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March 1997 Upper and Lower Aquifer Monitoring Well Sample Data Comparison American Chemical Services, Inc.

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Introduction

Black & Veatch Special Projects Corp. (BVSPC), under the Alternative Remedial Contracting Strategy, has been tasked by the U.S. Environmental Protection Agency (USEPA) to provide field oversight during the remedial design and expedited remedial action to USEPA Region V in their endeavor to complete remediation of the American Chemical Services site. The Respondents are the ACS Technical Committee, and their contractor is Montgomery Watson (MW).

Purpose

The purpose of this document is to present BVSPC's evaluation and comparison of groundwater split sample analytical results with MW's data. BVSPC representatives collected eighteen split samples during groundwater sampling of Upper and Lower Aquifer monitoring wells by MW.

Sampling Effort

From March 24 to 28, 1997, and from March 31 to April 2, 1997, eighteen split samples were collected during the field oversight. Sampling was performed in accordance with the USEPA-approved field sampling plan and quality assurance project plan.

Laboratory

The USEPA split samples were analyzed by Contract Laboratory Program (CLP) analytical services in accordance with the procedures outlined in the User's Guide to the CLP, USEPA, February 1995. USEPA Region V Central Regional Laboratory (CRL), Chicago, Illinois, analyzed the organic and inorganic samples. MW's samples were analyzed by IEA for organic and inorganic analyses.

Data Validation

USEPA Region V CRL validated the split sample data and BVSPC reviewed the validated data using the USEPA CLP National Functional Guidelines for Organic Data Review (EPA 540/R-94/012, February 1994) and USEPA Contract Laboratory

Program National Functional Guidelines for Inorganic Data Review (EPA 540/R-94/013, February 1994). MW did not provide validation narratives of the data analyzed by their laboratories. It is unknown if MW used the USEPA CLP guidelines for their organic and inorganic data review.

The USEPA split sample analytical results were acceptable; however, due to minor analytical quality control problems, some of the compounds/analytes were qualified. Appendix A is a copy of the chain-of-custody records, the data validation report, and the raw data sheets from USEPA for split samples. Qualifiers are fully explained in the narratives.

MW did not report if the overall quality of data from their laboratory was good with any significant instrument problems or if the calculations were acceptable. The raw data sheets for the MW data are contained in Volumes 1 and 2 of MW's March 1997 Groundwater Sampling Results Report.

Data Comparison

BVSPC compared the validated split sample data to MW's data. Table 1 presents the Upper and Lower Aquifer monitoring well sample data comparison. Generally, detection limits of organic compounds in MW's data were higher than the USEPA split sample data. Both data sets were consistent except for the following:

Volatile Organic Compounds

Non-detect

Both USEPA and MW samples collected at the following monitoring wells indicated non-detect and no tentatively identified compounds (TICs) were identified:

- Upper aquifer wells MW-14 and MW-40.
- Lower aquifer wells M-40, MW-28, PW-A, PW-B, and PW-C.

Minor Detects

Both the USEPA and MW samples collected at the following monitoring wells indicated non-detect and less than 100 µg/L TICs:

- Upper aquifer well MW-15.
- Lower aquifer well MW-23.

M3S (UA) Chloroethane was detected in both samples at low levels (2 µg/L USEPA; 3 J µg/L MW). Benzene was detected only in the USEPA sample at 1 µg/L. TICs were not found in the USEPA or MW samples.

MW-42(UA) Chloroethane (1 µg/L) was detected in the USEPA sample. TICs were not found in either USEPA or MW samples.

PW-1 (LA) Chloroform (1 µg/L) was detected in the USEPA sample, and toluene (0.4 µg/L) was detected in the MW sample. TICs were not found in either USEPA or MW samples.

Significant Detects

M4S (UA) Chloroethane and benzene were detected at 607 D and 91 D µg/L in the USEPA sample and at 1,300 and 98 µg/L in the MW sample, respectively. Minor detects (2 µg/L were identified in only the USEPA sample for trans-1,2-dichloroethene and toluene. TICs for the USEPA and MW samples totalled 35 and 0 µg/L, respectively.

MW-6 (UA) Chloroethane and benzene were detected at 35 D and 30 µg/L in the USEPA sample and at 67 and 35 µg/L in the MW sample, respectively. Minor detects (<5 µg/L) were identified in the USEPA and MW samples for 1,1-dichloroethane, 1,1-dichloroethene, cis-, trans- and total-1,2-dichloroethane. TICs for the USEPA and MW samples totalled 10 and 35 µg/L respectively.

MW-9 (LA) Chloroethane and benzene were detected at 1,500 E and 270 D µg/L in the USEPA sample and at 2,900 and 310 µg/L in the MW, respectively. TICs for the USEPA and MW samples totalled 121 and 150 µg/L, respectively.

MW-10C Chloroethane and vinyl chloride were detected in the USEPA sample at 86 D and 1 µg/L, respectively. Chloroethane was detected in the MW sample at 140 µg/L. TICs for the USEPA and MW samples totalled 476 and 3,644, respectively. The main contributor to VOC TICs in both the USEPA and MW samples was ether (CAS No. 60297) at concentrations of 460 and 3,500 µg/L, respectively.

MW-48(UA) Chloroethane and benzene were detected in the USEPA sample at 430 D and 3,500 D µg/L and in the MW sample at 620 and 5,200 µg/L, respectively. Chloroform, trans-1,2-dichloroethene, bromodichloro-

methane, and toluene were detected in the USEPA sample at or less than 2 µg/L each. TICs for the USEPA sample totalled 137 µg/L.

MW-51(LA) Chloroform was detected in the USEPA sample at 1 µg/L. TICs for the USEPA and MW samples totalled 1,026 and 13,086, respectively. The main contributor to VOC TIC in both the USEPA and MW samples was ether (CAS No. 60297) at concentrations of 1,000 and 13,000, respectively.

Semivolatile Organic Compounds

M3S (UA) The USEPA sample contained bis(2-chloroisopropyl)ether and bis(2-ethylhexyl)phthalate at concentrations of 1 J and 12 B µg/L, respectively. TICs for the USEPA and MW samples totalled 19 and 14 µg/L, respectively.

M4S (UA) The USEPA and MW samples contained phenol at 10 and 18 µg/L and bis(2-chloroethyl)ether at 54 J and 45 µg/L, respectively. The USEPA sample also contained bis(2-ethylhexyl)phthalate at 12 B µg/L. TICs for the USEPA and MW samples totalled 1,747 and 744 µg/L, respectively.

M4D (LA) The USEPA and MW samples contained phenol at concentrations of 14 and 16 µg/L, respectively. The USEPA sample also contained bis(2-ethylhexyl)phthalate at 30 B µg/L. TICs for the USEPA and MW totalled 27 and 74 µg/L, respectively.

MW6 (UA) The USEPA and MW samples contained bis(2-chloroethyl)ether at 3 J and 7 J µg/L and isophorone at 2 and 2 µg/L, respectively. The USEPA sample also contained phenol, 2-chlorophenol, chrysene, bis (2-ethylhexyl)phthalate, di-n-octylphthalate, benzo(k)fluoranthene at 1 J, 5 J, 1 J, 14 B, 1 J and 1 J µg/L, respectively. TICs for the USEPA and MW samples totalled 877 and 191 µg/L, respectively.

MW-9 (LA) The USEPA sample contained bis(2-chloroethyl)ether and bis(2-ethylhexyl)phthalate at 30 and 7 B µg/L, respectively. The MW sample contained phenol and bis(2-chloroethyl)ether at 36 J and 38 J, respectively. TICs for the USEPA and MW samples totalled 575 and 1,027 µg/L, respectively.

MW-10C The USEPA sample contained phenol, isophorone, and bis(2-ethyl hexyl) phthalate at concentrations of 6, 1 and 10 B µg/L, respectively. The MW samples totalled 237 and 410 µg/L, respectively.

MW-14(UA) The USEPA and MW samples did not contain detectable concentrations of TCL compounds. TICs for the USEPA and MW samples totalled 0 and 2 µg/L, respectively.

MW-15(UA) The USEPA sample contained phenol, bis(chloroisopropyl)ether, benzoic acid, and bis(2-ethylhexyl)phthalate at 22, 200 E, 6 J and 15 B µg/L, respectively. The MW samples did not contain detectable concentrations of TCL compounds. TICs for the USEPA and MW samples totalled 15 and 96 µg/L, respectively.

MW-23(LA) The USEPA and MW samples contained phenol at 28 and 30 µg/L, respectively. The USEPA sample also contained bis(2-ethylhexyl)phthalate at 93 BD µg/L. TICs for the USEPA and MW samples totalled 56 and 42 µg/L, respectively.

MW-28(LA) The USEPA sample contained phenol, benzoic acid, and bis(2-ethylhexyl)phthalate at 91 D, 6 J and 19 B µg/L, respectively. The MW sample contained phenol at 75 µg/L. TICs for the USEPA and MW samples contained 84 and 152 µg/L, respectively.

MW-40(UA) The USEPA and MW samples contained phenol at 9 and 5 J µg/L, respectively. The USEPA samples also contained bis(2-ethylhexyl)phthalate at 44 B µg/L. TICs for the USEPA and MW samples totalled 0 and 15 µg/L, respectively.

MW-42(UA) The USEPA and MW samples did not contain detectable concentrations of TCL compounds. TICs for the USEPA and MW samples totalled 0 and 15 µg/L, respectively.

MW-51(LA) The USEPA sample contained phenol, di-n-butyl phthalate, and bis(2-ethylhexyl)phthalate at 15, 1 J, and 26 B µg/L, respectively. The MW sample contained phenol, isophorone and anthracene at 19, 0.6, and 0.7 J µg/L, respectively. TICs for the USEPA and MW samples totalled 421 and 439 µg/L, respectively.

PW-A (LA) The USEPA sample contained bis(2-ethylhexyl)phthalate at 1 JB µg/L. The MW sample did not contain detectable concentrations of TCL compounds. TICs for the USEPA and MW samples totalled 7 and 23 µg/L, respectively.

PW-B (LA) The USEPA sample contained bis(2-ethylhexyl)phthalate at 1 JB µg/L. The MW sample did not contain detectable concentrations of TCL compounds. TICs for the USEPA and MW samples totalled 18 and 24 µg/L, respectively.

PW-C (LA) The USEPA sample contained bis(2-ethylhexyl)phthalate at 1 JB µg/L. The MW sample did not contain detectable concentrations of TCL compounds. TICs for the USEPA and MW samples were not detected.

PW-I (LA) The USEPA sample contained bis(2-ethylhexyl)phthalate at 1 JB µg/L. The MW sample did not contain detectable concentrations of TCL compounds. TICs for the USEPA and MW samples totalled 0 and 10 µg/L, respectively.

Pesticides/PCBs

The pesticide/PCB results from all USEPA samples and corresponding MW samples were non-detect.

Inorganic Analytes

Generally, the data are comparable.

Precision of the laboratory analyses was assessed by comparing the detected concentrations for each sample for organic and inorganic analysis. The relative percent difference (RPD) was calculated for each pair of results using the following equation:

$$RPD = \frac{Pc - Dc}{(Pc + Dc) / 2} \; x \; 100$$

where:

P_c = Primary Concentration (assumed USEPA's data)

D_c = Duplicate Concentration (assumed MW's data)

Table 2 presents the sample variation comparison for compounds/analytes that exceeded the 30% RPD criteria. Including the inorganic analytes: iron, lead and sodium.

All other compounds/analytes were consistent, comparable, and within the 30% RPD range between USEPA and MW's data.

Conclusions

The overall sample analytical results between USEPA and MW's data were comparable; however, differences in concentrations for some compounds/analytes between USEPA and MW's data were noted. These compounds/analytes should be viewed carefully in future sampling events.

March 1997 Upper and Lower Aquifer
Monitoring Well Sample Data Comparison
American Chemical Services, Inc.

Compound Analyte	Sample Location/Concentration (µg/l)											
	M3S (Upper Aquifer)		M4S (Upper Aquifer)		M4D (Lower Aquifer)		MW6 (Upper Aquifer)		MW9 (Lower Aquifer)		MW10C (Lower Aquifer)	
	97ZB04S09 USEPA	PRP	97ZB04S10 USEPA	PRP	97ZB04S06 USEPA	PRP	97ZB04S14 USEPA	PRP	97ZB04S11 USEPA	PRP	97ZB04S04 USEPA	PRP
Volatile Organic Compounds												
Chloromethane	1 U	10 U	1 U	100 U	1 U	10 U	1 U	10 U	1 J	200 U	1 U	10 U
Bromomethane	1 U	10 UJ	1 U	100 U	1 U	10 UJ	1 U	10 U	1 U	200 U	1 U	10 UJ
Vinyl chloride	1 U	10 U	1 J	100 U	1 U	10 U	1 U	10 U	2 U	200 U	1	10 U
Chloroethane	2	3 J	670 D	1300	1 U	10 U	35 D	67	1,500 E	2,900	86 D	140
Methylene chloride	2 U	10 U	7 U	100 U	1 U	10 U	2 U	10 U	12 U	200 U	2 U	1 J
Acetone	3 U	10 U	3 U	100 U	3 U	6 J	3 U	10 U	3 U	200 U	3 U	10 U
Carbon disulfide	1 U	10 U	1 U	100 U	1 U	10 U	1 U	10 U	1 U	200 U	1 U	10 U
1,1-Dichloroethene	1 U	10 U	1 U	100 U	1 U	10 U	1 U	10 U	1 U	200 U	1 U	10 U
1,1-Dichloroethane	1 U	10 U	1 U	100 U	1 U	10 U	3	3 J	1 U	200 U	1 U	10 U
cis-1,2-Dichloroethene	1 U	--	1 U	--	1 U	--	2	--	1 U	--	1 U	--
trans-1,2-Dichloroethene	1 U	--	2	--	1 U	--	3	--	1 J	--	1 U	--
1,2-Dichloroethene (total)	--	10 U	--	100 U	--	10 U	--	4 J	--	200 U	--	10 U
Chloroform	1 U	10 U	1 U	100 U	1 U	10 U	1 U	10 U	1 U	200 U	1 U	10 U
1,2-Dichloroethane	1 U	10 U	1 U	100 U	1 U	10 U	1 U	10 U	1 U	200 U	1 U	10 U
2-Butanone	3 U	10 U	3 U	100 U	3 U	10 U	3 U	10 U	3 U	200 U	3 U	10 U
Bromochloromethane	1 U	--	1 U	--	1 U	--	1 U	--	1 U	--	1 U	--
1,1,1-trichloroethane	1 U	10 U	1 U	100 U	1 U	10 U	1 U	10 U	1 U	200 U	1 U	10 U
Carbon tetrachloride	1 U	10 U	1 U	100 U	1 U	10 U	1 U	10 U	1 U	200 U	1 U	10 U
Bromodichloromethane	1 U	10 U	1 U	100 U	1 U	10 U	1 U	10 U	1 U	200 U	1 U	10 U
1,2-Dichloropropane	1 U	10 U	1 U	100 U	1 U	10 U	1 U	10 U	1 U	200 U	1 U	10 U
cis-1,3-dichloropropene	1 U	10 U	1 U	100 U	1 U	10 U	1 U	10 U	1 U	200 U	1 U	10 U
Trichloroethene	1 U	10 U	1 U	100 U	1 U	10 U	1 U	10 U	1 U	200 U	1 U	10 U
Dibromochloromethane	1 U	10 U	1 U	100 U	1 U	10 U	1 U	10 U	1 U	200 U	1 U	10 U
1,1,2-Trichloroethane	2 U	10 U	2 U	100 U	2 U	10 U	2 U	10 U	2 U	200 U	2 U	10 U
Benzene	1 J	10 U	91 D	98	1 U	10 U	30	35	270 D	310	1 U	10 U
trans-1,3-Dichloropropene	1 U	10 U	1 U	100 U	1 U	10 U	1 U	10 U	1 U	200 U	1 U	10 U
Bromoform	1 U	10 U	1 U	100 U	1 U	10 U	1 U	10 U	1 U	200 U	1 U	10 U
4-Methyl-2-pentanone	2 U	10 U	2 U	100 U	2 U	10 U	2	10 U	4	200 U	2 U	10 U
2-Hexanone	2 U	10 U	2 U	100 U	2 U	10 U	2 U	10 U	2 U	200 U	2 U	10 U
Tetrachloroethene	1 U	10 U	1 U	100 U	1 U	10 U	1 U	10 U	1 U	200 U	1 UJ	10 U
1,1,2,2-Tetrachloroethane	1 UJ	10 U	1 UJ	100 U	1 U	10 U	1 U	10 U	1 U	200 U	1 U	10 U
1,2-Dibromoethane	1 U	--	1 U	--	1 UJ	--	1 U	--	1 U	--	1 U	--
Toluene	1 U	10 U	2	100 U	1 U	10 U	1 U	10 U	1 U	200 U	1 U	10 U
Chlorobenzene	1 U	10 U	1 U	100 U	1 U	10 U	1 U	10 U	1 U	200 U	1 U	10 U
Ethylbenzene	1 U	10 U	1 U	100 U	1 U	10 U	1 U	10 U	1 U	200 U	1 U	10 U
Styrene	1 U	10 U	1 U	100 U	1 U	10 U	1 U	10 U	1 U	200 U	1 U	10 U
Xylene (total)	1 U	10 U	1 U	100 U	1 U	10 U	1 U	10 U	1 U	200 U	1 U	10 U
1,3-Dichlorobenzene	1 U	--	1 U	--	1 U	--	1 U	--	1 U	--	1 U	--
1,4-Dichlorobenzene	1 U	--	1 U	--	1 U	--	1 U	--	1 U	--	1 U	--
1,2-Dichlorobenzene	1 U	--	1 U	--	1 U	--	1 U	--	1 U	--	1 U	--
1,2-Dibromo-3-chloropropane	2 UJ	--	2 UJ	--	2 UJ	--	2 U	--	2 UJ	--	2 UJ	--
1,2,4-Trichlorobenzene	1 U	--	1 U	--	1 U	--	1 U	--	1 U	--	1 U	--
VOA TICs	0	0	6	0	0	0	1	3	6	1	3	6
Semivolatile Organic Compounds												
Phenol	5 U	2 J	10	18	14	16	1 J	29 U	5 U	36 J	6	15 U
bis(2-Chloroethyl)ether	5 UJ	1 J	54 J	45	5 UJ	10 U	3 J	7 J	30	38 J	5 UJ	10 U
2-Chlorophenol	5 UJ	10 U	5 UJ	10 U	5 U	10 U	5 J	10 U	5 U	50 U	5 U	10 U
1,3-Dichlorobenzene	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	50 U	5 U	10 U
1,4-Dichlorobenzene	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	50 U	5 U	10 U

Table 1-1

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Monitoring Well Sample Data Comparison
American Chemical Services, Inc.

Compound Analyte	Sample Location/Concentration (µg/l)											
	M3S (Upper Aquifer)		M4S (Upper Aquifer)		M4D (Lower Aquifer)		MW6 (Upper Aquifer)		MW9 (Lower Aquifer)		MW10C (Lower Aquifer)	
	97ZB04S09 USEPA	PRP	97ZB04S10 USEPA	PRP	97ZB04S06 USEPA	PRP	97ZB04S14 USEPA	PRP	97ZB04S11 USEPA	PRP	97ZB04S04 USEPA	PRP
1,2-Dichlorobenzene	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 UJ	50 U	5 U	10 U
2-Methylphenol	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	50 U	5 U	10 U
bis(2-chloroisopropyl)ether	1 J	10 U	5 U	10 U	--	10 U	5 U	10 U	5 UJ	50 U	5 U	10 U
4-Methylphenol	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	50 U	5 U	10 U
N-Nitroso-di-n-propylamine	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	50 U	5 U	10 U
Hexachloroethane	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	50 U	5 U	10 U
Nitrobenzene	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	50 U	5 U	10 U
Isophorone	5 U	10 U	5 U	10 U	5 U	10 U	2 J	2 J	5 U	50 U	1 J	0.9 J
2-Nitrophenol	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	50 U	5 U	10 U
2,4-Dimethylphenol	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	50 U	5 U	10 U
Benzoic acid	20 U	--	20 UJ	--	20 U	--	20 U	--	20 U	--	20 U	--
bis(2-Chloroethoxy)methane	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	50 U	5 U	10 U
2,4-Dichlorophenol	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	50 U	5 U	10 U
1,2,4-Trichlorobenzene	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 UJ	50 U	5 U	10 U
Naphthalene	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 UJ	50 U	5 U	10 U
4-Chloroaniline	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	50 U	5 U	10 U
Hexachlorobutadiene	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 UJ	50 U	5 U	10 U
4-Chloro-3-methylphenol	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	50 U	5 U	10 U
2-Methylnaphthalene	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	50 U	5 U	10 U
Hexachlorocyclopentadiene	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	50 U	5 U	10 U
2,4,6-Trichlorophenol	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	50 U	5 U	10 U
2,4,5-Trichlorophenol	20 U	25 U	20 U	25 U	20 U	25 U	20 U	25 U	20 U	120 U	20 U	25 U
2-Chloronaphthalene	5 U	10 U	5 U	10 U	20 U	10 U	5 U	10 U	5 UJ	50 U	5 U	10 U
2-Nitroaniline	20 U	25 U	20 U	25 U	5 U	25 U	20 U	25 U	20 U	120 U	20 U	25 U
Dimethylphthalate	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	50 U	5 U	10 U
Acenaphthylene	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	50 U	5 U	10 U
2,6-Dinitrotoluene	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	50 U	5 U	10 U
3-Nitroaniline	20 U	25 U	20 U	25 U	20 U	25 U	20 U	25 U	20 U	120 U	20 U	25 U
Acenaphthene	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	50 U	5 U	10 U
2,4-Dinitrophenol	20 U	25 UJ	20 U	25 U	20 U	25 UJ	20 U	25 U	20 U	120 U	20 U	25 UJ
4-Nitrophenol	5 U	25 U	5 U	25 U	5 U	25 U	5 U	25 U	5 U	120 U	5 U	25 U
Dibenzofuran	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	50 U	5 U	10 U
2,4-Dinitrotoluene	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	50 U	5 U	10 U
Diethylphthalate	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	50 U	5 U	10 U
4-Chlorophenyl-phenylether	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	50 U	5 U	10 U
Fluorene	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	50 U	5 U	10 U
4-Nitroaniline	20 U	25 U	20 U	25 U	20 U	25 U	20 U	25 U	20 U	120 U	20 U	25 U
4,6-Dinitro-2-methylphenol	20 U	25 U	20 U	25 U	20 U	25 U	20 U	25 U	20 U	120 U	20 U	25 U
N-Nitrosodiphenylamine	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	50 U	5 U	10 U
4-Bromophenyl-phenylether	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	50 U	5 U	10 U
Hexachlorobenzene	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	50 U	5 U	10 U
Pentachlorophenol	20 U	25 U	20 U	25 U	20 U	25 U	20 U	10 U	20 U	120 U	20 U	25 U
Phenanthrene	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	50 U	5 U	10 U
Anthracene	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	50 U	5 U	10 U
Carbazole	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	50 U	5 U	10 U
Di-n-butylphthalate	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	50 U	5 U	10 U
Fluoranthene	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	50 U	5 U	10 U
Pyrene	5 U	10 U	5 UJ	10 U	5 U	10 U	5 U	10 U	5 U	50 U	5 U	10 U
Butylbenzylphthalate	5 U	10 U	5 UJ	10 U	5 U	10 U	5 U	10 U	5 U	50 U	5 U	10 U
3,3'-Dichlorobenzidine	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	50 U	5 U	10 U

Table 1-2

Table 1

March 1997 Upper and Lower Aquifer

Monitoring Well Sample Data Comparison

American Chemical Services, Inc.

Compound Analyte	Sample Location Concentration (µg/l)											
	M3S (Upper Aquifer)		M4S (Upper Aquifer)		M4D (Lower Aquifer)		MW6 (Upper Aquifer)		MW9 (Lower Aquifer)		MW10C (Lower Aquifer)	
	97ZB04S09 USEPA	PRP	97ZB04S10 USEPA	PRP	97ZB04S06 USEPA	PRP	97ZB04S14 USEPA	PRP	97ZB04S11 USEPA	PRP	97ZB04S04 USEPA	PRP
Benzo(a)anthracene	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	50 U	5 U	10 U
Chrysene	5 U	10 U	5 U	10 U	5 U	10 U	1 J	10 U	5 U	50 U	5 U	10 U
bis(2-Ethylhexyl)phthalate	12 B	10 U	7 BJ	10 U	30 B	10 U	14 B	10 U	7 B	50 U	10 B	10 U
Di-n-octylphthalate	5 UJ	10 U	5 UJ	10 U	5 UJ	10 U	1 J	10 U	5 UJ	50 U	5 UJ	10 U
Benzo(b)fluoranthene	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	50 U	5 U	10 U
Benzo(k)fluoranthene	5 U	10 U	5 U	10 U	5 U	10 U	1 J	10 U	5 U	50 U	5 U	10 U
Benzo(a)pyrene	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	50 U	5 U	10 U
Indeno(1,2,3-cd)pyrene	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	50 U	5 U	10 U
Dibenzo(a,h)anthracene	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	50 U	5 U	10 U
Benzo(g,h,i)perylene	5 U	10 U	5 U	10 U	5 U	10 U	5 U	10 U	5 U	50 U	5 U	10 U
SVOA TICs	1	3	19	12	3	4	7	15	20	20	18	20
Pesticides												
Alpha-BHC	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U
Beta-BHC	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.054 PJ	0.010 U	0.050 U	0.010 U	0.050 U
Delta-BHC	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U
Lindane	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U
Heptachlor	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U
Aldrin	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U
Heptachlor Epoxide	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U
Endosulfan I	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U
Dieldrin	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U
p,p'-DDE	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U
Endrin	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U
Endosulfan II	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U
p,p'-DDD	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U
Endosulfan Sulfate	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U
p,p'-DDT	0.020 U	0.012 JP	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U
Methoxychlor	0.10 U	0.50 U	0.10 U	0.50 U	0.10 U	0.50 U	0.10 U	0.50 U	0.10 U	0.50 U	0.10 U	0.50 U
Endrin Ketone	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U
Endrin Aldehyde	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U
Alpha-chlordane	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U
Gamma-chlordane	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.016 J	0.010 U	0.050 U	0.010 U	0.050 U
Toxaphene	1.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U
PCBs												
Aroclor 1016	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U
Aroclor 1221	0.40 U	2.0 U	0.40 U	2.0 U	0.40 U	2.0 U	0.40 U	2.0 U	0.40 U	2.0 U	0.40 U	2.0 U
Aroclor 1232	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U
Aroclor 1242	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U
Aroclor 1248	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U
Aroclor 1254	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U
Aroclor 1260	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U
Inorganic Analytes												
Aluminum	80 U	109 UB	530	548	80 U	147 UB	166	87.2 UB	1,530 U	2,580 J	121	275 U
Antimony	1 U	1.0 U	1 U	1.0 U	1 U	1.1 UB	1 U	1.0 U	1 U	1.0 U	1 U	1.3 B
Arsenic	5	9.5 UB	3	4.0 B	2 U	2.5 UB	6	10.7	5	6.8 B	2 U	4.3 B
Barium	260	280	508	553	186	204	156	182 B	321	301	333	372
Beryllium	1 U	1.0 U	1 U	1.0 U	1 U	1.0 U	1 U	1.0 U	1.8	1.0 U	1 U	1.0 U
Cadmium	0.2 U	1.0 U	0.6	1.0 B	0.2 U	1.0 U	0.3	1.0 U	0.3	2.4 B	0.2 U	1.0 U
Calcium	115,000	120,000	377,000	356,000	95,000	99,100	160,000	177,000	170,000	135,000	117,000	122,000
Chromium	10 U	1.0 U	43	67.8	10 U	1.3 B	16	19.7	29	45.0	10	3.6 B

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March 1997 Upper and Lower Aquifer

Monitoring Well Sample Data Comparison

American Chemical Services, Inc.

Compound Analyte	Sample Location Concentration (µg/l)											
	M3S (Upper Aquifer)		M4S (Upper Aquifer)		M4D (Lower Aquifer)		MW6 (Upper Aquifer)		MW9 (Lower Aquifer)		MW10C (Lower Aquifer)	
	97ZB04S09 USEPA	PRP	97ZB04S10 USEPA	PRP	97ZB04S06 USEPA	PRP	97ZB04S14 USEPA	PRP	97ZB04S11 USEPA	PRP	97ZB04S04 USEPA	PRP
Cobalt	6 U	2.9 B	6 U	8.2 B	6 U	1.0 U	6 U	3.6 B	7.0	9.3 B	6 U	2.1 B
Copper	6 U	2.5 B	6 U	9.0 UB	6 U	1.0 U	17	51.7	11	23.8 B	6 U	5.9 B
Iron	2,940	2,880 J	32,000	29,300	1,830	1,900 J	1,200	1,590	26,000	20,700	8,740	9,080 J
Lead	2 U	1.0 U	5	6.1	2 U	1.0 U	17	1.2 B	5	6.7	3	1.8 B
Magnesium	44,000	47,000	54,000	57,300	43,000	45,600	27,000	32,200	33,000	28,000	55,000	58,300
Manganese	1,190	1,240	558	582	38	36.5	347	486	282	249	73	73.8
Mercury	0.2 U	0.20 U	0.2 U	0.20 U	0.2 U	0.20 U	0.2 U	0.20 U	0.2 U	0.67 J	0.2 U	0.20 U
Nickel	20 U	11.7 B	35	74.6	20 U	3.3 B	25	33.2 B	20 U	37.9 B	20 U	7.7 B
Potassium	20,000	21,200	15,100	20,000 J	5,000 U	4,490 B	10,800	24,100 J	9,000	9,140 J	5,000 U	4,700 B
Selenium	2 U	2.0 U	4 U	2.0 U	4 U	2.0 U	4 U	2.0 U	6 U	2.0 U	2 U	2.0 U
Silver	6 U	1.0 U	6 U	1.0 U	6 U	1.0 U	6 U	1.0 U	6 U	1.0 UJ	6 U	1.0 U
Sodium	27,000	30,400 J	94,000	98,800	75,000	78,300 J	618,000	449,000 J	97,000	82,600	191,000	185,000 J
Thallium	2 U	3.0 U	2 U	3.0 U	2 U	3.0 U	2 U	3.0 U	2 U	3.0 U	2 U	3.0 U
Vanadium	5 U	1.0 U	5 U	3.5 B	5 U	1.0 U	5 U	1.0 JB	8.8	9.6 B	5 U	1.0 U
Zinc	40 U	13.9 UB	40 U	23.3 U	40 U	9.5 UB	40 U	10.5 UB	40 U	40.9 U	40 U	13.3 UB
Cyanide	8 U	10.0 U	8 U	10.0 U	8 U	10.0 U	15	17.4	8 U	10.0 U	8 U	10.0 U

Table 1 (Continued)
November and December 1996 Upper and Lower Aquifer
Monitoring Well Sample Data Comparison
American Chemical Services, Inc.

Compound/Analyte	Sample Location/Concentration (µg/l)									
	MW14 (Upper Aquifer)		MW15 (Upper Aquifer)		MW23 (Lower Aquifer)		MW28 (Lower Aquifer)		MW40 (Upper Aquifer)	
	97ZB04S08 USEPA	PRP	97ZB04S05 USEPA	PRP	97ZB04S13 USEPA	PRP	97ZB04S01 USEPA	PRP	97ZB04S12 USEPA	PRP
Volatile Organic Compounds										
Chloromethane	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U
Bromomethane	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U
Vinyl chloride	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U
Chloroethane	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U
Methylene chloride	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U
Acetone	3 U	10 UJ	3 U	10 U	3 U	10 U	3 U	10 U	3 U	10 U
Carbon disulfide	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U
1,1-Dichloroethene	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U
1,1-Dichloroethane	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U
cis-1,2-Dichloroethene	1 U	--	1 U	--	1 U	--	1 U	--	1 U	--
trans-1,2-Dichloroethene	1 U	--	1 U	--	1 U	--	1 U	--	1 U	--
1,2-Dichloroethene (total)	--	10 U	--	10 U	--	10 U	--	10 U	--	10 U
Chloroform	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U
1,2-Dichloroethane	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U
2-Butanone	3 U	10 U	3 U	10 U	3 U	10 U	3 U	10 U	3 U	10 U
Bromochloromethane	1 U	--	1 U	--	1 U	--	1 U	--	1 U	--
1,1,1-trichloroethane	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U
Carbon tetrachloride	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U
Bromodichloromethane	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U
1,2-Dichloropropane	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U
cis-1,3-dichloropropene	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U
Trichloroethene	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U
Dibromochloromethane	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U
1,1,2-Trichloroethane	2 U	10 U	2 U	10 U	2 U	10 U	2 U	10 U	2 U	10 U
Benzene	1 U	10 UJ	1 U	3 J	1 U	6 J	1 U	10 U	1 U	10 U
trans-1,3-Dichloropropene	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U
Bromoform	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U
4-Methyl-2-pentanone	2 U	10 U	2 U	10 U	2 U	10 U	2 U	10 U	2 U	10 U
2-Hexanone	2 U	10 U	2 U	10 U	2 U	10 U	2 U	10 U	2 U	10 U
Tetrachloroethene	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U
1,1,2,2-Tetrachloroethane	1 UJ	10 U	1 UJ	10 U	1 U	10 U	1 UJ	10 U	1 UJ	10 U
1,2-Dibromoethane	1 U	--	1 U	--	1 U	--	1 U	--	1 U	--
Toluene	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U
Chlorobenzene	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U
Ethylbenzene	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U
Styrene	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U
Xylene (total)	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U	1 U	10 U
1,3-Dichlorobenzene	1 U	--	1 U	--	1 U	--	1 U	--	1 U	--
1,4-Dichlorobenzene	1 U	--	1 U	--	1 U	--	1 U	--	1 U	--
1,2-Dichlorobenzene	1 U	--	1 U	--	1 U	--	1 U	--	1 U	--
1,2-Dibromo-3-chloropropane	2 UJ	--	2 UJ	--	2 UJ	--	1 U	--	2 UJ	--
1,2,4-Trichlorobenzene	1 U	--	1 U	--	1 U	--	1 U	--	1 U	--
VOA TICs	0	0	1	0	2	0	0	0	0	0
Semivolatile Organic Compounds										
Phenol	5 U	10 U	22	10 UJ	28	30	91 D	75	9	5 J
bis(2-Chloroethyl)ether	5 UJ	10 U	5 UJ	10 UJ	5 U	10 U	5 U	10 U	5 U	10 U
2-Chlorophenol	5 U	10 U	5 U	10 UJ	5 U	10 U	5 U	10 U	5 U	10 U
1,3-Dichlorobenzene	5 U	10 U	5 U	10 UJ	5 U	10 U	5 U	10 U	5 U	10 U
1,4-Dichlorobenzene	5 U	10 U	5 U	10 UJ	5 U	10 U	5 U	10 U	5 U	10 U

Table 1 (Continued)

November and December 1996 Upper and Lower Aquifer

Monitoring Well Sample Data Comparison

American Chemical Services, Inc.

Compound Analyte	Sample Location/Concentration (µg/l)									
	MW14 (Upper Aquifer)		MW15 (Upper Aquifer)		MW23 (Lower Aquifer)		MW28 (Lower Aquifer)		MW40 (Upper Aquifer)	
	97ZB04S08 USEPA	PRP	97ZB04S05 USEPA	PRP	97ZB04S13 USEPA	PRP	97ZB04S01 USEPA	PRP	97ZB04S12 USEPA	PRP
1,2-Dichlorobenzene	5 U	10 U	5 U	10 UJ	5 U	10 U	5 U	10 U	5 U	10 U
2-Methylphenol	5 U	10 U	5 U	10 UJ	5 U	10 U	5 U	10 U	5 U	10 U
bis(2-chloroisopropyl)ether	5 U	10 U	200 E	10 UJ	5 U	10 U	5 U	10 U	5 U	10 U
4-Methylphenol	5 U	10 U	5 U	10 UJ	5 U	10 U	5 U	10 U	5 U	10 U
N-Nitroso-di-n-propylamine	5 U	10 U	5 U	10 UJ	5 U	10 U	5 U	10 U	5 U	10 U
Hexachloroethane	5 UJ	10 U	5 U	10 UJ	5 U	10 U	5 U	10 U	5 U	10 U
Nitrobenzene	5 U	10 U	5 U	10 UJ	5 U	10 U	5 U	10 U	5 U	10 U
Isophorone	5 U	10 U	5 U	10 UJ	5 U	10 U	5 U	10 U	5 U	10 U
2-Nitrophenol	5 U	10 U	5 U	10 UJ	5 U	10 U	5 U	10 U	5 U	10 U
2,4-Dimethylphenol	5 U	10 U	5 U	10 UJ	5 U	10 U	5 U	10 U	5 U	10 U
Benzoic acid	20 U	--	6 J	--	20 U	--	6 J	--	20 U	--
bis(2-Chloroethoxy)methane	5 U	10 U	5 U	10 UJ	5 U	10 U	5 U	10 U	5 U	10 U
2,4-Dichlorophenol	5 U	10 U	5 U	10 UJ	5 U	10 U	5 U	10 U	5 U	10 U
1,2,4-Trichlorobenzene	5 UJ	10 U	5 U	10 UJ	5 U	10 U	5 U	10 U	5 U	10 U
Naphthalene	5 UJ	10 U	5 U	10 UJ	5 U	10 U	5 U	10 U	5 U	10 U
4-Chloroaniline	5 U	10 U	5 U	10 UJ	5 U	10 U	5 U	10 U	5 U	10 U
Hexachlorobutadiene	5 U	10 U	5 U	10 UJ	5 U	10 U	5 U	10 U	5 U	10 U
4-Chloro-3-methylphenol	5 U	10 U	5 U	10 UJ	5 U	10 U	5 U	10 U	5 U	10 U
2-Methylnaphthalene	5 U	10 U	5 U	10 UJ	5 U	10 U	5 U	10 U	5 U	10 U
Hexachlorocyclopentadiene	5 U	10 U	5 U	10 UJ	5 U	10 U	5 U	10 U	5 U	10 U
2,4,6-Trichlorophenol	5 UJ	10 U	5 U	10 UJ	5 U	10 U	5 U	10 U	5 U	10 U
2,4,5-Trichlorophenol	20 U	25 U	20 U	25 UJ	20 U	25 U	20 U	25 U	20 U	25 U
2-Chloronaphthalene	5 UJ	10 U	5 U	10 UJ	5 U	10 U	5 U	10 U	5 U	10 U
2-Nitroaniline	20 U	25 U	20 U	25 UJ	20 U	25 U	20 U	25 U	20 U	25 U
Dimethylphthalate	5 U	10 U	5 U	10 UJ	5 U	10 U	5 U	10 U	5 U	10 U
Acenaphthylene	5 U	10 U	5 U	10 UJ	5 U	10 U	5 U	10 U	5 U	10 U
2,6-Dinitrotoluene	5 U	10 U	5 U	10 UJ	5 U	10 U	5 U	10 U	5 U	10 U
3-Nitroaniline	20 U	25 U	20 U	25 UJ	20 U	25 U	20 U	25 U	20 U	25 U
Acenaphthene	5 U	10 U	5 U	10 UJ	5 U	10 U	5 U	10 U	5 U	10 U
2,4-Dinitrophenol	20 U	25 U	20 U	25 UJ	20 U	25 U	20 U	25 U	20 U	25 U
4-Nitrophenol	5 U	25 U	5 U	25 UJ	5 U	25 U	20 U	25 U	5 U	25 U
Dibenzofuran	5 U	10 U	5 U	10 UJ	5 U	10 U	5 U	10 U	5 U	10 U
2,4-Dinitrotoluene	5 U	10 U	5 U	10 UJ	5 U	10 U	5 U	10 U	5 U	10 U
Diethylphthalate	5 UJ	10 U	5 U	10 UJ	5 U	10 U	5 U	10 U	5 U	10 U
4-Chlorophenyl-phenylether	5 U	10 U	5 U	10 UJ	5 U	10 U	5 U	10 U	5 U	10 U
Fluorene	5 U	10 U	5 U	10 UJ	5 U	10 U	5 U	10 U	5 U	10 U
4-Nitroaniline	20 U	25 U	20 U	25 UJ	20 U	25 U	20 U	25 U	20 U	25 U
4,6-Dinitro-2-methylphenol	20 U	25 U	20 U	25 UJ	20 U	25 U	20 U	25 U	20 U	25 U
N-Nitrosodiphenylamine	5 U	10 U	5 U	10 UJ	5 U	10 U	5 U	10 U	5 U	10 U
4-Bromophenyl-phenylether	5 U	10 U	5 U	10 UJ	5 U	10 U	5 U	10 U	5 U	10 U
Hexachlorobenzene	5 U	10 U	5 U	10 UJ	5 U	10 U	5 U	10 U	5 U	10 U
Pentachlorophenol	20 U	25 U	20 U	25 UJ	20 U	25 U	20 U	25 U	20 U	25 U
Phenanthrene	5 U	10 U	5 U	10 UJ	5 U	10 U	5 U	10 U	5 U	10 U
Anthracene	5 U	10 U	5 U	10 UJ	5 U	10 U	5 U	10 U	5 U	10 U
Carbazole	5 U	10 U	--	10 UJ	5 U	10 U	5 U	10 U	5 U	10 U
Di-n-butylphthalate	5 U	10 U	5 U	10 UJ	5 U	10 U	1 J	10 U	5 U	10 U
Fluoranthene	5 U	10 U	5 U	10 UJ	5 U	10 U	5 U	10 U	5 U	10 U
Pyrene	5 U	10 U	5 U	10 UJ	5 U	10 U	5 U	10 U	5 U	10 U
Butylbenzylphthalate	5 U	10 U	5 U	10 UJ	5 U	10 U	5 U	10 U	5 U	10 U
3,3'-Dichlorobenzidine	5 U	10 U	5 U	10 UJ	5 U	10 U	5 U	10 U	5 U	10 U

Table 1 (Continued)

November and December 1996 Upper and Lower Aquifer

Monitoring Well Sample Data Comparison

American Chemical Services, Inc.

Compound/Analyte	Sample Location/Concentration (µg/l)									
	MW14 (Upper Aquifer)		MW15 (Upper Aquifer)		MW23 (Lower Aquifer)		MW28 (Lower Aquifer)		MW40 (Upper Aquifer)	
	97ZB04S08	PRP	97ZB04S05	PRP	97ZB04S13	PRP	97ZB04S01	PRP	97ZB04S12	PRP
	USEPA		USEPA		USEPA		USEPA		USEPA	
Benzo(a)anthracene	5 U	10 U	5 U	10 UJ	5 U	10 U	5 U	10 U	5 U	10 U
Chrysene	5 U	10 U	5 U	10 UJ	5 U	10 U	5 U	10 U	5 U	10 U
bis(2-Ethylhexyl)phthalate	5 U	10 U	15 B	10 UJ	93 BD	10 U	19 B	10 U	44 B	10 U
Di-n-octylphthalate	5 UJ	10 U	5 UJ	10 UJ	5 UJ	10 U	5 UJ	10 U	5 UJ	10 U
Benzo(b)fluoranthene	5 U	10 U	5 U	10 UJ	5 U	10 U	5 U	10 U	5 U	10 U
Benzo(k)fluoranthene	5 U	10 U	5 U	10 UJ	5 U	10 U	5 U	10 U	5 U	10 U
Benzo(a)pyrene	5 U	10 U	5 U	10 UJ	5 U	10 U	5 U	10 U	5 U	10 U
Indeno(1,2,3-cd)pyrene	5 U	10 U	5 U	10 UJ	5 U	10 U	5 U	10 U	5 U	10 U
Dibenzo(a,h)anthracene	5 U	10 U	5 U	10 UJ	5 U	10 U	5 U	10 U	5 U	10 U
Benzo(g,h,i)perylene	5 U	10 U	5 U	10 UJ	5 U	10 U	5 U	10 U	5 U	10 U
SVOA TICs	0	2	2	19	6	10	6	12	2	2
Pesticides										
Alpha-BHC	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U
Beta-BHC	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U
Delta-BHC	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U
Lindane	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U
Heptachlor	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U
Aldrin	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U
Heptachlor Epoxide	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U
Endosulfan I	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U
Dieldrin	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U
p,p'-DDE	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U
Endrin	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U
Endosulfan II	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U
p,p'-DDD	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U
Endosulfan Sulfate	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U
p,p'-DDT	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U
Methoxychlor	0.10 U	0.50 U	0.10 U	0.50 U	0.10 U	0.50 U	0.10 U	0.50 U	0.10 U	0.50 U
Endrin Ketone	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U
Endrin Aldehyde	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U
Alpha-chlordane	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U
Gamma-chlordane	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U
Toxaphene	1.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U
PCBs										
Aroclor 1016	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U
Aroclor 1221	0.40 U	2.0 U	0.40 U	2.0 U	0.40 U	2.0 U	0.40 U	2.0 U	0.40 U	2.0 U
Aroclor 1232	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U
Aroclor 1242	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U
Aroclor 1248	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U
Aroclor 1254	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U
Aroclor 1260	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U
Inorganic Analytes										
Aluminum	1,460	2,550	314	472	1,740	2,480	1,160	2,650	1,370	2,040
Antimony	1 U	1.0 U	1 U	1.3 B	1 U	1.0 U	1 U	1.0 U	1 U	1.0 U
Arsenic	2 U	2.0 U	2 U	37.4	3 U	5.3 UB	2 U	2.4 B	2 U	3.8 UB
Barium	33	33.2 B	533	1240	140	140 B	115	131 B	23	26.6 B
Beryllium	1 U	1.0 U	1 U	1.0 U	1 U	1.0 U	1 U	1.0 U	1 U	1.0 U
Cadmium	0.2 U	1.0 U	0.5	1.0 U	0.2 U	1.0 U	0.2 U	1.0 U	0.2 U	1.0 U
Calcium	28,000	26,100	267,000	78,800	92,000	86,500	93,000	96,300	15,000	14,700
Chromium	10 U	11.9	10 U	4.9 B	18	18.7 UB	81	108	10 U	4.1 B

Table 1 (Continued)

November and December 1996 Upper and Lower Aquifer

Monitoring Well Sample Data Comparison

American Chemical Services, Inc.

Compound/Analyte	Sample Location Concentration (µg/l)									
	MW14 (Upper Aquifer)		MW15 (Upper Aquifer)		MW23 (Lower Aquifer)		MW28 (Lower Aquifer)		MW40 (Upper Aquifer)	
	97ZB04S08	PRP	97ZB04S05	PRP	97ZB04S13	PRP	97ZB04S01	PRP	97ZB04S12	PRP
	USEPA		USEPA		USEPA		USEPA		USEPA	
Cobalt	6 U	2.3 B	6 U	4.1 B	6 U	4.2 B	6 U	5.2 B	6 U	3.1 B
Copper	8.0	9.0 UB	6 U	26.1	16	16.2 B	37	55.1	9.2	12.8 UB
Iron	5,040	5,610	26,000	5,550	11,800	11,700	5,130	7,030	2,670	3,470
Lead	17	17.0	4	1.0 U	9	7.6	10	11.6	7	7.3
Magnesium	7,000	6,830	83,000	73,600	24,000	23,100	38,000	41,400	6,000	6,160
Manganese	50	59.7	665	276	377	361	124	155	293	296
Mercury	0.2 U	0.20 U	0.2 U	0.20 U	0.2 U	0.20 U	0.2 U	0.2 U	0.2 U	0.20 U
Nickel	20 U	9.3 B	20 U	19.2 B	20 U	17.5 UB	60	74.2	20 U	9.8 UB
Potassium	5,000 U	2,770 BJ	33,000	102,000 J	5,000 U	4,090 JB	5,000 U	3,040 JB	5,000 U	1,270 JB
Selenium	2 U	2.0 U	4 U	2.0 U	4 U	2.0 U	2 U	2.0 U	2 U	2.0 U
Silver	6 U	1.0 U	6 U	1.0 U	6 U	1.0 R	6 U	1.0 UJ	6 U	1.0 R
Sodium	4,000	3,610 B	70,000	311,000	77,000	73,400	15,000	15,300	8,000	7,800
Thallium	2 U	3.0 U	2 U	3.0 U	2 U	3.0 U	2 U	3.0 U	2 U	3.0 U
Vanadium	5 U	6.4 B	5.2	1.0 U	8.9	6.9 B	5 U	5.7 B	5 U	4.3 B
Zinc	40 U	27.0 U	40 U	9.1 UB	40 U	33.4 U	40 U	48.8 U	40 U	26.2 U
Cyanide	8 U	10.0 U	8 U	10.0 U	8 U	10.0 U	8 U	10.0 U	8 U	10.0 U

Table 1 (Continued)

November and December 1996 Upper and Lower Aquifer

Monitoring Well Sample Data Comparison

American Chemical Services, Inc.

Compound/Analyte	Sample Location Concentration (µg/l)					
	MW42 (Upper Aquifer)		MW48 (Upper Aquifer)		MW51 (Lower Aquifer)	
	97ZB04S03 USEPA	PRP	97ZB04S07 USEPA	PRP	97ZB04S02 USEPA	PRP
Volatile Organic Compounds						
Chloromethane	1 U	10 U	1 U	500 U	1 U	50 U
Bromomethane	1 U	10 UJ	1 U	500 U	1 U	50 UJ
Vinyl chloride	1 U	10 U	1 U	500 U	1 U	50 U
Chloroethane	1 J	10 U	430 D	620	1 U	50 U
Methylene chloride	1 UJ	10 U	3 U	500 U	1 U	50 U
Acetone	1 U	10 U	3 U	500 U	3 U	50 U
Carbon disulfide	1 U	10 U	1 U	500 U	1 U	50 U
1,1-Dichloroethene	1 U	10 U	1 U	500 U	1 U	50 U
1,1-Dichloroethane	1 U	10 U	1 U	500 U	1 U	50 U
cis-1,2-Dichloroethene	1 U	--	1 U	--	1 U	--
trans-1,2-Dichloroethene	1 U	--	1	--	1 U	--
1,2-Dichloroethene (total)	--	10 U	--	500 U	--	50 U
Chloroform	1 U	10 U	1	500 U	1	50 U
1,2-Dichloroethane	1 U	10 U	1 U	500 U	1 U	50 U
2-Butanone	3 U	10 U	3 U	500 U	3 U	50 U
Bromochloromethane	1 U	--	1 U	--	1 U	--
1,1,1-trichloroethane	1 U	10 U	1 U	500 U	1 U	50 U
Carbon tetrachloride	1 U	10 U	1 U	500 U	1 U	50 U
Bromodichloromethane	1 U	10 U	0.9 J	500 U	1 U	50 U
1,2-Dichloropropane	1 U	10 U	1 U	500 U	1 U	50 U
cis-1,3-dichloropropene	1 U	10 U	1 U	500 U	1 U	50 U
Trichloroethene	1 U	10 U	1 U	500 U	1 U	50 U
Dibromochloromethane	1 U	10 U	1 U	500 U	1 U	50 U
1,1,2-Trichloroethane	2 U	10 U	2 U	500 U	1 U	50 U
Benzene	1 U	10 U	3,500 D	5200	1 U	50 U
trans-1,3-Dichloropropene	1 U	10 U	1 U	500 U	1 U	50 U
Bromoform	1 U	10 U	1 U	500 U	1 U	50 U
4-Methyl-2-pentanone	2 U	10 U	2 U	500 U	2 J	50 U
2-Hexanone	5 U	10 U	2 U	500 U	2 U	50 U
Tetrachloroethene	1 U	10 U	1 U	500 U	1 U	50 U
1,1,2,2-Tetrachloroethane	1 UJ	10 U	1 U	500 U	1 U	50 U
1,2-Dibromoethane	1 U	--	1 U	--	1 U	--
Toluene	1 U	10 U	2	500 U	1 U	50 U
Chlorobenzene	1 U	10 U	1 U	500 U	1 U	50 U
Ethylbenzene	1 U	10 U	1 U	500 U	1 U	50 U
Styrene	1 U	10 U	1 U	500 U	1 U	50 U
Xylene (total)	1 U	10 U	1 U	500 U	1 U	50 U
1,3-Dichlorobenzene	1 U	--	1 U	--	1 U	--
1,4-Dichlorobenzene	1 U	--	1 U	--	1 U	--
1,2-Dichlorobenzene	1 U	--	1 U	--	1 U	--
1,2-Dibromo-3-chloropropane	2 UJ	--	2 U	--	2 UJ	--
1,2,4-Trichlorobenzene	1 U	--	1 U	--	1 U	--
VOA TICs	0	0	3	0	5	2
Semivolatile Organic Compounds						
Phenol	5 U	5 J	87 D	28	15	19
bis(2-Chloroethyl)ether	5 UJ	10 U	10	10 UJ	5 U	10 U
2-Chlorophenol	5 U	10 U	5 U	10 U	5 U	10 U
1,3-Dichlorobenzene	5 U	10 U	5 U	10 U	5 U	10 U
1,4-Dichlorobenzene	5 U	10 U	5 U	10 U	5 U	10 U

Table 1 (Continued)

November and December 1996 Upper and Lower Aquifer

Monitoring Well Sample Data Comparison

American Chemical Services, Inc.

Compound/Analyte	Sample Location/Concentration (µg/l)					
	MW42 (Upper Aquifer)		MW48 (Upper Aquifer)		MW51 (Lower Aquifer)	
	97ZB04S03 USEPA	PRP	97ZB04S07 USEPA	PRP	97ZB04S02 USEPA	PRP
1,2-Dichlorobenzene	5 U	10 U	5 UJ	10 U	5 U	10 U
2-Methylphenol	5 U	10 U	5 U	10 U	5 U	10 U
bis(2-chloroisopropyl)ether	5 U	10 UJ	5 U	10 U	5 U	10 UJ
4-Methylphenol	5 U	10 U	5 U	10 U	5 U	10 U
N-Nitroso-di-n-propylamine	5 U	10 U	5 U	10 U	5 U	10 U
Hexachloroethane	5 U	10 U	5 UJ	10 U	5 U	10 U
Nitrobenzene	5 U	10 U	5 U	1 J	5 U	10 U
Isophorone	5 U	10 U	5 U	0.8 J	5 U	0.6 J
2-Nitrophenol	5 U	10 U	5 U	10 U	5 U	10 U
2,4-Dimethylphenol	5 U	10 U	5 U	10 U	5 U	10 U
Benzoic acid	20 U	--	20 U	--	5 U	--
bis(2-Chloroethoxy)methane	5 U	10 U	5 U	10 U	5 U	10 U
2,4-Dichlorophenol	5 U	10 U	5 U	10 U	5 U	10 U
1,2,4-Trichlorobenzene	5 U	10 U	5 UJ	10 U	5 U	10 U
Naphthalene	5 U	10 U	5 UJ	10 U	5 U	10 U
4-Chloroaniline	5 U	10 U	5 U	10 U	5 U	10 U
Hexachlorobutadiene	5 U	10 U	5 UJ	10 UJ	5 U	10 U
4-Chloro-3-methylphenol	5 U	10 U	5 U	10 UJ	5 U	10 U
2-Methylnaphthalene	5 U	10 U	5 U	10 UJ	5 U	10 U
Hexachlorocyclopentadiene	5 U	10 U	5 U	10 UJ	5 U	10 U
2,4,6-Trichlorophenol	5 U	10 U	5 U	10 UJ	5 U	10 U
2,4,5-Trichlorophenol	20 U	25 U	20 U	25 UJ	20 U	25 U
2-Chloronaphthalene	5 U	10 U	5 UJ	10 UJ	5 U	10 U
2-Nitroaniline	20 U	25 U	20 U	25 UJ	20 U	25 U
Dimethylphthalate	5 U	10 U	5 U	10 UJ	5 U	10 U
Acenaphthylene	5 U	10 U	5 U	10 UJ	5 U	10 U
2,6-Dinitrotoluene	5 U	10 U	5 U	10 UJ	5 U	10 U
3-Nitroaniline	20 U	25 U	20 U	25 UJ	20 U	25 U
Acenaphthene	5 U	10 U	5 U	10 UJ	5 U	10 U
2,4-Dinitrophenol	20 U	25 UJ	20 U	25 UJ	20 U	25 UJ
4-Nitrophenol	5 U	25 U	20 U	25 UJ	20 U	25 U
Dibenzofuran	5 U	10 U	5 U	10 UJ	5 U	10 U
2,4-Dinitrotoluene	5 U	10 U	5 U	10 UJ	5 U	10 U
Diethylphthalate	5 U	10 U	5 U	10 UJ	5 U	10 U
4-Chlorophenyl-phenylether	5 U	10 U	5 U	10 UJ	5 U	10 U
Fluorene	5 U	10 U	5 U	10 UJ	5 U	10 U
4-Nitroaniline	20 U	25 U	20 U	25 UJ	20 U	25 U
4,6-Dinitro-2-methylphenol	20 U	25 U	20 U	25 U	20 U	25 U
N-Nitrosodiphenylamine	5 U	10 U	5 U	10 U	5 UJ	10 U
4-Bromophenyl-phenylether	5 U	10 U	5 U	10 U	5 U	10 U
Hexachlorobenzene	5 U	10 U	5 U	10 U	5 U	10 U
Pentachlorophenol	20 U	25 U	20 U	25 U	20 U	25 U
Phenanthrene	5 U	10 U	5 U	10 U	5 U	10 U
Anthracene	5 U	10 U	5 U	10 U	5 U	0.7 J
Carbazole	5 U	10 U	5 U	10 U	5 U	10 U
Di-n-butylphthalate	5 U	10 U	5 U	10 U	1 J	10 U
Fluoranthene	5 U	10 U	5 U	10 U	5 U	10 U
Pyrene	5 U	10 U	5 U	10 U	5 U	10 U
Butylbenzylphthalate	5 U	10 U	5 U	10 U	5 U	10 U
3,3'-Dichlorobenzidine	5 U	10 U	5 U	10 U	5 U	10 U

Table 1 (Continued)

November and December 1996 Upper and Lower Aquifer

Monitoring Well Sample Data Comparison

American Chemical Services, Inc.

Compound/Analyte	Sample Location/Concentration (µg/l)					
	MW42 (Upper Aquifer)		MW48 (Upper Aquifer)		MW51 (Lower Aquifer)	
	97ZB04S03 USEPA	PRP	97ZB04S07 USEPA	PRP	97ZB04S02 USEPA	PRP
Benzo(a)anthracene	5 U	10 U	5 U	10 U	5 U	10 U
Chrysene	5 U	10 U	5 U	10 U	5 U	10 U
bis(2-Ethylhexyl)phthalate	8 U	10 U	4 B	10 U	26 B	10 U
Di-n-octylphthalate	5 UJ	10 U	5 UJ	10 R	5 UJ	10 U
Benzo(b)fluoranthene	5 U	10 U	5 U	10 R	5 U	10 U
Benzo(k)fluoranthene	5 U	10 U	5 U	10 R	5 U	10 U
Benzo(a)pyrene	5 U	10 U	5 U	10 R	5 U	10 U
Indeno(1,2,3-cd)pyrene	5 U	10 U	5 U	10 R	5 U	10 U
Dibenzo(a,h)anthracene	5 U	10 U	5 U	10 R	5 U	10 U
Benzo(g,h,i)perylene	5 U	10 U	5 U	10 R	5 U	10 U
SVOA TIC's	0	4	20	20	20	20
Pesticides						
Alpha-BHC	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U
Beta-BHC	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U
Delta-BHC	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U
Lindane	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U
Heptachlor	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U
Aldrin	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U
Heptachlor Epoxide	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U
Endosulfan I	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U
Dieldrin	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U
p,p'-DDE	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U
Endrin	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U
Endosulfan II	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U
p,p'-DDD	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U
Endosulfan Sulfate	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U
p,p'-DDT	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U
Methoxychlor	0.10 U	0.50 U	0.10 U	0.50 U	0.10 U	0.50 U
Endrin Ketone	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U
Endrin Aldehyde	0.020 U	0.10 U	0.020 U	0.10 U	0.020 U	0.10 U
Alpha-chlordane	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U
Gamma-chlordane	0.010 U	0.050 U	0.010 U	0.050 U	0.010 U	0.050 U
Toxaphene	1.0 U	5.0 U	1.0 U	5.0 U	1.0 U	5.0 U
PCBs						
Aroclor 1016	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U
Aroclor 1221	0.40 U	2.0 U	0.40 U	2.0 U	0.40 U	2.0 U
Aroclor 1232	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U
Aroclor 1242	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U
Aroclor 1248	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U
Aroclor 1254	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U
Aroclor 1260	0.20 U	1.0 U	0.20 U	1.0 U	0.20 U	1.0 U
Inorganic Analytes						
Aluminum	534	752	80 U	46.1 UB	261	403
Antimony	1 U	1.0 U	1 U	1.5 B	1 U	1.0 U
Arsenic	7	14.5	5	6.4 B	2 U	3.6 UB
Barium	76	83.3 B	110	125 B	393	435
Beryllium	1 U	1.0 U	1.3	1.0 U	1 U	1.0 U
Cadmium	0.2 U	1.0 U	0.2 U	1.0 U	0.2 U	1.0 U
Calcium	130,000	133,000	122,000	133,000	142,000	153,000
Chromium	10 U	4.9 B	10 U	1.9 B	10 U	3.7 B

Table 1 (Continued)

November and December 1996 Upper and Lower Aquifer

Monitoring Well Sample Data Comparison

American Chemical Services, Inc.

Compound Analyte	Sample Location Concentration (µg/l)					
	MW42 (Upper Aquifer)		MW48 (Upper Aquifer)		MW51 (Lower Aquifer)	
	97ZB04S03 USEPA	PRP	97ZB04S07 USEPA	PRP	97ZB04S02 USEPA	PRP
Cobalt	6 U	1.8 B	6 U	2.6 B	6 U	1.4 B
Copper	21	18.9 B	6 U	1.0 U	6 U	4.5 B
Iron	7,720	9,920 J	25,000	24,900	7,720	8,470 J
Lead	3	2.8 B	2 U	1.0 U	2 U	2.6 B
Magnesium	47,000	49,000	17,000	19,600	61,000	67,600
Manganese	764	796	554	618	108	118
Mercury	0.2 U	0.20 U	0.3	0.20 U	0.2 U	0.2 U
Nickel	20 U	6.6 B	20 U	13.5 B	20 U	8.0 B
Potassium	5,000 U	1,380	5,270	6,860 J	5,000 U	3,450 B
Selenium	2 U	2.0 U	2 U	2.0 U	4 U	2.0 U
Silver	6 U	1.0 U	6 U	1.0 U	6 U	1.0 U
Sodium	13,000	14,700 J	40,000	46,300	107,000	114,000 J
Thallium	2 U	3.0 U	2 U	4.0 B	2 U	3.0 U
Vanadium	5 U	2.2 B	5 U	2.4 B	5 U	1.0 U
Zinc	40 U	19.7 UB	40 U	6.2 UB	40 U	14.1 UB
Cyanide	8 U	10.0 U	8 U	10.0 U	8 U	10.0 U

Table 1 (Continued)

November and December 1996 Upper and Lower Aquifer

Monitoring Well Sample Data Comparison

American Chemical Services, Inc.

Compound Analyte	Sample Location Concentration (µg/l)							
	PW-A (Lower Aquifer)		PW-B (Lower Aquifer)		PW-C (Lower Aquifer)		PW-I (Lower Aquifer)	
	97ZB04S18 USEPA	PRP	97ZB04S17 USEPA	PRP	97ZB04S16 USEPA	PRP	97ZB04S15 USEPA	PRP
Volatile Organic Compounds								
Chloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl chloride	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methylene chloride	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Acetone	3 U	1 U	3 U	5 U	3 U	5 U	3 U	2 UJ
Carbon disulfide	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	1 U	--	1 U	--	1 U	--	1 U	--
trans-1,2-Dichloroethene	1 U	--	1 U	--	1 U	--	1 U	--
1,2-Dichloroethene (total)	--	1 U	--	1 U	--	1 U	--	1 U
Chloroform	1 U	1 U	1 U	1 U	1	1 U	1	1 U
1,2-Dichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Butanone	3 U	5 U	3 U	5 U	3 U	5 U	3 U	5 U
Bromochloromethane	1 U	--	1 U	--	1 U	--	1 U	--
1,1,1-trichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbon tetrachloride	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	2 U	1 U	2 U	1 U	2 U	1 U	2 U	1 U
Benzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
4-Methyl-2-pentanone	2 U	5 U	2 U	5 U	2 U	5 U	2 U	5 U
2-Hexanone	2 U	5 U	2 U	5 U	2 U	5 U	2 U	5 U
Tetrachloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromoethane	1 U	--	1 U	--	1 U	--	1 U	--
Toluene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.4 J
Chlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Styrene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Xylene (total)	1 U	5 U	1 U	5 U	1 U	5 U	1 U	5 U
1,3-Dichlorobenzene	1 U	--	1 U	--	1 U	--	1 U	--
1,4-Dichlorobenzene	1 U	--	1 U	--	1 U	--	1 U	--
1,2-Dichlorobenzene	1 U	--	1 U	--	1 U	--	1 U	--
1,2-Dibromo-3-chloropropane	2 U	--	2 U	--	2 U	--	2 U	--
1,2,4-Trichlorobenzene	1 U	--	1 U	--	1 U	--	1 U	--
VOA TICs	0	0	0	0	0	0	0	0
Semivolatile Organic Compounds								
Phenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
bis(2-Chloroethyl)ether	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U
2-Chlorophenol	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U
1,3-Dichlorobenzene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,4-Dichlorobenzene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U

Table 1 (Continued)

November and December 1996 Upper and Lower Aquifer

Monitoring Well Sample Data Comparison

American Chemical Services, Inc.

Compound Analyte	Sample Location Concentration (µg/l)							
	PW-A (Lower Aquifer)		PW-B (Lower Aquifer)		PW-C (Lower Aquifer)		PW-I (Lower Aquifer)	
	97ZB04S18	PRP	97ZB04S17	PRP	97ZB04S16	PRP	97ZB04S15	PRP
	USEPA		USEPA		USEPA		USEPA	
1,2-Dichlorobenzene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Methylphenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
bis(2-chloroisopropyl)ether	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Methylphenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
N-Nitroso-di-n-propylamine	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Hexachloroethane	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U
Nitrobenzene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Isophorone	5 U	5 U	5 U	5 U	5 U	5 J	5 U	5 J
2-Nitrophenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4-Dimethylphenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzoic acid	20 U	--	20 U	--	20 U	--	20 U	--
bis(2-Chloroethoxy)methane	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2,4-Dichlorophenol	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2,4-Trichlorobenzene	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U
Naphthalene	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U
4-Chloroaniline	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Hexachlorobutadiene	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U
4-Chloro-3-methylphenol	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U
2-Methylnaphthalene	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U
Hexachlorocyclopentadiene	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U
2,4,6-Trichlorophenol	5 UJ	5 U	5 UJ	5 UJ	5 UJ	5 U	5 UJ	5 U
2,4,5-Trichlorophenol	20 U	20 U	20 U	20 UJ	20 U	20 U	20 U	20 U
2-Chloronaphthalene	5 UJ	5 U	5 UJ	5 UJ	5 UJ	5 U	5 UJ	5 U
2-Nitroaniline	20 U	20 U	20 U	20 UJ	20 U	20 U	20 U	20 U
Dimethylphthalate	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U
Acenaphthylene	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U
2,6-Dinitrotoluene	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U
3-Nitroaniline	20 U	20 U	20 U	20 UJ	20 U	20 U	20 U	20 U
Acenaphthene	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U
2,4-Dinitrophenol	20 U	20 U	20 U	20 UJ	20 U	20 U	20 U	20 U
4-Nitrophenol	5 U	20 U	5 U	20 UJ	5 U	20 U	5 U	20 U
Dibenzofuran	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U
2,4-Dinitrotoluene	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U
Diethylphthalate	5 UJ	5 U	5 UJ	5 UJ	5 UJ	5 U	5 UJ	5 U
4-Chlorophenyl-phenylether	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U
Fluorene	5 U	5 U	5 U	5 UJ	5 U	5 U	5 U	5 U
4-Nitroaniline	20 U	20 U	20 U	20 UJ	20 U	20 U	20 U	20 U
4,6-Dinitro-2-methylphenol	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
N-Nitrosodiphenylamine	5 UJ	5 U	5 U	20 U	5 U	5 U	5 U	5 U
4-Bromophenyl-phenylether	5 U	5 U	5 U	20 U	5 U	5 U	5 U	5 U
Hexachlorobenzene	5 U	5 U	5 U	20 U	5 U	5 U	5 U	5 U
Pentachlorophenol	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Phenanthrene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Anthracene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbazole	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Di-n-butylphthalate	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Fluoranthene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Pyrene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Butylbenzylphthalate	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
3,3'-Dichlorobenzidine	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U

Table 1 (Continued)

November and December 1996 Upper and Lower Aquifer

Monitoring Well Sample Data Comparison

American Chemical Services, Inc.

