ST. LOUIS SMELTING AND REFINING
MADISON COUNTY
COLLINSVILLE, ILLINOIS
ILD980607006
LPC# 1194280014
SUPERFUND/ HRS

CERCLA

Analytical Results

Illinois Environmental
Protection Agency

EPA Region 5 Records Ctr.
283170

Appendix D

Analytical Package

DATE: November 12, 2002

IEPA
1021 North Grand Avenue East
P.O. Box 19276
Springfield, IL 62794-9276

Attn: Bob Casper

SITE NAME: St. Louis Smelting & Refinishing

CASE NO.	LAB	NO. OF SAMPLES	SDG	MATRIX
31061	Compuchem	15	ME01F1	Soil

==========

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

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

Data Received by:_____ Date:_____

PROBLEMS:

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

_____

_____

Received by Data Management Coordinator, CRL for file.
Date:_____

Signature:_____

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

RECEIVED
NOV 15 2002
EPA-BOL-FORS

Sent By: Eva M. Dixon, Sr. Data Specialist
ESAT

NOV 1 2 2002

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: November 12, 2002

SUBJECT: Review of Data
Received for Review on November 8, 2002

FROM: Stephen L. Ostrodka, Chief (SMF-4J)
Superfund Field Services Section

TO: Data User: IEPA

The data in this case has not been validated.
We have compiled the CADRE files into a narrative format for the following case:

SITE NAME: St. Louis Smelting & Refining

CA NUMBER: 31061 SDG NUMBER: ME01F1

Number and Type of Samples: 15 soils

Sample Numbers: ME01F1-9; ME01G0-5

Laboratory: Compuchem Hrs. for Review: 2

Following are our findings:

CC: Cecilia Moore
Region 5 TPO
Mail Code: SM-5J

Case Number : 31061
Site Name: St. Louis Smelting & Refining

SDG Number: ME01F1
Laboratory: Compuchem

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

Fifteen soil samples numbered ME01F1-9 and ME01G0-5 were collected on October 15-18, 2002. The lab received the samples on October 19, 2002 in good condition. All samples were analyzed for metals and cyanide. All samples were analyzed using CLP SOW ILM04.1 analysis procedures.

Mercury analysis was performed using a Cold Vapor AA Technique. Cyanide analysis was performed using the MIDI Distillation procedure. The remaining inorganic analyses were performed using an Inductively Coupled Plasma-Atomic Emission Spectrometric procedure.

Assembled By: ESAT
Date: November 12, 2002

Case Number : 31061
Site Name: St. Louis Smelting & Refining

SDG Number: ME01F1
Laboratory: Compuchem

1 HOLDING TIME:

Holding Time Report

SDG NO: ME01F1

HOLDING TIME CRITERIA

Inorganic

	-- Holding Time --		------- pH -------	
	Primary	Expanded	Primary	Expanded
Metals	180	0	2.0	0.0
Mercury	28	0	2.0	0.0
Cyanide	14	0	12.0	0.0

DC-280: The following inorganic soil samples were reviewed for holding time violations using criteria developed for water samples.

ME01F1, ME01F1D, ME01F1S, ME01F2, ME01F3, ME01F4
ME01F5, ME01F6, ME01F7, ME01F8, ME01F9, ME01G0
ME01G1, ME01G2, ME01G3, ME01G4, ME01G5

CALIBRATIONS:

Calibration Report

SDG NO: ME01F1

CALIBRATION CRITERIA

Inorganic

Percent Recovery Limits

	--- Primary ---		-- Expanded ---	
	Low	High	Low	High
Cyanide	85.00	115.00	70.00	130.00
AA	90.00	110.00	75.00	125.00
ICP	90.00	110.00	75.00	125.00
Mercury	80.00	120.00	65.00	135.00

No problems found for this qualification.

Assembled By: ESAT
Date: November 12, 2002

Case Number : 31061
Site Name: St. Louis Smelting & Refining

SDG Number: ME01F1
Laboratory: Compuchem

CRDL Standards Report

SDG NO: ME01F1

DC-373: The following inorganic samples are associated with a CRDL standard with low percent recovery.

Thallium
ME01F1, ME01F2, ME01F3, ME01F4, ME01F5, ME01F6
ME01F7, ME01F8, ME01F9, ME01G0, ME01G1, ME01G2
ME01G3, ME01G4, ME01G5, PBS02

Zinc
ME01F1, ME01F2, ME01F3, ME01F4, ME01F5, ME01F6
ME01F7, ME01F8, ME01F9, ME01G0, ME01G1, ME01G2
ME01G3, ME01G4, ME01G5, PBS02

DC-374: The following inorganic samples are associated with a CRDL standard with high percent recovery.
Hits and non-detects are flagged .

Lead
ME01F1, ME01F2, ME01F3, ME01F4, ME01F5, ME01F6
ME01F7, ME01F8, ME01F9, ME01G0, ME01G1, ME01G2
ME01G3, ME01G4, ME01G5

Selenium
ME01F1, ME01F2, ME01F3, ME01F4, ME01F5, ME01F6
PBS02

3. BLANKS:

Laboratory Blanks Report

SDG NO: ME01F1

LABORATORY BLANKS CRITERIA

DC-283: The following inorganic samples are associated with a blank analyte with negative concentration whose absolute value is greater than the instrument detection limit (IDL). Professional judgement should be used to qualify the data.

ME01F1
Calcium, Zinc, Cyanide

ME01F1D
Calcium, Zinc, Cyanide

ME01F1S
Zinc, Cyanide

ME01F2
Calcium, Zinc, Cyanide

Assembled By: ESAT
Date: November 12, 2002

ME01F3
Calcium, Zinc, Cyanide

ME01F4
Calcium, Zinc, Cyanide

ME01F5
Calcium, Zinc, Cyanide

ME01F6
Calcium, Zinc, Cyanide

ME01F7
Calcium, Zinc, Cyanide

ME01F8
Calcium, Zinc, Cyanide

ME01F9
Calcium, Zinc, Cyanide

ME01G0
Calcium, Zinc, Cyanide

ME01G1
Calcium, Zinc, Cyanide

ME01G2
Calcium, Zinc, Cyanide

ME01G3
Calcium, Zinc, Cyanide

ME01G4
Calcium, Zinc, Cyanide

ME01G5
Calcium, Zinc, Cyanide

DC-284: The following inorganic samples are associated with a blank concentration which is greater than the instrument detection limit (IDL). The sample concentration is also greater than the IDL and less than five times the blank concentration. Hits are qualified "J"; non-detects are not flagged.

Barium
ME01F1A

Beryllium
ME01F1A, ME01F3, ME01F4, ME01F5, ME01F8, ME01F9
ME01G0, ME01G1, ME01G2, ME01G4, ME01G5

DC-338: During review of the following inorganic samples, the reported IDL/default CRDL value was used for cyanide.

ME01F1, ME01F1D, ME01F1S, ME01F2, ME01F3, ME01F4
ME01F5, ME01F6, ME01F7, ME01F8, ME01F9, ME01G0
ME01G1, ME01G2, ME01G3, ME01G4, ME01G5

4. MATRIX SPIKE/MATRIX SPIKE DUPLICATE AND LAB CONTROL SAMPLE:

Case Number : 31061
Site Name: St. Louis Smelting & Refining

SDG Number: ME01F1
Laboratory: Compuchem

Matrix Spike Report

SDG NO: ME01F1

MATRIX SPIKE CRITERIA

Inorganic

Percent Recovery Limits

Upper	125.0
Lower	75.0
Extreme lower	30.0

DC-266: The following inorganic samples are associated with a matrix spike recovery which was not within criteria and the required post digestion spike analysis was not performed.
Hits and non-detects are not flagged. However, the information must be included in the IRDA report.

Chromium
ME01F1, ME01F1D, ME01F2, ME01F3, ME01F4, ME01F5
ME01F6, ME01F7, ME01F8, ME01F9, ME01G0, ME01G1
ME01G2, ME01G3, ME01G4, ME01G5

DC-268: The following inorganic samples are associated with a matrix spike recovery which is low (30-74 %) indicating that sample results may be biased low.
Hits are qualified "J" and non-detects are qualified "UJ".

Antimony
ME01F1, ME01F1A, ME01F1D, ME01F2, ME01F3, ME01F4
ME01F5, ME01F6, ME01F7, ME01F8, ME01F9, ME01G0
ME01G1, ME01G2, ME01G3, ME01G4, ME01G5

Barium
ME01F1, ME01F1A, ME01F1D, ME01F2, ME01F3, ME01F4
ME01F5, ME01F6, ME01F7, ME01F8, ME01F9, ME01G0
ME01G1, ME01G2, ME01G3, ME01G4, ME01G5

Beryllium
ME01F1, ME01F1A, ME01F1D, ME01F2, ME01F3, ME01F4
ME01F5, ME01F6, ME01F7, ME01F8, ME01F9, ME01G0
ME01G1, ME01G2, ME01G3, ME01G4, ME01G5

Cadmium
ME01F1, ME01F1A, ME01F1D, ME01F2, ME01F3, ME01F4
ME01F5, ME01F6, ME01F7, ME01F8, ME01F9, ME01G0
ME01G1, ME01G2, ME01G3, ME01G4, ME01G5

Chromium
ME01F1, ME01F1D, ME01F2, ME01F3, ME01F4, ME01F5
ME01F6, ME01F7, ME01F8, ME01F9, ME01G0, ME01G1
ME01G2, ME01G3, ME01G4, ME01G5

Nickel
ME01F1, ME01F1A, ME01F1D, ME01F2, ME01F3, ME01F4
ME01F5, ME01F6, ME01F7, ME01F8, ME01F9, ME01G0
ME01G1, ME01G2, ME01G3, ME01G4, ME01G5

Assembled By: ESAT
Date: November 12, 2002

Selenium
ME01F1, ME01F1A, ME01F1D, ME01F2, ME01F3, ME01F4
ME01F5, ME01F6, ME01F7, ME01F8, ME01F9, ME01G0
ME01G1, ME01G2, ME01G3, ME01G4, ME01G5

Silver
ME01F1, ME01F1D, ME01F2, ME01F3, ME01F4, ME01F5
ME01F6, ME01F7, ME01F8, ME01F9, ME01G0, ME01G1
ME01G2, ME01G3, ME01G4, ME01G5

Thallium
ME01F1, ME01F1A, ME01F1D, ME01F2, ME01F3, ME01F4
ME01F5, ME01F6, ME01F7, ME01F8, ME01F9, ME01G0
ME01G1, ME01G2, ME01G3, ME01G4, ME01G5

LCS Report

SDG NO: ME01F1

No problems found for this qualification.

5. LABORATORY AND FIELD DUPLICATE

Duplicates Report

SDG NO: ME01F1

No problems found for this qualification.

6. ICP ANALYSIS

ICS Report

SDG NO: ME01F1

DC-307: The following inorganic samples have no associated ICS analyses.
Manual review of the data is required.

ME01F1
Aluminum, Antimony, Arsenic, Barium
Beryllium, Cadmium, Calcium, Chromium
Cobalt, Copper, Iron, Lead
Magnesium, Manganese, Nickel, Selenium
Silver, Thallium, Vanadium, Zinc

ME01F2
Aluminum, Antimony, Arsenic, Barium
Beryllium, Cadmium, Calcium, Chromium
Cobalt, Copper, Iron, Lead
Magnesium, Manganese, Nickel, Selenium

Assembled By: ESAT
Date: November 12, 2002

Case Number : 31061
Site Name: St. Louis Smelting & Refining

SDG Number: ME01F1
Laboratory: Compuchem

Silver, Thallium, Vanadium, Zinc

ME01F3
Aluminum, Antimony, Arsenic, Barium
Beryllium, Cadmium, Calcium, Chromium
Cobalt, Copper, Iron, Lead
Magnesium, Manganese, Nickel, Selenium
Silver, Thallium, Vanadium, Zinc

ME01F4
Aluminum, Antimony, Arsenic, Barium
Beryllium, Cadmium, Calcium, Chromium
Cobalt, Copper, Iron, Lead
Magnesium, Manganese, Nickel, Selenium
Silver, Thallium, Vanadium, Zinc

ME01F5
Aluminum, Antimony, Arsenic, Barium
Beryllium, Cadmium, Calcium, Chromium
Cobalt, Copper, Iron, Lead
Magnesium, Manganese, Nickel, Selenium
Silver, Thallium, Vanadium, Zinc

ME01F6
Aluminum, Antimony, Arsenic, Barium
Beryllium, Cadmium, Calcium, Chromium
Cobalt, Copper, Iron, Lead
Magnesium, Manganese, Nickel, Selenium
Silver, Thallium, Vanadium, Zinc

ME01F7
Aluminum, Antimony, Arsenic, Barium
Beryllium, Cadmium, Calcium, Chromium
Cobalt, Copper, Iron, Lead
Magnesium, Manganese, Nickel, Selenium
Silver, Thallium, Vanadium, Zinc

ME01F8
Aluminum, Antimony, Arsenic, Barium
Beryllium, Cadmium, Calcium, Chromium
Cobalt, Copper, Iron, Lead
Magnesium, Manganese, Nickel, Selenium
Silver, Thallium, Vanadium, Zinc

ME01F9
Aluminum, Antimony, Arsenic, Barium
Beryllium, Cadmium, Calcium, Chromium
Cobalt, Copper, Iron, Lead
Magnesium, Manganese, Nickel, Selenium
Silver, Thallium, Vanadium, Zinc

ME01G0
Aluminum, Antimony, Arsenic, Barium
Beryllium, Cadmium, Calcium, Chromium
Cobalt, Copper, Iron, Lead
Magnesium, Manganese, Nickel, Selenium
Silver, Thallium, Vanadium, Zinc

ME01G1
Aluminum, Antimony, Arsenic, Barium
Beryllium, Cadmium, Calcium, Chromium
Cobalt, Copper, Iron, Lead
Magnesium, Manganese, Nickel, Selenium
Silver, Thallium, Vanadium, Zinc

ME01G2

Assembled By: ESAT
Date: November 12, 2002

Aluminum, Antimony, Arsenic, Barium
Beryllium, Cadmium, Calcium, Chromium
Cobalt, Copper, Iron, Lead
Magnesium, Manganese, Nickel, Selenium
Silver, Thallium, Vanadium, Zinc

ME01G3
Aluminum, Antimony, Arsenic, Barium
Beryllium, Cadmium, Calcium, Chromium
Cobalt, Copper, Iron, Lead
Magnesium, Manganese, Nickel, Selenium
Silver, Thallium, Vanadium, Zinc

ME01G4
Aluminum, Antimony, Arsenic, Barium
Beryllium, Cadmium, Calcium, Chromium
Cobalt, Copper, Iron, Lead
Magnesium, Manganese, Nickel, Selenium
Silver, Thallium, Vanadium, Zinc

ME01G5
Aluminum, Antimony, Arsenic, Barium
Beryllium, Cadmium, Calcium, Chromium
Cobalt, Copper, Iron, Lead
Magnesium, Manganese, Nickel, Selenium
Silver, Thallium, Vanadium, Zinc

Serial Dilution Report

SDG NO: ME01F1

DC-294: The analyte concentration is high (>50 X the IDL) and serial dilution percent difference is not in criteria (>10%). Hits are qualified "J" and non-detects are qualified "UJ".

Potassium
ME01F1, ME01F1D, ME01F2, ME01F3, ME01F4, ME01F5
ME01F6, ME01F7, ME01F8, ME01F9, ME01G0, ME01G1
ME01G2, ME01G3, ME01G4, ME01G5

DC-295: The following inorganic samples are associated with an ICP serial dilution percent difference which is not in criteria. The serial dilution result is greater than the sample result, indicating a potential negative interference. The data must be qualified using professional judgement. Hits are qualified "J", non-detects "UJ".

Antimony
ME01F1, ME01F1D, ME01F1S, ME01F2, ME01F3, ME01F4
ME01F5, ME01F6, ME01F7, ME01F8, ME01F9, ME01G0
ME01G1, ME01G2, ME01G3, ME01G4, ME01G5

Lead
ME01F1, ME01F1D, ME01F1S, ME01F2, ME01F3, ME01F4
ME01F5, ME01F6, ME01F7, ME01F8, ME01F9, ME01G0
ME01G1, ME01G2, ME01G3, ME01G4, ME01G5

Zinc
ME01F1, ME01F1D, ME01F1S, ME01F2, ME01F3, ME01F4
ME01F5, ME01F6, ME01F7, ME01F8, ME01F9, ME01G0
ME01G1, ME01G2, ME01G3, ME01G4, ME01G5

Assembled By: ESAT
Date: November 12, 2002

Case Number : 31061
Site Name: St. Louis Smelting & Refining

SDG Number: ME01F1
Laboratory: Compuchem

7. GFAA ANALYSIS

Furnace AA QC Report

SDG NO: ME01F1

No problems found for this qualification.

8. SAMPLE RESULTS

All data, except those qualified above, are acceptable.

Sample Result Verification Report

SDG NO: ME01F1

DC-336: The following inorganic samples have ICP determined results (for analytes usually determined by furnace AA) whose concentrations are below criteria. Professional judgement should be used to qualify the data.

Selenium
ME01G0

Assembled By: ESAT
Date: November 12, 2002

CADRE Data Qualifier Sheet

Qualifiers	Data Qualifier Definitions
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J	The analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.
UJ	The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the action limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
R	The data are unusable. (The compound may or may not be present)

Analytical Results (Qualified Data)

Case #: 31061
SDG : ME01F1
Site .
ST. LOUIS SMELTING & REFINING
Lab. :
LIBRTY
Reviewer :

Number of Soil Samples : 15
Number of Water Samples : 0

Sample Number :	ME01F1		ME01F2		ME01F3		ME01F4		ME01F5	
Sampling Location :	X107		X108		X109		X110		X111	
Matrix :	Soil		Soil		Soil		Soil		Soil	
Units :	mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg	
Date Sampled :	10/15/2002		10/15/2002		10/16/2002		10/16/2002		10/16/2002	
Time Sampled :	15:00		15:00		11:45		17:35		17:35	
%Solids :	86.7		86.4		79.9		92.3		79.9	
Dilution Factor :	1.0		1.0		1.0		1.0		1.0	
ANALYTE	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
ALUMINUM	9420		9980		4830		1950		2700	
ANTIMONY	13.9	J	13.8	J	0.29	UJ	4.6	J	18.7	J
ARSENIC	7.5		6.9		4.4		33.4		682	
BARIUM	495	J	445	J	489	J	92.1	J	139	J
BERYLLIUM	0.89	J	0.93	J	0.39	J	0.21	J	0.12	J
CADMIUM	7.9	J	6.2	J	2.3	J	7.3	J	10.0	J
CALCIUM	21100		23800		2370		2830		11600	
CHROMIUM	8.4	J	7.8		7.9	J	5.8	J	14.6	J
COBALT	15.0		16.6		6.7		9.4		33.5	
COPPER	91.3		88.4		11.5		521		733	
IRON	64600		73400		8770		42400		68700	
LEAD	16400	J	15700	J	500	J	1920	J	5260	J
MAGNESIUM	2050		2130		1350		236		1190	
MANGANESE	620		597		871		28.4		162	
MERCURY	0.22		0.21		0.12		0.40		0.37	
NICKEL	19.3	J	16.9	J	11.2	J	21.3	J	134	J
POTASSIUM	1840	J	2040	J	522	J	567	J	537	J
SELENIUM	3.6	J	3.0	J	0.77	J	3.2	J	2.8	J
SILVER	0.40	J	0.38	J	0.19	UJ	2.4	J	6.7	J
SODIUM	351	U	1360		98.9		64.0	U	72.6	U
THALLIUM	0.55	UJ	0.51	UJ	0.58	UJ	0.90	J	7.5	J
VANADIUM	25.8		24.8		15.5		13.3		37.8	
ZINC	22700	J	24500	J	110	J	1100	J	3710	J
CYANIDE	0.28		0.39		0.13		0.37		0.17	

DISCLAIMER. This package has been electronically assessed as an added service to our customer. It has not been either validated or approved by Region 5 and any subsequent use by the data user is strictly at the risk of the data user. Region 5 assumes no responsibility for use of unvalidated data.

Analytical Results (Qualified Data)

Case #: 31061 SDG : ME01F1
Site : ST. LOUIS SMELTING & REFINING
Lab. : LIBRTY
Reviewer :
Date :

Sample Number :	ME01F6		ME01F7		ME01F8		ME01F9		ME01G0	
Sampling Location :	X112		X113		X225		X226		X227	
Matrix :	Soil		Soil		Soil		Soil		Soil	
Units :	mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg	
Date Sampled :	10/17/2002		10/17/2002		10/17/2002		10/17/2002		10/17/2002	
Time Sampled :	11:00		13:30		16:30		17:20		17:20	
%Solids :	81.4		84.6		48.9		14.6		8.9	
Dilution Factor :	1.0		1.0		1.0		1.0		1.0	
ANALYTE	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
ALUMINUM	9400		6700		10700		6430		16200	
ANTIMONY	0.43	J	0.39	J	3.3	J	16.5	J	23.8	J
ARSENIC	6.4		5.9		6.8		68.5		116	
BARIUM	173	J	153	J	514	J	328	J	1420	J
BERYLLIUM	0.48	J	0.47	J	0.73	J	0.50	J	2.5	J
CADMIUM	0.43	J	1.3	J	90.1	J	10.7	J	31.6	J
CALCIUM	2410		4840		5010		27100		48000	
CHROMIUM	12.5	J	11.8	J	17.0	J	17.7	J	32.3	J
COBALT	6.3		8.3		22.7		691		628	
COPPER	12.8		23.9		196		548		626	
IRON	14700		15200		22900		73800		101000	
LEAD	100	J	463	J	35900	J	4550	J	5840	J
MAGNESIUM	2130		3230		3860		4240		5940	
MANGANESE	608		481		337		1270		4000	
MERCURY	0.10		0.14		0.54		0.31		0.54	U
NICKEL	13.8	J	16.5	J	55.1	J	945	J	2280	J
POTASSIUM	651	J	640	J	886	J	962	J	1480	J
SELENIUM	1.2	J	1.5	J	5.9	J	9.6	J	16.1	J
SILVER	0.19	UJ	0.18	UJ	1.5	J	1.0	UJ	1.7	UJ
SODIUM	96.0		228		120	U	393	U	664	U
THALLIUM	0.57	UJ	0.54	UJ	0.94	UJ	3.1	UJ	5.2	UJ
VANADIUM	23.3		21.7		30.1		16.9		74.9	
ZINC	50.9	J	116	J	2170	J	18000	J	10800	J
CYANIDE	0.11		0.13		0.27		0.17	U	0.28	U

DISCLAIMER This package has been electronically assessed as an added service to our customer It has not been either validated or approved by Region 5 and any subsequent use by the data user is strictly at the risk of the data user. Region 5 assumes no responsibility for use of unvalidated data.

Analytical Results (Qualified Data)

Case #: 31061 SDG : ME01F1
Site : ST. LOUIS SMELTING & REFINING
Lab. : LIBRTY
P: ıewer :

Sample Number :	ME01G1		ME01G2		ME01G3		ME01G4		ME01G5	
Sampling Location :	X228		X115		X229		X230		X231	
Matrix :	Soil		Soil		Soil		Soil		Soil	
Units :	mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg	
Date Sampled :	10/18/2002		10/18/2002		10/18/2002		10/18/2002		10/18/2002	
Time Sampled :	09:00		12:45		10:50		11:30		12:30	
%Solids :	75.5		88.0		71.6		74.2		76.5	
Dilution Factor :	1.0		1.0		1.0		1.0		1.0	
ANALYTE	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
ALUMINUM	4700		5360		4460		6930		5830	
ANTIMONY	0.30	UJ	0.27	J	0.70	J	0.52	J	0.31	UJ
ARSENIC	0.96		4.4		4.9		2.6		4.5	
BARIUM	67.7	J	246	J	302	J	149	J	241	J
BERYLLIUM	0.32	J	0.40	J	0.64	J	0.44	J	0.42	J
CADMIUM	0.080	UJ	1.2	J	0.95	J	0.12	J	0.23	J
CALCIUM	1130		3010		1920		2020		2290	
CHROMIUM	8.5	J	9.2	J	10.5	J	12.1	J	11.1	J
COBALT	4.0		7.3		11.1		4.7		11.6	
COPPER	7.3		11.6		17.6		11.0		9.8	
IRON	13400		9650		14200		12900		13200	
LEAD	6.2	J	122	J	107	J	28.3	J	7.4	J
MAGNESIUM	1470		1440		1230		2420		2080	
MANGANESE	126		747		614		294		1390	
MERCURY	0.050	U	0.080		0.090		0.090		0.050	
?KEL	10.5	J	12.3	J	33.3	J	14.3	J	20.6	J
TASSIUM	405	J	795	J	457	J	701	J	483	J
SELENIUM	0.75	UJ	1.5	J	1.5	J	0.76	UJ	1.3	J
SILVER	0.20	UJ	0.17	UJ	0.21	UJ	0.20	UJ	0.20	UJ
SODIUM	153		99.5		102		101		150	
THALLIUM	0.60	UJ	0.52	UJ	0.62	UJ	0.61	UJ	0.62	UJ
VANADIUM	10.2		17.0		46.8		16.5		20.8	
ZINC	63.7	J	82.6	J	139	J	46.0	J	36.5	J
CYANIDE	0.030	U	0.13		0.070		0.84		0.050	

DISCLAIMER: This package has been electronically assessed as an added service to our customer. It has not been either validated or approved by Region 5 and any subsequent use by the data user is strictly at the risk of the data user. Region 5 assumes no responsibility for use of unvalidated data.

Analytical Results (Qualified Data)

Case #. 31061 SDG : ME01F1
Site : ST. LOUIS SMELTING & REFINING
Lab. : LIBRTY
R[illegible]er :
D[illegible]

Sample Number :	ME01F1D		ME01F1S							
Sampling Location :	X107		X107							
Matrix :	Soil		Soil							
Units :	mg/Kg		mg/Kg							
Date Sampled :	10/15/2002		10/15/2002							
Time Sampled :	15:00		15:00							
%Solids :	86.7		86.7							
Dilution Factor :	1.0		1.0							
ANALYTE	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
ALUMINUM	10800									
ANTIMONY	17.0	J	58.6	J						
ARSENIC	7.7		14.9							
BARIUM	435	J	837							
BERYLLIUM	1.2	J	9.2							
CADMIUM	7.4	J	15.7							
CALCIUM	27700									
CHROMIUM	8.5	J	42.9							
COBALT	17.3		103							
COPPER	112		140							
IRON	78300									
LEAD	17100	J	18600	J						
MAGNESIUM	2760									
MANGANESE	660		728							
MERCURY	0.26		0.73							
[illegible]EL	20.4	J	102							
[illegible]ASSIUM	2400	J								
SELENIUM	2.7	J	4.8							
SILVER	0.40	J	9.0							
SODIUM	990									
THALLIUM	0.55	UJ	4.2							
VANADIUM	26.1		114							
ZINC	25900	J	27000	J						
CYANIDE	0.29		5.4							

DISCLAIMER: This package has been electronically assessed as an added service to our customer. It has not been either validated or approved by Region 5 and any subsequent use by the data user is strictly at the risk of the data user. Region 5 assumes no responsibility for use of unvalidated data.

EPA Contract Laboratory Program
Inorganic Traffic Report

Case No: 31061
DAS No:
SDG No: ME01F1

L

Date Shipped: 10/18/02	Date Received/Received by: [illegible]	Sampler (Signature): [illegible]	79.57
Carrier Name: UPS	Lab Contract No: 62W00082 Unit Price: 79.57		
Airbill: 1Z6215892210021378		Relinquished By: [illegible] 10/18/02	Date / Time: 10/18/02 1347
Shipped to: Liberty Analytical, 501 Madison Avenue, Cary NC 27513, (919) 379-4080	Transfer To:	Relinquished By:	Date / Time: 10/19/02 1050
	Date Received/Received By:	Relinquished By:	Date / Time:
	Lab Contract No: Price:		

Received By: [illegible]

INORGANIC SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No./ PRESERVATIVE	STATION LOCATION	SAMPLE COLLECT DATE/TIME	ORGANIC SAMPLE No.	FOR LAB USE ONLY Sample Condition On Receipt
ME01F1	Soil/Sediment/ Mark Wagner	L/G	TM/CN (21)	5-66231 (Ice Only) (1)	X107	10/15/02 15:00		Good
ME01F2	Soil/Sediment/ Mark Wagner	L/G	TM/CN (21)	5-66232 (Ice Only) (1)	X108	10/15/02 15:00		
ME01F3	Soil/Sediment/ Mark Wagner	L/G	TM/CN (21)	5-66233 (Ice Only) (1)	X109	10/16/02 11:45		
ME01F4	Soil/Sediment/ Mark Wagner	L/G	TM/CN (21)	5-66234 (Ice Only) (1)	X110	10/16/02 17:35		
ME01F5	Soil/Sediment/ Mark Wagner	L/G	TM/CN (21)	5-66235 (Ice Only) (1)	X111	10/16/02 17:35		
ME01F6	Soil/Sediment/ Mark Wagner	L/G	TM/CN (21)	5-66236 (Ice Only) (1)	X112	10/17/02 11:00		
ME01F7	Soil/Sediment/ Mark Wagner	L/G	TM/CN (21)	5-66242 (Ice Only) (1)	X113	10/17/02 13:30		
ME01F8	Sediment/ Mark Wagner	L/G	TM/CN (21)	5-66243 (Ice Only) (1)	X225	10/17/02 16:30		
ME01F9	Sediment/ Mark Wagner	L/G	TM/CN (21)	5-66244 (Ice Only) (1)	X226	10/17/02 17:20		
ME01G0	Sediment/ Mark Wagner	L/G	TM/CN (21)	5-66245 (Ice Only) (1)	X227	10/17/02 17:20		
ME01G1	Sediment/ Mark Wagner	L/G	TM/CN (21)	5-66246 (Ice Only) (1)	X228	10/18/02 9:00		
ME01G2	Soil/Sediment/ Mark Wagner	L/G	TM/CN (21)	5-66247 (Ice Only) (1)	X115	10/18/02 12:45		
ME01G3	Sediment/ Mark Wagner	L/G	TM/CN (21)	5-66248 (Ice Only) (1)	X229	10/18/02 10:50		
ME01G4	Sediment/ Mark Wagner	L/G	TM/CN (21)	5-66249 (Ice Only) (1)	X230	10/18/02 11:30		
ME01G5	Sediment/ Mark Wagner	L/G	TM/CN (21)	5-66250 (Ice Only) (1)	X231	10/18/02 12:30	SDG - Final Sample	

Shipment for Case Complete? Y	Sample(s) to be used for laboratory QC: ME01F1 (X107)	Additional Sampler Signature(s):	Cooler Temperature Upon Receipt: 2°C	Chain of Custody Seal Number: 82769
Analysis Key: TM/CN = CLP TAL Total Metals and Cyanide	Concentration: L = Low, M = Low/Medium, H = High	Type/Designate: Composite = C, Grab = G		Custody Seal Intact? Y / Shipment Iced? Y

PR provides preliminary results. Requests for preliminary results will increase analytical costs.
Send Copy to: Contract Laboratory Analytical Services Support, 2000 Edmund Halley Dr., Reston, VA. 20191-3436 Phone 703/264-9348 Fax 703/264-9222

TR Number: 5-324306854-101802-0001

CompuChem
a Division of Liberty Analytical Corp.
501 Madison Avenue Cary, NC 27513

SDG NARRATIVE
CASE # 31061 SDG # ME01F1
CONTRACT # 68W00082

The indicated Sample Delivery Group (SDG) consisting of fifteen (15) soil samples was received into the laboratory information management system (LIMS) on October 19. 2002; intact and in good condition with Chains of Custody (COC) Records in order, unless otherwise noted in any attachments or Quality Assurance Notices. Sample ID's reported in this data package are noted by the receiving department on the COC if they differ from those listed by the samplers on the COC.

The samples were analyzed, in accordance with EPA - CLP Statement of Work (SOW) document ILM04.1 for CLP TAL total metals and cyanide.

The correlation coefficients for the mercury and cyanide analytical runs are confirmed to be $\geq$ 0.9950.

The cooler temperature bottle was present with samples received on October 19, 2002; and sample temperature was 2.0 degrees Celsius.

Sample ME01F1 for QC has "C" flag for saturated zinc, "K" flag for interference on sodium, over-range for lead that required dilution of the sample and related matrix QC. Sample ME01F2 has "C" flag for saturated zinc, "K" flag for interference on sodium, over-range for lead required dilution.

EQUATIONS FOR SOLID SAMPLE CALCULATIONS:

Client sample ME01F1 is used for illustration.

Any sample result that is $\leq$ the instrument detection limit (IDL) will be entered at the IDL for that analyte.

ICP Equation:

Equation for obtaining metals sample results in mg/Kg as presented on FORM I data sheets from ICP instrument acquired results in ug/L (ppb).

$$\text{Concentration (\% solids) (mg/Kg)} \quad \frac{C \times D \times V}{W \times S}$$

Where
C = concentration (ug/L)
D = dilution factor
V = final volume in liters after sample preparation
W = weight in grams of wet sample
S = % solids/100

Example: aluminum result ug/L to mg/Kg.

$$\frac{40835.62 \text{ ug/L (C)} \times 1 \text{ (D)} \times 0.2 \text{ L (V)}}{1.0 \text{ g (W)} \times 0.867 \text{ (S)}} = 9419.98 \text{ mg/Kg reported as } 9420 \text{ mg/Kg}$$

Mercury Equation:

Equation for obtaining mercury sample results in mg/Kg as presented on FORM I data sheets from instrument acquired results in ug/L (ppb).

$$\frac{A \times D \times F}{B \times E}$$

Where

A = ug/L Hg
B = wet weight of sample
D = dilution factor to bring sample into analysis range
E = % solids/100
F = final volume in liters (0.1 L)

Example: mercury result ug/L to mg/Kg

$$\frac{0.3772 \text{ ug/L (A)} \times 1 \text{ (D)} \times 0.1 \text{ (F)}}{0.2 \text{ g (B)} \times 0.867 \text{ (E)}} = 0.218 \text{ mg/Kg reported as } 0.22 \text{ mg/Kg}$$

Cyanide Equation:

Equation for obtaining cyanide sample results in mg/Kg as presented on FORM I data sheets from instrument acquired results in ug/L (ppb).

$$\frac{A \times D \times F}{B \times E}$$

Where

A = ug/L CN
B = wet weight of sample
D = dilution factor to bring sample into analysis range
E = % solids/100
F = final volume in liters (0 05 L)

Example: cyanide result ug/L to mg/Kg

$$\frac{4.859408 \text{ ug/L (A)} \times 1 \text{ (D)} \times 0.05 \text{ L (F)}}{1.00 \text{g (B)} \times 0.867 \text{ (E)}} = 0.280 \text{ mg/Kg reported as } 0.28 \text{ mg/Kg}$$

SAMPLE IDs:

The following customer IDs are associated with this SDG:

ME01F1	ME01F2	ME01F3	ME01F4	ME01F5	ME01F6
ME01F7	ME01F8	ME01F9	ME01G0	ME01G1	ME01G2
ME01G3	ME01G4	ME01G5			

INSTRUMENTAL QUALITY CONTROL:

All calibration verification solutions (ICV & CCV), blanks (ICB. & CCB), and interference check samples (ICSA & ICSAB) associated with this data were confirmed to be within EPA CLP allowable limits.

SAMPLE PREPARATION QUALITY CONTROL:

The sample preparation procedure verifications (LCSS & PBS) were found to be within acceptable ranges and all field samples were prepared and analyzed within the contract specified holding times.

MATRIX RELATED QUALITY CONTROL:

The sample matrix spike, CCN = WG20920-1 (ME01F1S) was found to be outside CLP control limits for antimony, barium, beryllium, cadmium, nickel, selenium, and thallium. The reported concentrations for these analytes are flagged with an "N" on all associated Form 1 and on Form 5a.

An "N" indicates a matrix-related interference in the sample preparation procedure &/or analysis for the flagged analyte. This is normally the consequence of a relatively high anionic content in the sample or (for some sediments) an inconsistent sample matrix relative to that analyte.

CLP control limits for matrix spike recoveries are set at 75% to 125% of the analyte quantity added unless original sample concentrations exceed the true values of these "spikes" by a factor of four or more. In this case, affected analytes are not flagged even if recoveries are outside percentage recovery control limits.

Post-digestion spikes are mandatory for analytes demonstrating unsatisfactory matrix spike recoveries during ICP analysis (excluding silver). The results of such spikes are presented on Form 5b.

Unsatisfactory recovery of post-digestion spikes of this type do not have bearing upon the aforementioned "N" flags, but may indicate interference during analysis &/or a solution matrix which is hostile to the analyte in question.

Satisfactory recovery of an analyte in a post-digestion spike of this type implies interference by the required preparation procedure or in the sample matrix itself. Lack of uniformity for an analyte in sediments will also result in satisfactory recovery of post-digestion spikes after failure in the related matrix spike.

The sample matrix duplicate, CCN = WG20920-2 (ME01F1D) was outside CLP control limits for calcium and copper. The reported concentrations for these analytes are flagged with a "*" on all associated Form 1 and on Form 6.

A "*" indicates a non-homogeneous sample matrix in regard to the flagged analyte. This is normally the consequence of a relatively coarse texture or of a mixed-matrix in sediment samples.

CLP control limits for duplicate determinations are +/- 20% Relative Percent Difference (RPD) for concentrations greater than or equal to five times the CRDL in both the original and duplicate samples, and - - the CRDL for concentrations less than five times the CRDL. The RPD is not calculated if both the original and duplicate values fall below the IDL.

A five-fold serial dilution of sample, CCN = ME01F1-1 (ME01F1L) was performed in accordance with CLP requirements for ICP analysis.

The adjusted sample concentrations were outside CLP control limits for antimony and potassium, which are flagged with an "E" on all associated Form 1, the Cover Page and Form 9.

An "E" indicates that a chemical or physical interference effect was encountered during the analysis of the flagged analyte. As a result of this interference, all values for the analyte in the same matrix must be considered to be estimated quantities.

CLP control limits for serial dilution are defined as a deviation less than or equal to 10% in the dilution-adjusted concentrations from the original values for all analyte concentrations with values greater than fifty (50) times their respective Instrument Detection Limit (IDL) in the original sample.

The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Thomas R. Cole
Data Reviewer II
November 6, 2002

U. S. EPA - CLP

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

NOV 08 2002

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: SDG No.: ME01F1

SOW No.: ILM04.1

EPA Sample No.	Lab Sample ID.
ME01F1	ME01F1-1
ME01F1D	WG20920-2
ME01F1S	WG20920-1
ME01F2	ME01F1-2
ME01F3	ME01F1-3
ME01F4	ME01F1-4
ME01F5	ME01F1-5
ME01F6	ME01F1-6
ME01F7	ME01F1-7
ME01F8	ME01F1-8
ME01F9	ME01F1-9
ME01G0	ME01F1-10
ME01G1	ME01F1-11
ME01G2	ME01F1-12
ME01G3	ME01F1-13
ME01G4	ME01F1-14
ME01G5	ME01F1-15

Were ICP interelement corrections applied? Yes/No YES

Were ICP background corrections applied? Yes/No YES

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

Comments: THE FOLLOWING ANALYTES HAVE BEEN FLAGGED WITH AN "E" TO INDICATE SERIAL DILUTION RESULTS WHICH ARE NOT WITHIN CONTROL LIMITS:
ANTIMONY, POTASSIUM

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Thomas R. Cole Name: Thomas R. Cole

Date: November 6, 2002 Title: Data Reviewer II 3

U. S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME01F1

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: SDG No.: ME01F1

Matrix (soil/water): SOIL Lab Sample ID: ME01F1-1

Level (low/med): LOW Date Received: 10/19/02

% Solids: 86.7

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	9420			P
7440-36-0	Antimony	13.9		NE	P
7440-38-2	Arsenic	7.5			P
7440-39-3	Barium	495		N	P
7440-41-7	Beryllium	0.89	B	N	P
7440-43-9	Cadmium	7.9		N	P
7440-70-2	Calcium	21100		*	P
7440-47-3	Chromium	8.4			P
7440-48-4	Cobalt	15.0			P
7440-50-8	Copper	91.3		*	P
7439-89-6	Iron	64600			P
7439-92-1	Lead	16400			P
7439-95-4	Magnesium	2050			P
7439-96-5	Manganese	620			P
7439-97-6	Mercury	0.22			CV
7440-02-0	Nickel	19.3		N	P
7440-09-7	Potassium	1840		E	P
7782-49-2	Selenium	3.6		N	P
7440-22-4	Silver	0.40	B		P
7440-23-5	Sodium	351	U		P
7440-28-0	Thallium	0.55	U	N	P
7440-62-2	Vanadium	25.8			P
7440-66-6	Zinc	22700			P
	Cyanide	0.28	B		CA

Color Before: BLACK Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

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U. S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME01F2

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: SDG No.: ME01F1

Matrix (soil/water): SOIL Lab Sample ID: ME01F1-2

Level (low/med): LOW Date Received: 10/19/02

% Solids: 86.4

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	9980			P
7440-36-0	Antimony	13.8		NE	P
7440-38-2	Arsenic	6.9			P
7440-39-3	Barium	445		N	P
7440-41-7	Beryllium	0.93	B	N	P
7440-43-9	Cadmium	6.2		N	P
7440-70-2	Calcium	23800		*	P
7440-47-3	Chromium	7.8			P
7440-48-4	Cobalt	16.6			P
7440-50-8	Copper	88.4		*	P
7439-89-6	Iron	73400			P
7439-92-1	Lead	15700			P
7439-95-4	Magnesium	2130			P
7439-96-5	Manganese	597			P
7439-97-6	Mercury	0.21			CV
7440-02-0	Nickel	16.9		N	P
7440-09-7	Potassium	2040		E	P
7782-49-2	Selenium	3.0		N	P
7440-22-4	Silver	0.38	B		P
7440-23-5	Sodium	1360	B		P
7440-28-0	Thallium	0.51	U	N	P
7440-62-2	Vanadium	24.8			P
7440-66-6	Zinc	24400			P
	Cyanide	0.39	B		CA

Color Before: BLACK Clarity Before: Texture: COARSE

Color After: YELLOW Clarity After: Artifacts:

C ents:

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U. S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME01F3

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: SDG No.: ME01F1

Matrix (soil/water): SOIL Lab Sample ID: ME01F1-3

Level (low/med): LOW Date Received: 10/19/02

% Solids: 79.9

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4830			P
7440-36-0	Antimony	0.29	U	NE	P
7440-38-2	Arsenic	4.4			P
7440-39-3	Barium	489		N	P
7440-41-7	Beryllium	0.39	B	N	P
7440-43-9	Cadmium	2.2		N	P
7440-70-2	Calcium	2370		*	P
7440-47-3	Chromium	7.9			P
7440-48-4	Cobalt	6.7	B		P
7440-50-8	Copper	11.5		*	P
7439-89-6	Iron	8770			P
7439-92-1	Lead	500			P
7439-95-4	Magnesium	1350			P
7439-96-5	Manganese	871			P
7439-97-6	Mercury	0.12	B		CV
7440-02-0	Nickel	11.2		N	P
7440-09-7	Potassium	522	B	E	P
7782-49-2	Selenium	0.76	B	N	P
7440-22-4	Silver	0.19	U		P
7440-23-5	Sodium	98.9	B		P
7440-28-0	Thallium	0.58	U	N	P
7440-62-2	Vanadium	15.5			P
7440-66-6	Zinc	110			P
	Cyanide	0.13	B		CA

Color Before: BLACK Clarity Before: Texture: COARSE

Color After: YELLOW Clarity After: Artifacts:

ments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME01F4

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: SDG No.: ME01F1

Matrix (soil/water): SOIL Lab Sample ID: ME01F1-4

Level (low/med): LOW Date Received: 10/19/02

% Solids: 92.3

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1950			P
7440-36-0	Antimony	4.6	B	NE	P
7440-38-2	Arsenic	33.4			P
7440-39-3	Barium	92.1		N	P
7440-41-7	Beryllium	0.21	B	N	P
7440-43-9	Cadmium	7.3		N	P
7440-70-2	Calcium	2830		*	P
7440-47-3	Chromium	5.8			P
7440-48-4	Cobalt	9.4	B		P
7440-50-8	Copper	520		*	P
7439-89-6	Iron	42400			P
7439-92-1	Lead	1920			P
7439-95-4	Magnesium	236	B		P
7439-96-5	Manganese	28.4			P
7439-97-6	Mercury	0.40			CV
7440-02-0	Nickel	21.3		N	P
7440-09-7	Potassium	567	B	E	P
7782-49-2	Selenium	3.2		N	P
7440-22-4	Silver	2.4			P
7440-23-5	Sodium	64.0	U		P
7440-28-0	Thallium	0.90	B	N	P
7440-62-2	Vanadium	13.3			P
7440-66-6	Zinc	1100			P
	Cyanide	0.37	B		CA

Color Before: BLACK Clarity Before: Texture: COARSE

Color After: YELLOW Clarity After: Artifacts:

ments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME01F5

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: SDG No.: ME01F1

Matrix (soil/water): SOIL Lab Sample ID: ME01F1-5

Level (low/med): LOW Date Received: 10/19/02

% Solids: 79.9

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2700			P
7440-36-0	Antimony	18.6		NE	P
7440-38-2	Arsenic	682			P
7440-39-3	Barium	139		N	P
7440-41-7	Beryllium	0.12	B	N	P
7440-43-9	Cadmium	10.0		N	P
7440-70-2	Calcium	11600		*	P
7440-47-3	Chromium	14.6			P
7440-48-4	Cobalt	33.5			P
7440-50-8	Copper	733		*	P
7439-89-6	Iron	68700			P
7439-92-1	Lead	5260			P
7439-95-4	Magnesium	1190	B		P
7439-96-5	Manganese	162			P
7439-97-6	Mercury	0.37			CV
7440-02-0	Nickel	134		N	P
7440-09-7	Potassium	536	B	E	P
7782-49-2	Selenium	2.8		N	P
7440-22-4	Silver	6.6			P
7440-23-5	Sodium	72.6	U		P
7440-28-0	Thallium	7.5		N	P
7440-62-2	Vanadium	37.8			P
7440-66-6	Zinc	3710			P
	Cyanide	0.17	B		CA

Color Before: BROWN Clarity Before: Texture: COARSE

Color After: YELLOW Clarity After: Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME01F6

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: SDG No.: ME01F1

Matrix (soil/water): SOIL Lab Sample ID: ME01F1-6

Level (low/med): LOW Date Received: 10/19/02

% Solids: 81.4

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	9400			P
7440-36-0	Antimony	0.43	B	NE	P
7440-38-2	Arsenic	6.4			P
7440-39-3	Barium	173		N	P
7440-41-7	Beryllium	0.48	B	N	P
7440-43-9	Cadmium	0.43	B	N	P
7440-70-2	Calcium	2410		*	P
7440-47-3	Chromium	12.5			P
7440-48-4	Cobalt	6.3	B		P
7440-50-8	Copper	12.8		*	P
7439-89-6	Iron	14700			P
7439-92-1	Lead	100			P
7439-95-4	Magnesium	2130			P
7439-96-5	Manganese	608			P
7439-97-6	Mercury	0.10	B		CV
7440-02-0	Nickel	13.8		N	P
7440-09-7	Potassium	651	B	E	P
7782-49-2	Selenium	1.2		N	P
7440-22-4	Silver	0.19	U		P
7440-23-5	Sodium	96.0	B		P
7440-28-0	Thallium	0.57	U	N	P
7440-62-2	Vanadium	23.3			P
7440-66-6	Zinc	50.9			P
	Cyanide	0.11	B		CA

Color Before: BROWN Clarity Before: Texture: COARSE

Color After: YELLOW Clarity After: Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME01F7

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: SDG No.: ME01F1

Matrix (soil/water): SOIL Lab Sample ID: ME01F1-7

Level (low/med): LOW Date Received: 10/19/02

% Solids: 84.6

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6700			P
7440-36-0	Antimony	0.38	B	NE	P
7440-38-2	Arsenic	5.9			P
7440-39-3	Barium	153		N	P
7440-41-7	Beryllium	0.47	B	N	P
7440-43-9	Cadmium	1.3		N	P
7440-70-2	Calcium	4840		*	P
7440-47-3	Chromium	11.8			P
7440-48-4	Cobalt	8.3	B		P
7440-50-8	Copper	23.9		*	P
7439-89-6	Iron	15200			P
7439-92-1	Lead	463			P
7439-95-4	Magnesium	3230			P
7439-96-5	Manganese	481			P
7439-97-6	Mercury	0.14			CV
7440-02-0	Nickel	16.5		N	P
7440-09-7	Potassium	640	B	E	P
7782-49-2	Selenium	1.5		N	P
7440-22-4	Silver	0.18	U		P
7440-23-5	Sodium	228	B		P
7440-28-0	Thallium	0.54	U	N	P
7440-62-2	Vanadium	21.7			P
7440-66-6	Zinc	116			P
	Cyanide	0.13	B		CA

Color Before: BROWN Clarity Before: Texture: COARSE

Color After: YELLOW Clarity After: Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME01F8

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: SDG No.: ME01F1

Matrix (soil/water): SOIL Lab Sample ID: ME01F1-8

Level (low/med): LOW Date Received: 10/19/02

% Solids: 48.9

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	10700			P
7440-36-0	Antimony	3.3	B	NE	P
7440-38-2	Arsenic	6.8			P
7440-39-3	Barium	514		N	P
7440-41-7	Beryllium	0.73	B	N	P
7440-43-9	Cadmium	90.1		N	P
7440-70-2	Calcium	5000		*	P
7440-47-3	Chromium	17.0			P
7440-48-4	Cobalt	22.7			P
7440-50-8	Copper	196		*	P
7439-89-6	Iron	22900			P
7439-92-1	Lead	35900			P
7439-95-4	Magnesium	3860			P
7439-96-5	Manganese	337			P
7439-97-6	Mercury	0.54			CV
7440-02-0	Nickel	55.1		N	P
7440-09-7	Potassium	886	B	E	P
7782-49-2	Selenium	5.9		N	P
7440-22-4	Silver	1.5	B		P
7440-23-5	Sodium	120	U		P
7440-28-0	Thallium	0.94	U	N	P
7440-62-2	Vanadium	30.0			P
7440-66-6	Zinc	2170			P
	Cyanide	0.27	B		CA

Color Before: BLACK Clarity Before: Texture: COARSE

Color After: YELLOW Clarity After: Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME01F9

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: SDG No.: ME01F1

Matrix (soil/water): SOIL Lab Sample ID: ME01F1-9

Level (low/med): LOW Date Received: 10/19/02

% Solids: 14.6

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6430			P
7440-36-0	Antimony	16.5	B	NE	P
7440-38-2	Arsenic	68.5			P
7440-39-3	Barium	326		N	P
7440-41-7	Beryllium	0.50	B	N	P
7440-43-9	Cadmium	10.7		N	P
7440-70-2	Calcium	27100		*	P
7440-47-3	Chromium	17.7			P
7440-48-4	Cobalt	691			P
7440-50-8	Copper	548		*	P
7439-89-6	Iron	73800			P
7439-92-1	Lead	4550			P
7439-95-4	Magnesium	4240	B		P
7439-96-5	Manganese	1270			P
7439-97-6	Mercury	0.31	B		CV
7440-02-0	Nickel	945		N	P
7440-09-7	Potassium	962	B	E	P
7782-49-2	Selenium	9.6		N	P
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium	393	U		P
7440-28-0	Thallium	3.1	U	N	P
7440-62-2	Vanadium	16.9	B		P
7440-66-6	Zinc	18000			P
	Cyanide	0.17	U		CA

Color Before: BLACK Clarity Before: Texture: COARSE

Color After: YELLOW Clarity After: Artifacts:

ments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME01G0

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: SDG No.: ME01F1

Matrix (soil/water): SOIL Lab Sample ID: ME01F1-10

Level (low/med): LOW Date Received: 10/19/02

% Solids: 8.9

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	16200			P
7440-36-0	Antimony	23.8	B	NE	P
7440-38-2	Arsenic	116			P
7440-39-3	Barium	1420		N	P
7440-41-7	Beryllium	2.5	B	N	P
7440-43-9	Cadmium	31.6		N	P
7440-70-2	Calcium	48000		*	P
7440-47-3	Chromium	32.3			P
7440-48-4	Cobalt	628			P
7440-50-8	Copper	626		*	P
7439-89-6	Iron	101000			P
7439-92-1	Lead	5840			P
7439-95-4	Magnesium	5940	B		P
7439-96-5	Manganese	4000			P
7439-97-6	Mercury	0.54	U		CV
7440-02-0	Nickel	2280		N	P
7440-09-7	Potassium	1480	B	E	P
7782-49-2	Selenium	16.1		N	P
7440-22-4	Silver	1.7	U		P
7440-23-5	Sodium	664	U		P
7440-28-0	Thallium	5.2	U	N	P
7440-62-2	Vanadium	74.8	B		P
7440-66-6	Zinc	10800			P
	Cyanide	0.28	U		CA

Color Before: BLACK Clarity Before: Texture: COARSE

Color After: YELLOW Clarity After: Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME01G1

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: SDG No.: ME01F1

Matrix (soil/water): SOIL Lab Sample ID: ME01F1-11

Level (low/med): LOW Date Received: 10/19/02

% Solids: 75.5

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4700			P
7440-36-0	Antimony	0.30	U	NE	P
7440-38-2	Arsenic	0.96	B		P
7440-39-3	Barium	67.7		N	P
7440-41-7	Beryllium	0.32	B	N	P
7440-43-9	Cadmium	0.075	U	N	P
7440-70-2	Calcium	1130	B	*	P
7440-47-3	Chromium	8.5			P
7440-48-4	Cobalt	4.0	B		P
7440-50-8	Copper	7.3		*	P
7439-89-6	Iron	13400			P
7439-92-1	Lead	6.2			P
7439-95-4	Magnesium	1470			P
7439-96-5	Manganese	126			P
7439-97-6	Mercury	0.051	U		CV
7440-02-0	Nickel	10.5		N	P
7440-09-7	Potassium	405	B	E	P
7782-49-2	Selenium	0.75	U	N	P
7440-22-4	Silver	0.20	U		P
7440-23-5	Sodium	153	B		P
7440-28-0	Thallium	0.60	U	N	P
7440-62-2	Vanadium	10.2	B		P
7440-66-6	Zinc	63.7			P
	Cyanide	0.033	U		CA

Color Before: BLACK Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME01G2

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: SDG No.: ME01F1

Matrix (soil/water): SOIL Lab Sample ID: ME01F1-12

Level (low/med): LOW Date Received: 10/19/02

% Solids: 88.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5360			P
7440-36-0	Antimony	0.27	B	NE	P
7440-38-2	Arsenic	4.4			P
7440-39-3	Barium	246		N	P
7440-41-7	Beryllium	0.40	B	N	P
7440-43-9	Cadmium	1.2		N	P
7440-70-2	Calcium	3010		*	P
7440-47-3	Chromium	9.2			P
7440-48-4	Cobalt	7.3	B		P
7440-50-8	Copper	11.6		*	P
7439-89-6	Iron	9650			P
7439-92-1	Lead	122			P
7439-95-4	Magnesium	1440			P
7439-96-5	Manganese	747			P
7439-97-6	Mercury	0.083	B		CV
7440-02-0	Nickel	12.3		N	P
7440-09-7	Potassium	795	B	E	P
7782-49-2	Selenium	1.5		N	P
7440-22-4	Silver	0.17	U		P
7440-23-5	Sodium	99.4	B		P
7440-28-0	Thallium	0.52	U	N	P
7440-62-2	Vanadium	17.0			P
7440-66-6	Zinc	82.6			P
	Cyanide	0.13	B		CA

Color Before: BLACK Clarity Before: Texture: COARSE

Color After: YELLOW Clarity After: Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME01G3

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: SDG No.: ME01F1

Matrix (soil/water): SOIL Lab Sample ID: ME01F1-13

Level (low/med): LOW Date Received: 10/19/02

% Solids: 71.6

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4460			P
7440-36-0	Antimony	0.70	B	NE	P
7440-38-2	Arsenic	4.9			P
7440-39-3	Barium	302		N	P
7440-41-7	Beryllium	0.64	B	N	P
7440-43-9	Cadmium	0.95	B	N	P
7440-70-2	Calcium	1920		*	P
7440-47-3	Chromium	10.5			P
7440-48-4	Cobalt	11.1	B		P
7440-50-8	Copper	17.6		*	P
7439-89-6	Iron	14200			P
7439-92-1	Lead	107			P
7439-95-4	Magnesium	1230	B		P
7439-96-5	Manganese	614			P
7439-97-6	Mercury	0.088	B		CV
7440-02-0	Nickel	33.3		N	P
7440-09-7	Potassium	457	B	E	P
7782-49-2	Selenium	1.5		N	P
7440-22-4	Silver	0.21	U		P
7440-23-5	Sodium	102	B		P
7440-28-0	Thallium	0.62	U	N	P
7440-62-2	Vanadium	46.8			P
7440-66-6	Zinc	139			P
	Cyanide	0.074	B		CA

Color Before: BLACK Clarity Before: Texture: COARSE

Color After: YELLOW Clarity After: Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME01G4

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: SDG No.: ME01F1

Matrix (soil/water): SOIL Lab Sample ID: ME01F1-14

Level (low/med): LOW Date Received: 10/19/02

% Solids: 74.2

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6930			P
7440-36-0	Antimony	0.52	B	NE	P
7440-38-2	Arsenic	2.6			P
7440-39-3	Barium	149		N	P
7440-41-7	Beryllium	0.44	B	N	P
7440-43-9	Cadmium	0.12	B	N	P
7440-70-2	Calcium	2020		*	P
7440-47-3	Chromium	12.0			P
7440-48-4	Cobalt	4.7	B		P
7440-50-8	Copper	11.0		*	P
7439-89-6	Iron	12900			P
7439-92-1	Lead	28.3			P
7439-95-4	Magnesium	2420			P
7439-96-5	Manganese	294			P
7439-97-6	Mercury	0.090	B		CV
7440-02-0	Nickel	14.3		N	P
7440-09-7	Potassium	701	B	E	P
7782-49-2	Selenium	0.76	U	N	P
7440-22-4	Silver	0.20	U		P
7440-23-5	Sodium	101	B		P
7440-28-0	Thallium	0.61	U	N	P
7440-62-2	Vanadium	16.5			P
7440-66-6	Zinc	46.0			P
	Cyanide	0.84			CA

Color Before: BLACK Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

ments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME01G5

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: SDG No.: ME01F1

Matrix (soil/water): SOIL Lab Sample ID: ME01F1-15

Level (low/med): LOW Date Received: 10/19/02

% Solids: 76.5

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5830			P
7440-36-0	Antimony	0.31	U	NE	P
7440-38-2	Arsenic	4.4			P
7440-39-3	Barium	241		N	P
7440-41-7	Beryllium	0.42	B	N	P
7440-43-9	Cadmium	0.23	B	N	P
7440-70-2	Calcium	2290		*	P
7440-47-3	Chromium	11.1			P
7440-48-4	Cobalt	11.6	B		P
7440-50-8	Copper	9.8		*	P
7439-89-6	Iron	13200			P
7439-92-1	Lead	7.4			P
7439-95-4	Magnesium	2080			P
7439-96-5	Manganese	1380			P
7439-97-6	Mercury	0.047	B		CV
7440-02-0	Nickel	20.6		N	P
7440-09-7	Potassium	483	B	E	P
7782-49-2	Selenium	1.3		N	P
7440-22-4	Silver	0.20	U		P
7440-23-5	Sodium	150	B		P
7440-28-0	Thallium	0.62	U	N	P
7440-62-2	Vanadium	20.8			P
7440-66-6	Zinc	36.5			P
	Cyanide	0.050	B		CA

Color Before: BLACK Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

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BLANKS

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: SDG NO.: ME01F1

Preparation Blank Matrix (soil/water): SOIL

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

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum	56.7	U	56.7	U	56.7	U	56.7	U	11.340	U	P
Antimony	1.2	U	1.3	B	1.2	U	1.2	U	0.240	U	P
Arsenic	3.0	U	3.0	U	3.0	U	3.0	U	0.600	U	P
Barium	0.3	U	0.3	B	0.3	U	0.4	B	0.060	U	P
Beryllium	0.2	U	0.4	B	0.3	B	0.4	B	0.040	U	P
Cadmium	0.3	U	0.3	B	0.3	U	0.3	B	0.060	U	P
Calcium	-52.3	B	15.0	U	-43.7	B	-15.9	B	-11.857	B	P
Chromium	0.8	U	0.8	U	0.8	U	0.8	U	0.160	U	P
Cobalt	0.7	U	0.7	U	0.7	U	0.7	U	0.140	U	P
Copper	1.5	U	1.5	U	1.5	U	1.5	U	0.300	U	P
Iron	12.5	U	12.5	U	12.5	U	14.9	B	2.500	U	P
Lead	1.2	U	1.2	U	1.2	U	1.2	U	0.240	U	P
Magnesium	12.3	U	59.7	B	12.3	U	49.6	B	2.460	U	P
Manganese	0.2	U	0.4	B	0.3	B	0.4	B	0.040	U	P
Mercury	0.1	U	0.1	U	0.1	U	0.1	U	0.050	U	CV
Nickel	1.0	U	1.0	U	1.0	U	1.0	U	0.200	U	P
Potassium	40.1	U	40.1	U	40.1	U	40.1	U	8.020	U	P
Selenium	3.0	U	3.0	U	3.0	U	3.0	U	0.600	U	P
Silver	0.8	U	0.8	U	0.8	U	0.8	U	0.160	U	P
Sodium	304.4	U	-316.2	B	304.4	U	304.4	U	60.880	U	P
Thallium	-3.1	B	-2.9	B	2.4	U	2.4	U	0.480	U	P
Vanadium	0.7	U	0.7	U	0.7	U	0.7	U	0.140	U	P
Zinc	-4.4	B	-4.2	B	-4.3	B	-4.1	B	0.220	U	P
Cyanide	-.6	B	0.5	U	-.7	B	-1.1	B	-.041	B	CA

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BLANKS

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: _____ SDG NO.: ME01F1

Preparation Blank Matrix (soil/water): _____

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

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum			56.7	U	56.7	U	56.7	U			P
Antimony			1.2	U	1.2	U	1.2	U			P
Arsenic			3.0	U	3.0	U	3.0	U			P
Barium			0.4	B	0.4	B	0.5	B			P
Beryllium			0.4	B	0.4	B	0.4	B			P
Cadmium			0.3	U	0.3	B	0.3	B			P
Calcium			-39.8	B	-22.2	B	-41.1	B			P
Chromium			0.8	U	0.8	U	0.8	U			P
Cobalt			0.7	U	0.7	U	0.7	U			P
Copper			1.5	U	1.5	U	1.5	U			P
Iron			12.5	U	12.5	U	12.5	U			P
Lead			1.2	U	1.2	U	1.2	U			P
Magnesium			22.9	B	40.6	B	21.2	B			P
Manganese			0.4	B	0.3	B	0.4	B			P
Mercury			0.1	U	0.1	U	0.1	U			CV
Nickel			1.0	U	1.0	U	1.0	U			P
Potassium			40.1	U	40.1	U	40.1	U			P
Selenium			3.0	U	3.0	U	3.0	U			P
Silver			0.8	U	0.8	U	0.8	U			P
Sodium			304.4	U	304.4	U	304.4	U			P
Thallium			2.4	U	2.4	U	2.4	U			P
Vanadium			0.7	U	0.7	U	0.7	U			P
Zinc			-4.2	B	-4.0	B	-3.3	B			P
Cyanide			-.8	B	-1.0	B	-.8	B			CA

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BLANKS

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: _____ SDG NO.: ME01F1

Preparation Blank Matrix (soil/water): _____

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

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C		Prepa-ration Blank	C		M
Aluminum			56.7	U	56.7	U	56.7	U					P
Antimony			1.2	U	1.2	U	1.2	U					P
Arsenic			3.0	U	3.0	U	3.0	U					P
Barium			0.3	B	0.4	B	0.3	B					P
Beryllium			0.3	B	0.4	B	0.3	B					P
Cadmium			0.3	B	0.3	B	0.3	U					P
Calcium			-23.2	B	-35.6	B	15.0	U					P
Chromium			0.8	U	0.8	U	0.8	U					P
Cobalt			0.7	U	0.7	U	0.7	U					P
Copper			1.5	B	1.6	B	1.5	U					P
Iron			15.8	B	12.5	U	13.5	B					P
Lead			1.2	U	1.2	U	1.2	U					P
Magnesium			39.2	B	18.4	B	45.2	B					P
Manganese			0.4	B	0.7	B	0.4	B					P
Mercury			0.1	U	0.1	U	0.1	U					CV
Nickel			1.0	U	1.0	U	1.0	U					P
Potassium			40.1	U	40.1	U	40.1	U					P
Selenium			3.0	U	3.0	U	3.0	U					P
Silver			0.8	U	0.8	U	0.8	U					P
Sodium			304.4	U	304.4	U	304.4	U					P
Thallium			2.4	U	2.4	U	2.4	U					P
Vanadium			0.7	U	0.7	U	0.7	U					P
Zinc			-3.8	B	1.1	U	1.1	U					P
Cyanide			-.8	B									CA

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3

BLANKS

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: _____ SDG NO.: ME01F1

Preparation Blank Matrix (soil/water): _____

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

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Mercury			0.1	U	0.1	U	0.1	U			CV

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3

BLANKS

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: _____ SDG NO.: ME01F1

Preparation Blank Matrix (soil/water): _____

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

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Mercury			0.1	U							CV

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3

BLANKS

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: _____ SDG NO.: ME01F1

Preparation Blank Matrix (soil/water): _____

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

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C		Prepa-ration Blank	C		M
Aluminum	56.7	U	56.7	U	56.7	U	56.7	U					P
Antimony	1.2	U	1.2	U	1.2	U	1.2	U					P
Arsenic	3.0	U	3.0	U	3.0	U	3.0	U					P
Barium	0.3	U	0.3	U	0.6	B	0.4	B					P
Beryllium	0.2	U	0.3	B	0.3	B	0.5	B					P
Cadmium	0.3	U	0.3	U	0.3	U	0.4	B					P
Calcium	-59.2	B	-26.6	B	-45.2	B	15.0	U					P
Chromium	0.8	U	0.8	U	0.8	U	0.8	U					P
Cobalt	0.7	U	0.7	U	0.7	U	0.7	U					P
Copper	1.5	U	1.5	U	1.5	U	1.5	U					P
Iron	12.5	U	12.5	U	12.5	U	12.5	U					P
Lead	1.2	U	1.2	U	1.2	U	1.2	U					P
Magnesium	12.3	U	38.0	B	16.2	B	59.4	B					P
Manganese	0.2	U	0.3	B	0.2	B	0.3	B					P
Nickel	1.0	U	1.0	U	1.0	U	1.0	U					P
Potassium	40.1	U	40.1	U	40.1	U	40.1	U					P
Selenium	3.0	U	3.0	U	3.0	U	3.0	U					P
Silver	0.8	U	0.8	U	0.8	U	0.8	U					P
Sodium	304.4	U	304.4	U	304.4	U	304.4	U					P
Thallium	2.4	U	2.4	U	2.4	U	2.4	U					P
Vanadium	0.7	U	0.7	U	0.7	U	0.7	U					P
Zinc	-4.6	B	-4.4	B	-4.2	B	-4.1	B					P

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5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

ME01F1S

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: _____ SDG NO.: ME01F1

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

% Solids for Sample: 86.7

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

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Antimony	75 - 125	58.6180		13.8793		115.34	38.8	N	P
Arsenic	75 - 125	14.8549		7.5378		9.23	79.3		P
Barium	75 - 125	836.9631		494.6817		461.36	74.2	N	P
Beryllium	75 - 125	9.1919		0.8897	B	11.53	72.0	N	P
Cadmium	75 - 125	15.6654		7.8801		11.53	67.5	N	P
Chromium	75 - 125	42.8815		8.4232		46.14	74.7		P
Cobalt	75 - 125	103.0551		14.9848		115.34	76.4		P
Copper	75 - 125	140.2706		91.3018		57.67	84.9		P
Lead		18621.2129		16358.0859		4.61	49091.7		P
Manganese		727.6093		620.3120		115.34	93.0		P
Mercury	75 - 125	0.7336		0.2175		0.58	89.0		CV
Nickel	75 - 125	101.8533		19.2613		115.34	71.6	N	P
Selenium	75 - 125	4.7510		3.5532		2.31	51.8	N	P
Silver	75 - 125	9.0374		0.3981	B	11.53	74.9		P
Thallium	75 - 125	4.1794		0.5536	U	11.53	36.2	N	P
Vanadium	75 - 125	113.8669		25.8500		115.34	76.3		P
Zinc		26956.6321		22686.8896		115.34	3701.9		P
Cyanide	75 - 125	5.3971		0.2802	B	5.77	88.7		CA

Comments:

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POST DIGEST SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

ME01F1A

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: SDG NO.: ME01F1

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

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added(SA)	%R	Q	M
Antimony		178.95		60.17		120.0	99.0		P
Barium		6111.19		2144.44		4290.0	92.5		P
Beryllium		13.26		3.86	B	10.0	94.0		P
Cadmium		106.87		34.16		70.0	103.9		P
Nickel		273.98		83.50		170.0	112.0		P
Selenium		38.95		15.40		30.0	78.5		P
Thallium		10.47		2.40	U	20.0	52.3		P

Comments:

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DUPLICATES

EPA SAMPLE NO.

ME01F1D

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: SDG NO.: ME01F1

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

% Solids for Sample: 86.7 % Solids for Duplicate: 87.0

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

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		9419.9824		10775.3877		13.4		P
Antimony	13.8	13.8793		17.0369		20.4		P
Arsenic	2.3	7.5378		7.7423		2.7		P
Barium		494.6817		435.2111		12.8		P
Beryllium	1.2	0.8897	B	1.1573		26.1		P
Cadmium		7.8801		7.4347		5.8		P
Calcium		21136.0293		27675.0195		26.8	*	P
Chromium	2.3	8.4232		8.4940		0.8		P
Cobalt	11.5	14.9848		17.3450		14.6		P
Copper		91.3018		112.0227		20.4	*	P
Cyanide		0.2802	B	0.2917	B	4.0		CA
Iron		64634.1641		78258.6172		19.1		P
Lead		16358.0869		17136.0918		4.6		P
Magnesium	1153.4	2050.0771		2760.9204		29.6		P
Manganese		620.3120		659.6044		6.1		P
Mercury	0.1	0.2175		0.2603		17.9		CV
Nickel	9.2	19.2613		20.4237		5.8		P
Potassium	1153.4	1840.2430		2395.9631		26.2		P
Selenium	1.2	3.5532		2.6626		28.6		P
Silver		0.3981	B	0.4024	B	1.1		P
Sodium		351.0957	U	989.5654	B	200.0		P
Thallium		0.5536	U	0.5536	U			P
Vanadium	11.5	25.8500		26.0617		0.8		P
Zinc		22686.8896		25865.2826		13.1		P

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ICP SERIAL DILUTIONS

EPA SAMPLE NO.

ME01F1L

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: SDG NO.: ME01F1

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

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Aluminum	40835.62		39871.09		2.4		P
Antimony	60.17		67.59	B	12.3	E	P
Arsenic	32.68		31.96	B	2.2		P
Barium	2144.45		2148.76		0.2		P
Beryllium	3.86	B	4.24	B	9.8		P
Cadmium	34.16		34.05		0.3		P
Calcium	91624.68		92632.55		1.1		P
Chromium	36.51		37.76	B	3.4		P
Cobalt	64.96		69.73	B	7.3		P
Copper	395.79		387.18		2.2		P
Iron	280189.09		289986.91		3.5		P
Lead	14182.46		14205.98		0.2		P
Magnesium	8887.08		9143.13	B	2.9		P
Manganese	2689.05		2773.47		3.1		P
Nickel	83.50		86.09	B	3.1		P
Potassium	7977.45		6480.44	B	18.8	E	P
Selenium	15.40		15.00	U	100.0		P
Silver	1.73	B	4.00	U	100.0		P
Sodium	304.40	U	ME 11-6-02 1522.00 ~~7610.00~~	U			P
Thallium	2.40	U	12.00	U			P
Vanadium	112.06		115.82	B	3.4		P
Zinc	19669.60		18340.98		6.8		P

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INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: SDG NO.: ME01F1

ICP ID Number: P3 Date: 10/15/02

Flame AA ID Number:

Furnace AA ID Number:

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum	308.22		200	56.7	P
Antimony	206.84		60	1.2	P
Arsenic	189.04		10	3.0	P
Barium	493.41		200	0.3	P
Beryllium	313.04		5	0.2	P
Cadmium	226.50		5	0.3	P
Calcium	317.93		5000	15.0	P
Chromium	267.72		10	0.8	P
Cobalt	228.62		50	0.7	P
Copper	324.70		25	1.5	P
Iron	271.44		100	12.5	P
Lead	220.35		3	1.2	P
Magnesium	279.08		5000	12.3	P
Manganese	257.61		15	0.2	P
Nickel	231.60		40	1.0	P
Potassium	766.49		5000	40.1	P
Selenium	196.03		5	3.0	P
Silver	328.07		10	0.8	P
Sodium	330.23		5000	304.4	P
Thallium	190.86		10	2.4	P
Vanadium	292.40		50	0.7	P
Zinc	213.86		20	1.1	P

Comments:

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INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: SDG NO.: ME01F1

ICP ID Number: Date: 10/15/02

Flame AA ID Number: V3

Furnace AA ID Number:

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Mercury	253.70		0.2	0.1	CV

Comments:

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INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: SDG NO.: ME01F1

ICP ID Number: Date: 10/15/02

Flame AA ID Number: C2

Furnace AA ID Number:

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Cyanide			10	0.5	CA

Comments:

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PREPARATION LOG

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: SDG NO.: ME01F1

Method: P

EPA Sample No.	Preparation Date	Weight (grams)	Volume (mL)
LCSS	10/31/02	1.00	200
ME01F1	10/31/02	1.00	200
ME01F1D	10/31/02	1.00	200
ME01F1S	10/31/02	1.00	200
ME01F2	10/31/02	1.09	200
ME01F3	10/31/02	1.03	200
ME01F4	10/31/02	1.03	200
ME01F5	10/31/02	1.05	200
ME01F6	10/31/02	1.04	200
ME01F7	10/31/02	1.05	200
ME01F8	10/31/02	1.04	200
ME01F9	10/31/02	1.06	200
ME01G0	10/31/02	1.03	200
ME01G1	10/31/02	1.06	200
ME01G2	10/31/02	1.04	200
ME01G3	10/31/02	1.08	200
ME01G4	10/31/02	1.06	200
ME01G5	10/31/02	1.02	200
PBS	10/31/02	1.00	200

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PREPARATION LOG

L Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: SDG NO.: ME01F1

Method: CV

EPA Sample No.	Preparation Date	Weight (grams)	Volume (mL)
LCSS	10/31/02	0.20	100
ME01F1	10/31/02	0.20	100
ME01F1D	10/31/02	0.20	100
ME01F1S	10/31/02	0.20	100
ME01F2	10/31/02	0.23	100
ME01F3	10/31/02	0.20	100
ME01F4	10/31/02	0.22	100
ME01F5	10/31/02	0.21	100
ME01F6	10/31/02	0.20	100
ME01F7	10/31/02	0.22	100
ME01F8	10/31/02	0.29	100
ME01F9	10/31/02	0.23	100
ME01G0	10/31/02	0.21	100
ME01G1	10/31/02	0.26	100
ME01G2	10/31/02	0.24	100
ME01G3	10/31/02	0.29	100
ME01G4	10/31/02	0.21	100
ME01G5	10/31/02	0.29	100
PBS	10/31/02	0.20	100

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PREPARATION LOG

L Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: SDG NO.: ME01F1

Method: CA

EPA Sample No.	Preparation Date	Weight (grams)	Volume (mL)
LCSS	10/22/02	1.00	50
ME01F1	10/22/02	1.00	50
ME01F1D	10/22/02	1.00	50
ME01F1S	10/22/02	1.00	50
ME01F2	10/22/02	1.02	50
ME01F3	10/22/02	1.05	50
ME01F4	10/22/02	1.04	50
ME01F5	10/22/02	1.01	50
ME01F6	10/22/02	1.02	50
ME01F7	10/22/02	1.00	50
ME01F8	10/22/02	1.05	50
ME01F9	10/22/02	1.03	50
ME01G0	10/22/02	1.00	50
ME01G1	10/22/02	1.00	50
ME01G2	10/22/02	1.01	50
ME01G3	10/22/02	1.02	50
ME01G4	10/22/02	1.00	50
ME01G5	10/22/02	1.01	50
PBS	10/22/02	1.00	50

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 CENTRAL REGIONAL LABORATORY

536 SOUTH CLARK STREET

CHICAGO, ILLINOIS 60605

Print Date: 11/18/02

Subject: Review of Region 5 Data for St. Louis Smelting & Refining

From: Richard Dilg, Chemist
Contractor to Region 5 Central Regional Laboratory
Submitted to CRL on 11-20-02

To: Superfund, US EPA Region 5
77 West Jackson Boulevard
Chicago, IL 60604

Attached are Results for: St. Louis Smelting & Refining

Analyses included in this report:

Metals ICP TCLP

RECEIVED
NOV 25 2002
USEPA-ECL-FSRS

Sylvia Griffin 11/21/02

Data Management Coordinator and Date Received

Transmitted: 11 / 21 / 02

Please have the U.S. EPA Project Manager/Officer call the CRL Sample Coordinator at 3-7444 for any comments or questions.

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: CRL METALS 003 & METALS 025

Date Generated: November 18, 2002
Author: R.Dilg, IITRI-ESAT

Site Name: St. Louis Smelting & Refining
Task Order Number: 05-0-02
TDF Number: 5-02-078
Job No.: 102-051 -001
Batch ID No.: E2J2201
Parameter: ICP - TCLP extracts

11-20-02

ICP NARRATIVE

This narrative covers the analysis of 5 soil sample TCLP extracts from the named site sampled for ICP analysis of selected analytes.

Sample No.	Sample ID	Sampling Date	TCLP extraction fluid used	Analysis Date
E2J2201-01	X107T-2003IE02S01	10-15-2002	# 1	11-15-2002
E2J2201-02	X110T-2003IE02S02	10-16-2002	# 1	11-15-2002
E2J2201-03	X111T-2003IE02S03	10-16-2002	# 2	11-15-2002
E2J2201-04	X113T-2003IE02S04	10-17-2002	# 1	11-15-2002
E2J2201-05	X114T-2003IE02D04	10-17-2002	# 1	11-15-2002

The samples were extracted using TCLP Method 1311 on 10-28-2002. Two extraction blanks one for extraction fluid 1 and another for extraction fluid 2 were included. The extracts were preserved for metals analysis by using nitric acid and lowering the pH to less than 2. The preserved extracts were prepared for ICP analysis on 11-4-2002 by using routine CRL hot block (water) digestion procedures. A tenfold dilution of the preserved extract solution was digested for the analysis of each extract sample. The digested samples (Prep batch EK20402) were analyzed on 11-15-2002 using the Optima 3300 DV ICP unit using analysis run method water_080300_m_ESAT. Analyte holding times were met.

ICP RUN RESULTS

Analyte mdl's determined during late summer of 2001 and rl values calculated from that information for ESAT analysis work for the Optima 3300 DV were used. The calculated rl values were used in reporting sample analysis results for this data case.

Analysis RUN E2J2201 TCLP - Optima 3300 DV

The digested TCLP extracts (Prep Batch EK20402) were analyzed on 11-15-2002. The original raw analysis run printouts are included with this deliverable.

Routine ESAT ICP reporting limits for the analytes were used for reporting the extract analyte values found rather than site specific action levels-as-limits. The extract analyte values reported reflect the tenfold dilution used to digest the extracts.

QA / QC summary reports are the traditional set based on "default" QA/ QC limits.

The following lists the case pertinent out-of-control QC audit check results based on default QA / QC (traditional) limits:

Analysis E2J2201 TCLP - Optima 3300 DV (continued)

RUN E2J2201 TCLP :

Blanks: (Blank values are truncated rather than rounded)

Digest blank: (EK20402-BLK1)	Cd 226	0.4	µg/L
Extract blank 1: (EK20402-BLK2)	Ba455	2.4	"
	Cd 226	0.75	"
Extract blank 2: (EK20402-BLK3)	Cd 226	0.38	"

Matrix spikes:	E2J2201-01 (EK20402-DUP1)	Pb220	#
	E2J2201-03 (EK20402-DUP2)	Pb220	#

spike audit not valid; sample concentration greater than twice the spike concentration

RL check Soln: RL 1:

(See paragraph below regarding rl's)

RL 2:

resently no "control" actions are being implemented with the observed RL analyte values actually determined during the analysis run. RL check solution values currently are being analyzed for purposes of generating a benchmark set of values which can be used to monitor the appropriateness of any given RL level of analyte concentration.

Sample analyte qualifications:

QA / QC summary reports are the traditional set based on "default" QA/ QC limits.

For As, Ba, Cd, Cr, Pb, Se, and Ag, all sample results are usable except as noted below. Any blank "contamination" will be judged so based on values that exceed rl values rather than MDL values.

For As, the sample results for E2J2201-01, -02, -04, and -05 are flagged "J" since they had a result between the MDL and the rl value and are estimated because of this.

For Cd, the sample result for E2J2201-04 is flagged "J" since it had a result between the MDL and the rl value and is estimated because of this.

For Pb, matrix spike audits were not valid. No Pb results are qualified on the basis of the matrix spike results. All Pb sample results are usable but the Pb results for samples E2J2201-01, -02, and -03 exceeded 40 CFR 261.24 Table 1 listed maximum concentration action level limits for Pb.

or Se, the sample result for E2J2201-04 is flagged "J" since it had a result between the MDL and the rl value and is estimated because of this.

Other comments

Samples E2J2201-04 and -05 are designated as field duplicate soil samples. No comparison of TCLP extract analyte results were made.

A copy of laboratory notebook entries for the Method 1311 extraction information is included with this deliverable.

R5CRL Files

The following pathways were used for storing analysis information to the R5CRL file server for the this data set:

(Vol2 on 'R5crl')[H:] \IITRI-Metals \Rdilg \E2J2201 \Icp \Optima 3300DV \Methods_ESAT
(Vol2 on 'R5crl')[H:] \IITRI-Metals \Rdilg \E2J2201 \Icp \Optima 3300DV \narrative
(Vol2 on 'R5crl')[H:] \IITRI-Metals \Rdilg \E2J2201 \Icp \Optima 3300DV \Results_ESAT
(Vol2 on 'R5crl')[H:] \IITRI-Metals \Rdilg \E2J2201 \Icp \Optima 3300DV \SIFs_ESAT
(Vol2 on 'R5crl')[H:] \IITRI-Metals \Rdilg \E2J2201 \Icp \Optima 3300DV \SS processed data

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IIT Research Institute ESAT Region 5
536 South Clark Street, Suite 734; Chicago, IL 60605
Telephone (312) 353-8302 Facsimile (312) 353-8307

Superfund, US EPA Region 5 77 West Jackson Boulevard Chicago IL, 60604	Project: St. Louis Smelting & Refining Project Number: [none] Project Manager: Howard Pham	Reported: Nov-18-02 14:04

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
X107T-2003IE02S01	E2J2201-01	Soil	Oct-15-02 15:00	Oct-22-02 11:40
X110T-2003IE02S02	E2J2201-02	Soil	Oct-16-02 17:35	Oct-22-02 11:40
X111T-2003IE02S03	E2J2201-03	Soil	Oct-16-02 17:35	Oct-22-02 11:40
X113T-2003IE02S04	E2J2201-04	Soil	Oct-17-02 13:30	Oct-22-02 11:40
X114T-2003IE02D04	E2J2201-05	Soil	Oct-17-02 13:30	Oct-22-02 11:40

11-18-02

Richard Dilg, Chemist

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Superfund, US EPA Region 5 77 West Jackson Boulevard Chicago IL, 60604	Project: St. Louis Smelting & Refining Project Number: [none] Project Manager: Howard Pham	Reported: Nov-18-02 14:04

X107T-2003IE02S01
E2J2201-01(Soil)
Sampled: Oct-15-02 15:00
Received: Oct-22-02 11:40

TCLP Metals by ICP

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Arsenic	**136**	J	60.0	200	ug/L	10	EK20402	Nov-04-02	Nov-15-02
Barium	**1510**		3.00	9.00	"	"	"	"	"
Cadmium	**88.6**		3.40	10.0	"	"	"	"	"
Chromium	**U**		3.00	9.00	"	"	"	"	"
Lead	**20000**		25.0	87.0	"	"	"	"	"
Selenium	**U**		73.0	250	"	"	"	"	"
Silver	**U**		5.00	17.0	"	"	"	"	"

11-18-02

Richard Dilg, Chemist

00010

Report Name: E2J2201

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X110T-2003IE02S02
E2J2201-02(Soil)
Sampled: Oct-16-02 17:35
Received: Oct-22-02 11:40

TCLP Metals by ICP

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Arsenic	**99.5**	J	60.0	200	ug/L	10	EK20402	Nov-04-02	Nov-15-02
Barium	**648**		3.00	9.00	"	"	"	"	"
Cadmium	**99.7**		3.40	10.0	"	"	"	"	"
Chromium	**U**		3.00	9.00	"	"	"	"	"
Lead	**5520**		25.0	87.0	"	"	"	"	"
Selenium	**U**		73.0	250	"	"	"	"	"
Silver	**U**		5.00	17.0	"	"	"	"	"

11-18-02
Richard Dilg, Chemist

000106

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Superfund, US EPA Region 5 77 West Jackson Boulevard Chicago IL, 60604	Project: St. Louis Smelting & Refining Project Number: [none] Project Manager: Howard Pham	Reported: Nov-18-02 14:04

X111T-2003IE02S03
E2J2201-03(Soil)
Sampled: Oct-16-02 17:35
Received: Oct-22-02 11:40

TCLP Metals by ICP

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Arsenic	544		60.0	200	ug/L	10	EK20402	Nov-04-02	Nov-15-02
Barium	364		3.00	9.00	"	"	"	"	"
Cadmium	219		3.40	10.0	"	"	"	"	"
Chromium	U		3.00	9.00	"	"	"	"	"
Lead	29900		25.0	87.0	"	"	"	"	"
Selenium	U		73.0	250	"	"	"	"	"
Silver	U		5.00	17.0	"	"	"	"	"

11-18-02
Richard Dilg, Chemist

000107

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Superfund, US EPA Region 5 77 West Jackson Boulevard Chicago IL, 60604	Project: St. Louis Smelting & Refining Project Number: [none] Project Manager: Howard Pham	Reported: Nov-18-02 14:04

X113T-2003IE02S04
E2J2201-04(Soil)
Sampled: Oct-17-02 13:30
Received: Oct-22-02 11:40

TCLP Metals by ICP

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Arsenic	**103**	J	60.0	200	ug/L	10	EK20402	Nov-04-02	Nov-15-02
Barium	**649**		3.00	9.00	"	"	"	"	"
Cadmium	**7.59**	J	3.40	10.0	"	"	"	"	"
Chromium	**U**		3.00	9.00	"	"	"	"	"
Lead	**132**		25.0	87.0	"	"	"	"	"
Selenium	**85.5**	J	73.0	250	"	"	"	"	"
Silver	**U**		5.00	17.0	"	"	"	"	"

11-18-02
Richard Dilg, Chemist

000108

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Superfund, US EPA Region 5 77 West Jackson Boulevard Chicago IL, 60604	Project: St. Louis Smelting & Refining Project Number: [none] Project Manager: Howard Pham	Reported: Nov-18-02 14:04

X114T-2003IE02D04
E2J2201-05(Soil)
Sampled: Oct-17-02 13:30
Received: Oct-22-02 11:40

TCLP Metals by ICP

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Arsenic	75.4	J	60.0	200	ug/L	10	EK20402	Nov-04-02	Nov-15-02
Barium	599		3.00	9.00	"	"	"	"	"
Cadmium	14.1		3.40	10.0	"	"	"	"	"
Chromium	U		3.00	9.00	"	"	"	"	"
Lead	116		25.0	87.0	"	"	"	"	"
Selenium	U		73.0	250	"	"	"	"	"
Silver	U		5.00	17.0	"	"	"	"	"

11-18-02
Richard Dilg, Chemist

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Superfund, US EPA Region 5 77 West Jackson Boulevard Chicago IL, 60604	Project: St. Louis Smelting & Refining Project Number: [none] Project Manager: Howard Pham	Reported: Nov-18-02 14:04

Notes and Definitions

#	Spike audit not valid. The sample concentration exceeds twice the concentration of the spike added. No qualification made for this QC audit.
J	The identification of the analyte is acceptable; the reported value is an estimate.
K	The identification of the analyte is acceptable; the reported value may be biased high. The actual value is expected to be less than the reported value.
U	Not Detected
NR	Not Reported

11-18-02

Richard Dilg, Chemist

000110

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 CENTRAL REGIONAL LABORATORY

536 SOUTH CLARK STREET

CHICAGO, ILLINOIS 60605

Date: 11-21-02

Subject: Review of Region 5 Data for **St. Louis Smelting & Refining (Collinsville, IL)**

From: **Marjorie Mattox, Chemist, ESAT/IITRI**
Contractor to Region 5 Central Regional Laboratory
Submitted to EPA: Marjorie L. Mattox 11-20-02

To:

Attached are the results for: **St. Louis Smelting & Refing (Collinsville, IL)**

CRL data set number: **E2J2201**

Samples analyzed for: **Mercury**

Results are reported for sample designations: **E2J2201-01 to -05**

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NOV 25 2002
USEPA-ECL-FSRS

Sylvia Griffin 11/21/02

Data Management Coordinator and Date Received

Date Transmitted: 11/21/02

Please have the U.S. EPA Project Manager/Officer call the CRL Sample Coordinator at 3-7444 for any comments or questions.

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:

Rev. 4/10/02

Parameter: Mercury
Method: 245.2*DNS (AIG044 dated 01/23/01)
Analyst: M. Mattox M. Mattox
Date: November 19, 2002 11-19-02

Data Set: E2J2201
TDF: 5-02-078 000003
JOB: 249-0-1476-102-051-001
Task Order: 05-0-02

NARRATIVE

Five (5) soil samples from the St. Louis Smelting & Refining site (work order E2J2201) were collected on October 15-17, 2002. The samples were received properly preserved on October 22, 2002.

LIMS ID	CRL ID	Station ID
E2J2201-01	2003IE02S01	X107T
E2J2201-02	2003IE02S02	X110T
E2J2201-03	2003IE02S03	X111T
E2J2201-04	2003IE02S04	X113T
E2J2201-05	2003IE02D04	X114T

The soil samples were submitted for TCLP extraction. The extractions were then analyzed for mercury. All samples were analyzed within the 28 day holding time limit.

The TCLP extractions were conducted on October 28 and 29, 2002. The TCLP's required the use of two extraction fluids. Samples E2J2201-01, 02, 04, and 05 required the use of extraction fluid #1, sample E2J2201-03 required the use of extraction fluid #2. The TCLP extraction information from IITRI logbook C31508 is included with the package. All TCLP extracts were digested undiluted on November 8, 2002. Analysis was completed on November 12, 2002.

The samples were digested by adding the acid mixture, potassium permanganate, and potassium persulfate manually. The samples were then covered during the digestion. Digestion was done by heating the batch at 95 degrees in a water bath for two hours. This procedure was done in accordance with an SOP modification dated June 26, 2002. The hydroxylamine solution was manually added prior to analysis.

Details of this analysis can be found in the EPA instrument logbook and in the IITRI logbook number C31626.

A very slight positive deflection was observed in analyses on November 12, 2002. The calibration curve linearity was exceptionally good; therefore, it is likely that the same level of background was present for all standards and samples as well. The peak areas for all samples were approximately the same as that of the blanks. The DI water system had been worked on the day I made reagents which may have contributed to the very slight positive deflection. The instrument was thoroughly cleaned, checked and the samples were reanalyzed. However when doing the reanalysis I used an incorrect program, I pulled up a similar one. The reanalysis showed a slightly better baseline, but due to using the incorrect program the original analysis is submitted. New reagants were prepared for subsequent analyses and showed a much better baseline when tested out using calibration standards only. Due to time constraints this package is submitted with the very slight positive deflection.

Water samples E2J2201-04/05 appear to be a field duplicate pair, however, they have different station location ID's. The two samples do show good correlation.

The narrative, spreadsheet, and QC summary are stored in file folder:
r5crl\vol2\iitri-aig\mmattox\PSAMercury\Hg Water\E2J2201

Analytical final results were stored in the following database file: r5crl\vol2\iitri-aig\mmattox\PSAMercury\Hg Water\E2J2201\110802 (Each analytical run is stored as a text file directly from the instrument and also as a Lotus spreadsheet).

Results have been entered into RLIMS and matrix and digestion QC are reported on RLIMS generated reports. Instrument QC are reported in a separate WordPerfect report.

M. Mattox 11-19-02

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Telephone (312) 353-8302 Facsimile (312) 353-8307

Superfund, US EPA Region 5 77 West Jackson Boulevard Chicago IL, 60604	Project: St. Louis Smelting & Refining Project Number: [none] Project Manager: Howard Pham	Reported: Nov-20-02 08:25

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
X107T-2003IE02S01	E2J2201-01	Soil	Oct-15-02 15:00	Oct-22-02 11:40
X110T-2003IE02S02	E2J2201-02	Soil	Oct-16-02 17:35	Oct-22-02 11:40
X111T-2003IE02S03	E2J2201-03	Soil	Oct-16-02 17:35	Oct-22-02 11:40
X113T-2003IE02S04	E2J2201-04	Soil	Oct-17-02 13:30	Oct-22-02 11:40
X114T-2003IE02D04	E2J2201-05	Soil	Oct-17-02 13:30	Oct-22-02 11:40

M. Mattox 11-20-02
Margie Mattox, Chemist

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536 South Clark Street, Suite 734; Chicago, IL 60605
Telephone (312) 353-8302 Facsimile (312) 353-8307

Superfund, US EPA Region 5 77 West Jackson Boulevard Chicago IL, 60604	Project: St. Louis Smelting & Refining Project Number: [none] Project Manager: Howard Pham	Reported: Nov-20-02 08:25

Cold Vapor Analyses
IITRI - ESAT Contract

X107T-2003IE02S01 (E2J2201-01) Soil Sampled: Oct-15-02 15:00 Received: Oct-22-02 11:40

Analyte	Result	Flags / Qualifiers	MDL	Limit	Units	Dilution	Batch	Prepared	Analyzed
Mercury	U		0.100	0.500	ug/L	1	EK21201	Nov-08-0	Nov-12-02

X110T-2003IE02S02 (E2J2201-02) Soil Sampled: Oct-16-02 17:35 Received: Oct-22-02 11:40

Analyte	Result	Flags / Qualifiers	MDL	Limit	Units	Dilution	Batch	Prepared	Analyzed
Mercury	U		0.100	0.500	ug/L	1	EK21201	Nov-08-0	Nov-12-02

X111T-2003IE02S03 (E2J2201-03) Soil Sampled: Oct-16-02 17:35 Received: Oct-22-02 11:40

Analyte	Result	Flags / Qualifiers	MDL	Limit	Units	Dilution	Batch	Prepared	Analyzed
Mercury	U		0.100	0.500	ug/L	1	EK21201	Nov-08-0	Nov-12-02

X113T-2003IE02S04 (E2J2201-04) Soil Sampled: Oct-17-02 13:30 Received: Oct-22-02 11:40

Analyte	Result	Flags / Qualifiers	MDL	Limit	Units	Dilution	Batch	Prepared	Analyzed
Mercury	U		0.100	0.500	ug/L	1	EK21201	Nov-08-0	Nov-12-02

X114T-2003IE02D04 (E2J2201-05) Soil Sampled: Oct-17-02 13:30 Received: Oct-22-02 11:40

Analyte	Result	Flags / Qualifiers	MDL	Limit	Units	Dilution	Batch	Prepared	Analyzed
Mercury	U		0.100	0.500	ug/L	1	EK21201	Nov-08-0	Nov-12-02

M. Mattox 11-20-02
Margie Mattox, Chemist

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000010

Superfund, US EPA Region 5 77 West Jackson Boulevard Chicago IL, 60604	Project: St. Louis Smelting & Refining Project Number: [none] Project Manager: Howard Pham	Reported: Nov-20-02 08:25

Notes and Definitions

U	Not Detected
NR	Not Reported

M. Mattox 11-20-02
Margie Mattox, Chemist

DATE: May 15, 2003

IEPA
1021 North Grand Avenue East
P.O. Box 19276
Springfield, IL 62794-9276

Attn: Bob Casper

SITE NAME: St. Louis Smelting & Refining

CASE NO.	LAB	NO. OF SAMPLES	SDG	MATRIX
31061	Compuchem	15	ME01F1	Soil

==========

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

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

Data Received by:_____ Date:_____

PROBLEMS:

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

_____

_____

Received by Data Management Coordinator, CRL for file.
Date:_____

Signature:_____

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

Sent By: Eva M. Dixon, Sr. Data Specialist
ESAT

MAY 2

MAY 2 1 2003

MAY 1 5 2003

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 4/11/03

SUBJECT: **Review of Data**
Received for review on 11/8/02

FROM: **Stephen L. Ostrodka, Chief (SMF-4J)**
Superfund Field Services Section

TO: **Data User:** IEPA

We have reviewed the data by CADRE for the following case:

SITE NAME: St. Louis Smelting & Refining

CASE NUMBER: 31061 **SDG NUMBER:** ME01F1

Number and Type of Samples: 15 soils

Sample Numbers: ME01F1-9, G0-5

Laboratory: Compuchem Hrs. for Review: 16

Following are our findings:

CC: Cecilia Moore
Region 5 TOPO
Mail Code: SMF-4J

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

Fifteen (15) soil samples, numbered ME01F1-9, G0-5, were collected on October 16-18, 2002. The lab received the samples on October 19, 2002 in good condition. All samples were analyzed for metals and cyanide. All samples were analyzed using the CLP SOW ILM04.1 analysis procedures.

Mercury analysis was performed using a Cold Vapor AA Technique. Cyanide analysis was performed using the MIDI Distillation procedure. The remaining inorganic analyses were performed using an Inductively Coupled Plasma-Atomic Emission Spectrometric (ICP-AES) procedure.

Errors were found and corrected on Forms I, V, IX and XIV by this reviewer.

Reviewed by: Stephen Connet
Date: 4/11/03

1. HOLDING TIME:

HOLDING TIME CRITERIA

---Inorganic---

	-- Holding Time --		------- pH -------	
	Primary	Expanded	Primary	Expanded
Metals	180	0	2.0	0.0
Mercury	28	0	2.0	0.0
Cyanide	14	0	12.0	0.0

DC-280: The following inorganic soil samples were reviewed for holding time violations using criteria developed for water samples.

ME01F1, ME01F2, ME01F3, ME01F4, ME01F5, ME01F6, ME01F7, ME01F8, ME01F9, ME01G0, ME01G1, ME01G2, ME01G3, ME01G4, ME01G5

2. CALIBRATIONS:

CALIBRATION CRITERIA

---Inorganic---

Percent Recovery Limits

	--- Primary ---		-- Expanded ---	
	Low	High	Low	High
Cyanide	85.00	115.00	70.00	130.00
AA	90.00	110.00	75.00	125.00
ICP	90.00	110.00	75.00	125.00
Mercury	80.00	120.00	65.00	135.00

Reviewed by: Stephen Connet
Date: 4/11/03

No problems were found for this qualification.

3. BLANKS:

LABORATORY BLANKS CRITERIA

DC-283: The following inorganic samples are associated with a negative blank concentration whose absolute value is greater than the instrument detection limit (IDL). The sample concentration is greater than the IDL and less than five times the absolute value of the blank concentration. These hits are qualified "J". Some non-detect concentration readings are sufficiently high that the negative blank reading may have caused the IDL to be elevated. These non-detects are qualified "UJ".

Sodium
ME01F6, ME01F7, ME01G1, ME01G2, ME01G3, ME01G4, ME01G5

Thallium
ME01F4

Cyanide
ME01F1, ME01F3, ME01F5, ME01F6, ME01F7, ME01F8, ME01F9, ME01G0, ME01G2, ME01G3, ME01G5

DC-284: The following inorganic samples are associated with a blank concentration which is greater than the instrument detection limit (IDL). The sample concentration is also greater than the IDL and less than five times the blank concentration.
These hits are qualified "J".

Antimony
ME01F6, ME01F7, ME01G2, ME01G3, ME01G4

Beryllium
ME01F3, ME01F4, ME01F5, ME01F6, ME01F7, ME01F8, ME01F9, ME01G0, ME01G1, ME01G2, ME01G4, ME01G5

Cadmium
ME01G4, ME01G5

DC-338: During review of the following inorganic samples, the reported IDL/default CRDL value was used for cyanide.

ME01F1, ME01F2, ME01F3, ME01F4, ME01F5, ME01F6, ME01F7, ME01F8, ME01F9, ME01G0, ME01G1, ME01G2, ME01G3, ME01G4, ME01G5

4. MATRIX SPIKE/MATRIX SPIKE DUPLICATE AND LAB CONTROL SAMPLE:

MATRIX SPIKE CRITERIA

---Inorganic---

Percent Recovery Limits

Upper	125.0
Lower	75.0
Extreme lower	30.0

DC-266: The following inorganic samples are associated with a matrix spike recovery which was not within criteria and the required post digestion spike analysis was not performed. Hits and non-detects are not flagged. However, the information must be included in the IRDA report.

Chromium
ME01F3, ME01F4, ME01F5, ME01F6, ME01F7, ME01F8, ME01F9, ME01G0, ME01G1, ME01G2, ME01G4, ME01G5

DC-268: The following inorganic samples are associated with a matrix spike recovery which is low (30-74 %) indicating that sample results may be biased low.
Hits are qualified "J" and non-detects are qualified "UJ".

Antimony
ME01F3, ME01F4, ME01F5, ME01F6, ME01F7, ME01F8, ME01F9, ME01G0, ME01G1, ME01G2, ME01G4, ME01G5

Barium
ME01F3, ME01F4, ME01F5, ME01F6, ME01F7, ME01F8, ME01F9, ME01G0,

ME01G1, ME01G2, ME01G4, ME01G5

Beryllium
ME01F3, ME01F4, ME01F5, ME01F6, ME01F7, ME01F8, ME01F9, ME01G0, ME01G1, ME01G2, ME01G4, ME01G5

Cadmium
ME01F3, ME01F4, ME01F5, ME01F6, ME01F7, ME01F8, ME01F9, ME01G0, ME01G1, ME01G2, ME01G4, ME01G5

Chromium
ME01F3, ME01F4, ME01F5, ME01F6, ME01F7, ME01F8, ME01F9, ME01G0, ME01G1, ME01G2, ME01G4, ME01G5

Nickel
ME01F3, ME01F4, ME01F5, ME01F6, ME01F7, ME01F8, ME01F9, ME01G0, ME01G1, ME01G2, ME01G4, ME01G5

Selenium
ME01F3, ME01F4, ME01F5, ME01F6, ME01F7, ME01F8, ME01F9, ME01G0, ME01G1, ME01G2, ME01G4, ME01G5

Silver
ME01F3, ME01F4, ME01F5, ME01F6, ME01F7, ME01F8, ME01F9, ME01G0, ME01G1, ME01G2, ME01G4, ME01G5

Thallium
ME01F3, ME01F4, ME01F5, ME01F6, ME01F7, ME01F8, ME01F9, ME01G0, ME01G1, ME01G2, ME01G4, ME01G5

No problems were found for the laboratory control sample.

5. LABORATORY AND FIELD DUPLICATE:

No problems were found for this qualification.

Reviewed by: Stephen Connet
Date: 4/11/03

6. ICP ANALYSIS:

DC-294: The analyte concentration is high (>50 X the IDL) and serial dilution percent difference is not in control (>10%).

Hits are qualified "J" and non-detects are qualified "UJ".

Potassium

ME01F3, ME01F4, ME01F5, ME01F6, ME01F7, ME01F8, ME01F9, ME01G0, ME01G1, ME01G2, ME01G4, ME01G5

DC-295: The following inorganic samples are associated with an ICP serial dilution percent difference which is not in control. The serial dilution result is greater than the sample result, indicating a potential negative interference. The data must be qualified using professional judgement.

Hits are qualified "J" and non-detects are qualified "UJ".

Antimony

ME01F3, ME01F4, ME01F5, ME01F6, ME01F7, ME01F8, ME01F9, ME01G0, ME01G1, ME01G2, ME01G4, ME01G5

The following results are affected by an interference check "A" sample (ICSA) for which consistent false positive concentration values were obtained. The sample contains Al, Ca, Fe or Mg at a level comparable to that of the ICSA; the samples also contain trace elements at concentration levels comparable to the false positive values obtained for the ICSA. These results are qualified "J".

Thallium

ME01F4, ME01F5

The following inorganic samples are associated with negative sample results whose absolute value is greater than the CRDL, indicating a possible elevated detection limit.

Non-detects are qualified "UJ".

Thallium

ME01F7, ME01F8, ME01G4

The following results are associated with samples containing high levels of dissolved solids. Dilutions were performed to obtain concentrations with levels higher than the linear range of the instrument. Results for all other analytes were consistently higher

(when adjusted for dilution) than the original values by more than 20% indicating a large mass transport effect. These discrepancies are excessive.

Hits for these elements are qualified "J", non-detects are qualified "R".

Sodium

ME01F1, ME01F2

The following results are associated with high levels of easily ionizable elements which may have caused an ionization suppression effect on potassium. Diluted sample results show that a high bias of more than 20% exists for the original potassium values. It is not known at what level (of calcium or magnesium) this effect became significant, so only those samples will be qualified where the evidence is present in the form of data for sample dilutions.

The following results are qualified "J".

Potassium

ME01F1, ME01F2

7. GFAA ANALYSIS:

No GFAA analyses were performed for this case.

8. SAMPLE RESULTS:

All data. except those qualified above, are acceptable.

CADRE ILM04.1 Data Qualifier Sheet

Qualifiers	Data Qualifier Definitions
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J	The analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.
UJ	The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the action limit of the quantitation necessary to accurately and precisely measure the analyte in the sample.
R	The data are unusable. (The compound may or may not be present)

Reviewed by: Stephen Connet
Date: 4/11/03

Analytical Results (Qualified Data)

Case #. 31061 SDG : ME01F1
Site : ST. LOUIS SMELTING & REFINING
Lab. : LIBRTY
Reviewer : S. CONNET
Date : 04/11/03

Number of Soil Samples : 15
Number of Water Samples : 0

Sample Number :	ME01F1		ME01F2		ME01F3		ME01F4		ME01F5	
Sampling Location :	X107		X108		X109		X110		X111	
Matrix :	Soil		Soil		Soil		Soil		Soil	
Units :	mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg	
Date Sampled :	10/15/2002		10/15/2002		10/16/2002		10/16/2002		10/16/2002	
Time Sampled :	15:00		15:00		11:45		17:35		17:35	
%Solids :	86.7		86.4		79.9		92.3		79.9	
Dilution Factor :	1.0		1.0		1.0		1.0		1.0	
ANALYTE	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
ALUMINUM	9420		9980		4830		1950		2700	
ANTIMONY	13.9	J	13.8	J	0.29	UJ	4.6	J	18.7	J
ARSENIC	7.5		6.9		4.4		33.4		682	
BARIUM	495	J	445	J	489	J	92.1	J	139	J
BERYLLIUM	0.89	J	0.93	J	0.39	J	0.21	J	0.12	J
CADMIUM	7.9	J	6.2	J	2.3	J	7.3	J	10.0	J
CALCIUM	21100		23800		2370		2830		11600	
CHROMIUM	8.4	J	7.8	J	7.9	J	5.8	J	14.6	J
COBALT	15.0		16.6		6.7		9.4		33.5	
COPPER	91.3		88.4		11.5		521		733	
IRON	64600		73400		8770		42400		68700	
LEAD	18400		15700		500		1920		5260	
MAGNESIUM	2050		2130		1350		236		1190	
MANGANESE	620		597		871		28.4		162	
MERCURY	0.22		0.21		0.12		0.40		0.37	
NICKEL	19.3	J	16.9	J	11.2	J	21.3	J	134	J
POTASSIUM	1840	J	2040	J	522	J	567	J	537	J
SELENIUM	3.6	J	3.0	J	0.77	J	3.2	J	2.8	J
SILVER	0.40	J	0.38	J	0.19	UJ	2.4	J	6.7	J
SODIUM	351	R	1360	J	98.9		64.0	U	72.6	U
THALLIUM	0.55	UJ	0.51	UJ	0.58	UJ	0.90	J	7.5	J
VANADIUM	25.8		24.8		15.5		13.3		37.8	
ZINC	22700		24500		110		1100		3710	
CYANIDE	0.28	J	0.39		0.13	J	0.37		0.17	J

Analytical Results (Qualified Data)

Case #: 31061 SDG : ME01F1
Site : ST. LOUIS SMELTING & REFINING
Lab. : LIBRTY
Reviewer : S. CONNET
Date : 04/11/03

Sample Number :	ME01F6		ME01F7		ME01F8		ME01F9		ME01G0	
Sampling Location :	X112		X113		X225		X226		X227	
Matrix :	Soil		Soil		Soil		Soil		Soil	
Units :	mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg	
Date Sampled :	10/17/2002		10/17/2002		10/17/2002		10/17/2002		10/17/2002	
Time Sampled :	11:00		13:30		16:30		17:20		17:20	
%Solids :	81.4		84.6		48.9		14.6		8.9	
Dilution Factor :	1.0		1.0		1.0		1.0		1.0	
ANALYTE	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
ALUMINUM	9400		6700		10700		6430		16200	
ANTIMONY	0.43	J	0.39	J	3.3	J	16.5	J	23.8	J
ARSENIC	6.4		5.9		6.8		68.5		116	
BARIUM	173	J	153	J	514	J	326	J	1420	J
BERYLLIUM	0.48	J	0.47	J	0.73	J	0.50	J	2.5	J
CADMIUM	0.43	J	1.3	J	90.1	J	10.7	J	31.6	J
CALCIUM	2410		4840		5010		27100		48000	
CHROMIUM	12.5	J	11.8	J	17.0	J	17.7	J	32.3	J
COBALT	6.3		8.3		22.7		691		628	
COPPER	12.8		23.9		196		548		626	
IRON	14700		15200		22900		73800		101000	
LEAD	100		463		35900		4550		5840	
MAGNESIUM	2130		3230		3860		4240		5940	
MANGANESE	608		481		337		1270		4000	
MERCURY	0.10		0.14		0.54		0.31		0.54	U
NICKEL	13.8	J	16.5	J	55.1	J	945	J	2280	J
POTASSIUM	651	J	640	J	886	J	962	J	1480	J
SELENIUM	1.2	J	1.5	J	5.9	J	9.6	J	16.1	J
SILVER	0.19	UJ	0.18	UJ	1.5	J	1.0	UJ	1.7	UJ
SODIUM	96.0	J	228	J	120	U	393	U	664	U
THALLIUM	0.57	UJ	0.54	UJ	0.94	UJ	3.1	UJ	5.2	UJ
VANADIUM	23.3		21.7		30.1		16.9		74.9	
ZINC	50.9		116		2170		18000		10800	
CYANIDE	0.11	J	0.13	J	0.27	J	0.17	UJ	0.28	UJ

Analytical Results (Qualified Data)

Case #: 31061 SDG : ME01F1
Site : ST. LOUIS SMELTING & REFINING
Lab. : LIBRTY
Reviewer : S. CONNET
Date : 04/11/03

Sample Number :	ME01G1		ME01G2		ME01G3		ME01G4		ME01G5	
Sampling Location :	X228		X115		X229		X230		X231	
Matrix :	Soil		Soil		Soil		Soil		Soil	
Units :	mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg	
Date Sampled :	10/18/2002		10/18/2002		10/18/2002		10/18/2002		10/18/2002	
Time Sampled :	09:00		12:45		10:50		11:30		12:30	
%Solids :	75.5		88.0		71.6		74.2		76.5	
Dilution Factor :	1.0		1.0		1.0		1.0		1.0	
ANALYTE	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
ALUMINUM	4700		5360		4460		6930		5830	
ANTIMONY	0.30	UJ	0.27	J	0.70	J	0.52	J	0.31	UJ
ARSENIC	0.96		4.4		4.9		2.6		4.5	
BARIUM	67.7	J	246	J	302	J	149	J	241	J
BERYLLIUM	0.32	J	0.40	J	0.64	J	0.44	J	0.42	J
CADMIUM	0.080	UJ	1.2	J	0.95	J	0.12	J	0.23	J
CALCIUM	1130		3010		1920		2020		2290	
CHROMIUM	8.5	J	9.2	J	10.5	J	12.1	J	11.1	J
COBALT	4.0		7.3		11.1		4.7		11.6	
COPPER	7.3		11.6		17.6		11.0		9.8	
IRON	13400		9650		14200		12900		13200	
LEAD	6.2		122		107		28.3		7.4	
MAGNESIUM	1470		1440		1230		2420		2080	
MANGANESE	126		747		614		294		1390	
MERCURY	0.050	U	0.080		0.090		0.090		0.050	
NICKEL	10.5	J	12.3	J	33.3	J	14.3	J	20.6	J
POTASSIUM	405	J	795	J	457		701	J	483	J
SELENIUM	0.75	UJ	1.5	J	1.5	J	0.76	UJ	1.3	J
SILVER	0.20	UJ	0.17	UJ	0.21	UJ	0.20	UJ	0.20	UJ
SODIUM	153	J	99.5	J	102	J	101	J	150	J
THALLIUM	0.60	UJ	0.52	UJ	0.62	UJ	0.61	UJ	0.62	UJ
VANADIUM	10.2		17.0		46.8		16.5		20.8	
ZINC	63.7		82.6		139		46.0		36.5	
CYANIDE	0.030	U	0.13	J	0.070	J	0.84		0.050	J

QC EXCEPTIO SUMMARY REPORT

CASE\SAS#: 31061
SITE: ST. LOUIS SMELTING & REFINING
MATRIX: SOIL
WATER SAMPLE SPK: —
DATA SET: MEO1F1
LAB: COMPOCHEM (LIBRTY)
CONC: LOW
WATER SAMPLE DUP: —
LAB QC #
REVIEWED BY: S. CONNET
SOIL SAMPLE SPK: MEO1F1
DATE: 4-11-07
SOIL SAMPLE DUP: ↓

FORM #		FORM 2	FORM 2	FORM 3	FORM 3	FORM 3	FORM 4	FORM 5	FORM 6	FORM 7	FORM 7	FORM 9	FORM 9	FORM 6	FORM 5	FIELD	FIELD	FIELD	FIELD	COMMENTS
ELEMENT	HOLD TIME	INITIAL CALIB	CONTIN CALIB	CALIB BLANK	PREP WATER BLANK	PREP SOIL BLANK	ICS %R	SOIL SPIKE %R	SOIL DUP RPD	ICS AQ	ICS SOIL	SERIAL DILUTION AQUEOUS	SERIAL DILUTION SOIL	AQ DUP %R	AQ SPIKE %R	BLANK	DUP RPD	BLANK	DUP RPD	
ALUMINUM																				
ANTIMONY				1.32				38.8					12.3							
ARSENIC																				
BARIUM								74.2												
BERYLLIUM				0.43				72.0												
CADMIUM				0.35				67.5												
CALCIUM																				
CHROMIUM								74.7												
COBALT																				
COPPER																				
IRON																				
LEAD																				
MAGNESIUM																				
MANGANESE																				
MERCURY																				
NICKEL								71.6												
POTASSIUM													18.8							
SELENIUM								51.8												
SILVER								74.9												
SODIUM				-316.25																
THALLIUM				-3.10			+10	36.2												
TIN																				
VANADIUM																				
ZINC																				
CYANIDE				-1.104																

BLANKS: Sb: F6, F7, G2, G3, G4
Be: F3, F4, F5, F6, F7, F8, F9, G0 G1 G2 G4 G5
Cd: G4, G5
Na: F6, F7, G1, G2, G3, G4, G5
CN: F1, F3, F5, F6, F7, F8, F4, G0, G2, G3, G5
Tl < CRDL: F7, F8, G4

USEPA Contract Laboratory Program
Inorganic Traffic Report

Case No: 31061
DAS No:
SDG No: ME01F1

L

Date Shipped: 10/18/02
Carrier Name: UPS
Airbill: 1Z6215892210021378
Shipped to: Liberty Analytical
501 Madison Avenue
Cary NC 27513
(919) 379-4080

Date Received/Received by: [illegible] 10/19/02 1015
Lab Contract No: 68W00082 Unit Price: 79.57

Transfer To:
Date Received/Received By:
Lab Contract No: Price:

Sampler (Signature): [illegible] 79.57

Relinquished By:	Date / Time:	Received By:
[illegible] 10/18/02	10/18/02 1340	
Relinquished By:	Date / Time:	Received By:
	10/19/02 1050	[illegible]
Relinquished By:	Date / Time:	Received By:

INORGANIC SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No./ PRESERVATIVE	STATION LOCATION	SAMPLE COLLECT DATE/TIME	ORGANIC SAMPLE No.	FOR LAB USE ONLY Sample Condition On Receipt
ME01F1	Soil/Sediment/ Mark Wagner	L/G	TM/CN (21)	5-66231 (Ice Only) (1)	X107	10/15/02 15:00		Good
ME01F2	Soil/Sediment/ Mark Wagner	L/G	TM/CN (21)	5-66232 (Ice Only) (1)	X108	10/15/02 15:00		
ME01F3	Soil/Sediment/ Mark Wagner	L/G	TM/CN (21)	5-66233 (Ice Only) (1)	X109	10/16/02 11:45		
ME01F4	Soil/Sediment/ Mark Wagner	L/G	TM/CN (21)	5-66234 (Ice Only) (1)	X110	10/16/02 17:35		
ME01F5	Soil/Sediment/ Mark Wagner	L/G	TM/CN (21)	5-66235 (Ice Only) (1)	X111	10/16/02 17:35		
ME01F6	Soil/Sediment/ Mark Wagner	L/G	TM/CN (21)	5-66236 (Ice Only) (1)	X112	10/17/02 11:00		
ME01F7	Soil/Sediment/ Mark Wagner	L/G	TM/CN (21)	5-66242 (Ice Only) (1)	X113	10/17/02 13:30		
ME01F8	Sediment/ Mark Wagner	L/G	TM/CN (21)	5-66243 (Ice Only) (1)	X225	10/17/02 16:30		
ME01F9	Sediment/ Mark Wagner	L/G	TM/CN (21)	5-66244 (Ice Only) (1)	X226	10/17/02 17:20		
ME01G0	Sediment/ Mark Wagner	L/G	TM/CN (21)	5-66245 (Ice Only) (1)	X227	10/17/02 17:20		
ME01G1	Sediment/ Mark Wagner	L/G	TM/CN (21)	5-66246 (Ice Only) (1)	X228	10/18/02 9:00		
ME01G2	Soil/Sediment/ Mark Wagner	L/G	TM/CN (21)	5-66247 (Ice Only) (1)	X115	10/18/02 12:45		
ME01G3	Sediment/ Mark Wagner	L/G	TM/CN (21)	5-66248 (Ice Only) (1)	X229	10/18/02 10:50		
ME01G4	Sediment/ Mark Wagner	L/G	TM/CN (21)	5-66249 (Ice Only) (1)	X230	10/18/02 11:30		
ME01G5	Sediment/ Mark Wagner	L/G	TM/CN (21)	5-66250 (Ice Only) (1)	X231	10/18/02 12:30	SDG- Split Sample	

Shipment for Case Complete? Y	Sample(s) to be used for laboratory QC: ME01F1 (X107)	Additional Sampler Signature(s):	Cooler Temperature Upon Receipt: 2°C	Chain of Custody Seal Number: 82769
Analysis Key:	Concentration: L = Low, M = Low/Medium, H = High	Type/Designate: Composite = C, Grab = G	Custody Seal Intact? Y	Shipment Iced? Y

TM/CN = CLP TAL Total Metals and Cyanide

PR provides preliminary results. Requests for preliminary results will increase analytical costs.
Send Copy to: Contract Laboratory Analytical Services Support, 2000 Edmund Halley Dr., Reston, VA. 20191-3436 Phone 703/264-9348 Fax 703/264-9222

TR Number: 5-324306854-101802-0001

CompuChem
a Division of Liberty Analytical Corp.
501 Madison Avenue Cary, NC 27513

SDG NARRATIVE
CASE # 31061 SDG # ME01F1
CONTRACT # 68W00082

The indicated Sample Delivery Group (SDG) consisting of fifteen (15) soil samples was received into the laboratory information management system (LIMS) on October 19, 2002; intact and in good condition with Chains of Custody (COC) Records in order, unless otherwise noted in any attachments or Quality Assurance Notices. Sample ID's reported in this data package are noted by the receiving department on the COC if they differ from those listed by the samplers on the COC.

The samples were analyzed, in accordance with EPA - CLP Statement of Work (SOW) document ILM04.1 for CLP TAL total metals and cyanide.

The correlation coefficients for the mercury and cyanide analytical runs are confirmed to be $\geq$ 0.9950.

The cooler temperature bottle was present with samples received on October 19, 2002; and sample temperature was 2.0 degrees Celsius.

Sample ME01F1 for QC has "C" flag for saturated zinc, "K" flag for interference on sodium, over-range for lead that required dilution of the sample and related matrix QC. Sample ME01F2 has "C" flag for saturated zinc, "K" flag for interference on sodium, over-range for lead required dilution.

EQUATIONS FOR SOLID SAMPLE CALCULATIONS:

Client sample ME01F1 is used for illustration.

Any sample result that is $\leq$ the instrument detection limit (IDL) will be entered at the IDL for that analyte.

ICP Equation:

Equation for obtaining metals sample results in mg/Kg as presented on FORM I data sheets from ICP instrument acquired results in ug/L (ppb).

$$\text{Concentration (\% solids) (mg/Kg)} \quad \frac{C \times D \times V}{W \times S}$$

Where
C = concentration (ug/L)
D = dilution factor
V = final volume in liters after sample preparation
W = weight in grams of wet sample
S = % solids/100

Example: aluminum result ug/L to mg/Kg.

$$\frac{40835.62 \text{ ug/L (C)} \times 1 \text{ (D)} \times 0.2 \text{ L (V)}}{1.0 \text{ g (W)} \times 0.867 \text{ (S)}} = 9419.98 \text{ mg/Kg reported as } 9420 \text{ mg/Kg}$$

Mercury Equation:

Equation for obtaining mercury sample results in mg/Kg as presented on FORM I data sheets from instrument acquired results in ug/L (ppb).

$$\frac{A \times D \times F}{B \times E}$$

Where

A = ug/L Hg
B = wet weight of sample
D = dilution factor to bring sample into analysis range
E = % solids/100
F = final volume in liters (0.1 L)

Example: mercury result ug/L to mg/Kg

$$\frac{0.3772 \text{ ug/L (A)} \times 1 \text{ (D)} \times 0.1 \text{ (F)}}{0.2 \text{ g (B)} \times 0.867 \text{ (E)}} = 0.218 \text{ mg/Kg reported as } 0.22 \text{ mg/Kg}$$

Cyanide Equation:

Equation for obtaining cyanide sample results in mg/Kg as presented on FORM I data sheets from instrument acquired results in ug/L (ppb).

$$\frac{A \times D \times F}{B \times E}$$

Where

A = ug/L CN
B = wet weight of sample
D = dilution factor to bring sample into analysis range
E = % solids/100
F = final volume in liters (0 05 L)

Example: cyanide result ug/L to mg/Kg

$$\frac{4.859408 \text{ ug/L (A)} \times 1 \text{ (D)} \times 0.05 \text{ L (F)}}{1.00\text{g (B)} \times 0.867 \text{ (E)}} = 0.280 \text{ mg/Kg reported as } 0.28 \text{ mg/Kg}$$

SAMPLE IDs:

The following customer IDs are associated with this SDG:

ME01F1	ME01F2	ME01F3	ME01F4	ME01F5	ME01F6
ME01F7	ME01F8	ME01F9	ME01G0	ME01G1	ME01G2
ME01G3	ME01G4	ME01G5			

INSTRUMENTAL QUALITY CONTROL:

All calibration verification solutions (ICV & CCV), blanks (ICB, & CCB), and interference check samples (ICSA & ICSAB) associated with this data were confirmed to be within EPA CLP allowable limits.

SAMPLE PREPARATION QUALITY CONTROL:

The sample preparation procedure verifications (LCSS & PBS) were found to be within acceptable ranges and all field samples were prepared and analyzed within the contract specified holding times.

MATRIX RELATED QUALITY CONTROL:

The sample matrix spike, CCN = WG20920-1 (ME01F1S) was found to be outside CLP control limits for antimony, barium, beryllium, cadmium, nickel, selenium, and thallium. The reported concentrations for these analytes are flagged with an "N" on all associated Form 1 and on Form 5a.

An "N" indicates a matrix-related interference in the sample preparation procedure &/or analysis for the flagged analyte. This is normally the consequence of a relatively high anionic content in the sample or (for some sediments) an inconsistent sample matrix relative to that analyte.

CLP control limits for matrix spike recoveries are set at 75% to 125% of the analyte quantity added unless original sample concentrations exceed the true values of these "spikes" by a factor of four or more. In this case, affected analytes are not flagged even if recoveries are outside percentage recovery control limits.

Post-digestion spikes are mandatory for analytes demonstrating unsatisfactory matrix spike recoveries during ICP analysis (excluding silver). The results of such spikes are presented on Form 5b.

Unsatisfactory recovery of post-digestion spikes of this type do not have bearing upon the aforementioned "N" flags, but may indicate interference during analysis &/or a solution matrix which is hostile to the analyte in question.

Satisfactory recovery of an analyte in a post-digestion spike of this type implies interference by the required preparation procedure or in the sample matrix itself. Lack of uniformity for an analyte in sediments will also result in satisfactory recovery of post-digestion spikes after failure in the related matrix spike.

The sample matrix duplicate, CCN = WG20920-2 (ME01F1D) was outside CLP control limits for calcium and copper. The reported concentrations for these analytes are flagged with a "*" on all associated Form 1 and on Form 6.

A "*" indicates a non-homogeneous sample matrix in regard to the flagged analyte. This is normally the consequence of a relatively coarse texture or of a mixed-matrix in sediment samples.

CLP control limits for duplicate determinations are +/- 20% Relative Percent Difference (RPD) for concentrations greater than or equal to five times the CRDL in both the original and duplicate samples, and +/- the CRDL for concentrations less than five times the CRDL. The RPD is not calculated if both the original and duplicate values fall below the IDL.

A five-fold serial dilution of sample, CCN = ME01F1-1 (ME01F1L) was performed in accordance with CLP requirements for ICP analysis.

The adjusted sample concentrations were outside CLP control limits for antimony and potassium, which are flagged with an "E" on all associated Form 1, the Cover Page and Form 9.

An "E" indicates that a chemical or physical interference effect was encountered during the analysis of the flagged analyte. As a result of this interference, all values for the analyte in the same matrix must be considered to be estimated quantities.

CLP control limits for serial dilution are defined as a deviation less than or equal to 10% in the dilution-adjusted concentrations from the original values for all analyte concentrations with values greater than fifty (50) times their respective Instrument Detection Limit (IDL) in the original sample.

The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Thomas R. Cole
Data Reviewer II
November 6, 2002

CompuChem
a Division of Liberty Analytical Corp.
501 Madison Avenue Cary, NC 27513

DATA REPORTING QUALIFIERS FOR INORGANICS

On Form I, under the column labeled "C" for concentration qualifier and "Q" for qualifier, each result is flagged with the specific data reporting qualifiers listed below, as appropriate. Up to five qualifiers may be reported on Form I for each analyte.

The C (concentration) qualifiers used are:

U: This flag indicates the analyte was analyzed for but not detected. This reported value was obtained from a reading that was less than the Instrument Detection Limit (IDL). The IDL will be adjusted to reflect any dilution and, for soils, the percent moisture.

B: This flag indicates the analyte was analyzed for and the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL) but greater than or equal to the Instrument Detection Limit (IDL).

The Q qualifiers used are:

E: This flag indicates an estimated value. This flag is used:

1. When the serial dilution (a five fold dilution for CLP and a five fold dilution for SW-846 method 6010B) results are not within 10%. The analyte concentration must be sufficiently high (minimally a factor of 50X above the IDL in the original sample).

N: This flag indicates the sample spike recovery is outside of control limits:

***:** This flag is used for duplicate analysis when the sample and the sample duplicate results are not within control limits.

The extensions: D, S, SD, L. A, added to the end of the client ID represent as follows:

D: matrix duplicate
S: matrix spike
SD: matrix spike duplicate
L: serial dilution
A: post digestion spike

Method Codes:

P: ICP PLASMA
CV: MERCURY COLD VAPOR AA
CA: MIDI-DISTILLATION SPECTROPHOTOMETRIC

U. S. EPA - CLP

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

NOV 0 8 2002

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: SDG No.: ME01F1

SOW No.: ILM04.1

EPA Sample No.	Lab Sample ID.
ME01F1	ME01F1-1
ME01F1D	WG20920-2
ME01F1S	WG20920-1
ME01F2	ME01F1-2
ME01F3	ME01F1-3
ME01F4	ME01F1-4
ME01F5	ME01F1-5
ME01F6	ME01F1-6
ME01F7	ME01F1-7
ME01F8	ME01F1-8
ME01F9	ME01F1-9
ME01G0	ME01F1-10
ME01G1	ME01F1-11
ME01G2	ME01F1-12
ME01G3	ME01F1-13
ME01G4	ME01F1-14
ME01G5	ME01F1-15

Were ICP interelement corrections applied? Yes/No YES

Were ICP background corrections applied? Yes/No YES

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

Comments: THE FOLLOWING ANALYTES HAVE BEEN FLAGGED WITH AN "E" TO INDICATE SERIAL DILUTION RESULTS WHICH ARE NOT WITHIN CONTROL LIMITS:
ANTIMONY, POTASSIUM

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Thomas R. Cole Name: Thomas R. Cole

Date: November 6, 2002 Title: Data Reviewer II 3

U. S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME01F1

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: SDG No.: ME01F1

Matrix (soil/water): SOIL Lab Sample ID: ME01F1-1

Level (low/med): LOW Date Received: 10/19/02

% Solids: 86.7

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	9150 ~~9420~~			P
7440-36-0	Antimony	13.5 ~~13.9~~		NE	P
7440-38-2	Arsenic	7.3 ~~7.5~~			P
7440-39-3	Barium	480 ~~495~~		N	P
7440-41-7	Beryllium	0.86 ~~0.89~~	B	N	P
7440-43-9	Cadmium	7.7 ~~7.9~~		N	P
7440-70-2	Calcium	2450 ~~21100~~		*	P
7440-47-3	Chromium	8.2 ~~8.4~~		N	P
7440-48-4	Cobalt	14.5 ~~15.0~~			P
7440-50-8	Copper	88.6 ~~91.3~~		*	P
7439-89-6	Iron	62800 ~~64600~~			P
7439-92-1	Lead	15900 ~~16400~~			P
7439-95-4	Magnesium	1990 ~~2050~~			P
7439-96-5	Manganese	602 ~~620~~			P
7439-97-6	Mercury	0.22			CV
7440-02-0	Nickel	18.7 ~~19.3~~		N	P
7440-09-7	Potassium	1790 ~~1840~~		E	P
7782-49-2	Selenium	3.4 ~~3.6~~		N	P
7440-22-4	Silver	0.39 ~~0.40~~	B	N	P
7440-23-5	Sodium	341 ~~351~~	U		P
7440-28-0	Thallium	0.94 ~~0.55~~	U	N	P
7440-62-2	Vanadium	25.1 ~~25.8~~			P
7440-66-6	Zinc	22700			P
	Cyanide	0.28	B		CA

"N" QUALIFIERS ON Cr, Ag. ADDED. ~ 4-11-03

~~ALL ICP METALS CORRECTED~~ ORIGINAL VALUES CORRECT. ~ 4-11-03

~ 4-11-03

Color Before: BLACK Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME01F2

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: SDG No.: ME01F1

Matrix (soil/water): SOIL Lab Sample ID: ME01F1-2

Level (low/med): LOW Date Received: 10/19/02

% Solids: 86.4

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	9980			P	
7440-36-0	Antimony	13.8		NE	P	
7440-38-2	Arsenic	6.9			P	
7440-39-3	Barium	445		N	P	
7440-41-7	Beryllium	0.93	B	N	P	
7440-43-9	Cadmium	6.2		N	P	
7440-70-2	Calcium	23800		*	P	
7440-47-3	Chromium	7.8		N	P	4-11-07
7440-48-4	Cobalt	16.6			P	
7440-50-8	Copper	88.4		*	P	
7439-89-6	Iron	73400			P	
7439-92-1	Lead	15700			P	
7439-95-4	Magnesium	2130			P	
7439-96-5	Manganese	597			P	
7439-97-6	Mercury	0.21			CV	
7440-02-0	Nickel	16.9		N	P	
7440-09-7	Potassium	2040		E	P	
7782-49-2	Selenium	3.0		N	P	
7440-22-4	Silver	0.38	B	N	P	4-11-07
7440-23-5	Sodium	1360	B		P	
7440-28-0	Thallium	0.51	U	N	P	
7440-62-2	Vanadium	24.8			P	
7440-66-6	Zinc	24500 ~~24400~~		4-11-07	P	
	Cyanide	0.39	B		CA	

Color Before: BLACK Clarity Before: Texture: COARSE

Color After: YELLOW Clarity After: Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME01F3

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: SDG No.: ME01F1

Matrix (soil/water): SOIL Lab Sample ID: ME01F1-3

Level (low/med): LOW Date Received: 10/19/02

% Solids: 79.9

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4830			P
7440-36-0	Antimony	0.29	U	NE	P
7440-38-2	Arsenic	4.4			P
7440-39-3	Barium	489		N	P
7440-41-7	Beryllium	0.39	B	N	P
7440-43-9	Cadmium	2.3 ~~2.2~~	~4-11-03	N	P
7440-70-2	Calcium	2370		*	P
7440-47-3	Chromium	7.9		N	P ~4-11-03
7440-48-4	Cobalt	6.7	B		P
7440-50-8	Copper	11.5		*	P
7439-89-6	Iron	8770			P
7439-92-1	Lead	500			P
7439-95-4	Magnesium	1350			P
7439-96-5	Manganese	871			P
7439-97-6	Mercury	0.12	B		CV
7440-02-0	Nickel	11.2		N	P
7440-09-7	Potassium	522	B	E	P
7782-49-2	Selenium	0.77 ~~0.76~~	B	~4-11-03 N	P
7440-22-4	Silver	0.19	U	N	P ~4-11-03
7440-23-5	Sodium	98.9	B		P
7440-28-0	Thallium	0.58	U	N	P
7440-62-2	Vanadium	15.5			P
7440-66-6	Zinc	110			P
	Cyanide	0.13	B		CA

Color Before: BLACK Clarity Before: Texture: COARSE

Color After: YELLOW Clarity After: Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME01F4

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: SDG No.: ME01F1

Matrix (soil/water): SOIL Lab Sample ID: ME01F1-4

Level (low/med): LOW Date Received: 10/19/02

% Solids: 92.3

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	1950			P	
7440-36-0	Antimony	4.6	B	NE	P	
7440-38-2	Arsenic	33.4			P	
7440-39-3	Barium	92.1		N	P	
7440-41-7	Beryllium	0.21	B	N	P	
7440-43-9	Cadmium	7.3		N	P	
7440-70-2	Calcium	2830		*	P	
7440-47-3	Chromium	5.8		N	P	4-11-03
7440-48-4	Cobalt	9.4	B		P	
7440-50-8	Copper	521 ~~520~~	4-11-03	*	P	
7439-89-6	Iron	42400			P	
7439-92-1	Lead	1920			P	
7439-95-4	Magnesium	236	B		P	
7439-96-5	Manganese	28.4			P	
7439-97-6	Mercury	0.40			CV	
7440-02-0	Nickel	21.3		N	P	
7440-09-7	Potassium	567	B	E	P	
7782-49-2	Selenium	3.2		N	P	
7440-22-4	Silver	2.4		N	P	4-11-03
7440-23-5	Sodium	64.0	U		P	
7440-28-0	Thallium	0.90	B	N	P	
7440-62-2	Vanadium	13.3			P	
7440-66-6	Zinc	1100			P	
	Cyanide	0.37	B		CA	

Color Before: BLACK Clarity Before: Texture: COARSE

Color After: YELLOW Clarity After: Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME01F5

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: SDG No.: ME01F1

Matrix (soil/water): SOIL Lab Sample ID: ME01F1-5

Level (low/med): LOW Date Received: 10/19/02

% Solids: 79.9

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	2700			P	
7440-36-0	Antimony	18.7 ~~10.6~~		NE	P	
7440-38-2	Arsenic	682			P	
7440-39-3	Barium	139		N	P	
7440-41-7	Beryllium	0.12	B	N	P	
7440-43-9	Cadmium	10.0		N	P	
7440-70-2	Calcium	11600		*	P	
7440-47-3	Chromium	14.6		N	P	
7440-48-4	Cobalt	33.5			P	
7440-50-8	Copper	733		*	P	
7439-89-6	Iron	68700			P	
7439-92-1	Lead	5260			P	
7439-95-4	Magnesium	1190	B		P	
7439-96-5	Manganese	162			P	
7439-97-6	Mercury	0.37			CV	
7440-02-0	Nickel	134		N	P	
7440-09-7	Potassium	537 ~~536~~	B	E	P	
7782-49-2	Selenium	2.8		N	P	
7440-22-4	Silver	6.7 ~~6.6~~		N	P	
7440-23-5	Sodium	72.6	U		P	
7440-28-0	Thallium	7.5		N	P	
7440-62-2	Vanadium	37.8			P	
7440-66-6	Zinc	3710			P	
	Cyanide	0.17	B		CA	

Color Before: BROWN Clarity Before: Texture: COARSE

Color After: YELLOW Clarity After: Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME01F6

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: SDG No.: ME01F1

Matrix (soil/water): SOIL Lab Sample ID: ME01F1-6

Level (low/med): LOW Date Received: 10/19/02

% Solids: 81.4

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	9400			P	
7440-36-0	Antimony	0.43	B	NE	P	
7440-38-2	Arsenic	6.4			P	
7440-39-3	Barium	173		N	P	
7440-41-7	Beryllium	0.48	B	N	P	
7440-43-9	Cadmium	0.43	B	N	P	
7440-70-2	Calcium	2410		*	P	
7440-47-3	Chromium	12.5		N	P	w 4-11-03
7440-48-4	Cobalt	6.3	B		P	
7440-50-8	Copper	12.8		*	P	
7439-89-6	Iron	14700			P	
7439-92-1	Lead	100			P	
7439-95-4	Magnesium	2130			P	
7439-96-5	Manganese	608			P	
7439-97-6	Mercury	0.10	B		CV	
7440-02-0	Nickel	13.8		N	P	
7440-09-7	Potassium	651	B	E	P	
7782-49-2	Selenium	1.2		N	P	
7440-22-4	Silver	0.19	U	N	P	w 4-11-03
7440-23-5	Sodium	96.0	B		P	
7440-28-0	Thallium	0.57	U	N	P	
7440-62-2	Vanadium	23.3			P	
7440-66-6	Zinc	50.9			P	
	Cyanide	0.11	B		CA	

Color Before: BROWN Clarity Before: Texture: COARSE

Color After: YELLOW Clarity After: Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME01F7

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: SDG No.: ME01F1

Matrix (soil/water): SOIL Lab Sample ID: ME01F1-7

Level (low/med): LOW Date Received: 10/19/02

% Solids: 84.6

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6700			P
7440-36-0	Antimony	0.39 ~~0.38~~	B	NE	P
7440-38-2	Arsenic	5.9			P
7440-39-3	Barium	153		N	P
7440-41-7	Beryllium	0.47	B	N	P
7440-43-9	Cadmium	1.3		N	P
7440-70-2	Calcium	4840		*	P
7440-47-3	Chromium	11.8		N	P
7440-48-4	Cobalt	8.3	B		P
7440-50-8	Copper	23.9		*	P
7439-89-6	Iron	15200			P
7439-92-1	Lead	463			P
7439-95-4	Magnesium	3230			P
7439-96-5	Manganese	481			P
7439-97-6	Mercury	0.14			CV
7440-02-0	Nickel	16.5		N	P
7440-09-7	Potassium	640	B	E	P
7782-49-2	Selenium	1.5		N	P
7440-22-4	Silver	0.18	U	N	P
7440-23-5	Sodium	228	B		P
7440-28-0	Thallium	0.54	U	N	P
7440-62-2	Vanadium	21.7			P
7440-66-6	Zinc	116			P
	Cyanide	0.13	B		CA

Color Before: BROWN Clarity Before: Texture: COARSE

Color After: YELLOW Clarity After: Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME01F8

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: SDG No.: ME01F1

Matrix (soil/water): SOIL Lab Sample ID: ME01F1-8

Level (low/med): LOW Date Received: 10/19/02

% Solids: 48.9

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	10700			P	
7440-36-0	Antimony	3.3	B	NE	P	
7440-38-2	Arsenic	6.8			P	
7440-39-3	Barium	514		N	P	
7440-41-7	Beryllium	0.73	B	N	P	
7440-43-9	Cadmium	90.1		N	P	
7440-70-2	Calcium	5010 ~~5000~~	w4-11-03	*	P	
7440-47-3	Chromium	17.0		N	P	w 4-11-03
7440-48-4	Cobalt	22.7			P	
7440-50-8	Copper	196		*	P	
7439-89-6	Iron	22900			P	
7439-92-1	Lead	35900			P	
7439-95-4	Magnesium	3860			P	
7439-96-5	Manganese	337			P	
7439-97-6	Mercury	0.54			CV	
7440-02-0	Nickel	55.1		N	P	
7440-09-7	Potassium	886	B	E	P	
7782-49-2	Selenium	5.9		N	P	
7440-22-4	Silver	1.5	B	N	P	w 4-11-03
7440-23-5	Sodium	120	U		P	
7440-28-0	Thallium	0.94	U	N	P	
7440-62-2	Vanadium	30.1 ~~30.0~~	w4-11-03		P	
7440-66-6	Zinc	2170			P	
	Cyanide	0.27	B		CA	

Color Before: BLACK Clarity Before: Texture: COARSE

Color After: YELLOW Clarity After: Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME01F9

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: SDG No.: ME01F1

Matrix (soil/water): SOIL Lab Sample ID: ME01F1-9

Level (low/med): LOW Date Received: 10/19/02

% Solids: 14.6

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	6430			P	
7440-36-0	Antimony	16.5	B	NE	P	
7440-38-2	Arsenic	68.5			P	
7440-39-3	Barium	326		N	P	
7440-41-7	Beryllium	0.50	B	N	P	
7440-43-9	Cadmium	10.7		N	P	
7440-70-2	Calcium	27100		*	P	
7440-47-3	Chromium	17.7		N	P	w 4-11-03
7440-48-4	Cobalt	691			P	
7440-50-8	Copper	548		*	P	
7439-89-6	Iron	73800			P	
7439-92-1	Lead	4550			P	
7439-95-4	Magnesium	4240	B		P	
7439-96-5	Manganese	1270			P	
7439-97-6	Mercury	0.31	B		CV	
7440-02-0	Nickel	945		N	P	
7440-09-7	Potassium	962	B	E	P	
7782-49-2	Selenium	9.6		N	P	
7440-22-4	Silver	1.0	U	N	P	w 4-11-03
7440-23-5	Sodium	393	U		P	
7440-28-0	Thallium	3.1	U	N	P	
7440-62-2	Vanadium	16.9	B		P	
7440-66-6	Zinc	18000			P	
	Cyanide	0.17	U		CA	

Color Before: BLACK Clarity Before: Texture: COARSE

Color After: YELLOW Clarity After: Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME01G0

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: SDG No.: ME01F1

Matrix (soil/water): SOIL Lab Sample ID: ME01F1-10

Level (low/med): LOW Date Received: 10/19/02

% Solids: 8.9

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	16200			P	
7440-36-0	Antimony	23.8	B	NE	P	
7440-38-2	Arsenic	116			P	
7440-39-3	Barium	1420		N	P	
7440-41-7	Beryllium	2.5	B	N	P	
7440-43-9	Cadmium	31.6		N	P	
7440-70-2	Calcium	48000		*	P	
7440-47-3	Chromium	32.3		N	P	04-11-03
7440-48-4	Cobalt	628			P	
7440-50-8	Copper	626		*	P	
7439-89-6	Iron	101000			P	
7439-92-1	Lead	5840			P	
7439-95-4	Magnesium	5940	B		P	
7439-96-5	Manganese	4000			P	
7439-97-6	Mercury	0.54	U		CV	
7440-02-0	Nickel	2280		N	P	
7440-09-7	Potassium	1480	B	E	P	
7782-49-2	Selenium	16.1		N	P	
7440-22-4	Silver	1.7	U	N	P	04/11/03
7440-23-5	Sodium	664	U		P	
7440-28-0	Thallium	5.2	U	N	P	
7440-62-2	Vanadium	74.8	B		P	
7440-66-6	Zinc	10800			P	
	Cyanide	0.28	U		CA	

Color Before: BLACK Clarity Before: Texture: COARSE

Color After: YELLOW Clarity After: Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME01G1

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: SDG No.: ME01F1

Matrix (soil/water): SOIL Lab Sample ID: ME01F1-11

Level (low/med): LOW Date Received: 10/19/02

% Solids: 75.5

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	4700			P	
7440-36-0	Antimony	0.30	U	NE	P	
7440-38-2	Arsenic	0.96	B		P	
7440-39-3	Barium	67.7		N	P	
7440-41-7	Beryllium	0.32	B	N	P	
7440-43-9	Cadmium	0.075	U	N	P	
7440-70-2	Calcium	1130	B	*	P	
7440-47-3	Chromium	8.5		N	P	4-11-03
7440-48-4	Cobalt	4.0	B		P	
7440-50-8	Copper	7.3		*	P	
7439-89-6	Iron	13400			P	
7439-92-1	Lead	6.2			P	
7439-95-4	Magnesium	1470			P	
7439-96-5	Manganese	126			P	
7439-97-6	Mercury	0.051	U		CV	
7440-02-0	Nickel	10.5		N	P	
7440-09-7	Potassium	405	B	E	P	
7782-49-2	Selenium	0.75	U	N	P	
7440-22-4	Silver	0.20	U	N	P	4-11-03
7440-23-5	Sodium	153	B		P	
7440-28-0	Thallium	0.60	U	N	P	
7440-62-2	Vanadium	10.2	B		P	
7440-66-6	Zinc	63.7			P	
	Cyanide	0.033	U		CA	

Color Before: BLACK Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME01G2

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: SDG No.: ME01F1

Matrix (soil/water): SOIL Lab Sample ID: ME01F1-12

Level (low/med): LOW Date Received: 10/19/02

% Solids: 88.0

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	5360			P	
7440-36-0	Antimony	0.27	B	NE	P	
7440-38-2	Arsenic	4.4			P	
7440-39-3	Barium	246		N	P	
7440-41-7	Beryllium	0.40	B	N	P	
7440-43-9	Cadmium	1.2		N	P	
7440-70-2	Calcium	3010		*	P	
7440-47-3	Chromium	9.2		N	P	4-11-03
7440-48-4	Cobalt	7.3	B		P	
7440-50-8	Copper	11.6		*	P	
7439-89-6	Iron	9650			P	
7439-92-1	Lead	122			P	
7439-95-4	Magnesium	1440			P	
7439-96-5	Manganese	747			P	
7439-97-6	Mercury	0.083	B		CV	
7440-02-0	Nickel	12.3		N	P	
7440-09-7	Potassium	795	B	E	P	
7782-49-2	Selenium	1.5		N	P	
7440-22-4	Silver	0.17	U	N	P	4-11-03
7440-23-5	Sodium	99.4	B		P	
7440-28-0	Thallium	0.52	U	N	P	
7440-62-2	Vanadium	17.0			P	
7440-66-6	Zinc	82.6			P	
	Cyanide	0.13	B		CA	

Color Before: BLACK Clarity Before: Texture: COARSE

Color After: YELLOW Clarity After: Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME01G3

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: SDG No.: ME01F1

Matrix (soil/water): SOIL Lab Sample ID: ME01F1-13

Level (low/med): LOW Date Received: 10/19/02

% Solids: 71.6

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	4460			P	
7440-36-0	Antimony	0.70	B	NE	P	
7440-38-2	Arsenic	4.9			P	
7440-39-3	Barium	302		N	P	
7440-41-7	Beryllium	0.64	B	N	P	
7440-43-9	Cadmium	0.95	B	N	P	
7440-70-2	Calcium	1920		*	P	
7440-47-3	Chromium	10.5		N	P	w4-11-03
7440-48-4	Cobalt	11.1	B		P	
7440-50-8	Copper	17.6		*	P	
7439-89-6	Iron	14200			P	
7439-92-1	Lead	107			P	
7439-95-4	Magnesium	1230	B		P	
7439-96-5	Manganese	614			P	
7439-97-6	Mercury	0.088	B		CV	
7440-02-0	Nickel	33.3		N	P	
7440-09-7	Potassium	457	B	E	P	
7782-49-2	Selenium	1.5		N	P	
7440-22-4	Silver	0.21	U	N	P	w4-11-03
7440-23-5	Sodium	102	B		P	
7440-28-0	Thallium	0.62	U	N	P	
7440-62-2	Vanadium	46.8			P	
7440-66-6	Zinc	139			P	
	Cyanide	0.074	B		CA	

Color Before: BLACK Clarity Before: Texture: COARSE

Color After: YELLOW Clarity After: Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME01G4

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: SDG No.: ME01F1

Matrix (soil/water): SOIL Lab Sample ID: ME01F1-14

Level (low/med): LOW Date Received: 10/19/02

% Solids: 74.2

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	6930			P	
7440-36-0	Antimony	0.52	B	NE	P	
7440-38-2	Arsenic	2.6			P	
7440-39-3	Barium	149		N	P	
7440-41-7	Beryllium	0.44	B	N	P	
7440-43-9	Cadmium	0.12	B	N	P	
7440-70-2	Calcium	2020		*	P	
7440-47-3	Chromium	12.1 ~~12.0~~	w4-11-03	N	P	w4-11-03
7440-48-4	Cobalt	4.7	B		P	
7440-50-8	Copper	11.0		*	P	
7439-89-6	Iron	12900			P	
7439-92-1	Lead	28.3			P	
7439-95-4	Magnesium	2420			P	
7439-96-5	Manganese	294			P	
7439-97-6	Mercury	0.090	B		CV	
7440-02-0	Nickel	14.3		N	P	
7440-09-7	Potassium	701	B	E	P	
7782-49-2	Selenium	0.76	U	N	P	
7440-22-4	Silver	0.20	U	N	P	w4-11-03
7440-23-5	Sodium	101	B		P	
7440-28-0	Thallium	0.61	U	N	P	
7440-62-2	Vanadium	16.5			P	
7440-66-6	Zinc	46.0			P	
	Cyanide	0.84			CA	

Color Before: BLACK Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME01G5

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: _____ SDG No.: ME01F1

Matrix (soil/water): SOIL Lab Sample ID: ME01F1-15

Level (low/med): LOW Date Received: 10/19/02

% Solids: 76.5

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	5830			P	
7440-36-0	Antimony	0.31	U	NE	P	
7440-38-2	Arsenic	4.5 ~~4.4~~	~~4~~	N-03	P	
7440-39-3	Barium	241		N	P	
7440-41-7	Beryllium	0.42	B	N	P	
7440-43-9	Cadmium	0.23	B	N	P	
7440-70-2	Calcium	2290		*	P	
7440-47-3	Chromium	11.1		N	P	~4-11-03
7440-48-4	Cobalt	11.6	B		P	
7440-50-8	Copper	9.8		*	P	
7439-89-6	Iron	13200			P	
7439-92-1	Lead	7.4			P	
7439-95-4	Magnesium	2080			P	
7439-96-5	Manganese	1380			P	
7439-97-6	Mercury	0.047	B		CV	
7440-02-0	Nickel	20.6		N	P	
7440-09-7	Potassium	483	B	E	P	
7782-49-2	Selenium	1.3		N	P	
7440-22-4	Silver	0.20	U	N	P	~4-11-03
7440-23-5	Sodium	150	B		P	
7440-28-0	Thallium	0.62	U	N	P	
7440-62-2	Vanadium	20.8			P	
7440-66-6	Zinc	36.5			P	
	Cyanide	0.050	B		CA	

Color Before: BLACK Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW Clarity After: _____ Artifacts: _____

Comments:

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BLANKS

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: SDG NO.: ME01F1

Preparation Blank Matrix (soil/water): SOIL

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

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum	56.7	U	56.7	U	56.7	U	56.7	U	11.340	U	P
Antimony	1.2	U	1.3	B	1.2	U	1.2	U	0.240	U	P
Arsenic	3.0	U	3.0	U	3.0	U	3.0	U	0.600	U	P
Barium	0.3	U	0.3	B	0.3	U	0.4	B	0.060	U	P
Beryllium	0.2	U	0.4	B	0.3	B	0.4	B	0.040	U	P
Cadmium	0.3	U	0.3	B	0.3	U	0.3	B	0.060	U	P
Calcium	-52.3	B	15.0	U	-43.7	B	-15.9	B	-11.857	B	P
Chromium	0.8	U	0.8	U	0.8	U	0.8	U	0.160	U	P
Cobalt	0.7	U	0.7	U	0.7	U	0.7	U	0.140	U	P
Copper	1.5	U	1.5	U	1.5	U	1.5	U	0.300	U	P
Iron	12.5	U	12.5	U	12.5	U	14.9	B	2.500	U	P
Lead	1.2	U	1.2	U	1.2	U	1.2	U	0.240	U	P
Magnesium	12.3	U	59.7	B	12.3	U	49.6	B	2.460	U	P
Manganese	0.2	U	0.4	B	0.3	B	0.4	B	0.040	U	P
Mercury	0.1	U	0.1	U	0.1	U	0.1	U	0.050	U	CV
Nickel	1.0	U	1.0	U	1.0	U	1.0	U	0.200	U	P
Potassium	40.1	U	40.1	U	40.1	U	40.1	U	8.020	U	P
Selenium	3.0	U	3.0	U	3.0	U	3.0	U	0.600	U	P
Silver	0.8	U	0.8	U	0.8	U	0.8	U	0.160	U	P
Sodium	304.4	U	-316.2	B	304.4	U	304.4	U	60.880	U	P
Thallium	-3.1	B	-2.9	B	2.4	U	2.4	U	0.480	U	P
Vanadium	0.7	U	0.7	U	0.7	U	0.7	U	0.140	U	P
Zinc	-4.4	B	-4.2	B	-4.3	B	-4.1	B	0.220	U	P
Cyanide	-.6	B	0.5	U	-.7	B	-1.1	B	-.041	B	CA

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BLANKS

La' ume: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: _____ SDG NO.: ME01F1

Preparation Blank Matrix (soil/water): _____

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

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C		Prepa-ration Blank	C		M
Aluminum			56.7	U	56.7	U	56.7	U					P
Antimony			1.2	U	1.2	U	1.2	U					P
Arsenic			3.0	U	3.0	U	3.0	U					P
Barium			0.4	B	0.4	B	0.5	B					P
Beryllium			0.4	B	0.4	B	0.4	B					P
Cadmium			0.3	U	0.3	B	0.3	B					P
Calcium			-39.8	B	-22.2	B	-41.1	B					P
Chromium			0.8	U	0.8	U	0.8	U					P
Cobalt			0.7	U	0.7	U	0.7	U					P
Copper			1.5	U	1.5	U	1.5	U					P
Iron			12.5	U	12.5	U	12.5	U					P
Lead			1.2	U	1.2	U	1.2	U					P
Magnesium			22.9	B	40.6	B	21.2	B					P
Manganese			0.4	B	0.3	B	0.4	B					P
Mercury			0.1	U	0.1	U	0.1	U					CV
Nickel			1.0	U	1.0	U	1.0	U					P
Potassium			40.1	U	40.1	U	40.1	U					P
Selenium			3.0	U	3.0	U	3.0	U					P
Silver			0.8	U	0.8	U	0.8	U					P
Sodium			304.4	U	304.4	U	304.4	U					P
Thallium			2.4	U	2.4	U	2.4	U					P
Vanadium			0.7	U	0.7	U	0.7	U					P
Zinc			-4.2	B	-4.0	B	-3.3	B					P
Cyanide			-.8	B	-1.0	B	-.8	B					CA

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BLANKS

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: _____ SDG NO.: ME01F1

Preparation Blank Matrix (soil/water): _____

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

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C		Prepa-ration Blank	C		M
Aluminum			56.7	U	56.7	U	56.7	U					P
Antimony			1.2	U	1.2	U	1.2	U					P
Arsenic			3.0	U	3.0	U	3.0	U					P
Barium			0.3	B	0.4	B	0.3	B					P
Beryllium			0.3	B	0.4	B	0.3	B					P
Cadmium			0.3	B	0.3	B	0.3	U					P
Calcium			-23.2	B	-35.6	B	15.0	U					P
Chromium			0.8	U	0.8	U	0.8	U					P
Cobalt			0.7	U	0.7	U	0.7	U					P
Copper			1.5	B	1.6	B	1.5	U					P
Iron			15.8	B	12.5	U	13.5	B					P
Lead			1.2	U	1.2	U	1.2	U					P
Magnesium			39.2	B	18.4	B	45.2	B					P
Manganese			0.4	B	0.7	B	0.4	B					P
Mercury			0.1	U	0.1	U	0.1	U					CV
Nickel			1.0	U	1.0	U	1.0	U					P
Potassium			40.1	U	40.1	U	40.1	U					P
Selenium			3.0	U	3.0	U	3.0	U					P
Silver			0.8	U	0.8	U	0.8	U					P
Sodium			304.4	U	304.4	U	304.4	U					P
Thallium			2.4	U	2.4	U	2.4	U					P
Vanadium			0.7	U	0.7	U	0.7	U					P
Zinc			-3.8	B	1.1	U	1.1	U					P
Cyanide			-.8	B									CA

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BLANKS

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: _____ SDG NO.: ME01F1

Preparation Blank Matrix (soil/water): _____

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

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Mercury			0.1	U	0.1	U	0.1	U			CV

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BLANKS

La ame: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: SDG NO.: ME01F1

Preparation Blank Matrix (soil/water):

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

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Mercury			0.1	U							CV

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BLANKS

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: _____ SDG NO.: ME01F1

Preparation Blank Matrix (soil/water): _____

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

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C		Prepa-ration Blank	C		M
Aluminum	56.7	U	56.7	U	56.7	U	56.7	U					P
Antimony	1.2	U	1.2	U	1.2	U	1.2	U					P
Arsenic	3.0	U	3.0	U	3.0	U	3.0	U					P
Barium	0.3	U	0.3	U	0.6	B	0.4	B					P
Beryllium	0.2	U	0.3	B	0.3	B	0.5	B					P
Cadmium	0.3	U	0.3	U	0.3	U	0.4	B					P
Calcium	-59.2	B	-26.6	B	-45.2	B	15.0	U					P
Chromium	0.8	U	0.8	U	0.8	U	0.8	U					P
Cobalt	0.7	U	0.7	U	0.7	U	0.7	U					P
Copper	1.5	U	1.5	U	1.5	U	1.5	U					P
Iron	12.5	U	12.5	U	12.5	U	12.5	U					P
Lead	1.2	U	1.2	U	1.2	U	1.2	U					P
Magnesium	12.3	U	38.0	B	16.2	B	59.4	B					P
Manganese	0.2	U	0.3	B	0.2	B	0.3	B					P
Nickel	1.0	U	1.0	U	1.0	U	1.0	U					P
Potassium	40.1	U	40.1	U	40.1	U	40.1	U					P
Selenium	3.0	U	3.0	U	3.0	U	3.0	U					P
Silver	0.8	U	0.8	U	0.8	U	0.8	U					P
Sodium	304.4	U	304.4	U	304.4	U	304.4	U					P
Thallium	2.4	U	2.4	U	2.4	U	2.4	U					P
Vanadium	0.7	U	0.7	U	0.7	U	0.7	U					P
Zinc	-4.6	B	-4.4	B	-4.2	B	-4.1	B					P

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ICP INTERFERENCE CHECK SAMPLE

La ame: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: SDG NO.: ME01F1

ICP ID Number: P3 ICS Source: EPA

Concentration Units): ug/L

Analyte	True		Initial Found			Final Found		
	Sol.A	Sol.AB	Sol.A	Sol.AB	%R	Sol.A	Sol.AB	%R
Aluminum	519200	514000	564838	558213.9	108.6	566718	563233.8	109.6
Antimony	0	518	2	559.2	108.0	2	561.4	108.4
Arsenic	0	102	-2	86.9	85.2	2	88.0	86.3
Barium	0	456	2	486.7	106.7	2	500.0	109.6
Beryllium	0	458	0	432.1	94.3	0	434.8	94.9
Cadmium	0	910	-1	855.3	94.0	-2	856.4	94.1
Calcium	491900	489000	493995	488368.3	99.9	491528	487315.0	99.6
Chromium	20	455	22	446.8	98.2	23	448.3	98.5
Cobalt	0	430	-4	428.9	99.7	-3	429.7	99.9
Copper	0	506	6	464.9	91.9	6	470.8	93.0
Iron	195000	194600	183530	184159.1	94.6	185582	185907.8	95.5
Lead	0	49	1	43.5	88.8	1	42.1	85.9
Magnesium	542000	540600	517909	521574.2	96.5	525889	526966.1	97.5
Manganese	0	438	-2	437.5	99.9	-2	440.5	100.6
Nickel	0	846	-3	831.4	98.3	-2	833.8	98.6
Potassium	0	0	8	13.0		6	-3.4	
Selenium	0	47	1	48.6	103.4	1	46.8	99.6
Silver	0	196	0	192.1	98.0	0	193.9	98.9
Sodium	0	0	382	129.7		423	102.1	
Thallium	0	89	3	87.5	98.3	8	88.2	99.1
Vanadium	0	452	-2	444.3	98.3	-2	448.8	99.3
Zinc	0	958	22	937.9	97.9	23	942.4	98.4

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4

ICP INTERFERENCE CHECK SAMPLE

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: _____ SDG NO.: ME01F1

ICP ID Number: P3 ICS Source: EPA

Concentration Units): ug/L

Analyte	True		Initial Found			Final Found		
	Sol.A	Sol.AB	Sol.A	Sol.AB	%R	Sol.A	Sol.AB	%R
Aluminum	519200	514000				566019	563606.4	109.6
Antimony	0	518				2	562.0	108.5
Arsenic	0	102				0	87.0	85.3
Barium	0	456				2	502.0	110.1
Beryllium	0	458				0	435.8	95.2
Cadmium	0	910				-2	852.7	93.7
Calcium	491900	489000				488401	486912.8	99.6
Chromium	20	455				22	448.0	98.5
Cobalt	0	430				-3	428.8	99.7
Copper	0	506				5	473.4	93.6
Iron	195000	194600				185977	186408.0	95.8
Lead	0	49				2	43.1	88.0
Magnesium	542000	540600				525603	527440.0	97.6
Manganese	0	438				-2	440.4	100.5
Nickel	0	846				-3	830.7	98.2
Potassium	0	0				-1	-19.8	
Selenium	0	47				1	45.2	96.2
Silver	0	196				0	195.0	99.5
Sodium	0	0				339	-175.5	
Thallium	0	89				3	90.3	101.5
Vanadium	0	452				-2	449.1	99.4
Zinc	0	958				22	940.4	98.2

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4

ICP INTERFERENCE CHECK SAMPLE

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: SDG NO.: ME01F1

ICP ID Number: P3 ICS Source: EPA

Concentration Units): ug/L

Analyte	True		Initial Found			Final Found		
	Sol.A	Sol.AB	Sol.A	Sol.AB	%R	Sol.A	Sol.AB	%R
Aluminum	519200	514000				570464	565216.6	110.0
Antimony	0	518				3	561.8	108.4
Arsenic	0	102				-1	89.7	87.9
Barium	0	456				2	500.8	109.8
Beryllium	0	458				0	439.0	95.8
Cadmium	0	910				-2	848.9	93.3
Calcium	491900	489000				490399	489408.4	100.1
Chromium	20	455				23	449.6	98.8
Cobalt	0	430				-4	430.7	100.2
Copper	0	506				6	484.1	95.7
Iron	195000	194600				189504	188429.6	96.8
Lead	0	49				2	43.8	89.4
Magnesium	542000	540600				531054	529838.6	98.0
Manganese	0	438				-2	442.8	101.1
Nickel	0	846				-3	825.5	97.6
Potassium	0	0				31	2.2	
Selenium	0	47				4	50.8	108.1
Silver	0	196				0	196.5	100.2
Sodium	0	0				473	147.7	
Thallium	0	89				9	86.8	97.5
Vanadium	0	452				-2	451.3	99.8
Zinc	0	958				23	937.4	97.8

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ICP INTERFERENCE CHECK SAMPLE

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: SDG NO.: ME01F1

ICP ID Number: P3 ICS Source: EPA

Concentration Units): ug/L

Analyte	True		Initial Found			Final Found		
	Sol.A	Sol.AB	Sol.A	Sol.AB	%R	Sol.A	Sol.AB	%R
Aluminum	519200	514000				577575	574593.1	111.8
Antimony	0	518				3	569.3	109.9
Arsenic	0	102				-2	89.9	88.1
Barium	0	456				2	508.0	111.4
Beryllium	0	458				0	445.6	97.3
Cadmium	0	910				-1	860.0	94.5
Calcium	491900	489000				493884	496259.6	101.5
Chromium	20	455				23	456.5	100.3
Cobalt	0	430				-4	436.5	101.5
Copper	0	506				6	489.9	96.8
Iron	195000	194600				190112	190585.6	97.9
Lead	0	49				0	43.3	88.4
Magnesium	542000	540600				535182	536909.2	99.3
Manganese	0	438				-3	449.0	102.5
Nickel	0	846				-3	836.5	98.9
Potassium	0	0				6	22.1	
Selenium	0	47				2	49.7	105.7
Silver	0	196				0	200.2	102.1
Sodium	0	0				480	264.8	
Thallium	0	89				10	85.4	96.0
Vanadium	0	452				-2	457.7	101.3
Zinc	0	958				23	953.3	99.5

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ICP INTERFERENCE CHECK SAMPLE

La ame: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: SDG NO.: ME01F1

ICP ID Number: P3 ICS Source: EPA

Concentration Units): ug/L

Analyte	True		Initial Found			Final Found		
	Sol.A	Sol.AB	Sol.A	Sol.AB	%R	Sol.A	Sol.AB	%R
Aluminum	519200	514000	567734	562997.1	109.5	572325	584478.9	113.7
Antimony	0	518	2	555.1	107.2	5	573.7	110.8
Arsenic	0	102	-3	89.0	87.2	-1	89.9	88.1
Barium	0	456	2	481.3	105.5	2	501.3	109.9
Beryllium	0	458	0	425.1	92.8	0	438.4	95.7
Cadmium	0	910	-2	851.3	93.5	-2	880.6	96.8
Calcium	491900	489000	493224	493800.3	101.0	499139	510708.5	104.4
Chromium	20	455	23	449.4	98.8	23	463.4	101.8
Cobalt	0	430	-4	425.6	99.0	-4	439.5	102.2
Copper	0	506	4	467.4	92.4	5	484.5	95.8
Iron	195000	194600	183218	183407.6	94.2	185336	190347.7	97.8
Lead	0	49	3	46.1	94.1	4	46.4	94.7
Magnesium	542000	540600	514558	515447.0	95.3	518752	532608.7	98.5
Manganese	0	438	-2	433.4	98.9	-2	446.9	102.0
Nickel	0	846	-2	828.2	97.9	-3	858.2	101.4
Potassium	0	0	-1	-2.9		-1	8.5	
Selenium	0	47	0	45.0	95.7	3	45.2	96.2
Silver	0	196	0	195.0	99.5	0	201.3	102.7
Sodium	0	0	356	-198.2		325	-380.4	
Thallium	0	89	10	89.1	100.1	8	97.8	109.9
Vanadium	0	452	-2	440.7	97.5	-2	456.0	100.9
Zinc	0	958	22	938.6	98.0	22	968.9	101.1

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LABORATORY CONTROL SAMPLE

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: SDG NO.: ME01F1

Solid LCS Source: EPA-LV

Aqueous LCS Source:

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C Limits		%R
Aluminum				309.0	275.6	193.1	424.2	89.2
Antimony				213.0	219.6	129.4	297.2	103.1
Arsenic				930.0	930.2	613.6	1247.0	100.0
Barium				5.3	5.7	2.5	8.1	107.0
Beryllium				18.8	17.5	15.3	22.2	93.1
Cadmium				41.6	39.2	32.1	51.1	94.2
Calcium				184000.5	179680.5	142933.	225376.	97.6
Chromium				96.5	95.3	77.8	115.2	98.8
Cobalt				140.0	136.6	115.4	165.6	97.6
Copper				6680.0	6720.8	5727.3	7633.1	100.6
Iron				21000.0	20243.6	16831.3	25193.0	96.4
Lead				224.0	204.6	167.6	280.5	91.3
Magnesium				113000.0	114849.4	97493.0	128886.	101.6
Manganese				201.0	200.7	167.9	234.4	99.8
Mercury				12.3	9.0	7.8	16.9	73.0
Nickel				56.8	54.9	43.5	70.1	96.6
Potassium				102.4	59.1	0.0	379.3	57.8
Selenium				37.0	39.7	17.6	56.4	107.4
Silver				20.9	21.9	13.2	28.5	104.6
Sodium				92.8	131.8	0.0	277.4	142.0
Thallium				38.1	37.1	24.6	51.6	97.4
Vanadium				65.8	65.2	53.0	78.6	99.0
Zinc				175.0	175.1	127.7	222.1	100.1
Cyanide				5.6	5.8	4.3	6.9	103.2

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SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

ME01F1S

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: _____ SDG NO.: ME01F1

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

% Solids for Sample: 86.7

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

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M	
Antimony	75 - 125	58.6180		13.8793		115.34	38.8	N	P	
Arsenic	75 - 125	14.8549		7.5378		9.23	79.3		P	
Barium	75 - 125	836.9631		494.6817		461.36	74.2	N	P	
Beryllium	75 - 125	9.1919		0.8897	B	11.53	72.0	N	P	
Cadmium	75 - 125	15.6654		7.8801		11.53	67.5	N	P	
Chromium	75 - 125	42.8815		8.4232		46.14	74.7	N	P	4-11-07
Cobalt	75 - 125	103.0551		14.9848		115.34	76.4		P	
Copper	75 - 125	140.2706		91.3018		57.67	84.9		P	
Lead		18621.2129		16358.0859		4.61	49091.7		P	
Manganese		727.6093		620.3120		115.34	93.0		P	
Mercury	75 - 125	0.7336		0.2175		0.58	89.0		CV	
Nickel	75 - 125	101.8533		19.2613		115.34	71.6	N	P	
Selenium	75 - 125	4.7510		3.5532		2.31	51.8	N	P	
Silver	75 - 125	9.0374		0.3981	B	11.53	74.9	N	P	4-11-0
Thallium	75 - 125	4.1794		0.5536	U	11.53	36.2	N	P	
Vanadium	75 - 125	113.8669		25.8500		115.34	76.3		P	
Zinc		26956.6321		22686.8896		115.34	3701.9		P	
Cyanide	75 - 125	5.3971		0.2802	B	5.77	88.7		CA	

Comments:

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POST DIGEST SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

ME01F1A

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: SDG NO.: ME01F1

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

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Antimony		178.95		60.17		120.0	99.0		P
Barium		6111.19		2144.44		4290.0	92.5		P
Beryllium		13.26		3.86	B	10.0	94.0		P
Cadmium		106.87		34.16		70.0	103.9		P
Nickel		273.98		83.50		170.0	112.0		P
Selenium		38.95		15.40		30.0	78.5		P
Thallium		10.47		2.40	U	20.0	52.3		P

Comments:

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DUPLICATES

EPA SAMPLE NO.

ME01F1D

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: SDG NO.: ME01F1

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

% Solids for Sample: 86.7 % Solids for Duplicate: 87.0

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

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		9419.9824		10775.3877		13.4		P
Antimony	13.8	13.8793		17.0369		20.4		P
Arsenic	2.3	7.5378		7.7423		2.7		P
Barium		494.6817		435.2111		12.8		P
Beryllium	1.2	0.8897	B	1.1573		26.1		P
Cadmium		7.8801		7.4347		5.8		P
Calcium		21136.0293		27675.0195		26.8	*	P
Chromium	2.3	8.4232		8.4940		0.8		P
Cobalt	11.5	14.9848		17.3450		14.6		P
Copper		91.3018		112.0227		20.4	*	P
Cyanide		0.2802	B	0.2917	B	4.0		CA
Iron		64634.1641		78258.6172		19.1		P
Lead		16358.0869		17136.0918		4.6		P
Magnesium	1153.4	2050.0771		2760.9204		29.6		P
Manganese		620.3120		659.6044		6.1		P
Mercury	0.1	0.2175		0.2603		17.9		CV
Nickel	9.2	19.2613		20.4237		5.8		P
Potassium	1153.4	1840.2430		2395.9631		26.2		P
Selenium	1.2	3.5532		2.6626		28.6		P
Silver		0.3981	B	0.4024	B	1.1		P
Sodium		351.0957	U	989.5654	B	200.0		P
Thallium		0.5536	U	0.5536	U			P
Vanadium	11.5	25.8500		26.0617		0.8		P
Zinc		22686.8896		25865.2826		13.1		P

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ICP SERIAL DILUTIONS

EPA SAMPLE NO.

ME01F1L

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: SDG NO.: ME01F1

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

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Aluminum	40835.62		39871.09		2.4		P
Antimony	60.17		67.59	B	12.3	E	P
Arsenic	32.68		31.96	B	2.2		P
Barium	2144.45		2148.76		0.2		P
Beryllium	3.86	B	4.24	B	9.8		P
Cadmium	34.16		34.05		0.3		P
Calcium	91624.68		92632.55		1.1		P
Chromium	36.51		37.76	B	3.4		P
Cobalt	64.96		69.73	B	7.3		P
Copper	395.79		387.18		2.2		P
Iron	280189.09		289986.91		3.5		P
Lead	14182.46		14205.98		0.2		P
Magnesium	8887.08		9143.13	B	2.9		P
Manganese	2689.05		2773.47		3.1		P
Nickel	83.50		86.09	B	3.1		P
Potassium	7977.45		6480.44	B	18.8	E	P
Selenium	15.40		15.00	U	100.0		P
Silver	1.73	B	7610.00 U 4.00	U	100.0		P
Sodium	1522.00 U ~~304.40~~	~~U~~	~~7610.00~~ 1522.00 ~~7610.00~~	~~U~~			P
Thallium	2.40	U	12.00	U			P
Vanadium	112.06		115.82	B	3.4		P
Zinc	19669.60		18340.98		6.8		P

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INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: SDG NO.: ME01F1

ICP ID Number: P3 Date: 10/15/02

Flame AA ID Number:

Furnace AA ID Number:

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum	308.22		200	56.7	P
Antimony	206.84		60	1.2	P
Arsenic	189.04		10	3.0	P
Barium	493.41		200	0.3	P
Beryllium	313.04		5	0.2	P
Cadmium	226.50		5	0.3	P
Calcium	317.93		5000	15.0	P
Chromium	267.72		10	0.8	P
Cobalt	228.62		50	0.7	P
Copper	324.70		25	1.5	P
Iron	271.44		100	12.5	P
Lead	220.35		3	1.2	P
Magnesium	279.08		5000	12.3	P
Manganese	257.61		15	0.2	P
Nickel	231.60		40	1.0	P
Potassium	766.49		5000	40.1	P
Selenium	196.03		5	3.0	P
Silver	328.07		10	0.8	P
Sodium	330.23		5000	304.4	P
Thallium	190.86		10	2.4	P
Vanadium	292.40		50	0.7	P
Zinc	213.86		20	1.1	P

Comments:

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INSTRUMENT DETECTION LIMITS (QUARTERLY)

La' ıme: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: SDG NO.: ME01F1

ICP ID Number: Date: 10/15/02

Flame AA ID Number: V3

Furnace AA ID Number:

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Mercury	253.70		0.2	0.1	CV

Comments:

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INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: SDG NO.: ME01F1

ICP ID Number: Date: 10/15/02

Flame AA ID Number: C2

Furnace AA ID Number:

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Cyanide			10	0.5	CA

Comments:

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PREPARATION LOG

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: SDG NO.: ME01F1

Method: P

EPA Sample No.	Preparation Date	Weight (grams)	Volume (mL)
LCSS	10/31/02	1.00	200
ME01F1	10/31/02	1.00	200
ME01F1D	10/31/02	1.00	200
ME01F1S	10/31/02	1.00	200
ME01F2	10/31/02	1.09	200
ME01F3	10/31/02	1.03	200
ME01F4	10/31/02	1.03	200
ME01F5	10/31/02	1.05	200
ME01F6	10/31/02	1.04	200
ME01F7	10/31/02	1.05	200
ME01F8	10/31/02	1.04	200
ME01F9	10/31/02	1.06	200
ME01G0	10/31/02	1.03	200
ME01G1	10/31/02	1.06	200
ME01G2	10/31/02	1.04	200
ME01G3	10/31/02	1.08	200
ME01G4	10/31/02	1.06	200
ME01G5	10/31/02	1.02	200
PBS	10/31/02	1.00	200

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PREPARATION LOG

La[illegible]me: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: _____ SDG NO.: ME01F1

Method: CV

EPA Sample No.	Preparation Date	Weight (grams)	Volume (mL)
LCSS	10/31/02	0.20	100
ME01F1	10/31/02	0.20	100
ME01F1D	10/31/02	0.20	100
ME01F1S	10/31/02	0.20	100
ME01F2	10/31/02	0.23	100
ME01F3	10/31/02	0.20	100
ME01F4	10/31/02	0.22	100
ME01F5	10/31/02	0.21	100
ME01F6	10/31/02	0.20	100
ME01F7	10/31/02	0.22	100
ME01F8	10/31/02	0.29	100
ME01F9	10/31/02	0.23	100
ME01G0	10/31/02	0.21	100
ME01G1	10/31/02	0.26	100
ME01G2	10/31/02	0.24	100
ME01G3	10/31/02	0.29	100
ME01G4	10/31/02	0.21	100
ME01G5	10/31/02	0.29	100
PBS	10/31/02	0.20	100

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PREPARATION LOG

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: SDG NO.: ME01F1

Method: CA

EPA Sample No.	Preparation Date	Weight (grams)	Volume (mL)
LCSS	10/22/02	1.00	50
ME01F1	10/22/02	1.00	50
ME01F1D	10/22/02	1.00	50
ME01F1S	10/22/02	1.00	50
ME01F2	10/22/02	1.02	50
ME01F3	10/22/02	1.05	50
ME01F4	10/22/02	1.04	50
ME01F5	10/22/02	1.01	50
ME01F6	10/22/02	1.02	50
ME01F7	10/22/02	1.00	50
ME01F8	10/22/02	1.05	50
ME01F9	10/22/02	1.03	50
ME01G0	10/22/02	1.00	50
ME01G1	10/22/02	1.00	50
ME01G2	10/22/02	1.01	50
ME01G3	10/22/02	1.02	50
ME01G4	10/22/02	1.00	50
ME01G5	10/22/02	1.01	50
PBS	10/22/02	1.00	50

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ANALYSIS RUN LOG

L Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: SDG No.: ME01F1

Instrument ID Number: P3 Method: P

Start Date: 11/05/02 End Date: 11/05/02

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
S0	1.00	0833		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
S	1.00	0842							X		X		X		X				X		X	X		X		X	
S	1.00	0849		X						X				X		X											
S	1.00	0854				X	X	X				X					X								X		
S	1.00	0901																		X			X				
S	1.00	0907			X																						
ICV	1.00	0914		X			X	X	X	X	X	X	X	X		X	X		X	X			X		X	X	
ICV	1.00	0922																									
ICV	1.00	0930			X	X									X						X	X		X			
ICB	1.00	0939		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
CRI	1.00	0947			X	X		X	X		X	X	X		X		X		X		X	X		X	X	X	
SA	1.00	0955		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
SAB	1.00	1003		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
CCV	1.00	1012		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
CCB	1.00	1020		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
ZZZZZZ	1.00	1029																									
ZZZZZZ	1.00	1038																									
ZZZZZZ	1.00	1046																									
ZZZZZZ	1.00	1054																									
ZZZZZZ	1.00	1103																									
ZZZZZZ	1.00	1111																									
ZZZZZZ	1.00	1119																									
ZZZZZZ	1.00	1128																									
ZZZZZZ	1.00	1136																									
ZZZZZZ	1.00	1149																									
CCV	1.00	1157		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
CCB	1.00	1205		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
ZZZZZZ	1.00	1217																									
ZZZZZZ	1.00	1226																									
ZZZZZZ	1.00	1234																									
ZZZZZZ	1.00	1242																									
ZZZZZZ	1.00	1251																									
ZZZZ	1.00	1259																									

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ANALYSIS RUN LOG

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: _____ SDG No.: ME01F1

Instrument ID Number: P3 Method: P

Start Date: 11/05/02 End Date: 11/05/02

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ZZZZZZ	1.00	1307																									
CRI	1.00	1316			X	X		X	X		X	X	X		X		X		X		X	X		X	X	X	
ICSA	1.00	1324		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
ICSAB	1.00	1332		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
CCV	1.00	1341		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
CCB	1.00	1349		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
ZZZZZZ	1.00	1357																									
ZZZZZZ	1.00	1406																									
ZZZZZZ	1.00	1414																									
ZZZZZZ	1.00	1423																									
ZZZZZZ	1.00	1431																									
ZZZZZZ	1.00	1440																									
ZZZZZZ	1.00	1448																									
ZZZZZZ	1.00	1456																									
ZZZZZZ	1.00	1505																									
ZZZZZZ	1.00	1513																									
CCV	1.00	1521		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
CCB	1.00	1530		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
ZZZZZZ	1.00	1538																									
ZZZZZZ	1.00	1547																									
ZZZZZZ	1.00	1555																									
ZZZZZZ	1.00	1603																									
ZZZZZZ	1.00	1612																									
ZZZZZZ	1.00	1620																									
PBS	1.00	1628		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
CRI	1.00	1637			X	X		X	X		X	X	X		X		X		X		X	X		X	X	X	
ICSA	1.00	1645		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
ICSAB	1.00	1653		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
CCV	1.00	1702		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
CCB	1.00	1710		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
LCSS	1.00	1718		X	X	X	X	X	X		X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
LCSS	5.00	1727								X																	
1F1	1.00	1735		X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		

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ANALYSIS RUN LOG

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: SDG No.: ME01F1

Instrument ID Number: P3 Method: P

Start Date: 11/05/02 End Date: 11/05/02

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ME01F1	5.00	1744													X								X			X	
ME01F1S	1.00	1752			X	X	X	X	X		X	X	X				X		X		X	X		X	X		
ME01F1S	5.00	1800													X								X				
ME01F1D	1.00	1809		X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		
ME01F1D	5.00	1817													X								X				
ME01F1L	5.00	1825		X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		
ME01F1L	25.00	1834													X								X			X	
CCV	1.00	1842		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
CCB	1.00	1850		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
ME01F1A	1.00	1859			X			X	X															X			
ME01F2	1.00	1907		X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X		X	X		
[illegible]01F2	5.00	1915													X								X				
[illegible]01F3	1.00	1924		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
ME01F4	1.00	1932		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
ME01F5	1.00	1940		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
ME01F6	1.00	1949		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
CRI	1.00	1957			X	X		X	X		X	X	X		X		X		X		X	X		X	X	X	
ICSA	1.00	2006		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
ICSAB	1.00	2014		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
CCV	1.00	2022		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
CCB	1.00	2031		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
ME01F7	1.00	2039		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
ME01F8	1.00	2047		X	X	X	X	X	X	X	X	X	X	X		X	X		X	X	X	X	X	X	X	X	
ME01F8	5.00	2056													X												
ME01F9	1.00	2104		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
ME01G0	1.00	2112		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
ME01G1	1.00	2121		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
ME01G2	1.00	2129		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
ME01G3	1.00	2137		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
ME01G4	1.00	2146		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
ME01G5	1.00	2154		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
CCV	1.00	2203		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
[illegible]	1.00	2211		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	

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ANALYSIS RUN LOG

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: SDG No.: ME01F1

Instrument ID Number: P3 Method: P

Start Date: 11/05/02 End Date: 11/05/02

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ZZZZZZ	1.00	2219																									
ZZZZZZ	1.00	2228																									
ZZZZZZ	1.00	2236																									
ZZZZZZ	1.00	2244																									
ZZZZZZ	1.00	2253																									
ZZZZZZ	1.00	2301																									
ZZZZZZ	1.00	2309																									
CRI	1.00	2318			X	X		X	X		X	X	X		X		X		X		X	X		X	X	X	
ICSA	1.00	2326		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
ICSAB	1.00	2334		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
CCV	1.00	2343		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
[illegible]	1.00	2351		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	

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ANALYSIS RUN LOG

La ame: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: _____ SDG No.: ME01F1

Instrument ID Number: P3 Method: P

Start Date: 11/06/02 End Date: 11/06/02

EPA Sample No.	D/F	Time	% R	Analytes																						
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
S0	1.00	0802		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
S	1.00	0811							X		X		X		X				X		X	X		X		X	
S	1.00	0818		X						X				X		X											
S	1.00	0823				X	X	X				X					X								X		
S	1.00	0830																		X			X				
S	1.00	0835			X																						
ICV	1.00	0842		X			X	X	X	X	X	X	X	X		X	X		X	X			X		X	X	
ICV	1.00	0850																									
ICV	1.00	0858			X	X									X						X	X		X			
ICB	1.00	0907		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
CRI	1.00	0915			X	X		X	X		X	X	X		X		X		X		X	X		X	X	X	
[illegible]A	1.00	0923		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
[illegible]AB	1.00	0931		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
CCV	1.00	0940		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
CCB	1.00	0948		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
ZZZZZZ	1.00	0957																									
ZZZZZZ	1.00	1006																									
ME01F1 A 6/4/03	1.00	1014					X												X		X						
ME01F1S	10.00	1022																								X	
ME01F1D	10.00	1031																								X	
ME01F2	10.00	1039																								X	
ZZZZZZ	1.00	1047																									
ZZZZZZ	1.00	1056																									
ZZZZZZ	1.00	1104																									
ZZZZZZ	1.00	1112																									
CCV	1.00	1121		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
CCB	1.00	1129		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
ZZZZZZ	1.00	1137																									
ZZZZZZ	1.00	1146																									
ZZZZZZ	1.00	1154																									
ZZZZZZ	1.00	1202																									
ZZZZZZ	1.00	1211																									
[illegible]ZZZ	1.00	1219																									

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ANALYSIS RUN LOG

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: SDG No.: ME01F1

Instrument ID Number: P3 Method: P

Start Date: 11/06/02 End Date: 11/06/02

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ZZZZZZ	1.00	1227																									
CRI	1.00	1236			X	X		X	X		X	X	X		X		X		X		X	X		X	X	X	
ICSA	1.00	1244		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
ICSAB	1.00	1252		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
CCV	1.00	1301		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
CCB	1.00	1309		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	

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ANALYSIS RUN LOG

I Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: SDG No.: ME01F1

Instrument ID Number: V3 Method: CV

Start Date: 11/01/02 End Date: 11/01/02

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
S0	1.00	0918																X									
S0.2	1.00	0920																X									
S0.5	1.00	0922																X									
S1	1.00	0925																X									
S5	1.00	0927																X									
S10	1.00	0929																X									
ICV	1.00	0932																X									
ICB	1.00	0934																X									
CRA	1.00	0937																X									
CCV	1.00	0939																X									
CCB	1.00	0941																X									
ZZZZ	1.00	0944																									
ZZZZZZ	1.00	0946																									
ZZZZZZ	1.00	0948																									
ZZZZZZ	1.00	0951																									
ZZZZZZ	1.00	0953																									
ZZZZZZ	1.00	0955																									
ZZZZZZ	1.00	0957																									
ZZZZZZ	1.00	0959																									
ZZZZZZ	1.00	1002																									
ZZZZZZ	1.00	1004																									
CCV	1.00	1006																X									
CCB	1.00	1009																X									
ZZZZZZ	1.00	1011																									
ZZZZZZ	1.00	1013																									
ZZZZZZ	1.00	1015																									
ZZZZZZ	1.00	1017																									
ZZZZZZ	1.00	1020																									
ZZZZZZ	1.00	1022																									
ZZZZZZ	1.00	1024																									
ZZZZZZ	1.00	1027																									
ZZZZZZ	1.00	1029																									
ZZZZ	1.00	1031																									

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ANALYSIS RUN LOG

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: SDG No.: ME01F1

Instrument ID Number: V3 Method: CV

Start Date: 11/01/02 End Date: 11/01/02

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
CCV	1.00	1033																X									
CCB	1.00	1036																X									
ZZZZZZ	1.00	1038																									
ZZZZZZ	1.00	1040																									
ZZZZZZ	1.00	1043																									
ZZZZZZ	1.00	1045																									
ZZZZZZ	1.00	1047																									
ZZZZZZ	1.00	1049																									
ZZZZZZ	1.00	1051																									
ZZZZZZ	1.00	1054																									
ZZZZZZ	1.00	1056																									
ZZZZZZ	1.00	1058																									
CCV	1.00	1101																X									
CCB	1.00	1103																X									
ZZZZZZ	1.00	1105																									
ZZZZZZ	1.00	1108																									
ZZZZZZ	1.00	1110																									
ZZZZZZ	1.00	1112																									
ZZZZZZ	1.00	1114																									
ZZZZZZ	1.00	1116																									
ZZZZZZ	1.00	1119																									
ZZZZZZ	1.00	1121																									
ZZZZZZ	1.00	1123																									
ZZZZZZ	1.00	1125																									
CCV	1.00	1128																X									
CCB	1.00	1130																X									
ZZZZZZ	1.00	1132																									
ZZZZZZ	1.00	1135																									
ZZZZZZ	1.00	1137																									
ZZZZZZ	1.00	1139																									
ZZZZZZ	1.00	1141																									
ZZZZZZ	1.00	1144																									
ZZZZZZ	1.00	1146																									

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ANALYSIS RUN LOG

L Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: SDG No.: ME01F1

Instrument ID Number: V3 Method: CV

Start Date: 11/01/02 End Date: 11/01/02

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ZZZZZZ	1.00	1148																									
ZZZZZZ	1.00	1150																									
ZZZZZZ	1.00	1153																									
CCV	1.00	1155																X									
CCB	1.00	1157																X									
ZZZZZZ	1.00	1200																									
ZZZZZZ	1.00	1202																									
ZZZZZZ	1.00	1204																									
ZZZZZZ	1.00	1206																									
ZZZZZZ	1.00	1209																									
ZZZZZZ	1.00	1211																									
ZZZZZZ	1.00	1213																									
ZZZZZZ	1.00	1216																									
ZZZZZZ	1.00	1218																									
ZZZZZZ	1.00	1220																									
CCV	1.00	1222																X									
CCB	1.00	1225																X									
ZZZZZZ	1.00	1227																									
ZZZZZZ	1.00	1230																									
ZZZZZZ	1.00	1232																									
ZZZZZZ	1.00	1234																									
ZZZZZZ	1.00	1236																									
ZZZZZZ	1.00	1239																									
ZZZZZZ	1.00	1241																									
ZZZZZZ	1.00	1243																									
ZZZZZZ	1.00	1246																									
ZZZZZZ	1.00	1248																									
CCV	1.00	1250																X									
CCB	1.00	1253																X									
ZZZZZZ	1.00	1255																									
ZZZZZZ	1.00	1257																									
ZZZZZZ	1.00	1259																									
ZZZZZZ	1.00	1302																									

U. S. EPA - CLP

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ANALYSIS RUN LOG

L[illegible]ame: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: _____ SDG No.: ME01F1

Instrument ID Number: V3 Method: CV

Start Date: 11/01/02 End Date: 11/01/02

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ZZZZZZ	1.00	1304																									
ZZZZZZ	1.00	1306																									
ZZZZZZ	1.00	1309																									
ZZZZZZ	1.00	1311																									
ZZZZZZ	1.00	1313																									
ZZZZZZ	1.00	1316																									
CCV	1.00	1318																X									
CCB	1.00	1321																X									
ZZZZZZ	1.00	1323																									
ZZZZZZ	1.00	1325																									
ZZZZZZ	1.00	1327																									
[illegible]ZZZ	1.00	1330																									
ZZZZZZ	1.00	1332																									
ZZZZZZ	1.00	1334																									
ZZZZZZ	1.00	1337																									
ZZZZZZ	1.00	1339																									
ZZZZZZ	1.00	1341																									
ZZZZZZ	1.00	1343																									
CCV	1.00	1346																X									
CCB	1.00	1348																X									
ZZZZZZ	1.00	1351																									
ZZZZZZ	1.00	1353																									
ZZZZZZ	1.00	1355																									
ZZZZZZ	1.00	1358																									
ZZZZZZ	1.00	1400																									
PBS	1.00	1402																X									
LCSS	5.00	1405																X									
ME01F1	1.00	1407																X									
ME01F1S	1.00	1410																X									
ME01F1D	1.00	1412																X									
CCV	1.00	1414																X									
CCB	1.00	1417																X									
[illegible]1F2	1.00	1419																X									

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ANALYSIS RUN LOG

Lab Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: SDG No.: ME01F1

Instrument ID Number: V3 Method: CV

Start Date: 11/01/02 End Date: 11/01/02

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ME01F3	1.00	1421																X									
ME01F4	1.00	1424																X									
ME01F5	1.00	1426																X									
ME01F6	1.00	1428																X									
ME01F7	1.00	1431																X									
ME01F8	1.00	1433																X									
ME01F9	1.00	1435																X									
ME01G0	1.00	1438																X									
ME01G1	1.00	1440																X									
CCV	1.00	1442																X									
CCB	1.00	1445																X									
ME01G2	1.00	1447																X									
ME01G3	1.00	1450																X									
ME01G4	1.00	1452																X									
ME01G5	1.00	1454																X									
CCV	1.00	1457																X									
CCB	1.00	1459																X									

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ANALYSIS RUN LOG

L ame: COMPUCHEM

Contract: 68W00082

Lab Code: LIBRTY

Case No.: 31061

SAS No.:

SDG No.: ME01F1

Instrument ID Number: C2

Method: CA

Start Date: 10/23/02

End Date: 10/23/02

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
S200	1.00	1145																									X
S100	1.00	1146																									X
S50	1.00	1147																									X
S20	1.00	1148																									X
S10	1.00	1148																									X
S0	1.00	1149																									X
ICV	1.00	1152																									X
ICB	1.00	1152																									X
CCV	1.00	1153																									X
CCB	1.00	1154																									X
ZZZZZZ	1.00	1156																									
ZZZZ	1.00	1157																									
ZZZZZZ	1.00	1158																									
ZZZZZZ	1.00	1158																									
ZZZZZZ	1.00	1159																									
ZZZZZZ	1.00	1200																									
ZZZZZZ	1.00	1201																									
ZZZZZZ	1.00	1202																									
ZZZZZZ	1.00	1202																									
ZZZZZZ	1.00	1203																									
CCV	1.00	1204																									X
CCB	1.00	1205																									X
ZZZZZZ	1.00	1207																									
ZZZZZZ	1.00	1208																									
ZZZZZZ	1.00	1208																									
ZZZZZZ	1.00	1209																									
ZZZZZZ	1.00	1210																									
ZZZZZZ	1.00	1211																									
ZZZZZZ	1.00	1212																									
ZZZZZZ	1.00	1212																									
ZZZZZZ	1.00	1213																									
ZZZZZZ	1.00	1214																									
	1.00	1215																									X

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ANALYSIS RUN LOG

L Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: SDG No.: ME01F1

Instrument ID Number: C2 Method: CA

Start Date: 10/23/02 End Date: 10/23/02

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
CCB	1.00	1215																									X
ZZZZZZ	1.00	1218																									
ZZZZZZ	1.00	1218																									
ZZZZZZ	1.00	1219																									
ZZZZZZ	1.00	1220																									
ZZZZZZ	1.00	1221																									
ZZZZZZ	1.00	1222																									
ZZZZZZ	1.00	1222																									
ZZZZZZ	1.00	1223																									
ZZZZZZ	1.00	1224																									
ZZZZZZ	1.00	1225																									
CCV	1.00	1225																									X
CCB	1.00	1226																									X
ZZZZZZ	1.00	1229																									
ZZZZZZ	1.00	1229																									
ZZZZZZ	1.00	1230																									
ZZZZZZ	1.00	1231																									
PBS	1.00	1232																									X
LCSS	1.00	1232																									X
ME01F1	1.00	1233																									X
ME01F1S	1.00	1234																									X
ME01F1D	1.00	1235																									X
ME01F2	1.00	1235																									X
CCV	1.00	1236																									X
CCB	1.00	1237																									X
ME01F3	1.00	1239																									X
ME01F4	1.00	1240																									X
ME01F5	1.00	1241																									X
ME01F6	1.00	1242																									X
ME01F7	1.00	1242																									X
ME01F8	1.00	1243																									X
ME01F9	1.00	1244																									X
11G0	1.00	1245																									X

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ANALYSIS RUN LOG

L Name: COMPUCHEM Contract: 68W00082

Lab Code: LIBRTY Case No.: 31061 SAS No.: SDG No.: ME01F1

Instrument ID Number: C2 Method: CA

Start Date: 10/23/02 End Date: 10/23/02

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ME01G1	1.00	1245																									X
ME01G2	1.00	1246																									X
CCV	1.00	1247																									X
CCB	1.00	1248																									X
ME01G3	1.00	1250																									X
ME01G4	1.00	1251																									X
ME01G5	1.00	1252																									X
CCV	1.00	1252																									X
CCB	1.00	1253																									X

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V
ESD Central Regional Laboratory
Data Tracking Form for Contract Samples

Sample Delivery Group: MEO1F1 CERCLIS No: ILD980607006

Case No: 31061 Site Name/Location: St. Louis Smelting & Refining

Contractor or EPA Lab: Compuchem Data User: IEPA

No. of Samples: 15 Date Sampled or Date Received: 11-8-02

Have Chain-of-Custody records been received? Yes ✓ No ____
Have traffic reports or packing lists been received? Yes ✓ No ____
If no. are traffic report or packing list numbers written on the Chain-of-Custody Record?
Yes ____ No ____
If no. which traffic report or packing list numbers are missing?

____ ____ ____ ____
____ ____ ____ ____

Are basic data forms in? Yes ✓ No ____
No of samples claimed: ____ No. of samples received: ____

Received by: Ena M. Dixon/ESAT Date: 11-8-02

Received by LSSS: Ena M. Dixon/ESAT Date: 11-8-02

Review started: 4-10-03 Reviewer Signature: [signature]

Total time spent on review: 16 Date review completed: 4-11-03

Copied by: Ena M. Dixon/ESAT Date: 11-12-02 5-15-03

Mailed to user by: Ena M. Dixon/ESAT Date: 11-12-02 5-15-03

DATA USER:
Please fill in the blanks below and return this form to:
Sylvia Griffin, Data Mgmt. Coordinator, Region V, ML-10C

Data received by: ____ Date: ____

Data review received by: ____ Date: ____

Inorganic Data Complete [ ] Suitable for Intended Purpose [ ] ✓ if OK
Organic Data Complete [ ] Suitable for Intended Purpose [ ] ✓ if OK
Dioxin data Complete [ ] Suitable for Intended Purpose [ ] ✓ if OK
SAS Data Complete [ ] Suitable for Intended Purpose [ ] ✓ if OK

PROBLEMS: Please indicate reasons why data are not suitable for your uses.

____
____

Received by Data Mgmt. Coordinator for Files. Date: ____

DATE: August 23, 2002

IEPA
1021 North Grand Avenue East
P.O. Box 19276
Springfield, IL 62794-9276

Attn: Bob Casper

SITE NAME: St. Louis Smelting and Refining

CASE NO.	LAB	NO. OF SAMPLES	SDG	MATRIX
30778	AATS	16	E01C5	Water

==========

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

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

Data Received by:_____ Date:_____

PROBLEMS:

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

_____

_____

Received by Data Management Coordinator, CRL for file.
Date:_____

Signature:_____

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

RECEIVED
AUG 2 8 2002
IEPA-BOL-FOS

Sent By: Eva M. Dixon, Sr. Data Specialist
ESAT

AUG 2 2 2002 EMD

AUG 2 3 2002

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V
SUPERFUND DIVISION

DATE: _____

SUBJECT: **Electronic (Level 2) Review of Data**

Received for Review on August 19, 2002

FROM: Stephen L. Ostrodka, Chief (SMF-4J)
Superfund Field Services Section

TO: Data User: IEPA

The following data has been electronically reviewed by CADRE. No review of the raw data, laboratory narrative, laboratory forms or chain-of-custody forms was performed.

SITE NAME: St. Louis Smelting and Refinery (IL)

CASE NUMBER: 30778 SDG NUMBER: E01C5

Number and Type of Samples: 16 Waters

Sample Numbers: E01C5 - E01C9, E01D0, E01D2 - E01D9, E01E0, E01E1

Laboratory: AATSLA Hrs. for Review: _____

Following are our findings:

CC: Cecilia Moore
Region 5 TPO
Mail Code: SMF-4J

Case Number : 30778 SDG Number: E01C5
Site Name: ST. LOUIS SMELTING & REFINERY (IL) Laboratory: AATSLA

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

Sixteen (16) water samples, numbered *E01C5* through *E01C9, E01D0, E01D2* through *E01D9, E01E0* and *E01E1* were collected *July 28 - 29, 2002*. The lab received the samples on *July 31, 2002* in good condition. All samples were analyzed for only the semivolatile and pesticide/PCB lists of organic analytes. All were analyzed according to CLP SOW *OLM04.2* 5/99.

Case Number : 30778 SDG Number: E01C5
Site Name: ST. LOUIS SMELTING & REFINERY (IL) Laboratory: AATSLA

1. HOLDING TIME

Qualification: Holding Time Protocol: BNA

No defects found.

Qualification: Holding Time Protocol: PES

No defects found.

2. GC/MS TUNING AND GC INSTRUMENT PERFORMANCE

Qualification: IPC Protocol: BNA

No defects found.

Qualification: System Performance Protocol: PES

No defects found.

3. CALIBRATION

Qualification: Calibrations Protocol: BNA

DC-11 The following semivolatile samples are associated with a continuing calibration percent difference (%D) outside primary criteria. Hits are qualified "J" and non-detects are qualified "UJ".

2,4-Dinitrophenol
E01C5, E01C5MS, E01C5MSD, E01C6, E01C7, E01C8, E01C9, E01D0, E01D2, E01D3, SBLKFA

Qualification: Calibrations Protocol: PES

No defects found.

4. BLANKS

Qualification: Laboratory Blanks Protocol: BNA

DC-10 The following semivolatile samples have analyte concentrations reported below the CRQL and less than or equal to ten times (10X) the associated method blank concentration. Reported sample concentrations have been elevated to the CRQL. Hits are

qualified "U" and non-detects are not flagged.

Di-n-butylphthalate
E01C5MSD, E01C6, E01C7, E01C9, E01D0, E01D3, E01D6, E01D7, E01D9, E01E0, E01E1

Qualification: Laboratory Blanks **Protocol: PES**

DC-4 The following pesticide samples have analyte concentrations reported below the CRQL and less than or equal to five times (5X) the associated method blank concentration. Reported sample concentrations have been elevated to the CRQL. Hits are qualified "U" and non-detects are not flagged.

E01C5, E01D4, E01D5, E01E0, E01E1
alpha-BHC, Heptachlor epoxide, 4,4-DDT, Endrin aldehyde, gamma-Chlordane

E01C5MS, E01D8, E01E1DL
alpha-BHC, Heptachlor epoxide, Endrin aldehyde

E01C5MSD
Heptachlor epoxide, Endrin aldehyde

E01C6
Heptachlor epoxide, 4,4-DDT, Endrin aldehyde, gamma-Chlordane

E01C8
Heptachlor epoxide, Endrin aldehyde, gamma-Chlordane

E01C9, E01D0, E01D2, E01D7, E01D9
alpha-BHC, Heptachlor epoxide, Endrin aldehyde, gamma-Chlordane

E01D3
alpha-BHC, Heptachlor epoxide, 4,4-DDT, Endrin aldehyde

E01D6
alpha-BHC, Heptachlor epoxide, gamma-Chlordane

E01D6DL
alpha-BHC

5. SYSTEM MONITORING COMPOUND AND SURROGATE RECOVERY

Qualification: Surrogate **Protocol: BNA**

No defects found.

Qualification: Surrogate Protocol: PES

DC-2 The following pesticide samples have surrogate percent recoveries which exceed the upperlimit of the criteria window. Hits are qualified "J" and non-detects are not flagged.

E01C7

DC-3 The following undiluted pesticide samples have surrogate percent recoveries of less than 10%. Hits are qualified "J" and non-detects are qualified "R".

E01C7

DC-5 The following pesticide samples have surrogate percent recoveries outside the lower limit of the criteria window, but greater than 10%. Hits are qualified "J" and non-detects are qualified "UJ".

E01D4, E01D5, E01D7, E01D8, E01D9, E01E0, E01E1, E01E1DL

DC-6 The following pesticide samples are not fully qualified for surrogate RT because of missing RT information. Hits and non-detects are not flagged.

E01C7

6. MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Qualification: Matrix Spikes Protocol: BNA

No defects found.

Qualification: Matrix Spikes Protocol: PES

No defects found.

7. FIELD BLANK AND FIELD DUPLICATE

No samples identified as trip blanks or field duplicates. Sample *E01D6* is a field blank. Results are not qualified based upon the results of the field blank or field duplicates.

8. INTERNAL STANDARDS

Qualification: Internal Standards Protocol: BNA

Case Number : 30778 SDG Number: E01C5
Site Name: ST. LOUIS SMELTING & REFINERY (IL) Laboratory: AATSLA

No defects found.

9. COMPOUND IDENTIFICATION

After reviewing the mass spectra and chromatograms it appears that all SVOA and Pesticide/PCB compounds were properly identified.

10. COMPOUND QUANTITATION AND REPORTED DETECTION LIMITS

Qualification: Detection Limit **Protocol: BNA**

DC-1 The following semivolatile samples have analyte concentrations below the quantitation limit (CRQL). All results below the CRQL are qualified "J".

E01C5, E01C5MS, E01C5MSD, E01C6, E01C7, E01C8, E01D0, E01D2, E01D3, E01D4, E01D5, E01D6, E01D7, E01D8, E01E0, E01E1
bis(2-Ethylhexyl)phthalate

E01C9
Caprolactam, Diethylphthalate, bis(2-Ethylhexyl)phthalate

SBLKFA
Di-n-butylphthalate

Qualification: Detection Limit **Protocol: PES**

DC-1 The following pesticide samples have analyte concentrations below the quantitation limit (CRQL). All results below the CRQL are qualified "J".

E01C5, E01D4
delta-BHC, gamma-BHC (Lindane), Heptachlor, Aldrin, Dieldrin, 4,4-DDE, Endosulfan II, 4,4-DDD

E01C5MS
4,4-DDE, 4,4-DDD, Endrin ketone, gamma-Chlordane

E01C5MSD
4,4-DDE, 4,4-DDD, Endrin ketone

E01C6
gamma-BHC (Lindane), Heptachlor

Case Number : 30778 SDG Number: E01C5
te Name: ST. LOUIS SMELTING & REFINERY (IL) Laboratory: AATSLA

E01C8
gamma-BHC (Lindane), Heptachlor, Aldrin

E01C9
delta-BHC, gamma-BHC (Lindane), Heptachlor

E01D0
delta-BHC, gamma-BHC (Lindane), Heptachlor, Dieldrin, 4,4-DDE

E01D2
delta-BHC, gamma-BHC (Lindane), Heptachlor, Aldrin, Dieldrin, 4,4-DDE

E01D3
delta-BHC, gamma-BHC (Lindane), Heptachlor, Aldrin, Dieldrin, 4,4-DDE, Endosulfan II, 4,4-DDD, gamma-Chlordane

E01D5
delta-BHC, gamma-BHC (Lindane), Heptachlor, Aldrin, Dieldrin, 4,4-DDE, Endosulfan II

E01D6
beta-BHC, gamma-BHC (Lindane), Aldrin, Endosulfan I, Dieldrin, 4,4-DDE, Endosulfan II, 4,4-DDD, Endosulfan sulfate, 4,4-DDT, Endrin ketone, alpha-Chlordane

E01D6DL
beta-BHC, delta-BHC, gamma-BHC (Lindane), Heptachlor, Heptachlor epoxide, Dieldrin, 4,4-DDE, Endosulfan II, 4,4-DDD, Endrin aldehyde

E01D7, E01D8
delta-BHC, gamma-BHC (Lindane), Aldrin, Dieldrin, 4,4-DDE, Endosulfan II, 4,4-DDD, Endosulfan sulfate, 4,4-DDT, alpha-Chlordane

E01D9
delta-BHC, gamma-BHC (Lindane), Aldrin, Dieldrin, 4,4-DDE, Endrin, Endosulfan II, 4,4-DDD, Endosulfan sulfate, 4,4-DDT, alpha-Chlordane

E01E0
delta-BHC, gamma-BHC (Lindane), Aldrin, Dieldrin, 4,4-DDE, Endosulfan II, 4,4-DDD, Endosulfan sulfate, alpha-Chlordane

E01E1
beta-BHC, delta-BHC, gamma-BHC (Lindane), Aldrin, Dieldrin, 4,4-DDE, Endrin, Endosulfan II, 4,4-DDD, Endosulfan sulfate, alpha-Chlordane

Case Number : 30778 SDG Number: E01C5
e Name: ST. LOUIS SMELTING & REFINERY (IL) Laboratory: AATSLA

E01E1DL
delta-BHC, gamma-BHC (Lindane), Heptachlor, Dieldrin

PBLKW
alpha-BHC, Heptachlor epoxide, 4,4-DDT, Endrin aldehyde, gamma-Chlordane

DC-3 The following pesticide samples have analytes for which the percent difference between columm results exceeds primary criteria. Professional judgement should be used to qualify the data.

E01C5
delta-BHC, Dieldrin, 4,4-DDE, Endosulfan II, 4,4-DDD

E01C5MS
4,4-DDD

E01C5MSD
4,4-DDE, 4,4-DDD

E01C6
gamma-BHC (Lindane), Heptachlor

E01C7
gamma-BHC (Lindane)

E01C8
gamma-BHC (Lindane), Heptachlor, Aldrin

E01C9
delta-BHC, Heptachlor

E01D0
delta-BHC, gamma-BHC (Lindane), Dieldrin, 4,4-DDE

E01D2
delta-BHC, gamma-BHC (Lindane), Heptachlor, Dieldrin, 4,4-DDE

E01D3
delta-BHC, Heptachlor, Aldrin, Dieldrin, 4,4-DDE, 4,4-DDD, gamma-Chlordane

E01D4
delta-BHC, gamma-BHC (Lindane), Aldrin, 4,4-DDE, Endosulfan II, 4,4-DDD

E01D5
delta-BHC, gamma-BHC (Lindane), Aldrin, Endosulfan II, 4,4-DDT

E01D6
beta-BHC, delta-BHC, gamma-BHC (Lindane), Endosulfan I, Endosulfan II, 4,4-DDD, Endosulfan sulfate, 4,4-DDT, Endrin ketone, Endrin aldehyde, alpha-Chlordane

E01D6DL
beta-BHC, delta-BHC, Heptachlor, Heptachlor epoxide, Endosulfan II, Endrin aldehyde

E01D7
delta-BHC, gamma-BHC (Lindane), Aldrin, Dieldrin, 4,4-DDE, Endosulfan II, Endosulfan sulfate, 4,4-DDT, alpha-Chlordane

E01D8
delta-BHC, gamma-BHC (Lindane), Aldrin, Dieldrin, Endosulfan II, 4,4-DDD, Endosulfan sulfate, 4,4-DDT, alpha-Chlordane

E01D9
delta-BHC, gamma-BHC (Lindane), Aldrin, Dieldrin, 4,4-DDE, Endrin, Endosulfan II, Endosulfan sulfate, 4,4-DDT, alpha-Chlordane

E01E0
delta-BHC, gamma-BHC (Lindane), Aldrin, Dieldrin, 4,4-DDE, Endosulfan II, 4,4-DDD, alpha-Chlordane

E01E1
beta-BHC, delta-BHC, gamma-BHC (Lindane), Aldrin, 4,4-DDE, Endrin, Endosulfan II, 4,4-DDD, alpha-Chlordane

E01E1DL
delta-BHC, gamma-BHC (Lindane), Heptachlor, Dieldrin

PBLKW
alpha-BHC, Heptachlor epoxide, 4,4-DDT, gamma-Chlordane

11. SYSTEM PERFORMANCE

GC/MS baseline indicated acceptable performance. The GC baseline for the pesticide analysis was acceptable.

12. ADDITIONAL INFORMATION

Case Number : 30778 SDG Number: E01C5
:e Name: ST. LOUIS SMELTING & REFINERY (IL) Laboratory: AATSLA

Data Review Results
Lab ID: AATSLA Case No.: 30778 Method: OLM04.2 Flag :R5FLAG
File Name: E01C5 SDG No.: E01C5 Criteria: OLM04.2 Defects: R5DEFECT

Data Review Criteria Set Options:

Detection Limit CADRE association rules X
PEST pct D expanded criteria
Use MDL IPC
Expanded criteria
Holding Time
Region 3 PAH option System Performance
Region 3 PCB option Use initial PEM pct resolution X
Expanded criteria X Use continuing PEM pct resolution
Inorganic missing pH option
CRDL/CRQL Standards
Calibrations Region 2 validation rules
RRF expanded criteria Region 3 validation rules
VOA/BNA PctD expanded criteria
VOA/BNA PctRSD expanded criteria LCS
Use mean RRF Pct rec expanded criteria
Use VOA/BNA dual purpose standard option X
Use initial INDA/INDB pct resolution X Duplicates
Use continuing INDA/INDB pct resolution RPD and AD expanded criteria
Use PEST low concentration option
PEST low concentration PctRSD expanded criteria Furnace AA QC
Use DMC/SMC/Surrogate option X Pct R expanded upper criteria
Use INORG extreme high pct recovery Corr coef expanded criteria
Matrix Spikes Blanks
Use PEST low concentration rules Raise to detection limit X
Use VOA storage/inst blanks
DMC/SMC/Surrogates Use low concentration rules
Region 3 validation rules
Check dilution factor X Field QC
Use advisory surrogates Combine method/field blanks
Use low concentration rules CRDL contamination criteria

Analytical Results (Qualified Data)

Case # 30778 SDG : E01C5
Site : ST. LOUIS SMELTING & REFINING
Lab. : AATSLA
Reviewer :
Date :

Number of Soil Samples : 0
Number of Water Samples : 16

Sample Number :	E01C5		E01C5MS		E01C5MSD		E01C6		E01C7	
Sampling Location :	S201A		S201A		S201A		S201B		S201C	
Matrix :	Water		Water		Water		Water		Water	
Units :	ug/L		ug/L		ug/L		ug/L		ug/L	
Date Sampled :	07/29/2002		07/29/2002		07/29/2002		07/29/2002		07/29/2002	
Time Sampled :	10:00		10:00		10:00		10:30		10:54	
%Moisture :	N/A		N/A		N/A		N/A		N/A	
pH :	0.0		0.0		0.0		0.0		0.0	
Dilution Factor :	1.0		1.0		1.0		1.0		1.0	
Semivolatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Benzaldehyde	10	U	10	U	10	U	10	U	10	U
Phenol	10	U	36		37		10	U	10	U
bis-(2-Chloroethyl) ether	10	U	10	U	10	U	10	U	10	U
2-Chlorophenol	10	U	36		37		10	U	10	U
2-Methylphenol	10	U	10	U	10	U	10	U	10	U
2,2'-oxybis(1-Chloropropane)	10	U	10	U	10	U	10	U	10	U
Acetophenone	10	U	10	U	10	U	10	U	10	U
4-Methylphenol	10	U	10	U	10	U	10	U	10	U
N-Nitroso-di-n-propylamine	10	U	32		32		10	U	10	U
Hexachloroethane	10	U	10	U	10	U	10	U	10	U
Nitrobenzene	10	U	10	U	10	U	10	U	10	U
Isophorone	10	U	10	U	10	U	10	U	10	U
2-Nitrophenol	10	U	10	U	10	U	10	U	10	U
2,4-Dimethylphenol	10	U	10	U	10	U	10	U	10	U
bis(2-Chloroethoxy)methane	10	U	10	U	10	U	10	U	10	U
2,4-Dichlorophenol	10	U	10	U	10	U	10	U	10	U
Naphthalene	10	U	10	U	10	U	10	U	10	U
4-Chloroaniline	10	U	10	U	10	U	10	U	10	U
Hexachlorobutadiene	10	U	10	U	10	U	10	U	10	U
Caprolactam	10	U	10	U	10	U	10	U	10	U
4-Chloro-3-methylphenol	10	U	33		36		10	U	10	U
2-Methylnaphthalene	10	U	10	U	10	U	10	U	10	U
Hexachlorocyclopentadiene	10	U	10	U	10	U	10	U	10	U
2,4,6-Trichlorophenol	10	U	10	U	10	U	10	U	10	U
2,4,5-Trichlorophenol	25	U	25	U	25	U	25	U	25	U
1,1'-Biphenyl	10	U	10	U	10	U	10	U	10	U
2-Chloronaphthalene	10	U	10	U	10	U	10	U	10	U
2-Nitroaniline	25	U	25	U	25	U	25	U	25	U
Dimethylphthalate	10	U	10	U	10	U	10	U	10	U
2,6-Dinitrotoluene	10	U	10	U	10	U	10	U	10	U
Acenaphthylene	10	U	10	U	10	U	10	U	10	U
3-Nitroaniline	25	U	25	U	25	U	25	U	25	U
Acenaphthene	10	U	25		28		10	U	10	U

DISCLAIMER This package has been electronically assessed as an added service to our customer. It has not been either validated or approved by Region 5 and any subsequent use by the data user is strictly at the risk of the data user. Region 5 assumes no responsibility for use of unvalidated data.

CADRE Data Qualifier Sheet

Qualifiers	Data Qualifier Definitions
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J	The anlayte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.
UJ	The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the action limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
N	The analysis indicates the present of an analyte for which there is presumptive evidence to make a tentative identification.
NJ	The analysis indicates the present of an analyte for which there is presumptive evidence to make a tentative identification and the associated numerical value represents its approximate concentration.
R	The data are unusable. (The compound may or may not be present)

Analytical Results (Qualified Data)

Case # 30778 SDG : E01C5
Site : ST. LOUIS SMELTING & REFINING
Lab. : AATSLA
Reviewer :
Date

Sample Number :	E01C5		E01C5MS		E01C5MSD		E01C6		E01C7	
Sampling Location :	S201A		S201A		S201A		S201B		S201C	
Matrix :	Water		Water		Water		Water		Water	
Units :	ug/L		ug/L		ug/L		ug/L		ug/L	
Date Sampled :	07/29/2002		07/29/2002		07/29/2002		07/29/2002		07/29/2002	
Time Sampled :	10:00		10:00		10:00		10:30		10:54	
%Moisture :	N/A		N/A		N/A		N/A		N/A	
pH :	0.0		0.0		0.0		0.0		0.0	
Dilution Factor :	1.0		1.0		1.0		1.0		1.0	
Semivolatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
2,4-Dinitrophenol	25	UJ	25	UJ	25	UJ	25	UJ	25	UJ
4-Nitrophenol	25	U	43		44		25	U	25	U
Dibenzofuran	10	U	10	U	10	U	10	U	10	U
2,4-Dinitrotoluene	10	U	34		35		10	U	10	U
Diethylphthalate	10	U	10	U	10	U	10	U	10	U
Fluorene	10	U	10	U	10	U	10	U	10	U
4-Chlorophenyl-phenyl ether	10	U	10	U	10	U	10	U	10	U
4-Nitroaniline	25	U	25	U	25	U	25	U	25	U
4,6-Dinitro-2-methylphenol	25	U	25	U	25	U	25	U	25	U
N-Nitrosodiphenylamine	10	U	10	U	10	U	10	U	10	U
4-Bromophenyl-phenylether	10	U	10	U	10	U	10	U	10	U
Hexachlorobenzene	10	U	10	U	10	U	10	U	10	U
Atrazine	10	U	10	U	10	U	10	U	10	U
Pentachlorophenol	25	U	40		46		25	U	25	U
Phenanthrene	10	U	10	U	10	U	10	U	10	U
Anthracene	10	U	10	U	10	U	10	U	10	U
Carbazole	10	U	10	U	10	U	10	U	10	U
Di-n-butylphthalate	10	U	10	U	10	UJ	10	UJ	10	UJ
Fluoranthene	10	U	10	U	10	U	10	U	10	U
Pyrene	10	U	19		23		10	U	10	U
Butylbenzylphthalate	10	U	10	U	10	U	10	U	10	U
3,3'-Dichlorobenzidine	10	U	10	U	10	U	10	U	10	U
Benzo(a)anthracene	10	U	10	U	10	U	10	U	10	U
Chrysene	10	U	10	U	10	U	10	U	10	U
bis(2-Ethylhexyl)phthalate	5	J	3	J	2	J	2	J	2	J
Di-n-octylphthalate	10	U	10	U	10	U	10	U	10	U
Benzo(b)fluoranthene	10	U	10	U	10	U	10	U	10	U
Benzo(k)fluoranthene	10	U	10	U	10	U	10	U	10	U
Benzo(a)pyrene	10	U	10	U	10	U	10	U	10	U
Indeno(1,2,3-cd)pyrene	10	U	10	U	10	U	10	U	10	U
Dibenzo(a,h)anthracene	10	U	10	U	10	U	10	U	10	U
Benzo(g,h,i)perylene	10	U	10	U	10	U	10	U	10	U

Analytical Results (Qualified Data)

Case #: 30778 SDG : E01C5
Site : ST. LOUIS SMELTING & REFINING
Lab. : AATSLA
Reviewer :
Date :

Sample Number :	E01C8		E01C9		E01D0		E01D2		E01D3	
Sampling Location :	S202A		S202B		S202C		S203A		S203B	
Matrix :	Water		Water		Water		Water		Water	
Units :	ug/L		ug/L		ug/L		ug/L		ug/L	
Date Sampled :	07/29/2002		07/29/2002		07/29/2002		07/29/2002		07/29/2002	
Time Sampled :	11:35		11:40		12:00		12:45		12:55	
%Moisture :	N/A		N/A		N/A		N/A		N/A	
pH :	0.0		0.0		0.0		0.0		0.0	
Dilution Factor :	1.0		1.0		1.0		1.0		1.0	
Semivolatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Benzaldehyde	10	U	10	U	10	U	10	U	10	U
Phenol	10	U	10	U	10	U	10	U	10	U
bis-(2-Chloroethyl) ether	10	U	10	U	10	U	10	U	10	U
2-Chlorophenol	10	U	10	U	10	U	10	U	10	U
2-Methylphenol	10	U	10	U	10	U	10	U	10	U
2,2'-oxybis(1-Chloropropane)	10	U	10	U	10	U	10	U	10	U
Acetophenone	10	U	10	U	10	U	10	U	10	U
4-Methylphenol	10	U	10	U	10	U	10	U	10	U
N-Nitroso-di-n-propylamine	10	U	10	U	10	U	10	U	10	U
Hexachloroethane	10	U	10	U	10	U	10	U	10	U
Nitrobenzene	10	U	10	U	10	U	10	U	10	U
Isophorone	10	U	10	U	10	U	10	U	10	U
2-Nitrophenol	10	U	10	U	10	U	10	U	10	U
2,4-Dimethylphenol	10	U	10	U	10	U	10	U	10	U
bis(2-Chloroethoxy)methane	10	U	10	U	10	U	10	U	10	U
2,4-Dichlorophenol	10	U	10	U	10	U	10	U	10	U
Naphthalene	10	U	10	U	10	U	10	U	10	U
4-Chloroaniline	10	U	10	U	10	U	10	U	10	U
Hexachlorobutadiene	10	U	10	U	10	U	10	U	10	U
Caprolactam	10	U	2	J	10	U	10	U	10	U
4-Chloro-3-methylphenol	10	U	10	U	10	U	10	U	10	U
2-Methylnaphthalene	10	U	10	U	10	U	10	U	10	U
Hexachlorocyclopentadiene	10	U	10	U	10	U	10	U	10	U
2,4,6-Trichlorophenol	10	U	10	U	10	U	10	U	10	U
2,4,5-Trichlorophenol	25	U	25	U	25	U	25	U	25	U
1,1'-Biphenyl	10	U	10	U	10	U	10	U	10	U
2-Chloronaphthalene	10	U	10	U	10	U	10	U	10	U
2-Nitroaniline	25	U	25	U	25	U	25	U	25	U
Dimethylphthalate	10	U	10	U	10	U	10	U	10	U
2,6-Dinitrotoluene	10	U	10	U	10	U	10	U	10	U
Acenaphthylene	10	U	10	U	10	U	10	U	10	U
3-Nitroaniline	25	U	25	U	25	U	25	U	25	U
Acenaphthene	10	U	10	U	10	U	10	U	10	U

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Analytical Results (Qualified Data)

Case # 30778 SDG : E01C5
Site : ST. LOUIS SMELTING & REFINING
Lab. : AATSLA
Reviewer :
Date :

Sample Number :	E01C8		E01C9		E01D0		E01D2		E01D3	
Sampling Location :	S202A		S202B		S202C		S203A		S203B	
Matrix :	Water		Water		Water		Water		Water	
Units :	ug/L		ug/L		ug/L		ug/L		ug/L	
Date Sampled :	07/29/2002		07/29/2002		07/29/2002		07/29/2002		07/29/2002	
Time Sampled :	11:35		11:40		12:00		12:45		12:55	
%Moisture :	N/A		N/A		N/A		N/A		N/A	
pH :	0.0		0.0		0.0		0.0		0.0	
Dilution Factor :	1.0		1.0		1.0		1.0		1.0	
Semivolatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
2,4-Dinitrophenol	25	UJ	25	UJ	25	UJ	25	UJ	25	UJ
4-Nitrophenol	25	U	25	U	25	U	25	U	25	U
Dibenzofuran	10	U	10	U	10	U	10	U	10	U
2,4-Dinitrotoluene	10	U	10	U	10	U	10	U	10	U
Diethylphthalate	10	U	1	J	10	U	10	U	10	U
Fluorene	10	U	10	U	10	U	10	U	10	U
4-Chlorophenyl-phenyl ether	10	U	10	U	10	U	10	U	10	U
4-Nitroaniline	25	U	25	U	25	U	25	U	25	U
4,6-Dinitro-2-methylphenol	25	U	25	U	25	U	25	U	25	U
N-Nitrosodiphenylamine	10	U	10	U	10	U	10	U	10	U
4-Bromophenyl-phenylether	10	U	10	U	10	U	10	U	10	U
Hexachlorobenzene	10	U	10	U	10	U	10	U	10	U
Atrazine	10	U	10	U	10	U	10	U	10	U
Pentachlorophenol	25	U	25	U	25	U	25	U	25	U
Phenanthrene	10	U	10	U	10	U	10	U	10	U
Anthracene	10	U	10	U	10	U	10	U	10	U
Carbazole	10	U	10	U	10	U	10	U	10	U
Di-n-butylphthalate	10	U	10	UJ	10	UJ	10	U	10	UJ
Fluoranthene	10	U	10	U	10	U	10	U	10	U
Pyrene	10	U	10	U	10	U	10	U	10	U
Butylbenzylphthalate	10	U	10	U	10	U	10	U	10	U
3,3'-Dichlorobenzidine	10	U	10	U	10	U	10	U	10	U
Benzo(a)anthracene	10	U	10	U	10	U	10	U	10	U
Chrysene	10	U	10	U	10	U	10	U	10	U
bis(2-Ethylhexyl)phthalate	1	J	1	J	1	J	1	J	2	J
Di-n-octylphthalate	10	U	10	U	10	U	10	U	10	U
Benzo(b)fluoranthene	10	U	10	U	10	U	10	U	10	U
Benzo(k)fluoranthene	10	U	10	U	10	U	10	U	10	U
Benzo(a)pyrene	10	U	10	U	10	U	10	U	10	U
Indeno(1,2,3-cd)pyrene	10	U	10	U	10	U	10	U	10	U
Dibenzo(a,h)anthracene	10	U	10	U	10	U	10	U	10	U
Benzo(g,h,i)perylene	10	U	10	U	10	U	10	U	10	U

Analytical Results (Qualified Data)

Case # 30778 SDG : E01C5
Site : ST. LOUIS SMELTING & REFINING
Lab. : AATSLA
Reviewer :
Date :

Sample Number :	E01D4		E01D5		E01D6		E01D7		E01D8	
Sampling Location :	S204B		S204A		FIELD BLANK		S205A		S205B	
Matrix :	Water		Water		Water		Water		Water	
Units :	ug/L		ug/L		ug/L		ug/L		ug/L	
Date Sampled :	07/29/2002		07/29/2002		07/29/2002		07/29/2002		07/29/2002	
Time Sampled :	13:25		13:15		14:30		14:15		14:20	
%Moisture :	N/A		N/A		N/A		N/A		N/A	
pH :	0.0		0.0		0.0		0.0		0.0	
Dilution Factor :	1.0		1.0		1.0		1.0		1.0	
Semivolatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Benzaldehyde	10	U	10	U	10	U	10	U	10	U
Phenol	10	U	10	U	10	U	10	U	10	U
bis-(2-Chloroethyl) ether	10	U	10	U	10	U	10	U	10	U
2-Chlorophenol	10	U	10	U	10	U	10	U	10	U
2-Methylphenol	10	U	10	U	10	U	10	U	10	U
2,2'-oxybis(1-Chloropropane)	10	U	10	U	10	U	10	U	10	U
Acetophenone	10	U	10	U	10	U	10	U	10	U
4-Methylphenol	10	U	10	U	10	U	10	U	10	U
N-Nitroso-di-n-propylamine	10	U	10	U	10	U	10	U	10	U
Hexachloroethane	10	U	10	U	10	U	10	U	10	U
Nitrobenzene	10	U	10	U	10	U	10	U	10	U
Isophorone	10	U	10	U	10	U	10	U	10	U
2-Nitrophenol	10	U	10	U	10	U	10	U	10	U
2,4-Dimethylphenol	10	U	10	U	10	U	10	U	10	U
bis(2-Chloroethoxy)methane	10	U	10	U	10	U	10	U	10	U
2,4-Dichlorophenol	10	U	10	U	10	U	10	U	10	U
Naphthalene	10	U	10	U	10	U	10	U	10	U
4-Chloroaniline	10	U	10	U	10	U	10	U	10	U
Hexachlorobutadiene	10	U	10	U	10	U	10	U	10	U
Caprolactam	10	U	10	U	10	U	10	U	10	U
4-Chloro-3-methylphenol	10	U	10	U	10	U	10	U	10	U
2-Methylnaphthalene	10	U	10	U	10	U	10	U	10	U
Hexachlorocyclopentadiene	10	U	10	U	10	U	10	U	10	U
2,4,6-Trichlorophenol	10	U	10	U	10	U	10	U	10	U
2,4,5-Trichlorophenol	25	U	25	U	25	U	25	U	25	U
1,1'-Biphenyl	10	U	10	U	10	U	10	U	10	U
2-Chloronaphthalene	10	U	10	U	10	U	10	U	10	U
2-Nitroaniline	25	U	25	U	25	U	25	U	25	U
Dimethylphthalate	10	U	10	U	10	U	10	U	10	U
2,6-Dinitrotoluene	10	U	10	U	10	U	10	U	10	U
Acenaphthylene	10	U	10	U	10	U	10	U	10	U
3-Nitroaniline	25	U	25	U	25	U	25	U	25	U
Acenaphthene	10	U	10	U	10	U	10	U	10	U

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Analytical Results (Qualified Data)

Case #: 30778 SDG : E01C5
Site : ST. LOUIS SMELTING & REFINING
Lab. : AATSLA
Reviewer :
Date :

Sample Number :	E01D4		E01D5		E01D6		E01D7		E01D8	
Sampling Location :	S204B		S204A		FIELD BLANK		S205A		S205B	
Matrix :	Water		Water		Water		Water		Water	
Units :	ug/L		ug/L		ug/L		ug/L		ug/L	
Date Sampled :	07/29/2002		07/29/2002		07/29/2002		07/29/2002		07/29/2002	
Time Sampled :	13:25		13:15		14:30		14:15		14:20	
%Moisture :	N/A		N/A		N/A		N/A		N/A	
pH :	0.0		0.0		0.0		0.0		0.0	
Dilution Factor :	1.0		1.0		1.0		1.0		1.0	
Semivolatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
2,4-Dinitrophenol	25	U	25	U	25	U	25	U	25	U
4-Nitrophenol	25	U	25	U	25	U	25	U	25	U
Dibenzofuran	10	U	10	U	10	U	10	U	10	U
2,4-Dinitrotoluene	10	U	10	U	10	U	10	U	10	U
Diethylphthalate	10	U	10	U	10	U	10	U	10	U
Fluorene	10	U	10	U	10	U	10	U	10	U
4-Chlorophenyl-phenyl ether	10	U	10	U	10	U	10	U	10	U
4-Nitroaniline	25	U	25	U	25	U	25	U	25	U
4,6-Dinitro-2-methylphenol	25	U	25	U	25	U	25	U	25	U
N-Nitrosodiphenylamine	10	U	10	U	10	U	10	U	10	U
4-Bromophenyl-phenylether	10	U	10	U	10	U	10	U	10	U
Hexachlorobenzene	10	U	10	U	10	U	10	U	10	U
Atrazine	10	U	10	U	10	U	10	U	10	U
Pentachlorophenol	25	U	25	U	25	U	25	U	25	U
Phenanthrene	10	U	10	U	10	U	10	U	10	U
Anthracene	10	U	10	U	10	U	10	U	10	U
Carbazole	10	U	10	U	10	U	10	U	10	U
Di-n-butylphthalate	10	U	10	U	10	UJ	10	UJ	10	U
Fluoranthene	10	U	10	U	10	U	10	U	10	U
Pyrene	10	U	10	U	10	U	10	U	10	U
Butylbenzylphthalate	10	U	10	U	10	U	10	U	10	U
3,3'-Dichlorobenzidine	10	U	10	U	10	U	10	U	10	U
Benzo(a)anthracene	10	U	10	U	10	U	10	U	10	U
Chrysene	10	U	10	U	10	U	10	U	10	U
bis(2-Ethylhexyl)phthalate	2	J	2	J	2	J	1	J	1	J
Di-n-octylphthalate	10	U	10	U	10	U	10	U	10	U
Benzo(b)fluoranthene	10	U	10	U	10	U	10	U	10	U
Benzo(k)fluoranthene	10	U	10	U	10	U	10	U	10	U
Benzo(a)pyrene	10	U	10	U	10	U	10	U	10	U
Indeno(1,2,3-cd)pyrene	10	U	10	U	10	U	10	U	10	U
Dibenzo(a,h)anthracene	10	U	10	U	10	U	10	U	10	U
Benzo(g,h,i)perylene	10	U	10	U	10	U	10	U	10	U

Analytical Results (Qualified Data)

Case # 30778 SDG : E01C5
Site : ST. LOUIS SMELTING & REFINING
Lab. : AATSLA
Reviewer :
Date :

Sample Number :	E01D9		E01E0		E01E1		SBLKFA			
Sampling Location :	S206A		S206B		S207					
Matrix :	Water		Water		Water		Water			
Units :	ug/L		ug/L		ug/L		ug/L			
Date Sampled :	07/29/2002		07/29/2002		07/28/2002					
Time Sampled :	15:05		15:20		15:10					
%Moisture :	N/A		N/A		N/A		N/A			
pH :	0.0		0.0		0.0		0.0			
Dilution Factor :	1.0		1.0		1.0		1.0			
Semivolatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Benzaldehyde	10	U	10	U	10	U	10	U		
Phenol	10	U	10	U	10	U	10	U		
bis-(2-Chloroethyl) ether	10	U	10	U	10	U	10	U		
2-Chlorophenol	10	U	10	U	10	U	10	U		
2-Methylphenol	10	U	10	U	10	U	10	U		
2,2'-oxybis(1-Chloropropane)	10	U	10	U	10	U	10	U		
Acetophenone	10	U	10	U	10	U	10	U		
4-Methylphenol	10	U	10	U	10	U	10	U		
N-Nitroso-di-n-propylamine	10	U	10	U	10	U	10	U		
Hexachloroethane	10	U	10	U	10	U	10	U		
Nitrobenzene	10	U	10	U	10	U	10	U		
Isophorone	10	U	10	U	10	U	10	U		
2-Nitrophenol	10	U	10	U	10	U	10	U		
2,4-Dimethylphenol	10	U	10	U	10	U	10	U		
bis(2-Chloroethoxy)methane	10	U	10	U	10	U	10	U		
2,4-Dichlorophenol	10	U	10	U	10	U	10	U		
Naphthalene	10	U	10	U	10	U	10	U		
4-Chloroaniline	10	U	10	U	10	U	10	U		
Hexachlorobutadiene	10	U	10	U	10	U	10	U		
Caprolactam	10	U	10	U	10	U	10	U		
4-Chloro-3-methylphenol	10	U	10	U	10	U	10	U		
2-Methylnaphthalene	10	U	10	U	10	U	10	U		
Hexachlorocyclopentadiene	10	U	10	U	10	U	10	U		
2,4,6-Trichlorophenol	10	U	10	U	10	U	10	U		
2,4,5-Trichlorophenol	25	U	25	U	25	U	25	U		
1,1'-Biphenyl	10	U	10	U	10	U	10	U		
2-Chloronaphthalene	10	U	10	U	10	U	10	U		
2-Nitroaniline	25	U	25	U	25	U	25	U		
Dimethylphthalate	10	U	10	U	10	U	10	U		
2,6-Dinitrotoluene	10	U	10	U	10	U	10	U		
Acenaphthylene	10	U	10	U	10	U	10	U		
3-Nitroaniline	25	U	25	U	25	U	25	U		
Acenaphthene	10	U	10	U	10	U	10	U		

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Analytical Results (Qualified Data)

Case #: 30778 SDG : E01C5
Site : ST. LOUIS SMELTING & REFINING
Lab. : AATSLA
Reviewer :
Date :

Sample Number :	E01D9		E01E0		E01E1		SBLKFA			
Sampling Location :	S206A		S206B		S207					
Matrix :	Water		Water		Water		Water			
Units :	ug/L		ug/L		ug/L		ug/L			
Date Sampled :	07/29/2002		07/29/2002		07/28/2002					
Time Sampled :	15:05		15:20		15:10					
%Moisture :	N/A		N/A		N/A		N/A			
pH :	0.0		0.0		0.0		0.0			
Dilution Factor :	1.0		1.0		1.0		1.0			
Semivolatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
2,4-Dinitrophenol	25	U	25	U	25	U	25	UJ		
4-Nitrophenol	25	U	25	U	25	U	25	U		
Dibenzofuran	10	U	10	U	10	U	10	U		
2,4-Dinitrotoluene	10	U	10	U	10	U	10	U		
Diethylphthalate	10	U	10	U	10	U	10	U		
Fluorene	10	U	10	U	10	U	10	U		
4-Chlorophenyl-phenyl ether	10	U	10	U	10	U	10	U		
4-Nitroaniline	25	U	25	U	25	U	25	U		
4,6-Dinitro-2-methylphenol	25	U	25	U	25	U	25	U		
N-Nitrosodiphenylamine	10	U	10	U	10	U	10	U		
4-Bromophenyl-phenylether	10	U	10	U	10	U	10	U		
Hexachlorobenzene	10	U	10	U	10	U	10	U		
Atrazine	10	U	10	U	10	U	10	U		
Pentachlorophenol	25	U	25	U	25	U	25	U		
Phenanthrene	10	U	10	U	10	U	10	U		
Anthracene	10	U	10	U	10	U	10	U		
Carbazole	10	U	10	U	10	U	10	U		
Di-n-butylphthalate	10	UJ	10	UJ	10	UJ	1	J		
Fluoranthene	10	U	10	U	10	U	10	U		
Pyrene	10	U	10	U	10	U	10	U		
Butylbenzylphthalate	10	U	10	U	10	U	10	U		
3,3'-Dichlorobenzidine	10	U	10	U	10	U	10	U		
Benzo(a)anthracene	10	U	10	U	10	U	10	U		
Chrysene	10	U	10	U	10	U	10	U		
bis(2-Ethylhexyl)phthalate	10	U	[illegible]	J	1	J	10	U		
Di-n-octylphthalate	10	U	10	U	10	U	10	U		
Benzo(b)fluoranthene	10	U	10	U	10	U	10	U		
Benzo(k)fluoranthene	10	U	10	U	10	U	10	U		
Benzo(a)pyrene	10	U	10	U	10	U	10	U		
Indeno(1,2,3-cd)pyrene	10	U	10	U	10	U	10	U		
Dibenzo(a,h)anthracene	10	U	10	U	10	U	10	U		
Benzo(g,h,i)perylene	10	U	10	U	10	U	10	U		

Analytical Results (Qualified Data)

Case # 30778 SDG : E01C5
Site : ST. LOUIS SMELTING & REFINING
Lab. : AATSLA
Reviewer :
Date :

Number of Soil Samples : 0
Number of Water Samples : 16

Sample Number :	E01C5		E01C5MS		E01C5MSD		E01C6		E01C7	
Sampling Location :	S201A		S201A		S201A		S201B		S201C	
Matrix :	Water		Water		Water		Water		Water	
Units :	ug/L		ug/L		ug/L		ug/L		ug/L	
Date Sampled :	07/29/2002		07/29/2002		07/29/2002		07/29/2002		07/29/2002	
Time Sampled :	10:00		10:00		10:00		10:30		10:54	
%Moisture :	N/A		N/A		N/A		N/A		N/A	
pH :	7.0		7.0		7.0		7.0		7.0	
Dilution Factor :	1.0		1.0		1.0		1.0		1.0	
Pesticide/PCB Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
alpha-BHC	0.010	UJ	0.0060	UJ	0.050	U	0.050	U	0.050	R
beta-BHC	0.050	U	0.050	U	0.050	U	0.050	U	0.050	R
delta-BHC	0.013	J	0.050	U	0.050	U	0.050	U	0.050	R
gamma-BHC (Lindane)	0.017	J	0.49		0.46		0.0040	J	0.15	J
Heptachlor	0.034	J	0.45		0.41		0.0050	J	0.050	R
Aldrin	0.0080	J	0.44		0.40		0.050	U	0.050	R
Heptachlor epoxide	0.0060	UJ	0.0080	UJ	0.014	UJ	0.0020	UJ	0.050	R
Endosulfan I	0.050	U	0.050	U	0.050	U	0.050	U	0.050	R
Dieldrin	0.013	J	0.99		0.89		0.10	U	0.10	R
4,4'-DDE	0.0040	J	0.012	J	0.010	J	0.10	U	0.10	R
Endrin	0.10	U	1.1		0.98		0.10	U	0.10	R
Endosulfan II	0.0040	J	0.10	U	0.10	U	0.10	U	0.10	R
4,4'-DDD	0.0040	J	0.0090	J	0.0090	J	0.10	U	0.10	R
Endosulfan sulfate	0.10	U	0.10	U	0.10	U	0.10	U	0.10	R
4,4'-DDT	0.0070	UJ	0.62		0.71		0.0050	UJ	0.10	R
Methoxychlor	0.50	U	0.50	U	0.50	U	0.50	U	0.50	R
Endrin ketone	0.10	U	0.0090	J	0.0080	J	0.10	U	0.10	R
Endrin aldehyde	0.017	UJ	0.012	UJ	0.0060	UJ	0.010	UJ	0.10	R
alpha-Chlordane	0.050	U	0.050	U	0.050	U	0.050	U	0.050	R
gamma-Chlordane	0.0080	UJ	0.033	J	0.062		0.013	UJ	0.050	R
Toxaphene	5.0	U	5.0	U	5.0	U	5.0	U	5.0	R
Aroclor-1016	1.0	U	1.0	U	1.0	U	1.0	U	1.0	R
Aroclor-1221	2.0	U	2.0	U	2.0	U	2.0	U	2.0	R
Aroclor-1232	1.0	U	1.0	U	1.0	U	1.0	U	1.0	R
Aroclor-1242	1.0	U	1.0	U	1.0	U	1.0	U	1.0	R
Aroclor-1248	1.0	U	1.0	U	1.0	U	1.0	U	1.0	R
Aroclor-1254	1.0	U	1.0	U	1.0	U	1.0	U	1.0	R
Aroclor-1260	1.0	U	1.0	U	1.0	U	1.0	U	1.0	R

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Analytical Results (Qualified Data)

Case #: 30778 SDG : E01C5
Site ST. LOUIS SMELTING & REFINING
Lab. : AATSLA
Reviewer :
Date :

Sample Number :	E01C8		E01C9		E01D0		E01D2		E01D3	
Sampling Location :	S202A		S202B		S202C		S203A		S203B	
Matrix :	Water		Water		Water		Water		Water	
Units :	ug/L		ug/L		ug/L		ug/L		ug/L	
Date Sampled :	07/29/2002		07/29/2002		07/29/2002		07/29/2002		07/29/2002	
Time Sampled :	11:35		11:40		12:00		12:45		12:55	
%Moisture :	N/A		N/A		N/A		N/A		N/A	
pH :	7.0		7.0		7.0		7.0		7.0	
Dilution Factor :	1.0		1.0		1.0		1.0		1.0	
Pesticide/PCB Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
alpha-BHC	0.050	U	0.0050	UJ	0.0060	UJ	0.0070	UJ	0.012	UJ
beta-BHC	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U
delta-BHC	0.050	U	0.0070	J	0.011	J	0.0090	J	0.013	J
gamma-BHC (Lindane)	0.0040	J	0.010	J	0.012	J	0.016	J	0.019	J
Heptachlor	0.0080	J	0.011	J	0.028	J	0.019	J	0.031	J
Aldrin	0.0040	J	0.050	U	0.050	U	0.0070	J	0.0070	J
Heptachlor epoxide	0.0080	UJ	0.0020	UJ	0.0030	UJ	0.0060	UJ	0.0050	UJ
Endosulfan I	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U
Dieldrin	0.10	U	0.10	U	0.014	J	0.0070	J	0.012	J
4,4'-DDE	0.10	U	0.10	U	0.0060	J	0.0040	J	0.0080	J
Endrin	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U
Endosulfan II	0.10	U	0.10	U	0.10	U	0.10	U	0.0060	J
4,4'-DDD	0.10	U	0.10	U	0.10	U	0.10	U	0.0050	J
Endosulfan sulfate	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U
4,4'-DDT	0.10	U	0.10	U	0.10	U	0.10	U	0.0050	UJ
Methoxychlor	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
Endrin ketone	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U
Endrin aldehyde	0.0060	UJ	0.0050	UJ	0.020	UJ	0.0090	UJ	0.016	UJ
alpha-Chlordane	0.050	U	0.050	U	0.050	U	0.050	U	0.050	U
gamma-Chlordane	0.015	UJ	0.0040	UJ	0.0040	UJ	0.010	UJ	0.041	J
Toxaphene	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
Aroclor-1016	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Aroclor-1221	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U
Aroclor-1232	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Aroclor-1242	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Aroclor-1248	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Aroclor-1254	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Aroclor-1260	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U

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Analytical Results (Qualified Data)

Case #: 30778 SDG : E01C5
Site : ST. LOUIS SMELTING & REFINING
Lab. : AATSLA
Reviewer :
Date

Sample Number :	E01D4		E01D5		E01D6		E01D6DL		E01D7	
Sampling Location :	S204B		S204A		FIELD BLANK		FIELD BLANK		S205A	
Matrix	Water		Water		Water		Water		Water	
Units :	ug/L		ug/L		ug/L		ug/L		ug/L	
Date Sampled :	07/29/2002		07/29/2002		07/29/2002		07/29/2002		07/29/2002	
Time Sampled :	13:25		13:15		14:30		14:30		14:15	
%Moisture :	N/A		N/A		N/A		N/A		N/A	
pH :	7.0		7.0		7.0		7.0		7.0	
Dilution Factor :	1.0		1.0		1.0		5.0		1.0	
Pesticide/PCB Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
alpha-BHC	0.0090	UJ	0.0060	UJ	0.034	UJ	0.037	UJ	0.013	UJ
beta-BHC	0.050	UJ	0.050	UJ	0.040	J	0.045	J	0.050	UJ
delta-BHC	0.012	J	0.015	J	0.064		0.033	J	0.032	J
gamma-BHC (Lindane)	0.018	J	0.015	J	0.0080	J	0.044	J	0.024	J
Heptachlor	0.031	J	0.042	J	0.13		0.012	J	0.079	J
Aldrin	0.0060	J	0.0060	J	0.018	J	0.25	U	0.013	J
Heptachlor epoxide	0.0060	UJ	0.0060	UJ	0.030	UJ	0.033	J	0.018	UJ
Endosulfan I	0.050	UJ	0.050	UJ	0.0080	J	0.25	U	0.050	UJ
Dieldrin	0.012	J	0.011	J	0.041	J	0.039	J	0.028	J
4,4'-DDE	0.0050	J	0.0070	J	0.029	J	0.027	J	0.018	J
Endrin	0.10	UJ	0.10	UJ	0.10	U	0.50	U	0.10	UJ
Endosulfan II	0.0040	J	0.0040	J	0.028	J	0.021	J	0.017	J
4,4'-DDD	0.0090	J	0.10	UJ	0.0090	J	0.024	J	0.012	J
Endosulfan sulfate	0.10	UJ	0.10	UJ	0.014	J	0.50	U	0.017	J
4,4'-DDT	0.0040	UJ	0.0090	UJ	0.053	J	0.50	U	0.034	J
Methoxychlor	0.50	UJ	0.50	UJ	0.50	U	2.5	U	0.50	UJ
Endrin ketone	0.10	UJ	0.10	UJ	0.0020	J	0.50	U	0.10	UJ
Endrin aldehyde	0.013	UJ	0.015	UJ	0.21		0.17	J	0.082	UJ
alpha-Chlordane	0.050	UJ	0.050	UJ	0.0090	J	0.25	U	0.0070	J
gamma-Chlordane	0.0040	UJ	0.027	UJ	0.010	UJ	0.25	U	0.0060	UJ
Toxaphene	5.0	UJ	5.0	UJ	5.0	U	25	U	5.0	UJ
Aroclor-1016	1.0	UJ	1.0	UJ	1.0	U	5.0	U	1.0	UJ
Aroclor-1221	2.0	UJ	2.0	UJ	2.0	U	10	U	2.0	UJ
Aroclor-1232	1.0	UJ	1.0	UJ	1.0	U	5.0	U	1.0	UJ
Aroclor-1242	1.0	UJ	1.0	UJ	1.0	U	5.0	U	1.0	UJ
Aroclor-1248	1.0	UJ	1.0	UJ	1.0	U	5.0	U	1.0	UJ
Aroclor-1254	1.0	UJ	1.0	UJ	1.0	U	5.0	U	1.0	UJ
Aroclor-1260	1.0	UJ	1.0	UJ	1.0	U	5.0	U	1.0	UJ

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Analytical Results (Qualified Data)

Case #: 30778 SDG : E01C5
Site : ST. LOUIS SMELTING & REFINING
Lab. : AATSLA
Reviewer :
Date :

Sample Number :	E01D8		E01D9		E01E0		E01E1		E01E1DL	
Sampling Location :	S205B		S206A		S206B		S207		S207	
Matrix :	Water		Water		Water		Water		Water	
Units :	ug/L		ug/L		ug/L		ug/L		ug/L	
Date Sampled :	07/29/2002		07/29/2002		07/29/2002		07/28/2002		07/28/2002	
Time Sampled :	14:20		15:05		15:20		15:10		15:10	
%Moisture :	N/A		N/A		N/A		N/A		N/A	
pH :	7.0		7.0		7.0		7.0		7.0	
Dilution Factor :	1.0		1.0		1.0		1.0		5.0	
Pesticide/PCB Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
alpha-BHC	0.0070	UJ	0.0070	UJ	0.0060	UJ	0.0070	UJ	0.0070	UJ
beta-BHC	0.050	UJ	0.050	UJ	0.050	UJ	0.018	J	0.25	UJ
delta-BHC	0.024	J	0.031	J	0.024	J	0.028	J	0.033	J
gamma-BHC (Lindane)	0.021	J	0.023	J	0.028	J	0.023	J	0.025	J
Heptachlor	0.064	J	0.081	J	0.059	J	0.077	J	0.068	J
Aldrin	0.0090	J	0.0070	J	0.0090	J	0.011	J	0.25	UJ
Heptachlor epoxide	0.014	UJ	0.013	UJ	0.012	UJ	0.016	UJ	0.012	UJ
Endosulfan I	0.050	UJ	0.050	UJ	0.050	UJ	0.050	UJ	0.25	UJ
Dieldrin	0.020	J	0.022	J	0.017	J	0.023	J	0.021	J
4,4'-DDE	0.014	J	0.012	J	0.012	J	0.0090	J	0.50	UJ
Endrin	0.10	UJ	0.0030	J	0.10	UJ	0.0040	J	0.50	UJ
Endosulfan II	0.014	J	0.010	J	0.013	J	0.013	J	0.50	UJ
4,4'-DDD	0.010	J	0.0060	J	0.0060	J	0.0070	J	0.50	UJ
Endosulfan sulfate	0.013	J	0.0020	J	0.016	J	0.014	J	0.50	UJ
4,4'-DDT	0.013	J	0.025	J	0.0090	UJ	0.0090	UJ	0.50	UJ
Methoxychlor	0.50	UJ	0.50	UJ	0.50	UJ	0.50	UJ	2.5	UJ
Endrin ketone	0.10	UJ	0.10	UJ	0.10	UJ	0.10	UJ	0.50	UJ
Endrin aldehyde	0.042	UJ	0.064	UJ	0.042	UJ	0.059	UJ	0.047	UJ
alpha-Chlordane	0.0070	J	0.0030	J	0.0050	J	0.0050	J	0.25	UJ
gamma-Chlordane	0.050	UJ	0.0050	UJ	0.0040	UJ	0.0060	UJ	0.25	UJ
Toxaphene	5.0	UJ	5.0	UJ	5.0	UJ	5.0	UJ	25	UJ
Aroclor-1016	1.0	UJ	1.0	UJ	1.0	UJ	1.0	UJ	5.0	UJ
Aroclor-1221	2.0	UJ	2.0	UJ	2.0	UJ	2.0	UJ	10	UJ
Aroclor-1232	1.0	UJ	1.0	UJ	1.0	UJ	1.0	UJ	5.0	UJ
Aroclor-1242	1.0	UJ	1.0	UJ	1.0	UJ	1.0	UJ	5.0	UJ
Aroclor-1248	1.0	UJ	1.0	UJ	1.0	UJ	1.0	UJ	5.0	UJ
Aroclor-1254	1.0	UJ	1.0	UJ	1.0	UJ	1.0	UJ	5.0	UJ
Aroclor-1260	1.0	UJ	1.0	UJ	1.0	UJ	1.0	UJ	5.0	UJ

DISCLAIMER: This package has been electronically assessed as an added service to our customer. It has not been either validated or approved by Region 5 and any subsequent use by the data user is strictly at the risk of the data user. Region 5 assumes no responsibility for use of unvalidated data.

Analytical Results (Qualified Data)

Case #: 30778 SDG : E01C5
Site : ST. LOUIS SMELTING & REFINING
Lab. : AATSLA
Reviewer :
Date :

Sample Number :	PBLKW									
Sampling Location :										
Matrix :	Water									
Units :	ug/L									
Date Sampled :										
Time Sampled :										
%Moisture :	N/A									
pH :	7.0									
Dilution Factor :	1.0									
Pesticide/PCB Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
alpha-BHC	0.0080	J								
beta-BHC	0.050	U								
delta-BHC	0.050	U								
gamma-BHC (Lindane)	0.050	U								
Heptachlor	0.050	U								
Aldrin	0.050	U								
Heptachlor epoxide	0.0060	J								
Endosulfan I	0.050	U								
Dieldrin	0.10	U								
4,4'-DDE	0.10	U								
Endrin	0.10	U								
Endosulfan II	0.10	U								
4,4'-DDD	0.10	U								
Endosulfan sulfate	0.10	U								
4,4'-DDT	0.0020	J								
Methoxychlor	0.50	U								
Endrin ketone	0.10	U								
Endrin aldehyde	0.021	J								
alpha-Chlordane	0.050	U								
gamma-Chlordane	0.0060	J								
Toxaphene	5.0	U								
Aroclor-1016	1.0	U								
Aroclor-1221	2.0	U								
Aroclor-1232	1.0	U								
Aroclor-1242	1.0	U								
Aroclor-1248	1.0	U								
Aroclor-1254	1.0	U								
Aroclor-1260	1.0	U								

DISCLAIMER: This package has been electronically assessed as an added service to our customer. It has not been either validated or approved by Region 5 and any subsequent use by the data user is strictly at the risk of the data user. Region 5 assumes no responsibility for use of unvalidated data.

Regional Transmittal Form

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE:

SUBJECT: Review of Data
Received for Review on 8-19-02

FROM: Stephen L. Ostrodka, Chief (SMF-4J)
Superfund Field Services Section

TO: Data User: IEPA

We have reviewed the data for the following case:

SITE NAME: ST. LOUIS SMELTING AND REFINING (IL)

CASE NUMBER: 30778 SDG NUMBER: E01C5

Number and Type of Samples: 16 (WATER)

Sample Numbers: E01C5-9, E01D0, E01D2-9, E01E0-1

Laboratory: ATLS Hrs for Review:

Following are our findings:

CC: Cecilia Moore
Region 5 TPO
Mail Code: SMF-4J

AATSLA

Sample Delivery Group (SDG) Cover Sheet

SDG Number: E01C5

Laboratory Name:	American Analytical & Technical Services, Incorporated	Laboratory Code	AATSLA
Contract No.	68-W0-0081	Case No.	30778
Analysis Price	$594.00	SDG Turnaround	21 Days.

EPA Sample Numbers in SDG (Listed in Numberical Order)

1)	E01C5	7)	E01D2	13)	E01D8	19)	
2)	E01C6	8)	E01D3	14)	E01D9	20)	
3)	E01C7	9)	E01D4	15)	E01E0	21)	
4)	E01C8	10)	E01D5	16)	E01E1	22)	
5)	E01C9	11)	E01D6	17)		23)	
6)	E01D0	12)	E01D7	18)		24)	

E01C5	E01E1
First Sample in SDG	Last Sample in SDG
07/31/02	07/31/02
First Sample Receipt Date	Last Sample Receipt Date

Note: There are a maximum of 20 **field** samples (**excluding** PE samples) in an SDG. Attach TRs to this form in alphanumeric order (the order listed above on this form).

Signature Nancy LeBlanc Date 08/02/02

USEPA Contract Laboratory Program
Organic Traffic Report

Case No:	30778
DAS No:	
SDG No:	L

Date Shipped: 7/30/02	Date Received/Received by: 7/31/02 - Susan Stevens	Sampler (Signature):	
Carrier Name: UPS	Lab Contract No: 68W0081 Unit Price: 594		
Airbill: 1Z6215892210021396		Relinquished By:	Date / Time: 7/31/02 1500 — Received By:
Shipped to: American Analytical & Technical Services (AATSLA) 11950 Industriplex Blvd. Baton Rouge LA 70809 (225) 753-8650	Transfer To:	Relinquished By:	Date / Time: 7/31/02 — Received By:
	Date Received/Received By:	Relinquished By:	Date / Time: 7/31/02 1000 — Received By:
	Lab Contract No: Price:		

ORGANIC SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No./ PRESERVATIVE	STATION LOCATION	SAMPLE COLLECT DATE/TIME	INORGANIC SAMPLE No.	FOR LAB USE ONLY Sample Condition On Receipt
E01C5	Surface Water/ Jerry Willman	L/G	BNA (21), PEST (21)	5-66150 (Ice Only), 5-66151 (Ice Only), 5-66152 (Ice Only), 5-66153 (Ice Only), 5-66154 (Ice Only), 5-66155 (Ice Only) (6)	S201A	7/29/02 10:00	ME01C5	
E01C6	Surface Water/ Jerry Willman	L/G	BNA (21), PEST (21)	5-66160 (Ice Only), 5-66161 (Ice Only) (2)	S201B	7/29/02 10:30	ME01C6	
E01C7	Surface Water/ Jerry Willman	L/G	BNA (21), PEST (21)	5-66164 (Ice Only), 5-66165 (Ice Only) (2)	S201C	7/29/02 10:54	ME01C7	
E01C8	Surface Water/ Jerry Willman	L/G	BNA (21), PEST (21)	5-66168 (Ice Only), 5-66169 (Ice Only) (2)	S202A	7/29/02 11:35	ME01C8	
E01C9	Surface Water/ Jerry Willman	L/G	BNA (21), PEST (21)	5-66172 (Ice Only), 5-66173 (Ice Only) (2)	S202B	7/29/02 11:40	ME01C9	
E01D0	Surface Water/ Jerry Willman	L/G	BNA (21), PEST (21)	5-66176 (Ice Only), 5-66177 (Ice Only) (2)	S202C	7/29/02 12:00	ME01D0	
E01D2	Surface Water/ Jerry Willman	L/G	BNA (21), PEST (21)	5-66181 (Ice Only), 5-66182 (Ice Only) (2)	S203A	7/29/02 12:45	ME01D2	
E01D3	Surface Water/ Jerry Willman	L/G	BNA (21), PEST (21)	5-66185 (Ice Only), 5-66186 (Ice Only) (2)	S203B	7/29/02 12:55	ME01D3	
E01D4	Surface Water/ Jerry Willman	L/G	BNA (21), PEST (21)	5-66189 (Ice Only), 5-66190 (Ice Only) (2)	S204B	7/29/02 13:25	ME01D4	
E01D5	Surface Water/ Jerry Willman	L/G	BNA (21), PEST (21)	5-66193 (Ice Only), 5-66194 (Ice Only) (2)	S204A	7/29/02 13:15	ME01D5	
E01D6	Surface Water/ Jerry Willman	L/G	BNA (21), PEST (21)	5-66197 (Ice Only), 5-66198 (Ice Only) (2)	Field Blank	7/29/02 14:30	ME01D6	
E01D7	Surface Water/ Jerry Willman	L/G	BNA (21), PEST (21)	5-66201 (Ice Only), 5-66202 (Ice Only) (2)	S205A	7/29/02 14:15	ME01D7	
E01D8	Surface Water/ Jerry Willman	L/G	BNA (21), PEST (21)	5-66205 (Ice Only), 5-66206 (Ice Only) (2)	S205B	7/29/02 14:20	ME01D8	

SDG: E01C5

Shipment for Case Complete? Y	Sample(s) to be used for laboratory QC: E01C5	Additional Sampler Signature(s):	Cooler Temperature Upon Receipt: DC-1	Chain of Custody Seal Number: 82714-82722
Analysis Key:	Concentration: L = Low, M = Low/Medium, H = High	Type/Designate: Composite = C, Grab = G		Custody Seal Intact?__ Shipment Iced?__
BNA = CLP TCL Semivolatiles, PEST = CLP TCL Pesticide/PCBs				

PR provides liminary results. Requests for preliminary resuls will increase analytical costs.
Send Copy ontract Laboratory Analytical Services Support, 2000 Edmund Halley Dr., Reston, \ 191-3436 Phone 703/264-9348 Fax 703/264-9222

TR Number: 5-055166947-073002-0002

USEPA Contract Laboratory Program
Organic Traffic Report

Case No: 30778
DAS No:
SDG No:
L

Date Shipped: 7/30/02 Carrier Name: UPS Airbill: 1Z6215892210021396 Shipped to: American Analytical & Technical Services (AATSLA) 11950 Industriplex Blvd. Baton Rouge LA 70809 (225) 753-8650	Date Received/Received by: 7/31/02 – Susan Howard Lab Contract No: 68W00081 Unit Price: 514 – Transfer To: Date Received/Received By: Lab Contract No: Price:	Sampler (Signature): Jerry E Willman Relinquished By: Jerry E Willman Relinquished By: Relinquished By:	Date / Time: 7/30/02 1500 Date / Time: Date / Time: 7/31/02 1000
			Received By: Received By: Received By: Susan Howard

ORGANIC SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No./ PRESERVATIVE	STATION LOCATION	SAMPLE COLLECT DATE/TIME	INORGANIC SAMPLE No.	FOR LAB USE ONLY Sample Condition On Receipt
E01D9	Surface Water/ Jerry Willman	L/G	BNA (21), PEST (21)	5-66209 (Ice Only), 5-66210 (Ice Only) (2)	S206A	7/29/02 15:05	ME01D9	
E01E0	Surface Water/ Jerry Willman	L/G	BNA (21), PEST (21)	5-66213 (Ice Only), 5-66214 (Ice Only) (2)	S206B	7/29/02 15:20	ME01E0	
E01E1	Surface Water/ Jerry Willman	L/G	BNA (21), PEST (21)	5-66217 (Ice Only), 5-66218 (Ice Only) (2)	S207	7/28/02 15:10	ME01E1	

SDG: E01C5 Final - SDG Sample

Shipment for Case Complete? Y	Sample(s) to be used for laboratory QC: E01C5	Additional Sampler Signature(s):	Cooler Temperature Upon Receipt: SEE DL-1	Chain of Custody Seal Number: 82714 - 82722
Analysis Key:	Concentration: L = Low, M = Low/Medium, H = High	Type/Designate: Composite = C, Grab = G		Custody Seal Intact?_ Shipment Iced?_
BNA = CLP TCL Semivolatiles, PEST = CLP TCL Pesticide/PCBs				

PR provides liminary results. Requests for preliminary resuls will increase analytical costs.
Send Copy . ontract Laboratory Analytical Services Support, 2000 Edmund Halley Dr., Reston, V 191-3436 Phone 703/264-9348 Fax 703/264-9222

TR Number: 5-055166947-073002-0002

AUG 1 9 2002

AMERICAN ANALYTICAL & TECHNICAL SERVICES, INC.

11950 Industriplex Blvd. • Baton Rouge, LA 70809 • Office (225) 753-8650 • Fax (225) 751-1405

000001

SDG NARRATIVE

Laboratory Name: **AATSLA**, Baton Rouge, LA
Case No.: 30778
SDG No.: **E01C5**
Contract: 68W00081

Samples were received July 31st, 2002, for organic analyses following the USEPA Contract Laboratory Program (CLP) Statement of Work (SOW) OLM04.2 and the terms of contract 68W00081. The samples are as listed below in Table I. Also included in this table are pH values obtained from water sample volatile containers measured just following the analysis of each sample (where applicable).

TABLE I

EPA Sample ID:	pH Values
E01C5	NA
E01C5MS	NA
E01C5MSD	NA
E01C6	NA
E01C7	NA
E01C8	NA
E01C9	NA
E01D0	NA
E01D2	NA
E01D3	NA
E01D4	NA
E01D5	NA
E01D6	NA
E01D7	NA
E01D8	NA
E01D9	NA
E01E0	NA
E01E1	NA

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SDG NARRATIVE

General:

Samples were received in nine coolers on the same day, intact with blue ice packs. Temperature blank temperatures were recorded as 7 to 10°C. The condition of the shipment was recorded as 'excellent'. No problems were noted.

Semi-Volatile Organic Analysis:

Calibration, surrogate, matrix spike, and internal standard control criteria were within normal limits. Contractual holding times were met.

No additional deliverables (billables) are submitted for the BNAs of this SDG. No problems with the analysis were recorded.

Final semivolatile fraction results for ***water*** samples may be verified by applying the calculation:

$$\text{Result } (\mu g/l) = \frac{(Ax)\ (Is)\ (Vt)\ (Df)}{(Ais)\ (RRF)\ (Vo)\ (Vi)}$$

Where:

- **Ax** = "Response" of target analyte taken from the Quantitation Report
- **Is** = 20 ng
- **Vt** = "Concentrated Extract Volume" taken from the header of Form I (µl)
- **Df** = "Dilution Factor" taken from the header of Form I
- **Ais** = "Response" of associated internal standard from Quantitation Report
- **RRF** = "RRF50" of target analyte taken from associated Form VII
- **Vo** = "Sample Volume" taken from the header of Form I (ml)
- **Vi** = "Injection Volume" taken from the header of Form I (µl)

Final semivolatile fraction results for ***soil*** samples (dry weight basis) may be verified by applying the calculation:

$$\text{Result } (\mu g/kg) = \frac{(Ax)\ (Is)\ (Vt)\ (Df)\ (GPC)}{(Ais)\ (RRF)\ (Ws)\ (Vi)\ (D)}$$

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SDG NARRATIVE

Where:

Ax, Is, Vt, Df, Ais, RRF, and **Vi** are as above for the semivolatile water sample. Additionally,
Ws = "Sample wt" taken from the header of Form I (g)
GPC = 2
D = (100 - %moisture)/100 (% moisture taken from Form I)

Column used for semivolatile analysis:
Restek XTI-5 (Bonded fused silica, 5% Phenyl, 95% Methyl silicone), 0.25mm internal diameter, 0.25μm film thickness, 30m length.

Pesticide Organic Analysis:

The Columns used for Pesticide analysis are:

a. CLPESTICII - Restek Proprietary 0.53 mm ID, 30 m length.
b. CLPESTIC - Restek Proprietary 0.53 mm ID, 30 m length

Dilution:

E01D6 – neat, 5X
E01E1 – neat, 5X

As noted on Form 2E, recoveries of surrogate DCB were below advisory QC limits on both GC columns in several of these samples. In other regards no significant problems were encountered.

Final pesticide fraction results for ***water*** samples may be verified by applying the calculation:

$$\text{Result } (\mu g/l) = \frac{(Ax)\ (Vt)\ (Df)}{(CFmp)\ (Vi)\ (Vx)}$$

Where:

Ax = "Response" of target analyte taken from the Quantitation Report
Vt = "Concentrated Extract Volume" taken from the header of Form I (μl)
Df = "Dilution Factor" taken from the header of Form I
CFmp = Calibration factor from the mid-point of the initial calibration (area/ng)
Vx = "Volume of water Extracted" (ml)
Vi = "Injection Volume" taken from the header of Form I (μl)

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SDG NARRATIVE

Final pesticide fraction results for low level *soil* samples (dry weight basis) may be verified by applying the calculation:

$$\text{Result } (\mu g/kg) = \frac{(Ax)\ (Vt)\ (Df)\ (GPC)}{(CFmp)\ (Vi)\ (Ws)\ (D)}$$

Where:

Ax, Vt, Df, CFmp, and Vi are as above for the pesticide water sample. Additionally,
Ws = "Sample wt" taken from the header of Form I (g)
D = (100 - %moisture)/100 (% moisture taken from Form I)
GPC = 2

Qualifications:

Volatile and semivolatile target analytes were evaluated and reported to a quantification report limit of 1.0. Compounds that were detected below this level were assessed only if they otherwise were detected as a TIC. "False-positives" are generally removed from quantitation reports to produce an electronic file from which hardcopy deliverables are produced. "Raw" quantitation reports are retained in the laboratory SDG file.

Dilutions are generally performed to bring target analytes into instrument calibration range. A second level of dilution may have been reported (if performed) to provide added value. Dilutions performed for other reasons are explained elsewhere in this narrative.

Volatile soil samples analyzed using the Method 5035 technique are usually indicated by the word "Encore" (or like notation) on the header of the quantification report. Those performed using soil from a jar are those generally analyzed with exact sample weights of 5.0g and the word "jar" written on the quantification report header.

Quantification limits for Encore samples containing more than 5.0 grams are arbitrarily cut off at the CRQL of 10 as required by the SOW.

Note that results for xylenes as presented on quantitation reports are not calculated in accordance to the requirements of the SOW. Corrections in compliance with the SOW are manually generated and are documented on applicable quantitation reports.

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SDG NARRATIVE

Manual integrations, if necessary, were performed to correct errors of automated software routines. They are represented by an "m" flag on the quantification reports and are each accompanied by hardcopy graphic displays initialed and dated by the analyst or reviewer performing the manual integration.

"I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the laboratory manager or his/her designee, as verified by the following signature."

Nancy LeBlanc for
John Trobst
GC/MS Supervisor
14 August, 2002

JT/nl

AATSLA
GC/MS LABORATORY : ALKANE REPORT

REPORT DATE: 08/12/02 DATA FILE: 219F08.D

SAMPLE ID: E01C5 MATRIX: WATER
LAB ID: 58778.01 DATE ANALYZED: 08/07/02

	CAS #	COMPOUND	RT	EST. CONC (UG/L)
1)	000589-53-7	HEPTANE, 4-METHYL-	3.44	3

AATSLA
GC/MS LABORATORY : ALKANE REPORT

REPORT DATE: 08/12/02 DATA FILE: 219F11.D

SAMPLE ID: E01C6 MATRIX: WATER
LAB ID: 58778.04 DATE ANALYZED: 08/07/02

	CAS #	COMPOUND	RT	EST. CONC (UG/L)
1)	000590-66-9	CYCLOHEXANE, 1,1-DIMETHYL-	3.46	5

AATSLA
GC/MS LABORATORY : ALKANE REPORT

REPORT DATE: 08/12/02 DATA FILE: 219F15.D

SAMPLE ID: E01D0 MATRIX: WATER
LAB ID: 58778.08 DATE ANALYZED: 08/07/02

	CAS #	COMPOUND	RT	EST. CONC (UG/L)
1)	000617-78-7	PENTANE, 3-ETHYL-	3.44	2
2)	002207-03-6	CYCLOHEXANE, 1,3-DIMETHYL-, TRANS-	3.46	3

AATSLA
GC/MS LABORATORY : ALKANE REPORT

REPORT DATE: 08/12/02 DATA FILE: 220F12.D

SAMPLE ID: E01D9 MATRIX: WATER
LAB ID: 58778.16 DATE ANALYZED: 08/08/02

	CAS #	COMPOUND	RT	EST. CONC (UG/L)
1)	000565-75-3	PENTANE, 2,3,4-TRIMETHYL-	3.44	5

AATSLA
GC/MS LABORATORY : ALKANE REPORT

REPORT DATE: 08/12/02 DATA FILE: 220F13.D

SAMPLE ID: E01E0 MATRIX: WATER
LAB ID: 58778.17 DATE ANALYZED: 08/08/02

	CAS #	COMPOUND	RT	EST. CONC (UG/L)
1)	049622-18-6	DECANE, 3,3,4-TRIMETHYL-	3.44	5
2)	002207-03-6	CYCLOHEXANE, 1,3-DIMETHYL-, TRANS-	3.47	6

john

From: John Troost [jtroost@aatsla.com]
Sent: Wednesday, July 31, 2002 3:25 PM
To: 'Brown, Jessica'
Cc: 'Drdoss@aatsla.com'
Subject: RE: Case 30675/SDG E01A8 Cooler return

Jessica,
Thank you for supplying the third party UPS billing number (#621-589). We have learned a good deal about this issue since. FYI....

The Illinois EPA had sent cooler return instructions to use UPS ground and third party billing. We have come to learn that UPS does not accept third party billing for ground (air services only) unless the shipper has its own UPS account. (AATSLA does not maintain a UPS account). We managed to get our UPS driver to accept the shipment associated with this email but the shipment was billed to us and air was used instead of ground.

I have managed to get UPS to correct the invoice and pass the charges on to the IEPA. Thanks for you help with this.

Today we got another case from the same source with the same UPS cooler return instructions.
I spoke to Mr. Mickey Grider of the IEPA (whose name was on the IEPA instructions) and obtained a FedEx account number to use instead. (We do not have any trouble shipping in any fashion with FedEx)

Have a good evening.
jt

----Original Message----
From: Brown, Jessica [SMTP:Jessica.Brown@dyncorp.com]
Sent: Friday, July 26, 2002 3:10 PM
To: 'jtroost@aatsla.com'
Subject: RE: Case 30675/SDG E01A8 Cooler return

FYI - I sent an e-mail to the Region and the samplers concerning the issue below. I will let you know what comes of it.

Have a great weekend!

Jessica

-----Original Message-----
From: John Troost [mailto:jtroost@aatsla.com]
Sent: Friday, July 26, 2002 12:58 PM
To: Brown, Jessica
Cc: 'DrDoss@aatsla.com'
Subject: Case 30675/SDG E01A8 Cooler return
Importance: High

Jessica,
With the coolers of this case was a note to return the coolers (and ice packs) to the a
Springfield, Illinois address by UPS. A third party UPS billing number was provided.
The coolers were returned 7/12/02 (tracking numbers J1132291438, J1132291447, and J1132291456).

We have since received an invoice (UPS # 00001704X7202) with a charge of $354.39 to our (AATSLA) account rather than the third party. We have not been able to locate a copy of the original return shipment note with the account number but I remember it distinctly..

Can you help us with this?

Thank you.

2C
WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

	EPA SAMPLE NO.	S1 (NBZ)#	S2 (FBP)#	S3 (TPH)#	S4 (PHL)#	S5 (2FP)#	S6 (TBP)#	S7 (2CP)#	S8 (DCB)#	TOT OUT
01	SBLKFA	56	50	66	44	39	55	46	48	0
02	E01C5	54	51	62	48	43	50	47	49	0
03	E01C5MS	60	57	59	47	47	38	47	55	0
04	E01C5MSD	60	57	62	46	47	47	47	56	0
05	E01C6	52	51	58	40	35	31	41	48	0
06	E01C7	53	51	44	46	42	63	46	47	0
07	E01C8	56	53	32 *	48	43	50	49	50	1
08	E01C9	49	44	31 *	39	35	41	40	42	1
09	E01D0	52	48	47	41	35	28	42	45	0
10	E01D2	46	43	35	40	35	42	40	41	0
11	E01D3	51	51	53	43	36	38	42	45	0
12	E01D4	64	58	53	53	47	49	53	54	0
13	E01D5	60	56	51	51	44	48	50	50	0
14	E01D6	63	59	80	56	48	62	55	57	0
15	E01D7	61	57	46	53	47	58	53	53	0
16	E01D8	60	58	45	53	47	52	53	54	0
17	E01D9	67	64	48	59	53	59	58	58	0
18	E01E0	57	55	41	49	44	58	49	51	0
19	E01E1	66	63	51	60	53	76	58	54	0
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										

		QC LIMITS	
S1 (NBZ)	= Nitrobenzene-d5	(35-114)	
S2 (FBP)	= 2-Fluorobiphenyl	(43-116)	
S3 (TPH)	= Terphenyl-d14	(33-141)	
S4 (PHL)	= Phenol-d5	(10-110)	
S5 (2FP)	= 2-Fluorophenol	(21-110)	
S6 (TBP)	= 2,4,6-Tribromophenol	(10-123)	
S7 (2CP)	= 2-Chlorophenol-d4	(33-110)	(advisory)
S8 (DCB)	= 1,2-Dichlorobenzene-d4	(16-110)	(advisory)

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

3C

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix Spike - EPA Sample NO.: E01C5

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
Phenol	75	0	36	48	12-110
2-Chlorophenol	75	0	36	48	27-123
N-Nitroso-di-n-prop.(1)	50	0	32	64	41-116
4-Chloro-3-methylphenol	75	0	33	44	23- 97
Acenaphthene	50	0	25	50	46-118
4-Nitrophenol	75	0	43	57	10- 80
2,4-Dinitrotoluene	50	0	34	68	24- 96
Pentachlorophenol	75	0	40	53	9-103
Pyrene	50	0	19	38	26-127

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	75	37	49	2	42	12-110
2-Chlorophenol	75	37	49	2	40	27-123
N-Nitroso-di-n-prop.(1)	50	32	64	0	38	41-116
4-Chloro-3-methylphenol	75	36	48	9	42	23- 97
Acenaphthene	50	28	56	11	31	46-118
4-Nitrophenol	75	44	59	3	50	10- 80
2,4-Dinitrotoluene	50	35	70	3	38	24- 96
Pentachlorophenol	75	46	61	14	50	9-103
Pyrene	50	23	46	19	31	26-127

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 9 outside limits
Spike Recovery: 0 out of 18 outside limits

Comments: _____

4B
SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLKFA

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Lab File ID: 219F07 Lab Sample ID: MB0801-A

Instrument ID: HPF Date Extracted: 08/01/02

Matrix: (soil/water) WATER Date Analyzed: 08/07/02

Level:(low/med) LOW Time Analyzed: 1505

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	E01C5	58778.01	219F08	08/07/02
02	E01C5MS	58778.02	219F09	08/07/02
03	E01C5MSD	58778.03	219F10	08/07/02
04	E01C6	58778.04	219F11	08/07/02
05	E01C7	58778.05	219F12	08/07/02
06	E01C8	58778.06	219F13	08/07/02
07	E01C9	58778.07	219F14	08/07/02
08	E01D0	58778.08	219F15	08/07/02
09	E01D2	58778.09	219F16	08/07/02
10	E01D3	58778.10	219F17	08/07/02
11	E01D4	58778.11	220F07	08/08/02
12	E01D5	58778.12	220F08	08/08/02
13	E01D6	58778.13	220F09	08/08/02
14	E01D7	58778.14	220F10	08/08/02
15	E01D8	58778.15	220F11	08/08/02
16	E01D9	58778.16	220F12	08/08/02
17	E01E0	58778.17	220F13	08/08/02
18	E01E1	58778.18	220F14	08/08/02
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Comments:

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E01C5

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.01

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 219F08.D

Level: (low/med) LOW Date Received: 07/31/02

% Moisture: _____ decanted: (Y/N) N Date Extracted: 08/01/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/07/02

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-52-7	Benzaldehyde	10	U
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
98-86-2	Acetophenone	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
105-60-2	Caprolactam	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
92-52-4	1,1'-Biphenyl	10	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
606-20-2	2,6-Dinitrotoluene	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1D
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E01C5

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.01

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 219F08.D

Level: (low/med) LOW Date Received: 07/31/02

% Moisture: _____ decanted: (Y/N) N Date Extracted: 08/01/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/07/02

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
86-73-7	Fluorene	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
1912-24-9	Atrazine	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	5	J
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1G
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E01C5

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.01

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 219F08.D

Level: (low/med) LOW Date Received: 07/31/02

% Moisture: _____ decanted: (Y/N) N Date Extracted: 08/01/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/07/02

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0 Extraction: (Type) CONT

Number TICs found: 2

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	3.30	3	BJ
2.		UNKNOWN	3.46	5	BJ
3.					
4.					
5.					
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1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E01C5MS

ab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.02

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 219F09.D

Level: (low/med) LOW Date Received: 07/31/02

% Moisture: _____ decanted: (Y/N) N Date Extracted: 08/01/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/07/02

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-52-7	Benzaldehyde	10	U
108-95-2	Phenol	36	
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	36	
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
98-86-2	Acetophenone	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	32	
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
105-60-2	Caprolactam	10	U
59-50-7	4-Chloro-3-methylphenol	33	
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
92-52-4	1,1'-Biphenyl	10	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
606-20-2	2,6-Dinitrotoluene	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	25	

1D
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E01C5MS

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.02

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 219F09.D

Level: (low/med) LOW Date Received: 07/31/02

% Moisture: _____ decanted: (Y/N) N Date Extracted: 08/01/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/07/02

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	43	
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	34	
84-66-2	Diethylphthalate	10	U
86-73-7	Fluorene	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
1912-24-9	Atrazine	10	U
87-86-5	Pentachlorophenol	40	
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	19	
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	3	J
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E01C5MSD

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.03

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 219F10.D

Level: (low/med) LOW Date Received: 07/31/02

% Moisture: _____ decanted: (Y/N) N Date Extracted: 08/01/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/07/02

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-52-7	Benzaldehyde	10	U
108-95-2	Phenol	37	
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	37	
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
98-86-2	Acetophenone	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	32	
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
105-60-2	Caprolactam	10	U
59-50-7	4-Chloro-3-methylphenol	36	
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
92-52-4	1,1'-Biphenyl	10	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
606-20-2	2,6-Dinitrotoluene	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	28	

1D
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E01C5MSD

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.03

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 219F10.D

Level: (low/med) LOW Date Received: 07/31/02

% Moisture: _____ decanted: (Y/N) N Date Extracted: 08/01/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/07/02

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	44	
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	35	
84-66-2	Diethylphthalate	10	U
86-73-7	Fluorene	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
1912-24-9	Atrazine	10	U
87-86-5	Pentachlorophenol	46	
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	1	BJ
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	23	
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	2	J
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E01C6

ab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.04

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 219F11.D

Level: (low/med) LOW Date Received: 07/31/02

% Moisture: _____ decanted: (Y/N) N Date Extracted: 08/01/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/07/02

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-52-7	Benzaldehyde	10	U
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
98-86-2	Acetophenone	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
105-60-2	Caprolactam	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
92-52-4	1,1'-Biphenyl	10	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
606-20-2	2,6-Dinitrotoluene	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1D
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E01C6

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.04

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 219F11.D

Level: (low/med) LOW Date Received: 07/31/02

% Moisture: _____ decanted: (Y/N) N Date Extracted: 08/01/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/07/02

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
86-73-7	Fluorene	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
1912-24-9	Atrazine	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	1	BJ
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	2	J
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1G
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E01C6

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.04

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 219F11.D

Level: (low/med) LOW Date Received: 07/31/02

% Moisture: _____ decanted: (Y/N) N Date Extracted: 08/01/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/07/02

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0 Extraction: (Type) CONT

Number TICs found: 3 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	3.29	6	BJ
2.		UNKNOWN	3.37	2	J
3.		UNKNOWN	3.44	3	BJ
4.					
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1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E01C7

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.05

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 219F12.D

Level: (low/med) LOW Date Received: 07/31/02

% Moisture: _____ decanted: (Y/N) N Date Extracted: 08/01/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/07/02

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-52-7	Benzaldehyde	10	U
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
98-86-2	Acetophenone	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
105-60-2	Caprolactam	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
92-52-4	1,1'-Biphenyl	10	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
606-20-2	2,6-Dinitrotoluene	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1D
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E01C7

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.05

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 219F12.D

Level: (low/med) LOW Date Received: 07/31/02

% Moisture: _____ decanted: (Y/N) N Date Extracted: 08/01/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/07/02

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
86-73-7	Fluorene	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
1912-24-9	Atrazine	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	1	BJ
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	2	J
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1G
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E01C7

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.05

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 219F12.D

Level: (low/med) LOW Date Received: 07/31/02

% Moisture: _____ decanted: (Y/N) N Date Extracted: 08/01/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/07/02

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0 Extraction: (Type) CONT

Number TICs found: 5 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	3.10	2	BJ
2.	UNKNOWN	3.29	5	BJ
3.	UNKNOWN	3.37	2	J
4.	UNKNOWN	3.44	5	BJ
5.	UNKNOWN	3.47	8	BJ
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1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E01C8

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.06

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 219F13.D

Level: (low/med) LOW Date Received: 07/31/02

% Moisture: _____ decanted: (Y/N) N Date Extracted: 08/01/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/07/02

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-52-7	Benzaldehyde	10	U
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
98-86-2	Acetophenone	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
105-60-2	Caprolactam	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
92-52-4	1,1'-Biphenyl	10	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
606-20-2	2,6-Dinitrotoluene	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1D
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E01C8

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.06

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 219F13.D

Level: (low/med) LOW Date Received: 07/31/02

% Moisture: _____ decanted: (Y/N) N Date Extracted: 08/01/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/07/02

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
86-73-7	Fluorene	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
1912-24-9	Atrazine	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	1	J
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1G
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E01C8

ab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.06

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 219F13.D

Level: (low/med) LOW Date Received: 07/31/02

% Moisture: _____ decanted: (Y/N) N Date Extracted: 08/01/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/07/02

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0 Extraction: (Type) CONT

Number TICs found: 7

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	3.10	2	BJ
2.	UNKNOWN	3.29	7	BJ
3.	UNKNOWN	3.37	3	J
4.	UNKNOWN	3.43	16	BJ
5.	UNKNOWN	3.47	31	BJ
6.	UNKNOWN	4.28	5	BJ
7.	UNKNOWN	6.47	3	J
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1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E01C9

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.07

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 219F14.D

Level: (low/med) LOW Date Received: 07/31/02

% Moisture: _____ decanted: (Y/N) N Date Extracted: 08/01/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/07/02

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-52-7	Benzaldehyde	10	U
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
98-86-2	Acetophenone	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
105-60-2	Caprolactam	2	J
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
92-52-4	1,1'-Biphenyl	10	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
606-20-2	2,6-Dinitrotoluene	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1D
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E01C9

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.07

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 219F14.D

Level: (low/med) LOW Date Received: 07/31/02

% Moisture: _____ decanted: (Y/N) N Date Extracted: 08/01/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/07/02

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	1	J
86-73-7	Fluorene	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
1912-24-9	Atrazine	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	3	BJ
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	1	J
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1G
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E01C9

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.07

Sample wt/vol: 100u (g/mL) ML Lab File ID: 219F14.D

Level: (low/med) LOW Date Received: 07/31/02

% Moisture: _____ decanted: (Y/N) N Date Extracted: 08/01/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/07/02

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0 Extraction: (Type) CONT

Number TICs found: 7

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	111-76-2	ETHANOL, 2-BUTOXY-	3.21	5	JN
2.		UNKNOWN	3.29	3	BJ
3.		UNKNOWN	3.42	8	BJ
4.		UNKNOWN	3.47	11	BJ
5.	54446-78-5	ETHANOL, 1-(2-BUTOXYETHOXY)-	4.70	3	JN
6.		UNKNOWN	5.79	4	J
7.	6938-94-9	HEXANEDIOIC ACID, BIS(1-METH	6.27	7	JN
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1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E01D0

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.08

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 219F15.D

Level: (low/med) LOW Date Received: 07/31/02

% Moisture: _____ decanted: (Y/N) N Date Extracted: 08/01/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/07/02

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-52-7	Benzaldehyde	10	U
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
98-86-2	Acetophenone	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
105-60-2	Caprolactam	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
92-52-4	1,1'-Biphenyl	10	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
606-20-2	2,6-Dinitrotoluene	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1D
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E01D0

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.08

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 219F15.D

Level: (low/med) LOW Date Received: 07/31/02

% Moisture: _____ decanted: (Y/N) N Date Extracted: 08/01/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/07/02

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
86-73-7	Fluorene	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
1912-24-9	Atrazine	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	1	BJ
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	1	J
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1G
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E01D0

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.08

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 219F15.D

Level: (low/med) LOW Date Received: 07/31/02

% Moisture: _____ decanted: (Y/N) N Date Extracted: 08/01/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/07/02

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0 Extraction: (Type) CONT

Number TICs found: 1 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	3.30	4	BJ
2.					
3.					
4.					
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1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E01D2

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.09

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 219F16.D

Level: (low/med) LOW Date Received: 07/31/02

% Moisture: _____ decanted: (Y/N) N Date Extracted: 08/01/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/07/02

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-52-7	Benzaldehyde	10	U
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
98-86-2	Acetophenone	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
105-60-2	Caprolactam	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
92-52-4	1,1'-Biphenyl	10	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
606-20-2	2,6-Dinitrotoluene	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1D
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E01D2

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.09

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 219F16.D

Level: (low/med) LOW Date Received: 07/31/02

% Moisture: _____ decanted: (Y/N) N Date Extracted: 08/01/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/07/02

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
86-73-7	Fluorene	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
1912-24-9	Atrazine	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	1	J
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1G
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E01D2

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.09

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 219F16.D

Level: (low/med) LOW Date Received: 07/31/02

% Moisture: _____ decanted: (Y/N) N Date Extracted: 08/01/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/07/02

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0 Extraction: (Type) CONT

Number TICs found: 4 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	3.29	3	BJ
2.	UNKNOWN	3.43	4	BJ
3.	UNKNOWN	3.47	7	BJ
4.	UNKNOWN	11.59	2	J
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1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E01D3

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.10

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 219F17.D

Level: (low/med) LOW Date Received: 07/31/02

% Moisture: _____ decanted: (Y/N) N Date Extracted: 08/01/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/07/02

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-52-7	Benzaldehyde	10	U
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
98-86-2	Acetophenone	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
105-60-2	Caprolactam	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
92-52-4	1,1'-Biphenyl	10	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
606-20-2	2,6-Dinitrotoluene	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1D
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E01D3

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.10

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 219F17.D

Level: (low/med) LOW Date Received: 07/31/02

% Moisture: _____ decanted: (Y/N) N Date Extracted: 08/01/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/07/02

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
86-73-7	Fluorene	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
1912-24-9	Atrazine	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	1	BJ
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	2	J
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

000101

EPA SAMPLE NO.

E01D3

1G
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.10

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 219F17.D

Level: (low/med) LOW Date Received: 07/31/02

% Moisture: _____ decanted: (Y/N) N Date Extracted: 08/01/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/07/02

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0 Extraction: (Type) CONT

Number TICs found: 5 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	3.09	2	BJ
2.		UNKNOWN	3.29	6	BJ
3.		UNKNOWN	3.37	2	J
4.		UNKNOWN	3.43	6	BJ
5.		UNKNOWN	3.47	10	BJ
6.					
7.					
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1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E01D4

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.11

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 220F07.D

Level: (low/med) LOW Date Received: 07/31/02

% Moisture: _____ decanted: (Y/N) N Date Extracted: 08/01/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/08/02

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-52-7	Benzaldehyde	10	U
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
98-86-2	Acetophenone	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
105-60-2	Caprolactam	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
92-52-4	1,1'-Biphenyl	10	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
606-20-2	2,6-Dinitrotoluene	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1D
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E01D4

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.11

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 220F07.D

Level: (low/med) LOW Date Received: 07/31/02

% Moisture: _____ decanted: (Y/N) N Date Extracted: 08/01/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/08/02

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
86-73-7	Fluorene	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
1912-24-9	Atrazine	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	2	J
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1G
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E01D4

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.11

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 220F07.D

Level: (low/med) LOW Date Received: 07/31/02

% Moisture: _____ decanted: (Y/N) N Date Extracted: 08/01/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/08/02

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0 Extraction: (Type) CONT

Number TICs found: 3

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	3.30	4	BJ
2.		UNKNOWN	3.43	8	BJ
3.	21400-25-9	1-PROPENE, 1,1,2-TRICHLORO-	3.48	13	JN
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E01D5

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.12

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 220F08.D

Level: (low/med) LOW Date Received: 07/31/02

% Moisture: _____ decanted: (Y/N) N Date Extracted: 08/01/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/08/02

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-52-7	Benzaldehyde	10	U
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
98-86-2	Acetophenone	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
105-60-2	Caprolactam	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
92-52-4	1,1'-Biphenyl	10	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
606-20-2	2,6-Dinitrotoluene	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1D
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E01D5

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.12

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 220F08.D

Level: (low/med) LOW Date Received: 07/31/02

% Moisture: _____ decanted: (Y/N) N Date Extracted: 08/01/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/08/02

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
86-73-7	Fluorene	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
1912-24-9	Atrazine	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	2	J
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1G
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E01D5

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.12

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 220F08.D

Level: (low/med) LOW Date Received: 07/31/02

% Moisture: _____ decanted: (Y/N) N Date Extracted: 08/01/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/08/02

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0 Extraction: (Type) CONT

Number TICs found: 3

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	3.30	4	BJ
2.	UNKNOWN	3.43	8	BJ
3.	UNKNOWN	3.47	13	BJ
4.				
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E01D6

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.13

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 220F09.D

Level: (low/med) LOW Date Received: 07/31/02

% Moisture: _____ decanted: (Y/N) N Date Extracted: 08/01/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/08/02

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-52-7	Benzaldehyde	10	U
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
98-86-2	Acetophenone	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
105-60-2	Caprolactam	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
92-52-4	1,1'-Biphenyl	10	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
606-20-2	2,6-Dinitrotoluene	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1D
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E01D6

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.13

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 220F09.D

Level: (low/med) LOW Date Received: 07/31/02

% Moisture: _____ decanted: (Y/N) N Date Extracted: 08/01/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/08/02

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
86-73-7	Fluorene	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
1912-24-9	Atrazine	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	1	BJ
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	2	J
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1G
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E01D6

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.13

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 220F09.D

Level: (low/med) LOW Date Received: 07/31/02

% Moisture: _____ decanted: (Y/N) N Date Extracted: 08/01/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/08/02

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0 Extraction: (Type) CONT

Number TICs found: 3 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	3.31	5	BJ
2.		UNKNOWN	3.44	6	BJ
3.		UNKNOWN	3.48	9	BJ
4.					
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E01D7

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.14

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 220F10.D

Level: (low/med) LOW Date Received: 07/31/02

% Moisture: _____ decanted: (Y/N) N Date Extracted: 08/01/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/08/02

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-52-7	Benzaldehyde	10	U
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
98-86-2	Acetophenone	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
105-60-2	Caprolactam	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
92-52-4	1,1'-Biphenyl	10	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
606-20-2	2,6-Dinitrotoluene	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1D
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E01D7

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.14

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 220F10.D

Level: (low/med) LOW Date Received: 07/31/02

% Moisture: _____ decanted: (Y/N) N Date Extracted: 08/01/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/08/02

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
86-73-7	Fluorene	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
1912-24-9	Atrazine	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	1	BJ
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	1	J
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1G
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E01D7

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.14

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 220F10.D

Level: (low/med) LOW Date Received: 07/31/02

% Moisture: _____ decanted: (Y/N) N Date Extracted: 08/01/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/08/02

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0 Extraction: (Type) CONT

Number TICs found: 5 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	3.10	2	BJ
2.	UNKNOWN	3.30	7	BJ
3.	UNKNOWN	3.37	2	J
4.	UNKNOWN	3.44	7	BJ
5.	UNKNOWN	3.47	11	BJ
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1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E01D8

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.15

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 220F11.D

Level: (low/med) LOW Date Received: 07/31/02

% Moisture: _____ decanted: (Y/N) N Date Extracted: 08/01/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/08/02

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-52-7	Benzaldehyde	10	U
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
98-86-2	Acetophenone	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
105-60-2	Caprolactam	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
92-52-4	1,1'-Biphenyl	10	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
606-20-2	2,6-Dinitrotoluene	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1D
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E01D8

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.15

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 220F11.D

Level: (low/med) LOW Date Received: 07/31/02

% Moisture: _____ decanted: (Y/N) N Date Extracted: 08/01/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/08/02

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
86-73-7	Fluorene	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
1912-24-9	Atrazine	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	1	J
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

1) Cannot be separated from Diphenylamine

1G
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E01D8

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.15

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 220F11.D

Level: (low/med) LOW Date Received: 07/31/02

% Moisture: _____ decanted: (Y/N) N Date Extracted: 08/01/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/08/02

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0 Extraction: (Type) CONT

Number TICs found: 5 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	3.11	2	BJ
2.		UNKNOWN	3.30	7	BJ
3.		UNKNOWN	3.37	2	J
4.		UNKNOWN	3.43	7	BJ
5.		UNKNOWN	3.47	12	BJ
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1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E01D9

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.16

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 220F12.D

Level: (low/med) LOW Date Received: 07/31/02

% Moisture: _____ decanted: (Y/N) N Date Extracted: 08/01/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/08/02

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-52-7	Benzaldehyde	10	U
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
98-86-2	Acetophenone	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
105-60-2	Caprolactam	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
92-52-4	1,1'-Biphenyl	10	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
606-20-2	2,6-Dinitrotoluene	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1D
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E01D9

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.16

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 220F12.D

Level: (low/med) LOW Date Received: 07/31/02

% Moisture: _____ decanted: (Y/N) N Date Extracted: 08/01/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/08/02

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
86-73-7	Fluorene	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
1912-24-9	Atrazine	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	1	BJ
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1G
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E01D9

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.16

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 220F12.D

Level: (low/med) LOW Date Received: 07/31/02

% Moisture: _____ decanted: (Y/N) N Date Extracted: 08/01/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/08/02

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0 Extraction: (Type) CONT

Number TICs found: 4

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	3.10	2	BJ
2.		UNKNOWN	3.30	8	BJ
3.		UNKNOWN	3.38	2	J
4.		UNKNOWN	3.47	10	BJ
5.					
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1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E01E0

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.17

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 220F13.D

Level: (low/med) LOW Date Received: 07/31/02

% Moisture: _____ decanted: (Y/N) N Date Extracted: 08/01/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/08/02

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-52-7	Benzaldehyde	10	U
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
98-86-2	Acetophenone	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
105-60-2	Caprolactam	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
92-52-4	1,1'-Biphenyl	10	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
606-20-2	2,6-Dinitrotoluene	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1D
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E01E0

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.17

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 220F13.D

Level: (low/med) LOW Date Received: 07/31/02

% Moisture: _____ decanted: (Y/N) N Date Extracted: 08/01/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/08/02

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
86-73-7	Fluorene	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
1912-24-9	Atrazine	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	1	BJ
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	1	J
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1G
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E01E0

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.17

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 220F13.D

Level: (low/med) LOW Date Received: 07/31/02

% Moisture: _____ decanted: (Y/N) N Date Extracted: 08/01/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/08/02

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0 Extraction: (Type) CONT

Number TICs found: 5

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	3.11	2	BJ
2.		UNKNOWN	3.30	8	BJ
3.		UNKNOWN	3.38	2	J
4.	2091-29-4	9-HEXADECENOIC ACID	9.30	2	JN
5.	57-10-3	HEXADECANOIC ACID	9.38	3	JN
6.					
7.					
8.					
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1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E01E1

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.18

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 220F14.D

Level: (low/med) LOW Date Received: 07/31/02

% Moisture: _____ decanted: (Y/N) N Date Extracted: 08/01/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/08/02

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-52-7	Benzaldehyde	10	U
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
98-86-2	Acetophenone	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
105-60-2	Caprolactam	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
92-52-4	1,1'-Biphenyl	10	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
606-20-2	2,6-Dinitrotoluene	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1D
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E01E1

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.18

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 220F14.D

Level: (low/med) LOW Date Received: 07/31/02

% Moisture: _____ decanted: (Y/N) N Date Extracted: 08/01/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/08/02

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
86-73-7	Fluorene	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
1912-24-9	Atrazine	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	2	BJ
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	1	J
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1G
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E01E1

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.18

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 220F14.D

Level: (low/med) LOW Date Received: 07/31/02

% Moisture: _____ decanted: (Y/N) N Date Extracted: 08/01/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/08/02

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0 Extraction: (Type) CONT

Number TICs found: 8 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	3.11	3	BJ
2.	UNKNOWN	3.30	8	BJ
3.	UNKNOWN	3.38	3	J
4.	UNKNOWN	3.44	5	BJ
5.	UNKNOWN	3.47	8	BJ
6. 544-63-8	TETRADECANOIC ACID	8.21	2	JN
7. 2091-29-4	9-HEXADECENOIC ACID	9.30	5	JN
8. 57-10-3	HEXADECANOIC ACID	9.39	5	JN
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1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLKFA

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: MB0801-A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 219F07.D

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N) N Date Extracted: 08/01/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/07/02

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
100-52-7	Benzaldehyde	10	U
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
98-86-2	Acetophenone	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
105-60-2	Caprolactam	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
92-52-4	1,1'-Biphenyl	10	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
606-20-2	2,6-Dinitrotoluene	10	U
208-96-8	Acenaphthylene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1D
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLKFA

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: MB0801-A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 219F07.D

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N) N Date Extracted: 08/01/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/07/02

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0 Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
86-73-7	Fluorene	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
1912-24-9	Atrazine	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	1	J
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1G
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLKFA

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: MB0801-A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 219F07.D

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N) N Date Extracted: 08/01/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/07/02

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 0.0 Extraction: (Type) CONT

Number TICs found: 5

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	3.10	10	J
2.		UNKNOWN	3.29	2	J
3.		UNKNOWN	3.47	2	J
4.		UNKNOWN	4.28	12	J
5.		UNKNOWN	4.36	3	J
6.					
7.					
8.					
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2E
WATER PESTICIDE SURROGATE RECOVERY

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

GC Column(1): CLPEST ID: 0.32(mm) GC Column(2): CLPESTII ID: 0.32(mm)

	EPA SAMPLE NO.	TCX 1 %REC #	TCX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #	OTHER (1)	OTHER (2)	TOT OUT
01	PBLKW	104	98	78	69			0
02	E01C5	73	72	37	38			0
03	E01C5MS	94	82	62	60			0
04	E01C5MSD	78	72	63	60			0
05	E01C6	72	63	56	56			0
06	E01C7	86	358*	0*	59			2
07	E01C8	81	71	55	48			0
08	E01C9	81	79	62	59			0
09	E01D0	67	61	43	43			0
10	E01D2	103	93	59	53			0
11	E01D3	67	62	46	42			0
12	E01D4	81	76	22*	23*			2
13	E01D5	92	84	30	27*			1
14	E01D6	101	97	97	89			0
15	E01D7	87	85	28*	28*			2
16	E01D8	78	77	25*	22*			2
17	E01D9	80	75	28*	28*			2
18	E01E0	107	112	30	29*			1
19	E01E1	85	78	22*	23*			2
20	E01D6DL	93	100	86	90			0
21	E01E1DL	82	90	23D	26D			0
22								
23								
24								
25								
26								
27								
28								
29								
30								

QC LIMITS

TCX = Tetrachloro-m-xylene (30-150)
DCB = Decachlorobiphenyl (30-150)

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

3E

WATER PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix Spike - EPA Sample NO.: E01C5

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
gamma-BHC(Lindane)	0.50	0.017	0.49	95	56-123
Heptachlor	0.50	0.034	0.45	83	40-131
Aldrin	0.50	0.008	0.44	87	40-120
Dieldrin	1.0	0.013	0.99	98	52-126
Endrin	1.0	0	1.1	110	56-121
4,4'-DDT	1.0	0.007	0.82	81	38-127

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
gamma-BHC(Lindane)	0.50	0.46	89	7	15	56-123
Heptachlor	0.50	0.41	75	10	20	40-131
Aldrin	0.50	0.40	79	10	22	40-120
Dieldrin	1.0	0.89	88	11	18	52-126
Endrin	1.0	0.98	98	12	21	56-121
4,4'-DDT	1.0	0.71	70	15	27	38-127

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 6 outside limits
Spike Recovery: 0 out of 12 outside limits

Comments:

4C
PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PBLKW

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Lab Sample ID: BL020731W6M Lab File ID: 10F06175

Matrix: (soil/water) WATER Extraction: (Type) CONT

Sulfur Cleanup: (Y/N) N Date Extracted: 07/31/02

Date Analyzed (1): 08/02/02 Date Analyzed (2): 08/02/02

Time Analyzed (1): 1059 Time Analyzed (2): 1059

Instrument ID (1): HP10F Instrument ID (2): HP10R

GC Column (1): CLPEST ID: 0.32(mm) GC Column (2): CLPESTII ID: 0.32(mm)

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

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	E01C5	58778.01	08/01/02	08/01/02
02	E01C5MS	58778.02MS	08/01/02	08/01/02
03	E01C5MSD	58778.03MSD	08/01/02	08/01/02
04	E01C6	58778.04	08/01/02	08/01/02
05	E01C7	58778.05	08/01/02	08/01/02
06	E01C8	58778.06	08/01/02	08/01/02
07	E01C9	58778.07	08/01/02	08/01/02
08	E01D0	58778.08	08/01/02	08/01/02
09	E01D2	58778.09	08/01/02	08/01/02
10	E01D3	58778.10	08/01/02	08/01/02
11	E01D4	58778.11	08/02/02	08/02/02
12	E01D5	58778.12	08/02/02	08/02/02
13	E01D6	58778.13	08/02/02	08/02/02
14	E01D7	58778.14	08/02/02	08/02/02
15	E01D8	58778.15	08/02/02	08/02/02
16	E01D9	58778.16	08/02/02	08/02/02
17	E01E0	58778.17	08/02/02	08/02/02
18	E01E1	58778.18	08/02/02	08/02/02
19	E01D6DL	58778.13D5	08/05/02	08/05/02
20	E01E1DL	58778.18D5	08/05/02	08/05/02
21				
22				
23				
24				
25				
26				

Comments:

1E
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E01C5

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.01

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ Decanted: (Y/N) __ Date Received: 07/31/02

Extraction: (Type) CONT Date Extracted: 07/31/02

Concentrated Extract Volume: 10000(uL) Date Analyzed: 08/01/02

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:_____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.0099	PJB
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.013	PJ
58-89-9	gamma-BHC (Lindane)	0.017	J
76-44-8	Heptachlor	0.034	J
309-00-2	Aldrin	0.0075	J
1024-57-3	Heptachlor epoxide	0.0058	PJB
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.013	PJ
72-55-9	4,4'-DDE	0.0041	PJ
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.0038	PJ
72-54-8	4,4'-DDD	0.0036	PJ
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.0065	PJB
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.017	PJB
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.0081	PJB
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1E
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E01C5MS

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.02MS

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ Decanted: (Y/N) __ Date Received: 07/31/02

Extraction: (Type) CONT Date Extracted: 07/31/02

Concentrated Extract Volume: 10000(uL) Date Analyzed: 08/01/02

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:_____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.0062	PJB
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.49	
76-44-8	Heptachlor	0.45	
309-00-2	Aldrin	0.44	
1024-57-3	Heptachlor epoxide	0.0084	PJB
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.99	
72-55-9	4,4'-DDE	0.012	J
72-20-8	Endrin	1.1	
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.0092	PJ
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.82	B
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.0086	J
7421-93-4	Endrin aldehyde	0.012	PJB
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.033	JB
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1E
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E01C5MSD

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.03MSD

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ Decanted: (Y/N) __ Date Received: 07/31/02

Extraction: (Type) CONT Date Extracted: 07/31/02

Concentrated Extract Volume: 10000(uL) Date Analyzed: 08/01/02

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:_____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.46	
76-44-8	Heptachlor	0.41	
309-00-2	Aldrin	0.40	
1024-57-3	Heptachlor epoxide	0.014	PJB
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.89	
72-55-9	4,4'-DDE	0.0096	PJ
72-20-8	Endrin	0.98	
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.0091	PJ
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.71	B
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.0075	J
7421-93-4	Endrin aldehyde	0.0061	PJB
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.062	B
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E01C6

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.04

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ Decanted: (Y/N) __ Date Received: 07/31/02

Extraction: (Type) CONT Date Extracted: 07/31/02

Concentrated Extract Volume: 10000(uL) Date Analyzed: 08/01/02

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:_____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.0039	PJ
76-44-8	Heptachlor	0.0048	PJ
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.0024	PJB
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.0046	PJB
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.0097	PJB
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.013	PJB
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E01C7

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.05

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ Decanted: (Y/N) __ Date Received: 07/31/02

Extraction: (Type) CONT Date Extracted: 07/31/02

Concentrated Extract Volume: 10000(uL) Date Analyzed: 08/01/02

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:_____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.15	P
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E01C8

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.06

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ Decanted: (Y/N) __ Date Received: 07/31/02

Extraction: (Type) CONT Date Extracted: 07/31/02

Concentrated Extract Volume: 10000(uL) Date Analyzed: 08/01/02

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:_____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.0038	PJ
76-44-8	Heptachlor	0.0082	PJ
309-00-2	Aldrin	0.0043	PJ
1024-57-3	Heptachlor epoxide	0.0084	PJB
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.0058	PJB
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.015	PJB
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E01C9

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.07

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ Decanted: (Y/N) __ Date Received: 07/31/02

Extraction: (Type) CONT Date Extracted: 07/31/02

Concentrated Extract Volume: 10000(uL) Date Analyzed: 08/01/02

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:_____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.0049	JB
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.0070	PJ
58-89-9	gamma-BHC (Lindane)	0.0097	J
76-44-8	Heptachlor	0.011	PJ
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.0023	PJB
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.0047	PJB
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.0039	PJB
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E01D0

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.08

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ Decanted: (Y/N) __ Date Received: 07/31/02

Extraction: (Type) CONT Date Extracted: 07/31/02

Concentrated Extract Volume: 10000(uL) Date Analyzed: 08/01/02

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:_____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.0063	JB
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.011	PJ
58-89-9	gamma-BHC (Lindane)	0.012	PJ
76-44-8	Heptachlor	0.028	J
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.0033	PJB
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.014	PJ
72-55-9	4,4'-DDE	0.0059	PJ
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.020	PJB
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.0039	PJB
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E01D2

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.09

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ Decanted: (Y/N) __ Date Received: 07/31/02

Extraction: (Type) CONT Date Extracted: 07/31/02

Concentrated Extract Volume: 10000(uL) Date Analyzed: 08/01/02

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:_____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.0074	PJB
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.0093	PJ
58-89-9	gamma-BHC (Lindane)	0.016	PJ
76-44-8	Heptachlor	0.019	PJ
309-00-2	Aldrin	0.0072	J
1024-57-3	Heptachlor epoxide	0.0060	PJB
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.0068	PJ
72-55-9	4,4'-DDE	0.0043	PJ
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.0091	PJB
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.010	PJB
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E01D3

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.10

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ Decanted: (Y/N) __ Date Received: 07/31/02

Extraction: (Type) CONT Date Extracted: 07/31/02

Concentrated Extract Volume: 10000(uL) Date Analyzed: 08/01/02

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:_____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.012	JB
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.013	PJ
58-89-9	gamma-BHC (Lindane)	0.019	J
76-44-8	Heptachlor	0.031	PJ
309-00-2	Aldrin	0.0071	PJ
1024-57-3	Heptachlor epoxide	0.0046	PJB
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.012	PJ
72-55-9	4,4'-DDE	0.0078	PJ
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.0062	J
72-54-8	4,4'-DDD	0.0047	PJ
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.0052	PJB
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.016	PJB
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.041	PJB
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E01D4

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.11

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ Decanted: (Y/N) __ Date Received: 07/31/02

Extraction: (Type) CONT Date Extracted: 07/31/02

Concentrated Extract Volume: 10000(uL) Date Analyzed: 08/02/02

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:_____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.0091	JB
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.012	PJ
58-89-9	gamma-BHC (Lindane)	0.018	PJ
76-44-8	Heptachlor	0.031	J
309-00-2	Aldrin	0.0063	PJ
1024-57-3	Heptachlor epoxide	0.0056	PJB
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.012	J
72-55-9	4,4'-DDE	0.0054	PJ
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.0035	PJ
72-54-8	4,4'-DDD	0.0092	PJ
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.0039	PJB
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.013	PJB
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.0044	PJB
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E01D5

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.12

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ Decanted: (Y/N) __ Date Received: 07/31/02

Extraction: (Type) CONT Date Extracted: 07/31/02

Concentrated Extract Volume: 10000(uL) Date Analyzed: 08/02/02

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:_____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.0062	PJB
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.015	PJ
58-89-9	gamma-BHC (Lindane)	0.015	PJ
76-44-8	Heptachlor	0.042	J
309-00-2	Aldrin	0.0056	PJ
1024-57-3	Heptachlor epoxide	0.0055	PJB
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.011	J
72-55-9	4,4'-DDE	0.0068	J
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.0039	PJ
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.0086	PJB
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.015	PJB
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.027	JB
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1E
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E01D6

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.13

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ Decanted: (Y/N) __ Date Received: 07/31/02

Extraction: (Type) CONT Date Extracted: 07/31/02

Concentrated Extract Volume: 10000(uL) Date Analyzed: 08/02/02

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:_____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.034	PJB
319-85-7	beta-BHC	0.040	PJ
319-86-8	delta-BHC	0.064	P
58-89-9	gamma-BHC (Lindane)	0.0084	PJ
76-44-8	Heptachlor	0.13	
309-00-2	Aldrin	0.018	J
1024-57-3	Heptachlor epoxide	0.030	PJB
959-98-8	Endosulfan I	0.0082	PJ
60-57-1	Dieldrin	0.041	J
72-55-9	4,4'-DDE	0.029	J
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.028	PJ
72-54-8	4,4'-DDD	0.0090	PJ
1031-07-8	Endosulfan sulfate	0.014	PJ
50-29-3	4,4'-DDT	0.053	PJB
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.0018	PJ
7421-93-4	Endrin aldehyde	0.21	PB
5103-71-9	alpha-Chlordane	0.0087	PJ
5103-74-2	gamma-Chlordane	0.010	PJB
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1E
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E01D6DL

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.13D5

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ Decanted: (Y/N) __ Date Received: 07/31/02

Extraction: (Type) CONT Date Extracted: 07/31/02

Concentrated Extract Volume: 10000(uL) Date Analyzed: 08/05/02

Injection Volume: 2.0(uL) Dilution Factor: 5.0

GPC Cleanup: (Y/N) N pH:_____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.037	DPJB
319-85-7	beta-BHC	0.045	DPJ
319-86-8	delta-BHC	0.033	DPJ
58-89-9	gamma-BHC (Lindane)	0.044	DJ
76-44-8	Heptachlor	0.012	DPJ
309-00-2	Aldrin	0.25	U
1024-57-3	Heptachlor epoxide	0.033	DPJB
959-98-8	Endosulfan I	0.25	U
60-57-1	Dieldrin	0.039	DJ
72-55-9	4,4'-DDE	0.027	DJ
72-20-8	Endrin	0.50	U
33213-65-9	Endosulfan II	0.021	DPJ
72-54-8	4,4'-DDD	0.024	DJ
1031-07-8	Endosulfan sulfate	0.50	U
50-29-3	4,4'-DDT	0.50	U
72-43-5	Methoxychlor	2.5	U
53494-70-5	Endrin ketone	0.50	U
7421-93-4	Endrin aldehyde	0.17	DPJB
5103-71-9	alpha-Chlordane	0.25	U
5103-74-2	gamma-Chlordane	0.25	U
8001-35-2	Toxaphene	25	U
12674-11-2	Aroclor-1016	5.0	U
11104-28-2	Aroclor-1221	10	U
11141-16-5	Aroclor-1232	5.0	U
53469-21-9	Aroclor-1242	5.0	U
12672-29-6	Aroclor-1248	5.0	U
11097-69-1	Aroclor-1254	5.0	U
11096-82-5	Aroclor-1260	5.0	U

1E
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E01D7

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.14

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ Decanted: (Y/N) __ Date Received: 07/31/02

Extraction: (Type) CONT Date Extracted: 07/31/02

Concentrated Extract Volume: 10000(uL) Date Analyzed: 08/02/02

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:_____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.013	PJB
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.032	PJ
58-89-9	gamma-BHC (Lindane)	0.024	PJ
76-44-8	Heptachlor	0.079	
309-00-2	Aldrin	0.013	PJ
1024-57-3	Heptachlor epoxide	0.018	PJB
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.028	PJ
72-55-9	4,4'-DDE	0.018	PJ
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.017	PJ
72-54-8	4,4'-DDD	0.012	J
1031-07-8	Endosulfan sulfate	0.017	PJ
50-29-3	4,4'-DDT	0.034	PJB
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.082	PJB
5103-71-9	alpha-Chlordane	0.0074	PJ
5103-74-2	gamma-Chlordane	0.0063	JB
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1E
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E01D8

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.15

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ Decanted: (Y/N) __ Date Received: 07/31/02

Extraction: (Type) CONT Date Extracted: 07/31/02

Concentrated Extract Volume: 10000(uL) Date Analyzed: 08/02/02

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:_____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.0065	PJB
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.024	PJ
58-89-9	gamma-BHC (Lindane)	0.021	PJ
76-44-8	Heptachlor	0.064	
309-00-2	Aldrin	0.0089	PJ
1024-57-3	Heptachlor epoxide	0.014	PJB
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.020	PJ
72-55-9	4,4'-DDE	0.014	J
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.014	PJ
72-54-8	4,4'-DDD	0.0098	PJ
1031-07-8	Endosulfan sulfate	0.013	PJ
50-29-3	4,4'-DDT	0.013	PJB
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.042	PJB
5103-71-9	alpha-Chlordane	0.0070	PJ
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1E
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E01D9

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.16

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ Decanted: (Y/N) __ Date Received: 07/31/02

Extraction: (Type) CONT Date Extracted: 07/31/02

Concentrated Extract Volume: 10000(uL) Date Analyzed: 08/02/02

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:_____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.0067	PJB
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.031	PJ
58-89-9	gamma-BHC (Lindane)	0.023	PJ
76-44-8	Heptachlor	0.081	
309-00-2	Aldrin	0.0065	PJ
1024-57-3	Heptachlor epoxide	0.013	PJB
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.022	PJ
72-55-9	4,4'-DDE	0.012	PJ
72-20-8	Endrin	0.0034	PJ
33213-65-9	Endosulfan II	0.010	PJ
72-54-8	4,4'-DDD	0.0064	J
1031-07-8	Endosulfan sulfate	0.0022	PJ
50-29-3	4,4'-DDT	0.025	PJB
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.064	PJB
5103-71-9	alpha-Chlordane	0.0030	PJ
5103-74-2	gamma-Chlordane	0.0052	JB
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1E
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E01E0

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.17

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ Decanted: (Y/N) __ Date Received: 07/31/02

Extraction: (Type) CONT Date Extracted: 07/31/02

Concentrated Extract Volume: 10000(uL) Date Analyzed: 08/02/02

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:_____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.0062	JB
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.024	PJ
58-89-9	gamma-BHC (Lindane)	0.028	PJ
76-44-8	Heptachlor	0.059	
309-00-2	Aldrin	0.0088	PJ
1024-57-3	Heptachlor epoxide	0.012	PJB
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.017	PJ
72-55-9	4,4'-DDE	0.012	PJ
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.013	PJ
72-54-8	4,4'-DDD	0.0063	PJ
1031-07-8	Endosulfan sulfate	0.016	J
50-29-3	4,4'-DDT	0.0085	PJB
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.042	PJB
5103-71-9	alpha-Chlordane	0.0052	PJ
5103-74-2	gamma-Chlordane	0.0044	PJB
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1E
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E01E1

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.18

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ Decanted: (Y/N) __ Date Received: 07/31/02

Extraction: (Type) CONT Date Extracted: 07/31/02

Concentrated Extract Volume: 10000(uL) Date Analyzed: 08/02/02

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:_____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.0067	PJB
319-85-7	beta-BHC	0.018	PJ
319-86-8	delta-BHC	0.028	PJ
58-89-9	gamma-BHC (Lindane)	0.023	PJ
76-44-8	Heptachlor	0.077	
309-00-2	Aldrin	0.011	PJ
1024-57-3	Heptachlor epoxide	0.016	JB
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.023	J
72-55-9	4,4'-DDE	0.0092	PJ
72-20-8	Endrin	0.0035	PJ
33213-65-9	Endosulfan II	0.013	PJ
72-54-8	4,4'-DDD	0.0065	PJ
1031-07-8	Endosulfan sulfate	0.014	J
50-29-3	4,4'-DDT	0.0085	PJB
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.059	PJB
5103-71-9	alpha-Chlordane	0.0047	PJ
5103-74-2	gamma-Chlordane	0.0056	PJB
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1E
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E01E1DL

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: 58778.18D5

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ Decanted: (Y/N) __ Date Received: 07/31/02

Extraction: (Type) CONT Date Extracted: 07/31/02

Concentrated Extract Volume: 10000(uL) Date Analyzed: 08/05/02

Injection Volume: 2.0(uL) Dilution Factor: 5.0

GPC Cleanup: (Y/N) N pH:_____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.0070	DPJB
319-85-7	beta-BHC	0.25	U
319-86-8	delta-BHC	0.033	DPJ
58-89-9	gamma-BHC (Lindane)	0.025	DPJ
76-44-8	Heptachlor	0.068	DPJ
309-00-2	Aldrin	0.25	U
1024-57-3	Heptachlor epoxide	0.012	DPJB
959-98-8	Endosulfan I	0.25	U
60-57-1	Dieldrin	0.021	DPJ
72-55-9	4,4'-DDE	0.50	U
72-20-8	Endrin	0.50	U
33213-65-9	Endosulfan II	0.50	U
72-54-8	4,4'-DDD	0.50	U
1031-07-8	Endosulfan sulfate	0.50	U
50-29-3	4,4'-DDT	0.50	U
72-43-5	Methoxychlor	2.5	U
53494-70-5	Endrin ketone	0.50	U
7421-93-4	Endrin aldehyde	0.047	DPJB
5103-71-9	alpha-Chlordane	0.25	U
5103-74-2	gamma-Chlordane	0.25	U
8001-35-2	Toxaphene	25	U
12674-11-2	Aroclor-1016	5.0	U
11104-28-2	Aroclor-1221	10	U
11141-16-5	Aroclor-1232	5.0	U
53469-21-9	Aroclor-1242	5.0	U
12672-29-6	Aroclor-1248	5.0	U
11097-69-1	Aroclor-1254	5.0	U
11096-82-5	Aroclor-1260	5.0	U

1E
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLKW

Lab Name: AATSLA Contract: 68-W0-0081

Lab Code: AATSLA Case No.: 30778 SAS No.: SDG No.: E01C5

Matrix: (soil/water) WATER Lab Sample ID: BL020731W6M

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ Decanted: (Y/N)___ Date Received: _____

Extraction: (Type) CONT Date Extracted: 07/31/02

Concentrated Extract Volume: 10000(uL) Date Analyzed: 08/02/02

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:_____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.0082	PJ
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.0063	PJ
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.0023	PJ
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.021	J
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.0057	PJ
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V
ESD Central Regional Laboratory
Data Tracking Form for Contract Samples

Sample Delivery Group: E01C5 CERCLIS No: ILD 980670006

Case No: 30778 Site Name/Location: ST. LOUIS SMELTING AND REFINING

Contractor or EPA Lab: ATS Data User: IEPA

No. of Samples: 16 Date Sampled or Date Received: 8-19-02

Have Chain-of-Custody records been received? Yes ✓ No ____
Have traffic reports or packing lists been received? Yes ✓ No ____
If no, are traffic report or packing list numbers written on the Chain-of-Custody Record?
Yes ____ No ____
If no, which traffic report or packing list numbers are missing?

Are basic data forms in? Yes ✓ No ____
No of samples claimed: 16 No. of samples received: 16

Received by: Erna M. Dixon/ESAT Date: 8-19-02

Received by LSSS: Erna M. Dixon/ESAT Date: 8-19-02

Review started: ____ Reviewer Signature: ____

Total time spent on review: ____ Date review completed: ____

Copied by: ____ Date: ____

Mailed to user by: ____ Date: ____

DATA USER:
Please fill in the blanks below and return this form to:
Sylvia Griffin, Data Mgmt. Coordinator, Region V, ML-10C

Data received by: ____ Date: ____

Data review received by: ____ Date: ____

Inorganic Data Complete [ ] Suitable for Intended Purpose [ ] ✓ if OK
Organic Data Complete [ ] Suitable for Intended Purpose [ ] ✓ if OK
Dioxin data Complete [ ] Suitable for Intended Purpose [ ] ✓ if OK
SAS Data Complete [ ] Suitable for Intended Purpose [ ] ✓ if OK

PROBLEMS: Please indicate reasons why data are not suitable for your uses.

Received by Data Mgmt. Coordinator for Files. Date: ____

DATE: August 23, 2002

IEPA
1021 North Grand Avenue East
P.O. Box 19276
Springfield, IL 62794-9276

Attn: Bob Casper

SITE NAME: St. Louis Smelting and Refining

CASE NO.	LAB	NO. OF SAMPLES	SDG	MATRIX
30778	DataChem	18	ME01C5	Water

==========

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

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

Data Received by:_____ Date:_____

PROBLEMS:

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

_____

_____

Received by Data Management Coordinator, CRL for file.
Date:_____

Signature:_____

AUG 2 8 2002

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

Sent By: Eva M. Dixon, Sr. Data Specialist
ESAT

AUG 2 2 2002

AUG 2 2 2002 EMD

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: August 22, 2002

SUBJECT: Review of Data
Received for Review on August 21, 2002

FROM: Stephen L. Ostrodka, Chief (SMF-4J)
Superfund Field Services Section

TO: Data User: IEPA

The data in this case has not been validated.
We have compiled the CADRE files into a narrative format for the following case:

SITE NAME: St. Louis Smelting and Refining

CASE NUMBER: 30778 SDG NUMBER: ME01C5

Number and Type of Samples: 18 waters

Sample Numbers: ME01C5-9; ME01D0-9; ME01E0-2

Laboratory: Datachem Hrs. for Review: 2

Following are our findings:

CC: Cecilia Moore
Region 5 TPO
Mail Code: SM-5J

Case Number : 30778
Site Name: St. Louis Smelting & Refining

SDG Number: ME01C5
Laboratory: Datachem

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

Eighteen water samples numbered ME01C5-9, ME01D0-9, and ME01E0-2 were collected on July 28 and 29, 2002. The lab received the samples on July 31, 2002 in good condition. All samples were analyzed for metals and cyanide. All samples were analyzed using CLP SOW ILM04.1 analysis procedures.

Mercury analysis was performed using a Cold Vapor AA Technique. Cyanide analysis was performed using the MIDI Distillation procedure. The remaining inorganic analyses were performed using an Inductively Coupled Plasma-Atomic Emission Spectrometric procedure.

Assembled By: ESAT
Date: August 22, 2002

Case Number : 30778
Site Name: St. Louis Smelting & Refining

SDG Number: ME01C5
Laboratory: Datachem

1. HOLDING TIME:

Holding Time Report

SDG NO: ME01C5

HOLDING TIME CRITERIA

Inorganic

	-- Holding Time --		------- pH -------	
	Primary	Expanded	Primary	Expanded
Metals	180	0	2.0	0.0
Mercury	28	0	2.0	0.0
Cyanide	14	0	12.0	0.0

No problems found for this qualification.

2. CALIBRATIONS:

Calibration Report

SDG NO: ME01C5

CALIBRATION CRITERIA

Inorganic

Percent Recovery Limits

	--- Primary ---		-- Expanded ---	
	Low	High	Low	High
Cyanide	85.00	115.00	70.00	130.00
AA	90.00	110.00	75.00	125.00
ICP	90.00	110.00	75.00	125.00
Mercury	80.00	120.00	65.00	135.00

No problems found for this qualification.

CRDL Standards Report

SDG NO: ME01C5

Assembled By: ESAT
Date: August 22, 2002

Case Number : 30778
Site Name: St. Louis Smelting & Refining

SDG Number: ME01C5
Laboratory: Datachem

DC-373: The following inorganic samples are associated with a CRDL standard with low percent recovery.

Arsenic
ME01C5, ME01C6, ME01C7, ME01C8, ME01C9, ME01D0
ME01D1, ME01D2, ME01D3, ME01D4, ME01D5, ME01D6
ME01D7, ME01D8, ME01D9, ME01E0, ME01E1, ME01E2
PBW03

Beryllium
ME01C5, ME01C6, ME01C7, ME01C8, ME01C9, ME01D0
ME01D1, ME01D2, ME01D3, ME01D4, ME01D5, ME01D6
ME01D7, ME01D8, ME01D9, ME01E0, ME01E1, ME01E2
PBW04

Lead
ME01C5, ME01C6, ME01C7, ME01C8, ME01C9, ME01D0
ME01D1, ME01D2, ME01D3, ME01D4, ME01D5, ME01E2
PBW03

Selenium
ME01C5, ME01C6, ME01C7, ME01C8, ME01C9, ME01D0
ME01D1, ME01D2, ME01D3, ME01D4, ME01D5, ME01D6
ME01D7, ME01D8, ME01D9, ME01E0, ME01E1, ME01E2
PBW03

Silver
ME01C5, ME01C6, ME01C7, ME01C8, ME01C9, ME01D0
ME01D1, ME01D2, ME01D3, ME01D4, ME01D5, ME01D6
ME01D7, ME01D8, ME01D9, ME01E0, ME01E1, ME01E2
PBW04

DC-374: The following inorganic samples are associated with a CRDL standard with high percent recovery.
Hits and non-detects are flagged .

Lead
ME01C5, ME01C6, ME01C7, ME01C8, ME01C9, ME01D0
ME01D1, ME01D2, ME01D3, ME01D4, ME01D5, ME01D6
ME01D7, ME01D8, ME01D9, ME01E0, ME01E1, ME01E2
PBW03

3. **BLANKS**:

Laboratory Blanks Report

SDG NO: ME01C5

LABORATORY BLANKS CRITERIA

DC-284: The following inorganic samples are associated with a blank concentration which is greater than the instrument detection limit (IDL). The sample concentration is also greater than the IDL and less than five times the blank concentration.
Hits are qualified "J"; non-detects are not flagged.

Assembled By: ESAT
Date: August 22, 2002

Aluminum
ME01C9, ME01D0, ME01D3, ME01D4, ME01D9, ME01E0

Iron
ME01C5D, ME01C6, ME01C7, ME01C8, ME01C9, ME01D0
ME01D3, ME01D4, ME01D5, ME01D7, ME01D8, ME01D9
ME01E0, ME01E1, ME01E2

Sodium
ME01D6

Cyanide
ME01C5, ME01C5D, ME01C6, ME01C7, ME01C8, ME01C9
ME01D0, ME01D2, ME01D3, ME01D4, ME01D5, ME01D6
ME01D7, ME01D8, ME01D9, ME01E0, ME01E1

DC-338: During review of the following inorganic samples, the reported IDL/default CRDL value was used for cyanide.

ME01C5, ME01C5D, ME01C5S, ME01C6, ME01C7, ME01C8
ME01C9, ME01D0, ME01D2, ME01D3, ME01D4, ME01D5
ME01D6, ME01D7, ME01D8, ME01D9, ME01E0, ME01E1

4. MATRIX SPIKE/MATRIX SPIKE DUPLICATE AND LAB CONTROL SAMPLE:

Matrix Spike Report

SDG NO: ME01C5

MATRIX SPIKE CRITERIA

Inorganic

Percent Recovery Limits

Upper	125.0
Lower	75.0
Extreme lower	30.0

No problems found for this qualification.

LCS Report

SDG NO: ME01C5

No problems found for this qualification.

5. LABORATORY AND FIELD DUPLICATE

Duplicates Report

Assembled By: ESAT
Date: August 22, 2002

Case Number : 30778
Site Name: St. Louis Smelting & Refining

SDG Number: ME01C5
Laboratory: Datachem

SDG NO: ME01C5

No problems found for this qualification.

6. ICP ANALYSIS

ICS Report

SDG NO: ME01C5

DC-312: The following inorganic samples have elements other than Al, Ca, Fe, and Mg at concentrations higher than 10 ppm that may cause potential interference.
Hits are flagged "J" and non-detects are qualified "UJ".

Sodium
ME01C5, ME01C6, ME01C7, ME01C8, ME01C9, ME01D0
ME01D1, ME01D2, ME01D3, ME01D4, ME01D5, ME01D7
ME01D8, ME01D9, ME01E0, ME01E1, ME01E2

Serial Dilution Report

SDG NO: ME01C5

DC-294: The analyte concentration is high (>50 X the IDL) and serial dilution percent difference is not in criteria (>10%).
Hits are qualified "J" and non-detects are qualified "UJ".

Barium
ME01C5, ME01C5D, ME01C5S, ME01C6, ME01C7, ME01C8
ME01C9, ME01D0, ME01D1, ME01D2, ME01D3, ME01D4
ME01D5, ME01D6, ME01D7, ME01D8, ME01D9, ME01E0
ME01E1, ME01E2

7. GFAA ANALYSIS

Furnace AA QC Report

SDG NO: ME01C5

No problems found for this qualification.

8. SAMPLE RESULTS

Assembled By: ESAT
Date: August 22, 2002

Case Number : 30778
Site Name: St. Louis Smelting & Refining

SDG Number: ME01C5
Laboratory: Datachem

All data, except those qualified above, are acceptable.

Sample Result Verification Report

SDG NO: ME01C5

No problems found for this qualification.

Assembled By: ESAT
Date: August 22, 2002

CADRE Data Qualifier Sheet

Qualifiers	Data Qualifier Definitions
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J	The analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.
UJ	The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the action limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
R	The data are unusable. (The compound may or may not be present)

Analytical Results (Qualified Data)

Page ____ of ____

Case #: 30778 SDG : ME01C5

Site : ST. LOUIS SMELTING & REFINING

Lab. : DATAC

Reviewer :

Date :

Number of Soil Samples : 0

Number of Water Samples : 18

Sample Number :	ME01C5		ME01C6		ME01C7		ME01C8		ME01C9	
Sampling Location :	S201A		S201B		S201C		S202A		S202B	
Matrix :	Water		Water		Water		Water		Water	
Units :	ug/L		ug/L		ug/L		ug/L		ug/L	
Date Sampled :	07/29/2002		07/29/2002		07/29/2002		07/29/2002		07/29/2002	
Time Sampled :	10:00		10:30		10:54		11:35		11:40	
%Solids :	0.0		0.0		0.0		0.0		0.0	
Dilution Factor :	1.0		1.0		1.0		1.0		1.0	
ANALYTE	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
ALUMINUM	40.0	U	77.7		55.4		40.0	U	88.7	J
ANTIMONY	28.7	U	28.7	U	28.7	U	28.7	U	32.2	
ARSENIC	2.5		3.5		2.6		2.0	U	3.4	
BARIUM	71.1	J	76.5	J	171	J	71.6	J	73.5	J
BERYLLIUM	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
CADMIUM	0.30	U	0.30	U	0.30	U	0.30	U	0.30	U
CALCIUM	65600		66200		69700		65800		65900	
CHROMIUM	2.6	U	2.6	U	2.6	U	2.6	U	2.6	U
COBALT	5.1	U	5.1	U	5.1	U	5.1	U	5.1	U
COPPER	6.0		6.7		8.7		3.1	U	6.0	
IRON	14.2	U	68.2	J	67.2	J	38.9	J	44.2	J
LEAD	14.4		12.7		16.0		10.4		12.3	
MAGNESIUM	28100		28300		29100		28200		28300	
MANGANESE	281		522		5840		250		275	
MERCURY	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U
NICKEL	11.5	U	11.5	U	11.5	U	11.5	U	11.5	U
POTASSIUM	3730		4030		4070		3960		3880	
SELENIUM	1.6	U	1.6	U	1.6	U	1.6	U	1.6	U
SILVER	2.8	U	2.8	U	2.8	U	2.8	U	2.8	U
SODIUM	26800	J	26800	J	27800	J	27100	J	27000	J
THALLIUM	2.9	U	2.9	U	2.9	U	2.9	U	2.9	U
VANADIUM	3.6	U	3.6	U	3.6	U	3.6	U	5.6	
ZINC	2.2	U	2.2	U	2.2	U	9.4		2.2	U
CYANIDE	1.7	J	2.0	J	1.4	J	2.0	J	1.6	J

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Analytical Results (Qualified Data)

Case #: 30778 SDG : ME01C5
Site : ST. LOUIS SMELTING & REFINING
Lab. : DATAC
Reviewer :
Date :

Sample Number :	ME01D0		ME01D1		ME01D2		ME01D3		ME01D4	
Sampling Location :	S202C		S202CD		S203A		S203B		S204B	
Matrix :	Water		Water		Water		Water		Water	
Units :	ug/L		ug/L		ug/L		ug/L		ug/L	
Date Sampled :	07/29/2002		07/29/2002		07/29/2002		07/29/2002		07/29/2002	
Time Sampled :	12:00		12:00		12:45		12:55		13:25	
%Solids :	0.0		0.0		0.0		0.0		0.0	
Dilution Factor :	1.0		1.0		1.0		1.0		1.0	
ANALYTE	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
ALUMINUM	58.5	J	40.0	U	40.0	U	70.0	J	49.8	J
ANTIMONY	28.7	U	28.7	U	28.7	U	33.7		34.2	
ARSENIC	2.0	U	3.4		2.0	U	4.0		2.0	U
BARIUM	74.9	J	63.9	J	71.4	J	71.1	J	70.2	J
BERYLLIUM	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
CADMIUM	0.30	U	0.30	U	0.30	U	0.30	U	0.30	U
CALCIUM	66300		63600		65600		64400		64600	
CHROMIUM	2.6	U	2.6	U	2.6	U	2.6	U	2.6	U
COBALT	5.1	U	5.1	U	5.1	U	5.1	U	5.1	U
COPPER	7.3		3.1	U	3.1	U	6.7		8.0	
IRON	76.4	J	14.2	U	162		56.9	J	116	J
LEAD	14.4		1.5	U	9.3		13.1		11.0	
MAGNESIUM	28400		27300		28100		27600		27700	
MANGANESE	434		62.5		263		311		273	
MERCURY	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U
NICKEL	11.5	U	11.5	U	11.5	U	16.5		11.5	U
POTASSIUM	3710		3750		4000		3570		3760	
SELENIUM	1.6	U	1.6	U	2.0		1.6	U	1.6	U
SILVER	2.8	U	2.8	U	2.8	U	2.8	U	2.8	U
SODIUM	27200	J	26100	J	26900	J	26300	J	26500	J
THALLIUM	2.9	U	2.9	U	2.9	U	2.9	U	2.9	U
VANADIUM	3.6	U	3.6	U	4.1		4.1		5.2	
ZINC	6.4		2.2	U	2.2	U	7.7		2.2	U
CYANIDE	2.2	J			2.3	J	2.0	J	1.8	J

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Analytical Results (Qualified Data)

Case #: 30778 SDG : ME01C5
Site : ST. LOUIS SMELTING & REFINING
Lab. : DATAC
Reviewer :
Date :

Sample Number :	ME01D5		ME01D6		ME01D7		ME01D8		ME01D9	
Sampling Location :	S204A		FIELD BLANK		S205A		S205B		S206A	
Matrix :	Water		Water		Water		Water		Water	
Units :	ug/L		ug/L		ug/L		ug/L		ug/L	
Date Sampled :	07/29/2002		07/29/2002		07/29/2002		07/29/2002		07/29/2002	
Time Sampled :	13:15		14:30		14:15		14:20		15:05	
%Solids :	0.0		0.0		0.0		0.0		0.0	
Dilution Factor :	1.0		1.0		1.0		1.0		1.0	
ANALYTE	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
ALUMINUM	40.0	U	40.0	U	40.0	U	40.0	U	65.3	J
ANTIMONY	28.7	U	28.7	U	28.7	U	28.7	U	28.7	U
ARSENIC	2.0	U	2.0	U	3.2		2.2		2.7	
BARIUM	70.2	J	1.0	UJ	69.7	J	69.1	J	72.4	J
BERYLLIUM	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
CADMIUM	0.30	U	0.30	U	0.30	U	0.30	U	0.30	U
CALCIUM	65000		23.6	U	64600		64200		63300	
CHROMIUM	2.6	U	3.8		2.6	U	2.6	U	2.6	U
COBALT	5.1	U	5.1	U	5.1	U	5.1	U	5.1	U
COPPER	5.3		3.1	U	3.1	U	8.0		6.0	
IRON	47.0	J	14.2	U	42.1	J	147	J	65.1	J
LEAD	9.2		1.5	U	13.5		18.8		27.2	
MAGNESIUM	27900		32.4	U	27800		27600		27200	
MANGANESE	262		1.1	U	260		278		259	
MERCURY	0.10	U	0.10	U	0.10	U	0.10	U	0.10	U
NICKEL	11.5	U	11.5	U	11.5	U	11.5	U	11.5	U
POTASSIUM	3720		385	U	3610		4000		3800	
SELENIUM	1.6	U	1.6	U	1.6	U	1.6	U	1.6	U
SILVER	2.8	U	2.8	U	2.8	U	2.8	U	2.8	U
SODIUM	26500	J	53.7	J	26700	J	26500	J	26100	J
THALLIUM	2.9	U	2.9	U	2.9	U	2.9	U	2.9	U
VANADIUM	3.6	U	3.6	U	3.6	U	4.1		3.6	U
ZINC	2.2	U	8.6		2.2	U	2.2	U	2.2	U
CYANIDE	2.5	J	1.2	J	1.6	J	3.5	J	2.4	J

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Analytical Results (Qualified Data)

Case #: 30778 SDG : ME01C5
Site : ST. LOUIS SMELTING & REFINING
Lab. : DATAC
Reviewer :
Date :

Sample Number :	ME01E0		ME01E1		ME01E2		ME01C5D		ME01C5S	
Sampling Location :	S206B		S207		S206BD		S201A		S201A	
Matrix :	Water		Water		Water		Water		Water	
Units :	ug/L		ug/L		ug/L		ug/L		ug/L	
Date Sampled :	07/29/2002		07/28/2002		07/29/2002		07/29/2002		07/29/2002	
Time Sampled :	15:20		15:10		15:20		10:00		10:00	
%Solids :	0.0		0.0		0.0		0.0		0.0	
Dilution Factor :	1.0		1.0		1.0		1.0		1.0	
ANALYTE	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
ALUMINUM	105	J	40.0	U	40.0	U	40.0	U	2100	
ANTIMONY	28.7	U	28.7	U	28.7	U	28.7	U	552	
ARSENIC	2.0	U	2.7		2.0	U	3.4		43.3	
BARIUM	74.0	J	73.6	J	63.4	J	71.6	J	2100	J
BERYLLIUM	1.0	U	1.0	U	1.0	U	1.0	U	47.8	
CADMIUM	0.30	U	0.30	U	0.30	U	0.30	U	48.6	
CALCIUM	66900		64900		65700		65900			
CHROMIUM	2.6	U	2.6	U	2.6	U	2.6	U	201	
COBALT	5.1	U	5.1	U	5.1	U	5.1	U	501	
COPPER	7.3		4.7		3.1	U	4.0		252	
IRON	86.6	J	29.3	J	22.3	J	21.9	J	1050	
LEAD	30.3		30.5		1.5	U	12.9		32.9	
MAGNESIUM	28800		28000		28200		28200			
MANGANESE	274		265		13.2		283		782	
MERCURY	0.10	U	0.10	U	0.10	U	0.10	U	1.0	
NICKEL	11.5	U	11.5	U	11.5	U	11.5	U	487	
POTASSIUM	3790		3770		3670		3730			
SELENIUM	1.6	U	1.6	U	1.6	U	1.6	U	10.5	
SILVER	2.8	U	2.8	U	2.8	U	2.8	U	40.9	
SODIUM	27600	J	26900	J	27000	J	26900			
THALLIUM	2.9	U	2.9	U	2.9	U	2.9	U	51.7	
VANADIUM	5.6		3.6	U	4.4		3.6	U	496	
ZINC	2.8		2.2	U	2.2	U	2.2	U	496	
CYANIDE	2.6	J	2.2	J			1.8	J	97.8	

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U.S. EPA Contract Laboratory Program
Inorganic Traffic Report

Case No: 30778
DAS No:
SDG No: ME01C5

L

Date Shipped: 7/30/02 Carrier Name: UPS Airbill: 1Z6215892210020655 Shipped to: Datachem Laboratories, Inc. 960 West LeVoy Drive Salt Lake City UT 84123 (801) 266-7700	Date Received/Received by: 7/31/02 J. Pate Lab Contract No: 68-W-00-087 Unit Price: 139.00 Transfer To: Date Received/Received By: Lab Contract No: Price:	Sampler (Signature): Jerry E. Willman Relinquished By: Jerry E. Willman Relinquished By: UPS Relinquished By:	Date / Time: 7/30/02 1500 Date / Time: 7/31/02 1000 Date / Time:
		Received By: UPS Received By: R-33-1 Received By:	

INORGANIC SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No./ PRESERVATIVE	STATION LOCATION	SAMPLE COLLECT DATE/TIME	ORGANIC SAMPLE No.	FOR LAB USE ONLY Sample Condition On Receipt
ME01C5	Surface Water/ Jerry Willman	L/G	CN (21), TM (21)	5-66147 (HNO3), 5-66148 (HNO3), 5-66149 (HNO3), 5-66156 (NaOH), 5-66157 (NaOH), 5-66158 (NaOH) (6)	S201A	7/29/02 10:00	E01C5	
ME01C6	Surface Water/ Jerry Willman	L/G	CN (21), TM (21)	5-66159 (HNO3), 5-66162 (NaOH) (2)	S201B	7/29/02 10:30	E01C6	
ME01C7	Surface Water/ Jerry Willman	L/G	CN (21), TM (21)	5-66163 (HNO3), 5-66166 (NaOH) (2)	S201C	7/29/02 10:54	E01C7	
ME01C8	Surface Water/ Jerry Willman	L/G	CN (21), TM (21)	5-66167 (HNO3), 5-66170 (NaOH) (2)	S202A	7/29/02 11:35	E01C8	
ME01C9	Surface Water/ Jerry Willman	L/G	CN (21), TM (21)	5-66171 (HNO3), 5-66174 (NaOH) (2)	S202B	7/29/02 11:40	E01C9	
ME01D0	Surface Water/ Jerry Willman	L/G	CN (21), TM (21)	5-66175 (HNO3), 5-66178 (NaOH) (2)	S202C	7/29/02 12:00	E01D0	
ME01D1	Surface Water/ Jerry Willman	L/G	DM (21)	5-66179 (HNO3) (1)	S202CD	7/29/02 12:00		
ME01D2	Surface Water/ Jerry Willman	L/G	CN (21), TM (21)	5-66180 (HNO3), 5-66183 (NaOH) (2)	S203A	7/29/02 12:45	E01D2	
ME01D3	Surface Water/ Jerry Willman	L/G	CN (21), TM (21)	5-66184 (HNO3), 5-66187 (NaOH) (2)	S203B	7/29/02 12:55	E01D3	
ME01D4	Surface Water/ Jerry Willman	L/G	CN (21), TM (21)	5-66188 (HNO3), 5-66191 (NaOH) (2)	S204B	7/29/02 13:25	E01D4	
ME01D5	Surface Water/ Jerry Willman	L/G	CN (21), TM (21)	5-66192 (HNO3), 5-66195 (NaOH) (2)	S204A	7/29/02 13:15	E01D5	
ME01D6	Surface Water/ Jerry Willman	L/G	CN (21), TM (21)	5-66196 (HNO3), 5-66199 (NaOH) (2)	Field Blank	7/29/02 14:30	E01D6	
ME01D7	Surface Water/ Jerry Willman	L/G	CN (21), TM (21)	5-66200 (HNO3), 5-66203 (NaOH) (2)	S205A	7/29/02 14:15	E01D7	

Shipment for Case Complete? Y	Sample(s) to be used for laboratory QC: ME01C5	Additional Sampler Signature(s):	Cooler Temperature Upon Receipt: 4°/6°	Chain of Custody Seal Number: 22615, 81402, 81403
Analysis Key:	Concentration: L = Low, M = Low/Medium, H = High	Type/Designate: Composite = C, Grab = G		Custody Seal Intact? Y / Shipment Iced? Y

CN = Cyanide, DM = CLP TAL Dissolved Metals, TM = CLP TAL Total Metals

PR provides preliminary results. Requests for preliminary results will increase analytical costs.
Send Copy to: Contract Laboratory Analytical Services Support, 2000 Edmund Halley Dr., Reston, VA. 20191-3436 Phone 703/264-9348 Fax 703/264-9222

TR Number: 5-055166947-073002-0001

EPA Contract Laboratory Program
Inorganic Traffic Report

Case No: 30778
DAS No:
SDG No: ME01C5

L

Date Shipped: 7/30/02 Carrier Name: UPS Airbill: 1Z6215892210020655 Shipped to: Datachem Laboratories, Inc. 960 West LeVoy Drive Salt Lake City UT 84123 (801) 266-7700	Date Received/Received by: 7/31/02 J. Pate Lab Contract No: 68-W-00-087 Unit Price: 139.00 Transfer To: Date Received/Received By: Lab Contract No: Price:	Sampler (Signature): Gerald E Willman Relinquished By: Gerald E Willman Relinquished By: UPS Relinquished By:	Date / Time: 7/30/02 1500 Date / Time: 7/31/02 1000 Date / Time:
		Received By: UPS Received By: R-33-1 Received By:	

INORGANIC SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No./ PRESERVATIVE	STATION LOCATION	SAMPLE COLLECT DATE/TIME	ORGANIC SAMPLE No.	FOR LAB USE ONLY Sample Condition On Receipt
ME01D8	Surface Water/ Jerry Willman	L/G	CN (21), TM (21)	5-66204 (HNO3), 5-66207 (NaOH) (2)	S205B	7/29/02 14:20	E01D8	
ME01D9	Surface Water/ Jerry Willman	L/G	CN (21), TM (21)	5-66208 (HNO3), 5-66211 (NaOH) (2)	S206A	7/29/02 15:05	E01D9	
ME01E0	Surface Water/ Jerry Willman	L/G	CN (21), TM (21)	5-66212 (HNO3), 5-66215 (NaOH) (2)	S206B	7/29/02 15:20	E01E0	
ME01E1	Surface Water/ Jerry Willman	L/G	CN (21), TM (21)	5-66216 (HNO3), 5-66219 (NaOH) (2)	S207	7/28/02 15:10	E01E1	
ME01E2	Surface Water/ Jerry Willman	L/G	DM (21)	5-66220 (HNO3) (1)	S206BD	7/29/02 15:20		

Shipment for Case Complete? Y	Sample(s) to be used for laboratory QC: ME01C5	Additional Sampler Signature(s):	Cooler Temperature Upon Receipt: 40/60	Chain of Custody Seal Number: 22615, 81403 81403
Analysis Key: CN = Cyanide, DM = CLP TAL Dissolved Metals, TM = CLP TAL Total Metals	Concentration: L = Low, M = Low/Medium, H = High	Type/Designate: Composite = C, Grab = G		Custody Seal Intact? Y / Shipment Iced? Y

PR provides preliminary results. Requests for preliminary resuls will increase analytical costs.
Send Copy to: Contract Laboratory Analytical Services Support, 2000 Edmund Halley Dr., Reston, VA. 20191-3436 Phone 703/264-9348 Fax 703/264-9222

TR Number: 5-055166947-073002-0001

AUG 2 1 2002

DATA CHEM
LABORATORIES INC.
A SORENSON COMPANY

CASE NARRATIVE

Case #: 30778
SDG#: ME01C5
DCL Set ID#: 02C-0174
August 20, 2002

General Information

The samples in this SDG were analyzed by methodologies contained in ILM04.1 under contract 68-W0-0087. All concentration, analytical, and method qualifiers are defined in the SOW.

Holding Times

All samples were prepared and analyzed within method-required holding times.

Initial and Continuing Calibration

All initial and continuing calibration verification and blank analyses were performed within the designated frequency and recoveries of the verifications and concentrations of the blanks met method acceptance criteria.

Preparation Blanks

The absolute value of all analyte concentrations in the preparation blank were lower than the Contract Required Detection Limit.

ICP Interference Check Sample Analysis

Results for the interference check samples met method acceptance criteria.

Matrix Spike Analysis

All matrix spike recoveries were within the limits of 75-125%.

Matrix Duplicate Analysis

All matrix duplicate results met method criteria.

Laboratory Control Sample Analysis

Results for the analysis of the water LCS were within the limits of 80 - 120%.

ICP Serial Dilution

All ICP Serial Dilution results met method acceptance criteria.

Miscellaneous Comments

Cooler temperature indicator bottles were present upon receipt. Cooler C02-0636, C02-0637 and C02-0638 had temperatures of 4, 4 and 6 degrees Celsius, respectively.

Lisa Reid

CINCINNATI LABORATORY
4388 Glendale-Milford Road
Cincinnati, Ohio 45242-3706
513-733-5336, Fax 513-733-5347

CORPORATE OFFICE
SALT LAKE CITY LABORATORY
960 West LeVoy Drive
Salt Lake City, Utah 84123-2547
801-266-7700, Fax 801-265-9992
www.datachem.com

NOVATO OFFICE
11 Santa Teresa Court
Novato, California 94945-1123
415-897-9471, Fax 415-893-9469

AUG 2 1 2002

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: DATACHEM LABORATORIES Contract: 68-W0-0087

Lab Code: DATAC Case No.: 30778 SAS No.: SDG No.: ME01C5

SOW No.: ILM04.1

Sample No.	Lab Sample ID.
ME01C5	02C01591
ME01C5D	02C01591
ME01C5S	02C01591
ME01C6	02C01592
ME01C7	02C01593
ME01C8	02C01594
ME01C9	02C01595
ME01D0	02C01596
ME01D1	02C01597
ME01D2	02C01598
ME01D3	02C01599
ME01D4	02C01600
ME01D5	02C01601
ME01D6	02C01602
ME01D7	02C01603
ME01D8	02C01604
ME01D9	02C01605
ME01E0	02C01606
ME01E1	02C01607
ME01E2	02C01608

Were ICP interelement corrections applied? Yes/No YES

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

Comments:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Name: Lisa Reed

Date: 08-20-02 Title: Chemist

ENVIROFORMS/INORGANIC CLP

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

ME01C5

Lab Name: DATACHEM LABORATORIES Contract: 68-W0-0087

Lab Code: DATAC Case No.: 30778 SAS No.: SDG No.: ME01C5

Matrix (soil/water): WATER Lab Sample ID: 02C01591

Level (low/med): LOW Date Received: 07/31/02

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	44.4	U		PM
7440-36-0	Antimony	31.9	U		PM
7440-38-2	Arsenic	2.5	B		PM
7440-39-3	Barium	71.1	B		PM
7440-41-7	Beryllium	1.1	U		PM
7440-43-9	Cadmium	0.33	U		PM
7440-70-2	Calcium	65600			PM
7440-47-3	Chromium	2.9	U		PM
7440-48-4	Cobalt	5.7	U		PM
7440-50-8	Copper	6.0	B		PM
7439-89-6	Iron	15.8	U		PM
7439-92-1	Lead	14.4			PM
7439-95-4	Magnesium	28100			PM
7439-96-5	Manganese	281			PM
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	12.8	U		PM
7440-09-7	Potassium	3730	B		PM
7782-49-2	Selenium	1.8	U		PM
7440-22-4	Silver	3.1	U	N	PM
7440-23-5	Sodium	26800			PM
7440-28-0	Thallium	3.2	U		PM
7440-62-2	Vanadium	4.0	U		PM
7440-66-6	Zinc	2.4	U		PM
	Cyanide	1.7	B		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

FORM I - IN

ENVIROFORMS/INORGANIC CLP

SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

ME01C6

Lab Name: DATACHEM LABORATORIES Contract: 68-W0-0087

Lab Code: DATAC Case No.: 30778 SAS No.: SDG No.: ME01C5

Matrix (soil/water): WATER Lab Sample ID: 02C01592

Level (low/med): LOW Date Received: 07/31/02

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	77.7	B		PM
7440-36-0	Antimony	31.9	U		PM
7440-38-2	Arsenic	3.5	B		PM
7440-39-3	Barium	76.3	B		PM
7440-41-7	Beryllium	1.1	U		PM
7440-43-9	Cadmium	0.33	U		PM
7440-70-2	Calcium	66200			PM
7440-47-3	Chromium	2.9	U		PM
7440-48-4	Cobalt	5.7	U		PM
7440-50-8	Copper	6.7	B		PM
7439-89-6	Iron	68.2	B		PM
7439-92-1	Lead	12.7			PM
7439-95-4	Magnesium	28300			PM
7439-96-5	Manganese	522			PM
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	12.8	U		PM
7440-09-7	Potassium	4030	B		PM
7782-49-2	Selenium	1.8	U		PM
7440-22-4	Silver	3.1	U	N	PM
7440-23-5	Sodium	26800			PM
7440-28-0	Thallium	3.2	U		PM
7440-62-2	Vanadium	4.0	U		PM
7440-66-6	Zinc	2.4	U		PM
	Cyanide	2.0	B		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

ENVIROFORMS/INORGANIC CLP

SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

ME01C7

Lab Name: DATACHEM LABORATORIES Contract: 68-W0-0087

Lab Code: DATAC Case No.: 30778 SAS No.: SDG No.: ME01C5

Matrix (soil/water): WATER Lab Sample ID: 02C01593

Level (low/med): LOW Date Received: 07/31/02

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	55.4	B		PM
7440-36-0	Antimony	31.9	U		PM
7440-38-2	Arsenic	2.6	B		PM
7440-39-3	Barium	171	B		PM
7440-41-7	Beryllium	1.1	U		PM
7440-43-9	Cadmium	0.33	U		PM
7440-70-2	Calcium	69700			PM
7440-47-3	Chromium	2.9	U		PM
7440-48-4	Cobalt	5.7	U		PM
7440-50-8	Copper	8.7	B		PM
7439-89-6	Iron	67.2	B		PM
7439-92-1	Lead	16.0			PM
7439-95-4	Magnesium	29100			PM
7439-96-5	Manganese	5840			PM
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	12.8	U		PM
7440-09-7	Potassium	4070	B		PM
7782-49-2	Selenium	1.8	U		PM
7440-22-4	Silver	3.1	U	N	PM
7440-23-5	Sodium	27800			PM
7440-28-0	Thallium	3.2	U		PM
7440-62-2	Vanadium	4.0	U		PM
7440-66-6	Zinc	2.4	U		PM
	Cyanide	1.4	B		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

ENVIROFORMS/INORGANIC CLP

SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

ME01C8

Lab Name: DATACHEM LABORATORIES Contract: 68-W0-0087

Lab Code: DATAC Case No.: 30778 SAS No.: SDG No.: ME01C5

Matrix (soil/water): WATER Lab Sample ID: 02C01594

Level (low/med): LOW Date Received: 07/31/02

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	44.4	U		PM
7440-36-0	Antimony	31.9	U		PM
7440-38-2	Arsenic	2.2	U		PM
7440-39-3	Barium	71.6	B		PM
7440-41-7	Beryllium	1.1	U		PM
7440-43-9	Cadmium	0.33	U		PM
7440-70-2	Calcium	65800			PM
7440-47-3	Chromium	2.9	U		PM
7440-48-4	Cobalt	5.7	U		PM
7440-50-8	Copper	3.4	U		PM
7439-89-6	Iron	38.9	B		PM
7439-92-1	Lead	10.4			PM
7439-95-4	Magnesium	28200			PM
7439-96-5	Manganese	250			PM
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	12.8	U		PM
7440-09-7	Potassium	3960	B		PM
7782-49-2	Selenium	1.8	U		PM
7440-22-4	Silver	3.1	U	N	PM
7440-23-5	Sodium	27100			PM
7440-28-0	Thallium	3.2	U		PM
7440-62-2	Vanadium	4.0	U		PM
7440-66-6	Zinc	9.4	B		PM
	Cyanide	2.0	B		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

ENVIROFORMS/INORGANIC CLP

SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

ME01C9

Lab Name: DATACHEM LABORATORIES Contract: 68-W0-0087

Lab Code: DATAC Case No.: 30778 SAS No.: SDG No.: ME01C5

Matrix (soil/water): WATER Lab Sample ID: 02C01595

Level (low/med): LOW Date Received: 07/31/02

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	88.7	B		PM
7440-36-0	Antimony	32.2	B		PM
7440-38-2	Arsenic	3.4	B		PM
7440-39-3	Barium	73.5	B		PM
7440-41-7	Beryllium	1.1	U		PM
7440-43-9	Cadmium	0.33	U		PM
7440-70-2	Calcium	65900			PM
7440-47-3	Chromium	2.9	U		PM
7440-48-4	Cobalt	5.7	U		PM
7440-50-8	Copper	6.0	B		PM
7439-89-6	Iron	44.2	B		PM
7439-92-1	Lead	12.3			PM
7439-95-4	Magnesium	28300			PM
7439-96-5	Manganese	275			PM
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	12.8	U		PM
7440-09-7	Potassium	3880	B		PM
7782-49-2	Selenium	1.8	U		PM
7440-22-4	Silver	3.1	U	N	PM
7440-23-5	Sodium	27000			PM
7440-28-0	Thallium	3.2	U		PM
7440-62-2	Vanadium	5.6	B		PM
7440-66-6	Zinc	2.4	U		PM
	Cyanide	1.6	B		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

FORM I - IN

ENVIROFORMS/INORGANIC CLP

SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

ME01D0

Lab Name: DATACHEM LABORATORIES Contract: 68-W0-0087

Lab Code: DATAC Case No.: 30778 SAS No.: SDG No.: ME01C5

Matrix (soil/water): WATER Lab Sample ID: 02C01596

Level (low/med): LOW Date Received: 07/31/02

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	58.5	B		PM
7440-36-0	Antimony	31.9	U		PM
7440-38-2	Arsenic	2.2	U		PM
7440-39-3	Barium	74.9	B		PM
7440-41-7	Beryllium	1.1	U		PM
7440-43-9	Cadmium	0.33	U		PM
7440-70-2	Calcium	66300			PM
7440-47-3	Chromium	2.9	U		PM
7440-48-4	Cobalt	5.7	U		PM
7440-50-8	Copper	7.3	B		PM
7439-89-6	Iron	76.4	B		PM
7439-92-1	Lead	14.4			PM
7439-95-4	Magnesium	28400			PM
7439-96-5	Manganese	434			PM
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	12.8	U		PM
7440-09-7	Potassium	3710	B		PM
7782-49-2	Selenium	1.8	U		PM
7440-22-4	Silver	3.1	U	N	PM
7440-23-5	Sodium	27200			PM
7440-28-0	Thallium	3.2	U		PM
7440-62-2	Vanadium	4.0	U		PM
7440-66-6	Zinc	6.4	B		PM
	Cyanide	2.2	B		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

ENVIROFORMS/INORGANIC CLP

SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

ME01D1

Lab Name: DATACHEM LABORATORIES Contract: 68-W0-0087

Lab Code: DATAC Case No.: 30778 SAS No.: SDG No.: ME01C5

Matrix (soil/water): WATER Lab Sample ID: 02C01597

Level (low/med): LOW Date Received: 07/31/02

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	44.4	U		PM
7440-36-0	Antimony	31.9	U		PM
7440-38-2	Arsenic	3.4	B		PM
7440-39-3	Barium	63.9	B		PM
7440-41-7	Beryllium	1.1	U		PM
7440-43-9	Cadmium	0.33	U		PM
7440-70-2	Calcium	63600			PM
7440-47-3	Chromium	2.9	U		PM
7440-48-4	Cobalt	5.7	U		PM
7440-50-8	Copper	3.4	U		PM
7439-89-6	Iron	15.8	U		PM
7439-92-1	Lead	1.7	U		PM
7439-95-4	Magnesium	27300			PM
7439-96-5	Manganese	62.5			PM
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	12.8	U		PM
7440-09-7	Potassium	3750	B		PM
7782-49-2	Selenium	1.8	U		PM
7440-22-4	Silver	3.1	U	N	PM
7440-23-5	Sodium	26100			PM
7440-28-0	Thallium	3.2	U		PM
7440-62-2	Vanadium	4.0	U		PM
7440-66-6	Zinc	2.4	U		PM
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

ENVIROFORMS/INORGANIC CLP

SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

ME01D2

ab Name: DATACHEM LABORATORIES Contract: 68-W0-0087

Lab Code: DATAC Case No.: 30778 SAS No.: SDG No.: ME01C5

Matrix (soil/water): WATER Lab Sample ID: 02C01598

Level (low/med): LOW Date Received: 07/31/02

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	44.4	U		PM
7440-36-0	Antimony	31.9	U		PM
7440-38-2	Arsenic	2.2	U		PM
7440-39-3	Barium	71.4	B		PM
7440-41-7	Beryllium	1.1	U		PM
7440-43-9	Cadmium	0.33	U		PM
7440-70-2	Calcium	65600			PM
7440-47-3	Chromium	2.9	U		PM
7440-48-4	Cobalt	5.7	U		PM
7440-50-8	Copper	3.4	U		PM
7439-89-6	Iron	162			PM
7439-92-1	Lead	9.3			PM
7439-95-4	Magnesium	28100			PM
7439-96-5	Manganese	263			PM
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	12.8	U		PM
7440-09-7	Potassium	4000	B		PM
7782-49-2	Selenium	2.0	B		PM
7440-22-4	Silver	3.1	U	N	PM
7440-23-5	Sodium	26900			PM
7440-28-0	Thallium	3.2	U		PM
7440-62-2	Vanadium	4.1	B		PM
7440-66-6	Zinc	2.4	U		PM
	Cyanide	2.3	B		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

ENVIROFORMS/INORGANIC CLP

SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

ME01D3

ab Name: DATACHEM LABORATORIES Contract: 68-W0-0087

Lab Code: DATAC Case No.: 30778 SAS No.: SDG No.: ME01C5

Matrix (soil/water): WATER Lab Sample ID: 02C01599

Level (low/med): LOW Date Received: 07/31/02

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	70.0	B		PM
7440-36-0	Antimony	33.7	B		PM
7440-38-2	Arsenic	4.0	B		PM
7440-39-3	Barium	71.1	B		PM
7440-41-7	Beryllium	1.1	U		PM
7440-43-9	Cadmium	0.33	U		PM
7440-70-2	Calcium	64400			PM
7440-47-3	Chromium	2.9	U		PM
7440-48-4	Cobalt	5.7	U		PM
7440-50-8	Copper	6.7	B		PM
7439-89-6	Iron	56.9	B		PM
7439-92-1	Lead	13.1			PM
7439-95-4	Magnesium	27600			PM
7439-96-5	Manganese	311			PM
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	16.5	B		PM
7440-09-7	Potassium	3570	B		PM
7782-49-2	Selenium	1.8	U		PM
7440-22-4	Silver	3.1	U	N	PM
7440-23-5	Sodium	26300			PM
7440-28-0	Thallium	3.2	U		PM
7440-62-2	Vanadium	4.1	B		PM
7440-66-6	Zinc	7.7	B		PM
	Cyanide	2.0	B		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

ENVIROFORMS/INORGANIC CLP

1

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

ME01D4

Lab Name: DATACHEM LABORATORIES Contract: 68-W0-0087

Lab Code: DATAC Case No.: 30778 SAS No.: SDG No.: ME01C5

Matrix (soil/water): WATER Lab Sample ID: 02C01600

Level (low/med): LOW Date Received: 07/31/02

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	49.8	B		PM
7440-36-0	Antimony	34.2	B		PM
7440-38-2	Arsenic	2.2	U		PM
7440-39-3	Barium	70.2	B		PM
7440-41-7	Beryllium	1.1	U		PM
7440-43-9	Cadmium	0.33	U		PM
7440-70-2	Calcium	64600			PM
7440-47-3	Chromium	2.9	U		PM
7440-48-4	Cobalt	5.7	U		PM
7440-50-8	Copper	8.0	B		PM
7439-89-6	Iron	116			PM
7439-92-1	Lead	11.0			PM
7439-95-4	Magnesium	27700			PM
7439-96-5	Manganese	273			PM
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	12.8	U		PM
7440-09-7	Potassium	3760	B		PM
7782-49-2	Selenium	1.8	U		PM
7440-22-4	Silver	3.1	U	N	PM
7440-23-5	Sodium	26500			PM
7440-28-0	Thallium	3.2	U		PM
7440-62-2	Vanadium	5.2	B		PM
7440-66-6	Zinc	2.4	U		PM
	Cyanide	1.8	B		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

ENVIROFORMS/INORGANIC CLP

SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

ME01D5

ab Name: DATACHEM LABORATORIES Contract: 68-W0-0087

Lab Code: DATAC Case No.: 30778 SAS No.: SDG No.: ME01C5

Matrix (soil/water): WATER Lab Sample ID: 02C01601

Level (low/med): LOW Date Received: 07/31/02

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	44.4	U		PM
7440-36-0	Antimony	31.9	U		PM
7440-38-2	Arsenic	2.2	U		PM
7440-39-3	Barium	70.2	B		PM
7440-41-7	Beryllium	1.1	U		PM
7440-43-9	Cadmium	0.33	U		PM
7440-70-2	Calcium	65000			PM
7440-47-3	Chromium	2.9	U		PM
7440-48-4	Cobalt	5.7	U		PM
7440-50-8	Copper	5.3	B		PM
7439-89-6	Iron	47.0	B		PM
7439-92-1	Lead	9.2			PM
7439-95-4	Magnesium	27900			PM
7439-96-5	Manganese	262			PM
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	12.8	U		PM
7440-09-7	Potassium	3720	B		PM
7782-49-2	Selenium	1.8	U		PM
7440-22-4	Silver	3.1	U	N	PM
7440-23-5	Sodium	26500			PM
7440-28-0	Thallium	3.2	U		PM
7440-62-2	Vanadium	4.0	U		PM
7440-66-6	Zinc	2.4	U		PM
	Cyanide	2.5	B		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

FORM I - IN

ENVIROFORMS/INORGANIC CLP

SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

ME01D6

ab Name: DATACHEM LABORATORIES Contract: 68-W0-0087

Lab Code: DATAC Case No.: 30778 SAS No.: SDG No.: ME01C5

Matrix (soil/water): WATER Lab Sample ID: 02C01602

Level (low/med): LOW Date Received: 07/31/02

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	44.4	U		PM
7440-36-0	Antimony	31.9	U		PM
7440-38-2	Arsenic	2.2	U		PM
7440-39-3	Barium	1.1	U		PM
7440-41-7	Beryllium	1.1	U		PM
7440-43-9	Cadmium	0.33	U		PM
7440-70-2	Calcium	26.2	U		PM
7440-47-3	Chromium	3.8	B		PM
7440-48-4	Cobalt	5.7	U		PM
7440-50-8	Copper	3.4	U		PM
7439-89-6	Iron	15.8	U		PM
7439-92-1	Lead	1.7	U		PM
7439-95-4	Magnesium	36.0	U		PM
7439-96-5	Manganese	1.2	U		PM
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	12.8	U		PM
7440-09-7	Potassium	427	U		PM
7782-49-2	Selenium	1.8	U		PM
7440-22-4	Silver	3.1	U	N	PM
7440-23-5	Sodium	53.7	B		PM
7440-28-0	Thallium	3.2	U		PM
7440-62-2	Vanadium	4.0	U		PM
7440-66-6	Zinc	8.6	B		PM
	Cyanide	1.2	B		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

ENVIROFORMS/INORGANIC CLP

SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

ME01D7

Lab Name: DATACHEM LABORATORIES Contract: 68-W0-0087

Lab Code: DATAC Case No.: 30778 SAS No.: SDG No.: ME01C5

Matrix (soil/water): WATER Lab Sample ID: 02C01603

Level (low/med): LOW Date Received: 07/31/02

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	44.4	U		PM
7440-36-0	Antimony	31.9	U		PM
7440-38-2	Arsenic	3.2	B		PM
7440-39-3	Barium	69.7	B		PM
7440-41-7	Beryllium	1.1	U		PM
7440-43-9	Cadmium	0.33	U		PM
7440-70-2	Calcium	64600			PM
7440-47-3	Chromium	2.9	U		PM
7440-48-4	Cobalt	5.7	U		PM
7440-50-8	Copper	3.4	U		PM
7439-89-6	Iron	42.1	B		PM
7439-92-1	Lead	13.5			PM
7439-95-4	Magnesium	27800			PM
7439-96-5	Manganese	260			PM
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	12.8	U		PM
7440-09-7	Potassium	3610	B		PM
7782-49-2	Selenium	1.8	U		PM
7440-22-4	Silver	3.1	U	N	PM
7440-23-5	Sodium	26700			PM
7440-28-0	Thallium	3.2	U		PM
7440-62-2	Vanadium	4.0	U		PM
7440-66-6	Zinc	2.4	U		PM
	Cyanide	1.6	B		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

ENVIROFORMS/INORGANIC CLP

SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

ME01D8

ab Name: DATACHEM LABORATORIES Contract: 68-W0-0087

Lab Code: DATAC Case No.: 30778 SAS No.: SDG No.: ME01C5

Matrix (soil/water): WATER Lab Sample ID: 02C01604

Level (low/med): LOW Date Received: 07/31/02

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	44.4	U		PM
7440-36-0	Antimony	31.9	U		PM
7440-38-2	Arsenic	2.2	B		PM
7440-39-3	Barium	69.1	B		PM
7440-41-7	Beryllium	1.1	U		PM
7440-43-9	Cadmium	0.33	U		PM
7440-70-2	Calcium	64200			PM
7440-47-3	Chromium	2.9	U		PM
7440-48-4	Cobalt	5.7	U		PM
7440-50-8	Copper	8.0	B		PM
7439-89-6	Iron	147			PM
7439-92-1	Lead	18.8			PM
7439-95-4	Magnesium	27600			PM
7439-96-5	Manganese	278			PM
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	12.8	U		PM
7440-09-7	Potassium	4000	B		PM
7782-49-2	Selenium	1.8	U		PM
7440-22-4	Silver	3.1	U	N	PM
7440-23-5	Sodium	26500			PM
7440-28-0	Thallium	3.2	U		PM
7440-62-2	Vanadium	4.1	B		PM
7440-66-6	Zinc	2.4	U		PM
	Cyanide	3.5	B		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

ENVIROFORMS/INORGANIC CLP

SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

ME01D9

ab Name: DATACHEM LABORATORIES Contract: 68-W0-0087

Lab Code: DATAC Case No.: 30778 SAS No.: SDG No.: ME01C5

Matrix (soil/water): WATER Lab Sample ID: 02C01605

Level (low/med): LOW Date Received: 07/31/02

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	65.3	B		PM
7440-36-0	Antimony	31.9	U		PM
7440-38-2	Arsenic	2.7	B		PM
7440-39-3	Barium	72.4	B		PM
7440-41-7	Beryllium	1.1	U		PM
7440-43-9	Cadmium	0.33	U		PM
7440-70-2	Calcium	63300			PM
7440-47-3	Chromium	2.9	U		PM
7440-48-4	Cobalt	5.7	U		PM
7440-50-8	Copper	6.0	B		PM
7439-89-6	Iron	65.1	B		PM
7439-92-1	Lead	27.2			PM
7439-95-4	Magnesium	27200			PM
7439-96-5	Manganese	259			PM
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	12.8	U		PM
7440-09-7	Potassium	3800	B		PM
7782-49-2	Selenium	1.8	U		PM
7440-22-4	Silver	3.1	U	N	PM
7440-23-5	Sodium	26100			PM
7440-28-0	Thallium	3.2	U		PM
7440-62-2	Vanadium	4.0	U		PM
7440-66-6	Zinc	2.4	U		PM
	Cyanide	2.4	B		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

ENVIROFORMS/INORGANIC CLP

SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

ME01E0

ab Name: DATACHEM LABORATORIES Contract: 68-W0-0087

Lab Code: DATAC Case No.: 30778 SAS No.: SDG No.: ME01C5

Matrix (soil/water): WATER Lab Sample ID: 02C01606

Level (low/med): LOW Date Received: 07/31/02

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	105	B		PM
7440-36-0	Antimony	31.9	U		PM
7440-38-2	Arsenic	2.2	U		PM
7440-39-3	Barium	74.0	B		PM
7440-41-7	Beryllium	1.1	U		PM
7440-43-9	Cadmium	0.33	U		PM
7440-70-2	Calcium	66900			PM
7440-47-3	Chromium	2.9	U		PM
7440-48-4	Cobalt	5.7	U		PM
7440-50-8	Copper	7.3	B		PM
7439-89-6	Iron	86.6	B		PM
7439-92-1	Lead	30.3			PM
7439-95-4	Magnesium	28800			PM
7439-96-5	Manganese	274			PM
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	12.8	U		PM
7440-09-7	Potassium	3790	B		PM
7782-49-2	Selenium	1.8	U		PM
7440-22-4	Silver	3.1	U	N	PM
7440-23-5	Sodium	27600			PM
7440-28-0	Thallium	3.2	U		PM
7440-62-2	Vanadium	5.6	B		PM
7440-66-6	Zinc	2.8	B		PM
	Cyanide	2.6	B		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

ENVIROFORMS/INORGANIC CLP

SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

ME01E1

ab Name: DATACHEM LABORATORIES Contract: 68-W0-0087

Lab Code: DATAC Case No.: 30778 SAS No.: SDG No.: ME01C5

Matrix (soil/water): WATER Lab Sample ID: 02C01607

Level (low/med): LOW Date Received: 07/31/02

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	44.4	U		PM
7440-36-0	Antimony	31.9	U		PM
7440-38-2	Arsenic	2.7	B		PM
7440-39-3	Barium	73.6	B		PM
7440-41-7	Beryllium	1.1	U		PM
7440-43-9	Cadmium	0.33	U		PM
7440-70-2	Calcium	64900			PM
7440-47-3	Chromium	2.9	U		PM
7440-48-4	Cobalt	5.7	U		PM
7440-50-8	Copper	4.7	B		PM
7439-89-6	Iron	29.3	B		PM
7439-92-1	Lead	30.5			PM
7439-95-4	Magnesium	28000			PM
7439-96-5	Manganese	265			PM
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	12.8	U		PM
7440-09-7	Potassium	3770	B		PM
7782-49-2	Selenium	1.8	U		PM
7440-22-4	Silver	3.1	U	N	PM
7440-23-5	Sodium	26900			PM
7440-28-0	Thallium	3.2	U		PM
7440-62-2	Vanadium	4.0	U		PM
7440-66-6	Zinc	2.4	U		PM
	Cyanide	2.2	B		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

ENVIROFORMS/INORGANIC CLP

SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

ME01E2

ab Name: DATACHEM LABORATORIES Contract: 68-W0-0087

Lab Code: DATAC Case No.: 30778 SAS No.: SDG No.: ME01C5

Matrix (soil/water): WATER Lab Sample ID: 02C01608

Level (low/med): LOW Date Received: 07/31/02

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	44.4	U		PM
7440-36-0	Antimony	31.9	U		PM
7440-38-2	Arsenic	2.2	U		PM
7440-39-3	Barium	63.4	B		PM
7440-41-7	Beryllium	1.1	U		PM
7440-43-9	Cadmium	0.33	U		PM
7440-70-2	Calcium	65700			PM
7440-47-3	Chromium	2.9	U		PM
7440-48-4	Cobalt	5.7	U		PM
7440-50-8	Copper	3.4	U		PM
7439-89-6	Iron	22.3	B		PM
7439-92-1	Lead	1.7	U		PM
7439-95-4	Magnesium	28200			PM
7439-96-5	Manganese	13.2	B		PM
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	12.8	U		PM
7440-09-7	Potassium	3670	B		PM
7782-49-2	Selenium	1.8	U		PM
7440-22-4	Silver	3.1	U	N	PM
7440-23-5	Sodium	27000			PM
7440-28-0	Thallium	3.2	U		PM
7440-62-2	Vanadium	4.4	B		PM
7440-66-6	Zinc	2.4	U		PM
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

3
BLANKS

Lab Name: DATACHEM LABORATORIES Contract: 68-W0-0087

Lab Code: DATAC Case No.: 30778 SAS No.: SDG No.: ME01C5

Preparation Blank Matrix (soil/water): WATER

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

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum	40.0	U	40.0	U	40.0	U	40.0	U	44.444	U	PM
Antimony	28.7	U	28.7	U	28.7	U	28.7	U	31.889	U	PM
Arsenic	2.0	U	2.0	U	2.0	U	2.0	U	2.222	U	PM
Barium	1.0	U	1.0	U	1.0	U	1.0	U	1.111	U	PM
Beryllium	1.0	U	1.0	U	1.0	U	1.0	U	-1.340	B	PM
Cadmium	0.3	U	0.3	U	0.4	B	0.3	U	0.333	U	PM
Calcium	23.6	U	29.1	B	40.0	B	70.3	B	26.222	U	PM
Chromium	2.6	U	2.6	U	2.6	U	2.6	U	2.889	U	PM
Cobalt	5.1	U	5.1	U	5.1	U	5.1	U	5.667	U	PM
Copper	3.1	U	3.1	U	3.1	U	3.1	U	3.444	U	PM
Iron	14.2	U	14.2	U	14.3	B	29.3	B	15.778	U	PM
Lead	1.5	U	1.5	U	1.5	U	1.5	U	1.667	U	PM
Magnesium	32.4	U	32.4	U	32.6	B	63.4	B	36.000	U	PM
Manganese	1.1	U	1.1	U	1.1	U	1.1	U	1.222	U	PM
Mercury	0.1	U	0.1	U	0.1	U	0.1	U	0.100	U	CV
Nickel	11.5	U	11.5	U	11.5	U	11.5	U	12.778	U	PM
Potassium	384.7	U	384.7	U	384.7	U	384.7	U	427.444	U	PM
Selenium	1.6	U	1.6	U	1.6	U	1.6	U	1.778	U	PM
Silver	2.8	U	2.8	U	2.8	U	2.8	U	3.111	U	PM
Sodium	31.7	B	17.7	U	17.7	U	17.7	U	124.090	B	PM
Thallium	2.9	U	2.9	U	2.9	U	2.9	U	3.222	U	PM
Vanadium	3.6	U	3.6	U	3.6	U	3.6	U	4.000	U	PM
Zinc	2.2	U	2.2	U	2.2	U	2.2	U	2.444	U	PM
Cyanide	1.6	B	1.7	B	2.4	B	2.7	B	1.354	B	CA

3
BLANKS

Lab Name: DATACHEM LABORATORIES Contract: 68-W0-0087

Lab Code: DATAC Case No.: 30778 SAS No.: SDG No.: ME01C5

Preparation Blank Matrix (soil/water): WATER

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

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum			43.9	B	55.9	B					PM
Antimony			28.7	U	28.7	U					PM
Arsenic			2.0	U	2.0	U					PM
Barium			1.0	U	1.0	U					PM
Beryllium			1.0	U	1.0	U					PM
Cadmium			0.3	U	0.3	U					PM
Calcium			68.3	B	88.8	B					PM
Chromium			2.6	U	2.6	U					PM
Cobalt			5.1	U	5.1	U					PM
Copper			3.1	U	3.1	U					PM
Iron			31.5	B	41.0	B					PM
Lead			1.5	U	1.5	U					PM
Magnesium			81.2	B	99.0	B					PM
Manganese			1.1	U	1.1	U					PM
Mercury			0.1	U							CV
Nickel			11.5	U	11.5	U					PM
Potassium			384.7	U	384.7	U					PM
Selenium			1.6	U	1.6	U					PM
Silver			2.8	U	2.8	U					PM
Sodium			17.7	U	17.7	U					PM
Thallium			2.9	U	2.9	U					PM
Vanadium			3.6	U	3.6	U					PM
Zinc			2.2	U	2.2	U					PM
Cyanide			3.2	B							CA

ENVIROFORMS/INORGANIC CLP

4

ICP INTERFERENCE CHECK SAMPLE

Lab Name: DATACHEM LABORATORIES Contract: 68-W0-0087

Lab Code: DATAC Case No.: 30778 SAS No.: SDG No.: ME01C5

ICP ID Number: ICP-T ICS Source: ICF KAISER

Concentration Units: ug/L

Analyte	True Sol. A	True Sol. AB	Initial Found Sol. A	Initial Found Sol. AB	Initial Found %R	Final Found Sol. A	Final Found Sol. AB	Final Found %R
Aluminum								
Antimony								
Arsenic	0	102	-2	92.2	90.4	-1	85.9	84.2
Barium								
Beryllium								
Cadmium	0	910	2	813.2	89.4	1	777.9	85.5
Calcium								
Chromium								
Cobalt								
Copper								
Iron								
Lead	0	49	1	40.4	82.4	0	41.1	83.9
Magnesium								
Manganese								
Mercury								
Nickel								
Potassium								
Selenium	0	47	-2	41.6	88.5	0	44.6	94.9
Silver								
Sodium								
Thallium	0	89	3	95.5	107.3	2	98.1	110.2
Vanadium								
Zinc								

ENVIROFORMS/INORGANIC CLP

5A
SPIKE SAMPLE RECOVERY

SAMPLE NO.

ME01C5S

Lab Name: DATACHEM LABORATORIES Contract: 68-W0-0087

Lab Code: DATAC Case No.: 30778 SAS No.: SDG No.: ME01C5

Matrix (soil/water): WATER Level (low/med): LOW
% Solids for Sample: 0.0

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

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum	75-125	2104.4490		44.4444	U	2000.00	105.2		PM
Antimony	75-125	552.3489		31.8889	U	500.00	110.5		PM
Arsenic	75-125	43.3011		2.5291	B	40.00	101.9		PM
Barium	75-125	2100.5627		71.1202	B	2000.00	101.5		PM
Beryllium	75-125	47.8239		1.1111	U	50.00	95.6		PM
Cadmium	75-125	48.5649		0.3333	U	50.00	97.1		PM
Calcium									NR
Chromium	75-125	200.5268		2.8889	U	200.00	100.3		PM
Cobalt	75-125	500.6144		5.6667	U	500.00	100.1		PM
Copper	75-125	252.3020		5.9889	B	250.00	98.5		PM
Iron	75-125	1045.5096		15.7778	U	1000.00	104.6		PM
Lead	75-125	32.9411		14.3680		20.00	92.9		PM
Magnesium									NR
Manganese	75-125	782.2108		281.4570		500.00	100.2		PM
Mercury	75-125	1.0424		0.1000	U	1.00	104.2		CV
Nickel	75-125	486.8591		12.7778	U	500.00	97.4		PM
Potassium									NR
Selenium	75-125	10.4809		1.7778	U	10.00	104.8		PM
Silver	75-125	40.8816		3.1111	U	50.00	81.8		PM
Sodium									NR
Thallium	75-125	51.6687		3.2222	U	50.00	103.3		PM
Vanadium	75-125	496.3960		4.0000	U	500.00	99.3		PM
Zinc	75-125	495.7106		2.4444	U	500.00	99.1		PM
Cyanide	75-125	97.8200		1.6930	B	100.00	96.1		CA

Comments:

ENVIROFORMS/INORGANIC CLP

6
DUPLICATES

SAMPLE NO.

ME01C5D

Lab Name: DATACHEM LABORATORIES Contract: 68-W0-0087

Lab Code: DATAC Case No.: 30778 SAS No.: SDG No.: ME01C5

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

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

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

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		44.4444	U	44.4444	U			PM
Antimony		31.8889	U	31.8889	U			PM
Arsenic		2.5291	B	3.3812	B	28.8		PM
Barium		71.1202	B	71.5922	B	0.7		PM
Beryllium		1.1111	U	1.1111	U			PM
Cadmium		0.3333	U	0.3333	U			PM
Calcium		65596.7600		65886.7010		0.4		PM
Chromium		2.8889	U	2.8889	U			PM
Cobalt		5.6667	U	5.6667	U			PM
Copper		5.9889	B	3.9928	B	40.0		PM
Iron		15.7778	U	21.9214	B	200.0		PM
Lead	3.0	14.3680		12.9014		10.8		PM
Magnesium		28075.0870		28216.7370		0.5		PM
Manganese		281.4570		282.6674		0.4		PM
Mercury		0.1000	U	0.1000	U			CV
Nickel		12.7778	U	12.7778	U			PM
Potassium		3725.9749	B	3730.4292	B	0.1		PM
Selenium		1.7778	U	1.7778	U			PM
Silver		3.1111	U	3.1111	U			PM
Sodium	5000.0	26783.0980		26905.2320		0.5		PM
Thallium		3.2222	U	3.2222	U			PM
Vanadium		4.0000	U	4.0000	U			PM
Zinc		2.4444	U	2.4444	U			PM
Cyanide		1.6930	B	1.8280	B	7.7		CA

ENVIROFORMS/INORGANIC CLP

10

INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: DATACHEM LABORATORIES Contract: 68-W0-0087

Lab Code: DATAC Case No.: 30778 SAS No.: SDG No.: ME01C5

ICP ID Number: ICP-E Date: 07/15/02

Flame AA ID Number:

Furnace AA ID Number:

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum	308.22		200.0	40.0	PM
Antimony	206.84		60.0	28.7	PM
Arsenic			10.0		
Barium	493.41		200.0	1.0	PM
Beryllium	313.04		5.0	1.0	PM
Cadmium			5.0	2.4	
Calcium	315.86		5000.0	23.6	PM
Chromium	267.72		10.0	2.6	PM
Cobalt	228.62		50.0	5.1	PM
Copper	324.75		25.0	3.1	PM
Iron	259.94		100.0	14.2	PM
Lead			3.0		
Magnesium	279.08		5000.0	32.4	PM
Manganese	257.61		15.0	1.1	PM
Mercury			0.2		
Nickel	231.60		40.0	11.5	PM
Potassium	766.49		5000.0	384.7	PM
Selenium			5.0		
Silver	328.07		10.0	2.8	PM
Sodium	589.00		5000.0	17.7	PM
Thallium			10.0		
Vanadium	292.40		50.0	3.6	PM
Zinc	213.86		20.0	2.2	PM
Cyanide			10.0		

Comments:

ENVIROFORMS/INORGANIC CLP

10

INSTRUMENT DETECTION LIMITS (QUARTERLY)

ab Name: DATACHEM LABORATORIES Contract: 68-W0-0087

Lab Code: DATAC Case No.: 30778 SAS No.: SDG No.: ME01C5

ICP ID Number: ICP-T Date: 07/15/02

Flame AA ID Number:

Furnace AA ID Number:

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum	308.22		200.0		
Antimony			5.0	1.4	
Arsenic	189.04		10.0	2.0	PM
Barium			200.0		
Beryllium			5.0		
Cadmium	226.50		5.0	0.3	PM
Calcium	317.93		5000.0		
Chromium			10.0		
Cobalt			50.0		
Copper			25.0		
Iron	271.44		100.0		
Lead	220.35		3.0	1.5	PM
Magnesium	279.08		5000.0		
Manganese	257.61		15.0		
Mercury			0.2		
Nickel			40.0		
Potassium			5000.0		
Selenium	196.02		5.0	1.6	PM
Silver			10.0		
Sodium			5000.0		
Thallium	190.80		10.0	2.9	PM
Vanadium	292.40		50.0		
Zinc			20.0		
Cyanide			10.0		

Comments:

10

INSTRUMENT DETECTION LIMITS (QUARTERLY)

ab Name: DATACHEM LABORATORIES Contract: 68-W0-0087

Lab Code: DATAC Case No.: 30778 SAS No.: SDG No.: ME01C5

ICP ID Number: Date: 07/22/02

Flame AA ID Number: AAS-CVG

Furnace AA ID Number:

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200.0		
Antimony			60.0		
Arsenic			10.0		
Barium			200.0		
Beryllium			5.0		
Cadmium			5.0		
Calcium			5000.0		
Chromium			10.0		
Cobalt			50.0		
Copper			25.0		
Iron			100.0		
Lead			3.0		
Magnesium			5000.0		
Manganese			15.0		
Mercury	253.70		0.2	0.1	CV
Nickel			40.0		
Potassium			5000.0		
Selenium			5.0		
Silver			10.0		
Sodium			5000.0		
Thallium			10.0		
Vanadium			50.0		
Zinc			20.0		
Cyanide			10.0		

Comments:

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INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: DATACHEM LABORATORIES Contract: 68-W0-0087

Lab Code: DATAC Case No.: 30778 SAS No.: SDG No.: ME01C5

ICP ID Number: Date: 07/25/02

Flame AA ID Number: TAA-II-C

Furnace AA ID Number:

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200.0		
Antimony			60.0		
Arsenic			10.0		
Barium			200.0		
Beryllium			5.0		
Cadmium			5.0		
Calcium			5000.0		
Chromium			10.0		
Cobalt			50.0		
Copper			25.0		
Iron			100.0		
Lead			3.0		
Magnesium			5000.0		
Manganese			15.0		
Mercury			0.2		
Nickel			40.0		
Potassium			5000.0		
Selenium			5.0		
Silver			10.0		
Sodium			5000.0		
Thallium			10.0		
Vanadium			50.0		
Zinc			20.0		
Cyanide	570.00		10.0	0.4	CA

Comments: