US EPA RECORDS CENTER REGION 5
445243

SITE ASSESSMENT REPORT

FOR

Carstab Corporation Site

Reading, Hamilton County, Ohio

EPA ID: OHD000724138

TDD: T05-9105-009

PAN: EOH0022SAA

August 9, 1991

Prepared for:

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Emergency Support Section

EPA - REGION V

Contract Number: 68-W0-0037

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INTRODUCTION

The Ecology and Environment, Inc., Technical Assistance Team (TAT) was tasked by the United States Environmental Protection Agency (U.S. EPA) through Technical Directive Document #05-9105-009 to conduct a site assessment of the Carstab Corporation site (CCS) at 2000 West Street, Reading, Hamilton County, Ohio (Figure 1). The site was selected for investigation by the Emergency and Enforcement Response Branch based on a referral from the U.S. EPA pre-remedial program Field Investigation Team (FIT). The FIT had observed and sampled a dry crystalline substance on the east bank of the Mill Creek immediately adjacent to the CCS. The FIT also noted similar contaminants in the monitoring well samples collected from the CCS and in municipal well fields within a one-mile radius of the CCS.

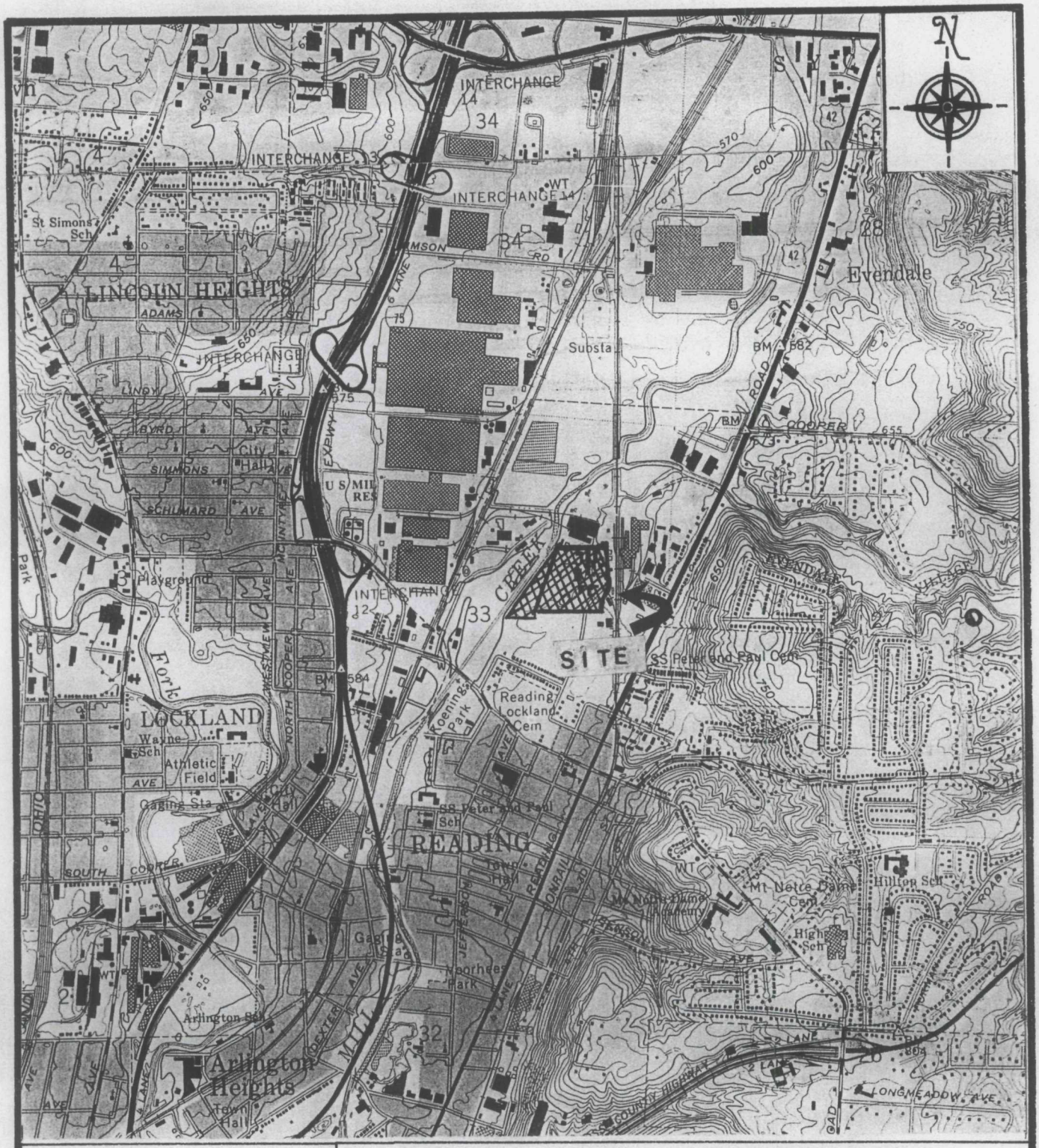
TAT performed a site assessment which included an extensive file review and background research of the CCS, collection of ten soil/sediment samples from areas around the perimeter of the site, and conducted an ecological assessment of the Mill Creek. The ecological assessment entailed the comparison, photodocumentation, and videodocumentation of the flora and fauna near the CCS and in areas up-stream.

BACKGROUND

The CCS is an active chemical manufacturing plant producing synthetic stabilizers and plasticizer additives. The site is located on 26 acres of land. The CCS began operation in December, 1949, and has been owned and operated by Morton Thiokol International since July, 1989.

Between 1950 and 1955, six earthen pits were excavated on the CCS to be used as disposal pits for selected liquid wastes. The pits were located on northwest portion of the site. Each pit was five to six feet deep and had a surface area of 2,500 square feet. In 1980 the pits were dredged and backfilled with dolomite stone.

On June 29, 1979, Ohio EPA personnel reported a leachate release into the Mill Creek near the CCS. The leachate had entered the Mill Creek from the east bank. Results of a leachate sampling indicated elevated levels of inorganic metals (Hydrogeologic Study of Cincinnati Drums-Carstab-Pristine Sites, FIT 1982).



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TITLE SITE LOCATION MAP	FIGURE # 1
SITE CARSTAB CORPORATION SITE	SCALE 1:24,000
SOURCE: USGS,GLENDALE,OHIO,7.5 SERIES,1965 CINCINNATI EAST,OHIO,7.5 SERIES,1965	CITY CINCINNATI STATE OHIO
	PAN # EOH0022SAA

On April 10, 1980, during an inspection of Pristine Inc. conducted by U.S. EPA personnel, three samples were taken from Reading, Ohio's municipal wells. Results indicated levels of arsenic above drinking water standards.

In 1982 and 1991, the U.S. EPA and the Ohio EPA, respectively, reported that steel and fiber drums containing potentially hazardous waste were buried at depths up to 15 feet on the southwest portion of the CCS property.

In 1982 during a hydrogeological study conducted on Cincinnati Drums-Pristine-Carstab sites, FIT contractors collected eight soil samples, six surface water samples, and eighteen monitoring well samples. These samples were scattered in location in order to represent the three sites together. The results of soil samples taken from the northwest corner of the CCS indicated levels of 1,2-dichloroethane, arsenic, and lead below levels of concern. Results of monitoring well samples collected from the southwest portion of the CCS indicated levels of organics including 270ppm hexachloroethane, 100ppm hexachlorobutadiene, and 40ppm 1,2-dichloroethane.

In 1984, the CCS installed a groundwater collection and treatment system. The system consisted of a slurry wall 20 feet deep along the north and northwestern boundary of the site. The slurry wall was apparently placed to stop potentially contaminated shallow groundwater from flowing across the site from the north toward the southeast. CCS also installed a french drain collection system along the western boundary of the site. This system intercepted and prevented potentially contaminated groundwater from entering the Mill Creek just west of the site. The water collected from the french drain system is treated on-site before being discharged into the Cincinnati Metropolitan Sewer District system.

In June, 1988, the Ohio-Kentucky-Indiana Regional Council of Governments identified the CCS as one of more than 760 potential sources of groundwater pollution in Butler, Clermont, Hamilton and Warren Counties in Ohio. The CCS was categorized as a hazardous waste generator and disposal site. The report noted the site is located over a drinking water aquifer and is within 0.2 miles of some of the municipal well intakes for the city of Reading, which are scattered to the northwest and southwest of the CCS. Sites within 0.2 miles of well intakes were highlighted in the report as significant concerns.

According to a report in the Bureau of National Affairs Journal dated May 26, 1989, the Ohio EPA ordered the closing of Reading, Ohio's largest municipal well due to the contamination of 27.5ppb of 1,2-dichloroethane. The location of this well is south of CCS. The Ohio EPA ordered the City of Reading to look for an alternate groundwater supply. The City of Reading put the well back into service in 1991, subsequent to the installation of an air stripper to decontaminate the groundwater.

In 1990, the FIT conducted a site inspection of the CCS. During this inspection, FIT collected five on-site soil samples, one sediment sample from the northwest corner of CCS on the east bank of the Mill Creek, and five groundwater samples from on-site monitoring wells. FIT observed a dry crystalline substance at the northwest corner of the CCS outside the fence line on the eastern bank of the Mill Creek. Results of the soil samples indicated levels of organic and inorganic contaminants including 280ppm 1,3-dichlorobenzene, 3,300ppm 1,2-dichlorobenzene and lead at 98.8ppm. The results of groundwater samples indicated of 33ppm arsenic. These contaminants detected in the on-site soil samples and groundwater samples are among the chemicals used for on-site operation at the CCS.

In 1991, the University of Cincinnati Groundwater Research Center, in cooperation with Ohio Department of Natural Resources Division of Water, conducted a study of groundwater pollution potential in Hamilton County, Ohio. The report assigned a relatively high pollution potential index to the Mill Creek valley area occupied by CCS. It can be inferred from this report that communication between the shallow groundwater aquifer and the deeper aquifer used for drinking water is significant in this area.

SITE ASSESSMENT/ECOLOGICAL FIELD OBSERVATION

The Carstab Corporation Site is located on the northwest portion of Reading, Hamilton County, Ohio. The area to the west of the site is wooded. The population within a one-mile radius of the site is approximately 12,800 persons (US Bureau of Census, 1982). The nearest residents in the area are situated less than 1000 ft. to the southwest of the site. The Mill Creek is immediately adjacent to the west side of the CCS. A Reading, Ohio municipal well is situated less than 2000 feet south of the CCS. The Koening Park playgrounds are immediately south of

the CCS. The area to the north and northwest of the site is primarily active industrial area.

The CCS is located in an urban area occupied by residences and industry. The CCS is bordered to the north by Cincinnati Drums Co. and Pristine Inc. Cincinnati Drums is an active facility which recycles and reclaims industrial material containers, and lies immediately north of the CCS. Pristine Inc. is a chemical waste incineration and storage facility and is currently on the National Priority List (NPL). Pristine Inc. is located northwest of the CCS (Figure 2).

TAT collected three soil samples from the playground area south of the CCS. TAT collected seven sediment samples from the western boundary of the CCS alongside the eastern bank of the Mill Creek to evaluate any leachate migration of contaminants from the on-site soil to the creek. The analytical results of TAT collected samples did not indicate contaminants at or above levels of concern. TAT did not collect groundwater samples from on-site monitoring wells during this study.

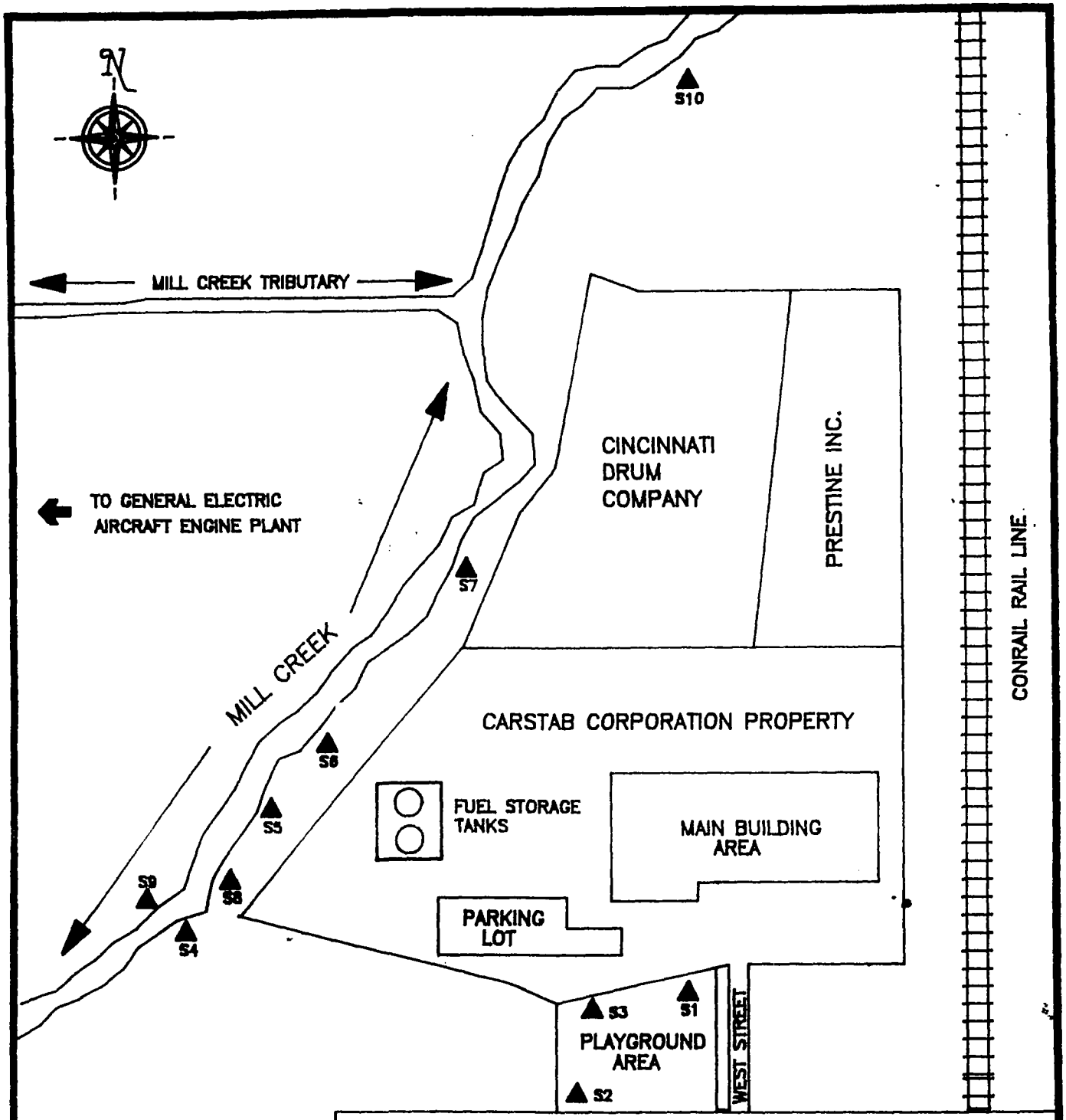
During the time of the inspection, TAT did not observe the dry crystalline substance as reported by FIT at the northwest corner of the CCS, or alongside the western boundary of the site on the eastern bank of the Mill Creek.

TAT observed an oily sheen on the top of the Mill Creek water at the southwest corner of the CCS during the time of the site inspection. TAT traced the sheen up-stream north of the CCS, but could not located the source (See Site Photograph Log Attachment B).

TAT observed two partially uncovered drums on the west bank of the Mill Creek near the CCS. One of the drums was marked with the wording "Cincinnati". The source of these drums is unknown to TAT (See Attachment B).

Field observations were made of the Mill Creek at four separate locations to provide a comparison of the CCS with other areas along the Mill Creek. The Mill Creek begins in Butler County in the Fairfield Township area, and flows south through Hamilton County and the Cincinnati Valley area where it then empties into the Ohio River. There are several feeder creeks to the Mill Creek as well as an east and west fork.

A variety of businesses and industries are located along the Mill Creek from the northern border of Hamilton County to the Ohio River. The Mill



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LEGEND

▲ U.S. EPA TAT SOIL/SEDIMENT SAMPLE LOCATIONS

TITLE SITE SKETCH		FIGURE # 2
SITE CARSTAB CORP. SITE		SCALE NONE
DRAWN BY/DATE DOUG DUNDERMAN/7-18-91	CITY CINCINNATI STATE OHIO	PAN# EOH0022SAA

Creek flows directly along the western boundary of the CCS property in the City of Reading, Ohio. The General Electric Aircraft Engine Plant, the U.S. Air Force Plant #36 (at General Electric), Formica Company, Cincinnati Drum, and Pristine, Inc. are examples of companies, including CERCLIS and NPL sites, which border the Mill Creek and are in close proximity of the CCS.

Three upstream locations on the Mill Creek system were selected to the north of all industrial sites for comparative ecological observations. The field observations were made June 17, 1991, through June 19, 1991, during the time periods of 1300 to 1600 hours each day.

All three northern creek locations displayed a wide variety of flora and fauna. Aquatic life was abundant with the water visibly clean and no contamination that could be observed. These ecosystems met criteria as temperate deciduous wetlands.

The area near the CCS, also a temperate deciduous wetland, displayed an equal diversity of flora and fauna with abundant aquatic life. The main difference in this area was a lack of birds and flying insects around the immediate vicinity of the CCS area; which were abundant in the other three observed areas. The creek also had a "sheen" on the water surface at this location, resembling a solvent or oil sheen. The point of origin for this occurrence was determined not to have originated from CCS, as it was observed approximately 1/4 mile north of the CCS as well. No "sheen" was observed in the three other locations. A prevalent solvent odor was also evident in the creek area of CCS, which was not present in the other three locations. However, this too indicated no point of origin for the smell due to the numerous industrial sites in the immediate vicinity.

In summary, no visible evidence of vegetative or animal stress was observed at Carstab in relation to the other areas. The water "sheen" and the solvent odor were the only detectable differences between Carstab and the other Mill Creek areas.

ANALYTICAL RESULTS

On June 7, 1991, TAT collected nine soil samples and one background soil sample (See Sampling Location Map). Soil Samples S1 thru S3 were taken from the playground area adjacent to the CCS facility. Soil/sediment

samples S4-S8 were taken off-site along the eastern bank of the Mill Creek at the western boundary of the the CCS. Soil/sediment-sample S9 was taken from the west bank of Mill Creek across from the CCS facility and immediately east of the General Electric Plant. Sediment sample S10 was a background sample collected seven miles to the north of the CCS site.

Analytical data of soil samples S1 thru S3 detected levels of lead and arsenic at a maximum of 40ppm and 12.8ppm respectively. PAH compounds were detected in all samples at relatively consistent levels. Levels of up to 380ppb pyrene, 130ppb fluoranthene and 140ppb benzopyrene were detected in soil samples S1 thru S3. The same contaminants were detected at higher levels in soil/sediments samples S4 thru S8. (See Analytical Results Attachment A). Results of soil/sediments samples S4 thru S8 indicated maximum levels of lead at 75.6ppm, chromium at 67.9ppm and arsenic at 8.1ppm.

DISCUSSION OF POTENTIAL THREATS

The following factors outlined in 40 CFR 300.415 (b)(2) of the National Contingency Plan were found to be potentially applicable to the CCS, and were considered in the threat assessment discussion:

Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants: Information obtained from the file review indicate that hazardous substances were formerly buried or placed in pits on-site and have been found in on-site soils and on-site groundwater monitoring well samples. TAT sampling results were able to identify hazardous substances lead, chromium, arsenic, and some PAH compounds in off-site soil samples collected from the creek bank and from the playground located adjacent to the site. However, comparable amounts of these substances were also found in soil samples collected from the opposite creek bank and in the background sample. The highest levels of the hazardous substances detected in any of the off-site samples collected by TAT do not approach or exceed previously established removal action levels for comparable sites in comparable situations and do not appear to pose an immediate and substantial threat to human health or the environment.

Actual or potential contamination of drinking water supplies and/or sensitive ecosystems: Numerous reports reviewed by TAT indicate that the CCS and other sites in the vicinty have a strong potential for groundwater contamination which could impact drinking water supplies in the deeper aquifer below. Drinking water intake wells serving 35,000 people are within 0.2 miles of the CCS. As indicated in the background section, contamination with compounds indigenous to CCS have been detected in local drinking water wells located downgradient from the CCS. File data indicates that contamination with hazardous substances was detected on-site in both soil and shallow groundwater monitoring well samples. However, due to the close proximity of other industrial sites including several CERCLIS and NPL sites to both CCS and the local wellfields, it would not be an easy matter to attribute contamination to any particular source. Further sampling of on-site monitoring wells, establishment and sampling of shallow off-site monitoring wells, and examination of area groundwater flow patterns might be useful in determining the actual or potential impact CCS has on the area shallow aquifer and ultimately the drinking water aquifer.

The comparative ecological assessment of the Mill Creek areas did not detect a significant environmental impact upon the ecosystem of the creed which could be attributed to the CCS. An oily sheen and a solvent odor were detected in the vicinty of CCS but the source of the sheen was confirmed to have originated upstream from CCS. Soil sampling on the bank adjacent to the CCS did not detect significantly elevated levels of hazardous substances or pollutants or contaminants which might suggest a gradient or significant migration of contaminants impacting the creek.

SUMMARY

The Ecology and Environment Inc., Technical Assistance Team performed a site assessment of the CCS and a comparative ecological assessment of Mill Creek in the vicinity of the site. TAT collected a total of ten sediment/soil samples. Sample analytical results taken from the area around the perimeter of the site indicated levels of contaminants similar to those detected in the background sample taken seven miles upstream. A file review performed by TAT revealed that CCS is located over a drinking

water aquifer and in close proximity to drinking water intakes. Contamination of local municipal wells has occurred from contaminants found to be present in the on-site soils and groundwater monitoring wells of CCS. However, attribution of the contamination to CCS by sampling was not within the scope of this investigation. The comparative ecological assessment did not detect a significant environmental impact which could be attributed to the CCS. TAT detected an oily sheen on the creek near CCS which was determined to have originated upstream of CCS. No evidence of surface migration of contaminants was detected around the perimeter of the CCS. There were no contaminants detected at or above levels of concern in soil samples collected from the playground area immediately south of the CCS. In summary, TAT did not identify evidence which suggests the need for an immediate removal action. However, TAT identified several areas which might warrant further study, namely tracing the source of the oily sheen and examination of shallow groundwater flow patterns and quality both on-site and off-site in the vicinity of CCS.

ATTACHMENT A

Sample Analytical Data
and Data Validation

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MEMORANDUM

DATE: June 28, 1991

TO: Sammy Sirhan, Project Manager, E & E, Cincinati, Ohio

FROM: Jane Malkin, TAT-Chemist, E & E, Chicago, IL

THRU: Brenda Jones, TAT-Chemist, E & E, Chicago, IL

SUBJ: **Organic Data Quality Assurance Review,** Carstab Corporation, Hamilton, Ohio

REF: Analytical TDD: T05-9105-801 Project TDD: T05-9105-009
Analytical PAN: E0H0022AAA Project PAN: E0H0022SAA

The data quality assurance review of 10 soil samples collected from the Carstab site in Hamilton, Ohio has been completed. Analysis for volatile organics (EPA method 8240) was performed by DataChem, Salt Lake, Ohio.

The 10 samples were numbered: S1 through S10

Data Qualifications:

I Holding Time: Acceptable

The samples were collected on June 7, 1991, and they were analyzed by June 15, 1991, which met the required holding time of 14 days for volatiles.

II GC/MS Tuning: Acceptable.

GC/MS tuning ion abundance criteria for Bromofluorobenzene (BFB) was within the established control limits.

III Calibration

A. Initial Calibration: Acceptable

A 5 point inital calibration was performed prior to sample analysis with 20, 50, 100, 150, 200 ppm standards. All average relative response factors (RRF) were greater than 0.05 and the percent relative standard deviation between the response factors was less than 30%.

recycled paper

B. Continuing Calibration: Acceptable

Continuing calibrations were performed with the sample analysis. All continuing calibration standard RRFs were greater than 0.05 and the percent difference (%D) from the inital calibration were less than 25%.

IV Method Blank:

A method blank was analyzed with the samples. There were no contaminants found in the blank above the instrument detection limit (IDL) except for Acetone, and 2-Butanone. Since these two chemicals are common laboratory contaminants, no action is taken.

V Surrogate Recovery: Acceptable

The percent surrogate recoveries were all within the control limits.

VI Matrix Spike/Matrix Spike Duplicates: Acceptable

The lab spiked sample number S10. The percent recoveries of the Matrix Spike/Matrix Spike Duplicates (MS/MSD) were all within the control limits. The relative percent difference (RPD) between the recoveries were all within the control limits.

VII Field Duplicates: Not applicable.

VIII Internal Standards Performance: Acceptable

Internal standards (IS) area counts were all within the control limits of -50% to +100%. IS retention times were within the $\pm$ 30 second control limit.

IX TCL Compound Identification: Acceptable

All positive results were identified correctly and sample spectra relative intensity matched the standard spectra within 20%.

X Compound Quantitation and Detection Limits: Acceptable

Quantitation calculation were recalculated by spot check to verify accuracy. Ther reported sample analyte concentrations and detection limits accurately reflect concentrations, dilutions, sample weights, etc.

VIII Overall Assessment of Data for Use

The overall usefulness of the data is based on the criteria outlined in "Laboratory Data Validation Functional Guidelines for Evaluating Organic Analyses" (February, 1988).

Based upon the information provided, the data are acceptable for use with the above stated data qualifications.

Data Qualifiers and Definitions

J - The associated numerical value is an estimated quantity because the reported concentrations were less than the contract required detection limits or quality control criteria were not met.

U - The material was analyzed for but was not detected. The associated numerical value is the sample quantitation limit.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S1

Lab Name: DATACHEM CABS Contract: 19005

Lab Code: DATAC Case No.: E0H0022 SAS No.: _____ SDG No.: 13585

Matrix: (soil/water) SOIL Lab Sample ID: 91-13585

Sample wt/vol: 5 (g/mL) G Lab File ID: AC15S13585

Level: (low/med) LOW Date Received: 06/07/91

% Moisture: not dec. 10. Date Analyzed: 06/14/91

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

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

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	11.	U
74-83-9	Bromomethane	11.	U
75-01-4	Vinyl Chloride	11.	U
75-00-3	Chloroethane	11.	U
75-09-2	Methylene Chloride	4.	J
67-64-1	Acetone	37.	
75-15-0	Carbon Disulfide	6.	U
75-35-4	1,1-Dichloroethene	6.	U
75-34-3	1,1-Dichloroethane	6.	U
540-59-0	1,2-Dichloroethene (total)	6.	U
67-66-3	Chloroform	6.	U
107-06-2	1,2-Dichloroethane	6.	U
78-93-3	2-Butanone	11.	U
71-55-6	1,1,1-Trichloroethane	6.	U
56-23-5	Carbon Tetrachloride	6.	U
108-05-4	Vinyl Acetate	11.	U
75-27-4	Bromodichloromethane	6.	U
78-87-5	1,2-Dichloropropane	6.	U
10061-01-5	cis-1,3-Dichloropropene	6.	U
79-01-6	Trichloroethene	6.	U
124-48-1	Dibromochloromethane	6.	U
79-00-5	1,1,2-Trichloroethane	6.	U
71-43-2	Benzene	6.	U
10061-02-6	trans-1,3-Dichloropropene	6.	U
75-25-2	Bromoform	6.	U
108-10-1	4-Methyl-2-Pentanone	11.	U
591-78-6	2-Hexanone	11.	U
127-18-4	Tetrachloroethene	6.	U
79-34-5	1,1,2,2-Tetrachloroethane	6.	U
108-88-3	Toluene	6.	U
108-90-7	Chlorobenzene	6.	U
100-41-4	Ethylbenzene	6.	U
100-42-5	Styrene	6.	U
1330-20-7	Xylene (total)	6.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO: S1

Lab Name: DATACHEM LABS Contract: 19005

Lab Code: DATAC Case No.: ECH0022 SAS No.: _____ SDG No.: 13585

Matrix: (soil/water) SOIL Lab Sample ID: 91-13585

Sample wt/vol: 5 (g/mL) G Lab File ID: AC15513585

Level: (low/med) LOW Date Received: 06/07/91

% Moisture: not dec. 10. Date Analyzed: 06/14/91

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

Number TICs found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		C8-UNSATURATED HYDROCARBON	27:33	19.	JB
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.

S2

Lab Name: DATACHEM LABS Contract: 19005

Lab Code: DATAC Case No.: EOH0022 SAS No.: _____ SDG No.: 13585

Matrix: (soil/water) SOIL Lab Sample ID: 91-13586

Sample wt/vol: 5 (g/mL) G Lab File ID: AC16S13586

Level: (low/med) LOW Date Received: 06/07/91

% Moisture: not dec. 9 Date Analyzed: 06/14/91

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

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

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	11.	u
74-83-9	Bromomethane	11.	u
75-01-4	Vinyl Chloride	11.	u
75-00-3	Chloroethane	11.	u
75-09-2	Methylene Chloride	3.0	J
67-64-1	Acetone	35.	
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	29.	
71-55-6	1,1,1-Trichloroethane	5.	u
56-23-5	Carbon Tetrachloride	5.	u
108-05-4	Vinyl Acetate	11.	u
75-27-4	Bromodichloromethane	5.	u
78-87-5	1,2-Dichloropropane	5.	u
10061-01-5	cis-1,3-Dichloropropene	5.	u
79-01-6	Trichloroethene	5.	u
124-48-1	Dibromochloromethane	5.	u
79-00-5	1,1,2-Trichloroethane	5.	u
71-43-2	Benzene	5.	u
10061-02-6	trans-1,3-Dichloropropene	5.	u
75-25-2	Bromoform	5.	u
108-10-1	4-Methyl-2-Pentanone	11.	u
591-78-6	2-Hexanone	11.	u
127-18-4	Tetrachloroethene	5.	u
79-34-5	1,1,2,2-Tetrachloroethane	5.	u
108-88-3	Toluene	5.	u
108-90-7	Chlorobenzene	5.	u
100-41-4	Ethylbenzene	5.	u
100-42-5	Styrene	5.	u
1330-20-7	Xylene (total)	5.	u

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

S2

Lab Name: DATACHEM LABS Contract: 19005

Lab Code: DATAC Case No.: EOH00022 SAS No.: _____ SDG No.: 13585

Matrix: (soil/water) SOIL Lab Sample ID: 91-13586

Sample wt/vol: 5 (g/mL) G Lab File ID: AC16 S13586

Level: (low/med) LOW Date Received: 06/07/91

% Moisture: not dec. 9 Date Analyzed: 06/14/91

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

Number TICs found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		C8-UNSATURATED HYDROCARBON	27:32	29.	JB
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.

S3

Lab Name: DATACHEM LABS Contract: 19005

Lab Code: DATAC Case No.: EOH0022 SAS No.: _____ SDG No.: 13585

Matrix: (soil/water) SOIL Lab Sample ID: 91-13587

Sample wt/vol: 5 (g/mL) G Lab File ID: AC17S13587

Level: (low/med) LOW Date Received: 06/07/91

% Moisture: not dec. 14. Date Analyzed: 06/14/91

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

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

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	12.	u
74-83-9	Bromomethane	12.	u
75-01-4	Vinyl Chloride	12.	u
75-00-3	Chloroethane	12.	u
75-09-2	Methylene Chloride	6.	u
67-64-1	Acetone	190.	
75-15-0	Carbon Disulfide	6.	u
75-35-4	1,1-Dichloroethene	6.	u
75-34-3	1,1-Dichloroethane	6.	u
540-59-0	1,2-Dichloroethene (total)	6.	u
67-66-3	Chloroform	6.	u
107-06-2	1,2-Dichloroethane	6.	u
78-93-3	2-Butanone	47.	
71-55-6	1,1,1-Trichloroethane	6.	u
56-23-5	Carbon Tetrachloride	6.	u
108-05-4	Vinyl Acetate	12.	u
75-27-4	Bromodichloromethane	6.	u
78-87-5	1,2-Dichloropropane	6.	u
10061-01-5	cis-1,3-Dichloropropene	6.	u
79-01-6	Trichloroethene	6.	u
124-48-1	Dibromochloromethane	6.	u
79-00-5	1,1,2-Trichloroethane	6.	u
71-43-2	Benzene	6.	u
10061-02-6	trans-1,3-Dichloropropene	6.	u
75-25-2	Bromoform	6.	u
108-10-1	4-Methyl-2-Pentanone	12.	u
591-78-6	2-Hexanone	12.	u
127-18-4	Tetrachloroethene	6.	u
79-34-5	1,1,2,2-Tetrachloroethane	6.	u
108-88-3	Toluene	6.	u
108-90-7	Chlorobenzene	6.	u
100-41-4	Ethylbenzene	6.	u
100-42-5	Styrene	6.	u
1330-20-7	Xylene (total)	6.	u

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

S3

Lab Name: DATACHEM LABS Contract: 19005

Lab Code: DATAC Case No.: E0H0022 SAS No.: _____ SDG No.: 13585

Matrix: (soil/water) SOIL Lab Sample ID: 91-13587

Sample wt/vol: 5 (g/mL) G Lab File ID: AC17S13587

Level: (low/med) LOW Date Received: 06/07/91

% Moisture: not dec. 14. Date Analyzed: 06/14/91

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

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	C8-UNSATURATED HYDROCARBON	27:33	33.	JB
2.				
3.				
4.				
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S4

Lab Name: DATACHEM LABS Contract: 19005

Lab Code: DATAC Case No.: EOH0022 SAS No.: _____ SDG No.: 13585

Matrix: (soil/water) SOIL Lab Sample ID: 91-13588

Sample wt/vol: 5 (g/mL) G Lab File ID: AC185/3588

Level: (low/med) LOW Date Received: 06/07/91

% Moisture: not dec. 24. Date Analyzed: 06/14/91

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

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

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	13.	U
74-83-9	Bromomethane	13.	U
75-01-4	Vinyl Chloride	13.	U
75-00-3	Chloroethane	13.	U
75-09-2	Methylene Chloride	4.	J
67-64-1	Acetone	190.	
75-15-0	Carbon Disulfide	7.	U
75-35-4	1,1-Dichloroethene	7.	U
75-34-3	1,1-Dichloroethane	7.	U
540-59-0	1,2-Dichloroethene (total)	7.	U
67-66-3	Chloroform	7.	U
107-06-2	1,2-Dichloroethane	7.	U
78-93-3	2-Butanone	13.	U
71-55-6	1,1,1-Trichloroethane	7.	U
56-23-5	Carbon Tetrachloride	7.	U
108-05-4	Vinyl Acetate	13.	U
75-27-4	Bromodichloromethane	7.	U
78-87-5	1,2-Dichloropropane	7.	U
10061-01-5	cis-1,3-Dichloropropene	7.	U
79-01-6	Trichloroethene	7.	U
124-48-1	Dibromochloromethane	7.	U
79-00-5	1,1,2-Trichloroethane	7.	U
71-43-2	Benzene	7.	U
10061-02-6	trans-1,3-Dichloropropene	7.	U
75-25-2	Bromoform	7.	U
108-10-1	4-Methyl-2-Pentanone	13.	U
591-78-6	2-Hexanone	13.	U
127-18-4	Tetrachloroethene	7.	U
79-34-5	1,1,2,2-Tetrachloroethane	7.	U
108-88-3	Toluene	7.	U
108-90-7	Chlorobenzene	7.	U
100-41-4	Ethylbenzene	7.	U
100-42-5	Styrene	7.	U
1330-20-7	Xylene (total)	7.	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

S4

Lab Name: DATACHEM LABS Contract: 19005

Lab Code: DATAC Case No.: E0H0022 SAS No.: _____ SDG No.: 13585

Matrix: (soil/water) SOIL Lab Sample ID: 91-13588

Sample wt/vol: 5 (g/mL) G Lab File ID: AC18S13588

Level: (low/med) LOW Date Received: 06/07/91

% Moisture: not dec. 24. Date Analyzed: 06/14/91

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

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	C8- UNSATURATED HYDROCARBON	27:34	36.	JB
2.				
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

55

Lab Name: DATACHEM LABS Contract: 19005

Lab Code: DATAC Case No.: EOH0022 SAS No.: _____ SDG No.: 13585

Matrix: (soil/water) SOIL Lab Sample ID: 91-13589

Sample wt/vol: 5 (g/mL) G Lab File ID: AC19513589

Level: (low/med) LOW Date Received: 06/07/91

% Moisture: not dec. 11. Date Analyzed: 06/15/91

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

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

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	11.	U
74-83-9	Bromomethane	11.	U
75-01-4	Vinyl Chloride	11.	U
75-00-3	Chloroethane	11.	U
75-09-2	Methylene Chloride	2.	J
67-64-1	Acetone	140.	
75-15-0	Carbon Disulfide	6.	U
75-35-4	1,1-Dichloroethene	6.	U
75-34-3	1,1-Dichloroethane	6.	U
540-59-0	1,2-Dichloroethene (total)	6.	U
67-66-3	Chloroform	6.	U
107-06-2	1,2-Dichloroethane	6.	U
78-93-3	2-Butanone	11.	U
71-55-6	1,1,1-Trichloroethane	6.	U
56-23-5	Carbon Tetrachloride	6.	U
108-05-4	Vinyl Acetate	11.	U
75-27-4	Bromodichloromethane	6.	U
78-87-5	1,2-Dichloropropane	6.	U
10061-01-5	cis-1,3-Dichloropropene	6.	U
79-01-6	Trichloroethene	6.	U
124-48-1	Dibromochloromethane	6.	U
79-00-5	1,1,2-Trichloroethane	6.	U
71-43-2	Benzene	6.	U
10061-02-6	trans-1,3-Dichloropropene	6.	U
75-25-2	Bromoform	6.	U
108-10-1	4-Methyl-2-Pentanone	11.	U
591-78-6	2-Hexanone	11.	U
127-18-4	Tetrachloroethene	6.	U
79-34-5	1,1,2,2-Tetrachloroethane	6.	U
108-88-3	Toluene	6.	U
108-90-7	Chlorobenzene	6.	U
100-41-4	Ethylbenzene	6.	U
100-42-5	Styrene	6.	U
1330-20-7	Xylene (total)	6.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

S5

Lab Name: DATACHEM LABS Contract: 19005

Lab Code: DATAC Case No.: E0H0022 SAS No.: _____ SDG No.: 13585

Matrix: (soil/water) SOIL Lab Sample ID: 91-13589

Sample wt/vol: 5 (g/mL) G Lab File ID: AC19S13589

Level: (low/med) LOW Date Received: 06/07/91

% Moisture: not dec. 11. Date Analyzed: 06/15/91

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

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN FLUOROCARBON	26:37	13.	J
2.	C8- UNSATURATED HYDROCARBON	27:35	31.	JB
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

56

Lab Name: DATACHEM LABS Contract: 19005

Lab Code: DATAC Case No.: EOH00022 SAS No.: _____ SDG No.: 13585

Matrix: (soil/water) SOIL Lab Sample ID: 91-13590

Sample wt/vol: 5 (g/mL) G Lab File ID: AC20513590

Level: (low/med) LOW Date Received: 06/07/91

% Moisture: not dec. 8. Date Analyzed: 06/15/91

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

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

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	11.	U
74-83-9	Bromomethane	11.	U
75-01-4	Vinyl Chloride	11.	U
75-00-3	Chloroethane	11.	U
75-09-2	Methylene Chloride	4.	J
67-64-1	Acetone	19.	
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	11.	U
71-55-6	1,1,1-Trichloroethane	5.	U
56-23-5	Carbon Tetrachloride	5.	U
108-05-4	Vinyl Acetate	11.	U
75-27-4	Bromodichloromethane	5.	U
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	5.	U
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	U
75-25-2	Bromoform	5.	U
108-10-1	4-Methyl-2-Pentanone	11.	U
591-78-6	2-Hexanone	11.	U
127-18-4	Tetrachloroethene	5.	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	U
108-88-3	Toluene	5.	U
108-90-7	Chlorobenzene	5.	U
100-41-4	Ethylbenzene	5.	U
100-42-5	Styrene	5.	U
1330-20-7	Xylene (total)	5.	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

S6

Lab Name: DATACHEM LABS Contract: 19005

Lab Code: DATAC Case No.: E0H0022 SAS No.: _____ SDG No.: 13585

Matrix: (soil/water) SOIL Lab Sample ID: 91-13590

Sample wt/vol: 5 (g/mL) G Lab File ID: AC20S13590

Level: (low/med) LOW Date Received: 06/07/91

% Moisture: not dec. 8. Date Analyzed: 06/15/91

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

Number TICs found: 2

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		C8 - UNSATURATED HYDROCARBON	27:34	31.	JB
2.		UNKNOWN FLUOROCARBON	26:37	13.	J
3.					
4.					
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

57

Lab Name: DATACHEM LABS Contract: 19005

Lab Code: DATAC Case No.: E0H00022 SAS No.: _____ SDG No.: 13585

Matrix: (soil/water) SOIL Lab Sample ID: 91-13591

Sample wt/vol: 5 (g/mL) G Lab File ID: AC21S13591

Level: (low/med) LOW Date Received: 06/07/91

% Moisture: not dec. 14. Date Analyzed: 06/15/91

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

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

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	12.	U
74-83-9	Bromomethane	12.	U
75-01-4	Vinyl Chloride	12.	U
75-00-3	Chloroethane	12.	U
75-09-2	Methylene Chloride	2.	J
67-64-1	Acetone	71.	
75-15-0	Carbon Disulfide	6.	U
75-35-4	1,1-Dichloroethene	6.	U
75-34-3	1,1-Dichloroethane	6.	U
540-59-0	1,2-Dichloroethene (total)	6.	U
67-66-3	Chloroform	6.	U
107-06-2	1,2-Dichloroethane	6.	U
78-93-3	2-Butanone	12.	U
71-55-6	1,1,1-Trichloroethane	6.	U
56-23-5	Carbon Tetrachloride	6.	U
108-05-4	Vinyl Acetate	12.	U
75-27-4	Bromodichloromethane	6.	U
78-87-5	1,2-Dichloropropane	6.	U
10061-01-5	cis-1,3-Dichloropropene	6.	U
79-01-6	Trichloroethene	6.	U
124-48-1	Dibromochloromethane	6.	U
79-00-5	1,1,2-Trichloroethane	6.	U
71-43-2	Benzene	6.	U
10061-02-6	trans-1,3-Dichloropropene	6.	U
75-25-2	Bromoform	6.	U
108-10-1	4-Methyl-2-Pentanone	12.	U
591-78-6	2-Hexanone	12.	U
127-18-4	Tetrachloroethene	6.	U
79-34-5	1,1,2,2-Tetrachloroethane	6.	U
108-88-3	Toluene	6.	U
108-90-7	Chlorobenzene	6.	U
100-41-4	Ethylbenzene	6.	U
100-42-5	Styrene	6.	U
1330-20-7	Xylene (total)	6.	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

S7

Lab Name: DATACHEM LABS Contract: 19005

Lab Code: DATAC Case No.: E0H0022 SAS No.: _____ SDG No.: 13585

Matrix: (soil/water) SOIL Lab Sample ID: 91-13591

Sample wt/vol: 5 (g/mL) G Lab File ID: AC21513591

Level: (low/med) LOW Date Received: 06/07/91

% Moisture: not dec. 14. Date Analyzed: 06/15/91

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

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	C8-UNSATURATED HYDROCARBON	27:34	40.	JB
2.				
3.				
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58

Lab Name: DATACHEM LABS Contract: 19005

Lab Code: DATAC Case No.: EOH00022 SAS No.: _____ SDG No.: 13585

Matrix: (soil/water) SOIL Lab Sample ID: 91-13592

Sample wt/vol: 5 (g/mL) G Lab File ID: AC22S13592

Level: (low/med) LOW Date Received: 06/07/91

% Moisture: not dec. 18. Date Analyzed: 06/15/91

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

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

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	12.	U
74-83-9	Bromomethane	12.	U
75-01-4	Vinyl Chloride	12.	U
75-00-3	Chloroethane	12.	U
75-09-2	Methylene Chloride	24.	
67-64-1	Acetone	30.	
75-15-0	Carbon Disulfide	6.	U
75-35-4	1,1-Dichloroethene	6.	U
75-34-3	1,1-Dichloroethane	6.	U
540-59-0	1,2-Dichloroethene (total)	6.	U
67-66-3	Chloroform	6.	U
107-06-2	1,2-Dichloroethane	6.	U
78-93-3	2-Butanone	12.	U
71-55-6	1,1,1-Trichloroethane	6.	U
56-23-5	Carbon Tetrachloride	6.	U
108-05-4	Vinyl Acetate	12.	U
75-27-4	Bromodichloromethane	6.	U
78-87-5	1,2-Dichloropropane	6.	U
10061-01-5	cis-1,3-Dichloropropene	6.	U
79-01-6	Trichloroethene	6.	U
124-48-1	Dibromochloromethane	6.	U
79-00-5	1,1,2-Trichloroethane	6.	U
71-43-2	Benzene	6.	U
10061-02-6	trans-1,3-Dichloropropene	6.	U
75-25-2	Bromoform	6.	U
108-10-1	4-Methyl-2-Pentanone	12.	U
591-78-6	2-Hexanone	12.	U
127-18-4	Tetrachloroethene	6.	U
79-34-5	1,1,2,2-Tetrachloroethane	6.	U
108-88-3	Toluene	6.	U
108-90-7	Chlorobenzene	6.	U
100-41-4	Ethylbenzene	6.	U
100-42-5	Styrene	6.	U
1330-20-7	Xylene (total)	6.	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

58

Lab Name: DATACHEM LABS Contract: 19005

Lab Code: DATAC Case No.: E0H00022 SAS No.: _____ SDG No.: 13585

Matrix: (soil/water) SOIL Lab Sample ID: 91-13592

Sample wt/vol: 5 (g/mL) G Lab File ID: AC22513592

Level: (low/med) LOW Date Received: 06/07/91

% Moisture: not dec. 18. Date Analyzed: 06/15/91

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

Number TICs found: 3

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN FLUOROCARBON	23:58	13.	J
2.		UNKNOWN	25:41	23.	J
3.		C8- UNSATURATED HYDROCARBON	27:34	52.	JB
4.					
5.					
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S9

Lab Name: DATACHEM LABS Contract: 19005

Lab Code: DATAC Case No.: E0H0022 SAS No.: _____ SDG No.: 13585

Matrix: (soil/water) SOIL Lab Sample ID: 91-13593

Sample wt/vol: 5 (g/mL) G Lab File ID: AC23513593

Level: (low/med) LOW Date Received: 06/07/91

% Moisture: not dec. 23 Date Analyzed: 06/15/91

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

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

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	13.	U
74-83-9	Bromomethane	13.	U
75-01-4	Vinyl Chloride	13.	U
75-00-3	Chloroethane	13.	U
75-09-2	Methylene Chloride	6.	U
67-64-1	Acetone	46.	
75-15-0	Carbon Disulfide	6.	U
75-35-4	1,1-Dichloroethene	6.	U
75-34-3	1,1-Dichloroethane	6.	U
540-59-0	1,2-Dichloroethene (total)	6.	U
67-66-3	Chloroform	6.	U
107-06-2	1,2-Dichloroethane	6.	U
78-93-3	2-Butanone	13.	U
71-55-6	1,1,1-Trichloroethane	6.	U
56-23-5	Carbon Tetrachloride	6.	U
108-05-4	Vinyl Acetate	13.	U
75-27-4	Bromodichloromethane	6.	U
78-87-5	1,2-Dichloropropane	6.	U
10061-01-5	cis-1,3-Dichloropropene	6.	U
79-01-6	Trichloroethene	6.	U
124-48-1	Dibromochloromethane	6.	U
79-00-5	1,1,2-Trichloroethane	6.	U
71-43-2	Benzene	6.	U
10061-02-6	trans-1,3-Dichloropropene	6.	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	13.	U
591-78-6	2-Hexanone	13.	U
127-18-4	Tetrachloroethene	6.	U
79-34-5	1,1,2,2-Tetrachloroethane	6.	U
108-88-3	Toluene	5.	J
108-90-7	Chlorobenzene	6.	U
100-41-4	Ethylbenzene	6.	U
100-42-5	Styrene	6.	U
1330-20-7	Xylene (total)	6.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

S9

Lab Name: DATACHEM LABS Contract: 19005

Lab Code: DATAC Case No.: E0H0022 SAS No.: _____ SDG No.: 13585

Matrix: (soil/water) SOIL Lab Sample ID: 91-13593

Sample wt/vol: 5 (g/mL) G Lab File ID: AC23S13593

Level: (low/med) LOW Date Received: 06/07/91

% Moisture: not dec. 23 Date Analyzed: 06/15/91

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

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	C8-UNSATURATED HYDROCARBON	27:29	39.	JB
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

510

Lab Name: DATACHEM LABS Contract: 19005

Lab Code: DATAC Case No.: EOH00022 SAS No.: _____ SDG No.: 13585

Matrix: (soil/water) SOIL Lab Sample ID: 91-13594

Sample wt/vol: 5 (g/mL) G Lab File ID: AC29513594

Level: (low/med) LOW Date Received: 06/07/91

% Moisture: not dec. 9 Date Analyzed: 06/15/91

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

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

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

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

510

Lab Name: DATACHEM LABS Contract: 19005

Lab Code: DATAC Case No.: E0H0022 SAS No.: _____ SDG No.: 13585

Matrix: (soil/water) SOIL Lab Sample ID: 91-13594

Sample wt/vol: 5 (g/mL) G Lab File ID: AC29513594

Level: (low/med) LOW Date Received: 06/07/91

% Moisture: not dec. 9 Date Analyzed: 06/15/91

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

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	C8 - UNSATURATED HYDROCARBON	27:34	~~21~~ 23.	JB
2.				
3.				
4.				
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ecology and environment, inc.

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

International Specialists in the Environment

MEMORANDUM

DATE: June 28, 1991

TO: Sammy Sirhan, Project Manager, E & E, Cincinnati, OH

FROM: Jane Malkin, TAT-Chemist, E & E, Chicago, IL

THRU: Brenda Jones, TAT-Chemist, E & E, Chicago, IL

SUBJ: **Inorganic Data Quality Assurance Review,** Carstab Corporation, Hamilton, Ohio

REF: Analytical TDD: T05-9105-801 Project TDD: T05-9105-009
Analytical PAN: E0H0022AAA Project PAN: E0H0022SAA

The data quality assurance review of 10 soil samples collected from the Carstab site in Hamilton, Ohio has been completed. Analysis for metals by ICP and AA was performed by DataChem laboratories, Salt Lake City, Utah.

The 10 samples were numbered: S1 through S10.

Data Qualifications:

I Sample Holding Time: Acceptable

The samples were collected on June 7, 1991 and were analyzed by June 17, 1991, which met the required holding time for metals which is 6 months.

II Calibration

A. Initial Calibration and Calibration Verification:

The initial calibration was performed with one blank and one standard. All results were all within 90 - 110% of the true standard value. No contamination above the instrument detection level (IDL) was detected in the initial calibration blank except for manganese. Since the method blank did not show any contamination above the IDL, no action was taken.

recycled paper

B. Continuing Calibration:

All continuing calibration results were within the control limit of 90 - 110% for the metals. No contamination above the IDL was detected in the continuing calibration except for manganese, antimony, aluminum, beryllium, chromium, silver, sodium and zinc. Since there was no contamination blank above the IDL in the method blank, no action was taken.

III Blanks: Acceptable.

Method blanks were prepared and analyzed with the samples. No contamination above the IDL was detected.

IV Interference Check Sample Analysis: Acceptable.

All percent recoveries of the metals in the ICP interference check sample (ICS) were within the control limits of 80 - 120%.

V Laboratory Control Sample Analysis: Acceptable

All laboratory control sample analysis results were within the 80 - 120% recovery control limit.

VI Specific Sample Results

A. Duplicate Sample Analysis:

All relative percent difference (RPD) were within the control limit of 65 - 135% except for magnesium. All positvie results for magnesium were flagged (J) as estimated.

B. Spike Sample Analysis:

All percent spike recoveries were within the control limit of 75 - 125% except for arsenic and antimony. All positive results for arsenic and antimony were flagged (J) and non-detects were flagged (UJ) as estimated.

VIII ICP Serial Dilution

The ICP serial dilution percent difference (%D) were within the control limit of 10% except for antimony, beryllium and silver. Since the intial concentration is less than 50X IDL, no action is taken.

VII Overall Assessment of Data for Use

The overall usefulness of the data is based on the criteria outlined in "Laboratory Data Validation Functional Guidelines for Evaluating Inorganic Analyses".

Based upon the information provided, the data are acceptable for use with the above stated data qualifications.

Data Qualifiers and Definitions

J - The associated numerical value is an estimated quantity because the reported concentrations were less than the contract required detection limits or quality control criteria were not met.

U - The material was analyzed for but was not detected. The associated numerical value is the sample quantitation limit.

DATACHEM LABORATORIES
960 WEST LEVOY DRIVE
SALT LAKE CITY, UTAH 84123

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CASE No. S0787 SDG No. SF0787

CLIENT SAMPLE #	EPA SAMPLE #	LAB SAMPLE #
S1	CC7683	CLP7683
S2	CC7684	CLP7684
S3	CC7685	CLP7685
S4	CC7686	CLP7686
S5	CC7687	CLP7687
S6	CC7688	CLP7688
S7	CC7689	CLP7689
S8	CC7690	CLP7690
S9	CC7691	CLP7691
S10	CC7692	CLP7692
MATRIX DUPLICATE (GFAA, Hg)	CC7683D	CLP7694
MATRIX DUPLICATE (ICP)	CC7684D	CLP7694
MATRIX SPIKE (GFAA, Hg)	CC7683S	CLP7693
MATRIX SPIKE (ICP)	CC7684S	CLP7693

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

CC7683

Lab Name: DATACHEM LABORATORIES Contract: 68-D0-0149

Lab Code: DATAC Case No.: S0787 SAS No.: SDG No.: SF0787

Matrix (soil/water): SOIL Lab Sample ID: CLP7683

Level (low/med): LOW Date Received: 06/08/91

% Solids: 92.5

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7630			P
7440-36-0	Antimony	5.2	U	N (w)	P
7440-38-2	Arsenic	4.8		N (g)	F
7440-39-3	Barium	55.8			P
7440-41-7	Beryllium	0.56	B		P
7440-43-9	Cadmium	0.65	U		P
7440-70-2	Calcium	29600			P
7440-47-3	Chromium	16.7			P
7440-48-4	Cobalt	6.4	B		P
7440-50-8	Copper	18.9			P
7439-89-6	Iron	13600			P
7439-92-1	Lead	28.0		*	F
7439-95-4	Magnesium	10200		* (g)	P
7439-96-5	Manganese	515			P
7439-97-6	Mercury	0.11	U		CV
7440-02-0	Nickel	17.0			P
7440-09-7	Potassium	1030	B		P
7782-49-2	Selenium	0.38	B	W	F
7440-22-4	Silver	0.86	U		P
7440-23-5	Sodium	111	B		P
7440-28-0	Thallium	0.22	U		F
7440-62-2	Vanadium	17.5			P
7440-66-6	Zinc	1870			P
	Cyanide				NR

Final Review 6/28/91

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

3

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1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

CC7684

Lab Name: DATACHEM LABORATORIES Contract: 68-D0-0149

Lab Code: DATAC Case No.: S0787 SAS No.: SDG No.: SF0787

Matrix (soil/water): SOIL Lab Sample ID: CLP7684

Level (low/med): LOW Date Received: 06/08/91

% Solids: 89.5

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	10000			P
7440-36-0	Antimony	10.2	B	N	P
7440-38-2	Arsenic	12.8		NS	F
7440-39-3	Barium	79.1			P
7440-41-7	Beryllium	0.76	B		P
7440-43-9	Cadmium	0.73	B		P
7440-70-2	Calcium	38500			P
7440-47-3	Chromium	16.7			P
7440-48-4	Cobalt	7.8	B		P
7440-50-8	Copper	16.8			P
7439-89-6	Iron	15000			P
7439-92-1	Lead	40.0		*	F
7439-95-4	Magnesium	14000		*	P
7439-96-5	Manganese	713			P
7439-97-6	Mercury	0.11	U		CV
7440-02-0	Nickel	14.5			P
7440-09-7	Potassium	1470			P
7782-49-2	Selenium	0.31	B	W	F
7440-22-4	Silver	0.89	U		P
7440-23-5	Sodium	91.6	B		P
7440-28-0	Thallium	0.29	B		F
7440-62-2	Vanadium	21.2			P
7440-66-6	Zinc	526			P
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: MEDIUM

C lor After: YELLOW Clarity After: Artifacts:

Comments:

4

FORM I - IN 3/90

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EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

CC7685

Lab Name: DATACHEM LABORATORIES Contract: 68-D0-0149

Lab Code: DATAC Case No.: S0787 SAS No.: SDG No.: SF0787

Matrix (soil/water): SOIL Lab Sample ID: CLP7685

Level (low/med): LOW Date Received: 06/08/91

% Solids: 83.8

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	8520			P
7440-36-0	Antimony	13.7	B	N (g)	P
7440-38-2	Arsenic	4.3		N (g)	F
7440-39-3	Barium	71.1			P
7440-41-7	Beryllium	0.51	B		P
7440-43-9	Cadmium	0.72	U		P
7440-70-2	Calcium	75400			P
7440-47-3	Chromium	13.9			P
7440-48-4	Cobalt	5.6	B		P
7440-50-8	Copper	14.2			P
7439-89-6	Iron	12100			P
7439-92-1	Lead	15.1		S*	F
7439-95-4	Magnesium	23100		*(g)	P
7439-96-5	Manganese	508			P
7439-97-6	Mercury	0.12	U		CV
7440-02-0	Nickel	10.8			P
7440-09-7	Potassium	1500			P
7782-49-2	Selenium	0.24	U	W	F
7440-22-4	Silver	0.95	U		P
7440-23-5	Sodium	127	B		P
7440-28-0	Thallium	0.24	U		F
7440-62-2	Vanadium	18.4			P
7440-66-6	Zinc	44.6			P
	Cyanide				NR

Jmal [illegible] 6/28/91

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

5

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

CC7686

Lab Name: DATACHEM LABORATORIES Contract: 68-D0-0149

Lab Code: DATAC Case No.: S0787 SAS No.: SDG No.: SF0787

Matrix (soil/water): SOIL Lab Sample ID: CLP7686

Level (low/med): LOW Date Received: 06/08/91

% Solids: 75.2

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	14600			P
7440-36-0	Antimony	14.1	B	N (g)	P
7440-38-2	Arsenic	8.1		NS (g)	F
7440-39-3	Barium	113			P
7440-41-7	Beryllium	0.91	B		P
7440-43-9	Cadmium	0.80	U		P
7440-70-2	Calcium	51300			P
7440-47-3	Chromium	67.9			P
7440-48-4	Cobalt	12.9	B		P
7440-50-8	Copper	54.8			P
7439-89-6	Iron	23700			P
7439-92-1	Lead	75.6		S*	F
7439-95-4	Magnesium	13700		*	P
7439-96-5	Manganese	1050		(g)	P
7439-97-6	Mercury	0.16			CV
7440-02-0	Nickel	39.1			P
7440-09-7	Potassium	2150			P
7782-49-2	Selenium	0.36	B	W	F
7440-22-4	Silver	2.1	B		P
7440-23-5	Sodium	165	B		P
7440-28-0	Thallium	0.27	B		F
7440-62-2	Vanadium	26.5			P
7440-66-6	Zinc	164			P
	Cyanide				NR

Jmd 6/28/91

Color Before: BROWN Clarity Before: Texture: COARSE

C lor After: YELLOW Clarity After: Artifacts:

Comments:

6

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1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

CC7687

Lab Name: DATACHEM LABORATORIES Contract: 68-D0-0149

Lab Code: DATAC Case No.: S0787 SAS No.: SDG No.: SF0787

Matrix (soil/water): SOIL Lab Sample ID: CLP7687

Level (low/med): LOW Date Received: 06/08/91

% Solids: 88.5

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	12800			P
7440-36-0	Antimony	8.2	B	N (g)	P
7440-38-2	Arsenic	6.7		NS (g)	F
7440-39-3	Barium	84.9			P
7440-41-7	Beryllium	1.2			P
7440-43-9	Cadmium	0.68	U		P
7440-70-2	Calcium	52500			P
7440-47-3	Chromium	28.0			P
7440-48-4	Cobalt	11.0	B		P
7440-50-8	Copper	20.8			P
7439-89-6	Iron	20700			P
7439-92-1	Lead	37.1		*	F
7439-95-4	Magnesium	11900		* (g)	P
7439-96-5	Manganese	833			P
7439-97-6	Mercury	0.11	U		CV
7440-02-0	Nickel	22.3			P
7440-09-7	Potassium	2210			P
7782-49-2	Selenium	0.23	B	W	F
7440-22-4	Silver	0.90	U		P
7440-23-5	Sodium	153	B		P
7440-28-0	Thallium	0.26	B		F
7440-62-2	Vanadium	25.6			P
7440-66-6	Zinc	88.8			P
	Cyanide				NR

Jmd kw 6/28/91

Color Before: BROWN Clarity Before: Texture: MEDIUM

C lor After: YELLOW Clarity After: Artifacts:

C~mments:

7

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1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

CC7688

Lab Name: DATACHEM LABORATORIES Contract: 68-D0-0149

Lab Code: DATAC Case No.: S0787 SAS No.: SDG No.: SF0787

Matrix (soil/water): SOIL Lab Sample ID: CLP7688

Level (low/med): LOW Date Received: 06/08/91

% Solids: 91.6

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	12200			P
7440-36-0	Antimony	19.4		N (g)	P
7440-38-2	Arsenic	6.7		NS (g)	F
7440-39-3	Barium	82.1			P
7440-41-7	Beryllium	1.1			P
7440-43-9	Cadmium	0.66	U		P
7440-70-2	Calcium	58600			P
7440-47-3	Chromium	25.2			P
7440-48-4	Cobalt	10.1	B		P
7440-50-8	Copper	18.8			P
7439-89-6	Iron	19800			P
7439-92-1	Lead	34.5		*	F
7439-95-4	Magnesium	11400		* (g)	P
7439-96-5	Manganese	825			P
7439-97-6	Mercury	0.11	U		CV
7440-02-0	Nickel	19.9			P
7440-09-7	Potassium	2190			P
7782-49-2	Selenium	0.22	B	W	F
7440-22-4	Silver	0.87	U		P
7440-23-5	Sodium	167	B		P
7440-28-0	Thallium	0.22	U		F
7440-62-2	Vanadium	25.0			P
7440-66-6	Zinc	89.7			P
	Cyanide				NR

Jmd 6/24/91

Color Before: BROWN Clarity Before: Texture: MEDIUM

C lor After: YELLOW Clarity After: Artifacts:

Comments:

8

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

CC7689

Lab Name: DATACHEM LABORATORIES Contract: 68-D0-0149

Lab Code: DATAC Case No.: S0787 SAS No.: SDG No.: SF0787

Matrix (soil/water): SOIL Lab Sample ID: CLP7689

Level (low/med): LOW Date Received: 06/08/91

% Solids: 86.8

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	16400			P
7440-36-0	Antimony	6.6	B	N (8)	P
7440-38-2	Arsenic	5.3		NS (8)	F
7440-39-3	Barium	106			P
7440-41-7	Beryllium	1.4			P
7440-43-9	Cadmium	0.69	U		P
7440-70-2	Calcium	22600			P
7440-47-3	Chromium	38.5			P
7440-48-4	Cobalt	10.2	B		P
7440-50-8	Copper	16.6			P
7439-89-6	Iron	21200			P
7439-92-1	Lead	28.3		*	F
7439-95-4	Magnesium	9070		* (8)	P
7439-96-5	Manganese	755			P
7439-97-6	Mercury	0.12	U		CV
7440-02-0	Nickel	22.5			P
7440-09-7	Potassium	2870			P
7782-49-2	Selenium	0.32	B	W	F
7440-22-4	Silver	0.92	U		P
7440-23-5	Sodium	108	B		P
7440-28-0	Thallium	0.26	B		F
7440-62-2	Vanadium	29.2			P
7440-66-6	Zinc	96.0			P
	Cyanide				NR

Jonathan 6/28/91

Color Before: BROWN Clarity Before: Texture: MEDIUM

C lor After: YELLOW Clarity After: Artifacts:

C~mments:

9

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

CC7690

Lab Name: DATACHEM LABORATORIES Contract: 68-D0-0149

Lab Code: DATAC Case No.: S0787 SAS No.: SDG No.: SF0787

Matrix (soil/water): SOIL Lab Sample ID: CLP7690

Level (low/med): LOW Date Received: 06/08/91

% Solids: 85.6

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6230			P
7440-36-0	Antimony	11.9	B	N	P
7440-38-2	Arsenic	4.7		NS	F
7440-39-3	Barium	36.9	B		P
7440-41-7	Beryllium	0.60	B		P
7440-43-9	Cadmium	0.70	U		P
7440-70-2	Calcium	89500			P
7440-47-3	Chromium	17.1			P
7440-48-4	Cobalt	6.1	B		P
7440-50-8	Copper	10.1			P
7439-89-6	Iron	12500			P
7439-92-1	Lead	13.2		S*	F
7439-95-4	Magnesium	20200		*	P
7439-96-5	Manganese	435			P
7439-97-6	Mercury	0.12	U		CV
7440-02-0	Nickel	15.4			P
7440-09-7	Potassium	1330			P
7782-49-2	Selenium	0.23	U	W	F
7440-22-4	Silver	0.93	U		P
7440-23-5	Sodium	173	B		P
7440-28-0	Thallium	0.23	U		F
7440-62-2	Vanadium	17.0			P
7440-66-6	Zinc	72.5			P
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: MEDIUM

C lor After: YELLOW Clarity After: Artifacts:

C^mments:

10

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

CC7691

Lab Name: DATACHEM LABORATORIES Contract: 68-D0-0149

Lab Code: DATAC Case No.: S0787 SAS No.: SDG No.: SF0787

Matrix (soil/water): SOIL Lab Sample ID: CLP7691

Level (low/med): LOW Date Received: 06/08/91

% Solids: 78.2

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	11200			P
7440-36-0	Antimony	18.3		N (J)	P
7440-38-2	Arsenic	5.6		NS (J)	F
7440-39-3	Barium	84.4			P
7440-41-7	Beryllium	0.77	B		P
7440-43-9	Cadmium	0.77	U		P
7440-70-2	Calcium	78000			P
7440-47-3	Chromium	38.6			P
7440-48-4	Cobalt	7.4	B		P
7440-50-8	Copper	16.4			P
7439-89-6	Iron	16200			P
7439-92-1	Lead	45.1		S*	F
7439-95-4	Magnesium	26600		* (J)	P
7439-96-5	Manganese	513			P
7439-97-6	Mercury	0.22			CV
7440-02-0	Nickel	13.6			P
7440-09-7	Potassium	1960			P
7782-49-2	Selenium	0.26	U		F
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium	197	B		P
7440-28-0	Thallium	0.26	U		F
7440-62-2	Vanadium	23.4			P
7440-66-6	Zinc	86.1			P
	Cyanide				NR

Jmd 6/28/91

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

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U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

CC7692

Lab Name: DATACHEM LABORATORIES Contract: 68-D0-0149

Lab Code: DATAC Case No.: S0787 SAS No.: SDG No.: SF0787

Matrix (soil/water): SOIL Lab Sample ID: CLP7692

Level (low/med): LOW Date Received: 06/08/91

% Solids: 92.2

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	18600			P
7440-36-0	Antimony	6.4	B	N	P
7440-38-2	Arsenic	5.0		NS	F
7440-39-3	Barium	133			P
7440-41-7	Beryllium	1.3			P
7440-43-9	Cadmium	0.65	U		P
7440-70-2	Calcium	16700			P
7440-47-3	Chromium	29.1			P
7440-48-4	Cobalt	10.2	B		P
7440-50-8	Copper	16.7			P
7439-89-6	Iron	23000			P
7439-92-1	Lead	23.1		*	F
7439-95-4	Magnesium	7280		*	P
7439-96-5	Manganese	877			P
7439-97-6	Mercury	0.11	U		CV
7440-02-0	Nickel	22.2			P
7440-09-7	Potassium	2860			P
7782-49-2	Selenium	0.37	B	W	F
7440-22-4	Silver	0.87	U		P
7440-23-5	Sodium	99.1	B		P
7440-28-0	Thallium	0.34	B		F
7440-62-2	Vanadium	32.1			P
7440-66-6	Zinc	71.7			P
	Cyanide				NR

6/28/91

Color Before: BROWN Clarity Before: Texture: MEDIUM

C lor After: YELLOW Clarity After: Artifacts:

Comments:

12

ecology and environment, inc.

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

International Specialists in the Environment

MEMORANDUM

DATE: July 2, 1991

TO: Sammy Sirhan, Project Manager, E & E, Cincinnati, OH

FROM: Jane Malkin, TAT-Chemist, E & E, Chicago, IL

THRU: Brenda Jones, TAT-Chemist, E & E, Chicago, IL

SUBJ: **Organic Data Quality Assurance Review,** Carstab Corporation, Hamilton, Ohio

REF: Analytical TDD: T05-9105-801 Project TDD: T05-9105-009
Analytical PAN: E0H0022AAA Project PAN: E0H022SAA

The data quality assurance review of 10 soil samples collected from the Carstab site in Hamilton, Ohio has been completed. Analysis for Semi-volatile organics (EPA method 8270) was performed by DataChem, Salt Lake, Ohio.

The 10 samples were numbered: S1 through S10

Data Qualifications:

I Holding Time: Acceptable.

The samples were collected on June 7, 1991, and they were extracted and analyzed by June 16, 1991, which met the required holding time of 14 days for semi-volatiles.

II GC/MS Tuning: Acceptable.

GC/MS tuning ion abundance for decaflourotriphenylphosphine (DFTPP) was within the established control limits.

III Calibration

A. Initial Calibration:

A 5 point initial calibraton was perforemd prior to sample analysis with 20, 50, 80, 120, 160 ppm standards. All average relative response factors (RRF) were greater than 0.05 and the percent relative standard deviation between response factors was less than 30% with the

recycled paper

exception of 2,4 Dinitrophenol. All associated positive results were flagged (J) as estimated.

B. Continuing Calibration:

The lab performed the sample analyses on 6/14/91, 6/15/91 and 6/16/91, with continuing calibration performed on 6/14/91 and 6/15/91. All continuing calibration standard RRFs wre greater than 0.05 and the percent deiference (%D) from initial calibration were less than 25%, except for 2,4 Dinitrophenol, performed on 6/14/91. Since the associated values were flagged previously, no action is required.

IV Method Blank: Acceptable.

One method blank was analyzed with the samples. There were no contaminants found in the blank above the instrument detection limit (IDL).

V Surrogate Recovery:

The percent surrogate recoveries were all within the control limits, except for 2,4,6 tribromophenol (TBP) for the following listed samples.

Sample ID	TBP Recovery (Control Limit 19-122%)
S7	125%
S10MS	129%
S10MSD	138%

Since one surrogate was outside the limits, no action is required.

VI Matrix Spike/Matrix Spike Duplicates:

The lab spiked sample number S10. The percent recoveries of the Matrix Spike/Matrix Spike Duplicates (MS/MSD) were all within the control limits, except for pentachlorophenol (129%) and 4-nitrophenol (122% & 120%, MS/MSD respectively). The relative percent difference between the recoveries were all within the control limits. No action is required based on MS/MSD data alone.

VII Field Duplicates: Not applicable

VIII Internal Standards Performance: Acceptable.

Internal standard (IS) area counts were all within the control limits of -50% to +100%. IS retention times were all within the $\pm$ 30 second control limit.

IX TCL Compound Identification: Acceptable.

All positive results were identified correctly. The sample spectra matched the lab standard spectra with agreement of relative intensities for standards and samples within 20%.

X Compound Quantitation and Reported Detection Limits: Acceptable

Quantitation calculations were recalculated by spot check to verify accuracy. The reported sample analyte concentrations and detection limits accurately reflect concentrations, dilutions, sample weights, etc

VIII Overall Assessment of Data for Use

The overall usefulness of the data is based on the criteria outlined in "Laboratory Data Validation Functional Guidelines for Evaluating Organic Analyses" (February, 1988).

Based upon the information provided, the data are acceptable for use with the above stated data qualifications.

Data Qualifiers and Definitions

J - The associated numerical value is an estimated quantity because the reported concentrations were less than the contract required detection limits or quality control criteria were not met.

U - The material was analyzed for but was not detected. The associated numerical value is the sample quantitation limit.

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S1

Lab Name: DATACHEM LABS Contract: 19005

Lab Code: DATAC Case No.: E0H002 SAS No.: _____ SDG No.: 13585

Matrix: (soil/water) SOIL Lab Sample ID: 91-13585

Sample wt/vol: 30 (g/mL) G Lab File ID: AD23513585

Level: (low/med) LOW Date Received: 06/07/91

% Moisture: not dec. _____ dec. 10. Date Extracted: 06/14/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 06/15/91

GPC Cleanup: (Y/N) N pH: 5.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	370.	U
111-44-4	bis(2-Chloroethyl)ether	370.	U
95-57-8	2-Chlorophenol	370.	U
541-73-1	1,3-Dichlorobenzene	370.	U
106-46-7	1,4-Dichlorobenzene	370.	U
100-51-6	Benzyl alcohol	370.	U
95-50-1	1,2-Dichlorobenzene	370.	U
95-48-7	2-Methylphenol	370.	U
108-60-1	bis(2-Chloroisopropyl)ether	370.	U
106-44-5	4-Methylphenol	370.	U
621-64-7	N-Nitroso-di-n-propylamine	370.	U
67-72-1	Hexachloroethane	370.	U
98-95-3	Nitrobenzene	370.	U
78-59-1	Isophorone	370.	U
88-75-5	2-Nitrophenol	370.	U
105-67-9	2,4-Dimethylphenol	370.	U
65-85-0	Benzoic acid	1800.	U
111-91-1	bis(2-Chloroethoxy)methane	370.	U
120-83-2	2,4-Dichlorophenol	370.	U
120-82-1	1,2,4-Trichlorobenzene	370.	U
91-20-3	Naphthalene	370.	U
106-47-8	4-Chloroaniline	370.	U
87-68-3	Hexachlorobutadiene	370.	U
59-50-7	4-Chloro-3-methylphenol	370.	U
91-57-6	2-Methylnaphthalene	370.	U
77-47-4	Hexachlorocyclopentadiene	370.	U
88-06-2	2,4,6-Trichlorophenol	370.	U
95-95-4	2,4,5-Trichlorophenol	1800.	U
91-58-7	2-Chloronaphthalene	370.	U
88-74-4	2-Nitroaniline	1800.	U
131-11-3	Dimethylphthalate	370.	U
208-96-8	Acenaphthylene	370.	U
606-20-2	2,6-Dinitrotoluene	370.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S1

Lab Name: DATACHEM LABS Contract: 19005

Lab Code: DATAC Case No.: 91-5022 SAS No.: _____ SDG No.: 13585

Matrix: (soil/water) SOIL Lab Sample ID: 91-13585

Sample wt/vol: 30 (g/ml) G Lab File ID: AD23S13585

Level: (low/med) LOW Date Received: 06/07/91

% Moisture: not dec. _____ dec. 10. Date Extracted: 06/14/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 06/15/91

GPC Cleanup: (Y/N) N pH: 5.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1800.	U
83-32-9	Acenaphthene	370.	U
51-28-5	2,4-Dinitrophenol	1800.	U
100-02-7	4-Nitrophenol	1800.	U
132-64-9	Dibenzofuran	370.	U
121-14-2	2,4-Dinitrotoluene	370.	U
84-66-2	Diethylphthalate	370.	U
7005-72-3	4-Chlorophenyl-phenylether	370.	U
86-73-7	Fluorene	370.	U
100-01-6	4-Nitroaniline	1800.	U
534-52-1	4,6-Dinitro-2-methylphenol	1800.	U
86-30-6	N-Nitrosodiphenylamine (1)	370.	U
101-55-3	4-Bromophenyl-phenylether	370.	U
118-74-1	Hexachlorobenzene	370.	U
87-86-5	Pentachlorophenol	1800.	U
85-01-8	Phenanthrene	50.	J
120-12-7	Anthracene	370.	U
84-74-2	Di-n-butylphthalate	370.	U
206-44-0	Fluoranthene	130.	J
129-00-0	Pyrene	150.	J
85-68-7	Butylbenzylphthalate	370.	U
91-94-1	3,3'-Dichlorobenzidine	730.	U
56-55-3	Benzo(a)anthracene	370.	U
218-01-9	Chrysene	370.	U
117-81-7	bis(2-Ethylhexyl)phthalate	370.	U
117-84-0	Di-n-octylphthalate	370.	U
205-99-2	Benzo(b)fluoranthene	370.	U
207-08-9	Benzo(k)fluoranthene	370.	U
50-32-8	Benzo(a)pyrene	370.	U
193-39-5	Indeno(1,2,3-cd)pyrene	370.	U
53-70-3	Dibenz(a,h)anthracene	370.	U
191-24-2	Benzo(g,h,i)perylene	370.	U

(1) - Cannot be separated from Diphenylamine

FORM I SV-2 1/87 Rev.

Jmal 7/2/91

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

S1

Lab Name: DATACHEM LABS Contract: 19005

Lab Code: DATAC Case No.: E040022 SAS No.: _____ SDG No.: 13585

Matrix: (soil/water) SOIL Lab Sample ID: 91-13585

Sample wt/vol: 30 (g/mL) G Lab File ID: AD23S13585

Level: (low/med) LOW Date Received: 06/07/91

% Moisture: not dec. _____ dec. 10. Date Extracted: 06/14/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 06/15/91

GPC Cleanup: (Y/N) N pH: 5.0 Dilution Factor: 1.0

Number TICs found: 7

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ALDOL CONDENSATION PRODUCT	6:40	66000.	AJB
2.	ALDOL CONDENSATION PRODUCT	7:28	97000.	AJB
3.	ALDOL CONDENSATION PRODUCT	8:55	1200.	AJB
4.	BROMO HEXANE ISOMER	9:17	660.	AJB
5.	ALDOL CONDENSATION PRODUCT	9:32	330.	AJB
6.	ALDOL CONDENSATION PRODUCT	10:26	510.	AJ
7.	ALDOL CONDENSATION PRODUCT	11:42	770.	AJ
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S2

Lab Name: DATACHEM LABS Contract: 19005

Lab Code: DATAC Case No.: E0H0022 SAS No.: _____ SDG No.: 13585

Matrix: (soil/water) SOIL Lab Sample ID: 91-13586

Sample wt/vol: 30 (g/mL) G Lab File ID: AD30S13586

Level: (low/med) LOW Date Received: 06/07/91

% Moisture: not dec. _____ dec. 9 Date Extracted: 06/14/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 06/15/91

GPC Cleanup: (Y/N) N pH: 5.0 Dilution Factor: 1.0

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

CAS NO.	COMPOUND		Q
108-95-2	Phenol	360.	u
111-44-4	bis(2-Chloroethyl)ether	360.	u
95-57-8	2-Chlorophenol	360.	u
541-73-1	1,3-Dichlorobenzene	360.	u
106-46-7	1,4-Dichlorobenzene	360.	u
100-51-6	Benzyl alcohol	360.	u
95-50-1	1,2-Dichlorobenzene	360.	u
95-48-7	2-Methylphenol	360.	u
108-60-1	bis(2-Chloroisopropyl)ether	360.	u
106-44-5	4-Methylphenol	360.	u
621-64-7	N-Nitroso-di-n-propylamine	360.	u
67-72-1	Hexachloroethane	360.	u
98-95-3	Nitrobenzene	360.	u
78-59-1	Isophorone	360.	u
88-75-5	2-Nitrophenol	360.	u
105-67-9	2,4-Dimethylphenol	360.	u
65-85-0	Benzoic acid	1800.	u
111-91-1	bis(2-Chloroethoxy)methane	360.	u
120-83-2	2,4-Dichlorophenol	360.	u
120-82-1	1,2,4-Trichlorobenzene	360.	u
91-20-3	Naphthalene	360.	u
106-47-8	4-Chloroaniline	360.	u
87-68-3	Hexachlorobutadiene	360.	u
59-50-7	4-Chloro-3-methylphenol	360.	u
91-57-6	2-Methylnaphthalene	360.	u
77-47-4	Hexachlorocyclopentadiene	360.	u
88-06-2	2,4,6-Trichlorophenol	360.	u
95-95-4	2,4,5-Trichlorophenol	1800.	u
91-58-7	2-Chloronaphthalene	360.	u
88-74-4	2-Nitroaniline	1800.	u
131-11-3	Dimethylphthalate	~~360.~~ 360.	u
208-96-8	Acenaphthylene	360.	u
606-20-2	2,6-Dinitrotoluene	360.	u

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SZ

Lab Name: DATACHEM LABS Contract: 19005

Lab Code: DATAC Case No.: 91-0522 SAS No.: _____ SDG No.: 13535

Matrix: (soil/water) SOIL Lab Sample ID: 91-13586

Sample wt/vol: 30 (g/ml) G Lab File ID: AD30S13586

Level: (low/med) LOW Date Received: 06/07/91

% Moisture: not dec. _____ dec. 9. Date Extracted: 06/14/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 06/15/91

GPC Cleanup: (Y/N) N pH: 5.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1800.	U
83-32-9	Acenaphthene	360.	U
51-28-5	2,4-Dinitrophenol	1800. (1)	U
100-02-7	4-Nitrophenol	1800.	U
132-64-9	Dibenzofuran	360.	U
121-14-2	2,4-Dinitrotoluene	360.	U
84-66-2	Diethylphthalate	360.	U
7005-72-3	4-Chlorophenyl-phenylether	360.	U
86-73-7	Fluorene	360.	U
100-01-6	4-Nitroaniline	1800.	U
534-52-1	4,6-Dinitro-2-methylphenol	1800.	U
86-30-6	N-Nitrosodiphenylamine (1)	360.	U
101-55-3	4-Bromophenyl-phenylether	360.	U
118-74-1	Hexachlorobenzene	360.	U
87-86-5	Pentachlorophenol	1800.	U
85-01-8	Phenanthrene	30.	J
120-12-7	Anthracene	360.	U
84-74-2	Di-n-butylphthalate	360.	U
206-44-0	Fluoranthene	85.	J
129-00-0	Pyrene	81.	J
85-68-7	Butylbenzylphthalate	360.	U
91-94-1	3,3'-Dichlorobenzidine	730.	U
56-55-3	Benzo(a)anthracene	360.	U
218-01-9	Chrysene	360.	U
117-81-7	bis(2-Ethylhexyl)phthalate	410.	B
117-84-0	Di-n-octylphthalate	360.	U
205-99-2	Benzo(b)fluoranthene	360.	U
207-08-9	Benzo(k)fluoranthene	360.	U
50-32-8	Benzo(a)pyrene	360.	U
193-39-5	Indeno(1,2,3-cd)pyrene	360.	U
53-70-3	Dibenz(a,h)anthracene	360.	U
191-24-2	Benzo(g,h,i)perylene	360.	U

(1) - Cannot be separated from Diphenylamine

FORM I SV-2 1/87 Rev.

7/2/91

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

S2

Lab Name: DATACHEM LABS Contract: 19005

Lab Code: DATAC Case No.: E0H00022 SAS No.: _____ SDG No.: 13585

Matrix: (soil/water) SOIL Lab Sample ID: 91-13586

Sample wt/vol: 30 (g/mL) G Lab File ID: AD30S13586

Level: (low/med) LOW Date Received: 06/07/91

% Moisture: not dec. _____ dec. 9. Date Extracted: 06/14/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 06/15/91

GPC Cleanup: (Y/N) N pH: 5.0 Dilution Factor: 1.0

Number TICs found: 12

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ALDOL CONDENSATION PRODUCT	6:45	4800.	AJB
2.	ALDOL CONDENSATION PRODUCT	7:31	55000.	AJB
3.	ALDOL CONDENSATION PRODUCT	8:29	300.	AJ
4.	ALDOL CONDENSATION PRODUCT	8:59	1000.	AJB
5.	ALDOL CONDENSATION PRODUCT	9:20	710.	AJB
6.	ALDOL CONDENSATION PRODUCT	9:36	250.	AJ
7.	ALDOL CONDENSATION PRODUCT	10:31	460.	AJ
8.	ALDOL CONDENSATION PRODUCT	11:47	1200.	AJ
9.	SUBSTITUTE BENZENE	22:14	230.	AJ
10.	SUBSTITUTED BENZENE	29:15	160.	AJ
11.	SUBSTITUTED BENZENE	30:22	160.	AJ
12.	SUBSTITUTED BENZENE	30:07	360.	AJ
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S3

Lab Name: DATACHEM LABS Contract: 19005

Lab Code: DATAC Case No.: E0H0022 SAS No.: _____ SDG No.: 13585

Matrix: (soil/water) SOIL Lab Sample ID: 91-13587

Sample wt/vol: 30 (g/mL) G Lab File ID: AD22513587

Level: (low/med) LOW Date Received: 06/07/91

% Moisture: not dec. _____ dec. 14. Date Extracted: 06/14/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 06/15/91

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

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

CAS NO.	COMPOUND		Q
108-95-2	Phenol	380.	u
111-44-4	bis(2-Chloroethyl)ether	380.	u
95-57-8	2-Chlorophenol	380.	u
541-73-1	1,3-Dichlorobenzene	380.	u
106-46-7	1,4-Dichlorobenzene	380.	u
100-51-6	Benzyl alcohol	380.	u
95-50-1	1,2-Dichlorobenzene	380.	u
95-48-7	2-Methylphenol	380.	u
108-60-1	bis(2-Chloroisopropyl)ether	380.	u
106-44-5	4-Methylphenol	380.	u
621-64-7	N-Nitroso-di-n-propylamine	380.	u
67-72-1	Hexachloroethane	380.	u
98-95-3	Nitrobenzene	380.	u
78-59-1	Isophorone	380.	u
88-75-5	2-Nitrophenol	380.	u
105-67-9	2,4-Dimethylphenol	380.	u
65-85-0	Benzoic acid	1900.	u
111-91-1	bis(2-Chloroethoxy)methane	380.	u
120-83-2	2,4-Dichlorophenol	380.	u
120-82-1	1,2,4-Trichlorobenzene	380.	u
91-20-3	Naphthalene	380.	u
106-47-8	4-Chloroaniline	380.	u
87-68-3	Hexachlorobutadiene	380.	u
59-50-7	4-Chloro-3-methylphenol	380.	u
91-57-6	2-Methylnaphthalene	380.	u
77-47-4	Hexachlorocyclopentadiene	380.	u
88-06-2	2,4,6-Trichlorophenol	380.	u
95-95-4	2,4,5-Trichlorophenol	1900.	u
91-58-7	2-Chloronaphthalene	380.	u
88-74-4	2-Nitroaniline	1900.	u
131-11-3	Dimethylphthalate	380.	u
208-96-8	Acenaphthylene	380.	u
606-20-2	2,6-Dinitrotoluene	380.	

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S3

Lab Name: DATACHEM LABS Contract: 19005

Lab Code: DATAC Case No.: [illegible] SAS No.: _____ SDG No.: 13585

Matrix: (soil/water) SOIL Lab Sample ID: 91-13587

Sample wt/vol: 30 (g/ml) G Lab File ID: AD22513587

Level: (low/med) LOW Date Received: 06/07/91

% Moisture: not dec. _____ dec. 14. Date Extracted: 06/14/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 06/15/91

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1900.	U
83-32-9	Acenaphthene	380.	U
51-28-5	2,4-Dinitrophenol	1900. (7)	U
100-02-7	4-Nitrophenol	1900.	U
132-64-9	Dibenzofuran	380.	U
121-14-2	2,4-Dinitrotoluene	380.	U
84-66-2	Diethylphthalate	380.	U
7005-72-3	4-Chlorophenyl-phenylether	380.	U
86-73-7	Fluorene	380.	U
100-01-6	4-Nitroaniline	1900.	U
534-52-1	4,6-Dinitro-2-methylphenol	1900.	U
86-30-6	N-Nitrosodiphenylamine (1)	380.	U
101-55-3	4-Bromophenyl-phenylether	380.	U
118-74-1	Hexachlorobenzene	380.	U
87-86-5	Pentachlorophenol	1900.	U
85-01-8	Phenanthrene	190.	J
120-12-7	Anthracene	380.	U
84-74-2	Di-n-butylphthalate	380.	U
206-44-0	Fluoranthene	310.	J
129-00-0	Pyrene	380.	■ ← NO QUALIFIER
85-68-7	Butylbenzylphthalate	380.	U
91-94-1	3,3'-Dichlorobenzidine	770.	U
56-55-3	Benzo(a)anthracene	140.	J
218-01-9	Chrysene	180.	J
117-81-7	bis(2-Ethylhexyl)phthalate	210.	JB
117-84-0	Di-n-octylphthalate	380.	U
205-99-2	Benzo(b)fluoranthene	380.	U
207-08-9	Benzo(k)fluoranthene	380.	U
50-32-8	Benzo(a)pyrene	380.	U
193-39-5	Indeno(1,2,3-cd)pyrene	380.	U
53-70-3	Dibenz(a,h)anthracene	380.	U
191-24-2	Benzo(g,h,i)perylene	380.	U

(1) - Cannot be separated from Diphenylamine

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00420

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

S3

Lab Name: DATACHEM LABS Contract: 19005

Lab Code: DATAC Case No.: E0H0022 SAS No.: _____ SDG No.: 13585

Matrix: (soil/water) SOIL Lab Sample ID: 91-13587

Sample wt/vol: 30 (g/mL) G Lab File ID: AD22S13587

Level: (low/med) LOW Date Received: 06/07/91

% Moisture: not dec. _____ dec. 14. Date Extracted: 06/14/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 06/15/91

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

Number TICs found: 8

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ALDOL CONDENSATION PRODUCT	6:42	6500	AJB
2.	ALDOL CONDENSATION PRODUCT	7:03	450	AJB
3.	ALDOL CONDENSATION PRODUCT	7:29	57,000	AJB
4.	ALDOL CONDENSATION PRODUCT	8:58	1100.	AJB
5.	ALDOL CONDENSATION PRODUCT	9:19	710.	AJ
6.	ALDOL CONDENSATION PRODUCT	9:35	220.	AJ
7.	ALDOL CONDENSATION PRODUCT	11:45	700.	AJ
8.	UNKNOWN PNA	29:42	4300.	AJ
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S4

Lab Name: DATACHEM LABS Contract: 19005

Lab Code: DATAC Case No.: E0H0022 SAS No.: _____ SDG No.: 13585

Matrix: (soil/water) SOIL Lab Sample ID: 91-13588

Sample wt/vol: 30 (g/mL) G Lab File ID: AD32S13588

Level: (low/med) LOW Date Received: 06/07/91

% Moisture: not dec. _____ dec. 24. Date Extracted: 06/14/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 06/15/91

GPC Cleanup: (Y/N) N pH: 5.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	430.	U
111-44-4	bis(2-Chloroethyl)ether	430.	U
95-57-8	2-Chlorophenol	430.	U
541-73-1	1,3-Dichlorobenzene	430.	U
106-46-7	1,4-Dichlorobenzene	430.	U
100-51-6	Benzyl alcohol	430.	U
95-50-1	1,2-Dichlorobenzene	430.	U
95-48-7	2-Methylphenol	430.	U
108-60-1	bis(2-Chloroisopropyl)ether	430.	U
106-44-5	4-Methylphenol	430.	U
621-64-7	N-Nitroso-di-n-propylamine	430.	U
67-72-1	Hexachloroethane	430.	U
98-95-3	Nitrobenzene	430.	U
78-59-1	Isophorone	430.	U
88-75-5	2-Nitrophenol	430.	U
105-67-9	2,4-Dimethylphenol	430.	U
65-85-0	Benzoic acid	2100.	U
111-91-1	bis(2-Chloroethoxy)methane	430.	U
120-83-2	2,4-Dichlorophenol	430.	U
120-82-1	1,2,4-Trichlorobenzene	430.	U
91-20-3	Naphthalene	430.	U
106-47-8	4-Chloroaniline	430.	U
87-68-3	Hexachlorobutadiene	430.	U
59-50-7	4-Chloro-3-methylphenol	430.	U
91-57-6	2-Methylnaphthalene	430.	U
77-47-4	Hexachlorocyclopentadiene	430.	U
88-06-2	2,4,6-Trichlorophenol	430.	U
95-95-4	2,4,5-Trichlorophenol	2100.	U
91-58-7	2-Chloronaphthalene	430.	U
88-74-4	2-Nitroaniline	2100.	U
131-11-3	Dimethylphthalate	430.	U
208-96-8	Acenaphthylene	430.	U
606-20-2	2,6-Dinitrotoluene	430.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S4

Lab Name: DATACHEM LABS Contract: 19005

Lab Code: DATAC Case No.: EOH00022 SAS No.: _____ SDG No.: 13585

Matrix: (soil/water) SOIL Lab Sample ID: 91-13588

Sample wt/vol: 30 (g/mL) G Lab File ID: AD32S13588

Level: (low/med) LOW Date Received: 06/07/91

% Moisture: not dec. _____ dec. 24. Date Extracted: 06/14/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 06/15/91

GPC Cleanup: (Y/N) N pH: 5.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	2100.	u
83-32-9	Acenaphthene	430.	u
51-28-5	2,4-Dinitrophenol	2100. (g)	u
100-02-7	4-Nitrophenol	2100. (g)	u
132-64-9	Dibenzofuran	430.	u
121-14-2	2,4-Dinitrotoluene	430.	u
84-66-2	Diethylphthalate	430.	u
7005-72-3	4-Chlorophenyl-phenylether	430.	u
86-73-7	Fluorene	430.	
100-01-6	4-Nitroaniline	2100.	u
534-52-1	4,6-Dinitro-2-methylphenol	2100.	u
86-30-6	N-Nitrosodiphenylamine (1)	430.	u
101-55-3	4-Bromophenyl-phenylether	430.	u
118-74-1	Hexachlorobenzene	430.	u
87-86-5	Pentachlorophenol	2100.	u
85-01-8	Phenanthrene	230.	J
120-12-7	Anthracene	430.	
84-74-2	Di-n-butylphthalate	430.	
206-44-0	Fluoranthene	530.	
129-00-0	Pyrene	490.	
85-68-7	Butylbenzylphthalate	430.	u
91-94-1	3,3'-Dichlorobenzidine	870.	u
56-55-3	Benzo(a)anthracene	430.	u
218-01-9	Chrysene	290.	J
117-81-7	bis(2-Ethylhexyl)phthalate	440.	B
117-84-0	Di-n-octylphthalate	430.	u
205-99-2	Benzo(b)fluoranthene	490.	
207-08-9	Benzo(k)fluoranthene	430.	u
50-32-8	Benzo(a)pyrene	280.	J
193-39-5	Indeno(1,2,3-cd)pyrene	430.	u
53-70-3	Dibenz(a,h)anthracene	430.	u
191-24-2	Benzo(g,h,i)perylene	430.	u

(1) - Cannot be separated from Diphenylamine

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1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

S4

Lab Name: DATACHEM LABS Contract: 19005

Lab Code: DATAC Case No.: E040022 SAS No.: _____ SDG No.: 13585

Matrix: (soil/water) SOIL Lab Sample ID: 91-13588

Sample wt/vol: 30 (g/mL) G Lab File ID: AD32S13588

Level: (low/med) LOW Date Received: 06/07/91

% Moisture: not dec. _____ dec. 24. Date Extracted: 06/14/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 06/15/91

GPC Cleanup: (Y/N) N pH: 5.0 Dilution Factor: 1.0

Number TICs found: 8

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		ALDOL CONDENSATION PRODUCT	6:38	5600.	AJB
2.		ALDOL CONDENSATION PRODUCT	7:24	59000.	AJB
3.		ALDOL CONDENSATION PRODUCT	8:53	1200.	AJB
4.		BROMO HEXANE ISOMER	9:15	630.	AJ
5.		ALDOL CONDENSATION PRODUCT	9:30	670.	AJ
6.		ALDOL CONDENSATION PRODUCT	10:24	310.	AJ
7.		ALDOL CONDENSATION PRODUCT	11:40	650.	AJ
8.		UNKNOWN P.N.A.	29:37	4600.	J
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

55

Lab Name: DATACHEM LABS Contract: 19005

Lab Code: DATAC Case No.: E0H002 SAS No.: _____ SDG No.: 13585

Matrix: (soil/water) SOIL Lab Sample ID: 91-13589

Sample wt/vol: 30 (g/mL) G Lab File ID: AD34S13589

Level: (low/med) LOW Date Received: 06/07/91

% Moisture: not dec. _____ dec. 11. Date Extracted: 06/14/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 06/16/91

GPC Cleanup: (Y/N) N pH: 5.0 Dilution Factor: 1.0

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

CAS NO.	COMPOUND		Q
108-95-2	Phenol	370.	
111-44-4	bis(2-Chloroethyl)ether	370.	u
95-57-8	2-Chlorophenol	370.	u
541-73-1	1,3-Dichlorobenzene	370.	u
106-46-7	1,4-Dichlorobenzene	370.	u
100-51-6	Benzyl alcohol	370	u
95-50-1	1,2-Dichlorobenzene	370.	u
95-48-7	2-Methylphenol	370.	u
108-60-1	bis(2-Chloroisopropyl)ether	370.	u
106-44-5	4-Methylphenol	370.	u
621-64-7	N-Nitroso-di-n-propylamine	370.	u
67-72-1	Hexachloroethane	370.	u
98-95-3	Nitrobenzene	370.	u
78-59-1	Isophorone	370.	u
88-75-5	2-Nitrophenol	370.	u
105-67-9	2,4-Dimethylphenol	370.	u
65-85-0	Benzoic acid	1800.	u
111-91-1	bis(2-Chloroethoxy)methane	390.	u
120-83-2	2,4-Dichlorophenol	370.	u
120-82-1	1,2,4-Trichlorobenzene	370.	u
91-20-3	Naphthalene	370.	u
106-47-8	4-Chloroaniline	370.	u
87-68-3	Hexachlorobutadiene	370.	u
59-50-7	4-Chloro-3-methylphenol	370.	u
91-57-6	2-Methylnaphthalene	370.	u
77-47-4	Hexachlorocyclopentadiene	370.	u
88-06-2	2,4,6-Trichlorophenol	390.	u
95-95-4	2,4,5-Trichlorophenol	1800.	u
91-58-7	2-Chloronaphthalene	370.	u
88-74-4	2-Nitroaniline	1800.	u
131-11-3	Dimethylphthalate	370.	u
208-96-8	Acenaphthylene	370.	u
606-20-2	2,6-Dinitrotoluene	370	u

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S5

Lab Name: DATACHEM LABS Contract: 19005

Lab Code: DATAC Case No.: EOH0022 SAS No.: _____ SDG No.: 13585

Matrix: (soil/water) SOIL Lab Sample ID: 91-13589

Sample wt/vol: 30 (g/mL) G Lab File ID: AD34S13589

Level: (low/med) LOW Date Received: 06/07/91

% Moisture: not dec. _____ dec. 11. Date Extracted: 06/14/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 06/16/91

GPC Cleanup: (Y/N) N pH: 5.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1800.	u
83-32-9	Acenaphthene	370.	u
51-28-5	2,4-Dinitrophenol	1800. (1)	u
100-02-7	4-Nitrophenol	1800. (1)	u
132-64-9	Dibenzofuran	370.	u
121-14-2	2,4-Dinitrotoluene	370.	u
84-66-2	Diethylphthalate	40.	~~u~~ J
7005-72-3	4-Chlorophenyl-phenylether	370.	u
86-73-7	Fluorene	52.	J
100-01-6	4-Nitroaniline	1800.	u
534-52-1	4,6-Dinitro-2-methylphenol	1800.	u
86-30-6	N-Nitrosodiphenylamine (1)	370.	u
101-55-3	4-Bromophenyl-phenylether	370.	u
118-74-1	Hexachlorobenzene	370.	u
87-86-5	Pentachlorophenol	1800.	u
85-01-8	Phenanthrene	600.	
120-12-7	Anthracene	370.	u
84-74-2	Di-n-butylphthalate	370.	u
206-44-0	Fluoranthene	1300.	
129-00-0	Pyrene	1100.	
85-68-7	Butylbenzylphthalate	370.	u
91-94-1	3,3'-Dichlorobenzidine	740.	u
56-55-3	Benzo(a)anthracene	650.	
218-01-9	Chrysene	650.	
117-81-7	bis(2-Ethylhexyl)phthalate	620.	B
117-84-0	Di-n-octylphthalate	370.	u
205-99-2	Benzo(b)fluoranthene	1200.	
207-08-9	Benzo(k)fluoranthene	370.	u
50-32-8	Benzo(a)pyrene	700.	
193-39-5	Indeno(1,2,3-cd)pyrene	370.	u
53-70-3	Dibenz(a,h)anthracene	370.	u
191-24-2	Benzo(g,h,i)perylene	430.	~~u~~ NO QUALIFIER

(1) - Cannot be separated from Diphenylamine

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Jmae 7/2/91

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

S5

Lab Name: DATACHEM LABS Contract: _____

Lab Code: DATAC Case No.: E040022 SAS No.: _____ SDG No.: 13585

Matrix: (soil/water) SOIL Lab Sample ID: 91-13589

Sample wt/vol: 30 (g/mL) G Lab File ID: AD34S13589

Level: (low/med) LOW Date Received: 06/07/91

% Moisture: not dec. _____ dec. 11. Date Extracted: 06/14/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 06/16/91

GPC Cleanup: (Y/N) N pH: 5.0 Dilution Factor: 1.0

Number TICs found: 8

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ALDOL CONDENSATION PRODUCT	6:14	3700.	AJB
2.	ALDOL CONDENSATION PRODUCT	7:02	43000.	AJB
3.	ALDOL CONDENSATION PRODUCT	8:32	840.	AJ
4.	ALDOL CONDENSATION PRODUCT	8:54	680.	AJB
5.	ALDOL CONDENSATION PRODUCT	9:10	370.	AJ
6.	ALDOL CONDENSATION PRODUCT	10:04	280.	AJ
7.	ALDOL CONDENSATION PRODUCT	11:19	360.	AJ
8.	UNKNOWN PNA	29:17	7000.	AJ
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S6

Lab Name: DATACHEM LABS Contract: 19005

Lab Code: DATAC Case No.: E0H00022 SAS No.: _____ SDG No.: 13585

Matrix: (soil/water) SOIL Lab Sample ID: 91-13590

Sample wt/vol: 30 (g/mL) G Lab File ID: AD35513590

Level: (low/med) LOW Date Received: 06/07/91

% Moisture: not dec. _____ dec. 8. Date Extracted: 06/14/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 06/16/91

GPC Cleanup: (Y/N) N pH: 5.0 Dilution Factor: 1.0

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

CAS NO.	COMPOUND		Q
108-95-2	Phenol	360.	u
111-44-4	bis(2-Chloroethyl)ether	360.	u
95-57-8	2-Chlorophenol	360.	u
541-73-1	1,3-Dichlorobenzene	360.	u
106-46-7	1,4-Dichlorobenzene	360.	u
100-51-6	Benzyl alcohol	360.	u
95-50-1	1,2-Dichlorobenzene	360.	u
95-48-7	2-Methylphenol	360.	u
108-60-1	bis(2-Chloroisopropyl)ether	360.	u
106-44-5	4-Methylphenol	360.	u
621-64-7	N-Nitroso-di-n-propylamine	360.	u
67-72-1	Hexachloroethane	360.	u
98-95-3	Nitrobenzene	360.	u
78-59-1	Isophorone	360.	u
88-75-5	2-Nitrophenol	360.	u
105-67-9	2,4-Dimethylphenol	360.	u
65-85-0	Benzoic acid	1700.	u
111-91-1	bis(2-Chloroethoxy)methane	360.	u
120-83-2	2,4-Dichlorophenol	360.	u
120-82-1	1,2,4-Trichlorobenzene	360.	u
91-20-3	Naphthalene	360.	u
106-47-8	4-Chloroaniline	360.	u
87-68-3	Hexachlorobutadiene	360.	u
59-50-7	4-Chloro-3-methylphenol	360.	u
91-57-6	2-Methylnaphthalene	360.	u
77-47-4	Hexachlorocyclopentadiene	360.	u
88-06-2	2,4,6-Trichlorophenol	360.	u
95-95-4	2,4,5-Trichlorophenol	1700.	u
91-58-7	2-Chloronaphthalene	360.	u
88-74-4	2-Nitroaniline	1700.	u
131-11-3	Dimethylphthalate	360.	u
208-96-8	Acenaphthylene	360	u
606-20-2	2,6-Dinitrotoluene	360.	u

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S6

Lab Name: DATACHEM LABS Contract: 19005

Lab Code: DATAC Case No.: ECH0022 SAS No.: _____ SDG No.: 13585

Matrix: (soil/water) SOIL Lab Sample ID: 91-13590

Sample wt/vol: 30 (g/mL) G Lab File ID: AD35S13590

Level: (low/med) LOW Date Received: 06/07/91

% Moisture: not dec. _____ dec. 8. Date Extracted: 06/14/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 06/16/91

GPC Cleanup: (Y/N) N pH: 5.0 Dilution Factor: 1.0

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

CAS NO.	COMPOUND		Q
99-09-2	3-Nitroaniline	1700.	U
83-32-9	Acenaphthene	94.	J
51-28-5	2,4-Dinitrophenol	1700.	U
100-02-7	4-Nitrophenol	1700.	U
132-64-9	Dibenzofuran	60.	J
121-14-2	2,4-Dinitrotoluene	360.	U
84-66-2	Diethylphthalate	29.	J
7005-72-3	4-Chlorophenyl-phenylether	360.	U
86-73-7	Fluorene	120.	J
100-01-6	4-Nitroaniline	1700.	U
534-52-1	4,6-Dinitro-2-methylphenol	1700.	U
86-30-6	N-Nitrosodiphenylamine (1)	360.	U
101-55-3	4-Bromophenyl-phenylether	360.	U
118-74-1	Hexachlorobenzene	360.	U
87-86-5	Pentachlorophenol	1700.	U
85-01-8	Phenanthrene	1000.	
120-12-7	Anthracene	230.	J
84-74-2	Di-n-butylphthalate	360.	U
206-44-0	Fluoranthene	1700.	
129-00-0	Pyrene	1900.	
85-68-7	Butylbenzylphthalate	360.	U
91-94-1	3,3'-Dichlorobenzidine	720.	U
56-55-3	Benzo(a)anthracene	910.	
218-01-9	Chrysene	930.	
117-81-7	bis(2-Ethylhexyl)phthalate	510.	B
117-84-0	Di-n-octylphthalate	360.	U
205-99-2	Benzo(b)fluoranthene	1400.	
207-08-9	Benzo(k)fluoranthene	360.	U
50-32-8	Benzo(a)pyrene	500.	
193-39-5	Indeno(1,2,3-cd)pyrene	360.	U
53-70-3	Dibenz(a,h)anthracene	360.	U
191-24-2	Benzo(g,h,i)perylene	460.	

(1) - Cannot be separated from Diphenylamine

FORM I SV-2 1/87 Rev.

