthalate	760 U
208 96-8	Acenaphthylene	760 U
99-09 2	3-Nitroaniline	3700 U

CAS Number		ug/l or ug/Kg (Circle One)
83 32 9	Acenaphthene	760 U
51-28 5	2 4-Dinitrophenol	3700 U
100 02-7	4-Nitrophenol	3700 U
132-64 9	Dibenzofuran	760 U
121-14-2	2 4-Dinitrotoluene	760 U
606 20-2	2 6-Dinitrotoluene	760 U
84-66-2	Diethylphthalate	760 U
7005-72-3	4-Chlorophenyl-phenylether	760 U
86-73 7	Fluorene	38 J
100-01-6	4-Nitroaniline	3700 U
534 52-1	4 6-Dinitro-2-Methylphenol	3700 U
86-30-6	N-Nitrosodiphenylamine (1)	760 U
101-55-3	4-Bromophenyl-phenylether	760 U
118 74 1	Hexachlorobenzene	760 U
87-86-5	Pentachlorophenol	3700 U
85-01-8	Phenanthrene	120 J
120 12-7	Anthracene	760 U
84-74-2	Di-n-Butylphthalate	760 U
206-44-0	Fluoranthene	210 J
129-00-0	Pyrene	220 J
85-68 7	Butylbenzylphthalate	760 U
91-94-1	3 3-Dichlorobenzidine	1500 U
56-55 3	Benzo(a)Anthracene	100 J
117-81-7	bis(2-Ethylhexyl)Phthalate	760 U
218-01-9	Chrysene	120 J
117-84-0	Di-n-Octyl Phthalate	760 U
205 99 2	Benzo(b)Fluoranthene	760 U
207-08 9	Benzo(k)Fluoranthene	760 U
50 32-8	Benzo(a)Pyrene	76 J
193 39 5	Indeno(1 2 3-cd)Pyrene	760 U
53-70 3	Dibenzo(a h)Anthracene	760 U
191-24 2	Benzo(g h i)Perylene	760 U

(1)-Cannot be separated from diphenylamine

Laboratory Name UBTL INC.

Case No 5914

Sample Number EE920

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 5-6-86

Date Analyzed: 5-8-86

Conc/Dil Factor: 1.

Percent Moisture (decanted) 56.3

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes NA

Continuous Liquid - Liquid Extraction ☐Yes NA

RECEIVED JUN 1 9 1986

CAS Number		ug/l or ug/kg (Circle One)
319-84-6	Alpha-BHC	18 U
319-85-7	Beta-BHC	18 U
319-86-8	Delta-BHC	18 U
58-89-9	Gamma-BHC (Lindane)	18 U
76-44-8	Heptachlor	18 U
309-00-2	Aldrin	18 U
1024-57-3	Heptachlor Epoxide	18 U
959-98-8	Endosulfan I	18 U
60-57-1	Dieldrin	37 U
72-55-9	4,4'-DDE	37 U
72-20-8	Endrin	37 U
33213-65-9	Endosulfan II	37 U
72-54-8	4,4'-DDD	37 U
1031-07-8	Endosulfan Sulfate	37 U
50-29-3	4,4'-DDT	37 U
72-43-5	Methoxychlor	180 U
53494-70-5	Endrin Ketone	37 U
57-74-9	Chlordane	180 U
8001-35-2	Toxaphene	370 U
12674-11-2	Aroclor-1016	180 U
11104-28-2	Aroclor-1221	180 U
11141-16-5	Aroclor-1232	180 U
53469-21-9	Aroclor-1242	180 U
12672-29-6	Aroclor-1248	180 U
11097-69-1	Aroclor-1254	370 U
11096-82-5	Aroclor-1260	370 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 30 gm V_t 5000 ul V_i 2 ul

Laboratory Name UBIL INC

Case No 5914

Sample Number EE920

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

RECEIVED JUN 19 1986

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1. —	unknown hydrocarbon	BNA	1517	141
2. —	unknown hydrocarbon		1526	158
3. —	unknown		1534	126
4. —	unknown		1543	243
5. —	unknown hydrocarbon		1811	297
6. —	unknown hydrocarbon		1919	515
7. —	unknown hydrocarbon		2014	556
8. —	unknown hydrocarbon		2060	2494
9. —	unknown hydrocarbon		2115	644
10. —	unknown hydrocarbon		2187	298
11. —	unknown hydrocarbon		2210	891
12. —	unknown hydrocarbon		2242	396
13. —	unknown hydrocarbon		2324	1510
14. —	unknown		2360	1746
15. —	unknown		2374	99
16. —	unknown		2421	83
17. —	unknown hydrocarbon		2430	148
18. —	unknown hydrocarbon		2459	728
19. —	unknown		2508	535
20. —	unknown		2557	426
21.				
22. 109-99-9	TETRAHYDRO FURAN	VOA	199	24 J
23. 60-29-7	Ethyl Ether		215	5.4 J
24.				
25.				
26.				
27.				
28.				
29.				
30.				

20

2

26 FW 06 549

Sample Number
EE 921

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: UBTL INC.
Case No: 5914
Lab Sample ID No: EP0641
QC Report No: NA
Sample Matrix: SOIL
Contract No: 68-01-6864
Data Release Authorized By: [signature]
Date Sample Received: 4-30-86

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 5-3-86
Date Analyzed: 5-3-86
Conc/Dil Factor: 1. pH 7.8
Percent Moisture: (Not Decanted) 18.3

RECEIVED JUN 19 1986

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	12 U
74-83-9	Bromomethane	12 U
75-01-4	Vinyl Chloride	12 U
75-00-3	Chloroethane	12 U
75-09-2	Methylene Chloride	23 B
67-64-1	Acetone	3.8 JB
75-15-0	Carbon Disulfide	6.1 U
75-35-4	1, 1-Dichloroethene	6.1 U
75-34-3	1, 1-Dichloroethane	6.1 U
156-60-5	Trans-1, 2-Dichloroethene	6.1 U
67-66-3	Chloroform	6.1 U
107-06-2	1, 2-Dichloroethane	6.1 U
78-93-3	2-Butanone	12 U
71-55-6	1, 1, 1-Trichloroethane	6.1 U
56-23-5	Carbon Tetrachloride	6.1 U
108-05-4	Vinyl Acetate	12 U
75-27-4	Bromodichloromethane	6.1 U

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	6.1 U
10061-02-6	Trans-1, 3-Dichloropropene	6.1 U
79-01-6	Trichloroethene	6.1 U
124-48-1	Dibromochloromethane	6.1 U
79-00-5	1, 1, 2-Trichloroethane	6.1 U
71-43-2	Benzene	6.1 U
10061-01-5	cis-1, 3-Dichloropropene	6.1 U
110-75-8	2-Chloroethylvinylether	12 U
75-25-2	Bromoform	6.1 U
108-10-1	4-Methyl-2-Pentanone	12 U
591-78-6	2-Hexanone	12 U
127-18-4	Tetrachloroethene	6.1 U
79-34-5	1, 1, 2, 2-Tetrachloroethane	6.1 U
108-88-3	Toluene	1.5 J
108-90-7	Chlorobenzene	6.1 U
100-41-4	Ethylbenzene	6.1 U
100-42-5	Styrene	6.1 U
	Total Xylenes	6.1 U

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 UBTL INC.

Case No 5914

Sample Number EE921

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared 5-6-86

Date Analyzed 5/17/86

Conc/Dil Factor 1

Percent Moisture (Decanted) 18.3

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes NA

Continuous Liquid - Liquid Extraction ☐Yes NA

RECEIVED JUN 19 1986

CAS Number		ug/l or ug/Kg (Circle One)	
108 95 2	Phenol	400	U
111-44 4	bis(2-Chloroethyl)Ether	400	U
95 57-8	2-Chlorophenol	400	U
541-73 1	1 3-Dichlorobenzene	400	U
106-46 7	1 4-Dichlorobenzene	400	U
100 51-6	Benzyl Alcohol	400	U
95 50 1	1 2-Dichlorobenzene	400	U
95-48 7	2-Methylphenol	400	U
39638 32-9	bis(2-chloroisopropyl)Ether	400	U
106-44-5	4-Methylphenol	400	U
621-64 7	N-Nitroso-Di-n-Propylamine	400	U
67-72-1	Hexachloroethane	400	U
98 95 3	Nitrobenzene	400	U
78 59 1	Isophorone	400	U
88 75 5	2-Nitrophenol	400	U
105-67-9	2 4-Dimethylphenol	400	U
65-85-0	Benzoic Acid	2000	U
111-91-1	bis(2-Chloroethoxy)Methane	400	U
120-83-2	2 4-Dichlorophenol	400	U
120-82-1	1 2 4-Trichlorobenzene	400	U
91-20 3	Naphthalene	400	U
106-47-8	4-Chloroaniline	400	U
87-68 3	Hexachlorobutadiene	400	U
59 50 7	4-Chloro-3 Methylphenol	400	U
91-57-6	2-Methylnaphthalene	400	U
77-47-4	Hexachlorocyclopentadiene	400	U
88-06-2	2 4 6-Trichlorophenol	400	U
95 95-4	2 4 5-Trichlorophenol	2000	U
91-58-7	2-Chloronaphthalene	400	U
88-74-4	2-Nitroaniline	2000	U
131-11-3	Dimethyl Phthalate	400	U
208 96-8	Acenaphthylene	400	U
99-09 2	3-Nitroaniline	2000	U

CAS Number		ug/l or ug/Kg (Circle One)	
83 32-9	Acenaphthene	400	U
51-28 5	2 4-Dinitrophenol	2000	U
100-02-7	4-Nitrophenol	2000	U
132-64 9	Dibenzofuran	400	U
121-14-2	2 4 Dinitrotoluene	400	U
606 20-2	2 6-Dinitrotoluene	400	U
84-66-2	Diethylphthalate	400	U
7005-72-3	4-Chlorophenyl-phenylether	400	U
86-73-7	Fluorene	21	J
100-01-6	4-Nitroaniline	2000	U
534-52-1	4 6-Dinitro-2-Methylphenol	2000	U
86-30-6	N-Nitrosodiphenylamine (1)	400	U
101-55-3	4-Bromophenyl-phenylether	400	U
118 74-1	Hexachlorobenzene	400	U
87-86-5	Pentachlorophenol	2000	U
85-01-8	Phenanthrene	260	J
120-12-7	Anthracene	38	J
84 74-2	Di-n-Butylphthalate	26	J
206-44-0	Fluoranthene	540	
129-00-0	Pyrene	440	
85-68 7	Butylbenzylphthalate	17	J
91-94-1	3 3-Dichlorobenzidine	810	U
56-55 3	Benzo(a)Anthracene	200	J
117-81-7	bis(2-Ethylhexyl)Phthalate	400	U
218-01-9	Chrysene	230	J
117-84-0	Di-n-Octyl Phthalate	400	U
205 99-2	Benzo(b)Fluoranthene	260	J
207-08-9	Benzo(k)Fluoranthene	100	J
50 32-8	Benzo(a)Pyrene	180	J
193 39 5	Indeno(1, 2, 3-cd)Pyrene	130	J
53-70-3	Dibenzo(a,h)Anthracene	53	J
191-24 2	Benzo(g,h,i)Perylene	140	J

21

25.8

37.8

537

437

NO TC

(1) Cannot be separated from diphenylamine

Form I 7/85

Pyrene $\frac{10,731 \times 2000(V_t)}{2(V_i) \times 30(wt) \times 0.817(d)} \doteq 437.8 \rightarrow 440$

quant report

Mass spectra present

Laboratory Name UBTL INC.
Case No 5914

Sample Number
EE921

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: Low Medium (Circle One)
Date Extracted/Prepared 5-6-86
Date Analyzed 5-7-86
Conc/Dil Factor: 1.
Percent Moisture (decanted) 18.3

GPC Cleanup ☐Yes ☒No
Separatory Funnel Extraction ☐Yes NA
Continuous Liquid - Liquid Extraction ☐Yes NA

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	9.8 U
60-57-1	Dieldrin	20 U
72-55-9	4,4'-DDE	28
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	84
72-43-5	Methoxychlor	98 U
53494-70-5	Endrin Ketone	20 U
57-74-9	Chlordane	98 U
8001-35-2	Toxaphene	200 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	98 U
11097-69-1	Aroclor-1254	200 U
11096-82-5	Aroclor-1260	200 U

RECEIVED JUN 19 1986

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 30 gm V_t 5000 ul V_i 2 ul

Laboratory Name UBTL INC

Case No 5914

Sample Number EE921

Organics Analysis Data Sheet
(Page 4)

RECEIVED JUN 19 1986

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)	
1. —	a benzo fluorene	BNA	1702	226	J
2. —	a benzofluorene		1711	80	J
3. —	unknown hydrocarbon		1757	40	
4. —	unknown hydrocarbon		1808	179	
5. —	unknown		1825	123	
6. —	unknown hydrocarbon		1918	893	
7. —	unknown hydrocarbon		2012	160	
8. —	unknown		2023	68	
9. —	a benzo pyrene		2073	237	
10. —	A BENZO FLUORANTHENE		2115	137	
11. —	UNKNOWN HYDROCARBON		2184	281	
12. —	UNKNOWN HYDROCARBON		2239	279	
13. —	UNKNOWN HYDROCARBON		2248	206	
14. —	UNKNOWN HYDROCARBON		2293	107	
15. —	UNKNOWN HYDROCARBON		2427	262	
16.					
17. —	NONE FOUND	VOA	—	—	
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

15

0

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

ESD/Central Regional Laboratory
DATA TRACKING FORM FOR CONTRACT SAMPLES

CRL Data Set No. SF 3196 CERCLIS No. MID980499875

SMO Case No. 5914 Site Name and Location: Sandfill Landfill #2

Name of Contractor or EPA Laboratory: UBTL Data User: Sit

No. of Samples: 6 Date Samples or Data Received: 6/3/86

1. Have chain-of-custody records been received? YES ✓ NO ___
2. Have Traffic Reports or packing lists been received? YES ✓ NO ___
3. If no, are Traffic Report or packing list numbers written on the chain-of-custody record? YES ___ NO ___
4. If no, which Traffic report or packing list numbers are missing?

RECEIVED JUN 19 1986

Are basic data forms in? YES ✓ NO ___

Number of samples claimed: 6 Number of samples received: 6

Checked by: Milia Feliciano Date: 6/3/86

Received by Contract Project Management Section: JFP Date: 6/4/86

Review Started: 10 June 86 Reviewer Signature: [illegible]

Total time spent on review: 4 hr Date review completed: 18 June 86

Copied (xeroxed) by: Michael Date: ___

Mailed to Data User by: Milia Feliciano Date: 6/18/86

DATA USERS:

Please fill in the blanks below and return this form to: Sylvia Griffin, Data Management Coordinator, Region V, 5SCRL

Data received by: Cynthia Pugh Date: 6-19-86

Q.A. review received by: Cynthia Pugh Date: 6-19-86

Inorganic Data Complete [X], Suitable for Intended Purposes [ ] ✓ [ ] if acceptable.
Organic Data Complete [✓], Suitable for Intended Purposes [ ] List problems below.
Dioxin Data Complete [ ], Suitable for Intended Purposes [ ]
SAS Data Complete [ ], Suitable for Intended Purposes [ ]

See Attached "Missing Data Request Form" [ ]
PROBLEMS: Please indicate reasons (if any) why data are not suitable for your uses. Other problems.

Received by Data Management Coordinator, CRL for File: Date: ___

Signature: