JAN 0 9 1979

Horsen - 12
Reference 7

Southern District Headquarters
Route 3, Wakanda Drive
Waunakee, WI 53597

January 2, 1979

4410

Mr. Ray Washkovick, Sr.
Route 2
Ripon, WI 54971

Dear Mr. Washkovick:

This letter is to address your complaint regarding toxic industrial waste from the Speed Queen plant located in the City of Ripon being deposited at the City of Ripon solid waste disposal site.

Our Southern District Office has recently received an application for a license to operate an incinerator at the Speed Queen plant. The proposed unit is designed to dispose of oils, paint sludge, solvents and other flammable wastes which are presently being deposited at the City of Ripon solid waste disposal site. If plans proceed on schedule, the unit should be on-line by June 1, 1979.

Your concern for the environment is appreciated. If I can be of any further assistance, please feel free to contact me. My telephone number is 266-0889.

Sincerely,

James Bakken
Solid Waste Specialist

JB:cb
cc: Bureau of Solid Waste Mgt. - Pyare
Horicon Area Office

...RTMENT OF NATURAL RESOURCES

WASTE REVIEW FORM

FORM 4... 34
REV. 7...

GENERATOR OF WASTE: Speed Queen Corp.	TELEPHONE NUMBER: 414-787-3717
STREET OR ROUTE: 205 E. Main	TYPE OF PROCESS WHICH PRODUCES WASTE: Gear production - balancing
CITY, STATE, ZIP CODE: Wautoma, WI.	
DISPOSAL FACILITY: City Wautoma Landfill	DNR LICENSE NUMBER: 1228
SITE LOCATION: SW ¼ SW ¼ SECTION 22 T 19N R 10E	COUNTY: Waushara
AMOUNT AND FREQUENCY OF DISPOSAL: 55 gal. once per month	CONTAINER SIZE: ☒ DRUMS ☐ BAGS ☐ CARTONS ☐ OTHERS
NUMBER OF CONTAINERS: one	

WASTE COMPONENTS	% BY WEIGHT OR VOLUME	TOXICITY DATA LD_{50} - ORAL	LD_{50} - DERMAL	LD_{50} - INHALATION
magnesium filings				

FLASH POINT

SP. GRAVITY

pH

NFPA - HAZARD CLASSIFICATIONS: ☐ HEALTH ☐ REACTIVITY ☒ FLAMMABILITY

OTHERS

SPECIAL PROPERTIES AND HANDLING INSTRUCTIONS (I.E., LABELING OR OSHA DATA SHEETS):

- protect from sparks or flame
- filings will be mixed in with municipal refuse at disposal site and covered daily

	YES	NO
1. IS FUTURE USE OF MATERIAL A POSSIBILITY?	☒	☐
2. CAN THE MATERIAL STILL BE USED AS ORIGINALLY INTENDED?	☐	☒
3. CAN IT BE RETURNED TO MANUFACTURER FOR DISPOSAL OR RECYCLING OR CAN IT BE RECYCLED ON A LOCAL BASIS?	☐	☐
4. HAS ANY DISPOSAL ACTION BEEN TAKEN TO DATE?	☐	☒

5. WHAT ARE PREVIOUSLY EMPLOYED METHODS OF DISPOSAL? EXPLAIN: none - this is the start of a new production process

Donohue

REFERENCE 8
SITE NAME Ripon Landfill
SITE ID WID 980616190

DC

November 17, 1981

State of Wisconsin
Department of Natural Resources
P. O. Box 7921
Madison, WI 53707

NOV 19 1981
response due 12/19/81

Attn: Ms. Barbara Bickford
Bureau of Solid Waste Management

Re: City of Ripon Landfill
License No. 467
Donohue Project No. 11829

Dear Ms. Bickford:

In accordance with the authorization of the City of Ripon, we have completed installation of new monitoring wells at the referenced site. The purpose of the monitoring wells is to determine the position of the phreatic surface beneath the site and to provide groundwater sampling points for long-term water quality analyses.

The monitoring well array consists of three wells completed at varying depths so that ten feet of screen occurs below the water table and five feet above. Our original intention was to place four wells at the corners of the site to account for all spatial conditions. During field efforts, however, extreme difficulty was encountered in the northwest corner, precluding completion of that well. Subsequent review of the water table and geologic data indicates pronounced uniformity of stratigraphic conditions and low gradients slightly falling to the southwest. We feel that the three well array will provide acceptable monitoring control within the operative budget constraints. Complete soil boring logs and well installation diagrams are attached.

Water analytic parameters will be performed in accordance with NR 180.13,(11), (a), 7 and will include water elevation, field pH, field conductivity, COD, dissolved iron, hardness, chloride, sulfate, and alkalinity. We anticipate acquisition of the first series of samples during the third week of November and will forward the data when complete.

Donohue & Associates, Inc.
4738 North 40th Street
Sheboygan, Wisconsin 53081
Engineers & Scientists
414 458 87[illegible]

Donohue

I trust you will find this discussion in order. If you have any questions, please feel free to call me.

Sincerely,

DONOHUE & ASSOCIATES, INC.

Stephen J. Haverl, P.G.
Senior Engineering Geologist

Robert E. Klink

Robert Klink, P.E.
Project Engineer

SJH/slg

enc: Soil Boring Logs
Well Installation Diagrams

cc: Ken Hein, DNR Solid Waste Specialist
Claude Lee, City of Ripon

Refer to Sept 25, 1981 letter from Bob Klink to Claude Lee (Ripon) for map of well locations (1979)

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

REFERENCE 9
SITE NAME Ripon Landfill
SITE ID WID980610190

M E M O R A N D U M

DATE: July 22, 1985
TO: File
FROM: Robert Hingtgen RH
SUBJECT: Wisconsin/R05-8310-01A-37
Ripon/City of Ripon Landfill
WID980610190

On June 26, 1985, the author, Ron Bock, and Arlene Pratl met with Dave Edwards, Wisconsin Department of Natural Resources, and Phillip Hoopman, Ripon Wastewater Treatment Plant Superintendent, in order to resample wells at the Ripon Landfill.

Mr. Hoopman had an assistant, John Wendler, take us to the landfill and open the wells for us. The following table contains the wells which were sampled and the water levels in each well.

Well	Depth to Water (Ft.)	Total Depth (Ft.)
5A	50.85	69.00
5	51.33	56.00
6	38.69	47.00
8	23.61	34.00

Well 5 produced a reading of 1000 ppm methane in the well, and 4 ppm in the breathing zone, on the OVA.

Samples were collected June 27, 1985. At the request of Mr. Hoopman, samples were also collected for the wastewater treatment plant. This involved filling one plastic milk jug to approximately one-half volume for each well.

Ripon Landfill has been covered with a clay, but a large leachate seep was observed on the east border of the landfill between wells 6 and 8. The landfill is easily accessible as it borders county road NN. No barrier exists between the landfill and road.

28A:4M

CORRESPONDENCE/MEMORANDUM

STATE OF WISCONSIN

DC

Date: August 26, 1981 File Ref. 4440

To: Ken Hein, Horicon Area

REFERENCE 11
SITE NAME Ripon Landfill
SITE ID WED 980610190

From: Ellen Smith, SW/3, GEF II

Subject: City and Town of Ripon Landfill, Lic. #467

This memo is in response to your request that the Residuals Section provide technical assistance on the proper abandonment of existing wells at the Ripon landfill and on the installation of new monitoring points.

Apparently the four observation wells installed through waste in 1974 have since been buried or partially buried by refuse; only well #3 has been located. It may be possible to locate the remaining wells in order to abandon them. Bob Klink at Donohue has a surveyor's report dated 1974 showing boring locations (he's not sure if the survey was done before or after drilling), land surface contours, and boring elevations (don't know if they are pipe tops or ground surface). The Bureau doesn't have a copy of that report. If it proves difficult to locate the wells using this map, I don't feel an extensive search is justified to find them and abandon them. Soils beneath the waste are primarily sands (probably SP and SM) and groundwater was 1 to 8 feet below the waste in 1974, so groundwater contamination is likely with or without these wells.

Any well(s) which are located should be abandoned by grouting the hole(s) with bentonite-Portland cement slurry while removing the galvanized steel well casing. (A slurry pipe should be run through the well casing to just below the base of the casing, and the well casing should be pulled out gradually while slurry is pumped into the hole below the pipe bottom.)

It is extremely important that a groundwater monitoring system be established to define flow patterns, evaluate the extent of any existing contamination, and estimate directions of potential contaminant migration. This information is needed to plan for the orderly completion and proper abandonment of the landfill site. Regionally, the topography suggests that flow is toward the south and west, though local conditions may differ. If the 1974 boring elevations are for the points from which water levels were measured in 1974, these measurements also suggest a gentle southwestward gradient. Given the tentative nature of the water level data, I would suggest that 4 or 5 observation wells be installed just beyond the landfill perimeter on all sides of the landfill site. Well screens should be at least 15 feet in length and

positioned to intersect the groundwater table, which is estimated to be at around 820 to 830 feet elevation (USGS). Wells should be constructed of 2-inch diameter PVC pipe. After initial water elevations are known, it should be possible to define prevailing groundwater flow directions and determine additional monitoring needs. At least one down gradient well should be converted to a nest by adding a piezometer with a maximum 5-foot screen at least 15 feet below the bottom of the observation well's screen. It is likely that additional wells will also be needed at greater distances down gradient of the site to define the extent of contamination. Complete soil boring logs and well construction information (in accordance with s. NR 180.13(6)(b)3 c. and g.) and surveyed locations should be compiled for all newly constructed wells and provided to the Bureau as soon as they become available. When wells are in place, initial monitoring should include, at a minimum, the parameters specified in s. NR 180.13(11)(a)7.

Your July 27, 1981 letter to the City of Ripon encourages the City to develop an abandonment plan for the site. Given the site's poor hydrogeologic setting, I would add that abandonment should be planned so as to achieve positive drainage away from the fill area as soon as possible, and not delayed merely in order to prolong the site life.

Topic 3 of your July 27 letter needs clarification: 3:1 slopes are not the minimum requirement for final grades, but the maximum allowable landfill side slope under NR 180. Also, the City should be aware of NR 180 submittal requirements and fees for an abandonment plan.

Please keep me informed on the City's progress in this matter. I understand that you will be meeting with the City again on August 31.

ES:cm/0687Q

cc: Southern District Headquarters

CORRESPONDENCE/MEMORANDUM

STATE OF WISCONSIN

Date: September 22, 1981

File Ref: 4400

To: Ken Hein - Horicon Area

REFERENCE 13
SITE NAME Ripon Landfill
SITE ID WFD 980616190

From: Ellen Smith - SW/3

Subject: Ripon Landfill, License #467

This memo is in response to your request for Bureau guidance on municipal sludge codisposal at the Ripon landfill.

In a few cases involving the codisposal of papermill sludge, the Department has required that sludge acceptance be limited initially to 1 cubic yard sludge for each 10 gate yards of refuse. Where this level of sludge acceptance is found to cause operational problems, sludge volumes are reduced. If no problems occur, increased sludge acceptance has been allowed on an experimental basis. Experience statewide has found that sludge codisposal is successful only with relatively dry sludges and only at landfills with provision for leachate containment and collection.

The Ripon sludge is at 9-10% solids, which usually corresponds to a liquid consistency.

The Ripon landfill does not provide for leachate control. Because of these factors, continued disposal of any municipal sludge at the landfill is inadvisable.

If the city doesn't have capacity to dispose of all its sludge on farmland at present, some sludge may have to continue to go to the landfill while alternatives are developed. If this occurs, the 10:1 ratio may be a good guideline on a temporary basis. The refuse loading rate you estimated on the basis of population is 8,402,000 lbs/year. At 500 lbs/gate yard (a conservatively high assumption), this amounts to about 16,000 gate yards per year. With 10 yards refuse to 1 yard sludge, 1600 yards (or 323,000 gallons) of sludge could be taken to the landfill. At 1100 gallons per load, one load per day should be the limit on sludge acceptance. To minimize operating problems, sludge should only be disposed of at or near the close of the operating day, but before daily cover is applied. Shallow trenches may be dug into the day's refuse to help maximum absorption and prevent runoff of sludge.

Sludge acceptance at Ripon should be treated strictly as a temporary measure, since this material causes operating problems at the landfill, contributes to leachate production, and can be disposed of in an environmentally sound manner through land application. If the sludge is suitable, it may be desirable to develop sludge storage facilities to handle sludge during periods when land is unavailable for spreading. An NR 180 storage approval could be needed for storage facilities not on treatment plant property.

ES:ok
cc: Solid Waste Section - Southern District Headquarters
Sludge Coordinator - Southern District Headquarters

DATE 10/8/86 TDD # RS8310-015

TIME 12:45 pm Page 1 of

SITE Ripon Landfill

CONTACT Bob Lukoski - Fire Chief PHONE (414) 748-2888

City of Ripon

REFERENCE 16

SITE NAME Ripon Landfill

SITE ID WID980610190

SUBJECT: Fire or Explosion Threat

Mr. Lukoski stated that he did not consider the Ripon Landfill to be a Fire or Explosion hazard.

Robert Haney

Date: 10/8/86

DATE 10/8/86 TDD # RS8310-01J

TIME 4:00 pm Page ____ of ____

SITE Ripon Landfill

CONTACT Dave Edwards PHONE (414) 485-4435

WDNR

REFERENCE 17

SITE NAME Ripon Landfill

SITE ID WID980610190

SUBJECT: Ripon Landfill

Mr. Edwards stated that the Falkenberg well is located about 500' south of the landfill and the well log is as follows: 0-15' clay, 15'-20' sand and gravel, 20'-100' limestone, and 100'-150' sandstone. The well is cased to 44 feet, and the static water level is about 20 feet. Mr. Edwards also thought that the limestone and overlying drift are hydraulically connected as the limestone is quite fractured in that area. Mr. Edwards was not aware of any federally endangered species in the wetlands located northeast of the site.

Robert Hinton

Date: 10/8/86

Reference 18
SITE NAME Ryan Landfill
SITE ID LnTD 980610120

NOV 23 1992

JUN 17 1977

State of Wisconsin
Department of Natural Resources
Box 7921
Madison, Wisconsin 53707

COUNTY OF FOND DU LAC

NOTE:
White Copy — Division's Copy
Green Copy — Driller's Copy
Yellow Copy — Owner's Copy

WELL CONSTRUCTOR'S REPORT
Form 3300 - 15 Rev. 12-76

1. COUNTY Fond du Lac — CHECK (✓) ONE: ☐ Town ☐ Village ☐ City — Name Ryan

2. LOCATION — ¼ of ¼ SE — Section 7 — Township 16 — Range 14
OR — Lot or Street No. — Street Name CTY HWY
AND — If available, subdivision name, lot & block No.

3. NAME ☐ OWNER ☐ AGENT AT TIME OF DRILLING CHECK (✓) ONE — Allied Aluminum Bldg
ADDRESS
POST OFFICE Fond du Lac, Wis

4. Distance in feet from well to nearest: (Record answer in appropriate Blank)
Building — Sanitary Bldg. Drain: C.I. — Other — Sanitary Bldg. Sewer: C.I. — Other — Floor Drain Connected To: C.I. Sewer — Other Sewer — Storm Bldg. Drain: C.I. — Other — Storm Bldg. Sewer: C.I. — Other
Street Sewer: San. — Storm — C.I. — Other — Foundation Drain Connected to: Sewer — Clear water Line — Sewage Sump — Clear water Sump — Sewage Sump: C.I. — Other — Clear water Sump — Septic Tank — Holding Tank — Sewage Absorption Unit: Seepage Pit — Seepage Bed — Seepage Trench
Privy — Pet Waste Pit — Pit Well Pump Tank — Noncontaining Existing — Subsurface Pumproom Noncontaining Existing — Barn Gutter — Animal Barn Pen — Animal Yard — Silo With Pit — Glass Lined Storage Facility — Silo w/o Pit — Earthen Silage Storage Trench Or Pit
Temporary Manure Stack — Watertight: Liquid Manure Tank — Solid Manure Storage Structure — Subsurface Gasoline or Oil Tank — Waste Pond or Land Disposal Unit (Specify Type) — Other (Give Description)

5. Well is intended to supply water for: Future Home

6. DRILLHOLE

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
8	Surface	40			
6	40	102			

7. CASING, LINER, CURBING AND SCREEN
Material, Weight, Specification & Method of Assembly

Dia. (in.)	Material, Weight, Specification & Method of Assembly	From (ft.)	To (ft.)
6	SCH 40 pipe	Surface	40
	.280 wall		
	Well fit-		
	P-53		

8. GROUT OR OTHER SEALING MATERIAL

Kind	From (ft.)	To (ft.)
Mud	Surface	8
Cement	8	40

9. FORMATIONS

Kind	From (ft.)	To (ft.)
clay	Surface	15
Sand Rock	15	102

10. TYPE OF DRILLING MACHINE USED
☐ Cable Tool — ☐ Rotary w/drilling mud — ☐ Rotary air w/drilling mud — ☐ Rotary w/drilling mud — ☐ Rotary hammer w/drilling mud & air — ☐ Rotary hammer & air — ☐ Reverse Rotary — ☐ Jetting with: Air, Water

Well construction completed on 5-11 19 77

11. MISCELLANEOUS DATA
Yield Test: 2 Hrs at 20 GPM
Depth from surface to normal water level 47 Ft.
Depth of water level when pumping 65 Ft. Stabilized ☑ Yes ☐ No

Well is terminated 12 inches ☑ above ☐ below final grade
Well disinfected upon completion ☑ Yes ☐ No
Well sealed watertight upon completion ☐ Yes ☑ No

Water sample sent to Madison laboratory on 5-11 19 77

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, method of finishing the well, amount of cement used in grouting, blasting, etc., should be given on reverse side.

Signature: [signature] Registered Well Driller
Complete Mail Address

4

NOV 2 3 1982

WELL CONSTRUCTOR'S REPORT TO WISCONSIN STATE BOARD OF HEALTH

See Instructions on Reverse Side

1. County Fond du Lac (Town ☒ / Village ☐ / City ☐) Ripon — Check one

2. Location Township 15 North Range 14 East Section 7
Name of street and number of premise or Section, Town and Range numbers

RECEIVED
SEP 29 1958
ENVIRONMENTAL SANITATION

3. Owner ☐ or Agent ☐ L. F. Lehman
Name of individual, partnership or firm

4. Mail Address Route #2 Ripon, Wisconsin Box 273
Complete address required

5. From well to nearest: Building 5 ft; sewer None ft; drain None ft; septic tank 40 ft; dry well or filter bed 50 ft; abandoned well 11 ft.

6. Well is intended to supply water for: Farm & home

7. DRILLHOLE:

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
10	0	23	6	23	158

8. CASING AND LINER PIPE OR CURBING:

Dia. (in.)	Kind and Weight	From (ft.)	To (ft.)
8	Steel casing	0	63

9. GROUT:

Kind	From (ft.)	To (ft.)
Clay puddle & sandrock cuttings	0	23

10. FORMATIONS:

Kind	From (ft.)	To (ft.)
Sand	0	23
Gravel & hardpan	23	62
Limerock	62	82
Shale & sandrock	82	90
Limerock & shale	90	120
Sandrock	120	165

11. MISCELLANEOUS DATA:

Yield test: 6 Hrs. at 9 GPM.

Depth from surface to water-level: 25 ft.

Water-level when pumping: 30 ft.

Water sample was sent to the state laboratory at: Oshkosh City on 9/22 19 58

Construction of the well was completed on: September 15 19

The well is terminated 10 ft. ☒ above, below ☐ the permanent ground surface

Was the well disinfected upon completion? Yes X No

Was the well sealed watertight upon completion? Yes X No

Signature F. J. SCHAFER & SONS — Registered Well Driller

Fremont, Wisconsin — Complete Mail Address

Please do not write in space below

Rec'd SEP 22 1958 No. 4111

Ans'd

Interpretation Safe

	10 ml	10 ml	10 ml	10 ml
Coli 24 hrs.	0	0	0	0
48 hrs.	0	0	0	0
Confirm				
B. Coli				

State of Wisconsin
Department of Natural Resources
Box 7921
Madison, Wisconsin 53707

NOTE:
White Copy - Division's Copy
Green Copy - Driller's Copy
Yellow Copy - Owner's Copy

WELL CONSTRUCTOR'S REPORT
Form 3300-15 Rev. 12-76

1. COUNTY: Fond du Lac | CHECK (/) ONE: ☒ Town ☐ Village ☐ City | Name: Byron

2. LOCATION OR: ¼ Section: SE | Section: 7 | Township: 16N | Range: 14E
Grid or Street No.: 6 FF | Street Name:
AND: If available subdivision name, lot & block No.:

3. NAME ☒ OWNER ☐ AGENT AT TIME OF DRILLING CHECK (/) ONE: Ray Woodworth
ADDRESS: 6 FF Byron Old Plank Rd
POST OFFICE: Byron

4. Distance in feet from well to nearest: (Record answer in appropriate blank)

Building	Sanitary Bldg. Drain C.I.	Sanitary Bldg. Drain Other	Sanitary Bldg. Sewer C.I.	Sanitary Bldg. Sewer Other	Floor Drain Connected To: C.I. Sewer	Floor Drain Connected To: Other Sewer	Storm Bldg. Drain C.I.	Storm Bldg. Drain Other	Storm Bldg. S C.I.	Storm Bldg. S Other
15										

Street: Sewer San.	Street: Sewer Storm	Other Sewers C.I.	Other Sewers Other	Foundation Drain Connected to: Sewage Sump	Foundation Drain Connected to: Clearwater Sump	Sewage Sump C.I.	Sewage Sump Other	Clearwater Sump	Septic Tank	Holding Tank	Sewage Absorption Unit: Seepage Pit	Seepage Bed	Seepage Trench
									100			125	

Privy	Pit Privy Waste Pit	Pit: Well	Pit: Pump	Pit: Tank	Nonconforming Existing: Subsurface Pumproom	Nonconforming Existing	Barn Gutter	Animal Barn Pen	Animal Yard	Silo With Pit	Glass Lined Storage Facility	Silo w/o Pit	Earthen Silage Storage Trench () Pit

Temporary Manure Stack | Watertight Liquid Manure Tank | Solid Manure Storage Structure | Subsurface Gasoline or Oil Tank | Waste Pond or Land Disposal Unit (Specify Type) | Other (Give Description)

5. Well is intended to supply water for: Home

6. DRILLHOLE

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
10	Surface	54			
6	54	180			

7. CASING, LINER, CURBING AND SCREEN
Material, Weight, Specification & Method of Assembly

Dia. (in.)	Material, Weight, Specification & Method of Assembly	From (ft.)	To (ft.)
6	~~NEW BLACK STEEL~~ NEW BLACK STEEL PE-18.97 ASTM-A53	Surface	54

8. GROUT OR OTHER SEALING MATERIAL

Kind	From (ft.)	To (ft.)
Slurry Neat Drilling	Surface	54

9. FORMATIONS

Kind	From (ft.)	To (ft.)
Clay	Surface	15
Gravel & Sand	15	54
Limestone	54	140
Sandstone	140	180
Water Bearing		

10. TYPE OF DRILLING MACHINE USED
☐ Cable Tool ☒ Rotary-hammer w/drilling mud & air ☐ Jetting with ☐ Air ☐ Water
☐ Rotary-air w/drilling mud ☐ Rotary-hammer & air
☐ Rotary-w/drilling mud ☐ Reverse Rotary

11. MISCELLANEOUS DATA
Yield Test: 8 Hrs. at 10 GPM
Depth from surface to normal water level: 30 Ft.
Depth of water level when pumping: 36 Ft. Stabilized ☒ Yes ☐ No
Water sample sent to: Oshkosh laboratory on July 30 19

Well construction completed on July 10 19
Well is terminated 10 inches ☒ above ☐ below final grade
Well disinfected upon completion ☒ Yes ☐ No
Well sealed watertight upon completion ☒ Yes ☐ No

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, streets, walls, method of finishing the well, amount of cement used in grouting, blasting, etc., should be given on reverse side.

Signature: Willard Clark
Registered Well Driller

Complete Mail Address: 5411 Byron Rd. Oakfield

NOV 2 3 1982

WELL CONSTRUCTOR'S REPORT TO WISCONSIN STATE BOARD OF HEALTH

See Instructions on Reverse Side

NOV 2 3 1982

1. County Fond du Lac — Town ☒ Village ☐ City ☐ Ripon (Check one and give name)

2. Location Sec 7 SE¼ SW¼ T16N R14E (Name of street and number of premise or Section, Town and Range numbers)

3. Owner ☒ or Agent ☐ ... Muscovick (Name of individual, partnership or firm)

4. Mail Address Ripon R1 (Complete address required)

RECEIVED

5. From well to nearest: Building 6 ft; sewer ___ ft; drain ___ ft; septic tank 50 ft; dry well or filter bed ___ ft; abandoned well 50 ft.

SEP 2 1962

6. Well is intended to supply water for: Home

SAN. ENGIN.

7. DRILLHOLE:

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
10	0	76			
6	76	126			

8. CASING AND LINER PIPE OR CURBING:

Dia. (in.)	Kind and Weight	From (ft.)	To (ft.)
6	Steel	0	76

9. GROUT:

Kind	From (ft.)	To (ft.)
Cement Lime	0	76

10. FORMATIONS:

Kind	From (ft.)	To (ft.)
Clay	0	15
sand & sand	15	28
sand rock	28	65
soft lime rock	65	70
lime rock firm	70	115
and rock	115	126
its, heaving		

11. MISCELLANEOUS DATA:

Yield test: 5 Hrs. at 25 GPM.

Depth from surface to water-level: 30 ft.

Water-level when pumping: 40 ft.

Water sample was sent to the state laboratory at: Ripon (City) on 9/15 1962

Construction of the well was completed on: Aug 25 1962

The well is terminated 10 inches ☒ above, below ☐ the permanent ground surface.

Was the well disinfected upon completion? Yes X No ___

Was the well sealed watertight upon completion? Yes X No ___

Signature Wallace Clark (Registered Well Driller) — Clark Well Drilling (Complete Mail Address)

Please do not write in space below

Rec'd	No.
Ans'd	
Interpretation	

	10 ml	10 ml	10 ml	10 ml	10 ml
Gas—24 hrs.					
48 hrs.					
Confirm					
B. Coli					

Examiner ___

UNIVERSITY OF WISCONSIN GEOLOGICAL & NATURAL HISTORY SURVEY
1815 University Avenue, Madison, Wisconsin 53706

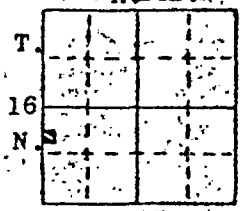
Log No D119-FL-603

Well name Wisconsin Power & Light Co. Well #9

County: Fond du Lac

Completed... 6/72
Field check.
Altitude.... 843' ETM
Use..... Municipal
Static w.l.. 19' 5"
Spec. cap... 3.5 GPM/ft.

Owner.... Wisconsin Power & Light Co.
Address.. 112 Watson St., P.O. Box 203
Ripon, WI 54971
Driller.. Layne-Northwest Co.
Engineer. Wisconsin Power & Light Co.
Madison, Wisconsin



Quad. Ripon 7½'

Drill Hole					
Dia.	from	to	Dia.	from	to
24"	0	114'	23"	114'	320'

Casing & Liner Pipe or Curbing							
Dia.	Wgt.& Kind	from	to	Dia.	Wgt.& Kind	from	to
24"	3/8 wall steel bk A53 Grade B welded	+6"	114'	16"	3/8 wall bk A53 Grade B welded	+12"	135'

Grout	from	to
Neat Cement	0	135'

Drilling method:
Samples from 0 to 320' Rec'd:1/5/73

Studied by: Kathleen Massie

Issued: 5/6/83

Formations: Surface, Drift, St. Peter Sandstone.

Remarks: Well tested for 12 hours at 395 GPM with 110' 7" of drawdown.

LOG OF WELL:

	Depths	Graphic Section	Rock Type	Color	Grain Size Mode	Grain Size Range	Miscellaneous Characteristics
Sur.	0-5		Soil	Dk brown	—	—	Little gravel. Trace organic material.
	5-10		Gravel	Mxd brown	L peb	Gran/VL peb	Fos dolomite,dol,quartz,cht,dol cem ss,trap,granite. Ltl sand.
	10-15		"	Mxd grey	M peb	Gran/L peb	Same but much sand.
D	15-20		Sand	"	C	Vfn/VC	Many dolomite frags. Much gravel. Ltl silt. Trace clay.
R	20-25		Gravel	"	M peb	Gran/L peb	Fos dol,dol,qtz,cht,grnt,trap. Much sand(most dolic). Tr silt.
I	25-30		Sand	"	C	Vfn/VC	Many dolomite fragments. Much gravel. Trace silt.
F	30-35		Gravel	"	L peb	Gran/VL peb	Fos dolomite,dolomite,quartz,chert,trap,granite. Much sand.
T	35-40		Sand	Brown	Fn	Vfn/VC	Dolomitic. Much silt. Little clay. Trace gravel.
	40-45		"	"	C	"	Many dolomite fragments. Much gravel. Trace silt.
	45-50		Clay	Gry brown	—	—	Calcareous. Much silt. Little sand.
	50-55		Silt & cl	"	—	—	Calcareous. Little sand. Trace gravel.
	55-60		Snd & silt	"	Fn	Vfn/VC	Calcareous. Much gravel, clay.
	60-65		"	"	"	"	Same.
	65-70		"	"	"	"	"
	70-75		"	"	Fn/M	"	Same but little gravel.
	75-80		Silt & cl	"	—	—	Calcareous. Much sand. Little gravel.
	80-85		Snd & silt	"	M	Vfn/VC	Calcareous. Much clay. Little gravel.
	85-90		Gravel	Bk & grey	Gran	Gran/M peb	Gab, dior, fos dol, dol, qtz, grnt. Much sand.
	90-95		Snd & silt	Gry brown	M	Vfn/VC	Calcareous. Much clay. Little gravel.
	95-100		"	"	"	"	Same but much gravel.
100	100-105		"	Brown	"	"	Little dolomitic clay. Trace gravel.
	105-110		Sandstone	Pl gry bn	M/C	"	Rounded. Much caved gravel.
S	110-115		"	V pl bn	M	"	Rounded, Tr G sil cem assoc w/pnk chert, Trace caved gvl & sand.
T.	115-120		"	Red	Fn	Vfn/VC	Srnd. Ltl V G sil cem,st. Mch hemic sh. Tr cvd gvl & snd,wh siliceous matx.
	120-125		"	Yl red	M	"	See end of log.
P	125-130		"	Red	"	"	Same but much hematitic shale.
E	130-135		"	Yl red	"	"	Srnd. Mch yl rd shale. Tr dk rd bn ss as above(cvd?),st,Fn glauconite.
T	135-140		"	"	"	"	Same.
E	140-145		"	Dull yl rd	"	"	Srnd. Ltl dull yl rd sh. Tr dk rd bn ss as above(cvd?),st,Fn/M glauconite.
R	145-150		"	"	"	"	Same.
	150-155		"	Lt brown	"	"	Srnd to sang. Tr sil cem,Fn/M glauc,st,dk rd bn ss(as above,cvd).
	155-160		"	Yl red	"	"	Srnd. Mch yl rd dolic sh, Ltl yl calcus sh(occ in layers?). st. Ltl pl yl shale. Trace Fn/M glauconite.

Log No. D119-FL-603

Well name: Wisconsin Power & Light Co. Well #9

Depths	Graphic Section	Rock Type	Color	Grain Size Mode	Grain Size Range	Miscellaneous Characteristics
160-165		Sandstone	Yl red	Fn	Vfn/VC	Srnd. Mch yl rd dolic sh,st. Tr dol cem,Fn glauconite.
165-170		"	Rd yellow	M	"	Srnd. Mch red yellow dolic shale. Ltl silt. Tr Fn-glauconite.
170-175		"	"	Fn	"	Same plus trace good silica cement.
175-180		"	"	Fn&C	"	Srnd. Tr dol & lim cem,pnk cht,Fn glauc. Mch rd yl dolic sh,st
180-185		"	"	C	"	Same plus trace pale yellow green dolomitic shale.
185-190		"	"	"	"	Same but no glauconite.
190-195		"	"	"	"	Srnd. Trace dolomite cem, pnk chert. Mch rd yl dolic sh, silt.
195-200		"	"	Fn&C	"	Same.
200-205		"	Strg bn	M	"	Same but strong brown shale.
205-210		"	Brown	C	"	Srnd. Tr G dol cem, Fn/M glauc, pl gn sh, pnk cht. Much dolic
210-215		"	"	"	"	Same. shale.
215-220		"	V pl brown	"	"	Srnd to sang. Tr P dol cem,Fn/M-glauc,mfc incl,pnk cht. Ltl
220-225		"	"	M/C	"	Srnd. Tr sil cem,Fn-glauc,mfc incl,pnk cht,silt. silt,shale.
225-230		"	"	"	"	Same.
230-235		"	"	"	"	Same but no cement.
235-240		"	"	C	"	Srnd. Tr pnk cht(w/tr fltg snd),Fn-glauc,mfc incl,pl gn micus
240-245		"	"	M/C	"	Same but much silt. shale. Ltl silt.
245-250		"	Lt rd brown	C	"	Srnd. Mch pnk dolic sh,pnk cht(w/tr rd bn hemic stng,bk hem,thin
250-255		"	"	"	"	Same plus tr pl gn shale. qtz layers,micus incl). Tr calc xls.
255-260		Ss & chert	Rd yellow	M/C	"	See end of log.
260-265		"	"	"	"	Same plus tr mssv glauc, but tr dk rd bn hemic stng.
265-270		Chert	"	—	—	Ltl ss(as above),fltg snd,siliceous pnk sh. Few thin qtz layers.
270-275		Sandstone	Pink	M	Vfn/C	Srnd. Tr G to F Tr st,mssv glauc,bk hem,dk rd bn hemic stng.
275-280		"	"	"	"	Same. sil cem,mssv glauc. Mch pnk sh,st. Ltl cht(as above).
280-285		"	Rd yellow	"	Vfn/VC	Srnd. Tr G sil cem,dol,rd yl cht. Mch siliceous rd yl sh. Ltl
285-290		"	Lt red	"	"	Same plus tr wh siliceous & rd bn hemic shale. silt.
290-295		"	"	"	"	Same but much silt.
295-300		"	Rd yellow	M/C	"	Srnd. Mch rd yl siliceous cl. Ltl st. Tr wh siliceous & rd bn
300-305		"	"	"	"	Same. hemic shale.
305-310		"	Pink	M	"	Srnd. Tr G sil cem, dol, pl gn shale. Ltl pnk siliceous shale.
310-315		"	Rd yellow	"	"	Srnd. Mch wh siliceous sh,pl gn micus sh,rd bn hemic sh. Tr st.
315-320		"	Pnk white	"	"	Subrounded. Little caved red yellow shale & sandstone. Trace silt, one quartz granule.

END OF LOG

120-125		Sandstone	Yl red	M	Vfn/VC	Subangular. Little good silica cement. Trace hematitic shale. Much hard dark red brown hematitic very glauconitic Fn sandstone with trace fossil fragments, also with trace silica cemented micaceous & glauconitic sandstone.
255-260		Ss & chert	Rd yellow	M/C	Vfn/VC	Subrounded. Trace calcite cement, black hematite & floating sand (chert), pale green shale. Few quartz layers (chert). Little dark red brown hematitic staining. Much dolomitic pink shale.

ST. PETER SANDSTONE

215

DATE 10/8/86 TDD # R5830-015

TIME 11:35 AM Page 1 of

SITE Ripon Landfill

CONTACT Jim Huvland - County Extension Service. PHONE (414) 929-3172

REFERENCE 19
SITE NAME Ripon Landfill
SITE ID WID 980610120

SUBJECT: Irrigation wells

Mr. Huvland stated he had no records concerning irrigation wells at his office, but to his knowledge did not think any irrigation wells existed in the area I described. He then forwarded my call to the county planner - sanitarian office. the receptionist told the planner was on vacation, but to try to reach the sanitarian at 1:00 pm or 4:00 pm at 414 929-3139.

10/9/86 Was able to reach Wayne Rollin, County Planner at 929-3139. Mr. Rollin stated there were no irrigation wells near the Ripon Landfill.

Robert Hinsdale

Date: 10/9/86

REFERENCE 20
SITE NAME Ripon Landfill
SITE ID WIR 980610190

RECEIVED
AUG 11 1981
HORICON AREA

CITY OF RIPON

RIPON, WISCONSIN 54971

OFFICE OF DIRECTOR OF PUBLIC WORKS

August 10, 1981

REFERENCE
E NAME

Mr. Kenneth E. Hein
Dept. of Natural Resources
Horicon Area Headquarters
P.O. Box D
Horicon, WI 53032

Dear Mr. Hein: Re: City of Ripon - Town of Ripon Landfill Lic.#467

This letter is to acknowledge your July 27, 1981 letter regarding 4410-1 and our meeting on July 7, 1981 held at the landfill site between you, Donohue's representatives and myself.

The information in your letter and the report from Donohue's was presented to the Board of Public Works at their August 3, 1981 meeting. There was a meeting date of August 31, 1981 set to meet with Donohue's representatives and you, if you can make that date. At that time, all facts will be presented and the necessary recommendations from the Board to the Council, to take whatever reasonable steps are required to improve present operations and also consideration for extending or expanding the existing landfill site.

Donohue's have completed the sampling and testing of the surface water at the site and there does not seem to be an over-abundance of contamination in what surface water is on site. Therefore, I will wait until I receive an answer as to whether or not the City should haul the water to the plant for processing or use the existing fill at site and fill area accordingly.

I would appreciate hearing from you regarding the August 31, 1981, 7 P.M. Meeting, and also the method you prefer for surface water handling.

If you need more information or have questions regarding the above mentioned, please contact my office.

Sincerely,

Claude A. Lee
Director of Public Works
CAL:sws
Enc.

City of Ripon Wastewater Treatment Plant Sludge Application Record from Jan. 1, 1981 through June 30, 1981

	Farmland			Ripon Landfill Site		
Yr.	Loads	Gals.	% Solids	Loads	Gals.	% Sol
1981	76	83,600	8.8	—		
"	45	49,500	9.1	24	26,400	9.1
"	3	3,300	9.5	67	73,700	9.5
"	—			80	88,000	9.7
"	—			68	74,800	9.7
"	—			71	78,100	10.1

ecology and environment, inc.

223 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60606, TEL. 312-663-9415

International Specialists in the Environmental Sciences

REFERENCE 21
SITE NAME Ripon Landfill
SITE ID WID 980610190

Date Received for Review: 8/9/85 Date Review Completed: 8/20/85

To: Rob Ningtgen

From: Cynthia Bachunas / ARLENE PRATT

Subject: Ripon L.F. R05-8510-07R (Wells)

Sample Description: CASE # 4571 6 New m.wells

Project Data Status: Still awaiting new water organics

FIT Data Review Findings:

See attached CRL review.

As (by 5%), Pb, + Zn outside QC limits

Ca, Cu, Fe, Pb, Mg, Mn, Na + Zn detected in field blank

Use these values with caution

Additional Comments:

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 8-6-85

SUBJECT: Review of Region V CLP Data
Received for Review on 8/2/85

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

TO: Data User: Jat

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

SITE NAME: Ripon Landfill SMO Case No. 4571

EPA Data Set No. SF 2477 No. of Samples: 6 D.U./Activity Numbers YP05 | C48500

CRL No. 85FH10516 - 85FH10R06

SMO Traffic No. MEC994 - MEC997 ; MEF209-MEF210

CLP Laboratory: RMAL Hrs. Required for Review: 1 hr.

Following are our findings.

This review covers 6 low concentration water samples. RECEIVED AUG 9 1985
The spike recovery of Tl (42%) was biased low.
The EPA supplied 'true value' was not used to calculate the %R on Form VII, the ICP Interference Check.
The following elements showed high (>10%) RPD's between the sample value and the serial dilution of that sample (MEF209), and the reported values for these elements are therefore estimated: Fe, Ca, Mg, Mn and Na.

All other Q.C. audits are o.k.
The field blank (MEF210) analysis shows high concentrations of Fe (1240 ug/L, J) and Cu (935 ug/L). The Cu and Fe data is questionable.

Jan J. Fisk 8/6/85

( ) 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

EPA FORM 1320-6 (REV. 3-76)

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

Date 7-31-85

COVER PAGE
INORGANIC ANALYSIS DATA PACKAGE

Lab Name ROCKY MOUNTAIN ANALYTICAL
SOW No. 784

Case No. 4571
QC Report No. 55002

Sample Numbers

EPA No.	Lab ID No.	EPA No.	Lab ID No.
MEC994			
MEC995			
MEC996			
MEC997			
MEF209			
MNF210			
[MEF999]			

Comments: 6 LOW WATERS FOR TASKS 1&2 ONLY.
THE ICAP 10X SERIAL DILUTION FOR SAMPLE MEF209 IS IDENTIFIED AS [MEF999].

ICP interelement and background corrections applied? Yes X No
If yes, corrections applied before X or after ___ generation of raw data.

Footnotes:

RECEIVED AUG 5 1985

NR - 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 method used with F (for ICP Flame AA) or P (for furnace).
U - Indicates element was analyzed for but not detected. Report with the detection limit value (e.g., 10U).
J - Indicates a value estimated or not reported due to the presence of interference. Explanatory note included on cover page.
E - Indicates value determined by Method of Standard Addition.
N - 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
CV - Indicates Cold Vapor
AS - Indicates Automated Spectrophotometric

J - Estimate due to high %D between sample & serial dilution of sample

JTP 8/6/85

ESD/Central Regional Laboratory

DATA TRACKING - FORM I

RL Data Set No. SF2477 ERRIS No. _____

HO Case No. 4571 Site Name: Ripon Landfill

ame of Laboratory: RMAL Data User: Jit

o. of Samples: 6 Date Samples Received: 8/1/85

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

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

5. Are basic data forms in? YES ✓ NO ___
6. Number of samples claimed: 6 Number of samples received: 6
7. Checked by: Nidia Feliciano Date: 8/2/85
8. Reteived by Contract Project Management Section: JQ Date: 8-2-85
9. Review Started: 8/5/85 Reviewer Signature: Jan F. Pels
10. Total time spent on review: 1 hr. Date review completed: 8/5/85
11. Copied (xeroxed) by: _____ Date: _____
12. Mailed to Data User by: _____ Date: _____

TO DATA USERS:

RECEIVED AUG 9 1985

Please fill in the blanks and return this form to:

Charles Elly, DPO, Region V, SSCRL

13. Data received by: Arlene Quirk Date: 8/21/85
14. Q.A. review received by: Arlene Quirk Date: 8/21/85
15. Received by CRL - CPM Section for file by: _____

Date: _____

MW 5A

Form 1

85FH10516

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.
MBC994

Date 7-31-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL CASE NO. 4571
SOW NO. 784
LAB SAMPLE ID. NO. - QC REPORT NO. 85062

Elements Identified and Measured

Concentration: Low X Medium
Matrix: Water X Soil Sludge Other

UG/L

RECEIVED AUG 9 1985

1.	ALUMINUM	25U	P	13.	MAGNESIUM	5000	P J
2.	ANTIMONY	31U	P	14.	MANGANESE	67	P J
3.	ARSENIC	3U	P	15.	MERCURY	0.1U	CV
4.	BARIUM	[60]	P	16.	NICKEL	[7.6]	P
5.	BERYLLIUM	0.3U	P	17.	POTASSIUM	6300	P
6.	CADMIUM	4U	P	18.	SELENIUM	5U	P
7.	CALCIUM	78500	P J	19.	SILVER	3U	P
8.	CHROMIUM	4U	P	20.	SODIUM	64700	P J
9.	COBALT	4U	P	21.	THALLIUM	10U	P R
10.	COPPER	[5.2]	P	22.	TIN	17U	P R
11.	IRON	2390	P J	23.	VANADIUM	4U	P
12.	LEAD	[3.6]	P	24.	ZINC	[20]	P

Cyanide NR Percent Solids (%)

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

MW5

Form 1

85FH10517

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.
MBC995

Date 7-31-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 4571
QC REPORT NO. 55062

Elements Identified and Measured

Concentration: Low X Medium
Matrix: Water X Soil Sludge Other

UG/L

RECEIVED AUG 9 1985

1.	ALUMINUM	25U	P	13.	MAGNESIUM	64700	P J
2.	ANTIMONY	31U	P	14.	MANGANESE	582	P J
3.	ARSENIC	[6]	P	15.	MERCURY	0.1U	CV
4.	BARIUM	[89]	P	16.	NICKEL	[15]	P
5.	BERYLLIUM	0.3U	P	17.	POTASSIUM	13300	P
6.	CADMIUM	4U	P	18.	SELENIUM	3U	P
7.	CALCIUM	78300	P J	19.	SILVER	3U	P
8.	CHROMIUM	4U	P	20.	SODIUM	82400	P J
9.	COBALT	4U	P	21.	THALLIUM	10U	P R
10.	COPPER	[8]	P	22.	TIN	17U	P R
11.	IRON	4080	P J	23.	VANADIUM	4U	P
12.	LEAD	5.8	P	24.	ZINC	78	P

Cyanide NR

Percent Solids (%)

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

MW6

Form I

85FH10318
EPA Sample No.
MEC996

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

Date 7-31-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL CASE NO. 4971
SOW NO. 784
LAB SAMPLE ID. NO. -- QC REPORT NO. 55062

Elements Identified and Measured

Concentration: Low X Medium
Matrix: Water X Soil Sludge Other

RECEIVED AUG 9 1985

		UG/L				UG/L	
1.	ALUMINUM	25U	P	13.	MAGNESIUM	52600	P J
2.	ANTIMONY	31U	P	14.	MANGANESE	873	P J
3.	ARSENIC	3U	F	15.	MERCURY	0.1U	CV
4.	BARIUM	[72]	P	16.	NICKEL	[33]	P
5.	BERYLLIUM	0.3U	P	17.	POTASSIUM	10000	P
6.	CADMIUM	4U	P	18.	SELENIUM	3U	F
7.	CALCIUM	121000	P J	19.	SILVER	3U	P
8.	CHROMIUM	4U	P	20.	SODIUM	42800	P J
9.	COBALT	[16]	P	21.	THALLIUM	100U	F R
10.	COPPER	[7.3]	P	22.	TIN	17U	P R
11.	IRON	182	P J	23.	VANADIUM	4U	P
12.	LEAD	~~2U~~ 2.2 SAM	F	24.	ZINC	35	P

Cyanide NR Percent Solids (%)

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 D Hratt

MNB

Form I

85FH10519

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.
MB0997

Date 7-31-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 4571
QC REPORT NO. 55062

Elements Identified and Measured

Concentration: Low X Medium
Matrix: Water X Soil Sludge Other

UG/L

RECEIVED AUG 9 1985

1.	ALUMINUM	25U	P	13.	MAGNESIUM	110000	P J
2.	ANTIMONY	31U	P	14.	MANGANESE	497	P J
3.	ARSENIC	[4.5]	F	15.	MERCURY	0.1U	CV
4.	BARIUM	[146]	P	16.	NICKEL	74	P
5.	BERYLLIUM	0.3U	P	17.	POTASSIUM	5210	P
6.	CADMIUM	4U	P	18.	SELENIUM	5U	P
7.	CALCIUM	113000	P J	19.	SILVER	3U	P
8.	CHROMIUM	[7.3]	P	20.	SODIUM	435000	P J
9.	COBALT	[29]	P	21.	THALLIUM	30U	P R
10.	COPPER	[21]	P	22.	TIN	17U	P R
11.	IRON	161 J	P	23.	VANADIUM	4U	P
12.	LEAD	2U	F	24.	ZINC	28	P

Cyanide NR Percent Solids (%)

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 D. Bratt

8

Form I

85FH10D9

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.
MEF209

Date 7-31-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 4571
QC REPORT NO. 56062

Elements Identified and Measured

Concentration: Low X Medium
Matrix: Water X Soil Sludge Other

UG/L

RECEIVED AUG 9 1985

1.	ALUMINUM	25U	P	13.	MAGNESIUM	65500	P J
2.	ANTIMONY	31U	P	14.	MANGANESE	624	P J
3.	ARSENIC	(7.5)	F	15.	MERCURY	0.1U	CV
4.	BARIUM	(104)	P	16.	NICKEL	(12)	P
5.	BERYLLIUM	0.3U	P	17.	POTASSIUM	13000	P
6.	CADMIUM	(4.1)	P	18.	SELENIUM	3U	F
7.	CALCIUM	79400	P J	19.	SILVER	3U	P
8.	CHROMIUM	4U	P	20.	SODIUM	82600	P J
9.	COBALT	4U	P	21.	THALLIUM	30U	P R
10.	COPPER	3U	P	22.	TIN	17U	P R
11.	IRON	4360 J	P	23.	VANADIUM	4U	P
12.	LEAD	2U ~~1000 SAM~~	F	24.	ZINC	36	P

Cyanide NR Percent Solids (%)

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 each flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager

Form I

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

85F410206
EPA Sample No.
MEP210

Date 7-31-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. \ -

CASE NO. 4571
QC REPORT NO. 55062

Elements Identified and Measured

Concentration: Low X Medium
Matrix: Water X Soil Sludge Other

UG/L

RECEIVED AUG 9 1985

1.	ALUMINUM	25U	P	13.	MAGNESIUM	[370]	P J
2.	ANTIMONY	31U	P	14.	MANGANESE	25	P J
3.	ARSENIC	3U	P	15.	MERCURY	0.1U	CV
4.	BARIUM	12U	P	16.	NICKEL	5U	P
5.	BERYLLIUM	0.3U	P	17.	POTASSIUM	990U	P
6.	CADMIUM	4U	P	18.	SELENIUM	3U	P
7.	CALCIUM	[4150]	P J	19.	SILVER	3U	P
8.	CHROMIUM	4U	P	20.	SODIUM	15100	P J
9.	COBALT	4U	P	21.	THALLIUM	3U	P R
10.	COPPER	935	P	22.	TIN	17U	P R
11.	IRON	1240	P J	23.	VANADIUM	4U	P
12.	LEAD	[4]	F	24.	ZINC	148	P

Cyanide NR Percent Solids (%)

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 D. Hiatt

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

Date Received for Review: 11/26/85 Date Review Completed: 12/9/85

To: Rob Hingtgen

From: Cynthia Pugh

Subject: Ripon Landfill (wisconsin)
(RS-8310-1A)

Sample Description: Case # 4571: Low Water Organics

Project Data Status: COMPLETE

FIT Data Review Findings: Data Acceptable with Qualifications Below:
The following percent differences existed between Sample ED803 and Duplicate ED806: 25% vinylchloride; 24% Trans-1, 2-Dichloroethane; 25% toluene; 24% Total Xylenes; 40% Di-n-octylphthalate; and 20% bis (2-Ethylhexyl) phthalate. Benzene (9.0ug/l J) and Trichloroethene (22ug/l J) were detected in the sample (ED803) but were not detected in the Dup. Methylene chloride was detected in the Dup. but not in the Sample (ED803.) Use data for above named compounds with caution.

Additional Comments:
The Attached Data has been received unreviewed by CRL. Although it has passed the CLP QA requirements, it will not be further reviewed to assure accuracy per regional requirements unless otherwise requested.

Book No. 4
Page No. 278

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 9/9/85

RECEIVED NOV 2 6 1985

JECT: Review of Region V CLP Data
Received for Review on 7/29/85

ROM: Curtis Ross, Director (5SCRL)
Central Regional Laboratory Francis Thomas

TO: Data User: Ed

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

SITE NAME: Ripon Landfill SMO Case No. 4571

EPA Data Set No. SE2477 No. of Samples: 6 D.U./Activity Numbers 4905 & 08580

CRL No. 85FH10516 - 85FH10519

SMO Traffic No. ED802 - ED807

CLP Laboratory: Hazleton Hrs. Required for Review:

Following are our findings.

Preliminary pending review by Peter Isaacson, Vista & Co.

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

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

A FORM 1320-6 (REV. 3-76)

HAZLETON LABORATORIES AMERICA, INC.

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

July 23, 1985

Sample Management Office
Viar and Company
300 North Lee Street
Alexandria, VA 22314

Dear Gentlemen:

Enclosed please find the data packages for Case 4571 received on June 27, 1985 from Region V. All samples were analyzed according to the protocols provided under our Contract No. 68-01-6961.

Please note the following relating to the quality control items in this case:

- GC-MS Tuning - All tuning requirements for both BFB and DFTPP were within contract criteria.

- Instrumental Calibration - All initial and continuing calibration requirements for the volatile and semi-volatile fractions were within contract criteria. All initial and continuing calibration requirements for the pesticide analyses were met with the exception of the percent deviation of the individual mix B compound response factors run on 7-13-85 at 7:14:16. This case was run along with a second case immediately following it in sequence. The individual mix B was injected following three samples of the next case which contaminated (due to carry over) this standard. In this situation instead of rejecting the good run of all samples previously run under Case 4571 we reported the values of the contaminated standard but did not use it in the evaluation of the previously injected samples.

- Blanks - All reagent and instrumental blanks analyzed for all fractions were within contract criteria.

- Surrogate Recoveries - All surrogate recoveries for the volatile fraction were within contract criteria. Three surrogates were outside of contract criteria in the semi-volatile fraction d_5-nitrobenzene (3% high)

RECEIVED NOV 2 6 1985

in both ED802MS and ED802MSD, as well as 2,4,6-Tribromophenol (7% high) in ED802MSD. One DBC recovery in the pesticide fraction was found outside the advisory limit, ED802MS (162%).

If you have any questions or if we may be of further service please feel free to call.

Sincerely,

David C. Hills

David C. Hills
Manager, Environmental Analysis

DCH/msw

cc: USEPA Region V
USEPA EMSL-LV
Central File

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QC SUMMARY PACKAGE

Case No. 4571

HAZLETON LABORATORIES AMERICA, INC.
Chemical & BioMedical Sciences Division
3301 KINSMAN BLVD. P.O. BOX 7545
MADISON, WISCONSIN 53707
PHONE (608) 241-4471

WATER SURROGATE PERCENT RECOVERY SUMMARY

Case No. 4571 Contract Laboratory HAZLETON Contract No. 68-01-6961

	VOLATILE			SEMI-VOLATILE								PESTICIDE
SAMPLE TRAFFIC NO.	TOLUENE-D8 (88-110)	BFB (86-115)	1,2 DICHLOROETHANE-D4 (77-120)	NITROBENZENE-D5 (41-125)	2-FLUOROBIPHENYL (44-119)	TERPHENYL-D14 (33-125)			PHENOL-D5 (10-103)	2-FLUOROPHENOL (23-121)	2,4,6 TRIBROMOPHENOL (10-130)	DIBUTYLCHLORENDATE (40-136)
EDB02	99.2	103	109	115	101	121			23.0	58.0	118	90
EDB03	97.6	103	110	112	98.2	119			33.5	78.4	129	132
EDB04	96.8	101	112	109	102	92.2			26.2	57.4	93.5	113
EDB05	98.2	102	117	115	99.0	72.8			39.1	23.0	114	87
EDB06	99.6	99.8	115	103	102	120			29.2	75.4	113	132
EDB07	94.2	99.2	111	91.5	86.6	124			39.9	111	111	107
EDB02MS	95.6	97.6	109	123*	100	117			28.3	49.5	128	162*
EDB02MSD	107	111	119	123*	99.7	121			26.6	60.9	137*	76
MB1 28290	101	102	102	NR	NR	NR			NR	NR	NR	NR
MB 28303	96.4	98.6	115	NR	NR	NR			NR	NR	NR	NR
BB1 AA5693	NR	NR	NR	92.4	81.5	121			40.4	118	111	NR
BB1 Post	NR	NR	NR	NR	NR	NR			NR	NR	NR	114

RECEIVED NOV 2 6 1985

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

** ADVISORY LIMITS ONLY

Volatiles: 0 out of 30 ; outside of QC limits

Semi-Volatiles: 3 out of 54 ; outside of QC limits

Pesticides: 1 out of 9 ; outside of QC limits

Comments:

WATER MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. 4571 Contractor HAZLETON Contract No. 68-01-6961

FRACTION	COMPOUND	CONC. SPIKE ADDED (ug/L)	SAMPLE RESULT	CONC. MS	% REC	CONC. MSD	% REC	RPD	QC LIMITS* RPD	QC LIMITS* RECOVERY
VOA SMO SAMPLE NO. ED802	1,1-Dichloroethene	50.0	0.0	42.2	84.4	45.6	91.2	6.8	14	61-145
	Trichloroethene	50.0	0.0	47.2	94.4	53.9	108	13.6	14	71-120
	Chlorobenzene	50.0	0.0	48.8	97.6	53.6	107	9.4	13	75-130
	Toluene	50.0	0.0	49.6	99.2	56.0	112	12.8	13	76-125
	Benzene	50.0	0.0	49.8	99.6	54.2	108	8.4	11	76-127
B/N SMO SAMPLE NO. ED802	1,2,4-Trichlorobenzene	100	0.0	92.9	92.9	93.3	93.3	0.42	28	39-98
	Acenaphthene	100	0.0	88.1	88.1	89.3	89.3	1.4	31	46-118
	2,4 Dinitrotoluene	100	0.0	36.8	36.8	45.0	45.0	20.0	38	24-96
	Di-n-Butylphthalate	100	2.7	89.4	89.4	89.0	89.0	0.22	40	11-117
	Pyrene	100	0.0	99.5	99.5	102	102	2.5	31	26-127
	N-Nitroso-Di-n-Propylamine	100	0.0	99.8	99.8	94.2	94.2	5.8	38	41-116
	1,4-Dichlorobenzene	100	0.0	88.8	88.8	88.2	88.2	0.68	28	36-97
ACID SMO SAMPLE NO. ED802	Pentachlorophenol	200	0.0	158	78.8	156	78.1	0.89	50	9-103
	Phenol	200	0.0	48.1	24.1*	296	14.8*	98*	42	12-89
	2-Chlorophenol	200	0.0	106	83.0	110	65.0	3.7	40	27-123
	4-Chloro-3-Methylphenol	200	0.0	196	98.0	190	94.7	3.4	42	23-97
	4-Nitrophenol	200	0.0	37	18.4	45.0	22.5	20.0	50	10-80
PEST SMO SAMPLE NO. ED802	Lindane	0.20	0.0	0.18	90.0	0.19	95.0	5.4	15	56-123
	Heptachlor	0.20	0.0	0.16	80.0	0.15	75.0	6.5	20	40-131
	Aldrin	0.20	0.0	0.13	66.0	0.11	55.0	17	22	40-120
	Dieldrin	0.50	0.0	0.42	84.0	0.36	72.0	15	18	52-126
	Endrin	0.50	0.0	0.51	102	0.45	90.0	13	21	56-121
	4,4'-DDT	0.50	0.0	0.37	74.0	0.32	64.0	15	27	38-127

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*ASTERISKED VALUES ARE OUTSIDE QC LIMITS.

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

RECOVERY: VOAs 0 out of 10 ; outside QC limits
B/N 0 out of 14 ; outside QC limits
ACID 2 out of 10 ; outside QC limits
PEST 0 out of 12 ; outside QC limits

Comments:

REAGENT BLANK SUMMARY

Case No. 4671 Contractor HAZLETON Contract No. 68-01-6961

FILE ID	DATE OF ANALYSIS	FRACTION	MATRIX	CONC. LEVEL	INST. ID	CAS NUMBER	COMPOUND (HSL, TIC OR UNKNOWN)	CONC.	UNITS	CRDL
28290	7-3-85	VOA	H_2O	LOW	HP5993	75-09-2	Methylene Chloride	4.0 J	ug/L	5
	"	"	"	"	"	67-64-1	Acetone	18	"	10
BAN593	7-2-85	BAN	H_2O	LOW	FINN 4500	84-74-2	Di-n-butylphthalate	0.79	ug/L	10
	"	"	"	"	"	117-81-7	Bis-(2-ethyl hexyl) phthalate	26	"	10
RB1 Pest (7-1)	7-2-85	PEST.	H_2O	LOW	5779	—	None Found	—	—	—

RECEIVED NOV 26 1985

Comments:

FORM IV

4/84

GC/LS TUNING AND MASS CALIBRATION

Bromofluorobenzene (BFB)

RECEIVED NOV 2 6 1985

Case No. 4571 Contractor HAZLETON Contract No. 68-01-6961

Instrument ID HP 5993 Date 5-10-85 Time 1130

Lab ID 27833 Data Release Authorized By: David C. Hills

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of the base peak	21.9
75	30.0 - 60.0% of the base peak	53.7
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of the base peak	8.80
173	Less than 1.0% of the base peak	0.0
174	Greater than 50.0% of the base peak	95.2
175	5.0 - 9.0% of mass 174	7.50 (7.88)[1]
176	Greater than 95.0%, but less than 101.0% of mass 174	92.7 (97.4)[1]
177	5.0 - 9.0% of mass 176	7.50 (8.09)[2]

[1]Value in parenthesis is % mass 174.
[2]Value in parenthesis is % mass 176.

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

SAMPLE ID	LAB ID FRN	DATE OF ANALYSIS	TIME OF ANALYSIS
50 ppb Std	27836	5-10-85	1820
200 ppb Std	27837	"	1440
150 ppb Std	27838	"	1640
100 ppb Std	27839	"	1730
20 ppb Std	27840	"	1815

4/84

FORM V

GC/LS TUNING AND MASS CALIBRATION

Bromofluorobenzene (BFB)

RECEIVED NOV 2 6 1985

Case No. 4571 Contractor Hazleton Contract No. 68-01-6961

Instrument ID HP5993 Date 7-3-85 Time 1130

Lab ID 28289 Data Release Authorized By: [signature]

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE	
50	15.0 - 40.0% of the base peak	26.0	
75	30.0 - 60.0% of the base peak	58.1	
95	Base peak, 100% relative abundance	100	
96	5.0 - 9.0% of the base peak	8.8	
173	Less than 1.0% of the base peak	0	
174	Greater than 50.0% of the base peak	70.3	
175	5.0 - 9.0% of mass 174	5.5	(7.82)[1]
176	Greater than 95.0%, but less than 101.0% of mass 174	67.2	(95.6)[1]
177	5.0 - 9.0% of mass 176	5.6	(8.33)[2]

[1]Value in parenthesis is % mass 174.
[2]Value in parenthesis is % mass 176.

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

SAMPLE ID	LAB ID FRN	DATE OF ANALYSIS	TIME OF ANALYSIS
Inst. Blank	28290	7-3-85	1150
50ppb V STD	28291		1305
ED 803	28293		1440
ED 802	28294		1525
ED 802 MS	28296	--	1705
ED 802 MSD	28297		1745
ED804	28298		1830
ED805	28299		1920
ED806	28301		2100
ED807	28302		2145
Holding Blank	28303	↓	2230

4/84

FORM V

RECEIVED NOV 2 6 1985

GC/MS TUNING AND MASS CALIBRATION
Decafluorotriphenylphosphine (DFTPP)

Case No. 4571 Contractor HAZLETON Contract No. 68-01-6961

Instrument ID Finn 4500 Date 7/1/85 Time 1444

Lab ID DFTPP 70185D Data Release Authorized By: John Mathews

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	54.3
69	less than 2.0% of mass 69	0.0 (0.0)[1]
69	mass 69 relative abundance	60.1
70	less than 2.0% of mass 69	0.0 (0.0)[1]
127	40.0 - 60.0% of mass 198	56.9
197	less than 1.0% of mass 198	0.0
198	base peak, 100% relative abundance	100
199	5.0 - 9.0% of mass 198	6.46
275	10.0 - 30.0% of mass 198	17.4
365	greater than 1.00% of mass 198	1.61
441	present, but less than mass 443	6.24
442	greater than 40.0% of mass 198	48.7
443	17.0 - 23.0% of mass 442	9.19 (18.9)[2]

[1] Value in parenthesis is % mass 69.
[2] Value in parenthesis is % mass 442.

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

SAMPLE ID	LAB ID	DATE OF ANALYSIS	TIME OF ANALYSIS
BAN585	10 PPM BAN STD	7/1/85	1615
BAN587	25 PPM BAN STD	7/1/85	1810
BAN588	40 PPM BAN STD	"	1907
BAN589	60 PPM BAN STD	"	2005
BAN590	80 PPM BAN STD	"	2102

GC/MS TUNING AND MASS CALIBRATION RECEIVED NOV 2 6 198

Decafluorotriphenylphosphine (DFTPP)

Case No. 4571 Contractor HAZLETON Contract No. 68-01-6961

Instrument ID Finn 4500 Date 7/2/85 Time 1548

Lab ID DFTPP70285B Data Release Authorized By: [signature]

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	48.1
68	less than 2.0% of mass 69	0 (0)[1]
69	mass 69 relative abundance	53.1
70	less than 2.0% of mass 69	0 (0)[1]
127	40.0 - 60.0% of mass 198	52.2
197	less than 1.0% of mass 198	0
198	base peak, 100% relative abundance	100
199	5.0 - 9.0% of mass 198	6.25
275	10.0 - 30.0% of mass 198	18.1
365	greater than 1.00% of mass 198	1.71
441	present, but less than mass 443	6.52
442	greater than 40.0% of mass 198	52.4
443	17.0 - 23.0% of mass 442	9.81 (18.7)[2]

[1] Value in parenthesis is % mass 69.
[2] Value in parenthesis is % mass 442.

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

SAMPLE ID	LAB ID	DATE OF ANALYSIS	TIME OF ANALYSIS
BAN604	ONGOING CALIBRATION	7/2/85	1619
BAN 593	BLANK 7/1/85		1808
ED 807	BAN 594		1906
ED 806	BAN 595		2004
ED 804	BAN 597		2200
ED 803	BAN 598		2257

FORM V 4/84

GC/MS TUNING AND MASS CALIBRATION

Decafluorotriphenylphosphine (DFTPP)

Case No. 4571 Contractor HARLETON Contract No. 68-01-6961

Instrument ID Finn4500 Date 7/5/85 Time 8:14

Lab ID DFTPP0785 Data Release Authorized By: Johnmathew

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	55.3
68	less than 2.0% of mass 69	0.0 (0.0)[1]
69	mass 69 relative abundance	61.2
70	less than 2.0% of mass 69	0.0 (0.0)[1]
127	40.0 - 60.0% of mass 198	59.3
197	less than 1.0% of mass 198	0.0
198	base peak, 100% relative abundance	100
199	5.0 - 9.0% of mass 198	6.15
275	10.0 - 30.0% of mass 198	17.5
365	greater than 1.00% of mass 198	1.96
441	present, but less than mass 443	6.07
442	greater than 40.0% of mass 198	48.5
443	17.0 - 23.0% of mass 442	8.95 (18.4)[2]

[1] Value in parenthesis is % mass 69.
[2] Value in parenthesis is % mass 442.

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

SAMPLE ID	LAB ID	DATE OF ANALYSIS	TIME OF ANALYSIS
BANG12	ONGOING CALIBRATION	7/5/85	10:41
ED802	BAN 608	7/5/85	12:21
ED805	BAN 609	7/5/85	13:19
ED802MS	BAN 610	7/5/85	14:17
ED802MSD	BAN611	7/5/85	15:15

Case No. 4577 Laboratory Littleton

Contract No. 68-01-6961 GC Column 1.5% SP-2250/1.45% SP-2401 on 100/120 Supelcoport

Date of Analysis 7-12-85 Instrument ID 5779

RECEIVED NOV 2 6 1985

EVALUATION CHECK FOR LINEARITY

LABORATORY ID	397	398	399	
PESTICIDE	CALIBRATION FACTOR EVAL. MIX A	CALIBRATION FACTOR EVAL. MIX B	CALIBRATION FACTOR EVAL. MIX C	% RSD (≤10%)
ALDRIN	8.4×10^5	9.1×10^5	8.6×10^5	3
ENDRIN	5.3×10^5	5.7×10^5	5.6×10^5	3
4,4'-DDT(1)	5.2×10^5	6.4×10^5	5.6×10^5	9
DIBUTYL CHLORENDATE	7.1×10^5	*	7.3×10^5	1

EVALUATION CHECK FOR 4,4'-DDT/ENDRIN BREAKDOWN

	PERCENT BREAKDOWN EXPRESSED AS TOTAL DEGRADATION			
	EVAL. MIX B	EVAL. MIX B	EVAL. MIX B	EVAL. MIX B
LABORATORY ID	398	422	437	
TIME OF ANALYSIS	10:18:40 7-12-85	3:03:08 7-13-85	22:24:42 7-14-85	
ENDRIN	3.9	CROSS CONTAMINATION FROM A PREVIOUS	1.0	
4,4'-DDT	7.3	SAMPLE PREVENTED 4,4'DDT/ENDRIN BREAKDOWN CALCULATION	13	
COMBINED(2)	—	—	—	

EVALUATION OF RETENTION TIME SHIFT FOR DIBUTYLCHLORENDATE

SMO SAMPLE NO.	LAB ID	TIME OF ANALYSIS	PERCENT DIFF.	SMO SAMPLE NO.	LAB ID	TIME OF ANALYSIS	PERCENT DIFF.
BLANK (7-1-85)	411	19:22:42	0.2				
ED 802	412	20:04:33	0.1				
ED 802 MS	413	20:46:25	0.2				
ED 802 MSD	414	21:28:16	0.03				
ED 803	415	22:10:08	0.1				
ED 804	417	23:33:52	0.05				
ED 805	418	0:15:43	0.1				
ED 806	419	0:57:34	0.2				
ED 807	420	1:39:25	0.03				

(1) SEE EXHIBIT E, SECTION 7.5.4

(2) SEE EXHIBIT E, SECTION 7.3.1.2.2.1

1/85

FORM VIII

* DIBUTYL CHLORENDATE WAS LEFT OUT BECAUSE IT CO-ELUDES WITH ENDRIN KETONE (ON THIS COLUMN) AND PREVENTS ENDRIN BREAKDOWN CALCULATIONS.

Case No. 4571 Low waters Laboratory HALLEIGH

Contract No. 68-01-6961 GC Column 3%OV-1

Date of Analysis 7-12-85 Instrument ID 278211

RECEIVED NOV 2 6 1985

EVALUATION CHECK FOR LINEARITY

LABORATORY ID	403	404	405	
PESTICIDE	CALIBRATION FACTOR EVAL. MIX A	CALIBRATION FACTOR EVAL. MIX B	CALIBRATION FACTOR EVAL. MIX C	% RSD (≤10%)
ALDRIN	4.1×10^5	5.2×10^5	5.4×10^5	12
ENDRIN	3.1×10^5	3.8×10^5	3.9×10^5	10
4,4'-DDT(1)	2.1×10^5	2.4×10^5	2.6×10^5	8.7
DIBUTYL CHLORENDATE	4.7×10^5	*	4.7×10^5	0.0

EVALUATION CHECK FOR 4,4'-DDT/ENDRIN BREAKDOWN

	PERCENT BREAKDOWN EXPRESSED AS TOTAL DEGRADATION			
	EVAL. MIX B	EVAL. MIX B	EVAL. MIX B	EVAL. MIX B
LABORATORY ID	404	428	440	
TIME OF ANALYSIS	11:30:48 7/12/85	4:12:26 7/13/85	12:33:54 7/13/85	
ENDRIN	—	—	—	
4,4'-DDT	—	—	—	
COMBINED(2)	5.8	10.4	9.6	

EVALUATION OF RETENTION TIME SHIFT FOR DIBUTYLCHLORENDATE

SMO SAMPLE NO.	LAB ID	TIME OF ANALYSIS	PERCENT DIFF.	SMO SAMPLE NO.	LAB ID	TIME OF ANALYSIS	PERCENT DIFF.
EVAL Mix A		10:49:12	0.0				
EVAL Mix C		12:12:24	0.5%				
EPA Mix A		12:54:00	0.5%				
Blank		20:33:51	0.6%				
ED 802		21:15:39	0.4%				
ED 802 MS		21:57:19	0.5%				
ED 802 MSD		22:38:59	0.8%				
ED 803		23:20:40	0.1%				
EPA Mix A		0:02:21	0.3%				
ED 804		0:44:01	0.2%				
ED 805		1:25:40	0.1%				
ED 806		2:07:21	0.1%				
ED 807		2:49:03	0.4%				

(1) SEE EXHIBIT E, SECTION 7.5.4

(2) SEE EXHIBIT E, SECTION 7.3.1.2.2.1

1/85

FORM VIII

Pesticide/PCB Standards Summary

Case No. 4571 Laboratory HAZLETON LABORATORIES

Contract No. 68-01-6961 GC Column 1.5% SP2250/1.95% SP2401 GC Instrument ID 5779

INDIVIDUAL MIA

DATE OF ANALYSIS	Ⓐ 7-12-85	Ⓑ 7-12-85	Ⓒ 7-15-85	Ⓓ 7-13-85
TIME OF ANALYSIS	11:42:20	12:24:10	1:54:04	7:14:16
LABORATORY ID	400	401	442	428

COMPOUND	RT	RETENTION TIME WINDOW	CALIBRATION FACTOR	CONF. OR QUANT.	RT	CALIBRATION FACTOR	CONF. OR QUANT.	PERCENT DIFF. ❁❁
alpha-BHC	2.30	±.03	1.1×10^6	QUANT.	2.29	1.1×10^6	QUANT.	0.0
beta-BHC	3.36	±.03	4.6×10^5		3.35	4.7×10^5		2.1
delta-BHC	3.92	±.03	8.6×10^5		3.91	8.7×10^5		1.1
gamma-BHC	2.92	±.04	8.7×10^5		2.90	8.9×10^5		2.2
Heptachlor	3.60	±.04	8.9×10^5		3.58	9.0×10^5		1.1
Aldrin	4.37	±.06	8.7×10^5		4.34	9.0×10^5		3.3
Heptachlor Epoxide	6.60	±.13	8.3×10^5		6.54	8.6×10^5		3.5
Endosulfan I	8.32	±.15	7.7×10^5		8.25	8.1×10^5		4.9
Dieldrin	10.22	±.17	8.2×10^5		10.14	8.6×10^5		5.0
4,4'-DDE	9.74	±.04	7.9×10^5		9.72	8.0×10^5		1.3
Endrin	12.46	±.04	5.7×10^5		12.44	9.1×10^5		37 *
Endosulfan II	15.15	±.25	8.2×10^5		15.03	1.0×10^6		18 *
4,4'-DDD	15.01	±.11	6.5×10^5		14.96	1.2×10^6		46 *
Endrin Aldehyde	19.85	±.34	6.9×10^5		19.68	1.1×10^6		37 *
Endosulfan Sulfate	23.92	±.13	5.1×10^5		23.86	6.4×10^5		20 *
4,4'-DDT	18.17	±.27	6.0×10^5		18.04	4.3×10^5		28 *
Methoxychlor	35.60	±.60	3.6×10^5		35.30	2.6×10^5		28 *
Endrin Ketone	32.91	±.11	8.5×10^5		32.86	8.5×10^5		0.0
Tech. Chlordane	mr	mr	mr					
alpha-Chlordane ❁	mr	mr	mr					
gamma-Chlordane ❁	mr	mr	mr					
Toxaphene	mr	mr	mr					
Aroclor - 1016	mr	mr	mr					
Aroclor - 1221	mr	mr	mr					
Aroclor - 1232	mr	mr	mr					
Aroclor - 1242	mr	mr	mr					
Aroclor - 1248	mr	mr	mr					
Aroclor - 1254	mr	mr	mr					
Aroclor - 1260	mr	mr	mr	↓			↓	

❁ SEE EXHIBIT B, PART 7 * DUE TO CROSS-CONTAMINATION OF HIGHLY CONCENTRATED SAMPLES - STANDARDS WERE NOT WITHIN CONTRACT LIMITS.

❁❁ CONF. = CONFIRMATION (<20% DIFFERENCE)
QUANT. = QUANTITATION (<10% DIFFERENCE)

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Pesticide/PCB Standards Summary

Case No. 4571 Low waters Laboratory HAZLETON LABORATORIES

Contract No. 68-01-6961 GC Column 3% OV-1 GC Instrument ID 278211

	Mix A	Mix B	Mix A	Mix B
DATE OF ANALYSIS	July 12, 1985	July 12, 1985	7/12/85	7/13/85
TIME OF ANALYSIS	12:54:00	13:35:39	0:02:21	8:22:38
LABORATORY ID				

COMPOUND	RT	RETENTION TIME WINDOW	CALIBRATION FACTOR	CONF. OR QUANT.	RT	CALIBRATION FACTOR	CONF. OR QUANT.	PERCENT DIFF. **
alpha-BHC	2.10	±.02	5.5×10^5		2.10	5.2×10^5		5.4
beta-BHC	2.30	±.02	2.8×10^5		2.30	2.6×10^5		7.1
delta-BHC	2.63	±.02	4.4×10^5		2.63	4.3×10^5		2.3
gamma-BHC	2.49	±.02	5.2×10^5		2.50	4.5×10^5		13.5
Heptachlor	3.99	±.02	5.5×10^5		3.99	4.9×10^5		10.9
Aldrin	4.95	±.02	4.8×10^5		4.96	3.9×10^5		18.8
Heptachlor Epoxide	6.12	±.02	5.2×10^5		6.13	4.2×10^5		19.2
Endosulfan I	7.64	±.02	4.6×10^5		7.65	3.9×10^5		15.2
Dieldrin	8.96	±.03	4.6×10^5		8.98	3.9×10^5		15.2
4,4'-DDE	8.91	±.03	4.7×10^5		8.91	4.3×10^5		8.5
Endrin	10.08	±.03	3.6×10^5		10.08	3.9×10^5		5.6
Endosulfan II	10.42	±.03	4.9×10^5		10.44	4.2×10^5		14.3
4,4'-DDD	11.42	±.03	3.6×10^5		11.42	3.2×10^5		11.1
Endrin Aldehyde	11.68	±.03	4.9×10^5		11.70	4.2×10^5		14.3
Endosulfan Sulfate	13.56	±.02	3.2×10^5		13.55	3.4×10^5		6.2
4,4'-DDT	14.91	±.06	2.5×10^5		14.95	2.3×10^5		8.0
Methoxychlor	22.73	±.04	5.7×10^5		22.76	9.2×10^5		61.4 *
Endrin Ketone	17.68	±.02	4.4×10^5		17.67	4.6×10^5		4.5
Tech. Chlordane	MR	MR	MR		MR	MR		
alpha-Chlordane*								
gamma-Chlordane*								
Toxaphene								
Aroclor - 1016								
Aroclor - 1221								
Aroclor - 1232								
Aroclor - 1242								
Aroclor - 1248								
Aroclor - 1254								
Aroclor - 1260								

* SEE EXHIBIT B, PART 7 * Chromatogram shows large interference giving high area count

** CONF. = CONFIRMATION (<20% DIFFERENCE)
QUANT. = QUANTITATION (<10% DIFFERENCE)

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Pesticide/PCB Standards Summary

Case No. 4571 Low waters Laboratory HAZLETON LABORATORIES

Contract No. 68-01-6961 GC Column 3% OV-1 GC Instrument ID 2782211

	Mix A	Mix B	Mix A	Mix B
DATE OF ANALYSIS	July 12, 1985	July 12, 1985	7/13/85	7/13/85
TIME OF ANALYSIS	12:54:00	13:35:39	0:02:21	8:22:38
LABORATORY ID				

COMPOUND	RT	RETENTION TIME WINDOW	CALIBRATION FACTOR	(CONF.) OR QUANT.	RT	CALIBRATION FACTOR	(CONF.) OR QUANT.	PERCENT DIFF. **
alpha-BHC	2.10	±.02	5.5×10^5		2.10	5.2×10^5		5.4
beta-BHC	2.30	±.02	2.8×10^5		2.30	2.6×10^5		7.1
delta-BHC	2.63	±.02	4.4×10^5		2.63	4.3×10^5		2.3
gamma-BHC	2.49	±.02	5.2×10^5		2.50	4.5×10^5		13.5
Heptachlor	3.99	±.02	5.5×10^5		3.99	4.9×10^5		10.9
Aldrin	4.95	±.02	4.8×10^5		4.96	3.9×10^5		18.8
Heptachlor Epoxide	6.12	±.02	5.2×10^5		6.13	4.3×10^5		19.2
Endosulfan I	7.64	±.02	4.6×10^5		7.65	3.9×10^5		15.2
Dieldrin	8.96	±.03	4.6×10^5		8.98	3.9×10^5		15.2
4,4'-DDE	8.91	±.03	4.7×10^5		8.91	4.3×10^5		8.5
Endrin	10.08	±.03	3.6×10^5		10.08	3.9×10^5		5.6
Endosulfan II	10.42	±.03	4.9×10^5		10.44	4.2×10^5		14.3
4,4'-DDD	11.42	±.03	3.6×10^5		11.42	3.2×10^5		11.1
Endrin Aldehyde	11.68	±.03	4.9×10^5		11.70	4.2×10^5		14.3
Endosulfan Sulfate	13.56	±.02	3.2×10^5		13.55	3.4×10^5		6.2
4,4'-DDT	14.91	±.06	2.5×10^5		14.95	2.3×10^5		8.0
Methoxychlor	22.73	±.04	5.7×10^5		22.76	9.2×10^5		61.4 *
Endrin Ketone	17.68	±.02	4.4×10^5		17.67	4.6×10^5		4.5
Tech. Chlordane	MR	MR	MR		MR	MR		
alpha-Chlordane*								
gamma-Chlordane*								
Toxaphene								
Aroclor - 1016								
Aroclor - 1221								
Aroclor - 1232								
Aroclor - 1242								
Aroclor - 1248								
Aroclor - 1254								
Aroclor - 1260								

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* SEE EXHIBIT B, PART 7 * Chromatogram shows large interference

** CONF. = CONFIRMATION (<20% DIFFERENCE)
QUANT. = QUANTITATION (<10% DIFFERENCE)

Environmental Protection Agency, CLP Sample Management Office
P O Box 818, Alexandria, Virginia 22313 703/557-2490

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EPA Sample Number
ED 802

85FH10516

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: HAZLETON LABORATORIES
Case No: 4571
Lab Sample ID No: 50606606
QC Report No:
Sample Matrix: WATER
Contract No: 68-01-6961
Data Release Authorized By: David C. Wells
Date Sample Received: 6-28-85

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 7-3-85 FRN28294
Date Analyzed: 7-3-85 1525
Conc/Dil Factor: 1 pH
Percent Moisture:
Percent Moisture (Decanted):

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10 U
74-83-9	Bromomethane	10 U
75-01-4	Vinyl Chloride	10 U
75-00-3	Chloroethane	10 U
75-09-2	Methylene Chloride	5 U
67-64-1	Acetone	(18 B) ~~10 U~~
75-15-0	Carbon Disulfide	5 U
75-35-4	1, 1-Dichloroethene	5 U
75-34-3	1, 1-Dichloroethane	5 U
156-60-5	Trans-1, 2-Dichloroethene	5 U
67-66-3	Chloroform	5 U
107-06-2	1, 2-Dichloroethane	5 U
78-93-3	2-Butanone	(V4) ~~10 U~~
71-55-6	1, 1, 1-Trichloroethane	5 U
56-23-5	Carbon Tetrachloride	5 U
108-05-4	Vinyl Acetate	10 U
75-27-4	Bromodichloromethane	5 U

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

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

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

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Laboratory Name: HAZLETON

Case No: 4571

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Sample Number
ED802

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 7/1/85 FRN BAN608

Date Analyzed: 7/5/85 1221

Conc/Dil Factor: 1

CAS Number		ug/l or ug/Kg (Circle One)
62-75-9	N-Nitrosodimethylamine	20 U
108-95-2	Phenol	20 U
62-53-3	Aniline	20 U
111-44-4	bis(-2-Chloroethyl)Ether	20 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1, 3-Dichlorobenzene	20 U
106-46-7	1, 4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U
95-50-1	1, 2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
39638-32-9	bis(2-chloroisopropyl)Ether	20 U
106-44-5	4-Methylphenol	20 U
621-64-7	N-Nitroso-Di-n-Propylamine	20 U
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	0.83 J ~~20 U~~
88-75-5	2-Nitrophenol	20 U
105-67-9	2, 4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	100 U
111-91-1	bis(-2-Chloroethoxy)Methane	20 U
120-83-2	2, 4-Dichlorophenol	20 U
120-82-1	1, 2, 4-Trichlorobenzene	20 U
91-20-3	Naphthalene	20 U
106-47-8	4-Chloroaniline	20 U
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-Methylphenol	20 U
91-57-6	2-Methylnaphthalene	20 U
77-47-4	Hexachlorocyclopentadiene	20 U
88-06-2	2, 4, 6-Trichlorophenol	20 U
95-95-4	2, 4, 5-Trichlorophenol	100 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	100 U
131-11-3	Dimethyl Phthalate	20 U
208-96-8	Acenaphthylene	20 U
99-09-2	3-Nitroaniline	100 U

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	20 U
51-28-5	2, 4-Dinitrophenol	100 U
100-02-7	4-Nitrophenol	100 U
132-64-9	Dibenzofuran	20 U
121-14-2	2, 4-Dinitrotoluene	20 U
606-20-2	2, 6-Dinitrotoluene	20 U
84-66-2	Diethylphthalate	0.78 J ~~20 U~~
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	20 U
100-01-6	4-Nitroaniline	100 U
534-52-1	4, 6-Dinitro-2-Methylphenol	100 U
86-30-6	N-Nitrosodiphenylamine (1)	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	100 U
85-01-8	Phenanthrene	20 U
120-12-7	Anthracene	20 U
84-74-2	Di-n-Butylphthalate	2.7 BJ ~~20 U~~
206-44-0	Fluoranthene	20 U
92-87-5	Benzidine	100 U
129-00-0	Pyrene	20 U
85-68-7	Butylbenzylphthalate	20 U
91-94-1	3, 3'-Dichlorobenzidine	20 U
56-55-3	Benzo(a)Anthracene	20 U
117-81-7	bis(2-Ethylhexyl)Phthalate	11 BJ ~~20 U~~
218-01-9	Chrysene	20 U
117-84-0	Di-n-Octyl Phthalate	20 U
205-99-2	Benzo(b)Fluoranthene	20 U
207-08-9	Benzo(k)Fluoranthene	20 U
50-32-8	Benzo(a)Pyrene	20 U
193-39-5	Indeno(1, 2, 3-cd)Pyrene	20 U
53-70-3	Dibenz(a, h)Anthracene	20 U
191-24-2	Benzo(g, h, i)Perylene	20 U

(1)-Cannot be separated from diphenylamine

Laboratory Name: HAZLETON

No: 4571

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Sample Number
ED 802

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 7-1-85

Date Analyzed: 7-12-85

Conc/Dil Factor: 1

CAS Number		(ug/L or ug/Kg) (Circle One)
319-84-6	Alpha-BHC	0.05 U
319-85-7	Beta-BHC	0.05 U
319-86-8	Delta-BHC	0.05 U
58-89-9	Gamma-BHC (Lindane)	0.05 U
76-44-8	Heptachlor	0.05 U
309-00-2	Aldrin	0.05 U
1024-57-3	Heptachlor Epoxide	0.05 U
959-98-8	Endosulfan I	0.05 U
60-57-1	Dieldrin	0.10 U
72-55-9	4,4'-DDE	0.10 U
72-20-8	Endrin	0.10 U
33213-65-9	Endosulfan II	0.10 U
72-54-8	4,4'-DDD	0.10 U
7421-93-4	Endrin Aldehyde	0.10 U
1031-07-8	Endosulfan Sulfate	0.10 U
50-29-3	4,4'-DDT	0.10 U
72-43-5	Methoxychlor	0.50 U
53494-70-5	Endrin Ketone	0.10 U
57-74-9	Chlordane	0.50 U
8001-35-2	Toxaphene	1.0 U
12674-11-2	Aroclor-1016	0.50 U
11104-28-2	Aroclor-1221	0.50 U
11141-16-5	Aroclor-1232	0.50 U
53469-21-9	Aroclor-1242	0.50 U
12672-29-6	Aroclor-1248	0.50 U
11097-69-1	Aroclor-1254	1.0 U
11096-82-5	Aroclor-1260	1.0 U

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 1000 or W_s — V_t 10,000 V_i 4.0

Laboratory Name: HAZLETON RECEIVED NOV 2 6 1985

Case No: 4571

Sample Number
ED802

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.		Unknown	BNA	845	210
2.		Unknown	BNA	1570	43
3.	5353-25-3	Ethanol, 2-(9-octadecenyloxy)-, (Z)-	BNA	1745	46
4.		Unknown	BNA	1926	53
5.		Unknown	BNA	1934	46
6.		Unknown	BNA	1994	47
7.		Unknown	BNA	2069	31
8.		Unknown	BNA	2090	50
9.		Unknown	BNA	2097	58
10.		Unknown	BNA	2148	92
11.		Unknown Alkane $C_{25}-C_{36}$	BNA	2179	42
12.		Unknown	BNA	2250	43
13.		Unknown	BNA	2256	96
14.		Unknown	BNA	2261	30
15.		Unknown	BNA	2271	32
16.		Unknown	BNA	2321	32
17.		Unknown	BNA	2393	102
18.		Unknown	BNA	2424	50
19.		Unknown Alkane $C_{14}-C_{20}$	BNA	2451	63
20.		Unknown	BNA	2486	87
21.		Unknown	BNA	2592	20
22.					
23.	—	None Found	VOA	—	—
24.					
25.					
26.					
27.					
28.					
29.					
30.					

Environmental Protection Agency, CLP Sample Management Office
P. O. Box 818, Alexandria, Virginia 22313 703/557-2490

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Sample Number
ED 803

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: HAZLETON LABORATORIES
Case No: 4571
Lab Sample ID No: 50606607
QC Report No:
Sample Matrix: Water
Contract No: 68-01-6961
Data Release Authorized By: David C Hills
Date Sample Received: 6-28-85

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 7-3-85 FRN28293
Date Analyzed: 7-3-85 1440
~~Conc~~/Dil Factor: 5 pH
Percent Moisture:
Percent Moisture (Decanted):

CAS Number		(ug/l or ug/Kg (Circle One))
74-87-3	Chloromethane	50U
74-83-9	Bromomethane	50U
75-01-4	Vinyl Chloride	(10)
75-00-3	Chloroethane	50U
75-09-2	Methylene Chloride	25U
67-64-1	Acetone	50U
75-15-0	Carbon Disulfide	25U
75-35-4	1, 1-Dichloroethene	25U
75-34-3	1, 1-Dichloroethane	25U
156-60-5	Trans-1, 2-Dichloroethene	(970)
67-66-3	Chloroform	25U
107-06-2	1, 2-Dichloroethane	25U
78-93-3	2-Butanone	50U
71-55-6	1, 1, 1-Trichloroethane	25U
56-23-5	Carbon Tetrachloride	25U
108-05-4	Vinyl Acetate	50U
75-27-4	Bromodichloromethane	25U

CAS Number		(ug/l or ug/Kg (Circle One))
79-34-5	1, 1, 2, 2-Tetrachloroethane	25U
78-87-5	1, 2-Dichloropropane	25U
10061-02-6	Trans-1, 3-Dichloropropene	25U
79-01-6	Trichloroethene	(22 J)
124-48-1	Dibromochloromethane	25U
79-00-5	1, 1, 2-Trichloroethane	25U
71-43-2	Benzene	(9.0 J)
10061-01-5	cis-1, 3-Dichloropropene	25U
110-75-8	2-Chloroethylvinylether	50U
75-25-2	Bromoform	25U
591-78-6	2-Hexanone	50U
108-10-1	4-Methyl-2-Pentanone	50U
127-18-4	Tetrachloroethene	25U
108-88-3	Toluene	(10 J)
108-90-7	Chlorobenzene	25U
100-41-4	Ethylbenzene	25U
100-42-5	Styrene	25U
	Total Xylenes	(37)

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 actions. (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 indicates 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)

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

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

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Laboratory Name: HAZLETON

Case No: 4571

RECEIVED NOV 2 6 1985

Sample Number
ED 803

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 7/1/85 FEN BAN598

Date Analyzed: 7/2/85 2257

Conc/Dil Factor: 1

CAS Number		ug/l or ug/Kg (Circle One)
62-75-9	N-Nitrosodimethylamine	20 U
108-95-2	Phenol	20 U
62-53-3	Aniline	20 U
111-44-4	bis(-2-Chloroethyl)Ether	20 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1, 3-Dichlorobenzene	20 U
106-46-7	1, 4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U
95-50-1	1, 2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
39638-32-9	bis(2-chloroisopropyl)Ether	20 U
106-44-5	4-Methylphenol	20 U
621-64-7	N-Nitroso-Di-n-Propylamine	20 U
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	20 U
105-67-9	2, 4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	100 U
111-91-1	bis(-2-Chloroethoxy)Methane	20 U
120-83-2	2, 4-Dichlorophenol	20 U
120-82-1	1, 2, 4-Trichlorobenzene	20 U
91-20-3	Naphthalene	20 U
106-47-8	4-Chloroaniline	20 U
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-Methylphenol	20 U
91-57-6	2-Methylnaphthalene	20 U
77-47-4	Hexachlorocyclopentadiene	20 U
88-06-2	2, 4, 6-Trichlorophenol	20 U
95-95-4	2, 4, 5-Trichlorophenol	100 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	100 U
131-11-3	Dimethyl Phthalate	20 U
208-96-8	Acenaphthylene	20 U
99-09-2	3-Nitroaniline	100 U

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	20 U
51-28-5	2, 4-Dinitrophenol	100 U
100-02-7	4-Nitrophenol	100 U
132-64-9	Dibenzofuran	20 U
121-14-2	2, 4-Dinitrotoluene	20 U
606-20-2	2, 6-Dinitrotoluene	20 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	20 U
100-01-6	4-Nitroaniline	100 U
534-52-1	4, 6-Dinitro-2-Methylphenol	100 U
86-30-6	N-Nitrosodiphenylamine (1)	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	100 U
85-01-8	Phenanthrene	20 U
120-12-7	Anthracene	20 U
84-74-2	Di-n-Butylphthalate	1.4 BJ ~~20 U~~
206-44-0	Fluoranthene	20 U
92-87-5	Benzidine	100 U
129-00-0	Pyrene	20 U
85-68-7	Butylbenzylphthalate	20 U
91-94-1	3, 3'-Dichlorobenzidine	20 U
56-55-3	Benzo(a)Anthracene	20 U
117-81-7	bis(2-Ethylhexyl)Phthalate	15 BJ ~~20 U~~
218-01-9	Chrysene	20 U
117-84-0	Di-n-Octyl Phthalate	3.5 J ~~20 U~~
205-99-2	Benzo(b)Fluoranthene	20 U
207-08-9	Benzo(k)Fluoranthene	20 U
50-32-8	Benzo(a)Pyrene	20 U
193-39-5	Indeno(1, 2, 3-cd)Pyrene	20 U
53-70-3	Dibenz(a, h)Anthracene	20 U
191-24-2	Benzo(g, h, i)Perylene	20 U

(1)-Cannot be separated from diphenylamine

Laboratory Name: HAZLETON

RECEIVED NOV 2 6 1985

No: 4571

Sample Number
ED 803

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 7-1-85

Date Analyzed: 7-12-85

Conc/Dil Factor: 1

CAS Number		(ug/L) or ug/Kg (Circle One)
319-84-6	Alpha-BHC	0.05 U
319-85-7	Beta-BHC	0.05 U
319-86-8	Delta-BHC	0.05 U
58-89-9	Gamma-BHC (Lindane)	0.05 U
76-44-8	Heptachlor	0.05 U
309-00-2	Aldrin	0.05 U
1024-57-3	Heptachlor Epoxide	0.05 U
959-98-8	Endosulfan I	0.05 U
60-57-1	Dieldrin	0.10 U
72-55-9	4,4'-DDE	0.10 U
72-20-8	Endrin	0.10 U
33213-65-9	Endosulfan II	0.10 U
72-54-8	4,4'-DDD	0.10 U
7421-93-4	Endrin Aldehyde	0.10 U
1031-07-8	Endosulfan Sulfate	0.10 U
50-29-3	4,4'-DDT	0.10 U
72-43-5	Methoxychlor	0.50 U
53494-70-5	Endrin Ketone	0.10 U
57-74-9	Chlordane	0.50 U
8001-35-2	Toxaphene	1.0 U
12674-11-2	Aroclor-1016	0.50 U
11104-28-2	Aroclor-1221	0.50 U
11141-16-5	Aroclor-1232	0.50 U
53469-21-9	Aroclor-1242	0.50 U
12672-29-6	Aroclor-1248	0.50 U
11097-69-1	Aroclor-1254	1.0 U
11096-82-5	Aroclor-1260	1.0 U

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 1000 or W_s — V_t 10,000 V_i 4.0

Case No: 4571 RECEIVED NOV 2 6 1985 ED803

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	95-47-6	Benzene, 1,2-dimethyl	BNA	275	8.3
2.		Unknown	BNA	821	190
3.		Unknown	BNA	1573	13
4.	5675-51-4	1,2 Dodecanediol	BNA	1749	12
5.		Unknown	BNA	1930	13
6.		Unknown	BNA	1937	8.3
7.		Unknown	BNA	1996	20
8.		Unknown	BNA	2072	11
9.		Unknown	BNA	2151	9.6
10.		Unknown	BNA	2270	12
11.		Unknown	BNA	2395	15
12.					
13.	60-29-7	Ethane, 1,1'-Oxybis	VOA	169	59
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

Environmental Protection Agency, CLP Sample Management Office,
P. O. Box 818, Alexandria, Virginia 22313 703/557-2490

RECEIVED NOV 2 6 1985

ED 804

85FH10518

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: HAZLETON LABORATORIES Case No: 4571

Lab Sample ID No: 50606608 QC Report No:

Sample Matrix: WATER Contract No: 68-01-6961

Data Release Authorized By: David C. Hill Date Sample Received: 6-28-85

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 7-3-85 FRN 2829

Date Analyzed: 7-3-85 1830

Conc/Dil Factor: 1 pH

Percent Moisture:

Percent Moisture (Decanted):

CAS Number		(ug/L or ug/Kg (Circle One))
74-87-3	Chloromethane	10 U
74-83-9	Bromomethane	10 U
75-01-4	Vinyl Chloride	10 U
75-00-3	Chloroethane	10 U
75-09-2	Methylene Chloride	5 U
67-64-1	Acetone	10 U
75-15-0	Carbon Disulfide	5 U
75-35-4	1, 1-Dichloroethene	5 U
75-34-3	1, 1-Dichloroethane	5 U
156-60-5	Trans-1, 2-Dichloroethene	5 U
67-66-3	Chloroform	5 U
107-06-2	1, 2-Dichloroethane	5 U
78-93-3	2-Butanone	(20) ~~10 U~~
71-55-6	1, 1, 1-Trichloroethane	5 U
56-23-5	Carbon Tetrachloride	5 U
108-05-4	Vinyl Acetate	10 U
75-27-4	Bromodichloromethane	5 U

CAS Number		(ug/L or ug/Kg (Circle One))
79-34-5	1, 1, 2, 2-Tetrachloroethane	5 U
78-87-5	1, 2-Dichloropropane	5 U
10061-02-6	Trans-1, 3-Dichloropropene	5 U
79-01-6	Trichloroethene	5 U
124-48-1	Dibromochloromethane	5 U
79-00-5	1, 1, 2-Trichloroethane	5 U
71-43-2	Benzene	5 U
10061-01-5	cis-1, 3-Dichloropropene	5 U
110-75-8	2-Chloroethylvinylether	10 U
75-25-2	Bromoform	5 U
591-78-6	2-Hexanone	10 U
108-10-1	4-Methyl-2-Pentanone	10 U
127-18-4	Tetrachloroethene	5 U
108-88-3	Toluene	(1.0 J) ~~5 U~~
108-90-7	Chlorobenzene	5 U
100-41-4	Ethylbenzene	5 U
100-42-5	Styrene	5 U
	Total Xylenes	5 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 actions. (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 indicates 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)

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

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

Other: Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Laboratory Name: HAZLETON

RECEIVED NOV 2 6 1985

Case No: 4571

Sample Number
ED804

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 7/1/85 FRN BAN597

Date Analyzed: 7/2/85 2200

(Conc/Dil Factor): 1

CAS Number		(ug/l or ug/Kg) (Circle One)
62-75-9	N-Nitrosodimethylamine	20 U
108-95-2	Phenol	20 U
62-53-3	Aniline	20 U
111-44-4	bis(-2-Chloroethyl)Ether	20 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1, 3-Dichlorobenzene	20 U
106-46-7	1, 4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U
95-50-1	1, 2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
39638-32-9	bis(2-chloroisopropyl)Ether	20 U
106-44-5	4-Methylphenol	20 U
621-64-7	N-Nitroso-Di-n-Propylamine	20 U
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	20 U
105-67-9	2, 4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	100 U
111-91-1	bis(-2-Chloroethoxy)Methane	20 U
120-83-2	2, 4-Dichlorophenol	20 U
120-82-1	1, 2, 4-Trichlorobenzene	20 U
91-20-3	Naphthalene	20 U
106-47-8	4-Chloroaniline	20 U
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-Methylphenol	20 U
91-57-6	2-Methylnaphthalene	20 U
77-47-4	Hexachlorocyclopentadiene	20 U
88-06-2	2, 4, 6-Trichlorophenol	20 U
95-95-4	2, 4, 5-Trichlorophenol	100 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	100 U
131-11-3	Dimethyl Phthalate	20 U
208-96-8	Acenaphthylene	20 U
99-09-2	3-Nitroaniline	100 U

CAS Number		(ug/l or ug/Kg) (Circle One)
83-32-9	Acenaphthene	20 U
51-28-5	2, 4-Dinitrophenol	100 U
100-02-7	4-Nitrophenol	100 U
132-64-9	Dibenzofuran	20 U
121-14-2	2, 4-Dinitrotoluene	20 U
606-20-2	2, 6-Dinitrotoluene	20 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	20 U
100-01-6	4-Nitroaniline	100 U
534-52-1	4, 6-Dinitro-2-Methylphenol	100 U
86-30-6	N-Nitrosodiphenylamine (1)	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	100 U
85-01-8	Phenanthrene	20 U
120-12-7	Anthracene	20 U
84-74-2	Di-n-Butylphthalate	1.2 B ~~20 U~~
206-44-0	Fluoranthene	20 U
92-87-5	Benzidine	100 U
129-00-0	Pyrene	20 U
85-68-7	Butylbenzylphthalate	20 U
91-94-1	3, 3'-Dichlorobenzidine	20 U
56-55-3	Benzo(a)Anthracene	20 U
117-81-7	bis(2-Ethylhexyl)Phthalate	6.4 B ~~20 U~~
218-01-9	Chrysene	20 U
117-84-0	Di-n-Octyl Phthalate	20 U
205-99-2	Benzo(b)Fluoranthene	20 U
207-08-9	Benzo(k)Fluoranthene	20 U
50-32-8	Benzo(a)Pyrene	20 U
193-39-5	Indeno(1, 2, 3-cd)Pyrene	20 U
53-70-3	Dibenz(a, h)Anthracene	20 U
191-24-2	Benzo(g, h, i)Perylene	20 U

(1)-Cannot be separated from diphenylamine

Laboratory Name: HAZLETON

No: 4571

RECEIVED NOV 2 6 1985

Sample Number
ED 804

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 7-1-85

Date Analyzed: 7-12-85

Conc/Dil Factor: 1

CAS Number		ug/l ~~ug/kg~~ (Circle One)
319-84-6	Alpha-BHC	0.05 U
319-85-7	Beta-BHC	0.05 U
319-86-8	Delta-BHC	0.05 U
58-89-9	Gamma-BHC (Lindane)	0.05 U
76-44-8	Heptachlor	0.05 U
309-00-2	Aldrin	0.05 U
1024-57-3	Heptachlor Epoxide	0.05 U
959-98-8	Endosulfan I	0.05 U
60-57-1	Dieldrin	0.10 U
72-55-9	4,4'-DDE	0.10 U
72-20-8	Endrin	0.10 U
33213-65-9	Endosulfan II	0.10 U
72-54-8	4,4'-DDD	0.10 U
7421-93-4	Endrin Aldehyde	0.10 U
1031-07-8	Endosulfan Sulfate	0.10 U
50-29-3	4,4'-DDT	0.10 U
72-43-5	Methoxychlor	0.50 U
53494-70-5	Endrin Ketone	0.10 U
57-74-9	Chlordane	0.50 U
8001-35-2	Toxaphene	1.0 U
12674-11-2	Aroclor-1016	0.50 U
11104-28-2	Aroclor-1221	0.50 U
11141-16-5	Aroclor-1232	0.50 U
53469-21-9	Aroclor-1242	0.50 U
12672-29-6	Aroclor-1248	0.50 U
11097-69-1	Aroclor-1254	1.0 U
11096-82-5	Aroclor-1260	1.0 U

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 1000 or W_s — V_t 10,000 V_i 4.0

Case No: 4571 RECEIVED NOV 2 6 1985

ED804

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.		Unknown	BNA	837	460
2.		Unknown Alkene	BNA	1568	19
3.		Unknown	BNA	1760	8.4
4.		Unknown	BNA	1937	14
5.		Unknown	BNA	2072	12
6.		Unknown Alkane $C_{13} \rightarrow C_{43}$	BNA	2181	14
7.		Unknown Alkane $C_{20} \rightarrow C_{40}$	BNA	2310	11
8.		Unknown	BNA	2259	24
9.					
10.	—	None Found	VOA	—	—
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

Environmental Protection Agency, CLP Sample Management Office
P. O Box 818, Alexandria, Virginia 22313 703/557-2490

RECEIVED NOV 2 6 1985

ED 805

85FH10SM

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: HAZLETON LABORATORIES
Case No: 4571
Lab Sample ID No: 5006609
QC Report No:
Sample Matrix: WATER
Contract No: 68-01-6961
Data Release Authorized By: David C. Will
Date Sample Received: 6-28-85

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 7-3-85 FRN 28299
Date Analyzed: 7-3-85 1920
Conc/Dil Factor: 1 pH
Percent Moisture:
Percent Moisture (Decanted):

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10 U
74-83-9	Bromomethane	10 U
75-01-4	Vinyl Chloride	10 U
75-00-3	Chloroethane	10 U
75-09-2	Methylene Chloride	5 U
67-64-1	Acetone	10 U
75-15-0	Carbon Disulfide	5 U
75-35-4	1, 1-Dichloroethene	5 U
75-34-3	1, 1-Dichloroethane	5 U
156-60-5	Trans-1, 2-Dichloroethene	5 U
67-66-3	Chloroform	5 U
107-06-2	1, 2-Dichloroethane	5 U
78-93-3	2-Butanone	10 U
71-55-6	1, 1, 1-Trichloroethane	5 U
56-23-5	Carbon Tetrachloride	5 U
108-05-4	Vinyl Acetate	10 U
75-27-4	Bromodichloromethane	5 U

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

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

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

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Laboratory Name: HAZLETON RECEIVED NOV 2 6 1985

Case No: 4571

Sample Number ED805

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 7/1/85 FRN BAN609

Date Analyzed: 7/5/85 1319

Conc/Dil Factor: 1

CAS Number		ug/l or ug/Kg (Circle One)
62-75-9	N-Nitrosodimethylamine	20 U
108-95-2	Phenol	20 U
62-53-3	Aniline	20 U
111-44-4	bis(-2-Chloroethyl)Ether	20 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1, 3-Dichlorobenzene	20 U
106-46-7	1, 4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U
95-50-1	1, 2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
39638-32-9	bis(2-chloroisopropyl)Ether	20 U
106-44-5	4-Methylphenol	20 U
621-64-7	N-Nitroso-Di-n-Propylamine	20 U
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	0.55J
88-75-5	2-Nitrophenol	20 U
105-67-9	2, 4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	100 U
111-91-1	bis(-2-Chloroethoxy)Methane	20 U
120-83-2	2, 4-Dichlorophenol	20 U
120-82-1	1, 2, 4-Trichlorobenzene	20 U
91-20-3	Naphthalene	20 U
106-47-8	4-Chloroaniline	20 U
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-Methylphenol	20 U
91-57-6	2-Methylnaphthalene	20 U
77-47-4	Hexachlorocyclopentadiene	20 U
88-06-2	2, 4, 6-Trichlorophenol	20 U
95-95-4	2, 4, 5-Trichlorophenol	100 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	100 U
131-11-3	Dimethyl Phthalate	20 U
208-96-8	Acenaphthylene	20 U
99-09-2	3-Nitroaniline	100 U

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	20 U
51-28-5	2, 4-Dinitrophenol	100 U
100-02-7	4-Nitrophenol	100 U
132-64-9	Dibenzofuran	20 U
121-14-2	2, 4-Dinitrotoluene	20 U
606-20-2	2, 6-Dinitrotoluene	20 U
84-66-2	Diethylphthalate	2.2 J
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	20 U
100-01-6	4-Nitroaniline	100 U
534-52-1	4, 6-Dinitro-2-Methylphenol	100 U
86-30-6	N-Nitrosodiphenylamine (1)	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	100 U
85-01-8	Phenanthrene	20 U
120-12-7	Anthracene	20 U
84-74-2	Di-n-Butylphthalate	20 U
206-44-0	Fluoranthene	20 U
92-87-5	Benzidine	100 U
129-00-0	Pyrene	20 U
85-68-7	Butylbenzylphthalate	20 U
91-94-1	3, 3'-Dichlorobenzidine	20 U
56-55-3	Benzo(a)Anthracene	20 U
117-81-7	bis(2-Ethylhexyl)Phthalate	3.5 BJ
218-01-9	Chrysene	20 U
117-84-0	Di-n-Octyl Phthalate	20 U
205-99-2	Benzo(b)Fluoranthene	20 U
207-08-9	Benzo(k)Fluoranthene	20 U
50-32-8	Benzo(a)Pyrene	20 U
193-39-5	Indeno(1, 2, 3-cd)Pyrene	20 U
53-70-3	Dibenz(a, h)Anthracene	20 U
191-24-2	Benzo(g, h, i)Perylene	20 U

(1)-Cannot be separated from diphenylamine

Laboratory Name: HAZLETON

Case No: 4571

RECEIVED NOV 2 6 1985

Sample Number
ED 805

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 7-1-85

Date Analyzed: 7-13-85

Conc/Dil Factor: 1

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	0.05 U
319-85-7	Beta-BHC	0.05 U
319-86-8	Delta-BHC	0.05 U
58-89-9	Gamma-BHC (Lindane)	0.05 U
76-44-8	Heptachlor	0.05 U
309-00-2	Aldrin	0.05 U
1024-57-3	Heptachlor Epoxide	0.05 U
959-98-8	Endosulfan I	0.05 U
60-57-1	Dieldrin	0.10 U
72-55-9	4,4'-DDE	0.10 U
72-20-8	Endrin	0.10 U
33213-65-9	Endosulfan II	0.10 U
72-54-8	4,4'-DDD	0.10 U
7421-93-4	Endrin Aldehyde	0.10 U
1031-07-8	Endosulfan Sulfate	0.10 U
50-29-3	4,4'-DDT	0.10 U
72-43-5	Methoxychlor	0.50 U
53494-70-5	Endrin Ketone	0.10 U
57-74-9	Chlordane	0.50 U
8001-35-2	Toxaphene	1.0 U
12674-11-2	Aroclor-1016	0.50 U
11104-28-2	Aroclor-1221	0.50 U
11141-16-5	Aroclor-1232	0.50 U
53469-21-9	Aroclor-1242	0.50 U
12672-29-6	Aroclor-1248	0.50 U
11097-69-1	Aroclor-1254	1.0 U
11096-82-5	Aroclor-1260	1.0 U

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 1000 or W_s — V_t 10,000 V_i 4.0

Laboratory Name: HAZLETON

Case No: 4571

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Sample Number: ED805

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.		Unknown	BNA	508	12
2.	617-94-7	Benzenemethanol, .alpha., .alpha.,-Dimethyl-	BNA	592	9.0
3.		Unknown	BNA	809	13
4.		Unknown	BNA	841	170
5.	5724-73-7	Butanoic Acid, 4-Butoxy-	BNA	965	45
6.	98-73-7	Benzoic Acid, 4(1,1)-dimethylethyl)-	BNA	1077	10
7.	80-39-7	Benzene sulfonamide, N-Ethyl-4-methyl	BNA	1230	16
8.	1421-49-4	Benzoic Acid, 3,5-bis(1,1-Dimethylethyl)-4-hydroxy	BNA	1443	8.8
9.		Unknown	BNA	2069	14
10.		Unknown	BNA	2193	12
11.		Unknown	BNA	2199	24
12.		Unknown	BNA	2235	109
13.		Unknown	BNA	2254	9.6
14.		Unknown	BNA	2302	42
15.		Unknown	BNA	2412	15
16.					
17.	60-29-7	Ethane, 1,1'-oxybis	VOA	169	6.0
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

Environmental Protection Agency, CLP Sample Management Office
P. O. Box 818, Alexandria, Virginia 22313 703/557-2490

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ED 806

85FH10D17

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: HAZLETON LABORATORIES
Case No: 4571
Lab Sample ID No: 5000660
QC Report No:
Sample Matrix: WATER
Contract No: 68-01-6961
Data Release Authorized By: David C. Webb
Date Sample Received: 6-28-85

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 7-3-85 FRN 28301
Date Analyzed: 7-8-85 2100
Gen/Dil Factor: 5 pH
Percent Moisture:
Percent Moisture (Decanted):

Duplicate of ED803

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	50U
74-83-9	Bromomethane	50U
75-01-4	Vinyl Chloride	(82)
75-00-3	Chloroethane	50U
75-09-2	Methylene Chloride	(27 B)
67-64-1	Acetone	50U
75-15-0	Carbon Disulfide	25U
75-35-4	1, 1-Dichloroethene	25U
75-34-3	1, 1-Dichloroethane	25U
156-60-5	Trans-1, 2-Dichloroethene	(740)
67-66-3	Chloroform	25U
107-06-2	1, 2-Dichloroethane	25U
78-93-3	2-Butanone	50U
71-55-6	1, 1, 1-Trichloroethane	25U
56-23-5	Carbon Tetrachloride	25U
108-05-4	Vinyl Acetate	50U
75-27-4	Bromodichloromethane	25U

CAS Number		ug/l or ug/Kg (Circle One)
79-34-5	1, 1, 2, 2-Tetrachloroethane	25U
78-87-5	1, 2-Dichloropropane	25U
10061-02-6	Trans-1, 3-Dichloropropene	25U
79-01-6	Trichloroethene	25U
124-48-1	Dibromochloromethane	25U
79-00-5	1, 1, 2-Trichloroethane	25U
71-43-2	Benzene	25U
10061-01-5	cis-1, 3-Dichloropropene	25U
110-75-8	2-Chloroethylvinylether	50U
75-25-2	Bromoform	25U
591-78-6	2-Hexanone	50U
108-10-1	4-Methyl-2-Pentanone	50U
127-18-4	Tetrachloroethene	25U
108-88-3	Toluene	(7.5J)
108-90-7	Chlorobenzene	25U
100-41-4	Ethylbenzene	25U
100-42-5	Styrene	25U
	Total Xylenes	(28)

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 actions. (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 indicates 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).

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

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

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Laboratory Name: HAZLETON

Case No: 4571

Sample Number
ED 806

Organics Analysis Data Sheet
(Page 2)

RECEIVED NOV 2 6 1985

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 7/1/85 FRN BAN595

Date Analyzed: 7/2/85 2004

Conc/Dil Factor: 1

CAS Number		ug/l or ug/Kg (Circle One)
62-75-9	N-Nitrosodimethylamine	20 U
108-95-2	Phenol	20 U
62-53-3	Aniline	20 U
111-44-4	bis(-2-Chloroethyl)Ether	20 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1, 3-Dichlorobenzene	20 U
106-46-7	1, 4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U
95-50-1	1, 2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
39638-32-9	bis(2-chloroisopropyl)Ether	20 U
106-44-5	4-Methylphenol	20 U
621-64-7	N-Nitroso-Di-n-Propylamine	20 U
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	20 U
105-67-9	2, 4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	100 U
111-91-1	bis(-2-Chloroethoxy)Methane	20 U
120-83-2	2, 4-Dichlorophenol	20 U
120-82-1	1, 2, 4-Trichlorobenzene	20 U
91-20-3	Naphthalene	20 U
106-47-8	4-Chloroaniline	20 U
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-Methylphenol	20 U
91-57-6	2-Methylnaphthalene	20 U
77-47-4	Hexachlorocyclopentadiene	20 U
88-06-2	2, 4, 6-Trichlorophenol	20 U
95-95-4	2, 4, 5-Trichlorophenol	100 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	100 U
131-11-3	Dimethyl Phthalate	20 U
208-96-8	Acenaphthylene	20 U
99-09-2	3-Nitroaniline	100 U

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	20 U
51-28-5	2, 4-Dinitrophenol	100 U
100-02-7	4-Nitrophenol	100 U
132-64-9	Dibenzofuran	20 U
121-14-2	2, 4-Dinitrotoluene	20 U
606-20-2	2, 6-Dinitrotoluene	20 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	20 U
100-01-6	4-Nitroaniline	100 U
534-52-1	4, 6-Dinitro-2-Methylphenol	100 U
86-30-6	N-Nitrosodiphenylamine (1)	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	100 U
85-01-8	Phenanthrene	20 U
120-12-7	Anthracene	20 U
84-74-2	Di-n-Butylphthalate	1.3 BJ ~~20 U~~
206-44-0	Fluoranthene	20 U
92-87-5	Benzidine	100 U
129-00-0	Pyrene	20 U
85-68-7	Butylbenzylphthalate	20 U
91-94-1	3, 3'-Dichlorobenzidine	20 U
56-55-3	Benzo(a)Anthracene	20 U
117-81-7	bis(2-Ethylhexyl)Phthalate	12 BJ ~~20 U~~
218-01-9	Chrysene	20 U
117-84-0	Di-n-Octyl Phthalate	2.1 J ~~20 U~~
205-99-2	Benzo(b)Fluoranthene	20 U
207-08-9	Benzo(k)Fluoranthene	20 U
50-32-8	Benzo(a)Pyrene	20 U
193-39-5	Indeno(1, 2, 3-cd)Pyrene	20 U
53-70-3	Dibenz(a, h)Anthracene	20 U
191-24-2	Benzo(g, h, i)Perylene	20 U

(1)-Cannot be separated from diphenylamine

Laboratory Name: HAZLETON

Case No: 4571

Sample Number
ED 806

Organics Analysis Data Sheet
(Page 3)

RECEIVED NOV 2 6 1985

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 7-1-85

Date Analyzed: 7-13-85

Conc/Dil Factor: 1

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	0.05 U
319-85-7	Beta-BHC	0.05 U
319-86-8	Delta-BHC	0.05 U
58-89-9	Gamma-BHC (Lindane)	0.05 U
76-44-8	Heptachlor	0.05 U
309-00-2	Aldrin	0.05 U
1024-57-3	Heptachlor Epoxide	0.05 U
959-98-8	Endosulfan I	0.05 U
60-57-1	Dieldrin	0.10 U
72-55-9	4,4'-DDE	0.10 U
72-20-8	Endrin	0.10 U
33213-65-9	Endosulfan II	0.10 U
72-54-8	4,4'-DDD	0.10 U
7421-93-4	Endrin Aldehyde	0.10 U
1031-07-8	Endosulfan Sulfate	0.10 U
50-29-3	4,4'-DDT	0.10 U
72-43-5	Methoxychlor	0.50 U
53494-70-5	Endrin Ketone	0.10 U
57-74-9	Chlordane	0.50 U
8001-35-2	Toxaphene	1.0 U
12674-11-2	Aroclor-1016	0.50 U
11104-28-2	Aroclor-1221	0.50 U
11141-16-5	Aroclor-1232	0.50 U
53469-21-9	Aroclor-1242	0.50 U
12672-29-6	Aroclor-1248	0.50 U
11097-69-1	Aroclor-1254	1.0 U
11096-82-5	Aroclor-1260	1.0 U

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 1000 or W_s — V_t 10,000 V_i 4.0

Case No: 4571

ED 806

Organics Analysis Data Sheet
(Page 4)

RECEIVED NOV 2 6 1985

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	544-25-2	1,3,5 Cycloheptatriene	BNA	133	15
2.	95-47-6	1,2 Dimethyl benzene	BNA	238	8.3
3.		Unknown	BNA	766	35
4.		Unknown	BNA	822	260
5.		Unknown	BNA	1937	8.0
6.		Unknown	BNA	1996	14
7.		Unknown	BNA	2073	9.8
8.		Unknown	BNA	2397	9.7
9.					
10.	60-29-7	Ethane, 1,1'-oxybis-	VOA	169	46
11.		See sample ED805 FRN 28299			
12.		for Library search information			
13.					
14.					
15.					
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Environmental Protection Agency, CLP Sample Management Office,
P. O. Box 818, Alexandria, Virginia 22313 703/557-2490

ED 807

Organics Analysis Data Sheet
(Page 1)

RECEIVED NOV 26 1985

RF 4/10 R06

Laboratory Name: HAZLETON LABORATORIES

Case No: 4571

Lab Sample ID No: 50606611

QC Report No:

Sample Matrix: WATER

Contract No: 68-01-6961

Data Release Authorized By: David C. Gibb

Date Sample Received: 6-28-85

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 7-3-85 FRN 28302

Date Analyzed: 7-3-85 2145

Conc/Dil Factor: 1 pH

Percent Moisture:

Percent Moisture (Decanted):

Blank

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10 U
74-83-9	Bromomethane	10 U
75-01-4	Vinyl Chloride	10 U
75-00-3	Chloroethane	10 U
75-09-2	Methylene Chloride	5 U
67-64-1	Acetone	10 U
75-15-0	Carbon Disulfide	5 U
75-35-4	1, 1-Dichloroethene	5 U
75-34-3	1, 1-Dichloroethane	5 U
156-60-5	Trans-1, 2-Dichloroethene	5 U
67-66-3	Chloroform	5 U
107-06-2	1, 2-Dichloroethane	5 U
78-93-3	2-Butanone	10 U
71-55-6	1, 1, 1-Trichloroethane	5 U
56-23-5	Carbon Tetrachloride	5 U
108-05-4	Vinyl Acetate	10 U
75-27-4	Bromodichloromethane	5 U

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

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

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

Other: Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Laboratory Name: HAZLETON

Case No: 4571

Sample Number
ED 807

Organics Analysis Data Sheet
(Page 3)

RECEIVED NOV 2 6 1985

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 7-1-85

Date Analyzed: 7-13-85

Conc/Dil Factor: 1

CAS Number		(ug/L) or ug/Kg (Circle One)
319-84-6	Alpha-BHC	0.05 U
319-85-7	Beta-BHC	0.05 U
319-86-8	Delta-BHC	0.05 U
58-89-9	Gamma-BHC (Lindane)	0.05 U
76-44-8	Heptachlor	0.05 U
309-00-2	Aldrin	0.05 U
1024-57-3	Heptachlor Epoxide	0.05 U
959-98-8	Endosulfan I	0.05 U
50-57-1	Dieldrin	0.10 U
72-55-9	4,4'-DDE	0.10 U
72-20-8	Endrin	0.10 U
33213-65-9	Endosulfan II	0.10 U
72-54-8	4,4'-DDD	0.10 U
7421-93-4	Endrin Aldehyde	0.10 U
1031-07-8	Endosulfan Sulfate	0.10 U
50-29-3	4,4'-DDT	0.10 U
72-43-5	Methoxychlor	0.50 U
53494-70-5	Endrin Ketone	0.10 U
57-74-9	Chlordane	0.50 U
8001-35-2	Toxaphene	1.0 U
12674-11-2	Aroclor-1016	0.50 U
11104-28-2	Aroclor-1221	0.50 U
11141-16-5	Aroclor-1232	0.50 U
53469-21-9	Aroclor-1242	0.50 U
12672-29-6	Aroclor-1248	0.50 U
11097-69-1	Aroclor-1254	1.0 U
11096-82-5	Aroclor-1260	1.0 U

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 1000 or W_s — V_t 10,000 V_i 4.0

Laboratory Name: HAZLETON

Case No: 4571

Sample Number
ED 807

Organics Analysis Data Sheet
(Page 2)

RECEIVED NOV 2 6 1985

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 7/1/85 FRN BAN 594

Date Analyzed: 7/2/85 1906

Conc/Dil Factor: 1

CAS Number		ug/l or ug/Kg (Circle One)
62-75-9	N-Nitrosodimethylamine	20 U
108-95-2	Phenol	20 U
62-53-3	Aniline	20 U
111-44-4	bis(-2-Chloroethyl)Ether	20 U
95-57-8	2-Chlorophenol	20 U
541-73-1	1, 3-Dichlorobenzene	20 U
106-46-7	1, 4-Dichlorobenzene	20 U
100-51-6	Benzyl Alcohol	20 U
95-50-1	1, 2-Dichlorobenzene	20 U
95-48-7	2-Methylphenol	20 U
39638-32-9	bis(2-chloroisopropyl)Ether	20 U
106-44-5	4-Methylphenol	20 U
621-64-7	N-Nitroso-Di-n-Propylamine	20 U
67-72-1	Hexachloroethane	20 U
98-95-3	Nitrobenzene	20 U
78-59-1	Isophorone	20 U
88-75-5	2-Nitrophenol	20 U
105-67-9	2, 4-Dimethylphenol	20 U
65-85-0	Benzoic Acid	100 U
111-91-1	bis(-2-Chloroethoxy)Methane	20 U
120-83-2	2, 4-Dichlorophenol	20 U
120-82-1	1, 2, 4-Trichlorobenzene	20 U
91-20-3	Naphthalene	20 U
106-47-8	4-Chloroaniline	20 U
87-68-3	Hexachlorobutadiene	20 U
59-50-7	4-Chloro-3-Methylphenol	20 U
91-57-6	2-Methylnaphthalene	20 U
77-47-4	Hexachlorocyclopentadiene	20 U
88-06-2	2, 4, 6-Trichlorophenol	20 U
95-95-4	2, 4, 5-Trichlorophenol	100 U
91-58-7	2-Chloronaphthalene	20 U
88-74-4	2-Nitroaniline	100 U
131-11-3	Dimethyl Phthalate	20 U
208-96-8	Acenaphthylene	20 U
99-09-2	3-Nitroaniline	100 U

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	20 U
51-28-5	2, 4-Dinitrophenol	100 U
100-02-7	4-Nitrophenol	100 U
132-64-9	Dibenzofuran	20 U
121-14-2	2, 4-Dinitrotoluene	20 U
606-20-2	2, 6-Dinitrotoluene	20 U
84-66-2	Diethylphthalate	20 U
7005-72-3	4-Chlorophenyl-phenylether	20 U
86-73-7	Fluorene	20 U
100-01-6	4-Nitroaniline	100 U
534-52-1	4, 6-Dinitro-2-Methylphenol	100 U
86-30-6	N-Nitrosodiphenylamine (1)	20 U
101-55-3	4-Bromophenyl-phenylether	20 U
118-74-1	Hexachlorobenzene	20 U
87-86-5	Pentachlorophenol	100 U
85-01-8	Phenanthrene	20 U
120-12-7	Anthracene	20 U
84-74-2	Di-n-Butylphthalate	20 U (20 BJ)
206-44-0	Fluoranthene	20 U
92-87-5	Benzidine	100 U
129-00-0	Pyrene	20 U
85-68-7	Butylbenzylphthalate	20 U
91-94-1	3, 3'-Dichlorobenzidine	20 U
56-55-3	Benzo(a)Anthracene	20 U
117-81-7	bis(2-Ethylhexyl)Phthalate	20 U
218-01-9	Chrysene	20 U
117-84-0	Di-n-Octyl Phthalate	20 U
205-99-2	Benzo(b)Fluoranthene	20 U
207-08-9	Benzo(k)Fluoranthene	20 U
50-32-8	Benzo(a)Pyrene	20 U
193-39-5	Indeno(1, 2, 3-cd)Pyrene	20 U
53-70-3	Dibenz(a, h)Anthracene	20 U
191-24-2	Benzo(g, h, i)Perylene	20 U

(1)-Cannot be separated from diphenylamine

Case No: 4517

ED 807

Organics Analysis Data Sheet
(Page 4)

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Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	513360	Propane, 1-chloro-2-methyl-	VOA	63	18.
2.					
3.	—	None Found	BAN	—	—
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

MEMORANDUM

DATE: 9/9/85

RECEIVED NOV 2 6 1985

TO: Data Review Team
Sample Management Office

FROM: Chuck Elly for
USEPA Region V

SUBJECT: Data Review Request

COPIES: RENEE MAYS, E & E
CURTIS ROSS, CRL

Please review the data from the following SMO Case:

SMO Case No.: 4571

Site Name: RIPON LANDFILL

Lab Name(s): HAZELTON

I. Sample Information:

A. Number of Samples in Case: 6

B. Number of Samples to be Reviewed: 6

(List Numbers if Not All)

C. Organics to be Reviewed? Yes X No ___

D. Inorganics to be Reviewed? Yes ___ No X

Site Name / TDD#: RIPON LANDFILL / RS-8310-01A

Case Number : 4571

Sampling Date: 6-27-85

Sampling Time: 08:25

Sample/Station Location: Sample #1 / G-5A (Matrix Spike Duplicate)

Organic Traffic Number E D802

Inorganic Traffic Number MEC994

High Hazard Traffic Number E

Physical Description

At time of collection: clear

Physical Changes (if any)

From time of collection until shipment: NONE

Instrument Readings (i.e. - pH, conductivity...):

pH = 7 cond = 600 μmhos

Sampling Date: 6-27-85

Sampling Time: 08:30

Sample/Station Location: Sample #2 / G-5

Organic Traffic Number ED803

Inorganic Traffic Number MEC995

High Hazard Traffic Number E

Physical Description

At time of collection: clear

Physical Changes (if any)

From time of collection until shipment: NONE

Instrument Readings (i.e. - ph, conductivity...):

pH = 7

cond = 500 μmhos.

Site Name / TDD#: RIPON LANDFILL / R5-8310-01A

Case Number : 4571

Sampling Date: 6-27-85

Sampling Time: 09:25

Sample/Station Location: Sample #3 / G-6

Organic Traffic Number ED804

Inorganic Traffic Number MEC996

High Hazard Traffic Number E

Physical Description

At time of collection: slightly cloudy

Physical Changes (if any)

From time of collection until shipment: NONE

Instrument Readings (i.e. - pH, conductivity...):

pH = 7

cond = 450 μmhos

Sampling Date: 6-27-85

Sampling Time: 09:35

Sample/Station Location: Sample #4 / G-8

Organic Traffic Number ED 805

Inorganic Traffic Number MEC997

High Hazard Traffic Number E

Physical Description

At time of collection: Reddish, cloudy

Physical Changes (if any)

From time of collection until shipment: NONE

Instrument Readings (i.e. - ph, conductivity...):

pH = 8

cond = 1500 μmhos.

Site Name / TDD#: RIPON LANDFILL / RS-8310-01A

Case Number : 4571

Sampling Date: 6-27-85

Sampling Time: 08:40

Sample/Station Location: Sample #5 / Dupl-5 (Dup of G-5)

Organic Traffic Number ED806

Inorganic Traffic Number MEF209

High Hazard Traffic Number E

Physical Description

At time of collection: clear

Physical Changes (if any)

From time of collection until shipment: NONE

Instrument Readings (i.e. - pH, conductivity...):

pH = 7

cond = 500 μmhos

Sampling Date: 6-27-85

Sampling Time: 10:30

Sample/Station Location: Sample #6 / BLANK

Organic Traffic Number ED807

Inorganic Traffic Number MEF210

High Hazard Traffic Number E

Physical Description

At time of collection: clear

Physical Changes (if any)

From time of collection until shipment: NONE

Instrument Readings (i.e. - ph, conductivity...):

pH = 6

cond = 0

	ITC	MEC 994	MEC 995	MEC 996	MEC 997	MEF202	MEF210					
	OTC	ED802	ED803	ED804	ED805	ED806	ED807					
	SAMPLE	5A	5	6	8	Dup of 5	Blank					
COMPOUND												
pentachlorophenol												
phenanthrene												
anthracene												
di-n-butylphthalate												
fluoranthene												
benzidine												
pyrene												
butylbenzylphthalate												
3,3'-dichlorobenzidine												
benzo(a)anthracene												
bis(2-ethylhexyl)phthlate												
chrysene												
di-n-octyl phthlate												
benzo(b&k)fluoranthene												
benzo(a)pyrene												
indeno(1,2,3-cd)pyrene												
dibenzo(a,h)anthracene												
benzo(g,h,i)perylene												
alpha-BHC												
beta-BHC												
delta-BHC												
gamma-BHC(lindane)												
heptachlor												
aldrin												
heptachlor epoxide												
endosulfan I												
dieldrin												
4,4'-DDE												
endrin												
endosulfan II												
4,4'-DDD												
endrin aldehyde												
endosulfan sulfate												
4,4'-DDT												
methoxychlor												
endrin ketone												
chlorodane												
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			5.8	2.2								
magnesium												
manganese												
mercury												
nickel												
potassium												
selenium												
silver												
sodium												
thallium												
tin												
vanadium												
zinc												
cyanide CHECK IF ANALYZED ( )												
TENTATIVELY IDENTIFIED ORGANICS												

STATE Wisconsin SITE Ripon Landfill TDD R05810-61I PAGE 2 OF 2, SET # 1

All values ug/l

	ITC	MEC994	MEC995	MEC996	MEC997	MEF209	MEF210		Wisconsin DNR Sampling			
	OTC	ED802	ED803	ED804	ED805	ED806	ED807		11/12/84	5/13/85		
	SAMPLE	MW5A	MW5	MW6	MW8	Dup. of MW5	Blank		Falkenberg Well	MW5		
COMPOUND												
chloromethane												
bromomethane			110			82			45.8; 47.5	130; 210; 200		
vinyl chloride												
chloroethane												
methylene chloride												
acetone										2.5; 2.1		
carbon disulfide												
1,1-dichloroethene												
1,1-dichloroethane			970			740				460; 340		
trans-1,2,-dichloroethene												
chloroform												
1,2-dichloroethane												
2-butanone		14		20								
1,1,1-trichloroethane												
carbon tetrachloride												
vinyl acetate												
bromodichloromethane												
1,1,2,2-tetrachloroethane												
1,2-dichloropropane												
trans-1,3-dichloropropene										8.8; 7.1		
trichloroethene												
dibromochloromethane												
1,1,2-trichloroethane										3.5; 4.2		
benzene												
cis-1,3-dichloropropene												
2-chloroethylvinylether												
bromoform												
2-hexanone												
4-methyl-2-pentanone										30; 2.5		
tetrachloroethene												
toluene												
chlorobenzene												
ethylbenzene												
styrene												
total xylenes			37			28				61; 8.6		
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												
hexachlorocyclopentadiene												
2,4,6-trichlorophenol												
2,4,5-trichlorophenol												
2-chloronaphthalene												
2-nitroaniline												
dimethyl phthalate												
acenapthylene												
3-nitroaniline												
acenaphthene												
2,4-dinitrophenol												
4-nitrophenol												
dibenzofurnan												
2,4-dinitrotoluene												
2,6-dinitrotoluene												
diethylphthalate												
4-chlorophenyl-phenylether												
flourene												
4-nitroaniline												
4,6-dinitro-2-methylphenol												
N-nitrosodiphenylamine												
4-bromophenyl-phenylether												
hexachlorobenzene												

STATE Wisconsin SITE Ripon Landfill TDD R058310-01I PAGE 1 OF 2, SET # 1