7/2/91

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

S6

Lab Name: DATACHEM LABS Contract: 19005

Lab Code: DATAC Case No.: E040022 SAS No.: _____ SDG No.: 13585

Matrix: (soil/water) SOIL Lab Sample ID: 91-13590

Sample wt/vol: 30 (g/mL) G Lab File ID: AD35813590

Level: (low/med) LOW Date Received: 06/07/91

% Moisture: not dec. _____ dec. 8. Date Extracted: 06/14/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 06/16/91

GPC Cleanup: (Y/N) N pH: 5.0 Dilution Factor: 1.0

Number TICs found: 9

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		ALDOL CONDENSATION PRODUCT	6:14	5000.	AJB
2.		ALDOL CONDENSATION PRODUCT	7:03	57000.	AJB
3.		ALDOL CONDENSATION PRODUCT	8:32	1000.	AJ
4.		ALDOL CONDENSATION PRODUCT	8:53	1300.	AJB
5.		ALDOL CONDENSATION PRODUCT	9:09	540.	AJ
6.		ALDOL CONDENSATION PRODUCT	10:03	410.	AJ
7.		ALDOL CONDENSATION PRODUCT	11:19	980.	AJ
8.		SUBSTITUTED BENZENE	22:30	3200.	J
9.		UNKNOWN PNA	26:31	15000.	J
10.					
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S7

Lab Name: DATACHEM LABS Contract: 19005

Lab Code: DATAC Case No.: E0H002 2 SAS No.: _____ SDG No.: 13585

Matrix: (soil/water) SOIL Lab Sample ID: 91-13591

Sample wt/vol: 30 (g/mL) G Lab File ID: AD21513591

Level: (low/med) LOW Date Received: 06/07/91

% Moisture: not dec. _____ dec. 14. Date Extracted: 06/14/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 06/15/91

GPC Cleanup: (Y/N) N pH: 5.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	380.	U
111-44-4	bis(2-Chloroethyl)ether	380.	U
95-57-8	2-Chlorophenol	380.	U
541-73-1	1,3-Dichlorobenzene	380.	U
106-46-7	1,4-Dichlorobenzene	380.	U
100-51-6	Benzyl alcohol	380.	U
95-50-1	1,2-Dichlorobenzene	380.	U
95-48-7	2-Methylphenol	380.	U
108-60-1	bis(2-Chloroisopropyl)ether	380.	U
106-44-5	4-Methylphenol	380.	U
621-64-7	N-Nitroso-di-n-propylamine	380.	U
67-72-1	Hexachloroethane	380.	U
98-95-3	Nitrobenzene	380.	U
78-59-1	Isophorone	380.	U
88-75-5	2-Nitrophenol	380.	U
105-67-9	2,4-Dimethylphenol	380.	U
65-85-0	Benzoic acid	1900.	U
111-91-1	bis(2-Chloroethoxy)methane	380.	U
120-83-2	2,4-Dichlorophenol	380.	U
120-82-1	1,2,4-Trichlorobenzene	380.	U
91-20-3	Naphthalene	380.	U
106-47-8	4-Chloroaniline	380.	U
87-68-3	Hexachlorobutadiene	380.	U
59-50-7	4-Chloro-3-methylphenol	380.	U
91-57-6	2-Methylnaphthalene	380.	U
77-47-4	Hexachlorocyclopentadiene	380.	U
88-06-2	2,4,6-Trichlorophenol	380.	U
95-95-4	2,4,5-Trichlorophenol	1900.	U
91-58-7	2-Chloronaphthalene	380.	U
88-74-4	2-Nitroaniline	1900.	U
131-11-3	Dimethylphthalate	380.	U
208-96-8	Acenaphthylene	380.	U
606-20-2	2,6-Dinitrotoluene	380.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S7

Lab Name: DATACHEM LABS Contract: 19005

Lab Code: DATAC Case No.: EOH0022 SAS No.: _____ SDG No.: 13585

Matrix: (soil/water) SOIL Lab Sample ID: 91-13591

Sample wt/vol: 30 (g/mL) G Lab File ID: AD21S13591

Level: (low/med) LOW Date Received: 06/07/91

% Moisture: not dec. _____ dec. 14. Date Extracted: 06/14/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 06/15/91

GPC Cleanup: (Y/N) N pH: 5.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1900.	u
83-32-9	Acenaphthene	380.	u
51-28-5	2,4-Dinitrophenol	1900. (1)	u
100-02-7	4-Nitrophenol	1900.	u
132-64-9	Dibenzofuran	380.	u
121-14-2	2,4-Dinitrotoluene	380.	u
84-66-2	Diethylphthalate	35.	~~u~~ J
7005-72-3	4-Chlorophenyl-phenylether	380.	u
86-73-7	Fluorene	380.	u
100-01-6	4-Nitroaniline	1900.	u
534-52-1	4,6-Dinitro-2-methylphenol	1900.	u
86-30-6	N-Nitrosodiphenylamine (1)	380.	u
101-55-3	4-Bromophenyl-phenylether	380.	u
118-74-1	Hexachlorobenzene	380.	u
87-86-5	Pentachlorophenol	1900.	u
85-01-8	Phenanthrene	54.	u
120-12-7	Anthracene	380.	u
84-74-2	Di-n-butylphthalate	380.	u
206-44-0	Fluoranthene	110.	J
129-00-0	Pyrene	120.	J
85-68-7	Butylbenzylphthalate	380.	u
91-94-1	3,3'-Dichlorobenzidine	770.	u
56-55-3	Benzo(a)anthracene	380.	u
218-01-9	Chrysene	380.	u
117-81-7	bis(2-Ethylhexyl)phthalate	270.	JB
117-84-0	Di-n-octylphthalate	380.	u
205-99-2	Benzo(b)fluoranthene	380.	u
207-08-9	Benzo(k)fluoranthene	380.	u
50-32-8	Benzo(a)pyrene	380.	u
193-39-5	Indeno(1,2,3-cd)pyrene	380.	u
53-70-3	Dibenz(a,h)anthracene	380.	u
191-24-2	Benzo(g,h,i)perylene	380.	u

(1) - Cannot be separated from Diphenylamine

FORM I SV-2

1/87 Rev.

7/2/91

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

S7

Lab Name: DATACHEM LABS Contract: 19005

Lab Code: DATAC Case No.: E0406022 SAS No.: _____ SDG No.: 13585

Matrix: (soil/water) SOIL Lab Sample ID: 91-13591

Sample wt/vol: 30 (g/mL) G Lab File ID: AD21513591

Level: (low/med) LOW Date Received: 06/07/91

% Moisture: not dec. _____ dec. 14. Date Extracted: 06/14/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 06/15/91

GPC Cleanup: (Y/N) N pH: 5.0 Dilution Factor: 1.0

Number TICs found: 8

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ALDOL CONDENSATION PRODUCT	6:43	6500.	AJB
2.	ALDOL CONDENSATION PRODUCT	7:30	98000.	AJB
3.	ALDOL CONDENSATION PRODUCT	8:55	1200.	AJB
4.	ALDOL CONDENSATION PRODUCT	9:19	1100.	AJ
5.	ALDOL CONDENSATION PRODUCT	10:30	570.	AJ
6.	ALDOL CONDENSATION PRODUCT	11:45	1200.	AJ
7.	HYDROCARBON (UNKNOWN)	21:08	190.	J
8.	UNKNOWN PNA	29:42	3600.	J
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S8

Lab Name: DATACHEM LABS Contract: 19005

Lab Code: DATAC Case No.: E0H0022 SAS No.: _____ SDG No.: 13585

Matrix: (soil/water) SOIL Lab Sample ID: 91-13592

Sample wt/vol: 30 (g/mL) G Lab File ID: AD33S13592

Level: (low/med) LOW Date Received: 06/07/91

% Moisture: not dec. _____ dec. 18 Date Extracted: 06/14/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 06/16/91

GPC Cleanup: (Y/N) N pH: 5.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	400.	u
111-44-4	bis(2-Chloroethyl)ether	400.	u
95-57-8	2-Chlorophenol	400.	u
541-73-1	1,3-Dichlorobenzene	400.	u
106-46-7	1,4-Dichlorobenzene	400.	u
100-51-6	Benzyl alcohol	400.	u
95-50-1	1,2-Dichlorobenzene	400.	u
95-48-7	2-Methylphenol	400.	u
108-60-1	bis(2-Chloroisopropyl)ether	400.	u
106-44-5	4-Methylphenol	400.	u
621-64-7	N-Nitroso-di-n-propylamine	400.	u
67-72-1	Hexachloroethane	400.	u
98-95-3	Nitrobenzene	400.	u
78-59-1	Isophorone	400.	u
88-75-5	2-Nitrophenol	400.	u
105-67-9	2,4-Dimethylphenol	400.	u
65-85-0	Benzoic acid	2000.	u
111-91-1	bis(2-Chloroethoxy)methane	400.	u
120-83-2	2,4-Dichlorophenol	400.	u
120-82-1	1,2,4-Trichlorobenzene	400.	u
91-20-3	Naphthalene	400.	u
106-47-8	4-Chloroaniline	400.	u
87-68-3	Hexachlorobutadiene	400.	u
59-50-7	4-Chloro-3-methylphenol	400.	u
91-57-6	2-Methylnaphthalene	400.	u
77-47-4	Hexachlorocyclopentadiene	400.	u
88-06-2	2,4,6-Trichlorophenol	400.	u
95-95-4	2,4,5-Trichlorophenol	2000.	u
91-58-7	2-Chloronaphthalene	400.	u
88-74-4	2-Nitroaniline	2000.	u
131-11-3	Dimethylphthalate	400.	u
208-96-8	Acenaphthylene	400.	u
606-20-2	2,6-Dinitrotoluene	400.	u

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S8

Lab Name: DATACHEM LABS Contract: 19005

Lab Code: DATAC Case No.: EOHØØ22 SAS No.: _____ SDG No.: 13585

Matrix: (soil/water) SOIL Lab Sample ID: 91-13592

Sample wt/vol: 30 (g/mL) G Lab File ID: AD33S13592

Level: (low/med) LOW Date Received: 06/07/91

% Moisture: not dec. _____ dec. 18. Date Extracted: 06/14/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 06/16/91

GPC Cleanup: (Y/N) N pH: 5.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	2000.	u
83-32-9	Acenaphthene	400.	u
51-28-5	2,4-Dinitrophenol	2000. (j)	u
100-02-7	4-Nitrophenol	2000.	u
132-64-9	Dibenzofuran	400.	u
121-14-2	2,4-Dinitrotoluene	400.	u
84-66-2	Diethylphthalate	400.	u
7005-72-3	4-Chlorophenyl-phenylether	400.	u
86-73-7	Fluorene	400.	u
100-01-6	4-Nitroaniline	2000.	u
534-52-1	4,6-Dinitro-2-methylphenol	2000.	u
86-30-6	N-Nitrosodiphenylamine (1)	400.	u
101-55-3	4-Bromophenyl-phenylether	400.	u
118-74-1	Hexachlorobenzene	400.	u
87-86-5	Pentachlorophenol	2000.	u
85-01-8	Phenanthrene	140.	J
120-12-7	Anthracene	400.	u
84-74-2	Di-n-butylphthalate	400.	u
206-44-0	Fluoranthene	380	J
129-00-0	Pyrene	270.	J
85-68-7	Butylbenzylphthalate	400.	u
91-94-1	3,3'-Dichlorobenzidine	400.	u
56-55-3	Benzo(a)anthracene	400.	u
218-01-9	Chrysene	170.	J
117-81-7	bis(2-Ethylhexyl)phthalate	510.	B
117-84-0	Di-n-octylphthalate	400.	u
205-99-2	Benzo(b)fluoranthene	270.	J
207-08-9	Benzo(k)fluoranthene	400.	u
50-32-8	Benzo(a)pyrene	160.	J
193-39-5	Indeno(1,2,3-cd)pyrene	400.	u
53-70-3	Dibenz(a,h)anthracene	400.	u
191-24-2	Benzo(g,h,i)perylene	400.	u

(1) - Cannot be separated from Diphenylamine

FORM I SV-2 1/87 Rev.

[illegible] 7/2/91

00722

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

S8

Lab Name: DATACHEM LABS Contract: 19005

Lab Code: DATAC Case No.: E0H0022 SAS No.: _____ SDG No.: 13585

Matrix: (soil/water) SOIL Lab Sample ID: 91-13592

Sample wt/vol: 30 (g/mL) G Lab File ID: AD33S13592

Level: (low/med) LOW Date Received: 06/07/91

% Moisture: not dec. _____ dec. 18. Date Extracted: 06/14/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 06/16/91

GPC Cleanup: (Y/N) N pH: 5.0 Dilution Factor: 1.0

Number TICs found: 8

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		ALDOL CONDENSATION PRODUCT	6.40	5000.	AJB
2.		ALDOL CONDENSATION PRODUCT	7:25	54000.	AJB
3.		ALDOL CONDENSATION PRODUCT	8:55	1000.	AJB
4.		BROMOHEXANE ISOMER	9:17	940.	J
5.		ALDOL CONDENSATION PRODUCT	9:32	540.	AJ
6.		ALDOL CONDENSATION PRODUCT	10:27	440.	AJ
7.		ALDOL CONDENSATION PRODUCT	11.43	1100.	AJ
8.		UNKNOWN P.N.A.	29:39	4000.	J
9.					
10.					
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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S9

Lab Name: DATACHEM LABS Contract: 19005

Lab Code: DATAC Case No.: E0H0022 SAS No.: _____ SDG No.: 13585

Matrix: (soil/water) SOIL Lab Sample ID: 91-13593

Sample wt/vol: 30 (g/mL) G Lab File ID: AD31S13593

Level: (low/med) LOW Date Received: 06/07/91

% Moisture: not dec. _____ dec. 23. Date Extracted: 06/14/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 06/15/91

GPC Cleanup: (Y/N) N pH: 5.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	430.	U
111-44-4	bis(2-Chloroethyl)ether	430.	U
95-57-8	2-Chlorophenol	430.	U
541-73-1	1,3-Dichlorobenzene	430.	U
106-46-7	1,4-Dichlorobenzene	430.	U
100-51-6	Benzyl alcohol	430.	U
95-50-1	1,2-Dichlorobenzene	430.	U
95-48-7	2-Methylphenol	430.	U
108-60-1	bis(2-Chloroisopropyl)ether	430.	U
106-44-5	4-Methylphenol	430.	U
621-64-7	N-Nitroso-di-n-propylamine	430.	U
67-72-1	Hexachloroethane	430.	U
98-95-3	Nitrobenzene	430.	U
78-59-1	Isophorone	430.	U
88-75-5	2-Nitrophenol	430.	U
105-67-9	2,4-Dimethylphenol	430.	U
65-85-0	Benzoic acid	2100	U
111-91-1	bis(2-Chloroethoxy)methane	430.	U
120-83-2	2,4-Dichlorophenol	430.	U
120-82-1	1,2,4-Trichlorobenzene	430.	U
91-20-3	Naphthalene	430.	U
106-47-8	4-Chloroaniline	430.	U
87-68-3	Hexachlorobutadiene	430.	U
59-50-7	4-Chloro-3-methylphenol	430.	U
91-57-6	2-Methylnaphthalene	430.	U
77-47-4	Hexachlorocyclopentadiene	430.	U
88-06-2	2,4,6-Trichlorophenol	430.	U
95-95-4	2,4,5-Trichlorophenol	2100.	U
91-58-7	2-Chloronaphthalene	430.	U
88-74-4	2-Nitroaniline	2100.	U
131-11-3	Dimethylphthalate	430.	U
208-96-8	Acenaphthylene	430.	U
606-20-2	2,6-Dinitrotoluene	430.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S9

Lab Name: DATACHEM LABS Contract: 19005

Lab Code: DATAC Case No.: EOHØØ22 SAS No.: _____ SDG No.: 13585

Matrix: (soil/water) SOIL Lab Sample ID: 91-13593

Sample wt/vol: 30 (g/mL) G Lab File ID: AD31S13593

Level: (low/med) LOW Date Received: 06/07/91

% Moisture: not dec. _____ dec. 23 Date Extracted: 06/14/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 06/15/91

GPC Cleanup: (Y/N) N pH: 5.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	2100.	u
83-32-9	Acenaphthene	430.	u
51-28-5	2,4-Dinitrophenol	2100. (j)	u
100-02-7	4-Nitrophenol	2100.	u
132-64-9	Dibenzofuran	430.	u
121-14-2	2,4-Dinitrotoluene	430.	u
84-66-2	Diethylphthalate	430.	u
7005-72-3	4-Chlorophenyl-phenylether	430.	u
86-73-7	Fluorene	430.	u
100-01-6	4-Nitroaniline	2100.	u
534-52-1	4,6-Dinitro-2-methylphenol	2100.	u
86-30-6	N-Nitrosodiphenylamine (1)	430.	u
101-55-3	4-Bromophenyl-phenylether	430.	u
118-74-1	Hexachlorobenzene	430.	u
87-86-5	Pentachlorophenol	2100.	u
85-01-8	Phenanthrene	170.	J
120-12-7	Anthracene	430.	u
84-74-2	Di-n-butylphthalate	430.	u
206-44-0	Fluoranthene	370.	J
129-00-0	Pyrene	320.	J
85-68-7	Butylbenzylphthalate	430.	u
91-94-1	3,3'-Dichlorobenzidine	860.	u
56-55-3	Benzo(a)anthracene	170.	J
218-01-9	Chrysene	190.	J
117-81-7	bis(2-Ethylhexyl)phthalate	570.	
117-84-0	Di-n-octylphthalate	430.	u
205-99-2	Benzo(b)fluoranthene	430.	u
207-08-9	Benzo(k)fluoranthene	430.	u
50-32-8	Benzo(a)pyrene	430.	u
193-39-5	Indeno(1,2,3-cd)pyrene	430.	u
53-70-3	Dibenz(a,h)anthracene	430.	u
191-24-2	Benzo(g,h,i)perylene	430.	u

(1) - Cannot be separated from Diphenylamine

FORM I SV-2 1/87 Rev.