Compound/Analyte	Sample Location Concentration (µg/l)							
	PW-A (Lower Aquifer)		PW-B (Lower Aquifer)		PW-C (Lower Aquifer)		PW-I (Lower Aquifer)	
	97ZB04S18	PRP	97ZB04S17	PRP	97ZB04S16	PRP	97ZB04S15	PRP
	USEPA		USEPA		USEPA		USEPA	
Benzo(a)anthracene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chrysene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
bis(2-Ethylhexyl)phthalate	1 JB	5 U	1 JB	5 U	1 JB	5 U	1 JB	5 U
Di-n-octylphthalate	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U	5 UJ	5 U
Benzo(b)fluoranthene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzo(k)fluoranthene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzo(a)pyrene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Indeno(1,2,3-cd)pyrene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dibenzo(a,h)anthracene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzo(g,h,i)perylene	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
SVOA TICs	1	1	1	1	0	0	0	0
Pesticides								
Alpha-BHC	0.010 U	0.01 U	0.010 U	0.01 U	0.010 U	0.01 U	0.010 U	0.01 U
Beta-BHC	0.010 U	0.01 U	0.010 U	0.01 U	0.010 U	0.01 U	0.010 U	0.01 U
Delta-BHC	0.010 U	0.01 U	0.010 U	0.01 U	0.010 U	0.01 U	0.010 U	0.01 U
Lindane	0.010 U	0.01 U	0.010 U	0.01 U	0.010 U	0.01 U	0.010 U	0.01 U
Heptachlor	0.010 U	0.01 U	0.010 U	0.01 U	0.010 U	0.01 U	0.010 U	0.01 U
Aldrin	0.010 U	0.01 U	0.010 U	0.01 U	0.010 U	0.01 U	0.010 U	0.01 U
Heptachlor Epoxide	0.010 U	0.01 U	0.010 U	0.01 U	0.010 U	0.01 U	0.010 U	0.01 U
Endosulfan I	0.010 U	0.01 U	0.010 U	0.01 U	0.010 U	0.01 U	0.010 U	0.01 U
Dieldrin	0.020 U	0.02 U	0.020 U	0.02 U	0.020 U	0.02 U	0.020 U	0.02 U
p,p'-DDE	0.020 U	0.02 U	0.020 U	0.02 U	0.020 U	0.02 U	0.020 U	0.02 U
Endrin	0.020 U	0.02 U	0.020 U	0.02 U	0.020 U	0.02 U	0.020 U	0.02 U
Endosulfan II	0.020 U	0.02 U	0.020 U	0.02 U	0.020 U	0.02 U	0.020 U	0.02 U
p,p'-DDD	0.020 U	0.02 U	0.020 U	0.02 U	0.020 U	0.02 U	0.020 U	0.02 U
Endosulfan Sulfate	0.020 U	0.02 U	0.020 U	0.02 U	0.020 U	0.02 U	0.020 U	0.02 U
p,p'-DDT	0.020 U	0.02 U	0.020 U	0.02 U	0.020 U	0.02 U	0.020 U	0.02 U
Methoxychlor	0.10 U	0.02 U	0.10 U	0.02 U	0.10 U	0.02 U	0.10 U	0.02 U
Endrin Ketone	0.020 U	0.02 U	0.020 U	0.02 U	0.020 U	0.02 U	0.020 U	0.02 U
Endrin Aldehyde	0.020 U	0.02 U	0.020 U	0.02 U	0.020 U	0.02 U	0.020 U	0.02 U
Alpha-chlordane	0.010 U	0.01 U	0.010 U	0.01 U	0.010 U	0.01 U	0.010 U	0.01 U
Gamma-chlordane	0.010 U	0.01 U	0.010 U	0.01 U	0.010 U	0.01 U	0.010 U	0.01 U
Toxaphene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
PCBs								
Aroclor 1016	0.20 U	0.2 U	0.20 U	0.2 U	0.20 U	0.2 U	0.20 U	0.2 U
Aroclor 1221	0.40 U	0.4 U	0.40 U	0.4 U	0.40 U	0.4 U	0.40 U	0.4 U
Aroclor 1232	0.20 U	0.2 U	0.20 U	0.2 U	0.20 U	0.2 U	0.20 U	0.2 U
Aroclor 1242	0.20 U	0.2 U	0.20 U	0.2 U	0.20 U	0.2 U	0.20 U	0.2 U
Aroclor 1248	0.20 U	0.2 U	0.20 U	0.2 U	0.20 U	0.2 U	0.20 U	0.2 U
Aroclor 1254	0.20 U	0.2 U	0.20 U	0.2 U	0.20 U	0.2 U	0.20 U	0.2 U
Aroclor 1260	0.20 U	0.2 U	0.20 U	0.2 U	0.20 U	0.2 U	0.20 U	0.2 U
Inorganic Analytes								
Aluminum	80 U	11.0 UB	80 U	19.4 UB	80 U	24.8 UB	80 U	27.4 UB
Antimony	1 U	1.0 U	1 U	1.0 U	1 U	1.0 U	1 U	1.0 U
Arsenic	2 U	2.0 U	2 U	2.0 U	2 U	2.0 U	2 U	2.0 U
Barium	104	119 B	106	121 B	150	166	142	157
Beryllium	1 U	1.0 U	1 U	1.0 U	1 U	1.0 U	1 U	1.0 U
Cadmium	0.2 U	1.0 U	0.2 U	1.0 U	0.2 U	1.0 U	0.2 U	1.0 U
Calcium	87,000	93,400	87,000	91,200	92,000	93,200	102,000	103,000
Chromium	10 U	1.0 U	10 U	1.0 U	10 U	1.0 U	10 U	1.0 U

Table 1 (Continued)
November and December 1996 Upper and Lower Aquifer
Monitoring Well Sample Data Comparison
American Chemical Services, Inc.

Compound Analyte	Sample Location Concentration (µg/l)							
	PW-A (Lower Aquifer)		PW-B (Lower Aquifer)		PW-C (Lower Aquifer)		PW-I (Lower Aquifer)	
	97ZB04S18 USEPA	PRP	97ZB04S17 USEPA	PRP	97ZB04S16 USEPA	PRP	97ZB04S15 USEPA	PRP
Cobalt	6 U	1.0 U	6 U	1.0 U	6 U	1.0 U	6 U	1.0 U
Copper	6 U	4.8 UB	6 U	2.3 UB	6 U	31.5	8.4	7.8 UB
Iron	2,450	2,870	2,390	2,170	2,860	3,030	1,530	1,440
Lead	2 U	1.0 U	2 U	1.0 U	2 U	1.9 B	2 U	1.0 U
Magnesium	40,000	43,500	40,000	42,700	52,000	53,700	59,000	61,200
Manganese	51	53.6	58	56.2	39	35.3	148	153
Mercury	0.2 U	0.20 U	0.2 U	0.20 U	0.2 U	0.2 U	0.2 U	0.2 U
Nickel	20 U	2.5 B	20 U	3.3 B	20 U	1.0 U	20 U	1.1 B
Potassium	5,000 U	1,860 JB	5,000 U	1,760 BJ	5,000 U	2,730 BJ	5,000 U	4,740 BJ
Selenium	2 U	2.0 U	2 U	2.0 U	6 U	2.0 U	2 U	2.0 U
Silver	6 U	1.0 U	6 U	1.0 U	6 U	1.0 U	6 U	1.0 U
Sodium	14,000	15,600	12,000	14,200	21,000	23,300	135,000	155,000
Thallium	2 U	3.0 U	2 U	3.0 U	2 U	3.0 U	2 U	3.0 U
Vanadium	5 U	1.0 U	5 U	1.0 U	5 U	1.0 U	5 U	1.0 U
Zinc	71	121	40 U	9.6 UB	40 U	78.6	40 U	17.5 UB
Cyanide	8 U	10.0 U	8 U	10.0 U	8 U	10.0 U	8 U	10.0 U

Table 2

March 1997 Upper and Lower Aquifer

Monitoring Well Sample Data Comparison

American Chemical Services, Inc.

Compound/Analyte	Sample Location/Concentration (µg/l)								
	M3S (Upper Aquifer)			M4S (Upper Aquifer)			M4D (Lower Aquifer)		
	97ZB04S09 USEPA	PRP	RPD	97ZB04S10 USEPA	PRP	RPD	97ZB04S06 USEPA	PRP	RPD
Volatile Organic Compounds									
Chloroethane	2	3 J	40%	670 D	1300	64%			
Acetone							3 U	6 J	67%
Benzene									
Semivolatile Organic Compounds									
Phenol				10	18	57%			
bis(2-Chloroethyl)ether									
bis(2-chloroisopropyl)ether									
bis(2-Ethylhexyl)phthalate									
Pesticides									
Gamma-chlordane									
Inorganic Analytes									
Aluminum									
Antimony									
Arsenic	5	9.5 UB	62%						
Barium									
Beryllium									
Cadmium				0.6	1.0 B	50%			
Calcium									
Chromium				43	67.8	45%			
Cobalt				6 U	8.2 B	31%			
Copper									
Iron									
Lead									
Manganese									
Mercury									
Nickel				35	74.6	72%			
Potassium									
Sodium									
Thallium									
Vanadium									
Zinc									

Table 2 (Continued)
March 1997 Upper and Lower Aquifer
Monitoring Well Sample Data Comparison
American Chemical Services, Inc.

Compound/Analyte	Sample Location/Concentration (µg/l)								
	MW6 (Upper Aquifer)			MW9 (Lower Aquifer)			MW10C (Lower Aquifer)		
	97ZB04S14 USEPA	PRP	RPD	97ZB04S11 USEPA	PRP	RPD	97ZB04S04 USEPA	PRP	RPD
Volatile Organic Compounds									
Chloroethane	35 D	67	63%	1,500 E	2,900	64%	86 D	140	48%
Acetone									
Benzene									
Semivolatile Organic Compounds									
Phenol				5 U	36 J	151%			
bis(2-Chloroethyl)ether	3 J	7 J	80%						
bis(2-chloroisopropyl)ether									
bis(2-Ethylhexyl)phthalate	14 B	10 U	-33%						
Pesticides									
Gamma-chlordane	0.010 U	0.016 J	46%						
Inorganic Analytes									
Aluminum	166	87.2 UB	-62%	1,530 U	2,580 J	51%			
Antimony									
Arsenic	6	10.7	56%	5	6.8 B	31%	2 U	4.3 B	73%
Barium									
Beryllium				1.8	1.0 U	-57%			
Cadmium				0.3	2.4 B	156%			
Calcium									
Chromium				29	45.0	43%	10	3.6 B	-94%
Cobalt									
Copper	17	51.7	101%	11	23.8 B	74%			
Iron									
Lead	17	1.2 B	-174%				3	1.8 B	-50%
Manganese	347	486	33%						
Mercury				0.2 U	0.67 J	108%			
Nickel				20 U	37.9 B	62%			
Potassium	10,800	24,100 J	76%						
Sodium	618,000	449,000 J	-32%						
Thallium									
Vanadium									
Zinc									

Table 2 (Continued)
March 1997 Upper and Lower Aquifer
Monitoring Well Sample Data Comparison
American Chemical Services, Inc.

Compound/Analyte	Sample Location/Concentration (µg/l)								
	MW14 Upper Aquifer)			MW15 (Upper Aquifer)			MW23 (Lower Aquifer)		
	97ZB04S08 USEPA	PRP	RPD	97ZB04S05 USEPA	PRP	RPD	97ZB04S13 USEPA	PRP	RPD
Volatile Organic Compounds									
Chloroethane									
Acetone									
Benzene				1 U	3 J	100%	1 U	6 J	143%
Semivolatile Organic Compounds									
Phenol				22	10 UJ	-75%			
bis(2-Chloroethyl)ether									
bis(2-chloroisopropyl)ether				200 E	10 UJ	-181%			
bis(2-Ethylhexyl)phthalate				15 B	10 UJ	-40%	93 BD	10 U	-161%
Pesticides									
Gamma-chlordane									
Inorganic Analytes									
Aluminum	1,460	2,550	54%	314	472	40%	1,740	2,480	35%
Antimony									
Arsenic				2 U	37.4	180%			
Barium				533	1240	80%			
Beryllium									
Cadmium									
Calcium				267,000	78,800	-109%			
Chromium									
Cobalt									
Copper				6 U	26.1	125%			
Iron				26,000	5,550	-130%			
Lead				4	1.0 U	-120%			
Manganese				665	276	-83%			
Mercury									
Nickel									
Potassium				33,000	102,000 J	102%			
Sodium				70,000	311,000	127%			
Thallium									
Vanadium				5.2	1.0 U	-135%			
Zinc									

Table 2 (Continued)
March 1997 Upper and Lower Aquifer
Monitoring Well Sample Data Comparison
American Chemical Services. Inc.

Compound/Analyte	Sample Location/Concentration (µg/l)								
	MW28 (Lower Aquifer)			MW40 (Upper Aquifer)			MW42 (Upper Aquifer)		
	97ZB04S01 USEPA	PRP	RPD	97ZB04S12 USEPA	PRP	RPD	97ZB04S03 USEPA	PRP	RPD
Volatile Organic Compounds									
Chloroethane									
Acetone									
Benzene									
Semivolatile Organic Compounds									
Phenol				9	5 J	-57%			
bis(2-Chloroethyl)ether									
bis(2-chloroisopropyl)ether									
bis(2-Ethylhexyl)phthalate	19 B	10 U	-62%	44 B	10 U	-126%			
Pesticides									
Gamma-chlordane									
Inorganic Analytes									
Aluminum	1,160	2,650	78%	1,370	2,040	39%	534	752	34%
Antimony									
Arsenic							7	14.5	70%
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper	37	55.1	39%						
Iron	5,130	7,030	31%						
Lead									
Manganese									
Mercury									
Nickel									
Potassium									
Sodium									
Thallium									
Vanadium									
Zinc									

Table 2 (Continued)
March 1997 Upper and Lower Aquifer
Monitoring Well Sample Data Comparison
American Chemical Services, Inc.

Compound/Analyte	Sample Location/Concentration (µg/l)								
	MW48 (Upper Aquifer)			MW51 (Lower Aquifer)			PW-A (Lower Aquifer)		
	97ZB04S07 USEPA	PRP	RPD	97ZB04S02 USEPA	PRP	RPD	97ZB04S18 USEPA	PRP	RPD
Volatile Organic Compounds									
Chloroethane	430 D	620	36%						
Acetone									
Benzene	3,500 D	5200	39%						
Semivolatile Organic Compounds									
Phenol	87 D	28	-103%						
bis(2-Chloroethyl)ether									
bis(2-chloroisopropyl)ether									
bis(2-Ethylhexyl)phthalate				26 B	10 U	-89%			
Pesticides									
Gamma-chlordane									
Inorganic Analytes									
Aluminum				261	403	43%			
Antimony	1 U	1.5 B	40%						
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Manganese									
Mercury	0.3	0.20 U	-40%						
Nickel									
Potassium									
Sodium									
Thallium	2 U	4.0 B	67%						
Vanadium									
Zinc							71	121	52%

Table 2 (Continued)
March 1997 Upper and Lower Aquifer
Monitoring Well Sample Data Comparison
American Chemical Services. Inc.

Compound/Analyte	Sample Location/Concentration (µg/l)								
	PW-B (Lower Aquifer)			PW-C (Lower Aquifer)			PW-I (Lower Aquifer)		
	97ZB04S17 USEPA	PRP	RPD	97ZB04S16 USEPA	PRP	RPD	97ZB04S15 USEPA	PRP	RPD
Volatile Organic Compounds									
Chloroethane									
Acetone									
Benzene									
Semivolatile Organic Compounds									
Phenol									
bis(2-Chloroethyl)ether									
bis(2-chloroisopropyl)ether									
bis(2-Ethylhexyl)phthalate									
Pesticides									
Gamma-chlordane									
Inorganic Analytes									
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper				6 U	31.5	136%			
Iron									
Lead									
Manganese									
Mercury									
Nickel									
Potassium									
Sodium									
Thallium									
Vanadium									
Zinc				40 U	78.6	65%			

Appendix A

ENVIRONM[illegible]AL PROTECTION AGENCY
[illegible]e of Enforcement

REG[illegible] 5
230 South D[illegible]orn Street
Chicago, Illinois 60604

CHAIN OF CUSTODY RECORD

PROJ. NO.	PROJECT NAME
97ZB04	AMERICAN CHEMICAL SERVICES

SAMPLERS: (Signature) Ashok Lupani

SF970071

REMARKS

SHEET 5 OF 5

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOAS	ABN	PEST/PCBs	METALS & Hg	CYANIDE		REMARKS
S08	3/27/97	1422		X	ACS-GW08-001	6	X	X	X	X	X		Tag NOS. 5-164428-33
S09	3/27/97	1215		X	ACS-GW09-001	6	X	X	X	X	X		Tag NOS. 5-164997-99, 5-164501
~~TB05~~ R06	3/27/97	1600		X	ACS-TB05-201	2	X						5-164434-35
													Tag NOS 5-164496-97

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Ashok Lupani	3/27/97 1900	William Sayo Jr.			
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) William Sayo Jr.	Date / Time 3/28/97 16:10	Remarks Custody Seals 158563-64	

Distribution: White — Accompanies Shipment; Pink — Coordinator Field Files; Yellow — Laboratory File

5-09020

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

REGION 5
230 South Dearborn Street
Chicago, Illinois 60604

CHAIN OF CUSTODY RECORD

PROJ. NO.: 97ZB04
PROJECT NAME: American Chemical Services
SAMPLERS: (Signature) Robert Lamp

SF 970071

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOA 40-ML	SVOA	PEST/PCB	METALS + HG	CYANIDE		REMARKS TAG #'s
S15	3/31/97	1430		X	ACS-GW15-001	6	2	1	1	1	1		5-150063-64, 5-150072-75
S16	3/31/97	1626		X	ACS-GW16-001	6	2	1	1	1	1		5-150076-81
S17	3/31/97	1730		X	ACS-GW17-001	6	2	1	1	1	1		5-150084-89
S18	4/1/97	0805		X	ACS-GW18-001	6	2	1	1	1	1		5-150001-06
R089	4/1/97	1358		X	ACS-R08-201	2	2						5-164784-85

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Ashok Rupani	4/1/97 1628	William Sayer Jr			
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) William Sayer Jr	Date / Time 4/1/97 1628	Remarks Hand delivered to CRL	

Distribution: White — Accompanies Shipment; Pink — Coordinator Field Files; Yellow — Laboratory File

5- 2981

ENVIRONM[illegible]AL PROTECTION AGENCY
[illegible]e of Enforcement

REGI[illegible] 5
230 South D[illegible]orn Street
Chicago, Illinois 60604

CHAIN OF CUSTODY RECORD

PROJ. NO.	PROJECT NAME
972B04	AMERICAN CHEMICAL SERVICES

SAMPLERS: (Signature) Ashok Rupani

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	UDA	ABN	PEST/PCBS	METALS	CHANGE		REMARKS SF 970071
S14	3/28/97	1030		x	ACS-GW14-001	6	X	X	X	X	X		Tag Nos. S-164414-19
D14	3/28/97	1030		x	ACS-GW14-101	6	X	X	X	X	X		Tag Nos. S-150065-70
~~[illegible]~~	3/28/97	1120		x	ACS-TB01-201	2	X						Tag Nos. S-164500, S-150071
R07 3/28/97													

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Ashok Rupani	3/28/97 1500	William Sing[illegible]			
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	
		William Sing[illegible]	3/28/97 3:00 pm		

Distribution: White — Accompanies Shipment; Pink — Coordinator Field Files; Yellow — Laboratory File

5- 11265

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

REGION 5
230 South Dearborn Street
Chicago, Illinois 60604

CHAIN OF CUSTODY RECORD

PROJECT NO.: 9172B04
PROJECT NAME: AMERICAN CHEMICAL SERVICE
SAMPLERS (Signature): [signature]
SF970071
REMARKS: SHEET 3 OF 5

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOAs	ABN	PEST/PCBs	METALS & Hg	CYANIDE		REMARKS
S04	3/27/97	0840		X	ACS-GW04-001	6	X	X	X	X	X		Tag NOS. S-164686-91
S05	3/27/97	1050		X	ACS-GW05-001	6	X	X	X	X	X		Tag NOS. S-164692-97
R04 ~~TB07~~	3/27/97	1600		X	ACS-TB03-201	2	X						Tag NOS. S-164498-93

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature]	3/27/97 1700	[signature]			
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	
		[signature]	3/28/97 16:10	Laboratory Seals 158557-60	

Distribution: White — Accompanies Shipment; Pink — Coordinator Field Files; Yellow — Laboratory File

5-C_026

ENVIRONM AL PROTECTION AGENCY
Office of Enforcement

REG' 5
230 South D orn Street
Chicago, Illinois 60604

CHAIN OF CUSTODY RECORD

PROJ. NO.: 972B04
PROJECT NAME: AMERICAN CHEMICAL SERVICES
SAMPLERS: (Signature) Ashok Lupani

SF 970071

REMARKS: SHEET 4 OF 5

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOAS	ABN	PEST/PCBS	METALS & Hg	CYANIDE		REMARKS
506	3/27/97	1040		X	ACS-GW06-001	6	X	X	X	X	X		Tag NOS. S-164698-700, S-164420-21, S-164895
510	3/27/97	1210		X	ACS-GW10-001	6	X	X	X	X	X		Tag NOS. S-164896-98, S-181699, S-181700, S-164502
~~TB04~~ 505	3/27/97	1600		X	ACS-TB04-001	2	X						
													Tag NOS. S-164994-95

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Ashok Lupani	3/27/97 1900	William Sayre			
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	
		William Sayre	3/28/97 16:10	Custody Seals 158561-62	

Distribution: White — Accompanies Shipment; Pink — Coordinator Field Files; Yellow — Laboratory File

5-09022

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

REGION 5
230 South Dearborn Street
Chicago, Illinois 60604

CHAIN OF CUSTODY RECORD

PROJ. NO.: 97ZB04
PROJECT NAME: AMERICAN CHEMICAL SERVICES
SAMPLERS: (Signature) Ashok Gupta

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOAs	ABN	PEST/PCBs	METALS & Hg	CYANIDE		REMARKS SF970071
SD7	3/27/97	1510		X	ACS-GW07-001	16	X	X	X	X	X		Tag NOS. 5-164057-62, 5-164424-27
S11	3/27/97	16[illegible]		X	ACS-GW11-001	16	X	X	X	X	X		Tag NOS. 5-164551-55, 5-164899
TB06	3/27/97	1600		X	ACS-TB06-201	2	X						Tag NOS. 5-164498-99
													VOA SAMPLE 97ZB04S07 TAG NUMBER 5-150051 BOTTLE RECEIVED BROKEN IN ICE CHEST. 3/31/97 WS

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Ashok Gupta	3/27/97 1900	William Sugiyama			
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	
		William Sugiyama	3/31/97 11:48AM	Custody Seals 1,2 565-66	

Distribution: White — Accompanies Shipment; Pink — Coordinator Field Files; Yellow — Laboratory File

5-C[illegible]021

ENVIRONM[illegible]AL PROTECTION AGENCY
O[illegible]ce of Enforcement

REG[illegible] 5
230 South D[illegible]orn Street
Chicago, Illinois 60604

CHAIN OF CUSTODY RECORD

PROJ. NO.: 972804

PROJECT NAME: AMERICAN CHEMICAL SERVICE

SAMPLERS: (Signature) Ashok Lupam

SF 990071

REMARKS: SHEET 2 OF 5

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOAS	ABN	PEST/PCBS	METALS	CYANIDE		REMARKS
503	3/26/97	1515		X	ACS-GW03-001	6	X	X	X	X	X		Tag Nos. 5-164680-85
~~RB01~~ RO2	3/26/97	1800		X	ACS-RB01-201	6	X	X	X	X	X		Tag Nos. 5-164410-15
~~TB02~~ RO3	3/27/97	1600		X	ACS-TB02-201	2	X						Tag Nos. 5-164490-91

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Ashok Lupam	3/27/97 1900	William Sager Jr			
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	
		William Sager Jr	3/28/97 16:10	Custody seals [illegible]	

Distribution: White — Accompanies Shipment; Pink — Coordinator Field Files; Yellow — Laboratory File

5-09025

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

REGION 5
230 South Dearborn Street
Chicago, Illinois 60604

CHAIN OF CUSTODY RECORD

PROJ. NO.: 972804
PROJECT NAME: AMERICAN CHEMICAL SERVICE
SAMPLERS: (Signature) Ashok Supam, Robert Lantz

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOAs	ABN	PEST/PCBs	METALS	CYANIDE		REMARKS SF970071
501	3/25/97	1245		X	ACS-GW01-001	5	X	X	X	X	X		Tag NOS. 5-164668-72, 73
513	3/26/97	0900		X	ACS-GW13-001	6	X	X	X	X	X		Tag NOS. 5-164486-89, 5-164362-63
512	3/26/97	1215		X	ACS-GW12-001	6	X	X	X	X	X		Tag NOS. 5-164556-61
502	3/26/97	1510		X	ACS-GW02-001	6	X	X	X	X	X		Tag NOS. 5-164674-79
801	3/26/97	1540		X	ACS-TB01-201	2	X						Tag NOS 5-164402, 03
3/26/97 end													

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Robert Lantz	3/26/97 1656	William [illegible]			
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	
		William [illegible]	3/26/97 1658	Hand Delivered to CRL RMC	

Distribution: White — Accompanies Shipment; Pink — Coordinator Field Files; Yellow — Laboratory File

5-C J24

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

REGION 5
230 South Dearborn Street
Chicago, Illinois 60604

CHAIN OF CUSTODY RECORD

PROJ. NO.: 90ZB04
PROJECT NAME: American Chemical Services
SAMPLERS: (Signature) Robert Lant

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOAs	ABN	Pest/PCB	Metals + Hg	Cyanide		REMARKS Tag #'s
S19	4/1/97	1645		X	ACS - PWL - 001	6	2	1	1	1	1		5-150033 - 38
S20	4/2/97	1210		X	ACS - ATMW4D - 001	6	2	1	1	1	1		5-150027 - 32
~~R09~~ R11	4/2/97	1100		X	ACS - ~~RB09~~ RB11 - 201	6	2	1	1	1	1		5-150021 - 26
R10	4/2/97	0815		X	ACS - TB11 - 201	2	2						5-150019 - 20
S21	4/1/97	1600		X	ACS - SW02 - 001	2	2						5-150039 - 40

Shipment is complete

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Robert Lant	4/2/97 1300				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	
		Lynette Burnett	4/2/97 2:07 p.m.	Hand Delivered to CRL	

Distribution: White — Accompanies Shipment; Pink — Coordinator Field Files; Yellow — Laboratory File

5- 02982

ACS
Case: 970071

Additional Comments:

3. Calibration

Initial Calibration
One compound out of QC criteria (see page 2 of USEPA Region V data review (ABN) for CRL Request number 970071).

Continuing Calibration
Two compounds out of QC criteria for both the second and third continuing calibration (see page 2 of USEPA Region V data review (VOA) for CRL Request number 970071).

One compound was out of QC criteria for the fifth continuing calibration and four compounds were out of QC criteria for the sixth continuing calibration (see page 3 of USEPA Region V data review (ABN) for CRL Request number 970071).

5. Volatile sample 97ZB04S07 reported one volatile surrogate recovery below the lower limit of the critical window. The data requires no qualification, according to the EPA reviewer.

ABN samples Lab blank B, Lab blank C, LAB SPKD B, LAB SPKD C, LAB SPKD CR, 97ZB04S10, and 97ZB04S15 each reported one volatile surrogate recovery below the lower limit of the critical window. The data requires no qualification, according to the EPA reviewer.

ABN sample LAB SPKD B reported two compounds with low recoveries in the base-neutral fraction. (see page 3 of USEPA Region V data review (ABN) for CRL Request number 970071 for qualifiers).

ABN sample Lab blank C reported two compounds with low recoveries in the acid fraction. (see page 3 of USEPA Region V data review (ABN) for CRL Request number 970071 for qualifiers).

6. MS/MSD, LCS
No VOA MS/MSD samples were required for this case, according to the EPA reviewer. Several laboratory control samples (LCS) had ABN compounds with recoveries outside of control limits. These compounds were qualified (see pages 5 and 6 of USEPA Region V data review (ABN) for CRL Request number 970071).

7. Trip and field blanks, field duplicate
Methylene Chloride was qualified "U" in the following samples because it was found in the associated trip and/or field blank:

97ZB04S03, 97ZB04S04, 97ZB04S05, 97ZB04S06, 97ZB04S07, 97ZB04S08, 97ZB04S09, 97ZB04S10, 97ZB04S11, 97ZB04S14, 97ZB04D14

Acetone was qualified "U" in the following samples because it was found in the associated trip or field blank:

97ZB04S12, 97ZB04S21

Chloromethane was qualified "U" in the following samples because it was found in the associated field blank:

97ZB04S17

Bis(2-ethylhexyl)phthalate was qualified "U" in the following samples because it was found in the associated field blanks:

97ZB04S03, 97ZB04S20

Sample 97ZB04D14 is a duplicate of sample 97ZB04S14.

8. Internal Standard

The laboratory reported a low IS6 in the lab spike duplicate. (see page 3 of USEPA Region V data review (ABN) for CRL Request number 970071).

Site: ACS Project#: 71670.600

Case: CRL Request number 970071 SDG: — Date: 6/9/97

Data Validation Data Validator: C. Beetham

Data was qualified according to the results and findings described in the data narrative. The information in this narrative was validated and the calculations are provided in the attached pages. Data qualifiers were also applied to the results based on preparation blank results and duplicate analyses, when applicable.

Validation was accomplished through the use of USEPA Laboratory Data Validation Functional Guidelines for Evaluating Inorganics Analyses (February 1994) and USEPA Region 5 Standard Operating Procedure for Validation of CLP Inorganic Data (September, 1993). Calculations did not reveal any discrepancies other than those noted in the following pages.

The influence of sample bias for SSI and ESI data is indicated following each qualification. Bias is indicated by an upward arrow for high bias, a downward arrow for low bias and with unkbias for unknown bias. The sample bias for J qualifiers that are placed by the lab are of unknown bias. The sample bias designation for each J qualification is given in the following pages.

Additional Comments:

All 23 samples with this case were successfully analyzed by Region 5 CRL. There were no major problems with the data. All minor problems were corrected; none caused any of the data to be qualified. The National Functional Guidelines for Inorganic Data Review were consulted to check the minor problems.

Site: ACS Project#: 71670.600

Case: CRL Request number 970071 SDG: — Date: 6/10/97

Data Validation Data Validator: C. Beatham

Data was qualified according to the results and findings described in the data narrative. The information in this narrative was validated and the calculations are provided in the attached pages. Data qualifiers were also applied to the results based on calibration outliers, surrogate recoveries and other appropriate results.

Validation was accomplished through the use of USEPA National Functional Guidelines for Organic Data Review (~~6/91~~ 2/94) and USEPA Region 5 Standard Operating Procedure for Validation of CLP Organic Data (August 25, 1993 revision). Calculations did not reveal any discrepancies other than those noted in the following pages.

The influence of sample bias for SSI and ESI data is indicated following each qualification. Bias is indicated by an upward arrow for high bias, a downward arrow for low bias and with unkbias for unknown bias. The sample bias for J qualifiers that are placed by the lab are of unknown bias. The sample bias designation for each J qualification is given in the following pages.

Additional Comments:

Additional Comments are attached. The National Functional Guidelines for Organic Data Review were consulted to check problems with the data.

Site: ACS Project#: 71670.600
Case: CRL Request number 970071 SDG: — Date: 6/10/97

1. Holding Times

X All samples were extracted and analyzed within the specified holding times according to the EPA reviewer.
___ See attached pages for qualification.

2. GC/MS Tuning and GC Instrument Performance

X Tuning and instrument performance checks were satisfactory as stated by the EPA reviewer in the narrative.
___ See attached pages for qualification.

3. Calibration (calculations attached)

Calibration outliers are listed on the outlier forms for each parameter. All compounds that require qualification due to calibration outliers are qualified with a J for estimate and have an unknown bias. Samples and compounds that require qualification are listed on the calibration outlier pages in the EPA narrative.

VOA
___ No calibration outliers.
X See EPA narrative for samples and compounds to be qualified and attached pages for calculations.

SVOA
___ No calibration outliers.
X See EPA narrative for samples and compounds to be qualified and attached pages for calculations.

Pest/PCB
X No calibration outliers.
___ See EPA narrative for samples and compounds to be qualified and attached pages for calculations.

4. Blanks

VOA
X Samples were qualified appropriately by the EPA reviewer for VOA blank contaminants. See the narrative for sample and compound qualifications.
___ See the attached pages for additional VOA blank qualifications or corrections.

SVOA
X Samples were qualified appropriately by the EPA reviewer for SVOA blank contaminants. See the narrative for sample and compound qualifications.
___ See the attached pages for additional SVOA blank qualifications or corrections.

Pest/PCB

X Samples were qualified appropriately by the EPA reviewer for Pest/PCB blank contaminants. See the narrative for sample and compound qualifications.

___ See the attached pages for additional Pest/PCB blank qualifications or corrections.

5. Surrogate Recovery

VOA

X VOA surrogate recoveries are within acceptable limits, no qualification is necessary.

___ See attached pages and narrative for samples and compounds qualified for unacceptable VOA surrogate recovery.

SVOA

___ SVOA surrogate recoveries are within acceptable limits, no qualification is necessary.

X See attached pages and narrative for samples and compounds qualified for unacceptable SVOA surrogate recovery.

Pest/PCB

___ Pest/PCB surrogate recoveries are within acceptable limits, no qualification is necessary.

___ See attached pages and narrative for samples and compounds qualified for unacceptable Pest/PCB surrogate recovery.

6. MS/MSD and RPD (Laboratory Control Sample)

See attached pages for calculations.

VOA

X VOA MS/MSD recoveries and RPD are within acceptable limits.

___ See attached pages and narrative for VOA compounds to be qualified in the unspiked sample due to unacceptable MS/MSD recoveries and/or RPD.

SVOA

___ SVOA MS/MSD recoveries and RPD are within acceptable limits.

X See attached pages and narrative for SVOA compounds to be qualified in the unspiked sample due to unacceptable MS/MSD recoveries and/or RPD.

Pest/PCB

___ Pest/PCB MS/MSD recoveries and RPD are within acceptable limits.

X See attached pages and narrative for Pest/PCB compounds to be qualified in the unspiked sample due to unacceptable MS/MSD recoveries and/or RPD.

7. Field Blanks, Field Duplicates and other QC

Field blanks and other QC are evaluated in the QC section. See the attached table comparing duplicate concentrations. No qualification of the sample results is made based on field duplicate recoveries per Region 5 Standard Operating Procedure for Validation of CLP Organic Data.

____ There were no duplicates for any of the matrices.

VOA

X Duplicate results were acceptable (no conc. difference of 5X or greater).

____ See attached table for unacceptable duplicate results.

SVOA

X Duplicate results were acceptable (no conc. difference of 5X or greater).

____ See attached table for unacceptable duplicate results.

Pest/PCB

X Duplicate results were acceptable (no conc. difference of 5X or greater).

____ See attached table for unacceptable duplicate results.

8. Internal Standards

VOA

X All internal standards met QC requirements according to the EPA reviewer.

____ See attached pages for qualification of samples and compounds.

SVOA

____ All internal standards met QC requirements according to the EPA reviewer.

X See attached pages for qualification of samples and compounds.

Pest/PCB

X All Pest/PCB QC requirements were met according to the EPA reviewer.

____ See attached pages for qualification of samples and compounds.

9. Compound Quantification and Reported Detection Limits

X All target compounds and TICs were properly reported in the volatile, semi-volatile, and pesticide fractions; therefore data is acceptable according to the EPA reviewer.

____ See the attached pages for samples and compounds to be qualified.

10. Compound Identification

X Target compounds and TICs were identified by 'best fit' library search method and appear to be correct according to the EPA reviewer.

___ See attached pages for additional comments.

11. System Performance

X Acceptable according to the EPA reviewer.

___ See attached pages for additional comments and/or deviations.

12. Overall Case Assessment

X No additional qualifications according to the EPA reviewer.

___ See attached pages for additional qualifications.

Blank Analysis

___ There were no field or trip blanks.

X See the blank analysis section for sample and compound qualifications based on blank results.

ACS Case: 970071

Additional Comments:

3. Calibration

Initial Calibration

One compound out of QC criteria (see page 2 of USEPA Region V data review (ABN) for CRL Request number 970071).

Continuing Calibration
Two compounds out of QC criteria for both the second and third continuing calibration (see page 2 of USEPA Region V data review (VOA) for CRL Request number 970071).

One compound was out of QC criteria for the fifth continuing calibration and four compounds were out of QC criteria for the sixth continuing calibration (see page 3 of USEPA Region V data review (ABN) for CRL Request number 970071).

5. Volatile sample 97ZB04S07 reported one volatile surrogate recovery below the lower limit of the critical window. The data requires no qualification, according to the EPA reviewer.

ABN samples Lab blank B, Lab blank C, LAB SPKD B, LAB SPKD C, LAB SPKD CR, 97ZB04S10, and 97ZB04S15 each reported one volatile surrogate recovery below the lower limit of the critical window. The data requires no qualification, according to the EPA reviewer.

ABN sample LAB SPKD B reported two compounds with low recoveries in the base-neutral fraction. (see page 3 of USEPA Region V data review (ABN) for CRL Request number 970071 for qualifiers).

ABN sample Lab blank C reported two compounds with low recoveries in the acid fraction. (see page 3 of USEPA Region V data review (ABN) for CRL Request number 970071 for qualifiers).

6. MS/MSD, LCS

No VOA MS/MSD samples were required for this case, according to the EPA reviewer. Several laboratory control samples (LCS) had ABN compounds with recoveries outside of control limits. These compounds were qualified (see pages 5 and 6 of USEPA Region V data review (ABN) for CRL Request number 970071).

7. Trip and field blanks, field duplicate

Methylene Chloride was qualified "U" in the following samples because it was found in the associated trip and/or field blank:

97ZB04S03, 97ZB04S04, 97ZB04S05, 97ZB04S06, 97ZB04S07, 97ZB04S08, 97ZB04S09, 97ZB04S10, 97ZB04S11, 97ZB04S14, 97ZB04D14

Acetone was qualified "U" in the following samples because it was found in the associated trip or field blank:

97ZB04S12, 97ZB04S21

Chloromethane was qualified "U" in the following samples because it was found in the associated field blank:

97ZB04S17

Bis(2-ethylhexyl)phthalate was qualified "U" in the following samples because it was found in the associated field blanks:

97ZB04S03, 97ZB04S20

Sample 97ZB04D14 is a duplicate of sample 97ZB04S14.

8. Internal Standard

The laboratory reported a low IS6 in the lab spike duplicate. (see page 3 of USEPA Region V data review (ABN) for CRL Request number 970071).

0800 onsite
Weather: sunny; 45°F
HTI is getting ready to put the barrier wall trencher in the ground and should begin barrier wall installation sometime this afternoon. Also, this morning HTI will set up to do EW#10 which might need some prior debris removal. Lee said they are still working on installation of pumps inside the PGCS sumps. Sampling crews are already onsite.

0818 Go over to OFCA. HTI continues to work on the barrier wall trencher.

0955 Begin moving the extraction well trencher over to EW#10 location inside the ACS plant.

1030 HTI setting up the barrier wall trencher

1050 #8 HTI begins barrier wall installation at the SE corner of OFCA

1135 #9 HTI has installed 30 feet of barrier wall

1155 Break for lunch

1250 Back to the site.

1330 Rob stopped by and asked me to co-ordinate the sample handling and sample shipment activities. Following samples have been collected so far:

(1) MW28 97ZB04S01 GW01 5-164[illegible]
3/25/97 1245 (~~CN sample not collected~~) AKR

(2) MW23 97ZB04S13 GW13 5-164[illegible], 5-164362, 63
3/26/97 0900

(3) MW40 97ZB04S12 GW12 5-164[illegible]
3/26/97 1215

(4) MW51 97ZB04S02 GW02 5-164[illegible]
3/26/97

1415 Go over by EW#10 where HTI is
#10 pre-excavating. All excavated
#11 materials are going into the upper
#12 aquifer spoils area

1430 Barrier wall installation is on hold due to some equipm

breakdown.

1520 Go over by the bldg to help out with sampling paperwork

⑤ Prepare a trip blank.

Ro1 ~~AKR TB01~~ 972B04TB01 5-164402, 03

3/26/97 1540

~~⑥ MW42 972B04503 GW03~~

5-164680-85

3/26/97 1515

1630 Go over to OECA. HTI continues to

#13 install barrier wall along Colfax. Also noticed some of the Colfax sand is being taken over to EW#10 to be used as backfill subsequent to debris removal.

1645 Due to some equipment trouble, barrier wall installation stops after about 80 feet of this wall.

1655 HTI continues to backfill and prepare for EW#10.

1658 Called GRL to see if Rob had arrived with the samples

1725 #14 Begin installing EW#10 with sump at the east end.

1800 Go over to the bldg and help Scott ~~RED~~ AKR collect the rinsate blanks

⑦ ~~R801~~ R02 AKR 3/26/97 1800 5-164410-415

1820 #15, #16 HTI almost done with EW10

1830 Leave site

end

0800 On site
Weather: sunny; 60°F
Ben told me HTI is currently shut down as far as barrier wall goes. They will continue to do the extraction wells #17 and #18 today.
0825 Sheri of USEPA on site. Go over to M-15 where sampling activities are going on
#17 0850 sampling at M-15.
Drive around with Sheri to all the landfill wells. M-35 appeared to be in a pool of water. Discuss with Eric and Sheri the appropriateness of sampling M-35 in such circumstances.
0915 Called up Steve to get his opinion. He said as long as well construction is good and impact, the standing water should not make any difference. There may be question marks if the water level inside the

well is same as standing water level. Sheri said she will discuss with Luanne before making a decision on M-35 or an alternative well M-55.
1000 Go over by HTI where they are preparing for EW#18
1010 #18 Measuring the length for EW18.
1030 Go over by the treatment bldg to help out sampling crew.

[redacted]
5-164686-91

[redacted]
5-164692-97

[redacted]
5-164698-99, 5-164700, 5-164875, 5-164420-21

1200 HTI begins installation of EW18
1225 #19 Installing EW18 just north of the drum area. No drums or drums were encountered during pre-trenching of this trench.

1240 Ben told HT1 is going to begin barrier wall only by Tuesday (4/1/97) of next week. Over the weekend they will have only one crew onsite trying to fix the barrier wall trencher.

1255 #20 HT1 close to finishing EW18.

1310 Leave for lunch & pick up some supplies

1405 Back to the site.

(11) M-45 1210 3/27/97 510 GW10
5-164896-98, 5-164699-700,
5-164502

(12) MW-14 1422 3/27/97 508 GW08
5-164428-33

(13) M-35 1215 3/27/97 509 GW09
5-164997-99, 5-164434-35
5-164501

(14) MW-48 1510 3/27/97 507 GW07
5-164055-58, 5-164424-25
5-164426-27, 5-164059-62
5-164051-54, 5-164422-23

(15) MW-9 1634 3/27/97 ~~GW10~~ GW11
5-164551-55, 5-164899

(16) ~~FB02~~ AKR R03 1600 3/27/97 5-164490-91
R04 ~~FB03~~ AKR 1600 3/27/97 5-164492-93
R05 ~~FB04~~ AKR 1600 3/27/97 5-164494-95
R06 ~~FB05~~ AKR 1600 3/27/97 5-164496-97
R07 ~~FB06~~ AKR 1600 3/27/97 5-164498-99

1700 Meet up with Ben. He said HT1 completed EW18 this afternoon and is in the process of completing EW17. I could not oversee HT1's operations due to sampling event.

1805 Jeff of MW told me they cannot sample MW-6 since it is inside the landfill and landfill is closed. Will sample MW-6 tomorrow.

1835 Leave site to drop off samples at Fedex location in South Holland.

end

Ashok Lupani 3-28-97

0830 On site

Weather: rainy; 45°F

Today we are here to complete quarterly sampling event. Two remaining wells MW-15 & MW-6 will be done today. B&V will split MW-6 with Montgomery Watson with a duplicate collected at the same location.

0900 Landfill is closed. MW-6 is inside the landfill. Waiting for city personnel to come out and open the gate.

0930 Steve M leaves the site.

0935 Told Lilian (sampling personnel for next week's residential well sampling) that Bal and Rob will be onsite Monday morning to oversee the ~~splmt~~ AKR event and collect splits.

1000 Go over to the landfill to do MW-6 and MW-15 which is also inside the landfill.

1010 Begin purging at MW-6 inside
#20 the landfill.

Ashok Lupani 3-28-97

Time	Temp	S.C.	pH	Turb
1016	13.03 °C	4106	6.31	306
1018	12.8 °C	4189	6.31	268
1020	12.8 °C	4175	6.31	189
1022	14.4 °C	4130	6.32	67
1024	14.8 °C	4038	6.34	51
1025	14.9 °C	4019	6.35	41
1026	14.9 °C	4008	6.35	37
1027	14.9 °C	4006	6.35	34

1030 Begin sampling MW-6

1110 Complete sampling at MW-6. About 2 gallons of water was pumped prior to sampling.

(17) MW-6 3/28/97 1030 [redacted]

5-164404-09

(18) Duplicate MW-6 3/28/97 [redacted]

5-150065-70

(19) ~~Field~~ AKR 3/28/97 1120 [redacted]

5-164500, 5-150071

1145 Break for lunch

1240 Leave to go to CRL.

1430 Reach CRL. Bill Sargent told me he has not received any sample

well split samples collected so far.

(20) PW-J 3/31/97 515 GW15 1430
S-150063-64
S-150072-75

(21) PW-C 3/31/97 516 GW16 1626
S-150076-81

(22) Trip Blank RDQ 4/1/97 RDQ 1358
S-164784-85

(23) PW-B 3/31/97 517 GW17 1730
S-150084-89

(24) PW-A 4/1/97 518 GW18 0805
S-150001-06

1500 Leave for CRL

1645 Drop off samples at CRL and head home

end

0900 On site
Weather: Sunny; 50°F
Go inside ACS plant. Stormwater construction is going on. MMS is still struggling to place the first tank in place.

0920 Meet up with Bal and Rob. They are to wrap up residential well sampling and ATMW-4D sampling today. Gave a copy of mini-QAPP to Rob.

0940 Rob came back with the comment that mini-QAPP procedure was different from the SOP followed by Montgomery Watson. I called them to discuss this. We decided that mini-QAPP should be changed to reflect that.

1000 Bal and Rob get set up to sample ATMW-4D.

1025 #1 EW18 completed by HTI
#2 EW17 completed by HTI

1040 MMS places the first tank in place.
#3 Placing water in the tank to keep it from floating.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 CENTRAL REGIONAL LABORATORY

536 SOUTH CLARK STREET

CHICAGO, ILLINOIS 60605

Date: MAY 05 1997

Subject: Review of Region 5 Data for **AMERICAN CHEMICAL SERVICE**

From: Charles T. Elly, Director Chuck Elly
Region 5 Central Regional Laboratory

To: BEV

Attached are the results for: **AMERICAN CHEMICAL SERVICE**
Results are reported for sample designations: 97ZB04R01 to R11, S01 to S21 and D14 (33 samples)
CRL request number: **970071**
Analyzed for: **VOA (Organic)**

Results Status:
(**X**) Acceptable for Use.
(**X**) Data Qualified but acceptable for use, please see narrative.
( ) Data Unacceptable for Use.

(X) Sewer Disposal Criteria Met; Exceptions: none
Comments on Data Quality by Reviewer:

- For QA/QC please see narrative.
  Samples 97ZB04S11, S04, S07, S10, S14, D14 and S21 contained compounds that exceeded the calibration range. Reanalyses of dilutions of these compounds were acceptable, except sample S11 dilution for chloroethane was flagged as "DE" (meaning diluted but exceeded calibrations).

Comments by Laboratory Director or Quality Control Coordinator

Review Record for **AMERICAN CHEMICAL SERVICE 970071 VOA**

Midia Fuentes 04/30/97

Peer and Task Monitor Date (X) Reviewed ( ) Unreviewed

Chi M. Tang 5/4/97

Organic Team Leader and Date ( ) Reviewed ( ) Unreviewed

Chuck Elby 5/5/97

QC Coordinator(VACANT) and Date ( ) Reviewed (✓) Unreviewed

Sylvia Griffin

Data Management Coordinator and Date Received

Date Transmitted MAY 05 1997

Please sign and date this form below and return it with any comments to:

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
SL - 10C

Received by and Date
Comments:

CASE NARRATIVE

DATE: April 17, 1997

PROJECT NAME: American Chemical Service - CRL Case# 970071
Analysis of Volatile Organic Analytes (VOA)

ANALYSTS: Anthony Gugliotta, Lockheed/ESAT ag

REVIEWERS: Ziyad Rajabi, Lockheed/ESAT Organic Group Leader
Dennis Miller, Lockheed/ESAT Team Manager
Nidia Fuentes, EPA CRL Task Monitor

I. CASE DESCRIPTION:

The laboratory received the thirty three American Chemical Service samples (97ZB04R01 to R11, S01 to S21, and -D14) on 3/26/97, 3/28/97, 3/31/97, 4/1/97 and 4/2/97 in good condition for volatile organic analyte (VOA) analysis. Some of the samples were originally analyzed using GC/MS#4, but the data were unacceptable due to instrument problems. The samples were reanalyzed using GC/MS #7 on 4/3/97 and 4/4/97. Additional analyses were performed on 4/7/97 and 4/8/97 on GC/MS#7 to complete this sample set. Analyses were performed according to CRL Method 624VOA (revised 12/15/95). All site samples were analyzed within the sample holding time requirements. The QC criterion for sample holding times is 14 days for acid-preserved water samples. No problems were observed.

II. INSTRUMENT QUALITY CONTROLS:

1. **Instrument Performance Checks (IPC):** On 4/2/97, 4/3/97, 4/4/97, 4/7/97 and 4/8/97, a GC/MS IPC using *p*-BFB was made on GC/MS#7 to determine if acceptable EPA tuning criteria were met. The QC criteria are the same as those found in the Statement of Work under the EPA's Contract Laboratory Program. All criteria were met, no problems were observed.

2. **Initial Calibrations (IC):** An acceptable five-point IC is required for all target compounds before samples can be analyzed. The QC criterion for the IC states that each analyte's %RSD must be ≤30%. One initial calibration was required for this case.

The initial calibration was generated on GC/MS#7 on 4/2/97. All QC criteria were acceptable for all target compounds in the initial calibration. 1,1,2-Trichloroethane and 1,2-dibromo-3-chloropropane were calibrated at four points due to low responses in the Level 1 calibration standard. Thus, the calibration range for 1,1,2-trichloroethane and 1,2-dibromo-3-

chloropropane is 2 to 25 μg/L. No other problems were observed.

3. **Continuing Calibrations (CC):** Five continuing calibrations were used for this case.

The first continuing calibration (file >N0061 on 4/2/97) is the Level 3 standard of the initial calibration. The response factors obtained from this calibration standard were used to quantitate the Lab Spike sample. For this CC, all QC criteria were acceptable. No problems were observed.

In the second continuing calibration (file >B3337 of 4/3/97), all QC criteria were acceptable for all target compounds, except 1,2-dibromo-3-chloropropane (32.4 %D), and hexachlorobutadiene (35.6 %D). 1,2-Dibromo-3-chloropropane, and hexachlorobutadiene were flagged as estimated (J or UJ) for all samples and blanks associated with this CC. No other problems were observed.

In the third continuing calibration (file >B3356 of 4/4/97), all QC criteria were acceptable for all target compounds, except 1,1,2,2-tetrachloroethane (32.4 %D) and 1,2-dibromo-3-chloropropane (31.1 %D). 1,1,2,2-Tetrachloroethane and 1,2-dibromo-3-chloropropane were flagged as estimated (J or UJ) for all samples and blanks associated with this CC. No other problems were observed.

In the fourth and fifth continuing calibrations (file >B3374 of 4/7/97 and file >B3395 of 4/8/97), all QC criteria were acceptable for all target compounds. No problems were observed.

4. **Internal Standard (IS) Area and Retention Time (RT) Summary:** The QC criterion states that the areas of ISs must be within a factor of two of the IS area of the corresponding CC. The RT of the IS for samples must also be within 30 seconds of the RT of the IS for the corresponding CC.

All internal standard areas and retention times met the QC requirements on all samples analyzed on GC/MS#7. No problems were observed.

III. METHOD QUALITY CONTROL:

1. **Method Blank Results:** Lab Blanks (reagent water spiked with internal standards and surrogates) were analyzed to check the GC/MS, purge and trap systems and reagents for laboratory contamination (see Form I VOA). All QC data for the Lab Blanks were acceptable.

In the Lab Blanks of 4/3/97, 4/4/97 and 4/8/97 (files >B3338, >B3358 and >B3398, respectively), no target analytes and no TICs were found. No problems were observed with these Lab Blanks.

In the Lab Blank of 4/7/97 (file >B3377), methylene chloride was detected at 1.01 μg/L. Positive results for methylene chloride in all associated samples were flagged "B" (found in Blank). See Form 4 for the associated samples.

2. **Surrogate Spike Compound Results:** The surrogate spike compound recovery data were within the QC limits for all water samples on GC/MS#7 except 97ZB04S07. In the original analysis of 97ZB04S07, the first surrogate, benzene-d_6, had a recovery (17%) which was below the QC limit, but above 10%. The other two surrogates had acceptable recoveries. The reanalysis of this sample (97ZB04S07RE on 4/8/97) gave similar results. Thus, one surrogate outlier is allow per sample, and no qualification of the data was necessary for sample 97ZB04S07. The reports of sample 97ZB04S07RE are found in the "Not Used" section of this data set.

No other problems were observed. (See Form II VOA-1).

3. **Matrix Spike and Matrix Spike Duplicate (MS and MSD) Samples:** MS and MSD samples were not required for this case.

4. **Laboratory Control Sample (LCS):** A Laboratory Control Sample (Lab Spike) was analyzed immediately after the initial calibration. The laboratory generated acceptable results for the Laboratory Control Sample. In the LCS of 4/2/97, all compounds had recoveries within the range of 60% to 140%.

5. **Performance Evaluation Sample (PES):** The laboratory analyzed the March 1997 Performance Evaluation Sample (970007S01, vial PY019) on GC/MS#7 on 4/4/97 (file >B3360). The QC criteria for the PES are the control limits established by EMSL-LV. For the March 1997 PES, the scoring report shows that the concentration of 2-hexanone was in the "warning high" range. All other reported target compound values were within acceptable limits. No qualification of the data is necessary based on these results.

IV. SAMPLE RESULTS:

Samples 97ZB04R01, R03, R04, R05, R06, R07, R08 and R10 are labeled as trip blanks, and samples R09 and R11 are field blanks. Methylene chloride at concentrations from 0.7 to 2 μg/L was found in each trip blank except R10. No target compounds or TICs were detected in trip blank R10. Field blank R02 contained methylene chloride at 0.6 μg/L. Four

target analytes and one TIC were found in field blank R09, and field blank R11 contained acetone at 4 μg/L and one TIC.

In the original analysis of sample 97ZB04S11 (file >B3382), the concentrations of chloroethane and benzene exceeded the calibration range, and the sample required a dilution. The reanalysis at a 50X dilution (97ZB04S11D1, file >B3404) was acceptable for benzene, but the concentration of chloroethane still exceeded the calibration range. Because all submitted vials of this sample were used, additional analyses were not possible. Thus, a Form 1 Summary was created based on the original results and the concentrations of chloroethane and benzene from the 50X dilution. The final concentration of chloroethane was flagged as "DE".

Samples 97ZB04S04, S07, S10, S14, D14 and S21 contained compounds that exceeded the calibration range. Reanalyses of dilutions of these samples were was acceptable, and a Form 1 Summary was created for each sample.

The laboratory met the qualitative and quantitative analysis requirements for TCLs and TICs.

2A
WATER VOLATILE SURROGATE RECOVERY

ab Name: CRL REGION V Contract:

Lab code: 5SCRL Case No.: 970071 SAS No.: SDG No.:

	EPA SAMPLE NO.	S1 (BEN) #	S2 (BFB) #	S3 (TOL) #	S4 ( ) #	TOT OUT
01	LAB BLANK	102	98	100		0
02	97ZB04R01	104	101	101		0
03	97ZB04R03	101	94	101		0
04	97ZB04R04	105	93	103		0
05	97ZB04R05	102	97	98		0
06	97ZB04R06	106	100	99		0
07	97ZB04S02	100	92	101		0
08	97ZB04S13	100	91	100		0
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		QC LIMITS
S1 (BEN)	= BENZENE-D6	(70-130)
S2 (BFB)	= p-BROMOFLUOROBENZENE	(70-130)
S3 (TOL)	= TOLUENE-D8	(70-130)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out

2A
WATER VOLATILE SURROGATE RECOVERY

Lab Name: CRL REGION V Contract:

Lab code: 5SCRL Case No.: 970071 SAS No.: SDG No.:

	EPA SAMPLE NO.	S1 (BEN) #	S2 (BFB) #	S3 (TOL) #	S4 ( ) #	TOT OUT
01	LAB BLANK	100	94	94		0
02	97ZB04S01	106	96	100		0
03	97ZB04S12	106	94	102		0
04	97ZB04R02	107	96	100		0
05	97ZB04S03	108	96	100		0
06	97ZB04S04	104	95	98		0
07	97ZB04S05	104	99	97		0
08	97ZB04S06	108	96	98		0
09	97ZB04R07	108	99	102		0
10	97ZB04S08	103	90	97		0
11	97ZB04S09	104	96	98		0
12	97ZB04S10	101	100	100		0
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		QC LIMITS
S1 (BEN)	= BENZENE-D6	(70-130)
S2 (BFB)	= p-BROMOFLUOROBENZENE	(70-130)
S3 (TOL)	= TOLUENE-D8	(70-130)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out

2A
WATER VOLATILE SURROGATE RECOVERY

ıb Name: CRL REGION V Contract:

Lab code: 5SCRL Case No.: 970071 SAS No.: SDG No.:

	EPA SAMPLE NO.	S1 (BEN) #	S2 (BFB) #	S3 (TOL) #	S4 ( ) #	TOT OUT
01	LAB BLANK	106	98	100		0
02	97ZB04S14	107	99	101		0
03	97ZB04D14	110	97	104		0
04	97ZB04R08	110	96	103		0
05	97ZB04S07	17 *	105	99		1
06	97ZB04S11	92	98	101		0
07	97ZB04R09	102	86	100		0
08	97ZB04R11	107	91	102		0
09	97ZB04S15	108	93	101		0
10	97ZB04S16	112	93	104		0
11	97ZB04S17	116	95	106		0
12	97ZB04S19	113	96	105		0
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		QC LIMITS
S1 (BEN)	= BENZENE-D6	(70-130)
S2 (BFB)	= p-BROMOFLUOROBENZENE	(70-130)
S3 (TOL)	= TOLUENE-D8	(70-130)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out

FORM II VOA-1

1/87 Rev

2A
WATER VOLATILE SURROGATE RECOVERY

Lab Name: CRL REGION V Contract:

Lab code: 5SCRL Case No.: 970071 SAS No.: SDG No.:

	EPA SAMPLE NO.	S1 (BEN) #	S2 (BFB) #	S3 (TOL) #	S4 ( ) #	TOT OUT
01	LAB BLANK	106	105	110		0
02	97ZB04S04D1	106	99	112		0
03	97ZB04S10D1	109	100	110		0
04	97ZB04S14D1	105	103	109		0
05	97ZB04D14D1	105	100	107		0
06	97ZB04S07D1	110	104	111		0
07	97ZB04S11D1	109	102	112		0
08	97ZB04S21D1	96	97	98		0
09	97ZB04S21D2	106	101	111		0
10	97ZB04R10	105	95	110		0
11	97ZB04S20	104	94	111		0
12	97ZB04S18	103	96	110		0
13	97ZB04S21	106	108	110		0
14	97ZB04S07D2	104	95	106		0
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		QC LIMITS
S1 (BEN)	= BENZENE-D6	(70-130)
S2 (BFB)	= p-BROMOFLUOROBENZENE	(70-130)
S3 (TOL)	= TOLUENE-D8	(70-130)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out

4A
VOLATILE METHOD BLANK SUMMARY

ab Name: CRL REGION V Contract:

Lab code: 5SCRL Case No.: 970071 SAS No.: SDG No.:

Lab File ID: >B3338 Lab Sample ID: LAB BLANK

Date Analyzed: 04/03/97 Time Analyzed: 11:10

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

Instrument ID: GCMS#7

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
1	97ZB04R01	97ZB04R01	>B3345	15:54
2	97ZB04R03	97ZB04R03	>B3346	16:31
3	97ZB04R04	97ZB04R04	>B3347	17:09
4	97ZB04R05	97ZB04R05	>B3348	17:47
5	97ZB04R06	97ZB04R06	>B3349	18:24
6	97ZB04S02	97ZB04S02	>B3350	19:02
7	97ZB04S13	97ZB04S13	>B3351	19:40
8				
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COMMENTS: _____

page __ of __.

4A
VOLATILE METHOD BLANK SUMMARY

Lab Name: CRL REGION V Contract:

Lab code: 5SCRL Case No.: 970071 SAS No.: SDG No.:

Lab File ID: >B3358 Lab Sample ID: LAB BLANK

Date Analyzed: 04/04/97 Time Analyzed: 11:01

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

Instrument ID: GCMS#7

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
1	97ZB04S01	97ZB04S01	>B3362	13:38
2	97ZB04S12	97ZB04S12	>B3363	14:16
3	97ZB04R02	97ZB04R02	>B3364	14:54
4	97ZB04S03	97ZB04S03	>B3365	15:32
5	97ZB04S04	97ZB04S04	>B3366	16:11
6	97ZB04S05	97ZB04S05	>B3367	16:49
7	97ZB04S06	97ZB04S06	>B3368	17:27
8	97ZB04R07	97ZB04R07	>B3369	18:05
9	97ZB04S08	97ZB04S08	>B3370	18:43
10	97ZB04S09	97ZB04S09	>B3371	19:20
11	97ZB04S10	97ZB04S10	>B3372	19:58
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COMMENTS: _____.
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FORM IV VOA 1/87 Rev.

4A
VOLATILE METHOD BLANK SUMMARY

ab Name: CRL REGION V Contract:

Lab code: 5SCRL Case No.: 970071 SAS No.: SDG No.:

Lab File ID: >B3377 Lab Sample ID: LAB BLANK

Date Analyzed: 04/07/97 Time Analyzed: 11:46

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

Instrument ID: GCMS#7

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
1	97ZB04S14	97ZB04S14	>B3378	12:24
2	97ZB04D14	97ZB04D14	>B3379	13:01
3	97ZB04R08	97ZB04R08	>B3380	13:39
4	97ZB04S07	97ZB04S07	>B3381	14:17
5	97ZB04S11	97ZB04S11	>B3382	14:55
6	97ZB04R09	97ZB04R09	>B3383	15:33
7	97ZB04R11	97ZB04R11	>B3385	16:48
8	97ZB04S15	97ZB04S15	>B3386	17:26
9	97ZB04S16	97ZB04S16	>B3387	18:04
10	97ZB04S17	97ZB04S17	>B3388	18:42
11	97ZB04S19	97ZB04S19	>B3390	19:58
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COMMENTS: _____.

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FORM IV VOA 1/87 Rev.

4A
VOLATILE METHOD BLANK SUMMARY

Lab Name: CRL REGION V Contract:

Lab code: 5SCRL Case No.: 970071 SAS No.: SDG No.:

Lab File ID: >B3398 Lab Sample ID: LAB BLANK

Date Analyzed: 04/08/97 Time Analyzed: 11:22

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

Instrument ID: GCMS#7

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
1	97ZB04S04D1	97ZB04S04D1	>B3399	12:00
2	97ZB04S10D1	97ZB04S10D1	>B3400	12:37
3	97ZB04S14D1	97ZB04S14D1	>B3401	13:31
4	97ZB04D14D1	97ZB04D14D1	>B3402	14:09
5	97ZB04S07D1	97ZB04S09D1	>B3403	14:47
6	97ZB04S11D1	97ZB04S11D1	>B3404	15:24
7	97ZB04S21D1	97ZB04S21D1	>B3405	16:02
8	97ZB04S21D2	97ZB04S21D2	>B3406	16:40
9	97ZB04R10	97ZB04R10	>B3407	17:17
10	97ZB04S20	97ZB04S20	>B3409	18:32
11	97ZB04S18	97ZB04S18	>B3410	19:10
12	97ZB04S21	97ZB04S21	>B3411	19:47
13	97ZB04S07D2	97ZB04S07D2	>B3412	20:25
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COMMENTS: _____.
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FORM IV VOA 1/87 Rev.

11A
VOLATILE ORGANICS LAB CONTROL SPIKE

EPA SAMPLE NO.

LAB SPIKE

.b Name: AMERICAN CHEMICAL SERVICE Contract: CRL

Lab Code: ML-10C Case No.: 970071 SAS No.: ------ SDG No.: ------

Matrix: (soil/water) WATER Lab Sample ID: LAB SPIKE

Sample wt/vol: 25 (g/ml) mL Lab File ID: >N0066

Level: (low/med) LOW Date Received: 04/02/97

% Moisture: not dec. ---- Date Analyzed: 04/02/97

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

COMPOUND	Conc	Spike	Recovery
Chloromethane	5	5	95
Vinyl chloride	4	5	87
Bromomethane	7	5	131
Chloroethane	5	5	91
1,1-Dichloroethene	5	5	93
Methylene chloride	5	5	107
trans-1,2-Dichloroethene	4	5	87
1,1-Dichloroethane	5	5	91
2,2-Dichloropropane	4	5	85
cis-1,2-Dichloroethene	5	5	98
Bromochloromethane	6	5	115
Chloroform	5	5	102
1,1,1-Trichloroethane	5	5	91
Carbon tetrachloride	5	5	92
1,1-Dichloropropene	4	5	88
Benzene	4	5	86
1,2-Dichloroethane	6	5	122
Trichloroethene	5	5	94
1,2-Dichloropropane	5	5	92
Dibromomethane	5	5	107
Bromodichloromethane	6	5	114
cis-1,3-Dichloropropene	5	5	103
Toluene	4	5	84
trans-1,3-Dichloropropene	6	5	118
Tetrachloroethene	4	5	79
1,1,2-Trichloroethane	6	5	124
1,3-Dichloropropane	6	5	115
Dibromochloromethane	6	5	121
1,2-Dibromoethane	6	5	118

11A-2
VOLATILE ORGANICS LAB CONTROL SPIKE

EPA SAMPLE NO.

LAB SPIKE

Lab Name: AMERICAN CHEMICAL SERVICE Contract: CRL

Lab Code: ML-10C Case No.: 970071 SAS No.: ------ SDG No.: ------

Matrix: (soil/water) WATER Lab Sample ID: LAB SPIKE

Sample wt/vol: 25 (g/ml) mL Lab File ID: >N0066

Level: (low/med) LOW Date Received: 04/02/97

% Moisture: not dec. ---- Date Analyzed: 04/02/97

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

COMPOUND	Conc	Spike	Recovery
Chlorobenzene	4	5	84
1,1,1,2-Tetrachloroethane	5	5	96
Ethylbenzene	4	5	75
m &/or p-Xylene	8	10	76
o-Xylene	4	5	82
Styrene	4	5	87
Bromoform	5	5	105
Isopropylbenzene	4	5	78
Bromobenzene	5	5	92
1,2,3-Trichloropropane	5	5	107
1,1,2,2-Tetrachloroethane	6	5	116
n-Propylbenzene	4	5	76
2-Chlorotoluene	4	5	82
4-Chlorotoluene	4	5	86
1,3,5-Trimethylbenzene	4	5	81
tert-Butylbenzene	4	5	89
1,2,4-Trimethylbenzene	4	5	86
sec-Butylbenzene	4	5	79
1,3-Dichlorobenzene	5	5	90
1,4-Dichlorobenzene	5	5	95
p-Isopropyltoluene	4	5	80
1,2-Dichlorobenzene	4	5	85
n-Butylbenzene	4	5	72
1,2-Dibromo-3-chloropropane	5	5	107
1,2,4-Trichlorobenzene	4	5	84
Naphthalene	5	5	91
Hexachlorobutadiene	4	5	74
1,2,3-Trichlorobenzene	4	5	85

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

LAB BLANK

te Name:AMERICAN CHEMICAL SERVICE Contract:CRL

Lab Code: SL-10C Case No.: 970071 SAS No.: ------ SDG No.: ------

Matrix: (soil/water) WATER Lab Sample ID: LAB BLANK

Sample wt/vol: 25 (g/mL) ML Lab File ID: >B3338

Level: (low/med) LOW Date Received: 04/03/97

% Moisture: not dec.100 Date Analyzed: 4/03/97

Column: (pack/cap) CAP Dilution Factor: 1

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/L	-Q
74-87-3	Chloromethane	1.	U
75-01-4	Vinyl chloride	1.	U
74-83-9	Bromomethane	1.	U
75-00-3	Chloroethane	1.	U
75-35-4	1,1-Dichloroethene	1.	U
67-64-1	Acetone	3.	U
75-15-0	Carbon disulfide	1.	U
75-09-2	Methylene chloride	1.	U
156-60-5	trans-1,2-Dichloroethene	1.	U
75-34-3	1,1-Dichloroethane	1.	U
594-20-7	2,2-Dichloropropane	1.	U
156-59-2	cis-1,2-Dichloroethene	1.	U
78-93-3	2-Butanone	3.	U
74-97-5	Bromochloromethane	1.	U
67-66-3	Chloroform	1.	U
71-55-6	1,1,1-trichloroethane	1.	U
56-23-5	Carbon tetrachloride	1.	U
563-58-6	1,1-Dichloropropene	1.	U
71-43-2	Benzene	1.	U
107-06-2	1,2-Dichloroethane	1.	U
79-01-6	Trichloroethene	1.	U
78-87-5	1,2-Dichloropropane	1.	U
74-95-3	Dibromomethane	1.	U
75-27-4	Bromodichloromethane	1.	U
10061-01-5	cis-1,3-dichloropropene	1.	U
108-88-3	Toluene	1.	U
108-10-1	4-Methyl-2-pentanone	2.	U
10061-02-6	trans-1,3-Dichloropropene	1.	U
127-18-4	Tetrachloroethene	1.	U
79-00-5	1,1,2-Trichloroethane	2.	U
142-28-9	1,3-Dichloropropane	1.	U
591-78-6	2-Hexanone	2.	U
124-48-1	Dibromochloromethane	1.	U
106-93-4	1,2-Dibromoethane	1.	U
108-90-7	Chlorobenzene	1.	U
630-20-6	1,1,1,2-Tetrachloroethane	1.	U
100-41-4	Ethylbenzene	1.	U

Are there any TICs ? (Please check a box) YES |__| NO |_X_|

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

LAB BLANK

Site Name:AMERCIAN CHEMICAL SERVICE Contract:CRL

Lab Code: SL-10C Case No.: 970071 SAS No.: ------ SDG No.: ------

Matrix: (soil/water) WATER Lab Sample ID: LAB BLANK

Sample wt/vol: 25 (g/mL) ML Lab File ID: >B3338

Level: (low/med) LOW Date Received: 04/03/97

% Moisture: not dec.100 Date Analyzed: 4/03/97

Column: (pack/cap) CAP Dilution Factor: 1

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/L	Q
1083836423	m &/or p-Xylene	1.	U
95-47-6	o-Xylene	1.	U
100-42-5	Styrene	1.	U
75-25-2	Bromoform	1.	U
98-82-8	Isopropylbenzene	1.	U
108-86-1	Bromobenzene	1.	U
96-18-4	1,2,3-Trichloropropane	1.	U
79-34-5	1,1,2,2-Tetrachloroethane	1.	U
103-65-1	n-Propylbenzene	1.	U
95-49-8	2-Chlorotoluene	1.	U
106-43-4	4-Chlorotoluene	1.	U
108-67-8	1,3,5-Trimethylbenzene	1.	U
98-06-6	tert-Butylbenzene	1.	U
95-63-6	1,2,4-Trimethylbenzene	1.	U
135-98-8	sec-Butylbenzene	1.	U
541-73-1	1,3-Dichlorobenzene	1.	U
106-46-7	1,4-Dichlorobenzene	1.	U
99-87-6	p-Isopropyltoluene	1.	U
95-50-1	1,2-Dichlorobenzene	1.	U
104-51-8	n-Butylbenzene	1.	U
96-12-8	1,2-Dibromo-3-chloropropane	2.	UJ
120-82-1	1,2,4-Trichlorobenzene	1.	U
91-20-3	Naphthalene	1.	U
87-68-3	Hexachlorobutadiene	1.	UJ
87-61-6	1,2,3-Trichlorobenzene	1.	U

Data Qualifiers: U = Compounds were analyzed but not detected. The value reported is the method detection limit for reagent water; J = Estimated; D=Diluted Sample; X = Result rejected for failing mass spectral confirmation; E = Concentration exceeded calibration range; B_ = Contaminant found in laboratory method blank.

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

LAB BLANK

te Name:AMERICAN CHEMICAL SERVICE Contract:CRL

Lab Code: SL-10C Case No.: 970071 SAS No.: ------ SDG No.: ------

Matrix: (soil/water) WATER Lab Sample ID: LAB BLANK

Sample wt/vol: 25 (g/mL) ML Lab File ID: >B3358

Level: (low/med) LOW Date Received: 04/04/97

% Moisture: not dec.100 Date Analyzed: 4/04/97

Column: (pack/cap) CAP Dilution Factor: 1

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	1.	U
75-01-4	Vinyl chloride	1.	U
74-83-9	Bromomethane	1.	U
75-00-3	Chloroethane	1.	U
75-35-4	1,1-Dichloroethene	1.	U
67-64-1	Acetone	3.	U
75-15-0	Carbon disulfide	1.	U
75-09-2	Methylene chloride	1.	U
156-60-5	trans-1,2-Dichloroethene	1.	U
75-34-3	1,1-Dichloroethane	1.	U
594-20-7	2,2-Dichloropropane	1.	U
156-59-2	cis-1,2-Dichloroethene	1.	U
78-93-3	2-Butanone	3.	U
74-97-5	Bromochloromethane	1.	U
67-66-3	Chloroform	1.	U
71-55-6	1,1,1-trichloroethane	1.	U
56-23-5	Carbon tetrachloride	1.	U
563-58-6	1,1-Dichloropropene	1.	U
71-43-2	Benzene	1.	U
107-06-2	1,2-Dichloroethane	1.	U
79-01-6	Trichloroethene	1.	U
78-87-5	1,2-Dichloropropane	1.	U
74-95-3	Dibromomethane	1.	U
75-27-4	Bromodichloromethane	1.	U
10061-01-5	cis-1,3-dichloropropene	1.	U
108-88-3	Toluene	1.	U
108-10-1	4-Methyl-2-pentanone	2.	U
10061-02-6	trans-1,3-Dichloropropene	1.	U
127-18-4	Tetrachloroethene	1.	U
79-00-5	1,1,2-Trichloroethane	2.	U
142-28-9	1,3-Dichloropropane	1.	U
591-78-6	2-Hexanone	2.	U
124-48-1	Dibromochloromethane	1.	U
106-93-4	1,2-Dibromoethane	1.	U
108-90-7	Chlorobenzene	1.	U
630-20-6	1,1,1,2-Tetrachloroethane	1.	U
100-41-4	Ethylbenzene	1.	U

Are there any TICs ? (Please check a box) YES |__| NO |_X_|

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

LAB BLANK

Site Name:AMERICAN CHEMICAL SERVICE Contract:CRL

Lab Code: SL-10C Case No.: 970071 SAS No.: ------ SDG No.: ------

Matrix: (soil/water) WATER Lab Sample ID: LAB BLANK

Sample wt/vol: 25 (g/mL) ML Lab File ID: >B3358

Level: (low/med) LOW Date Received: 04/04/97

% Moisture: not dec.100 Date Analyzed: 4/04/97

Column: (pack/cap) CAP Dilution Factor: 1

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/L	Q
1083836423	m &/or p-Xylene	1.	U
95-47-6	o-Xylene	1.	U
100-42-5	Styrene	1.	U
75-25-2	Bromoform	1.	U
98-82-8	Isopropylbenzene	1.	U
108-86-1	Bromobenzene	1.	U
96-18-4	1,2,3-Trichloropropane	1.	U
79-34-5	1,1,2,2-Tetrachloroethane	1.	UJ
103-65-1	n-Propylbenzene	1.	U
95-49-8	2-Chlorotoluene	1.	U
106-43-4	4-Chlorotoluene	1.	U
108-67-8	1,3,5-Trimethylbenzene	1.	U
98-06-6	tert-Butylbenzene	1.	U
95-63-6	1,2,4-Trimethylbenzene	1.	U
135-98-8	sec-Butylbenzene	1.	U
541-73-1	1,3-Dichlorobenzene	1.	U
106-46-7	1,4-Dichlorobenzene	1.	U
99-87-6	p-Isopropyltoluene	1.	U
95-50-1	1,2-Dichlorobenzene	1.	U
104-51-8	n-Butylbenzene	1.	U
96-12-8	1,2-Dibromo-3-chloropropane	2.	UJ
120-82-1	1,2,4-Trichlorobenzene	1.	U
91-20-3	Naphthalene	1.	U
87-68-3	Hexachlorobutadiene	1.	U
87-61-6	1,2,3-Trichlorobenzene	1.	U

Data Qualifiers: U = Compounds were analyzed but not detected. The value reported is the method detection limit for reagent water; J = Estimated; D=Diluted Sample; X = Result rejected for failing mass spectral confirmation; E = Concentration exceeded calibration range; B_ = Contaminant found in laboratory method blank.

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EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

LAB BLANK

:e Name:AMERICAN CHEMICAL SERV. Contract:CRL

Lab Code: SL-10C Case No.: 970071 SAS No.: ------ SDG No.: ------

Matrix: (soil/water) WATER Lab Sample ID: LAB BLANK

Sample wt/vol: 25 (g/mL) ML Lab File ID: >B3377

Level: (low/med) LOW Date Received: 04/07/97

% Moisture: not dec.100 Date Analyzed: 4/07/97

Column: (pack/cap) CAP Dilution Factor: 1

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	1.	U
75-01-4	Vinyl chloride	1.	U
74-83-9	Bromomethane	1.	U
75-00-3	Chloroethane	1.	U
75-35-4	1,1-Dichloroethene	1.	U
67-64-1	Acetone	3.	U
75-15-0	Carbon disulfide	1.	U
75-09-2	Methylene chloride	1.	
156-60-5	trans-1,2-Dichloroethene	1.	U
75-34-3	1,1-Dichloroethane	1.	U
594-20-7	2,2-Dichloropropane	1.	U
156-59-2	cis-1,2-Dichloroethene	1.	U
78-93-3	2-Butanone	3.	U
74-97-5	Bromochloromethane	1.	U
67-66-3	Chloroform	1.	U
71-55-6	1,1,1-trichloroethane	1.	U
56-23-5	Carbon tetrachloride	1.	U
563-58-6	1,1-Dichloropropene	1.	U
71-43-2	Benzene	1.	U
107-06-2	1,2-Dichloroethane	1.	U
79-01-6	Trichloroethene	1.	U
78-87-5	1,2-Dichloropropane	1.	U
74-95-3	Dibromomethane	1.	U
75-27-4	Bromodichloromethane	1.	U
10061-01-5	cis-1,3-dichloropropene	1.	U
108-88-3	Toluene	1.	U
108-10-1	4-Methyl-2-pentanone	2.	U
10061-02-6	trans-1,3-Dichloropropene	1.	U
127-18-4	Tetrachloroethene	1.	U
79-00-5	1,1,2-Trichloroethane	2.	U
142-28-9	1,3-Dichloropropane	1.	U
591-78-6	2-Hexanone	2.	U
124-48-1	Dibromochloromethane	1.	U
106-93-4	1,2-Dibromoethane	1.	U
108-90-7	Chlorobenzene	1.	U
630-20-6	1,1,1,2-Tetrachloroethane	1.	U
100-41-4	Ethylbenzene	1.	U

Are there any TICs ? (Please check a box) YES |__| NO |_X_|

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

LAB BLANK

Site Name:AMERICAN CHEMICAL SERV. Contract:CRL

Lab Code: SL-10C Case No.: 970071 SAS No.: ------ SDG No.: ------

Matrix: (soil/water) WATER Lab Sample ID: LAB BLANK

Sample wt/vol: 25 (g/mL) ML Lab File ID: >B3377

Level: (low/med) LOW Date Received: 04/07/97

% Moisture: not dec.100 Date Analyzed: 4/07/97

Column: (pack/cap) CAP Dilution Factor: 1

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/L	Q
1083836423	m &/or p-Xylene	1.	U
95-47-6	o-Xylene	1.	U
100-42-5	Styrene	1.	U
75-25-2	Bromoform	1.	U
98-82-8	Isopropylbenzene	1.	U
108-86-1	Bromobenzene	1.	U
96-18-4	1,2,3-Trichloropropane	1.	U
79-34-5	1,1,2,2-Tetrachloroethane	1.	U
103-65-1	n-Propylbenzene	1.	U
95-49-8	2-Chlorotoluene	1.	U
106-43-4	4-Chlorotoluene	1.	U
108-67-8	1,3,5-Trimethylbenzene	1.	U
98-06-6	tert-Butylbenzene	1.	U
95-63-6	1,2,4-Trimethylbenzene	1.	U
135-98-8	sec-Butylbenzene	1.	U
541-73-1	1,3-Dichlorobenzene	1.	U
106-46-7	1,4-Dichlorobenzene	1.	U
99-87-6	p-Isopropyltoluene	1.	U
95-50-1	1,2-Dichlorobenzene	1.	U
104-51-8	n-Butylbenzene	1.	U
96-12-8	1,2-Dibromo-3-chloropropane	2.	U
120-82-1	1,2,4-Trichlorobenzene	1.	U
91-20-3	Naphthalene	1.	U
87-68-3	Hexachlorobutadiene	1.	U
87-61-6	1,2,3-Trichlorobenzene	1.	U

Data Qualifiers: U = Compounds were analyzed but not detected. The value reported is the method detection limit for reagent water; J = Estimated; D=Diluted Sample; X = Result rejected for failing mass spectral confirmation; E = Concentration exceeded calibration range; B_ = Contaminant found in laboratory method blank.

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

LAB BLANK

:e Name:AMERICAN CHEMICAL SERVICE Contract:CRL

Lab Code: SL-10C Case No.: 970071 SAS No.: ------ SDG No.: ------

Matrix: (soil/water) WATER Lab Sample ID: LAB BLANK

Sample wt/vol: 25 (g/mL) ML Lab File ID: >B3398

Level: (low/med) LOW Date Received: 04/08/97

% Moisture: not dec.100 Date Analyzed: 4/08/97

Column: (pack/cap) CAP Dilution Factor: 1

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	1.	U
75-01-4	Vinyl chloride	1.	U
74-83-9	Bromomethane	1.	U
75-00-3	Chloroethane	1.	U
75-35-4	1,1-Dichloroethene	1.	U
67-64-1	Acetone	3.	U
75-15-0	Carbon disulfide	1.	U
75-09-2	Methylene chloride	1.	U
156-60-5	trans-1,2-Dichloroethene	1.	U
75-34-3	1,1-Dichloroethane	1.	U
594-20-7	2,2-Dichloropropane	1.	U
156-59-2	cis-1,2-Dichloroethene	1.	U
78-93-3	2-Butanone	3.	U
74-97-5	Bromochloromethane	1.	U
67-66-3	Chloroform	1.	U
71-55-6	1,1,1-trichloroethane	1.	U
56-23-5	Carbon tetrachloride	1.	U
563-58-6	1,1-Dichloropropene	1.	U
71-43-2	Benzene	1.	U
107-06-2	1,2-Dichloroethane	1.	U
79-01-6	Trichloroethene	1.	U
78-87-5	1,2-Dichloropropane	1.	U
74-95-3	Dibromomethane	1.	U
75-27-4	Bromodichloromethane	1.	U
10061-01-5	cis-1,3-dichloropropene	1.	U
108-88-3	Toluene	1.	U
108-10-1	4-Methyl-2-pentanone	2.	U
10061-02-6	trans-1,3-Dichloropropene	1.	U
127-18-4	Tetrachloroethene	1.	U
79-00-5	1,1,2-Trichloroethane	2.	U
142-28-9	1,3-Dichloropropane	1.	U
591-78-6	2-Hexanone	2.	U
124-48-1	Dibromochloromethane	1.	U
106-93-4	1,2-Dibromoethane	1.	U
108-90-7	Chlorobenzene	1.	U
630-20-6	1,1,1,2-Tetrachloroethane	1.	U
100-41-4	Ethylbenzene	1.	U

Are there any TICs ? (Please check a box) YES |__| NO |_X_|

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

LAB BLANK

Site Name:AMERICAN CHEMICAL SERVICE Contract:CRL

Lab Code: SL-10C Case No.: 970071 SAS No.: ------ SDG No.: ------

Matrix: (soil/water) WATER Lab Sample ID: LAB BLANK

Sample wt/vol: 25 (g/mL) ML Lab File ID: >B3398

Level: (low/med) LOW Date Received: 04/08/97

% Moisture: not dec.100 Date Analyzed: 4/08/97

Column: (pack/cap) CAP Dilution Factor: 1

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/L	Q
1083836423	m &/or p-Xylene	1.	U
95-47-6	o-Xylene	1.	U
100-42-5	Styrene	1.	U
75-25-2	Bromoform	1.	U
98-82-8	Isopropylbenzene	1.	U
108-86-1	Bromobenzene	1.	U
96-18-4	1,2,3-Trichloropropane	1.	U
79-34-5	1,1,2,2-Tetrachloroethane	1.	U
103-65-1	n-Propylbenzene	1.	U
95-49-8	2-Chlorotoluene	1.	U
106-43-4	4-Chlorotoluene	1.	U
108-67-8	1,3,5-Trimethylbenzene	1.	U
98-06-6	tert-Butylbenzene	1.	U
95-63-6	1,2,4-Trimethylbenzene	1.	U
135-98-8	sec-Butylbenzene	1.	U
541-73-1	1,3-Dichlorobenzene	1.	U
106-46-7	1,4-Dichlorobenzene	1.	U
99-87-6	p-Isopropyltoluene	1.	U
95-50-1	1,2-Dichlorobenzene	1.	U
104-51-8	n-Butylbenzene	1.	U
96-12-8	1,2-Dibromo-3-chloropropane	2.	U
120-82-1	1,2,4-Trichlorobenzene	1.	U
91-20-3	Naphthalene	1.	U
87-68-3	Hexachlorobutadiene	1.	U
87-61-6	1,2,3-Trichlorobenzene	1.	U

Data Qualifiers: U = Compounds were analyzed but not detected. The value reported is the method detection limit for reagent water; J = Estimated; D=Diluted Sample; X = Result rejected for failing mass spectral confirmation; E = Concentration exceeded calibration range; B_ = Contaminant found in laboratory method blank.

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter:**VOA**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix:**WATER** Method:**B624SAS.0**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04R01**
Units: **ug/L**

Date Collected:**26-MAR-97**
Date Extracted:**03-APR-97**

Date Received:**26-MAR-97**
Date Analyzed:**03-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
74-87-3	Chloromethane	1	U
75-01-4	Vinyl Chloride	1	U
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	3	U
75-15-0	Carbon Disulfide	1	U
75-09-2	Methylene Chloride	1	J
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
594-20-7	2,2-Dichloropropane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
74-97-5	2-Butanone	3	U
74-97-5	Bromochloromethane	1	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
563-58-6	1,1-Dichloropropene	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
74-95-3	Dibromomethane	1	U
75-27-4	Bromodichloromethane	1	U
10061-01-5	Cis-1,3-Dichloropropene	1	U
108-88-3	Toluene	1	U
108-10-1	4-Methyl-2-Pentanone	2	U
10061-02-6	Trans-1,3-Dichloropropene	1	U
127-18-4	Tetrachloroethene	1	U
79-00-5	1,1,2-Trichloroethane	2	U
142-28-9	1,3-Dichloropropane	1	U
591-78-6	2-Hexanone	2	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-90-7	Chlorobenzene	1	U
630-20-6	1,1,1,2-Tetrachloroethane	1	U
100-41-4	Ethylbenzene	1	U
1083836423	m &/or p-Xylene	1	U
95-47-6	o-Xylene	1	U
100-42-5	Styrene	1	U
75-25-2	Bromoform	1	U
98-82-8	Isopropylbenzene	1	U
108-86-1	Bromobenzene	1	U
96-18-4	1,2,3-Trichloropropane	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
103-65-1	n-Propylbenzene	1	U
95-49-8	2-Chlorotoluene	1	U
106-43-4	4-Chlorotoluene	1	U
108-67-8	1,3,5-Trimethylbenzene	1	U

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter:**VOA**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix:**WATER** Method:**B624SAS.0**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04R01**
Units: **ug/L**

Date Collected:**26-MAR-97**
Date Extracted:**03-APR-97**

Date Received:**26-MAR-97**
Date Analyzed:**03-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
98-06-6	tert-Butylbenzene	1	U
95-63-6	1,2,4-Trimethylbenzene	1	U
135-98-8	sec-Butylbenzene	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
99-87-6	p-Isopropyltoluene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
104-51-8	n-Butylbenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	2	UJ
120-82-1	1,2,4-Trichlorobenzene	1	U
91-20-3	Naphthalene	1	U
87-68-3	Hexachlorobutadiene	1	UJ
87-61-6	1,2,3-Trichlorobenzene	1	U

Analyzed by: A. Guglietta / Lockheed ESAT

Team Leader: Jim [illegible]

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter:**VOA**

Sample organization: **B & V**
mple Requestor: **ASWOK LUPARR1**
.cility: **AMERICAN CHEMICAL SERVICES INC**
Matrix:**WATER** Method:**B624SAS.0**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04R02**
Units: **ug/L**

Date Collected:**26-MAR-97**
Date Extracted:**04-APR-97**

Date Received:**28-MAR-97**
Date Analyzed:**04-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
74-87-3	Chloromethane	1	U
75-01-4	Vinyl Chloride	1	U
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	3	J
75-15-0	Carbon Disulfide	1	U
75-09-2	Methylene Chloride	1	J
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
594-20-7	2,2-Dichloropropane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
74-97-5	2-Butanone	3	U
74-97-5	Bromochloromethane	1	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
563-58-6	1,1-Dichloropropene	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
74-95-3	Dibromomethane	1	U
75-27-4	Bromodichloromethane	1	U
10061-01-5	Cis-1,3-Dichloropropene	1	U
108-88-3	Toluene	1	U
108-10-1	4-Methyl-2-Pentanone	2	U
10061-02-6	Trans-1,3-Dichloropropene	1	U
127-18-4	Tetrachloroethene	1	U
79-00-5	1,1,2-Trichloroethane	2	U
142-28-9	1,3-Dichloropropane	1	U
591-78-6	2-Hexanone	2	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-90-7	Chlorobenzene	1	U
630-20-6	1,1,1,2-Tetrachloroethane	1	U
100-41-4	Ethylbenzene	1	U
1083836423	m &/or p-Xylene	1	U
95-47-6	o-Xylene	1	U
100-42-5	Styrene	1	U
75-25-2	Bromoform	1	U
98-82-8	Isopropylbenzene	1	U
108-86-1	Bromobenzene	1	U
96-18-4	1,2,3-Trichloropropane	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	UJ
103-65-1	n-Propylbenzene	1	U
95-49-8	2-Chlorotoluene	1	U
106-43-4	4-Chlorotoluene	1	U
108-67-8	1,3,5-Trimethylbenzene	1	U

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter:**VOA**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix:**WATER** Method:**B624SAS.0**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04R02**
Units: **ug/L**

Date Collected:**26-MAR-97**
Date Extracted:**04-APR-97**

Date Received:**28-MAR-97**
Date Analyzed:**04-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
98-06-6	tert-Butylbenzene	1	U
95-63-6	1,2,4-Trimethylbenzene	1	U
135-98-8	sec-Butylbenzene	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
99-87-6	p-Isopropyltoluene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
104-51-8	n-Butylbenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	2	UJ
120-82-1	1,2,4-Trichlorobenzene	1	U
91-20-3	Naphthalene	1	U
87-68-3	Hexachlorobutadiene	1	U
87-61-6	1,2,3-Trichlorobenzene	1	U

Analyzed by: A. Ingliotta/Lockheed ESAT
Team Leader: [signature]

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter:**VOA**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix:**WATER** Method:**B624SAS.0**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04R03**
Units: **ug/L**

Date Collected:**01-APR-97**
Date Extracted:**03-APR-97**

Date Received:**02-APR-97**
Date Analyzed:**03-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
74-87-3	Chloromethane	1	U
75-01-4	Vinyl Chloride	1	U
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	3	U
75-15-0	Carbon Disulfide	1	U
75-09-2	Methylene Chloride	1	J
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
594-20-7	2,2-Dichloropropane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
74-97-5	2-Butanone	3	U
74-97-5	Bromochloromethane	1	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
563-58-6	1,1-Dichloropropene	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
74-95-3	Dibromomethane	1	U
75-27-4	Bromodichloromethane	1	U
10061-01-5	Cis-1,3-Dichloropropene	1	U
108-88-3	Toluene	1	U
108-10-1	4-Methyl-2-Pentanone	2	U
10061-02-6	Trans-1,3-Dichloropropene	1	U
127-18-4	Tetrachloroethene	1	U
79-00-5	1,1,2-Trichloroethane	2	U
142-28-9	1,3-Dichloropropane	1	U
591-78-6	2-Hexanone	2	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-90-7	Chlorobenzene	1	U
630-20-6	1,1,1,2-Tetrachloroethane	1	U
100-41-4	Ethylbenzene	1	U
1083836423	m &/or p-Xylene	1	U
95-47-6	o-Xylene	1	U
100-42-5	Styrene	1	U
75-25-2	Bromoform	1	U
98-82-8	Isopropylbenzene	1	U
108-86-1	Bromobenzene	1	U
96-18-4	1,2,3-Trichloropropane	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
103-65-1	n-Propylbenzene	1	U
95-49-8	2-Chlorotoluene	1	U
106-43-4	4-Chlorotoluene	1	U
108-67-8	1,3,5-Trimethylbenzene	1	U

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter: **VOA**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER** Method: **B624SAS.0**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04R03**
Units: **ug/L**

Date Collected: **01-APR-97**
Date Extracted: **03-APR-97**

Date Received: **02-APR-97**
Date Analyzed: **03-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
98-06-6	tert-Butylbenzene	1	U
95-63-6	1,2,4-Trimethylbenzene	1	U
135-98-8	sec-Butylbenzene	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
99-87-6	p-Isopropyltoluene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
104-51-8	n-Butylbenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	2	UJ
120-82-1	1,2,4-Trichlorobenzene	1	U
91-20-3	Naphthalene	1	U
87-68-3	Hexachlorobutadiene	1	UJ
87-61-6	1,2,3-Trichlorobenzene	1	U

Analyzed by: Anthony Guglietta / Lockheed ESAT

Team Leader: [signature]

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter: **VOA**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER** Method: **B624SAS.0**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04R04**
Units: **ug/L**

Date Collected: **27-MAR-97**
Date Extracted: **03-APR-97**

Date Received: **28-MAR-97**
Date Analyzed: **03-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
74-87-3	Chloromethane	1	U
75-01-4	Vinyl Chloride	1	U
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	3	U
75-15-0	Carbon Disulfide	1	U
75-09-2	Methylene Chloride	1	J
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
594-20-7	2,2-Dichloropropane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
74-97-5	2-Butanone	4	
74-97-5	Bromochloromethane	1	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
563-58-6	1,1-Dichloropropene	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
74-95-3	Dibromomethane	1	U
75-27-4	Bromodichloromethane	1	U
10061-01-5	Cis-1,3-Dichloropropene	1	U
108-88-3	Toluene	1	U
108-10-1	4-Methyl-2-Pentanone	2	U
10061-02-6	Trans-1,3-Dichloropropene	1	U
127-18-4	Tetrachloroethene	1	U
79-00-5	1,1,2-Trichloroethane	2	U
142-28-9	1,3-Dichloropropane	1	U
591-78-6	2-Hexanone	2	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-90-7	Chlorobenzene	1	U
630-20-6	1,1,1,2-Tetrachloroethane	1	U
100-41-4	Ethylbenzene	1	U
1083836423	m &/or p-Xylene	1	U
95-47-6	o-Xylene	1	U
100-42-5	Styrene	1	U
75-25-2	Bromoform	1	U
98-82-8	Isopropylbenzene	1	U
108-86-1	Bromobenzene	1	U
96-18-4	1,2,3-Trichloropropane	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
103-65-1	n-Propylbenzene	1	U
95-49-8	2-Chlorotoluene	1	U
106-43-4	4-Chlorotoluene	1	U
108-67-8	1,3,5-Trimethylbenzene	1	U

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter: **VOA**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER** Method: **B624SAS.0**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04R04**
Units: **ug/L**

Date Collected: **27-MAR-97**
Date Extracted: **03-APR-97**

Date Received: **28-MAR-97**
Date Analyzed: **03-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
98-06-6	tert-Butylbenzene	1	U
95-63-6	1,2,4-Trimethylbenzene	1	U
135-98-8	sec-Butylbenzene	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
99-87-6	p-Isopropyltoluene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
104-51-8	n-Butylbenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	2	UJ
120-82-1	1,2,4-Trichlorobenzene	1	U
91-20-3	Naphthalene	1	U
87-68-3	Hexachlorobutadiene	1	UJ
87-61-6	1,2,3-Trichlorobenzene	1	U

Analyzed by: A. Guglietta / Lockheed ESAT

Team Leader: [signature]

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter:**VOA**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix:**WATER** Method:**B624SAS.0**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04R05**
Units: **ug/L**

Date Collected:**27-MAR-97**
Date Extracted:**03-APR-97**

Date Received:**28-MAR-97**
Date Analyzed:**03-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
74-87-3	Chloromethane	1	U
75-01-4	Vinyl Chloride	1	U
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	3	U
75-15-0	Carbon Disulfide	1	U
75-09-2	Methylene Chloride	1	J
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
594-20-7	2,2-Dichloropropane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
74-97-5	2-Butanone	2	J
74-97-5	Bromochloromethane	1	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
563-58-6	1,1-Dichloropropene	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
74-95-3	Dibromomethane	1	U
75-27-4	Bromodichloromethane	1	U
10061-01-5	Cis-1,3-Dichloropropene	1	U
108-88-3	Toluene	1	U
108-10-1	4-Methyl-2-Pentanone	2	U
10061-02-6	Trans-1,3-Dichloropropene	1	U
127-18-4	Tetrachloroethene	1	U
79-00-5	1,1,2-Trichloroethane	2	U
142-28-9	1,3-Dichloropropane	1	U
591-78-6	2-Hexanone	2	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-90-7	Chlorobenzene	1	U
630-20-6	1,1,1,2-Tetrachloroethane	1	U
100-41-4	Ethylbenzene	1	U
1083836423	m &/or p-Xylene	1	U
95-47-6	o-Xylene	1	U
100-42-5	Styrene	1	U
75-25-2	Bromoform	1	U
98-82-8	Isopropylbenzene	1	U
108-86-1	Bromobenzene	1	U
96-18-4	1,2,3-Trichloropropane	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
103-65-1	n-Propylbenzene	1	U
95-49-8	2-Chlorotoluene	1	U
106-43-4	4-Chlorotoluene	1	U
108-67-8	1,3,5-Trimethylbenzene	1	U

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter:**VOA**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix:**WATER** Method:**B624SAS.0**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04R05**
Units: **ug/L**

Date Collected:**27-MAR-97**
Date Extracted:**03-APR-97**

Date Received:**28-MAR-97**
Date Analyzed:**03-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
98-06-6	tert-Butylbenzene	1	U
95-63-6	1,2,4-Trimethylbenzene	1	U
135-98-8	sec-Butylbenzene	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
99-87-6	p-Isopropyltoluene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
104-51-8	n-Butylbenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	2	UJ
120-82-1	1,2,4-Trichlorobenzene	1	U
91-20-3	Naphthalene	1	U
87-68-3	Hexachlorobutadiene	1	UJ
87-61-6	1,2,3-Trichlorobenzene	1	U

Analyzed by: A. Guglietta/Lockheed ESAT
Team Leader:

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter:**VOA**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix:**WATER** Method:**B624SAS.0**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04R06**
Units: **ug/L**

Date Collected:**27-MAR-97**
Date Extracted:**03-APR-97**

Date Received:**28-MAR-97**
Date Analyzed:**03-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
74-87-3	Chloromethane	1	U
75-01-4	Vinyl Chloride	1	U
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	3	U
75-15-0	Carbon Disulfide	1	U
75-09-2	Methylene Chloride	1	J
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
594-20-7	2,2-Dichloropropane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
74-97-5	2-Butanone	3	U
74-97-5	Bromochloromethane	1	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
563-58-6	1,1-Dichloropropene	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
74-95-3	Dibromomethane	1	U
75-27-4	Bromodichloromethane	1	U
10061-01-5	Cis-1,3-Dichloropropene	1	U
108-88-3	Toluene	1	U
108-10-1	4-Methyl-2-Pentanone	2	U
10061-02-6	Trans-1,3-Dichloropropene	1	U
127-18-4	Tetrachloroethene	1	U
79-00-5	1,1,2-Trichloroethane	2	U
142-28-9	1,3-Dichloropropane	1	U
591-78-6	2-Hexanone	2	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-90-7	Chlorobenzene	1	U
630-20-6	1,1,1,2-Tetrachloroethane	1	U
100-41-4	Ethylbenzene	1	U
1083836423	m &/or p-Xylene	1	U
95-47-6	o-Xylene	1	U
100-42-5	Styrene	1	U
75-25-2	Bromoform	1	U
98-82-8	Isopropylbenzene	1	U
108-86-1	Bromobenzene	1	U
96-18-4	1,2,3-Trichloropropane	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
103-65-1	n-Propylbenzene	1	U
95-49-8	2-Chlorotoluene	1	U
106-43-4	4-Chlorotoluene	1	U
108-67-8	1,3,5-Trimethylbenzene	1	U

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter: **VOA**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER**
Method: **B624SAS.0**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04R06**
Units: **ug/L**

Date Collected: **27-MAR-97**
Date Extracted: **03-APR-97**

Date Received: **28-MAR-97**
Date Analyzed: **03-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
98-06-6	tert-Butylbenzene	1	U
95-63-6	1,2,4-Trimethylbenzene	1	U
135-98-8	sec-Butylbenzene	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
99-87-6	p-Isopropyltoluene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
104-51-8	n-Butylbenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	2	UJ
120-82-1	1,2,4-Trichlorobenzene	1	U
91-20-3	Naphthalene	1	U
87-68-3	Hexachlorobutadiene	1	UJ
87-61-6	1,2,3-Trichlorobenzene	1	U

Analyzed by: A. Guglietta/Lockheed ESAT
Team Leader:

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter:**VOA**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix:**WATER** Method:**B624SAS.0**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04R07**
Units: **ug/L**

Date Collected:**28-MAR-97**
Date Extracted:**04-APR-97**

Date Received:**28-MAR-97**
Date Analyzed:**04-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
74-87-3	Chloromethane	1	U
75-01-4	Vinyl Chloride	1	U
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	3	U
75-15-0	Carbon Disulfide	1	U
75-09-2	Methylene Chloride	1	
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
594-20-7	2,2-Dichloropropane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
74-97-5	2-Butanone	3	U
74-97-5	Bromochloromethane	1	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
563-58-6	1,1-Dichloropropene	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
74-95-3	Dibromomethane	1	U
75-27-4	Bromodichloromethane	1	U
10061-01-5	Cis-1,3-Dichloropropene	1	U
108-88-3	Toluene	1	U
108-10-1	4-Methyl-2-Pentanone	2	U
10061-02-6	Trans-1,3-Dichloropropene	1	U
127-18-4	Tetrachloroethene	1	U
79-00-5	1,1,2-Trichloroethane	2	U
142-28-9	1,3-Dichloropropane	1	U
591-78-6	2-Hexanone	2	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-90-7	Chlorobenzene	1	U
630-20-6	1,1,1,2-Tetrachloroethane	1	U
100-41-4	Ethylbenzene	1	U
1083836423	m &/or p-Xylene	1	U
95-47-6	o-Xylene	1	U
100-42-5	Styrene	1	U
75-25-2	Bromoform	1	U
98-82-8	Isopropylbenzene	1	U
108-86-1	Bromobenzene	1	U
96-18-4	1,2,3-Trichloropropane	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	UJ
103-65-1	n-Propylbenzene	1	U
95-49-8	2-Chlorotoluene	1	U
106-43-4	4-Chlorotoluene	1	U
108-67-8	1,3,5-Trimethylbenzene	1	U

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter:**VOA**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix:**WATER** Method:**B624SAS.0**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04R07**
Units: **ug/L**

Date Collected:**28-MAR-97**
Date Extracted:**04-APR-97**

Date Received:**28-MAR-97**
Date Analyzed:**04-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
98-06-6	tert-Butylbenzene	1	U
95-63-6	1,2,4-Trimethylbenzene	1	U
135-98-8	sec-Butylbenzene	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
99-87-6	p-Isopropyltoluene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
104-51-8	n-Butylbenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	2	UJ
120-82-1	1,2,4-Trichlorobenzene	1	U
91-20-3	Naphthalene	1	U
87-68-3	Hexachlorobutadiene	1	U
87-61-6	1,2,3-Trichlorobenzene	1	U

Analyzed by: A. Guglietta / Lockheed ESAT
Team Leader: Jim [illegible]

EPA RLIMS CRL - REGION V
TENTATIVELY IDENTIFIED COMPOUNDS
REPORT PRODUCED ON: 17-APR-97

4PLE ORGANIZATION: **B & V** SAMPLE BATCH ID: **970071**
SAMPLE REQUESTOR: **ASWOK LUPARR1** ACCOUNT NO: **TFA301**
LABORATORY: **ESAT** FACILITY: **AMERICAN CHEMICAL SERVICES INC**

B624SAS.0 (624VOA ANALYSIS OF VOAs IN SF/NPDES WAT

SAMPLE: **97ZB04R07** FIELD: **97ZB04R07** CONTROL TYPE: **SAM**

COLLECTED: **28-MAR-97** RECEIVED: **28-MAR-97** ANALYZED: **04-APR-97**

COMPOUND	EST. CONC.	RT	Q	CAS NUMBER
DIETHYL ETHER	**4 J**	**7.44**		**60297**

ANALYZED BY: A. Guglotta / Lockheed ESAT

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter: **VOA**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER** Method: **B624SAS.0**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04R08**
Units: **ug/L**

Date Collected: **27-MAR-97**
Date Extracted: **07-APR-97**

Date Received: **28-MAR-97**
Date Analyzed: **07-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
74-87-3	Chloromethane	1	U
75-01-4	Vinyl Chloride	1	U
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	3	U
75-15-0	Carbon Disulfide	1	U
75-09-2	Methylene Chloride	2	B
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
594-20-7	2,2-Dichloropropane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
74-97-5	2-Butanone	3	U
74-97-5	Bromochloromethane	1	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
563-58-6	1,1-Dichloropropene	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
74-95-3	Dibromomethane	1	U
75-27-4	Bromodichloromethane	1	U
10061-01-5	Cis-1,3-Dichloropropene	1	U
108-88-3	Toluene	1	U
108-10-1	4-Methyl-2-Pentanone	2	U
10061-02-6	Trans-1,3-Dichloropropene	1	U
127-18-4	Tetrachloroethene	1	U
79-00-5	1,1,2-Trichloroethane	2	U
142-28-9	1,3-Dichloropropane	1	U
591-78-6	2-Hexanone	2	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-90-7	Chlorobenzene	1	U
630-20-6	1,1,1,2-Tetrachloroethane	1	U
100-41-4	Ethylbenzene	1	U
1083836423	m &/or p-Xylene	1	U
95-47-6	o-Xylene	1	U
100-42-5	Styrene	1	U
75-25-2	Bromoform	1	U
98-82-8	Isopropylbenzene	1	U
108-86-1	Bromobenzene	1	U
96-18-4	1,2,3-Trichloropropane	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
103-65-1	n-Propylbenzene	1	U
95-49-8	2-Chlorotoluene	1	U
106-43-4	4-Chlorotoluene	1	U
108-67-8	1,3,5-Trimethylbenzene	1	U

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter: **VOA**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER** Method: **B624SAS.0**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04R08**
Units: **ug/L**

Date Collected: **27-MAR-97**
Date Extracted: **07-APR-97**

Date Received: **28-MAR-97**
Date Analyzed: **07-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
98-06-6	tert-Butylbenzene	1	U
95-63-6	1,2,4-Trimethylbenzene	1	U
135-98-8	sec-Butylbenzene	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
99-87-6	p-Isopropyltoluene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
104-51-8	n-Butylbenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	2	U
120-82-1	1,2,4-Trichlorobenzene	1	U
91-20-3	Naphthalene	1	U
87-68-3	Hexachlorobutadiene	1	U
87-61-6	1,2,3-Trichlorobenzene	1	U

Analyzed by: A. Guglietta / Lockheed ESAT

Team Leader: [signature]

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter:**VOA**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix:**WATER** Method:**B624SAS.0**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04R09**
Units: **ug/L**

Date Collected:**01-APR-97**
Date Extracted:**07-APR-97**

Date Received:**28-MAR-97**
Date Analyzed:**07-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
74-87-3	Chloromethane	1	J
75-01-4	Vinyl Chloride	1	U
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	1	J
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	3	U
75-15-0	Carbon Disulfide	1	U
75-09-2	Methylene Chloride	2	B
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
594-20-7	2,2-Dichloropropane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
74-97-5	2-Butanone	3	U
74-97-5	Bromochloromethane	1	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
563-58-6	1,1-Dichloropropene	1	U
71-43-2	Benzene	2	
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
74-95-3	Dibromomethane	1	U
75-27-4	Bromodichloromethane	1	U
10061-01-5	Cis-1,3-Dichloropropene	1	U
108-88-3	Toluene	1	U
108-10-1	4-Methyl-2-Pentanone	2	U
10061-02-6	Trans-1,3-Dichloropropene	1	U
127-18-4	Tetrachloroethene	1	U
79-00-5	1,1,2-Trichloroethane	2	U
142-28-9	1,3-Dichloropropane	1	U
591-78-6	2-Hexanone	2	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-90-7	Chlorobenzene	1	U
630-20-6	1,1,1,2-Tetrachloroethane	1	U
100-41-4	Ethylbenzene	1	U
1083836423	m &/or p-Xylene	1	U
95-47-6	o-Xylene	1	U
100-42-5	Styrene	1	U
75-25-2	Bromoform	1	U
98-82-8	Isopropylbenzene	1	U
108-86-1	Bromobenzene	1	U
96-18-4	1,2,3-Trichloropropane	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
103-65-1	n-Propylbenzene	1	U
95-49-8	2-Chlorotoluene	1	U
106-43-4	4-Chlorotoluene	1	U
108-67-8	1,3,5-Trimethylbenzene	1	U

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter: **VOA**

Sample organization: **B & V**
mple Requestor: **ASWOK LUPARR1**
acility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER** Method: **B624SAS.0**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04R09**
Units: **ug/L**

Date Collected: **01-APR-97**
Date Extracted: **07-APR-97**

Date Received: **28-MAR-97**
Date Analyzed: **07-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
98-06-6	tert-Butylbenzene	1	U
95-63-6	1,2,4-Trimethylbenzene	1	U
135-98-8	sec-Butylbenzene	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
99-87-6	p-Isopropyltoluene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
104-51-8	n-Butylbenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	2	U
120-82-1	1,2,4-Trichlorobenzene	1	U
91-20-3	Naphthalene	1	U
87-68-3	Hexachlorobutadiene	1	U
87-61-6	1,2,3-Trichlorobenzene	1	U

Analyzed by: A. Guglotta/Lockheed ESAT
Team Leader: [signature]

EPA RLIMS CRL - REGION V
TENTATIVELY IDENTIFIED COMPOUNDS
REPORT PRODUCED ON: 17-APR-97

SAMPLE ORGANIZATION: **B & V**
SAMPLE REQUESTOR: **ASWOK LUPARR1**
LABORATORY: **ESAT**

SAMPLE BATCH ID: **970071**
ACCOUNT NO: **TFA301**
FACILITY: **AMERICAN CHEMICAL SERVICES INC**

B624SAS.0 (624VOA ANALYSIS OF VOAs IN SF/NPDES WAT

SAMPLE: **97ZB04R09** FIELD: **97ZB04R09** CONTROL TYPE: **SAM**

COLLECTED: **01-APR-97** RECEIVED: **28-MAR-97** ANALYZED: **07-APR-97**

COMPOUND	EST. CONC.	RT	Q	CAS NUMBER
UNKNOWN CYCLOALKANE	**3 J**	**20.96**		

ANALYZED BY: A. Gugliotta / Lockheed ESAT

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter: **VOA**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER** Method: **B624SAS.0**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04R10**
Units: **ug/L**

Date Collected: **02-APR-97**
Date Extracted: **08-APR-97**

Date Received: **02-APR-97**
Date Analyzed: **08-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
74-87-3	Chloromethane	1	U
75-01-4	Vinyl Chloride	1	U
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	3	U
75-15-0	Carbon Disulfide	1	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
594-20-7	2,2-Dichloropropane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
74-97-5	2-Butanone	3	U
74-97-5	Bromochloromethane	1	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
563-58-6	1,1-Dichloropropene	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
74-95-3	Dibromomethane	1	U
75-27-4	Bromodichloromethane	1	U
10061-01-5	Cis-1,3-Dichloropropene	1	U
108-88-3	Toluene	1	U
108-10-1	4-Methyl-2-Pentanone	2	U
10061-02-6	Trans-1,3-Dichloropropene	1	U
127-18-4	Tetrachloroethene	1	U
79-00-5	1,1,2-Trichloroethane	2	U
142-28-9	1,3-Dichloropropane	1	U
591-78-6	2-Hexanone	2	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-90-7	Chlorobenzene	1	U
630-20-6	1,1,1,2-Tetrachloroethane	1	U
100-41-4	Ethylbenzene	1	U
1083836423	m &/or p-Xylene	1	U
95-47-6	o-Xylene	1	U
100-42-5	Styrene	1	U
75-25-2	Bromoform	1	U
98-82-8	Isopropylbenzene	1	U
108-86-1	Bromobenzene	1	U
96-18-4	1,2,3-Trichloropropane	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
103-65-1	n-Propylbenzene	1	U
95-49-8	2-Chlorotoluene	1	U
106-43-4	4-Chlorotoluene	1	U
108-67-8	1,3,5-Trimethylbenzene	1	U

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter:**VOA**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix:**WATER** Method:**B624SAS.0**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04R10**
Units: **ug/L**

Date Collected:**02-APR-97**
Date Extracted:**08-APR-97**

Date Received:**02-APR-97**
Date Analyzed:**08-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
98-06-6	tert-Butylbenzene	1	U
95-63-6	1,2,4-Trimethylbenzene	1	U
135-98-8	sec-Butylbenzene	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
99-87-6	p-Isopropyltoluene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
104-51-8	n-Butylbenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	2	U
120-82-1	1,2,4-Trichlorobenzene	1	U
91-20-3	Naphthalene	1	U
87-68-3	Hexachlorobutadiene	1	U
87-61-6	1,2,3-Trichlorobenzene	1	U

Analyzed by: A. Gugliotta/Lockheed ESAT

Team Leader: [illegible]

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter:**VOA**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix:**WATER** Method:**B624SAS.0**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04R11**
Units: **ug/L**

Date Collected:**02-APR-97**
Date Extracted:**07-APR-97**

Date Received:**02-APR-97**
Date Analyzed:**07-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
74-87-3	Chloromethane	1	U
75-01-4	Vinyl Chloride	1	U
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	4	
75-15-0	Carbon Disulfide	1	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
594-20-7	2,2-Dichloropropane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
74-97-5	2-Butanone	3	U
74-97-5	Bromochloromethane	1	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
563-58-6	1,1-Dichloropropene	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
74-95-3	Dibromomethane	1	U
75-27-4	Bromodichloromethane	1	U
10061-01-5	Cis-1,3-Dichloropropene	1	U
108-88-3	Toluene	1	U
108-10-1	4-Methyl-2-Pentanone	2	U
10061-02-6	Trans-1,3-Dichloropropene	1	U
127-18-4	Tetrachloroethene	1	U
79-00-5	1,1,2-Trichloroethane	2	U
142-28-9	1,3-Dichloropropane	1	U
591-78-6	2-Hexanone	2	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-90-7	Chlorobenzene	1	U
630-20-6	1,1,1,2-Tetrachloroethane	1	U
100-41-4	Ethylbenzene	1	U
1083836423	m &/or p-Xylene	1	U
95-47-6	o-Xylene	1	U
100-42-5	Styrene	1	U
75-25-2	Bromoform	1	U
98-82-8	Isopropylbenzene	1	U
108-86-1	Bromobenzene	1	U
96-18-4	1,2,3-Trichloropropane	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
103-65-1	n-Propylbenzene	1	U
95-49-8	2-Chlorotoluene	1	U
106-43-4	4-Chlorotoluene	1	U
108-67-8	1,3,5-Trimethylbenzene	1	U

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter: **VOA**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER**
Method: **B624SAS.0**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04R11**
Units: **ug/L**

Date Collected: **02-APR-97**
Date Extracted: **07-APR-97**

Date Received: **02-APR-97**
Date Analyzed: **07-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
98-06-6	tert-Butylbenzene	1	U
95-63-6	1,2,4-Trimethylbenzene	1	U
135-98-8	sec-Butylbenzene	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
99-87-6	p-Isopropyltoluene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
104-51-8	n-Butylbenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	2	U
120-82-1	1,2,4-Trichlorobenzene	1	U
91-20-3	Naphthalene	1	U
87-68-3	Hexachlorobutadiene	1	U
87-61-6	1,2,3-Trichlorobenzene	1	U

Analyzed by: A. Guglotta / Lockheed ESAT

Team Leader:

EPA RLIMS CRL - REGION V
TENTATIVELY IDENTIFIED COMPOUNDS
REPORT PRODUCED ON: 17-APR-97

MPLE ORGANIZATION: **B & V** SAMPLE BATCH ID: **970071**
SAMPLE REQUESTOR: **ASWOK LUPARR1** ACCOUNT NO: **TFA301**
LABORATORY: **ESAT** FACILITY: **AMERICAN CHEMICAL SERVICES INC**

B624SAS.0 (624VOA ANALYSIS OF VOAs IN SF/NPDES WAT

SAMPLE: **97ZB04R11** FIELD: **97ZB04R11** CONTROL TYPE: **SAM**

COLLECTED: **02-APR-97** RECEIVED: **02-APR-97** ANALYZED: **07-APR-97**

COMPOUND	EST. CONC.	RT	Q	CAS NUMBER
BUTANE ISOMER	**6 J**	**5.89**		

ANALYZED BY: A. Juglotta / Lockheed ESAT

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter:**VOA**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix:**WATER** Method:**B624SAS.0**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S01**
Units: **ug/L**

Date Collected:**25-MAR-97**
Date Extracted:**04-APR-97**

Date Received:**26-MAR-97**
Date Analyzed:**04-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
74-87-3	Chloromethane	1	U
75-01-4	Vinyl Chloride	1	U
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	3	U
75-15-0	Carbon Disulfide	1	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
594-20-7	2,2-Dichloropropane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
74-97-5	2-Butanone	3	U
74-97-5	Bromochloromethane	1	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
563-58-6	1,1-Dichloropropene	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
74-95-3	Dibromomethane	1	U
75-27-4	Bromodichloromethane	1	U
10061-01-5	Cis-1,3-Dichloropropene	1	U
108-88-3	Toluene	1	U
108-10-1	4-Methyl-2-Pentanone	2	U
10061-02-6	Trans-1,3-Dichloropropene	1	U
127-18-4	Tetrachloroethene	1	U
79-00-5	1,1,2-Trichloroethane	2	U
142-28-9	1,3-Dichloropropane	1	U
591-78-6	2-Hexanone	2	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-90-7	Chlorobenzene	1	U
630-20-6	1,1,1,2-Tetrachloroethane	1	U
100-41-4	Ethylbenzene	1	U
1083836423	m &/or p-Xylene	1	U
95-47-6	o-Xylene	1	U
100-42-5	Styrene	1	U
75-25-2	Bromoform	1	U
98-82-8	Isopropylbenzene	1	U
108-86-1	Bromobenzene	1	U
96-18-4	1,2,3-Trichloropropane	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	UJ
103-65-1	n-Propylbenzene	1	U
95-49-8	2-Chlorotoluene	1	U
106-43-4	4-Chlorotoluene	1	U
108-67-8	1,3,5-Trimethylbenzene	1	U

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter: **VOA**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER** Method: **B624SAS.0**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S01**
Units: **ug/L**

Date Collected: **25-MAR-97**
Date Extracted: **04-APR-97**

Date Received: **26-MAR-97**
Date Analyzed: **04-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
98-06-6	tert-Butylbenzene	1	U
95-63-6	1,2,4-Trimethylbenzene	1	U
135-98-8	sec-Butylbenzene	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
99-87-6	p-Isopropyltoluene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
104-51-8	n-Butylbenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	2	UJ
120-82-1	1,2,4-Trichlorobenzene	1	U
91-20-3	Naphthalene	1	U
87-68-3	Hexachlorobutadiene	1	U
87-61-6	1,2,3-Trichlorobenzene	1	U

Analyzed by: A. Ingliotta / Lockheed ESAT

Team Leader: [illegible]

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter:**VOA**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix:**WATER** Method:**B624SAS.0**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S02**
Units: **ug/L**

Date Collected:**26-MAR-97**
Date Extracted:**03-APR-97**

Date Received:**26-MAR-97**
Date Analyzed:**03-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
74-87-3	Chloromethane	1	U
75-01-4	Vinyl Chloride	1	U
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	3	U
75-15-0	Carbon Disulfide	1	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
594-20-7	2,2-Dichloropropane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
74-97-5	2-Butanone	3	U
74-97-5	Bromochloromethane	1	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
563-58-6	1,1-Dichloropropene	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
74-95-3	Dibromomethane	1	U
75-27-4	Bromodichloromethane	1	U
10061-01-5	Cis-1,3-Dichloropropene	1	U
108-88-3	Toluene	1	U
108-10-1	4-Methyl-2-Pentanone	2	J
10061-02-6	Trans-1,3-Dichloropropene	1	U
127-18-4	Tetrachloroethene	1	U
79-00-5	1,1,2-Trichloroethane	2	U
142-28-9	1,3-Dichloropropane	1	U
591-78-6	2-Hexanone	2	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-90-7	Chlorobenzene	1	U
630-20-6	1,1,1,2-Tetrachloroethane	1	U
100-41-4	Ethylbenzene	1	U
1083836423	m &/or p-Xylene	1	U
95-47-6	o-Xylene	1	U
100-42-5	Styrene	1	U
75-25-2	Bromoform	1	U
98-82-8	Isopropylbenzene	1	U
108-86-1	Bromobenzene	1	U
96-18-4	1,2,3-Trichloropropane	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
103-65-1	n-Propylbenzene	1	U
95-49-8	2-Chlorotoluene	1	U
106-43-4	4-Chlorotoluene	1	U
108-67-8	1,3,5-Trimethylbenzene	1	U

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter:**VOA**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix:**WATER** Method:**B624SAS.0**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S02**
Units: **ug/L**

Date Collected:**26-MAR-97**
Date Extracted:**03-APR-97**

Date Received:**26-MAR-97**
Date Analyzed:**03-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
98-06-6	tert-Butylbenzene	1	U
95-63-6	1,2,4-Trimethylbenzene	1	U
135-98-8	sec-Butylbenzene	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
99-87-6	p-Isopropyltoluene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
104-51-8	n-Butylbenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	2	UJ
120-82-1	1,2,4-Trichlorobenzene	1	U
91-20-3	Naphthalene	1	U
87-68-3	Hexachlorobutadiene	1	UJ
87-61-6	1,2,3-Trichlorobenzene	1	U

Analyzed by: A. Guglietta/Lockheed ESAT

Team Leader: [signature]

EPA RLIMS CRL - REGION V
TENTATIVELY IDENTIFIED COMPOUNDS
REPORT PRODUCED ON: 17-APR-97

SAMPLE ORGANIZATION: **B & V**
SAMPLE REQUESTOR: **ASWOK LUPARR1**
LABORATORY: **ESAT**

SAMPLE BATCH ID: **970071**
ACCOUNT NO: **TFA301**
FACILITY: **AMERICAN CHEMICAL SERVICES INC**

B624SAS.0 (624VOA ANALYSIS OF VOAs IN SF/NPDES WAT

SAMPLE: **97ZB04S02** FIELD: **97ZB04S02** CONTROL TYPE: **SAM**

COLLECTED: **26-MAR-97** RECEIVED: **26-MAR-97** ANALYZED: **03-APR-97**

COMPOUND	EST. CONC.	RT	Q	CAS NUMBER
ACETALDEHYDE	3 J	6.30		75070
DIETHYL ETHER	1000 J	7.21		60297
TETRAHYDROFURAN	17 J	10.23		109999
1,4-DIOXANE	3 J	12.27		123911
2-ETHYL-1-HEXANOL	3 J	20.08		104767

ANALYZED BY: A. Guglitta / Lockheed ESAT

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter: **VOA**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER** Method: **B624SAS.0**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S03**
Units: **ug/L**

Date Collected: **26-MAR-97**
Date Extracted: **04-APR-97**

Date Received: **28-MAR-97**
Date Analyzed: **04-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
74-87-3	Chloromethane	1	U
75-01-4	Vinyl Chloride	1	U
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	1	~~J~~ U STET CWB 06/11/97
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	3	U
75-15-0	Carbon Disulfide	1	U
75-09-2	Methylene Chloride	1	~~J~~
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
594-20-7	2,2-Dichloropropane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
74-97-5	2-Butanone	3	U
74-97-5	Bromochloromethane	1	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
563-58-6	1,1-Dichloropropene	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
74-95-3	Dibromomethane	1	U
75-27-4	Bromodichloromethane	1	U
10061-01-5	Cis-1,3-Dichloropropene	1	U
108-88-3	Toluene	1	U
108-10-1	4-Methyl-2-Pentanone	2	U
10061-02-6	Trans-1,3-Dichloropropene	1	U
127-18-4	Tetrachloroethene	1	U
79-00-5	1,1,2-Trichloroethane	2	U
142-28-9	1,3-Dichloropropane	1	U
591-78-6	2-Hexanone	2	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-90-7	Chlorobenzene	1	U
630-20-6	1,1,1,2-Tetrachloroethane	1	U
100-41-4	Ethylbenzene	1	U
1083836423	m &/or p-Xylene	1	U
95-47-6	o-Xylene	1	U
100-42-5	Styrene	1	U
75-25-2	Bromoform	1	U
98-82-8	Isopropylbenzene	1	U
108-86-1	Bromobenzene	1	U
96-18-4	1,2,3-Trichloropropane	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	UJ
103-65-1	n-Propylbenzene	1	U
95-49-8	2-Chlorotoluene	1	U
106-43-4	4-Chlorotoluene	1	U
108-67-8	1,3,5-Trimethylbenzene	1	U

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter:**VOA**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix:**WATER** Method:**B624SAS.0**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S03**
Units: **ug/L**

Date Collected:**26-MAR-97**
Date Extracted:**04-APR-97**

Date Received:**28-MAR-97**
Date Analyzed:**04-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
98-06-6	tert-Butylbenzene	1	U
95-63-6	1,2,4-Trimethylbenzene	1	U
135-98-8	sec-Butylbenzene	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
99-87-6	p-Isopropyltoluene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
104-51-8	n-Butylbenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	2	UJ
120-82-1	1,2,4-Trichlorobenzene	1	U
91-20-3	Naphthalene	1	U
87-68-3	Hexachlorobutadiene	1	U
87-61-6	1,2,3-Trichlorobenzene	1	U

Analyzed by: A. Guglietta / Lockheed ESAT

Team Leader: [signature]

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter: **VOA**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER** Method: **B624SAS.0**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S04**
Units: **ug/L**

Date Collected: **27-MAR-97**
Date Extracted: **04-APR-97**

Date Received: **28-MAR-97**
Date Analyzed: **04-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
74-87-3	Chloromethane	1	U
75-01-4	Vinyl Chloride	1	
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	86	D
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	3	U
75-15-0	Carbon Disulfide	1	U
75-09-2	Methylene Chloride	2	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
594-20-7	2,2-Dichloropropane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
74-97-5	2-Butanone	3	U
74-97-5	Bromochloromethane	1	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
563-58-6	1,1-Dichloropropene	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
74-95-3	Dibromomethane	1	U
75-27-4	Bromodichloromethane	1	U
10061-01-5	Cis-1,3-Dichloropropene	1	U
108-88-3	Toluene	1	U
108-10-1	4-Methyl-2-Pentanone	2	U
10061-02-6	Trans-1,3-Dichloropropene	1	U
127-18-4	Tetrachloroethene	1	U
79-00-5	1,1,2-Trichloroethane	2	U
142-28-9	1,3-Dichloropropane	1	U
591-78-6	2-Hexanone	2	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-90-7	Chlorobenzene	1	U
630-20-6	1,1,1,2-Tetrachloroethane	1	U
100-41-4	Ethylbenzene	1	U
1083836423	m &/or p-Xylene	1	U
95-47-6	o-Xylene	1	U
100-42-5	Styrene	1	U
75-25-2	Bromoform	1	U
98-82-8	Isopropylbenzene	1	U
108-86-1	Bromobenzene	1	U
96-18-4	1,2,3-Trichloropropane	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	UJ
103-65-1	n-Propylbenzene	1	U
95-49-8	2-Chlorotoluene	1	U
106-43-4	4-Chlorotoluene	1	U
108-67-8	1,3,5-Trimethylbenzene	1	U

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter: **VOA**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER** Method: **B624SAS.0**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S04**
Units: **ug/L**

Date Collected: **27-MAR-97**
Date Extracted: **04-APR-97**

Date Received: **28-MAR-97**
Date Analyzed: **04-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
98-06-6	tert-Butylbenzene	1	U
95-63-6	1,2,4-Trimethylbenzene	1	U
135-98-8	sec-Butylbenzene	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
99-87-6	p-Isopropyltoluene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
104-51-8	n-Butylbenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	2	UJ
120-82-1	1,2,4-Trichlorobenzene	1	U
91-20-3	Naphthalene	1	U
87-68-3	Hexachlorobutadiene	1	U
87-61-6	1,2,3-Trichlorobenzene	1	U

Analyzed by: A. Guglietta / Lockheed ESAT
Team Leader: [signature]

EPA RLIMS CRL - REGION V
TENTATIVELY IDENTIFIED COMPOUNDS
REPORT PRODUCED ON: 17-APR-97

MPLE ORGANIZATION: **B & V**
SAMPLE REQUESTOR: **ASWOK LUPARR1**
LABORATORY: **ESAT**

SAMPLE BATCH ID: **970071**
ACCOUNT NO: **TFA301**
FACILITY: **AMERICAN CHEMICAL SERVICES INC**

B624SAS.0 (624VOA ANALYSIS OF VOAs IN SF/NPDES WAT

SAMPLE: **97ZB04S04** FIELD: **97ZB04S04** CONTROL TYPE: **SAM**

COLLECTED: **27-MAR-97** RECEIVED: **28-MAR-97** ANALYZED: **04-APR-97**

COMPOUND	EST. CONC.	RT	Q	CAS NUMBER
DIETHYL ETHER	**460 J**	**7.41**		**60297**
TETRAHYDROFURAN	**14 J**	**10.20**		**109999**
1,4-DIOXANE	**2 J**	**12.24**		**123911**

ANALYZED BY: A. Geglutta / Lockheed ESAT

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter:**VOA**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix:**WATER** Method:**B624SAS.0**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S05**
Units: **ug/L**

Date Collected:**27-MAR-97**
Date Extracted:**04-APR-97**

Date Received:**28-MAR-97**
Date Analyzed:**04-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
74-87-3	Chloromethane	1	U
75-01-4	Vinyl Chloride	1	U
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	3	U
75-15-0	Carbon Disulfide	1	U
75-09-2	Methylene Chloride	1	~~J~~ U cmB 06/11/97
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
594-20-7	2,2-Dichloropropane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
74-97-5	2-Butanone	3	U
74-97-5	Bromochloromethane	1	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
563-58-6	1,1-Dichloropropene	1	U
71-43-2	Benzene	1	J
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
74-95-3	Dibromomethane	1	U
75-27-4	Bromodichloromethane	1	U
10061-01-5	Cis-1,3-Dichloropropene	1	U
108-88-3	Toluene	1	U
108-10-1	4-Methyl-2-Pentanone	2	U
10061-02-6	Trans-1,3-Dichloropropene	1	U
127-18-4	Tetrachloroethene	1	U
79-00-5	1,1,2-Trichloroethane	2	U
142-28-9	1,3-Dichloropropane	1	U
591-78-6	2-Hexanone	2	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-90-7	Chlorobenzene	1	U
630-20-6	1,1,1,2-Tetrachloroethane	1	U
100-41-4	Ethylbenzene	1	U
1083836423	m &/or p-Xylene	1	U
95-47-6	o-Xylene	1	U
100-42-5	Styrene	1	U
75-25-2	Bromoform	1	U
98-82-8	Isopropylbenzene	1	U
108-86-1	Bromobenzene	1	U
96-18-4	1,2,3-Trichloropropane	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	UJ
103-65-1	n-Propylbenzene	1	U
95-49-8	2-Chlorotoluene	1	U
106-43-4	4-Chlorotoluene	1	U
108-67-8	1,3,5-Trimethylbenzene	1	U

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter: **VOA**

Sample organization: **B & V**
mple Requestor: **ASWOK LUPARR1**
.cility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER** Method: **B624SAS.0**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S05**
Units: **ug/L**

Date Collected: **27-MAR-97**
Date Extracted: **04-APR-97**

Date Received: **28-MAR-97**
Date Analyzed: **04-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
98-06-6	tert-Butylbenzene	1	U
95-63-6	1,2,4-Trimethylbenzene	1	U
135-98-8	sec-Butylbenzene	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
99-87-6	p-Isopropyltoluene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
104-51-8	n-Butylbenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	2	UJ
120-82-1	1,2,4-Trichlorobenzene	1	U
91-20-3	Naphthalene	1	U
87-68-3	Hexachlorobutadiene	1	U
87-61-6	1,2,3-Trichlorobenzene	1	U

Analyzed by: A. Geglotta/Lockheed ESAT

Team Leader:

EPA RLIMS CRL - REGION V
TENTATIVELY IDENTIFIED COMPOUNDS
REPORT PRODUCED ON: 17-APR-97

SAMPLE ORGANIZATION: **B & V**
SAMPLE REQUESTOR: **ASWOK LUPARR1**
LABORATORY: **ESAT**

SAMPLE BATCH ID: **970071**
ACCOUNT NO: **TFA301**
FACILITY: **AMERICAN CHEMICAL SERVICES INC**

B624SAS.0 (624VOA ANALYSIS OF VOAs IN SF/NPDES WAT

SAMPLE: **97ZB04S05** FIELD: **97ZB04S05** CONTROL TYPE: **SAM**

COLLECTED: **27-MAR-97** RECEIVED: **28-MAR-97** ANALYZED: **04-APR-97**

COMPOUND	EST. CONC.	RT	Q	CAS NUMBER
DIETHYL ETHER	**18 J**	**7.40**		**60297**

ANALYZED BY: A. Guglotta/Lockheed ESAT

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter:**VOA**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix:**WATER** Method:**B624SAS.0**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S06**
Units: **ug/L**

Date Collected:**27-MAR-97**
Date Extracted:**04-APR-97**

Date Received:**28-MAR-97**
Date Analyzed:**04-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
74-87-3	Chloromethane	1	U
75-01-4	Vinyl Chloride	1	U
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	3	U
75-15-0	Carbon Disulfide	1	U
75-09-2	Methylene Chloride	1	~~J~~ U cwB 06/11/97
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
594-20-7	2,2-Dichloropropane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
74-97-5	2-Butanone	3	U
74-97-5	Bromochloromethane	1	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
563-58-6	1,1-Dichloropropene	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
74-95-3	Dibromomethane	1	U
75-27-4	Bromodichloromethane	1	U
10061-01-5	Cis-1,3-Dichloropropene	1	U
108-88-3	Toluene	1	U
108-10-1	4-Methyl-2-Pentanone	2	U
10061-02-6	Trans-1,3-Dichloropropene	1	U
127-18-4	Tetrachloroethene	1	U
79-00-5	1,1,2-Trichloroethane	2	U
142-28-9	1,3-Dichloropropane	1	U
591-78-6	2-Hexanone	2	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-90-7	Chlorobenzene	1	U
630-20-6	1,1,1,2-Tetrachloroethane	1	U
100-41-4	Ethylbenzene	1	U
1083836423	m &/or p-Xylene	1	U
95-47-6	o-Xylene	1	U
100-42-5	Styrene	1	U
75-25-2	Bromoform	1	U
98-82-8	Isopropylbenzene	1	U
108-86-1	Bromobenzene	1	U
96-18-4	1,2,3-Trichloropropane	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	UJ
103-65-1	n-Propylbenzene	1	U
95-49-8	2-Chlorotoluene	1	U
106-43-4	4-Chlorotoluene	1	U
108-67-8	1,3,5-Trimethylbenzene	1	U

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter:**VOA**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix:**WATER** Method:**B624SAS.0**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S06**
Units: **ug/L**

Date Collected:**27-MAR-97**
Date Extracted:**04-APR-97**

Date Received:**28-MAR-97**
Date Analyzed:**04-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
98-06-6	tert-Butylbenzene	1	U
95-63-6	1,2,4-Trimethylbenzene	1	U
135-98-8	sec-Butylbenzene	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
99-87-6	p-Isopropyltoluene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
104-51-8	n-Butylbenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	2	UJ
120-82-1	1,2,4-Trichlorobenzene	1	U
91-20-3	Naphthalene	1	U
87-68-3	Hexachlorobutadiene	1	U
87-61-6	1,2,3-Trichlorobenzene	1	U

Analyzed by: A. Guglietta / Lockheed ESAT

Team Leader:

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter: **VOA**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER** Method: **B624SAS.0**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S07**
Units: **ug/L**

Date Collected: **27-MAR-97**
Date Extracted: **07-APR-97**

Date Received: **28-MAR-97**
Date Analyzed: **07-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
74-87-3	Chloromethane	1	U
75-01-4	Vinyl Chloride	1	U
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	430	D
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	3	U
75-15-0	Carbon Disulfide	1	U
75-09-2	Methylene Chloride	3	~~B~~ U cwB 06/11/97
156-60-5	trans-1,2-Dichloroethene	1	
75-34-3	1,1-Dichloroethane	1	U
594-20-7	2,2-Dichloropropane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
74-97-5	2-Butanone	3	U
74-97-5	Bromochloromethane	1	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
563-58-6	1,1-Dichloropropene	1	U
71-43-2	Benzene	3500	D
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
74-95-3	Dibromomethane	1	U
75-27-4	Bromodichloromethane	1	U
10061-01-5	Cis-1,3-Dichloropropene	1	U
108-88-3	Toluene	2	
108-10-1	4-Methyl-2-Pentanone	2	U
10061-02-6	Trans-1,3-Dichloropropene	1	U
127-18-4	Tetrachloroethene	1	U
79-00-5	1,1,2-Trichloroethane	2	U
142-28-9	1,3-Dichloropropane	1	U
591-78-6	2-Hexanone	2	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-90-7	Chlorobenzene	1	U
630-20-6	1,1,1,2-Tetrachloroethane	1	U
100-41-4	Ethylbenzene	1	U
1083836423	m &/or p-Xylene	1	U
95-47-6	o-Xylene	1	U
100-42-5	Styrene	1	U
75-25-2	Bromoform	1	U
98-82-8	Isopropylbenzene	1	U
108-86-1	Bromobenzene	1	U
96-18-4	1,2,3-Trichloropropane	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
103-65-1	n-Propylbenzene	1	U
95-49-8	2-Chlorotoluene	1	U
106-43-4	4-Chlorotoluene	1	U
108-67-8	1,3,5-Trimethylbenzene	1	U

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter: **VOA**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER** Method: **B624SAS.0**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S07**
Units: **ug/L**

Date Collected: **27-MAR-97**
Date Extracted: **07-APR-97**

Date Received: **28-MAR-97**
Date Analyzed: **07-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
98-06-6	tert-Butylbenzene	1	U
95-63-6	1,2,4-Trimethylbenzene	1	U
135-98-8	sec-Butylbenzene	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
99-87-6	p-Isopropyltoluene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
104-51-8	n-Butylbenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	2	U
120-82-1	1,2,4-Trichlorobenzene	1	U
91-20-3	Naphthalene	1	U
87-68-3	Hexachlorobutadiene	1	U
87-61-6	1,2,3-Trichlorobenzene	1	U

Analyzed by: A. Guglotta / Lockheed ESAT
Team Leader:

EPA RLIMS CRL - REGION V
TENTATIVELY IDENTIFIED COMPOUNDS
REPORT PRODUCED ON: 17-APR-97

MPLE ORGANIZATION: **B & V** SAMPLE BATCH ID: **970071**
AMPLE REQUESTOR: **ASWOK LUPARR1** ACCOUNT NO: **TFA301**
LABORATORY: **ESAT** FACILITY: **AMERICAN CHEMICAL SERVICES INC**

B624SAS.0 (624VOA ANALYSIS OF VOAs IN SF/NPDES WAT

SAMPLE: **97ZB04S07** FIELD: **97ZB04S07** CONTROL TYPE: **SAM**

COLLECTED: **27-MAR-97** RECEIVED: **28-MAR-97** ANALYZED: **07-APR-97**

COMPOUND	EST. CONC.	RT	Q	CAS NUMBER
DIETHYL DISULFIDE	**110 J**	**17.65**		**110816**
OCTANONE ISOMER	**3 J**	**18.03**		
UNKNOWN CYCLOALKANE	**24 J**	**20.95**		

ANALYZED BY: A. Geglutta/Lockheed ESAT

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter:**VOA**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix:**WATER** Method:**B624SAS.0**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S08**
Units: **ug/L**

Date Collected:**27-MAR-97**
Date Extracted:**04-APR-97**

Date Received:**28-MAR-97**
Date Analyzed:**04-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
74-87-3	Chloromethane	1	U
75-01-4	Vinyl Chloride	1	U
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	3	U
75-15-0	Carbon Disulfide	1	U
75-09-2	Methylene Chloride	1	~~J~~ U cwB 26/11/97
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
594-20-7	2,2-Dichloropropane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
74-97-5	2-Butanone	3	U
74-97-5	Bromochloromethane	1	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
563-58-6	1,1-Dichloropropene	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
74-95-3	Dibromomethane	1	U
75-27-4	Bromodichloromethane	1	U
10061-01-5	Cis-1,3-Dichloropropene	1	U
108-88-3	Toluene	1	U
108-10-1	4-Methyl-2-Pentanone	2	U
10061-02-6	Trans-1,3-Dichloropropene	1	U
127-18-4	Tetrachloroethene	1	U
79-00-5	1,1,2-Trichloroethane	2	U
142-28-9	1,3-Dichloropropane	1	U
591-78-6	2-Hexanone	2	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-90-7	Chlorobenzene	1	U
630-20-6	1,1,1,2-Tetrachloroethane	1	U
100-41-4	Ethylbenzene	1	U
1083836423	m &/or p-Xylene	1	U
95-47-6	o-Xylene	1	U
100-42-5	Styrene	1	U
75-25-2	Bromoform	1	U
98-82-8	Isopropylbenzene	1	U
108-86-1	Bromobenzene	1	U
96-18-4	1,2,3-Trichloropropane	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	UJ
103-65-1	n-Propylbenzene	1	U
95-49-8	2-Chlorotoluene	1	U
106-43-4	4-Chlorotoluene	1	U
108-67-8	1,3,5-Trimethylbenzene	1	U

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter:**VOA**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix:**WATER** Method:**B624SAS.0**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S08**
Units: **ug/L**

Date Collected:**27-MAR-97**
Date Extracted:**04-APR-97**

Date Received:**28-MAR-97**
Date Analyzed:**04-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
98-06-6	tert-Butylbenzene	1	U
95-63-6	1,2,4-Trimethylbenzene	1	U
135-98-8	sec-Butylbenzene	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
99-87-6	p-Isopropyltoluene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
104-51-8	n-Butylbenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	2	UJ
120-82-1	1,2,4-Trichlorobenzene	1	U
91-20-3	Naphthalene	1	U
87-68-3	Hexachlorobutadiene	1	U
87-61-6	1,2,3-Trichlorobenzene	1	U

Analyzed by: A Guglietta / Lockheed ESAT
Team Leader:

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter:**VOA**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix:**WATER** Method:**B624SAS.0**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S09**
Units: **ug/L**

Date Collected:**27-MAR-97**
Date Extracted:**04-APR-97**

Date Received:**28-MAR-97**
Date Analyzed:**04-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
74-87-3	Chloromethane	1	U
75-01-4	Vinyl Chloride	1	U
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	2	
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	3	U
75-15-0	Carbon Disulfide	1	U
75-09-2	Methylene Chloride	2	V cwB 06/11/97
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
594-20-7	2,2-Dichloropropane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
74-97-5	2-Butanone	3	U
74-97-5	Bromochloromethane	1	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
563-58-6	1,1-Dichloropropene	1	U
71-43-2	Benzene	1	J
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
74-95-3	Dibromomethane	1	U
75-27-4	Bromodichloromethane	1	U
10061-01-5	Cis-1,3-Dichloropropene	1	U
108-88-3	Toluene	1	U
108-10-1	4-Methyl-2-Pentanone	2	U
10061-02-6	Trans-1,3-Dichloropropene	1	U
127-18-4	Tetrachloroethene	1	U
79-00-5	1,1,2-Trichloroethane	2	U
142-28-9	1,3-Dichloropropane	1	U
591-78-6	2-Hexanone	2	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-90-7	Chlorobenzene	1	U
630-20-6	1,1,1,2-Tetrachloroethane	1	U
100-41-4	Ethylbenzene	1	U
1083836423	m &/or p-Xylene	1	U
95-47-6	o-Xylene	1	U
100-42-5	Styrene	1	U
75-25-2	Bromoform	1	U
98-82-8	Isopropylbenzene	1	U
108-86-1	Bromobenzene	1	U
96-18-4	1,2,3-Trichloropropane	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	UJ
103-65-1	n-Propylbenzene	1	U
95-49-8	2-Chlorotoluene	1	U
106-43-4	4-Chlorotoluene	1	U
108-67-8	1,3,5-Trimethylbenzene	1	U

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter: **VOA**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER**
Method: **B624SAS.0**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S09**
Units: **ug/L**

Date Collected: **27-MAR-97**
Date Extracted: **04-APR-97**

Date Received: **28-MAR-97**
Date Analyzed: **04-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
98-06-6	tert-Butylbenzene	1	U
95-63-6	1,2,4-Trimethylbenzene	1	U
135-98-8	sec-Butylbenzene	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
99-87-6	p-Isopropyltoluene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
104-51-8	n-Butylbenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	2	UJ
120-82-1	1,2,4-Trichlorobenzene	1	U
91-20-3	Naphthalene	1	U
87-68-3	Hexachlorobutadiene	1	U
87-61-6	1,2,3-Trichlorobenzene	1	U

Analyzed by: A. Guglietta / Lockheed ESAT

Team Leader: [signature]

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter:**VOA**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix:**WATER** Method:**B624SAS.0**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S10**
Units: **ug/L**

Date Collected:**27-MAR-97**
Date Extracted:**04-APR-97**

Date Received:**28-MAR-97**
Date Analyzed:**04-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
74-87-3	Chloromethane	1	U
75-01-4	Vinyl Chloride	1	J
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	670	D
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	3	U
75-15-0	Carbon Disulfide	1	U
75-09-2	Methylene Chloride	7	U CWB 06/11/97
156-60-5	trans-1,2-Dichloroethene	2	
75-34-3	1,1-Dichloroethane	1	U
594-20-7	2,2-Dichloropropane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
74-97-5	2-Butanone	3	U
74-97-5	Bromochloromethane	1	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
563-58-6	1,1-Dichloropropene	1	U
71-43-2	Benzene	91	D
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
74-95-3	Dibromomethane	1	U
75-27-4	Bromodichloromethane	1	U
10061-01-5	Cis-1,3-Dichloropropene	1	U
108-88-3	Toluene	2	
108-10-1	4-Methyl-2-Pentanone	2	
10061-02-6	Trans-1,3-Dichloropropene	1	U
127-18-4	Tetrachloroethene	1	U
79-00-5	1,1,2-Trichloroethane	2	U
142-28-9	1,3-Dichloropropane	1	U
591-78-6	2-Hexanone	2	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-90-7	Chlorobenzene	1	U
630-20-6	1,1,1,2-Tetrachloroethane	1	U
100-41-4	Ethylbenzene	1	U
1083836423	m &/or p-Xylene	1	U
95-47-6	o-Xylene	1	U
100-42-5	Styrene	1	U
75-25-2	Bromoform	1	U
98-82-8	Isopropylbenzene	1	U
108-86-1	Bromobenzene	1	U
96-18-4	1,2,3-Trichloropropane	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	UJ
103-65-1	n-Propylbenzene	1	U
95-49-8	2-Chlorotoluene	1	U
106-43-4	4-Chlorotoluene	1	U
108-67-8	1,3,5-Trimethylbenzene	1	U

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter: **VOA**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER** Method: **B624SAS.0**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S10**
Units: **ug/L**

Date Collected: **27-MAR-97**
Date Extracted: **04-APR-97**

Date Received: **28-MAR-97**
Date Analyzed: **04-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
98-06-6	tert-Butylbenzene	1	U
95-63-6	1,2,4-Trimethylbenzene	1	U
135-98-8	sec-Butylbenzene	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
99-87-6	p-Isopropyltoluene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
104-51-8	n-Butylbenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	2	UJ
120-82-1	1,2,4-Trichlorobenzene	1	U
91-20-3	Naphthalene	1	U
87-68-3	Hexachlorobutadiene	1	U
87-61-6	1,2,3-Trichlorobenzene	1	U

Analyzed by: A. Guglietta / Lockheed ESAT

Team Leader: [signature]

EPA RLIMS CRL - REGION V
TENTATIVELY IDENTIFIED COMPOUNDS
REPORT PRODUCED ON: 17-APR-97

SAMPLE ORGANIZATION: **B & V** SAMPLE BATCH ID: **970071**
SAMPLE REQUESTOR: **ASWOK LUPARR1** ACCOUNT NO: **TFA301**
LABORATORY: **ESAT** FACILITY: **AMERICAN CHEMICAL SERVICES INC**

B624SAS.0 (624VOA ANALYSIS OF VOAs IN SF/NPDES WAT

SAMPLE: **97ZB04S10** FIELD: **97ZB04S10** CONTROL TYPE: **SAM**

COLLECTED: **27-MAR-97** RECEIVED: **28-MAR-97** ANALYZED: **04-APR-97**

COMPOUND	EST. CONC.	RT	Q	CAS NUMBER
UNKNOWN ETHER	**2 J**	**7.79**		
DIISOPROPYL ETHER	**9 J**	**9.12**		**108203**
TETRAHYDROFURAN	**12 J**	**10.21**		**109999**
1,4-DIOXANE	**2 J**	**12.25**		**123911**
2-ETHYL-1-HEXANOL	**8 J**	**20.02**		**104767**
UNKNOWN CYCLOALKANE	**2 J**	**20.94**		

ANALYZED BY: A. Guglietta / Lockheed ESAT

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter:**VOA**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
cility: **AMERICAN CHEMICAL SERVICES INC**
atrix:**WATER** Method:**B624SAS.0**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S11**
Units: **ug/L**

Date Collected:**27-MAR-97**
Date Extracted:**07-APR-97**

Date Received:**28-MAR-97**
Date Analyzed:**07-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
74-87-3	Chloromethane	1	J
75-01-4	Vinyl Chloride	2	
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	1500	E
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	3	U
75-15-0	Carbon Disulfide	1	U
75-09-2	Methylene Chloride	12	~~B~~ U CWB 06/4/97
156-60-5	trans-1,2-Dichloroethene	1	J
75-34-3	1,1-Dichloroethane	1	U
594-20-7	2,2-Dichloropropane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
74-97-5	2-Butanone	3	U
74-97-5	Bromochloromethane	1	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
563-58-6	1,1-Dichloropropene	1	U
71-43-2	Benzene	270	D
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
74-95-3	Dibromomethane	1	U
75-27-4	Bromodichloromethane	1	U
10061-01-5	Cis-1,3-Dichloropropene	1	U
108-88-3	Toluene	1	
108-10-1	4-Methyl-2-Pentanone	4	
10061-02-6	Trans-1,3-Dichloropropene	1	U
127-18-4	Tetrachloroethene	1	U
79-00-5	1,1,2-Trichloroethane	2	U
142-28-9	1,3-Dichloropropane	1	U
591-78-6	2-Hexanone	2	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-90-7	Chlorobenzene	1	U
630-20-6	1,1,1,2-Tetrachloroethane	1	U
100-41-4	Ethylbenzene	1	U
1083836423	m &/or p-Xylene	1	U
95-47-6	o-Xylene	1	U
100-42-5	Styrene	1	U
75-25-2	Bromoform	1	U
98-82-8	Isopropylbenzene	1	U
108-86-1	Bromobenzene	1	U
96-18-4	1,2,3-Trichloropropane	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
103-65-1	n-Propylbenzene	1	U
95-49-8	2-Chlorotoluene	1	U
106-43-4	4-Chlorotoluene	1	U
108-67-8	1,3,5-Trimethylbenzene	1	U

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter: **VOA**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER** Method: **B624SAS.0**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S11**
Units: **ug/L**

Date Collected: **27-MAR-97**
Date Extracted: **07-APR-97**

Date Received: **28-MAR-97**
Date Analyzed: **07-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
98-06-6	tert-Butylbenzene	1	U
95-63-6	1,2,4-Trimethylbenzene	1	U
135-98-8	sec-Butylbenzene	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
99-87-6	p-Isopropyltoluene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
104-51-8	n-Butylbenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	2	U
120-82-1	1,2,4-Trichlorobenzene	1	U
91-20-3	Naphthalene	1	U
87-68-3	Hexachlorobutadiene	1	U
87-61-6	1,2,3-Trichlorobenzene	1	U

Analyzed by: A. Guglietta / Lockheed ESAT

Team Leader: [signature]

EPA RLIMS CRL - REGION V
TENTATIVELY IDENTIFIED COMPOUNDS
REPORT PRODUCED ON: 17-APR-97

SAMPLE ORGANIZATION: **B & V** SAMPLE BATCH ID: **970071**
SAMPLE REQUESTOR: **ASWOK LUPARR1** ACCOUNT NO: **TFA301**
LABORATORY: **ESAT** FACILITY: **AMERICAN CHEMICAL SERVICES INC**

B624SAS.0 (624VOA ANALYSIS OF VOAs IN SF/NPDES WAT

SAMPLE: **97ZB04S11** FIELD: **97ZB04S11** CONTROL TYPE: **SAM**

COLLECTED: **27-MAR-97** RECEIVED: **28-MAR-97** ANALYZED: **07-APR-97**

COMPOUND	EST. CONC.	RT	Q	CAS NUMBER
DIISOPROPYL ETHER	**6 J**	**9.15**		**108203**
TETRAHYDROFURAN	**2 J**	**10.24**		**109999**
DIETHYL SULFIDE	**4 J**	**11.82**		**352932**
HEPTANONE ISOMER	**4 J**	**14.46**		
DIETHYL DISULFIDE	**6 J**	**17.64**		**110816**
UNKNOWN CYCLOALKANE	**99 J**	**20.95**		

ANALYZED BY: A. Geglotta/Lockheed ESAT

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter: **VOA**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER** Method: **B624SAS.0**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S12**
Units: **ug/L**

Date Collected: **26-MAR-97**
Date Extracted: **04-APR-97**

Date Received: **26-MAR-97**
Date Analyzed: **04-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
74-87-3	Chloromethane	1	U
75-01-4	Vinyl Chloride	1	U
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	3	~~J~~ U cwB 06/11/97
75-15-0	Carbon Disulfide	1	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
594-20-7	2,2-Dichloropropane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
74-97-5	2-Butanone	3	U
74-97-5	Bromochloromethane	1	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
563-58-6	1,1-Dichloropropene	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
74-95-3	Dibromomethane	1	U
75-27-4	Bromodichloromethane	1	U
10061-01-5	Cis-1,3-Dichloropropene	1	U
108-88-3	Toluene	1	U
108-10-1	4-Methyl-2-Pentanone	2	U
10061-02-6	Trans-1,3-Dichloropropene	1	U
127-18-4	Tetrachloroethene	1	U
79-00-5	1,1,2-Trichloroethane	2	U
142-28-9	1,3-Dichloropropane	1	U
591-78-6	2-Hexanone	2	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-90-7	Chlorobenzene	1	U
630-20-6	1,1,1,2-Tetrachloroethane	1	U
100-41-4	Ethylbenzene	1	U
1083836423	m &/or p-Xylene	1	U
95-47-6	o-Xylene	1	U
100-42-5	Styrene	1	U
75-25-2	Bromoform	1	U
98-82-8	Isopropylbenzene	1	U
108-86-1	Bromobenzene	1	U
96-18-4	1,2,3-Trichloropropane	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	UJ
103-65-1	n-Propylbenzene	1	U
95-49-8	2-Chlorotoluene	1	U
106-43-4	4-Chlorotoluene	1	U
108-67-8	1,3,5-Trimethylbenzene	1	U

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter: **VOA**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER** Method: **B624SAS.0**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S12**
Units: **ug/L**

Date Collected: **26-MAR-97**
Date Extracted: **04-APR-97**

Date Received: **26-MAR-97**
Date Analyzed: **04-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
98-06-6	tert-Butylbenzene	1	U
95-63-6	1,2,4-Trimethylbenzene	1	U
135-98-8	sec-Butylbenzene	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
99-87-6	p-Isopropyltoluene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
104-51-8	n-Butylbenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	2	UJ
120-82-1	1,2,4-Trichlorobenzene	1	U
91-20-3	Naphthalene	1	U
87-68-3	Hexachlorobutadiene	1	U
87-61-6	1,2,3-Trichlorobenzene	1	U

Analyzed by: A. Meglitta / Lockheed ESAT
Team Leader:

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter:**VOA**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix:**WATER** Method:**B624SAS.0**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S13**
Units: **ug/L**

Date Collected:**26-MAR-97**
Date Extracted:**03-APR-97**

Date Received:**26-MAR-97**
Date Analyzed:**03-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
74-87-3	Chloromethane	1	U
75-01-4	Vinyl Chloride	1	U
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	3	U
75-15-0	Carbon Disulfide	1	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
594-20-7	2,2-Dichloropropane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
74-97-5	2-Butanone	3	U
74-97-5	Bromochloromethane	1	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
563-58-6	1,1-Dichloropropene	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
74-95-3	Dibromomethane	1	U
75-27-4	Bromodichloromethane	1	U
10061-01-5	Cis-1,3-Dichloropropene	1	U
108-88-3	Toluene	1	U
108-10-1	4-Methyl-2-Pentanone	2	U
10061-02-6	Trans-1,3-Dichloropropene	1	U
127-18-4	Tetrachloroethene	1	U
79-00-5	1,1,2-Trichloroethane	2	U
142-28-9	1,3-Dichloropropane	1	U
591-78-6	2-Hexanone	2	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-90-7	Chlorobenzene	1	U
630-20-6	1,1,1,2-Tetrachloroethane	1	U
100-41-4	Ethylbenzene	1	U
1083836423	m &/or p-Xylene	1	U
95-47-6	o-Xylene	1	U
100-42-5	Styrene	1	U
75-25-2	Bromoform	1	U
98-82-8	Isopropylbenzene	1	U
108-86-1	Bromobenzene	1	U
96-18-4	1,2,3-Trichloropropane	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
103-65-1	n-Propylbenzene	1	U
95-49-8	2-Chlorotoluene	1	U
106-43-4	4-Chlorotoluene	1	U
108-67-8	1,3,5-Trimethylbenzene	1	U

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter: **VOA**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER**
Method: **B624SAS.0**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S13**
Units: **ug/L**

Date Collected: **26-MAR-97**
Date Extracted: **03-APR-97**

Date Received: **26-MAR-97**
Date Analyzed: **03-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
98-06-6	tert-Butylbenzene	1	U
95-63-6	1,2,4-Trimethylbenzene	1	U
135-98-8	sec-Butylbenzene	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
99-87-6	p-Isopropyltoluene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
104-51-8	n-Butylbenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	2	UJ
120-82-1	1,2,4-Trichlorobenzene	1	U
91-20-3	Naphthalene	1	U
87-68-3	Hexachlorobutadiene	1	UJ
87-61-6	1,2,3-Trichlorobenzene	1	U

Analyzed by: A. Degliotta / Lockheed ESAT

Team Leader:

EPA RLIMS CRL - REGION V
TENTATIVELY IDENTIFIED COMPOUNDS
REPORT PRODUCED ON: 17-APR-97

SAMPLE ORGANIZATION: **B & V** SAMPLE BATCH ID: **970071**
SAMPLE REQUESTOR: **ASWOK LUPARR1** ACCOUNT NO: **TFA301**
LABORATORY: **ESAT** FACILITY: **AMERICAN CHEMICAL SERVICES INC**

B624SAS.0 (624VOA ANALYSIS OF VOAs IN SF/NPDES WAT

SAMPLE: **97ZB04S13** FIELD: **97ZB04S13** CONTROL TYPE: **SAM**

COLLECTED: **26-MAR-97** RECEIVED: **26-MAR-97** ANALYZED: **03-APR-97**

COMPOUND	EST. CONC.	RT	Q	CAS NUMBER
DIETHYL ETHER	**92 J**	**7.45**		**60297**
2-ETHYL-1-HEXANOL	**4 J**	**20.07**		**104767**

ANALYZED BY: A. Greglutta / Lockheed ESAT

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter:**VOA**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
cility: **AMERICAN CHEMICAL SERVICES INC**
atrix:**WATER** Method:**B624SAS.0**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S14**
Units: **ug/L**

Date Collected:**28-MAR-97**
Date Extracted:**07-APR-97**

Date Received:**28-MAR-97**
Date Analyzed:**07-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
74-87-3	Chloromethane	1	U
75-01-4	Vinyl Chloride	1	U
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	35	D
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	3	U
75-15-0	Carbon Disulfide	1	U
75-09-2	Methylene Chloride	2	~~B~~ U CLB 06/11/97
156-60-5	trans-1,2-Dichloroethene	3	
75-34-3	1,1-Dichloroethane	3	
594-20-7	2,2-Dichloropropane	1	U
156-59-2	cis-1,2-Dichloroethene	2	
74-97-5	2-Butanone	3	U
74-97-5	Bromochloromethane	1	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
563-58-6	1,1-Dichloropropene	1	U
71-43-2	Benzene	30	D
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
74-95-3	Dibromomethane	1	U
75-27-4	Bromodichloromethane	1	U
10061-01-5	Cis-1,3-Dichloropropene	1	U
108-88-3	Toluene	1	U
108-10-1	4-Methyl-2-Pentanone	2	
10061-02-6	Trans-1,3-Dichloropropene	1	U
127-18-4	Tetrachloroethene	1	U
79-00-5	1,1,2-Trichloroethane	2	U
142-28-9	1,3-Dichloropropane	1	U
591-78-6	2-Hexanone	2	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-90-7	Chlorobenzene	1	U
630-20-6	1,1,1,2-Tetrachloroethane	1	U
100-41-4	Ethylbenzene	1	U
1083836423	m &/or p-Xylene	1	U
95-47-6	o-Xylene	1	U
100-42-5	Styrene	1	U
75-25-2	Bromoform	1	U
98-82-8	Isopropylbenzene	1	U
108-86-1	Bromobenzene	1	U
96-18-4	1,2,3-Trichloropropane	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
103-65-1	n-Propylbenzene	1	U
95-49-8	2-Chlorotoluene	1	U
106-43-4	4-Chlorotoluene	1	U
108-67-8	1,3,5-Trimethylbenzene	1	U

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter:**VOA**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix:**WATER** Method:**B624SAS.0**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S14**
Units: **ug/L**

Date Collected:**28-MAR-97**
Date Extracted:**07-APR-97**

Date Received:**28-MAR-97**
Date Analyzed:**07-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
98-06-6	tert-Butylbenzene	1	U
95-63-6	1,2,4-Trimethylbenzene	1	U
135-98-8	sec-Butylbenzene	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
99-87-6	p-Isopropyltoluene	1	U
95-50-1	1,2-Dichlorobenzene	1	J
104-51-8	n-Butylbenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	2	U
120-82-1	1,2,4-Trichlorobenzene	1	U
91-20-3	Naphthalene	1	U
87-68-3	Hexachlorobutadiene	1	U
87-61-6	1,2,3-Trichlorobenzene	1	U

Analyzed by: A. Guglotta / Lockheed ESAT

Team Leader:

EPA RLIMS CRL - REGION V
TENTATIVELY IDENTIFIED COMPOUNDS
REPORT PRODUCED ON: 17-APR-97

MPLE ORGANIZATION: **B & V**
AMPLE REQUESTOR: **ASWOK LUPARR1**
LABORATORY: **ESAT**

SAMPLE BATCH ID: **970071**
ACCOUNT NO: **TFA301**
FACILITY: **AMERICAN CHEMICAL SERVICES INC**

B624SAS.0 (624VOA ANALYSIS OF VOAs IN SF/NPDES WAT

SAMPLE: **97ZB04S14** FIELD: **97ZB04S14** CONTROL TYPE: **SAM**

COLLECTED: **28-MAR-97** RECEIVED: **28-MAR-97** ANALYZED: **07-APR-97**

COMPOUND	EST. CONC.	RT	Q	CAS NUMBER
UNKNOWN CYCLOALKANE	**10 J**	**20.95**		

ANALYZED BY: A. Guglietta / Lockheed ESAT

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter: **VOA**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER** Method: **B624SAS.0**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04D14**
Units: **ug/L**

Date Collected: **28-MAR-97**
Date Extracted: **07-APR-97**

Date Received: **28-MAR-97**
Date Analyzed: **07-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
74-87-3	Chloromethane	1	U
75-01-4	Vinyl Chloride	1	U
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	31	D
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	3	U
75-15-0	Carbon Disulfide	1	U
75-09-2	Methylene Chloride	2	~~B~~ U 04/13 06/11/97
156-60-5	trans-1,2-Dichloroethene	3	
75-34-3	1,1-Dichloroethane	3	
594-20-7	2,2-Dichloropropane	1	U
156-59-2	cis-1,2-Dichloroethene	2	
74-97-5	2-Butanone	3	U
74-97-5	Bromochloromethane	1	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
563-58-6	1,1-Dichloropropene	1	U
71-43-2	Benzene	36	D
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
74-95-3	Dibromomethane	1	U
75-27-4	Bromodichloromethane	1	U
10061-01-5	Cis-1,3-Dichloropropene	1	U
108-88-3	Toluene	1	U
108-10-1	4-Methyl-2-Pentanone	2	J
10061-02-6	Trans-1,3-Dichloropropene	1	U
127-18-4	Tetrachloroethene	1	U
79-00-5	1,1,2-Trichloroethane	2	U
142-28-9	1,3-Dichloropropane	1	U
591-78-6	2-Hexanone	2	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-90-7	Chlorobenzene	1	U
630-20-6	1,1,1,2-Tetrachloroethane	1	U
100-41-4	Ethylbenzene	1	U
1083836423	m &/or p-Xylene	1	U
95-47-6	o-Xylene	1	U
100-42-5	Styrene	1	U
75-25-2	Bromoform	1	U
98-82-8	Isopropylbenzene	1	U
108-86-1	Bromobenzene	1	U
96-18-4	1,2,3-Trichloropropane	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
103-65-1	n-Propylbenzene	1	U
95-49-8	2-Chlorotoluene	1	U
106-43-4	4-Chlorotoluene	1	U
108-67-8	1,3,5-Trimethylbenzene	1	U

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter: **VOA**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER** Method: **B624SAS.0**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04D14**
Units: **ug/L**

Date Collected: **28-MAR-97**
Date Extracted: **07-APR-97**

Date Received: **28-MAR-97**
Date Analyzed: **07-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
98-06-6	tert-Butylbenzene	1	U
95-63-6	1,2,4-Trimethylbenzene	1	U
135-98-8	sec-Butylbenzene	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
99-87-6	p-Isopropyltoluene	1	U
95-50-1	1,2-Dichlorobenzene	1	J
104-51-8	n-Butylbenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	2	U
120-82-1	1,2,4-Trichlorobenzene	1	U
91-20-3	Naphthalene	1	U
87-68-3	Hexachlorobutadiene	1	U
87-61-6	1,2,3-Trichlorobenzene	1	U

Analyzed by: A. Guglietta/Lockheed ESAT

Team Leader: [signature]

IDENTIFIED COMPOUNDS

REPORT PRODUCED ON: 17-APR-97

SAMPLE ORGANIZATION: **B & V**
SAMPLE REQUESTOR: **ASWOK LUPARR1**
LABORATORY: **ESAT**

SAMPLE BATCH ID: **970071**
ACCOUNT NO: **TFA301**
FACILITY: **AMERICAN CHEMICAL SERVICES INC**

B624SAS.0 (624VOA ANALYSIS OF VOAs IN SF/NPDES WAT

SAMPLE: **97ZB04D14** FIELD: **97ZB04D14** CONTROL TYPE: **SAM**

COLLECTED: **28-MAR-97** RECEIVED: **28-MAR-97** ANALYZED: **07-APR-97**

COMPOUND	EST. CONC.	RT	Q	CAS NUMBER
UNKNOWN CYCLOALKANE	**10 J**	**20.95**		

ANALYZED BY: Anthony Ingliotta / Lockheed ESAT

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter:**VOA**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix:**WATER** Method:**B624SAS.0**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S15**
Units: **ug/L**

Date Collected:**31-MAR-97**
Date Extracted:**07-APR-97**

Date Received:**28-MAR-97**
Date Analyzed:**07-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
74-87-3	Chloromethane	1	U
75-01-4	Vinyl Chloride	1	U
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	3	U
75-15-0	Carbon Disulfide	1	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
594-20-7	2,2-Dichloropropane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
74-97-5	2-Butanone	3	U
74-97-5	Bromochloromethane	1	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
563-58-6	1,1-Dichloropropene	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
74-95-3	Dibromomethane	1	U
75-27-4	Bromodichloromethane	1	U
10061-01-5	Cis-1,3-Dichloropropene	1	U
108-88-3	Toluene	1	U
108-10-1	4-Methyl-2-Pentanone	2	U
10061-02-6	Trans-1,3-Dichloropropene	1	U
127-18-4	Tetrachloroethene	1	U
79-00-5	1,1,2-Trichloroethane	2	U
142-28-9	1,3-Dichloropropane	1	U
591-78-6	2-Hexanone	2	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-90-7	Chlorobenzene	1	U
630-20-6	1,1,1,2-Tetrachloroethane	1	U
100-41-4	Ethylbenzene	1	U
1083836423	m &/or p-Xylene	1	U
95-47-6	o-Xylene	1	U
100-42-5	Styrene	1	U
75-25-2	Bromoform	1	U
98-82-8	Isopropylbenzene	1	U
108-86-1	Bromobenzene	1	U
96-18-4	1,2,3-Trichloropropane	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
103-65-1	n-Propylbenzene	1	U
95-49-8	2-Chlorotoluene	1	U
106-43-4	4-Chlorotoluene	1	U
108-67-8	1,3,5-Trimethylbenzene	1	U

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter: **VOA**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER** Method: **B624SAS.0**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S15**
Units: **ug/L**

Date Collected: **31-MAR-97**
Date Extracted: **07-APR-97**

Date Received: **28-MAR-97**
Date Analyzed: **07-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
98-06-6	tert-Butylbenzene	1	U
95-63-6	1,2,4-Trimethylbenzene	1	U
135-98-8	sec-Butylbenzene	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
99-87-6	p-Isopropyltoluene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
104-51-8	n-Butylbenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	2	U
120-82-1	1,2,4-Trichlorobenzene	1	U
91-20-3	Naphthalene	1	U
87-68-3	Hexachlorobutadiene	1	U
87-61-6	1,2,3-Trichlorobenzene	1	U

Analyzed by: A. Guglietta / Lockheed ESAT

Team Leader: [signature]

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter:**VOA**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix:**WATER** Method:**B624SAS.0**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S16**
Units: **ug/L**

Date Collected:**31-MAR-97**
Date Extracted:**07-APR-97**

Date Received:**28-MAR-97**
Date Analyzed:**07-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
74-87-3	Chloromethane	1	U
75-01-4	Vinyl Chloride	1	U
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	3	U
75-15-0	Carbon Disulfide	1	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
594-20-7	2,2-Dichloropropane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
74-97-5	2-Butanone	3	U
74-97-5	Bromochloromethane	1	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
563-58-6	1,1-Dichloropropene	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
74-95-3	Dibromomethane	1	U
75-27-4	Bromodichloromethane	1	U
10061-01-5	Cis-1,3-Dichloropropene	1	U
108-88-3	Toluene	1	U
108-10-1	4-Methyl-2-Pentanone	2	U
10061-02-6	Trans-1,3-Dichloropropene	1	U
127-18-4	Tetrachloroethene	1	U
79-00-5	1,1,2-Trichloroethane	2	U
142-28-9	1,3-Dichloropropane	1	U
591-78-6	2-Hexanone	2	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-90-7	Chlorobenzene	1	U
630-20-6	1,1,1,2-Tetrachloroethane	1	U
100-41-4	Ethylbenzene	1	U
1083836423	m &/or p-Xylene	1	U
95-47-6	o-Xylene	1	U
100-42-5	Styrene	1	U
75-25-2	Bromoform	1	U
98-82-8	Isopropylbenzene	1	U
108-86-1	Bromobenzene	1	U
96-18-4	1,2,3-Trichloropropane	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
103-65-1	n-Propylbenzene	1	U
95-49-8	2-Chlorotoluene	1	U
106-43-4	4-Chlorotoluene	1	U
108-67-8	1,3,5-Trimethylbenzene	1	U

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter: **VOA**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER** Method: **B624SAS.0**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S16**
Units: **ug/L**

Date Collected: **31-MAR-97**
Date Extracted: **07-APR-97**

Date Received: **28-MAR-97**
Date Analyzed: **07-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
98-06-6	tert-Butylbenzene	1	U
95-63-6	1,2,4-Trimethylbenzene	1	U
135-98-8	sec-Butylbenzene	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
99-87-6	p-Isopropyltoluene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
104-51-8	n-Butylbenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	2	U
120-82-1	1,2,4-Trichlorobenzene	1	U
91-20-3	Naphthalene	1	U
87-68-3	Hexachlorobutadiene	1	U
87-61-6	1,2,3-Trichlorobenzene	1	U

Analyzed by: A. Guglietta / Lockheed ESAT

Team Leader: [signature]

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter:**VOA**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix:**WATER** Method:**B624SAS.0**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S17**
Units: **ug/L**

Date Collected:**31-MAR-97**
Date Extracted:**07-APR-97**

Date Received:**28-MAR-97**
Date Analyzed:**07-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
74-87-3	Chloromethane	1	U CWB 06/10/97
75-01-4	Vinyl Chloride	1	U
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	3	U
75-15-0	Carbon Disulfide	1	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
594-20-7	2,2-Dichloropropane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
74-97-5	2-Butanone	3	U
74-97-5	Bromochloromethane	1	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
563-58-6	1,1-Dichloropropene	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
74-95-3	Dibromomethane	1	U
75-27-4	Bromodichloromethane	1	U
10061-01-5	Cis-1,3-Dichloropropene	1	U
108-88-3	Toluene	1	U
108-10-1	4-Methyl-2-Pentanone	2	U
10061-02-6	Trans-1,3-Dichloropropene	1	U
127-18-4	Tetrachloroethene	1	U
79-00-5	1,1,2-Trichloroethane	2	U
142-28-9	1,3-Dichloropropane	1	U
591-78-6	2-Hexanone	2	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-90-7	Chlorobenzene	1	U
630-20-6	1,1,1,2-Tetrachloroethane	1	U
100-41-4	Ethylbenzene	1	U
1083836423	m &/or p-Xylene	1	U
95-47-6	o-Xylene	1	U
100-42-5	Styrene	1	U
75-25-2	Bromoform	1	U
98-82-8	Isopropylbenzene	1	U
108-86-1	Bromobenzene	1	U
96-18-4	1,2,3-Trichloropropane	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
103-65-1	n-Propylbenzene	1	U
95-49-8	2-Chlorotoluene	1	U
106-43-4	4-Chlorotoluene	1	U
108-67-8	1,3,5-Trimethylbenzene	1	U

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter:**VOA**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix:**WATER** Method:**B624SAS.0**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S17**
Units: **ug/L**

Date Collected:**31-MAR-97**
Date Extracted:**07-APR-97**

Date Received:**28-MAR-97**
Date Analyzed:**07-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
98-06-6	tert-Butylbenzene	1	U
95-63-6	1,2,4-Trimethylbenzene	1	U
135-98-8	sec-Butylbenzene	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
99-87-6	p-Isopropyltoluene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
104-51-8	n-Butylbenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	2	U
120-82-1	1,2,4-Trichlorobenzene	1	U
91-20-3	Naphthalene	1	U
87-68-3	Hexachlorobutadiene	1	U
87-61-6	1,2,3-Trichlorobenzene	1	U

Analyzed by: A. Guglietta / Lockheed ESAT
Team Leader:

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter:**VOA**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix:**WATER** Method:**B624SAS.0**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S18**
Units: **ug/L**

Date Collected:**01-APR-97**
Date Extracted:**08-APR-97**

Date Received:**28-MAR-97**
Date Analyzed:**08-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
74-87-3	Chloromethane	1	U
75-01-4	Vinyl Chloride	1	U
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	3	U
75-15-0	Carbon Disulfide	1	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
594-20-7	2,2-Dichloropropane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
74-97-5	2-Butanone	3	U
74-97-5	Bromochloromethane	1	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
563-58-6	1,1-Dichloropropene	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
74-95-3	Dibromomethane	1	U
75-27-4	Bromodichloromethane	1	U
10061-01-5	Cis-1,3-Dichloropropene	1	U
108-88-3	Toluene	1	U
108-10-1	4-Methyl-2-Pentanone	2	U
10061-02-6	Trans-1,3-Dichloropropene	1	U
127-18-4	Tetrachloroethene	1	U
79-00-5	1,1,2-Trichloroethane	2	U
142-28-9	1,3-Dichloropropane	1	U
591-78-6	2-Hexanone	2	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-90-7	Chlorobenzene	1	U
630-20-6	1,1,1,2-Tetrachloroethane	1	U
100-41-4	Ethylbenzene	1	U
1083836423	m &/or p-Xylene	1	U
95-47-6	o-Xylene	1	U
100-42-5	Styrene	1	U
75-25-2	Bromoform	1	U
98-82-8	Isopropylbenzene	1	U
108-86-1	Bromobenzene	1	U
96-18-4	1,2,3-Trichloropropane	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
103-65-1	n-Propylbenzene	1	U
95-49-8	2-Chlorotoluene	1	U
106-43-4	4-Chlorotoluene	1	U
108-67-8	1,3,5-Trimethylbenzene	1	U

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter:**VOA**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix:**WATER** Method:**B624SAS.0**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S18**
Units: **ug/L**

Date Collected:**01-APR-97**
Date Extracted:**08-APR-97**

Date Received:**28-MAR-97**
Date Analyzed:**08-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
98-06-6	tert-Butylbenzene	1	U
95-63-6	1,2,4-Trimethylbenzene	1	U
135-98-8	sec-Butylbenzene	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
99-87-6	p-Isopropyltoluene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
104-51-8	n-Butylbenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	2	U
120-82-1	1,2,4-Trichlorobenzene	1	U
91-20-3	Naphthalene	1	U
87-68-3	Hexachlorobutadiene	1	U
87-61-6	1,2,3-Trichlorobenzene	1	U

Analyzed by: A. Guglietta / Lockheed ESAT

Team Leader:

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter:**VOA**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix:**WATER** Method:**B624SAS.0**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S19**
Units: **ug/L**

Date Collected:**01-APR-97**
Date Extracted:**07-APR-97**

Date Received:**02-APR-97**
Date Analyzed:**07-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
74-87-3	Chloromethane	1	U
75-01-4	Vinyl Chloride	1	U
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	3	U
75-15-0	Carbon Disulfide	1	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
594-20-7	2,2-Dichloropropane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
74-97-5	2-Butanone	3	U
74-97-5	Bromochloromethane	1	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
563-58-6	1,1-Dichloropropene	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
74-95-3	Dibromomethane	1	U
75-27-4	Bromodichloromethane	1	U
10061-01-5	Cis-1,3-Dichloropropene	1	U
108-88-3	Toluene	1	U
108-10-1	4-Methyl-2-Pentanone	2	U
10061-02-6	Trans-1,3-Dichloropropene	1	U
127-18-4	Tetrachloroethene	1	U
79-00-5	1,1,2-Trichloroethane	2	U
142-28-9	1,3-Dichloropropane	1	U
591-78-6	2-Hexanone	2	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-90-7	Chlorobenzene	1	U
630-20-6	1,1,1,2-Tetrachloroethane	1	U
100-41-4	Ethylbenzene	1	U
1083836423	m &/or p-Xylene	1	U
95-47-6	o-Xylene	1	U
100-42-5	Styrene	1	U
75-25-2	Bromoform	1	U
98-82-8	Isopropylbenzene	1	U
108-86-1	Bromobenzene	1	U
96-18-4	1,2,3-Trichloropropane	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
103-65-1	n-Propylbenzene	1	U
95-49-8	2-Chlorotoluene	1	U
106-43-4	4-Chlorotoluene	1	U
108-67-8	1,3,5-Trimethylbenzene	1	U

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter: **VOA**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER** Method: **B624SAS.0**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S1**
Units: **ug/L**

Date Collected: **01-APR-97**
Date Extracted: **07-APR-97**

Date Received: **02-APR-97**
Date Analyzed: **07-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
98-06-6	tert-Butylbenzene	1	U
95-63-6	1,2,4-Trimethylbenzene	1	U
135-98-8	sec-Butylbenzene	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
99-87-6	p-Isopropyltoluene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
104-51-8	n-Butylbenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	2	U
120-82-1	1,2,4-Trichlorobenzene	1	U
91-20-3	Naphthalene	1	U
87-68-3	Hexachlorobutadiene	1	U
87-61-6	1,2,3-Trichlorobenzene	1	U

Analyzed by: Anthony Guglietta / Lockheed ESAT

Team Leader: [signature]

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter: **VOA**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER** Method: **B624SAS.0**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S20**
Units: **ug/L**

Date Collected: **02-APR-97**
Date Extracted: **08-APR-97**

Date Received: **02-APR-97**
Date Analyzed: **08-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
74-87-3	Chloromethane	1	U
75-01-4	Vinyl Chloride	1	U
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	3	U
75-15-0	Carbon Disulfide	1	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
594-20-7	2,2-Dichloropropane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
74-97-5	2-Butanone	3	U
74-97-5	Bromochloromethane	1	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
563-58-6	1,1-Dichloropropene	1	U
71-43-2	Benzene	23	
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
74-95-3	Dibromomethane	1	U
75-27-4	Bromodichloromethane	1	U
10061-01-5	Cis-1,3-Dichloropropene	1	U
108-88-3	Toluene	1	U
108-10-1	4-Methyl-2-Pentanone	2	U
10061-02-6	Trans-1,3-Dichloropropene	1	U
127-18-4	Tetrachloroethene	1	U
79-00-5	1,1,2-Trichloroethane	2	U
142-28-9	1,3-Dichloropropane	1	U
591-78-6	2-Hexanone	2	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-90-7	Chlorobenzene	1	U
630-20-6	1,1,1,2-Tetrachloroethane	1	U
100-41-4	Ethylbenzene	1	U
1083836423	m &/or p-Xylene	1	U
95-47-6	o-Xylene	1	U
100-42-5	Styrene	1	U
75-25-2	Bromoform	1	U
98-82-8	Isopropylbenzene	1	U
108-86-1	Bromobenzene	1	U
96-18-4	1,2,3-Trichloropropane	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
103-65-1	n-Propylbenzene	1	U
95-49-8	2-Chlorotoluene	1	U
106-43-4	4-Chlorotoluene	1	U
108-67-8	1,3,5-Trimethylbenzene	1	U

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter: **VOA**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER** Method: **B624SAS.0**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S20**
Units: **ug/L**

Date Collected: **02-APR-97**
Date Extracted: **08-APR-97**

Date Received: **02-APR-97**
Date Analyzed: **08-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
98-06-6	tert-Butylbenzene	1	U
95-63-6	1,2,4-Trimethylbenzene	1	U
135-98-8	sec-Butylbenzene	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
99-87-6	p-Isopropyltoluene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
104-51-8	n-Butylbenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	2	U
120-82-1	1,2,4-Trichlorobenzene	1	U
91-20-3	Naphthalene	1	U
87-68-3	Hexachlorobutadiene	1	U
87-61-6	1,2,3-Trichlorobenzene	1	U

Analyzed by: A. Gigliotta / Lockheed ESAT

Team Leader: [signature]

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter:**VOA**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix:**WATER** Method:**B624SAS.0**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S21**
Units: **ug/L**

Date Collected:**01-APR-97**
Date Extracted:**08-APR-97**

Date Received:**02-APR-97**
Date Analyzed:**08-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
74-87-3	Chloromethane	1	U
75-01-4	Vinyl Chloride	140	D
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	27	D
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	10	U CWB 06/11/97
75-15-0	Carbon Disulfide	1	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	3	
75-34-3	1,1-Dichloroethane	240	
594-20-7	2,2-Dichloropropane	1	U
156-59-2	cis-1,2-Dichloroethene	190	
74-97-5	2-Butanone	3	U
74-97-5	Bromochloromethane	1	U
67-66-3	Chloroform	7	
71-55-6	1,1,1-Trichloroethane	160	D
56-23-5	Carbon Tetrachloride	1	U
563-58-6	1,1-Dichloropropene	1	U
71-43-2	Benzene	110	D
107-06-2	1,2-Dichloroethane	6	
79-01-6	Trichloroethene	3	
78-87-5	1,2-Dichloropropane	1	U
74-95-3	Dibromomethane	1	U
75-27-4	Bromodichloromethane	1	U
10061-01-5	Cis-1,3-Dichloropropene	1	U
108-88-3	Toluene	45	D
108-10-1	4-Methyl-2-Pentanone	2	U
10061-02-6	Trans-1,3-Dichloropropene	1	U
127-18-4	Tetrachloroethene	1	
79-00-5	1,1,2-Trichloroethane	3	
142-28-9	1,3-Dichloropropane	1	U
591-78-6	2-Hexanone	2	U
124-48-1	Dibromochloromethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-90-7	Chlorobenzene	1	J
630-20-6	1,1,1,2-Tetrachloroethane	1	U
100-41-4	Ethylbenzene	5	
1083836423	m &/or p-Xylene	16	
95-47-6	o-Xylene	29	D
100-42-5	Styrene	1	U
75-25-2	Bromoform	1	U
98-82-8	Isopropylbenzene	1	U
108-86-1	Bromobenzene	1	U
96-18-4	1,2,3-Trichloropropane	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	
103-65-1	n-Propylbenzene	1	U
95-49-8	2-Chlorotoluene	1	U
106-43-4	4-Chlorotoluene	1	U
108-67-8	1,3,5-Trimethylbenzene	11	

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter:**VOA**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix:**WATER** Method:**B624SAS.0**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S21**
Units: **ug/L**

Date Collected:**01-APR-97**
Date Extracted:**08-APR-97**

Date Received:**02-APR-97**
Date Analyzed:**08-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
98-06-6	tert-Butylbenzene	1	U
95-63-6	1,2,4-Trimethylbenzene	32	D
135-98-8	sec-Butylbenzene	1	U
541-73-1	1,3-Dichlorobenzene	1	J
106-46-7	1,4-Dichlorobenzene	1	
99-87-6	p-Isopropyltoluene	1	J
95-50-1	1,2-Dichlorobenzene	7	
104-51-8	n-Butylbenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	2	U
120-82-1	1,2,4-Trichlorobenzene	1	U
91-20-3	Naphthalene	8	
87-68-3	Hexachlorobutadiene	1	U
87-61-6	1,2,3-Trichlorobenzene	1	U

Analyzed by: Anthony Guglietta / Lockheed ESAT

Team Leader:

EPA RLIMS CRL - REGION V
TENTATIVELY IDENTIFIED COMPOUNDS
REPORT PRODUCED ON: 17-APR-97

SAMPLE ORGANIZATION: **B & V** SAMPLE BATCH ID: **970071**
SAMPLE REQUESTOR: **ASWOK LUPARR1** ACCOUNT NO: **TFA301**
LABORATORY: **ESAT** FACILITY: **AMERICAN CHEMICAL SERVICES INC**

B624SAS.0 (624VOA ANALYSIS OF VOAs IN SF/NPDES WAT

SAMPLE: **97ZB04S21** FIELD: **97ZB04S21** CONTROL TYPE: **SAM**

COLLECTED: **01-APR-97** RECEIVED: **02-APR-97** ANALYZED: **08-APR-97**

COMPOUND	EST. CONC.	RT	Q	CAS NUMBER
DIETHYL DISULFIDE	**4 J**	**17.67**		**110816**
ETHYLMETHYLBENZENE	**4 J**	**18.38**		
ETHYLMETHYLBENZENE	**19 J**	**18.86**		
INDAN	**9 J**	**20.33**		**496117**
C4-BENZENE	**6 J**	**20.96**		
C4-BENZENE	**6 J**	**21.09**		
C4-BENZENE	**2 J**	**21.67**		
C4-BENZENE	**3 J**	**21.84**		
C4-BENZENE	**8 J**	**21.94**		
METHYLINDAN	**7 J**	**22.84**		

ANALYZED BY: A. Ingliotta / Lockheed ESAT

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 CENTRAL REGIONAL LABORATORY

536 SOUTH CLARK STREET

CHICAGO, ILLINOIS 60605

Date: APR 28 1997

Subject: Review of Region 5 Data for **AMERICAN CHEMICAL SERVICE**
From: Charles T. Elly, Director
Region 5 Central Regional Laboratory

To: B & V

Attached are the results for **American Chemical Service**
CRL request number: **970071**
Analyzed for: **ABN (Organics)**
Results are reported for sample designations: 97ZB04S01 to -S20, -D14, -R02 and -R11 (23 samples)

Results Status:
(X) Acceptable for Use **except** the compound results qualified **UJ** or **J**. Please see attached case narrative.

(X) Data Qualified but acceptable for Use for the compounds qualified **UJ** or **J**. See the attached case narrative.

( ) Data Unacceptable for Use.

(X) Sewer Disposal Criteria Met; Exceptions: none
Comments on Data Quality by Reviewer:

- Lab Control Sample (QC sample) results are presented in CLP Form III format since the laboratory's current software does not generate CLP Form XI .

  Please see the attached case narrative.

Comments by Laboratory Director or Quality Control Coordinator

Review Record for **American Chemical Service** **970071** **ABN (Organics)**

Barbara Paruchowitz 04/22/97

Task Monitor Date (X) Reviewed ( ) Unreviewed

Chi M. Tang 4/25/97

Team Leader Date (✓) Reviewed ( ) Unreviewed

Chuck E. Elby 4/25/97

QC Coordinator (**VACANT**) Date ( ) Reviewed (✓) Unreviewed

Sylvia Griffin APR 28 1997

Data Management Coordinator and Date Received

Date Transmitted APR 28 1997

Please sign and date this form below and return it with any comments to:

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
ML - 10C

Received by and Date

Comments:

970071

TFA301

ENVIRONMENTAL PROTECTION AGENCY
FOR THE TEAM: TOXIC SUBSTANCES

DIVISION/BRANCH SUPERFUND SAMPLE DATE 3/26-28/97 LAB ARRIVAL DATE 3/28/97 DUE DATE 4/18/97

DU NUMBER TFA DATA SET NUMBER 970071 STUDY AMERICAN CHEMICAL SERVICE PRIORITY N CONTRACTOR BLACK & VEATCH

CRL LOG NUMBER	SAMPLE DESCRIPTION	WATER VOLATILE ORGANICS SCAN UG/L TOX 17684	WATER ABN ORGANICS SCAN UG/L TOX 17674	SEDIMENTS SOLIDS VOLATILE ORGANICS SCAN MG/KG (DRY) TOX 215622	SEDIMENTS SOLIDS ABN ORGANICS SCAN MG/KG (DRY) TOX 215722
972B04S03	ACS-GW03-001 5-164682		X		
972B04S04	ACS-GW04-001 5-164688		X		
972B04S05	ACS-GW05-001 5-164695		X		
972B04S06	ACS-GW06-001 5-164895		X		
972B04S08	ACS-GW08-001 5-164430		X		
972B04S09	ACS-GW09-001 5-164997		X		
972B04S10	ACS-GW10-001 5-164898		X		
972B04R02	ACS-RB01-201 5-164412		X		
972B04S14	ACS-GW14-001 5-164406		X		
972B04D14	ACS-GW14-101 5-150067		X		

4-1-97

970071

TFA30

ENVIRONMENTAL PROTECTION AGENCY
FOR THE TEAM: TOXIC SUBSTANCES

DIVISION/BRANCH Superfund. SAMPLE DATE 4/1/92 LAB ARRIVAL DATE 4/2/92 DUE DATE 4/23/92

DU NUMBER TFA DATA SET NUMBER 970071 STUDY American Chem PRIORITY N CONTRACTOR Black & Veatch

CRL LOG NUMBER	SAMPLE DESCRIPTION	WATER VOLATILE ORGANICS SCAN UG/L TOX 17684	WATER ABN ORGANICS SCAN UG/L TOX 17674	SEDIMENTS SOLIDS VOLATILE ORGANICS SCAN MG/KG (DRY) TOX 216622	SEDIMENTS SOLIDS ABN ORGANICS SCAN MG/KG (DRY) TOX 215722
97ZB04 S19	ACS-PWL-001 5-150033-34	X			
97ZB04 S20	ACS-ATMW4D-001 5-150027-28	X			
97ZB04 S21	ACS-SW02-001 5-150039-40	X			
97ZB04 R10	ACS-TB11-201 5-150019-20	X			
97ZB04 R11	ACS-RB11-201 5-150021-22	X			
97ZB04 S19	ACS-PWL-001 5-150035		X		
97ZB04 S20	ACS-ATMW4D-001 5-150029		X		
97ZB04 R11	ACS-RB11-201 5-150023		X		

4-2-97

970071 TFA301

ENVIRONMENTAL PROTECTION AGENCY
FOR THE TEAM: TOXIC SUBSTANCES

DIVISION/BRANCH SUPERFUND SAMPLE DATE 3/27/97 LAB ARRIVAL DATE 3/31/97 DUE DATE 4/21/97

DU NUMBER TFA DATA SET NUMBER 970071 STUDY AMERICAN CHEMICAL SERVICES PRIORITY N CONTRACTOR BLACK & VEATCH

CRL LOG NUMBER	SAMPLE DESCRIPTION SAMPLE TAG #5-150051 VOA-SAMPLE NUMBER-97ZB04S07 RECEIVED W/A BRUICON IN COOLER 3/31/97	WATER VOLATILE ORGANICS SCAN UG/L TOX 17664	WATER ABN ORGANICS SCAN UG/L TOX 17674	SEDIMENTS SOLIDS VOLATILE ORGANICS SCAN MG/KG (DRY) TOX 216622	SEDIMENTS SOLIDS ABN ORGANICS SCAN MG/KG (DRY) TOX 215722
97ZB04S07	5-150052-53-54/5-164422-23 ACS-GW07-001 MS/MSD	X			
97ZB04S11	5-164561/5-164899 ACS-GW11-001	X			
97ZB04R08	5-164498-499 ACS-TB06-201	X			
97ZB04S07	5-164424/5-150055-56 ACS-GW07-001 MS/MSD		X		
97ZB04S11	ACS-GW11-001 5-164552		X		

4-1-97

970071

TFA301

ENVIRONMENTAL PROTECTION AGENCY
FOR THE TEAM: TOXIC SUBSTANCES

DIVISION/BRANCH SUPERFUND SAMPLE DATE 3/25-26/97 LAB ARRIVAL DATE 3/26/97 DUE DATE 4/16/97

DU NUMBER TFA DATA SET NUMBER 970071 STUDY AMERICAN CHEMICAL SERVICE PRIORITY N CONTRACTOR BLACK & VEATCH

CRL LOG NUMBER	SAMPLE DESCRIPTION	WATER VOLATILE ORGANICS SCAN UG/L TOX 17664	WATER ABN ORGANICS SCAN UG/L TOX 17674	SEDIMENTS SOLIDS VOLATILE ORGANICS SCAN MG/KG (DRY) TOX 216622	SEDIMENTS SOLIDS ABN ORGANICS SCAN MG/KG (DRY) TOX 215722
97ZB04S01	ACS-GW01-001 5-164668-669	X			
97ZB04S02	ACS-GW02-001 5-164674-675	X			
97ZB04S12	ACS-GW12-001 5-164556-557	X			
97ZB04S13	ACS-GW13-001 5-164562-563	X			
97ZB04R01	ACS-TB01-201 5-164402-403	X			
97ZB04S01	ACS-GW01-001 5-164670		X		
97ZB04S02	ACS-GW02-001 5-164676		X		
97ZB04S12	ACS-GW12-001 5-164558		X		
97ZB04S13	ACS-GW13-001 5-164486		X		

4-1-97

970011 TFA 301

ENVIRONMENTAL PROTECTION AGENCY
FOR THE TEAM: TOXIC SUBSTANCES

DIVISION/BRANCH SUPERFUND SAMPLE DATE 3/31-4/1/97 LAB ARRIVAL DATE 4/1/97 DUE DATE 4/22/97

DU NUMBER TFA DATA SET NUMBER 970071 STUDY AMERICAN CHEMICAL SERVICES PRIORITY N CONTRACTOR BLACK & VEATCH

CHL LOG NUMBER	SAMPLE DESCRIPTION	WATER VOLATILE ORGANICS SCAN UG/L TOX 17684	WATER ABN ORGANICS SCAN UG/L TOX 17674	SEDIMENTS SOLIDS VOLATILE ORGANICS SCAN MG/KG (DRY) TOX 216622	SEDIMENTS SOLIDS ABN ORGANICS SCAN MG/KG (DRY) TOX 215722
972B04S15	ACS-GW15-001 5-150063 5-150064	X			
972B04S16	ACS-GW16-001 5-150076 5-150077	X			
972B04S17	ACS-GW17-001 5-150084 5-150085	X			
972B04S18	ACS-GW18-001 5-150001 5-150002	X			
972B04R09	ACS-R08-201 5-164784 5-164785	X			
972B04S15	ACS-GW15-001 5-150072		X		
972B04S16	ACS-GW16-001 5-150078		X		
972B04S17	ACS-GW17-001 5-150086		X		
972B04S18	ACS-GW18-001 5150004		X		

4-3-97

CASE NARRATIVE

DATE: April 15, 1997

PROJECT NAME: American Chemical Service
CRL Case #: 970071 Analysis of Semivolatile Organic Analytes (SVOA)

ANALYST: Ziyad Rajabi, Lockheed/ESAT Organic Group Leader ZR

REVIEWERS: Ira Wilson, ESAT Organic Supervisor
Dennis Miller, Lockheed/ESAT Team Manager DMiller
Babu Paruchuri, EPA Task Monitor BP

I. CASE DESCRIPTION:

The laboratory received twenty-three water samples (97ZB04S01 to -S20, -R02, -R11, and -D14)during the period of March 26, 1997 to April 2, 1997 for Semivolatile organic analytes (SVOA) analysis. The samples were collected during the period of March 25, 1997 and April 1, 1997 and were extracted during the period of March 28, 1997 to April 3, 1997 which is within the holding time requirements for water samples. [QC Criteria for holding time: Seven days from the date of collection]. The sample extracts were analyzed within the holding time requirements. [QC Criteria for sample holding time: Forty days from the date of the extraction]. No problems were observed.

II. INSTRUMENT QUALITY CONTROLS:

1. **Instrument Performance Check:** Performance checks using decafluorotriphenylphosphine (DFTPP) were made to determine if acceptable EPA tuning criteria were met. The QC criteria are the same as the CLP IFB's criteria. No problems were observed.

2. **Initial Calibrations (IC):** An acceptable five-point initial calibration (IC) is required for all target compounds before samples can be analyzed. (QC criteria for IC: %RSD must be ≤ 30%).

The initial calibration was generated on April 1, 1997. All of the target compounds %RSDs were acceptable except di-n-octylphthalate(%RSD=37.83); therefore, results for di-n-octylphthalate will be flagged as estimated (J) for detected compounds while all non-detects will be flagged as estimated (UJ). No other problems were observed.

3. **Continuing Calibrations (CC):** The QC criteria for the

continuing calibration are (CC: %D must be ≤ 25%). Six continuing calibrations were associated with this data set.

The first continuing calibration was generated on April 1, 1997 (040197CC25B). All of the target compounds %Ds were acceptable. No problems were observed.

The second continuing calibration was generated on April 2, 1997 (040297CC25A). All of the target compounds %Ds were acceptable. No problems were observed.

The third continuing calibration was generated on April 2, 1997 (040297CC25D). All of the target compounds %Ds were acceptable. No problems were observed.

The fourth continuing calibration was generated on April 4, 1997 (040497CC25B). All of the target compounds %Ds were acceptable. No problems were observed.

The fifth continuing calibration was generated on April 7, 1997 (040797CC25B). All of the target compounds %Ds were acceptable except for 4,6-dinitro-2-methylphenol (%D=25.4); therefore, results for 4,6-dinitro-2-methylphenol will be flagged as estimated (J) for detected compounds while all non-detects will be flagged as estimated (UJ). No other problems were observed.

The sixth continuing calibration was generated on April 9, 1997 (040997CC25B). All of the target compounds %Ds were acceptable except for benzoic acid (%D=33.2), pyrene (%D=29.7), butylbenzylphthalate (%D=25.3), and bis-(2-ethylhexyl)phthalate (%D=27.6); therefore, results for benzoic acid, pyrene, butylbenzylphthalate, and bis-(2-ethylhexyl)phthalate will be flagged as estimated (J) for detected compounds while all non-detects will be flagged as estimated (UJ). No other problems were observed.

4. **Internal Standard (IS) Area and Retention Time (RT) Summary:** The QC criterion states that the IS area of samples must be within 50% of the IS area of the corresponding CC. The RT of the IS for samples must also be within 30 seconds of the RT of the IS for the corresponding CC.

All internal standard areas met the QC requirements except for low IS6 in the Lab Spike Duplicate (extracted 4-1-97). The Lab Spike Duplicate sample was reanalyzed (LAB SPKD DR); however, similar results were obtained. Therefore, results of compounds quantitated based on IS6 in the Lab Spike Duplicate will be flagged as estimated (J) for detected compounds while all non-detects will be flagged as estimated (UJ). No other problems were observed.

III. METHOD QUALITY CONTROL:

1. **Method Blank Results:** Five Lab Blanks (de-ionized water spiked with surrogates) were extracted with this data set to check for contamination.

The first method blank (LAB BLANK A) reported bis(2-Ethylhexyl)phthalate and 1 TIC. The bis(2-Ethylhexyl)phthalate is a common laboratory contaminant. All positive results for bis(2-Ethylhexyl)phthalate or the TIC are qualified (B) in all of the associated samples. [See Form I SVOA].

The second method blank (LAB BLANK B) reported bis(2-Ethylhexyl)phthalate and 2 TICs. The bis(2-Ethylhexyl)phthalate is a common laboratory contaminant. All positive results for bis(2-Ethylhexyl)phthalate or any of the TICs are qualified (B) in all of the associated samples. [See Form I SVOA].

The third method blank (LAB BLANK C) reported di-n-butylphthalate, 3,3'-dichlorobezidine, bis(2-Ethylhexyl)phthalate and no TICs. Di-n-butylphthalate and bis(2-Ethylhexyl)phthalate are common laboratory contaminants. All positive results for di-n-butylphthalate, bis(2-Ethylhexyl)phthalate, or 3,3'-dichlorobezidine are qualified (B) in all of the associated samples. [See Form I SVOA].

The fourth method blank (LAB BLANK D) reported bis(2-Ethylhexyl)phthalate and no TICs. The bis(2-Ethylhexyl)phthalate is a common laboratory contaminant. All positive results for bis(2-Ethylhexyl)phthalate are qualified (B) in all of the associated samples. [See Form I SVOA].

The fifth method blank (LAB BLANK E) reported bis(2-Ethylhexyl)phthalate and 1 TIC. The bis(2-Ethylhexyl)phthalate is a common laboratory contaminant. All positive results for bis(2-Ethylhexyl)phthalate or the TIC are qualified (B) in all of the associated samples. [See Form I SVOA].

2. **Surrogate Spike Compound Results:** The surrogate spike compound recovery data are within the QC limits except for low phenol-d5 in lab blank B, LAB SPKD C, and LAB SPKD CR. Low 2-fluorophenol was reported in Lab SPKD B. Low Nitrobenzen was reported in Lab Blank C. Low 2-fluorobiphenyl was reported in sample 97ZB04S15. High 2,4,6-tribromophenol was reported in sample 97ZB04S10. One surrogate outlier is allowed per fraction; therefore, no data qualification will be necessary.

Low nitrobenzene-d5 and 2-fluorobiphenyl recoveries were reported for the base-neutral fraction of the LAB SPKD B. The base-neutral fraction results of the LAB SPKD B will be flagged as estimated (J) for detected compounds while all non-

detects will be flagged (UJ).

Low 2-fluorophenol and phenol-d5 recoveries were reported for the acid fraction of the LAB Blank C. The acid fraction results of Lab Blank C will be flagged as estimated (J) for detected compounds while all non-detects will be flagged (UJ).

3. **Laboratory Control Sample (LCS):** Laboratory control samples were prepared by spiking deionized water with 500 µL of the ABN spike standard which contained all of the target analytes. The final concentration in the extracted sample was expected to be 50 µg/L for all target analytes. Although Lab spike duplicates were extracted, one lab spike is required; therefore, no data qualification will be performed based on the spike duplicate samples.

For LAB SPIKE A, all recoveries were within their QC limits except high hexachlorobenzene; therefore, results of hexachlorobenzene will be flagged as estimated (J) for detected compounds while all non-detects will not be flagged. No other problems were observed.

For LAB SPIKE B, all recoveries were within their QC limits except low bis(2-chloroethyl)ether; therefore, results of bis(2-chloroethyl)ether will be flagged as estimated (J) for detected compounds while all non-detects will be flagged as estimated (UJ). No other problems were observed.

For LAB SPIKE C, all recoveries were within their QC limit except low bis(2-chloroethyl)ether and 2-chlorophenol; therefore, results of bis(2-chloroethyl)ether and 2-chlorophenol will be flagged as estimated (J) for detected compounds while all non-detects will be flagged as estimated (UJ). High diethylphthalate, hexachloroethane, and benzo(a)pyrene were also observed for LAB SPIKE C; therefore, results of diethylphthalate, hexachloroethane, and benzo(a)pyrene will be flagged as estimated (J) for detected compounds while all non-detects will not be flagged.

For LAB SPIKE D, all recoveries were within their QC limit except low 1,2-dichlorobenzen, hexachloroethane, 1,2,4-Trichlorobenzene, naphthalene, hexachlorobutadiene, and 2-chloronaphthalene; therefore, results of 1,2-dichlorobenzen, hexachloroethane, 1,2,4-Trichlorobenzene, naphthalene, hexachlorobutadiene, and 2-chloronaphthalene will be flagged as estimated (J) for detected compounds while all non-detects will be flagged as estimated (UJ). No other problems were observed.

For LAB SPIKE E, all recoveries were within their QC limit except low bis(2-chloroethyl)ether, 2-chlorophenol, hexachloroethane, 1,2,4-Trichlorobenzene, naphthalene, 2,4,6-

trichlorophenol, 2-chloronaphthalene, and diethylphthalate; therefore, results of bis(2-chloroethyl)ether, 2-chlorophenol, hexachloroethane, 1,2,4-Trichlorobenzene, naphthalene, 2,4,6-trichlorophenol, 2-chloronaphthalene, and diethylphthalate will be flagged as estimated (J) for detected compounds while all non-detects will be flagged as estimated (UJ). No other problems were observed.

IV. SAMPLE RESULTS

The laboratory met the qualitative and quantitative analysis requirements for TCLs and TICs.

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Summary
LAB BLANK A

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: LAB BLANK EX

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04019708.D

Level: (low/med) LOW Date Received: 03/27/97

% Moisture: _____ decanted:(Y/N) N Date Extracted: 03/27/97

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/02/97

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

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

CAS NO.	COMPOUND		Q
111-44-4	bis(2-Chloroethyl)ether	5	U
108-95-2	Phenol	5	U
95-57-8	2-Chlorophenol	5	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
100-51-6	Benzyl alcohol	5	U
95-48-7	2-Methylphenol	5	U
106-44-5	4-Methylphenol	5	U
108-60-1	bis(2-chloroisopropyl)ether	5	U
67-72-1	Hexachloroethane	5	U
621-64-7	N-Nitroso-di-n-propylamine	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
65-80-0	Benzoic acid	20	U
111-91-1	bis(2-Chloroethoxy)methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	5	U
88-74-4	2-Nitroaniline	20	U
208-96-8	Acenaphthylene	5	U
131-11-3	Dimethylphthalate	5	U
606-20-2	2,6-Dinitrotoluene	5	U
83-32-9	Acenaphthene	5	U
99-09-2	3-Nitroaniline	20	U
51-28-5	2,4-Dinitrophenol	20	U
132-64-9	Dibenzofuran	5	U

JR 4-15-97

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Summary LAB BLANK A

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: LAB BLANK EX

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04019708.D

Level: (low/med) LOW Date Received: 03/27/97

% Moisture: _____ decanted:(Y/N) N Date Extracted: 03/27/97

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/02/97

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
121-14-2	2,4-Dinitrotoluene	5	U
100-02-7	4-Nitrophenol	5	U
86-73-7	Fluorene	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
84-66-2	Diethylphthalate	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	n-Nitrosodiphenylamine	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
86-74-8	Carbazole	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo[a]anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	110	~~E~~ D
117-84-0	Di-n-octylphthalate	5	U J
205-99-2	Benzo[b]fluoranthene	5	U
207-08-9	Benzo[k]fluoranthene	5	U
50-32-8	Benzo[a]pyrene	5	U
193-39-5	Indeno[1,2,3-cd]pyrene	5	U
53-70-3	Dibenz[a,h]anthracene	5	U
191-24-2	Benzo[g,h,i]perylene	5	U

ZK
4-15-97

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

LAB BLANK A

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: LAB BLANK EX

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04019708.D

Level: (low/med) LOW Date Received: 03/27/97

% Moisture: _____ decanted: (Y/N) N Date Analyzed: 04/02/97

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0 (uL) Soil Aliquot Volume: 1 (uL)

GPC Cleanup: (Y/N) N pH: _____

CONCENTRATION UNITS:

Number TICs found: 1 (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown propanoic acid	17.25	25	J

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LAB BLANK B

Lab Name: American Chem Service Contract:

Lab Code: Case No.: 970071 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: LAB BLANK

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04029701.D

Level: (low/med) LOW Date Received: 03/31/97

% Moisture: decanted:(Y/N) N Date Extracted: 03/31/97

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/02/97

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
111-44-4	bis(2-Chloroethyl)ether	5	U J
108-95-2	Phenol	5	U
95-57-8	2-Chlorophenol	5	U
541-73-1	1,3-Dichlorobenzene	5	U J
106-46-7	1,4-Dichlorobenzene	5	U J
95-50-1	1,2-Dichlorobenzene	5	U J
100-51-6	Benzyl alcohol	5	U J
95-48-7	2-Methylphenol	5	U
106-44-5	4-Methylphenol	5	U
108-60-1	bis(2-chloroisopropyl)ether	5	U J
67-72-1	Hexachloroethane	5	U J
621-64-7	N-Nitroso-di-n-propylamine	5	U J
98-95-3	Nitrobenzene	5	U J
78-59-1	Isophorone	5	U J
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
65-80-0	Benzoic acid	20	U J
111-91-1	bis(2-Chloroethoxy)methane	5	U J
120-83-2	2,4-Dichlorophenol	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U J
91-20-3	Naphthalene	5	U J
106-47-8	4-Chloroaniline	5	U J
87-68-3	Hexachlorobutadiene	5	U J
59-50-7	4-Chloro-3-methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U J
77-47-4	Hexachlorocyclopentadiene	5	U J
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	5	U J
88-74-4	2-Nitroaniline	20	U J
208-96-8	Acenaphthylene	5	U J
131-11-3	Dimethylphthalate	5	U J
606-20-2	2,6-Dinitrotoluene	5	U J
83-32-9	Acenaphthene	5	U J
99-09-2	3-Nitroaniline	20	U J
51-28-5	2,4-Dinitrophenol	20	U
132-64-9	Dibenzofuran	5	U J

ZR 4-15-97

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LAB BLANK B

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: LAB BLANK

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04029701.D

Level: (low/med) LOW Date Received: 03/31/97

% Moisture: _____ decanted:(Y/N) N Date Extracted: 03/31/97

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/02/97

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
121-14-2	2,4-Dinitrotoluene	5	U J
100-02-7	4-Nitrophenol	5	U
86-73-7	Fluorene	5	U J
7005-72-3	4-Chlorophenyl-phenylether	5	U J
84-66-2	Diethylphthalate	5	U J
100-01-6	4-Nitroaniline	20	U J
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	n-Nitrosodiphenylamine	5	U J
101-55-3	4-Bromophenyl-phenylether	5	U J
118-74-1	Hexachlorobenzene	5	U J
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U J
120-12-7	Anthracene	5	U J
86-74-8	Carbazole	5	U J
84-74-2	Di-n-butylphthalate	5	U J
206-44-0	Fluoranthene	5	U J
129-00-0	Pyrene	5	U J
85-68-7	Butylbenzylphthalate	5	U J
91-94-1	3,3'-Dichlorobenzidine	5	U J
56-55-3	Benzo[a]anthracene	5	U J
218-01-9	Chrysene	5	U J
117-81-7	bis(2-Ethylhexyl)phthalate	5	J J
117-84-0	Di-n-octylphthalate	5	U J
205-99-2	Benzo[b]fluoranthene	5	U J
207-08-9	Benzo[k]fluoranthene	5	U J
50-32-8	Benzo[a]pyrene	5	U J
193-39-5	Indeno[1,2,3-cd]pyrene	5	U J
53-70-3	Dibenz[a,h]anthracene	5	U J
191-24-2	Benzo[g,h,i]perylene	5	U J

ZR 4-15-97

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

LAB BLANK B

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: LAB BLANK

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04029701.D

Level: (low/med) LOW Date Received: 03/31/97

% Moisture: _____ decanted: (Y/N) N Date Analyzed: 04/02/97

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0 (uL) Soil Aliquot Volume: 1 (uL)

GPC Cleanup: (Y/N) N pH: _____

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown hexane	6.64	8	J
2.	unknown	15.06	39	J

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LAB BLANK C

Lab Name: American Chem Service Contract:

Lab Code: Case No.: 970071 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: LAB BLANK C

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04029713.D

Level: (low/med) LOW Date Received: 04/01/97

% Moisture: decanted:(Y/N) N Date Extracted: 04/01/97

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/03/97

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
111-44-4	bis(2-Chloroethyl)ether	5	U J
108-95-2	Phenol	5	U J
95-57-8	2-Chlorophenol	5	U J
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
100-51-6	Benzyl alcohol	5	U
95-48-7	2-Methylphenol	5	U J
106-44-5	4-Methylphenol	5	U J
108-60-1	bis(2-chloroisopropyl)ether	5	U
67-72-1	Hexachloroethane	5	U
621-64-7	N-Nitroso-di-n-propylamine	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U J
105-67-9	2,4-Dimethylphenol	5	U J
65-80-0	Benzoic acid	20	U
111-91-1	bis(2-Chloroethoxy)methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-methylphenol	5	U J
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U J
95-95-4	2,4,5-Trichlorophenol	20	U J
91-58-7	2-Chloronaphthalene	5	U
88-74-4	2-Nitroaniline	20	U
208-96-8	Acenaphthylene	5	U
131-11-3	Dimethylphthalate	5	U
606-20-2	2,6-Dinitrotoluene	5	U
83-32-9	Acenaphthene	5	U
99-09-2	3-Nitroaniline	20	U
51-28-5	2,4-Dinitrophenol	20	U J
132-64-9	Dibenzofuran	5	U

ZR 4-15-97

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LAB BLANK C

Lab Name: American Chem Service Contract:

Lab Code: Case No.: 970071 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: LAB BLANK C

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04029713.D

Level: (low/med) LOW Date Received: 04/01/97

% Moisture: decanted:(Y/N) N Date Extracted: 04/01/97

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/03/97

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
121-14-2	2,4-Dinitrotoluene	5	U
100-02-7	4-Nitrophenol	5	U J
86-73-7	Fluorene	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
84-66-2	Diethylphthalate	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U J
86-30-6	n-Nitrosodiphenylamine	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U J
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
86-74-8	Carbazole	5	U
84-74-2	Di-n-butylphthalate	1	J
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	1	J
56-55-3	Benzo[a]anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	4	J
117-84-0	Di-n-octylphthalate	5	U J
205-99-2	Benzo[b]fluoranthene	5	U
207-08-9	Benzo[k]fluoranthene	5	U
50-32-8	Benzo[a]pyrene	5	U
193-39-5	Indeno[1,2,3-cd]pyrene	5	U
53-70-3	Dibenz[a,h]anthracene	5	U
191-24-2	Benzo[g,h,i]perylene	5	U

ZR 4-15-97

ZR 4-15-97

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

LAB BLANK C

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: LAB BLANK C

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04029713.D

Level: (low/med) LOW Date Received: 04/01/97

% Moisture: _____ decanted: (Y/N) N Date Analyzed: 04/03/97

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0 (uL) Soil Aliquot Volume: 1 (uL)

GPC Cleanup: (Y/N) N pH: _____

CONCENTRATION UNITS:

Number TICs found: 0 (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LAB BLANK D

Lab Name: American Chem Service Contract:

Lab Code: Case No.: 970071 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: LAB BLANK D

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04049701.D

Level: (low/med) LOW Date Received: 04/02/97

% Moisture: decanted:(Y/N) N Date Extracted: 04/02/97

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/04/97

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

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

CAS NO.	COMPOUND		Q
111-44-4	bis(2-Chloroethyl)ether	5	U
108-95-2	Phenol	5	U
95-57-8	2-Chlorophenol	5	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U J
100-51-6	Benzyl alcohol	5	U
95-48-7	2-Methylphenol	5	U
106-44-5	4-Methylphenol	5	U
108-60-1	bis(2-chloroisopropyl)ether	5	U
67-72-1	Hexachloroethane	5	U J
621-64-7	N-Nitroso-di-n-propylamine	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
65-80-0	Benzoic acid	20	U
111-91-1	bis(2-Chloroethoxy)methane	5	U
120-83-2	2,4-Dichlorophenol	5	U ~~J~~
120-82-1	1,2,4-Trichlorobenzene	5	U J
91-20-3	Naphthalene	5	U J
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U J
59-50-7	4-Chloro-3-methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	5	U J
88-74-4	2-Nitroaniline	20	U
208-96-8	Acenaphthylene	5	U
131-11-3	Dimethylphthalate	5	U
606-20-2	2,6-Dinitrotoluene	5	U
83-32-9	Acenaphthene	5	U
99-09-2	3-Nitroaniline	20	U
51-28-5	2,4-Dinitrophenol	20	U
132-64-9	Dibenzofuran	5	U

ZR 4-15-97

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LAB BLANK D

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: LAB BLANK D

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04049701.D

Level: (low/med) LOW Date Received: 04/02/97

% Moisture: _____ decanted:(Y/N) N Date Extracted: 04/02/97

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/04/97

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
121-14-2	2,4-Dinitrotoluene	5	U
100-02-7	4-Nitrophenol	5	U
86-73-7	Fluorene	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
84-66-2	Diethylphthalate	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	n-Nitrosodiphenylamine	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
86-74-8	Carbazole	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo[a]anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	4	J
117-84-0	Di-n-octylphthalate	5	U J
205-99-2	Benzo[b]fluoranthene	5	U
207-08-9	Benzo[k]fluoranthene	5	U
50-32-8	Benzo[a]pyrene	5	U
193-39-5	Indeno[1,2,3-cd]pyrene	5	U
53-70-3	Dibenz[a,h]anthracene	5	U
191-24-2	Benzo[g,h,i]perylene	5	U

ZR 4-15-97

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

LAB BLANK D

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: LAB BLANK D

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04049701.D

Level: (low/med) LOW Date Received: 04/02/97

% Moisture: _____ decanted: (Y/N) N Date Analyzed: 04/04/97

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0 (uL) Soil Aliquot Volume: 1 (uL)

GPC Cleanup: (Y/N) N pH: _____

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LAB BLANK E

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: LAB BLANK E

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04049706.D

Level: (low/med) LOW Date Received: 04/03/97

% Moisture: _____ decanted:(Y/N) N Date Extracted: 04/03/97

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/04/97

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

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

CAS NO.	COMPOUND		Q
111-44-4	bis(2-Chloroethyl)ether	5	U J
108-95-2	Phenol	5	U
95-57-8	2-Chlorophenol	5	U J
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
100-51-6	Benzyl alcohol	5	U
95-48-7	2-Methylphenol	5	U
106-44-5	4-Methylphenol	5	U
108-60-1	bis(2-chloroisopropyl)ether	5	U
67-72-1	Hexachloroethane	5	U J
621-64-7	N-Nitroso-di-n-propylamine	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
65-80-0	Benzoic acid	20	U
111-91-1	bis(2-Chloroethoxy)methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U J
91-20-3	Naphthalene	5	U J
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U J
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	5	U J
88-74-4	2-Nitroaniline	20	U
208-96-8	Acenaphthylene	5	U
131-11-3	Dimethylphthalate	5	U
606-20-2	2,6-Dinitrotoluene	5	U
83-32-9	Acenaphthene	5	U
99-09-2	3-Nitroaniline	20	U
51-28-5	2,4-Dinitrophenol	20	U
132-64-9	Dibenzofuran	5	U

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1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LAB BLANK E

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: LAB BLANK E

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04049706.D

Level: (low/med) LOW Date Received: 04/03/97

% Moisture: _____ decanted:(Y/N) N Date Extracted: 04/03/97

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/04/97

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
121-14-2	2,4-Dinitrotoluene	5	U
100-02-7	4-Nitrophenol	5	U
86-73-7	Fluorene	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
84-66-2	Diethylphthalate	5	U J
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	n-Nitrosodiphenylamine	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
86-74-8	Carbazole	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo[a]anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	2	J
117-84-0	Di-n-octylphthalate	5	U J
205-99-2	Benzo[b]fluoranthene	5	U
207-08-9	Benzo[k]fluoranthene	5	U
50-32-8	Benzo[a]pyrene	5	U
193-39-5	Indeno[1,2,3-cd]pyrene	5	U
53-70-3	Dibenz[a,h]anthracene	5	U
191-24-2	Benzo[g,h,i]perylene	5	U

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1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

LAB BLANK E

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: LAB BLANK E

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04049706.D

Level: (low/med) LOW Date Received: 04/03/97

% Moisture: _____ decanted: (Y/N) N Date Analyzed: 04/04/97

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0 (uL) Soil Aliquot Volume: 1 (uL)

GPC Cleanup: (Y/N) N pH: _____

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 000108-93-0	Cyclohexanol	6.80	24	JN

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB04R02

Lab Name: American Chem Service Contract:

Lab Code: Case No.: 970071 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 97ZB04R02

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04029705.D

Level: (low/med) LOW Date Received: 03/28/97

% Moisture: decanted:(Y/N) N Date Extracted: 03/31/97

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/02/97

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
111-44-4	bis(2-Chloroethyl)ether	5	U J
108-95-2	Phenol	5	U
95-57-8	2-Chlorophenol	5	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
100-51-6	Benzyl alcohol	5	U
95-48-7	2-Methylphenol	5	U
106-44-5	4-Methylphenol	5	U
108-60-1	bis(2-chloroisopropyl)ether	5	U
67-72-1	Hexachloroethane	5	U
621-64-7	N-Nitroso-di-n-propylamine	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
65-80-0	Benzoic acid	20	U
111-91-1	bis(2-Chloroethoxy)methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	5	U
88-74-4	2-Nitroaniline	20	U
208-96-8	Acenaphthylene	5	U
131-11-3	Dimethylphthalate	5	U
606-20-2	2,6-Dinitrotoluene	5	U
83-32-9	Acenaphthene	5	U
99-09-2	3-Nitroaniline	20	U
51-28-5	2,4-Dinitrophenol	20	U
132-64-9	Dibenzofuran	5	U

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1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB04R02

Lab Name: American Chem Service Contract:

Lab Code: Case No.: 970071 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 97ZB04R02

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04029705.D

Level: (low/med) LOW Date Received: 03/28/97

% Moisture: decanted:(Y/N) N Date Extracted: 03/31/97

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/02/97

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
121-14-2	2,4-Dinitrotoluene	5	U
100-02-7	4-Nitrophenol	5	U
86-73-7	Fluorene	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
84-66-2	Diethylphthalate	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	n-Nitrosodiphenylamine	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
86-74-8	Carbazole	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo[a]anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	9	B
117-84-0	Di-n-octylphthalate	5	U
205-99-2	Benzo[b]fluoranthene	5	U
207-08-9	Benzo[k]fluoranthene	5	U
50-32-8	Benzo[a]pyrene	5	U
193-39-5	Indeno[1,2,3-cd]pyrene	5	U
53-70-3	Dibenz[a,h]anthracene	5	U
191-24-2	Benzo[g,h,i]perylene	5	U

ZR 4-15-97

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

97ZB04R02

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 97ZB04R02

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04029705.D

Level: (low/med) LOW Date Received: 03/28/97

% Moisture: _____ decanted: (Y/N) N Date Analyzed: 04/02/97

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0 (uL) Soil Aliquot Volume: 1 (uL)

GPC Cleanup: (Y/N) N pH: _____

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB04R11

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 97ZB04R11

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04049710.D

Level: (low/med) LOW Date Received: 04/02/97

% Moisture: _____ decanted:(Y/N) N Date Extracted: 04/03/97

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/04/97

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

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

CAS NO.	COMPOUND		Q
111-44-4	bis(2-Chloroethyl)ether	5	U J
108-95-2	Phenol	5	U
95-57-8	2-Chlorophenol	5	U J
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
100-51-6	Benzyl alcohol	5	U
95-48-7	2-Methylphenol	5	U
106-44-5	4-Methylphenol	5	U
108-60-1	bis(2-chloroisopropyl)ether	5	U
67-72-1	Hexachloroethane	5	U J
621-64-7	N-Nitroso-di-n-propylamine	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
65-80-0	Benzoic acid	20	U
111-91-1	bis(2-Chloroethoxy)methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U J
91-20-3	Naphthalene	5	U J
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U J
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	5	U J
88-74-4	2-Nitroaniline	20	U
208-96-8	Acenaphthylene	5	U
131-11-3	Dimethylphthalate	5	U
606-20-2	2,6-Dinitrotoluene	5	U
83-32-9	Acenaphthene	5	U
99-09-2	3-Nitroaniline	20	U
51-28-5	2,4-Dinitrophenol	20	U
132-64-9	Dibenzofuran	5	U

ZP
4-15-97

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB04R11

Lab Name: American Chem Service Contract:

Lab Code: Case No.: 970071 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 97ZB04R11

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04049710.D

Level: (low/med) LOW Date Received: 04/02/97

% Moisture: decanted:(Y/N) N Date Extracted: 04/03/97

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/04/97

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
121-14-2	2,4-Dinitrotoluene	5	U
100-02-7	4-Nitrophenol	5	U
86-73-7	Fluorene	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
84-66-2	Diethylphthalate	5	U J
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	n-Nitrosodiphenylamine	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
86-74-8	Carbazole	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo[a]anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	1	JB
117-84-0	Di-n-octylphthalate	5	U J
205-99-2	Benzo[b]fluoranthene	5	U
207-08-9	Benzo[k]fluoranthene	5	U
50-32-8	Benzo[a]pyrene	5	U
193-39-5	Indeno[1,2,3-cd]pyrene	5	U
53-70-3	Dibenz[a,h]anthracene	5	U
191-24-2	Benzo[g,h,i]perylene	5	U

ZR 4-15-97

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

97ZB04R11

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 97ZB04R11

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04049710.D

Level: (low/med) LOW Date Received: 04/02/97

% Moisture: _____ decanted: (Y/N) N Date Analyzed: 04/04/97

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0 (uL) Soil Aliquot Volume: 1 (uL)

GPC Cleanup: (Y/N) N pH: _____

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Summary
97ZB04S01

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 97ZB04S01

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04019711.D

Level: (low/med) LOW Date Received: 03/26/97

% Moisture: _____ decanted:(Y/N) N Date Extracted: 03/27/97

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/02/97

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
111-44-4	bis(2-Chloroethyl)ether	5	U
108-95-2	Phenol	91 ~~100~~	~~E~~ D
95-57-8	2-Chlorophenol	5	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
100-51-6	Benzyl alcohol	5	U
95-48-7	2-Methylphenol	5	U
106-44-5	4-Methylphenol	5	U
108-60-1	bis(2-chloroisopropyl)ether	5	U
67-72-1	Hexachloroethane	5	U
621-64-7	N-Nitroso-di-n-propylamine	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
65-80-0	Benzoic acid	6	J
111-91-1	bis(2-Chloroethoxy)methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	5	U
88-74-4	2-Nitroaniline	20	U
208-96-8	Acenaphthylene	5	U
131-11-3	Dimethylphthalate	5	U
606-20-2	2,6-Dinitrotoluene	5	U
83-32-9	Acenaphthene	5	U
99-09-2	3-Nitroaniline	20	U
51-28-5	2,4-Dinitrophenol	20	U
132-64-9	Dibenzofuran	5	U

ZR 4-15-97

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Summary
97ZB04S01

Lab Name: American Chem Service Contract:

Lab Code: Case No.: 970071 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 97ZB04S01

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04019711.D

Level: (low/med) LOW Date Received: 03/26/97

% Moisture: decanted:(Y/N) N Date Extracted: 03/27/97

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/02/97

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

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

CAS NO.	COMPOUND		Q
121-14-2	2,4-Dinitrotoluene	5	U
100-02-7	4-Nitrophenol	5	U
86-73-7	Fluorene	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
84-66-2	Diethylphthalate	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	n-Nitrosodiphenylamine	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
86-74-8	Carbazole	5	U
84-74-2	Di-n-butylphthalate	1	J
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo[a]anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	19	B
117-84-0	Di-n-octylphthalate	5	UJ
205-99-2	Benzo[b]fluoranthene	5	U
207-08-9	Benzo[k]fluoranthene	5	U
50-32-8	Benzo[a]pyrene	5	U
193-39-5	Indeno[1,2,3-cd]pyrene	5	U
53-70-3	Dibenz[a,h]anthracene	5	U
191-24-2	Benzo[g,h,i]perylene	5	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

97ZB04S01

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 97ZB04S01

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04019711.D

Level: (low/med) LOW Date Received: 03/26/97

% Moisture: _____ decanted: (Y/N) N Date Analyzed: 04/02/97

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0 (uL) Soil Aliquot Volume: 1 (uL)

GPC Cleanup: (Y/N) N pH: _____

CONCENTRATION UNITS:

Number TICs found: 6 (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown	5.62	6	J
2.	unknown hydrocarbon	6.08	7	J
3.	unknown Hexane	9.49	20	J
4.	unknown hexanoic acid	11.00	24	J
5.	unknown	12.12	22	J
6. 000087-41-2	1(3H)-Isobenzofuranone	14.59	5	JN

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB04S02

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 97ZB04S02

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04019712.D

Level: (low/med) LOW Date Received: 03/26/97

% Moisture: _____ decanted:(Y/N) N Date Extracted: 03/27/97

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/02/97

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
111-44-4	bis(2-Chloroethyl)ether	5	U
108-95-2	Phenol	15	
95-57-8	2-Chlorophenol	5	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
100-51-6	Benzyl alcohol	5	U
95-48-7	2-Methylphenol	5	U
106-44-5	4-Methylphenol	5	U
108-60-1	bis(2-chloroisopropyl)ether	5	U
67-72-1	Hexachloroethane	5	U
621-64-7	N-Nitroso-di-n-propylamine	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
65-80-0	Benzoic acid	5	J
111-91-1	bis(2-Chloroethoxy)methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	5	U
88-74-4	2-Nitroaniline	20	U
208-96-8	Acenaphthylene	5	U
131-11-3	Dimethylphthalate	5	U
606-20-2	2,6-Dinitrotoluene	5	U
83-32-9	Acenaphthene	5	U
99-09-2	3-Nitroaniline	20	U
51-28-5	2,4-Dinitrophenol	20	U
132-64-9	Dibenzofuran	5	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB04S02

Lab Name: American Chem Service Contract:

Lab Code: Case No.: 970071 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 97ZB04S02

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04019712.D

Level: (low/med) LOW Date Received: 03/26/97

% Moisture: decanted:(Y/N) N Date Extracted: 03/27/97

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/02/97

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

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

CAS NO.	COMPOUND		Q
121-14-2	2,4-Dinitrotoluene	5	U
100-02-7	4-Nitrophenol	5	U
86-73-7	Fluorene	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
84-66-2	Diethylphthalate	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	n-Nitrosodiphenylamine	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
86-74-8	Carbazole	5	U
84-74-2	Di-n-butylphthalate	1	J
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo[a]anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	26	B
117-84-0	Di-n-octylphthalate	5	U J
205-99-2	Benzo[b]fluoranthene	5	U
207-08-9	Benzo[k]fluoranthene	5	U
50-32-8	Benzo[a]pyrene	5	U
193-39-5	Indeno[1,2,3-cd]pyrene	5	U
53-70-3	Dibenz[a,h]anthracene	5	U
191-24-2	Benzo[g,h,i]perylene	5	U

ZR 4-15-97

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

97ZB04S02

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 97ZB04S02

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04019712.D

Level: (low/med) LOW Date Received: 03/26/97

% Moisture: _____ decanted: (Y/N) N Date Analyzed: 04/02/97

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0 (uL) Soil Aliquot Volume: 1 (uL)

GPC Cleanup: (Y/N) N pH: _____

CONCENTRATION UNITS:

Number TICs found: 20 (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown hexane	5.34	11	J
2.	unknown	5.63	9	J
3.	unknown	6.56	9	J
4.	unknown	7.53	93	J
5.	unknown hydrocarbon	8.94	16	J
6.	unknown	9.00	18	J
7.	unknown	9.77	8	J
8.	unknown	10.32	17	J
9.	unknown	10.41	14	J
10.	unknown pentane	11.73	44	J
11.	unknown hydrocarbon	12.16	10	J
12.	unknown	13.08	21	J
13.	unknown	13.15	12	J
14.	unknown	13.46	31	J
15.	unknown	13.53	9	J
16.	unknown	14.62	32	J
17.	unknown Benzoic acid	15.29	20	J
18.	unknown	17.25	15	J
19.	unknown	17.74	11	J
20.	unknown	20.04	21	J

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB04S03

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 97ZB04S03

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04029709.D

Level: (low/med) LOW Date Received: 03/28/97

% Moisture: _____ decanted:(Y/N) N Date Extracted: 03/31/97

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/03/97

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
111-44-4	bis(2-Chloroethyl)ether	5	U J
108-95-2	Phenol	4	J
95-57-8	2-Chlorophenol	5	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
100-51-6	Benzyl alcohol	5	U
95-48-7	2-Methylphenol	5	U
106-44-5	4-Methylphenol	5	U
108-60-1	bis(2-chloroisopropyl)ether	5	U
67-72-1	Hexachloroethane	5	U
621-64-7	N-Nitroso-di-n-propylamine	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
65-80-0	Benzoic acid	20	U
111-91-1	bis(2-Chloroethoxy)methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	5	U
88-74-4	2-Nitroaniline	20	U
208-96-8	Acenaphthylene	5	U
131-11-3	Dimethylphthalate	5	U
606-20-2	2,6-Dinitrotoluene	5	U
83-32-9	Acenaphthene	5	U
99-09-2	3-Nitroaniline	20	U
51-28-5	2,4-Dinitrophenol	20	U
132-64-9	Dibenzofuran	5	U

ZR 4-15-97

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB04S03

Lab Name: American Chem Service Contract:

Lab Code: Case No.: 970071 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 97ZB04S03

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04029709.D

Level: (low/med) LOW Date Received: 03/28/97

% Moisture: decanted:(Y/N) N Date Extracted: 03/31/97

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/03/97

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
121-14-2	2,4-Dinitrotoluene	5	U
100-02-7	4-Nitrophenol	5	U
86-73-7	Fluorene	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
84-66-2	Diethylphthalate	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	n-Nitrosodiphenylamine	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
86-74-8	Carbazole	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo[a]anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	8	~~B~~ U
117-84-0	Di-n-octylphthalate	5	U J
205-99-2	Benzo[b]fluoranthene	5	U
207-08-9	Benzo[k]fluoranthene	5	U
50-32-8	Benzo[a]pyrene	5	U
193-39-5	Indeno[1,2,3-cd]pyrene	5	U
53-70-3	Dibenz[a,h]anthracene	5	U
191-24-2	Benzo[g,h,i]perylene	5	U

Qualify 06/11/97
ZR 4-15-97

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

97ZB04S03

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 97ZB04S03

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04029709.D

Level: (low/med) LOW Date Received: 03/28/97

% Moisture: _____ decanted: (Y/N) N Date Analyzed: 04/03/97

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0 (uL) Soil Aliquot Volume: 1 (uL)

GPC Cleanup: (Y/N) N pH: _____

CONCENTRATION UNITS:

Number TICs found: 0 (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB04S04

Lab Name: American Chem Service Contract:

Lab Code: Case No.: 970071 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 97ZB04S04

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04029710.D

Level: (low/med) LOW Date Received: 03/28/97

% Moisture: decanted:(Y/N) N Date Extracted: 03/31/97

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/03/97

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
111-44-4	bis(2-Chloroethyl)ether	5	U J
108-95-2	Phenol	6	
95-57-8	2-Chlorophenol	5	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
100-51-6	Benzyl alcohol	5	U
95-48-7	2-Methylphenol	5	U
106-44-5	4-Methylphenol	5	U
108-60-1	bis(2-chloroisopropyl)ether	5	U
67-72-1	Hexachloroethane	5	U
621-64-7	N-Nitroso-di-n-propylamine	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
65-80-0	Benzoic acid	20	U
111-91-1	bis(2-Chloroethoxy)methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	5	U
88-74-4	2-Nitroaniline	20	U
208-96-8	Acenaphthylene	5	U
131-11-3	Dimethylphthalate	5	U
606-20-2	2,6-Dinitrotoluene	5	U
83-32-9	Acenaphthene	5	U
99-09-2	3-Nitroaniline	20	U
51-28-5	2,4-Dinitrophenol	20	U
132-64-9	Dibenzofuran	5	U

ZR 4-15-97

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB04S04

Lab Name: American Chem Service Contract:

Lab Code: Case No.: 970071 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 97ZB04S04

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04029710.D

Level: (low/med) LOW Date Received: 03/28/97

% Moisture: decanted:(Y/N) N Date Extracted: 03/31/97

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/03/97

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
121-14-2	2,4-Dinitrotoluene	5	U
100-02-7	4-Nitrophenol	5	U
86-73-7	Fluorene	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
84-66-2	Diethylphthalate	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	n-Nitrosodiphenylamine	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
86-74-8	Carbazole	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo[a]anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	B
117-84-0	Di-n-octylphthalate	5	U J
205-99-2	Benzo[b]fluoranthene	5	U
207-08-9	Benzo[k]fluoranthene	5	U
50-32-8	Benzo[a]pyrene	5	U
193-39-5	Indeno[1,2,3-cd]pyrene	5	U
53-70-3	Dibenz[a,h]anthracene	5	U
191-24-2	Benzo[g,h,i]perylene	5	U

ZR 4-15-97

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

97ZB04S04

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 97ZB04S04

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04029710.D

Level: (low/med) LOW Date Received: 03/28/97

% Moisture: _____ decanted: (Y/N) N Date Analyzed: 04/03/97

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0 (uL) Soil Aliquot Volume: 1 (uL)

GPC Cleanup: (Y/N) N pH: _____

CONCENTRATION UNITS:

Number TICs found: 18 (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown	7.11	21	J
2.	unknown	7.58	23	J
3.	unknown propanol	8.84	23	J
4.	unknown propanol	8.90	23	J
5.	unknown	9.12	6	J
6.	unknown	10.26	38	J
7.	unknown	10.33	7	J
8.	unknown	11.31	6	J
9.	unknown pentanediol	11.66	20	J
10.	unknown	12.41	12	J
11.	unknown	13.48	7	J
12.	unknown	13.77	8	J
13.	unknown Benzoic acid	14.26	6	J
14.	unknown propanoic acid	14.56	11	J
15.	unknown hexane	15.83	8	J
16.	unknown benzoic acid	16.14	6	J
17.	unknown	20.03	7	J
18.	unknown	20.70	5	J

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB04S05

Lab Name: American Chem Service Contract:

Lab Code: Case No.: 970071 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 97ZB04S05

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04029711.D

Level: (low/med) LOW Date Received: 03/28/97

% Moisture: decanted:(Y/N) N Date Extracted: 03/31/97

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/03/97

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
111-44-4	bis(2-Chloroethyl)ether	5	U 5
108-95-2	Phenol	22	
95-57-8	2-Chlorophenol	5	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
100-51-6	Benzyl alcohol	5	U
95-48-7	2-Methylphenol	5	U
106-44-5	4-Methylphenol	5	U
108-60-1	bis(2-chloroisopropyl)ether	5	U
67-72-1	Hexachloroethane	5	U
621-64-7	N-Nitroso-di-n-propylamine	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
65-80-0	Benzoic acid	6	J
111-91-1	bis(2-Chloroethoxy)methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	5	U
88-74-4	2-Nitroaniline	20	U
208-96-8	Acenaphthylene	5	U
131-11-3	Dimethylphthalate	5	U
606-20-2	2,6-Dinitrotoluene	5	U
83-32-9	Acenaphthene	5	U
99-09-2	3-Nitroaniline	20	U
51-28-5	2,4-Dinitrophenol	20	U
132-64-9	Dibenzofuran	5	U

ZR 4-15-97

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB04S05

Lab Name: American Chem Service Contract:

Lab Code: Case No.: 970071 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 97ZB04S05

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04029711.D

Level: (low/med) LOW Date Received: 03/28/97

% Moisture: decanted:(Y/N) N Date Extracted: 03/31/97

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/03/97

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
121-14-2	2,4-Dinitrotoluene	5	U
100-02-7	4-Nitrophenol	5	U
86-73-7	Fluorene	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
84-66-2	Diethylphthalate	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	n-Nitrosodiphenylamine	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
86-74-8	Carbazole	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo[a]anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	15	B
117-84-0	Di-n-octylphthalate	5	UJ
205-99-2	Benzo[b]fluoranthene	5	U
207-08-9	Benzo[k]fluoranthene	5	U
50-32-8	Benzo[a]pyrene	5	U
193-39-5	Indeno[1,2,3-cd]pyrene	5	U
53-70-3	Dibenz[a,h]anthracene	5	U
191-24-2	Benzo[g,h,i]perylene	5	U

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1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

97ZB04S05

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 97ZB04S05

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04029711.D

Level: (low/med) LOW Date Received: 03/28/97

% Moisture: _____ decanted: (Y/N) N Date Analyzed: 04/03/97

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0 (uL) Soil Aliquot Volume: 1 (uL)

GPC Cleanup: (Y/N) N pH: _____

CONCENTRATION UNITS:

Number TICs found: 2 (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown hexanoic acid	10.88	7	J
2.	unknown	12.07	8	J

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB04S06

Lab Name: American Chem Service Contract:

Lab Code: Case No.: 970071 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 97ZB05S06

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04029712.D

Level: (low/med) LOW Date Received: 03/28/97

% Moisture: decanted:(Y/N) N Date Extracted: 03/31/97

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/03/97

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
111-44-4	bis(2-Chloroethyl)ether	5	U J
108-95-2	Phenol	14	
95-57-8	2-Chlorophenol	5	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
100-51-6	Benzyl alcohol	5	U
95-48-7	2-Methylphenol	5	U
106-44-5	4-Methylphenol	5	U
108-60-1	bis(2-chloroisopropyl)ether	5	U
67-72-1	Hexachloroethane	5	U
621-64-7	N-Nitroso-di-n-propylamine	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
65-80-0	Benzoic acid	20	U
111-91-1	bis(2-Chloroethoxy)methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	5	U
88-74-4	2-Nitroaniline	20	U
208-96-8	Acenaphthylene	5	U
131-11-3	Dimethylphthalate	5	U
606-20-2	2,6-Dinitrotoluene	5	U
83-32-9	Acenaphthene	5	U
99-09-2	3-Nitroaniline	20	U
51-28-5	2,4-Dinitrophenol	20	U
132-64-9	Dibenzofuran	5	U

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1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB04S06

Lab Name: American Chem Service Contract:

Lab Code: Case No.: 970071 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 97ZB05S06

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04029712.D

Level: (low/med) LOW Date Received: 03/28/97

% Moisture: decanted:(Y/N) N Date Extracted: 03/31/97

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/03/97

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
121-14-2	2,4-Dinitrotoluene	5	U
100-02-7	4-Nitrophenol	5	U
86-73-7	Fluorene	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
84-66-2	Diethylphthalate	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	n-Nitrosodiphenylamine	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
86-74-8	Carbazole	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo[a]anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	30	B
117-84-0	Di-n-octylphthalate	5	U J
205-99-2	Benzo[b]fluoranthene	5	U
207-08-9	Benzo[k]fluoranthene	5	U
50-32-8	Benzo[a]pyrene	5	U
193-39-5	Indeno[1,2,3-cd]pyrene	5	U
53-70-3	Dibenz[a,h]anthracene	5	U
191-24-2	Benzo[g,h,i]perylene	5	U

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1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

97ZB04S06

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 97ZB05S06

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04029712.D

Level: (low/med) LOW Date Received: 03/28/97

% Moisture: _____ decanted: (Y/N) N Date Analyzed: 04/03/97

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0 (uL) Soil Aliquot Volume: 1 (uL)

GPC Cleanup: (Y/N) N pH: _____

Number TICs found: 3

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown	7.54	11	J
2.	unknown hexane	9.43	9	J
3.	unknown	14.53	7	J

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

summary 97ZB04S07

Lab Name: American Chem Service Contract:

Lab Code: Case No.: 970071 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 97ZB04S07

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04049704.D

Level: (low/med) LOW Date Received: 03/31/97

% Moisture: decanted:(Y/N) N Date Extracted: 04/02/97

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/04/97

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

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

CAS NO.	COMPOUND		Q
111-44-4	bis(2-Chloroethyl)ether	10	
108-95-2	Phenol	87 ~~100~~	~~E~~ D
95-57-8	2-Chlorophenol	5	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U J
100-51-6	Benzyl alcohol	5	U
95-48-7	2-Methylphenol	5	U
106-44-5	4-Methylphenol	5	U
108-60-1	bis(2-chloroisopropyl)ether	5	U
67-72-1	Hexachloroethane	5	U J
621-64-7	N-Nitroso-di-n-propylamine	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
65-80-0	Benzoic acid	20	U
111-91-1	bis(2-Chloroethoxy)methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U J
91-20-3	Naphthalene	5	U J
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U J
59-50-7	4-Chloro-3-methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	5	U J
88-74-4	2-Nitroaniline	20	U
208-96-8	Acenaphthylene	5	U
131-11-3	Dimethylphthalate	5	U
606-20-2	2,6-Dinitrotoluene	5	U
83-32-9	Acenaphthene	5	U
99-09-2	3-Nitroaniline	20	U
51-28-5	2,4-Dinitrophenol	20	U
132-64-9	Dibenzofuran	5	U

ZR 4-15-97

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Summary
97ZB04S07

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 97ZB04S07

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04049704.D

Level: (low/med) LOW Date Received: 03/31/97

% Moisture: _____ decanted:(Y/N) N Date Extracted: 04/02/97

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/04/97

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
121-14-2	2,4-Dinitrotoluene	5	U
100-02-7	4-Nitrophenol	5	U
86-73-7	Fluorene	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
84-66-2	Diethylphthalate	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	n-Nitrosodiphenylamine	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
86-74-8	Carbazole	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo[a]anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	4	JB
117-84-0	Di-n-octylphthalate	5	U3
205-99-2	Benzo[b]fluoranthene	5	U
207-08-9	Benzo[k]fluoranthene	5	U
50-32-8	Benzo[a]pyrene	5	U
193-39-5	Indeno[1,2,3-cd]pyrene	5	U
53-70-3	Dibenz[a,h]anthracene	5	U
191-24-2	Benzo[g,h,i]perylene	5	U

ZR 4-15-97

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

97ZB04S07

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 97ZB04S07

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04049704.D

Level: (low/med) LOW Date Received: 03/31/97

% Moisture: _____ decanted: (Y/N) N Date Analyzed: 04/04/97

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0 (uL) Soil Aliquot Volume: 1 (uL)

GPC Cleanup: (Y/N) N pH: _____

CONCENTRATION UNITS:

Number TICs found: 20 (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 000110-81-6	Disulfide, diethyl	7.58	17	JN
2.	Cyclohexanone, trimethyl	9.97	120	J
3.	Cyclohexanol, trimethyl	10.20	130	J
4.	unknown	10.37	9	J
5. 000078-40-0	Phosphoric acid, triethyl ester	11.13	9	JN
6.	Hexanoic acid, trimethyl	11.37	6	J
7.	unknown	11.69	19	J
8.	Pentanediol, trimethyl	11.74	16	J
9. 000464-48-2	Bicyclo[2.2.1]heptan-2-one, 1,7,7-	11.83	17	JN
10. 015358-88-0	Bicyclo[3.1.1]heptan-3-one, 2,6,6-	12.77	6	JN
11.	unknown hexanoic acid	13.44	5	J
12.	Benzoic acid, chloro	14.32	17	J
13.	Benzeneacetic acid	14.68	13	J
14.	unknown	15.24	21	J
15. 000070-55-3	4-TOLUENESULFONAMIDE	16.65	46	JN
16.	unknown propanoic acid	17.19	10	J
17. 022328-94-5	SECOBARBITAL	19.63	5	JN
18.	unknown	20.50	7	J
19.	unknown	24.59	29	J
20.	unknown	26.87	9	J

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB04S08

Lab Name: American Chem Service Contract:

Lab Code: Case No.: 970071 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 97ZB04S08

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04049709.D

Level: (low/med) LOW Date Received: 03/28/97

% Moisture: decanted:(Y/N) N Date Extracted: 04/03/97

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/04/97

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

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

CAS NO.	COMPOUND		Q
111-44-4	bis(2-Chloroethyl)ether	5	U J
108-95-2	Phenol	5	U
95-57-8	2-Chlorophenol	5	U J
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
100-51-6	Benzyl alcohol	5	U
95-48-7	2-Methylphenol	5	U
106-44-5	4-Methylphenol	5	U
108-60-1	bis(2-chloroisopropyl)ether	5	U
67-72-1	Hexachloroethane	5	U J
621-64-7	N-Nitroso-di-n-propylamine	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
65-80-0	Benzoic acid	20	U
111-91-1	bis(2-Chloroethoxy)methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U J
91-20-3	Naphthalene	5	U J
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U J
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	5	U J
88-74-4	2-Nitroaniline	20	U
208-96-8	Acenaphthylene	5	U
131-11-3	Dimethylphthalate	5	U
606-20-2	2,6-Dinitrotoluene	5	U
83-32-9	Acenaphthene	5	U
99-09-2	3-Nitroaniline	20	U
51-28-5	2,4-Dinitrophenol	20	U
132-64-9	Dibenzofuran	5	U

ZR 4-15-97

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB04S08

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 97ZB04S08

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04049709.D

Level: (low/med) LOW Date Received: 03/28/97

% Moisture: _____ decanted:(Y/N) N Date Extracted: 04/03/97

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/04/97

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
121-14-2	2,4-Dinitrotoluene	5	U
100-02-7	4-Nitrophenol	5	U
86-73-7	Fluorene	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
84-66-2	Diethylphthalate	5	U J
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	n-Nitrosodiphenylamine	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
86-74-8	Carbazole	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo[a]anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	5	U
117-84-0	Di-n-octylphthalate	5	U J
205-99-2	Benzo[b]fluoranthene	5	U
207-08-9	Benzo[k]fluoranthene	5	U
50-32-8	Benzo[a]pyrene	5	U
193-39-5	Indeno[1,2,3-cd]pyrene	5	U
53-70-3	Dibenz[a,h]anthracene	5	U
191-24-2	Benzo[g,h,i]perylene	5	U

ZR 4-15-97

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

97ZB04S08

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 97ZB04S08

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04049709.D

Level: (low/med) LOW Date Received: 03/28/97

% Moisture: _____ decanted: (Y/N) N Date Analyzed: 04/04/97

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0 (uL) Soil Aliquot Volume: 1 (uL)

GPC Cleanup: (Y/N) N pH: _____

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB04S09

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 97ZB04S09

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04029717.D

Level: (low/med) LOW Date Received: 03/28/97

% Moisture: _____ decanted:(Y/N) N Date Extracted: 04/01/97

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/03/97

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
111-44-4	bis(2-Chloroethyl)ether	5	U J
108-95-2	Phenol	5	U
95-57-8	2-Chlorophenol	5	U J
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
100-51-6	Benzyl alcohol	5	U
95-48-7	2-Methylphenol	5	U
106-44-5	4-Methylphenol	5	U
108-60-1	bis(2-chloroisopropyl)ether	1	J
67-72-1	Hexachloroethane	5	U
621-64-7	N-Nitroso-di-n-propylamine	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
65-80-0	Benzoic acid	20	U
111-91-1	bis(2-Chloroethoxy)methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	5	U
88-74-4	2-Nitroaniline	20	U
208-96-8	Acenaphthylene	5	U
131-11-3	Dimethylphthalate	5	U
606-20-2	2,6-Dinitrotoluene	5	U
83-32-9	Acenaphthene	5	U
99-09-2	3-Nitroaniline	20	U
51-28-5	2,4-Dinitrophenol	20	U
132-64-9	Dibenzofuran	5	U

ZR 4-15-97

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB04S09

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 97ZB04S09

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04029717.D

Level: (low/med) LOW Date Received: 03/28/97

% Moisture: _____ decanted:(Y/N) N Date Extracted: 04/01/97

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/03/97

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

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

CAS NO.	COMPOUND		Q
121-14-2	2,4-Dinitrotoluene	5	U
100-02-7	4-Nitrophenol	5	U
86-73-7	Fluorene	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
84-66-2	Diethylphthalate	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	n-Nitrosodiphenylamine	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
86-74-8	Carbazole	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo[a]anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	12	B
117-84-0	Di-n-octylphthalate	5	U J
205-99-2	Benzo[b]fluoranthene	5	U
207-08-9	Benzo[k]fluoranthene	5	U
50-32-8	Benzo[a]pyrene	5	U
193-39-5	Indeno[1,2,3-cd]pyrene	5	U
53-70-3	Dibenz[a,h]anthracene	5	U
191-24-2	Benzo[g,h,i]perylene	5	U

ZR 4-13-97

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

97ZB04S09

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 97ZB04S09

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04029717.D

Level: (low/med) LOW Date Received: 03/28/97

% Moisture: _____ decanted: (Y/N) N Date Analyzed: 04/03/97

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0 (uL) Soil Aliquot Volume: 1 (uL)

GPC Cleanup: (Y/N) N pH: _____

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown	10.26	19	J

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB04S10

Lab Name: American Chem Service Contract: ESAT

Lab Code: 5-CRL Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 97ZB04S10

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04099703.D

Level: (low/med) LOW Date Received: 03/28/97

% Moisture: _____ decanted:(Y/N) N Date Extracted: 04/01/97

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/09/97

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
111-44-4	bis(2-Chloroethyl)ether	54	J
108-95-2	Phenol	10	
95-57-8	2-Chlorophenol	5	U J
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
100-51-6	Benzyl alcohol	5	U
95-48-7	2-Methylphenol	5	U
106-44-5	4-Methylphenol	5	U
108-60-1	bis(2-chloroisopropyl)ether	5	U
67-72-1	Hexachloroethane	5	U
621-64-7	N-Nitroso-di-n-propylamine	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
65-80-0	Benzoic acid	20	U J
111-91-1	bis(2-Chloroethoxy)methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	5	U
88-74-4	2-Nitroaniline	20	U
208-96-8	Acenaphthylene	5	U
131-11-3	Dimethylphthalate	5	U
606-20-2	2,6-Dinitrotoluene	5	U
83-32-9	Acenaphthene	5	U
99-09-2	3-Nitroaniline	20	U
51-28-5	2,4-Dinitrophenol	20	U
132-64-9	Dibenzofuran	5	U

ZR 4-15-97

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB04S10

Lab Name: American Chem Service Contract: ESAT

Lab Code: 5-CRL Case No.: 970071 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 97ZB04S10

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04099703.D

Level: (low/med) LOW Date Received: 03/28/97

% Moisture: decanted:(Y/N) N Date Extracted: 04/01/97

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/09/97

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
121-14-2	2,4-Dinitrotoluene	5	U
100-02-7	4-Nitrophenol	5	U
86-73-7	Fluorene	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
84-66-2	Diethylphthalate	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	n-Nitrosodiphenylamine	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
86-74-8	Carbazole	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U J
85-68-7	Butylbenzylphthalate	5	U J
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo[a]anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	7	B J
117-84-0	Di-n-octylphthalate	5	U J
205-99-2	Benzo[b]fluoranthene	5	U
207-08-9	Benzo[k]fluoranthene	5	U
50-32-8	Benzo[a]pyrene	5	U
193-39-5	Indeno[1,2,3-cd]pyrene	5	U
53-70-3	Dibenz[a,h]anthracene	5	U
191-24-2	Benzo[g,h,i]perylene	5	U

ZR 4-15-97

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

97ZB04S10

Lab Name: American Chem Service Contract: ESAT

Lab Code: 5-CRL Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 97ZB04S10

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04099703.D

Level: (low/med) LOW Date Received: 03/28/97

% Moisture: _____ decanted: (Y/N) N Date Analyzed: 04/09/97

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0 (uL) Soil Aliquot Volume: 1 (uL)

GPC Cleanup: (Y/N) N pH: _____

Number TICs found: 19

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown	5.10	25	J
2.	unknown	6.79	26	J
3.	unknown	9.04	98	J
4.	unknown	9.09	39	J
5.	unknown	9.26	24	J
6.	Cyclohexanone, trimethyl-	9.93	75	J
7.	Cyclohexanol, trimethyl	10.18	60	J
8.	unknown	10.36	35	J
9.	unknown	11.38	1100	J
10.	unknown	12.97	24	J
11.	unknown	13.24	33	J
12.	unknown	13.54	54	J
13.	unknown	13.61	36	J
14.	unknown	13.91	23	J
15.	unknown	14.70	38	J
16.	unknown	15.12	22	J
17.	unknown	15.38	38	J
18.	Benzoic acid, trimethyl	16.08	22	J
19.	unknown Siloxane	23.89	29	J

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB04S11

Lab Name: American Chem Service Contract:

Lab Code: Case No.: 970071 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 97ZB04S11

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04049705.D

Level: (low/med) LOW Date Received: 03/31/97

% Moisture: decanted:(Y/N) N Date Extracted: 04/02/97

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/04/97

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
111-44-4	bis(2-Chloroethyl)ether	30	
108-95-2	Phenol	5	U
95-57-8	2-Chlorophenol	5	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U J
100-51-6	Benzyl alcohol	5	U
95-48-7	2-Methylphenol	5	U
106-44-5	4-Methylphenol	5	U
108-60-1	bis(2-chloroisopropyl)ether	5	U J
67-72-1	Hexachloroethane	5	U
621-64-7	N-Nitroso-di-n-propylamine	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
65-80-0	Benzoic acid	20	U
111-91-1	bis(2-Chloroethoxy)methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U J
91-20-3	Naphthalene	5	U J
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U J
59-50-7	4-Chloro-3-methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	5	U J
88-74-4	2-Nitroaniline	20	U
208-96-8	Acenaphthylene	5	U
131-11-3	Dimethylphthalate	5	U
606-20-2	2,6-Dinitrotoluene	5	U
83-32-9	Acenaphthene	5	U
99-09-2	3-Nitroaniline	20	U
51-28-5	2,4-Dinitrophenol	20	U
132-64-9	Dibenzofuran	5	U

ZR 4-8-97

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB04S11

Lab Name: American Chem Service Contract:

Lab Code: Case No.: 970071 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 97ZB04S11

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04049705.D

Level: (low/med) LOW Date Received: 03/31/97

% Moisture: decanted:(Y/N) N Date Extracted: 04/02/97

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/04/97

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
121-14-2	2,4-Dinitrotoluene	5	U
100-02-7	4-Nitrophenol	5	U
86-73-7	Fluorene	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
84-66-2	Diethylphthalate	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	n-Nitrosodiphenylamine	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
86-74-8	Carbazole	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo[a]anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	7	B
117-84-0	Di-n-octylphthalate	5	UJ
205-99-2	Benzo[b]fluoranthene	5	U
207-08-9	Benzo[k]fluoranthene	5	U
50-32-8	Benzo[a]pyrene	5	U
193-39-5	Indeno[1,2,3-cd]pyrene	5	U
53-70-3	Dibenz[a,h]anthracene	5	U
191-24-2	Benzo[g,h,i]perylene	5	U

ZR 4-13-97

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

97ZB04S11

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 97ZB04S11

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04049705.D

Level: (low/med) LOW Date Received: 03/31/97

% Moisture: _____ decanted: (Y/N) N Date Analyzed: 04/04/97

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0 (uL) Soil Aliquot Volume: 1 (uL)

GPC Cleanup: (Y/N) N pH: _____

Number TICs found: 20

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown	7.70	13	J
2.	Cyclohexanone, trimethyl	10.00	240	J
3.	Cyclohexanol, trimethyl	10.19	56	J
4.	unknown	10.37	12	J
5.	unknown	11.47	11	J
6.	unknown	13.54	14	J
7.	unknown	13.58	21	J
8.	Benzoic acid, dimethyl	14.46	31	J
9.	Benzoic acid, dimethyl	14.55	12	J
10.	Benzoic acid, trimethyl	15.37	15	J
11.	unknown	15.80	23	J
12.	unknown	16.09	22	J
13.	unknown	16.30	19	J
14.	unknown propanoic acid	17.23	19	J
15.	unknown	19.06	14	J
16.	unknown	19.51	11	J
17.	unknown	20.06	12	J
18.	unknown	23.93	25	J
19.	unknown	24.59	14	J
20.	unknown	25.94	14	J

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB04S12

Lab Name: American Chem Service Contract:

Lab Code: Case No.: 970071 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 97ZB04S12

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04019713.D

Level: (low/med) LOW Date Received: 03/26/97

% Moisture: decanted:(Y/N) N Date Extracted: 03/27/97

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/02/97

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
111-44-4	bis(2-Chloroethyl)ether	5	U
108-95-2	Phenol	9	
95-57-8	2-Chlorophenol	5	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
100-51-6	Benzyl alcohol	5	U
95-48-7	2-Methylphenol	5	U
106-44-5	4-Methylphenol	5	U
108-60-1	bis(2-chloroisopropyl)ether	5	U
67-72-1	Hexachloroethane	5	U
621-64-7	N-Nitroso-di-n-propylamine	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
65-80-0	Benzoic acid	20	U
111-91-1	bis(2-Chloroethoxy)methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	5	U
88-74-4	2-Nitroaniline	20	U
208-96-8	Acenaphthylene	5	U
131-11-3	Dimethylphthalate	5	U
606-20-2	2,6-Dinitrotoluene	5	U
83-32-9	Acenaphthene	5	U
99-09-2	3-Nitroaniline	20	U
51-28-5	2,4-Dinitrophenol	20	U
132-64-9	Dibenzofuran	5	U

ZR 4-15-97

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB04S12

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 97ZB04S12

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04019713.D

Level: (low/med) LOW Date Received: 03/26/97

% Moisture: _____ decanted:(Y/N) N Date Extracted: 03/27/97

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/02/97

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

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

CAS NO.	COMPOUND		Q
121-14-2	2,4-Dinitrotoluene	5	U
100-02-7	4-Nitrophenol	5	U
86-73-7	Fluorene	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
84-66-2	Diethylphthalate	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	n-Nitrosodiphenylamine	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
86-74-8	Carbazole	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo[a]anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	44	B
117-84-0	Di-n-octylphthalate	5	U J
205-99-2	Benzo[b]fluoranthene	5	U
207-08-9	Benzo[k]fluoranthene	5	U
50-32-8	Benzo[a]pyrene	5	U
193-39-5	Indeno[1,2,3-cd]pyrene	5	U
53-70-3	Dibenz[a,h]anthracene	5	U
191-24-2	Benzo[g,h,i]perylene	5	U

2R 4-18-97

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

97ZB04S12

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 97ZB04S12

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04019713.D

Level: (low/med) LOW Date Received: 03/26/97

% Moisture: _____ decanted: (Y/N) N Date Analyzed: 04/02/97

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0 (uL) Soil Aliquot Volume: 1 (uL)

GPC Cleanup: (Y/N) N pH: _____

CONCENTRATION UNITS:

Number TICs found: 2 (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown oxybicyclohepatane	6.10	6	J
2.	unknown	17.26	10	J

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Summary
97ZB04S13

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 97ZB04S13

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04019714.D

Level: (low/med) LOW Date Received: 03/26/97

% Moisture: _____ decanted:(Y/N) N Date Extracted: 03/27/97

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/02/97

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
111-44-4	bis(2-Chloroethyl)ether	5	U
108-95-2	Phenol	28	
95-57-8	2-Chlorophenol	5	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
100-51-6	Benzyl alcohol	5	U
95-48-7	2-Methylphenol	5	U
106-44-5	4-Methylphenol	5	U
108-60-1	bis(2-chloroisopropyl)ether	5	U
67-72-1	Hexachloroethane	5	U
621-64-7	N-Nitroso-di-n-propylamine	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
65-80-0	Benzoic acid	20	U
111-91-1	bis(2-Chloroethoxy)methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	5	U
88-74-4	2-Nitroaniline	20	U
208-96-8	Acenaphthylene	5	U
131-11-3	Dimethylphthalate	5	U
606-20-2	2,6-Dinitrotoluene	5	U
83-32-9	Acenaphthene	5	U
99-09-2	3-Nitroaniline	20	U
51-28-5	2,4-Dinitrophenol	20	U
132-64-9	Dibenzofuran	5	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

summary 97ZB04S13

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 97ZB04S13

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04019714.D

Level: (low/med) LOW Date Received: 03/26/97

% Moisture: _____ decanted:(Y/N) N Date Extracted: 03/27/97

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/02/97

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
121-14-2	2,4-Dinitrotoluene	5	U
100-02-7	4-Nitrophenol	5	U
86-73-7	Fluorene	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
84-66-2	Diethylphthalate	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	n-Nitrosodiphenylamine	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
86-74-8	Carbazole	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo[a]anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	93 ~~110~~	EBD
117-84-0	Di-n-octylphthalate	5	UJ
205-99-2	Benzo[b]fluoranthene	5	U
207-08-9	Benzo[k]fluoranthene	5	U
50-32-8	Benzo[a]pyrene	5	U
193-39-5	Indeno[1,2,3-cd]pyrene	5	U
53-70-3	Dibenz[a,h]anthracene	5	U
191-24-2	Benzo[g,h,i]perylene	5	U

ZR 4-15-97

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

97ZB04S13

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 97ZB04S13

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04019714.D

Level: (low/med) LOW Date Received: 03/26/97

% Moisture: _____ decanted: (Y/N) N Date Analyzed: 04/02/97

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0 (uL) Soil Aliquot Volume: 1 (uL)

GPC Cleanup: (Y/N) N pH: _____

Number TICs found: 6

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown oxybicycloheptane	6.09	6	J
2.	unknown hexane	9.51	6	J
3.	unknown hexanoic acid	10.93	5	J
4.	unknown	15.75	9	J
5.	unknown	17.26	25	J
6.	unknown	20.68	5	J

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB04S14

Lab Name: American Chem Service Contract:

Lab Code: Case No.: 970071 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 97ZB04S14

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04029719.D

Level: (low/med) LOW Date Received: 03/28/97

% Moisture: decanted:(Y/N) N Date Extracted: 04/01/97

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/03/97

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
111-44-4	bis(2-Chloroethyl)ether	3	J
108-95-2	Phenol	1	J
95-57-8	2-Chlorophenol	5	U J
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
100-51-6	Benzyl alcohol	5	U
95-48-7	2-Methylphenol	5	U
106-44-5	4-Methylphenol	5	U
108-60-1	bis(2-chloroisopropyl)ether	5	U
67-72-1	Hexachloroethane	5	U
621-64-7	N-Nitroso-di-n-propylamine	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	2	J
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
65-80-0	Benzoic acid	20	U
111-91-1	bis(2-Chloroethoxy)methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	5	U
88-74-4	2-Nitroaniline	20	U
208-96-8	Acenaphthylene	5	U
131-11-3	Dimethylphthalate	5	U
606-20-2	2,6-Dinitrotoluene	5	U
83-32-9	Acenaphthene	5	U
99-09-2	3-Nitroaniline	20	U
51-28-5	2,4-Dinitrophenol	20	U
132-64-9	Dibenzofuran	5	U

ZR 4-15-97

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB04S14

Lab Name: American Chem Service Contract:

Lab Code: Case No.: 970071 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 97ZB04S14

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04029719.D

Level: (low/med) LOW Date Received: 03/28/97

% Moisture: decanted:(Y/N) N Date Extracted: 04/01/97

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/03/97

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
121-14-2	2,4-Dinitrotoluene	5	U
100-02-7	4-Nitrophenol	5	U
86-73-7	Fluorene	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
84-66-2	Diethylphthalate	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	n-Nitrosodiphenylamine	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
86-74-8	Carbazole	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo[a]anthracene	5	U
218-01-9	Chrysene	1	J
117-81-7	bis(2-Ethylhexyl)phthalate	14	B
117-84-0	Di-n-octylphthalate	1	J
205-99-2	Benzo[b]fluoranthene	5	U
207-08-9	Benzo[k]fluoranthene	1	J
50-32-8	Benzo[a]pyrene	5	U
193-39-5	Indeno[1,2,3-cd]pyrene	5	U
53-70-3	Dibenz[a,h]anthracene	5	U
191-24-2	Benzo[g,h,i]perylene	5	U

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

97ZB04S14

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 97ZB04S14

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04029719.D

Level: (low/med) LOW Date Received: 03/28/97

% Moisture: _____ decanted: (Y/N) N Date Analyzed: 04/03/97

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0 (uL) Soil Aliquot Volume: 1 (uL)

GPC Cleanup: (Y/N) N pH: _____

Number TICs found: 7

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Cyclohexanone, trimethyl	9.83	18	J
2.	unknown	10.27	31	J
3.	unknown Pyridine	15.22	780	J
4.	unknown	16.10	8	J
5.	unknown	19.02	10	J
6. 022328-94-5	SECOBARBITAL	19.60	11	JN
7. 000050-06-6	Phenobarbital	21.43	19	JN

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB04D14

Lab Name: American Chem Service Contract: ESAT

Lab Code: 5-CRL Case No.: 970071 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 97ZB04D14

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04099704.D

Level: (low/med) LOW Date Received: 03/28/97

% Moisture: decanted:(Y/N) N Date Extracted: 04/01/97

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/09/97

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
111-44-4	bis(2-Chloroethyl)ether	5	J
108-95-2	Phenol	2	J
95-57-8	2-Chlorophenol	5	U J
541-73-1	1,3-Dichlorobenzene	5	U ~~J~~
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
100-51-6	Benzyl alcohol	5	U
95-48-7	2-Methylphenol	5	U
106-44-5	4-Methylphenol	5	U
108-60-1	bis(2-chloroisopropyl)ether	5	U
67-72-1	Hexachloroethane	5	U
621-64-7	N-Nitroso-di-n-propylamine	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	3	J
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
65-80-0	Benzoic acid	20	U J
111-91-1	bis(2-Chloroethoxy)methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	5	U
88-74-4	2-Nitroaniline	20	U
208-96-8	Acenaphthylene	5	U
131-11-3	Dimethylphthalate	5	U
606-20-2	2,6-Dinitrotoluene	5	U
83-32-9	Acenaphthene	5	U
99-09-2	3-Nitroaniline	20	U
51-28-5	2,4-Dinitrophenol	20	U
132-64-9	Dibenzofuran	5	U

ZR 4-15-97

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB04D14

Lab Name: American Chem Service Contract: ESAT

Lab Code: 5-CRL Case No.: 970071 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 97ZB04D14

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04099704.D

Level: (low/med) LOW Date Received: 03/28/97

% Moisture: decanted:(Y/N) N Date Extracted: 04/01/97

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/09/97

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
121-14-2	2,4-Dinitrotoluene	5	U
100-02-7	4-Nitrophenol	5	U
86-73-7	Fluorene	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
84-66-2	Diethylphthalate	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	n-Nitrosodiphenylamine	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
86-74-8	Carbazole	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U J
85-68-7	Butylbenzylphthalate	5	U J
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo[a]anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	6	B J
117-84-0	Di-n-octylphthalate	5	U J
205-99-2	Benzo[b]fluoranthene	5	U
207-08-9	Benzo[k]fluoranthene	5	U
50-32-8	Benzo[a]pyrene	5	U
193-39-5	Indeno[1,2,3-cd]pyrene	5	U
53-70-3	Dibenz[a,h]anthracene	5	U
191-24-2	Benzo[g,h,i]perylene	5	U

ZR 4-15-97

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

97ZB04D14

Lab Name: American Chem Service Contract: ESAT

Lab Code: 5-CRL Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 97ZB04D14

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04099704.D

Level: (low/med) LOW Date Received: 03/28/97

% Moisture: _____ decanted: (Y/N) N Date Analyzed: 04/09/97

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0 (uL) Soil Aliquot Volume: 1 (uL)

GPC Cleanup: (Y/N) N pH: _____

CONCENTRATION UNITS:

Number TICs found: 6 (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Cyclohexanone, trimethyl	9.90	18	J
2.	unknown	10.33	34	J
3.	unknown	13.52	15	J
4.	unknown	15.26	890	J
5.	unknown Siloxane	19.02	12	J
6. 000050-06-6	Phenobarbital	21.41	14	JN

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB04S15

Lab Name: American Chem Service Contract:

Lab Code: Case No.: 970071 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 97ZB04S15

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04049711.D

Level: (low/med) LOW Date Received: 04/01/97

% Moisture: decanted:(Y/N) N Date Extracted: 04/03/97

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/04/97

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
111-44-4	bis(2-Chloroethyl)ether	5	U J
108-95-2	Phenol	5	U
95-57-8	2-Chlorophenol	5	U J
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
100-51-6	Benzyl alcohol	5	U
95-48-7	2-Methylphenol	5	U
106-44-5	4-Methylphenol	5	U
108-60-1	bis(2-chloroisopropyl)ether	5	U
67-72-1	Hexachloroethane	5	U J
621-64-7	N-Nitroso-di-n-propylamine	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
65-80-0	Benzoic acid	20	U
111-91-1	bis(2-Chloroethoxy)methane	5	U
120-83-2	2,4-Dichlorophenol	5	U ~~J~~
120-82-1	1,2,4-Trichlorobenzene	5	U J
91-20-3	Naphthalene	5	U J
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U J
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	5	U J
88-74-4	2-Nitroaniline	20	U
208-96-8	Acenaphthylene	5	U
131-11-3	Dimethylphthalate	5	U
606-20-2	2,6-Dinitrotoluene	5	U
83-32-9	Acenaphthene	5	U
99-09-2	3-Nitroaniline	20	U
51-28-5	2,4-Dinitrophenol	20	U
132-64-9	Dibenzofuran	5	U

ZR
4-15-97

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB04S15

Lab Name: American Chem Service Contract:

Lab Code: Case No.: 970071 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 97ZB04S15

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04049711.D

Level: (low/med) LOW Date Received: 04/01/97

% Moisture: decanted:(Y/N) N Date Extracted: 04/03/97

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/04/97

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
121-14-2	2,4-Dinitrotoluene	5	U
100-02-7	4-Nitrophenol	5	U
86-73-7	Fluorene	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
84-66-2	Diethylphthalate	5	U J
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	n-Nitrosodiphenylamine	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
86-74-8	Carbazole	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo[a]anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	1	JB
117-84-0	Di-n-octylphthalate	5	U J
205-99-2	Benzo[b]fluoranthene	5	U
207-08-9	Benzo[k]fluoranthene	5	U
50-32-8	Benzo[a]pyrene	5	U
193-39-5	Indeno[1,2,3-cd]pyrene	5	U
53-70-3	Dibenz[a,h]anthracene	5	U
191-24-2	Benzo[g,h,i]perylene	5	U

ZR 4-15-97

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

97ZB04S15

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 97ZB04S15

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04049711.D

Level: (low/med) LOW Date Received: 04/01/97

% Moisture: _____ decanted: (Y/N) N Date Analyzed: 04/04/97

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0 (uL) Soil Aliquot Volume: 1 (uL)

GPC Cleanup: (Y/N) N pH: _____

Number TICs found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB04S16

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 97ZB04S16

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04049712.D

Level: (low/med) LOW Date Received: 04/01/97

% Moisture: _____ decanted:(Y/N) N Date Extracted: 04/03/97

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/05/97

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
111-44-4	bis(2-Chloroethyl)ether	5	U J
108-95-2	Phenol	5	U
95-57-8	2-Chlorophenol	5	U J
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
100-51-6	Benzyl alcohol	5	U
95-48-7	2-Methylphenol	5	U
106-44-5	4-Methylphenol	5	U
108-60-1	bis(2-chloroisopropyl)ether	5	U
67-72-1	Hexachloroethane	5	U J
621-64-7	N-Nitroso-di-n-propylamine	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
65-80-0	Benzoic acid	20	U
111-91-1	bis(2-Chloroethoxy)methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U J
91-20-3	Naphthalene	5	U J
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U J
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	5	U J
88-74-4	2-Nitroaniline	20	U
208-96-8	Acenaphthylene	5	U
131-11-3	Dimethylphthalate	5	U
606-20-2	2,6-Dinitrotoluene	5	U
83-32-9	Acenaphthene	5	U
99-09-2	3-Nitroaniline	20	U
51-28-5	2,4-Dinitrophenol	20	U
132-64-9	Dibenzofuran	5	U

ZR 4-15-97

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB04S16

Lab Name: American Chem Service Contract:

Lab Code: Case No.: 970071 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 97ZB04S16

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04049712.D

Level: (low/med) LOW Date Received: 04/01/97

% Moisture: decanted:(Y/N) N Date Extracted: 04/03/97

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/05/97

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
121-14-2	2,4-Dinitrotoluene	5	U
100-02-7	4-Nitrophenol	5	U
86-73-7	Fluorene	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
84-66-2	Diethylphthalate	5	U J
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	n-Nitrosodiphenylamine	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
86-74-8	Carbazole	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo[a]anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	1	JB
117-84-0	Di-n-octylphthalate	5	U J
205-99-2	Benzo[b]fluoranthene	5	U
207-08-9	Benzo[k]fluoranthene	5	U
50-32-8	Benzo[a]pyrene	5	U
193-39-5	Indeno[1,2,3-cd]pyrene	5	U
53-70-3	Dibenz[a,h]anthracene	5	U
191-24-2	Benzo[g,h,i]perylene	5	U

ZR 4-15-97

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

97ZB04S16

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 97ZB04S16

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04049712.D

Level: (low/med) LOW Date Received: 04/01/97

% Moisture: _____ decanted: (Y/N) N Date Analyzed: 04/05/97

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0 (uL) Soil Aliquot Volume: 1 (uL)

GPC Cleanup: (Y/N) N pH: _____

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB04S17

Lab Name: American Chem Service Contract:

Lab Code: Case No.: 970071 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 97ZB04S17

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04079701.D

Level: (low/med) LOW Date Received: 04/01/97

% Moisture: decanted:(Y/N) N Date Extracted: 04/03/97

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/07/97

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
111-44-4	bis(2-Chloroethyl)ether	5	U J
108-95-2	Phenol	5	U
95-57-8	2-Chlorophenol	5	U J
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
100-51-6	Benzyl alcohol	5	U
95-48-7	2-Methylphenol	5	U
106-44-5	4-Methylphenol	5	U
108-60-1	bis(2-chloroisopropyl)ether	5	U
67-72-1	Hexachloroethane	5	U J
621-64-7	N-Nitroso-di-n-propylamine	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
65-80-0	Benzoic acid	20	U
111-91-1	bis(2-Chloroethoxy)methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U J
91-20-3	Naphthalene	5	U J
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U J
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	5	U J
88-74-4	2-Nitroaniline	20	U
208-96-8	Acenaphthylene	5	U
131-11-3	Dimethylphthalate	5	U
606-20-2	2,6-Dinitrotoluene	5	U
83-32-9	Acenaphthene	5	U
99-09-2	3-Nitroaniline	20	U
51-28-5	2,4-Dinitrophenol	20	U
132-64-9	Dibenzofuran	5	U

ZR 4-15-97

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB04S17

Lab Name: American Chem Service Contract:

Lab Code: Case No.: 970071 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 97ZB04S17

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04079701.D

Level: (low/med) LOW Date Received: 04/01/97

% Moisture: decanted:(Y/N) N Date Extracted: 04/03/97

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/07/97

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
121-14-2	2,4-Dinitrotoluene	5	U
100-02-7	4-Nitrophenol	5	U
86-73-7	Fluorene	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
84-66-2	Diethylphthalate	5	U J
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	n-Nitrosodiphenylamine	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
86-74-8	Carbazole	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo[a]anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	1	JB
117-84-0	Di-n-octylphthalate	5	U J
205-99-2	Benzo[b]fluoranthene	5	U
207-08-9	Benzo[k]fluoranthene	5	U
50-32-8	Benzo[a]pyrene	5	U
193-39-5	Indeno[1,2,3-cd]pyrene	5	U
53-70-3	Dibenz[a,h]anthracene	5	U
191-24-2	Benzo[g,h,i]perylene	5	U

ZR 4/15/97

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

97ZB04S17

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 97ZB04S17

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04079701.D

Level: (low/med) LOW Date Received: 04/01/97

% Moisture: _____ decanted: (Y/N) N Date Analyzed: 04/07/97

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0 (uL) Soil Aliquot Volume: 1 (uL)

GPC Cleanup: (Y/N) N pH: _____

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown	10.65	18	J

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB04S18

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 97ZB04S18

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04079702.D

Level: (low/med) LOW Date Received: 04/01/97

% Moisture: _____ decanted:(Y/N) N Date Extracted: 04/03/97

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/07/97

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

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

CAS NO.	COMPOUND		Q
111-44-4	bis(2-Chloroethyl)ether	5	U J
108-95-2	Phenol	5	U ~~J~~
95-57-8	2-Chlorophenol	5	U J
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
100-51-6	Benzyl alcohol	5	U
95-48-7	2-Methylphenol	5	U
106-44-5	4-Methylphenol	5	U
108-60-1	bis(2-chloroisopropyl)ether	5	U
67-72-1	Hexachloroethane	5	U J
621-64-7	N-Nitroso-di-n-propylamine	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
65-80-0	Benzoic acid	20	U
111-91-1	bis(2-Chloroethoxy)methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U J
91-20-3	Naphthalene	5	U J
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U J
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	5	U J
88-74-4	2-Nitroaniline	20	U
208-96-8	Acenaphthylene	5	U
131-11-3	Dimethylphthalate	5	U
606-20-2	2,6-Dinitrotoluene	5	U
83-32-9	Acenaphthene	5	U
99-09-2	3-Nitroaniline	20	U
51-28-5	2,4-Dinitrophenol	20	U
132-64-9	Dibenzofuran	5	U

ZR 4-15-97

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB04S18

Lab Name: American Chem Service Contract:

Lab Code: Case No.: 970071 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 97ZB04S18

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04079702.D

Level: (low/med) LOW Date Received: 04/01/97

% Moisture: decanted:(Y/N) N Date Extracted: 04/03/97

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/07/97

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
121-14-2	2,4-Dinitrotoluene	5	U
100-02-7	4-Nitrophenol	5	U
86-73-7	Fluorene	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
84-66-2	Diethylphthalate	5	U J
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U J
86-30-6	n-Nitrosodiphenylamine	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
86-74-8	Carbazole	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo[a]anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	1	JB
117-84-0	Di-n-octylphthalate	5	U J
205-99-2	Benzo[b]fluoranthene	5	U
207-08-9	Benzo[k]fluoranthene	5	U
50-32-8	Benzo[a]pyrene	5	U
193-39-5	Indeno[1,2,3-cd]pyrene	5	U
53-70-3	Dibenz[a,h]anthracene	5	U
191-24-2	Benzo[g,h,i]perylene	5	U

ZR
4-15-97

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

97ZB04S18

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 97ZB04S18

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04079702.D

Level: (low/med) LOW Date Received: 04/01/97

% Moisture: _____ decanted: (Y/N) N Date Analyzed: 04/07/97

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0 (uL) Soil Aliquot Volume: 1 (uL)

GPC Cleanup: (Y/N) N pH: _____

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown	10.61	7	J

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB04S19

Lab Name: American Chem Service Contract:

Lab Code: Case No.: 970071 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 97ZB04S19

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04079703.D

Level: (low/med) LOW Date Received: 04/02/97

% Moisture: decanted:(Y/N) N Date Extracted: 04/03/97

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/07/97

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
111-44-4	bis(2-Chloroethyl)ether	5	U J
108-95-2	Phenol	5	U
95-57-8	2-Chlorophenol	5	U J
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
100-51-6	Benzyl alcohol	5	U
95-48-7	2-Methylphenol	5	U
106-44-5	4-Methylphenol	5	U
108-60-1	bis(2-chloroisopropyl)ether	5	U
67-72-1	Hexachloroethane	5	U J
621-64-7	N-Nitroso-di-n-propylamine	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
65-80-0	Benzoic acid	20	U
111-91-1	bis(2-Chloroethoxy)methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U J
91-20-3	Naphthalene	5	U J
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U J
88-06-2	2,4,6-Trichlorophenol	5	U J
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	5	U J
88-74-4	2-Nitroaniline	20	U
208-96-8	Acenaphthylene	5	U
131-11-3	Dimethylphthalate	5	U
606-20-2	2,6-Dinitrotoluene	5	U
83-32-9	Acenaphthene	5	U
99-09-2	3-Nitroaniline	20	U
51-28-5	2,4-Dinitrophenol	20	U
132-64-9	Dibenzofuran	5	U

2R 4-15-97

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB04S19

Lab Name: American Chem Service Contract:

Lab Code: Case No.: 970071 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 97ZB04S19

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04079703.D

Level: (low/med) LOW Date Received: 04/02/97

% Moisture: decanted:(Y/N) N Date Extracted: 04/03/97

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/07/97

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
121-14-2	2,4-Dinitrotoluene	5	U
100-02-7	4-Nitrophenol	5	U
86-73-7	Fluorene	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
84-66-2	Diethylphthalate	5	U J
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U J
86-30-6	n-Nitrosodiphenylamine	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
86-74-8	Carbazole	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo[a]anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	1	~~JB~~
117-84-0	Di-n-octylphthalate	5	U J
205-99-2	Benzo[b]fluoranthene	5	U
207-08-9	Benzo[k]fluoranthene	5	U
50-32-8	Benzo[a]pyrene	5	U
193-39-5	Indeno[1,2,3-cd]pyrene	5	U
53-70-3	Dibenz[a,h]anthracene	5	U
191-24-2	Benzo[g,h,i]perylene	5	U

STET

ZR 4-15-97

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

97ZB04S19

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 97ZB04S19

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04079703.D

Level: (low/med) LOW Date Received: 04/02/97

% Moisture: _____ decanted: (Y/N) N Date Analyzed: 04/07/97

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0 (uL) Soil Aliquot Volume: 1 (uL)

GPC Cleanup: (Y/N) N pH: _____

CONCENTRATION UNITS:

Number TICs found: 0 (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB04S20

Lab Name: American Chem Service Contract:

Lab Code: Case No.: 970071 SAS No.: SDG No.:

Matrix: (soil/water) WATER Lab Sample ID: 97ZB04S20

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04079704.D

Level: (low/med) LOW Date Received: 04/02/97

% Moisture: decanted:(Y/N) N Date Extracted: 04/03/97

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/07/97

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
111-44-4	bis(2-Chloroethyl)ether	5	U J
108-95-2	Phenol	5	U
95-57-8	2-Chlorophenol	5	U J
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
100-51-6	Benzyl alcohol	5	U
95-48-7	2-Methylphenol	5	U
106-44-5	4-Methylphenol	5	U
108-60-1	bis(2-chloroisopropyl)ether	5	U
67-72-1	Hexachloroethane	5	U J
621-64-7	N-Nitroso-di-n-propylamine	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
65-80-0	Benzoic acid	20	U
111-91-1	bis(2-Chloroethoxy)methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U J
91-20-3	Naphthalene	5	U J
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U J
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	5	U J
88-74-4	2-Nitroaniline	20	U
208-96-8	Acenaphthylene	5	U
131-11-3	Dimethylphthalate	5	U
606-20-2	2,6-Dinitrotoluene	5	U
83-32-9	Acenaphthene	5	U
99-09-2	3-Nitroaniline	20	U
51-28-5	2,4-Dinitrophenol	20	U
132-64-9	Dibenzofuran	5	U

ZR 4-15-97

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

97ZB04S20

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 97ZB04S20

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04079704.D

Level: (low/med) LOW Date Received: 04/02/97

% Moisture: _____ decanted:(Y/N) N Date Extracted: 04/03/97

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/07/97

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
121-14-2	2,4-Dinitrotoluene	5	U
100-02-7	4-Nitrophenol	5	U
86-73-7	Fluorene	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
84-66-2	Diethylphthalate	5	U J
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U J
86-30-6	n-Nitrosodiphenylamine	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
86-74-8	Carbazole	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo[a]anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)phthalate	2	~~JB~~ U
117-84-0	Di-n-octylphthalate	5	U J
205-99-2	Benzo[b]fluoranthene	5	U
207-08-9	Benzo[k]fluoranthene	5	U
50-32-8	Benzo[a]pyrene	5	U
193-39-5	Indeno[1,2,3-cd]pyrene	5	U
53-70-3	Dibenz[a,h]anthracene	5	U
191-24-2	Benzo[g,h,i]perylene	5	U

U [illegible] 06/11/97

ZR 4-15-97

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

97ZB04S20

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 97ZB04S20

Sample wt/vol: 1000 (g/ml) ML Lab File ID: 04079704.D

Level: (low/med) LOW Date Received: 04/02/97

% Moisture: _____ decanted: (Y/N) N Date Analyzed: 04/07/97

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0 (uL) Soil Aliquot Volume: 1 (uL)

GPC Cleanup: (Y/N) N pH: _____

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

2C
WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: American Chem Service Contract: ESAT

Lab Code: 5-CRL Case No.: 970071 SAS No.: _____ SDG No.: _____

	EPA SAMPLE NO.	S1 (2FP) #	S2 (PHL) #	S3 (NBZ) #	S4 (FBP) #	S5 (TBP) #	S6 (TPH) #	TOT OUT
01	LAB BLANK A	88	89	92	90	92	97	0
02	LAB SPIKE A	95	96	96	92	108	100	0
03	LAB SPKD A	46	42	51	43	59	58	0
04	97ZB04S01	95	94	100	98	100	98	0
05	97ZB04S02	98	99	92	98	108	101	0
06	97ZB04S12	91	92	93	90	99	94	0
07	97ZB04S13	93	93	96	96	98	93	0
08	LAB BLANK B	43	4*	51	52	71	66	1
09	LAB SPIKE B	62	67	66	65	75	77	0
10	LAB SPKD B	17*	17	25*	26*	38	57	3
11	97ZB04R02	70	74	73	62	77	90	0
12	97ZB04S03	60	67	64	62	80	80	0
13	97ZB04S04	54	67	55	61	75	73	0
14	97ZB04S05	95	101	96	90	113	107	0
15	97ZB04S06	90	95	85	80	98	95	0
16	LAB BLANK C	*	6*	7*	44	71	88	3
17	LAB SPIKE C	22	42	44	58	75	77	0
18	LAB SPKD C	38	2*	61	75	93	92	1
19	97ZB04S09	76	81	75	76	87	86	0
20	97ZB04S14	35	59	42	64	99	100	0
21	LAB BLANK D	69	72	69	51	73	62	0
22	LAB SPIKE D	79	80	73	55	80	75	0
23	LAB SPKD D	78	79	77	50	82	74	0
24	97ZB04S07	73	68	74	59	81	77	0
25	97ZB04S11	60	67	62	53	70	66	0
26	LAB BLANK E	71	60	71	62	73	66	0
27	LAB SPIKE E	54	58	57	50	76	69	0
28	LAB SPKD E	64	69	66	57	81	74	0
29	97ZB04S08	63	68	63	53	75	70	0
30	97ZB04R11	65	67	62	54	70	82	0
31	97ZB04S15	37	44	40	39*	58	63	1
32	97ZB04S16	73	77	71	61	80	77	0
33	97ZB04S17	65	68	69	62	84	86	0

				QC LIMITS
S1	(2FP)	=	2-Fluorophenol	(21-110)
S2	(PHL)	=	Phenol-d5	(10-110)
S3	(NBZ)	=	Nitrobenzene-d5	(35-114)
S4	(FBP)	=	2-Fluorobiphenyl	(43-116)
S5	(TBP)	=	2,4,6-Tribromophenol	(10-123)
S6	(TPH)	=	Terphenyl-d14	(33-141)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogate diluted out

2C
WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

	EPA SAMPLE NO.	S1 (2FP) #	S2 (PHL) #	S3 (NBZ) #	S4 (FBP) #	S5 (TBP) #	S6 (TPH) #	TOT OUT
34	97ZB04S18	54	57	57	50	64	63	0
35	97ZB04S19	81	84	88	73	90	89	0
36	97ZB04S20	47	54	52	49	67	64	0
37	LAB SPKD CR	37	1*	62	68	99	94	1
38	97ZB04S10	89	104	87	93	128*	119	1
39	97ZB04D14	63	80	68	59	105	99	0

				QC LIMITS
S1	(2FP)	=	2-Fluorophenol	(21-110)
S2	(PHL)	=	Phenol-d5	(10-110)
S3	(NBZ)	=	Nitrobenzene-d5	(35-114)
S4	(FBP)	=	2-Fluorobiphenyl	(43-116)
S5	(TBP)	=	2,4,6-Tribromophenol	(10-123)
S6	(TPH)	=	Terphenyl-d14	(33-141)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogate diluted out

2D
SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: AMERICAN CHEM SREVICE Contract: ESAT

Lab code: 5SCRL Case No.: 970071 SAS No.: SDG No.:

Level:(low/med) LOW

	EPA SAMPLE NO.	S1 (NBZ)#	S2 (FBP)#	S3 (TPH)#	S4 (PHL)#	S5 (2FP)#	S6 (TBP)#	S7 ( )#	TOT OUT
01	LAB BLK A D	D	D	D	D	D	D		0
02	LAB SPK A D	D	D	D	D	D	D		0
03	97ZB04S01D	D	D	D	D	D	D		0
04	97ZB04S13D	D	D	D	D	D	D		0
05	LAB SPKD C D	D	D	D	D	D	D		0
06	97ZB04S07D	D	D	D	D	D	D		0
07									
08									
09									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									

		QC LIMITS
S1 (NBZ)	= Nitrobenzene-d5	(23-120)
S2 (FBP)	= 2-Fluorobiphenyl	(30-115)
S3 (TPH)	= Terphenyl-d14	(18-137)
S4 (PHL)	= Phenol-d5	(24-113)
S5 (2FP)	= 2-Fluorophenol	(25-121)
S6 (TBP)	= 2,4,6-Tribromophenol	(19-122)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out

3C

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix Spike - EPA Sample No.: LCSA

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
bis(2-Chloroethyl)ether	50	0.0	46	92	64 - 110
Phenol	50	0.0	45	90	44 - 120
2-Chlorophenol	50	0.0	44	88	58 - 110
1,3-Dichlorobenzene	50	0.0	40	80	5 - 172
1,4-Dichlorobenzene	50	0.0	39	78	20 - 124
1,2-Dichlorobenzene	50	0.0	39	78	32 - 129
Benzyl alcohol	50	0.0	44	88	5 - 150
2-Methylphenol	50	0.0	43	86	5 - 150
4-Methylphenol	50	0.0	43	86	5 - 150
bis(2-chloroisopropyl)ether	50	0.0	44	88	36 - 166
Hexachloroethane	50	0.0	38	76	32 - 100
N-Nitroso-di-n-propylamine	50	0.0	46	92	34 - 102
Nitrobenzene	50	0.0	44	88	35 - 180
Isophorone	50	0.0	46	92	49 - 110
2-Nitrophenol	50	0.0	45	90	29 - 182
2,4-Dimethylphenol	50	0.0	32	64	32 - 119
Benzoic acid	50	0.0	52	104	5 - 150
bis(2-Chloroethoxy)methane	50	0.0	45	90	33 - 184
2,4-Dichlorophenol	50	0.0	46	92	39 - 135
1,2,4-Trichlorobenzene	50	0.0	41	82	44 - 142
Naphthalene	50	0.0	43	86	56 - 160
4-Chloroaniline	50	0.0	42	84	35 - 100
Hexachlorobutadiene	50	0.0	38	76	24 - 116
4-Chloro-3-methylphenol	50	0.0	47	94	22 - 147
2-Methylnaphthalene	50	0.0	42	84	5 - 150
Hexachlorocyclopentadiene	50	0.0	16	32	5 - 150
2,4,6-Trichlorophenol	50	0.0	47	94	65 - 110
2,4,5-Trichlorophenol	50	0.0	47	94	5 - 150
2-Chloronaphthalene	50	0.0	44	88	60 - 118

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 32 outside limits

Spike Recovery: 5 out of 64 outside limits

COMMENTS: _____

3C

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix Spike - EPA Sample No.: LCSA

2-Nitroaniline	50	0.0	48	96	5 - 150
Acenaphthylene	50	0.0	48	96	33 - 145
Dimethylphthalate	50	0.0	50	100	5 - 112
2,6-Dinitrotoluene	50	0.0	50	100	50 - 158
Acenaphthene	50	0.0	48	96	47 - 145
3-Nitroaniline	50	0.0	46	92	5 - 150
2,4-Dinitrophenol	50	0.0	59	118	5 - 191
Dibenzofuran	50	0.0	45	90	5 - 150
2,4-Dinitrotoluene	50	0.0	50	100	61 - 140
4-Nitrophenol	50	0.0	51	102	5 - 132
Fluorene	50	0.0	49	98	59 - 121
4-Chlorophenyl-phenylether	50	0.0	48	96	25 - 158
Diethylphthalate	50	0.0	50	100	76 - 104
4-Nitroaniline	50	0.0	48	96	5 - 150
4,6-Dinitro-2-methylphenol	50	0.0	55	110	5 - 181
n-Nitrosodiphenylamine	50	0.0	49	98	35 - 120
4-Bromophenyl-phenylether	50	0.0	49	98	53 - 127
Hexachlorobenzene	50	0.0	52	104 *	30 - 100
Pentachlorophenol	50	0.0	57	114	14 - 176
Phenanthrene	50	0.0	53	106	54 - 120
Anthracene	50	0.0	53	106	27 - 133
Carbazole	50	0.0	53	106	5 - 150
Di-n-butylphthalate	50	0.0	53	106	5 - 118
Fluoranthene	50	0.0	54	108	26 - 137
Pyrene	50	0.0	50	100	52 - 115
Butylbenzylphthalate	50	0.0	51	102	5 - 152
3,3'-Dichlorobenzidine	50	0.0	43	86	5 - 262
Benzo[a]anthracene	50	0.0	50	100	33 - 143
Chrysene	50	0.0	53	106	17 - 168
bis(2-Ethylhexyl)phthalate	50	110	64	0 *	8 - 158
Di-n-octylphthalate	50	0.0	58	116	5 - 146
Benzo[b]fluoranthene	50	0.0	51	102	24 - 159
Benzo[k]fluoranthene	50	0.0	55	110	11 - 162

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 34 outside limits

Spike Recovery: 7 out of 67 outside limits

COMMENTS: _____

3C

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix Spike - EPA Sample No.: LCSA

Benzo[a]pyrene	50	0.0	51	102	55 - 110
Indeno[1,2,3-cd]pyrene	50	0.0	49	98	5 - 171
Dibenz[a,h]anthracene	50	0.0	50	100	5 - 227
Benzo[g,h,i]perylene	50	0.0	48	96	5 - 219

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
bis(2-Chloroethyl)ether	50	24	48 *	63		64 - 110
Phenol	50	26	52	54		44 - 120
2-Chlorophenol	50	23	46 *	63		58 - 110
1,3-Dichlorobenzene	50	19	38	71		5 - 172
1,4-Dichlorobenzene	50	19	38	69		20 - 124
1,2-Dichlorobenzene	50	19	38	69		32 - 129
Benzyl alcohol	50	12	24	114		5 - 150
2-Methylphenol	50	24	48	57		5 - 150
4-Methylphenol	50	25	50	53		5 - 150
bis(2-chloroisopropyl)ether	50	23	46	63		36 - 166
Hexachloroethane	50	18	36	71		32 - 100
N-Nitroso-di-n-propylamine	50	25	50	59		34 - 102
Nitrobenzene	50	24	48	59		35 - 180
Isophorone	50	27	54	52		49 - 110
2-Nitrophenol	50	24	48	61		29 - 182
2,4-Dimethylphenol	50	24	48	29		32 - 119
Benzoic acid	50	33	66	45		5 - 150
bis(2-Chloroethoxy)methane	50	1.1	2 *	191		33 - 184
2,4-Dichlorophenol	50	26	52	56		39 - 135
1,2,4-Trichlorobenzene	50	21	42 *	65		44 - 142
Naphthalene	50	23	46 *	61		56 - 160
4-Chloroaniline	50	4.7	9 *	161		35 - 100
Hexachlorobutadiene	50	19	38	67		24 - 116
4-Chloro-3-methylphenol	50	27	54	54		22 - 147

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 4 outside limits

Spike Recovery: 8 out of 7 outside limits

COMMENTS: _____

3C

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix Spike - EPA Sample No.: LCSA

2-Methylnaphthalene	50	23	46	58		5 - 150
Hexachlorocyclopentadiene	50	8.3	17	61		5 - 150
2,4,6-Trichlorophenol	50	28	56 *	51		65 - 110
2,4,5-Trichlorophenol	50	29	58	47		5 - 150
2-Chloronaphthalene	50	24	48 *	59		60 - 118
2-Nitroaniline	50	16	32	100		5 - 150
Acenaphthylene	50	8.8	18 *	137		33 - 145
Dimethylphthalate	50	29	58	53		5 - 112
2,6-Dinitrotoluene	50	28	56	56		50 - 158
Acenaphthene	50	25	50	63		47 - 145
3-Nitroaniline	50	8.9	18	135		5 - 150
2,4-Dinitrophenol	50	34	68	54		5 - 191
Dibenzofuran	50	26	52	54		5 - 150
2,4-Dinitrotoluene	50	30	60 *	50		61 - 140
4-Nitrophenol	50	31	62	49		5 - 132
Fluorene	50	29	58 *	51		59 - 121
4-Chlorophenyl-phenylether	50	28	56	53		25 - 158
Diethylphthalate	50	30	60 *	50		76 - 104
4-Nitroaniline	50	13	26	115		5 - 150
4,6-Dinitro-2-methylphenol	50	32	64	53		5 - 181
n-Nitrosodiphenylamine	50	6.5	13 *	153		35 - 120
4-Bromophenyl-phenylether	50	28	56	55		53 - 127
Hexachlorobenzene	50	31	62	51		30 - 100
Pentachlorophenol	50	33	66	53		14 - 176
Phenanthrene	50	31	62	52		54 - 120
Anthracene	50	30	60	55		27 - 133
Carbazole	50	9.9	20	137		5 - 150
Di-n-butylphthalate	50	33	66	47		5 - 118
Fluoranthene	50	33	66	48		26 - 137
Pyrene	50	27	54	60		52 - 115
Butylbenzylphthalate	50	28	56	58		5 - 152
3,3'-Dichlorobenzidine	50	0.0	0 *	200		5 - 262
Benzo[a]anthracene	50	29	58	53		33 - 143

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 0 outside limits

Spike Recovery: 8 out of 0 outside limits

COMMENTS: _____

3C

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix Spike - EPA Sample No.: LCSA

Chrysene	50	32	64	49		17 - 168
bis(2-Ethylhexyl)phthalate	50	150	80	200		8 - 158
Di-n-octylphthalate	50	30	60	64		5 - 146
Benzo[b]fluoranthene	50	30	60	52		24 - 159
Benzo[k]fluoranthene	50	29	58	62		11 - 162
Benzo[a]pyrene	50	25	50 *	68		55 - 110
Indeno[1,2,3-cd]pyrene	50	32	64	42		5 - 171
Dibenz[a,h]anthracene	50	34	68	38		5 - 227
Benzo[g,h,i]perylene	50	32	64	40		5 - 219

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 0 outside limits

Spike Recovery: 1 out of 0 outside limits

COMMENTS: _____

3C

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix Spike - EPA Sample No.: LCSB

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
bis(2-Chloroethyl)ether	50	0.0	31	62 *	64 - 110
Phenol	50	0.0	32	64	44 - 120
2-Chlorophenol	50	0.0	31	62	58 - 110
1,3-Dichlorobenzene	50	0.0	26	52	5 - 172
1,4-Dichlorobenzene	50	0.0	25	50	20 - 124
1,2-Dichlorobenzene	50	0.0	26	52	32 - 129
Benzyl alcohol	50	0.0	31	62	5 - 150
2-Methylphenol	50	0.0	30	60	5 - 150
4-Methylphenol	50	0.0	31	62	5 - 150
bis(2-chloroisopropyl)ether	50	0.0	30	60	36 - 166
Hexachloroethane	50	0.0	26	52	32 - 100
N-Nitroso-di-n-propylamine	50	0.0	32	64	34 - 102
Nitrobenzene	50	0.0	32	64	35 - 180
Isophorone	50	0.0	35	70	49 - 110
2-Nitrophenol	50	0.0	33	66	29 - 182
2,4-Dimethylphenol	50	0.0	23	46	32 - 119
Benzoic acid	50	0.0	27	54	5 - 150
bis(2-Chloroethoxy)methane	50	0.0	33	66	33 - 184
2,4-Dichlorophenol	50	0.0	33	66	39 - 135
1,2,4-Trichlorobenzene	50	0.0	29	58	44 - 142
Naphthalene	50	0.0	31	62	56 - 160
4-Chloroaniline	50	0.0	30	60	35 - 100
Hexachlorobutadiene	50	0.0	27	54	24 - 116
4-Chloro-3-methylphenol	50	0.0	35	70	22 - 147
2-Methylnaphthalene	50	0.0	32	64	5 - 150
Hexachlorocyclopentadiene	50	0.0	8.8	18	5 - 150
2,4,6-Trichlorophenol	50	0.0	34	68	65 - 110
2,4,5-Trichlorophenol	50	0.0	36	72	5 - 150
2-Chloronaphthalene	50	0.0	34	68	60 - 118

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 32 outside limits

Spike Recovery: 8 out of 64 outside limits

COMMENTS: _____

3C

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix Spike - EPA Sample No.: LCSB

2-Nitroaniline	50	0.0	34	68	5 - 150
Acenaphthylene	50	0.0	35	70	33 - 145
Dimethylphthalate	50	0.0	37	74	5 - 112
2,6-Dinitrotoluene	50	0.0	37	74	50 - 158
Acenaphthene	50	0.0	36	72	47 - 145
3-Nitroaniline	50	0.0	34	68	5 - 150
2,4-Dinitrophenol	50	0.0	38	76	5 - 191
Dibenzofuran	50	0.0	36	72	5 - 150
2,4-Dinitrotoluene	50	0.0	37	74	61 - 140
4-Nitrophenol	50	0.0	37	74	5 - 132
Fluorene	50	0.0	38	76	59 - 121
4-Chlorophenyl-phenylether	50	0.0	36	72	25 - 158
Diethylphthalate	50	0.0	38	76	76 - 104
4-Nitroaniline	50	0.0	35	70	5 - 150
4,6-Dinitro-2-methylphenol	50	0.0	38	76	5 - 181
n-Nitrosodiphenylamine	50	0.0	34	68	35 - 120
4-Bromophenyl-phenylether	50	0.0	36	72	53 - 127
Hexachlorobenzene	50	0.0	38	76	30 - 100
Pentachlorophenol	50	0.0	38	76	14 - 176
Phenanthrene	50	0.0	38	76	54 - 120
Anthracene	50	0.0	38	76	27 - 133
Carbazole	50	0.0	39	78	5 - 150
Di-n-butylphthalate	50	0.0	40	80	5 - 118
Fluoranthene	50	0.0	41	82	26 - 137
Pyrene	50	0.0	39	78	52 - 115
Butylbenzylphthalate	50	0.0	39	78	5 - 152
3,3'-Dichlorobenzidine	50	0.0	28	56	5 - 262
Benzo[a]anthracene	50	0.0	38	76	33 - 143
Chrysene	50	0.0	39	78	17 - 168
bis(2-Ethylhexyl)phthalate	50	4.6	82	154	8 - 158
Di-n-octylphthalate	50	0.0	51	102	5 - 146
Benzo[b]fluoranthene	50	0.0	43	86	24 - 159
Benzo[k]fluoranthene	50	0.0	38	76	11 - 162

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 34 outside limits

Spike Recovery: 7 out of 67 outside limits

COMMENTS: _____

3C

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix Spike - EPA Sample No.: LCSB

Benzo[a]pyrene	50	0.0	38	76	55 - 110
Indeno[1,2,3-cd]pyrene	50	0.0	31	62	5 - 171
Dibenz[a,h]anthracene	50	0.0	32	64	5 - 227
Benzo[g,h,i]perylene	50	0.0	30	60	5 - 219

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
bis(2-Chloroethyl)ether	50	16	32 *	64		64 - 110
Phenol	50	13	26 *	84		44 - 120
2-Chlorophenol	50	14	28 *	76		58 - 110
1,3-Dichlorobenzene	50	13	26	67		5 - 172
1,4-Dichlorobenzene	50	13	26	63		20 - 124
1,2-Dichlorobenzene	50	13	26 *	67		32 - 129
Benzyl alcohol	50	13	26	82		5 - 150
2-Methylphenol	50	15	30	67		5 - 150
4-Methylphenol	50	15	30	70		5 - 150
bis(2-chloroisopropyl)ether	50	15	30 *	67		36 - 166
Hexachloroethane	50	13	26 *	67		32 - 100
N-Nitroso-di-n-propylamine	50	19	38	51		34 - 102
Nitrobenzene	50	18	36	56		35 - 180
Isophorone	50	20	40 *	55		49 - 110
2-Nitrophenol	50	18	36	59		29 - 182
2,4-Dimethylphenol	50	13	26 *	56		32 - 119
Benzoic acid	50	13	26	70		5 - 150
bis(2-Chloroethoxy)methane	50	18	36	59		33 - 184
2,4-Dichlorophenol	50	17	34 *	64		39 - 135
1,2,4-Trichlorobenzene	50	16	32 *	58		44 - 142
Naphthalene	50	18	36 *	53		56 - 160
4-Chloroaniline	50	0.0	0 *	200		35 - 100
Hexachlorobutadiene	50	14	28	63		24 - 116
4-Chloro-3-methylphenol	50	20	40	55		22 - 147

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 4 outside limits

Spike Recovery: 13 out of 7 outside limits

COMMENTS: _____

3C

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix Spike - EPA Sample No.: LCSB

2-Methylnaphthalene	50	20	40	46		5 - 150
Hexachlorocyclopentadiene	50	4.7	9	67		5 - 150
2,4,6-Trichlorophenol	50	22	44 *	43		65 - 110
2,4,5-Trichlorophenol	50	23	46	44		5 - 150
2-Chloronaphthalene	50	23	46 *	39		60 - 118
2-Nitroaniline	50	23	46	39		5 - 150
Acenaphthylene	50	26	52	30		33 - 145
Dimethylphthalate	50	25	50	39		5 - 112
2,6-Dinitrotoluene	50	27	54	31		50 - 158
Acenaphthene	50	27	54	29		47 - 145
3-Nitroaniline	50	3.4	7	163		5 - 150
2,4-Dinitrophenol	50	25	50	41		5 - 191
Dibenzofuran	50	28	56	25		5 - 150
2,4-Dinitrotoluene	50	28	56 *	28		61 - 140
4-Nitrophenol	50	17	34	74		5 - 132
Fluorene	50	32	64	17		59 - 121
4-Chlorophenyl-phenylether	50	32	64	12		25 - 158
Diethylphthalate	50	28	56 *	30		76 - 104
4-Nitroaniline	50	16	32	75		5 - 150
4,6-Dinitro-2-methylphenol	50	28	56	30		5 - 181
n-Nitrosodiphenylamine	50	23	46	39		35 - 120
4-Bromophenyl-phenylether	50	35	70	3		53 - 127
Hexachlorobenzene	50	40	80	5		30 - 100
Pentachlorophenol	50	30	60	24		14 - 176
Phenanthrene	50	38	76	0		54 - 120
Anthracene	50	39	78	3		27 - 133
Carbazole	50	30	60	26		5 - 150
Di-n-butylphthalate	50	42	84	5		5 - 118
Fluoranthene	50	42	84	2		26 - 137
Pyrene	50	42	84	7		52 - 115
Butylbenzylphthalate	50	42	84	7		5 - 152
3,3'-Dichlorobenzidine	50	6.0	12	129		5 - 262
Benzo[a]anthracene	50	43	86	12		33 - 143

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 0 outside limits

Spike Recovery: 4 out of 0 outside limits

COMMENTS: _____

3C

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix Spike - EPA Sample No.: LCSB

Chrysene	50	44	88	12		17 - 168
bis(2-Ethylhexyl)phthalate	50	48	86	57		8 - 158
Di-n-octylphthalate	50	43	86	17		5 - 146
Benzo[b]fluoranthene	50	45	90	5		24 - 159
Benzo[k]fluoranthene	50	41	82	8		11 - 162
Benzo[a]pyrene	50	41	82	8		55 - 110
Indeno[1,2,3-cd]pyrene	50	41	82	28		5 - 171
Dibenz[a,h]anthracene	50	42	84	27		5 - 227
Benzo[g,h,i]perylene	50	40	80	29		5 - 219

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 0 outside limits

Spike Recovery: 0 out of 0 outside limits

COMMENTS: _____

3C

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix Spike - EPA Sample No.: LCSC

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
bis(2-Chloroethyl)ether	50	0.0	27	54 *	64 - 110
Phenol	50	0.0	32	64	44 - 120
2-Chlorophenol	50	0.0	26	52 *	58 - 110
1,3-Dichlorobenzene	50	0.0	17	34	5 - 172
1,4-Dichlorobenzene	50	0.0	18	36	20 - 124
1,2-Dichlorobenzene	50	0.0	21	42	32 - 129
Benzyl alcohol	50	0.0	35	70	5 - 150
2-Methylphenol	50	0.0	33	66	5 - 150
4-Methylphenol	50	0.0	35	70	5 - 150
bis(2-chloroisopropyl)ether	50	0.0	29	58	36 - 166
Hexachloroethane	50	0.0	18	36	32 - 100
N-Nitroso-di-n-propylamine	50	0.0	40	80	34 - 102
Nitrobenzene	50	0.0	34	68	35 - 180
Isophorone	50	0.0	42	84	49 - 110
2-Nitrophenol	50	0.0	35	70	29 - 182
2,4-Dimethylphenol	50	0.0	29	58	32 - 119
Benzoic acid	50	0.0	48	96	5 - 150
bis(2-Chloroethoxy)methane	50	0.0	38	76	33 - 184
2,4-Dichlorophenol	50	0.0	38	76	39 - 135
1,2,4-Trichlorobenzene	50	0.0	32	64	44 - 142
Naphthalene	50	0.0	35	70	56 - 160
4-Chloroaniline	50	0.0	35	70	35 - 100
Hexachlorobutadiene	50	0.0	27	54	24 - 116
4-Chloro-3-methylphenol	50	0.0	43	86	22 - 147
2-Methylnaphthalene	50	0.0	39	78	5 - 150
Hexachlorocyclopentadiene	50	0.0	18	36	5 - 150
2,4,6-Trichlorophenol	50	0.0	46	92	65 - 110
2,4,5-Trichlorophenol	50	0.0	47	94	5 - 150
2-Chloronaphthalene	50	0.0	45	90	60 - 118

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 32 outside limits

Spike Recovery: 7 out of 64 outside limits

COMMENTS: _____

3C

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix Spike - EPA Sample No.: LCSC

2-Nitroaniline	50	0.0	49	98	5 - 150
Acenaphthylene	50	0.0	48	96	33 - 145
Dimethylphthalate	50	0.0	51	102	5 - 112
2,6-Dinitrotoluene	50	0.0	52	104	50 - 158
Acenaphthene	50	0.0	49	98	47 - 145
3-Nitroaniline	50	0.0	51	102	5 - 150
2,4-Dinitrophenol	50	0.0	56	112	5 - 191
Dibenzofuran	50	0.0	48	96	5 - 150
2,4-Dinitrotoluene	50	0.0	52	104	61 - 140
4-Nitrophenol	50	0.0	56	112	5 - 132
Fluorene	50	0.0	51	102	59 - 121
4-Chlorophenyl-phenylether	50	0.0	50	100	25 - 158
Diethylphthalate	50	0.0	53	106 *	76 - 104
4-Nitroaniline	50	0.0	51	102	5 - 150
4,6-Dinitro-2-methylphenol	50	0.0	58	116	5 - 181
n-Nitrosodiphenylamine	50	0.0	52	104	35 - 120
4-Bromophenyl-phenylether	50	0.0	54	108	53 - 127
Hexachlorobenzene	50	0.0	56	112 *	30 - 100
Pentachlorophenol	50	0.0	60	120	14 - 176
Phenanthrene	50	0.0	56	112	54 - 120
Anthracene	50	0.0	58	116	27 - 133
Carbazole	50	0.0	57	114	5 - 150
Di-n-butylphthalate	50	1.2	58	112	5 - 118
Fluoranthene	50	0.0	58	116	26 - 137
Pyrene	50	0.0	57	114	52 - 115
Butylbenzylphthalate	50	0.0	57	114	5 - 152
3,3'-Dichlorobenzidine	50	1.4	48	94	5 - 262
Benzo[a]anthracene	50	0.0	58	116	33 - 143
Chrysene	50	0.0	60	120	17 - 168
bis(2-Ethylhexyl)phthalate	50	3.6	63	118	8 - 158
Di-n-octylphthalate	50	0.0	61	122	5 - 146
Benzo[b]fluoranthene	50	0.0	59	118	24 - 159
Benzo[k]fluoranthene	50	0.0	59	118	11 - 162

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 34 outside limits

Spike Recovery: 8 out of 67 outside limits

COMMENTS: _____

3C

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix Spike - EPA Sample No.: LCSC

Benzo[a]pyrene	50	0.0	56	112 *	55 - 110
Indeno[1,2,3-cd]pyrene	50	0.0	58	116	5 - 171
Dibenz[a,h]anthracene	50	0.0	58	116	5 - 227
Benzo[g,h,i]perylene	50	0.0	59	118	5 - 219

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
bis(2-Chloroethyl)ether	50	35	70	26		64 - 110
Phenol	50	31	62	3		44 - 120
2-Chlorophenol	50	34	68	27		58 - 110
1,3-Dichlorobenzene	50	21	42	21		5 - 172
1,4-Dichlorobenzene	50	22	44	20		20 - 124
1,2-Dichlorobenzene	50	25	50	17		32 - 129
Benzyl alcohol	50	0.0	0 *	200		5 - 150
2-Methylphenol	50	25	50	28		5 - 150
4-Methylphenol	50	34	68	3		5 - 150
bis(2-chloroisopropyl)ether	50	36	72	22		36 - 166
Hexachloroethane	50	21	42	15		32 - 100
N-Nitroso-di-n-propylamine	50	60	120 *	40		34 - 102
Nitrobenzene	50	41	82	19		35 - 180
Isophorone	50	59	118 *	34		49 - 110
2-Nitrophenol	50	43	86	21		29 - 182
2,4-Dimethylphenol	50	20	40	37		32 - 119
Benzoic acid	50	80	160 *	50		5 - 150
bis(2-Chloroethoxy)methane	50	0.0	0 *	200		33 - 184
2,4-Dichlorophenol	50	46	92	19		39 - 135
1,2,4-Trichlorobenzene	50	35	70	9		44 - 142
Naphthalene	50	40	80	13		56 - 160
4-Chloroaniline	50	1.3	3 *	184		35 - 100
Hexachlorobutadiene	50	28	56	4		24 - 116
4-Chloro-3-methylphenol	50	51	102	17		22 - 147

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 4 outside limits

Spike Recovery: 9 out of 7 outside limits

COMMENTS: _____

3C

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix Spike - EPA Sample No.: LCSC

2-Methylnaphthalene	50	41	82	5		5 - 150
Hexachlorocyclopentadiene	50	22	44	20		5 - 150
2,4,6-Trichlorophenol	50	58	116 *	23		65 - 110
2,4,5-Trichlorophenol	50	59	118	23		5 - 150
2-Chloronaphthalene	50	51	102	13		60 - 118
2-Nitroaniline	50	12	24	121		5 - 150
Acenaphthylene	50	0.0	0 *	200		33 - 145
Dimethylphthalate	50	64	128 *	23		5 - 112
2,6-Dinitrotoluene	50	63	126	19		50 - 158
Acenaphthene	50	36	72	31		47 - 145
3-Nitroaniline	50	0.0	0 *	200		5 - 150
2,4-Dinitrophenol	50	88	176	44		5 - 191
Dibenzofuran	50	55	110	14		5 - 150
2,4-Dinitrotoluene	50	64	128	21		61 - 140
4-Nitrophenol	50	60	120	7		5 - 132
Fluorene	50	59	118	15		59 - 121
4-Chlorophenyl-phenylether	50	58	116	15		25 - 158
Diethylphthalate	50	62	124 *	16		76 - 104
4-Nitroaniline	50	3.7	7	174		5 - 150
4,6-Dinitro-2-methylphenol	50	73	146	23		5 - 181
n-Nitrosodiphenylamine	50	11	22 *	130		35 - 120
4-Bromophenyl-phenylether	50	61	122	12		53 - 127
Hexachlorobenzene	50	65	130 *	15		30 - 100
Pentachlorophenol	50	83	166	32		14 - 176
Phenanthrene	50	62	124 *	10		54 - 120
Anthracene	50	56	112	4		27 - 133
Carbazole	50	0.0	0 *	200		5 - 150
Di-n-butylphthalate	50	65	128 *	12		5 - 118
Fluoranthene	50	60	120	3		26 - 137
Pyrene	50	60	120 *	5		52 - 115
Butylbenzylphthalate	50	48	96	17		5 - 152
3,3'-Dichlorobenzidine	50	1.3	0 *	200		5 - 262
Benzo[a]anthracene	50	62	124	7		33 - 143

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 0 outside limits

Spike Recovery: 12 out of 0 outside limits

COMMENTS: _____

3C

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix Spike - EPA Sample No.: LCSC

Chrysene	50	66	132	10		17 - 168
bis(2-Ethylhexyl)phthalate	50	73	138	16		8 - 158
Di-n-octylphthalate	50	85	170 *	33		5 - 146
Benzo[b]fluoranthene	50	75	150	24		24 - 159
Benzo[k]fluoranthene	50	73	146	21		11 - 162
Benzo[a]pyrene	50	39	78	36		55 - 110
Indeno[1,2,3-cd]pyrene	50	63	126	8		5 - 171
Dibenz[a,h]anthracene	50	69	138	17		5 - 227
Benzo[g,h,i]perylene	50	60	120	2		5 - 219

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 0 outside limits

Spike Recovery: 1 out of 0 outside limits

COMMENTS: _____

3C

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix Spike - EPA Sample No.: LCSD

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
bis(2-Chloroethyl)ether	50	0.0	33	66	64 - 110
Phenol	50	0.0	38	76	44 - 120
2-Chlorophenol	50	0.0	35	70	58 - 110
1,3-Dichlorobenzene	50	0.0	12	24	5 - 172
1,4-Dichlorobenzene	50	0.0	12	24	20 - 124
1,2-Dichlorobenzene	50	0.0	14	28 *	32 - 129
Benzyl alcohol	50	0.0	36	72	5 - 150
2-Methylphenol	50	0.0	36	72	5 - 150
4-Methylphenol	50	0.0	35	70	5 - 150
bis(2-chloroisopropyl)ether	50	0.0	27	54	36 - 166
Hexachloroethane	50	0.0	9.7	19 *	32 - 100
N-Nitroso-di-n-propylamine	50	0.0	35	70	34 - 102
Nitrobenzene	50	0.0	33	66	35 - 180
Isophorone	50	0.0	36	72	49 - 110
2-Nitrophenol	50	0.0	34	68	29 - 182
2,4-Dimethylphenol	50	0.0	33	66	32 - 119
Benzoic acid	50	0.0	39	78	5 - 150
bis(2-Chloroethoxy)methane	50	0.0	36	72	33 - 184
2,4-Dichlorophenol	50	0.0	36	72	39 - 135
1,2,4-Trichlorobenzene	50	0.0	15	30 *	44 - 142
Naphthalene	50	0.0	20	40 *	56 - 160
4-Chloroaniline	50	0.0	26	52	35 - 100
Hexachlorobutadiene	50	0.0	11	22 *	24 - 116
4-Chloro-3-methylphenol	50	0.0	37	74	22 - 147
2-Methylnaphthalene	50	0.0	20	40	5 - 150
Hexachlorocyclopentadiene	50	0.0	3.4	7	5 - 150
2,4,6-Trichlorophenol	50	0.0	36	72	65 - 110
2,4,5-Trichlorophenol	50	0.0	37	74	5 - 150
2-Chloronaphthalene	50	0.0	22	44 *	60 - 118

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 32 outside limits

Spike Recovery: 8 out of 64 outside limits

COMMENTS: _____

3C

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix Spike - EPA Sample No.: LCSD

2-Nitroaniline	50	0.0	36	72	5 - 150
Acenaphthylene	50	0.0	28	56	33 - 145
Dimethylphthalate	50	0.0	37	74	5 - 112
2,6-Dinitrotoluene	50	0.0	38	76	50 - 158
Acenaphthene	50	0.0	28	56	47 - 145
3-Nitroaniline	50	0.0	36	72	5 - 150
2,4-Dinitrophenol	50	0.0	44	88	5 - 191
Dibenzofuran	50	0.0	29	58	5 - 150
2,4-Dinitrotoluene	50	0.0	38	76	61 - 140
4-Nitrophenol	50	0.0	40	80	5 - 132
Fluorene	50	0.0	32	64	59 - 121
4-Chlorophenyl-phenylether	50	0.0	31	62	25 - 158
Diethylphthalate	50	0.0	38	76	76 - 104
4-Nitroaniline	50	0.0	38	76	5 - 150
4,6-Dinitro-2-methylphenol	50	0.0	40	80	5 - 181
n-Nitrosodiphenylamine	50	0.0	32	64	35 - 120
4-Bromophenyl-phenylether	50	0.0	33	66	53 - 127
Hexachlorobenzene	50	0.0	34	68	30 - 100
Pentachlorophenol	50	0.0	39	78	14 - 176
Phenanthrene	50	0.0	35	70	54 - 120
Anthracene	50	0.0	37	74	27 - 133
Carbazole	50	0.0	36	72	5 - 150
Di-n-butylphthalate	50	0.0	36	72	5 - 118
Fluoranthene	50	0.0	37	74	26 - 137
Pyrene	50	0.0	36	72	52 - 115
Butylbenzylphthalate	50	0.0	37	74	5 - 152
3,3'-Dichlorobenzidine	50	0.0	10	20	5 - 262
Benzo[a]anthracene	50	0.0	36	72	33 - 143
Chrysene	50	0.0	38	76	17 - 168
bis(2-Ethylhexyl)phthalate	50	4.1	40	72	8 - 158
Di-n-octylphthalate	50	0.0	37	74	5 - 146
Benzo[b]fluoranthene	50	0.0	38	76	24 - 159
Benzo[k]fluoranthene	50	0.0	38	76	11 - 162

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 34 outside limits

Spike Recovery: 2 out of 67 outside limits

COMMENTS: _____

3C

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix Spike - EPA Sample No.: LCSD

Benzo[a]pyrene	50	0.0	36	72	55 - 110
Indeno[1,2,3-cd]pyrene	50	0.0	35	70	5 - 171
Dibenz[a,h]anthracene	50	0.0	35	70	5 - 227
Benzo[g,h,i]perylene	50	0.0	37	74	5 - 219

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
bis(2-Chloroethyl)ether	50	35	70	6		64 - 110
Phenol	50	39	78	3		44 - 120
2-Chlorophenol	50	36	72	3		58 - 110
1,3-Dichlorobenzene	50	15	30	22		5 - 172
1,4-Dichlorobenzene	50	16	32	29		20 - 124
1,2-Dichlorobenzene	50	17	34	19		32 - 129
Benzyl alcohol	50	37	74	3		5 - 150
2-Methylphenol	50	36	72	0		5 - 150
4-Methylphenol	50	36	72	3		5 - 150
bis(2-chloroisopropyl)ether	50	33	66	20		36 - 166
Hexachloroethane	50	11	22 *	15		32 - 100
N-Nitroso-di-n-propylamine	50	36	72	3		34 - 102
Nitrobenzene	50	36	72	9		35 - 180
Isophorone	50	38	76	5		49 - 110
2-Nitrophenol	50	37	74	8		29 - 182
2,4-Dimethylphenol	50	29	58	13		32 - 119
Benzoic acid	50	45	90	14		5 - 150
bis(2-Chloroethoxy)methane	50	37	74	3		33 - 184
2,4-Dichlorophenol	50	37	74	3		39 - 135
1,2,4-Trichlorobenzene	50	19	38 *	24		44 - 142
Naphthalene	50	28	56	33		56 - 160
4-Chloroaniline	50	37	74	35		35 - 100
Hexachlorobutadiene	50	9.8	20 *	10		24 - 116
4-Chloro-3-methylphenol	50	38	76	3		22 - 147

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 4 outside limits

Spike Recovery: 4 out of 7 outside limits

COMMENTS: _____

3C

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix Spike - EPA Sample No.: LCSD

2-Methylnaphthalene	50	27	54	30		5 - 150
Hexachlorocyclopentadiene	50	3.7	7	0		5 - 150
2,4,6-Trichlorophenol	50	38	76	5		65 - 110
2,4,5-Trichlorophenol	50	39	78	5		5 - 150
2-Chloronaphthalene	50	29	58 *	27		60 - 118
2-Nitroaniline	50	38	76	5		5 - 150
Acenaphthylene	50	36	72	25		33 - 145
Dimethylphthalate	50	39	78	5		5 - 112
2,6-Dinitrotoluene	50	40	80	5		50 - 158
Acenaphthene	50	36	72	25		47 - 145
3-Nitroaniline	50	40	80	11		5 - 150
2,4-Dinitrophenol	50	51	102	15		5 - 191
Dibenzofuran	50	36	72	22		5 - 150
2,4-Dinitrotoluene	50	41	82	8		61 - 140
4-Nitrophenol	50	45	90	12		5 - 132
Fluorene	50	39	78	20		59 - 121
4-Chlorophenyl-phenylether	50	37	74	18		25 - 158
Diethylphthalate	50	40	80	5		76 - 104
4-Nitroaniline	50	41	82	8		5 - 150
4,6-Dinitro-2-methylphenol	50	43	86	7		5 - 181
n-Nitrosodiphenylamine	50	38	76	17		35 - 120
4-Bromophenyl-phenylether	50	37	74	11		53 - 127
Hexachlorobenzene	50	38	76	11		30 - 100
Pentachlorophenol	50	49	98	23		14 - 176
Phenanthrene	50	40	80	13		54 - 120
Anthracene	50	40	80	8		27 - 133
Carbazole	50	41	82	13		5 - 150
Di-n-butylphthalate	50	41	82	13		5 - 118
Fluoranthene	50	43	86	15		26 - 137
Pyrene	50	38	76	5		52 - 115
Butylbenzylphthalate	50	39	78	5		5 - 152
3,3'-Dichlorobenzidine	50	26	52	89		5 - 262
Benzo[a]anthracene	50	40	80	11		33 - 143

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 0 outside limits

Spike Recovery: 1 out of 0 outside limits

COMMENTS: _____

3C

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix Spike - EPA Sample No.: LCSD

Chrysene	50	42	84	10		17 - 168
bis(2-Ethylhexyl)phthalate	50	42	76	5		8 - 158
Di-n-octylphthalate	50	38	76	3		5 - 146
Benzo[b]fluoranthene	50	40	80	5		24 - 159
Benzo[k]fluoranthene	50	42	84	10		11 - 162
Benzo[a]pyrene	50	40	80	11		55 - 110
Indeno[1,2,3-cd]pyrene	50	20	40	55		5 - 171
Dibenz[a,h]anthracene	50	43	86	21		5 - 227
Benzo[g,h,i]perylene	50	43	86	15		5 - 219

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 0 outside limits

Spike Recovery: 0 out of 0 outside limits

COMMENTS: _____

3C

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix Spike - EPA Sample No.: LCSE

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
bis(2-Chloroethyl)ether	50	0.0	29	58 *	64 - 110
Phenol	50	0.0	29	58	44 - 120
2-Chlorophenol	50	0.0	26	52 *	58 - 110
1,3-Dichlorobenzene	50	0.0	14	28	5 - 172
1,4-Dichlorobenzene	50	0.0	14	28	20 - 124
1,2-Dichlorobenzene	50	0.0	16	32	32 - 129
Benzyl alcohol	50	0.0	19	38	5 - 150
2-Methylphenol	50	0.0	27	54	5 - 150
4-Methylphenol	50	0.0	27	54	5 - 150
bis(2-chloroisopropyl)ether	50	0.0	25	50	36 - 166
Hexachloroethane	50	0.0	11	22 *	32 - 100
N-Nitroso-di-n-propylamine	50	0.0	28	56	34 - 102
Nitrobenzene	50	0.0	26	52	35 - 180
Isophorone	50	0.0	30	60	49 - 110
2-Nitrophenol	50	0.0	27	54	29 - 182
2,4-Dimethylphenol	50	0.0	20	40	32 - 119
Benzoic acid	50	0.0	15	30	5 - 150
bis(2-Chloroethoxy)methane	50	0.0	29	58	33 - 184
2,4-Dichlorophenol	50	0.0	28	56	39 - 135
1,2,4-Trichlorobenzene	50	0.0	18	36 *	44 - 142
Naphthalene	50	0.0	23	46 *	56 - 160
4-Chloroaniline	50	0.0	27	54	35 - 100
Hexachlorobutadiene	50	0.0	12	24	24 - 116
4-Chloro-3-methylphenol	50	0.0	31	62	22 - 147
2-Methylnaphthalene	50	0.0	23	46	5 - 150
Hexachlorocyclopentadiene	50	0.0	4.5	9	5 - 150
2,4,6-Trichlorophenol	50	0.0	29	58 *	65 - 110
2,4,5-Trichlorophenol	50	0.0	29	58	5 - 150
2-Chloronaphthalene	50	0.0	25	50 *	60 - 118

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 32 outside limits

Spike Recovery: 10 out of 64 outside limits

COMMENTS: _____

3C

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix Spike - EPA Sample No.: LCSE

2-Nitroaniline	50	0.0	33	66	5 - 150
Acenaphthylene	50	0.0	30	60	33 - 145
Dimethylphthalate	50	0.0	36	72	5 - 112
2,6-Dinitrotoluene	50	0.0	35	70	50 - 158
Acenaphthene	50	0.0	30	60	47 - 145
3-Nitroaniline	50	0.0	35	70	5 - 150
2,4-Dinitrophenol	50	0.0	41	82	5 - 191
Dibenzofuran	50	0.0	31	62	5 - 150
2,4-Dinitrotoluene	50	0.0	39	78	61 - 140
4-Nitrophenol	50	0.0	35	70	5 - 132
Fluorene	50	0.0	35	70	59 - 121
4-Chlorophenyl-phenylether	50	0.0	33	66	25 - 158
Diethylphthalate	50	0.0	37	74 *	76 - 104
4-Nitroaniline	50	0.0	40	80	5 - 150
4,6-Dinitro-2-methylphenol	50	0.0	38	76	5 - 181
n-Nitrosodiphenylamine	50	0.0	30	60	35 - 120
4-Bromophenyl-phenylether	50	0.0	33	66	53 - 127
Hexachlorobenzene	50	0.0	35	70	30 - 100
Pentachlorophenol	50	0.0	35	70	14 - 176
Phenanthrene	50	0.0	37	74	54 - 120
Anthracene	50	0.0	38	76	27 - 133
Carbazole	50	0.0	38	76	5 - 150
Di-n-butylphthalate	50	0.0	39	78	5 - 118
Fluoranthene	50	0.0	43	86	26 - 137
Pyrene	50	0.0	36	72	52 - 115
Butylbenzylphthalate	50	0.0	37	74	5 - 152
3,3'-Dichlorobenzidine	50	0.0	25	50	5 - 262
Benzo[a]anthracene	50	0.0	38	76	33 - 143
Chrysene	50	0.0	42	84	17 - 168
bis(2-Ethylhexyl)phthalate	50	1.8	39	76	8 - 158
Di-n-octylphthalate	50	0.0	36	72	5 - 146
Benzo[b]fluoranthene	50	0.0	38	76	24 - 159
Benzo[k]fluoranthene	50	0.0	41	82	11 - 162

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 34 outside limits

Spike Recovery: 4 out of 67 outside limits

COMMENTS: _____

3C

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix Spike - EPA Sample No.: LCSE

Benzo[a]pyrene	50	0.0	38	76	55 - 110
Indeno[1,2,3-cd]pyrene	50	0.0	44	88	5 - 171
Dibenz[a,h]anthracene	50	0.0	44	88	5 - 227
Benzo[g,h,i]perylene	50	0.0	46	92	5 - 219

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
bis(2-Chloroethyl)ether	50	32	64	10		64 - 110
Phenol	50	34	68	16		44 - 120
2-Chlorophenol	50	32	64	21		58 - 110
1,3-Dichlorobenzene	50	11	22	24		5 - 172
1,4-Dichlorobenzene	50	12	24	15		20 - 124
1,2-Dichlorobenzene	50	13	26 *	21		32 - 129
Benzyl alcohol	50	25	50	27		5 - 150
2-Methylphenol	50	32	64	17		5 - 150
4-Methylphenol	50	33	66	20		5 - 150
bis(2-chloroisopropyl)ether	50	28	56	11		36 - 166
Hexachloroethane	50	9.3	19 *	15		32 - 100
N-Nitroso-di-n-propylamine	50	33	66	16		34 - 102
Nitrobenzene	50	30	60	14		35 - 180
Isophorone	50	34	68	13		49 - 110
2-Nitrophenol	50	32	64	17		29 - 182
2,4-Dimethylphenol	50	29	58	37		32 - 119
Benzoic acid	50	0.0	0 *	200		5 - 150
bis(2-Chloroethoxy)methane	50	33	66	13		33 - 184
2,4-Dichlorophenol	50	33	66	16		39 - 135
1,2,4-Trichlorobenzene	50	18	36 *	0		44 - 142
Naphthalene	50	23	46 *	0		56 - 160
4-Chloroaniline	50	26	52	4		35 - 100
Hexachlorobutadiene	50	12	24	0		24 - 116
4-Chloro-3-methylphenol	50	35	70	12		22 - 147

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 4 outside limits

Spike Recovery: 6 out of 7 outside limits

COMMENTS: _____

3C

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix Spike - EPA Sample No.: LCSE

2-Methylnaphthalene	50	26	52	12		5 - 150
Hexachlorocyclopentadiene	50	5.9	12	29		5 - 150
2,4,6-Trichlorophenol	50	33	66	13		65 - 110
2,4,5-Trichlorophenol	50	33	66	13		5 - 150
2-Chloronaphthalene	50	28	56 *	11		60 - 118
2-Nitroaniline	50	35	70	6		5 - 150
Acenaphthylene	50	34	68	13		33 - 145
Dimethylphthalate	50	38	76	5		5 - 112
2,6-Dinitrotoluene	50	37	74	6		50 - 158
Acenaphthene	50	33	66	10		47 - 145
3-Nitroaniline	50	36	72	3		5 - 150
2,4-Dinitrophenol	50	45	90	9		5 - 191
Dibenzofuran	50	34	68	9		5 - 150
2,4-Dinitrotoluene	50	41	82	5		61 - 140
4-Nitrophenol	50	39	78	11		5 - 132
Fluorene	50	37	74	6		59 - 121
4-Chlorophenyl-phenylether	50	35	70	6		25 - 158
Diethylphthalate	50	40	80	8		76 - 104
4-Nitroaniline	50	42	84	5		5 - 150
4,6-Dinitro-2-methylphenol	50	42	84	10		5 - 181
n-Nitrosodiphenylamine	50	29	58	3		35 - 120
4-Bromophenyl-phenylether	50	35	70	6		53 - 127
Hexachlorobenzene	50	38	76	8		30 - 100
Pentachlorophenol	50	40	80	13		14 - 176
Phenanthrene	50	40	80	8		54 - 120
Anthracene	50	41	82	8		27 - 133
Carbazole	50	41	82	8		5 - 150
Di-n-butylphthalate	50	44	88	12		5 - 118
Fluoranthene	50	48	96	11		26 - 137
Pyrene	50	38	76	5		52 - 115
Butylbenzylphthalate	50	40	80	8		5 - 152
3,3'-Dichlorobenzidine	50	20	40	22		5 - 262
Benzo[a]anthracene	50	42	84	10		33 - 143

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 0 outside limits

Spike Recovery: 1 out of 0 outside limits

COMMENTS: _____

3C

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: American Chem Service Contract: _____

Lab Code: _____ Case No.: 970071 SAS No.: _____ SDG No.: _____

Matrix Spike - EPA Sample No.: LCSE

Chrysene	50	45	90	7		17 - 168
bis(2-Ethylhexyl)phthalate	50	43	82	10		8 - 158
Di-n-octylphthalate	50	38	76	5		5 - 146
Benzo[b]fluoranthene	50	41	82	8		24 - 159
Benzo[k]fluoranthene	50	44	88	7		11 - 162
Benzo[a]pyrene	50	42	84	10		55 - 110
Indeno[1,2,3-cd]pyrene	50	47	94	7		5 - 171
Dibenz[a,h]anthracene	50	48	96	9		5 - 227
Benzo[g,h,i]perylene	50	50	100	8		5 - 219

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 0 outside limits

Spike Recovery: 0 out of 0 outside limits

COMMENTS: _____

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

LAB BLANK A

Lab Name: American Chem Service Contract:

Lab Code: Case No.: 970071 SAS No.: SDG No.:

Lab File ID: 04019708.D Lab Sample ID: LAB BLANK EXT 0

Instrument ID: GCMS 3 Date Extracted: 03/27/97

Matrix: (soil/water) WATER Date Analyzed: 04/02/97

Level: (low/med) LOW Time Analyzed: 05:20

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	LAB SPIKE A	LAB SPIKE EXT 03-27-	04019709.D	04/02/97
02	LAB SPKD A	LAB SPIKE DUP EXT 0	04019710.D	04/02/97
03	97ZB04S01	97ZB04S01	04019711.D	04/02/97
04	97ZB04S02	97ZB04S02	04019712.D	04/02/97
05	97ZB04S12	97ZB04S12	04019713.D	04/02/97
06	97ZB04S13	97ZB04S13	04019714.D	04/02/97
07	97ZB04S01D	97ZB04S01D	04079707.D	04/07/97
08	97ZB04S13D	97ZB04S13D	04079708.D	04/07/97

COMMENTS:

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

LAB BLANK B

Lab Name: American Chem Service Contract:

Lab Code: Case No.: 970071 SAS No.: SDG No.:

Lab File ID: 04029701.D Lab Sample ID: LAB BLANK

Instrument ID: GCMS 3 Date Extracted: 03/31/97

Matrix: (soil/water) WATER Date Analyzed: 04/02/97

Level: (low/med) LOW Time Analyzed: 17:51

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	LAB SPIKE B	LAB SPIKE B	04029702.D	04/02/97
02	LAB SPKD B	LAB SPKD B	04029703.D	04/02/97
03	97ZB04R02	97ZB04R02	04029705.D	04/02/97
04	97ZB04S03	97ZB04S03	04029709.D	04/03/97
05	97ZB04S04	97ZB04S04	04029710.D	04/03/97
06	97ZB04S05	97ZB04S05	04029711.D	04/03/97
07	97ZB04S06	97ZB05S06	04029712.D	04/03/97

COMMENTS:

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

LAB BLANK C

Lab Name: American Chem Service Contract:

Lab Code: Case No.: 970071 SAS No.: SDG No.:

Lab File ID: 04029713.D Lab Sample ID: LAB BLANK C

Instrument ID: GCMS 3 Date Extracted: 04/01/97

Matrix: (soil/water) WATER Date Analyzed: 04/03/97

Level: (low/med) LOW Time Analyzed: 06:27

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	LAB SPIKE C	LAB SPIKE C	04029714.D	04/03/97
02	LAB SPKD C	LAB SPKD C	04029715.D	04/03/97
03	97ZB04S09	97ZB04S09	04029717.D	04/03/97
04	97ZB04S14	97ZB04S14	04029719.D	04/03/97
05	LAB SPKDC D	LAB SPKDC D	04079709.D	04/07/97
06	LAB SPKD CR	LAB SPKD CR	04079710.D	04/07/97
07	97ZB04S10	97ZB04S10	04099703.D	04/09/97
08	97ZB04D14	97ZB04D14	04099704.D	04/09/97

COMMENTS:

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

LAB BLANK D

Lab Name: American Chem Service Contract:

Lab Code: Case No.: 970071 SAS No.: SDG No.:

Lab File ID: 04049701.D Lab Sample ID: LAB BLANK D

Instrument ID: GCMS 3 Date Extracted: 04/02/97

Matrix: (soil/water) WATER Date Analyzed: 04/04/97

Level: (low/med) LOW Time Analyzed: 15:10

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	LAB SPIKE D	LAB SPIKE D	04049702.D	04/04/97
02	LAB SPKD D	LAB SPKD D	04049703.D	04/04/97
03	97ZB04S07	97ZB04S07	04049704.D	04/04/97
04	97ZB04S11	97ZB04S11	04049705.D	04/04/97
05	97ZB04S07D	97ZB04S07D	04079711.D	04/07/97

COMMENTS:

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

LAB BLANK E

Lab Name: American Chem Service Contract:

Lab Code: Case No.: 970071 SAS No.: SDG No.:

Lab File ID: 04049706.D Lab Sample ID: LAB BLANK E

Instrument ID: GCMS 3 Date Extracted: 04/03/97

Matrix: (soil/water) WATER Date Analyzed: 04/04/97

Level: (low/med) LOW Time Analyzed: 19:28

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	LAB SPIKE E	LAB SPIKE E	04049707.D	04/04/97
02	LAB SPKD E	LAB SPKD E	04049708.D	04/04/97
03	97ZB04S08	97ZB04S08	04049709.D	04/04/97
04	97ZB04R11	97ZB04R11	04049710.D	04/04/97
05	97ZB04S15	97ZB04S15	04049711.D	04/04/97
06	97ZB04S16	97ZB04S16	04049712.D	04/05/97
07	97ZB04S17	97ZB04S17	04079701.D	04/07/97
08	97ZB04S18	97ZB04S18	04079702.D	04/07/97
09	97ZB04S19	97ZB04S19	04079703.D	04/07/97
10	97ZB04S20	97ZB04S20	04079704.D	04/07/97

COMMENTS:

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 CENTRAL REGIONAL LABORATORY

536 SOUTH CLARK STREET

CHICAGO, ILLINOIS 60605

Date: APR 22 1997

Subject: Review of Region 5 Data for SF 970071 AMERICAN CHEMICAL SERVICE

From: Charles T. Elly, Director Chuck Elly
Region 5 Central Regional Laboratory

To: B & V

Attached are the results for SF 970071 AMERICAN CHEMICAL SERVICE
CRL request number 970071
for analyses for PCB/PESTICIDES IN WATER
Results are reported for sample designations: 97ZB04S01 - 97ZB04S20; D14; R02; R11
(23 samples)

Results Status:
(X) Acceptable for Use ;
( ) Data Qualified, but Acceptable for use
( ) Data Unacceptable for Use
( ) Sewer Disposal Criteria Met; Exceptions: none

Comments on Data Quality by Reviewer

Instrument performance audits & QC data (consisting of method blank, PCB LCS/LCS Duplicate, Pest LCS/LCS Duplicate, surrogates, Florisil cartridge check) were generally acceptable. There were no pesticides detected in any of the samples. See data case narrative for more details.

Data are acceptable for use.

Qualifiers:
U - Undetected (the analyte was analyzed for but not detected at the detection limit. The detection limits are the numbers in the amount column.)

Comments by Lab Director or Quality Control Coordinator

Review Record for data set SF 970071 AMERICAN CHEMICAL SERVICE

Erlinda Evangelista 04/16/97 E. Evangelista 4/16/97

Task Monitor/Peer Review and Date (X) Reviewed ( ) Unreviewed

Chi M. Tang Chi M. Tang 4/21/97

Team Leader and Date (✓) Reviewed ( ) Unreviewed

Vacant Chuck Ellis 4/22/97

QC Coordinator and Date ( ) Reviewed (✓) Unreviewed

Sylvia Griffin APR 22 1997

Data Management Coordinator and Date Received

Date Transmitted APR 22 1997

Please sign and date this form below and return it with any comments to:

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
SL - 10C

Received by and Date

Comments:

970071 TFA301

ENVIRONMENTAL PROTECTION AGENCY
FOR THE TEAM: PESTICIDES AND PCB'S

DIVISION/BRANCH SUPERFUND SAMPLE DATE 3/25-26/97 LAB ARRIVAL DATE 3/26/97 DUE DATE 4/16/97

DU NUMBER TFA DATA SET NUMBER 970071 STUDY AMERICAN CHEMICAL SERVICE PRIORITY N CONTRACTOR BLACK & VEATCH

CRL LOG NUMBER	SAMPLE DESCRIPTION	WATER TRIHALOMETHANES UG/L PES17414	WATER POLYCHLORINATED BIPHENYLS UG/L PES 17144	WATER CHLORINATED PESTICIDES UG/L PES 17134	WATER HERBICIDES UG/L PES 17424	WATER OIL AND GREASE MG/L PES 17439
97ZB04S01	ACS-GW01-0015-164671		X	X		
97ZB04S02	ACS-GW02-0015-164677		X	X		
97ZB04S12	ACS-GW12-0015-164559		X	X		
97ZB04S13	ACS-GW13-0015-164487		X	X		
				Ureptyne	Miller	
					4/11/97	

97007

TFA301

ENVIRONMENTAL PROTECTION AGENCY
FOR THE TEAM: PESTICIDES AND PCB'S

DIVISION/BRANCH SUPERFUND SAMPLE DATE 3/26-28/97 LAB ARRIVAL DATE 3/28/97 DUE DATE 4/18/97

DU NUMBER TFA DATA SET NUMBER 970071 STUDY AMERICAN CHEMICAL SERVICE PRIORITY N CONTRACTOR BLACK LVEATCH

CRL LOG NUMBER	SAMPLE DESCRIPTION	WATER TRIHALOMETHANES UG/L PES17414	WATER POLYCHLORINATED BIPHENYLS UG/L PES 17144	WATER CHLORINATED PESTICIDES UG/L PES 17134	WATER HERBICIDES UG/L PES 17424	WATER OIL AND GREASE MG/L PES 17439
97ZB04S03	ACS-GW03-001 5-164683		X	X		
97ZB04S04	ACS-GW04-001 5-164689		X	X		
97ZB04S05	ACS-GW05-001 5-164694		X	X		
97ZB04S06	ACS-GW06-001 5-164700		X	X		
97ZB04S08	ACS-GW08-001 5-164431		X	X		
97ZB04S09	ACS-GW09-001 5-164998		X	X		
97ZB04S10	ACS-GW10-001 5-164896		X	X		
97ZB04R02	ACS-RB01-201 5-164413		X	X		
97ZB04S14	ACS-GW14-001 5-164407		X	X		
97ZB04D14	ACS-GW14-101 5-150068		X	X		

Cryptyno [illegible]
4/11/97

970071

TFA301

ENVIRONMENTAL PROTECTION AGENCY
FOR THE TEAM: PESTICIDES AND PCB'S

DIVISION/BRANCH SUPERFUND SAMPLE DATE 3/27/97 LAB ARRIVAL DATE 3/31/97 DUE DATE 4/21/97

DU NUMBER TFA DATA SET NUMBER 970071 STUDY AMERICAN CHEMICAL SERVICES PRIORITY N CONTRACTOR BLACK & VEATCH

CRL LOG NUMBER	SAMPLE DESCRIPTION	WATER TRIHALOMETHANES UG/L PES17414	WATER POLYCHLORINATED BIPHENYLS UG/L PES 17144	WATER CHLORINATED PESTICIDES UG/L PES 17134	WATER HERBICIDES UG/L PES 17424	WATER OIL AND GREASE MG/L PES 17439
97ZB04S07	5-164425/5-150057-58 ACS-GW07-001 MS/MSD		X	X		
97ZB04S11	ACS-GW11-001 5-164553		X	X		
				Graphite	Chlorine	
					4/11/97	

97007

TFA301

ENVIRONMENTAL PROTECTION AGENCY
FOR THE TEAM: PESTICIDES AND PCB'S

DIVISION/BRANCH SUPERFUND SAMPLE DATE 3/31-4/1/97 LAB ARRIVAL DATE 4/1/97 DUE DATE 4/22/97

DU NUMBER TFA DATA SET NUMBER 970071 STUDY AMERICAN CHEMICAL SERVICES PRIORITY N CONTRACTOR BLACK & VEATCH

CRL LOG NUMBER	SAMPLE DESCRIPTION	WATER TRIHALOMETHANES UG/L PES17414	WATER POLYCHLORINATED BIPHENYLS UG/L PES 17144	WATER CHLORINATED PESTICIDES UG/L PES 17134	WATER HERBICIDES UG/L PES 17424	WATER OIL AND GREASE MG/L PES 17439
972B04S15	ACS-GW15-0015-150073		X	X		
972B04S16	ACS-GW16-0015-150079		X	X		
972B04S17	ACS-GW17-0015-150087		X	X		
972B04S18	ACS-GW18-0015-150003		X	X		
				Wrapping	[illegible]	
					4/11/97	

970071

TFA 301

ENVIRONMENTAL PROTECTION AGENCY
FOR THE TEAM: PESTICIDES AND PCB'S

DIVISION/BRANCH Superfund SAMPLE DATE 4/1/97 LAB ARRIVAL DATE 4/2/97 DUE DATE 4/23/97

DU NUMBER TFA 301 DATA SET NUMBER 970071 STUDY American Chem PRIORITY N CONTRACTOR Black & Veatch

CRL LOG NUMBER	SAMPLE DESCRIPTION	WATER TRIHALOMETHANES UG/L PES17414	WATER POLYCHLORINATED BIPHENYLS UG/L PES 17144	WATER CHLORINATED PESTICIDES UG/L PES 17134	WATER HERBICIDES UG/L PES 17424	WATER OIL AND GREASE MG/L PES 17439
97ZB04 S19	ACS-PWL-001 5-150036		X	X		
97ZB04 S20	ACS-ATMW4D-001 5-150030		X	X		
97ZB04 R11	ACS-RB11-201 5-150024		X	X		

Cryptopia Mineral
4/11/97

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter: **PEST/PCB**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER**
RLIMS Method: **608_P/P.REV3**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04D14**
Units: **ug/L**

Date Collected: **28-MAR-97**
Date Extracted: **27-MAR-97**
Date Received: **28-MAR-97**
Date Analyzed: **03-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
319846	Alpha-BHC	.01	U
58899	Lindane	.01	U
76448	Heptachlor	.01	U
309002	Aldrin	.01	U
1024573	Heptachlor Epoxide	.01	U
959988	Endosulfan I	.01	U
60571	Dieldrin	.02	U
72208	Endrin	.02	U
3312659	Endosulfan II	.02	U
50293	p,p'-DDT	.02	U
72-43-5	Methoxychlor	.1	U
319857	Beta-BHC	.01	U
419868	Delta-BHC	.01	U
5103-74-2	Gamma-Chlordane	.01	U
5103-71-9	Alpha-Chlordane	.01	U
72559	p,p'-DDE	.02	U
72548	p,p'-DDD	.02	U
7421934	Endrin Aldehyde	.02	U
1031078	Endosulfan Sulfate	.02	U
53494-70-5	Endrin Ketone	.02	U
57-74-9	Chlordane, Technical	.2	U
8001352	Toxaphene	1	U
1104-28-2	Aroclor 1221	.2	U
11141165	Aroclor 1232	.2	U
53469219	Aroclor 1242	.2	U
12674-11-2	Aroclor 1016	.2	U
12672296	Aroclor 1248	.2	U
11097691	Aroclor 1254	.2	U
11096825	Aroclor 1260	.2	U

Analyzed by: [illegible] | Lockheed | EMAT

Team Leader: [illegible]

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter: **PEST/PCB**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER**
RLIMS Method: **608_P/P.REV3**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04R02**
Units: **ug/L**

Date Collected: **26-MAR-97**
Date Extracted: **27-MAR-97**

Date Received: **28-MAR-97**
Date Analyzed: **03-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
319846	Alpha-BHC	.01	U
58899	Lindane	.01	U
76448	Heptachlor	.01	U
309002	Aldrin	.01	U
1024573	Heptachlor Epoxide	.01	U
959988	Endosulfan I	.01	U
60571	Dieldrin	.02	U
72208	Endrin	.02	U
3312659	Endosulfan II	.02	U
50293	p,p'-DDT	.02	U
72-43-5	Methoxychlor	.1	U
319857	Beta-BHC	.01	U
419868	Delta-BHC	.01	U
5103-74-2	Gamma-Chlordane	.01	U
5103-71-9	Alpha-Chlordane	.01	U
72559	p,p'-DDE	.02	U
72548	p,p'-DDD	.02	U
7421934	Endrin Aldehyde	.02	U
1031078	Endosulfan Sulfate	.02	U
53494-70-5	Endrin Ketone	.02	U
57-74-9	Chlordane, Technical	.2	U
8001352	Toxaphene	1	U
1104-28-2	Aroclor 1221	.2	U
11141165	Aroclor 1232	.2	U
53469219	Aroclor 1242	.2	U
12674-11-2	Aroclor 1016	.2	U
12672296	Aroclor 1248	.2	U
11097691	Aroclor 1254	.2	U
11096825	Aroclor 1260	.2	U

Analyzed by: [illegible] | EMT

Team Leader: [illegible]

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter: **PEST/PCB**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER**
RLIMS Method: **608_P/P.REV3**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04R11**
Units: **ug/L**

Date Collected: **02-APR-97**
Date Extracted: **27-MAR-97**
Date Received: **02-APR-97**
Date Analyzed: **03-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
319846	Alpha-BHC	.01	U
58899	Lindane	.01	U
76448	Heptachlor	.01	U
309002	Aldrin	.01	U
1024573	Heptachlor Epoxide	.01	U
959988	Endosulfan I	.01	U
60571	Dieldrin	.02	U
72208	Endrin	.02	U
3312659	Endosulfan II	.02	U
50293	p,p'-DDT	.02	U
72-43-5	Methoxychlor	.1	U
319857	Beta-BHC	.01	U
419868	Delta-BHC	.01	U
5103-74-2	Gamma-Chlordane	.01	U
5103-71-9	Alpha-Chlordane	.01	U
72559	p,p'-DDE	.02	U
72548	p,p'-DDD	.02	U
7421934	Endrin Aldehyde	.02	U
1031078	Endosulfan Sulfate	.02	U
53494-70-5	Endrin Ketone	.02	U
57-74-9	Chlordane, Technical	.2	U
8001352	Toxaphene	1	U
1104-28-2	Aroclor 1221	.2	U
11141165	Aroclor 1232	.2	U
53469219	Aroclor 1242	.2	U
12674-11-2	Aroclor 1016	.2	U
12672296	Aroclor 1248	.2	U
11097691	Aroclor 1254	.2	U
11096825	Aroclor 1260	.2	U

Analyzed by: [illegible] | ESAT

Team Leader: [illegible]

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter: **PEST/PCB**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER**
RLIMS Method: **608_P/P.REV3**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S01**
Units: **ug/L**

Date Collected: **25-MAR-97**
Date Extracted: **27-MAR-97**

Date Received: **26-MAR-97**
Date Analyzed: **03-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
319846	Alpha-BHC	.01	U
58899	Lindane	.01	U
76448	Heptachlor	.01	U
309002	Aldrin	.01	U
1024573	Heptachlor Epoxide	.01	U
959988	Endosulfan I	.01	U
60571	Dieldrin	.02	U
72208	Endrin	.02	U
3312659	Endosulfan II	.02	U
50293	p,p'-DDT	.02	U
72-43-5	Methoxychlor	.1	U
319857	Beta-BHC	.01	U
419868	Delta-BHC	.01	U
5103-74-2	Gamma-Chlordane	.01	U
5103-71-9	Alpha-Chlordane	.01	U
72559	p,p'-DDE	.02	U
72548	p,p'-DDD	.02	U
7421934	Endrin Aldehyde	.02	U
1031078	Endosulfan Sulfate	.02	U
53494-70-5	Endrin Ketone	.02	U
57-74-9	Chlordane, Technical	.2	U
8001352	Toxaphene	1	U
1104-28-2	Aroclor 1221	.2	U
11141165	Aroclor 1232	.2	U
53469219	Aroclor 1242	.2	U
12674-11-2	Aroclor 1016	.2	U
12672296	Aroclor 1248	.2	U
11097691	Aroclor 1254	.2	U
11096825	Aroclor 1260	.2	U

Analyzed by: [illegible] | EMAT

Team Leader: [illegible]

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter: PEST/PCB

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER**
RLIMS Method: **608_P/P.REV3**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S02**
Units: **ug/L**

Date Collected: **26-MAR-97**
Date Extracted: **27-MAR-97**
Date Received: **26-MAR-97**
Date Analyzed: **03-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
319846	Alpha-BHC	.01	U
58899	Lindane	.01	U
76448	Heptachlor	.01	U
309002	Aldrin	.01	U
1024573	Heptachlor Epoxide	.01	U
959988	Endosulfan I	.01	U
60571	Dieldrin	.02	U
72208	Endrin	.02	U
3312659	Endosulfan II	.02	U
50293	p,p'-DDT	.02	U
72-43-5	Methoxychlor	.1	U
319857	Beta-BHC	.01	U
419868	Delta-BHC	.01	U
5103-74-2	Gamma-Chlordane	.01	U
5103-71-9	Alpha-Chlordane	.01	U
72559	p,p'-DDE	.02	U
72548	p,p'-DDD	.02	U
7421934	Endrin Aldehyde	.02	U
1031078	Endosulfan Sulfate	.02	U
53494-70-5	Endrin Ketone	.02	U
57-74-9	Chlordane, Technical	.2	U
8001352	Toxaphene	1	U
1104-28-2	Aroclor 1221	.2	U
11141165	Aroclor 1232	.2	U
53469219	Aroclor 1242	.2	U
12674-11-2	Aroclor 1016	.2	U
12672296	Aroclor 1248	.2	U
11097691	Aroclor 1254	.2	U
11096825	Aroclor 1260	.2	U

Analyzed by: [illegible] | EMTI

Team Leader: [illegible]

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter: **PEST/PCB**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER**
RLIMS Method: **608_P/P.REV3**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S03**
Units: **ug/L**

Date Collected: **26-MAR-97**
Date Extracted: **27-MAR-97**

Date Received: **28-MAR-97**
Date Analyzed: **03-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
319846	Alpha-BHC	.01	U
58899	Lindane	.01	U
76448	Heptachlor	.01	U
309002	Aldrin	.01	U
1024573	Heptachlor Epoxide	.01	U
959988	Endosulfan I	.01	U
60571	Dieldrin	.02	U
72208	Endrin	.02	U
3312659	Endosulfan II	.02	U
50293	p,p'-DDT	.02	U
72-43-5	Methoxychlor	.1	U
319857	Beta-BHC	.01	U
419868	Delta-BHC	.01	U
5103-74-2	Gamma-Chlordane	.01	U
5103-71-9	Alpha-Chlordane	.01	U
72559	p,p'-DDE	.02	U
72548	p,p'-DDD	.02	U
7421934	Endrin Aldehyde	.02	U
1031078	Endosulfan Sulfate	.02	U
53494-70-5	Endrin Ketone	.02	U
57-74-9	Chlordane, Technical	.2	U
8001352	Toxaphene	1	U
1104-28-2	Aroclor 1221	.2	U
11141165	Aroclor 1232	.2	U
53469219	Aroclor 1242	.2	U
12674-11-2	Aroclor 1016	.2	U
12672296	Aroclor 1248	.2	U
11097691	Aroclor 1254	.2	U
11096825	Aroclor 1260	.2	U

Analyzed by: [illegible]

Team Leader: [illegible]

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter: **PEST/PCB**

Sample organization: **B & V** Sample Batch ID: **970071**
Sample Requestor: **ASWOK LUPARR1** Account No: **TFA301**
Facility: **AMERICAN CHEMICAL SERVICES INC** Sample ID: **97ZB04S04**
Matrix: **WATER** RLIMS Method: **608_P/P.REV3** Units: **ug/L**

Date Collected: **27-MAR-97** Date Received: **28-MAR-97**
Date Extracted: **27-MAR-97** Date Analyzed: **03-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
319846	Alpha-BHC	.01	U
58899	Lindane	.01	U
76448	Heptachlor	.01	U
309002	Aldrin	.01	U
1024573	Heptachlor Epoxide	.01	U
959988	Endosulfan I	.01	U
60571	Dieldrin	.02	U
72208	Endrin	.02	U
3312659	Endosulfan II	.02	U
50293	p,p'-DDT	.02	U
72-43-5	Methoxychlor	.1	U
319857	Beta-BHC	.01	U
419868	Delta-BHC	.01	U
5103-74-2	Gamma-Chlordane	.01	U
5103-71-9	Alpha-Chlordane	.01	U
72559	p,p'-DDE	.02	U
72548	p,p'-DDD	.02	U
7421934	Endrin Aldehyde	.02	U
1031078	Endosulfan Sulfate	.02	U
53494-70-5	Endrin Ketone	.02	U
57-74-9	Chlordane, Technical	.2	U
8001352	Toxaphene	1	U
1104-28-2	Aroclor 1221	.2	U
11141165	Aroclor 1232	.2	U
53469219	Aroclor 1242	.2	U
12674-11-2	Aroclor 1016	.2	U
12672296	Aroclor 1248	.2	U
11097691	Aroclor 1254	.2	U
11096825	Aroclor 1260	.2	U

Analyzed by: [signature] / EMAT

Team Leader: [signature]

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter: **PEST/PCB**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER**
RLIMS Method: **608_P/P.REV3**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S05**
Units: **ug/L**

Date Collected: **27-MAR-97**
Date Extracted: **27-MAR-97**
Date Received: **28-MAR-97**
Date Analyzed: **03-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
319846	Alpha-BHC	.01	U
58899	Lindane	.01	U
76448	Heptachlor	.01	U
309002	Aldrin	.01	U
1024573	Heptachlor Epoxide	.01	U
959988	Endosulfan I	.01	U
60571	Dieldrin	.02	U
72208	Endrin	.02	U
3312659	Endosulfan II	.02	U
50293	p,p'-DDT	.02	U
72-43-5	Methoxychlor	.1	U
319857	Beta-BHC	.01	U
419868	Delta-BHC	.01	U
5103-74-2	Gamma-Chlordane	.01	U
5103-71-9	Alpha-Chlordane	.01	U
72559	p,p'-DDE	.02	U
72548	p,p'-DDD	.02	U
7421934	Endrin Aldehyde	.02	U
1031078	Endosulfan Sulfate	.02	U
53494-70-5	Endrin Ketone	.02	U
57-74-9	Chlordane, Technical	.2	U
8001352	Toxaphene	1	U
1104-28-2	Aroclor 1221	.2	U
11141165	Aroclor 1232	.2	U
53469219	Aroclor 1242	.2	U
12674-11-2	Aroclor 1016	.2	U
12672296	Aroclor 1248	.2	U
11097691	Aroclor 1254	.2	U
11096825	Aroclor 1260	.2	U

Analyzed by: [illegible] | EMAT

Team Leader: [illegible]

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter: **PEST/PCB**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER**
RLIMS Method: **608_P/P.REV3**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S06**
Units: **ug/L**

Date Collected: **27-MAR-97**
Date Extracted: **27-MAR-97**

Date Received: **28-MAR-97**
Date Analyzed: **03-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
319846	Alpha-BHC	.01	U
58899	Lindane	.01	U
76448	Heptachlor	.01	U
309002	Aldrin	.01	U
1024573	Heptachlor Epoxide	.01	U
959988	Endosulfan I	.01	U
60571	Dieldrin	.02	U
72208	Endrin	.02	U
3312659	Endosulfan II	.02	U
50293	p,p'-DDT	.02	U
72-43-5	Methoxychlor	.1	U
319857	Beta-BHC	.01	U
419868	Delta-BHC	.01	U
5103-74-2	Gamma-Chlordane	.01	U
5103-71-9	Alpha-Chlordane	.01	U
72559	p,p'-DDE	.02	U
72548	p,p'-DDD	.02	U
7421934	Endrin Aldehyde	.02	U
1031078	Endosulfan Sulfate	.02	U
53494-70-5	Endrin Ketone	.02	U
57-74-9	Chlordane, Technical	.2	U
8001352	Toxaphene	1	U
1104-28-2	Aroclor 1221	.2	U
11141165	Aroclor 1232	.2	U
53469219	Aroclor 1242	.2	U
12674-11-2	Aroclor 1016	.2	U
12672296	Aroclor 1248	.2	U
11097691	Aroclor 1254	.2	U
11096825	Aroclor 1260	.2	U

Analyzed by: [illegible] | EMT

Team Leader: [illegible]

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter: **PEST/PCB**

Sample organization: **B & V** | Sample Batch ID: **970071**
Sample Requestor: **ASWOK LUPARR1** | Account No: **TFA301**
Facility: **AMERICAN CHEMICAL SERVICES INC** | Sample ID: **97ZB04S07**
Matrix: **WATER** | RLIMS Method: **608_P/P.REV3** | Units: **ug/L**

Date Collected: **27-MAR-97** | Date Received: **28-MAR-97**
Date Extracted: **27-MAR-97** | Date Analyzed: **03-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
319846	Alpha-BHC	.01	U
58899	Lindane	.01	U
76448	Heptachlor	.01	U
309002	Aldrin	.01	U
1024573	Heptachlor Epoxide	.01	U
959988	Endosulfan I	.01	U
60571	Dieldrin	.02	U
72208	Endrin	.02	U
3312659	Endosulfan II	.02	U
50293	p,p'-DDT	.02	U
72-43-5	Methoxychlor	.1	U
319857	Beta-BHC	.01	U
419868	Delta-BHC	.01	U
5103-74-2	Gamma-Chlordane	.01	U
5103-71-9	Alpha-Chlordane	.01	U
72559	p,p'-DDE	.02	U
72548	p,p'-DDD	.02	U
7421934	Endrin Aldehyde	.02	U
1031078	Endosulfan Sulfate	.02	U
53494-70-5	Endrin Ketone	.02	U
57-74-9	Chlordane, Technical	.2	U
8001352	Toxaphene	1	U
1104-28-2	Aroclor 1221	.2	U
11141165	Aroclor 1232	.2	U
53469219	Aroclor 1242	.2	U
12674-11-2	Aroclor 1016	.2	U
12672296	Aroclor 1248	.2	U
11097691	Aroclor 1254	.2	U
11096825	Aroclor 1260	.2	U

Analyzed by: Ulrichmuth | EMT

Team Leader: [signature]

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter: **PEST/PCB**

Sample organization: **B & V** Sample Batch ID: **970071**
Sample Requestor: **ASWOK LUPARR1** Account No: **TFA301**
Facility: **AMERICAN CHEMICAL SERVICES INC** Sample ID: **97ZB04S08**
Matrix: **WATER** RLIMS Method: **608_P/P.REV3** Units: **ug/L**

Date Collected: **27-MAR-97** Date Received: **28-MAR-97**
Date Extracted: **27-MAR-97** Date Analyzed: **03-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
319846	Alpha-BHC	.01	U
58899	Lindane	.01	U
76448	Heptachlor	.01	U
309002	Aldrin	.01	U
1024573	Heptachlor Epoxide	.01	U
959988	Endosulfan I	.01	U
60571	Dieldrin	.02	U
72208	Endrin	.02	U
3312659	Endosulfan II	.02	U
50293	p,p'-DDT	.02	U
72-43-5	Methoxychlor	.1	U
319857	Beta-BHC	.01	U
419868	Delta-BHC	.01	U
5103-74-2	Gamma-Chlordane	.01	U
5103-71-9	Alpha-Chlordane	.01	U
72559	p,p'-DDE	.02	U
72548	p,p'-DDD	.02	U
7421934	Endrin Aldehyde	.02	U
1031078	Endosulfan Sulfate	.02	U
53494-70-5	Endrin Ketone	.02	U
57-74-9	Chlordane, Technical	.2	U
8001352	Toxaphene	1	U
1104-28-2	Aroclor 1221	.2	U
11141165	Aroclor 1232	.2	U
53469219	Aroclor 1242	.2	U
12674-11-2	Aroclor 1016	.2	U
12672296	Aroclor 1248	.2	U
11097691	Aroclor 1254	.2	U
11096825	Aroclor 1260	.2	U

Analyzed by: [signature]

Team Leader: [signature]

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter: **PEST/PCB**

Sample organization: **B & V** Sample Batch ID: **970071**
Sample Requestor: **ASWOK LUPARR1** Account No: **TFA301**
Facility: **AMERICAN CHEMICAL SERVICES INC** Sample ID: **97ZB04S09**
Matrix: **WATER** RLIMS Method: **608_P/P.REV3** Units: **ug/L**

Date Collected: **27-MAR-97** Date Received: **28-MAR-97**
Date Extracted: **27-MAR-97** Date Analyzed: **03-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
319846	Alpha-BHC	.01	U
58899	Lindane	.01	U
76448	Heptachlor	.01	U
309002	Aldrin	.01	U
1024573	Heptachlor Epoxide	.01	U
959988	Endosulfan I	.01	U
60571	Dieldrin	.02	U
72208	Endrin	.02	U
3312659	Endosulfan II	.02	U
50293	p,p'-DDT	.02	U
72-43-5	Methoxychlor	.1	U
319857	Beta-BHC	.01	U
419868	Delta-BHC	.01	U
5103-74-2	Gamma-Chlordane	.01	U
5103-71-9	Alpha-Chlordane	.01	U
72559	p,p'-DDE	.02	U
72548	p,p'-DDD	.02	U
7421934	Endrin Aldehyde	.02	U
1031078	Endosulfan Sulfate	.02	U
53494-70-5	Endrin Ketone	.02	U
57-74-9	Chlordane, Technical	.2	U
8001352	Toxaphene	1	U
1104-28-2	Aroclor 1221	.2	U
11141165	Aroclor 1232	.2	U
53469219	Aroclor 1242	.2	U
12674-11-2	Aroclor 1016	.2	U
12672296	Aroclor 1248	.2	U
11097691	Aroclor 1254	.2	U
11096825	Aroclor 1260	.2	U

Analyzed by: K Minnelly / ENTI

Team Leader: [signature]

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter: **PEST/PCB**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER**
RLIMS Method: **608_P/P.REV3**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S10**
Units: **ug/L**

Date Collected: **27-MAR-97**
Date Extracted: **27-MAR-97**

Date Received: **28-MAR-97**
Date Analyzed: **03-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
319846	Alpha-BHC	.01	U
58899	Lindane	.01	U
76448	Heptachlor	.01	U
309002	Aldrin	.01	U
1024573	Heptachlor Epoxide	.01	U
959988	Endosulfan I	.01	U
60571	Dieldrin	.02	U
72208	Endrin	.02	U
3312659	Endosulfan II	.02	U
50293	p,p'-DDT	.02	U
72-43-5	Methoxychlor	.1	U
319857	Beta-BHC	.01	U
419868	Delta-BHC	.01	U
5103-74-2	Gamma-Chlordane	.01	U
5103-71-9	Alpha-Chlordane	.01	U
72559	p,p'-DDE	.02	U
72548	p,p'-DDD	.02	U
7421934	Endrin Aldehyde	.02	U
1031078	Endosulfan Sulfate	.02	U
53494-70-5	Endrin Ketone	.02	U
57-74-9	Chlordane, Technical	.2	U
8001352	Toxaphene	1	U
1104-28-2	Aroclor 1221	.2	U
11141165	Aroclor 1232	.2	U
53469219	Aroclor 1242	.2	U
12674-11-2	Aroclor 1016	.2	U
12672296	Aroclor 1248	.2	U
11097691	Aroclor 1254	.2	U
11096825	Aroclor 1260	.2	U

Analyzed by: [illegible]
Team Leader: [illegible]

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter: **PEST/PCB**

Sample organization: **B & V** Sample Batch ID: **970071**
Sample Requestor: **ASWOK LUPARR1** Account No: **TFA301**
Facility: **AMERICAN CHEMICAL SERVICES INC** Sample ID: **97ZB04S11**
Matrix: **WATER** RLIMS Method: **608_P/P.REV3** Units: **ug/L**

Date Collected: **27-MAR-97** Date Received: **28-MAR-97**
Date Extracted: **27-MAR-97** Date Analyzed: **03-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
319846	Alpha-BHC	.01	U
58899	Lindane	.01	U
76448	Heptachlor	.01	U
309002	Aldrin	.01	U
1024573	Heptachlor Epoxide	.01	U
959988	Endosulfan I	.01	U
60571	Dieldrin	.02	U
72208	Endrin	.02	U
3312659	Endosulfan II	.02	U
50293	p,p'-DDT	.02	U
72-43-5	Methoxychlor	.1	U
319857	Beta-BHC	.01	U
419868	Delta-BHC	.01	U
5103-74-2	Gamma-Chlordane	.01	U
5103-71-9	Alpha-Chlordane	.01	U
72559	p,p'-DDE	.02	U
72548	p,p'-DDD	.02	U
7421934	Endrin Aldehyde	.02	U
1031078	Endosulfan Sulfate	.02	U
53494-70-5	Endrin Ketone	.02	U
57-74-9	Chlordane, Technical	.2	U
8001352	Toxaphene	1	U
1104-28-2	Aroclor 1221	.2	U
11141165	Aroclor 1232	.2	U
53469219	Aroclor 1242	.2	U
12674-11-2	Aroclor 1016	.2	U
12672296	Aroclor 1248	.2	U
11097691	Aroclor 1254	.2	U
11096825	Aroclor 1260	.2	U

Analyzed by: [signature]

Team Leader: [signature]

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter: **PEST/PCB**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER**
RLIMS Method: **608_P/P.REV3**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S12**
Units: **ug/L**

Date Collected: **26-MAR-97**
Date Extracted: **27-MAR-97**
Date Received: **26-MAR-97**
Date Analyzed: **03-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
319846	Alpha-BHC	.01	U
58899	Lindane	.01	U
76448	Heptachlor	.01	U
309002	Aldrin	.01	U
1024573	Heptachlor Epoxide	.01	U
959988	Endosulfan I	.01	U
60571	Dieldrin	.02	U
72208	Endrin	.02	U
3312659	Endosulfan II	.02	U
50293	p,p'-DDT	.02	U
72-43-5	Methoxychlor	.1	U
319857	Beta-BHC	.01	U
419868	Delta-BHC	.01	U
5103-74-2	Gamma-Chlordane	.01	U
5103-71-9	Alpha-Chlordane	.01	U
72559	p,p'-DDE	.02	U
72548	p,p'-DDD	.02	U
7421934	Endrin Aldehyde	.02	U
1031078	Endosulfan Sulfate	.02	U
53494-70-5	Endrin Ketone	.02	U
57-74-9	Chlordane, Technical	.2	U
8001352	Toxaphene	1	U
1104-28-2	Aroclor 1221	.2	U
11141165	Aroclor 1232	.2	U
53469219	Aroclor 1242	.2	U
12674-11-2	Aroclor 1016	.2	U
12672296	Aroclor 1248	.2	U
11097691	Aroclor 1254	.2	U
11096825	Aroclor 1260	.2	U

Analyzed by: Kilimnik JENNI

Team Leader:

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter: **PEST/PCB**

Sample organization: **B & V** Sample Batch ID: **970071**
Sample Requestor: **ASWOK LUPARR1** Account No: **TFA301**
Facility: **AMERICAN CHEMICAL SERVICES INC** Sample ID: **97ZB04S13**
Matrix: **WATER** RLIMS Method: **608_P/P.REV3** Units: **ug/L**

Date Collected: **26-MAR-97** Date Received: **26-MAR-97**
Date Extracted: **27-MAR-97** Date Analyzed: **03-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
319846	Alpha-BHC	.01	U
58899	Lindane	.01	U
76448	Heptachlor	.01	U
309002	Aldrin	.01	U
1024573	Heptachlor Epoxide	.01	U
959988	Endosulfan I	.01	U
60571	Dieldrin	.02	U
72208	Endrin	.02	U
3312659	Endosulfan II	.02	U
50293	p,p'-DDT	.02	U
72-43-5	Methoxychlor	.1	U
319857	Beta-BHC	.01	U
419868	Delta-BHC	.01	U
5103-74-2	Gamma-Chlordane	.01	U
5103-71-9	Alpha-Chlordane	.01	U
72559	p,p'-DDE	.02	U
72548	p,p'-DDD	.02	U
7421934	Endrin Aldehyde	.02	U
1031078	Endosulfan Sulfate	.02	U
53494-70-5	Endrin Ketone	.02	U
57-74-9	Chlordane, Technical	.2	U
8001352	Toxaphene	1	U
1104-28-2	Aroclor 1221	.2	U
11141165	Aroclor 1232	.2	U
53469219	Aroclor 1242	.2	U
12674-11-2	Aroclor 1016	.2	U
12672296	Aroclor 1248	.2	U
11097691	Aroclor 1254	.2	U
11096825	Aroclor 1260	.2	U

Analyzed by: K Miranda / EMT

Team Leader: [signature]

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter: PEST/PCB

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER**
RLIMS Method: **608_P/P.REV3**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S14**
Units: **ug/L**

Date Collected: **28-MAR-97**
Date Extracted: **27-MAR-97**

Date Received: **28-MAR-97**
Date Analyzed: **03-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
319846	Alpha-BHC	.01	U
58899	Lindane	.01	U
76448	Heptachlor	.01	U
309002	Aldrin	.01	U
1024573	Heptachlor Epoxide	.01	U
959988	Endosulfan I	.01	U
60571	Dieldrin	.02	U
72208	Endrin	.02	U
3312659	Endosulfan II	.02	U
50293	p,p'-DDT	.02	U
72-43-5	Methoxychlor	.1	U
319857	Beta-BHC	.01	U
419868	Delta-BHC	.01	U
5103-74-2	Gamma-Chlordane	.01	U
5103-71-9	Alpha-Chlordane	.01	U
72559	p,p'-DDE	.02	U
72548	p,p'-DDD	.02	U
7421934	Endrin Aldehyde	.02	U
1031078	Endosulfan Sulfate	.02	U
53494-70-5	Endrin Ketone	.02	U
57-74-9	Chlordane, Technical	.2	U
8001352	Toxaphene	1	U
1104-28-2	Aroclor 1221	.2	U
11141165	Aroclor 1232	.2	U
53469219	Aroclor 1242	.2	U
12674-11-2	Aroclor 1016	.2	U
12672296	Aroclor 1248	.2	U
11097691	Aroclor 1254	.2	U
11096825	Aroclor 1260	.2	U

Analyzed by: [illegible] IEMT

Team Leader: [illegible]

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter: **PEST/PCB**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER**
RLIMS Method: **608_P/P.REV3**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S15**
Units: **ug/L**

Date Collected: **31-MAR-97**
Date Extracted: **27-MAR-97**

Date Received: **28-MAR-97**
Date Analyzed: **03-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
319846	Alpha-BHC	.01	U
58899	Lindane	.01	U
76448	Heptachlor	.01	U
309002	Aldrin	.01	U
1024573	Heptachlor Epoxide	.01	U
959988	Endosulfan I	.01	U
60571	Dieldrin	.02	U
72208	Endrin	.02	U
3312659	Endosulfan II	.02	U
50293	p,p'-DDT	.02	U
72-43-5	Methoxychlor	.1	U
319857	Beta-BHC	.01	U
419868	Delta-BHC	.01	U
5103-74-2	Gamma-Chlordane	.01	U
5103-71-9	Alpha-Chlordane	.01	U
72559	p,p'-DDE	.02	U
72548	p,p'-DDD	.02	U
7421934	Endrin Aldehyde	.02	U
1031078	Endosulfan Sulfate	.02	U
53494-70-5	Endrin Ketone	.02	U
57-74-9	Chlordane, Technical	.2	U
8001352	Toxaphene	1	U
1104-28-2	Aroclor 1221	.2	U
11141165	Aroclor 1232	.2	U
53469219	Aroclor 1242	.2	U
12674-11-2	Aroclor 1016	.2	U
12672296	Aroclor 1248	.2	U
11097691	Aroclor 1254	.2	U
11096825	Aroclor 1260	.2	U

Analyzed by: [illegible] | EMT

Team Leader: [illegible]

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter: **PEST/PCB**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER**
RLIMS Method: **608_P/P.REV3**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S16**
Units: **ug/L**

Date Collected: **31-MAR-97**
Date Extracted: **27-MAR-97**

Date Received: **28-MAR-97**
Date Analyzed: **03-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
319846	Alpha-BHC	.01	U
58899	Lindane	.01	U
76448	Heptachlor	.01	U
309002	Aldrin	.01	U
1024573	Heptachlor Epoxide	.01	U
959988	Endosulfan I	.01	U
60571	Dieldrin	.02	U
72208	Endrin	.02	U
3312659	Endosulfan II	.02	U
50293	p,p'-DDT	.02	U
72-43-5	Methoxychlor	.1	U
319857	Beta-BHC	.01	U
419868	Delta-BHC	.01	U
5103-74-2	Gamma-Chlordane	.01	U
5103-71-9	Alpha-Chlordane	.01	U
72559	p,p'-DDE	.02	U
72548	p,p'-DDD	.02	U
7421934	Endrin Aldehyde	.02	U
1031078	Endosulfan Sulfate	.02	U
53494-70-5	Endrin Ketone	.02	U
57-74-9	Chlordane, Technical	.2	U
8001352	Toxaphene	1	U
1104-28-2	Aroclor 1221	.2	U
11141165	Aroclor 1232	.2	U
53469219	Aroclor 1242	.2	U
12674-11-2	Aroclor 1016	.2	U
12672296	Aroclor 1248	.2	U
11097691	Aroclor 1254	.2	U
11096825	Aroclor 1260	.2	U

Analyzed by: [illegible]
Team Leader: [illegible]

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter: **PEST/PCB**

Sample organization: **B & V** | Sample Batch ID: **970071**
Sample Requestor: **ASWOK LUPARR1** | Account No: **TFA301**
Facility: **AMERICAN CHEMICAL SERVICES INC** | Sample ID: **97ZB04S17**
Matrix: **WATER** | RLIMS Method: **608_P/P.REV3** | Units: **ug/L**

Date Collected: **31-MAR-97** | Date Received: **28-MAR-97**
Date Extracted: **27-MAR-97** | Date Analyzed: **03-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
319846	Alpha-BHC	.01	U
58899	Lindane	.01	U
76448	Heptachlor	.01	U
309002	Aldrin	.01	U
1024573	Heptachlor Epoxide	.01	U
959988	Endosulfan I	.01	U
60571	Dieldrin	.02	U
72208	Endrin	.02	U
3312659	Endosulfan II	.02	U
50293	p,p'-DDT	.02	U
72-43-5	Methoxychlor	.1	U
319857	Beta-BHC	.01	U
419868	Delta-BHC	.01	U
5103-74-2	Gamma-Chlordane	.01	U
5103-71-9	Alpha-Chlordane	.01	U
72559	p,p'-DDE	.02	U
72548	p,p'-DDD	.02	U
7421934	Endrin Aldehyde	.02	U
1031078	Endosulfan Sulfate	.02	U
53494-70-5	Endrin Ketone	.02	U
57-74-9	Chlordane, Technical	.2	U
8001352	Toxaphene	1	U
1104-28-2	Aroclor 1221	.2	U
11141165	Aroclor 1232	.2	U
53469219	Aroclor 1242	.2	U
12674-11-2	Aroclor 1016	.2	U
12672296	Aroclor 1248	.2	U
11097691	Aroclor 1254	.2	U
11096825	Aroclor 1260	.2	U

Analyzed by: [illegible] 4/7/97

Team Leader: [illegible]

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter: **PEST/PCB**

Sample organization: **B & V** Sample Batch ID: **970071**
Sample Requestor: **ASWOK LUPARR1** Account No: **TFA301**
Facility: **AMERICAN CHEMICAL SERVICES INC** Sample ID: **97ZB04S18**
Matrix: **WATER** RLIMS Method: **608_P/P.REV3** Units: **ug/L**

Date Collected: **01-APR-97** Date Received: **28-MAR-97**
Date Extracted: **27-MAR-97** Date Analyzed: **03-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
319846	Alpha-BHC	.01	U
58899	Lindane	.01	U
76448	Heptachlor	.01	U
309002	Aldrin	.01	U
1024573	Heptachlor Epoxide	.01	U
959988	Endosulfan I	.01	U
60571	Dieldrin	.02	U
72208	Endrin	.02	U
3312659	Endosulfan II	.02	U
50293	p,p'-DDT	.02	U
72-43-5	Methoxychlor	.1	U
319857	Beta-BHC	.01	U
419868	Delta-BHC	.01	U
5103-74-2	Gamma-Chlordane	.01	U
5103-71-9	Alpha-Chlordane	.01	U
72559	p,p'-DDE	.02	U
72548	p,p'-DDD	.02	U
7421934	Endrin Aldehyde	.02	U
1031078	Endosulfan Sulfate	.02	U
53494-70-5	Endrin Ketone	.02	U
57-74-9	Chlordane, Technical	.2	U
8001352	Toxaphene	1	U
1104-28-2	Aroclor 1221	.2	U
11141165	Aroclor 1232	.2	U
53469219	Aroclor 1242	.2	U
12674-11-2	Aroclor 1016	.2	U
12672296	Aroclor 1248	.2	U
11097691	Aroclor 1254	.2	U
11096825	Aroclor 1260	.2	U

Analyzed by: [signature] / EWAT

Team Leader: [signature]

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter: **PEST/PCB**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER**
RLIMS Method: **608_P/P.REV3**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S19**
Units: **ug/L**

Date Collected: **01-APR-97**
Date Extracted: **27-MAR-97**

Date Received: **02-APR-97**
Date Analyzed: **03-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
319846	Alpha-BHC	.01	U
58899	Lindane	.01	U
76448	Heptachlor	.01	U
309002	Aldrin	.01	U
1024573	Heptachlor Epoxide	.01	U
959988	Endosulfan I	.01	U
60571	Dieldrin	.02	U
72208	Endrin	.02	U
3312659	Endosulfan II	.02	U
50293	p,p'-DDT	.02	U
72-43-5	Methoxychlor	.1	U
319857	Beta-BHC	.01	U
419868	Delta-BHC	.01	U
5103-74-2	Gamma-Chlordane	.01	U
5103-71-9	Alpha-Chlordane	.01	U
72559	p,p'-DDE	.02	U
72548	p,p'-DDD	.02	U
7421934	Endrin Aldehyde	.02	U
1031078	Endosulfan Sulfate	.02	U
53494-70-5	Endrin Ketone	.02	U
57-74-9	Chlordane, Technical	.2	U
8001352	Toxaphene	1	U
1104-28-2	Aroclor 1221	.2	U
11141165	Aroclor 1232	.2	U
53469219	Aroclor 1242	.2	U
12674-11-2	Aroclor 1016	.2	U
12672296	Aroclor 1248	.2	U
11097691	Aroclor 1254	.2	U
11096825	Aroclor 1260	.2	U

Analyzed by: [illegible] | EMT

Team Leader: [illegible]

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
Parameter: **PEST/PCB**

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER**
RLIMS Method: **608_P/P.REV3**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S20**
Units: **ug/L**

Date Collected: **02-APR-97**
Date Extracted: **27-MAR-97**
Date Received: **02-APR-97**
Date Analyzed: **03-APR-97**

CAS NUMBER	COMPOUND	AMOUNT	QUALIFIERS
319846	Alpha-BHC	.01	U
58899	Lindane	.01	U
76448	Heptachlor	.01	U
309002	Aldrin	.01	U
1024573	Heptachlor Epoxide	.01	U
959988	Endosulfan I	.01	U
60571	Dieldrin	.02	U
72208	Endrin	.02	U
3312659	Endosulfan II	.02	U
50293	p,p'-DDT	.02	U
72-43-5	Methoxychlor	.1	U
319857	Beta-BHC	.01	U
419868	Delta-BHC	.01	U
5103-74-2	Gamma-Chlordane	.01	U
5103-71-9	Alpha-Chlordane	.01	U
72559	p,p'-DDE	.02	U
72548	p,p'-DDD	.02	U
7421934	Endrin Aldehyde	.02	U
1031078	Endosulfan Sulfate	.02	U
53494-70-5	Endrin Ketone	.02	U
57-74-9	Chlordane, Technical	.2	U
8001352	Toxaphene	1	U
1104-28-2	Aroclor 1221	.2	U
11141165	Aroclor 1232	.2	U
53469219	Aroclor 1242	.2	U
12674-11-2	Aroclor 1016	.2	U
12672296	Aroclor 1248	.2	U
11097691	Aroclor 1254	.2	U
11096825	Aroclor 1260	.2	U

Analyzed by: [illegible] | EMAT

Team Leader: [illegible]

To: Transmittal to Work Assignment Manager; Babu Paruchuri

For: Erlinda Evangelista, Pesticide/PCB group Leader

Thru: Dennis Miller, ESAT Team Manager Dennis Miller

From: Krystyna Minczuk/ESAT Chemist

Date: 04/14/97

Subject: Pesticide/PCB Analysis for American Chemical Service (Date Set SF 970071) by continuous liquid/liquid extraction (Work Assignment 05-97-0-03)

CASE NARRATIVE

DATE: April 14, 1997

PROJECT NAME: American Chemical Service/CRL Case #: SF 970071
Analysis of Pesticides/PCBs

ANALYST: Krystyna Minczuk, ESAT Chemist

REVIEWERS: Ziyad Rajabi, Lockheed/ESAT Organic Group Leader
W.Ira Wilson, Lockheed/ESAT Organic Supervisor
Dennis Miller, Lockheed/ESAT Team Manager
Babu Paruchuri, EPA CRL Work Assignment Manager

I. CASE DESCRIPTION:

The laboratory received twenty three (23) water samples (97ZB04R02, 97ZB04R11, 97ZB04S01, 97ZB04S02, 97ZB04S03, 97ZB04S04, 97ZB04S05, 97ZB04S06, 97ZB04S07, 97ZB04S08, 97ZB04S09, 97ZB04S10, 97ZB04S11, 97ZB04S12, 97ZB04S13, 97ZB04S14, 97ZB04D14, 97ZB04S15, 97ZB04S16, 97ZB04S17, 97ZB04S18, 97ZB04S19, and 97ZB04S20) for pesticide/PCB analysis using CRL method 608 Pest/PCB DNS on 3/26/97, 3/28/97, 3/31/97, 4/01/97 and 4/02/97. The samples were extracted on 3/27/97, 4/01/97, 4/02/97 and 4/03/97 utilizing one-step continuous liquid/liquid extractors per OLC01 methodology and the sample extracts were analyzed on 04/03-05/97 utilizing the HP5890 GC/EC#5.

The samples were extracted within the holding time requirements of seven (7) days after sample collection and extracts were analyzed within forty (40) days after extraction. No problems were encountered in extraction and GC/ECD analysis.

II. INSTRUMENT QUALITY CONTROLS:

1. **Instrument Performance Check:** Initial and continuing Endrin and DDT degradation checks for both the primary and confirmatory columns were within CRL QC limits of <15%.

2. **Initial Calibration Check (IC):** An acceptable initial calibration is required before samples can be analyzed. Correlation coefficients generated for Pest A, Pest B and Aroclor 1242 using five points were 0.995 or greater.

3. **Continuing Calibration Check (CC):** For the primary and confirmatory columns, continuing calibration check standards (Level 3 Pest A, Pest B & Aroclor 1242) were within the acceptable %Ds limit of <15% with the exception of Endrin Aldehyde which coelutes with phthalate peak on the primary column and 1242-D (16%) on the confirmatory column.

4. **Retention Time (RT) Summary:** The retention time %Ds for

each individual compound in the Pest A, Pest B mixes & Aroclor 1242 ranged between 0.00 % - 0.35% on the primary and confirmatory columns.

III. METHOD QUALITY CONTROL:

1. **Method Blank Results:** A DI water samples were used for the method blanks, spiked with surrogates and were extracted and analyzed with the sample batch. No target analytes were detected above the method detection limit in the method blanks.

2. **Surrogate Spike Compound Results:** The TCMX and DCB surrogates spike recoveries were within the QC limits (50-150%) on both the primary and confirmatory columns for all samples with the exception of slightly lower TCMX recoveries in the sample 97ZB04S18 (49.1%) and DCB recoveries in samples 97ZB04S10 (49.2%) and 97ZB04S11 (35.3%) on the confirmatory column.

3. **Laboratory Control/Laboratory Control Duplicate Sample Results:**
For the primary column the PEST Laboratory Control (LCS PEST) and Laboratory Control Sample Duplicate (LCS PEST D) recoveries were acceptable (50-150%) with the only exception of lower Endrin Aldehyde recovery (48.17%) in LCS sample.
For the confirmatory column the PEST Laboratory Control (LCS PEST) and Laboratory Control Sample Duplicate (LCS PEST D) recoveries were acceptable (50-150%) with the exceptions of high recoveries of Endosulfan Sulfate and p,p'-DDT in LCS/LCS D due to coelution of these two pesticides on the confirmatory column and higher Endrin recoveries (158.8% and 163.1%) in LCS and LCS D respectively.
The RPDs were outside the QC limits for Lindane (32%), Heptachlor (36%), Dieldrin (29%), Endrin (43%) and Methoxychlor (22%) on the primary column. All RPDs were acceptable ~~acceptable~~ on the confirmatory column.

For the primary and confirmatory columns, the PCB Laboratory Control Sample (LCS PCB) and PCB Laboratory Control Sample Duplicate (LCS PCB D) recoveries were acceptable (50-150%). The RPDs were also acceptable.

4. **Florisil Cartridge Check:** Florisil cartridge check gave acceptable percent recoveries (80-120%) on both primary and confirmatory columns with only exception of high Endrin Aldehyde recovery (201%) on the primary column due to coelution with phthalate peak.

IV. SAMPLE RESULTS:

No target compounds were detected above the method detection limits for any of the samples.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 CENTRAL REGIONAL LABORATORY

536 SOUTH CLARK STREET

CHICAGO, ILLINOIS 60605

Date: APR 17 1997

Subject: Review of Region 5 Data for American Chemical Services Code:J7

From: Charles T. Elly, Director Chuck Elly
Region 5 Central Regional Laboratory

To: B&V

Attached are the results for American Chemical Services Code:J7
CRL request number 970071
for analyses for ICP
Results are reported for sample designations: 97ZB04S01, 97ZB04S02, 97ZB04S03, 97ZB04S04, 97ZB04S05, 97ZB04S06, 97ZB04S07, 97ZB04S08, 97ZB04S09, 97ZB04S10, 97ZB04S11, 97ZB04S12, 97ZB04S13, 97ZB04S14, 97ZB04D14, 97ZB04S15, 97ZB04S16, 97ZB04S17, 97ZB04S18, 97ZB04S19, 97ZB04S20, 97ZB04R02 and 97ZB04R11

Results Status:
(x) Acceptable for Use
( ) Data Qualified, but Acceptable for use
( ) Data Unacceptable for Use

(x) Sewer Disposal Criteria Met; Exceptions: Acid preserved samples must be neutralized prior to disposal. Samples 97ZB04S01, 97ZB04S02, 97ZB04S03, 97ZB04S04, 97ZB04S05, 97ZB04S07, 97ZB04S08, 97ZB04S09, 97ZB04S10, 97ZB04S11, 97ZB04S12, 97ZB04S13, 97ZB04S16, 97ZB04S17, 97ZB04S18 and 97ZB04S19 exceed the disposal criterion for iron.

Comments on Data Quality by Reviewer

The first digestion blank yielded a beryllium result of 1.15 μg/L, above the CRL detection limit of 1 μg Be/L for the instrument used. As beryllium is not a common contaminant, instrumental artifacts are suspected. This casts doubt on the results for samples 97ZB04S07 and 97ZB04S11, although the actual measurements are romoved in time from the blank result mentioned above. The result for 97ZB04S07 was duplicated with the matrix duplicate and spike which lend support to that result being real.

Aluminum was duplicated poorly in the matrix duplicate (RPD of 35%), but the matrix spike supports the reported result (110% recovery calculated with the sample result versus 160% recovery calculated with the duplicate result instead). Aluminum data may be used as received.

Comments by Laboratory Director or Quality Control Coordinator

John V. Moore 17 Apr 97

Peer/Task Monitor Review and Date (✓) Reviewed ( ) Unreviewed

John V. Moore 17 Apr 97

Team Leader and Date (✓) Reviewed ( ) Unreviewed

Chuck Ellis 4/17/97

QC Coordinator and Date ( ) Reviewed (✓) Unreviewed
(position vacant)

Sylvia Griffin APR 17 1997

Data Management Coordinator and Date Received

Date Transmitted APR 17 1997

Please sign and date this form below and return it with any comments to:

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
ML - 10C

Received by and Date

Comments:

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
REPORT PRODUCED ON: 07-APR-97

SAMPLE ORGANIZATION: B & V
SAMPLE REQUESTOR: ASWOK LUPARR1
LABORATORY: ESAT

SAMPLE BATCH ID: 970071
ACCOUNT NO: TFA301
FACILITY: AMERICAN CHEMICAL SERVICES INC

SAMPLE: 97ZB04D14 FIELD: 97ZB04D14

COLLECTED: 28-MAR-97 RECEIVED: 28-MAR-97 ANALYZED: 04-APR-97

COMPOUND	AMOUNT	(Units)	QUALIFIERS	CAS NUMBER
Aluminum	117	(ug/L)		7429-90-5
Barium	156	(ug/L)		7440-39-3
Beryllium	1U	(ug/L)	BDL	7440-41-7
Calcium	160000	(ug/L)		7440-70-2
Chromium	14	(ug/L)		7440-47-3
Cobalt	6U	(ug/L)	BDL	7440-48-4
Copper	12	(ug/L)		7440-50-8
Iron	1130	(ug/L)		7439-89-6
Magnesium	27000	(ug/L)		7439-95-4
Manganese	361	(ug/L)		7439-96-5
Nickel	38	(ug/L)		7440-02-0
Potassium	10800	(ug/L)		7440-09-7
Silver	6U	(ug/L)	BDL	7440-22-4
Sodium	603000	(ug/L)		7440-23-5
Vanadium	5U	(ug/L)	BDL	7440-62-2
Zinc	40U	(ug/L)	BDL	7440-66-6

ANALYZED BY: 4-7-97 JVM 17Apr97

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
REPORT PRODUCED ON: 07-APR-97

SAMPLE ORGANIZATION: B & V
SAMPLE REQUESTOR: ASWOK LUPARR1
LABORATORY: ESAT

SAMPLE BATCH ID: 970071
ACCOUNT NO: TFA301
FACILITY: AMERICAN CHEMICAL SERVICES INC

SAMPLE: 97ZB04R02 FIELD: 97ZB04R02

COLLECTED: 26-MAR-97 RECEIVED: 28-MAR-97 ANALYZED: 04-APR-97

COMPOUND	AMOUNT	(Units)	QUALIFIERS	CAS NUMBER
Aluminum	80U	(ug/L)	BDL	7429-90-5
Barium	6U	(ug/L)	BDL	7440-39-3
Beryllium	1U	(ug/L)	BDL	7440-41-7
Calcium	500U	(ug/L)	BDL	7440-70-2
Chromium	10U	(ug/L)	BDL	7440-47-3
Cobalt	6U	(ug/L)	BDL	7440-48-4
Copper	6U	(ug/L)	BDL	7440-50-8
Iron	80U	(ug/L)	BDL	7439-89-6
Magnesium	100U	(ug/L)	BDL	7439-95-4
Manganese	5U	(ug/L)	BDL	7439-96-5
Nickel	20U	(ug/L)	BDL	7440-02-0
Potassium	5000U	(ug/L)	BDL	7440-09-7
Silver	6U	(ug/L)	BDL	7440-22-4
Sodium	1000U	(ug/L)	BDL	7440-23-5
Vanadium	5U	(ug/L)	BDL	7440-62-2
Zinc	40U	(ug/L)	BDL	7440-66-6

ANALYZED BY: 4-7-97 JVM 17 Apr 97

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
REPORT PRODUCED ON: 07-APR-97

SAMPLE ORGANIZATION: B & V
SAMPLE REQUESTOR: ASWOK LUPARR1
LABORATORY: ESAT

SAMPLE BATCH ID: 970071
ACCOUNT NO: TFA301
FACILITY: AMERICAN CHEMICAL SERVICES INC

SAMPLE: 97ZB04R11 FIELD: 97ZB04R11

COLLECTED: 02-APR-97 RECEIVED: 02-APR-97 ANALYZED: 04-APR-97

COMPOUND	AMOUNT	(Units)	QUALIFIERS	CAS NUMBER
Aluminum	80U	(ug/L)	BDL	7429-90-5
Barium	6U	(ug/L)	BDL	7440-39-3
Beryllium	1U	(ug/L)	BDL	7440-41-7
Calcium	500U	(ug/L)	BDL	7440-70-2
Chromium	10U	(ug/L)	BDL	7440-47-3
Cobalt	6U	(ug/L)	BDL	7440-48-4
Copper	6U	(ug/L)	BDL	7440-50-8
Iron	80U	(ug/L)	BDL	7439-89-6
Magnesium	100U	(ug/L)	BDL	7439-95-4
Manganese	5U	(ug/L)	BDL	7439-96-5
Nickel	20U	(ug/L)	BDL	7440-02-0
Potassium	5000U	(ug/L)	BDL	7440-09-7
Silver	6U	(ug/L)	BDL	7440-22-4
Sodium	1000U	(ug/L)	BDL	7440-23-5
Vanadium	5U	(ug/L)	BDL	7440-62-2
Zinc	40U	(ug/L)	BDL	7440-66-6

ANALYZED BY: 4-7-97

17-Apr-97

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
REPORT PRODUCED ON: 07-APR-97

SAMPLE ORGANIZATION: B & V
SAMPLE REQUESTOR: ASWOK LUPARR1
LABORATORY: ESAT

SAMPLE BATCH ID: 970071
ACCOUNT NO: TFA301
FACILITY: AMERICAN CHEMICAL SERVICES INC

SAMPLE: 97ZB04S01 FIELD: 97ZB04S01

COLLECTED: 25-MAR-97 RECEIVED: 26-MAR-97 ANALYZED: 04-APR-97

COMPOUND	AMOUNT	(Units)	QUALIFIERS	CAS NUMBER
Aluminum	1160	(ug/L)		7429-90-5
Barium	115	(ug/L)		7440-39-3
Beryllium	1U	(ug/L)	BDL	7440-41-7
Calcium	93000	(ug/L)		7440-70-2
Chromium	81	(ug/L)		7440-47-3
Cobalt	6U	(ug/L)	BDL	7440-48-4
Copper	37	(ug/L)		7440-50-8
Iron	5130	(ug/L)		7439-89-6
Magnesium	38000	(ug/L)		7439-95-4
Manganese	124	(ug/L)		7439-96-5
Nickel	60	(ug/L)		7440-02-0
Potassium	5000U	(ug/L)	BDL	7440-09-7
Silver	6U	(ug/L)	BDL	7440-22-4
Sodium	15000	(ug/L)		7440-23-5
Vanadium	5U	(ug/L)	BDL	7440-62-2
Zinc	40U	(ug/L)	BDL	7440-66-6

ANALYZED BY: 4-7-97 JVM 17Apr97

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
REPORT PRODUCED ON: 07-APR-97

SAMPLE ORGANIZATION: B & V
SAMPLE REQUESTOR: ASWOK LUPARR1
LABORATORY: ESAT

SAMPLE BATCH ID: 970071
ACCOUNT NO: TFA301
FACILITY: AMERICAN CHEMICAL SERVICES INC

SAMPLE: 97ZB04S02 FIELD: 97ZB04S02

COLLECTED: 26-MAR-97 RECEIVED: 26-MAR-97 ANALYZED: 04-APR-97

COMPOUND	AMOUNT	(Units)	QUALIFIERS	CAS NUMBER
Aluminum	261	(ug/L)		7429-90-5
Barium	393	(ug/L)		7440-39-3
Beryllium	1U	(ug/L)	BDL	7440-41-7
Calcium	142000	(ug/L)		7440-70-2
Chromium	10U	(ug/L)	BDL	7440-47-3
Cobalt	6U	(ug/L)	BDL	7440-48-4
Copper	6U	(ug/L)	BDL	7440-50-8
Iron	7720	(ug/L)		7439-89-6
Magnesium	61000	(ug/L)		7439-95-4
Manganese	108	(ug/L)		7439-96-5
Nickel	20U	(ug/L)	BDL	7440-02-0
Potassium	5000U	(ug/L)	BDL	7440-09-7
Silver	6U	(ug/L)	BDL	7440-22-4
Sodium	107000	(ug/L)		7440-23-5
Vanadium	5U	(ug/L)	BDL	7440-62-2
Zinc	40U	(ug/L)	BDL	7440-66-6

ANALYZED BY: 4-7-97

17 Apr-97

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
REPORT PRODUCED ON: 07-APR-97

SAMPLE ORGANIZATION: B & V
SAMPLE REQUESTOR: ASWOK LUPARR1
LABORATORY: ESAT

SAMPLE BATCH ID: 970071
ACCOUNT NO: TFA301
FACILITY: AMERICAN CHEMICAL SERVICES INC

SAMPLE: 97ZB04S03 FIELD: 97ZB04S03

COLLECTED: 26-MAR-97 RECEIVED: 28-MAR-97 ANALYZED: 04-APR-97

COMPOUND	AMOUNT	(Units)	QUALIFIERS	CAS NUMBER
Aluminum	534	(ug/L)		7429-90-5
Barium	76	(ug/L)		7440-39-3
Beryllium	1U	(ug/L)	BDL	7440-41-7
Calcium	130000	(ug/L)		7440-70-2
Chromium	10U	(ug/L)	BDL	7440-47-3
Cobalt	6U	(ug/L)	BDL	7440-48-4
Copper	21	(ug/L)		7440-50-8
Iron	7720	(ug/L)		7439-89-6
Magnesium	47000	(ug/L)		7439-95-4
Manganese	764	(ug/L)		7439-96-5
Nickel	20U	(ug/L)	BDL	7440-02-0
Potassium	5000U	(ug/L)	BDL	7440-09-7
Silver	6U	(ug/L)	BDL	7440-22-4
Sodium	13000	(ug/L)		7440-23-5
Vanadium	5U	(ug/L)	BDL	7440-62-2
Zinc	40U	(ug/L)	BDL	7440-66-6

ANALYZED BY: RD 4-7-97

Jm 17 Apr 97

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
REPORT PRODUCED ON: 07-APR-97

SAMPLE ORGANIZATION: B & V
SAMPLE REQUESTOR: ASWOK LUPARR1
LABORATORY: ESAT

SAMPLE BATCH ID: 970071
ACCOUNT NO: TFA301
FACILITY: AMERICAN CHEMICAL SERVICES INC

SAMPLE: 97ZB04S04 FIELD: 97ZB04S04

COLLECTED: 27-MAR-97 RECEIVED: 28-MAR-97 ANALYZED: 04-APR-97

COMPOUND	AMOUNT	(Units)	QUALIFIERS	CAS NUMBER
Aluminum	121	(ug/L)		7429-90-5
Barium	333	(ug/L)		7440-39-3
Beryllium	1U	(ug/L)	BDL	7440-41-7
Calcium	117000	(ug/L)		7440-70-2
Chromium	10	(ug/L)		7440-47-3
Cobalt	6U	(ug/L)	BDL	7440-48-4
Copper	6U	(ug/L)	BDL	7440-50-8
Iron	8740	(ug/L)		7439-89-6
Magnesium	55000	(ug/L)		7439-95-4
Manganese	73	(ug/L)		7439-96-5
Nickel	20U	(ug/L)	BDL	7440-02-0
Potassium	5000U	(ug/L)	BDL	7440-09-7
Silver	6U	(ug/L)	BDL	7440-22-4
Sodium	191000	(ug/L)		7440-23-5
Vanadium	5U	(ug/L)	BDL	7440-62-2
Zinc	40U	(ug/L)	BDL	7440-66-6

ANALYZED BY: 4-7-97

17 Apr 97

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
REPORT PRODUCED ON: 07-APR-97

SAMPLE ORGANIZATION: B & V
SAMPLE REQUESTOR: ASWOK LUPARR1
LABORATORY: ESAT

SAMPLE BATCH ID: 970071
ACCOUNT NO: TFA301
FACILITY: AMERICAN CHEMICAL SERVICES INC

SAMPLE: 97ZB04S05 FIELD: 97ZB04S05

COLLECTED: 27-MAR-97 RECEIVED: 28-MAR-97 ANALYZED: 04-APR-97

COMPOUND	AMOUNT	(Units)	QUALIFIERS	CAS NUMBER
Aluminum	314	(ug/L)		7429-90-5
Barium	533	(ug/L)		7440-39-3
Beryllium	1U	(ug/L)	BDL	7440-41-7
Calcium	267000	(ug/L)		7440-70-2
Chromium	10U	(ug/L)	BDL	7440-47-3
Cobalt	6U	(ug/L)	BDL	7440-48-4
Copper	6U	(ug/L)	BDL	7440-50-8
Iron	26000	(ug/L)		7439-89-6
Magnesium	83000	(ug/L)		7439-95-4
Manganese	665	(ug/L)		7439-96-5
Nickel	20U	(ug/L)	BDL	7440-02-0
Potassium	33000	(ug/L)		7440-09-7
Silver	6U	(ug/L)	BDL	7440-22-4
Sodium	70000	(ug/L)		7440-23-5
Vanadium	5.2	(ug/L)		7440-62-2
Zinc	40U	(ug/L)	BDL	7440-66-6

ANALYZED BY: RD 4-7-97

17 Apr 97

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
REPORT PRODUCED ON: 07-APR-97

SAMPLE ORGANIZATION: B & V
SAMPLE REQUESTOR: ASWOK LUPARR1
LABORATORY: ESAT

SAMPLE BATCH ID: 970071
ACCOUNT NO: TFA301
FACILITY: AMERICAN CHEMICAL SERVICES INC

SAMPLE: 97ZB04S06 FIELD: 97ZB04S06

COLLECTED: 27-MAR-97 RECEIVED: 28-MAR-97 ANALYZED: 04-APR-97

COMPOUND	AMOUNT	(Units)	QUALIFIERS	CAS NUMBER
Aluminum	80U	(ug/L)	BDL	7429-90-5
Barium	186	(ug/L)		7440-39-3
Beryllium	1U	(ug/L)	BDL	7440-41-7
Calcium	95000	(ug/L)		7440-70-2
Chromium	10U	(ug/L)	BDL	7440-47-3
Cobalt	6U	(ug/L)	BDL	7440-48-4
Copper	6U	(ug/L)	BDL	7440-50-8
Iron	1830	(ug/L)		7439-89-6
Magnesium	43000	(ug/L)		7439-95-4
Manganese	38	(ug/L)		7439-96-5
Nickel	20U	(ug/L)	BDL	7440-02-0
Potassium	5000U	(ug/L)	BDL	7440-09-7
Silver	6U	(ug/L)	BDL	7440-22-4
Sodium	75000	(ug/L)		7440-23-5
Vanadium	5U	(ug/L)	BDL	7440-62-2
Zinc	40U	(ug/L)	BDL	7440-66-6

ANALYZED BY: 4-7-97

17 Apr 97

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
REPORT PRODUCED ON: 07-APR-97

SAMPLE ORGANIZATION: B & V
SAMPLE REQUESTOR: ASWOK LUPARR1
LABORATORY: ESAT

SAMPLE BATCH ID: 970071
ACCOUNT NO: TFA301
FACILITY: AMERICAN CHEMICAL SERVICES INC

SAMPLE: 97ZB04S07 FIELD: 97ZB04S07

COLLECTED: 27-MAR-97 RECEIVED: 28-MAR-97 ANALYZED: 04-APR-97

COMPOUND	AMOUNT	(Units)	QUALIFIERS	CAS NUMBER
Aluminum	80U	(ug/L)	BDL	7429-90-5
Barium	110	(ug/L)		7440-39-3
Beryllium	1.3	(ug/L)		7440-41-7
Calcium	122000	(ug/L)		7440-70-2
Chromium	10U	(ug/L)	BDL	7440-47-3
Cobalt	6U	(ug/L)	BDL	7440-48-4
Copper	6U	(ug/L)	BDL	7440-50-8
Iron	25000	(ug/L)		7439-89-6
Magnesium	17000	(ug/L)		7439-95-4
Manganese	554	(ug/L)		7439-96-5
Nickel	20U	(ug/L)	BDL	7440-02-0
Potassium	5270	(ug/L)		7440-09-7
Silver	6U	(ug/L)	BDL	7440-22-4
Sodium	40000	(ug/L)		7440-23-5
Vanadium	5U	(ug/L)	BDL	7440-62-2
Zinc	40U	(ug/L)	BDL	7440-66-6

ANALYZED BY: 4-7-97

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EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
REPORT PRODUCED ON: 07-APR-97

SAMPLE ORGANIZATION: B & V
SAMPLE REQUESTOR: ASWOK LUPARR1
LABORATORY: ESAT

SAMPLE BATCH ID: 970071
ACCOUNT NO: TFA301
FACILITY: AMERICAN CHEMICAL SERVICES INC

SAMPLE: 97ZB04S08 FIELD: 97ZB04S08

COLLECTED: 27-MAR-97 RECEIVED: 28-MAR-97 ANALYZED: 04-APR-97

COMPOUND	AMOUNT	(Units)	QUALIFIERS	CAS NUMBER
Aluminum	1460	(ug/L)		7429-90-5
Barium	33	(ug/L)		7440-39-3
Beryllium	1U	(ug/L)	BDL	7440-41-7
Calcium	28000	(ug/L)		7440-70-2
Chromium	10U	(ug/L)	BDL	7440-47-3
Cobalt	6U	(ug/L)	BDL	7440-48-4
Copper	8.0	(ug/L)		7440-50-8
Iron	5040	(ug/L)		7439-89-6
Magnesium	7000	(ug/L)		7439-95-4
Manganese	50	(ug/L)		7439-96-5
Nickel	20U	(ug/L)	BDL	7440-02-0
Potassium	5000U	(ug/L)	BDL	7440-09-7
Silver	6U	(ug/L)	BDL	7440-22-4
Sodium	4000	(ug/L)		7440-23-5
Vanadium	5U	(ug/L)	BDL	7440-62-2
Zinc	40U	(ug/L)	BDL	7440-66-6

ANALYZED BY: 4-7-97

17 Apr 97

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
REPORT PRODUCED ON: 07-APR-97

SAMPLE ORGANIZATION: B & V
SAMPLE REQUESTOR: ASWOK LUPARR1
LABORATORY: ESAT

SAMPLE BATCH ID: 970071
ACCOUNT NO: TFA301
FACILITY: AMERICAN CHEMICAL SERVICES INC

SAMPLE: 97ZB04S09 FIELD: 97ZB04S09

COLLECTED: 27-MAR-97 RECEIVED: 28-MAR-97 ANALYZED: 04-APR-97

COMPOUND	AMOUNT	(Units)	QUALIFIERS	CAS NUMBER
Aluminum	80U	(ug/L)	BDL	7429-90-5
Barium	260	(ug/L)		7440-39-3
Beryllium	1U	(ug/L)	BDL	7440-41-7
Calcium	115000	(ug/L)		7440-70-2
Chromium	10U	(ug/L)	BDL	7440-47-3
Cobalt	6U	(ug/L)	BDL	7440-48-4
Copper	6U	(ug/L)	BDL	7440-50-8
Iron	2940	(ug/L)		7439-89-6
Magnesium	44000	(ug/L)		7439-95-4
Manganese	1190	(ug/L)		7439-96-5
Nickel	20U	(ug/L)	BDL	7440-02-0
Potassium	20000	(ug/L)		7440-09-7
Silver	6U	(ug/L)	BDL	7440-22-4
Sodium	27000	(ug/L)		7440-23-5
Vanadium	5U	(ug/L)	BDL	7440-62-2
Zinc	40U	(ug/L)	BDL	7440-66-6

ANALYZED BY: 4-7-97

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17 Apr 97

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
REPORT PRODUCED ON: 07-APR-97

SAMPLE ORGANIZATION: B & V
SAMPLE REQUESTOR: ASWOK LUPARR1
LABORATORY: ESAT

SAMPLE BATCH ID: 970071
ACCOUNT NO: TFA301
FACILITY: AMERICAN CHEMICAL SERVICES INC

SAMPLE: 97ZB04S10 FIELD: 97ZB04S10

COLLECTED: 27-MAR-97 RECEIVED: 28-MAR-97 ANALYZED: 04-APR-97

COMPOUND	AMOUNT	(Units)	QUALIFIERS	CAS NUMBER
Aluminum	530	(ug/L)		7429-90-5
Barium	508	(ug/L)		7440-39-3
Beryllium	1U	(ug/L)	BDL	7440-41-7
Calcium	377000	(ug/L)		7440-70-2
Chromium	43	(ug/L)		7440-47-3
Cobalt	6U	(ug/L)	BDL	7440-48-4
Copper	6U	(ug/L)	BDL	7440-50-8
Iron	32000	(ug/L)		7439-89-6
Magnesium	54000	(ug/L)		7439-95-4
Manganese	558	(ug/L)		7439-96-5
Nickel	35	(ug/L)		7440-02-0
Potassium	15100	(ug/L)		7440-09-7
Silver	6U	(ug/L)	BDL	7440-22-4
Sodium	94000	(ug/L)		7440-23-5
Vanadium	5U	(ug/L)	BDL	7440-62-2
Zinc	40U	(ug/L)	BDL	7440-66-6

ANALYZED BY: 4-7-97

JVM 17 Apr 97

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
REPORT PRODUCED ON: 07-APR-97

SAMPLE ORGANIZATION: B & V
SAMPLE REQUESTOR: ASWOK LUPARR1
LABORATORY: ESAT

SAMPLE BATCH ID: 970071
ACCOUNT NO: TFA301
FACILITY: AMERICAN CHEMICAL SERVICES INC

SAMPLE: 97ZB04S11 FIELD: 97ZB04S11

COLLECTED: 27-MAR-97 RECEIVED: 28-MAR-97 ANALYZED: 04-APR-97

COMPOUND	AMOUNT	(Units)	QUALIFIERS	CAS NUMBER
Aluminum	1530	(ug/L)		7429-90-5
Barium	321	(ug/L)		7440-39-3
Beryllium	1.8	(ug/L)		7440-41-7
Calcium	170000	(ug/L)		7440-70-2
Chromium	29	(ug/L)		7440-47-3
Cobalt	7.0	(ug/L)		7440-48-4
Copper	11	(ug/L)		7440-50-8
Iron	26000	(ug/L)		7439-89-6
Magnesium	33000	(ug/L)		7439-95-4
Manganese	282	(ug/L)		7439-96-5
Nickel	20U	(ug/L)	BDL	7440-02-0
Potassium	9000	(ug/L)		7440-09-7
Silver	6U	(ug/L)	BDL	7440-22-4
Sodium	97000	(ug/L)		7440-23-5
Vanadium	8.8	(ug/L)		7440-62-2
Zinc	40U	(ug/L)	BDL	7440-66-6

ANALYZED BY: 4-7-97

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17 Apr 97

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
REPORT PRODUCED ON: 07-APR-97

SAMPLE ORGANIZATION: B & V
SAMPLE REQUESTOR: ASWOK LUPARR1
LABORATORY: ESAT

SAMPLE BATCH ID: 970071
ACCOUNT NO: TFA301
FACILITY: AMERICAN CHEMICAL SERVICES INC

SAMPLE: 97ZB04S12 FIELD: 97ZB04S12

COLLECTED: 26-MAR-97 RECEIVED: 26-MAR-97 ANALYZED: 04-APR-97

COMPOUND	AMOUNT	(Units)	QUALIFIERS	CAS NUMBER
Aluminum	1370	(ug/L)		7429-90-5
Barium	23	(ug/L)		7440-39-3
Beryllium	1U	(ug/L)	BDL	7440-41-7
Calcium	15000	(ug/L)		7440-70-2
Chromium	10U	(ug/L)	BDL	7440-47-3
Cobalt	6U	(ug/L)	BDL	7440-48-4
Copper	9.2	(ug/L)		7440-50-8
Iron	2670	(ug/L)		7439-89-6
Magnesium	6000	(ug/L)		7439-95-4
Manganese	293	(ug/L)		7439-96-5
Nickel	20U	(ug/L)	BDL	7440-02-0
Potassium	5000U	(ug/L)	BDL	7440-09-7
Silver	6U	(ug/L)	BDL	7440-22-4
Sodium	8000	(ug/L)		7440-23-5
Vanadium	5U	(ug/L)	BDL	7440-62-2
Zinc	40U	(ug/L)	BDL	7440-66-6

ANALYZED BY: 4-7-97

17 Apr 97

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
REPORT PRODUCED ON: 07-APR-97

SAMPLE ORGANIZATION: B & V
SAMPLE REQUESTOR: ASWOK LUPARR1
LABORATORY: ESAT

SAMPLE BATCH ID: 970071
ACCOUNT NO: TFA301
FACILITY: AMERICAN CHEMICAL SERVICES INC

SAMPLE: 97ZB04S13 FIELD: 97ZB04S13

COLLECTED: 26-MAR-97 RECEIVED: 26-MAR-97 ANALYZED: 04-APR-97

COMPOUND	AMOUNT	(Units)	QUALIFIERS	CAS NUMBER
Aluminum	1740	(ug/L)		7429-90-5
Barium	140	(ug/L)		7440-39-3
Beryllium	1U	(ug/L)	BDL	7440-41-7
Calcium	92000	(ug/L)		7440-70-2
Chromium	18	(ug/L)		7440-47-3
Cobalt	6U	(ug/L)	BDL	7440-48-4
Copper	16	(ug/L)		7440-50-8
Iron	11800	(ug/L)		7439-89-6
Magnesium	24000	(ug/L)		7439-95-4
Manganese	377	(ug/L)		7439-96-5
Nickel	20U	(ug/L)	BDL	7440-02-0
Potassium	5000U	(ug/L)	BDL	7440-09-7
Silver	6U	(ug/L)	BDL	7440-22-4
Sodium	77000	(ug/L)		7440-23-5
Vanadium	8.9	(ug/L)		7440-62-2
Zinc	40U	(ug/L)	BDL	7440-66-6

ANALYZED BY: 4-7-97

JM
17 Apr 97

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
REPORT PRODUCED ON: 07-APR-97

SAMPLE ORGANIZATION: B & V
SAMPLE REQUESTOR: ASWOK LUPARR1
LABORATORY: ESAT

SAMPLE BATCH ID: 970071
ACCOUNT NO: TFA301
FACILITY: AMERICAN CHEMICAL SERVICES INC

SAMPLE: 97ZB04S14 FIELD: 97ZB04S14

COLLECTED: 28-MAR-97 RECEIVED: 28-MAR-97 ANALYZED: 04-APR-97

COMPOUND	AMOUNT	(Units)	QUALIFIERS	CAS NUMBER
Aluminum	166	(ug/L)		7429-90-5
Barium	156	(ug/L)		7440-39-3
Beryllium	1U	(ug/L)	BDL	7440-41-7
Calcium	160000	(ug/L)		7440-70-2
Chromium	16	(ug/L)		7440-47-3
Cobalt	6U	(ug/L)	BDL	7440-48-4
Copper	17	(ug/L)		7440-50-8
Iron	1200	(ug/L)		7439-89-6
Magnesium	27000	(ug/L)		7439-95-4
Manganese	347	(ug/L)		7439-96-5
Nickel	25	(ug/L)		7440-02-0
Potassium	10800	(ug/L)		7440-09-7
Silver	6U	(ug/L)	BDL	7440-22-4
Sodium	618000	(ug/L)		7440-23-5
Vanadium	5U	(ug/L)	BDL	7440-62-2
Zinc	40U	(ug/L)	BDL	7440-66-6

ANALYZED BY: 4-7-97

17 Apr 97

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
REPORT PRODUCED ON: 07-APR-97

SAMPLE ORGANIZATION: B & V
SAMPLE REQUESTOR: ASWOK LUPARR1
LABORATORY: ESAT

SAMPLE BATCH ID: 970071
ACCOUNT NO: TFA301
FACILITY: AMERICAN CHEMICAL SERVICES INC

SAMPLE: 97ZB04S15 FIELD: 97ZB04S15

COLLECTED: 31-MAR-97 RECEIVED: 28-MAR-97 ANALYZED: 04-APR-97

COMPOUND	AMOUNT	(Units)	QUALIFIERS	CAS NUMBER
Aluminum	80U	(ug/L)	BDL	7429-90-5
Barium	142	(ug/L)		7440-39-3
Beryllium	1U	(ug/L)	BDL	7440-41-7
Calcium	102000	(ug/L)		7440-70-2
Chromium	10U	(ug/L)	BDL	7440-47-3
Cobalt	6U	(ug/L)	BDL	7440-48-4
Copper	8.4	(ug/L)		7440-50-8
Iron	1530	(ug/L)		7439-89-6
Magnesium	59000	(ug/L)		7439-95-4
Manganese	148	(ug/L)		7439-96-5
Nickel	20U	(ug/L)	BDL	7440-02-0
Potassium	5000U	(ug/L)	BDL	7440-09-7
Silver	6U	(ug/L)	BDL	7440-22-4
Sodium	135000	(ug/L)		7440-23-5
Vanadium	5U	(ug/L)	BDL	7440-62-2
Zinc	40U	(ug/L)	BDL	7440-66-6

ANALYZED BY: 4-7-97

JVM
17 Apr 97

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
REPORT PRODUCED ON: 07-APR-97

SAMPLE ORGANIZATION: B & V
SAMPLE REQUESTOR: ASWOK LUPARR1
LABORATORY: ESAT

SAMPLE BATCH ID: 970071
ACCOUNT NO: TFA301
FACILITY: AMERICAN CHEMICAL SERVICES INC

SAMPLE: 97ZB04S16 FIELD: 97ZB04S16

COLLECTED: 31-MAR-97 RECEIVED: 28-MAR-97 ANALYZED: 04-APR-97

COMPOUND	AMOUNT	(Units)	QUALIFIERS	CAS NUMBER
Aluminum	80U	(ug/L)	BDL	7429-90-5
Barium	150	(ug/L)		7440-39-3
Beryllium	1U	(ug/L)	BDL	7440-41-7
Calcium	92000	(ug/L)		7440-70-2
Chromium	10U	(ug/L)	BDL	7440-47-3
Cobalt	6U	(ug/L)	BDL	7440-48-4
Copper	6U	(ug/L)	BDL	7440-50-8
Iron	2860	(ug/L)		7439-89-6
Magnesium	52000	(ug/L)		7439-95-4
Manganese	39	(ug/L)		7439-96-5
Nickel	20U	(ug/L)	BDL	7440-02-0
Potassium	5000U	(ug/L)	BDL	7440-09-7
Silver	6U	(ug/L)	BDL	7440-22-4
Sodium	21000	(ug/L)		7440-23-5
Vanadium	5U	(ug/L)	BDL	7440-62-2
Zinc	40U	(ug/L)	BDL	7440-66-6

ANALYZED BY: RD 4-7-97

MM 17 Apr 97

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
REPORT PRODUCED ON: 07-APR-97

SAMPLE ORGANIZATION: B & V
SAMPLE REQUESTOR: ASWOK LUPARR1
LABORATORY: ESAT

SAMPLE BATCH ID: 970071
ACCOUNT NO: TFA301
FACILITY: AMERICAN CHEMICAL SERVICES INC

SAMPLE: 97ZB04S17 FIELD: 97ZB04S17

COLLECTED: 31-MAR-97 RECEIVED: 28-MAR-97 ANALYZED: 04-APR-97

COMPOUND	AMOUNT	(Units)	QUALIFIERS	CAS NUMBER
Aluminum	80U	(ug/L)	BDL	7429-90-5
Barium	106	(ug/L)		7440-39-3
Beryllium	1U	(ug/L)	BDL	7440-41-7
Calcium	87000	(ug/L)		7440-70-2
Chromium	10U	(ug/L)	BDL	7440-47-3
Cobalt	6U	(ug/L)	BDL	7440-48-4
Copper	6U	(ug/L)	BDL	7440-50-8
Iron	2390	(ug/L)		7439-89-6
Magnesium	40000	(ug/L)		7439-95-4
Manganese	58	(ug/L)		7439-96-5
Nickel	20U	(ug/L)	BDL	7440-02-0
Potassium	5000U	(ug/L)	BDL	7440-09-7
Silver	6U	(ug/L)	BDL	7440-22-4
Sodium	12000	(ug/L)		7440-23-5
Vanadium	5U	(ug/L)	BDL	7440-62-2
Zinc	40U	(ug/L)	BDL	7440-66-6

ANALYZED BY: 4-7-97

17 Apr 97

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
REPORT PRODUCED ON: 07-APR-97

SAMPLE ORGANIZATION: B & V
SAMPLE REQUESTOR: ASWOK LUPARR1
LABORATORY: ESAT

SAMPLE BATCH ID: 970071
ACCOUNT NO: TFA301
FACILITY: AMERICAN CHEMICAL SERVICES INC

SAMPLE: 97ZB04S18 FIELD: 97ZB04S18

COLLECTED: 01-APR-97 RECEIVED: 28-MAR-97 ANALYZED: 04-APR-97

COMPOUND	AMOUNT	(Units)	QUALIFIERS	CAS NUMBER
Aluminum	80U	(ug/L)	BDL	7429-90-5
Barium	104	(ug/L)		7440-39-3
Beryllium	1U	(ug/L)	BDL	7440-41-7
Calcium	87000	(ug/L)		7440-70-2
Chromium	10U	(ug/L)	BDL	7440-47-3
Cobalt	6U	(ug/L)	BDL	7440-48-4
Copper	6U	(ug/L)	BDL	7440-50-8
Iron	2450	(ug/L)		7439-89-6
Magnesium	40000	(ug/L)		7439-95-4
Manganese	51	(ug/L)		7439-96-5
Nickel	20U	(ug/L)	BDL	7440-02-0
Potassium	5000U	(ug/L)	BDL	7440-09-7
Silver	6U	(ug/L)	BDL	7440-22-4
Sodium	14000	(ug/L)		7440-23-5
Vanadium	5U	(ug/L)	BDL	7440-62-2
Zinc	71	(ug/L)		7440-66-6

ANALYZED BY: 4-7-97

17 Apr 97

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
REPORT PRODUCED ON: 07-APR-97

SAMPLE ORGANIZATION: B & V
SAMPLE REQUESTOR: ASWOK LUPARR1
LABORATORY: ESAT

SAMPLE BATCH ID: 970071
ACCOUNT NO: TFA301
FACILITY: AMERICAN CHEMICAL SERVICES INC

SAMPLE: 97ZB04S19 FIELD: 97ZB04S19

COLLECTED: 01-APR-97 RECEIVED: 02-APR-97 ANALYZED: 04-APR-97

COMPOUND	AMOUNT	(Units)	QUALIFIERS	CAS NUMBER
Aluminum	80U	(ug/L)	BDL	7429-90-5
Barium	143	(ug/L)		7440-39-3
Beryllium	1U	(ug/L)	BDL	7440-41-7
Calcium	97000	(ug/L)		7440-70-2
Chromium	10U	(ug/L)	BDL	7440-47-3
Cobalt	6U	(ug/L)	BDL	7440-48-4
Copper	6U	(ug/L)	BDL	7440-50-8
Iron	2980	(ug/L)		7439-89-6
Magnesium	58000	(ug/L)		7439-95-4
Manganese	29	(ug/L)		7439-96-5
Nickel	20U	(ug/L)	BDL	7440-02-0
Potassium	5000U	(ug/L)	BDL	7440-09-7
Silver	6U	(ug/L)	BDL	7440-22-4
Sodium	23000	(ug/L)		7440-23-5
Vanadium	5U	(ug/L)	BDL	7440-62-2
Zinc	40U	(ug/L)	BDL	7440-66-6

ANALYZED BY: 4-7-97

JM
17 Apr 97

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
REPORT PRODUCED ON: 07-APR-97

SAMPLE ORGANIZATION: B & V
SAMPLE REQUESTOR: ASWOK LUPARR1
LABORATORY: ESAT

SAMPLE BATCH ID: 970071
ACCOUNT NO: TFA301
FACILITY: AMERICAN CHEMICAL SERVICES INC

SAMPLE: 97ZB04S20 FIELD: 97ZB04S20

COLLECTED: 02-APR-97 RECEIVED: 02-APR-97 ANALYZED: 04-APR-97

COMPOUND	AMOUNT	(Units)	QUALIFIERS	CAS NUMBER
Aluminum	523	(ug/L)		7429-90-5
Barium	31	(ug/L)		7440-39-3
Beryllium	1U	(ug/L)	BDL	7440-41-7
Calcium	34000	(ug/L)		7440-70-2
Chromium	22	(ug/L)		7440-47-3
Cobalt	6U	(ug/L)	BDL	7440-48-4
Copper	18	(ug/L)		7440-50-8
Iron	923	(ug/L)		7439-89-6
Magnesium	39000	(ug/L)		7439-95-4
Manganese	31	(ug/L)		7439-96-5
Nickel	20U	(ug/L)	BDL	7440-02-0
Potassium	56800	(ug/L)		7440-09-7
Silver	6U	(ug/L)	BDL	7440-22-4
Sodium	91000	(ug/L)		7440-23-5
Vanadium	5U	(ug/L)	BDL	7440-62-2
Zinc	40U	(ug/L)	BDL	7440-66-6

ANALYZED BY: 4-7-97

17 Apr 97

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 CENTRAL REGIONAL LABORATORY

536 SOUTH CLARK STREET

CHICAGO, ILLINOIS 60605

Date: APR 17 1997

Subject: Review of Region 5 Data for American Chemical Services Code:J7

From: Charles T. Elly, Director
Region 5 Central Regional Laboratory

To: B & V

Attached are the results for American Chemical Services Code:J7
CRL request number 970071
for analyses for Antimony, Arsenic, Cadmium, Lead, Selenium and Thallium
Results are reported for sample designations: 97ZB04S01, 97ZB04S02, 97ZB04S03, 97ZB04S04, 97ZB04S05, 97ZB04S06, 97ZB04S07, 97ZB04S08, 97ZB04S09, 97ZB04S10, 97ZB04S11, 97ZB04S12, 97ZB04S13, 97ZB04S14, 97ZB04D14, 97ZB04S15, 97ZB04S16, 97ZB04S17, 97ZB04S18, 97ZB04S19, 97ZB04S20, 97ZB04R02 and 97ZB04R11

Results Status:
(x) Acceptable for Use
( ) Data Qualified, but Acceptable for use
( ) Data Unacceptable for Use
(x) Sewer Disposal Criteria Met; Exceptions: Acid preserved samples must be neutralized prior to disposal.

Comments on Data Quality by Reviewer

The matrix spike recovery for lead on sample 97ZB04S09 was 116.7%, outside the CRL's 100±15% acceptance limits. The other two spike recoveries for lead were 97.8% and 97.5%. This may affect data for samples 97ZB04S09, 97ZB04S10, 97ZB04S14 and 97ZB04D14. Thallium matrix spike recovery for sample 97ZB04S07 was 116.5%, but all thallium results were below detection, so a high recovery has little effect.

Comments by Laboratory Director or Quality Control Coordinator

John Moore 17 Apr 97

Peer/Task Monitor Review and Date (✓) Reviewed ( ) Unreviewed

John Moore 17 Apr 97

Team Leader and Date (✓) Reviewed ( ) Unreviewed

Chuck Elby 4/17/97

QC Coordinator and Date ( ) Reviewed (✓) Unreviewed
(position vacant)

Sylvia Griffin APR 17 1997

Data Management Coordinator and Date Received

Date Transmitted APR 17 1997

Please sign and date this form below and return it with any comments to:

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
ML - 10C

Received by and Date

Comments:

Method Number: GFAA Metals
Date Generated: April 14, 1997
Auther: Bai Yuen

Site Name: American Chemical Services
Charge Number(s): ESE51057
TDF Number: 5104-096
WAD Number: 05-97-1-04

GFAA NARRATIVE for Data Set 970071

Twenty-three ground water samples, 97ZB04S01-S20, D14, R02 and R11 were collected from the American Chemical Services site. The samples were submitted for the analysis of total arsenic, cadmium, lead, selenium and thallium by GFAA. The samples were collected on 03/25-03/28/97 and 03/31-04/01/97 and were received properly preserved by the CRL on 03/26, 03/28, 03/31, 04/01and 04/02/97. All samples were part of data set 970071.

All samples were digested following standard CRL GFAA digestion protocols. The samples were digested on 03/31/97 and 04/02/97. All analyses were performed within the six month holding time.

Analytical results were stored in .DAT files CDBY402.DAT, CDBY403.DAT, CDBY403A.DAT CDBY403B.DAT, ASBY401.DAT, ASBY402.DAT, ASBY402A.DAT, ASBY404.DAT, SEBY401.DAT, SEBY401A.DAT, SEBY404.DAT, TLJG0401.DAT, TLJG0403.DAT, TLJG0404.DAT, PBJG0402.DAT, PBJG402A.DAT, and PBJG0403.DAT.

Arsenic

Data Files ASBY401.DAT, ASBY402.DAT, ASBY402A.DAT and ASBY404.DAT

Arsenic was analyzed without incident.

All QC was within the specified control limits.

Cadmium

Data Files CDBY402.DAT, CDBY403.DAT, CDBY403A.DAT and CDBY403B.DAT

Cadmium was analyzed without incident.

All QC was within the specified control limits.

Lead

Data Files PBJG0402.DAT, PBJG402A.DAT, PBJG0403.DAT

Lead was analyzed without incident. The matrix spike recovery for sample 97ZB04S09 was 116.7%, which affects samples 97ZB04S09, S10, S14, and D14. This recovery, although above the CRL limit of 115%, is less than the 125% CLP limit. All other QC

Narrative by: Bai Yuen ESAT
Date: 4-14-97

audits were in control. It was necessary to analyze sample 97ZB04S10 4 times in order to obtain an acceptable post-digestion spike recovery. All lead data are acceptable.

Thallium

Data Files TLJG0401.DAT, TLJG0403.DAT, and TLJG0404.DAT

Thallium was analyzed without incident. The matrix spike recovery of 116.5% for sample 97ZB04S07 was greater than the CRL limit of 115%. All sample results in this digestion set were less than IDL, and all thallium data are acceptable.

All QC was within the specified control limits.

Selenium

Data Files SEBY401.DAT, SEBY401A.DAT and SEBY404.DAT

Selenium was analyzed without incident.

All QC was within the specified control limits.

Acceptable results for arsenic, cadmium, lead, selenium and thallium were obtained for the samples.

Narrative by: _____ ESAT
Date: 4-14-97

Method Number: 3114B
Date Generated: April 09, 1997
TDF Number: 5104-096

SiteName: AMERICAN CHEM.SERVICE
Charge Number: ESE-51-057
Work Assignment Number: 05-97-1-04

FIAS NARRATIVE for Data Set 970071

23 water samples from data set 970071 (97ZB04S01-20, D14,R02 and R11) were submitted for the analysis of total antimony by hydride AA. The water samples were collected on 03/26/97- 04/01/97 and were received by the CRL properly preserved on 03/27/97- 04/02/97.

All samples and standards were digested following standard CRL FIAS digestion protocols for waters on 03/31/97 and 04/03/97 and analyzed on 04/03/97. The samples results and all required QC were acceptable.

The hold time for metals is six months. All samples were analyzed within the six month hold time for metals. A spiked blank, used as a laboratory control sample (LFM), was digested and analyzed with the set of samples. Analytical results for 970071 were stored in .DAT files SBLL0403.DAT and SB0403LL.DAT.

Narrative by: F. Leonard ESAT
Date: 4/9/97

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY

Single Analyte Result Report, produced on: 15-APR-97

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER**
Date Collected: **28-MAR-97**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04D14**
Units: **ug/L**
Date Received: **28-MAR-97**

Parameter	Result	Anal. Date	Analyst	Comments
Antimony	1U	03-APR-97	L. Fox	
Arsenic Concentration	6	02-APR-97	B. Green	
Cadmium Concentration	0.2U	02-APR-97	B. Green	
Lead Concentration	14	02-APR-97	J. Harry	
Selenium Concentration	2U	01-APR-97	B. Green	
Thallium Concentration	2U	01-APR-97	J. Harry	

Team Leader: [illegible] 17 Apr 97

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY

Single Analyte Result Report, produced on: 15-APR-97

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER**
Date Collected: **26-MAR-97**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04R02**
Units: **ug/L**
Date Received: **28-MAR-97**

Parameter	Result	Anal. Date	Analyst	Comments
Antimony	1U	03-APR-97	L. Le	
Arsenic Concentration	2U	02-APR-97	B. Lynn	
Cadmium Concentration	0.2U	03-APR-97	B. Lynn	
Lead Concentration	2U	02-APR-97	J. Garry	
Selenium Concentration	2U	01-APR-97	B. Lynn	
Thallium Concentration	2U	01-APR-97	J. Garry	

Team Leader: JVM 17 Apr 97

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY

Single Analyte Result Report, produced on: 15-APR-97

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER**
Date Collected: **02-APR-97**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04R11**
Units: **ug/L**
Date Received: **02-APR-97**

Parameter	Result	Anal. Date	Analyst	Comments
Antimony	1U	03-APR-97	J. Fen	
Arsenic Concentration	2U	04-APR-97	B. Lynn	
Cadmium Concentration	0.2U	03-APR-97	B. Lynn	
Lead Concentration	2U	03-APR-97	J. Garry	
Selenium Concentration	4U	04-APR-97	B. Lynn	
Thallium Concentration	2U	04-APR-97	J. Garry	

Team Leader: JVM 17 Apr 97

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY

Single Analyte Result Report, produced on: 15-APR-97

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix:**WATER**
Date Collected:**25-MAR-97**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S01**
Units: **ug/L**
Date Received:**26-MAR-97**

Parameter	Result	Anal. Date	Analyst	Comments
Antimony	1U	03-APR-97	L. Fe[illegible]	
Arsenic Concentration	2U	02-APR-97	B. Y[illegible]	
Cadmium Concentration	0.2U	02-APR-97	B. Y[illegible]	
Lead Concentration	10	02-APR-97	J. Garry	
Selenium Concentration	2U	01-APR-97	B. Y[illegible]	
Thallium Concentration	2U	01-APR-97	J. Garry	

Team Leader: KM 17-Apr-97

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY

Single Analyte Result Report, produced on: 15-APR-97

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER**
Date Collected: **26-MAR-97**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S02**
Units: **ug/L**
Date Received: **26-MAR-97**

Parameter	Result	Anal. Date	Analyst	Comments
Antimony	1U	03-APR-97	L. Leon	
Arsenic Concentration	2U	02-APR-97	B. Yuen	
Cadmium Concentration	0.2U	03-APR-97	B. Yuen	
Lead Concentration	2U	02-APR-97	J. Garry	
Selenium Concentration	4U	01-APR-97	B. Yuen	
Thallium Concentration	2U	01-APR-97	J. Garry	

Team Leader: pm 17 Apr-97

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY

Single Analyte Result Report, produced on: 15-APR-97

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER**
Date Collected: **26-MAR-97**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S03**
Units: **ug/L**
Date Received: **28-MAR-97**

Parameter	Result	Anal. Date	Analyst	Comments
Antimony	1U	03-APR-97	L. Teo	
Arsenic Concentration	7	02-APR-97	B. Yu	
Cadmium Concentration	0.2U	03-APR-97	B. Yu	
Lead Concentration	3	02-APR-97	J. Garry	
Selenium Concentration	2U	01-APR-97	B. Yu	
Thallium Concentration	2U	01-APR-97	J. Garry	

Team Leader: JM 17 Apr 97

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY

Single Analyte Result Report, produced on: 15-APR-97

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER**
Date Collected: **27-MAR-97**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S04**
Units: **ug/L**
Date Received: **28-MAR-97**

Parameter	Result	Anal. Date	Analyst	Comments
Antimony	1U	03-APR-97	L. Teor	
Arsenic Concentration	2U	02-APR-97	B. Yuen	
Cadmium Concentration	0.2U	02-APR-97	B. Yuen	
Lead Concentration	3	02-APR-97	J. Harry	
Selenium Concentration	2U	01-APR-97	B. Yuen	
Thallium Concentration	2U	01-APR-97	J. Harry	

Team Leader: JVM 17 Apr 97

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY

Single Analyte Result Report, produced on: 15-APR-97

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER**
Date Collected: **27-MAR-97**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S05**
Units: **ug/L**
Date Received: **28-MAR-97**

Parameter	Result	Anal. Date	Analyst	Comments
Antimony	1U	03-APR-97	Z. Leon	
Arsenic Concentration	2U	02-APR-97	B. Yuen	
Cadmium Concentration	0.5	03-APR-97	B. Yuen	
Lead Concentration	4	02-APR-97	J. Garry	
Selenium Concentration	4U	01-APR-97	B. Yuen	
Thallium Concentration	2U	01-APR-97	J. Garry	

Team Leader: Ivan 17 Apr 97

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY

Single Analyte Result Report, produced on: 15-APR-97

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER**
Date Collected: **27-MAR-97**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S06**
Units: **ug/L**
Date Received: **28-MAR-97**

Parameter	Result	Anal. Date	Analyst	Comments
Antimony	1U	03-APR-97	Z. Feor	
Arsenic Concentration	2U	02-APR-97	B. Lynn	
Cadmium Concentration	0.2U	03-APR-97	B. Lynn	
Lead Concentration	2U	02-APR-97	J. Garry	
Selenium Concentration	4U	01-APR-97	B. Lynn	
Thallium Concentration	2U	01-APR-97	J. Garry	

Team Leader: Jw 17 Apr 97

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY

Single Analyte Result Report, produced on: 15-APR-97

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER**
Date Collected: **27-MAR-97**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S07**
Units: **ug/L**
Date Received: **28-MAR-97**

Parameter	Result	Anal. Date	Analyst	Comments
Antimony	1U	03-APR-97	L. Ice	
Arsenic Concentration	5	04-APR-97	B. Yuen	
Cadmium Concentration	0.2U	03-APR-97	B. Yuen	
Lead Concentration	2U	03-APR-97	J. Garry	
Selenium Concentration	2U	04-APR-97	B. Yuen	
Thallium Concentration	2U	04-APR-97	J. Garry	

Team Leader: Jm 17 Apr 97

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY

Single Analyte Result Report, produced on: 15-APR-97

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix:**WATER**
Date Collected:**27-MAR-97**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S08**
Units: **ug/L**
Date Received:**28-MAR-97**

Parameter	Result	Anal. Date	Analyst	Comments
Antimony	1U	03-APR-97	L. Leon	
Arsenic Concentration	2U	02-APR-97	B. Lynn	
Cadmium Concentration	0.2U	03-APR-97	B. Lynn	
Lead Concentration	17	02-APR-97	J. Garry	
Selenium Concentration	2U	01-APR-97	B. Lynn	
Thallium Concentration	2U	01-APR-97	J. Garry	

Team Leader: Jim 17 Apr 97

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY

Single Analyte Result Report, produced on: 15-APR-97

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER**
Date Collected: **27-MAR-97**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S09**
Units: **ug/L**
Date Received: **28-MAR-97**

Parameter	Result	Anal. Date	Analyst	Comments
Antimony	1U	03-APR-97	T. Fo	
Arsenic Concentration	5	01-APR-97	B. Y	
Cadmium Concentration	0.2U	02-APR-97	B. Y	
Lead Concentration	2U	02-APR-97	J. Gary	
Selenium Concentration	2U	01-APR-97	B. Y	
Thallium Concentration	2U	01-APR-97	J. Gary	

Team Leader: 17 Apr 97

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY

Single Analyte Result Report, produced on: 15-APR-97

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER**
Date Collected: **27-MAR-97**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S10**
Units: **ug/L**
Date Received: **28-MAR-97**

Parameter	Result	Anal. Date	Analyst	Comments
Antimony	1U	03-APR-97	Z. Fe[illegible]	
Arsenic Concentration	3	02-APR-97	B. Y[illegible]	
Cadmium Concentration	0.6	02-APR-97	B. Y[illegible]	
Lead Concentration	5	02-APR-97	J. Gary	
Selenium Concentration	4U	01-APR-97	B. Y[illegible]	
Thallium Concentration	2U	01-APR-97	J. Gary	

Team Leader: pm 17 Apr 97

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY

Single Analyte Result Report, produced on: 15-APR-97

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER**
Date Collected: **27-MAR-97**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S11**
Units: **ug/L**
Date Received: **28-MAR-97**

Parameter	Result	Anal. Date	Analyst	Comments
Antimony	1U	03-APR-97	Z. Fen	
Arsenic Concentration	5	04-APR-97	B. Lynn	
Cadmium Concentration	0.3	03-APR-97	B. Lynn	
Lead Concentration	5	03-APR-97	J. Harry	
Selenium Concentration	6U	04-APR-97	B. Lynn	
Thallium Concentration	2U	04-APR-97	J. Harry	

Team Leader: JVM 17 Apr 97

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY

Single Analyte Result Report, produced on: 15-APR-97

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER**
Date Collected: **26-MAR-97**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S12**
Units: **ug/L**
Date Received: **26-MAR-97**

Parameter	Result	Anal. Date	Analyst	Comments
Antimony	1U	03-APR-97	L. Fe	
Arsenic Concentration	2U	02-APR-97	B. Yun	
Cadmium Concentration	0.2U	02-APR-97	B. Yun	
Lead Concentration	7	02-APR-97	J. Garz	
Selenium Concentration	2U	01-APR-97	B. Yun	
Thallium Concentration	2U	01-APR-97	J. Garz	

Team Leader: JVM 17 Apr 97

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY

Single Analyte Result Report, produced on: 15-APR-97

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER**
Date Collected: **26-MAR-97**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S13**
Units: **ug/L**
Date Received: **26-MAR-97**

Parameter	Result	Anal. Date	Analyst	Comments
Antimony	1U	03-APR-97		
Arsenic Concentration	3	02-APR-97		
Cadmium Concentration	0.2U	02-APR-97		
Lead Concentration	9	02-APR-97		
Selenium Concentration	4U	01-APR-97		
Thallium Concentration	2U	01-APR-97		

Team Leader: _____ 17 Apr 97

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY

Single Analyte Result Report, produced on: 15-APR-97

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER**
Date Collected: **28-MAR-97**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S14**
Units: **ug/L**
Date Received: **28-MAR-97**

Parameter	Result	Anal. Date	Analyst	Comments
Antimony	1U	03-APR-97	[illegible]	
Arsenic Concentration	6	02-APR-97	B. [illegible]	
Cadmium Concentration	0.3	02-APR-97	B. [illegible]	
Lead Concentration	17	02-APR-97	J. Garry	
Selenium Concentration	4U	01-APR-97	B. [illegible]	
Thallium Concentration	2U	01-APR-97	J. Garry	

Team Leader: [illegible] 17 Apr 97

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY

Single Analyte Result Report, produced on: 15-APR-97

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix:**WATER**
Date Collected:**31-MAR-97**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S15**
Units: **ug/L**
Date Received:**28-MAR-97**

Parameter	Result	Anal. Date	Analyst	Comments
Antimony	1U	03-APR-97	L. Fer	
Arsenic Concentration	2U	04-APR-97	B. Yun	
Cadmium Concentration	0.2U	03-APR-97	B. Yun	
Lead Concentration	2U	03-APR-97	J. Garry	
Selenium Concentration	2U	04-APR-97	B. Yun	
Thallium Concentration	2U	04-APR-97	J. Garry	

Team Leader: lm 17 Apr 97

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY

Single Analyte Result Report, produced on: 15-APR-97

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER**
Date Collected: **31-MAR-97**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S16**
Units: **ug/L**
Date Received: **28-MAR-97**

Parameter	Result	Anal. Date	Analyst	Comments
Antimony	1U	03-APR-97	L. Lee	
Arsenic Concentration	2U	04-APR-97	B. Yun	
Cadmium Concentration	0.2U	03-APR-97	B. Yun	
Lead Concentration	2U	03-APR-97	J. Harry	
Selenium Concentration	6U	04-APR-97	B. Yun	
Thallium Concentration	2U	04-APR-97	J. Harry	

Team Leader: JM 17 Apr 97

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY

Single Analyte Result Report, produced on: 15-APR-97

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER**
Date Collected: **31-MAR-97**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S17**
Units: **ug/L**
Date Received: **28-MAR-97**

Parameter	Result	Anal. Date	Analyst	Comments
Antimony	1U	03-APR-97	L. [illegible]	
Arsenic Concentration	2U	04-APR-97	B. [illegible]	
Cadmium Concentration	0.2U	03-APR-97	B. [illegible]	
Lead Concentration	2U	03-APR-97	J. Gary	
Selenium Concentration	2U	04-APR-97	B. [illegible]	
Thallium Concentration	2U	04-APR-97	J. Gary	

Team Leader: [illegible] 17 Apr 97

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY

Single Analyte Result Report, produced on: 15-APR-97

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix:**WATER**
Date Collected:**01-APR-97**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S18**
Units: **ug/L**
Date Received:**28-MAR-97**

Parameter	Result	Anal. Date	Analyst	Comments
Antimony	1U	03-APR-97	Z. Fe	
Arsenic Concentration	2U	04-APR-97	B. Green	
Cadmium Concentration	0.2U	03-APR-97	B. Green	
Lead Concentration	2U	03-APR-97	J. Gary	
Selenium Concentration	2U	04-APR-97	B. Green	
Thallium Concentration	2U	04-APR-97	J. Gary	

Team Leader: 17-Apr-97

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY

Single Analyte Result Report, produced on: 15-APR-97

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix:**WATER**
Date Collected:**01-APR-97**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S19**
Units: **ug/L**
Date Received:**02-APR-97**

Parameter	Result	Anal. Date	Analyst	Comments
Antimony	1U	03-APR-97	L. [illegible]	
Arsenic Concentration	2U	04-APR-97	B. Green	
Cadmium Concentration	0.2U	03-APR-97	B. Green	
Lead Concentration	2U	03-APR-97	J. Harry	
Selenium Concentration	4U	04-APR-97	B. Green	
Thallium Concentration	2U	04-APR-97	J. Harry	

Team Leader: [illegible] 17 Apr 97

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY

Single Analyte Result Report, produced on: 15-APR-97

Sample organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Facility: **AMERICAN CHEMICAL SERVICES INC**
Matrix: **WATER**
Date Collected: **02-APR-97**

Sample Batch ID: **970071**
Account No: **TFA301**
Sample ID: **97ZB04S20**
Units: **ug/L**
Date Received: **02-APR-97**

Parameter	Result	Anal. Date	Analyst	Comments
Antimony	1U	03-APR-97	T. Ter	
Arsenic Concentration	2	04-APR-97	B. Yun	
Cadmium Concentration	1.4	03-APR-97	B. Yun	
Lead Concentration	7	03-APR-97	J. Harry	
Selenium Concentration	4U	04-APR-97	B. Yun	
Thallium Concentration	2U	04-APR-97	J. Harry	

Team Leader: Jun 17 Apr 97

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 CENTRAL REGIONAL LABORATORY

536 SOUTH CLARK STREET

CHICAGO, ILLINOIS 60605

Date: APR 28 1997

Subject: Review of Region 5 Data for **AMERICAN CHEMICAL SERVICES INC.**

From: Charles T. Elly, Director Chuck Elly
Region 5 Central Regional Laboratory

To: BE ✓

Attached are the results for **AMERICAN CHEMICAL SERVICES INC.**
CRL request number **970071**
for analyses for **Cyanide**
Results are reported for sample designations: 97ZB04S01, 97ZB04S02, 97ZB04S03, 97ZB04S04, 97ZB04S05, 97ZB04S06, 97ZB04S07, 97ZB04S08, 97ZB04S09, 97ZB04S10, 97ZB04S11, 97ZB04S12, 97ZB04S13, 97ZB04S14, 97ZB04D14, 97ZB04S15, 97ZB04S16, 97ZB04S17, 97ZB04S18, 97ZB04S19, 97ZB04S20, 97ZB04R02, and 97ZB04R11.

Results Status:

(X) Acceptable for Use: **Cyanide**
( ) Data Qualified, but Acceptable for use:
( ) Data Unacceptable for Use:

( ) Sewer Disposal Criteria Met;

Cyanide: Portions of all of the above samples which were collected and submitted for cyanide analyses are preserved with sodium hydroxide reagents. Samples 97ZB04S14 and 97ZB04D14 should be disposed of in a drum. Cyanide concentrations in those samples exceeded the laboratory detection limit of 2 μg/L. The remaining samples should be neutralized prior to disposal down the drain provided that the concentrations of other analytes are less than laboratory detection or other controlling limits. Cyanide concentrations in those samples are below the laboratory detection limit.

Comments on Data Quality by Reviewer:

All the samples submitted for Cyanide analysis were assayed and the results are attached. Required quality control criteria for the laboratory, method, and system performance audits were evaluated and determined to be within the limits. Cyanide results are acceptable for use.

Comments on Sample Results:

All the cyanide results are acceptable for use.

Comments by Laboratory Director or Quality Control Coordinator:

Francis A. Awanya 4/24/97
Review and Date (X) Reviewed ( ) Unreviewed

[illegible] 24 Apr 97
Team Leader and Date (✓) Reviewed ( ) Unreviewed

Chuck E Oly 4/28/97
QC Coordinator and Date ( ) Reviewed (✓) Unreviewed

Sylvia Griffin APR 28 1997
Data Management Coordinator and Date Received

Date Transmitted APR 28 1997

Please sign and date this form below and return it with any comments to:

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
SL - 10C

Received by and Date

Comments:

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT for the team: MINERALS-NUTRIENTS

Report produced on: 25-APR-97

Sample Organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Laboratory: **ESAT**

Sample Batch ID: **970071**
Account NO: **TFA301**
Facility: **AMERICAN CHEMICAL SERVICES INC**

Sample: **97ZB04D14**
Field: **97ZB04D14**

Collected: **28-MAR-97 /**
Received: **28-MAR-97**

Parameter	Result	(Units)	QUALIFIERS	Anal. Date	Analyst
Cyanide (TOTAL)	22	(ug/L)		01-APR-97	S. Tobin

Reviewed by : Francis A. Awanya 4/28/97

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT for the team: MINERALS-NUTRIENTS

Report produced on: 25-APR-97

Sample Organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Laboratory: **ESAT**

Sample Batch ID: **970071**
Account NO: **TFA301**
Facility: **AMERICAN CHEMICAL SERVICES INC**

Sample: **97ZB04R02**

Field: **97ZB04R02**

Collected: **26-MAR-97 /**

Received: **28-MAR-97**

Parameter	Result	(Units)	QUALIFIERS	Anal. Date	Analyst
Cyanide (TOTAL)	8	(ug/L)	U	01-APR-97	S Tebin

Reviewed by : Francis A. Awanya 4/28/97

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT for the team: MINERALS-NUTRIENTS

Report produced on: 25-APR-97

Sample Organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Laboratory: **ESAT**

Sample Batch ID: **970071**
Account NO: **TFA301**
Facility: **AMERICAN CHEMICAL SERVICES INC**

Sample: **97ZB04R11**

Field: **97ZB04R11**

Collected: **02-APR-97 /**

Received: **02-APR-97**

Parameter	Result	(Units)	QUALIFIERS	Anal. Date	Analyst
Cyanide (TOTAL)	8	(ug/L)	U	10-APR-97	S. Tebin

Reviewed by : Francis A. Awanga 4/28/97

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT for the team: MINERALS-NUTRIENTS

Report produced on: 25-APR-97

Sample Organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Laboratory: **ESAT**

Sample Batch ID: **970071**
Account NO: **TFA301**
Facility: **AMERICAN CHEMICAL SERVICES INC**

Sample: **97ZB04S01**
Field: **97ZB04S01**

Collected: **25-MAR-97 /**
Received: **26-MAR-97**

Parameter	Result	(Units)	QUALIFIERS	Anal. Date	Analyst
Cyanide (TOTAL)	8	(ug/L)	U	01-APR-97	S. Tidzin

Reviewed by : Francis A. Awanya 4/28/97

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT for the team: MINERALS-NUTRIENTS

Report produced on: 25-APR-97

Sample Organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Laboratory: **ESAT**

Sample Batch ID: **970071**
Account NO: **TFA301**
Facility: **AMERICAN CHEMICAL SERVICES INC**

Sample: **97ZB04S02**

Field: **97ZB04S02**

Collected: **26-MAR-97 /**

Received: **26-MAR-97**

Parameter	Result	(Units)	QUALIFIERS	Anal. Date	Analyst
Cyanide (TOTAL)	8	(ug/L)	U	01-APR-97	S Tobin

Reviewed by : Francis A. Awanya 4/28/97

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT for the team: MINERALS-NUTRIENTS

Report produced on: 25-APR-97

Sample Organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Laboratory: **ESAT**

Sample Batch ID: **970071**
Account NO: **TFA301**
Facility: **AMERICAN CHEMICAL SERVICES INC**

Sample: **97ZB04S03**
Field: **97ZB04S03**

Collected: **26-MAR-97 /**
Received: **28-MAR-97**

Parameter	Result	(Units)	QUALIFIERS	Anal. Date	Analyst
Cyanide (TOTAL)	8	(ug/L)	U	01-APR-97	S. Tebon

Reviewed by : Francis A. Awanya 4/28/97

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT for the team: MINERALS-NUTRIENTS

Report produced on: 25-APR-97

Sample Organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Laboratory: **ESAT**

Sample Batch ID: **970071**
Account NO: **TFA301**
Facility: **AMERICAN CHEMICAL SERVICES INC**

Sample: **97ZB04S04**

Field: **97ZB04S04**

Collected: **27-MAR-97 /**

Received: **28-MAR-97**

Parameter	Result	(Units)	QUALIFIERS	Anal. Date	Analyst
Cyanide (TOTAL)	8	(ug/L)	U	01-APR-97	S Tebin

Reviewed by : Francis A. Awanya 4/28/97

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT for the team: MINERALS-NUTRIENTS

Report produced on: 25-APR-97

Sample Organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Laboratory: **ESAT**

Sample Batch ID: **970071**
Account NO: **TFA301**
Facility: **AMERICAN CHEMICAL SERVICES INC**

Sample: **97ZB04S05**
Field: **97ZB04S05**

Collected: **27-MAR-97 /**
Received: **28-MAR-97**

Parameter	Result	(Units)	QUALIFIERS	Anal. Date	Analyst
Cyanide (TOTAL)	8	(ug/L)	U	01-APR-97	S. Tobin

Reviewed by : Francis A. Awanga 4/28/97

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT for the team: MINERALS-NUTRIENTS

Report produced on: 25-APR-97

Sample Organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Laboratory: **ESAT**

Sample Batch ID: **970071**
Account NO: **TFA301**
Facility: **AMERICAN CHEMICAL SERVICES INC**

Sample: **97ZB04S06**
Field: **97ZB04S06**

Collected: **27-MAR-97 /**
Received: **28-MAR-97**

Parameter	Result	(Units)	QUALIFIERS	Anal. Date	Analyst
Cyanide (TOTAL)	8	(ug/L)	U	01-APR-97	S. Tolson

Reviewed by : Francis A. Awanya 4/28/97

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT for the team: MINERALS-NUTRIENTS

Report produced on: 25-APR-97

Sample Organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Laboratory: **ESAT**

Sample Batch ID: **970071**
Account NO: **TFA301**
Facility: **AMERICAN CHEMICAL SERVICES INC**

Sample: **97ZB04S07**

Field: **97ZB04S07**

Collected: **27-MAR-97 /**

Received: **28-MAR-97**

Parameter	Result	(Units)	QUALIFIERS	Anal. Date	Analyst
Cyanide (TOTAL)	8	(ug/L)	U	10-APR-97	S. Tobin

Reviewed by : Francis A. Avoanya 4/28/97

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT for the team: MINERALS-NUTRIENTS

Report produced on: 25-APR-97

Sample Organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Laboratory: **ESAT**

Sample Batch ID: **970071**
Account NO: **TFA301**
Facility: **AMERICAN CHEMICAL SERVICES INC**

Sample: **97ZB04S08**

Field: **97ZB04S08**

Collected: **27-MAR-97 /**

Received: **28-MAR-97**

Parameter	Result	(Units)	QUALIFIERS	Anal. Date	Analyst
Cyanide (TOTAL)	8	(ug/L)	U	01-APR-97	S. Tahsin

Reviewed by : Francis A. Awanga 4/28/97

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT for the team: MINERALS-NUTRIENTS

Report produced on: 25-APR-97

Sample Organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Laboratory: **ESAT**

Sample Batch ID: **970071**
Account NO: **TFA301**
Facility: **AMERICAN CHEMICAL SERVICES INC**

Sample: **97ZB04S09**

Field: **97ZB04S09**

Collected: **27-MAR-97 /**

Received: **28-MAR-97**

Parameter	Result	(Units)	QUALIFIERS	Anal. Date	Analyst
Cyanide (TOTAL)	8	(ug/L)	U	01-APR-97	S. Tohn

Reviewed by : Francis A. Awanya 4/28/97

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT for the team: MINERALS-NUTRIENTS

Report produced on: 25-APR-97

Sample Organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Laboratory: **ESAT**

Sample Batch ID: **970071**
Account NO: **TFA301**
Facility: **AMERICAN CHEMICAL SERVICES INC**

Sample: **97ZB04S10**

Field: **97ZB04S10**

Collected: **27-MAR-97 /**

Received: **28-MAR-97**

Parameter	Result	(Units)	QUALIFIERS	Anal. Date	Analyst
Cyanide (TOTAL)	8	(ug/L)	U	01-APR-97	S. Tohm

Reviewed by : Francis A. Awanga 4/28/97

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT for the team: MINERALS-NUTRIENTS

Report produced on: 25-APR-97

Sample Organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Laboratory: **ESAT**

Sample Batch ID: **970071**
Account NO: **TFA301**
Facility: **AMERICAN CHEMICAL SERVICES INC**

Sample: **97ZB04S11**
Field: **97ZB04S11**

Collected: **27-MAR-97 /**
Received: **28-MAR-97**

Parameter	Result	(Units)	QUALIFIERS	Anal. Date	Analyst
Cyanide (TOTAL)	8	(ug/L)	U	10-APR-97	S. Tchan

Reviewed by : Francis A. Aroangu 4/28/97

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT for the team: MINERALS-NUTRIENTS

Report produced on: 25-APR-97

Sample Organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Laboratory: **ESAT**

Sample Batch ID: **970071**
Account NO: **TFA301**
Facility: **AMERICAN CHEMICAL SERVICES INC**

Sample: **97ZB04S12**

Field: **97ZB04S12**

Collected: **26-MAR-97 /**

Received: **26-MAR-97**

Parameter	Result	(Units)	QUALIFIERS	Anal. Date	Analyst
Cyanide (TOTAL)	8	(ug/L)	U	01-APR-97	S Tebin

Reviewed by : Francis A. Awanya 4/28/97

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT for the team: MINERALS-NUTRIENTS

Report produced on: 25-APR-97

Sample Organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Laboratory: **ESAT**

Sample Batch ID: **970071**
Account NO: **TFA301**
Facility: **AMERICAN CHEMICAL SERVICES INC**

Sample: **97ZB04S13**

Field: **97ZB04S13**

Collected: **26-MAR-97 /**

Received: **26-MAR-97**

Parameter	Result	(Units)	QUALIFIERS	Anal. Date	Analyst
Cyanide (TOTAL)	8	(ug/L)	U	01-APR-97	S Tubin

Reviewed by : Francis A. Avanga 4/28/97

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT for the team: MINERALS-NUTRIENTS

Report produced on: 25-APR-97

Sample Organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Laboratory: **ESAT**

Sample Batch ID: **970071**
Account NO: **TFA301**
Facility: **AMERICAN CHEMICAL SERVICES INC**

Sample: **97ZB04S14**

Field: **97ZB04S14**

Collected: **28-MAR-97 /**

Received: **28-MAR-97**

Parameter	Result	(Units)	QUALIFIERS	Anal. Date	Analyst
Cyanide (TOTAL)	15	(ug/L)		01-APR-97	S. Tchin

Reviewed by : Francis A. Awanya 4/28/97

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT for the team: MINERALS-NUTRIENTS

Report produced on: 25-APR-97

Sample Organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Laboratory: **ESAT**

Sample Batch ID: **970071**
Account NO: **TFA301**
Facility: **AMERICAN CHEMICAL SERVICES INC**

Sample: **97ZB04S15**

Field: **97ZB04S15**

Collected: **31-MAR-97 /**

Received: **28-MAR-97**

Parameter	Result	(Units)	QUALIFIERS	Anal. Date	Analyst
Cyanide (TOTAL)	8	(ug/L)	U	10-APR-97	S. Tobin

Reviewed by : Francis A. Avanzato 4/28/97

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT for the team: MINERALS-NUTRIENTS

Report produced on: 25-APR-97

Sample Organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Laboratory: **ESAT**

Sample Batch ID: **970071**
Account NO: **TFA301**
Facility: **AMERICAN CHEMICAL SERVICES INC**

Sample: **97ZB04S16**
Field: **97ZB04S16**

Collected: **31-MAR-97 /**
Received: **28-MAR-97**

Parameter	Result	(Units)	QUALIFIERS	Anal. Date	Analyst
Cyanide (TOTAL)	8	(ug/L)	U	10-APR-97	S Tekam

Reviewed by : Francis A Awanga 4/28/97

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT for the team: MINERALS-NUTRIENTS

Report produced on: 25-APR-97

Sample Organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Laboratory: **ESAT**

Sample Batch ID: **970071**
Account NO: **TFA301**
Facility: **AMERICAN CHEMICAL SERVICES INC**

Sample: **97ZB04S17**
Field: **97ZB04S17**

Collected: **31-MAR-97 /**
Received: **28-MAR-97**

Parameter	Result	(Units)	QUALIFIERS	Anal. Date	Analyst
Cyanide (TOTAL)	8	(ug/L)	U	10-APR-97	S Tobin

Reviewed by : Francis A. Avanaya 4/28/97

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT for the team: MINERALS-NUTRIENTS

Report produced on: 25-APR-97

Sample Organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Laboratory: **ESAT**

Sample Batch ID: **970071**
Account NO: **TFA301**
Facility: **AMERICAN CHEMICAL SERVICES INC**

Sample: **97ZB04S18**
Field: **97ZB04S18**

Collected: **01-APR-97 /**
Received: **28-MAR-97**

Parameter	Result	(Units)	QUALIFIERS	Anal. Date	Analyst
Cyanide (TOTAL)	8	(ug/L)	U	10-APR-97	S. Tobin

Reviewed by : Francis A. Awanga 4/28/97

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT for the team: MINERALS-NUTRIENTS

Report produced on: 25-APR-97

Sample Organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Laboratory: **ESAT**

Sample Batch ID: **970071**
Account NO: **TFA301**
Facility: **AMERICAN CHEMICAL SERVICES INC**

Sample: **97ZB04S19**
Field: **97ZB04S19**

Collected: **01-APR-97 /**
Received: **02-APR-97**

Parameter	Result	(Units)	QUALIFIERS	Anal. Date	Analyst
Cyanide (TOTAL)	8	(ug/L)	U	10-APR-97	S. Tetn

Reviewed by : Francis A. Awanya 4/28/97

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT for the team: MINERALS-NUTRIENTS

Report produced on: 25-APR-97

Sample Organization: **B & V**
Sample Requestor: **ASWOK LUPARR1**
Laboratory: **ESAT**

Sample Batch ID: **970071**
Account NO: **TFA301**
Facility: **AMERICAN CHEMICAL SERVICES INC**

Sample: **97ZB04S20**

Field: **97ZB04S20**

Collected: **02-APR-97 /**

Received: **02-APR-97**

Parameter	Result	(Units)	QUALIFIERS	Anal. Date	Analyst
Cyanide (TOTAL)	8	(ug/L)	U	10-APR-97	S. Tohm

Reviewed by : Francis A. Awanga 4/28/97