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

EPA Region 5 Records Ctr.
243450

M E M O R A N D U M

DATE: March 26, 1991

TO: Duane Heaton, U.S. EPA DPO
Region V Technical Assistance Team

THRU: Louis Adams, E & E TAT Leader
Region V Technical Assistance Team

FROM: Wendy Davis, E & E TAT Member
Region V Technical Assistance Team

CC: Paul Steadman, U.S. EPA OSC
Region V Emergency Support Section

SUBJECT: Interstate Pollution Control
Rockford, Illinois
TDD: T05-9012-009
PAN: EIL0054SAA

Attached is a copy of the Site Activity Report for the Interstate Pollution Control site.

SITE ACTIVITY REPORT
FOR
INTERSTATE POLLUTION CONTROL
U.S. EPA ID: ILD980498117
SS ID: DC
TDD: T05-9012-009
PAN: EIL0054SAA

MARCH 22, 1991

Prepared by: Wendy Davis Date: 3-22-91
Reviewed by: Brenda K. Jones Date: 3-22-91
Approved by: [illegible] Date: 3-22-91

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INTRODUCTION

The Ecology and Environment (E & E) Technical Assistance Team (TAT) was tasked by the United States Environmental Protection Agency (U.S. EPA) under TDD# T05-9012-009 to collect seven tank samples at the Interstate Pollution Control (IPC) site (aka: Roto Rooter) in Rockford, Winnebago County, Illinois. According to site files, samples collected from the tanks during earlier TAT and Illinois Environmental Protection Agency (IEPA) actions contained concentrations of volatile organic compounds (VOCs), polychlorinated biphenyls (PCBs), metals, heavy metals, and cyanide (Weston-Gulf Coast Laboratories 1989, Weston 1990, Schorle 1990). According to IEPA representatives, the contents of all seven tanks may be considered hazardous (Moyer 1990). Because of uncertainties regarding the quality of the analysis of the data from Weston TAT's August 13, 1990 sampling of tanks on-site, Paul Steadman, U.S. EPA On-Scene Coordinator (OSC), asked TAT to resample the six underground storage tanks (USTs) and one above ground storage tank (AGST) on-site to confirm past results on December 19, 1990.

BACKGROUND

The IPC site is located at the northwest corner of the intersection of Magnolia Road and Peoples Avenue (see Figure 1). The IPC facility occupies approximately 4.5 acres and is located in a mixed residential/-industrial area. Industries lay to the southeast and east, Peoples Avenue Landfill is located directly south of the site, and a former Quaker Oats Company facility borders the site to the southwest. The north is bound by a pond with residences located directly beyond. The closest residence to the IPC site is approximately one block north.

Presently the IPC site is inactive. File information indicates that the facility operated as a waste oil recycler, cyanide incinerator,

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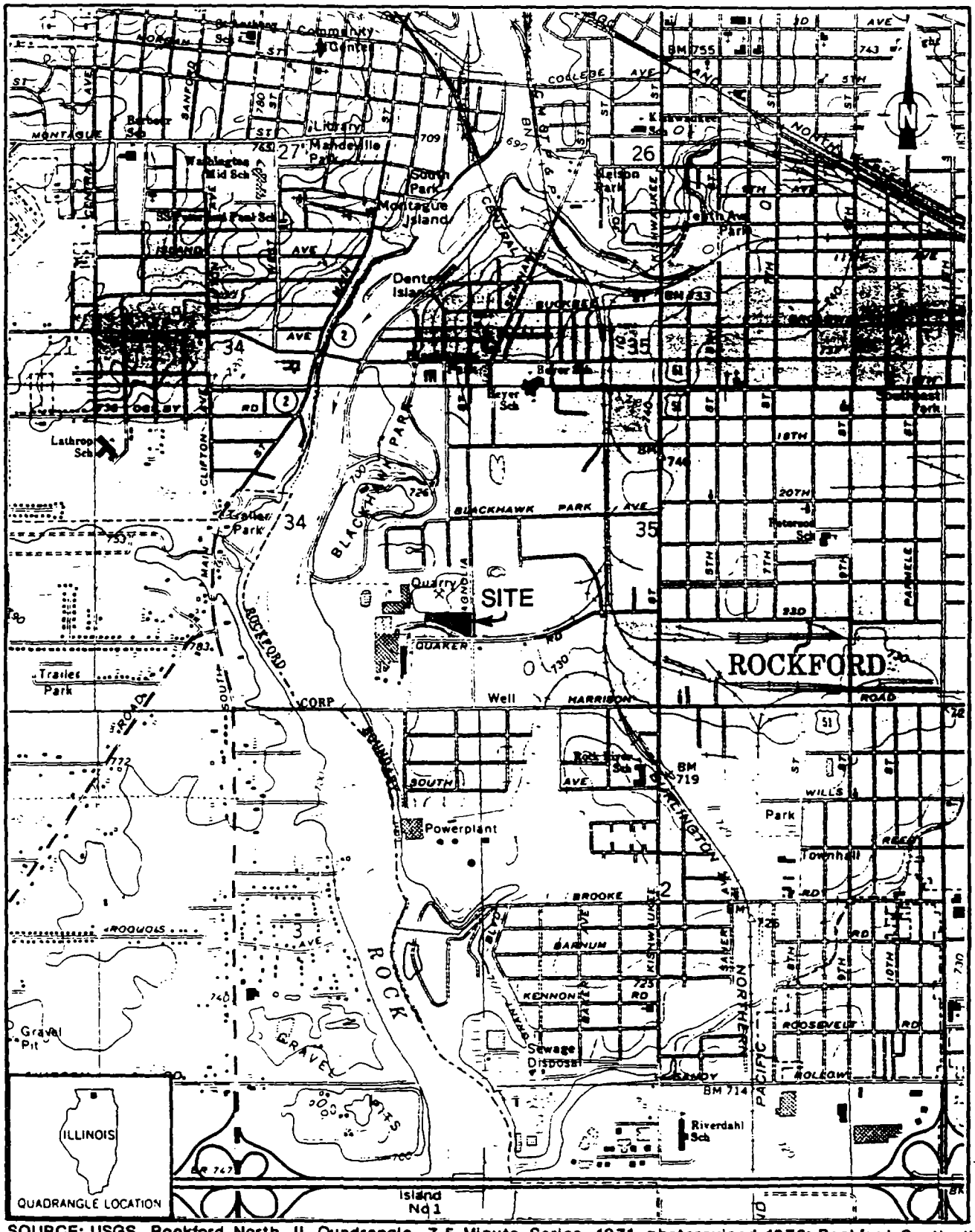

SOURCE: USGS, Rockford North, IL Quadrangle, 7.5 Minute Series, 1971, photorevised 1976; Rockford South, IL Quadrangle, 7.5 Minute Series, 1971, photorevised 1976.

SCALE

0 0.5 1 MILE

FIGURE 1 SITE LOCATION

and industrial waste storage facility and hauler from June 1971 until 1984. The storage tanks were installed prior to 1971. (PRP Meeting 1990) The facility continued to accept waste oils until 1989 (Weston 1988, PRP Meeting 1990).

During its years of operation IPC accepted millions of gallons of wastes including cyanide, solvents, oils, paint sludges, acids, and bases. Waste oils brought to the site were reclaimed and then sold to local businesses. The process used for reclamation is unknown. Faulty waste management practices at the facility are well documented and include mixing incompatible wastes, storing cyanide wastes in an unlined pond, leaking tanks, and leaking drums. Past Field Investigation Team (FIT), TAT, and IEPA inspections have confirmed contamination of on-site soils and local groundwater. (Hazardous Ranking System (HRS) 1987, PRP Meeting 1990)

Due to on-site practices the site was placed on the National Priorities List in 1989 (Griffin 1991).

SITE ACTIVITIES AND SAMPLE COLLECTION

E & E-TAT site activities took place at the IPC site on December 19, 1990. Site representative Chuck Kullberg opened the gate across the access road and unlock a garage at the site where three of the USTs are located. Personnel on-site and their affiliation are listed below:

PERSONNEL	AFFILIATION
Paul Steadman	EPA/OSC
Wendy Davis	TAT Team Leader
Ricky Harris	TAT Team Member
Scott Moyer	IEPA
Chuck Kullberg	IPC/Site Representative
Ronald Patterson	Golder Associates Inc.
Mike Hirt	Golder Associates Inc.

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At 0935 hours, OSC Steadman and Mr. Kullberg briefly discussed details of closure plans for the site. A fence is to be installed around the facility and Mr. Kullberg indicated Scott Moyers' concerns about causing a possible release while drilling the fence post holes.

At 1200 hours, TAT and Patterson conducted a reconnaissance of the tank area in level C protection (booties, Saranax, gloves, and APR) (see Figure 2). Three USTs are located in the garage and three are located outside, the garage to the north. The capacities of the USTs are uncertain. TAT and Patterson vented the six USTs while screening with an HNu. Readings of up to 5 ppm of volatile organics were noted directly after the USTs were opened but the readings soon dissipated. No readings were recorded in the breathing zone. Venting of the AGST, located east of the USTs, was not performed due to safety concerns associated with breaching the top manhole access.

At 1230 hours, TAT members and Patterson prepared to sample the tanks. The UST samples were collected in level D (booties, Saranax, gloves, etc.) while personnel stood upwind from each sampling location. The AGST was sampled in level C. Outer gloves were changed between samples. One TAT member collected samples while the other monitored with safety equipment (HNu, combination explosimeter/oxygen meter, and cyanide Monitox). Six tank samples (T1 to T6) were collected using disposable bailers at each location. The seventh tank sample (T7) was collected from the AGST by directly filling a sample container from the tap located on the outside of the tank. All six UST samples were composed of a dark, oily, liquid floating on top of a clear, yellow, liquid. The sample collected from the AGST had a strong offensive odor and it was a foamy, golden, liquid with a granular substance which floated to the bottom. The samples were placed in 1 liter glass jars. The jars were then deconned, sealed, and labeled.

By 1400 hours all samples had been collected and a dry decontamination was conducted. All potentially contaminated PPE and disposable sampling equipment was drummed and secured and left inside

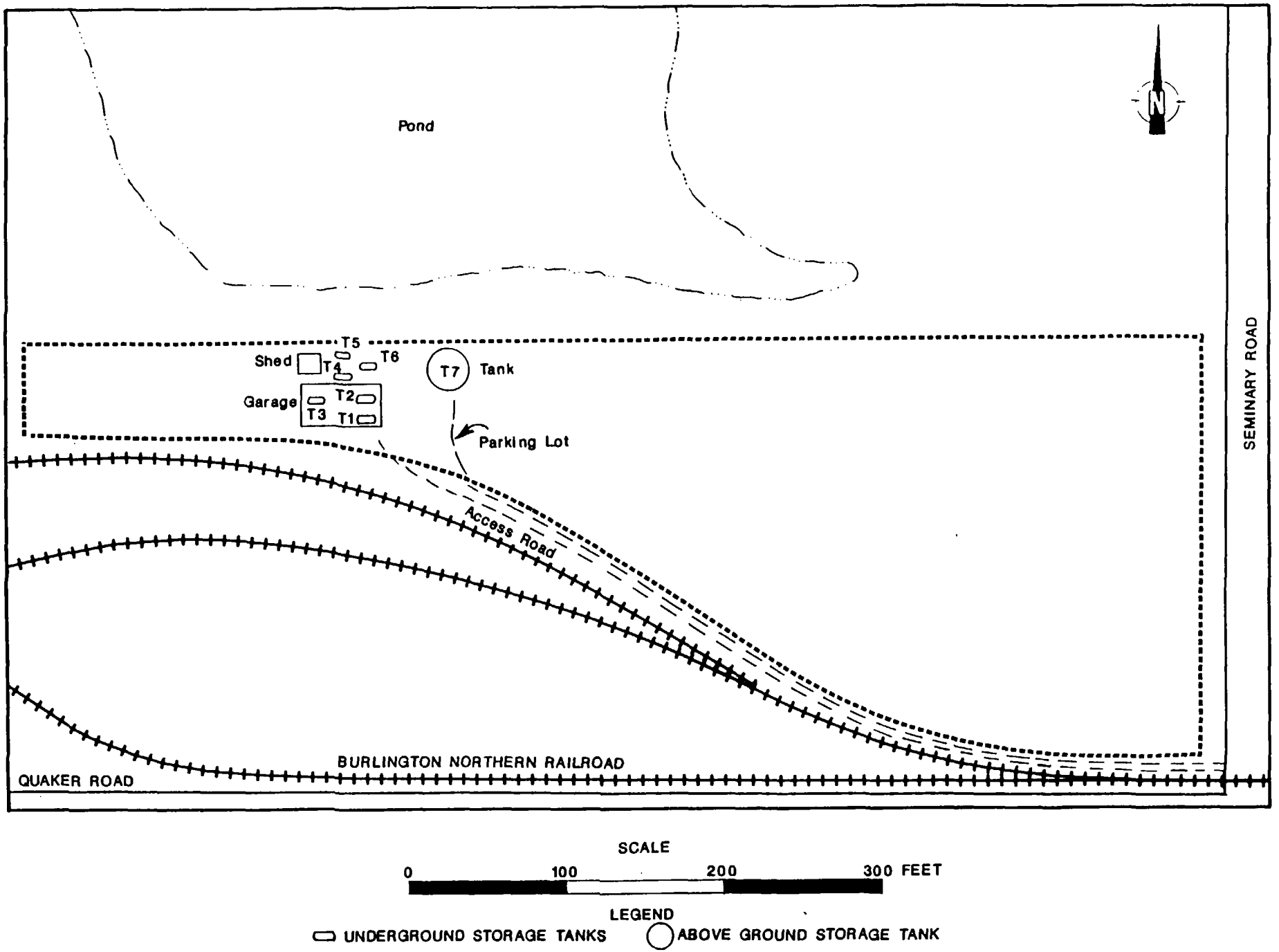

FIGURE 2 SITE FEATURES AND SAMPLING LOCATIONS

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the garage for ultimate disposal. The building and front gate were locked and OSC Steadman, the TAT members, and the consultants left the site at 1430 hours.

Sampling was conducted according to E & E standard operating procedures (SOPs), which are in accordance with U.S. EPA Region V guidance. Sample packaging and custody procedures were followed according to the Sample Management Office protocols and E & E SOPs.

On December 20, 1990 the samples were relinquished by TAT member Wendy Davis to Gayle Marks of TEI Analytical, Inc. laboratory of Niles, Illinois. Analysis of the seven samples with a 3-week turnaround time was requested under TDD# T05-9012-807.

ANALYTICAL RESULTS

Samples were submitted to TEI Analytical, Inc. for analysis for VOCs, PCBs, and RCRA flash point. The presence of VOCs was noted in all the tank samples. Tank samples T6 and T7 contained PCBs. And tank samples T1, T2, and T4 possessed flash points at or below 140°F. A summary of the analytical results is included as Table 1. A copy of the data package submitted by the laboratory is included in Appendix A.

SUMMARY

VOCs and PCBs were detected in the samples, while three samples had flashpoints less than or equal to 140°F. Although, the analytical quantitation is estimated, the data indicated the presence of the compounds in high concentrations.

Table 1

RESULTS OF CHEMICAL ANALYSIS OF

TAT-COLLECTED STORAGE TANK SAMPLES

Sample Collection Information and Parameters	Sample Number T1	T2	T3	T4	T5	T6	T7
Date	12/19/90	12/19/90	12/19/90	12/19/90	12/19/90	12/19/90	12/19/90
Compound Detected (values in mg/L)							
1,1,1-trichloroethane	28J	28J	--	38J	--	--	--
benzene	7.5J	54J	--	--	--	--	--
tetrachloroethene	127J	150J	--	37J	--	--	--
toluene	143J	410J	2,340J	340J	--	74J	10J
ethylbenzene	23J	107J	322J	3,700J	37J	223J	29J
xylenes (total)	1,450J	678J	6,200J	7,500J	98J	662J	77J
trans-1,2-dichloroethene	--	--	--	44J	17J	46J	7J
trichloroethene	--	440J	--	28J	--	--	--
chlorobenzene	--	23J	--	--	--	7J	--
1,1-dichloroethane	--	--	--	51J	12J	43J	16J
total PCBs	--	--	--	--	--	185NJ	7NJ
Flashpoint (°F)	125	128	200	140	200	185	200

-- Not detected.

COMPOUND QUALIFIERS	DEFINITION	INTERPRETATION
J	Indicates an estimated value.	Compound value may be semiquantitative.
NJ	Presumptively present at estimated quantities.	

T1 - T6 = Underground Storage Tanks

T7 = Above Ground Storage Tanks

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REFERENCES

Griffin, Jeannie, January 7, 1991, U.S. EPA - FIT Site Assessment Manager, telephone conversation, contacted by Wendy Davis of E & E.

HRS, 1987, completed by Michael Kulbersh and Kathleen Getty, E & E - FIT, for Interstate Pollution Control.

Moyer, Scott, January 23, 1990, IEPA - Federal Site Project Manager, letter to Bernie Schorle, U.S. EPA, "RE: Immediate Removal Action at IPC based on recent sampling events."

PRP Meeting, July 16, 1990, Interstate Pollution Control/ Roto Rooter, summary.

Schorle, Bernard, January 29, 1990, U.S. EPA - Remedial Project Manager, memo to Jack Barnette, U.S. EPA - Chief, Response Section II, "Subject: IPC, Rockford, Ill. - Sample Results and Possible Removal Action".

Weston - Gulf Coast Laboratories, Inc., December 29, 1989, analytical data for Interstate Pollution Control.

Weston - TAT, September 30, 1988, cover letter to Steven Faryan and site assessment for Interstate Pollution Control.

_____, September 30, 1990, letter report to Duane Heaton including analytical data from Grace Analytical Lab, Inc. for Interstate Pollution Control.

APPENDIX A
SAMPLE RESULTS

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

International Specialists in the Environment

MEMORANDUM

DATE: February 14, 1991

TO: Wendy Davis, TATM-Project Manager, E & E, Chicago, IL

FROM: Brenda R. Jones, QA Manager, E & E, Chicago, IL BRJ

SUBJ: Data Quality Assurance Review, Interstate Pollution Control Site

REF: TDD: T05-9012-009/T05-9012-807
PAN: EIL0054SAA/EIL0054AAA

The data quality assurance review of seven drum samples collected from the Interstate Pollution Control Site in Rockford, Illinois, has been completed. All analyses were performed by TEI Analytical, Inc., Niles, Illinois.

The samples were numbered T-1 through T-7. The seven samples were each analyzed for Target Compound List (TCL) volatile organics (VOA), polychlorinated biphenyls (PCB), and flashpoint.

Data Qualifications - Organic Data

I Holding Time: Acceptable

All volatile samples were analyzed within seven days from the date of collection. All PCB samples were extracted within 14 days and analyzed within 40 days from the date of extraction. The flashpoint samples were all analyzed within 30 days.

II GC/MS Tuning: Qualified

GC/MS tuning ion abundance for bromofluorobenzene was checked against the required ion abundance criteria and the expanded ion abundance criteria, and both instruments had ion abundance ratios that were outside these criteria. The laboratory indicated that the reported ion abundance for GC/MS #5992 is this instrument's normal operating range. Therefore, since the calibration standards and QC samples were analyzed under these conditions, results for sample number T-2 (the only sample analyzed with this instrument) should be acceptable. However, the ion abundance reported for instrument #5970 was out of specification, and all data associated with it are considered estimated.

III Calibration:

A. Initial Calibration: Qualified

VOAs: Response factors and relative response factors were all greater than 0.05 and were acceptable. The percent relative standard deviation of the relative response factors exceeded the 30% control limit for both instruments; all associated data are considered estimated.

Additional problems were noted with instrument #5970. The laboratory used an initial calibration that was performed on 12/26/90, while the tune, continuing calibration, and sample analyses were performed on 12/24/90. When asked about this, the lab replied that they choose the calibration closest to the date of analysis and that the previous calibration had not been performed for several weeks. The lab felt that since they did not perform the manipulation of the sample data with the GC/MS until after the calibration on 12/26/90, that this was the appropriate calibration to use for quantitating the samples. Resultantly, all VOA results from this instrument are considered presumptively present at estimated quantities.

PCBs: Laboratory did not provide this information. Hence all PCB data are considered estimated.

B. Continuing Calibration: Qualified

VOAs: All continuing calibration relative response factors were greater than the required 0.05. Some of the calibration check compounds percent difference results were greater than the required 25%. Hence the data are considered estimated.

PCBs: Laboratory did not provide this information within the required time frame. All PCB data are considered estimated.

IV Method Blank

VOA: No compounds are indicated on the Method Blank Summary Form IV. Therefore, the method blanks are acceptable.

PCB: No Method Blank Summary Form was provided by the lab. All data are considered estimated.

V Surrogate Recovery

The surrogate recoveries (both BFB and 1,2 dichloroethane-D4) were acceptable for samples T-1 and T-6. One or both surrogates were out of control limits for the remaining samples. Therefore data for samples T-2 through T-5 and T-7 are considered estimated.

VI Matrix Spike/Matrix Spike Duplicates

VOAs: All volatile matrix spike recoveries were within their control limits and the relative percent difference between the spike and the spike duplicate results was acceptable.

PCBs: This information was not provided by the laboratory. Therefore, the data are considered estimated.

VII Field Duplicates: Not Applicable

No field duplicate samples were collected.

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).

Due to the high concentrations of compounds detected in these samples, the data are acceptable for use. However, the data user must keep in mind the strong qualifications placed on this data.

Data Qualifications: - Flashpoint

Overall Assessment of Data for Use

Since no specific guidance exists regarding the assessment of flashpoint data, no qualifiers are needed for these data.

Data Qualifiers and Definitions

J - The associated numerical value is an estimated quantity because quality control criteria were not met.

NJ - Presumptive evidence of the presence of the material at an estimated quantity.

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

TEI ANALYTICAL, INC.

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January 8, 1991

LABORATORY REPORT

6286

Ecology & Environment, Inc
111 W. Jackson Blvd.
Chicago, IL 60604

Attn: Richard Kennedy/Jane Malken

SAMPLE RECEIVED: 12-20-90 1650

TEI NO. 80461
SAMPLE IDENTIFICATION: T1 Tag #178726

TEST	RESULT		DATE PERFORMED
Flash Point, Closed Cup	125	F	01-04-91
PCB	<0.5	ppm	12-31-90
Volatiles (8240)	see attached		12-24-90

TEI NO. 80462
SAMPLE IDENTIFICATION: T2 Tag #178727

TEST	RESULT		DATE PERFORMED
Flash Point, Closed Cup	128	F	01-04-91
PCB	<0.5	ppm	12-31-90
Volatiles (8240)	see attached		12-27-90

TEI NO. 80463
SAMPLE IDENTIFICATION: T3 Tag #178728

TEST	RESULT		DATE PERFORMED
Flash Point, Closed Cup	>200	F	01-04-91
PCB	<0.5	ppm	12-31-90
Volatiles (8240)	see attached		12-24-90

TEI NO. 80464
SAMPLE IDENTIFICATION: T4 Tag #178729

TEST	RESULT		DATE PERFORMED
Flash Point, Closed Cup	140	F	01-04-91
PCB	<0.5	ppm	01-02-91
Volatiles (8240)	see attached		12-24-90

Proj. No. T05-9012-009 EIL00545AA

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G. E. Marks

Gayle E. Marks, Ph.D.

TEI ANALYTICAL, INC.

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January 8, 1991 **LABORATORY REPORT** # 6286

Ecology & Environment, Inc
111 W. Jackson Blvd.
Chicago, IL 60604

Attn: Richard Kennedy / Jane Malken

SAMPLE RECEIVED: 12-20-90 1650

TEI NO. 80465
SAMPLE IDENTIFICATION: T5 Tag #178730

TEST	RESULT		DATE PERFORMED
Flash Point, Closed Cup	>200	F	01-04-91
PCB	<0.5	ppm	01-03-91
Volatiles (8240)	see attached		12-24-90

TEI NO. 80466
SAMPLE IDENTIFICATION: T6 Tag #178731

TEST	RESULT		DATE PERFORMED
Flash Point, Closed Cup	>200	F	01-04-91
PCB	185	ppm	01-03-91
Volatiles (8240)	see attached		12-24-90

TEI NO. 80467
SAMPLE IDENTIFICATION: T7 Tag #178732

TEST	RESULT		DATE PERFORMED
Flash Point, Closed Cup	>200	F	01-04-91
PCB	7	ppm	01-03-91
Volatiles (8240)	see attached		12-24-90

Proj. No. T05-9012-009 EIL00545AA

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Gayle E. Marks, Ph.D.

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January 8, 1991

LABORATORY REPORT # 6286

Volatiles -

All results expressed as ppm unless otherwise indicated.
LT = Less Than
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	TEI-80461 T1 Tag #178726	TEI-80462 T2 Tag #178727	TEI-80463 T3 Tag #178728
Benzene	7.5	54	LT 1
Toluene	143	410	2340
Ethyl Benzene	23	107	322
Carbontetrachloride	LT 1	LT 1	LT 1
Chlorobenzene	LT 1	23	LT 1
1,2 Dichloroethane	LT 1	LT 1	LT 1
1,1,1 Trichloroethane	28	28	LT 1
1,1 Dichloroethane	LT 1	LT 1	LT 1
1,1 Dichloroethylene	LT 1	LT 1	LT 1
1,1,2 Trichloroethane	LT 1	LT 1	LT 1
1,1,2,2 Tetrachloroethane	LT 1	LT 1	LT 1
Chloroethane	LT 1	LT 1	LT 1
Chloroethyl vinyl ether	LT 1	LT 1	LT 1
Chloroform	LT 1	LT 1	LT 1
1,2 Dichloropropane	LT 1	LT 1	LT 1
c 1,3 Dichloropropene	LT 1	LT 1	LT 1
t 1,3 Dichloropropene	LT 1	LT 1	LT 1
Methylene Chloride	LT 1	LT 1	LT 1
Methyl Chloride	LT 1	LT 1	LT 1
Methyl Bromide	LT 1	LT 1	LT 1
Bromoform	LT 1	LT 1	LT 1
Dichlorobromomethane	LT 1	LT 1	LT 1
Trichlorofluoromethane	LT 1	LT 1	LT 1
Chlorodibromomethane	LT 1	LT 1	LT 1
Dichlorodifluoromethane	LT 1	LT 1	LT 1
Tetrachloroethylene	127	150	LT 1
Trichloroethylene	LT 1	440	LT 1
Vinyl Chloride	LT 1	LT 1	LT 1
1,2 t Dichloroethylene	LT 1	9	LT 1
bis(chloromethyl)ether	LT 1	LT 1	LT 1
Xylenes	1450	678	6200
Hexane	LT 1	LT 1	LT 1

Gayle E. Marks, Ph.D.

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January 8, 1991

LABORATORY REPORT # 6286

Volatiles

All results expressed as ppm unless otherwise indicated.
LT = Less Than
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	TEI-80464 T4 Tag #178729	TEI-80465 T5 Tag #178730	TEI-80466 T6 Tag #178731	TEI-80467 T7 Tag #178732
Benzene	LT 1	LT 0.1	LT 1	LT 0.1
Toluene	340	LT 0.1	74	10
Ethyl Benzene	3700	37	223	29
Carbontetrachloride	LT 1	LT 0.1	LT 1	LT 0.1
Chlorobenzene	LT 1	LT 0.1	7	LT 0.1
1,2 Dichloroethane	LT 1	LT 0.1	LT 1	LT 0.1
1,1,1 Trichloroethane	38	LT 0.1	LT 1	LT 0.1
1,1 Dichloroethane	51	12	43	16
1,1 Dichloroethylene	LT 1	LT 0.1	LT 1	LT 0.1
1,1,2 Trichloroethane	LT 1	LT 0.1	LT 1	LT 0.1
1,1,2,2 Tetrachloroethane	LT 1	LT 0.1	LT 1	LT 0.1
Chloroethane	LT 1	LT 0.1	LT 1	LT 0.1
2 Chloroethyl vinyl ether	LT 1	LT 0.1	LT 1	LT 0.1
Chloroform	LT 1	LT 0.1	LT 1	LT 0.1
1,2 Dichloropropane	LT 1	LT 0.1	LT 1	LT 0.1
c 1,3 Dichloropropene	LT 1	LT 0.1	LT 1	LT 0.1
t 1,3 Dichloropropene	LT 1	LT 0.1	LT 1	LT 0.1
Methylene Chloride	LT 1	LT 0.1	LT 1	LT 0.1
Methyl Chloride	LT 1	LT 0.1	LT 1	LT 0.1
Methyl Bromide	LT 1	LT 0.1	LT 1	LT 0.1
Bromoform	LT 1	LT 0.1	LT 1	LT 0.1
Dichlorobromomethane	LT 1	LT 0.1	LT 1	LT 0.1
Trichlorofluoromethane	LT 1	LT 0.1	LT 1	LT 0.1
Chlorodibromomethane	LT 1	LT 0.1	LT 1	LT 0.1
Dichlorodifluoromethane	LT 1	LT 0.1	LT 1	LT 0.1
Tetrachloroethylene	37	LT 0.1	LT 1	LT 0.1
Trichloroethylene	28	LT 0.1	LT 1	LT 0.1
Vinyl Chloride	LT 1	LT 0.1	LT 1	LT 0.1
1,2 t Dichloroethylene	44	17	46	7
bis(chloromethyl)ether	LT 1	LT 0.1	LT 1	LT 0.1
Xylenes	7500	98	662	77
Hexane	LT 1	LT 0.1	LT 1	LT 0.1

Gayle E. Marks, Ph.D.

Organics Analysis Data Sheet
(Page 1)

Sample Number
80461

T1 Tag # 178726

Laboratory Name: TEI Analytical Inc.
Case No:
Lab Sample ID No: 80461
QC Report No: 6256
Sample Matrix: Unk. Liquid
Data Release Authorized By: G. Marks
Date Sample Received: 12-20-90

Volatile Compounds

FEB 08 1991

Date Extracted/Prepared: 12-24-90
Date Analyzed: 12-24-90
Conc/Dil Factor: 500 pH
Percent Moisture: (Not Decanted) NA

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	1000 U
74-83-9	Bromomethane	1000 U
75-01-4	Vinyl Chloride	1000 U
75-00-3	Chloroethane	1000 U
75-09-2	Methylene Chloride	1000 U
67-64-1	Acetone	—
75-15-0	Carbon Disulfide	—
75-35-4	1, 1-Dichloroethene	1000 U
75-34-3	1, 1-Dichloroethane	1000 U
156-60-5	Trans-1, 2-Dichloroethene	1000 U
67-66-3	Chloroform	1000 U
107-06-2	1, 2-Dichloroethane	1000 U
78-93-3	2-Butanone	—
71-55-6	1, 1, 1-Trichloroethane	28000.
56-23-5	Carbon Tetrachloride	1000 U
108-05-4	Vinyl Acetate	—
75-27-4	Bromodichloromethane	1000 U

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	1000 U
10061-02-6	Trans-1, 3-Dichloropropene	1000 U
79-01-6	Trichloroethene	1000 U
124-48-1	Dibromochloromethane	1000 U
79-00-5	1, 1, 2-Trichloroethane	1000 U
71-43-2	Benzene	7500.
10061-01-5	cis-1, 3-Dichloropropene	1000 U
110-75-8	2-Chloroethylvinylether	1000 U
75-25-2	Bromoform	1000 U
108-10-1	4-Methyl-2-Pentanone	—
591-78-6	2-Hexanone	—
127-18-4	Tetrachloroethene	127000.
79-34-5	1, 1, 2, 2-Tetrachloroethane	1000 U
108-88-3	Toluene	143000.
108-90-7	Chlorobenzene	1000 U
100-41-4	Ethylbenzene	23000.
100-42-5	Styrene	—
	Total Xylenes	145000.

BLS

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

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

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

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

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

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

Form I

Revision 0
Date September 1986

Organics Analysis Data Sheet
(Page 1)

Sample Number: SC462

T.2 Tag# 178727

Laboratory Name: TEI Analytical, Inc.

Case No:

Lab Sample ID No: SC462

QC Report No: 6256

Sample Matrix: Unk. Liquid

Data Release Authorized By: G. Marks

Date Sample Received: 12-20-90

Volatile Compounds

Date Extracted/Prepared: 12-27-90

Date Analyzed: 12-27-90

Conc/Dil Factor: 500 pH

Percent Moisture: (Not Decanted) NA

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	1000 U
74-83-9	Bromomethane	1000 U
75-01-4	Vinyl Chloride	1000 U
75-00-3	Chloroethane	1000 U
75-09-2	Methylene Chloride	1000 U
67-64-1	Acetone	—
75-15-0	Carbon Disulfide	—
75-35-4	1, 1-Dichloroethene	1000 U
75-34-3	1, 1-Dichloroethane	1000 U
156-60-5	Trans-1, 2-Dichloroethene	9000.
67-66-3	Chloroform	1000 U
107-06-2	1, 2-Dichloroethane	1000 U
78-93-3	2-Butanone	—
71-55-6	1, 1, 1-Trichloroethane	25000.
56-23-5	Carbon Tetrachloride	1000 U
108-05-4	Vinyl Acetate	—
75-27-4	Bromodichloromethane	1000 U

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	1000 U
10061-02-6	Trans-1, 3-Dichloropropene	1000 U
79-01-6	Trichloroethene	440000.
124-48-1	Dibromochloromethane	1000 U
79-00-5	1, 1, 2-Trichloroethane	1000 U
71-43-2	Benzene	54000.
10061-01-5	cis-1, 3-Dichloropropene	1000 U
110-75-8	2-Chloroethylvinylether	1000 U
75-25-2	Bromoform	1000 U
108-10-1	4-Methyl-2-Pentanone	—
591-78-6	2-Hexanone	—
127-18-4	Tetrachloroethene	150000.
79-34-5	1, 1, 2, 2-Tetrachloroethane	1000 U
108-88-3	Toluene	410000.
108-90-7	Chlorobenzene	23000
100-41-4	Ethylbenzene	107000.
100-42-5	Styrene	—
	Total Xylenes	675000.

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value

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

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J

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

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

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

Form I

Revision 0
Date September 1986

Organics Analysis Data Sheet
(Page 1)

Sample Number
80463

T3 Tag #179729

Laboratory Name: TEI Analytical Inc. Case No: _____

Lab Sample ID No: 80463 QC Report No: 6286

Sample Matrix: Oak Liquid

Data Release Authorized By: G. Marks Date Sample Received: 12-20-90

Volatile Compounds

Date Extracted/Prepared: 12-24-90

Date Analyzed: 12-24-90

Conc/Dil Factor: 500 pH _____

Percent Moisture: (Not Decanted) NA

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	1000 U
74-83-9	Bromomethane	1000 U
75-01-4	Vinyl Chloride	1000 U
75-00-3	Chloroethane	1000 U
75-09-2	Methylene Chloride	1000 U
67-64-1	Acetone	—
75-15-0	Carbon Disulfide	—
75-35-4	1, 1-Dichloroethene	1000 U
75-34-3	1, 1-Dichloroethane	1000 U
156-60-5	Trans-1, 2-Dichloroethene	1000 U
67-66-3	Chloroform	1000 U
107-06-2	1, 2-Dichloroethane	1000 U
78-93-3	2-Butanone	—
71-55-6	1, 1, 1-Trichloroethane	1000 U
56-23-5	Carbon Tetrachloride	1000 U
108-05-4	Vinyl Acetate	—
75-27-4	Bromodichloromethane	1000 U

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	1000 U
10061-02-6	Trans-1, 3-Dichloropropene	1000 U
79-01-6	Trichloroethene	1000 U
124-48-1	Dibromochloromethane	1000 U
79-00-5	1, 1, 2-Trichloroethane	1000 U
71-43-2	Benzene	1000 U
10061-01-5	cis-1, 3-Dichloropropene	1000 U
110-75-8	2-Chloroethylvinylether	1000 U
75-25-2	Bromoform	1000 U
108-10-1	4-Methyl-2-Pentanone	—
591-78-6	2-Hexanone	—
127-18-4	Tetrachloroethene	1000 U
79-34-5	1, 1, 2, 2-Tetrachloroethane	1000 U
108-88-3	Toluene	2340000.
108-90-7	Chlorobenzene	1000 U
100-41-4	Ethylbenzene	322000.
100-42-5	Styrene	—
	Total Xylenes	6200000.

BRJ

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

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

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

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

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

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

Form I

Revision 0
Date September 1986

Organics Analysis Data Sheet
(Page 1)

Sample Number: 50464

T4 Tag# 175729

Laboratory Name: TEI Analytical Inc.

Case No:

Lab Sample ID No: 90-464

QC Report No: 6256

Sample Matrix: Drk. Liquid

Data Release Authorized By: G. Marks

Date Sample Received: 12-20-90

Volatile Compounds

Date Extracted/Prepared: 12-24-90

Date Analyzed: 12-24-90

Conc/Dil Factor: 500 pH:

Percent Moisture: (Not Decanted) NA

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	1000 U
74-83-9	Bromomethane	1000 U
75-01-4	Vinyl Chloride	1000 U
75-00-3	Chloroethane	1000 U
75-09-2	Methylene Chloride	1000 U
67-64-1	Acetone	—
75-15-0	Carbon Disulfide	—
75-35-4	1, 1-Dichloroethene	1000 U
75-34-3	1, 1-Dichloroethane	51000.
156-60-5	Trans-1, 2-Dichloroethene	44000.
67-66-3	Chloroform	1000 U
107-06-2	1, 2-Dichloroethane	1000 U
78-93-3	2-Butanone	—
71-55-6	1, 1, 1-Trichloroethane	38000.
56-23-5	Carbon Tetrachloride	1000 U
108-05-4	Vinyl Acetate	—
75-27-4	Bromodichloromethane	1000 U

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	1000 U
10061-02-6	Trans-1, 3-Dichloropropene	1000 U
79-01-6	Trichloroethene	28000.
124-48-1	Dibromochloromethane	1000 U
79-00-5	1, 1, 2-Trichloroethane	1000 U
71-43-2	Benzene	1000 U
10061-01-5	cis-1, 3-Dichloropropene	1000 U
110-75-8	2-Chloroethylvinylether	1000 U
75-25-2	Bromoform	1000 U
108-10-1	4-Methyl-2-Pentanone	—
591-78-6	2-Hexanone	—
127-18-4	Tetrachloroethene	37000.
79-34-5	1, 1, 2, 2-Tetrachloroethane	1000 U
108-88-3	Toluene	340000.
108-90-7	Chlorobenzene	1000 U
100-41-4	Ethylbenzene	3700000.
100-42-5	Styrene	—
	Total Xylenes	7500000.

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value

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

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J

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

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

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

Form I

Revision 0
Date September 1986

Organics Analysis Data Sheet
(Page 1)

Sample Number: 8C465

TS Tag # 178730

Laboratory Name: TEI Analytical Inc. Case No:

Lab Sample ID No: 8C465 QC Report No: 6286

Sample Matrix: Link Liquid

Data Release Authorized By: G. Marks Date Sample Received: 12-20-90

Volatile Compounds

Date Extracted/Prepared: 12-24-90

Date Analyzed: 12-24-90

Conc/Dil Factor: 500 pH

Percent Moisture: (Not Decanted) NA

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	100 U
74-83-9	Bromomethane	100 U
75-01-4	Vinyl Chloride	100 U
75-00-3	Chloroethane	100 U
75-09-2	Methylene Chloride	100 U
67-64-1	Acetone	—
75-15-0	Carbon Disulfide	—
75-35-4	1, 1-Dichloroethene	100 U
75-34-3	1, 1-Dichloroethane	12000.
156-60-5	Trans-1, 2-Dichloroethene	17000.
67-66-3	Chloroform	100 U
107-06-2	1, 2-Dichloroethane	100 U
78-93-3	2-Butanone	—
71-55-6	1, 1, 1-Trichloroethane	100 U
56-23-5	Carbon Tetrachloride	100 U
108-05-4	Vinyl Acetate	—
75-27-4	Bromodichloromethane	100 U

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	100 U
10061-02-6	Trans-1, 3-Dichloropropene	100 U
79-01-6	Trichloroethene	100 U
124-48-1	Dibromochloromethane	100 U
79-00-5	1, 1, 2-Trichloroethane	100 U
71-43-2	Benzene	100 U
10061-01-5	cis-1, 3-Dichloropropene	100 U
110-75-8	2-Chloroethylvinylether	100 U
75-25-2	Bromoform	100 U
108-10-1	4-Methyl-2-Pentanone	—
591-78-6	2-Hexanone	—
127-18-4	Tetrachloroethene	100 U
79-34-5	1, 1, 2, 2-Tetrachloroethane	100 U
108-88-3	Toluene	100 U
108-90-7	Chlorobenzene	100 U
100-41-4	Ethylbenzene	27000.
100-42-5	Styrene	—
	Total Xylenes	98000.

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value

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

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J

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

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

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

Form I

Revision 0
Date September 1986

Organics Analysis Data Sheet
(Page 1)

Sample Number: 80466

Laboratory Name: TEI Analytical Inc. Case No: T6 Tag# 179731

Lab Sample ID No. 80466 QC Report No: 6256

Sample Matrix: Liquid

Data Release Authorized By G. Marks Date Sample Received: 12-26-90

Volatile Compounds

Date Extracted/Prepared: 12-24-90

Date Analyzed: 12-24-90

Conc/Dil Factor: 500 pH:

Percent Moisture: (Not Decanted)

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	1000 U
74-83-9	Bromomethane	1000 U
75-01-4	Vinyl Chloride	1000 U
75-00-3	Chloroethane	1000 U
75-09-2	Methylene Chloride	1000 U
67-64-1	Acetone	—
75-15-0	Carbon Disulfide	—
75-35-4	1, 1-Dichloroethene	1000 U
75-34-3	1, 1-Dichloroethane	43000.
156-60-5	Trans-1, 2-Dichloroethene	46000.
67-66-3	Chloroform	1000 U
107-06-2	1, 2-Dichloroethane	1000 U
78-93-3	2-Butanone	—
71-55-6	1, 1, 1-Trichloroethane	1000 U
56-23-5	Carbon Tetrachloride	1000 U
108-05-4	Vinyl Acetate	—
75-27-4	Bromodichloromethane	1000 U

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	1000 U
10061-02-6	Trans-1, 3-Dichloropropene	1000 U
79-01-6	Trichloroethene	1000 U
124-48-1	Dibromochloromethane	1000 U
79-00-5	1, 1, 2-Trichloroethane	1000 U
71-43-2	Benzene	1000 U
10061-01-5	cis-1, 3-Dichloropropene	1000 U
110-75-8	2-Chloroethylvinylether	1000 U
75-25-2	Bromoform	1000 U
108-10-1	4-Methyl-2-Pentanone	—
591-78-6	2-Hexanone	—
127-18-4	Tetrachloroethene	1000 U
79-34-5	1, 1, 2, 2-Tetrachloroethane	1000 U
108-88-3	Toluene	74000.
108-90-7	Chlorobenzene	7000.
100-41-4	Ethylbenzene	223000.
100-42-5	Styrene	—
	Total Xylenes	662000.

J

BW

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value

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

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J

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

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

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

Form I

Revision 0
Date September 1986

Sample Number
80467

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: TEL Analytical Inc.

Case No: 77 Tag #178732

Lab Sample ID No: 80467

QC Report No: 0256

Sample Matrix: Dok. Liquid

Data Release Authorized By: G. Marks

Date Sample Received: 12-20-90

Volatile Compounds

Date Extracted/Prepared: 12-24-90

Date Analyzed: 12-24-90

Conc/Dil Factor: 500 pH

Percent Moisture: (Not Decanted)

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	100 U
74-83-9	Bromomethane	100 U
75-01-4	Vinyl Chloride	100 U
75-00-3	Chloroethane	100 U
75-09-2	Methylene Chloride	100 U
67-64-1	Acetone	—
75-15-0	Carbon Disulfide	—
75-35-4	1, 1-Dichloroethene	100 U
75-34-3	1, 1-Dichloroethane	16000.
156-60-5	Trans-1, 2-Dichloroethene	7000.
67-66-3	Chloroform	100 U
107-06-2	1, 2-Dichloroethane	100 U
78-93-3	2-Butanone	—
71-55-6	1, 1, 1-Trichloroethane	100 U
56-23-5	Carbon Tetrachloride	100 U
108-05-4	Vinyl Acetate	—
75-27-4	Bromodichloromethane	100 U

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	100 U
10061-02-6	Trans-1, 3-Dichloropropene	100 U
79-01-6	Trichloroethene	100 U
124-48-1	Dibromochloromethane	100 U
79-00-5	1, 1, 2-Trichloroethane	100 U
71-43-2	Benzene	100 U
10061-01-5	cis-1, 3-Dichloropropene	100 U
110-75-8	2-Chloroethylvinylether	100 U
75-25-2	Bromoform	100 U
108-10-1	4-Methyl-2-Pentanone	—
591-78-6	2-Hexanone	—
127-18-4	Tetrachloroethene	100 U
79-34-5	1, 1, 2, 2-Tetrachloroethane	100 U
108-88-3	Toluene	10000.
108-90-7	Chlorobenzene	100 U
100-41-4	Ethylbenzene	29000.
100-42-5	Styrene	—
	Total Xylenes	77000.

BRJ

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

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

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

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

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

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

Form I

Revision 0
Date September 1986

Laboratory Name [illegible] Inc

Case No

Sample Number
[illegible]461

[illegible]

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☒Yes

Continuous Liquid - Liquid Extraction ☐Yes

Date Extracted/Prepared: 12-31-90

Date Analyzed: 12-31-90

Conc/Dil Factor: 100

Percent Moisture (decanted) NA

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

< 500 NJ

BCS 2/14/91

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s 10 or W_s NA V_t 5500 V_i 1

Form 1

Revision 0
Date September 1986

Laboratory Name: [illegible] Inc

Case No _____

Sample Number
[illegible]

[illegible]

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☒Yes

Continuous Liquid - Liquid Extraction ☐Yes

Date Extracted/Prepared: [illegible]

Date Analyzed: [illegible]

Conc/Dil Factor: None

Percent Moisture (decanted) [illegible]

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

< 500 NJ.

BRS 2/14/91

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s 10 or W_s [illegible] V_t 14000 V_i 1

Form 1

Revision 0
Date September 1986

Laboratory Name: TEI [illegible] Inc.

Case No _____

Sample Number
[illegible]

T3 Tag # 178738

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☒Yes

Continuous Liquid - Liquid Extraction ☐Yes

Date Extracted/Prepared: 12-31-90

Date Analyzed: 12-31-90

Conc/Dil Factor: None

Percent Moisture (decanted) NA

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

<500.JN

[illegible] 2/14/91

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s 10 or W_s NA V_t 11600. V_i 1

Form 1

Revision 0
Date September 1986

Laboratory Name: [illegible]

Case No _____

Sample Number
SC46-1

TH Tag # 175729

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☒Yes

Continuous Liquid - Liquid Extraction ☐Yes

Date Extracted/Prepared: 2-21-90

Date Analyzed: 01-02-91

Conc/Dil Factor: 200

Percent Moisture (decanted) NA

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

< 500 IN

BRJ 2/14/91

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s 1 or W_s NA V_t 10700 V_i 1

Form 1

Revision 0
Date September 1986

Laboratory Name: TEI Analytical Inc.

Case No _____

Sample Number
50465

-5 Tag #1757 30

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☒Yes

Continuous Liquid - Liquid Extraction ☐Yes

Date Extracted/Prepared: 12-31-90

Date Analyzed: 01-03-91

Conc/Dil Factor: 100

Percent Moisture (decanted) NA

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

< 500 ND

BRS 2/14/91

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s 10 or W_s NA V_t 10500. V_i 1

Form 1

Revision 0
Date September 1986

Laboratory Name: TEI Analytical, Inc

Case No

Sample Number
80464

TL Tag # 175731

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☒Yes

Continuous Liquid - Liquid Extraction ☐Yes

Date Extracted/Prepared: 12-31-90

Date Analyzed: 01-03-91

Conc/Dil Factor: 100

Percent Moisture (decanted) NA

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

125 000.5 N
BAS
2/14/91

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s 10 or W_s NA V_t 11500 V_i 1

Form 1

Revision 0
Date September 1986

Laboratory Name: TET Analytical Inc

Case No

Sample Number
SC467

T7 Tag # 178732

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Date Extracted/Prepared: 12-31-90

Date Analyzed: 01-03-91

Conc/Dil Factor: 100

Percent Moisture (decanted) N.A

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☒Yes

Continuous Liquid - Liquid Extraction ☐Yes

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

7000.IN
BRJ
2/14/91

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s 800 or W_s N A V_t 5000 V_i 1

Form 1

Revision 0
Date September 1986

Initial Calibration Data
Volatile HSL Compounds

Case No: _____ Instrument I D: 5992

Laboratory Name TEI Analytical Inc Calibration Date: 12-26-90

Minimum $\overline{RF}$ for SPCC is 0.300 (0.25 for Bromoform) Maximum % RSD for CCC is 30%

Laboratory ID								
Compound	RF_{20}	RF_{50}	RF_{100}	RF_{150}	RF_{200}	$\overline{RF}$	% RSD	CCC• SPCC••
Chloromethane	0.11		0.14	0.13	0.21	0.15	38%	••
Bromomethane	0.06		0.10	0.10	0.16	0.10		
Vinyl Chloride	0.06		0.14	0.10	0.15	0.13		•
Chloroethane	0.06		0.11	0.17	0.16	0.15		
Methylene Chloride	0.79		0.61	1.0	0.77	0.78	16%	
Acetone	—		—	—	—	—		
Carbon Disulfide	—		—	—	—	—		
1, 1-Dichloroethene	0.34		0.38	0.45	0.41	0.37		•
1, 1-Dichloroethane	0.34		0.37	0.46	0.44	0.40		••
Trans-1, 2-Dichloroethene	0.42		0.46	0.63	0.52	0.52		
Chloroform	0.77		0.53	0.88	0.77	0.72		•
1, 2-Dichloroethane	0.49		0.42	0.50	0.55	0.49		
2-Butanone	—		—	—	—	—		
1, 1, 1-Trichloroethane	0.27		0.34	0.44	0.32	0.34	7.1%	
Carbon Tetrachloride	0.27		0.27	0.24	0.19	0.24	3.8%	
Vinyl Acetate	—		—	—	—	—		
Bromodichloromethane	0.25		0.38	0.44	0.47	0.40		
1, 2-Dichloropropane	0.98		0.49	0.79	0.58	0.71		•
Trans-1, 3-Dichloropropene	—		—	—	—	—		
Trichloroethene	0.38		0.38	0.49	0.44	0.421	5.9	
Dibromochloromethane	1.3		0.95	1.1	0.93	1.0		
1, 1, 2-Trichloroethane	—		—	—	—	—		
Benzene	1.3		0.95	1.1	0.93	1.0		
cis-1, 3-Dichloropropene	0.98		0.50	0.80	0.58	0.71		
2-Chloroethylvinylether	—		—	—	—	—		
Bromoform	0.10		0.30	0.27	0.24	0.23		••
4-Methyl-2-Pentanone	—		—	—	—	—		
2-Hexanone	—		—	—	—	—		
Tetrachloroethene	0.35		0.31	0.33	0.23	0.31		
1, 1, 2, 2-Tetrachloroethane	—		—	—	—	—		••
Toluene	0.75		0.35	0.43	0.23	0.44		•
Chlorobenzene	0.51		0.51	0.55	0.36	0.56	19%	••
Ethylbenzene	0.55		0.35	0.28	0.30	0.40		•
Styrene	—		—	—	—	—		
Total Xylenes	—		—	—	—	—		

RF -Response Factor (subscript is the amount of ug/L)
$\overline{RF}$ -Average Response Factor
%RSD -Percent Relative Standard Deviation

CCC -Calibration Check Compounds (•)
SPCC -System Performance Check Compounds (••)

2/13/91

Form VI

Revision 0
Date September 1986

Continuing Calibration Check
Volatile HSL Compounds

Case No: _____ Calibration Date: 12-27-90

Laboratory Name TEI Analytical Inc. Time: _____

Contract No: _____ Laboratory ID: _____

Instrument ID: 5992 Initial Calibration Date: 2-26-90

Minimum RF for SPCC is 0.300 (0.25 for Bromoform) Maximum %D for CCC is 25%

Compound	$\overline{RF}$	RF_{50}	% D	CCC	SPCC
Chloromethane	0.15	0.09	40%		• •
Bromomethane	0.10	0.07	30%		
Vinyl Chloride	~~0.07~~ 0.13	0.07	46%	•	
Chloroethane	0.15	0.07			
Methylene Chloride		—			
Acetone		—			
Carbon Disulfide		—			
1, 1-Dichloroethene	0.37	0.75	103%	•	
1, 1-Dichloroethane	0.40	0.67	68%		• •
Trans-1, 2-Dichloroethene		—			
Chloroform	0.72	1.1		•	
1, 2-Dichloroethane		—			
2-Butanone		—			
1, 1, 1-Trichloroethane		—			
Carbon Tetrachloride		—			
Vinyl Acetate		—			
Bromodichloromethane		—			
1, 2-Dichloropropane	0.71	1.1	55%	•	
Trans-1, 3-Dichloropropene		—			
Trichloroethene		—			
Dibromochloromethane		—			
1, 1, 2-Trichloroethane		—			
Benzene	1.0	1.4			
cis-1, 3-Dichloropropene		—			
2-Chloroethylvinylether		—			
Bromoform	0.53	0.7			• •
4-Methyl-2-Pentanone		—			
2-Hexanone		—			
Tetrachloroethene	0.31	0.11			
1, 1, 2, 2-Tetrachloroethane		—			• •
Toluene	0.44	0.76		•	
Chlorobenzene	0.56	0.65			• •
Ethylbenzene	0.40	0.49		•	
Styrene		—			
Total Xylenes		—			

RF_{50} -Response Factor from daily standard file at 50 ug/l
RF -Average Response Factor from initial calibration Form VI

BLW 2/13/91
%D -Percent Difference
CCC -Calibration Check Compounds (•)
SPCC -System Performance Check Compounds (••)

Form VII

Revision 0
Date September 1986

GC/MS TUNING AND MASS CALIBRATION

Bromofluorobenzene (BFB)

Case No. _____ Laboratory Name TEI Analytical, Inc.

Instrument ID 5972 Date 12-27-90 Time _____

Data Release Authorized By: _____

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of the base peak	16.1 ✓
75	30.0 - 60.0% of the base peak	39.6 ✓
95	Base peak, 100% relative abundance	93.2
96	5.0 - 9.0% of the base peak	< 1
173	Less than 1.0% of the base peak	< 1 ✓
174	Greater than 50.0% of the base peak	100 ✓
175	5.0 - 9.0% of mass 174	< 1 (< 1)[1]
176	Greater than 95.0%, but less than 101.0% of mass 174	91 (91)[1]
177	5.0 - 9.0% of mass 176	< 1 ( )[2]

BF5 2/13/91

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

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

SAMPLE ID	LAB ID	DATE OF ANALYSIS	TIME OF ANALYSIS
BFT-2	5046-2	12-27-90	

FORM V

Revision 0
Date September 1986

GC/MS TUNING AND MASS CALIBRATION
Bromofluorobenzene (BFB)

Case No. _____ Laboratory Name TEI Analytical, Inc.

Instrument ID 5970 Date 12-24-90 Time _____

Data Release Authorized By: G. Marks

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of the base peak	25
75	30.0 - 60.0% of the base peak	43
95	Base peak, 100% relative abundance	100
96	5.0 - 9.0% of the base peak	<10
173	Less than 1.0% of the base peak	<10
174	Greater than 50.0% of the base peak	97
175	5.0 - 9.0% of mass 174	<10 (<10)[1]
176	Greater than 95.0%, but less than 101.0% of mass 174	81 (84)[1]
177	5.0 - 9.0% of mass 176	<10 (<10)[2]

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

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

SAMPLE ID	LAB ID	DATE OF ANALYSIS	TIME OF ANALYSIS
T1	80461	12-24-90	
T3	80463	12-24-90	
T4	80464	12-24-90	
T5	80465	12-24-90	
T6	80466	12-24-90	
T7	80467	12-24-90	

FORM V

Revision 0
Date September 1986

Initial Calibration Data
Volatile HSL Compounds

Case No: _____ Instrument I D: 5970

Laboratory Name TET Laboratories Inc. Calibration Date: 12-26-90

Minimum $\overline{RF}$ for SPCC is 0.300 (0.25 for Bromoform) Maximum % RSD for CCC is 30%

Laboratory ID								
Compound	RF_{20}	RF_{50}	RF_{100}	RF_{150}	RF_{200}	$\overline{RF}$	% RSD	CCC* SPCC**
Chloromethane	0.37	0.53	0.27	0.31	0.27	0.35	31%	**
Bromomethane				0.15	0.14	0.15		
Vinyl Chloride	0.37	0.53	0.27	0.31	0.27	0.35	31%	*
Chloroethane		0.53	0.27	0.23	0.20	0.32		
Methylene Chloride		0.25	0.46	0.49	0.48	0.50		
Acetone								
Carbon Disulfide								
1, 1-Dichloroethene		1.4	0.69	0.80	0.77	~~1.9~~ 0.5	36%	*
1, 1-Dichloroethane		0.90	0.54	0.62	0.56	0.65	26%	**
Trans-1, 2-Dichloroethene		1.2	0.70	0.80	0.78	0.82		
Chloroform		1.2	0.87	0.93	0.89	~~0.8~~ 0.9	15%	*
1, 2-Dichloroethane		0.39	0.26	0.20	0.28	0.25		
2-Butanone								
1, 1, 1-Trichloroethane		0.53	0.45	0.49	0.55	0.50		
Carbon Tetrachloride		0.48	0.39	0.45	0.45	0.23		
Vinyl Acetate								
Bromodichloromethane		0.20	0.19	0.25	0.27	0.18		
1, 2-Dichloropropane		0.14	0.21	0.19	0.21	~~0.13~~ 0.17	19% 17%	*
Trans-1, 3-Dichloropropene		0.14	0.07	0.12	0.14	0.12		
Trichloroethene		0.53	0.49	0.48	0.53	0.50		
Dibromochloromethane		0.22	0.10	0.11	0.12	0.14		
1, 1, 2-Trichloroethane								
Benzene		0.31	0.28	0.28	0.30	0.29		
cis-1, 3-Dichloropropene								
2-Chloroethylvinylether								
Bromoform				0.13	0.10	0.16		**
4-Methyl-2-Pentanone								
2-Hexanone								
Tetrachloroethene		0.91	0.76	0.71	0.56	0.55		
1, 1, 2, 2-Tetrachloroethane								**
Toluene		0.71	0.37	0.38	0.42	0.47	34%	*
Chlorobenzene		0.25	0.25	0.64	0.53	0.44	40%	**
Ethylbenzene		0.97	0.47	0.48	0.56	0.63		*
Styrene								
Total Xylenes								

RF -Response Factor (subscript is the amount of ug/L)
$\overline{RF}$ -Average Response Factor
%RSD -Percent Relative Standard Deviation

CCC -Calibration Check Compounds (*)
SPCC -System Performance Check Compounds (**)

2/14/91

Form VI

Revision 0
Date September 1986

Continuing Calibration Check
Volatile HSL Compounds

Case No: _____ Calibration Date: 12-24-90

Laboratory Name: TEJ Analytical, Inc. Time: _____

Contract No: _____ Laboratory ID: _____

Instrument ID: 5970 Initial Calibration Date: 12-26-90

Minimum RF for SPCC is 0.300 (0.25 for Bromoform) Maximum %D for CCC is 25%

Compound	RF	RF_{50}	% D	CCC	SPCC
Chloromethane					• •
Bromomethane					
Vinyl Chloride				•	
Chloroethane					
Methylene Chloride					
Acetone					
Carbon Disulfide					
1, 1-Dichloroethene	.22	1.30	41 %	•	
1, 1-Dichloroethane	0.65	0.76			• •
Trans-1, 2-Dichloroethene					
Chloroform	.98	1.56	60 %	•	
1, 2-Dichloroethane					
2-Butanone					
1, 1, 1-Trichloroethane					
Carbon Tetrachloride					
Vinyl Acetate					
Bromodichloromethane					
1, 2-Dichloropropane	.19	0.24		•	
Trans-1, 3-Dichloropropene					
Trichloroethene					
Dibromochloromethane					
1, 1, 2-Trichloroethane					
Benzene	0.30	0.43	43 %		
cis-1, 3-Dichloropropene					
2-Chloroethylvinylether					
Bromoform	0.06	[illegible]			• •
4-Methyl-2-Pentanone					
2-Hexanone					
Tetrachloroethene					
1, 1, 2, 2-Tetrachloroethane					• •
Toluene	0.07	0.71		•	
Chlorobenzene	[illegible]	1.17			• •
Ethylbenzene	0.62	0.70		•	
Styrene					
Total Xylenes					

BLJ 2/14/91

RF_{50} -Response Factor from daily standard file at 50 ug/l
RF -Average Response Factor from initial calibration Form VI

%D -Percent Difference
CCC -Calibration Check Compounds (•)
SPCC -System Performance Check Compounds (••)

Form VII

Revision 0
Date September 1986

SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. _____ **Laboratory Name** TEI Analytical, Inc

FRACTION	COMPOUND	CONC. SPIKE ADDED (ug/Kg)	SAMPLE RESULT	CONC. MS	% REC	CONC. MSD	% REC	RPD	QC LIMITS RPD	QC LIMITS RECOVERY
VOA	1,1-Dicholorethene	—						4.4	22	59-172
	Trichloroethene	70 14	100 u	70	141	67	90	2.2	24	62-137
SAMPLE NO.	Chlorobenzene	56	100 u	56	100	56	100	0	21	60-133
	Toluene	—							21	59-139
8046 7	Benzene	44	100 u	33	75	33	75	0	21	66-142
B/N	1,2,4-Trichlorobenzene								23	38-107
	Acenaphthene								19	31-137
	2,4 Dinitrotoluene								47	28-89
SAMPLE NO.	Di-n-Butylphthalate								47	29-135
	Pyrene								36	35-142
	N-Nitrosodi-n-Propylamine								38	41-126
_____	1,4-Dichlorobenzene								27	28-104
ACID	Pentachlorophenol								47	17-109
	Phenol								35	26-90
SAMPLE NO.	2-Chlorophenol								50	25-102
	4-Chloro-3-Methylphenol								33	26-103
_____	4-Nitrophenol								50	11-114
PEST	Lindane								50	46-127
	Heptachlor								31	35-130
	Aldrin								43	34-132
SAMPLE NO.	Dieldrin								38	31-134
	Endrin		BCS 2/14/91						45	42-139
_____	4,4'-DDT								50	23-134

ADVISORY LIMITS

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

RECOVERY: VOAs 0 out of 6 ; outside QC limits
B/N _____ out of _____ ; outside QC limits
ACID _____ out of _____ ; outside QC limits
PEST _____ out of _____ ; outside QC limits

Comments: _____

FORM III

Revision 0
Date September 1986

Case No. _____ Laboratory Name TEI Analytical, Inc.

SAMPLE NO.	VOLATILE: TOLUENE-D8 (81-117)	VOLATILE: BFB (74-121)	VOLATILE: 1,2 DICHLORO-ETHANE-D4 (70-121)	SEMI-VOLATILE: NITRO-BENZENE-D5 (23-120)	SEMI-VOLATILE: 2-FLUORO-BIPHENYL (30-115)	SEMI-VOLATILE: TERPHENYL-D14 (18-137)	SEMI-VOLATILE:	SEMI-VOLATILE:	SEMI-VOLATILE: PHENOL-D5 (24-113)	SEMI-VOLATILE: 2-FLUORO-PHENOL (25-121)	SEMI-VOLATILE: 2,4,6 TRIBROMO-PHENOL (19-122)	PESTICIDE: DIBUTYL-CHLORENDATE (20-150)
80461		78	89									
80462		129*	142*									
80463		52*	65*									
80464		130*	92									
80465		47*	49*									
80466		78	87									
80467		40*	72									

VALUES ARE OUTSIDE OF REQUIRED QC LIMITS

Volatiles: 8 out of 14 ; outside of QC limits
Semi-Volatiles: _____ out of _____ ; outside of QC limits
Pesticides: _____ out of _____ ; outside of QC limits

Comments: Samples only.

FORM II

METHOD BLANK SUMMARY

Case No. _____ Laboratory Name TEI Analytical, Inc.

FILE ID	DATE OF ANALYSIS	FRACTION	MATRIX	CONC. LEVEL	INST. ID	CAS NUMBER	COMPOUND (HSL, TIC OR UNKNOWN)	CONC.	UNITS	CRDL
	12-24-91	VOA	UNK. LIQUID				None			
	12-27-91	VOA	UNK. LIQUID				None			

Comments:

FORM IV

[redacted] S[redacted]IL[redacted] P[redacted] S[redacted]N[redacted]RI[redacted] S[redacted]M[redacted]Y [redacted]

Case No. _____ Laboratory Name TEI Analytical, Inc

GC Column SPB 608 GC Instrument ID Tracer

	DATE OF ANALYSIS 12-31-90				DATE OF ANALYSIS 01-03-91			
	TIME OF ANALYSIS				TIME OF ANALYSIS			
	LABORATORY ID 1 ppm				LABORATORY ID 1 ppm			
COMPOUND	RT	RETENTION TIME WINDOW	CALIBRATION FACTOR	CONF. OR QUANT.	RT	CALIBRATION FACTOR	CONF. OR QUANT.	PERCENT DIFF.**
alpha-BHC								
beta-BHC								
delta-BHC								
gamma-BHC								
Heptachlor								
Aldrin								
Heptachlor Epoxide								
Endosulfan I								
Dieldrin								
4,4'-DDE								
Endrin								
Endosulfan II								
4,4'-DDD								
Endrin Aldehyde								
Endosulfan Sulfate								
4,4'-DDT								
Methoxychlor								
Endrin Ketone								
Tech. Chlordane								
alpha-Chlordane								
gamma-Chlordane								
Toxaphene								
Aroclor - 1016								
Aroclor - 1221								
Aroclor - 1232								
Aroclor - 124								
Aroclor - 1248	11 -> 34	11 - 34	154423		11 -> 34	475302		
Aroclor - 1254								
Aroclor - 1260								

** CONF. = CONFIRMATION (<20% DIFFERENCE)
QUANT. = QUANTITATION (<15% DIFFERENCE)

FORM IX