Jmalkin 7/2/91

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1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

S9

Lab Name: DATAchem LABS Contract: 19005

Lab Code: DATAC Case No.: EOH0022 SAS No.: _____ SDG No.: 13585

Matrix: (soil/water) SOIL Lab Sample ID: 91-13593

Sample wt/vol: 30 (g/mL) G Lab File ID: AD31513593

Level: (low/med) LOW Date Received: 06/07/91

% Moisture: not dec. _____ dec. 23 Date Extracted: 06/14/91

Extraction: (SepF/Cont/Sonc) SONIC Date Analyzed: 06/15/91

GPC Cleanup: (Y/N) ___ pH: 5.0 Dilution Factor: 1.0

Number TICs found: 9

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ALDOL CONDENSATION PRODUCT	6:43	6200.	AJB
2.	ALDOL CONDENSATION PRODUCT	7:30	39000.	AJB
3.	ALDOL CONDENSATION PRODUCT	8:58	1200.	AJB
4.	BROMO, HEXANE ISOMER	9:19	1300.	J
5.	ALDOL CONDENSATION PRODUCT	9:36	440.	AJ
6.	ALDOL CONDENSATION PRODUCT	10:30	640.	AJ
7.	ALDOL CONDENSATION PRODUCT	11:45	1000.	AJ
8.	TRICHLORO BIPHENYL ISOMER	23:41	1400.	J
9.	UNKNOWN PNA	29:42	4900.	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S10

Lab Name: DATACHEM LABS Contract: 19005

Lab Code: DATAC Case No.: E0H002 SAS No.: _____ SDG No.: 13585

Matrix: (soil/water) SOIL Lab Sample ID: 91-13594

Sample wt/vol: 30 (g/mL) G Lab File ID: AD18513594

Level: (low/med) LOW Date Received: 06/07/91

% Moisture: not dec. _____ dec. 9 Date Extracted: 06/14/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 06/14/91

GPC Cleanup: (Y/N) N pH: 5.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	360.	U
111-44-4	bis(2-Chloroethyl)ether	360.	U
95-57-8	2-Chlorophenol	360.	U
541-73-1	1,3-Dichlorobenzene	360.	U
106-46-7	1,4-Dichlorobenzene	360.	U
100-51-6	Benzyl alcohol	360.	U
95-50-1	1,2-Dichlorobenzene	360.	U
95-48-7	2-Methylphenol	360.	U
108-60-1	bis(2-Chloroisopropyl)ether	360.	U
106-44-5	4-Methylphenol	360.	U
621-64-7	N-Nitroso-di-n-propylamine	360.	U
67-72-1	Hexachloroethane	360.	U
98-95-3	Nitrobenzene	360.	U
78-59-1	Isophorone	360.	U
88-75-5	2-Nitrophenol	360.	U
105-67-9	2,4-Dimethylphenol	360.	U
65-85-0	Benzoic acid	1800.	U
111-91-1	bis(2-Chloroethoxy)methane	360.	U
120-83-2	2,4-Dichlorophenol	360.	U
120-82-1	1,2,4-Trichlorobenzene	360.	U
91-20-3	Naphthalene	360.	U
106-47-8	4-Chloroaniline	360.	U
87-68-3	Hexachlorobutadiene	360.	U
59-50-7	4-Chloro-3-methylphenol	360.	U
91-57-6	2-Methylnaphthalene	360.	U
77-47-4	Hexachlorocyclopentadiene	360.	U
88-06-2	2,4,6-Trichlorophenol	360.	U
95-95-4	2,4,5-Trichlorophenol	1800.	U
91-58-7	2-Chloronaphthalene	360.	U
88-74-4	2-Nitroaniline	1800.	U
131-11-3	Dimethylphthalate	360.	U
208-96-8	Acenaphthylene	360.	U
606-20-2	2,6-Dinitrotoluene	360.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

S10

Lab Name: DATACHEM LABS Contract: 19005

Lab Code: DATAC Case No.: EOH0022 SAS No.: _____ SDG No.: 13585

Matrix: (soil/water) SOIL Lab Sample ID: 91-13594

Sample wt/vol: 30 (g/mL) G Lab File ID: AD18S13594

Level: (low/med) LOW Date Received: 06/07/91

% Moisture: not dec. _____ dec. 9. Date Extracted: 06/14/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 06/14/91

GPC Cleanup: (Y/N) N pH: 5.0 Dilution Factor: 1.0

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

CAS NO.	COMPOUND		Q
99-09-2	3-Nitroaniline	1800.	U
83-32-9	Acenaphthene	360.	U
51-28-5	2,4-Dinitrophenol	1800. (1)	U
100-02-7	4-Nitrophenol	1800. (1)	U
132-64-9	Dibenzofuran	360.	U
121-14-2	2,4-Dinitrotoluene	360.	U
84-66-2	Diethylphthalate	360.	U
7005-72-3	4-Chlorophenyl-phenylether	360.	U
86-73-7	Fluorene	360.	U
100-01-6	4-Nitroaniline	1800.	U
534-52-1	4,6-Dinitro-2-methylphenol	1800.	U
86-30-6	N-Nitrosodiphenylamine (1)	360.	U
101-55-3	4-Bromophenyl-phenylether	360.	U
118-74-1	Hexachlorobenzene	360.	U
87-86-5	Pentachlorophenol	1800.	U
85-01-8	Phenanthrene	52.	J
120-12-7	Anthracene	360.	U
84-74-2	Di-n-butylphthalate	360.	U
206-44-0	Fluoranthene	86.	J
129-00-0	Pyrene	100.	J
85-68-7	Butylbenzylphthalate	360.	U
91-94-1	3,3'-Dichlorobenzidine	730.	U
56-55-3	Benzo(a)anthracene	360.	U
218-01-9	Chrysene	360.	U
117-81-7	bis(2-Ethylhexyl)phthalate	160.	JB
117-84-0	Di-n-octylphthalate	360.	U
205-99-2	Benzo(b)fluoranthene	360.	U
207-08-9	Benzo(k)fluoranthene	360.	U
50-32-8	Benzo(a)pyrene	360.	U
193-39-5	Indeno(1,2,3-cd)pyrene	360.	U
53-70-3	Dibenz(a,h)anthracene	360.	U
191-24-2	Benzo(g,h,i)perylene	360.	U

(1) - Cannot be separated from Diphenylamine

FORM I SV-2 1/87 Rev.

Jonathan 7/2/91

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1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

S10

Lab Name: DATACHEM LABS Contract: 19005

Lab Code: DATAC Case No.: E040022 SAS No.: _____ SDG No.: 13585

Matrix: (soil/water) SOIL Lab Sample ID: 91-13594

Sample wt/vol: 30 (g/mL) G Lab File ID: AD18513594

Level: (low/med) LOW Date Received: 06/07/91

% Moisture: not dec. _____ dec. 9. Date Extracted: 06/14/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 06/14/91

GPC Cleanup: (Y/N) N pH: 5.0 Dilution Factor: 1.0

Number TICs found: 6

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		ALDOL CONDENSATION PRODUCT	6:41	5700.	AJB
2.		ALDOL CONDENSATION PRODUCT	7:29	91000.	AJB
3.		ALDOL CONDENSATION PRODUCT	8:57	1000.	AJB
4.		ALDOL CONDENSATION PRODUCT	9:18	810.	AJ
5.		ALDOL CONDENSATION PRODUCT	11:44	760.	AJ
6.		UNKNOWN PNA	29:41	2900.	J
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK01

Lab Name: DATACHEM LABS Contract: 19005

Lab Code: DATAC Case No.: E0H002 SAS No.: _____ SDG No.: 13585

Matrix: (soil/water) SOIL Lab Sample ID: BL61491

Sample wt/vol: 30 (g/mL) G Lab File ID: AD17BL614

Level: (low/med) LOW Date Received: 06/07/91

% Moisture: not dec. _____ dec. _____ Date Extracted: 06/14/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 06/14/91

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

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

CAS NO.	COMPOUND		Q
108-95-2	Phenol	330.	u
111-44-4	bis(2-Chloroethyl)ether	330.	u
95-57-8	2-Chlorophenol	330.	u
541-73-1	1,3-Dichlorobenzene	330.	u
106-46-7	1,4-Dichlorobenzene	330.	u
100-51-6	Benzyl alcohol	330.	u
95-50-1	1,2-Dichlorobenzene	330.	u
95-48-7	2-Methylphenol	330.	u
108-60-1	bis(2-Chloroisopropyl)ether	330.	u
106-44-5	4-Methylphenol	330.	u
621-64-7	N-Nitroso-di-n-propylamine	330.	u
67-72-1	Hexachloroethane	330.	u
98-95-3	Nitrobenzene	330.	u
78-59-1	Isophorone	330.	u
88-75-5	2-Nitrophenol	330.	u
105-67-9	2,4-Dimethylphenol	330.	u
65-85-0	Benzoic acid	1600.	u
111-91-1	bis(2-Chloroethoxy)methane	330. ~~1600.~~	u
120-83-2	2,4-Dichlorophenol	330.	u
120-82-1	1,2,4-Trichlorobenzene	330.	u
91-20-3	Naphthalene	330.	u
106-47-8	4-Chloroaniline	330.	u
87-68-3	Hexachlorobutadiene	330.	u
59-50-7	4-Chloro-3-methylphenol	330.	u
91-57-6	2-Methylnaphthalene	330.	u
77-47-4	Hexachlorocyclopentadiene	330.	u
88-06-2	2,4,6-Trichlorophenol	330.	u
95-95-4	2,4,5-Trichlorophenol	1600.	u
91-58-7	2-Chloronaphthalene	330.	u
88-74-4	2-Nitroaniline	1600.	u
131-11-3	Dimethylphthalate	330.	u
208-96-8	Acenaphthylene	330.	u
606-20-2	2,6-Dinitrotoluene	330.	u

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK01

Lab Name: DATACHEM LABS Contract: 19005

Lab Code: DATAC Case No.: EOH0022 SAS No.: _____ SDG No.: 13585

Matrix: (soil/water) SOIL Lab Sample ID: BL61491

Sample wt/vol: 30 (g/mL) G Lab File ID: AD17BL614

Level: (low/med) LOW Date Received: 06/07/91

% Moisture: not dec._____ dec._____ Date Extracted: 06/14/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 06/14/91

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

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

CAS NO.	COMPOUND		Q
99-09-2	3-Nitroaniline	1600.	U
83-32-9	Acenaphthene	330.	U
51-28-5	2,4-Dinitrophenol	1600.	U
100-02-7	4-Nitrophenol	1600.	U
132-64-9	Dibenzofuran	330.	U
121-14-2	2,4-Dinitrotoluene	330.	U
84-66-2	Diethylphthalate	330.	U
7005-72-3	4-Chlorophenyl-phenylether	330.	U
86-73-7	Fluorene	330.	U
100-01-6	4-Nitroaniline	1600.	U
534-52-1	4,6-Dinitro-2-methylphenol	1600.	U
86-30-6	N-Nitrosodiphenylamine (1)	330.	U
101-55-3	4-Bromophenyl-phenylether	330.	U
118-74-1	Hexachlorobenzene	330.	U
87-86-5	Pentachlorophenol	1600.	U
85-01-8	Phenanthrene	330.	U
120-12-7	Anthracene	330.	U
84-74-2	Di-n-butylphthalate	330.	U
206-44-0	Fluoranthene	330.	U
129-00-0	Pyrene	330.	U
85-68-7	Butylbenzylphthalate	330.	U
91-94-1	3,3'-Dichlorobenzidine	660.	U
56-55-3	Benzo(a)anthracene	330.	U
218-01-9	Chrysene	330.	U
117-81-7	bis(2-Ethylhexyl)phthalate	120.	J
117-84-0	Di-n-octylphthalate	330.	U
205-99-2	Benzo(b)fluoranthene	330.	U
207-08-9	Benzo(k)fluoranthene	330.	U
50-32-8	Benzo(a)pyrene	330.	U
193-39-5	Indeno(1,2,3-cd)pyrene	330.	U
53-70-3	Dibenz(a,h)anthracene	330.	U
191-24-2	Benzo(g,h,i)perylene	330.	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLK01

Lab Name: DATACHEM LABS Contract: 19005

Lab Code: DATAC Case No.: E040022 SAS No.: _____ SDG No.: 13585

Matrix: (soil/water) SOIL Lab Sample ID: BL61491

Sample wt/vol: 30 (g/mL) G Lab File ID: AD17BL614

Level: (low/med) LOW Date Received: 06/07/91

% Moisture: not dec._____ dec._____ Date Extracted: 06/14/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 06/14/91

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

Number TICs found: 4

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		ALDOL CONDENSATION PRODUCT	6:45	5800.	AJ
2.		ALDOL CONDENSATION PRODUCT	7:02	410.	AJ
3.		ALDOL CONDENSATION PRODUCT	7:31	86000.	AJ
4.		ALDOL CONDENSATION PRODUCT	8:57	1100.	AJ
5.					
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ATTACHMENT B

Site Photodocumentation Log

Camera Type: Olympus Infinity

Camera Serial No.: 1207194

Lense Type: 35mm fixed

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Carstab Corporation Site

U.S. EPA ID: None

TDD: T05-9105-009

PAN: EOH 0022SAA

DATE: 6/6/91

TIME: 11:00

DIRECTION OF PHOTOGRAPH: East

WEATHER CONDITIONS: Sunny, 75°F

PHOTOGRAPHED BY: Sammy Sirhan

SAMPLE ID (if applicable): S_1

DESCRIPTION: Close up of sample S_1 location, this sample was taken from the baseball field south of CCS.

DATE: 6/6/91

TIME: 11:00

DIRECTION OF PHOTOGRAPH: East

WEATHER CONDITIONS: Sunny, 75°F

PHOTOGRAPHED BY: Sammy Sirhan

SAMPLE ID (if applicable): S_1

DESCRIPTION: Background view of sample S_1 location north batting area of the baseball field.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Carstab Corporation Site

U.S. EPA ID: None

TDD: T05-9105-009

PAN: EOH0022SAA

DATE: 6/6/91

TIME: 11:15

DIRECTION OF PHOTOGRAPH: West

WEATHER CONDITIONS: Sunny, 75°F

PHOTOGRAPHED BY: Sammy Sirhan

SAMPLE ID (if applicable): S_2

DESCRIPTION: A close up view of sample S_2 location. This sample was taken from the south portion of the baseball field, and across the parking lot of the residential area.

DATE: 6/6/91

TIME: 11:15

DIRECTION OF PHOTOGRAPH: West

WEATHER CONDITIONS: Sunny, 75°F

PHOTOGRAPHED BY: Sammy Sirhan

SAMPLE ID (if applicable): S_2

DESCRIPTION: Background view of sample S_2 location at the south batting area of the baseball field.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Carstab Corporation Site

U.S. EPA ID: None TDD: T05-9105-009 PAN: EOH0022SAA

DATE: 6/6/91

TIME: 11:20

DIRECTION OF PHOTOGRAPH: North

WEATHER CONDITIONS: Sunny, 75°F

PHOTOGRAPHED BY: Sammy Sirhan

SAMPLE ID (if applicable): S_3

DESCRIPTION: A close up view of sample S_3 location. This sample was taken from a dirt pile near the fence line of CCS and 15 ft. south of the site parking lot.

DATE: 6/6/91

TIME: 11:20

DIRECTION OF PHOTOGRAPH: North

WEATHER CONDITIONS: Sunny, 75°F

PHOTOGRAPHED BY: Sammy Sirhan

SAMPLE ID (if applicable): S_3

DESCRIPTION: A background view of sample S_3 location with the site parking lot north of this location.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Carstab Corporation Site

U.S. EPA ID: None

TDD: T05-9105-009

PAN: EOH0022SAA

DATE: 6/6/91

TIME: 11:45

DIRECTION OF PHOTOGRAPH: NNE

WEATHER CONDITIONS: Sunny

PHOTOGRAPHED BY: Sammy Sirhan

SAMPLE ID (if applicable): S_4

DESCRIPTION: This sample was taken from the south west corner of CCS to evaluate the release of contaminants and poulltants in the Mill Creek.

DATE: 6/6/91

TIME: 11:55

DIRECTION OF PHOTOGRAPH: East

WEATHER CONDITIONS: Sunny, 75°F

PHOTOGRAPHED BY: Sammy Sirhan

SAMPLED ID (if applicable): S_5

DESCRIPTION: This sample was taken from the area west of CCS 250 ft. north of S_4 location. Dead vegetation was observed at that area.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Carstab Corporation Site

U.S. EPA ID: None TDD: T05-9105-009 PAN: EOH0022SAA

DATE: 6/6/91

TIME: 13:30

DIRECTION OF PHOTOGRAPH: E NE

WEATHER CONDITIONS: Sunny, 75°F

PHOTOGRAPHED BY: Sammy Sirhan

SAMPLE ID (if applicable): S_6

DESCRIPTION: This sample location is 600 ft. north of S_4 location on east bank of Mill Creek.

DATE: 6/6/91

TIME: 14:00

DIRECTION OF PHOTOGRAPH: East

WEATHER CONDITIONS: Sunny, 75°F

PHOTOGRAPHED BY: Sammy Sirhan

SAMPLE ID (if applicable): S_7

DESCRIPTION: This soil sample was taken from the north east corner of CCS fence line.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Carstab Corporation Site **PAGE** 6 **OF** 6

U.S. EPA ID: None **TDD:** T05-9105-009 **PAN:** EOH0022SAA

DATE: 6/6/91

TIME: 15:30

DIRECTION OF PHOTOGRAPH: E

WEATHER CONDITIONS: Sunny, 75°F

PHOTOGRAPHED BY: Sammy Sirhan

SAMPLE ID (if applicable): S_8

DESCRIPTION: This sample was taken from a sediment bag containing dark green to greenish sediment at the east bank of Mill Creek near CCS.

DATE: 6/6/91

TIME: 16:00

DIRECTION OF PHOTOGRAPH: W

WEATHER CONDITIONS: Sunny, 75°F

PHOTOGRAPHED BY: Sammy Sirhan

SAMPLE ID (if applicable): S_9

DESCRIPTION: Sample S_9 location is on west bank of Mill Creek parallel to S_4 location where oily sheen was observed on thin water of the creek.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Carstab Corporation Site

U.S. EPA ID: None

TDD: T05-9105-009

PAN: EOH0022SAA

DATE: 6/6/91

TIME: 15:00

DIRECTION OF PHOTOGRAPH: W

WEATHER CONDITIONS: Sunny, 75°F

PHOTOGRAPHED BY: Sammy Sirhan

SAMPLE ID (if applicable): None

DESCRIPTION: Partialy uncovered drum onthe western bank of the Mill Creek The drum was marked with the wording "Cincinnati".

DATE: 6/6/91

TIME: 15:30

DIRECTION OF PHOTOGRAPH: West

WEATHER CONDITIONS: Sunny, 75°F

PHOTOGRAPHED BY: Sammy Sirhan

SAMPLE ID (if applicable): None

DESCRIPTION: Partialy uncovered drum also found north of the first one. Both of these drums were observed north of CCS.

ATTACHMENT C

Ecological Field Observation
Videodocumentation