FINAL SCREENING SITE INSPECTION REPORT

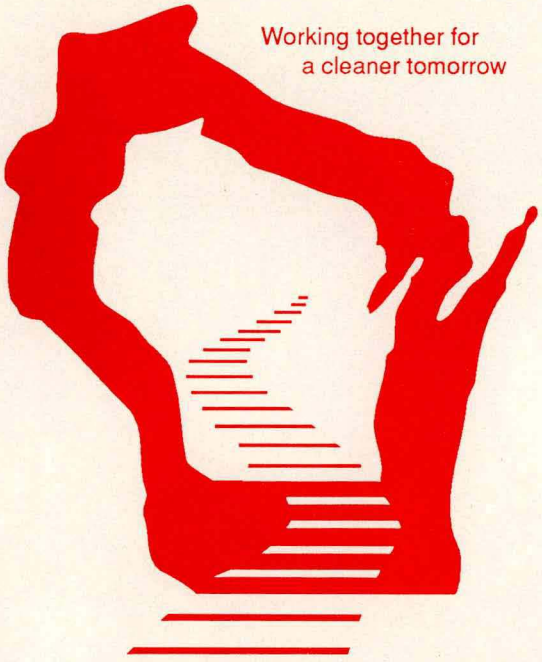
for

REFUSE HIDEAWAY LANDFILL

Town of Middleton, Dane County, Wisconsin

US WID #9806104604

August 4, 1991



Environmental Response and Repair Program

Wisconsin Department of Natural Resources

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Carroll D. Besadny
Secretary

101 South Webster Street
Box 7921
Madison, Wisconsin 53707
SOLID WASTE TELEFAX 608-267-2768
TELEFAX 608-267-3579

August 7, 1991 IN REPLY REFER TO: 4440

Linda Martin
Wisconsin Site Assessment Manager
US EPA Region V 5HS-TUB 7
230 South Dearborn Street
Chicago, IL 60604

SUBJECT: Refuse Hideaway Landfill SSI

Dear Ms. Martin:

Attached is the final SSI for Refuse Hideaway, WID980610604. We recognize that our response to comments on this SSI is not typical of our response to comments for previous SSIs, in that we did not rewrite the report to incorporate organizational/format comments. This SSI was prepared using an older format that has since been changed to reflect EPA concerns, and subsequent SSI submittals have followed this new format.

Since the State has initiated several contracts for further remedial investigations and interim remedial actions at this site due to the migration of contaminants from the site to private wells, we did not believe it would be an expeditious use of staff time to carefully rewrite the SSI report at this time. This is a high priority site for the WDNR, and therefore, we have moved this site forward to the HRS scoring process using the information contained in other, more detailed, investigative reports that were prepared after the SSI was conducted. We have the following responses to your comments on the draft SSI.

Site Description
The bibliography references the sources used to write the Screening Site Inspection. A natural attenuation landfill is a landfill that is designed to use the natural geologic and groundwater conditions to dilute and/or retard (i.e. attenuate) contaminants migrating from a site.

Comments regarding format have been noted and subsequent SSI reports reflect these comments.

Site History
The site history section is an adequate description of the site history, given

the stage the Department is at in investigating site conditions. Information obtained as part of a PRP search conducted after the SSI is included in WDNR files regarding this site.

An updated sampling map is attached for inclusion in the final report.

Groundwater
Detailed groundwater investigations conducted by the WDNR have documented the contaminants are attributable to the site. These reports are the main references used in preparation of the HRS. The WDNR conducted an SSI at this site to confirm groundwater contamination using the CLP program, as we were uncertain whether non-CLP data would be useable in the HRS documentation.

Surface Water
Based on the drainage from the site and the fact that the surface water originates in the wetlands south of the site, there were no upgradient surface water sources for sampling, thus no upgradient surface water samples were taken. The surface water samples that were taken during the SSI were taken in the drainage ditches that originate in the wetlands. Surface water is used for recreation; there are no targets using surface water for drinking water purposes. The map on Page 4b shows sample locations for the sedimentation pond and the drainage ditch.

Direct Contact
The site is a capped landfill resulting in minimal exposure for this pathway. Although some erosional gullies have been identified in the past, the WDNR has contracted to have greater erosion protection in place at this site.

Appendix A
A new 4-mile radius map has been provided with the HRS scoring package.

The remaining comments for the SSI are acknowledged and included in the information prepared for the HRS scoring package. Additional documentation, as required as part of the scoring process is also included with the HRS documentation package. If you have any questions regarding this finalization of the SSI report, please contact me at (608) 267-7569.

Sincerely,

Robin R. Schmidt

Robin R. Schmidt, Lead Worker
Superfund Site Assessment Program

cc: Mike Schmoller - SD
Amy Parkinson - SW/3

State of Wisconsin

CORRESPONDENCE/MEMORANDUM

DATE: January 29, 1990 FILE REF: 4440

TO: Mike Schmoller - SOD

FROM: Chuck Warzecha - SW/3

SUBJECT: EPA Comments on WDNR SSI Reports

Attached to this memo are comments from Linda Martin on the SSI report(s) for:

Anchor Coatings
Edgar Schultz
Mauston Landfill
Keno Trucking
City of Appleton Landfill
Refuse Hideaway Landfill

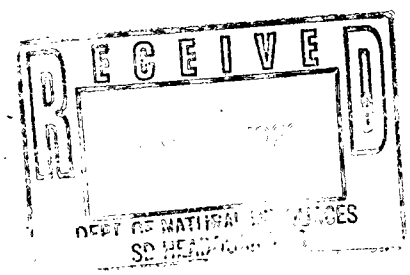
Please review these comments and provide me with the necessary pages or information to resubmit these reports by March 15, 1990 (sooner if possible).

At our meeting in Stevens Point next week I will supply each district with updated guidance for the SSI reports based on the comments that we've received to date.

If you have any questions give me a call. We expect the reports to go final soon after resubmittal.

Thank you.

cc. Robin Schmidt/Sue Bangert - SW/3
Robert Amerson - SW/3



Mark Giesfeldt, Chief
Environmental Response
Bureau of Solid and

cc: Robin Schmidt/Sue Bangert
Chuck Warzecha
Mike Schmoller

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

REPLY TO ATTENTION OF:

5HSM-12

JAN 22 1990

Ms. Robin Schmidt
Hydrogeologist
Environmental Response and Repair Unit
Bureau of Solid Waste Management
Wisconsin Department of Natural Resources
P.O. Box 7921
Madison, Wisconsin 53707

Dear Ms. Schmidt:

The following reports were reviewed by our SAM, Linda Martin. Please find enclosed comments concerning:

Anchor Coating Inc.	(WID 006103899
Edgar Schultz Landfill	(WID 006427579)
Mauston Landfill	(WID 981194442)
Keno Trucking	(WID 980610257)
City of Appleton Landfill	(WID 980610604)
Refuse Hideaway Landfill	(WID 980610604)

The report submitted for the City of Appleton Landfill was the best report we have received yet. This site history section was complete, the analytical results were presented clearly and information presented was well supported. We would like to suggest that the report be used as a guidance for other reports.

If you have any questions or comments concerning any of the comments made, please feel free to contact myself or Linda Martin.

Sincerely yours,

Bill Messenger

William D. Messenger, Chief
Pre-Remedial Unit

Enclosures

cc: S. Bangert, WDNR

Refuse Hideaway Landfill

Transmittal Memo

-A proper evaluation of your scoring package can not be completed until more direct evidence is presented regarding GW and SW contamination attributable to this site.

-At this time the information is not presented in a way that a conclusion of attribution to the site can be made.

-The following comments should be addressed before such conclusion can be made.

Site Description

-Please reference all information.

-Please give a brief explanation of what a natural attenucation is.

-Starting with line 6 thru the end of paragraph, this should not be in this section. This belongs in the site history section.

-The things you have included in this section should be discussed in more detail in other more appropriate section. This section should include information dealing with type of operation, status of site activities, size, location of the site and a brief area description. The stuff from the 3rd paragraph on page 3 thru 3A, should be included under site history.

Page 3 -if there was enough documented evidence to attribute GW contaminants to the site why did WDNR conduct a SSI. Please clarify.

Site History

2nd paragraph - please elaborate on each of the problem points you bring up in this section.

-Your site history section needs more information. Please elaborate on past problems, current problems, past sampling, groundwater contamination, drinking water contamination, etc.

-Tables 2, 3 and 4 are very helpful. However, a better sampling map is needed. Not all of your samples are located on the map.

Analytical Results

-It is very difficult to assess the meaning of your data without an accurate sampling map.

Groundwater

-It is difficult to relate that the landfill is the cause of GW contamination when you have no waste characteristics for the site.

-You may have a problem with GW contamination in the area. However, you have failed to provide with the statement made in this report, that it is attributable to the landfill. I agree you have good cause to believe this, however you are not presenting enough background information to backup your claim. You are also not giving any information on GW use in the area on a target population potentially affected.

Surface WAter

-You may have good reason to believe that the creek is being contaminated. However, with the way the results are presented in section 2.2 with no sample map or any other statements showing up gradient to downgradient results. I find it difficult to attibute contaminants to your site. You are also not giving any information on SW use or target population.

Direct Contact

What you have presented here are things that should be and somewhat are addressed in the GW and SW sections. Your 3rd concern should be addressed under the air route. What should be addressed in this section includes: the potential for direct contact with the wastes on site. Is the site easily accessible? Is there evidence of casual site use by the public? Does the site have restricted access? If a potential does exist a target population should be given.

Appendix A - 4 mile radius map should also include:

1. ring markers
2. township and range
3. well log location in appendix D
4. any municiple water boundaries and supply wells

2070-13

Part 2 Section IV - for future you may just write see table 4-1 in narrative.

Part 3 Section II

A - You do show an observe release to GW. However, you have failed to prove in your narrative that it is from your site. Therefore, a disclaimer should be made unless you present more information to backup this claim.

B - You have also failed to show an observe release to SW with the way statements are presented in your narrative. You have presented a potential but not an observe release.

C - The population potentially effect for air is 4 miles. Please correct.

D - Your narrative states potential for fire/explosion. Please clarify.

E - You did not present an observed incident with hazardous waste on site. The incidence you discuss here are related to GW & SW routes.

I - You state a 1 mile population here, however your discussion deals with the 3 mile population route.

Section III

This number is equal to the greatest population potentially affected within all migration routes. You have an air potential, therefore your target population would be your 4 mile population.

Section III

#5 - please give number of building

Section IV

#2 - you have not proven GW contaminants from your site based on facts stated in narrative.

Part 5 Section II

You have marked community and non-community wells here. The community well should be discussed in your GW section and also located on your 4 mile radius map along with its service boundaries.

Part 6 Section II

Please check on the number of samples listed here.

Section III

Did you collect ph, conductivity temperature on water samples and also water levels in MW? If so, please list them.

113112610
DASI

WISCONSIN DEPARTMENT OF NATURAL RESOURCES

SCREENING SITE INSPECTION REPORT

FOR

REFUSE HIDEAWAY LANDFILL

U.S. EPA ID: WID 980610604

AUGUST 4, 1991

SIGNATURE PAGE

SCREENING SITE INSPECTION REPORT

FOR

REFUSE HIDEAWAY LANDFILL

U.S. EPA ID: WID 9806110604

Prepared by: Michael Schmoller Date: 10/25/89

Mike Schmoller
Sampling Team Leader
WDNR - Southern District
(608) 275-3303

Reviewed by: Chuck Warzecha Date: 10/25/89

Chuck Warzecha
Pre-Remedial Specialist
WDNR - Central Office
(608) 267-5063

Approved by: Robin R Schmidt Date: 10/25/89

Robin Schmidt
Pre-Remedial Coordinator
WDNR - Central Office
(608) 267-7569

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1. Introduction

The Wisconsin Department of Natural Resources was tasked, under terms of the FY 1990 Cooperative Agreement, by the United States Environmental Protection Agency to conduct a Screening Site Inspection at the Refuse Hideaway Landfill. The site is a closed landfill that accepted municipal wastes from 1974-1988.

The site was evaluated in the form of a Preliminary Assessment on June 27, 1988, by Mike Schmoller of WDNR. The site was ranked as a high priority because of documented groundwater contamination affecting three private water supply wells. The site has an extensive legal history and has been the subject of extensive environmental investigations. State funded environmental response and repair activities are currently ongoing at the facility.

The purpose of an SSI have been stated by the U.S. EPA in a directive outlining Pre-Remedial Program strategies. The directive states:

> All sites will receive a screening SI to 1) collect additional data beyond the PA to enable a more refined preliminary HRS (Hazard Ranking System) score, 2) establish priorities among sites most likely to qualify for the NPL (National Priorities List), and 3) identify the most critical data requirements for the listing SI step. A screening SI will not have rigorous data quality objectives (DQOs). Based on the refined preliminary HRS score and other technical judgement factors, the site will then either be designated as NFRAP (no further remedial action planned), or carried forward as an NPL listing candidate. A listing SI will not automatically be done on these sites, however. First, they will go through a management evaluation to determine whether they can be addressed by another authority such as RCRA (Resource Conservation and Recovery Act). Sites that are designated NFRAP or deferred to other statutes are not candidates for a listing SI.
>
> The listing SI will address all the data requirements of the revised HRS using field screening and NPL level DQOs. It may also provide needed data in a format to support remedial investigation work plan development. Only sites that appear to score high enough for listing and that have not been deferred to

another authority will receive a listing SI (U.S. EPA 1988).

U.S. EPA Region V has also instructed State Inspection Teams to identify sites during the SSI that may require removal action to remediate an immediate human health and/or environmental threat.

2. Site Background

2.1 Introduction

This section includes information obtained from WDNR files and on site inspections.

2.2 Site Description

This site is a closed municipal refuse landfill that sits on a 40-acre parcel, of which approximately 20 acres is filled. In some locations the waste fill is over 100 feet thick. The total fill volume is approximately 1.3 million cubic yards. Prior to closure the site was operated as a natural attenuation landfill. Because of serious groundwater contamination problems the state ordered the facility closed on May 16, 1988. In response the operators closed the facility, installed a clay cap and conducted some remedial investigations. At this time the operators are refusing to conduct additional remedial measures at the site. Consequently, additional remedial work is being pursued by the state through its environmental repair program.

On site materials consist of glacial deposits ranging from less than 5 feet thick northwest of the fill area to greater than 100 feet thick south of the waste fill. In the southern areas of the property, unconsolidated materials consist of up to 31 feet of layered silt and clay with some sand layers. These materials are likely lake deposits and overlie a glacial or alluvial fine silty sand with gravel. Beneath these materials is a fine silty sand with some gravel interpreted to be a glacial till layer.

Bedrock is at the surface to the north of the site and drops steeply to the south. Boring logs north of the site show approximately 105 feet of dolomite overlying cambrian age sandstone. The dolomite on site is likely

Prairie du Chien Formation while the sandstone consists of both Tunnel City and Wonewoc units. The contact between units is gradational and all units appear to be fractured. The dolomite unit pinches out quickly to the south.

Regional groundwater flow on site appears to be generally to the south. However, leachate levels built up on the site appear to have distorted local groundwater flow paths. Locally it appears now that groundwater moves somewhat radially away from the facility and only at some unknown distance from the site do natural flow conditions again prevail.

Based on previously generated data it has been determined that groundwater around the facility is contaminated with volatile organic chemicals (see Table 1). This contamination is attributed to the facility. Also, two private water supply wells are contaminated with volatile organic chemicals. Concern exists over the potential for additional public and private wells in the area to become contaminated. The water supply contamination is suspected of coming from the facility. In addition, concern exists for contamination of Black Earth Creek. Black Earth Creek is the discharge area for the groundwater beneath the site. Tributaries to the creek run adjacent to the landfill site and the facility is located in the headwaters area of the creek. The creek is a state class I trout stream. More detailed groundwater information can be found in the Groundwater Pathway section of this report.

Preliminary results of surface water samples taken in 1987 from the on site sedimentation basin and a nearby drainage ditch show contamination. These results are:

Sedimentation Basin		Drainage Ditch		
Acetone	220 ug/l	1,2-Dichloroethylene	9 ug/l	(estimated)
2-Butanone	290 ug/l			
Methylene Chloride (estimated)	14 ug/l			
1,2-Dichloroethylene (estimated)	11 ug/l			
Bromoform (estimated)	12 ug/l			
Toluene (estimated)	9 ug/l			

Table 1

Summary of Select Past Monitoring Well Results

(Sample Collection Date August 18, 1987)
(All readings in parts per billion (ppb))

Parameter	Monitoring Well Results				
	8S	8d	9S	9d	21d
Benzene	17	3	10	5	5
1,1 dichloroethane	17	5	32	5	5
1,2-dichloroethene	380	10	600	5	28
Tetrachloroethene	300	7	56	5	5
Toluene	17	4	25	5	5
Trichloroethylene	130	5	38	5	5
Vinyl Chloride	33	10	200	5	34

Source: WDNR Files

2.3 Site History

In 1974 the WDNR issued a solid waste landfill license to John DeBeck to operate the Refuse Hideaway Landfill. The facility was designed as a natural attenuation landfill and was authorized to accept municipal wastes from the surrounding communities. Before that time the site was used primarily for agriculture. There is no documentation of waste disposal at the site prior to the Refuse Hideaway Landfill.

Site operations continued for 1974 to 1988. In 1986 leachate seeps and ongoing operational problems led the state to begin regulatory actions against the facility. Groundwater contamination from volatile organic chemicals was detected in the summer of 1987 and water supply contamination was detected in January, 1988. Additional site investigations confirmed that the groundwater contamination originated from the landfill and that it was possible that the water supply contamination was also the result of wastes migrating from the site through the groundwater pathway. The landfill was ordered closed by the state on May 16, 1988. Since that time a clay cap has been placed on the site and extensive groundwater and surface water investigations have taken place.

At this time, the site operators have refused to conduct further site studies or remedial actions. Consequently, the state has initiated interim remedial actions at the site using state funds until a final remedial action plan can be developed. The state plans to continue to seek additional funds from the responsible parties to accomplish environmental clean up goals.

To reduce public health risks from the site, the two contaminated water supply wells have had in house water treatment units installed the summer of 1989. Additional public safety measures will be taken as necessary to protect public health and welfare.

3. Screening Site Inspection Procedures and Field Observations

3.1 Introduction

The section outlines the procedures and observations of the SSI done at the

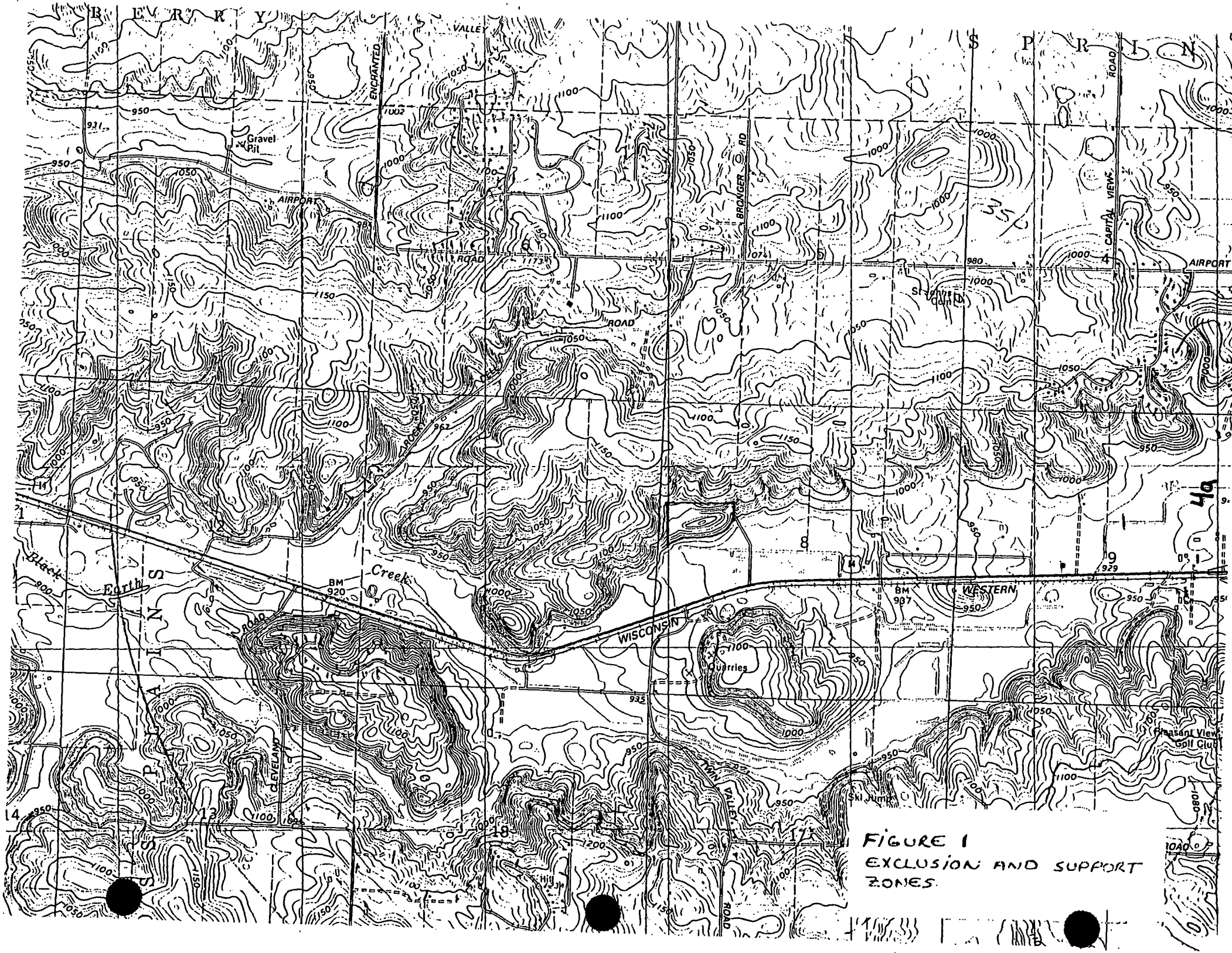


FIGURE 1
EXCLUSION AND SUPPORT ZONES

FIGURE 2

SITE MAP

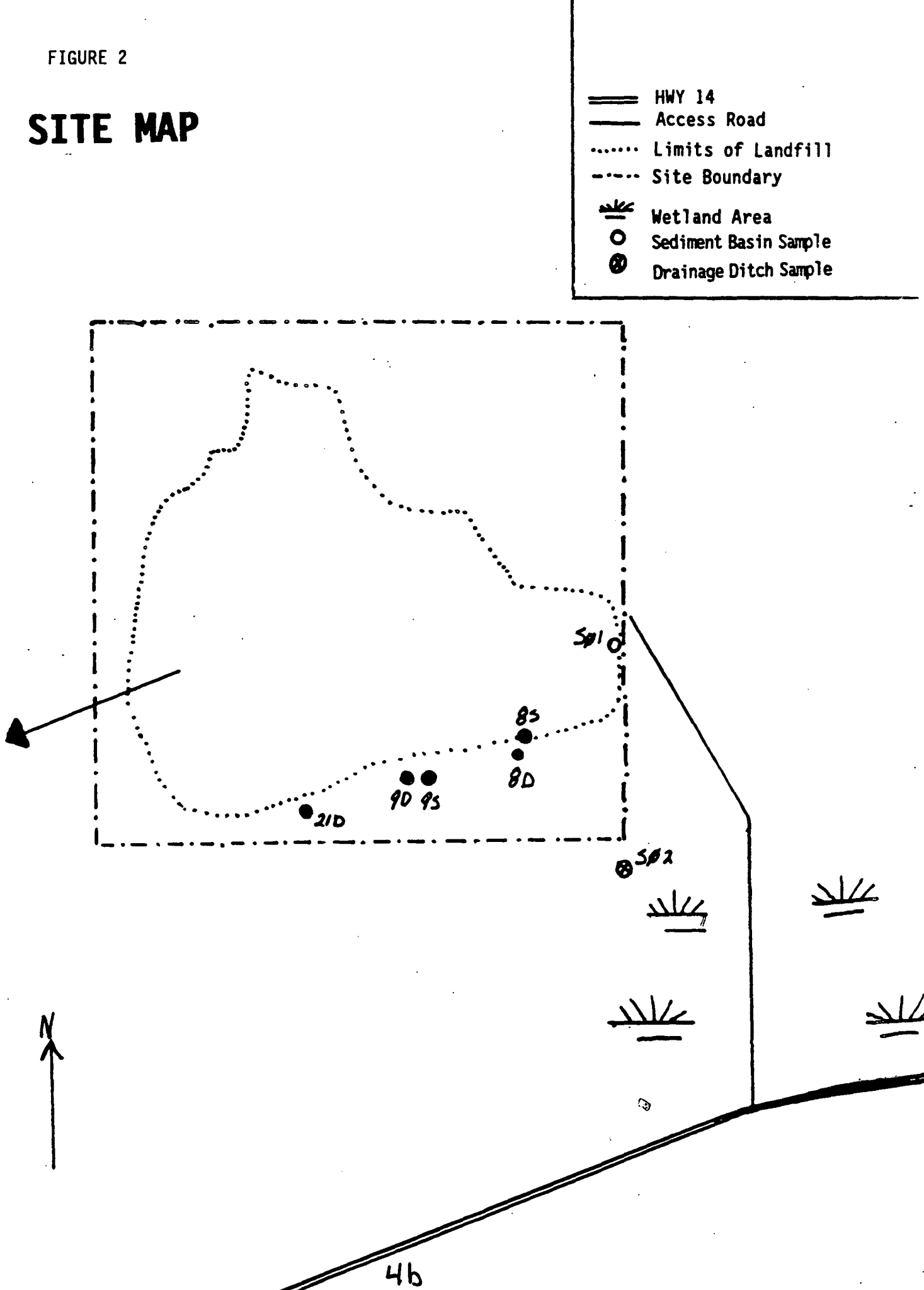


Table 2

Sample Location Key

Sample	Location
Sample S01	Sedimentation basin
Sample S02	Drainage ditch south of site
Sample S03	Stoppleworth residence
Sample S04	Schultz residence
Sample S05	Monitoring well 8D
Sample S06	Monitoring well 8S
Sample S07	Monitoring well 9S
Sample S08	Monitoring well 21D
Sample S09	Monitoring well 9D
Sample R01	Trip Blank
Sample R02	Rinsate between S05 and S06
Sample SMD	Stoppleworth residence
Sample D03	Stoppleworth residence

Table 3
Sample Number and Parameters Analyzed

Sample Type/Number	Parameters Analyzed
Surface Water Sample S01	Volatiles, metals, semi-volatile, pesticides
Surface Water Sample S02	Volatiles, metals, semi-volatile, pesticides
Water Supply Sample S03	Volatiles, metals, semi-volatile, pesticides
Water Supply Sample S04	Volatiles, metals, semi-volatiles, pesticides
Groundwater Sample S05	Volatiles
Groundwater Sample S06	Volatiles
Groundwater Sample S07	Volatiles
Groundwater Sample S08	Volatiles
Groundwater Sample S09	Volatiles

Source - WDNR Files

Table 4

Purge Volumes Removed for Each Monitoring Well

of PVC Well #	Well Bottom Casing (MSL)	Depth to Water From (MSL)	Depth of Water in Top of PVC (ft)	3 well Volumes Well (ft)	Volume Removed (gal.)	Top (gal.)
8S	932.50	912.30	11.71	8.49	4.25	5
8d	931.41	888.7	11.42	31.29	15.65	16
9S	932.07	915.8	11.11	5.16	2.58	5
9d	930.39	887.5	11.11	31.78	15.89	16
21d	935.75	894.2	15.55	25.8	12.9	15

Source: WDNR Files

Refuse Hideaway Landfill site. Individual sections address the site representative interviews, reconnaissance inspection and sampling procedures. Site entry was gained through permission from the landowner.

3.2 Site Representative Interviews

Because of the extensive site history of field studies and legal proceedings no prior site representative interviews were necessary. Information about site design and operations is already well known, as is information about the environmental impacts from the facility. Ray Tierney of WDNR is the hydrogeologist assigned to the site. Much of the hydrogeology and other technical information was provided by Mr. Tierney.

3.3 Reconnaissance Inspection

A short reconnaissance inspection was done the same day as the sampling was conducted, June 28, 1989. The reconnaissance inspection consisted of determining the best road to access the site and evaluating the condition of the monitoring wells to be sampled. The reconnaissance inspection was completed in about 40 minutes and concluded that all wells were in condition to be sampled except 16S which was dry. Well 9D was chosen to replace well 16S as a sampling location.

3.4 Sampling Procedures

During the SSI samples were collected by WDNR staff at locations identified in the Site Sampling Plan (See Figures 1 and 2 and Table 2 and 3). Two water supply (SO3 and SO4), five groundwater (S05-S09) and two surface water samples (S01 and S02) were collected. A trip blank (R02) was made in the field using milli Q water. A sample matrix duplicate (MSD) and field duplicate (DO3) were collected at sampling point S03. A rinsate (R01) was collected from the sampling bailer between samples SO5 and S06. The bailer rinsate was collected by filling the field decontaminated bailer with milli Q water and collecting a sample. Field decontamination procedures consisted of triple rinsing the teflon bailers with milli Q water. The specific sampling procedures used are described below.

All sample locations were chosen based on information from past investigations at the site, as well as a reconnaissance inspection on the day of the SI.

Surface Water Sampling Procedures

Surface water samples were collected by dipping the sample container into the surface water using a gloved hand. Special care was taken to be sure no head

space existed in the VOC samples. Collecting the surface water samples presented no particular problems on site. Surface water metal samples were preserved by adding 2.5 ml of 8N nitric acid to each sample container. VOC samples were preserved by adding 1 ampule of HC1 to each 40 ml vial and cooling the sample. Semi-volatile samples were preserved by cooling each sample with ice.

Groundwater Sampling Procedures

Each monitoring well sampled had at least 3 well volumes purged before the sample was collected (see Table 4). Teflon bailers were used to both purge the wells and collect samples. Bailer decontamination between wells was accomplished with a triple rinse of milli Q water. Each VOC sample was preserved by adding 1 ampule of HCI to each 40 ml vial of water and cooling the sample with ice.

Water Supply Sampling Procedures

Water supply sample S03 was collected at an outside water faucet. The sample was collected after the water was allowed to run for several minutes. Samples were preserved the same way as the surface water samples were.

Water supply sample S04 was collected at a basement water tap following the same procedures as with S03.

4. Analytical Results

4.1 Introduction

This section includes analytical results of WDNR collected surface water and groundwater samples tested for TCL compounds and TAL analytes for the Refuse Hideaway Landfill.

4.2 Results of Chemical Analyses

Analysis of monitoring well and residential water supply well samples revealed substances from the following groups of TCL compounds and TAL analytes: volatiles, metals, and common groundwater constituents.

A summary of sample results is contained in Table 5. Laboratory analytical data of monitoring well sample analysis as well as Contract Lab Program quantitation/detection limits are available at the Wisconsin Department of Natural Resources office at 101 South Webster Street, Madison, Wisconsin.

Table 5

Summary of Contract Laboratory Analytical Results

Sample Number		S01	S02	S03	S04	S05	S06	S07	S08
Traffic Report Number	CRDL (ug/l)	EDT56	EDT57	EDT58	EDT59	EDT60	EDT61	EDT62	EDT63
Vinyl chloride	10	10 U	6 J	10 U	10 U	3 J	120	630 D	41
acetone	10	11 U	14	10 U	10 U	10 U	12	13	10 U
carbon disulfide	5	28	290 E	5 U	5 U	5 U	5 U	5 U	5 U
1,1-dichloroethane	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	12
1,2-dichloroethene	5	2 J	6	14	41	12	580 D	2500 D	120
1,2-dichloropropane	5	5 U	5 U	5 U	5 U	5 U	5 U	29	5 U
trichloroethene	5	5 U	5 U	4 J	9	10	53	30	7
benzene	5	5 U	5 U	5 U	5 U	5 U	2 J	50	2 J
tetrachloroethene	5	0.7 J	0.7 J	24	21	12	120	17	0.7 J
toluene	5	5 U	10 U	10 D	5 U	5 U	5 U	27	5 U

Sample Number		S09	D03	R01	R02
Traffic Report Number	CRDL (ug/l)	EDT64	EDT65	EDT66	EDT67
vinyl chloride	10	390 D	10 U	10 U	10 U
acetone	10	22	10 U	32 U	78
carbon disulfide	5	13 DJ	5 U	5 U	5 U
1,1-dichloroethane	5	5 U	5 U	5 U	5 U
1,2-dichloroethene	5	700 D	14	5 U	5 U
1,2-dichloropropane	5	5 U	5 U	5 U	5 U
trichloroethene	5	5	4 J	5 U	5 U
benzene	5	2 J	5 U	5 U	5 U
tetrachloroethene	5	1 J	25	0.9 J	5 U
toluene	5	5 U	5 U	5 U	5 U

Sample Number		S01	S02	S03	S04	D03	R01
Traffic Report Number	CRDL (ug/l)	MEDN44	MEDN45	MEDN46	MEDN47	MEDN48	MEDN49
aluminum	200	1560	115 U	115 U	115 U	3040	115 U
arsenic	10	3 U	25	3 U	3 U	3 U	3 U
barium	200	62.2 B	43.3 B	46 B	27 B	265	25 U
calcium	5000	34500	81200	81800	85400	155000	1950 U
copper	25	14 U	14 U	14 U	14.2 B	43.3	14 U
iron	100	2290	442	477	29 U	36600	29 U
lead	5	3.2 U	26.2	3 U	5.5 S	10.6 S	3 U
magnesium	5000	14600	44800	44400	47300	78200	2500 U
magnesium	15	137	37	38.3	6 U	4160	6 U
potassium	5000	2900 U	2900 U	2900 U	2900 U	13600	29 U
sodium	5000	7930	3350 B	3980 B	4920 B	41900	1250 U
zinc	20	12 U	604	632	12 U	503	12 U

All metals data should be considered estimated due to lab procedures.

Source: EPA Contract Laboratory Program.

DATA REPORTING QUALIFIERS

U Indicates that the compound was analyzed for but not detected. The associated numerical value is the estimated sample quantitation limit.

J Indicates that the value was estimated due to not meeting quality control criteria. It could also indicate that the result indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit and greater than zero.

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

B For inorganic data this flag is used when the value falls between contract required detection limit (CRDL) and the instrument detection limit (IDL).

R Data is unusable.

E The value given has been estimated or not reported due to interference.

N This flag indicates that the sample spike recovery is not within control limits, though there is evidence of compound present.

S This flag indicates that the value was determined by method of standard addition.

RE This flag indicates that the data was obtained from the second analysis of the same sample.

D This flag indicates that the data was obtained from the sample after dilution. The number reflects the actual level of detection in the original sample.

* This flag indicates that the duplicate analysis is not within control limits for this compound.

Table 6

Summary of Relevant Wisconsin Groundwater Standards
(All concentrations in ppb)

Parameter	Standard
Benzene	.67
1,1-dichloroethane	850
1,2-dichloroethene	100
Tetrachloroethene	1
Toluene	343
Trichloroethylene	1.8
Vinyl Chloride	.015

Source: WDNR

5. Discussion of Migration Pathways

5.1 Introduction

This section describes the contaminant migration pathways away from the Refuse Hideaway Landfill. In general, the conclusions reached in this section are based on the volatile organic chemical concentrations found in groundwater and surface water during the SSI. Determinations regarding releases of hazardous contaminants to the environment were also based on organic chemical concentrations. In general, the results of the organic analyses presented a much clearer picture of the landfill's environmental impact than did the inorganic analyses. Consequently, data interpretation efforts focused on the organic chemical results and to a much lesser degree on the inorganic readings.

5.2 Groundwater

Contaminant migration through groundwater is a major pathway of concern at this facility. Based on CLP data, state groundwater standards for volatile organic chemicals have been exceeded for 1 or more substances in both drinking water wells and all five monitoring wells sampled as part of the SSI (see Table 6 for relevant state groundwater standards). Several of the substances found exceeding health standards are suspected of being human carcinogens. All seven wells sampled are downgradient of the landfill. These monitoring results are consistent with the results of previously conducted investigations and confirm that the landfill is a source of significant groundwater contamination by hazardous, and possibly carcinogenic, wastes. Water supply records in the area using this aquifer do not show the contaminants found to be from background.

Of most immediate concern is the apparent significant increase in the downgradient groundwater concentrations for 1,2-dichloroethene and vinyl chloride. SSI samples S06, S07, S08, and S09, corresponding to monitoring wells 8S, 9S, 21D, and 9D respectively, all show significant concentration increases over past data (see Tables 1 and 5). Specifically monitoring wells 9S and 9D show a 3-4 times increase between the August, 1987 groundwater concentrations and the June, 1989 SSI groundwater concentrations. In addition monitoring well 9D, a deep well, now shows contamination where previous sampling has shown this well to be relatively unaffected by the landfill.

These new trends in groundwater concentrations may be indicative of an increased rate of release of contaminants from the landfill. This possible accelerated release rate, if allowed unchecked, may lead to enhanced technical difficulties and costs when groundwater remediation is initiated sometime in the

future. It may be necessary to initiate remedial actions at this site at a much faster pace than is typically seen with the Superfund remedial program.

5.3 Surface Water

Surface water appears to be a contaminant migration pathway at this facility.

Past sample results, discussed in Section 2.2, tentatively identified 1,2-dichloroethylene in the onsite sedimentation pond and adjacent drainage ditches. SSI results for the sedimentation pond (S01) and a drainage ditch (S02) also show the presence of 1,2-dichloroethene. This consistency in results, while not conclusive, strongly suggests hazardous constituents released from the landfill are reaching nearby surface waters. In addition, sample S02 contains estimated or confirmed concentrations for vinyl chloride, carbon disulfide, tetrachloroethene and toluene. The acetone results appear to be the result of laboratory contamination. Because of the consistency between SSI and past sample results for 1,2-dichloroethene, the general consistency between the contaminants found in groundwater and surface waters and the proximity of the surface waters and the landfill it appears likely that a hazardous substance release to surface water has occurred at the site.

5.4 Air

Air is a possible migration pathway at this facility however it was not investigated as part of this SSI.

5.5 Fire and Explosion

Fire and explosion do not appear to be likely pathways at this site however specific analyses for this pathway were not done as part of the SSI.

5.6 Direct Contact

Direct contact is a likely migration pathway because of the contamination of nearby potable water supplies. Direct contact in the two homes with contaminated water wells is likely during domestic water uses (i.e. showering, cooking, drinking, etc.). To reduce this risk both homes currently have whole house filtration units in operation. SSI samples were collected prior to these units and do not represent the quality of water in use for domestic purposes. Post filtration samples were not collected as part of the SSI.

A second possible source of direct contact is the contamination of nearby surface waters. Neither the sedimentation pond or drainage ditches are attractive surface

waters. Consequently, these waters pose little risk for someone swimming, wading or fishing. However, close by Black Earth Creek is a heavily used recreation surface water. Fishing and hunting are common activities on the creek. If contamination spreads from the sampled surface waters to the creek direct contact risks would increase. There likely is a direct link between the creek and the groundwater and surface waters by the landfill. Consequently, a direct contact pathway may exist to Black Earth Creek.

A third direct contact concern is air transport. Air sampling was not done as part of the SSI.

However, it is possible that hazardous substances can be released from the landfill to the air then moved off site by natural air currents. Future investigations will need to describe the importance of this pathway.

6. Bibliography

1. Residuals Management Technology, In-Field Conditions Report for Refuse Hideaway Landfill, January, 1988.

2. United States Environmental Protection Agency Preliminary Assessment -Refuse Hideaway Landfill June 24, 1988.

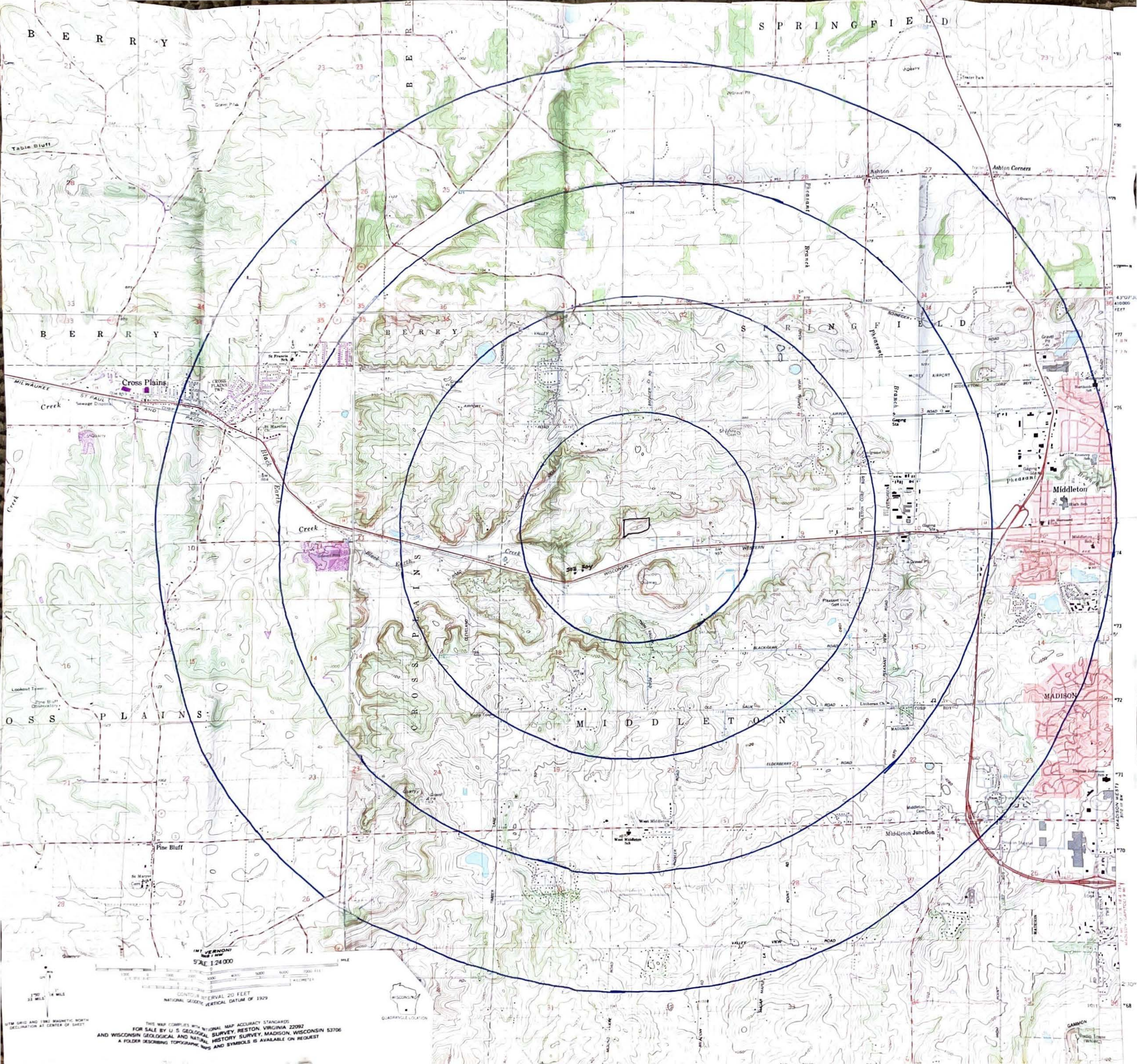
3. United States Geological Survey Topographic Map, 7.5' Quadrangle Maps for Black Earth, Cross Plains, Middleton, and Springfield Corners.

4. Wisconsin Administrative Code NR 140, Groundwater Quality October, 1988.

5. Wisconsin Department of Natural Resources Solid Waste File - Refuse Hideaway Landfill.

6. Wisconsin Department of Natural Resources Water Supply File - City of Middleton.

APPENDIX A


BERRY
SPRINGFIELD
Table Bluff
Cross Plains
Ashton
Ashton Corners
Middleton
MADISON
MIDDLETON
CROSS PLAINS
Pine Bluff
West Middleton
Middleton Junction
Lookout Tower
Black Earth Creek
Pheasant Branch
MORSE AIRPORT
WISCONSIN
MILWAUKEE ST PAUL AND PACIFIC
(MT VERNON)
SCALE 1:24 000
CONTOUR INTERVAL 20 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929
UTM GRID AND 1982 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET
THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U S GEOLOGICAL SURVEY, RESTON, VIRGINIA 22092
AND WISCONSIN GEOLOGICAL AND NATURAL HISTORY SURVEY, MADISON, WISCONSIN 53706
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST
QUADRANGLE LOCATION

E

P-26D
P-26S

P-28S

D

17S

P-18S

B-14
(LH-3)

B-13

P-19D
P-19S

LH-2

SO1

P-27D
P-27S

LH-1

P-5S

SO6
P-8S

SO9
P-9D

P-8D
P-8BR

SO5

P-21S

SO8
P-21D

P-9S
SO7

P-16D
P-21BR

P-1S
P-1D

P-16S
P-4S
P-3S
P-24D
P-24E

SO2

CONCEPTUAL CROSS SECTION

CONCEPTUAL CROSS SECTION

P-25D
P-25BR
P-25S

E'

P-22D
P-22S

SO4

SHULTZ

OPPELWORTH

SO3

K

APPENDIX B

Site Inspection Report

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

EPA

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
WID	980610604

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER
REFUSE HIDEAWAY LANDFILL	HWY 14

03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 CONG DIST
MIDDLETON	WI	53562	DANE	25	2

09 COORDINATES LATITUDE	LONGITUDE
43 07 30.	89 32 35.

10 TYPE OF OWNERSHIP (Check one)
☒ A. PRIVATE ☐ B. FEDERAL _____ ☐ C. STATE ☐ D. COUNTY ☐ E. MUNICIPAL
☐ F. OTHER _____ ☐ G. UNKNOWN

III. INSPECTION INFORMATION

01 DATE OF INSPECTION	02 SITE STATUS	03 YEARS OF OPERATION
6 28 89 (MONTH DAY YEAR)	☐ ACTIVE ☒ INACTIVE	1974 (BEGINNING YEAR) 1988 (ENDING YEAR) ___ UNKNOWN

04 AGENCY PERFORMING INSPECTION (Check all that apply)
☐ A. EPA ☐ B. EPA CONTRACTOR _____ (Name of firm) ☐ C. MUNICIPAL ☐ D. MUNICIPAL CONTRACTOR _____ (Name of firm)
☒ E. STATE ☐ F. STATE CONTRACTOR _____ (Name of firm) ☐ G. OTHER _____ (Specify)

05 CHIEF INSPECTOR	06 TITLE	07 ORGANIZATION	08 TELEPHONE NO
MICHAEL SCHMOLLER	ENV. SPECIALIST	WDNR	(608) 275 3303
09 OTHER INSPECTORS	**10 TITLE**	**11 ORGANIZATION**	**12 TELEPHONE NO**
RAY TIERNEY	ENV. SPEC	WDNR	(608) 267-2471
ROBERT AMERSON	ENV. SPEC	WDNR	(608) 267-3063
CHUCK WARCHELZH	ENV. SPEC	WDNR	(608) 267-3063
			( )
			( )

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

17 ACCESS GAINED BY (Check one)	18 TIME OF INSPECTION	19 WEATHER CONDITIONS
☒ PERMISSION ☐ WARRANT	9:00	Clear, sunny, sunny, slight breeze

IV. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)	03 TELEPHONE NO
MICHAEL SCHMOLLER	WDNR	(608) 275-3303

04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NO.	08 DATE
MICHAEL SCHMOLLER	WDNR	WDNR	608-275-3303	6 28 89 (MONTH DAY YEAR)

EPA FORM 2070-13 (7-81)

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
WID	980606634

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

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

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

TONS _____

CUBIC YARDS 1.3 million

NO. OF DRUMS _____

03 WASTE CHARACTERISTICS (Check all that apply)

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

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE			
OLW	OILY WASTE			
SOL	SOLVENTS	see attachment A		
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS			
IOC	INORGANIC CHEMICALS			
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS			

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

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
			see		
			attachment A		

V. FEEDSTOCKS (See Appendix for CAS Numbers)

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS	see attachment A		FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

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

1) WDNR, Solid Waste File
2) Site Inspection Report

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
UID	980610604

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 [X] A. GROUNDWATER CONTAMINATION — 02 [X] OBSERVED (DATE: 6/22/89) — [ ] POTENTIAL — [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 15,500 (3 mile radius) — 04 NARRATIVE DESCRIPTION: and others

Groundwater contamination is confirmed around the facility. Groundwater is the sole source of drinking water. Contamination is from VOC and heavy metals. See sections 4 and 5 of the SIR.

01 [X] B. SURFACE WATER CONTAMINATION — 02 [X] OBSERVED (DATE: 6/22/89) — [ ] POTENTIAL — [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 0 — 04 NARRATIVE DESCRIPTION:

samples collected from on site and off site surface water show VOC contamination. The contaminated pond is surface water run off the same as drainage pond on property. See sections 4 and 5 of the SIR.

01 [X] C. CONTAMINATION OF AIR — 02 [ ] OBSERVED (DATE: _____) — [X] POTENTIAL — [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 15,500 (3 mile radius) — 04 NARRATIVE DESCRIPTION:

no air sampling was done as part of the SIR however notable odor of hazardous substance release to the air is possible.

01 [ ] D. FIRE/EXPLOSIVE CONDITIONS — 02 [ ] OBSERVED (DATE: _____) — [ ] POTENTIAL — [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ — 04 NARRATIVE DESCRIPTION:

none known

01 [X] E. DIRECT CONTACT — 02 [X] OBSERVED (DATE: 6/22/89) — [ ] POTENTIAL — [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 120 (1 mile radius) — 04 NARRATIVE DESCRIPTION: and others

residents and contaminated water supplies have direct contact through domestic water uses. Direct contact through air release of recreational use of surface water was possible.

01 [X] F. CONTAMINATION OF SOIL — 02 [ ] OBSERVED (DATE: _____) — [X] POTENTIAL — [ ] ALLEGED
03 AREA POTENTIALLY AFFECTED: 20 (Acres) — 04 NARRATIVE DESCRIPTION:

the soil beneath the waste fill is potentially contaminated. No soil sample was done as part of the SSI.

01 [X] G. DRINKING WATER CONTAMINATION — 02 [X] OBSERVED (DATE: 6/22/89) — [ ] POTENTIAL — [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 15,500 — 04 NARRATIVE DESCRIPTION: and others

Drinking water contamination is confirmed in 2 private wells downgradient of the site. Additional water supply contamination is possible for total public and private wells.

01 [ ] H. WORKER EXPOSURE/INJURY — 02 [ ] OBSERVED (DATE: _____) — [ ] POTENTIAL — [ ] ALLEGED
03 WORKERS POTENTIALLY AFFECTED: _____ — 04 NARRATIVE DESCRIPTION:

none known

01 [X] I. POPULATION EXPOSURE/INJURY — 02 [X] OBSERVED (DATE: 6/22/89) — [ ] POTENTIAL — [ ] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 120 — 04 NARRATIVE DESCRIPTION:

Two homes are known to have contaminated water supplies. Exposure is via ingestion through domestic water uses. Additional water supply contamination is possible. Recreational use of nearby surface waters and air release of toxic substances are possible exposure pathways.

EPA FORM 2070-13 (7-81)

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
WID	980610604

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ☐ J. DAMAGE TO FLORA — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

none known

01 ☒ K. DAMAGE TO FAUNA — 02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION (Include name(s) of species)

possible exposure of trout in Black Earth Creek to toxic substances released from the landfill

01 ☐ L. CONTAMINATION OF FOOD CHAIN — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

none known

01 ☒ M. UNSTABLE CONTAINMENT OF WASTES (Spills/Runoff/Standing liquids, Leaking drums) — 02 ☒ OBSERVED (DATE: 6/28/89 and others) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 15,500 — 04 NARRATIVE DESCRIPTION

waste have migrated from the site to surface and groundwater on and off site from the facility

01 ☒ N. DAMAGE TO OFFSITE PROPERTY — 02 ☒ OBSERVED (DATE: 6/28/89 and others) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

waste migration appears has impacted 2 water supply wells

01 ☐ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

none known

01 ☐ P. ILLEGAL/UNAUTHORIZED DUMPING — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

none known

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

—

III. TOTAL POPULATION POTENTIALLY AFFECTED: 15,500

IV. COMMENTS

—

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

1) WDNR Solid Waste File.
2) SIR for Refuse Hideaway

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
WID	980610634

II. PERMIT INFORMATION

01 TYPE OF PERMIT ISSUED (Check all that apply)	02 PERMIT NUMBER	03 DATE ISSUED	04 EXPIRATION DATE	05 COMMENTS
☐ A. NPDES				
☐ B. UIC				
☐ C. AIR				
☐ D. RCRA				
☐ E. RCRA INTERIM STATUS				
☐ F. SPCC PLAN				
☒ G. STATE (Specify) LANDFILL	1953	1974	1978	Receive residential & commercial wastes from the County
☐ H. LOCAL (Specify)				
☐ I. OTHER (Specify)				
☐ J. NONE				

III. SITE DESCRIPTION

01 STORAGE/DISPOSAL (Check all that apply)	02 AMOUNT	03 UNIT OF MEASURE
☐ A. SURFACE IMPOUNDMENT		
☐ B. PILES		
☐ C. DRUMS, ABOVE GROUND		
☐ D. TANK, ABOVE GROUND		
☐ E. TANK, BELOW GROUND		
☒ F. LANDFILL	1.3 million	yards
☐ G. LANDFARM		
☐ H. OPEN DUMP		
☐ I. OTHER (Specify)		

04 TREATMENT (Check all that apply)

- ☐ A. INCENERATION
- ☐ B. UNDERGROUND INJECTION
- ☐ C. CHEMICAL/PHYSICAL
- ☐ D. BIOLOGICAL
- ☐ E. WASTE OIL PROCESSING
- ☐ F. SOLVENT RECOVERY
- ☐ G. OTHER RECYCLING/RECOVERY
- ☐ H. OTHER NONE (Specify)

05 OTHER

- ☒ A. BUILDINGS ON SITE

06 AREA OF SITE

20 (Acres)

07 COMMENTS

The site is a natural attenuation landfill that accepted municipal wastes from 1974 to 1982

IV. CONTAINMENT

01 CONTAINMENT OF WASTES (Check one)

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

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

Site containment of landfill derived wastes is poor. Confirmed groundwater and possible surface water contamination have resulted from wastes leaving the site

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE ☐ YES ☒ NO

02 COMMENTS

The landfill is clay capped

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

1) WDNR Solid Waste File

2) SSI report - Refuse Hideaway

EPA FORM 2070-13 (7-81)

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

EPA

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
WED	980610634

II. DRINKING WATER SUPPLY

01 TYPE OF DRINKING SUPPLY (Check as appropriate)	SURFACE	WELL	02 STATUS: ENDANGERED	AFFECTED	MONITORED	03 DISTANCE TO SITE
COMMUNITY	A. ☐	B. ☒	A. ☒	B. ☐	C. ☐	A. 2.2 (mi)
NON-COMMUNITY	C. ☐	D. ☒	D. ☐	E. ☒	F. ☐	B. .25 (mi)

III. GROUNDWATER

01 GROUNDWATER USE IN VICINITY (Check one)

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

02 POPULATION SERVED BY GROUND WATER	03 DISTANCE TO NEAREST DRINKING WATER WELL
15,500 (3-mile radius)	.25 (mi)

04 DEPTH TO GROUNDWATER	05 DIRECTION OF GROUNDWATER FLOW	06 DEPTH TO AQUIFER OF CONCERN	07 POTENTIAL YIELD OF AQUIFER	08 SOLE SOURCE AQUIFER
5-15 (ft)	W-SW	5-15 (ft)	2000 (gpm) (gpd)	☐ YES ☒ NO

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

private wells around the facility use groundwater from the unconsolidated alluvial aquifers. These aquifers are hydraulically connected. Municipal wells in Middleton use the carbonate aquifer and can produce up to 2000 gpm.

10 RECHARGE AREA	COMMENTS	11 DISCHARGE AREA	COMMENTS
☒ YES ☐ NO	recharge likely occurs on top of the cliffs	☒ YES ☐ NO	discharge likely occurs to Black Earth Creek and wetlands

IV. SURFACE WATER

01 SURFACE WATER USE (Check one)

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

02 AFFECTED/POTENTIALLY AFFECTED BODIES OF WATER

NAME:	AFFECTED	DISTANCE TO SITE (determine if the creek in report is the same)
Black Earth Creek	☐	0 (mi)
	☐	(mi)
	☐	(mi)

V. DEMOGRAPHIC AND PROPERTY INFORMATION

01 TOTAL POPULATION WITHIN ONE (1) MILE OF SITE	TWO (2) MILES OF SITE	THREE (3) MILES OF SITE	02 DISTANCE TO NEAREST POPULATION
A. 120 NO. OF PERSONS	B. 1400 NO. OF PERSONS	C. 15,500 NO. OF PERSONS	.25 (mi)

03 NUMBER OF BUILDINGS WITHIN TWO (2) MILES OF SITE	04 DISTANCE TO NEAREST OFF-SITE BUILDING
370 (estimated)	.25 (mi)

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

The surrounding land use is either agricultural or low density rural residential development

EPA

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

I. IDENTIFICATION

01 STATE: WID | 02 SITE NUMBER: 980610604

VI. ENVIRONMENTAL INFORMATION

01 PERMEABILITY OF UNSATURATED ZONE (Check one)

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

02 PERMEABILITY OF BEDROCK (Check one)

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

03 DEPTH TO BEDROCK	04 DEPTH OF CONTAMINATED SOIL ZONE	05 SOIL pH	
none known to be less than 5' to greater than 100' (ft)	unknown (ft)	unknown	

06 NET PRECIPITATION	07 ONE YEAR 24 HOUR RAINFALL	08 SLOPE: SITE SLOPE	DIRECTION OF SITE SLOPE	TERRAIN AVERAGE SLOPE
2 (in)	2.5 (in)	≈10 %	south	none 1-20 %

09 FLOOD POTENTIAL	10
not in 100 SITE IS IN _____ YEAR FLOODPLAIN	☐ SITE IS ON BARRIER ISLAND, COASTAL HIGH HAZARD AREA, RIVERINE FLOODWAY

11 DISTANCE TO WETLANDS (5 acre minimum)

ESTUARINE: A. — (mi)

OTHER: B. wetlands are adjacent to the site (mi)

12 DISTANCE TO CRITICAL HABITAT (of endangered species): none known (mi)

ENDANGERED SPECIES. _____

13 LAND USE IN VICINITY

DISTANCE TO:

COMMERCIAL/INDUSTRIAL	RESIDENTIAL AREAS, NATIONAL/STATE PARKS, FORESTS, OR WILDLIFE RESERVES	AGRICULTURAL LANDS: PRIME AG LAND	AG LAND
A. 2.0 (mi)	B. .25 (mi)	C. _____ (mi)	D. 0 adjacent to the site (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY

The site sits at the base of a bedrock bluff. The bluff drops sharply to the south and moves into an outwash valley for Black Earth Creek. The south face of the landfill drops steeply to a series of wetlands that form the headwaters of the creek. The outwash valley slopes west.

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

1) WDNR File
2) SSI report

EPA FORM 2070-13 (7-81)

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
WID	980 610 604

II. SAMPLES TAKEN

SAMPLE TYPE	01 NUMBER OF SAMPLES TAKEN	02 SAMPLES SENT TO	03 ESTIMATED DATE RESULTS AVAILABLE
GROUNDWATER	7	Wilson Laboratories, Salina, KS and	4/89
SURFACE WATER	2	RECRA Environmental INC, NY	9/89
WASTE			
AIR			
RUNOFF			
SPILL			
SOIL			
VEGETATION			
OTHER			

III. FIELD MEASUREMENTS TAKEN

01 TYPE	02 COMMENTS
	none

IV. PHOTOGRAPHS AND MAPS

01 TYPE ☒ GROUND ☐ AERIAL

02 IN CUSTODY OF WDNR
(Name of organization or individual)

03 MAPS ☒ YES ☐ NO

04 LOCATION OF MAPS included in SSI report

V. OTHER FIELD DATA COLLECTED (Provide narrative description)

none

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

1) WDNR Files
2) SSI report

EPA FORM 2070-13 (7-81)

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
WID	980610604

II. CURRENT OWNER(S)

01 NAME	02 D+B NUMBER
Refuse Hideaway INC	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
4808 Highway 12	

05 CITY	06 STATE	07 ZIP CODE
Middleton	WI	53562

PARENT COMPANY (If applicable)

08 NAME	09 D+B NUMBER

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

12 CITY	13 STATE	14 ZIP CODE

II. CURRENT OWNER(S)

01 NAME	02 D+B NUMBER

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

05 CITY	06 STATE	07 ZIP CODE

PARENT COMPANY (If applicable)

08 NAME	09 D+B NUMBER

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

12 CITY	13 STATE	14 ZIP CODE

II. CURRENT OWNER(S)

01 NAME	02 D+B NUMBER

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

05 CITY	06 STATE	07 ZIP CODE

PARENT COMPANY (If applicable)

08 NAME	09 D+B NUMBER

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

12 CITY	13 STATE	14 ZIP CODE

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

01 NAME	02 D+B NUMBER
John Debeck	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
4808 Highway 12	

05 CITY	06 STATE	07 ZIP CODE
Middleton	WI	53562

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

01 NAME	02 D+B NUMBER

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

05 CITY	06 STATE	07 ZIP CODE

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

01 NAME	02 D+B NUMBER

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

05 CITY	06 STATE	07 ZIP CODE

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

01 NAME	02 D+B NUMBER

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

05 CITY	06 STATE	07 ZIP CODE

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

01 NAME	02 D+B NUMBER

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

05 CITY	06 STATE	07 ZIP CODE

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

01 NAME	02 D+B NUMBER

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

05 CITY	06 STATE	07 ZIP CODE

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

1) WDNR File

EPA FORM 2070-13 (7-81)

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
WID	980613654

II. CURRENT OPERATOR (Provide if different from owner)

01 NAME	02 D+B NUMBER	04 SIC CODE
none		

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER

OPERATOR'S PARENT COMPANY (If applicable)

10 NAME	11 D+B NUMBER	13 SIC CODE

12 STREET ADDRESS (P.O. Box, RFD #, etc.)	14 CITY	15 STATE	16 ZIP CODE

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

PREVIOUS OPERATORS' PARENT COMPANIES (If applicable)

01 NAME	02 D+B NUMBER	04 SIC CODE
Refuse Hideaway INC		

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	05 CITY	06 STATE	07 ZIP CODE
4808 Highway 12	Middleton	WI	53562

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD
1982-1988	Refuse Hideaway INC

10 NAME	11 D+B NUMBER	13 SIC CODE

12 STREET ADDRESS (P.O. Box, RFD #, etc.)	14 CITY	15 STATE	16 ZIP CODE

01 NAME	02 D+B NUMBER	04 SIC CODE
John Debeck		

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	05 CITY	06 STATE	07 ZIP CODE
4808 Highway 12	Middleton	WI	53562

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD
1974-1982	John Debeck

10 NAME	11 D+B NUMBER	13 SIC CODE

12 STREET ADDRESS (P.O. Box, RFD #, etc.)	14 CITY	15 STATE	16 ZIP CODE

01 NAME	02 D+B NUMBER	04 SIC CODE

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD

10 NAME	11 D+B NUMBER	13 SIC CODE

12 STREET ADDRESS (P.O. Box, RFD #, etc.)	14 CITY	15 STATE	16 ZIP CODE

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

1) WDNR File

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
WED	980610604

II. ON-SITE GENERATOR

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

III. OFF-SITE GENERATOR(S)

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

IV. TRANSPORTER(S)

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

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

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
WID	980610604

II. PAST RESPONSE ACTIVITIES

01 ☐ A. WATER SUPPLY CLOSED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ B. TEMPORARY WATER SUPPLY PROVIDED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☒ C. PERMANENT WATER SUPPLY PROVIDED — 02 DATE 1989 — 03 AGENCY WDNR
04 DESCRIPTION
Whole house treatment units have been provided to the 2 homes with contaminated wells

01 ☐ D. SPILLED MATERIAL REMOVED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ E. CONTAMINATED SOIL REMOVED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ F. WASTE REPACKAGED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ G. WASTE DISPOSED ELSEWHERE — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ H. ON SITE BURIAL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ I. IN SITU CHEMICAL TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ J. IN SITU BIOLOGICAL TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ K. IN SITU PHYSICAL TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ L. ENCAPSULATION — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ M. EMERGENCY WASTE TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ N. CUTOFF WALLS — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ O. EMERGENCY DIKING/SURFACE WATER DIVERSION — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ P. CUTOFF TRENCHES/SUMP — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ Q. SUBSURFACE CUTOFF WALL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
WID	980610604

II PAST RESPONSE ACTIVITIES (Continued)

01 ☐ R. BARRIER WALLS CONSTRUCTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ S. CAPPING/COVERING — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ T. BULK TANKAGE REPAIRED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ U. GROUT CURTAIN CONSTRUCTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ V. BOTTOM SEALED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ W. GAS CONTROL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ X. FIRE CONTROL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ Y. LEACHATE TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ Z. AREA EVACUATED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ 1. ACCESS TO SITE RESTRICTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ 2. POPULATION RELOCATED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☒ 3. OTHER REMEDIAL ACTIVITIES — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

additional remedial measures are planned to be implemented in the fall of 1989 or later. These measures will address gas and leachate collection and eventually groundwater cleanup

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

1) WDNR files

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
WID	980610614

II. ENFORCEMENT INFORMATION

01 PAST REGULATORY/ENFORCEMENT ACTION ☒ YES ☐ NO

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

The site was order closed under state solid waste authority in May, 1988. Additional legal actions requiring further remedial measures at the site are being pursued in state court by the WDNR.

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

1) WDNR files

EPA FORM 2070-13 (7-81)

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT

General Information

The Potential Hazardous Waste Site, Site Inspection Report form is used to record information collected during, or associated with, an inspection of the site and other information about responsible parties and past response activities.

The Site Inspection Report form contains eleven parts:

Part 1 – Site Location and Inspection Information

Part 2 – Waste Information

Part 3 – Description of Hazardous Conditions and Incidents

Part 4 – Permit and Descriptive Information

Part 5 – Water, Demographic, and Environmental Data

Part 6 – Sample and Field Information

Part 7 – Owner Information

Part 8 – Operator Information

Part 9 – Generator/Transporter Information

Part 10– Past Response Activities

Part 11– Enforcement Information

Part 1 – Site Location and Inspection Information contains all of the data elements also contained on the Site Identification and Preliminary Assessment forms required to add a site to the automated Site Tracking System (STS). It is therefore possible to add a site to STS at the Site Inspection stage. Instructions are given below.

Part 2 – Waste Information and Part 3 – Description of Hazardous Conditions and Incidents are used to record specific information about substances, amounts, hazards, and targets, e.g., population potentially affected. Parts 2 and 3 are also contained in the Potential Hazardous Waste Site, Preliminary Assessment form. Information recorded on Part 2 and Part 3 during a preliminary assessment may be updated, added, deleted, or corrected on the Site Inspection Report form.

An Appendix with feedstock names and CAS Numbers and the most frequently cited hazardous substances and CAS Numbers is located behind the instructions for the Site Inspection Report.

A number of the data items collected throughout the Site Inspection Report support the Site Ranking Model. The majority of these data items are found in Part 5 – Water, Demographic, and Environmental Data.

General Instructions

1. Complete the Site Inspection Report form as completely as possible.

2. Starred items (*) are required before inspection information can be added to STS. The system will not accept incomplete inspection information.

3. To add a site to STS at the Site Inspection stage, write "New" across the top of the form and complete items II-01, 02, 03, 04, and 06, Site Name and Location, II-09 Coordinates, and II-10, Type of Ownership.

4. Data items carried in STS, which are identical to those on the Site Identification and Preliminary Assessment forms and which can be added, deleted, or changed using the Site Inspection Report form, are indicated with a pound sign (#). To ensure that the proper action is taken, outline the item(s) to be added, deleted, or changed with a bright color and indicate the proper action with "A" (add), "D" (delete) or "C" (change).

5. There are two options available for adding, deleting, or changing information supplied on the Site Inspection Report form. The first is to use a new Site Inspection Report form, completing only those items to be added, deleted, or changed. Mark the form clearly, using "A", "D", or "C", to indicate the action to be taken. If only data in STS are to be altered, the Site Source Data Report may be used. Using the report, mark clearly the items to be changed and the action to be taken.

Detailed Instructions

Part 1 Site Location and Inspection Information

I. **Identification**: Identification (State and Site Number) is the site record key, or primary identifier, for the site. Site records in the STS are updated based on Identification. It is essential that State and Site Number are correctly entered on each form.

*I-01 State: Enter the two character alpha FIPS code for the state in which the site is located. It must be identical to State on the Site Identification form.

*I-02 Site Nun ber: Enter the ten character alphanumeric code for sites which have a Dun and Bradstreet or EPA "user" Dun and Bradstreet number or the ten character numeric GSA identification code for federal sites. The Site Number must be identical to the Site Number on the Site Identification and Preliminary Assessment forms.

II. **Site Name and Location**: If Site Name and Location information require no additions or changes, these items are not required on the Site Inspection Report form. However, completing these items will facilitate use of the completed form and records management procedures.

#II-01 Site Name: Enter the legal, common, or descriptive name of the site.

#II-02 Site Street: Enter the street address and number (if appropriate) where the site is located. If the precise street address is unavailable for this site, enter brief direction identifier, e.g., NW Jct I-295 & US 99; Post Rd, 5 mi W of Rt. 5.

#II-03 Site City: Enter the city, town, village, or other municipality in which the site is located. If the site is not located in a municipality, enter the name of the municipality (or place) which is nearest the site or which most easily locates the site.

#II-04 Site State: Enter the two character alpha FIPS code for the state in which the site is located. The code must be the same as in item I-01.

#II-05 Site Zip Code: Enter the five character numeric zip code for the postal zone in which the site is located.

#II-06 Site County: Enter the name of the county, parish (Louisiana), or borough (Alaska) in which the site is located.

#II-07 County Code: Enter the three character numeric FIPS county code for the county, parish, or borough in which the site is located. (The regional data analyst can furnish this data item.)

#II-08 Site Congressional District: Enter the two character number for the congressional district in which the site is located.

*#II-09 Coordinates: Enter the Coordinates, Latitude and Longitude, of the site in degrees, minutes, seconds, and tenths of seconds. If a tenth of a second is insignificant at this site, enter "0" in the tenths position.

#II-10 Type of Ownership: Check the appropriate box to indicate the type of site ownership. If the site is under the jurisdiction of an activity of the federal government, enter the name of the department, agency, or activity. If Other is indicated, specify the type of ownership and name.

III. Inspection Information

*III-01 Date of Inspection: Enter the date the inspection occurred, or began for multiple day inspections.

*III-02 Site Status: Check the appropriate box(es) to indicate the current status of the site. Active sites are those which treat, store, or dispose of wastes. Check Active for those active sites with an inactive storage or disposal area. Inactive sites are those at which treatment, storage, or disposal activities no longer occur.

#III-03 Years of Operation: Enter the beginning and ending years (or beginning only if operations at the site are on-going), e.g., 1878/1932, of site operation. Check Unknown if years of operation are not known.

*III-04 Agency Performing Inspection: Check the appropriate box(es) to indicate parties participating in the inspection. If contractors participate, provide the name of the firm(s).

III-05 Chief Inspector: Enter the name of the chief, or lead inspector.

III-06 Title: Enter the Chief Inspector's title, e.g., Team Leader, FIT team.

III-07 Organization: Enter the name of the organization where the Chief Inspector is employed, e.g., EPA – Region 4, VA State Health Dept., Environmental Research Co.

III-08 Telephone Number: Enter the Chief Inspector's area code and local commercial telephone number.

III-09 Other Inspectors: Enter the names of other parties participating in the inspection.

III-10 Title: Enter the titles of other parties participating in the inspection.

III-11 Organization: Enter the names of the organizations where other parties participating in the inspection are employed.

III-12 Telephone Number: Enter the area code and local commercial telephone numbers of other parties participating in the inspection.

III-13 Site Representatives Interviewed: Enter the names of individuals representing responsible parties interviewed in connection with the inspection. Interviews do not necessarily occur during the inspection.

III-14 Title: Enter the titles of the individuals interviewed.

III-15 Address: Enter the business, mailing, or residential addresses of the individuals interviewed.

III-16 Telephone Number: Enter the area code and local commercial telephone numbers of the individuals interviewed.

III-17 Access Gained By: Check the appropriate box to indicate whether access to the site was gained through permission or warrant.

III-18 Time of Inspection: Using a 24-hour clock, enter the time the inspection began, e.g., for 3:24 p.m. enter 1524.

III-19 Weather Conditions: Describe the weather conditions during the site inspection, especially any unusual conditions which might affect results or observations taken.

IV. Information Available From

IV-01 Contact: Enter the name of the individual who can provide information about the site.

IV-02 Of: If appropriate, enter the name of the public or private agency, firm, or company and the organization within the agency, firm, or company of the individual named as Contact.

IV-03 Telephone Number: Enter the area code and local telephone number of the individual named as contact.

IV-04 Person Responsible for Site Inspection Report Form: Enter the name of the individual who was responsible for the information entered on the Site Inspection Report form. The person responsible for the Site Inspection Report form may be different from the individual who prepared the form.

IV-05 Agency: Enter the name of the Agency where the individual who is responsible for the Site Inspection Report form is employed.

IV-06 Organization: Enter the name of the organization within the Agency.

IV-07 Telephone Number: Enter the area code and local telephone number of the individual who is responsible for the Site Inspection Report form.

IV-08 Date: Enter the date the Site Inspection Report form was prepared.

Part 2 Waste Information

***I. Identification:** Refer to Part 1–I.

II. Waste States, Quantities, and Characteristics: Waste States, Quantities, and Characteristics provide information about the physical structure and form of the waste, measures of gross amounts at the site, and the hazards posed by the waste, considering acute and chronic health effects and mobility along a pathway.

*II-01 Physical States: Check the appropriate box(es) to indicate the state(s) of waste present at the site. If Other is indicated, specify the physical state of the waste.

*II-02 Waste Quantity at Site: Enter estimates of amounts of waste at the site. Estimates may be in weight (Tons) or volume (Cubic Yards or Number of Drums). Use as many entries as are appropriate; however, measurements must be independent. For example, do not measure the same amounts of waste as both tons and cubic yards.

*II-03 Waste Characteristics: Check all appropriate entries to indicate the hazards posed by waste at the site. If waste at the site poses no hazard, check Not Applicable.

III. **Waste Category**: General categories of waste typically found are listed here. Enter the estimated gross amount of each category of waste and the appropriate unit of measure.

*III-01 Gross Amount: Gross Amount is the estimate of the amount of the waste category found at the site. Estimates should be furnished in metric tons (MT), tons (TN), cubic meters (CM), cubic yards (CY), drums (DR), acres (AC), acre feet (AF), liters (LT), or gallons (GA). Enter the estimated amount next to the appropriate waste category.

*III-02 Unit of Measure: Enter the appropriate unit of measure, MT (metric tons), TN (tons), CM (cubic meters), CY (cubic yards), DR (number of drums), AC (acres), AF (acre feet), LT (liters), or GA (gallons) next to the estimate of gross amount.

III-03 Comments: Comments may be used to further explain, or provide additional information, about particular waste categories.

IV. **Hazardous Substances**: Specific hazardous, or potentially hazardous, chemicals, mixtures, and substances found at the site are listed here. For each substance listed those data items marked with an "at" sign (@) must be included.

@IV-01 Category: Enter in front of the substance name the three character waste category from Section III which best describes the substance, e.g., OLW (Oily Waste).

@IV-02 Substance Name: Enter one of the following: the name of the substance registered with the Chemical Abstract Service, the common or accepted abbreviation of the substance, the generic name of the substance, or commercial name of the substance.

@IV-03 CAS Number: Enter the number assigned to the substance when it was registered with the Chemical Abstract Service. Refer to the Appendix for most frequently cited CAS Numbers. CAS Numbers must be furnished for each substance listed. If a CAS Number for this substance has not been assigned, enter "999".

@IV-04 Storage/Disposal Method: Enter the type of storage or disposal facility in which the substance was found: SI (surface impoundment, including pits, ponds, and lagoons), PL (pile), DR (drum), TK (tank), LF (landfill), LM (landfarm), OD (open dump).

IV-05 Concentration: Enter the concentration of the substance found in samples taken at the site.

IV-06 Measure of Concentration: Enter the appropriate unit of measure for the measured concentration of the substance found in the sample, e.g., MG/L, UG/L.

V. **Feedstocks**

V-01 Feedstock Name: If feedstocks, or substances derived from one or more feedstocks, are present at the site, enter the name of each feedstock found. See the Appendix for the feedstock list.

V-02 CAS Number: Enter the CAS Number for each feedstock named. See the Appendix for feedstock CAS Numbers.

VI. **Sources of Information**: List the sources used to obtain information for this form. Sources cited may include: sample analysis, reports, inspections, official records, or other documentation. Sources cited provide the basis for information entered on the form and may be used to obtain further information about the site.

Part 3 Description of Hazardous Conditions and Incidents

*I. **Identification**: Refer to Part 1–I.

II. **Hazardous Conditions and Incidents:**

II-01 Hazards: Indicate each hazardous, or potentially hazardous, condition known, or claimed, to exist at the site.

II-02 Observed, Potential, or Alleged: Check Observed and enter the date, or approximate date, of occurrence if a release of contaminants to the environment, or some other hazardous incident, is known to have occurred. In cases of a continuing release, e.g., groundwater contamination, enter the date, or approximate date, the condition first became apparent. If conditions exist for a potential release, check potential. Check Alleged for hazardous, or potentially hazardous, conditions claimed to exist at the site.

II-03 Population Potentially Affected: For each hazardous condition at the site, enter the number of people potentially affected. For Soil enter the number of acres potentially affected.

II-04 Narrative Description: Provide a narrative description, or explanation, of each condition. Include any additional information which further explains the condition.

II-05 Description of Any Other Known, Potential, or Alleged Hazards: Provide a narrative description of any other hazardous, or potentially hazardous, conditions at the site not covered above.

III. **Total Population Potentially Affected**: Enter the total number of people potentially affected by the existence of hazardous, or potentially hazardous, conditions at the site. Do not sum the numbers shown for each condition.

IV. **Comments**: Other information relevant to observed, potential, or alleged hazards may be entered here.

V. **Sources of Information**: List the sources used to obtain information for this form. Sources cited may include: sample analysis, reports, inspections, official records, or other documentation. Sources cited provide the basis for information entered on the form and may be used to obtain further information about the site.

Part 4 Permit and Descriptive Information

*I. **Identification**: Refer to Part 1—I.

II. **Permit Information**

II-01 Type of Permit Issued: Check the appropriate box(es) to indicate the types of permits issued to the site. If state, local, or other types of environmental permits have been issued, specify the type.

II-02 Permit Number: Enter the permit number for each issued permit.

II-03 Date Issued: Enter the date each permit was issued.

II-04 Expiration Date: Enter the date each permit expires or expired.

II-05 Comments: Enter any information which further explains the types of permits issued or status of the permits.

III. **Site Description**

*III-01 Storage/Disposal: Check the appropriate box(es) to indicate the types of storage/disposal facilities found at the site. If Other is checked, specify the type of facility.

*III-02 Amount: Enter the gross amount of waste associated with each type of storage/disposal facility. Amounts may be measured in: metric tons, tons, cubic meters, cubic yards, drums, acres, acre feet, liters, or gallons.

*III-03 Unit of Measure: Enter the appropriate unit of measure for each entry. Units of measure are MT (metric tons), TN (tons), CM (cubic meters), CY (cubic yards), DR (drums), AC (acres), AF (acre feet), LT (liters), or GA (gallons).

*III-04 Treatment: If waste is treated at the site, check the appropriated box(es) to indicate treatment methods used. If Other is checked, specify treatment method.

III-05 Other: If there are buildings on site, check this box.

*III-06 Area of Site: Enter total area of site in acres.

III-07 Comments: Enter any other pertinent information.

IV. **Containment**: Containment is a measure of the natural or artificial means taken to minimize or preclude health hazards and to minimize or prevent contamination of the environment from waste at the site.

*IV-01 Containment of Wastes: Check the appropriate box to indicate the condition of containment measures at the site. When choosing the appropriate box, consider the potential for environmental contamination, i.e., the worst case for containment in conjunction with the most hazardous substances.

IV-02 Description of Drums, Diking, Liners, Barriers: Provide a narrative description of the condition of containment measures at the site, e.g., waste adequately contained, drums rusting and leaking, diking collapsing, liners leaking and contaminants leaching into soil and groundwater.

V. **Accessibility**: Accessibility is an indicator of the potential for direct contact with hazardous substances.

*V-01 Waste Easily Accessible: If there are no real barriers preventing human access to hazardous waste, check Yes, otherwise check No.

V-02 Comments: Additional information about accessibility to hazardous waste may be provided.

VI. **Sources of Information**: List the sources used to obtain information for this form. Sources cited may include: sample analysis, reports, inspections, official records, or other documentation. Sources cited provide the basis for information entered on the form and may be used to obtain further information about the site.

Part 5 Water, Demographic, and Environmental Data

*I. **Identification**: Refer to Part 1—I.

II. **Drinking Water Supply**

II-01 Type of Drinking Water Supply: Check the appropriate box(es) to indicate the types and sources of drinking water within the vicinity of the site. Community refers to municipal sources. Non-community refers to private sources, e.g., private wells.

II-02 Status: Check the appropriate box(es) to indicate whether the water supply is endangered or affected by contaminants from the site. Check the appropriate box to indicate if the water supply is being monitored for possible contamination.

II-03 Distance to Site: Enter the distance in miles to the nearest tenth, hundredth, or thousandth (as needed to indicate the precision required) from the site to nearest drinking water source.

III. **Groundwater**

III-01 Groundwater Use in Vicinity: Check the appropriate box to indicate groundwater use in the vicinity of the site. The concern is to indicate the seriousness of groundwater contamination from waste at the site. Only Source for Drinking indicates that current water sources are limited to wells in the vicinity of the site. Drinking; Commercial, Industrial, Irrigation indicates that groundwater is used for drinking, but that other limited drinking sources are available and that no other sources for these additional uses are available. Commercial, Industrial, Irrigation indicates that groundwater is used for these purposes, but that limited other sources of water are available. Not used, Unuseable indicates that groundwater use in the area is not critical.

III-02 Population Served by Groundwater: Enter the number of people served by groundwater in the vicinity of the site. Population for the purposes of the Site Inspection Report includes residents and daytime workers and students but excludes transients in the neighborhood or on local highways and roads. When estimating population from aerial photographs or other sources, the conversion factor is 3.8 persons for each dwelling unit or 3 persons per acre in rural areas.

III-03 Distance to Nearest Drinking Water Well: Enter the distance in miles to the nearest tenth, hundredth, or thousandth (as needed to indicate the precision required) from the site to the nearest drinking water well.

III-04 Depth to Groundwater: Enter the depth in feet to groundwater.

III-05 Depth of Groundwater Flow: Enter the cardinal direction of groundwater flow, e.g., NNW.

III-06 Depth to Aquifer of Concern: Enter the depth in feet to the aquifer of concern.

III-07 Potential Yield of Aquifer: Enter the potential yield of the aquifer in gallons per day.

III-08 Sole Source Aquifer: Check the appropriate box to indicate the aquifer of concern is, or is not, a sole source aquifer.

III-09 Description of Wells: Provide a narrative description of wells in the vicinity of the site, including useage, depth, and location relative to population and buildings.

III-10 Recharge Area: Check the appropriate box to indicate the site is located in a recharge area. Comments provide additional information on the recharge area.

III-11 Discharge Area: Check the appropriate box to indicate the site is located in a discharge area. Comments provide additional information on the discharge area.

IV. Surface Water

IV-01 Surface Water Use: Check the appropriate box to indicate surface water use in the vicinity of the site. The order of precedence is Reservoir, Recreation, Drinking Water Source; Irrigation, Economically Important Reserves; Commercial/Industrial; Not Currently Used.

IV-02 Affected/Potentially Affected Bodies of Water: Enter the names of bodies of surface water affected, or potentially affected, by contaminants from the site. List the body of surface water nearest the site first. For each body of water check Affected if contaminants have been identified in samples of the water. Enter the shortest distance from the body of water to the site in miles to the nearest tenth, hundredth, or thousandth (as needed to indicate the precision required).

V. Demographic and Property Information

V-01 Total Population Within: Enter the total population within one (1) mile, two (2) miles, and three (3) miles of the site. Distances are measured from site boundaries. Population for the purposes of the Site Inspection Report includes residents and daytime workers and students but excludes transients in the neighborhood or on local highways and roads. When estimating population from aerial photographs or other sources, the conversion factor is 3.8 persons for each dwelling unit or 3 persons per acre in rural areas.

V-02 Distance to Nearest Population: Enter in miles to the nearest tenth, hundredth, or thousandth (as needed to indicate the precision required) the distance from the site boundary to the nearest population (one person minimum).

V-03 Number of Buildings Within Two (2) Miles of Site: Enter the number of buildings within two miles from the boundaries of the site.

V-04 Distance to Nearest Off-Site Building: Enter the distance in miles to the nearest tenth, hundredth, or thousandth (as needed to indicate the precision required) from the site boundary to the nearest off-site building.

V-05 Population in Vicinity of Site: Provide a narrative description of the nature of the population within the vicinity of the site. Examples include rural area, small truck farms, urban industrial area, densely populated urban residential area.

VI. Environmental Information

VI-01 Permeability of Unsaturated Zone: Check the appropriate box to indicate the permeability of the earth material above the water table in the vicinity of the site.

VI-02 Permeability of Bedrock: Check the appropriate box to indicate the permeability of the bedrock in the vicinity of the site.

VI-03 Depth to Bedrock: Enter the depth to bedrock in feet.

VI-04 Depth of Contaminated Soil Zone: Enter the depth of the contaminated soil zone in feet.

VI-05 Soil pH: Enter the pH of the soil in the vicinity of the site.

VI-06 Net Precipitation: Enter net precipitation in inches. If net precipitation is not known, subtract the average evaporation figure on the U.S. National Weather Service map showing average annual evaporation in inches from the U.S. Environmental Data Service map showing mean annual precipitation.

VI-07 One Year 24 Hour Rainfall: Enter in inches the figure for one year 24 hour rainfall.

VI-08 Slope: Enter the percentage of site slope, the direction of site slope, and the percentage of the surrounding terrain average slope.

VI-09 Flood Potential: Enter the boundary year for the floodplain in which the site is located. Sites flooded annually are in a 1 (one) year floodplain. Other examples include 10, 20, 50, 100, 500, etc., indicating the probability of flooding within that time period.

VI-10 Site is on Barrier Island, Coastal High Hazard Area Riverine Floodway: If site is located in one of these areas, check this box.

VI-11 Distance to Wetlands: If applicable, enter the distance in miles to the nearest tenth, hundredth, or thousandth (as needed to indicate the precision required) from the site to the closest wetlands (five acre minimum) for Estuarine and Other types of wetlands.

VI-12 Distance to Critical Habitat: If applicable, enter the distance in miles to the nearest tenth, hundredth, or thousandth (as needed to indicate the precision required) from the site to the nearest critical habitat

of an endangered species. Enter the name(s) of the endangered species.

VI-13 Land Use in Vicinity: Enter the distance in miles to the nearest tenth, hundredth, or thousandth (as needed to indicate the precision required) to the nearest Commercial/Industrial area; Residential Area, National/State Parks, Forests, or Wildlife Reserves; or Agricultural Lands, Prime Ag Land and Ag Land. Prime Ag Land is that crop, pasture, range, or forest land which produces the highest yield in relation to inputs. Ag Land is the remaining agricultural land, frequently considered marginal.

VI-14 Description of Site in Relation to Surrounding Topography: Provide a narrative description of significant or unusual aspects of the surrounding topography in relation to the site. Examples might include: site is in a valley surrounded on all sides by mountains, site is at edge of a river or stream which floods frequently, etc.

VII. **Sources of Information**: List the sources used to obtain information for this form. Sources cited may include: sample analysis, reports, inspections, official records, or other documentation. Sources cited provide the basis for information entered on the form and may be used to obtain further information about the site.

Part 6 **Sample and Field Information**

*I. **Identification**: Refer to Part 1—I.

II. **Samples Taken**

II-01 Number of Samples Taken: Next to each sample type enter the number of samples of that type taken.

II-02 Samples Sent To: Enter the name of the laboratory or other facility where the samples were sent for analysis.

II-03 Estimated Date Results Available: Enter the estimated date the results are expected to be available.

III. **Field Measurements Taken**

III-01 Type: Enter the type, e.g., radioactivity, explosivity, organic vapor or gas detection and analysis, reagent type gas detection, of each field measurement taken.

III-02 Comments: Describe results of field measurements, whether they were taken on or off site, and if applicable, the type of disposal facility tested, e.g., drum, surface impoundment, landfill.

IV. **Photographs and Maps**

IV-01 Type: If photographs of the site have been taken, check the appropriate box(es) to indicate the type.

IV-02 In Custody Of: Enter the name of the organization or person who has custody of the photographs.

IV-03 Maps: Check the appropriate box to indicate that maps of the site area have been prepared or obtained.

IV-04 Location of Maps: If site maps are available, indicate their location, e.g., Region 1 Air and Hazardous Materials Division.

V. **Other Field Data Collected**: Provide a narrative description of any other field data collected.

VI. **Sources of Information**: List the sources used to obtain information for this form. Sources cited may include: sample analysis, reports, inspections, official records, or other documentation. Sources cited provide the basis for information entered on the form and may be used to obtain further information about the site.

Part 7 **Owner Information**

*I. **Identification**: Refer to Part 1—I.

II. **Current Owner(s) — Parent Company**: Current owner(s) and parent companies, for those owners which are companies partly or wholly owned by another company, provide locator information about responsible parties. Each Part 7 provides space for four (4) current owners and their respective parent companies. If additional space is required, complete another Part 7.

II-01 Name: Enter the legal name of the owner of the site. The owner may be a firm, government agency, association, individual, etc.

II-02 D&B Number: Where available, enter the owner's D&B (Dun and Bradstreet) number. If the current owner is a federal agency, enter the GSA identification code.

II-03 Street Address: Enter the business, mailing, or residential street address of the owner.

II-04 SIC Code: If applicable, enter the owner's primar SIC Code.

II-05 City: Enter the city of the owner's business, mailing, or residential address.

II-06 State: Enter the two character alpha FIPS code for the state of the owner's business, mailing, or residential address.

II-07 Zip Code: Enter the five digit zip code for the owner's business, mailing, or residential address.

II-08 Name: If the owner is a partly or wholly owned subsidiary of another company, enter the legal name of the owner's parent company.

II-09 D&B Number: Enter the parent company's Dun and Bradstreet number.

II-10 Street Address: Enter the business or mailing street address of the parent company.

II-11 SIC Code: If applicable, enter the parent company's primary SIC code.

II-12 City: Enter the city of the parent company's business or mailing address.

II-13 State: Enter the two character alpha FIPS code for the state of the parent company's business or mailing address.

II-14 Zip Code: Enter the five digit zip code for the parent company's business or mailing address.

III. **Previous Owner(s)**: List previous owners in reverse chronological order, i.e., most recent first. If additional space is required, complete another Part 7.

III-01 Name: Enter the legal name of the previous owner. The previous owner may have been a firm, government agency, association, individual, etc.

III-02 D&B Number: Enter the previous owner's Dun and Bradstreet number if available. If the previous owner was a federal agency, enter the GSA identification code if available.

III-03 Street Address: Enter the business, mailing, or residential street address of the previous owner.

III-04 SIC Code: If applicable, enter the primary SIC Code of the previous owner.

III-05 City: Enter the city of the previous owner's business, mailing, or residential address.

III-06 State: Enter the two character alpha FIPS code for the state of the previous owner's business, mailing, or residential address.

III-07 Zip Code: Enter the zip code of the previous owner's business, mailing, or residential address.

IV. **Realty Owner(s)**: Realty owner applies when the owner leased to another entity property which was used for the storage or disposal of hazardous waste. List current or most recent first.

IV-01 Name: Enter the legal name of the realty owner. The realty owner may be a firm, government agency, association, individual, etc.

IV-02 D&B Number: Enter the previous owner's Dun and Bradstreet number if available. If the previous owner was a federal agency, enter the GSA identification code if available.

IV-03 Street Address: Enter the realty owner's business, mailing, or residential street address.

IV-04 SIC Code: If applicable, enter the realty owner's primary SIC Code.

IV-05 City: Enter the city of the realty owner's business, mailing, or residential address.

IV-06 State: Enter the two character alpha FIPS code for the state of the realty owner's business, mailing, or residential address.

IV-07 Zip Code: Enter the zip code of the realty owner's business, mailing, or residential address.

V. **Sources of Information**: List the sources used to obtain information for this form. Sources cited may include: sample analysis, reports, inspections, official records, or other documentation. Sources cited provide the basis for information entered on the form and may be used to obtain further information about the site.

Part 8 Operator Information

*I. **Identification**: Refer to Part 1—I.

II. **Current Operator—Operator's Parent Company**: Information on operators is applicable when the operator is not the owner.

II-01 Name: Enter the legal name of the operator. The operator may be a firm, government agency, association, individual, etc.

II-02 D&B Number: Enter the operator's Dun and Bradstreet number if available. If the operator is a federal agency, enter the GSA identification code if available.

II-03 Street Address: Enter the operator's business, mailing, or residential street address.

II-04 SIC Code: If applicable, enter the operator's primary SIC Code.

II-05 City: Enter the city of the operator's business, mailing, or residential address.

II-06 State: Enter the two character alpha FIPS code for the state of the operator's business, mailing, or residential address.

II-07 Zip Code: Enter the zip code of the operator's business, mailing, or residential address.

II-08 Years of Operation: Enter the beginning and ending years (or beginning only if operations are on-going), e.g., 1932/1948, of operation at the site.

II-09 Name of Owner: Enter the name of the owner for the period cited for this operator.

II-10 Name: If applicable, enter the legal name of the operator's parent company.

II-11 D&B Number: Enter the operator's parent company Dun and Bradstreet number if available.

II-12 Street Address: Enter the operator's parent company business, mailing, or residential street address.

II-13 SIC Code: If applicable, enter the operator's parent company primary SIC Code.

II-14 City: Enter the city of the operator's parent company business, mailing, or residential address.

II-15 State: Enter the two character alpha FIPS code for the state of the operator's parent company business, mailing, or residential address.

II-16 Zip Code: Enter the zip code of the operator's parent company business, mailing, or residential address.

III. **Previous Operator(s)—Previous Operators' Parent Companies**

III-01 Name: Enter the legal name of the previous operator. The previous operator may be a firm, government agency, association, individual, etc.

III-02 D&B Number: Enter the previous operator's Dun and Bradstreet number if available. If the previous operator was a federal agency, enter the GSA identification code if available.

III-03 Street Address: Enter the previous operator's business, mailing, or residential street address.

III-04 SIC Code: If applicable, enter the previous operator's primary SIC Code.

III-05 City: Enter the city of the previous operator's business, mailing, or residential address.

III-06 State: Enter the two character alpha FIPS code for the state of the previous operator's business, mailing, or residential address.

III-07 Zip Code: Enter the zip code of the previous operator's business, mailing, or residential address.

III-08 Years of Operation: Enter the beginning and ending years of operation for this operator at the site.

III-09 Name of Owner: Enter the name of the owner for the period cited for this operator.

III-10 Name: If applicable, enter the legal name of the previous operator's parent company.

III-11 D&B Number: Enter the previous operator's parent company Dun and Bradstreet number if available.

III-12 Street Address: Enter the previous operator's parent company business, mailing, or residential street address.

III-13 SIC Code: If applicable, enter the previous operator's parent company primary SIC Code.

III-14 City: Enter the city of the previous operator's parent company business, mailing, or residential address.

III-15 State: Enter the two character alpha FIPS code for the state of the previous operator's parent company business, mailing, or residential address.

III-16 Zip Code: Enter the zip code of the previous operator's parent company business, mailing, or residential address.

IV. **Sources of Information:** List the sources used to obtain information for this form. Sources cited may include: sample analysis, reports, inspections, official records, or other documentation. Sources cited provide the basis for information entered on the form and may be used to obtain further information about the site.

Part 9 Generator/Transporter Information

*I. **Identification:** Refer to Part 1—I.

II. **On-Site Generator:** A company or agency, located within the contiguous area of the site and generating waste disposed on the site, is entered here.

II-01 Name: If there is an on-site generator, enter the legal name of the on-site generator. The on-site generator may be a firm or government agency.

II-02 D&B Number: Where available, enter the on-site generator's D&B (Dun and Bradstreet) number. If the on-site generator is a federal agency, enter the GSA identification code.

II-03 Street Address: Enter the business or mailing street address of the on-site generator.

II-04 SIC Code: If applicable, enter the on-site generator's primary SIC Code.

II-05 City: Enter the city of the on-site generator's business or mailing address.

II-06 State: Enter the two character alpha FIPS code for the state of the on-site generator's business or mailing address.

II-07 Zip Code: Enter the five digit zip code for the on-site generator's business or mailing address.

III. **Off-Site Generator(s):** Those companies or agencies off-site who have generated waste which has been disposed at the site are listed here.

III-01 Name: Enter the legal name of the off-site generator. The off-site generator may be a firm or government agency.

III-02 D&B Number: Where available, enter the off-site generator's D&B (Dun and Bradstreet) number. If the off-site generator is a federal agency, enter the

III-03 Street Address: Enter the business or mailing street address of the off-site generator.

III-04 SIC Code: If applicable, enter the off-site generator's primary SIC Code.

III-05 City: Enter the city of the off-site generator's business or mailing address.

III-06 State: Enter the two character alpha FIPS code for the state of the off-site generator's business or mailing address.

III-07 Zip Code: Enter the five digit zip code for the off-site generator's business or mailing address.

IV. **Transporter(s):** Those carriers who are known to have transported waste to the site are listed here.

IV-01 Name: Enter the legal name of the transporter. The transporter may be a firm, government agency, association, individual, etc.

IV-02 D&B Number: Where available, enter the transporter's D&B (Dun and Bradstreet) number. If the transporter is a federal agency, enter the GSA identification code.

IV-03 Street Address: Enter the business, mailing, or residential street address of the transporter.

IV-04 SIC Code: If applicable, enter the transporter's primary SIC Code.

IV-05 City: Enter the city of the transporter's business mailing, or residential address.

IV-06 State: Enter the two character alpha FIPS code for the state of the transporter's business, mailing, or residential address.

IV-07 Zip Code: Enter the five digit zip code for the transporter's business, mailing, or residential address.

V. **Sources of Information:** List the sources used to obtain information for this form. Sources cited may include: sample analysis, reports, inspections, official records, or other documentation. Sources cited provide the basis for information entered on the form and may be used to obtain further information about the site.

Part 10 Past Response Activities

*I. **Identification:** Refer to Part 1—I.

II. **Past Response Activities**

II-01 Past Response Activities: Check the appropriate box(es) to indicate response activities initiated prior to the passage of CERCLA, December, 1980.

II-02 Date: Enter the start date (or approximate date) of the activity.

II-03 Agency: Enter the name of the Agency responsible for the activity.

II-04 Description: Provide a brief narrative description of the activity.

III. **Sources of Information:** List the sources used to obtain information for this form. Sources cited may include: sample analysis, reports, inspections, official records, or other documentation. Sources cited provide the basis for information entered on the form and may be used to obtain further information about the site.

Part 11 **Enforcement Information**

*I. **Identification**: Refer to Part 1–I.

II. **Enforcement Information**

II-01 Past Regulatory/Enforcement Action: Check the appropriate box to indicate past regulatory or enforcement action at the federal, state, or local level related to this site.

II-02 Description of Federal, State, Local Regulatory or Enforcement Action. Provide a narrative description of regulatory or enforcement action to date. Do not include any enforcement action contemplated in the process of development.

III. **Sources of Information**: List the sources used to obtain information for this form. Sources cited may include: sample analysis, reports, inspections, official records, or other documentation. Sources cited provide the basis for information entered on the form and may be used to obtain further information about the site.

APPENDIX

I. FEEDSTOCKS

CAS Number	Chemical Name
1. 7664-41-7	Ammonia
2. 7440-36-0	Antimony
3. 1309-64-4	Antimony Trioxide
4. 7440-38-2	Arsenic
5. 1327-53-3	Arsenic Trioxide
6. 21109-95-5	Barium Sulfide
7. 7726-95-6	Bromine
8. 106-99-0	Butadiene
9. 7440-43-9	Cadmium
10. 7782-50-5	Chlorine
11. 12737-27-8	Chromite
12. 7440-47-3	Chromium
13. 7440-48-4	Cobalt
14. 1317-38-0	Cupric Oxide
15. 7758-98-7	Cupric Sulfate
16. 1317-39-1	Cuprous Oxide
17. 74-85-1	Ethylene
18. 7647-01-0	Hydrochloric Acid
19. 7664-39-3	Hydrogen Fluoride
20. 1335-25-7	Lead Oxide
21. 7439-97-6	Mercury
22. 74-82-8	Methane
23. 91-20-3	Napthalene
24. 7440-02-0	Nickel
25. 7697-37-2	Nitric Acid
26. 7723-14-0	Phosphorus
27. 7778-50-9	Potassium Dichromate
28. 1310-58-3	Potassium Hydroxide
29. 115-07-1	Propylene
30. 10588-01-9	Sodium Dichromate
31. 1310-73-2	Sodium Hydroxide
32. 7646-78-8	Stannic Chloride
33. 7772-99-8	Stannous Chloride
34. 7664-93-9	Sulfuric Acid
35. 108-88-3	Toluene
36. 1330-20-7	Xylene
37. 7646-85-7	Zinc Chloride
38. 7733-02-0	Zinc Sulfate

II. HAZARDOUS SUBSTANCES

CAS Number	Chemical Name
1. 75-07-0	Acetaldehyde
2. 64-19-7	Acetic Acid
3. 108-24-7	Acetic Anhydride
4. 75-86-5	Acetone Cyanohydrin
5. 506-96-7	Acetyl Bromide
6. 75-36-5	Acetyl Chloride
7. 107-02-8	Acrolein
8. 107-13-1	Acrylonitrile
9. 124-04-9	Adipic Acid
10. 309-00-2	Aldrin
11. 10043-01-3	Aluminum Sulfate
12. 107-18-6	Allyl Alcohol
13. 107-05-1	Allyl Chloride
14. 7664-41-7	Ammonia
15. 631-61-8	Ammonium Acetate
16. 1863-63-4	Ammonium Benzoate
17. 1066-33-7	Ammonium Bicarbonate
18. 7789-09-5	Ammonium Bichromate
19. 1341-49-7	Ammonium Bifluoride
20. 10192-30-0	Ammonium Bisulfite
21. 1111-78-0	Ammonium Carbamate
22. 12125-02-9	Ammonium Chloride
23. 7788-98-9	Ammonium Chromate
24. 3012-65-5	Ammonium Citrate, Dibasic
25. 13826-83-0	Ammonium Fluoborate
26. 12125-01-8	Ammonium Fluoride
27. 1336-21-6	Ammonium Hydroxide
28. 6009-70-7	Ammonium Oxalate
29. 16919-19-0	Ammonium Silicofluoride
30. 7773-06-0	Ammonium Sulfamate
31. 12135-76-1	Ammonium Sulfide
32. 10196-04-0	Ammonium Sulfite
33. 14307-43-8	Ammonium Tartrate
34. 1762-95-4	Ammonium Thiocyanate
35. 7783-18-8	Ammonium Thiosulfate
36. 628-63-7	Amyl Acetate
37. 62-53-3	Aniline
38. 7647-18-9	Antimony Pentachloride
39. 7789-61-9	Antimony Tribromide
40. 10025-91-9	Antimony Trichloride
41. 7783-56-4	Antimony Trifluoride
42. 1309-64-4	Antimony Trioxide
43. 1303-32-8	Arsenic Disulfide
44. 1303-28-2	Arsenic Pentoxide
45. 7784-34-1	Arsenic Trichloride
46. 1327-53-3	Arsenic Trioxide
47. 1303-33-9	Arsenic Trisulfide
48. 542-62-1	Barium Cyanide
49. 71-43-2	Benzene
50. 65-85-0	Benzoic Acid
51. 100-47-0	Benzonitrile
52. 98-88-4	Benzoyl Chloride
53. 100-44-7	Benzyl Chloride
54. 7440-41-7	Beryllium
55. 7787-47-5	Beryllium Chloride
56. 7787-49-7	Beryllium Fluoride
57. 13597-99-4	Beryllium Nitrate
58. 123-86-4	Butyl Acetate
59. 84-74-2	n-Butyl Phthalate
60. 109-73-9	Butylamine
61. 107-92-6	Butyric Acid
62. 543-90-8	Cadimium Acetate
63. 7789-42-6	Cadmium Bromide
64. 10108-64-2	Cadmium Chloride
65. 7778-44-1	Calcium Arsenate
66. 52740-16-6	Calcium Arsenite
67. 75-20-7	Calcium Carbide
68. 13765-19-0	Calcium Chromate
69. 592-01-8	Calcium Cyanide
70. 26264-06-2	Calcium Dodecylbenzene Sulfonate
71. 7778-54-3	Calcium Hypochlorite
72. 133-06-2	Captan
73. 63-25-2	Carbaryl
74. 1563-66-2	Carbofuran
75. 75-15-0	Carbon Disulfide
76. 56-23-5	Carbon Tetrachloride
77. 57-74-9	Chlordane
78. 7782-50-5	Chlorine
79. 108-90-7	Chlorobenzene
80. 67-66-3	Chloroform
81. 7790-94-5	Chlorosulfonic Acid
82. 2921-88-2	Chlorpyrifos
83. 1066-30-4	Chromic Acetate
84. 7738-94-5	Chromic Acid
85. 10101-53-8	Chromic Sulfate
86. 10049-05-5	Chromous Chloride
87. 544-18-3	Cobaltous Formate
88. 14017-41-5	Cobaltous Sulfamate
89. 56-72-4	Coumaphos
90. 1319-77-3	Cresol
91. 4170-30-3	Crotonaldehyde
92. 142-71-2	Cupric Acetate
93. 12002-03-8	Cupric Acetoarsenite
94. 7447-39-4	Cupric Chloride
95. 3251-23-8	Cupric Nitrate
96. 5893-66-3	Cupric Oxalate
97. 7758-98-7	Cupric Sulfate
98. 10380-29-7	Cupric Sulfate Ammoniated
99. 815-82-7	Cupric Tartrate
100. 506-77-4	Cyanogen Chloride
101. 110-82-7	Cyclohexane
102. 94-75-7	2,4-D Acid
103. 94-11-1	2,4-D Esters
104. 50-29-3	DDT
105. 333-41-5	Diazinon
106. 1918-00-9	Dicamba
107. 1194-65-6	Dichlobenil
108. 117-80-6	Dichlone
109. 25321-22-6	Dichlorobenzene (all isomers)
110. 266-38-19-7	Dichloropropane (all isomers)
111. 26952-23-8	Dichloropropene (all isomers)
112. 8003-19-8	Dichloropropene-Dichloropropane Mixture
113. 75-99-0	2-2-Dichloropropionic Acid
114. 62-73-7	Dichlorvos
115. 60-57-1	Dieldrin
116. 109-89-7	Diethylamine
117. 124-40-3	Dimethylamine
118. 25154-54-5	Dinitrobenzene (all isomers)
119. 51-28-5	Dinitrophenol
120. 25321-14-6	Dinitrotoluene (all isomers)
121. 85-00-7	Diquat
122. 298-04-4	Disulfoton
123. 330-54-1	Diuron
124. 27176-87-0	Dodecylbenzenesulfonic Acid
125. 115-29-7	Endosulfan (all isomers)
126. 72-20-8	Endrin and Metabolites
127. 106-89-8	Epichlorohydrin
128. 563-12-2	Ethion
129. 100-41-4	Ethyl Benzene
130. 107-15-3	Ethylenediamine
131. 106-93-4	Ethylene Dibromide
132. 107-06-2	Ethylene Dichloride
133. 60-00-4	EDTA
134. 1185-57-5	Ferric Ammonium Citrate
135. 2944-87-4	Ferric Ammonium Oxalate
136. 7705-08-0	Ferric Chloride

II. HAZARDOUS SUBSTANCES

CAS Number	Chemical Name
137. 7783-50-8	Ferric Fluoride
138. 10421-48-4	Ferric Nitrate
139. 10028-22-5	Ferric Sulfate
140. 10045-89-3	Ferrous Ammonium Sulfate
141. 7758-94-3	Ferrous Chloride
142. 7720-78-7	Ferrous Sulfate
143. 206-44-0	Fluoranthene
144. 50-00-0	Formaldehyde
145. 64-18-6	Formic Acid
146. 110-17-8	Fumaric Acid
147. 98-01-1	Furfural
148. 86-50-0	Guthion
149. 76-44-8	Heptachlor
150. 118-74-1	Hexachlorobenzene
151. 87-68-3	Hexachlorobutadiene
152. 67-72-1	Hexachloroethane
153. 70-30-4	Hexachlorophene
154. 77-47-4	Hexachlorocyclopentadiene
155. 7647-01-0	Hydrochloric Acid (Hydrogen Chloride)
156. 7664-39-3	Hydrofluoric Acid (Hydrogen Fluoride)
157. 74-90-8	Hydrogen Cyanide
158. 7783-06-4	Hydrogen Sulfide
159. 78-79-5	Isoprene
160. 42504-46-1	Isopropanolamine Dodecylbenzenesulfonate
161. 115-32-2	Kelthane
162. 143-50-0	Kepone
163. 301-04-2	Lead Acetate
164. 3687-31-8	Lead Arsenate
165. 7758-95-4	Lead Chloride
166. 13814-96-5	Lead Fluoborate
167. 7783-46-2	Lead Fluoride
168. 10101-63-0	Lead Iodide
169. 18256-98-9	Lead Nitrate
170. 7428-48-0	Lead Stearate
171. 15739-80-7	Lead Sulfate
172. 1314-87-0	Lead Sulfide
173. 592-87-0	Lead Thiocyanate
174. 58-89-9	Lindane
175. 14307-35-8	Lithium Chromate
176. 121-75-5	Malthion
177. 110-16-7	Maleic Acid
178. 108-31-6	Maleic Anhydride
179. 2032-65-7	Mercaptodimethur
180. 592-04-1	Mercuric Cyanide
181. 10045-94-0	Mercuric Nitrate
182. 7783-35-9	Mercuric Sulfate
183. 592-85-8	Mercuric Thiocyanate
184. 10415-75-5	Mercurous Nitrate
185. 72-43-5	Methoxychlor
186. 74-93-1	Methyl Mercaptan
187. 80-62-6	Methyl Methacrylate
188. 298-00-0	Methyl Parathion
189. 7786-34-7	Mevinphos
190. 315-18-4	Mexacarbate
191. 75-04-7	Monoethylamine
192. 74-89-5	Monomethylamine
193. 300-76-5	Naled
194. 91-20-3	Naphthalene
195. 1338-24-5	Naphthenic Acid
196. 7440-02-0	Nickel
197. 15699-18-0	Nickel Ammonium Sulfate
198. 37211-05-5	Nickel Chloride
199. 12054-48-7	Nickel Hydroxide
200. 14216-75-2	Nickel Nitrate
201. 7786-81-4	Nickel Sulfate
202. 7697-37-2	Nitric Acid
203. 98-95-3	Nitrobenzene
204. 10102-44-0	Nitrogen Dioxide
205. 25154-55-6	Nitrophenol (all isomers)
206. 1321-12-6	Nitrotoluene
207. 30525-89-4	Paraformaldehyde
208. 56-38-2	Parathion
209. 608-93-5	Pentachlorobenzene
210. 87-86-5	Pentachlorophenol
211. 85-01-8	Phenanthrene
212. 108-95-2	Phenol
213. 75-44-5	Phosgene
214. 7664-38-2	Phosphoric Acid
215. 7723-14-0	Phosphorus
216. 10025-87-3	Phosphorus Oxychloride
217. 1314-80-3	Phosphorus Pentasulfide
218. 7719-12-2	Phosphorus Trichloride
219. 7784-41-0	Potassium Arsenate
220. 10124-50-2	Potassium Arsenite
221. 7778-50-9	Potassium Bichromate
222. 7789-00-6	Potassium Chromate
223. 7722-64-7	Potassium Permanganate
224. 2312-35-8	Propargite
225. 79-09-4	Propionic Acid
226. 123-62-6	Propionic Anhydride
227. 1336-36-3	Polychlorinated Biphenyls
228. 151-50-8	Potassium Cyanide
229. 1310-58-3	Potassium Hydroxide
230. 75-56-9	Propylene Oxide
231. 121-29-9	Pyrethrins
232. 91-22-5	Quinoline
233. 108-46-3	Resorcinol
234. 7446-08-4	Selenium Oxide
235. 7761-88-8	Silver Nitrate
236. 7631-89-2	Sodium Arsenate
237. 7784-46-5	Sodium Arsenite
238. 10588-01-9	Sodium Bichromate
239. 1333-83-1	Sodium Bifluoride
240. 7631-90-6	Sodium Bisulfite
241. 7775-11-3	Sodium Chromate
242. 143-33-9	Sodium Cyanide
243. 25155-30-0	Sodium Dodecylbenzene Sulfonate
244. 7681-49-4	Sodium Fluoride
245. 16721-80-5	Sodium Hydrosulfide
246. 1310-73-2	Sodium Hydroxide
247. 7681-52-9	Sodium Hypochlorite
248. 124-41-4	Sodium Methylate
249. 7632-00-0	Sodium Nitrate
250. 7558-79-4	Sodium Phosphate, Dibasic
251. 7601-54-9	Sodium Phosphate, Tribasic
252. 10102-18-8	Sodium Selenite
253. 7789-06-2	Strontium Chromate
254. 57-24-9	Strychnine and Salts
255. 100-420-5	Styrene
256. 12771-08-3	Sulfur Monochloride
257. 7664-93-9	Sulfuric Acid
258. 93-76-5	2,4,5-T Acid
259. 2008-46-0	2,4,5-T Amines
260. 93-79-8	2,4,5-T Esters
261. 13560-99-1	2,4,5-T Salts
262. 93-72-1	2,4,5-TP Acid
263. 32534-95-5	2,4,5-TP Acid Esters
264. 72-54-8	TDE
265. 95-94-3	Tetrachlorobenzene
266. 127-18-4	Tetrachloroethane
267. 78-00-2	Tetraethyl Lead
268. 107-49-3	Tetraethyl Pyrophosphate
269. 7446-18-6	Thallium (I) Sulfate
270. 108-88-3	Toluene
271. 8001-35-2	Toxaphene
272. 12002-48-1	Trichlorobenzene (all isomers)
273. 52-68-6	Trichlorfon
274. 25323-89-1	Trichloroethane (all isomers)
275. 79-01-6	Trichloroethylene
276. 25167-82-2	Trichlorophenol (all isomers)
277. 27323-41-7	Triethanolamine Dodecylbenzenesulfonate
278. 121-44-8	Triethylamine
279. 75-50-3	Trimethylamine
280. 541-09-3	Uranyl Acetate
281. 10102-06-4	Uranyl Nitrate
282. 1314-62-1	Vanadium Pentoxide
283. 27774-13-6	Vanadyl Sulfate
284. 108-05-4	Vinyl Acetate
285. 75-35-4	Vinylidene Chloride
286. 1300-71-6	Xylenol
287. 557-34-6	Zinc Acetate
288. 52628-25-8	Zinc Ammonium Chloride
289. 1332-07-6	Zinc Borate
290. 7699-45-8	Zinc Bromide
291. 3486-35-9	Zinc Carbonate
292. 7646-85-7	Zinc Chloride
293. 557-21-1	Zinc Cyanide
294. 7783-49-3	Zinc Fluoride
295. 557-41-5	Zinc Formate
296. 7779-86-4	Zinc Hydrosulfite
297. 7779-88-6	Zinc Nitrate
298. 127-82-2	Zinc Phenolsulfonate
299. 1314-84-7	Zinc Phosphide
300. 16871-71-9	Zinc Silicofluoride
301. 7733-02-0	Zinc Sulfate
302. 13746-89-9	Zirconium Nitrate
303. 16923-95-8	Zirconium Potassium Fluoride
304. 14644-61-2	Zirconium Sulfate
305. 10026-11-6	Zirconium Tetrachloride

U.S. GOVERNMENT PRINTING OFFICE: 1983—655—659

Attachment A

The landfill operated for approximately 14 years and accepted municipal derived wastes during that time. There is no specific information about the quantities of hazardous wastes at the site. It is likely that the site received household quantities of hazardous wastes commingled with solid wastes. An exact description of the types of hazardous wastes received is not possible. However, representative concentrations of some hazardous substances found in groundwater downgradient of the site are:

vinyl chloride	- 630 ug/l
1,2-dichloroethyene	- 2500 ug/l
trichloroethylene	- 30 ug/l
tetrachloroethylene	- 17 ug/l
toluene	- 27 ug/l
benzene	- 50 ug/l

8910\SW1REFUS.MRS

APPENDIX C

FIELD PHOTOGRAPHY LOG SHEET

DATE 6/28/89

TIME _____

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

WEATHER sunny, warm
light breeze

SITE Refuse Hideaway

~~TDD #~~ _____

PHOTOGRAPHED BY:
Schmoller

SAMPLE ID# (if applicable)

DESCRIPTION: looking east along the south face of the landfill

FIELD PHOTOGRAPHY LOG SHEET

DATE 6/28/89

TIME _____

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

WEATHER sunny, warm
slight breeze

SITE Refuse Hideaway

TDD # _____

PHOTOGRAPHED BY:
Schmoller

SAMPLE ID# (if applicable)

DESCRIPTION: looking west along south face of landfill. Monitoring wells are located along the slope

FIELD PHOTOGRAPHY LOG SHEET

DATE 6/28/89

TIME _____

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

WEATHER sunny, warm
slight breeze

SITE Refuse Hideaway

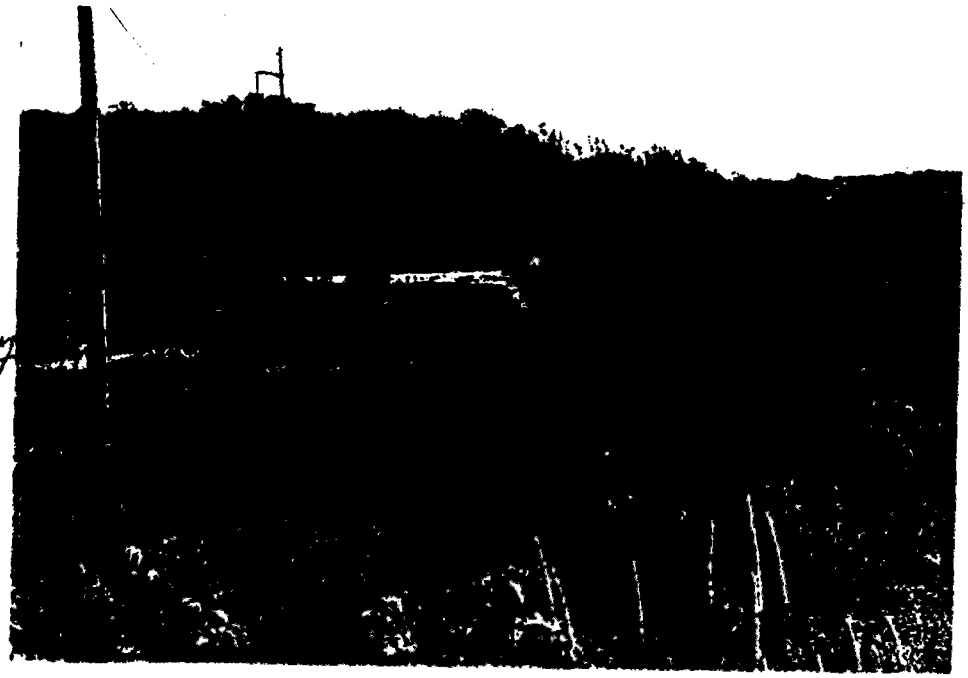
~~TDD #~~ _____

PHOTOGRAPHED BY:

Schmoller

SAMPLE ID# (if applicable)

_____



DESCRIPTION: Looking south along drainage ditch east of site. Sample SD2 collected near toe of pile

FIELD PHOTOGRAPHY LOG SHEET

DATE 6/28/89

TIME _____

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

WEATHER Sunny, warm
slight breeze

SITE Refuse Hideaway

~~TDD #~~ _____

PHOTOGRAPHED BY:

Schmoller

SAMPLE ID# (if applicable)

_____

DESCRIPTION: sedimentation pond on site. Sample SD1 collected on north side of pond

FIELD PHOTOGRAPHY LOG SHEET

DATE 6/28/89

TIME _____

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

WEATHER ~~sunny, warm~~ slight breeze

SITE Refuse Hideaway

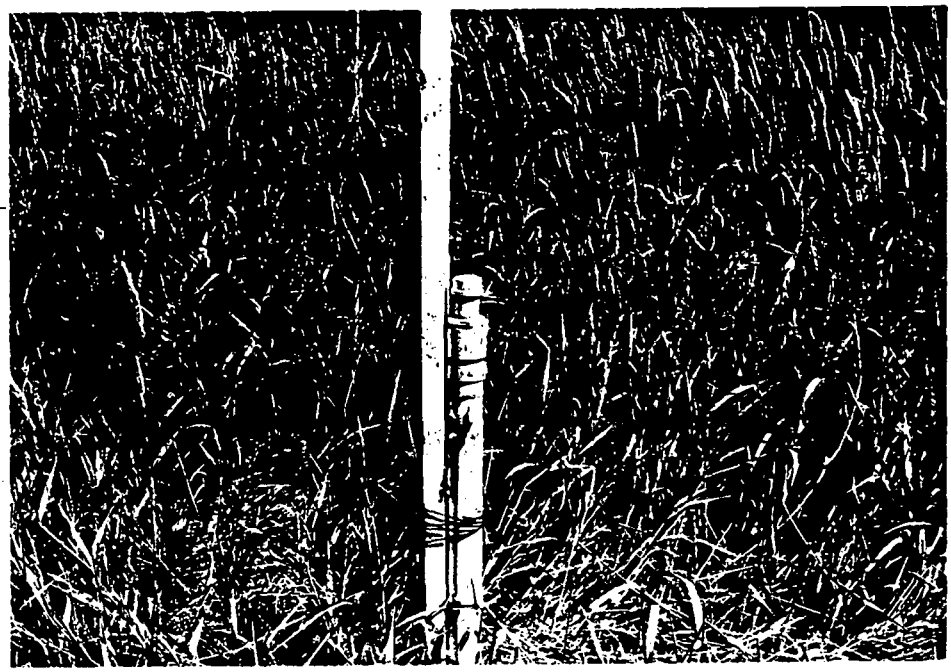
~~TDD #~~ _____

PHOTOGRAPHED BY:

Schmoller

SAMPLE ID# (if applicable)

_____



DESCRIPTION: monitoring well 8S, site of sample SO6, well located at base of south face of site

FIELD PHOTOGRAPHY LOG SHEET

DATE 6/28/89

TIME _____

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

WEATHER ~~sunny, warm~~ slight breeze

SITE Refuse Hideaway

~~TDD #~~ _____

PHOTOGRAPHED BY:

Schmoller

SAMPLE ID# (if applicable)

_____

DESCRIPTION: monitoring well 8d, site of sample SO5 at south face of site

FIELD PHOTOGRAPHY LOG SHEET

DATE 6/28/89

TIME _____

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

WEATHER sunny, warm
slight breeze

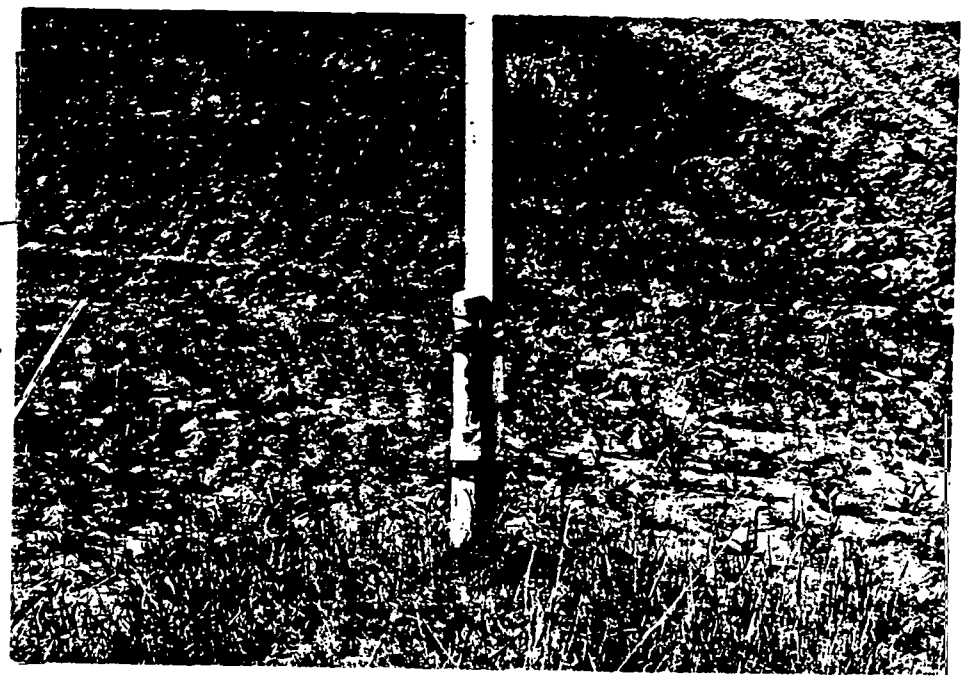
SITE Refuse Hideaway

~~TDD #~~ _____

PHOTOGRAPHED BY:
Schmoller

SAMPLE ID# (if applicable)

_____



DESCRIPTION: monitoring well 9D, site of sample 509, at base of sand face of site

FIELD PHOTOGRAPHY LOG SHEET

DATE 6/28/89

TIME _____

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

WEATHER sunny, warm
slight breeze

SITE Refuse Hideaway

~~TDD #~~ _____

PHOTOGRAPHED BY:
Schmoller

SAMPLE ID# (if applicable)

_____

DESCRIPTION: monitoring well 9D, site of sample 509, at west face of site.

FIELD PHOTOGRAPHY LOG SHEET

DATE 6/28/89

TIME _____

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

WEATHER sunny, warm
light breeze

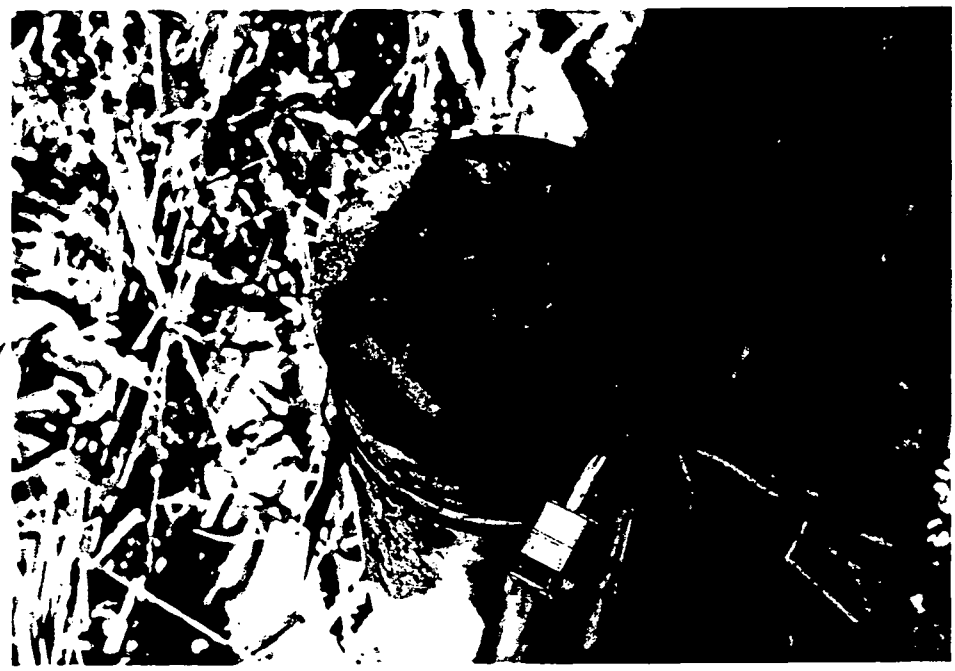
SITE Refuse Hideaway

~~TDD #~~ _____

PHOTOGRAPHED BY:
Schmoller

SAMPLE ID# (if applicable)

_____



DESCRIPTION: monitoring well 21D, ate of sample 508,
at south face of site

FIELD PHOTOGRAPHY LOG SHEET

DATE 6/28/89

TIME _____

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

WEATHER sunny, warm
light breeze

SITE Refuse Hideaway

~~TDD #~~ _____

PHOTOGRAPHED BY:
Schmoller

SAMPLE ID# (if applicable)

_____

DESCRIPTION: _____

_____

APPENDIX D

STATE OF WISCONSIN

WELL CONSTRUCTOR'S REPORT — DEPARTMENT OF RESOURCE DEVELOPMENT — 68 392 — Wel 6

1. COUNTY: Dane — CHECK ONE: ☒ Town ☐ Village ☐ City — NAME: Middleton

2. LOCATION (Number and Street or ¼ section, section, township and range. Also give subdivision name, lot and block numbers when available.)
NE¼ of SW¼ Sec. 5 R8E T7N)

3. OWNER AT TIME OF DRILLING
Elmer Jungbluth

4. OWNER'S COMPLETE MAIL ADDRESS
3745 Airport Rd. Middleton Wis

5. Distance in feet from well to nearest: (Record answer in appropriate block)

BUILDING	SANITARY SEWER C. I.	SANITARY SEWER TILE	FLOOR DRAIN C. I.	FLOOR DRAIN TILE	FOUNDATION DRAIN SEWER CONNECTED	FOUNDATION DRAIN INDEPENDENT	WASTE WATER DRAIN C. I.	WASTE WATER DRAIN TILE
22	Not Conn		in	yet			—	—

CLEAR WATER DRAIN C. I.	CLEAR WATER DRAIN TILE	SEPTIC TANK	PRIVY	SEEPAGE PIT	ABSORPTION FIELD	BARN	SILO	ABANDONED WELL	DRILLHOLE
—	—	—	—	—	—	125	125	—	—

OTHER POLLUTION SOURCES (Give description such as dump, quarry, drainage well, stream, pond, lake, etc.)
None

RECEIVED OCT 4 1968
BUREAU OF HAZARDOUS WASTE MANAGEMENT

6. Well is intended to supply water for:
Farm

7. DRILLHOLE

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
10	Surface	20	6	20	256

8. CASING, LINER, CURBING, AND SCREEN

Dia. (in.)	Kind and Weight	From (ft.)	To (ft.)
6	Std Blk #9.45 T&C New	Surface	101

9. GROUT OR OTHER SEALING MATERIAL

Kind	From (ft.)	To (ft.)
Puddled Clay	Surface	20

10. FORMATIONS

Kind	From (ft.)	To (ft.)
Sand & Gravel	Surface	92
Limestone	92	120
Sandstone	120	256

Well construction completed on 9-26 1968

Well is terminated 12 inches ☒ above ☐ below final grade

Well disinfected upon completion ☒ Yes ☐ No

Well sealed watertight upon completion ☒ Yes ☐ No

11. MISCELLANEOUS DATA

Yield test: 3 Hrs. at 2 GPM

Depth from surface to normal water level 160 ft.

Depth to water level when pumping 164 ft.

Water sample sent to Madison laboratory on: 9-30 1968

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

SIGNATURE: Lon Clemens Registered Well Driller

COMPLETE MAIL ADDRESS: FRI Mazomanie, Wis.

Please do not write in space below

COLIFORM TEST RESULT	GAS — 24 HRS.	GAS — 48 HRS.	CONFIRMED	REMARKS

STATE OF WISCONSIN

WELL CONSTRUCTOR'S REPORT — DEPARTMENT OF RESOURCE DEVELOPMENT — Wel 6

1. COUNTY: Dane Co. | CHECK ONE: ☐ Town ☐ Village ☐ City | NAME: Town of Middleton

2. LOCATION (Number and Street or ¼ section, section, township and range. Also give subdivision name, lot and block numbers when available.): Sec 5 R9E T7N S½ S½

3. OWNER AT TIME OF DRILLING: Frances Weinstein

4. OWNER'S COMPLETE MAIL ADDRESS:

5. Distance in feet from well to nearest: (Record answer in appropriate block)

BUILDING	SANITARY SEWER C. I.	SANITARY SEWER TILE	FLOOR DRAIN C. I.	FLOOR DRAIN TILE	FOUNDATION DRAIN SEWER CONNECTED	FOUNDATION DRAIN INDEPENDENT	WASTE WATER DRAIN C. I.	WASTE WATER DRAIN TILE
30								

CLEAR WATER DRAIN C. I.	CLEAR WATER DRAIN TILE	SEPTIC TANK	PRIVY	SEEPAGE PIT	ABSORPTION FIELD	BARN	SILO	ABANDONED WELL	SINK HOLE
		60 ft.		70 ft.					

OTHER POLLUTION SOURCES (Give description such as dump, quarry, drainage well, stream, pond, lake, etc.)

6. Well is intended to supply water for: Private Home

7. DRILLHOLE

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
10	Surface	20	5"	230	350
6	20	230			

8. CASING, LINER, CURBING, AND SCREEN

Dia. (in.)	Kind and Weight	From (ft.)	To (ft.)
6"	T&C 19.45# new	Surface	21 ft
5	T&C 14.62# new	24	252 ft

9. GROUT OR OTHER SEALING MATERIAL

Kind	From (ft.)	To (ft.)
Sand	Surface	20

10. FORMATIONS

Kind	From (ft.)	To (ft.)
Sand	Surface	202
fine tight Sandstone	202	217
Soft mud & Shale	217	242
Sandstone	242	260
Yellow lime	260	320
White Sandstone	320	350

Well construction completed on March 26 1969

Well is terminated 10 inches ☑ above ☐ below final grade

Well disinfected upon completion ☑ Yes ☐ No

Well sealed watertight upon completion ☑ Yes ☐ No

11. MISCELLANEOUS DATA

Yield test: 44 Hrs. at 30 GPM

Depth from surface to normal water level 44 ft.

Depth to water level when pumping 46 ft.

Water sample sent to Madison laboratory on: March 24, 1969

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

SIGNATURE: Wm D. Delsman Registered Well Driller

COMPLETE MAIL ADDRESS: 811 Gary St. Madison Wis

Please do not write in space below

COLIFORM TEST RESULT	GAS — 24 HRS.	GAS — 48 HRS.	CONFIRMED	REMARKS

WELL CONSTRUCTOR'S REPORT TO WISCONSIN STATE BOARD OF HEALTH

See Instructions on Reverse Side

1. County Dane — Town ☑ Middleton & Madison; Village ☐; City ☐ — Check one and give name (7N-8E)

2. Location Lot in Sec. 7, 12, Town of Middleton & 18 & 13 in Town of Madison
Name of street and number of premise or Section, Town and Range numbers

3. Owner ☑ or Agent ☐ Wm. R. Curkeet, Jr.
Name of individual, partnership or firm

4. Mail Address 223 W. Mifflin St., Madison
Complete address required

RECEIVED
SEP 20 1949
BUREAU SAN. ENG.

5. From well to nearest: Building 5 ft; sewer 2 ft; drain ____ ft; septic tank ____ ft; dry well or filter bed 100 ft; abandoned well ____ ft.

6. Well is intended to supply water for: Home

7. DRILLHOLE:

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
8	0	40			
6	40	229			

8. CASING AND LINER PIPE OR CURBING:

Dia. (in.)	Kind	From (ft.)	To (ft.)
6	Standard Steel Pipe	0	181

9. GROUT:

Kind	From (ft.)	To (ft.)
Slurry Fill	0	40

10. FORMATIONS:

Kind	From (ft.)	To (ft.)
Clay	0	6
Sand	6	50
Clay	50	65
Sand	65	80
Sand & gravel	80	105
Soft Dolostone	105	181
Firm Dolostone	181	229

Construction of the well was completed on: 8/1 19 49

The well is terminated 6 inches ☑ above, below ☐ the permanent ground surface.

Was the well disinfected upon completion? Yes ✓ No ____

Was the well sealed watertight upon completion? Yes ✓ No ____

11. MISCELLANEOUS DATA:

Yield test: 24 Hrs. at 6 GPM.

Depth from surface to water-level: 66 ft.

Water-level when pumping: 66 ft.

Water sample was sent to the state laboratory at: Madison City on 8/6 19 49

Four Lakes Well Drilling Co. 146 S. Marquette St.
Signature Harold Kearney — Madison, Wis.
Registered Well Driller — Complete Mail Address

Please do not write in space below

AUG 6 1949
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 ____

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

AUG 15 1978

WELL CONSTRUCTOR'S REPORT

Form 3300-15 Rev. 12-76

1. COUNTY: Dane

CHECK (✓) ONE: ☒ Town ☐ Village ☐ City Name: Middleton

2. LOCATION: ¼ Section: SE; Section: 8; Township: 7N; Range: 8E

OR – Grid or Street No.: ; Street Name:

AND – If available subdivision name, lot & block No.:

3. NAME ☒ OWNER ☐ AGENT AT TIME OF DRILLING CHECK (✓) ONE: Wingra Stone

ADDRESS: R2

POST OFFICE: Madison, Wisconsin

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

Building	Sanitary Bldg. Drain		Sanitary Bldg. Sewer		Floor Drain Connected To:		Storm Bldg. Drain		Storm Bldg. Sewer	
	C.I.	Other	C.I.	Other	C.I. Sewer	Other Sewer	C.I.	Other	C.I.	Other
None										

Street Sewer		Other Sewers		Foundation Drain Connected to:		Sewage Sump		Clearwater Sump	Septic Tank	Holding Tank	Sewage Absorption Unit
San.	Storm	C.I.	Other	Sewer	Sewage Sump	C.I.	Other				Seepage Pit
				Clearwater Dr.	Clearwater Sump						Seepage Bed: Not Installed
											Seepage Trench

Privy	Pet Waste Pit	Pit: 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 Or Pit
		Well								
		Pump								
		Tank								

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: Private Residence

6. DRILLHOLE

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
10	Surface	20			
6	20	204			

7. CASING, LINER, CURBING AND SCREEN

Dia. (in.)	Material, Weight, Specification & Method of Assembly	From (ft.)	To (ft.)
6	New black st'd steel	Surface	194
	19.45# T.C.		
	ASTM A53 .280 W.T.		
	Maruichi		

8. GROUT OR OTHER SEALING MATERIAL

Kind	From (ft.)	To (ft.)
Drilling Mud	Surface	20

9. FORMATIONS

Kind	From (ft.)	To (ft.)
Sand & Gravel	Surface	192
Sandstone	192	204
Casing was driven from 20 ft. to 194 ft.		
Drive Shoe was used.		

10. TYPE OF DRILLING MACHINE USED

☐ Cable Tool ☒ Rotary-hammer w/drilling mud & air ☐ Jetting with
☐ Rotary-air w/drilling mud ☐ Rotary-hammer & air ☐ Air ☐ Water
☐ Rotary-w/drilling mud ☐ Reverse Rotary

Well construction completed on 7/20 19 78

11. MISCELLANEOUS DATA

Yield Test: 16 Hrs. at 25 GPM

Depth from surface to normal water level 30 Ft.

Depth of water level when pumping 33 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, Wisconsin laboratory on 7/20 19 78

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: Mike Rickard
Robert J. Rickard
Registered Well Driller

Complete Mail Address: Linden, Wisconsin 53553

Sec 6

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

Log No. Dn-937
Sample Nos. 261845-261905

County: Dane

Well name Gradel Nursery - Airport Road
Town of.. Middleton
Owner.... Paul Gradel
Address.. 4229 Mandrake Rd.
Middleton, Wis.
Driller.. G. Peterson
Engineer.

Completed... 7/10/65
Field check.
Altitude....
Use..... -- Residence
Static w. l. -- 200'
Spec. cap... -- *

R.8E.
T. 7 N.
Sec. 6

Quad. Middleton 7½'

Drill Hole						Casing & Liner Pipe or Curbing							
Dia.	from	to	Dia.	from	to	Dia.	Wgt.& Kind	from	to	Dia.	Wgt.& Kind	from	to
10"	0	79'				6"	Pipe 19.45 (steel)	+10	79'				
6"	79'	335'											

Grout: Kind	from	to
Cement	-6 '	79'

Samples from 35' to 335' Date received: 2/7/66
Examined by: J. M. Warren
Issued: 8/68
Date: 2/1/67

Formations: Prairie du Chien, Jordan, St. Lawrence, Franconia

Remarks: Well bailed 50 gpm with no appreciable drawdown. Property located between Airport Road and Rocky Dell Road, Town of Middleton. Additional abbreviations: disagg-disaggregated

LOG OF WELL:

	0-3	3		NO SAMPLE,driller reports clay 0-3 feet
35'	3-35	32		NO SAMPLES,driller reports broken sandstone 3-40 feet
	35-50	15	A	Dol,pl yl or,fn&V fn,wea,ltl dns;ltl cht
	50-60	10		Dol,pl yl or mot lt gry,V fn,dns;tr cht
	60-65	5		Dol,pl yl or mot lt gry,V fn,disagg;tr rd bn sh
	65-70	5	A	Dol,pl yl or mot lt gry,fn,disagg;ltl cht
	70-75	5	A	Dol,pl yl or mot lt gry,fn,dns,tr disagg;ltl cht
	75-80	5		Dol,gry or,fn&V fn,mst disagg
	80-85	5		Dol,gry or,fn&V fn,dns,tr disagg;tr cht
	85-95	10	A	Dol,gry or,fn&V fn,dns;ltl cht
	95-100	5		Dol,gry or,fn&V fn,mst disagg
	100-105	5	A	Dol,gry or,fn&V fn,mst dns;ltl cht
	105-115	10		Dol,gry or,fn&V fn,dns;tr FF stn&cht
	115-120	5	A	Dol,gry or,fn&V fn,dns;ltl cht,tr Fe stn
	120-125	5		Dol,gry or,fn&V fn,dns;tr cht&Fe stn
	125-130	5		Dol,gry or,fn&V fn,dns;ltl fn&M snd,tr Fe stn&cht
	130-140	10		Dol,gry or,fn&V fn,dns;ltl fn&M snd,tr Fe stn&cht
115'	140-150	10		Dol,gry or,fn&V fn,dns;mch fn/C snd,tr Fe stn&cht
	150-155	5		Ss,pl yl or,M,rnd,P srtg,mch P-F sft dol-cem,mch C&fn,ltl V fn;tr st
	155-165	10		Ss,pl yl or,M&fn,rnd,P srtg,ltl P-F sft dol-cem,mch C,ltl V fn;ltl
	165-180	15		Ss,pl yl or,fn,Srnd,G srtg,tr P dol-cem,tr V fn;tr st&lim-cem
	180-185	5		Ss,pl yl or,fn,Srnd,G srtg,ltl P dol-cem,tr P lim-cem,tr V fn;tr st

Prairie du Chien

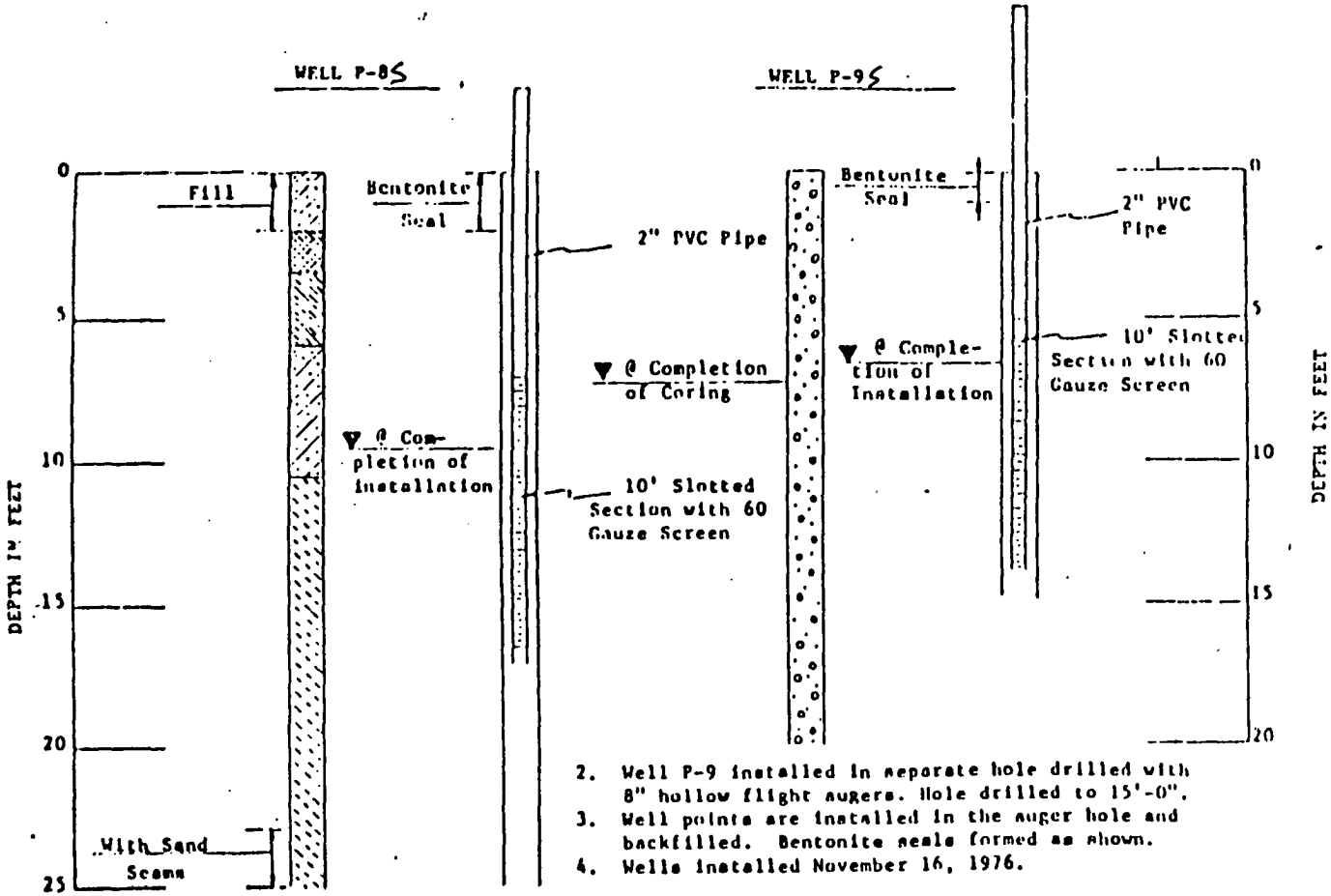
Jordan

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

Log No. Dn-937

Well name Gradel Nursery
Sample Nos. 261845 to 261905

	45'	185-195	10		Ss,gry or,fn,Srnd,G srtg,ltl P dol-cem,tr P lim-cem,ltl V fn,tr M
S		195-205	10		Ss, pl yl or, fn, Srnd, G srtg, mch G dns dol-cem, mch V fn, tr M;tr rd bn xln dol&rd bn sh
T		205-210	5		Ss,pl yl or,fn&V fn,Srnd,P srtg,mch F dol-cem,ltl M,tr C;tr gn sh
L	25'	210-220	10	G	Ss,pl yl or,fn&V fn,Srnd,G srtg,mch G dns dol-cem,tr M&C;ltl glauc
-		220-230	10	G	Ss,pl ol,fn,Sang,G srtg,VP dol-cem,ltl V fn;mch glauc,tr st&xln dol
F		230-240	10	G	Ss,pl yl or,fn,Sang,G srtg,P dol-cem,ltl V fn,tr M;ltl st&xln dol, tr glauc
R		240-250	10	G	Ss,pl yl or,M&fn,Srnd,F srtg,mch F dol-cem,tr V fn;ltl glauc,tr st &lim-cem
A		250-270	20	G	Ss,pl yl or,M&fn,Sang,F srtg,mch F dol-cem,ltl V fn;ltl st,tr glauc &lim-cem
N		270-290	20		Ss,pl yl or,fn,Sang,F srtg,ltl P dol-cem,ltl V fn&M;ltl st
C		290-295	5	G	Ss,pl yl or,M&fn,Srnd,F srtg,ltl P dol-cem,tr V fn;ltl st&glauc,tr lim-cem&Fe stn
O		295-315	20	G	Ss,pl yl or,fn,Srnd,F srtg,ltl P dol-cem,tr V fn,ltl M;ltl st&glauc, tr lim-cem&Fe stn
N		315-325	10	G	Ss,V pl gry or,fn,Srnd,F srtg,mch P dol-cem,mch M,ltl V fn&C;ltl st,tr glauc,gn sh&lim-cem
I	115'	325-335	10	G	Ss,V pl gry or,fn,ang,G srtg, tr P dol-& lim-cem,ltl V fn;ltl st,tr glauc
A					END OF WELL



LEGEND

- Topsoil
- Brown clayey sand
- Gray and brown mottled silty clay
- Gray organic clayey silt
- Brown silty fine to medium sand with gravel - glacial till
- Water level at time shown after completion of the boring

NOTES

1. Hole drilled with a 4" O.D. auger. Soils classified visually
2. Well P-9 installed in separate hole drilled with 8" hollow flight augers. Hole drilled to 15'-0".
3. Well points are installed in the auger hole and backfilled. Bentonite seals formed as shown.
4. Wells installed November 16, 1976.

SOILS & ENGINEERING SERVICES, INC.
MADISON, WISCONSIN

SOIL BORING RECORD
REFUSE HIDE-A-WAY
TOWN OF MIDDLETON
DANE COUNTY, WISCONSIN

7255-A21

F-203 (R2-81)

LOG OF TEST BORING
RESIDUALS MANAGEMENT TECHNOLOGY, INC.

PROJECT: Refuse Hideaway
LOCATION: Middleton, Wi
DRILLED BY: Wisconsin Test Drillers
LOGGED BY: MSM
DATE: 6/10/87

JOB NO.: 1181.02
BORING NO.: P-90
SURFACE ELEV.: 927.8
SHEET NO.: 1 of 1

SAMPLE No.	Type	Recovery	Moisture	N	Depth	VISUAL CLASSIFICATION and Remarks
						DK Brown Silty Sand (Topsoil) 6"
1	SS	8"	Mod. Moist	2/3/3		Brown Clayey Silt, loose, (Lake Silt and Clay)
						water @ 4'
					5	
2	SS	18"	wet	12/17/17		Light Brown Medium to Coarse Sand and Coarse Gravel, medium dense, (Sand + Gravel lens in Till), Subrounded gravel (SP-SM)
					10	
3	SS	4"	wet	2/5/6		Brown Fine to Medium Sand, little Gravel loose to Medium Dense (Glacial Till) (SM)
					15	
No Recov.	SS	0				No recovery Coarse Sand and gravel (Slough) fell into spoon (may have come down with casing)
					20	
No Recov.	SS	0				No Recovery Drillers report Blow-up problem, driving casing
					25	
No Recov.	SS	0				White Fine grained Sandstone (Bolder in till?) (SP)
					30	
No Recov.	SS	0				Brown 5/13 Fine Sand, little to Some Gravel Medium dense to dense (Till) (SM)
					35	
4	4"		wet	8/14/13		
					40	very Gravelly at 40' End of Boring 41.5
5	2"		wet	15/11/15		

GENERAL NOTES
START: 6/10/87 12:00AM
COMPLETE: 6/11/87 7:30P.M.
RIG: CME-45 Track Mount
CREW CHIEF: Larry Ludwig
DRILLING METHOD: Flight Auger to 10' Casing to 30' rotary Mud to 41.5'

WATER LEVEL OBSERVATIONS
WHILE DRILLING: 41'
UPON COMPLETION:
TIME AFTER DRILLING:
DEPTH OF WATER:
DEPTH OF CAVE-IN:

Inc.
4 (R2-81)

LOG OF TEST BORING
RESIDUALS MANAGEMENT TECHNOLOGY, INC.

PROJECT: REFUSE HIDEAWAY
LOCATION: Middleton
DRILLED BY: WISCONSIN TEST DRILLING
LOGGED BY: MSM
DATE: 6/29/87

JOB NO.: 1181.02
BORING NO.: P-175
SURFACE ELEV.: 1078.9
SHEET NO.: 1 OF 5

SAMPLE No.	Type	Recovery	Moisture	N	Depth	VISUAL CLASSIFICATION and Remarks
						BROWN FILL MATERIAL - ON GRADED PLATFORM
					4	DRILLERS REPORT HITTING BEDROCK
					5	TAN TO LIGHT GREY SUCROSIC DOLOMITE
					10	
					15	
					20	
					25	
					30	
					35	35' USED 1500 GALLONS OF WATER OVERDRILLING 6/29/87 pm, AND BEGAN DRILLING 6/30/87 am
					40	

GENERAL NOTES
START: 6/29/87 12:00 pm
COMPLETE: 6/30/87 6:00 pm
RIG: CME 750
CREW CHIEF: LARRY LUDWIG
DRILLING METHOD: ROTARY BIT
DRILLING WITH WATER

WATER LEVEL OBSERVATIONS
WHILE DRILLING:
UPON COMPLETION:
TIME AFTER DRILLING:
DEPTH OF WATER:
DEPTH OF CAVE-IN:

F-204 (cont'd.)

LOG OF TEST BORING
RESIDUALS MANAGEMENT TECHNOLOGY, INC.

PROJECT:
LOCATION:
DRILLED BY:
LOGGED BY:
DATE:

JOB NO.: 1181.02
BORING NO.: P-175
SURFACE ELEV.:
SHEET NO.: 2 of 5

SAMPLE						VISUAL CLASSIFICATION and Remarks
Recovery		Moisture				
No.	Type			N	Depth	
					45	
					50	8:30 am on 6/30/87 DRILLED TO 50' STILL IN DOLOMITE
					55	
					60	
					65	
					70	
					75	
					80	
					85	

T,
204 (cont'd)
3

LOG OF TEST BORING
RESIDUALS MANAGEMENT TECHNOLOGY, INC.

PROJECT: _____
LOCATION: _____
DRILLED BY: _____
LOGGED BY: _____
DATE: _____

JOB NO.: 1181.02
BORING NO.: P-175
SURFACE ELEV.: _____
SHEET NO.: 3 of 5

SAMPLE					Depth	VISUAL CLASSIFICATION and Remarks
No.	Type	Recovery	Moisture	N		
					90	
					95	
					100	
					105	103' DRILLERS REPORT HITTING SANDSTONE
					110	FINE GRAINED FRIABLE SANDSTONE
					115	
					120	
					125	
					130	

F-203 (R2-81)

LOG OF TEST BORING
RESIDUALS MANAGEMENT TECHNOLOGY, INC.

PROJECT:
LOCATION:
DRILLED BY:
LOGGED BY:
DATE:

JOB NO.: 1181.0
BORING NO.: P-175
SURFACE ELEV.:
SHEET NO.: 4 OF 5

SAMPLE						VISUAL CLASSIFICATION and Remarks
Recovery		Moisture				
No.	Type			N	Depth	
					135	
					140	
					145	
					150	
					155	BOTTOM OF SCREEN SET @ 156' BACK FILLED FROM 180' DRILLERS REPORT USING 9,000 GALLONS OF WATER - MOST USED IN TOP 100'
					160	
					165	
					170	

GENERAL NOTES

START:
COMPLETE:
RIG:
CREW CHIEF:
DRILLING METHOD:

WATER LEVEL OBSERVATIONS

WHILE DRILLING:
UPON COMPLETION:
TIME AFTER DRILLING:
DEPTH OF WATER:
DEPTH OF CAVE-IN:

RMT, INC.
F-203 (R2-81)

LOG OF TEST BORING
RESIDUALS MANAGEMENT TECHNOLOGY, INC.

PROJECT:
LOCATION:
DRILLED BY:
LOGGED BY:
DATE:

JOB NO.: 1181.02
BORING NO.: P-175
SURFACE ELEV.:
SHEET NO.: 5 OF 5

SAMPLE						VISUAL CLASSIFICATION and Remarks
Recovery		Moisture				
No.	Type			N	Depth	
					175	
					180	END OF BORING 6/30/87

NOTE:
USED SCH. 80 PVC PIPE FOR SCREEN AND LOWER PORTION OF WELL. USED SCH. 40 FOR TOP PART OF WELL AND STICKUP.

GENERAL NOTES

START:
COMPLETE:
RIG:
CREW CHIEF:
DRILLING METHOD:

WATER LEVEL OBSERVATIONS

WHILE DRILLING:
UPON COMPLETION:
TIME AFTER DRILLING:
DEPTH OF WATER:
DEPTH OF CAVE-IN:

RMT, INC.
F-203 (R2-81)

LOG OF TEST BORING
RESIDUALS MANAGEMENT TECHNOLOGY, INC.

PROJECT: Refuge Hideaway
LOCATION: Middleton Wi
DRILLED BY: Wisconsin Test Drilling
LOGGED BY: HEC
DATE: 6/12/87

JOB NO.: 11B1.02
BORING NO.: P-21D
SURFACE ELEV.: 933.2
SHEET NO.: 1 of 1

SAMPLE No.	Type	Recovery	Moisture	N	Depth	VISUAL CLASSIFICATION and Remarks
1	SS	1.3		4/6/9		Dark Brown Silt, trace fine Sand, moist, mod. dense (Topsoil) (CL) (and organic rich Lacustrine)
2	SS	1.4		3/3/4	5	water
3	SS	1.3		5/3/6	10	Grading to clayey Gray mottled Silt, trace fine Sand, mod. dense, wet (Lacustrine) (CL)
4	SS	1.2		4/5/9	15	small pieces of wood noted
5	SS	1.5		1/2/3	20	No more mottles
6	SS	1.2		4/5/9	25	
7	SS	.8		8/14/30	30	Brown Medium to Coarse Silty Sand with fine angular gravel, dense (Gravel layer on top of till) (GP-SP)
8	SS	.4		17/24/42	35	Brown silty fine Sand, little gravel, wet, dense (Glacial Till) (Coarse Sand and fine angular gravel layer
9	SS	.5		100 for 1.1'	40	100 Blows for 1.1' (Till w/ angular stones) End of Boring 6/12/87

GENERAL NOTES
START: 5:30 a.m.
COMPLETE: 9:00 a.m.
RIG: CME 45 Track Mount
CREW CHIEF: John Weeks
DRILLING METHOD: Mixed Rotary Drilling

WATER LEVEL OBSERVATIONS
WHILE DRILLING: 7.5
UPON COMPLETION:
TIME AFTER DRILLING: ~4 hr.
DEPTH OF WATER: 3.4'
DEPTH OF CAVE-IN:

Amerson

DATE: August 24, 1989

TO: Wisconsin Department of Natural Resources
Bureau of Solid Waste Management
3rd Floor, Gef-2
101 S. Webster
Madison, WI 53703

ATTN: Linda Lynch

SITE: REFUCE HIDEAWAY LF

Case No.	Contract Laboratory	SF No.	No. sample
12231	WILSON	6348	6

DATA USERS:

Upon receipt of the above mentioned cases of data, please check each package for completeness and note any missing deliverables below.

Send this form back to Sylvia Griffin, Data Management Coordinator after filling in the blanks below.

Data Received by:_____ Date:_____

PROBLEMS:

Please indicate if data is complete, and note if there are any deliverables missing from the cases noted above.

_____

_____

Received by Data Management Coordinator, CRL for file.

Date:_____

Signature:_____

FROM: U.S. EPA
Region V
Central Regional Laboratory
536 S. Clark, 10th Floor
Chicago, IL 60605

SENT BY: M. Jenkins
ESAT/EPA

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 8-23-89

SUBJECT: Review of Region V CLP Data
Received for Review on 8-4-89

FROM. Curtis Ross, Director (5SCRL) Jay Tinker
Central Regional Laboratory

TO: Data User: WDNR

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

SITE NAME: Refuse Hideaway IV SMO Case No. 12231

EPA Data Set No. SF-6348 No. of Samples: 6 D.U./Activity Numbers TFA ITFA02

CRL No. 89A501-504, D03, R01

SMO Traffic No. MEDN 44-49

CLP Laboratory: Wilson Hrs. Required for Review: 5

Following are our findings:

SEE NEXT PAGE

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

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

DATA QUALIFIERS

Contract Lab: Wilson Case No.: 12231

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

This review covers the laboratory's portion of Case 12231 for the analysis of six low water samples for metals.

All sample results are, at best, estimated (J). The laboratory used a field blank for the duplicate, matrix spike, and serial dilution analyses. A reanalysis was requested. However, the laboratory responded that it would not reanalyze the samples since it was not indicated to the laboratory that sample MED49 was a field blank.

R. Dilg
8-21-89

QC EXCEPTION SUMMARY REPORT

CASE # 12231 SITE REFUSE HIDEAWAY LF MATRIX: WATER WATER SAMPLE SPK. _____
DATA SET # SF6348 LAB WILSON CONC. : LOW WATER SAMPLE DUP. _____
LAB Q.C.# _____ REVIEWED BY WESTON MATRIX: _____ SOIL SAMPLE SPK. _____
DATE: 8-21-89 CONC. : _____ SOIL SAMPLE DUP. _____

	OVERALL CASE QC									MATRIX SPECIFIC QC						SAMPLE SPECIFIC QC		FIELD QC			REGIONAL QC			OTHER / COMMENTS
	Holding Time	Cal Blanks	Inst Calibr	Comm Calibr	Prep Blk AQ	Prep Blk SOL	ICS %R	LCS % AQ	LCS % SOL	Sol Dup RPD	Sol Spk %R	AQ Dup RPD	AQ Spk %R	Ser Dilu AQ	Ser Dilu SOL	GFAA Dup	GFAA Spike	Blank	Dup RPD	Spike %R	Blind Blank	Blind Spike %R	Split Sample RPD	
Aluminum																							
Antimony																							
Arsenic																							
Barium																							
Beryllium																							
Cadmium																							
Calcium																							
Chromium																							
Cobalt																							
Copper																							
Iron																							
Lead																							
Magnesium																							
Manganese																							
Mercury																							
Nickel																							
Potassium																							
Selenium																							
Silver																							
Sodium																							
Thallium																							
Tin																							
Vanadium																							
Zinc																							
Cyanide																							

USED FIELD BLANK

REANALYSIS REQUESTED

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

ESD/Central Regional Laboratory
DATA TRACKING FORM FOR CONTRACT SAMPLES

CRL Data Set No. SF-6348 CERCLIS No. WID980616604

SMO Case No. 12231 Site Name and Location: Refuse Hideaway LF

Name of Contractor or EPA Laboratory: WILSON Data User: WDNR

No. of Samples: 6 Date Samples or Data Received: 8-4-89

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

Are basic data forms in? YES ✓ NO ___

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

Checked by: [signature] Date: 8-4-89

Received by Contract Project Management Section: [signature] Date: 8-4-89

Review Started: 8-21-89 Reviewer Signature: Richard Daly

Total time spent on review: 5 HRS Date review completed: 8-21-89

Copied (xeroxed) by: [signature] Date: 8/23/89

Mailed to Data User by: [signature] Date: ___

DATA USERS:

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

Data received by: ___ Date: ___

Q.A. review received by: ___ Date: ___

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

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

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

DPO: [ ] ACTION [ ] FYI

Region_____

INORGANIC REGIONAL DATA ASSESSMENT SUMMARY

CASE NO. 12231 LABORATORY WILSON

SDG NO. MED144 DATA USER WDNR

SOW 7/87 REVIEW COMPLETION DATE 8-21-89

NO. OF SAMPLES 6 WATER ____ SOIL ____ OTHER

REVIEWER [ ] ESD [X] ESAT [ ] OTHER, CONTRACT/CONTRACTOR _____

	ICP	AA	Hg	CYANIDE
1. HOLDING TIMES				
2. INITIAL CALIBRATIONS				
3. CONTINUING CALIBRATIONS				
4. FIELD BLANKS ("F" = not applicable)	F			
5. LABORATORY BLANKS				
6. ICS				
7. LCS				
8. DUPLICATE ANALYSIS	M	M	M	
9. MATRIX SPIKE	M	M	M	
10. MSA				
11. SERIAL DILUTION	M			
12. SAMPLE VERIFICATION				
13. REGIONAL QC ("F" = not applicable)				
14. OVERALL ASSESSMENT	M	M	M	

O = No problems or minor problems that do not affect data usability.
X = No more than *about* 5% of the data points are qualified as either estimated or unusable.
M = More than *about* 5% of the data points are qualified as estimated.
Z = More than *about* 5% of the data points are qualified as unusable.

DPO ACTION ITEMS: LABORATORY USED FIELD BLANK FOR DUPLICATE, MATRIX SPIKE, AND SERIAL DILUTION ANALYSES. SAMPLE REANALYSIS REQUESTED

AREAS OF CONCERN:

U.S. EPA - CLP

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: WILSON LABORATORIES Contract: 68-W8-0027

Lab Code: WILSON Case No.: 12231 SAS No.: SDG No.: MEDN44

SOW No.: 07/87

EPA Sample No.	Lab Sample ID.
MEDN44	89070762
MEDN45	89070763
MEDN46	89070764
MEDN47	89070765
MEDN48	89070766
MEDN49	89070767
MEDN49D	89070768
MEDN49S	89070769

Were ICP interelement corrections applied? Yes/No NO

Were ICP background corrections applied? Yes/No YES
If yes-were raw data generated before application of background corrections? Yes/No NO

Comments:

Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Lab Manager: Anita Specht

Date: Aug. 3, 1989

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

MEDN44

Lab Name: WILSON LABORATORIES Contract: 68-W8-0027

Lab Code: WILSON Case No.: 12231 SAS No.: SDG No.: MEDN44

Matrix (soil/water): WATER Lab Sample ID: 89070762

Level (low/med): LOW Date Received: 06/29/89

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1560			P
7440-36-0	Antimony	37.0	U		P
7440-38-2	Arsenic	3.0	U		F
7440-39-3	Barium	62.2	B		P
7440-41-7	Beryllium	2.0	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	34500			P
7440-47-3	Chromium	9.0	U		P
7440-48-4	Cobalt	21.0	U		P
7440-50-8	Copper	14.0	U		P
7439-89-6	Iron	2290			P
7439-92-1	Lead	3.2	B		F
7439-95-4	Magnesium	14600			P
7439-96-5	Manganese	137			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	30.0	U		P
7440-09-7	Potassium	2900	U		P
7782-49-2	Selenium	3.0	U		F
7440-22-4	Silver	8.0	U		P
7440-23-5	Sodium	7930			P
7440-28-0	Thallium	4.0	U	NW	F
7440-62-2	Vanadium	21.0	U		P
7440-66-6	Zinc	12.0	U		P
	Cyanide				

Color Before: BROWN Clarity Before: CLOUDY Texture:

Color After: BROWN Clarity After: CLOUDY Artifacts: YES

Comments:
MEDN44 CONTAINS PARTICULATE MATTER.

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

MEDN45

Lab Name: WILSON LABORATORIES Contract: 68-W8-0027

Lab Code: WILSON Case No.: 12231 SAS No.: SDG No.: MEDN44

Matrix (soil/water): WATER Lab Sample ID: 89070763

Level (low/med): LOW Date Received: 06/29/89

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	115	U		P
7440-36-0	Antimony	37.0	U		P
7440-38-2	Arsenic	25.0			F
7440-39-3	Barium	43.3	B		P
7440-41-7	Beryllium	2.0	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	81200			P
7440-47-3	Chromium	9.0	U		P
7440-48-4	Cobalt	21.0	U		P
7440-50-8	Copper	14.0	U		P
7439-89-6	Iron	442			P
7439-92-1	Lead	26.2			F
7439-95-4	Magnesium	44800			P
7439-96-5	Manganese	37.0			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	30.0	U		P
7440-09-7	Potassium	2900	U		P
7782-49-2	Selenium	3.0	U		F
7440-22-4	Silver	8.0	U		P
7440-23-5	Sodium	3350	B		P
7440-28-0	Thallium	4.0	U	NW	F
7440-62-2	Vanadium	21.0	U		P
7440-66-6	Zinc	604			P
	Cyanide				

Color Before: BROWN Clarity Before: OPAQUE Texture:

Color After: BROWN Clarity After: OPAQUE Artifacts: YES

Comments:
MEDN45 CONTAINS PARTICULATE MATTER.

U.S. EPA - CLP

4

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

MEDN46

Lab Name: WILSON LABORATORIES Contract: 68-W8-0027

Lab Code: WILSON Case No.: 12231 SAS No.: SDG No.: MEDN44

Matrix (soil/water): WATER Lab Sample ID: 89070764

Level (low/med): LOW Date Received: 06/29/89

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	115	U		P
7440-36-0	Antimony	37.0	U		P
7440-38-2	Arsenic	3.0	U		F
7440-39-3	Barium	46.0	B		P
7440-41-7	Beryllium	2.0	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	81800			P
7440-47-3	Chromium	9.0	U		P
7440-48-4	Cobalt	21.0	U		P
7440-50-8	Copper	14.0	U		P
7439-89-6	Iron	477			P
7439-92-1	Lead	3.0	U	W	F
7439-95-4	Magnesium	44400			P
7439-96-5	Manganese	38.3			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	30.0	U		P
7440-09-7	Potassium	2900	U		P
7782-49-2	Selenium	3.0	U	W	F
7440-22-4	Silver	8.0	U		P
7440-23-5	Sodium	3980	B		P
7440-28-0	Thallium	4.0	U	NW	F
7440-62-2	Vanadium	21.0	U		P
7440-66-6	Zinc	632			P
	Cyanide				

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

5

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

MEDN47

Lab Name: WILSON LABORATORIES Contract: 68-W8-0027

Lab Code: WILSON Case No.: 12231 SAS No.: SDG No.: MEDN44

Matrix (soil/water): WATER Lab Sample ID: 89070765

Level (low/med): LOW Date Received: 06/29/89

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	115	U		P
7440-36-0	Antimony	37.0	U		P
7440-38-2	Arsenic	3.0	U		F
7440-39-3	Barium	27.0	B		P
7440-41-7	Beryllium	2.0	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	85400			P
7440-47-3	Chromium	9.0	U		P
7440-48-4	Cobalt	21.0	U		P
7440-50-8	Copper	14.2	B		P
7439-89-6	Iron	29.0	U		P
7439-92-1	Lead	5.5		S	F
7439-95-4	Magnesium	47300			P
7439-96-5	Manganese	6.0	U		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	30.0	U		P
7440-09-7	Potassium	2900	U		P
7782-49-2	Selenium	3.0	U		F
7440-22-4	Silver	8.0	U		P
7440-23-5	Sodium	4920	B		P
7440-28-0	Thallium	4.0	U	NW	F
7440-62-2	Vanadium	21.0	U		P
7440-66-6	Zinc	12.0	U		P
	Cyanide				

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

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EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

MEDN48

Lab Name: WILSON LABORATORIES Contract: 68-W8-0027

Lab Code: WILSON Case No.: 12231 SAS No.: SDG No.: MEDN44

Matrix (soil/water): WATER Lab Sample ID: 89070766

Level (low/med): LOW Date Received: 06/29/89

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3040			P
7440-36-0	Antimony	40.0	B		P
7440-38-2	Arsenic	3.0	U		F
7440-39-3	Barium	265			P
7440-41-7	Beryllium	2.0	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	155000			P
7440-47-3	Chromium	9.0	U		P
7440-48-4	Cobalt	21.0	U		P
7440-50-8	Copper	43.3			P
7439-89-6	Iron	36600			P
7439-92-1	Lead	10.6		S	F
7439-95-4	Magnesium	78200			P
7439-96-5	Manganese	4160			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	30.0	U		P
7440-09-7	Potassium	13600			P
7782-49-2	Selenium	3.0	U		F
7440-22-4	Silver	8.0	U		P
7440-23-5	Sodium	41900			P
7440-28-0	Thallium	4.0	U	NW	F
7440-62-2	Vanadium	21.0	U		P
7440-66-6	Zinc	503			P
	Cyanide				

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

7

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

MEDN49

Lab Name: WILSON LABORATORIES Contract: 68-W8-0027

Lab Code: WILSON Case No.: 12231 SAS No.: SDG No.: MEDN44

Matrix (soil/water): WATER Lab Sample ID: 89070767

Level (low/med): LOW Date Received: 06/29/89

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	115	U		P
7440-36-0	Antimony	37.0	U		P
7440-38-2	Arsenic	3.0	U		F
7440-39-3	Barium	25.0	U		P
7440-41-7	Beryllium	2.0	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	1950	U		P
7440-47-3	Chromium	9.0	U		P
7440-48-4	Cobalt	21.0	U		P
7440-50-8	Copper	14.0	U		P
7439-89-6	Iron	29.0	U		P
7439-92-1	Lead	3.0	U		F
7439-95-4	Magnesium	2500	U		P
7439-96-5	Manganese	6.0	U		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	30.0	U		P
7440-09-7	Potassium	2900	U		P
7782-49-2	Selenium	3.0	U		F
7440-22-4	Silver	8.0	U		P
7440-23-5	Sodium	1250	U		P
7440-28-0	Thallium	4.0	U	N	F
7440-62-2	Vanadium	21.0	U		P
7440-66-6	Zinc	12.0	U		P
	Cyanide				

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

Lab Name: WILSON LABORATORIES Contract: 68-W8-0027

Lab Code: WILSON Case No.: 12231 SAS No.: SDG No.: MEDN44

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prep-aration Blank	C	M
Aluminum	-148.5	B	-127.5	B	115.0	U	115.0	U	115.0	U	P
Antimony	37.0	U	37.0	U	37.0	U	37.0	U	37.0	U	P
Arsenic	3.0	U	3.0	U					3.0	U	F
Barium	25.0	U	25.0	U	25.0	U	25.0	U	25.0	U	P
Beryllium	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	P
Cadmium	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	P
Calcium	1950.0	U	1950.0	U	1950.0	U	1950.0	U	1950.0	U	P
Chromium	9.0	U	9.0	U	9.0	U	9.0	U	9.0	U	P
Cobalt	21.0	U	21.0	U	21.0	U	21.0	U	21.0	U	P
Copper	14.0	U	14.0	U	14.0	U	14.0	U	14.0	U	P
Iron	29.0	U	29.0	U	29.0	U	29.0	U	29.0	U	P
Lead	3.0	U	3.0	U	3.0	U			3.0	U	F
Magnesium	2500.0	U	2500.0	U	2500.0	U	2500.0	U	2500.0	U	P
Manganese	6.0	U	6.0	U	6.0	U	6.0	U	6.0	U	P
Mercury	0.2	U	0.2	U					0.2	U	CV
Nickel	30.0	U	30.0	U	30.0	U	30.0	U	30.0	U	P
Potassium	2900.0	U	2900.0	U	2900.0	U	2900.0	U	2900.0	U	P
Selenium	3.0	U	3.0	U	3.0	U			3.0	U	F
Silver	8.0	U	8.0	U	8.0	U	8.0	U	8.0	U	P
Sodium	1250.0	U	1250.0	U	1250.0	U	1250.0	U	1250.0	U	P
Thallium	4.0	U	4.0	U	4.0	U			4.0	U	F
Vanadium	21.0	U	21.0	U	21.0	U	21.0	U	21.0	U	P
Zinc	12.0	U	12.0	U	12.0	U	12.0	U	12.0	U	P
Cyanide											

3
BLANKS

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Lab Name: WILSON LABORATORIES Contract: 68-W8-0027

Lab Code: WILSON Case No.: 12231 SAS No.: SDG No.: MEDN44

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											
Antimony											
Arsenic	3.0	U	3.0	U							F
Barium											
Beryllium											
Cadmium											
Calcium											
Chromium											
Cobalt											
Copper											
Iron											
Lead	3.0	U	3.0	U							F
Magnesium											
Manganese											
Mercury											
Nickel											
Potassium											
Selenium											
Silver											
Sodium											
Thallium	4.0	U	4.0	U							F
Vanadium											
Zinc											
Cyanide											

Lab Name: WILSON LABORATORIES Contract: 68-W8-0027

Lab Code: WILSON Case No.: 12231 SAS No.: SDG No.: MEDN44

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											
Antimony											
Arsenic											
Barium											
Beryllium											
Cadmium											
Calcium											
Chromium											
Cobalt											
Copper											
Iron											
Lead	3.0	U	3.0	U							F
Magnesium											
Manganese											
Mercury											
Nickel											
Potassium											
Selenium											
Silver											
Sodium											
Thallium											
Vanadium											
Zinc											
Cyanide											

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MEDN49S

Lab Name: WILSON LABORATORIES Contract: 68-W8-0027

Lab Code: WILSON Case No.: 12231 SAS No.: SDG No.: MEDN44

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum	75-125	1729.8600		115.0000	U	2000.0	86.5		P
Antimony	75-125	470.0680		37.0000	U	500.0	94.0		P
Arsenic	75-125	38.0000		3.0000	U	40.0	95.0		F
Barium	75-125	1833.7300		25.0000	U	2000.0	91.7		P
Beryllium	75-125	49.1090		2.0000	U	50.0	98.2		P
Cadmium	75-125	44.2820		5.0000	U	50.0	88.6		P
Calcium									NR
Chromium	75-125	163.1810		9.0000	U	200.0	81.6		P
Cobalt	75-125	444.5580		21.0000	U	500.0	88.9		P
Copper	75-125	236.1280		14.0000	U	250.0	94.5		P
Iron	75-125	955.9710		29.0000	U	1000.0	95.6		P
Lead	75-125	21.8000		3.0000	U	20.0	109.0		F
Magnesium									NR
Manganese	75-125	474.5040		6.0000	U	500.0	94.9		P
Mercury	75-125	1.0225		0.2000	U	1.0	102.2		CV
Nickel	75-125	457.0500		30.0000	U	500.0	91.4		P
Potassium									NR
Selenium	75-125	9.5000		3.0000	U	10.0	95.0		F
Silver	75-125	42.9720		8.0000	U	50.0	85.9		P
Sodium									NR
Thallium	75-125	63.0313		4.0000	U	50.0	126.1	N	F
Vanadium	75-125	462.6210		21.0000	U	500.0	92.5		P
Zinc	75-125	448.5800		12.0000	U	500.0	89.7		P
Cyanide									NR

Comments:

U.S. EPA - CLP

5B
POST DIGEST SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.
MEDN49A

Lab Name: WILSON LABORATORIES Contract: 68-W8-0027

Lab Code: WILSON Case No.: 12231 SAS No.: SDG No.: MEDN44

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony									NR
Arsenic									NR
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead									NR
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel									NR
Potassium									NR
Selenium									NR
Silver									NR
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc									NR
Cyanide									NR

Comments:

U.S. EPA - CLP

6
DUPLICATES

EPA SAMPLE NO.

MEDN49D

Lab Name: WILSON LABORATORIES Contract: 68-W8-0027

Lab Code: WILSON Case No.: 12231 SAS No.: SDG No.: MEDN44

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Sample: 0.0 % Solids for Duplicate: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum	200.0	115.0000	U	115.0000	U			P
Antimony	60.0	37.0000	U	37.0000	U			P
Arsenic	10.0	3.0000	U	3.0000	U			F
Barium	200.0	25.0000	U	25.0000	U			P
Beryllium	5.0	2.0000	U	2.0000	U			P
Cadmium	5.0	5.0000	U	5.0000	U			P
Calcium	5000.0	1950.0000	U	1950.0000	U			P
Chromium	10.0	9.0000	U	9.0000	U			P
Cobalt	50.0	21.0000	U	21.0000	U			P
Copper	25.0	14.0000	U	14.0000	U			P
Iron	100.0	29.0000	U	44.9480	B	200.0		P
Lead	5.0	3.0000	U	3.0000	U			F
Magnesium	5000.0	2500.0000	U	2500.0000	U			P
Manganese	15.0	6.0000	U	6.0000	U			P
Mercury	0.2	0.2000	U	0.2000	U			CV
Nickel	40.0	30.0000	U	30.0000	U			P
Potassium	5000.0	2900.0000	U	2900.0000	U			P
Selenium	5.0	3.0000	U	3.0000	U			F
Silver	10.0	8.0000	U	8.0000	U			P
Sodium	5000.0	1250.0000	U	1250.0000	U			P
Thallium	10.0	4.0000	U	4.0000	U			F
Vanadium	50.0	21.0000	U	21.0000	U			P
Zinc	20.0	12.0000	U	12.0000	U			P
Cyanide								

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INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: WILSON LABORATORIES Contract: 68-W8-0027

Lab Code: WILSON Case No.: 12231 SAS No.: SDG No.: MEDN44

ICP ID Number: ICP/6000 Date: 07/15/89

Flame AA ID Number:

Furnace AA ID Number:

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum	237.34		200.0	115.0	P
Antimony	206.83		60.0	37.0	P
Arsenic			10.0		
Barium	233.53		200.0	25.0	P
Beryllium	313.04		5.0	2.0	P
Cadmium	214.44		5.0	5.0	P
Calcium	422.67		5000.0	1950.0	P
Chromium	205.55		10.0	9.0	P
Cobalt	228.62		50.0	21.0	P
Copper	324.75		25.0	14.0	P
Iron	259.94		100.0	29.0	P
Lead	220.35		5.0	36.0	P
Magnesium	285.21		5000.0	2500.0	P
Manganese	257.61		15.0	6.0	P
Mercury	253.70		0.2	0.2	CV
Nickel	231.60		40.0	30.0	P
Potassium	766.49		5000.0	2900.0	P
Selenium			5.0		
Silver	328.07		10.0	8.0	P
Sodium	589.00		5000.0	1250.0	P
Thallium			10.0		
Vanadium	292.40		50.0	21.0	P
Zinc	213.86		20.0	12.0	P

Comments:

HG ANALYSIS IS PERFORMED ON A SPECTROPRODUCTS COLD VAPOR HG ANALYZER.
CN ANALYSIS IS PERFORMED ON A LATCHAT INSTRUMENT.

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INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: WILSON LABORATORIES Contract: 68-W8-0027

Lab Code: WILSON Case No.: 12231 SAS No.: SDG No.: MEDN44

ICP ID Number: Date: 07/15/89

Flame AA ID Number:

Furnace AA ID Number: PE5100

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200.0		
Antimony			60.0		
Arsenic	193.70	BZ	10.0	3.0	F
Barium			200.0		
Beryllium			5.0		
Cadmium			5.0		
Calcium			5000.0		
Chromium			10.0		
Cobalt			50.0		
Copper			25.0		
Iron			100.0		
Lead	283.30	BZ	5.0	3.0	F
Magnesium			5000.0		
Manganese			15.0		
Mercury			0.2		
Nickel			40.0		
Potassium			5000.0		
Selenium	196.00	BZ	5.0	3.0	F
Silver			10.0		
Sodium			5000.0		
Thallium	276.80	BZ	10.0	4.0	F
Vanadium			50.0		
Zinc			20.0		

Comments:

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
EDT67

Lab Name: RECRA ENVIRON Contract: 68-W8-0047

Lab Code: RECNY Case No.: 12231 SAS No.: _____ SDG No.: EDT56

Matrix: (soil/water) WATER Lab Sample ID: EDT67

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 5293D

Level: (low/med) LOW Date Received: 06/29/89

% Moisture: not dec. _____ Date Analyzed: 07/03/89

Column: (pack/cap) PACK Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	37	~~B~~
67-64-1	Acetone	78	~~B~~
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	~~1~~ 5	~~BJ~~ M
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total Xylenes	5	U

RK 8/23/89

RK 8/23/89

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA Sample No. EDT67

Lab Name: RECRA ENVIRONMENTAL, INC.

Contract: 68-W8-0047

Lab Code: RECNY Case No: 12231 SAS No:

SDG No: EDT56

Matrix (Soil/Water): WATER

Lab Sample Id: EDT67

Sample wt/vol: 5.0 (g/ml): ML

Lab File Id: 5293D

Level (low/med): LOW

Date Recieved: 06-29-89

% Moisture not Dec:

Date Analyzed: 07-03-89

Column: (pack/cap): PACK

Dilution Factor: 1.00

Number TICs Found: 0

Concentration Units:

(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1					
2					
3					
4					
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EPA SAMPLE NO. 715

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EDT56

Lab Name: RECRA ENVIRON Contract: 68-W8-0047

Lab Code: RECNY Case No.: 12231 SAS No.: _____ SDG No.: EDT56

Matrix: (soil/water) WATER Lab Sample ID: EDT56

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 1872Z

Level: (low/med) LOW Date Received: 06/29/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 06/30/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 07/06/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
100-51-6	Benzyl Alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	bis(2-Chloroisopropyl)Ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
65-85-0	Benzoic Acid	50	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EDT56

Lab Name: RECRA ENVIRON Contract: 68-W8-0047

Lab Code: RECNY Case No.: 12231 SAS No.: _____ SDG No.: EDT56

Matrix: (soil/water) WATER Lab Sample ID: EDT56

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 1872Z

Level: (low/med) LOW Date Received: 06/29/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 06/30/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 07/06/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

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

RK 6/27/89

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA Sample No. EDT56

Lab Name: RECRA ENVIRONMENAL, INC. Contract: 68-W8-0047

Lab Code: RECNY Case No: 12231 SAS No: SDG No: EDT56

Matrix (Soil/Water): WATER Lab Sample Id: EDT56

Sample wt/vol: 1000 (g/ml): ML Lab File Id: 1872Z

Level (low/med): LOW Date Recieved: 06-29-89

% Moisture not Dec: Date Extracted: 06-30-89

Extraction: (SepF/Cont/Sonc): SEPF Date Analyzed: 07-06-89

GPC Cleanup: (Y/N): N pH: 7.0 Dilution Factor: 1.00

Number TICs Found: 6 Concentration Units:

(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1		LONG CHAIN COMPOUND	27.13	16	BJ
2		UNKNOWN	34.87	14	BJ
3		SILICON COMPOUND	35.55	11	BJ
4		SILICON COMPOUND	36.92	17	BJ
5		UNKNOWN	38.25	14	J
6		SILICON COMPOUND	38.53	23	J
7					
8					
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. 753

EDT57

Lab Name: RECRA ENVIRON Contract: 68-W8-0047

Lab Code: RECNY Case No.: 12231 SAS No.: _____ SDG No.: EDT56

Matrix: (soil/water) WATER Lab Sample ID: EDT57

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 1873Z

Level: (low/med) LOW Date Received: 06/29/89

% Moisture: not dec. _____ dec. _____ Date Extracted: 06/30/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 07/06/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
100-51-6	Benzyl Alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	bis(2-Chloroisopropyl)Ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
65-85-0	Benzoic Acid	50	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EDT57

Lab Name: RECRA ENVIRON Contract: 68-W8-0047

Lab Code: RECNY Case No.: 12231 SAS No.: _____ SDG No.: EDT56

Matrix: (soil/water) WATER Lab Sample ID: EDT57

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 1873Z

Level: (low/med) LOW Date Received: 06/29/89

% Moisture: not dec. _____ dec. _____ Date Extracted: 06/30/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 07/06/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

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

(1) - Cannot be separated from Diphenylamine

AK 7/27/89

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA Sample No. EDT57

Lab Name: RECRA ENVIRONMENAL, INC.

Contract: 68-W8-0047

Lab Code: RECNY Case No: 12231 SAS No:

SDG No: EDT56

Matrix (Soil/Water): WATER

Lab Sample Id: EDT57

Sample wt/vol: 1000 (g/ml): ML

Lab File Id: 1873Z

Level (low/med): LOW

Date Recieved: 06-29-89

% Moisture not Dec: Dec:

Date Extracted: 06-30-89

Extraction: (SepF/Cont/Sonc): SEPF

Date Analyzed: 07-06-89

GPC Cleanup: (Y/N): N pH: 7.0

Dilution Factor: 1.00

Number TICs Found: 4

Concentration Units:

(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1		LONG CHAIN COMPOUND	27.13	12	BJ
2		UNKNOWN	34.87	8	BJ
3		SILICON COMPOUND	37.03	10	BJ
4		UNKNOWN	38.00	64	J
5					
6					
7					
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EDT58

Lab Name: RECRA ENVIRON Contract: 68-W8-0047

Lab Code: RECNY Case No.: 12231 SAS No.: _____ SDG No.: EDT56

Matrix: (soil/water) WATER Lab Sample ID: EDT58

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 1874Z

Level: (low/med) LOW Date Received: 06/29/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 06/30/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 07/06/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
100-51-6	Benzyl Alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	bis(2-Chloroisopropyl)Ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
65-85-0	Benzoic Acid	50	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EDT58

Lab Name: RECRA ENVIRON Contract: 68-W8-0047

Lab Code: RECNY Case No.: 12231 SAS No.: _____ SDG No.: EDT56

Matrix: (soil/water) WATER Lab Sample ID: EDT58

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 1874Z

Level: (low/med) LOW Date Received: 06/29/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 06/30/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 07/06/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

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

BK 8/23/89

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA Sample No. EDT58

Lab Name: RECRA ENVIRONMENAL, INC. Contract: 68-W8-0047

Lab Code: RECNY Case No: 12231 SAS No: SDG No: EDT56

Matrix (Soil/Water): WATER Lab Sample Id: EDT58

Sample wt/vol: 1000 (g/ml): ML Lab File Id: 1874Z

Level (low/med): LOW Date Recieved: 06-29-89

% Moisture not Dec: Dec: Date Extracted: 06-30-89

Extraction: (SepF/Cont/Sonc): SEPF Date Analyzed: 07-06-89

GPC Cleanup: (Y/N): N pH: 7.0 Dilution Factor: 1.00

Number TICs Found: 4 Concentration Units:

(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1		UNKNOWN	20.20	10	J
2		LONG CHAIN COMPOUND	27.13	23	BJ
3		LONG CHAIN COMPOUND	27.20	11	BJ
4		UNKNOWN	34.87	17	BJ
5					
6					
7					
8					
9					
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11					
12					
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. 313

EDT59

Lab Name: RECRA ENVIRON Contract: 68-W8-0047

Lab Code: RECNY Case No.: 12231 SAS No.: _____ SDG No.: EDT56

Matrix: (soil/water) WATER Lab Sample ID: EDT59

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 1877Z

Level: (low/med) LOW Date Received: 06/29/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 06/30/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 07/06/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

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

CAS NO.	COMPOUND		Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
100-51-6	Benzyl Alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	bis(2-Chloroisopropyl)Ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
65-85-0	Benzoic Acid	50	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EDT59

Lab Name: RECRA ENVIRON Contract: 68-W8-0047

Lab Code: RECNY Case No.: 12231 SAS No.: _____ SDG No.: EDT56

Matrix: (soil/water) WATER Lab Sample ID: EDT59

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 1877Z

Level: (low/med) LOW Date Received: 06/29/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 06/30/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 07/06/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

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

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA Sample No. EDT59

Lab Name: RECRA ENVIRONMENAL, INC.

Contract: 68-W8-0047

Lab Code: RECNY Case No: 12231 SAS No:

SDG No: EDT56

Matrix (Soil/Water): WATER

Lab Sample Id: EDT59

Sample wt/vol: 1000 (g/ml): ML

Lab File Id: 1877Z

Level (low/med): LOW

Date Recieved: 06-29-89

% Moisture not Dec:

Date Extracted: 06-30-89

Extraction: (SepF/Cont/Sonc): SEPF

Date Analyzed: 07-06-89

GPC Cleanup: (Y/N): N pH: 7.0

Dilution Factor: 1.00

Number TICs Found: 1

Concentration Units:

(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1		SILICON COMPOUND	38.52	12	J
2					
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. 228

EDT65

Lab Name: RECRA ENVIRON Contract: 68-W8-0047

Lab Code: RECNY Case No.: 12231 SAS No.: _____ SDG No.: EDT56

Matrix: (soil/water) WATER Lab Sample ID: EDT65

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 1891Z

Level: (low/med) LOW Date Received: 06/29/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 06/30/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 07/10/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
100-51-6	Benzyl Alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	bis(2-Chloroisopropyl)Ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
65-85-0	Benzoic Acid	50	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. 829

EDT65

Lab Name: RECRA ENVIRON Contract: 68-W8-0047

Lab Code: RECNY Case No.: 12231 SAS No.: _____ SDG No.: EDT56

Matrix: (soil/water) WATER Lab Sample ID: EDT65

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 1891Z

Level: (low/med) LOW Date Received: 06/29/89

% Moisture: not dec. _____ dec. _____ Date Extracted: 06/30/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 07/10/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

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

RK 8/23/89

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA Sample No. EDT65

Lab Name: RECRA ENVIRONMENAL, INC.

Contract: 68-W8-0047

Lab Code: RECNY Case No: 12231 SAS No:

SDG No: EDT56

Matrix (Soil/Water): WATER

Lab Sample Id: EDT65

Sample wt/vol: 1000 (g/ml): ML

Lab File Id: 1891Z

Level (low/med): LOW

Date Recieved: 06-29-89

% Moisture not Dec: Dec:

Date Extracted: 06-30-89

Extraction: (SepF/Cont/Sonc): SEPF

Date Analyzed: 07-10-89

GPC Cleanup: (Y/N): N pH: 7.0

Dilution Factor: 1.00

Number TICs Found: 4

Concentration Units:

(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1		OXYGENATED COMPOUND	8.88	10	BJ
2		LONG CHAIN COMPOUND	27.17	180	BJ
3		LONG CHAIN COMPOUND	27.25	59	BJ
4		UNKNOWN	34.88	24	BJ
5					
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EDT66

Lab Name: RECRA ENVIRON Contract: 68-W8-0047

Lab Code: RECNY Case No.: 12231 SAS No.: _____ SDG No.: EDT56

Matrix: (soil/water) WATER Lab Sample ID: EDT66

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 1892Z

Level: (low/med) LOW Date Received: 06/29/89

% Moisture: not dec. _____ dec. _____ Date Extracted: 06/30/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 07/10/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
100-51-6	Benzyl Alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	bis(2-Chloroisopropyl)Ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
65-85-0	Benzoic Acid	50	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EDT66

Lab Name: RECRA ENVIRON Contract: 68-W8-0047

Lab Code: RECNY Case No.: 12231 SAS No.: _____ SDG No.: EDT56

Matrix: (soil/water) WATER Lab Sample ID: EDT66

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 1892Z

Level: (low/med) LOW Date Received: 06/29/89

% Moisture: not dec. _____ dec. _____ Date Extracted: 06/30/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 07/10/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

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

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA Sample No. EDT66

Lab Name: RECRA ENVIRONMENAL, INC. Contract: 68-W8-0047

Lab Code: RECNY Case No: 12231 SAS No: SDG No: EDT56

Matrix (Soil/Water): WATER Lab Sample Id: EDT66

Sample wt/vol: 1000 (g/ml): ML Lab File Id: 1892Z

Level (low/med): LOW Date Recieved: 06-29-89

% Moisture not Dec: Dec: Date Extracted: 06-30-89

Extraction: (SepF/Cont/Sonc): SEPF Date Analyzed: 07-10-89

GPC Cleanup: (Y/N): N pH: 7.0 Dilution Factor: 1.00

Number TICs Found: 5 Concentration Units:

(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1		LONG CHAIN COMPOUND	27.15	33	BJ
2		LONG CHAIN COMPOUND	27.25	8	BJ
3		SILICON COMPOUND	35.50	10	BJ
4		SILICON COMPOUND	36.87	10	BJ
5		SILICON COMPOUND	38.47	15	J
6					
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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. 1024

EDT36

Lab Name: RECRA ENVIRON Contract: 68-W8-0047

Lab Code: RECNY Case No.: 12231 SAS No.: _____ SDG No.: EDT36

Matrix: (soil/water) WATER Lab Sample ID: SW3698

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

Level: (low/med) LOW Date Received: 06/29/89

% Moisture: not dec. _____ dec. _____ Date Extracted: 06/30/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 07/06/89

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

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

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. 1029

EDT57

Lab Name: RECRA ENVIRON Contract: 68-W8-0047

Lab Code: RECNY Case No.: 12231 SAS No.: _____ SDG No : EDT56

Matrix: (soil/water) WATER Lab Sample ID: SW3699

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

Level: (low/med) LOW Date Received: 04/29/89

% Moisture: not dec. _____ dec. _____ Date Extracted: 06/03/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 07/06/89

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

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

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. 1034

EDT58

Lab Name: RECRA ENVIRON Contract: 68-W8-0047

Lab Code: RECNY Case No.: 12231 SAS No.: _____ SDG No.: EDT56

Matrix: (soil/water) WATER Lab Sample ID: SW3700

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

Level: (low/med) LOW Date Received: 06/29/89

% Moisture: not dec. _____ dec. _____ Date Extracted: 06/30/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 07/06/89

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

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

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. 1039

EDTSP

Lab Name: RECRA ENVIRON Contract: 68-W8-0047

Lab Code: RECNY Case No.: 12231 SAS No.: _____ SDG No.: EDI36

Matrix: (soil/water) WATER Lab Sample ID: SWS703

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

Level: (low/med) LOW Date Received: 06/29/89

% Moisture: not dec. _____ dec. _____ Date Extracted: 06/30/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 07/06/89

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

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

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

1044

EPA SAMPLE NO.

EDT65

Lab Name: RECRA ENVIRON Contract: 68-W8-0047

Lab Code: RECNY Case No.: 12231 SAS No.: SDG No.: EDT5A

Matrix: (soil/water) WATER Lab Sample ID: SWE704

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

Level: (low/med) LOW Date Received: 06/27/99

% Moisture: not dec. dec. Date Extracted: 06/30/99

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 07/06/99

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

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

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE 1049

EDT56

Lab Name: RECRA ENVIRON Contract: 68-WS-0047

Lab Code: RECNY Case No.: 12231 SAS No.: _____ SDG No.: EDT56

Matrix: (soil/water) WATER Lab Sample ID: SW2765

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

Level: (low/med) LOW Date Received: 06/23/89

% Moisture: not dec. _____ dec. _____ Date Extracted: 06/30/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 07/07/89

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

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

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

ESD/Central Regional Laboratory
DATA TRACKING FORM FOR CONTRACT SAMPLES

CRL Data Set No. SF-6348 CERCLIS No. WID980610604

SMO Case No. 12231 Site Name and Location: Refuse Hideaway LF

Name of Contractor or EPA Laboratory: Recra Data User: WDNR

No. of Samples: 12 Date Samples or Data Received: 8-3-89

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

Are basic data forms in? YES ✓ NO ___

Number of samples claimed: 12 Number of samples received: 12

Checked by: A Harris Date: 8-4-89

Received by Contract Project Management Section: DMM Date: 8-4-89

Review Started: 8/23/89 Reviewer Signature: Robert Katzen

Total time spent on review: 11 HRS. Date review completed: 8/24/89

Copied (xeroxed) by: John Date: 8/25/89

Mailed to Data User by: D. M. Stirling Date: 8/28/89

DATA USERS:

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

Data received by: _____ Date: _____

Q.A. review received by: _____ Date: _____

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

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

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

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 8/25/89

SUBJECT: Review of Region V CLP Data
Received for Review on 8-4-89

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

TO: Data User: WDNR

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

SITE NAME: Refuse Hideaway LF SMO Case No. 12231

EPA Data Set No. SF6848 No. of Samples: 12 D.U./Activity Numbers TFA 1TPA102

CRL No. 89X501501-509, D03, R01, R02

SMO Traffic No. EDTS6-67

CLP Laboratory: Recra Hrs. Required for Review: 11+1=12 ave

Following are our findings:
THIS DATA REVIEW COVERS THE ANALYSIS OF 12 WATER SAMPLES FOR VOA'S, 6 FOR S-VOA'S AND 6 FOR PEST./PCB'S. THERE WERE NO MAJOR PROBLEMS WHICH WOULD CAUSE THE DATA TO BE UNUSABLE. THE 12 TOTAL SAMPLES DID HAVE SEVERAL POINTS WHICH ARE OF IMPORTANCE TO BE DISCUSSED IN THE FOLLOWING NARRATIVE.

Robert Kratzer
WESTON/CSAT
8/24/89

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

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

Region 2

ORGANIC REGIONAL DATA ASSESSMENT

CASE NO. 12231 SITE REFUSE HIGEWAY 6

LABORATORY RECRA NO. OF SAMPLES/ MATRIX 12 / WATER

SDG # EDT 56 REVIEWER (IF NOT ESD) ESAT

SOW# 2/88 REVIEWER'S NAME ROBERT KATZEN

DPO: ACTION _____ FYI _____ COMPLETION DATE 8/24/89

DATA ASSESSMENT SUMMARY

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

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

ACTION ITEMS: _____

AREAS OF CONCERN: _____

NOTABLE PERFORMANCE: _____

DATA QUALIFIERS

Contractor: RECRA

Case 1223/

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

(1) HOLDING TIME

SAMPLING DATE = 6/23/89.

ALL HOLDING TIMES WERE SATISFACTORY.

(2) EC/MS TUNING AND EC INSTRUMENT PERFORMANCE

THE EC/MS TUNING AS WELL AS GC PERFORMANCE WAS SATISFACTORY.

(3) CALIBRATION

CALIBRATION OUTLIERS ARE LISTED IN THE CALIBRATION OUTLIER FORMS.

(4) BLANKS

VOA: VBLK63, VBLK69 AND VBLK71 CONTAINED METHYLENE CHLORIDE AND TOLUENE BELOW CRQL.
VBLK68 HAD CARBON DISULFIDE; VBLK69 HAD ACETONE PLUS 1,1,2,2-TETRACHLOROETHANE; VBLK71 HAD TETRACHLOROETHENE; ALL BELOW CRQL.

S-VOA: S BLK 96 HAD BIS(2-ETHYLHEXYL) PHTHALATE BELOW CRQL.

(5) IF THE ABOVE MENTIONED COMPOUNDS ARE FOUND IN A CORRESPONDING SAMPLE, LESS THAN 10X FOR THE COMMON CONTAMINANTS AND LESS THAN 5X THE BLANK CONCENTRATION OF OTHER TCL COMPOUNDS, AS SHOWN ON FORM IX, THE COMPOUND IN THE SAMPLE HAS BEEN FLAGGED WITH THE SAMPLE QUANT. LIMIT(QL) ON THE FORM I DATA SHEET.

PESTICIDE: NO PESTICIDES WERE IN THE PESTICIDE BLANK.

Reviewed by: Robert Kelly

Phone: 312-353-2917

Date: 8/24/89.

DATA QUALIFIERS

Contractor: RECRA

Case 12231

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

(5) SURROGATE RECOVERY

VOA: ALL VOA SURROGATES WERE SATISFACTORY.
S-VOA: ALL S-VOA SURROGATES WERE SATISFACTORY.
PESTICIDES: ALL PESTICIDE SURROGATES WERE SATISFACTORY.

(6) MATRIX SPIKES

VOA: ALL VOA ms/msd's ON EDT 58 WERE WITHIN QC. LIMITS.

SVOA: ALL S-VOA ms/msd's ARE SATISFACTORY.

PESTICIDES: ALL PESTICIDE MS/MSDS ~~ARE~~ SATISFACTORY.

(7) DUPLICATES

EDT 58 AND EDT 65 ARE DUPLICATES; EDT 66 AND EDT 67 ARE BLANKS;

VOA: EDT 58 AND EDT 65 BOTH CONTAIN, AT SIMILAR CONCENTRATION, methylene chloride, 1,2-DICHLOROETHENE, TOLUENE AND TETRACHLOROETHENE; CARBON DISULFIDE, BELOW CRQL, WAS ONLY IN EDT 58.

EDT 66 CONTAIN METHYLENE CHLORIDE, CARBON DISULFIDE AND TOLUENE AS WELL AS TETRACHLOROETHENE BELOW CRQL. PLUS ACETONE 3X CRQL. EDT 67 CONTAINS METHYLENE AND ACETONE 8X CRQL PLUS TOLUENE BELOW CRQL.

Reviewed by: Robert Kuhn
Phone: 312-353-2910
Date: 8/24/89.

DATA QUALIFIERS

Contractor: KECRA

Case 1223

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

DUPLICATES:
(CONTINUED)

S-VOA: -58 AND -65 CONTAINS BIS(2-ETHYLHEXYL)PHTHALATE BELOW CRQL PLUS SEVERAL TICS. THE SAME APPLIES TO EDTEG.

PESTICIDES: NO PESTICIDES WERE IN ANY SAMPLE.

(8) INTERNAL STANDARDS

ALL INTERNAL STANDARD RESULTS WERE SATISFACTORY.

(9) QUANTITATION

THE CRQL'S WERE CALCULATED BASED ON DILUTIONS AND CONCENTRATIONS.

(10) OTHER CASE SPECIFIC PROBLEMS

VOA: SAMPLE EDT57 REQUIRED A SECONDARY DILUTION DUE TO AN ELEVATED CARBON DISULFIDE CONCENTRATION. SAMPLE EDT 61 REQUIRED A SECONDARY DILUTION DUE TO AN ELEVATED 1,2-DICHLOROETHENE LEVEL. SAMPLE EDT 62 REQUIRED A SECONDARY DILUTION DUE TO ELEVATED VINYL CHLORIDE AND 1,2-DICHLOROETHENE LEVELS. SAMPLE EDT 64 REQUIRED A SECONDARY DILUTION DUE TO ELEVATED LEVELS OF VINYL CHLORIDE AND 1,2-DICHLOROETHENE.

Reviewed by: Robert Fisher
Phone: 317-353-2917
Date: 8/7/89.

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

CASE/SAS # 12231

CONTRACTOR RECRA

Instrument # 510	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	6/13/89			6/30/89 1338			7/3/89 0839			7/5/89 1654					
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
Chloromethane															
Bromomethane															
Vinyl Chloride															
Chloroethane															
Methylene Chloride															
Acetone	0.485			0.330	32.0	J	0.377	31.6	J	0.559	~~[illegible]~~	~~X~~			
Carbon Disulfide											RK 8/23/89				
1,1-Dichloroethene															
1,1-Dichloroethane															
Trans-1,2-Dichloroethene															
Chloroform															
2-Butanone	0.124	3.5	J/R	[illegible]	[illegible]	J/R	[illegible]	[illegible]	J/R	0.628	16.7	J/R			
1,2-Dichloroethane	2.066			1.572			2.553			2.650	[illegible]	J			
1,1,1-Trichloroethane															
Carbon Tetrachloride															
Vinyl Acetate															
Bromodichloromethane															
1,2-Dichloropropane															
Trans-1,3-Dichloropropene															
Trichloroethene															
Dibromochloromethane															
1,1,2-Trichloroethane															
Benzene															
cis-1,3-Dichloropropene															
2-Chloroethylvinylether															
Bromoform															
4-Methyl-2-Pentanone	0.334			0.316			0.383			0.439	31.4	J			
2-Hexanone	0.239			0.224			0.213			0.316	32.2	J			
Tetrachloroethene															
1,1,2,2-Tetrachloroethane															
Toluene															
Chlorobenzene															
Ethylbenzene															
Styrene															
m-Xylene															
O/p-Xylene															

AFFECTED SAMPLES:	VBLK 68	VBLK 69	EDT 62 DL	
	EDT 57 redo	EDT 61 DL	VBLK 71	
	EDT 58	EDT 64 DL		
	EDT 57	EDT 57 DL		
	EDT 61-62	EDT 56		
	EDT 64-66	EDT 59-60		
		EDT 63		
		EDT 67		

Reviewer's Initials/Date: R.K. 8/23/89

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

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

CASE/SAS # 12231 CONTRACTOR RFCRA

Instrument # I.5C.2	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	7/4/89			7/6/89 1328			7/10/89 1319								
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
Phenol															
bis(-2-Chloroethyl)Ether															
2-Chlorophenol															
1,3-Dichlorobenzene															
1,4-Dichlorobenzene															
Benzyl Alcohol															
1,2-Dichlorobenzene															
2-Methylphenol															
bis(2-chloroisopropyl)Ether															
4-Methylphenol															
N-Nitroso-Di-n-Propylamine															
Hexachloroethane															
Nitrobenzene															
Isophorone															
2-Nitrophenol															
2,4-Dimethylphenol								98.9	[illegible]						
Benzoic Acid	0.122			0.37	99.9	J	0.338	[illegible]	J						
bis(2-Chloroethoxy)Methane															
2,4-Dichlorophenol															
1,2,4-Trichlorobenzene															
Naphthalene															
4-Chloroaniline															
Hexachlorobutadiene															
4-Chloro-3-Methylphenol															
2-Methylnaphthalene	0.181			0.679	36.8	J	0.712	27.4	J						
Hexachlorocyclopentadiene	0.146			0.146	68.5	J	0.226	56.7	J						
2,4,6-Trichlorophenol															
2,4,5-Trichlorophenol															
2-Chloronaphthalene															
2-Nitroaniline															
Dimethyl Phthalate															
Acenaphthylene															
3-Nitroaniline															
Acenaphthene															
2,4-Dinitrophenol	0.164	33.4	J	0.074	54.9	J	0.093	43.3	J						
4-Nitrophenol	0.30			0.158			0.122	29.3	J						
Dibenzofuran															
				SBLK 96			EDT 66-66								
				EDT 56-59											
				EDT 58ms/msd											
				EDT 59											

AFFECTED SAMPLES:

Reviewer Initials/Date: RK 8/13/89

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

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

CASE/SAS # 12231 CONTRACTOR RF CRA

Instrument # I 5C7	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	4/1/89			7/6/89 1328			7/10/89 319								
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
2,4-Dinitrotoluene															
2,6-Dinitrotoluene															
Diethylphthalate															
4-Chlorophenyl-phenylether															
Fluorene															
4-Nitroaniline															
4,6-Dinitro-2-Methylphenol	0.145			0.115			0.108	25.5	J						
N-Nitrosodiphenylamine															
4-Bromophenyl-phenylether															
Hexachlorobenzene															
Pentachlorophenol															
Phenanthrene															
Anthracene															
Di-n-Butylphthalate															
Fluoranthene															
Pyrene	1.690			1.234	27.2	J	1.342								
Butylbenzylphthalate	1.064			0.794	25.1	J	0.573								
Benzo(a)Anthracene															
bis(2-Ethylhexyl)Phthalate	1.596			1.175	26.4	J	1.252								
Chrysene															
Di-n-Octyl Phthalate															
Benzo(b)Fluoranthene	1.713	31.4	J	1.320			1.261	26.4	J						
Benzo(k)Fluoranthene	1.627	37.8	J	1.158	28.8	J	1.197	26.4	J						
Benzo(a)Pyrene															
Indeno(1,2,3-cd)Pyrene	1.202			0.766	36.3	J	0.950								
Dibenz(a,h)Anthracene	1.071			0.767	28.4	J	0.892								
Benzo(g,h,i) Perylene	1.090			0.649	40.5	J	0.866								

SEE PAGE 1 FOR AFFECTED SAMPLES.

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

Reviewer's Initials/Date: R.K. 8/23/89.

GENERAL DATA QUALIFIERS

For reporting results to the USEPA, the following contract specific qualifiers are to be used. The seven qualifiers defined below are not subject to modification by the laboratory. Up to five qualifiers may be reported on Form I for each compound.

The seven EPA-defined qualifiers to be used are as follows:

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

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

and df = dilution factor

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

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

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

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

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

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

E - This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis. This flag will not apply to pesticides/PCBs analyzed by GC/EC methods. If one or more compounds have a response greater than full scale, the sample or extract must be diluted and re-analyzed according to the specifications in Exhibit D. All such compounds with a response greater than full scale should have the concentration flagged with an "E" on the Form I for the original analysis. If the dilution of the extract causes any compounds identified in the first analysis to be below the calibration range in the second analysis, then the results of both analyses shall be reported on separate Forms I. The Form I for the diluted sample shall have the "DL" suffix appended to the sample number. NOTE: For total xylenes, when three isomers are quantified as two peaks, the calibration range of each peak should be considered separately, e.g., a diluted analysis is not required for total xylenes unless the concentration of either peak separately exceeds 200 ug/L.

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

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

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

The combination of flags "BU" or "UB" is expressly prohibited. BLANK contaminants are flagged "B" only when they are also detected in the sample.

If analyses at two different dilution factors are required (see Exhibit D), follow the data reporting instructions given in Exhibit D and with the "D" and "E" flags above.

JUL 0 3 1989

SUPERFUND 6348

CENTRAL REGIONAL LABORATORY SAMPLE DATA REPORT
ORGANICS/INORGANICS
THIS FORM IS TO BE USED FOR SAMPLES SENT TO CONTRACT ONLY

SAMPLE DATE: 6/28/89
LOG IN DATE: 7/19/89
DUE DATE: 7/31/89

CASE NUMBER/SAS No. 12231 SITE NAME REFUSE HIDEAWAY LANDFILL LABORATORY ORGANICS: RECRA ENVIRONMENTAL, INC. (RECNY) INORGANICS: WILSON LABORATORIES (WILSON) DATE SHIPPED 6/28/89

SUPERFUND DU NUMBER TFA102 EPA RPM or OSC (S M S)/(CES) CERCLIS # WID980610604 PAGE 1 OF 1

ACTIVITY NUMBER ZZ

CRL LOG NUMBER	ORGANIC TRAFFIC REPORT NUMBER	INORGANIC TRAFFIC REPORT NUMBER or SAS Packing List No.	WATER OR LIQUIDS: ACID BASE NEUTRAL CPDS ORGANIC SCAN UG L	VOLATILE ORGANIC ANALYSIS ORGANIC SCAN UG L	WATER POLYCHLORINATED BIPHENYLS UG L PES 17144	WATER CHLORINATED PESTICIDES UG L PES17134	TOTAL METALS IN WATER UG L	WATER CYANIDE UG L	NITRATE NITRITE MG L	AMMONIA MG L	RESIDUE FILTERABLE TDS MG L	RESIDUE NON-FILT TSS MG L		
89XS01S01	EDT56	MEDN44	X	X	X	X	X							
89XS01S02	EDT57	MEDN45	X	X	X	X	X							
89XS01S03	EDT58	MEDN46	X	X	X	X	X							
89XS01S04	EDT59	MEDN47	X	X	X	X	X							
89XS01S05	EDT60			X										
89XS01S06	EDT61			X										
89XS01S07	EDT62			X										
89XS01S08	EDT63			X										
89XS01S09	EDT64			X										
89XS01D03	EDT65	MEDN48	X	X	X	X	X							
89XS01R01	EDT66	MEDN49	X	X	X	X	X							
89XS01R02	EDT67			X										

CRL LOG NUMBER	SEDIMENTS or SOILS: ACID BASE NEUTRAL CPDS ORGANIC SCAN MG KG	VOLATILE ORGANIC ANALYSIS ORGANIC SCAN MG KG	SEDIMENTS POLYCHLORINATED BIPHENYLS MG KG	SEDIMENTS CHLORINATED PESTICIDES MG KG	TOTAL METALS MG KG	CYANIDE MG KG	EP TOXICITY METALS MG KG	AMMONIA MG KG				
89XS01S01												
89XS01S02												
89XS01S03												
89XS01S04												
89XS01S05												
89XS01S06												
89XS01S07												
89XS01S08												
89XS01S09												
89XS01D03												
89XS01R01												
89XS01R02												

RUTH BLEYLER

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

EPA

Organic Traffic Report
(For CLP Use Only)

Case Number: 12231
SAS No. (if applicable):

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

2. Region Number: V
Sampling Co.: WDNR
4. Date Shipped: 6/28/89
Airbill Number: 1434463496
5. Date Received: 6/29/89
Received by: Ronald J. Rozabel

Sampler (Name): MIKE SCHMOLLER
Carrier: FEDERAL EXPRESS
Laboratory Contract Number: 68-W8-0047
Unit Price:

3. Ship To: PAUL MORROW, RECRA ENVIRONMENTAL INC (RECNY), 10 HAZELWOOD DRIVE, AMHERST, NY 14150, ATTN: PAUL MORROW

Triple volume required for matrix spike/duplicate aqueous sample.

Ship medium and high concentration samples in paint cans.

See reverse for additional instructions.

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

CLP Sample Number (From labels)	(A) Sample Description (From Box 1)	(B) [illegible]	(C) [illegible]	[illegible]	[illegible]	(D) Special Handling	(E) Station Location	(F) Date/Time of Sample Collection	(G) Corresponding CLP Inorganic Sample Number	(H) Sample Condition on Receipt	(I) High Conc. Phases (Check Most) Solid	Water MIS Liq.	Non Water MIS Liq.
EDT56	1	L	X	X	X		S01	6/28/89 9:50	MEDN44				
EDT57	1	L	X	X	X		S02	6/28/89 12:00	MEDN45				
EDT58	2	L	X	X	X		S03	6/28/89 11:15	MEDN46				
EDT59	2	L	X	X	X		S04	6/28/89 11:30	MEDN47				
EDT60	2	L	X				S05	6/28/89 10:05					
EDT61	2	L	X				S06	6/28/89 10:40					
EDT62	2	L	X				S07	6/28/89 11:02					
EDT63	2	L	X				S08	6/28/89 11:40					
EDT64	2	L	X				S09	6/28/89 12:22					
EDT65	2	L	X	X	X		D03	6/28/89 11:25	MEDN48				
EDT66	2	L	X	X	X		R01	6/28/89 10:10	MEDN49				
~~EDT67~~ [illegible]	2	L	X				R02	6/28/89 10:30					
IN S06. EDT58													

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

093

CASE NARRATIVE

Laboratory Name: Recra Environmental, Inc.

Laboratory Code: RECNY

Case Number: 12231

Contract Number: 68-W8-0047

SDG Number: EDT56

Sample Identifications:

EDT56
EDT57
EDT58
EDT58MS
EDT58MSD
EDT59
EDT60
EDT61
EDT62
EDT63
EDT64
EDT65
EDT66
EDT67

VOLATILE DATA

Volatile sample and standard areas are listed on the corresponding data system printouts.

Volatile data was processed utilizing Finnigan Autoquantitation and QA Formaster software. Compounds not listed on the quantitation report were deleted if contract laboratory protocol criteria were not met.

The majority of the volatile vials were received with headspace apparent in the sample vials. Samples EDT60 and EDT65 has headspace in both of the sample vials. For the remainder of the samples, analysis was performed on the vials with no headspace. As per Loren Minnich of SMO, volatile analyses were performed despite headspace problems.

Sample EDT57 required a secondary dilution due to an elevated Carbon Disulfide concentration.

Sample EDT61 required a secondary dilution due to an elevated 1,2-Dichloroethene level.

Sample EDT62 required a secondary dilution due to elevated Vinyl Chloride and 1,2-Dichloroethene levels.

Sample EDT64 required a secondary dilution due to elevated levels of Vinyl Chloride and 1,2-Dichloroethene.

Secondary ion quantitation was utilized to calculate surrogate 1,2-Dichloroethane-D_4 for samples EDT57, EDT61, EDT62 and EDT64. Matrix interferences precluded accurate quantitation using the primary ion.

SEMIVOLATILE DATA

Semivolatile sample and standard areas are listed on the corresponding data system printouts.

Semivolatile data was processed utilizing Finnigan Autoquantitation and QA Formaster software. Compounds not listed on the quantitation report were deleted if contract laboratory protocol criteria were not met.

PESTICIDE/PCB DATA

No analytical problems were encountered during analysis.

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

Arun K. Bhattacharya

Dr. Arun K. Bhattacharya

8/1/89

Date

2A
WATER VOLATILE SURROGATE RECOVERY

Lab Name: RECRA ENVIRON Contract: 68-W8-0047

Lab Code: RECNY Case No.: 12231 SAS No.: _____ SDG No.: EDT56

	EPA SAMPLE NO.	S1 (TOL) #	S2 (BFB) #	S3 (DCE) #	OTHER	TOT OUT
01	EDT56	102	105	99		0
02	EDT57	98	114	83		0
03	EDT57DL	101	102	106		0
04	EDT58	100	108	105		0
05	EDT58MS	101	110	104		0
06	EDT58MSD	98	114	108		0
07	EDT59	101	104	101		0
08	EDT60	99	104	105		0
09	EDT61	97	115	83		0
10	EDT61DL	99	98	97		0
11	EDT62	97	114	92		0
12	EDT62DL	103	101	91		0
13	EDT63	103	104	99		0
14	EDT64	99	114	87		0
15	EDT64DL	102	100	100		0
16	EDT65	98	112	111		0
17	EDT66	98	111	107		0
18	EDT67	99	100	102		0
19	VBLK68	100	98	92		0
20	VBLK69	103	101	96		0
21	VBLK71	102	102	92		0

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

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

2C

WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: RECRA ENVIRON Contract: 68-W8-0047

Lab Code: RECNY Case No.: 12231 SAS No.: _____ SDG No.: EDT56

	EPA SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	S4 (PHL) #	S5 (2FP) #	S6 (TBP) #	OTHER	TOT OUT
01	EDT56	79	82	70	48	56	103		0
02	EDT57	87	91	81	37	40	58		0
03	EDT58	92	93	89	38	40	96		0
04	EDT58MS	88	88	86	42	48	87		0
05	EDT58MSD	104	94	79	42	52	70		0
06	EDT59	95	94	87	48	61	83		0
07	EDT65	88	94	83	39	56	94		0
08	EDT66	102	101	94	49	65	111		0
09	SBLK96	103	92	88	40	49	71		0

		QC LIMITS
S1 (NBZ)	= Nitrobenzene-d5	(35-114)
S2 (FBP)	= 2-Fluorobiphenyl	(43-116)
S3 (TPH)	= Terphenyl	(33-141)
S4 (PHL)	= Phenol-d5	(10-94)
S5 (2FP)	= 2-Fluorophenol	(21-100)
S6 (TBP)	= 2,4,6-Tribromophenol	(10-123)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out

2E

WATER PESTICIDE SURROGATE RECOVERY

1020

Lab Name: RECRA ENVIRON Contract: 68-W8-0047

Lab Code: RECNY Case No.: 12231 SAS No.: _____ SDG No.: EDT56

	EPA SAMPLE NO.	S1 (DBC)#	OTHER
01	EDT56	105	0
02	EDT57	97	0
03	EDT58	138	0
04	EDT59	102	0
05	EDT65	98	0
06	EDT66	96	0
07	EDT58MS	138	0
08	EDT58MSD	145	0
09	FBLK56	124	0

ADVISORY QC LIMITS

S1 (DBC) = Dibutlychlorendate (24-154)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: RECRA ENVIRON Contract: 68-W8-0047

Lab Code: RECNY Case No.: 12231 SAS No.: _____ SDG No.: EDT56

Matrix Spike - EPA Sample No.: EDT58

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	50.0	0	38.1	76	61-145
Trichloroethene	50.0	3.58	50.6	94	71-120
Benzene	50.0	0	44.3	89	76-127
Toluene	50.0	1.07	45.0	88	76-125
Chlorobenzene	50.0	0	47.8	96	75-130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	50.0	39.9	80	-5	14	61-145
Trichloroethene	50.0	53.7	100	-6	14	71-120
Benzene	50.0	46.0	92	-3	11	76-127
Toluene	50.0	44.0	86	2	13	76-125
Chlorobenzene	50.0	48.0	96	0	13	75-130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

COMMENTS: EDT58 JOB0931
51D

3C

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: RECRA ENVIRON Contract: 68-W8-0047

Lab Code: RECNY Case No.: 12231 SAS No.: _____ SDG No.: EDT56

Matrix Spike - EPA Sample No.: EDT58

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
Phenol	200	0	70.0	35	12- 86
2-Chlorophenol	200	0	156	78	27-123
1,4-Dichlorobenzene	100	0	76.8	77	36 97
N-Nitroso-di-n-prop.(1)	100	0	94.4	94	41 116
1,2,4-Trichlorobenzene	100	0	83.4	83	39 98
4-Chloro-3-methylphenol	200	0	192	96	23 97
Acenaphthene	100	0	81.2	81	46-118
4-Nitrophenol	200	0	75.4	38	10- 80
2,4-Dinitrotoluene	100	0	88.8	89	24- 96
Pentachlorophenol	200	0	132	66	9-103
Pyrene	100	0	108	108	26-127

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	200	74.8	37	-6	42	12- 86
2-Chlorophenol	200	165	83	-6	40	27-123
1,4-Dichlorobenzene	100	85.4	85	-10	28	36 97
N-Nitroso-di-n-prop.(1)	100	104	104	-10	38	41 116
1,2,4-Trichlorobenzene	100	89.4	89	-7	28	39 98
4-Chloro-3-methylphenol	200	190	95	1	42	23 97
Acenaphthene	100	88.8	89	-9	31	46-118
4-Nitrophenol	200	71.8	36	5	50	10- 80
2,4-Dinitrotoluene	100	91.8	92	-3	38	24- 96
Pentachlorophenol	200	82.6	41	47	50	9-103
Pyrene	100	114	114	-5	31	26-127

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 11 outside limits
Spike Recovery: 0 out of 22 outside limits

COMMENTS: EDT58 JOB 931 BN0277/78
AUTOSAMPLER I50Z

3E

WATER PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: RECRA ENVIRON Contract: 68-W8-0047

Lab Code: RECNY Case No.: 12221 SAS No.: _____ SDG No.: EDT56

Matrix Spike - EPA Sample No.: EDT58

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
gamma-BHC (Lindane)	0.200	0	0.111	56	56-123
Heptachlor	0.200	0	0.114	57	40-131
Aldrin	0.200	0	0.0818	41	40-120
Dieldrin	0.500	0	0.326	65	52-126
Endrin	0.500	0	0.360	72	56-121
4,4'-DDT	0.500	0	0.420	84	38-127

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
gamma-BHC (Lindane)	0.200	0.117	59	-5	15	56-123
Heptachlor	0.200	0.120	60	-5	20	40-131
Aldrin	0.200	0.0882	44	-8	22	40-120
Dieldrin	0.500	0.337	67	-3	18	52-126
Endrin	0.500	0.426	85	-17	21	56-121
4,4'-DDT	0.500	0.438	88	-4	27	38-127

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 6 outside limits
Spike Recovery: 0 out of 12 outside limits

COMMENTS:

4A
VOLATILE METHOD BLANK SUMMARY

Lab Name: RECRA ENVIRON Contract: 68-W8-0047

Lab Code: RECNY Case No.: 12231 SAS No.: _____ SDG No.: EDT56

Lab File ID: 5263D Lab Sample ID: VBLK68

Date Analyzed: 06/30/89 Time Analyzed: 1416

Matrix: (soil/water) WATER Level:(low/med) LOW

Instrument ID: 51D

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	EDT57	EDT57	5279D	0028
02	EDT58	EDT58	5266D	1614
03	EDT58MS	EDT58MS	5267D	1649
04	EDT58MSD	EDT58MSD	5268D	1726
05	EDT61	EDT61	5276D	2233
06	EDT62	EDT62	5273D	2038
07	EDT64	EDT64	5278D	2350
08	EDT65	EDT65	5271D	1921
09	EDT66	EDT66	5269D	1805

COMMENTS: VBLK68
51D

4A
VOLATILE METHOD BLANK SUMMARY

Lab Name: RECRA ENVIRON Contract: 68-W8-0047

Lab Code: RECNY Case No.: 12231 SAS No.: _____ SDG No.: EDT56

Lab File ID: 5291D Lab Sample ID: VBLK69

Date Analyzed: 07/03/89 Time Analyzed: 0944

Matrix: (soil/water) WATER Level:(low/med) LOW

Instrument ID: 51D

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	EDT56	EDT56	5298D	1428
02	EDT57DL	EDT57DL	5300D	1546
03	EDT59	EDT59	5292D	1025
04	EDT60	EDT60	5296D	1309
05	EDT61DL	EDT61DL	5297D	1351
06	EDT63	EDT63	5295D	1233
07	EDT64DL	EDT64DL	5299D	1510
08	EDT67	EDT67	5293D	1107

COMMENTS: VBLK69
51D

4A
VOLATILE METHOD BLANK SUMMARY

Lab Name: RECRA ENVIRON Contract: 68-W8-0047

Lab Code: RECNY Case No.: 12231 SAS No.: _____ SDG No.: EDT56

Lab File ID: 5317D Lab Sample ID: VBLK71

Date Analyzed: 07/05/89 Time Analyzed: 1259

Matrix: (soil/water) WATER Level:(low/med) LOW

Instrument ID: 51D

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	EDT62DL	EDT62DL	5316D	1220

COMMENTS: VBLK71
51D

4B
SEMIVOLATILE METHOD BLANK SUMMARY

Lab Name: RECRA ENVIRON Contract: 68-W8-0047

Lab Code: RECNY Case No.: 12231 SAS No.: _____ SDG No.: EDT56

Lab File ID: 1871Z Lab Sample ID: SBLK96

Date Extracted: 06/30/89 Extraction:(SepF/Cont/Sonc) SEPF

Date Analyzed: 07/06/89 Time Analyzed: 1428

Matrix: (soil/water) WATER Level:(low/med) LOW

Instrument ID: I50Z

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	EDT56	EDT56	1872Z	07/06/89
02	EDT57	EDT57	1873Z	07/06/89
03	EDT58	EDT58	1874Z	07/06/89
04	EDT58MS	EDT58MS	1875Z	07/06/89
05	EDT58MSD	EDT58MSD	1876Z	07/06/89
06	EDT59	EDT59	1877Z	07/06/89
07	EDT65	EDT65	1891Z	07/10/89
08	EDT66	EDT66	1892Z	07/10/89

COMMENTS: SBLK96 JOB 931 BN0289/90
AUTOSAMPLER I50Z

4C

PESTICIDE METHOD BLANK SUMMARY

Lab Name: RECRA ENVIRON Contract: 68-W8-0047

Lab Code: RECNY Case No.: 12231 SAS No.: _____ SDG No.: EDT56

Lab Sample ID: SW3706 Lab File ID: _____

Matrix:(soil/water) WATER Level:(low/med) LOW

Date Extracted: 06/30/89 Extraction:(SepF/Cont/Sonc) SEPF

Date Analyzed (1): 07/07/89 Date Analyzed (2): 07/07/89

Time Analyzed (1): 0202 Time Analyzed (2): 1900

Instrument ID (1): HP5890 Instrument ID (2): HP5890

GC Column ID (1): 22502401 GC Column ID (2): DB1701

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	EDT56	SW3698	07/06/89	07/07/89
02	EDT57	SW3699	07/06/89	07/07/89
03	EDT58	SW3700	07/06/89	07/07/89
04	EDT59	SW3703	07/06/89	07/07/89
05	EDT65	SW3704	07/06/89	07/07/89
06	EDT66	SW3705	07/07/89	07/07/89
07	EDT58MS	SW3701	07/06/89	07/07/89
08	EDT58MSD	SW3702	07/06/89	07/07/89

COMMENTS:

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. 637

VBLK68

Lab Name: RECRA ENVIRON Contract: 68-W8-0047

Lab Code: RECNY Case No.: 12231 SAS No.: _____ SDG No.: EDT56

Matrix: (soil/water) WATER Lab Sample ID: VBLK68

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 5263D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 06/30/89

Column: (pack/cap) PACK Dilution Factor: 1.00

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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA Sample No. VBLK68

Lab Name: RECRA ENVIRONMENTAL, INC.

Contract: 68-W8-0047

Lab Code: RECNY Case No: 12231 SAS No:

SDG No: EDT56

Matrix (Soil/Water): WATER

Lab Sample Id: VBLK68

Sample wt/vol: 5.0 (g/ml): ML

Lab File Id: 5263D

Level (low/med): LOW

Date Recieved:

% Moisture not Dec:

Date Analyzed: 06-30-89

Column: (pack/cap): PACK

Dilution Factor: 1.00

Number TICs Found: 1

Concentration Units:

(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1		CHLORO PYRIDINE ISOMER	23.50	32	J
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
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30					

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
VBLK69

Lab Name: RECRA ENVIRON Contract: 68-W8-0047

Lab Code: RECNY Case No.: 12231 SAS No.: _____ SDG No.: EDT56

Matrix: (soil/water) WATER Lab Sample ID: VBLK69

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 5291D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. ____ Date Analyzed: 07/03/89

Column: (pack/cap) PACK Dilution Factor: 1.00

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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA Sample No. VBLK69

Lab Name: RECRA ENVIRONMENTAL, INC. Contract: 68-W8-0047

Lab Code: RECNY Case No: 12231 SAS No: SDG No: EDT56

Matrix (Soil/Water): WATER Lab Sample Id: VBLK69

Sample wt/vol: 5.0 (g/ml): ML Lab File Id: 5291D

Level (low/med): LOW Date Recieved:

% Moisture not Dec: Date Analyzed: 07-03-89

Column: (pack/cap): PACK Dilution Factor: 1.00

Number TICs Found: 0 Concentration Units:

(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK71

Lab Name: RECRA ENVIRON Contract: 68-W8-0047

Lab Code: RECNY Case No.: 12231 SAS No.: _____ SDG No.: EDT56

Matrix: (soil/water) WATER Lab Sample ID: VBLK71

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 5317D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 07/05/89

Column: (pack/cap) PACK Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	0.5	J
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
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	2	J
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	0.7	J
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total Xylenes	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA Sample No. VBLK71

Lab Name: RECRA ENVIRONMENTAL, INC.

Contract: 68-W8-0047

Lab Code: RECNY Case No: 12231 SAS No:

SDG No: EDT56

Matrix (Soil/Water): WATER

Lab Sample Id: VBLK71

Sample wt/vol: 5.0 (g/ml): ML

Lab File Id: 5317D

Level (low/med): LOW

Date Recieved:

% Moisture not Dec:

Date Analyzed: 07-05-89

Column: (pack/cap): PACK

Dilution Factor: 1.00

Number TICs Found: 0

Concentration Units:

(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. 952

SBLK96

Lab Name: RECRA ENVIRON Contract: 68-W8-0047

Lab Code: RECNY Case No.: 12231 SAS No.: _____ SDG No.: EDT56

Matrix: (soil/water) WATER Lab Sample ID: SBLK96

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 1871Z

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ dec. _____ Date Extracted: 06/30/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 07/06/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
100-51-6	Benzyl Alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	bis(2-Chloroisopropyl)Ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
65-85-0	Benzoic Acid	50	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. 953

SBLK96

Lab Name: RECRA ENVIRON Contract: 68-W8-0047

Lab Code: RECNY Case No.: 12231 SAS No.: _____ SDG No.: EDT56

Matrix: (soil/water) WATER Lab Sample ID: SBLK96

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 1871Z

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ dec. _____ Date Extracted: 06/30/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 07/06/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

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

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA Sample No. SBLK96

Lab Name: RECRA ENVIRONMENAL, INC.

Contract: 68-W8-0047

Lab Code: RECNY Case No: 12231 SAS No:

SDG No: EDT56

Matrix (Soil/Water): WATER

Lab Sample Id: SBLK96

Sample wt/vol: 1000 (g/ml): ML

Lab File Id: 1871Z

Level (low/med): LOW

Date Recieved:

% Moisture not Dec: Dec:

Date Extracted: 06-30-89

Extraction: (SepF/Cont/Sonc): SEPF

Date Analyzed: 07-06-89

GPC Cleanup: (Y/N): N pH: 7.0

Dilution Factor: 1.00

Number TICs Found: 9

Concentration Units:

(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1		OXYGENATED COMPOUND	8.88	14	J
2		LONG CHAIN COMPOUND	27.13	46	J
3		LONG CHAIN COMPOUND	27.20	18	J
4		SILICON COMPOUND	34.22	6	J
5		UNKNOWN	34.87	10	J
6		SILICON COMPOUND	35.53	9	J
7		UNKNOWN	36.55	22	J
8		SILICON COMPOUND	36.90	11	J
9		UNKNOWN	36.98	11	J
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
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30					

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLK56

Lab Name: RECRA ENVIRON Contract: 68-W8-0047

Lab Code: RECNY Case No.: 12231 SAS No.: _____ SDG No.: EDT56

Matrix: (soil/water) WATER Lab Sample ID: BW3706

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

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ dec. _____ Date Extracted: 06/30/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 07/07/89

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

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

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EDT56

Lab Name: RECRA ENVIRON Contract: 68-W8-0047

Lab Code: RECNY Case No.: 12231 SAS No.: _____ SDG No.: EDT56

Matrix: (soil/water) WATER Lab Sample ID: EDT56

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 5298D

Level: (low/med) LOW Date Received: 06/29/89

% Moisture: not dec. ____ Date Analyzed: 07/03/89

Column: (pack/cap) PACK Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L		Q
74-87-3	Chloromethane	10	U	
74-83-9	Bromomethane	10	U	
75-01-4	Vinyl Chloride	10	U	
75-00-3	Chloroethane	10	U	
75-09-2	Methylene Chloride	5	U	
67-64-1	Acetone	11	~~B~~ m	BK 8/23/89
75-15-0	Carbon Disulfide	28		
75-35-4	1,1-Dichloroethene	5	U	
75-34-3	1,1-Dichloroethane	5	U	
540-59-0	1,2-Dichloroethene (total)	2	J	
67-66-3	Chloroform	5	U	
107-06-2	1,2-Dichloroethane	5	U	
78-93-3	2-Butanone	10	U	
71-55-6	1,1,1-Trichloroethane	5	U	
56-23-5	Carbon Tetrachloride	5	U	
108-05-4	Vinyl Acetate	10	U	
75-27-4	Bromodichloromethane	5	U	
78-87-5	1,2-Dichloropropane	5	U	
10061-01-5	cis-1,3-dichloropropene	5	U	
79-01-6	Trichloroethene	5	U	
124-48-1	Dibromochloromethane	5	U	
79-00-5	1,1,2-Trichloroethane	5	U	
71-43-2	Benzene	5	U	
10061-02-6	Trans-1,3-Dichloropropene	5	U	
75-25-2	Bromoform	5	U	
108-10-1	4-Methyl-2-Pentanone	10	U	
591-78-6	2-Hexanone	10	U	
127-18-4	Tetrachloroethene	0.7	J	
79-34-5	1,1,2,2-Tetrachloroethane	5	U	
108-88-3	Toluene	5 ~~0.9~~	~~B~~ m	BK 8/23/89
108-90-7	Chlorobenzene	5	U	
100-41-4	Ethylbenzene	5	U	
100-42-5	Styrene	5	U	
1330-20-7	Total Xylenes	5	U	

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA Sample No. EDT56

Lab Name: RECRA ENVIRONMENTAL, INC.

Contract: 68-W8-0047

Lab Code: RECNY Case No: 12231 SAS No:

SDG No: EDT56

Matrix (Soil/Water): WATER

Lab Sample Id: EDT56

Sample wt/vol: 5.0 (g/ml): ML

Lab File Id: 5298D

Level (low/med): LOW

Date Recieved: 06-29-89

% Moisture not Dec:

Date Analyzed: 07-03-89

Column: (pack/cap): PACK

Dilution Factor: 1.00

Number TICs Found: 0

Concentration Units:

(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
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27					
28					
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30					

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
EDT57

Lab Name: RECRA ENVIRON Contract: 68-W8-0047

Lab Code: RECNY Case No.: 12231 SAS No.: _____ SDG No.: EDT56

Matrix: (soil/water) WATER Lab Sample ID: EDT57

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 5279D

Level: (low/med) LOW Date Received: 06/29/89

% Moisture: not dec. ____ Date Analyzed: 07/01/89

Column: (pack/cap) PACK Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	6	J
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	~~5~~ 1	~~B~~ U
67-64-1	Acetone	14	
75-15-0	Carbon Disulfide	290	~~B~~E
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	6	
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	0.7	J
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	~~B~~ U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total Xylenes	5	U

RK 8/17/89

RK 8/17/89

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA Sample No. EDT57

Lab Name: RECRA ENVIRONMENTAL, INC. Contract: 68-W8-0047

Lab Code: RECNY Case No: 12231 SAS No: SDG No: EDT56

Matrix (Soil/Water): WATER Lab Sample Id: EDT57

Sample wt/vol: 5.0 (g/ml): ML Lab File Id: 5279D

Level (low/med): LOW Date Recieved: 06-29-89

% Moisture not Dec: Date Analyzed: 07-01-89

Column: (pack/cap): PACK Dilution Factor: 1.00

Number TICs Found: 1 Concentration Units:

(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1		CHLORO PYRIDINE ISOMER	23.47	11	BJ RK 6/7/89
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
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18					
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25					
26					
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28					
29					
30					

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
EDT57DL

Lab Name: RECRA ENVIRON Contract: 68-W8-0047

Lab Code: RECNY Case No.: 12231 SAS No.: _____ SDG No.: EDT56

Matrix: (soil/water) WATER Lab Sample ID: EDT57DL

Sample wt/vol: 2.5 (g/mL) ML Lab File ID: 5300D

Level: (low/med) LOW Date Received: 06/29/89

% Moisture: not dec. _____ Date Analyzed: 07/03/89

Column: (pack/cap) PACK Dilution Factor: 2.00

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	20	U
74-83-9	Bromomethane	20	U
75-01-4	Vinyl Chloride	1	DJ
75-00-3	Chloroethane	20	U
75-09-2	Methylene Chloride	10 ~~9~~	~~BDJ~~ u
67-64-1	Acetone	31	~~BD~~ u
75-15-0	Carbon Disulfide	370	D
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	2	DJ
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	20	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
108-05-4	Vinyl Acetate	20	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	Trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	20	U
591-78-6	2-Hexanone	20	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10 ~~5~~	~~BDJ~~
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Total Xylenes	10	U

RK 8/23/89

RK 8/23/89

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA Sample No. EDT57DL

Lab Name: RECRA ENVIRONMENTAL, INC.

Contract: 68-W8-0047

Lab Code: RECNY Case No: 12231 SAS No:

SDG No: EDT56

Matrix (Soil/Water): WATER

Lab Sample Id: EDT57DL

Sample wt/vol: 2.5 (g/ml): ML

Lab File Id: 5300D

Level (low/med): LOW

Date Recieved: 06-29-89

% Moisture not Dec:

Date Analyzed: 07-03-89

Column: (pack/cap): PACK

Dilution Factor: 2.00

Number TICs Found: 0

Concentration Units:

(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
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30					

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EDT58

Lab Name: RECRA ENVIRON Contract: 68-W8-0047

Lab Code: RECNY Case No.: 12231 SAS No.: _____ SDG No.: EDT56

Matrix: (soil/water) WATER Lab Sample ID: EDT58

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 5266D

Level: (low/med) LOW Date Received: 06/29/89

% Moisture: not dec. ____ Date Analyzed: 06/30/89

Column: (pack/cap) PACK Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
74-87-3	Chloromethane	10	U	
74-83-9	Bromomethane	10	U	
75-01-4	Vinyl Chloride	10	U	
75-00-3	Chloroethane	10	U	
75-09-2	Methylene Chloride	5 3	~~BJ~~ JB	RK 6/23/89
67-64-1	Acetone	10	U	
75-15-0	Carbon Disulfide	5 4	~~BJ~~ JB	
75-35-4	1,1-Dichloroethene	5	U	
75-34-3	1,1-Dichloroethane	5	U	
540-59-0	1,2-Dichloroethene (total)	14		
67-66-3	Chloroform	5	U	
107-06-2	1,2-Dichloroethane	5	U	
78-93-3	2-Butanone	10	U	
71-55-6	1,1,1-Trichloroethane	5	U	
56-23-5	Carbon Tetrachloride	5	U	
108-05-4	Vinyl Acetate	10	U	
75-27-4	Bromodichloromethane	5	U	
78-87-5	1,2-Dichloropropane	5	U	
10061-01-5	cis-1,3-dichloropropene	5	U	
79-01-6	Trichloroethene	4	J	
124-48-1	Dibromochloromethane	5	U	
79-00-5	1,1,2-Trichloroethane	5	U	
71-43-2	Benzene	5	U	
10061-02-6	Trans-1,3-Dichloropropene	5	U	
75-25-2	Bromoform	5	U	
108-10-1	4-Methyl-2-Pentanone	10	U	
591-78-6	2-Hexanone	10	U	
127-18-4	Tetrachloroethene	24		
79-34-5	1,1,2,2-Tetrachloroethane	5	U	RK 6/23/89
108-88-3	Toluene	5 1	~~BJ~~ JB	
108-90-7	Chlorobenzene	5	U	
100-41-4	Ethylbenzene	5	U	
100-42-5	Styrene	5	U	
1330-20-7	Total Xylenes	5	U	

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA Sample No. EDT58

Lab Name: RECRA ENVIRONMENTAL, INC.

Contract: 68-W8-0047

Lab Code: RECNY Case No: 12231 SAS No:

SDG No: EDT56

Matrix (Soil/Water): WATER

Lab Sample Id: EDT58

Sample wt/vol: 5.0 (g/ml): ML

Lab File Id: 5266D

Level (low/med): LOW

Date Recieved: 06-29-89

% Moisture not Dec:

Date Analyzed: 06-30-89

Column: (pack/cap): PACK

Dilution Factor: 1.00

Number TICs Found: 1

Concentration Units:

(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1		CHLORO PYRIDINE ISOMER	23.47	22	BJ M RK 7/23/89
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
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26					
27					
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30					

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EDT59

Lab Name: RECRA ENVIRON Contract: 68-W8-0047

Lab Code: RECNY Case No.: 12231 SAS No.: _____ SDG No.: EDT56

Matrix: (soil/water) WATER Lab Sample ID: EDT59

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 5292D

Level: (low/med) LOW Date Received: 06/29/89

% Moisture: not dec. _____ Date Analyzed: 07/03/89

Column: (pack/cap) PACK Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
74-87-3	Chloromethane	10	U	
74-83-9	Bromomethane	10	U	
75-01-4	Vinyl Chloride	10	U	
75-00-3	Chloroethane	10	U	
75-09-2	Methylene Chloride	5 ~~1~~	~~B~~ J	RK 6/23/89
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	
540-59-0	1,2-Dichloroethene (total)	41		
67-66-3	Chloroform	5	U	
107-06-2	1,2-Dichloroethane	5	U	
78-93-3	2-Butanone	10	U	
71-55-6	1,1,1-Trichloroethane	5	U	
56-23-5	Carbon Tetrachloride	5	U	
108-05-4	Vinyl Acetate	10	U	
75-27-4	Bromodichloromethane	5	U	
78-87-5	1,2-Dichloropropane	5	U	
10061-01-5	cis-1,3-dichloropropene	5	U	
79-01-6	Trichloroethene	9		
124-48-1	Dibromochloromethane	5	U	
79-00-5	1,1,2-Trichloroethane	5	U	
71-43-2	Benzene	5	U	
10061-02-6	Trans-1,3-Dichloropropene	5	U	
75-25-2	Bromoform	5	U	
108-10-1	4-Methyl-2-Pentanone	10	U	
591-78-6	2-Hexanone	10	U	
127-18-4	Tetrachloroethene	21		
79-34-5	1,1,2,2-Tetrachloroethane	5	U	
108-88-3	Toluene	5 ~~0.9~~	~~B~~ J	RK 6/23/89
108-90-7	Chlorobenzene	5	U	
100-41-4	Ethylbenzene	5	U	
100-42-5	Styrene	5	U	
1330-20-7	Total Xylenes	5	U	

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA Sample No. EDT59

Lab Name: RECRA ENVIRONMENTAL, INC.

Contract: 68-W8-0047

Lab Code: RECNY Case No: 12231 SAS No:

SDG No: EDT56

Matrix (Soil/Water): WATER

Lab Sample Id: EDT59

Sample wt/vol: 5.0 (g/ml): ML

Lab File Id: 5292D

Level (low/med): LOW

Date Recieved: 06-29-89

% Moisture not Dec:

Date Analyzed: 07-03-89

Column: (pack/cap): PACK

Dilution Factor: 1.00

Number TICs Found: 0

Concentration Units:

(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
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16					
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
EDT60

Lab Name: RECRA ENVIRON Contract: 68-W8-0047

Lab Code: RECNY Case No.: 12231 SAS No.: _____ SDG No.: EDT56

Matrix: (soil/water) WATER Lab Sample ID: EDT60

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 5296D

Level: (low/med) LOW Date Received: 06/29/89

% Moisture: not dec. ____ Date Analyzed: 07/03/89

Column: (pack/cap) PACK Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/L	Q	
74-87-3	Chloromethane	10	U	
74-83-9	Bromomethane	10	U	
75-01-4	Vinyl Chloride	3	J	
75-00-3	Chloroethane	10	U	
75-09-2	Methylene Chloride	5	U	
67-64-1	Acetone	10 ~~8~~	~~BJ~~ n	RK 8/23/89
75-15-0	Carbon Disulfide	5	U	
75-35-4	1,1-Dichloroethene	5	U	
75-34-3	1,1-Dichloroethane	5	U	
540-59-0	1,2-Dichloroethene (total)	12		
67-66-3	Chloroform	5	U	
107-06-2	1,2-Dichloroethane	5	U	
78-93-3	2-Butanone	10	U	
71-55-6	1,1,1-Trichloroethane	5	U	
56-23-5	Carbon Tetrachloride	5	U	
108-05-4	Vinyl Acetate	10	U	
75-27-4	Bromodichloromethane	5	U	
78-87-5	1,2-Dichloropropane	5	U	
10061-01-5	cis-1,3-dichloropropene	5	U	
79-01-6	Trichloroethene	10		
124-48-1	Dibromochloromethane	5	U	
79-00-5	1,1,2-Trichloroethane	5	U	
71-43-2	Benzene	5	U	
10061-02-6	Trans-1,3-Dichloropropene	5	U	
75-25-2	Bromoform	5	U	
108-10-1	4-Methyl-2-Pentanone	10	U	
591-78-6	2-Hexanone	10	U	
127-18-4	Tetrachloroethene	12		
79-34-5	1,1,2,2-Tetrachloroethane	5	U	
108-88-3	Toluene	~~1~~ 5	~~BJ~~ n	RK 8/23/89
108-90-7	Chlorobenzene	5	U	
100-41-4	Ethylbenzene	5	U	
100-42-5	Styrene	5	U	
1330-20-7	Total Xylenes	5	U	

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA Sample No. EDT60

Lab Name: RECRA ENVIRONMENTAL, INC. Contract: 68-W8-0047

Lab Code: RECNY Case No: 12231 SAS No: SDG No: EDT56

Matrix (Soil/Water): WATER Lab Sample Id: EDT60

Sample wt/vol: 5.0 (g/ml): ML Lab File Id: 5296D

Level (low/med): LOW Date Recieved: 06-29-89

% Moisture not Dec: Date Analyzed: 07-03-89

Column: (pack/cap): PACK Dilution Factor: 1.00

Number TICs Found: 0 Concentration Units:

(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
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27					
28					
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EDT61

Lab Name: RECRA ENVIRON Contract: 68-W8-0047

Lab Code: RECNY Case No.: 12231 SAS No.: _____ SDG No.: EDT56

Matrix: (soil/water) WATER Lab Sample ID: EDT61

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 5276D

Level: (low/med) LOW Date Received: 06/29/89

% Moisture: not dec. ____ Date Analyzed: 06/30/89

Column: (pack/cap) PACK Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	120	
75-00-3	Chloroethane	5	J
75-09-2	Methylene Chloride	5 3	BJ
67-64-1	Acetone	12	
75-15-0	Carbon Disulfide	5 3	BJ
75-35-4	1,1-Dichloroethene	2	J
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	480	E
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-dichloropropene	5	U
79-01-6	Trichloroethene	53	
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	2	J
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	120	
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5 3	BJ
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total Xylenes	5	U

RK 6/23/89

RK 6/27/89

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA Sample No. EDT61

Lab Name: RECRA ENVIRONMENTAL, INC. Contract: 68-W8-0047

Lab Code: RECNY Case No: 12231 SAS No: SDG No: EDT56

Matrix (Soil/Water): WATER Lab Sample Id: EDT61

Sample wt/vol: 5.0 (g/ml): ML Lab File Id: 5276D

Level (low/med): LOW Date Recieved: 06-29-89

% Moisture not Dec: Date Analyzed: 06-30-89

Column: (pack/cap): PACK Dilution Factor: 1.00

Number TICs Found: 1 Concentration Units:

(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1		CHLORO PYRIDINE ISOMER	23.47	12	BJ
2					
3					
4					
5					
6					
7					
8					
9					
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11					
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28					
29					
30					

RK 8/23/89

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.: EDT61DL

Lab Name: RECRA ENVIRON Contract: 68-W8-0047

Lab Code: RECNY Case No.: 12231 SAS No.: SDG No.: EDT56

Matrix: (soil/water) WATER Lab Sample ID: EDT61DL

Sample wt/vol: 1.0 (g/mL) ML Lab File ID: 5297D

Level: (low/med) LOW Date Received: 06/29/89

% Moisture: not dec. Date Analyzed: 07/03/89

Column: (pack/cap) PACK Dilution Factor: 5.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	50	U
74-83-9	Bromomethane	50	U
75-01-4	Vinyl Chloride	100	D
75-00-3	Chloroethane	50	U
75-09-2	Methylene Chloride	25 ~~8~~	BDJ
67-64-1	Acetone	50 ~~36~~	BDJ
75-15-0	Carbon Disulfide	25	U
75-35-4	1,1-Dichloroethene	25	U
75-34-3	1,1-Dichloroethane	25	U
540-59-0	1,2-Dichloroethene (total)	580	D
67-66-3	Chloroform	25	U
107-06-2	1,2-Dichloroethane	25	U
78-93-3	2-Butanone	50	U
71-55-6	1,1,1-Trichloroethane	25	U
56-23-5	Carbon Tetrachloride	25	U
108-05-4	Vinyl Acetate	50	U
75-27-4	Bromodichloromethane	25	U
78-87-5	1,2-Dichloropropane	25	U
10061-01-5	cis-1,3-dichloropropene	25	U
79-01-6	Trichloroethene	67	D
124-48-1	Dibromochloromethane	25	U
79-00-5	1,1,2-Trichloroethane	25	U
71-43-2	Benzene	3	DJ
10061-02-6	Trans-1,3-Dichloropropene	25	U
75-25-2	Bromoform	25	U
108-10-1	4-Methyl-2-Pentanone	50	U
591-78-6	2-Hexanone	50	U
127-18-4	Tetrachloroethene	140	D
79-34-5	1,1,2,2-Tetrachloroethane	25	U
108-88-3	Toluene	25 ~~7~~	BDJ
108-90-7	Chlorobenzene	25	U
100-41-4	Ethylbenzene	25	U
100-42-5	Styrene	25	U
1330-20-7	Total Xylenes	25	U

RK 8/23/89

RK 8/23/89

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA Sample No. EDT61DL

Lab Name: RECRA ENVIRONMENTAL, INC.

Contract: 68-W8-0047

Lab Code: RECNY Case No: 12231 SAS No:

SDG No: EDT56

Matrix (Soil/Water): WATER

Lab Sample Id: EDT61DL

Sample wt/vol: 1.0 (g/ml): ML

Lab File Id: 5297D

Level (low/med): LOW

Date Recieved: 06-29-89

% Moisture not Dec:

Date Analyzed: 07-03-89

Column: (pack/cap): PACK

Dilution Factor: 5.00

Number TICs Found: 0

Concentration Units:

(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
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20					
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23					
24					
25					
26					
27					
28					
29					
30					

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EDT62

Lab Name: RECRA ENVIRON Contract: 68-W8-0047

Lab Code: RECNY Case No.: 12231 SAS No.: _____ SDG No.: EDT56

Matrix: (soil/water) WATER Lab Sample ID: EDT62

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 5273D

Level: (low/med) LOW Date Received: 06/29/89

% Moisture: not dec. _____ Date Analyzed: 06/30/89

Column: (pack/cap) PACK Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	910	E
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5 ~~9~~	~~B~~ M
67-64-1	Acetone	13	
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	1	J
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	2900	E
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	29	
10061-01-5	cis-1,3-dichloropropene	5	U
79-01-6	Trichloroethene	30	
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	50	
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	17	
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	27	~~B~~
108-90-7	Chlorobenzene	0.5	J
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total Xylenes	5	U

RK 6/23/89

RK 6/23/89

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA Sample No. EDT62

Lab Name: RECRA ENVIRONMENTAL, INC. Contract: 68-W8-0047

Lab Code: RECNY Case No: 12231 SAS No: SDG No: EDT56

Matrix (Soil/Water): WATER Lab Sample Id: EDT62

Sample wt/vol: 5.0 (g/ml): ML Lab File Id: 5273D

Level (low/med): LOW Date Recieved: 06-29-89

% Moisture not Dec: Date Analyzed: 06-30-89

Column: (pack/cap): PACK Dilution Factor: 1.00

Number TICs Found: 1 Concentration Units:

(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1		CHLORO PYRIDINE ISOMER	23.47	13	BJ
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
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25					
26					
27					
28					
29					
30					

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
EDT62DL

Lab Name: RECRA ENVIRON Contract: 68-W8-0047

Lab Code: RECNY Case No.: 12231 SAS No.: _____ SDG No.: EDT56

Matrix: (soil/water) WATER Lab Sample ID: EDT62DL

Sample wt/vol: 0.10 (g/mL) ML Lab File ID: 5316D

Level: (low/med) LOW Date Received: 06/29/89

% Moisture: not dec. _____ Date Analyzed: 07/05/89

Column: (pack/cap) PACK Dilution Factor: 50.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	500	U
74-83-9	Bromomethane	500	U
75-01-4	Vinyl Chloride	630	D
75-00-3	Chloroethane	500	U
75-09-2	Methylene Chloride	~~249~~	~~BDJ~~ M
67-64-1	Acetone	500	U
75-15-0	Carbon Disulfide	250	U
75-35-4	1,1-Dichloroethene	250	U
75-34-3	1,1-Dichloroethane	250	U
540-59-0	1,2-Dichloroethene (total)	2500	D
67-66-3	Chloroform	250	U
107-06-2	1,2-Dichloroethane	250	U
78-93-3	2-Butanone	500	U
71-55-6	1,1,1-Trichloroethane	250	U
56-23-5	Carbon Tetrachloride	250	U
108-05-4	Vinyl Acetate	500	U
75-27-4	Bromodichloromethane	250	U
78-87-5	1,2-Dichloropropane	250	U
10061-01-5	cis-1,3-dichloropropene	250	U
79-01-6	Trichloroethene	250	U
124-48-1	Dibromochloromethane	250	U
79-00-5	1,1,2-Trichloroethane	250	U
71-43-2	Benzene	44	DJ
10061-02-6	Trans-1,3-Dichloropropene	250	U
75-25-2	Bromoform	250	U
108-10-1	4-Methyl-2-Pentanone	500	U
591-78-6	2-Hexanone	500	U
127-18-4	Tetrachloroethene	250 ~~180~~	~~BDJ~~ M
79-34-5	1,1,2,2-Tetrachloroethane	250	U
108-88-3	Toluene	250 ~~66~~	~~BDJ~~ M
108-90-7	Chlorobenzene	250	U
100-41-4	Ethylbenzene	250	U
100-42-5	Styrene	250	U
1330-20-7	Total Xylenes	250	U

RK 8/23/89

RK 8/23/89

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA Sample No. EDT62DL

Lab Name: RECRA ENVIRONMENTAL, INC.

Contract: 68-W8-0047

Lab Code: RECNY Case No: 12231 SAS No:

SDG No: EDT56

Matrix (Soil/Water): WATER

Lab Sample Id: EDT62DL

Sample wt/vol: 0.10 (g/ml): ML

Lab File Id: 5316D

Level (low/med): LOW

Date Recieved: 06-29-89

% Moisture not Dec:

Date Analyzed: 07-05-89

Column: (pack/cap): PACK

Dilution Factor: 50.0

Number TICs Found: 0

Concentration Units:

(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
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28					
29					
30					

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EDT63

Lab Name: RECRA ENVIRON Contract: 68-W8-0047

Lab Code: RECNY Case No.: 12231 SAS No.: _____ SDG No.: EDT56

Matrix: (soil/water) WATER Lab Sample ID: EDT63

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 5295D

Level: (low/med) LOW Date Received: 06/29/89

% Moisture: not dec. _____ Date Analyzed: 07/03/89

Column: (pack/cap) PACK Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L		Q
74-87-3	Chloromethane	10	U	
74-83-9	Bromomethane	10	U	
75-01-4	Vinyl Chloride	41		
75-00-3	Chloroethane	10	U	
75-09-2	Methylene Chloride	5 2	~~BJ~~ m	RK 8/23/89
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	12		
540-59-0	1,2-Dichloroethene (total)	120		
67-66-3	Chloroform	5	U	
107-06-2	1,2-Dichloroethane	5	U	
78-93-3	2-Butanone	10	U	
71-55-6	1,1,1-Trichloroethane	5	U	
56-23-5	Carbon Tetrachloride	5	U	
108-05-4	Vinyl Acetate	10	U	
75-27-4	Bromodichloromethane	5	U	
78-87-5	1,2-Dichloropropane	5	U	
10061-01-5	cis-1,3-dichloropropene	5	U	
79-01-6	Trichloroethene	7		
124-48-1	Dibromochloromethane	5	U	
79-00-5	1,1,2-Trichloroethane	5	U	
71-43-2	Benzene	2	J	
10061-02-6	Trans-1,3-Dichloropropene	5	U	
75-25-2	Bromoform	5	U	
108-10-1	4-Methyl-2-Pentanone	10	U	
591-78-6	2-Hexanone	10	U	
127-18-4	Tetrachloroethene	0.7	J	
79-34-5	1,1,2,2-Tetrachloroethane	5	U	
108-88-3	Toluene	5 1	~~BJ~~ m	RK 8/23/89
108-90-7	Chlorobenzene	5	U	
100-41-4	Ethylbenzene	5	U	
100-42-5	Styrene	5	U	
1330-20-7	Total Xylenes	5	U	

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA Sample No. EDT63

Lab Name: RECRA ENVIRONMENTAL, INC. Contract: 68-W8-0047

Lab Code: RECNY Case No: 12231 SAS No: SDG No: EDT56

Matrix (Soil/Water): WATER Lab Sample Id: EDT63

Sample wt/vol: 5.0 (g/ml): ML Lab File Id: 5295D

Level (low/med): LOW Date Recieved: 06-29-89

% Moisture not Dec: Date Analyzed: 07-03-89

Column: (pack/cap): PACK Dilution Factor: 1.00

Number TICs Found: 0 Concentration Units:

(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
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25					
26					
27					
28					
29					
30					

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EDT64

Lab Name: RECRA ENVIRON Contract: 68-W8-0047

Lab Code: RECNY Case No.: 12231 SAS No.: _____ SDG No.: EDT56

Matrix: (soil/water) WATER Lab Sample ID: EDT64

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 5278D

Level: (low/med) LOW Date Received: 06/29/89

% Moisture: not dec. ____ Date Analyzed: 06/30/89

Column: (pack/cap) PACK Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	610	E
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5 ~~4~~	~~B~~ B m
67-64-1	Acetone	22	
75-15-0	Carbon Disulfide	12	~~B~~ B m
75-35-4	1,1-Dichloroethene	0.7	J
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	900	E
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-dichloropropene	5	U
79-01-6	Trichloroethene	5	
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	2	J
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	1	J
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5 ~~1~~	~~B~~ B m
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total Xylenes	5	U

KK 8/23/89

KK 8/23/89

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA Sample No. EDT64

Lab Name: RECRA ENVIRONMENTAL, INC.

Contract: 68-W8-0047

Lab Code: RECNY Case No: 12231 SAS No:

SDG No: EDT56

Matrix (Soil/Water): WATER

Lab Sample Id: EDT64

Sample wt/vol: 5.0 (g/ml): ML

Lab File Id: 5278D

Level (low/med): LOW

Date Recieved: 06-29-89

% Moisture not Dec:

Date Analyzed: 06-30-89

Column: (pack/cap): PACK

Dilution Factor: 1.00

Number TICs Found: 1

Concentration Units:

(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1		CHLORO PYRIDINE ISOMER	23.47	11	BJN RK 8/23/89
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EDT64DL

Lab Name: RECRA ENVIRON Contract: 68-W8-0047

Lab Code: RECNY Case No.: 12231 SAS No.: _____ SDG No.: EDT56

Matrix: (soil/water) WATER Lab Sample ID: EDT64DL

Sample wt/vol: 1.0 (g/mL) ML Lab File ID: 5299D

Level: (low/med) LOW Date Received: 06/29/89

% Moisture: not dec. _____ Date Analyzed: 07/03/89

Column: (pack/cap) PACK Dilution Factor: 5.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L		Q
74-87-3	Chloromethane	50		U
74-83-9	Bromomethane	50		U
75-01-4	Vinyl Chloride	390		D
75-00-3	Chloroethane	50		U
75-09-2	Methylene Chloride	25 ~~20~~		~~BDJ~~ M
67-64-1	Acetone	53		~~BD~~ M
75-15-0	Carbon Disulfide	13		DJ
75-35-4	1,1-Dichloroethene	25		U
75-34-3	1,1-Dichloroethane	25		U
540-59-0	1,2-Dichloroethene (total)	700		D
67-66-3	Chloroform	25		U
107-06-2	1,2-Dichloroethane	25		U
78-93-3	2-Butanone	50		U
71-55-6	1,1,1-Trichloroethane	25		U
56-23-5	Carbon Tetrachloride	25		U
108-05-4	Vinyl Acetate	50		U
75-27-4	Bromodichloromethane	25		U
78-87-5	1,2-Dichloropropane	25		U
10061-01-5	cis-1,3-dichloropropene	25		U
79-01-6	Trichloroethene	25		U
124-48-1	Dibromochloromethane	25		U
79-00-5	1,1,2-Trichloroethane	25		U
71-43-2	Benzene	25		U
10061-02-6	Trans-1,3-Dichloropropene	25		U
75-25-2	Bromoform	25		U
108-10-1	4-Methyl-2-Pentanone	50		U
591-78-6	2-Hexanone	50		U
127-18-4	Tetrachloroethene	3		DJ
79-34-5	1,1,2,2-Tetrachloroethane	25		U
108-88-3	Toluene	25 ~~5~~		~~BDJ~~ M
108-90-7	Chlorobenzene	25		U
100-41-4	Ethylbenzene	25		U
100-42-5	Styrene	25		U
1330-20-7	Total Xylenes	25		U

RK 6/23/89

RK 6/23/89

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA Sample No. EDT64DL

Lab Name: RECRA ENVIRONMENTAL, INC.

Contract: 68-W8-0047

Lab Code: RECNY Case No: 12231 SAS No:

SDG No: EDT56

Matrix (Soil/Water): WATER

Lab Sample Id: EDT64DL

Sample wt/vol: 1.0 (g/ml): ML

Lab File Id: 5299D

Level (low/med): LOW

Date Recieved: 06-29-89

% Moisture not Dec:

Date Analyzed: 07-03-89

Column: (pack/cap): PACK

Dilution Factor: 5.00

Number TICs Found: 0

Concentration Units:

(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
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30					

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EDT65

Lab Name: RECRA ENVIRON Contract: 68-W8-0047

Lab Code: RECNY Case No.: 12231 SAS No.: _____ SDG No.: EDT56

Matrix: (soil/water) WATER Lab Sample ID: EDT65

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 5271D

Level: (low/med) LOW Date Received: 06/29/89

% Moisture: not dec. _____ Date Analyzed: 06/30/89

Column: (pack/cap) PACK Dilution Factor: 1.00

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

PK 6/29/89

PK 6/29/89

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA Sample No. EDT65

Lab Name: RECRA ENVIRONMENTAL, INC.

Contract: 68-W8-0047

Lab Code: RECNY Case No: 12231 SAS No:

SDG No: EDT56

Matrix (Soil/Water): WATER

Lab Sample Id: EDT65

Sample wt/vol: 5.0 (g/ml): ML

Lab File Id: 5271D

Level (low/med): LOW

Date Recieved: 06-29-89

% Moisture not Dec:

Date Analyzed: 06-30-89

Column: (pack/cap): PACK

Dilution Factor: 1.00

Number TICs Found: 1

Concentration Units:

(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1		CHLORO PYRIDINE ISOMER	23.47	15	BJ RK
2					
3					
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					

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EDT66

Lab Name: RECRA ENVIRON Contract: 68-W8-0047

Lab Code: RECNY Case No.: 12231 SAS No.: _____ SDG No.: EDT56

Matrix: (soil/water) WATER Lab Sample ID: EDT66

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 5269D

Level: (low/med) LOW Date Received: 06/29/89

% Moisture: not dec. _____ Date Analyzed: 06/30/89

Column: (pack/cap) PACK Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5 ~~2~~	~~BJ~~
67-64-1	Acetone	32	
75-15-0	Carbon Disulfide	5 ~~4~~	~~BJ~~ M
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	0.9	J
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5 ~~2~~	~~BJ~~ M
108-90-7	Chlorobenzene	0.8	J
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total Xylenes	5	U

RK 8/23/89

RK 8/23/89

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA Sample No. EDT66

Lab Name: RECRA ENVIRONMENTAL, INC. Contract: 68-W8-0047

Lab Code: RECNY Case No: 12231 SAS No: SDG No: EDT56

Matrix (Soil/Water): WATER Lab Sample Id: EDT66

Sample wt/vol: 5.0 (g/ml): ML Lab File Id: 5269D

Level (low/med): LOW Date Recieved: 06-29-89

% Moisture not Dec: Date Analyzed: 06-30-89

Column: (pack/cap): PACK Dilution Factor: 1.00

Number TICs Found: 1 Concentration Units:

(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1		CHLORO PYRIDINE ISOMER	23.50	17	BJ 11 RK 5/23/89
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
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15					
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23					
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25					
26					
27					
28					
29					
30					

REFUSE HIDEAWAY CASE #12231 VOLATILE ANALYSIS FOR WATER SAMPLES

Sample Number		S01		S02		S03		S04		S05		S06		S07		S08	
Traffic Report Number	CRDL (UG/L)	EDT56		EDT57		EDT58		EDT59		EDT60		EDT61		EDT62		EDT63	
vinyl chloride	10	10	U	6	J	10	U	10	U	3	J	120		630	D	41	
acetone	10	11	U	14		10	U	10	U	10	U	12		13		10	U
carbon disulfide	5	28		290	E	5	U	5	U	5	U	5	U	5	U	5	U
1,1-dichloroethane	5	5	U	5	U	5	U	5	U	5	U	5	U	5	U	12	
1,2-dichloroethene	5	2	J	6		14		41		12		580	D	2500	D	120	
1,2-dichloropropane	5	5	U	5	U	5	U	5	U	5	U	5	U	29		5	U
trichloroethene	5	5	U	5	U	4	J	9		10		53		30		7	
benzene	5	5	U	5	U	5	U	5	U	5	U	2	J	50		2	J
tetrachloroethene	5	0.7	J	0.7	J	24		21		12		120		17		0.7	J
toluene	5	5	U	10	D	5	U	5	U	5	U	5	U	27		5	U

REFUSE HIDEAWAY CASE #12231 VOLATILE ANALYSIS FOR WATER SAMPLES

Sample Number		S09		D03		R01		R02	
Traffic Report Number	CRDL (UG/L)	EDT64		EDT65		EDT66		EDT67	
vinyl chloride	10	390	D	10	U	10	U	10	U
acetone	10	22		10	U	32	U	78	
carbon disulfide	5	13	DJ	5	U	5	U	5	U
1,1-dichloroethane	5	5	U	5	U	5	U	5	U
1,2-dichloroethene	5	700	D	14		5	U	5	U
1,2-dichloropropane	5	5	U	5	U	5	U	5	U
trichloroethene	5	5		4	J	5	U	5	U
benzene	5	2	J	5	U	5	U	5	U
tetrachloroethene	5	1	J	25		0.9	J	5	U
toluene	5	5	U	5	U	5	U	5	U

REFUSE HIDEAWAY CASE #12231 METALS ANALYSIS FOR WATER SAMPLES

Sample Number		S01		S02		S03		S04		D03		R01	
Traffic Report Number	CRDL (UG/L)	MEDN44		MEDN45		MEDN46		MEDN47		MEDN48		MEDN49	
aluminum	200	1560		115	U	115	U	115	U	3040		115	U
arsenic	10	3	U	25		3	U	3	U	3	U	3	U
barium	200	62.2	B	43.3	B	46	B	27	B	265		25	U
calcium	5000	34500		81200		81800		85400		155000		1950	U
copper	25	14	U	14	U	14	U	14.2	B	43.3		14	U
iron	100	2290		442		477		29	U	36600		29	U
lead	5	3.2	U	26.2		3	U	5.5	S	10.6	S	3	U
magnesium	5000	14600		44800		44400		47300		78200		2500	U
manganese	15	137		37		38.3		6	U	4160		6	U
potassium	5000	2900	U	2900	U	2900	U	2900	U	13600		29	U
sodium	5000	7930		3350	B	3980	B	4920	B	41900		1250	U
zinc	20	12	U	604		632		12	U	503		12	U

ALL METALS DATA SHOULD BE CONSIDERED ESTIMATED DUE TO LAB PROCEDURES.